Chapter 2 Bridge Files and Documentation

2-1 General

This chapter establishes policies on how the Washington State Department of Transportation (WSDOT) and local agencies maintain bridge files, both to meet Federal Highway Administration (FHWA) requirements and effectively manage physical assets (also sometimes called physical features) on WSDOT right of way. These policies apply to structures that are generally called bridges, culverts, tunnels, lids, detention vaults, overpasses, and undercrossings when they meet certain criteria commonly based on structure geometry, location, and use described in more detail below.

These policies also apply differently depending on bridge ownership and location and fall into three main categories:

1. WSDOT-owned structures on WSDOT right of way.
2. Local agency-owned structures on WSDOT right of way.
3. Local agency-owned structures on local agency right of way.

Unless otherwise specifically noted below, all policies apply to WSDOT and local agency owned structures on WSDOT right of way. However, only those policies directly associated with FHWA requirements apply to local agency owned structures on local agency right of way. There are occasionally special circumstances in which WSDOT owns a structure on local agency right of way. This chapter has no specific policies in this case, except that the bridge file must be maintained under all circumstances.

This chapter addresses the following topics associated with bridge files:

- Maintaining physical paper and electronic bridge files.
- Maintaining a state bridge and tunnel inventory.
- Submitting state bridge inventory data to FHWA.
- Responding to FHWA and Statewide Program Manager (SPM) requests for information.

Each topic has components mandated by FHWA and components required by WSDOT policy. The following sections clearly identify the authorizing environment.

2-2 Maintaining Bridge and Tunnel Files and Documentation

This section is largely based on requirements established by Section 2 of the AASHTO *Manual for Bridge Evaluation* (MBE) with Interim Revisions. The MBE emphasizes three main points for maintaining a bridge file:

A. Owners should maintain a complete, accurate, and current file of each bridge and tunnel under their jurisdiction.

B. A bridge/tunnel file always contains the current and sometimes the cumulative information about an individual structure.

C. A bridge/tunnel file may be stored electronically, on paper, or a mixture of both.

The remainder of this Section 2-2 describes WSDOT Bridge Preservation Office policy for maintaining bridge records. Local agencies are encouraged to follow a similar plan.

BridgeWorks Digital Signature

Digital signatures can be applied to inspection reports as a feature within the BridgeWorks application. This feature is available to both state and local agency inspectors but is not a requirement at this time. Inspecting agencies that wish to maintain their current signature process will be able to do so.

Digital signatures are applied to a pdf document which contains all the information associated with the inspection report or reports, including photos, and attached files. In cases where multiple inspections are performed simultaneously (routine and non-redundant steel tension member (NSTM), for instance) both reports will be included in this single pdf document and the digital signature will apply to all reports.

The original digitally signed inspection report(s) will be retained within WSBIS in a secured WSDOT server that prevents alteration of these documents once signed. These original documents will be available for viewing and copying from both the BridgeWorks application and the BEISt website. Copies can be downloaded by anyone with access to these sources.

Electronic Files

Electronic bridge files, including digitally signed inspection reports, are maintained on the BEISt internal website: http://beist/inventoryandrepair/inventory/bridge

This website contains the following:

1. Scanned copies of conventionally signed inspection reports in pdf format dating back to approximately the year 1998.
2. Scanned copies of the Washington State Structural Inventory and Appraisal (SIA) sheet dating from 2011 through 2024. Starting in 2025, various reports will replace the SIA sheet that include all SNBI data except for SNBI Section 7.5 Work Events. It's expected that this report will be added in the summer of 2025. Digitally signed inspection reports will include all the SNBI data.
3. Current inspection photographs in jpg format. Digitally signed inspection reports will include photos in the inspection report pdf document.
4. Current and historic repair recommendations displayed directly from the BPO database (See Section 2-3), dating back to approximately the year 2002. Digitally signed inspection reports will include all current repair recommendations in the inspection report pdf document.
5. Scanned copies of contract plans, as-builts when available, otherwise award plans. Note that the plan sheets on BEISt are not the official plans, which are owned by the WSDOT regions where the bridge is located.
6. In-house repair plans dating back to 2013.
7. Scanned copies of correspondence, historic repair and maintenance reports, miscellaneous studies, and other records are scanned from the paper files and loaded onto BEISt for selected bridges. This is generally done in response to a public disclosure request or a legal discovery requirement.

Paper Files

Appendix 2-A has a plan of the WSDOT Bridge Preservation Office indicating where paper files are maintained. Paper files must be maintained on WSDOT owned or maintained structures except as noted below, including:

1. All conventionally signed bridge inspection reports, including but not limited to routine, fracture critical or NSTM, underwater, and special report types. Original signed reports are stored in paper files and digital copies are stored electronically. Signed damage inspections in response to fires, floods, earthquakes, etc. shall also be included. For inspection reports digitally signed within the BridgeWorks application, no paper files are required. As of 2022, documents digitally signed by another application are not approved for electronic storage without a conventional signature and stored as a paper file.
2. Any and all miscellaneous special inspections, studies, investigations, or file reviews. Examples include but are not limited to load testing documentation, findings from FHWA technical advisory requests for information, survey results, or ground/slope stability studies. For inspection reports digitally signed within the BridgeWorks application, no paper files are required. As of 2022, documents digitally signed by another application are not approved for electronic storage without a conventional signature and stored as a paper file.
3. A current printout of any specific inspection requirements/procedures, usually but not necessarily associated with NSTM, underwater, or special inspection reports.
4. A stamped Load Rating Summary sheet which shows the controlling ratings shall be placed in the letter file. The original load rating calculations for state owned bridges shall be filed in the Risk Reduction section at the WSDOT Bridge Preservation Office.
5. Scour files are located in the Risk Reduction section at the WSDOT Bridge Preservation Office.
6. All current agreements with other agencies for maintenance, rehabilitation, or shared ownership.

Note: The inspection reports, miscellaneous studies and inventory data is cumulative, meaning that all historic as well as current data must be kept in the bridge file. All documents listed above, and others listed in the MBE, may be stored electronically as a supplement to the paper files. WSDOT bridge files stored electronically have a backup system intended to protect the electronic data for the life of the structures.

Other Files – Some bridge records are not available electronically at the BEISt internal website or in paper files as indicated in Appendix 2-A. The WSDOT *Bridge Design Manual* M 23-50 provides some guidance on where these records are located. The following provides some additional information:

Contract Documents – For contracts let thru WSDOT Contract Ad and Award, Washington State Archive maintains a paper cumulative file by contract number of awarded contracts and construction documents as required by the *Construction Manual* Section 10-3. WSDOT Records and Information maintains electronic copies of finalized As-Built Contract Plans.

WSDOT Bridge and Structures Office maintains structural plans and selected shop drawings which are stored electronically. Structural plans include culvert shop drawings that contain plan and design information along with plan contracts from other agencies that complete work on the WSDOT system. Shop drawings include steel structures, expansion joints, specialized bearings (such as pot or seismic isolation bearings), prestressed girders, post-tensioned structures, and special structural designs (such as pontoon, suspension, or movable bridges).

WSDOT maintains a state Contract History database that records all contract work completed on state managed structures. This database correlates contract number and contract work to structures maintained by the WSDOT bridge inventory.

In-House Repair Documents – WSDOT maintains a cumulative file of all in-house repair recommendations made by the Bridge Preservation Office, and follow-up verification information when repairs are completed. If maintenance reports prepared by region maintenance crews are provided to the bridge record, they are also permanently retained. In-house drawings and specifications supplementing the repair recommendations are also retained in the electronic record starting in 2013.

Correspondence on Significant Actions or Findings – WSDOT maintains a cumulative file of correspondence (letters, emails, memos, etc.) related to significant actions or findings, including but not limited to:

- Urgent or emergency actions including posting, restricting or closing a bridge
- Critical findings, including Critical Damage Bridge Repair Reports (see WSBIM Chapter 6)
- Special reports, including deck delamination/chloride testing, settlement/ movement monitoring, and life cycle studies

This correspondence may need a "summary memo to file" after the significant actions or findings are fully addressed. This memo is intended to provide full context and the final disposition of the actions or findings for the record.

2-2.1 *Transferring Bridge Ownership and/or Program Manager*

Whenever a bridge transfers ownership and/or program manager responsibility, the entire bridge file, both paper and electronic, must be transferred to the new owner/ program manager. Bridge transfers must be acknowledged and documented by both program managers involved along with any additional deeds, agreements, plans or other documentation available. All transfer documentation must be retained in the bridge file. In some cases, the acknowledgement of the transfer by the program managers may be the only documentation available. See Appendix 2-B for a Record Change Form (WSDOT Form 220-033). For local agencies, this form should be submitted unsigned to the LPBE.

Transferring Bridge Ownership and/or Program Manager responsibilities are performed by the SPM or Local Programs DPM, but updating the electronic record in WSBIS must be performed by the Superuser account under the direct control of the SPM. This is intended to ensure that adequate documentation for these transfers is in place.

In cases where WSDOT transfers a bridge file to another agency, a complete electronic copy of the entire bridge file is made and retained permanently. Other agencies are encouraged to follow this practice, but are not required to.

2-2.2 *Dead/Obsolete Bridge Files*

When a bridge is demolished or permanently removed from service and no longer considered appropriate for inclusion in the bridge inventory, the program manager for the "dead" bridge shall add documented acknowledgement of the removal from the inventory into the bridge file which then must be retained for a minimum of five years. WSDOT maintains dead bridge files permanently. Local agencies are encouraged to maintain permanent dead bridge files as well, though there is no requirement to do so.

See Section 2-3.3 for more information on processing "dead" bridge electronic records in the WSBIS.

2-2.3 *Structures on WSDOT Right of Way*

WSDOT shall maintain a bridge file for all structures considered appropriate for inclusion in the WSBIS that are on the WSDOT right of way, including local agency bridges passing over state routes or adjacent to state routes, whether or not the structure is subject to the NBIS or reported to the NBI. For more information, see Section 2-3.4.

2-3 Maintaining a State Bridge Inventory – WSBIS

Washington State is required by 23 CFR 650.315 to maintain an inventory of all bridges (structures) subject to the National Bridge Inspection Standards (NBIS), from which selected data is reported to FHWA as requested for entry into the National Bridge Inventory (NBI).

WSDOT submits FHWA data in October and March 15 of each year.

In addition, Washington State maintains an inventory to meet WAC 136-20-020, which requires that each county maintain an inventory of bridges in the state inventory. The Washington State Bridge Inventory System (WSBIS) is maintained to meet these federal and state laws and regulations. The WSBIS is also maintained to meet the WSDOT mission statement with respect to operating the state bridge structures and provides a means for local agencies to do the same.

National Bridge Element (NBE) data for structures on NHS routes is required by 23 CFR 650.315, and has been required since the implementation of the Moving Ahead for Progress in the 21st Century Act by the US Congress (MAP-21) in 2014. WSDOT collects element level data for all reportable structures. Data for those structures on NHS routes is translated into NBEs for submittal to the NBI. See Appendix 4-B for WSDOT Bridge Management System elements (BSME) to NBE translation specifications.

Data collected to meet the requirements of National Bridge Inspection Standards (NBIS) is also used by asset managers to comply with 23 CFR 500.107 which describes a Bridge Management System (BMS) for bridges on and off Federal-aid highways.

The WSBIS Coding Guide provides detailed instructions on how to create, update, and delete records in WSBIS, see Appendix 2-C. This coding guide is intended to define the data fields and how to edit them for use by bridge inspectors and inventory managers. This coding guide is largely based on the Specifications for the National Bridge Inventory (SNBI) and must meet the following requirements:

1. Whenever a database field has to be translated to match the SNBI, this translation must be clearly defined.

2. The WSBIS coding guide cannot contradict the federal coding guide. In cases where the federal coding guide is either inconsistent with other FHWA requirements or vague, the WSBIS coding guide needs to clearly identify the issue and describe how the field should be coded into WSBIS.
3. Optional fields must be clearly identified.
4. Every field must clearly state what structure type or types it applies to, and clearly define how it should be coded for these various structure types. The current list of structure types are:
   - Type 1 – Structures and culverts carrying public roadways.
   - Type 2 – Pedestrian, railroad, and other non-vehicular structures over public roadways. Private roads over public roadways are also included in this structure type.
   - Type 3 – Tunnels carrying public roadways within.
   - Type 4 – Structures that do not carry or cross over/under a public roadway.

Starting in 2025, the WSBIS inventory will also include all features associated with a structure as required by the SNBI, including roadways, railroads, pathways, waterways, dry terrain, urban and "other" features.

2-3.1 *WSBIS Inventory and Data*

The WSBIS needs to be understood clearly in two ways – which structures are included in the inventory and what data associated with these structures is maintained. Each of these categories has both mandated and optional components.

2-3.1.A Mandated Bridges and Culverts in the WSBIS – Reported to the NBI

In general, these are structures that conform to the NBIS definition of a bridge and must be reported to the NBI when the structure meets all of the following:

- Carries highway traffic.
- Is owned by a public agency or built on public right of way for a public agency, or a privately-owned bridge connected to a public road at both ends.
- Is open to the public. Bridges posted "no trespassing" or otherwise clearly identified that they are privately owned or restricted to authorized users are not considered public. Bridges behind locked gates are also not considered public.
- Has a clear span along centerline of roadway greater than 20 feet.

Utility and Detention Vaults – Based on an agreement between Washington State and FHWA, vaults under roadways are considered subject to the NBIS when the span length along the centerline of the roadway exceeds 20 feet AND is wider than 12 feet. The span length is measured from inside face to inside face of exterior walls for multicell structures or minimum clear span for single cell structures. This includes any structure with any portion directly under a lane or shoulder.

There are a few special circumstances that affect whether or not a bridge is subject to the NBIS and reported to the NBI not mentioned above (see Section 2-3.5).

SNBI – Starting in 2026, the 2022 Specifications for the National Bridge Inventory (SNBI) will determine the NBI data reported to FHWA. These new specifications will replace the existing 1995 Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges. WSBIS will adapt to the SNBI specifications in phases between 2023 and 2026. See Section 2-3.1.G below.

2-3.1.B Mandated Tunnels in the WSBIS – Reported to the NTI

In general, a tunnel that is subject to the NTIS and must be reported to the NTI when it meets all of the following:

- Carries highway traffic inside the tunnel.
- Is owned by a public agency or built on public right of way for a public agency. Bridges owned by railroads or other owners on private right of way do not qualify. Also tunnels under public roadways that do not carry traffic inside the tunnel do not qualify.
- Is open to the public. Tunnels posted "no trespassing" or otherwise clearly identified that they are privately owned or restricted to authorized users are not considered public. Tunnels behind locked gates are also not considered public.

NBI and NTI cannot inventory the same structure twice – There are cases where a structure has features that make it possible to consider either a bridge or a tunnel. In these cases, the owning agency can make the determination, but a structure that is coded as a bridge cannot be reported to the NTI, and similarly a structure that is coded as a tunnel cannot be reported to the NBI.

2-3.1.C Optional Structures in the WSBIS – Not reported to the NBI or NTI

Optional structures include any structure that the state or local agency manages as part of their structure inventory, but which do not qualify for reporting to the NBI or NTI. Typically this will include bridges with span lengths less than 20 feet (short spans), and pedestrian or railroad structures.

Note: Local agency structures on WSDOT right of way have special requirements as noted in Section 2-3.4.

2-3.1.D Mandated Data in the WSBIS

All data fields defined in the SNBI are required in the WSBIS. In cases where structures are maintained in WSBIS but not reported to the NBI, it is still required to complete all these fields in some consistent manner as defined in the WSDOT coding guide.

2-3.1.E National Bridge Element (NBE) Data

All bridges subject to the NBIS and carrying NHS routes are required to include WSDOT Bridge Management System (BMS) elements and translated to National Bridge Elements and included with the annual NBI data submittal. See Chapter 4 for detailed information on the translation process.

Starting in 2026, NBE data will be submitted to FHWA as part of the SNBI.

2-3.1.F Optional Data in the WSBIS

All other data, including BMS elements for bridges not on NHS routes, condition states, repairs, notes, and electronic photos and documents are not required in the WSBIS, and are not reported to the NBI.

2-3.1.G Specifications for the National Bridge Inventory (SNBI) Data

Starting in 2025, all SNBI data except Section 7.5 Work Events, will be available for inspectors and inventory managers to populate data in accordance with the WSDOT coding guide Appendix 2-C. Work events are scheduled for deployment in the summer of 2025. Appendix 2-D includes 1995 FHWA coding guide fields that are still available for reference. Background information on these new specifications, including the complete March 2022 SNBI coding guide with errata#1 03/24 are available here: https://www.fhwa.dot.gov/bridge/nbis2022.cfm

2-3.2 *New Bridge Inventory in the WSBIS*

Newly built bridges must be added to the bridge inventory (WSBIS) and the inventory data entered within 90 days after the bridge is opened to public traffic in the anticipated final configuration as per 23 CFR 650.315(c).

New bridges to the inventory must have a unique Structure Identifier Item BID01 (SNBI Item B.ID.01) in the WSBIS. In particular, when a bridge is replaced – either temporarily or permanently – with a new structure, this new structure must have a new Structure Identifier. The same Bridge Number and Bridge Name can be used.

Individuals who create new inventory records in the WSBIS need to be familiar with a wide variety of information sources. In preparation for creating a new inventory record, the following information should be available:

- Bridge plans
- Load rating calculations, or summary information to correctly code selected fields
- Scour calculations, or summary information to correctly code selected fields when bridge is over water
- Route information, including current State and/or Local Agency Linear Referencing System (LRS) data
- GIS location information
- Traffic information

Additional specific information may be required in many cases, including but not limited to maintenance agreements, navigable waterway permits, and historical significance.

Individuals who create new inventory records need to coordinate closely with the inspectors who perform the initial routine/inventory inspection to ensure that all the data is collected. See Chapter 3 for inspection procedures and policies.

Temporary bridges that carry public traffic for less than 90 days or which are less than 20 feet in length do not need to be inventoried or inspected in accordance with the NBIS. In **all** other circumstances temporary bridges carrying public traffic must be inventoried and inspected in accordance with the NBIS, including:

- Temporary bridges installed either as an emergency response by agency staff or as a stand-alone contract without any other substantial work performed in the immediate vicinity of the bridge site.
- Temporary bridges that are an integral part of a larger construction project, located within that project, and maintained by a contractor.

2-3.3 *Deleting (Obsoleting) Bridges in the WSBIS*

WSBIS is designed to retain historical data indefinitely, including files of bridges that have been removed from service and are no longer part of the current bridge inventory. These bridges are called "obsolete" in the WSBIS and are called "dead" in the paper files (see Section 2-2.2).

WSDOT policy guides the requirements for deleting (obsoleting) structures in the WSBIS, and it applies to all bridges in the WSBIS.

Structure records are obsoleted by the SPM or Local Programs DPM, but updating the electronic record in WSBIS must be performed by the Superuser account under the direct control of the SPM. This is intended to ensure that adequate documentation for these obsoletions is in place. Obsoleting structure records shall include the following steps:

- Create a new informational report describing the circumstances of the removal and the replacement structure information if appropriate. This informational shall include the completed and signed Record Change Form, see Appendix 2-B.
- The informational report is signed by the Statewide Program Manager (SPM).
- The paper bridge file (record), including the last signed informational report documenting removal from the bridge inventory, shall be retained for a minimum of five years.

See Section 2-2.2 for more information on maintaining "dead" bridge files.

2-3.4 *Bridges with Multi-Agency Responsibility in the WSBIS*

There are several ways in which a single bridge can have more than one agency responsible for the bridge inventory data.

2-3.4.A Shared Responsibility between WSDOT and Local Agencies

There are the four cases of shared responsibility between WSDOT and a local agency, based on the principle of assigning data responsibility to the agency in the best position to maintain and report the data. These cases are WSDOT policy for all structures on WSDOT right of way. However, they can apply equally to any two agencies (a county and a city, for example). Regardless of how local agencies address these cases, it is a requirement that all bridge data in WSBIS that is reported to the NBI must be complete, accurate and current. This WSDOT policy is superseded by any written agreement between two agencies regarding bridge inventory record keeping.

Case 1: WSDOT-Owned Bridges on WSDOT Right of Way – WSDOT will be responsible for maintaining all bridge inventory data and federal reporting in this situation.

Note: This situation applies to any combination of features, route owners, and federal reporting status. WSDOT will ask local agencies for specific data regarding local agency highway features and will provide the same to local agencies as needed to complete the structure record.

Case 2: Local Agency-Owned Bridges Carrying Highway Traffic Over State Routes – This case applies when the structure is owned by a local agency and carries a local agency highway feature and spans a state highway feature underneath. In this case, the local agency is responsible for the primary record (including federal reporting), and all local agency owned feature data. WSDOT is responsible for WSDOT feature data.

Case 3: Local Agency-Owned Pedestrian Bridges Over State Routes – This case applies when the structure is owned by a local agency and carries a non-highway feature (pedestrian, railroad, plaza, building, etc.), and spans a state highway feature underneath. In this case, WSDOT is responsible for the primary record and all WSDOT owned feature data. The local agency is responsible for local agency feature data. Note that these structures are never reported to the NBI.

Case 4: Local Agency-Owned Bridges on State Right of Way Adjacent to a State Route – This addresses all situations in which a local agency owns a structure (usually a pedestrian bridge) on state right of way that does not cross over or under any routes and is deemed appropriate by WSDOT for inclusion in the bridge inventory. WSDOT will be responsible for the primary record unless a specific agreement is in place for the local agency to maintain the inventory. In this case, no records are reported to the NBI.

In all situations where there is shared responsibility between WSDOT and a local agency, the structure records in WSBIS must be shared, using the same structure identifier Item BID01. Any situations that do not fit into these four cases listed above shall be considered on a case-by-case basis by the program managers involved and should address the following questions:

- Does the structure carry a highway feature?
- Does the structure include a highway feature above or below the structure?
- Is the structure on state right-of-way? Who owns the structure?
- Who owns the various features on, below and above the structure?
- Are there any interagency agreements relevant to inspection and reporting responsibility?

Any interagency agreement should address these questions, and clearly assign structure inspection and inventory responsibilities.

2-3.4.B Shared Responsibility with Other States

WSDOT and local agencies share bridge recordkeeping and FHWA reporting responsibility for all bridges that cross state lines in accordance with the SNBI Responsibility to perform inspections maintenance and rehabilitation/replacement is established by agreements which must be kept on file.

See Appendix 2-F for a list of bridges crossing state boundaries.

2-3.5 *Reporting WSBIS Data to the NBI – Special Circumstances*

Section 2-3.1 outlines requirements for bridges subject to the NBIS and reported to the NBI. However, there are several special circumstances that warrant additional discussion.

Bridges Owned by Public Agencies That Are Not Open to the Public – Public agencies can own bridges that are not part of the public right of way, intended only for access by agency staff or other authorized personnel. In general, these bridges should not be reported to the NBI, and these bridges should be signed or gated so the public either does not have access to the bridge or is clearly warned that the bridge is not part of the public way. WSDOT bridges are posted “No Trespassing” at the entrance to the bridge if they are not gated.

Closed Bridges Owned by Public Agencies – Bridges that are permanently closed to highway traffic but still in place may be retained in the WSBIS but cannot be reported to the NBI. Bridges that are closed but the agency plans to either re-open or replace with a new structure can be federally reported for up to five years.

Privately-Owned Bridges – These bridges may belong to individuals, community road associations, railroads, or corporations, and may be open to the public but are not connected to a public road on both ends. Private driveways or parking lot entries are not considered reportable.

Public Transit Bridges – Bridges carrying public transit buses in service (carrying passengers) are subject to the NBIS, even if these bridges are restricted to only public transit vehicles. Bridges carrying light rail public transit rolling stock without any vehicular or bus traffic are not currently subject to the NBIS.

Whenever a special circumstance affects the reporting of a structure, a brief explanation of the reporting status shall be kept in the electronic bridge record for all bridges inventoried in the WSBIS.

In any situation where it is unclear if a bridge should be included in the WSBIS and reported to the NBI, please consult with the SPM.

2-4 FHWA Data Submittal Process

The WSDOT Bridge Preservation Office extracts data from the WSBIS and submits it to FHWA for inclusion in the NBI, NBE, and NTI once per year. Submittals may also happen at other times at the request of the Washington Division of the FHWA. The scheduled submittal is March 15 or the first work day following this date. The data submitted includes all the data defined by the NBI federal coding guide, the NBE specifications, and the NTI specifications, and is provided in a very specific format also defined by these documents. This submittal is performed by the Bridge Preservation Office and submitted to the FHWA User Profile and Access Control System (UPACS) under the authority of the SPM.

Data drawn for submittal to the NBI, NBE and NTI is taken only from the most current "released" data from WSBIS, meaning that each structure record has been through the quality control process described in Chapter 7, including acceptance by the BPO and LP data stewards. However, in addition to this quality control process, prior to the scheduled FHWA submittal both the BPO and LP data stewards run systemic checks of the data to identify and correct data errors. These checks are intended to ensure the following:

- Structures added to the inventory are reviewed to determine if they should be reported to FHWA.
- Structures removed from the inventory are reviewed to determine if they should be reported to FHWA and to ensure the electronic records accurately and sufficiently document the obsolete record.
- Structures that are transferred between agencies are reviewed to ensure the electronic records accurately document the transfer.
- Structures with shared responsibility are reviewed to ensure the electronic records are complete and accurate.

The intent is to submit error free data each submittal. In cases when errors are found but cannot be corrected because a field visit is required, the intent is that these errors will be corrected at the next regularly scheduled inspection.

Data submitted to FHWA is used for performance measurements after the submittal, both by FHWA and WSDOT. Verifying timely inspections for the federally reported inspection types is a primary focus of these performance measures.

2-5 Responding to FHWA

Information Requests – FHWA requests bridge inspection information from WSDOT on a periodic basis. The information requested can be in response to national technical advisories, FHWA's oversight of the NBIS program in Washington State, or based on the WSDOT/FHWA Stewardship Agreement.

The bridge inspection requests for information from FHWA will typically be in the form of an email request with an assigned completion date based on the specific request but can be in any format. The FHWA Division Bridge Engineer will submit the information request to the SPM. The SPM will review the FHWA information request and forward/disseminate the request to the necessary individuals for response. All information will be provided back to the SPM who will then forward the requested information to the Washington FHWA Division Bridge Engineer by the deadline in the original request.

Communication Between FHWA and WSDOT – Appendix 2-F identifies the standard communication protocol for normal operations. There is no protocol for urgent or emergency situations. The Washington SPM will be included in all written and email communications to or from FHWA regarding any bridge inspection, bridge emergency, or critical finding issues within the state of Washington. The WSDOT LP DPM and the Washington SPM will be included in all written and email communications to or from FHWA where local agency bridges are involved.

Annual NBIS Program Review – FHWA conducts an annual review of the bridge inspection organization within the state of Washington. The purpose of this review is to assure compliance with the NBIS. The review examines all facets of the inspection program – the effectiveness of the overall organization, delegated functions, inspection personnel, inspection procedures, bridge records and files, and the inventory of bridge data. It is intended to identify and correct any weaknesses while building upon existing strengths. In addition, site reviews of bridge inspections and interviews of inspection personnel are conducted. FHWA also conducts reviews of NBI data. Additional information on the NBI and NBIS can be found on the FHWA Office of Bridges and Structures website at www.fhwa.dot.gov/bridge/nbis.htm.

2-6 Appendices

Appendix 2-A	WSDOT BPO Floor Plan with File Locations
Appendix 2-B	Record Change Form (WSDOT Form 220-033)
Appendix 2-C	Washington State Bridge Inventory System Coding Guide
Appendix 2-D	1995 NBI Coding Guide Items Retained for Reference
Appendix 2-E	Border Bridge Information
Appendix 2-F	WSDOT/FHWA Communication Protocol Flowchart

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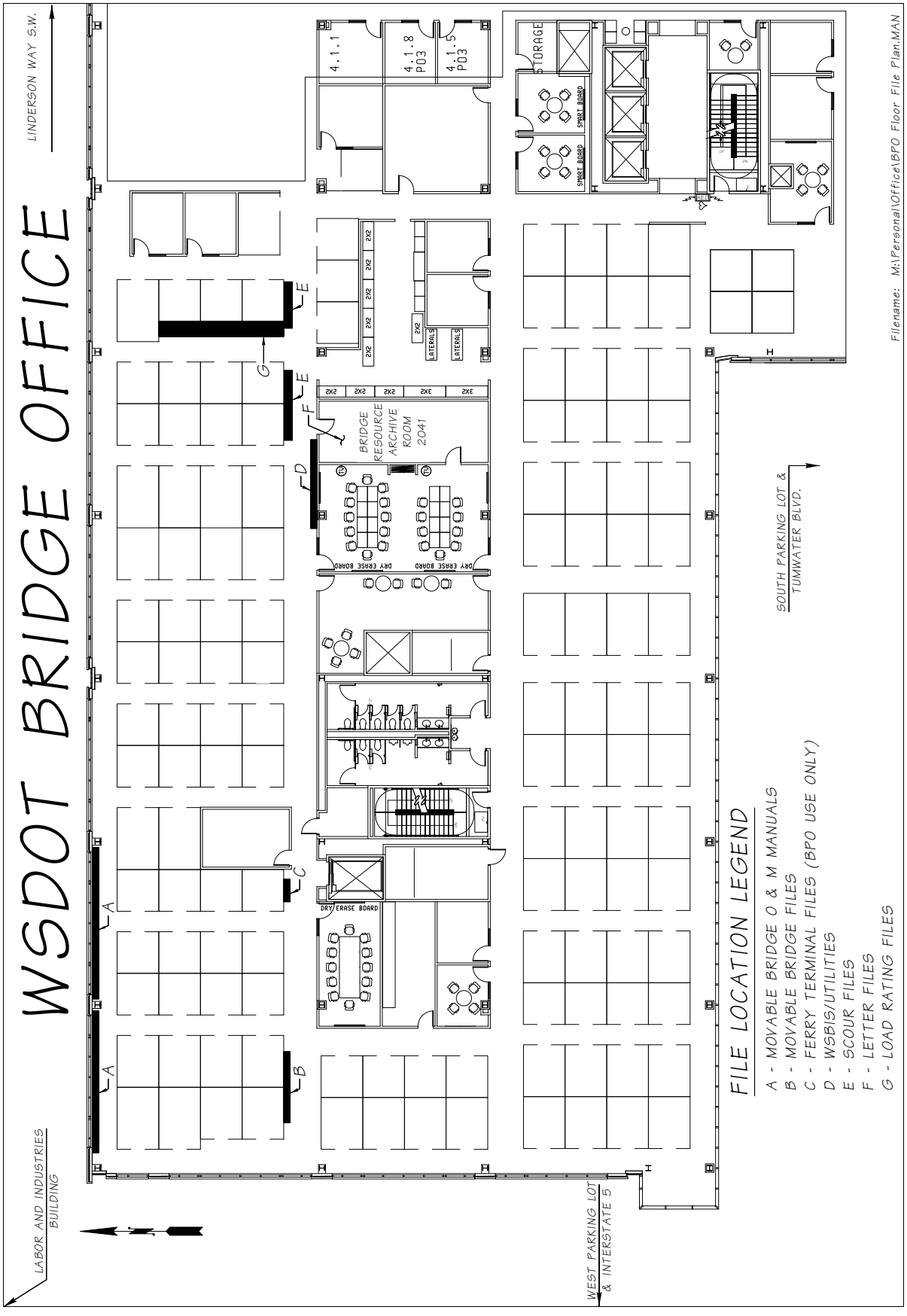
Appendix 2-A WSDOT BPO Floor Plan with File Locations



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Appendix 2-B Record Change Form (WSDOT Form 220-033)

Washington State Department of Transportation

Record Change Form

Record change requiring Statewide Program Manager (SPM) approval

Structure Identifier	Structure Number
Structure Name	Date of Record Change
Requesting Agency	Contact
Structure Obsoleted ☐ Yes ☐ No	Ownership Transfer ☐ Yes ☐ No
If replaced with new structure, provide new structure identifier, number and name	
Describe reason for requested change	
Ownership Transfer from _____ to _____	

_____ _____

Delegated Program Manager, if local agency record obsoleted — Date

_____ _____

Statewide Program Manager — Date

WSDOT Form 220-033
Revised 01/2021

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Appendix 2-C Washington State Bridge Inventory System Coding Guide

Table 1 - WSBIS Items by Name and Tab Order

WSBIS Item No.	WSBIS Item Name	SNBI Item No.	SNTI Item No.	Page No.
Coding Guide Instructions				2-C-19
Report Types Tab				
BIE01	Report Types and Report Subtypes	B.IE.01	D.2-D.6	2-C-25
BIE05	Inspection Interval	B.IE.05	D.3	2-C-31
BIE02	Inspection Begin Date	B.IE.02	D.2	2-C-32
BIE03	Inspection Completion Date	B.IE.03	D.2	2-C-33
BIE06	Inspection Due Date	-	-	2-C-34
Override	Inspection Due Date Override	-	-	2-C-34
BIE11	Report Type Notes	B.IE.11	-	2-C-35
TD1	Target Inspection Date - SNTI	-	D.1	2-C-35
BIE07	Risk-Based Inspection Interval Method	B.IE.07	-	2-C-36
BIE04	Nationally Certified Bridge/Tunnel Inspector	B.IE.04	-	2-C-37
WIE05	Co-Inspector Initials	-	-	2-C-37
WIE07	Inspection Hours	-	-	2-C-38
WIE08	Inspection Overtime Hours	-	-	2-C-38
WIE10	Late Inspection Explanation - PM Oversight	-	-	2-C-39
WIE11	Late Inspection - PM Response Date	-	-	2-C-39
WIE12	Late Inspection - PM Approval	-	-	2-C-39
BIE08	Inspection Quality Control Date	B.IE.08	-	2-C-40
BIE12	Inspection Equipment *(Summer 2025)*	B.IE.12	-	2-C-40
Critical Findings Tab				
WCF01	Critical Finding Number	-	-	CH6
WCF02	Type of Critical Finding	-	-	CH6
WCF03	Entry Type	-	-	CH6
WCF04	Date of Finding or Entry Date	-	-	CH6
WCF05	Bridge Status	-	-	CH6
WCF06	Estimated Resolution Date	-	-	CH6
WCF07	Description	-	-	CH6
WCF08	Reported By	-	-	CH6
WCF09	Associated Repair	-	-	CH6
SNBI (SNTI) Tab				
Component Condition Ratings				
BC12	Overall Bridge Condition Classification	B.C.12		2-C-43
BC01	FHWA Deck Overall Condition Rating	B.C.01	-	2-C-44
WC01	WSDOT Deck Overall Condition Rating	-		2-C-47
BC05	Bridge Railings Condition Rating	B.C.05		2-C-48
BC06	Bridge Railing Transitions Condition Rating	B.C.06	-	2-C-50
BC08	Bridge Joints Condition Rating	B.C.08	-	2-C-51
BC02	Superstructure Overall Condition Rating	B.C.02	-	2-C-54
BC14	NSTM Inspection Condition	B.C.14		2-C-57
BC07	Bridge Bearings Condition Rating	B.C.07	-	2-C-58
BC03	Substructure Overall Condition Rating	B.C.03	-	2-C-60

Table 1 - WSBIS Items by Name and Tab Order

WSBIS Item No.	WSBIS Item Name	SNBI Item No.	SNTI Item No.	Page No.
BC15	Underwater Inspection Condition	B.C.15	-	2-C-62
BC04	Culvert Overall Condition Rating	B.C.04	-	2-C-63
BC11	Scour Condition Rating	B.C.11	-	2-C-66
BC09	Channel Condition Rating	B.C.09	-	2-C-69
BC10	Channel Protection Condition Rating	B.C.10	-	2-C-71
1677	Channel Protection Condition - NBI Disc.	-	-	2-D-1
1679	Pier/Abutment Protection - NBI Disc.	-	-	2-D-2
Appraisals				
1680	Scour Critical - NBI Disc.	-	-	2-D-3
BAP03	Scour Vulnerability	B.AP.03	-	2-C-73
BAP04	Scour Plan of Action	B.AP.04	-	2-C-75
1662	Waterway - NBI Disc.	-	-	2-D-4
BAP02	Overtopping Likelihood	B.AP.02	-	2-C-76
BAP01	Approach Roadway Alignment	B.AP.01	-	2-C-77
BIR02	Fatigue Details	B.IR.02	-	2-C-78
BAP05	Seismic Vulnerability	B.AP.05	-	2-C-78
Miscellaneous Fields				
WIE30	Asphalt Depth	-	-	2-C-79
WIE31	Design Curb Height	-	-	2-C-80
WIE32	Bridge Vehicle Rail Height	-	-	2-C-80
WIE33	Number of Utilities	-	-	2-C-80
WIE34	Subject to NBIS Flag	-	-	2-C-81
BIE09	Inspection Quality Assurance Date	B.IE.09	-	2-C-82
Inspection Flags				
WIE20	Soundings Flag	-	-	2-C-82
WIE21	Clearance Flag	-	-	2-C-83
WIE22	Revise Rating Flag	-	-	2-C-83
WIE23	Photos Flag	-	-	2-C-84
WIE25	Roadside Hardware Flag	-	-	2-C-84
WIE24	QA Flag	-	-	2-C-85
BW01	Year Built	B.W.01	A.1	2-C-85
TA2	Year Rebuilt - SNTI	-	A.2	2-C-86
BW02	Year Work Performed *(Summer 2025)*	-	-	2-C-87
BW03	Work Performed *(Summer 2025)*	-	-	2-C-87
Local Agency Appraisals				
7664	Optional Drain Condition	-	-	2-C-88
7665	Drain Status - Disc.	-	-	2-D-6
7666	Deck Scaling - Disc.	-	-	2-D-6
7667	Deck Scaling Percent - Disc.	-	-	2-D-7
7669	Deck Rutting - Disc.	-	-	2-D-7
7670	Deck Exposed Rebar - Disc.	-	-	2-D-7
7672	Curb Condition - Disc.	-	-	2-D-7
7673	Sidewalk Condition - Disc.	-	-	2-D-8
7674	Paint Condition - Disc.	-	-	2-D-8
7681	Approach Condition - Disc.	-	-	2-D-8
7682	Optional Retaining Wall Condition	-	-	2-C-88

Table 1 - WSBIS Items by Name and Tab Order

WSBIS Item No.	WSBIS Item Name	SNBI Item No.	SNTI Item No.	Page No.
7683	Pier Protection Condition - Disc.	-	-	2-D-8
Bridge ID Tab				
BID01	Structure ID	B.ID.01	I.1	2-C-91
BID03	Previous Structure ID	B.ID.03	-	2-C-92
WID01	Structure Type	-	-	2-C-92
WID02	Structure Number	-	-	2-C-93
WID03	Structure Sort Number	-	-	2-C-95
BID02	Structure Name	B.ID.02	I.2	2-C-96
1232	Features Intersected - NBI Disc.	-	-	2-D-9
1256	Facilities Carried - NBI Disc.	-	-	2-D-9
WID06	Program Manager	-	-	2-C-96
1286	Custodian - NBI Disc.	-	-	2-D-10
1019	Owner - NBI Disc.	-	-	2-D-10
BCL01	Owner	B.CL.01	C.1	2-C-97
BCL02	Maintenance Responsibility	B.CL.02	C.2	2-C-98
BL02	County Code	B.L.02	I.4	2-C-100
WL05	City	-	-	2-C-101
BL03	Place Code	B.L.03	I.5	2-C-101
BL04	Highway Agency District	B.L.04	I.6	2-C-108
BL12	Metropolitan Planning Organization	B.L.12	-	2-C-108
WL06	Section	-	-	2-C-109
WL07	Township	-	-	2-C-109
WL08	Range	-	-	2-C-109
1285	Toll Code - NBI Disc.	-	-	2-D-11
BCL05	Toll	B.CL.05	C.4	2-C-110
1289	Temporary Structure - NBI Disc.	-	-	2-D-11
1292	Historical Significance (NRHP) - NBI Disc.	-	-	2-D-12
BCL04	Historic Significance (NRHP)	B.CL.04	-	2-C-111
WCL04	Historical Significance - HAER	-	-	2-C-112
7296	Historical Significance - Local Agency - Disc.	-	-	2-D-13
7281	Legislative District 1 Disc.	-	-	2-D-13
7283	Legislative District 2 Disc.	-	-	2-D-13
WID04	Special Structures Flag	-	-	2-C-113
BL07	Border Structure ID	B.L.07	-	2-C-113
BL08	Border State or Country Code	B.L.08	-	2-C-114
1588	Border Bridge Percent - NBI - Disc.	-	-	2-D-13
BL09	Border Bridge Inspection Responsibility	B.L.09	-	2-C-114
BL10	Border Bridge Designated Lead State	B.L.10	-	2-C-115
7557	Design Exception Date	-	-	2-C-115
WID05	Obsolete Structure Flag	-	-	2-C-115
Geometry Tab				
BG01	NBIS Bridge Length	B.G.01	-	2-C-117
BG02	Total Structure Length	B.G.02	G.1	2-C-120
BG03	Maximum Span Length	B.G.03	-	2-C-124
BG04	Minimum Span Length	B.G.04	-	2-C-126
1360	Out-to-Out Deck Width - NBI Disc.	-	-	2-D-16

Table 1 - WSBIS Items by Name and Tab Order

WSBIS Item No.	WSBIS Item Name	SNBI Item No.	SNTI Item No.	Page No.
BG05	Structure Width Out-to-Out	B.G.05	-	2-C-129
1356	Curb-to-Curb Width - NBI Disc.	-	-	2-D-14
BG06	Structure Width Curb-to-Curb	B.G.06	G.3	2-C-135
BG07	Left Curb or Sidewalk Width	B.G.07	G.4	2-C-140
BG08	Right Curb or Sidewalk Width	B.G.08	G.5	2-C-143
BG09	Approach Roadway Width	B.G.09	-	2-C-146
1291	Median Code - NBI Disc.	-	-	2-D-17
BG10	Bridge Median	B.G.10	-	2-C-148
1310	Skew Angle - NBI Disc.	-	-	2-D-18
BG11	Skew Angle	B.G.11	-	2-C-150
BG12	Curved Bridge	B.G.12	-	2-C-151
BG13	Maximum Bridge Height	B.G.13	-	2-C-154
BG14	Sidehill Bridge	B.G.14	-	2-C-156
BG15	Irregular Deck Area	B.G.15	-	2-C-157
BG16	Calculated Deck Area	B.G.16	-	2-C-157
WH12	Minimum Vertical Clearance Over Deck	-	-	2-C-158
WH13	Minimum Vertical Clearance Under Bridge	-	-	2-C-159
TA8	Service in Tunnel - SNTI	-	A.8	2-C-161
TG2	Minimum Vertical Clearance Over Tunnel Roadway - SNTI	-	G.2	2-C-162
TS1	Number of Bores - SNTI	-	S.1	2-C-163
TS2	Tunnel Shape - SNTI	-	S.2	2-C-164
TS3	Portal Shape - SNTI	-	S.3	2-C-165
TS4	Ground Conditions - SNTI	-	S.4	2-C-165
TS5	Complex Tunnel - SNTI	-	S.5	2-C-166
TL10	Height Restrictions - SNTI	-	L.10	2-C-166
TL11	Hazardous Material Restriction - SNTI	-	L.11	2-C-167
TL12	Other Restrictions - SNTI	-	L.12	2-C-167
Features Tab				
2000	Main & Secondary Listing Code	-	-	2-C-169
1432	On / Under Code	-	-	2-C-170
2402	Crossing Description	-	-	2-C-172
BF03	Feature Name	B.F.03	I.10	2-C-173
BL11	Structure Location	B.L.11	-	2-C-174
WF01	Feature Type	-	-	2-C-175
BF01	Feature Designation	B.F.01	-	2-C-177
BF02	Feature Location	B.F.02	-	2-C-178
WF02	Crossing Manager	-	-	2-C-179
BL05	Latitude	B.L.05	I.13	2-C-180
BL06	Longitude	B.L.06	I.14	2-C-181
WL09	Local Agency Routing Map (Button)	-	-	2-C-182
WH25	SNBI Reportable Flag	-	-	2-C-182
WH26	SNTI Reportable Flag	-	-	2-C-183
WH27	Bridge List Flag	-	-	2-C-183
BH18	Crossing Structure ID	B.H.18	-	2-C-184
BRT01	Route Grid: Route Designation	B.RT.01	-	2-C-186
WRT01	Route Grid: Route Description	-	-	2-C-187

Table 1 - WSBIS Items by Name and Tab Order

WSBIS Item No.	WSBIS Item Name	SNBI Item No.	SNTI Item No.	Page No.
BRT02	Route Grid: Route Number	B.RT.02	I.7	2-C-187
WRT02	Route Grid: Route Milepost	-	-	2-C-188
BRT03	Route Grid: Route Direction	B.RT.03	I.8	2-C-189
BRT04	Route Grid: Route Type	B.RT.04	I.9	2-C-190
BRT05	Route Grid: Service Type	B.RT.05	-	2-C-192
1435	Route - NBI Disc.	-	-	2-D-18
2440	Milepost - NBI Disc.	-	-	2-D-19
1433	Highway Class - NBI Disc.	-	-	2-D-19
1434	Service Level - NBI Disc.	-	-	2-D-20
BH06	LRS Route ID	B.H.06	I.11	2-C-193
BH07	LRS Milepost	B.H.07	I.12	2-C-194
WH07	LRS Milepost End	-	-	2-C-194
WH23	LRS Directional Indicator	-	-	2-C-195
WH21	LRS Ahead/Back Indicator	-	-	2-C-196
WH22	LRS Ahead/Back Indicator End	-	-	2-C-196
WH19	LRS ARM	-	-	2-C-197
WH20	LRS ARM End	-	-	2-C-197
WH06	LRS Date	-	-	2-C-198
WA09	Speed Limit	-	-	2-C-198
BH08	Lanes On Highway	B.H.08	-	2-C-199
TA3	Total Number of Lanes - SNTI	-	A.3	2-C-200
TC3	Direction of Traffic - SNTI	-	C.3	2-C-200
1490	Lane Use Direction - NBI Disc.	-	-	2-D-20
BH03	NHS Designation	B.H.03	C.5	2-C-201
1483	National Highway System (NHS) - NBI Disc.	-	-	2-D-21
BH05	STRAHNET Designation	B.H.05	C.6	2-C-202
1485	STRAHNET Highway - NBI Disc.	-	-	2-D-21
1489	National Truck Network (NTN) - NBI Disc.		-	2-D-23
BH04	National Truck Freight Network (NHFN)	B.H.04	-	2-C-203
BH01	Functional Classification	B.H.01	C.7	2-C-204
1487	Functional Classification - NBI Disc.	-	-	2-D-22
BH02	Urban Code	B.H.02	C.8	2-C-205
BCL06	Emergency Evacuation Designation	B.CL.06	-	2-C-207
BCL03	Federal or Tribal Land Access	B.CL.03	-	2-C-208
BH11	AADT Year	B.H.11	A.6	2-C-209
BH09	AADT Count	B.H.09	A.4	2-C-209
BH10	AADT Truck Count	B.H.10	A.5	2-C-210
WH10	AADT Truck Percent	-	A.5	2-C-210
BH17	Bypass Detour Length	B.H.17	A.7	2-C-211
BH12	Highway Maximum Usable Vertical Clearance	B.H.12	-	2-C-213
BH13	Highway Minimum Vertical Clearance	B.H.13	-	2-C-215
1499	Max Vertical Clearance Route	-	-	2-C-217
2500	Min Vertical Clearance Route	-	-	2-C-217
2501	Max Vertical Clearance Reverse	-	-	2-C-219
2502	Min Vertical Clearance Reverse	-	-	2-C-219
BH14	Highway Minimum Horizontal Clearance, Left	B.H.14	-	2-C-220

Table 1 - WSBIS Items by Name and Tab Order

WSBIS Item No.	WSBIS Item Name	SNBI Item No.	SNTI Item No.	Page No.
BH15	Highway Minimum Horizontal Clearance, Right	B.H.15	-	2-C-223
BH16	Highway Maximum Useable Surface Width	B.H.16	-	2-C-226
BRR01	Railroad Service Type	B.RR.01	-	2-C-228
WRR04	Railroad Crossing SID	-	-	2-C-230
WRR06	Railroad Milepost	-	-	2-C-231
WRR05	Railroad Owner	-	-	2-C-231
WRR07	Railroad Operator	-	-	2-C-231
WH27	Bridge List	-	-	2-C-191
BRR02	Railroad Minimum Vertical Clearance	B.RR.02	-	2-C-233
BRR03	Railroad Minimum Horizontal Offset	B.RR.03	-	2-C-235
BN01	Navigable Waterway	B.N.01	-	2-C-237
BN02	Navigable Minimum Vertical Clearance	B.N.02	-	2-C-238
BN03	Movable Bridge Maximum Navigation Vertical Clearance	B.N.03	-	2-C-251
BN04	Navigation Channel Width	B.N.04	-	2-C-253
BN05	Navigable Channel Minimum Horizontal Clearance	B.N.05	-	2-C-255
BN06	Substructure Navigable Protection	B.N.06	-	2-C-257
Discontinued as of 2025				
WH24	NBI Reportable Flag - NBI Disc.	-	-	2-D-23
1354	Lanes Under	-	-	2-D-24
1457	Future ADT	-	-	2-D-24
1463	Future ADT Year	-	-	2-D-24
1477	Linear Sub Route	-	-	2-D-25
1484	Base Highway Network	-	-	2-D-25
1486	Federal Lands Highway - NBI Disc.	-	-	2-D-25
1495	Horizontal Clearance Reverse Route	-	-	2-D-26
2412	Maximum Vertical Clearance Over Deck Override	-	-	2-D-27
2436	Route Sequencer	-	-	2-D-28
2437	Bridge List Override	-	-	2-D-28
2438	Milepost Sequencer	-	-	2-D-28
Materials & Types Tab				
1532	Main Span Material - NBI Disc.	-	-	2-D-29
1533	Main Span Design - NBI Disc.	-	-	2-D-29
1538	Number of Main Spans - NBI Disc.	-	-	2-D-30
1535	Approach Span Material - NBI Disc.	-	-	2-D-31
1536	Approach Span Design - NBI Disc.	-	-	2-D-31
1541	Number of Approach Spans - NBI Disc.	-	-	2-D-31
1546	Deck type - NBI Disc.	-	-	2-D-32
1547	Wearing Surface - NBI Disc.	-	-	2-D-32
1548	Membrane - NBI Disc.	-	-	2-D-33
1549	Deck Protection - NBI Disc.	-	-	2-D-33
BSP01	Superstructure Configuration Designation	B.SP.01	-	2-C-259
WSP01	Superstructure Configuration Code	-	-	2-C-259
WSP02	Span Description	-	-	2-C-260
BSP02	Number of Spans	B.SP.02	-	2-C-260
BSP03	Number of Beam Lines	B.SP.03	-	2-C-263
BSP04	Span Material	B.SP.04	-	2-C-264

Table 1 - WSBIS Items by Name and Tab Order

WSBIS Item No.	WSBIS Item Name	SNBI Item No.	SNTI Item No.	Page No.
BSP05	Span Continuity	B.SP.05	-	2-C-266
BSP06	Span Type	B.SP.06	-	2-C-267
BSP07	Span Protective System	B.SP.07	-	2-C-269
BSP08	Deck Interaction	B.SP.08	-	2-C-270
BSP09	Deck Material & Type	B.SP.09	-	2-C-272
BSP10	Wearing Surface	B.SP.10	-	2-C-273
BSP11	Deck Protective System	B.SP.11	-	2-C-274
BSP12	Deck Reinforcing Protective System	B.SP.12	-	2-C-275
BSP13	Deck Stay-In-Place Forms	B.SP.13	-	2-C-276
BSB01	Substructure Configuration Designation	B.SB.01	-	2-C-277
WSB01	Substructure Configuration Code	-	-	2-C-277
WSB02	Pier Description	-	-	2-C-279
BSB02	Number of Substructure Units	B.SB.02	-	2-C-280
BSB03	Substructure Material	B.SB.03	-	2-C-281
BSB04	Substructure Type	B.SB.04	-	2-C-282
BSB05	Substructure Protective System	B.SB.05	-	2-C-284
BSB06	Foundation Type	B.SB.06	-	2-C-285
BSB07	Foundation Protective System	B.SB.07	-	2-C-287
Roadside Hardware				
BRH01	Bridge Railings (Crash Test)	B.RH.01	-	2-C-290
WRH01	BRCT Document Year (YYYY)	-	-	2-C-293
BRH02	Bridge Railings Transition (Crash Test)	B.RH.02	-	2-C-294
WRH02	BRTCT Document Year (YYYY)	-	-	2-C-297
Load Rating Tab				
BLR01	Design Load	B.LR.01	-	2-C-299
BLR02	Design Method	B.LR.02	-	2-C-300
BLR03	Load Rating Date	B.LR.03	-	2-C-301
BLR04	Load Rating Method	B.LR.04	L.1	2-C-302
BLR05	Inventory Load Rating Factor	B.LR.05	L.2	2-C-303
BLR06	Operating Load Rating Factor	B.LR.06	L.3	2-C-304
BLR07	Controlling Legal Load Rating Factor	B.LR.07	-	2-C-304
BLR08	Routine Permit Loads	B.LR.08	-	2-C-305
WLR01	Reference Inspection Completion Date	-	-	2-C-306
WLR02	Rated By	-	-	2-C-307
WLR09	Overloads	-	-	2-C-307
BPS01	Load Posting Status	B.PS.01	L.4	2-C-308
BPS02	Posting Status Change Date	B.PS.02	-	2-C-309
BEP01	Legal Load Configuration	B.EP.01	-	2-C-309
BEP02	Legal Load Rating Factor	B.EP.02	-	2-C-310
BEP03	Posting Type	B.EP.03	L.5, L.6	2-C-311
BEP04	Posting Value	B.EP.04	L.7, L.8, L.9	2-C-312
WEP02	EV Included	-	-	2-C-313
WEP03	Recommended Posting Type	-	-	2-C-313
WEP04	Recommended Posting Value	-	-	2-C-313
NBI Codes Discontinued				
1550	Design Load - NBI Disc.	-	-	2-D-34

Table 1 - WSBIS Items by Name and Tab Order				
WSBIS Item No.	**WSBIS Item Name**	**SNBI Item No.**	**SNTI Item No.**	**Page No.**
1293	Open, Closed or Posted - NBI Disc.	-	-	2-D-35
1660	Operating Level - NBI Disc.	-	-	2-D-35
1551	Operating Rating Method - NBI Disc.	-	-	2-D-36
1552	Operating Rating Tons - NBI Disc.	-	-	2-D-37
1554	Inventory Rating Method - NBI Disc.	-	-	2-D-36
1555	Inventory Rating Tons - NBI Disc.	-	-	2-D-37
Load Rating Posting Examples				
-	MUTCD R12-1	-	-	2-C-314
-	MUTCD R12-2	-	-	2-C-314
-	MUTCD R12-4	-	-	2-C-314
-	MUTCD R12-5	-	-	2-C-315
-	MUTCD R12-6	-	-	2-C-315
-	MUTCD R12-7	-	-	2-C-315
-	MUTCD R12-701	-	-	2-C-316
-	MUTCD R12-702	-	-	2-C-316
-	Single Unit Vehicles (SUV) - Single Configuration	-	-	2-C-316
-	Single Unit Vehicles (SUV) - Limited Configuration	-	-	2-C-316
-	Single Unit Vehicles (SUV) - All Configuration	-	-	2-C-317
Waterway Tab				
7832	Water Type	-	-	2-C-319
7833	Flood Plain Intrusion	-	-	2-C-319
7834	Flood Control	-	-	2-C-319
7835	Scour History	-	-	2-C-320
7836	Streambed Material Type	-	-	2-C-320
7837	Substructure Stability	-	-	2-C-320
7838	Waterway Obstruction	-	-	2-C-321
7839	Streambed Stability	-	-	2-C-321
7840	Streambed Anabranch	-	-	2-C-321
7841	Piers in Water	-	-	2-C-322
Discontinued Tab				
2883	Prop. Improvement Calculation	-	-	2-D-39
1844	Prop. Improvement Work Type	-	-	2-D-40
1846	Prop. Improvement Work Method	-	-	2-D-40
1847	Prop. Improvement Structure Length	-	-	2-D-41
2853	Prop. Improvement Roadway Width	-	-	2-D-41
2860	Prop. Imp. Cost per S.F. of Deck	-	-	2-D-41
1867	Prop. Imp. Structure Cost	-	-	2-D-41
1873	Prop. Imp. Roadway Cost	-	-	2-D-41
2870	Prop. Imp. Eng. and Misc. Cost	-	-	2-D-42
1861	Prop. Imp. Total Cost	-	-	2-D-42
1879	Prop. Improvement Estimate Year	-	-	2-D-42
1022	Urban Code - SNTI	-	-	2-D-42
1188	Latitude (NBI)	-	-	2-D-43
1196	Longitude (NBI)	-	-	2-D-43
1288	Parallel Structure	-	-	2-D-43
1312	Flared Flag	-	-	2-D-44

Table 1 - WSBIS Items by Name and Tab Order				
WSBIS Item No.	**WSBIS Item Name**	**SNBI Item No.**	**SNTI Item No.**	**Page No.**
1352	Lanes On - NBI	-	-	2-D-44
1378	Vertical Underclearance Code - NBI	-	-	2-D-44
1379	Min Lateral Underclearance Right	-	-	2-D-45
1382	Lateral Underclearance Code	-	-	2-D-47
1383	Min Lateral Underclearance Left	-	-	2-D-48
1386	Navigation Control Code	-	-	2-D-48
1387	Navigation Vert Clearance	-	-	2-D-49
1390	Navigation Horiz Clearance	-	-	2-D-50
1394	Vertical Lift Min Clearance - NBI	-	-	2-D-50
1436	Route Direction	-	-	2-D-50
1544	Service On	-	-	2-D-51
1545	Service Under	-	-	2-D-51
1657	Structural Evaluation	-	-	2-D-52
1658	Deck Geometry	-	-	2-D-52
1659	Underclearances	-	-	2-D-55
1684	Bridge Rails Adequacy	-	-	2-D-57
1685	Bridge Rails Transition Adequacy	-	-	2-D-59
1686	Guardrails	-	-	2-D-61
1687	Terminal	-	-	2-D-61
2537	Alpha Span Type	-	-	2-D-61
7710	Sufficiency Rating	-	-	2-D-62
7711	SD/FO	-	-	2-D-62
Auto-Generated Fields				
BL01	State Code	B.L.01	I.3	2-C-323
I.15-I.18	Border Tunnel Data	-	I.15-I.18	2-C-323
N.1-N.3	Navigable Waterway Data	-	N.1-N.3	2-C-323
BIR01	NSTM inspection Required	-	-	2-C-323
BIR03	Underwater Inspection Required	B.IR.03	-	2-C-323
BIR04	Complex Feature - SNBI	B.IR.04	-	2-C-323
BC13	Lowest Condition Rating Code	B.C.13	-	2-C-323
BIE10	Inspection Data Update Date	B.IE.10	-	2-C-323

Table 2 - WSBIS Item Numbers in Sequence

WSBIS Item No.	WSBIS Item Name	WSBIS Application Tab	Page No.
1019	Owner - NBI Disc.	Bridge ID Tab	2-D-42
1022	Urban Code - SNTI	Discontinued Tab	2-D-42
1188	Latitude (NBI)	Discontinued Tab	2-D-49
1196	Longitude (NBI)	Discontinued Tab	2-D-43
1232	Features Intersected - NBI Disc.	Bridge ID Tab	2-D-9
1256	Facilities Carried - NBI Disc.	Bridge ID Tab	2-D-9
1285	Toll Code - NBI Disc.	Bridge ID Tab	2-D-11
1286	Custodian - NBI Disc.	Bridge ID Tab	2-D-10
1288	Parallel Structure	Discontinued Tab	2-D-43
1289	Temporary Structure - NBI Disc.	Bridge ID Tab	2-D-11
1291	Median Code - NBI Disc.	Geometry Tab	2-D-17
1292	Historical Significance (NRHP) - NBI Disc.	Bridge ID Tab	2-D-12
1293	Open, Closed or Posted - NBI Disc.	Load Rating Tab	2-D-35
1310	Skew - NBI Disc.	Geometry Tab	2-D-18
1312	Flared Flag	Discontinued Tab	2-D-44
1352	Lanes On - NBI	Discontinued Tab	2-D-44
1354	Lanes Under	Feature Tab	2-D-24
1356	Curb-to-Curb Width - NBI Disc.	Geometry Tab	2-D-14
1360	Out-to-Out Deck Width - NBI Disc.	Geometry Tab	2-D-16
1378	Vertical Underclearance Code - NBI	Discontinued Tab	2-D-44
1379	Min Lateral Underclearance Right	Discontinued Tab	2-D-45
1382	Lateral Underclearance Code	Discontinued Tab	2-D-47
1383	Min Lateral Underclearance Left	Discontinued Tab	2-D-48
1386	Navigation Control Code	Discontinued Tab	2-D-48
1387	Navigation Vert Clearance	Discontinued Tab	2-D-49
1390	Navigation Horiz Clearance	Discontinued Tab	2-D-50
1394	Vertical Lift Min Clearance - NBI	Discontinued Tab	2-D-50
1432	On / Under Code	Feature Tab	2-C-170
1433	Highway Class - NBI Disc.	Feature Tab	2-D-19
1434	Service Level - NBI Disc.	Feature Tab	2-D-20
1435	Route - NBI Disc.	Feature Tab	2-D-18
1436	Route Direction	Discontinued Tab	2-D-50
1457	Future ADT	Feature Tab	2-D-24
1463	Future ADT Year	Feature Tab	2-D-24
1477	Linear Sub Route	Feature Tab	2-D-25
1483	National Highway System (NHS) - NBI Disc.	Feature Tab	2-D-21
1484	Base Highway Network	Feature Tab	2-D-25
1485	STRAHNET Highway - NBI Disc.	Feature Tab	2-D-21
1486	Federal Lands Highway - NBI Disc.	Feature Tab	2-D-25
1487	Functional Classification - NBI Disc.	Feature Tab	2-D-22
1489	National Truck Network (NTN) - NBI Disc.	Feature Tab	2-D-23
1490	Lane Use Direction - NBI Disc.	Feature Tab	2-D-20
1495	Horizontal Clearance Reverse Route	Feature Tab	2-D-26
1499	Max Vertical Clearance Route	Feature Tab	2-C-217
1532	Main Span Material - NBI Disc.	Materials & Types Tab	2-D-29
1533	Main Span Design - NBI Disc.	Materials & Types Tab	2-D-29

Table 2 - WSBIS Item Numbers in Sequence

WSBIS Item No.	WSBIS Item Name	WSBIS Application Tab	Page No.
1535	Approach Span Material - NBI Disc.	Materials & Types Tab	2-D-31
1536	Approach Span Design - NBI Disc.	Materials & Types Tab	2-D-31
1538	Number of Main Spans - NBI Disc.	Materials & Types Tab	2-D-30
1541	Number of Approach Spans - NBI Disc.	Materials & Types Tab	2-D-31
1544	Service On	Discontinued Tab	2-D-51
1545	Service Under	Discontinued Tab	2-D-51
1546	Deck type - NBI Disc.	Materials & Types Tab	2-D-32
1547	Wearing Surface - NBI Disc.	Materials & Types Tab	2-D-32
1548	Membrane - NBI Disc.	Materials & Types Tab	2-D-33
1549	Deck Protection - NBI Disc.	Materials & Types Tab	2-D-33
1550	Design Load - NBI Disc.	Load Rating Tab	2-D-34
1551	Operating Rating Method - NBI Disc.	Load Rating Tab	2-D-36
1552	Operating Rating Tons - NBI Disc.	Load Rating Tab	2-D-37
1554	Inventory Rating Method - NBI Disc.	Load Rating Tab	2-D-36
1555	Inventory Rating Tons - NBI Disc.	Load Rating Tab	2-D-37
1588	Border Bridge Percent - NBI Disc.	Bridge ID Tab	2-D-13
1657	Structural Evaluation	Discontinued Tab	2-D-52
1658	Deck Geometry	Discontinued Tab	2-D-52
1659	Underclearances	Discontinued Tab	2-D-55
1660	Operating Level - NBI Disc.	Load Rating Tab	2-D-35
1662	Waterway - NBI Disc.	SNBI (SNTI) Tab	2-D-4
1677	Channel Protection - NBI Disc.	SNBI (SNTI) Tab	2-D-1
1679	Pier/Abutment Protection - NBI Disc.	SNBI (SNTI) Tab	2-D-2
1680	Scour Critical - NBI Disc.	SNBI (SNTI) Tab	2-D-3
1684	Bridge Rails Adequacy	Discontinued Tab	2-D-57
1685	Bridge Rails Transition Adequacy	Discontinued Tab	2-D-59
1686	Guardrails	Discontinued Tab	2-D-61
1687	Terminal	Discontinued Tab	2-D-61
1844	Prop. Improvement Work Type	Discontinued Tab	2-D-40
1846	Prop. Improvement Work Method	Discontinued Tab	2-D-40
1847	Prop. Improvement Structure Length	Discontinued Tab	2-D-41
1861	Prop. Imp. Total Cost	Discontinued Tab	2-D-42
1867	Prop. Imp. Structure Cost	Discontinued Tab	2-D-41
1873	Prop. Imp. Roadway Cost	Discontinued Tab	2-D-41
1879	Prop. Improvement Estimate Year	Discontinued Tab	2-D-42
2000	Main & Secondary Listing Code	Feature Tab	2-C-169
2402	Crossing Description	Feature Tab	2-C-172
2412	Maximum Vertical Clearance Over Deck Override	Feature Tab	2-D-27
2436	Route Sequencer	Feature Tab	2-D-28
2437	Bridge List Override	Feature Tab	2-D-28
2438	Milepost Sequencer	Feature Tab	2-D-28
2440	Milepost - NBI Disc.	Feature Tab	2-D-19
2500	Min Vertical Clearance Route	Feature Tab	2-C-217
2501	Max Vertical Clearance Reverse	Feature Tab	2-C-219
2502	Min Vertical Clearance Reverse	Feature Tab	2-C-219
2537	Alpha Span Type	Discontinued Tab	2-D-61

Table 2 - WSBIS Item Numbers in Sequence

WSBIS Item No.	WSBIS Item Name	WSBIS Application Tab	Page No.
2853	Prop. Improvement Roadway Width	Discontinued Tab	2-D-41
2860	Prop. Imp. Cost per S.F. of Deck	Discontinued Tab	2-D-41
2870	Prop. Imp. Eng. and Misc. Cost	Discontinued Tab	2-D-42
2883	Prop. Improvement Calculation	Discontinued Tab	2-D-39
7281	Legislative District 1 - Disc.	Bridge ID Tab	2-D-13
7283	Legislative District 2 - Disc.	Bridge ID Tab	2-D-13
7296	Historical Significance - Local Agency - Disc.	Bridge ID Tab	2-D-13
7557	Design Exception Date	Bridge ID Tab	2-C-115
7664	Optional Drain Condition	SNBI (SNTI) Tab	2-C-88
7665	Drain Status - Disc.	SNBI (SNTI) Tab	2-D-6
7666	Deck Scaling - Disc.	SNBI (SNTI) Tab	2-D-6
7667	Deck Scaling Percent - Disc.	SNBI (SNTI) Tab	2-D-7
7669	Deck Rutting - Disc.	SNBI (SNTI) Tab	2-D-7
7670	Deck Exposed Rebar - Disc.	SNBI (SNTI) Tab	2-D-7
7672	Curb Condition - Disc.	SNBI (SNTI) Tab	2-D-7
7673	Sidewalk Condition - Disc.	SNBI (SNTI) Tab	2-D-8
7674	Paint Condition - Disc.	SNBI (SNTI) Tab	2-D-8
7681	Approach Condition - Disc.	SNBI (SNTI) Tab	2-D-8
7682	Optional Retaining Wall Condition	SNBI (SNTI) Tab	2-C-88
7683	Pier Protection Condition - Disc.	SNBI (SNTI) Tab	2-D-8
7710	Sufficiency Rating	Discontinued Tab	2-D-62
7711	SD/FO	Discontinued Tab	2-D-62
7832	Water Type	Waterway Tab	2-C-319
7833	Flood Plain Intrusion	Waterway Tab	2-C-319
7834	Flood Control	Waterway Tab	2-C-319
7835	Scour History	Waterway Tab	2-C-320
7836	Streambed Material Type	Waterway Tab	2-C-320
7837	Substructure Stability	Waterway Tab	2-C-320
7838	Waterway Obstruction	Waterway Tab	2-C-321
7839	Streambed Stability	Waterway Tab	2-C-321
7840	Streambed Anabranch	Waterway Tab	2-C-321
7841	Piers in Water	Waterway Tab	2-C-322
BAP01	Approach Roadway Alignment	SNBI (SNTI) Tab	2-C-77
BAP02	Overtopping Likelihood	SNBI (SNTI) Tab	2-C-76
BAP03	Scour Vulnerability	SNBI (SNTI) Tab	2-C-73
BAP04	Scour Plan of Action	SNBI (SNTI) Tab	2-C-75
BAP05	Seismic Vulnerability	SNBI (SNTI) Tab	2-C-78
BC01	FHWA Deck Overall Condition Rating	SNBI (SNTI) Tab	2-C-44
BC02	Superstructure Overall Condition Rating	SNBI (SNTI) Tab	2-C-54
BC03	Substructure Overall Condition Rating	SNBI (SNTI) Tab	2-C-60
BC04	Culvert Overall Condition Rating	SNBI (SNTI) Tab	2-C-63
BC05	Bridge Railings Condition Rating	SNBI (SNTI) Tab	2-C-48
BC06	Bridge Railing Transitions Condition Rating	SNBI (SNTI) Tab	2-C-50
BC07	Bridge Bearings Condition Rating	SNBI (SNTI) Tab	2-C-58
BC08	Bridge Joints Condition Rating	SNBI (SNTI) Tab	2-C-51
BC09	Channel Condition Rating	SNBI (SNTI) Tab	2-C-69

Table 2 - WSBIS Item Numbers in Sequence

WSBIS Item No.	WSBIS Item Name	WSBIS Application Tab	Page No.
BC10	Channel Protection Condition Rating	SNBI (SNTI) Tab	2-C-71
BC11	Scour Condition Rating	SNBI (SNTI) Tab	2-C-66
BC12	Overall Bridge Condition Classification	SNBI (SNTI) Tab	2-C-43
BC13	Lowest Condition Rating Code	Auto-Generated Fields	2-C-323
BC14	NSTM Inspection Condition	SNBI (SNTI) Tab	2-C-57
BC15	Underwater Inspection Condition	SNBI (SNTI) Tab	2-C-62
BCL01	Owner	Bridge ID Tab	2-C-97
BCL02	Maintenance Responsibility	Bridge ID Tab	2-C-98
BCL03	Federal or Tribal Land Access	Feature Tab	2-C-208
BCL04	Historic Significance (NRHP)	Bridge ID Tab	2-C-111
BCL05	Toll	Bridge ID Tab	2-C-110
BCL06	Emergency Evacuation Designation	Feature Tab	2-C-207
BEP01	Legal Load Configuration	Load Rating Tab	2-C-309
BEP02	Legal Load Rating Factor	Load Rating Tab	2-C-310
BEP03	Posting Type	Load Rating Tab	2-C-311
BEP04	Posting Value	Load Rating Tab	2-C-312
BF01	Feature Designation	Feature Tab	2-C-177
BF02	Feature Location	Feature Tab	2-C-178
BF03	Feature Name	Feature Tab	2-C-173
BG01	NBIS Bridge Length	Geometry Tab	2-C-117
BG02	Total Structure Length	Geometry Tab	2-C-120
BG03	Maximum Span Length	Geometry Tab	2-C-124
BG04	Minimum Span Length	Geometry Tab	2-C-126
BG05	Structure Width Out-to-Out	Geometry Tab	2-C-129
BG06	Structure Width Curb-to-Curb	Geometry Tab	2-C-135
BG07	Left Curb or Sidewalk Width	Geometry Tab	2-C-140
BG08	Right Curb or Sidewalk Width	Geometry Tab	2-C-143
BG09	Approach Roadway Width	Geometry Tab	2-C-146
BG10	Bridge Median	Geometry Tab	2-C-148
BG11	Skew Angle	Geometry Tab	2-C-150
BG12	Curved Bridge	Geometry Tab	2-C-151
BG13	Maximum Bridge Height	Geometry Tab	2-C-154
BG14	Sidehill Bridge	Geometry Tab	2-C-156
BG15	Irregular Deck Area	Geometry Tab	2-C-157
BG16	Calculated Deck Area	Geometry Tab	2-C-157
BH01	Functional Classification	Feature Tab	2-C-204
BH02	Urban Code	Feature Tab	2-C-205
BH03	NHS Designation	Feature Tab	2-C-201
BH04	National Truck Freight Network (NHFN)	Feature Tab	2-C-203
BH05	STRAHNET Designation	Feature Tab	2-C-202
BH06	LRS Route ID	Feature Tab	2-C-193
BH07	LRS Milepost	Feature Tab	2-C-194
BH08	Lanes On Highway	Feature Tab	2-C-199
BH09	AADT Count	Feature Tab	2-C-209
BH10	AADT Truck Count	Feature Tab	2-C-210
BH11	AADT Year	Feature Tab	2-C-209

Table 2 - WSBIS Item Numbers in Sequence

WSBIS Item No.	WSBIS Item Name	WSBIS Application Tab	Page No.
BH12	Highway Maximum Usable Vertical Clearance	Feature Tab	2-C-213
BH13	Highway Minimum Vertical Clearance	Feature Tab	2-C-215
BH14	Highway Minimum Horizontal Clearance, Left	Feature Tab	2-C-220
BH15	Highway Minimum Horizontal Clearance, Right	Feature Tab	2-C-223
BH16	Highway Maximum Useable Surface Width	Feature Tab	2-C-226
BH17	Bypass Detour Length	Feature Tab	2-C-211
BH18	Crossing Structure ID	Feature Tab	2-C-184
BID01	Structure ID	Bridge ID Tab	2-C-91
BID02	Structure Name	Bridge ID Tab	2-C-96
BID03	Previous Structure ID	Bridge ID Tab	2-C-92
BIE01	Report Types and Report Subtypes	Report Types Tab	2-C-25
BIE02	Inspection Begin Date	Report Types Tab	2-C-32
BIE03	Inspection Completion Date	Report Types Tab	2-C-33
BIE04	Nationally Certified Bridge/Tunnel Inspector	Report Types Tab	2-C-37
BIE05	Inspection Interval	Report Types Tab	2-C-31
BIE06	Inspection Due Date	Report Types Tab	2-C-34
BIE07	Risk-Based Inspection Interval Method	Report Types Tab	2-C-36
BIE08	Inspection Quality Control Date	Report Types Tab	2-C-40
BIE09	Inspection Quality Assurance Date	SNBI (SNTI) Tab	2-C-82
BIE10	Inspection Data Update Date	Auto-Generated Fields	2-C-323
BIE11	Report Type Notes	Report Types Tab	2-C-35
BIE12	Inspection Equipment (Summer 2025)	Report Types Tab	2-C-40
BIR01	NSTM inspection Required	Auto-Generated Fields	2-C-323
BIR02	Fatigue Details	SNBI (SNTI) Tab	2-C-78
BIR03	Underwater Inspection Required	Auto-Generated Fields	2-C-323
BIR04	Complex Feature - SNBI	Auto-Generated Fields	2-C-323
BL01	State Code	Auto-Generated Fields	2-C-323
BL02	County Code	Bridge ID Tab	2-C-100
BL03	Place Code	Bridge ID Tab	2-C-101
BL04	Highway Agency District	Bridge ID Tab	2-C-107
BL05	Latitude	Feature Tab	2-C-180
BL06	Longitude	Feature Tab	2-C-181
BL07	Border Structure ID	Bridge ID Tab	2-C-113
BL08	Border State or Country Code	Bridge ID Tab	2-C-114
BL09	Border Bridge Inspection Responsibility	Bridge ID Tab	2-C-114
BL10	Border Bridge Designated Lead State	Bridge ID Tab	2-C-115
BL11	Structure Location	Feature Tab	2-C-174
BL12	Metropolitan Planning Organization	Bridge ID Tab	2-C-108
BLR01	Design Load	Load Rating Tab	2-C-299
BLR02	Design Method	Load Rating Tab	2-C-300
BLR03	Load Rating Date	Load Rating Tab	2-C-301
BLR04	Load Rating Method	Load Rating Tab	2-C-302
BLR05	Inventory Load Rating Factor	Load Rating Tab	2-C-303
BLR06	Operating Load Rating Factor	Load Rating Tab	2-C-304
BLR07	Controlling Legal Load Rating Factor	Load Rating Tab	2-C-304
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Table 2 - WSBIS Item Numbers in Sequence

WSBIS Item No.	WSBIS Item Name	WSBIS Application Tab	Page No.
BN01	Navigable Waterway	Feature Tab	2-C-237
BN02	Navigable Minimum Vertical Clearance	Feature Tab	2-C-238
BN03	Movable Bridge Maximum Navigation Vertical Clearance	Feature Tab	2-C-251
BN04	Navigation Channel Width	Feature Tab	2-C-253
BN05	Navigable Channel Minimum Horizontal Clearance	Feature Tab	2-C-255
BN06	Substructure Navigable Protection	Feature Tab	2-C-257
BPS01	Load Posting Status	Load Rating Tab	2-C-308
BPS02	Posting Status Change Date	Load Rating Tab	2-C-309
BRH01	Bridge Railings (Crash Test)	Materials & Types Tab	2-C-290
BRH02	Bridge Railings Transition (Crash Test)	Materials & Types Tab	2-C-294
BRR01	Railroad Service Type	Feature Tab	2-C-228
BRR02	Railroad Minimum Vertical Clearance	Feature Tab	2-C-233
BRR03	Railroad Minimum Horizontal Offset	Feature Tab	2-C-235
BRT01	Route Grid: Route Designation	Feature Tab	2-C-186
BRT02	Route Grid: Route Number	Feature Tab	2-C-187
BRT03	Route Grid: Route Direction	Feature Tab	2-C-189
BRT04	Route Grid: Route Type	Feature Tab	2-C-190
BRT05	Route Grid: Service Type	Feature Tab	2-C-192
BSB01	Substructure Configuration Designation	Materials & Types Tab	2-C-277
BSB02	Number of Substructure Units	Materials & Types Tab	2-C-280
BSB03	Substructure Material	Materials & Types Tab	2-C-281
BSB04	Substructure Type	Materials & Types Tab	2-C-282
BSB05	Substructure Protective System	Materials & Types Tab	2-C-284
BSB06	Foundation Type	Materials & Types Tab	2-C-285
BSB07	Foundation Protective System	Materials & Types Tab	2-C-287
BSP01	Superstructure Configuration Designation	Materials & Types Tab	2-C-259
BSP02	Number of Spans	Materials & Types Tab	2-C-260
BSP03	Number of Beam Lines	Materials & Types Tab	2-C-263
BSP04	Span Material	Materials & Types Tab	2-C-264
BSP05	Span Continuity	Materials & Types Tab	2-C-266
BSP06	Span Type	Materials & Types Tab	2-C-267
BSP07	Span Protective System	Materials & Types Tab	2-C-269
BSP08	Deck Interaction	Materials & Types Tab	2-C-270
BSP09	Deck Material & Type	Materials & Types Tab	2-C-272
BSP10	Wearing Surface	Materials & Types Tab	2-C-273
BSP11	Deck Protective System	Materials & Types Tab	2-C-274
BSP12	Deck Reinforcing Protective System	Materials & Types Tab	2-C-275
BSP13	Deck Stay-In-Place Forms	Materials & Types Tab	2-C-276
BW01	Year Built	SNBI (SNTI) Tab	2-C-85
BW02	Year Work Performed (Summer 2025)	SNBI (SNTI) Tab	2-C-87
BW03	Work Performed (Summer 2025)	SNBI (SNTI) Tab	2-C-87
I.15-I.18	Border Tunnel Data	Auto-Generated Fields	2-C-323
N.1-N.3	Navigable Waterway Data	Auto-Generated Fields	2-C-323
Override	Inspection Due Date Override	Report Types Tab	2-C-34
TA2	Year Rebuilt - SNTI	SNBI (SNTI) Tab	2-C-86
TA3	Total Number of Lanes - SNTI	Feature Tab	2-C-200

Table 2 - WSBIS Item Numbers in Sequence

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TA8	Service in Tunnel - SNTI	Geometry Tab	2-C-161
TC3	Direction of Traffic - SNTI	Feature Tab	2-C-200
TD1	Target Inspection Date - SNTI	Report Types Tab	2-C-35
TG2	Minimum Vertical Clearance Over Tunnel Roadway - SNTI	Geometry Tab	2-C-162
TL10	Height Restrictions - SNTI	Geometry Tab	2-C-166
TL11	Hazardous Material Restriction - SNTI	Geometry Tab	2-C-167
TL12	Other Restrictions - SNTI	Geometry Tab	2-C-167
TS1	Number of Bores - SNTI	Geometry Tab	2-C-163
TS2	Tunnel Shape - SNTI	Geometry Tab	2-C-164
TS3	Portal Shape - SNTI	Geometry Tab	2-C-165
TS4	Ground Conditions - SNTI	Geometry Tab	2-C-165
TS5	Complex Tunnel - SNTI	Geometry Tab	2-C-166
WA09	Speed Limit	Feature Tab	2-C-198
WC01	WSDOT Deck Overall Condition Rating	SNBI (SNTI) Tab	2-C-47
WCF01	Critical Finding Number	Critical Findings Tab	CH6
WCF02	Type of Critical Finding	Critical Findings Tab	CH6
WCF03	Entry Type	Critical Findings Tab	CH6
WCF04	Date of Finding or Entry Date	Critical Findings Tab	CH6
WCF05	Bridge Status	Critical Findings Tab	CH6
WCF06	Estimated Resolution Date	Critical Findings Tab	CH6
WCF07	Description	Critical Findings Tab	CH6
WCF08	Reported By	Critical Findings Tab	CH6
WCF09	Associated Repair	Critical Findings Tab	CH6
WCL04	Historical Significance - HAER	Bridge ID Tab	2-C-112
WEP02	EV Included	Load Rating Tab	2-C-313
WEP03	Recommended Posting Type	Load Rating Tab	2-C-313
WEP04	Recommended Posting Value	Load Rating Tab	2-C-313
WF01	Feature Type	Feature Tab	2-C-175
WF02	Crossing Manager	Feature Tab	2-C-179
WH06	LRS Date	Feature Tab	2-C-198
WH07	LRS Milepost End	Feature Tab	2-C-194
WH10	AADT Truck Percent	Feature Tab	2-C-210
WH12	Minimum Vertical Clearance Over Deck	Geometry Tab	2-C-158
WH13	Minimum Vertical Clearance Under Bridge	Geometry Tab	2-C-159
WH19	LRS ARM	Feature Tab	2-C-197
WH20	LRS ARM End	Feature Tab	2-C-197
WH21	LRS Ahead/Back Indicator	Feature Tab	2-C-196
WH22	LRS Ahead/Back Indicator End	Feature Tab	2-C-196
WH23	LRS Directional Indicator	Feature Tab	2-C-195
WH24	NBI Reportable Flag - NBI Disc.	Feature Tab	2-D-23
WH25	SNBI Reportable Flag	Feature Tab	2-C-182
WH26	SNTI Reportable Flag	Feature Tab	2-C-183
WH27	Bridge List Flag	Feature Tab	2-C-183
WID01	Structure Type	Bridge ID Tab	2-C-92
WID02	Structure Number	Bridge ID Tab	2-C-93
WID03	Structure Sort Number	Bridge ID Tab	2-C-95

Table 2 - WSBIS Item Numbers in Sequence

WSBIS Item No.	WSBIS Item Name	WSBIS Application Tab	Page No.
WID04	Special Structure Flag	Bridge ID Tab	2-C-113
WID05	Obsolete Structure Flag	Bridge ID Tab	2-C-115
WID06	Program Manager	Bridge ID Tab	2-C-96
WIE05	Co-Inspector Initials	Report Types Tab	2-C-37
WIE07	Inspection Hours	Report Types Tab	2-C-38
WIE08	Inspection Overtime Hours	Report Types Tab	2-C-38
WIE10	Late Inspection Explanation - PM Oversight	Report Types Tab	2-C-39
WIE11	Late Inspection - PM Response Date	Report Types Tab	2-C-39
WIE12	Late Inspection - PM Approval	Report Types Tab	2-C-39
WIE20	Soundings Flag	SNBI (SNTI) Tab	2-C-82
WIE21	Clearance Flag	SNBI (SNTI) Tab	2-C-83
WIE22	Revise Rating Flag	SNBI (SNTI) Tab	2-C-83
WIE23	Photos Flag	SNBI (SNTI) Tab	2-C-84
WIE24	QA Flag	SNBI (SNTI) Tab	2-C-85
WIE25	Roadside Hardware Flag	SNBI (SNTI) Tab	2-C-84
WIE30	Asphalt Depth	SNBI (SNTI) Tab	2-C-79
WIE31	Design Curb Height	SNBI (SNTI) Tab	2-C-80
WIE32	Bridge Vehicle Rail Height	SNBI (SNTI) Tab	2-C-80
WIE33	Number of Utilities	SNBI (SNTI) Tab	2-C-80
WIE34	Subject to NBIS Flag	SNBI (SNTI) Tab	2-C-81
WL05	City	Bridge ID Tab	2-C-101
WL06	Section	Bridge ID Tab	2-C-109
WL07	Township	Bridge ID Tab	2-C-109
WL08	Range	Bridge ID Tab	2-C-109
WL09	Local Agency Routing Map (Button)	Feature Tab	2-C-182
WLR01	Reference Inspection Completion Date	Load Rating Tab	2-C-306
WLR02	Rated By	Load Rating Tab	2-C-307
WLR09	Overloads	Load Rating Tab	2-C-307
WRH01	BRCT Document Year (YYYY)	Materials & Types Tab	2-C-293
WRH02	BRTCT Document Year (YYYY)	Materials & Types Tab	2-C-297
WRR04	Railroad Crossing SID	Feature Tab	2-C-230
WRR05	Railroad Owner	Feature Tab	2-C-231
WRR06	Railroad Milepost	Feature Tab	2-C-231
WRR07	Railroad Operator	Feature Tab	2-C-231
WRT01	Route Grid: Route Description	Feature Tab	2-C-187
WRT02	Route Grid: Route Milepost	Feature Tab	2-C-188
WSB01	Substructure Configuration Code	Materials & Types Tab	2-C-277
WSB02	Pier Description	Materials & Types Tab	2-C-279
WSP01	Superstructure Configuration Code	Materials & Types Tab	2-C-259
WSP02	Span Description	Materials & Types Tab	2-C-260
-	MUTCD R12-1	Load Rating Posting Examples	2-C-314
-	MUTCD R12-2	Load Rating Posting Examples	2-C-314
-	MUTCD R12-4	Load Rating Posting Examples	2-C-314
-	MUTCD R12-5	Load Rating Posting Examples	2-C-315
-	MUTCD R12-6	Load Rating Posting Examples	2-C-315
-	MUTCD R12-7	Load Rating Posting Examples	2-C-315

Table 2 - WSBIS Item Numbers in Sequence

WSBIS Item No.	WSBIS Item Name	WSBIS Application Tab	Page No.
-	MUTCD R12-701	Load Rating Posting Examples	2-C-316
-	MUTCD R12-702	Load Rating Posting Examples	2-C-316
-	Single Unit Vehicles (SUV) - Single Configuration	Load Rating Posting Examples	2-C-316
-	Single Unit Vehicles (SUV) - Limited Configuration	Load Rating Posting Examples	2-C-316
-	Single Unit Vehicles (SUV) - All Configuration	Load Rating Posting Examples	2-C-317

Coding Guide Instructions

This *coding* guide is intended as a companion to the BridgeWorks (WSBIS) application, and provides more detailed definitions for many of the data entry fields visible in BridgeWorks. Those fields defined herein have the associated WSBIS Item Number in blue next to the data entry field. BridgeWorks users who need more information about how to code a field should click on these item numbers, which will take them to the relevant section in this coding guide.

This coding guide also identifies data fields that are reported to the SNBI and SNTI with any discontinued NBI Items found in Appendix 2-D.

Some WSBIS field definitions vary from the SNBI or SNTI, and are automatically translated when submitted to FHWA. This coding guide attempts to identify all translated fields.

I. **Item Format**

Item formats have been migrated to the standard SNBI format, with some modifications. This new format will be used for fields that are either retained, added, or modified for reporting to the SNBI and SNTI.

The modified SNBI Header format includes the 4-5 digit item number and item name for both WSDOT (WSBIS) and SNBI/SNTI. The **WSBIS Item ID** leading digit has the following significance:

- Item numbers with a leading B are reported to FHWA, always to SNBI and sometimes to the SNTI
- Item numbers with a leading T are reported to FHWA, to the SNTI only
- Item numbers with a leading W are not reported to FHWA and are WSDOT use only
- Item numbers with a leading number are not reported to the FHWA and are either local agency use or to be discontinued for NBI

Section Name *(Old Item #### or Other Identifier)*					
Format	**SNBI Format**	**Frequency**	**WSBIS Item ID**	**SNBI Item ID**	**SNTI Item ID**
Applicable Structure Types					
Specification			**Commentary**		
Requirements for reporting the data item.			Expanded guidance on the specification.		
Specification Continued, Commentary Continued, or Exampes					
Additional space for Specification or Commentary, if needed. Examples are presented to further clarify the specification. Each item typically has brief examples. A more comprehensive example can be found at the end of each section or subsection.					

The **SNBI/SNTI Format** box identifies the data type and size requirement for the Specifications for the National Bridge Inventory (aka the SNBI coding guide) or the Specifications for the National Tunnel Inventory (aka the SNTI coding guide).

The **Format** box identifies the data type and size limitations for data entry into BridgeWorks, using the following codes:

N(x,y)	Numeric, with x identifying the total number of characters and y identifying the number of decimal places. This data format requires a decimal place and only allows numbers. For example N(4,1) would allow a number of 0.0 through 999.9.
AN(x)	Alphanumeric, with x identifying the total number of characters. This data format allows virtually any character to be placed in this field, either letters, numbers, dashes, spaces, etc.
Pulldown	Populated by using a pulldown menu of pre-selected options.
Date	Populated with a pop-up calendar or user data entry in mm/dd/yyyy format
Check Box	Clicking on the box adds a check mark, activating feature in BridgeWorks
Calculated	A calculated field, no direct data entry by user.
Integer	These fields are populated only by whole numbers, no decimals allowed.

II. **Structure Types**

WSBIS currently maintains records for 4 structure types:

Type 1 - Bridges and culverts carrying public roadways

Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways

Type 3 - Tunnels carrying roadways within

Type 4 - Structures that do not carry or cross over/under a public roadway

See "Structure Type" Item WID01 for more details.

III. **Establishing the Inventory Record**

The original inventory record needs to be established only once and is required when:

- A new structure has been built (usually before it is placed in service).
- An existing bridge has been replaced with a new structure **(the existing record and it's SID be obsoleted before a new record for the structure is established with a new unique SID)**.
- A temporary detour structure has been built and remains in service for more than three months or beyond the life of the contract under which it was built.
- An existing structure not previously inventoried is added to the statewide inventory.

A structure's original inventory record can be established by the following steps.

1. In BridgeWorks, select the “Create Structure” icon from the Operation menu at the top of the main page. A new window will pop up with ten data entry fields. Two of these fields are automatically filled in by the BridgeWorks application. First, the Provisional (or temporary) SID will be assigned. Second, the “Sort Bridge Number” will be created when you fill the “Bridge Number” field. The last two digits of the Provisional SID are for sequencing the creation of multiple new records (i.e., “01”, 02). The permanent SID is assigned by WSDOT when the new record is released to the WSBIS. Enter valid data in all of the other fields.

   After completing all fields, click the “Create Structure” button to close the window and add the new record to your inventory list. You can then choose the new record off the bridge list and continue adding the required inventory information.

2. Enter appropriate values in the data entry fields on the application forms (tabs).
3. A copy of this Inventory Report shall be kept in the bridge file.

IV. **Reestablishing the Inventory Record**

If an Inventory record for a bridge has been mistakenly deleted or obsoleted (as sometimes happens when a bridge has changed ownership), it can be recovered by emailing a request to the Local Agency Bridge Inventory Engineer for local agency bridges or to the BPO Bridge Inventory Engineer for State owned bridges. In the request, be sure to provide correct control field information.

Once the record has been recovered, it must be reviewed for errors and corrected. Submit the updated data in the manner described for updating the inventory.

V. **Updating the Inventory**

The original bridge inventory record needs to be updated whenever new data must be added or whenever changes must be made to the existing record.

Updates to the original inventory data may be required as a result of damage to the bridge, changed conditions noted during an inspection, safety improvements or rehabilitation, when new computations or measurements are made, or when the bridge changes ownership. Updates to a bridges' inventory record must be reported to the Local Agency Bridge Inventory Engineer or the BPO Bridge Inventory Engineer within 90 days. Updates that have not been Released to the bridge inventory will not be included in any submittals and reports prepared using that data.

To start the update process, select the bridge record from the Bridge List you want to change. Be sure the latest Master Control Data (MCD) in the Control Data Grid is highlighted and then click "Edit Control Data" from the Control Data menu to create an updatable copy. This new copy will be in a state of "Work" and is called an Update Control Data (UCD). To complete an update, this procedure will be followed.

1. Review the data displayed in the BridgeWorks forms (tabs). All of the forms except BMS, Notes, Repairs, Photos, Files, and Letters are arranged with two data fields after the field name. The left side data field will display existing information. The right side data field is for entering update information.
2. Enter new coding values in each Data Entry Field that must be updated. Make sure your entry is complete. Pressing F9 on your keyboard or clicking the "Inspector Data Check" icon on the Control Data menu will run a limited data check process for the selected Control Data (CD). Pressing F11 or clicking the "In-Depth Data Check" icon will run a full data check process. BridgeWorks will then provide you with a list of errors or will let you know that no errors were found. This process can be run on UCD's or MCD's.

- If you are entering new data, simply enter the appropriate values in the field.
- If you are making a change to existing data, the entire field must be re coded. For example, if the name shown in Item 1232 - Features Intersected, has been misspelled, the entire name must be reentered, not just one or two letters corrected.
- If you want to blank out an entire field, type an asterisk (*) in the update field. The existing data contained in that field will be erased and the field will be blank after the record is processed. Some fields cannot be blank, in which case the asterisk will not be processed.

3. When all updates are complete to the satisfaction of the Team Leader responsible for the bridge inspection, the report is submitted to the state of "Lock." At this point, and depending on the procedures of the bridge owner, the inspection report and the inventory data is given to the Team Leader's Program Manager or supervisor for their review. This internal review falls under the heading of Quality Control (QC) and is an important step in the release process. Once the Program Manager or supervisor is satisfied with the report, the UCD is sent to either the Local Agency or BPO Bridge Inventory Engineer for final review of the inventory data and subsequent release to the bridge inventory.

4. WSDOT Team Leaders typically submit electronic copies of approved inspection reports to the BPO Bridge Inventory Engineer for review and release. See Chapter 7 for details on WSDOT procedures.

   Local agency Team Leaders and/or consultants should create a Selection Set of approved UCD's which can be sent to the Local Agency Bridge Inventory Engineer for review.

   The UCD's are reviewed to ensure correctness and consistency before the data is released to the Inventory.

   Any errors found will be noted and returned to the bridge owner or Team Leader for corrections. Once the corrections are made, the UCD is again submitted for review. Once the Inventory Engineer is satisfied with the correctness of the UCD it is released to the Bridge Inventory. At this point, the UCD becomes an MCD and can no longer be changed. An MCD is a permanent part of the bridge record history and further changes must be made through the UCD process.

5. After release for digital signature, the inspectors will be notified by email to review and digitally sign the inspection report. Once signed, the completed inspection report will be available in the Records tab, Inspection Report subtab. Printout is optional for agency records. For the rare occasion when wet signatures are required, the Bridge Inspection Report and the WSBIS Bridge Inventory Report are printed (all relevant files included). The final validation of the inspection report is completed when the Bridge Inspection Team members sign the report. The report is then added to the inspection history in the official bridge file and the previous WSBIS Inventory Report is replaced with the current report.

   This process must be completed within 90 days of the inspection date but it is recommended that the release is done as soon as possible. The quality of the inspection report tends to degrade through an extended review. Instead, complete the release process on the UCD and make any later corrections through an Informational UCD.

VI. Deleting/Transferring the Inventory Record

When an inventory record becomes obsolete, it needs to be changed from "Active" to "Inactive" status in the WSBIS database. The reasons a record may become obsolete include:

- A structure has been bypassed and is no longer in use, or
- A structure has been demolished, or
- A structure has been permanently closed to traffic.

If a new structure replaces an existing structure, the agency must obsolete the old record and establish a new inventory record.

To obsolete the inventory record of a local agency structure, the bridge owner should send an email listing the control data for each bridge to be deleted to either the WSDOT Local Agency Bridge Engineer or the Local Agency Bridge Inventory Engineer. This email shall include the Structure Identification Number and Bridge Name along with instructions that the record is to be deleted. The Local Agency Bridge Engineer will request that the record be obsoleted under the procedures defined in Chapter 2 Section 2-3.3.

If the jurisdiction of a bridge is being transferred from one agency to another, the bridge record shall not be obsoleted.

Instead, the Owner Code, Custodian Code and, if necessary, the City Code shall be updated by the original owner prior to sending the bridge records to the new owner. For example:

> The city of Selah has expanded its boundaries and annexed a bridge from Yakima County.

Yakima County would update the Owner Code from 02 to 04, the Custodian Code the same if appropriate, and the City Code from 0000 to 1155 prior to the data being submitted for update. Selah would then be responsible to correct the Bridge Number and all other data for the Inventory record.

This will ensure that a given structure retains its unique Structure Identifier throughout the life of the bridge. See Chapter 2 Section 2-2.1 for additional information on structure ownership transfers.

Report Types Tab

Report Types and Report Subtypes					
Format Checkbox/ Pulldown	**SNBI Format** AN(1)	**Frequency** EI	**WSBIS Item ID** BIE01	**SNBI Item ID** B.IE.01	**SNTI Item ID** D.2, D.4, D.5, D.6

Applicable Structures

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
Every structure in WSBIS must include at least one core report type and may also include additional supplemental report types as listed in Tables BIE01a, b and c below. For more detailed information on these report types, refer to WSBIM Chapter 3. For Damage and Complex Feature supplemental report types, subtypes must also be coded as shown in Table BIE01a. WSBIS report types are translated for SNBI and SNTI submittals as indicated in Table BIE01a. Digital signature, lead inspector certification, and interval requirements are outlined in Table BIE01a.	**Editing Report Types**. A check is required in the Include in Report box on at least one Report Type every time you create an update. This check mark is reflected to the right of the Report Type label as a Green Check Mark indicating that this Report Type is the focus of the current update. Other Report Types not checked are not the current focus but should not be removed from the update in order to retain the continuity of the Structure record except under specific circumstances described below. **Adding and Removing Report Types**. Under most circumstances the assigned report type(s) never change for the life of the structure. Occasionally users may need to add or remove a report type based on changed circumstances or simply to update the record with information not collected as part of a field inspection. Report types are added and removed using the "Select Report Types button in the lower right corner of the input form. Users must clearly understand how inspection reports should be used before modifying the report types associated with a structure. Please refer to Tables BIE01a through c and Chapter 3 for more information.

Table BIE01a summarizes all the Report Types and Inspection Types, and how these fields relate to the SNBI and SNTI.

Table BIE01a - Report Types and Subtypes

WSBIS Report Type	SNBI Inspection Type	SNTI Report Type	Subtype Code	WSBIS Report Subtype	Digital Signature	Cert Required	Interval
Initial[1]	1-Initial	-	-	-	Yes	Yes	No
Routine (Disc)	-	-	-	-	-	-	-
Routine Bridge[1]	2-Routine	-	-	-	Yes	Yes	Yes
Routine Tunnel[1]	-	Routine	-	-	Yes	Yes	Yes
Short Span	-	-	-	-	Yes	No	Yes
Condition	-	-	-	-	Yes	No	Yes
NSTM[1]	4-NSTM	-	-	-	Yes	Yes	Yes
Underwater[1]	3-Underwater	-	-	-	No	Yes	Yes
Damage	5-Damage	Damage	A	Scour	Yes	Yes	No
			B	Flood	Yes	Yes	No
			C	Collision (Bridge Hit/Impact)	Yes	Yes	No
			D	Overload	Yes	Yes	No
			E	Fire	Yes	Yes	No
			G	Earthquake	Yes	Yes	No
			H	Fatigue	Yes	Yes	No
			I	Deterioration	Yes	Yes	No
			M	Erosion	Yes	Yes	No
			N	Unknown	Yes	Yes	No
			O	Other	Yes	Yes	No
			P	Bridge Rail	Yes	Yes	No
			S	Reported by Others (Bridge Hit/Impact	Yes	Yes	No
			T	Reported by Others - Fire	No[3]	No	No
			V	Reported by Others - Other Misc.	No[3]	No	No
Special Feature[1] (Disc)	-	-	Not shown		Yes	Yes	Yes

Table BIE01a - Report Types and Subtypes

WSBIS Report Type	SNBI Inspection Type	SNTI Report Type	Subtype Code	WSBIS Report Subtype	Digital Signature	Cert Required	Interval
Complex Feature[1]	6-In Depth	In Depth	1	Movable	Yes	Yes	Yes
	-	-	2	Floating	Yes	Yes	Yes
			3	Suspension	Yes	Yes	Yes
			4	Redundant Pin and Hanger	Yes	Yes	Yes
			5	Segmental	Yes	Yes	Yes
			6	Ferry Terminal	Yes	Yes	Yes
			7	High Strength Steel	Yes	Yes	Yes
-	-	-	8	Structure with Temporary Support	Yes	Yes	Yes
			9	Cable Stayed	Yes	Yes	Yes
			0	Other	Yes	Yes	Yes
In-Depth	7-Special	Special	-	-	Yes	Yes	No
Interim	7-Special	Special	-	-	Yes	Yes	Yes
UW Interim	7-Special	Special	-	-	No	Yes	Yes
Primary Safety (Disc)	-	-	-	-	-	-	-
WSDOT Safety	-	-	-	-	Yes	No	Yes
Secondary Safety (Disc)	-	-	-	-	-	-	-
Local Agency Safety	-	-	-	-	Yes	No	Yes
Routine Mechanical[2]	-	-	-	-	No	Yes	Yes
Routine Electrical[2]	-	-	-	-	No	Yes	Yes
Geometric	-	-	-	-	No[3]	No	Yes
Inventory	-	-	-	-	No	No	No
Feature (Disc)	-	-	-	-	No	No	No
Equipment (Disc)	-	-	-	-	No[3]	No	Yes
2 Man UBIT (Disc)	-	-	-	-	No[3]	No	Yes
Informational	-	-	-	-	No[3]	No	No

Table BIE01a - Report Types and Subtypes

WSBIS Report Type	SNBI Inspection Type	SNTI Report Type	Subtype Code	WSBIS Report Subtype	Digital Signature	Cert Required	Interval
Signed Informational	-	-	-	-	Yes	Yes	No
Scour Monitoring	9-Scour Monitoring	-	-	-	No[3]	No	No

1. These report types are used only for structures subject to the NBIS or NTIS. If a structure does not meet this criteria, another report type must be used (usually Short Span, WSDOT/Local Agency Safety or Condition report types). Refer to Chapter 3 for more detailed descriptions of report types.
2. Mechanical and Electrical report types created automatically by the Complex Structures system.
3. Digital signatures not normally used for these report types, but if associated with another report type that does use digital signature, all report types will be digitally signed.

Table BIE01b identifies seven "core" report types. Every structure in WSBIS must have one of these report types, and except when structures have multi-agency inspections, only one of these core reports should be associated with each structure. Their usage is summarized in this table but more detailed guidance is provided in Chapter 3.

Table BIE01b - Core Report Types

Report Type	Structure Characteristics	Typical Examples
Initial	Structures subject to the NBIS	Highway bridges over 20 feet long receiving their first inspection after construction or significant rebuild.
Routine Bridge	Structures subject to the NBIS	Highway bridges over 20 feet long that do not need an Inital inspection.
Routine Tunnel	Structures subject to the NTIS	Tunnels carrying highways within
Short Span	Structures not subject to the NBIS or NTIS and carry public roadways	Highway bridges 20 feet or less in length
Condition	Structures not subject to the NBIS or NTIS and don't carry public roadways	Pedestrian bridges based on owner defined need
WSDOT Safety	Structure has a state highway undercrossing and is not owned/ maintained by WSDOT	Railroad bridges over state highway OR multi-agency inspection responsibility1
Local Agency Safety	Structure has a local agency highway undercrossing and is not owned/ maintained by the local agency.	Railroad bridges over local agency highway OR multi-agency inspection responsibility1

1. Multi-agency bridges are only case where more than one core report type can be associated with a structure.

Table BIE01c identifies supplemental report types that can be added to a structure record in addition to one of the core report types. Their usage is summarized in this table but more detailed guidance is provided in Chapter 3.

Table BIE01c - Supplemental Report Types

Supplemental Report Type	Associated Core Report Type	Structure Characteristics	Typical Examples
NSTM	Routine Bridge	Use for bridges subject to the NBIS with non-redundant steel tension members (NSTM).	Steel Truss bridges.
Underwater	Routine Bridge	Use for bridges subject to the NBIS when piers or abutments are permanently underwater exceeding wading depths.	Bridges with foundations in deep water.
Special Feature (Disc)	Routine	Discontinued in 2024, replaced by Complex Feature	Suspension bridges, pin & hanger components
Complex Feature	Routine Bridge	Use for bridges subject to the NBIS with complex features.	Suspension bridges, pin & hanger components.
Damage	Any	Use when structure has sustained damage from a specific event, as opposed to environmental degradation or wear.	Earthquakes, floods, vehicle hits affecting bridges or tunnels.
In-Depth	Any	Use when a structure needs a one-time targeted inspection for any reason.	Preparing a detailed condition assessment for a repair or rehabilitation contract.
Interim	Routine Bridge/ Tunnel, Condition	Use when some structure components need more frequent inspection. Dovetail inspection date and frequency with associated report type.	Monitoring of localized deficiencies such as decayed timber, cracked steel components, structural movement, or scour accessible by wading.
UW Interim	Underwater	Use when some underwater structure components need more frequent inspections. Dovetail inspection date and frequency with Underwater report type.	Monitoring of localized deficiencies in underwater components such as decay, structural damage, or scour not accessible by wading.
Routine Mechanical	Routine Bridge/ Tunnel	Generated automatically when a mechanical inspection report is completed in the Complex Structures system.	Tunnels and movable bridges with mechanical components.
Routine Electrical	Routine Bridge/ Tunnel	Generated automatically when a electrical inspection report is completed in the Complex Structures system.	Tunnels and movable bridges with electrical components.
Geometric	Any	Use to document collection of vertical and horizontal clearance data	Bridges with highway and/or railroad undercrossings; through trusses or arches with superstructure over the deck.

Table BIE01c - Supplemental Report Types

Supplemental Report Type	Associated Core Report Type	Structure Characteristics	Typical Examples
Inventory	Any	Use when creating a new structure record or when an existing structure is significantly modified.	Adding a new structure to the inventory. Whenever a bridge is rehabilitated, widened, seismically retrofitted, or otherwise significantly modified.
Feature (Disc)	Any	Discontinued in 2024.	-
Primary Safety	-	Discontinued in 2024. Replaced by WSDOT Safety	-
Equipment (Disc)	-	Discontinued in 2024. Use Inspection Resources in appropriate inspection report type.	-
2 Man UBIT (Disc)	-	Discontinued in 2024. Use Inspection Resources in appropriate inspection report type.	-
Informational	Any	Use to update a structure record with information not generally collected during a field inspection.	Updating route data, including ADT, functional classification, and NHS designation. Also used for ownership transfers and obsoleting structures.
Signed Informational	Any	Use to update a structure record with information normally collected during a field inspection.	Updating mistakes in a field inspection, generally done by that inspector. Updating condition information based on completed contracts (deck rehabs, etc)
Scour Monitoring	Any	Use to update a structure record with information from Scour POA monitoring during a triggering flood events.	When scour POA's are activated, use to record findings from POA monitoring work. Expect one report for each POA event.

Inspection Interval

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(3,0)	N(2,0)	EI	BIE05	B.IE.05	D.3

Applicable Structures

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
For report types with intervals as noted in Table BIE01a, code the planned interval in months between the current and next scheduled inspection. Code 0 for report types without intervals as noted in Table BIE01a.	The intent of this item is to report the planned interval at which the bridge is to be inspected per the NBIS and agency policies and procedures. This interval should be evaluated after each inspection, and adjusted as necessary based on the Risk-Based Inspection Interval BIE07. When the intent is to simply adjust the next inspection date for scheduling purposes, do not adjust the interval, but instead use the Inspection Due Override Date (Override). For tunnels, also adjust the Routine Inspection Target Date TD1. See Chapter 3 for more information on inspection intervals associated with each report type. w/FHWA errata#1 03/24

Inspection Begin Date

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	YYYYMMDD	EI	BIE02	B.IE.02	D.2

Applicable Structures

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
Code the date for the report type performed. For multiple day inspections, record the first day that field inspection begins. Begin Date Tolerances: When initiating a current inspection, the begin date can be later than the inspection due date within a tolerance window that varies based on report type. See Chapter 3 for details. When initiating a current inspection before the scheduled due date, the begin date tolerance will be adjusted to the new begin date.	The intent of this item is to report the inspection begin dates for the report types in Item BIE01, since the previous data submittal to FHWA. If multiple site visits occur for scour monitoring inspections, for a triggering storm event, report the first site visit date for that storm event. w/FHWA errata#1 03/24

Inspection Completion Date

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	YYYMMDD	EI	BIE03	B.IE.03	-

Applicable Structures

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
Code the completion date for the report type performed. For single day inspections, report the same date that field inspection begins. If multiple site visits occur for scour monitoring inspections, for a triggering storm event, report the date when monitoring ceases for that storm event.	The intent of this item is to report the field inspection completion dates for all inspections. w/FHWA errata#1 03/24

Examples

A Routine Bridge and NSTM inspection started on August 1, 2020. The Routine inspection was completed on August 2, 2020, and the NSTM inspection was completed on August 4, 2020.

- Report 8/2/2024 for the Routine inspection.
- Report 8/4/2024 for the NSTM inspection.

An Underwater inspection started on August 31, 2020 and completed on September 1, 2020. Report 9/1/2024.

Inspection Due Date

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Calculated	YYYYMMDD	EI	BIE06	B.IE.06	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
This field is automatically calculated based on the inspection begin date BIE02 and interval BIE05. When an inspection begins after the scheduled due date, this calculation will restore the next due date to the original due date in the next scheduled due year.	The intent of this item is to provide the inspection due date for the report types defined in the BIE01 (Report Type) where applicable. This item is only calculated for report types which have an inspection interval.

Inspection Due Date Override

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	EI	Override	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification / Commentary

This field should remain blank under most circumstances. However, in cases where the calculated inspection due date BIE06 needs to be adjusted, insert the desired next inspection date in this field.

In cases where the override date is earlier than the next calculated inspection due date, no further action is required.

In cases where the override date is later than the next calculated inspection due date, the following report types require explanation and approval:

- Routine Bridge
- Routine Tunnel
- NSTM
- Underwater
- Interim
- UW Interim

See items WIE10, WIE11 and WIE12 for details on the late inspection and approval process.

Report Type Notes

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(unlimited)	AN (300)	EI	BIE11	B.IE.11	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification / Commentary

Briefly summarize the purpose and Spans/ Piers inspected for the following report types:

- NSTM
- Underwater
- Special Feature
- Damage
- In-Depth
- Service
- Interim
- UW Interim
- Signed Informational
- Scour Monitoring

This field can also be used as needed for any report type and other purposes, including but not limited to:

- Recording time on site and weather conditions.
- Acknowledging incorporation of QA inspection reports
- Summarize updated fields in informational reports
- Identify construction contracts in inventory reports

Target Inspection Date - SNTI

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	EI	TD1	-	D.1

Applicable Structure Types

- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
Record the routine inspection target date. Note that this date establishes the target month for all future inspections, but the actual future inspection days will fluctuate as needed for inspection scheduling and the actual future inspection years will advance as needed.	Initially, the target date is set by the program manager and should not be modified without prior notification to the FHWA Division Office. This date is intended to provide the baseline for scheduling future routine tunnel inspections. Actual inspection begin date tolerances are allowed, see Chapter 3 for details.

Risk Based Inspection Interval Method

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(1)	EI	BIE07	B.IE.07	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification

Code the risk-based inspection interval method using one of the following codes.

Code	Description
N	Not Applicable
1	Method 1
2	Method 2 - Not used by WSDOT
*	Delete

Commentary

The intent of this item is to report the risk- based inspection interval method, described in the NBIS, for determining the inspection interval.

Method 1, as described in the NBIS, is when inspection intervals are determined by a simplified assessment of risk to classify each bridge into one of three risk levels with an inspection interval not to exceed 12, 24, 48, or 60 months.

Method 2, as described in the NBIS, is when inspection intervals are determined by a more rigorous assessment of risk to classify each bridge, or a group of bridges, into one of four risk levels with an inspection interval not to exceed 12, 24, 48, or 72 months.

As of January 1, 2024, enter 1 indicating Method 1 for the following report types:

- Routine Bridge (48 month max interval)
- NSTM (24 month max interval)
- Underwater (60 month max interval)

For all other report and structure types, enter N indicating not applicable.

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Nat'l Certified Bridge & Tunnel Inspector *(Inspector Initials & Insp Cert #)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(15)	EI	BIE04	B.IE.04	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
Code the unique code identifying the Nationally Certified Bridge Inspector (team leader) responsible for the report type performed. In WSBIS, the team leader certification number is selected by using the pulldown of inspector initials. In cases where multiple team leaders have the same initials, a separate pop-up window will display a full list of names associated with this initial, which the team leader will use to select the correct name.	The intent of this item is to indicate the Nationally Certified Bridge Inspector (team leader) present at the inspection, for each report type required by the NBIS and/or WSDOT. Some report types do not require a Nationally Certified Bridge Inspector to lead an inspection. See Table BIE01a.

Co-Inspector Initials *(Old Item 2654)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	EI	WIE05	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification
Select the co-inspector initials from the pulldown menu who either assisted the lead inspector in performing an inspections or updated the bridge record using one of the reports types that doesn't require a lead inspector. See Table BIE01a. In cases where there is no co-inspector, or the co-inspector is not listed in the pulldown menu, use the N/A inspector in the pulldown menu.

Inspection Hours *(Old Item 2642)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(4,1)	-	EI	WIE07	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

This is the total number of field inspection hours (to the nearest half hour) that the inspection team spent on the bridge while performing an inspection of the designated report type. When multiple inspection teams are needed for an inspection, code the cumulative hours for each team.

Leave blank for report types that are not field based (Informational, for example).

Inspection Overtime Hours *(Old Item 2643)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(4,1)	-	EI	WIE08	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

This is the total number of field inspection hours (to the nearest half hour) that the inspection team spent on the bridge while performing an inspection of the designated report type. When multiple inspection teams are needed for an inspection, code the cumulative hours for each team.

Leave blank for report types that are not field based (Informational, for example).

Late Inspection Explanation - PM Oversight *(Old Item 2900)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(500)	-	-	WIE10	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification

For any SNBI or SNTI reportable inspection type, when an inspection is or will be performed later than the tolerance window as defined in Chapter 3, an explanation must be provided for the delinquency. Commonly acceptable explanations include:

- Inspection performed on a week split between two months and the inspection was performed in the "late" month.
- Severe weather (describe weather condition)
- Inspector safety (describe safety issue)

Other explanations will be considered on a case by case basis by the PM or DPM in coordination with FHWA.

Late Inspection - PM Response Date *(Old Item 2901)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	-	WIE11	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification

Enter the date of the Program Manager's (PM) response to the Late Inspection Explanation.

This field can only be edited using the Inventory Management managed operation and as directed by the PM or DPM.

Late Inspection - PM Approval *(Old Item 2902)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	-	WIE12	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification

Code Y – Approved or N – Disapproved to indicate the Program Manager's (PM) response.

This field can only be edited using the Inventory Management managed operation and as directed by the PM or DPM. If Washington State is under an active Plan of Corrective Action (PCA) then approval falls to the FHWA Washington Division Bridge Engineer.

Inspection Quality Control Date

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Calculated	YYYYMMDD	EI	BIE08	B.IE.08	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
This field is automatically generated, and is the same as Inspection Data Update Date B.IE.10.	Every inspection is reviewed by a Data Steward prior to release into the permanent record. This review is the lowest level of quality control and applies to every report type. Some reports receive additional reviews by inspection supervisors, following WSDOT and local agency procedures.

Inspection Equipment

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
-	AN(120)	EI	BIE12	B.IE.12	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
TO BE IMPLEMENTED IN SUMMER OF 2025	TO BE IMPLEMENTED IN SUMMER OF 2025

Critical Findings Tab

Critical Findings					
Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
-	-	-	-	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification / Commentary

See Chapter 6 for all critical findings descriptions for the fields noted below:

Code	Field Name
WCF01	Critical Finding Number
WCF02	Type of Critical Finding
WCF03	Entry Type
WCF04	Date of Finding or Entry Date
WCF05	Bridge Status
WCF06	Estimated Resolution Date
WCF07	Description
WCF08	Reported By
WCF09	Associated Repair

SNBI (SNTI) Tab

Component Condition Ratings

Overall Bridge Condition Classification					
Format	**SNBI Format**	**Frequency**	**WSBIS Item ID**	**SNBI Item ID**	**SNTI Item ID**
Calculated	AN(1)	C	BC12	B.C.12	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
This item is calculated. See Commentary. **Code** / **Condition** / **Lowest Cond. Rating** G / Good / 7, or 8 F / Fair / 5 or 6 P / Poor / 4, 3, 2, 1, or 0	For the purposes of national performance measures, the method of assessment to determine the classification of a bridge is the minimum (i.e. lowest) condition rating code from the following items: B.C.01 (*Deck Condition Rating*), B.C.02 (*Superstructure Condition Rating*), B.C.03 (*Substructure Condition Rating*), and B.C.04 (*Culvert Condition Rating*).

Table 20. Codes and descriptions for Items: BC01 through BC07, BC14 and BC15 condition ratings.

Table 20 Overall Bridge Condition Classification Code

WSBIS Code	SNBI Code	Condition Description
N	N	Not Applicable - Component does not exist.
-	9	Not used in Washington state.
8	8	Very Good - Isolated or some inherent defects.
7	7	Good - Some minor defects.
6	6	Satisfactory - Widespread minor or isolated moderate defects.
5	5	Fair - Some moderate defects; strength and performance of the component are not affected.
4	4	Poor - Widespread moderate or isolated major defects; strength and/or performance of the component is affected.
3	3	Serious - Major defects; strength and/or performance of the component is seriously affected. Condition typically necessitates more frequent monitoring, load restrictions, and/or corrective actions.
2	2	Critical - Major defects; component is severely compromised. Condition typically necessitates frequent monitoring, significant load restrictions, and/or corrective actions in order to keep the bridge open.
1	1	Imminent failure - Bridge is closed to traffic due to component condition. Repair or rehabilitation may return the bridge to service.
0	0	Failed - Bridge is closed due to component condition, and is beyond corrective action. Replacement is required to restore service.

FHWA Deck Overall Condition Rating

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(1)	EI	BC01	B.C.01	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
Code the deck component condition rating using one of the codes in Table 20. Code N when Item B.SP.09 (*Deck Material and Type*) is 0. Starting in 2025, FHWA Deck Overall Condition Ratings are coded strictly in accordance with Table 20. This field is not rated based on BMS Element condition states. For tunnels, the FHWA Deck Overall Condition Rating is used for roadways on lids above tunnels only. Decks and/or invert slabs within tunnels are not included in this rating.	This item represents the condition of the deck as determined from the inspection of all deck surfaces (top, underside, and edges). Visual assessments may be supplemented with non-destructive or destructive testing results. Inspection report comments required when the condition code is 5 or less.

Commentary Continued - FHWA Deck Overall Condition Rating

Use destructive or non-destructive testing results or visual condition indicators of materials covering the surfaces being assessed when top, underside or both surfaces are not visible for assessment. Past inspection reports and repair records may also provide supplemental information to aid in the determination of the condition rating.

Do not consider the condition of non-monolithic wearing surfaces (i.e. overlays), stay-in-place deck forms, joint assemblies, expansion devices, bridge rails, or scuppers when determining the condition rating code for this item, except insofar as they indicate the condition of the deck itself.

Consider the condition of a joint header only when the deck serves as a joint header.

For bridges with integral decks/top flanges (e.g. rigid frames, decked girders or tee beams, voided slab beams, box girders, etc.), the deck condition may affect the superstructure condition rating; however, the superstructure condition does not affect the deck condition rating.

The deck and superstructure condition ratings are the same for solid slab bridges.

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FHWA Deck Overall Condition Rating continued...

Examples

Reinforced concrete (RC) bridge deck approximately 270' long x 40' wide with the following noted defects.

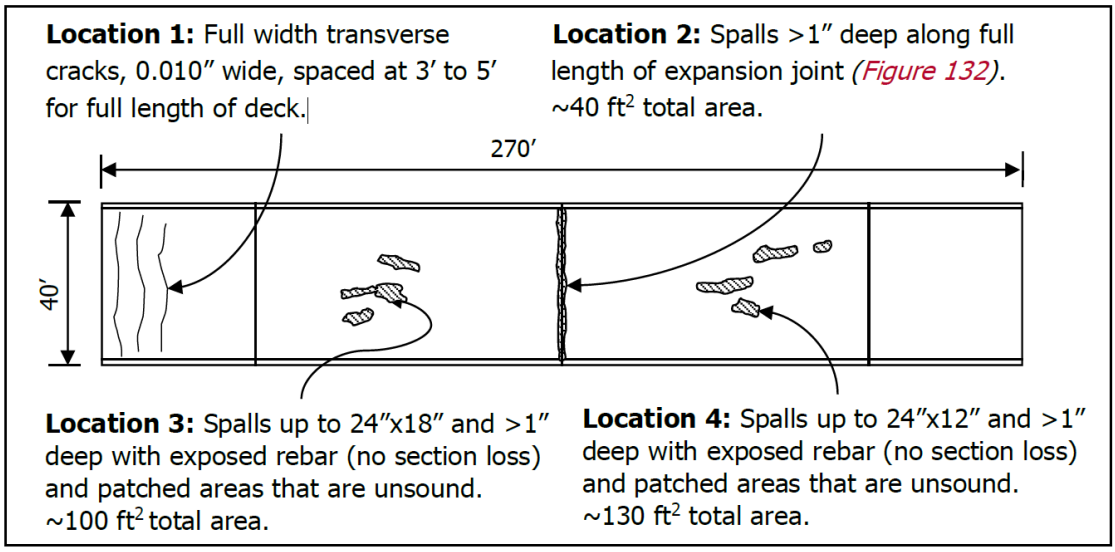

Figure 131. Deck plan view showing defects.

Figure 132. Deck spalling along joint. Location 2.

FHWA Deck Overall Condition Rating continued...

Examples

Figure 133. Typical deck spall with exposed rebar. Locations 3 and 4.

Summary of Findings

Location	Defect(s)	Severity	Extent
1	Cracking	Inherent	Throughout (widespread)
2	Spalling	Moderate	~ 40 ft² (isolated)
3	Spalling with exposed rebar, patched area that is unsound	Moderate	~ 100 ft² (isolated)
4	Spalling with exposed rebar, patched area that is unsound	Moderate	~ 130 ft² (isolated)

Results: There are several areas of isolated moderate defects that can best be characterized together as "some moderate defects." The rest of the deck surface has inherent defects. There are no defects visible on the underside of the deck, and none of the observed defects appear to indicate more significant problems. The deck is best characterized as having "some moderate defects." **Report 5.**

WSDOT Deck Overall Condition Rating

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	-	WC01	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

Code the deck component condition rating using one of the codes in Table WC01.

Code N when Item B.SP.09 (Deck Material and Type) is 0.

Commentary

The resulting deck condition code will not be reported to the SNBI but will support maintenance, repair, and asset management decisions for agency bridge owners in Washington State. The intent is to use this table exclusively to maintain historical deck condition data. This field is not rated based on Table 20.

Inspection report comments required when the condition code is 5 or less.

This item represents the condition of the deck as determined from the inspection of all deck surfaces (top, underside, and edges).

Visual assessments may be supplemented with non-destructive or detructive testing results.

Perform a visual inspection of the bridge deck surface, subsurface (if accessible), and deck protection systems. Record observations on the extent of patches, spalls, and delaminations in the notes of the appropriate BMS deck element.

For tunnels, the WSDOT Deck Overall Condition Rating is used for roadways on lids above tunnels only. Decks and/or invert slabs within tunnels are not included in this rating.

Table WC01 WSDOT Deck Overall Condition Rating Code

WSBIS Code	Percent of Concrete Deck Patches, Spalls and Delaminations (CS2+CS3+CS4)	Percent of Concrete Deck Soffit (CS3 Only)
N	N/A	N/A
8	None	None
7	None	None
6	< 1%	< 1%
5	1% to 2%	1% to 2%
4	2% to 5%	2% to 5%
3	> 5%	> 5%

Bridge Railings Condition Rating

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(1)	EI	BC05	B.C.05	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification	Commentary
Code the bridge railing (traffic barrier) condition rating using one of the codes in Table 20. Code N when there are no bridge railings present	This item addresses the condition of all types and shapes of bridge railings (parapets, median barriers, or structure mounted) located on the bridge or that cross over buried structures. The condition assessment includes the portions of the railings, posts, blocking, and curbs that are part of the bridge railing system. Do not consider pedestrian railings when coding this item, except to the extent that the pedestrian railing is integral to the traffic barrier. Inspection report comments required when the condition code is 5 or less. Do not consider the condition of protective coatings and other protection systems when determining the condition rating code for this item, except to the extent that problems with the protective coating system are indicative of problems with the underlying railing material.

Bridge Railings Condition Rating continued...

Examples

Steel W-beam bridge railing on both sides of a 300' long bridge. The following defect is noted:

Description: Damage-induced distortion of the rail for a length of 25'. Three posts are no longer connected to the deck. No other defects.

Defect: Distortion
Severity: Major
Extent: 25' of the railing (isolated)

Results: The railing is best characterized as having "isolated major defects." Report 4.

Figure 143. Collision-induced distortion of bridge railing.

Bridge Railing Transitions Condition Rating

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(1)	EI	BC06	B.C.06	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification	Commentary
Code the bridge railing (traffic barrier) transitions condition rating using one of the codes in Table 20. Code N when there are no bridge railing transitions present.	This item addresses the condition of the transition from the bridge railing to the approach guardrail. The condition assessment includes the portions of the railings, posts, blocking, and curbs that are part of the bridge railing transitions. Inspection report comments required when the condition code is 5 or less. Do not consider the condition of protective coatings and other protection systems when determining the condition rating code for this item, except to the extent that problems with the protective coating system are indicative of problems with the underlying railing transition

Bridge Joints Condition Rating

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(1)	EI	BC08	B.C.08	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification	Commentary
Code the bridge deck joint condition using one of the following codes in Table BC08. The entire code description must be satisfied for the code to apply.	This item addresses the condition of all types and shapes of bridge deck joints. The condition assessment includes all aspects of the joints such as any seals, headers (metal or concrete), connections, and other metal members. When a joint is designed as an open joint, leakage or lack of a seal is not considered a defect. Do not consider the condition of protective coatings and other protection systems when determining the condition rating code for this item, except to the extent that problems with the protective coating system are indicative of problems with the underlying joint material. In cases where the joint is not visible, the condition can be assessed based on other indirect indicators of the condition. Inspection report comments required when the condition code is 5 or less.

Bridge Joints Condition Rating continued...

Examples

Description: All compression seal joints are partially filled with debris, but are still free to move. Seals are intact.

Defect: Debris impaction
Severity: Minor
Extent: All joints (widespread)
Results: The joints are best characterized as having "widespread minor defects." Report 6.

Figure 147. Joint partially filled with debris.

Description: Strip seal joint 44' long at each end of a bridge. 3" deep x 12" wide x 6' long spall with exposed rebar in deck adjacent to joint header. Joint is loose, but functioning. Strip seal is intact. No other defects.

Defect: Adjacent deck or header
Severity: Moderate
Extent: 6' of one joint (isolated)
Results: The joints are best characterized as having "isolated moderate defects." Report 6.

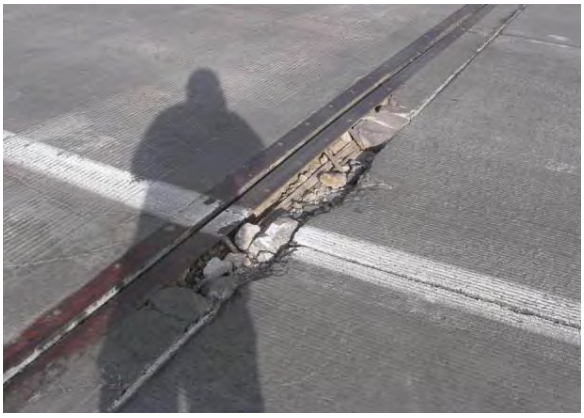

Figure 148. Spall in joint header. (Source: Colorado DOT)

Bridge Joints Condition Rating continued...

Examples Continued

Description: Compression seal joint 56' long at each end of a bridge. The seal is torn and partially pulled out for the full length of both joints. Performance of the joints is affected.

Defect: Seal damage Severity:
Moderate
Extent: All joints (widespread)
Results: The joints can best be characterized as having "widespread moderate defects." Report 4.

Figure 149. Joint seal is torn and partially pulled out.

Table BC08 Bridge Joints Condition Rating Code

WSBIS Code	SNBI Code	Condition Description
N	N	Not Applicable - Bridge does not have deck joints.
-	9	Not used in Washington state.
8	8	Very Good - Isolated or some inherent defects.
7	7	Good - Some minor defects.
6	6	Satisfactory - Widespread minor or isolated moderate defects.
5	5	Fair - Some moderate defects.
4	4	Poor - Widespread moderate or isolated major defects.
3	3	Serious - Some major defects.
2	2	Critical - Widespread major defects.
1	1	Imminent failure - Joints have failed and are ineffective.
0	0	Failed - Joints have failed and present a safety hazard.

Superstructure Overall Condition Rating

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(1)	EI	BC02	B.C.02	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

Code the superstructure component condition rating using one of the codes in Table 20.

Code N when M, A, or W is not reported for Item B.SP.01 (*Span Configuration Designation*).

Commentary

This item represents the condition of the superstructure as determined from the inspection of all superstructure members.

Inspection report comments required when the condition code is 5 or less.

Consider primary load carrying members when determining the condition rating code for this item. ~~which includes cross-frames and diaphragms for curved girder bridges~~. Consider secondary members only if they adversely impact the primary members. Visual assessments may be supplemented with non-destructive or destructive testing results.

The superstructure includes:

- members above the bearings for bridges with non-integral superstructure and substructure;
- girders/beams for integral superstructures;
- members above the spring line for arch bridges;
- slabs of concrete rigid frame bridges; and
- legs, knees and girders for concrete and steel rigid K-Frame or Delta-Frame bridges.

Consider the condition of ~~integral~~ headwalls and spandrel walls that are integral with the superstructure. Consider the condition of wingwalls that are integral with the superstructure (continuation of the superstructure), to the first expansion joint.

Do not consider the condition of bearings when determining the condition rating code for this item except to the extent that the bearings are causing distress in the superstructure.

Do not consider the condition of protective coating systems when determining the condition rating code for this item except to the extent that problems with the protective coating system are indicative of problems with the underlying superstructure material. A well-formed patina on weathering steel is considered a protective coating and is not considered a defect.

Do not consider the presence of drift, debris, and soil accumulation when determining the condition rating code for this item, except to the extent that these items are causing distress in the superstructure.

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Superstructure Overall Condition Rating

Commentary Continued

Superstructure types without substructures may be affected by scour. When observed conditions are not consistent with the scour design or the assumptions used in the scour appraisal, scour is considered when reporting the code for this item. In this case, observed conditions also indicate a need to reevaluate Item B.AP.03 (Scour Vulnerability). Observed scour that is less than the tolerable limit determined in the scour appraisal does not affect this item.

For structures with integral decks/top flanges (e.g. rigid frames, decked girders or tee beams, voided slab beams, box girders, etc.), the deck condition may affect the superstructure condition rating; however, the superstructure condition does not affect the deck condition rating.

The deck and superstructure condition ratings are the same for solid slab bridges.

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Examples

Two-span steel truss. Each span is 200' long x 34' wide. The following defects are noted.

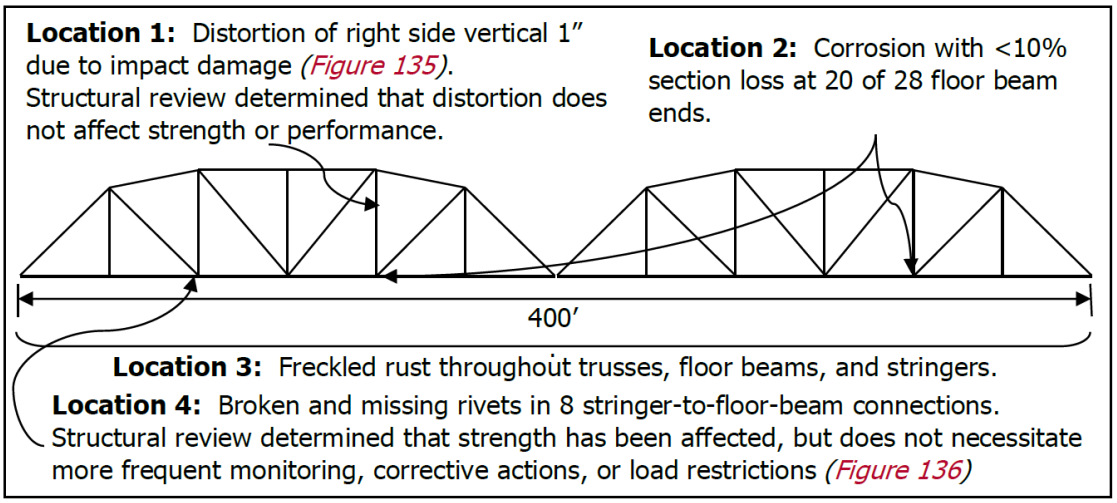


Figure 134. Elevation view of a truss bridge showing superstructure defect locations.

Figure 135. Distortion in truss vertical. Location 1. (Source: Colorado DOT)

Superstructure Overall Condition Rating

Examples Continued

Figure 136. Missing rivets in stringer-to-floor-beam connection. Location 4. (Source: Colorado DOT)

Summary of Findings

Location	Defect(s)	Severity	Extent
1	Distortion	Moderate	One location (isolated)
2	Corrosion with section loss	Moderate	More than a few locations (some)
3	Corrosion	Minor	Throughout (widespread)
4	Connection	Major	A few locations (isolated)

Results: Isolated major defects affecting strength, and some moderate defects that do not affect strength or performance. Therefore, the superstructure is best characterized as having isolated major defects that do not necessitate more frequent monitoring, corrective actions, or load restrictions. **Report 4.**

NSTM Inspection Condition

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(1)	EI	BC14	B.C.14	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification	Commentary
Code the condition rating of the Non- Redundant Steel Tension Members (NSTM) using one of the codes in Table 20. Do not report this item when Item B.IR.01 (NSTM Inspection Required) is N. Code N when there is no NSTM report. This field will not be reported to FHWA when there is no NSTM report.	This item represents the condition of NSTM(s) identified to be inspected in the NSTM inspection procedures, and incorporated into the superstructure or substructure condition rating. Inspection report comments required when the condition code is 5 or less. For a bridge with NSTM(s) in both the superstructure and substructure, report only the lower of the two condition values for the condition of the NSTM(s).

Bridge Bearings Condition Rating

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(1)	EI	BC07	B.C.07	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification	Commentary
Code the bridge bearing condition rating using one of the codes in Table 20. Code N for bridges without bearings. Inspection report comments required when the condition code is 5 or less.	This item addresses the condition of all types and shapes of bridge bearings. Do not consider the condition of protective coatings and other protection systems when determining the condition rating code for this item, except to the extent that problems with the protective coating system are indicative of problems with the underlying bearing material. In cases where the bearing device is not visible, the condition can be assessed based on alignment, grade across the joint, or other indirect indicators of the condition.

Examples

Description: 5 of 25 bearings have 10% bearing area loss.

Defect: Loss of bearing area
Severity:Moderate
Extent: 20% of bearings (some)
Results: The bearings are best characterized as having “some moderate defects.” Report 5.

Figure 144. Loss of bearing area for elastomeric bearing. (Source: Oregon DOT)

Bridge Bearings Condition Rating continued...

Examples Continued

Description: 8 of 20 bearings are rotated beyond performance limits. The anchor bolts at these locations are bent and the nuts are loose. Surface rust is present on all bearings.

Defect: Alignment and connection
Severity: Major
Extent: 8 bearings (widespread)

Defect: Corrosion
Severity: Minor
Extent: All bearings
Results: The bearings can best be characterized as having "major defects" affecting performance. Condition necessitates more frequent monitoring or corrective actions. Report 3.

Figure 145. Misaligned rocker bearing. (Source: Alaska DOT)

Description: 20 of 20 bearings have surface rust with no section loss. Bearings are free to move and alignment is as expected for temperature conditions.

Defect: Corrosion
Severity: Minor
Extent: All bearings
Results: The bearings are best characterized as having "widespread minor defects." Report 6.

Figure 146. Surface rust on moveable bearing.

Substructure Overall Condition Rating

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(1)	EI	BC03	B.C.03	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

Code the substructure component condition rating using one of the codes in Table 20.

Code N when only C and/or V is reported for Item B.SP.01 (Span Configuration Designation).

Commentary

This item addresses the condition of piers, abutments, piles, footings, and other substructure members.

Inspection report comments required when the condition code is 5 or less.

For bridges that have substructures not visible for inspection, use appropriate visual condition indicators from the superstructure or surrounding foundation materials to determine the applicable code. Visual assessments may be supplemented with non-destructive or destructive testing results.

Consider the condition of integral abutment wingwalls to the first construction or expansion joint when determining the condition rating code for this item.

Do not consider the condition of protective coatings, fenders and other substructure protection systems when determining the condition rating code for this item, except to the extent that these items indicate distress of the substructure, or adversely affect its condition.

Do not consider the presence of drift, debris, and soil accumulation when determining the condition rating code for this item, except to the extent that these items are causing distress in the substructure.

The substructure includes:

- backwalls and the members below the bearings for bridges with non-integral superstructure and substructure;
- members below the girders/beams for integral superstructures;
- thrust blocks and other members below the spring line for arch bridges;
- legs of concrete rigid frame bridges;
- abutments and footings/foundations below the leg bearings for concrete and steel rigid K-Frame or Delta-Frame bridges; and
- foundation piles exposed by erosion or scour.

When observed conditions are not consistent with the scour design or the assumptions used in the scour appraisal, scour is considered in the coding of this item. In this case, observed conditions also indicate a need to reevaluate Item B.AP.03 (Scour Vulnerability). Observed scour that is less than the tolerable limit determined in the scour appraisal does not affect this item.

Substructure Overall Condition Rating continued...

Examples

Four span prestressed concrete bridge with reinforced concrete abutments and piers. No defects at the abutments or at Pier 1. The following defects are noted at the other piers:

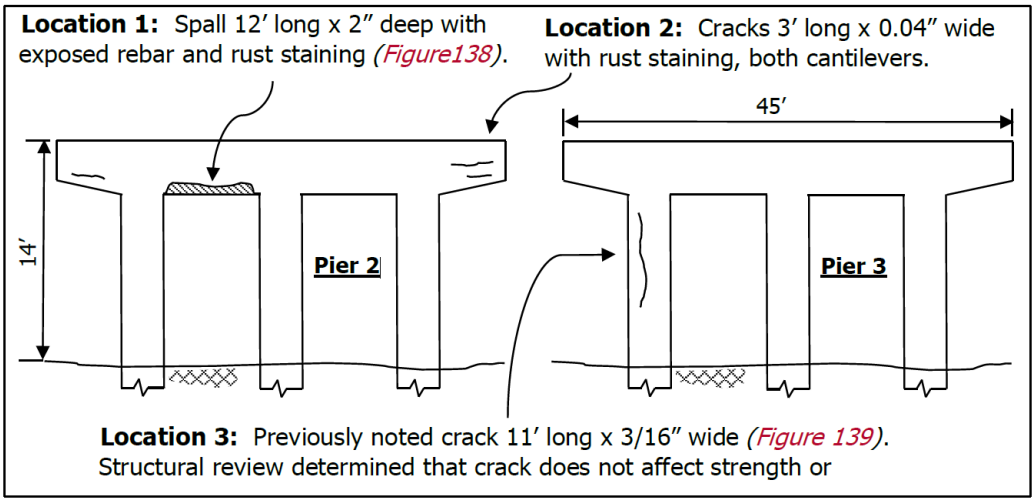


Figure 137. Elevation view of two concrete column piers showing substructure defect locations.

Figure 138. Spall in Pier 2 cap beam. Location 1.

Figure 139. Crack in Pier 3 column. Location 3.

Summary of Findings

Location	Defect(s)	Severity	Extent
1	Spall with exposed rebar; rust staining	Moderate	12′ of one cap beam (isolated)
2	Cracking with rust staining	Moderate	6′ of one cap beam (isolated)
3	Cracking	Moderate	11′ crack in one column (isolated)

Results: There are several areas of isolated moderate defects that can best be characterized together as "some moderate defects." Strength and performance of the component are not affected.
Report 5.

Underwater Inspection Condition

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(1)	EI	BC15	B.C.15	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification	Commentary
Code the condition rating of the underwater members of the substructure or culvert based on the underwater inspection using one of the codes in Table 20. Code N when there is no Underwater Inspection report. This field will not be reported to FHWA when there is no Underwater Inspection report. w/ FHWA errata#1 03/24	This item represents the condition of underwater members identified to be inspected in the underwater inspection procedures, and incorporated into the substructure or culvert condition rating. Inspection report comments required when the condition code is 5 or less. If this item has previously been reported because an underwater inspection is generally required,it should continue to be reported even for instances of unusually low flow where all portions of the substructure can be inspected by wading and probing, and an underwater inspection isnot required. This applies only if the low flow condition is truly unusual and is not likely to reoccur during the next inspection interval. The requirement to report this item may change in the rare circumstance where long- term environmental conditions change for inspection access to underwater portions of the substructure or culvert. w/ FHWA errata#1 03/24

Culvert Overall Condition Rating

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(1)	EI	BC04	B.C.04	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
Code the culvert component condition rating using one of the codes in Table 20. Code N when C or V is not reported for Item B.SP.01 (Span Configuration Designation). Water Detention Vaults shall be coded as culverts, When inspecting culverts, document the depth of the fill on both ends of the culvert. For cases where there is a significant amount of fill compared to the span length of the culvert, or total length of culverts where there are multiple barrels, estimate and document the depth of fill. Culverts with structure lengths greater than 20 feet are NBI reportable regardless of fill depth. Culverts with structure lengths less than or equal to 20 feet are inventoried and coded in accordance with short span inspection requirements.	This item addresses the condition of culverts. The condition assessment includes footings, piles, and other foundation members when present. Inspection report comments required when the condition code is 5 or less.

Culvert Overall Condition Rating continued...

Commentary Continued

For culverts that have components not visible for inspection, use appropriate visual condition indicators from the roadway or surrounding foundation materials to determine the applicable code. Visual assessments may be supplemented with non-destructive or destructive testing results.

Consider the condition of integral wingwalls and headwalls to the first construction or expansion joint when determining the condition rating code for this item.

Do not consider the condition of protective coatings and other culvert protection systems when determining the condition rating code for this item, except to the extent that these items indicate distress of the culvert, or adversely affect its condition.

Do not consider the presence of drift, debris, and soil accumulation when determining the condition rating code for this item, except to the extent that these items are causing distress in the culvert.

The culvert includes:

- buried pipe or box;
- footings below the walls of a 3-sided box; and
- foundation piles exposed by erosion or scour.

When observed conditions are not consistent with the scour design or the assumptions used in the scour appraisal, scour is considered in the coding of this item. In this case, observed conditions also indicate a need to reevaluate Item B.AP.03 (Scour Vulnerability). Observed scour that is less than the tolerable limit determined in the scour appraisal does not affect this item.

Examples

Three-span corrugated metal pipe culvert. Each pipe is 8' in diameter and 100' long. The pipes are spaced 4' apart. The following defects are noted.

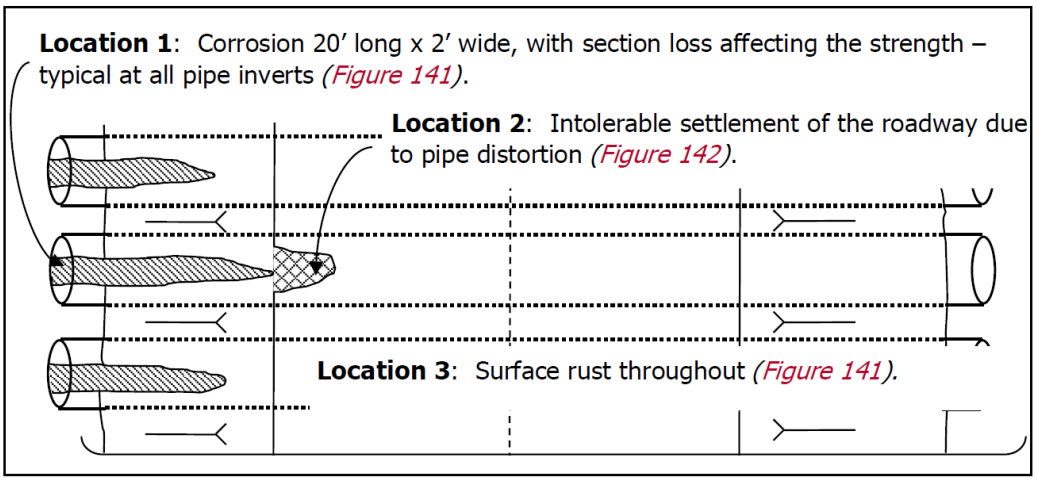


Figure 140. Plan view of pipe culvert showing defects.

Culvert Overall Condition Rating continued...

Examples Continued

Figure 141. Corroded pipe culvert invert. Location 1 and 3. (Source: Alaska DOT)

Figure 142. Roadway settlement over pipe culvert. Location 2. (Source: Alaska DOT)

Summary of Findings

Location	Defect(s)	Severity	Extent
1	Corrosion with section loss	Major	20% of total barrel length (some)
2	Distortion	Major	Isolated
3	Corrosion	Minor	Throughout (widespread)

Results: The culvert has major defects that, together, seriously affect strength and performance. The condition necessitates more frequent monitoring or corrective actions. **Report 3.**

Scour Condition Rating

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(1)	EI	BC11	B.C.11	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification	Commentary
Code the scour condition that represents the observed or measured scour using one of the following codes in Table BC11. The entire code description must be satisfied for the code to apply.	Refer to Item B.AP.03 (Scour Vulnerability) to verify if the bridge has been determined to be stable or unstable for appraised scour conditions. Consider design scour depth and critical scour depth, commonly found in hydraulic designs, scour evaluations, and POAs, when determining the scour condition ratings. A note in the Bridge Inspection report is required when the code is less than 7. When observed conditions are not consistent with the scour design or the assumptions used in the scour appraisal, this indicates a need to reevaluate Item B.AP.03 (Scour Vulnerability). Consider the condition of scour countermeasures that are placed for pier/abutment scour protection. General guideline is that countermeasures placed under the bridge within the limits of the bridge rail envelope are placed for scour protection. Contact the BPO scour engineer for further direction. Large Woody Material (LWM) placed below the bridge is not for scour protection. It's primary purpose is for habitat and channel complexity but has a secondary purpose of controlling flow, preventing channel/thalweg migration, and promoting a natural meandering channel.

Scour Condition Rating continued...

Examples

Description: Three span scour critical bridge founded on spread footings not on bedrock. The scour elevation for three spread footings at Pier 2 is at the bottom of the footings with one footing having one foot of undermining at one corner. Agency plans to monitor more frequently to keep the bridge open until repairs are completed.

Severity: Major
Extent: 3 of 6 pier footings
Results: The scour condition is best characterized as "major scour" that necessitates more frequent monitoring. Bridge is seriously affected. Report 3.

Figure 153. Exposed column footing in stream.

Description: Scour critical bridge. Critical scour limit was established in the Plan of Action. Inspectors measured the following streambed cross-section (Figure 154).

Severity: Minor (scour at Bent 3, does not exceed tolerable limit)
Extent: One of five substructure units (Isolated).
Results: The scour condition is best characterized as "isolated minor scour." Report 7.

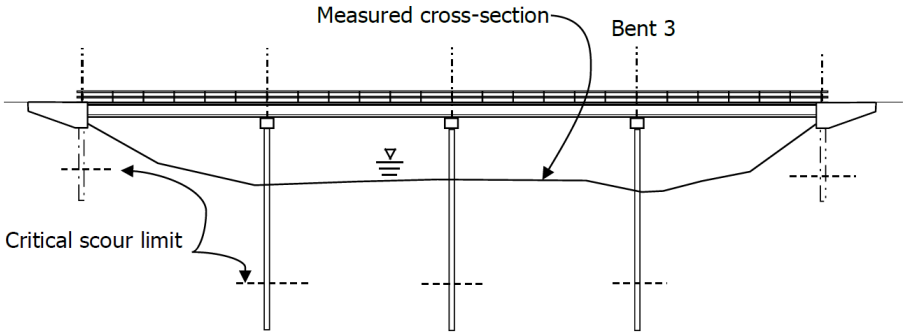


Figure 154. Elevation view showing scour elevations and stream cross-section for a bridge.

Scour Condition Rating continued...

Examples Continued

Description: Scour critical bridge. Critical scour limit was established in the Plan of Action. Inspectors measured the following streambed cross-section (Figure 155), which indicates a scour depth at one bent that is below the critical scour elevation.

Severity: Moderate
Extent: 2 of 5 substructure units (some)
Severity: Major
Extent: 1 of 5 substructure units (isolated)
Results: The scour condition is best characterized as “major scour”. The bridge is closed until corrective actions are completed. Report 1.

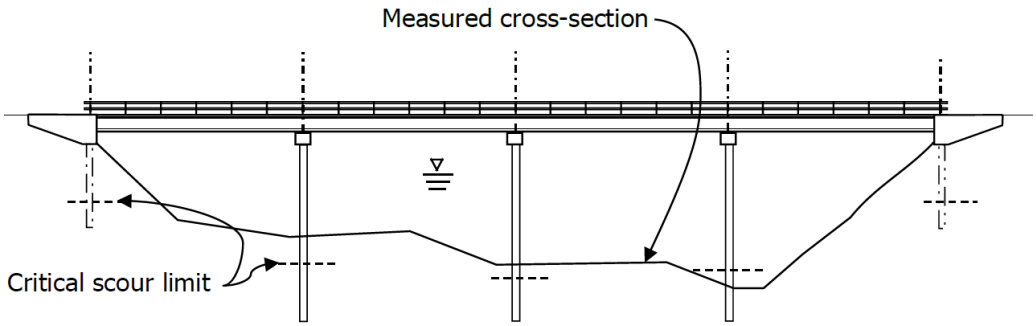


Figure 155. View showing critical scour limits and stream cross-section for a bridge.

Description: Bridge was appraised for scour vulnerability and not considered scour critical. No scour calculations and no structural stability analysis were performed. Piles are end bearing on rock. Inspectors measured the following streambed cross-section, which indicates a scour depth at two piers that is not consistent with the scour assessment assumptions.

Severity: Moderate
Extent: 1 of 5 substructure units (isolated)
Severity: Major
Extent: 1 of 5 substructure units (isolated)
Results: The scour condition is best characterized as “isolated major scour”. The defects warrant a structural and/or hydraulic review to determine the effect on strength and/or stability of the bridge. Report 4.

Since observed conditions are not consistent with the scour appraisal assumptions, then scour is considered in the coding of B.C.03 (Substructure Condition Rating). In this case, observed conditions also indicate a need to reevaluate Item B.AP.03 (Scour Vulnerability).

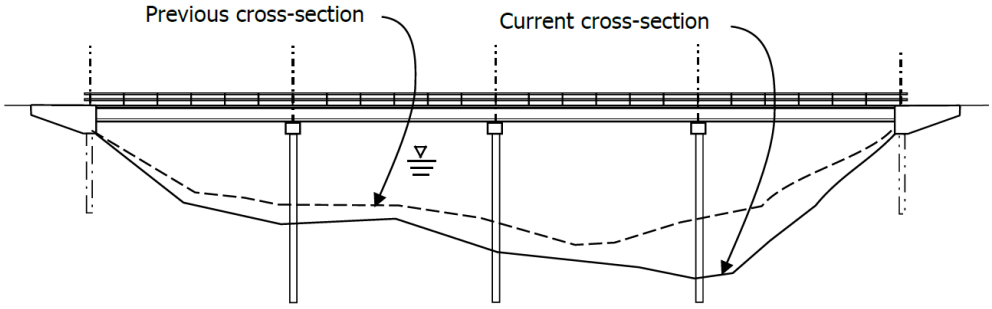


Figure 156. View showing current cross-section and previous cross-section for a bridge over water.

Table BC11 Scour Condition Rating Code

WSBIS Code	Description
N	Bridge does not have a waterway or relief for waterway feature type.
8	No scour or insignificant scour.
7	Some minor scour.
6	Widespread minor or isolated moderate scour.
5	Moderate scour; strength and stability of the bridge are not affected.
4	Widespread moderate or isolated major scour; strength and/or stability of the bridge is affected.
3	Major scour; strength and/or stability of the bridge is seriously affected. Condition typically necessitates more frequent monitoring, load restrictions, and/or corrective actions.
2	Major scour; strength and/or stability of the bridge is severely compromised. Condition typically necessitates frequent monitoring, significant load restrictions, and/or corrective actions to keep the bridge open.
1	Bridge is closed to traffic due to scour condition. Channel rehabilitation may return the bridge to service.
0	Bridge is closed due to scour condition, and is beyond corrective action. Bridge replacement is needed to restore service.

Channel Condition Rating

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(1)	EI	BC09	B.C.09	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification	Commentary
Code the channel condition using one of the following codes in Table BC09. The entire code description must be satisfied for the code to apply.	This item is used to provide a condition rating for the channel at the bridge. Consider the channel upstream and downstream only insofar as it threatens the bridge and approach roadway. Inspection report comments required when the condition code is **7** or less. The condition of channel protection devices is addressed under a separate item. Refer to Item B.C.10 (Channel Protection Condition Rating). For concrete lined channels, channel defects typically do not apply, except for Aggradation and Debris. The condition of the channel lining would be addressed by Item B.C.10 (Channel Protection Condition Rating).

Channel Condition Rating continued...

Examples

Single span bridge. Channel is aggrading and requires periodic excavation to maintain a tolerable hydraulic opening. The thalweg has migrated such that flow is directed at one abutment (Figure 150) and threatens the approach roadway. However, a structural and hydraulic review has determined that the stability of the bridge is not impacted.

Defects: Aggradation and migration
Severity: Moderate
Extent: Widespread
Results: The channel can best be characterized as having "widespread moderate defects." Report 4.

Figure 150. Bridge elevation view of channel condition. (Source: Alaska DOT)

Figure 151. Looking downstream from bridge at excavated material. (Source: Alaska DOT)

Table BC09 Channel Condition Rating Code

WSBIS Code	Description
N	Not Applicable - Bridge does not have a waterway or relief for waterway feature type.
8	Very good - No defects or inherent defects only.
7	Good - Some minor defects.
6	Satisfactory - Widespread minor or isolated moderate defects.
5	Fair - Moderate defects; bridge and approach roadway are not threatened.
4	Poor - Widespread moderate or isolated major defects; bridge and/or approach roadway is threatened.

Table BC09 Channel Condition Rating Code

WSBIS Code	Description
3	Serious - Major defects; bridge or approach roadway is seriously threatened. Condition typically necessitates more frequent monitoring, load restrictions, and/or corrective actions.
2	Critical - Major defects. Bridge or approach roadway is severely threatened. Condition typically necessitates frequent monitoring, significant load restrictions, and/or corrective actions in order to keep the bridge open.
1	Imminent failure - Bridge is closed to traffic due to channel condition. Channel rehabilitation may return the bridge to service.
0	Failed - Bridge is closed due to channel condition, and is beyond corrective action. Bridge location or design can no longer accommodate the channel, and bridge replacement is needed to restore service.

Channel Protection Condition Rating

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(1)	EI	BC10	B.C.10	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification	Commentary
Code the condition of the channel protection device(s) using one of the following codes in Table BC10. The entire code description must be satisfied for the code to apply.	This item is used to provide a condition rating for channel protection devices. Inspection report comments required when the condition code is **7** or less. Evaluate the condition and effectiveness of channel protection devices installed on banks or in the stream to mitigate channel issues that may impact the bridge. When reporting this item, consider erosion and scour, damage (unraveling, displacement, separation, and sagging), and material defects (scaling, abrasion, spalling, corrosion, cracking, splitting, and decay). Countermeasures placed specifically for scour protection of the piers or abutments are not considered in this condition rating. General guideline is that countermeasures placed under the bridge within the limits of the bridge rail envelope are placed for scour protection. Contact the BPO scour engineer for further direction. Large Woody Material (LWM) placed below the bridge is not for scour protection. It's primary purpose is for habitat and channel complexity but has a secondary purpose of controlling flow, preventing channel/thalweg migration, and promoting a natural meandering channel.

Channel Protection Condition Rating continued...

Commentary Continued

Channel protection devices are considered countermeasures that control, inhibit, delay, or minimize stream instability and scour problems, including river training and armoring countermeasures.

River training countermeasures may include: spurs, bendway weirs, guide banks, drop structures, and check dams. Additional river training countermeasures can be found in HEC-23 and elsewhere.

Armoring countermeasures may include: rock riprap, grouted riprap, concrete slope paving, articulating concrete blocks, gabion mattresses, and grout-filled mats. Additional armoring countermeasures can be found in HEC-23 and elsewhere.

For bridges that have countermeasures not visible for inspection, use appropriate visual condition indicators to determine the applicable code. These may include measurements taken at the bridge face(s) during every inspection to help determine degree of degradation, aggradation, and/or channel migration.

For this item, a minor defect does not limit the effectiveness of the channel protection, while a moderate defect may limit its effectiveness. A major defect indicates that the channel protection is missing or is no longer effective as determined by a hydraulic review.

Example

Description: Some stones are missing and revetment has limited effectiveness. Streambed is scouring and undermining the remaining riprap and culvert.

Defects: Scour and damage
Severity: Moderate
Extent: Widespread
Results: The channel can best be characterized as having “widespread moderate defects.” Performance of the channel protection is affected. Report 4.

Figure 152. Scour and missing riprap at concrete box culvert outlet.

Table BC10 Channel Protection Condition Rating Code

WSBIS Code	Description
N	Not Applicable - Bridge does not have a waterway/relief for waterway feature type OR channel protection devices do not exist AND have never existed at the bridge.
8	Very good - Isolated or some inherent defects.
7	Good - Some minor defects.

Table BC10 Channel Protection Condition Rating Code

WSBIS Code	Description
6	Satisfactory - Widespread minor or isolated moderate defects.
5	Fair - Some moderate defects; performance of the channel protection is not affected.
4	Poor - Widespread moderate or isolated major defects; performance of channel protection is affected.
3	Serious - Major defects; performance of channel protection is seriously affected. Condition typically necessitates more frequent monitoring or corrective actions.
2	Critical - Major defects; channel protection is severely compromised. Condition typically necessitates more frequent monitoring or corrective actions.
1	Imminent failure - Channel protection has failed, but corrective action could restore it to working condition.
0	Failed - Channel protection is beyond repair and must be replaced.

Scour Vulnerability

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(1)	I	BAP03	B.AP.03	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification	Commentary
Code the scour vulnerability of the bridge using one of the following codes in Table BAP03: Code N if the bridge does not cross over a waterway as indicated in Item B.F.01 (Feature Type).	The intent of this item is to record the status and vulnerability determination from scour appraisals required by the NBIS. The codes for this item are based on the appraised scour vulnerability as described in HEC-18, Evaluating Scour at Bridges; HEC-23, Bridge Scour and Stream Instability Countermeasures; and HEC-20, Stream Stability at Highway Structures. Scour appraisals are typically performed by a multidisciplinary team of hydraulic, geotechnical, and structural engineers (Scour Appraisal Team). FHWA Hydraulic Technical Advisories, and manuals, and software can be found at: https://www.fhwa.dot.gov/engineering/hydraulics/ Refer to item B.C.11 (Scour Condition Rating) in the Component Condition Ratings subsection to address field observed scour conditions and the effect on bridge components.

Scour Vulnerability continued...

Commentary Continued

Use code B when designed, installed, and functioning countermeasures are used to address potential scour and to maintain bridge stability for new or existing bridges, or bridges with unknown foundations.

Use code B when the Scour Appraisal Team determines that the in-place, non-designed countermeasures are fully functioning and are appropriate to mitigate the risk of scour.

Use code C for bridges that could become unstable for the potential scour, and temporary countermeasures are installed that were not designed.

Table BAP03 Scour Vulnerability Code

WSBIS Code	SNBI Code	Condition Description
N	-	Not applicable, no waterway or relief for waterway feature type.
0	0	Scour appraisal has not been completed.
A	A	Scour appraisal completed. Bridge determined to be stable for scour.
Z	A	Scour appraisal completed. Bridges over a waterway with the substructure elements set well back from the waterway such that the 500-year flood will not inundate them, and channel migration potential will not reach them.
B	B	Scour appraisal completed. Bridge determined to be stable for scour, dependent upon designed and functioning countermeasures.
C	C	Scour appraisal completed. Bridge could become unstable for scour. Temporary (not designed) countermeasure installed to mitigate scour. Bridge is scour critical.
D	D	Scour appraisal completed. Bridge is, or may become, unstable for scour. Bridge is scour critical.
E	E	Scour appraisal has not been completed. Temporary (not designed) countermeasure installed to mitigate scour.
U	U	Scour appraisal has not been completed due to unknown foundations.
*	-	Delete

Scour Plan of Action

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(1)	I	BAP04	B.AP.04	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification	Commentary
Code whether the bridge has a scour plan of action (POA) implemented using one of the following codes in Table BAP04. This item not reported to FHWA if the bridge does not cross over a waterway as indicated in Item B.F.01 (Feature Type).	The NBIS requires a scour POA for bridges over water that are determined to be scour critical or have unknown foundations. More information on scour POA can be found at the FHWA Hydraulics Engineering website: www.fhwa.dot.gov/engineering/hydraulics/bridgehyd/poa.cfm. Use code 0 if a bridge was considered scour critical, but now has designed, installed, and fully functional scour countermeasures. Code X when structure does not pass over a waterway, and a scour plan of action is not applicable. A scour POA is a document that addresses, based on risk, a schedule for repair or installation of scour countermeasures, and/or the monitoring, inspection, closing, and opening a bridge to traffic during and after flood events to protect the traveling public. A scour POA is implemented when those responsible for actions under the plan are aware of their responsibilities, and are exercising them when called for during or after a triggering event. A bridge should have a scour POA when it could become unstable for scour, and temporary countermeasures are installed that were not designed.

Table BAP04 Scour Plan of Action Code

WSBIS Code	SNBI Code	Condition Description
0	0	Waterway present, but a scour POA is not required.
N	N	A scour POA is required, but not implemented.
Y	Y	A scour POA is required and implemented.
X	-	Not Applicable (no waterway or relief for waterway feature type)

Overtopping Likelihood

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(1)	EI	BAP02	B.AP.02	-

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

Specification	Commentary
Code the likelihood of the waterway overtopping the bridge using one of the following codes in Table BAP02. When this field is coded N, it is not reported to FHWA.	An overtopping occurrence is when the waterway overtops the riding surface carried on the bridge. Bridge overtopping likelihood, since the year built (B.W.01), is typically determined from historical bridge inspection or maintenance records, hydraulic studies, local residents/landowners, and/or site indicators including highwater marks on the bridge or its surroundings, debris remains on bridge upper members, etc. For newer bridges with limited historical inspection or maintenance information, hydraulic design information can be used to establish an overtopping likelihood. This item does not apply to the likelihood of the waterway overtopping approach roadways.

Table BAP02 Overtopping Likelihood Code

WSBIS Code	SNBI Code	Condition Description
0	0	Never
1	1	Remote – once every 100 years or less frequently
2	2	Very low – once every 51 to 99 years
3	3	Low – once every 26 to 50 years
4	4	Moderate – once every 11 to 25 years
5	5	High – once every 3 to 10 years
6	6	Very High – once every 2 years or more frequently
N	-	Not Applicable (no waterway or relief for waterway feature type)

Approach Roadway Alignment

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(1)	EI	BAP01	B.AP.01	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification	Commentary
Code the ~~operating~~ speed reduction at the bridge using one of the following codes. **Code** **Description** G Good F Fair P Poor w/errata#1 03/24	This item identifies bridges that do not function adequately due to the horizontal or vertical alignment of the bridge and approach roadway. It is not intended that the alignment be compared to current standards, but rather to the existing roadway alignment. The basic criterion is how the alignment of the bridge and approach roadway relates to the general highway alignment for the section of highway the bridge carries.

Examples

Do not consider speed reductions due to the bridge width or intersecting highways when reporting this item.

The posted speed at the bridge is compared to the posted speed of the general highway segment. Operating speed at the bridge is used in place of posted speed at the bridge when a posted speed is not present at the bridge. Operating speed of the general highway segment is used in place of posted speed of the general highway segment when a posted speed is not present on the general highway segment.

Use code G when the ~~operating~~ speed is no different at the bridge than the rest of the highway segment that crosses the bridge.

Use code F when the ~~operating~~ speed is noticeably different at the bridge than the rest of the highway segment that crosses the bridge.

Use code P when the ~~operating~~ speed is substantially different at the bridge than the rest of the highway segment that crosses the bridge.

w/errata#1 03/24

Fatigue Details

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(1)	I	BIR02	B.IR.02	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification	Commentary
Code whether the bridge has AASHTO fatigue category E or E' details using one of the following codes in Table BIR02. When this field is coded X, it is not reported to FHWA.	This item provides data to identify bridges that have details most prone to fatigue. Refer to the BIRM or AASHTO LRFD Bridge Design Specifications for fatigue categories.

Table BIR02 Fatigue Details Code

WSBIS Code	SNBI Code	Description
N	N	Primary steel elements with no E/E' details
Y	Y	Primary steel elements with E/E' details
X	-	No primary steel elements, not applicable

Seismic Vulnerability

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(1)	I	BAP05	B.AP.05	-

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

Specification

Code the seismic vulnerability of the bridge using one of the following codes in Table BAP05.

Commentary

This item provides available information resulting from seismic evaluation and retrofit programs that an agency may have performed of their own volition. The codes allow for a broad interpretation based on the reporting agency's methods and evaluation criteria.

In lieu of agency-developed evaluation criteria, refer to the FHWA Seismic Retrofitting Manual for Highway Structures: Part 1 – Bridges, Publication No. FHWA-HRT-06-032, January 2006, for guidance on assessing the vulnerability of highway structures to the effects of earthquakes, and implementing retrofit measures to improve performance.

Use code A when bridge is designed to meet applicable performance criteria established by the design specifications in effect at the time of construction and bridge would be expected to meet current agency established performance criteria. Structures designed in accordance with AASHTO Guide Specifications for LRFD Bridge Design Second Edition 2011 or later should be coded A.

Use code C when only certain portions of the bridge have been retrofitted but not all portions of the bridge have been retrofitted to meet agency performance criteria.

Table BAP05 Seismic Vulnerability Code

WSBIS/SNBI Code	Description
0	Seismic evaluation not completed.
N	Bridge does not require seismic evaluation due to low anticipated ground motion or agency prioritization.
A	Seismic evaluation completed. Bridge determined to meet the agency's performance criteria established for the evaluation without need for retrofit.
B	Seismic evaluation completed. Satisfactory performance is dependent upon a designed, installed, and functioning retrofit. Retrofit is in place.
C	Seismic evaluation completed. Satisfactory performance is dependent upon a designed, installed, and functioning retrofit. Partial retrofit is in place.
D	Seismic evaluation completed. Satisfactory performance is dependent upon a designed, installed, and functioning retrofit. Retrofit is not in place.

FHWA Risk Category

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Calculated	-	-	WAP10	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification

The FHWA Risk Category is not used until FHWA Metrics for the Oversight of the National Bridge Inspection Program (the 23 metrics) are finalized in the near future.

Miscellaneous Fields

Asphalt Depth (inches) *(Old Item 2610)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(5,2)	-	-	WIE30	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification

Code the average depth of asphalt in inches on the deck as observed from field measurements, or as determined from comparing the design curb height against the measured curb height from the top of asphalt. In cases where there is ballast, such as on timber decks, enter the full thickness of ballast and asphalt.

Code 0 when:

- There is no asphalt on the deck.
- When the structure does not have a deck, including when asphalt pavement is placed on fill over a culvert.

Design Curb Height (inches) *(Old Item 2611)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(5,2)	-	-	WIE31	-	-

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

Specification

Code the curb height shown on current bridge plans in inches.

Code 0 when there is no curb.

Bridge Vehicle Rail Height (inches) *(Old Item 2612)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(5,2)	-	-	WIE32	-	-

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

Specification

Code the vehicle rail height as measured in the field, from the top of the rail system to the bridge deck.

Number of Utilities *(Old Item 2675)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	-	WIE33	-	-

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

Specification

This field indicates the number of franchise utilities attached to the bridge. Utilities include, but are not limited to, water pipes, sewer lines, telephone lines, power lines, and gas lines. Conduit for electricity used on the bridge is not considered a utility. A conduit cluster (e.g., a telephone cluster) is considered one utility. This field is not used to evaluate the condition of utilities on the bridge, only the number of utilities present.

Code 9 if more than nine utilities are attached to the bridge.

Code 0 if there are no utilities.

Subject to NBIS Flag *(Old Item 2614)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	-	WIE34	-	-

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

Specification

This field identifies whether or not the bridge is or will be subject to the National Bridge Inspection Standards (NBIS). Newly inventoried bridges should be coded based on final configuration and expected use.

Y	Bridge is subject to the NBIS
N	Bridge is not subject to the NBIS.

Commentary

This field is based on 23 CFR 650.305, found at https://www.fhwa.dot.gov/legsregs/directives/fapg/cfr0650c.htm, and the Questions and Answers paragraphs Q303-1 through Q303-6, found at https://www.fhwa.dot.gov/bridge/nbis/index.cfm. Structures subject to the NBIS include all publicly owned highway structures carrying public roads over a depression or obstruction and having an opening measured along the center of the roadway of more than 20 feet between one of the following:

- Undercopings of abutments
- Spring lines of arches
- Extreme ends of openings for multiple box culverts
- Extreme ends of openings for multiple pipe culverts where the clear distance between pipes is less than half of the smaller contiguous pipe

Structures not subject to the NBIS include:

- Sign support structures
- High mast lighting
- Retaining walls
- Noise barrier structures
- Overhead traffic signs
- Tunnels
- Structures carrying only pedestrians
- Structures carrying only railroad

Ownership and access are also important factors. To be subject to the NBIS, a structure must be both publicly owned and publicly accessible. Structures not subject to the NBIS include:

- Privately owned structures accessible to the public (e.g., road association structures)
- Publicly owned bridges that are not accessible to the public (e.g., structures behind gates used to access dams for agency employees and contractors)

Inspection Quality Assurance Date

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	YYYYMMDD	EI	BIE09	B.IE.09	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
Code the date that the QA review was completed. This field is not reported to the FHWA when a QA review was not performed.	The intent of this item is to identify inspections that have had independent QA reviews to measure or verify the overall quality of the inspection program. Agency QA procedures often vary in the definition of a review period and number of inspections reviewed. Bridge inspections might be randomly selected for agency QA reviews or selected based on representative bridge type, region, district, or other agency defined bridge populations.

Inspection Flags

Soundings Flag *(Old Item 2693)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	-	WIE20	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification	Commentary
This code indicates whether or not soundings of the streambed (streambed cross sections at the bridge) are required. **Code** — **Description** Y — Soundings need to be taken * — Null field, soundings are not required	This field is coded as part of the inspection planning process, and instructs the inspector to take soundings. When soundings are taken, the flag should be changed to null. Note: Pedestrian bridges over waterways are managed for soundings and may be coded Y as appropriate.

Clearance Flag *(Old Item 2694)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	-	WIE21	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
This field indicates that an inspection team should collect clearance data. **Code** — **Description** C — Measure horizontal/lateral and vertical clearances * — Null field, measurements are not required, or were just collected	This field is coded as part of the inspection planning process, and instructs the inspector to collect and record clearance measurements in accordance with WSDOT policy (see Chapter 3) and as indicated in the 2694 inspection note. Note that all vertical clearances in, on and under the structure need to be collected unless otherwise noted. After measurements are collected and documents given to a Geometric Engineer for processing, change this code from C to * (null).

Revise Ratings Flag *(Old Item 2688)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	-	WIE22	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
This code indicates whether or not the structure should be reviewed for a revised rating based on field conditions. A note shall be added by the inspector identifying the reason/condition that prompts reevaluation of the load rating. **Code** — **Description** Y — Yes, review rating * — Null field, rating review is not required	See Section 5-2.

Photos Flag *(Old Item 2691)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	-	WIE23	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
This code indicates whether or not the structure needs photos taken. **Code** — **Description** D — Deck photo needed E — Elevation or tunnel portal photo needed P — Deck and Elevation photos needed * — Null field, photos are not required	

Roadside Hardware Flag

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	-	WIE25	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification	Commentary
Code the inspection type or scour monitoring performed using one of the following codes. **Code** — **Description** Y — Yes * — Delete	

QA Flag *(Old Item 2695)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	-	WIE24	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
This code indicates whether or not a quality assurance report was created for this structure. **Code** — **Description** Y — Quality assurance report on file * — Null field	

Work Events

Year Built

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(4,0)	N(4,0)	I	BW01	B.W.01	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
Code the year in which original construction was completed and the bridge was able to carry traffic. For phased construction, report the year in which the first phase was completed and the bridge was able to carry traffic.	This date reflects the date when construction was completed, regardless of when the bridge was opened to traffic. Rehabilitation and/or widening of a bridge does not change the year built. If any portion of the bridge remains, the year built does not change. Provide a best estimate when the year built is unknown; do not assign a default value.

Year Rebuilt - SNTI

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(4,0)	N(4,0)	-	TA2	-	A.2

Applicable Structure Types

- **Type 3 - Tunnels carrying roadways within**

Specification

Code the year of the last major rehabilitation of the structure. Code all four digits of the year in which reconstruction was completed. If there has been no reconstruction, code 0.

For a structure to be defined as rebuilt, the type of work performed, whether or not it meets current minimum standards, must have been eligible for funding under any of the federal aid funding categories. The eligibility criteria would apply to the work performed regardless of whether all state or local funds or federal aid funds were used.

Some types of work to be considered as rebuilt are widenings and retrofits designed to increase the original structural capacity.

Some types of eligible work **not** to be considered as rebuilt are:

Safety feature replacement or upgrading (for example, bridge rail, approach guardrail or impact attenuators).

Painting of structural steel.

Overlay of bridge deck.

Utility work.

Emergency repair to restore structural integrity to the previous status following an accident.

Retrofitting to correct a deficiency which does not substantially alter physical geometry or increase the load-carrying capacity.

Work performed to keep a structure operational while plans for complete rehabilitation or replacement are under preparation (for example, adding a substructure element or extra girder).

Year Work Performed

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(4,0)	N(4,0)	I	BW02	B.W.02	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
TO BE IMPLEMENTED IN SUMMER OF 2025	TO BE IMPLEMENTED IN SUMMER OF 2025

Work Performed

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(120)	AN(120)	I	BW03	B.W.03	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
TO BE IMPLEMENTED IN SUMMER OF 2025	TO BE IMPLEMENTED IN SUMMER OF 2025

Optional Condition Ratings

Optional Drain Condition *(LP View Only - Old Item 7664)*					
Format	**SNBI Format**	**Frequency**	**WSBIS Item ID**	**SNBI Item ID**	**SNTI Item ID**
Pulldown	-	-	LP01	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification

This is the condition rating of the drains in the bridge deck.A rating of 5 should be used to indicate the drains are completely plugged with dirt and debris. Use Table LP01 Condition Rating for Drains.

Table LP01 Optional Drain Condition Rating Code

WSBIS Code	Condition Description
9	Not Applicable
8	Very Good Condition. No problems noted.
7	Good Condition. Some minor problems.
6	Satisfactory Condition. Structural elements show some minor deterioration.
5	Fair Condition. All primary structural elements are sound but may have deficiencies such as minor section loss, deterioration, cracking, spalling, or scour.
4	Poor Condition. Advanced deficiencies such as section loss, deterioration, cracking, spalling, or scour.

Optional Retaining Wall Condition *(LP View Only - Old Item 7682)*					
Format	**SNBI Format**	**Frequency**	**WSBIS Item ID**	**SNBI Item ID**	**SNTI Item ID**
Pulldown	-	-	LP02	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification

This field contains the general condition rating of any retaining walls associated with the bridge. This evaluation should take into consideration whether movement, cracking, or settling has occurred.

Wingwalls and curtain walls should not be considered under this code as they are considered part of the abutment. Use Table LP02 Condition Rating for Retaining Walls.

Table LP02 Optional Retaining Wall Condition Rating Code

WSBIS Code	Condition Description
9	Not Applicable.
8	Very Good Condition. No problems noted.
7	Good Condition. Some minor problems.
6	Satisfactory Condition. Structural elements show some minor deterioration.
5	Fair Condition. All primary structural elements are sound but may have deficiencies such as minor section loss, deterioration, cracking, spalling, or scour.

Table LP02 Optional Retaining Wall Condition Rating Code

WSBIS Code	Condition Description
4	Poor Condition. Advanced deficiencies such as section loss, deterioration, cracking, spalling, or scour.
3	Serious Condition. Loss of section, deterioration, spalling, or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
2	Critical Condition. Advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete maybe present or scour may have removed substructure support. Unless closely monitored, it may be necessary to close the bridge until corrective action is taken.
1	Imminent Failure Condition. Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service.
0	Failed Condition. Out of service. Beyond corrective action.

Bridge (Tunnel) ID Tab

Structure ID

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(8)	AN(15)	I	BID01	B.ID.01	I.1

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
WSBIS/Bridgeworks data stewards assign Structure Identifier (SID) numbers to all structures that qualify for inclusion in the Washington State Bridge Inventory System (WSBIS). See Chapter 2 for more details. Do not change the SID once it has been assigned and recorded. There may be exceedingly rare circumstances (none so far in WSBIS history) that require a one-time change. In that event, report the previous SID under BID03. Except in cases where elevated ramps merge or split, report all spans from abutment to abutment as one bridge.	This field must be unique for every structure in the Washington State Bridge Inventory. When a new structure replaces an old structure, a new unique SID must be coded. The old SID cannot be recycled. When any portion of the existing bridge is retained for a rehabilitated or partially replaced bridge, it is preferable to retain the existing SID. The BPO and LP Data Stewards assign SID when the original structure inventory record is processed. When initially creating a new structure in BridgeWorks, a temporary structure ID is generated with an X as the first character. This temporary structure ID will be changed when the record is "released" into the database.

Commentary Continued

It is preferable that any bridge or bridges with a closed median, where the area between the two roadways on the bridge is bridged over and can support traffic, be reported as one bridge. Closed medians may have either mountable or non-mountable curbs or barriers.

It is preferable that separate superstructures with an open median (not meeting the closed median criteria above) sharing a common substructure unit or units be reported as two bridges.

It is preferable that separate bridge numbers be reported for each mainline bridge and the ramp that connects to the mainline bridge, when the ramp has at least one distinct abutment and is greater than 20 feet in length. It is also preferable that separate bridge numbers be reported for a bridge that divides into two or more separate bridges, or two or more bridges that merge into one single bridge. In both cases, the separating point between bridges should be the closest deck joint, or substructure unit to the separating point, or other logical and reasonable location as determined by the bridge owner.

Double deck bridges may be reported as one or two bridges. However, all related data items need to be compatible with the method selected.

Consult with the local FHWA division office contact for questions concerning assigning bridge numbers to unique or complex bridges.

Previous Structure ID

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(8)	AN(15)	I	BID03	B.ID.03	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification	Commentary
Code the bridge number previously associated with the bridge that has been replaced by the inventoried bridge, or when the inventoried bridge number has changed. Code 0 if no previous bridge number.	The purpose of this item is to retain a link to data for previous bridge numbers associated with this bridge in the NBI.

Structure Type

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	I	WID01	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

WSBIS currently maintains records for 4 structure types and each structure in WSBIS can only be one structure type. Public Roadways are Functionally Classified roadways as defined in BH01.

Type 1	Bridges and culverts carrying public roadways
Type 2	Pedestrian, railroad and other non-vehicular bridges over public roadways
Type 3	Tunnels carrying roadways within
Type 4	Structures that do not carry or cross over/under a public roadway

New functionality as of 2025 in WSBIS:

All the tabs and fields are dynamically set to display the releveant fields per structure type.

Equally, what's relevant to each structure is represented per Inspection report pdf.

Structure Type continued...

Commentary

Type 1 structures may or may not be reported to FHWA, but must always carry vehicular traffic, and almost always carry public roadways. There are occasions where Type 1 structures carry private or restricted roadways when these structures are connected to the public roadway system, and separated only by an "authorized use only" sign or a gate that is not permanently closed.

Type 2 structures are not reported to FHWA. These structures do not carry vehicular traffic, except for maintenance vehicles on bike paths and other non-vehicular routes not connected to the public roadway system. These structures must carry public highways under the structure.

Type 3 structures tunnels that carry vehicular traffic on public roadways within, and are reportable to FHWA. Railroad and pedestrian structures under public roadways that are structurally considered tunnels are coded as type 1 structures.

Type 4 structures do not cross over or under a public roadway and are not reported to FHWA, but are maintained in WSBIS at the structure owners convenience. WSDOT maintains these records for pedestrian or utility bridges on WSDOT right of way.

For more information on how Structure Types relate to Features see Items WF01 and BF02..

Structure Number *(Old Name Bridge Number)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(13)	-	I	WID02	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification / Commentary

This is a unique (to the owner agency) alphanumeric code assigned by the owner of the structure.

This field does not require all spaces to be filled; however, the field cannot be blank.

WSDOT owned structure numbers are formatted as follows:

» [route number] / [alphanumeric character string]

WSDOT structure numbers follow several rules:

1. The forward slash (/) is always in the 4th position, with leading blanks as needed. For example, structures on I-5 are coded with two leading blanks followed by a 5 and a forward slash. Structures on US 395 have no leading blanks.

2. In general, every structure must have a unique structure number. The exception is when structures are replaced the structure number usually doesn't change. In this case, the obsoleted structure will have the same structure number.

Structure Number continued...

Specification / Commentary Continued

3. The alphanumeric character string following the forward slash is numerically sequenced by increasing route milepoint, and is often followed by letter characters:

Characters providing route-related information:

E	east structure of a pair on a divided south-north route
W	west structure of a pair on a divided south-north route
N	north structure of a pair on a divided west-east route
S	south structure of a pair on a divided west-east route
E-N	ramp carrying from eastbound to northbound (vary as needed)
ECD	eastbound collector distributor (vary as needed)
A	structure not on mainline
F	structure on frontage road
ALT	structure on alternate route mainline
SP	structure on spur route

Characters providing structure design type information:

C	culvert
P	pedestrian bridge
DV	detention vault
LID	structure intended to reconnect severed residential areas

4. Short span structure numbers are followed by a decimal point and a two digit number, e.g. 5/300.25.

5. The second portion of WSDOT structure numbers range from 1 to 99 within the first county in which the route occurs, 100 to 199 in the second county, 200 to 299 in the third county, and so on.

Examples

Examples:

90/43S	Eastbound I-90 bridge at Mercer Slough in South Bellevue
5/26N-N	Ramp carrying northbound I-5 traffic to northbound 139th St.
5/313P	Pedestrian bridge over I-5 in Tumwater

Structure Sort Number

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(20)	-	I	WID03	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification / Commentary

This field is used for sorting structure numbers within the application and in various database queries. This field is maintained for tunnels and culverts.

The Structure Sort Number uses three digits for the route number and three digits for the structure number, with leading zeroes as necessary. Any following alpha characters are included. A total of 20 characters can be used.

When a decimal place is used in the Structure number, the character z is used in the structure sort number. This facilitates correct sorting.

Many local agency Structure Sort Numbers begin with a 99 and a space.

Examples

Examples:

Structure Number	Structure Sort Number
97/140W	097140W
97/285.6C	097285z6C
5/344S-E	005344S-E
241/2	241002
1135-2	99 1135-2

For state owned structures, this item is coded by the BPO Information Group and is visible in the BridgeWorks Inventory Management mode.

Structure Name

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(50)	AN(300)	I	BID02	B.ID.02	I.2

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
Code the commonly known name(s) for the bridge. For more than one name, report all names with the most common name first. Code multiple names separated by pipe (|) delimiters.	This is the name of the structure, either as determined by legislative action or as determined by the structure owner. If the structure name is more than one word, separate words with a blank space. If the name of the structure exceeds the 50 character limit, use abbreviations to shorten it.

Program Manager

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	I	WID06	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification / Commentary

This field identifies the individual responsible for bridge and tunnel inspection and reporting as described in the National Bridge Inspection Standards Title 23 CFR 650.307 and the National Tunnel Inspection Standards Title 23 CFR 650. 507. Both the NBI/NTI program manager and delegated program managers are listed in this field as appropriate.

In cases when the bridge is not subject to the NBIS or NTIS, this field identifies who is responsible for inspecting the structure and maintaining the structure records in accordance with WSDOT policies.

This field is set during record creation. After the record has been created this field can only be changed by the Super User Account.

Owner

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(4)	I	BCL01	B.CL.01	C.1

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Specification Continued
Code the agency that has ownership of the bridge using one of the following codes in Table BCL01. Use the hierarchy of State, Federal, county, city, railroad, and other private entity for multiple owners of a bridge. If the owner and maintenance responsibility are not the same agency they should have an agreement and it should be part of the bridge record.	Use codes FL01 through FLX for Federal Lands Management agencies identified at the following FHWA website: https://highways.dot.gov/federal-lands/transportation. Use code T for transit agency or authority for air, bus, light rail, and port regardless of whether the entity is considered State, local, or private. Use code P for private owners other than railroad or transit. Use code R for highway bridges owned by railroad entities that are not considered a transit agency or authority.

Table BCL01 Owner Code

WSBIS/SNBI Code	SNTI Code	Description
S01	001	State transportation department
S02	011	State park, forest, or reservation agency
S03	031	State toll authority
S22	001	State Ferries
S91	001	Canada
S92	001	Idaho
S93	001	Oregon
SX	021	Other State agency
L01	002	County highway agency
L03	004	City or municipal highway agency
L04	012	County park, forest, or reservation agency
L06	012	City park, forest, or reservation agency
L05	032	County toll authority
L07	032	City or other toll authority
LX1	025	Other county agency
LX2	025	Other city or local agencies
FX	060	Other Federal agency
FL01	062	Bureau of Indian Affairs (BIA)
FL02	068	Bureau of Land Management (BLM)
FL03	069	Bureau of Reclamation (USBR)
FL04	063	U.S. Fish and Wildlife Service (FWS)
FL05	066	National Park Service (NPS)
FL06	070	Corps of Engineers (Civil)
FL08	070	Corps of Engineers (Military)
FL07	064	U.S. Forest Service (USFS)
I	061	Indian Tribal Government
D01	072	Air Force
D02	074	Army
D03	073	Navy/Marines
T	027	Transit agency/authority
P	026	Private
R	027	Railroad
X	080	Other/Unknown

WSDOT Commentary:
The following codes are not used by any structures within Washington State and have been removed from the above table:

F01-Agriculture Research Service (ARS), F02-Department of Energy (DOE), F03-General Services Administration (GSA), F04-National Aeronautics and Space Administration (NASA), F05-Smithsonian – National Zoo, F06-Tennessee Valley Authority (TVA), F07-U.S. Department of Veterans Affairs, F08-Federal Emergency Management Agency (FEMA), F09-International Boundary and Water Commission-United States Section (USIBWC), D04-Pentagon, D05-National Security Agency (NSA), DX-Other Department of Defense, FL0X-Other Federal Lands Management Agency, D04-Pentagon, L02-Town or township highway agency, U-Unknown

Maintenance Responsibility

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(4)	I	BCL02	B.CL.02	C.2

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
Code the agency that has primary maintenance responsibility for the bridge using one of the codes listed in Table BCL01 Owner Code. If the owner and maintenance responsibility are not the same agency they should have an agreement and it should be part of the bridge record.	Use the hierarchy of State, Federal, county, city, railroad, and other private entity for determining primary responsibility for maintenance of a bridge. Use codes FL01 through FLX for Federal Lands Management agencies identified at the following FHWA website https://flh.fhwa.dot.gov/programs/fltp/. Use codes D01 through DX for bridges maintained by the Department of Defense. Use code T for transit agency or authority for air, bus, light rail, and port regardless of whether the entity is considered State, local, or private. Use code P for private entities other than railroad or transit. Use code R for highway bridges maintained by railroad entities that are not considered a transit agency or authority.

County

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(3,0)	-	I	BL02	B.L.02	I.4

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

Code the FIPS code for the county in which the bridge is located. See Table BL02.

This code identifies the county in which the structure is located. If this is a jointly owned structure, the county that is responsible for reporting the data to the inventory should be entered here. For WSDOT structures, the county at the beginning of bridge is coded.

A map of county limits is available at: https://www.wsdot.wa.gov/data/tools/geoportal/.

Use the FIPS codes in the current version of the Census of Population and Housing - Geographic Identification Code Scheme to determine the appropriate code.

County and county equivalent entity codes can be found through a link at the following web site: https://www.fhwa.dot.gov/bridge/nbi.cfm

For border bridges, the Neighboring State reports this item as part of their abbreviated bridge record. For more information, see the Border Bridges section of this document.

Table BL02 County Code

WSBIS Code	SNBI/SNTI Code	County Name	WSBIS Code	SNBI/SNTI Code	County Name
1	001	Adams	21	041	Lewis
2	003	Asotin	22	043	Lincoln
3	005	Benton	23	045	Mason
4	007	Chelan	24	047	Okanogan
5	009	Clallam	25	049	Pacific
6	011	Clark	26	051	Pend Oreille
7	013	Columbia	27	053	Pierce
8	015	Cowlitz	28	055	San Juan
9	017	Douglas	29	057	Skagit
10	019	Ferry	30	059	Skamania
11	021	Franklin	31	061	Snohomish
12	023	Garfield	32	063	Spokane
13	025	Grant	33	065	Stevens
14	027	Grays Harbor	34	067	Thurston
15	029	Island	35	069	Wahkiakum
16	031	Jefferson	36	071	Walla Walla
17	033	King	37	073	Whatcom
18	035	Kitsap	38	075	Whitman
19	037	Kittitas	39	077	Yakima
20	039	Klickitat			

City

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	-	WL05	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

Code the city name the bridge is located in.

Code 0 (unincorporated) if the bridge is not within a city.

This field is the current list of Incorporated City data from OFM (2020 Census Data). The preceding number associated with the city name in the dropdown list is the retired 1990 FIPS federal census place code.

A map of city limits is available at https://www.wsdot.wa.gov/data/tools/geoportal.

Place Code

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	N(5,0)	I	BL03	B.L.03	I.5

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
Code the FIPS Place code for the City, Town, and Census-Designated Place (CDP) where the bridge is located. See Table BL03. Code 0 (unincorporated) if there is no FIPS place code where the bridge is located. See the following links for more information: https://www.usgs.gov/us-board-on-geographic-names https://www.usgs.gov/national-hydrography/national-hydrography-dataset	Use the FIPS codes in the current version of the Census of Population and Housing - Geographic Identification Code Scheme to determine the city, town, or other census designated place code, regardless of ownership.

Table BL03 Place Code

City/Town/ Village	Place Code	City/Town/ Village	Place Code	City/Town/ Village	Place Code
UNINCORPORATED = 0					
Aberdeen	00100	Geneva CDP	26420	Oso CDP	52110
Aberdeen Gardens CDP	00135	George	26455	Othello	52215
Acme CDP	00275	Gig Harbor	26735	Otis Orchards-East Farms CDP	52267
Addy CDP	00380	Glacier CDP	26875	Outlook CDP	52285
Ahtanum CDP	00800	Gleed CDP	26945	Oyehut CDP	52378
Airway Heights	00905	Glenwood CDP	27225	Pacific	52495
Albion	01010	Gold Bar	27365	Pacific Beach CDP	52530
Alder CDP	01045	Goldendale	27435	Packwood CDP	52600
Alderton CDP	01150	Gorst CDP	27680	Palouse	52950
Alderwood Manor CDP	01185	Graham CDP	27785	Parker CDP	53265
Alger CDP	01255	Grand Coulee	27855	Parkland CDP	53335
Algona	01290	Grand Mound CDP	27890	Parkwood CDP	53440
Allyn CDP	01430	Grandview	27925	Pasco	53545
Almira	01500	Granger	27960	Pataha CDP	53660
Altoona CDP	01745	Granite Falls	27995	Pateros	53720
Amanda Park CDP	01780	Grapeview CDP	28135	Pe Ell	53930
Amboy CDP	01850	Grayland CDP	28345	Peaceful Valley CDP	53800
Ames Lake CDP	01920	Grays River CDP	28450	Picnic Point CDP	54213
Anacortes	01990	Green Bluff CDP	28590	Pine Grove CDP	54405
Anatone CDP	02025	Greenwater CDP	28695	Point Roberts CDP	55015
Anderson Island CDP	02060	Hamilton	29255	Pomeroy	55120
Arlington	02585	Hansville CDP	29430	Port Angeles	55365
Arlington Heights CDP	02620	Harrah	29710	Port Angeles East CDP	55400
Artondale CDP	02910	Harrington	29745	Port Gamble Tribal Comm.CDP	55612
Ashford CDP	03005	Hartline	29920	Port Hadlock-Irondale CDP	55620
Asotin	03075	Hat Island CDP	30030	Port Ludlow CDP	55645
Auburn	03180	Hatton	30060	Port Orchard	55785
Bainbridge Island	03736	Hazel Dell CDP	30305	Port Townsend	55855
Bangor Base CDP	04100	Herron Island CDP	30690	Porter CDP	55540
Banks Lake South CDP	04125	High Bridge CDP	30750	Poulsbo	55995
Barberton CDP	04195	Hobart CDP	31495	Prairie Heights CDP	56150
Baring CDP	04300	Hockinson CDP	31530	Prairie Ridge CDP	56170
Barney's Junction CDP	04347	Hogans Corner CDP	31540	Prescott	56240
Barstow CDP	04370	Home CDP	31985	Prosser	56450
Basin City CDP	04405	Hoodsport CDP	32125	Puget Island CDP	56555
Battle Ground	04475	Hoquiam	32300	Pullman	56625
Bay Center CDP	04615	Humptulips CDP	32650	Purdy CDP	56660
Bay View CDP	04790	Hunts Point	32755	Puyallup	56695

Table BL03 Place Code

City/Town/ Village	Place Code	City/Town/ Village	Place Code	City/Town/ Village	Place Code
Beacon Hill CDP	04825	Ilwaco	33000	Queets CDP	56905
Beaux Arts Village	04895	Inchelium CDP	33105	Quilcene CDP	56975
Belfair CDP	05140	Index	33175	Qui-nai-elt Village CDP	57030
Bell Hill CDP	05245	Indianola CDP	33280	Quincy	57115
Bellevue	05210	Ione	33560	Raft Island CDP	57140
Bellingham	05280	Issaquah	33805	Rainier	57220
Benton City	05560	Jamestown CDP	33890	Ravensdale CDP	57395
Bethel CDP	05735	Kahlotus	34575	Raymond	57430
Beverly CDP	05770	Kalama	34645	Reardan	57465
Bickleton CDP	05980	Kapowsin CDP	34890	Redmond	57535
Big Lake CDP	06050	Kayak Point CDP	34915	Renton	57745
Bingen	06085	Keller CDP	34960	Republic	57850
Birch Bay CDP	06190	Kelso	35065	Richland	58235
Black Diamond	06330	Kendall CDP	35135	Ridgefield	58410
Blaine	06505	Kenmore	35170	Ritzville	58725
Blyn CDP	06855	Kennewick	35275	River Road CDP	58777
Bonney Lake	07170	Kent	35415	Riverbend CDP	58742
Bothell	07380	Ketron Island CDP	35450	Riverpoint CDP	58768
Bothell East CDP	07390	Kettle Falls	35485	Riverside	58795
Bothell West CDP	07395	Key Center CDP	35555	Roche Harbor CDP	59075
Boulevard Park CDP	07397	Keyport CDP	35625	Rochester CDP	59110
Bow CDP	07450	Kingston CDP	35870	Rockford	59145
Boyds CDP	07485	Kirkland	35940	Rock Island	59180
Brady CDP	07590	Kitsap Lake CDP	36010	Rockport CDP	59250
Bremerton	07695	Kittitas	36045	Rocky Point CDP	59390
Brewster	07835	Klickitat CDP	36115	Ronald CDP	59635
Bridgeport	07870	Krupp	36395	Roosevelt CDP	59705
Brier	07940	La Center	36710	Rosalia	59775
Brinnon CDP	08080	Lacey	36745	Rosburg CDP	59845
Browns Point CDP	08325	La Grande CDP	36920	Rosedale CDP	59880
Brush Prairie CDP	08465	La Conner	36780	Roslyn	60055
Bryant CDP	08500	LaCrosse	36850	Roy	60160
Bryn Mawr-Skyway CDP	08552	Lake Bosworth CDP	37077	Royal City	60230
Buckley	08570	Lake Cassidy CDP	37100	Ruston	60510
Bucoda	08605	Lake Cavanaugh CDP	37105	Ryderwood CDP	60580
Buena CDP	08640	Lake Forest Park	37270	Salmon Creek CDP	61000
Bunk Foss CDP	08770	Lake Goodwin CDP	37287	Sammamish	61115
Burbank CDP	08780	Lake Holm CDP	37345	Santiago CDP	61235
Burien	08850	Lake Ketchum CDP	37415	Satsop CDP	61350
Burley CDP	08885	Lake Marcel-Stillwater CDP	37538	Schwana CDP	61925
Burlington	08920	Lake McMurray CDP	37526	Seabeck CDP	62120

Table BL03 Place Code

City/Town/ Village	Place Code	City/Town/ Village	Place Code	City/Town/ Village	Place Code
Camano CDP	09365	Lake Morton-Berrydale CDP	37567	SeaTac	62288
Camas	09480	Lake Roesiger CDP	37672	Seattle	63000
Canterwood CDP	09810	Lake Shore CDP	37830	Sedro-Woolley	63210
Canyon Creek CDP	09820	Lake Stevens	37900	Sekiu CDP	63245
Carbonado	09970	Lake Stickney CDP	37917	Selah	63280
Carlsborg CDP	10075	Lake Tapps CDP	37920	Sequim	63385
Carnation	10215	Lakeland North CDP	37420	Shadow Lake CDP	63545
Carson CDP	10320	Lakeland South CDP	37430	Shelton	63735
Cascade Valley CDP	10455	Lakeview CDP	37926	Shoreline	63960
Cashmere	10495	Lakewood	38038	Silvana CDP	64190
Castle Rock	10565	Lamont	38215	Silver Firs CDP	64380
Cathcart CDP	10600	Langley	38355	Silverdale CDP	64365
Cathlamet	10635	Larch Way CDP	38420	Sisco Heights CDP	64610
Cavalero CDP	10645	Latah	38495	Skamokawa Valley CDP	64755
Centerville CDP	11090	Laurier CDP	38705	Skokomish CDP	64775
Central Park CDP	11195	Leavenworth	38845	Skykomish	64855
Centralia	11160	Lebam CDP	38880	Snohomish	65170
Chain Lake CDP	11325	Lewisville CDP	39212	Snoqualmie	65205
Chehalis	11475	Lexington CDP	39230	Snoqualmie Pass CDP	65275
Chelan	11615	Liberty Lake	39335	Soap Lake	65345
Chelan Falls CDP	11685	Lind	39510	South Bend	65625
Cheney	11825	Lochsloy CDP	39860	South Cle Elum	65765
Cherry Grove CDP	12015	Lofall CDP	39930	South Creek CDP	65810
Chewelah	12140	Long Beach	40070	South Hill CDP	65922
Chico CDP	12175	Longbranch CDP	40105	South Prairie	66045
Chinook CDP	12315	Longview	40245	South Wenatchee CDP	66185
Clallam Bay CDP	12525	Longview Heights CDP	40270	Southworth CDP	66220
Clarkston	12630	Loomis CDP	40350	Spanaway CDP	66255
Clarkston Heights-Vineland CDP	12680	Loon Lake CDP	40385	Spangle	66290
Clayton CDP	12735	Lower Elochoman CDP	40570	Spokane	67000
Cle Elum	12945	Lyle CDP	40735	Spokane Valley	67167
Clear Lake CDP	12820	Lyman	40770	Sprague	67175
Clear Lake CDP	12840	Lynden	40805	Springdale	67210
Clearview CDP	12875	Lynnwood	40840	St. John	60860
Cliffdell CDP	13015	Mabton	40980	Stansberry Lake CDP	67435
Clinton CDP	13155	Machias CDP	41470	Stanwood	67455
Clover Creek CDP	13215	Malden	42275	Starbuck	67490
Clyde Hill	13365	Malo CDP	42310	Startup CDP	67595
Cohassett Beach CDP	13595	Malone CDP	42345	Steilacoom	67770
Colfax	13785	Malott CDP	42380	Steptoe CDP	67805
College Place	13855	Maltby CDP	42415	Stevenson	67875

Table BL03 Place Code

City/Town/ Village	Place Code	City/Town/ Village	Place Code	City/Town/ Village	Place Code
Colton	13890	Manchester CDP	42450	Sudden Valley CDP	68200
Colville	14170	Mansfield	42800	Sultan	68260
Conconully	14310	Manson CDP	42835	Sumas	68330
Concrete	14380	Maple Falls CDP	43010	Summit CDP	68365
Connell	14485	Maple Heights-Lake Desire CDP	43062	Summit View CDP	68410
Conway CDP	14520	Maple Valley	43150	Summitview CDP	68417
Copalis Beach CDP	14660	Maplewood CDP	43255	Sumner	68435
Cosmopolis	14870	Marblemount CDP	43325	Suncrest CDP	68460
Cottage Lake CDP	14940	Marcus	43395	Sunday Lake CDP	68480
Cougar CDP	15010	Marietta-Alderwood CDP	43491	Sunland Estates CDP	68557
Coulee City	15080	Marine View CDP	43552	Sunnyside	68750
Coulee Dam	15115	Markham CDP	43640	Sunnyslope CDP	68785
Country Homes CDP	15150	Marrowstone CDP	43762	Suquamish CDP	69170
Coupeville	15185	Martha Lake CDP	43815	Swede Heaven CDP	69280
Covington	15290	Maryhill CDP	43885	Tacoma	70000
Cowiche CDP	15325	Marysville	43955	Taholah CDP	70175
Crescent Bar CDP	15603	Mattawa	44165	Tampico CDP	70245
Creston	15710	May Creek CDP	44260	Tanglewilde CDP	70280
Crocker CDP	15780	McChord AFB CDP	41155	Tehaleh CDP	70543
Curlew CDP	16165	McCleary	41225	Tekoa	70560
Curlew Lake CDP	16170	McKenna CDP	41645	Tenino	70630
Cusick	16340	McMillin CDP	41785	Terrace Heights CDP	70805
Custer CDP	16375	Mead CDP	44480	Thorp CDP	71225
Dallesport CDP	16550	Meadow Glade CDP	44620	Three Lakes CDP	71330
Danville CDP	16585	Meadowdale CDP	44585	Tieton	71400
Darrington	16690	Medical Lake	44690	Tokeland CDP	71680
Dash Point CDP	16760	Medina	44725	Toledo	71785
Davenport	16795	Mercer Island	45005	Tonasket	71890
Dayton	16970	Mesa	45180	Toppenish	71960
Deep River CDP	17215	Metaline	45285	Torboy CDP	71995
Deer Park	17320	Metaline Falls	45320	Touchet CDP	72030
Deming CDP	17495	Methow CDP	45355	Town and Country CDP	72170
Des Moines	17635	Midland CDP	45495	Tracyton CDP	72205
Desert Aire CDP	17617	Mill Creek	45865	Trout Lake CDP	72450
Disautel CDP	17880	Mill Creek East CDP	45870	Tukwila	72625
Dixie CDP	18055	Millwood	45985	Tumwater	72905
Dollars Corner CDP	18198	Milton	46020	Twin Lakes CDP	73065
Donald CDP	18265	Mineral CDP	46090	Twisp	73080
Duluth CDP	18775	Minnehaha CDP	46125	Union CDP	73255
DuPont	18965	Mirrormont CDP	46215	Union Gap	73290
Duvall	19035	Moclips CDP	46405	Union Hill-Novelty Hill CDP	73307
East Cathlamet CDP	19290	Monroe	46685	Uniontown	73360

Table BL03 Place Code

City/Town/ Village	Place Code	City/Town/ Village	Place Code	City/Town/ Village	Place Code
East Port Orchard CDP	19770	Monroe North CDP	46725	University Place	73465
East Renton Highlands CDP	19857	Montesano	46895	Upper Elochoman CDP	73580
East Wenatchee	20155	Morton	47175	Vader	73780
Eastmont CDP	19630	Moses Lake	47245	Valley CDP	73885
Easton CDP	19700	Moses Lake North CDP	47280	Vancouver	74060
Eatonville	20260	Mossyrock	47315	Vantage CDP	74200
Edgewood	20645	Mountlake Terrace	47490	Vashon CDP	74305
Edison CDP	20680	Mount Vista CDP	47630	Vaughn CDP	74445
Edmonds	20750	Mount Vernon	47560	Venersborg CDP	74585
Elbe CDP	20890	Moxee	47665	Verlot CDP	74760
Electric City	21030	Mukilteo	47735	Waitsburg	75565
Elk Plain CDP	21205	Naches	47805	Walla Walla	75775
Ellensburg	21240	Napavine	47980	Walla Walla East CDP	75810
Elma	21450	Naselle CDP	48015	Waller CDP	75905
Elmer City	21485	Navy Yard City CDP	48225	Wallula CDP	75985
Endicott	21730	Neah Bay CDP	48295	Wapato	76125
Enetai CDP	21800	Neilton CDP	48330	Warden	76160
Entiat	22010	Nespelem	48540	Warm Beach CDP	76195
Enumclaw	22045	Nespelem Community CDP	48550	Washougal	76405
Ephrata	22080	Newcastle	48645	Washtucna	76440
Erlands Point CDP	22115	Newport	48820	Waterville	76510
Eschbach CDP	22150	Nile CDP	49030	Wauna CDP	76615
Esperance CDP	22255	Nisqually Indian Comm. CDP	49193	Waverly	76720
Everett	22640	Nooksack	49275	Wenatchee	77105
Everson	22745	Normandy Park	49415	West Clarkston-Highland CDP	77297
Fairchild AFB CDP	22955	North Bend	49485	West Pasco CDP	77612
Fairfield	22990	North Bonneville	49555	Westport	77630
Fairwood CDP	23160	North Fort Lewis CDP	49765	West Richland	77665
Fairwood CDP	23165	North Lynnwood CDP	49940	Wheeler CDP	78050
Fall City CDP	23200	North Omak CDP	50007	Whidbey Island Station CDP	78155
Farmington	23340	North Puyallup CDP	50115	White Center CDP	78225
Federal Way	23515	North Sultan CDP	50183	White Salmon	78330
Felida CDP	23550	North Yelm CDP	50210	White Swan CDP	78365
Fern Prairie CDP	23690	Northport	50045	Wilbur	78680
Ferndale	23620	Northwest Stanwood CDP	50195	Wilderness Rim CDP	78780
Fife	23795	Oakesdale	50325	Wilkeson	78925
Fife Heights CDP	23830	Oak Harbor	50360	Willapa CDP	78995
Finley CDP	23865	Oakville	50430	Wilson Creek	79135

Table BL03 Place Code

City/Town/ Village	Place Code	City/Town/ Village	Place Code	City/Town/ Village	Place Code
Fircrest	23970	Ocean City CDP	50500	Winlock	79275
Five Corners CDP	24188	Ocean Park CDP	50535	Winthrop	79380
Fobes Hill CDP	24425	Ocean Shores	50570	Wishram CDP	79485
Fords Prairie CDP	24565	Ocosta CDP	50675	Wollochet CDP	79555
Forks	24810	Odessa	50745	Woodinville	79590
Fort Lewis CDP	24915	Okanogan	50920	Woodland	79625
Four Lakes CDP	25300	Olympia	51300	Woods Creek CDP	79825
Fox Island CDP	25370	Omak	51340	Woodway	79835
Frederickson CDP	25475	Onalaska CDP	51410	Yacolt	79975
Freeland CDP	25510	Orchards CDP	51795	Yakima	80010
Friday Harbor	25615	Orient CDP	51830	Yarrow Point	80150
Garfield	26140	Oroville	51970	Yelm	80220
Garrett CDP	26245	Orting	52005	Zillah	80500

Highway Agency District

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(2)	I	BL04	B.L.04	I.6

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
Code the WSDOT region in which the bridge is located using one of the following codes in Table BL04. A region boundary map can be found at: https://www.wsdot.wa.gov/data/tools/geoportal/.	

Table BL04 Highway Agency District - Region Code

WSBIS Code	NBI Code	NTI Code	Region Name
NW	1	NW	Northwest Region
NC	2	NC	North Central Region
OL	3	OL	Olympic Region
SW	4	SW	Southwest Region
SC	5	SC	South Central Region
EA	6	EA	Eastern Region

Metropolitan Planning Organization (MPO)

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(300)	I	BL12	B.L.12	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
Code the name(s) of the Metropolitan Planning Organization(s) (MPO) in which the bridge is located, regardless of bridge owner or maintenance responsibility. Code each MPO when the bridge is located on a boundary between MPOs. Report multiple MPOs separated by pipe (|) delimiters. Code N if Bridge is not located in an MPO.	MPO maps are available here: https://www.wsdot.wa.gov/data/tools/geoportal/ Note that this field does not apply to Regional Transportation Planning Organizations (RTPO's).

Section/Township/Range

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(3,0)	-	-	WL06, WL07,WL08	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

Section, township, and range numbers are location markers established by survey mapping. If the structure runs along a section, township, or range line, use the smaller of the two numbers. If a structure crosses any line, use the number at the beginning of the structure.

WSBIS Item WL06 – Section
This is the number of the section in which the structure is located. Enter a numeric code from 01 to 36.

WSBIS Item WL07 – Township
This is the number of the township in which the structure is located. Enter a numeric code from 01 to 41. Township designations carry a directional suffix (north or south); however, since all townships in Washington are north, this directional indicator need not be entered.

WSBIS Item WL08 – Range
This is the number of the range in which this structure is located. There are two parts to this field. In the first two places, enter the number of the range in which the structure is located. Valid ranges are:

01 through 47 if the third column is E

01 through 16 if the third column is W.

In the third place, enter the directional suffix which indicates the position of the range in relation to the Willamette Meridian. Enter one of the following codes:

E	East
W	West

A map of section, township and range information is available at https://www.wsdot.wa.gov/data/tools/geoportal/.

Toll

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(1)	I	BCL05	B.CL.05	C.4

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**
- **Type 3 - Tunnels carrying public roadways within**

Specification	Commentary
Code the toll status of the bridge **using** one of the following codes in Table BCL05. Structures are considered tolled if only a portion of the bridge is tolled such as if an HOV Toll (HOT) lane is on the same bridge as a freeway.	Use code 1 when tolls on a toll bridge are paid specifically to use the bridge and not part of a facility which requires an FHWA Toll Agreement (23 U.S.C. 129). Use code 2 when an interstate highway toll bridge is under a FHWA Toll Agreement (23 U.S.C. 129). Bridge has a separate agreement from the highway segment. Use code 3 when the tolls on a toll road are paid to use the facility, which includes the roadway and the bridge. No FHWA Toll Agreement or unknown whether a toll agreement exists. Use code 4 when the bridge is on an Interstate toll highway segment under a FHWA Toll Agreement (23 U.S.C. 129). Bridge is a part of the toll segment. More tolling program information related to 23 U.S.C. 129 can be found at: https://www.fhwa.dot.gov/ipd/tolling_and_pricing/ and in the FHWA Informational Memorandum - Federal Tolling Programs under the Moving Ahead for Progress in the 21st Century Act.

Table BCL05 Toll Code

WSBIS Code	SNTI Code	Description
1	1	Toll bridge or tunnel not under FHWA Toll Agreement
2	1	Toll bridge or tunnel under FHWA Toll Agreement
3	2	Bridge or tunnel carries a toll road not under FHWA Toll Agreement
4	2	Bridge or tunnel carries a toll road under FHWA Toll Agreement
N	0	Bridge or tunnel does not carry a toll road and is not a toll bridge or tunnel

Historic Significance (NRHP)

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(1)	I	BCL04	B.CL.04	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification

Code the historic significance of the bridge using one of the following codes.

Code	Description
1	Bridge is on the National Register
2	Bridge is eligible for the National Register
3	Bridge is in a historic district that is on or eligible for the National Register, and contributes to the eligibility of the district
4	Bridge is in a historic district that is on or eligible for the National Register, but does not contribute to the eligibility of the district
5	Bridge is potentially eligible for the National Register, or potentially contributes to a historic district, but has not been evaluated according to the criteria for listing
6	Bridge is on a State or local historic register, but is not eligible for the National Register
7	Historic significance of the bridge has not been determined
N	Bridge is not eligible for the National Register, and is not in a historic district eligible for the National Register or when other codes do not apply.

Commentary

This item is used to report the historic significance of bridges. Bridges that are historically significant are subject to Section 106 of the National Historic Preservation Act of 1966, and 36 CFR 800 (Protection of Historic Properties). 36 CFR 800 governs the Section 106 process, and outlines how agencies are to consult with various parties, identify historic properties, and assess the effects of undertakings to properties.

Undertakings to historically significant bridges or their surroundings are also subject to Section 4(f) of the Department of Transportation Act of 1966, and 23 CFR Part 774 (Parks, Recreation Areas, Wildlife and Waterfowl Refuges, and Historic Sites). 23 CFR Part 774 governs the Section 4(f) process, considers how the property is used as a resource, and outlines the project approval process when undertakings are proposed.

36 CFR Part 70 (National Register of Historic Places) identifies the attributes that may make a property historically significant, and prescribes the evaluation criteria and procedures for listing properties on the National Register.

Determinations of eligibility are generally not made with the purpose of eventual listing on the National Register of Historic Places. Rather, the evaluation criteria for listing is used to assess historical significance with the purpose of assessing the effects of undertakings, and to fulfill the goals of 23 USC 144(g) Historic Bridges. Determinations of eligibility are normally made by the relevant federal agency, typically FHWA for highway bridges, and can change when circumstances or conditions change, such as age or bridge integrity. As such, the eligibility status and reported code can change with time.

Commentary Continued - Historic Significance (NRHP)
Use code 2 when the bridge has been determined to be eligible for listing on the National Register even though the nomination and listing process have not concluded or are not being pursued. Use code 5 when the bridge has attributes that may make it historically significant as indicated by the National Register criteria for evaluation and listing. This code may also apply when a bridge was previously evaluated but requires reevaluation because its current attributes, such as age, may make it historically significant. Use code 6 when a bridge has local historic value, but has been determined to be not eligible for the National Register. Undertakings may be subject to the Section 4(f) process, but without the same level of consultation as prescribed by Section 106. Use code N when the other codes do not apply.

Historical Significance – HAER

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	I	WCL04	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification

This item identifies historical significance based on a criteria established by the Historic American Engineering Record (HAER). Use one of the following codes from Table WCL04.

Table WCL04 Historical Significance - HAER

WSBIS Code	Description
1	Structure is on the HAER.
2	Structure is eligible for the HAER.
3	Structure is possibly eligible for the HAER but requires further investigation before determination can be made. Alternately, structure is on a State or local historic register.
4	Historical significance has not been determined at this time. (This code should be used for all new structures.)
5	Structure is not eligible for the HAER – reviewed by the DAHP.
6	Structure is not eligible for the NRHP – reviewed by agency other than the DAHP.

Special Structure Flag

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	-I	WID04	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification

Code the structures that are inspected by the BPO Special Structures group.

Code	Description
Y	Yes, structure inspected by the BPO Special Structures group.
*	Null, structure not inspected by the BPO Special Structures group.

Border Structure ID

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(8)	AN(15)	I	BL07	B.L.07	-

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

Specification

Code the neighboring State's exact bridge number as used in their Item B.ID.01 (SID).

Code N when the bridge does not cross a border with another State or Country.

Code 0 when the bordering country does not have a bridge number.

Washington State has no tunnels across it's borders. See Auto-Generated Section.

Commentary

For the purposes of the NBI, only bridges that cross a State or international border are considered border bridges.

The Neighboring State reports this item as part of their abbreviated bridge record. For more information, see the Border Bridges section of this document.

Border State or Country Code

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN (2)	I	BL08	B.L.08	-

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

Specification	Commentary
Use one of the following codes below. **Code** — **Description** 410 — Oregon 160 — Idaho Leave blank if structure does not cross a border. Washington State has no tunnels across it's borders. See Auto-Generated Section.	See WSBIM Appendix 2-F for a listing of border bridges on the Washington State inventory.

Border Bridge Inspection Responsibility

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(1)	-	I	BL09	B.L.09	-

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

Specification	Commentary
Code the border bridge inspection responsibility for any entity within the State geographical boundaries, regardless of ownership, using one of the following codes. **Code** — **Description** 0 — No responsibility 1 — Shared responsibility with border State or country 2 — Full responsibility Leave blank if structure does not cross a border. Washington State has no tunnels across it's borders. See Auto-Generated Section.	Agency inspection responsibility must be documented in interagency agreements or memorandums of understanding and included as part of the bridge file or record.

Border Bridge Designated Lead State

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	N(2,0)	I	BL10	B.L.10	-

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

Specification	Commentary
Use one of the following codes below. **Code** **Description** 530 Washington 410 Oregon 160 Idaho Leave blank if structure does not cross a border Washington State has no tunnels across it's borders. See Auto-Generated Section.	If Washington is the designated lead state, all inventory data will be reported to the SNBI. If another state is designated, then WSDOT will only report the following fields, which must match the data reported by the border state:

WSBIS Item 7557 – Design Exception Date (LP view only) **Date**

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

If a design exception has been granted by the FHWA to permit a deviation from required standards, this is the effective date of FHWA approval. For example, if approval to build a one-lane bridge on a low volume road was granted, enter the date approval was given for this exception. If no design exception has been granted, leave this field blank.

Obsolete Structure Flag (Inv MO only)

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Checkbox	-	I	WID05	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

This check box can only be edited in the Inventory Managed Operation, and is used to "obsolete" a structure record. See Sections 2.02.02 and 2.03.04 for more information.

Geometry Tab

NBIS Bridge Length

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(7,1)	N(7,1)	I	BG01	B.G.01	-

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

Specification	Commentary
Record the NBIS bridge length to the nearest tenth of a foot measured along the roadway centerline between undercopings of abutments or spring lines of arches. For filled or closed spandrel arches, measure along the roadway centerline from inside faces of exterior spring lines. For other bridges under fill, measure along the roadway centerline from inside faces of exterior walls; this includes multiple pipes, where the clear distance between openings is less than half of the smaller contiguous opening. Vaulted abutments and enclosed spans or sections are included in the NBIS bridge length. Record the field measured NBIS bridge length when Item B.G.02 (Total Bridge Length) is less than 30 ft.	NBIS bridge definition: A structure, including supports, erected over a depression or an obstruction, such as water, highway, or railway, and having a track or passageway for carrying traffic or other moving loads, and having an opening measured along the center of the roadway of more than 20 feet between undercopings of abutments or spring lines of arches, or extreme ends of openings for multiple boxes; it includes multiple pipes, where the clear distance between openings is less than half of the smaller contiguous opening. (23 CFR 650.305) Structures that meet the NBIS bridge definition, and NBIS applicability in 23 CFR 650.303, are reported to FHWA. The roadway centerline is the physical center of the portion of the roadway for the movement of vehicles, regardless of striping, and exclusive of shoulders. The length for curved structures would be measured along the curved centerline. When item B.G.02 (Total Bridge Length) is greater than 30.0 feet the value for this item may be estimated from plans or drawings, or estimated using the observed difference between items B.G.02 (Total Bridge Length) or B.G.03 (Maximum Span Length) and the NBIS bridge definition.

NBIS Bridge Length continued...

Examples

Record measurement A.

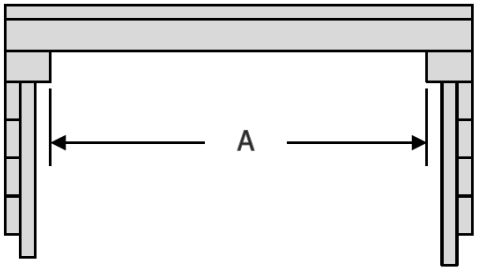


Figure 14. Profile view of a single span bridge with pile bent abutments.

Record measurement A.

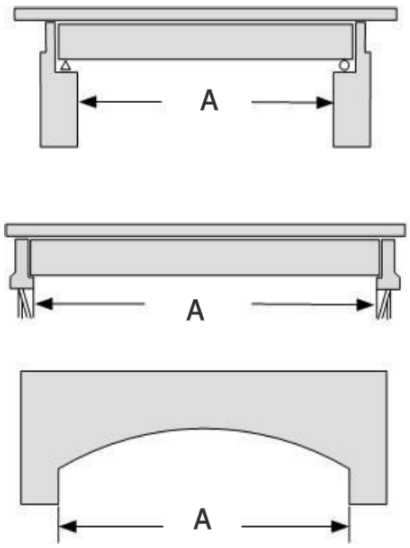


Figure 15. Profile views of various single span bridges.

Record measurement A.

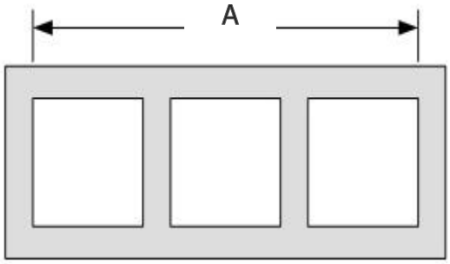


Figure 16. Profile view of a four-sided, multi-cell culvert under fill.

Record measurement A.

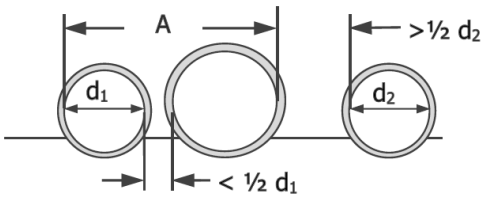


Figure 17. Profile view of a multi-pipe culvert under fill.

NBIS Bridge Length continued...

Examples Continued

Skewed multi-pipe bridge under highway has an opening of 20.85 ft measured along the center of the roadway. Record 20.9.

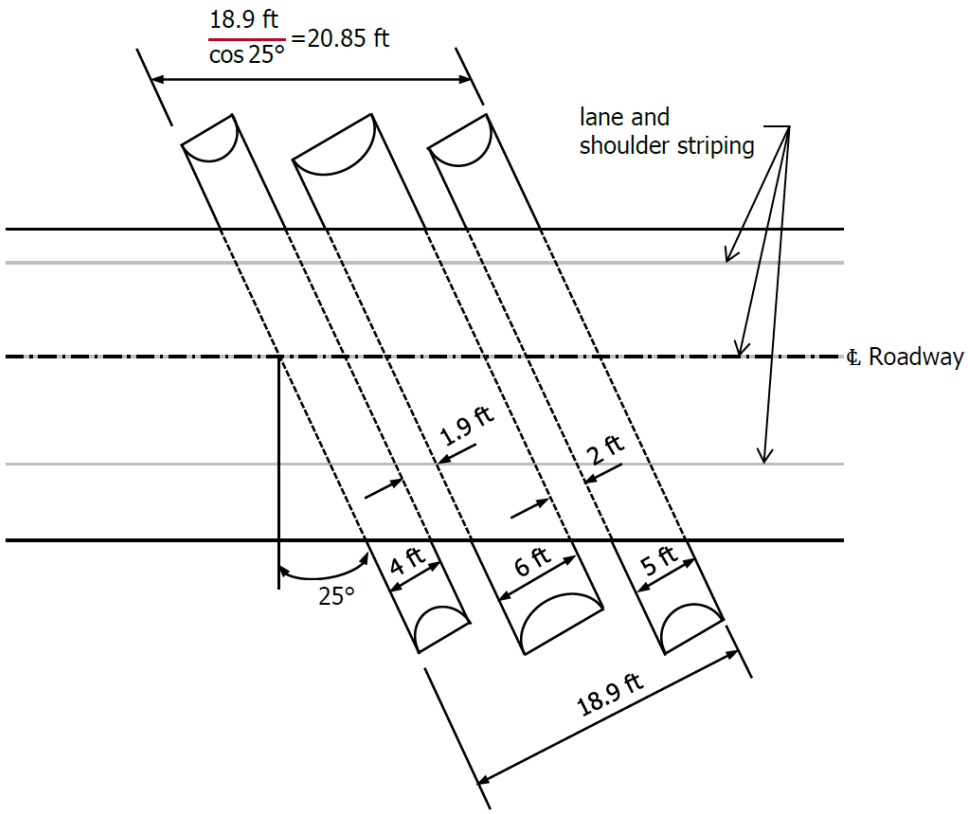


Figure 18. Plan view of a skewed, multi-pipe culvert under fill.

Total Stucture Length

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(7,1)	N(7,1)	I	BG02	B.G.02	G.1

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

This field applies to all structure types, including vehicular, pedestrian, and railroad bridges; and tunnels.

Bridges
Record the total length of the bridge to the nearest tenth of a foot measured along the roadway centerline from back- to-back of backwalls or from paving notch to paving notch at abutments.

For filled or closed spandrel arches, measure along the roadway centerline from inside faces of exterior spring lines when well-defined backwalls or paving notches do not exist.

For other bridges under fill, measure along the roadway centerline from inside faces of exterior walls.

For bridges with vaulted abutments and enclosed spans or sections, measure from back-to-back of backwalls or from paving notch to paving notch inclusive of the vaulted abutments and enclosed spans.

Tunnels
Record the length of the tunnel to the nearest foot. The length shall be measured along the centerline of the roadway.

Commentary

Bridges
The total bridge length measurement can be used with the bridge width out-to-out to calculate an estimated deck area.

The roadway centerline is the physical center of the portion of the roadway for the movement of vehicles, regardless of striping, and exclusive of shoulders. The total bridge length for curved bridges is measured along the curved centerline.

For pedestrian RR and other non-vehicular structures, code this field when the owning agency performs Condition Inspections. The intent is to provide deck square footages associated with structure condition codes.

Tunnels
When a tunnel is divided into segments, record the length of the segment.

For example: if a 1000 foot tunnel is divided into 4- 250 foot segments, each segment will have a Tunnel Length of 250 feet.

When multiple bores are reported as a single tunnel, record the length of the longest bore.

Total Stucture Length continued...

Examples

Record measurement A.

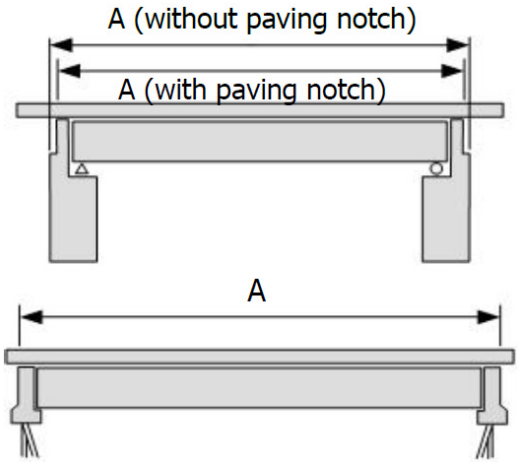


Figure 19. Profile views of various single span bridges.

Record measurement A.

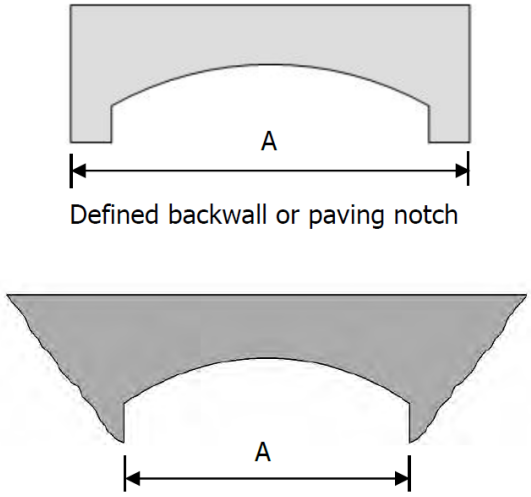


Figure 20. Profile views of various spandrel arches.

Report measurement A.

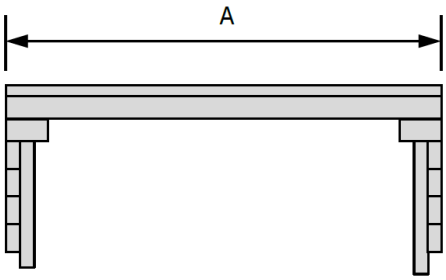


Figure 21. Profile view of a single span bridge with pile bent abutments.

Total Stucture Length continued...

Examples Continued

Record measurement A.

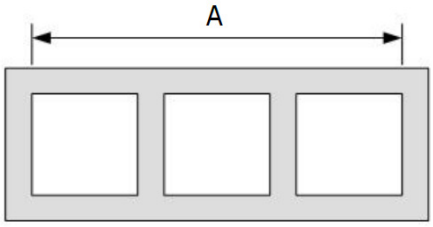


Figure 22. Profile view of a four-sided, multi-cell culvert under fill.

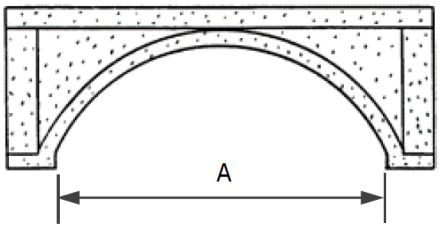


Figure 23. Profile view of a culvert under fill.

Record measurement A.

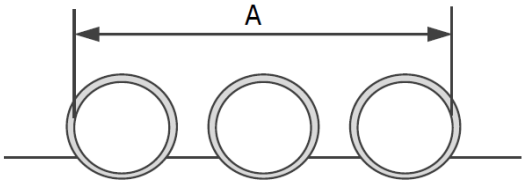


Figure 24. Profile view of a multi-pipe culvert under fill.

Four span bridge with variable skews. Total bridge length is measured along the roadway centerline from back-to-back of backwalls at abutments. Record 477.6.

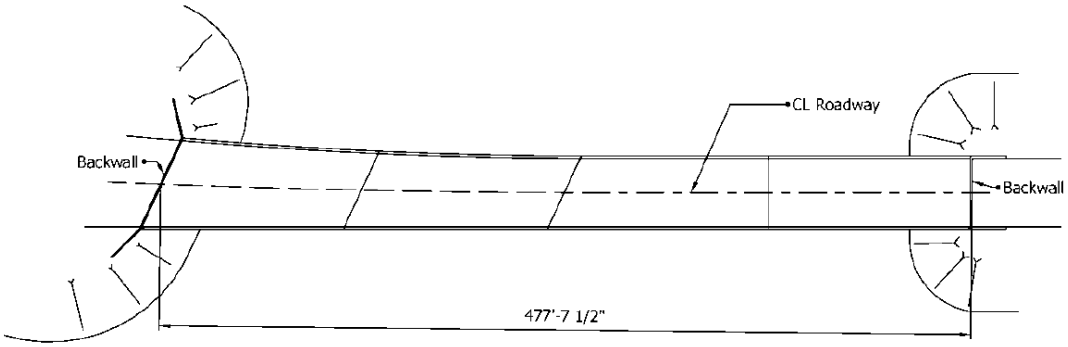


Figure 25. Plan view of a four-span bridge with variable skews.

Three span curved bridge. Total bridge length is measured along the roadway centerline from back-to-back of backwalls at abutments. Record 504.0.

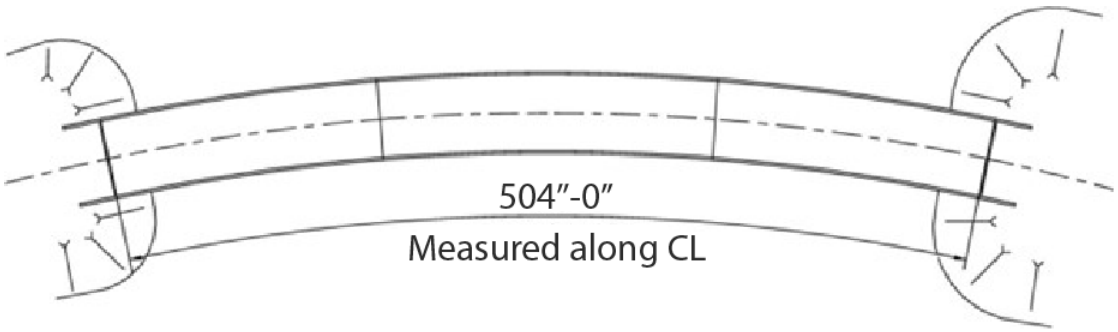


Figure 26. Plan view of a three-span curved bridge.

Total Stucture Length continued...

Examples Continued

Skewed pipe bridge under a highway has an opening of 20.85 ft measured along the roadway centerline. Report 20.9.

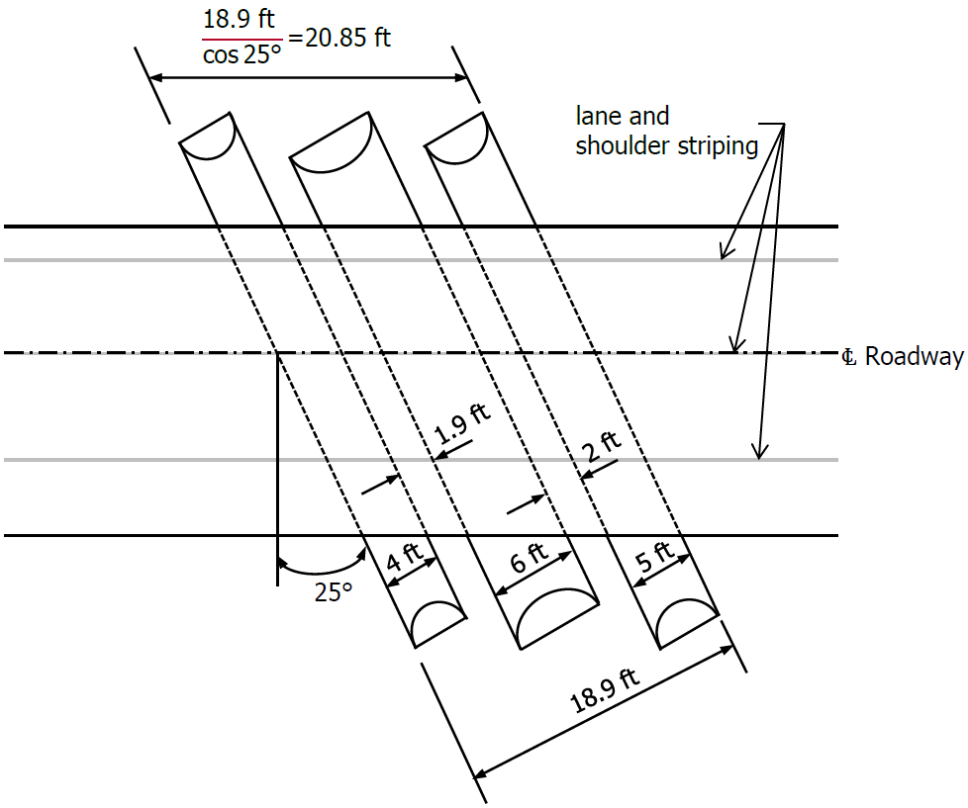


Figure 27. Plan view of a skewed, multi-pipe culvert under fill.

Maximum Span Length

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(5,1)	N(5,1)	I	BG03	B.G.03	-

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

Specification	Commentary
Record the length of the maximum span to the nearest tenth of foot, measured from centerline of bearing to centerline of bearing, along the roadway centerline	For rigid frames, arches, pipes, integral abutments, or similar type bridges where there is not a clear centerline of bearing, use the clear open distance between piers, bents, w alls, or abutments. The roadway centerline is the physical center of the portion of the roadway for the movement of vehicles, regardless of striping, and exclusive of shoulders. The length for curved bridges would be measured along the curved centerline. For bridges with in-span hinges or bearings, measure from centerline of substructure bearing to centerline of substructure bearing, or clear open distance between substructure units when there is not a clear centerline of bearing. For bridges with single spans this item has the same value as B.G.04 (*Minimum Span Length).* w/FHWA errata#1 03/24

Maximum Span Length continued...

Examples

Record measurement A.

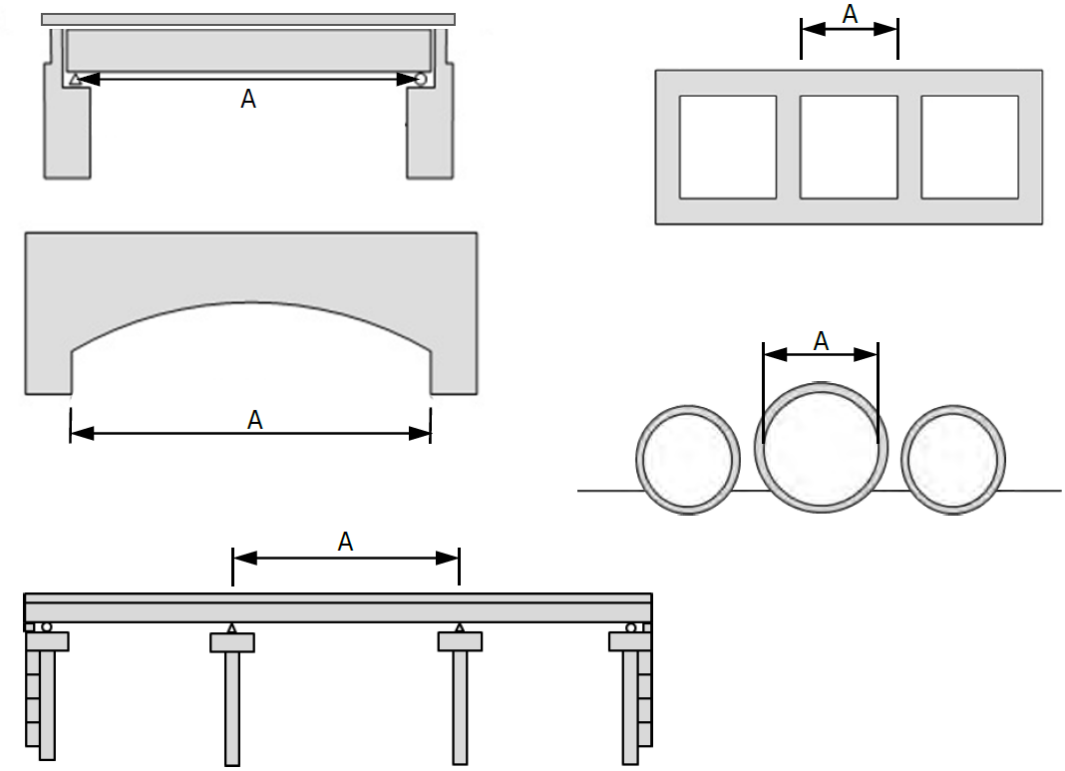


Figure 28. Profile views of various bridge types.

Four span bridge with variable skews. Span lengths are measured from centerline of bearing to centerline of bearing along the roadway centerline. Report 120.1.

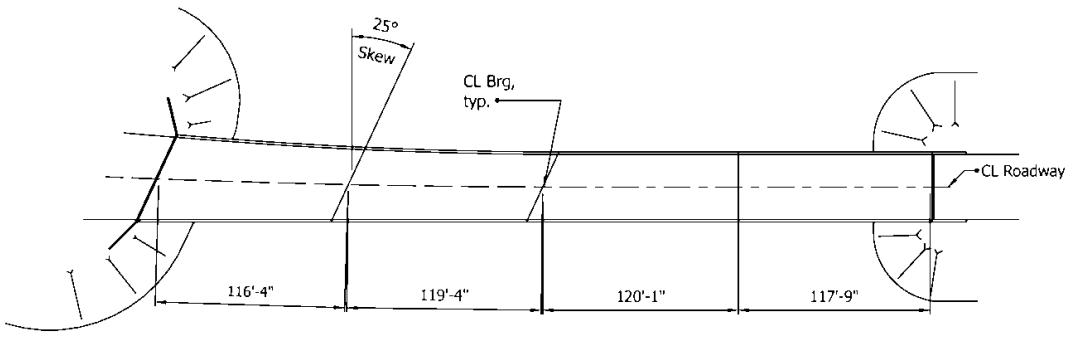


Figure 29. Plan view of a four-span bridge with variable skews.

Maximum Span Length continued...

Examples Continued

Three span curved bridge. Span lengths are measured from centerline of bearing to centerline of bearing along the curved roadway centerline. Report 190.0.

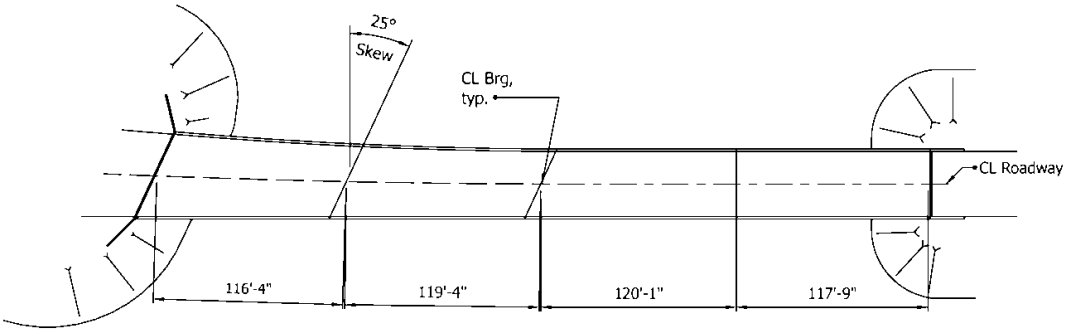


Figure 30. Plan view of a three-span curved bridge.

Minimum Span Length

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(5,1)	N(5,1)	I	BG04	B.G.04	-

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

Specification	Commentary
Record the length of the minimum span to the nearest tenth of foot, measured from centerline of bearing to centerline of bearing, along the roadway centerline.	For rigid frames, arches, pipes, integral abutments, or similar type bridges where there is not a clear centerline of bearing, use the clear open distance between piers, bents, walls, or abutments. The roadway centerline is the physical center of the portion of the roadway for the movement of vehicles, regardless of striping, and exclusive of shoulders. The length for curved bridges would be measured along the curved centerline. For bridges with in-span hinges or bearings, measure from centerline of substructure bearing to centerline of substructure bearing, or clear open distance between substructure units when there is not a clear centerline of bearing. For bridges with single spans this item has the same value as B.G.04 *(Minimum Span Length)*. w/FHWA errata#1 03/24

Minimum Span Length continued...

Examples

Record measurement A.

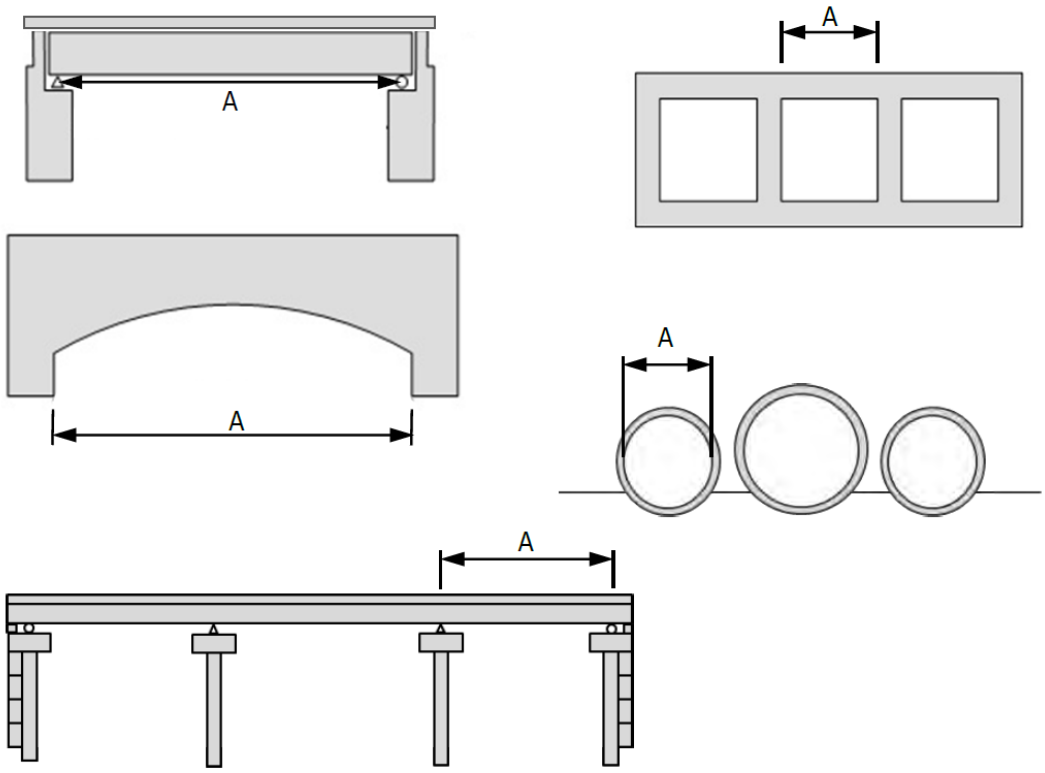


Figure 31. Profile views of various bridge types.

Four span bridge with variable skews. Span lengths are measured from centerline of bearing to centerline of bearing along the roadway centerline. Report 116.3.

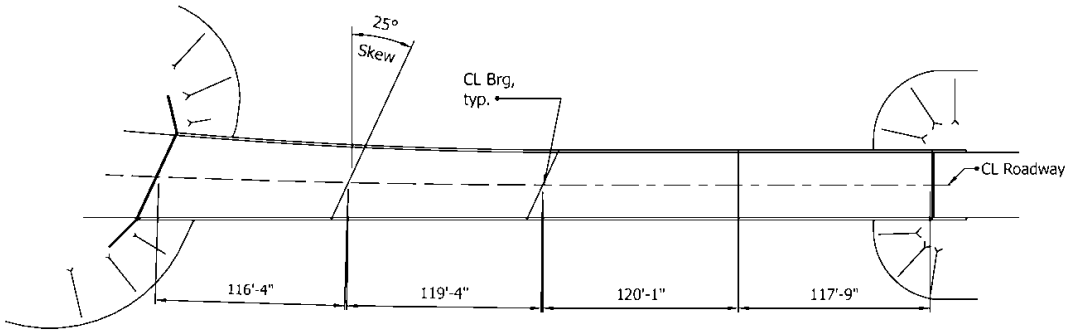


Figure 32. Plan view of a four-span bridge with variable skews.

Minimum Span Length continued...

Examples Continued

Three span curved bridge. Span lengths are measured from centerline of bearing to centerline of bearing along the curved roadway centerline. Report 155.0.

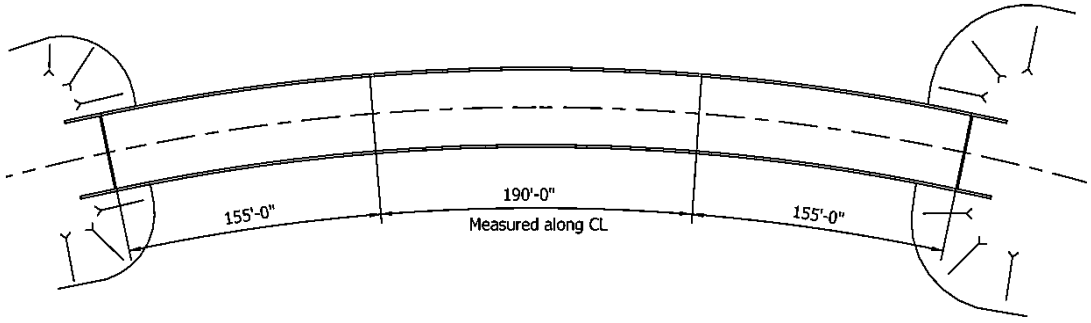


Figure 33. Plan view of a three-span curved bridge.

Structure Width Out-to-Out

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(4,1)	N(4,1)	I	BG05	B.G.05	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not cross over or under a public roadway**

Specification

This field applies to all structure types, including vehicular, pedestrian, and railroad bridges; and tunnels.

Bridges
Record the minimum out-to-out width measured perpendicular to the centerline of the roadway to the nearest tenth of a foot.

For multiple (double) deck bridges that are inventoried as one bridge, measure all levels, and report the sum of the measurements to account for the total width carried on the bridge.

For bridges under fill, measure the width from out-to-out of the headwalls or barrel ends.

For sidehill bridges, measure the out-to-out structure width.

For bridges that carry multiple types of service, for example highway, pedestrian, and railroad, measure the out-to-out width that encompasses all service types.

For bridges that don't have a fully defined deck, measure to the widest point of the structure.

Tunnels
Record the most restrictive minimum distance between inside faces of tunnel.

See Figure 2.6.1

Commentary

For bridges under fill, the reported value can be limited to the width of the roadway section over the bridge for unusual situations where the bridge continues far beyond the roadway cross-section, and a lesser width would likely be constructed for a replacement project.

For bridges under fill, in which the features that define the out-to-out width are not parallel, report the minimum out-to-out width.

Structure Width Out-to-Out continued...

Examples

Record measurement A.

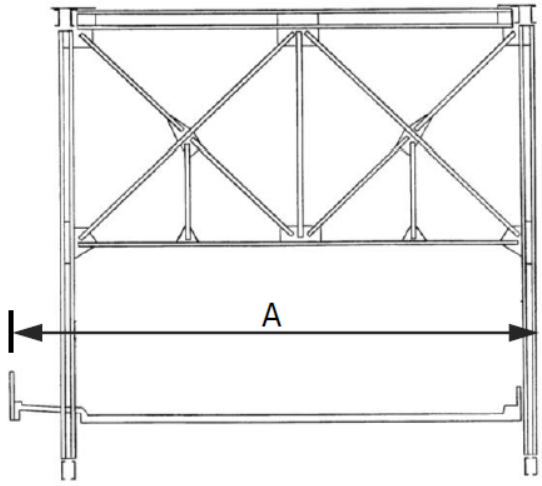


Figure 34. Cross-section view of a through truss bridge.

Record measurement A.

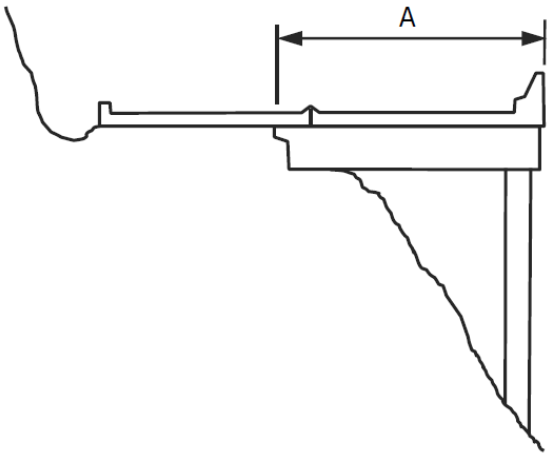


Figure 35. Cross-section view of a sidehill bridge.

Structure Width Out-to-Out continued...

Examples Continued

Record measurement A.

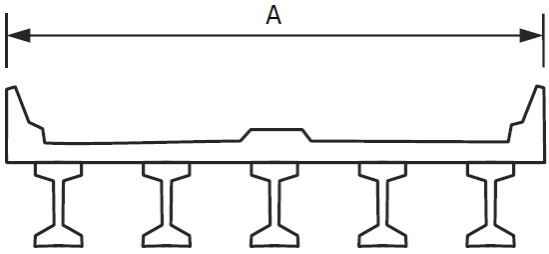


Figure 36. Cross-section view of a multi-girder bridge.

Record measurement A.

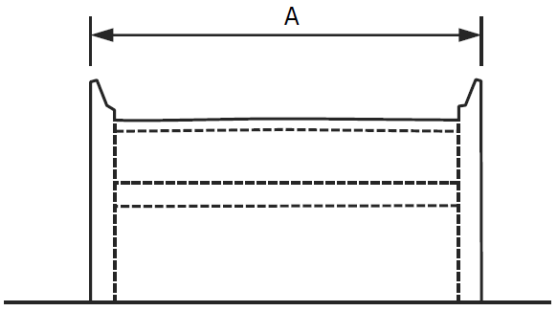


Figure 37. Cross-section view of a filled arch bridge or culvert under fill with headwalls.

Record measurement A.

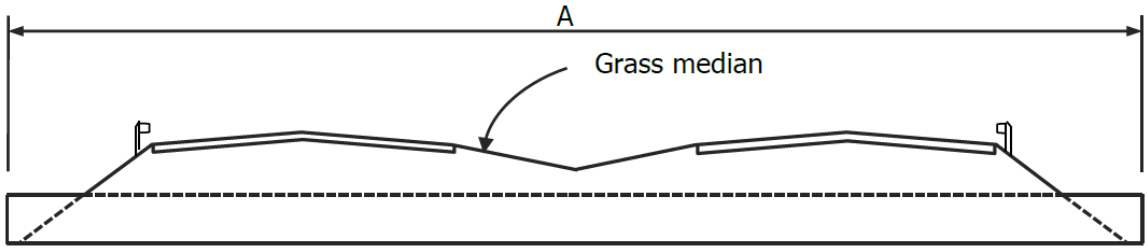


Figure 38. Cross-section view of a pipe culvert under fill.

Structure Width Out-to-Out continued...

Examples Continued

Record measurement A.

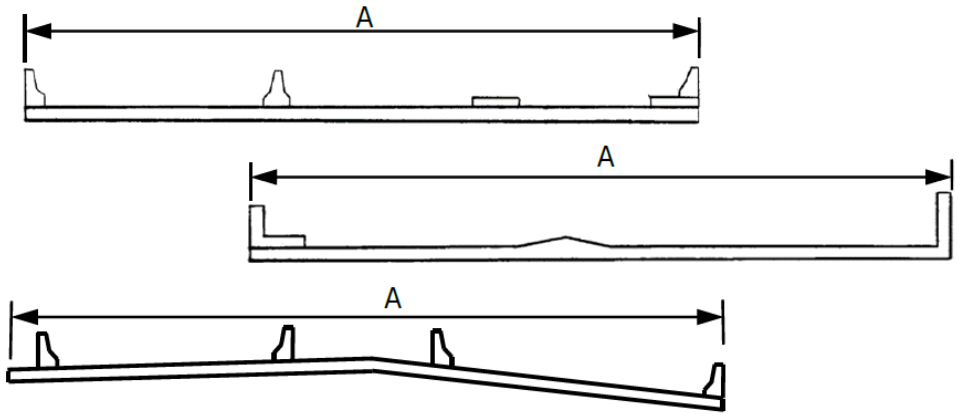


Figure 39. Cross-section views of various bridge decks with medians.

Record measurement A.

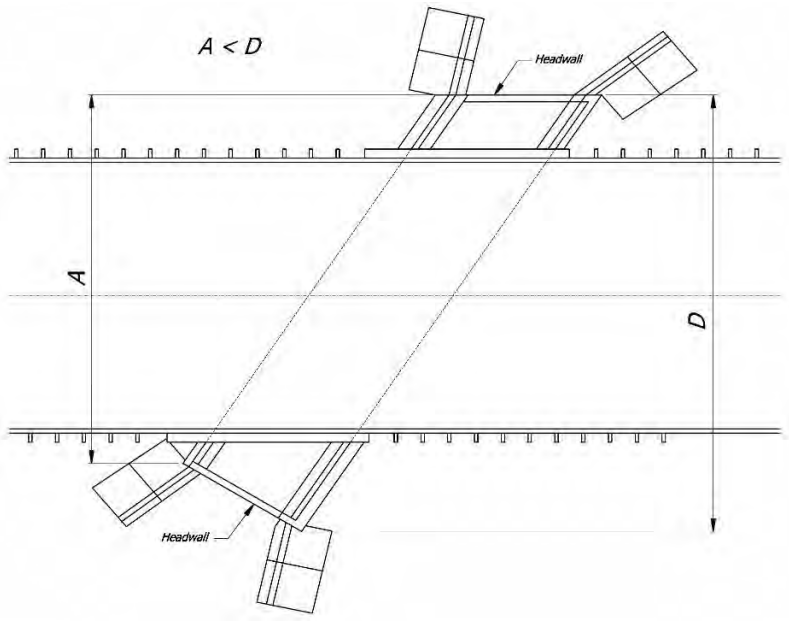


Figure 40. Plan view of a bridge with non-parallel fascias.

Structure Width Out-to-Out continued...

Examples Continued

Record measurement A.

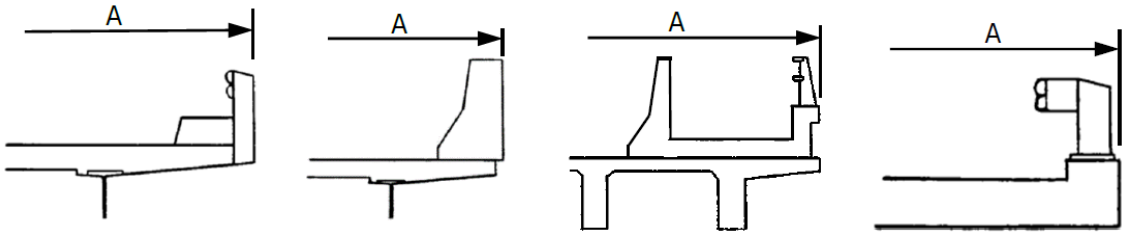


Figure 41. Partial cross-section views of various bridge decks with railings.

Record measurement A.

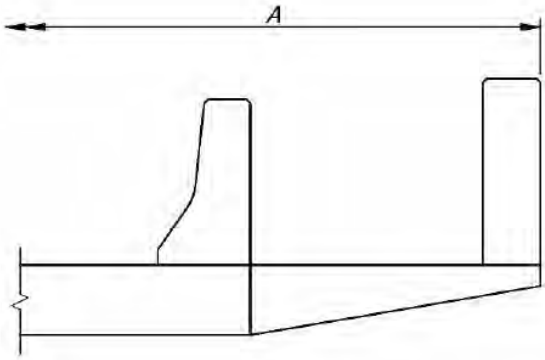


Figure 42. Cross-section view of a sidewalk retrofit.

Structure Width Out-to-Out continued...

Example - Tunnel Structure Width Out-to-Out

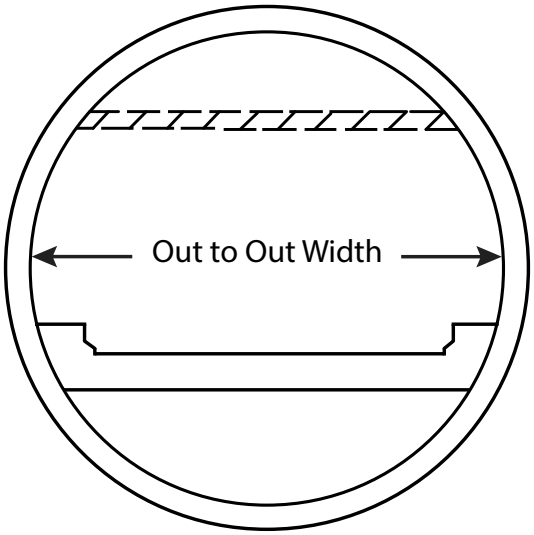


Figure 2.6.1 - Drawing of tunnel width out to out

Structure Width Curb-to-Curb

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(4,1)	N(4,1)	I	BG06	B.G.06	G.3

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification

This field applies to Type 1 and 3 structure types, including vehicular bridges and tunnels.

Bridges

Record the sum of the most restrictive minimum usable distances for all roadways carried by the bridge. Measure the distance perpendicular to the centerline of the roadway between curbs or rails to the nearest tenth of a foot. Exclude from the usable distance measurement non-mountable medians, sidewalks, structurally inadequate shoulders, and other non-mountable areas.

The measurement for this item shall be compatible with the measurements used for Item B.H.08 (Lanes On Highway), Item B.G.09 (Approach Roadway Width), and Item B.H.09 (Annual Average Daily Traffic).

For multiple (double) deck bridges that are inventoried as one bridge, measure all levels, and report the sum of the most restrictive minimum usable distances carried by the bridge.

For sidehill bridges measure the actual full curb- to-curb roadway width.

For bridges that carry multiple types of service, for example highway, pedestrian, and railroad, report the usable distance that serves the highway service as denoted by curb or barrier separation, or other delineation that separates the service types.

Tunnels

Record the most restrictive minimum distance between curbs or rails on the mainline tunnel roadway. Ramps should be excluded when included as part of a tunnel system. The intent is to determine the restrictions of the primary route of the tunnel. Raised or non-mountable medians, and barrier widths are to be excluded from the summation.

Structure Width Curb-to-Curb continued...

Commentary

Bridges

Usable roadway width includes the width of traffic lanes and the widths of shoulders.

Shoulders must be contiguous with the traveled way and must be structurally adequate for all weather and traffic conditions consistent with the facility carried. Unstabilized grass or dirt, with no base course, flush with and beside the traffic lane is not to be considered a shoulder for this item.

For bridges under fill, the usable roadway width crossing the bridge is commonly the same value reported for Item B.G.09 (Approach Roadway Width).

A barrier or curb greater than 6 inches high may be considered non-mountable for these specifications.

Tunnels

FHWA has indicated that double decked tunnels (Alaskan Way Tunnel) should be coded for the minimum deck width for a single level.

Ramps should be excluded when included as part of a tunnel system. The intent is to determine the restrictions of the primary route of the tunnel.

Raised or non-mountable medians, and barrier widths are to be excluded from the summation.

See Figure 2.6.2

Structure Width Curb-to-Curb continued...

Examples

Record measurement A.

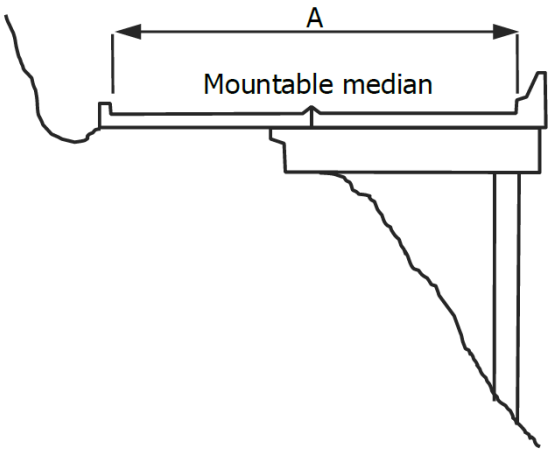


Figure 43. Cross-section view of a sidehill bridge.

Record measurement A.

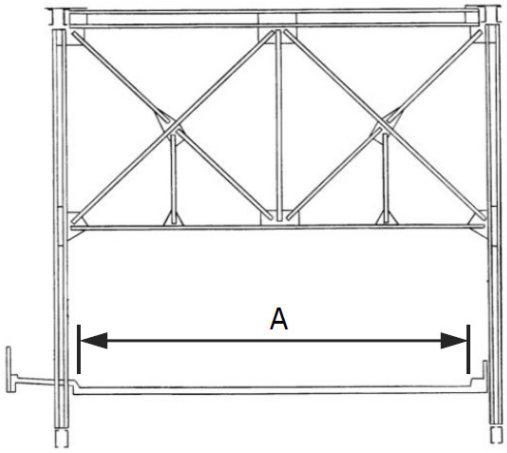


Figure 44. Cross-section view of a through truss bridge.

Record measurement A.

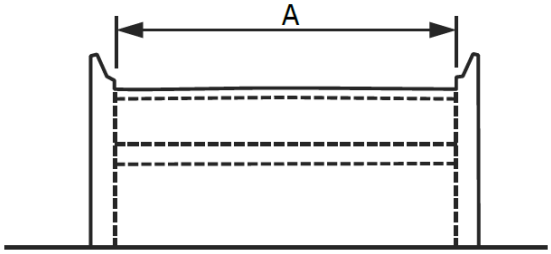


Figure 45. Cross-section view of a filled arch bridge or culvert under fill with headwalls.

Record measurement A.

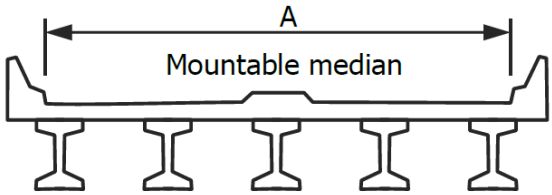


Figure 46. Cross-section view of a multi-girder bridge.

Record the sum of A+B.

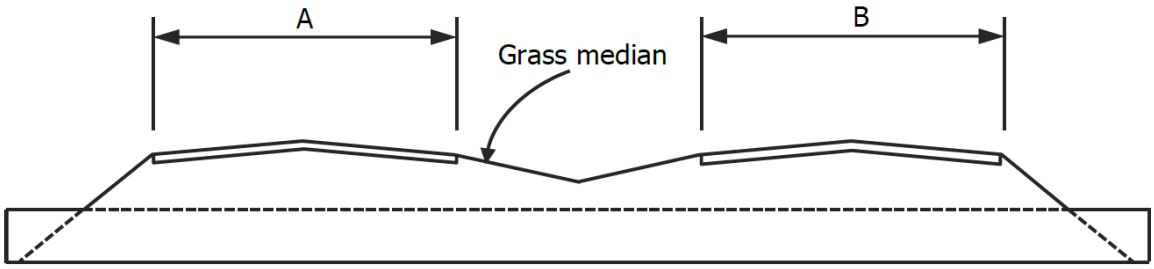


Figure 47. Cross-section view of a pipe culvert under fill.

Structure Width Curb-to-Curb continued...

Examples Continued

Record measurement A.

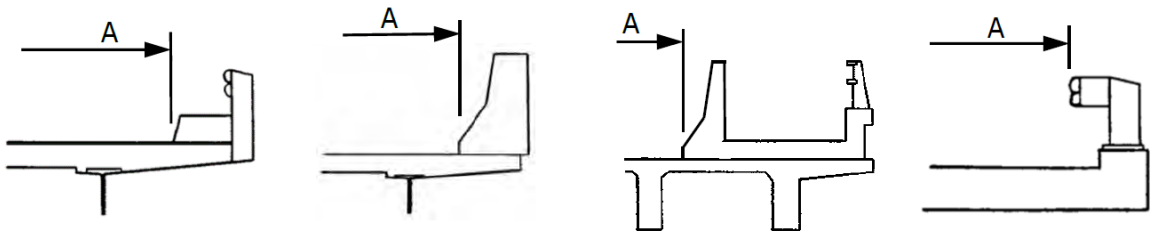


Figure 48. Partial cross-section views of various bridge decks with railings.

Record measurement A.

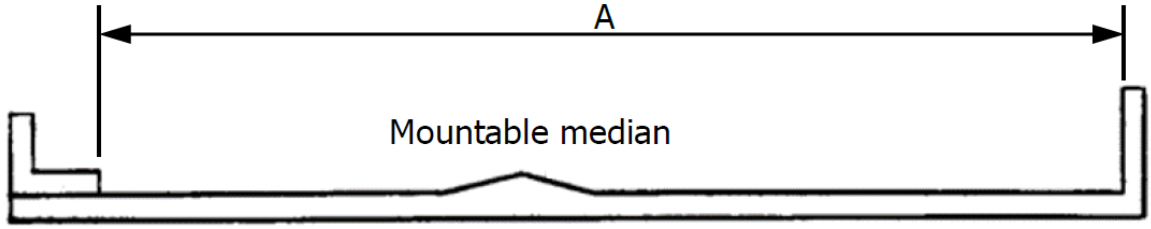


Figure 49. Cross-section view of a bridge deck with mountable median.

Record the sum of A+B+C.

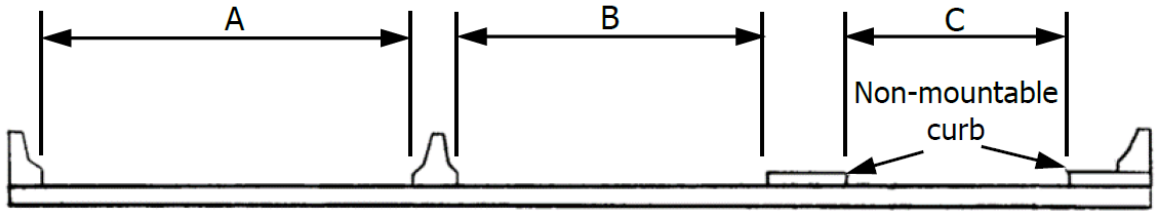


Figure 50. Cross-section view of a bridge deck with non-mountable curb and median barrier.

Record the sum of A+B.

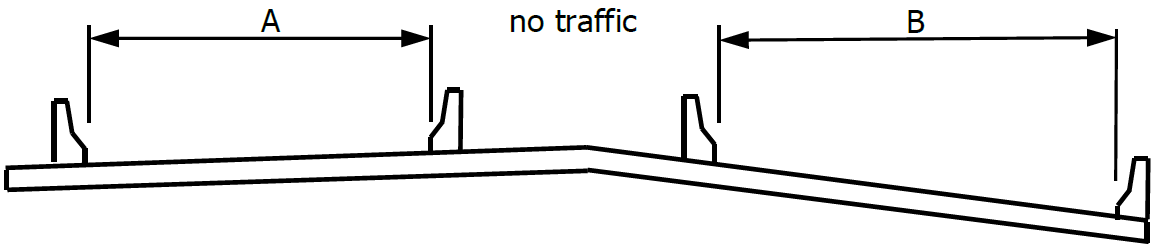


Figure 51. Cross-section view of a bridge deck with multiple median barriers.

Structure Width Curb-to-Curb continued...

Example - Tunnel Structure Width Curb-to-Curb

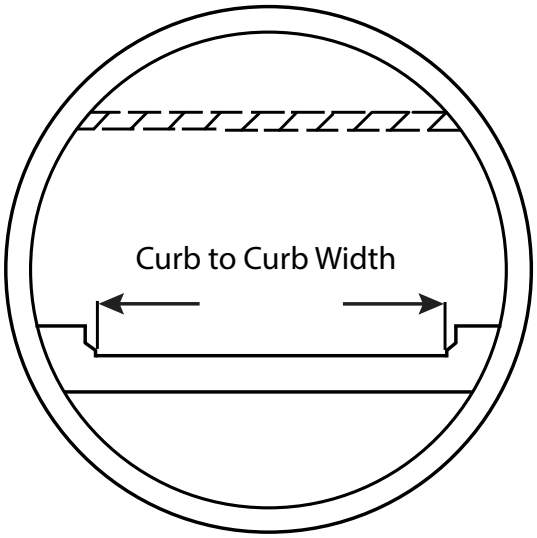


Figure 2.6.2 - Drawing of tunnel width curb to curb

Left Curb or Sidewalk Width

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(3,1)	N(3,1)	I	BG07	B.G.07	G.4

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**
- **Type 3 - Tunnels carrying public roadways within**

Specification

This field applies to Type 1 and 3 structure types, including vehicular bridges and tunnels.

Bridges
Record the minimum width of the left curb or sidewalk to the nearest tenth of a foot from the face of bridge rail to the face of curb. Measure the width perpendicular to the centerline of the roadway.

Record 0.0 when the face of the curb does not extend beyond the face of the bridge rail.

Record 0.0 when there is no left curb or sidewalk.

Left and right are determined based on the direction of the inventoried route carried by the bridge, commonly west to east or south to north.

When a defined longitudinal joint exists between the curb and the sidewalk, such as a granite curb and concrete sidewalk, measure the width from the face of bridge rail to the face of the granite curb.

Tunnels
Record the minimum width of the left sidewalk to the nearest tenth of a foot from the face of tunnel liner to the face of curb. Measure the width perpendicular to the centerline of the roadway.Record 0 when the face of the curb does not extend beyond the face of tunnel liner.

Record 0 when the face of curb does not extend beyond the face of tunnel liner.

Left and right are determined on the basis of the inventoried route carried within the tunnel, commonly west to east or south to north.

See Figure 2.6.3

Left Curb or Sidewalk Width continued...

Examples

Record measurement C.

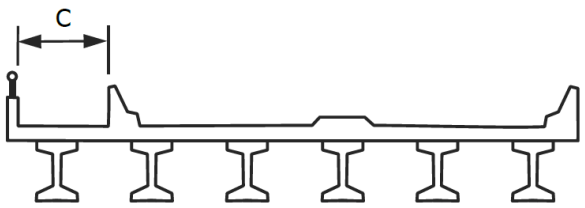


Figure 52. Cross-section view of a multi-girder bridge.

Record measurement C.

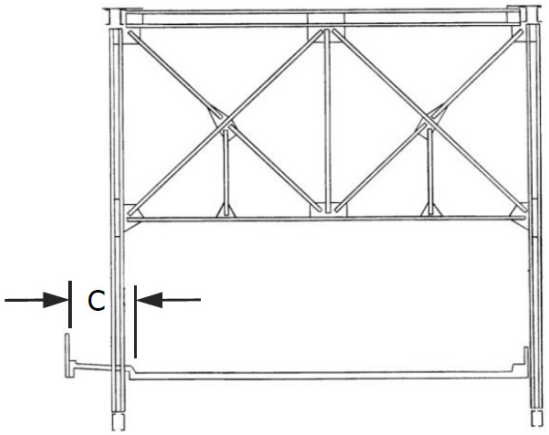


Figure 53. Cross-section view of a through truss bridge.

Record measurement C.

Figure 54. Cross-section view of a slab bridge.

Record measurement C.

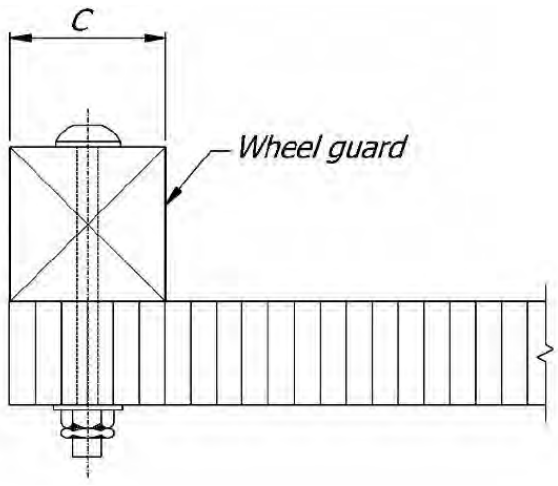


Figure 55. Cross-section view of a timber wheel guard.

Left Curb or Sidewalk Width continued...

Examples Continued

Record measurement C.

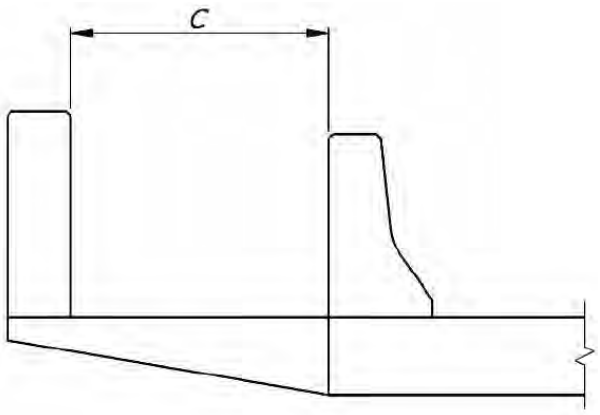


Figure 56. Cross-section view of a sidewalk retrofit.

Record measurement C.

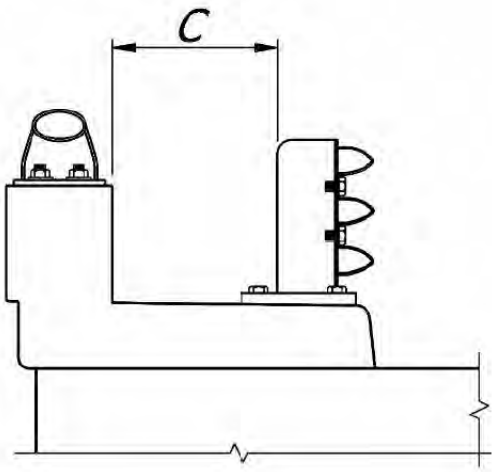


Figure 57. Cross-section view of a sidewalk retrofit.

Record measurement for left sidewalk width.

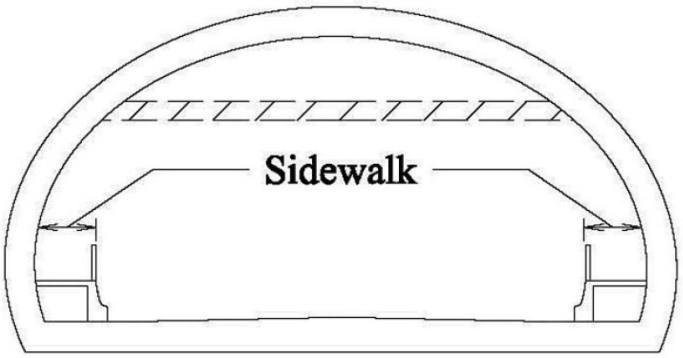


Figure 2.6.3 - Drawing of Sidewalk Width

Right Curb or Sidewalk Width

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(3,1)	N(3,1)	I	BG08	B.G.08	G.5

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**
- **Type 3 - Tunnels carrying public roadways within**

Specification

This field applies to Type 1 and 3 structure types, including vehicular bridges and tunnels.

Bridges
Record the minimum width of the right curb or sidewalk to the nearest tenth of a foot from the face of bridge rail to the face of curb. Measure the width perpendicular to the centerline of the roadway.

Record 0.0 when the face of the curb does not extend beyond the face of the bridge rail.

Record 0.0 when there is no right curb or sidewalk.

Tunnels
Record the minimum width of the right sidewalk to the nearest tenth of a foot from the face of tunnel liner to the face of curb. Measure the width perpendicular to the centerline of the roadway.

Record 0 when the face of curb does not extend beyond the face of tunnel liner.

Left and right are determined on the basis of the inventoried route carried within the tunnel, commonly west to east or south to north.

Right and left is determined based on the direction of the inventoried route carried by the bridge, commonly west to east or south to north.

When a defined longitudinal joint exists between the curb and the sidewalk, such as a granite curb and concrete sidewalk, measure the width from the face of bridge rail to the face of the granite curb.

See Figure 2.6.3a

Right Curb or Sidewalk Width continued...

Examples

Record measurement C.

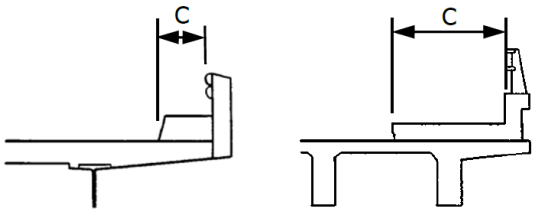


Figure 58. Partial cross-section views of various bridge decks with railings.

Record measurement C.

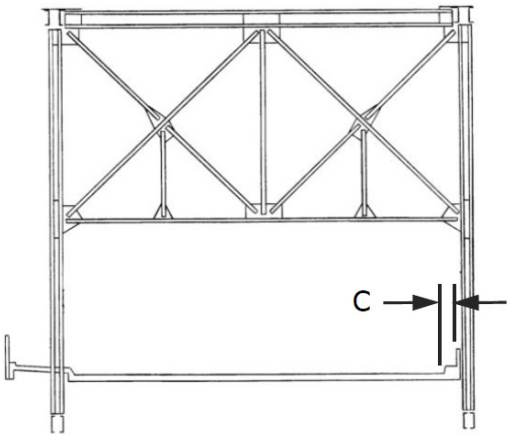


Figure 59. Cross-section view of a through truss bridge.

Record measurement C.

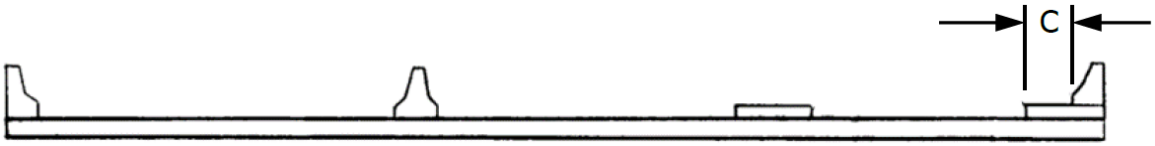


Figure 60. Cross-section view of a slab bridge wi th various medians.

Record measurement C.

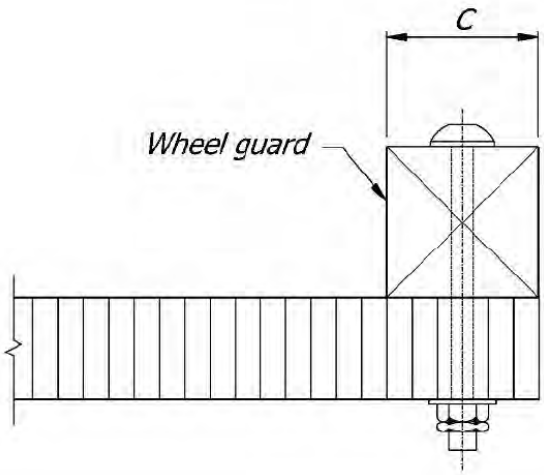


Figure 61. Cross-section view of a timber wheel guard.

Right Curb or Sidewalk Width continued...

Examples Continued

Record measurement C.

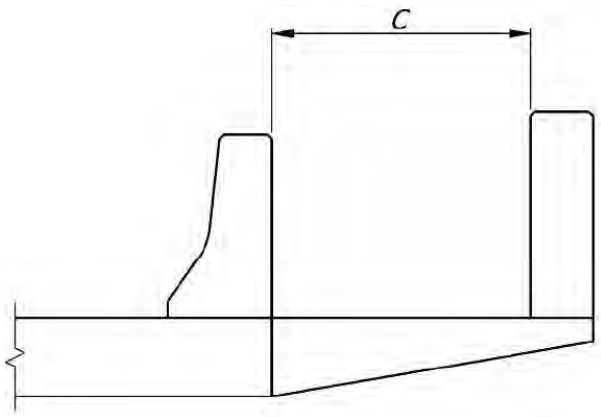


Figure 62. Cross-section view of a sidewalk retrofit.

Record measurement C.

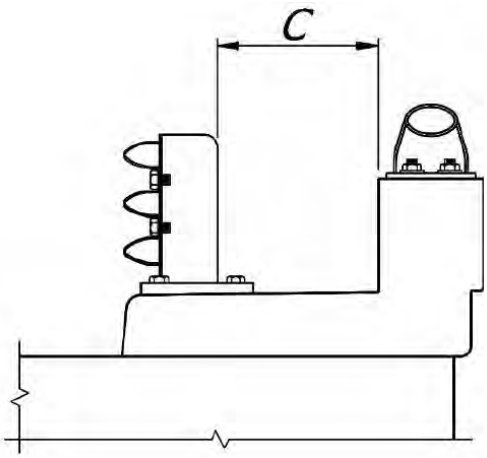


Figure 63. Cross-section view of a sidewalk retrofit.

Record measurement for right sidewalk width.

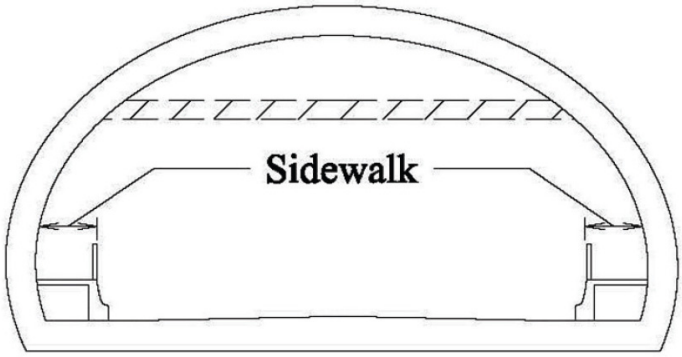


Figure 2.6.3a - Drawing of Sidewalk Width

Approach Roadway Width

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(4,1)	N(4,1)	I	BG09	B.G.09	-

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

Specification	Commentary
Record the minimum usable approach roadway width within 100' of the bridge to the nearest tenth of a foot. Exclude from the usable distance measurement: non-mountable medians, sidewalks, and other protected areas with non- mountable curbs or barriers. Record the lesser of the two approach roadway widths for bridges that carry two-way traffic. Record the width at the approach end for bridges that carry one-way traffic. For double decked structures, this item should be coded as the sum of the usable roadway widths for the approach roadway. If a ramp is adjacent to the through lanes approaching the structure, it shall be included in the approach roadway width.	Usable roadway width includes the width of traffic lanes and the width of shoulders. Shoulders must be contiguous with the traveled way and must be structurally adequate for all weather and traffic conditions consistent with the facility carried. Unstabilized grass or dirt, with no base course, flush with and beside the traffic lane is not to be considered a shoulder for this item. A curb greater than 6 inches high may be considered non-mountable for these specifications.

Approach Roadway Width continued...

Examples

Both roadways are carried on one bridge. Record the sum of measurements A and B.

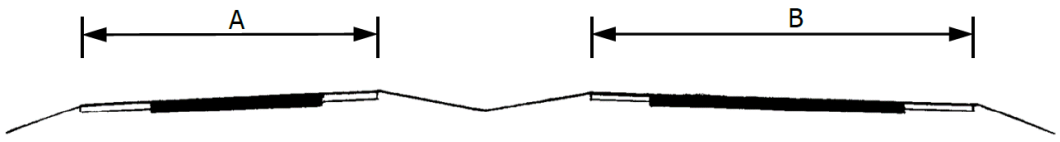


Figure 64. Cross-section view of two approach roadways that are carried across one bridge.

Mainline and Ramp are both carried on one bridge. Record the sum of measurements A and B.

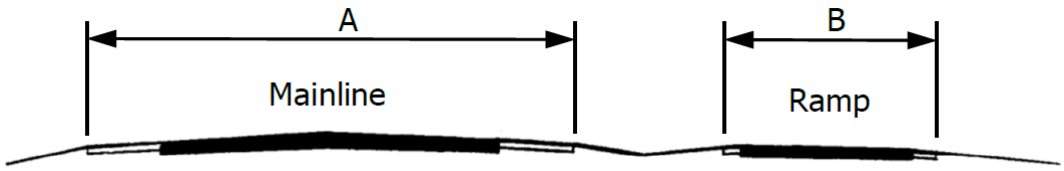


Figure 65. Approach roadway cross-section view for a mainline and a ramp that are carried across one bridge.

Mainline and Ramp are carried on separate bridges.

- Record measurement A for the Mainline bridge.
- Record measurement B for the Ramp bridge.

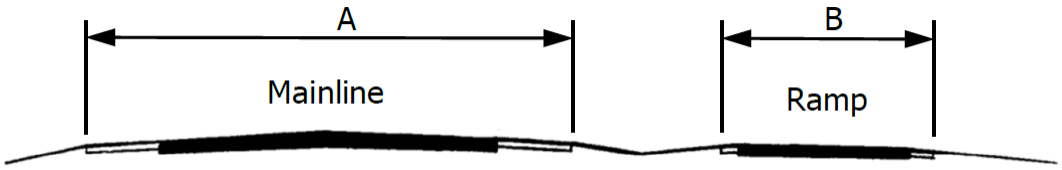


Figure 66. Approach roadway cross-section view for a mainline and a ramp that are carried across separate bridges.

Bridge Median

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(1)	AN(1)	I	BG10	B.G.10	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification

Code the type of bridge median using one of the following codes.

Code	Description
0	No median
1	Open median
2	Closed median (mountable)
3	Closed median (non-mountable)

Parallel bridges carrying a single divided route (usually interstates) are coded 0 unless there is a median on the bridge deck itself.

Parallel bridges with divided or undivided routes separated only by a longitudinal deck joint are coded 1 when traffic cannot safely traverse the joint width. If the joint width is safely traversable, use one of the remaining codes. Joint condition does not affect the coding of this item.

Adjacent bridges carrying separate routes are coded 0 unless there is a median on the bridge deck itself.

Commentary

A barrier or curb greater than 6 inches high may be considered non-mountable for these specifications.

For bridges with a longitudinal joint, use code 1 when traffic cannot safely traverse the joint width. If the joint width is safely traversable, use one of the remaining codes. Joint condition does not affect the coding of this item.

Code 0 for bridges that do not have a median, including bridges that carry adjacent traffic lanes separated only by centerline, edge line, or channelization striping, with or without a traversable longitudinal joint.

Code 1 for structures that pass continuously under separated roadways on fill without any barriers in place – usually culverts.

Code 2 for bridges with medians that are either flush or mountable, with or without a traversable longitudinal joint, including areas that are striped to designate a median.

Code 3 for non-mountable medians, including medians separated with vertical curbs 6” high or greater, guardrails, or concrete rails.

Bridge Median continued...

Examples

Each example below represents a single bridge.

Code 1.

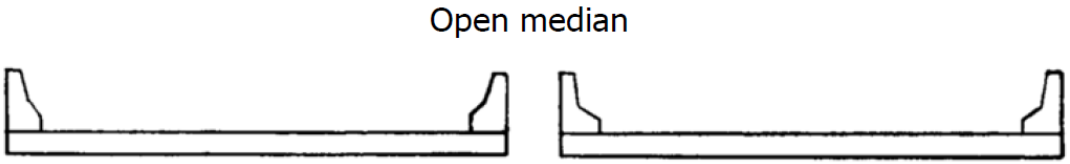


Figure 67. Cross-section view of a bridge deck with open median.

Code 2.

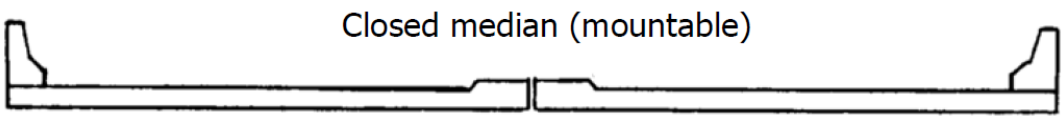


Figure 68. Cross-section view of a bridge deck with closed median (mountable)

Code 3.

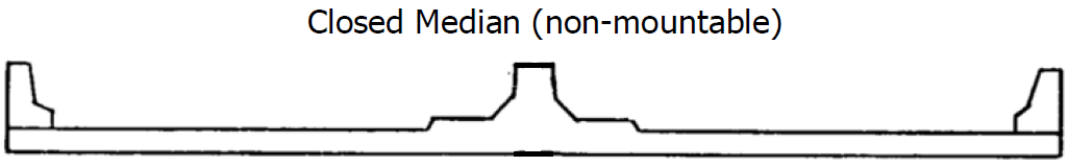


Figure 69. Cross-section view of a bridge deck with closed median (non-mountable).

Skew Angle

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(2,0)	N(2,0)	I	BG11	B.G.11	-

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

Specification	Commentary
Code the skew angle to the nearest degree. Measure the skew angle between the centerline of a substructure unit and a line perpendicular to the roadway centerline. Code the maximum skew when skews vary amongst substructure units. Code 0 if there is no skew.	The skew angle can be taken directly from the plans, if available, or measured in the field.

Example

Record the skew as the result of Sin-1(A/C), Cos-1(B/C) or Tan-1 (A/B).

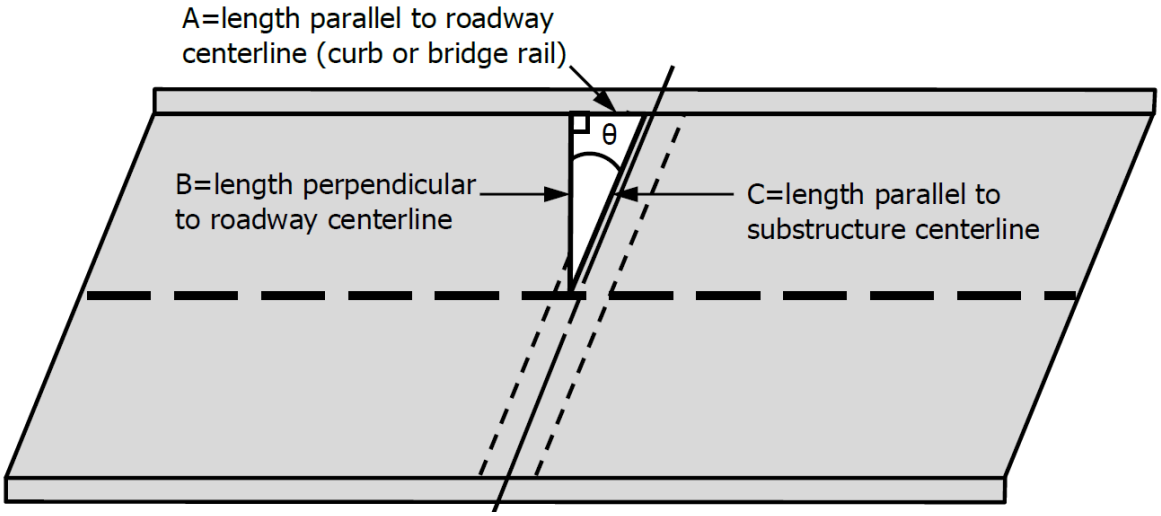


Figure 70. Plan view of a bridge deck indicating skew determination.

Curved Bridge

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(2)	I	BG12	B.G.12	-

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

Specification	Commentary
Code whether the bridge is horizontally curved using one of the following codes. **Code** — **Description** CU — Curved girder(s) CP — Piecewise straight girders CK — Kinked girder(s) N — Not curved	A bridge is considered horizontally curved when at least one partial or full length girder line forms a curve using either a curved girder(s), piecewise straight girders forming a segmented/chorded curve, or a kinked girder(s). For this specification, a piecewise straight girder line is comprised of girders with a longitudinal axis that changes orientation at one or more supports. The girder line may be simply supported or continuous at supports. A kinked girder is a girder with a longitudinal axis that changes orientation at a location(s) along the girder length excluding at the supports. ~~Diaphragm and cross-frame members in horizontally curved bridges are primary members.~~ Use code N for bridges that have curved deck geometry, or may be striped as curved, but the girders do not form a curve. w/ FHWA errata#1 03/24

Curved Bridge

Examples

Record CU.

Figure 71. Curved bridge with curved girders. (Source: Alaska DOT)

Record CP.

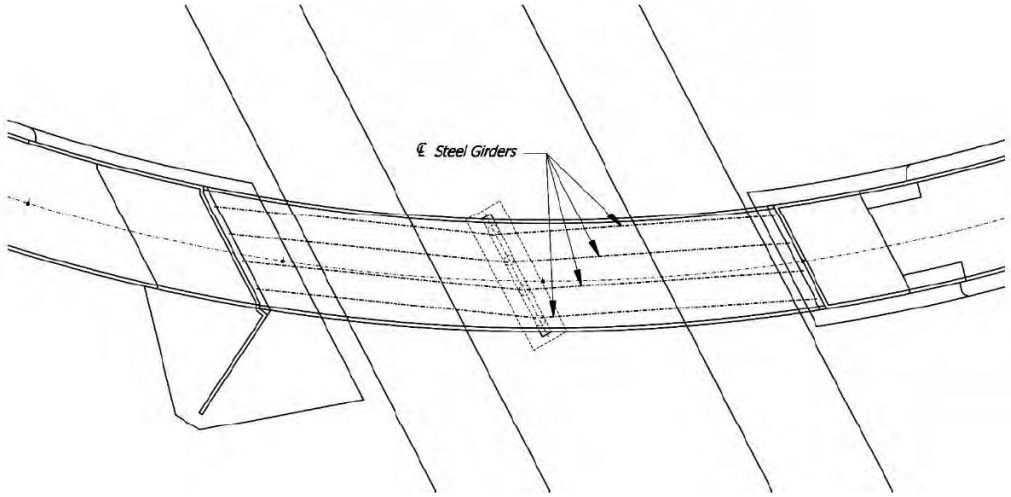


Figure 72. Plan view of a curved bridge with piecewise straight girders.

Curved Bridge

Examples Continued

Record CK.

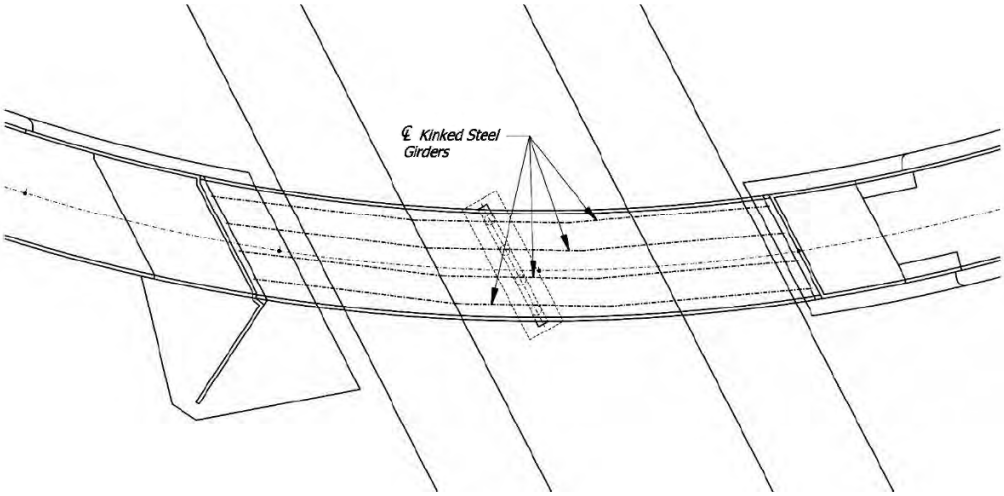


Figure 73. Plan view of a curved bridge with kinked girders.

Maximum Bridge Height

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(4,0)	N(4,0)	I	BG13	B.G.13	-

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

Specification	Commentary
Record the maximum height from top of deck to ground line or water surface elevation, whichever yield the largest value, rounded to the nearest foot.	For double-deck bridges inventoried as one bridge, measure from top of deck of the lower deck. For double-deck bridges inventoried as two bridges, measure from the top of deck of the inventoried bridge. For bridges under fill, excluding closed spandrel arches, measure from top of slab, or top of pipe, to water surface elevation. When there is no waterway feature, measure to inside bottom of pipe, inside of floor slab, or ground line when the bottom is unexposed or the bridge is bottomless. For closed spandrel arches measure from top of roadway surface. Ground line represents dry terrain or pavement. ~~pavement, or waterway bottom.~~ Use the water surface elevation at the time the value for this item is established. This item may be estimated by field observation or from plans when it is not practical or is infeasible to measure, or height is more than 30 ft. This item does not need to be updated due to fluctuations in water surface elevation. w/ FHWA errata#1 03/24

Maximum Bridge Height continued...

Example

Bridge carries SR170 over Felix Creek and County Trail. Report 27.

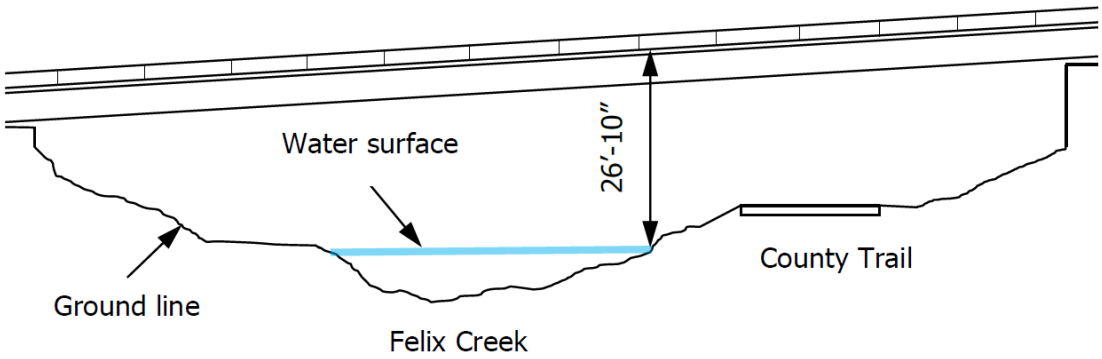


Figure 74. Profile view of a bridge over a creek and trail.

Sidehill Bridge

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(1)	I	BG14	B.G.14	-

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

Specification

Code the inspection type or scour monitoring performed using one of the following codes.

Code	Description
N	Not a sidehill bridge
Y	Is a sidehill bridge

Commentary

A sidehill bridge is a structure built onto the side of terrain or earth material with the roadway centerline running nearly parallel to the face of the terrain or material. The roadway is carried partially on structure and partially on terrain that has been modified by cutting or filling to form the required roadway subgrade elevation.

For sidehill bridges, Item B.G.06 (Structure Width Curb-to-Curb) is typically larger than Item B.G.05 (Structure Width Out-to-Out).

For sidehill bridges with irregular geometry, reporting the actual deck area in Item B.G.15 (Irregular Deck Area) provides a more accurate value than using the default calculation described for that item.

Use code N when no portion of the bridge is a sidehill structure.

Example - Sidehill Bridge

A bridge is built onto the side of a hill with the roadway partially on ground and partially on structure. Report Y.

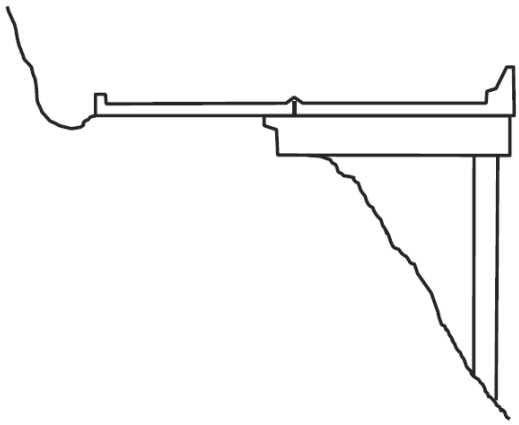


Figure 75. Cross-section view of a sidehill bridge.

Irregular Deck Area

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(10,1)	N(10,1)	I	BG15	B.G.15	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not cross over or under a public roadway**

Specification	Commentary
Record the total deck area rounded to the nearest tenth of a square foot. **Leave this field blank when BG16 Calculated Deck Area accurately represents deck area.** Only report this item when the actual area is obtained from plans or measurement of bridges with irregular geometry. The limits of measurement shall be in accordance with Items B.G.05 (Structure Width Out-to-Out) and B.G.02 (Total Structure Length). For bridges that carry multiple types of service, for example highway and railroad, report the deck area that encompasses all service types.	Reporting the deck area calculated from plans may more accurately reflect the deck area for bridges with unusual geometry (e.g. flared, sidehill, or bifurcated structures), or through structures with cantilevered sidewalks. This item can improve the accuracy of national performance measure computations, estimating cost, etc.

Calculated Deck Area

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Calculated	N(10,1)	I	BG16	B.G.16	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not cross over or under a public roadway**

Specification	Commentary
The default calculation for bridges is the value reported in Item B.G.05 (Structure Width Out-to- Out) multiplied by the value reported in Item B.G.02 (Total Structure Length) rounded to the nearest tenth of a square foot.	This default deck area will be used for national bridge performance measures unless the Irregular Deck Area B.G.15 is coded.

Min. Vert. Clearance Over Deck (ft & in) *(Old Item 1370)*

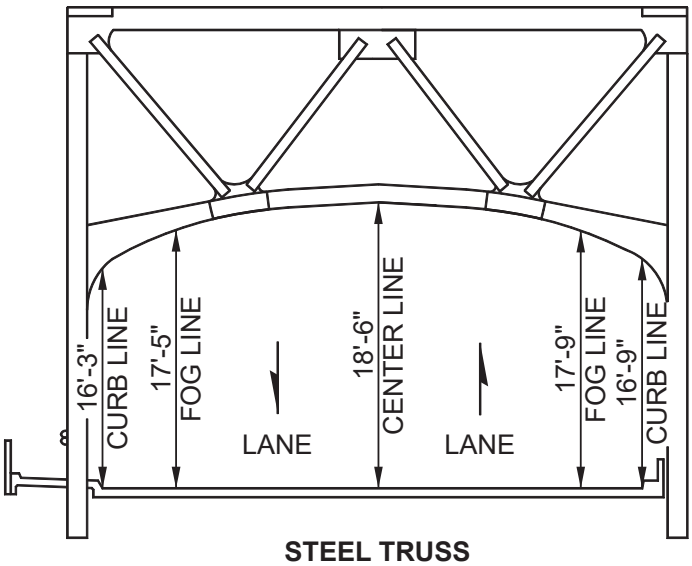
Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(4,0)	-	EI	WH12	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification	Specification Continued
The information to be recorded for this item is the actual minimum vertical clearance over the bridge roadway, including shoulders, to any superstructure restriction, in feet and inches, rounded to the lesser inch (e.g., 16′ 3¾″ is to be coded 1603).	For double decked structures code the minimum, regardless whether it is pertaining to the top or bottom deck. When no superstructure restriction exists above the bridge roadway code 9999. When a restriction is 100 feet or greater code 9912.

Example - Min Vert. Clearance Over Deck (ft & in)



STEEL TRUSS

CODE: **1603**

Figure 1370

Min. Vert. Clearance Under Bridge (ft & in) *(Old Item 1374)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(4,0)	-	EI	WH13	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**

Specification

Code the minimum vertical clearance from the roadway (travel lanes only)* or railroad track beneath the structure to the underside of the superstructure.

If the bridge crosses both a highway and a railroad, code the highway clearance UNLESS the railroad has a substandard clearance based on current design criteria and the roadway is NOT substandard.

Roadway standard minimum clearance is 16' - 6" and RR standard minimum clearance is 22' - 6".

Specification Continued

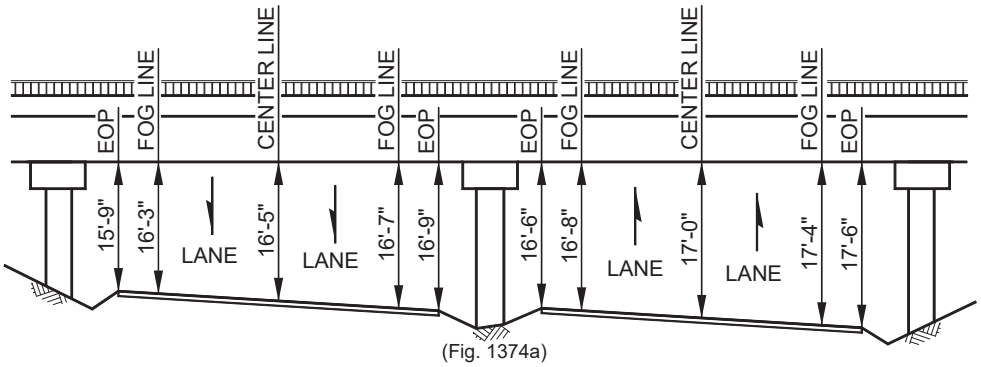
The information to be recorded is the actual minimum vertical clearance over the traveled way to the structure, in feet and inches, rounded to the lesser inch (e.g., 16′ 3¾″ is to be coded 1603). When a restriction is 100 feet or greater, code 9912.

If the feature is not a highway or railroad, code the minimum vertical clearance 0. A highway is to be considered any functionally classified, public road. Private roads are not to be included.

* Traveled way, or travel lanes, is between fog lines and excludes shoulders or gore areas. In cases where there are no fog lines, judgement shall be used to determine edges of traveled way.

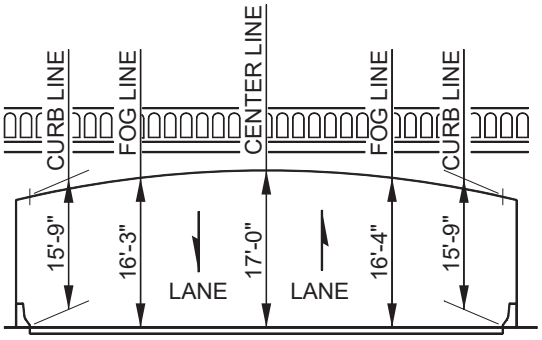
Min. Vert. Clearance Under Bridge (ft & in) continued... *(Old Item 1374)*

Examples



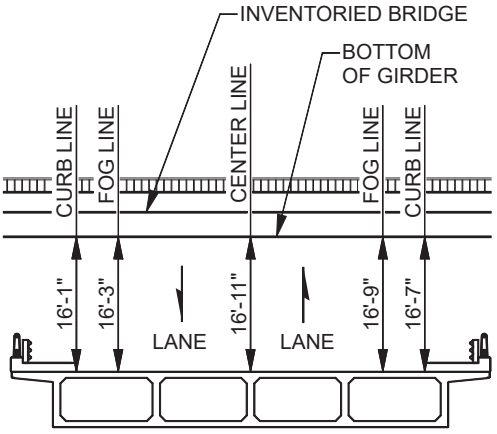
(Fig. 1374a)
DIVIDED HIGHWAY
CODE: 1603

Figure 1374a



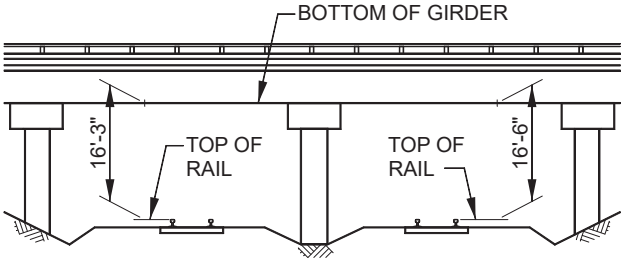
(Fig. 1374b)
UNDIVIDED HIGHWAY
CODE: 1603

Figure 1374b



(Fig. 1374c)
BRIDGE OVER BRIDGE
CODE: 1603

Figure 1374c



(Fig. 1374d)
RAILROAD
CODE: 1603

Figure 1374d

Service In Tunnel - SNTI

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(1,0)	-	I	TA8	-	A.8

Applicable Structure Types

- **Type 3 - Tunnels carrying public roadways within**

Specification	Commentary
Code the type of service in the tunnel using a 1-digit code. The types of service in the tunnel and shall be coded using one of the following codes in Table TA8.	Railroad types include freight, light rail, commuter rail, high-speed, electrified, and transit. Use code 3 for bicycles and other non- highway modes of human transportation not covered in other codes (e.g., golf carts).

Table TA8 Service In Tunnel Code - SNTI

WSBIS/SNTI Code	Description
1	Highway
2	Highway and Railroad
3	Highway and Pedestrian
4	Highway, Railroad and Pedestrian
5	Other

Min. Vert. Clear. Over Tunnel Rdwy - SNTI

Format	SNTI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(5,1)	N(5,1)	I	TG2	-	G.2

Applicable Structure Types

- **Type 3 - Tunnels carrying roadways within**

Specification	Specification Continued
Code the minimum vertical clearance between the mainline tunnel roadway surface and any overhead restriction, i.e. tunnel ceiling, overhead signs, lighting, etc.	The roadway surface includes any surface on which a vehicle can travel, including shoulders. Ramps should be excluded when included as part of a tunnel system. The intent is to determine the restrictions of the primary route of the tunnel.

Examples - Min. Vert. Clear. Over Tunnel Rdwy - SNTI

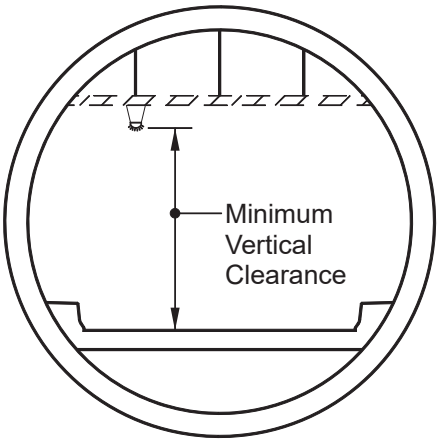


Figure TG2a

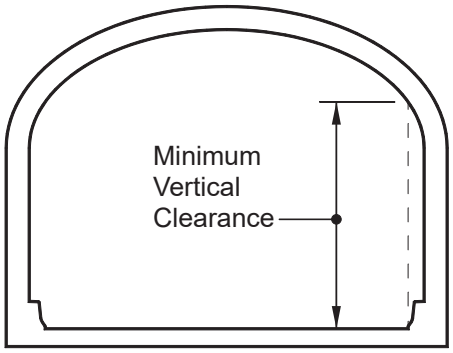


Figure TG2b

Tunnel Shape

Number of Bores - SNTI

Format	SNTI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	N(1,0)	I	TS1	-	S.1

Applicable Structure Types

- **Tunnels carrying public roadways within**

Specification	Commentary
Code the one digit number defining the number of bores in a tunnel. When recording and coding for this item, use the number of bores associated with Item ID I. - Tunnel Number.	Definition of a Tunnel Bore - an underground passageway for vehicles that pass under a mountain, waterway, or an urban area. A ramp should not be counted as a bore unless it is being coded as a separate tunnel.

Examples - Number of Bores - SNTI

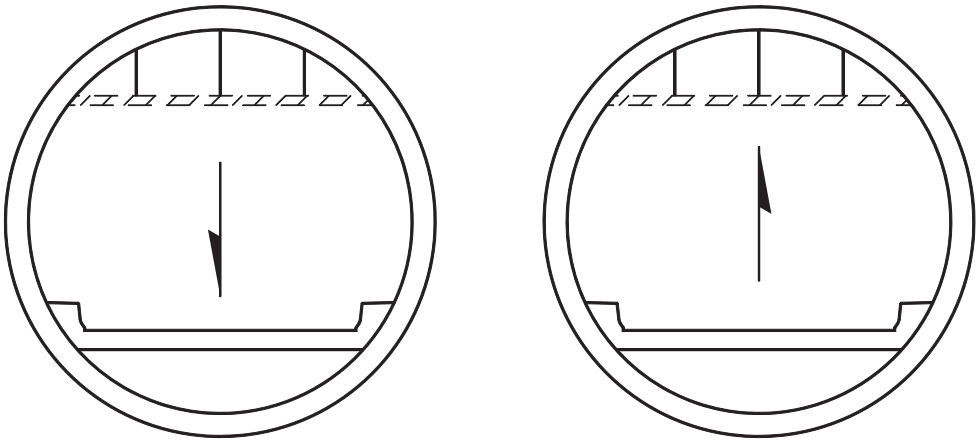


Figure TS1a Two Bores

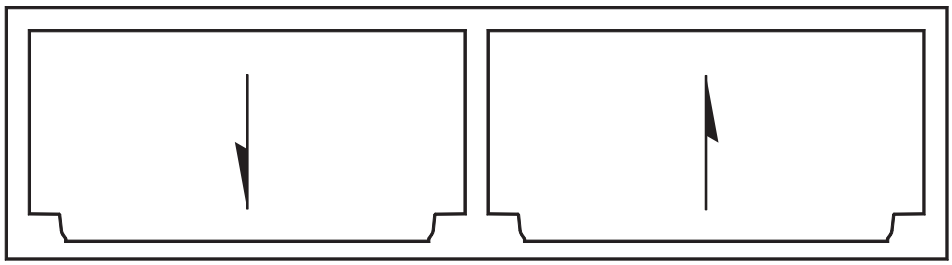


Figure TS1b One Bore

Tunnel Shape - SNTI

Format	SNTI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	N(1,0)	I	TS2	-	S.2

Applicable Structure Types

- **Tunnels carrying public roadways within**

Specification	Commentary
Code the type of tunnel shape. **Code** / **Description** 1 Oval 2 Horseshoe 3 Rectangular 4 Circular	Definition of a Tunnel Bore - an underground passageway for vehicles that pass under a mountain, waterway, or an urban area. A ramp should not be counted as a bore unless it is being coded as a separate tunnel.

Examples - Tunnel Shape - SNTI

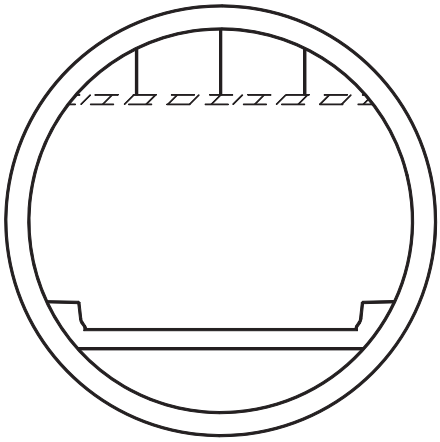


Figure TS2a Circular Tunnel

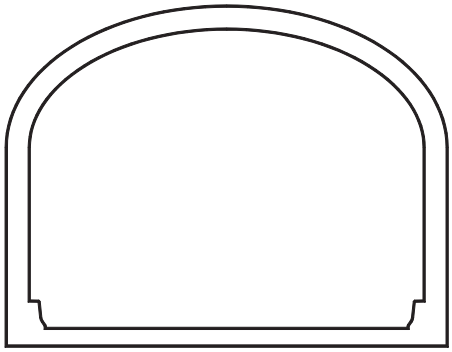


Figure TS2b Horseshoe Tunnel

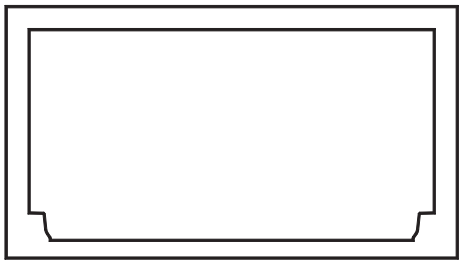


Figure TS2c Rectangular Tunnel

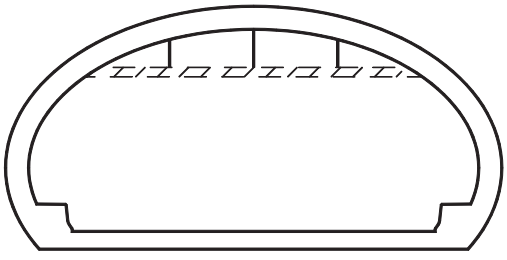


Figure TS2d Oval Tunnel

Portal Shape - SNTI

Format	SNTI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	N(1,0)	I	TS3	-	S.3

Applicable Structure Types

- **Tunnels carrying public roadways within**

Specification	Commentary
Code the type of portal shape. Code: 1 = Oval; 2 = Horseshoe; 3 = Rectangular; 4 = Circular; 5 = Other	See example shapes shown for Item ID TS2 Tunnel Shape: Figures TS2a, TS2b, TS2c, TS2d.

Ground Conditions - SNTI

Format	SNTI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	N(1,0)	I	TS4	-	S.4

Applicable Structure Types

- **Tunnels carrying public roadways within**

Specification	Commentary
Code the type of ground conditions. 1 Soil 2 Rock 3 Mixed Face	**Soil** is used to define ground conditions consisting primarily of clay, silt, sand, gravel or a mixture. **Rock** is used to define ground conditions consisting primarily of material that has rock structure in weathered to sound condition. **Mixed Face** usually refers to a situation where the soil conditions vary along the length and/or height of the tunnel.

Complex Tunnel - SNTI

Format	SNTI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	N(1,0)	I	TS5		S5

Applicable Structure Types

- **Tunnels carrying public roadways within**

Specification	Commentary
Code whether the tunnel is complex using one of the following codes: **Code** — **Description** 0 — The tunnel is not complex 1 — The tunnel is complex Do not report this item for bridges that do not have steel members as indicated in Items B.SP.04 (Span Material) and B.SB.03 (Substructure Material).	A complex tunnel is characterized by advanced or unique structural elements or functional systems. Complex tunnels may include mechanical or fire suppression equipment to ventilate exhaust from the tunnel or provide protection against tunnel fires. A non-complex tunnel in contrast is typically of a shorter length, not requiring any ventilation, and may or may not have lighting installed

Tunnel Restrictions

Height Restrictions - SNTI

Format	SNTI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	N(1,0)	I	TL10	-	L.10

Applicable Structure Types

- **Tunnels carrying public roadways within**

Specification	Commentary
Code whether the tunnel has a height restriction using one of the following codes: **Code** — **Description** 1 — Yes, there is a height restriction, with measured clearance < 14’-4” 0 — No, there is no height restriction, with measured clearance => 14’-4”	

Hazardous Material Restriction - SNTI

Format	SNTI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	N(1,0)	I	TL11	-	L.11

Applicable Structure Types

- **Tunnels carrying public roadways within**

Specification	Commentary
Code whether the tunnel has a hazardous material restriction using one of the following codes **Code** — **Description** 1 — Yes, there is a hazardous material restriction 0 — No, there is no hazardous material restriction	

Other Restrictions - SNTI

Format	SNTI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	N(1,0)	I	TL12	-	L.12

Applicable Structure Types

- **Tunnels carrying public roadways within**

Specification	Commentary
Code whether the tunnel has a restriction other than load posting, height or hazardous material using one of the following codes: **Code** — **Description** 1 — Yes, there are other restrictions 0 — No, there are no other restrictions	Other restrictions could include width restrictions or requirements for police escorts for permit vehicles.

Features Tab

Main & Secondary Listing Code

Format	SNBI Format	Frequency	WSBIS Item	SNBI Item	SNTI Item
Calculated	-	I	2000	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specifications

The Main Listing Code (M) is used to represent the structure itself and is created when the structure is inventoried. There is only ever, one Main listing per structure.

- Typically this is the most significant highway feature carried by the bridge
- But in the case of Tunnels, Railroads or Pedestrian structures - it represents the highway under

The Secondary Listing Code (S) is used to represent any and all other features.

The main & secondary listing code is fully automated and relates to Item 1432.

On / Under Code

Format	SNBI Format	Frequency	WSBIS Item	SNBI Item	SNTI Item
Calculated	-	I	1432	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specifications

This field is now auto-calculated (with INV editability) when new features are added and the feature type and feature location have been specified.

WSBIS has four categories of On/Under codes:

0 - represents there is no highway feature associated with the structure (only used with Mains)

1 - represents the ON record - signifies that the highway (roadway) route or feature is carried on a structure - but not over a tunnel.

2, B-T - represents the UNDER record(s) - signifies that the highway/hpms (roadway) or other feature goes under the structure if it's a bridge, and through a structure if it's a tunnel.

- The under type code must be 2 and then an alphabetic letter (2, B, C, D, etc).
- If routes or features goes under a bridge 2, B, C, D, etc. consecutively for all
- If the structure is a tunnel, code 2.

3-9, U-Z - represents the ABOVE record(s) - signifies that a bridge is carried above another bridge.

- The above type code must start with 3, 4, 5, etc and then if more are needed use R through Z, consecutively for all.
- This code will also be used with Tunnels to represent what's above a tunnel
- The SNTI makes no distinction for tunnels, and WSBIS treats all tunnel records as Under records.

Table 1432 On / Under Code

WSBIS Code	SNBI/SNTI Code	Description
0	-	No highway/hpms feature on/under (Mains only)
1	-	Highway/hpms feature is on the structure
2, B - T	-	Features go under a bridge or through a tunnel
3 - 9, U - Z	-	Bridge above a bridge or feature above a tunnel

On / Under Code continued...

Specifications Continued

Additionally, in WSBIS each structure type corresponds to a single main listing, with a minimum of one secondary listing (can have many) and the appropriate on/under code associated, as follows:

(M1) Main Carried Feature = Represents the Type 1 structure and:

- Is always a highway feature carried on the bridge as the M1
- Can have S1's as additional highway features carried on (like ramps alongside mainline)
- Can have any feature type below/under S2, B-T
- Can have bridge above S3-9, U-Z

(M2) Main Below Feature = Represents the Type 2 structure and:

- The S1 feature is always carried on as the bridge (typically a railroad or pedestrian)
- Is always a highway feature below/under as the M2
- Can have any additional feature type below/under
- Cannot have a bridge above (*even if there is a bridge above, don't represent on type 2*)

(M2) Main Below Feature = Represents the Type 3 structure and:

- Is always a highway feature carried 'within' the tunnel as the M2
- Can have additional highway features carried 'within' as SB-T
- Can have any feature types above, except for waterway or relief for waterway S3-9, U-Z
- Sidewalks within a tunnel do not count as Pathway features carried within (see Table WF01)
- Must have at least one above feature S3-9, U-Z

(M0) Main - Carried Feature = Represents the Type 4 structure and:

- The M0 is always the carried feature and can be any feature type except:
  - » highway, waterway, or relief for waterway
- Can have any feature type below/under (S2, B-T) except for highway
- The M0 will have a route grid to associate route and milepost to the structure.
  - » Local Agencies and BPO will use their known method of input (Route as 5 digit number and Milepost with two digits after decimal)

Crossing Description

Format	SNBI Format	Frequency	WSBIS Item	SNBI Item	SNTI Item
AN(50)	-	I	WF03	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

This item describes the bridge crossing description from the perspective of the inventory route.

The crossing description field is used within all public facing applications like:

- Bridge Vertical Clearance Trip Planner (BVCTP)
- Bridge public facing GIS map services
- Other Internal Agency applications using our data

Examples

For Carried, Top & Lower Level Features (C,T,L)

- Roadname OVER Roadname (SR 512 OVER I-5)
- BNSF Railroad over Roadname
- Pedestrian bridge over Roadname

For Below Features (B)

- Roadname UNDER Roadname (I-5 UNDER SR 512)
- Waterway UNDER Roadname
- BNSF Railroad UNDER Roadname

For Above Features (A)

- Use Generic phrase: Bridge above Bridge
- Use Generic phrase: Dry Terrain above Tunnel

Feature Name

Format	SNBI Format	Frequency	WSBIS Item	SNBI Item	SNTI Item
AN(300)	AN(300)	I	BF03	B.F.03	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
Code the commonly known name(s) for the feature reported in Item B.F.01 (Feature Type). If the feature has no commonly known name, provide a general description. For more than one name, report all names with the most common name first. When applicable, report the route number first followed by other names. Code multiple names separated by pipe (|) delimiters.	This item has correlating data for each feature reported for Item B.F.01 (Feature Type). The owner may include directional or other descriptive information in this field. Official names and local names may be included. For border bridges, the Neighboring State reports this item for all highway features carried on or passing above the bridge, as part of their abbreviated bridge record. For more information, see the Border Bridges section of this document.

Examples

I-90, commonly named Massachusetts Turnpike. Report I-90|Massachusetts Turnpike.

I-64, with no commonly known name. Report I-64.

US 50 & US 301 carried on one highway commonly named John Hanson Highway. Report US 50|US 301|John Hanson Highway.

I-95S carried on the lower deck of the George Washington Bridge. Report I95S|George Washington Bridge - Lower Deck.

I-495 northbound. Report I-495 NB.

A bridge carries I-68 eastbound (commonly named Harry Byrd Expressway), and State Route 17 northbound (commonly named Paris Pike) over County Route 603 (commonly named Blue Ridge Mountain Road), the Appalachian Trail, and Postage Creek. I-68 eastbound and State Route 17 northbound share a common highway that is not divided at the bridge. Above the bridge is a ramp connecting I-68 westbound to County Route 603 southbound.

- Report I-68|Harry Byrd Expressway|SR17|Paris Pike for I-68/SR17.
- Report County Route 603|Blue Ridge Mountain Road for County Route 603.
- Report I-68 WB to County Route 603 SB for the ramp.
- Report Appalachian Trail for the pathway.
- Report Postage Creek for the waterway.

Structure Location

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(25)	AN(300)	EI	BL11	B.L.11	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

This item contains a narrative description of the structure location for the feature. Descriptions should be oriented ahead on station whenever possible. Do not use city limits, as these boundaries may move.

For each feature type use the following examples:

Highway

- 19.3 E JCT SR 203
- 14.7 E MASON CO

Railroad

- Railroad milepost, yard name or other railroad identifying location

Pedestrian

- leave blank

Waterway or Relief for Waterway

- navigable waterways use channel milepoint, node or nearest port
- non-navigable waterways leave blank

Urban Feature

- leave blank

Dry Terrain

- leave blank

Other

- leave blank

Feature Type

Format	SNBI Format	Frequency	WSBIS Item	SNBI Item	SNTI Item
Pulldown	-	I	WF01	W.F.01	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

All bridges have one feature carried on the bridge and one feature below the bridge. Some bridges have several features that are above, below, or carried on the bridge.

Code the feature type that is above, below, or carried on the bridge using one of the following descriptions in Table WF01.

Examples

A bridge carries I-66 eastbound and I-66 westbound over County Route 601 and Passage Creek. I-66 eastbound and westbound are divided at the bridge by an opening between two superstructure units supported by abutments common to both superstructures.

- Report H01 for I-66 eastbound.
- Report H02 for I-66 westbound.
- Report H03 for County Route 601.
- Report W01 for Passage Creek.

A bridge carries I-68 eastbound and State Route 17 northbound over County Route 603, the Appalachian Trail, and Postage Creek. I-68 eastbound and State Route 17 northbound share a common highway that is not divided at the bridge. Above the bridge is a ramp connecting I-68 westbound to County Route 603 southbound.

- Report H01 for I-68/SR17.
- Report H02 for County Route 603.
- Report H03 for the ramp.
- Report P01 for the Appalachian Trail.
- Report W01 for Postage Creek.

A bridge carries Brookside Glen Drive over Union Creek. The bridge carries sidewalks on the north and south sides.

- Report H01 for Brookside Glen Drive.
- Report P01 for the sidewalks.
- Report W01 for Union Creek.

Table WF01 Feature Type - Specifications

WSBIS/SNBI Code	SNTI Code	Description
Highway (H##)	-	Use code H for each unique highway feature. All public highways, roads or streets carried on, above, and below the bridge. Note for divided highways/roadways, where traffic flows in only one direction, there will be two separate features; one for each direction. Also note that "stacked" bridges will reference each other. Report one highway feature for a highway that is designated with two or more route numbers. This item does not include ancillary structures and utilities. For multi-level interchanges, report highway features directly above and below the bridge. The presence of a flush or mountable median ~~on the bridge~~ does not in itself indicate that the highway is divided. For a double deck bridge that is inventoried with one unique bridge number, report a feature for each deck level, (see Item BF02).
Railroad (RR##)	-	Use code R for each railroad service type listed in Item B.RR.01 (*Railroad Service Type*). All railroads carried on and below the bridge, including light rail and trolleys with tracks. If tracks are missing and no formal railway is present, code as Other feature type. Code a railroad feature for each separate railroad service type, as identified in Item B.RR.01 (*Railroad Service Type*), that is carried on or passes below the bridge. When a track carries multiple railroad service types, code only one feature. When multiple tracks carry the same railroad service type(s), code only one feature.
Pathway (P##)	-	Use code P for separated pathways carried on or are below the bridge, that are dedicated for pedestrian, bicycle, equestrian, including railroad grades that have been repurposed as pathways, or other non-highway modes of human transportation not covered in other codes. Sidewalks on the bridge (or within a tunnel) are not included as Pathways carried or Pathways Below, these are covered in Items BG07 and BG08. Note only one pathway feature is needed even if there are multiple pathways present. Do not include informal pathways.
Waterway (W##)	-	Use code W for each unique waterway. All waterways below the bridge, including canals, wasteway ditches, and intermittent streams with a defined channel. Siphons are not considered waterways, but are coded as Other features instead. Do not use for roadside ditches or pipes that typically only carry roadway runoff from rain events are not considered waterways.
Relief for Waterway (F##)	-	Use code F for bridges where one or more spans provide waterway openings for flow only during flood stages to provide additional hydraulic capacity, such as relief channels, as relief for waterway below the bridge. A relief is a channel constructed to be dry except during major floods. It is specifically designed to pass some of the floodwaters from the adjacent waterway. If there is a question regarding what constitutes a relief for waterway, contact the scour team for clarification.

Table WF01 Feature Type - Specifications

WSBIS/SNBI Code	SNTI Code	Description
Urban (B##)	-	Use code B for urban features such as buildings, parking lots, etc as urban features carried on or below the bridge. Reporting more than one Urban feature is optional.
Dry Terrain or side slope (D##)	-	Use code D for features such as a natural depression (dry terrain) or sidehill slope when there is no discernable waterway channel, locations that have seasonal snowmelt or other intermittent runoff without a defined channel (like agricultural field drainage). Note that this feature is only used if there is no other feature under the bridge and none of the other feature codes apply.
Other (X##)	-	Use code X when no other code applies for features that exist on or below the bridge. Examples include siphons, abandoned railroads not converted to pathways, and large utilities not attached to the bridge. Note utilities attached to the bridge are not considered a separate feature. Reporting more than one Other feature is optional.

Feature Designation

Format	SNBI Format	Frequency	WSBIS Item	SNBI Item	SNTI Item
AN(3)	(AN3)	I	BF01	B.F.01	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

This field is auto-sequenced after choosing the Feature Type in Item WF01.

The ## characters in the feature type codes (Table WF01) are auto-assigned with sequential numbers and leading zeros, based on each feature type for submittal to SNBI (e.g., H01, H02, etc.).

Feature Location

Format	SNBI Format	Frequency	WSBIS Item	SNBI Item	SNTI Item
AN(1)	AN(1)	I	BF02	B.F.02	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

Code the location for the feature type reported in Item WF01, that is above, below, or carried on the bridge using one of the following codes.

Code	Description
C	Carried on the bridge
A	Above bridge
B	Below bridge
T	Top level
L	Lower level

Commentary

This item has a corresponding auto-sequenced code for each feature reported for Item B.F.01 (Feature Type Designation).

Use code T for the top level of a double deck bridge that is inventoried using one unique bridge number.

Use code L for the lower level of a double deck bridge that is inventoried using one unique bridge number.

For border bridges, the Neighboring State reports this item for all highway features carried on or passing above the bridge, as part of their abbreviated bridge record. For more information, see the Border Bridges section of this document.

Feature Location continued...

Examples

A bridge carries I-66 eastbound and I-66 westbound over County Route 601 and Passage Creek. I-66 eastbound and westbound are divided at the bridge by an opening between two superstructure units supported by abutments common to both superstructures.

- Report C for I-66 eastbound.
- Report C For I-66 westbound.
- Report B for County Route 601.
- Report B for Passage Creek.

A bridge carries I-68 eastbound and State Route 17 northbound over County Route 603, the Appalachian Trail, and Postage Creek. I-68 eastbound and State Route 17 northbound share a common highway that is not divided at the bridge. Above the bridge is a ramp connecting I-68 westbound to County Route 603 southbound.

- Report C for I-68/SR17.
- Report B for County Route 603.
- Report A for the ramp.
- Report B for the Appalachian Trail.
- Report B for Postage Creek.

A bridge carries Brookside Glen Drive over Union Creek. The bridge carries sidewalks on the north and south sides.

- Report C for Brookside Glen Drive.
- Report C for the sidewalks.
- Report B for Union Creek.

Crossing Manager

Format	SNBI Format	Frequency	WSBIS Item	SNBI Item	SNTI Item
Pulldown	-	I	WF02	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

The Crossing Manager is the Program Manager responsible for the route identified in Item B.RT.02, whether that route is on or under the structure.

Latitude

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(9,6)	N(9,6)	I	BL05	B.L.05	I.13

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
Code the latitude of the bridge in decimal degrees at the location of the bridge following agency procedures. w/FHWA errata#1 03/24 **For Item Id WL10 Latitude End:** This field will be coded when the Structure Type is a 2 or 4 and is only for the Carried feature. **Submittal to SNBI/SNTI** will report the H01C record.	Mapping of bridges by FHWA will assume that the reported value is based on World Geodetic System 1984. The format accommodates reporting a negative sign which is counted as a digit. FHWA will adjust the polarity when it is incorrectly reported. The reported value does not need to be at the same location as the LRS mile point reported in Item B.H.07. LRS bridge mile point locations occurring on a chorded shape file created using only roadway mile points do not always correspond with the true latitude of a bridge. w/FHWA errata#1 03/24

Examples

Latitude is 50° 10’ 00.00” N. Report 50.166667.

Latitude is 53° 52.457' N. Report 53.874285.

Longitude

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(9,6)	N(9,6)	I	BL06	B.L.06	I.14

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
Code the longitude of the bridge in decimal degrees at the location of the bridge following agency procedures. BPO/Local Agencies code this field with a negative sign when entering data. w/FHWA errata#1 03/24 **For Item Id WL11 Longitude End:** This field will be coded when the Structure Type is a 2 or 4 and is only for the Carried feature. **Submittal to SNBI/SNTI** will report the H01C record.	Mapping of bridges by FHWA will assume that the reported value is based on World Geodetic System 1984. The format accommodates reporting a negative sign which is counted as a digit. FHWA will adjust the polarity when it is incorrectly reported. The reported value does not need to be at the same location as the LRS mile point reported in Item B.H.07 LRS bridge mile point locations occurring on a chorded shape file created using only roadway mile points do not always correspond with the true longitude of a bridge. w/FHWA errata#1 03/24

Examples

Longitude is 125° 10’ 00.00” W. Report -125.166667.

Longitude is 166° 32.784333' W. Report -166.546406.

Local Agency Routing Map *(Button)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
-	-	-	WL09	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

The Local Agency Routing Web Map was built to give access to authoritative gis datasets for SNBI data acquisition, in one easy to access location. This map is dynamic and may be revised periodically

The datasets within this web map include (but are not limited to):
LRS Local Agency Public Routes/Roads, County Road (CRAB), Non-State NHS, Nat'l Truck Network, Nat'l Highway Freight Network, STRAHNET, FRA Railroad, City, County, Place Code, Urban and Urbanized areas, Metro Planning Org, Township, Range and Section, BIA Reservations, and BIA Off-Reservation Trust Lands.

SNBI Reportable Flag

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	-	WF04	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification

Indicate if the feature is to be included in the National Bridge Inventory data submittal or not.

Feature types required to be reported to the SNBI include all features carried, below and above for structures that are subject to the NBIS.

Code	Description
Y	Include for submittal to SNBI
N	Do NOT include for submittal to SNBI

SNTI Reportable Flag

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	-	WF05	-	-

Applicable Structure Types

- **Type 3 - Tunnels carrying roadways within**

Specification

Indicate if the feature is to be included in the National Tunnel Inventory data submittal or not.

Code	Description
Y	If the feature type is a tunnel
N	If the feature type is NOT a tunnel

Bridge List Flag

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	-	WF07	-	-

Applicable Structure Types *(structures maintained by WSDOT Bridge Preservation)*

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

Indicate if the feature is to be included or not in the Bridge List M 23-09.

Features that should be included for the Bridge List are determined by what state owned highway is carried on or is below the structure.

For Local Agency owned structures, this item should always be coded 2.

Code	Description
1	If the highway feature type should be included in the Bridge List
2	If the highway feature type should NOT be included in the Bridge List

Crossing Structure ID *(Crossing Bridge Number)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(15)	AN(15)	I	BH18	B.H.18	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**

Specification	Commentary
Record the exact structure number(s) as assigned in Item B.ID.01 for the bridge carrying a highway feature that is located directly above or below the inventoried highway bridge. Do not report this item when the highway bridge does not pass above or below another bridge, or passes above or below a bridge that is not reportable to the SNBI. **Submittal to SNBI/SNTI** will report only Structure Type 1.	The intent of this item is to capture the structure number for bridges of a multi-level interchange, where bridges pass directly above or below other bridges. For border bridges, the Neighboring State reports this item for all highway features that pass above the bridge, as part of their abbreviated bridge record. For more information, see the Border Bridges section of this document.

Crossing Structure ID continued... *(Crossing Bridge Number)*

Example

The inventoried bridge number 300000B-X636010 passes above bridge number 300000B-X638012 and passes below 300000B-X635010 and 30000B-X634010. *(Figure 104)*

- Report 300000B-X638012 for the bridge below.
- Report 300000B-X635010 for the bridge above.
- Report 300000B-X634010 for the other bridge above.

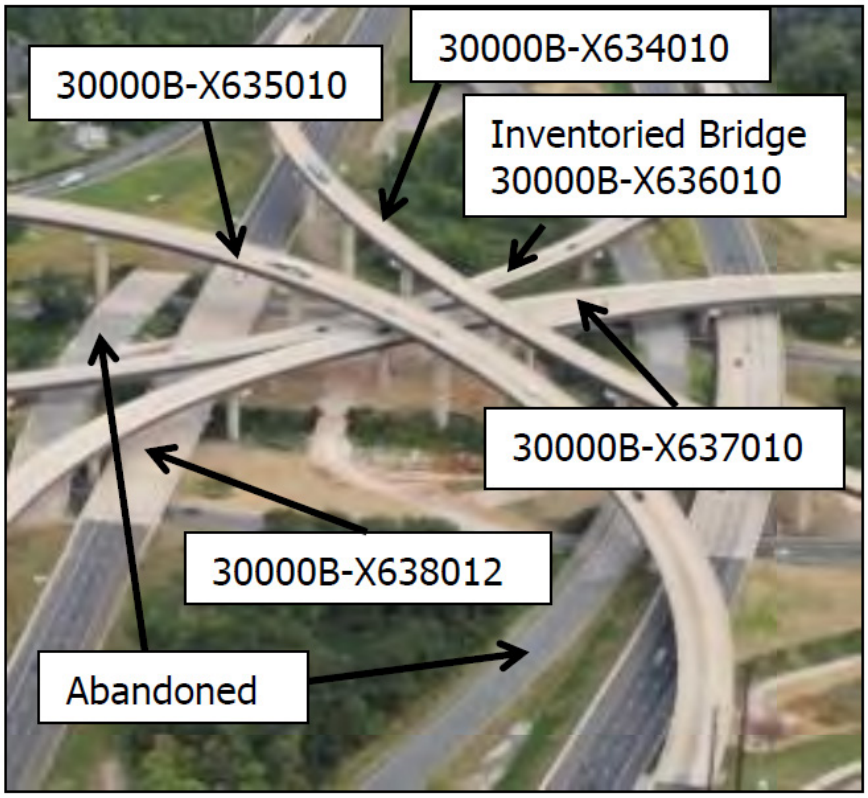


Figure 104. Multi-level interchange with bridges passing above and below other bridges. (Source: Maryland Transportation Authority)

Route Grid: Route Designation

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(3)	AN(3)	I	BRT01	B.RT.01	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
This field is auto-sequenced when data is entered in to the Route Grid field for the highway feature reported in Item WF01 (Feature Type). The ## characters in the codes are auto-assigned with sequential numbers and leading zeros, for each unique route designation carried on the highway feature (e.g., R01, R02, etc.).	This item captures how routes that share the reported highway feature are designated. Each highway feature has at least one route designation. Typically, the route with the highest-class route type is listed first, using the hierarchy shown in Item B.RT.04 (Route Type). An interstate is considered the highest-class route. If the highway feature is carried on a ramp bridge, report all applicable routes for the highways that are being connected. For border bridges, the Neighboring State reports this item for all highway features carried on the bridge, as part of their abbreviated bridge record. For more information, see the Border Bridges section of this document.

Examples

I-35 southbound. Report R01.

Local road with no known route number. Report R01.

I-66 and State Route 17 northbound share one highway that is not divided at the bridge.

- Report R01 for I-66.
- Report R02 for State Route 17.

A ramp bridge departs from I-66 westbound and enters I-81 southbound.

- Report R01 for I-66.
- Report R02 for I-81.

One highway feature is signed for both State Highway 43 and Harlem Avenue.

- Report R01 for State Highway 43.

Do not report a route record for Harlem Avenue.

Route Grid: Route Description

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(50)	-	I	WRT01	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

Code the route description name for the route reported in B.F.03 Feature Name.

Examples State:
I-5 NB

US 2

Examples Local:
Lindeke St.

Route Grid: Route Number

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(15)	AN(15)	I	BRT02	B.RT.02	I.7

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

Code the route number for the route reported in Item B.RT.01 (Route Designation).

State:
If the route is a state route WSDOT will code for mainline or associated mainline only, as a 5 digit number: 00005, 00020, 00405

If route is a local road, WSDOT will code zeros for all local agency roads, as a 5 digit number: 00000

If a highway carries multiple routes, report only those routes that have a unique route number (signed route).

If a highway carries only routes without route numbers, report one route designation.

Local:
Local Agencies can choose to code using zeros as five digits (00000) or they can choose to use their own road number reference here, like a CRAB route id - as 5 digit number.

Route Grid: Route Milepost

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(5,2)	-	I	WRT02	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

State:
Code the milepost associated with the mainline route reported in B.RT.02. Or if local road (00000) code 0.00. Code to 2 decimal places.

Local:
Code the milepost associated with the chosen route reported in B.RT.02. If using 5 digit zeros, code as 0.00. Code to 2 decimal places.

Route Grid: A/B

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(1)	-	-	-	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

Code the ahead/back status of the route reported in B.RT.02 if route is a state highway and only if location is a Backmile. See Item WH21 for more information. This field has been added to the Route Grid for mainline state highways and only when applicable.

If route number in BRT02 is a local road (00000), leave field blank.

Route Grid: Direction

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(2)	AN(2)	I	BRT03	B.RT.03	I.8

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

Record the designated route direction for the route reported in Item B.RT.01 (Route Designation) using one of the following codes in Table BRT03.

- Use code NS when the route is not divided at the bridge, and carries traffic in both north and south directions.
- Use code EW when the route is not divided at the bridge, and carries traffic in both east and west directions.
- Use the designated route direction for the departure or entrance route when a bridge only carries a ramp; i.e. Item B.RT.05 (Service Type) is 7.
- Use the most applicable code when a route does not have a designated route direction.

For border bridges, the Neighboring State reports this item for all highway features carried on the bridge, as part of their abbreviated bridge record. For more information, see the Border Bridges section of this document.

Examples

I-35 southbound. Report SB.

State Highway 9W is not divided at the bridge and carries traffic in north and south directions. Report NS.

A ramp bridge departs from I-66 westbound and enters I-81 southbound.

- Report WB for the route designated as I-66.
- Report SB for the route designated as I-81.

Bridge carries I-81 northbound and I-64 eastbound.

- Report NB for the route designated as I-81.
- Report EB for the route designated as I-64.

Table BRT03 *Route Grid:* **Direction Code**

WSBIS/SNBI Code	SNTI Code	Description
NB	1	Northbound
EB	2	Eastbound
SB	3	Southbound
WB	4	Westbound
NS	0	Northbound and Southbound
EW	0	Eastbound and Westbound

Route Grid: Route Type

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(1)	AN(1)	I	BRT04	B.RT.04	I.9

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
Code the route type for the route reported in Item B.RT.01 (Route Designation) using one of the following codes in Table BRT04.	Use code 4 for parish routes or other county route equivalents. Use code 5 for city or other municipal streets. Use code 6 when a public highway passes through Federal lands such as national parks, national forests, or DOD facilities and does not meet the description of codes 1 through 5. Use code 7 when a public highway passes through State lands such as State parks or State forests and does not meet the description of codes 1 through 5. Use code X when a public highway is not designated as one of the defined route type codes. For border bridges, the Neighboring State reports this item for all highway features carried on the bridge, as part of their abbreviated bridge record. For more information, see the Border Bridges section of this document.

Route Grid: Route Type continued...

Examples

Highway feature is signed for both I-35 and US-77.

- Report 1 for the route designated as I-35.
- Report 2 for the route designated as US-77.

Route is signed I-35 southbound. Report 1.

Route is signed State Highway 9W. Report 3.

A ramp bridge departs from VA-7 westbound and enters I-81 southbound.

- Report 3 for the route designated as VA-7.
- Report 1 for the route designated as I-81.

Table BRT04 *Route Grid*: **Route Type Code**

WSBIS/SNBI Code	SNTI Code	Description
1	1	Interstate Route
2	2	U.S. Route
3	3	State Route
4	4	County Route
5	5	City Street
6	6	Federal lands road
7	7	State lands road
X	8	Other

Route Grid: Service Type

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(1)	AN(1)	I	BRT05	B.RT.05	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

Code the designated service type for the route reported in Item B.RT.01 (Route Designation), using one of the following codes.

Code	Description
1	Mainline
2	Alternate
3	Bypass
4	Spur
6	Business
7	Ramp, connector, etc.
8	Service or frontage road
X	Other

Commentary

The service type designation is determined by the agency, and typically included as part of the signage for the route.

Use code 7 for all types, arrangements, and sizes of turning roadways that connect two or more highways at an interchange.

Use code 8 for frontage roads. These are typically parallel to the traveled way, may be provided on one or both sides of the mainline, and may or may not be continuous. A frontage road may include a U-turn lane.

For Federal agency roads, report the most logical description of the service type compared to other routes within the facility.

For border bridges, the Neighboring State reports this item for all highway features carried on the bridge, as part of their abbreviated bridge record. For more information, see the Border Bridges section of this document.

Examples

A ramp bridge connects I-66 westbound to I-81 southbound. Report 7.

I-35W southbound. Report 1.

LRS Route ID

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(20)	AN(20)	I	BH06	B.H.06	I.11

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
The LRS Route ID is coded to correspond to the location of the structure as it relates to the LRS. **Where there is no LRS Route ID use: 000GEOMETRY in the field to represent WSDOT GIS functionality.** **For Local Agency LRS Route ID's use the route data available within the Local Agency Routing Map.** Report the LRS Route ID defined by the State Linear Referencing System (LRS) that is reported to HPMS for the highway feature in Item B.F.01 (Feature Type). The HPMS information reported to FHWA consists of both the Local Agency Public Roads (LAPR) LRS and the Washington State Route LRS. **Submittal to SNBI** will be translated to - Report N if an LRS Route ID has not been assigned or doesn't exist. When submitted to FHWA the LRS Route ID must match the HPMS data exactly. **Submittal to SNTI** allows up to 120 characters for this field, so complete data is submitted.	The LRS Route ID is not necessarily the same number as the route number (signed) posted along the highway, but is a number used to uniquely identify a route using the State Route Number, Related Route Type, and Related Route Qualifier combined to create the route identifier (LRS Route ID). When the LRS Route ID is combined with a route measure (SRMP or ARM), events can be placed on the LRS for GIS analysis and mapping purposes. Refer to the FHWA HPMS Field Manual at https://www.fhwa.dot.gov/policyinformation/hpms/fieldmanual/. For border bridges, the Neighboring State reports this item for all highway features carried on the bridge, as part of their abbreviated bridge record. For more information, see the Border Bridges section of this document.

Examples

State Route LRS Examples:

005
005LX10130
090Q527650

LAPR Route LRS Examples

760000270 (Israel Road Over I-5)
460000700 (Taneum Creek Road Over I-90)

LRS Milepost

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(8,3)	N(8,3)	I	BH07, WH07	B.H.07	I.12

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
The LRS Milepost for the highway feature in Item B.H.06, is coded to correspond to the orientation of the structure as it relates to the LRS. Code to three decimal places. **Leave null if the milepost is not available or if no milepost exists (off system, no LRS Route, 000GEOMETRY)** **Carried:** For highway features that carry an LRS route, report the milepost point at the beginning of the bridge. Typically, both the LRS and the structure are oriented in the same direction (the lowest milepost on the structure is the beginning of the structure). In cases where the LRS and the structure are oriented in opposing directions, record the milepost from the end of the structure instead of the beginning. **Below:** When the LRS route passes below the bridge, report the mile point on the LRS route where the bridge is first encountered. WSDOT uses a milepost value that represents the point as centered under the structure above. This is done for visualization purposes as well as representing that either side of the bridge could be the lowest of the two edges encountered. **For Item WH07 LRS Milepost End**: this item is auto-calculated based on the structure length in Item B.G.02 for highway carried features. **Submittal to SNBI** will report the LRS Milepost point to the nearest thousandth of a mile.	The LRS mile point is used to establish the location of the bridge along the LRS route. If the highway does not carry an LRS route, report the most appropriate mile point. The mile point must be consistent with the LRS route and LRS milepost system defined by the State Linear Referencing System (LRS) that is reported to HPMS for the highway feature in Item B.F.01 (Feature Type). The HPMS information reported to FHWA consists of both the Local Agency Public Roads (LAPR) LRS and the Washington State Route LRS. Refer to the FHWA HPMS Field Manual at https://www.fhwa.dot.gov/policyinformation/hpms/fieldmanual/. For border bridges, the Neighboring State reports this item for all highway features carried on the bridge, as part of their abbreviated bridge record. For more information, see the Border Bridges section of this document.

LRS Milepost continued...

Examples

LRS Mile Point from HPMS is 130.344. Report 130.344.

LRS Mile Point from HPMS is 9.600. Report 9.600.

The highway does not carry an LRS route. The beginning of the bridge is 0.2 miles past the 34.0 mile marker. Report 34.2.

LRS Directional Indicator

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	I	WH23	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification

The directional indicator specifies if the inventory route carries traffic in the direction of increasing mileposts, decreasing mileposts or both.

Code B if the local agency roadway has two-way traffic on route with an " i " directional indicator.

State route ramps will always be " i " directional indicator even when it serves decreasing direction.

Code	Description
I	Increasing direction (single direction of travel, divided highway)
D	Decreasing direction (single direction of travel, divided highway)
B	Both directions (two-way direction of travel, undivided roadway)
*	Null, no inventory route available or no milepost exists (off system, no LRS Route, 000GEOMETRY)

Commentary

Increasing - milepost numbers increase when traveling the roadway in the increasing direction.

Decreasing - milepost numbers decrease when traveling the roadway in the decreasing direction.

Bothways - use the increasing milepost number to represent the two-way location.

LRS Ahead/Back Indicator

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(15)	-	-	WH21, WH22	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification

Report the ahead/back status of the route reported in B.RT.02 if route is a state highway.

Code B only when there is Back mileage value otherwise leave null.

If route is a local agency road, leave field blank.

Code	Description
B	Back milepost
*	Null, is either an Ahead milepost or does not apply

For Item WH22 A/B End: this only applies for state routes that have a change in ahead/back values within the length of the bridge. Will not apply to local agency roads.

Commentary

Ahead/Back Indicators (A/B) - The State Route Milepost Back (B) indicator designates whether the milepost value is the 'back' duplicate of a milepost value 'ahead' on the route. Ahead values have an implied 'A' (null).

A back SRMP occurs as a result of:

- A realignment that lengthens a section of an SR other than at the end of the route.
- Adding mileage to the beginning of an SR.

LRS Accumulated Route Mileage (ARM)

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(15)	-	I	WH19, WH20	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
The LRS ARM for the highway feature in Item B.H.06, is coded to correspond to the same location as Item B.H.07. Leave null if the milepost in B.H.07 is null. Code to three decimal places. **State Routes:** This value may or may not be the same as the LRS Milepost value as reported in Item B.H.07. **Local Agency Roads:** This value will always be the identical values as the LRS Milepost value as reported in Item B.H.07. **For Item WH20 LRS ARM End:** this item is auto-calculated based on the structure length in Item B.G.02 for highway carried features. **Submittal to SNBI** will report the LRS ARM point to the nearest thousandth of a mile.	Accumulated Route Mileage (ARM) is an accrual of mileage from the beginning of a route to the end of the route

LRS Date

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	I	WH06	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification

This is the date for which the measure values used to update the data set, were valid.

State Routes:
Use the LRS Date field from the route data within the Local Agency Routing Map or other known GIS/HPMS LRS data locations (workbench data).

Local Agency Roads:
Use the LRS Date field from the route data within the Local Agency Routing Map.

Speed Limit

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Integer	-	I	WA09	-	

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification / Commentary

This field applies to Local Agencies only.

Code the speed limit in miles per hour for the inventory route at the bridge site.

Lanes On Highway

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(2,0)	N(2,0)	I	BH08	B.H.08	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
Code the number of highway traffic lanes for the highway feature reported in Item B.F.01 (Feature Type). Code 1 when a highway is signed or striped for one-lane, but carries two-way traffic. Code 1 for a highway feature carried on the bridge when Item B.G.06 (Structure Width Curb-to-Curb) is less than 16 feet and the bridge is not striped for full width traffic lanes.	For highway features carried on the bridge, include all lanes that are striped or otherwise operated as full width highway traffic lanes, auxiliary lanes (e.g. merge lanes, ramp lanes, turn lanes), and special use lanes that run the entire length of the bridge. For highway features below the bridge that are not carried on another bridge, include all lanes that are striped or otherwise operated as full width highway traffic lanes, auxiliary lanes (e.g. merge lanes, ramp lanes, turn lanes), and special use lanes that pass below the entire width of the bridge.

Commentary Continued

Do not include pedestrian sidewalks, bike paths, or railroad tracks as lanes, unless the railroad tracks are concurrent with the highway lanes.

For double deck bridges and parallel bridges, report the number of lanes consistent with the highway feature reported in Item B.F.01 (Feature Type).

For sidehill bridges, report the total number of lanes for the highway feature regardless if carried on the bridge or terrain/earth material.

Examples

Highway feature carried on the bridge has one lane. Report 1.

Highway feature carries two-way traffic on unstriped lanes and has a curb-to-curb width of 18 ft. Report 2.

Double deck bridge inventoried as one unique bridge number. Highway feature on top level carries five lanes. Highway feature on lower level carries five lanes.

- Report 5 for the highway feature on the top level.
- Report 5 for the highway feature on the lower level.

Total Number of Lanes - SNTI

Format	SNTI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(2,0)	N(2,0)	I	TA3		A.3

Applicable Structure Types

- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
Code the number of highway traffic lanes being carried through the tunnel. Code 4 when there are two lanes inbound, two lanes outbound. Code 3 when there is one lane inbound, two lanes outbound. **Submittal to SNTI** will report all lane quantities across all highway features as a single number.	Include all lanes that are striped or otherwise operated as full width highway traffic lanes and run the entire length of the tunnel (e.g. merge lanes, ramp lanes, and left-turn lanes). Do not include pedestrian sidewalks, bike paths, or rail lines

Direction of Traffic - SNTI

Format	SNTI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	N(1,0)	I	TC3		C.3

Applicable Structure Types

- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
Code the direction of traffic of the inventory route identified in Item B.H.06 LRS Route ID as a 1 digit number using one of the codes in Table TC3. This item must be compatible with other traffic-related items such as: WSBIS Item B.H.08 – Lanes on Highway WSBIS Item B.H.09 – Annual Average Daily Traffic WSBIS Item B.H.16 – Horizontal Route Clearance WSBIS Item B.G.06 – Curb-to-Curb.	Code 3, Variable traffic is intended to cover those tunnels in which the direction of traffic can be changed. One lane 2-way traffic occurs when 2 lanes approach a narrow unstriped tunnel requiring vehicles to alternate turns through the tunnel. When coding a tunnel with multiple bores, if traffic moves in both directions regardless of the individual traffic direction of a single bore, code as 2-way traffic.

Table TC3 Direction of Traffic - SNTI Code

WSBIS Code	NTI Code	Description
0	0	No public roadway on or under structure.
1	1	1 way traffic on inventory route
2	2	2 way traffic on inventory route

3	3	2 way and reversible traffic on inventory route
4	3	Reversible traffic only on inventory route
5	4	2 way traffic on 1 lane bridge (curb-to-curb must be <16 ft.)

SNTI Commentary:

WSDOT provides additional codes to address reversible traffic lanes, which are translated to SNTI codes as shown above.

NHS Designation

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(1)	AN(1)	I	BH03	B.H.03	C.5

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
Code the NHS designation for the highway feature reported in Item B.F.01 (Feature Type), using one of the following codes in Table BH03.	The National Highway System (NHS) includes the Interstate Highway System as well as other roads important to the nation's economy, defense, and mobility. The NHS was developed by the U.S. Department of Transportation (DOT) in cooperation with the states, local officials, and metropolitan planning organizations (MPOs). The NHS includes the following subsystems of highways: Interstate, other principal arterials, STRAHNET, major STRAHNET connectors, and intermodal connectors. NHS routes and connectors are identified in the HPMS. State maps of the NHS can be found at: https://www.fhwa.dot.gov/planning/national_highway_system/nhs_maps/. For border bridges, the Neighboring State reports this item for all highway features carried on the bridge, as part of their abbreviated bridge record. For more information, see the Border Bridges section of this document.

Table BH03 NHS Designation Code

WSBIS/SNBI Code	SNTI Code	Description
N	0	Non-NHS
Y	1	NHS

STRAHNET Designation

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(1)	AN(1)	I	BH05	B.H.05	C.6

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
Code the Strategic Highway Network (STRAHNET) designation for the highway feature reported in Item B.F.01 (Feature Type), using one of the following codes in Table BH05.	The STRAHNET is a system of Interstate and primary highways and connectors that provide access to major US military installations and strategic ports, and provides continuity and emergency capabilities for defense purposes. The STRAHNET is determined by the Surface Deployment and Distribution Command (SDDC) in coordination with FHWA. STRAHNET routes and STRAHNET Connector routes can be found on NHS State maps at: https://www.fhwa.dot.gov/planning/national_highway_system/nhs_maps.

Table BH05 STRAHNET Designation Code

WSBIS/SNBI Code	SNTI Code	Description
1	1	STRAHNET route
2	1	STRAHNET Connector route
N	0	Not a STRAHNET route

National Highway Freight Network (NHFN)

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(3,0)	N(3,0)	I	BH04	B.H.04	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
Code the National Highway Freight Network (NHFN) designation for the highway feature reported in Item B.F.01 (Feature Type), using one of the following codes in Table BH04.	This item is used to identify the National Highway Freight Network and to report to Congress on the conditions and performance of the network. This item is also used with other items to classify bridges according to serviceability, safety, and essentiality for public use and considers the potential impacts to emergency evacuation routes and to regional and national freight and passenger mobility if the serviceability of the bridge is restricted or diminished. More information can be found at: https://ops.fhwa.dot.gov/Freight/infrastructure/nfn/index.htm.

Table BH04 National Highway Freight Network Code

WSBIS/SNBI Code	Description
1	Primary Highway Freight System
2	Interstate portions not on the Primary Highway Freight System
3	Critical Rural Freight Corridor
4	Critical Urban Freight Corridor
N	Not on the NHFN

Functional Classification

Format	SNBI Format	Frequency	WSBIS Item	SNBI Item	SNTI Item
AN(1)	AN(1)	I	BH01	B.H.01	C.7

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specifications

Code the functional classification for the highway feature reported in Item B.F.01 (Feature Type) using one of the following codes in Table BH01.

The WSDOT Functional Classification Map is available at https://www.wsdot.wa.gov/data/tools/geoportal/?config=functionalclass

Commentary

Ensure that the functional classification designated in this item is consistent with the HPMS.

When one highway feature carries multiple route types, report the code for the highest-class route following the hierarchy in the code descriptions; Interstate being the highest class.

Use code 7 for State or Federal parkways and other park roads unless there is a through highway designated at a higher classification.

FHWA Highway Functional Classification Concepts, Criteria, and Procedures website: https://www.fhwa.dot.gov/planning/processes/statewide/related/highway_functional_classifications/.

Table BH01 Functional Classification

WSBIS SNBI/SNTI Code	WSBIS SNBI/SNTI Description	OLD 1487 Code & Description
1	Interstate	1 - Rural Principal Arterial – Interstate
2	Principal Arterial - Other Freeways	5 - Rural Principal Arterial - Other Freeways or Exp.
3	Principal Arterial - Other	2 - Rural Principal Arterial – Other
4	Minor Arterial	6 - Rural Minor Arterial
5	Major Collector	7 - Rural Major Collector
6	Minor Collector	8 - Rural Minor Collector
7	Local	9 - Rural Local
1	Interstate	11 - Urban Principal Arterial – Interstate
2	Principal Arterial - Other Freeways	12 - Urban Principal Arterial – Oth. Freeways/Exp.
3	Principal Arterial - Other	14 - Urban Principal Arterial - Other
4	Minor Arterial	16 - Urban Minor Arterial
5	Major Collector	17 - Urban Major Collector
6	Minor Collector	18 - Urban Minor Collector
7	Local	19 - Urban Local

Urban Code

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(5)	N(5,0)	I	BH02	B.H.02	C.8

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
Code the urbanized area code consistent with the State's HPMS urban boundaries for the highway feature reported in Item B.F.01 (Feature Type) at the bridge using one of the codes listed in Table BH02. **Submittal to SNBI/SNTI** will report this item using the H01C record only.	Download the Urban Code listings from: https://www.census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural.html FHWA approves adjusted urban boundaries submitted by State DOT planning offices. State's HPMS urban boundaries are based on the FHWA-approved adjusted urban boundaries. State maps of the unadjusted U.S. Census urban boundaries with highways (map layers: Labels, Transportation, and Urban Areas checked) can be found at: https://tigerweb.geo.census.gov.

Table BH02 Urban Code

WSBIS Code	Urban Area Name
	Urbanized Areas (populations of 50,000 or more)
06652	Bellingham-Ferndale
09946	Bremerton-Port Orchard-Bainbridge Island
44479	Kennewick-Pasco-Richland
49312	Lewiston-Clarkston
51283	Longview-Kelso
55333	Marysville-Tulalip
60490	Mount Vernon-Burlingto-Sedro-Woolley
65242	Olympia-Lacey-Tumwater
80389	Seattle-Tacoma-Everett
83764	Spokane-Spokane Valley
71317	Vancouver-Camas-Battle Ground
91405	Walla Walla-Milton-Freewater

Table BH02 Urban Code

WSBIS Code	Urban Area Name
93862	Wenatchee-East Wenatchee
97507	Yakima-Selah-Union Gap
Urban Areas (populations between 5,000 - 49,000)	
99998	Aberdeen-Hoquiam
99998	Anacortes
99998	Belfair
99998	Birch Bay-Blaine
99998	Centralia-Chehalis
99998	Chelan-Manson
99998	Cheney
99998	Colville
99998	Connell
99998	Duvall
99998	Ellensburg
99998	Ephrata
99998	Freeland
99998	Grandview
99998	Granite Falls
99998	Hood River
99998	Lynden
99998	Monroe
99998	Montesano-Elma
99998	Moses Lake
99998	North Bend
99998	Oak Harbor
99998	Ocean Park
99998	Ocean Shores
99998	Omak-Okanogan
99998	Othello
99998	Port Angeles
99998	Port Hadlock-Irondale
99998	Port Townsend
99998	Prosser
99998	Pullman
99998	Quincy
99998	Ridgefield
99998	Sequim
99998	Shelton
99998	Snoqualmie-North Bend
99998	Stanwood
99998	Sultan-Gold Bar
99998	Sunnyside
99998	Toppenish-Zillah
99998	Wapato
99998	Woodland
99998	Yelm
Non Urban/Urbanized Areas (populations less than 5,000)	
99999	Rural area (pop. less than 5k)

Emergency Evacuation Designation

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(1)	AN(1)	I	BCL06	B.CL.06	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
Code whether the route carried on the bridge is an emergency evacuation route using one of the following codes. **This applies to Highway Carried Features only.** **Code** — **Description** N — Not an Emergency evacuation route Y — Emergency evacuation route	This item is used by FHWA with other items, as per 23 U.S.C. 144(b), to classify bridges according to serviceability, safety, and essentiality for public use and considers the potential impacts to emergency evacuation routes and to regional and national freight and passenger mobility if the serviceability of the bridge is restricted or diminished. Emergency evacuation routes may be designated for various events such as hurricanes, earthquakes, tsunami, dam failure, and other hazardous events. Refer to the State Emergency Management Agency for designated emergency evacuation routes.

Federal or Tribal Land Access

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(30)	AN(30)	I	BCL03	B.CL.03	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification

Code the Federally managed and/or Indian Tribal Government lands using one or more of the following codes, for the bridge owned by a State or local agency and carrying a highway that leads to or traverses through the Federal or Tribal lands.

Report multiple codes separated by pipe (|) delimiters.

Code	Description
N	Not applicable
BIA	Indian Tribal Government or Bureau of Indian Affairs
BLM	Bureau of Land Management
NPS	National Park Service
USACE	U.S. Army Corps of Engineers
USBR	Bureau of Reclamation
USFS	U.S. Forest Service
USFWS	U.S. Fish & Wildlife Service
X	Other

Report N when the highway carried by the bridge is not owned by a State or local agency and/or does not lead to or traverse through Federal or Tribal lands.

Commentary

This item is used to identify bridges owned by State or local agencies on highways that lead to and/or traverse through any Federally managed land or Tribal government property. These bridges may be eligible to receive funding from the Federal Lands Access Program under 23 U.S.C. 204.

Consider those bridges that are located on the identified highway to the nearest intersecting highway owned by a State or local agency.

For assistance in locating Federal properties, contact Federal Lands Highway at: https://highways.dot.gov/federal-lands/about/contacts.

Annual Average Daily Traffic Year (AADT Year)

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(4,0)	N(4,0)	I	BH11	B.H.11	A.6

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification / Commentary

Record the year represented by the Annual Average Daily Traffic (AADT) in Item B.H.09.

Code all four digits of the year.

AADT Year information for Washington State Routes is available at the link in Item B.H.09 Annual Average Daily Traffic.

Annual Average Daily Traffic (AADT Count)

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(6,0)	N(6,0)	I	BH09	B.H.09	A.4

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification / Commentary

Record the Annual Average Daily Traffic (AADT) from the most recent count for the highway feature reported in Item B.F.01 (Feature Type).

The AADT must be compatible with the other items reported for the highway feature.

Record the design AADT for a newly inventoried highway feature when actual AADT information is not yet available.

Record the last open AADT for a highway feature that is temporarily closed until repair or replacement can be completed.

The AADT should be updated at intervals in accordance with the standards for the HPMS and standards/policies within the State.

All traffic, including trucks, is counted in the AADT. The number of trucks counted in the AADT is reported in Item B.H.10 (Annual Average Daily Truck Traffic).

When HPMS or other planning data are not available, use a best estimate based on site familiarity or functional classification in accordance with State standards and policies.

AADT information for Washington State routes is available at: https://wsdot.public.ms2soft.com/tcds/tsearch.asp?loc=Wsdot&mod=TCDS

Annual Average Daily Truck Traffic (AADT Truck Count)

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(6,0)	N(6,0)	I	BH10	B.H.10	A.5

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
Code the Average Annual Daily Truck Traffic (AADTT) from the most recent count for the highway feature reported in Item B.F.01 (Feature Type). The AADTT must be compatible with the other items reported for the highway feature. Code the design AADTT for a newly inventoried highway feature when actual AADTT information is not yet available. Code the last open AADTT for a highway feature that is temporarily closed until repair or replacement can be completed.	The AADTT should be updated at intervals in accordance with the standards for the HPMS and standards/policies within the State. When HPMS or other planning data are not available, use a best estimate based on site familiarity or functional classification in accordance with State standards and policies. Do not include vans, pickup trucks, and other light delivery trucks in the AADTT. The AADTT represents vehicle classes 4-13 as described in FHWA's Traffic Monitoring Guide at: https://www.fhwa.dot.gov/policyinformation/tmguide/.

AADT Truck Percent

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(2,0)	-	I	WH10	-	A.5

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
Code the number of trucks (heavy vehicles engaged primarily in the transport of good and materials, or in the delivery of services other than public transportation: AASHTO's definition) in the form of a percentage derived from the total AADT for the roadway segment indicated in B.F.01. Do not include vans, pickup trucks and other light delivery trucks in this percentage.	SNTI Commentary: The SNTI maintains an average daily truck count, not a percentage. WSBIS translates the percentage to a total count using the following formula: ADT x ADT Truck Percentage = ADT Count

Bypass Detour Length

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(3,0)	N(3,0)	I	BH17	B.H.17	A.7

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
Code the length to the nearest mile of the total additional travel for a vehicle to bypass the bridge for the highway feature reported in Item B.F.01 (Feature Type), that passes below or is carried on the bridge. Code 999 where a detour does not exist. Code 0 for available ground level bypass. Code 1 when the highway feature is carried by a bridge, is not at an interchange, and a parallel bridge can be used as a temporary bypass with a reasonable amount of crossover grading.	Determine bypass detour length by evaluating the potential to move traffic, including military vehicles and trucks, around bridges. Avoid detour routes that have load, height, or capacity limitations unacceptable for the additional traffic detoured onto them. Consider using the parallel bridge of dual bridges or temporary culverts if emergency detours can be constructed with a reasonable amount of grading within the existing right-of-way. Consider using ramps and/or frontage roads in interchanges. Review plans for strategic bridge detour routes.

Bypass Detour Length continued...

Examples

Diamond interchange. Bridge can be bypassed. Report 0.

Cloverleaf. Bridge cannot be bypassed; 18-mile detour. Report 18.

Highway feature carried on the bridge with a 4-mile detour *(Figure 102)*. Report 4.

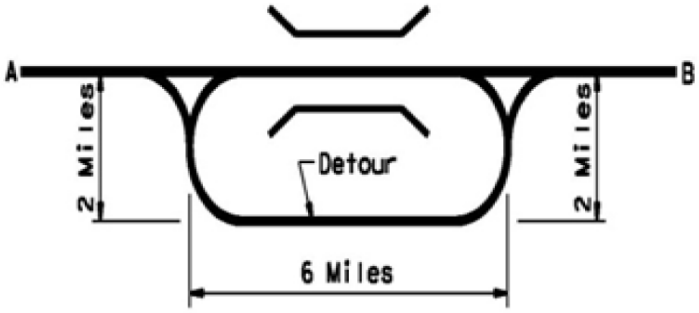


Figure 102. Detour map for a highway feature carried on the bridge.

Highway feature passes below the bridge with a 0-mile detour *(Figure 103)*. Report 0.

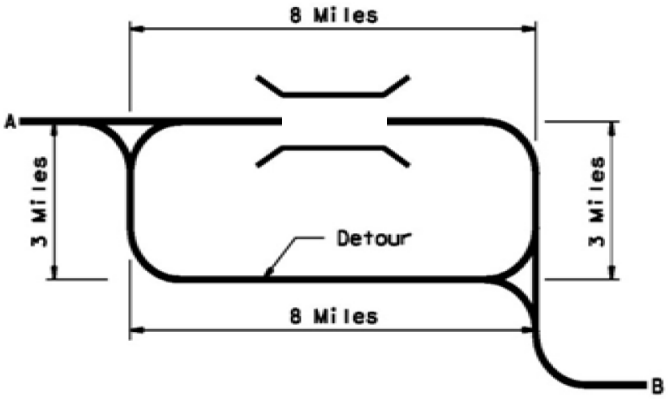


Figure 103. Detour map for a highway feature that passes below the bridge.

Highway Maximum Usable Vertical Clearance *(Hwy Max Usable Vert Cl)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(3,1)	N(3,1)	EI	BH12	B.H.12	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
Code the minimum vertical clearance for the highway feature reported in Item B.F.01 (Feature Type), measured over the 10-foot-wide envelope of the traveled part of the highway, that provides for the maximum usable clearance envelope, rounded down to the nearest tenth of a foot. Measure the vertical clearance plumb from the deck or highway surface to the lowest bridge member restriction, appurtenance (signs, utilities, etc.) attached to the bridge, or other structure. Code 99.9 when the clearance is 100 feet or greater or no restriction exists above the highway.	This item identifies the maximum height of a notional 10-foot wide vehicle that can pass on the highway feature(s) reported in Item B.F.01 (Feature Type). This information is sometimes used for preliminary military routing. The data may not represent the absolute minimum clearance over the highway feature. Refer to Item B.H.13 (Highway Minimum Vertical Clearance) for the absolute minimum clearance. The traveled part of the highway feature does not include shoulders. These data may be different than the posted vertical clearance due to agency vertical clearance posting policies and procedures. These data are not sufficient for permit routing as the location of the 10-foot-wide envelope that provides for the maximum usable clearance is not reported. For a double decked bridge inventoried as one bridge, report this information for each highway feature on each level of the bridge. Update field measurements when alterations are made to the bridge or highway that affect the previously measured clearance. Reporting this item is optional for highway features below the bridge that do not carry NHS routes as identified in Item B.H.03 (NHS Designation). Clearances greater than 30 feet may be estimated.

Highway Maximum Usable Vertical Clearance cont... *(Hwy Max Usable Vert Cl)*

Examples

The bridge has a 13'-9" maximum usable vertical clearance *(Figure 81)*. Report 13.7.

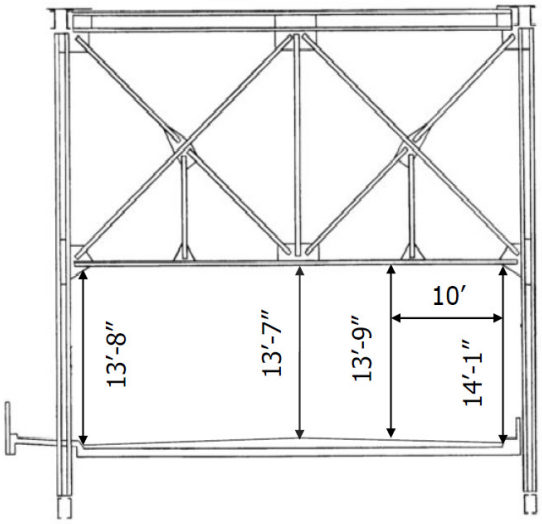


Figure 81. Cross-section view of through truss bridge showing vertical clearances.

The bridge carries a highway with no vertical clearance restrictions *(Figure 82)*. Report 99.9.

Arthur Road passes below the bridge and has an 18'-5" maximum usable vertical clearance. SR70 also passes below the bridge and has a 19'-11" maximum usable vertical clearance.

- Report 18.4 for the Arthur Road highway feature.
- Report 19.9 for the SR70 highway feature.

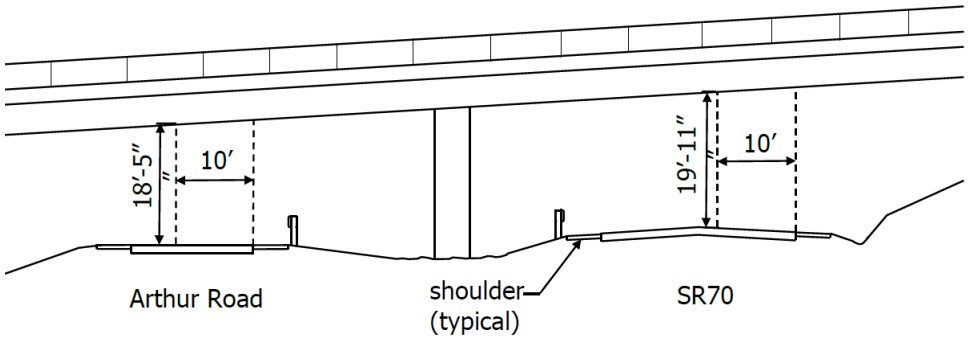


Figure 82. Elevation view with two separate highway features passing below the bridge.

Highway Minimum Vertical Clearance *(Hwy Min Vert Cl)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(3,1)	N(3,1)	EI	BH13	B.H.13	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
Code the minimum vertical clearance measured over the highway feature reported in Item B.F.01 (Feature Type), rounded down to the nearest tenth of a foot. Measure the vertical clearance plumb from the deck or highway surface (including paved or stabilized shoulders) to the lowest bridge member restriction, appurtenance (signs, utilities, etc.) attached to the bridge, or other structure. Code 99.9 when the clearance is 100 feet or greater or no restriction exists above the highway.	Several measurements may need to be made to determine the minimum vertical clearance. However, only the minimum measurement is reported. Shoulders must be contiguous with the traveled way and must be structurally adequate for all weather and traffic conditions consistent with the facility carried. Unstabilized grass or dirt, with no base course, flush with and beside the traffic lane is not to be considered a shoulder for this item. Refer to agency policy for when and where stabilized shoulders are used. When it is not readily known if stabilized construction details were used, the presence of rutting, heaving, water retention, or other distress may be used as indicators that the shoulder is not stabilized. These data may be different than the posted vertical clearance due to agency vertical clearance posting policies and procedures. Update field measurements when alterations are made to the bridge or highway that affect the previously measured clearance. Clearances greater than 30 feet may be estimated.

Highway Minimum Vertical Clearance cont... *(Hwy Min Vert Cl)*

Examples

The bridge has a 13'-7" minimum vertical clearance *(Figure 83)*. Report 13.5.

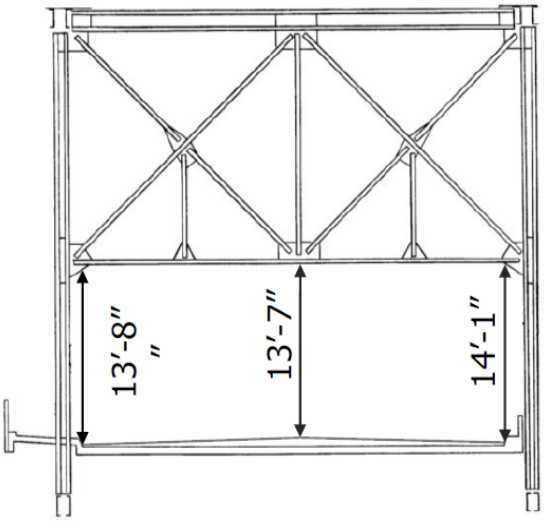


Figure 83. Cross-section view of a through truss bridge showing minimum vertical clearance.

The bridge carries a highway with no vertical clearance restrictions. Report 99.9.

Two highway features below the bridge. Arthur Road passes below the bridge and has an 18'-3" minimum vertical clearance. SR70 also passes below the bridge and has a 19'-9" minimum vertical clearance.

- Report 18.2 for the Arthur Road highway feature.
- Report 19.7 for the SR70 highway feature.

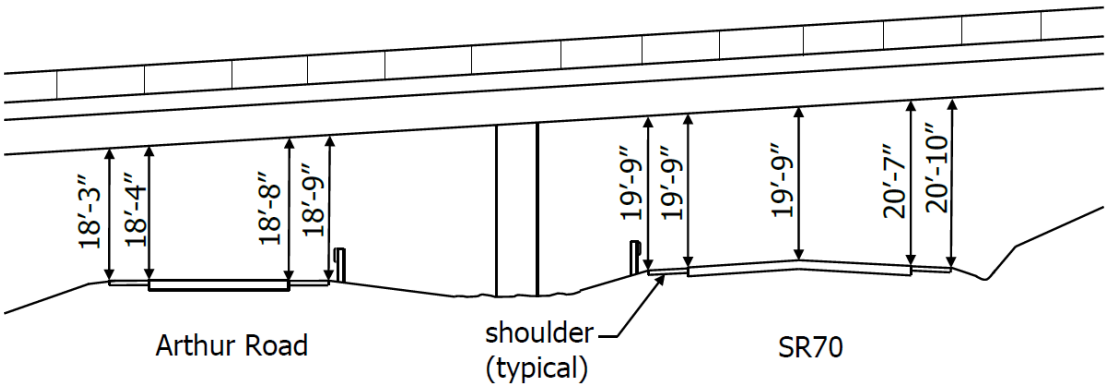


Figure 84. Elevation view with two separate highway features passing below the bridge.

Max & Min Vertical Clearance Route *(Max Vert Cl Route, Min Vert Cl Route)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(4,0)	-	EI	1499, 2500	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification

Code the practical maximum and minimum vertical clearances over the inventory route identified (travel lanes only*), in the direction of increasing mileposts, whether the route is on the structure or under the structure.

* Travel lanes or traveled way, is between fog lines and excludes shoulders or gore areas. In cases where there are no fog lines, judgement shall be used to determine edges of traveled way.

Field 1499 identifies the maximum vertical clearance for the lane that will carry the highest load, ****tallest lane - lowest value****.

Field 2500 identifies the minimum vertical clearance for the lane that will carry the highest load, ****lowest lane - lowest value****.

When no vertical clearance restriction exists leave these items blank.

When a restriction is 100 feet or greater, code 9912.

Specification Continued

To accurately code this field, all vertical clearance measurements for the inventory route must be collected over all lane stripes and at edges of pavement, recorded in a vertical clearance card, and kept on file.

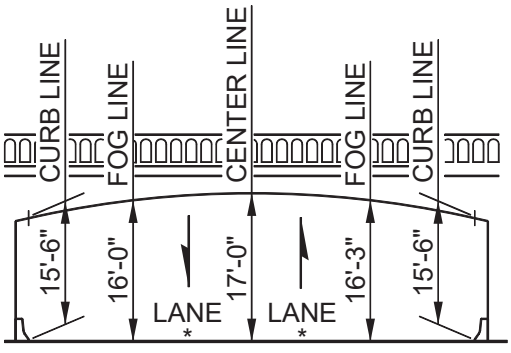
Undivided Roadways:
When the entire undivided inventory route (two-way direction of travel) passes on or under a structure, only code Items 1499 Max Route and 2500 Min Route as measured.

Divided Roadways:
Increasing inventory route, (single direction of travel only, includes ramps) passes on or under a structure, only code Items 1499 Max Route and 2500 Min Route as measured.

See Item W.H.23 LRS Directional Indicator for more clarification.

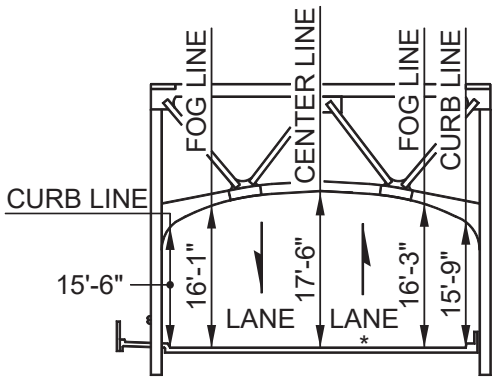
Submittal to SNBI will not report these items. See Items B.H.12/B.H.13.

Examples



UNDIVIDED HIGHWAY EXAMPLE
Figure 1499a

Figure 1499a

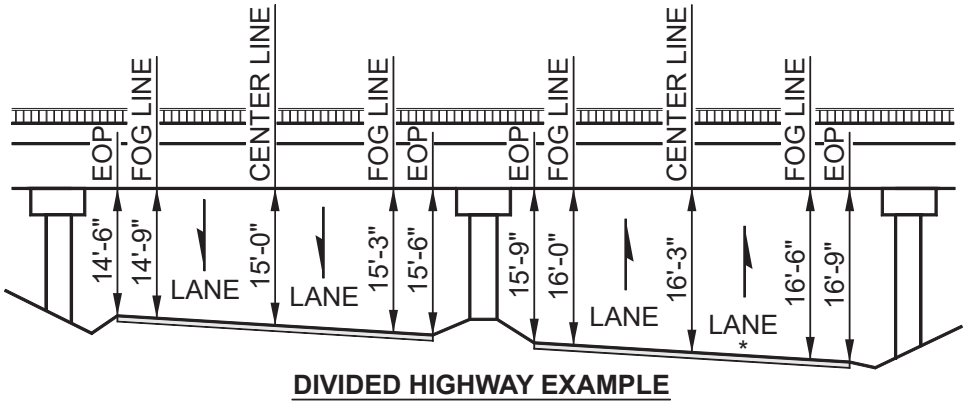


STEEL TRUSS EXAMPLE
Figure 1499b

Figure 1499b

Max & Min Vertical Clearance Route continued... *(Max Vert Cl Route)*

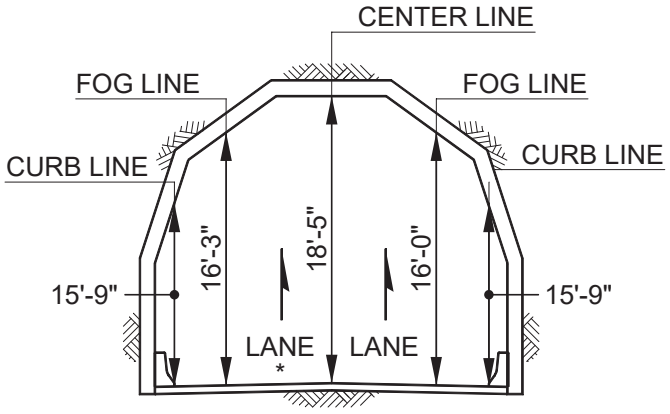
Examples Continued



DIVIDED HIGHWAY EXAMPLE

Figure 1499c

Figure 1499c



TUNNEL

Figure 1499d

Figure 1499d

Max & Min Vertical Clearance Reverse *(Max Vert Cl Reverse, Min Vert Cl Reverse)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(4,0)	-	EI	2501, 2502	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification

Code the practical maximum and minimum vertical clearances over the inventory route identified (travel lanes only*), in the direction of decreasing mileposts, whether the route is on the structure or under the structure.

* Travel lanes or taveled way, is between fog lines and excludes shoulders or gore areas. In cases where there are no fog lines, judgement shall be used to determine edges of traveled way.

Field 2501 identifies the maximum vertical clearance for the lane that will carry the highest load, ****tallest lane - lowest value****.

Field 2502 identifies the minimum vertical clearance for the lane that will carry the highest load, ****lowest lane - lowest value****.

When no vertical clearance restriction exists leave these items blank.

When a restriction is 100 feet or greater, code 9912.

Submittal to SNBI will not report these items. See Items B.H.12/B.H.13.

Specification Continued

To accurately code this field, all vertical clearance measurements for the inventory route must be collected over all lane stripes and at edges of pavement, recorded in a vertical clearance card, and kept on file.

Undivided Roadways:
There is never a case for undivided roadways to be coded in the Reverse fields. Code Items 1499 and 2500 instead.

Divided Roadways:
Decreasing inventory route (single direction of travel only*) passes on or under a structure, only code Items 2501 Max Reverse and 2502 Min Reverse as measured.

*applies to State ramps that serve decreasing direction of travel or decreasing direction of travel for a divided local road.

See Item W.H.23 LRS Directional Indicator for more clarification.

Highway Minimum Horizontal Clearance, Left *(Min Horiz Clrnc Left)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(3,1)	N(3,1)	EI	BH14	B.H.14	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
Code the minimum horizontal clearance on the left, for the highway feature below the bridge reported in Item B.F.01 (Feature Type), rounded down to the nearest tenth of a foot. This only applies to highway features below the bridge. Measure from the left edge line of the highway (excluding shoulders, turn lanes, acceleration, or deceleration lanes) in the direction of travel to the nearest substructure unit, rigid barrier, oncoming traffic lane, or toe of slope that is steeper than 1 to 3 (vertical to horizontal). Report 99.9 when the clearance is 100 feet or greater. Report 0 when the highway is a two-way highway that is not divided at the bridge. **Submittal to SNBI** will not report this item for highway feature(s) carried on the bridge. w/FHWA errata#1 03/24	This item provides data for the highway feature(s) reported in Item B.F.01 (Feature Type) that pass below the bridge. Highways undivided at the bridge are reported as 0 due to the adjacent oncoming traffic lane which provides no horizontal clearance to the left. Reinforced concrete and masonry traffic safety features are considered rigid barriers; metal and timber railings are not considered rigid barriers. Clearances greater than 30 feet may be estimated.

Highway Minimum Horizontal Clearance, Left cont... *(Min Horiz Clrnc Left)*

Examples

Highway feature below the bridge carries 1-way traffic, looking in the direction of travel *(Figure 85)*. Report 20.0.

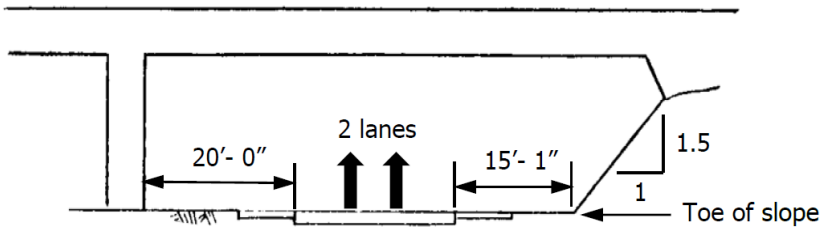


Figure 85. Bridge elevation view of horizontal clearances for a 2-lane highway with 1-way traffic below the bridge.

Highway feature below the bridge carries two-way traffic *(Figure 86)*. Report 0.

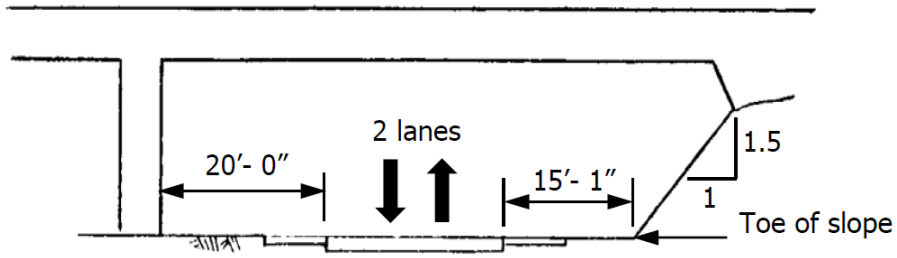


Figure 86. Bridge elevation view of horizontal clearances for a 2-lane highway with 2-way traffic below the bridge.

Two highway features below the bridge for a highway that is divided at the bridge. One highway feature carries 1-way traffic southbound and one carries 1-way traffic northbound *(Figure 87)*.

- Report 18.0 for the southbound highway feature.
- Report 19.0 for the northbound highway feature.

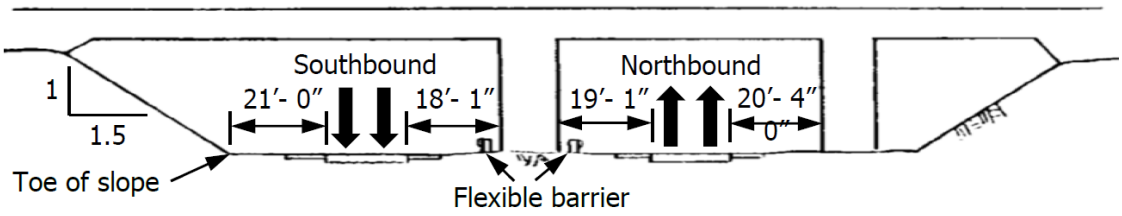


Figure 87. Bridge elevation view of horizontal clearances for separate southbound and northbound highway features below the bridge, with flexible barriers.

Highway Minimum Horizontal Clearance, Left cont... *(Min Horiz Clrnc Left)*

Examples Continued

Two highway features below the bridge for a highway that is divided at the bridge. One highway feature carries 1-way traffic eastbound and one carries 1-way traffic westbound *(Figure 88)*.

- Report 35.5 for the eastbound highway feature.
- Report 35.5 for the westbound highway feature.

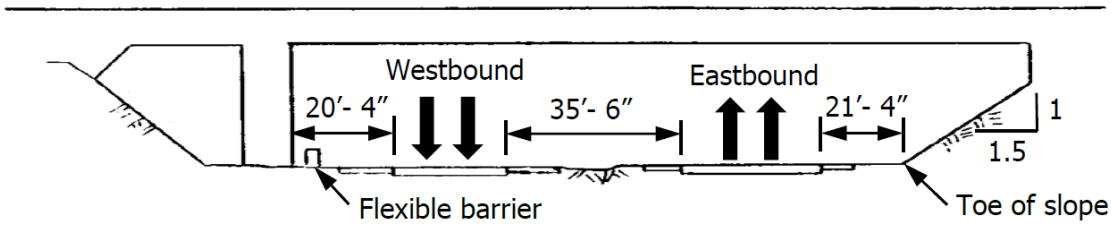


Figure 88. Bridge elevation view of horizontal clearances for separate westbound and eastbound highway features below the bridge, with flexible barrier.

Highway feature below the bridge carries 1-way ramp traffic, looking in the direction of travel *(Figure 89)*. Report 14.5.

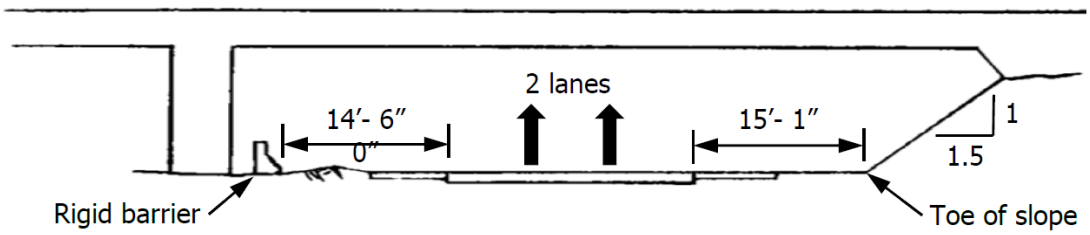


Figure 89. Bridge elevation view of horizontal clearances for a 2-lane, 1-way highway feature below the bridge, with a rigid barrier.

Highway feature below the bridge carries 1-way mainline traffic and 1-way ramp traffic, looking in the direction of travel *(Figure 90)*. Report 20.0.

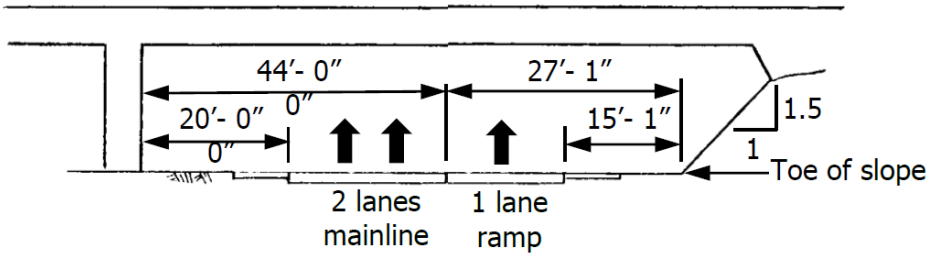


Figure 90. Bridge elevation view of horizontal clearances for a highway feature below the bridge carrying mainline and ramp.

Highway Minimum Horizontal Clearance, Right *(Min Horiz Clrnc Right)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(3,1)	N(3,1)	EI	BH15	B.H.15	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
Code the minimum horizontal clearance on the right, for the highway feature below the bridge reported in Item B.F.01 (Feature Type), rounded down to the nearest tenth of a foot. This only applies to highway features below the bridge. Measure from the right edge line of the highway (excluding shoulders, turn lanes, acceleration, or deceleration lanes) in the direction of travel to the nearest substructure unit, rigid barrier, oncoming traffic lane or toe of slope that is steeper than 1 to 3 (vertical to horizontal). Report 99.9 when the clearances are 100 feet or greater. **Submittal to SNBI** will not report this item for highway feature(s) carried on the bridge. w/FHWA errata#1 03/24	This item provides data for the highway feature(s) reported in Item B.F.01 (Feature Type) that pass below the bridge. Reinforced concrete and masonry traffic safety features are considered rigid barriers; metal and timber railings are not considered rigid barriers. Clearances greater than 30 feet may be estimated.

Highway Minimum Horizontal Clearance, Right cont... *(Min Horiz Clrnc Right)*

Examples

Highway feature below the bridge carries 1-way traffic, looking in the direction of travel *(Figure 91)*. Report 15.0.

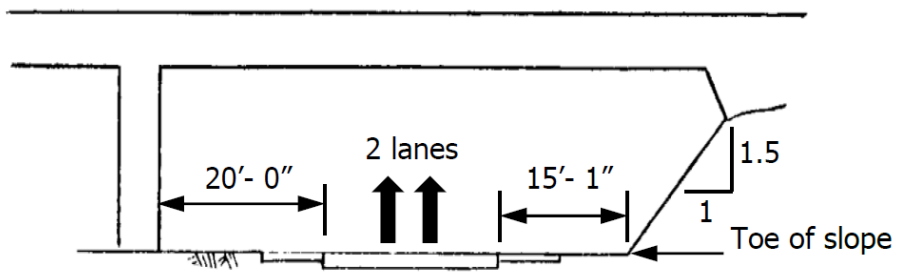


Figure 91. Bridge elevation view of horizontal clearances for a 2-lane highway feature with 1-way traffic below the bridge.

Highway feature below the bridge carries two-way traffic *(Figure 92)*. Report 15.0.

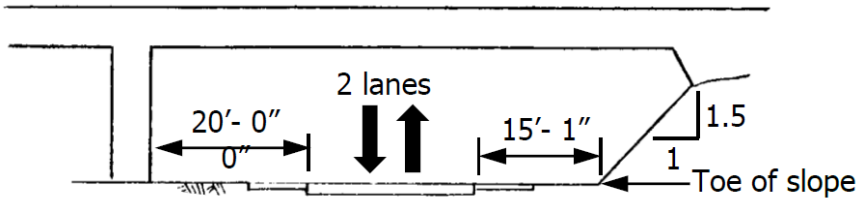


Figure 92. Bridge elevation view of horizontal clearances for a 2-lane highway feature with 2-way traffic below the bridge.

Two highway features below the bridge for a highway that is divided at the bridge. One highway feature carries 1-way traffic southbound and one carries 1-way traffic northbound *(Figure 93)*.

- Report 21.0 for the southbound highway feature.
- Report 20.3 for the northbound highway feature.

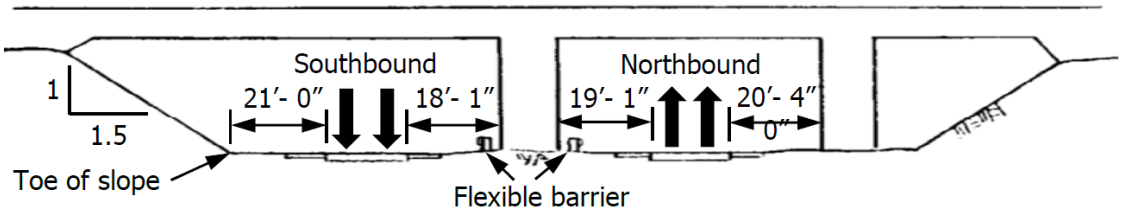


Figure 93. Bridge elevation view of horizontal clearances for separate southbound and northbound highway features below the bridge, with flexible barriers.

Highway Minimum Horizontal Clearance, Right cont... *(Min Horiz Clrnc Right)*

Examples Continued

Two highway features below the bridge for a highway that is divided at the bridge. One highway feature carries 1-way traffic eastbound and one carries 1-way traffic westbound *(Figure 94)*.

Report 21.3 for the eastbound highway feature.

Report 20.3 for the westbound highway feature.

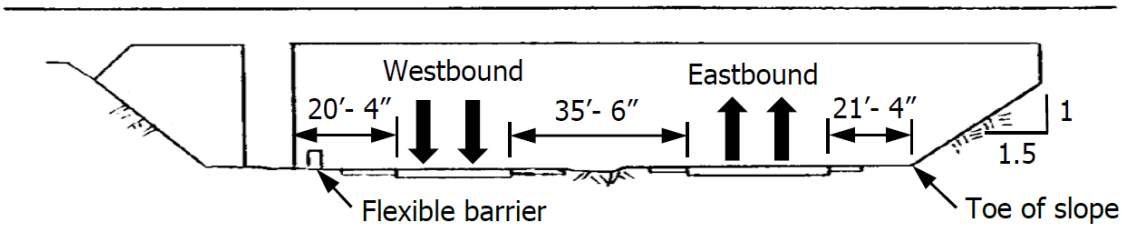


Figure 94. Bridge elevation view of horizontal clearances for separate westbound and eastbound highway features below the bridge, with a flexible barrier.

Highway feature below the bridge carries 1-way ramp traffic, looking in the direction of travel *(Figure 95)*. Report 15.0.

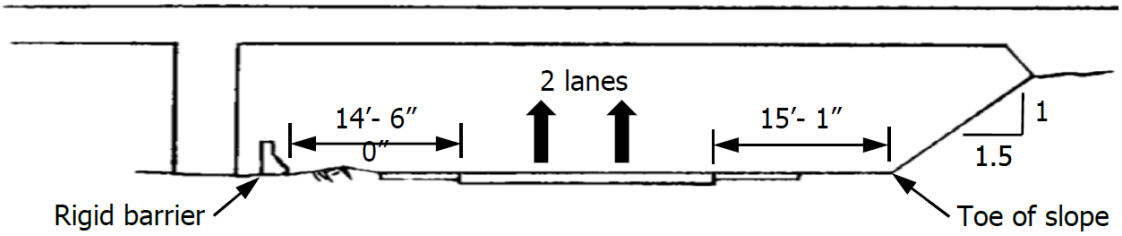


Figure 95. Bridge elevation view of horizontal clearances for a 2-lane, 1-way highway feature below the bridge, with a rigid barrier.

Highway feature below the bridge carries 2-way traffic *(Figure 96)*. Report 14.5.

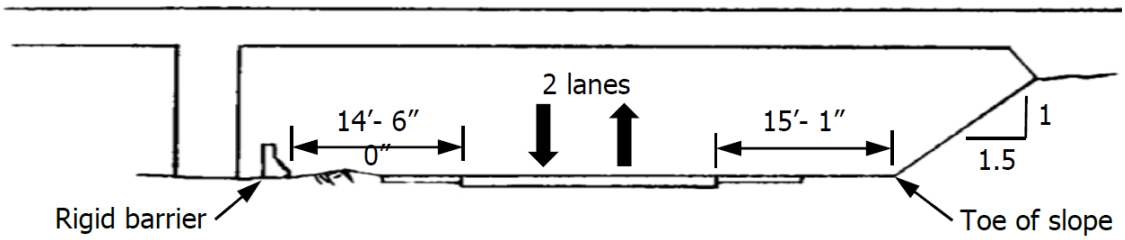


Figure 96. Bridge elevation view of a 2-lane, 2-way highway feature below the bridge, with a rigid barrier.

Highway Minimum Horizontal Clearance, Right cont... *(Min Horiz Clrnc Right)*

Examples Continued

Highway feature below the bridge carries 1-way mainline traffic and 1-way ramp traffic, looking in the direction of travel *(Figure 97)*. Report 15.0.

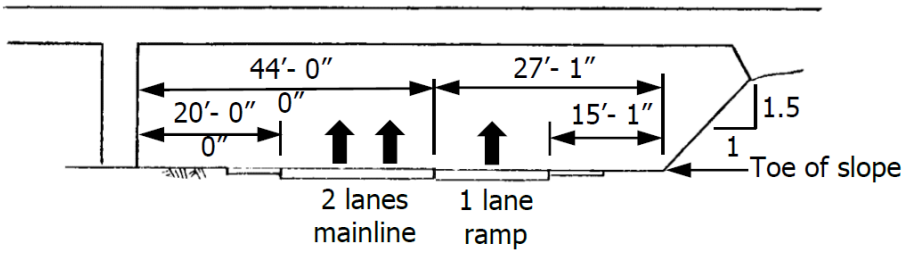


Figure 97. Bridge elevation view of horizontal clearances for highway feature carrying mainline and ramp traffic below the bridge.

Highway Maximum Usable Surface Width *(Max Horiz Clrnc Route)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(3,1)	N(3,1)	EI	BH16	B.H.16	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
Code the maximum usable surface width for the highway feature reported in Item B.F.01 (Feature Type) that passes below or is carried on the bridge, rounded down to the nearest tenth of a foot. Measure the width perpendicular to the centerline of the highway (including paved or stabilized shoulders). Report 99.9 when the surface width is 100 feet or greater.	Shoulders are included when they are contiguous with the traveled way and structurally adequate for all weather and traffic conditions consistent with the facility carried. Unstabilized grass or dirt, with no base course, flush with and beside the traffic lane is not considered a shoulder for this item. Refer to agency policy for when and where stabilized shoulders are used. When it is not readily known if stabilized construction details were used, the presence of rutting, heaving, water retention, or other distress may be used as indicators that the shoulder is not stabilized.

Commentary Continued

Flush (striped) and mountable medians are not considered restrictions.

A curb greater than 6 inches high may be considered non-mountable for these specifications.

Use the least restrictive configuration when movable rigid barriers are used to accommodate reversible lanes for non-construction-related applications.

Submittal to SNBI for this item is optional for highway features below the bridge that do not carry NHS routes as identified in Item B.H.03 (NHS Designation).

Highway Maximum Usable Surface Width cont... *(Max Horiz Clrnc Route)*

Examples

Two highway features below the bridge. One highway feature carries eastbound traffic and one carries westbound traffic *(Figure 98)*.

- Report 34.6 for the eastbound highway feature.
- Report 42.4 for the westbound highway feature.

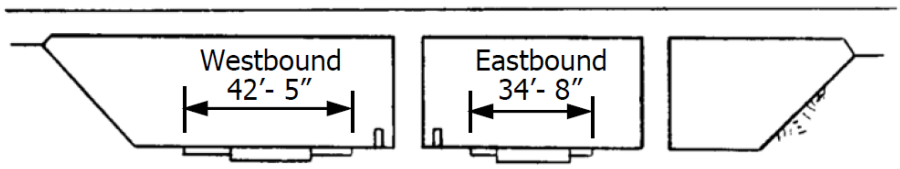


Figure 98. Bridge elevation view of two separate highway features below the bridge.

One highway feature carried on the bridge. Highway feature carries 2-way traffic that is not divided at the bridge *(Figure 99)*. Report measurement A.

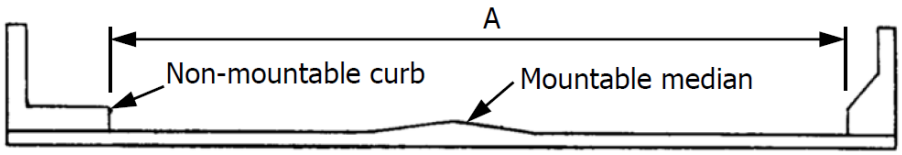


Figure 99. Cross-section view of a highway feature carried on the bridge with a mountable median.

Two highway features carried on the bridge. Highway 1 (H01) and Highway 2 (H02) are divided at the bridge by the non-mountable median *(Figure 100)*.

- Report measurement A for H01.
- Report measurement B for H02.

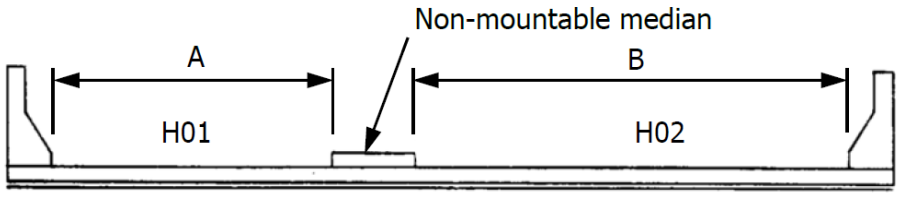


Figure 100. Cross-section view of two highway features carried on the bridge with a non-mountable median.

Highway Maximum Usable Surface Width cont... *(Max Horiz Clrnc Route)*

Examples Continued

Two highway features carried on the pipe culvert under fill. Highway 1 (H01) and Highway 2 (H02) are divided at the bridge *(Figure 101)*.

- Report measurement A for H01.
- Report measurement B for H02.

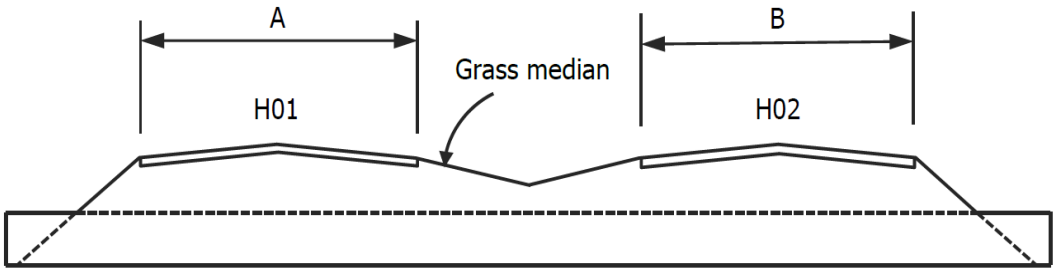


Figure 101. Cross-section view of two highway features carried on the pipe culvert under fill with a grass median.

Features - Railroads

Railroad Service Type

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(2)	AN(2)	I	BRR01	B.RR.01	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
Code the designated railroad service type for the railroad feature reported in Item B.F.01 (Feature Type) using one of the following codes. **Code** — **Description** F — Freight FE — Freight - electrified P — Passenger PE — Passenger - electrified M — Multiple services - not electrified ME — Multiple services - electrified I — Inactive	Electrified is intended for electricity-powered rail lines and third-rails, but not for battery or fuel cell powered lines. Use code M when multiple rail services (such as freight and passenger rail) use the same tracks and both services are not electrified. Use code ME when multiple rail services (such as freight and passenger rail) use the same tracks, and at least one is electrified.

Railroad Service Type continued...

Examples

The bridge carries two highway features separated by two electrified passenger rail tracks (i.e. one railroad feature). Two railroad tracks pass below the bridge that both carry freight (i.e. one railroad feature).

- Report PE for the railroad feature carried on the bridge.
- Report F for the railroad feature below the bridge.

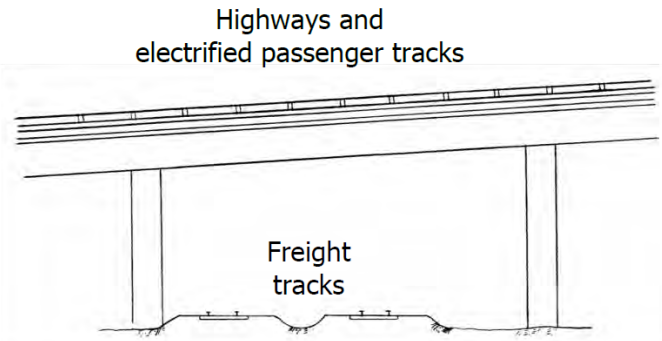


Figure 105. Bridge elevation view with two electrified passenger rail tracks carried on the bridge and two freight rail tracks below the bridge.

Two railroad tracks below the bridge. One carries passenger rail service and one carries freight (i.e. two railroad features).

- Report P for the passenger rail feature.
- Report F for the freight rail feature.

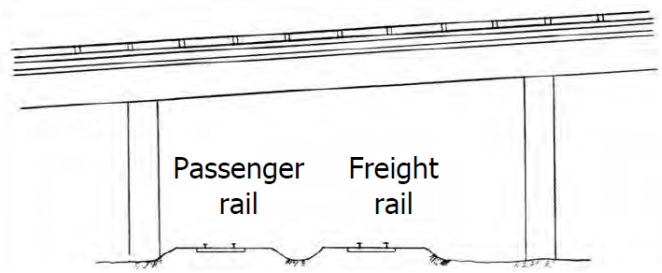


Figure 106. Bridge elevation view with one passenger rail and one freight rail track below the bridge.

Two railroad tracks below the bridge that both carry freight and passenger service (i.e. one railroad feature). Report M.

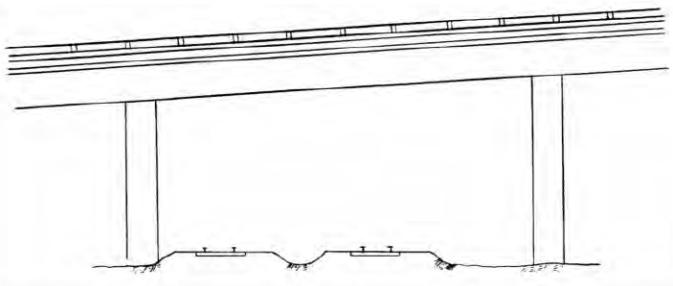


Figure 107. Bridge elevation view with two freight/passenger rail tracks below the bridge.

Railroad Service Type continued...

Examples Continued

Two railroad tracks below the bridge. One carries electrified passenger service and one carries non-electrfied passenger service (i.e. two railroad features).

- Report PE for the electrified passenger rail feature.
- Report P for the non-electrified passenger rail feature.

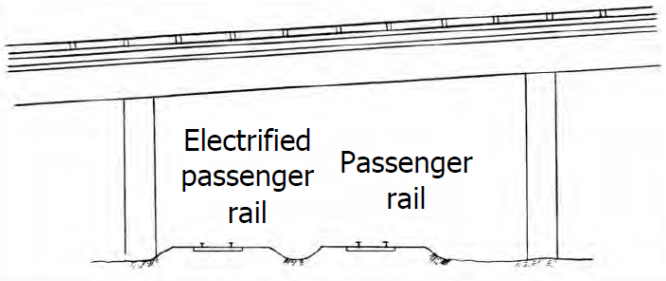


Figure 108. Bridge elevation view with an electrified passenger rail track and a non-electrified passenger rail track below the bridge.

Railroad Crossing SID

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(15)	-	-	WRR04	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

Code the railroad crossing sid associated with the railroad using the FRAGIS Map or Local Agency Routing Map.

If railroad does not have a corresponding crossing sid, leave blank.

Railroad Milepost

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(7,3)	-	-	WRR06	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

Code the railroad milepost associated with the railroad using the FRAGIS Map or Local Agency Routing Map.

If railroad does not have a corresponding milepost, leave blank.

Railroad Owner

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(30)	-	-	WRR05	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

Code the owner(s) associated with the railroad using the FRAGIS Map or Local Agency Routing Map.

If no owner determination can be made, leave blank.

Railroad Operator

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	-	WRR07	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

Code the operator associated with the railroad owner in Item WRR05 using the information in Table WRR07.

If no operator determination can be made, leave blank.

Table WRR07 Railroad Operator Code

WSBIS Code	Description
5	Amtrak
10	Ballard Terminal Railroad Company
15	BNSF Railway Co.
20	Cascade and Columbia River Railroad
25	Central Washington Railroad Company
30	Chehalis-Centralia Railroad & Museum
35	Chelatchie Prairie Railroad Association
40	City of Arlington
45	Columbia And Cowlitz Railway Company
50	Columbia Basin Railroad Co., Inc.
55	Columbia Rail
60	Columbia Rail Group
65	CWW, LLC
70	DARIGOLD, INC.
75	Great Northwest Railroad, Inc.
80	Inland Northwest Rail Museum
85	KET LLC
90	Kettle Falls International Railway LLC
95	Lake Whatcom Railway
100	Longview Switching Company
105	Meeker Southern Railroad Company
110	Mount Vernon Terminal Railway
115	Mt. Rainier Scenic Railroad
120	Olympia & Belmore Railroad, Inc.
125	Palouse River & Coulee City Railroad
130	Pend Oreille Valley Railroad
135	Peninsular Railway and Lumbermen's Museum
140	Portland Vancouver Junction Railroad
145	Puget Sound & Pacific Railroad
150	Rainier Rail
155	RNIR
160	RYAL LLC
165	Simpson Lumber Company LLC
170	Snoqualmie Valley Railroad
175	Sound Transit - Sounder Commuter Rail
180	Sound Transit - Link Light Rail
185	Spokane, Spangle & Palouse Railway LLC (SSPR)
190	St. Paul & Pacific Northwest Railroad Co. LLC
195	Tacoma Rail
200	Tacoma Rail Mountain Division

Table WRR07 Railroad Operator Code

WSBIS Code	Description
205	Union Pacific Railroad Company
210	Washington Eastern Railroad, LLC
215	WATCO Switching Services
220	Yak Rail LLC
225	Other/Unknown

Railroad Minimum Vertical Clearance

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(3,1)	N(3,1)	EI	BRR02	B.RR.02	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
Code the minimum vertical clearance for the railroad feature reported in Item B.F.01 (Feature Type), rounded down to the nearest tenth of a foot. Measure plumb from the top of rails to the lowest bridge restriction or appurtenance (signs, utilities, etc.) attached to the bridge. Appurtenances attached to the bridge that serve only a railroad purpose, such as catenary systems, are excluded from the measurement and do not reduce the vertical clearance measurement. Code 99.9 when the clearance is 100 feet or greater. **Submittal to SNBI** will report this item only when Item B.F.02 (Feature Location) is B.	Several measurements may need to be made to determine the minimum vertical clearance for each railroad feature when one or more railroad tracks pass below the bridge. However, only the minimum measurement is reported. Update measurements when alterations are made to the bridge or railroad tracks that affect the previously measured clearance. Clearances greater than 30 feet may be estimated.

Railroad Minimum Vertical Clearance continued...

Examples

Two railroad tracks below the bridge that both carry freight and passenger service (i.e. one railroad feature). Report 31.2.

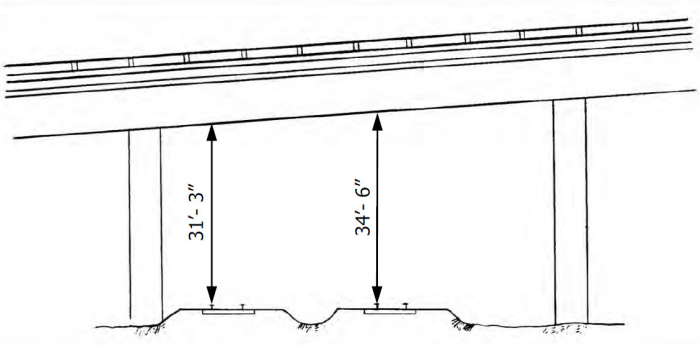


Figure 109. Bridge elevation view with two freight/passenger rail tracks below the bridge.

Two railroad tracks below the bridge. One carries passenger rail service, and one carries freight (i.e. two railroad features).

- Report 20.2 for the passenger rail feature.
- Report 21.2 for the freight rail feature.

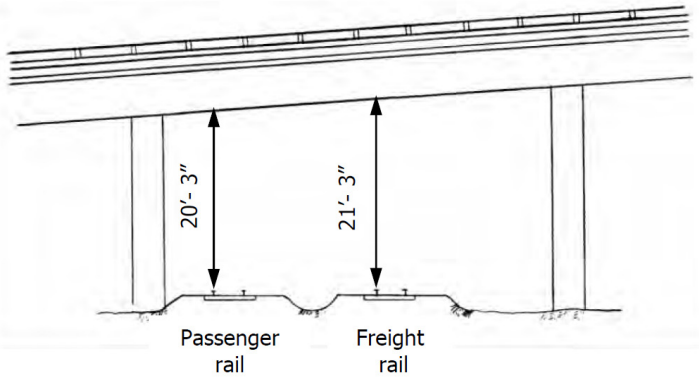


Figure 110. Bridge elevation view with one passenger rail and one freight rail track below the bridge.

Railroad Minimum Horizontal Offset

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(3,1)	N(3,1)	EI	BRR03	B.RR.03	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
Code the minimum horizontal offset for the railroad feature reported in Item B.F.01 (Feature Type), rounded down to the nearest tenth of a foot. Measure perpendicular from the centerline of the tracks to the nearest substructure unit or toe of slope that is steeper than 1 to 3 (vertical to horizontal). For multiple tracks with the same railroad service type, report the minimum distance after measuring the offsets in both directions from all tracks. Code 99.9 when the minimum horizontal offset is 100 feet or greater. **Submittal to SNBI** will report this item only when Item B.F.02 (Feature Location) is B.	The intent of this item is to collect the minimum distance from the centerline of the railroad track to a bridge related obstruction. Offsets greater than 30 feet may be estimated.

Railroad Minimum Horizontal Offset continued...

Examples

One railroad track below the bridge. Report 20.3.

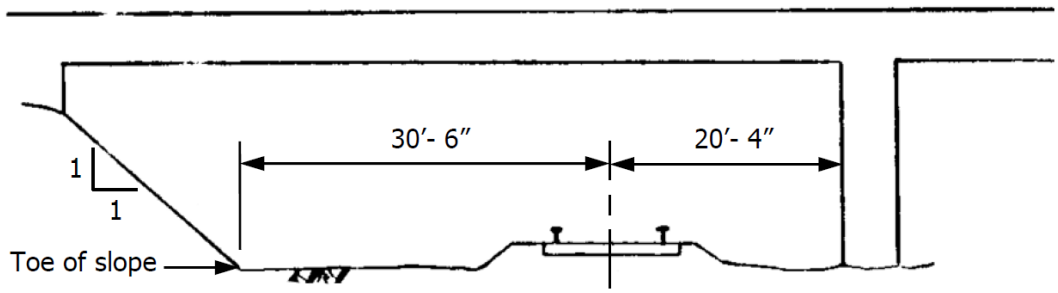


Figure 111. Bridge elevation view indicating horizontal offset for one railroad track below the bridge.

Two railroad tracks that both carry freight (i.e. one railroad feature). Report 18.5.

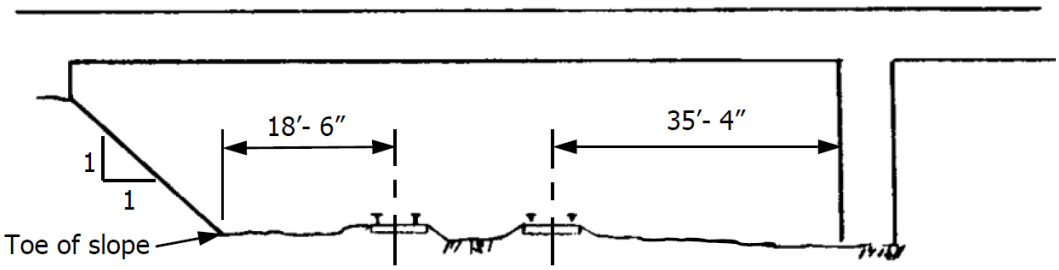


Figure 112. Bridge elevation view indicating horizontal offset for two railroad tracks below the bridge.

Features - Navigable Waterways

Navigable Waterway					
Format	**SNBI Format**	**Frequency**	**WSBIS Item ID**	**SNBI Item ID**	**SNTI Item ID**
AN(1)	AN(1)	I	BN01	B.N.01	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
Code whether the waterway feature reported in Item B.F.01 (Feature Type) is considered navigable waters of the United States using one of the following codes in conjunction with Table 30 U.S. Coast Guard Navigable Waters and LA Map. **Code** — **Description** N — Not navigable waters Y — Navigable waters U — Navigable waters designation is undetermined	This item identifies bridges over navigable waters where the United States Coast Guard may exercise jurisdiction, as defined in 33 CFR, Part 2. This information helps identify bridges at risk from vessel collision and bridges where a Coast Guard permit may be required for modifications to the structure. Information helpful in coding this item may be found in design and construction documentation or prior correspondence with the Coast Guard. Navigable waterways are determined by the Commandant of the United States Coast Guard per Title 33 of the Code of Federal Regulations, Section 2.36.

Navigable Minimum Vertical Clearance

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(4,1)	N(4,1)	I	BN02	B.N.02	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

Code the minimum vertical clearance over the waterway feature reported in Item B.F.01 (Feature Type), rounded down to the nearest tenth of a foot.

The recorded clearance is from the highest datum plane referenced in the approved permit plans to the lowest superstructure restriction or other appurtenances attached to the bridge over the designated navigation channel.

For all movable bridges, the vertical clearance reported for this item is for the bridge in the closed position (i.e., open to vehicular traffic).

Record the most restrictive clearance when there are multiple designated navigation channels.

Submittal to SNBI will report this item only when Item B.N.01 (Navigable Waterway) is Y.

Commentary

Reference datum, designated navigation channels, and vertical clearances can be found on permit plans approved by the United States Coast Guard.

When permit plans are not available, values can be established from field measurements obtained for known navigation channels and the most restrictive clearance recorded. Reference field measurements to the following datum:

Crossing Type	Datum
Tidal waters	Mean High Water
Non-tidal waters	Extreme High Water
River	Q50 Surface Elevation

Navigable Minimum Vertical Clearance continued...

Examples

Permit plans for a bridge over tidal waters with the navigation channel designated by cross-hatched area. Permit plans set the datum at mean higher-high water (M.H.H.W.) instead of mean high water. Report 50.0.

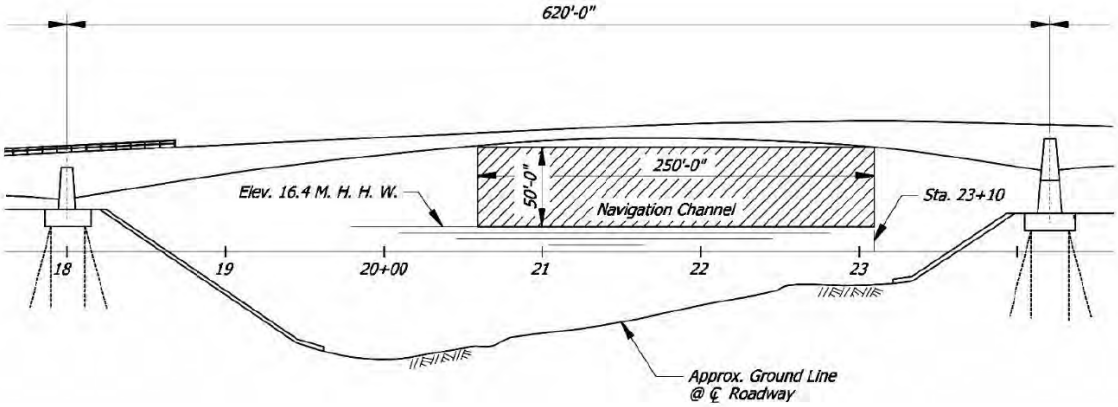


Figure 115. Bridge elevation view indicating navigation channel and vertical clearance. (Source: Alaska DOT)

Permit plans for a bridge over tidal waters with multiple designated navigation channels. Permit plans set the datum at mean higher-high water (M.H.H.W.) instead of mean high water. Report 23.1.

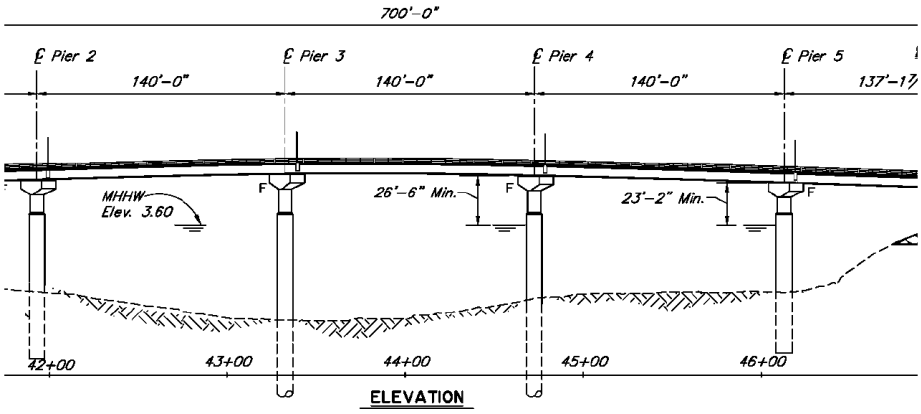


Figure 116. Bridge elevation view indicating multiple navigation channels and vertical clearances. (Source: Alaska DOT)

Navigable Minimum Vertical Clearance continued...

Examples

Vertical lift bridge. Information taken from "As-Built" plans as no permit plans are available. Mean High Water elevation is 3.2 ft. Minimum vertical underclearance is 12 ft – 3.2 ft = 8.8 ft. Report 8.8.

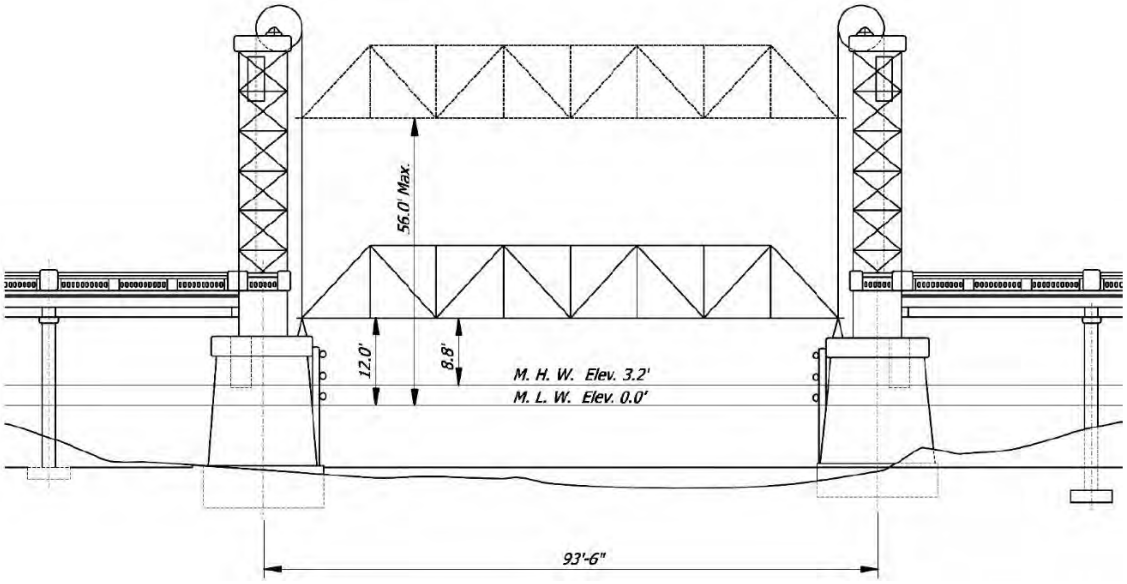


Figure 117. Bridge elevation view for a vertical lift bridge indicating vertical clearances. (Source: Florida DOT)

Table 30 U.S. Coast Guard Navigable Waters

Body of Water	Navigable CG	Non-Nav CG	Remarks
Bachelor Island Slough, WA	X		Side channel of Columbia River. Mouth 14 miles S of Vancouver, WA (tidal).
Baker Bay, WA	X		Part of Columbia Estuary. Chinook to Ilwaco, WA (including West Channel).
Bear Creek, WA		X	At mile 0.8.
Bear River, WA	X		Flows into Willapa Bay. Navigable to head of tidewater, approximately 4 mi. above mouth.
Big Beef Harbor, WA	X		(Hood Canal) Navigable to mouth of Big Beef Creek (tidal).
Bingen Channel, WA	X		Columbia River, Bonneville Pool Backwater.
Birnie Slough, WA	X		Side channel of Columbia River. 1 mile S of Cathlamet, WA on Puget Island (tidal).
Black Jack Creek, WA	X		Tributary to Puget Sound.
Bogachiel River, WA		X	Tributary of Quillayute River.
Bone River, Pacific County, WA		X	At and upstream of the SR-101 Bridge

Table 30 U.S. Coast Guard Navigable Waters

Body of Water	Navigable CG	Non-Nav CG	Remarks
Brooks Slough, WA		X	Tributary of Skamokawa Creek. Mouth at Skamokawa, WA.
Budd Inlet, WA	X		Puget Sound. Near Olympia, WA.
Burke Slough, WA	X		Side channel of Columbia River. Mouth 5 miles upstream from Kalama, WA (tidal).
Burnt Bridge Creek, WA		X	Southwestern Clark County; originates Mill Plains area, 7.0 miles to Vancouver Lake.
Capitol Lake, WA	X		Near Olympia, WA. Formed by dam at mouth of Deschutes River.
Carol's Channel, WA	X		Side channel of Columbia River near Longview, WA (tidal).
Carr Inlet, WA	X		Puget Sound. Pierce County, WA.
Case Inlet, WA	X		Puget Sound. Mason County, WA.
Cathlamet Channel,WA.	X		Side channel of Columbia River at Cathlamet, WA (tidal).
Cedar River, WA	X		Flows into Lake Washington at Renton, WA. Navigable to mile 1.3 (Wells Ave Bridge).
Chambers Creek, WA		X	Flows into Puget Sound near Steilacoom, WA. See Steliacoom Waterway.
Charlton Channel, WA	X		Navigable to mile 4.0.
Chehalis River, WA	X		Flows into Grays Harbor. Navigable to mile 68.0. AA at and upstream of County Bridge at Centralia (Galvin Road Bridge). Also AA from County Bridge at South Elma to County Bridge at Centralia.
Chelan River, WA		X	Tributary of Columbia River. Navigable at mile 0.05 (Columbia River backwater).
Chelan, Lake, WA		X	Only outlet is Chelan River.
Chinook River, WA	X		Flows into Baker Bay. Mouth 3 miles E of liwaco, WA (tidal). Navigable to mile 0.6.
Clallam River, Clallam County, WA	X		
Coalcreek Slough, WA	X		Tributary of Columbia River, mouth 10 miles downstream from Longview, WA.
Columbia River Reservoir, WA	X		From Grand Coulee Dam to Canadian border (see Lake Roosevelt).
Columbia River, WA/OR	X		Navigable for entire distance in the United States.

Table 30 U.S. Coast Guard Navigable Waters

Body of Water	Navigable CG	Non-Nav CG	Remarks
Coweeman River, WA	X		Tributary of Cowlitz River. Mouth at Longview, WA. Navigable at mile 4.0.
Cowlitz River, WA	X		Tributary of Columbia River. Mouth at Longview, WA. Navigable to mile 34.0.
Dead Water Slough, Snohomish River, WA	X		
Deep River, WA	X		Tributary of Columbia River. Mouth 7 ml. NE of Astoria, OR (tidal). Navigable to mile 5.0.
Dell Creek, WA		X	Tributary of Naselle River near Naselle, WA.
Deschutes Basin, WA			See Capitol Lake.
Deschutes River, WA		X	Flows into Capitol Lake at Olympia, WA. CG considers non-navigable at mile 11.0.
Diablo Lake, WA		X	Skagit River.
Dickey River, WA	X		Flows into Quillayute River near La Push, WA. Navigable to head of tidewater 1 mile above mouth.
Dosewallips River, Jefferson County, WA	X		STAA at and upstream of SR-101 Bridge
Drano Lake	X ACOE		"Navigable to Little White Salmon River mile 1.0. In Bonneville þool - 3 miles from Hood .River, Oregon, across Columbia River. Moutheof Little White Salmon River"
Duck Creek, WA		X	Tributary of Elochman River.
Dungeness River, WA		X	Flows into Strait of Juan de Fuca at Dungeness.
Duwamish River, WA	X		River mouth is considered the head of West Waterway, Seattle Harbor, about 0.3 miles downstream of the Spokane Street Bridge. The head of navigation is the mouth of Black River, former outlet of Lake Washington. This is also the approximate head of the tide, and the point of which the Duwamish becomes the Green. See also Green River.
Ebey Slough, WA	X		Side channel of Snohomish River North of Everett, WA. AA at and upstream of SR-2 Bridge.
Edison Slough, WA	X		Flows into Samish Bay (tidal).

Table 30 U.S. Coast Guard Navigable Waters

Body of Water	Navigable CG	Non-Nav CG	Remarks
Elliott Slough			Tributary to Chehalis River
Elochoman River, WA	X		Tributary of Columbia River. Flows into Elochoman Slough (tidal at mile 3.0).
Elochoman Slough,WA	X		Side channel of Columbia River at Cathlamet, WA (tidal).
Elwell Creek, WA		X	Tributary of Skykomish River.
Entiat River, WA		X	Tributary of Columbia River.
Falk Creek, WA		X	Tributary of Skamokawa Creek.
Femdale Slough, WA	X		Side channel of Nooksack River (tidal). Also known as Portage Slough.
Fifth Street Waterway, WA	X		Navigable at bridge over 5th Street Waterway at Steilacoom, WA (tidal).
Fisher Island Slough (Fisher), WA	X		"Side channel of Columbia River at Island Channel, WA. Downstream end 6 miles downstream from Longview, WA (tidal). Navigable to mile 2.0."
Franklin D. Roosevelt, Lake, WA	X		See Columbia River.
Germany Creek, WA	X		Tidal at SR-4 bridge.
Governors Lake, WA	X		See Capitol Lake.
Grays Harbor, WA	X		"At Aberdeen, WA (tidal) from U.P.P.R. Bridge at Aberdeen to seaward end of bar channel, including all bays and sloughs to the elevation of mean high water."
Grays River, WA	X		"Tributary of Lower Columbia River. Mouth 7 miles NE of Astoria, OR (tidal at town of Grays River, mile 8.0)."
Green Lake, WA		X	Seattle, WA.
Green River, WA	X		"Becomes Duwamish River at mouth of Black River (head of tidewater), mile 11.0. Navigable to mile 23.0 at Kent, WA. Non- navigable upstream of State Highway 516 Bridge in existence on October 26, 1981. Act of Congress, 33 U.S.C. 59s."
Hama Hama River, WA	X		Flows into Hood Canal near Eldon, WA (tidal to mile 1.0).
Hamilton Creek, WA	X		"Tributary of Columbia River. Navigable to limit of Columbia River backwater elevation of 28.5 MSL."

Table 30 U.S. Coast Guard Navigable Waters

Body of Water	Navigable CG	Non-Nav CG	Remarks
Hat Slough, WA	X		"Flows out of Stillaguamish River near mile 8.0. Mileage shown is from head to mouth in Port Susan (tidal). AA at County Bridge on Marine Drive."
Hoh River, WA	X		"Flows into Pacific Ocean near Oil City, WA, and the Hoh Indian Nation (tidal and navigable to about mile 1.0)."
Hoko River, WA	X		Flows into Strait of Juan de Fuca near Sekiu, WA (tidal to about mile 1.0).
Hood Canal, WA	X		Near Port Gamble, WA.
Hoquiam River (East Fork), WA	X		Flows into Hoquiam River at Hoquiam, WA (tidal to about mile 6.5).
Hoquiam River, WA	X		Flows into Grays Harbor at Hoquiam, WA (tidal to about mile 7.0). Navigable to mile 8.0.
Horse Shoe Lake, WA		X	Old channel of Lewis River at Woodland, WA.
Horse Thief Lake, WA		X	Klickitat County.
Humptulips River,WA	X		Flows into Grays Harbor near Hoquiam, WA (tidal at mile 1.0).
Jessie Slough, Grays Harbor County, WA	X		AA at and upstream of County Bridge near Edison.
Joe Creek, Grays Harbor County, WA	X		STAA at and upstream of the Joe Creek Bridge
Johns River, WA	X		Flows into Grays Harbor near Markham, WA (tidal). Navigable to mile 4.0.
Johnson Creek, WA		X	Flows into Sequim Bay at Pitship Point.
Jump Off Joe Lake, WA		X	Near Chewelah, WA.
Kalama River, WA	X		"Tributary of Columbia River. Mouth 2 miles downstream from Kalama, WA. Navigable at mile 3.4"
Klickitat River, WA	X		Tributary to Columbia River. Bonneville Pool Backwater extends upstram to about mile 1.0.
Lagoon Point, Whidbey Is., WA	X		Man made inlet created for residential. Tributary to Puget Sound.
Lake Crescent, WA		X	"Located entirely within Olympic National Park. While not navigable, entire lake is “water subject to the jurisdiction of the U.S.”"

Table 30 U.S. Coast Guard Navigable Waters

Body of Water	Navigable CG	Non-Nav CG	Remarks
Lake River, WA	X		Tributary of Columbia River (tidal at mile 3.3).
Lake Roosevelt, WA	X		Formed by Grand Coulee Dam. See Columbia River.
Lake Union, WA	X		Between Lake Washington and Puget Sound.
Lake Washington Ship Canal, WA	X		"At Seattle, WA. Joins Lake Washington with Puget Sound at Shilshole Bay. Includes Lake Union."
Lake Washington, WA	X		At Seattle, WA.
Latah Creek, WA	X		Tributary of Spokane River.
Lewis River (East Fork), WA	X		Tributary of Lewis River. Navigable to La Center, WA, mile 3.0.
Lewis River, WA	X		"Tributary of Columbia River. Across Columbia River from St. Helens, OR. Navigable to mile 7.7."
Little Hoquiam River, WA	X		Flows into Hoquiam River near Hoquiam, WA (tidal to mile 2.0).
Little Pend Oreille River, WA		X	Tributary to Colville River. Flows from Little Pend Oreille Lakes SW to Colville River.
Martin Island Slough, WA	X		Side channel of Columbia River. 4 miles upstream from Kalama, WA.
McAllister Creek, WA	X		Flows into Nisqually Reach of Puget Sound (tidal at mile 3.0).
McNary Reservoir, WA	X		See Columbia River.
Mercer Slough	X		Tributary to Lake Washington
Methow River, WA		X	Near Winthrop, WA.
Methow River, WA		X	Tributary of Columbia River at Pateros, WA.
Mill Creek, WA	X		Flows into Hamrnersley Inlet of Puget Sound (tidal at mile 0.5).
Mill Creek, WA	X		Tributary of Columbia River near Stella, WA (tidal to mile 0.8).
Moses Lake, WA		X	Formed by O'Sullivan Darn on Crab Creek.
Mullen Slough, WA		X	Tributary of Green River at Kent, WA.
Naselle River, WA	X		Flows into Willapa Bay near Naselle, WA. Navigable at mile 15.3.
Nemah River (Middle Fork), WA	X		Flows into Willapa Bay near Nemah, WA (tidal at confluence of South Nemah).

Table 30 U.S. Coast Guard Navigable Waters

Body of Water	Navigable CG	Non-Nav CG	Remarks
Nemah River (North Fork), WA	X		Flows into Willapa Bay near Nemah, WA (tidal at mile 1.5).
Nemah River (South Fork), WA	X		Tributary of Middle Nemah (tidal at bridge above confluence with Middle Nemah).
Niawiakum River Pacific County, WA	X		STAA at and upstream of SR-101 Bridge
Nisqually River, WA	X		Flows into Nisqually Reach of Puget Sound (tidal at 1-5 Freeway Bridge; mile 2.4).
Nookachamps Creek, WA		X	Tributary to Skagit River.
Nooksack River, WA	X		"Flows into Bellingham Bay near Bellingham, WA. Navigable to mile 26.0. AA at mile 23.2 SR-544 Bridge to mile 26.0."
North Creek, WA		X	Tributary to Sammamish River.
North River, WA	X		Flows into Willapa Bay near South Bend, WA. Navigable to falls 5 miles above mouth.
Okanogan River, WA	X		"Tributary to Columbia River near Brewster, WA. Navigable from mouth to McLaughlin Falls, approximately 50 miles above mouth near Riverside, WA."
Ollala Bay, WA	X		Puget Sound.
Palix River (Middle Fork), WA	X		Tributary of Palix River (tidal to mile 2.0).
Palix River (North Fork), WA	X		Tributary of Palix River (tidal to mile 1.5).
Palix River (South Fork), WA	X		Tributary of Palix River (tidal to mile 3.5).
Palix, River, WA	X		Flows into Willapa Bay near Bay Center, WA (tidal).
Palouse River (South Fork), WA		X	At North Grand Avenue bridge, Pullman, WA.
Palouse River, WA		X	Mouth halfway between Lower Monumental Dam, and Little Goose Dam.
Pend Oreille River, WA/ID	X		Navigable from the Canadian boundary at mile 16 to Lake Pend Oreille.
Percival Creek, WA		X	From Black Lake near Olympia to Capitol Lake at Olympia.
Pickering Passage, WA	X		Puget Sound.
Portage Slough, WA			See Ferndale Slough.

Table 30 U.S. Coast Guard Navigable Waters

Body of Water	Navigable CG	Non-Nav CG	Remarks
Purdy Creek, WA		X	Tributary of Skokomish River at mile 3.9.
Puyallup River, WA	X		"Flows into Commencement Bay of Puget Sound at Tacoma, WA (tidal at mile 3.0). Navigable to Mile 3.0 near 30th Ave E."
Pysht River, WA	X		Flows into Strait of Juan de Fuca near Sekiu, WA (tidal to mile 2.5).
Queets River, WA	X		Flows into Pacific Ocean near Queets, WA (tidal to mile 1.0).
Quilceda Creek, WA	X		Tributary of Snohomish River (tidal at mile 2.3).
Quillayute River, WA	X		Flows into Pacific Ocean at La Push, WA (tidal to mile 2.5).
Rock Cove, WA	X		Backwater of Bonneville Pool.
Rock Creek, WA	X		Backwater of Lake Umatilla to mile 1.0.
Roosevelt, Lake, WA	X		See Columbia River.
"Rosedale Bay, Pierce County (Puget Sound), WA"	X		STAA at and landward of the Rosedale Bay Bridge
Ross Lake (Upper Skagit River), WA	X		Navigable to Canadian Border.
Salmon Creek, WA		X	Tributary to Naselle River, Pacific County.
Salmon Creek, WA	X		Flows into Lake River at mile 9.5, Clark County. NW 36 Ave Bridge.
Samish River, Skagit County, WA	X	X	"Flows into Samish Bay near Edison, WA (tidal to about mile 7.0). Non-navigable at mile 8.0 and upstream. The I-5 twin bridges are in non-navigable water."
Sammamish River, WA	X		"Flows from Lake Sammamish to Lake Washington near Seattle, WA. CGAA for entire waterway. (in 2017 BRG said CGAA are no longer valid),"
Sammamish, Lake, WA	X		Source of Sammamish River.
Sekiu River, WA	X		Flows into Strait of Juan de Fuca near Sekiu, WA (tidal at mile 0.1).

Table 30 U.S. Coast Guard Navigable Waters

Body of Water	Navigable CG	Non-Nav CG	Remarks
Skagit River (incl. South Fork), WA	X		"Flows into Skagit Bay near Stanwood, WA. Department of Agriculture now has jurisdiction over parts of the Skagit River pursuant to the Wild and Scenic Rivers Act. Navigable to mile 80.0. AA from junction with North Fork to junction with Freshwater Slough."
Skagit River (North Fork), WA	X		"Flows out of Skagit River at mile 9.5 near Mount Vernon, WA into Skagit Bay. Navigable to mile 7.0."
Skamokawa Creek, WA	X		Tributary of Columbia River. Mouth at Skamokawa, WA.
Skarnokawa Creek (Left Fork), WA		X	Tributary of Columbia River. Mouth at Skamokawa, WA.
Skidmore Slough, WA	X		Flows into Willapa River near South Bend, WA (tidal at mile 0.2).
Skokomish River, WA	X		Flows into Hood Canal near Union, WA (tidal to mile 3.0).
Snohomish River (Ebey Slough), WA	X		"Flows out of Snohomish River near mile 10.0 at Everett into Port Gardner. Mileage shown is from head to Burlington Northern Railway bridge near mouth (tidal)."
Snohomish River (Steamboat Slough), WA	X		"Flows out of Snohomish River near mile 6 at Everett into Port Gardner. Mileage shown from head to Burlington Northern Railway bridge near mouth (tidal)."
Snohomish River (Union Slough), WA	X		"Flows out of Snohomish River near mile 6.0 at Everett into Port Gardner. Mileage shown is from head to Burlington Northern Railway bridge near mouth (tidal)."
Snohomish River, WA	X		"Navigable throughout. Formed by confluence of Skykomish and Snoqualmie Rivers near Monroe, WA. AA at and upstream of SR-522 Bridge near Monroe."
Snoqualmie River, WA	X		"At point of confluence with Skykomish River, forms the Snohomish River near Monroe, WA. Navigable to at least mile 24.9."
South Slough, OR	X		Estuary of Lower Coos Bay. Mouth 1.0 mile N of Charleston, OR (tidal).
Spokane River, WA	X		Considered navigable above mile 80.2 N Argonne Road Bridge (May be the Spokane Upriver Dam) to Lake Coeur d' Alene and below mile 29.1 to confluence with the Columbia River.

Table 30 U.S. Coast Guard Navigable Waters

Body of Water	Navigable CG	Non-Nav CG	Remarks
Steamboat Slough, WA	X		Side channel of Columbia River. Mouth at Skamokawa, WA (tidal).
Stillaguamish River (Hat Slough), WA	X		Flows out of Stillaguamish River near mile 8.0 from road to mouth in Port Susan (tidal).
Stillaguamish River, WA	X		"Flows into Port Susan near Stanwood, WA (tidal to mile 11.5). STAA at and upstream of SR-9 Bridge. AA at and upstream of County Bridge at mile 7.35"
Stuart Slough, WA	X		Tributary of Willapa River
Stuck River, WA		X	Tributary of Puyallup River.
Sumas River, WA		X	Flows through northern Whatcom County.
Swinomish Slough (Channel), WA	X		Connects Skagit Bay with Padilla Bay (tidal).
Tacoma Harbor, WA	X		Puget Sound. Tacoma, WA.
Tapps, Lake, WA		X	Pierce County.
Tolt River, WA		X	Tributary of Snoqualmie River. Not navigable at mile 0.6.
Union River, WA		X	Flows into Hood Canal at Belfair, WA.
"Unnamed inlet tributary to Nisqually Reach at Tolmie State Park, WA"	X		Tidal.
"Unnamed inlet tributary to Pickering Passage, approx. 14 miles NE of Shelton, WA"	X		Tidal.
"Unnamed slough running in NW direction off its intersection with Johnson Slough near Raymond, WA"	X		Tidal.
"Von Geldern Cove Pierce County (Puget Sound), WA"	X		STAA at and landward of the Western Home Bridge
Walla Walla River, WA	X		Tributary of Columbia River McNary Pool backwater extends to mile 15.8.
Wallacut River, WA	X		"Flows into Baker Bay. Mouth 1 .0 mile NE of llwaco, WA (tidal at mile 0.5). AA at and upstream of tidegate at about mile 0.5"

Table 30 U.S. Coast Guard Navigable Waters

Body of Water	Navigable CG	Non-Nav CG	Remarks
Wanapum Reservoir, WA	X		Columbia River
Welcome Slough, WA	X		Tributary of Columbia River. 2 miles S of Cathlamet, WA.
Wenatchee River, WA		X	Tributary to Columbia River.
Whatcom (Creek) Waterway, WA	X		Near Bellingham, WA (tidal).
Whatcom, Lake, WA		X	Near Bellingham, WA.
White Salmon River, WA	X		"Tributary of Columbia River. Mouth 2 miles downstream from White Salmon, WA. Navigable to 1.0 mile. Navigable to head of Bonneville Pool Backwater (See Drano Lake Little White Salmon)."
Willapa Bay, WA	X		Estuary of Pacific Ocean
Willapa River (North Fork), WA	X		At confluence with South Fork, forms Willapa River at Raymond, WA (tidal at mile 14.6).
Willapa River (South Fork), WA	X		At confluence with North Fork, forms Willapa River at Raymond, WA (tidal at mile 0.9).
Willapa River, WA	X		"Formed by confluence of North and South Forks at Raymond, WA. Flows into Willapa Bay near South Bend, WA. (tidal)"
Wind River, WA	X		"Tributary of Columbia River. Mouth 4 miles upstream from Stevenson, WA. Navigable to head of Bonneville Pool Backwater."
Wishkah River, WA	X		Flows into Chehalis River at Aberdeen, WA (tidal to approximately 11 miles above mouth).
Woodard Creek, WA		X	Tributary of Columbia River near North Bonneville, WA.
"Woodward Bay, Henderson Inlet, Puget Sound, WA"	X		AA at and landward of bridge at mile 0.65
Yakima River, WA	X		Tributary of Columbia River. McNary Pool backwater extends upstream to mile 8.4.

Moveable Bridge Maximum Navigation Vertical Clearance

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(4,1)	N(4,1)	I	BN03	B.N.03	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

Code the maximum vertical clearance over the waterway feature reported in Item B.F.01 (Feature Type), rounded down to the nearest tenth of a foot.

The recorded clearance is from the highest datum plane referenced in the approved permit plans to the lowest superstructure restriction or other appurtenances attached to the bridge over the designated navigation channel, when the movable bridge is in the open position.

Code 999.9 when the bridge provides unlimited vertical clearance over the navigation channel in the open position.

Submittal to SNBI will report this item only when Item B.N.01 (Navigable Waterway) is Y and Item B.SP.06 (Span Type) begins with M, indicating that the span type is movable.

Commentary

The value recorded for this item is particularly useful for vertical lift bridges and for bascule bridges where the leaf (or leaves) does not provide unlimited vertical clearance over the designated navigation channel in the open position.

When permit plans are not available, values can be obtained from field measurements. Reference field measurements to the following datum:

Crossing Type	Datum
Tidal waters	Mean High Water
Non-tidal waters	Extreme High Water
Rive	Q50 Surface Elevation

Moveable Bridge Maximum Navigation Vertical Clearance cont...

Example

Vertical lift bridge. Information taken from "As-Built" plans as no permit plans are available. Mean High Water elevation is 3.2 ft. Maximum vertical underclearance is 56 ft – 3.2 ft = 52.8 ft. Report 52.8.

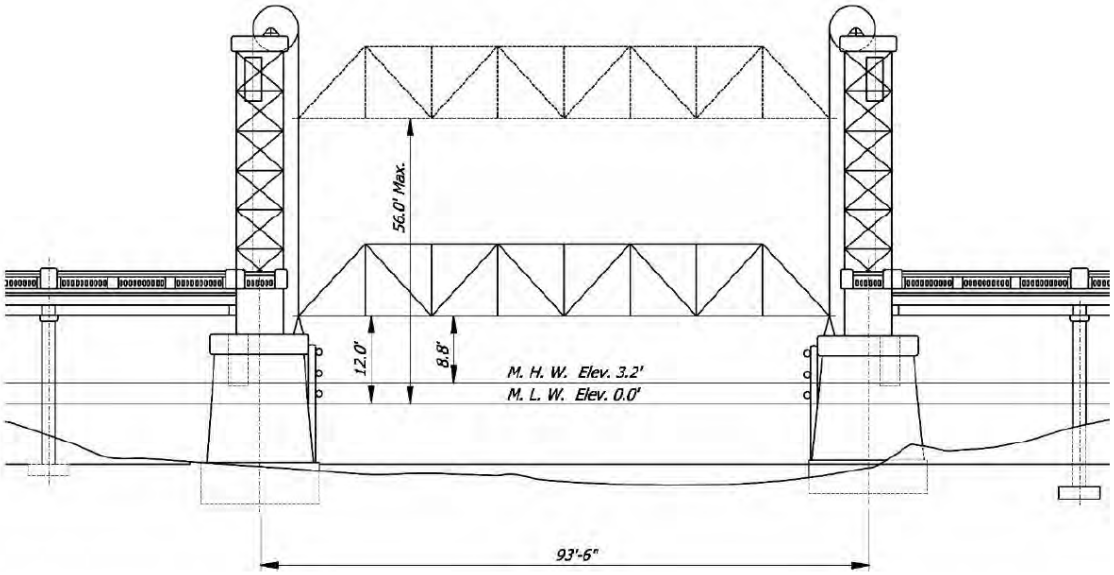


Figure 118. Bridge elevation view for a vertical lift bridge indicating vertical clearances. (Source: Florida DOT)

Navigation Channel Width

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(5,1)	N(5,1)	I	BN04	B.N.04	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
Code the navigation channel width for the waterway feature reported in Item B.F.01 (Feature Type), rounded down to the nearest tenth of a foot. The width is as shown on the approved permit plans, or field measured when the navigation channel changes or is unmarked. For field measurements, measure the horizontal distance perpendicular to the centerline of the navigation channel. For marked channels measure between the markers designating the limits of the channel at the bridge. For unmarked channels, measure the minimum clear distance between fenders or piers. If multiple channels exist, report the most restrictive. **Submittal to SNBI** will report this item only when Item B.N.01 (Navigable Waterway) is Y.	The width provided here should be consistent with the navigation channel used in the navigation vertical clearance items. The designated navigation channel width may be less than the distance between substructure units.

Navigation Channel Width continued...

Examples

Permit plans for a bridge over tidal waters with the navigation channel designated by cross-hatched area. Report 250.0.

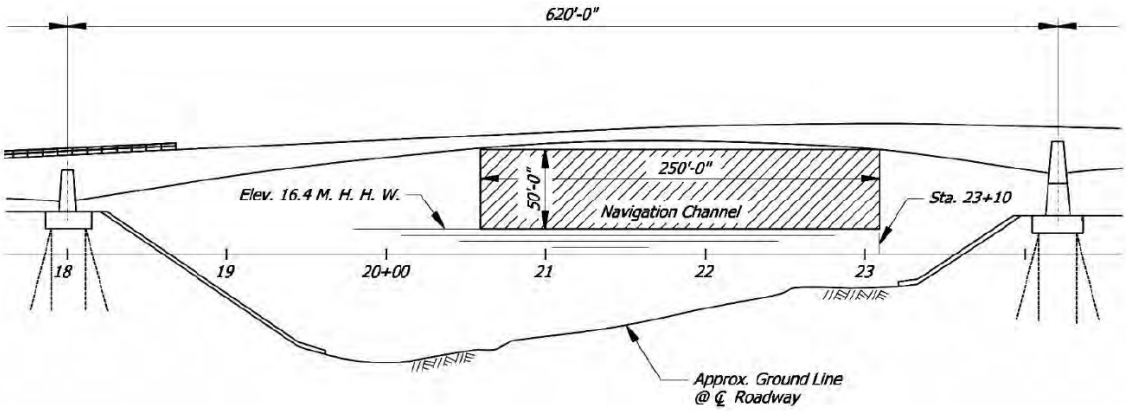


Figure 119. Bridge elevation view indicating navigation channel width dimensions. (Source: Alaska DOT)

Bridge with multiple designated navigation channels bounded by piers. Report 126.5.

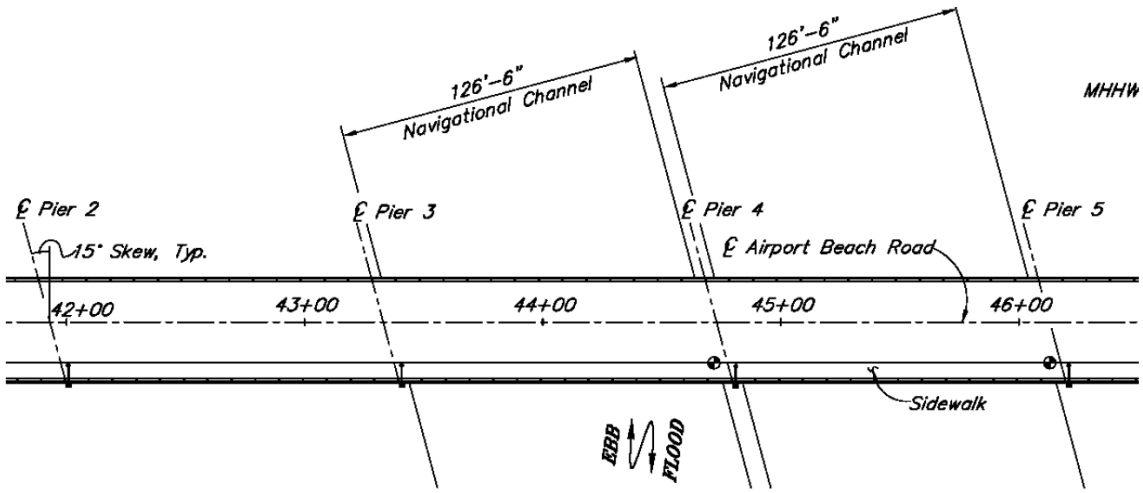


Figure 120. Bridge plan view indicating navigation channel width dimensions. (Source: Alaska DOT)

Navigation Channel Minimum Horizontal Clearance

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(5,1)	N(5,1)	I	BN05	B.N.05	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification	Commentary
Code the minimum horizontal clearance for the waterway feature reported in Item B.F.01 (Feature Type), rounded down to the nearest tenth of a foot. The clearance is the minimum distance from either edge of the navigation channel shown on the approved permit plans, to the face of the nearest bridge substructure unit located within the waterway. The clearance may be field measured when the placement of navigation markers at the bridge is inconsistent with the permit plans, or if the presence of navigation markers indicates a navigation channel and no permit plans are available. For field measurements, measure the horizontal distance perpendicular to the centerline of the navigation channel from the markers designating the limits of the channel at the bridge, to the face of the nearest bridge substructure unit located within the waterway. Code 0 when substructure units in the waterway are the boundaries for the navigation channel. Code 9999.9 when no substructure unit is within the waterway. **Submittal to SNBI** will report this item only when Item B.N.01 (Navigable Waterway) is Y.	The intent of this item is to collect the most restrictive distance from the edge of the navigational channel to a bridge substructure to assess risk for vessel collision. The clearance provided here should be consistent with the navigation channel used in Item B.N.04 (Navigation Channel Width).

Navigation Channel Minimum Horizontal Clearance continued...

Examples

Permit plans for a bridge over tidal waters with the navigation channel designated by cross-hatched area. No substructure units within the waterway. Report 9999.9.

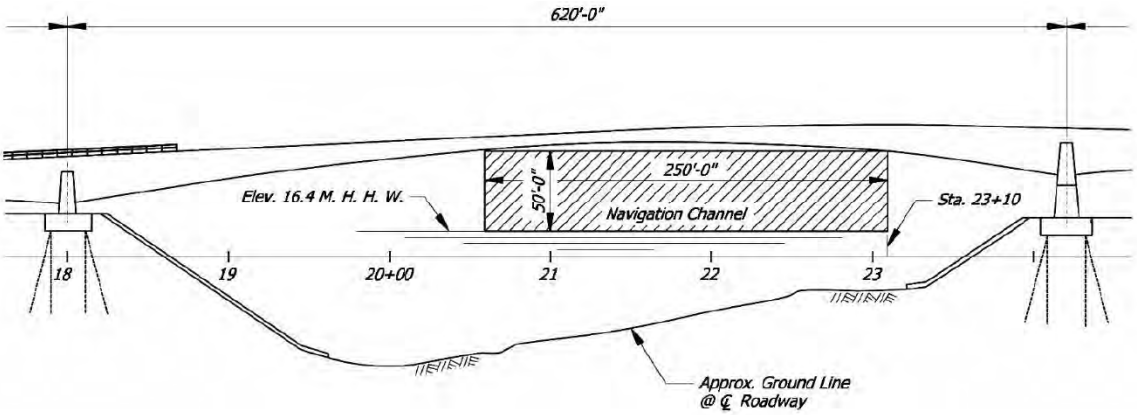


Figure 121. Bridge elevation view with no substructure units in the waterway. (Source: Alaska DOT)

Bridge with multiple designated navigation channels bounded by piers. Report 0.

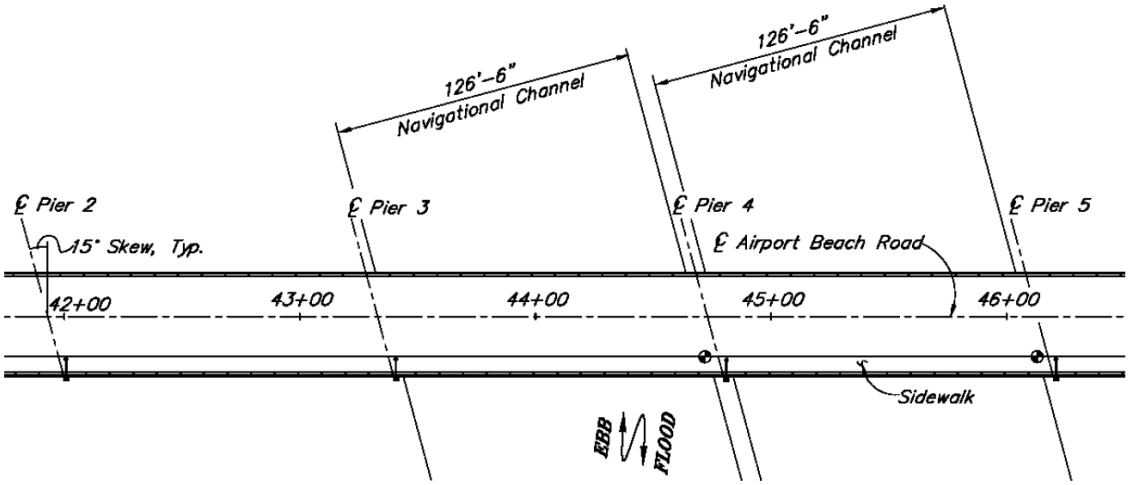


Figure 122. Bridge plan view indicating multiple navigation channel width dimensions to substructure units in the waterway. (Source: Alaska DOT)

Bridge with navigation channel designated by cross-hatched area. Substructure units within the waterway. Report 135.6.

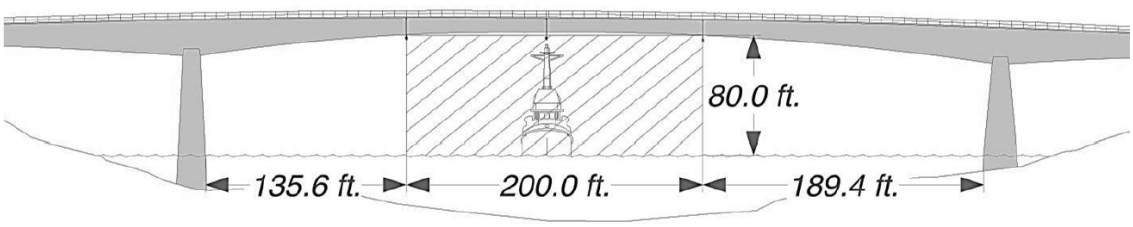


Figure 123. Bridge elevation view indicating navigation channel clearances to substructure units in the waterway.

Substructure Navigation Protection

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	AN(1)	EI	BN06	B.N.06	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Specification

Code the presence and adequacy of substructure navigation protection for the waterway feature reported in Item B.F.01 (Feature Type), using one of the following codes.

Code	Description
0	Navigation protection not required; bridge has been designed or assessed to have adequate capacity to resist anticipated impact loads without collapse.
1	Navigation protection not required; assessment of navigation opening and vessel traffic has determined that there is a low probability that an errant vessel could impact the bridge.
2	Protective system in place and functioning.
3	Protective system in place, but damage or deterioration impacts ability to protect.
4	Protective system in place, but reevaluation of design suggested.
5	No protective system in place, but reevaluation of the need for a protective system is recommended.

Submittal to SNBI will report this item only when Item B.N.01 (Navigable Waterway) is Y.

Commentary

Substructure navigation protection systems can be fender systems, dolphins, or other systems that either prevent the substructure from being impacted or adequately reduce the impact load that is transferred into the substructure.

Use codes 0 and 1 to indicate that an assessment of vessel traffic characteristics and/or bridge capacity has determined that navigation protection is not required. AASHTO's Guide Specifications and Commentary for Vessel Collision Design of Highway Bridges provides a method for assessing an existing bridge's vulnerability to vessel collision. Codes 0 and 1 should not be assigned based on field observation.

Use codes 4 and 5 to indicate that observed conditions necessitate a review of vessel traffic characteristics, bridge capacity, and protective system capability to determine whether the bridge is adequately protected from vessel collision.

Materials & Types Tab

Superstructure Configuration Designation

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(3)	AN(3)	I	BSP01	B.SP.01	-

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

Specification / Commentary

This item is populated automatically from the WSP01 field.

Superstructure Configuration Code

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Calculated	AN(3)	I	WSP01	-	-

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

Specification	Commentary
Code the assigned span configuration designation using one of the following codes. **Code** **Description** M## Main A## Approach C## Culvert V## Culvert extension W## Widening The ## characters in the above codes are auto-generated with sequential numbers, with leading zeros, assigned to each span configuration.	This item captures how spans of the reported bridge configuration are classified and designated. Except for culverts, each bridge has at least one main span. Main spans include all spans of most bridges or the major span(s) of a sizable bridge. The "##" characters in the codes with a sequential number (e.g., M01, A01, A02, etc.) identifies each unique span configuration present on the bridge. A bridge may or may not have approach spans. Approach spans are typically those of a different material, type, or design than the main span and are typically at one or both ends of the main span. Consider the span(s) of vaulted abutments as an approach span. Use code C for spans that convey water through or under a roadway embankment and are designed hydraulically to take advantage of submergence to increase water carrying capacity. Use code V when a culvert is extended using dissimilar construction. Use code W for widened portions of main or approach spans with dissimilar construction. Widening data sets do not contribute to the calculation of the total number of spans for the bridge.

Superstructure Configuration Code continued...

Examples

Four-span steel plate girder bridge. This bridge has one span data set. Report M01.

Double-leaf bascule bridge with four steel box girder approach spans. This bridge has two span data sets.

- Report M01 for the bascule data set.
- Report A01 for the steel box girder data set.

Six-span bridge with two continuous steel plate girder main spans and four simply supported steel plate girder approach spans. This bridge has two span data sets.

- Report M01 for the continuous steel plate girder data set.
- Report code A01 for the simply supported steel plate girder data set.

Four-barrel corrugated steel pipe culvert, modified by adding four additional HDPE round pipes along the roadway centerline to increase hydraulic capacity. This bridge has two span data sets.

- Report C01 for the steel pipes data set.
- Report C02 for the HDPE pipes data set.

Steel truss main span bridge with three prestressed concrete multi-beam approach spans at the north end, and two steel multi-beam approach spans at the south end. This bridge has three span data sets.

- Report M01 for the steel truss data set.
- Report A01 for the north approach data set.
- Report A02 for the south approach data set.

Single span reinforced concrete tee-beam bridge widened with prestressed concrete box beams. This bridge has two span data sets.

- Report M01 for the reinforced concrete tee-beam data set.
- Report W01 for the prestressed concrete box beams data set.

Three-sided frame culvert, lengthened by adding a four-sided box culvert to the end of the barrel. This bridge has two span data sets.

- Report C01 for the three-sided frame culvert data set.
- Report V01 for the four-sided box culvert data set.

Single span steel beam bridge widened using the same superstructure/deck construction. This bridge has one span data set. Report M01.

Span Description

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	I	WSP02	-	-

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

Specification / Commentary

Briefly identify the span numbers associated with the Span Configuration identified in WSP01.

Examples

- Main Spans 2, 3 and 4
- Approach Spans 1-3

Number of Spans

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(4,0)	N(4,0)	I	BSP02	B.SP.02	-

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

Specification	Commentary
Record the number of spans.	This item captures the number of spans of the configuration(s) designated in item B.SP.01 (Span Configuration Designation). If the number of barrels or spans varies, report the maximum number.

Number of Spans continued...

Examples

Four-span steel plate girder bridge. This bridge has one span data set. Report 4.

Double-leaf bascule bridge with four steel box girder approach spans. This bridge has two span data sets.

- Report 1 for the bascule main span data set.
- Report 4 for the box girder approach span data set.

Six-span bridge with two continuous steel plate girder main spans and four simply supported steel plate girder approach spans. This bridge has two span data sets.

- Report 2 for the main span data set.
- Report 4 for the approach span data set.

Four-barrel corrugated steel pipe culvert, modified by adding four additional HDPE round pipes along the roadway centerline to increase hydraulic capacity. This bridge has two span data sets.

- Report 4 for the steel pipes data set.
- Report 4 for the HDPE pipes data set.

Three steel girder spans with concrete vaulted/cellular abutments that enclose a reinforced concrete slab span at each end of the bridge. This bridge has two span data sets.

- Report 3 for the steel girder main span data set.
- Report 2 for the reinforced concrete approach span data set.

Four-sided concrete box culvert that collects runoff at a single-barrel inlet at the northeast corner of an intersection, and at a three-barrel inlet at the northwest corner. The barrels merge beneath the intersection, and all four barrels outlet to the southeast corner. This bridge has one span data set. Report 4.

Three-sided frame culvert, lengthened by adding a four-sided box culvert to the end of the barrel. This bridge has two span data sets.

- Report 1 for the three-sided frame culvert data set.
- Report 1 for the four-sided box culvert data set.

Twin concrete box girder bridge that has eastbound and westbound lanes separated by a 1” median gap. Eastbound portion of superstructure is supported by two piers, and westbound portion is supported by three piers due to unusual terrain restrictions. This bridge has one span data set. Report 4.

Number of Beam Lines

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(3,0)	N(3,0)	I	BSP03	B.SP.03	-

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

Specification	Commentary
Record the number of principal beam lines. Code 1 for bridges where Item B.SP.06 (Span Type) is F01, F02, S01, or S02. Code 0 for bridges where Item B.SP.06 (Span Type) is P01 or P02.	Principal beam lines include the main longitudinal load-carrying members of the superstructure such as beams, girders, trusses, and arches or arch ribs, but do not include stringers of a floor beam system or spandrel walls of an arch. Use the average number of beam lines for bridges with variable number of beam lines within a span configuration, rounded down.

Examples

Timber multi-beam bridge with 12 beams. Report 12.

Steel through truss bridge with two trusses and ten stringers. Report 2.

Flared three-span tee-beam bridge with 12 beams at the south end and 17 beams at the north end. Report 14.

Steel arch bridge with three arch ribs. Report 3.

Concrete arch bridge with masonry spandrel walls. Report 1.

Four-barrel corrugated steel pipe culvert, modified by adding four additional HDPE round pipes along the roadway centerline to increase hydraulic capacity. This bridge has two span data sets.

- Report 0 for the steel pipes data set.
- Report 0 for the HDPE pipes data set.

Three-sided frame culvert, lengthened by adding a four-sided box culvert to the end of the barrel. This bridge has two span data sets.

- Report 1 for the three-sided frame data set.
- Report 1 for the four-sided frame data set.

Span Material

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(3)	AN(3)	I	BSP04	B.SP.04	-

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

Specification

Record the principal span material type using one of the following codes.

Code	Description
A01	Aluminum
C01	Reinforced concrete - cast-in-place
C02	Reinforced concrete - precast
C03	Prestressed concrete - pre-tensioned
C04	Prestressed concrete - cast in place post-tensioned
C05	Prestressed concrete - precast post-tensioned
CX	Concrete - other
F01	FRP composite - aramid fiber
F02	FRP composite - carbon fiber
F03	FRP composite - glass fiber
FX	FRP composite - other
I01	Iron - cast
I02	Iron - wrought
M01	Masonry - block
M02	Masonry - stone
P01	Plastic - Polyethylene
PX	Plastic - other
S01	Steel - rolled shapes
S02	Steel - welded shapes
S03	Steel - bolted shapes
S04	Steel - riveted shapes
S05	Steel - bolted and riveted shapes
SX	Steel - other

Specification Continued

continued...

Code	Description
T01	Timber - glue laminated
T01	Timber - nail laminated
T01	Timber - solid sawn
T01	Timber - stress laminated
T01	Timber - other
X	Other

Span Material continued...

Commentary

A principal span member includes the main longitudinal load-carrying members of the span such as beams, girders, trusses, arches, or pipes, but does not include the floor system.

Use code C04 or C05, as applicable, for prestressed concrete superstructures that utilize both pre-tensioning and post- tensioning.

Use code M01 for masonry made from bricks or concrete blocks. Use code M02 for natural stone.

Use code P01 for plastics that include HDPE and PE materials typically used for pipes.

Examples

Spliced concrete girder: post-tensioned, precast, pre-tensioned bulb-T. Report C05. Stress laminated timber slab. Report T04.

Concrete encased steel rolled beam. Report S01. Bolted steel truss with timber stringers. Report S03.

Cast-in-place reinforced concrete tee-beams strengthened with carbon fiber FRP. Report C01. Corrugated steel pipes with bolted seams. Report S03.

Corrugated steel pipe culvert with welded seams, modified by adding additional HDPE round pipes to lengthen the culvert along the roadway centerline. This bridge has two span data sets.

- Report S02 for the steel pipes data set.
- Report P01 for the HDPE pipes data set.

Three-sided, cast-in-place reinforced concrete frame culvert, lengthened by adding a four- sided precast reinforced concrete frame culvert to the end of the barrel. This bridge has two span data sets.

- Report C01 for the three-sided frame data set.
- Report C02 for the four-sided frame data set.

Terra cotta pipes. Report X.

Span Continuity

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(1)	AN(1)	I	BSP05	B.SP.05	-

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

Specification	Commentary
Record the span continuity using one of the following codes. **Code** — **Description** 1 — Simple or single span 2 — Continuous 3 — Continuous for live loads only 4 — Cantilever 5 — Cantilever with pin and hanger 6 — Frame 7 — Buried	This item captures the continuity of the span(s) in the configuration. Use code 2 for bridges designed continuous for permanent (dead) loads and live loads. Also, use code 2 for cable stayed and suspension bridges, and for multi-span arches. Use code 3 for bridges designed as simple spans for permanent (dead) loads and continuous for live loads. When it is unknown if the superstructure was designed as continuous for live loads, code this item consistent with the assumption used in the load rating calculations. Use code 6 for three-sided and four-sided frames that are not buried. Use code 7 for pipe culverts and other structures that rely on soil-structure interaction to support vertical loads.

Examples

Two prestressed concrete girder simple spans that have one span data set. Report 1.

Three-span bridge with cantilevered end spans that are unsupported at the extreme ends. There are two span data sets, one for the center span and one for the end spans. Report 2 for the center span. Report 4 for the end spans.

Steel rigid K-frame that has one span data set. Report 6.

Two prestressed concrete girder simple spans with continuous deck designed to provide continuity for live load over the pier and have one span data set. Report 3.

Three-span concrete girder bridge with cantilever and suspended center span. There are two span data sets, one for the center span and one for the end spans. Report 4 for the center span. Report 2 for the end spans.

Three-span steel girder bridge with cantilever and suspended pin and hanger center span. There are two span data sets, one for the center span and one for the end spans. Report 5 for the center span. Report 2 for the end spans.

Three-barrel monolithic concrete frame bridge that is not buried and has one span data set. Report 6.

Four-barrel corrugated steel pipe culvert. Report 7.

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Span Type

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(3)	AN(3)	I	BSP06	B.SP.06	-

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

Specification

Record the span type using one of the following codes.

Code	Description
A01	Arch - under fill without spandrel
A02	Arch - open spandrel
A03	Arch - closed spandrel
A04	Arch - through
A05	Arch - tied
B01	Box girder/beam - single
B02	Box girder/beam - multiple adjacent
B03	Box girder/beam - multiple spread
B04	Box girder/beam - segmental
F01	Frame - three-sided
F02	Frame - four-sided
F03	Frame - K-shaped
F04	Frame - delta-shaped
G01	Girder/beam - I-shaped adjacent
G02	Girder/beam - I-shaped spread
G03	Girder/beam - tee-beam
G04	Girder/beam - inverted tee-beam
G05	Girder/beam - double-tee adjacent
G06	Girder/beam - double-tee spread
G07	Girder/beam - channel adjacent
G08	Girder/beam - channel spread
G09	Girder/beam - girder & floor beam
G10	Girder/beam - through girder
GX	Girder/beam - other

Specification Continued

continued...

Code	Description
L01	Cable - suspension
L02	Cable - suspension
L03	Cable - suspension
L04	Cable - other
M05	Moveable - vertical lift
M01	Moveable - vertical lift
M02	Moveable - vertical lift
M03	Moveable - other
P04	Pipe - rigid
P01	Pipe - flexible
S01	Slab - solid
S02	Slab - voided
T01	Truss - deck
T02	Truss - through
T03	Truss - pony
X04	Other - railroad flat car
X05	Other - ferry transfer
X06	Other - floating
X	Other

Span Type continued...

Commentary

Adjacent girders/beams are those sections that are placed directly next to each other and are touching or nearly touching.

Spread girders/beams are those sections that are spaced so that the deck spans the space between the sections.

Box girder/beams include boxes, tubs, and cellular structures where interior surfaces may or may not be accessible. Use code B04 for segmental construction and irrespective if the span type meets the description for B01, B02 or B03.

Use code F01 for three-sided rigid frames.

Use code F02 for rigid four-sided concrete box bridges.

Use code G01 or G02, as applicable, for bulb-tee and deck bulb-tee girders/beams.

Use code G09 for superstructures with girder and floor beam systems regardless of the girder shape.

Use code G10 for through girder type superstructures regardless of the girder shape.

Use code P02 for pipes that rely on the stability of surrounding soils to maintain their structural shape.

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Span Protective System

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(3)	AN(3)	I	BSP07	B.SP.07	-

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

Specification

Record the span protective system using one of the following codes.

Code	Description
0	None
A01	Admixture – internally sealed
A02	Admixture – low permeability
A03	Admixture – polymer impregnated
A04	Admixture – ASR inhibitor
AX	Admixture – other
C01	Coating – paint
C02	Coating – sealer
C03	Coating – methacrylate
C04	Coating – hot dip galvanizing
C05	Coating - metalizing/thermal spray
CX	Coating - other
E01	Encasement - concrete
EX	Encasement - other
M01	Membrane - built-up
M01	Membrane - sheet
M01	Membrane - liquid applied
M01	Membrane - unknown
MX	Membrane - other
P01	Patina - uncoated weathering steel
S01	Sacrificial - cathodic, passive
S02	Sacrificial - cathodic, active
SX	Sacrificial - other
T01	Treated - timber preservative
U	Unknown
X	Other

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Commentary

Code this item consistent with the material reported for Item B.SP.04 (Span Material).

In cases where the span configuration may have a combination of protective systems, use the code for the predominant protective system based on protected area. In cases where multiple systems protect the same area, use the code for the outermost protective layer.

Use code 0 when the span is unprotected.

Use code 0 when unprotected steels either never were coated or currently have no signs of coating systems, and have no protective systems such as cathodic protection or weathering chemistry.

Non-protective anti-graffiti and aesthetic coatings are not considered when coding this item.

Use code C01 for weathering steel that has been painted.

Use code C02 for sealers such as silanes, siloxanes, linseed oils, etc.

Use code P01 only for weathering grades of steel.

For timber, use code T01 for oil-based or water-borne timber preservatives. Use code C01 for paints and stains.

Use the appropriate code for span members under fill that have a protective system.

Span Protective System

Examples

Low permeability concrete slab bridge with waterproofing sheet membrane. Report M02.
Weathering steel multi-beam bridge that has the beam ends painted to protect from leakage through the joints. Report P01.

Deck Interaction

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(2)	AN(2)	I	BSP08	B.SP.08	-

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

Specification

Record the type of interaction between the superstructure and deck for the span configuration using one of the following codes.

Code	Description
CS	Composite - shored construction
CU	Composite - unshored constructions
IM	Integral or monolithic
NC	Non-composite

Submittal to SNBI will not report this item when Item B.SP.09 (Deck Material and Type) is 0.

Commentary

This item captures the type of structural interaction that occurs between the bridge deck and superstructure, which may indicate the importance of the deck to the overall stability and capacity of the bridge.

Use code NC to indicate that the deck and the superstructure act independently.

Use code CU to indicate that the deck acts composite with the superstructure, and that the superstructure can carry its own self-weight, plus that of the deck concrete prior to curing.

Use code CS to indicate that the deck acts composite with the superstructure, but without the deck the superstructure requires shoring to carry its own self weight, the weight of the deck concrete prior to curing, or both.

Use code IM to indicate that the deck was cast or fabricated of the same material and at the same time as the superstructure and the two can be expected to act as a unit. Use code IM for slabs and orthotropic steel decks.

When the type of interaction is unknown, code this item consistent with the assumption used in the load rating calculations.

Deck Interaction continued...

Examples

Steel rolled shape beams with cast-in-place deck. No shear connectors. Report NC.

Precast concrete bulb-tee with cast-in-place deck. Shear connectors extend into the deck. Deck was cast without shoring. Report CU.

Precast concrete double-tee beam bridge with an additional structural deck cast on top. Report CU.

Steel plate girder with cast-in-place deck. Shear connectors extend into the deck. Girders were shored during deck construction to maintain stability. Report CS.

Cast-in-place tee-beam bridge. Report IM. Adjacent box beam bridge. Traffic rides on the top flange of the box. Report IM.

Steel box girder with orthotropic deck. Deck plate acts as top flange of the box section. Report IM.

Deck Material & Type

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(3)	AN(3)	I	BSP09	B.SP.09	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification

Record the deck material and type for the span configuration using one of the following codes.

Code	Description
0	None
A01	Aluminum
C01	Reinforced concrete – cast-in-place
C02	Reinforced concrete – precast
C03	Prestressed concrete – pre-tensioned
C04	Prestressed concrete – cast-in-place post-tensioned
C05	Prestressed concrete – precast post-tensioned
CX	Concrete – other
F01	FRP composite - aramid fiber
F02	FRP composite - carbon fiber
F03	FRP composite - glass fiber
FX	FRP composite - other
S01	Steel - open grid
S02	Steel - filled or partially filled grid
S03	Steel - plate
S04	Steel - orthotropic
S05	Steel - corrugated
SX	Steel - other
T01	Timber - glue laminated
T02	Timber - nail laminated
T03	Timber - solid sawn
T04	Timer - stress laminated
T05	Timber - other
X	Other

Commentary

In cases where the superstructure configuration may have a combination of deck materials and/or types, code the predominant deck material and type based on the deck area.

Use the applicable code for superstructure types with integral top flanges that serve as the deck, such as concrete tee-beams and box beams/girders.

For slabs, and for the slab portion of three-sided and four-sided concrete rigid frame bridges and culverts not under fill, use the same applicable material code as used in Item B.SP.04 (Span Material).

Use code 0 for the following bridge and culvert types when under fill, as these do not have a deck component: slabs, arches without spandrels, closed spandrel arches, pipes, and three-sided or four-sided rigid frames.

Use code C02, C03, or C05, as applicable, for full depth precast panels only. Use code C01 or C04, as applicable, for cast-in-place concrete on partial depth structural panels that are not just considered stay-in-place forms.

Examples – Span Protective System

Low permeability concrete slab bridge with waterproofing sheet membrane. Report M02.
Weathering steel multi-beam bridge that has the beam ends painted to protect from leakage through the joints. Report P01.

Wearing Surface

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(3)	AN(3)	I	BSP10	B.SP.10	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification

Record the predominant wearing surface material type protecting the deck or slab for the span configuration using one of the following codes.

Code	Description
0	None
B01	Bituminous (asphalt)
C01	Concrete – monolithic
C02	Concrete – unmodified
C03	Concrete – latex modified
C04	Concrete – low slump
C05	Concrete – fiber reinforced
C06	Concrete – microsilica
C07	Concrete – polyester
CX	Concrete – other
CU	Concrete – unknown
E01	Earth – gravel or soil
P01	Polymer – epoxy
P02	Polymer – polyester
PX	Polymer – other
S01	Steel
T01	Timber - running planks
X	Other

Submittal to SNBI will not report this item when Item B.SP.09 (Deck Material and Type) is 0.

Commentary

When a span configuration has a combination of wearing surface types, code the predominant wearing surface type based on the deck or slab area.

Do not consider patching materials when coding this item.

Use code 0 when no additional sacrificial concrete thickness or wearing surface is included on the deck or slab.

Use codes C01 through CU for overlays that contain portland cement.

Use code C01 when there is an additional sacrificial thickness cast concurrently with the structural deck or slab.

Use code C02 when an additional placement of concrete of the same concrete material as the deck or slab is placed after the deck or slab has cured.

Use code CU when a concrete wearing surface exists, but the specific material composition is unknown.

Use code S01 when a steel grid deck is fabricated with an additional sacrificial thickness. Code S01 is not intended for temporary steel plates.

Use code T01 where running planks are added on timber decks or slabs.

Examples

Bridge with 2” asphalt wearing surface over a sheet waterproofing membrane. Report B01.
Bridge with latex modified concrete overlay topped with an epoxy polymer overlay. Report P01.

Deck Protective System

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(3)	AN(3)	I	BSP11	B.SP.11	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification

Record the deck protective system for the span configuration using one of the following codes.

Code	Description
0	None
A01	Admixture – internally sealed
A02	Admixture – low permeability
A03	Admixture – polymer impregnated
A04	Admixture – corrosion inhibitor
A05	Admixture – ASR inhibitor
AX	Admixture – other
C01	Coating – paint
C02	Coating – sealer
C03	Coating – methacrylate
C04	Coating - hot dip galvanizing
C05	Coating - metalizing/thermal spray
CX	Coating - other
M01	Membrane – built up
M02	Membrane – sheet
M03	Membrane – liquid applied
MU	Membrane – unknown
MX	Membrane – other
P01	Patina – uncoated weathering steel
T01	Treated - timber preservative
U	Unknown
X	Other

Submittal to SNBI will not report this item when Item B.SP.09 (Deck Material and Type) is 0.

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Commentary

Code this item consistent with the predominant material reported in Item B.SP.09 (Deck Material and Type).

In cases where the deck may have a combination of protective systems, use the code for the predominant protective system based on protected area. In cases where multiple systems protect the same area, use the code for the outermost protective layer.

Use code 0 when the deck is unprotected.

Use code A01 for internally sealed concrete systems that use wax beads in the concrete. After the concrete cures, it is heated to melt the wax and seal the concrete.

Use code A02 when low permeability concrete is used with admixtures such as flyash, microsilica, or slag.

Use code A05 when admixtures are used to inhibit alkali-silica reactivity (ASR).

Use code C02 for sealers such as silanes, siloxanes, linseed oils, etc.

Do not use codes C02 and C03 when the material is applied for localized crack repair.

Use code M01 when the membrane is built up using combined layers of liquid and preformed/ sheet membranes.

Use code MU when a membrane exists, but the type is unknown.

Use code MX when a membrane type is known, but does not match the types specified for codes M01, M02, or M03.

Examples

Bridge with 2” asphalt wearing surface over a sheet waterproofing membrane. Report M02.
Bridge deck constructed with polymer impregnated concrete and sealed with a flood coat of methacrylate. Report C03.

Deck Reinforcing Protective System

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(3)	AN(3)	I	BSP12	B.SP.12	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification

Record the type of deck reinforcing protective system for the span configuration using one of the following codes for concrete decks and slabs.

Code	Description
0	None
C01	Coating – epoxy coated
C02	Coating – galvanized
C03	Coating – metalized
CX	Coating – other
R01	Reinforcing – stainless, clad
R02	Reinforcing – stainless, solid
R03	Reinforcing – high chromium
R04	Reinforcing – FRP, aramid fiber
R05	Reinforcing – FRP, carbon fiber
R06	Reinforcing – FRP, glass fiber
R07	Reinforcing – FRP, other
RX	Reinforcing – other
S01	Sacrificial – cathodic, passive
S02	Sacrificial – cathodic, active
SX	Sacrificial – other
U	Unknown
X	Other

Submittal to SNBI will report this item only if Item B.SP.09 (Deck Material and Type) is concrete (i.e. codes C01 to CX). w/errata#1 03/24

Commentary

In cases where the span(s) may have a combination of protective systems, use the code for the predominant protective system based on protected area. In cases where multiple systems protect the same area, use the code for the outermost protective layer. If the top and bottom mat have different protective systems, report the protective system for the top mat.

Do not consider bar chairs or other reinforcing steel supports when coding this item.

Use code 0 when steel reinforcement is unprotected, such as with black steel.

Use codes C01 to CX and R01 to RX when any (e.g., top mat only) or all the reinforcing steel in the deck is protected by the selected steel type.

Use code S02 when impressed currents are used as the cathodic protection system.

Examples

Bridge deck constructed with black reinforcing bars, later widened with a top mat of epoxy coated bars and bottom mat of black bars. This bridge has two span data sets.

- Report 0 for the original deck data set.
- Report C01 for the widened deck data set.

Deck Stay-In-Place Forms

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(3)	AN(3)	I	BSP13	B.SP.13	-

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**

Specification	Commentary
Record the type of deck stay-in-place form for the span configuration using one of the following codes. **Code** — **Description** 0 — None C01 — Concrete – reinforced C02 — Concrete – prestressed F01 — FRP composite M01 — Metal T01 — Timber X — Other **Submittal to SNBI** will not report this item when Item B.SP.09 (Deck Material and Type) is 0.	Use this item to identify forms used in construction that remain in place by design or owner preference. When a span configuration has a combination of stay-in-place form types, code the predominant type based on the deck area. Use code C01 when a precast reinforced concrete panel (partial depth) is used with a cast-in-place reinforced concrete placement on top. Use code C02 when a precast prestressed concrete panel (partial depth) is used with a cast-in-place reinforced concrete placement on top. This item is not intended to be used for materials installed only for debris shielding, or when Item B.SP.09 (Deck Material and Type) is S05 (Steel – corrugated).

Examples

Bridge constructed using 3” thick prestressed concrete form panels. Completed deck is 8” thick. Report C02.

Bridge with reinforced concrete deck placed originally with removable forms, subsequently widened with reinforced concrete deck placed on metal stay-in-place forms. This bridge has two span data sets.

- Report 0 for the original data set.
- Report M01 for the widened data set.

Substructure Configuration Designation

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(3)	AN(3)	I	BSB01	B.SB.01	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification / Commentary

This item is automatically populated from WSB01.

Substructure Configuration Code

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Calculated	-	I	WSB01	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification

Record the substructure set designation using one of the following codes.

Code	Description
A##	Abutment
P##	Pier or Bent
W##	Widening

The ## characters in the above codes are auto-generated with sequential numbers, with leading zeros, assigned to each substructure configuration.

Submittal to SNBI will not report this item when B.SP.06 (Span Type) is a pipe (i.e. code P01 or P02).

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Commentary

This item captures how the reported substructure configuration is designated.

The substructure is the portion of a bridge below the bearings or below the springline of an arch, which transfers loads to the foundation. This includes the walls and footings, caps, or floor slabs of three-sided and four-sided rigid frame bridges and culverts.

The "##" characters in the codes with a sequential number (e.g., A01, A02, P01, etc.) identifies each unique substructure configuration present on the bridge.

An abutment is a substructure unit located at the end of a bridge that transfers loads from the superstructure to the foundation while providing lateral support for the approach roadway embankment. Typically, a bridge has two abutments, but there may be cases (such as bifurcated structures assigned two bridge numbers) where one end of the bridge does not mate up with the approach roadway. (continued...)

Substructure Configuration Code continued...

Commentary Continued

A multiple span bridge with cantilevered end spans that are unsupported at the extreme ends does not have abutments.

Piers and bents are substructure units that support the spans of a multi-span superstructure at intermediate location(s) between abutments.

Use code W for widened portions of abutments or piers/bents with dissimilar substructure construction.

Examples

Single-span concrete rigid frame bridge. This bridge has one designated substructure data set. Report A01.

Two-span concrete, three-sided, rigid frame culvert. This bridge has two designated substructure data sets.

- Report A01 for the end support frame legs data set.
- Report P01 for the intermediate support frame leg data set.

Four-span multi-beam bridge with integral concrete abutments and concrete column piers. This bridge has two designated substructure data sets.

- Report A01 for the abutment data set.
- Report P01 for the pier data set.

Three-span bridge with intermediate concrete pier walls and cantilevered end spans that are unsupported at the extreme ends. This bridge has one designated substructure data set. Report P01.

Three-span suspension bridge with concrete tower piers, concrete pier walls supporting the ends of the suspension spans, eight timber bents supporting the approach spans, and concrete stub abutments at each end of the bridge. The north abutment has a spread footing on rock foundation and the south abutment has a steel H-pile foundation. This bridge has five designated substructure data sets.

- Report A01 for the north abutment data set.
- Report A02 for the south abutment data set.
- Report P01 for the towers data set.
- Report P02 for the concrete pier walls data set.
- Report P03 for the timber bents data set.

Five-span girder bridge with concrete stub abutments and concrete wall piers. Bridge is widened with concrete stub abutments and concrete column piers. This bridge has three designated substructure data sets.

- Report A01 for the stub abutments (including the widening) data set.
- Report P01 for the concrete wall piers data set.
- Report W01 for the concrete columns data set.

Pier Description

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	I	WSB02	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification / Commentary

Briefly identify the substructure numbers associated with the Substructure Configuration identified in WSB01.

Examples

Abutments 1 and 5

Piers 2-4

Number of Substructure Units

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(3,0)	N(3,0)	I	BSB02	B.SB.02	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification	Commentary
Record the number of substructure units.	This item captures the number of substructure units of similar material, design, and foundation type that are being reported.

Examples

Four-span multi-beam bridge with integral concrete abutments and concrete column piers. This bridge has two substructure data sets.

- Report 2 for the abutment data set.
- Report 3 for the pier data set.

Three-span bridge with intermediate concrete pier walls and cantilevered end spans that are unsupported at the extreme ends. This bridge has one substructure data set. Report 2.

Three-span suspension bridge with concrete tower piers, concrete pier walls supporting the ends of the suspension spans, eight timber bents supporting the approach spans, and concrete stub abutments at each end of the bridge. The north abutment has a spread footing on rock foundation and the south abutment has a steel H-pile foundation. This bridge has five substructure data sets.

- Report 1 for the north abutment data set.
- Report 1 for the south abutment data set.
- Report 2 for the towers data set.
- Report 2 for the concrete pier walls data set.
- Report 8 for the timber bents data set.

Five-span girder bridge with concrete stub abutments and concrete wall piers. Bridge is widened with concrete stub abutments and concrete column piers. This bridge has three substructure data sets.

- Report 2 for the stub abutments (including the widening) data set.
- Report 4 for the concrete wall piers data set.
- Report 4 for the concrete columns data set.

Substructure Material

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(3)	AN(3)	I	BSB03	B.SB.03	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification

Record the principal substructure material type using one of the following codes.

Code	Description
0	None
A01	Aluminum
C01	Reinforced concrete – cast-in-place
C02	Reinforced concrete – precast
C03	Prestressed concrete – pre-tensioned
C04	Prestressed concrete – cast-in-place post-tensioned
C05	Prestressed concrete – precast post-tensioned
CX	Concrete – other
E01	Earth – reinforced soil mass
F01	FRP composite – aramid fiber
F02	FRP composite – carbon fiber
F03	FRP composite – glass fiber
FX	FRP composite – other
I01	Iron – cast
I02	Iron – wrought
M01	Masonry – block
M02	Masonry – stone
P01	Plastic - polyethylene
PX	Plastic - other

Specification Continued

continued...

Code	Description
S01	Steel - rolled shapes
S02	Steel - welded shapes
S03	Steel - bolted shapes
S04	Steel - riveted shapes
S05	Steel - bolted and riveted shapes
S06	Steel - pipes
SX	Steel - other
T01	Timber - glue laminated
T02	Timber - nail laminated
T03	Timber - solid sawn
T04	Timber - stress laminated
TX	Timber - other
X	Other

Submittal to SNBI will not report this item when B.SP.06 (Span Type) is a pipe (i.e. code P01 or P02).

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Examples

Closed spandrel arch founded on cast-in-place concrete spread footings on rock. Report C01. Reinforced concrete full height cantilever abutment. Report C01.

Pile bent abutment with timber piles, timber lagging, and concrete cap. Report C01. Pile bent abutment with steel H-piles, timber lagging, and rolled steel cap. Report S01. Reinforced concrete stub abutment on steel piles with a MSE wall. Report C01.

GRS abutment with precast, prestressed concrete box beams placed directly on the reinforced soil mass. Report E01.

Substructure Type

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(3)	AN(3)	I	BSB04	B.SB.04	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification

Record the abutment, pier, or bent design type using one of the following codes.

Code	Description
0	None
A01	Abutment – cantilever/wall
A02	Abutment – stub
A03	Abutment – open/spill through
A04	Abutment – integral
A05	Abutment – semi-integral
A06	Abutment – gravity
A07	Abutment – counterfort or buttressed
A08	Abutment – pile bent with lagging
A09	Abutment – crib
A10	Abutment – cellular/vaulted
A11	Abutment – reinforced soil mass
A12	Abutment – footing or cap only
AX	Abutment – other
B01	Bent – column or open
B02	Bent – column with web wall
B03	Bent – pile
B04	Bent – straddle or c-shaped
BX	Bent - other

Submittal to SNBI will not report this item when B.SP.06 (Span Type) is a pipe (i.e. code P01 or P02).

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Specification Continued

continued...

Code	Description
P01	Pier – wall
P02	Pier – single column
P03	Pier – multiple column
P04	Pier – multiple column with web wall
P05	Pier – straddle or c-shaped
P06	Pier – movable bridge
P07	Pier – tower
P08	Pier – footing only
PX	Pier – other
U	Unknown
X	Other

Substructure Type continued...

Commentary

In cases where the substructure may have a combination of designs due to retrofitting actions, use the code for the predominant design.

Both piers and bents provide the same function; however, a pier has only one footing at each substructure unit (the footing may serve as a pile cap) while a bent has several footings or no footing, as is the case with a pile bent.

Use code 0 when the superstructure rests directly on the foundation (i.e. on unreinforced soil or bedding material, reinforced soil or bedding material, or rock).

Use codes A01 to A10, as appropriate, if the superstructure load is supported by a substructure unit, which is in turn supported by piles or the reinforced soil mass. Use code A11 when the superstructure rests directly on the reinforced soil mass.

Use code A02 for partial height abutments that do not extend to near the bottom of the embankment fill. Use code A02 for abutments that are larger height than a pile cap or have features such as a backwall that exceed the purpose of a pile cap.

Use code A10 when the space between wingwalls, abutment stem, approach slab, and footings is hollow.

Use code A12 or P08 when the superstructure rests only on a footing, grade beam, thrust block, or pile or shaft cap with embedded piles or shafts that are not part of a bent.

Use code B04 when a highway or railroad passes directly beneath or through the bent.

Use code P06 for piers that support movable bridges and the equipment needed to open and close the bridge.

Use code P07 for towers of complex bridges such as cable-stayed and suspension bridges.

Examples

Reinforced concrete full-height cantilever abutment. Report A01.

Reinforced concrete stub abutment on steel piles with a MSE wall. Report A02.

Pile bent type abutment with painted steel piles, timber lagging, and steel cap. Report A08.

Single-span closed spandrel arch that bears directly on a thrust block founded on rock. Report A12.

Single-span timber beams resting on concrete grade beam. Report A12. Single-span railroad flat car with ends resting on unreinforced soil. Report 0.

Intermediate bent supported on concrete-filled steel pipe piles connected with a concrete cap beam. Report B03.

Reinforced concrete pier wall widened with a single reinforced concrete column. This bridge has two substructure data sets.

- Report P01 for the pier data set.
- Report P02 for the widening data set.

Reinforced concrete pier with three concrete columns on concrete footing/pile cap. Report P03.

Substructure Protective System

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(3)	AN(3)	I	BSB05	B.SB.05	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification

Record the substructure protective system using one of the following codes.

Code	Description
0	None
A01	Admixture – internally sealed
A02	Admixture – low permeability
A03	Admixture – polymer impregnated
A04	Admixture – corrosion inhibitor
A05	Admixture – ASR inhibitor
AX	Admixture – other
C01	Coating – paint
C02	Coating – sealer
C03	Coating – methacrylate
C04	Coating - hot dip galvanizing
C05	Coating - metalizing/thermal spray
CX	Coating – other
E01	Encasement - concrete
EX	Encasement - other
P01	Patina – weathering steel
S01	Sacrificial – cathodic, passive
S02	Sacrificial – cathodic, active
SX	Sacrificial – other
T01	Treated – Timber preservative
U	Unknown
X	Other

Submittal to SNBI will not report this item when Item B.SB.04 (Substructure Type) is 0. Submittal to SNBI will not report this item when B.SP.06 (Span Type) is a pipe (i.e. code P01 or P02).

Commentary

Code this item consistent with the predominant material reported in Item

B.SB.03 (Substructure Material).

In cases where the substructure may have a combination of protective systems, use the code for the predominant protective system based on protected area. In cases where multiple systems protect the same area, use the code for the outermost protective layer.

Use code 0 when the substructure is unprotected.

Use code 0 when unprotected steels either never were coated or currently have no signs of coating systems and have no protective systems, such as, cathodic protection or weathering chemistry.

Anti-graffiti coatings are not considered when coding this item.

Use code C01 for weathering steel that has been painted.

Use code C02 for sealers such as silanes, siloxanes, linseed oils, etc.

Use code E01 for steel piles of pile bents that are encased in concrete.

Use code P01 only for weathering grades of steel.

For timber, use code T01 for oil-based or water-borne timber preservatives. Use code C01 for paints and stains.

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Examples

Painted weathering steel pier cap. Report C01.
Pile bent with preservative treated timber piles and concrete cap sealed with siloxane. Report C02.
Pile bent type abutment with painted steel H-pile foundation, timber lagging, and reinforced concrete cap with active cathodic protection. Report S02.

Foundation Type

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(3)	AN(3)	I	BSB06	B.SB.06	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification

Record the substructure protective system using one of the following codes.

Code	Description
0	None
E01	Earth – reinforced soil
E02	Earth – unreinforced soil
E03	Rock
F01	Footing – not on rock
F02	Footing – on rock
F03	Footing – on reinforced soil
P01	Pile – steel H-shape
P02	Pile – steel pipe
P03	Pile – concrete, cast-in-place
P04	Pile – prestressed concrete
P05	Pile – timber
P06	Coating – other
P07	Pile – micropile
P08	Pile – composite
P09	Pile – FRP composite
PX	Pile – other
S01	Drilled shaft – single
S02	Drilled shafts – multiple
S03	Caisson
U	Unknown
X	Other

Submittal to SNBI will not report this item when Item B.SB.04 (Substructure Type) is 0. Submittal to SNBI will not report this item when B.SP.06 (Span Type) is a pipe (i.e. code P01 or P02).

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Commentary

In cases where the substructure has a combination of foundations due to retrofitting actions, use the code for the predominant foundation.

Do not consider localized repairs to original foundation types when reporting this item.

Use code E01 when the superstructure bears directly on reinforced soil, reinforced bedding material, or the reinforced soil mass. Use code E02 when the superstructure bears directly on unreinforced soil or unreinforced bedding material. Use code E03 when the superstructure bears entirely on rock.

Use codes F01 to F03, for footings or when the substructure bears directly on ground at grade or below grade, e.g. grade beams, floor slabs, gravity walls, crib walls, etc.

Use code F02 only if the design plans, or subsequent subsurface investigation, indicate that the entire foundation is supported by rock.

Use code F03 if the superstructure load is supported by a substructure unit, which is in turn supported by the reinforced soil mass.

Use code P02 for filled or unfilled steel pipe piles.

Use code P03 for cased and uncased cast-in-place concrete piles, and for driven corrugated, fluted, or spiral-welded shell-cased concrete piles.

Use code P04 for solid or hollow-core square, octagonal, or cylindrical piles.

Use code P06 for piles that have concrete or grout placed by pumping through the stem of the auger pipe as the auger is withdrawn. (continued..)

Foundation Type continued...

Commentary Continued

Use code P07 for small diameter piles, typically less than 12 inches, that are drilled, then grouted.

Use code P08 for piles in which the length is composed of two or more pile types or materials, excluding pile tips.

Use code P09 when FRP composite piles are used for construction but not as repairs to existing piles of a different type.

Use codes S01 and S02 for cased or uncased drilled shafts.

Use code S03 for footings sunk into position by excavation through or beneath the caisson structure.

Examples

Three-sided concrete frame culvert with a spread footing keyed into bedrock, modified by adding a four-sided box culvert placed on crushed stone bedding to the end of the barrel to widen the culvert. This culvert has two substructure data sets.

- Report F02 for the three-sided concrete frame culvert data set.
- Report F01 for the four-sided box culvert data set.

Three-sided concrete frame culvert with steel H-pile foundation, modified by adding a four-sided box culvert with steel H-pile foundation to the end of the barrel to widen the culvert. This culvert has two substructure data sets.

- Report P01 for the three-sided concrete frame culvert data set. (B.SB.01=A01).
- Report P01 for the four-sided box culvert data set. (B.SB.01=W01).

Closed spandrel arch founded on spread footings on bedrock. Report F02.

Pile bent abutment with steel H-piles, timber lagging, and rolled steel cap. Report P01. Reinforced concrete stub abutment on steel H-piles with an MSE wall. Report P01.

Precast, reinforced concrete arch structure constructed on cast-in-place concrete footing with steel H-pile foundation. Report P01.

Pile bent abutment with timber piles, timber lagging, and concrete cap. Report P05.

GRS abutment with precast, prestressed concrete box beams placed directly on the reinforced soil mass. Report E01.

Four corrugated steel circular pipes placed on crushed stone bedding. Do not report this item.

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Foundation Protection System

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(3)	AN(3)	I	BSB07	B.SB.07	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification

Report the foundation protective system using one of the following codes.

Code	Description
0	None
A01	Admixture – internally sealed
A02	Admixture – low permeability
A03	Admixture – polymer impregnated
A04	Admixture – corrosion inhibitor
A05	Admixture – ASR inhibitor
AX	Admixture - other
C01	Coating – paint
C02	Coating – sealer
C03	Coating – methacrylate
C04	Coating - hot dip galvanizing
C05	Coating - metalizing/thermal spray
CX	Coating – other
E01	Encasement - concrete
EX	Encasement – other
P01	Patina - uncoated weathering steel
S01	Sacrificial – cathodic, passive
S02	Sacrificial – cathodic, active
SX	Sacrificial – other
T01	Treated - timber preservative
U	Unknown
X	Other

Submittal to SNBI will not report this item when Item B.SB.04 (Substructure Type) is 0. Submittal to SNBI will not report this item when B.SP.06 (Span Type) is a pipe (i.e. code P01 or P02).

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Commentary

Code this item consistent with the predominant material reported in Item B.SB.06 (Foundation Type).

In cases where the foundation may have a combination of protective systems, use the code for the predominant protective system based on protected area. In cases where multiple systems protect the same area, use the code for the outermost protective layer.

Use code 0 when the foundation is unprotected.

Use code 0 when unprotected steels either never were coated or currently have no signs of coating systems and have no protective systems, such as cathodic protection or weathering chemistry.

Anti-graffiti coatings are not considered when coding this item.

Use code C02 for sealers such as silanes, siloxanes, linseed oils, etc.

Use code E01 for steel piles of pile bents that are encased in concrete.

Use code P01 only for weathering grades of steel.

For timber, use code T01 for oil-based or water-borne timber preservatives. Use code C01 for paints and stains.

Foundation Protection System continued...
Examples
Closed spandrel arch founded on spread footings on bedrock. Report 0.
Pile bent abutment with timber piles treated with creosote, timber lagging, and concrete cap. Report T01.
Pile bent with painted steel H-piles and rolled steel cap. Report C01.
GRS abutment with precast, prestressed concrete box beams placed directly on the reinforced soil mass. Report 0.
Three-sided concrete frame culvert with a spread footing keyed into bedrock, modified by adding a four-sided box culvert placed on crushed stone bedding to the end of the barrel to widen the bridge. The four-sided box was constructed with high performance concrete that provides for low permeability.
Report 0 for the three-sided concrete frame culvert data set.
Report A02 for the four-sided box culvert data set.
Precast, reinforced concrete arch bridge constructed on cast-in-place concrete footing with unpainted steel H-pile foundation. Report 0.

Roadside Hardware

The data items in this subsection identify crash tested roadside hardware on the bridge. These data items are considered part of the Primary Data Set and have a one-to-one relationship with a bridge.

The data for these items typically remain static once a bridge has been inventoried. The following data items are included in this subsection.

Item ID	Data Item
B.RH.01	Bridge Railings (Crash Test)
B.RH.02	Bridge Railings Transitions (Crash Test)

Roadside hardware is commonly associated with bridges and serves as a traffic safety feature to redirect errant vehicles and reduce crash severity. The items in this subsection are inventoried to indicate if hardware at the bridge is required, present, or has been crash tested. Do not consider the condition of the hardware when reporting these items.

Table 6 contains the applicable crash testing codes used for all the roadside hardware items in this subsection. The applicable code may be based on an approved analytical equivalency evaluation.

Refer to the FHWA Office of Highway Safety website for policy and guidance on roadside hardware (https://highways.dot.gov/safety/rwd/reduce-crash-severity). Also, refer to the Task Force 13 – Hardware Guide website for roadside hardware, systems specifications, and individual component details.

The AASHTO LRFD Bridge Design Specifications are currently used to design bridge railings. The AASHTO Manual for Assessing Safety Hardware (MASH), which replaces NCHRP Report 350, is currently used for testing and evaluating the safety performance of roadside hardware.

The AASHTO Roadside Design Guide addresses appropriate bridge railings, roadside barriers, barrier end treatments, and crash cushions

Year Built Range	Table 6 Roadside Hardware Codes							
	Code	Test Level Code						Description
		1	2	3	4	5	6	
Any	N	-	-	-	-	-	-	Not applicable – roadside hardware is not required.
2010 - Present	-	MYY1	MYY2	MYY3	MYY4	MYY5	MYY6	Roadside hardware successfully crash-tested for AASHTO MASH.
1993-2009	-	3501	3502	3503	3504	3505	3506	Roadside hardware successfully crash-tested for NCHRP Report 350.
Do Not Use	-	2301	2302	2303	-	-	-	Roadside hardware successfully crash-tested for NCHRP Report 230.
Do Not Use	-	2391	2392	2393	-	-	-	Roadside hardware successfully crash-tested for NCHRP Report 239.
Do Not Use	-	891	892	893	-	-	-	Roadside hardware successfully crash-tested for 1989 AASHTO Guide Specifications for Bridge Railings.
Do Not Use	X	-	-	-	-	-	-	Roadside hardware successfully crash-tested for other criteria.
1931-1992	AYY	-	-	-	-	-	-	Roadside hardware has not been crash-tested but meets AASHTO Standard Specifications for Highway Bridges.
Before 1931	SYY	-	-	-	-	-	-	Roadside hardware has not been crash-tested but meets approved agency standards.
Any	I	-	-	-	-	-	-	Roadside hardware has not been crash-tested and does not meet approved agency standards.
Any	0 (zero)	-	-	-	-	-	-	None - roadside hardware is required, but required roadside hardware is not present.

Note that YY, for codes in Table 6, represents the last two digits of the year for the crash testing publication, AASHTO Specifications, or agency approved standards.

Bridge Railings (Crash Test)

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(4)	AN(4)	I	BRH01	B.RH.01	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification	Commentary
Code the crash-test level for the bridge railings using one of the codes in Table 6. The following flowcharts and associated tables apply to WSDOT owned infrastructure. These flowcharts and associated tables may be used by local agencies to manage their infrastructure if they choose.	This roadside hardware includes all types and shapes of bridge railings (parapets, median barriers, or structure mounted) located on the bridge or that cross over culverts. Use the code that first applies going from the bottom (Code 0) of Table 6 to the top (MYY), if there are more than one type of bridge railing on the bridge. (continued..)

Commentary Continued

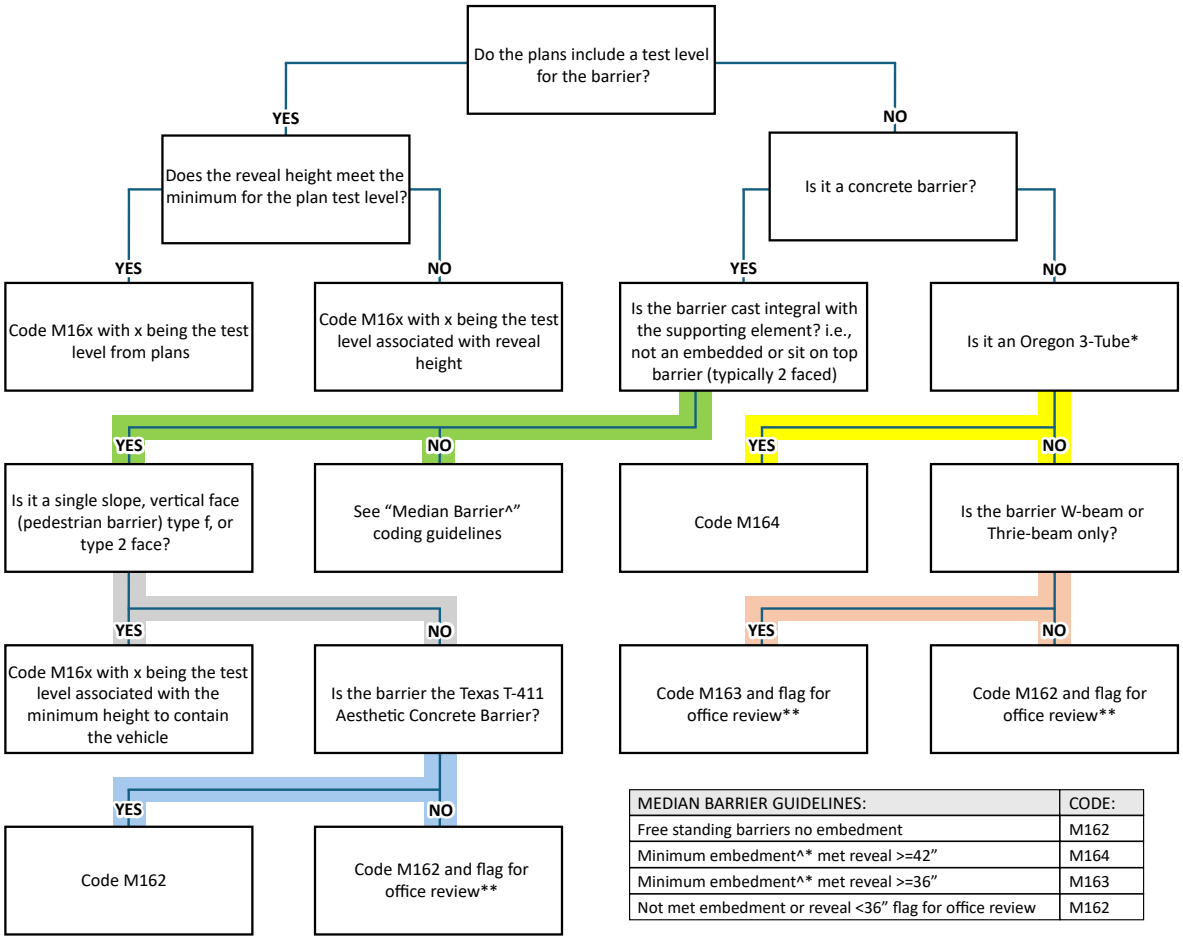
Unless other information is available, code as the test level in the plans with potential reduction based on reveal height not meeting minimum.

Barriers will be downgraded to a test level which meets the minimum height to contain the test level vehicle.

Notes: The minimum heights for each test level is defined by BDM section 10.2.1 and AASHTO BDS Table A13.2-1 with the BDM governing when in conflict.

Median barriers^ not cast integral with the structure should follow the Median Barrier guidelines on each page. The test level in the notes may not apply.

Table BRH01a Structures Built 2010 to Current



MEDIAN BARRIER GUIDELINES:	CODE:
Free standing barriers no embedment	M162
Minimum embedment^* met reveal >=42"	M164
Minimum embedment^* met reveal >=36"	M163
Not met embedment or reveal <36" flag for office review	M162

Codes "N", "I" and "0 (zero)" should be used when appropriate (see Table 8)

Table BRH01aa Minimum Rail Height To Contain Vehicle Built 2010 to Current

Test Level	Min Height	Source
1	27	AASHTO BDS A13.2-1
2	27	AASHTO BDS A13.2-1
3 *	32	WSDOT BDM
4	36	WSDOT BDM
5	42	WSDOT BDM
6	90	AASHTO BDS A13.2-1
* 29" for vertical faced barrier		

All "YY" codes should be "16" unless a cable barrier system is employed

CODE = MYYX:
X = Test Levels 1-6 and YY = 2016*
(**cable barriers may be 2009, but all others will be 2016*)

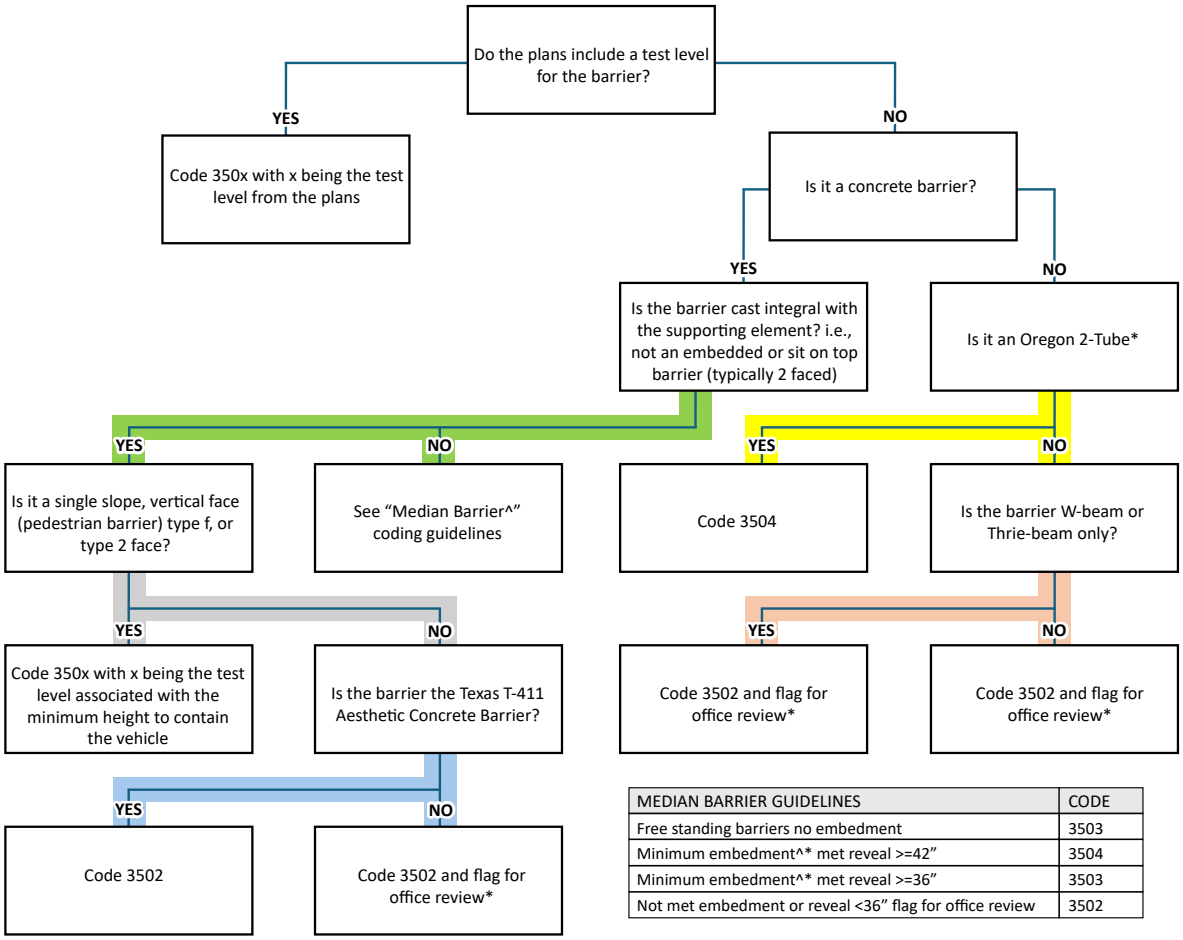
* modified Oregon 3 tube with a 4th tube code the same

** If there is a known barrier system or resolution, code accordingly and the skip office review

^ "Median Barriers" are at times used at edges of roadways

^* Minimum embedment is defined as 3" of concrete or HMA or 10" of roadway base course or compacted soil. If embedment is present minimum may be assumed as met.

Table BRH01b Structures Built 1993 to 2009



Codes "N", "I" and "0 (zero)" should be used when appropriate (see Table 8)

Table BRH01bb Minimum Rail Height To Contain Vehicle Built 1993 to 2009

Test Level	Min Height	Source
3501	27	AASHTO BDS A13.2-1
3502	27	AASHTO BDS A13.2-1
3503	27	AASHTO BDS A13.2-1
3504	32	AASHTO BDS A13.2-1
3505	42	AASHTO BDS A13.2-1
3506	90	AASHTO BDS A13.2-1

* If there is a known barrier system or resolution, code accordingly and skip the office review

^ "Median Barriers" are at times used at edges of roadways

^* Minimum embedment is defined as 3" of concrete or HMA or 10" of roadway base course or compacted soil. If embedment is present minimum may be assumed as met.

Table BRH01c Structures Built 1992 to 1931

Unless other information is available, code as the year of AASHTO SSHB which is applicable.

CODE - AYY

YY=Year of bridge built or other applicable year information if available

Test level and reveal height are not required for the coding of barriers in this age range. Record reveal height for inspection records.

Based upon the understanding of WSDOT and it's precursor organizations policy, all barrier systems are assumed to have been designed to AASHTO SSHB or equivalent WSDOT or precursor agency standards of the time. Use the AASHTO SSHB for this period unless other information is available. While some barriers built in this era have the potential to be compliant with crash tests to NCHRP this guide codes them per AASHTO SSHB.

Codes "N", "I" and "0 (zero)" should be used when appropriate (see Table 8)

Table BRH01d Structures Built Prior to 1931

Unless other information is available, code as not crash tested but meets approved agency standards with the year built as YY.

For this iteration of the coding guide use the year built of the structure, not the year built of a retrofit.

CODE - SYY

YY=Year of bridge built or other applicable year information if available

Test level and reveal height are not required for the coding of barriers in this age range. Record reveal height for inspection records.

Based upon the understanding of WSDOT and it's precursor organizations policy, all barrier systems are assumed to have been designed to agency standards from the time of construction.

Codes "N", "I" and "0 (zero)" should be used when appropriate (see Table 8)

Table 8 Roadside Hardware Codes N, I and 0 (zero)

WSBIS Code	Description
N	Not applicable - Roadside safety hardware is not required
I	Roadside hardware has not been crash-tested and does not meet approved agency standards.
0 (zero)	None - roadside hardware is required, but required roadside hardware is not present.

BRTC - Document Year (YYYY)

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(4,0)	N(4,0)	I	WRH01	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification

If crash code field BRH01 has YY then code the 4 digit year for the applicable specification shown in Table 6, otherwise leave blank

Bridge Railings Transitions (Crash Test)

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(4)	AN(4)	I	BRH02	B.RH.02	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification	Commentary
Record the crash-test level for transition railings using one of the codes following tables: For structures built between 2010 to Present, use Table BRH02a. For structures built between 1993 to 2009, use Table BRH02b. For structures built between 1992 to 1931, use Table BRH02c. For structures built prior to 1931, use Table BRH02d. Use code I when no information is known about the crash test level or an agency approved standard. Also, use code I when an overlay is applied to the deck/slab and the height no longer meets the original geometry requirements of the crash-tested transition. Codes "N", "I" and "0 (zero)" should be used when appropriate (see Table 8). For bridges with one-way traffic, and which a transition on the departure end of the bridge is not warranted (i.e. only a connection to develop the departure rail strength is warranted), the crash-test level of the departure end does not need to be reported when it is lower crash test level than the approach end. w/FHWA errata#1 03/24	This roadside hardware serves as the transition from the roadside approach railing to the bridge railing and is firmly attached and anchored to the bridge railing to provide sufficient tension in the transition rail upon impact. Use the code that first applies going from the bottom (Code 0) of Table 6 to the top (MYY), if there are more than one type of transition. A list of crash-tested transitions may be obtained from the FHWA Office of Highway Safety website at: https://highways.dot.gov/safety/rwd/reduce-crash-severity.

Bridge Railings Transitions (Crash Test)

Examples

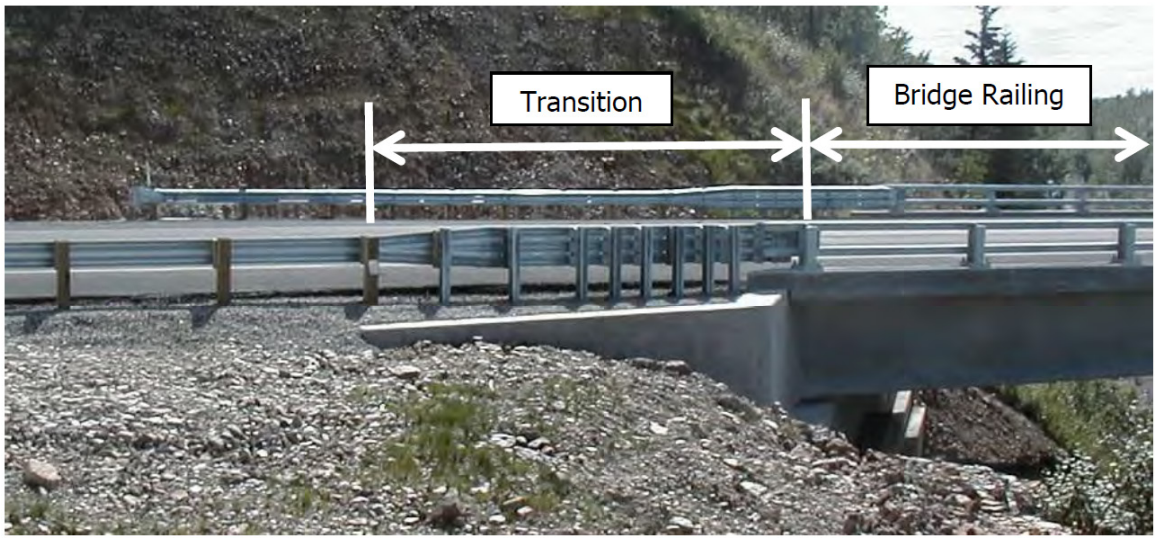


Figure 11. Metal bridge railing and transition. (Image Source: Alaska DOT)

Bridge built in 2009.

Bridge Rail successfully crash-tested for NCHRP 350 Test Level 4.

- Report 3504 for Item B.RH.01 (Bridge Rail Crash Test).

Bridge Rail reported as 3504.

- Report 3503 for Item B.RH.02 (Bridge Rail Transition Crash Test).

Bridge Railings Transitions (Crash Test)

Examples Continued

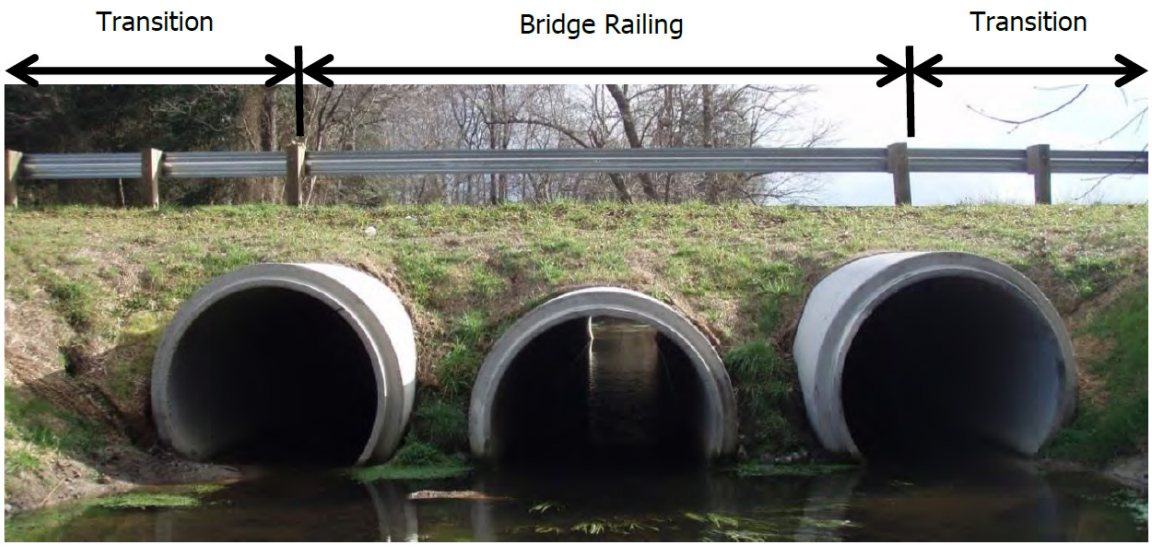


Figure 12. Metal bridge railing and transition for long-span application. (Image Source: Delaware DOT)

Bridge built in 2012.

Steel W-beam bridge rail with wood posts (long-span application):

- Report M162 for Item B.RH.01 (Bridge Railings (Crash Test) and flag for review

Steel W-beam transition with wood posts (long-span application). Rail reported in Item BRH01 as M162.

- Report M162 for Item B.RH.02 (Bridge Rail Transitions (Crash Test).

Table BRH02a Bridge Railings Transitions (Crash Test) Built 2010 to Current

Test Level of Barrier	Test Level of Transition
6	3
5	3
4	3
3	2
2	2
1	1
If Bridge Railings (Crash Test) is coded M165, Code Bridge Railing Transition (Crash Test) M163	

Table BRH02b Bridge Railings Transitions (Crash Test) Built 1993 to 2009

Test Level of Barrier	Test Level of Transition
3506	3503
3505	3503
3504	3503
3503	3502
3502	3502
3501	3501
If Bridge Railings (Crash Test) is coded M3505, Code Bridge Railing Transition (Crash Test) M3503	

Table BRH02c Bridge Railings Transitions (Crash Test) Built 1992-1931

When transitions are present and lacking other guidance - code the same as the barrier BRH01.

Table BRH02d Bridge Railings Transitions (Crash Test) Built prior to 1931

When transitions are present and lacking other guidance - code the same as the barrier BRH01.

BRTCT - Document Year (YYYY)

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(4,0)	N(4,0)	I	WRH02	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification

If crash code field BRH02 has YY then code the 4 digit year for the applicable specification shown in Table 6, otherwise leave blank

Load Rating Tab

Design Load

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(8)	AN(8)	I	BLR01	B.LR.01	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification

Code the live load for which the bridge was designed using one of the following codes.

Code	Description
H10	H-10
H15	H-15
H20	H-20
HS15	HS-15
HS20	HS-20
HS20M	HS-20 and Military
HS20Plus	Greater than HS-20
HL93	HL-93
HL93Plus	Greater than HL-93
RR	Railroad
U	Unknown
X	Other

Commentary

For widened or rehabilitated bridges, code the most restrictive design load governing any portion of the bridge.

Use code HS20M when the bridge is designed to accommodate both the HS-20 and the alternate military load.

Use codes HS20Plus and HL93Plus when the HS-20 or HL-93 design load configuration is increased proportionally above that specified in the AASHTO design specifications.

Use code U when the design plans are not available and the likely design load cannot be inferred from design characteristics of the bridge or agency policy at the time the bridge was built.

A code other than U can be reported when design plans are not available, but the design load can be inferred from design characteristics of the bridge or agency policy at the time the bridge was built.

Use code X when the design load is known but is not based on AASHTO or railroad design load configurations.

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Example - Design Load

A bridge designed for an HS-20 load is later widened. The widening is designed for the HL-93 load. Report HS20.

Per State design policy, a bridge is designed using LRFD, in which the truck load portion of the HL-93 load is increased by 25%. Report HL93Plus.

Per State design policy, a bridge is designed for the HL-93 design load, with further consideration of a State-defined permit vehicle. The permit vehicle controls the design of the superstructure. Report X.

Design Method

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(4)	AN(4)	I	BLR02	B.LR.02	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification

Code the method by which the bridge was designed using one of the following codes.

Code	Description
ASD	Allowable Stress Design
LFD	Load Factor Design
LRFD	Load and Resistance Factor Design
U	Unknown
X	Other

Commentary

The codes describe the design methods used in accordance with AASHTO design specifications.

For widened or rehabilitated bridges, code the design method associated with the code in Item B.LR.01 (Design Load).

Use code U when the design plans are not available and the likely design method cannot be inferred from design characteristics of the bridge or agency policy at the time the bridge was built.

A code other than U can be reported when design plans are not available, but the design method can be inferred from design characteristics of the bridge or agency policy at the time the bridge was built.

Example - Design Method

A bridge designed for an HS-20 load using Load Factor design is later widened. The widened portion is designed for the HL-93 load using Load and Resistance Factor design. Item B.LR.01 (Design Load) has code HS20 reported. Report LFD.

Load Rating Date *(LR Date)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
YYYYMMDD	YYYYMMDD	I	BLR03	B.LR.03	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
Record the date of the most recent load rating. Do not report this item if no rating analysis or evaluation has been performed. **WSDOT Commentary:** Code the load rating calculation date. Usually this field will be coded or updated by transcribing information from the most current Load Rating Summary Sheet.	This item reflects the date of the most recent calculation or reevaluation of the load rating. The load rating may be performed independently and at a different date than the inspection. Defects discovered during inspections that may impact the strength or serviceability of the bridge typically require reevaluation of the load rating. When reevaluation of the load rating is completed, report the date of the reevaluation for this item. Refer to the following items when a new or updated load rating is completed: • B.LR.04 (Load Rating Method) • B.LR.05 (Inventory Load Rating Factor) • B.LR.06 (Operating Load Rating Factor) • B.LR.07 (Controlling Legal Load Rating Factor) • B.LR.08 (Routine Permit Loads)

Examples - Load Rating Date

Load rating calculations found in the bridge record are dated September 5, 1999. Report 19990905.

A bridge rated for an HS-20 load using Load Factor rating is later widened. The entire bridge is re-rated using Load and Resistance Factor rating on July 23, 2012. Report 20120723.

Load Rating Method *(LR Method)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(4)	AN(4)	I	BLR04	B.LR.04	L.1

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
Code the method used to calculate the load rating using one of the following codes in Table BLR04.	When different portions of a bridge are load rated using different methods, report the rating method associated with the controlling rating factor. For information on applicable load rating methods, refer to the October 30, 2006 FHWA memorandum at: https://www.fhwa.dot.gov/bridge/nbis/10300 6.cfm. For information on using code AR, refer to the September 29, 2011 FHWA memorandum at: https://www.fhwa.dot.gov/bridge/110929.cfm For information on using code EJ, refer to the February 2, 2011 FHWA memorandum at: https://www.fhwa.dot.gov/bridge/110202.cfm

Example

A bridge rated for an HS-20 load using Load Factor rating is later widened. The entire bridge is re-rated using Load and Resistance Factor rating. Report LRFR.

A steel truss bridge with steel beam approach spans originally rated using Allowable Stress Rating. The approach spans are re-rated using Load Factor Rating due to deterioration. The rating of the approach spans controls. Report LFR.

A bridge designed and checked using Load Factor Design and an HS-20 live load. The bridge meets the criteria stated in the September 29, 2011 FHWA memo and has an assigned load rating. Report AR.

A concrete bridge constructed in 1910 has no design plans. Load rating determined by a qualified engineer after field condition and live load history evaluation. Report EJ.

Table BLR04 Load Rating Method Code

WSBIS/SNBI Code	SNTI Code	Description
LFR	1	Load Factor
ASR	2	Allowable Stress
LRFR	3	Load and Resistance Factor
LT	4	Load Testing
AR	A	Assigned Rating
EJ	0	Field Evaluation/Engineering Judgement
N	5	No Rating Performed
NA	N	Rating Not Applicable

Inventory Load Rating Factor

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(4,2)	N(4,2)	I	BLR05	B.LR.05	L.2

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
Code the inventory load rating factor, truncated to the hundredth, for the standard AASHTO HS-20 or HL-93 loadings, whichever is applicable based on the method reported in Item B.LR.04 (Load Rating Method). When temporary or supported conditions exist, as indicated in Item B.PS.01 (Load Posting Status), report the rating factor for the bridge including the temporary or supported conditions. **Submittal to SNBI** will not report this item when no rating analysis or evaluation has been performed.	For LRFR, this is the rating factor for the design load rating at the inventory level of reliability using the HL-93 loading considering all applicable strength and serviceability limit states. Refer to the AASHTO Manual for Bridge Evaluation for details of HS-20 and HL-93 loadings and limit states.

Example - Inventory Load Rating Factor

A bridge has a calculated inventory load rating factor of 1.486. Report 1.48.

Operating Load Rating Factor

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(4,2)	N(4,2)	I	BLR06	B.LR.06	L.3

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
Code the operating load rating factor, truncated to the hundredth, for the standard AASHTO HS-20 or HL-93 loadings, whichever is applicable based on the method reported in Item B.LR.04 (Load Rating Method). When temporary or supported conditions exist, as indicated in Item B.PS.01 (Load Posting Status), report the rating factor for the bridge including the temporary or supported conditions. **Submittal to SNBI** will not report this item when no rating analysis or evaluation has been performed.	For LRFR, this is the rating factor for the design load rating at the operating level of reliability using the HL-93 loading considering all applicable strength and serviceability limit states. Refer to the AASHTO Manual for Bridge Evaluation for details of HS-20 and HL-93 loadings and limit states.

Example - Operating Load Rating Factor

A bridge has a calculated operating load rating factor of 1.679. Report 1.67.

Controlling Legal Load Rating Factor

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(4,2)	N(4,2)	I	BLR07	B.LR.07	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification

This item is auto-calculated from the lowest value reported for B.EP.02, Legal Load Rating factors.

If Item WEP02 EV Included is coded Y, the values for EV2 and EV3 reported in B.EP.02 are included here.

Routine Permit Loads

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(1)	AN(1)	I	BLR08	B.LR.08	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification

Code the inspection type or scour monitoring performed using one of the following codes.

Code	Description
A	Bridge carries routine permit loads. Load capacity is adequate for all routine permit loads approved for the route segment; no routine permit loads are restricted.
B	Bridge carries routine permit loads. Load capacity is adequate for some routine permit loads approved for the route segment, but some routine permit loads are restricted.
C	Bridge does not carry routine permit loads. Load capacity is inadeqate for all routine permit loads approved for the route segment. Routine permit loads are restricted from the bridge.
N	Bridge does not carry routine permit loads. Routine permit loads are not approved for the route segment.

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Commentary

This item is used to identify bridges where State routine permit loads must be considered in load rating and posting evaluations and to identify bridges where routine permit loads are restricted due to bridge load capacity limitations.

Agencies have varying policies for issuing routine permits, from not issuing routine permits to issuing various routine permits when these loads exceed State legal loads. Some agencies may utilize maps that indicate highways and bridges that are restricted to routine permit loads or that allow routine permit loads.

Use code A when all routine permit loads allowed to travel the route segment are also allowed to travel on the bridge.

Use code B when not all routine permit loads allowed to travel the route segment are allowed to travel on the bridge.

Use code C when all routine permit loads allowed to travel the route segment are restricted from the bridge.

Use code N when the agency does not issue routine permits or routine permit loads are not approved for the route segment that is carried by the bridge. (continued..)

Routine Permit Loads continued...

Examples

A State issues a routine permit for eleven vehicle configurations to travel segments of interstate routes throughout the State. A bridge is on an interstate route segment which all eleven configurations are allowed to cross the bridge. Report A.

A bridge is on a route segment that is included in a routine permit. The routine permit allows vehicles that do not exceed 55 tons and the limits of the Federal Bridge Formula B to travel the route segment, but the permit also restricts single unit vehicles exceeding State legal load from crossing the bridge. Report B.

A bridge is on State Route 10 and is posted for legal loads. Route 10 is included in a routine permit. The permit restricts the routine permit vehicles from crossing bridges that are posted for legal loads. Report C.

A State issues a routine permit for eleven vehicle configurations to travel segments of interstate routes throughout the State. A bridge is on an interstate route segment which is excuded from the permit and the route segment is not included in any other routine permit. Report N.

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Reference Inspection Completion Date *(Old Item 2580)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	-	WLR01	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification

Code the inspection report date used for the load rating calculations. Usually this field will be coded or updated by transcribing information from the most current Load Rating Summary Sheet.

Rated By *(Old Item 2582)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(16)	-	-	WLR02	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification

Code the initials or engineering firm name indicating who performed the load rating. Usually this field will be coded or updated by transcribing information from the most current Load Rating Summary Sheet.

Overloads

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Numeric	-	-	WLR09	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification

Code the rating factor for the overload configurations truncated to the nearest hundredth.

OL-1 Single and OL-2 Single are reported when the load rating considered the overload configurations in a single lane only with no other trucks on the bridge.

Load Posting Status					
Format	**SNBI Format**	**Frequency**	**WSBIS Item ID**	**SNBI Item ID**	**SNTI Item ID**
AN(2)	AN(2)	I	BPS01	B.PS.01	L.4

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
Code the load posting status of the bridge using one of the codes in Table BPS01.	When temporary or supported conditions exist ensure that data items related to physical characteristics of the bridge (e.g. geometry, clearances, condition, and load rating) represent those characteristics of the temporary or supported bridge. When both a weight and other load restriction exist at the bridge, use the code for the weight restriction (code PP, TP, or SP).

Table BPS01 Load Posting Status Code

WSBIS/SNBI Code	SNTI Code	Description
PO	A	**P**ermanent bridge/tunnel **O**pen, no restriction
PA	B	**P**ermanent, **T**emporary, or **S**hored bridge/tunnel with posting recommended but not implemented - **A**ction needed
TA		
SA		
PM	B	**P**ermanent, **T**emporary, or **S**hored bridge/tunnel with posting sign - **M**issing
TM		
SM		
PD	B	**P**ermanent, **T**emporary, or **S**hored bridge/tunnel with posting sign in place, but - re**D**uced posting recommended
TD		
SD		
SO	D	**S**hored bridge/tunnel (permanent or temporary) - **O**pen, no restriction, with shoring in place to prevent load posting.
TO	E	**T**emporary bridge/tunnel - **O**pen, no restriction, while permanent bridge/tunnel awaiting replacement or rehabilitation.
N	G	New bridge/tunnel - **N**ot opened to traffic
C	K	Permanent, Temporary, or Shored Bridge/tunnel - **C**losed to all traffic
PP	P	**P**ermanent, **T**emporary, or **S**hored bridge/tunnel - **P**osted with weight limit signs
TP		
SP		
PR	R	Permanent, Temporary, or Shored bridge/tunnel posted for other Restriction (speed, lane, one truck) to control loads.
TR		
SR		

Posting Status Change Date

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
YYYYMMDD	YYYYMMDD	I	BPS02	B.PS.02	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
Record the date the bridge entered the status reported in Item B.PS.01 (Load Posting Status).	For bridges entering posted status, it is preferable that the reported date represent the date on which signs were properly installed at the bridge. The date the load posting became legally enforceable can also be used for this item when the installation date is unknown. When neither the installation nor legal enforcement date are known, the date the posting was first documented to be in place can be used for this item.

Legal Load Configuration *(Configuration)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(15)	AN(15)	I	BEP01	B.EP.01	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification

Configurations included here represent the AASHTO, FHWA, State transportation department, Federal agency, or Tribal government defined legal load codes.

Code	Description
3	AASHTO Type 3
3S2	AASHTO Type 3S2
3-3	AASHTO Type 3-3
SU4	AASHTO SU4 truck
SU5	AASHTO SU5 truck
SU6	AASHTO SU6 truck
SU7	AASHTO SU7 truck
NRL	AASHTO Notional Rating Load
EV2	FHWA Type EV2 emergency vehicle
EV3	FHWA Type EV3 emergency vehicle
S01	State-defined legal load WA-105
F#	Federal-defined legal load (WSDOT does not use)
T#	Tribal-defined legal load (WSDOT does not use)

Legal Load Rating Factor

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N(4,2)	N(4,2)	I	BEP02	B.EP.02	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	
Record the rating factor for the legal load configuration truncated to the hundredth. Record the rating factor for the legal load configuration without consideration of reduced force effects from postings or restrictions that affect traffic operation, e.g. that limit speed, number of lanes, number of trucks, or do not allow commercial vehicles. Do not report this item when a bridge posting includes the legal load configuration, but there is not a calculated legal load rating factor for the configuration. When temporary or supported conditions exist, as indicated in Item B.PS.01 (Load Posting Status), report the rating factor for the bridge including the temporary or supported conditions.	For LRFR method this would be the rating factor of "Legal Load Rating". For Allowable Stress and Load Factor rating methods this would be the operating rating factor. When the legal load configuration does not have a load rating evaluation because it is enveloped by a design load type and corresponding calculated design load rating factor, a value is not reported for the legal load configuration. Enveloped as used here means that the legal load rating factor or the operating rating factor for the legal load configuration will be greater than or equal to 1.0 when the design load has a legal load rating factor or operating rating factor that exceeds a threshold value established by an engineering study. When the legal load configuration does not have a load rating evaluation because it is enveloped by a screening level legal load model, e.g. AASHTO Notional Rating Load, and corresponding calculated screening load rating factor, a value is not reported for the legal load configuration. A value is reported for the screening load. A bridge has a calcuated legal load rating factor of 1.429 for State defined legal load S-NRLSHV which is the unique idenitifier code for the State's screening level legal load configuration for special hauling vehicles that are different than the AASHTO special hauling vehicles. Report 1.42 for the S-NRLSHV. (continued..)

Legal Load Rating Factor

Commentary Continued

Enveloped as used here means that the legal load rating factor or the operating rating factor for the legal load configuration will be greater than or equal to 1.0 when the screening level legal load has a legal load rating factor or operating rating factor that exceeds a threshold value established by an engineering study.

A bridge has a calculated legal load rating factor of 0.926 for the AASHTO Type 3S2 load. Report 0.92.

A bridge does not have a calculated legal load rating factor for the AASHTO SU4 truck because the AASHTO Notional Rating Load has a legal load rating factor of 1.21 which is greater than 1.0. Report 1.21 for the AASHTO Notional Rating Load. Do not report a value for the AASHTO SU4 truck.

Posting Type *(Actual Posting Type)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
AN(17)	AN(17)	I	BEP03	B.EP.03	L.5,L.6

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
Record the type of posting at the bridge restricting the vehicle reported in Item B.EP.01 (Legal Load Configuration) using one or more of the following codes in Table BEP03. Report multiple codes in the order shown separated by pipe (|) delimiters. **Submittal to SNBI** will not report this item if no posting sign is used for the legal load configuration.	This item is reported when a bridge is posted for the legal load configuration. Roadway postings are excluded.

Table BEP03 Posting Type Code

WSBIS/SNBI Code	SNTI Code	Description
G	L5	Gross Load
A	L6	Single Axle Load
D	L6	Tandem Axle Load
T	L5	Truck Load
C	-	No commercial vehicles
S	-	Speed reduction
L	-	Number of lanes restricted
V	-	Number of vehicles restricted
X	-	Other

Posting Value *(Actual Posting Value)*					
Format	**SNBI Format**	**Frequency**	**WSBIS Item ID**	**SNBI Item ID**	**SNTI Item ID**
AN(15)	AN(15)	I	BEP04	B.EP.04	L.7,L.8,L.9

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
Code the weight limit value(s) shown on the load posting sign for the vehicle reported in Item B.EP.02 (Legal Load Rating Factor) rounded down to the nearest U.S. ton. Report multiple weight limit values in the order shown in Item B.EP.01 (Posting Type) separated by pipe (|) delimiters. Do not report this item if no posting sign is used for the legal load configuration. Do not report this item if Item B.EP.03 (Posting Type) only has codes C, S, L, or V reported. w/FHWA errata#1 03/24	This item is reported when a bridge is posted. Roadway postings are excluded. Multiple weight limit values are reported when a posting sign has more than one weight limit that restricts the legal load configuration, e.g. a single axle and tandem axle weight limit.

Table BEP04 Posting Value Code

WSBIS/SNBI Code	SNTI Code	Description
3	L7	AASHTO Type 3
3S2	L8	AASHTO Type 3S2
3-3	L9	AASHTO Type 3-3
SU4	-	AASHTO SU4 truck
SU5	-	AASHTO SU5 truck
SU6	-	AASHTO SU6 truck
SU7	-	AASHTO SU7 truck
NRL	-	AASHTO Notional Rating Load
EV2	-	FHWA Type EV2 emergency vehicle
EV3	-	FHWA Type EV3 emergency vehicle
S01	-	State-defined legal load WA-105
F#	-	Federal-defined legal load (WSDOT does not use)
T#	-	Tribal-defined legal load (WSDOT does not use)

EV Included

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	-	WEP02	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification	Commentary
Code the EV Included using the following criteria: **Code** — **Description** Y — Yes, bridge is on an Interstate or within 1 access mile * — Delete (bridge is not on an Interstate or within 1 access mile)	Emergency Vehicles are considered legal vehicles if the bridge is location on an Interstate or with 1 access mile of an interstate. If this field is coded Y, rating factors are reported to the SNBI and emergency vehicles are considered in the coding of Item B.EP.02 - Legal Load Rating Factor and Item B.PS.01 - Posting Status.

Recommended Posting Type

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	-	WEP03	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification

This field is populated by the Load Rating Engineer or based on the recommendation provided with a load rating.

See Posting Type Item B.EP.03 for specification/commentary.

Recommended Posting Value (ton)

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Numeric	-	-	WEP04	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 3 - Tunnels carrying roadways within**

Specification

This field is populated by the Load Rating Engineer or based on the recommendation provided with a load rating.

See Posting Value Item B.EP.04 for specification/commentary.

Load Rating - Posting Examples

The following are weight limit signs and coding examples using common MUTCD and WSDOT Load Posting Signs.

1. If Item WEP02 EV Included is coded Y, then code the values as indicated in each table.

Table PE01 MUTCD R12-1

Configuration	3	3S2	3-3	SU4	SU5	SU6	SU7	WA-105	EV2[1]	EV3[1]
BEP03	G	G	G	G	G	G	G	G	G	G
BEP04	10	10	10	10	10	10	10	10	10	10

Table PE02 MUTCD R12-2

Configuration	3	3S2	3-3	SU4	SU5	SU6	SU7	WA-105	EV2[1]	EV3[1]
BEP03	A	A	A	A	A	A	A	A	A	A
BEP04	5	5	5	5	5	5	5	5	5	5

Table PE04 MUTCD R12-4

Configuration	3	3S2	3-3	SU4	SU5	SU6	SU7	WA-105	EV2[1]	EV3[1]
BEP03	G | A	G | A	G | A	G | A	G | A	G | A	G | A	G | A	G | A	G | A
BEP04	10 | 1	10 | 1	10 | 1	10 | 1	10 | 1	10 | 1	10 | 1	10 | 1	10 | 1	10 | 1

Table PE05 MUTCD R12-5

Configuration	3	3S2	3-3	SU4	SU5	SU6	SU7	WA-105	EV2[1]	EV3[1]
BEP03	T	T	T	-	-	-	-	-	T	T
BEP04	8	12	16	-	-	-	-	-	8	8

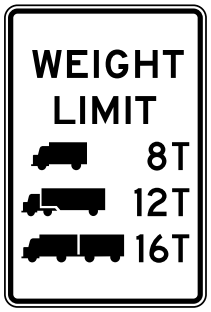


Table PE06 MUTCD R12-6

Configuration	3	3S2	3-3	SU4	SU5	SU6	SU7	WA-105	EV2[1]	EV3[1]
BEP03	T	T	T	T	T	T	T	-	T	T
BEP04	12	20	24	15	15	18	18	-	12	12

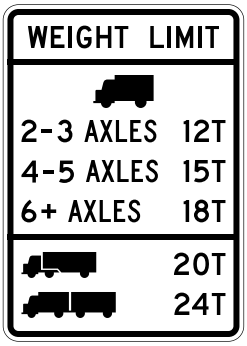


Table PE07 MUTCD R12-7 & R12-7aP

Configuration	3	3S2	3-3	SU4	SU5	SU6	SU7	WA-105	EV2[1]	EV3[1]
BEP03	-	-	-	-	-	-	-		G|A	G|A|D
BEP04	-	-	-	-	-	-	-		43|12	43|12|26

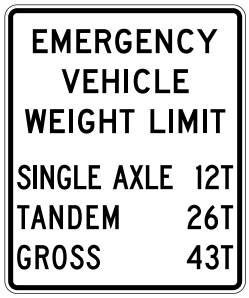


Table PE701 MUTCD R12-701

Configuration	3	3S2	3-3	SU4	SU5	SU6	SU7	WA-105	EV2[1]	EV3[1]
BEP03	-	-	-	-	-	-	-	-	A|D	A|D
BEP04	-	-	-	-	-	-	-	-	13|17	13|17

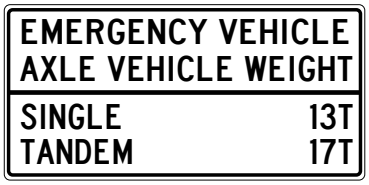


Table PE702 MUTCD R12-702

Configuration	3	3S2	3-3	SU4	SU5	SU6	SU7	WA-105	EV2[1]	EV3[1]
BEP03	-	-	-	-	-	-	-	-	-	D
BEP04	-	-	-	-	-	-	-	-	-	17

Table PESuvS Single Unit Vehicles (SUV) - Single Configuration

Configuration	3	3S2	3-3	SU4	SU5	SU6	SU7	WA-105	EV2[1]	EV3[1]
BEP03	T	-	-	-	-	-	-	-	T	T
BEP04	7	-	-	-	-	-	-	-	7	7

Table PESuvL Single Unit Vehicles (SUV) - Limited Configuration

Configuration	3	3S2	3-3	SU4	SU5	SU6	SU7	WA-105	EV2[1]	EV3[1]
BEP03	T	-	-	T	T	T	T	-	T	T
BEP04	7	-	-	12	12	12	12	-	7	7

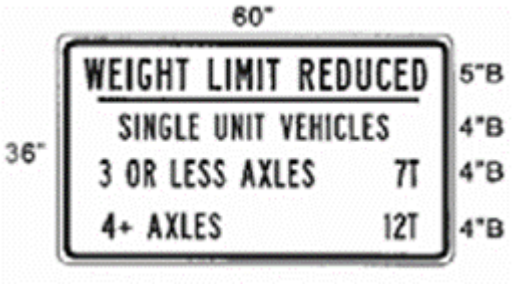
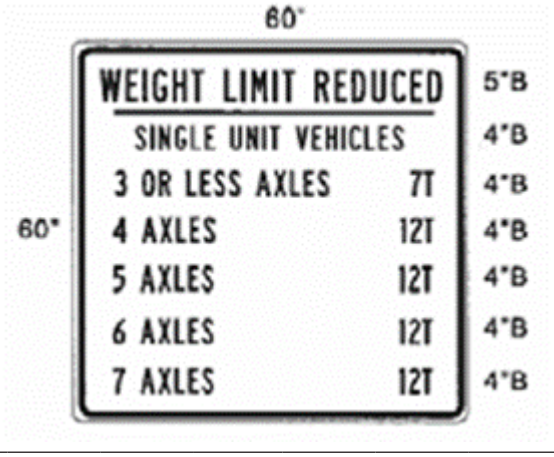


Table PESuvA Single Unit Vehicles (SUV) - All Configuration

Configuration	3	3S2	3-3	SU4	SU5	SU6	SU7	WA-105	EV2[1]	EV3[1]
BEP03	T	-	-	T	T	T	T	-	T	T
BEP04	7	-	-	12	12	12	12	-	7	7



Waterway Tab

WSBIS Item 7832 – Water Type — Pulldown

Applicable Structure Types

- **Type 1 - Local Agency Bridges & culverts carrying public roadways**

This field describes the type of water the bridge crosses over.

B Brackish (a mixture of fresh and salt water).
F Fresh water.
S Salt water.
T Tidal.

Leave blank if not over water.

WSBIS Item 7833 – Flood Plain Intrusion — Pulldown

Applicable Structure Types

- **Type 1 - Local Agency Bridges & culverts carrying public roadways**

This code indicates whether or not the structure's approach roadway or abutment intrude into the flood plain of the waterway (i.e., whether or not previous or possible flooding could cause or has caused water to rise so it touches the structure's approach roadway embankment or abutment).

A No intrusion into the flood plain.
B Bridge or approaches intrude into the waterway causing minor backwater.
C Overtopping of approach roadway has occurred.
D A portion of the superstructure has been under water.
U Flood plain intrusion is unknown.

Leave blank if not over water.

WSBIS Item 7834 – Flood Control — Pulldown

Applicable Structure Types

- **Type 1 - Local Agency Bridges & culverts carrying public roadways**

This field indicates if there is any existing type of flood control on the waterway under the bridge. To be considered, this flood control must be in place either upstream or downstream from the bridge and must be near enough to have an effect on the bridge. Flood control may be provided by dams, dikes, fill, or other means.

B Both upstream and downstream.
U Upstream.
D Downstream.
N No flood control.

Leave blank if not over water.

WSBIS Item 7835 – Scour History — Pulldown

Applicable Structure Types

- **Type 1 - Local Agency Bridges & culverts carrying public roadways**

This code describes scour conditions at the bridge site.

C Current scour problems.
H History of scour problems but scour conditions are now stable.
N No history of scour.
U Scour history is unknown.

Leave blank if not over water.

WSBIS Item 7836 – Streambed Material Type — Pulldown

Applicable Structure Types

- **Type 1 - Local Agency Bridges & culverts carrying public roadways**

This code describes the composition of the streambed at the bridge site.

Enter one of the following codes to indicate the predominant type of material that is evident.

1 Bedrock
2 Sediment
3 Gravel
4 Sand
5 Cobbles
6 Lined Canal
7 Vegetation
8 Alluvial Fan
9 Unknown

Leave blank if not over water.

WSBIS Item 7837 – Substructure Stability — Pulldown

Applicable Structure Types

- **Type 1 - Local Agency Bridges & culverts carrying public roadways**

This code describes the type of material upon which the bridge's substructure rests. This code is used to determine the degree of stability that can be expected in the bridge substructure.

Code the lower number value If different sections of a continuous span bridge are supported by different materials.

1 Spread footing, simple spans.
2 Spread footing, continuous spans.
3 Pile foundation, simple spans.
4 Pile foundation, continuous spans.
5 Bedrock, simple spans.
6 Bedrock, continuous spans.
7 Unknown, simple spans.
8 Unknown, continuous spans

Leave blank if not over water.

WSBIS Item 7838 – Waterway Obstruction — Pulldown

Applicable Structure Types

- **Type 1 - Local Agency Bridges & culverts carrying public roadways**

This code indicates any conditions in the waterway which affect the flow of water beneath the bridge.

A	Debris accumulates at the bridge.
B	Ice accumulates at the bridge.
C	The waterway is overgrown with vegetation.
D	A and C above.
E	A and B above.
F	B and C above.
G	A, B, and C above.
N	No obstruction to the flow of water beneath the bridge.

Leave blank if not over water.

WSBIS Item 7839 – Streambed Stability — Pulldown

Applicable Structure Types

- **Type 1 - Local Agency Bridges & culverts carrying public roadways**

This code describes any existing stream conditions which may influence scour at the bridge site.

A	Sharp bends.
B	Significant lateral shifts.
C	Steep slopes.
D	High water velocity.
E	Degradation.
F	Aggredation.
G	No conditions influencing scour exist.
H	Streambed conditions are unknown.

Leave blank if not over water.

WSBIS Item 7840 – Streambed Anabranch — Pulldown

Applicable Structure Types

- **Type 1 - Local Agency Bridges & culverts carrying public roadways**

This field indicates whether or not confluences or shifting anabranches are present in the waterway. A confluence is a flowing together of two or more streams. An anabranch is a river branch that re-enters the main stream, creating an island in the waterway.

Code only those conditions which exist near the bridge site.

A	Anabranches are present.
B	Both anabranches and confluences are present.
C	Confluences are present.
N	Neither anabranches nor confluences are present.
U	Waterway configuration is unknown.

Leave blank if not over water.

WSBIS Item 7841 – Piers in Water — Pulldown

Applicable Structure Types

- **Type 1 - Local Agency Bridges & culverts carrying public roadways**

This field contains the number of the structure's piers in the water at normal yearly high water.

If the bridge is inspected at low water, look for evidence that the piers or pile bents have been in the water.

0	No piers in the water.
1-9	Number of piers in the water.
M	More than nine piers in the water.

Leave blank if not over water.

Auto-Generated Fields Section

This section is auto-generated for the SNBI and SNTI Items not maintained in Bridgeworks (WSBIS) but are reported to FHWA during submittal.

SNBI Item BL01 - State Code / SNTI Item I.3

The Washington State Code is 530, and is created automatically for insertion in SNBI, SNTI reports. This data field is not maintained in the Washington State Bridge Inventory.

SNTI Items I.15 through I.18– Border Tunnel Data

Washington State has no tunnels across it's borders. These 4 fields are automatically reported as null to the SNTI.

SNTI Items N.1 through N.3 – Navigable Waterway Data

Washington State has no tunnels under navigable waters. These 3 fields are automatically reported as 0 to the SNTI.

SNBI Items B.IR.01 – NSTM Inspection Required

This field is auto-generated based on field B.IE.01.

SNBI Items B.IR.03 – Underwater Inspection Required

This field is auto-generated based on field B.IE.01.

SNBI Items B.IR.04 – Complex Feature

This field is auto-generated based on field B.IE.01.

SNBI Items B.C.13 – Lowest Condition Rating Code

This item is calculated by FHWA and is not required to be reported. The code for this item is the lowest condition rating code from the following items:

B.C.01 (Deck Condition Rating),B.C.02 (Superstructure Condition Rating), B.C.03 (Substructure Condition Rating), and B.C.04 (Culvert Condition Rating).

SNBI Items B.IE.10 – Inspection Data Update Date

This field is automatically generated.when the updated data is released into the permanent record by the data steward.

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Appendix 2-D 1995 NBI Coding Guide Items Retained for Reference

All the items in this appendix are Discontinued NBI Items from Bridgeworks (WSBIS) that are no longer reportable and have been retained for reference until all the SNBI fields have been coded. These items are still visible within the Bridgeworks application, but are no longer editable.

Items in this appendix will be removed from Bridgeworks (WSBIS) by January 2028.

SNBI Tab - Discontinued Items

WSBIS Item 1677 – Channel Protection Condition - NBI **Pulldown**

This item has been discontinued.

NBI Item 61

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways***

This item describes the physical conditions associated with the flow of water through the bridge such as stream stability and the condition of the channel, riprap, slope protection, or stream control devices including spur dikes. The inspector should be particularly concerned with visible signs of excessive water velocity which may affect undermining of slope protection, erosion of banks, and realignment of the stream. Accumulation of drift and debris on the superstructure and substructure should be noted on the inspection form but not included in the condition rating.

Inspection report comments are required when the condition is coded 7 or less.

Note: A bridge with no scour potential (piles founded or on bedrock) can have a very low channel rating based on a threat to the approach fill. In this situation this code is the only way to flag the problem. Also note that roadway embankment erosion due to bridge or roadway runoff is NOT included in this field. These issues are addressed in the abutment BMS field.

'* Pedestrian, RR, and other non-vehicular bridges over public roadways do not require condition codes. WSDOT policy for WSDOT owned structures is to provide condition codes when the Condition Report type is used.

Rate and code the condition in accordance with the following descriptive codes:

Table 1677 Channel Protection Condition Rating - NBI *This item has been discontinued.*

WSBIS Code	Description
9	Not applicable. Use when bridge is not over a waterway (channel).
8	There are no noticeable or noteworthy deficiencies. Banks are protected or well vegetated. River control devices such as spur dikes and embankment protection are not required or are in a stable condition.
7	Bank protection is in need of minor repairs. River control devices and embankment protection have a little minor damage. Banks and/or channel have minor amounts of drift.
6	Bank is beginning to slump. River control devices and embankment protection have widespread minor damage. There is minor stream bed movement evident. Debris is restricting the channel slightly.
5	Bank protection is being eroded. River control devices and/or embankment have major damage. Trees and brush restrict the channel.
4	Bank and embankment protection is severely undermined. River control devices have severe damage. Large deposits of debris are in the channel.
3	Bank protection has failed. River control devices have been destroyed. Stream bed aggradation, degradation or lateral movement has changed the channel to now threaten the bridge and/or approach roadway.
2	The channel has changed to the extent the bridge is near a state of collapse.
1	Bridge closed because of channel failure. Corrective action may put back in light service.
0	Bridge closed because of channel failure. Replacement necessary.

WSBIS Item 1679 – Pier/Abutment Protection - NBI — Pulldown

This item has been discontinued.

NBI Item 111

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

If WSBIS Item 1386 – Navigation Control has been coded 1, use the codes 1 through 5 below to indicate the presence and adequacy of pier or abutment protection features such as fenders, dolphins, etc. The condition of the protection devices may be a factor in the overall evaluation of WSBIS Item 1676 – Substructure.

If WSBIS Item 1386 is coded 0, code N for this field.

Table 1679 Pier/Abutment Protection Rating - NBI *This item has been discontinued.*

WSBIS Code	NBI Code	Description
1	1	Navigation protection not required
2	2	In place and functioning
3	3	In place but in a deteriorated condition
4	4	In place but reevaluation of design suggested
5	5	None present but reevaluation suggested
N	null	Not applicable, not a navigable waterway

NBI Commentary:

WSDOT codes N where the NBI codes a blank. This field is translated in the NBI text file.

Appraisals

The items in the appraisal section are used to evaluate bridges and culverts carrying public roadways in relation to the level of service which it provides on the highway system of which it is a part. The structure will be compared to a new one which is built to current standards for that particular type of road as further defined in this section except for WSBIS Item 1661 – Approach Roadway Alignment. See WSBIS Item 1661 for special criteria for rating that item.

WSBIS Items 1657, 1658, 1659, 1661, and 1662 will be coded with a 1-digit code that indicates the appraisal rating for the item. The ratings and codes are as follows:

Table 4 Adequacy Appraisal Ratings - NBI *This item has been discontinued.*

WSBIS Code	NBI Code	Description
9	N	Not applicable
8	9	Superior to present desirable criteria
8	8	Equal to present desirable criteria
7	7	Better than present minimum criteria
6	6	Equal to present minimum criteria
5	5	Better than minimum tolerable limits
4	4	Meets minimum tolerable limits to be left in place as is
3	3	Basically intolerable requiring high priority corrective action
2	2	Basically intolerable requiring high priority replacement
1	1	This value of rating code not used
0	0	Bridge closed

WSBIS Items 1657, 1658, and 1659 are calculated automatically based on other coded items.

Completed bridges not yet opened to traffic, if rated, shall be appraised as if open to traffic. Design values, for example ADT, shall be used for the evaluation. The data provided will include a code of G for WSBIS Item 1293 – Structure Open, Posted, or Closed to Traffic.

NBI Commentary:

WSBIS uses the 9 code to indicate “Not applicable,” which is translated to N when reported to the NBI. WSBIS uses code 8 for “Superior or equal to present desirable criteria,” which is a combination of NBI codes 8 and 9. (WSBIS does not submit a code 9 to the NBI.)

WSBIS Item 1680 – Scour Critical - NBI **Pulldown**

This item has been discontinued.

NBI Item 113

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

Code as indicated below to identify the current status of the bridge regarding its vulnerability to scour:

Table 1680 Scour Critical Rating - NBI *This item has been discontinued.*

WSBIS Code	Description
N	Bridge not over waterway.
U	Bridge with unknown foundation that has not been evaluated for scour. Until risk can be determined, a plan of action should be developed and implemented to reduce the risk to users from a bridge failure during or immediately after a flood event (see HEC 23).
T	Bridge over tidal waters that has not been evaluated for scour, but considered low risk. Bridge will be monitored with regular inspection cycle and with appropriate underwater inspections. (Unknown foundations in tidal waters should be coded U.)
9	Bridge foundations (including piles) on dry land well above flood water elevations.
8	Bridge foundations determined to be stable for the assessed or calculated scour conditions. Scour is determined to be above top of footing or drilled shaft (Example A) by: • assessment (e.g., bridge foundations are on rock formations that have been determined to resist scour within the service life of the bridge), or • calculation (exposed drilled shafts may be included by calculations), or • installation of properly designed countermeasures (see HEC 23).
7	Countermeasures have been installed to mitigate an existing problem with scour and to reduce the risk of bridge failure during a flood event. Instructions contained in a plan of action have been implemented to reduce the risk to users from a bridge failure during or immediately after a flood event.
6	Scour calculation/evaluation has not been made.
5	Bridge foundations determined to be stable for assessed or calculated scour conditions. Scour is determined to be within the limits of footing or piles, including open pile bents, or drilled shafts (Example B) by: • assessment (e.g., bridge foundations are on rock formations that have been determined to resist scour within the service life of the bridge), or • calculations, or • installation of properly designed countermeasures (see HEC 23).
4	Bridge foundations determined to be stable for assessed or calculated scour conditions; field review indicates action is required to protect exposed foundations (see HEC 23).
3	Bridge is scour critical; bridge foundations determined to be unstable for assessed or calculated scour conditions: • Scour within limits of footing or piles, or drilled shafts (Example B) • Scour below spread-footing base or pile tips, or base of shafts (Example C)
2	Bridge is scour critical; field review indicates that extensive scour has occurred at bridge foundations, which are determined to be unstable by: • a comparison of calculated scour and observed scour during the bridge inspection, or • an engineering evaluation of the observed scour condition reported by the bridge inspector in WSBIS Item 1676 – Substructure.
1	Bridge is scour critical; field review indicates that failure of piers/abutments is imminent. Bridge is closed to traffic. Failure is imminent based on: • a comparison of calculated and observed scour during the bridge inspection, or • an engineering evaluation of the observed scour condition reported by the bridge inspector in WSBIS Item 1676 – Substructure.
0	Bridge is scour critical. Bridge has failed and is closed to traffic.

WSBIS Item 1662 – Waterway - NBI **Pulldown**

This item has been discontinued.

NBI Item 71

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

This item appraises the waterway opening with respect to passage of flow through the bridge. Site conditions may warrant somewhat higher or lower ratings than indicated by the table (e.g., flooding of an urban area due to a restricted bridge opening).

Where overtopping frequency information is available, the descriptions given in the table for chance of overtopping mean the following:

Remote – greater than 100 years
Occasional – 3 to 10 years
Slight – 11 to 100 years
Frequent – less than 3 years

Adjectives describing traffic delays mean the following:

Insignificant – Minor inconvenience. Highway passable within hours.

Significant – Traffic delays of up to several days.

Severe – Long term delays to traffic.

Table 1662 Waterway Adequacy Appraisal Rating - NBI *This item has been discontinued.*

WSBIS Item 1487 – Functional Class			Description
01, 11, 12	02, 06, 07, 14, 16, 17	08, 09, 18, 19	
Waterway Adequacy Appraisal Rating			
9	9	9	Bridge not over a waterway.
8	8	8	Bridge deck and roadway approaches above flood water elevations. Remote chance of overtopping OR bridge deck above roadway approaches. Slight chance of overtopping roadway approaches.
6	6	7	Slight chance of overtopping bridge deck and roadway approaches.
4	5	6	Bridge deck above roadway approaches. Occasional overtopping of roadway approaches with insignificant traffic delays.
3	4	5	Bridge deck above roadway approaches. Occasional overtopping of roadway approaches with significant traffic delays.
2	3	4	Occasional overtopping of bridge deck and roadway approaches with significant traffic delays.
2	2	3	Frequent overtopping of bridge deck and roadway approaches with significant traffic delays.
2	2	2	Occasional or frequent overtopping of bridge deck and roadway approaches with severe traffic delays.
0	0	0	Bridge closed.

BPO Specific Instructions:

Bridges with scour records maintained by BPO must code this field as directed by the BPO Scour Engineer.

NBI Commentary:

WSBIS uses the 9 code to indicate “Not applicable,” which is translated to N when reported to the NBI.

WSBIS Item 1661 – Alignment - NBI **Pulldown**

This item has been discontinued.

NBI Item 72

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

Code the rating based on the adequacy of the approach roadway alignment. This item identifies those bridges which do not function properly or adequately due to the alignment of the approaches. It is not intended that the approach roadway alignment be compared to current standards but rather to the existing highway alignment. This concept differs from other appraisal evaluations. The establishment of set criteria to be used at all bridge sites is not appropriate for this item. The basic criteria is how the alignment of the roadway approaches to the bridge relate to the general highway alignment for the section of highway the bridge is on.

Speed reductions necessary because of structure width and not alignment shall not be considered in evaluating this item.

This field should be blank for tunnels and pedestrian, RR and other non-vehicular structures over public roadways.

Table 1661 - Appr. Roadway Alignment Appr. Rating - NBI *This item has been discontinued.*

WSBIS Code	Description
8	No reduction in speed required for vehicle as it approaches the bridge.
6	Minor reduction in speed required for vehicle (less than 10 mph) as it approaches the bridge.
3	Substantial reduction in the speed of vehicle (10 mph or greater) as it approaches the bridge.

Local Agency Appraisals

Drain Status **DISCONTINUED** *(LP View Only)*

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	-	7665	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification

This code has been discontinued, please move any notes associated with this field to the appropriate note.

Deck Scaling *DISCONTINUED* (LP View Only)

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	-	7666	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification

This code has been discontinued, please move any notes associated with this field to the appropriate BMS Deck Element note.

Deck Scaling Percent *DISCONTINUED* (LP View Only)

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
N (2,0)	-	-	7667	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification

This code has been discontinued, please move any notes associated with this field to the appropriate BMS Deck Element note.

Deck Rutting *DISCONTINUED* (LP View Only)

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	-	7669	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification

This code has been discontinued, please move any notes associated with this field to the appropriate BMS Deck Element note.

Deck Exposed Rebar *DISCONTINUED* (LP View Only)

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	-	7670	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification

This code has been discontinued, please move any notes associated with this field to the appropriate BMS Deck Element note.

Curb Condition *DISCONTINUED* (LP View Only)

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	-	7672	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification

This code has been discontinued, please move any notes associated with this field to the appropriate BMS Rail or Sidewalk Element note.

Sidewalk Condition *DISCONTINUED* (LP View Only)

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	-	7673	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification

This code has been discontinued, please move any notes associated with this field to the appropriate BMS Sidewalk Element note.

Paint Condition *DISCONTINUED* (LP View Only)

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	-	7674	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification

This code has been discontinued, please move any notes associated with this field to the appropriate BMS Protective Coating Element note.

Approach Condition *DISCONTINUED* (LP View Only)

Format	SNBI Format	Frequency	WSBIS Item ID	SNBI Item ID	SNTI Item ID
Pulldown	-	-	7681	-	-

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**

Specification

This code has been discontinued, please move any notes associated with this field to the appropriate BMS Approach Roadway Impact Smart Flag note.

Pier Protection Condition **DISCONTINUED** *(LP View Only)*					
Format	**SNBI Format**	**Frequency**	**WSBIS Item ID**	**SNBI Item ID**	**SNTI Item ID**
Pulldown	-	-	7683	-	-
Applicable Structure Types • **Type 1 - Bridges and culverts carrying public roadways**					
Specification					
This code has been discontinued, please move any notes associated with this field to the appropriate BMS Pier Protection Element (BMSE 707) note.					

Bridge ID Tab - Discontinued Items

WSBIS Item 1232 – Features Intersected - NBI **AN(24)**

This item has been discontinued.

NBI Item 6

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not cross over or under a public roadway**

This item contains a description of the features intersected by the structure. When the structure is a bridge, the feature will always describe something under the bridge. When the structure is a tunnel, it will always describe something on top of the tunnel. The data in this segment shall be left justified and is limited to 24 characters. When one of the features intersected is another highway, the signed number or name of the highway shall appear first in the field. The names of any other features shall follow, separated by a comma.

Examples:

SR 99, BLUE R, RR
I-405 N-E & N-W RAMPS
GOOSE CREEK
SR 524 SPUR/44TH AVE W
TERRAIN

NBI Commentary:

The NBI coding guide separates this field into two segments (6A with 24 characters and 6B with 1 character). However, it's also stated that 6B is not used. The WSBIS coding guide eliminates any reference to 6B, but a blank space is created automatically in the NBI text file.

WSBIS Item 1256 – Facilities Carried - NBI **AN(18)**

This item has been discontinued.

NBI Item 7

NTI Item I.10

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not cross over or under a public roadway**

The facility being carried by the structure shall be recorded and coded. For all bridges this item describes the use on the structure, and for all tunnels this describes the use in the tunnel. This item shall be left justified and is limited to 18 characters.

Examples:

US 12
RAILROAD
MAIN STREET
PEDESTRIANS
ISRAEL RD

WSBIS Item 1286 – Custodian - NBI
These items has been discontinued. **AN(18)**
NBI Item 21
NTI Item C.2
WSBIS Item 1019 - Owner - NBI
These items has been discontinued.
NBI Item 22
NTI Item C.1

Applicable Structure Types

- **All structure records**

The actual name of the owner and custodian of the structure shall be recorded on the inspection form. In most cases the owner and custodian will be the same agency, but if they are different the two agencies should have an agreement. This agreement should be part of the bridge record if it's available. If more than one agency has equal ownership or shares custodianship, code one agency in the hierarchy of State, Federal, county, city, railroad, and other private.

Table 1286 Custodian and Owner Coes - NBI

WSBIS Code	NBI Code	NTI Code	Description
1	001	001	State Highway Agency
2	002	002	County Highway Agency
4	004	004	City or Municipal Highway Agency
11	011	011	State Park, Forest, or Reservation Agency
12	012	012	County Park, Forest, or Reservation Agency
13	012	012	City Park, Forest, or Reservation Agency
21	021	021	Other State Agencies
22	001	001	Washington State Ferries
24	025	025	Other County Agency
25	025	025	Other City or Local Agencies
26	026	026	Private (other than railroad)
27	027	027	Railroad
28	027	027	Light Rail
31	031	031	State Toll Authority
32	032	032	County Toll Authority
33	032	032	City or Other Toll Authority
60	060	060	Other Federal Agencies (not listed below)
61	061	061	Indian Tribal Government
62	062	062	Bureau of Indian Affairs
63	063	063	Bureau of Fish and Wildlife
64	064	064	U.S. Forest Service
66	066	066	National Park Service
68	068	068	Bureau of Land Management
69	069	069	Bureau of Reclamation
70	070	070	Corps of Engineers (Civil)
71	071	070	Corps of Engineers (Military)
72	072	072	Air Force
73	073	073	Navy/Marines
74	074	074	Army
80	080	080	Unknown
92	001	001	Idaho maintenance responsibility
93	001	001	Oregon maintenance responsibility

WSBIS Item 1285 – Toll Code - NBI **Pulldown**
This item has been discontinued.
FHWA Item 20 – Toll
NTI Item C.4 - Toll

Applicable Structure Types

- **Type 1 - Bridges & culverts carrying public roadways**
- **Type 2 - Pedestrian, RR and other non-vehicular structures over public roadways**
- **Type 3 - Tunnels carrying public roadways within**

The toll status of the structure is indicated by this item. Interstate toll segments under Secretarial Agreement (Title 23 - United States Code - Highways Section 129 as amended by 1991 ISTEA and prior legislation) shall be identified separately. Use one of the following codes:

Table 1285 Toll Code - NBI *This item has been discontinued.*

WSBIS Code	NBI Code	NTI Code	Description
1	1	1	Toll bridge. Tolls are paid specifically to use the structure.
2	2	2	On toll road. The structure carries a toll road, that is, tolls are paid to use the facility, which includes both the highway and the structure.
3	3	0	On free road. The structure is toll free and carries a toll free highway.
4	4	2	On Interstate toll segment under Secretarial Agreement. Structure functions as a part of the toll segment.
5	5	2	Toll bridge is a segment under Secretarial Agreement. Structure is separate agreement from highway segment.

NTI Commentary:

Toll codes translated for the NTI as shown in the table above.

WSBIS Item 1289 – Temporary Structure - NBI **Pulldown**
This item has been discontinued.
NBI Item 103

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways**

Code this item to indicate situations where a temporary structure or conditions exist.

Table 1289 Temporary Structure Code - NBI *This item has been discontinued.*

WSBIS Code	Description
T	Temporary structure or conditions exist.
null	No temporary structure or conditions

A temporary structure or conditions are those which are required to facilitate traffic flow. This may occur either before or during the modification or replacement of a structure found to be deficient. Such conditions include the following:

- Bridges shored up, including additional temporary supports.
- Temporary repairs made to keep a bridge open.
- Temporary structures, temporary runarounds or bypasses.
- Other temporary measures, such as barricaded traffic lanes to keep the bridge open.

Any repaired structure or replacement structure which is expected to remain in place without further project activity, other than maintenance, for more than 5 years shall not be considered temporary. Under such conditions, that structure, regardless of its type, shall be considered the minimum adequate to remain in place and evaluated accordingly.

If this item is coded T, then all data recorded for the structure shall be for the condition of the structure without temporary measures, except for the following items which shall be for the temporary structure:

WSBIS Item 1499 – Inventory Route, Minimum Vertical Clearance
1293 – Structure Open, Posted, or Closed to Traffic
1491 – Inventory Route, Total Horizontal Clearance
1370 – Minimum Vertical Clearance Over Bridge Roadway
1374 – Minimum Vertical Underclearance
1379 – Minimum Lateral Underclearance on Right
1383 – Minimum Lateral Underclearance on Left
1660 – Bridge Posting

NBI Commentary:

WSDOT has defined a 5 year time period for which temporary structures or conditions can be in place and still considered temporary. The NBI coding guide refers to “a significant period of time.”

WSBIS Item 1292 – Historical Significance (NRHP) - NBI **Pulldown**

This item has been discontinued.

NBI Item 37

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways**
- **Tunnels carrying public roadways within**

This item identifies historical significance based on a criteria established by the National Register of Historic Places (NRHP). Generally the Washington State Department of Archaeology and Historic Preservation (DAHP) performs a review based on this criteria.

Use one of the following codes:

Table 1292 Historical Significance (NRHP) - NBI *This item has been discontinued.*

WSBIS Code	NBI Code	Description
1	1	Structure is on the NRHP.
2	2	Structure is eligible for the NRHP.
3	3	Structure is possibly eligible for the NRHP but requires further investigation before determination can be made. Alternately, structure is on a State or local historic register.
4	4	Historical significance has not been determined at this time. (This code should be used for all new structures.)
5	5	Structure is not eligible for the NRHP – reviewed by the DAHP.
6	5	Structure is not eligible for the NRHP – reviewed by agency other than the DAHP.

WSBIS Item 1588 – Border Bridge Percent - NBI **N(2,0)**

This item has been discontinued.

NBI Item 98B

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

Code a 2-digit number specifying the percentage of total deck area of the existing bridge that the neighboring State is responsible for funding.

Leave blank if the structure does not cross a state border.

WSBIS Item 7296 – Historical Significance – Local Agency (LP view only) **Pulldown**
This item has been discontinued.

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Table 7296 Historical Significance - Local Agency *This item has been discontinued.*

WSBIS Code	Description
0	Neither bridge nor crossing is on the local agencies registry or a determination has not been made.
1	Bridge is on the local agency registry.
2	Crossing is on the local agency registry.

WSBIS Item 7281 – Legislative District 1 (LP view only) **N(2,0)**
This item has been discontinued.

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

WSBIS Item 7283 – Legislative District 2 (LP view only) **N(2,0)**
This item has been discontinued.

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not carry or cross over/under a public roadway**

Geometry Tab - Discontinued Items

WSBIS Item 1356 - Curb-to-Curb Width (feet) - NBI **N(4,1)**

This item has been discontinued.

NBI Item 51

Applicable Structure Types

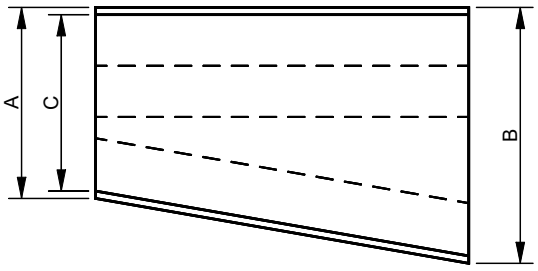
- **Bridges & culverts carrying public roadways**

Code the curb-to-curb width to the nearest tenth of a foot. The information to be recorded is the most restrictive minimum distance between curbs or rails on the structure roadway. The measurement should be exclusive of flared areas for ramps.

For structures with closed medians and usually for double decked structures, coded data will be the sum of the most restrictive minimum distances for all roadways carried by the structure*. The data recorded for this item must be compatible with other related route and structure data (e.g., Lanes On, Lanes Under, ADT, etc.). See examples in WSBIS Items 1364 and 1367.

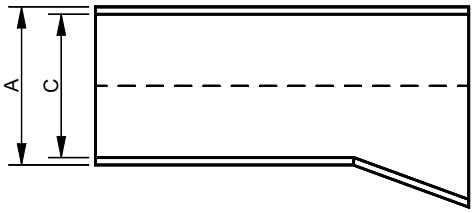
SNBI measurements for Curb_to_Curb Widths are enough different from this field that a separate field was created. This field can be used to populate the SNBI field in many cases, but thru trusses, thru arches, culverts, and cantilevered sidewalks are measured differently.

Figure WSBIS 1356a



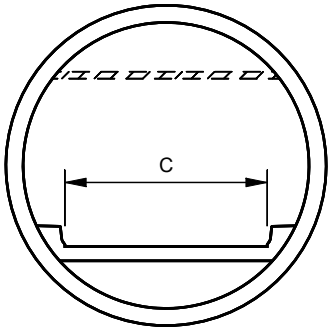
OUT TO OUT = (A + B) / 2
CURB TO CURB = C

EXAMPLE 1



OUT TO OUT = A
CURB TO CURB = C

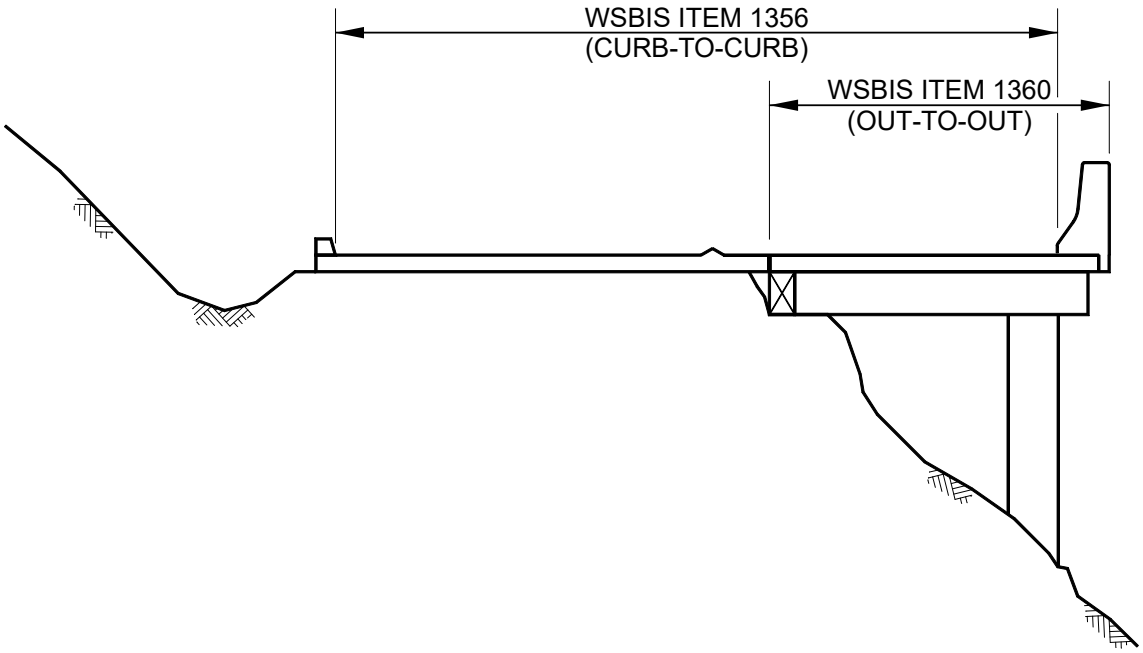
EXAMPLE 2



CURB TO CURB = C
OUT TO OUT DOES NOT APPLY

EXAMPLE 3 (TUNNEL)

Figure WSBIS 1356b



WSBIS Item 1360 - Out-to-Out Deck Width (feet) - NBI **N(4,1)**

This item has been discontinued.

NBI Item 52

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

Code the out-to-out width to the nearest tenth of a foot. If the structure is a through structure, the number to be coded will represent the lateral clearance between superstructure members. See example in Figure WSBIS 1364a.

The measurement will be the most representative out-to-out width on the bridge, and should be exclusive of flared areas for ramps. See examples in Figures WSBIS 1356a and 1364b.

Where traffic runs directly on the top slab (or wearing surface) of the culvert (e.g., an R/C box without fill) code the actual width (out-to-out). This will also apply where the fill is minimal and the culvert headwalls affect the flow of traffic. However, for sidehill viaduct structures code the actual out-to-out structure width. See Figure WSBIS 1356b.

Where the roadway is on a fill carried across a pipe or box culvert and the culvert headwalls do not affect the flow of traffic, code 0. This is considered proper inasmuch as a filled section over a culvert simply maintains the roadway cross-section.

SNBI measurements for Out_to_Out Deck Widths are enough different from this field that a separate field was created. This field can be used to populate the SNBI field in many cases, but thru trusses, thru arches, culverts, and cantilevered sidewalks are measured differently.

WSBIS Item 1291 - Median Code - NBI N(4,1)

This item has been discontinued.

NBI Item 51

Applicable Structure Types

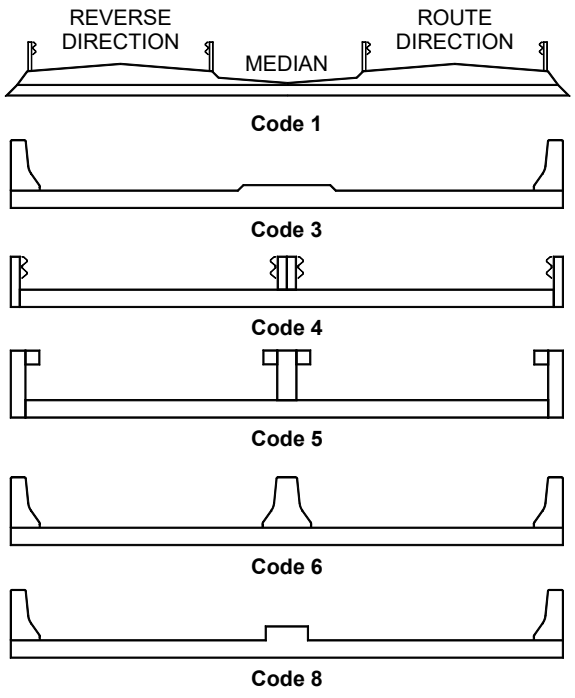
- **Bridges & culverts carrying public roadways**

Indicate with a 1-digit code if the median is nonexistent, open or closed. The median is closed when the area between the 2 roadways at the structure is bridged over and is capable of supporting traffic. All bridges that carry either 1-way traffic or 2-way traffic separated only by a centerline will be coded 0 for no median.

Table 1291 Median Code - NBI

WSBIS Code	NBI Code	Description
0	0	No median (undivided highway)
1	1	Open median
2	2	Closed median – painted only
3	2	Closed median – mountable curb (<6" vertical surface, or sloped surface)
4	3	Closed median – flex or thrie beam
5	3	Closed median – box beam guardrail
6	3	Closed median – concrete barrier
8	3	Closed median – non-mountable curb (6" or greater vertical surface)
9	3	Other median

Figure WSBIS 1291 Median Code - NBI



NBI Commentary:

This coding guide split out various types of medians that are translated to the NBI coding guide as described above.

WSBIS Item 1310 - Skew Angle (degrees) - NBI **N(2,0)**

This item has been discontinued.

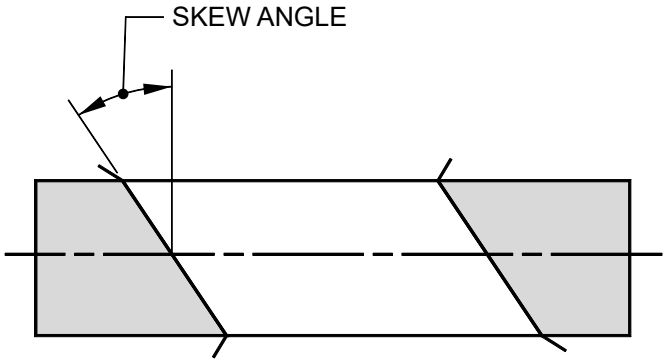
NBI Item 34

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

The skew angle is the angle between the centerline of a pier and a line normal to the roadway centerline. When plans are available, the skew angle can be taken directly from the plans. If no plans are available, the angle is to be field measured if possible. Record the skew angle to the nearest degree. If the bridge piers are perpendicular to roadway centerline, code 0. When the structure is on a curve or if the skew varies for some other reason, the average skew should be recorded, if reasonable. Otherwise, record 99 to indicate a major variation in skews of substructure units.

Figure WSBIS 1310



Feature (Crossing) Tab - Discontinued Items

WSBIS Item 1435 – Route Number - NBI **AN(5)**

This item has been discontinued.

NBI Item 5D

NTI Item I.7

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not cross over or under a public roadway**

Code the route number of the inventory route. This value shall be a five digit number, right justified with leading zeroes filled in.

If concurrent routes are of the same hierarchy level, denoted by the highway class, the lowest numbered route shall be coded. Code 00000 for structures on roads without route numbers.

Local agency bridge owners are encouraged to use one of the following methods to develop a route number where one has not already been assigned:

1. Federal Aid road will have a Federal Aid route number that can be used and padded with zeroes as needed.
2. City streets are often identified by the city number and padded with zeroes as needed.
3. The number of the route used to access the path to the structure can be used.
4. A unique (to the agency) number can be assigned.

Note for local agency users: While this item is identified as alpha-numeric, the use of alphabetic characters in a route number will cause the record to not import into Mobility for the bridge item comparison module.

WSBIS Item 2440 – Route Milepost (miles) - NBI **N(5,2)**

This item has been discontinued.

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not cross over or under a public roadway**

The milepost is displayed on the inspection report header with the associated route (WSBIS Item 1435). Both are intended to provide information about the location of the structure on the primary route used for inspection access, and should represent the structure milepost relative to nearby milepost signs or other permanent feature. The use of a zero milepost is undesirable and should be avoided when possible.

WSBIS Item 1433 – Highway Class - NBI **Pulldown**

This item has been discontinued.

NBI Item 5B

NTI Item I.9

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not cross over or under a public roadway**

Identify the highway class for the LRS inventory route identified in Item 1467 using one of the following codes:

Table 1433 Highway Class - NBI *This item has been discontinued.*

WSBIS Code	Description
1	Interstate highway
2	U.S. numbered highway
3	State highway
4	County road
5	City street
6	Federal lands road
7	State lands road
8	Other (include toll roads not otherwise identifiable above) OR when there is no inventory route

Code 8 when there is no inventory route.

When 2 or more routes are concurrent, the highest class of route will be used. The hierarchy is in the order listed above.

WSBIS Item 1434 – Service Level - NBI **Pulldown**

This item has been discontinued.

NBI Item 5C

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**
- **Type 4 - Structures that do not cross over or under a public roadway**

Identify the service level for the inventory route using one of the following codes, including tunnels:

Table 1434 Service Level - NBI *This item has been discontinued.*

WSBIS Code	Description
1	Mainline (includes reversible routes)
2	Alternate
3	Bypass
4	Spur
6	Business
7	Ramp, Wye, Connector, etc.
8	Service and/or unclassified frontage road
0	None of the above OR when there is no inventory route

WSBIS Item 1490 – Lane Use Direction - NBI **Pulldown**

This item has been discontinued.

NBI Item 102

NTI Item C.3

Applicable Structure Types

- **All structure records**

Code the direction of traffic of the inventory route identified in LRS Route WSBIS Item 1467 as a 1-digit number using one of the codes below. This item must be compatible with other traffic-related items such as WSBIS Item 1352 – Lanes on the Structure, WSBIS Item 1445 – Average Daily Traffic, WSBIS Item 1491 – Total Horizontal Clearance and WSBIS Item 1356 – Curb-to-Curb.

Table 1490 Lane Use Direction Code

WSBIS Code	NBI Code	NTI Code	Description
0	0	0	No public roadway on or under structure.
1	1	1	1 way traffic on inventory route
2	2	2	2 way traffic on inventory route
3	2	3	2 way and reversible traffic on inventory route
4	1	3	Reversible traffic only on inventory route
5	3	4	2 way traffic on 1 lane bridge (curb-to-curb must be <16 ft.)

NBI and NTI Commentary:

WSDOT provides additional codes to address reversible traffic lanes, which are translated to NBI and NTI codes as shown above.

WSBIS Item 1483 – National Highway System (NHS) - NBI **Pulldown**

This item has been discontinued.

NBI Item 104

NTI Item C.5

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

For the inventory route identified in WSBIS Item 1435, indicate whether the route is on the National Highway System (NHS) or not on that system. Ramps associated with NHS routes are included as NHS routes. Use one of the following codes:

Table 1483 National Highway System Code (NHS) - NBI *This item has been discontinued.*

WSBIS Code	Description
0	Inventory Route is not on the NHS
1	Inventory Route is on the NHS

Maps identifying NHS routes are available at: https://hepgis.fhwa.dot.gov/fhwagis.

NBI and NTI Commentary:

WSDOT codes ramps as NHS routes when the associated mainline route is also NHS, in accordance with the NBI federal coding guide, and applied to both bridges and tunnels. However, in accordance with the FHWA Highway Performance Monitoring System (HPMS), ramps are coded 0. The NTI coding guide doesn't specify how ramps in tunnels are coded.

WSBIS Item 1485 – STRAHNET Highway - NBI **Pulldown**

This item has been discontinued.

NBI Item 100

NTI Item C.6

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

This item shall be coded for all records in the inventory that are designated as part of the Strategic Highway Network. For the purposes of this item, the STRAHNET Connectors are considered included in the term STRAHNET. For the inventory route identified in WSBIS Item 1435, indicate STRAHNET highway conditions using one of the following codes:

Table 1485 STRAHNET Highway Code - NBI *This item has been discontinued.*

WSBIS Code	NTI Code	Description
0	0	The inventory route is not a STRAHNET route
1	1	The inventory route is on an Interstate STRAHNET route
2	1	The inventory route is on a Non-Interstate STRAHNET route
3	1	The inventory route is on a STRAHNET connector route

Maps identifying NHS routes are available at: https://hepgis.fhwa.dot.gov/fhwagis/#

NTI Commentary:

Codes translated for the NTI as shown in the table above.

WSBIS Item 1487 – Functional Classification - NBI **Pulldown**

This item has been discontinued.

NBI Item 26

NTI Item C.7

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

For the inventory route, code the functional classification using one of the following codes:

Table 1487 Functional Classification Code - NBI *This item has been discontinued.*

WSDOT Code	NBI Code	NTI Code	Description
1	1	1	Rural Principal Arterial – Interstate
5	2	2	Rural Principal Arterial - Other Freeways or Expressways
2	2	3	Rural Principal Arterial – Other
6	6	4	Rural Minor Arterial
7	7	5	Rural Major Collector
8	8	6	Rural Minor Collector
9	9	7	Rural Local
11	11	1	Urban Principal Arterial – Interstate
12	12	2	Urban Principal Arterial – Other Freeways or Expressways
14	14	3	Urban Principal Arterial - Other
16	16	4	Urban Minor Arterial
17	17	5	Urban Major Collector
18	17	6	Urban Minor Collector
19	19	7	Urban Local

The structure shall be coded rural if not inside a designated urban area. The urban or rural designation shall be determined by the structure location and not the character of the roadway. The WSDOT Functional Classification Map is available at https://www.wsdot.wa.gov/data/tools/geoportal/?config=functionalclass

NBI and NTI Commentary:

Functional Classification codes are translated for the NBI and NTI as shown in the table above.

WSBIS Item 1489 – National Truck Network (NTN) - NBI **Pulldown**

This item has been discontinued.

NBI Item 110

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

The national network for trucks includes most of the Interstate System and those portions of Federal-aid highways identified in the Code of Federal Regulations (23 CFR 658). The national network for trucks is available for use by commercial motor vehicles of the dimensions and configurations described in these regulations. For the inventory route identified in WSBIS Item 1435, indicate conditions using one of the following codes:

Table 1489 National Truck Network Code (NTN) - NBI *This item has been discontinued.*

WSBIS Code	NTI Code	Description
N	0	The inventory route is not part of the national network for trucks
Y	1	The inventory route is part of the national network for trucks

WSBIS Item WH24 – NBI Reportable Flag **Pulldown**

This item has been discontinued.

Applicable Structure Types

- **Type 1 - Bridges and culverts carrying public roadways**
- **Type 2 - Pedestrian, railroad and other non-vehicular bridges over public roadways**
- **Type 3 - Tunnels carrying roadways within**

Indicate if the crossing record is to be included in the National Bridge Inventory data submittal or not. Records required to be reported include all structures subject to the NBIS and all undercrossings identified as a Federal Aid Route. Other undercrossings can be reported at the owner's discretion.

For state owned structures, this item is coded by the BPO Information Group and is visible in BridgeWorks Inventory Management mode.

WSBIS Item 1354 – Lanes Under **N(2,0)**

This item has been discontinued.

NBI Item 28B

NTI Item A.3

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways**
- **Tunnels carrying public roadways within**

Code the number of lanes under the structure.

For On records, code WSBIS Item 1354 for all lanes under the bridge for all routes that are functionally classified (see WSBIS Item 1487).

For Under records, code WSBIS Item 1354 for only the lanes associated with the inventory route under.

For Tunnels, code all the lanes in the tunnel.

WSBIS Item 1457 – Future ADT **N(6,0)**

This item has been discontinued.

NBI Item 114

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways**
- **Tunnels carrying public roadways within**

For On records, code WSBIS Item 1354 for all lanes under the bridge for all routes that are functionally classified (see WSBIS Item 1487).

Code the forecasted average daily traffic (ADT) for the inventory route. This shall be projected at least 17 years but no more than 22 years from the last year of routine inspection. If planning data is not available, use the best estimate based on site familiarity. The future ADT must be compatible with the other items coded for the structure. For example, parallel bridges with an open median are coded as follows: if WSBIS Item 1352 – Lanes On the Structure and WSBIS Item 1356 – Curb-to-Curb are coded for each bridge separately, then the future ADT must be coded for each bridge separately (not the total for the route).

WSBIS Item 1463 – Future ADT Year **N(6,0)**
This item has been discontinued.
NBI Item 115

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways**
- **Tunnels carrying public roadways within**

Code the forecasted average daily traffic (ADT) for the inventory route. This shall be projected at least 17 years but no more than 22 years from the last year of routine inspection. If planning data is not available, use the best estimate based on site familiarity. The future ADT must be compatible with the other items coded for the structure. For example, parallel bridges with an open median are coded as follows: if WSBIS Item 1352 – Lanes On the Structure and WSBIS Item 1356 – Curb-to-Curb are coded for each bridge separately, then the future ADT must be coded for each bridge separately (not the total for the route).

WSBIS Item 1477 – Linear Sub Route **N(2,0)**
This item has been discontinued.
NBI Item 13B

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

The LRS subroute number is always coded 00.

NBI Commentary:

WSDOT codes LRS subroute numbers for all crossing records, but only routes on the Base Highway Network are submitted to the NBI.

WSBIS Item 1484 - Base Highway Network **Pulldown**
This item has been discontinued.
NBI Item 12

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways**
- **Tunnels carrying public roadways within**

The Base Highway Network includes the mainline portions of the NHS (WSBIS Item 1483 is coded 1), rural/urban principal arterial system and rural minor arterial system. Ramps, frontage roads and other roadways are not included in the Base Network. For the inventory route identified in WSBIS Item 1435 – Inventory Route, use one of the following codes:

Table 1484 Base Highway Network Code

Table 1484 Base Highway Network Code *This item has been discontinued.*

WSBIS Code	Description
0	Inventory Route is not on Base Network
1	Inventory Route is on the Base Network

WSBIS Item 1486 – Federal Lands Highways - NBI **Pulldown**

This item has been discontinued.

NBI Item 105

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways**
- **Tunnels carrying public roadways within**

This code identifies bridges on roads which lead to and traverse federal lands. These bridges may be eligible to receive funding from the Federal Lands Highway Program.

Washington State Forest Highways can be found in the Emergency Relief chapter of the Local Agency Guidelines (LAG) manual.

As of January 1, 2000, there are three Land Management Highway Systems (LMHS). There are two in Douglas County and one in Lincoln County.

0	Not applicable	4	Both IRR and FH
1	Indian Reservation Road (IRR)	5	Both IRR and LMHS
2	Forest Highway (FH)	6	Both FH and LMHS
3	Land Management Highway System (LMHS)	9	Combined IRR, FH and LMHS

For existing data in WSBIS, do not alter codes. For new records, code zero unless a data source is available.

NBI Commentary:

WSDOT has not been able to identify a source for this data, and will code zeroes for new records until an information source is identified.

WSBIS Item 1495 – Horiz. Clrnc., Reverse Dir. (ft & in) **N(4,0)**

This item has been discontinued.

NBI Item 47

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways**
- **Tunnels carrying public roadways within**

The horizontal clearance for the inventory route should be measured and recorded for each opening between restrictive features – curbs, rails, guardrails, walls, piers, slopes, or other structural features limiting the roadway (surface and shoulders).

The purpose of this item is to give the largest available clearance for the movement of wide loads. Flush and mountable medians are not considered to be restrictions. This clearance is defined in two ways:

1. Clear distance between restrictions of the inventory route either on or under the structure.
2. Edges of roadway surface including shoulders when there are no other restrictions.

When the entire undivided inventory route passes on or under a structure, code WSBIS Item 1491 as measured and WSBIS Item 1495 is blank.

When the divided inventory route passes on or under a structure, code WSBIS Item 1491 and WSBIS Item 1495 as measured in each direction. Note that when a bridge pier separates a single route, it is always considered divided.

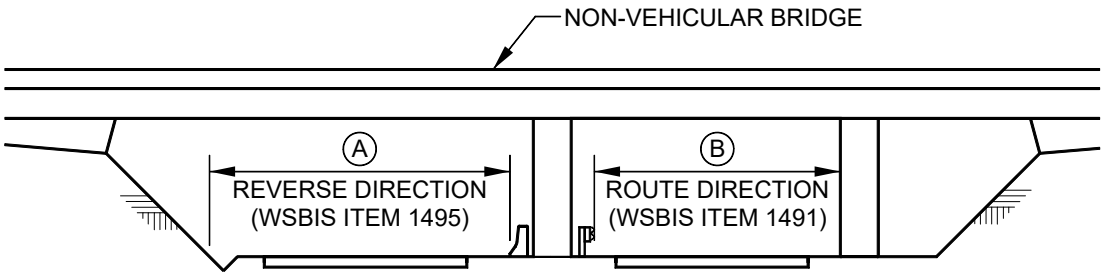
When the inventory route consists of two parallel bridges carrying a divided route, for the bridge carrying the increasing route direction code WSBIS Item 1491 as measured and WSBIS Item 1495 is blank. For the bridge carrying the decreasing route direction, WSBIS Item 1491 is blank and code WSBIS Item 1495 as measured.

When a restriction is 100 feet or greater, code 9912.

NBI Commentary:

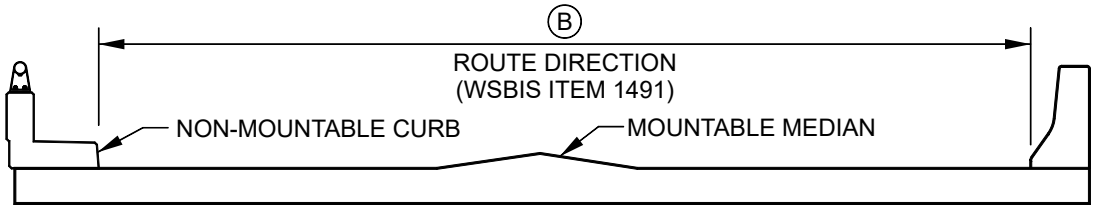
The minimum horizontal clearance for each route is reported to the NBI, regardless of route direction.

Figure 1495 Horiz. Clrnc., Reverse Dir. (ft & in) *This item has been discontinued.*



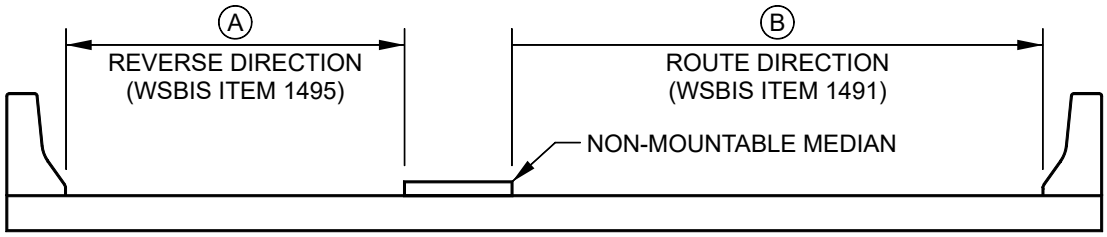
IF CLEARANCE (A) > (B), CODE WSBIS ITEM 1495 = (A) & WSBIS ITEM 1491 = Blank

Figure 1



NO MEDIAN OR FLUSH OR MOUNTABLE MEDIAN

Figure 2



RAISED MEDIAN OR NON-MOUNTABLE MEDIAN

IF CLEARANCE (B) > (A), CODE WSBIS ITEM 1491 = (B) & WSBIS ITEM 1495 = Blank

Figure 3

WSBIS Item 2368 – Min. Vert. Clrnc. Over Deck Override (ft & in.) **N(4,0)**

This item has been discontinued.

Applicable Structure Types

- Bridges & culverts carrying public roadways for records maintained by BPO

When a bridge is located underneath one or more bridges (stacked bridges), code the actual minimum vertical clearance over the bridge roadway, including shoulders, to the superstructure restriction caused by the controlling overhead bridge, in feet and inches, rounded to the lesser inch (e.g., 16' 3¾" is to be coded 1603).

WSBIS Item 2436 – Route Sequencer **Integer**

This item has been discontinued.

Applicable Structure Types

- **All structure records maintained by WSDOT Bridge Preservation**

The route sequencer is a two digit number used for placement of crossing records in the *Bridge List* M 23-09.

If the inventory route is not included in the bridge list, code 0.

For state owned structures, or structures with crossings managed by the Statewide Program Manager, this item is coded by the BPO Information Group and is visible in BridgeWorks Inventory Management mode.

WSBIS Item 2437 – Bridge List Override (miles) **N(5,2)**

This item has been discontinued.

Applicable Structure Types

- **All structure records maintained by WSDOT Bridge Preservation**

The bridge list milepost override is used for placement of crossing records in the *Bridge List* M 23-09.

For state owned structures, or structures with crossings managed by the Statewide Program Manager, this item is coded by the BPO Information Group and is visible in the BridgeWorks Inventory Management mode.

WSBIS Item 2438 – Milepost Sequencer **Integer**

This item has been discontinued.

Applicable Structure Types

- **All structure records maintained by WSDOT Bridge Preservation**

The milepost sequencer is a two digit number used for placement of crossing records in the *Bridge List* M 23-09.

If the inventory route is not included in the bridge list, code 0.

For state owned structures, or structures with crossings managed by the Statewide Program Manager, this item is coded by the BPO Information Group and is visible in BridgeWorks Inventory Management mode.

WSBIS Item 7479 – Federal Aid Route Number **AN(4)**
This item has been discontinued.

Applicable Structure Types

- **Local Agency Bridges & culverts carrying public roadways**
- **Local Agency Pedestrian, RR and other non-vehicular structures over public roadways**
- **Local Agency Tunnels carrying public roadways within**

If the route being inventoried is a federal aid highway, enter its federal aid route number in this field. If the bridge is not on a federal aid highway, the field should be filled with zeros.

Federal Aid Route Numbers are located at local agency planning departments or at WSDOT Service Center Planning and at: https://hepgis-usdot.hub.arcgis.com/datasets/3b1de850d0704cd2b5a7effb8c777fee_0/explore?location=47.282135%2C-122.176328%2C9.11

Materials & Types Tab - Discontinued Items

WSBIS Item 1532 – Main Span Material - NBI **Pulldown**
This item has been discontinued.
NBI Item 43A

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways**
- **Tunnels carrying public roadways within**

Indicate the kind of material and/or design for the main span.

Table 1532 Main Span Material Code - NBI *This item has been discontinued.*

WSBIS Code	Description
1	Concrete
2	Concrete continuous
3	Steel
4	Steel continuous
5	Prestressed and/or post-tensioned concrete
6	Prestressed and/or post-tensioned concrete continuous
7	Wood or Timber
8	Masonry
9	Aluminum, Wrought Iron, or Cast Iron
0	Other (also to be used when not applicable for approach spans)

WSBIS Item 1533 – Main Span Design - NBI Pulldown

This item has been discontinued.

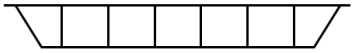
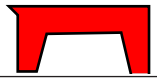
NBI Item 43B

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways**
- **Tunnels carrying public roadways within**

Indicate the predominant type of design and/or type of construction.

Table 1533 - Main Span Design Code - NBI *This item has been discontinued.*

WSBIS Code	NBI Code	Description
1	01	Slab
2	02	Stringer/Multibeam or Girder
3	03	Girder and Floorbeam System
4	04	Tee Beam 
5	05	Box Beam or Girders – Multiple 
6	06	Box Beam or Girders – Single or Spread 
7	07	Frame (except frame culverts)
8	08	Orthotropic
9	09	Truss – Deck
10	10	Truss – Thru
11	11	Arch – Deck
12	12	Arch – Thru
13	13	Suspension
14	14	Stayed Girder
15	15	Movable – Lift
16	16	Movable – Bascule
17	17	Movable – Swing
18	18	Tunnel (this code designates reporting to the NTI instead of the NBI)
19	19	Culvert (includes frame culverts)
20*	20*	Mixed types
21	21	Segmental Box Girder
22	22	Channel Beam (Bathtub Unit) 
0	00	Other (also to be used when not applicable for approach spans)

*Applicable only to approach spans – WSBIS Item 1536

Examples:

Wood or Timber Through Truss = 710
Masonry Culvert = 819
Steel Suspension = 313
Continuous Concrete Multiple Box Girders = 205
Simple Span Concrete Slab = 101
Tunnel in Rock = 018

WSBIS Item 1538 – Number of Main Spans - NBI **N(3,0)**

This item has been discontinued.

NBI Item 45

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

Record the number of spans in the main or major unit. This item will include all spans of most bridges, the major unit only of a sizable structure, or a unit of material or design different from that of the approach spans.

A span that contains a drop-in span with cantilevers, or two cantilever spans with a hinge, is counted as one span (from pier to pier). Cantilever end spans are counted separately.

WSBIS Item 1535 – Approach Span Material - NBI **Pulldown**

This item has been discontinued.

NBI Item 44A

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways**

Indicate the type of structure for the approach spans to a major bridge or for the spans where the structural material is different. The codes are the same as for WSBIS Item 1532. If the kind of material is varied, code the most predominant.

Code 0 if this item is not applicable.

WSBIS Item 1536 – Approach Span Design - NBI **Pulldown**

This item has been discontinued.

NBI Item 44B

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways**

Indicate the type of structure for the approach spans to a major bridge or for the spans where the structural material is different using Table 1533. Use code 20 when no one type of design and/or construction is predominant for the approach units.

Code 00 if this item is not applicable.

WSBIS Item 1541 – Number of Approach Spans - NBI **N(3,0)**

This item has been discontinued.

NBI Item 46

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

Record the number of approach spans to the major bridge, or the number of spans of material different from that of the major bridge.

Code 0 if this item is not applicable.

NBI Commentary:

This coding guide requires coding zeroes when there are no approach spans. The NBI coding guide assumes a zero entry.

WSBIS Item 1546 – Deck Type - NBI **Pulldown**

This item has been discontinued.

NBI Item 107

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways***

Record the type of deck system on the bridge. If more than one type of deck system is on the bridge, code the most predominant. Code A for a filled culvert or arch with the approach roadway section carried across the structure.

*Main Listing Under records (e.g., railroad bridges and pedestrian bridges) are to be coded N, with the following exception: WSDOT owned pedestrian bridges are to be coded with the appropriate Deck Type.

Use one of the following codes:

Table 1546 Deck Type Code - NBI *This item has been discontinued.*

WSBIS Code	NBI Code	Description
1	1	Concrete Cast-in-Place
2	2	Concrete Precast Panels
3	3	Steel Grating – Open
4	4	Steel Grating – Filled with Concrete
5	5	Steel plate (includes orthotropic)
6	6	Corrugated Steel
7	7	Aluminum
8	8	Treated timber
9	8	Untreated timber
0	9	Other
A	N	Filled arches / Culverts
B	9	Precast integral with beam
N	N	Bridges with no deck

NBI Commentary:

WSDOT provides additional codes which are translated to NBI codes as shown above.

WSBIS Item 1547 – Wearing Surface - NBI **Pulldown**

This item has been discontinued.

NBI Item 108A

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways***

*Main Listing Under records (e.g., railroad bridges and pedestrian bridges) are to be coded N, with the following exception: WSDOT owned pedestrian bridges are to be coded with the appropriate Wearing Surface.

Table 1547 Wearing Surface Code *This item has been discontinued.*

WSBIS Code	Description
1	Monolithic Concrete (concurrently placed with structural deck)
2	Integral Concrete (separate non-modified layer of concrete added to structural deck)
3	Latex Concrete or similar additive
4	Low Slump Concrete
5	Epoxy Overlay
6	Bituminous (ACP or BST)
7	Timber
8	Gravel
9	Other
0	None (no additional concrete thickness or wearing surface is included in the bridge deck)
N	Bridges with no deck

WSBIS Item 1548 – Membrane - NBI **Pulldown**

This item has been discontinued.

NBI Item 108B

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways***

*Main Listing Under records (e.g., railroad bridges and pedestrian bridges) are to be coded N, with the following exception: WSDOT owned pedestrian bridges are to be coded with the appropriate Membrane.

Table 1548 Membrane Code - NBI *This item has been discontinued.*

WSBIS Code	Description
1	Built-up
2	Preformed Fabric
3	Epoxy
8	Unknown
9	Other
0	None
N	Bridges with no deck

WSBIS Item 1549 – Deck Protection - NBI **Pulldown**

This item has been discontinued.

NBI Item 108C

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways***

*Main Listing Under records (e.g., railroad bridges and pedestrian bridges) are to be coded N, with the following exception: WSDOT owned pedestrian bridges are to be coded with the appropriate Membrane.

Table 1549 Deck Protection Code - NBI *This item has been discontinued.*

WSBIS Code	Description
1	Epoxy Coated Reinforcing
2	Galvanized Reinforcing
3	Other Coated Reinforcing
4	Cathodic Protection
6	Polymer Impregnated
7	Internally Sealed
8	Unknown
9	Other
0	None
N	Bridges with no deck

Load Rating Tab - Discontinued Items

WSBIS Item 1550 – Design Load - NBI **Pulldown**

This item has been discontinued.

NBI Item 31

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways**
- **Tunnels carrying public roadways within**

Use the codes below to indicate the live load for which the structure was designed. The numerical value of the railroad loading should be recorded on the form. Classify any other loading, when feasible, using the nearest equivalent of the loadings given below.

Table 1550 Design Load Code - NBI *This item has been discontinued.*

WSBIS Code	Metric Description	English Description
0	Unknown	Unknown
1	M 9	H 10
2	M 13.5	H 15
3	MS 13.5	HS 15
4	M 18	H 20
5	MS 18	HS 20
6	MS 18 + Mod	HS 20 + Mod
7	Pedestrian	Pedestrian
8	Railroad	Railroad
9	MS 22.5 or greater	HS 25 or greater
A	HL 93	HL 93
B	Greater than HL 93	Greater than HL 93
C	Other	Other

NBI Commentary:
This field has been revised based on a February 2, 2011 FHWA memo available at https://www.fhwa.dot.gov/bridge/110202.cfm.

WSBIS Item 1293 – Open, Closed or Posted - NBI **Pulldown**

This item has been discontinued.

NBI Item 41

NTI Item L.4

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Tunnels carrying public roadways within**

This item provides information about the actual operational status of a structure. One of the following codes shall be used:

Table 1293 - Open, Closed, Posted Code - NBI *This item has been discontinued.*

WSBIS Code	Description
A	Open, no restriction to legal loads (see Table 1660a) and no physical posting sign at the bridge
B	Open, posting recommended but not legally implemented (all signs not in place or not correctly implemented)
D	Open, would be posted or closed except for temporary shoring, etc., to allow for unrestricted traffic
E	Open, temporary structure in place to carry legal loads while original structure is closed and awaiting replacement or rehabilitation
G	New structure not yet open to traffic
K	Structure closed to all traffic
P	Posted for load (may include other restrictions such as temporary structures which are load posted). Requires a physical posted sign at the bridge.
R	Posted for other load-capacity restriction (speed, number of vehicles on structure, etc.). Requires a physical posted sign at the bridge.

WSBIS Item 1660 – Operating Level - NBI **Pulldown**

This item has been discontinued.

NBI Item 70

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

The National Bridge Inspection Standards require the posting of load limits if the operating rating factor (RF) for any of the legal load configurations in the State is less than 1 based on the Load Factor Method (LFR) or the Allowable Stress Method (ASR); and less than 1 based on the Load and Resistance Factor Method. If the load capacity is such that posting is required, this item shall be coded 4 or less. If no posting is required at the operating rating, this item shall be coded 5.

This item evaluates the load capacity of a bridge in comparison to the State legal loads.

Although posting a bridge for load-carrying capacity is required only when the RF for any of the legal loads is less than 1, highway agencies may choose to post at a lower level. This posting practice may appear to produce conflicting coding when WSBIS Item 1293 – Structure Open, Posted or Closed to Traffic is coded to show the bridge as actually posted at the site and WSBIS Item 1660 – Bridge Posting is coded as bridge posting is not required. Since different criteria are used for coding these 2 items, this coding is acceptable and correct.

The use or presence of a temporary bridge affects the coding. The actual operating rating of the temporary bridge should be used to determine this item. However, the highway agency may choose to post at a lower level. This also applies to bridges shored up or repaired on a temporary basis.

The coding shall be based on the lowest rating factor of the legal loads.

The following are Washington State maximum legal load configurations and tonnages:

Table 1660a Legal Loads *This item has been discontinued.*

Configuration	Tonnage
AASHTO Type 3	25 Tons
AASHTO Type 3-2	36 Tons
AASHTO Type 3-3	40 Tons
SU4	27 Tons
SU5	31 Tons
SU6	34.7 Tons
SU7	38.7 Tons
EV2	28.7 Tons
EV3	43 Tons

See the *Bridge Design Manual* Chapter 13 for more information.

WSBIS Item 1551 – Operating Rating Method **Pulldown**

This item has been discontinued.

NBI Item 63

WSBIS Item 1554 – Inventory Rating Method **Pulldown**

This item has been discontinued.

NBI Item 65

NTI Item L.1

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Tunnels carrying public roadways within**

Code these fields with one of the following codes to indicate which load rating method was used to determine the rating for this bridge.

Table 1551 Operating and Inventory Rating Method Code *This item has been discontinued.*

WSBIS Codes		NTI Codes	Description
Used by WSDOT	Used by Local Agencies		
N	N	N	No load rating required (only applicable to some tunnels)
0	0	0	Field evaluation and documented engineering judgment reported in tons using HS20 loading
1	1	-	Load Factor (LF) reported in tons using HS20 loading
2	2	-	Allowable Stress (AS) reported in tons using HS20 loading
-	3	-	Load and Resistance Factor (LRFR) reported in tons
4	4	-	Load Testing reported in tons using HS20 loading
5	5	5	No rating analysis or evaluation performed
-	6	1	Load Factor (LF) rating reported by rating factor using HS20 loading
-	7	2	Allowable Stress (AS) rating reported by rating factor using HS20 loading
8	8	3	Load and Resistance Factor Rating (LRFR) reported by rating factor using HL93 loading
F	-	A	Assigned rating method based on Load and Resistance Factor Design (LRFD) reported by rating factor using HL93 loading

Note: WSDOT uses codes 0, 1, 2, 4, 5, 8 and F for bridges and culverts carrying public roadways. Local Agencies uses codes 0 through 8 for bridges and culverts carrying public roadways. For tunnels carrying public roadways within, all agencies use WSBIS codes 0, 1, 2, 3, 5, A and N.

Code 0 is to be used when the load rating is determined by field evaluation and documented engineering judgment, typically done when plans are not available for concrete structures or in cases of severe deterioration. Field evaluation and engineering judgment ratings must be documented. See Chapter 5 for additional guidance.

Code 5 is to be used when the structure has not been load rated or load rating documentation does not exist.

NBI and NTI Commentary:

WSBIS Item 1551 has been modified based on a November 15, 2011 FHWA Memo available at www.fhwa.dot.gov/bridge/nbi/111115.cfm.

The NTI does not report load ratings in tons, only rating factors. This restricts load rating methods to only those that report in rating factors. Also, the NTI has only one field to assign the load rating method for both inventory and operating methods. WSBIS has chosen to use the NBI Inventory rating method for reporting to the NTI.

Codes A through E are not available in WSBIS because there are no agencies which use these methods.

WSBIS Item 1552 – Operating Rating Tons **N(3,0)**
This item has been discontinued.
NBI Item 64

WSBIS Item 1555 – Inventory Rating Tons **N(3,0)**
This item has been discontinued.
NBI Item 66

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

WSDOT enters rating data into the database as English tonnage for all cases noted in WSBIS Items 1551 and 1554 which have methods coded 0 through 4. For methods coded 5* through 8 or F, use WSBIS Items 1553 and 1556 to enter the rating factor.

If the bridge will not carry a minimum of 3 tons of live load, the operating rating tons shall be coded 0; and, consistent with the direction of the AASHTO Manual, it shall be closed.

The use or presence of a temporary bridge requires special consideration in coding. In such cases, since there is no permanent bridge, the inventory and operating rating tons should be coded 0 even though the temporary structure is rated for as much as full legal load.

A bridge shored up or repaired on a temporary basis is considered a temporary bridge and the inventory and operating rating tons shall be coded as if the temporary shoring were not in place. See WSBIS Item 1289 – Temporary Structure Designation for definition of a temporary bridge.

For a bridge that is closed (WSBIS Item 1293 is coded K), operating and inventory rating tons shall be coded 0.

Code 99 for a structure under sufficient fill such that, according to AASHTO design, the live load stress on the structure is insignificant in the structure load capacity.

*Rating Tons (Items 1552/1555) or Rating Factors (Items 1553/1556) can be entered when Items 1551/1554 are coded 5.

NBI Commentary:

WSBIS Items 1552 and 1555 have been modified based on a March 22, 2004, FHWA Memo available at www.fhwa.dot.gov/bridge/nbi/111115.cfm.

Note: This field is no longer restricted to reporting HS20 loads only – by WSBIS Item 1551 definition, in some cases HL93 load cases are reported here. Additional clarification on how to code these fields was also added.

When this 3-digit number is reported in the NBI submittal, the FHWA multiplies it by 32.4 and rounds it to tenths. This number represents metric tons. Due to the fact the FHWA cannot currently process metric tons greater than 99.9, any rating factor greater than 3.08 is truncated to 99.9 metric tons upon conversion.

WSBIS Item 1553 – Operating Rating Factor **N(4,2)**
This item has been discontinued.
NBI Item 64
NTI Item L.3

WSBIS Item 1556 – Inventory Rating Factor **N(4,2)**
This item has been discontinued.
NBI Item 66
NTI Item L.2

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Tunnels carrying public roadways within**

WSDOT enters rating data as factors for all cases noted in WSBIS Items 1551 and 1554 which have methods coded 5 through 8 or F. For methods coded 0 through 4, use WSBIS Items 1552 and 1555 to enter rating tonnage.

If WSBIS Item 1551 – Operating Rating Method has been coded 5, for new structures, the operating rating shall be coded with a rating factor of 1.30.

If WSBIS Item 1554 – Inventory Rating Method has been coded 5, for new structures, the inventory rating shall be coded with a rating factor of 1.00.

NBI Commentary:

When this number is reported in the NBI submittal, rating factors in excess of 9.99 will be reported to FHWA as 9.99.

Discontinued Tab - Discontinued Items

NBI items in the Discontinued tab will be kept visible, but not editable within the Bridgeworks (WSBIS) application as of January 2025, to be used as reference until all data items have been correctly coded/translated into the new SNBI fields.

WSBIS Item 2883 – Prop. Improvement Calculation **Check Box**
This item has been discontinued.

This checkbox directs the WSBIS system to compute costs for any proposed bridge improvements. It is checked by default for all structures. To prevent automatic calculation and to perform manual entry, uncheck the box.

For local agency bridge owners, the Proposed Improvement entries are required for NBIS bridges when the Sufficiency Rating (Item 2710) is 80 or less and Status (Item 2711) is SD or FO.

The following method is used to perform the automatic calculation:

If Work Type 31 or 32 is chosen:

Work Method = 1
Structure Length = Bridge Length + 10 feet
Roadway Width = (Lanes On x 12 feet) + 14 feet
Cost per SF of Deck = $950 (as of 2022)
Structure Cost = 0.50 x Total Cost
Roadway Cost = 0.10 x Total Cost
Engineering & Misc Cost = 0.4 x Total Cost
Total Cost = (Structure Imp Length x Prop Roadway Width) x Cost Per SF of Prop Deck
Estimate Year = (current year)

If Work Type 33 through 38 is chosen:

Work Method = 1
Structure Length = Bridge Length
Roadway Width = Approach Roadway Width + 2 feet
Cost per SF of Deck = $475 (as of 2022)
Structure Cost = 0.50 x Total Cost
Roadway Cost = 0.10 x Total Cost
Engineering & Misc Cost = 0.40 x Total Cost
Total Cost = (Structure Imp Length x Prop Roadway Width) x Cost Per SF of Prop Deck
Estimate Year = (current year)

WSBIS Item 1844 – Prop. Improvement Work Type — Pulldown

This item has been discontinued.

NBI Item 75A

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

Use one of the following codes to represent the proposed work type:

Table 1844 Work Type Code *This item has been discontinued.*

WSBIS Code	Description
38	Other structural work, including hydraulic replacements.
37	Bridge deck replacement with only incidental widening.
36	Bridge deck rehabilitation with only incidental widening.
35	Bridge rehabilitation because of general structure deterioration or inadequate strength.
34	Widening of existing bridge with deck rehabilitation or replacement.
33	Widening of existing bridge or other major – structure without deck rehabilitation or replacement; includes culvert lengthening.
32	Replacement of bridge or other structure because of relocation of road.
31	Replacement of bridge or other structure because of substandard load carrying capacity or substandard bridge roadway geometry.

WSBIS Item 1846 – Prop. Improvement Work Method — Pulldown

This item has been discontinued.

NBI Item 75B

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

Use one of the following codes to indicate whether the proposed work is to be done by contract or by force account:

Table 1846 Proposed Improvement Work Method Code *This item has been discontinued.*

WSBIS Code	Description
2	Work to be done by owner's forces
1	Work to be done by contract

WSBIS Item 1847 – Prop. Improvement Structure Length (ft) **N(6,0)**

This item has been discontinued.

NBI Item 76

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

Code the length of the proposed bridge improvement to the nearest foot. For replacement or rehabilitation of the entire bridge, the length should be back to back of backwalls of abutments or from pavement notch to pavement notch. For replacement or rehabilitation of only part of the structure, use the length of the portion to be improved.

For culvert improvements, use the proposed length measured along the centerline of the barrel regardless of the depth below grade. The measurement should be made between the inside faces of the top parapet or edge-stiffening beam of the top slab.

WSBIS Item 2853 – Prop. Improvement Roadway Width (ft) **N(6,0)**

This item has been discontinued.

Code the curb-to-curb width of the roadway on the proposed bridge. This measurement is coded to the nearest foot.

WSBIS Item 2860 – Prop. Imp. Cost per S.F. of Deck (dollars) **N6,0)**

This item has been discontinued.

Code the estimated cost per square foot of proposed deck. For State bridges, this number is provided by the WSDOT Bridge Management Engineer.

WSBIS Item 1867 – Prop. Imp. Structure Cost (thous. dollars) **N(7,0)**

This item has been discontinued.

NBI Item 94

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

Code a number to represent the estimated cost of the proposed bridge improvements (including replacement) in thousands of dollars. This cost does not include roadway, right of way, detour, demolition, or preliminary engineering costs.

NBI Commentary:

WSBIS allows up to seven digits each for Structure, Roadway and Total Costs (in thousands of dollars). Amounts coded greater than six digits will be converted to 999999 for the NBI data submittal.

WSBIS Item 1873 – Prop. Imp. Roadway Cost (thous. dollars) **N(7,0)**

This item has been discontinued.

NBI Item 95

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

Code a number to represent the cost of the proposed roadway improvement in thousands of dollars. This shall include only roadway construction costs, excluding bridge, right-of-way, detour, extensive roadway realignment costs, preliminary engineering, etc. Do not use this item for estimating maintenance costs.

NBI Commentary:

WSBIS allows up to seven digits each for Structure, Roadway and Total Costs (in thousands of dollars). Amounts coded greater than six digits will be converted to 999999 for the NBI data submittal.

WSBIS Item 2870 – Prop. Imp. Eng. and Misc. Cost (thous. dollars) **N(7,0)**

This item has been discontinued.

Code the estimated cost of engineering and other miscellaneous items. For State bridges, this number is provided by the WSDOT Bridge Management Engineer.

WSBIS Item 1861 – Prop. Imp. Total Cost (thous. dollars) **N(7,0)**

This item has been discontinued.

NBI Item 96

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

Code a number to represent the total project cost in thousands of dollars, including incidental costs not included in Structure Cost and Roadway Cost. This item should include all costs normally associated with the proposed bridge improvement project. The Total Project Cost will therefore usually be greater than the sum of Structure and Roadway Costs.

NBI Commentary:

WSBIS allows up to seven digits each for Structure, Roadway and Total Costs (in thousands of dollars). Amounts coded greater than six digits will be converted to 999999 for the NBI data submittal.

WSBIS Item 1879 – Prop. Improvement Estimate Year **N(4,0)**

This item has been discontinued.

NBI Item 97

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

Code the year that the costs of proposed work were estimated. The data provided for these items must be current; that is, the estimate year shall be no more than 8 years before the current year.

WSBIS Item 1022 – Urban Code - SNTI **Pulldown**
This item has been discontinued.

Applicable Structure Types

- **Tunnels carrying public roadways within**

Record the urbanized area code.

WSBIS Item 1188 – Latitude - NBI **(XX degrees XX minutes XX.XX seconds)**
This item has been discontinued.
NBI Item 16
NTI Item I.13

WSBIS Item 1196 – Longitude - NBI **(XXX degrees XX minutes XX.XX seconds)**
This item has been discontinued.
NBI Item 17
NTI Item I.14

Applicable Structure Types

- **All structure records**

Code the latitude and longitude in degrees, minutes and seconds to the nearest hundredth of a second using the NAD 83/91 - North American Datum of 1983, with 1991 adjustments. Note that true longitudes are a negative number at all locations in Washington State, but when coded in WSBIS a positive number is used.

Accurate data can be acquired using internet resources such as Google Maps or Bing Maps.

For bridges and culverts carrying public roadways, the reading should be taken at the beginning of the structure at centerline. When the inventory route has a Linear Referencing System (LRS) designation, the beginning of the structure is the lower milepoint for the LRS route.

For pedestrian, RR and other non-vehicular structures over public roadways, the reading should be taken at the centerline of the roadway under the bridge.

For tunnels carrying public roadways within, the reading should be taken at the beginning of the tunnel portal at the centerline.

SNBI Latitude and Longitude fields added in 2023 into the Crossing Tab in BridgeWorks and have a different format. See WSBIS Items 1470 and 1471 in Appendix D.

WSBIS Item 1288 – Parallel Structure - NBI Pulldown

This item has been discontinued.

NBI Item 101

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways**

Code this item to indicate situations where separate structures carry the inventory route in opposite directions of travel over the same feature. The lateral distance between structures has no bearing on the coding of this item.

For pedestrian, railroad and other non-vehicular structures over public roadways, always code N.

One of the following codes shall be used:

Table 1288 Parallel Structure Code *This item has been discontinued.*

WSBIS Code	Description
R	The right structure of parallel bridges carrying traffic in the direction of increasing mileposts.
L	The left structure of parallel bridges carrying traffic in the direction of decreasing mileposts.
N	No parallel structure exists; OR pedestrian, railroad or other non-vehicular structure over public roadway.

WSBIS Item 1312 - Flared Flag - NBI Pulldown

This item has been discontinued.

NBI Item 35

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

Code this item to indicate if the structure is flared (i.e., the width of the structure varies). Generally, such variance will result from ramps converging with or diverging from the through lanes on the structure, but there may be other causes. Minor flares at ends of structures should be ignored.

Table 1312 Flared Flag *This item has been discontinued.*

WSBIS Code	NBI Code	Description
N	0	No flare
Y	1	Yes, flared

WSBIS Item 1332 – Year Built - NBI **N(4,0)**

This item has been discontinued.

NBI Item 27

NTI Item A.1

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways**
- **Tunnels carrying public roadways within**

Code all 4 digits of the year in which construction of the structure was completed. If the year built is unknown, code best estimate or 1900. If the year built is earlier than 1900, code 1900.

WSBIS Item 1352 – Lanes On - NBI **N(2,0)**

This item has been discontinued.

NBI Item 28A

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways**

Code the number of lanes being carried on the structure. For pedestrian, RR and other non-vehicular structures, code 0.

Include all lanes carrying highway traffic (e.g., cars, trucks, buses) which are striped or otherwise operated as a full width traffic lane for the entire length of the structure. This shall include any full width merge lanes and ramp lanes, and shall be independent of directionality of usage (e.g., a 1-lane bridge carrying 2-directional traffic is still considered to carry only one lane on the structure).

It should be noted here that for the purpose of evaluating WSBIS Item 1658 Deck Geometry, any 1-lane bridge, not coded as a ramp (WSBIS Item 1434 = 7), which has a WSBIS Item 1356 Curb-to-Curb coded 16 feet or greater shall be evaluated as 2 lanes.

Double deck bridges may be coded as 1 or 2 structures, but all related data must be compatible with the method selected.

WSBIS Item 1378 – Vertical Underclearance Code. **Pulldown**
This item has been discontinued
NBI Item 54A

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways**

Code the reference feature from which the clearance measurement is taken:

Note: For waterways beneath structure, code the navigation control code 1386 as appropriate, but always code 1378 = N

Table 1378 - Vertical Underclearance Code *This item has been discontinued.*

WSBIS Code	Description
H	Functionally classified public highway beneath structure
R	Railroad beneath structure
N	No ground based transportation feature (terrain, waterway, etc)
P	Other ground based transportation feature (parking lot, pedestrian/bike path, private road, etc.
*	Delete

WSBIS Item 1379 – Min. Lat. Underclearance Right (ft) **N(3,1)**
This item has been discontinued.
NBI Item 55B

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways**

The purpose of this item is to identify the lateral restrictions caused by the structure on the railroad or roadway underneath.

Code the minimum lateral underclearance on the right to the nearest tenth of a foot. When both a railroad and highway are under the structure, code the lateral clearance for the reference feature coded in Item 1384.

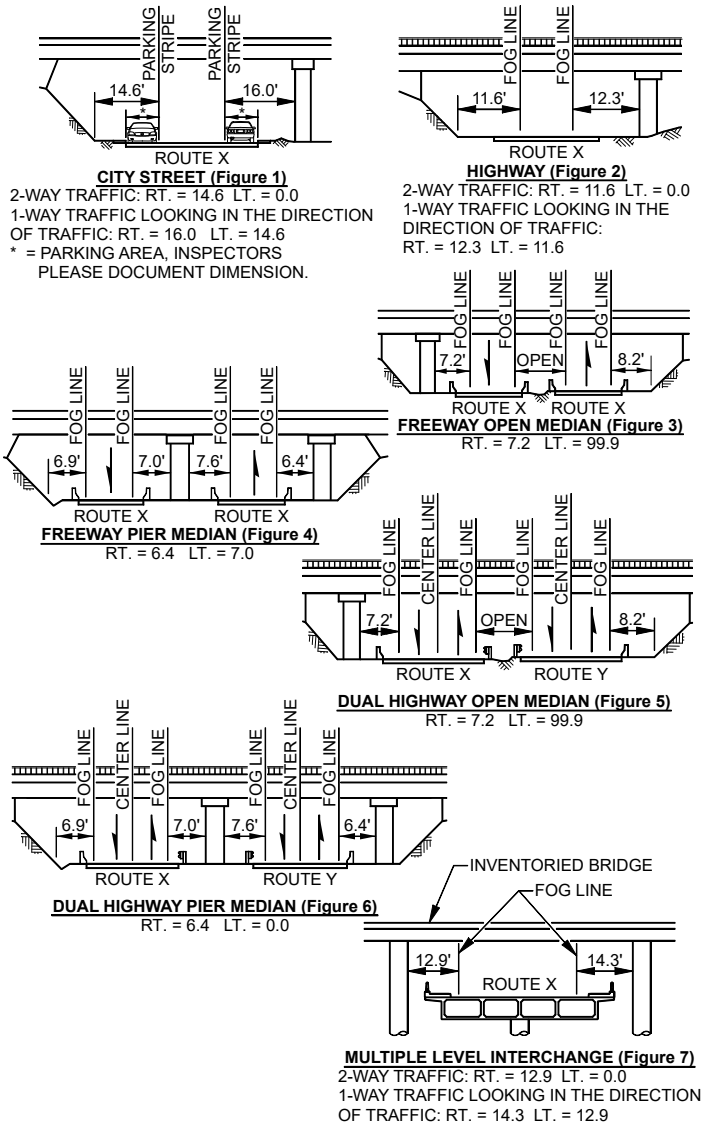
The lateral clearance should be measured from the right edge of the travelled way (outer edge of fog line) or from the centerline (between rails) of the right-hand track of a railroad to the nearest substructure unit (pier, abutment, etc.), a retaining wall or to a slope. If no fog line exists on the roadway, assume a 12 foot lane. The right/left orientation is based on traffic direction. The clearance measurements to be recorded will be the minimum after measuring the clearance in both directions of travel, perpendicular to the centerline of the undercrossing.

If two related features are below the bridge, measure both and record the lesser of the two. An explanation should be written on the inspection form as to what was recorded. When the clearance is 100 feet or greater, code 99.9.

If the feature beneath the structure is not a railroad or highway, code 0 to indicate not applicable.

The presence of ramps and acceleration or turning lanes is not considered in this item; therefore, the minimum lateral clearance on the right should be measured from the right edge of the through roadway.

WSBIS **Figure 1379a**



NBI Commentary:

The NBI coding guide text and drawings are not clear or consistent, particularly with respect to determining whether or not the lateral measurements extend to guardrails, concrete rails, non-mountable curbs, substructure units, or slopes. Attempts to define the steepness of slopes was also problematic. This coding guide clarifies that all measurements are to substructure units or "slopes" without defining the steepness. In addition, the NBI coding guide was not entirely clear about how to code dual highways in relation to substructure units or medians. This coding guide clarifies this through illustration.

WSBIS Item 1382 – Lateral Underclearance Code **Pulldown**

This item has been discontinued.

NBI Item 55A

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways**

This code identifies the type of reference feature from which the clearance measurement is taken.

Note: For waterways beneath structure, code the navigation control code 1386 as appropriate, but always code 1382 = N

Table 1382 - Lateral Underclearance Code *This item has been discontinued.*

WSBIS Code	Description
H	Functionally classified public highway beneath structure
R	Railroad beneath structure
N	No ground based transportation feature (terrain, waterway, etc)
P	Other ground based transportation feature (parking lot, pedestrian/bike path, private road, etc.
*	Delete

WSBIS Item 1383 – Min. Lat. Underclearance Left (ft) **N(3,1)**

This item has been discontinued.

NBI Item 56

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways**

The purpose of this code is to identify the lateral restrictions caused by the structure on the railroad or roadway underneath when restrictions exist to left lanes of divided highways, 1 way streets, and ramps. For all 2 direction, 2 lane routes which are undivided, code 0.

Code the minimum lateral underclearance on the left (median side for divided highways) to the nearest tenth of a foot. The lateral clearance should be measured from the left edge of travelled way (outer edge of fog line) to the nearest substructure unit, or to a slope. Refer to examples for WSBIS Item 1379 – Minimum Lateral Underclearance on Right.

For clearances greater than 100 feet, code 99.8.

In cases where there is an open median (no piers in median), code 99.9.

Code 0 to indicate not applicable.

NBI Commentary:

See WSBIS Item 1379 NBI Commentary.

WSBIS Item 1386 – Navigation Control Code - NBI **Pulldown**

This item has been discontinued.

NBI Item 38

Applicable Structure Types

- Bridges & culverts carrying public roadways
- Pedestrian, RR and other non-vehicular structures over public roadways

Indicate for this item whether or not navigation control (a bridge permit for navigation) is required. Use one of the following codes:

Table 1386 Navigation Control Code - NBI *This item has been discontinued.*

WSBIS Code	Description
N	Not applicable, no waterway
0	No navigation control on waterway (bridge permit not required or bridge has received advance approval by the USCG1
1	Navigation control on waterway (bridge permit required)

1. The USCG provides "advance approval" of certain navigable waters. This item should be coded 0 when Title 33, Code of Federal Regulations, Section 115.70, as amended states that the U.S. Coast Guard Commandant has given advance approval to the location and plans of bridges to be constructed across reaches of waterways navigable in law, but not actually navigated other than by logs, log rafts, rowboats, canoes and small motorboats.

For state owned structures, this item is coded by the BPO Information Group. Local agencies need to contact USCG to determine the correct coding for this field:

Commander, Thirteenth Coast Guard District

Federal Building
915 Second Avenue
Seattle, WA 98174-1067
206-220-7282

NBI Commentary:

This coding guide provides additional guidance on how to code bridges crossing advance approval waterways.

WSBIS Item 1387 – Navigation Vertical Clearance (ft) - NBI **N(3,0)**

This item has been discontinued.

NBI Item 39

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways**

If WSBIS Item 1386 – Navigation Control has been coded 1, record the minimum vertical clearance imposed at the site as measured above a datum that is specified on a navigation permit issued by a control agency. The measurement shall be coded to the foot. This measurement will show the clearance that is allowable for navigational purposes. In the case of a swing or bascule bridge, the vertical clearance shall be measured with the bridge in the closed position (i.e., open to vehicular traffic). The vertical clearance of a vertical lift bridge shall be measured with the bridge in the raised or open position. Also, WSBIS Item 1394 – Vertical Lift Minimum Navigation Clearance shall be coded to provide clearance in a closed position. If WSBIS Item 1386 – Navigation Control has been coded 0 or N, code 0 to indicate not applicable.

For state owned structures, this item is coded by the BPO Information Group.

WSBIS Item 1390 – Navigation Horizontal Clearance (ft) - NBI **N(4,0)**

This item has been discontinued.

NBI Item 40

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways**

If WSBIS Item 1386 – Navigation Control has been coded 1, record the horizontal clearance measurement imposed at the site that is shown on the navigation permit. This may be less than the structure geometry allows. If a navigation permit is required but not available, use the minimum horizontal clearance between fenders, if any, or the clear distance between piers or bents. Code the clearance to the foot. If WSBIS Item 1386 – Navigation Control has been coded 0 or N, code 0 to indicate not applicable.

For state owned structures, this item is coded by the BPO Information Group.

WSBIS Item 1394 – Vertical Lift Min. Navigation Clrnc (ft) - NBI **N(3,0)**

This item has been discontinued.

NBI Item 116

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

Code the minimum vertical clearance to the nearest lesser foot imposed at the site as measured above a datum that is specified on a navigation permit issued by a control agency.

Leave this item blank if the structure is not a vertical lift bridge (Item 1533 = 15).

For state owned structures, this item is coded by the BPO Information Group.

NBI Commentary:

Per FHWA guidance , ferry terminal structures coded as lift spans should have 0 coded in this field. See FHWA general index file.

WSBIS Item 1436 – Route Direction - TUNNEL **Pulldown**

This item has been discontinued.

NTI Item I.8

Applicable Structure Types

- **Tunnels carrying public roadways within**

Record the route direction for the route in the tunnel using one of the following codes:

Table 1436 Route Direction Code *This item has been discontinued.*

WSBIS Code	Description
4	West
3	South
2	East
1	North
0	Two route directions

Use code 0 when the tunnel carries both directions of a divided highway, and when the roadway is undivided. Route direction is considered the designated direction of the route, not geographic orientation.

WSBIS Item 1544 – Service On — Pulldown

This item has been discontinued.

NBI Item 42A

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways**

Table 1544 - Service On Code *This item has been discontinued.*

WSBIS Code	Description
1	Highway
2	Railroad
3	Pedestrian-bicycle
4	Highway-railroad
5	Highway-pedestrian
6	Overpass structure at an interchange or second level of a multilevel interchange
7	Third level (Interchange)
8	Fourth level (Interchange)
9	Building or plaza
0	Other

WSBIS Item 1545 – Service Under — Pulldown

This item has been discontinued.

NBI Item 42B

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways**

Table 1545 - Service Under Code *This item has been discontinued.*

WSBIS Code	Description
1	Highway, with or without pedestrian
2	Railroad
3	Pedestrian-bicycle
4	Highway-railroad
5	Waterway
6	Highway-waterway
7	Railroad-waterway
8	Highway-waterway-railroad
9	Relief for waterway
0	Other (non-waterway)

WSBIS Item 1657 - Structural Evaluation **Calculated**

This item has been discontinued.

NBI Item 67

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

This item is calculated automatically and cannot be edited.

Structural Evaluation rates the adequacy of the structure's condition, taking into account any major structural deficiencies. This rating is based on the overall condition of the superstructure, substructure, the inventory rating, and the ADT.

Table 1657 explains how the inventory rating and Proposed Improvements may further lower this code. The code for this item is no higher than the lowest of the condition codes for Superstructure Overall, Substructure Condition, or Culvert Condition.

Table 1657 Structural Evaluation *This item has been discontinued.*

Inventory Rating HS Truck (Tons)			Structural Adequacy Appraisal Rating Code
ADT 0-500	ADT 501-5000	ADT >5000	
>36	>36	>36	9
36	36	36	8
31	31	31	7
23	25	27	6
18	20	22	5
12	14	18	4
Inventory rating less than value in rating code of 4 and requiring corrective action.			3
Inventory rating is less than above and bridge requires replacement (WSBIS Item 1844, Proposed Improvement Work Type is coded 31 or 32).			2
Bridge is closed and requires replacement.			0

NBI Commentary:

The use of the Proposed Improvement Work Type code in the calculation is not documented in the FHWA Coding Guide.

WSBIS Item 1658 - Deck Geometry **Calculated**

This item has been discontinued.

NBI Item 68

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

This item is calculated automatically and cannot be edited.

The level of service provided by the bridge is evaluated with respect to the highway system of which it is a part. This appraisal is based on the number of traffic lanes, the curb-to-curb width, the minimum vertical clearance over the bridge deck, the ADT, and the federal functional classification.

The following tables explain how the values are determined with respect to the highway system of which the bridge is a part. The lowest code determined from the tables is used.

Use this guide to determine which table to use.

For all bridges with a vertical clearance restriction over the deck, also use Table 1658f. Use whichever rating code is lower.

Table 1658a Deck Geometry *This item has been discontinued.*

Direction of Traffic	Number of Lanes	Curb to Curb Width	Table to Use
2 way non-interstate	3+		Table 1658d
2 way non-interstate	2		Table 1658b
2 way non-interstate	1	< 16’	Table 1658c
2 way non-interstate	1	≥16’	Table 1658b
1 way non-interstate	1		Table 1658b
1 way non-interstate	2 or more		Table 1658d
Ramp	any		Table 1658e
1 way interstate	any		Table 1658d
2 way interstate	any		Table 1658d

For all bridges with a vertical clearance restriction over the deck, also use Table WSBIS-1658f. Use whichever rating code is lower.

Table 1658b Deck Geometry *This item has been discontinued.*

Curb-to-Curb Bridge Roadway Width						Deck Geometry Appraisal Rating Code
ADT 0-100	ADT 101-400	ADT 401-1000	ADT 1-2k	ADT 2-5k	ADT >5k	
not applicable						9
≥32	≥36	≥40	≥44	≥44	≥44	8
28	32	36	40	44	44	7
24	28	30	34	40	44	6
20	24	26	28	34	38	5
18	20	22	24	28	32(28)[2]	4
16	18	20	22	26	30(26)[2]	3
Bridge is open and has a width less than required for a rating code of 3 and bridge is open.						2
Bridge is closed.						0

Notes:

1. Use the lower rating code for roadway widths between those shown.
2. For structures longer than 200 feet, use the values shown in parentheses.

Table 1658c Deck Geometry *This item has been discontinued.*

Curb-to-Curb Bridge Roadway Width		Deck Geometry Appraisal Rating Code
ADT 0-100	ADT >100	
not applicable		9
<16	-	8
15	-	7
14	-	6
13	-	5
12	-	4
11	<16	3
Bridge is open and has a width less than required for a rating code of 3.		2
Bridge is closed.		0

Note:
Use the lower rating code for roadway widths between those shown.

Table 1658d Deck Geometry *This item has been discontinued.*

Curb-to-Curb Bridge Roadway Width - 2 or More Lanes in Each Direction				Deck Geometry Appraisal Rating Code
Number of Lanes (N) (Interstate)		Number of Lanes (N) (Other Roadways)		
2 Lanes	> 2 Lanes	2 Lanes	> 2 Lanes	
not applicable				9
≥ 42	≥ 12N + 24	≥ 42	≥ 12N + 18	8
40	12N + 20	38	12N + 15	7
38	12N + 16	36	12N + 12	6
36	12N + 14	33	11N + 10	5
34 (29)[2]	11N + 12	30	11N + 6	4
	(11N + 7)[2]			
33 (28)[2]	11N + 11	27	11N + 5	3
	(11N + 6)[2]			
Bridge is open and has a width less than required for rating code of 3 and bridge open to traffic.				2
Bridge is closed.				0

Notes:
1. Use the lower rating code for roadway widths between those shown.
2. For structures longer than 200 feet, use the values shown in parentheses.

Table 1658e Deck Geometry *This item has been discontinued.*

Curb-to-Curb Ramp Bridge Roadway Width		Deck Geometry Appraisal Rating Code
1 Lane	> 1 Lane	
Not Applicable		9
≥ 26	≥ 12N + 12	8
24	12N + 10	7
22	12N + 8	6
20	12N + 6	5
18	12N + 4	4
16	12N + 2	3
Bridge is open and has deck width less than required for a rating code of 3.		2
Bridge is closed.		0

Note:
Use the lower rating code for roadway widths between those shown.

Table 1658f Deck Geometry *This item has been discontinued.*

Functional Class				Deck Geometry Appraisal Rating Code
Interstate and Other Freeway		Other Principal and Minor Arterials	Major and Minor Collectors and Locals	
Designated Routes[2]	Undesignated Routes[2]			
Minimum Vertical Clearance				
not applicable				9
≥ 17' - 0"	≥ 16' - 0"	≥ 16' - 6"	≥ 16' - 6"	8
16' - 9"	15' - 6"	15' - 6"	15' - 6"	7
16' - 6"	14' - 6"	14' - 6"	14' - 6"	6
15' - 8"	14' - 3"	14' - 3"	14' - 3"	5
15' - 0"	14' - 0"	14' - 0"	14' - 0"	4
Vertical clearance is less than value for rating of 4; corrective action is required.				3
Vertical clearance is less than value for rating of 4 and bridge requires replacement (WSBIS Item 1844 Proposed Improvement Work Type is coded 31 or 32).				2
Bridge is closed.				0

Notes:
1. Use the lower rating code for vertical clearances between those shown.
2. Use the first column (Designated Routes) for all routes except designated routes in urban areas where there is an alternative interstate or freeway facility with a minimum clearance of at least 16' - 0". Use the second column (Undesignated Routes) for all undesignated interstate or freeway facilities.

WSBIS Item 1659 - Underclearances — Calculated

This item has been discontinued.

NBI Item 69

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

This item is calculated automatically and cannot be edited.

This appraisal is based on the vertical and lateral underclearances beneath the bridge as related to the federal functional classification of the roadway carried beneath the bridge. If the bridge is not over a highway or a railroad, the field will be set to 9.

Minimum vertical underclearance, minimum lateral underclearance on right, and minimum lateral underclearance on left are used to evaluate this item.

See the following tables for an explanation of how the values are calculated.

The functional classification used in the tables is for the route under the bridge. If no Under record exits, it is assumed that the route under the bridge is a major or minor collector or a local road for the purpose of using the tables.

Table 1659a Underclearances *This item has been discontinued.*

Functional Class					Underclearance Adequacy Appraisal Rating Code
Interstate and Other Freeway		Other Principal and Minor Arterials	Major and Minor Collectors and Locals	Railroads	
Designated Routes[2]	Undesignated Routes[2]				
Minimum Vertical Underclearance					
not applicable					9
≥ 17' - 0"	≥ 16' - 0"	≥ 16' - 6"	≥ 16' - 6"	≥ 23' - 0"	8
16' - 9"	15' - 6"	15' - 6"	15' - 6"	22' - 6"	7
16' - 6"	14' - 6"	14' - 6"	14' - 6"	22' - 0"	6
15' - 9"	14' - 3"	14' - 3"	14' - 3"	21' - 0"	5
15' - 0"	14' - 0"	14' - 0"	14' - 0"	20' - 0"	4
Vertical Clearance is less than value for rating of 4; corrective action is required.					3
Vertical clearance is less than value for rating of 4 and bridge requires replacement (WSBIS Item 1844 Proposed Improvement Work Type is coded 31 or 32).					2
Bridge closed.					0

Notes:

1. Use the lower rating code for vertical clearances between those shown.
2. Use the first column (Designated Routes) for all routes except designated routes in urban areas where there is an alternative interstate or freeway facility with a minimum clearance of at least 16' - 0". Use the second column (Undesignated Routes) for all undesignated interstate or freeway facilities.

Table 1659b Underclearances *This item has been discontinued.*

Functional Class							Underclearance Adequacy Appraisal Rating Code
1-Way Traffic				2-Way Traffic			
Principal Arterials (Interstate, etc.)				Other Principal & Minor Arterials	Major & Minor Collectors and Locals	Railroads	
Main Line		Ramp					
Lt.	Rt.	Lt.	Rt.				
Minimum Lateral Underclearance							
not applicable							9
≥ 30	≥ 30	≥ 4	≥ 10	≥ 30	≥ 12	≥ 20	8
18	21	3	9	21	11	17	7
6	12	2	8	12	10	14	6
5	11	2	6	10	8	11	5
4	10	2	4	8	6	8	4
Underclearance is less than value for rating of 4; corrective action is required.							3
Underclearance is less than value for rating of 4 and bridge requires replacement (WSBIS Item 1844 Proposed Improvement Work Type is coded 31 or 32).							2
Bridge is closed.							0

Notes:

1. Use the lower rating code for lateral clearances between those shown.
2. Use the value from the Right Ramp column to determine the rating code when acceleration or deceleration lanes or ramps are provided under 2-way traffic.

WSBIS Items 1684, 1685, 1686, 1687

This item has been discontinued.

NBI Item 36A - 36D

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

Bridge inspection shall include the recording of information on traffic safety features so that the evaluation of their adequacy can be made.

Use the following codes for each of the four traffic safety segments:

Table 6 Traffic Safety Feature Codes *This item has been discontinued.*

WSBIS Code	Description
0	Inspected feature does not meet currently acceptable standards or a safety feature is required and none is provided.
1	Inspected feature meets currently acceptable standards.
N	Not applicable (structure does not carry traffic) or a safety feature is not required (see item description for requirements).

NBI Commentary:

WSDOT has applied state safety standards to determine how these fields are coded.

WSBIS Item 1684 – Bridge Rails Pulldown

This item has been discontinued.

NBI Item 36A

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

Bridge railings should be coded to reflect the current WSDOT standards. Refer to *Design Manual* Section 1610.07 Bridge Traffic Barriers.

Acceptable crash tested bridge rails fall into two general categories.

Thrie-beam Retrofit

- Thrie-beam mounted to baluster rail
- Steel truss and Thrie-beam
- Edge mounted Thrie-beam
- Thrie-beam mounted to steel posts on concrete deck
- Thrie-beam mounted to open girder

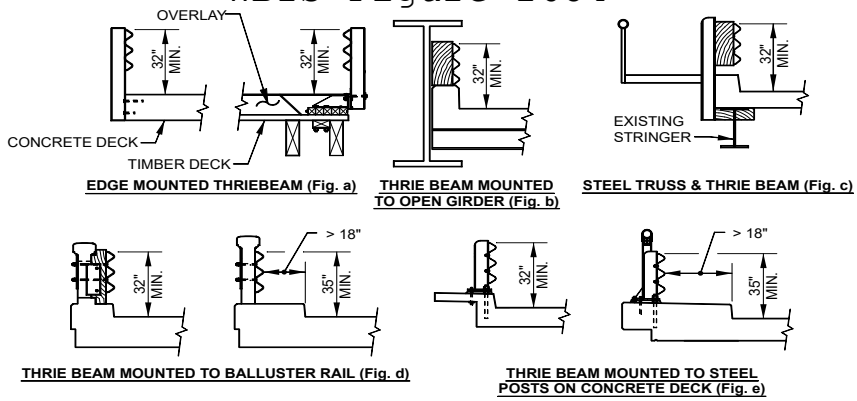
Concrete Rail

- New Jersey style rail
- F-shaped concrete rail
- Single slope concrete rail
- 32” vertical concrete parapet
- Type 7 concrete rail

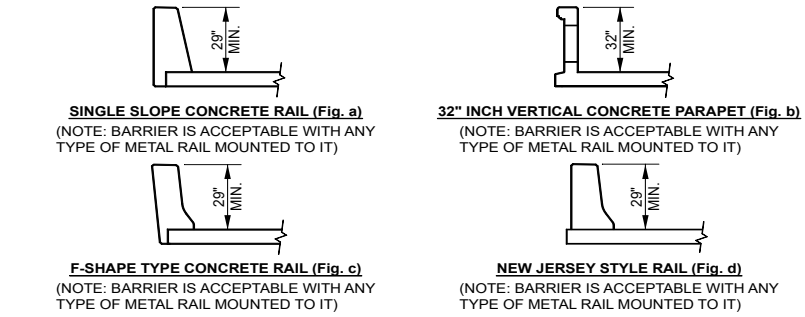
Bridge rails are coded as N when there is sufficient roadway fill that there is no attachment to the structure.

Table 1684 Bridge Rails *This item has been discontinued.*

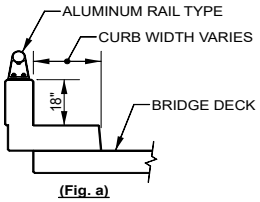
WBIS Figure 1684

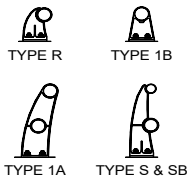


THRIE BEAM RETROFIT



CONCRETE RAIL





ALUMINUM RAIL TYPE	CURB WIDTH	
	9 INCHES OR LESS	GREATER THAN 9 INCHES
TYPE R, S, OR SB	CODE 1	CODE 1
TYPE 1B OR 1A	CODE 1	CODE 0

TYPE 7 BRIDGE RAIL

WSBIS Item 1685 – Transitions **Pulldown**

This item has been discontinued.

Item 36B

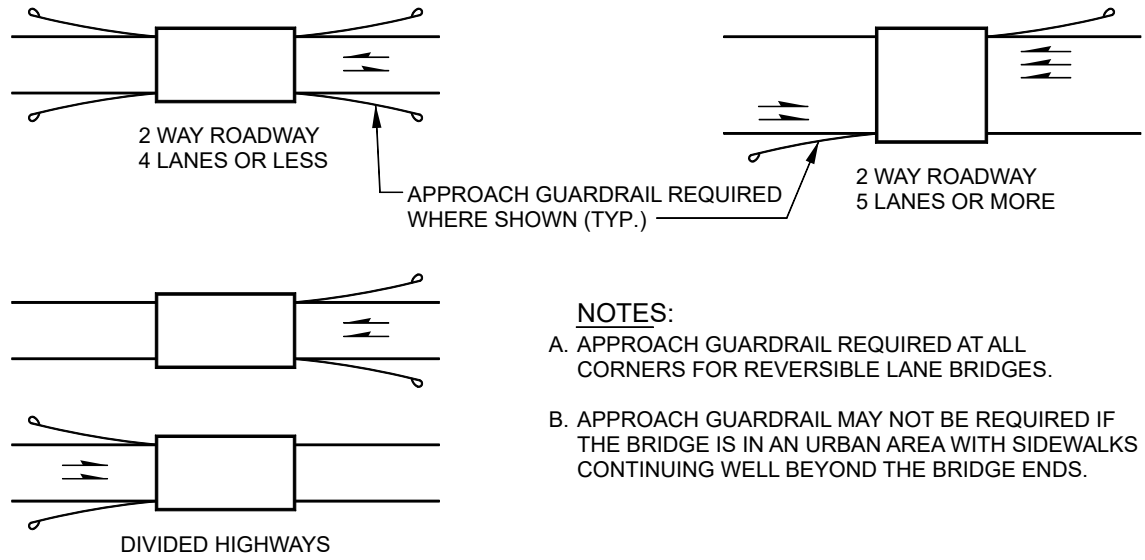
Applicable Structure Types

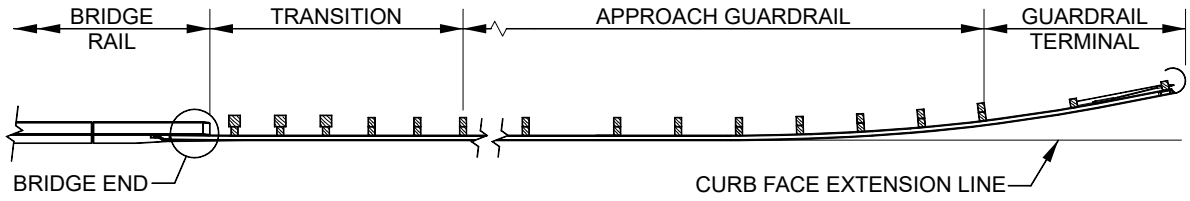
- **Bridges & culverts carrying public roadways**

Transition details are shown in WSDOT Standard Plans Section C. Features that the inspector should note are:

- If guardrails are not required, the absence of transitions is automatically acceptable and coded as 1.
- Transitions must be nested (two layers). In most cases this will be Thriebeam. W-beam is allowed only when there is insufficient bridge rail height to accommodate the Thrie-beam transition, for example Type 7 bridge rail.
- Post spacing should decrease in the transition resulting in gradual stiffening as a vehicle moves along the transition from a flexible guardrail to the more rigid concrete bridge rail.
- Type III transitions (hollow steel post) have generally been retrofitted, but are only acceptable if they have been retrofitted with a block out less than or equal to 1’ – 6” from rail to anchor. On oneway highways, the non-retrofitted posts are acceptable on the trailing edge. Unless further investigation shows that it meets current standards, this is the criteria for acceptance that will be used.
- Transitions are coded as N when there is sufficient roadway fill that there is no attachment to the structure.

Table 1685 Transitions *This item has been discontinued.*





WSBIS Item 1686 - Guardrails Pulldown

This item has been discontinued.

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

W-beam and Thrie-beam are acceptable rail types. Details of these rails are shown in Standard Plans Section C. Features that the inspector should pay close attention to while inspecting the approach rail are:

- Rails are not necessarily required at all four corners of the bridge. Code Guardrails as 1 when not required.
- Posts should be 6″ × 8″ timber (nominal), or W6x9's, spaced at 6′ 3″ o.c. Nested Thrie-beam is also acceptable but requires lower post spacing.
- Guardrail height (from ground to top of W-beam) should be between 26″ and 28″.
- Guardrail height (from ground to top of Thrie-beam) should be 32″.
- Concrete rail is acceptable.

WSBIS Item 1687 - Terminals **Pulldown**

This item has been discontinued.

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

Terminals are to be coded as 1 or 0 if they are within a reasonable distance of the bridge. On a fill embankment, this would be near the bottom of the fill slope (*Design Manual* M 22-01). Otherwise they will be coded as an N.

If guardrails are not required, the absence of terminals is automatically acceptable and coded as 1.

Acceptable guardrail terminals are shown in the Washington State Standard Plans Section C or *Design Manual* M 22-01.

WSBIS Item 2537 – Alpha Span Type (INV MO only) **AN(20)**

This item has been discontinued.

Applicable Structure Types

- **Bridges & culverts carrying public roadways**
- **Pedestrian, RR and other non-vehicular structures over public roadways**
- **Tunnels carrying public roadways within**

Use Table 2537 to identify each group of span types that make up the entire bridge.

- List the main span Alpha type first, followed by the approach spans.
- Approach span Alpha types should be listed longest to shortest if there are different/ variable approach span types.
- The Alpha types must be compatible with WSBIS Items 1532, 1533, 1535, and 1536 respectively.
- Separate each span group by a space.

Example:

Steel through truss main span has a 140 foot timber approach (treated with creosote) at one end of the truss, and a 30 foot concrete T-beam span at the other.

WSBIS Item 1532 = 3 – steel

WSBIS Item 1533 = 10 – through truss

WSBIS Item 1535 = 7 – wood or timber

WSBIS Item 1536 = 02 – girder

The Alpha Span Type would be enteres as follows: STrus TTC CTB

Table 2537 Alpha Span Type Codes *This item has been discontinued.*

Alpha Span Type	Description
3SCCulv	3 Sided Concrete Culvert
3STCulv	3 Sided Timber Culvert
BAS	Bascule Lift Span
CA	Concrete Arch
CBox	Concrete Box Girder
CCulv	Concrete Culvert
CEFA	Concrete Earth Filled Arch
CESB	Concrete Encased Steel Beam
CFP	Concrete Floating Pontoon
CG	Concrete Girder
CLTun	Concrete Lined Tunnel
CS	Concrete Slab
CSS	Cable Stayed Span
CSTP	Concrete Slab on Timber Piling
CTB	Concrete T-Beam
CTrus	Concrete Truss
CVS	Concrete Voided Slab
LIDTun	Cut and Cover (LID) Tunnel
MCulv	Masonry Culvert
PCBTG	Prestressed Concrete Bulb-T Girder
PCG	Prestressed Concrete Girder
PCMWG	Prestressed Concrete Multi-Web Girder
PCS	Prestressed Concrete Slab
PCTG	Prestressed Concrete Trapizoidal Girder
Plaza	Park Plaza Structures
PRCB	Precast Reinforced Concrete Beam
PTCBox	Post-Tensioned Concrete Box Girder
PTCSeg	Post-Tensioned Segmental Box Girder
PTCTB	Post-Tensioned Concrete T-Beam
SA	Steel Arch
SBox	Steel Box Girder
SCulv	Steel Culvert
SFP	Steel Floating Pontoon
SG	Steel Girder (weld or rivet)
SLS	Steel Lift Span
SRB	Steel Rolled Beam
SSCG	Steel Stayed Concrete Girder
SSusS	Steel Suspension Span
SSwS	Steel Swing Span
STA	Steel Tied Arch
STrus	Steel Truss
TCulv	Timber Culvert
TLTun	Timber Lined Tunnel
TS	Timber Slab
TTC	Treated Timber (Creosote) Bridge
TTLB	Treated Timber Laminated Beam
TTS	Treated Timber (Salts) Bridge
TTTrus	Treated Timber Truss
UT	Untreated Timber Bridge
UTLB	Untreated Timber Laminated Beam
UTTrus	Untreated Timber Truss
UTun	Unlined Tunnel
WSBox	Weathering Steel Box Girder
WSG	Weathering Steel Girder

WSBIS Item 2710 - Sufficiency Rating **Calculated**

This item has been discontinued.

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

This item is calculated automatically and cannot be edited.

The Sufficiency Rating (SR) formula provides a method of evaluating highway bridge data by calculating four separate factors to obtain a numeric value which is indicative of bridge sufficiency to remain in service. The result of this method is a percentage in which 100 percent would represent an entirely sufficient bridge and zero percent would represent an entirely insufficient or deficient bridge. The formula considers the structural adequacy, functional obsolescence, level of service and essentiality for public use.

See Appendix 2-G for the Sufficiency Rating formula.

WSBIS Item 2711 - Struct. Deficient/Func. Obs. (SD/FO) **Calculated**
This item has been discontinued.

Applicable Structure Types

- **Bridges & culverts carrying public roadways**

This item is calculated automatically and cannot be edited.

Bridges are considered Structurally Deficient (SD) if significant load carrying elements are found to be in poor condition due to deterioration and/or damage, or the adequacy of the waterway opening provided by the bridge is determined to be extremely insufficient to the point of causing overtopping with intolerable traffic interruptions.

SD is numerically defined as follows:

- A bridge component (deck, superstructure, substructure or culvert) having a condition rating of 4 or less (poor condition).
  or
- Structural Evaluation or Waterway Adequacy rated 2 or less (a bridge with a very low load rating capacity, or a bridge that is subject to overtopping with significant or severe traffic delays).

For a structure to be considered SD, one of the following items must be true:

Table 2711a Struct. Deficient/Func. Obs. (SD/FO) *This item has been discontinued.*

WSBIS Item	Condition/Appraisal Rating
1657 – Structural Evaluation	≤ 2
1662 – Waterway Adequacy	≤ 2
1663 – Deck	≤ 4
1671 – Superstructure	≤ 4
1676 – Substructure	≤ 4
1678 – Culvert	≤ 4

Bridges are considered Functionally Obsolete (FO) when the deck geometry, load carrying capacity (comparison of the original design load to the current State legal load), clearance or approach roadway alignment no longer meet the usual criteria for the system of which it is an integral part. In general, FO means that the bridge was built to standards that are not used today. Examples of characteristics leading to an FO classification:

- Low load carrying capacity
- Low waterway adequacy
- Deck geometry (insufficient deck roadway width)
- Insufficient horizontal and vertical clearances
- Poor approach roadway alignment

For a structure to be considered FO, one of the following items must be true:

Table 2711b Struct. Deficient/Func. Obs. (SD/FO) *This item has been discontinued.*

WSBIS Item	Appraisal Rating
1657 – Structural Evaluation	3
1658 – Deck Geometry	≤ 3
1659 – Underclearances	≤ 3
1661 – Approach Roadway Alignment	≤ 3
1662 – Waterway Adequacy	3

Appendix 2-E Border Bridge Information

Oregon

Send all reports and any requests for their reports to

Erick Cain, OPMA, Erick.j.cain@odot.state.or.us
Bridge Inventory Coordinator
4040 Fairview Industrial Dr. SE MS #4
Salem, OR 97302
Phone: 503 986 3384 Fax: 503 986 3407

Region 1 - (Longview to Hood River) –
Joel Boothe, Joel.E.BOOTHE@odot.state.or.us
Office 503-652-5691, Cell 503-969-1091, Fax 503-653-3085

Inspected by Oregon:
5/1E – 000000PR – Columbia R Interstate (Oregon #01377A)
5/1W – 0005216A – Columbia R Interstate (Oregon #07333)
205/1 – 0010833A – Glen Jackson Bridge (Oregon #09555)
0259228300 – 08712700 – Br of the Gods (Oregon # 02592)

Inspected by Washington:
433/1 – 0003760A – Lewis & Clark (Oregon #02046)

Region 2 -
Bill Burns, 503-986-2659, Robert.W.BURNS@odot.state.or.us

Inspected by Oregon:
101/1 – 0007666A - Megler (Oregon #07949D) – Spans 1-4
101/1(A) – 0007666B - Megler(A) (Oregon #07949A) – Spans 5-19
101/1(B) – 0007666C - Megler(B) (Oregon #07949B) – Spans 20-159
101/1(C) – 0007666D - Megler(C) (Oregon #07949C) – Span 160

Region 4 - (Hood River to Biggs Jct.) –
Mike Pulzone, James.M.PULZONE@odot.state.or.us
Office 541-388-6188, Cell 541-419-1688, Fax 541-388-6108

Inspected by Oregon:
197/1 – 000000PC – The Dalles (Oregon #06635Q)

Inspected by Washington:
97/1 – 0006539A – Biggs Rapids-Sam Hill (Oregon #00849A)

Inspected by Consultants
06645 – 000000PH – Hood River (Oregon #06645)

Region 5 -
Kelley McAlister, Kelley.T.MCALISTER@odot.state.or.us
541-963-1371

Inspected by Washington:
82/280N – 0012819A – Umatilla (Oregon #16424)
82/280S – 000000PD – Umatilla (Oregon #02230A)

Oregon Underwater Reports –
Rick Shorb, Rick.L.SHORB@odot.state.or.us

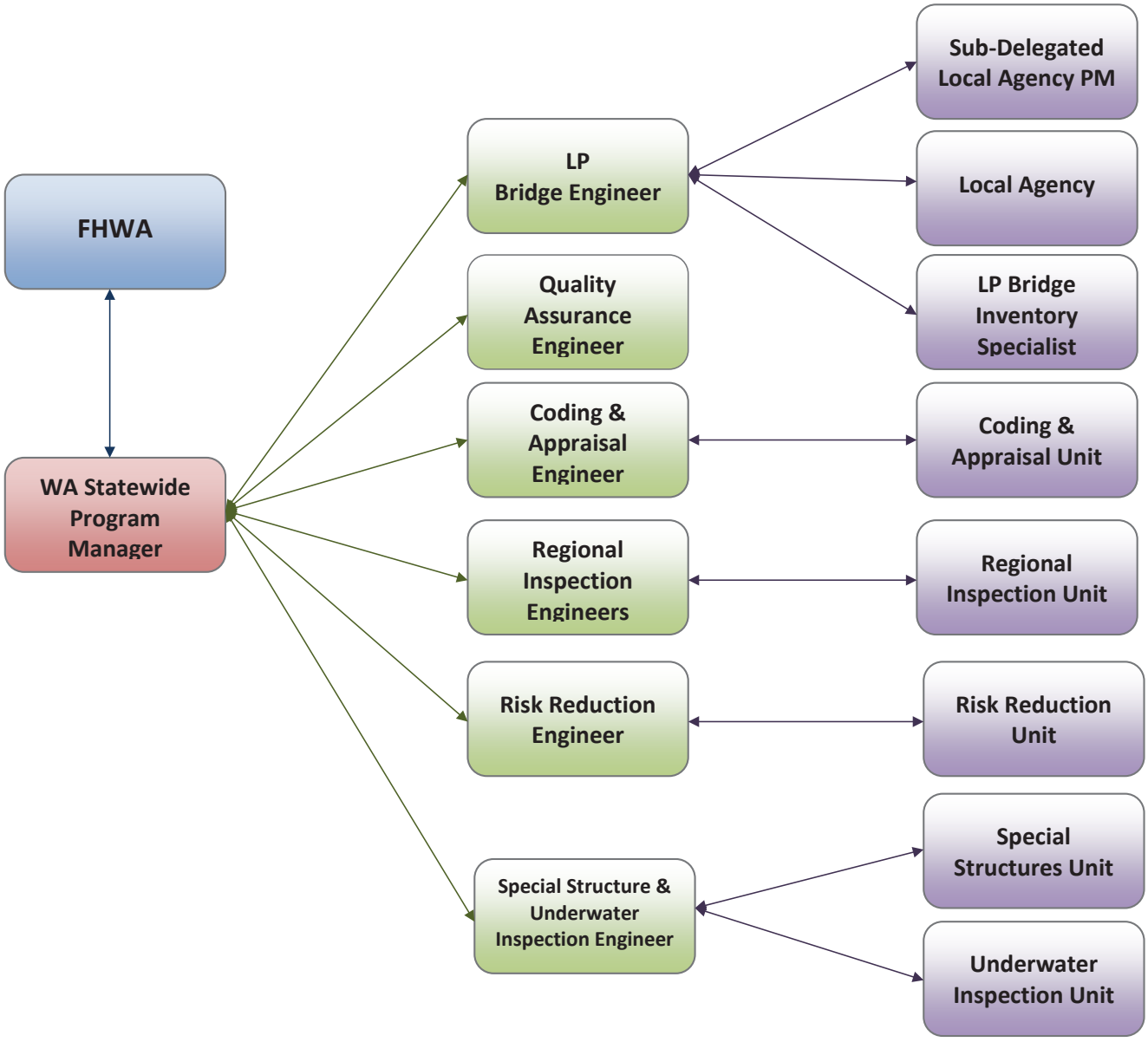
Idaho

Patty Fish, patty.fish@itd.idaho.gov, 208-334-8847
cc to Kathleen Slinger, Kathleen.Slinger@itd,idaho.gov

Inspected by Washington
12/915 – 0002348A – Snake R Clarkston (ID SID 000000000010360)

Inspected by Idaho
41/10 – 00000LLV – BNRR OC (ID SID 000000000014255)
90/594N – 00200520 – Spokane River (ID SID 000000000016735)
90/594S – 00200519 – Spokane River (ID SID 000000000016740)
5700-1 – 08374400 – Southway Bridge (ID SID 000000000021495) – Local Agency owned (Asotin County) – Idaho works directly with Asotin County

Appendix 2-F WSDOT/FHWA Communication Protocol Flowchart



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