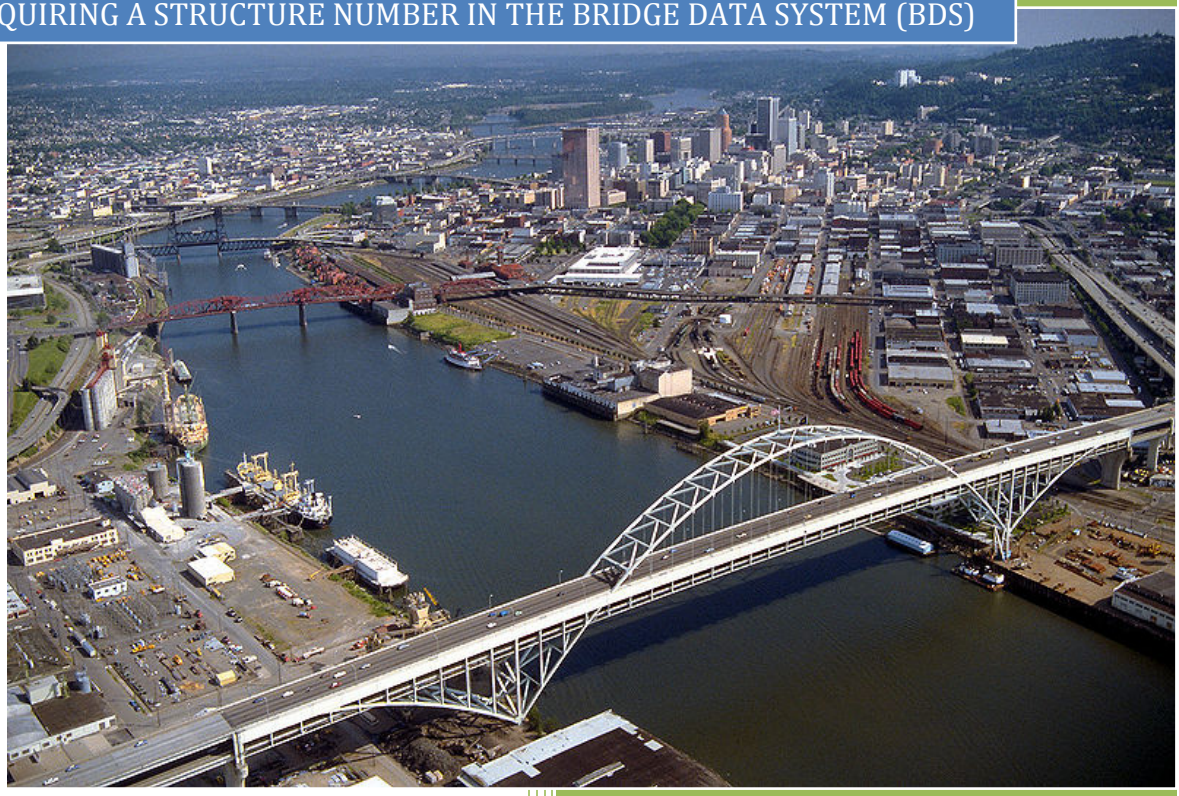
2018

STRUCTURE NAMING RULES

FOR ALL STRUCTURES REQUIRING A STRUCTURE NUMBER IN THE BRIDGE DATA SYSTEM (BDS)



Oregon Department of Transportation

5/24/2018

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For local agency owned structures, use the local agencies naming convention, then add the name per these rules as an "Alias Name" in BDS.

REVISIONS 2

BASIC RULES 3

BASIC RULES (Cont.) 4

DEFINITIONS (FOR THE PURPOSE OF STRUCTURE NAMING ONLY) 4

COMMON ABBREVIATIONS (FOR THE PURPOSE OF STRUCTURE NAMING ONLY) 4

QUESTIONS/COMMENTS 4

EXAMPLES 5

STRUCTURE OVER WATER FEATURE -- Bay, Stream, Etc. 5

STRUCTURE OVER WATER FEATURE (Cont.) -- Bay, Stream, Etc. 6

STRUCTURE OVER or ALONG OTHER FEATURES -- Railroads, Highways, Roads/Streets, Flumes, Etc. 6

STRUCTURE OVER or ALONG OTHER FEATURES (Cont.) -- Railroads, Highways, Roads/Streets, Flumes, Etc. 7

Traffic Structure Over or Along Other Features 7

STRUCTURE CARRIES or ALONG a HIGHWAY CONNECTION (RAMP) - Grade Separation Only 8

Traffic Structure Over or Along a Highway Connection 8

STRUCTURE OVER MULTIPLE FEATURES 8

TUNNELS AND VIADUCTS 9

RETAINING AND SOUND WALLS 9

STRUCTURE NAMING FLOW CHART 9

For structure numbering rules, see the *ODOT Structure Numbering Rules for Major/Critical Structures*.

IMPORTANT! Before changing the name of a structure, copy the previous name to the *Alias Name* section in the *Alias/Near* tab in BDS.

The structure name should be consistent with the information in BDS, the Bridge Log and BrM. If the name is changed as a result of the updated naming rules, please notify the Standards Unit, Lead Bridge CAD Standards Specialist.

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REVISIONS

02 March 2017	Basic Rule 11 and Structure Over or Along Other Features – Clarified use of connection road identifier
15 March 2017	Added important warning regarding renaming structures
21 March 2017	Tunnels and Viaducts – Added example
31 March 2017	Basic Rule 6 – Added example
5 April 2017	Basic Rule 13 – Added interchange name; Structure Over or Along Other Features – Added example
6 April 2017	Added cover sheet; removed space and/or underscore before names in parenthesis in examples
14 April 2017	Basic Rule 12 – Added clarification for culverts not intended for water; added example for trails
17 April 2017	Basic Rule 15 – Added Light Rail Transit and corresponding example – Added abbreviations for Light Rail Transit (LRT) and Abandoned (Abnd)
25 April 2017	Basic Rule 4 – Add when to use milepoint or latitude/longitude
25 May 2017	Added abbreviation for “Canyon”; added example for connections
9 February 2018	Added “Traffic Structures Over or Along Other Features” subsection to “STRUCTURE OVER or ALONG OTHER FEATURES -- Railroads, Highways, Roads/Streets, Flumes, Etc.” and “Traffic Structures along a Ramp” subsection to “STRUCTURE CARRIES or ALONG a HIGHWAY CONNECTION (RAMP) - Grade Separation Only”
19 March 2018	Changed “Structure Numbering Guideline” to “Structure Numbering Rules”; added note regarding locally owned structures names; updated external hyperlinks.
04 April 2018	Formatting problem fixed.
24 May 2018	Added example for a highway connection similar to a frontage road.
11 October 2018	In structure type codes, changed culvert size language to “20 ft. and greater”, “greater than or equal to 6 ft.”, and “less than 20 ft.”
26 October 2018	In structure type codes, changed to table format and added link to Manuals list. Added STRUCTURE NAMING FLOW CHART.
17 December 2018	Added examples for traffic structures along a highway connection.

STRUCTURE NAMING RULES

FOR ALL STRUCTURES REQUIRING A STRUCTURE NUMBER IN THE BRIDGE DATA SYSTEM (BDS)

BASIC RULES

1. Name must be 50 characters or less (required by BrM(PONTIS)).
2. Use the ODOT highway number, not route number. The ODOT number is unique. Some highways can have multiple route numbers.
3. Do not use "Bridge", "O'xing", "U'xing" or forms thereof, except where the feature name includes the word, such as “Bridge Cr” or “Bridge St”.
4. The location of bridges, culverts, traffic and ITS structures are identified by highway and milepoint when on or along a state highway. Retaining walls not attached to a bridge and structures not on or along a state highway use latitude/longitude. To determine the location milepoint (2 decimal places) or latitude/longitude (5 decimal places; Negative longitude is assumed):
   Location points:
   a. Bridge - center along roadway centerline.
   b. Culvert - On edge of pavement at a line perpendicular to the edge of pavement, aligned with the inlet end.
   c. Traffic/ITS - one end if crosses roadway, otherwise center.
   d. Retaining wall - left end when facing the open side.
5. Never use project stationing - it is not used after project completion.
6. Use common abbreviations, except for feature names such as “D River”, or for clarity. See abbreviation list.
7. Do not use punctuation, except underscores and parenthesis, unless necessary for clarity. The underscore is used for separating types of data such as "Bear Cr_Hwy 30", not individual words such as "Bear_Cr_Hwy_30".
8. Use cardinal directions for city or county roadways, as appropriate (e.g. 12th St SE).
9. When the structure is a retaining wall or a structure that does not cross the roadway, use cardinal direction from roadway - NS (North Side), SS (South Side), ES (East Side), WS (West Side) (e.g. Hwy 1W_WS).
10. When the structure is on a divided highway or one-way street, include the direction of traffic (NB, SB, EB, WB) (e.g. Hwy 1NB or 3rd St_SB).
11. For highway connections (ramps, etc.) add the road identifier from the highway inventory which consists of the 3-digit highway number and a 2-letter code (e.g. (Conn 001GV)). The road identifier is unique to each connection. (Users can get the road identifier from the Straightline Charts. They are also available to internal users in TransGIS, by turning on the Highway Connections layer in the Road Network tab.) Connections are always associated with the highway they come "from", unless they connect with a non-highway; then they are always with the highway.
12. Acceptable structure type codes:

Structure Type Code	Description*
N/A	Bridge, culvert 20 ft. and greater, culvert not intended for water (e.g. cattle pass, equipment pass, wildlife pass, or trail), tunnel, viaduct, misc. structure
cl	Culvert (greater or equal to 6 ft. and less than 20 ft.)
its	Intelligent transportation system structure
rtw	Retaining wall (4 ft. or higher, not attached to a bridge)
sg	Signal structure
sn	Sign structure
sw	Sound wall

   *See design manuals for detailed structure definitions: *Bridge Design Manual, Geotechnical Design Manual, Hydraulics Manual, Traffic Structures Design Manual*.
13. When a structure has a commemorative, historic, local, or interchange name, add it at the end in parenthesis. When a structure is inside city limits, add the name of the street carried in parenthesis.

STRUCTURE NAMING RULES

FOR ALL STRUCTURES REQUIRING A STRUCTURE NUMBER IN THE BRIDGE DATA SYSTEM (BDS)

BASIC RULES (Cont.)

14. If there are multiple features crossed, you may list up to three features in order of high to low priority separated by a “+”. A "+" at the end indicates additional or minor features not listed.
    NOTE: Railroads are always listed as “RR” (Light Rail Transit – “LRT”) after named water features, but before highways and other roads.
    Prioritize major features, except railroads, as follows:
    1 – Named water feature
    2 – Highway
    3 – County Road or Major City Street
15. If the structure crosses the state line and is owned by the neighboring state, add the state’s DOT acronym to the end in parenthesis (WSDOT).

DEFINITIONS (FOR THE PURPOSE OF STRUCTURE NAMING ONLY)

Culvert - A covered channel used to convey a watercourse (continuous or intermittent) below ground; single or multiple barreled culverts that are 6 feet or larger.
Swale - Low depression which may contain water during heavy rainfall.
Channel - unnamed stream, canal or ditch - natural or man-made - may or may not contain water.
Facility - Roadway, railroad, multi-use path, etc. that is carried by a bridge, crosses over a culvert, nearest a wall or traffic structure.
Feature - Waterway, railroad, roadway, etc. being spanned by a bridge or culvert.

COMMON ABBREVIATIONS (FOR THE PURPOSE OF STRUCTURE NAMING ONLY)

Abandoned – Abnd
Avenue – Ave or Av
Canyon – Cyn
Creek – Cr
Drive – Dr
Expressway – Expy
Frontage – Frtg
Highway – Hwy
Interchange – Intchg
Lane – Ln
Light Rail Transit – LRT
Milepoint – MP
Pedestrian – Ped
Railroad – RR
River – R
Road – Rd
Street – St
Slough – Sl
Trail – Tr
Tunnel – Tunl

QUESTIONS/COMMENTS

For questions or comments, please call the ODOT Bridge Section at (503)986-4200 or email ODOT Bridge Engineering

STRUCTURE NAMING RULES

FOR ALL STRUCTURES REQUIRING A STRUCTURE NUMBER IN THE BRIDGE DATA SYSTEM (BDS)

EXAMPLES

STRUCTURE OVER WATER FEATURE -- Bay, Stream, Etc.	**NAMING FORMAT (Brackets [ ] indicates data to be entered)** ***Example(s) on state highway (shown red)*** ***Example(s) on non-highway (shown blue)***
Structure at named water feature or swale.	[feature name]_[facility] *Yaquina Bay_Hwy 9* *North Powder R_Bidwell Rd_45.02411/117.91889*
See Basic Rule 10.	*Mill Creek_Hwy 1NB*
See Basic Rules 10 and 11.	*Link R+_Hwy 4NB(Conn 004AZ)*
See Basic Rule 12.	[structure type]_[feature name]_[facility] *cl_Holmes Cr_Hwy 6* *cl_Sand Cr_Neil Peck Rd(C-734)_44.91951/117.95139*
See Basic Rule 15.	*Klamath R+RR+_Hwy 424* *Washington St over LRT_45.5183/122.5644*
See Basic Rule 16.	*Columbia R_Hwy 70EB(Umatilla)(WSDOT)*
Facility crosses named water feature multiple times.	[feature name]_[facility]_MP[XX.XX] *Little Elk Cr_Hwy 33_MP32.24* [feature name]_[facility]_[lat/long] *Little Cr_High Valley Rd_45.20665/117.79882*
Structure at unnamed channel (unnamed stream, canal or ditch - natural or man-made - may or may not contain water).	Channel_[facility]_MP[XX.XX] *Channel_Hwy 30_MP20.14* [feature name]_[facility]_[lat/long] *Channel_Smith Rd_44.93426/123.02854* *Channel_Lake Ewauna Tr Ped_44.93426/123.02855*
See Basic Rule 12.	[structure type]_Channel_[facility]_MP[XX.XX] *cl_Channel_Hwy 5_MP20.14* [feature name]_[facility]_[lat/long] *cl_Channel_Co Rd 17_44.93426/123.02854*

STRUCTURE NAMING RULES

FOR ALL STRUCTURES REQUIRING A STRUCTURE NUMBER IN THE BRIDGE DATA SYSTEM (BDS)

STRUCTURE OVER WATER FEATURE (Cont.) -- Bay, Stream, Etc.	**NAMING FORMAT (Brackets [ ] indicates data to be entered)** ***Example(s) on state highway (shown red)*** ***Example(s) on non-highway (shown blue)***
Structure on state frontage road some connections, add lat/long. Hwy frontage rd with local rd name. Connection similar to frontage road.	[feature name]_[facility]_[lat/long] *Rocky Cr_Hwy 1 Frtg_44.77630/124.07284* *cl_Clear Cr_Wildwood Dr_43.60226/124.18100* *cl_Canyon Cr_Hwy1NB(Conn 001ER)_42.89217/123.23800*
See Basic Rule 12.	[structure type]_[feature name]_[facility]_[lat/long] *cl_Rocky Cr_Hwy 1 Frtg_44.77630/124.07285*
Structure has commemorative, historic or local name. See Basic Rule 13.	[feature name]_[facility] [name]) *Rocky Cr_Hwy 10(Ben Jones)* *Fifteen Mile Cr_Co Rd(Seufert)*
STRUCTURE OVER or ALONG OTHER FEATURES -- Railroads, Highways, Roads/Streets, Flumes, Etc.	
Highway over feature or Facility over highway.	[facility] over [feature] *Hwy 2 over Hwy 1*
Although Hwy 1 goes over Hwy 273 multiple times, milepoint is not needed because the NB and SB designation distinguishes them.	*Hwy 1 over Hwy 273* *Hwy 1NB over Hwy 273* *Hwy 1SB over Hwy 273*
	Hwy 52 over 23rd St NE *Hwy 64 over RR_MP13.76* *Hwy 105_MP0.02 over Ped* *Empire Ave over Hwy 4* *Flume over Hwy 449_MP0.91* *RR over Hwy 1W_MP40.99 (Whiteson)* *Multi-use over Hwy 2_MP5.77*
Non-highway over non-highway.	[facility] over [feature]_[lat/long] *Multi-use over 12th St SE_44.93426/123.02854*
Facility or feature has alternate name. See Basic Rules 13 and 14.	[facility]([name]) over [feature] [name]) *Hwy 1E(NE MLK Blvd) over RR(Paulson Viaduct)* *Phillipi Canyon Rd over Hwy 2(Quinton Intchg)*

STRUCTURE NAMING RULES

FOR ALL STRUCTURES REQUIRING A STRUCTURE NUMBER IN THE BRIDGE DATA SYSTEM (BDS)

STRUCTURE OVER or ALONG OTHER FEATURES (Cont.) -- Railroads, Highways, Roads/Streets, Flumes, Etc.	**NAMING FORMAT (Brackets [ ] indicates data to be entered)** ***Example(s) on state highway (shown red)*** ***Example(s) on non-highway (shown blue)***
Facility carries or over highway connection add the road identifier from the ODOT highway inventory. See Basic Rule 11.	[facility](Conn [###XX]) over [feature] *Hwy 2(Conn 002AZ) over 103rd Ave* *E Barnett Rd(Conn 001BE) over Hwy 1* [facility] over [feature](Conn [###XX]) *102nd Ave over Hwy 2(Conn 002AZ)* *Hwy 1NB over Clarks Branch Rd(Conn 001GV)* *Hwy 6 over Hwy 6(Conn 006EA)(Ladd Creek Intchg)*
Structure not intended for water such as a cattle, equipment, wildlife pass or trail.	[structure type]_[facility]_MP[XX.XX] *Cattle Pass_Hwy 21_MP5.20* *Rimrock Trail_Hwy 372_MP5.15* [structure type]_[facility]_[lat/long] *Cattle Pass_Smith Rd_44.93426/123.02854*
Traffic Structure Over or Along Other Features Traffic structure crosses roadway. Sign structures add "sn_"; signal structures add "sg_"; ITS structures add "its_". Non-highway add lat/long.	[structure type]_[facility]_MP[XX.XX] *sn_Hwy 1W_MP5.20* *sg_Hwy 1W_MP5.20* *its_Hwy 1W_MP5.20* [structure type]_[facility]_[lat/long] *sn_30th St_43.99014/124.10120* *sg_30th St_43.99014/124.10120* *its_30th St_43.99014/124.10120*
Traffic, sign or ITS structure does not cross roadway.	[structure type]_[facility]_[side]_MP[XX.XX] *sn_Hwy 1SB_SS_MP5.20* *sg_Hwy 1SB_SS_MP5.20* *its_Hwy 1SB_SS_MP5.20* [structure type]_[facility]_[side]_[lat/long] *sn_30th St_WS_43.99014/124.10122* *sg_30th St_WS_43.99014/124.10122* *its_30th St_WS_43.99014/124.10122*

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STRUCTURE CARRIES or ALONG a HIGHWAY CONNECTION (RAMP) - Grade Separation Only

NAMING FORMAT (Brackets [ ] indicates data to be entered)
Example(s) on state highway (shown red)
Example(s) on non-highway (shown blue)

Facility is a highway connection/ramp add the connection designation from the ODOT highway inventory. See Basic Rule 11.

[facility](Conn [###XX]) to [facility]
Hwy 1W(Conn 091CO) to Hwy 30

[facility] to [facility](Conn [###XX])
NE 102nd Ave to Hwy 2(Conn 002BA)

Facility is a connection to or from a divided highway, add direction (NB, SB, EB, WB). See Basic Rule 9.

[facility][direction](Conn [###XX]) to [facility]
Hwy 1NB(Conn 001WR) to Hwy 69

Traffic Structure Over or Along a Highway Connection

Traffic sign structures add "sn_"; signal structures add "sg_"; ITS structures add "its_".

[structure type]_[facility](Conn [###XX])_MP[XX.XX]
sn_Hwy 1W(Conn 091CB)_MP5.20
sg_Hwy 1W(Conn 091CB)_MP5.20
its_Hwy 1W(Conn 091CB)_MP5.20

[structure type]_[facility](Conn [###XX])_MP[XX.XX]
sn_Hwy 081(Conn 081BG)_SS_MP6.21
sg_Hwy 081(Conn 081BG)_SS_MP6.21
its_Hwy 081(Conn 081BG)_SS_MP6.21

STRUCTURE OVER MULTIPLE FEATURES

You may list up to three features in order of high to low priority separated by a “+”. A "+" at the end indicates additional or minor features not listed.

NOTE: Railroads are always listed as “RR” after named water features, but before highways and other roads. For list of priorities, See Basic Rule 15.

[feature]_[facility]+
Willamette R+RR+_Hwy 64
Umpqua R+McIntosh Sl_Hwy 9

[facility] over [feature]+
Hwy 1 over NE Hassalo St+
Hwy39 over RR+College St+River St+

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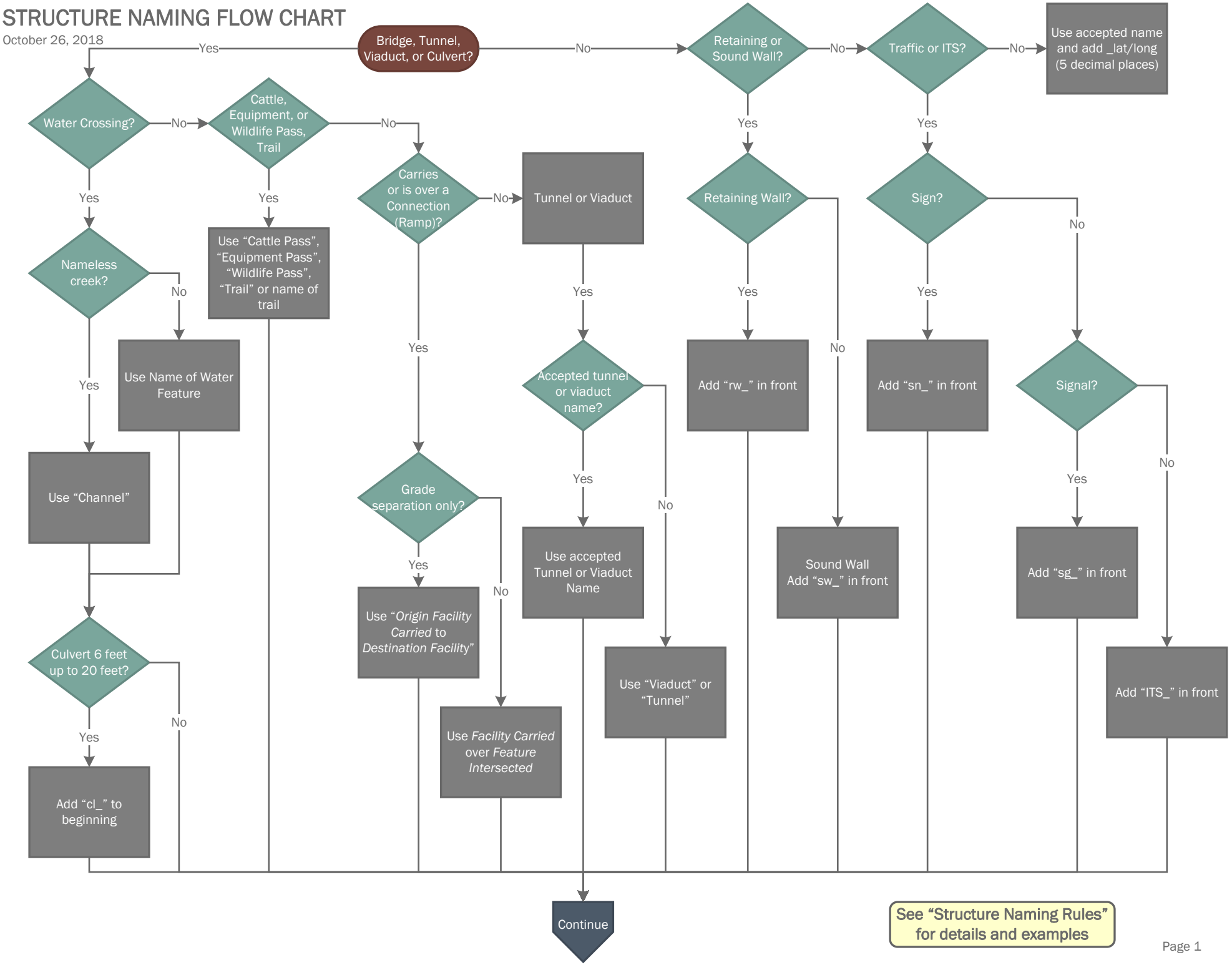
TUNNELS AND VIADUCTS	**NAMING FORMAT (Brackets [ ] indicates data to be entered)** ***Example(s) on state highway (shown red)*** ***Example(s) on non-highway (shown blue)***
Use accepted structure name. Non-highway add lat/long.	[name]_ [facility] *Salt Creek Tunnel_ Hwy 18* *Cornell Tunl No 1_ NW Cornell Rd _45.53072/122.71674*
Multiple structures with no names on the same highway add milepoint	Viaduct_[facility]_MP[XX.XX] *Half Viaduct_ Hwy 9_MP123.50* *Rocky Point Viaduct_ Hwy 9*
RETAINING AND SOUND WALLS	
Retaining wall add "rtw_"; sound wall add "sw".	[structure type]_[nearest facility]_[side]_[lat/long] *rtw_Hwy 9_WS_45.58914/118.64170* *sw_Hwy 9_WS_45.58914/118.64170* *rtw_S Springbrook Rd_NS_45.30233/122.94701* *sw_S Springbrook Rd_NS_45.30233/122.94701*
Facility is a divided highway add direction of traffic to highway number.	[structure type]_[nearest facility]_[side]_[lat/long] *rtw_Hwy 6EB_NS_45.58914/118.64170* *sw_Hwy 6EB_NS_45.58914/118.64170*
Facility is a highway connection add connection designation from the ODOT highway inventory. See Basic Rule 11.	[structure type]_[highway](Conn[###XX])_ [side]_[lat/long] *rtw_Hwy 1W(Conn 091CB)_SS_45.58914/118.64170* *sw_Hwy 1W(Conn 091CB)_SS_45.58914/118.64170*

STRUCTURE NAMING FLOW CHART

The following pages are a flow chart to supplement the written rules. Structure names generated using the chart should always be confirmed using the written rules and examples.

STRUCTURE NAMING FLOW CHART

October 26, 2018



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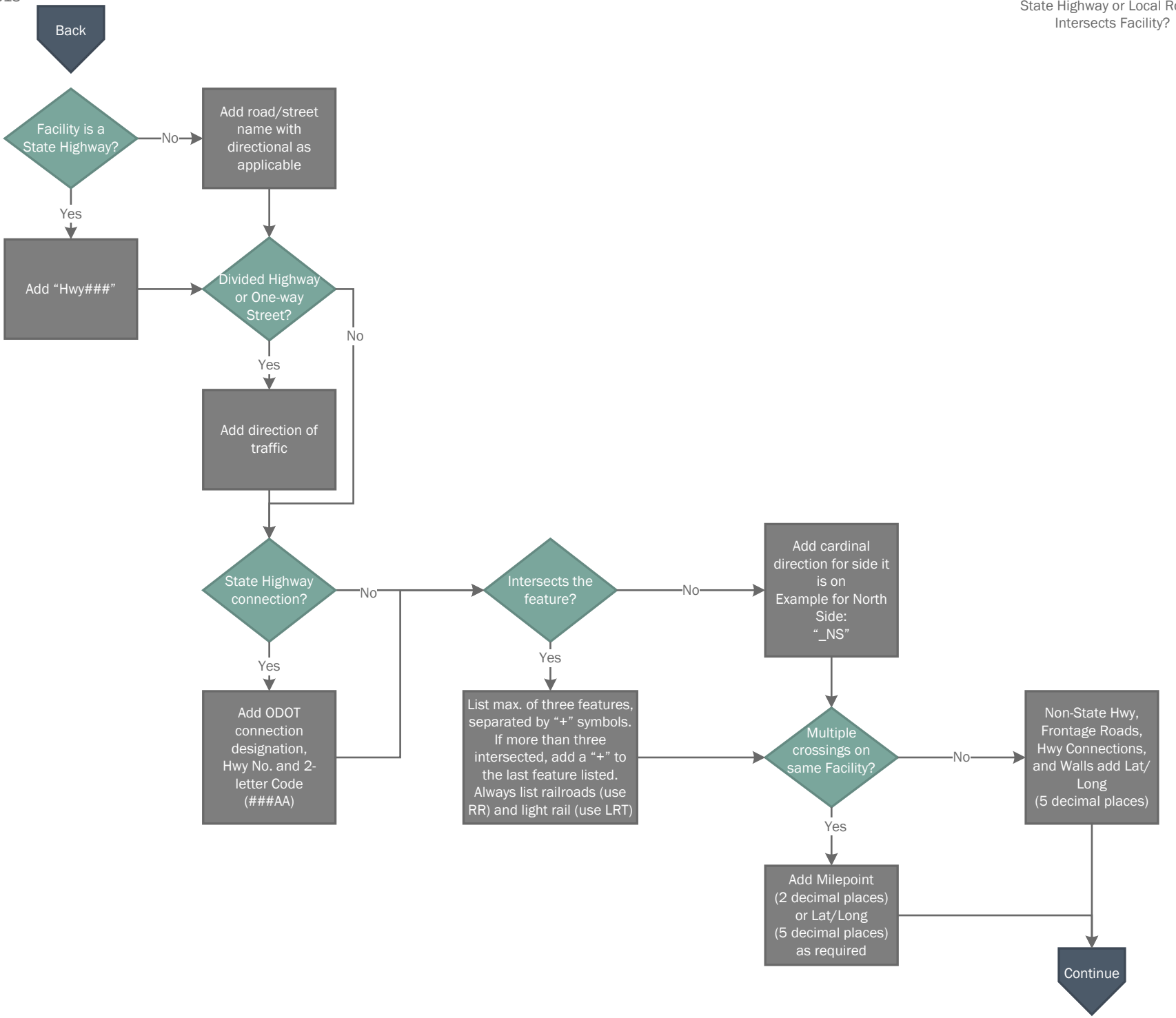
October 26, 2018



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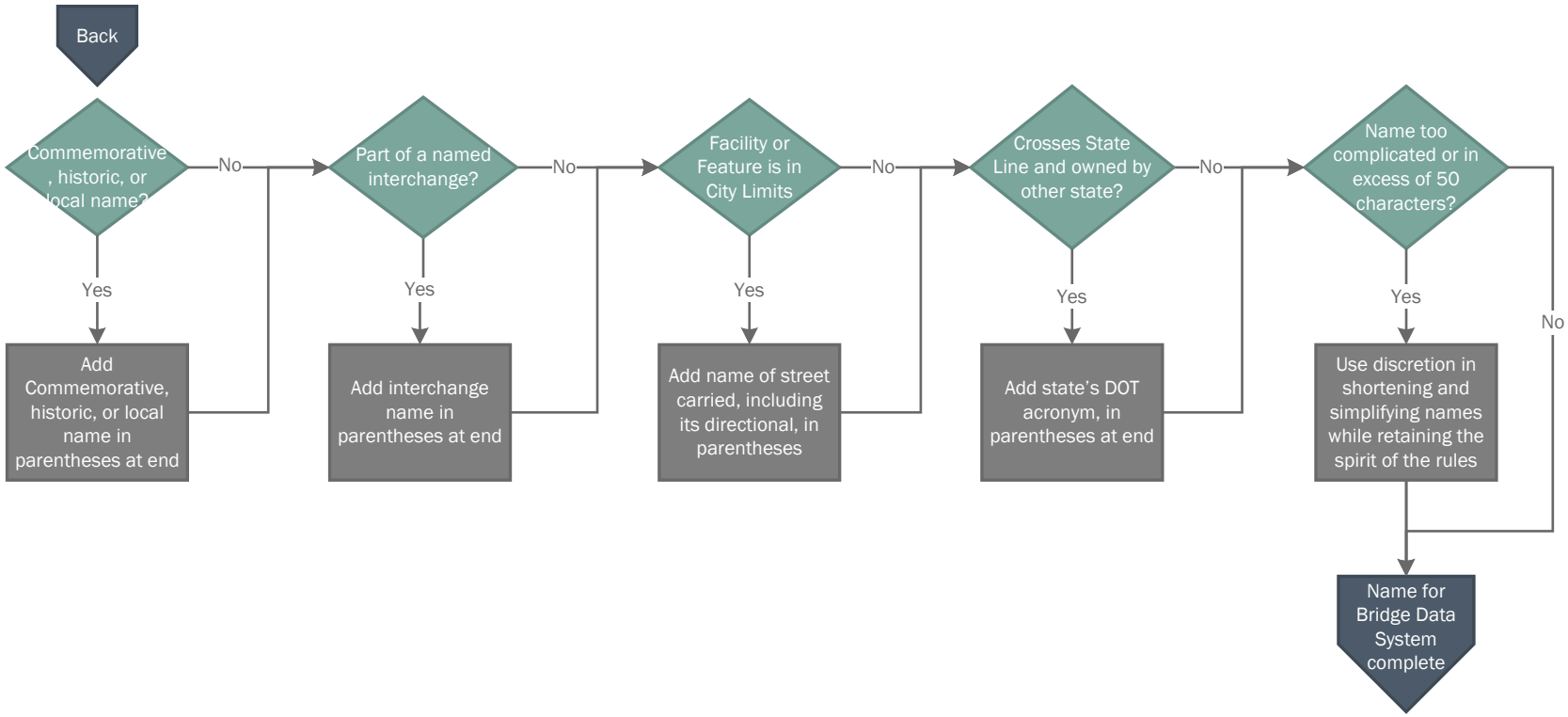
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