

# BRIDGE INVENTORY INFORMATION



0

## Inventory Information

- On inspection forms to assist inspector
- Information is used to update and keep BIS current
- Sources
  - Transportation Infrastructure Management System (TIMS)
  - Inspectors add new data, verify existing or revise as required
  - Future pick lists for addition or revision



1

## How Are Structures Identified?

- **Bridge File Number** (99999) assigned to each bridge site
  - 5-digit number
  - leading zeros, e.g., **00987**
  - assigned in sequence
  - example: 75555
- Structure Number (99) assigned to each structure at the site
  - example: **1, 2, 3, etc.**
  - Original structure #1 replaced at same location becomes #2 regardless of structure type
  - Multiple structures at same site have same BF# but different structure #



2

## How Are Structures Identified? (cont'd)

### Visual Identifiers

- Travel Direction
  - example W = westbound structure divided highway, EC = Eastbound Collector
  - blank = Two Way Traffic
- Structure Type
  - Z = Sign Structure

Example: **75555-ZNC-3**

### Year Built (e.g. 1990/2023)

- First year shown is Substructure or Barrel construction year
- Second year is Superstructure fabrication year, or barrel lined



3

## Where is the Bridge?

- Bridge Name or Nearest Town
  - bridge official name
  - nearest town on road map
- Located Over
  - Watercourse, Road, Railway, etc.
- Located On
  - Highway or Local Road
  - Includes Control Section (2:03)
- Contract Maintenance Area
  - Prov. Highways (e.g. CMA 28)
  - Local Roads display as “Un-Defined CMA”



Alberta

4

## Watercourse Designations

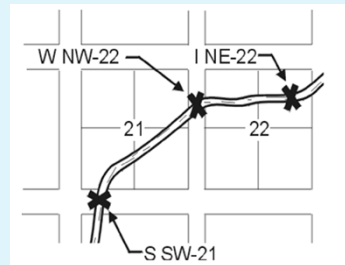
- Water Body Class & Year
  - future
  - water class of the watercourse
  - year designated by Environment
- Navigable Waters Class & Year
  - future
  - navigable class of stream
  - year classified

Alberta

5

## Where is the Bridge?

- Legal Land Location
  - ie WNW 22 - 028 - 03 - W5M
- Prefix is always W, S, or I
- Longitude, Latitude
  - ie -113:18:04, 51:02:15



Alberta

6

6

## Road Authority

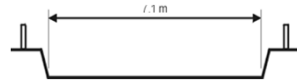
- Alberta Transportation (AT)
- Alberta Environment
- Municipal Services Branch (Special Areas)
- County or Municipal District (C01 or M36)
- Town or Village (T or V)
- City (Urban Airdrie)
- Municipal Affairs (MA)
- Federal Government Departments (FIA)
- Private (P)

Alberta

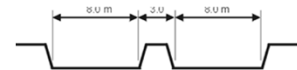
7

## What is Clear Roadway?

- Typical Bridge Clear Roadway = 7.1 m



- With Median Clear Roadway = 16.0 m



- If no curbs or medians present measure inside rails



8

## Average Annual Daily Traffic

- Field is three parts (Volume, Year, Type)

Example **150/2022 (E)** – most common is Local Roads

- Traffic Volume is 150 vpd (adjusted for time of day & month)
- Year 2022 (year count taken by inspector)
- “E” is estimated by the inspector using Table 4.1

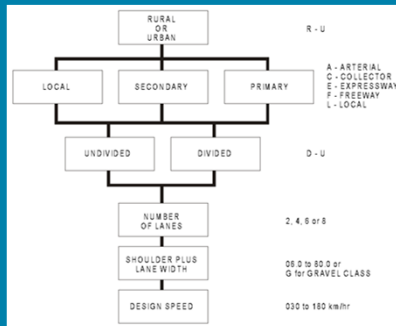
Example **9633/2023(A)** – most common is Provincial Highways

- Traffic Volume is 9,633 vpd recorded by dep’t systems and traffic counters
- Year 2023 (year count taken by traffic counters or other dep’t systems)
- “A” is actual from inventory and is not changed by inspector



9

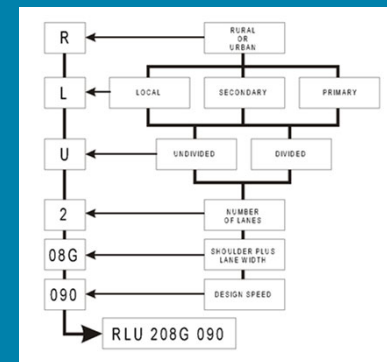
## What is the Road Classification?



10

10

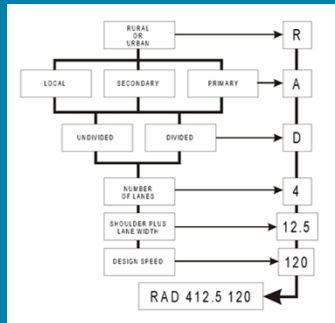
## What is the Road Classification?



11

11

## What is the Road Classification?



12

Alberta

12

## Standard Road Classifications

- Local Roads (G=graveled)
  - RLU-206G-60
  - RLU-207G-60
  - RLU-208G-60
  - RLU-207G-90
  - RLU-208G-90
  - RLU-209G-90
  - RLU-210G-90
- Local Roads (paved)
  - RLU-208-100
  - RLU-208-110
  - RLU-209-110

Alberta

13

## Standard Road Classifications cont'd

- Provincial Highways (paved)
  - RCU-208-110
  - RCU-209-110
  - RCU-210-110
  - RCU-211-110
  - RAU-209-110
  - RAU-210-110
  - RAU-211.8-110
  - RAU-212-110
  - RAU-213.4-110
  - RAU-213-120
  - RAU-213.4-120
  - RAU-213-130
  - UAU-209-070

Alberta

14

## Standard Road Classifications cont'd

- Provincial Highways (divided)
  - RAD-412.4-120
  - RAD-616.6-130
  - RFD-412.4-110
  - RFD-412.4-130
  - RFD-616.6-130
  - RFD-820.8-110
  - RFD-1024.5-110

Important to be accurate – used in calculating Sufficiency Rating.  
Refer to Table 4.2 for further information

Alberta

15

### What is the Detour Length?

Detour length is extra distance traveled = 9.6 km

Alberta

16

### What is the Detour Length?

Alberta

17

### What is Posted Clearance?

- Only on:
  - grade separation
  - pedestrian overpass
  - through truss
  - rail over/under pass
- Lowest measured clearance between road and bridge less tolerance
- Legal w/o permit 4.15M

| Calculation   |               |
|---|---------------|
| Minimum measured clearance                              | = 4.88 m      |
| Minus Tolerance   | <u>0.10 m</u> |
|   | 4.78 m        |
| Round down to the nearest decimeter (1/10th of a meter) | = 4.70 m      |
| BIM Required Vert. Clearance Posting                    | = 4.70 m      |
| TIMS Data   | = 4.80 m      |

Alberta

18

### Bridge Details

BRIDGE LENGTH "27.0 m"

"8.0 m" SPAN "11.0 m" SPAN "8.0 m" SPAN

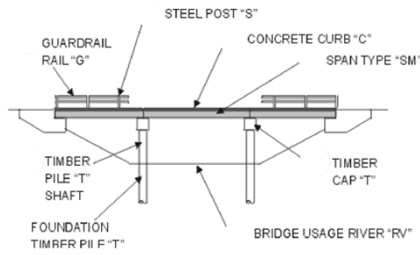
STANDARD BRIDGE "S"

NUMBER OF SPANS "03"

Alberta

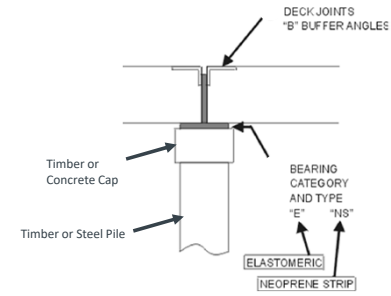
19

### Standard Bridge Components



20

### Standard Bridge Components



21

Questions?



22