

BRIDGE POSTING AND UTILITIES

Posting and Utilities Information

- Entered into TIMS BIS application at first inspection
- On subsequent BIM reports
- Inspectors verify information is correct
- Note changes for updating

Responsibility for Posting

- All bridges on local roads are responsibility of Local Road Authority, County, MD, Town
 - passing by-laws
 - installing and maintaining signage

Vertical Clearance

Posting Information							
Required Vert. Clearance Posting (m)							
Posted Vertical Clearance (Y/N)							
Posted	Lane	On bridge (m)	In Advance (Y/N)	Lane	On Bridge (m)	In Advance (Y/N)	
Remarks							

- On culvert Grade Separations and other various Major bridge forms
- Mounted at midpoint over travel lanes
- Advance warning in each direction
- Legal height 4.15m
- New structures are 5.35m

Vertical Clearance

- Inspection and Coding
 - look for signs in advance and on bridge
 - legible and visible
 - clearance values consistent
 - If signs are missing record as “No”
 - note direction and location if missing and notify responsible authority
 - look for new pavement or gravel
 - notify RRA if signs are incorrect or inconsistent



Vertical Clearance Posting is Important!



Posted Loading

- Bridges that cannot accommodate legal loads are posted

Legal Loading on:

- Local Roads
 - CS 1 28 tonnes
 - CS 2 49 tonnes
 - CS 3 54 tonnes
- Provincial Highways
 - CS 1 28 tonnes
 - CS 2 49 tonnes
 - CS 3 63.5 tonnes



Posted Loading

Allowable Load (t):	Single H 18 STRINGER	Semi HS 32 STRINGER	Train CS3 48 STRINGER	→ On Critical Spans → Critical Member
Design Loading:	HS15			→ Primary Span
Posting Information				
Required Load Posting (t)	Single 18	Semi	Truck Train 48	
Posted Loading (t)	Single 10.0	Semi	Truck Train	
Posted: Lane EB	At Junction (Y/N)	No	In Advance (Y/N)	Yes
Posted: Lane WB	At Junction (Y/N)	Yes	In Advance (Y/N)	No
Remarks	Located on dead end road WB. EB signing is adequate. Posted at 10 T			

- Inspection and coding
 - note posting at the junctions of roads leading to bridge, in advance, and at the bridge structure
 - legible and visible
 - loading values on sign consistent with “Allowable Loading” and “Required Load Posting” on report
 - may be posted less than rating due to conditions
 - note missing or incorrect signs, report to responsible authority

Posted Loading

Posted Loadings



Hazard Markers

Hazard Marker At Bridge (Y/N)	
Remarks	
Other Sign Types	

- All bridges when bridge clear road less than approach road
- All standard bridges on local roads – except when bridge is wider than road.
- Black stripes down toward road



Hazard Markers

- Inspection and Coding
 - noting orientation and location (in line with bridge railing & 1200mm above deck top/wearing surface)
 - note condition
 - If missing record as “No”
 - problems notify responsible authority

Other Signs

- Narrow Bridge, Speed Limit, Curve, Bump,
 - note condition, legibility
 - record type and location

Utilities

Utilities (Located at)	
Telephone	Gas
Power	Municipal
Others	Problem (Y/N)
Remarks	

- Utility owner responsible for maintenance and operation
- Note only those on or near bridge
- Check if utility
 - overloads bridge
 - interferes with maintenance or operations
 - hazard to public or bridge
 - unattractive appearance (corrosion)
- Installed with approval of AT Regional staff

Utilities Proper Locations

- Newer concrete bridges
 - ducts in curbs for Telephone and Power
- Reinforced concrete precast
 - clamp on side of curb or clamped to rail
- Pre-stressed concrete precast
 - in outside void of stringer
- Should not interfere with bridge or culvert maintenance

Utilities Improper Attachments

- Drilled into pre-stressed girders
- Explosive fasteners in steel or concrete
- Welding or drilling on steel members
- Oversize holes in timber
- Failure to treat cut timber

Utilities

- Inspection and Coding
 - note location of power, phone, etc. (i.e. East ROW)
 - remark if hazardous, report to owner
 - look for improper installation
 - look for leaks in water, sewer or gas
 - check connections for safety
- Notify RRA (AT or LRA) concerning problems or defects

Culverts

- Vertical clearance only if underpass
- No load posting
- Utilities typically not in culverts
- May have ducts in headwalls
- Record location of power, phone, etc. (i.e. West ROW)

Major Bridges

- Local Road Authorities are responsible for signing of major bridges on Local Roads
- Lack of signs
 - legal liability
 - damage bridges
 - damage / injury to public
- Report missing or incorrect Posted Loading signs to Bridge Manager

Questions??