



Posting and Utilities

BRIDGE POSTING AND UTILITIES




Technical Standards Branch
Class B Bridge Inspection
Course




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




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Responsibility for Posting

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



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Vertical Clearance

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



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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	16	Semi		Truck Train	48	
Posted Load (t)	Single	10.0			Truck Train		
Posted:	Lane	EB	At Junction (Y/N)	No	In Advance (Y/N)	Yes	At Bridge (Y/N) No
Posted:	Lane	WB	At Junction (Y/N)	Yes	In Advance (Y/N)	No	At Bridge (Y/N) Yes
Remarks	Located on dead end road W/B. E/B 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

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??