

# BEST PRACTICE GUIDELINES FOR SELECTING STANDARD FENCING OPTIONS

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## HISTORY

Fencing along a highway is a means of preventing unwanted and likely intrusion of animals, people, vehicles, machines, etc. from outside the right-of-way line or access control line into the vicinity of moving traffic or onto the operating right-of-way.

The fencing of highway right-of-ways is a design consideration on most grading projects that involve new alignment or upgrading of existing alignments that include acquisition of new right-of-way.

The basic purpose of erecting fences is to prevent farm animals and possibly some wild animals, and occasionally people from service roads, adjacent developments, etc., from gaining access to the highway right-of-way

Legislation in Alberta places the responsibility for control of farm animals on the owner. Under the Alberta Stray Animals Act, Chapter S-23 "Livestock Straying on Highway" states: "No person shall permit or allow any livestock owned by him or in his possession to be on a highway unless it is in his or another person's direct and continuous charge and he or that other person is competent to control the livestock."

## CRITERIA

Alberta Transportation will generally include fencing as part of a grading project involving widening, new alignment where any of the following conditions exist (subject to Land Agreement):

- There was an existing fence along the original right-of-way.
- The new alignment severs existing fenced enclosures.
- The landowner indicates present or immediate future use of adjacent land for livestock grazing.
- The land use is predominantly livestock grazing. Isolated quarter sections that are not at present used for livestock should be fenced.
- Where fencing is required during construction to protect livestock or people from borrow excavation and so forth. In this case temporary fence should be installed. Temporary fencing is the contractor's responsibility and must be maintained to prevent livestock from straying onto the highway.

All new right-of-way fencing shall connect to existing fences to form an enclosure.

## **LOCATION OF FENCE**

Normally fences of the strand woven-wire type used on Alberta highways, should be placed as per the following:

- On tangent, the wire be placed on private property side.
- On curves, the wire be placed on the outside of the curve.

The placement of fencing is illustrated on drawing number CB6-2.12.M6, Position of Fencing.

## **TIME OF ERECTION**

In many cases a fence should be erected as soon as the right-of-way is cleared. It may be necessary to install a temporary fence to deter encroachment into the construction zone and/or travelled way. A permanent fence should be erected as soon as the right-of-way is cleared and it is practical to do so.

## **GATES**

Gates in fences should be kept to a minimum along controlled access highways. The gates should be of the appropriate type as shown on the fencing drawings of each particular class of fence.

Where fencing is installed for range control it may be necessary to use livestock guards instead of gates at interchanges and connecting roadways.

## **RESPONSIBILITY**

Alberta Transportation is responsible for the cost of fence construction (supply and installation) for all roads under the department's jurisdiction and control. However, the landowner or leasee is responsible for fence maintenance.

The local municipality is generally responsible for fence construction costs for all other roads. The landowner is again responsible for maintenance.

## **FENCING SELECTION**

There are several classes of fence to choose from according to the type of fencing required. The following typical drawings for fencing installation are included in the Departments Standard Drawings for Highway Construction Manual and are attached for reference along with photographs of the different classes of fence:

<b>Class (Drawing)</b>	<b>Description</b>	<b>Usage</b>
Class A (CB6-2.12.M1)	Three barbed wires with wooden posts at five metre maximum spacing.	Is general used for temporary installations such as borrow area.
Class B (CB6-2.12.M2)	Four barbed wires with wooden posts at 3.75 m maximum spacing.	Is generally used along primary highways.
Class B (CB6-2.12.M11) using Metal Stays	The use of metal stays allows the wooden posts to be spread further apart thus reduces the number of wooden posts required for fencing.	Metal fence stays produce a fully suspended fence that can be locked for permanent use or easily transferred for temporary fences. This system is ideal for use between a highway and service road.
	Also available are two modified Class B fencing types: <ul style="list-style-type: none"> <li>• Class B (CB6-2.12.M2A) modified wire spacing</li> <li>• Class G (CB6-2.12M8) Class B with modified post spacing</li> </ul>	Is generally used along primary highways
Class C (CB-2.12.M3)	Two barbed wires with 810 mm paige wire and wooden posts at 3.75 metre maximum spacing.	Is generally used for hog enclosures.
Class D (CB6-2.12.M4)	Two barbed wires with 980 mm paige wire and wooden posts at 3.75 metre maximum spacing.	Is generally used for farmyard and sheep enclosures
Class E (CB6-2.12.M5)	Two barbed wires with 1067 mm paige wire and wooden posts at 3.75 metre maximum spacing.	Is generally used for ranching areas.
Class F (CB6-2.12.M7)	2134 mm paige wire with wooden posts at 3.75 metre maximum spacing.	Is generally used in parks. This is an extra tall fence that may prevent animals from crossing the highway.

## **FENCING SPECIFICATIONS**

Fencing Specifications are available from Alberta Transportation Standard Specifications for Highway Construction Manual:

- Specification 2.12 Fencing
- Specification 5.14 Supply of Fence Material

The Best Practice Selection for Standard Fencing Options, is only intended as a guide for selecting fencing class type.

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# **APPENDIX**

## **STANDARD FENCING DRAWINGS AND PHOTOGRAPHS**

**CLASS "A" FENCE  
(3 STRAND BARBED WIRE)**

**GENERALLY USED FOR BORROW AREAS, ETC.**

**CB6-2.12M1 – CLASS “A” FENCE**

**CLASS "B" FENCE  
(4 STRAND BARBED WIRE)**

**GENERALLY USED FOR PRIMARY HIGHWAYS**

**CB6-2.12M2 - CLASS "B" FENCE**



**CLASS "B" FENCE  
(4 Strand Barbed Wire)**

**METAL FENCE STAYS USING  
CLASS "B" FENCING TYPE  
(4 STRAND BARBED WIRE)**

**CB6-2.12M11 – MODIFIED CLASS “B” FENCING USING METAL STAYS**



**METAL FENCE STAYS**

**CLASS "B" FENCE  
(4 STRAND BARBED WIRE)  
"MODIFIED WIRE SPACING"**

**CB6-2.12M2A – CLASS “B” FENCE “MODIFIED WIRE SPACING”**

**CLASS "G" FENCE  
(4 STRAND BARBED WIRE)  
"CLASS "B" WITH MODIFIED POST SPACING"**

**CB6-2.12M8 – CLASS “G” FENCE  
CLASS “B” WITH MODIFIED POST SPACING**

**CLASS "C" FENCE  
(810 mm (32") HIGH PAIGE WIRE)**

**GENERALLY USED FOR HOG ENCLOSURES**

**CB6-2.12M3 – CLASS “C” FENCE**



**CLASS "C" FENCE**

**CLASS "D" FENCE  
(980 mm (38.5") HIGH PAIGE WIRE)**

**GENERALLY USED FOR FARMYARDS  
AND SHEEP ENCLOSURES**

**CB6.2.12M4 – CLASS “D” FENCE**



CLASS "D" FENCE

**CLASS "E" FENCE  
(1067 mm (42") HIGH PAIGE WIRE)**

**GENERALLY USED FOR RANCHING AREAS**

**CB6-2.12M5 – CLASS “E” FENCE**



CLASS "E" FENCE

**CLASS "F" FENCE  
(2134 mm (84") HIGH PAIGE WIRE)**

**GENERALLY USED FOR PARKS OR SPECIAL CASES**

**CB6-2.12.M7 – CLASS “F” FENCE**



CLASS "F" FENCE

# **POSITION OF FENCING DRAWING**

## **CB6-2.12M6 – POSITION OF FENCING**