Fencing FACTSHEET

BRITISH COLUMBIA
Ministry of Agriculture, Food and Fisheries

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FENCE PLANNING AND ESTIMATING WORKSHEET

The purpose of this worksheet is to aid in the planning steps in fence construction. It covers site considerations, fence type and design, rights-of-way, and cost estimations for labour and materials. Not all points will apply to every fence. The first four pages are a filled-in example, followed by a blank worksheet.

PLANNING

FENCE PURPOSE	primary: grazing secondary: breeding pasture at south end
TYPE OF ANIMAL(S)	beef cattle - cow/calf
SITE INFORMATION	topography: rolling - some steep areas soil types: firm, compacted - some rock accessibility: ok watercourses: none snow: not a problem vegetation: lightly forested with open grass areas wildlife: deer, moose visual impact: no unusual concerns
TYPE OF FENCE	✓ permanent ☐ temporary (moveable) ☐ boundary (legal) requirements

✓ non-electric design	☐ electric design
type of wire: htsw	type of wire: _____
number of wires: 5,- 6 in breeding pasture	number of wires: _____
wire spacing: 12/8/8/8/8; 12/6/6/6/7/7	wire spacing: _____
top wire height: 44 inch	wires electrified: _____
bottom wire height: 12 inch	wires grounded: _____
post spacing: 30 ft	type of insulators: _____
dropper spacing: 10 ft	post spacing: _____
	dropper spacing: _____

COMMENTS	

RIGHT-OF-WAY CONSTRUCTION

METHOD	☐ by hand ✓ by machine	Size: 4600 feet long X 12 - 15 feet wide
WOODWASTE	☐ piled to burn ✓ cut & left to rot	Fence Location:
DISTURBED GROUND	✓ seeded ☐ left as is	4 feet from either side of right of way
COMMENTS	Fence line to be as straight as possible	

SITE SKETCH

Not to Scale

NOTES

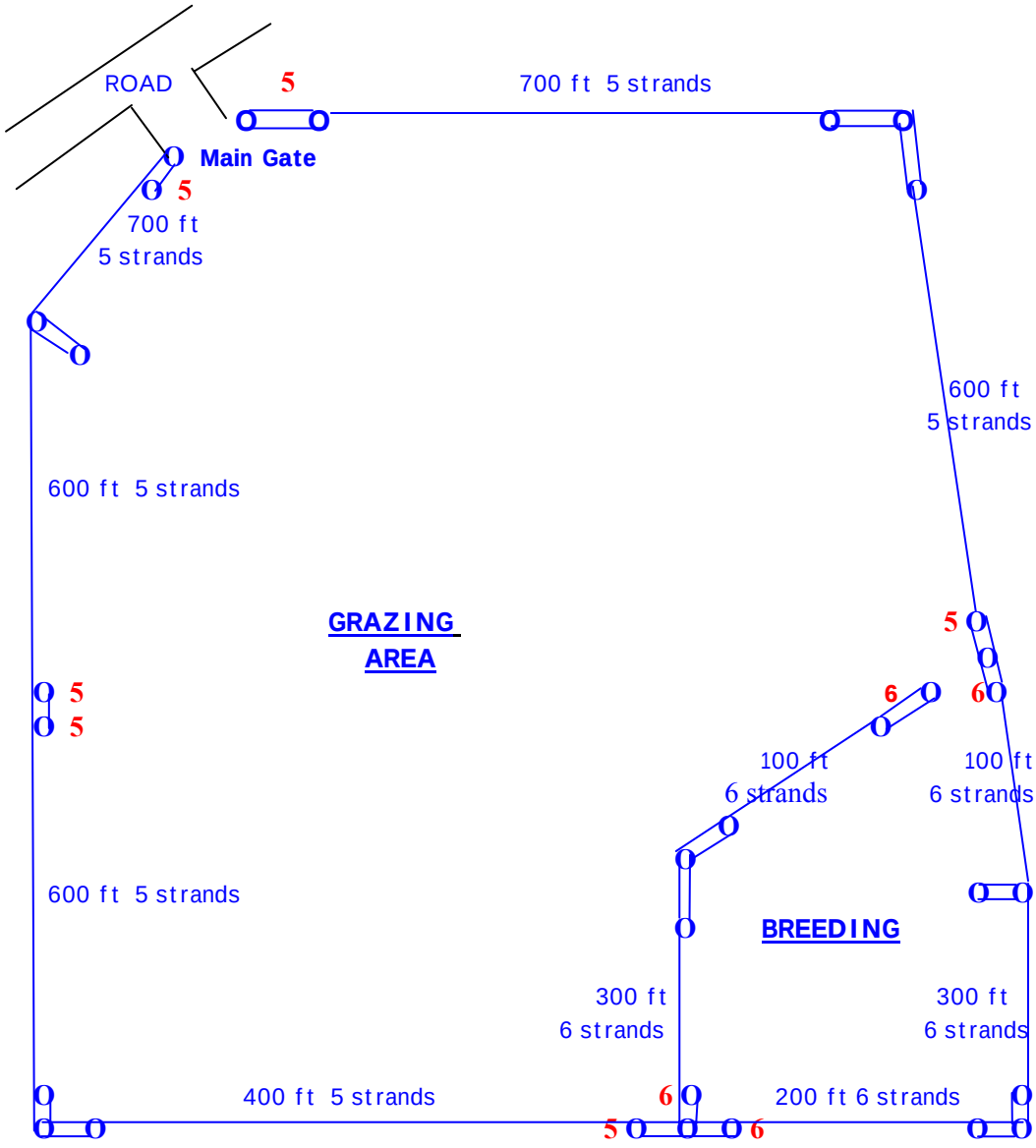
N

5 = number of wire tie-offs

O—O = brace

Main gate is setback 20 ft from road

Fence is on D.L.966



COMMENTS

length of fence

total fence = 3600 ft of 5 strand htsw perimeter fence
600 ft of 6 strand htsw perimeter fence
400 ft of 6 strand htsw interior fence

line posts

line posts = 4600 ft fence / 30 ft average post spacing = 154 line posts

wire

htsw wire = 3600 ft x 5 = 18,000 ft
1000 ft x 6 = 6000 ft total = 24,000 ft
# of rolls = 24,000 / 3,750 ft per roll = 6.4 rolls; plus brace wire etc. = 7 rolls

tie-offs

tie-offs = 6 for the 5 strands & 4 for the 6 strands
= 54 tie-offs

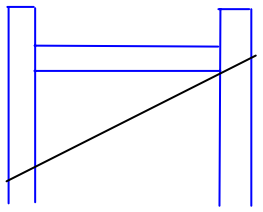
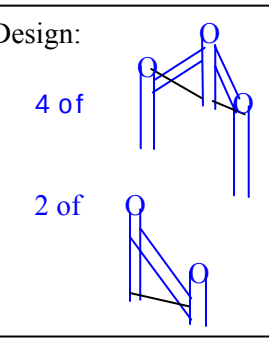
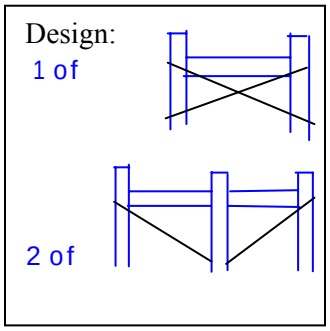
tensioners

tensioners = 1 per wire per brace section = 3 for 5 strands and 2 for 6 strands
= 27 tensioners

braces

end braces = 3 + 1/2 as south end brace has a "shared post" with an inline brace
corner braces = 2 - 2 post and 4 - 3 post corner braces
inline braces = 1 - 2 post and 2 - 3 post inline braces (one with a "shared post" end brace)

ESTIMATING MATERIAL COSTS

NONELECTRIC FENCE MATERIALS			Size	Quantity	$ Each	$ Total
BRACE ASSEMBLY MATERIALS posts and rails ✓ treated ✓ pointed ✓ domed	**END BRACE:** how many?: 3 + 1/2 Design: two post brace 	post	4"-5" x 8'	3 @ 2post 1 @ 1 post 7 total	$5.25	$36.75
		rail	4"-5" x 8'	4 @ 1 rail	$5.25	$21.00
		nail or pin ✓	3/8" x 6"	4 @ 2 pins	$0.10	$0.80
nail type _____ pin type 3/8" rebar brace wire type htsw	**CORNER BRACE:** how many?: 6 Design:  4 of 2 of	post	4"-5" x 8'	4 @ 3 post 2 @ 2 post 16 total	$5.25	$84.00
		rail	4"-5" x 8'	4 @ 2 ea 2 @ 2 ea 10 total	$5.25	$52.50
		nail or pin ✓	3/8" x 6"	4 @ 4 ea 2 @ 2 ea 20 total	$0.10	$2.00
	INLINE BRACE: how many?: 3 Design:  1 of 2 of	post	4"-5" x 8'	1 @ 2 post 2 @ 3 post 8 total	$5.25	$42.00
		rail	4"-5" x 8'	1 @ 1 ea 2 @ 2 ea 5 total	$5.25	$26.25
		nail or pin ✓	3/8" x 6"	1 @ 2 ea 2 @ 4 ea 10 total	$0.10	$1.00
LINE POSTS	material: wood if wood: ✓ treated ✓ pointed ✓ domed		3"-4" x 7'	154	$3.25	$500.50
WIRE	material: htsw (# rolls = ft. fence x #strands ÷ ft. per roll)		12.5 ga.	7 rolls	$80.00	$560.00
STAPLES	staples – type: standard slash point (# staples = # posts x #strands ÷ # per box)		2 inch	154 x 5 / 2900 = 1/3 box	$48.00	$16.00
CONNECTORS	splices – mechanical connectors? ✓ Y ☐ N (# connectors = # per splice x # wire rolls x 2)		sleeves	3x7x2=42	$0.30	$12.60
TENSIONERS	tie-offs – mechanical connectors? ✓ Y ☐ N (# connectors = # per tie-off x # tie-offs)		sleeves	2x5x6 2x6x4 = 108	$0.30	$32.40
	Tensioners – used? ✓ Y ☐ N (# tensionsers = # strands x # braced sections)		slotted drum	5x3+6x2 = 27	$2.50	$67.50

		Size	Quantity	$ Each	$ Total
DROPPERS	used? ✓ Y ☐ N type: wood - home made (total droppers = # per panel x # line posts)	1"x3" x42" long	2 x 154 = 308	$1.00	$308.00
GATES	How many: 2 Type of gate: 1 wood & 1 slip wire Size: 12 ft Type of hinge: screw-in pin Type of latch: chain	12' wood 12' wire	1 1	$75.00 $15.00	$75.00 $15.00
	TOTAL NONELECTRIC FENCE MATERIAL COSTS				**$ 1853.30**

ELECTRIC FENCE MATERIALS

CONTROLLER	☐ utility power: make:_____ model:_____ ☐ battery powered: make:_____ model:_____ voltage:_____ ☐ wet cell battery: voltage:_____ capacity:_____ ☐ solar panel: make:_____ model:_____ wattage:_____				
GROUNDING SYSTEM	☐ Ground rods material: ☐ Ground wire material:				
INSULATORS	line post (# insulators = # hot wires x # line posts) material:_____ type:_____ tie off (# insulators = # hot wires x # brace sections x 2) material:_____ type: _____ offset (# insulators = # offset wires x # line posts) material:_____ type:_____				
	TOTAL ELECTRIC FENCE MATERIALS COSTS				**$**

MATERIAL COSTS PER FOOT Fence length 4600 feet Materials cost $1853.30 $/ft. 0.41

ESTIMATING LABOUR COSTS

Labour costs vary for many reasons (terrain, accessibility, etc.,) but they will be between one and two times the material costs. MATERIALS $/ft 0.41 EST. LABOUR $/ft. 0.41 to 0.82

ESTIMATING TOTAL COSTS

For estimating total costs, a labour cost must be selected from the range above.

MATERIALS $/ft. 0.41 + LABOUR $/ft. 0.64 = **TOTAL $/ft.** 1.05

FENCE LENGTH 4600 ft. **X** TOTAL $/ft. 1.05 = **TOTAL** **$4830**

FENCE PLANNING AND ESTIMATING WORKSHEET

PLANNING

FENCE PURPOSE

primary:
secondary:

TYPE OF ANIMAL(S)

SITE INFORMATION

topography:
soil types:
accessibility:
watercourses:
snow:
vegetation:
wildlife:
visual impact:

TYPE OF FENCE

☐ permanent ☐ temporary (moveable) ☐ boundary (legal) requirements

☐ non-electric design

type of wire: _____
number of wires: _____
wire spacing: _____
top wire height: _____
bottom wire height: _____
post spacing: _____
dropper spacing:

☐ electric design

type of wire: _____
number of wires: _____
wire spacing: _____
wires electrified: _____
wires grounded: _____
type of insulators: _____
post spacing: _____
dropper spacing: _____

COMMENTS

RIGHT-OF-WAY CONSTRUCTION

METHOD ☐ by hand ☐ by machine

WOODWASTE ☐ piled to burn ☐ cut & left to rot

DISTURBED GROUND ☐ seeded ☐ left as is

Size:____ feet long X _____ feet wide

Fence Location:

_____ feet from either side of right of way

COMMENTS

SITE SKETCH Not to Scale

NOTES	
COMMENTS	

ESTIMATING MATERIAL COSTS

NONELECTRIC FENCE MATERIALS		Size	Quantity	$ Each	$ Total
BRACE ASSEMBLY MATERIALS posts and rails ☐ treated ☐ pointed ☐ domed	**END BRACE:** how many?: _____ Design: post rail nail or pin				
nail type _____ pin type _____ brace wire type _____	**CORNER BRACE:** how many?:_____ Design: post rail nail or pin				
	INLINE BRACE: how many?:_____ Design: post rail nail or pin				
LINE POSTS	material: if wood: ☐ treated ☐ pointed ☐ domed				
WIRE	material: _____ (# rolls = ft. fence x #strands ÷ ft. per roll)				
STAPLES	staples – type: _____ (# staples = # posts x #strands ÷ # per box)				
CONNECTORS	splices – mechanical connectors? ☐ Y ☐ N (# connectors = # per splice x # wire rolls x 2)				
TENSIONERS	tie-offs – mechanical connectors? ☐ Y ☐ N (# connectors = # per tie-off x # tie-offs)				
	Tensioners – used? ☐ Y ☐ N (# tensionsers = # strands x # braced sections)				

		Size	Quantity	$ Each	$ Total
DROPPERS	used? ☐ Y ☐ N type: _____ (total droppers = # per panel x # line posts)				
GATES	How many: _____ Type of gate: _____ Size: _____ Type of hinge: _____ Type of latch: _____				

TOTAL NONELECTRIC FENCE MATERIAL COSTS $

ELECTRIC FENCE MATERIALS

CONTROLLER	☐ utility power: make: _____ model: _____ ☐ battery powered: make: _____ model: _____ voltage: _____ ☐ wet cell battery: voltage: _____ capacity: _____ ☐ solar panel: make: _____ model: _____ wattage: _____				
GROUNDING SYSTEM	☐ Ground rods material: ☐ Ground wire material:				
INSULATORS	line post (# insulators = # hot wires x # line posts) material: _____ type: _____ tie off (# insulators = # hot wires x # brace sections x 2) material: _____ type: _____ offset (# insulators = # offset wires x # line posts) material: _____ type: _____				

TOTAL ELECTRIC FENCE MATERIALS COSTS $

MATERIAL COSTS PER FOOT Fence length _____ feet Materials cost $ _____ $/ft. _____

ESTIMATING LABOUR COSTS

Labour costs vary for many reasons (terrain, accessibility, etc.,) but they will be between one and two times the material costs. MATERIALS $/ft_____EST. LABOUR $/ft. _____to

ESTIMATING TOTAL COSTS

For estimating total costs, a labour cost must be selected from the range above.

MATERIALS $/ft._____ + LABOUR $/ft._____ = **TOTAL $/ft.**_____

FENCE LENGTH_____ft. **X** TOTAL $/ft._____ = **TOTAL $**_____

For further information on related topics, please visit our website

Resource Management Branch

www.agf.gov.bc.ca/resmgmt

Linking to our

Publications and Conceptual Plans

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