



Ministry of Forests, Lands and
Natural Resource Operations
Omenica Region
Prince George Resource District

Chuchinka-Colbourne FSR
Roadway Widening and Upgrade
Geometric Alignment
Km 31 to Km 33.6

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Stations: 32+647.50 to 33+287.50

ROAD DESIGN SPECIFICATIONS

Design Speed: 30 km/h
Avg. Stab. Road Width: 6.0m
Fav. Grade Max. 10%
Adv. Grade Max 10%

Plan Scale 1:1000

Profile Vert Scale 1:100
Profile Horz Scale 1:1000

Project Location Coordinates

Latitude: 51-15-03
Longitude: -119-53-14
Elevation: 610m
Datum: NAD83
UTM Combined Scale Factor:
n/a

Notes:

- Ground model data obtained by Lidar Survey method by McElhanney Survey Consulting Ltd. Oct. 2013
-30km/h Speed Limit through the Canyon, remainder designed to minimum 60km/h.

Survey Control Stations

Point Name	Northing	Easting	Elevation	Description

Plan Legend (all may not be applicable)

L-line Location

Road Edges

Clearing Limits

Culverts

GPS Base Station

Old Iron Bar found (tied)

Old Pipe Post found (tie)

Survey Control Points tie

Benchmark

Edge of Wetland

Existing Road Edges

Breakline

Powerline

Draw

Test Pit

Stream

Tension Crack

Timberline

Cut / Fill limits

Powerpole

Finished Road Surface

Profile Subgrade

Cut / Fill limits

Original Ground

1st Stratum

2nd Stratum (Rock)

Ditch Invert Right

Ditch Invert Left

Curve Table (Da = deflection angle for a 10m arc.)

	22, C21	23, C22	24, C23	25, C24	26, C25	27, C26	28, C27
IP Stn.	32+089.19	32+803.98	32+924.51	32+975.83	33+022.44	33+084.69	33+155.68
IP X	526865.54	526599.14	526600.88	526575.04	526572.36	526558.03	526565.13
IP Y	6056957.80	6057053.97	6057177.75	6057223.27	6057270.47	6057331.08	6057402.03
BC Stn.	32+649.27	32+752.89	32+902.79	32+957.12	33+015.41	33+067.94	33+132.57
Arc. Len.	77.79	98.93	42.41	36.75	14.03	33.18	45.80
EC Stn.	32+727.05	32+851.82	32+945.21	32+993.87	33+029.44	33+101.12	33+178.38
Radius	140.00	160.00	80.00	80.00	100.00	140.00	140.00
Angle	-31°50'02"	35°22'36"	-30°22'36"	26°19'21"	-10°03'01"	19°00'40"	-18°44'42"
Tangent	39.92	51.10	21.72	18.71	16.74	23.11	16.74
Da, a=10.00	4°05'33"	3°34'52"	7°09'43"	7°09'43"	7°09'43"	5°43'46"	4°05'33"
Design Speed	40.00	40.00	40.00	40.00	40.00	40.00	40.00

EARTH WORK VOLUMES (Bank cubic meters)

L-Stn m.	Strip V. Cu. m.	SG Cut V. Cu. m.	SG Fill V. Cu. m.	B/W Vol. Cu. m.	Srf1 Fill V. Cu. m.
32+800.00					
33+000.00	250.2		941.3		517.5
33+200.00	216.1		357.9	-1315.0	517.5
33+400.00	386.1	2057.4	1955.3		534.6
Pg. Tot.	852.5	3356.6	2330.2		1569.6
Cum. Tot.	3490.2	10500.7	5361.3		6792.7

CULVERT TABLE

L-Stn m.	Cul DIA mm.	Cul Len m.	Cul Len L m.	Cul Len R m.	Cul Skew deg.	Cul Cmt
32+706.14	600	12.00	7.00	5.00	90.00000	xdrain
32+853.80	600	11.00	6.00	5.00	90.00000	
32+922.63	600	13.00	7.50	5.50	110.00000	
33+100.10	600	12.00	6.50	5.50	91.00000	xdrain
33+200.14	600	12.00	6.50	5.50	90.00000	xdrain

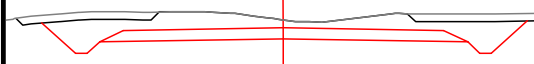
SOIL TYPES

ROAD TEMPLATES

OB - Overburden
OR - Organics
SL - Silt
FS - Fine Sand & Silt
SA - Sand
SG - Sand & Gravel
CG - Sand & Course Gravel
SC - Sand/Cobbles/Gravel
GR - Gravel
BO - Boulders
FR - Fractured Rock (Talus)
RR - Riprapable Rock
SR - Solid Rock

TP = Taper template
TO = Turnout Template
8M = 8.0m wide finished running surface
8WS = 8m wide finished running surface with retaining wall

Surfacing depth = 0.3m
Ditch Slopes = 1.5:1 Ditch Depth = 0.3 Width = 0.3
F Slope = Final Slope Left or Right



Prepared by:

Celtic Engineering Ltd.
DESIGN & CONSTRUCTION

Dwg Num: 110-022-003

Survey By: see Notes above
Design By: Edward Folk, P.Eng.
Approved By:

Plot Date: 16/06/29

Design File Name: Colbourne FSR Road upgrade\110-022-003- Road Design\Design File\Road Eng\Chuchinka-

