

Environment Act Licence

Manitoba
Environment



Licence No. 1598
Issue Date OCTOBER 8, 1992

THE RURAL MUNICIPALITY OF DAUPHIN: "the Licencee"

for the construction and maintenance of the Development being a rural water distribution system using water supplied from the Town of Dauphin and distributed via pipeline to farms and rural residences southeast of the Town of Dauphin subject to the following specifications, limits, terms and conditions:

Specifications, Limits, Terms and Conditions

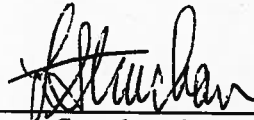
- 1) The Licencee shall construct the Development on lands described in information provided to Manitoba Environment on September 23, 1992, and in accordance with methods outlined in the report **R. M. of Dauphin (Eclipse Water Co-operative) Rural Water Pipelines Proposal** prepared by the Manitoba Water Services Board and submitted to Manitoba Environment as information with the Environment Act Proposal dated June 19, 1992.
- 2) The Licencee is authorized to undertake trenching of stream crossings at Edwards Creek in NW 6-25-18W adjacent to the municipal road on the west side of the section and adjacent to PTH 20 on the north side of the section.
- 3) The Licencee shall make all reasonable efforts during the trenching of stream crossings to minimize sediment deposition in the streams including;
 - a) re-establishing the original bank profile using the excavated material compacted into place in order to prevent slumping and erosion;
 - b) replacing the topsoil material from between dykes over the compacted fill and re-seeding the area using a mixture of native or introduced grasses;
 - c) not placing any excess excavated material near the streams.
- 4) The Licencee shall not undertake construction activities at stream crossings during the period from November 1st to June 30th of any year.
- 5) The Licencee shall re-establish the profile, compact and seed all excavated areas within the Provincial Roads rights-of-way with a mixture of native or introduced grasses.
- 6) The Licencee shall separate and replace topsoil from backhoe operations in accordance with the methodology described in Figures 1, 2 and 3 attached to this Licence.

October 8, 1992
Page - 2 -

- 7) The Licencee shall re-seed disturbed areas of natural vegetation with a mixture of native or introduced grasses.
- 8) The Licencee shall ensure that all waste oil products generated by the machinery used in the construction of the Development shall be collected and disposed of in accordance with Manitoba Environment legislated requirements.

Revocation

If, in the opinion of the Director, the Licencee has exceeded or is exceeding the specifications, limits, terms or conditions set out herein, the Director may revoke this Licence either temporarily or permanently.



Larry Strachan, P. Eng
Director
Environment Act

File No: 3475.00

R/W
BOY.

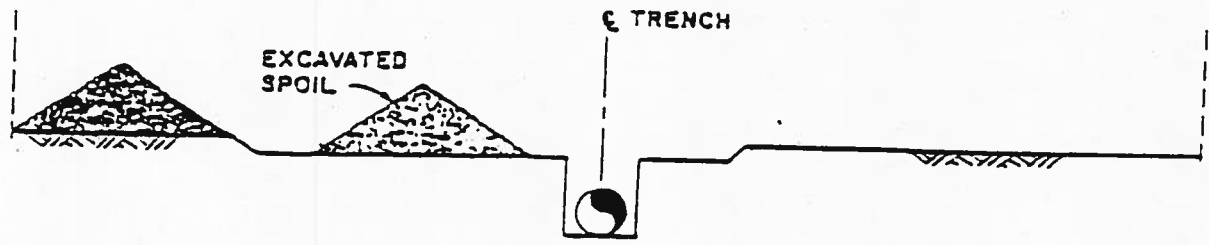
SPOIL SIDE

WORK SIDE

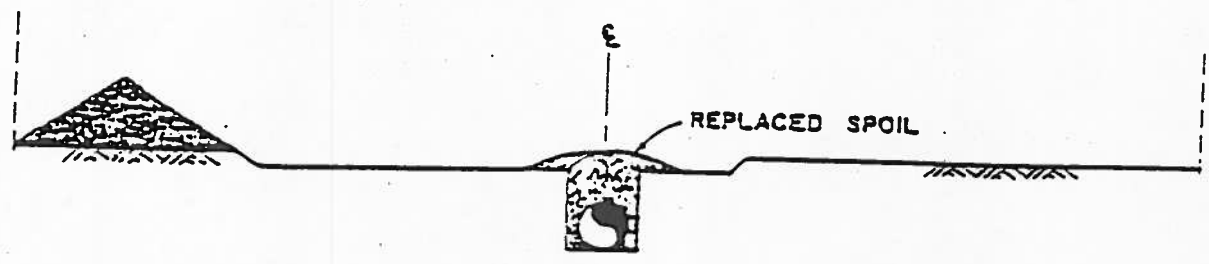
R/W
BOY.



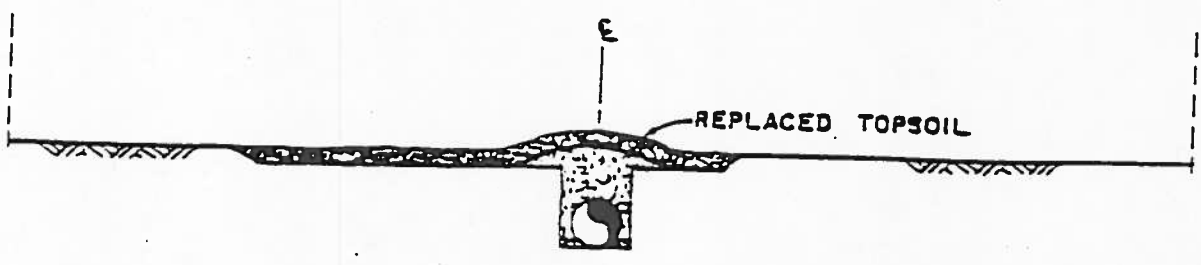
1. TOPSOIL STRIPPED
N.T.S.



2. TRENCH EXCAVATED
N.T.S.



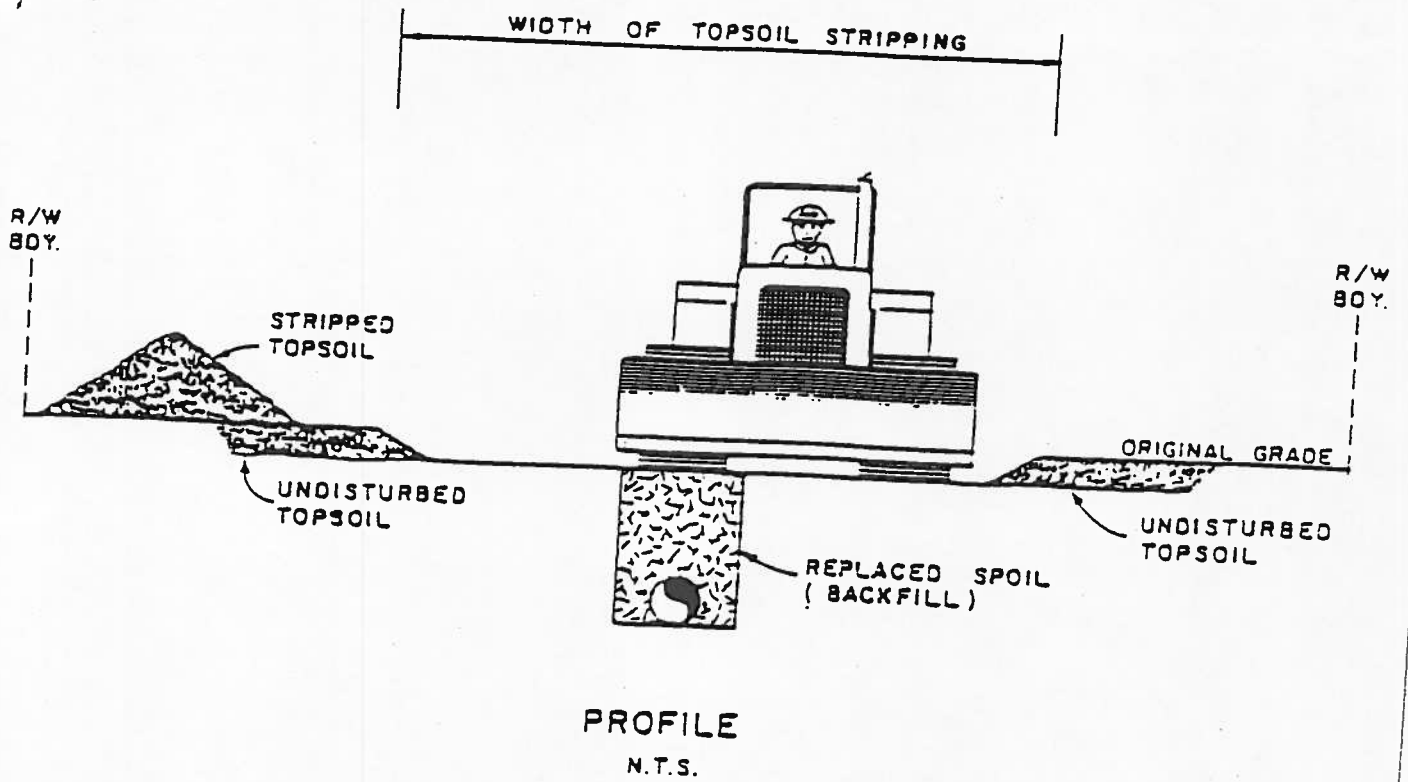
3. TRENCH BACKFILLED
N.T.S.



4. TOPSOIL REPLACED
N.T.S.

SEQUENCE OF TOPSOIL HANDLING

FIGURE 1



Notes:

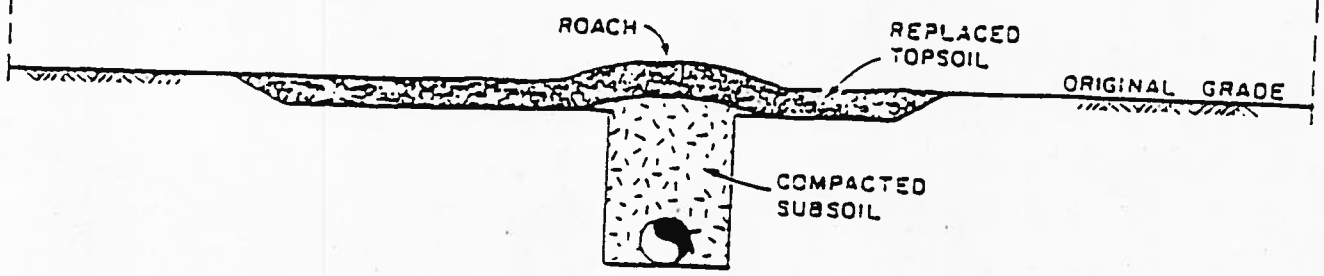
1. Except in rocky or muskeg areas, compact the backfilled subsoil to minimize settlement. The degree of compaction which can be achieved is limited by soil type, frost and moisture content, depth of cover, pipe strength and insulation, and other factors. Typically, compaction is achieved by a few passes with a crawler tractor. In special cases such as irrigated fields and open cut road crossings, 100% compaction is desirable and requires special equipment and compaction in multiple lifts.
2. Dispose of excess subsoil in locations satisfactory to the landowner and in a manner which will prevent mixing with topsoil.

COMPACTION OF BACKFILL

FIGURE 2

R/W
BOY.

R/W
BOY.



PROFILE
N.T.S.

Notes

1. Roach the trench to compensate for settlement and changes in natural drainage patterns. The height of the roach depends upon land use, the degree of compaction achieved, and soil frost. Frozen soils require higher roaches than non-frozen soils. In agricultural lands, including forested lands in the yellow area, the roach should be low and wide (unfrozen case) to facilitate topsoil replacement. A higher roach is acceptable on forested land provided drainage and wildlife are unaffected. Typical values for roaching of representative soil types are presented below. The higher numbers in the range represent the worst case (frozen or clods).

Type of Backfill	Swell Coefficient (r)
blasted rock	.00 - .05
sand & gravel	.05 - .10
sand	.08 - .15
silty sand	.10 - .15
silt	.10 - .20
clay	.10 - .25
organic (muskeg)	.50 - 1.00

$R = r \times D$ where R = height of roach
 r = swell coefficient
 D = depth of trench

2. Leave periodic gaps in roach (e.g., 250 m), at all obvious drainage courses and at trench breakers (Specs. No. 12-3a and 3b) to allow for surface run-off. These gaps may require maintenance the following year to fill in settled areas.
3. Replace topsoil evenly after trench has settled or has been compacted.

Source: Formula adapted from Transcanada Pipelines, 1979.

ROACHING THE TRENCH

FIGURE 3



Environment

Environmental Management

Building 2
139 Tuxedo Avenue
Winnipeg, Manitoba, CANADA
R3N 0H6

FAXED

Client File: 3475.00

October 8, 1992

Mr. Dick Menon
The Manitoba Water Services Board
Box 1059
Brandon, MB R7A 6A3

Dear Mr. Menon:

Enclosed herewith is Environment Act Licence No. 1598 dated October 8, 1992 issued in accordance with the Manitoba Environment Act the Rural Municipality of Dauphin in connection for the construction and maintenance of the Development being a rural water distribution system using water supplied from the Town of Dauphin and distributed via pipeline to farms and rural residences southeast of the Town of Dauphin..

In addition to the enclosed Environment Licence requirements, please be informed that all other applicable federal, provincial and municipal regulations and by-laws must be complied with.

For further information on the administration and application of the Licence, please feel free to contact Mr. Bill Tichon at 638-9111.

Yours truly,

Larry Strachan, P. Eng.
Director
Environment Act

Enclosure

cc. Distribution List

