

Leonard DeBastien
Executive Director
Gwich'in Land and Water Board
Box 2018
Inuvik NT X0E 0T0

May 21, 2019

Project #
60600398

Dear Sir:

**Subject: Town of Inuvik – Water Licence No. G17L3-001
Solid Waste Facility Fencing Plan**

On behalf of Inuvik, we are pleased to provide the following solid waste facility fencing plan in accordance with the requirements of the Water Licence No. G17L3-001.

Currently, the Landfill Operator is responsible for litter control within the facility, surrounding areas and along access roads. The landfill currently has in place a small section of chain-link fence, but is ineffective at controlling wind swept litter or deterring wildlife access.

The Town of Inuvik plans to install a fence for the purposes of litter containment and wildlife deterrence in the future, pending funding availability. The proposed fencing location plan is shown on **Figure 1**. Discussions with the Town regarding the fencing plan have taken place, with the following items considered:

- Fence type and height
- Fence location, site boundary, clearing requirements
- Access considerations for fence inspections/maintenance, gate locations and security
- Electrification for improved wildlife deterrence

Fence Types

A standard 6' chainlink fence with 3 strand barbed wire extension is a common fence type that would serve well for securing the site from unauthorized access and containment of litter. The chainlink fence could be proposed for the year round concerns of containment of windswept debris. Regular inspection and collection of captured debris should be completed. In addition to containment of litter, the fence will serve as a method to mitigate concerns of trespassing and wildlife access to the site. The fence post design should consider the ground conditions and potential movement of soils through deep post embedment and/or adjustable link-post connections (post sleeves).

The primary chain-link boundary fence will be a standalone effective solution to the landfill fencing for a majority of requirements for controlling access, wildlife and litter containment. For added bear deterrence, electrified components will be added the outside of the chain-link fence and energized primarily through solar power. The electrification of the fence will be continuous through seasons when ample daylight is available. During winter, bear presence is less of a concern due to hibernation patterns. Backup power may be required to provide the proper voltage should solar panel system be insufficient for the site conditions, or if year round electrification is found to be of benefit. Electric fence components will require control panel access both inside and outside the fence, and provisions for allowing main gate access during operational hours.

As an alternative to the chainlink fence with electrification, a more cost effective page wire fence with electrification could be a solution for the solid waste site concerns. This would utilize treated wood posts, and less costly page wire mesh. As the fence itself is made of less durable materials, wildlife deterrence is primarily relied upon by the electrified components. **Figure 2** is a typical detail for the electrified page wire fence. It should be noted that the detail also includes a ground anchor extension to assist in prevention of wildlife digging under the fence.

Fence Location

A review of the existing site boundaries and long term expansion potential was reviewed with the Town to identify the ultimate fencing location. The proposed fencing location plan is shown in **Figure 1**.

The location is situated in an expanded footprint to accommodate future facility growth. This puts much of the fencing through existing forest areas surrounding the landfill. Clearing of the trees for a 6m width will allow for fence placement and maintenance vehicle access. Regular brush cutting through the area should take place to maintain fence line access.

Access

As noted above, tree clearing/brush cutting maintenance will provide space for vehicular access to the fence line. This will be important to maintain to ensure access is unobstructed when maintenance or operational requirements are encountered. Vehicle gate access for the fence will be located at the main entrance and at the north end near the boundary road. Man gate access for the fence will be located approximately every 250m for the full length of fencing. Each gate will be equipped with Town preferred pad locks.

Fencing Plan Considerations

Fencing for the Solid Waste Facility as outlined in **Figure 1** totals 1275m in total length. Costs for the placement of the fence will vary depending on type and specific details required as discussed herein. Regardless, the total cost for implementation will be substantial, and will require securing funding/grant opportunities to address this improvement for the Town of Inuvik. Staged construction components could be considered to lessen the immediate capital costs, however, may result in greater total costs for complete implementation.

CLOSURE

We trust that this submission fulfills the Solid Waste Facility Fencing Plan requirements for the water licence.

Sincerely,
AECOM Canada Ltd.



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Project Manager
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JH/lw
Encl.

cc: GLWB – Alec Sandra MacDonald, Regulatory Officer
Inuvik: Grant Hood, S.A.O.; Rick Campbell; Utilidor Shop
Inuvik Public Works Committee

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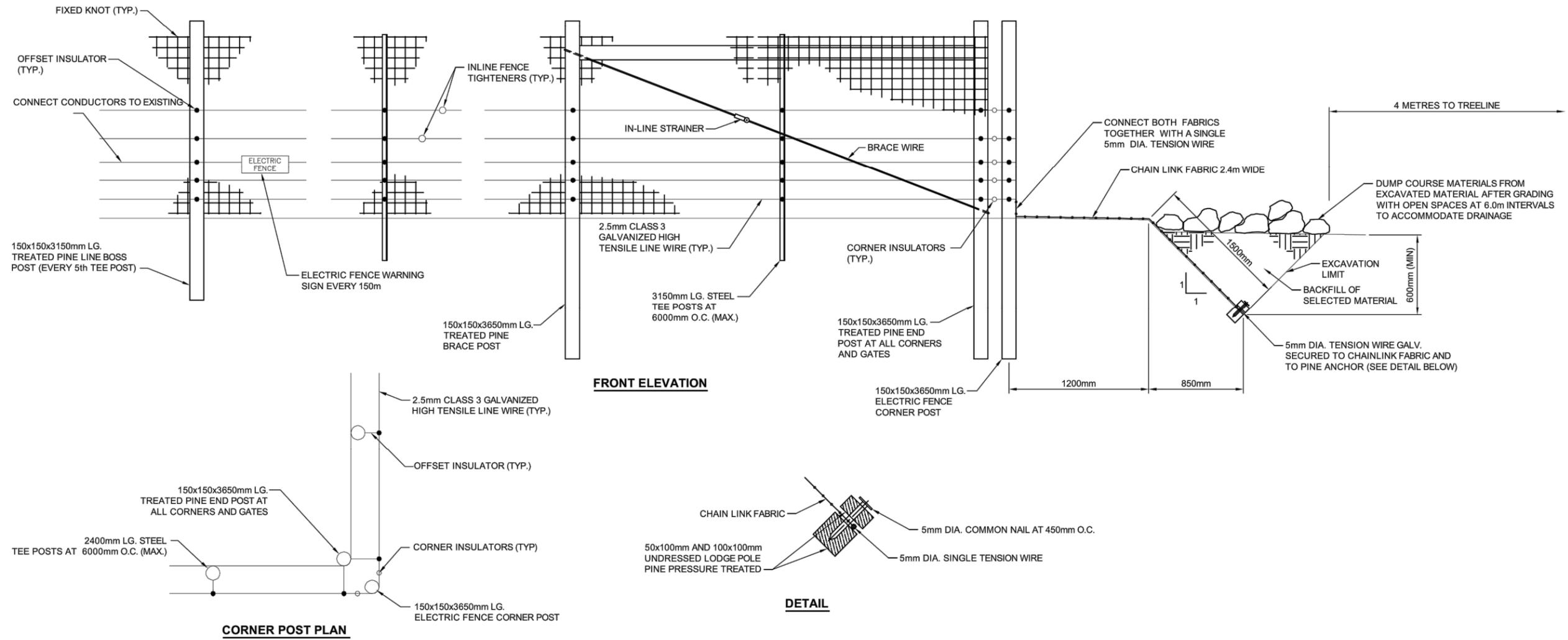


WATER LICENCE
SOLID WASTE LANDFILL FACILITY SYSTEM
 TOWN OF INUVIK, N.W.T.
 Project No.: 60600398

MOUNT BALDY
SOLID WASTE SITE
FENCING PLAN



Figure: 1



BEAR PROTECTION FENCE DETAIL

SCALE: N.T.S.

DATE: MAY 15, 2019