# ENVIRONMENTAL ASSESSMENT
# REGISTRATION DOCUMENT

PENNEY PAVING LTD.
PROPOSED ASPEN BROOK – EXPLOITS RIVER
AGGREGATE QUARRY

Prepared by:

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## 1.0 NAME OF UNDERTAKING

Aspen Brook - Exploits River Aggregate Quarry

## 2.0 PROPONENT

*2.1 Name of Corporate Body*

Penney Paving Ltd.

*2.2 Address*

14 Duggan Street
P.O. Box 806
Grand Falls - Windsor, NL
A2A 2M4

*2.3 Chief Executive Officer*

Fred Penney, Sr.
President
14 Duggan Street
P.O. Box 806
Grand Falls - Windsor, NL
A2A 2M4

*2.4 Principal Contact Person*

Fred Penney, Jr.
Vice President
14 Duggan Street
P.O. Box 806
Grand Falls - Windsor, NL
A2A 2M4

## 3.0 THE UNDERTAKING

*3.1 Nature of the Undertaking*

The proposed project involves the development of a sand and gravel pit site approximately 7 km southeast of the town of Badger, Newfoundland. The site is adjacent to an existing pit owned by Hunt's Concrete Ltd. Access will be via an existing access road (~ 0.25 km), which will be upgraded and extended to the northeast as required. The proponent proposes to develop the area as a pit operation, mining, crushing and transporting gravel materials for use in Penney Paving Ltd.'s asphalt and concrete operations located in Grand Falls-Windsor, Newfoundland.

### *3.2 Purpose/Rationale/Need for the Undertaking*

The purpose of this project is to produce a product (sand and gravel) for future use as asphalt aggregate, concrete aggregate and Class A and Class B granular material for projects in the Badger, Grand Falls-Windsor, and Bishop's Falls areas.

## 4.0 DESCRIPTION OF THE UNDERTAKING

### *4.1 Geographic Location*

The project is located approximately 7 km southeast of the town of Badger on NTS Map Sheet 02D13. Refer to Figure 1: Site Location and Figure 2: Pit Location for details.

### *4.2 Physical Features*

#### 4.2.1 Project Site Description

The primary physical feature for this project will be the pit itself. Access to the site will be by means of an existing access road, which will be extended to the southeast to access the quarry lease area. Secondary processing will be limited to screening and crushing.

#### 4.2.2 Existing Biophysical Environment

The proposed site is located within the *Central Newfoundland Forest Ecoregion*, North-Central Subregion. This subregion covers approximately 23,000 $km^2$ of the Ecoregions estimated 28,000 $km^2$. It is characterized by cool summers and short, cold winters. The mean annual temperature is around 4.5°C, with a mean summer temperature of 12.5°C and a mean winter temperature of -3.5°C. The mean annual precipitation ranges from 1000 mm to over 1300 mm. Higher elevations are rugged and rocky, while lower areas have a rolling terrain.

<u>Vegetation</u>

This subregion is characterized by several different types of vegetation, due mainly to the high occurrence of forest fires and warm summer temperatures. Where frequent forest fires have occurred, vegetation typically consists of dwarf-shrub heath dominated by sheep laurel. Fire stands of black and white spruce and trembling aspen are also common. In areas where fires have not recently occurred, balsam fir with a feathermoss ground cover is widespread. Balsam fir, with sheep laurel understory or Schreber's moss ground cover, is also regularly found.

Some distinctive plant-growth patterns occur in this ecoregion. For example, black spruce replaces balsam fir after a fire occurs; this is the only area on the Island in which this occurs. In addition, black spruce forests with a great quantity of ground lichens grow on commonly flooded areas that are characterized by gravel and sand. White birch, which

will colonize disturbed areas and prefers steep, well-drained slopes, occurs in stands or as part of mixed forests. The rarest conifer on the Island, the Red Pine, grows in the Central Newfoundland Forest Ecoregion only. This tree requires fire for seed dispersal and grows in sandy, gravelly, coarse, nutrient-poor soils. Finally, the trembling aspen, which is found across the Island, is most abundant in this ecoregion. Here, the trembling aspen grows in stands, likely a result of the warm summer temperatures that allow root suckers to form, allowing the plant to more easily take up nutrients in the poor soil, and quickly colonize burn-overs.

Wildlife

Wildlife species occurring on the North-Central Subregion include those adapted to long, cold winters and short, warm summers. Moose, black bear, beaver, linx, snowshoe hare, muskrat, otter and mink are among the mammal species that occur there. Caribou are occasionally observed as well, but mostly in the southern or southwestern portions of this ecoregion.

Of particular importance to this ecoregion is a small population of the threatened Newfoundland marten species. While the population of pine marten (local name) is growing, this species is currently restricted to a few isolated pockets in the forests of Terra Nova National Park, and nowhere near the project location.

Typical forest birds inhabit the ecoregion, including gray jay, northern flicker, pine siskin, chickadees, fox sparrow, white-winged crossbill, ruffled grouse, spruce grouse, osprey, great horned owl, and sharp-shinned hawk. Waterfowl common to the area include green-winged teal, ringed-neck duck, American black duck, and Canada goose. Also common are the following warbler species: Wilson's, black-throated green, black-and-white, and yellow rumped. Thrush species include Swainson's and hermit. The common crow, American robin and herring gull are also widely distributed throughout the area.

Reptile/Amphibians

There are no reptiles recorded for this subregion. Few amphibians have been recorded in the subregion; the green frog, an introduced species can be found in some ponds and marshes.

Inland Fish

The rivers and ponds of the area are host to a number of fish species, including stickleback (three-spine and nine-spine), brook trout, rainbow smelt, American eel, arctic

char and Atlantic salmon. In addition, the uncommon sea lamprey inhabits the Gander and Exploits Rivers.

## *4.3 Construction*

The construction phase of site development will consist of the following main components:

- site access upgrades;
- clearing and grubbing; and
- pit development, including sediment control.

### 4.3.1 Site Access

Access to the site will be from an existing ~ 0.25 km long gravel access road, which has to be extended to the northeast to access the proposed project area.

### 4.3.2 Salvageable Timber (Clearing) and Grubbing

Merchantable timber removed during pit development will be salvaged. All grubbed materials will be stockpiled for future use.

### 4.3.3 Pit Development

The proposed pit site covers a total area of approximately 9.75 hectares. Initial construction activities will involve the removal of vegetative cover, as required, in order to advance the working face in a southwest direction. Surficial organics and topsoil, where present, will be set aside for future use (eg. pit rehabilitation).

## *4.4 Potential Sources of Pollution during Construction*

The construction phase of the development will consist of earth-moving activities. The potential sources of pollution include site drainage, noise, air emissions, waste and litter, and potential release of hydrocarbons.

Site run-off will be directed to vegetated areas which will filter suspended solids. In addition, barriers will be installed as required to prevent siltation of water bodies/streams.

Domestic waste generated during construction will be collected and disposed of at the Badger town dump until the new regional dump near Norris Arm is operational.

All equipment will have appropriate emission controls. All vehicles will follow a designated project route and be properly maintained to minimize noise. All vehicles will have exhaust systems regularly inspected and mufflers operating properly.

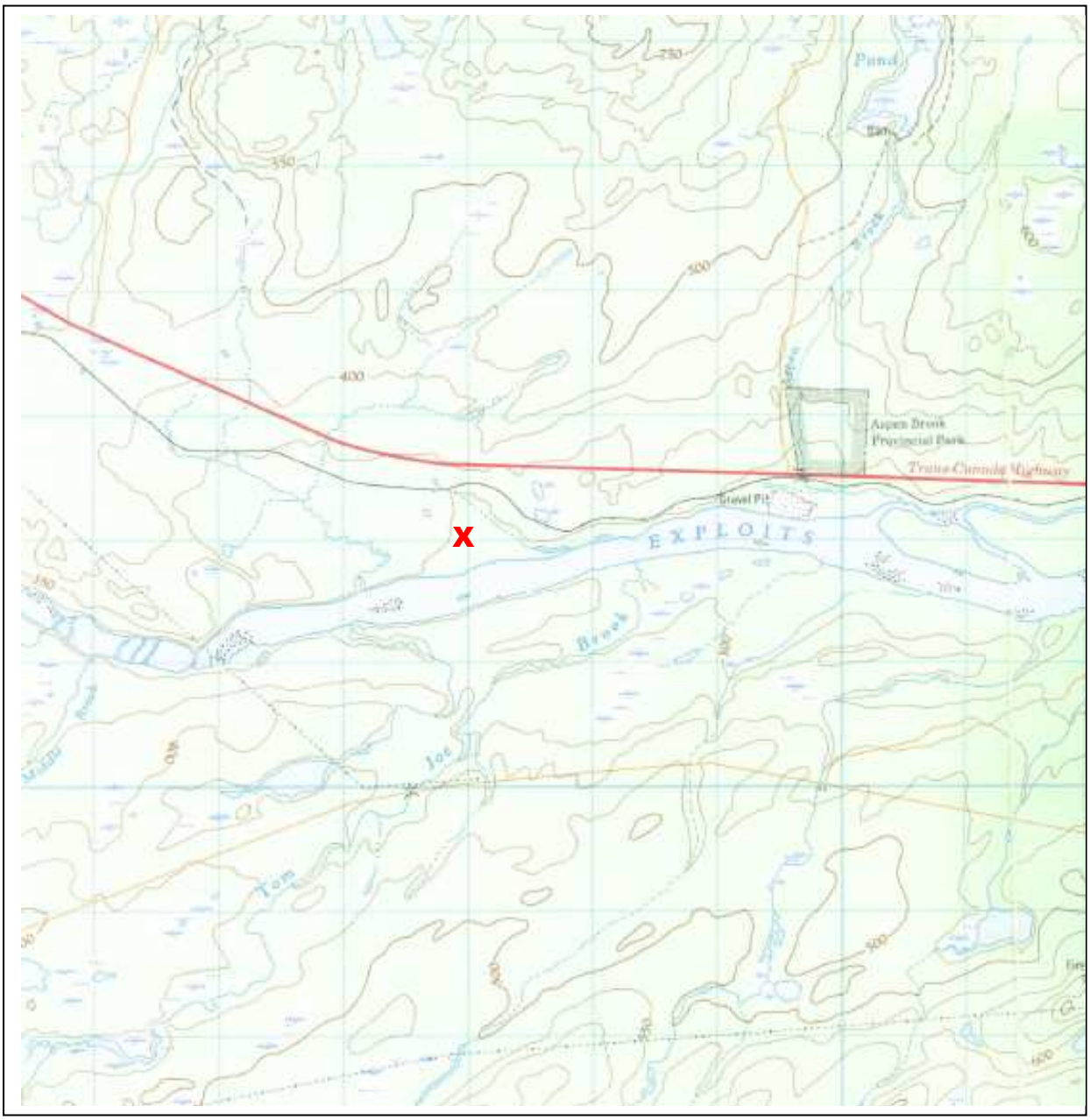


**Figure 1.** Site Location

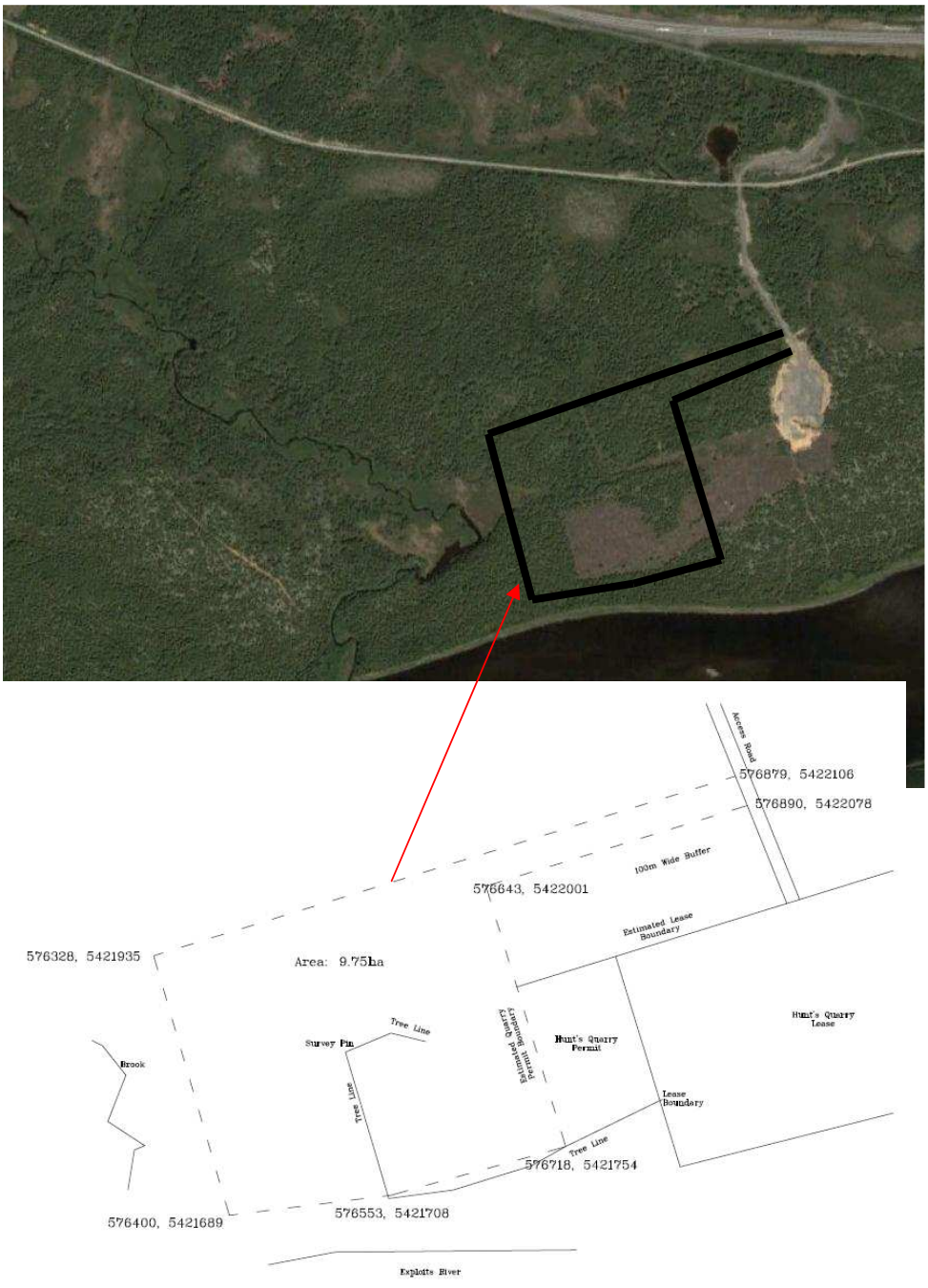


**Figure 2.** Pit Location

Dust control measures, such as water applications, will be provided on an as-required basis.

Petroleum products will not be stored on site during construction; petroleum products will be handled as per *Storage and Handling of Gasoline and Associated Products Regulations, 2003* under the *Environmental Protection Act* (O.C. 2003-225)

### *4.5 Operation*

Typical excavation methods will be employed to collect the overburden materials (sand and gravel) at the proposed site. The operation will include the excavation and loading of the native sand and gravel materials at the working face of the pit, crushing/screening, and transportation of these materials for use off-site at Penney Paving Ltd.'s asphalt and concrete plant Grand Falls-Windsor, Newfoundland. Waste and oversized rock will also be stockpiled for future use.

Appropriate ditching will be maintained on site to ensure silt and general site run-off is controlled, and does not adversely affect the surrounding environment. In addition, perimeter ditching and settling basins, as required, will be located to prevent migration of surface water drainage from non-operating and off-site areas into operating areas. The grounds and facilities will be maintained according to environmental health and safety standards and regulations.

Equipment on site will include the following:

- tracked excavator (access road construction and loading at the working face);
- tandem dump trucks (material transportation);
- front end loader (material handling);
- mobile crusher-screener.

The pit operation will typically run from April to November, in accordance with demand for the product. The pit will potentially operate for 12 years.

### *4.6 Potential Sources of Pollution during Operation*

The potential sources of pollution will be dust, noise, site run-off, or an accidental spill of fuel.

<u>Dust and Noise</u>

All equipment will have appropriate emission controls. All vehicles will follow a designated project route and be properly maintained to minimize noise. All vehicles will

have exhaust systems regularly inspected and mufflers operating properly. Dust control measures, such as water applications, will be provided on an as-required basis.

Site Run-off

Where possible, run-off will be directed to vegetated areas within the project area, which will filter any potential suspended solids.

Sewage will be handled by an approved portable facility during operation. The holding tanks will be emptied by a pump truck on a regular basis and disposed of in an appropriate manner.

All fuel handling and storage will comply with the *Storage and Handling of Gasoline and Associated Products Regulations, 2003*. Vehicles and mechanical equipment will be maintained in good working order to prevent leaks and spills. There will be no on-site bulk storage of fuel or oil. All waste oil generated at the pit will be disposed of by a licensed disposal agent.

Waste and Litter

During operation, domestic garbage will be collected and hauled to the local waste disposal facility in accordance with the *Waste Material Disposal Act*. Any food or organic garbage onsite will be held in animal-proof containers to prevent attracting wildlife.

### *4.7 Potential Resource Conflicts during Operation*

Resource conflicts are not expected as the site. A literature review did not reveal reference to historic sites in the area. If, however, historic resources are encountered, work in the area of the discovery will stop and the foreman will notify the proper authorities.

### *4.8 Decommissioning/rehabilitation*

Site decommissioning and rehabilitation shall be in accordance with standard pit operations, including:

- Upon completion of all pit activities, all pit slopes shall be graded to a 30º slope;
- Waster overburden will be used for sloping;
- Stockpiled topsoil or other organic material will be spread over the entire mined out area and seeding will be completed to produce plant growth.

### *4.9 Occupations*

Site construction and operations for the proposed pit will include the following occupations, classified as per *National Occupational Classification, 2006,* and equipment.

Construction Phase
1 Site Foreman/Supervisor (7217)
1 Heavy Equipment Operator (7421)

Operations Phase
1 Pit Manager (0811)
1 Pit Foreman/supervisor (8221)
5 Heavy Equipment Operators – 2 Excavators, 1 Loader, 1 Crusher (7421)
3 Truck Drivers (7411)
2 Heavy Equipment Mechanics (7312) – located offsite

### *4.10 Project Related Documents*

There are no project related documents.

## 5.0 APPROVAL OF THE UNDERTAKING

*Environmental Protection Act – Assessment Regulations*: Permit to Proceed
*Quarry Materials Act and Quarry Minerals Regulations*: Quarry Permit

## 6.0 SCHEDULE

| | |
|---|---|
| Registration Document Submission | February 2010 |
| Government Review and Decision | April 2010 |
| Access Road Upgrades | May 2010 |
| Pit Operations | June 2010 |

## 7.0 FUNDING

The funding for this project will be provided by Penney Paving Limited.

## 8.0 SUBMISSION

_____ _____

*Date*

*Name:* Fred Penney
*Position:* Vice President