**Request for Historic Designations**

1. **The Canadian Grain Industry Nexus**
2. **Terminal Elevator**

The Friends of Grain Elevators (FOGE) wishes to apply to the Historic Sites and Monuments Board of Canada (HSMBC) for designation of both **an event** and **a place,** related to Canada’s emergence as a leader in the world grain trade. Specifically we are requesting the following two designations:

* **The event**: the development of the Canadian Grain Industry Nexus (*The Nexus*). A nexus is defined as *a centre* or *focus*. Both definitions apply to the facilities and grain-handling practices developed in Thunder Bay.
* **The place:** *Western Grain By-Products Storage* (*Western Grain*), a terminal grain elevator, as a building of historic importance and a suitable physical representation of the designated event.

FOGE[[1]](#footnote-1) is a volunteer community group composed of working members in Thunder Bay and Winnipeg. In addition to this working group, our network includes advisors and interested parties across the nation, who have supported our efforts over the ten years of our existence. It is dedicated to preserving elements of Canada’s international grain-trade history including rail, lake shipping, terminal elevator facilities and handling practices. The group believes the Canadian grain industry and infrastructure development during the Wheat Boom period of 1896-1929 is an event of historic importance, given that it represented the fulfillment of the national economic strategy envisioned by the Fathers of Confederation. Not only does the terminal grain elevator symbolize this event but it also, we believe, is a place of national significance in its own right.

For clarity, this submission presents justification for each of designation requests in separate sections. Additional information such as photographs, maps, and background papers are attached as separate files.

1. *Event Justification: Canadian Grain Industry Nexus*

In the early part of the 20th century, Canada accomplished two amazing feats, in spite of its geography, climate, and small population:

1. It developed a grain-transportation, storage and handling system, which catapulted the young nation into a world-leadership position in the international grain trade.
2. Its twin ports of Fort William and Port Arthur (now Thunder Bay), in the middle of the country, became the **world’s largest** grain-shipping port and held that distinction for much of the 20th Century. [[2]](#footnote-2)

HSMBC has established criteria for designating an event as a defining episode in Canadian history. The development of *The Nexus* meets that criteria in three ways:

1. It applies an idea important in the development of Canada.
2. It represents a significant stage in the development of Canada.
3. It is identified with notable Canadians and Canadian enterprises.

**Significant Idea and Stage**

In the latter part of the 19th Century, Canadian leaders were determined to expand Canada’s territory to the west coast. A central plank in what became known as the “National Policy” was the building of strong east-west ties through railway construction. As Vernon Fowke pointed out in the *National Policy and the Wheat Economy,* a Canadian railway was required to ensure that Canada benefited from the acquisition of Rupert’s land. The rail connection would take settlers west along a Canadian route, rather than the US route which had already been established. At the same time, the railway would support eastern-Canadian manufacturing by providing an expanding market for its goods. With a great deal of difficulty—both politically and physically—a railway was put in place. The intended result ensued and the West became populated as the railway pushed on towards the Pacific.

A less intended but highly positive consequence of western settlement was the rapid increase in wheat production far surpassing local needs. This development provided a viable economic base for western settlers, but the magnitude of their success created an urgent need for grain-handling infrastructure. This infrastructure already existed south of the border, and Canadian leaders once again feared the pull towards an undesirable north-south flow of commerce—the nemesis of their National Policy. This danger was real. In fact, the first shipment of Western Canadian grain passed through the port of Duluth, Minnesota, on its way to Ontario. Given the absence of a Canadian system, that route was the best option.

The federal government was vitally aware of the danger of encouraging a U.S. route. According to historian Dr. Ernie Epp of Lakehead University:

 *Examination of a railway map of the western provinces shows a number of spur lines into Canada. The first western province, Manitoba, experienced the denial of American railway efforts a number of times during the 1880s as Sir John A. Macdonald’s conservative government vetoed charters for railways south of the Canadian Pacific mainline.[[3]](#footnote-3)*

The government took action, and the development of *The Nexus* began in earnest. The construction and resulting economic activity that followed the decision to create Canadian grain-handling capacity led to a boom. The Canadian Wheat Boom era spans the years of 1896 to 1929. Substantial work has been done by Canadian economic historians on the impact of the boom on Canadian economic development. Revised gross national product estimates assembled by M. C. Urquhart show the period 1901 to 1911 to be one of substantial growth. The Lakehead grain industry—including railways, steamships, and grain elevators—was the crucial linchpin in the development of this economic potential and the continued success of the Prairie settlement.

In fairly rapid succession, three railway systems forked across the west, funnelling grain into Fort William and Port Arthur and creating an urgent need for grain storage facilities. Terminal elevator construction was phenomenal. The first terminal elevator appeared in 1883 built by Canadian Pacific Railway. It was almost immediately too small to handle the bumper crops western farmers produced. The CPR and its rivals the Canadian Northern and the Grand Trunk Pacific put new terminals up with record speed, often requiring labourers to work around the clock to keep ahead of the boxcars of grain backing up at the port. Between 1905 and 1929, grain shipments increased seven-fold and for the remainder of the 20th century, Canada accounted for the bulk of the world’s wheat exports, with the Lakehead being crowned as the largest grain port in the world.[[4]](#footnote-4) By the 1920s, private companies, farmer cooperatives, and the federal government had erected terminals. A remarkable twenty-nine grain terminals, with storage capacity of nearly 100 million bushels, lined the harbour when the port was at its peak.[[5]](#footnote-5)

As quickly as the railways transported the grain from the Prairies in rapidly increasing amounts, Canada had to build the capacity to carry it away to markets. As a result, the merchant fleet expanded, and as the terminals grew in size and number, so did the fleet. The economic influence of *The Nexus* expanded eastwards along the water route from Lake Superior to the St. Lawrence River and beyond to world markets.

**Connection to Notable Canadians and Canadian Enterprises**

The construction of *The Nexus* is rich with meaningful connections to Canadians of national historic significance. These Canadians built the railways and terminal elevators, designed the handling and quality-control systems, and developed the water fleet. We will outline some of these connections under the individual headings.

**Railways:** We have already mentioned the three railways that formed the early Nexus. The Canadians associated with these railways had close connections to the historic event.

* *Cornelius Van Horne* and the *CPR*, besides being instrumental in the development of the first rail connection from the Lakehead to the West, constructed and operated the first terminal elevators. They controlled the economic fate of Fort William and Port Arthur for the first 20 years of the trade. The turning of the first sod of the *CPR* occurred a few hundred yards from *Western Grain* on the Kaministiquia River.[[6]](#footnote-6) By the time the CPR decided to divest itself of its grain terminals to concentrate on grain shipment, it had built six large elevators along the Thunder Bay waterfront.
* *The Canadian Northern Railway* and its notable leaders, *William MacKenzie* and *Donald Mann*, seeing the success of the *CPR* decided there was money to be made in the grain trade and constructed a large grain terminal serviced by their railway.
* The *Grand Trunk Pacific Railway* also had its first sod-turning in Fort William. Sir *Wilfred Laurier*, a staunch supporter of the railway, officiated at the event on September 11, 1905. The railway opened its terminal elevator in 1909 under the direction of *Charles M. Hays*, railroad pioneer and company president.

*MacKenzie, Van Horne, Hays*, and *Laurier* have lengthy biographies in the Canadian Dictionary of Biographies. Notably, these biographies recognize that the importance of the men is tied directly to development of components of *The Nexus*.

**Terminal Elevators and Handling:** The list of notable Canadians and enterprises connected to the construction of the non-railway sponsored terminals is a long one. All major personalities involved in the grain trade during the Wheat Boom were closely tied to *The Nexus*. Charles W. Anderson, in his book *Grain: The Entrepreneurs* gives an account of the major private companies and their owners.[[7]](#footnote-7) Some are well-known on the national stage, while others built their careers and reputations in the western provinces. The *Ogilvie*, *Bawlf*, *Richardson* and *Paterson* families were among the earliest private builders. Besides these private operators, major cooperative and government organizations contributed to the building and success of *The Nexus.* Chief among these were the powerful *Alberta, Saskatchewan, and Manitoba Pool Elevator* companies and *United Grain Growers*. The *Government of Canada* and the *Canadian Board of Grain Commissioners* also played major roles—the former by building and operating a government-run terminals and the latter in instituting and supporting Canada’s grain-quality assurance system. This unique system underpinned international confidence in Canadian grain as top-quality product.

No list of important people connected to the grain trade in Thunder Bay would be complete without naming *Clarence D. Howe*. Mr. Howe began his career in Canada’s grain trade supervising the construction of the Government of Canada terminal in Port Arthur in 1912. Eventually he supervised the construction of similar elevators at locations across the Prairies. With that experience in hand, he formed his own engineering firm, headquartered at the Lakehead, and went on to build or expand elevators lining the port. He eventually entered politics and became a senior minister during WWII, respectfully referred to as The Minister of Everything.

**Lake Shipping:** Less information is readily available about the lake-shipping leaders with meaningful connections to the Thunder Bay nexus. However, two companies noted earlier, *Richardson* and *Paterson*, expanded beyond terminal elevators to operate lake-shipping fleets. *Canadian Steamship Lines*, *Algoma Central*, *Hall Corporation*, and *Upper Lakes Shipping* are other names associated with this component of The Nexus. In later years, the Saint Lawrence Seaway contributed to the world’s largest port status. The Lakehead lays claim to Mile 0 of the Canadian Seaway operation.

1. *Place Justification: Western Grain*

Earlier in this submission, *Western Grain* was put forward as a representation of *The Nexus*. We suggest that the elevator is also a justifiable place of national historic significance in its own right. This well-maintained terminal elevator stands on the north bank of the historic Kaministiquia River, which empties into Lake Superior. The site includes railway, storage and handling, and the water shipping components. When it opened in 1913 as the *Fort William Elevator (FWE)*, the river was the nerve centre of the Canadian grain-shipping trade. At that time *FWE* stood among 22 other elevators busily receiving, handling, and shipping grain. Rail lines of three transcontinental railways criss-crossed the city within view of the elevator and a growing fleet of grain ships took on cargoes at its dock. Elevator employees, most of them new immigrants, moved and unloaded boxcars, elevated grain, and conditioned, sampled and inspected the product before loading it onboard ship.

Currently *Western Grain*, owned and operated by Maurice Mailhot, is the only active terminal elevator on the Kaministiquia River. Over time, the focus of the Lakehead grain trade has shifted away from the river to the lakefront section of the harbour. One-by-one, the Kaministiquia River terminals closed and were either demolished or left standing in sorry states of disrepair. Because it is still a working elevator and because Mr. Mailhot treasures the history of his elevator, *Western Grain* offers a unique opportunity to showcase the building and *The Nexus* in one location.

However much FOGE appreciates *Western Grain* and its history, to be eligible for historic place status, the elevator must meet at least one established HSMBC criterion. We believe it has merit on three counts:

1. It represents an exceptionally creative achievement in engineering and architecture, seen as a symbol of the Canadian grain trade nationally and world-wide.
2. It is meaningfully associated with people and enterprises deemed of national historic significance.
3. It symbolizes an important stage in the development of Canada, namely the successful expansion of Canada into the western provinces and its emergence as an important grain-producing nation.

**Architectural and Engineering Merit**

We suggest that a terminal elevator is a creative achievement in engineering and architecture. To support our view, we will rely on extensive research conducted by Patricia Vervoort, who has written widely on the history of Canadian terminal elevators. She argues that the terminal elevator is iconic, nationally and internationally, given its appearance on Canadian coins and stamps and its representation in classic European architecture texts. Vervoort provides evidence that elevators like *Western Grain* are part of the national conscience, calling to mind a sense of collective economic and engineering achievement. We have attached two of her publications of particular importance to this submission:[[8]](#footnote-8)

* Lakehead terminal elevators: aspects of their engineering history
* Towers of Silence: The Rise and Fall of the Grain elevator as a Canadian Symbol

Reference lists at the end of Ms. Vervoort’s articles are rich sources of further information on terminal elevator construction and importance.

*Western Grain* exhibits all the important components of a terminal elevator. It has the additional cache of being a unique marriage between modern-day innovation and early construction and technology. In a 1915 newspaper article about the elevator, the author gives a summary of the transition in terminal elevator construction from the 1880s, indicating *Western Grain*’s pedigree:

*Elevator construction has developed greatly since the first engineers designed this system of handling grain, from the early model, which was a plain wooden structure, to the steel tanks set up on concrete foundations, and thence to the tile building until, of late years, the use of reinforced concrete has become almost universal. This material supplies strength, safety from fire, minimum insurance rates, protection from atmospheric conditions and even beauty of design, for the elevator of the FWE company, which is one of the latest models of this class of construction, cannot be regarded as other than a very handsome structure.[[9]](#footnote-9)*

Today, from the exterior, the building is almost identical to the 1913 version. Changes to spouting and dust collection systems are apparent to careful observers. Inside, operating systems have been modernized, but remnants of the old are still in place, making a tour of *Western Grain* a fascinating, changes-through-history experience. Structural details[[10]](#footnote-10) of the elevator are attached along with photographs of the exterior and interior of the elevator.[[11]](#footnote-11)

**Connection to Notable Canadians and Canadian Enterprises**

The construction and operation of *Western Grain* have meaningful connections to important Canadians and Canadian enterprises:

* The *Canadian Pacific Railway* initiated construction of the elevator under an agreement with the City of Fort William.
* *Fort William Elevator Company (FWE)*, later to become Western Grain, was incorporated by two kingpins of the western grain trade, *Nicholas* *Bawlf* and *David Horn*.
* *Barnett and McQueen Construction*, a Canadian leader in elevator construction, designed the plant.

Of these three, the FWE is less well known and needs additional explanation. The owners, *David Horn*, *Nicholas Bawlf*, and *Capel Tilt* were key players in Western Canada’s early grain trade. When the new company was announced, the Manitoba Free Press referred to the owners as “…a trio of the best known and most popular men in the Canadian grain trade.” Little is known of Tilt, but both Horn and Bawlf are recognized in biographies of important Canadians.[[12]](#footnote-12)

By the timeFWE was built, both Nicholas Bawlfand David Horn were well established in the trade. According to the *Dictionary of Canadian Biography*, Bawlf (1849-1914) was “…among the handful of business men who laid the foundation of the Canadian grain trade and who played a crucial role in its success, no less than the farmers who worked the fields.” David Horn (1849-1933), on the other hand, distinguished himself in the public sector as Canada’s chief grain inspector in Western Canada (1899 to 1910). He retired from that position to become the manager of the *CPR* elevator in Port Arthur. As chief grain inspector, Horn established national and international respect for himself, but more importantly, for Canada’s grain inspection system, a respect that has lasted until today. Although Horn does not yet appear in *The* *Dictionary of Canadian Biography*, his accomplishments in the service of Canada’s farmers, its economy and its international reputation make him a deserving candidate. He does, however, appear in Manitoba Historical Society’s list of memorable Manitobans.

The final important enterprise connected to Western Grain*, is Barnett and McQueen Construction (B-M),* which was established in Fort William to take advantage of the rapid growth of elevator construction in the 1910s. B-M’s parent company, the Barnett-Record Company of Minneapolis, pioneered the modern slip-form method of concrete construction which made concrete silos the most efficient building method and ended earlier terminal construction methods using steel or tile. The first successful use of the technique is still apparent in one of Thunder Bay’s decommissioned elevators.

B-M was quickly in demand. At the same time as its engineers were designing *Western Grain*, the Canadian government hired the firm to design and build five massive, government-owned terminals—one in Thunder Bay and the other four across the western Canada. The government also engaged noted Canadian C.D. Howe to supervise B-M’s work on its behalf. By the end of the decade, C.D. Howe had set up his own firm and become B-M’s stiffest competition. (Also of note: Distinguished Canadian Senator N.M. Paterson, built his grain-handling and shipping empire on the Kaministiquia River, adjacent to the *Western Grain* property. A little farther up and down-stream, other notable Canadian individuals and companies carried out business—*Richardson*, *Ogilvie*, *Sellers*, *Parrish*, *Heimbecker*, *Searle*, *Leach*, *Grain Growers*, *Saskatchewan Wheat Pool*, and so on.[[13]](#footnote-13)

**Symbol of an important stage in the development of Canada**

Western Grain embodies all of the components of grain industry nexus—rail, storage, handling, and water shipping. As such, it is a major symbol of Canada’s successful expansion into the Prairies. More specifically, it is emblematic of the Wheat Boom years, spanning the first thirty years of the Twentieth Century.

*Special Requirements for Places*

In published guidelines, HSMBC requests additional information when a place is proposed. This information as it relates to Western Grain is presented under the headings given in the guidelines.

**Consent of Property Owner**

The terminal elevator proposed for historic place status in owned solely by Maurice Mailhot. Mr. Mailhot has given his written permission for Friends of Grain Elevators to put forward this proposal.[[14]](#footnote-14)

**Boundaries of the Proposed Site**

The terminal elevator is located in the Westfort area of Thunder Bay on the Kaministiquia River, adjacent to the site of the first spike of the CPR. It is on a lot bounded on the north by rail yards, on the south by the Kaministiquia River, on the east by property which includes a derelict terminal elevator, and on the west by raw land owned by Mr. Mailhot under separate title, which once held another terminal elevator. (The basement tunnels of that elevator are still on the property) The legal description of the lot and location of buildings are shown on the attached Plan of Survey which reads:[[15]](#footnote-15)

 Plan of Survey of Block C, Block D, Registered Plan 735, and Parcel 1794

The survey also notes “*Rights over portion of Block A”* which is the access road running from west to east across the property between the track workhouse and the storage bins. Originally this portion included railway tracks which have since been removed.

**Components of the Historic Property**

The building proposed for designation comprises

* The main terminal elevator consisting of twin workhouses, 48 storage bins, and railway track shed
* Power plant and stack

The Western Grain is at once a testament to the early days of the Canadian international grain trade and a modern-day operating elevator. It is one of the first that allowed operators to receive rail cars, elevate the contents into the plant, clean the grain and dry it if necessary, and also load the finished export-grade product onto a vessel, all at the same time. The innovative design of this elevator, with two distinct workhouses located on either end of the storage bins, was a significant improvement over earlier designs where the workhouse was on top. The resulting efficiency meant grain could be handled for pennies per bushel, helping to ensure Canada’s competitiveness in export markets and increase profits for farmers and grain companies.

The terminal elevator is a concrete and brick structure. Its heritage value arises from its unique design, as well as the fact that it is representative of similar structures built between 1910 and 1930. Noted Canadian engineering firm Barnett and McQueen constructed the elevator using the revolutionary slip-form concrete construction method.

Mr. Mailhot continues the innovation of the early builders, while preserving as many original elements as possible. For example, he incorporated high-rise floor construction techniques when pouring concrete to improve bin-floor safety but used white-washing techniques developed years ago for barn maintenance to improve safety and reduce electrical costs in the elevator basement. He still stores the ropes from the original rope drives.

Notable structural and mechanical details are tabulated below:

***Structural Details***

* Composed of two distinct concrete and brick workhouses:
	+ Main house located on two rail tracks with car unloading and receiving, cleaning, drying, bagging and distribution to the storage annex situated at the north and south ends of the main concrete storage bins.
	+ Shipping house located at the other end of the storage annex at the river’s edge for loading vessels.
* Storage capacity for 1,750,000 bushels in 48 concrete bins (16 to 22 feet in diameter) and numerous interstitial bins. These storage bins are underpinned by a forest of 3,500 green, locally-sourced jack pine piles
* Six receiving pits in track shed, three receiving legs, and six shipping spouts—the latter having been replaced by two spouts located higher on the shipping bins to allow loading of larger vessels that replaced the smaller ships of the early grain fleet.
* Bagging house on top of track shed with long bag slide to the basement where the bags could be transferred by belt conveyor to the dock.
* Canadian Grain Commission inspection facilities on site

***Mechanical Details***

* Originally steam powered by a large, coal-fired engine that drove the main shaft and generated electricity for the plant. The power house and stack still exist, including an open well in the basement which provided water for the steam power. Plant converted to electricity in the 1940s.
* Originally operated by rope-drive system (still visible in the plant), upgraded to modern mechanical system.
* Upgraded dust-control system
* Operating grain-cleaning systems including modern and original machinery

There are other small buildings on the property that are not included in this proposal: a two-storey office building and small storage sheds.

**Site Condition**

The terminal elevator is located on a well-kept, park-like site. As a working elevator, owned and operated with pride, the elevator itself is in very good condition, both inside and out.

**Additional Documentation**

As requested and noted earlier, we have attached supplementary documentation which includes

* Recent interior and exterior photographs
* Plans and elevations

*Previous Historic Designations*

Thunder Bay elevators have received limited recognition as historic buildings. In 1990, the Canadian Society for Civil Engineering named the port’s elevators as one of its National Historic Civil Engineering Sites. In 1990, a plaque recognizing the accomplishment was set in place on a hillside overlooking the harbour, far from the elevators. It reads:

*The Lakehead Terminal Grain Elevators: A tribute to the engineers who designed and supervised the construction of these massive structures since 1882.*

Also, at one time, Ontario recognized the first CPR elevator in Thunder Bay with a historical site marker. Unfortunately the designation and plaque have mysteriously disappeared. HSMBC, too, has recognized a portion of *The Nexus* by erecting a plaque dedicated to the three national railways. This plaque is located in a spot unrelated to any elements of *The Nexus*, about three miles from *Western Grain*.

*Conclusion*

We would like to end this submission with a quote from the famous British author Rudyard Kipling. In his *Letters of Travel*, written while visiting the Lakehead in the early 1900s, he paid Port Arthur and Fort William the following compliment:

***Two towns stand on the shores of the Lake less than a mile apart. What Lloyd’s is to shipping, or the College of Surgeons to medicine, that they are to the Wheat.***

We would like other international visitors and Canadians to be aware of this accomplishment, and we hope that the HSMBC will help us accomplish this by accepting our request for historic event recognition. It would be a fitting birthday present for *Western Grain,* which turns 100 this year, if it too received recognition as an important historic place.

1. Attachment 1: Friends of Grain Elevators Membership List [↑](#footnote-ref-1)
2. Throughout our submission we will use the names Thunder Bay, Fort William, Port Arthur, and Lakehead. The twin port cities of Fort William and Port Arthur at the Canadian head of Lake Superior amalgamated to form Thunder Bay in 1970. The term *Lakehead* appears regularly in historic documents referring to the combined cities prior to amalgamation. [↑](#footnote-ref-2)
3. Attachment 2: Ernie Epp, *The Terminal Elevators of Thunder Bay,* 2013 [↑](#footnote-ref-3)
4. Attachment 3: Lakehead Harbour Map, 1962 [↑](#footnote-ref-4)
5. Attachment 4: Newspapers: Special Grain Editions 1915, 1923 [↑](#footnote-ref-5)
6. Attachment 5: Globe and Mail, *First Sod of the CPR Turned,* 1875 [↑](#footnote-ref-6)
7. Charles W. Anderson, Grain: The Entrepreneurs. Winnipeg: Watson and Dwyer, 1991. [↑](#footnote-ref-7)
8. Attachment 6: Patricia Vervoort articles: Attachment [↑](#footnote-ref-8)
9. See Newspaper Special Grain Edition 1915, Attachment 4 [↑](#footnote-ref-9)
10. Attachment 7: Elevations and plans [↑](#footnote-ref-10)
11. Attachment 8: Photographs of Interior and Exterior of Western Grain [↑](#footnote-ref-11)
12. Attachment 9: Bawlf and Horn Biographies [↑](#footnote-ref-12)
13. Anderson, *Grain: The Entrepreneurs* [↑](#footnote-ref-13)
14. Attachment 10: Mailhot Permission Letter [↑](#footnote-ref-14)
15. Attachment 11: Plan of Survey [↑](#footnote-ref-15)