

FINAL

FOX-M Station

Module Train 'A' (building B01A) was constructed in 1955-6 on the operations sector of the former Distant Early Warning (DEW) Line of the FOX-M main station. It was erected using standard DEW Line plans for modular buildings drawn by the New York architectural firm of LaPierre, Litchfield and Partners under the direction of the American engineering firm Western Electric Company, a subsidiary of Bell System. External modifications include the addition of a services structure on the south side of the east end of the building in the early 1970s; the replacement of windows and sills around 1985; and, the painting of the exterior around 1985. The building currently houses equipment and offices for the North Warning System. The Department of National Defence is the custodian of the building. See FHBRO Building Report 99-021.

Reasons for Designation

Module Train 'A' has been designated "Classified" because of its important historical associations, the qualities of its architectural design and its relationship to the environment in a heritage setting.

The primary historical theme identified for the building is its role in continental air-defence programs during the Cold War. As part of one of four main stations constructed for the DEW Line, Module Train 'A' was part of a joint US-Canada effort to monitor Arctic airspace through an innovative radar and radio system designed to provide advance warning to North American military authorities of a possible air attack from the Soviet Union. As one of four main stations along the DEW Line, FOX-M also served as a regional communications hub, supply centre and administrative base for 8 to 10 auxiliary and intermediate stations in the area. Module Train 'A' was the operational nucleus of the FOX-M main station.

Secondary themes for the building are its contribution to the opening of the Canadian Arctic to programs and services delivered and managed by the federal government; its status as an example of innovative building technology in the Canadian Arctic; and its role in establishing and maintaining a Canadian military presence in the Canadian Arctic.

Module Train 'A' is also part of a military establishment that was a catalyst for the growth of an important Arctic community, namely Hall Beach.

Module Train 'A' exhibits the same competency of construction seen in other DEW Line station structures. Like Module Train 'B', however, it is distinguished by its module construction technology and its unique footprint. Its high-quality materials and tested

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pre-fabricated components are part of a design program that responded directly to both military considerations and to the remote Arctic location of the site. Its raised platform foundation and the gravel pad in the building area also demonstrate a competent engineering solution for building in permafrost conditions that set a standard for construction across the Canadian North.

FOX-M DEW Line station is distinguished from other former stations by its relative completeness in terms of the number of original structures that have remained on the site and the survival of the supporting engineering works such as the airfield. The FOX-M DEW Line station retains its technological and military appearance through: the arrangement and form of its buildings; the survival of the gravel pad that defines the two occupied sectors of the station; and the continuance of associated communications structures such as the radome and radar billboards.

Module Train 'A' is located in the operation sector of the FOX-M DEW Line station. The radome is located directly above Module Train 'A'. The integrity of the historic relationship between Module Train 'A' and its immediate landscape continues.

With its radome and unusual form, Module Train 'A' is of strategic value in maintaining the technological/military character of the site as a whole.

Character Defining Elements

The heritage character of Module Train 'A' resides in its form, construction and site relationships.

The one-storey structure was originally composed of 24 prefabricated modules, each 24 feet long and 18 feet wide with a flat, ribbed roof, laid end-to-end. The long, narrow footprint of the building is testimony to its modular construction technology. The long, narrow footprint should be respected.

The configuration of the openings in each module is dictated by its original function. Office modules are equipped with single windows on each side, while the mess hall modules are served by twinned windows. Door openings are placed at regular intervals along the side of the building facing Module Train 'B'. The size, form and spacing of window and door openings should be respected. The exterior of the building is largely clad in metal siding although, in the 1980s, synthetic board siding replaced some of the original siding. The existing metal cladding reflects the original design constraints, future replacement should use the same material with a matching profile. The

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mechanical conduit bridge spanning between Module Train 'A' and Module Train 'B' reinforces the association of their operation functions and should be retained.

The foundation of Module Train 'A', like other heated buildings along the DEW Line, was engineered to reduce the amount of heat that could be transferred from the building to the permafrost ground. Each module is supported on an open timber deck raised about one and one-half metres above ground level. This competent permafrost solution helps insulate the heated building from the permafrost ground while allowing snow to circulate under the building, thereby reducing snow drifts. This original design feature of the deck structure with its open sides should be maintained.

At the time of its construction, Module Train 'A' represented a competent solution for shelter in an extremely cold climate and remote location. The heating system was originally designed to reduce fuel consumption by recirculating heat generated by radar and communications equipment. Remnants of this system, such as pipes and valves, should be retained. The colour and appearance of the original finish should be retained using non-hazardous materials.

Module Train 'A' is located on a thick layer of gravel that covers the entire airfield operations sector of the DEW Line station. As the primary landscape feature, the gravel pad should be respected. Module Train 'A' is strictly aligned parallel to Module Train 'B' and is attached to it by a walkway; the walkway should be respected. This arrangement of buildings helps establish the military character of the station while the set of two module trains distinguishes this main station from other intermediate stations. Any further site development should respect the strict alignment and established character of remaining buildings on the station. Module Train 'A's contribution to the site is reinforced by the radome that surmounts the structure and its location near two communications billboards. The survival of the radome and the communications billboards will reinforce the heritage value of Module Train 'A' and the DEW Line station complex as a whole.

For further guidance, please refer to the *FHBRO Code of Practice*.

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