

John Dunlop
Manager, Indigenous Relations, Heritage and Museums
City of Mississauga

Date: 2025-01-08

Subject: 80 Years of Freedom – Hedgehog Elements Recommendations

Dear Mr. Dunlop,

In regard to securing Parks Access, and Heritage permits for the 80 Years of Freedom installation, please see the following safety recommendations in support of grounding the hedgehog elements within the landscape:

- Size & weight (based on drawings dated Nov. 29, 2024)
 - Sculpture elements are maximum 2.4m X 1.8m x 1.8m (approximately), and range from 306kg (675 lbs.) to 397kg (875 lbs.)
 - Proposed installation of the sculptures to be angled / tipped on end (i.e., not flat at 90°)
- Base condition
 - Proposed finished grade condition to be soft landscape; native seed mix *or* sod to reinforce the image of the sculptures being well grounded in the landscape, rather than temporary installations. As able, minimal disturbance to the existing condition is preferred.
 - Limit impact to existing conditions (i.e., strategic excavation, removals as required)
 - Install on compacted granular base (depth to be confirmed, min. 300mm)
 - Anchor requirement to be coordinated with structural engineer
- Proximity to path / trail
 - The design intent is to 'scatter' the sculpture elements within the landscape near and far from the trail to encourage interaction, exploration; exact locations to be determined
 - 2.5m minimum dimension from edge of path to edge of sculpture proposed (to be confirmed on site)
 - Promote interest – get people off the trail, not every sculpture needs to be 'within immediate reach', rather create anticipation to travel to and from
 - Rotation of elements to maximize exposure to path of travel on trail to be confirmed on site – promote sight lines to and around sculptures
- Edge conditions
 - Ensure no sharp protuberances
 - Fabricator to soften all exposed edges
 - Fabricator to soften all corners

- Signage
 - Any required safety disclaimer to be appropriately included in the design vernacular (i.e., not a repetitive standalone warning sign)
 - As / if required, include at either end of trail(s)

We trust the information provided will satisfy requirements parks access, and heritage permits for the 80 Years of Freedom hedgehog elements.

Sincerely,
Arcadis Professional Services (Canada) Inc.



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Dear Mr. Dunlop,

In relation to securing the necessary Parks Access and Heritage permits for the 80 Years of Freedom installation. Please find below the sculpture's layout, approximate weight and safety recommendations to support the grounding of the hedgehog elements within the landscape.

- Layout of sculptures, size and approximate weight:

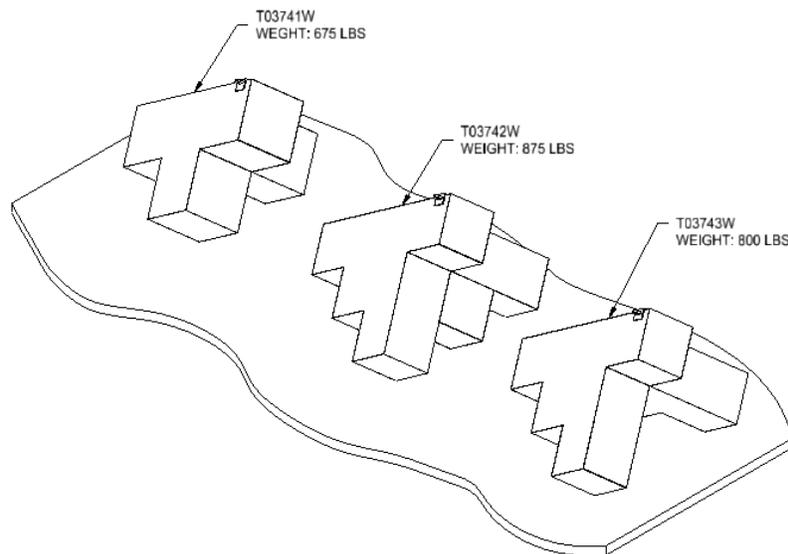


Fig.1 (Sculptures Layout)

- Sculptures Height: Approximate (6'-7')
- Proposed installation to be tipped on end as show in Fig.1



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- Stability of Sculptures
 - The sculpture with the minimum ground support (T03741W) requires a force exceeding 300 lbs applied at the upper outer edge (highest point) for tipping to occur. To enhance stability, a load plate may be provided at the base of the sculpture. This will secure the unit in position and provide anchoring where necessary.
 - Anchor requirements will be coordinated with the structural engineer.

- Edge Conditions
 - All edges on the sculptures will be rounded to approximately 1/4" radius
 - All sharp protruding edges will be removed on all corners

If you have any questions or require further information kindly let me know.

Sincerely,

Waheed Mohammed, P.Eng
Lead Mechanical Design Engineer
Thunder Bay Hydraulics