



Keele Subway Station Acoustical Barrier Wall

Public Information Material

Keele Subway Station Acoustical Barrier Wall

■ **Project Background:**

- The Keele facility is a combined bus transfer and subway station located at the north east corner of Bloor and Keele Street and was constructed around 1964.
- Concerns expressed by neighbouring residents about noise emanating from the bus transfer area from idling buses.
- Responding to the concern, TTC retained acoustic consultants in November 2006 to conduct an acoustical study in the bus transfer area.
- In 2008, TTC retained consultants to develop concepts for a noise barrier wall along the north and south side of the Keele subway station.

■ **Current Status:**

- Detailed design has now been completed.
- Renderings of the proposed wall have been created.

■ **Next Steps:**

- Construct four (4) meter high acoustic barrier wall consisting of *Durisol* acoustic panels supported by steel posts. The noise barrier wall would provide sound separation for residences both north and south of the subway station.

- Construction Start : Late Summer/Early Fall 2009



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■ **Noise Impact Study Results:**

- At this time, the Keele Station property is bounded by an approximate 1.7m high chain-link fence, providing no acoustical and visual shielding of the bus operations.

- The main noise sources are due to bus operations and idling. Background noises are further magnified if there are more than one bus idling near each other.

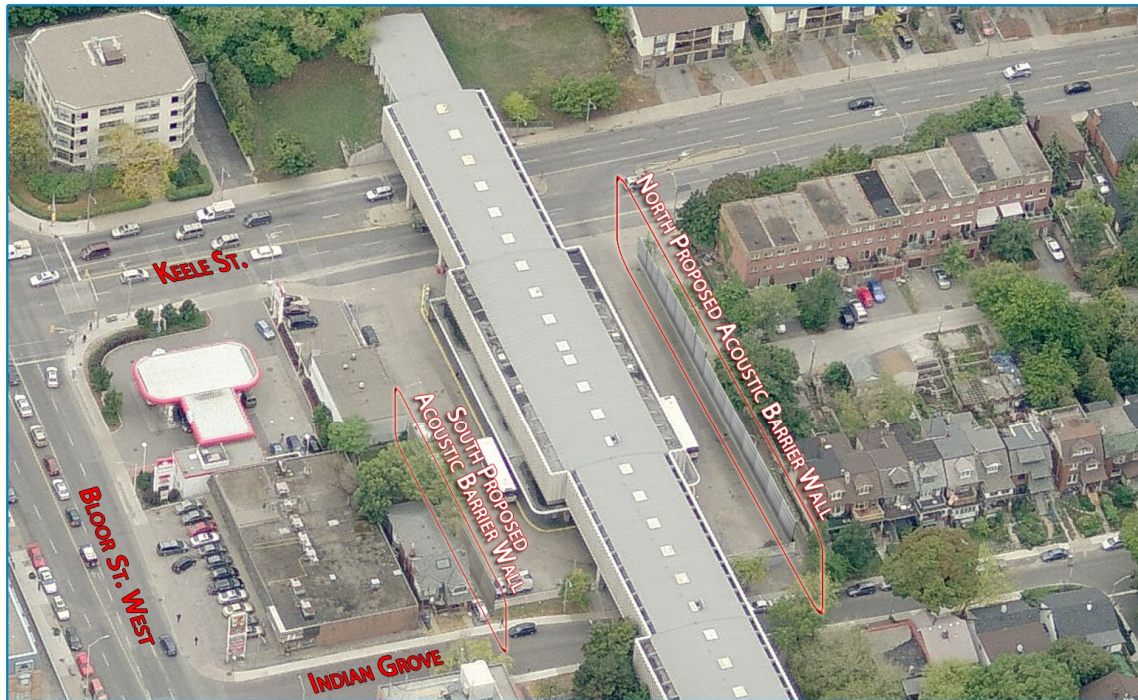
- Due to noise sources being so close to property line (within 4m), the most effective noise mitigation option is to install an acoustical barrier wall.

- The acoustical barrier wall that would best provide noise attenuation would consist of a 4m high acoustic wall (with a 15m section 5m high) along both north and south property lines where residential units share boundaries with the station.



Keele Subway Station Acoustical Barrier Wall

- Proposed Wall Renderings:



AECOM

KEELE SUBWAY STATION
ACOUSTICAL BARRIER WALLS
BIRDSEYE VIEW FROM THE EAST



AECOM

KEELE SUBWAY STATION
ACOUSTICAL BARRIER WALLS
BIRDSEYE VIEW FROM THE NORTH



Keele Subway Station Acoustical Barrier Wall

- Proposed Wall Renderings:



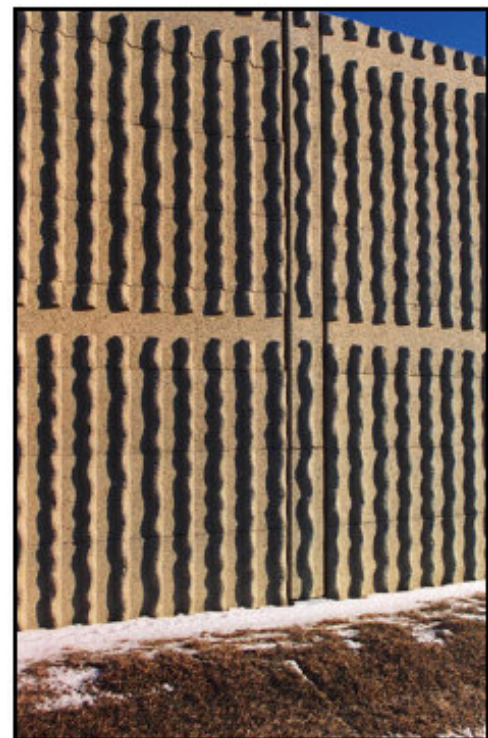
Keele Subway Station Acoustical Barrier Wall

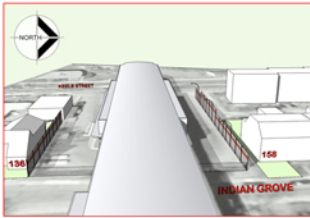
- Proposed Wall Renderings:



Keele Subway Station Acoustical Barrier Wall

- Photos of the Durisol Panels:

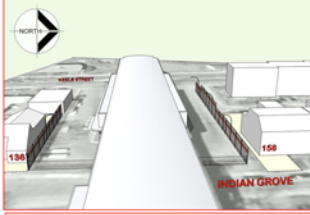




SPRING EQUINOX
MARCH 20 Mid Morning



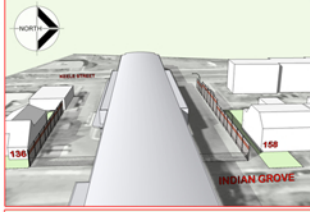
SPRING EQUINOX
MARCH 20 Mid Afternoon



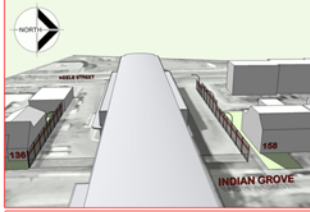
SUMMER SOLSTICE
JUNE 21 Mid Morning



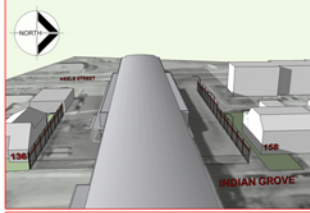
SUMMER SOLSTICE
JUNE 21 Mid Afternoon



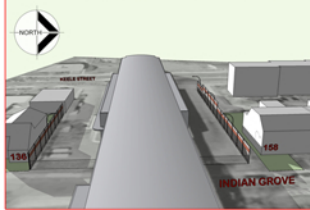
FALL EQUINOX
SEPTEMBER 22 Mid Morning



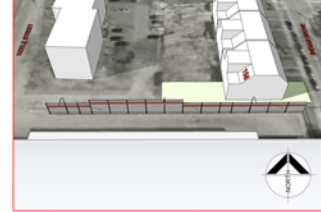
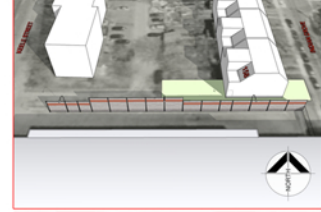
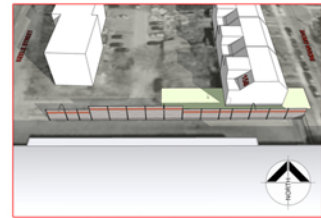
FALL EQUINOX
SEPTEMBER 22 Mid Afternoon



WINTER SOLSTICE
DECEMBER 21 Mid Morning



WINTER SOLSTICE
DECEMBER 21 Mid Afternoon



VIEW No. 1- Overall Site

VIEW No. 2- North Side



TORONTO TRANSIT COMMISSION
KEELE SUBWAY STATION ACOUSTICAL BARRIER WALL
SHADOW STUDY

