

# Boston Groundwater Trust

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Christian Simonelli

January 23<sup>rd</sup>, 2017

Raul Duverge, Project Manager  
Boston Planning & Development Agency  
One City Hall Square  
Boston, MA 02201-1007

Subject: 370-380 Harrison Avenue Draft Project Impact Report

Dear Mr. Duverge:

Thank you for the opportunity to comment on the draft project impact report (DPIR) for 370-380 Harrison Avenue. The Boston Groundwater Trust was established by the Boston City Council to monitor groundwater levels in sections of Boston where the integrity of building foundations is threatened by low groundwater levels and to make recommendations for solving the problem. Therefore my comments are limited to groundwater related issues.

The project is located in the Groundwater Conservation Overlay District (GCOD) established under Article 32 of the Zoning Code. As stated in the DPIR and confirmed at the scoping session the project is proposed to be designed and constructed to comply with the requirements of Article 32.

As confirmed at the scoping session the GCOD requires both the installation of a recharge system and a demonstration that the project cannot cause a reduction in groundwater levels on site or on adjoining lots. As stated in the DPIR and confirmed at the scoping session foundation support may be provided by footing and/or mat foundations that bear directly on the undisturbed, marine clay deposit. Sealing of perimeter foundations into the relatively impermeable marine clay deposit in conjunction with an under-slab foundation drainage system will allow for conventional slab-on-grade construction methods. Perimeter foundation walls will be protected against groundwater intrusion by a membrane type waterproofing extending from the bottom of the perimeter wall footing to the ground surface.

Under no circumstances should under-slab foundation drainage systems be installed as part of the foundation system. Under-slab foundation drainage systems can drawdown groundwater levels on-site and adjacent lots thus exposing the tops of wood pile supported structures to air and subsequent pile rot.

Also stated in the DPIR and confirmed at the scoping session three levels of underground parking are anticipated. The previous project notification form (PNF) stated that steel sheet piles or slurry wall will be used and extend into the marine clay layer below the lowest garage level by 5 to 15 feet. The PNF also stated that waterproofing will be installed against the exterior face of the portions of the garage which extend below observed and predicted groundwater levels as a permanent groundwater cut-off measure. Before the GCOD zoning approval can be put in place, the proponent must provide the BPDA and the Trust a letter stamped by a professional engineer registered in Massachusetts that details how it will accomplish what is stated in the PNF & DPIR and meets the GCOD requirement for no reduction in groundwater levels onsite or on adjoining lots.

In the response to questions section of the DPIR the proponent confirmed that they will provide the Trust and the BPDA a letter stamped by a professional engineer registered in Massachusetts that details compliance with the GCOD requirements.

The DPIR stated that some local dewatering may be required during the construction process and that the project to the extent possible will attempt to infiltrate that water into the ground outside the building footprint. Waterproofing will be installed against the exterior face of the portions of the garage which extend below observed and predicted groundwater levels as a permanent groundwater cut-off measure. The DPIR stated that measures will be implemented to maintain groundwater levels outside the Project Site boundary. Groundwater levels will be monitored prior to, during, and following construction to ensure adequate groundwater levels are maintained within the Project vicinity. The data will be furnished to the Trust and the BPDA on a weekly basis. I look forward to working with the proponents Engineer on reviewing the monitoring wells in the area to be read and reported. In the response to questions section of the DPIR the proponent confirmed provisions will be in place to halt construction and dewatering in the event that groundwater levels drop below the observed pre-construction baseline levels during construction, until the cause is found and remedied.

I look forward to continuing to work with the proponent and the BPDA to assure that this project can have only positive impacts on area groundwater levels.

Very truly yours,

A handwritten signature in cursive script that reads "Christian S. Simonelli".

Christian Simonelli  
Executive Director

CC: Kathleen Pederson, BPDA  
Maura Zlody, BED