

Skyland Town Center Vibration Monitoring Plan for Adjacent Fort Baker Drive Homes

The applicant plans to protect adjacent homeowners on Fort Baker Drive from potential damage due to construction activity on the Skyland Property. This document outlines the vibration monitoring plan that the Applicant will undertake. The objective of this monitoring plan is to ensure the vibrations from construction activity on the Skyland Property do not exceed thresholds that can cause damage to the Fort Baker Drive homes.

Vibrations from construction are usually measured with small portable seismographs. Vibrations are recorded in the form of peak particle velocity measured in units of inches per second. The InstanTel Blastmate® III and Minimate Plus™ seismographs are proposed to monitor the impacts of construction activity on the Skyland Property on the Fort Baker Drive properties.

Vibrations are recorded with a continuously reading instrument that measures movements along three axes. The highest resultant of these three components is displayed as the peak particle velocity. The instrument is monitored by a technician who conveys information directly to the construction foreman. If the peak particle velocity approaches the threshold the foreman will be immediately notified.

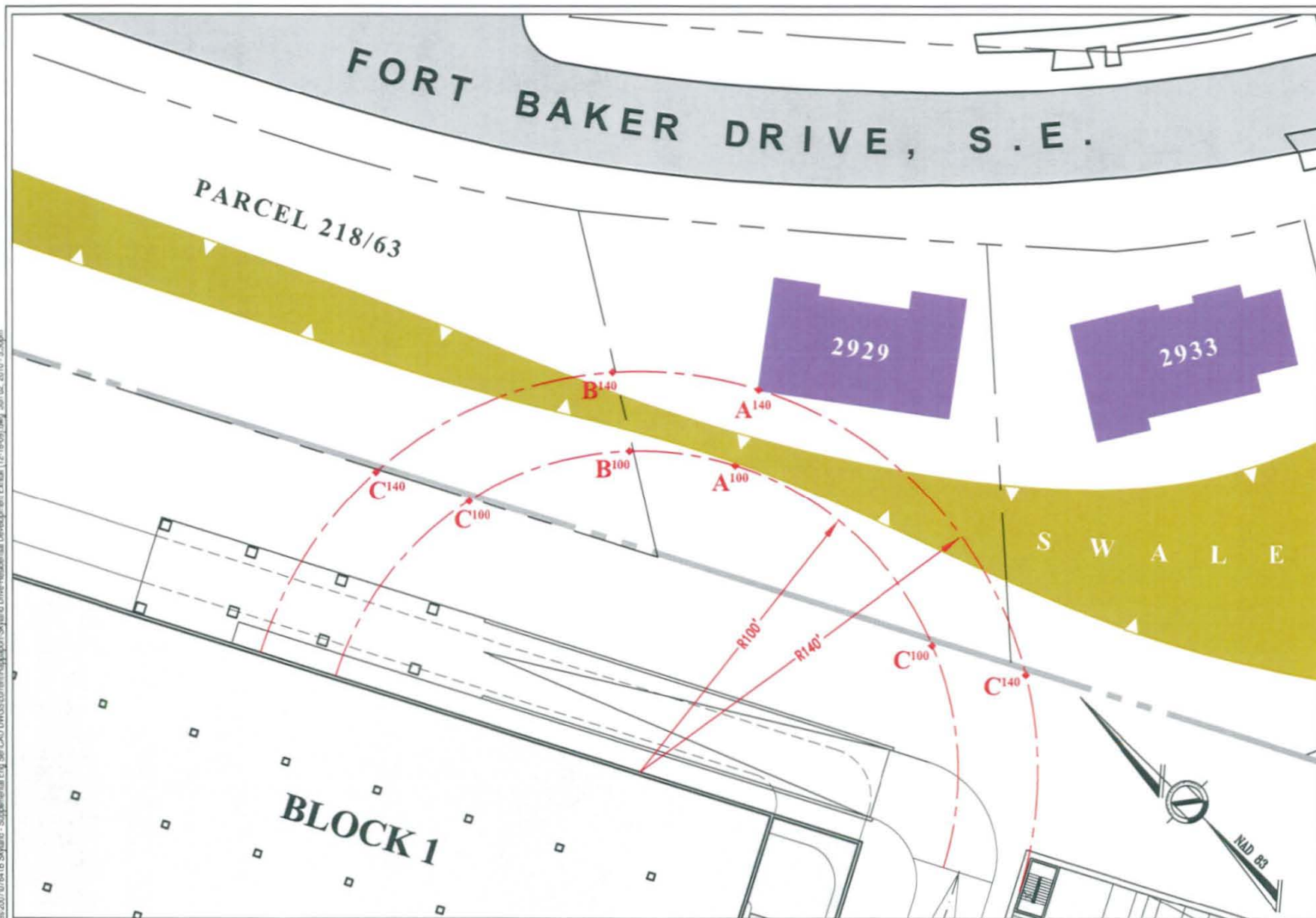
Based on the type of homes located along Fort Baker Drive, the vibrations from construction activity on the Skyland Property should be limited to 0.75 inches per second at the house foundations. The Fort Baker homes are a minimum of 140 feet from the nearest location where construction activity will be performed. The closest home is 2929 Fort Baker Drive. This would be the ideal location for vibration monitoring. The other three homes along Fort Baker drive are located further from the proposed construction activity, at higher elevations, and on the other side of a swale. The effects of construction activity on these homes will be minimal.

The attached plan shows possible arrangements of vibration monitoring locations. The shortest distance between construction activity on the Skyland Property and a Fort Baker Drive residence is approximately 140 feet, which is the distance between the northeast wall of Block 1 and 2929 Fort Baker Drive. In the ideal scenario, the vibration monitoring device should be stationed at the west corner of this residence (A¹⁴⁰) a second device should be positioned at a distance of 100 feet (A¹⁰⁰). The 100 foot radius is an industry standard for monitoring vibrations. However, the applicant will only be able to place the monitor at this location with the consent of the 2929 Fort Baker Drive property owner. The applicant will ask that property owner for the necessary consent.

If arrangements cannot be made to place vibration monitors at A^{140} and A^{100} , alternative locations B^{140} and B^{100} should be used. These are equal distances between the construction activity on the Skyland Property and 2929 Fort Baker Drive, and across the swale from the Skyland Property. However, these locations are also on property that is not owned by the applicant. Therefore, if the owner of Parcel 218/63 does not allow the applicant to place the vibration monitoring devices at these locations, the applicant will need to place the vibration monitoring devices at a third location.

The third location is identified as C^{140} and C^{100} on the attached plan. These locations are both on the same property as the Skyland development. However, these locations are not separated from the source of the vibrations by the swale which is located on the Fort Baker Drive properties, so the vibrations recorded will be higher than corresponding values at A^{140} and A^{100} . This factor will be taken into consideration when setting a threshold limit on the permissible level of construction vibrations from the Skyland Property.

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SEISMIC MONITORING PLAN
SKYLAND SHOPPING CENTER
WASHINGTON, DC

PROJECT NO.	07641B	DESIGN BY:	
DATE:	06/02/10	DRAWN BY:	AM
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