APPENDIX I-6

AECOM Memo

September 16, 2020

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Memorandum

Date: 9/16/2020

To: IHCC Files

From: David M. Cregger, P.E. (NY), P.G. (NY)

Subject: Update of Landslide Soils Properties

AECOM responds by this memorandum to a request from Town of Huntington for Geotechnical Engineering Services for a check of slope stability at Indian Hills Country Club. We have received 5 documents for review:

1. Appendix H-1 Geotechnical Engineering Services Report, Phase I of the Bluff Area Stability Evaluation, PS&S, dated July 25, 2008 *(did not include Appendix)*
2. Appendix H-2 Geotechnical Engineering Investigation and Slope Stability Analysis, PS&S, dated April 15, 2019 (with associated Appendices A&B)
3. Appendix H-3 Dynamic Earth Correspondence, dated July 8, 2019
4. 2019-11-18 Response to AECOM memo with attachments which includes a response letter from NP&V and the Dynamic Earth Consultants
5. APPENDIX I-4 SLOPE STABILITY EVALUATION by Dynamic Earth, LLC, dated August 3, 2020 which presents results of the new test borings and laboratory testing requested in our Memorandum dated March 18, 2020.

Based on the new data from 3 borings shown on Figure 1 and lab tests, we reduced the cohesion of the Gardiners clay deposit from 650 psf to 500 psf in our simplified analysis and raised the water table to approximate Elevation +50 in the pre-existing landslide area. This conservative approach indicates a Factor of Safety greater than 1.3 as we previously recommended with the 300 psf surcharge of the buildings.

Considering the new data provided, we now conclude that 120 feet may be enough of a buffer *provided the hydrology and shoreline conditions outside the Coastal Erosion Hazard Line do not change*. A possible new scarp is visible on recent Google Earth imagery between borings TB-1 and TB-2 as shown on Figure 2 where the golf cart path is damaged. Continued survey deformation monitoring at the golf course is recommended.

We remain concerned that a 30-feet high retaining wall is being constructed near the northwest portion of the site within the buffer zone (see Figure 3). Several housing units may face damage in the future. Subdivision approval plans prior to ground-breaking should include detailed slope stability and drainage calculations to be submitted for review to the Town of Huntington.

AECOM is pleased to provide this opinion and trust that this clarifies our position.

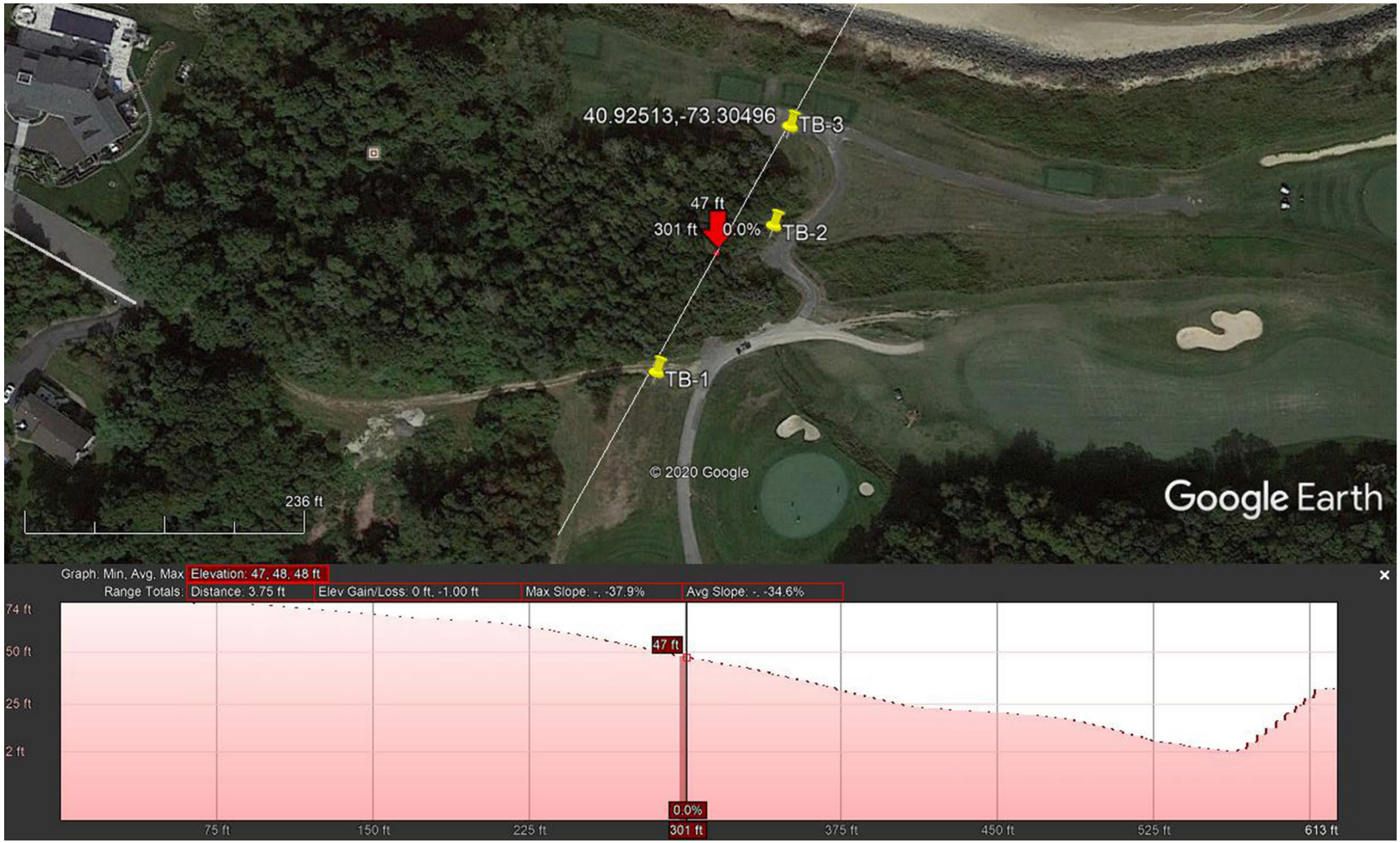

Figure 1. Topographic Profile along Three Borings

Figure 2. Possible New Scarp North of TB-1

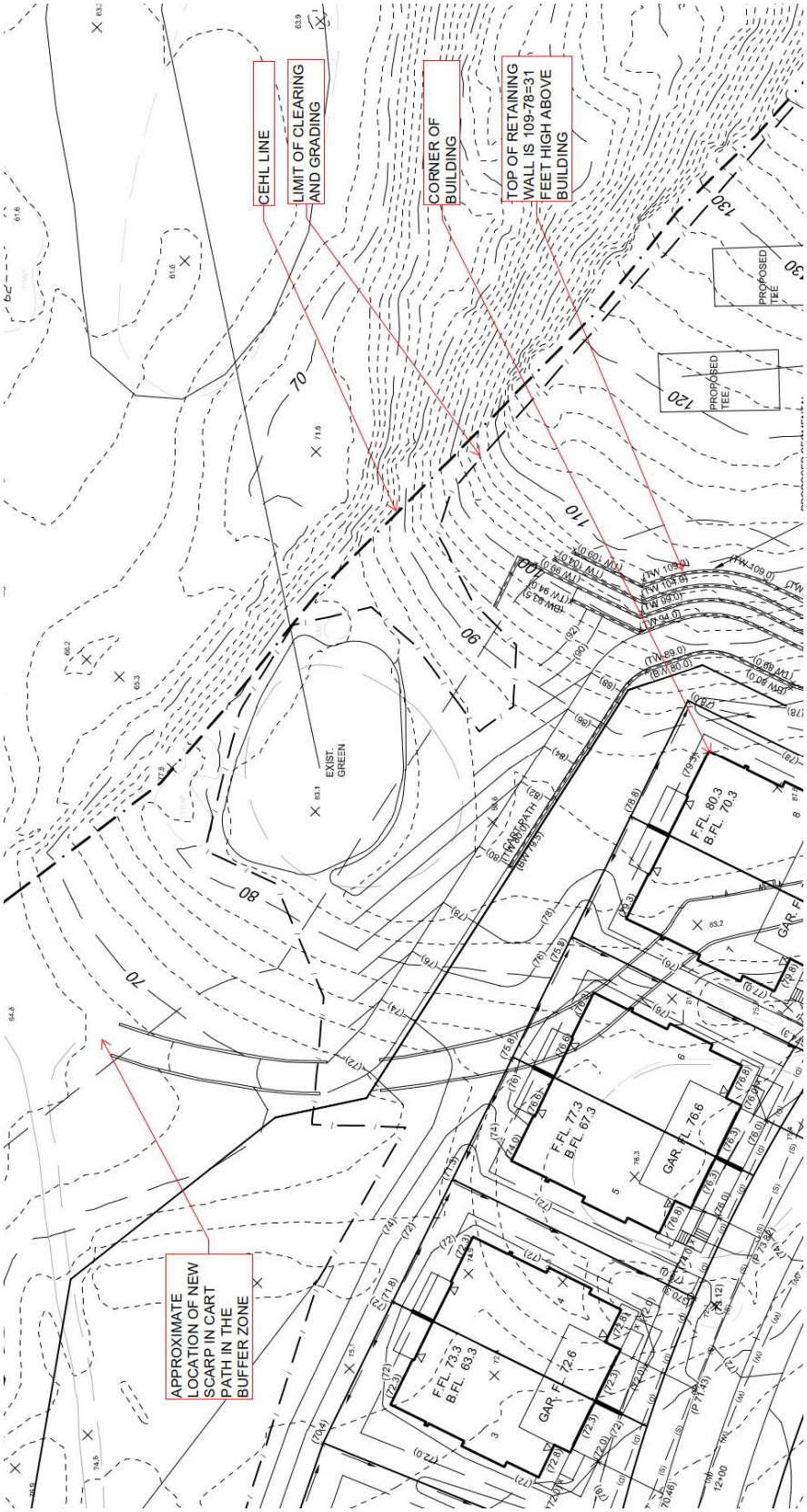

Figure 3. Potential Damage in Buffer Zone