Douglas Herring & Associates
Environmental, Policy, and Planning Services

MEMORANDUM

January 4, 2023

TO: Lina Velasco

FROM: Doug Herring

SUBJECT: Peer Review of Brickyard Cove Consistency Checklist

Per your request, I have completed a peer review of the December 29, 2022 *CEQA Guidelines Sections 15168 and 15183 Environmental Checklist, Brickyard Cove Project* (Consistency Checklist) prepared by FirstCarbon Solutions pursuant to the California Environmental Quality Act (CEQA). I believe the document provides the City with a solid and defensible basis for finding that the potential environmental impacts of the project were previously addressed in the General Plan EIR and that:

1. There are no new significant effects peculiar to the proposed project or its site;
2. There are no new significant effects that were not previously evaluated in the General Plan EIR;
3. There are no new significant off-site or cumulative impacts that were not analyzed in the General Plan EIR; and
4. There are no adverse impacts that are more severe than those previously identified in the General Plan EIR.

I believe the Brickyard Cove Consistency Checklist sufficiently supports the case of the project being encompassed by the analysis presented in the General Plan EIR.

I understand that concerns have been expressed about the potential for landslide in the slopes to the north of the site, particularly in light of the recent and pending storms, which have already led to some slumping in the hillside to the northeast of the project site, where a headscarp has formed just above the intersection of Seaview Drive and Seacliff Drive, and an offset has occurred in one of the concrete drainage ditches that traverses the slope.

1331 Linda Vista Drive ■ El Cerrito, California 94530
Phone: 510-237-2233 ■ *Fax:* 510-237-2363 ■ *E-mail:* doug@douglasherring.us

The Geotechnical Investigation prepared by Cornerstone Earth Group for the proposed project evaluated the likelihood of landslides at the project site and identified a potential landslide that may have occurred at the northeastern corner of the existing cut slope on the project site, along with evidence of shallow slumping and erosion. However, reconnaissance of the site by a geotechnical engineer did not encounter evidence of deep-seated movement, scarps, pressure ridges, or other geomorphic features typical of landslides. The on-site evidence suggested that the majority of the previous slide mass was previously removed during prior site grading. Although the shallow slump features will need to be monitored during site grading and preparation, the Geotechnical Investigation concluded that the potential for landslide to affect the project is low.

The recommendations in the Geotechnical Investigation report include measures to ensure stability of the slopes on and adjacent to the site. These include retaining walls supported on grade beams overlying drilled piers, with the piers embedded to a depth of 10 feet below the lowest adjacent future grade and grade beams supported by the piers and embedded to at least 18 inches below grade. These provisions are expected to provide a safety factor greater than 1.5 under static conditions and a safety factor of over 1.0 during seismic conditions, which is consistent with recommendations for mitigating seismic hazards published by the California Geological Survey. The seismic safety factor indicates that only minor deformation related to shallow sliding or surficial sloughing may be likely during a major seismic event.

The Geotechnical Investigation report recommends that Cornerstone review final structural, civil, and landscape plans and specifications to confirm adequate provisions for the project buildings and site to be able to withstand seismic shaking and other geotechnical hazards, including landslide. The report further recommends that a certified Engineering Geologist from Cornerstone be present to monitor and test all earthwork and foundation construction to identify and evaluate any subsurface conditions that differ from those encountered during the geotechnical investigation. As noted in the Consistency Checklist prepared by FirstCarbon, the City's standard conditions of approval will require that Cornerstone's recommendations be implemented and be reflected in the grading and building plans. The City of Richmond Building Division will also ensure that the project complies with the current California Building Standards Code, which includes detailed structural design requirements intended to provide adequate structural integrity to withstand the maximum credible earthquake and the associated ground motion acceleration. Consequently, I believe the risk of future landslide at the site will be adequately addressed through the provisions summarized above.