ADMINISTRATIVE MANUAL LOS ANGELESCOUNTY PUBLIC WORKS GEOTECHNICAL AND MATERIALS ENGINEERING DIVISION

SUBDIVISIONS IMPACTED BY EXISTING LANDSLIDES

The following guidelines and requirements are for the geotechnical review of subdivisions impacted by landslides with respect to safe building areas. Landslides are considered a geologic hazard unless they can be demonstrated to have Factors of Safety for gross static stability at least 1.5 and pseudostatic stability at least 1.1. Stability analyses shall be supported with onsite subsurface exploration and appropriate laboratory testing.

When the following conditions are met, unmitigated landslide hazards that could adversely impact offsite property (outside of the subdivision) if activated do not have to be mitigated:

- Existing landslide hazard already crosses an existing property boundary.
- Existing conditions will not be changed, worsened, or otherwise be affected by the proposed development.
- Hazard does not pose a threat to on-site building areas in the subdivision.
- Proposed development <u>will not</u> increase the potential for failure of the hazard.
- Each landslide hazard is contained entirely on one lot.

Unmitigated landslide hazards and the adjacent affected area within the proposed subdivision will be required to be designated as a Restricted Use Area (RUA). A determination of the adjacent affected area (e.g., areas upslope or downslope of the landslide that may lose lateral earth resistance), shall be made by the geotechnical consultant(s) and supported with data and analyses.

Cases designated below refer to the attached Plate:

<u>Case A</u>

Problem: Proposed lot line crosses landslide. Solution: Adjust lot line to constrain the landslide on one lot or provide remediation of the landslide. The landslide hazard cannot be subdivided. Designate unmitigated landslide hazard and adjacent affected area as a RUA.

<u>Case B</u>

- Problem: Designated building area is at the toe of a landslide, which is contained within a single lot of the subdivision.
- Solution: Relative to the building area, the landslide must be mitigated (e.g., stabilized or removed) or be demonstrated to be stable and not a threat to the safety of the proposed structure with data and analysis. Alternatively, a safe building area may be found on the lot not affected by geotechnical or geologic hazards. Designate unmitigated landslide hazards and the adjacent affected area as a RUA.

Cases C and G

- Problem: Landslides are outside of the subdivision boundary where remediation is not possible.
- Solution: Unless the building pad can be shown to have an adequate setback from landslide hazard-affected areas or the landslide will be stabilized, an alternate building area is required.

Cases D and E

- Problem: A landslide transects an existing subdivision boundary.
- Solution: No mitigation is required because the landslide transects an existing property boundary. However, it must be clearly demonstrated that the proposed development will not adversely affect or contribute to the instability of the landslide in the future. Otherwise, the landslide must be mitigated. If it is determined that the landslide hazard will not be required to be mitigated, designate that portion of the unmitigated landslide hazard and adjacent affected area within the subdivision as a RUA.

Cases F and G

- Problem: The landslides are either entirely inside or outside of the subdivision perimeter boundary and do not affect the safety of the building area.
- Solution: It must be clearly demonstrated that the proposed development will not adversely affect or contribute to the instability of the landslide, resulting in adverse effects on adjacent property and relative stability. otherwise, the landslide must be mitigated. If it is determined that the landslide hazard mitigation will not be required, unmitigated landslide hazards and adjacentaffected area within the subdivision must be designated as a RUA.

<u>Case H</u>

Problem: An existing landslide has been determined to be a hazard and affected area could cross to an adjacent lot in the same subdivision.

Solution: Landslide must be removed or mitigated.

Approved By:

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