

**ADMINISTRATIVE MANUAL
LOS ANGELES COUNTY PUBLIC WORKS
GEOTECHNICAL AND MATERIALS ENGINEERING DIVISION**

**SUBDIVISIONS – GUIDELINES TENTATIVE MAP THROUGH ROUGH GRADING
REVIEW STAGES**

Items below are provided as reminders of basics to consider during various stages of hillside subdivision review, including approvals of rough grading for future building plans. The following checklist is limited. Appropriate Division policies, ordinances, and professional criteria must also be reviewed for specific proposals and requirements.

Note: Changes to subdivision maps or grading plans require reviewing the checklist to verify review comments and actions taken remain applicable.

I. APPLICATION (previously known as OWNER'S STATEMENT)

1. Check if grading is proposed, including slope grading that may be required for roadways or streets.
2. Grading may not be indicated but may be required by Land Development Division (LDD). Check with LDD for required street grading if none is indicated, particularly for tentative tracts or ungraded subdivisions with sloping terrain.
3. Check for proposed Ungraded Site Lots and need for concept grading plans (see *GS001.0*).
4. Check if individual or community on-site sewage disposal systems or public sewers are indicated.
5. Verify if Exhibit "A" is/may be required by the Department of Regional Planning where no lot grading is proposed on hillside lots.
6. Require clarification for uncertainties or conflict between the application and tentative map regarding proposed grading, development concept, and on-site sewage disposal, as this will determine requirements for reviews. Do not recommend a subdivision for approval until clarification is provided by corrected statements and/or revised maps received from the Department of Regional Planning.

II. SUBDIVISION PLAN

1. Check with Building and Safety Division (BSD) and/or LDD to determine if public sewers are required where on-site sewage disposal is proposed (*in particular, the northern County areas including Acton, Agua Dulce, and Littlerock*). Where an on-site treatment or individual lot system is proposed, evaluate disposal area, impact on relative stability, and potential daylighting of effluent.
2. Verify that grading proposed off-site meets current codes and standards (*e.g., access roads, fill disposal or borrow cut areas, etc.*).
3. Where a "Remainder Lot" is proposed, at least one safe building area must be feasible (*see GS002.0 for requirements*).
4. Debris or similar basin structures must be stable and must consider presence of landslides (*see GS101.0 for possible option to landslide remediation*).

III. BASICS AND CONCEPTS OF REVIEW

1. The geotechnical consultant(s) must utilize the latest tentative subdivision map as a base for the geotechnical map.
2. Concentrate review of slopes along "exterior" tract boundary where corrective work may affect adjacent property. If corrective grading is required, but not now shown, or significant modification of natural slope areas is necessary, a change in the tentative map prior to approval should be required (*check with supervisor for advice before issuing the review sheet*).
3. Geology of relatively major slopes "interior" to the subdivision shall be established to assure probable stability and remedial design. Slope stability analysis shall be required in compliance with County's minimum standards. Additional/detailed data may be obtained later, prior to grading plan approval, for lower height slopes and where no natural slopes will be affected.
4. Geology and geometry of landslides should be established relative to proposals and adjacent property.
5. Require hydrogeology input to determine effects of on-site sewage disposal and where landslides are not completely removed or remediated.
6. Probable compliance to current codes, ordinances, etc., must be established. Safe access and stable building area or site for each lot

must be established. By County of Los Angeles Subdivision Code (CLASC) definition, a "building site" is the land upon which the building and appurtenances are to be placed, including sewage disposal, clearances, proper drainage, appropriate easements, and if applicable, the requirement of other ordinances (CLASC §21.08.040).

7. "Feasibility" must be established. That is, geotechnical conditions must be defined, the need for remediation for hazards established, and analyses for remediation design completed. Proposed cut or fill slopes must meet County's minimum standards; designation as Restricted Use Area (RUA) is unacceptable.
8. Additional grading not shown on the tentative map, required for geologic hazard mitigation, must be shown on the Tentative Tract Map/Exhibit A, particularly where natural slopes are significantly affected or where grading extends onto adjacent property (*check with supervisor before issuing review sheet*).
9. Make an on-site review of each hillside subdivision (*review geologic exposures, existing grades, existing adjoining developments, terrain, current instabilities, etc., as warranted*).
10. Most subdivision map changes must be approved by the consultants. Check changes of application, grading, and concept for effect on prior action(s).

IV. CONDITIONS OF SUBDIVISION APPROVAL

1. For the typical hillside or when there is a consultant of record, a condition of subdivision approval is that the Final Map must be approved by LDD. For approval of the Final Subdivision Map, check if the following conditions are warranted (see standard subdivision forms for exact wording):
 - Approved grading plan. (*Required if indicated on the application, shown on the plan, or if required by another agency or our Division*).
 - Additional engineering geology data. (*Require data for confirmation; not to determine "feasibility" as this should have already been established.*)
 - Building areas delineated and/or "Geotechnical Notes" shown. (*For ungraded site lots only. See applicable policies.*)

- RUAs delineated on geotechnical map and tentative/final maps. *(Required for all subdivisions where there are unmitigated geotechnical hazards, such as faults and unmitigated landslides. The use of geogrids will also require delineation of RUAs.)*

Note: The developer or future developer can build in a RUA after recordation, provided adequate corrective measures are completed.

- "Special Conditions" *(Stress specific information/requirements necessary for recordation or for grading plan reviews.)*

2. The "Information" portion of the standard subdivision form contains additional statements and space for further comments. Use only where applicable to future development where map is approved without conditions. Check each standard statement on the subdivision form as applicable.

- Requirement for public sewer must be indicated where no on-site sewage disposal is acceptable or feasible relative to stability and potential daylighting or effluent.
- Possible requirements of reports for future building and/or grading plans should be indicated to advise future lot owners of possible requirement of consultant reports for permits. This standard statement is generally used for Ungraded Site Lots or where you anticipate such a requirement for a future permit. If in doubt, add it: the operative word is "may."

3. All conditions necessary to provide safe building areas and for approval of permits for the tentative must be included (conditions cannot be arbitrarily added or changed later).

4. Upload an electronic copy of geotechnical reports to the State for projects in the Alquist-Priolo Earthquake Fault or Seismic Hazards Zones when the subdivision is recommended for approval.

V. GRADING PLAN REVIEW/APPROVAL STAGE

1. Resolve issues for each lot to assure safe access and a safe building area. Require incorporation of remediation into the grading plan.
2. Require sufficient additional data, relative to prior submitted reports for the subdivision, before approval of the grading plan:

- To assure grading proposed will be stable.
- To minimize significant changes in scope and design of remedial measures during grading.
- To minimize unexpected "new" or significant increase in scope of geotechnical hazards (RUA).
- To confirm on-site sewage disposal is geotechnically acceptable (if proposed).

Essentially, all necessary geologic data for the subdivision should be obtained before approval of the grading plan. Final rough grading geotechnical reports must be required for confirmation of site stability or safety.

3. Section 111 statement must be provided and substantiated.
4. Grading plan and development concept must agree with the approved tentative subdivision map. Advise the Grading Plan Checker if conflicts exist. All proposed access road and borrow and disposal area grading must be reviewed and approved. "Temporary" slope grading criteria relative to stability is unacceptable, i.e., code and geotechnical standards and criteria must be met.
5. Require showing corrective measures in plan and/or section views. Also, require notes on the plan when periodic in-grading and final reports are required as a condition of grading plan approval. Slide debris removals and over-excavation of 5 feet or more of alluvium must be delineated on the plan. (The notes and remedial measures should be shown before plan approval.)
6. Where retaining walls are shown on the grading plans, the requirement that footing excavation must be approved by the consultant must be noted on the plan. Potential geologic and seismic related surcharges on retaining walls must be established before grading plan approval.
7. Require plan approval by the consultant(s) after incorporation of aforementioned (Items 5 and 6) remedial work and notes. File copy of signed plan electronically. Remove obsolete copies of grading plans that have not been officially addressed by review sheets from the filing system.

Note: Send electronic copy of reports to CGS for projects under the Alquist-Priolo Act and Seismic Hazards Mapping Act.

8. Finalize review sheet and distribute to plan case contact(s) and LDD plan checker(s), as appropriate.

VI. APPROVAL FOR RECORDATION

1. Make sure Final Subdivision Maps are submitted prior to initiation of the review process. Send Geology Development Review Section procedural guidelines to the engineer if requested/warranted.
2. Require corrective geologic bonds unless all geologic corrective work, on-site and off-site, grading is completed and approved by the consultant and by the Geology Development Review Section. Yardage for bonds is provided by the tract engineer in cooperation with the geotechnical consultants. (*Scope of work should already be reflected on the approved grading plan per guidelines of Section V above.*)
3. A RUA letter must be provided for all subdivisions having a geotechnical consultant. (*A report with map is required if RUA exists.*) RUAs must be in agreement with grading plan remediation/grading and safe building site locations.
4. An approved grading plan is required if grading is part of the concept of the tentative, or is required by the Division, such as for safe access or building site.
5. All conditions of the tentative must be met, including Geotechnical Development Review Section's requirements.
6. Final map review is sent to LDD and a copy is sent to the applicant.

VII. IN-GRADING REPORTS

Acknowledge in-grading reports unless changes in geotechnical conditions have occurred. Where changes are reported or observed, request additional data as necessary to avoid delay of rough grading when Final Reports are submitted.

VIII. ROUGH GRADING APPROVAL

1. All graded lots and associated subdivision grading, including any for off-site access, borrow or disposal areas, water tank sites, and debris basins must be approved by Final Geotechnical Reports and our Division. That is, all grading must be approved, and agree with subdivision and grading plans before approval of rough grading for building. A group of lots for model homes can be an exception, provided stability of lots is established and stability is independent of any outstanding grading on adjacent lots.

2. Geology of the as-graded geologic map in the Final Report should be in agreement with previous reports used for design of remedial measures; Requirements of a cross section, allowed in County of Los Angeles Building Code (CLABC), and stability calculations may be warranted for discrepancies.
3. All in-grading reports and changes must be submitted and reviewed prior to recommending rough grading for approval. (*In-grading reports may contain geologic issues yet to be resolved.*)
4. Geotechnical Engineering Section's conditions of grading plan approval, if any, must be completed.
5. Check that the as-graded geologic map shows all corrective work, shear and buttress key widths and distributions, subdrains, special setbacks, hazards, and/or RUA. Cross sections of major slopes or remediation may be warranted.
6. The Geology and Geotechnical Engineering Development Review Sections' review sheet of approval of rough grading must include appropriate conditions to assure building area stability, either for graded pads or for ungraded site lots. Conditions for review and approval by the Section and/or consultant of future plans, foundation systems, and for on-site disposal system should be required as warranted.
7. A Section 111 Statement by the consultants must be made in Final Reports. In addition, a statement is required according to 2023 CLABC §J105.12 by the consultant that "...to the best of their knowledge the work within their area of responsibility is in accordance with the approved engineering geology and soils report and applicable provisions of this code."
8. Changes in geology or grading which could negate prior scope of RUAs of a recorded Final Subdivision Map or that could affect safe building areas previously defined on the subdivision/grading plan must be resolved by the developer, tract engineer, and geotechnical consultants prior to rough grading approval. "Separate Instrument" recording is required to change, after subdivision recordation, RUA modifications. Separate instrument recordation is required prior to approval of rough grading for permits.
9. Review of "fine grading," as opposed to rough grading, is done by BSD only. Recommend approval of rough grading so the project can continue.

IX. BUILDING PLANS

For plans submitted for permits on a "single lot," verify if the property is part of a subdivision already geotechnically reviewed and approved. If part of a subdivision:

1. Locate the existing review sheet of rough grading approval for building and referenced Final Reports. Where there were conditions, consider and/or refer them to the BSD District Engineer for the proposed development. (*Send a copy of the prior review sheet with a review sheet letter of transmittal to remind the District Engineer that rough grading for the subdivision has already been approved and is applicable to the submitted plan, if no further action is appropriate.*)
2. Check for RUA and "Ungraded Site Lot" building location and associated requirements.
3. Review for outstanding unresolved geotechnical issues.
4. Review files for the need for further geotechnical review by a consultant of the site and/or plans.

Approved By:



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