

**CITY OF RANCHO PALOS VERDES
GRADING PLAN CHECK
GRADING DRAINAGE AND SHORING PLAN CHECK LIST
310 265-7800**

<http://palosverdes.com/rpv/planning/building-safety>

Address: _____ Plan Check # _____

Plan Check By: _____ Date: _____

Circled Items Require Correction and/or Clarification

Note: In space provided, please indicate where the correction appears on the plans.

GRADING

1. _____ Indicate the name, address and telephone number of the Architect and/or Engineer on plans. Architect and/or Engineer shall sign and wet stamp 2 sets on final plans.
2. _____ Show the North Arrow with plans drawn to scale and include numbering on each page.
3. _____ Show the legal description and street address on the plans.
4. _____ Add note on plans that all work is to comply with the 2010 California Building Code, Appendix J, and the requirements of the RPV Municipal Code available online at
5. _____ Clearly show all property lines, dimensions and bearings.
6. _____ Locate all existing and proposed structures.
7. _____ All slopes 2:1 (cut/fill) or greater specifically called out on plans.
8. _____ Please provide a cut/fill index which includes all grading quantities.
9. _____ Provide a Haul Route to be approved by the Public Works Department.
10. _____ Topographical survey of entire lot shall depict the natural grade, the grade as it currently exists, and the proposed finished grade. Survey must be signed by a land surveyor and must extend thirty (30) feet beyond the property lines except where the lot fronts on a street or unimproved street right-of-way, in which case the survey must extend to the centerline of same. Contours must be at one foot intervals.
11. _____ Show elevations of all improvements on the plot plan including the following:
 - _____ grading
 - _____ finish roof ridge
 - _____ roof sheathing
 - _____ patio slabs, decks, walks and driveways
 - _____ tops of retaining walls, property line walls, garden walls, fences
 - _____ swales, catch basins and other drainage devices

- 12._____ Incorporate geotechnical engineering/geology recommendations into the grading plan including:
 _____ benching of fills
 _____ subdrains
 _____ terrace swales
 _____ planting
 _____ show a section through fills
 _____ show cut/fill transitions and relation to proposed improvements
- 13._____ Where slopes are steeper than five to one and the height is greater than 5 feet, benching into sound bedrock or other competent material is required as determined by soils engineer. Bench shall be 10 feet minimum in width. (NOTE ON PLANS).
- 14._____ Provide details for any retaining walls that are required to complete the grading operation. Include french drains, top-of-wall swales and wall backfill material. Cross reference all detached yard retaining walls to appropriate details.
- 15._____ Obtain geotechnical engineering report approval from the city soils consultant.
- 16._____ Provide an engineering geotechnical and geology report signed by a registered engineering geologist. A review fee will be required by the City.
- 17._____ Provide an erosion control and Sediment Retention Plan.
18. _____ Show Best Management Practices. Provide a storm water pollution prevention plan (**SWPP**) for sites of 1 acre or more.
- 19._____ Show all on and off-site utilities, proposed tie-ins which affect or are affected by this project. Note on plans that contractor must contact utilities for tie-ins and contact public works for excavation in City property.
20. _____ Show closet fire hydrant, water meter and other sources of water. Give size and GPM on Fire Flow Availability Form (see attached).
- 21._____ Detail dust control measures and specify that measures are to continue throughout the grading operation.
- 22._____ Provide a bond or other security in accordance with RPVMC, Appendix 1 and J of the CBC.
- 23._____ Please provide a note on plans: A pre-grading meeting shall be held prior to commencement of grading. This meeting shall be attended by the grading contractor, soils or geologic engineer, city inspector and the general /grading contractor and/or owner's representative and shall be held at the site prior to any grading.
- 24._____ Incorporate final planning conditions of approval onto the plans. Print the Planning conditions onto the plans so they are made a part of the plan set.
- 25._____ Incorporate the following notes on the plans:
 _____ All grading inspections must be made by the consulting geologist and geotechnical engineer.
 _____ An as graded soils and geology report must be submitted and approved prior to building permit issuance.
 _____ Foundation and/or retaining wall excavations must be inspected and approved by the consulting geologist and geotechnical engineer prior to placing of steel and concrete.

- 26._____ Provide a note on plans that certification of grading and drainage shall be provided on city form which is available on the Building and Safety website at www.palosverdes.com/rpv/planning/building-safety
- 27._____ Permits or approvals must be obtained or fees paid to the following agencies prior to permit issuance: () geology and soils section approval of initial reports, () Planning Department Stamp & Approval of Final Plans () Geology Review Fee () Cal-OSHA permit () Public Works Department approval.
()Other _____
- 28._____ Add note on plans that a final as-graded report shall include the following information:
- _____ Fill compaction and shear test data
 - _____ Location of the compaction and shear test data plotted on a copy of the grading plan.
 - _____ Amount of natural or existing fill removal if unsatisfactory materials have been encountered.
 - _____ Verification by the geotechnical engineer that the fill material shear values met or exceeded design values utilized in the geotechnical report.
 - _____ Items required as part of the conditions of grading plan approval.
 - _____ Any changed subsurface conditions requiring design changes.
 - _____ Analyses demonstrating that, based on any changed design, the site will be safe for the intended use and will be in conformance with state and county codes.
- 29._____ Provide note on Plans "Certification of Waste Disposal shall be received on City form prior to Final."

DRAINAGE

- A)_____ Drainage plan check comments are not included since this is under separate review by outside consultant.
- 1._____ Provide a plot plan and section showing lot drainage.
 - 2._____ All drainage to be conveyed in a minimum 6 inch diameter rigid pipe. (Exception: 4 inch diameter rigid pipe allowed for downspout inlets.
 - 3._____ Show size and locations of drains for planters and planter walls.
 - 4._____ When collection basins are used, the plans shall note that basin grates shall be a minimum of 10" x 10" with 50% openings.
 - 5._____ Interceptor drains are required at the top of manufactured slopes with details included.
 - 6._____ Show roof drain downspouts, including flow line of outlets.
 - 7._____ Drainage over a manufactured slope is not permitted except in approved devices.
 - 8._____ All elevations adjacent to building must reflect 2% minimum, 21% maximum grade away from a building pad.
 - 9._____ Energy dissipaters are required where drains discharge onto natural ground. If a rip-rap is to be used, specify class and size and provide detail.
 - 10._____ All concentrated drainage exceeding 4% gradient requires non-erosive device.

- 11._____ Show flow lines, show all elevations, show all swales and other drainage devices,
 - a) Show all drainage patterns on the plans, Show all drain dispersal to an approved location.
 - b) Show all elevations and drainage collection devices, pipe size, pipe material, and pipe thickness.
 - c) Show if any water from offsite enters the property.
 - d) Provide a legend on plans for any symbols or abbreviations shown on the plans.
- 12._____ The maximum gradient for sheet flow is 10%.
- 13._____ Specify planting of graded slopes.

SHORING

- 1._____ No grading is approved within 3 feet of a property line.
- 2._____ Show how neighboring properties will be supported during grading. Submit construction summary with timetable.
- 3._____ Shoring and/or other means of support to be approved by project geotechnical and structural consultant.
- 4._____ Note on plans: All required shoring shall be inspected and approved by the design professionals prior to commencement of project construction.
- 5._____ Note on plans: Submittal of copy of valid Cal-OSHA permit is required prior to permit issuance.

AdditionalComments: _____

Responding to the above statement does not guarantee that the plans will be approved.
 Responses to the above may raise further questions and require further changes of the plans.

Corrections are complete when signed and dated by the plan checker.

_____ Date
 Plan Checker