



KIVA #: _____ Project Name: _____

Reviewed By: _____ Phone: _____ Date: _____

Professional Engineer: _____ Phone: _____

The purpose of this checklist is to offer comments on Hillside/Grading and Drainage (G&D) Plans to be approved by the City of Phoenix. Refer to the "Hillside, Inventory/Salvage Plan" checklist and the "Hillside, Revegetation Plan" checklist for projects where any portion of the lot will require plant Salvage of existing plants or Revegetation of disturbed areas.

The source of the Hillside/Grading and Drainage Plans is the City of Phoenix Zoning Ordinance Chapters 5, 7, the specific zoning district of the lot, Subdivision Ordinance Chapter 32-32, and City of Phoenix Supplement to Maricopa Association of Governments Uniform Standard Specifications. There are several subdivisions in the City of Phoenix that have allowances and/or restrictions specific to that subdivision and/or lot. The approved Site Plan, Plat, and Grading and Drainage Plan for the subdivision will define these specific lot allowances/restrictions. IF there is a conflict, the more restrictive rule is applied.

This checklist serves to minimize redline comments on the check prints and to maintain consistency among plan reviewers on plans for Hillside. Plan approval and issuing permits depend on compliance with the comments made on the check prints and this checklist. The Professional Engineer shall satisfy themselves of the completeness and accuracy of the design.

Plan review correction cycles and/or approvals are valid for 180 days. Additional review fees (see Fee Schedule – Phoenix City Code, Chapter 9, Appendix A.2) shall be charged for extensions/reinstatements to update expired plan reviews.

A completed checklist must be attached to the Hillside plans when submitted for first review. The following Certification Statement must be signed by the Hillside plan designer stating that all applicable requirements on this checklist have been met:

CERTIFICATION

I CERTIFY THAT THE REFERENCED PLANS COMPLY WITH ALL APPLICABLE CITY ORDINANCES AND STANDARDS, INCLUDING FEDERAL, STATE AND COUNTY REQUIREMENTS AND REGULATIONS. IN ADDITION, I CERTIFY THAT THIS CHECKLIST HAS BEEN COMPLETED ENSURING ALL ITEMS LISTED ARE PROPERLY ADDRESSED. I UNDERSTAND THAT IF I FAIL TO ADDRESS ALL APPLICABLE ITEMS IN THIS CHECKLIST, THE PLANS MAY BE IMMEDIATELY RETURNED TO ME WITHOUT ANY FORMAL REVIEW BEING PERFORMED.

PROFESSIONAL ENGINEER'S NAME: _____

PROFESSIONAL ENGINEER'S SIGNATURE: _____ **DATE:** _____

Please complete and return this checklist and the check prints with your next submittal. Discussion of redline comments on plans or this checklist should be directed to the plan reviewer listed above.

The Professional Engineer (**ENG**) of record must fill out all boxes in the first column as either (Addressed) or (Not Applicable).

Hillside Plan reviewer (RVW) shall check the second column as (Required) when requirements have not been properly addressed.

REQUIRED SUBMITTALS

ENG RVW

- Plan sheets shall be 24"X36"; Submit five (5) sets of Grading and Drainage plans to Planning & Development Log-In. Grading and Drainage plans are to include hillside information on the plans. Two (2) sets are sent to grading and drainage review; two (2) sets are sent to hillside reviewer; and one (1) set is sent to field reviewer.

Note: If submitting through the Electronic Plan Review system, multiple copies of submittal documents are not required.

GENERAL REQUIREMENTS

ENG RVW

- A non-refundable fee (see current fee schedule) will be charged at the time of submittal. (remainder)
- Orientation of each plan sheet shall be shown by a north arrow (up or to the right) and a scale of the drawing in the lower right hand corner. Provide a graphic and written scale. Scale shall be 20 scale with 30 scale maximum.
- Original plan sheets shall be sufficiently clear to allow legible prints to be reproduced from microfilm. The size of lettering and symbols shall be 1/8 inch (12 pt.) minimum.
- Each sheet shall be numbered consecutively with total number of sheets in the lower right hand corner.
- Show all streets, curbs, sidewalks, and headers. Streets shall be identified by name. Dimension and label all Right-Of-Way and easements.
- Minimum of 2 foot contour lines for slopes between 10-15% and 5 foot intervals for slopes greater than 15%.
- 10% average slope line across the site (if applicable). Please use slope lines from final approved plans if available (e.g. slope analysis, site plan, grading and drainage plan).
- Provide locations of and label the residence, driveways, garages, covered/uncovered patios, walls, pools, and all other accessory structures and amenities.
- Clearly outline the edge of roofline to delineate Under Roof disturbance (e.g. house, overhangs, garages, covered patios). Shade Under Roof areas if necessary.
- Dimension and label all setbacks per the zoning district and/or the Hillside Ordinance, whichever is greater. Side yard setbacks for hillside lots are "as required by zoning district or ten feet whichever is greater" per City of Phoenix Zoning Ordinance Section 710.C.2.Tabel 1.
- Provide zoning stipulations, zoning case information, grading waiver decisions, variance documentation, and use permits (if applicable) with the plan submittal.
- Include location of proposed pool within the proposed disturbance area. If there is an existing pool, label and show the location of the existing pool.

COVER SHEET REQUIREMENTS

ENG RVW

- Provide a project title block with a name and address of the project
- Provide a vicinity map and sheet layout, properly oriented with north up or to the right.
- Provide a key map and sheet index if there are more than one (1) plan sheets.
- Provide the Owner's name, address, telephone number, and e-mail.

ENG RVW

- Provide the Professional Engineer's name, address, telephone number, and e-mail.
- Provide Approval Signature Block shown below on the cover sheet:

Hillside Approval, City of Phoenix

Date

- Each sheet shall be signed, dated, and sealed by an Arizona Registered Civil Professional Engineer.
- Provide the following information in the lower right hand corner of each sheet:
 - Consecutive numbers and total number of sheets
 - Hillside Preservation # H _____
 - The appropriate processing numbers including:
 - KIVA# _____
 - SDEV# _____
 - CRPR# _____
 - City Quarter Section # _____
 - Current Zoning _____
 - Zoning Case Number(s): Z/ZA _____, if applicable
 - Zoning Stipulations and/or Variance info _____, if applicable
 - Regulatory Overlay District(s): _____, if applicable

HILLSIDE CALCULATIONS

ENG RVW

- Indicate on the plan if there is an approved Subdivision Site Plan, G&D Plan, and/or Plat Plan that specifies allowances/restrictions. Subdivision name and project numbers: _____
- Disturbance that occurred prior to 1972 is grandfathered in. If the lot has pre-1972 disturbance, provide additional disturbance information on the plan (under roof, beyond roof, total, etc.) and outline the pre-1972 disturbance area(s) on the plan. Include a pre-1972 aerial photograph with the plan submittal. Historic aerial photographs are available for purchase at Central Records on the 6th Floor of City Hall.
- Disturbed areas outside of public ROW or private access ways, which are designated as slope easements for adjacent road construction, will not contribute to hillside grading area calculations if re-vegetated.

NOTE: PLACE THE FOLLOWING HILLSIDE CALCULATIONS ON THE COVER SHEET AS SHOWN BELOW.

- Total Lot Area: _____ SF
- Allowed Under Roof * Disturbance: _____ SF (_____% of total lot)
- Proposed Under Roof Disturbance: _____ SF (_____% of total lot)
- Proposed Beyond Roof ** Disturbance: _____ SF (_____% of total lot)
- Allowed Total Area of Disturbance (35% of lot or 20,000 SF whichever is less): _____ SF (_____% of total lot)
- Proposed Total Area of Disturbance (Under Roof + Beyond Roof): _____ SF (_____% of total lot)
- Allowed Total Revegetation Area (5% of the lot ***): _____ SF
- Proposed Total Revegetation Area: _____ SF

* The general allowance for Under Roof disturbance is 25% of the lot, unless otherwise allowed/restricted. Refer to the specific zoning district of the lot as there are zoning districts that have more restrictive allowances for under roof lot coverage. One example is RE-43, which allows 20% under roof lot coverage.

** Beyond Roof: permanently disturbed graded areas outside the roofline including driveway, yards, pool/spa, planters, turf, walkways, walls, uncovered patios, cuts/fills, etc.

*** The 5% Revegetation credit is only give to single-family residential lots designated with conventional, standard, and average lot options or single family residential lots in PRD's with site plan approval prior to 2004.

CITY NOTES FOR HILLSIDE PLAN

NOTE: PLACE THE FOLLOWING CITY NOTES FROM THIS CHECKLIST ON THE COVER SHEET UNDER THE TITLE, 'CITY OF PHOENIX GENERAL HILLSIDE NOTES'.

ENG RVW

- The City of Phoenix General Notes are the only notes approved on this plan. Additional general notes generated by the sealant and placed on the plans are not approved as part of this plan and are noted as such on the plans.
- The gradable area shall be delineated during construction with construction fencing to maintain the "Undisturbed Areas" in their natural condition. This fence must be in place before any grading takes place and maintained throughout construction. If a fence is not installed as shown on the approved G&D plan or missing, the project will be red-tagged until the fence is re-installed and approved. Call 602-262-7811 to schedule this inspection with the General Inspector.
- File Notice of Intent (NOI) to clear land with the State of Arizona, 602-542-6408. Provide a copy of the NOI Permit to the inspector. <http://www.azda.gov/ESD/clearland.pdf>
- Graded areas which are to be revegetated as desert will be restored to blend with the surrounding natural desert by the planting of native desert plant material including trees and shrubs.
- Scarred rock surfaces (cuts) are to be treated with chemical color treatment to blend with the adjacent rock surfaces, Subdivision Ordinance Section 32-32.c.3.s
- Provide a copy of the County Dust Control Permit to the inspector.
- INSPECTION: ALL HILLSIDE LOTS WILL BE INSPECTED BY THE P&D SITE INSPECTOR FOR COMPLIANCE WITH THE HILLSIDE ORDINANCE, WITH LANDSCAPE REVEGETATION, AND COLORIZATION OF CUT AREAS PRIOT TO OCCUPANCY. CALL 602-262-7811.**
- Pool shall be built prior to or in conjunction with house if no access is provided for future construction.
- Total grading including all site grading and building area under roof shall not exceed 35%of the lot or 20,000 square feet whichever is less, unless otherwise allowed per an approved final site plan or approved grading wavier.
- The distance from natural grade to any point along the structure does not exceed 30 feet or 2 stories, City of Phoenix Ordinance Section 710.C.2.Tabel 1.**
- Driveway slope shall conform to City of Phoenix Supplement to Maricopa Association of Governments Standard Detail P1164.
- Plan approval is valid for 180 days. Prior to plan approval expiration, all associated permits shall be purchased or the plans shall be resubmitted for extension of plan approval. The expiration, extension, and reinstatement of Landscape plans and permits shall follow the same guidelines as those indicated in the Phoenix Building Construction Code Administrative Provisions Section 105.3 for Building permits.

PLAN SHEET REQUIREMENTS

ENG RVW

- If there are any existing plants on the lot, complete the "Hillside, Inventory/Salvage Plan" checklist. Provide the Salvage Plan in the set of Hillside/Grading and Drainage plans and include it in the sheet index on the cover sheet.

ENG RVW

- Disturbed hillside areas should be revegetated with irrigation to prevent erosion and establish plant material of similar type, size, coloration and quantities as the surrounding areas when mature. If any Revegetation is proposed, complete the "Hillside, Revegetation Plan" checklist. Provide the Revegetation Plan in the set of Hillside/Grading and Drainage plans and include it in the sheet index on the cover sheet.
- The development of the lot shall preserve ridgeline views and visible significant natural features such as mountain peaks. Show and note on the plan how the ridgeline views and significant features are being preserved.
- Design the lot and house to be sensitive to and blend with the site through the use of techniques which consider appropriate proportion and scale to minimize the size, massing, bulk and height of visible portions of the structure.
- Provide a minimum of 2 cross-sections through the entire residence and lot:
 - Show natural (prior to any disturbance on the lot) and proposed grades, finished floor, roof elevations, retaining walls, etc.
 - Do not average.
 - Cross-sections must be drawn through the greatest distance from natural grade to top of roof, including chimneys.
 - Dimension and label the greatest distance on the cross-sections.
 - Sections are to be drawn to scale, vertically and horizontally.
 - No building shall exceed a height of 2 stories, not to exceed 30 feet above the natural grade of the lot or parcel at any section through the structure per City of Phoenix Ordinance Section 710.C.2.Table 1.
- Provide a construction fence symbol in the legend. Outline the extent of all grading on the plans with a construction fence at the edge of the disturbed area. A minimum of 5 feet beyond a wall or permanent fence should be considered as disturbed area and contribute to hillside grading area calculations per City of Phoenix Ordinance Section 507 Tab A.9.2. Be sure to give your contractor room to work.
- Provide a construction fence detail. Minimum fence requirement is 2 strands of gold rope on T-Bar posts. Posts are to be placed 30 feet on center and at angle points.
- Designate undisturbed areas beyond the construction fence. Call out or hatch areas to remain undisturbed and label as such.
- Minimize visible cut and fill to encourage gradual topographical transitions that blend with the natural grade and reduces visual scarring.
- Sites shall be designed to minimize erosion. Steep slopes shall be stabilized with vegetation, rock or other measures per City of Phoenix Zoning Ordinance Section 507 Tab A.II.2.6. Show and label all disturbed slopes. Slopes are to be 4:1 or less. Slopes steeper than 4:1 are to be addressed on a case by case basis. If proposing slopes steeper than 4:1, provide stabilization methods. A Geotech report must be submitted for all slopes steeper than 3:1. If a Geotech report is completed, reference the report on the plans by providing the project number, company name, and date of report.
- Show location of all retaining walls and freestanding walls. Indicate top of wall (TW), top of retaining wall (TRW), and top of footing (TF). Retaining walls are limited to a maximum height of 6' from top of footing. Retaining walls exceeding 6' will require a variance from Planning and Zoning, 602-262-7131. Please provide approved variance documentation with Hillside submittal. Retaining walls must also be approved and permitted through a building safety plan review and are shown for reference and height requirements only. Per City of Phoenix Zoning Ordinance Section 703 and Subdivision Ordinance Section 32-32.C.3.t.

ENG RVW

- When multiple retaining walls are used, each wall shall be set back from the first wall a minimum of 4 feet horizontally. Retaining walls over 4 feet in height shall be set back an additional 1 foot horizontal for every 1 foot vertical. The area between retaining walls must be improved with hardscape or landscaping. The areas between retaining walls will count as permanent beyond roof disturbance in the hillside calculations. Show and note on the plan how the areas between retaining walls will be improved.
- Walls and fences are restricted to the allowed/stipulated disturbable area of the lot. Perimeter walls are prohibited.
- Refer to the Zoning Ordinance Section 703 for more information on retaining walls, restrictions on free standing walls, walls and retaining walls in the front yard setback, etc.
- Indicate actual driveway slope. Maximum slope is 20% per Subdivision Ordinance Section 32-32.C.3.p. Make sure driveway slope conforms to City of Phoenix Supplement to Maricopa Association of Governments Standard Detail P1164.
- Generally driveways in hillside areas should not exceed 12 feet in width. Driveways should provide safe access while minimizing grading, visible cuts/fills, and retaining walls.
- Show all utility connections (e.g. sewer, water, electrical, etc.). It is recommended to place utilities in disturbance areas, such as driveways or walks. Otherwise, the placement of the utilities must be added to the allowed total disturbance area.

ADDITIONAL PROCEDURES (IF APPLICABLE)

ENG RVW

- Hillside Grading Waiver is reviewed by the City Manager's Representative and subsequent appeals are directed to the Development Advisory Board.

For a grading waiver, the applicant submits a letter to the Site Planning Division of the Planning & Development Department requesting a grading waiver and noting reasons for the hardship (also include 2 sets of plans). For more information go to <http://phoenix.gov/development/quickreference/index.html>, click on "Hillside" or "Appeals."

- Excessive building area, excessive height (structure and/or retaining walls), setback encroachment, or structures impeding ridgeline view are all items subject to a Variance Hearing through the Zoning Administrator. Contact Planning and Zoning at 602-262-7131, 2nd Floor City Hall (200 W Washington St, Phoenix, AZ 85003).
- Slope Analysis – For fees and procedures go to <http://phoenix.gov/development/quickreference/index.html>, and click on "Fees" and "Hillside."
- County Dust Control Permit is required.
- Pool permits are obtained through a separate process. The Grading and Drainage plan must be approved before the pool plan and permit can be approved. Pool disturbance area should be accounted for in the original Grading and Drainage plan. Otherwise a Grading and Drainage revision submittal will be required before the pool plan and permit can be approved.

PLANS FOR REVISION

ENG RVW

- All original plan approvals, signatures, and seals are to remain on the revised plans.
- All plans revised after the original approval shall be resubmitted for review and approval. The nature of the revisions must be called out on the cover sheet and on the sheet(s) which have been revised. The revision number itself shall consist of a numeral within a triangle. Δ Changes on each plan sheet shall be highlighted with "clouding".

ENG RVW

- All revised sheets, including the cover sheet are to be re-sealed, signed and dated.
- New approval signature block is required to be added to the cover sheet for approval of the revisions.

Hillside Approval, City of Phoenix

Date

EXTENSIONS

ENG RVW

- All plans submitted for extension require a new signature block and are to be re-signed by the submitting designer. Plan extensions are to be highlighted with "clouding" as specified in the plan revision process above. The plan sealant shall note that this change is a plan extension. A new approval signature block is required to be added to the coversheet for approval of the extension. All plan extensions must have prior approval by completing the Plan Review Extension Application. The Plan Review Extension Application can be found at the following site: <http://www.phoenix.gov/development/siteandcivil/civil/>. Provide a copy of the approved application with the plan submittal.
- Plan approvals for extension are valid for a period of 180 days from the date of plan approval.