



**This information is to be filled out by the Applicant:**

Project Name: \_\_\_\_\_ Address: \_\_\_\_\_

Professional Engineer: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

**This information is to be filled out by the Reviewer:**

H: \_\_\_\_\_ CPHG: \_\_\_\_\_ KIVA: \_\_\_\_\_

Hillside Reviewer: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

The purpose of this checklist is to clearly outline the requirements of the applicable sections of the code and to offer a comprehensive review of the Hillside/Grading and Drainage (G&D) Plans to be approved by the City of Phoenix. The source of requirements for 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 developments in the City of Phoenix that have allowances and/or restrictions specific to that property. The approved Slope Analysis, Site Plan, Plat, and Grading and Drainage Plan for the development will define these specific allowances/restrictions. IF there is a conflict, the more restrictive rule is applied.

This checklist serves to minimize redline comments on the submitted plans 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 submitted plans and this checklist. The Professional Engineer shall satisfy themselves of the completeness and accuracy of the design. If applicable, a separate Hillside, Inventory/Salvage and Hillside, Landscape/Revegetation plan will be required. These are separate Civil submittals with separate checklists. This Checklist is intended to be utilized concurrently with the Grading and Drainage Checklist reviewed by the Civil section for Hillside review.

Plan review correction cycles and/or approvals are valid for one year. 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 included with the Hillside Plans when submitted for first review. Discussion of redline comments on plans or this checklist should be directed to the plan reviewer listed above.

For more information or for a copy of this publication in an alternate format, contact Planning & Development at (602) 262-7811 voice or TTY use 7-1-1.

**SUBMITTAL INSTRUCTIONS:**

- The Hillside/Grading and Drainage Plan is typically a requirement associated with a Preliminary or Final Site Plan. Contact the Team Leader of the project for any specific questions regarding the submittal process. The Hillside Team is also available for requirement and process questions at [pdd.hillside@phoenix.gov](mailto:pdd.hillside@phoenix.gov).
- A Hillside Fact Finding is optional to submit conceptual Hillside/Grading and Drainage Plans for Hillside and Civil review prior to submitting the formal Hillside/Grading and Drainage submittal. No approvals or permits will be issued during the Fact Finding process. Please submit the application and associated plans to [Projectdox](#).
- Hillside/Grading and Drainage Plan sheets shall be submitted as a Civil submittal to [Projectdox](#). Questions regarding the EPR process can be forwarded to EPR Support: 602-534-5933 or [epr.support@phoenix.gov](mailto:epr.support@phoenix.gov)
- If submitting paper copies, submit (5) sets of Hillside/Grading and Drainage Plans to Payments and Submittals staff. Visit the [Appointment Scheduling](#) page. Please note: Hillside Appointments with the Site Planning counter cannot be made with the online appointment scheduling tool. Please email [pdd.hillside@phoenix.gov](mailto:pdd.hillside@phoenix.gov) to request an appointment with the Hillside Team.

**GENERAL REQUIREMENTS**

- 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.
- Original plan sheets shall be sufficiently clear to allow legible prints to be reproduced digitally. The size of lettering and symbols shall be one-eighth inch (1/8") twelve (12) point minimum.
- Show all streets, curbs, sidewalks and headers. Streets shall be identified by name. Dimension and label all Right-Of-Way and easements.
- Minimum of two-foot (2') contour lines for slopes between ten and fifteen percent (10-15%) and five-foot (5') intervals for slopes greater than fifteen percent (15%).
- Ten percent (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 buildings, driveways, covered/uncovered patios, walls, pools and all other accessory structures and amenities.
- Clearly outline the edge of roofline to delineate Coverage Under Roof (e.g. house, overhangs, garages, covered patios, ramadas and shade structures). Shade Under Roof areas if necessary.
- Clearly outline the Beyond Roof Disturbance (Proposed Disturbance area). This area includes disturbed graded areas outside the roofline including driveway, yards, pool/spa, planters, turf, walkways, walls, uncovered patios, cuts/fills, etc. Disturbed hillside areas should be designed with irrigation to prevent erosion and establish plant material of similar type, size, coloration and amount as the context area when mature.
  - Hillside Disturbance: Any cleared, scarred or graded area on a hillside lot that has been altered from the natural desert prior to City annexation or 1972. Any building, structure, driveway, pool, patio etc. and any non-graded areas which has any type of proposed or existing vegetation removal, is considered disturbance. Per Section 710, the area occupied and enclosed by fences or walls is considered graded area.
- Clearly indicate any revegetation area (if applicable). This includes area disturbed during construction with the intent to revegetate with native desert plants and chemically treated cut slopes to match adjacent surrounding

undisturbed area.

- Revegetation: Any revegetation areas (inside the limits of disturbance/construction fence locations) need to meet the requirements of Ch 32-32, Section 507 Tab A and Section 710, need to be clearly shown on the Hillside, Landscape/Revegetation Plan and match the Hillside/G&D Plan. Plant species used in Revegetation areas must be from the [Sonoran Desert Plant List](#) AND also naturally occurring in the surrounding Hillside area. A separate Hillside, Revegetation Plan will be required to be submitted.

- Clearly indicate the protection/construction fencing and provide symbol in the legend. Provide a construction fence detail. Minimum fence requirement is two (2) strands of gold rope on T-Bar posts. Posts are to be placed thirty feet (30') on center and at angle points.
- Clearly designate undisturbed areas beyond the limits of disturbance/construction fence.
- Dimension and label all setbacks per the zoning district and/or the Hillside Ordinance, whichever is greater.
- Provide zoning stipulations, zoning case information, grading waiver decisions, variance documentation, and use permits (if applicable) with the plan submittal.

**COVER SHEET REQUIREMENTS**

- 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 email.
- Provide the Professional Engineer's name, address, telephone number, and email.
- 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 # H \_\_\_\_\_
  - The appropriate processing numbers including:
    - KIVA# \_\_\_\_\_
    - SDEV# \_\_\_\_\_
    - CPHG# \_\_\_\_\_
    - City Quarter Section # \_\_\_\_\_
  - 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 AND DISTURBANCE REQUIREMENTS**

- If the lot has pre-1972 disturbance, this can be considered part of the “allowed” disturbance area. Include an exhibit outlining the pre-1972 disturbance with historical aerial and topography with the plan submittal. Historic aerial photographs are available for purchase at Central Records on the 7<sup>th</sup> Floor of City Hall: [central.records@phoenix.gov](mailto:central.records@phoenix.gov).
- The panhandle portion of a hillside lot will not contribute to hillside grading area calculations if used solely for ingress/egress to a residence. The driveway within the panhandle, retaining walls required to build the driveway and a revegetated utility corridor directly adjacent to the driveway will be allowed and not included as disturbed area. Additional disturbance within the hillside panhandle portion of the lot will contribute to hillside grading area calculations. (City Code Chapter 32-32.C.3.m)
- 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. (City Code Chapter 32-32.C.3.o).
- 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. (City Code Chapter 32-32.C.4)
- Total area of grading for lots may be based on standards of an 18,000 square foot lot for lots subdivided prior to 1972; or any lots annexed into the City that contain less than 18,000 square feet. (City Code Chapter 32-32.C.5.b.(ii))
- The Department Landscape Architect may approve an additional 5% of grading subject to revegetation with desert vegetation and chemical treatment of all exposed cut and fill scars to blend with natural terrain. The 5% Revegetation credit is only given to single-family residential lots designated with conventional, standard and average lot options or single-family residential lots in PAD’s and PRD’s with site plan approval prior to 2004. (City Code Chapter 32-32.Table 1)
- The area occupied by fences or walls located within a hillside development shall be considered graded area. (Zoning Ordinance Section 710.C.4)
- A minimum of 5 feet beyond a building wall or permanent fence should be considered as disturbed area and contribute to hillside grading area calculations unless it can be demonstrated that the wall can be constructed from one side. (P) (Zoning Ordinance Section 507 Tab A.II.A.9.2)

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

- Total Lot Area (Net): \_\_\_\_\_ SF
- Hillside Area: \_\_\_\_\_ SF
- Allowed Coverage Under Roof: \_\_\_\_\_ SF ( \_\_\_\_\_%)
- Proposed Coverage Under Roof: \_\_\_\_\_ SF ( \_\_\_\_\_%)
- Pre-1972 Disturbance (if applicable): \_\_\_\_\_ SF ( \_\_\_\_\_%)
- Allowed Total Area of Disturbance: \_\_\_\_\_ SF ( \_\_\_\_\_%)
- Proposed Total Area of Disturbance: \_\_\_\_\_ SF ( \_\_\_\_\_%)
- Allowed Total Revegetation Area: \_\_\_\_\_ SF
- Proposed Total Revegetation Area: \_\_\_\_\_ SF

**HILLSIDE NOTES**

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

1. 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.
2. File Notice of Intent (NOI) to clear land with the State of Arizona, 602-542-6408.
3. 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.
4. Provide a copy of the County Dust Control Permit to the inspector.
5. **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 PRIOR TO OCCUPANCY. CALL 602-262-7811.**
6. Buildings in hillside areas should 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.
7. Exterior building, roofing, fencing colors, materials and retaining walls that are visible from adjacent property or adjacent streets should convey color, form, textures and material that blend with natural conditions within the context area.
8. Hillside development shall preserve ridgeline views and visible significant natural features such as mountain peaks.
9. The grading of a hillside lot should minimize visible cut and fill to encourage gradual topographical transitions that blend with the natural grade and reduces visual scarring.
10. Plan approval is valid for one (1) year. 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 Civil 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**

- Sites shall be designed to minimize erosion. Steep slopes shall be stabilized with vegetation, rock or other measures. (R) (507 Tab A.II.2.6). Show and label all disturbed slopes. Areas proposed for revegetation should be planted on maximum 4:1 slopes. A 3:1 slope for revegetation may be considered if additional natural features and/or vegetation can be preserved. (P) (507 Tab A.II.A.3.1.8). 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.
- All excavated material shall be removed from lots and roadways or contained behind retaining walls or landscaped so that the slopes of any fill material will not be visible from any public street or private access ways. All cut slopes shall be chemically color treated to blend with the adjacent rocks or desert. Provide note where applicable on the plan. (City Code Chapter 32-32.C.3.I). Show all significant natural features (rock outcroppings, washes, etc.).
- Indicate actual driveway slope. Maximum slope is twenty percent (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.
- Driveways should provide safe access while minimizing grading, visible cuts/fills and retaining walls. Generally, driveways in hillside areas should not exceed 12 feet in width. Additional width may be considered for curves, short driveway lengths, shared access or joint vehicular/pedestrian access. (P) (Section 507 Tab A.II.A.9.1)

- Provide a minimum of two (2) cross-sections through the proposed buildings and lot:
  - Show natural (prior to any disturbance on the lot) and proposed grades, finished floor, roof elevations, etc.
  - Provide heights of proposed retaining walls and dimension spacing.
  - 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. Label property line, easements and setbacks. Show the limits of disturbance/construction fence locations on all site sections.
  - Sections are to be drawn to the same scale, vertically and horizontally. Scales should not be exaggerated.
  - No building shall exceed a height of two (2) stories, not to exceed thirty feet (30') 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 unless otherwise stipulated. Maximum height shall be shown perpendicular to natural grade line.

**WALLS (IF APPLICABLE)**

- Show location of all retaining walls and freestanding walls. Indicate top of wall (TW), top of retaining wall (TRW), and top of footing (TF) at all ends and corners of proposed retaining walls. Retaining walls are limited to a maximum height of six feet (6') from top of footing (TF) to top of retaining wall (TRW). Retaining walls exceeding six feet (6') will require a [Hillside Grading Waiver](#). Retaining walls must also be approved and permitted through a building safety plan review and are shown for reference and height requirements only. (Section 32-32.C.3.t.). All site/retaining walls (non-building related) will be built per the Hillside/Grading and Drainage Plans, details and calculations. Call out the actual materials, color, textures of these site/retaining walls on the plans.
- When multiple retaining walls are used, each wall shall be set back from the first wall a minimum of four feet (4') horizontally. Retaining walls over four feet (4') in height shall be set back an additional one foot (1') horizontal for every one foot (1') vertical. The area between retaining walls must be improved with hardscape or landscaping and will count as disturbance area. Show and note on the plan how the areas between retaining walls will be improved. (Section 32-32.C.3.t.)
- 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 site walls.

**POOLS (IF APPLICABLE)**

- Pool shall be built prior to or in conjunction with site improvements if no access is provided for future construction. Show the location of all pool fencing/pool access points on the plans. All fencing shall blend in with the surrounding desert environment, complementing the approved building colors and the site/retaining walls colors, materials and textures.
- Include location of proposed pool and related equipment within the proposed disturbance area. If there is an existing pool, label and show the location of the existing pool.
- Provide proposed grade of water surface level and hardscape elevation.
- Pool permits are obtained through a separate process. The Hillside/Grading and Drainage Plan must be approved before the pool plan and permit can be approved. Pool disturbance area should be accounted for on the Hillside/Grading and Drainage plan. Otherwise, a revision submittal will be required before the pool plan and permit can be approved.

**ADDITIONAL PROCEDURES (IF APPLICABLE)**

- Subdivision - Hillside Density Waiver is required for proposed lots above those determined through the approved Slope Analysis. Please utilize the [Rezoning Packet](#) for this submittal and contact the Zoning Team for any additional questions: 602-262-7131 or [zoning@phoenix.gov](mailto:zoning@phoenix.gov)
- Hillside Grading Waivers are reviewed by the City Manager's Representative and subsequent appeals are directed to the Development Advisory Board.  
  
Disturbance beyond what is allowed, over-height retaining walls and retaining wall spacing are all subject to a [Hillside Grading Waiver](#). This is submitted through [Projectdox](#). Questions regarding the EPR process can be forwarded to EPR Support: 602-534-5933 or [epr.support@phoenix.gov](mailto:epr.support@phoenix.gov)
- Excessive building area, excessive height, setback encroachment or structures impeding ridgeline view are all items subject to a Variance Hearing. Contact Planning and Zoning at 602-262-7131 or [zoning@phoenix.gov](mailto:zoning@phoenix.gov).
- A [Minor Site Plan Amendment](#) is required to modify information from an approved final site plan. Contact the Site Planning Team for any additional questions on the submittal process: [pdd.siteplanning@phoenix.gov](mailto:pdd.siteplanning@phoenix.gov)
- See Section 507.C.2.a for [Overcoming a Presumption](#). Work with the reviewer directly for any requests to Overcome a Presumption.
- Any permanent structures proposed within a Public Utility Easement (PUE) will require [PUE Encroachment Approval](#). Provide approvals from all utility companies on the 2<sup>nd</sup> page of the PUE form with the submittal.
- To determine the 10% slope line or allowed density on the property, a [Slope Analysis](#) is required. This is submitted through [Projectdox](#). Questions regarding the EPR process can be forwarded to EPR Support: 602-534-5933 or [epr.support@phoenix.gov](mailto:epr.support@phoenix.gov)
- A [County Dust Control Permit](#) is required.

**PLANS FOR REVISION**

- 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".
- All revised sheets, including the cover sheet are to be re-sealed, signed and dated.
- Provide (1) copy of the Approved/Amended Site Plan and one (1) copy of the revised Hillside/Grading and Drainage Plan if applicable in the Reference Drawing Folder and a completed and signed Hillside Checklist.

**EXTENSIONS**

- 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](#). Provide a copy of the approved application with the plan submittal.
- Plan approvals for extension are valid for a period of one hundred eighty (180) days from the date of plan approval.