

TOWN OF PARADISE VALLEY

Hillside Code Update

Town Council
Public Hearing
May 10, 2018



Background

- July 21, 2015 – Code updated started
- June 22, 2017 – Issued SOD
- Updates grouped into 19 categories:
 - 9 topics subject to PC review
- December 19, 2017:
 - PC voted 5 to 1 to forward draft code TC with recommendation of approval



Background (Cont.)

- TC Review at March 22nd and April 26th Work Sessions (WS)
- April 26th WS:
 - Consensus on updates:
 - Hillside Chair Review
 - Resolve conflicting language regarding washes
 - Clarify adjustment to driveway turning radius
 - Add conservation easement section



Background (Cont.)

- April 26th Work Sessions (WS):
 - Identify PC reasoning for changes to Driveway Disturbance Credit
 - Provide “Short List” topics that will result in increased application fees



Background (Cont.)

- Updates Encompassed in 20 Topics
 - o Green Topics – Acceptable by TC
 - o Red Topics – Additional Review or More Information



Summary of Topics



1. Material Palette & Light Reflective Value
2. Disturbed Area Calculation
3. Demolition on Hillside Properties
4. Hillside Models
5. Accessory Structures & Accessory Structure Height Limits
6. 40' Overall Height Measurement
7. Process to Remove a Property from the Hillside Designation
8. Pool Barriers & Perimeter Fencing Standards
9. Retaining Walls & Screen Walls
10. Retaining Walls
11. Driveway Disturbance Credit
12. Lighting
13. La Place du Sommet Subdivision and applicable code
14. Solar Panels and Hillside Review Process
15. Cantilever Limitations
16. Reviews & Administrative Hillside Chair Review
17. Hillside Assurance/Bond
18. On-Site Retention
19. Add a Safety Section in the Code (WS)
20. Conservation Easement

Material Palette & LRV

- Issue:
 - Colors meet LRV but do not always blend in with surrounding hillside
 - HBC limited in approving contrasting colors
- Draft Code:
 - Language added to clarify colors must blend in with surrounding hillside
 - Give HBC more latitude to approve contrasting colors when deemed appropriate

■ Reference page 29 of Draft Ordinance



Disturbed Area Calculation

- Issue :
 - Footprint does not count as disturbed area. Bigger house can result in less disturbance
 - Should footprint be counted as disturbance?
- Decision:
 - Do not count footprint as disturbance. May create too many non-conformities and Prop 207 issues
 - No edits to code



Demolition on Hillside Properties

- Issue :
 - During demo, some contractors go beyond existing disturbance and grade native hillside
- Draft Code:
 - Require existing disturbance limits to be staked prior to demolition
- Reference page 30 of Draft Ordinance



Hillside Model

- Issue :
 - Code requires physical model and model making is a dying art
- Draft Code:
 - Update code to clarify 3D computer models are acceptable with criteria for 3D models (e.g. show contours, scaled, etc.)
- Reference page 20 of Draft Ordinance



Accessory Structures & Heights

- Issue :
 - Clarify 16' height limit for accessory structures. Confusion that 24' height limit for house applies to accessory structures
 - Codify policy on raised outdoor living areas (e.g. raised pool decks)
- Draft Code:
 - Language added to clarify 16' accessory height limit
 - Language added to identify setback requirements for raised outdoor living areas

■ Reference pages 8, 23, 24, and 25 of Draft Ordinance

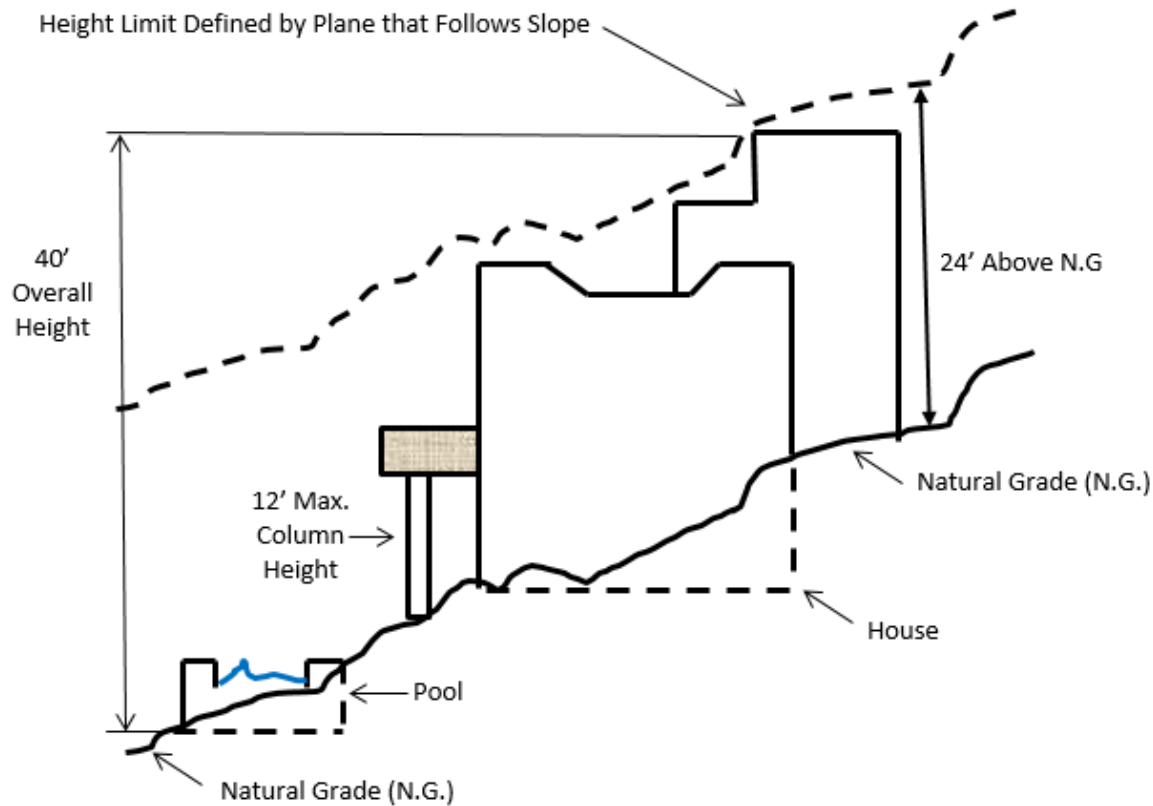


40' Overall Height Limit

- Issue :
 - Confusion on how 40' overall height is measured
- Draft Code:
 - Language added to clarify how 40' height limit is measured (from natural grade of lowest structure to highest point of a structure)
 - Figure 5 update to clarify
- Reference pages 24 and 25 of Draft Ordinance



FIGURE 5 – BUILDING HEIGHT IN HILLSIDE



Process to Remove Property from Hillside

- Issue :
 - Process not identified in code
- Draft Code:
 - Codify policy/practice
 - Language added to identify process:
 - Demonstrate lot has slope less than 10%
 - HBC Recommendation and Council action
- Reference pages 48 and 49 of Draft Ordinance



Pool Barriers & Perimeter Fencing

- Issue :
 - Hillside Code prohibits fences with exception of view pool barriers, screen walls, retaining walls, and view guard rails
 - Pool barrier often designed to be yard or perimeter fence (does not meet intent of code)
- Draft Code:
 - Language added to clarify barrier must be appropriate to site and minimum amount needed to secure pool
- Reference page 38 of Draft Ordinance



Retaining Walls & Screen Walls

- Issue:
 - Clarify when walls must meet setbacks
 - Retaining walls limited to 6" height above material they retain.
Examine when retaining walls may extend beyond 6" limit
- Draft Code:
 - Language added to identify retaining walls must meet setback unless needed to access property or to prevent erosion/flooding
 - Language added to allow driveway retaining walls to extend 18" above material they retain
- Reference pages 36 - 38 of Draft Ordinance



Retaining Walls

- ***Allow HBC to determine appropriate guard rail height between 36" and 42" (SOD)***
- Issue:
 - 36" tall guard rail when fall potential of 30" (+)
 - Applicants request 42" guard rail
- Draft Code:
 - Language added – 42" max height as determined by HBC
- Page 37 of Draft Ordinance



Driveway Disturbance Credit

- ***Develop standards and credits for driveways that serve new homes and remodeled homes (SOD)***
- Issue:
 - Decorative drives receive partial disturbance on homes
 - Concern this encourages large driveways/auto courts that scar the hillside
- Issue:
 - Decorative drives do not count as disturbance on remodels
 - Concern that code encourages larger driveways on remodels :
 - No disturbance = no limit on size of driveway/auto court
 - Can be enlarge driveway with every remodel to house



Driveway Disturbance Credit (Cont.)

- ***Develop standards and credits for driveways that serve new homes and remodeled homes (SOD)***
- Draft Code:
 - New home - decorative driveways receive partial disturbance credit within 18" from natural grade
 - Remodeled home:
 - Existing driveways with decorative materials receive 100% disturbance credit
 - New portions of driveway that extend beyond existing layout receive partial disturbance credit (if within 18" from n.g.)
- Reference pages 33 and 34 of Draft Ordinance



Driveway Disturbance Credit (Cont.)

Decorative Driveways for Remodeled Homes	Decorative Driveways for New Homes
100% Disturbance Credit for Existing Driveway Area New Driveway Beyond the Existing Layout/Driveway Area Receives Partial Credit: ▪ 50% credit within 6" of Natural Grade ▪ 25% credit over 6" and under 18" of Natural Grade ▪ 0% credit if 18" or greater from Natural Grade	50% credit within 6" of Natural Grade 25% credit over 6" and under 18" of Natural Grade 0% credit if 18" or greater from Natural Grade



Exhibit I

	Current Code	Proposed Code
Decorative Driveways for Remodeled Homes	100% Disturbance Credit (No Limit on Amount of Driveway or Amount of Auto Court)	100% Disturbance Credit for Existing Driveway Area - New Driveway Beyond the Existing Layout/Driveway Area Receives Partial Credit: 50% credit within 6" of Natural Grade 25% credit over 6" and under 18" of Natural Grade 0% credit if 18" or greater from Natural Grade
Decorative Driveways for New Homes	50% Disturbance Credit if within 6" from Natural Grade 25% Disturbance Credit if beyond 6" from Natural Grade	50% credit within 6" of Natural Grade 25% credit over 6" and under 18" of Natural Grade 0% credit if 18" or greater from Natural Grade
Asphalt Driveways	Counts as 150% Disturbance	Prohibited
Pros	Encourages the use of decorative driveways and discourages asphalt driveways.	- Prohibits asphalt driveways that do not blend in with the hillside. - Prevents excessively large driveways and auto courts on remodels by including new portions of the driveway/auto court into the disturbance calculation. Less driveway/auto court should result in less disturbance to the hillside. - Prevents excessively large driveways and auto courts for new homes by reducing the disturbance credit for the driveway/auto court. Less driveway/auto court should result in less disturbance to the hillside.
Cons	The driveway credit may encourage larger driveway and larger auto courts which create more disturbance to the hillside.	Driveways and auto courts are site specific and design specific. Reducing the driveway credit may result in steeper driveway slopes, taller driveway cuts, and/or bring the house closer to the front yard setback in order to accommodate a smaller driveway.

Exhibit A

Municipal Hillside Development Comparison

	Paradise Valley	Fountain Hills	Cave Creek	Phoenix	Scottsdale
Hillside Designation (Slope)	Hillside Overlay ¹ 10%+	20%+	15%+	10%+	ESLO Overlay ² 15%+
Maximum Driveway Slope	30%	18%	15%	20%	20%
Allowable Disturbance	60% (max)	40%	50% (max)	35%	50% (max)
Preservation Easement	No	YES	No	No	Yes
Hillside Assurance	Yes	No	No	No	No
Safety Submittals	TBD	No	No	No	No ³

1. Paradise Valley Hillside Development Regulations: Figure 2 (Hillside Development Area)

2. Scottsdale Environmentally Sensitive Land Ordinance (ESLO) Section 6.1060, Table A

3. Scottsdale restricts development on or within 20' of a boulder feature (25' x 20') without a geotech report certifying stability

		Exhibit B			
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Example Project: 1 Acre Lot with 20% Slope		
	Disurbance	Notes
Paradise Valley	19.88% or 8,660 s.f.	Excludes liveable area under roof & attached garage. Excludes utility cuts and septic areas that are revegetated and driveway credit (50% max)
Fountain Hills	40% or 17,424 s.f.	Includes area under roof and all graging (excludes utility trenches)
Cave Creek	30% or 13,068 s.f.	Includes area under roof and all grading
Phoenix	35% or 15,246 s.f.	Includes area under roof and all grading
Scottsdale	35% or 15,246 s.f.	Includes area under roof and all grading

*Scottsdale requires a Natural Area Open Space Easement and Fountain Hills requires a Hillside Protection easement on the undisturbed areas



Lighting

- ***Evaluate Lighting Standards to address Kelvin requirements, add Lux as another light measurement, and holiday lighting start on October 15th (SOD)***
- Issue:
 - Flat land lighting recently updated. Minor updates for consistency
- Draft Code:
 - Definition of Lux
 - Color temperature - 3000 K max
 - Holiday lights to start on October 15th

■ Pages 41 – 46 of Draft Ordinance



La Place du Sommet & Applicable Code

- ***Incorporate amendments from Town Attorney related to which Hillside Code applies to La Place du Sommet Subdivision (SOD)***
- Issue:
 - Practice of applying 1984 code to La Place du Sommet subdivision
 - Research identified only disturbance limits from 1984 code apply to select lots in subdivision
- Draft Code:
 - No edits to code



Solar Panels

- ***Commission shall explore use of stealth solar technology and evaluate placement of solar on pitched roofs (SOD)***
- Issue:
 - Requests to place solar panels on pitched roofs
- Draft Code (Two Sections):
 - Solar Panel Criteria:
 - On pitched roofs only when screened by adjoining hillside or cut
 - Stealth Solar Criteria:
 - Solar shingles/tiles on pitched roofs when blend in with building and LRV of 38% or less
 - Cannot have shiny metallic finish



Sample Solar Tiles & Shingles



Shiny Metallic Solar Tiles & Shingles



Cantilevers

- ***Add language prohibiting cantilevered driving surfaces. May require definition of driveway. Establish or revise criteria that minimizes visual impact and discourages use of cantilevers in construction of structures. In no circumstance should the cantilever standard exceed 8' vertical and 4' horizontal (SOD)***
- Issue:
 - Mitigate negative impacts of cantilevers



Cantilevers (Cont.)

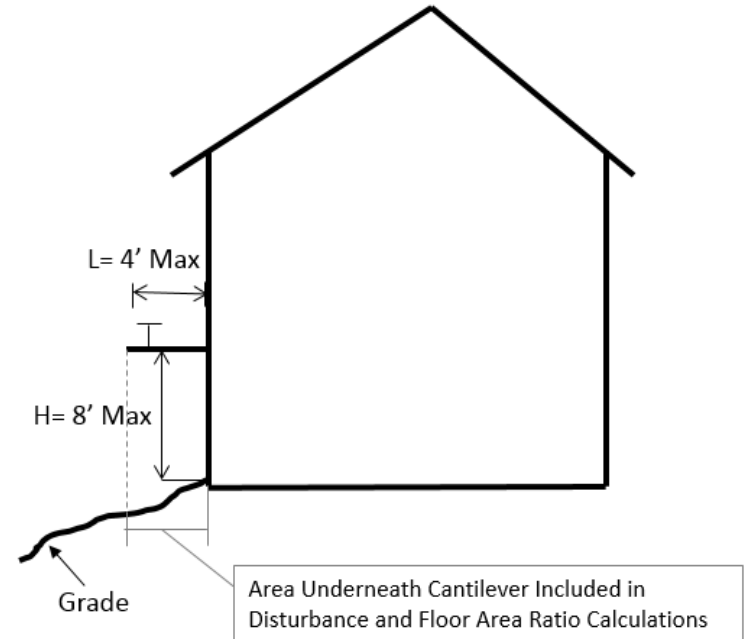
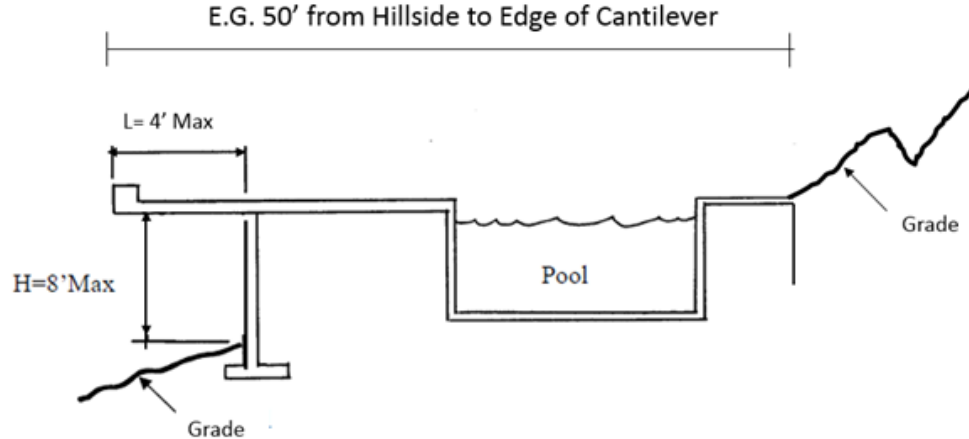
- Draft Code:
 - 4 Categories/Criteria:
 - Cantilevered driveways prohibited
 - 8' max vertical height and 4' max horizontal length
 - Area underneath counted as disturbance, meet setbacks of associated structure, finished to blend in with structure/surrounding
 - Building cantilever included in floor area ratio
- Pages 6 and 26 – 28 of Draft Ordinance



Cantilevers (Cont.)

- Illustrations modified for clarity

FIGURE 7 - HEIGHT FOR A CANTILEVERED ELEMENT



Cantilevers (Cont.)

- Cantilever Definition:
 - Cantilever – A rigid structural element of a building, deck, or walking surface that is anchored at one end of a support from which it protrudes more than two feet . This excludes roof overhangs that do not have a walking surface above them
- Page 6 of Draft Ordinance



Additional Updates

- PC made clarifying edits:
 - o Section 2209 (Lot Split Standards):
 - Clarify how slope lines calculated
 - o Figure 4 updated to clarify requirements

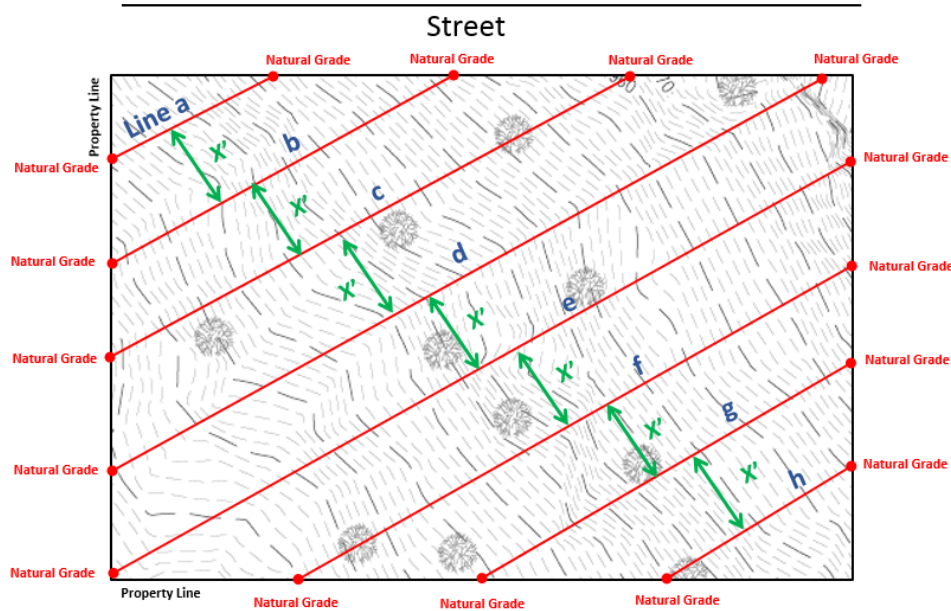


Lot Split Standards

- Slope shall be calculated using a minimum of 3 slope lines per Acre. The slope lines shall be perpendicular to the slope and at equal ~~distances~~ **spacing** across the Lot (see Figure 10).



Figure 10 – Slope Lines per Acre



$(2.5 \text{ acres}) \times (3 \text{ Slope Lines per Acre}) = 7.5 \text{ Lines}$ which Rounds Off to 8 Slope Lines

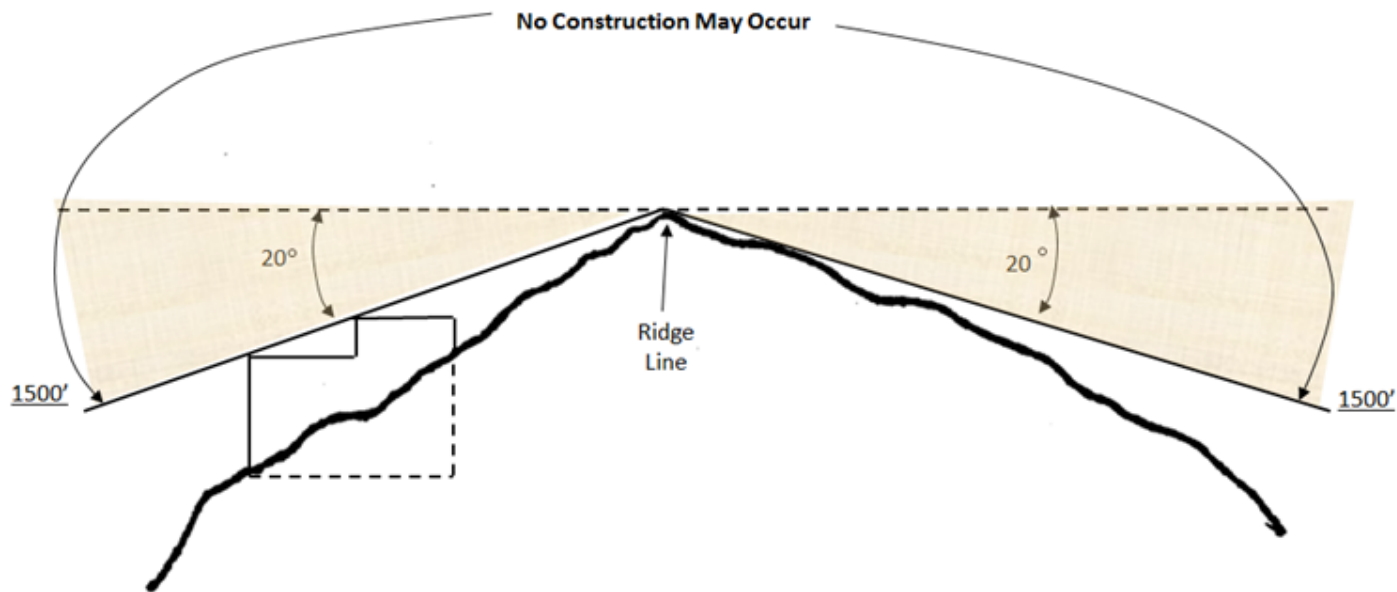
$$\frac{((\text{Line a Length} \times \text{Slope}) + (\text{Line b length} \times \text{Slope}) + (\text{Line c Length} \times \text{Slope}) + (\text{Line d Length} \times \text{Slope}) + (\text{Line e Length} \times \text{Slope}) + (\text{Line g Length} \times \text{Slope}) + (\text{Line h Length} \times \text{Slope}))}{(\text{Summation of All the Slope Line Lengths})} = \text{Average Lot Slope}$$

Use the Average Lot Slope % in Table 3 to Determine Minimum Allowable Lot Size



Figure 4

FIGURE 4 – RIDGE LINE TWENTY DEGREE DELINEATION



Hillside Reviews & Admin Chair Review

- Issue :
 - Clarify the 4 types of Hillside Reviews
 - Examine scope of Chair Review
- Draft Code:
 - Language added to clarify 4 types of Hillside Reviews
 - Chair Review:
 - May approve limited amount of site walls and disturbance
 - Approvable amount of building footprint reduced (1,000 sq ft to 100 sq ft)

■ Reference pages 11 - 12 of Draft Ordinance



Hillside Assurance

- ***Sufficient amount to restore hillside and establish thresholds for when assurance called to mitigate impacts. Identify landscape assurance solution (SOD)***
- Issue:
 - Concern current amount not sufficient to restore property
- Scope:
 - Restore back to natural grade to extent possible
 - Many instances - not possible to restore 30' cut
 - Use to mitigate abandoned development
 - Remove vertical elements, restore driveway, grade and vegetate parts of pad, stain cut



Hillside Assurance (Cont.)

- Draft Code:
 - Two Standards for Grading Permit:
 - New SFR/Major Improvements – amount to restore property to natural grade
 - Minor Improvements – amount to restore affected portions to natural grade
 - Assurance:
 - 35 times Grading Permit Fee, or
 - Greater amount deemed appropriate by HBC

■ Pages 14 - 17 of Draft Ordinance



Hillside Assurance (Cont.)

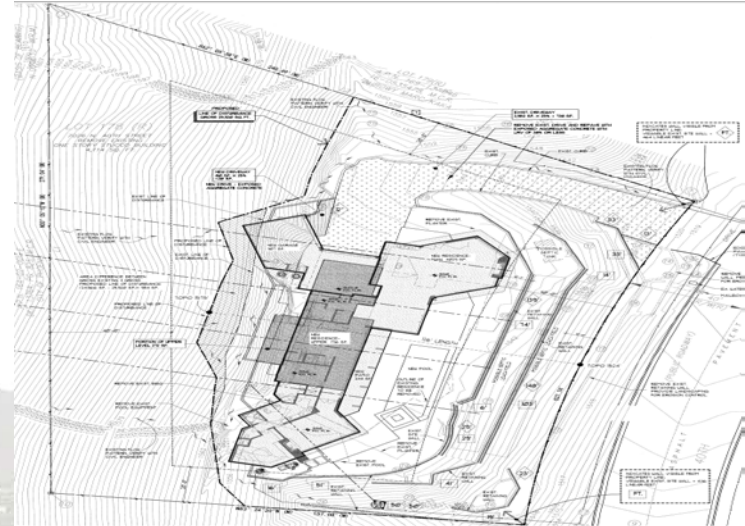
- March 22nd WS:
 - Provide project examples and calculated assurance amounts
 - Scenario - Abandoned property where pad is cut and house framed
 - **Estimate of \$200,000 - \$400,000** to remove framing, bury walls, add some fill on pad, re-vegetate site, and stain cut
- Assurance from draft/proposed code more in line with estimate
- Current Code – 4 of 5 examples below estimate
- Proposed Code – 1 of 5 examples below estimate
- See Exhibit D for Examples



Hillside Assurance (Cont.)

- March 22nd WS:
 - o Example – 40th St Project (New SFR on Existing Pad):

	Total Cut/Fill	Assurance (\$)
Current Code	1,486 c.y.	$1,486 \times \$25 = \$37,150.00$
Proposed Code	6,216 c.y.	$\$5,952.20 \times 35 = \$208,327.00$



Hillside Assurance (Cont.)

- March 22nd WS:
 - Identify costs of letter of credit and bonds
 - Assurance Payment (Since 2015):
 - 76 % paid in cash
 - 13 % by letter of credit
 - 11 % by bond
 - Letter of Credit (LC):
 - Banks identified LC not used often and do not change fee
 - Bonds:
 - No response from bonding companies
 - 1% of bond amount – per applicants



Hillside Assurance (Cont.)

- ***Identify a landscape assurance solution (SOD)***
- Issue:
 - Project completed in summer and applicant wants deferment on landscaping due to heat
- Draft Code:
 - Applicant may request temporary deferment on installation of landscaping
 - Town hold assurance until landscaping is installed
- Pages 14 - 17 of Draft Ordinance



On-Site Retention

- ***Identify on-site retention and detention shall be in accordance with Town's Storm Drainage Design Manual and develop standards that allow retention basins without retaining walls to receive partial disturbance credit (SOD)***
- Issue:
 - Retention counted as disturbed area
 - Applicants occasionally use retaining walls to create retention areas



On-Site Retention (Cont.)

- Draft Code:
 - When required, retention basins designed in accordance with Storm Drainage Design Manual
 - Area included in disturbance calculation
 - 50% credit:
 - Don't use retaining walls
 - Vegetated with native plants
- Pages 35 and 36 of Draft Ordinance



On-Site Retention (Cont.)

- Council Member Moore identified conflicting language regarding washes
- Hillside code states wash cannot be diverted or relocated
- Town Code and Storm Drainage Design Manual allow washes to be diverted or relocated
- Consensus to update code to match Town Code and Storm Drainage Design Manual requirements – April 26th WS
- Reference page 36 of draft ordinance



Conservation Easement

- Proposal:
 - Encourage hillside property owners to dedicate conservation easements over undeveloped portions of property
 - Help preserve and protect hillside
 - Consensus to add to code – April 26th WS



Conservation Easement (Cont.)

- Draft Code:
 - Owner encouraged to donate a “conservation easement area”
 - May dedicate all or portion of undeveloped property as easement
 - Development prohibited in conservation easement area



Conservation Easement (Cont.)

- Draft Code:
 - Allowed Uses:
 - Floor Area Ratio Calculation
 - Setback Measurements
 - Disturbed Area Calculation
 - Prohibited Uses:
 - No Construction in Easement Area
 - No Access or Right to Occupy Easement
- Reference page 2 of draft ordinance



Estimated Cost (\$) Analysis



1. Material Palette & Light Reflective Value (=)
2. Disturbed Area Calculation (=)
3. Demolition on Hillside Properties (+)
4. Hillside Models (-)
5. Accessory Structures & Accessory Structure Height Limits (=)
6. 40' Overall Height Measurement (=)
7. Process to Remove a Property from the Hillside Designation (=)
8. Pool Barriers & Perimeter Fencing Standards (-)
9. Retaining Walls & Screen Walls (=)
10. Retaining Walls (=)
11. Driveway Disturbance Credit (?)
12. Lighting (=)
13. La Place du Sommet Subdivision and applicable code (=)
14. Solar Panels and Hillside Review Process (=)
15. Cantilever Limitations (?)
16. Reviews & Administrative Hillside Chair Review (+)
17. Hillside Assurance/Bond (+)
18. On-Site Retention (=)
19. Add a Safety Section in the Code (+)
20. Conservation Easement (?)

(=) No Increase in Cost

(+) Increased Cost

(-) Reduced Cost

(?) Unknown – Site & Design Specific

Short List of Topics – Result in Increased Costs

Code Topic	Current Code	Proposed Code	Change	Estimated Increase in Application Cost & Hillside Assurance
Admin. Hillside Chair Reviews*	- No Increase in Disturbance - No Increase in Walls - No Increase in Height of House 1,000 Sq Ft of New Footprint	100 Sq Ft Increase in Disturbance 15 L.F. Increase in Walls - No Increase in Height of House 100 Sq Ft of New Footprint	Estimated that 1/3 of Administrative Hillside Chair Reviews Will Require Full Committee Review (as a Combined Review)	\$2,635.00 Additional Application Fee \$4,125.00 (Combined Review App. Fee) - \$1,490 (Admin. Chair App. Fee) = \$2,635.00 (??) Cost for Applicant to Prepare Plan Set from Chair Review to Combined Review Unknown
Hillside Assurance**	\$25 x Total Cut and Fill Associated with Project	\$35 x Grading Permit Fee	With code update, most assurances will fall into estimated range of \$200K to \$400K to mitigate site	55% Estimated Increase in Assurance (or Average increase of \$97,132.92 based upon 5 Examples in Exhibit D) Assurance Refundable

* See Table 1 for Estimated Number of Admin. Chair Reviews that will Require Full Committee Review due to Code Changes

** Reference Exhibit D for Comparison of Current and Proposed Hillside Assurance Amounts

RECOMMENDATION

- Approve Ordinance 2018-08 and Resolution 2018-07



Questions?

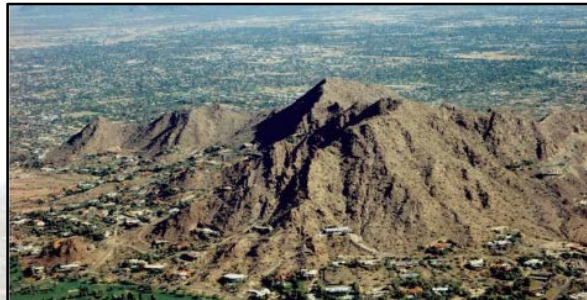


Exhibit A

Municipal Hillside Development Comparison

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1. Paradise Valley Hillside Development Regulations: Figure 2 (Hillside Development Area)

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3. Scottsdale restricts development on or within 20' of a boulder feature (25' x 20') without a geotech report certifying stability

		Exhibit B			
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Example Project: 1 Acre Lot with 20% Slope		
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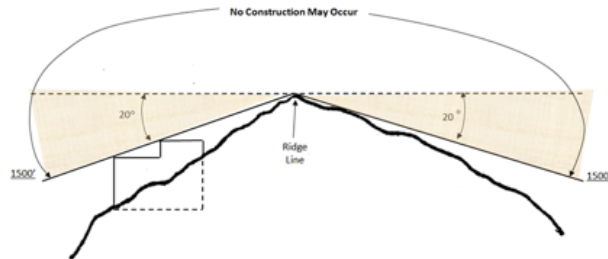
*Scottsdale requires a Natural Area Open Space Easement and Fountain Hills requires a Hillside Protection easement on the undisturbed areas



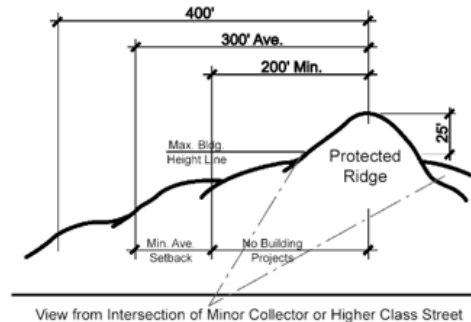
Exhibit C

Example – Protected Peaks & Ridges					
Municipality	Paradise Valley	Fountain Hills	Cave Creek	Phoenix	Scottsdale
Protected Peaks/Ridges	Yes	No	No	No	Yes
Criteria	No Structure May Extend Above a 20 Degree Plane that Angels Below the Primary Ridgeline				All Buildings Shall Be Setback an Average of 300 ft Horizontally and a Minimum of 200 ft From a Protected Ridge. The Maximum Elevation of Any Structure Within 400 ft Horizontally of a Protected Peak or Ridge Shall be at Least 25 ft Below the Elevation of the Nearest Point of the Protected Peak or Ridge

FIGURE 4 – RIDGE LINE TWENTY DEGREE DELINEATION



Viewpoints - Protected Ridges



5315 E. Solano Drive. The applicant is demolishing an existing home in order to build a new Single-Family Residence. The property was developed in the 1950s, which created the original pad. Approximately 97% of the lot is disturbed. The application is still undergoing the Hillside Committee review process.

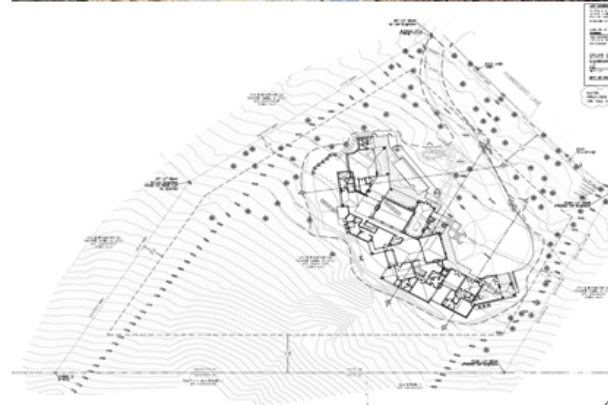
	Total Cut/Fill	Assurance (\$)
Current Code	7,000 c.y.	7,000 x \$25 = \$175,000
Proposed Code	12,940 c.y.	\$9,826.30 x 35 = \$343,920.50

Exhibit D – Hillside Assurance



5959 E. Hummingbird Lane. The property was an undeveloped lot. In 2007, the applicant started construction of a new single-family residence. The cut for the driveway and the house pad were created and several walls were constructed. However, due to the economic downturn in 2008, construction stopped. The Town started the process to collect the assurance, but the property sold and the new owner made application to construct a different home on the existing pad. The estimate in 2014 to remove the walls, place 800 c.y of fill to cover the pad, stain the cut and revegetate the site was \$182,104.01.

	Total Cut/Fill	Assurance (\$)
Current Code	7,354 c.y.	$7,354 \times \$25 = \$183,850$
Proposed Code	7,354 c.y.	$\$7,033.30 \times 35 = \$246,165.50$



6824 N. Highland Drive. The property was an undeveloped lot. A new single-family residence is currently under construction.

	Total Cut/Fill	Assurance (\$)
Current Code	2,530 c.y.	2,530 x \$25 = \$63,250
Proposed Code	2,530 c.y.	\$2,450.50 x 35 = \$85,767.50



5749 E. Quartz Mountain Rd. This property was an undeveloped lot. In 2007, the applicant started construction of a new single-family residence. The cut for the driveway and the house pad were created; however, no structure or vertical elements were built due to the economic downturn in 2008. The assurance was not active and the Town was unable to use the funds help to restore the site.

	Total Cut/Fill	Assurance (\$)
Current Code	11,508 c.y.	$11,508 \times \$25 = \$287,700.00$
Proposed Code	11,508 c.y.	$\$9,690.26 \times 35 = \$339,159.10$



7026 N. 40th Street. The applicant is demolishing an existing home in order to build a new Single-Family Residence. The property was developed in the 1970s, which created the original pad. Approximately 48% of the lot is disturbed. The application is still undergoing the Hillside Committee review process.

	Total Cut/Fill	Assurance (\$)
Current Code	1,486 c.y.	1,486 x \$25 = \$37,150.00
Proposed Code	6,216 c.y.	\$5,952.20 x 35 = \$208,327.00



Exhibit E

Comparison of Flat Land and Hillside Regulations/Requirements

Regulations/Requirements	Flat Land	Current Hillside Code	Proposed Hillside Code
Committee/Public Body Review	No – If Code Compliant Yes – <u>BofA</u> if Seek Variance	Yes – HBC Review Yes – <u>BofA</u> if Seek Variance	Yes – HBC Review Yes – <u>BofA</u> if Seek Variance
Construction Staging Plan Review	No	No	Yes
Safety Plans	No - Building Code Compliance at Bldg Permit	Yes - Geotech & Drainage Reports - Building Code Compliance at Bldg Permit	Yes - Geotech & Drainage Report - Building Code Compliance at Bldg Permit - Technical Advisory Group Review
Neighborhood Notice	No – If Code Compliant Yes – <u>BofA</u> if Seek Variance	Yes – Concept, Formal & Combined Reviews Yes – <u>BofA</u> if Seek Variance	Yes – Application Submittal, Construction Staging Submittal, Safety Plan Submittal, Concept Review, Formal Review & Combined Review Yes – <u>BofA</u> if Seek Variance
Process/Time	Community Development Code Compliance Review (15 working days per review)	- Hillside Building Committee Review (2 – 6 months depending upon scope of Improvements) - Community Development Code Compliance Review (15 working days per review)	- Hillside Building Committee Review (5 – 9 months depending upon scope of Improvements) - Community Development Code Compliance Review (15 working days per review)
Heights	- 24' from Lowest Natural Grade - Open Space Criteria	- 24' Above Natural Grade - Overall 40' Height Limit	- 24' Above Natural Grade - Overall 40' Height Limit
Disturbance Limits	No	Yes	Yes
Fences	Yes – Solid & View	No – Limited to Retaining Walls, Mechanical Screens, and View Pool Barriers	No – Limited to Retaining Walls, Mechanical Screens, and View Pool Barriers
Floor Area	25% Max	25% Max	25% Max
Heights	- 24' from Lowest Natural Grade - Open Space Criteria	- 24' Above Natural Grade - Overall 40' Height Limit	- 24' Above Natural Grade - Overall 40' Height Limit
Disturbance Limits	No	Yes	Yes



Exhibit I Driveway Disturbance Credit

	Current Code	Proposed Code
Decorative Driveways for Remodeled Homes	100% Disturbance Credit (No Limit on Amount of Driveway or Amount of Auto Court)	100% Disturbance Credit for Existing Driveway Area - New Driveway Beyond the Existing Layout/Driveway Area Receives Partial Credit: 50% credit within 6" of Natural Grade 25% credit over 6" and under 18" of Natural Grade 0% credit if 18" or greater from Natural Grade
Decorative Driveways for New Homes	50% Disturbance Credit if within 6" from Natural Grade 25% Disturbance Credit if beyond 6" from Natural Grade	50% credit within 6" of Natural Grade 25% credit over 6" and under 18" of Natural Grade 0% credit if 18" or greater from Natural Grade
Asphalt Driveways	Counts as 150% Disturbance	Prohibited
Pros	Encourages the use of decorative driveways and discourages asphalt driveways.	- Prohibits asphalt driveways that do not blend in with the hillside. - Prevents excessively large driveways and auto courts on remodels by including new portions of the driveway/auto court into the disturbance calculation. Less driveway/auto court should result in less disturbance to the hillside. - Prevents excessively large driveways and auto courts for new homes by reducing the disturbance credit for the driveway/auto court. Less driveway/auto court should result in less disturbance to the hillside.
Cons	The driveway credit may encourage larger driveway and larger auto courts which create more disturbance to the hillside.	Driveways and auto courts are site specific and design specific. Reducing the driveway credit may result in steeper driveway slopes, taller driveway cuts, and/or bring the house closer to the front yard setback in order to accommodate a smaller driveway.

Case Study I - 6824 N. Highland Drive. The property was an undeveloped lot. A new single-family residence is currently under construction. Since the driveway is 5' below natural grade, the decorative driveway would not receive any credit under the proposed code. As designed, the lack of driveway credit would result with this project exceeding the allowable disturbance (by 645 square feet). As a result, the applicant would be required to redesign the driveway/auto court area or house to make the design meet the allowable disturbance.

	Driveway Area	Driveway Credit	Allowable Disturbance	Proposed Disturbance
Current Code	3,608 Sq. Ft.	25% or 771 Sq. Ft.	5,072 Sq. Ft.	4,946 Sq. Ft.
Proposed Code	3,608 Sq. Ft.	0%	5,072 Sq. Ft.	4,946 + 771 = 5,717 Sq. Ft



View from South

View from South

Case Study II - 7026 N. 40th Street. The applicant is demolishing an existing home in order to build a new Single-Family Residence. The property was developed in the 1970s, which created the original pad. The applicant is planning to use the same driveway and resurface it with pavers. Due to the previous development of the site, the existing amount of disturbance exceeds the allowable amount of disturbance. This excess disturbance is considered existing non-conforming and the applicant is encouraged to make an attempt to reduce the existing disturbance below what currently exists. As designed, the lack of driveway credit would not push the applicant over the existing amount of disturbance. Therefore, no change in the applicant's design would be required.

	Driveway Area	Driveway Credit	Allowable Disturbance	Existing Disturbance	Proposed Disturbance
Current Code	3,030 Sq. Ft.	25% or 758 Sq. Ft.	4,319 Sq. Ft.	20,852 Sq. Ft.	19,745 Sq. Ft.
Proposed Code	3,030 Sq. Ft.	0%	4,319 Sq. Ft.	20,852 Sq. Ft.	$19,745 + 758 = 20,512$ Sq. Ft.



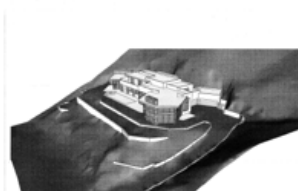
1. STREET VIEW - PROPOSED



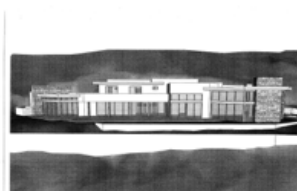
2. STREET VIEW - PROPOSED



3. STREET VIEW - PROPOSED



4. STREET VIEW - PROPOSED



5. STREET VIEW - PROPOSED

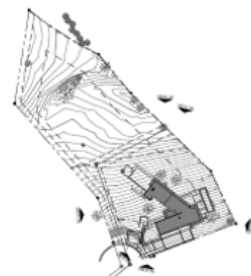


6. STREET VIEW - PROPOSED



Case Study III – 4796 E. Charles Drive. The property was an undeveloped lot. A new single-family residence was constructed on this site. Since the driveway is 8' below natural grade, the decorative driveway would not receive any credit under the proposed code. The additional disturbance amount of 536 is still within the allowable disturbance for the property and a re-design of the project would not be required.

	Driveway Area	Driveway Credit	Allowable Disturbance	Proposed Disturbance
Current Code	2,144 Sq. Ft.	25% or 536 Sq. Ft.	14,685 Sq. Ft.	13,917 Sq. Ft.
Proposed Code	2,144 Sq. Ft.	0%	14,685 Sq. Ft.	13,917+536 = 14,453 Sq. Ft



01 KEY PLAN



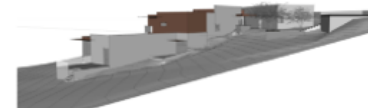
02 VIEW FROM CHARLES DRIVE



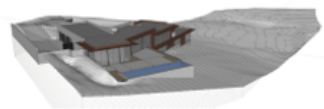
03 VIEW FROM TATUM



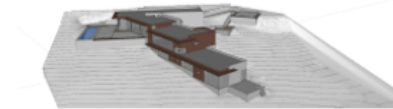
04 AERIAL VIEW



05 AERIAL VIEW



06 AERIAL VIEW



07 AERIAL VIEW



Exhibit J – Result in Increased Costs

Code Topic	Current Code	Proposed Code	Change	Estimated Increase in Application Cost
Admin. Hillside Chair Reviews*	- No Increase in Disturbance - No Increase in Walls - No Increase in Height of House 1,000 Sq Ft of New Footprint	100 Sq Ft Increase in Disturbance 15 L.F. Increase in Walls - No Increase in Height of House 100 Sq Ft of New Footprint	Estimated that 1/3 of Administrative Hillside Chair Reviews Will Require Full Committee Review (as a Combined Review)	\$2,635.00 Additional Application Fee \$4,125.00 (Combined Review App. Fee) - \$1,490 (Admin. Chair App. Fee) = \$2,635.00
Hillside Assurance**	\$25 x Total Cut and Fill Associated with Project	\$35 x Grading Permit Fee	With code update, most assurances will fall into estimated range of \$200K to \$400K to mitigate site	55% Estimated Increase in Assurance Cost (or Average increase of \$97,132.92 based upon 5 examples in Exhibit D)

* See Table 1 for Estimated Number of Admin. Chair Reviews that will Require Full Committee Review due to Code Changes

** Reference Exhibit D for Comparison of Current and Proposed Hillside Assurance Amounts

HILLSIDE CHAIR REVIEWS – 2015 TO 2018

ANALYSIS OF CHAIR REVIEWS UNDER CURRENT CODE THAT WILL REQUIRE COMMITTEE REVIEW UNDER DRAFT CODE

Year	Total Chair Reviews (Current Code)	Chair Reviews (Draft Code)	Committee Reviews (Draft Code)	% That Require Committee Review (Draft Code)
2015	16	9	7	43.8%
2016	11	8	3	27.3%
2017	10	6	4	40.0%
2018	3	2	1	33.3%

$$43.8\% + 27.3\% + 40.0\% + 33.3\%/4 = \mathbf{36.1\%}$$

36.1% of Applications Approved for Chair Review under the Current Code would now require a Combined Committee Review under the draft code

