BULL CREEK PUD EXHIBIT D – NOTES

BASE ZONING AND PERMITTED USES

- 1. Land uses within the LA zoning district shall be permitted uses.
- 2. Additional permitted uses shall include:
 - Crop Production
 - Urban Farm
- 3. During construction, the existing structure on the property may be used as a dwelling and for activities to assist the site with construction.

GENERAL NOTES

- 1. The PUD will comply with the Hill Country Roadway Ordinance, with the following exceptions, because of its character as a single family residence with accessory structures:
 - a. Land Development Code (LDC) Sections 25-2-1122, Floor to Area Ratio of a Nonresidential Building, and Section 25-2-1123, Construction on Slopes Construction on slopes shall only need to comply with Exhibit K. The guest house will not disturb slopes greater than 25 percent, but will merely span them, similar to a free span bridge structure. Although construction will not actually occur on slopes greater than 25 percent, this variance request is required, due to staff's interpretation of the City's code.
 - b. LDC Section 25-2-1126, *Building Materials* The small amounts of reflective and non-native building materials included on structures will be 100 feet behind a 10 foot tall masonry wall that is located 100 feet from the ROW of RM 2222 and behind dense vegetation with additional native tree and shrub plantings.
 - c. Environmental Criteria Manual (ECM) Sections 3 through 3.3.5, *Tree Surveys* The Project will provide a survey of the eight inch trees on the property. Single family regulations only require documentation of 19 inch and greater trees. Mitigation will conform to the tree permits approved for the property by the City's arborist.
 - d. The following provisions shall supersede the Hill Country Roadway Ordinance landscaping provisions of the LDC and ECM:
 - A 100 foot roadway vegetative buffer shall be provided from the RM 2222 right-of-way. At or outside of the proposed 100 foot roadway vegetative buffer, a ten (10) foot tall wall/fence is proposed for the purposes of visibility and sound attenuation. The owners intend to supplement the existing native vegetation with additional native tree plantings between RM 2222 and the wall. The intent of the additional tree plantings is to

preserve and enhance the view of native vegetation for vehicles along RM 2222. Additionally, entryway features may be allowed within the 100 foot setback in the vicinity of the driveways for purposes of locating the address of the property and providing screening between properties.

- 2) At least 40 percent of the site in the Hill Country Roadway 1000 foot setback area shall be left in a natural state, except for vegetative management activities in accordance with a) the existing wildlife management plan approved by the Travis County Appraisal District for the property and b) the Ecological Conservation and Preservation Plan outlined in Exhibit E of this PUD.
- e. LDC Section 25-5-142, *Land Use Commission Approval* The project will go before the Land Use Commission for approval as part of the PUD process. The Owner has agreed to provide administrative site plans for the following: improvements to the swim area, boat docks, and proposed habitat for migratory waterfowl. If environmental variances are requested for the recreation building, then an administrative site plan shall be submitted for it.
- 2. Impervious cover shall be limited to 14 percent of the net site area of the overall property.
- 3. All proposed and/ or manmade environmental features are defined in the Land Development Code and the Environmental Criteria Manual, and are not classified as features that are of critical importance to the protection of environmental resources. These manmade environmental features shall include seasonal holding ponds created and/or proposed by this PUD, and shall not be considered CEFs and/or wetlands either now or in the future. In doing so, they shall not be required to comply with Land Development Code Sections 25-8-281 and 25-8-282, or any future modifications to these sections of the code.
- 4. All utilities and/or lift stations located within the PUD perimeter boundary shall not require the dedication of any easements. The owner agrees to allow utility providers, with 24 hours notice, to construct, operate, maintain, repair, replace and upgrade utilities and/or lift stations in, under and across the property, only in locations approved by the owner. The approximate location of utilities and utility lines are shown within the PUD documents. Final utility locations are to be determined at a later date.
- 5. Energy consumption and ratings shall be measured by taking all of the meters on the site into consideration rather than each single meter.
- 6. The project will comply with the single family residential tree removal and clearing requirements of the City Code in effect on the date the PUD application was submitted. The PUD is for one single family residence with accessory uses. A tree clearing permit shall be required only for 19 inch diameter and larger protected trees.
- 7. Lighting for the skyspace structure shall only allow a low level of interior lighting outward. Only a very small amount of light will escape skyward through the opening, but no lights will be directed at the opening itself. Light fixtures will have a diffusing

cover over them. Luminaires shall not shine directly onto neighboring properties, roadways or distribute excessive light skyward.

- 8. The proposed main house, barn, recreation center, and guest house structures shall provide fire sprinkler protection. As part of the building permit process, the Owner shall work with Austin Fire Department to develop final designs in accordance with NFPA standards.
- 9. The Owner shall:
 - a. Continue to accept and convey all offsite runoff through the Property.
 - b. Not increase the velocity of the runoff beyond the Property, including appropriate detention, if necessary.
 - c. Operate, maintain, replace, upgrade, and repair any natural drainage ways and related facilities.
 - d. Allow the City to inspect the drainage area with prior written notice and an appointment with the Owner or Owner's agent.
- 10. In a restrictive covenant, the Owner shall agree to:
 - a. Limit the number of boat slips on the property to the number that is existing, as of the date of this ordinance, and
 - b. Not use the boat slips for commercial purposes.
- 11. Cypress fringes are located on portions of the property and are shown accordingly. However, there is no setback associated with them.
- 12. The swim area may be reconstructed not to exceed 50 feet from the shoreline, in accordance with the hatched area as shown in Exhibit I. Shoreline modifications for the swim area will exceed LDC and ECM requirements in order to preserve the natural and traditional character of the shoreline (LDC 25-7-61(A)(5)), maintain the integrity of protected riparian areas and minimize damage to physical and biological characteristics (ECM 1.7.7(A)). Facets of the proposed plan will:
 - a. Maintain the water quality benefits and biological integrity of a functioning, natural, vegetated shoreline by providing landscape details which replace existing shoreline vegetation with more desirable native species that provide bank stabilization and natural character;
 - b. Provide the slope of a natural shoreline with minimal stone toe armor pursuant to the current recommendations for bank stabilization of City of Austin Environmental Resource Management Division wetlands biologist;

- c. Provide native wetland plantings as mitigation for any impacts to protected wetland areas with the approval of City of Austin Environmental Resource Management Division wetlands biologist;
- d. Provide the seal of a Texas professional engineer to certify that the hydraulic and structural design of dock and shoreline treatment are adequate that the improvement complies with the ordinances of this City, DCM and the laws of this State (LDC 25-7-62);
- e. Eliminate the use of wire mesh fencing in the water; and
- f. Provide a site plan for dock/deck/shoreline modifications.
- 13. Administrative site plans shall be submitted for review and approval for new improvements to the swim area, boat docks, and proposed habitat for migratory waterfowl. If environmental variances are requested for the recreation building, then an administrative site plan shall be submitted for it. Due to the overall residential use, no other site plans shall be required.

Site plan regulations, such as Hill Country Roadway, landscaping, and other requirements applicable to commercial uses shall not be applied to the administrative site plan(s). Tree surveys shall be submitted when required by single family regulations, in accordance with such regulations for 19 inch and greater trees.

Project duration shall not apply, as outlined in the code modification table. The improvements shown in an administrative site plan(s) shall be constructed within ten years after the date of its approval.

- 14. As part of the building permit approval process, the City may review and inspect the grading and erosion and sedimentation controls for the main house (and driveway), barn, guest house, and Turrell skyspace art piece to ensure compliance with environmental variances described in the PUD exhibits. Tree surveys shall be submitted when required by single family regulations, in accordance with such regulations for 19 inch and greater trees.
- 15. As part of the 50 foot buffer proposed for Rimrock 1 and 2, as shown on Exhibit N, Critical Environmental Features, the following conditions shall apply:
 - a. A 40 foot limit of construction be maintained from Rimrock 1 and 2,
 - b. The 10 foot wide area within the CEF buffer that is disturbed during construction must be revegetated with plants and seeds from City of Austin Standard Specification Item No. 609S, and
 - c. Erosion and sedimentation controls must be placed at the limits of construction.
- 16. Sidewalk requirements for the site will be met by the Applicant through the posting of fiscal.

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PROPOSED CODE MODIFICATION	Modifies project duration expiration date of site plans completed for the PUD to ten years after the date of approval of each individual site plan.	Modifies Tier One requirements consistent with this PUD.	Clarifies that including additional accessory uses and structures may be approved administratively by the Director, and does not constitute a substantial amendment.	 Modifies the permitted land uses allowed on the property, and Modifies the interior side yard setbacks to zero within the PUD. 	Modifies the LA district regulations to allow a proposed constructed habitat for migratory waterfowl, decks, trails, impervious walks, boardwalk, terraces, skyspace structure, site electrical, weir system, berms, swimming area, and related improvements to be located within the shoreline setback. Also allows maintenance and remodel of existing swimming area, boat docks, walkways, and associated facilities. Related cut/fill required for the improvements listed above shall be allowed in accordance with PUD Exhibit J.	Modifies the LA district regulations to allow development on limited gradients that exceed 35 percent. This modification would be applicable to the guest house and recreation building, as shown on Exhibit K.	Modifies the requirements to allow an urban farm on a site greater than five acres.
DESCRIPTION	Describes how long project duration applies to projects within the Drinking Water Protection Zone	Describes Tier One minimum requirements that PUDs must adhere to	Describes land use plan amendment and expiration requirements	Describes the permitted, conditional, and prohibited uses for the LA zoning district, as well as site development regulations.	Describes shoreline setback requirements for LA zoning	Describes shoreline setback requirements for LA zoning	Describes urban farm requirements
CODE SECTION	Section 25-1-535(B)(4)	Section 25-2, Subchapter B, Article 2, Division 5, 2.3.1	Section 25-2, Subchapter B, Article 2, Division 5, 3.1	Section 25-2-492	Section 25-2-551(B)(2)	Section 25-2-551(B)(5)	Section 25-2-863(C)

Modify the accessory use regulations to allow two guest houses.	Modifies the home occupation requirements so that only the following home occupation regulations apply: 1) a home occupation may occur within the primary residence or accessory structures and 2) a home occupation may include the occupant of the primary residence and staff assisting with property and household management, domestic service household maintenance (interior and exterior), landscaping, security, bookkeeping, and personnel working for the owner or owner's nonprofit foundation.	Modifies Section 2.5 so that the interior side yard setbacks are zero within the PUD and modifies Section 2.6 so that the interior lot line setback planes do not apply within the PUD.	Modifies the expiration date of site plans for the PUD to ten years after each individual site plan.	Modify this requirement so that a drainage easement dedicated to are the public is not required for the arroyo within the property. An easement for the FEMA floodplain will be dedicated along Bull Creek.	Modify the requirement to allow impervious cover to be calculated over the entire property and not on a lot by lot basis.	Find Modify the requirements to allow a proposed migratory bird habitat, birdbath facilities, decks, levees, trails, sidewalks, boardwalk, remnant foundation, terraces, skyspace structure, security equipment, wiring, swimming area, and related facilities to be located within the CWQZ, as shown in Exhibit C. Also allows maintenance and remodel of existing swimming area, boat docks, walkways, and terraces. Related cut/fill required for the improvements listed above shall be allowed in accordance with PUD Exhibits J.	Modify the requirements to allow CEFs to be located on this residential lot, since access to this area will be restricted due to its minimal use as a single family residence, as well as ongoing
Describes accessory uses for principal residential uses	Describes home occupations	Describes residential design standards for new home to ensure compatibility within existing neighborhoods	Describes site plan expiration	Describes dedication to the public of an easement or right-of-way for a drainage facility and stormwate flow	Describes impervious cover assumptions	Describes requirements within the Critical Wate Quality Zone	Describes critical environmental features (CEF)
Section 25-2-893(D)	Section 25-2-900	Section 25-2, Subchapter F: Residential Design and Compatibility Standards	Section 25-5-81(B)	Section 25-7-152	Section 25-8-64	Section 25-8-261(C)	Section 25-8-281(B)

ecological preservation and restoration efforts.	Modify the requirements to allow a 50 foot buffer for Rimrocks I and 2, and a 150 foot buffer for the emergent wetland fringe located within Bull Creek. For the emergent wetland fringe located within Bull Creek, the following items may be located within the buffer area: trails, existing retaining wall, proposed trees, stone stairs, regraded slope, migratory habitat for waterfowl, raised wood boardwalk, native plant garden, security equipment, wiring, and related facilities.	Modify the requirements of this section to allow small portions of building and parking area proposed near the guest house to be constructed on slopes greater than 25 percent, as shown on Exhibit K.	Modify the requirements to this section to incorporate construction on gradients greater than 25 percent. This will be applicable to portions of the property shown in Exhibit K.	Modify the requirement for terracing construction uphill or downhill of a slope with a gradient of more than 15 percent, so that it is optional for the guest house structure, as shown in Exhibit K. Terracing shall be optional for the portion of the slopes that are not constructed on, but merely spanned by the building.	1 Modify the requirements of this section to allow clearing of vegetation and clearing of trees under 19 inches in diameter for the planting of an olive orchard approximately four (4) acres in size, as shown approximately on Exhibit C.	Modify the requirements of this section to allow cuts to exceed four feet in depth at the following locations: adjacent to the skyspace structure, near the main house and for a small portion of the driveway, adjacent to and near the guest house, and the entryway for the recreation building, as shown in Exhibit J.	Modify the requirements of this section to allow fills to exceed four feet in depth at the following locations: adjacent to the skyspace
	Describes CEF buffers	Describes construction of a building or parking area	Describes construction of a building or parking area	Describes construction of a building or parking area	Describes when clearing of vegetation is allowed and prohibited	Outlines cut requirements	Outlines fill requirements
	Section 25-8-281(C)	Section 25-8-302(A)(1) and (2)	Section 25-8-302(B)	Section 25-8-302(B)(2)	Section 25-8-321	Section 25-8-341	Section 25-8-342

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structure, around the main house, for portions of the driveway and culvert, and adjacent to the guest house, as shown in Exhibit J.	Modify this requirement to allow a driveway apron to slope away from the street and to exceed a two (2) percent grade for the entire driveway apron, as shown in Exhibit M.
	n Criteria Describes driveway grade breaks on 5.3.P. and d 433S-1

BULL CREEK PUD EXHIBIT E -- ECOLOGICAL PRESERVATION/REHABILITATION PLAN

The Bull Creek PUD property has remained more or less intact in the midst of a highly developed urban area. However, over the years it has been overgrazed by domestic livestock and generally neglected which has resulted in a proliferation of nonnative and invasive species. Its diverse attractions include lake and creekside frontage, gently rolling hills, arroyos, mature oaks and junipers, and a wide expanse of meadows. Thus, the property has the potential to become a species-rich biosphere with many benefits to wildlife, water quality and the neighboring landscape.

GOAL

To initiate an on-going program of landscape interventions designed to hasten positive changes that will help the property self-heal, so that more diverse plant communities with greater ecological stability will thrive. The intention is to make the property more hospitable and attractive to wildlife and humans alike.

PREVIOUSLY INITIATED WORK

- 1. Meadow Rehabilitation Native grasses have been planted to restore the grassland area to its natural state. This process was started in 2008 and efforts will continue for four seasons on approximately 12 acres of the site.
- 2. Removal of Invasive Tree Species Non-native species of trees have been removed. However, this is an ongoing project and most efforts have been focused on woody plant species. This program of removing aggressive invasive species will be part of the continuing management plan for the property.
- 3. Native Hardwood Tree Plantings Over the last year, the following trees and shrubs have been planted, with appropriate irrigation, to create diversity to the woodlands areas on the site: 125 15 gallon trees, 6 20 gallon trees, 27 30 gallon trees, 30 65 gallon maple trees (4 inch calipher balled and burlapped), for a total of 188 trees and shrubs. Numerous additional trees are proposed to be planted over the next several years.
- 4. Slope Stabilization Slope stabilization has been installed where dense stands of invasive species have been removed and in the woodlands areas where some of the cedar or ashe juniper have been thinned to help control erosion. In accordance with the proposed removal of invasive species, additional slope stabilization is proposed.

GENERAL STRATEGIES FOR IMPROVING CONDITIONS

- 1. Remove invasive species each growing season and replacing with native trees, shrubs, grasses, and forbs.
- 2. Through plowing, direct seeding of native grasses and forbs, and cultivation of cover crops, suppress noxious weeds, reduce soil compaction, and gradually increase the successful establishment of native grasses and wildflowers.

- 3. Improve soil ecology through a program of organic fertilization and inoculation with micro-organisms. This will enhance the establishment of native grasses.
- 4. Reduce the domination of ashe juniper through select clearing, in order to allow understory plants a chance to thrive.
- 5. Enrich the woodlands by planting more native hardwoods and shrubs over multi-seasons.
- 6. Improve the filtering of stormwater run off by the establishment of native grasslands, and by proper management techniques such as timely mowing, creation of swales to guide runoff to areas where it can be absorbed, and to monitor fragile and unstable areas to avoid wash outs.
- 7. Stabilize eroded slopes, old roads, bare areas, and other remnants of past land uses practices by setting check logs, rock berms, and mulch.
- 8. Construct "guzzlers" or wildlife water features to provide water during drought periods.
- 9. Coordinate landscape efforts to comply with wildlife management plans. This includes following Plateau Consultant's guidelines for clearing, mowing, and other activities.
- 10. Avoid or strictly limit use of any chemicals that could have a negative effect on groundwater quality or wildlife.
- 11. Provide brush piles in certain areas of the property for wildlife use.
- 12. Seek the advice and consultation of other experts such as the U.S. Fish and Wildlife Service, the Ladybird Johnson Wildflower Center, Texas A&M range ecologists, and the Natural Resource and Conservation Service on restoration projects.
- 13. Continue to conduct annual bird and mammal surveys to assess the health of the wildlife population.



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BULL CREEK RESIDENCE PAGE 4 OF 6







BULL CREEK PUD EXHIBIT F – CONSTRUCTED HABITAT FOR MIGRATORY WATERFOWL PLAN

Aerial maps from before 1960 show that the previous owners impounded the western edge of the property where Bull Creek flows into Lake Austin to create more pasture land. Though composed of untold amounts of fill and contained by a low concrete bulkhead, this area composed of roughly three acres continues to have a high water table.

Because of these conditions, it is proposed that this area comprising approximately three acres bordering on Bull Creek and Lake Austin be converted into a constructed seasonal habitat for migratory waterfowl. This will involve dividing the area into three shallow basins that will allow each separate area to be filled up to two feet deep with water so as to provide a forage site for migratory birds.

While Lake Austin is important to all kinds of wildlife, it is too deep to provide ducks and other birds the opportunity to wade and peck at muddy bottoms for plants, small fish, tadpoles and insects to eat. Lake Austin's shoreline has almost been completely urbanized with lawns, planted vegetation and golf courses, and therefore has very few remaining seasonal wetlands to attract birds on their ancient migrations. From their vantage point high above, birds can gauge the depth of water by the particular reflected glare. They can also see to the bottom of the shallow zone, and that will attract them to this spot.

The US Fish and Wildlife Service (USFWS) have offered to provide technical expertise for the design, construction supervision, and other advice concerning how best to attract waterfowl and other wildlife to this unique and diverse ecosystem.

Installation of this constructed habitat is contingent upon obtaining the appropriate permits from all applicable jurisdictions, as well as the results of ongoing studies that the size, location, and depth have a positive impact on migratory waterfowl.

BULL CREEK PUD EXHIBIT G – GREEN BUILDING AND ENVIRONMENTAL BENEFITS

OVERALL

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The proposed land use plan will greatly reduce the amount of development that could occur on the property. City staff has estimated that current zoning and subdivision regulations allow 23 single family residences and six condominium units, while the proposed plan is for one single family residence with related accessory uses.

GREEN BUILDING

The Project currently proposes to comply with the Austin Energy PUD Green Building Program in effect when the PUD application was submitted. Items presently being studied along with the design of the main house and accessory structures include, but are not limited to the following:

Water Conservation

- 1. Reuse of gray water Pending permitting and feasibility issues, the project intends to incorporate reuse water systems into the building design.
- 2. Irrigation from Lake Austin The Owners currently have a permit to draw water for irrigation of the planting on site. The overall percentage of the site that is covered with vegetation which requires irrigation is low and the dominant planting strategy involves using drought-tolerant natives.
- 3. Water conservation, low flow fixtures Water efficient plumbing fixtures will be used wherever possible in the project.

Energy Use

- 1. Green roof A portion of the main house roof will incorporate a green roof with vegetation.
- 2. Photovoltaics Subject to appropriate metering, the roof of the barn is planned to be covered with solar PV panels to generate electricity. The barn is envisioned as an energy center with solar panels consolidated for power generation across the site and to all buildings. The buildings may be metered separately for their individual power consumption but the barn is anticipated to be the central plant for much of the mechanical and electrical equipment.
- 3. Commissioning A commissioning agent has been brought into the project to ensure that building systems are running at their intended design criteria.
- 4. Green energy subscription The Owners will purchase Green Energy through Austin Energy, as needed.

- 5. Geothermal The proposed geothermal heat exchange system is a central plant system. It is more efficient than a traditional chiller and boiler system, therefore reducing energy consumption of the central plant system over the year.
- 6. Reduced lighting loads, reduced site levels A building management system will be installed to allow for lights to be dimmed and controlled from any point in house. Site lighting levels will be markedly reduced from what would be present in a conventional subdivision.
- 7. Energy use efficiency through glass performance High performance glazing will be used throughout the project to achieve energy-efficient envelope design while allowing daylight into the spaces.
- 8. Maximize vegetated areas The majority of the site will remain vegetated, thus reducing the site's contribution to an urban "heat island" effect.

Environmental Impact

- 1. Storm water runoff and water quality for watershed protection All roof and area drainage will be collected and redistributed on site via non-erosive devices.
- 2. Reduced impervious cover The guesthouse free spans a natural ravine to reduce site disturbance. The recreation pavilion has a paddle tennis court on its roof to reduce the amount of impervious coverage.
- 3. Recycling storage Each building will have facilities for recycling.
- 4. Bicycle storage for staff The barn will have bicycle racks for house staff and grounds crew.
- 5. Certified wood Certified wood will be used wherever possible on interior finishes and millwork.
- 6. Construction waste management Contractor will recycle waste materials and excavated dirt as part of Austin Energy's Green Building program.
- 7. Utilizing existing site features Regrading of the site is minimal. It is primarily limited to building and parking areas.
- 8. Restore or protect open areas Much of the site has been impacted by overgrazing. At project completion there will be more plant material per acre than currently. Improvement of the soil quality is an ongoing part of the restoration program.

ENVIRONMENTAL

In addition to the innovative ecological preservation and conservation plan, constructed habitat for migratory waterfowl, and green building elements included within this single family project, there are other more traditional environmental benefits from the project. These include the following:

- 1. A reduction of impervious cover and overall density well below that which is otherwise allowed by the code. A maximum of 14 percent impervious cover is proposed over the entire 53.8741 acre property with far fewer structures than could be constructed under conventional zoning.
- 2. Revegetation and restoration of three acres of land to enhance the spread of water and minimize erosion. These areas will function as rough textured medium to tall height prairie grasses, which slow down and disperse storm water, enhancing the water quality along the drainage feature that runs through the property.
- 3. An integrated pest management plan shall be established.

BULL CREEK PUD EXHIBIT H – ARTWORK

The project presently proposes to incorporate at least two art installations which may be seen from Lake Austin or Bull Creek. Approximate locations of these installations are shown on Exhibit C.

The first piece has been commissioned by artist James Turrell, who specializes in skyspace structures which utilize natural light, combined with a complex internal lighting system, to create a visually pleasing experience.

In addition, the owners have proposed to commission artist Jorge Pardo to assist with the remodeling of one of the existing boat docks. Jorge Pardo is well known for his work in maintaining the functionality of everyday items, but at the same time increasing their aesthetic value as works of art.