

ITEM FOR ENVIRONMENTAL COMMISSION AGENDA

COMMISSION MEETING

DATE REQUESTED: MAY 3, 2017

NAME & NUMBER BULKHEAD FOR 2200 LAURANNE LANE

OF PROJECT: SP-2016-0420D

NAME OF APPLICANT Bruce S. Aupperle, P.E.

OR ORGANIZATION: 512-329-8241

LOCATION: 10088 Circleview Dr., Austin, TX 78733

Council District: District 10

PROJECT FILING DATE: September 14, 2016

WSD / ERM: Scott Hiers, 512-974-1916

Scott.hiers@austintexas.gov

DSD/ENVIRONMENTAL

STAFF:

Pamela Abee-Taulli, 512-974-1879 pamela.abee-taulli@austintexas.gov

DSD/ Katie Wettick, 512-974-3529

CASE MANAGER: katie.wettick@austintexas.gov

WATERSHED: Lake Austin

Water Supply Rural

Drinking Water Protection Zone

ORDINANCE: Watershed Protection Ordinance

REQUEST: Variance request is as follows:

1. Variance from 25-8-281(C)(2)(b) Critical Environmental Features, to allow construction of a bulkhead and shoreline stabilization within a Critical Environmental Feature (CEF)

buffer for a canyon rimrock.

STAFF

RECOMMENDATION: Recommend approval with conditions.

REASONS FOR

RECOMMENDATION: Findings of fact have been met.



MEMORANDUM

TO: Chair Marisa Perales and Members of the Environmental Commission

FROM: Pamela Abee-Taulli, Environmental Review Specialist Senior

Development Services Department

DATE: May 3, 2017

SUBJECT: Bulkhead for 2200 Lauranne Lane

Case No. SP-2016-0420D

On the May 5th agenda is a request for the consideration of a variance to allow construction of a bulkhead and shoreline stabilization within a Critical Environmental Feature (CEF) buffer for a canyon rimrock [LDC 25-8-281(C)(2)(b)].

Property Location and Existing Condition

The project site is a lakefront, 3.4 acre, cul-de-sac lot in the Rio Robles Subdivision about 1 mile north of the intersection of Weston Lane and Bee Cave Road. The front two-thirds of the lot slopes to the northeast at about a 7% grade, providing the setting for the owner's main house, guest house and pool. The ground slopes steeply behind the main house beginning about elevation 580 feet, to the shoreline of Lake Austin (492.8'), at about a 65% grade.

A rimrock and a seep have been identified on that slope. A small area of wetland plants exists on the shoreline consisting of a Cypress tree, elephant ears and maidenhair fern. The shoreline is experiencing active and worsening erosion caused by the wave action on Lake Austin, and the erosion is threatening the trees on the banks of the shoreline.

Through the construction of a tiered, natural stone, wall system, the project will evenly spread and increase infiltration of runoff flowing down the slope. The lakeside wall will stabilize the shoreline in order to save the trees on the bank.

Watershed Data

A Critical Water Quality Zone associated with Lake Austin extends onto the property (Memo Exhibit 1 – Critical Water Quality Zone and Topography Map. The property is located within the Lake Austin Watershed, which is classified as a Drinking Water Protection and Water Supply Rural Watershed. The property is not located within the Edwards Aquifer Recharge Zone. The property fronts Lake Austin, and surface water drains northwest to Lake Austin.

Jurisdictional Data

The property is within the City of Austin limited purpose jurisdiction.

Trees / CEFs

A bluff and seep CEF are located (B-1 and S-1) below the on-site residence; and a wetland CEF (W-1) is located near the existing boat dock along the bank of Lake Austin. Additionally, there are two non-CEF voids (C-1 and C-2) in the northeastern portion of the site. (Please see Exhibit 2, Appendix B of applicant's packet.)

There are 9 trees within the limits of construction: one Heritage cypress (32 inches); 4 pecans and two cypresses between 8 and 19 inches; and two 6-inch pecans. No trees are proposed for removal.

Proposed Development

The proposed project, consisting of tiered, limestone and riprap walls, is downhill of and within the 150' setback of the rimrock and seep. The project is necessary to stop erosion along the bank that is threatening multiple trees and is designed to protect the trees. At the point closest to the rimrock and seep, the wall is 111 feet downhill from the CEF.

Variance Request from the Requirement of LDC 25-8-453(B)(1)

LDC 25-8-281(C)(2)(b) prohibits construction within a critical environmental feature buffer zone. The applicant is seeking a variance to allow construction of a bulkhead and shoreline stabilization within the critical environmental feature buffer for the canyon rimrock.

Conditions for Staff Approval

All work will be done from the lake, by barge.

Recommendation

The Findings of Fact have been met. Staff recommends approval of the variance with the above condition.

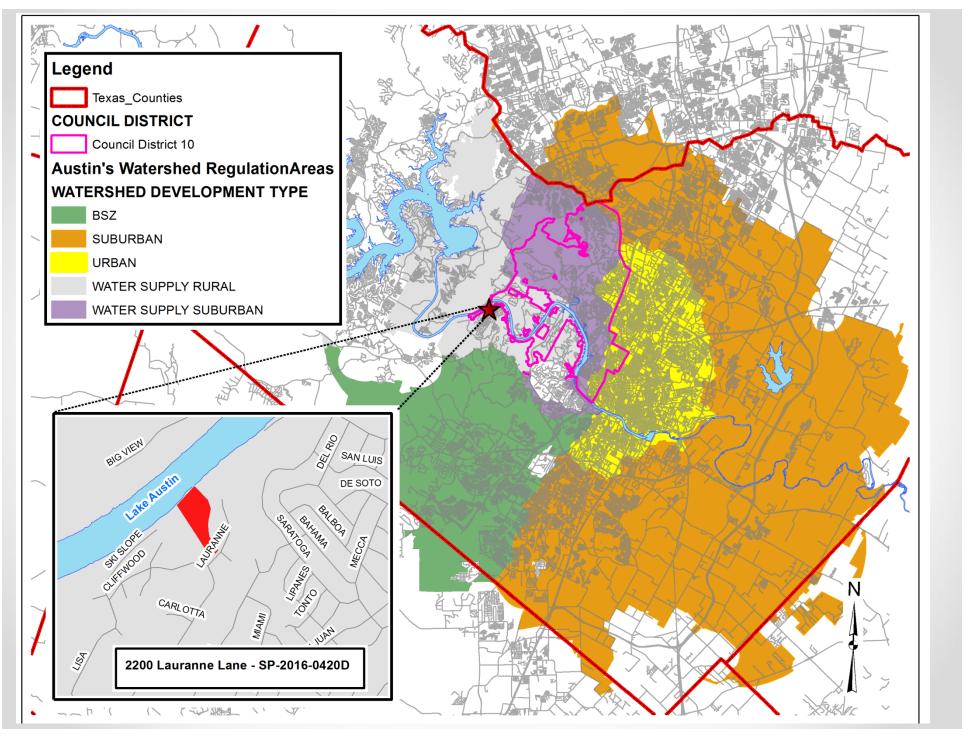




Exhibit 1 CWQZ & Topography Bulkhead for 2200 Lauranne Ln. SP-2016-0420D

Legend

С

Critical Water Quality Zone

- 2-ft. Contours

⁶ COA GIS



Planning and Development Review Department Staff Recommendations Concerning Required Findings Water Quality Variances

Project: 2200 Lauranne Lane- SP-2016-0420D

Ordinance Standard: Land Development Code Section 25-8-281(C)(2)(b)

Variance Request: To allow construction of a bulkhead and shoreline

stabilization within a Critical Environmental Feature

(CEF) buffer for a canyon rimrock.

Justification:

A. Land Use Commission variance determinations from Chapter 25-8, Subchapter A – Water Quality of the City Code:

1. The requirement will deprive the applicant of a privilege or the safety of property given to owners of other similarly situated property with approximately contemporaneous development.

Yes. The property has shoreline frontage that is eroding along Lake Austin. The proposed project will stabilize the shoreline and prevent further erosion and the loss of land due to wave action. No additional land capture will occur as a result of this stabilization project and similar bulkhead and stabilization projects have occurred along the Lake Austin. In addition, the property has a boat dock and shoreline access, similar to the adjacent properties.

2. The variance:

a) Is not based on a condition caused by the method chosen by the applicant to develop the property, unless the development method provides greater overall environmental protection than is achievable without the variance;

Yes. The construction of bulkhead and shoreline modification is a typical construction activity for shoreline properties along the lake to prevent the loss of land and provide greater environmental protection for the lake.

b) Is the minimum change necessary to avoid the deprivation of a privilege given to other property owners and to allow a reasonable use of the property;

Yes. The construction of bulkhead and shoreline modifications is in accordance with City code and criteria and it will prevent additional loss of land and sediment discharges into the lake.

c) Does not create a significant probability of harmful environmental consequences; and

Yes. The construction of a bulkhead and shoreline stabilization will not create a significant probability of harmful environmental consequences. The construction activities will occur from the lakeside by barge about 90-ft down gradient of rimrock critical environmental feature. In addition, the shoreline area will be revegetated in accordance with City code and criteria.

3. Development with the variance will result in water quality that is at least equal to the water quality achievable without the variance.

Yes. Construction activities for the bulkhead and shoreline stabilization project will result in at least equal or greater water quality, because the proposed construction activities are occurring by barge from the lakeside, about 90-ft down gradient from the base of rimrock critical environmental feature. The installation of bulkhead and shoreline revegetation will greatly reduce bank erosion and result in no significant increase in sediment-laden runoff or sediment discharges to the lake.

- B. Additional Land Use Commission variance determinations for a requirement of Section 25-8-393 (Water Quality Transition Zone), Section 25-8-423 (Water Quality Transition Zone), Section 25-8-453 (Water Quality Transition Zone), or Article 7, Division 1 (Critical Water Quality Zone Restrictions):
 - 1. The above criteria for granting a variance are met;

N/A.

2. The requirement for which a variance is requested prevents a reasonable, economic use of the entire property; and

N/A.

3. The variance is the minimum change necessary to allow a reasonable, economic use of the entire property.

N/A.

Hydrogeologic Reviewer:

Scott E. Hiers

Environmental Reviewer:

Pamela Abee-Taulli

Environmental Program Coordinator:

Sue Barnett

Environmental Officer:

Chuck Lesniak

Date: March 28, 2017

Staff may recommend approval of a variance after answering all applicable determinations in the affirmative (YES).



ENVIRONMENTAL COMMISSION VARIANCE APPLICATION FORM

PROJECT DESCRIPTION		
Applicant Contact Inform	mation	
Name of Applicant	Todd and Maria Shepler	
Street Address	2200 Lauranne Lane	
City State ZIP Code	Austin, TX 78746	
Work Phone	512-458-2141	
E-Mail Address	tshepler@gmail.com	
Variance Case Informati	on	
Case Name	Bulkhead for 2200 Lauranne Lane	
Case Number	SP-2016-0420D	
Address or Location	2200 Lauranne Lane	
Environmental Reviewer Name	Pamela Abee-Taulli	
Environmental Resource Management Reviewer Name	Scott Hiers Hydrogeologist Brent Bellinger Wetland Biologist	
Applicable Ordinance	LDC 25-8-281(C)(2)(a)	
Watershed Name	Lake Austin	
Watershed Classification	☐ Urban ☐ Suburban ☐ Water Supply Suburban X Water Supply Rural ☐ Barton Springs Zone	

Edwards Aquifer Rech Zone	arge Barton Springs Segment X Not in Edwards Aquifer Zones		☐ Northern Edwards Segment
Edwards Aquifer Contributing Zone	☐ Yes X No		
Distance to Nearest Classified Waterway	The property is on the shoreline of Lake Austin		of Lake Austin
Water and Waste Water service to be provided	, , , , , , , , , , , , , , , , , , , ,		septic (wastewater)
Request		The variance request is as follows (Cite code references:	
		LDC 25-8-281(C)(2)(a) Construction Within a CEF Buffer	
Impervious cover		Existing	Proposed
square footage:		LAISTING	
,			
acreage:			
percentage:			
Provide general description of the property (slope range, elevation range, summary of vegetation / trees, summary of the geology, CWQZ, WQTZ, CEFs, floodplain, heritage trees, any other notable or outstanding characteristics of the property)	The owner's variance request letter is attached as Exhibit 1. The project site is a lakefront, 3.4 acre, cul de sac lot in the Rio Robles Subdivision about 1 mile north of the intersection of Weston Lane and Bee Cave Road. The front two-thirds of the lot slopes to the northeast at about a 7% grade providing the setting for the owner's mainhouse, guesthouse and pool. The ground slopes steeply behind the mainhouse beginning about elevation 580' to the shoreline of Lake Austin (492.8') at about a 65% grade. A rimrock and a seep have been identified on that slope. A tram transverses the slope from the house ending at the dock on the shore. The site is landscaped near the houses; strewn with large boulders and rocks amid native vegetation down the slope; and vegetated with several Pecan and Cypress trees along with native vegetation on the shoreline. A small area of wetland plants exists on the shoreline consisting of a Cypress tree, elephant ears and maidenhair fern. The ERI is attached as Exhibit 2. The shoreline is experiencing active and worsening erosion caused by the wave action on Lake Austin, and the erosion is threatening the trees on the banks of the shoreline. Through the construction of a tiered, natural stone, wall system, the project will evenly spread and increase infiltration of runoff flowing down the slope. The lakeside wall will stablize the shoreline in		

Clearly indicate in what way the proposed project does not comply with current Code (include maps and exhibits) The proposed project, consisting of tiered, limestone and riprap walls, is downhill of and within the 150' setback of a rimrock and seep. The Lake Austin shoreline project is necessary to stop erosion along the bank that is threatening multiple trees, and it is designed to protect the trees. At the point closest to the rimrock and seep, the wall is 111 feet downhill from the CEF. Exhibit 3 contains the Site Plan sheet for the proposed project, Bulkhead for 2200 Lauranne Lane.

FINDINGS OF FACT

As required in LDC Section 25-8-41, in order to grant a variance the Land Use Commission must make the following findings of fact:

Include an explanation with each applicable finding of fact.

Project:

Ordinance:

- A. Land Use Commission variance determinations from Chapter 25-8-41 of the City Code:
 - 1. The requirement will deprive the applicant of a privilege or the safety of property given to owners of other similarly situated property with approximately contemporaneous development.



Attached as Exhibit 4 is a "Summary of variances granted and denied under Sections 25-8-41" that has been edited to show variance applications and their outcome for LDC-25-8-281(C)(1)(a). All variance applications applying only to that section of code were approved.

- 2. The variance:
 - a) Is not based on a condition caused by the method chosen by the applicant to develop the property, unless the development method provides greater overall environmental protection than is achievable without the variance;



The Sheplers project stabilizes the shoreline; so the project has to take place on the shoreline. They have no control over the fact that the shoreline is within 150' of the rimrock and seep.

b) Is the minimum change necessary to avoid the deprivation of a privilege given to other property owners and to allow a reasonable use of the property;



The project is as close to the waters edge as possible while still maintaining a cut/fill less than 4 ft. It's benefits are two-fold: slowing down and evenly spreading overland flow into the lake thus promoting infiltration and providing protection for the trees on the banks of Lake Austin.

c) Does not create a significant probability of harmful environmental consequences; and

(Yes)No

The proposed project will benefit the environment by improving the quality and quantity of runoff entering the lake and preventing further erosion of the shoreline. By slowing down the overland flow, the water will have greater infiltration, and the water that does flow into the lake will have been filtered by the landscape plantings along the tiers.

3. Development with the variance will result in water quality that is at least equal to the water quality achievable without the variance.

(Yes/No

The proposed project will improve the quality and quantity of runoff entering the lake and prevent further erosion of the shoreline causing silt deposits in the lake.

B. Additional Land Use Commission variance determinations for a requirement of Section 25-8-422 (Water Quality Transition Zone), Section 25-8-452 (Water Quality Transition Zone), Section 25-8-482 (Water Quality Transition Zone), or Article 7, Division 1 (Critical Water Quality Zone Restrictions):

NOT APPLICABLE

1. The criteria for granting a variance in Section A are met;

Yes/No [summary of basis for determination]

2. The requirement for which a variance is requested prevents a reasonable, economic use of the entire property; and

Yes/No [summary of basis for determination]

3. The variance is the minimum change necessary to allow a reasonable, economic use of the entire property.

Yes/No [summary of basis for determination]

**Variance approval requires all above affirmative findings.

Exhibits for Commission Backup and/or Presentation

- Aerial photos of the site (backup and presentation) Exhibit 5
- Site photos (backup and presentation) Exhibit 6
- Aerial photos of the vicinity (backup and presentation) Exhibit 7
- Context Map—A map illustrating the subject property in relation to developments in the vicinity to include nearby major streets and waterways (backup and presentation)
- Topographic Map A topographic map is recommended if a significant grade change on the subject site exists or if there is a significant difference in grade in relation to adjacent properties. (backup and presentation)
- For cut/fill variances, a plan sheet showing areas and depth of cut/fill with topographic elevations. (backup and presentation)
- Site plan showing existing conditions if development exists currently on the property (presentation only) Exhibit 8
- Proposed Site Plan- full size electronic or at least legible 11x17 showing proposed development, include tree survey if required as part of site or subdivision plan (backup and presentation) Exhibit 3
- Environmental Map A map that shows pertinent features including Floodplain, CWQZ,
 WQTZ, CEFs, Setbacks, Recharge Zone, etc. (backup and presentation) Exhibit 3
- An Environmental Assessment pursuant to ECM 1.3.0 (if required by 25-8-121) (backup only) Exhibit 2
- Applicant's variance request letter (backup only) Exhibit 1

LIST OF EXHIBITS

EXHIBIT NO.	NAME OF EXHIBIT
1	APPLICANT'S VARIANCE REQUEST LETTER
2	ENVIRONMENTAL RESOURCE INVENTORY
3	SITE PLAN
4	SUMMARY OF VARIANCE REQUESTS
5	AERIAL PHOTO OF SITE
6	PHOTOS OF SITE
7	AERIAL PHOTOS OF THE VICINITY
8	EXISTING CONDITIONS OF SITE

EXHIBIT 1 APPLICANT'S VARIANCE REQUEST LETTER

Date: April 2, 2017

To: Mr. Joe Pantalion

Director, Watershed Protection Department

City of Austin

From: Todd & Maria Shepler

2200 Lauranne Lane Austin, Texas 78733

Re: Variance Request

Dear Mr. Pantalion,

We would like to request a variance for construction within the 150-foot critical environmental feature (CEF) buffer. We have previously secured a site plan for our dock on June 25^{th} , 2012, and built it in 2012-2013. The dock underwent final approval by the City of Austin on January 9^{th} , 2014. We are now working on securing a plan to protect our eroding shoreline.

We purchased our home on Thanksgiving Day on November 22nd, 2012. Some of the reasons we purchased the property include the natural beauty of Lake Austin and the beautiful large trees along the shoreline and hillside. Since we have lived at our home, we have noticed severe and escalating erosion of our shoreline due to the waves caused by heavy traffic of boats that create large wakes. The shoreline surrounding many of the large bald cypress trees has now eroded, threatening their survival. We are requesting a variance to construct a bulkhead that can protect the remaining shoreline from further erosion and to protect the trees, as well as blend in with the natural beauty that attracted us to this property in the first place.

Sincerely,

Todd R. Shepler, MD

Maria C. Shepler, MD

mainsheler

EXHIBIT 2 ENVIRONMENTAL RESOURCE INVENTORY

City of Austin Environmental Resource Investigation and Functional Assessment of Floodplain Health

Lauranne Residence 2200 Lauranne Lane Austin, Travis County, Texas October 21, 2015

Terracon Project No. 96157569



Prepared for:

Aupperle Company Austin, Texas

Prepared by:

Terracon Consultants, Inc.

Austin, Texas

terracon.com



Environmental Facilities Geotechnical Materials

October 21, 2015



Mr. Bruce Aupperle, P.E. Aupperle Company 10088 Circleview Drive Austin, Texas 78733

Office:

(512) 329-8241

Cell:

(512) 422-7838

Email:

bruceaupperle@me.com

Re:

City of Austin Environmental Resource Investigation (ERI)

Lauranne Residence 2200 Lauranne Lane

Austin, Travis County, Texas Terracon Project No. 96157569

Dear Mr. Aupperle:

Terracon Consultants, Inc. (Terracon) is pleased to provide this City of Austin (COA) Environmental Resource Investigation (ERI) prepared for the above-referenced site.

The results of our consulting services are solely the professional opinion of Terracon based on the site conditions documented and observed at the time of the field assessment. It should be noted that some critical environmental features (CEFs) may be seasonal or ephemeral, indicating that their presence/absence and condition are dependent on various weather conditions (including rainfall) and other changes in the surrounding ecosystem. Terracon is not liable for ephemeral and/or seasonal CEFs that are exposed or created after Terracon's field assessment. Additionally, Terracon's opinion is based on the most current regulations; therefore, changes in regulations may require a re-evaluation of the findings of this report. It is recommended that if this report is not to be submitted promptly to the COA, an updated report (based on an additional field assessment) be prepared. The results of our consulting services are solely the professional opinion of Terracon based on conditions documented and observed at the time of the field investigation. We appreciate the opportunity to provide this report. Should you have any questions or require additional information, please call me at (512) 442-1122 or email at arthur.potts@terracon.com.

Sincerely,

Terracon Consultants, Inc.

Arthur D. Potts

Project Environmental Scientist

Hilary D. Johns, P.G.

Manager – Environmental Services

Case No.:	
(City use only)	

Environmental Resource Inventory

For the City of Austin
Related to LDC 25-8-121, City Code 30-5-121, ECM 1.3.0 & 1.10.0

The ERI is required for projects that meet one or more of the criteria listed in LDC 25-8-121(A), City Code 30-5-121(A). 1. SITE/PROJECT NAME: Lauranne Residence 2. COUNTY APPRAISAL DISTRICT PROPERTY ID (#'s): 129281 3. ADDRESS/LOCATION OF PROJECT: 2200 Lauranne Lane Lake Austin 4. WATERSHED: 5. THIS SITE IS WITHIN THE (Check all that apply) Edwards Aguifer 1500 ft Verification Zone* □YES □No Barton Spring Zone*□YES □No *(as defined by the City of Austin – LDC 25-8-2 or City Code 30-5-2) Note: If the property is over the Edwards Aquifer Recharge zone, the Hydrogeologic Report and karst surveys must be completed and signed by a Professional Geoscientist Licensed in the State of Texas. 6. DOES THIS PROJECT PROPOSE FLOODPLAIN MODIFICATION?...... □YES** □NO If yes, then check all that apply: (1) The floodplain modifications proposed are necessary to protect the public health and safety; (2) The floodplain modifications proposed would provide a significant, demonstrable environmental benefit, as determined by a functional assessment of floodplain health as prescribed by the Environmental Criteria Manual (ECM), or (3) The floodplain modifications proposed are necessary for development allowed in the critical water quality zone under LDC 25-8-261 or 25-8-262, City Code 30-5-261 or 30-5-262. (4) The floodplain modifications proposed are outside of the Critical Water Quality Zone in an area determined to be in poor or fair condition by a functional assessment of floodplain health. ** If yes, then a functional assessment must be completed and attached to the ERI (see ECM 1.7 and Appendix X for forms and guidance) unless conditions 1 or 3 above apply. 7. IF THE SITE IS WITHIN AN URBAN OR SUBURBAN WATERSHED, DOES THIS PROJECT PROPOSE A UTILITY LINE PARALLEL TO AND WITHIN THE CRITICAL WATER QUALITY ZONE?□YES*** □NO ***If yes, then riparian restoration is required by LDC 25-8-261(E) or City Code 30-5-261(E) and a functional assessment must be completed and attached to the ERI (see ECM1.5 and Appendix X for forms and guidance). 8. There is a total of _____(#'s) Critical Environmental Feature(s)(CEFs) on or within150 feet of the project site. If CEF(s) are present, attach a detailed **DESCRIPTION** of the CEF(s), color PHOTOGRAPHS, the CEF WORKSHEET and provide DESCRIPTIONS of the proposed CEF buffer(s) and/or wetland mitigation. Provide the number of each type of CEFs on or

within 150 feet of the site (Please provide the number of CEFs):

(#'s) Spring(s)/Seep(s)	(#'s) Point Recharge Feature(s)	(#'s) Bluff(s)
(#'s) Canyon Rimrock(s)	(#'s) Wetland(s)	

Note: Standard buffers for CEFs are 150 feet, with a maximum of 300 feet for point recharge features. Except for wetlands, if the standard buffer is <u>not provided</u>, you must provide a written request for an administrative variance from LDC 25-8-281(C)(1) and provide written findings of fact to support your request. Request forms for administrative variances from requirements stated in LDC 25-8-281 are available from Watershed Protection Department.

9. The following site maps are attached at the end of this report (Check all that apply and provide):

All ERI reports must include:

- ✓ Site Specific Geologic Map with 2-ft Topography
- ☑ Historic Aerial Photo of the Site
- ☑ Site Soil Map
- ☑ Critical Environmental Features and Well Location Map on current Aerial Photo with 2-ft Topography

Only if present on site (Maps can be combined):

- ☐ Edwards Aquifer Recharge Zone with the 1500-ft Verification Zone (Only if site is over or within 1500 feet the recharge zone)
- □ Edwards Aquifer Contributing Zone
- ☐ Water Quality Transition Zone (WQTZ)
- ☐ Critical Water Quality Zone (CWQZ)
- ☐ City of Austin Fully Developed Floodplains for all water courses with up to 64-acres of drainage
- 10. **HYDROGEOLOGIC REPORT –** Provide a description of site soils, topography, and site specific geology below (Attach additional sheets if needed):

Surface Soils on the project site is summarized in the table below and uses the SCS Hydrologic Soil Groups*. If there is more than one soil unit on the project site, show each soil unit on the site soils map.

Soil Series Unit Names, Infiltration Characteristics & Thickness		
Soil Series Unit Name & Subgroup**	Group*	Thickness (feet)
Brackett Series - BID	В	0 to 1.00
Tarrant Series - TdF	В	0 to 0.50

*Soil Hydrologic Groups Definitions (Abbreviated)

- A. Soils having a <u>high infiltration</u> rate when thoroughly wetted.
- B. Soils having a moderate infiltration rate when thoroughly wetted.
- C. Soils having a <u>slow infiltration</u> rate when thoroughly wetted.
- D. Soils having a <u>very slow</u> <u>infiltration</u> rate when thoroughly wetted.

**Subgroup Classification – See <u>Classification of Soil Series</u> Table in County Soil Survey.

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Description of Site Topography and Drainage (Attach additional sheets if needed):

Based on a review of the USGS Austin West, Texas topographic map, the site ranges in elevation from approximately 500 to 640 feet above sea level, and slopes steeply to the north towards Lake Austin which forms the northern site boundary.

During the site investigation, no additional surface waters were observed on-site. A bluff and seep CEF (B-1 and S-1) were observed below the on-site residence and a wetland CEF (W-1) was observed near the existing boat dock along the bank of Lake Austin. Additionally, two non-CEF voids (C-1 and C-2) were observed in the northeastern portion of the site. The identified features are mapped on Exhibit 2 in Appendix B.

List surface geologic units below:

Ge	eologic Units Exposed at Surface)
Group	Formation	Member
Fredericksburg Group	Glen Rose	-

Brief description of site geology (Attach additional sheets if needed):

According to the Geologic Atlas of Texas, the site is underlain by the Glen Rose Formation (Kgr), which consists of limestone, dolomite, and marl in alternating resistant and recessive beds, forming stair-step topography. The upper part [Kgr (u)] is separated from the lower part [Kgr (I)] by a Corbula bed (limestone with abundant Corbula harveyi fossils) that is up to five feet thick. Marine megafossils are common throughout, though less so in the relatively thinner bedded, more dolomitic upper part. The upper part is typically heavily weathered, frequently resulting in numerous springs and seeps.

No evidence of faulting was observed on the site and none is shown on the available published geologic maps of the area. Additionally, a review of aerial photographs did not reveal lineations, which typically indicate the presence of faulting. No caves, sinkholes, karst features, or significant solution cavities were observed on the site during Terracon's field assessment.

Wells – Identify all recorded and unrecorded wells on site (test holes, monitoring, water, oil, unplugged, capped and/or abandoned wells, etc.):

There are _____(#) wells present on the project site and the locations are shown and labeled _____(#'s)The wells are not in use and have been properly abandoned. _____(#'s)The wells are not in use and will be properly abandoned. _____(#'s)The wells are in use and comply with 16 TAC Chapter 76.

There are _____(#'s) wells that are off-site and within 150 feet of this site.

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11. **THE VEGETATION REPORT** – Provide the information requested below:

Brief description of site plant communities (Attach additional sheets if needed):

gion includes Texas oak (Quercus texana) siformis), honey mesquite (Prosopis gland uestem (Schizachyrium scoparium), wild rectyloides).	ulosa), Indiangrass (Sorghastrum nuta	ated with this ak (Q. ns), little
ontinued in Appendix A		
There is woodland community on site If yes, list the dominant species below	·	Check one).
Woodlar	nd species	
Common Name	Scientific Name	
plateau live oak	Quercus fusiformis	
hackberry	Celtis laevigata	
cedar elm	Ulmus crassifolia	
golden-eye		
	<u> </u>	
There is grassland/prairie/savanna or If yes, list the dominant species below	v:	neck one).
If yes, list the dominant species below	·	neck one).
If yes, list the dominant species below Grassland/prairie	v: e/savanna species	eck one).
If yes, list the dominant species below Grassland/prairie	v: e/savanna species	neck one).
If yes, list the dominant species below Grassland/prairie	v: e/savanna species	neck one).
If yes, list the dominant species below Grassland/prairie	v: e/savanna species	peck one).

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Hyd	rophytic plant species		
Common Name	Scientific Name	Wetland Indicator Status	
maidenhair fern	Thelypteris sp.	FAC	
elephant ear	Colocasia macrorrhiza	OBL	
bald cypress	Tazodium distichum	OBL	
A tree survey of all trees with a diameter of at least eight inches measured four and one-half feet above natural grade level has been completed on the site.			
12. WASTEWATER REPORT -	Provide the information requested	below.	
Wastewater for the site wi ☐ On-site system(s)	Il be treated by (Check of that Apply):		

City of Austin Centralized sewage collection system

City Code Chapter 15-12 and wells must be registered with the City of Austin

Wastewater lines are proposed within the Critical Water Quality Zone?

□YES ■ NO *(Check one)*. If yes, then provide justification below:

Note: All sites that receive water or wastewater service from the Austin Water Utility must comply with

The site sewage collection system is designed and will be constructed to in accordance to

Calculations of the size of the drainfield or wastewater irrigation area(s) are attached at

Other Centralized collection system

all State, County and City standard specifications.

the end of this report or shown on the site plan.

☐YES ☐ NO ■ Not Applicable (Check one).

■YES □ NO (Check one).

WPD ERM ERI-2014-01 Page 5 of 6

Is the project site is over the Edwards Aqu ☐YES ☐ NO (Check one).	Is the project site is over the Edwards Aquifer? ☐YES ■ NO (Check one).		
If yes, then describe the wastewater dispose level and effects on receiving watercourse	osal systems proposed for the site, its treatment s or the Edwards Aquifer.		
13. One (1) hard copy and one (1) electronic coprovided.	opy of the completed assessment have been		
Date(s) ERI Field Assessment was performed:	ctober 13, 2015		
	Date(s)		
My signature certifies that to the best of my kno reflect all information requested.	wledge, the responses on this form accurately		
Arthur D. Potts	(512) 442-1122		
Print Name	Telephone		
Potts, Arthur D Digitally signed by Potts, Arthur D DN: cn=Potts, Arthur D, ou=General Users, email=adpotts@terracon.com Date: 2015.10.21 14:45:07-05'00'	arthur.potts@terracon.com		
Signature	Email Address		
Terracon Consultants, Inc.	October 21, 2015		
Name of Company	Date		

For project sites within the Edwards Aquifer Recharge Zone, my signature and seal also certifies that I am a licensed Professional Geoscientist in the State of Texas as defined by ECM 1.12.3(A).

P.G. Seal

WPD ERM ERI-2014-01 Page 6 of 6

City of Austin Environmental Resource Inventory - Critical Environmental Feature Worksheet

1	Project Name:	Lauranne Residence
2	Project Address:	2200 Lauranne Lane
3	Site Visit Date:	October 13, 2015
4	Environmental Resource Inventory Date:	October 21, 2015

5	Primary Contact Name:	Arthur D. Potts
6	Phone Number:	(512) 442-1122
7	Prepared By:	Arthur D. Potts
8	Email Address:	arthur.potts@terracon.com

9	FEATURE TYPE {Wetland,Rimrock, Bluffs,Recharge	FEATURE ID (eg S-1)		FEATURE LONGITUDE (WGS 1984 in Meters) coordinate notation		FEATURE LATITUDE (WGS 1984 in Meters) coordinate notation		WETLAND DIMENSIONS (ft) X Y		RIMROCK/BLUFF DIMENSIONS (ft)		RECHARGE FEATURE DIMENSIONS X Y Z Trend			Springs Est. Discharge cfs
	Feature,Spring} Seep/Bluff	S-1, B-1	30.348185	N	-97.869461	W	^	Y	Length 600	Avg Height 20	^	Y		rrena	<1
	Wetland	W-1	30.348591	N	-97.869714	W	10	3							
	Void	C-1	30.348488	N	-97.869333	W									
	Void	C-2	30.348727	N	-97.869400	W									

City of Austin Use Only
CASE NUMBER:

For rimrock, locate the midpoint of the segment that describes the feature.



For wetlands, locate the approximate centroid of the feature and the estimated area.



For a spring or seep, locate the source of groundwater that feeds a pool or stream.



Please state the method of coordinate data collection and the approximate precision and accuracy of the points and the unit of measurement.

Method	<u>Accuracy</u>	
GPS	sub-meter	
Surveyed	meter	
Other	> 1 meter	

Professional Geologists apply seal below

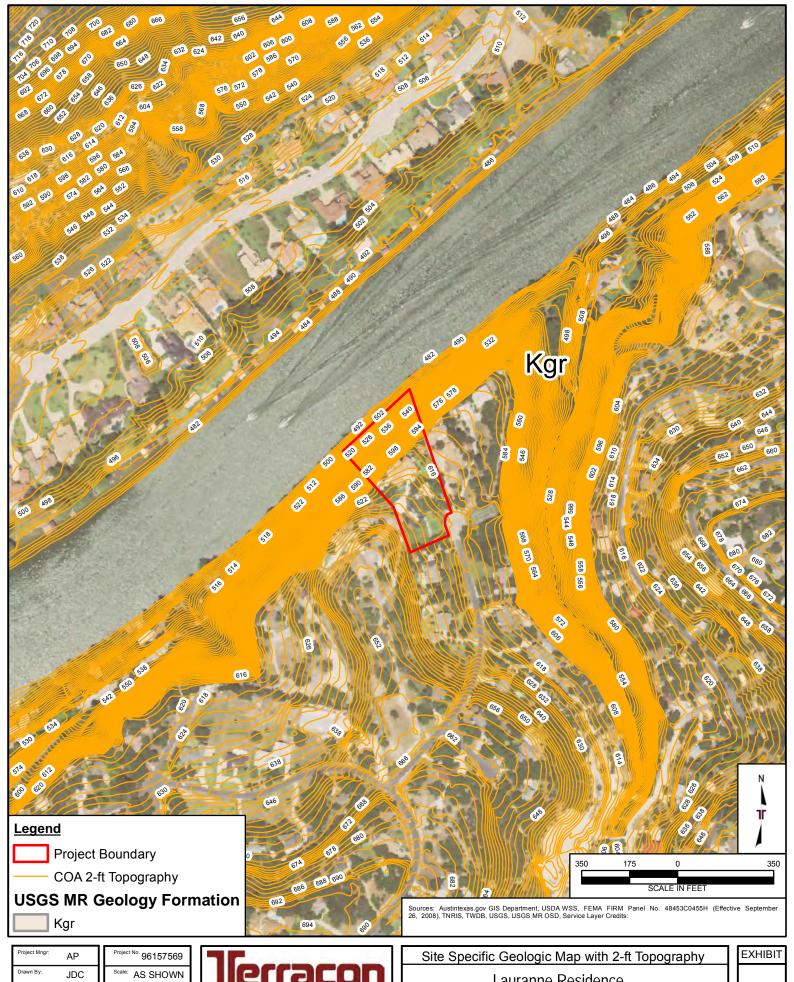
APPENDIX A ADDITIONAL DISCUSSION

Description of Site Plant Communities Continued...

Similarly, the TPWD's *Vegetation Types of Texas* maps the site near a transitional zone between the Live Oak-Ashe Juniper Parks (26a) and Live Oak-Mesquite-Ashe Juniper Parks (26b). This vegetation type occurs primarily on level to gently rolling uplands and ridge tops or on shallow limestone soils on hills and escarpments of the Edwards Plateau. In addition to those species listed above, other dominant species associated with these vegetation types include shin oak (*Quercus havardii*), cedar elm (*Ulmus crassifolia*), flameleaf sumac (*Rhus lanceolata*), evergreen sumac (*R. virens*), agarita (*Mahonia trifoliolata*), saw greenbrier (*Smilax bona-nox*), prickly pear cactus (*Opuntia stricta*), little bluestem, curly mesquite (*Prosopis pubescens*), Texas grama (*Bouteloua rigidiseta*), and Texas wintergrass (*Stipa leucotricha*).

The majority of the site consists of maintained landscaping and much of the Ashe juniper has been removed from the site. Dominant species observed on-site include plateau live oak (*Quercus fusiformis*), cedar elm, hackberry (*Celtis laevigata*) and golden-eye (*Viguiera dentata*). Overall canopy cover is an estimated 40 percent. Additionally, a small wetland area was observed along the bank of Lake Austin and species present included maidenhair fern (*Thelypteris sp.*), elephants ear (*Colocasia esculenta*), and bald cypress (*Taxodium distichum*).

APPENDIX B EXHIBITS

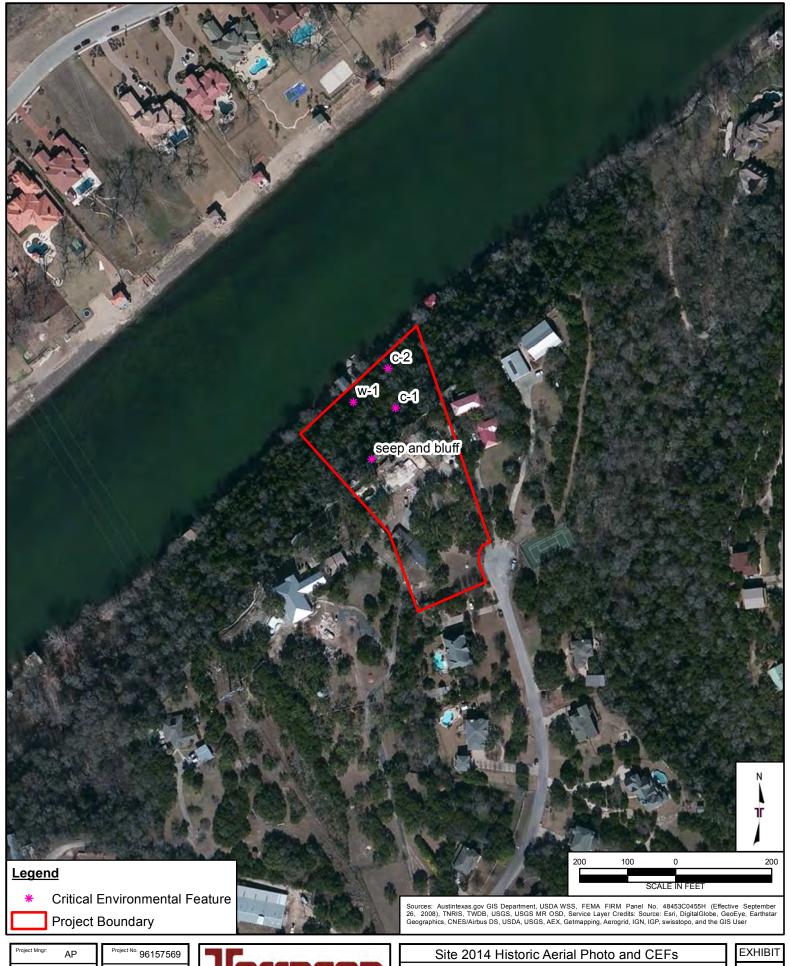


Checked By

96157569 Date: October 9, 2015

Consulting Engineering and Scientist 5307 INDUSTRIAL OAKS BLVD. - #160 AUSTIN, TX 78735

Lauranne Residence 2200 Lauranne Lane Austin, Travis County, TX

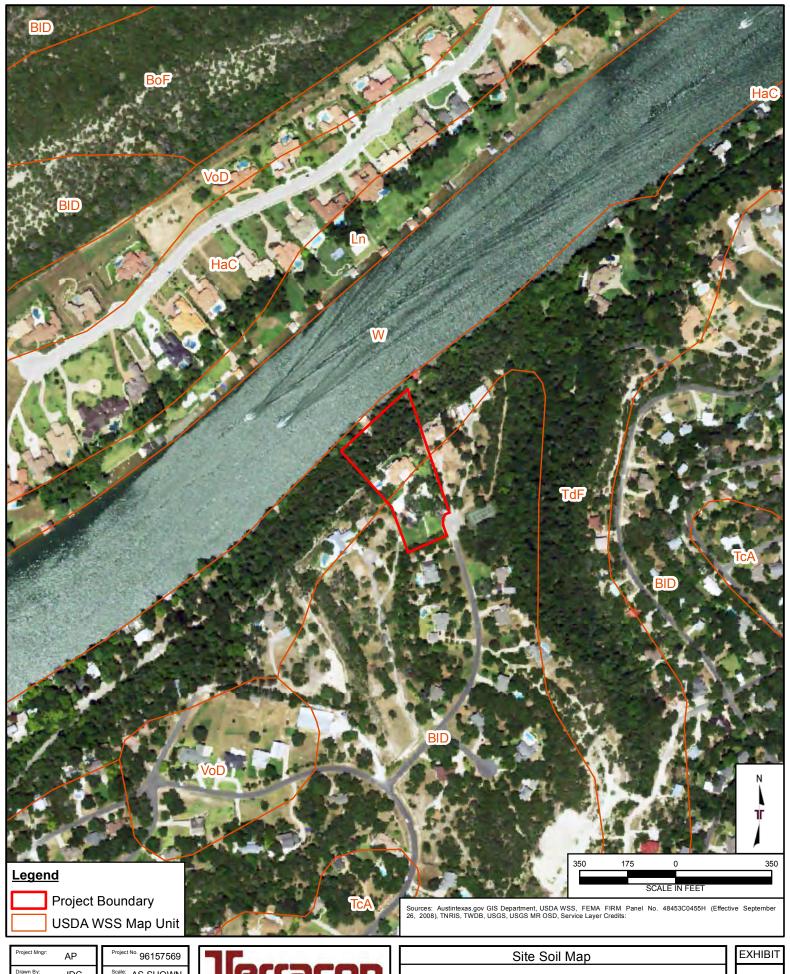


Project Mngr:	AP			
Drawn By:	JDC			
Checked By:	AP			
Approved By:	HJ			

Scale: AS SHOWN 96157569 Date: October 9, 2015 Consulting Engineering and Scientist
5307 INDUSTRIAL OAKS BLVD. - #160 AUSTIN, TX 78735 PH. (512) 442-1122 FAX. (512) 442-1181

Lauranne Residence 2200 Lauranne Lane Austin, Travis County, TX

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 Project Mngr:
 AP

 Drawn By:
 JDC

 Checked By:
 AP

 Approved By:
 HJ

Project No. 96157569

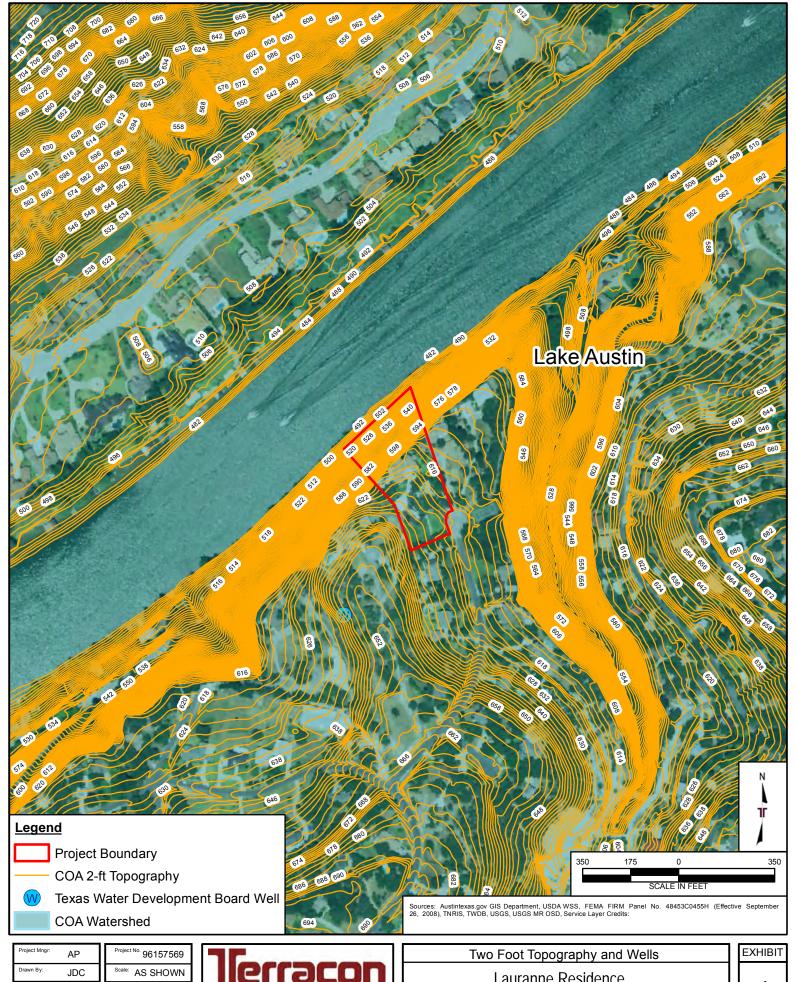
Scale: AS SHOWN

File No.: 96157569

Date: October 9, 2015

Consulting Engineering and Scientist
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PH. (512) 442-1122 FAX. (512) 442-1181

Lauranne Residence 2200 Lauranne Lane Austin, Travis County, TX 3



Project Mngr:	AP				
Drawn By:	JDC				
Checked By:	AP				
Approved By:	HJ				

Project No. 96157569

Scale: AS SHOWN

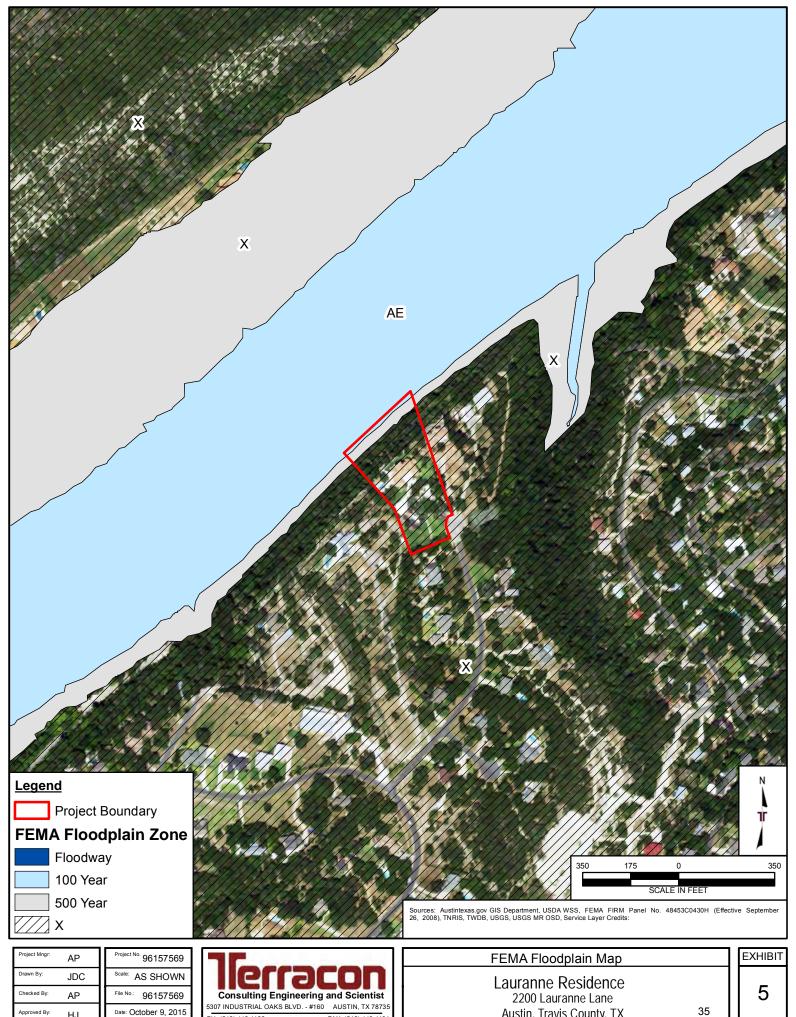
File No.: 96157569

Date: October 9, 2015



Lauranne Residence 2200 Lauranne Lane Austin, Travis County, TX

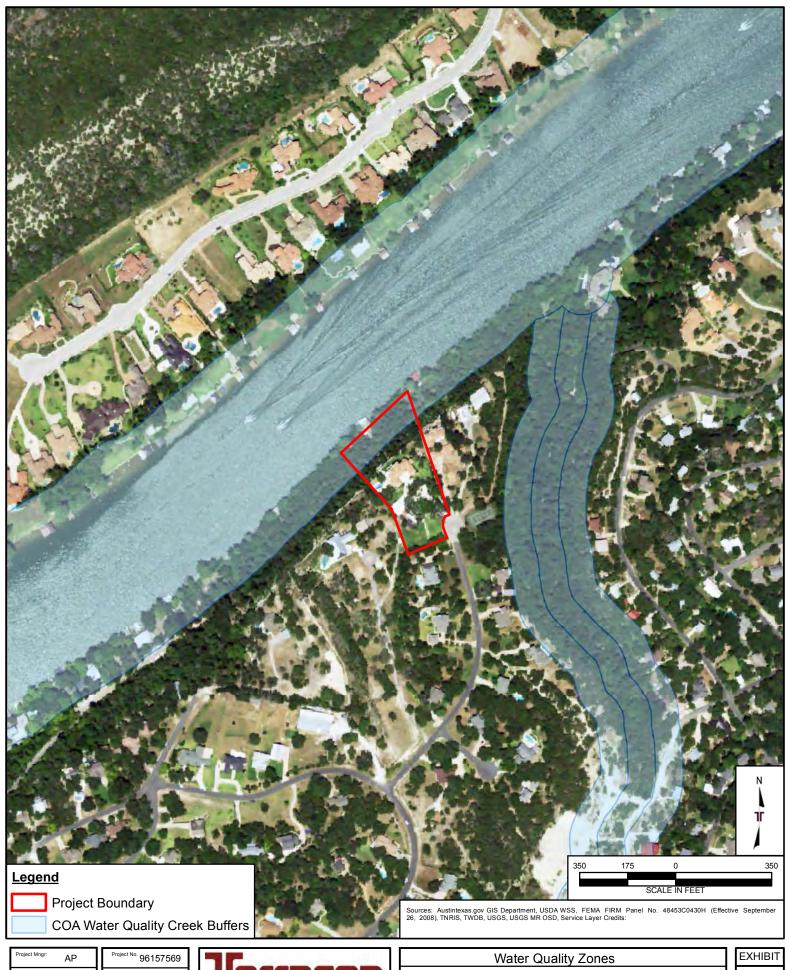
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Date: October 9, 2015

Consulting Engineering and Scientist
5307 INDUSTRIAL OAKS BLVD. - #160 AUSTIN, TX 78735 PH. (512) 442-1122 FAX. (512) 442-1181

Austin, Travis County, TX



Project Mngr:	AP
Drawn By:	JDC
Checked By:	AP
Approved By:	HJ

AS SHOWN 96157569 Date: October 9, 2015

Consulting Engineering and Scientist
5307 INDUSTRIAL OAKS BLVD. - #160 AUSTIN, TX 78735 PH. (512) 442-1122 FAX. (512) 442-1181

Lauranne Residence 2200 Lauranne Lane Austin, Travis County, TX

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APPENDIX C SITE PHOTOGRAPHS



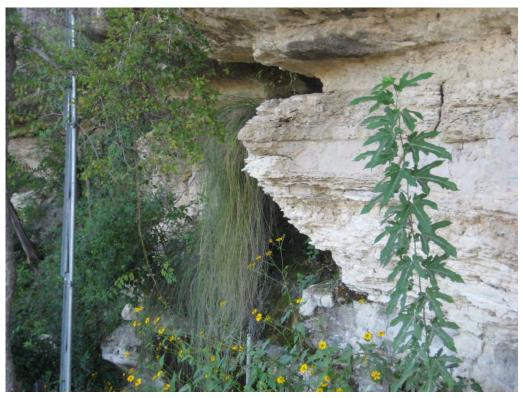


Photo 1 S-1/B-1 seep and bluff CEF

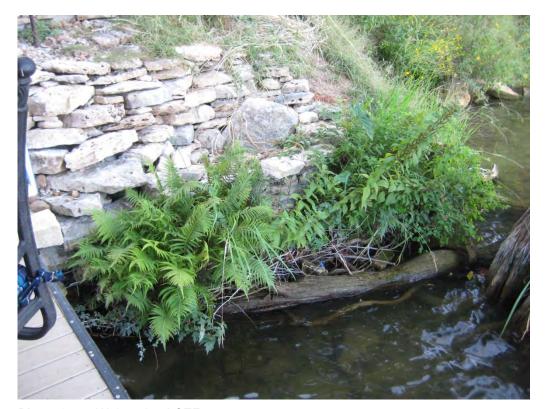


Photo 2 W-1 wetland CEF





Photo 3 C-1 non-CEF void

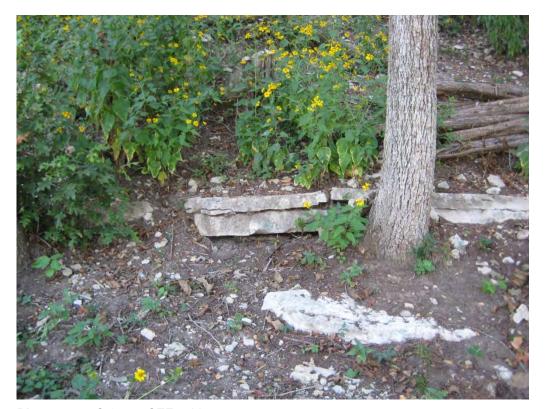


Photo 4 C-2 non-CEF void

APPENDIX D FUNCTIONAL ASSESSMENT OF FLOODPLAIN HEALTH

Scoring: Zone 1 – Floodplain Health

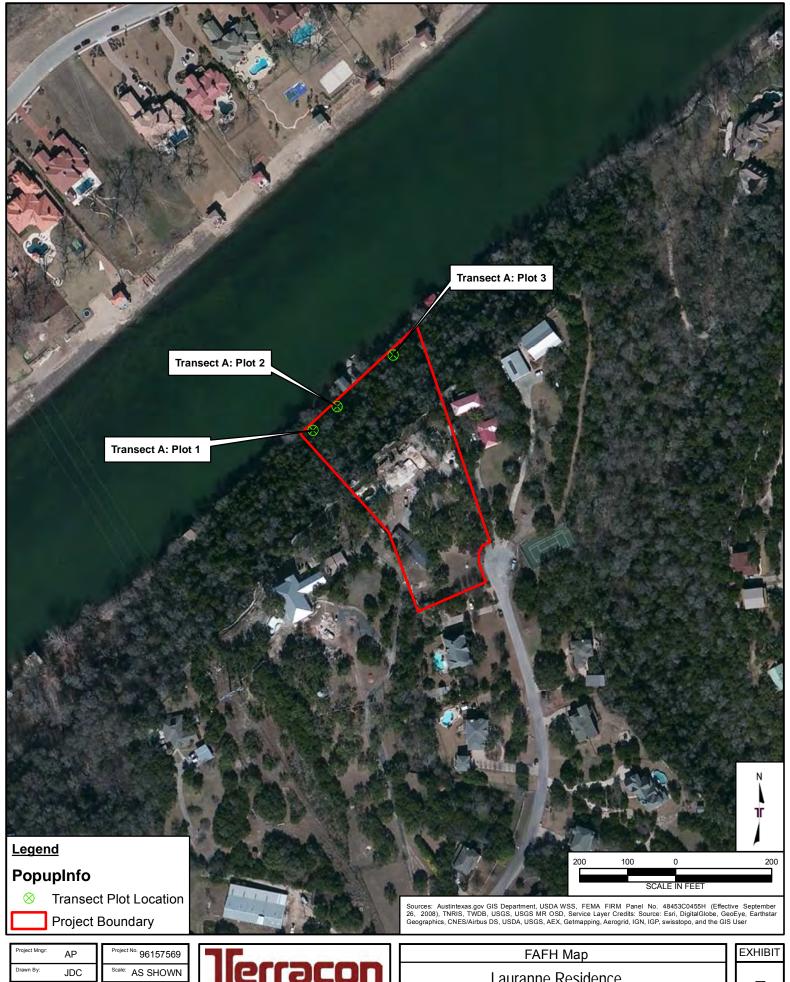
Site/Project Name: Lauranne Residence Date: 9/19/2015 Time: 10:30 am

Transect Number: A Staff (if applicable): ADP and JDC

Parameter	Excellent (4)	Good (3)	Fair (2)	Poor (1)	Score
Gap Frequency A visual assessment of the number of gaps in vegetation.	0 - 20% of area has visual gaps in vegetation	20% - 40% of area has visual gaps in vegetation	40 - 60% of area has visual gaps in vegetation	> 60% of area has visual gaps in vegetation	1
Large Woody Debris An evaluation of the amount of large woody debris.	7 or more pieces of large woody debris	5 - 6 pieces of large woody debris	3 - 4 pieces of large woody debris	2 or less pieces of large woody debris	1
Soil Compaction An assessment of the bulk density of the soil.	0 - 200 pounds per square inch	201 - 400 pounds per square inch	401 - 600 pounds per square inch	> 600 pounds per square inch	3
Structural Diversity An evaluation of the canopy and understory vegetation.	> 65% canopy; or > 50% canopy and > 50% understory	51 - 65% canopy; or 0 - 50% canopy and > 40% understory	31 - 50% canopy; or 0 - 30% canopy and > 30% understory	0 - 30% canopy; or 0 - 15% canopy and 0 - 30% understory	3
Tree Demography An assessment of the age class distribution of all canopy tree species.	Canopy tree species are present in all 4 age classes	Canopy tree species are present in 3 of 4 age classes	Canopy tree species are present in 2 of 4 age classes	Canopy tree species are present in only 1 age class or no trees	2

Assessed Condition (Circle One) Excellent: 18 - 20 Good: 13 - 17 Fair: 8 - 12 Poor: 5 - 7

Field Sheet: Zone 1 – Floodplain H	ealth				
Site/Project Name: Lauranne Residence	D	oate: 9/19/2015 T	ime: 10:30 am		
Transect Number: A	St	Staff (if applicable): ADP and JDC Large Woody Debris Number of Large Woody Debris Pieces: 1			
Gap Frequency Number of 1 meter gaps: 70 Percent of Transect: 70 %					
Soil Compaction					
Plot 1 (5 meters)	Plot 2 (50 meters)	Plot 3 (95 meters)			
#1: 300 psi #2: 350 psi #3: 350 psi Average for Plot 1: 330 psi	#1: 300 psi #2: 400 psi #3: 350 psi Average for Plot 2: 350 psi	#1: 350 psi #2: 300 psi #2: 30			
	A	verage for All Sample Plots:3	327 psi		
Structural Diversity					
Plot 1 (5 meters)	Plot 2 (50 meters)	Plot 3 (95 meters)			
Canopy: 30 % Understory: 50 %	Canopy: 20 % Understory: 60 %	Canopy: 40 % Under	rstory: 60 %		
	Average for All Sample	Plots: Canopy: 30 % Und	derstory: 57 %		
Tree Demography					
Plot 1 (5 meters)	Plot 2 (50 meters)	Plot 3 (95 meters)			
Number of Age Classes: 2	Number of Age Classes: 2	Number of Age Classes:	2		
	Av	erage for All Sample Plots:2	2		



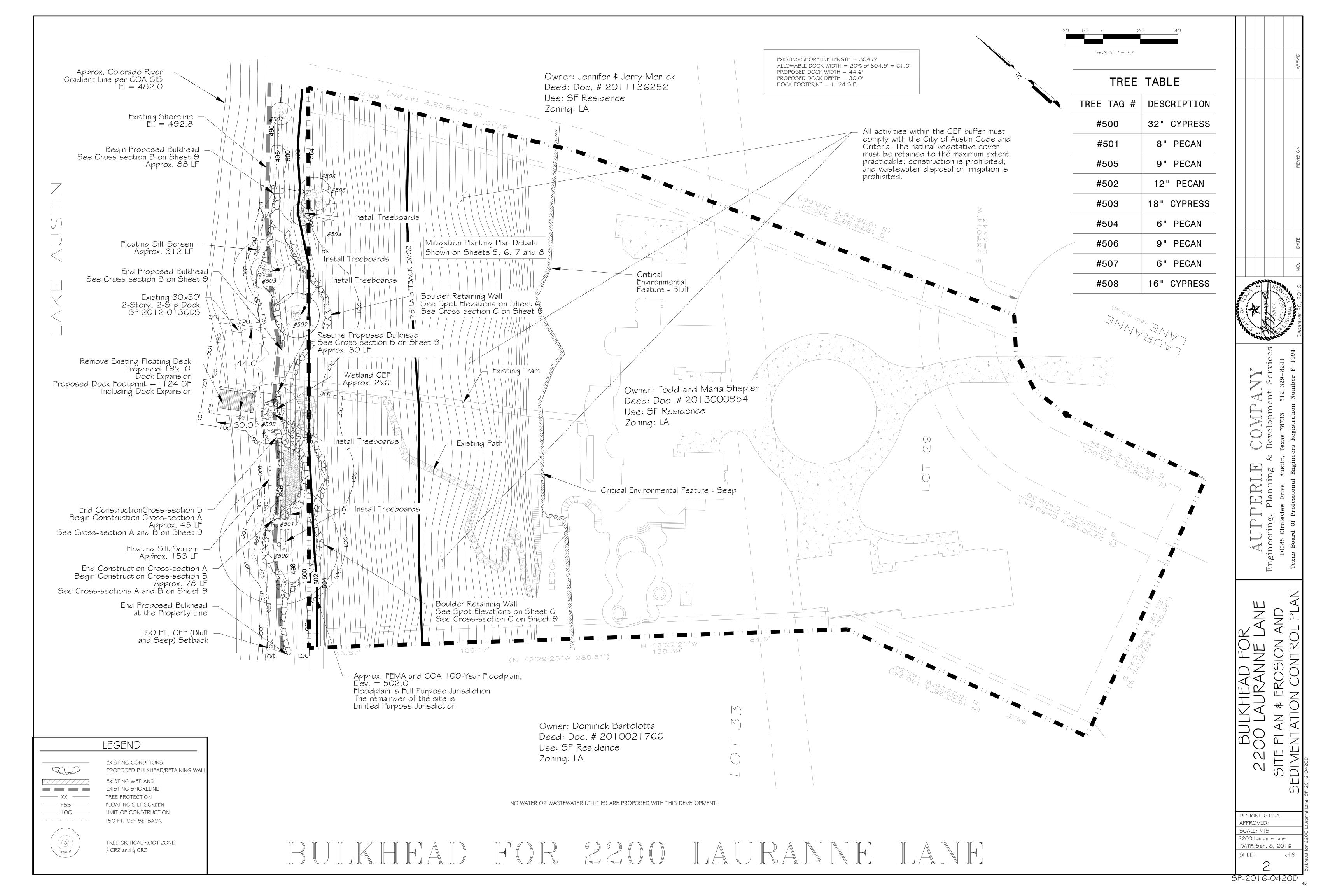
Checked By ΑP Approved By: HJ

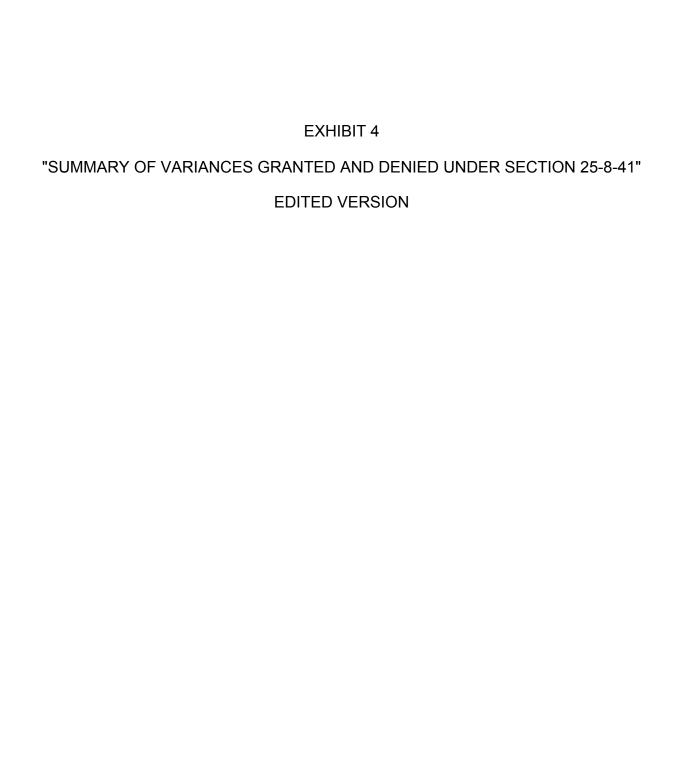
96157569 Date: October 9, 2015 Consulting Engineering and Scientist
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Lauranne Residence 2200 Lauranne Lane Austin, Travis County, TX

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EXHIBIT 3 SITE PLAN BULKHEAD FOR 2200 LAURANNE LANE





City of Austin | Environmental Commission Variance Application Guide

	1	Lake Austin, Water Supply			
		Rural, Drinking Water		Recommended	
Kristin Boat Dock SP-2016-0185Ds (D-10)	3811 Westlake Drive	Protection Zone	Feature buffer (Canyon Rimrock). LDC 25-8-281(C)(2)(b)	with conditions	Recommended
			1) To allow the construction of a boat dock, access maintenance and the		
			installation of a new hand rail within several 150 foot Critical Environmental		
Gallagher Boat Dock SP-2015-0232DS (D-10			Feature buffers (Canyon Rimrock, Springs/Seep). 25-8-281 (C)(2)(B)	approved	recommended
		Lake Austin (Water Supply			
		Rural), Drinking Water	1) A variance to 25-8-261 to allow the construction of a third access to an		recommended with
Hart Residence SP-2011-0037D(R1) (D-6)	13500 Pecan Drive		existing boat dock in a Critical Water Quality Zone.	approved	conditions
		Huck's Slough Watershed			
		and Lake Austin	1 – To allow a CEF within a residential lot [LDC 25-8-281(B)] and		
CASWELL ESTATES C8-2014-0134.0A	3336 Mount Bonnell Dr	Watershed		approved	<u>recommended</u>
			To modify the standard 150-foot width Critical Environmental Feature buffer in		
			order		
			to allow construction of a tram within a Critical Environmental Feature (rimrock		
			and seep) buffer		
			corridor 10 feet wide and 420 feet long that spans 2 canyon rimrocks and a		
				approved with	recommended with
Far View SP-2014-0135D	3337 Far View Drive	Zone	281(C)(2)(b).	conditions	conditions
			To allow the construction of a tram within a 150 foot Critical Environmental		
			Feature buffer (Canyon Rimrock/Bluff) to provide a single point of shoreline		
		Suburban), Drinking Water			recommended with
70 Pascal Lane SP-2014-0144D	70 Pascal Lane	Protection Zone	proposed boat dock that is outside of the buffer. 25-8-281 (C) (2) (B).	approved	<u>conditions</u>
			Variance to allow construction of a boat dock within a bluff Critical		
	2415 Big Horn Dr., Bldg.	Suburban), Drinking Water			
lles Boat Dock SP-2014-0212DS	BD		buffer, 25-8-281(C)(2)(b).	approved	
		Lake Austin (Watershed			
		Supply Suburban),			
		Drinking Water Protection	F / / / // 05 0 00 / (0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0 \ 0		
2908 Scenic Drive SP-2013-0295DS	2908 Scenic Drive		Feature buffer, 25-8-281(C)(2)(b).	<u>approved</u>	
		Lake Austin (Water Supply			
0004 W		Rural), Drinking Water	To allow construction of a tram downslope of and at the distance less than 150ft		
3961 Westlake SP-2013-044DS	3961 Westlake Drive		from a CEF buffer, 25-8-281- (C)(1)(a)	<u>denied</u>	
			1. to allow construction of a tram downslope of and at the distance less than		
2001 Weetleke CD 2012 044DC	2064 Montholes Drives		150ft from a CEF buffer, 25-8-281- (C)(1)(a) and 2. to allow construction of a	domind	
3961 Westlake SP-2013-044DS	3961 Westlake Drive	Protection Zone	second boat dock access within a CWQZ, not allowed per 25-8-261 (C) (1)	denied	
2212 Cmoky Didgo CD 2012 0266DC	2212 Smoky Didge	Lake Austin	LDC 25-8-281 (C)(1)(a) to allow construction of a boat dock and associated	approved with conditions	
3213 Smoky Ridge SP-2012-0366DS	3213 Smoky Ridge		access within a CEF buffer		recommended with
Post Dock for 5 Humboldt Long CD 2012 0122D	E Humboldt I and			approved with	conditions
Boat Dock for 5 Humboldt Lane SP-2013-0133D	5 Humboldt Lane	Rural)	buffer LDC section 25-8-281 (C)(1)(a)	conditions	conditions

EXHIBIT 5 AERIAL PHOTO OF THE SITE

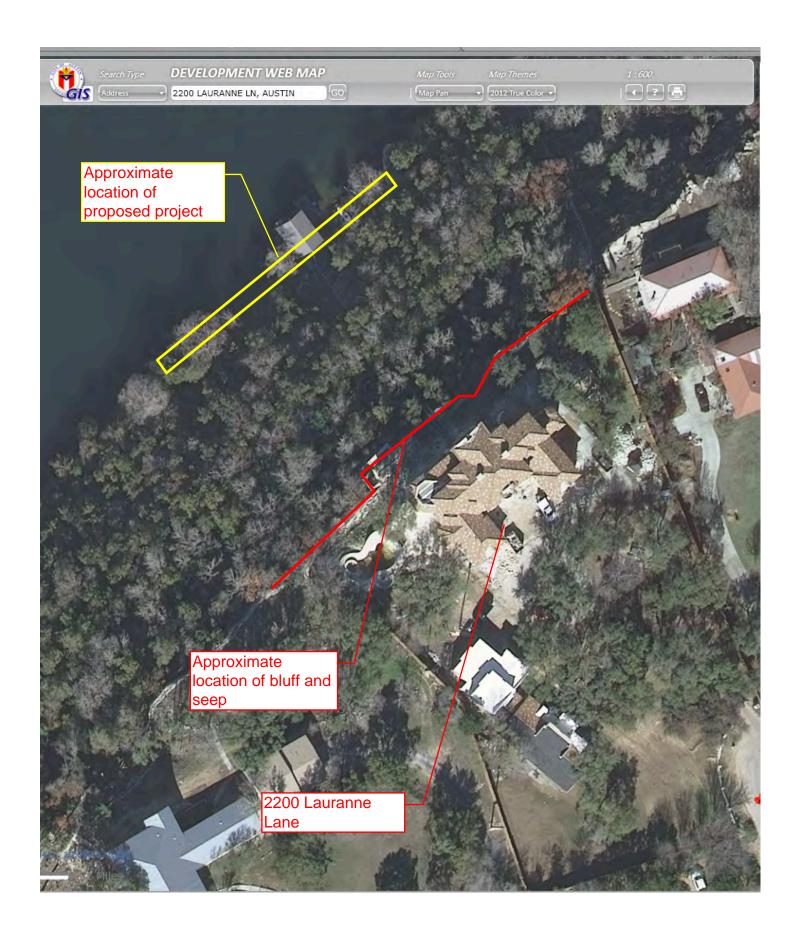


EXHIBIT 6 PHOTOS OF THE SITE

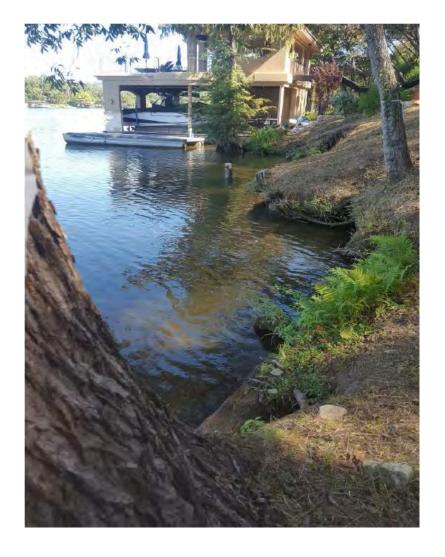






EXHIBIT 7 AERIAL PHOTOS OF THE VICINITY

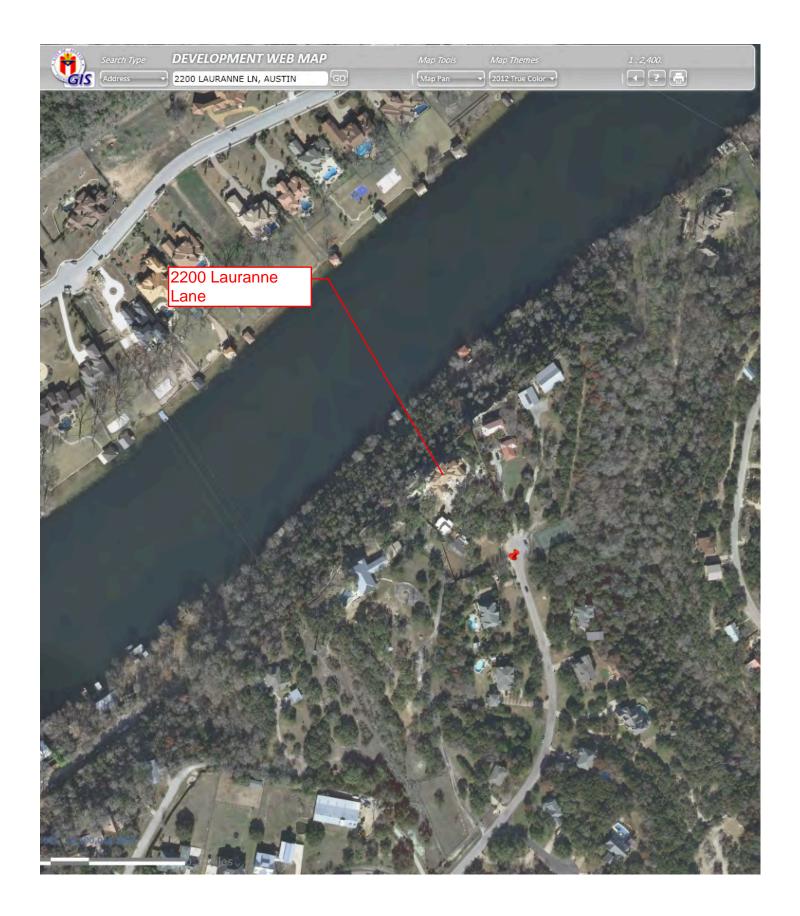
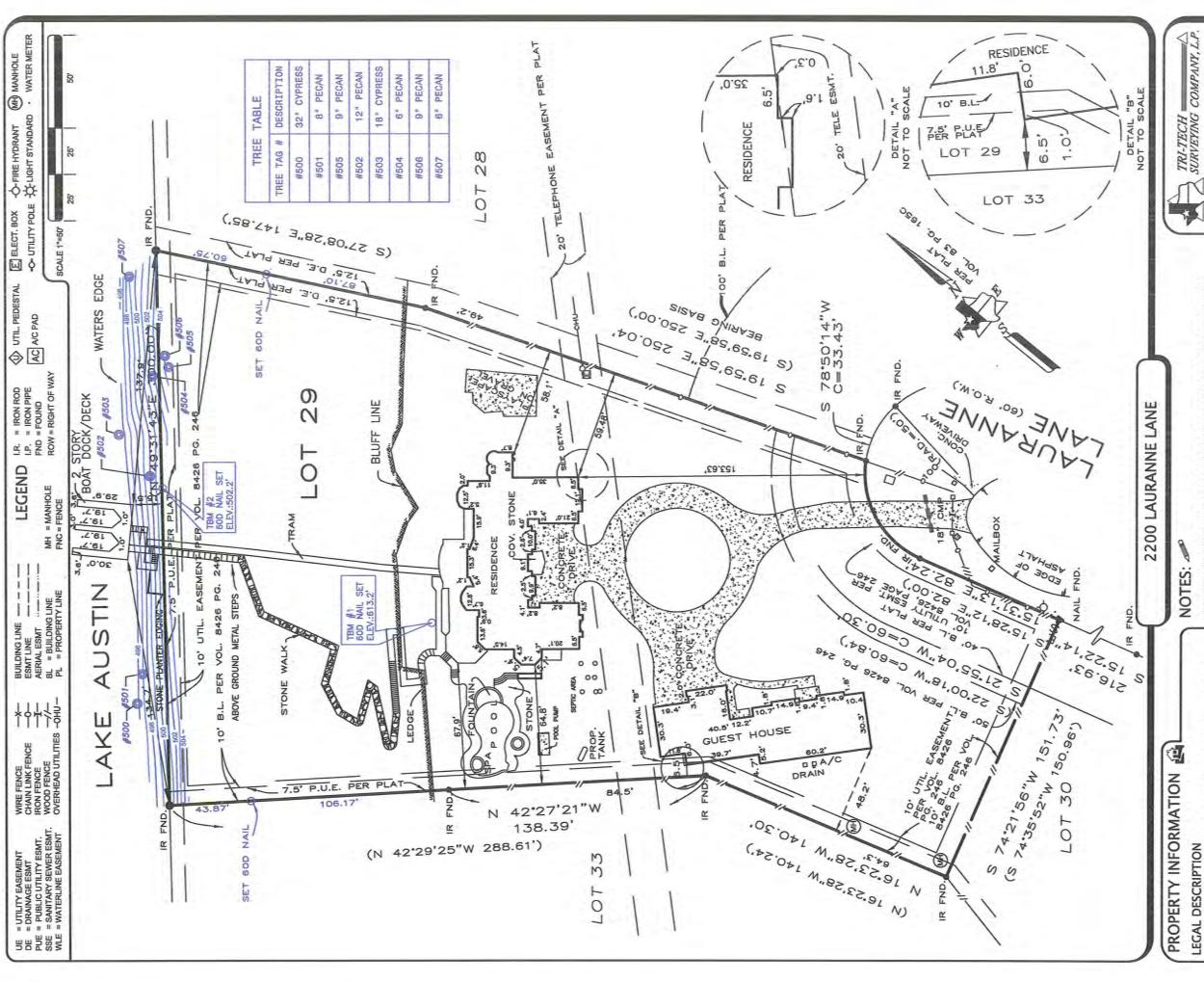


EXHIBIT 8 EXISTING CONDITIONS ON SITE



LOT 29, BLOCK B, RIO ROBLES, SECTION TWO, A SUBDIVISION IN TRAVIS COUNTY, TEXAS, ACCORDING TO THE PLAT OR MAP OF RECORD IN VOLUME 83, PAGE 165C, PLAT RECORDS, TRAVIS COUNTY, TEXAS.

TITLE CO.: FIRST AMERICAN TITLE COMPANY
AND FIRST AMERICAN TITLE INSURANCE COMPANY

G.F. DATE: NOVEMBER 16, 2012 G.F.# 1767816-AU20

SURVEYED FOR: TODD ROBERT SHEPLER AND MARIA SHEPLER

DRAWING INFORMATION

TRI-TECH JOB NO: AUS-PL141-10 DRAWN BY:

ORIGINAL SURVEY DATE: DECEMBER 5, 2012

NOVEMBER 5, 2015 CONTOURS AND TREES ADDED TO THIS SURVEY REVISION DATE: NOVEMBER 5, 2015

RESTRICTIVE COVENANTS AND EASEMENT RIGHTS RECORDED IN VOLUME 83, PAGE 165C, PLAT RECORDS, VOLUME 8426, PAGE 246, VOLUME 9689, PAGE 910, VOLUME 9881, PAGE 57, VOLUME 9699, PAGE 449, REAL PROPERTY RECORDS, TRAVIS COUNTY, TEXAS, AFFECT THIS LOT.

SUBJECT TO VOLUME 556, PAGE 207.

RECORDED IN DOCUMENT LOT 29 IS SUBJECT TO THE BLANKET-TYPE ELECTRIC EASEMENT 2012124398. OWNERBUILDER MUST VERIFY MINIMUM PROPOSED FINISHED FLOOR REQUIREMENTS OF F.E.M.A. AND/OR LOCAL GOVERNMENT AUTHORTIES, INCLUDING APPLICABLE BENCHMARK DATUM AND ADJUSTMENT, PRIOR TO PLANNING AND/OR CONSTRUCTION.

ALL BUILDING LINES, RECORDED EASEMEI (DEED RESTRICTIONS, ETC.) AND ZONING AFFECT SUBJECT PROPERTY SHOULD BE

THIS SURVEY DOES NOT ADDRESS ANY EAVES, GUTTERS OR OTHER OVERHANGING STRUCTURE FEATURES , WHICH MAY PROTRUDE OVER BOUNDARY, EASEMENT AND/OR BUILDING LINES, UNLESS OTHERWISE SHOWN HEREON.

THE OVERFLOW EASEMENT IN VOLUME 275, PAGE 80, DATED 1932, IS DESCRIBED THEREIN. THE AGE OF THE EASEMENT AND THE LACK OF IT BEING PERMANATELY MONUMENTED ON THE GROUND MAKE THE EASEMENT UNRETRACEABLE. A GROUND AND/OR AERIAL, EASEMENT MAY EXIST ADJACENT TO ANY EXISTING UTILITY. OWNER AND BUILDERS SHOULD VERIFY WITH APPLICABLE UTILITY COMPANIES PRIOR TO PLANNING OR CONSTRUCTION.

SURVEYING COMPANY, L.P.

THE PURPOSE OF THIS SURVEY IS TO SHOW CONTOURS AND TREES NEAR LAKE AUSTIN. SEE BOUNDARY DATED 12-5-12 FOR SIGNED BOUNDARY SURVEY.