



ITEM FOR ENVIRONMENTAL COMMISSION AGENDA

MEETING DATE REQUESTED: June 1, 2016

NAME & NUMBER OF PROJECT: The Grove at Shoal Creek Planned Unit Development
C814-2015-0074 (D-10)

OWNER: ARG Bull Creek, LTD (Garrett Martin)

AGENT: Thrower Design (Ron Thrower)

LOCATION: 4205 Bull Creek Road

PROJECT FILING DATE: June 15, 2015

WATERSHED PROTECTION DEPARTMENT STAFF: Andrea Bates, 974-2291
andrea.bates@austintexas.gov

PLANNING AND ZONING CASE MANAGER: Sherri Sirwaitis, 974-3057
sherri.sirwaitis@austintexas.gov

WATERSHED: Shoal Creek Watershed (Urban)
Desired Development Zone

ORDINANCE: Watershed Protection Ordinance (current Code)

REQUEST: Review and consider for recommendation the environmental aspects of the proposed Planned Unit Development (PUD), including code modifications and environmental superiority.

STAFF RECOMMENDATION: Recommended with conditions.



MEMORANDUM

TO: Marisa Perales, Chair, and Members of the Environmental Commission

FROM: Chuck Lesniak, Environmental Officer
Watershed Protection Department

DATE: May 27, 2016

SUBJECT: The Grove at Shoal Creek Planned Unit Development – C814-2015-0074 –
Update 1

This summary is being provided to the Environmental Commission as a supplement to the Planning and Zoning Department analysis for The Grove at Shoal Creek Planned Unit Development (PUD). This memo provides an overview of the property's environmental features, the requested modifications to environmental code requirements, and the elements of the project that provide environmental superiority.

In the initial memo to the Environmental Commission, dated October 29, 2015, staff recommended that the project incorporate two conditions in order to achieve environmental superiority. The applicant agreed to those conditions and incorporated one additional superiority element regarding flood mitigation. Staff finds that the proposed development is environmentally superior to what could be built without the PUD.

Description of Property

The Grove at Shoal Creek PUD consists of approximately 76 acres of land located in north-central Austin, at the intersection of W. 45th Street and Bull Creek Road (see Attachment A – Location Map). The property was previously owned by the State of Texas and was not required to be platted or zoned. The southwestern portion of the site is currently developed with state office buildings and parking lots, totaling approximately 9.4 acres of existing impervious cover.

The Grove at Shoal Creek PUD is located in the Shoal Creek Watershed, which is classified as Urban and is within the Desired Development Zone. The PUD is not within the Edwards Aquifer recharge or contributing zones. The property contains a section of Shoal Creek, which flows

north to south along the northeastern boundary of the PUD (see Attachment B – Environmental Features Map).¹

Existing Topography/Soil Characteristics/Vegetation

The site's topography slopes gently from west to east, from Bull Creek Road toward Shoal Creek. Elevations range from approximately 670 to 570 feet above mean sea level. Slopes range between 0 and 15 percent on the majority of the property but increase to over 35 percent in some locations near Shoal Creek. The property has predominately clayey soils.

Vegetation on the site includes live oak, pecan, cedar elm, cottonwood, mesquite, and sugarberry, with an understory of bluestem, tall dropseed, common ragweed, and Indian blanket. The property contains a large number of heritage and protected trees, including 54 heritage live oaks, ten heritage pecans, two heritage cedar elms, and one heritage American elm. Significant groves of heritage and protected trees are located in the northeast corner of the property near Shoal Creek and in the center of the southern boundary adjacent to Bull Creek Road.

Critical Environmental Features/Endangered Species Habitat

An Environmental Resource Inventory (ERI) was prepared for the project site by Horizon Environmental Services in May 2015 (see Attachment E – Applicant's Environmental Resource Inventory). The ERI identified one critical environmental feature (CEF) within the PUD site: an herbaceous wetland. The wetland CEF is required to be protected in accordance with LDC 25-8-282 (Wetland Protection). The PUD proposes to modify the standard 150-foot CEF setback and provide mitigation for the reduced setback in compliance with 25-8-282(B). Proposed mitigation strategies include construction of a vegetated wetland fringe around the wet pond per requirements of the Environmental Criteria Manual (ECM) section 1.10.4(D)(3)(a), construction of a detention-infiltration feature landscaped with a native wet prairie per ECM 1.10.4(D)(3)(b), which may support groundwater infiltration for the wetland, and provision of additional buffers per ECM 1.10.4(D)(3)(c) as a "grow-zone" along Shoal Creek.

The ERI also evaluated the property for suitable habitat for state and federally listed endangered, threatened, or candidate species. Neither listed species nor their critical habitat were observed on site during the field reconnaissance process.

Water/Wastewater

Water and wastewater service will be provided by the City of Austin. According to the 2015 ERI, the Texas Water Development Board Water Information Integration and Dissemination database reported one well within the property near the intersection of Bull Creek Road and W. 45th Street. The well is not currently used and the applicant has not indicated a desire to use this well for any of the proposed development. The ERI indicates that the well will be properly abandoned and the appropriate agencies notified of the abandonment.

¹ Per LDC Section 25-8-91, waterways within an Urban Watershed are not classified. However, per 25-8-92, a critical water quality zone is established along all waterways with a drainage area of at least 64 acres. The boundaries of the critical water quality zone coincide with the boundaries of the 100-year floodplain calculated under fully developed conditions, provided that the boundary is not less than 50 feet and not more than 400 feet from the centerline of the waterway.

Description of Project

The proposed project contains approximately 57.6 acres of mixed use development, including retail, office, multifamily, townhomes, and detached single-family residential uses, and 18.1 acres of parks and open space.

Requested Environmental Code Modifications

The following summarizes the proposed modifications to environmental requirements; please see the applicant's Exhibit E – Proposed Code Modifications for additional details.

- **25-8-641(B), Heritage Tree Removal Prohibited** – Eleven heritage trees identified on the applicant's Exhibit J – Tree Survey and Disposition Plan may be removed without an administrative or land use commission variance as required by current code. The proposed code language is as follows:

“A permit to remove a heritage tree may be issued only if:

- (1) a variance is approved under Section 25-8-642 (Administrative Variance) or 25-8-643 (Land Use Commission Variance), or
- (2) the tree is indicated as “Trees That May Be Removed” on The Grove at Shoal Creek Tree Survey and Disposition Plan as attached to The Grove at Shoal Creek Planned Unit Development Ordinance No. _____. Sections 25-8-642 and 25-8-643 shall not apply to the trees indicated as “Trees That May Be Removed” on The Grove at Shoal Creek Tree Survey and Disposition Plan.

A permit issued under 25-8-642(A)(2) shall require mitigation at the rates prescribed on The Grove at Shoal Creek Tree Survey and Disposition Plan.”

The 11 heritage trees identified for removal include ten pecans and one American elm. Four of the eleven trees have been rated as “poor” by the project arborist, and their condition was reviewed in the field by the City Arborist.

Proposed Environmental Superiority Elements

The project is proposing to provide the following environmental superiority elements (please see the applicant's Exhibit D – Tier 1 and Tier 2 Compliance Summary for additional details):

1. The PUD will provide at least 18.12 acres of open space, which is 65% higher than the 10.95 acres required based on the proposed land uses.
2. The PUD will exceed the minimum code requirements for landscaping. The project Design Guidelines will require minimum three-inch caliper street trees on all internal streets. Under conventional zoning, Tracts A, C, D, and E would be residential zoning districts and would not require street trees under current code. This area of additional street trees represents approximately 34 acres, or 45 percent of the total project area. Street trees will also be required along Bull Creek Road, where they would not be required by current code. In addition, the Design Guidelines will require that a minimum of 95% of all non-turf plant materials be from or consistent with the City's Grow Green Guide.

3. The PUD will provide superior water quality controls by using a wet pond and/or green water quality controls to treat a minimum of 50 percent of the required water quality volume. A wet pond and green controls provide superior total suspended solids and nutrient removal compared to conventional treatment methods, in addition to habitat and aesthetic benefits. Makeup water for the wet pond will be provided by air conditioner condensate from commercial buildings on site.
4. The project will provide that a minimum of ten acres of impervious cover on the site will drain to and be treated by green water quality controls that infiltrate or reuse water, such as rain gardens and rainwater harvesting.
5. The project will preserve a minimum of 75 percent of all protected size native tree caliper inches, as well as prepare a tree care plan for all preserved heritage and protected trees on site. The project will also provide increased mitigation rates for the removal of four heritage trees: a mitigation rate of 100 percent will be provided for heritage trees in poor condition, which would not typically require any mitigation under current code.
6. The project will provide additional protections for the grove of trees surrounding the wet pond. For heritage and protected trees identified as “Signature Grove Trees” on Exhibit J – Tree Survey and Disposition Plan, cut in the three-quarter Critical Root Zone (CRZ) shall not exceed four inches. This requirement may be administratively reduced to the one-half CRZ if a minimum of 75 percent of the total area of the full CRZ is preserved and a tree care plan in the amount of \$100 per caliper inch is provided for the tree in question.
7. The project will cluster development along Bull Creek Road and the interior of the property and away from environmentally sensitive areas like Shoal Creek, the existing wetland, and the large oak groves.
8. The project will direct stormwater runoff from impervious surfaces to landscaped areas at least equal to the total required landscape area, which reduces the volume of runoff entering the storm drain system and provides for increased infiltration of stormwater runoff.
9. The project will provide flood detention or mitigation for the 9.4 acres of existing impervious cover on the site, which does not currently have flood detention. If the project participates in the Regional Stormwater Management Program (RSMP), the RSMP fee will be paid as if the site were undeveloped.
10. The City of Austin Watershed Protection Department will choose the most effective flood mitigation option for the site at the time of site plan or subdivision review, which may include onsite detention, RSMP participation, or a combination of the two. The City-selected flood mitigation option will be required to demonstrate no downstream adverse impact up to the confluence of Shoal Creek with Lady Bird Lake.²
11. The project will provide educational signage at the wetland CEF.

² This superiority element was added since the Environmental Commission meeting on November 4, 2015.

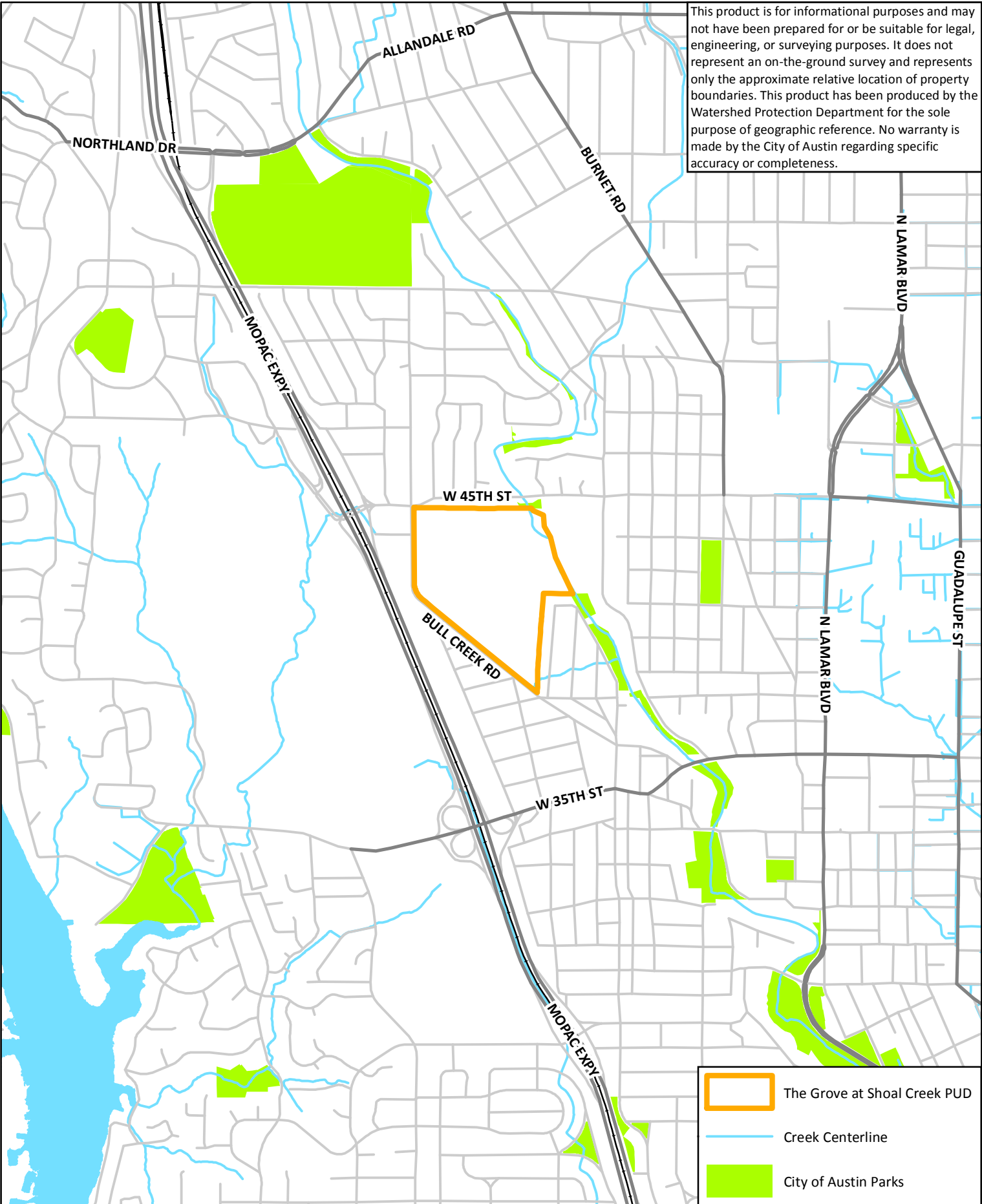
Determination

Staff finds that the proposed development is environmentally superior to what could be built without the PUD. For example:

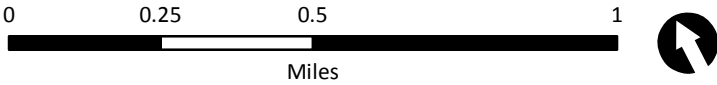
- The project will provide 65% more open space than required by code. The additional open space is located outside of environmentally sensitive areas that are required to be protected, such as the CWQZ and CEF buffer.
- The project will exceed the minimum requirements for landscaping by planting street trees on all internal streets and requiring that 95 percent of non-turf plant materials be native or locally adapted species.
- The project will use superior water quality controls and require that at least ten acres of impervious cover will drain to green water quality controls that infiltrate or reuse stormwater.
- The project will preserve at least 75 percent of native caliper inches, prepare a tree care plan for preserved trees, and provide increased mitigation for removal of certain heritage trees.
- The project will exceed code requirements to protect the most significant grove of trees from potential construction impacts.
- The project will provide flood detention for the existing 9.4 acres of currently undetained impervious cover on site, and the City, not the developer, shall choose the most effective flood mitigation option for the site.
- The design of the project clusters development along Bull Creek Road and the interior of the property, and away from environmentally sensitive areas like Shoal Creek and the large oak groves.

Attachments

- A Location Map
- B Environmental Features Map
- C Site Photos
- D Driving Directions
- E Applicant's Environmental Resource Inventory



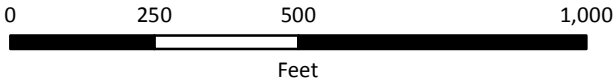
Attachment A
The Grove at Shoal Creek PUD Location Map



This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries. This product has been produced by the Watershed Protection Department for the sole purpose of geographic reference. No warranty is made by the City of Austin regarding specific accuracy or completeness.



Attachment B
The Grove at Shoal Creek PUD
Environmental Features Map



- | | | | |
|---|------------------------------|---|------------------------|
|  | The Grove at Shoal Creek PUD |  | Creek Centerline |
|  | Critical Water Quality Zone |  | Wetland |
|  | COA 25-Year Floodplain |  | Wetland Setback (150') |
|  | COA 100-Year Floodplain |  | Watershed Boundary |

Attachment C
The Grove at Shoal Creek PUD Site Photos



View of PUD property from southeast corner at Bull Creek Rd. looking north into site



View of PUD property from Bull Creek Rd. and W. 45th St., looking southeast into site



Grove of live oaks along Bull Creek Rd., near existing development



Grove of live oaks in northeast corner of PUD along Shoal Creek, near proposed wet pond location



Wetland Critical Environmental Feature (CEF)



View of Shoal Creek from W. 45th St. bridge looking south. The PUD property is on the right.

Attachment D

Driving Directions to The Grove at Shoal Creek PUD

From Austin City Hall, 301 W. 2nd Street:

- Head east on 2nd St. to Lavaca St.; turn left and go 0.7 miles
- Turn left on W. 12th St.; go 0.6 miles
- Turn right onto N. Lamar Blvd.; go 1.6 miles
- Turn left onto 29th St.; go 0.5 miles
- Turn right onto Jefferson St.; go 0.6 miles
- Turn left onto Bull Creek Rd.; go 0.5 miles. Destination will be on right.

Environmental Resource InventoryFor 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: The Grove at Shoal Creek
2. COUNTY APPRAISAL DISTRICT PROPERTY ID (#'s): 122169
3. ADDRESS/LOCATION OF PROJECT: 4205-4305 Bull Creek Road
4. WATERSHED: Shoal Creek - Urban
5. THIS SITE IS WITHIN THE (Check all that apply)

Edwards Aquifer Recharge Zone* (See note below)	☐ YES	☒ No
Edwards Aquifer Contributing Zone*	☐ YES	☒ No
Edwards Aquifer 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 1 (#'s) Critical Environmental Feature(s)(CEFs) on or within 150 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) 1 (#'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 not provided, 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)
Eddy soils and Urban land, 0 to 6% slopes (EuC)	D	1.6
Oakalla soils, 0 to 1% slopes, channeled, frequently flooded (Fs)	B	6.6
Houston Black soils and Urban land, 0 to 8% slope (HsD)	D	6.6
Urban land and Austin soils, 0 to 5% slopes (UsC)	C	4.3
Urban land, Austin, and Whitewright soils, 1 to 8% (UtD)	C	4.3

***Soil Hydrologic Groups Definitions (Abbreviated)**

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

**Subgroup Classification – See Classification of Soil Series Table in County Soil Survey.

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

Topographically, the site ranges from approximately 570 to 670 feet above mean sea level (USGS, 1988). Drainage on the subject site occurs primarily by overland sheet flow in a west to east direction into Shoal Creek.

List surface geologic units below:

Geologic Units Exposed at Surface		
Group	Formation	Member
Eagle Ford		--
Washita	Buda Limestone	--
Washita	Del Rio Clay	--
		--

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

Eagle Ford Group, Kef, Buda Limestone, Kbu, and in structurally complicated areas, Eagle Ford Group and Buda Limestone undivided, Keb (UT-BEG, 1995).

Eagle Ford Group, Kef, shale and limestone. Upper part shale, compact, silty, contains fossil fish teeth and bones, 10 feet or more thick; middle part silty limestone grading to calcareous siltstone, flaggy, medium-gray, weathers pale yellowish-brown, 5 feet thick. Lower part shale, calcareous, dark gray, 7-50 feet thick. Thickness of Eagle Ford Group 25-65 feet.

Buda Limestone, Kbu, fine-grained, bioclastic, commonly glauconitic, pyritiferous, hard, massive, poorly bedded to nodular, thinner bedded and argillaceous near upper contact, light gray to pale orange; weathers dark gray to brown; burrows filled with chalky marl, abundant pelecypods; thickness up to 45 feet, locally absent to north.

The site geology is continued in Environmental Resources Inventory Attachments.

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

There are 1 (#) 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.

 1 (#'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 0 (#'s) wells that are off-site and within 150 feet of this site.

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

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

The subject site exhibited a combination of woodland, grassland/prairie/savanna, and hydrophytic plant species, detailed below.

There is woodland community on site☒YES ☐ NO *(Check one).*

If yes, list the dominant species below:

Woodland species	
Common Name	Scientific Name
post oak	Quercus stellata
mesquite	Prosopis glandulosa
pecan	Carya illinoensis
sugarberry	Celtis laevigata

There is grassland/prairie/savanna on site.....☒YES ☐ NO *(Check one).*

If yes, list the dominant species below:

Grassland/prairie/savanna species	
Common Name	Scientific Name
big bluestem	Andropogon gerardi
tall dropseed	Sporobolus compositus
silver bluestem	Bothriochloa saccharoides
common ragweed	Ambrosia artemisiifolia
Indian blanket	Gaillardia pulchella

There is hydrophytic vegetation on site☒YES ☐ NO *(Check one).*

If yes, list the dominant species in table below *(next page):*

Hydrophytic plant species		
Common Name	Scientific Name	Wetland Indicator Status
lance-leaf frog fruit	Phyla lanceolata	FACW
Texas rush	Juncus texanus	OBL
seep muhly	Muhlenbergia reverchonii	FAC

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.

☒ YES ☐ NO (Check one).

12. WASTEWATER REPORT – Provide the information requested below.

Wastewater for the site will be treated by (Check of that Apply):

- ☐ On-site system(s)
☒ City of Austin Centralized sewage collection system
☐ Other Centralized collection system

Note: All sites that receive water or wastewater service from the Austin Water Utility must comply with City Code Chapter 15-12 and wells must be registered with the City of Austin

The site sewage collection system is designed and will be constructed to in accordance to all State, County and City standard specifications.

☒ YES ☐ NO (Check one).

Calculations of the size of the drainfield or wastewater irrigation area(s) are attached at the end of this report or shown on the site plan.

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

Wastewater lines are proposed within the Critical Water Quality Zone?

☐ YES ☒ NO (Check one). If yes, then provide justification below:

Is the project site is over the Edwards Aquifer?

☐ YES ☒ NO (Check one).

If yes, then describe the wastewater disposal systems proposed for the site, its treatment level and effects on receiving watercourses or the Edwards Aquifer.

Wasterwater will be connected to the City of Austin's collection system.

13. One (1) hard copy and one (1) electronic copy of the completed assessment have been provided.

Date(s) ERI Field Assessment was performed: 2/18/15 and 5/15/15

Date(s)

My signature certifies that to the best of my knowledge, the responses on this form accurately reflect all information requested.

James Killian

512-328-2430

Print Name

Telephone

Signature

jkillian@horizon-esi.com

Email Address

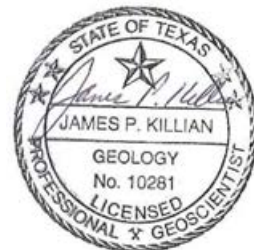
Horizon Environmental Services, Inc.

10/27/15

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).



City of Austin Environmental Resource Inventory - Critical Environmental Feature Worksheet

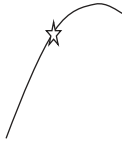
1	Project Name:	Shoal Creek Commons
2	Project Address:	4205-4305 Bull Creek Road
3	Site Visit Date:	2/18/15 and 5/15/15
4	Environmental Resource Inventory Date:	5/20/15

5	Primary Contact Name:	Shannon Dorsey
6	Phone Number:	512-328-2430
7	Prepared By:	Scott Flesher
8	Email Address:	killian@horizon-esi.com

9	FEATURE TYPE {Wetland, Rimrock, Bluffs, Recharge Feature, Spring}	FEATURE ID (eg S-1)	FEATURE LONGITUDE (WGS 1984 in Meters)		FEATURE LATITUDE (WGS 1984 in Meters)		WETLAND DIMENSIONS (ft)		RIMROCK/BLUFF DIMENSIONS (ft)		RECHARGE FEATURE DIMENSIONS				Spring Est. Discharge
			<i>coordinate</i>	<i>notation</i>	<i>coordinate</i>	<i>notation</i>	X	Y	Length	Avg Height	X	Y	Z	Trend	cfs
	Wetland	W 1	30.317978	WSG84	-97.749655	WSG84	200	80							

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.

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

Professional Geologists apply seal below

ENVIRONMENTAL RESOURCE INVENTORY ATTACHMENTS

**THE GROVE AT SHOAL CREEK
BULL CREEK ROAD
HJN 140259 ERI**

DATA RESOURCES USED IN COMPLETING THIS ERI

- (COA) City of Austin. *GIS Data Sets*, Year 2012 2-foot contours of the City of Austin and ETJ only, <ftp://ftp.ci.austin.tx.us/GIS-Data/Regional/coa_gis.html>. Updated by City of Austin 2012.
- _____. *GIS Data Sets*, Recharge Zone, Contributing Zone, and Edwards Contributing Zone 1500' Buffer, <ftp://ftp.ci.austin.tx.us/GIS-Data/Regional/coa_gis.html>. Updated by City of Austin 2015.
- _____. *GIS Data Sets*, Water Quality Creek Buffers, <ftp://ftp.ci.austin.tx.us/GIS-Data/Regional/coa_gis.html>. Updated by City of Austin 2015.
- Gould, F.W. *Texas Plants – A Checklist and Ecological Summary*. College Station: Texas A&M University. 1975.
- (NRCS) Natural Resources Conservation Service (formerly Soil Conservation Service), US Department of Agriculture. Web Soil Survey, <<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>>. Accessed 18 May 2015.
- (TWDB) Texas Water Development Board. Water Information Integration and Dissemination System. TWDB Groundwater Database (ArcIMS), <http://wiid.twdb.state.tx.us/ims/www_drl/viewer.htm?>>. Accessed 18 May 2015.
- (USDA) US Department of Agriculture. National Agriculture Imagery Program, Farm Service Agency, Aerial Photography Field Office. Travis County, Texas. 1995 and 2014.
- (USGS) US Geological Survey. 7.5-minute series topographic maps, Austin West, Texas, quadrangle, 1988.
- (UT-BEG) University of Texas Bureau of Economic Geology, C.V. Proctor, Jr., T.E. Brown, J.H. McGowen, N.B. Waechter, and V.E. Barnes. *Geologic Atlas of Texas*, Austin Sheet, Francis Luther Whitney Memorial Edition. 1974; reprinted 1995.

**ERI WORKSHEET SECTION 5:
EDWARDS AQUIFER RECHARGE ZONE**

Karst Survey



Environmental Services, Inc.

27 October 2015

Steve Walkup
MileStone Community Builders
9111 Jollyville Road, Suite 111
Austin, Texas 78759

**RE: Hydrogeologic Report and Karst Survey Results – The Grove at Shoal Creek,
located at 4205-4305 Bull Creek Road, Austin, Travis County, Texas
HJN 140259 ERI**

Dear Mr. Walkup:

As requested, Horizon Environmental Services, Inc. (Horizon) performed a City of Austin (COA) Environmental Resource Inventory (ERI) per Land Development Code (LDC) Section 25-8, Title 30-5 for the above-referenced site. If the subject site is located over the Edwards Aquifer Recharge Zone, the COA requires a hydrogeologic report and karst survey be completed and signed by a Professional Geoscientist (PG) licensed in the State of Texas. This letter addresses those requirements set forth by the COA for a hydrogeologic report and karst survey of the subject site.

HYDROGEOLOGIC REPORT AND KARST SURVEY

According to COA LDC 25-8-122, a hydrogeologic report must: (1) generally describe the topography, soils, and geology of the site; (2) identify springs and significant point recharge features on the site; (3) demonstrate that proposed drainage patterns will protect the quality and quantity of recharge at significant point recharge features; and (4) identify all recorded and unrecorded water wells, both on the site and within 150 feet of the boundary of the site.

The objective of a karst survey is to identify any surface karst features (e.g., caves, sinkholes, faults, joint fractures, springs, etc.) that may indicate the presence of any subsurface voids with suitable habitat for federally listed endangered cave invertebrates and/or that provide point recharge to the Edwards Aquifer. The subject site has a very small narrow portion located along the western boundary within the Edwards Aquifer Recharge Zone. However, Mr. Scott Hiers, PG with the COA has informed Horizon that this narrow area of recharge zone does not occur within the subject site and is incorrectly mapped. The Recharge Zone is known as the area where the stratigraphic units constituting the Edwards Aquifer are exposed at the surface and where water may filter into the aquifer through permeable features such as cracks, fissures, caves, and other openings (TCEQ, 1999).

The subject site is mapped on the US Geological Survey (USGS) Austin West, Texas, topographic quadrangle (USGS, 1988) and is within the Shoal Creek watershed (COA, 2012). Topographically, the site ranges from approximately 570 to 670 feet above mean sea level (USGS, 1988). Drainage on the subject site occurs primarily by overland sheet flow in a west-to-east direction into Shoal Creek.

CORPORATE HEADQUARTERS

1507 South IH 35 ★ Austin, Texas 78741 ★ 512.328.2430 ★ Fax 512.328.1804 ★ www.horizon-esi.com
Certified WBE/HUB/DBE/SBE

According to the Natural Resources Conservation Service (NRCS), mapped soils on the subject site include the following:

**TABLE 1
SOILS**

SOIL NAME	SOIL TYPE	SOIL DEPTH (FEET)	UNDERLYING MATERIAL	PERMEABILITY	AVAILABLE WATER CAPACITY	SHRINK-SWELL CAPACITY
Eddy soils and Urban land, 0 to 6% slopes (EuC)	gravelly loam or gravelly clay loam	0.5 to 1.5	weakly cemented chalk	moderately slow	low	low
Houston Black soils and Urban land, 0 to 8% slopes (HsD)	clay or gravelly clay	4 to 6	mottled clay	very slow	high	high
Oakalla soils, 0 to 1% slopes, channeled, frequently flooded (Fs)	silty clay loam	4 to 6	chalk	moderate	high	low
Urban land and Austin soils, 0 to 5% slopes (UsC)	silty clay	2 to 4	partly weathered chalk	moderately slow	low	moderate to high
Urban land, Austin, and Whitewright soils, 1 to 8% (UtD)	silty clay or clay loam	2 to 4	soft limestone	moderately slow	low	moderate to high

Source: Werchan and Coker, 1974; NRCS, 2015

A review of existing literature shows the subject property is predominately underlain by the Eagle Ford Group and Buda Limestone undivided (Keb) (UT-BEG, 1995). The Eagle Ford Group is a massive, calcareous, and gray to dark gray shale with thin interbeds of silty and sandy, flaggy limestone. It has a maximum thickness of up to 45 feet and is not known to yield water in Travis County. The Buda Limestone is massive, light gray to pale orange, fine grained, hard, poorly bedded to nodular, and fossiliferous with burrows filled with chalky marl. The upper portion is harder and bluff forming. It has an estimated maximum thickness of up to 50 feet and is not known to yield water in Travis County. Underlying the Eagle Ford Group and Buda Limestone undivided is the Del Rio Clay with a thickness ranging from 40 to 70 feet. In general, the rock strata beneath the site dip gently to the east-southeast at about 40 to 50 feet per mile (less than 1°). Additionally, the subject property is not located within the Balcones Fault Zone, and available geologic reports indicate that the immediate area has not been affected by geologic inactive faulting. The nearest fault is located about 300 feet due west of the site, trending southwest to northeast along Loop 1.

A search was made for water wells on and within 150 feet of the boundary of the subject site. A review of the records of the Texas Water Development Board (TWDB) revealed 1 unused water well (No. 5842622 – Texas State Cemetery) located at the far northwestern corner of the site near the intersection of Bull Creek Road and 45th Street (TWDB, 2015). This well is reportedly completed in the Edwards Aquifer with a pump set at approximately 395 feet below the surface and a total depth of 504 feet (TWDB, 2015). The results of this survey do not preclude the existence of an abandoned well. Abandoned wells must be capped or properly abandoned according to the Administrative Rules of the Texas Department of Licensing and Regulation, 16 Texas Administrative Code (TAC), Chapter 76, effective 3 January 1999. A plugging report must

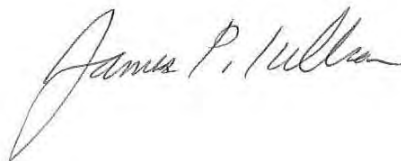
be submitted (by a licensed water well driller) to the Texas Department of Licensing and Regulation, Water Well Driller's Program, Austin, Texas. If a well is intended for use, it must comply with 16 TAC §76.

The karst survey was conducted on 18 May 2015 by Horizon support staff under the supervision of senior geologist James Killian, PG, who is currently permitted by the US Fish and Wildlife Service (USFWS) to sample and collect federally listed karst invertebrate species within Bexar, Travis, and Williamson counties, Texas, for scientific and species recovery purposes. The karst feature survey was conducted in general accordance with USFWS protocols. The ground survey was performed by walking parallel transects within the subject site and evaluating any surface expression that might indicate subsurface karst development. The survey included a review of available, existing information on previously documented regional caves that contain federally protected species, topography and geology of the subject site and vicinity, a pedestrian ground survey to identify surface expressions of karst features, and the description and assessment of features, if present. Mapping by George Veni and Associates (2002) indicates most of the subject site is located within Karst Zone 4, which is defined as areas that do not contain endangered cave fauna. Along lower elevations near Shoal Creek, the subject site is located within Karst Zone 3, which is defined as areas that probably do not contain endangered cave fauna.

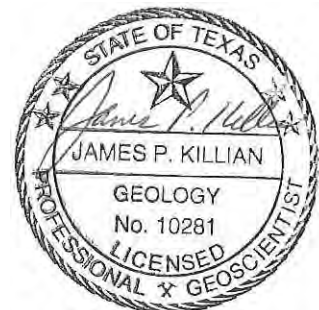
Following the collection and review of background information, Horizon conducted a ground survey of the subject site to locate and describe karst features that could provide suitable habitat for endangered cave invertebrate species and/or provide point recharge to the Edwards Aquifer. While conducting the survey, field personnel evaluated any outcropping limestone, surface depressions, or other factors that may indicate subsurface karst development. Based on the results of the ground survey, no potential karst features were found at the subject site.

Based upon identified geologic information, a low to moderate potential exists that subsurface voids may be encountered during any proposed construction within the immediate project area that would involve subsurface excavation. If such voids are encountered, excavation should stop immediately, and a qualified karst geologist should be contacted to perform an inspection/evaluation of the voids. Please contact me or Mr. Shannon Dorsey at 512.328.2430 if you have any questions or require additional information.

Sincerely,



James Killian, PG¹
Senior Geologist – Horizon



¹ Registered Professional Geologist, State of Texas

REFERENCES

- (COA) City of Austin. *City of Austin GIS Data Sets. Watersheds*. <ftp://ftp.ci.austin.tx.us/GIS-Data/Regional/coa_gis.html>. 26 July 2012.
- (NRCS) Natural Resources Conservation Service (formerly Soil Conservation Service), US Department of Agriculture. Web Soil Survey, <<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>>. Accessed 26 May 2015.
- (TCEQ) Texas Commission on Environmental Quality. *Complying with the Edwards Aquifer Rules: Administrative Guidance*, revised August 1999.
- (TWDB) Texas Water Development Board. Water Information Integration and Dissemination System. <<http://wiid.twdb.state.tx.us/>>. Accessed 26 May 2015.
- (USGS) US Geological Survey. 7.5-minute series topographic maps, Austin West, Texas, quadrangle, 1988.
- (UT-BEG) The University of Texas at Austin Bureau of Economic Geology; C.V. Proctor, Jr., T.E. Brown, J.H. McGowen, N.B. Waechter, and V.E. Barnes. *Geologic Atlas of Texas*, Austin Sheet. Francis Luther Whitney Memorial Edition. 1974; revised 1995.
- Veni, George, and Associates. *Delineation of hydrogeologic areas and zones for the management and recovery of endangered karst invertebrate species in Bexar County, Texas*. Report for the US Fish and Wildlife Service, Austin, Texas, George Veni and Associates, San Antonio, Texas, 75 pp. 2002.
- Werchan, Leroy E., A.C. Lowther, and Robert N. Ramsey. *Soil Survey of Travis County, Texas*. US Department of Agriculture, Natural Resources Conservation Service (formerly Soil Conservation Service), in cooperation with the Texas Agricultural Experiment Station. 1974.

**ERI WORKSHEET SECTION 8:
CRITICAL ENVIRONMENTAL FEATURES**

CEF Descriptions
Descriptions of Proposed Buffers
Color Photographs

Critical Environmental Features

CEFS observed on or within 150 feet from the subject site include:

Springs/Seeps: _____
Point Recharge Features: _____
Bluffs: _____
Canyon Rimrocks: _____
Wetlands: 1

1 CEF, as defined by the City of Austin, was found on or within 150 feet from the subject site. The CEF wetland (W 1) consisted of hydrophytic vegetation and surface water (0-3 inches). The wetland was located on a side slope adjacent to Shoal Creek. The CEF wetland dimensions and locations are provided on the City of Austin CEF worksheet and photographs are attached.

Proposed Buffers

If the subject site is proposed for future development, the City of Austin generally requires that 150-foot buffer zones be placed on all CEFs.



PHOTO 1

General view of area located above the Edwards Aquifer Recharge Zone.



PHOTO 2

Typical view of the subject site.



PHOTO 3

View of Shoal Creek.

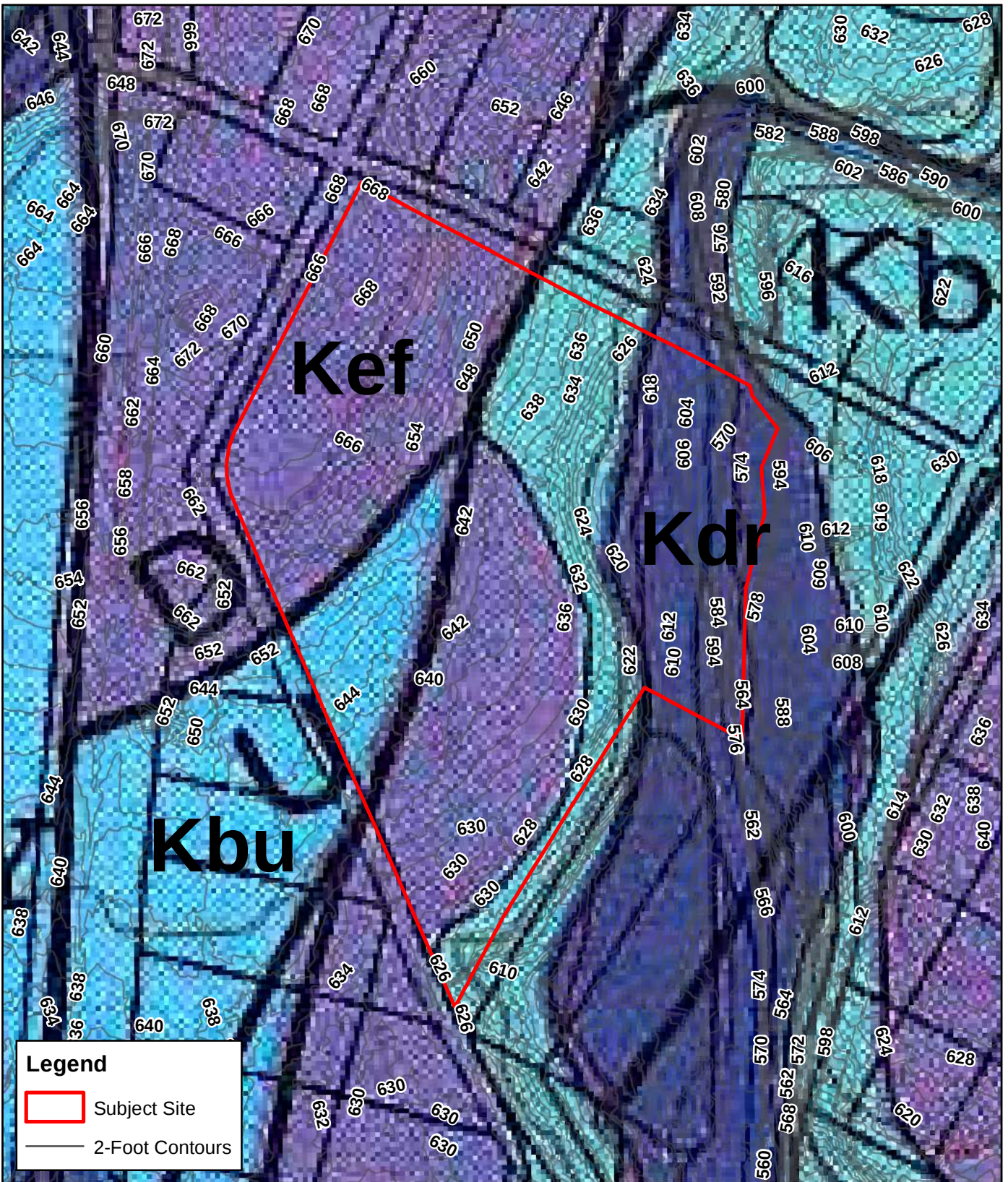


PHOTO 4

View of CEF wetland W 1.

**ERI WORKSHEET SECTION 9:
SITE MAPS**

- Figure 1. Site-Specific Geologic Map
- Figure 2. Historical Aerial Photo
- Figure 3. Site Soil Map
- Figure 4. Critical Environmental Features and Well Locations
- Figure 5. Edwards Aquifer Recharge Zone with 1500-foot Verification Zone
- Figure 6. Critical Water Quality Zone (CWQZ)
- Figure 7. City of Austin Fully Developed Floodplains



MAP SOURCE: UT-BEG, 1992; COA, 2012; USDA, 2014.

0 250 500
Feet



Horizon
Environmental Services, Inc.

FIGURE 1

SITE SPECIFIC GEOLOGIC MAP
APPROXIMATELY 76-ACRE
THE GROVE AT SHOAL CREEK
AUSTIN, TRAVIS COUNTY, TEXAS



Legend

 Subject Site

MAP SOURCE: USDA, 1995.

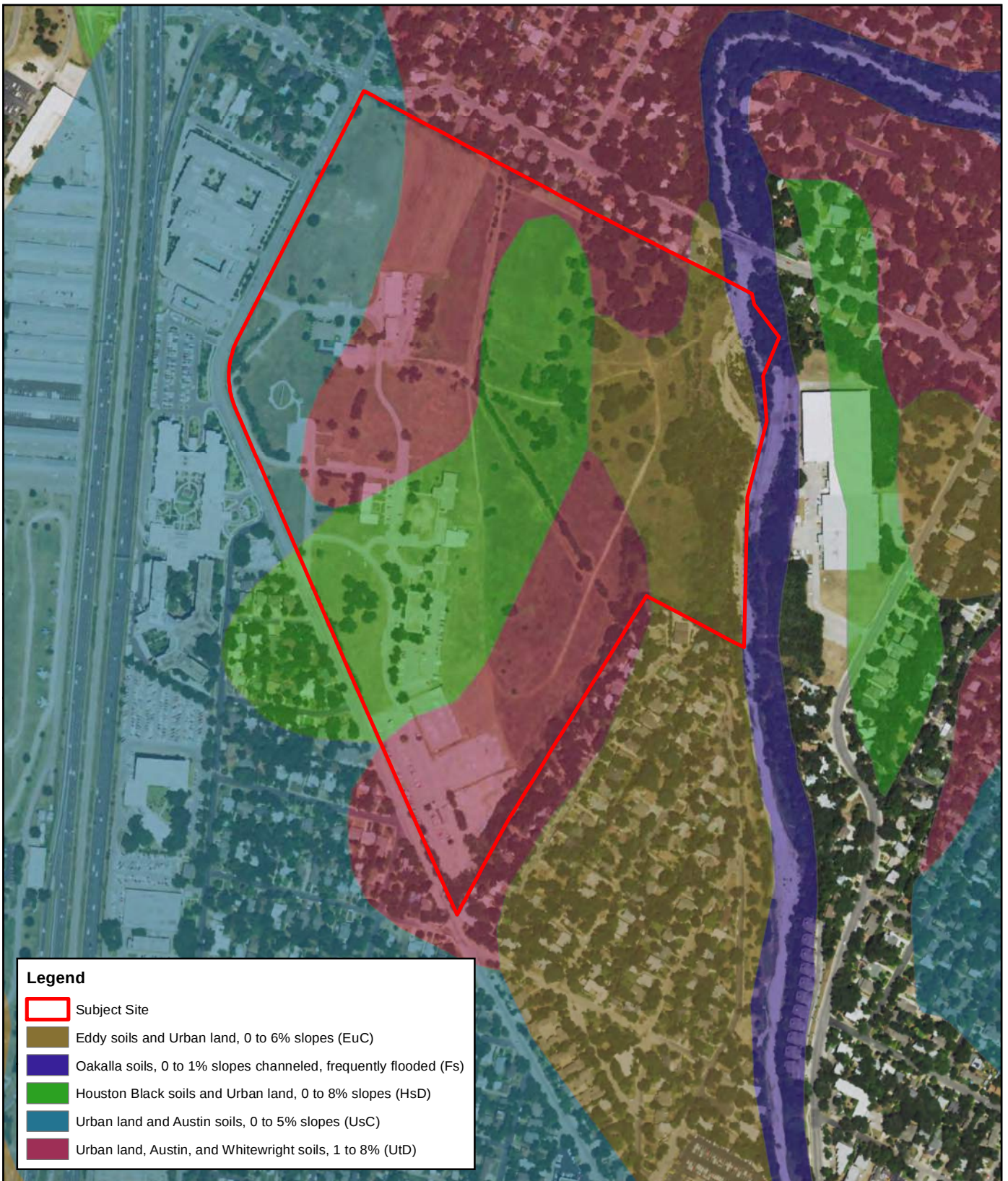
0 250 500
Feet



Horizon
Environmental Services, Inc.

FIGURE 2

HISTORICAL AERIAL PHOTO
APPROXIMATELY 76-ACRE
THE GROVE AT SHOAL CREEK
AUSTIN, TRAVIS COUNTY, TEXAS



MAP SOURCE: USDA, 2014; NRCS, 2015.

0 250 500
Feet



FIGURE 3

SITE SOIL MAP
APPROXIMATELY 76-ACRE
THE GROVE AT SHOAL CREEK
AUSTIN, TRAVIS COUNTY, TEXAS



Legend

- Subject Site
- Wetland CEF
- Well
- 2-Foot Contours

MAP SOURCE: USDA, 2014.

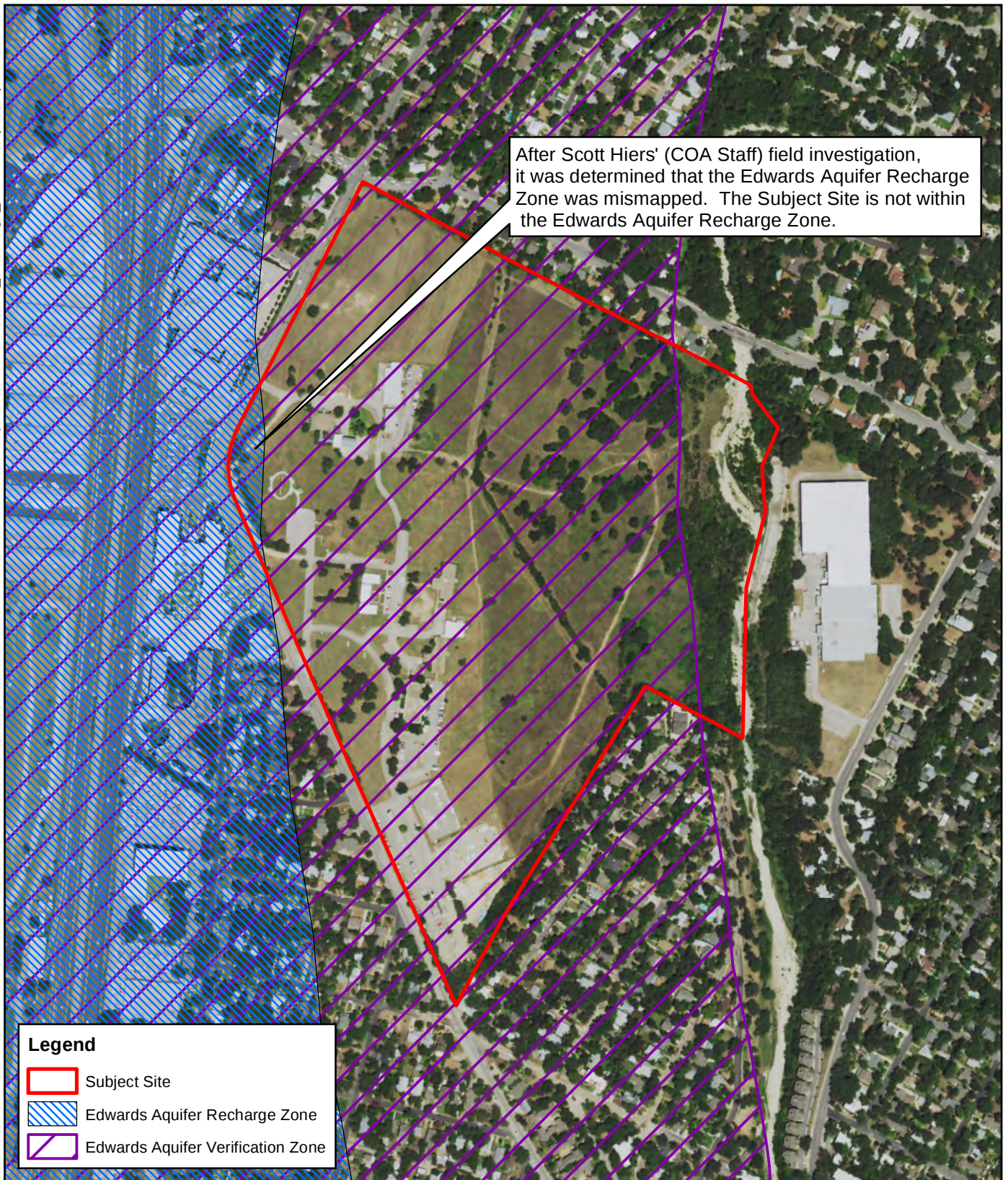
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Horizon
Environmental Services, Inc.

FIGURE 4

CRITICAL ENVIRONMENTAL FEATURES
AND WELL LOCATIONS MAP
APPROXIMATELY 76-ACRE
THE GROVE AT SHOAL CREEK
AUSTIN, TRAVIS COUNTY, TEXAS



MAP SOURCE: COA, 2015; USDA, 2014.

0 250 500
Feet



Horizon
Environmental Services, Inc.

FIGURE 5

EDWARDS AQUIFER RECHARGE ZONE
WITH VERIFICATION ZONE MAP
APPROXIMATELY 76-ACRE
THE GROVE AT SHOAL CREEK
AUSTIN, TRAVIS COUNTY, TEXAS



MAP SOURCE: COA, 2015; USDA, 2014.

0 250 500
Feet



FIGURE 6

CRITICAL WATER QUALITY ZONE MAP
APPROXIMATELY 76-ACRE
THE GROVE AT SHOAL CREEK
AUSTIN, TRAVIS COUNTY, TEXAS



MAP SOURCE: COA, 2015; USDA, 2014.

0 250 500
Feet



FIGURE 7

CITY OF AUSTIN FULLY DEVELOPED
FLOODPLAIN FOR ALL WATER COURSES
WITH UP TO 64-ACRES OF DRAINAGE MAP
APPROXIMATELY 76-ACRE
THE GROVE AT SHOAL CREEK
AUSTIN, TRAVIS COUNTY, TEXAS

**ERI WORKSHEET SECTION 10:
HYDROGEOLOGIC REPORT ADDITIONAL DATA**

SECTION 10 ADDITIONAL DATA

Brief description of site geology, continued from ERI worksheet, Section 10:

Del Rio Clay ("Grayson Marl"), Kdr, Georgetown Formation, Kgt, and in structurally complicated areas, Del Rio clay ("Grayson Marl") and Georgetown Formation undivided, Kdg.

Del Rio Clay ("Grayson Marl"), Kdr, calcareous and gypsiferous, becoming less calcareous and more gypsiferous upward, pyrite common, blocky, medium gray, weathers light gray to yellowish gray; some thin lenticular beds of highly calcareous siltstone: marine megafossils include abundant *Exogyra arietina* and other pelecypods; thickness 40-70 feet.

ZONING CHANGE REVIEW SHEET

CASE: C814-2015-0074 -- The Grove at Shoal Creek Planned Unit Development

E.V. COMMISSION DATE: June 1, 2016

ADDRESS: 4205 Bull Creek Road

DISTRICT AREA: 10

OWNER: ARG Bull Creek, Ltd. (Garrett Martin)

AGENT: Thrower Design (A. Ron Thrower)

ZONING FROM: Unzoned (UNZ) **TO:** PUD **AREA:** 75.74 acres

SUMMARY STAFF RECOMMENDATION:

The staff recommendation is to approve The Grove at Shoal Creek Planned Unit Development (PUD) subject to the following conditions:

1. The Planning and Zoning staff recommends PUD zoning as requested subject that the following additional conditions be incorporated in the proposed Land Use Plan (Exhibit C):
 - a) The total square footage of all development within the PUD shall not exceed 2.4 million square feet.
 - b) The total square footage of all office development within the PUD shall not exceed 210,000 square feet.
 - c) The total square footage of all retail/commercial development shall not exceed 150,000 square feet.
 - d) The total number of congregate care beds shall not exceed 300.
 - e) At least 30,000 square feet of retail development shall be required once 700 units of residential development are constructed before any additional residential development can occur on the property.
 - f) At least 35% of the total required affordable rental units shall be provided once 325 multifamily residential units are constructed before any additional multifamily residential units may be constructed. At least 35% of the total required affordable for-sale residential units shall be provided once 100 condominium residential units are constructed in a "podium style" condominium residential building before any additional condominium residential units may be constructed.
 - g) 130,000 square feet of development may be used for Tier 2 affordable housing that is separate from and does not count against the overall development cap of 2.4 million square feet.
 - h) The staff recommends a baseline of 1.892 million square feet.
2. The conditions of the PUD shall be established in the proposed Land Use Plan (Exhibit C), that includes a breakdown of: a) tract layout and size/acreages, b) permitted land use tables, c) site development regulations table, d) additional setbacks on specific tracts, e) approximate driveway and trail locations, , f) notes on limitations of uses, conditions on site development regulations, definitions, provision for public art installation, conditions for a proposed pedestrian and bicycle bridge, and benefits to encourage alternative transportation options.

3. The PUD shall be subject to the conditions regarding the riparian grow zone, CEF buffer area, wet pond surface area, detention infiltration feature, wetland fringe and upland infiltration feature as agreed to on the Environmental Resource Exhibit (Exhibit F). The proposed PUD shall comply with the Environmental staff recommendations that include:
 - a. The PUD will provide at least 18.12 acres of open space.
 - b. The PUD will exceed minimum Code requirements for landscaping through The Grove at Shoal Creek Design Guidelines by requiring a minimum of three-inch caliper street trees on all internal roadways, requiring street trees along Bull Creek and requiring that a minimum of 95% of all non-turf plan materials be from or consistent with the City's Grow Green Guide.
 - c. Provide that a minimum of ten acres of impervious cover on the site will drain to and be substantially treated by green water quality controls that infiltrate or reuse water, such as rain gardens and rainwater harvesting.
 - d. Use of a wet pond and/or green water quality controls for a minimum of 50% of the required water quality volume on-site.
 - e. Preserve a minimum of 75% of all protected size native caliper inches and prepare a tree care plan for all preserved heritage and protected trees on site.
 - f. Provide additional protections for the grove of trees surrounding the proposed wet pond.
 - g. Cluster development/impervious cover along Bull Creek Road and in the interior of the property away from Shoal Creek and the larger oak groves on the property to avoid environmentally sensitive areas.
 - h. Direct storm water runoff from impervious surfaces to a landscaped area at least equal to the total required landscape area.
 - i. Provide on-site detention for the 9.39 acres of existing impervious cover on site that is not currently detained.
 - j. The City of Austin Watershed Protection Department will choose the most effective flood mitigation option for the site at the time of subdivision or site plan review.
 - k. Provide educational signage at the wetland Critical Environmental Feature.
 - l. Implement an Integrated Pest Management Plan for the whole property.
4. The development of the PUD shall comply with the conditions stipulated in the Parks Plan Exhibit (Exhibit G). The applicant shall provide for parkland for park and recreational purposes under the terms of The Grove at Shoal Creek Parks Plan and Parkland Improvement Agreement as attached exhibits to the PUD ordinance.
5. The development of the PUD site will be subject to the attached TIA memorandum from the Development Review Development (DRD) Department and Austin Transportation Department (ATD) dated March 25, 2016 – Exhibit M. The TIA memo limits the site development to uses and intensities that will not exceed or vary from the projected traffic conditions assumed in the final TIA [R-K Traffic Engineering, LLC – February 2, 2016]. The proposed conceptual right-of-way layout, major vehicle circulation and pedestrian and bicycle connections are shown on the Roadway Framework Plan (Exhibit H).
6. Development within the PUD shall comply with the Tree Survey & Disposition Plan (Exhibit J). A representation of the applicant's proposal for tree mitigation on the site is shown on Tree Mitigation Example conceptual plan and table (Exhibit L).

7. The PUD zoning will be subject to draft language agreed upon with the Neighborhood Housing and Community Development Department (NHCD) concerning compliance with the affordable housing on the property. The project has been certified under SMART Housing and the PUD language will require 5% of permanent ownership units and 10% of the rental for 40 years. They will receive a 100% fee waiver. Ten percent of the total number of multifamily rental housing units located within the Grove at Bull Creek PUD will be set aside for occupancy by households with incomes at 60 percent of or below the median family income. At least 5 percent of the total number of units sold as owner-occupied residential housing units located within the Grove at Bull Creek PUD will, through a mechanism agreed upon by the City and Landowner, be made permanently available at a price affordable to households with incomes at 80 percent of or below the median family income. NHCD and the developer have signed off on the attached language stated in the, The Grove at Bull Creek PUD Affordable Housing Program – Exhibit N.

ENVIRONMENTAL COMMISSION MOTION:

November 4, 2015: Motion to postpone the case to December 16, 2015, with a briefing on the status of the review to be presented at the November 18, 2015 meeting (8-1, H. Smith-abstain); M. Perales-1st, M. Neely-2nd.

December 16, 2015: Refer case to Development Committee when the staff review and recommendation is complete.

May 18, 2016: Refer case to Development Committee when the staff review and recommendation is complete.

June 1, 2016:

PARKS AND RECREATION BOARD:

May 24, 2016: Voted to affirm staff's findings that The Grove at Shoal Creek PUD application as submitted on March 28, 2016 is not superior in relation to parks/adequate public facilities (Vote: 6-1-1).

ZONING AND PLATTING COMMISSION MOTION:

December 1, 2015: Postponed indefinitely at the staff's request by consent (10-0); B. Evans-1st, S. Harris-2nd.

May 17, 2016: Postponed indefinitely at the staff's request by consent (7-3, A. Aguirre-absent, B. Evans, S. Lavani, S. Harris-No); G. Rojas-1st, J. Kiolbassa-2nd.

June 7, 2016:

EXHIBITS AND ATTACHMENTS TO THE STAFF REPORT:

Exhibit A: Zoning Map
Exhibit B: Aerial Map
Exhibit C: The Grove at Shoal Creek Land Use Plan
Exhibit D: Tier 1 and Tier 2 Compliance Summary
Exhibit E: Proposed Code Modifications
Exhibit F: Environmental Resource Exhibit
Exhibit G: Parks Plan Exhibit
Exhibit H: Roadway Framework Plan
Exhibit I: Conceptual Site Plan
Exhibit J: Tree Survey and Disposition Plan
Exhibit K: Educational Impact Statement (EIS)
Exhibit L: Tree Mitigation Example
Exhibit M: TIA memorandum dated March 25, 2016
Exhibit N: Affordable Housing Program Language
Exhibit O: Staff Baseline Map
Exhibit P: Additional Review Information Provided by the Applicant
Exhibit Q: Written Comments from the Public

DEPARTMENT COMMENTS:

The proposed The Grove at Shoal Creek Planned Unit Development (PUD) is generally located on Bull Creek Road at 45th Street. The property in question was previously owned by the State of Texas and therefore is listed as "UNZ" or unzoned on the zoning case map (please see Exhibits A and B: Zoning Map and Aerial Map). There are undeveloped areas along the north and east portions of the property. The south and west portions of the site are developed with state owned office buildings with parking facilities. Surrounding properties are primarily a mix of residential and office uses. The site under consideration is adjacent to single family residences to the north (SF-2 zoning) and south (SF-3 zoning). There are apartments and a senior living center to the west (MF-6-CO, MF-4 and GO-MU-CO zoning). The property directly to the east is unzoned and is developed with an industrial warehouse facility for the State of Texas archives. Further to the east are single family residences (SF-2 zoning). The site is located in the Rosedale Neighborhood Planning area, which does not have an adopted neighborhood plan.

The property is located in the Shoal Creek watershed which is classified as urban. Therefore, the allowable impervious cover is governed by the allowable zoning impervious cover not watershed impervious cover. This tract of land is not located within the Edwards Aquifer recharge or contributing zones.

The applicant is requesting PUD district zoning for a 75.74 acre mixed use project. According to the Yield sheet from Transportation Impact Analysis (TIA) dated February 2016, the proposed PUD may include up to 110 single family residential units, 600 apartment units, 425 residential condo units, a 600 unit congregate care facility, a 7,500 sq. ft. health/fitness club, 200,00 sq. ft. of office uses, 25,000 sq. ft. of medical office uses, 55,000 sq. ft. of specialty retail uses, a 35,000 sq. ft. supermarket/food sales uses, 8,500 sq. ft. of pharmacy/drug store/general retail sales (convenience) uses, a 3,000 sq. ft. walk-in bank/financial services use, 8,000 sq. ft. of drinking place/cocktail lounge uses, 15,000 sq. ft. quality restaurant/restaurant (general) uses, 9,000 sq. ft. high turnover

restaurant/restaurant (limited) uses, and a 2,000 sq. ft. coffee-donut shop without drive through use/restaurant (limited) use.

As shown in Exhibit C (Land Use Plan), the area has been divided into seven tracts:

- Tract A, a 7.02 acre area along the northern portion of the proposed PUD adjacent to the existing single family residences fronting W. 45th Street, and Tract E, a 6.17 acre area along the southeastern portion of the proposed PUD adjacent to the single-family residences fronting Idlewild Road, are primarily low density residential areas that permit single family residential uses through condominium/townhouse residential uses, as well as a Religious Assembly civic use.
- Tract B is a 33.77 acre area directly to the south of Tract A that fronts onto Bull Creek Road. It is the largest area within the PUD. Tract B traverses the width of the PUD property from the east along Shoal Creek to the west fronting Bull Creek Road across from 45th Street to Jackson Avenue. This tract is a mixed use area that will permit a wide range of uses from single family residential, multi-family residential to office, civic and more intensive commercial uses, such as Automotive Rentals/Sales/Washing, Cocktail Lounge, Exterminating Services, Outdoor Sports and Recreation and Research uses.
- Tract C, a 10.82 acre area, is located along the eastern edge of the PUD on Shoal Creek to the traveling to the southwest. It is bordered by Tract B to the north, Tract E to the southeast, Tract D to the immediate south and Tract G to the west. This tract of land will permit single family residential uses, multifamily residential uses, schools, religious assembly and other civic uses.
- Tract D is a 10.23 acre area that is located along the southern portion of the PUD. The tract fronts Bull Creek Road, across from the single-family residences/SF-3 zoning from W. 42nd Street to the south at about W. 40th Street. The applicant proposes to permit a mix of residential and civic uses with a live work units that will allow for office uses, art gallery and art workshop uses, counseling services, cultural services, day care services, financial services personal services, pet services, schools etc.
- Tracts F is a 3.42 acre area that fronts along Bull Creek Road, across from office/LO zoning and single family residences/SF-3 development from Jackson Street to W. 42 Street. Tract G is a 4.33 portion that is located within the central area of the PUD. Both Tracts F and G will permit the same uses: single family residential uses, multifamily residential uses, office uses, and lower intensity commercial uses such as art gallery/workshop, financial services, personal services and pet services as well as numerous civic uses. The notable difference between these two proposed tracts is allowable height. Tract F will have a maximum height of up to 40 feet, with a caveat that the height may be increased to a maximum of 60 feet for an affordable housing development with the Affordable Housing program. Tract G permits a maximum height of 60 feet outright.
- Currently, the proposed 18.12 acres of parkland and open space areas are interspersed throughout the project area over all of the Tracts within the PUD as a Signature Park, Shoal Creek Trail area, Greenbelt area and Neighborhood Park (Please see Exhibit G: Parks Plan Exhibit).

Per the Land Development Code, PUD district zoning was established to implement goals of preserving the natural environment, encouraging high quality development and innovative design, and ensuring adequate public facilities and services. The City Council intends PUD district zoning to produce development that achieves these goals to a greater degree than and thus is superior to development which could occur under conventional zoning and subdivision regulations.

City Council approved revisions to the PUD regulations that became effective June 29, 2008. To help evaluate the superiority of a proposed PUD, requirements are divided into two categories: Tier 1, which is requirements that all PUDs must meet, and Tier 2 which provides criteria in 13 topical areas in which a PUD may exceed code requirements and therefore demonstrate superiority. A PUD need not address all criteria listed under Tier 2, and there is no minimum number of categories or individual items required.

As more fully detailed on the Land Use Plan and in the Tier 1 and Tier 2 Compliance Summary (please refer to Exhibits C and D), this proposed PUD meets the applicable Tier 1 items and offers some elements of superiority in thirteen Tier 2 categories (*Open Space; Environment/Drainage; Art; Community Amenities, Transportation, Affordable Housing and Accessibility*).

Proposed Code Modifications

There are 27 modifications to Code and Criteria Manual requirements requested by the Applicant (please refer to Exhibit E – Proposed Code Modifications for details). These proposed modifications are summarized below:

- Chapter 25-1 (GENERAL REQUIREMENTS AND PROCEDURES), Article 2 (Definitions; Measurements), Section 25-1-21(103) (*Site*) – Revises the definition of Site to allow a site to cross a public street or right-of-way if that public street or right-of-way is within the boundaries of The Grove at Shoal Creek PUD.
- Chapter 25-1 (GENERAL REQUIREMENTS AND PROCEDURES), Article 14 (Parkland Dedication), Section 25-1-602 (*Dedication of Parkland Required*) and Section 25-4-211 (*Parkland Dedication*) – Specifies the parkland dedication and open space requirements. Modifies Section 25-1-602(A) (*Dedication of Parkland Required*) to state that the subdivider or site plan applicant shall provide for parkland for park and recreational purposes under the terms of The Grove at Shoal Creek Parks Plan and Parkland Improvement Agreement as attached exhibits to the PUD ordinance.
- Chapter 25-1 (GENERAL REQUIREMENTS AND PROCEDURES), Article 2 (Definitions; Measurements), Section 25-1-21(44) (*Gross Floor Area*) – Revises the definition of Gross Floor Area to apply this term to include the addition of parking structures.
- Chapter 25-2 (ZONING), Article 2 (Principal Use and Development Regulations), Section 25-2-492 (*Site Development Regulations*) – To propose that the site development regulations applicable to the Property be as shown on the Land Use Plan.
- Chapter 25-2 (ZONING), Article 2 (Principal Use and Development Regulations), Section 25-2-492 (*Site Development Regulations*) and Chapter 25-1 (GENERAL REQUIREMENTS AND PROCEDURES), Article 2 (Definitions; Measurements), Section 25-1-21 (47) (*Height*) – To request a modification to state that a parking level shall not be and is not considered a “story”.

- Chapter 25-2 (ZONING), Article 9 (Landscaping), Section 25-2-1006 (*Visual Screening*) – To state that Section 25-2-1006 (A) shall not apply to any water quality and/or storm water drainage facility that serves as an amenity or to any Green Storm Water Quality Infrastructure as defined in the Environmental Criteria Manual and that Section 25-2-1006 (C) shall not apply between uses or sites that are both located within the PUD boundaries. (Section 25-2-1006 (C) shall still apply at the boundaries of the PUD.)
- Chapter 25-2 (ZONING), Subchapter B (Zoning Procedures), Article 2 (Special Requirements for Certain Districts), Division 5 (Planned Unit Developments), Section 3.2.3.D.1 (*Planned Unit Development Regulations: Nonresidential Uses*) – To state that these conditions of the Code that require a minimum front yard and street side yard setbacks be at least 25 feet for a front yard and 15 feet for a street side yard shall not apply to the PUD.
- Chapter 25-2 (ZONING), Article 10 (Compatibility Standards) – To state that Compatibility Standards do not apply within the PUD. However, Compatibility Standards will apply where development outside of the PUD triggers these standards for development within the PUD.
- Chapter 25-2 (ZONING), Article 10 (Compatibility Standards), Section 25-2-1063(*Height Limitations and Setbacks for Large Sites*)(C)(2) and (3) – To establish an area within Tract B where Section 25-2-1063(C)(2) shall not apply and where Section (C)(3) is modified to allow for a structure more than 50 feet but not more than 300 feet from the property zoned SF-5 or more restrictive to have a height up to 60 feet.
- Chapter 25-2 (ZONING), Article 10 (Compatibility Standards), Section 25-2-1067(G) (*Design Regulations*) and (H) – To state that this section of the Code does not apply to the Tract A for the construction of an alley, public road, trails and/or sidewalks.
- Chapter 25-2 (ZONING), Subchapter E (Design Standards and Mixed Use) – To request to that the requirements of Subchapter E not apply to the property within the PUD and to replace these conditions with the applicant's proposed The Grove at Shoal Creek Design Guidelines.
- Chapter 25-4 (SUBDIVISION), Section 25-4-132(B) (*Easements and Alleys*) – To modify this section so that loading and unloading may also occur in any alley that also services as a fire lane.
- Chapter 25-4 (SUBDIVISION), Section 24-4-153 (*Block Length*) – To request that this section not apply to the property within the PUD.
- Chapter 25-4 (SUBDIVISION), Section 24-4-157 (*Subdivision Access Streets*) – To request that this section that requires secondary street access not apply to the property within the PUD.
- Chapter 25-4 (SUBDIVISION), Section 24-4-171(A) (*Access to Lots*) – To modify this section so that to add that each lot in a subdivision may also abut a private street or private drive subject to a permanent access easement.

- Chapter 25-1 (GENERAL REQUIREMENTS AND PROCEDURES) and Chapter 25-4 (SUBDIVISION), Section 25-4-211 (*Parkland Dedication*) – To request that platting requirements for parkland dedication be modified so that it is governed by the conditions of the PUD ordinance/exhibits.
- Chapter 25-4 (SUBDIVISION), Section 25-4-151 (*Street Alignment and Connectivity*) – To state that notwithstanding the requirements of Section 25-4-151 that private drives and/or streets within the property may be aligned to connect to existing or future street on adjoining property.
- Chapter 25-4 (SUBDIVISION), Section 25-4-152 (A) (*Dead-End Streets*) – Adding to this requirement that a street may terminate in a connection with private drives and/or private streets within the property.
- Chapter 25-6 (TRANSPORTATION), Section 25-6-171(A) (*Standards for Design and Construction*) – To modify requirements so that a roadway, private drive street or alley must be designed and constructed in accordance with The Grove at Shoal Creek Design Guidelines. Stating that the Transportation Criteria Manual and City of Austin Standards and Standard Specifications shall apply to the extent they do not conflict the proposed PUD Design Guidelines.
- Chapter 25-8 (ENVIRONMENT), Section 25-8-641(B) (*Removal Prohibited*) – To change the requirements for the removal of heritage trees within the PUD.
- Chapter 25-10 (SIGN REGULATIONS), Section 25-10-1 (*Applicability*) – Adding a condition under this section to state, “(D) To the extent they are in conflict, the signage standards set forth in the project Design Guidelines for The Grove at Shoal Creek shall supersede this chapter.”
- Chapter 25-10 (SIGN REGULATIONS), Section 25-10-103 (*Signs Prohibited in the Public Right-of-Way*) – To state that this section shall not apply to the public Right-of-Way dedicated for the Jackson Avenue extension within the boundaries of the PUD as identified on the Roadway Framework Plan.
- Chapter 25-10 (SIGN REGULATIONS), Section 25-10-191 (*Sign Setback Requirements*) – To state that this section shall not apply for setbacks from the public Right-of-Way dedicated for the Jackson Avenue extension within the boundaries of PUD as identified on the Roadway Framework Plan.
- Drainage Criteria Manual, Section 1.2.4.E.1(a) (*Fencing Requirements for Drainage Facilities*) – To amend this DCM Section to remove the requirement for barrier-type fences.
- Environmental Criteria Manual, Section 1.6.3.A.4 (*Maintenance Responsibilities for Water Quality Control Facilities*) – Modify this section to state that water quality control facilities at The Grove at Shoal Creek PUD that treat publicly owned roads and facilities within and adjacent to the PUD may be privately maintained, instead of being designed and built according to the appropriate city standards.

- Transportation Criteria Manual, Section 1.3.2.B.2 (*Classification Design Criteria*) – To modify this provision to state that the extension of Jackson Avenue in the PUD as identified on the Roadway Framework Plan shall be considered a Neighborhood Collector and shall be designed per The Grove at Shoal Creek Design Guidelines. The cross section and any other design information contained in those design guidelines shall supersede any requirements of the Transportation Criteria Manual. All other circulation routes within the PUD shall be considered as private driveways and intersection with these driveways shall be subject to the 50' minimum spacing for Neighborhood Collectors.
- Transportation Criteria Manual, Section 1.3.2.F (*Classification Design Criteria*) – To state that the Jackson Avenue extension shall not be considered a Single Outlet Street upon the connection of any public access that is open to the public and connects Jackson Avenue to Bull Creek Road.

Proposed Benefits of the PUD:

The applicant is offering the following –

Affordable Housing

- Provide a substantial on-site affordable housing component. They will describe this proposal in The Grove at Shoal Creek Affordable Housing Program Plan. In this plan the applicant is currently proposing 180 affordable units on the site. The project has been certified under SMART Housing and the PUD language will require 5% of permanent ownership units and 10% of the rental units for 40 years. Through compliance with the Affordable Housing Requirements of LDC Section 25-1-704(B)(2)(a), development within the Grove at Shoal Creek PUD shall be eligible for a waiver of 100% of the development fees, including capital recovery fees, described in LDC Section 25-1-704 and Section 25-9-397 as allowed by and in accordance with the City's SMART Housing Program.

Accessibility

- Provide for accessibility for persons with disabilities to a degree exceeding applicable legal requirements.

Art

- Participate in the Art in Public Places Program. The applicant will develop a Public Art Plan that will consist of a minimum of three (3) significant art pieces. A minimum budget of \$60,000 shall be spent on public art within the PUD site. The applicant will consult with and consider the City's Art in Public Places (AIPP) program for implementing this program.

Community Amenities

- Provide a large on-site, publically accessible signature park space with park improvements and amenities open to the public.
- Provide public community and public amenities including spaces for community meetings, gatherings and other community needs.
- Provide publicly accessible multi-use trails and greenways within the property along Shoal Creek.
- Provide a pedestrian and bicycle bridge across Shoal Creek.

Environmental/Drainage

- Use of a wet pond and/or green water quality controls for a minimum of 50% of the required water quality volume on-site.
- Provide that a minimum of ten acres of impervious cover on the site will drain to and be substantially treated by green water quality controls that infiltrate or reuse water, such as rain gardens, biofiltration facilities, and rainwater capture systems.
- Proposing no modification to the existing 100-year floodplain.
- Preserve more than 75% of all protected size native caliper inches and prepare a tree care plan for all preserved heritage and protected trees on site.
- Cluster development/impervious cover along Bull Creek Road and in the interior of the property away from Shoal Creek and the larger oak groves on the property to avoid environmentally sensitive areas.
- Direct storm water runoff from impervious surfaces to a landscaped area at least equal to the total required landscape area.
- Provide on-site dentition for the 9.39 acres of existing impervious cover on site that is not currently detained.
- Provide educational signage at the wetland Critical Environmental Feature.
- Implement an Integrated Pest Management Plan for the whole property.
- The Grove at Shoal Creek Design Guidelines will require street trees on all internal streets and along Bull Creek Road in excess of the Code requirements in Subchapter E.
- The proposed Design Guidelines will also require that a minimum of 95% of all non-turf plant materials be from or consistent with the City's Grow Green Guide.

Great Streets

- Provide private street cross sections that will meet the intent and purposes of the Great Streets Program through the proposed The Grove at Shoal Creek Project Design Guidelines.

Green Building

- Comply with at least a 2-star Green Building requirement.

Parkland and Open Space

- Provide a minimum of 18.12 acres of open space, including parkland.
- The Parks and Recreation Department has stated that they find that The Grove at Shoal Creek PUD is not superior to traditional zoning as it pertains to parks. The plan for the Signature Park submitted by Milestone lacks adequate street frontage, acreage and opportunities for active recreation. The CEF buffer reduction and mitigation further hampers park development. The visibility from the public right-of-way could be better. The overall credited park acreage does meet minimum requirements of traditional zoning only if the 2 acres labeled as "Flex Park Space" continues to be part of the parks plan.

Transportation

- Roadway and intersection improvements through the use of turn lanes and signalization shall be funded 100% by the applicant.
- Provide bicycle facilities, including bike storage and trails.

Utility Facilities

- Provide water system improvements that will improve water pressure to the area.

EXISTING ZONING AND LAND USES:

	ZONING	LAND USES
<i>Site</i>	UNZ	Undeveloped, Office
<i>North</i>	SF-2	Single-Family Residences
<i>South</i>	SF-3	Single-Family Residences
<i>East</i>	UNZ, SF-3	Industrial Warehouse (State of Texas Archives), Single-Family Residences
<i>West</i>	SF-2, SF-3, MF-6-CO, MF-4, GO-MU-CO, LO, SF-3	Single-Family Residences, Multifamily Residences, Senior Living, Office, Single-Family Residences

TIA: Is required**WATERSHEDS:** Shoal Creek -- Urban**DESIRED DEVELOPMENT ZONE:** Yes**CAPITOL VIEW CORRIDOR:** No**SCENIC ROADWAY:** No**NEIGHBORHOOD ORGANIZATIONS:**

Allandale Neighborhood Association
 Austin Heritage Tree Foundation
 Austin Neighborhoods Council
 Bike Austin
 Central Austin Community Development
 5702 Wynona Neighbors
 45th St. Concerned Citizens
 Friends of Austin Neighborhoods
 Friends of the Emma Barrientos MACC
 Highland Park West Balcones Area Neighborhood Association
 Lower District 7 Green
 North Austin Neighborhood Alliance
 Oakmont Heights Neighborhood Association
 Preservation Austin
 Ridgelea Neighborhood Association
 Rosedale Neighborhood Association
 Save Barton Creek Association
 SELTEXAS
 Shoal Creek Conservancy
 Sierra Club, Austin Regional Group
 Sustainable Neighborhoods
 The Real Estate Council of Austin, Inc.
 Westminster Manor Residents Association

SCHOOLS: Austin Independent School District

Bryker Woods Elementary School O Henry Middle School Austin High School

Note: An Educational Impact Statement (EIS) is required. Please refer to Exhibit K.**CASE HISTORIES:**

NUMBER	REQUEST	COMMISSION	CITY COUNCIL
C14-06-0200 (Kingswood Place Apartments: 4318 Bull Creek Road)	MF-4 to MF-6	2/06/07: Approved staff rec. of MF-6-CO zoning (9-0), with CO to 1) limit the site to 2,000 vtpd, 2) prohibit vehicular access to 44 th Street except for emergency vehicle use, 3) limit height to 60 feet, 4) require a 25 foot building setback from Bull Creek Road, 5) limit the max FAR to 2.25 to 1.0 and 6) limit the max density to 80 dwelling units.	3/22/07: Approved MF-6-CO zoning (6-0); all 3 readings
C14-06-0100 (Bull Creek Apartments: 4320-4330 Bull Creek Road)	MF-4 to MF-6	8/01/06: Approved staff rec. of MF-6-CO zoning (6-3, B. Baker, J. Pinnelli, J. Martinez-No), with CO to 1) limit the site to 2,000 vtpd, 2) limit height to 60 feet, 3) limit density to 250 units (64.98 units per acre, 4) require a 25 foot building setback from Bull Creek Road, 5) require a 25 foot setback from 44 th Street, 6) state upon redevelopment that vehicular access is prohibited to 44 th Street except for emergency vehicle use and 7) limit the max FAR to 2.25 to 1.0.	8/31/06: Approved MF-6-CO zoning (6-0); all 3 readings
C14-02-0147: Westminister Manor Health Facilities Corp., 1902-1906 W. 42 nd Street	SF-3 to SF-6	9/10/02: Case expired.	N/A
C14-99-0080: Congregation Adudas Achim: 4200 Jackson)	LO, SF-3 to GO-MU-CO	6/15/99: Approved staff's rec. of GO-MU-CO zoning (5-0-1, BH-abstain), with additional conditions: 1) limit the site to 2,000 vtpd, 2) prohibit Bed and Breakfast, College or University Facilities, Administrative and Business Offices, Cultural Services, Art and Craft Studio	7/15/99: Approved PC rec. of GO-MU-CO zoning, with conditions (6-0); 1 st reading 9/09/99: Approved 2 nd /3 rd readings

		(Limited), Guidance Services, Business or Trade School, Hospital Services (Limited and General), Business Support Services, Local Utility Services, Medical Offices, Private Primary Educational Facilities, Off-Site Accessory Parking, Private Secondary Educational Facilities, Personal Services, Public Primary Educational Facilities, Professional Office, Public Secondary Educational Facilities, Software Development, Safety Services, Community Recreation (Private and Public), Multifamily Residential uses.	
C14-94-0054 (Westminster Manor: 4100 Jackson)	LO to GO	5/24/94: Approved GO zoning, with conditions (6-0)	7/14/94: Approved GO zoning, with ROW requirement (7-0); all 3 readings

RELATED CASES: N/A

CITY COUNCIL DATE:

ACTION:

ORDINANCE READINGS: 1st

2nd

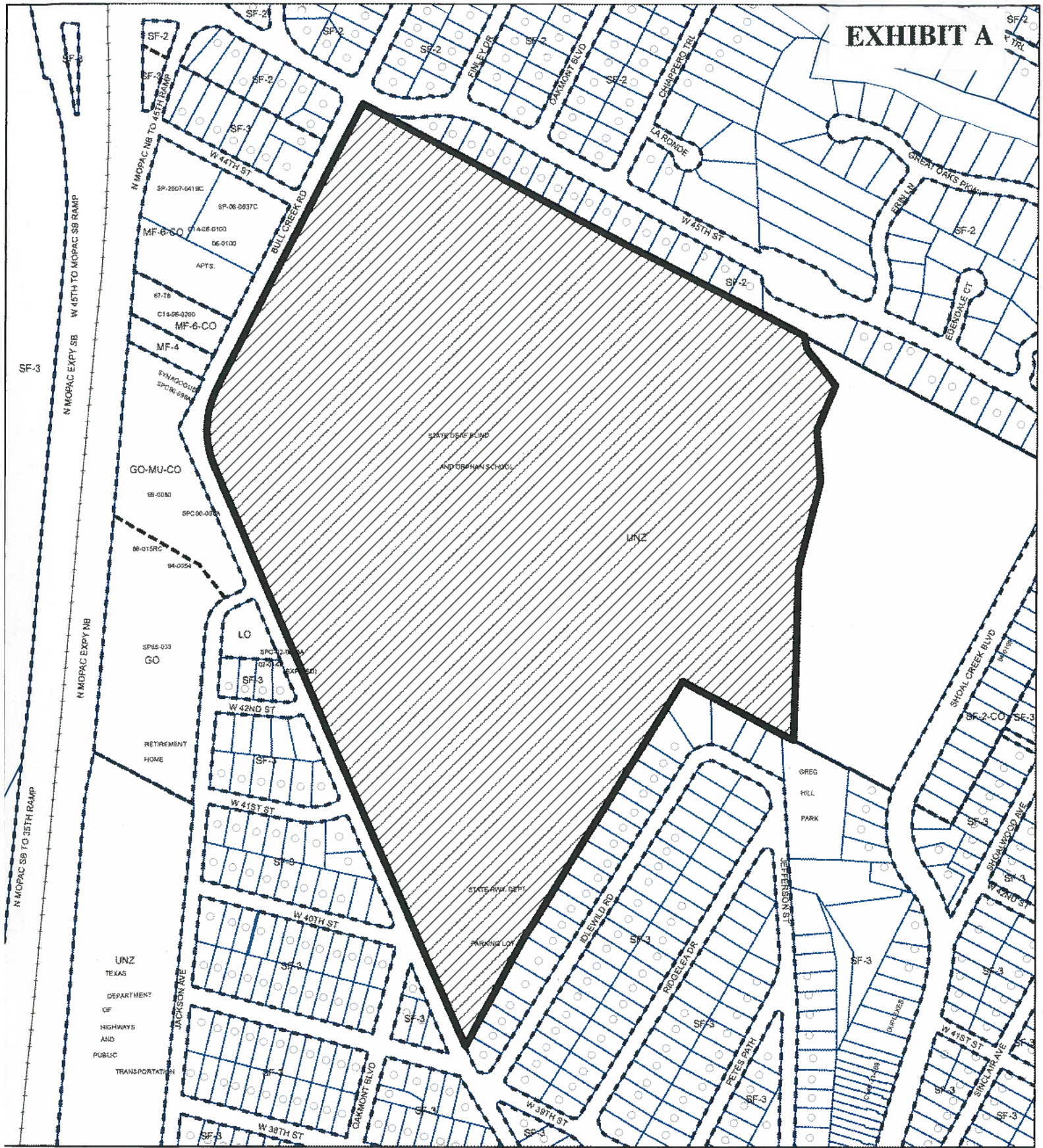
3rd

ORDINANCE NUMBER:

CASE MANAGER: Sherri Sirwaitis

PHONE: 512-974-3057
sherri.sirwaitis@austintexas.gov

EXHIBIT A



-  SUBJECT TRACT
-  PENDING CASE
-  ZONING BOUNDARY

PLANNED UNIT DEVELOPMENT
ZONING CASE#: C814-2015-0074



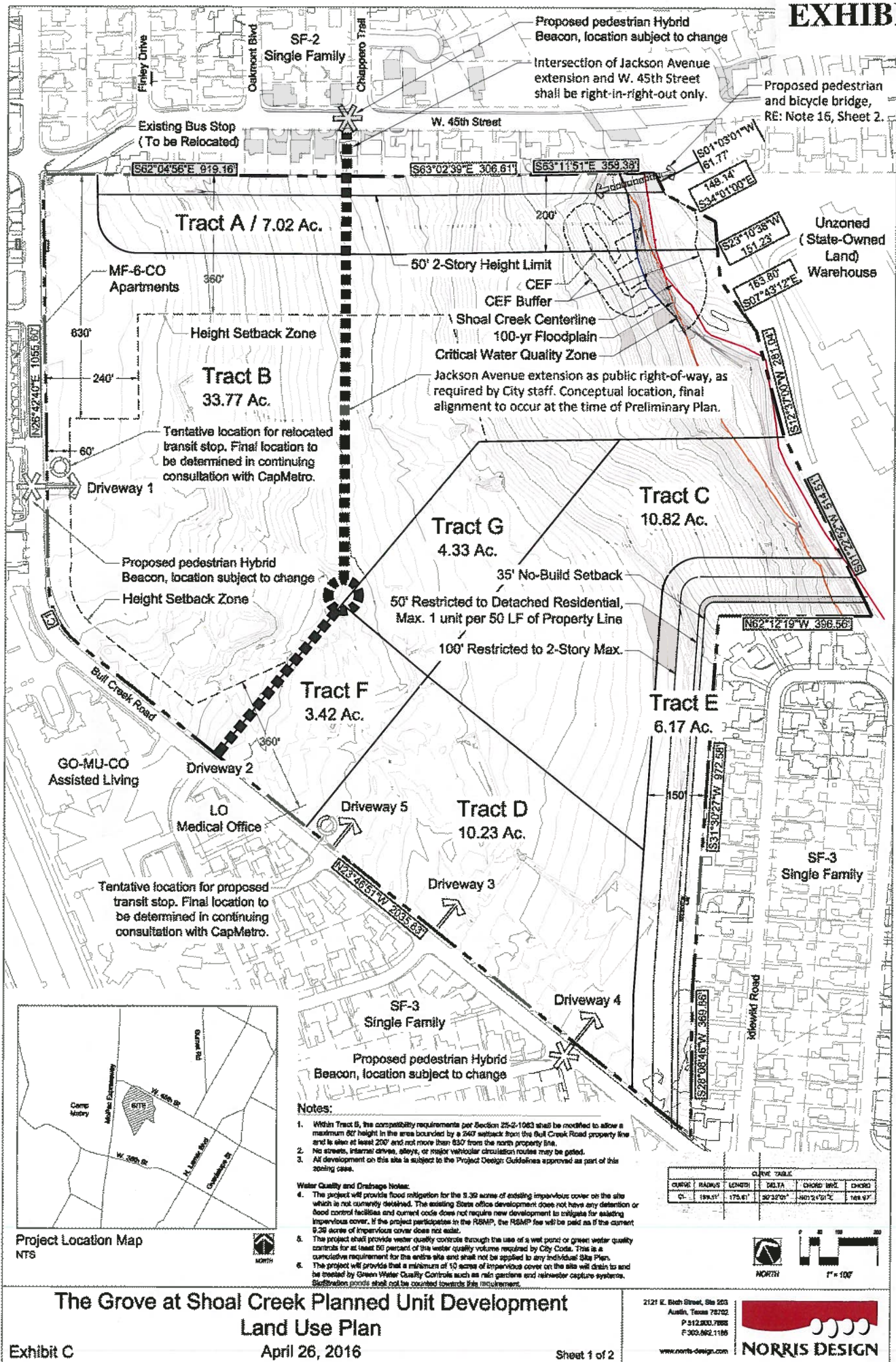
This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.

This product has been produced by CTM for the sole purpose of geographic reference. No warranty is made by the City of Austin regarding specific accuracy or completeness.

1" = 400'

EXHIBIT B





TRACTS A & E	
Condominium Residential	
Duplex Residential	
Family Home	
Group Home, Class I (Limited)	
Public Primary Education Facilities	
Public Secondary Education Facilities	
Religious Assembly	
Retirement Housing (Small Site)	
Short-Term Rental	
Single-Family Attached Residential	
Single-Family Residential	
Small Lot Single-Family Residential	
Townhouse Residential	
Two-Family Residential	

TRACT B	
Administrative & Business Offices	
Art Gallery	
Art Workshop	
Automotive Rentals	
Automotive Sales (max. 3000 SF)	
Automotive Washing (accessory only)	
Business or Trade School	
Business Support Services	
Cocktail Lounge	
College & University Facilities	
Commercial Off-Street Parking	
Community Garden	
Community Recreation (Private)	
Community Recreation (Public)	
Condominium Residential	
Congregate Living	
Consumer Convenience Services	
Consumer Repair Services	
Counseling Services	
Cultural Services	
Day Care Services (Commercial)	
Day Care Services (General)	
Day Care Services (Limited)	
Duplex Residential	
Family Home	
Financial Services	
Food Preparation	
Food Sales	
General Retail Sales (Convenience)	
General Retail Sales (General)	
Group Home, Class I (Limited)	
Hospital (General)	
Hospital Services (Limited)	
Hotel-Motel	
Indoor Entertainment	
Indoor Sports & Recreation	
Liquor Sales	
Medical Offices (all sizes)	
Mobile Food Establishments	
Multifamily Residential	
Off-Site Accessory Parking	
Outdoor Sports & Recreation	
Personal Improvement Services	
Personal Services	
Pet Services	
Printing & Publishing	
Private Primary Education Facilities	
Private Secondary Education Facilities	
Professional Office	
Public Primary Education Facilities	
Public Secondary Education Facilities	
Religious Assembly	
Research Services	
Restaurant (General)	
Restaurant (Limited)	
Retirement Housing (Small Site)	
Safety Services	
Short-Term Rental	
Single-Family Attached Residential	
Single-Family Residential	
Small Lot Single-Family Residential	
Software Development	
Theater	
Townhouse Residential	
Two-Family Residential	
Urban Farm	

TRACT C	
Community Garden	
Condominium Residential	
Congregate Living	
Duplex Residential	
Family Home	
Group Home, Class I (Limited)	
Multifamily Residential	
Off-Site Accessory Parking	
Public Primary Education Facilities	
Public Secondary Education Facilities	
Religious Assembly	
Retirement Housing (Small Site)	
Short-Term Rental	
Single-Family Attached Residential	
Single-Family Residential	
Small Lot Single-Family Residential	
Townhouse Residential	
Two-Family Residential	
Urban Farm	

TRACT D	
Community Garden	
Condominium Residential	
Congregate Living	
Duplex Residential	
Family Home	
Group Home, Class I (Limited)	
Multifamily Residential	
Off-Site Accessory Parking	
Public Primary Education Facilities	
Public Secondary Education Facilities	
Religious Assembly	
Retirement Housing (Small Site)	
Short-Term Rental	
Single-Family Attached Residential	
Single-Family Residential	
Small Lot Single-Family Residential	
Townhouse Residential	
Two-Family Residential	
Urban Farm	

TRACT F&G	
Administrative & Business Offices	
Art Gallery	
Art Workshop	
Community Garden	
Condominium Residential	
Congregate Living	
Counseling Services	
Cultural Services	
Day Care Services (Commercial)	
Day Care Services (General)	
Day Care Services (Limited)	
Duplex Residential	
Family Home	
Financial Services	
Group Home, Class I (Limited)	
Hospital (General)	
Medical Offices (all sizes)	
Multifamily Residential	
Off-Site Accessory Parking	
Personal Services	
Pet Services	
Private Primary Education Facilities	
Private Secondary Education Facilities	
Professional Office	
Public Primary Education Facilities	
Public Secondary Education Facilities	
Religious Assembly	
Retirement Housing (Small Site)	
Short-Term Rental	
Single-Family Attached Residential	
Single-Family Residential	
Small Lot Single-Family Residential	
Software Development	
Townhouse Residential	
Two-Family Residential	
Urban Farm	

OPEN SPACE	
Drainage, Detention & Water Quality Facilities	
Trails (hiking trails, multi-use trails, pedestrian/bicycle bridges) and Related Improvements	
Open Space (privately owned and maintained)	
Parkland (City owned, may be privately maintained)	

Notes:

- Impervious cover, number of dwelling units, and building coverage are not listed per individual Tracts in the Site Development Regulations table and shall be dealt with via a "bucket" system. Individual Tracts and/or Site Plans may vary above or below the listed limits, as long as the calculation for the overall 75.75 acre site does not exceed the limit. Applicants shall add a tabulation table (as adopted per this PUD ordinance) to each site plan and subdivision application submitted which will show the current standing of the overall Site Development Regulations. City Staff shall review the table provided with each application and verify that it is in accordance with the Site Development Regulations outlined in the PUD Land Use Plan.
- Total residential units on the site is capped at 1515 dwelling units (affordable housing units are included in this cap). Congregate living does not count towards this 1515 unit cap, and is limited to a maximum of 600 beds.
- Total multi-family residential units, that are not also condominium residential units, on the site are capped at 650 dwelling units. Congregate living and the first 250 affordable housing units do not count towards this 650 unit cap.
- Total office uses on site, including Administrative and Business Office, Medical Office, and Professional Office, are capped at 225,000 square feet.
- Total non-office commercial uses on the site are capped at 158,000 square feet and a maximum size of 47,500 square feet for any one tenant space.
- Overall project impervious cover is capped at 65% and overall project building coverage is capped at 55%.
- The FAR maximums listed in the Site Development Regulations table apply to individual Tracts within the PUD and the FAR shall not be exceeded on an individual Tract basis but may be exceeded on an individual site plan within a Tract. Tackling the allotted and remaining FAR within each Tract is the responsibility of the Applicant.
- Parks and open space are allowed uses in all Tracts.
- Cocktail lounge uses are capped at 15,000 SF total and a maximum size of 7500 SF for any one tenant space. Additionally, cocktail lounge uses are not permitted within 300' of an SF-5 or more restrictive zoning district or properties on which uses permitted in an SF-5 or more restrictive zoning district are located.
- Liquor sales uses are capped at 15,000 SF total and a maximum size of 10,000 SF for any one tenant space.
- Hospital (General) uses are allowed only in association with Congregate Living, on the same site as Congregate Living, and are limited to a total of 65,000 SF.
- Live-work units are defined as residential units which are similarly configured to residential row houses or townhomes but are distinguished by a workspace, studio, storefront, or business that is flush with the street frontage. The non-residential portion of the unit shall be located on the ground floor only and the residential and non-residential areas must be used and occupied by the same owner or occupant.
- Driveway and trail locations shown on the Land Use Plan are approximate and will be determined at the time of Site Plan.
- Public art shall be installed in a minimum of three (3) locations throughout the project. A minimum budget of \$60,000 shall be spent on public art within the PUD site.
- Off-site Parking per 25-6-501 may be provided for a use located in any Tract within the PUD so long as the off-site parking is located in a Tract where Off-site Accessory Parking is a permitted use.
- Proposed Pedestrian and Bicycle Bridge over Shoal Creek:
- The applicant will post fiscal with the City of Austin for the construction of a bicycle and pedestrian bridge crossing Shoal Creek enabling a trail connection from the site to Shoal Creek Blvd. The amount of the fiscal shall be based on the Applicant's approved engineering cost estimate. Subject to City approval of the proposed bridge location (the City considering environmental, connectivity and other factors) the Applicant will construct the bridge and trail. If the City of Austin or the applicant is unable to secure an easement to allow for the construction of said bridge, the posted fiscal may be utilized by the City to complete other bicycle and pedestrian improvements in the area. The Applicant further agrees to provide easements, if needed, for future bicycle and pedestrian bridge crossings at both the northern and southern portions of Shoal Creek, whether or not the bridge described above is constructed.
- Bridge location shown is approximate and subject to change. Bridge may be located elsewhere on site with City approval so long as it does not impact the wetland CEF or the portion of the wetland CEF buffer that is outside the 100-year flood plain.
- The project shall provide the following benefits to encourage alternative transportation options:
- a. A minimum of one location shall be set aside for a B-cycle station, as coordinated with B-cycle (station to be installed by B-cycle when network is expanded to encompass project).
- b. A minimum of 5 car-sharing parking spaces will be reserved on the site, subject to inclusion of the site in the coverage area of a car-sharing service.
- c. All office buildings that are 10,000 SF or greater will provide shower and changing facilities meeting the requirements of Austin Energy Green Build Commercial Ratings (2013).
- d. Bike parking will be provided for a minimum of 10% of all required vehicular parking spaces. Private garages serving a residential unit are considered to meet this requirement.
- e. A minimum of two bus stops will be provided on Bull Creek Road. Each stop shall feature improvements including, at a minimum: a bench, a trash receptacle, and some form of shade located nearby (shade structure, bus shelter, trees, etc.). Bus stops should be approximately 25 feet in length by 10 feet in width and incorporated into the sidewalk. A larger area of approximately 15 feet in width (perpendicular to the road by 50 feet in length (parallel to the road) surrounding the stop should maintain a level slope to ensure that all ADA slope requirements are met.
- f. All multi-family developments shall incorporate bicycle cage parking for residents.

SITE DEVELOPMENT REGULATIONS

	TRACT A	TRACT B	TRACT C	TRACT D	TRACT E	TRACT F	TRACT G
Minimum Lot Size in a.f.	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Minimum Lot Width	30'	30'	30'	30'	30'	30'	30'
Maximum Height	40'	55' ⁽¹⁾	40' ⁽²⁾	40' ⁽²⁾	35'	40' ⁽²⁾	60'
Minimum Setbacks from Public Streets ⁽⁴⁾							
Front Yard	10'	0'	10'	0'	10'	0'	0'
Street Side Yard	10'	0'	10'	0'	10'	0'	0'
Minimum Interior Yard Setbacks							
Interior Side Yard	0'	0'	0'	0'	0'	0'	0'
Rear Yard	0'	0'	0'	0'	0'	0'	0'
Maximum Floor Area Ratio ⁽⁵⁾	0.75:1	1.5:1	0.75:1	1:1	0.75:1	1:1	1:1
Impervious Cover Maximum ⁽⁶⁾	55%	NA ⁽³⁾	NA ⁽³⁾	NA ⁽³⁾	55%	NA ⁽³⁾	NA ⁽³⁾
Building Coverage Maximum ⁽⁶⁾	45%	NA ⁽³⁾	NA ⁽³⁾	NA ⁽³⁾	45%	NA ⁽³⁾	NA ⁽³⁾
Maximum Residential Units	87	NA ⁽³⁾	NA ⁽³⁾	NA ⁽³⁾	77	NA ⁽³⁾	NA ⁽³⁾

(1) Up to 5% of Tract B is permitted to be up to 75' in height. This additional height is permitted only within the Height Setback Zone, as shown on the LUP Plan. Height on Tract B may not exceed 5-stories.

(2) Within 100 feet of Tract G, height may be increased to a maximum of 60' for an Affordable Housing development with the project's Affordable Housing Program. A minimum of 25% of the residential units in a building must be affordable under the project's Affordable Housing Program in order for that building to qualify for this height exception. Building heights will be required to comply with City of Austin Compatibility Standards.

(3) Tracts B, C, D, F, and G do not have individual Impervious Cover, Building Coverage, or Unit Caps, but they are subject to the overall IC, Building Coverage, and Unit Cap as stated in notes 2 and 5, above.

(4) The minimum setback from Bull Creek Road is 15' for all tracts.

(5) Right-of-Way dedicated from a given tract shall still be included in the total site area to calculate Site Development Regulations including FAR, Impervious Cover, Building Coverage, and Dwelling Units.

The Grove at Shoal Creek Planned Unit Development Land Use Plan

Exhibit C

April 26, 2016

Sheet 2 of 2

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EXHIBIT D

ATTACHMENT 1

Tier 1 and Tier 2 Compliance Summary

Tier 1 Requirements – Section 2.3.1	Compliance/ Superiority
A. meet the objectives of the City Code;	YES. The Project is located in the urban core and within an Urban watershed. The Project is located near Mopac Expressway and is located along the proposed Shoal Creek Urban Trail and an existing CapMetro bus route. The Project will promote the Imagine Austin priority of creating a “compact and connected” City increasing population density within the urban core. The Project is compatible with surrounding uses and zoning which is consistent with the general neighborhood preferences. Except as set forth in the Proposed Code Modifications Summary, the Project will comply with the current City Code requirements.
B. provide for development standards that achieve equal or greater consistency with the goals in Section 1.1 (<i>General Intent</i>) than development under the regulations in the Land Development Code;	YES. The Project will meet the goals of Section 1.1 as follows: 1. <u>Preserve Natural Environment.</u> The Project will preserve all of the high quality heritage trees on the Property, and remove only a handful lower quality “heritage” pecan trees. The Project will provide for greater open space than required by the City Code. The Project will provide green water quality controls and will provide water quality controls and drainage improvements for the entire site. The current state office development does not have any detention or flood control facilities. 2. <u>High Quality Development and Innovative Design.</u> The Project will utilize mixed use and urban design principles that will allow clustering of uses in higher densities that promote urban living, working and shopping on the site and encourage use of alternative transportation options. The Project will integrate

	pedestrian and bicycle connectivity throughout the Property. The Project will be designed to make use of scenic views from public spaces. Parking structures will be used in connection with office and apartment uses. Higher development intensity will be focused along Bull Creek Road and the interior of the Property and lower development intensity will be located near existing single family residences.
C. provide a total amount of open space that equals or exceeds 10 percent of the residential tracts, 15 percent of the industrial tracts, and 20 percent of the nonresidential tracts within the PUD, except that: 1. a detention or filtration area is excluded from the calculation unless it is designed and maintained as an amenity; and 2. the required percentage of open space may be reduced for urban property with characteristics that	3. <u>Adequate Public Facilities and Services.</u> The Project will provide (i) a large on-site, publicly accessible signature park space with park improvements and amenities open to the public providing recreation and natural open space to the whole City; (ii) plazas and other open and community spaces with public amenities that will provide opportunities for people to gather and socialize;; (iii) hike and bike trails along Bull Creek Road and Shoal Creek and improvements to enhance transit use so that area residents will have greater transportation options; (iv) roadway intersection improvements through the use of turn lanes and signalization funded 100% by the Applicant, (v) shared access improvements to provide existing 45th Street homes with safe, alternative access, (vi) water system improvements that will improve water pressure (especially for fire flow purposes) to the area, (vii) a pedestrian and bicycle bridge across Shoal Creek. <u>YES.</u> Even though the Project is an "urban property", the Project will <i>exceed</i> these requirements by providing at least 18.12 acres of open space as shown on the Parks Plan Exhibit. This <i>minimum</i> amount of open space for the purpose of determining compliance with Tier 1 and Tier 2 requirements is also shown on the Parks Plan Exhibit and is approximately 11 and 12 acres respectively. The Applicant actually intends that the Project will provide more open space than the minimum 18.12 acres. This open space, which the Applicant may sometimes also refer to as "Park Space", will be publicly accessible and offer excellent

make open space infeasible if other community benefits are provided;	recreational and natural areas throughout the Project.
D. comply with the City's Planned Unit Development Green Building Program;	YES. The Project will comply with at least a 2-star Green Building requirement.
E. be consistent with applicable neighborhood plans, neighborhood conservation combining district regulations, historic area and landmark regulations, and compatible with adjacent property and land uses;	YES. There is no applicable neighborhood plan, NCCD or historic area or landmark regulations applicable to the site. However, as stated above, the largely residential Project will be compatible with area land uses and zoning districts and is consistent with the principles and priorities of Imagine Austin. In addition, the Applicant believes the Project is consistent with neighborhood preferences established in surveys conducted by the Applicant and with the Bull Creek Road Coalition's Design Principles.
F. provide for environmental preservation and protection relating to air quality, water quality, trees, buffer zones and greenbelt areas, critical environmental features, soils, waterways, topography, and the natural and traditional character of the land;	YES. The Project will preserve all of the higher quality heritage oak trees on the Property, and remove only a handful lower quality "heritage" pecan trees. The project will preserve a minimum of 75% of Protected Size native tree inches on site. The Project will provide for greater open space than required by the City Code. The Project will provide green water quality controls and will provide water quality controls and drainage improvements for the entire site. The current state office development does not have any detention or flood control facilities. The Project will not propose any flood plain modifications. The Project will incorporate the natural features, topography and character of the land in its overall design.
G. provide for public facilities and services that are adequate to support the proposed development including school, fire protection, emergency service, and police facilities;	YES. As stated above, the Project will provide (i) a large on-site, publicly accessible signature park space with park improvements and amenities open to the public providing recreation and natural open space to the whole City; (ii) plazas and other open and community spaces with public amenities that will provide opportunities for people to gather and socialize; (iii) hike and

	bike trails along Bull Creek Road and Shoal Creek and improvements to enhance transit use so that area residents will have greater transportation options; (iv) roadway intersection improvements through the use of turn lanes and signalization funded 100% by the Applicant, (v) shared access improvements to provide existing 45th Street homes with safe, alternative access, (vi) water system improvements that will improve water pressure (especially for fire flow purposes) to the area, and (vii) a pedestrian and bicycle bridge across Shoal Creek. In addition, there are currently existing adequate school, fire protection, emergency service, and police facilities located in the area. Bryker Woods School for example is populated by approximately 20% - 30% of transfer students and, therefore, has sufficient capacity to meet the needs of the Project.
H. exceed the minimum landscaping requirements of the City Code;	YES. The Project will exceed the minimum Code requirements for landscaping. The Project will implement an Integrated Pest Management Plan, which shall apply to all sites and uses within the PUD. The project Design Guidelines require minimum 3" caliper street trees on all internal streets. Under conventional zoning, Tracts A, C, D, and E would be residential zoning districts and would not require street trees under Subchapter E. This area of additional street trees represents 34.24 acres or approximately 45% of the total project area. Additionally, street trees will be required along Bull Creek Road where they would not be required by Subchapter E. The Design Guidelines will additionally require that a minimum of 95% of all non-turf plant materials be from or consistent with the City's Grow Green Guide.
I. provide for appropriate transportation and mass transit connections to areas adjacent to the PUD district and mitigation of adverse cumulative transportation impacts with sidewalks, trails, and roadways;	YES. There is currently a CapMetro bus route located on Bull Creek Road adjacent to the Property that provide transit to major employment centers like the Seton Medical Center, the University of Texas and downtown. The Applicant is in discussions with CapMetro about how to provide enhancements to this transit stop

	to facilitate increased ridership. In addition, the Project will provide greater pedestrian and bicycle trails and sidewalks along Bull Creek Road, within the Property and along Shoal Creek, including a pedestrian and bicycle bridge across Shoal Creek. A TIA has been performed and demonstrates that impacts on area intersections from the Project are properly mitigated with turn lane and signal improvements.
J. prohibit gated roadways;	YES. The Project will prohibit gated communities.
K. protect, enhance and preserve areas that include structures or sites that are of architectural, historical, archaeological, or cultural significance; and	NOT APPLICABLE. There are no such areas within the Property. However, the Applicant is willing to memorialize the prior use of the site for the education of disabled African Americans in public spaces located within the Project.
L. include at least 10 acres of land, unless the property is characterized by special circumstances, including unique topographic constraints.	YES. The Property is approximately 75.74 acres.
Additional Requirements – Section 2.3.2	
A. comply with <u>Chapter 25-2, Subchapter E (Design Standards And Mixed Use)</u> ;	Compliance/ Superiority MODIFICATIONS REQUESTED. As permitted by Section 2.2 of PUD Code Provisions, the Applicant will be proposing modifications to the Subchapter E standards that will replace and supersede Subchapter E. The Project Design Guidelines meet the intent and purposes of Subchapter E, while making compliance simpler and easier to implement.
B. inside the urban roadway boundary depicted in Figure 2, Subchapter E, <u>Chapter 25-2 (Design Standards and Mixed Use)</u> , comply with the sidewalk standards in <u>Section 2.2.2., Subchapter E, Chapter 25-2 (Core Transit Corridors: Sidewalks And Building Placement)</u> ; and	MODIFICATIONS REQUESTED. As permitted by Section 2.2 of PUD Code Provisions, the Applicant has proposed modifications to the Subchapter E sidewalk and building placement standards that will replace and supersede Subchapter E. The Project Design Guidelines meet the intent and purposes of Subchapter E, while making compliance simpler and easier to implement.
C. contain pedestrian-oriented uses as defined in <u>Section 25-2-691(C) (Waterfront Overlay District Uses)</u> on the first floor of a multi-story commercial or mixed use building.	YES. The Project will contain pedestrian-oriented uses on the first floor of multi-story commercial or mixed use buildings located along roadways with pedestrian walkways. The size of

	the Project is such that some interior buildings that are not located on significant pedestrian walkways do not have such uses.
Tier 2 Requirements – Section 2.4	Compliance/ Superiority
A. <u>Open Space</u> – Provides open space at least 10% above the requirements of Section 2.3.1.A. (<i>Minimum Requirements</i>). Alternatively, within the urban roadway boundary established in Figure 2 of Subchapter E of Chapter 25-2 (<i>Design Standards and Mixed Use</i>), provide for proportional enhancements to existing or planned trails, parks, or other recreational common open space in consultation with the Director of the Parks and Recreation Department.	YES. The Project will provide at least 18.12 acres of open space as shown on the Park Plan Exhibit which is far above the requirement in Section 2.3.1.A. This <i>minimum</i> amount of open space for the purpose of determining compliance with Tier 1 and Tier 2 requirements is also shown on the Parks Plan Exhibit and is approximately 11 and 12 acres respectively. The Applicant actually intends that the Project will provide more open space than the minimum 18.12 acres. This open space will largely consist of dedicated parkland and will be publicly accessible and offer excellent recreational and natural areas throughout the Project.
B. <u>Environment/Drainage</u> –	NOT APPLICABLE.
1. Complies with current code instead of asserting entitlement to follow older code provisions by application of law or agreement. 2. Provides water quality controls superior to those otherwise required by code.	YES. The project will meet current code requirements for water quality volume. The Project will provide water quality controls through the use of a wet pond and/or Green Water Quality Controls for a minimum of 50% of the required water quality volume on-site, which provide superior Total Suspended Solid and nutrient removal to more conventional controls and also offer wetland and habitat benefits that are particularly appropriate to the Project. Makeup water for the wet pond will be provided by air conditioner condensate from commercial buildings on site. Site plans for commercial buildings will be required to include plumbing connections to the makeup water system unless it has been demonstrated that prior connections (from other buildings on site) will provide sufficient makeup water for the pond. Potable or well water may be used for makeup water only during buildout of

	the project.
3. Uses green water quality controls as described in the Environmental Criteria Manual to treat at least 50 percent of the water quality volume required by code.	YES AS MODIFIED. The project will provide that a minimum of 10 acres of impervious cover on the site will drain to and be treated by Green Water Quality Controls such as rain gardens, and rainwater capture systems. Biofiltration ponds shall not be counted toward this requirement. NOT APPLICABLE.
4. Provides water quality treatment for currently untreated, developed off-site areas of at least 10 acres in size.	NOT APPLICABLE. The site is not currently zoned. While a baseline may be established by City Council, Council has been directed by City Staff that the baseline is solely for determining development bonuses and not for other zoning factors. As such, it would not be appropriate to apply the established baseline to determine environmental superiority. NOT APPLICABLE.
5. Reduces impervious cover by five percent below the maximum otherwise allowed by code or includes off-site measures that lower overall impervious cover within the same watershed by five percent below that allowed by code.	NO.
6. Provides minimum 50-foot setback for at least 50 percent of all unclassified waterways with a drainage area of 32 acres.	NOT APPLICABLE.
7. Provides volumetric flood detention as described in the Drainage Criteria Manual.	NOT APPLICABLE.
8. Provides drainage upgrades to off-site drainage infrastructure that does not meet current criteria in the Drainage or Environmental Criteria Manuals, such as storm drains and culverts that provide a public benefit.	YES. The Project will not modify the existing 100-year flood plain. NOT APPLICABLE.
9. Proposes no modifications to the existing 100-year floodplain.	NO. Existing riparian vegetation along the top of the bank is already in good condition and will be protected by a Riparian Grow Zone. This Riparian Grow Zone will also serve as wetland
10. Uses natural channel design techniques as described in the Drainage Criteria Manual.	
11. Restores riparian vegetation in existing, degraded Critical Water Quality Zone areas.	

	mitigation.
12. Removes existing impervious cover from the Critical Water Quality Zone.	NOT APPLICABLE.
13. Preserves all heritage trees; preserves 75% of the caliper inches associated with native protected size trees; and preserves 75% of all of the native caliper inches.	YES AS MODIFIED. The Project will preserve more than 75% of all Protected Size native caliper inches. The Project will preserve all of the higher quality heritage oak trees on the Property, and remove only a handful of lower quality "heritage" pecan trees. The heritage pecan trees to be removed are of a variety that is not native to the area and structurally poor and of lower quality. The Applicant has met with the City Arborist to discuss removal of these small number of trees and the preservation of all of the high-quality heritage oak trees. Additionally, the project will provide additional protection for the ¾ critical root zone for all protected and heritage trees within the Signature Grove, which includes all trees around the proposed pond and the highest quality oak trees throughout the Signature Park.
14. Tree plantings use Central Texas seed stock native and with adequate soil volume.	NO. While the Project will utilize native and adapted trees from the Grow Green Guide, a commitment to 100% native seed stock is not feasible at this time.
15. Provides at least a 50 percent increase in the minimum roadway and/or critical environmental feature setbacks required by code.	NO. While the project does propose a Riparian Grow Zone along the Critical Water Quality Zone boundary that would effectively increase the roadway buffer for Shoal Creek, it also proposes a reduction in the Wetland CEF buffer.
16. Clusters impervious cover and disturbed areas in a manner that preserves the most environmentally sensitive areas of the site that are not otherwise protected.	YES. The Project will cluster development along Bull Creek Road and the interior of the Property and away from Shoal Creek and the large oak groves located on the Property where a large amount of open space will be provided instead.
17. Provides porous pavement for at least 20 percent or more of all paved areas for non-pedestrian in non-aquifer recharge areas.	NO.
18. Provides porous pavement for at least 50 percent or more of all paved areas limited to pedestrian	NO.

use.	
19. Provides rainwater harvesting for landscape irrigation to serve not less than 50% of the landscaped areas.	NO. Due to the size of the proposed parks in particular, this option is not feasible for this Project.
20. Directs stormwater runoff from impervious surfaces to a landscaped area at least equal to the total required landscape area.	YES. The Project will direct stormwater runoff from impervious surfaces to a landscaped area at least equal to the total required landscape area.
21. Employs other creative or innovative measures to provide environmental protection.	YES. The Project will provide flood mitigation for the 9.39 acres of existing impervious cover on site that is not currently detained. The current state office development does not have any detention or flood control facilities, and current code does not require new development to detain for existing impervious cover. If the Project participates in the RSMP, the RSMP fee will be paid as if the current 9.39 acres of impervious cover does not exist. The City of Austin Watershed Protection Department will choose the most effective flood mitigation option for the site, which may include onsite detention in compliance with the Environmental Criteria Manual or RSMP participation, at the time of commercial site plan or residential subdivision application. The City of Austin selected flood mitigation option will be required to demonstrate no downstream adverse impact up to the confluence of Shoal Creek with Lady Bird Lake. Additionally, the Project will provide educational signage for the Wetland CEF.
C. Austin Green Builder Program – Provides a rating under the Austin Green Builder Program of three stars or above.	NO. While certain buildings and development within the Project may meet or exceed a 3-star rating, requiring such compliance for all such buildings and development is not feasible.
D. Art – Provides art approved by the Art in Public Places Program in open spaces, either by providing the art directly or by making a contribution to the City's Art in Public Places Program or a successor program.	YES AS MODIFIED. The Project will provide art in public places through development of a public art plan developed by the Applicant that will consist of a minimum of three (3) significant art pieces. The Applicant will consult with and consider the

	City's Art in Public Places (AIPP) program in implementing this program.
E. <u>Great Streets</u> – Complies with City's Great Streets Program, or a successor program. Applicable only to commercial, retail, or mixed-use development that is not subject to the requirements of <u>Chapter 25-2, Subchapter E (Design Standards and Mixed Use)</u> .	YES AS MODIFIED. The Project will provide private street cross sections that will meet the intent and purposes of the Great Streets Program through its Project Design Guidelines.
F. <u>Community Amenities</u> – 1. Provides community or public amenities, which may include spaces for community meetings, community gardens or urban farms, day care facilities, non-profit organizations, or other uses that fulfill an identified community need. 2. Provides publicly accessible multi-use trail and greenway along creek or waterway.	YES. The Project will provide community and public amenities including spaces for community meetings, gatherings and other community needs, and publicly accessible multi-use trails and greenways along Shoal Creek. The project will also provide a pedestrian and bicycle bridge across Shoal Creek.
G. <u>Transportation</u> – Provides bicycle facilities that connect to existing or planned bicycle routes or provides other multi-modal transportation features not required by code.	YES. The Project will provide (i) bicycle trails and shared use paths throughout the project that will facilitate connection to existing and planned bike routes and trails, (ii) a pedestrian and bicycle bridge across Shoal Creek, (iii) a location for a B-cycle Station, (iv) at least 5 car-sharing parking spaces, (v) shower facilities in all office buildings over 10,000 SF, (vi) bike parking for a minimum of 10% of required vehicular spaces, (vii) bicycle cage parking in multifamily buildings, and (viii) improved bus stops developed in consultation with CapMetro and the neighborhood.
H. <u>Building Design</u> – Exceeds the minimum points required by the Building Design Options of Section 3.3.2. of <u>Chapter 25-2, Subchapter E (Design Standards and Mixed Use)</u> .	NO. While certain buildings and development within the Project may exceed such minimum points, requiring such compliance for all such buildings and development is not feasible. The intent and purpose of such building design will be met through the Project Design Guidelines.
I. <u>Parking Structure Frontage</u> – In a commercial or mixed-use development, at least 75 percent of the building frontage of all parking structures is designed for	NO. While certain buildings and development within the Project may meet such percentage, requiring such compliance for all such buildings and development is not feasible.

	pedestrian-oriented uses as defined in <u>Section 25-2-691(C) (Waterfront Overlay District Uses)</u> in ground floor spaces.	
J.	<u>Affordable Housing</u> – Provides for affordable housing or participation in programs to achieve affordable housing.	YES. The Applicant will provide a substantial on-site affordable housing component as more particularly set forth in the The Grove at Shoal Creek Affordable Housing Plan. NOT APPLICABLE. There are no such features within the Property. However, the Applicant is willing to memorialize the prior use of the site for the education of disabled African Americans in public spaces located within the Project. YES. The Project will provide for accessibility for person with disabilities to a degree exceeding applicable legal requirements.
K.	<u>Historic Preservation</u> – Preserves historic structures, landmarks, or other features to a degree exceeding applicable legal requirements.	
L.	<u>Accessibility</u> – Provides for accessibility for persons with disabilities to a degree exceeding applicable legal requirements.	
M.	<u>Local Small Business</u> – Provides space at affordable rates to one or more independent retail or restaurant small businesses whose principal place of business is within the Austin metropolitan statistical area.	NO. While the Applicant fully intends to actively seek local small businesses for the Project and may use incentives to induce such local businesses, given the on-site affordable housing commitment, increased parks and open space commitments, and increased traffic mitigation commitments, requiring a specific criteria for affordable retail rates is not feasible.

EXHIBIT E

ATTACHMENT 2

Proposed Code Modifications

CHAPTER 25-1 MODIFICATIONS	CURRENT CODE LANGUAGE	PROPOSED MODIFICATION FOR THE GROVE AT SHOAL CREEK PUD
1. <i>Definitions, Article 2, Chapter 25-1-21</i>	"SITE means a contiguous area intended for development, or the area on which a building has been proposed to be built or has been built. A site may not cross a public street or right-of-way."	"SITE means a contiguous area intended for development, or the area on which a building has been proposed to be built or has been built. A site may cross a public street or right-of-way if that public street or right-of-way is within the boundaries of The Grove at Shoal Creek PUD."
2. <i>Parkland Requirements, Article 14, Chapter 25-1 and 25-4-211</i>	25-1-602(A) "A subdivider or site plan applicant shall provide for the parkland needs of the residents by the dedication of suitable parkland for park and recreational purposes under this article."	"Section 25-1-602 (Dedication of Parkland Required) is modified to provide that subdivider or site plan applicant shall provide for the parkland needs of the residents by providing suitable parkland for park and recreational purposes under the terms of The Grove at Shoal Creek Parks Plan and Parkland Improvement Agreement attached as exhibits to Planned Unit Development Ordinance No. "
3. <i>Gross Floor Area, 25-2-21(44)</i>	25-1-21 "(44) GROSS FLOOR AREA means the total enclosed area of all floors in a building with a clear height of more than six feet, measured to the outside surface of the exterior walls. The term includes loading docks and excludes atria airspace, parking	"(44) GROSS FLOOR AREA means the total enclosed area of all floors in a building with a clear height of more than six feet, measured to the outside surface of the exterior walls. The term includes loading docks and excludes atria airspace, parking facilities, parking structures, driveways, and enclosed loading berths and

	facilities, driveways, and enclosed loading berths and off-street maneuvering areas.”	off-street maneuvering areas.”
CHAPTER 25-2 MODIFICATIONS		
CODE SECTIONS TO BE MODIFIED		
4. <i>Site Development Regulations, 25-2-492</i>	Not applicable.	PROPOSED MODIFICATION FOR THE GROVE AT SHOAL CREEK PUD The Applicant proposes that the site development regulations applicable to the Property be as shown on the Land Use Plan
5. <i>Site Development Regulations, 25-2-492 and Height, 25-1-21(47)</i>	City staff interprets a parking level to be a “story” for the purposes of determining compliance with site development regulations.	“In determining compliance with the applicable height limitations, a parking level shall not be and is not considered a ‘story’.”
6. <i>Visual Screening, 25-2-1006</i>	25-2-1006 Visual Screening of certain features	“Section 25-2-1006 (A) shall not apply to any water quality and/ or storm water drainage facility that serves as an amenity or to any Green Storm Water Quality Infrastructure as defined in the Environmental Criteria Manual, except that any green infrastructure hardened outfalls and control structures should still be buffered from public ROW. Section 25-2-1006 (C) shall not apply between uses or sites that are both located within the PUD boundaries. This section shall still apply at the boundaries of the PUD.”
7. <i>Planned Unit Development Regulations, Chapter 25-2, Subchapter</i>	“D. the minimum front yard and street side yard setbacks, which must be not	“Chapter 25-2, Subchapter B, Article 2, Division 5, Section 3.2.3.D.1 shall not

<i>B, Article 2, Division 5, Section 3.2.3.D.1</i>	less than the greater of: 1. 25 feet for a front yard, and 15 feet for a street side yard; or"	apply to the PUD. Notwithstanding the foregoing the remainder of that section shall apply to the PUD."
8. <i>Compatibility Standards, Chapter 25-2, Article 10</i> NOTE: This Code modification only applies where the triggering property is located within the PUD. This Code modification does not apply where the triggering property is located outside the PUD. This Code modification is identical to the one granted in the Mueller PUD	Chapter 25-2, Article 10, Compatibility Standards applied to triggering property within the PUD only	"Chapter 25-2, Article 10 (Compatibility Standards) does not apply only where development within the PUD triggers such compatibility standards. Notwithstanding the foregoing, Chapter 25-2, Article 10 (Compatibility Standards) shall apply, except as provided herein, where development outside of the PUD triggers such compatibility standards."
9. <i>Compatibility Standards, 25-2-1063(C)(2) and (3)</i>	25-2-1063(C) "(2) three stories and 40 feet, if the structure is more than 50 feet and not more than 100 feet from property: (a) in an SF-5 or more restrictive zoning district; or (b) on which a use permitted in an SF-5 or more restrictive zoning district is located; (3) for a structure more than 100 feet but not more than 300 feet from property zoned SF-5 or more restrictive, 40 feet plus one foot for each 10 feet of distance in excess of 100 feet from the property zoned SF-5 or more restrictive;"	"In the rectangular area of land in Tract B that is bounded by (i) the property line adjacent to Bull Creek Road on the west, (ii) a line 240 feet east from the property line adjacent to Bull Creek Road on the east, (iii) a line that is 200 feet south of the northern property line on the north, and (iv) a line that is 630 feet south of the northern property line on the south, Section 25-2-1063(C) (2) of the Austin City Code shall not apply, and Section 25-2-1063(C)(3) is modified to read to provide that for a structure more than 50 feet but not more than 300 feet from the property zoned SF-5 or more restrictive, height may be limited to 60'."
10. <i>Compatibility Standards, 25-2-1067(G) and (H)</i>	25-2-1067 "(G) Unless a parking area or	"Section 25-2-1067(G) and (H) of the Austin City Code shall not apply to Tract A

	driveway is on a site that is less than 125 feet wide, a parking area or driveway may not be constructed 25 feet or less from a lot that is: (1) in an SF-5 or more restrictive zoning district; or (2) on which a use permitted in an SF-5 or more restrictive zoning district is located."	only, with respect to the construction of an alley, public road, trails and/or sidewalks."
11. <i>Commercial Design Standards, Subchapter E, Chapter 25-2</i>	Chapter 25-2, Subchapter E, Design Standards and Mixed Use	"The Grove at Shoal Creek Design Guidelines generally address the physical relationship between commercial and other nonresidential development and adjacent properties, public streets, neighborhoods, and the natural environment, in order to implement the City Council's vision for a more attractive, efficient, and livable community. The requirements of Chapter 25-2, Subchapter E of the Austin City Code shall not apply to the property. All requirements in the Austin City Code that reference Chapter 25-2, Subchapter E shall be modified to refer to such Design Guidelines."
CHAPTER 25-4 MODIFICATIONS		
CODE SECTIONS TO BE MODIFIED	CURRENT CODE LANGUAGE	PROPOSED MODIFICATION FOR THE GROVE AT SHOAL CREEK PUD
12. <i>Alleys, 25-4-132(B)</i>	25-4-132 "(B) Off-street loading and unloading facilities shall be provided on all commercial and industrial lots, except in the area described in Subsection (C). The subdivider shall note this requirement on a preliminary plan and a plat."	"Off-street loading and unloading shall be provided on all commercial lots, except that loading and unloading may also occur in any alley that also serves as a fire lane. The subdivider shall note this requirement on a preliminary plan and a plat."

13. Block Length, 25-4-153	25-4-153 Block Length requirements	"Section 25-4-153 of the Austin City Code shall not apply to the property."
14. Secondary Street Access, 25-4-157	Section 25-4-157 – Subdivision Access Streets	"Section 25-4-157 of the Austin City Code shall not apply to the property."
15. Lots on Private Streets, 25-4-171(A)	"(A) Each lot in a subdivision shall abut a dedicated public street."	"(A) Each lot in a subdivision shall abut a public street, private street or private drive subject to a permanent access easement."
16. Parkland Requirements, Article 14, Chapter 25-1 and 25-4-211 <i>[NOTE: this is the same as No. 1 above]</i>	25-4-211 "The platting requirement for parkland dedication is governed by Chapter 25-1, Article 14 (Parkland Dedication)."	"The platting requirement for parkland dedication is modified to provide that such requirement is governed by the terms of The Grove at Shoal Creek Planned Unit Parks Plan and Parkland Improvement Agreement attached as exhibits to Development Ordinance No. _____."
17. Public Street Alignment, 25-4-151	25-4-151 "Streets of a new subdivision shall be aligned with and connect to existing streets on adjoining property unless the Land Use Commission determines that the Comprehensive Plan, topography, requirements of traffic circulation, or other considerations make it desirable to depart from the alignment or connection."	"Notwithstanding Section 25-4-151 of the Austin City Code, the private drives and/or private streets within the property may be aligned with and connect to existing or future streets on adjoining property."
18. Dead-End Streets, 25-4-152(A)	25-4-152 "(A) A street may terminate in a cul-de-sac if the director determines that the most desirable plan requires laying out a dead-end street."	"A street may terminate in a cul-de-sac if the director determines that the most desirable plan requires laying out a dead-end street, or may terminate in a connection with the private drives and/or private streets within the property."
CHAPTER 25-6 MODIFICATIONS		
CODE SECTIONS TO BE MODIFIED	CURRENT CODE LANGUAGE	PROPOSED MODIFICATION FOR THE GROVE AT SHOAL CREEK PUD

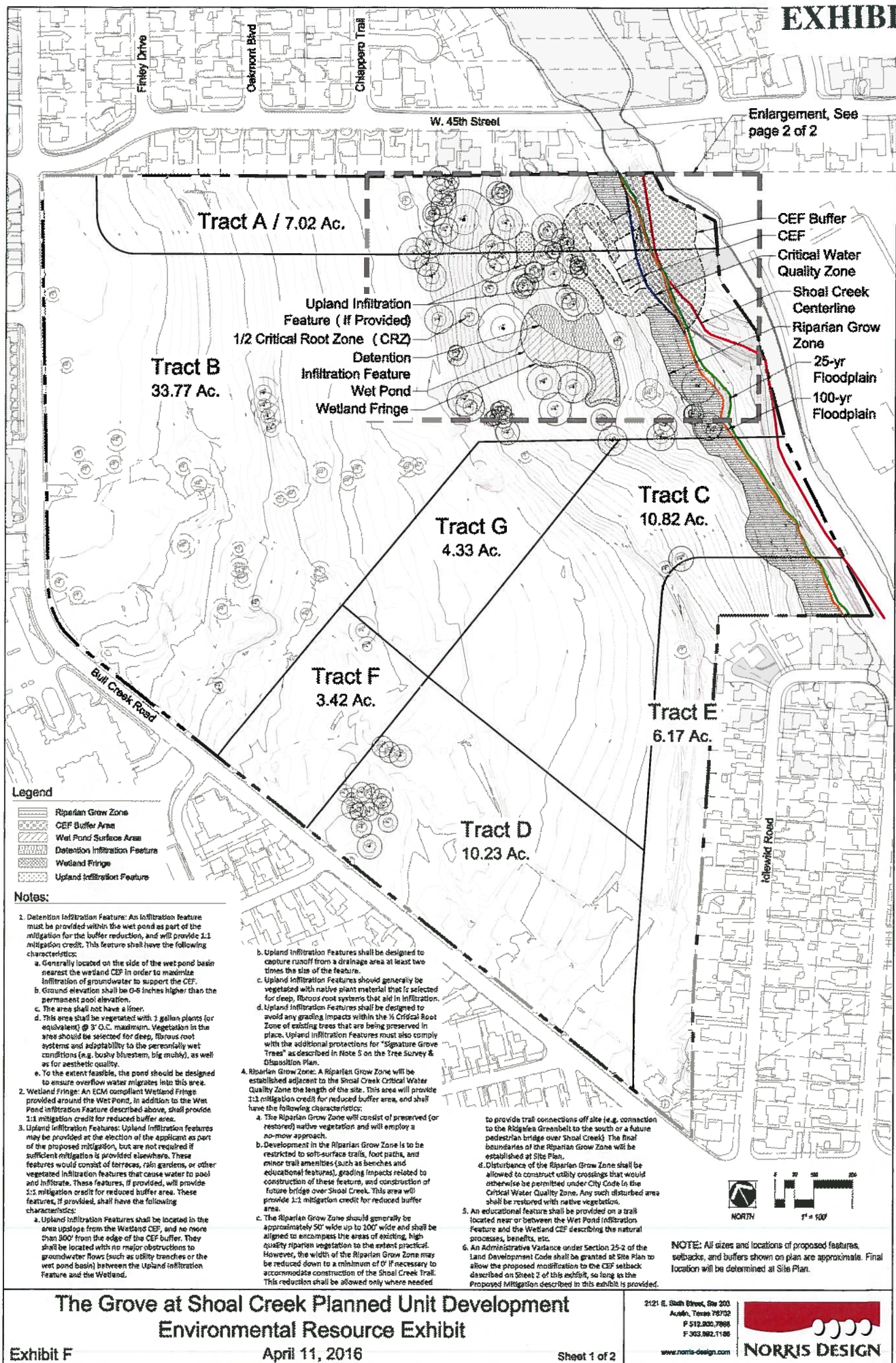
19. <i>Street Design, 25-6-171(A)</i>	“(A) Except as provided in Subsections (B) and (C), a roadway, street, or alley must be designed and constructed in accordance with the Transportation Criteria Manual and City of Austin Standards and Standard Specifications.	“A roadway, private drive, street or alley must be designed and constructed in accordance with The Grove at Shoal Creek Design Guidelines. The Transportation Criteria Manual and City of Austin Standards and Standard Specifications shall apply to the extent they do not conflict with The Grove at Shoal Creek Design Guidelines.”
CHAPTER 25-8 MODIFICATIONS		
CODE SECTIONS TO BE MODIFIED		
20. <i>Heritage Trees, 25-8-641(B)</i>	“(B) A permit to remove a heritage tree may be issued only if a variance is approved under Section 25-8-642 (<i>Administrative Variance</i>) or 25-8-643 (<i>Land Use Commission Variance</i>).”	PROPOSED MODIFICATION FOR THE GROVE AT SHOAL CREEK PUD “A permit to remove a heritage tree may be issued only if: (1) a variance is approved under Section 25-8-642 (<i>Administrative Variance</i>) or (25-8-643) <i>Land Use Commission Variance</i>, or (2) the tree is indicated as “Trees that May Be Removed” on The Grove at Shoal Creek Tree Survey and Disposition Plan as attached to The Grove at Shoal Creek Planned Unit Development Ordinance No. _____, Sections 25-8-642 and 25-8-643 shall not apply to the trees indicated as “Trees that May Be Removed” on The Grove at Shoal Creek Tree Survey and Disposition Plan. A permit issued under 25-8-642 (A) (2) shall require mitigation at the rates prescribed on The Grove at Shoal Creek

			Tree Survey and Disposition Plan.”
CHAPTER 25-10 MODIFICATIONS			
CODE SECTIONS TO BE MODIFIED	CURRENT CODE LANGUAGE	PROPOSED MODIFICATION FOR THE GROVE AT SHOAL CREEK PUD	
21. 25-10-1 - <i>Applicability</i>	25-10-1 -- Applicability	“(D) To the extent they are in conflict, the signage standards set forth in the Design Guidelines for The Grove at Shoal Creek shall supersede this chapter.”	
22. 25-10-103 -- <i>Signs Prohibited in the Public Right-of-Way.</i>	25-10-103 -- Signs Prohibited in the Public Right-of-Way.	“Section 25-10-103 of the Austin City Code shall not apply to the public Right-of-Way dedicated for the Jackson Avenue Extension within the boundaries of The Grove at Shoal Creek PUD as identified on the Roadway Framework Plan.”	
23. 25-10-191 -- <i>Sign Setback Requirements.</i>	25-10-191 -- Sign Setback Requirements.	“Section 25-10-191 of the Austin City Code shall not apply for setbacks from the public Right-of-Way dedicated for the Jackson Avenue Extension within the boundaries of The Grove at Shoal Creek PUD as identified on the Roadway Framework Plan.”	
DRAINAGE CRITERIA MANUAL MODIFICATIONS			
DCM SECTIONS TO BE MODIFIED	CURRENT DCM LANGUAGE	PROPOSED MODIFICATION FOR THE GROVE AT SHOAL CREEK PUD	
24. <i>Fencing Requirements for Drainage Facilities, Section 1.2.4.E.1(a)</i>	DCM Section 1.2.4.E “1. (a) Where a portion of the stormwater facility either has an interior slope or wall steeper than three (3) feet horizontal to one (1) foot vertical with a height exceeding one (1) foot, or, an exterior slope or	“1. (a) Where a portion of the stormwater facility either has an interior slope or wall steeper than three (3) feet horizontal to one (1) foot vertical with a height exceeding one (1) foot, or, an exterior slope or wall steeper than three	

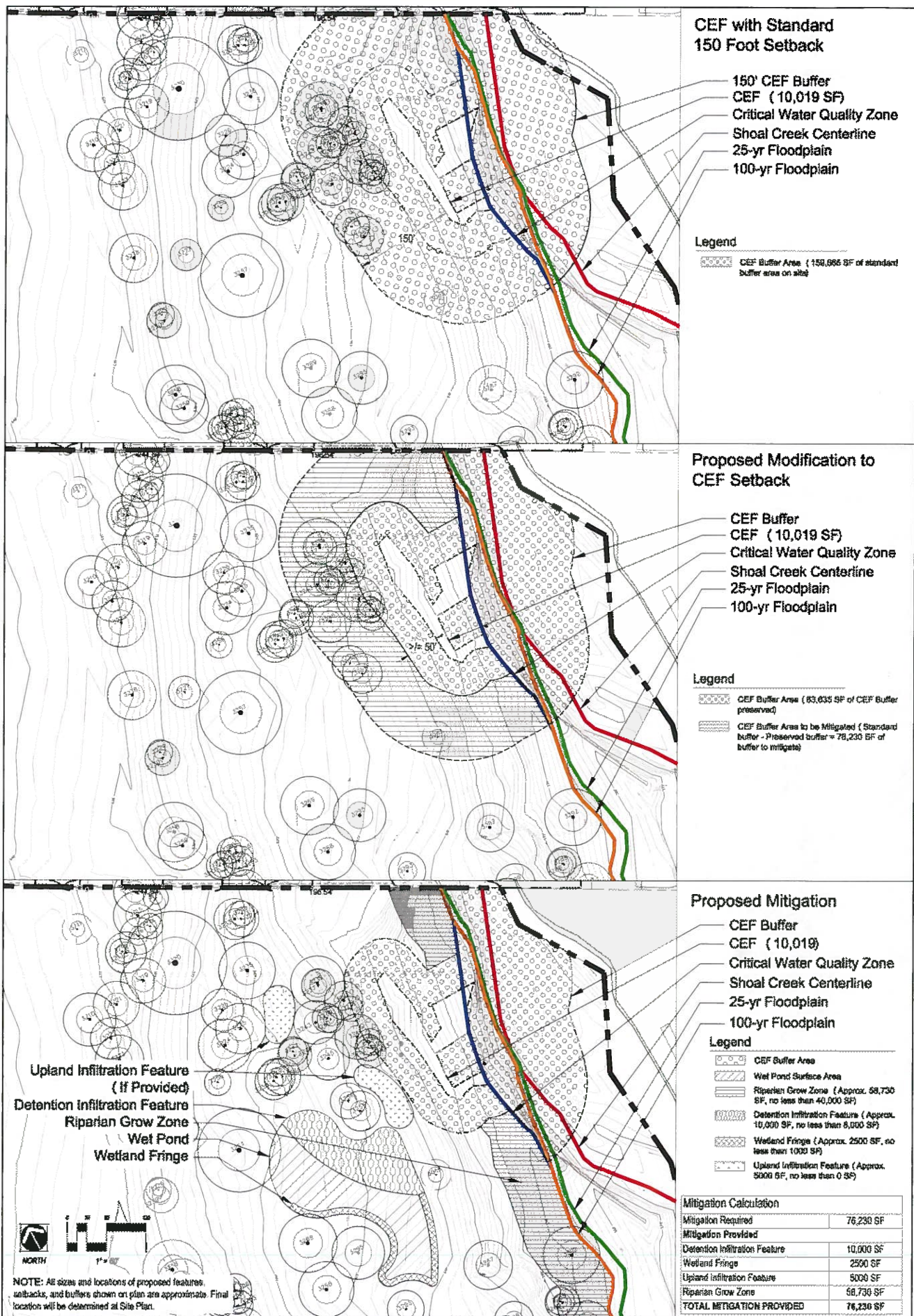
	wall steeper than three (3) feet horizontal to one (1) foot vertical with a height exceeding three (3) feet above adjacent ground, barrier-type fences at least six (6) feet high, and/or steel grating are required for all single-family or duplex residential development, City maintained stormwater facilities, and/or for any privately maintained stormwater facilities located within 500 feet of a residential structure.	(3) feet horizontal to one (1) foot vertical with a height exceeding three (3) feet above adjacent ground, steel grating is required for all single-family or duplex residential development, City maintained stormwater facilities, and/or for any privately maintained stormwater facilities located within 500 feet of a residential structure.
ENVIRONMENTAL CRITERIA MANUAL MODIFICATIONS		
ECM SECTIONS TO BE MODIFIED	CURRENT ECM LANGUAGE	PROPOSED MODIFICATION FOR THE GROVE AT SHOAL CREEK PUD
25. <i>Maintenance Responsibilities for Water Quality Control Facilities, Section 1.6.3.A.4</i>	4. obtain final warranty release approval from the Watershed Protection Department. The City will also maintain water quality control facilities designed to service primarily publicly owned roads and facilities. These water quality control facilities must be designed and built according to the appropriate city standards.	"4. obtain final warranty release approval from the Watershed Protection Department. Water quality control facilities at The Grove at Shoal Creek PUD that treat publicly owned roads and facilities within and adjacent to The Grove at Shoal Creek PUD may be privately maintained."

TRANSPORTATION CRITERIA MANUAL MODIFICATIONS			
TCM SECTIONS TO BE MODIFIED	CURRENT TCM LANGUAGE	PROPOSED MODIFICATION FOR THE GROVE AT SHOAL CREEK PUD	
26. <i>Classification Design Criteria, Section 1.3.2.B.2</i>	2. Collector, Neighborhood. A neighborhood collector street is characterized by serving several districts or subdivisions. Neighborhood collector streets provide limited access to abutting property and may provide on-street parking, except where bus routes can be expected. Typically multifamily developments, schools, local retail developments and public facilities are located adjacent to neighborhood collectors. Direct driveway access for detached houses should be discouraged (see Figure 1-28 in Appendix H of this manual for design criteria).	2. Collector, Neighborhood. The Extension of Jackson Avenue in The Grove at Shoal Creek PUD as identified on the Roadway Framework Plan shall be considered a Neighborhood Collector and shall be designed per The Grove at Shoal Creek Design Guidelines. The cross section and any other design information contained in those design guidelines shall supersede any requirements of the Transportation Criteria Manual. All other circulation routes within The Grove including internal circulation routes and alleys shall be considered as private driveways and intersections with these driveways shall be subject to the 50' minimum spacing for Neighborhood Collectors.	
27. <i>Classification Design Criteria, Section 1.3.2.F</i>	F. Single Outlet Streets		"The Jackson Avenue Extension shall not be considered a Single Outlet Street upon the construction of any publicly accessible private street, drive, or internal circulation route that is open to the public and connects Jackson Avenue to Bull Creek

	Road."	



The Grove at Shoal Creek Planned Unit Development Environmental Resource Exhibit



The Grove at Shoal Creek Planned Unit Development Environmental Resource Exhibit

Exhibit F

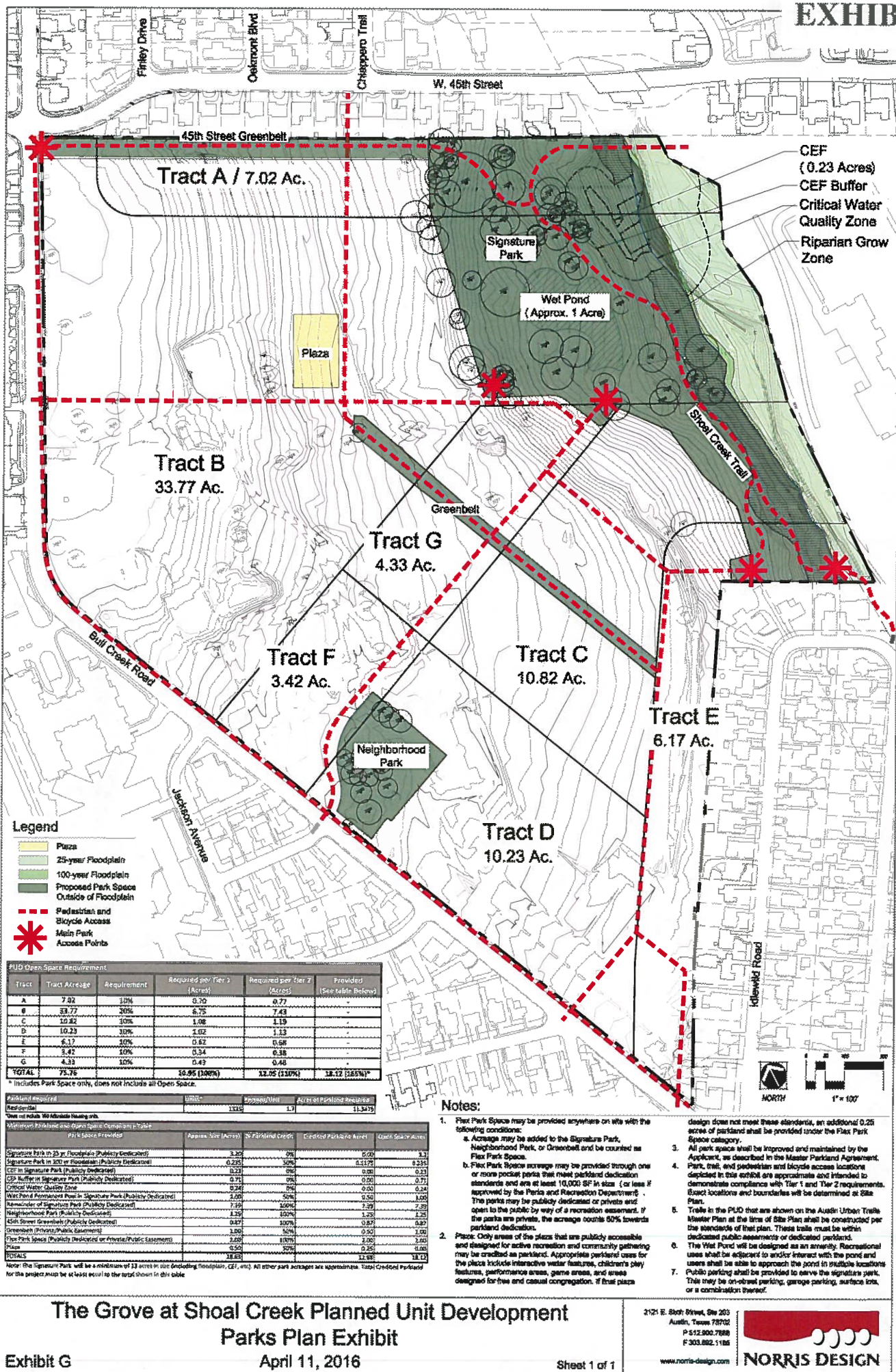
April 11, 2016

Sheet 2 of 2

2121 E. 50th Street, Ste 200
Austin, Texas 78702
P 512.900.7898
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The Grove at Shoal Creek Planned Unit Development Parks Plan Exhibit

Exhibit G

April 11, 2016

Sheet 1 of 1

2121 E. 8th Street, Ste 203
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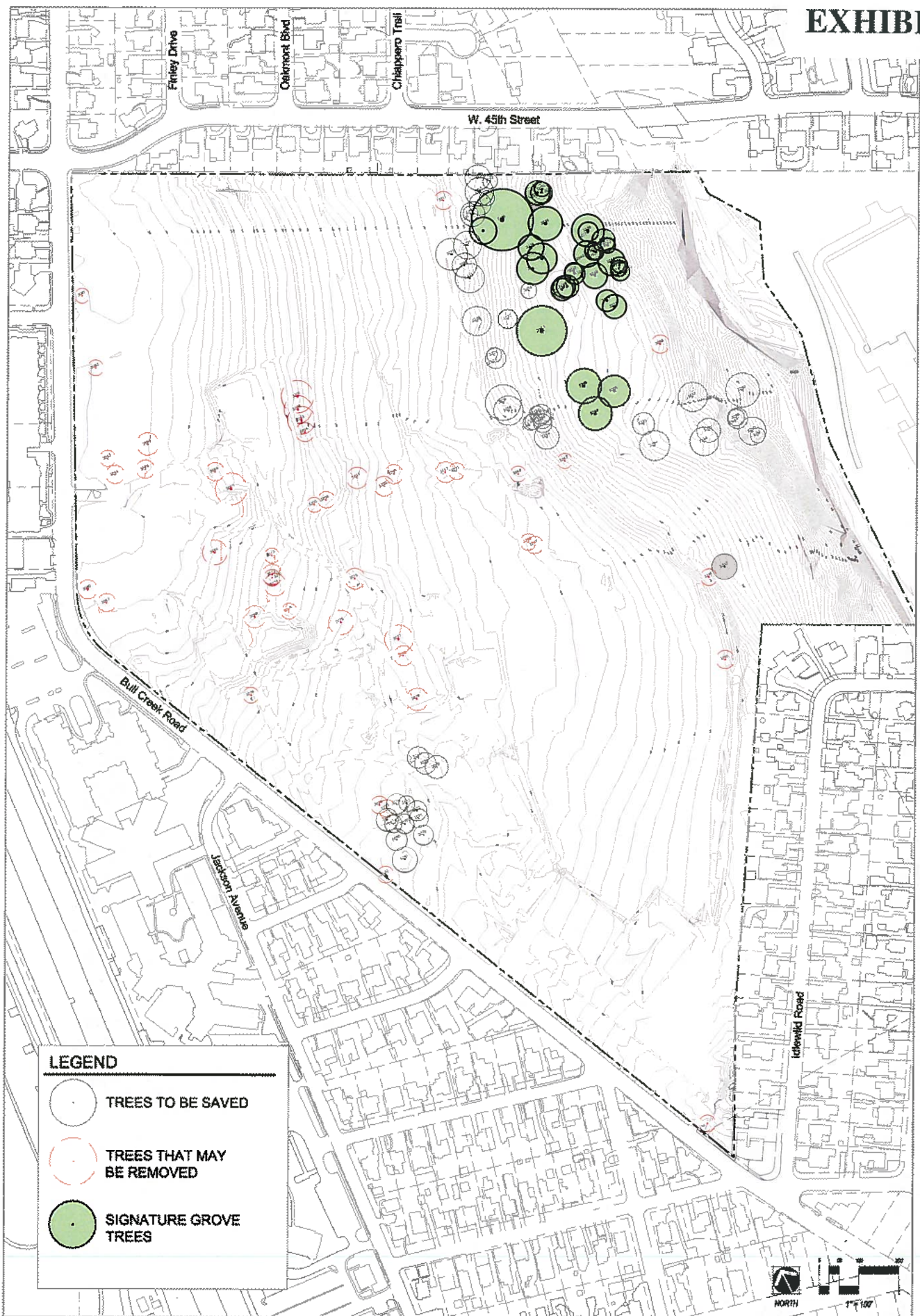






The Grove at Shoal Creek Austin, Texas

Exhibit I



The Grove at Shoal Creek Tree Survey & Disposition Plan

April 11, 2016

Exhibit J

Sheet 1 of 2

2121 E. Bath Street, Ste 303
Austin, Texas 78702
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THE GROVE AT SHOAL CREEK TREE SURVEY

TREE #	SPECIES	DBH	TOTAL APPENDIX F TREE INCHES SURVEYED		TOTAL APPENDIX F TREE INCHES TO BE SAVED		TOTAL APPENDIX F TREE INCHES MAY BE REMOVED		TOTAL SHADE TREE INCHES REMOVED (NO MITIGATION)	ARBORIST RATING (SEE APPENDIX REPORT FOR RATING)
			HERITAGE	PROTECTED >18"	HERITAGE	PROTECTED >18"	HERITAGE	PROTECTED >18"		
3084	LIVE OAK	26	26				26		3/4	
3085	COTTONWOOD	48	48				48		2	
3086	CHINESE TALLOW	33	33				33		2	
3087	PECAN	23	23				23		2	
3088	PECAN	20	20				20		3/4	
3089	HICKBERRY (S)	27	27				27		2	
3090	GRAPE MYRTLE	22	22				22		2	
3091	GRAPE MYRTLE	18	18				18		2	
3092	ARBOREUS	25	25				25		NR	
3093	LIGULSTRUM (S)	25	25				25		NR	
3094	PECAN (S)	18	18				18		2	
3095	PECAN (S)	22	22				22		2	
3096	PECAN (S)	21	21			31			2	
3097	PECAN (S)	27	27			27			2/3	
3098	PECAN (S)	24	24			24			2	
3099	PECAN (S)	28	28			28			2	
3100	AMERICAN ELM	24	24			24			2	
3101	HICKBERRY	18	18		18				2	
3102	CEDAR ELM (S)	18	18				18		2	
3103	CHINESE TALLOW	20	20				20		2	
3104	CHINESE TALLOW	23	23				23		2	
3105	CHINESE TALLOW (S)	28	28				28		NR	
3106	PECAN (S)	23	23				23		NR	
3107	CHINA BERRY (S)	23	23				23		2/3	
3108	PECAN (S)	28	28			26			2/3	
3109	PECAN (S)	26	26			26			2	
3110	PECAN (S)	24	24			24			2	
3111	PECAN (S)	24	24			24			1	
3112	CEDAR ELM	18	18				18		2	
3113	PECAN (S)	21	21				21		2	
3114	PECAN (S)	25	25			25			2	
3115	PECAN (S)	18	18				18		2	
3116	PECAN	22	22				22		2/3	
3117	LIVE OAK	31	31	31					2/3	
3118	LIVE OAK	18	18		18				2	
3119	CEDAR ELM	18	18		18				2/4	
3120	LIVE OAK	18	18		18				2	
3121	LIVE OAK	28	28		28				2	
3122	LIVE OAK	28	28		28				2	
3123	LIVE OAK	30	30		30				2/4	
3124	LIVE OAK	18	18		18				2	
3125	LIVE OAK	34	34		34				2/4	
3126	LIVE OAK	18	18		18				2/4	
3127	LIVE OAK	35	35		35				2	
3128	LIVE OAK	31	31		31				2	
3129	LIVE OAK	35	35		35				2/4	
3130	LIVE OAK (S)	40	40		40				2	
3131	LIVE OAK (S)	38	38		38				2	
3132	LIVE OAK (S)	25	25		25				2/4	
3133	CEDAR ELM	24	24		24				2	
3134	LIVE OAK (S)	27	27		27				2	
3135	LIVE OAK	18	18		18				2/4	
3136	LIVE OAK	26	26		26				2/4	
3137	LIVE OAK (S)	21	21		21				2	
3138	LIVE OAK (S)	25	25		25				2/3	
3139	LIVE OAK (S)	41	41		41				2/4	
3140	LIVE OAK	22	22		22				2	
3141	LIVE OAK	20	20		20				2	
3142	LIVE OAK	25	25		25				2/4	
3143	LIVE OAK (S)	27	27		27				2/4	
3144	LIVE OAK (S)	25	25		25				2	
3145	LIVE OAK (S)	27	27		27				2	
3146	LIVE OAK (S)	27	27		27				2	
3147	LIVE OAK (S)	27	27		27				2	
3148	LIVE OAK (S)	27	27		27				2	
3149	LIVE OAK (S)	27	27		27				2	
3150	LIVE OAK (S)	27	27		27				2	
3151	LIVE OAK (S)	27	27		27				2	
3152	LIVE OAK (S)	27	27		27				2	
3153	LIVE OAK (S)	27	27		27				2	
3154	LIVE OAK (S)	27	27		27				2	
3155	LIVE OAK (S)	27	27		27				2	
3156	LIVE OAK (S)	27	27		27				2	
3157	LIVE OAK (S)	27	27		27				2	
3158	LIVE OAK (S)	27	27		27				2	
3159	LIVE OAK (S)	27	27		27				2	
3160	LIVE OAK (S)	27	27		27				2	
3161	LIVE OAK (S)	27	27		27				2	
3162	LIVE OAK (S)	27	27		27				2	
3163	LIVE OAK (S)	27	27		27				2	
3164	LIVE OAK (S)	27	27		27				2	
3165	LIVE OAK (S)	27	27		27				2	
3166	LIVE OAK (S)	27	27		27				2	
3167	LIVE OAK (S)	27	27		27				2	
3168	LIVE OAK (S)	27	27		27				2	
3169	LIVE OAK (S)	27	27		27				2	
3170	LIVE OAK (S)	27	27		27				2	
3171	LIVE OAK (S)	27	27		27				2	
3172	LIVE OAK (S)	27	27		27				2	
3173	LIVE OAK (S)	27	27		27				2	
3174	LIVE OAK (S)	27	27		27				2	
3175	LIVE OAK (S)	27	27		27				2	
3176	LIVE OAK (S)	27	27		27				2	
3177	LIVE OAK (S)	27	27		27				2	
3178	LIVE OAK (S)	27	27		27				2	
3179	LIVE OAK (S)	27	27		27				2	
3180	LIVE OAK (S)	27	27		27				2	
3181	LIVE OAK (S)	27	27		27				2	
3182	LIVE OAK (S)	27	27		27				2	
3183	LIVE OAK (S)	27	27		27				2	
3184	LIVE OAK (S)	27	27		27				2	
3185	LIVE OAK (S)	27	27		27				2	
3186	LIVE OAK (S)	27	27		27				2	
3187	LIVE OAK (S)	27	27		27				2	
3188	LIVE OAK (S)	27	27		27				2	
3189	LIVE OAK (S)	27	27		27				2	
3190	LIVE OAK (S)	27	27		27				2	
3191	LIVE OAK (S)	27	27		27				2	
3192	LIVE OAK (S)	27	27		27				2	
3193	LIVE OAK (S)	27	27		27				2	
3194	LIVE OAK (S)	27	27		27				2	
3195	LIVE OAK (S)	27	27		27				2	
3196	LIVE OAK (S)	27	27		27				2	
3197	LIVE OAK (S)	27	27		27				2	
3198	LIVE OAK (S)	27	27		27				2	
3199	LIVE OAK (S)	27	27		27				2	
3200	LIVE OAK (S)	27	27		27				2	
3201	LIVE OAK (S)	27	27		27				2	
3202	LIVE OAK (S)	27	27		27				2	
3203	LIVE OAK (S)	27	27		27				2	
3204	LIVE OAK (S)	27	27		27				2	
3205	LIVE OAK (S)	27	27		27				2	
3206	LIVE OAK (S)	27	27		27				2	
3207	LIVE OAK (S)	27	27		27				2	
3208	LIVE OAK (S)	27	27		27				2	
3209	LIVE OAK (S)	27	27		27				2	
3210	LIVE OAK (S)	27	27		27				2	
3211	LIVE OAK (S)	27	27		27				2	
3212	LIVE OAK (S)	27	27		27				2	
3213	LIVE OAK (S)	27	27		27				2	
3214	LIVE OAK (S)	27	27		27				2	
3215	LIVE OAK (S)	27	27		27				2	
3216	LIVE OAK (S)	27	27		27				2	
3217	LIVE OAK (S)	27	27		27				2	
3218	LIVE OAK (S)	27	27		27				2	
3219	LIVE OAK (S)	27	27		27				2	
3220	LIVE OAK (S)	27	27		27				2	
3221	LIVE OAK (S)	27	27		27				2	
3222	LIVE OAK (S)	27	27		27				2	
3223	LIVE OAK (S)	27	27		27				2	
3224	LIVE OAK (S)	27	27		27				2	
3225	LIVE OAK (S)	27	27		27				2	
3226	LIVE OAK (S)	27	27		27				2	
3227	LIVE OAK (S)	27	27		27				2	
3228	LIVE OAK (S)	27	27		27				2	
3229	LIVE OAK (S)	27	27		27				2	
3230	LIVE OAK (S)	27	27		27				2	
3231	LIVE OAK (S)	27	27		27				2	
3232	LIVE OAK (S)	27	27		27				2	
3233	LIVE OAK (S)	27	27		27				2	
3234	LIVE OAK (S)	27	27		27				2	
3235	LIVE OAK (S)	27	27		27				2	
3236	LIVE OAK (S)	27	27		27				2	
3237	LIVE OAK (S)	27	27		27				2	
3238	LIVE OAK (S)	27	27		27				2	
3239	LIVE OAK (S)	27	27		27				2	
3240	LIVE OAK (S)	27	27		27				2	
3241	LIVE OAK (S)	27	27		27				2	
3242	LIVE OAK (S)	27	27		27				2	
3243	LIVE OAK (S)	27	27		27				2	
3244	LIVE OAK (S)	27	27		27				2	
3245	LIVE OAK (S)	27	27		27				2	
3246	LIVE OAK (S)	27	27		27				2	
3247	LIVE OAK (S)	27	27		27				2	
3248	LIVE OAK (S)	27	27		27				2	
3249	LIVE OAK (S)	27	27		27				2	
3250	LIVE OAK (S)	27	27		27					

EDUCATIONAL IMPACT STATEMENT

Prepared for the City of Austin

Austin Independent
School District

PROJECT NAME: The Grove at Shoal Creek (Scenario #1—1,315 total units)

ADDRESS/LOCATION: 4205 Bull Creek Road

CASE #: C814-2015-0074

☒ NEW SINGLE FAMILY☐ DEMOLITION OF MULTIFAMILY☒ NEW MULTIFAMILY☐ TAX CREDIT

# SF UNITS:	395	STUDENTS PER UNIT ASSUMPTION					
SF Detached		Elementary School:	0.117	Middle School:	0.034	High School:	0.067
SF Attached (Townhomes)		Elementary School:	0.038	Middle School:	0.011	High School:	0.022
# MF UNITS:	920	STUDENTS PER UNIT ASSUMPTION					
Apartments		Elementary School:	0.124	Middle School:	0.035	High School:	0.071
MF Attached (Condos)		Elementary School:	0.038	Middle School:	0.011	High School:	0.022

Two scenarios were presented to AISD by the developer for this application. Scenario #1 reflects 1,315 total units (220 students), including a mix of single-family, multifamily, townhouse and condominiums. Scenario #2 reflects 1,515 total units (211 students) including a mix of multifamily, townhouse and condominiums (no single-family detached). Please see attached table for specific information on unit types and students per unit assumptions.

This Educational Impact Statement (EIS) uses Scenario #1 which reports the higher number of estimated students (due to the inclusion of single-family detached).

This EIS was prepared using information presented by the developer on September 10, 2015. As the development parameters are refined, a revised subsequent EIS may be prepared for the Planning Commission. The Planning Commission date is pending.

IMPACT ON SCHOOLS

Because the proposed development is not typical of most residential developments within the district, the staff consulted with the district's demographer, Davis Demographics & Planning to calculate the student yield. Based on an analysis of the information provided by the developer, the number of students per unit from a Planned Unit Development (PUD) with similar residential patterns within the district was used as the basis for estimating the number of students for this proposed project.

The mixed use development with 1,315 residential units is projected to add approximately 220 students across all grade levels to the projected student population. It is estimated that of the 220 students, 118 will be assigned to Bryker Woods Elementary School, 34 to O. Henry Middle School, and 68 at Austin High School.

EDUCATIONAL IMPACT STATEMENT

Prepared for the City of Austin

Austin Independent
School District



The percent of permanent capacity by enrollment for SY 2019-20, including the additional students projected with this development, would be within the target range of 75-115% for all three schools (Bryker Woods at 115%; O. Henry at 109% and Austin at 101%), assuming the mobility rates remain the same.

In the event that enrollment should exceed 115% of permanent capacity at any of the schools, the administration would closely monitor enrollment and possibly discuss intervention strategies with the school community to address overcrowding.

TRANSPORTATION IMPACT

Bryker Woods Elementary School is located within 2 miles of the proposed development; therefore students would not qualify for transportation unless a hazardous route condition was identified. Students within the proposed development attending O. Henry Middle School and Austin High School will qualify for transportation due to the distance from the proposed development to the schools. Due to the relatively high number of students anticipated from the development, one new bus at each secondary school will most likely be needed to accommodate the additional bus riders.

SAFETY IMPACT

There are no known safety impacts at this time.

Date Prepared: 10/05/2015

Director's Signature: Paul Turner

EDUCATIONAL IMPACT STATEMENT

Prepared for the City of Austin

Austin Independent
School District



DATA ANALYSIS WORKSHEET

ELEMENTARY SCHOOL: Bryker Woods

RATING: Met Standard

ADDRESS: 3309 Kerbey Lane

PERMANENT CAPACITY: 418

% QUALIFIED FOR FREE/REDUCED LUNCH: 10.18%

MOBILITY RATE: +19.3%

POPULATION (without mobility rate)

ELEMENTARY SCHOOL STUDENTS	2014-15 Population	5- Year Projected Population (without proposed development)	5-Year Projected Population (with proposed development)
Number	331	303	421
% of Permanent Capacity	79%	72%	101%

ENROLLMENT (with mobility rate)

ELEMENTARY SCHOOL STUDENTS	2014-15 Enrollment	5- Year Projected Enrollment* (without proposed development)	5-Year Projected Enrollment* (with proposed development)
Number	395	362	480
% of Permanent Capacity	94%	87%	115%

MIDDLE SCHOOL: O. Henry

RATING: Met Standard

ADDRESS: 2610 West 10th Street

PERMANENT CAPACITY: 945

% QUALIFIED FOR FREE/REDUCED LUNCH: 29.74%

MOBILITY RATE: +2.2%

POPULATION (without mobility rate)

MIDDLE SCHOOL STUDENTS	2014-15 Population	5- Year Projected Population (without proposed development)	5-Year Projected Population (with proposed development)
Number	871	976	1,010
% of Permanent Capacity	92%	103%	107%

ENROLLMENT (with mobility rate)

MIDDLE SCHOOL STUDENTS	2014-15 Enrollment	5- Year Projected Enrollment* (without proposed development)	5-Year Projected Enrollment* (with proposed development)
Number	890	997	1,031
% of Permanent Capacity	94%	106%	109%

EDUCATIONAL IMPACT STATEMENT

Prepared for the City of Austin

Austin Independent
School District



HIGH SCHOOL: Austin	RATING: Met Standard
ADDRESS: 1715 W. Cesar Chavez	PERMANENT CAPACITY: 2,205
% QUALIFIED FOR FREE/REDUCED LUNCH: 28.74%	MOBILITY RATE: +6.4%

POPULATION (without mobility rate)			
HIGH SCHOOL STUDENTS	2014-15 Population	5- Year Projected Population (without proposed development)	5-Year Projected Population (with proposed development)
Number	1,962	2,036	2,104
% of Permanent Capacity	89%	92%	95%

ENROLLMENT (with mobility rate)			
HIGH SCHOOL STUDENTS	2014-15 Enrollment	5- Year Projected Enrollment* (without proposed development)	5-Year Projected Enrollment* (with proposed development)
Number	2,087	2,166	2,234
% of Permanent Capacity	95%	98%	101%

*The 5-Year Projected Enrollment (with and without the proposed development) is an estimate calculated with the assumption that the stated mobility rates (transfers in and out of the school) remain the same over the 5-year period. These estimates are for the sole purpose of the Educational Impact Statement and should not be used for any other purposes.

The Grove at Shoal Creek
C814-2015-0074
Educational Impact Statement Attachment

Scenario 1 1,315 Total Units	Total Students Projected 219.245	ES	ES	MS	MS	HS	HS
		Student Yield	Students	Student Yield	Students	Student Yield	Students
Market Rate							
110 Single Family (SFD)		0.117	12.87	0.034	3.74	0.067	7.37
600 Apartments (APT)		0.124	74.4	0.035	21	0.071	42.6
140 Condo (MFA)		0.038	5.32	0.011	1.54	0.022	3.08
285 Townhome (SFA)		0.038	10.83	0.011	3.135	0.022	6.27
1,135 Units							
Affordable							
90 Apartments (APT)		0.124	11.16	0.035	3.15	0.071	6.39
90 Condo (MFA)		0.038	3.42	0.011	0.99	0.022	1.98
180 Units			118		33.555		67.69

Scenario 2 1,515 Total Units	Total Students Projected 210.915	ES	ES	MS	MS	HS	HS
		Student Yield	Students	Student Yield	Students	Student Yield	Students
Market Rate							
560 Apartments (APT)		0.124	69.44	0.035	19.6	0.071	39.76
195 Condo (MFA)		0.038	7.41	0.011	2.145	0.022	4.29
580 Townhome (SFA)		0.038	22.04	0.011	6.38	0.022	12.76
1,335 Units							
Affordable							
90 Apartments (APT)		0.124	11.16	0.035	3.15	0.071	6.39
90 Condo (MFA)		0.038	3.42	0.011	0.99	0.022	1.98
180 Units			113.47		32.265		65.18



Tree Mitigation Example
 The Grove at Shoal Creek
 March 25, 2016

EXHIBIT L

Tree Mitigation Example

The Grove at Shoal Creek | 3.25.16

Overall Site Mitigation	Inches	Notes
Mitigation Inches Required	1135	
Mitigation Provided by 3" Street Trees	927	1.5" per tree, 618 trees
Mitigation Provided by 4" Street Trees	1545	2.5" per tree, 618 trees

Site Plan Study	Inches	Notes
Mitigation Inches Required	248	
Mitigation Provided by 4" Street Trees	75	
Mitigation Provided by 6" Street Trees	108	Along retail main street
Total Mitigation Provided by Street Trees	183	
Mitigation Req'd via Additional Trees	65	Plaza, parking bumpouts, courtyards, etc. (approx. 16 additional trees)



ATTACHMENT: MEMORANDUM

To:	Andrew Linseisen, P.E. Development Services Department	Date:	March 25, 2016
CC:	Scott A. James, P.E., PTOE Development Services Department	Project:	The Grove At Shoal Creek
From:	Eric Bollich, P.E., PTOE Austin Transportation Department	Re:	TIA Comments (February 2, 2016 Revision)
		Page:	1 of 2

The Austin Transportation Department (ATD) has reviewed the February 2, 2016 revision of the traffic report regarding the *"The Grove at Shoal Creek, Traffic Impact Analysis"*, prepared by R-K Traffic Engineering, LLC. The following comments summarize our review findings.

TIA Comments

1. **Repeat comment** – The 2018 analysis does not include full build out of the Bull Creek and 45th street intersection. 2018 No Build forecasted operation of this intersection is not acceptable to ATD, regardless of the 2,700 daily trip threshold presented in the TIA. Based on the comprehensive review of the TIA and prior meetings with the Applicant and comments submitted to the Applicant, it is our understanding that this intersection will be fully built out to its ultimate design prior to the completion of Phase 1 of the development. We recommend that the Traffic Phasing Agreement include detailed analysis of the necessary improvements required prior to completion of Phase 1 and subject to ATD review and approval. .
2. It is unclear from the information contained in the TIA as to when the concrete safety barrier in association with the bike lane will be constructed along Bull Creek Road. Based on our meeting with the Applicant, the Applicant has agreed to construct this barrier when Bull Creek Road is reconstructed with proposed improvements.
3. **Repeat comment** – The TIA estimates 14% of site-generated traffic will use Jackson Avenue, more than doubling the total traffic volume on Jackson Avenue. While no additional analysis of Jackson Avenue is required at this time, based on the information submitted in the TIA and reviewed by staff, when a warrant study is conducted for the signal at Jackson Avenue and Bull Creek Road, the Applicant will also study Jackson Avenue south of Bull Creek Road to analyze and propose mitigation needed to address this increase in traffic.



Bull Creek Road/45th Street Intersection Plan – Option 1: Not recommended

1. This option, as presented, creates safety concerns by shifting northbound traffic through the intersection by approximately nine (9) feet.

Bull Creek Road/45th Street Intersection Plan – Option 2: Recommended

1. The small grass panels on the northwest, northeast, and southeast corners should be eliminated to allow for wider sidewalks and the placement of traffic signal equipment. In addition, the sidewalk easement that the Applicant has indicated needs to allow for the installation of traffic signal equipment.

Bull Creek Road Improvements Plan (comments start at the north and head south)

1. The PHB, crosswalks and landings are not shown at Driveway 1. Please show this information.
2. The traffic signal, crosswalks and landings are not shown at Driveway 2/Jackson Avenue. In addition, no information is shown on Jackson Avenue related to length of turn lanes and tapers. Please show this information.
3. The PHB, crosswalks and landings are not shown at Driveway 4. Please show this information.

Jackson Avenue / 45th Street

After interdepartmental discussion, the proposed development shall include Jackson Avenue as a public roadway dedicated to the City of Austin. As agreed by the applicant, Lot 43, Section 2, Shoal Village Subdivision, shall be dedicated as public right-of-way to the City of Austin for the extension of Jackson Avenue to 45th Street. Vehicular access at the intersection of 45th and Jackson Avenue shall be limited to "right-in, right-out only." Staff will review roadway design plans submitted by the Applicant as part of the subdivision and site development permit process. A pedestrian hybrid beacon may be installed at the intersection of Jackson Avenue and 45th street to facilitate pedestrian crossings across 45th Street at timing to be determined by ATD.

General Comment

Staff reserves the right to conduct further review of the subject application with regard to geometric constraints that may arise due to inadequate or unavailable right-of-way that may affect the operational objectives of proposed infrastructure improvements. These elements may affect site plan review and approval, as they are considered integral to the viability of the subject development as proposed.



MEMORANDUM

TO: Mayor and Council

FROM: Rodney Gonzales, Director, Development Services Department (DSD)
Rob Spillar, Director, Austin Transportation Department (ATD)

DATE: May 9, 2016

SUBJECT: Grove at Shoal Creek Traffic Impact Analysis

CC: Marc Ott, City Manager
Sue Edwards, Assistant City Manager
Robert Goode, Assistant City Manager
Greg Guernsey, Director, Planning and Zoning

This memorandum provides information regarding the Traffic Impact Analysis (TIA) review for the Grove at Shoal Creek Planned Unit Development (PUD) and related transportation issues.

TIA Review Process and March 22, 2016 Meeting with Applicant

The TIA review process began with the submittal of the PUD Development Assessment on April 3, 2015. Over the last approximately 12 months, the TIA has been through four formal review cycles; meetings with the applicant, interested neighbors and the Bull Creek Road Coalition (BCRC); multiple revisions; and review of informal submittals.

Staff from the Development Services Department and Austin Transportation Department (ATD) extensively reviewed the TIA. The applicant has been required to provide much more detailed transportation information than a typical PUD to ensure adequate right-of-way and acceptable operations for improvements proposed to mitigate the traffic impacts of the project.

On February 2, 2016, the applicant submitted an updated TIA. Due to interdepartmental discussion on several major elements of the TIA, comments had not been released as of March 21, 2016. On Tuesday, March 22, 2016, staff from ATD, DSD and the Planning and Zoning Department (PAZ) met with representatives and transportation consultants for the Grove, at the applicant's request, to discuss the transportation elements of the PUD.

Staff present at the meeting were Eric Bollich, PE, PTOE, Managing Engineer, ATD; Annick Beaudet, AICP, System Development Division Manager, ATD; George Adams, CNU-A, Assistant Director, DSD; Andy Linseisen, PE, Managing Engineer, DSD; Bryan Golden, Transportation Reviewer, DSD; and Jerry Rusthoven, AICP, Current Planning Manager, PAZ. Scott James, PE, Transportation Engineer, DSD, was invited to the meeting but could not attend due to a conflict.

This meeting has been portrayed as being inappropriate or favoring the applicant and this is not the case. It is neither unusual nor inappropriate for senior staff to meet with an applicant to discuss the details of a project, and this is routine. For a project of this size, scope, complexity and controversy it is incumbent upon senior staff to be fully informed and responsible for key decisions. At the March 22nd meeting, the applicant agreed to provide substantial additional improvements not previously committed to, which include the following:

- Dedication of Jackson Street as public street and provision of a public roadway connection to 45th Street;
- Dedication of a 5 foot public access easement at the northwest corner of Bull Creek Road and 45th Street;
- Construction of a shared-use path for bicycles and pedestrians along Bull Creek Road as a protected facility;
- Dedication of public access easements to Shoal Creek at the north and south end of the property for bike and pedestrian facilities;
- Funding of design and construction of a bike and pedestrian bridge over Shoal Creek;
- Minimum geometric standards for internal private streets; and
- Establishment of a cap on the Phase 1 development prior to completion of the improvements to Bull Creek Road and the intersection of Bull Creek Road and 45th Street. The final cap is to be established as part of the Traffic Phasing Agreement.

The applicant's agreement to provide the above improvements, in addition to previously identified improvements, allowed ATD and DSD staff to determine the project was mitigating the traffic impacts of the proposed development and to advance the transportation review process subject to conditions outlined in the staff comment memo dated March 25, 2016. A list of transportation improvements proposed by the applicant and the March 25 Memo is included as attachments. Remaining transportation issues which are to be finalized prior to third reading of the PUD ordinance include requirements for fiscal posting and phasing of construction for required improvements, which will be outlined in the Traffic Phasing Agreement that will accompany the final PUD Ordinance.

As noted in the staff comment memo dated March 25, 2016, comments related to detailed design requirements were deferred to the subdivision construction and site development permit review. These comments will be issued to the applicant under separate memorandum (attached) and will be required to be addressed as part of ATD and DSD review of detailed construction plans for the proposed improvements. Deferral of the final design of these improvements has also been portrayed as favoring the applicant; however, this is standard practice for PUD and conventional zoning cases. The alternative is to require the applicant to design and engineer, at significant cost, transportation infrastructure improvements prior to Council review or approval of zoning entitlements for the property.

Public Street Connection to W. 45th Street

Representatives from BCRC and neighborhood residents have expressed concern over a proposal to provide a public street connection from Bull Creek Road, through the Grove property, and connecting to W. 45th Street where a single-family residence is currently located. The applicant acquired the property at 2627 W. 45th Street in April 2015 for the purpose of

providing access between the proposed PUD and W. 45th Street. The applicant presented their Master Plan showing the proposed street connection to the BCRC in July 2015 and identified the street connection as an option for staff consideration. The Alternative Vision plan proposed by BCRC (<http://www.bcrctx.org/alt-vision/>) also shows a pedestrian and bicycle connection through the property at 2627 W. 45th Street.

The proposal was idle for many months as no additional analysis was provided and the focus was on other potential transportation improvements. As part of their February 2, 2016 TIA submittal, the applicant provided an analysis of the W. 45th Street connection, and staff was able to determine this provided measureable improvement for traffic circulation. Based on this determination, staff recommended including the street connection as part of the transportation improvements.

The property at 2627 W. 45th Street is 59.8' wide. If utilized as a street, the proposed ROW width of 59.8' is greater than the typical 50' ROW width common to other local streets in the area. It is anticipated that this connection will be designed as right-in, right-out only and will be limited to passenger and emergency services vehicles. Staff has requested a preliminary design from the applicant and will evaluate the proposal in more detail prior to review by the Zoning and Platting Commission.

Additional Questions Asked by the Community

Two questions have been asked by the community regarding the process for review and approval of TIA's. The first is which department has authority over the TIA Application? In the case of TIA's, the responsible Director refers to the Director of the Austin Transportation Department.

The second is related to Land Development Code Section 25-6-141. In the zoning context, Chapter 25-6 affords Council the legislative discretion to approve an application if it finds that adverse traffic effects are "satisfactorily mitigated" or that additional traffic will have "an insignificant effect on a residential street." That standard, which is the basis for staff's evaluation, does not prevent approval of a zoning case where adjacent roads are operating below the standards established by Section 25-6-116 (*Desirable Operating Levels for Certain Streets*).

Additional Analysis Requested by Council Member Pool

In a letter to the City Manager dated April 13, 2016, Council Member Pool made the following transportation-related requests. A brief response to each of the requests is provided below.

Analysis of Jackson Avenue Connection to W. 45th Street

As mentioned above, staff has requested the applicant provide a preliminary design of the proposed Jackson Avenue street connection to W. 45th Street. As of May 6, 2016, staff has not received the preliminary design from the applicant. Once provided, staff will evaluate the proposal in more detail prior to review by the Zoning and Platting Commission.

Full Build-Out Analysis of Jackson Avenue

The applicant has proposed mitigation at the intersections of Jackson Avenue/35th Street and Jackson Avenue/Bull Creek Road, including modified lane configurations and signalization,

respectively. ATD and DSD deem this mitigation as acceptable under future traffic conditions. Streets can typically accommodate thousands of daily vehicles and are constrained by their intersections. Because the intersections of Jackson Avenue with 35th Street and Bull Creek Road are projected to operate acceptably under build-out conditions, further mitigation measures have not been identified at this time. However, ATD and DSD are requiring that Jackson Avenue be evaluated when the intersection improvements are needed to determine whether additional measures, such as traffic calming, would be appropriate.

Adequate Right-of-Way for Improvements Proposed to the Intersection of W. 45th and Bull Creek Road

The applicant submitted a preliminary layout of the proposed intersection which shows existing and proposed rights-of way and easements for improvements. The applicant has indicated they are working to acquire necessary easements or right-of-way on the southeast corner to accommodate a proposed right turn lane from Bull Creek Road to eastbound 45th Street. The applicant is also obtaining an easement on the northwest corner to accommodate sufficient space for receiving the dual northbound to westbound left turn lanes. If the applicant is unable to acquire the needed land, a revised design or phasing of improvements to secure missing rights-of-way will need to be reviewed and approved by ATD and DSD.

TIA Phasing Agreement to be presented to ZAP

Staff is working with the applicant to formalize the terms of the TIA Phasing Agreement. If a draft is available at the time of ZAP consideration, staff will provide the draft agreement. The Phasing Agreement will be provided as part of City Council back up material for consideration of the PUD.

Proposed Bridge over Shoal Creek

The applicant will provide an engineer's estimate of the proposed bridge over Shoal Creek to provide pedestrian and bicycle connectivity between the project site and the adjacent Texas State Library and Archives Commission property. ATD and DSD will determine whether this estimate exceeds the maximum funding that the applicant is willing to contribute to construction of the bridge.

Median on Bull Creek Road at Oakmont Boulevard

A raised median is proposed on Bull Creek Road at its intersection with Oakmont Boulevard/W. 40th Street/Driveway 4. It would assist pedestrian crossings and prohibit left turns to and from Bull Creek Road.

Examples of other Street Widening

Streets are frequently widened within the City's right-of-way to accommodate additional travel or turn lanes. A comprehensive database of examples is not maintained.

Next Steps

Planning and Zoning Department staff, with assistance from other City departments, are formulating a PAZ recommendation for the Grove PUD. PAZ staff intends to meet with the applicant and interested parties prior to finalizing the recommendation. Once this is complete, the case will be heard by the Environmental Board, the Zoning and Platting Commission, and finally the City Council. The dates for these public hearings have not yet been determined.

I hope this provides useful information for your consideration. Please feel free to contact me at (512) 974-2313 or George Adams, Assistant Director at (512) 974-2146 if you have questions or concerns.

Attachments:

- List of Proposed Transportation Improvements
- March 25, 2016 Memorandum
- May 9, 2016 Memorandum
- Staff Response to Questions from Grayson Cox

List of Transportation Improvements Proposed for the Grove at Shoal Creek PUD May 6, 2016

- 1) Funding and construction of traffic mitigation improvements identified for Bull Creek Road.

Improvements include additional auxiliary lanes at Jackson Avenue and other site driveways, widening of Bull Creek Road between Driveway 1 and 45th Street, and dedication of right-of-way from the subject site to construct these improvements.

- 2) Funding and Construction of intersection improvements for 45th and Bull Creek Road.

Improvements include eastbound and westbound left turn lanes on 45th Street, additional northbound left turn lane on Bull Creek Road, and additional northbound right turn lane on Bull Creek Road as well as improved pedestrian crossings and reconstruction of sidewalk at all four corners of the intersection.

- 3) Dedication of right-of-way and construction of Jackson Avenue from Bull Creek Road to W. 45th Street.

- 4) Providing trail connectivity to Ridglea Greenbelt.

- 5) Constructing 12-foot Shared Use Path along Bull Creek Road.

- 6) Constructing 12-foot Shared Use Path along 45th Street Greenbelt.

- 7) Constructing protected southbound Bike Lane on Bull Creek Road in front of site.

- 8) Installation of Pedestrian Hybrid Beacon on Bull Creek Road and 45th Street to facilitate pedestrian connectivity.

- 9) Post fiscal for, and if easement obtained on State property, construct bike and pedestrian bridge across Shoal Creek and trail connection from bridge to Shoal Creek Blvd. Provide additional easement for access to Shoal Creek.

- 10) Bike lanes on major internal street cross-sections.

- 11) Contribution of \$100,000 for neighborhood multi-modal improvements.

- 12) Minimum geometric criteria for internal streets.

- 13) Funding and construction of traffic signal and intersection improvements at Jackson/Bull Creek Road and intersection improvements at 35th/Jackson.

14) Analysis of additional traffic mitigation on Jackson Avenue at full build-out.

16) Require shower facilities in offices to help facilitate bicycle commuters.



Date: March 25, 2016

To: Brian Williams, P.E. Brown & Gay, Engineering
James Schwerdtfeger, P.E., Big Red Dog Engineering

CC: Sherri Sirwaitis, Case Manager

Reference: Bull Creek Parcel (aka "The Grove at Shoal Creek")
CD – 2015 – 0009

Staff from the City of Austin Development Services and Transportation Departments have reviewed the revised Traffic Impact Analysis for the Bull Creek Parcel development proposal (hereafter called "The Grove") and offer the following comments:

GENERAL COMMENTS

- A. Written approval from the Texas Department of Transportation (TxDOT) of the proposed Traffic Phasing Agreement is required for the proposed PUD as various state-maintained roadways are bordering the PUD area.
- B. Pedestrian crossings should be identified and paired with the (proposed) location of transit stops. Provide map showing location(s) of transit stops (current and proposed). The TIA allows for a 5% transit reduction, assuming bus headways are decreased from current service levels. Applicant to provide final written confirmation from CapMetro that current and future services levels on Bull Creek Road will support the 5% transit reduction as presented in the TIA prior to final Council approval.
- C. Comment cleared.

Development Services (Bryan Golden/Scott A. James):

- DSD1. Update 1** – After interdepartmental discussion, the proposed development shall dedicate Jackson Avenue as a public roadway to the City of Austin. As agreed by the applicant, Lot 43, Shoal Village Section 2, shall be dedicated as public right-of-way to the City of Austin for the extension of Jackson Avenue to 45th Street. Vehicular access at the intersection of 45th Street and Jackson Avenue shall be limited to "right-in, right-out only." Staff will review roadway design plans submitted by the Applicant as part of the subdivision and site development permit

process. A pedestrian hybrid beacon may be installed at the intersection of Jackson Avenue and 45th Street to facilitate pedestrian crossings across 45th Street. The timing of the installation of the pedestrian hybrid beacon shall be determined by the Austin Transportation Department.

DSD2. Comment cleared.

DSD3. **Update 1** - Project will be built in two phases: for initial 2018 build conditions (Phase 1), the improvement of the Bull Creek Road/45th Street intersection is required. The phase one improvements shall be inclusive of the following elements: dedication of right-of-way, bicycle lanes, medians, turn lanes, sidewalks, and trails. The details of the phasing and timing of the specific improvements will be finalized with the Traffic Phasing Agreement that accompanies the final PUD Ordinance per the comment below as DSD5. NOTE: TxDOT agreement of the terms of fiscal participation for off-site improvements is required.

DSD4. **Repeat comment** - 2024 build conditions (Phase 2) will include full width reconstruction of Bull Creek Road and improvements to Jackson Avenue. In accordance with ATD TIA Comment 3, the improvements to Jackson Avenue will be identified and addressed at the time of the warrant study to support the signalization of Jackson Avenue and Bull Creek Road.

DSD5. **Repeat comment** - Please provide a draft Traffic Phasing Agreement that clearly outlines the traffic improvements to be built for each phase of the development. NOTE: the traffic phasing agreement will require the approval from the COA Legal Department.

DSD6. Jackson Avenue should be extended to the north through the site from its intersection with Bull Creek Road to 45th Street as a public street, provided the following:

- The City approves the street design sections for the northern extension of Jackson Avenue in lieu of standard City street sections, as shown in the Design Guidelines; and
- The City agrees to provide code modifications to allow the Jackson Avenue right-of-way to be included in site calculations and to allow property on both sides of the northern extension of Jackson Avenue to be included in a single site. DSD and PAZ will determine how this provision is incorporated into the final PUD Ordinance.

DSD7. Other roadways in the project may be private roadways, provided the following:

- Public access and utility easements are provided for the entirety of the private street lengths, granting control to the City of Austin of all traffic elements for intersections between public right-of-way and any private streets/driveways within the development;

- Retail Streets, Green Streets, and Connector Streets shall be designed to include 50 feet minimum tangent for intersection approaches and a 100 feet minimum centerline radius for horizontal curves. Horizontal design geometry for these streets may be varied with approval of the Director.

DSD8. A note will be provided on the Land Use Plan and/ or a provision of the PUD ordinance will be provided stating the following:

The Applicant will post fiscal with the City of Austin for the construction of a bicycle and pedestrian bridge crossing Shoal Creek enabling a trail connection from the site to Shoal Creek Blvd. The amount of the fiscal shall be based on the Applicant's approved engineering cost estimate. Subject to City approval of the proposed bridge location (the City considering environmental, connectivity and other factors) the Applicant will construct the bridge and trail. If the City of Austin or the applicant is unable to secure an easement to allow for the construction of said bridge, the posted fiscal may be utilized by the City to complete other bicycle and pedestrian improvements in the area. The Applicant further agrees to provide easements for future bicycle and pedestrian bridge crossings at both the northern and southern portions of Shoal Creek, whether or not the bridge described above is constructed.

Austin Transportation Department:

For the proposed intersection of 45th Street/ Bull Creek Road:

- ATD1. Comment cleared per Option 2 diagram provided.
- ATD2. Comment cleared per Option 2 diagram provided.
- ATD3. Comment cleared per Option 2 diagram provided.
- ATD4. Comment cleared per Option 2 diagram provided.
- ATD5. Comment cleared per Option 2 diagram provided.
- ATD6. Comment cleared.
- ATD7. Repeat comment - Projected volumes onto Jackson Avenue require mitigation measures along Jackson Avenue.
- ATD8. Comment cleared.
- ATD9. Comment cleared per Bull Creek Road diagram provided.
- ATD10. Comment cleared.

ATD11. Comment cleared.

ATD12. Comment cleared per Option 2 diagram provided.

ATD13. Comment cleared per Option 2 diagram provided.

ATD14. Comment cleared per Option 2 diagram provided.

ATD15. Comment cleared per Option 2 diagram provided.

ATD16. Comment cleared per Option 2 diagram provided.

ATD17. Comment cleared per Bull Creek Road diagram provided.

General Comment

Additional comments from ATD are provided in the attachment. Staff reserves the right to conduct further review of the subject application with regard to geometric constraints that may arise due to inadequate or unavailable right-of-way that may affect the operational objectives of proposed infrastructure improvements. These elements may affect site plan review and approval, as they are considered integral to the viability of the subject development as proposed.

We thank you for the revised TIA submitted in support of this PUD application. City staff will continue to review elements of the proposal and the related Traffic Phasing Agreement. If you have any questions please feel free to contact me or Bryan Golden at (512) 974-3124.

A handwritten signature in black ink, consisting of a stylized 'A' and 'L' followed by a horizontal line.

Andrew Linseisen, P.E.
Managing Engineer
Division Manager, Land Use Review Division
Development Services Department

Attachment



ATTACHMENT: MEMORANDUM

To: Andrew Linseisen, P.E.
Development Services Department

Date: March 25, 2016

Project: The Grove At Shoal Creek

CC: Scott A. James, P.E., PTOE
Development Services Department

From: Eric Bollich, P.E., PTOE
Austin Transportation Department

Re: TIA Comments
(February 2, 2016
Revision)

Page: 1 of 2

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Bull Creek Road/45th Street Intersection Plan – Option 1: Not recommended

1. This option, as presented, creates safety concerns by shifting northbound traffic through the intersection by approximately nine (9) feet.

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1. The small grass panels on the northwest, northeast, and southeast corners should be eliminated to allow for wider sidewalks and the placement of traffic signal equipment. In addition, the sidewalk easement that the Applicant has indicated needs to allow for the installation of traffic signal equipment.

Bull Creek Road Improvements Plan (comments start at the north and head south)

1. The PHB, crosswalks and landings are not shown at Driveway 1. Please show this information.
2. The traffic signal, crosswalks and landings are not shown at Driveway 2/Jackson Avenue. In addition, no information is shown on Jackson Avenue related to length of turn lanes and tapers. Please show this information.
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Jackson Avenue / 45th Street

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General Comment

Staff reserves the right to conduct further review of the subject application with regard to geometric constraints that may arise due to inadequate or unavailable right-of-way that may affect the operational objectives of proposed infrastructure improvements. These elements may affect site plan review and approval, as they are considered integral to the viability of the subject development as proposed.



MEMORANDUM

To: Jeff Howard
McLean & Howard, LLP

Date: May 9, 2016

Project: The Grove At Shoal
Creek

CC: Sherri Serwaitis
Planning and Zoning Department

From: Eric Bollich, P.E.
Austin Transportation Department

Re: Detailed Design
Comments

Andrew Linseisen, P.E.
Development Services Department

As part of the review of the February 2, 2016 revision of the traffic report regarding the "*The Grove at Shoal Creek, Traffic Impact Analysis*", prepared by R-K Traffic Engineering, LLC, the Austin Transportation Department (ATD) has additional comments related to the final detailed design documents that must be addressed as part of the site plan review process.

ATD shall be distributed for review of all stages of the site development permit process related to the permitting of public infrastructure improvements and connections from the development to the surrounding public streets.

The following comments summarize items to be addressed as part of the site development permit submittals based on staff review of the current conceptual design submittals.

Bull Creek Road/West 45th Street Intersection Plan – Preferred Option 2

1. The northbound free right turn appears to be too narrow to allow for a WB-50 design vehicle to make the turn. The Applicant should provide further analysis verifying that a WB-50 design vehicle can be accommodated, or the lane should be widened by shifting the outermost curb and while not affecting the island curb line.
2. The northern curb face of the pork-chop island should be offset by two (2) feet from the travel lane for eastbound traffic.
3. On the eastbound approach, the 100 feet approach taper is insufficient in length. The taper length should be lengthened by narrowing the painted island.
4. All sidewalks must be five (5) feet minimum in width.



Bull Creek Road Improvements Plan (comments start at the north and head south)

The Applicant will include design plans addressing these comments, and those addressed by the ATD memorandum dated March 28, 2016 as part of the site plans.

1. The Applicant shall include a concrete safety barrier for the bicycle lane along Bull Creek Road as part of the design plans. This barrier shall be installed with the site development permit for the reconstruction of Bull Creek Road.
2. Tapers shown between the back-to-back turn lanes are insufficient in length. A single taper between the two turn lanes should be provided.
3. The 185 feet taper on the northbound left turn approach to Jackson Avenue is insufficient in length. Lengthen the taper and narrow the painted island.
4. Between Driveway 4 and Driveway 5, the Applicant is proposing a 10-foot wide southbound lane, 11-foot wide lane northbound with a 9-foot wide shoulder. The Applicant should revise the design to provide two 10-foot wide travel lanes and include a center two-way left-turn lane.

Vehicular connection to West 45th Street from Jackson Avenue Extension

1. The Applicant has purchased the lot at 2627 West 45th Street to provide approximately 60 feet of right-of-way and facilitate this vehicular connection. The Applicant has proposed only right-in, right-out turns at this new connection. The Applicant will provide design plans showing the geometric layout of this intersection as part of the site plans for the development. Plans will show how these turning movements will be restricted, which design vehicles can be accommodated, and how a future pedestrian hybrid beacon could be placed.
2. The site plan will include the proposed cross section for the Jackson Avenue Extension from Bull Creek Road to West 45th Street. At the connection to West 45th Street, the cross section of Jackson Avenue should be wide enough to accommodate emergency vehicles. Bicycles and pedestrians should be accommodated, preferably off the street on a shared-use path. The Applicant shall construct screening barrier with vegetation where right-of-way is adjacent to existing single-family dwellings as part of the design of the roadway.

PART XX. The Grove at Bull Creek PUD Affordable Housing Program.

A. In order to meet the City's affordable housing goals and to ensure long-term affordability, the Landowner and the Landowner's successors and assigns (collectively referred to as the "Landowner") agree to the following:

1. Ten percent of the total number of multifamily rental housing units located within the Grove at Bull Creek PUD will be set aside for occupancy by households with incomes at 60 percent of or below the median family income (each an "Affordable Rental Unit," collective "Affordable Rental Units") in the Austin metropolitan statistical area for a rental affordability period of forty years (collectively, the "Rental Affordability Requirement") from the date of a certificate of occupancy. In addition the Landowner agrees to comply with the following:
 - a) The Rental Affordability Requirement period for each multifamily development with Affordable Rental Units (the "Affordable Development") begins on the date a final certificate of occupancy is issued for each Affordable Development.
 - b) Affordable Rental Units must contain a product unit mix of studio, one, two and three bedroom units in accordance with Fair Housing Laws.
 - c) Each lot or site sold or developed for use as an Affordable Development shall be subject to a restrictive covenant using the form shown in Exhibit XX (subject to revision) or agreed upon by the Director of Neighborhood Housing and Community Development (NHCD) and Landowner at the time of the sale or development and recorded in the official public records of the county where the Affordable Development is located.

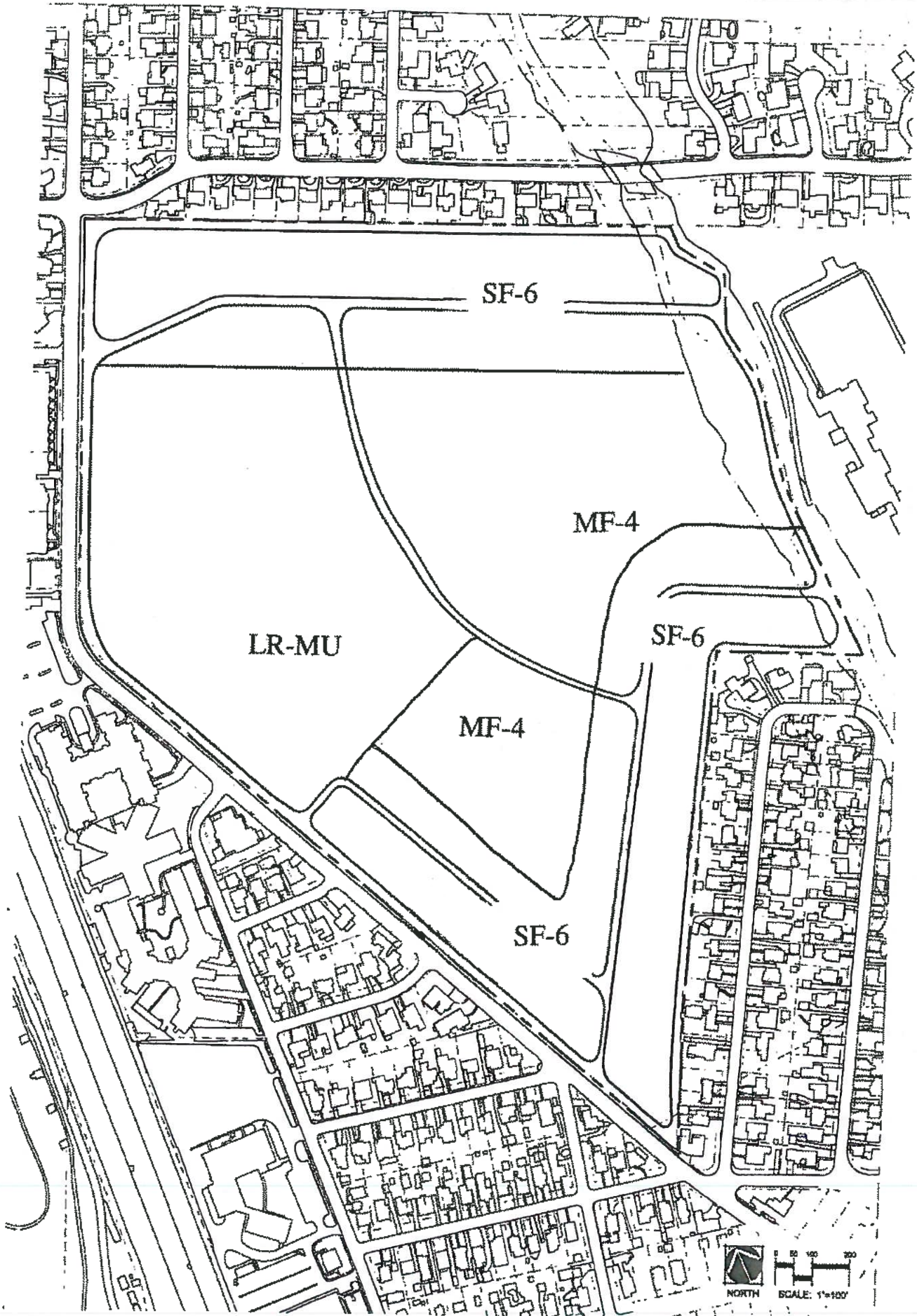
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B. At least 5 percent of the total number of units sold as owner-occupied residential housing units located within the Grove at Bull Creek PUD will, through a mechanism agreed upon by the City and Landowner, be made permanently available at a price affordable to households with incomes at 80 percent of or below the median family income (each an "Affordable Ownership Unit," collective "Affordable Ownership Units") in the Austin metropolitan statistical area (collectively, the "Ownership Affordability Requirement").

1. The Affordable Ownership Units constructed on any site shall have substantially similar architectural design and restrictions as other residential units offered for sale to the general public on such site.
2. The Affordable Ownership Units must contain a product unit mix of studio, one, two and three bedroom units deemed feasible by Developer; provided that, however, no fewer than 50% of the Affordable Ownership Units shall have at least 2 bedrooms.
3. Affordable Ownership units must:

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- a) Be sold to an income eligible household at 80 percent of or below median family income;
 - b) Include resale restrictions that require that resale of the affordable unit must be to a household at 80 percent of or below median family income; and
 - c) Contain restrictions that will cap the equity gain to the homeowner that can be realized upon resale of the affordable unit. The resale formula will be set by the director of the Neighborhood Housing and Community Development Department, and may change from time to time; and
 - d) Contain a Right of First Refusal to the Austin Housing Finance Corporation (AHFC) or other entity designated by the City that is assignable to an income-qualified buyer, to ensure long term affordability.
- C. The Landowner agrees to enter into an agreement with the City of Austin that ensures compliance with Part XX of this PUD ordinance.
- D. Income limits for the Affordable Housing Requirements shall be established annually as determined by the United States Department of Housing and Urban Development.
- E. The Landowner shall file a written report with the Director on the number and location of each Affordable Ownership Unit and Affordable Rental Unit meeting the Affordable Housing Requirements within the Grove at Bull Creek PUD (the "Affordability Report"). The initial Affordability Report shall be filed within 15 calendar days following the March 31 or September 30 next following the date of recordation of a plat or site plan within the Grove at Bull Creek PUD and be continuously filed on a semi-annual basis until the project is fully built out and sold.
- F. Compliance with the Affordable Housing Requirements will be monitored by the City's Neighborhood Housing and Community Development Department through an annual audit of the sale and rental of Affordable Ownership Units and Affordable Rental Units within the Grove at Bull Creek PUD. Income qualifications, rents and sales price of the ownership units must comply with NHCD compliance guidelines.
- G. Compliance with this Part XX of this PUD Ordinance satisfies the requirements of Section 25-1-704(B)(2)(a) of the Austin City Code so that development within The Grove at Shoal Creek PUD shall be eligible for a waiver of 100% of the development fees, including capital recovery fees, described in Section 25-1-704 and Section 25-9-397 of the Austin City Code as allowed by and in accordance with the City's SMART Housing Program.



The Grove at Shoal Creek Planned Unit Development

C814-2015-0074

April 4, 2016

List of Superiority Items:

Parks Superiority

- 1) The project exceeds the minimum amount of parkland by at least 1.55 acres. This is clearly superior to the minimum code requirements for parkland dedication as this represents a 13.66% increase above code requirements.
- 2) The developer will spend \$1 million for the improvements to the Parks within the project whereas there is no code requirement for any monies to be spent on park improvements. This represents a 100% increase over Code requirements.
- 3) The developer will perpetually maintain the parkland. The estimate is over \$200,000 per year and this is at no cost to the City of Austin or the taxpayers. This represents a 100% increase over Code requirements.

Transportation Superiority

- 1) Funding and Constructing all mitigation measures identified for Bull Creek Road. Mitigation measures include additional auxiliary lanes at Jackson Avenue and other Site Driveways, widening of Bull Creek Road between Driveway 1 and 45th Street, and the dedication of ROW from the subject Site to construct these improvements.
- 2) Funding and Constructing 100% of Intersection Improvements for 45th and Bull Creek when pro-rata share is 26.5%. Improvements will include eastbound and westbound left turn lanes on 45th Street, additional northbound left turn lane on Bull Creek Road, and additional northbound right turn lane on Bull Creek Road as well as improved pedestrian crossings and reconstruction of sidewalk at all four corners of the intersection.
- 3) Providing trail connectivity to Ridglea Greenbelt.
- 4) Constructing 12-foot Shared Use Path along Bull Creek Road.

- 5) Constructing 12-foot Shared Use Path along 45th Street Greenbelt.
- 6) Constructing protected southbound Bike Lane on Bull Creek Road in front of Site.
- 7) Installation of Pedestrian Hybrid Beacons on Bull Creek Road and 45th Street to facilitate pedestrian connectivity.
- 8) Post fiscal for, and if easement obtained, construction of Bike and Pedestrian Bridge across Shoal Creek and trail connection from Bridge to Shoal Creek Blvd.
- 9) Bike lanes on major internal street cross-sections.
- 10) Installation of racks to park 400 bicycles.
- 11) Require shower facilities in offices to help facilitate bicycle commuters.
- 12) Contribution of \$100k in seed money for neighborhood multi-modal improvements.

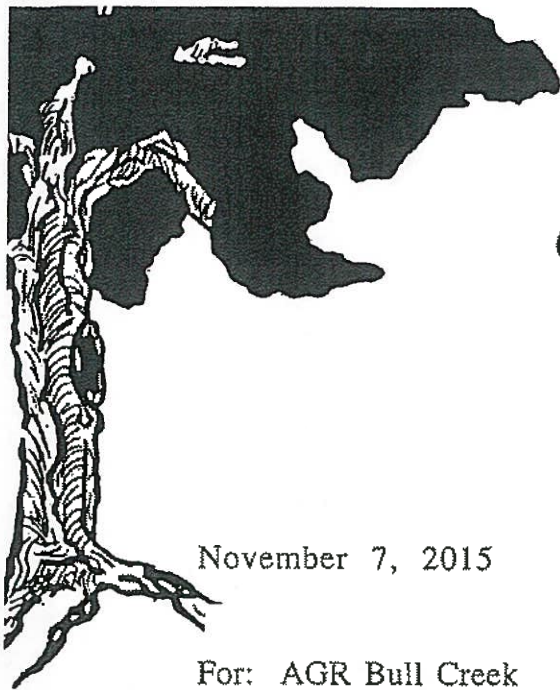
Environmental Superiority

- 1) The project will substantially exceed open space requirements (by more than 50%) and will cluster development away from Shoal Creek.
- 2) The project will provide water quality controls through the use of a wet pond and/or green infrastructure for a minimum of 50% of the required water quality volume on-site.
- 3) The project will provide that a minimum of 10 acres of impervious cover on the site will drain to and be substantially treated by Green Water Quality Controls such as rain gardens and biofiltration facilities.
- 4) The project will not modify the existing 100-year floodplain.
- 5) The project will preserve a minimum of 75% of protected quality native tree inches on site.
- 6) The project will provide a tree care plan for all preserved protected and heritage trees on site.

- 7) The project will direct stormwater runoff from impervious surfaces to a landscaped area at least equal to the total required landscape area.
- 8) The project will provide flood mitigation for the 9.39 acres of existing impervious cover on the site which is not currently detained. The existing State office development does not have any detention or flood control facilities and current code does not require new development to mitigate for existing impervious cover. If the project participates in the RSMP, the RSMP fee will be paid as if the current 9.39 acres of impervious cover does not exist.
- 9) The project will provide educational signage at the Wetland CEF.
- 10) The project will provide minimum 3" caliper street trees on all internal streets. Under conventional zoning, Tracts A, C, D, and E would be residential zoning districts and would not require street trees under Subchapter E. This area of additional street trees represents 34.24 acres or approximately 45% of the total project area.
- 11) The project will provide street trees along Bull Creek Road where they would not be required by Subchapter E.
- 12) The Project will provide an Integrated Pest Management Plan for all sites.
- 13) The Project will commit to 95% of non-turf plant species from Grow Green or equivalent per the Design Guidelines.
- 14) The project will provide additional protection for the $\frac{3}{4}$ critical root zone for all protected and heritage trees within the Signature Grove, which includes all trees around the proposed pond and the highest quality oak trees throughout the Signature Park.

Affordable Housing

- 1) At least 10% of the rental units affordable to 60% MFI or less with long term affordability provided.
- 2) At least 5% of for sale units affordable to 80% or less with long term affordability.



Don Gardner
Consulting Arborist

Registered Consulting Arborist #438
Certified Arborist TX0228

**PECANS ON
THE GROVE SITE**

November 7, 2015

For: AGR Bull Creek

I examined all protected trees on this entire site in February and March, 2015.

The magnificent live oak grove is a natural wonder. How can trees this old be so healthy and vigorous? Now, the job is to make sure they stay healthy. Protecting 3/4 of the critical root zone, which I've heard is proposed, is one of the ways to do that.

Most of the pecans on the site, however, are an altogether different story. They are all planted pecan varieties, not native pecans.

Orchardists have been developing new pecan varieties for decades. None are as good a tree (i.e., hardy, strong structure, long-lasting) as the old, original native varieties. Some varieties are better than others, but some are truly horrendous and should have never gotten out into the landscape market.

These varieties are not good, strong pecan trees, but are weak with multiple structural issues. They have more in common with Arizona ash trees, with notorious flaws, than with native pecan trees.

The health of a tree can go bad, or the structure can go bad.

The structural issues with the pecans in question include, 1) poor branch attachment, 2) co-dominant trunks with one trunk growing laterally, not upward, and 3) included bark that holds water, and decays easily and rapidly.

In addition, pecans have the reputation for branch breakage, which they deserve. And, it can be counted on, the newer varieties will break when they get a little size and weight on them.

Further, due to prolonged heat and drought, many of the pecans at this site, like pecans all over central Texas, have major crown dieback, with all the decay and structural issues that come with large dead wood.

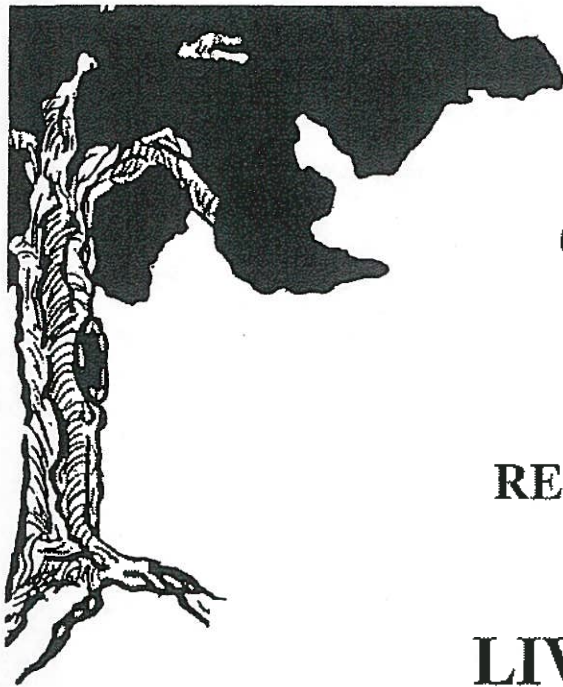
Someone planted poor pecan varieties and they lasted a while. But now, the trees are coming apart. They should be removed.

Unfortunately, the pecans are not good, strong, long-lived natives like the live oaks in the groove.

Please contact me if you have any questions.

A handwritten signature in cursive script, appearing to read "Don Gardner".

Don Gardner, RCA
Registered Consulting Arborist #438
Certified Arborist TX 0228



Don Gardner
Consulting Arborist

Registered Consulting Arborist #438
Certified Arborist TX0228

**TREE CARE
RECOMMENDATIONS
FOR
LIVE OAK GROVE**

**ON FORMER
TX DOT PROPERTY
LOCATED NEAR THE
INTERSECTION OF
BULL CREEK ROAD AND 45TH STREET**

SPRING, 2015

**PRODUCED FOR
MILESTONE BUILDERS
NORRIS DESIGN**

**Produced By
Don Gardner, RCA
Registered Consulting Arborist #438
Certified Arborist TX0228**

LEGEND FOR ABBREVIATIONS USED IN THE FIELD REPORT FORMS

By Don Gardner, RCA

- RV: Remove volunteers. The areas around and between the trees has been mowed using a tractor and shredder for many years. Fortunately, the mowers stayed away from the bases of trees and did not regularly hit them, which is often the case. However, in the spaces between the mowed areas and the tree trunk bases, many young sapling trees have grown. They range from one-half inch to three inches in diameter. In many instances there are so many volunteer trees and shrubs around the bases, one can barely get to the tree. The volunteer tree root systems are becoming interwoven with the large tree's root system. All of these volunteers must be removed. This work must be done carefully and sensitively.
- DW: Prune dead wood two inches in diameter and larger. Pruning large dead and decayed wood minimizes and prevents larger decay in trees, prevents many structural problems from happening, and preserves the tree many more years. Proper and skilled pruning, according to International Society of Arboriculture standards, is critical to preserving trees.
- Rep.: Repair is a pruning term that means to prune broken branches (usually caused by high winds) properly so the wound will close and decay will be minimized.
- Train: When tree crowns grow into each other, become tangled and branches interwoven, training prunes to separate the trees so they don't constantly rub wounds and cause broken and dead branches.
- Vines: Wild grape vines and poison ivy vines are not good for trees. They eventually shade out and break canopy branches.

Tree ID	Tree Species	Vigor	Structure	RATING 1-4	Maint. Task	Maint. Priority	Tree Comment
3211	C elm						RV = remove w/limb RV, DW, repair, remove low branch only
3212	LO						DW, repair remove chomestries
3213	LO						RV, close by
3215	LO						RV, DW, Repair
3214	C elm						RV DW, repair
3608	LO				Three 3/5um 1 tree		RV Repair and
3609	LO				leave if possible		RV Repair DW, leave
3216	LO						RV DW, repair
3926	LO						RV, DW, Rep
3217	LO						RV DW, rep.
3218	LO						RV DW, rep.
3925	LO						RV

Tree ID	Tree Species	Vigor	Structure	Observations	Maint. Task	Maint. Priority	Tree Comment
3927	LO						Remove trunk lateral and lower other
3928	elm.		DW	repair	RV - keep		
3219	LO						RV, DW, rep
3220	LO						RV, DW, rep
3233	LO						RV, DW, rep, remove tree.
3234	LO						RV, DW, rep
3235	LO						RV, DW, rep
3236	LO		Crown not right on survey				RV, DW, rep. portion way
3238	LO		1 crown				RV, DW, rep, remove
3237	LO						RV, DW, rep, vines
3241	LO						RV, DW, rep, remove
3242	LO						RV, DW, rep.
3239	LO						RV, DW, rep, train
3240	LO						RV, DW, rep, train
3244	LO						RV, DW, rep, train
3243	LO						DW, Rep, train
3251	LO						RV, DW, Rep, vines

P33

1=dead or dying 2=poor 3=fair 4=good

Tree ID	Tree Species	Vigor	Structure	RATING 1-4	Maint. Task	Maint. Priority	Tree Comment
3252	LO						RV, DW, Rep, Vines, train
3253	LO						RV, DW, Rep, Vines, train
3254	LO						RV, DW, Rep, train
3255	LO						RV, DW, rep
3246	LO	/	1 Crown				RV, DW, rep, train
3247	LO	/					RV, DW, rep, train
3248	LO						RV, DW, rep, train
3249	LO						RV, DW, rep, train
3250	LO						RV, DW, rep, train
3224	LO						RV, DW, rep, Vines
3225	LO						RV, DW, rep, train, Vines
3226	LO						RV, DW, rep, train

P4

1=dead or dying 2=poor 3=fair 4=good

Tree ID	Tree Species	Vigor	Structure	RATING 1-4	Maint. Task	Maint. Priority	Tree Comment
3221	LO						Dead - remove
3220	LO						RV, DW, Rep
3222	LO						RV, DW, Rep
3223	LO						RV, DW, Rep, Vines
3257	LO						RV, DW, Rep, Vines
3240	Sm						Remove - center loader broke
3228	LO						RV, DW, Rep
3229	LO						RV, DW, Rep
3230	LO						RV, DW, Rep
3227	Sm						RV, DW, Rep
3258	LO						RV, DW, Rep
3259	LO						RV, DW, Rep

P.8

1=dead or dying 2=poor 3=fair 4=good

Tree ID	Tree Species	Vigor	Structure	RATING 1-4	Maint. Task	Maint. Priority	Tree Comment
3260	LO						RV, DW, Rep
3261	LO						RV, DW, Rep
3262	LO						RV, DW, Rep
3265	LO						RV, DW, Repair, Veneer
3266	LO						RV, DW, Repair, Veneer
3263	LO						RV, DW, Repair
3264	LO						RV, DW, Repair
3268	LO						RV, DW, Rep
3269	LO						RV, DW, Rep, Veneer
3267	Dead						RV, DW
3295	LO						Remove broken branch, repair
3293	LO						Remove dead crown to sprout

Don Gardner
Consulting Arborist

Bull Creek Tree Care
Page 5

MT remove

Tree ID	Tree Species	Vigor	Structure	RATING 1-4	Maint. Task	Maint. Priority	Tree Comment
3294	LO						RV, DW, Rep, Vene
3287	LO		no tree top				RV, DW, Rep, elevate on west edge on west
3298	LO						
3299	—		most bare				
3292	LO						RV, DW, Rep, Vene
3290	LO						RV, DW, Rep, Vene
3288	LO						RV, DW, Rep, Vene
3289	LO						RV, DW, Rep, Vene
3291	LO						RV, DW, Rep, Vene
3300	LO						DW, Rep