



## MEMORANDUM

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

**FROM:** Chuck Lesniak, Environmental Officer  
Watershed Protection Department

**DATE:** June 9, 2016

**SUBJECT:** The Grove at Shoal Creek Planned Unit Development – C814-2015-0074 –  
Update 2

On June 1, the Environmental Commission held a hearing on The Grove at Shoal Creek Planned Unit Development (PUD). The Commission postponed the case to June 15 to allow the developer to negotiate and find resolution regarding 11 issues identified in its motion. Staff and the applicant met to discuss the identified issues on June 6. The purpose of this memo is to summarize the current status of each item in the Commission's motion. Additional details are provided in the attached staff memos and in the response and supporting documents provided by the applicant.

### **1. Obtain superiority in regards to parkland by working with the Parks and Recreation Board and the Parks and Recreation Department**

The applicant submitted an updated proposal to Parks and Recreation Department (PARD) staff on June 7. PARD staff responded to the applicant via email on June 8. Please see Attachment A – PARD Memo for additional information. The applicant states he is “committed to working with PARD to achieve this superiority and anticipates that further discussions will be warranted.”

### **2. Comply with at least three star green building requirements**

The applicant has not agreed to comply with at least a three-star Green Building program rating, but states that “the project team will endeavor to achieve a 3-star rating where practical.”

Austin Energy Green Building Program staff recommends that PUDs commit to achieving a two-star rating, as currently proposed by the applicant. AE staff does not recommend requiring a three-star rating. Please see Attachment B – AE Green Building Program Memo for additional information.

### **3. Create a drainage plan to ensure the safety of the surrounding properties**

During the hearing on June 1, many neighbors expressed concern about the potential for surface water runoff to flow from the PUD development onto the adjacent single-family residential properties on Idlewild Road. To address the neighborhood concerns, Watershed Protection Department (WPD) staff recommended to the applicant that the PUD include a condition that no surface water from the development (up to a 100 year storm) flow onto the properties along Idlewild Road.

The applicant has agreed that no storm water runoff from development northwest of the existing berm will be allowed to flow onto the properties on Idlewild Road. A small area south and southeast of the existing berm will continue to drain toward the Idlewild properties. However, this area will be reduced and will be comprised mostly of building setback (i.e., rear yards), which will decrease the amount of drainage that reaches the Idlewild properties. In addition, the project's drainage system will reduce the total area that drains to the swale, by capturing and diverting some of the runoff to the water quality pond or existing storm sewers. The on-site drainage system will also be designed to convey runoff from a 100-year storm event. Please see the applicant's response for additional details on the proposed commitments.

### **4. Draft a contingency plan to address unresolved drainage issues after the site is built out**

The applicant has not proposed additional commitments to address this item; please see the applicant's response.

### **5. Remove flex space from the parkland**

Flex Parks Space is one component of the ongoing discussions between the applicant and PARD. Please see Attachment A – PARD Memo for additional information.

### **6. Evaluate the impact that increased traffic to the site would have on air quality and noise pollution**

The Austin Transportation Department (ATD) does not currently have the resources to prepare an analysis of the air quality impact of the proposed PUD. ATD will seek to develop that capability in the future, but it is not currently resourced.

### **7. Protect 100% of the critical root zone of all trees on the site**

The applicant has not agreed to protect 100 percent of the Critical Root Zone (CRZ) of either all trees on site (which would effectively prohibit tree removal) or all preserved trees on site. The applicant has agreed to meet specific tree protection measures requested by the Austin Heritage Tree Foundation. These additional conditions include the following:

- a. The tree care plan shall prioritize remediation of construction impacts through air spading, root pruning, canopy pruning, deep root fertilizing, and/or other best practices recommended by a qualified arborist.
- b. Any cuts within the three-quarter CRZ of Signature Grove trees shall be made with an airspade or airknife and hand pruning prior to machine excavation.
- c. Stormwater pipes shall not impact the full CRZ of heritage trees in the Signature Grove.

- d. Where high intensity, hardscape uses are planned around heritage trees in the Signature Grove, the use areas shall be constructed with decks, sand bridging, or other root bridging construction to avoid heavy disturbance or compaction within the one-half CWQZ of these trees.

**8. List all the trees on the property including those 8"-19"**

Please see the Grove at Shoal Creek Tree Survey provided by the applicant.

During the hearing on June 1, neighbors raised a concern that the PUD development may remove trees adjacent to the properties on Idlewild Road. WPD staff recommended to the applicant that the PUD commit to not removing trees between the berm and the Idlewild Road properties. The applicant is evaluating this request.

**9. Evaluate the potential to tie in public transit to the site and develop other incentives to significantly reduce the number of car trips per day**

Capital Metro bus route 19 runs north and south along Bull Creek Road adjacent to the PUD site. Route 19 provides service north/west to Anderson High School and Northcross Mall and south/east to Seton Medical Center, the University of Texas, and downtown.

Transportation review staff previously required that the applicant work directly with Capital Metro to identify potential improvements to transit service. The applicant will coordinate with Capital Metro to upgrade and relocate existing bus stops.

In addition, several alternative transportation measures are included as Tier 2 superiority elements in the PUD. The project will provide the following elements to help reduce car dependency:

- a. Bicycle trails and shared use paths throughout the project;
- b. A pedestrian and bicycle bridge across Shoal Creek;
- c. A location for a B-cycle station;
- d. At least five car-sharing parking spaces;
- e. Shower facilities in all office buildings over 10,000 square feet, to help facilitate bicycle commuting;
- f. Bike parking for a minimum of ten percent of required vehicular spaces; and
- g. Bicycle cage parking in multifamily buildings.

(See the applicant's Exhibit D – Tier 1 and Tier 2 Compliance Summary for additional details.)

**10. Reduce the total development to 2.1 million square feet**

The applicant has not agreed to reduce the total square footage of all development within the PUD to 2.1 million square feet. The staff recommendation is based on a square footage limit of 2.4 million square feet, and the applicant has agreed to that condition.

**11. Work with staff to develop a plan to conduct an erosion control study along the entire length of the development's Shoal Creek frontage**

WPD staff has performed a preliminary analysis of potential erosion along the Shoal Creek frontage. Please see Attachment C – WPD Erosion Memo for additional information.

**Attachments**

- A PARD Memo
- B AE Green Building Program Memo
- C WPD Erosion Memo



# Memorandum

**To:** Environmental Commission Members

**From:** Ricardo Soliz, Division Manager

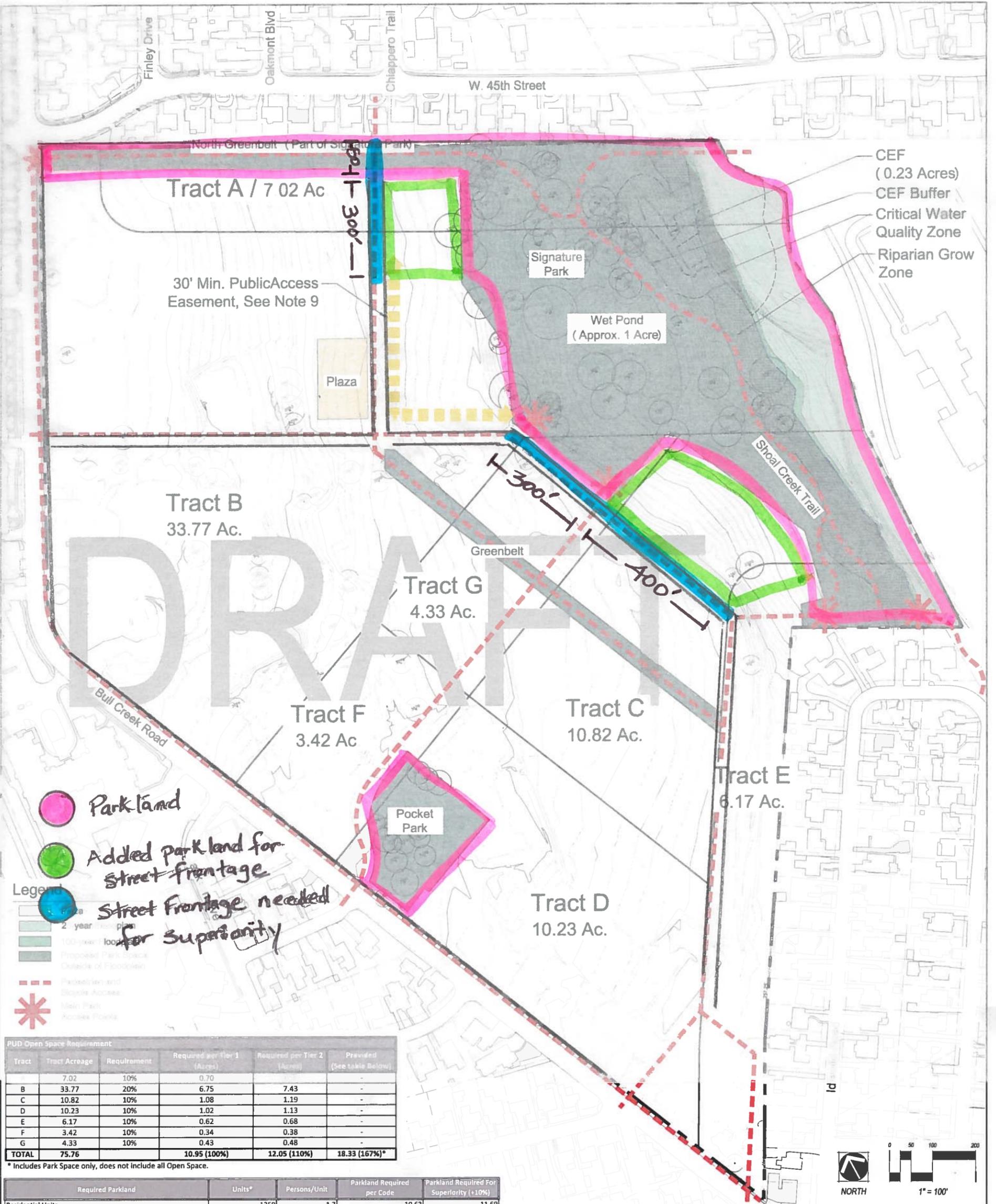
**Subject:** Parks and Recreation Department  
Status on the Grove at Shoal Creek

**Date:** June 9, 2016

Thank you for the opportunity to continue to work with the applicant by your action to postpone the Grove at Shoal Creek to see what progress could be made to reach “superiority” in regards to parkland. On Monday, June 6, 2016, the applicant had an opportunity to meet with City staff to discuss the plan of action to address the list of conditions outlined in the Environmental Commission’s motion. On June 8, 2016, the applicant submitted a revised Parks Exhibit to PARD to review and comment. On June 9, 2016, PARD provided the development team a response to that Parks Exhibit. PARD staff is waiting to hear back from the applicant. Attached is PARD’s response to the applicant latest Park Exhibit.

If I can provide you with additional information, please let me know at (512) 974-9452 or at [Ricardo.Soliz@austintexas.gov](mailto:Ricardo.Soliz@austintexas.gov).

Attachment(s)  
Park Exhibit from PARD  
E-mail to the Applicant by PARD staff



- Legend**
- Parkland
  - Added parkland for street frontage
  - Street frontage needed for superiority
  - 2 year floodplain
  - 100-year floodplain
  - Proposed Parkland Outside of Floodplain
  - Permitted and Bicycle Access
  - ✱ Main Park Access Points

PUD Open Space Requirement					
Tract	Tract Acreage	Requirement	Required per Tier 1 (Acres)	Required per Tier 2 (Acres)	Provided (See table Below)
B	7.02	10%	0.70	-	-
C	33.77	20%	6.75	7.43	-
D	10.82	10%	1.08	1.19	-
E	10.23	10%	1.02	1.13	-
F	6.17	10%	0.62	0.68	-
G	3.42	10%	0.34	0.38	-
TOTAL	75.76	10%	10.95 (100%)	12.05 (110%)	18.33 (167%)*

\* Includes Park Space only, does not include all Open Space.

Required Parkland	Units*	Persons/Unit	Parkland Required per Code	Parkland Required For Superiority (+10%)
Residential Units	1250	1.7	10.63	11.69
Congregate Care Units with Kitchens	150	1.7	0	1.4
TOTAL	1400	1.7	10.63	13.09

\*Does not include 110 Affordable Housing units.

Minimum Parkland and Open Space Compliance Table				
Park Space Provided	Approx. Size (Acres)	% Parkland Credit	Credited Parkland Acres	Open Space Acres
Signature Park in 25 yr Floodplain (Publicly Dedicated)	3.20	0%	0.00	3.2
Signature Park in 100 yr Floodplain (Publicly Dedicated)	0.235	50%	0.1175	0.235
CEF in Signature Park (Publicly Dedicated)	0.23	0%	0.00	0.23
CEF Buffer in Signature Park (Publicly Dedicated)	0.71	0%	0.00	0.71
Critical Water Quality Zone	0.24	0%	0.00	0.24
Wet Pond Permanent Pool in Signature Park (Publicly Dedicated)	1.00	50%	0.50	1.00
North Greenbelt, included in Signature Park (Publicly Dedicated)	0.87	100%	0.87	0.87
Remainder of Signature Park (Publicly Dedicated)	9.60	100%	9.60	9.60
Neighborhood Park (Publicly Dedicated)	1.25	100%	1.25	1.25
Greenbelt (Private/Public Easement)	1.00	50%	0.50	1.00
Plaza	0.50	50%	0.25	0.00
TOTALS	18.84		13.09	18.33

Note: The Signature Park will be a minimum of 16.09 acres in size (including floodplain, CEF, North Greenbelt, etc). All other park acreages are approximate. Total Credited Parkland for the project must be at least equal to the total shown in this table.

**Notes:**

- Plaza: Only areas of the plaza that are publicly accessible and designed for active recreation and community gathering may be credited as parkland. Appropriate parkland uses for the plaza include interactive water features, children's play features, performance areas, game areas, and areas designed for free and casual congregation. If final plaza design does not meet these standards, an additional 0.25 acres of parkland shall be provided elsewhere on site.
- All park space shall be improved and maintained by the Applicant, as described in the Master Parkland Agreement.
- Park, trail, and pedestrian and bicycle access locations depicted in this exhibit are approximate and intended to demonstrate compliance with Tier 1 and Tier 2 requirements. Exact locations and boundaries will be determined at Site Plan.
- Trails in the PUD that are shown on the Austin Urban Trails Master Plan at the time of Site Plan shall be constructed per the standards of that plan. These trails must be within dedicated public easements or dedicated parkland.
- The Wet Pond will be designed as an amenity. Recreational uses shall be adjacent to and/or interact with the pond and users shall be able to approach the pond in multiple locations.
- Public parking shall be provided to serve the signature park. This may be on-street parking, garage parking, surface lots, or a combination thereof.
- Subject to approval by the City, a trail connection shall be provided from the Shoal Creek Trail to Jefferson Street on the City owned land at this location.
- The signature park shall have a minimum of 400' of total street frontage. This may be a combination of frontage on Bull Creek Road, Jackson Avenue, and internal roadways.
- A minimum 30'-wide public access easement shall be provided adjacent to public roadways on any non-residential land uses that border the Signature Park (e.g. restaurants). This easement shall be designed as a public space and shall connect to the Signature Park

**The Grove at Shoal Creek Planned Unit Development  
Parks Plan Exhibit**

June 8, 2016

Jeff, Garrett, Robert and Ron, thanks for providing an updated exhibit and for placing the Flex Space into the Signature Park and removing the note related to Flex Space. Also, thanks for placing the label Pocket Park on the pocket park, please change the terminology in the table as well.

Here are the items we discussed at the **Parks Board on May 24 needed for Superiority.**

- 1) Parkland is provided at 10% above the required land dedication. This includes: Placing the 2 acres of Flex Space in the Signature Park; Adding approximately 3 acres to the Signature Park with more street frontage and usable play space away from residences
- 2) The exact number of dwelling units is required for PARD to make the exact PLD calculation for minimum land required.
- 3) A trail is built that connects the development to the Shoal Creek Greenbelt at Jefferson Street south of the development;
- 4) Removal of the residential uses around the Neighborhood Park to make the park more public and allow for full use of all the acreage or create a larger buffer from the homes;
- 5) Continue to include at least \$750 per unit on park development

**The June 7 Park Exhibit emailed from the applicant on 6.7.2016 addresses the following (green is what PARD considers DONE ✓):**

- 1) Parkland is provided at 10% above the required land dedication.  
This includes:

- ✓ a) Placing the 2 acres of Flex Space in the Signature Park;
- b) Adding approximately 3 acres to the Signature Park with more street frontage and usable play space away from residences

✓2) The exact number of dwelling units is required for PARD to make the exact PLD calculation (Shown in the new June 7 exhibit)

✓3) A trail is built that connects the development to the Shoal Creek Greenbelt at Jefferson Street south of the development; (Shown in Note 7 on the June 7 Parks Exhibit)

4) Removal of the residential uses around the Neighborhood Park to make the park more public and allow for full use of all the acreage or create a larger buffer from the homes;

✓5) Continue to include at least \$750 per unit on park development (Will be included in Park Improvement Agreement, this number has not changed)

**Attachment to this email: What PARD considers would address 1b and 4).**

- The addition of 650 to 700 LF of frontage to the Signature Park for a total frontage of 1,050 to 1,100 LF of street frontage. (note the LF measurements shown on the attached are for reference and are NOT exact)

**Rationale for frontage and acreage needed to provide the frontage:**

- The development along the frontage of most of the Signature Park will hide the park amenities, much as the playscape at Central Market and the Arboreteum cow sculptures are hidden from street view at those developments today. Those are not parkland. They provide an example of how we feel the Applicant's configuration will not address the public realm.
- Full credit was given to the grow zone (1.63 acres) due to its scenic value. However, in light of Watershed Protection Department's comments regarding some continued bank erosion, we are concerned that some portion of that acreage may not exist in future years. In light of this new information, PARD believes that some of this acreage must be recovered elsewhere in the Signature Park.
- As we explained at the Parks Board, much of the Signature Park acreage will have limited recreational uses, particularly if there is a requirement to increase the Critical Root Zone protection or if design requires the pond size to increase. This would could create a need to move the trail closer to the restaurant area.
- We need street frontage for superiority, regardless of how much acreage is owed. To this end, we would change Note 8 on the June 7, 2016 Park Exhibit that state: " the signature park should have a minimum of 400 feet of total street frontage" to " the signature park should have a minimum of 1,100 feet of total street frontage." Also see the attached graphic that extends the proposed park space outside of floodplain to show the street frontage.
- PARD does not agree with the public access easement in lieu of actual park street frontage. The yellow dashed arrows should be removed along with note #9.

Ricardo Soliz



City of Austin  
**Austin Energy**

Town Lake Center • 721 Barton Springs Road • Austin, Texas 78704 - 1145

6/09/2016

Environmental Commission Motion Form 20160601 008b

Dear Environmental Commission,

I am writing to provide some background information and context for Austin Energy Green Building (AEGB) rating requirements and to provide staff's recommendation that the Grove Shoal Creek PUD comply with at least two star green building requirements.

An AEGB rating includes a core component of rating requirements and a menu of additional voluntary measures. The rating is broken into categories: Site, Energy, Water, Indoor Environmental Quality, Materials and Resources, Education and Equity and Innovation. Achieving the rating requirements alone is a significant effort compared to building to code, and earns a project the designation of a One Star AEGB Rating. Rating requirements include achievement in Energy, Water, Indoor Environmental Quality and Materials categories. A Two Star Rating is earned when a project earns approximately thirty-five percent (35%) of the additional measures and a Three Star Rating is earned when a project earns approximately forty-five percent (45%) of the additional measures. Those specific points a project pursues are entirely up to the project and their sustainability objectives, so the difference is first and foremost a matter of degree.

AEGB staff recommends a Two Star PUD requirement for the following reasons:

- An Austin Energy Green Building Two Star Requirement is considerably less demanding to administer through the building design and permitting process -, for both staff and the project team than a three star requirement. Any project which is required to achieve an AEGB rating must document that their design is on track to achieve the required rating for the scope of work being permitted at Permit Application and again at Certificate of Occupancy. In our experience, a Two Star project of any type or scope (including Shell Construction for speculative tenants) can document their rating by selecting points that are typically documented for any scope of work in the design phase or at building occupancy. Operational items that contribute to ratings are not typically determined within this scope of work or at these phases in the process so, they can be difficult to document and require additional documentation outside the scope of a standard permit set. Projects that are

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on track for Two Stars during design phase often add some of these points later in the process, under separate permits and end up achieving Three Stars. Three Star requirements are particularly challenging for speculative development with unknown tenants as they must be designed for flexibility to accommodate a variety of real estate priorities or preferences. For example, green buildings are characterized by open offices to accommodate natural lighting and views to the outdoors, however, a medical office building must provide partitions to meet privacy standards. Austin Energy is committed to helping projects achieve the highest rating level they can achieve, however the timeline and sequence of the permitting process does not always align with the natural sequence for ratings. This is why LEED Green Building Certifications are often not earned until a year after building occupancy.

- The City of Austin (COA) is committed to continuous improvement of baseline building standards through a regular building code adoption cycle on which AEGB ratings are based. The COA is preparing to adopt the 2015 International Building Code and update the AEGB Ratings, raising the baseline for new projects.
- Limited Resources: At present, there are about 18 million square feet of commercial building projects in the AEGB program and staff is dedicated to the continued quality of services provided. Consulting on and reviewing a Three Star requirement project requires considerably more time on a tighter timeline than a Two Star requirement.
- AEGB staff's position is that the AEGB rating should be used to define, promote and further the City's sustainability goals. Any Austin Energy Green Building rated project represents a significant achievement in Energy Efficiency, Water Efficiency and Material efficiency. Green Building Ratings were conceived as voluntary programs to demonstrate leadership in the built environment and considerable work has been made to use these ratings in development requirements, however this is not the intended use of the program. Much experience and expertise has informed this recommendation for two star requirements.

Kind regards,



Kurt Stogdill  
Manager, Green Building & Sustainability



## MEMORANDUM

**TO:** Chuck Lesniak, Environmental Officer

**FROM:** Janna Renfro, P.E.  
Watershed Protection Department  
Environmental Resource Management

**DATE:** June 9, 2016

**SUBJECT:** Erosion Evaluation of Shoal Creek at The Grove PUD Property

### Information Requested

As requested, staff conducted a preliminary analysis of erosion along Shoal Creek at The Grove property. This analysis supports the Environmental Commission's June 1, 2016 motion (Form 20160601 008b) for the applicant to "work with staff to develop a plan to conduct an erosion control study along the entire length of the development's Shoal Creek frontage." This memo summarizes the following information:

1. Potential impact of future erosion to the proposed parkland and riparian buffer
2. Geomorphic analysis of Shoal Creek on the subject property
3. Estimated cost of engineering solutions to repair or prevent erosion damage

Staff performed a preliminary analysis based on the visual record. The Watershed Protection Department does not have geotechnical information for the site, but staff is familiar with erosion patterns at similar sites in Austin. However, this is a planning level of analysis.

### Erosion Impact

The potential impacts are visualized in the attached map and listed below:

- Loss of land to the streambed is mostly confined to current floodplain, which is dedicated parkland, but not credited parkland
- Riparian Grow Zone will be mostly eroded as the bank stabilizes
- Potential future trail conflicts exist
- Wet pond outfall will need to avoid areas of future erosion
- The past erosion rate is ~10 feet/year. The future erosion rate is dependent upon storm events.

### Geomorphic Analysis

The geomorphic analysis considered aerial images from 1997, 2003, 2012, and 2015. Elevation data (City of Austin LiDAR) was used to truth the aeriels for 1997, 2003, and 2012. For each of these years, the bed of the channel was identified to track meander bend migration and erosion progression. The channel alignment has remained mostly stable with the exception of the large meander bend that begins approximately 250' downstream of the 45<sup>th</sup> Street Bridge. This erosion is progressing both downstream and laterally inland.

Directly upstream of 45<sup>th</sup> Street, the channel is mostly situated in bedrock (Buda formation). On the subject property, the channel banks are Del Rio clay formation and vulnerable to weathering and erosion. The stretch of Shoal creek from 45<sup>th</sup> Street to 38<sup>th</sup> street is a relatively straight channel with mildly curved bends, suggesting that severe meanders are not likely to develop. It is possible that this particular erosion location is highly affected from the bridge hydraulics and sudden change in geology downstream of 45<sup>th</sup> Street.

While it is difficult to precisely predict the evolution of urban streams that are highly impacted by the built environment, the erosion does show a consistent pattern of downstream migration – approximately 175' in 18 years. It is reasonable to assume that this pattern will continue as shown in the attached map, with the rate of movement dependent upon storm events. The downstream migration is expected to taper off as the stream reaches a pattern that mimics the historically stable downstream conditions. It is also reasonable to believe that the erosion will stabilize as the influence of the bridge hydraulics lessens further downstream.

The erosion has progressed 125' laterally at the worst point. It is reasonable to believe that the lateral erosion rate will slow or stop as the channel widens and the radius of curvature of the bend increases, moving the channel towards equilibrium.

Once the channel toe has adjusted, the banks will relax to a stable slope, assumed to be 4H:1V. This is a conservative assumption, with a sufficient factor of safety. Geotechnical borings and soil testing could refine this value. The banks are approximately 20', so the top of bank could be 80' from the toe based on the conservative assumption. However, depending on soil conditions, the top of bank could stabilize closer to the toe.

The attached map shows two blue dotted lines that show the predicted toe of slope (light blue) and top of bank (dark blue).

### Preliminary Cost Estimates

Three levels of projects could be considered to address this erosion should it be deemed a problem. A standard capital planning level cost estimate for streambank stabilization project assumes full bank restoration designed by an outside engineering firm and constructed by a private contractor. This project would be a major undertaking and likely excessive for the actual need; however it is used as a starting point and less invasive projects are considered based on a factor of reduction. A more detailed cost analysis could be developed given more time.

#### Costs to Stabilize 500' Meander Bend on The Grove Property:

Full bank restoration with engineered limestone block wall:	\$1,800,000
Reinforced toe with vegetated banks sloped to 4:1:	\$900,000
Redirective flow structures to prevent further loss:	\$600,000

I am happy to answer any questions or provide further information, as needed.

Attachments: Map – The Grove PUD Erosion Assessment

**CC: Andrea Bates  
Mike Kelly**

# The Grove PUD Erosion Assessment

## Potential Future Erosion Limits

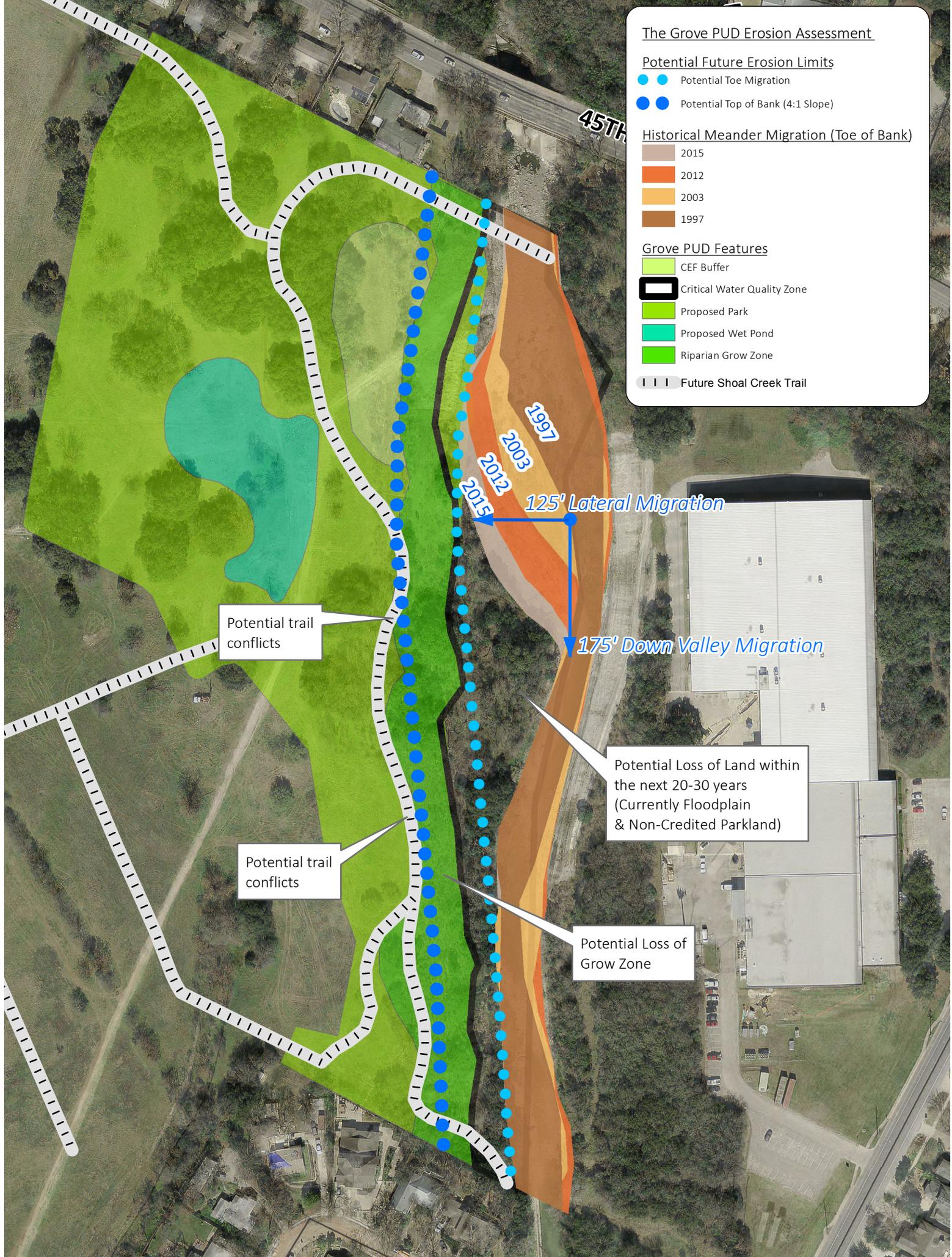
- Potential Toe Migration
- Potential Top of Bank (4:1 Slope)

## Historical Meander Migration (Toe of Bank)

- 2015
- 2012
- 2003
- 1997

## Grove PUD Features

- CEF Buffer
- Critical Water Quality Zone
- Proposed Park
- Proposed Wet Pond
- Riparian Grow Zone
- Future Shoal Creek Trail



Potential trail conflicts

Potential trail conflicts

Potential Loss of Land within the next 20-30 years (Currently Floodplain & Non-Credited Parkland)

Potential Loss of Grow Zone

125' Lateral Migration

175' Down Valley Migration

1997

2003

2012

2015

45TH