

MASTER REVIEW REPORT

CASE NUMBER: C814-2014-0120

CASE MANAGER: Victoria Haase

PHONE #: 512-974-7691

REVISION #: 00

UPDATE: 3

PROJECT NAME: Austin Oaks Planned Unit Development

LOCATION: Southwest Corner of Mo-Pac and Spicewood Springs Road (3409, 3420, 3429, 3445, 3520, 3636, 3701, 3721, 3724, and 3737 Executive Center Drive and 7601, 7718 and 7719 Wood Hollow Drive)

SUBMITTAL DATE: April 21, 2016

REPORT DUE DATE: May 17, 2016

FINAL REPORT DATE: July 1, 2016

REPORT LATE: 45 days

IMPORTANT INFORMATION:

- This report includes staff review comments received **to date** concerning your application. The PUD application will be forwarded for Environmental Board and Zoning and Platting Commission recommendations, and City Council action. At this time, staff has not made a recommendation regarding the entirety of the application; as such, the PUD application is considered not recommended for approval.
- Please note, if you have any questions/concerns about review comments, or you require additional information about items in this report, please contact the listed individual reviewer or case manager.
- The attached report identifies those requirements that must be addressed by an update to your PUD application in order to obtain a positive recommendation for approval. This report may also contain recommendations for you to consider, but are not required.
- Please note, additional requirements, recommendations, or comments may be generated as a result of information or design changes provided in subsequent updates.
- **UPDATE DEADLINE:** It is the responsibility of the applicant or his/her agent to update this PUD application. All updates must be submitted within 180 days from the date your application was filed [Sec. 25-5-113]. Otherwise, the application will automatically be denied.
- If due dates or expiration dates fall on a weekend or City of Austin holiday, the next City of Austin workday will be the deadline.

The following Staff should receive a packet for UPDATE #4:

Austin Energy (AE):

Electric - Jenna Neal, 512-322-6110

Green Building - Sarah Talkington, 512-482-5393

Development Services Department (DSD):

LUR Supervising Engineer – Andy Linseisen

Transportation – Scott James, 512-974-2208

Transportation – Bryan Golden, 512-974-3124

City Arborist – Keith Mars, 512-974-2755

City Arborist – Michael Embesi, 512-974-1876

Environmental – Atha Phillips 512-974-6303

Water Quality & Drainage – Danielle Guevara, 512-974-3011

Site Plan Review – Donna Galati, 512-974-2733

Public Works Department (PWD):

Bicycle Program – Nathan Wilkes, 512-974-7016

Planning and Zoning Department (PZD):

Zoning Review & Case Manager – Victoria (Tori) Haase, 512-974-7691

Comprehensive Plan Review – Kathleen Fox, 512-974-7877

Watershed Protection Department (WPD):

Environmental – Chuck Lesniak, 512-974-2699

Environmental – Andrea Bates, 512-974-2291

Wetland Biology – Andrew Clamann, 512-974-2694

Hydro-Geology Review – Sylvia Pope, 512-94-3429

Water Quality & Drainage – Reem Zoun, 512-974-3354

Parks and Recreation Department (PARC):

Planning – Marilyn Lamensdorf, 512-974-9372

Neighborhood Housing & Community Development (NHCD):

Jessi Koch, 512-974-3184

AE Electric – Jenna Neal

Ph: 512-322-6110

Email: Jenna.Neal@austinenergy.com

[from original review]

EL 1. FYI: Any relocation of existing electric facilities shall be at developer's expense.

EL 2. FYI: Ron Solbach at ph. 512-504-7145 or Ronald.solbach@austinenergy.com is the initial Austin Energy contact for electric service design.

EL 3. FYI: Austin Energy's electric system maps show an underground electric duct bank that runs along the lot line between Lot 5, Koger Executive Center Unit 3 and Lot 6A, Resub of Lot 6, Koger Executive Center Unit 3.

This duct bank not only powers the building on Lot 6A but also the properties to the south across Executive Center Drive.

New Comments (U3)

EL 4. Additional electric and telecommunications easement along and adjacent to Wood Hollow Dr, Executive Center Dr, Loop 1/ Mopac, Spicewood Springs Rd, and Hart Ln will be needed to bring power to the new development(s). The typical easements needed to bring a 3-phase main feeder along the road will need to be 15' wide.

EL 5. Only Utility Compatible trees may be planted within 10' of existing and / or proposed Austin Energy electric facilities.

*The City's Environmental Criteria Manual (ECM) 2.4.1.D and 2.4.2.C state, "In areas where utility lines are present or proposed **only trees from the Utility Compatible Shade Trees list** (see Appendix F*

https://www.municode.com/library/tx/austin/codes/environmental_criteria_manual

AE Green Building Program – Sarah Talkington

Ph: 512-482-5393

Email: Sarah.Talkington@austinenergy.com

The PUD language pertaining to Green Building is not acceptable (Ordinance, PART 9, no. 1). Please change the PUD agreement as follows:

Green Building Rating

1. *A building in the Austin Oaks PUD that is served by Austin Energy must achieve a two-star rating under the City's Austin Energy Green Building program using the applicable rating version in effect at the time a rating application is submitted for the building.*
2. *A single family residential building in the Austin Oaks PUD that is not served by Austin Energy must achieve a two-star rating under the Austin Energy Green Building extended area rating network using the applicable rating version in effect at the time a rating application is submitted for the building.*

Neighborhood Housing & Community Development – Jessi Koch

Ph: 512-974-3184

Email: Jessi.Koch@austintexas.gov

Continue to work with NHCD to craft specific affordable housing requirements.

Fire Department Review - Cora Urgena

Ph: 512-974-0184

Email: Cora.Urgena@austintexas.gov

1. Fire department access roads, fire hydrant spacing and the required fire flow must comply with IFC and will be verified when the site plans for construction are submitted.

Parks & Recreation Dept. Planning – Marilyn Lamensdorf

Ph: 512-974-9372

Email: Marilyn.Lamensdorf@austintexas.gov

UPDATE 3:

- PR1. On Exhibit C, add a column labeled Open Space Required and show the open space required for each Area No. (10% for residential, 20% for commercial)
- PR2. On Exhibit G, provide a table with the following categories and acreages:
 - Parkland in the 25-year floodplain, CEF or CEF buffer (0% credit for parkland)
 - Parkland between the 25-100 year floodplain (50% credit for parkland)
 - Parkland outside the Floodplain (100% credit)
 - Open Space, not counting toward parkland credit

PR3: Continue to work with PARD on parkland dedication credits.

PR4: A Biofiltration Area is shown on Exhibit G. Please explain the type of park amenity that will be in this space. Is this a required infrastructure element for water quality for the project that would prevent the use of the area for recreation?

WPD Environmental Office Review – Andrea Bates

Ph: 512-974-2291

Email: Andrea.Bates@austintexas.gov

Tier 1 & Tier 2 Compliance (superiority table)

EO 1. *Tier 1, #3, open space.* Please specify the amount of open space required based on land use, and state the exact amount of open space provided by the PUD. (Current language is “more than 10.92 acres.”)

EO 2. *Tier 1, #8, minimum landscaping requirements.* Please specify how the project will exceed the minimum landscaping requirements of the Code, and clarify any references to the “Grow Green Program.” Grow Green is an educational program, not a specific set of requirements. Please note that using native and adapted plants from the Grow Green Guide and providing an IPM for the PUD are not sufficient to exceed the minimum landscaping requirements as required by Tier 1.

EO 3. *Tier 2, #1, open space.* Please specify the amount of open space required based on proposed land uses, and state the exact amount of open space provided by the PUD. (Current language is “more than 10 acres.”) Parks and open space areas are not shown on the Land Use Plan, as stated in the Tier 2 table narrative. Please identify all park and open space areas on the Land Use Plan.

EO4. *Tier 2, #1, open space.* For environmental superiority, the provided open space acreage must exceed the acreage of protected environmental features – including floodplain, CWQZ, and CEF buffers. Please calculate and provide the acreage of floodplain, CWQZ, and 150’ CEF buffers that are not currently developed. Include acreage totals for each of the three categories and a combined total that accounts for any overlap. Staff will then confirm whether the provided open space is larger than the floodplain/CWQZ/CEF area that would need to be protected anyway under §25-8-25 (see note EO 6).

EO 5. *Tier 2, #2, environment.* Please revise the Tier 2 table to include all of the Environmental/Drainage criteria listed in the code (Chapter 25-2(B), Article 2, Division 5, §2.4). Each code criterion should be listed in a separate row, and the Compliance and Explanation columns should state whether and how the project is meeting that criterion (i.e., yes, no, or not applicable; for yes, a description of the proposal). Proposed superiority items that do not fit under code criteria can be added under “Employs other creative or innovative measures to provide environmental protection.” Please ensure

that the description in the Explanation column is specific enough to provide a review standard for future development applications.

EO 6. *Tier 2, #2, environment.* As a general guideline, any statements that confirm the project will comply with code, rather than exceed code requirements, should be removed from the Tier 2 table. It is staff's understanding that the applicant is electing to redevelop under §25-8-25 – Redevelopment Exception in Urban and Suburban Watersheds. Please use the requirements of §25-8-25 rather than the remainder of Chapter 25-8(A) to determine whether the PUD proposal is superior to current code. (Chapter 25-7 and Subchapter 25-8(B) are still applicable.)

EO 7. *Tier 2, #2, environment.* Please provide the existing square footage of impervious cover within the CWQZ and 150' CEF buffers, the square footage of impervious cover proposed to be removed, the square footage of any new non-compliant impervious cover or other development to be located in those areas, and the minimum distance of existing and proposed non-compliant development from the creek and CEF. This analysis should be performed separately for the CWQZ and each CEF setback on each parcel.

EO 7. *Tier 2, #2, environment.* Please provide additional information about the proposed restoration in the CWQZ and CEF buffers. Staff suggests the following draft language:

The PUD shall restore the critical water quality zone and CEF buffer areas identified in Exhibit H, Creek Plan. A restoration plan shall be submitted to the City for review and approval and implemented with each site plan for Parcels 2, 3, 4, and 5. The restoration plan shall include planting and seeding pursuant to Standard Specification 609S and must demonstrate that the following parameters of Appendix X "Scoring: Zone 2 – Critical Water Quality Zone" shall be raised to "Good (3)" or "Excellent (4)" condition: Gap Frequency, Soil Compaction, Structural Diversity, and Tree Demography.

Per the above language, Exhibit H should show all areas within the CWQZ and 150' CEF setbacks where existing impervious cover will be removed and restoration will be performed.

EO 8. *Tier 2, #2, environment.* Please note that pedestrian paths and a pedestrian bridge may be allowed in the CWQZ pursuant to §25-8-25, but they do not contribute to environmental superiority. Please remove these references from the environment/drainage section of the superiority table.

EO 9. *Tier 2, #2, environment.* To determine the proposed reduction in impervious cover, please specify the maximum impervious cover allowed by code for the current zoning districts (on both an aggregate and parcel-by-parcel basis, if applicable).

EO 10. *Tier 2, #2, environment.* Please provide any known details about the proposed inundation area on Parcel 3 (e.g., that it will be located where impervious cover is removed; whether it will be within the CWQZ or CEF buffers; approximate location, size,

depth, etc.). Staff understands that the inundation area will be designed at site plan, but any additional information that can be provided at this time would be useful to include. In order to evaluate the level of superiority provided by the detention area, please provide a comparison of the proposed volume to what the detention requirement would be if the PUD were currently undeveloped.

EO 11. *Tier 2, #2, environment.* Please continue to work with staff to determine whether the proposed tree removal, protection, and mitigation meet code, require a code modification, and/or contribute to environmental superiority.

Exhibit C, Land Use Plan

EO 12. As noted in EO 3, please identify park and open space areas on the land use plan.

EO 13. Please identify the standard 150' buffer for all CEFs.

EO 14. The CWQZ, 100-year floodplain, and CEF buffers are difficult to read on this plan. Please revise the symbology to better illustrate the environmental features on the land use plan. Can the Erosion Hazard Zone and Drainage Easements be removed to make the plan easier to read?

Exhibit H, Creek Plan

EO 15. Please identify the standard 150' buffers for all CEFs.

EO 16. As noted in EO 14, the boundaries on this exhibit are difficult to read. Please revise the symbology to better illustrate the environmental features and restoration areas, and remove any information that is not necessary for PUD review (e.g., EHZ, drainage easements, etc.).

EO 17. Please delete notes 1, 2, and 5, and delete or revise notes 3, 4, and 6 to reflect requested changes to the superiority table. All significant elements of the PUD proposal should be included in either the superiority table or a code modification table. Notes on the exhibit can repeat, reference, or add details to those proposals, but the exhibit notes should not be the only source of this information.

Exhibit J, Tree Plan

EO 18. This exhibit is hard to read. If the purpose is to designate every tree as either preserved or removed, it might be useful to incorporate color (e.g., green and red) into the plan, and add a detailed table with tree number, species, size, and proposal (preserved, removed, relocated).

Applicant's Draft Ordinance

EO 19. As a general guideline, all of the environmental and drainage information in the applicant's draft ordinance should be included in the superiority table, code

modification table (if necessary), and/or exhibits. The applicant's draft ordinance should not be the sole source of information about specific PUD proposals.

EO 20. Please create a code modification table that includes any proposed changes to existing code. It is difficult to identify and understand all of the proposed code modifications from reading the draft ordinance (e.g., Exhibit F contains code modifications but does not always specify current requirements). If the applicant is proposing to use the redevelopment exception, then the only proposed code modifications to Subchapter 25-8(A) should be to §25-8-25. Please delete the proposed code modifications to §25-8-281 and -372 in Part 12 items 1, 2, and 3.

EO 21. *Part 5, 1, J.* Please revise the description of the Creek land use classification to clarify that it does not supersede or change the requirements for development within a CWQZ or CEF buffer established in §25-8-261, §25-8-281, and §25-8-282. Also, the reference to Parcel 1 may need to be removed; Exhibit H does not identify any Creek land use on Parcel 1.

EO 23. *Part 8, 2.* Please clarify that the Creek land use classification and Exhibit H do not supersede or change the requirements for development within a CWQZ or CEF buffer. Any modifications to Subchapter 25-8(A) should be to §25-8-25 and should be explicitly listed in a code modification table.

EO 24. *Part 8, 7.* Please clarify that the Creek land use classification and Exhibit H do not supersede or change the requirements for development within a CWQZ or CEF buffer. Any modifications to Subchapter 25-8(A) should be to §25-8-25 and should be explicitly listed in a code modifications table.

EO 25. *Part 9, 2 and 3.* Please delete; these code modifications are not necessary if the PUD is electing to redevelop under §25-8-25.

EO 26. *Part 9, 4. EO 11.* Please continue to work with staff to determine whether the proposed tree removal, protection, and mitigation meet code, require a code modification, and/or contribute to environmental superiority.

EO 25. *Part 9, 5.* Please delete or propose a specific code modification to §25-8-25.

EO 26. *Part 9, 6.* Please delete the first sentence; it is not necessary to restate code requirements.

EO 27. *Exhibit D, D.* Please revise to clarify that the Creek "development" consists of the restoration and open space development allowed by code and specified in the superiority table and Exhibit H.

EO 28. *Exhibit F, 4.* Please delete; this code modification is not necessary if the PUD is electing to redevelop under §25-8-25.

EO 28. *Exhibit F*, 7. Please delete; this code modification is not necessary if the PUD is electing to redevelop under §25-8-25.

EO 28. *Exhibit F*, 9. Please delete; an ERI and Hydrogeologic Report will be required with each site plan.

EO 29. *Exhibit F*, 11. This is a code modification to the landscaping requirements. Tier 1 requires PUDs to exceed landscaping requirements. Any code modifications to §25-2-1008(A) must be offset by additional landscaping superiority in order to meet the Tier 1 requirements.

WPD Drainage & Water Quality Engineering Review – Reem Zoun

Ph: 512-974-3354

Email: Reem.Zoun@austintexas.gov

1. Please provide a drainage report with relevant hydrologic and hydraulic analyses showing the proposed detention pond with a volume at least 20,000CF in addition to the existing detention pond on-site (Kroger Pond); the existing and proposed drainage plan for the site; and no adverse impact downstream for 2yr, 10yr, 25ys and 100yr storm events.
2. Please provide hydrologic analysis to show the required detention pond size for the Austin Oaks site treating the site as green field development and hydraulic analysis to show the impact of such detention volume downstream. Please document this in the drainage report.
3. Consider providing additional detention volume at the water quality pond location.
4. Consider providing detention volume by sloping the banks outwards from existing channel.

WPD Hydro Geologist Review – Sylvia R. Pope, P.G.

Ph: 512-974-3429

Email: Sylvia.Pope@austintexas.gov

Please note: Update 3 is considered a new plan due to the change in design and applicant's consultants. Therefore, all comments should be considered new.

Update 3. Submitted 4/21/2016

- HG 1. There are two geological Critical Environmental Features on Parcel 2 at the southeastern corner of Wood Hollow Drive and Executive Center Drive. These are a canyon rimrock and a seep that is within the canyon rimrock. Their locations are shown on the PUD plan sheets, Exhibits C, H and K. Critical Environmental Feature (CEF) buffers of 50 feet are shown for future reference

within this redevelopment. An existing parking lot upslope of the CEFs will be removed within 50 feet of the CEFs. This action may be viewed favorably and contribute to an element of environmental benefit as part of the redevelopment under Chapter 25-8-25. However, additional specific restoration details need to be provided in order for staff to support the proposed restoration as a Tier 2 component.

- HG 2. There is an offsite spring located to the north of Parcel 7 and north of Spicewood Springs Road. Exhibit K of the Land Use Plan shows a 300-foot radius buffer from the spring and the legend states that the area will be limited to 50% impervious cover. However, this pledged restriction is not repeated in the Tier 1 & Tier 2 compliance table. Please add specific restrictions to the Tier 1 & Tier 2 compliance table.
- HG 3. Portions of the PUD are within the Recharge Zone of the Northern Edwards Aquifer and portions close to the eastern perimeter are outside, per surface exposure of geologic units. Although not required under the Redevelopment Exception (LDC 25-8-25), the recommendation is that the PUD agreement should comply with the City of Austin's Void and Water Flow Mitigation Rule (LDC 25-8-281 (D), ECM 1.12.0 and COA Item No. 658S of the SSM). This is a standard provision for development over the recharge zone and would demonstrate a commitment to protection of groundwater resources.
- HG 4. Please note that construction of underground parking structures has the potential to intercept shallow groundwater. Due to the proximity of Spicewood Springs, disturbance to groundwater flow paths may have an impact to the Jollyville Plateau Salamander habitat at Spicewood Springs. Please describe how this situation has been evaluated and whether any underground parking structures or excavation greater than 8 feet is proposed on Parcels 7, 8, 9 and 10.
- HG 5. A proposed pedestrian trail along the creek is alluded to within the documentation. Please provide additional specific alignment for Parcel 2 and how this will be incorporated into the standard protection for the CEFs. Please evaluate how the area of impervious cover removed and restored contrasts with the area restored within 150 feet of CEFs. Please incorporate proposed measures into the Tier 1 & Tier 2 Compliance table, especially on Item 6.
- HG 6. The Tier 1 & Tier 2 Compliance table lists in Item 2 of the Tier 2 section several elements of the project that warrant an "environmentally superior" rating. Please provide specific detail in the Land Use plans and Exhibits to the PUD to support that the project is superior in terms of Critical Environmental Feature protection and restoration.
- HG 7. The PUD ordinance, Part 12, specifically excludes LDC sections 25-8-281(C)(1)(a) and 25-8-281(C)(2) of the Critical Environmental Feature provisions. Please strike numbers 2 and 3 from this section.

HG 8. Additional comments may be generated with future updates.

WPDR Wetlands Biologist Review – Andrew Clamann

Ph: 512-974-2694

Email: Andrew.Clamann@austintexas.gov

WB1. Comment cleared (wetland CEFs shown as described in ERI)

WB2. **Update 0.** Please show a contiguous 50ft CEF setback from centerline on both sides of creek.

Update 1. 5/18/2015: Currently, the only CEF setbacks shown in figures are the CEF setbacks associated with the Rimrock, however there should be CEF setbacks shown associated with wetland CEFs. PUD figures should show all CEF setbacks, including all wetland CEF setbacks. Instead of the Standard 150ft CEF setback from wetland CEFs, the applicant may apply a 50ft CEF setback from the centerline of the channels. This can be approved as an administratively modified CEF setback and reduction to setback area in conjunction with mitigation (see next comment) pursuant to ECM 1.10 (formerly ECM 1.3).

Update 2. 8/19/2015: The setback is labeled "50' Creek Centerline Setback" rather than "Wetland CEF Setback". Additionally, the setback is not contiguous, ends prematurely on the North end, and is not clearly visible. This ambiguity is not acceptable. This reviewer recommends a meeting with applicant to ensure an appropriate and acceptable revision to

Update 3. (7/1/2016): Wetland CEF Buffer is clearly labeled for the section between Wood Hollow and Executive Center Dr, however it is either not labelled (exhibits C and K), or is mislabeled (exhibit H) for the section between Executive Center Dr and Spicewood Springs Rd. To clear this comment, as requested in previous updates, 1) please label the "CEF buffer" applied to the entirety of the stream (including the section between Exec center and Spicewood) in Exhibits C/H/K, and please delete ambiguous, undefined terminology such as "Creek Zone Boundary" in Exhibit H.

If applicant intends to pursue requesting using the redevelopment exemption, then it will be imperative to show the full 150ft Standard CEF setback from the boundaries of all CEFs and label them "CEF buffer".

WB3. **Update 0.** Please include language in the PUD that unambiguously states preservation of the CEFs, short term impacts to the CEF setback for restoration, and longer preservation of the CEF setbacks in a natural condition (full growth).

Update 1. 5/18/2015: Repeat comment

Update 2. 8/19/2015: The Note provided (note 33) is ambiguous and does not appear to convey the intent recommended in the original comment above. This reviewer recommends a meeting with applicant to ensure an appropriate and acceptable revision to Update 3.

Update 3. 5/11/2015: **The notes provide in Exhibit H and language in the PUD does not convey the intent for restoration as discussed in previous meetings (see WB4). As requested in previous updates, please provide clear language to convey the intent for CEF setback restoration (see WB4).**

WB4. **Update 0.** Please include language, plan view figures and details in the PUD that unambiguously indicate the riparian buffer restoration activities which will occur within the CEF setback. This should include removal of all impervious cover and restoration of the channel, banks, floodplain benches and riparian corridor to a more natural stream morphology and native plantings. Stream morphology of upstream reach can be used as a template for downstream reach. Proposed restoration shall be approved by ERM prior to PUD approval. Please provide restoration plan to this reviewer.

Update 1. 5/18/2015: In order to mitigate for the reduction to the total area of the Standard CEF Setback for wetland CEFs, applicant must demonstrate compliance with mitigation guidance in ECM 1.10 (formerly ECM 1.3.0). This reviewer recommends enhancement of one bank of the channel north of Executive Center Drive. Currently the historic bank armoring of the channel north of Executive Center Drive has created a narrow cross section which creates increased velocity during storm events that scours in-channel habitat. Restoring a wider cross section to the channel may restore the creek (similar to cross section to the south of Executive Center Drive). Widening the cross section of the channel and restoration of one of the banks north of Executive Center Drive may be considered "enhancement" which shall mitigate for the reduction to the standard CEF setback for wetlands.

Update 2. 8/19/2015: The Note provided (note 52) is ambiguous and does not appear to clearly convey the intent recommended in the two comments

above. This reviewer recommends a meeting with applicant to ensure an appropriate and acceptable revision to

Update 3. (7/1/2016): The notes provide in Exhibit H and language in the PUD does not convey the intent for restoration as discussed in previous meetings (see Update 0,1,2). As requested in previous updates, and as discussed in previous meetings, please provide clear language to convey the intent for CEF setback restoration, as described above, to include restoring a wider cross section to the channel by laying back one or both of the banks and installing native revegetation. Revegetation is recommended to accomplish a score of "Good" in accordance with the Functional Assessment described in Zone 1 Appendix F.

If applicant intends to pursue requesting using the redevelopment exemption, then it will be imperative to provide superiority. An element of superiority may include the restoration of a wider cross section to the channel by laying back one or both of the banks and installing native revegetation. Revegetation is recommended to accomplish a score of "Good" in accordance with the Functional Assessment described in Zone 1 Appendix F.

WB5. Update 3 (new) Provision 7 of the General Site Development Regulations (Exhibit F) of the ordinance language states that "The provisions of the Exhibit H provide for the required protected of wetlands and the provisions of City Code Section 25-8-282 (Wetland Protection) do not apply to the PUD". To clear this comment, please strike Provision 7 in its entirety. This is an unacceptable and ultimately unnecessary provision. Exhibit H shall provide the necessary clarity (see Comments WB 2,3, 4) that describes what construction activities are allowed regarding the Wetland CEF, and but provisions regarding protection of the wetland still apply.

DSD Environmental Review – Atha Phillips

Ph: 512-974-6303

Email: Atha.Phillips@austintexas.gov

No comments.

DSD City Arborist Review – Keith Mars

Ph: 512-974-2755

Email: Keith.Mars@austintexas.gov

CA #1: Staff does not support the proposed language in Part 9, statement 4. It is unlikely there is such refinement in conceptual site plans that the specific inches of trees to be removed is known. If submitted plans differ, and removal is greater, then the PUD would grant less mitigation than what is actually proposed on the site plan.

CA #2: Part 9 statement 4: Planting mitigation inches "to the extent feasible" shall be amended to "to the extent feasible as determined by staff".

CA #3: Part 9 statement 4: Staff does not agree with the statement that mitigation can be transferred within the PUD as transferring requirements between site plans present tracking and owner/developer concurrence issues.

CA #4: Part 9 statement 4: Remove the statement regarding mitigation at \$200 inch. Mitigation payment, if allowed, will be subject to the rate at site plan submittal.

CA #5: Part 9 statement 4: Remove the statement regarding credits as this is not clear or enforceable.

CA #6: Part 9 statement 4: Staff does not agree with setting the tree survey date as 2013. Per the ECM surveys must be five years or more recent at the time of site plan submittal.

CA #7: Part 9 statement 4: Staff does not agree with the statement that, "no additional mitigation will be required and no other trees will be identified as protected or heritage trees".

CA #8: On the Tier 1 and Tier 2 document I do not see any documentation that supports the statement that more than 7,000 inches of trees less than 8" will be preserved.

CA #9: Provide the tree survey including species and diameter and include the tree assessment.

DSD Drainage Engineering Review – Danielle Guevara

Ph: 512-974-3011

Email: Danielle.Guevara@austintexas.gov

RELEASE OF THIS APPLICATION DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA, INFORMATION, AND CALCULATIONS SUPPLIED BY THE APPLICANT. THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY, AND ADEQUACY

OF HIS/HER SUBMITTAL, WHETHER OR NOT THE APPLICATION IS REVIEWED FOR CODE COMPLIANCE BY CITY ENGINEERS.

This project is located at 3429 EXECUTIVE CENTER DR and is within the Shoal Creek watershed(s), which are classified as Urban Watersheds. This project located within the Edwards Aquifer Contributing Zone.

DE1. Please provide a complete Tier 1 and Tier 2 table for review. Tier 1 should speak to how the project is meeting current code and asking for variances when it does not meet the requirements of current code. Tier 2 should speak to how the project will go above and beyond current code.

DE2. Exhibit F – Please remove item #8. Any drainage studies required will be reviewed at the appropriate review process based on what is being proposed. Please also remove the statement regarding drainage studies from item #9.

DE3. Part 9 – please remove item #6. The requirement for detention will be reviewed at each parcel's site plan review. Factors in addition to impervious cover amount are reviewed when determining detention requirement.

DE4. Exhibit H – Creek Plan; please remove note #1.

DE5. Exhibit H – note #6; will this only affect parcel 3, or could it also affect parcel 4 and 5? Also, please discuss floodplain modifications with EV reviewer.

Watershed Protection Department, Watershed Engineering Division Comments:

1. Please provide a drainage report with relevant hydrologic and hydraulic analyses showing the proposed detention pond with a volume at least 20,000CF; the existing and proposed drainage plan for the site; and no adverse impact downstream for 2yr, 10yr, 25ys and 100yr storm events.

DSD Water Quality Review – Danielle Guevara

Ph: 512-974-3011

Email: Danielle.Guevara@austintexas.gov

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WQ1. Please provide a complete Tier 1 and Tier 2 table for review. Tier 1 should speak to how the project is meeting current code and asking for variances when it does not meet the requirements of current code. Tier 2 should speak to how the project will go above and beyond current code. Providing water quality controls and an IPM plan are listed as superior, however these are items required by Code/Criteria and would not be considered superior.

WQ2. If you would like to request fee-in-lieu of water quality for parcels 1, 8, and 9, please show how you are compensating for that such as by treating offsite runoff that is not currently being treated, etc.

WQ3. EHZ Analysis – Please provide an EHZ analysis that complies with the Drainage Criteria Manual, Appendix E. At a minimum, the channel geometry, side slope, incision factor, and 2-year WSE should be provided.

WQ4. Are you proposing to provide water quality controls per ECM 1.6.7 throughout the PUD?

WQ5. FYI – ponds that are covered, decked or buried will be required to meet the subsurface pond requirements. This will be reviewed at the site plan stage for each parcel.

WQ6. Exhibit D – the IPM plan should be done at the site plan stage for each parcel as it should be specific to what is being proposed with that particular site plan.

WQ7. Exhibit G – Park Plan; please explain what the area labeled 'bio-filtration area' is. Are you committing to providing a bio-filtration pond here? If so, what impervious cover would it treat?

DSD Site Plan Review – Donna Galati

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- SP1. Provide Tier 1 & Tier 2 compliance.
- SP2. Part 8, Note 4 – this is conceptual. This should be a note on the land use plan, rather than a statement in an ordinance.
- SP3. The Land Use Definitions (creek, restaurant, etc) are in conflict with the LDC. Create new terms for land use (Land Use A, B, C, etc)
- SP4. Ensure that there are no building locations or shapes on the land use plan.

DSD Flood Plain Review – David Marquez

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No comments

DSD Transportation Review – Bryan Golden

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TIER I REQUIREMENTS (Division 5. Planned Unit Developments)

- TR1. **Requirement #7:** If on-street parallel parking is provided, accessible parking should also be provided. Required spaces shall be considered cumulatively for the block face, per side, based on the number of provided on-street spaces (LDC 25-6-475)
- TR2. **Requirement #9:** Bike and Trails will review PUD and may provide additional recommendations. The “Heritage Trail” needs to be within a dedicated public easement to ensure access.
- Provide a mid-block pedestrian and bicycle pathway within a public easement between Parcel 8 and Parcel 7 connecting Executive Center Drive and Spicewood Springs (Min8’ width). Specific location to be determined at time of site plan.
 - Please consult with Capital Metro regarding the need for additional mass transit (bus) stop(s) and Austin Transportation Department regarding any requirements of the “High Capacity Transit Stop”; provide the results of these consults.
 - Additional comments pending final recommendations of the TIA.
- TR3. On-street parking will be determined on a per project basis at site plan review. Propose a master parking tracking table to keep associated with the PUD, to be updated with each site plan.

- TR4. **Additional Requirements for Mixed-Use: Requirement #1.)** The proposed cross section of Wood Hollow Drive does not meet the minimum standard requirements of 25-2, Subchapter E. Planting zones should be 7' minimum. Minimum requirements of Core Transit Corridor standards required for mixed-use projects within the Urban Roadway boundary (with trees 30' on center where possible).
- TR5. **Additional Requirements for Mixed-Use: Requirement #2** (Additional PUD Mixed Use requirements: This proposal is within the urban roadway boundary, therefore all sidewalks must comply with CoreTransit Corridors: Sidewalks and Building Placement; Section 2.2.2, Subchapter E, Chapter 25-2 (2.2.2(B)) Due to existing site constraints, please explore alternatives for the required Core Transit Corridor standard for the southern edge of Spicewood Springs. Please note that sidewalks along Mopac will require TxDOT approval.
- TR6. **Additional Requirements for Mixed-Use: Requirement #2.)** Internal and abutting (Hart and Spicewood Springs) roadways must meet Subchapter E, Core Transit Corridor requirements. To comply:
- Executive Center Drive – Min. 6' sidewalks requirement. Must provide public access/sidewalk easement for "Heritage Trail" and street trees are required in the planting zone at no greater than 30' on center, where possible.
 - Wood Hollow - Min. 6' sidewalks requirement. Must provide public access/sidewalk easement where the sidewalk enters private property and street trees are required in the planting zone at no greater than 30' on center, where possible.

TIER II REQUIREMENTS

- TR7. **4.)** Recommend inclusion of secure indoor bicycle parking for MF and Office developments at 10% of required parking.
- Include the "Heritage Trail" approximate location in the Land Use or Park exhibit or a new transportation exhibit. The cross section of Wood Hollow Drive does not meet the minimum standard requirements of 25-2, Subchapter E. Planting zones should be 7' minimum; please revise. Recommend upgrading min. requirements to Core Transit Corridor standards for roadways.
 - Additional comment pending TIA final recommendations.

DRAFT ORDINANCE COMMENTS

GENERAL PROVISIONS

- TR8. How will the shared parking be tracked? A reciprocal/off-site parking tracking table is recommended to be amended and tracked with the PUD.
- TR9. Remove "and valet" from the gated roadways/drives note (Exhibit E).
- TR10. Staff does not support Note #12. Off-street loading and delivery must be off-street. Recommend revising comment to note that off-street loading is permitted to use alternative sizing and number of spaces requirement; to be subject to approval by Staff at the time of site plan.
- TR11. Staff will support note #13 contingent upon it applying *only* to office, residential, and hotel. All other uses shall adhere to standard LDC, 25-6-477.

Part 8:

- TR12. Recommend combining with Part 11 for a collective "Transportation" section.
- TR13. Note #3: Pending TIA review and TR 4 and TR 22.
- TR14. Note #4: Revise note – "...determined in consultation *and subject to approval* by the Development Services Department..."
- TR15. Note #6/7: Add that these improvements are to be accessible and open to the public.

Part 11:

- TR16. Note #1: Revise "shared parking" to "cumulative" or "reciprocal."

EXHIBIT C: LAND USE PLAN

- TR17. Note the proposed approximate location of the "Heritage Trail."

EXHIBIT I (STREETSCAPE PLAN)

- TR18. Pedestrian "Heritage Trail": Remove current note and add that this is to be within a dedicated public easement if it meanders out of the right-of-way.

GENERAL ZONING

- TR19. FYI - The Austin Metropolitan Area Transportation Plan calls for 140 feet of right-of-way for Spicewood Springs Road. However per the Austin Transportation Department, no additional right of way will be required at this time [LDC, Sec. 25-6-51 and 25-6-55].
- TR20. A traffic impact analysis is required and has been received. Additional right-of-way, participation in roadway improvements, or limitations on

development intensity may be recommended based on review of the TIA. [LDC, Sec. 25-6-142]. Comments will be provided in a separate memo.

TR21. Nadia Barrera, Urban Trails, Public Works Department and Nathan Wilkes, Bicycle Program, Austin Transportation Department may provide additional comments regarding bicycle and pedestrian connectivity per the Council Resolution No. 20130620-056.

TR22. Additional comments pending TIA review. Results will be provided via separate memorandum.

TR23. Existing Street Characteristics:

Name	ROW	Pavement	Classification	Sidewalks	Bike Route	Capital Metro
Loop 1/ Mopac	400'	380'	Freeway	Yes	No	Yes
Spicewood Springs	118'- 140'	82'	Arterial	Yes	No	No
Executive Center Drive	70'	30'	Collector	Yes	No	No
Wood Hollow Drive	70'-80'	40'	Collector	Yes	No	Yes
Hart Lane	70'	40'	Collector	Yes	Yes	Yes

Austin Transportation Dept. TIA Review – Scott James

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See TIA Memorandum attached at the end of this report.

Public Works Bicycle Program Review – Nathan Wilkes

Austin Water Utility Review – Bradley Barron

FYI: The landowner intends to serve the site with City of Austin water and wastewater utilities. The landowner, at own expense, will be responsible for providing any water and wastewater utility improvements, offsite main extensions, water or wastewater easements, utility relocations and/or abandonments required by the proposed land uses. It is recommended that Service Extension Requests be submitted to the Austin Water Utility at the early stages of project planning. Water and wastewater utility plans must be reviewed and approved by the Austin Water Utility in compliance with Texas Commission of Environmental rules and regulations, the City's Utility Criteria Manual and suitability for operation and maintenance. All water and wastewater construction must be inspected by the City of Austin. The landowner must pay the City inspection fees with the utility construction. The landowner must pay the tap and impact fee once the landowner makes an application for a City of Austin water and wastewater utility tap permit.

Typical water system operating pressures in the area are above 65 psi. Pressure reducing valves reducing the pressure to 65 psi (552 kPa) or less to water outlets in buildings shall be installed in accordance with the plumbing code.

All AWU infrastructure and appurtenances must meet all TCEQ separation criteria. Additionally AWU must have adequate accessibility to safely construct, maintain, and repair all public infrastructures. Rules & guidelines include:

1. A minimum separation distance of 5 feet from all other utilities (measured outside of pipe to outside of pipe) and AWU infrastructure;
2. A minimum separation distance of 5 feet from trees and must have root barrier systems installed when within 7.5 feet;
3. Water meters and cleanouts must be located in the right-of-way or public water and wastewater easements;
4. Easements AWU infrastructure shall be a minimum of 15 feet wide, or twice the depth of the main, measured from finished grade to pipe flow line, whichever is greater.
5. A minimum separation of 7.5 feet from center line of pipe to any obstruction is required for straddling line with a backhoe;

6. AWU infrastructure shall not be located under water quality or detention structures and should be separated horizontally to allow for maintenance without damaging structures or the AWU infrastructure.
7. The planning and design of circular Intersections or other geometric street features and their amenities shall include consideration for access, maintenance, protection, testing, cleaning, and operations of the AWU infrastructure as prescribed in the Utility Criteria Manual (UCM)
8. Building setbacks must provide ample space for the installation of private plumbing items such as sewer connections, customer shut off valves, pressure reducing valves, and back flow prevention devices in the instance where auxiliary water sources are provided.

P&ZD Zoning Review – Victoria Haase

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ORDINANCE DOCUMENT

1. Change the title of the ordinance to "Applicant's Draft Ordinance"
2. Remove the column numbering in the ordinance document.
3. In first paragraph of Ordinance,
 - Change "PUD" to Planned Unit Development;
 - Remove "PROJECT" completely;
 - Remove "COMBINING" – PUD's are not combining districts.
4. PART 1 – change the department name from Development Services Department to Planning and Zoning Department.
5. PART 2 – Remove the last sentence of this paragraph that refers to grandfathering.
6. PART 5, no. 1, definitions for H and K - "STREETSCAPE" and "CREEK" should not be land use classifications. If the intent is to define these areas only, please remove the reference to a land use classification in the definition.
7. PART 7, no. 2 – this is a restatement of current code and is not necessary to state in the PUD ordinance.
8. PART 8, no. 4 –
 - Replace "*graphic representations and are not exact.*" with "for illustration purposes only. "
 - Change "*Environmental departments*" with "Watershed Protection Departments."

9. PART 10, no. 8 – please remove this item. Fee in lieu is no longer an option for affordable housing participation.
10. PART 11, no. 3 – this is a restatement of current code and is not necessary to state in the PUD ordinance.
11. PART 12 - For each code section to be modified, please be specific about what aspect is being modified and why the modification is needed.
12. PART 12 - add Compatibility (LDC 25-2-1062, 1063, 1065) to the list of code modifications and provide the detail requested in comment 11, above.
13. PART 12 - add Subchapter E (Design Standards and Mixed Use) and provide the detail requested in comment 11, above.
14. PART 12 – add Commercial Sign District Regulations (LDC 25-10-130 / 25-10) and provide detail requested in comment 11, above.
15. Label Exhibits C, G, H, I, J, K with the case number at the lower, right-hand corner of the diagram/plan.
16. Exhibit C – Provide your calculations for determining development bonuses pursuant to LDC 25-2, Division 5, Subpart B, Section 1.3.3 – Baseline for Determining Development Bonuses.
17. Exhibit C – LUP - Provide a legend.
18. Exhibit E - Review the proposed permitted use table with Staff.
19. Exhibit E - Provide an index defining “N” and “P”.
20. Exhibit F – add a column for the maximum number of floors associated with the MSL heights stated for each building type.
21. Exhibit F, no. 3 – this is a restatement of current code and is not necessary to state in the PUD ordinance.
22. Exhibit F, no. 4 – this is a restatement of current code and is not necessary to state in the PUD ordinance.
23. Exhibit F, no.16 - Add this to the list of code modifications in Part 12 of the ordinance and provide specifics about why the modification is being requested.
24. Exhibit G – add “Note 1” to Ordinance Part 8, no.1 in addition to keeping the note on the exhibit as well.

25. Has Capitol Metro been consulted in the possibility of partnering for transit improvements on-site?

P&ZD Comprehensive Planning Review – Kathleen Fox

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This zoning case is located on a 31.4 acre site located on the south side of Spicewood Springs Road, on both sides of Wood Hollow Drive, and adjacent to Mopac Expressway frontage road, which is to the east. The property is not located within the boundaries of a neighborhood planning area. The site contains an office complex and the developer is proposing a Planned Unit Development mixed use project, which would include commercial and residential elements including office buildings, a hotel, multi-family apartments (including affordable housing units), retail and restaurant uses, a 2 acre park, additional greenspace, and pedestrian walkways, a trail and bike lanes. The buildings on the site would range in height from one to seven stories tall. The tallest buildings would front the MoPac Expressway frontage road, while shorter buildings and the park would be located across the street single family houses, which are located to the west and north. Pedestrian-oriented uses are also proposed on the ground floor of the commercial buildings.

Imagine Austin

This project is located within the boundaries of '**Neighborhood Center**', as identified on the Imagine Austin's Growth Concept Map (the Map). The Map illustrates the desired manner to accommodate new residents, jobs, open space, and transportation infrastructure over the next 30 years, and is intended to promote a compact and connected city, infill and redevelopment. Neighborhood Centers are defined as, *"The smallest and least intense of the three mixed-use centers are neighborhood centers. As with the regional and town centers, neighborhood centers are walkable, bikable, and supported by transit. The greatest density of people and activities in neighborhood centers will likely be concentrated on several blocks or around one or two intersections. However, depending on localized conditions, different neighborhood centers can be very different places. If a neighborhood center is designated on an existing commercial area, such as a shopping center or mall, it could represent redevelopment or the addition of housing. A new neighborhood center may be focused on a dense, mixed-use core surrounded by a mix of housing. In other instances, new or redevelopment may occur incrementally and concentrate people and activities along several blocks*

or around one or two intersections. Neighborhood centers will be more locally focused than either a regional or a town center. Businesses and services—grocery and department stores, doctors and dentists, shops, branch libraries, dry cleaners, hair salons, schools, restaurants, and other small and local businesses—will generally serve the center and surrounding neighborhoods. Neighborhood centers range in size between approximately 5,000-10,000 people and 2,500-7,000 jobs.” (pgs. 105 – 106). The area along Mopac and Far West Boulevard is also located within the boundaries of a Neighborhood Center, although that area is larger in area than this proposed project area.

The following IACP policies are also relevant to this case:

- **LUT P1.** Align land use and transportation planning and decision-making to achieve a **compact and connected city** in line with the growth concept map.
- **LUT P3.** Promote development in **compact centers**, communities, or along corridors that are connected by roads and transit that are designed to encourage walking and bicycling, and reduce health care, housing and transportation costs.
- **LUT P7.** Encourage infill and redevelopment opportunities **that place residential, work, and retail land uses in proximity to each other to maximize walking, bicycling, and transit opportunities.**
- **HN P10.** Create complete neighborhoods across Austin that have a **mix of housing types and land uses, affordable housing and transportation options, and access to schools, retail, employment, community services, and parks and recreation options.**
- **HN P11.** Protect neighborhood character by directing growth to areas of change and ensuring context sensitive infill in such locations as designated redevelopment areas, corridors, and infill sites.

Analysis and Conclusion

The Imagine Austin Growth Concept Map identifies this area as a Neighborhood Center, which supports compact and connected mixed use and infill redevelopment. Reviewing the revised scope of this project, the height and density of submittal Number 3, which was formulated during a charrette process between the developer and neighborhood, appears to be scaled as Neighborhood Center based on the height and proposed density, which appears an appropriate scale along a major highway, as opposed to two previous submittals for this project, which once called for a 17 story building. This project also meets half of the eight Imagine Austin priority programs, which are key policies and actions, which are multiple building blocks grouped together to

make it easier to implement the plan. This proposed mixed use project appears to support Priority Program Number 1, [**Investing in a compact and connected Austin**] by including residential, retail, office, park/recreational within a walkable center. The project also supports Priority Program Number 2 and 4 [**#2 Sustainably manager our water resources, and #4 --Use green infrastructure to protect environmentally sensitive areas and integrate nature into the city**], by preserving a large number of heritage trees, enhancing the watershed and adding stream restoration, reducing the existing impervious surface coverage, installing a new park and greenspace areas, and landscaping the site with native plants and trees. Finally, by adding affordable housing units (12 units), the project is supported by Priority Program Number 6, [**Develop and maintain household affordability throughout Austin.**]

Based on the scale of this project, which appears to for a Neighborhood Center (as defined above) located along a major highway; providing a true mixed and walkable project where people can live, work and play (per the Imagine Austin listed policies above); and supporting four of the eight priority programs to implement the policies and vision of Imagine Austin, this project appears to be supported by the plan.

Austin Independent School District – Beth Wilson

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See Education Impact Statement (EIS) attached at the end of this report.



MEMORANDUM

To: Bryan Golden, DSD

Date: June 20, 2016

Project: Austin Oaks

CC: Scott A. James, PE/DSD

From: André H. Betit, Jr. PE
Dipti Borkar-Desai, PE
Upal Barua, P. Eng., PE
Austin Transportation Department

Re: TIA Comments

The Traffic Engineering and Arterial Management Divisions have reviewed the April 21, 2016 traffic report regarding the *"Traffic Impact Analysis, Austin Oaks, Austin, Texas"*, prepared by Kimley-Horn. The proposal calls for constructing 672,995 SF of General Office, 250 Apartment units, a 100 Room Hotel, 169,000 SF of Medical Office and 46,700 SF of High Turnover (Sit Down) Restaurant and. The development would be constructed at the Southwest corner of the Spicewood Springs/Mopac intersection and will be constructed in 4 phases. The following comments summarize our review findings:

1. The TIA reduces the area trips by removing the existing office development traffic. However, the traffic is estimated using ITE LUC 710 (General Office Building) rather than actual traffic counts of the existing facility. We recommend that the trip reduction be based on actual count data versus ITE Trip Generation.
2. Existing Traffic Volumes: Traffic counts were taken in March 2014 and are greater than 2 years old. We recommend that new traffic counts be obtained as opposed to applying a growth factor to old data.
3. Existing Traffic Volumes: Traffic volumes are reported for the Loop 1 on and off ramps. However no count data was provided in the Appendix. We recommend that the count data be included in the Appendix or an explanation of how the volumes were determined be provided.
4. Existing Traffic Volumes: It appears that the volumes shown in Exhibit 4 do not always agree with the peak hour counts included in Appendix E. It is unclear if the volumes presented are to use a uniform peak hour or are from balancing. We recommend that the Applicant clarify this discrepancy.
5. Existing Traffic Volumes: It appears that there may be an issue with intersection balancing between Executive Center Drive and Greystone Drive at their intersections with the Loop 1 southbound frontage road. The volume of traffic leaving the Executive Center Drive/ Loop 1 southbound frontage road intersection is 2,681 vehicles in the AM Peak Hour and 2,034 vehicles in the PM Peak Hour. However the number of vehicles arriving at the Greystone Drive/Loop 1 southbound frontage road intersection is 3,277 vehicles in the AM Peak Hour and 1,908 vehicles



in the PM Peak Hour. This is a difference of a 596 vehicle increase in the AM Peak Hour and a 126 vehicle decrease in the PM Peak Hour. We recommend that the Applicant clarify this discrepancy.

6. Existing / 2016 Traffic Volumes: It appears that there may be an issue with traffic counts at the intersections of Mopac Service Road (NB and SB) and Spicewood Springs. Specifically during the PM peak hour, there appears to be a difference of 483 vehicles in the westbound direction and a difference of 254 vehicles in the eastbound direction along Spicewood Springs bridge between NB and SB Mopac (there is no access in between). All the analyses for 2016, 2018, and so forth were based on this count. We recommend that the Applicant review the balancing of intersections and clarify this discrepancy.
7. Existing / 2016 Traffic Volumes: Similar concerns exist in the traffic counts along Spicewood Springs between SB Mopac and Wood Hollow. During the PM peak hour, there is a difference of 271 vehicles in the eastbound direction between Wood Hollow and SB Mopac (there is no access in between). On the westbound direction, despite a Ri/Ro access between SB Mopac and Wood Hollow, it is concerning that there is a deficit of 729 vehicles in the westbound direction, from SB Mopac to Wood Hollow. It is not conceivable that 729 vehicles could make right-in and no vehicles made right-out from at the Ri/Ro access in the PM peak hour. We recommend that the Applicant review the balancing of intersections and clarify this discrepancy.
8. Background Growth: The TIA indicates that a 2% background growth rate was used as identified in the scoping document. The TIA indicates that this rate was reviewed based on count data from TXDOT. However, the TIA does not appear to contain information or supporting calculations showing this review. We recommend that the Applicant provide this information and supporting calculations as an Appendix to the TIA.
9. Trip Distribution: Site trips were assigned to the various site driveways as part of the analysis. However, no explanation or discussion of how the trips were assigned to each driveway is provided in the TIA. We recommend that the Applicant provide this information in the TIA.
10. Trip Distribution: From the information provided in Exhibit 6, it appears that 8% of the exiting site trips are anticipated to turn right onto the Loop 1 SB frontage road and then make 2 left turns at Far West Blvd. to take Loop 1 north and then exit Loop 1 and make a right onto Anderson Lane rather than using Spicewood Springs Road from either Hart Lane or Wood Hollow Drive. We recommend that the Applicant provide justification why such a significant number of trips will use the proposed indirect route, as opposed to eastbound Spicewood Springs which is more of a direct route (noted that 10% exiting trips were assigned to this route).



11. Trip Distribution: Site trips were assigned to the various site driveways as part of the analysis. However, no explanation or discussion of how the trips were assigned to each driveway is provided in the TIA. We recommend that the Applicant provide this information in the TIA.
12. 2018 Traffic Volumes: The traffic volumes shown on Exhibit 12 at the site driveway differ from those shown on Exhibit 10. The TIA does not include an explanation of why these volumes are different and provides no supporting documentation for the difference. This discrepancy was noted on all other analysis periods as well. We recommend that the Applicant clarify this discrepancy with an explanation as well as documentation and calculations supporting the explanation provided.
13. 2020 Global Trip Assignment: The traffic volumes shown on Exhibit 16 appear to have some calculation discrepancies between the distribution percentage and the volumes reported. For example at the Loop 1 SB on ramp, the reported volumes are 30 AM peak hour and 43 PM peak hour trips. However, when the distribution percentages shown on Exhibit 6 are applied, the volumes for the Loop 1 SB on ramp calculate to be, 50 AM peak hour and 71 PM peak hour trips. These types of discrepancies were noted in other analysis periods as well. We recommend that the Applicant clarify these discrepancies and verify all trip calculations.
14. 2020 Local Trip Distribution: From the information provided in Exhibit 17, the percentage of site trips entering the phase 1 portion of the site is lower than it was with the 2018 Local Trip Distribution. We recommend that the Applicant provide an explanation for this difference.
15. Advisory Comment on Intersection Capacity Analysis: The TIA Scope (included in Appendix A) asked for
 - f)
 - existing conditions (am + pm on one sheet),
 - six (6) future conditions:
 - o (am background, am background + site, am background + site + mitigation)
 - o (pm background, pm background + site, pm background + site + mitigation)

The scope specifically asked for future conditions am/pm background, am/pm background + site, then am/pm background + site + **MITIGATION**. It was asked to compare Build and No-Build scenarios without mitigation, and then with mitigation. Introducing mitigation on existing condition and assuming them in the No-Build scenario on the opening day, made it very difficult to compare Build and No-Build scenarios, and assess the impact(s) from the proposed development. It is recommended that the mitigation analysis focus on the Build and Phasing years, rather than existing conditions as per the approved scope.



16. The TIA scope asked for v/c, LOS, delay and 95% queue length by movements, the TIA report provided the parameters by approaches. Please update the analysis tables so they agree with what was identified in the approved scope.
17. LOS Analysis: The LOS analysis presented uses an overall intersection Peak Hour Factor (PHF) rather than the PHFs by approach. We recommend that the analysis be prepared using the PHF by approach
18. 2016 Improvements at Spicewood Springs Road & Hart Lane: About 27% of inbound trips and 17% outbound trips were shown to use this intersection to access the site (Exhibit 6). However, there was no discussion about this impacted intersection under 2018 Build Analysis Results section. Please include discussion(s) on the impact of the site traffic on this intersection and propose appropriate recommendation(s) accordingly. The northbound taper length shown appears to be substandard. We recommend that the Applicant review this length.

In addition, , the intersection at Spicewood Springs / Hart Lane is at a steep downhill east to west in combination with a tight horizontal curve. There are significant safety concerns associated with eastbound vehicles driving on a downhill with very limited sight distance, if a traffic signal is constructed. We recommend that a more conventional intersection configuration be considered which eliminates the existing center triangle island on the westbound roadway.

Due to the safety concern associated with the eastbound vehicles (in case of a traffic signal), it is recommended to install an advance warning flasher west of the intersection synchronized with the traffic signal to address this potential safety issue.

19. Spicewood Springs / Wood Hollow Drive: It appears that westbound left-turn bay extension and right-turn overlap phase were recommended at the intersection of Spicewood Springs / Wood Hollow Drive; however, the Applicants contribution to these improvements was not included in the TIA report. From the data presented in the TIA it appears that about 15% of the inbound trips and 15% of the outbound trips were shown to use these left-turn and right-turn lanes to access the site (Exhibit 6). No discussions were included about these impacted movements under 2018 Build Analysis Results section and how any proposed improvements would address these impacts. Please include discussions on the impact of the site traffic on these movements and propose appropriate recommendation(s) accordingly

In addition, The TIA report recommended adjustment of signal timing at the intersection of Spicewood Springs / Wood Hollow Drive. However, no specific signal timing plan(s) were proposed or included in the TIA report. We recommend that these be included in the TIA for review.



20. Executive Center / Wood Hollow Drive: A multi-lane roundabout was recommended at the intersection of Executive Center / Wood Hollow Drive. Reviewing the analysis results at this intersection, it appears that the recommended multi-lane roundabout would be warranted at the opening day (2018). No analysis results were included supporting that an all-way stop would work in the interim. Reviewing the traffic volume during the peak hour, it appears that an all-way Stop may not work in the interim. Therefore, we recommend that the roundabout be constructed opening day to accommodate the prosed 2018 build traffic.
21. Mopac Southbound Frontage Road from Spicewood Springs Road to Far West Boulevard: The TIA report recommended improvements at Mopac Southbound Frontage Road / Spicewood Springs Eastbound to Southbound Right-turn, at the Mopac Southbound Frontage Road / Executive Center Drive intersection, and Mopac Southbound Frontage Road / Greystone Drive intersection, back and forth between 2016 and 2018 (Exhibit C). However, the exhibits provided didn't show how the improvements interact with each other, i.e. how the weaving, merging, diverging would occur along Mopac Southbound Frontage Road from Spicewood Springs to Greystone Drive. Please present / provide all these improvements in one conceptual figure / drawing, with existing and proposed right of way (ROW), dimension and scale (including the tapers; the tapers appeared to be deficient from cursory review) from Spicewood Springs to Greystone Drive.

Based on the cursory review of the proposed improvement concepts of southbound Mopac Service Road, from Spicewood Springs Road to Far West Boulevard, it appeared that there may be significant safety concerns with weaving, merging, diverging. It is recommended that a continuous additional lane be considered along Mopac Service Road from Spicewood Springs Road to Far West Boulevard.

Additionally, at the intersection of Executive Center Drive @ /Mopac Loop 1 SB Frontage Road: the 2016 improvements show 4 SB thru lanes approaching this intersection while only 3 receiving lanes currently exist.

22. Intersection of Southbound Mopac / Spicewood Springs Road: The intersection of Southbound Mopac / Spicewood Springs Road was reported to fail under 2018 build scenario (e.g. PM peak: EBT v/c 1.49, LOS F, queue length 1095 feet etc. and continue to deteriorate in the following phases). However, no discussion was included in the TIA report on the failing movements, and how the proposed development impacts these movements during the peak hour(s). No mitigation measures were recommended to address these failing movements and no discussion / justification was not provided. We recommend that Applicant review operations at this intersection and include a discussion of needed mitigation to address the failing conditions.

Also, in Table 11, at the intersection of Spicewood Springs / SB Mopac, it shows that during the AM peak hour, the EB approach improves from v/c of 1.52 & delay of



253 sec/veh under No-build Condition to v/c 1.27 & delay of 121 sec/veh under Build Condition (without mitigation). Please provide discussion / justification how additional site traffic would/could improve traffic operation (v/c, delay etc.) without any mitigation(s).

Additionally, the proposed improvements at Spicewood Springs Road/ Mopac /Loop 1 Service Road show 2-11' receiving lanes as part of the improvements at the intersection. We recommend that these receiving lanes be a minimum of 12'.

23. Intersection of Northbound Mopac / Spicewood Springs Road: The intersection of Northbound Mopac / Spicewood Springs Road was reported to fail under 2018 build scenario (e.g. AM peak: NBL v/c 1.43, LOS F, queue length 609 feet etc. and continue to deteriorate in the following phases). However, no discussion was included in the TIA report on the failing movements, and how the proposed development impacts these movements during the peak hour(s). No mitigation measures were recommended to address these failing movements and no discussion / justification was not provided. We recommend that Applicant review operations at this intersection and include a discussion of needed mitigation to address the failing conditions.
24. Intersection of Greystone Drive / Southbound Mopac: The TIA report under the 2018 build condition identifies that the right-out movement fails at the intersection of Greystone Drive / Southbound Mopac due to lack of acceptable and safe gap in the southbound Mopac traffic stream (as reported in Section B 2018 Build Analysis Results). However, the TIA report didn't identify how to address / mitigate this safety and operational concern with the right-out movement at Greystone Drive. Please provide recommendations to address these concerns.
25. Intersection of Hart Lane and Greystone Drive: The proposed improvement(s) / re-configuration at the intersection of Hart Lane / Greystone Drive as presented in Exhibit C 2024 Improvements, call(s) for removal of the bi-cycle lane from Hart Lane north of Greystone Drive. What alternative bicycle facility is being proposed to facilitate Bicycle movements on Hart Lane, north of Greystone Drive? Also, please provide dimensions on Greystone Drive at the intersection approaches, so that the reviewers can complete geometric review.
26. Intersection of Hart Lane and Executive Center Drive: The proposed improvement(s) / re-configuration at the intersection of Hart Lane / Executive Center Drive is presented in Exhibit A 2024 Improvements. However, the figure was not dimensioned on Hart Lane at the intersection approach. Based on the cursory review, it appears that the intersection approaches on Hart Lane may not work geometrically. The Northbound lane on Hart Lane was aligned with the opposing left-turn lane, leaving a full lane off-set with the northbound through receiving lane. Also, the northbound receiving lane appeared to have conflict between northbound



vehicles and bicycles. Please provide revised recommendation(s)/figure(s) with proper intersection geometry.

27. Intersection of Far West Boulevard and Hart Lane: The reviewer acknowledges recommended improvement(s)/reconfiguration at the intersection of Far West Boulevard / Hart Lane. However, the reviewer was unable to compare no-build and build scenario to assess the impact from additional traffic from the proposed development (as per the scope), as improvements were already assumed in the existing condition (2016). See previous comments regarding this. Exhibit (Exhibit F) was included in the Appendix; however, necessary dimensions (lane widths) were not provided to assess the feasibility, geometry, and need for additional ROW. Proposed sidewalk at the northbound approach was proposed as 4 feet, which is deficient. Please include minimum standard sidewalk on the northbound approach.
28. Intersection of Northbound Mopac Service Road / Far West Boulevard: The intersection of Northbound Mopac / Far West Boulevard was reported to fail under 2018 build scenario (e.g. PM peak: EBL v/c over 1, LOS F, queue length 879 feet etc. and continue to deteriorate in the following phases). However, no discussion was included in the TIA report on the failing movement, and how the proposed development impacts this movement during the peak hour(s). No mitigation measures were recommended to address this failing movement and no discussion / justification was provided. We recommend that Applicant review operations at this intersection and include a discussion of needed mitigation to address the failing conditions.
29. There may be additional comments based on the review of any additional addendum / analysis /revision submitted.
30. TXDOT Review: The Applicant should be aware that TXDOT also needs to approve and review all proposed improvements along their roadways.

EDUCATIONAL IMPACT STATEMENT

Prepared for the City of Austin

Austin Independent
School District



PROJECT NAME: Austin Oaks PUD

ADDRESS/LOCATION: 3429 Executive Center Drive

CASE #: C814-2014-0120

☐ NEW SINGLE FAMILY

☐ DEMOLITION OF MULTIFAMILY

☒ NEW MULTIFAMILY

☐ TAX CREDIT

SF UNITS: _____ STUDENTS PER UNIT ASSUMPTION
Elementary School: _____ Middle School: _____ High School: _____

MF UNITS: 277 STUDENTS PER UNIT ASSUMPTION
Elementary School: 0.124 Middle School: 0.035 High School: 0.071

IMPACT ON SCHOOLS

The district-wide student yield factor (across all grade levels) is 0.23 per apartment. Using this district-wide average, the 277 multifamily development is projected to add approximately 64 students across all grade levels to the projected student population. However, because the development is proposing 75% one bedroom apartments, the number of students from this development is likely to be lower than the projected district-wide average of 64. It is estimated that of the 64 students, 34 will be assigned to Doss Elementary School, 10 to Murchison Middle School, and 20 at Anderson High School.

The current enrollment of 920 at Doss Elementary places the percent of permanent capacity at 169%, significantly above the target range of 75-115%. The projected increase in enrollment by SY 2019-20 coupled with the additional students from the proposed development would increase the percent of permanent capacity to 179% (64 percentage points above the target range), assuming the mobility rates remain the same. The school community and administration are currently discussing intervention strategies to address overcrowding at Doss.

Murchison Middle School is currently above the target range of permanent capacity by enrollment at 122%. The projected increase in enrollment by SY 2019-20 coupled with the additional students from the proposed subdivision would increase the percent of permanent capacity to 154%, assuming the mobility rates remain the same. The school community and administration would need to discuss intervention strategies to address overcrowding at Murchison MS.

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 Anderson HS (108%), assuming the mobility rates remain the same.

EDUCATIONAL IMPACT STATEMENT

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School District



TRANSPORTATION IMPACT

Doss ES, Murchison MS and Anderson HS are located within 2 miles of the proposed development; therefore students would not qualify for transportation unless a hazardous route condition was identified.

SAFETY IMPACT

The construction of a sidewalk along the south side of Greystone Drive would increase the level of safety for student walkers.

Date Prepared: 06/11/2015

Director's Signature: Paul Turner

EDUCATIONAL IMPACT STATEMENT

Prepared for the City of Austin

Austin Independent
School District



DATA ANALYSIS WORKSHEET

ELEMENTARY SCHOOL: Doss

RATING: Met Standard

ADDRESS: 7005 Northledge

PERMANENT CAPACITY: 543

% QUALIFIED FOR FREE/REDUCED LUNCH: 12.70%

MOBILITY RATE: +1.4%

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	907	925	959
% of Permanent Capacity	167%	170%	177%

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	920	938	972
% of Permanent Capacity	169%	173%	179%

MIDDLE SCHOOL: Murchison

RATING: Met Standard

ADDRESS: 3700 North Hills Drive

PERMANENT CAPACITY: 1,113

% QUALIFIED FOR FREE/REDUCED LUNCH: 27.51%

MOBILITY RATE: +10.7%

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	1,229	1,543	1,553
% of Permanent Capacity	110%	139%	140%

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	1,361	1,709	1,719
% of Permanent Capacity	122%	154%	154%

EDUCATIONAL IMPACT STATEMENT

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Austin Independent
School District



HIGH SCHOOL: Anderson

RATING: Met Standard

ADDRESS: 8403 Mesa Drive

PERMANENT CAPACITY: 2,373

% QUALIFIED FOR FREE/REDUCED LUNCH: 26.74%

MOBILITY RATE: +8.5%

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	2,063	2,336	2,356
% of Permanent Capacity	87%	98%	99%

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	2,239	2,535	2,555
% of Permanent Capacity	94%	107%	108%

*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.