



MEMORANDUM

Date: November 21, 2019
To: Wendy Rhoades, Zoning Case Manager
CC: Kathy Smith, P.E., PTOE, HDR Engineering, Inc.
Reference: Austin Green – Planned Unit Development (PUD)
Transportation Impact Analysis Final Memo
C814-2018-0154

Summary of the Transportation Impact Analysis (TIA):

The Austin Transportation Department (ATD) has thoroughly reviewed the “*Traffic Impact Analysis – Austin Green*” dated October 4, 2019, prepared by HDR Engineering, Inc. The TIA is for a PUD zoning application currently in the Austin ETJ and is proposed to be annexed into the City’s limited purpose jurisdiction through a Municipal Utility District consent agreement. Austin Green is anticipated to consist of 300,000 SF of general light industrial, 4,377 DU of single-family detached housing, 4,374 DU of multifamily housing (low-rise), 3,249 DU of multifamily housing (mid-rise), 1,500 student elementary school (two), 1,100 student middle school, 600,000 SF of general office building, 150,000 SF of medical-dental office building, and 650,000 SF of shopping center. It will be located on the east and west side of SH 130 between the Colorado River and FM 969 consisting of five tracts (Exhibit A). The development is anticipated to be completed by the year 2040.

Below is a summary of our review findings and recommendations:

1. A phasing agreement shall be submitted to, reviewed, and approved by the City of Austin before the first subdivision and/or site plan application. The phasing agreement shall include the proposed phasing of the entire PUD and required transportation improvements associated with each of the phases, as included, but not limited to, in this TIA memo.
2. A TIA may be required with every subdivision and site plan application in this PUD, per the applicable Land Development Code. Transportation improvements to be built or funded by the Applicant should be re-analyzed with each new subdivision or site plan TIA. If the subdivision or site plan TIA requires additional mitigations beyond the list mentioned in this TIA memo, the Applicant shall be required to build or fund the additional transportation improvements at the time of subdivision or site plan.
3. The Applicant shall design and construct, or fund the improvements as identified in Table 2 below (Summary of Required Transportation Improvements) as part of their subdivision or site development applications. The phasing agreement shall include the required transportation improvements associated with each of the phases of the PUD. No temporary certificate of occupancy (TCO) or certificate of occupancy (CO) shall be issued until the construction of the required improvements is complete.

4. If the Applicant is responsible for funding transportation improvements for a particular phase of the PUD as established in the phasing agreement, the Applicant shall pay the transportation mitigation fee-in-lieu to the responsible authority prior to the issuance of the first subdivision or site development permit within that phase.
5. Please note that the cost estimates included in Table 2 are based on the opinion of probable cost of improvements from the Applicant's consultant and is included here for information only. The cost estimates included in Table 2 **shall not** be assumed to represent the maximum dollar value of improvements the Applicant may be required to construct. The cost estimate for the transportation improvements shall be re-assessed at the time of site plan or subdivision application.
6. The Applicant shall commit to implement Transportation Demand Management (TDM) measures as part of each site plan to achieve a **minimum** 10% vehicle trip reduction as identified in the TIA scope. The Applicant shall be required to submit a Transportation Demand Management Plan at each subdivision or site plan application for staff's review and approval. Every site plan application submitted under this PUD shall try to achieve a higher TDM reduction based on the proposed land use intensities, which will be evaluated at the time of each submittal.
7. Development of this property should not vary from the approved uses or deviate from the approved intensities and estimated traffic generation assumptions within the finalized PUD TIA memo, including land uses, trip generation, trip distribution, other identified conditions. Applicant should consult with ATD and other responsible authority (TxDOT and/or Travis County) for driveway locations and traffic controls based on the Transportation Criteria Manual and Land Development Code in future site plan submittals. Any change in the assumptions made in the PUD TIA document shall be reviewed by ATD and may require a new or updated TIA.
8. The Applicant shall provide two copies of the final, updated version of the TIA within ten business days from the 3rd reading at City Council, matching Council's approved intensity recommendation.
9. The findings and recommendations of this TIA memorandum remain valid until five (5) years from the date of this memo, after which a revised TIA or addendum may be required at the discretion of ATD.

Assumptions:

1. The development is expected to be built by the year 2040.
2. A combined TDM and internal capture rate reduction of 10% was assumed for all residential, office, and retail land uses for tracts four and five. Internal capture was only calculated within a given parcel, and trips between different land uses on different parcels were not considered as internal capture trips.
3. 34% pass-by reduction for shopping center during the PM peak hour.
4. Considerations were made for the following background projects:
 - Interport South – C14-02-0013
 - WatersEdge PUD – C814-05-0069
 - Indian Hills – C14-2009-0089
 - Velocity Crossing – C14-2015-0117
 - Terrace at Hornsby Bend – SP-2017-0395D
5. Travis County and TxDOT have accepted this TIA.

Proposed Conditions:

Trip Generation and Land Use

Based on the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition), the development would generate approximately 123,900 unadjusted average daily vehicles trips (ADT) at full build out.

Due the significant number of vehicular trips and the anticipated traffic load on the roadway network, the Applicant has committed to a Transportation Demand Management (TDM) Plan. Table 1 shows the adjusted trip generation after applying pass-by and TDM/internal capture reductions.

Table 1: Adjusted Trip Generation				
Proposed Land Use	Size/Unit	24-Hour Two-Way Volume Trips	AM Peak Hour	PM Peak Hour
Tract 1				
General Light Industrial	300,000 SF	1,195	101	79
Single-Family Detached Housing	500 DU	3,842	356	437
Multifamily Housing (Low-Rise)	500 DU	3,775	197	195
Tract 1 Total		8,812	654	711
Tract 2				
Single-Family Detached Housing	282 DU	2,167	200	246
Multifamily Housing (Low-Rise)	281 DU	2,122	111	110
Tract 2 Total		4,289	311	356
Tract 3				
Shopping Center	120,000 SF	3,289	88	264
Tract 4				
Single-Family Detached Housing	938 DU	6,487	600	737
Multifamily Housing (Low-Rise)	937 DU	6,368	334	329
Multifamily Housing (Mid-Rise)	750 DU	3,678	215	260
Elementary School	1,000 students	1,701	603	153

Middle School	1,100 students	2,109	575	169
Shopping Center	250,000 SF	6,168	166	496
Tract 4 Total		26,511	2493	2144
Tract 5				
Single-Family Detached Housing	2,657 DU	18,377	1700	2089
Multifamily Housing (Low-Rise)	2,656 DU	18,050	944	932
Multifamily Housing (Mid-Rise)	2,499 DU	12,256	718	867
Elementary School	500 students	851	302	77
General Office Building	600,000 SF	5,430	531	563
Medical-Dental Office Building	150,000 SF	5,108	288	460
Shopping Center	280,000 SF	6,908	185	556
Tract 5 Total		66,980	4668	5,544
Total				
		109,881	8212	9,019

Transportation Demand Management (TDM)

The Applicant has committed to a minimum TDM reduction of 10% (along with internal capture trips) to meet certain vehicle trip reduction targets. The Applicant has identified the following TDM measures that would be implemented at the time of subdivision or site plan to achieve the vehicular trip reduction:

- Contributions for Sustainable Transportation – Although not yet in Cap Metro service area, the Applicant shall provide land for transit stops and park and ride facilities as identified at the time of subdivision or site plan.
- Bicycle Parking
- Showers and Lockers
- Bicycle Repair Station
- Bicycle Maintenance Station
- Car Share Parking
- Unbundled Parking
- Short Term Daily Parking Provision
- Priced Parking
- Improved bicycle and pedestrian connectivity for all streets. Includes but not limited to physically separate bicycle facility, on-street bike lane or shared use path, sidewalk, and trail connections.

The Applicant shall submit a TDM plan for each subdivision / site plan to ATD for review and approval. While the Applicant committed to the broad spectrum of TDM measures, as noted above, the Applicant would have the flexibility to pick and choose other relevant TDM measures at the time of subdivision/site plan to further reduce vehicular trip generation.

Table 2: Summary of Required Transportation Improvements:

<u>Intersection/Roadway</u>	<u>Transportation Improvements</u>	<u>Responsibility</u>	<u>Estimated Cost (For Information Only)</u>
FM 973 and FM 969	Construct dual NB left-turn lanes	To be designed and constructed by the Applicant at the time of subdivision or site plan	\$300,000
	Construct SB left-turn lane		\$250,000
	Construct channelized EB right-turn lane		\$150,000
	Construct WB right-turn lane		\$150,000
	Signal modification and timing optimization		\$300,000
SH 130 SB FR and FM 969	Construct SB left-turn lane	To be reassessed at the time of subdivision or site plan	-
	Construct EB right-turn lane		-
	Signal timing optimization	To be paid by the Applicant as a transportation mitigation fee-in-lieu prior to the approval of subdivision or site plan	\$5,000
SH 130 NB FR and FM 969	Construct NB left-turn lane	To be reassessed at the time of subdivision or site plan	-
	Construct WB right-turn lane		-
	Signal timing optimization	To be paid by the Applicant as a transportation mitigation fee-in-lieu prior to the approval of subdivision or site plan	\$5,000
Hunters Bend Road/Delta Post Drive and FM 969	Restripe NB and SB approaches	To be paid by the Applicant as a transportation mitigation fee-in-lieu prior to the approval of subdivision or site plan	\$10,000
	Signal timing optimization		\$5,000
FM 973 and SH 71 WB FR	Construct NB acceleration lane for WB right turns	To be designed and constructed by the	\$10,000

	Construct WB acceleration lane for SB right turns	Applicant at the time of subdivision or site plan	\$150,000
	Signal timing optimization		\$5,000
FM 973 and SH 71 EB FR	Signal timing optimization	To be paid by the Applicant as a transportation mitigation fee-in-lieu prior to the approval of subdivision or site plan	\$5,000
	Construct SB through lane	To be reassessed at the time of subdivision or site plan	-
SH 130 SB FR ad SH 71 WB FR	Signal timing optimization	To be paid by the Applicant as a transportation mitigation fee-in-lieu prior to the approval of subdivision or site plan	\$5,000
	Restripe SB approach	To be paid by the Applicant as a transportation mitigation fee-in-lieu prior to the approval of subdivision or site plan	\$10,000
	Construct EB right-turn lane	To be reassessed at the time of subdivision or site plan	-
SH 130 SB FR and SH 71 EB FR	Signal timing optimization	To be paid by the Applicant as a transportation mitigation fee-in-lieu prior to the approval of subdivision or site plan	\$5,000
SH 130 NB FR and SH 71 WB FR	Restripe NB approach	To be paid by the Applicant as a transportation mitigation fee-in-lieu prior to the approval of subdivision or site plan	\$10,000

	Construct WB right-turn lane	To be reassessed at the time of subdivision or site plan	-
	Signal timing optimization	To be paid by the Applicant as a transportation mitigation fee-in-lieu prior to the approval of subdivision or site plan	\$5,000
SH 130 NB FR ad SH 71 EB FR	Construct NB right-turn lane	To be reassessed at the time of subdivision or site plan	-
	Signal timing optimization	To be paid by the Applicant as a transportation mitigation fee-in-lieu prior to the approval of subdivision or site plan	\$5,000
FM 973 and Platt Lane	Modify for right-in/right-out operation	To be designed and constructed by the Applicant at the time of subdivision or site plan	\$50,000
FM 973 and Harold Green Road	Install traffic signal	To be designed and constructed by the Applicant at the time of subdivision or site plan	\$250,000
	Construct dual SB left-turn lanes		\$200,000
	Construct SB through lane		***
	Construct two NB through lanes		***
	Construct NB right-turn lane		\$150,000
	Construct dual WB left-turn lanes		**
SH 130 SB FR and Harold Green Road	Install traffic signal	To be designed and constructed by the Applicant at the time of subdivision or site plan	\$250,000
	Construct channelized SB right-turn lane		\$200,000
	Construct EB through lane		**
	Construct channelized EB right-turn lane		\$200,000

	Construct dual WB left-turn lanes		\$250,000	
	Construct WB through lane		**	
SH 130 NB FR and Harold Green Road	Install traffic signal	To be designed and constructed by the Applicant at the time of subdivision or site plan	\$250,000	
	Construct channelized NB right-turn lane		\$200,000	
	Construct dual EB left-turn lanes		\$250,000	
	Construct EB through lane		**	
	Construct WB through lane		**	
	Construct channelized WB right-turn lane		\$150,000	
FM 973 and Garden Grove Drive/ Driveway 2B	Install traffic signal	To be designed and constructed by the Applicant at the time of subdivision or site plan	\$300,000	
	Construct SB left-turn lane		\$200,000	
	Construct two SB through lanes		***	
	Construct NB left-turn lane		\$200,000	
	Construct two NB through lanes		***	
	Construct WB left-turn lane		\$150,000	
FM 973 and Prado Ranch Boulevard	Install traffic signal	To be designed and constructed by the Applicant at the time of subdivision or site plan	\$300,000	
	Construct SB left-turn lane		\$200,000	
	Construct two SB through lanes		***	
	Construct two NB through lanes		***	
FM 973 and Thyone Road	Install traffic signal	To be designed and constructed by the Applicant at the time of subdivision or site plan	\$300,000	
	Construct two SB through lanes		***	
	Construct two NB through lanes		***	
FM 973 and Driveway 1A	Install traffic signal	To be designed and constructed by the Applicant at the time of subdivision or site plan	\$300,000	
	Construct SB left-turn lane		\$200,000	

	Construct SB through lane	Applicant at the time of subdivision or site plan	***
	Construct NB through lane		***
	Construct NB right-turn lane		\$150,000
FM 973 and Driveway 1B	Construct SB left-turn lane	To be designed and constructed by the Applicant at the time of subdivision or site plan	\$200,000
	Construct SB through lane		***
	Construct NB through lane		***
FM 973 and Driveway 1C	Install traffic signal	To be designed and constructed by the Applicant at the time of subdivision or site plan	\$300,000
	Construct SB left-turn lane		\$200,000
	Construct SB through lane		***
	Construct NB through lane		***
	Construct NB right-turn lane		\$150,000
FM 973 and Driveway 2A	Construct two SB through lanes	To be designed and constructed by the Applicant at the time of subdivision or site plan	***
	Construct NB left-turn lane		\$200,000
	Construct two NB through lanes		***
Driveway 3A/Driveway 4A and Harold Green Road	Construct roundabout	To be designed and constructed by the Applicant at the time of subdivision or site plan	\$400,000
Driveway 4B and Harold Green Road	Construct EB through lane	To be designed and constructed by the Applicant at the time of subdivision or site plan	**
	Construct WB left-turn lane		\$150,000
	Construct WB through lane		***
FM 973 and Driveway 4C	Construct SB left-turn lane	To be designed and constructed by the Applicant at the time of subdivision or site plan	\$200,000
	Construct two SB through lanes		***
	Construct two NB through lanes		***
FM 973 and Roadway D	Install traffic signal	To be designed and constructed by the	\$300,000
	Construct SB through lane		***

	Construct NB through lane	Applicant at the time of subdivision or site plan	***
	Construct channelized NB right-turn lane		\$200,000
Driveway 5I and FM 969	Install traffic signal	To be designed and constructed by the Applicant at the time of subdivision or site plan	\$300,000
FM 973 (b/w SH 71 and Roadway D)	Widening roadway to six lane section	To be designed and constructed by the Applicant at the time of subdivision or site plan	\$576,000
FM 973 (b/w Roadway D and Harold Green)	Widen roadway to six lane section		\$7,296,000
FM 973 (b/w Harold Green and FM 969)	Widen roadway to four lane section		\$4,176,000
	Total		\$22,333,000

**** To be constructed as part of subdivision / site plan (not considered as transportation system mitigation)**

***** Pro-rata calculated as part of FM 973 roadway widening (see last three rows of table)**

Please note that the cost estimates included in Table 2 are included here for information only. The cost estimates included in Table 2 **shall not** be assumed to represent the maximum dollar value of improvements the Applicant may be required to construct. The cost estimate for the transportation improvements shall be re-assessed at the time of site plan or subdivision application.

The phasing agreement shall include the phasing of required transportation improvements associated with each of the phases of the PUD. No temporary certificate of occupancy (TCO) or certificate of occupancy (CO) shall be issued until the construction of the required improvements is complete for each of the phases.

A TIA may be required with every subdivision and site plan application in this PUD, per the applicable Land Development Code. Transportation improvements to be built or funded by the Applicant should be re-analyzed with each new subdivision or site plan TIA. If the subdivision or site plan TIA requires additional mitigations beyond the list mentioned in this TIA memo, the Applicant shall be required to build or fund the additional transportation improvements at the time of subdivision or site plan.

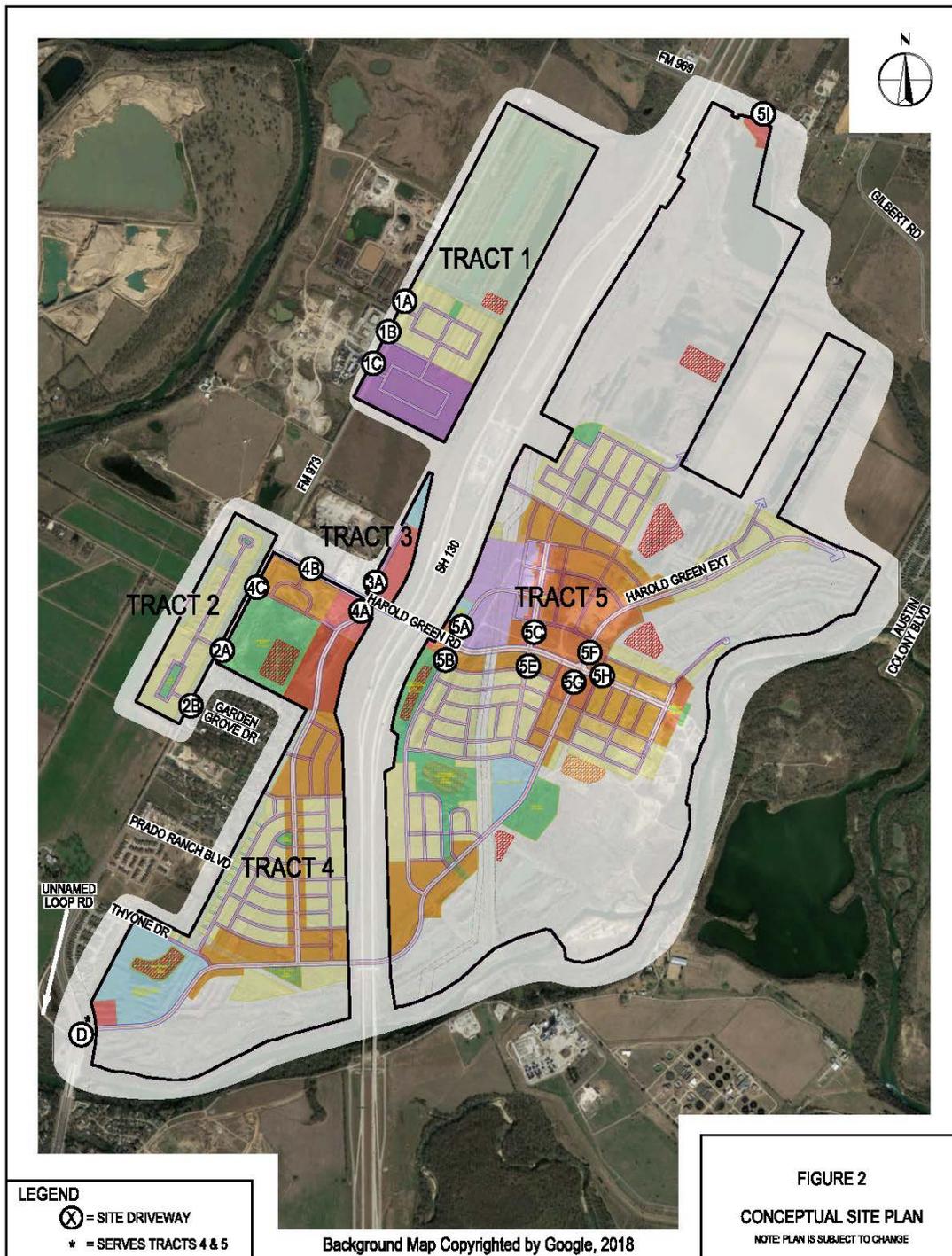
If you have any questions or require additional information, please contact me at 512-974-4073.

A handwritten signature in black ink that reads "Nazlie Saeedi". The signature is written in a cursive style with a large, stylized 'N' and 'S'.

Nazlie Saeedi, P.E.
Austin Transportation Department



EXHIBIT A



Source: HDR, Inc.