

## MEMORANDUM

**TO:** Donna Barron, City Manager

**FROM:** David Salmon, P.E., City Engineer

**VIA:** Eric Ferris, Deputy City Manager

**DATE:** January 28, 2019

**SUBJECT:** **Consideration of a Preliminary Plat of Castle Hills Tract K Addition an 83.415 Acre Parcel Designated General Business 2 (GB2), Located on the Southwest Corner of Sam Rayburn Tollway (SRT) and FM 544 With Four Associated Variances, as Requested by LandDesign Inc., Representing the Property Owner.**

### **BACKGROUND**

The subject plat is located within Castle Hills in the City of Lewisville extra territorial jurisdiction (ETJ) and is to be developed in accordance with the 1996 Bright Farms Agreement. The subject property is being platted for the purpose of constructing future office development. The following variances are being requested by the owner: a) to allow dedication of a street, drainage, pedestrian easement in lieu of right-of-way dedication for right turn lanes along SRT and FM 544, b) to allow an alternate 80 foot R.O.W. street section, c) to allow a reduced median opening spacing on FM 544 between SRT and Midway Road, and d) to temporary allow a dead-end street longer than 600-ft.

The preliminary plat was originally approved by City Council on May 19, 2014 with three variances a) to allow dedication of a street, drainage, pedestrian easement in lieu of right-of-way dedication for right turn lanes along SRT and FM 544, b) to allow an alternate 80-foot R.O.W. street section, and c) to allow a reduced median opening spacing on FM 544 between SRT and Midway Road. However, preliminary plats expire after two years if no development takes place. The applicant has constructed part of the street but is requesting the remainder of the street to be constructed when more lots are developed, thus the reason for variance d) to temporary allow a dead-end street longer than 600-ft.

### **ANALYSIS**

a): To allow a street, drainage, and pedestrian easement in lieu of required right-of-way for right turn lanes along SRT and FM 544.

#### **Section V(2)(J) – Turning Lanes**

The 1996 Development Ordinance requires right-of-way dedication commensurate with the width of additional pavement for construction of right turn lanes. A right turn lane is required at each street intersection along SRT and FM 544, a total of four (4) right turn lanes are required. The

minimum width of a right turn lane is twelve (12) feet, so typically an additional twelve (12) feet of right-of-way is required to ensure an appropriate parkway width. The developer is proposing to dedicate a 12-foot wide street easement instead of twelve (12) feet of right-of-way to allow for a more consistent building line set back rather than one that jogs back at each entrance to the development. Staff is not opposed to the variance because the easement dedication will provide enough space to construct and maintain the right turn lane as well as a four (4)-foot wide sidewalk two (2) feet behind the curb, and will maximize space for future development. The same variance was granted for 121/544 Addition (RaceTrac, Lewisville Town Crossing and Assured Self Storage, also in Castle Hills.

b): To allow an alternate 80 foot R.O.W. street section to reduce the required parkway from 15.5 feet to 7.5 feet and allow medians.

### **Section V (2)(B) - Streets**

The Standard street section included in the 1996 General Development Ordinance for an 80-foot wide right of way is a 49-foot wide street ( 4-lane, no median) with a 15.5-foot parkway for a four-foot wide sidewalk and franchise utilities on both sides of the street. In the proposed subdivision, the 80-foot right of way would contain a 4-lane divided with a 15-foot median and a 7.5-foot parkway and a 6-foot sidewalk and utility easement on each side. The six-foot Sidewalk and Utility Easements would contain the four-foot sidewalks and franchise utilities.

For this type of commercial subdivision the minimum street right of way required is 60 feet, the proposed 80-foot right of way exceeds this requirement and provides an opportunity for median landscape improvements for the subdivision. The median is intended to create a boulevard effect with landscape opportunities for the proposed corporate office campus. The median will be maintained by a Property Owners Association. Staff recommends approval of this variance.

c): To reduce the required median opening spacing from 600 feet to 420 feet from a signalized intersection.

### **Section V Table 7 – Street Design Criteria**

FM 544 (a Principal Arterial with six lanes) requires a minimum of 600-feet for median opening spacing from any signalized intersection. In this case, the applicant is proposing to construct a new median opening and westbound left turn lane on FM 544, which would necessitate a median opening spacing of 420-feet from the signalized intersection of SRT. A full median opening is desirable to allow traffic from Crown Parkway to turn left to go westbound on FM 544 and SH 121 Business to avoid a long circuitous route through four (4) additional traffic signals. A Traffic Impact Analysis (TIA) was prepared to evaluate the vehicular impact with the proposed development. The TIA supports the median opening spacing of 420-feet if the developer creates dual left turn bays on the FM 544 bridge over Sam Rayburn Tollway eastbound and westbound to provide an acceptable level of service at each intersection. Staff is not opposed to the request based on the conclusions in the TIA. TxDOT will need to approve the TIA along with the construction plans prior to construction of the median opening and intersection modifications.

The street construction within the proposed subdivision will be phased. Phase 1 will construct only the south portion of Crown Parkway on the south side of the existing creek with no connection to FM 544. The formal TXDOT review process for improvements within TxDOT right-of-way occurs after the City approves the detailed construction plans and TIA. The City rather than the developer becomes the permit applicant and the plans plus supporting documentation are submitted by the City to TxDOT for their approval. In this situation the construction plans for the Crown Parkway and FM 544 intersection will not be prepared until the developer is ready to final plat and construct the future phase. Thus, TXDOT review may not occur for several years. The variance is required now at this earlier stage in order to approve the preliminary plat.

d): To temporary allow a dead-end street longer than 600-ft without a cul-de-sac.

### **Section V (2)(B) - Streets**

The 1996 Development Ordinance requires that no dead-end street is longer than 600-ft in length. The ordinance also states that all dead-end streets shall end with cul-de-sac. The applicant is requesting that the requirement for a dead-end street and cul-de-sac be waived until future development takes place. A temporary hammerhead was constructed with the previous phase to help with maneuverability. The ultimate build out of Crown Parkway has a connection at SH 121 Business and a connection at FM 544. A median opening and deceleration lane have already been constructed at the future intersection at FM 544. A deceleration lane has also been constructed for the second connection along SH 121 Business.

The Fire Marshal for the City of Lewisville tested the hammerhead turn-a-round and determined the largest fire truck was able to turn around. Staff recommends approval of this variance.

### **RECOMMENDATION**

That the City Council approve the preliminary plat and the variances as set forth in the caption above.