

**AGENDA REPORT
PLANNING AND ZONING COMMISSION MEETING
February 24, 2022**

SUMMARY

A request by Crockett Engineering (agent), on behalf of Curators of the University of Missouri (owner), for approval of a 532-lot preliminary plat that will allow the subdivision & development of the site with single-family and multi-family housing, and neighborhood commercial areas, to be known as *Legacy Farms Preliminary Plat*, with a design adjustment to Section 29-5.1(c)(3)(ii) to allow longer block lengths on multiple blocks. The 383-acre property is currently zoned A (Agricultural) and is located on the west side of Sinclair Road, approximately 700' south of Nifong Boulevard. (**Case # 59-2022**)

DISCUSSION

Concurrently with this request, the applicant is seeking approval to rezone the property from its current zoning designation of A (Agriculture) to R-1, R-MF, and M-N. A detailed evaluation of this request is presented in Case # 71-2022.

The 383-acre subject site stretches nearly two miles along the west side of Sinclair Road from Mill Creek Elementary on the north, south past John Warner Middle School, to approximately 700 feet south of Stanley Pitts Lane. The site includes two separate parcels that are owned by the Curators of the University of Missouri. The northern parcel is approximately one-quarter mile deep when measured from Sinclair Road, and the southern parcel is approximately one-half mile deep.

There is a small portion of the overall acreage in the far southwest corner of the southern parcel that is not included within the preliminary plat but is under the same ownership. No information was provided on the current or future use of the property, and it will have no direct street access from the subdivision, so development potential of this acreage will be constrained. An access easement will be required to be provided across Lot C19 to allow minimum access to the site, however, it will be limited to the 35-foot corridor between lots 28 and 29. While additional information would be useful in determining how best to ensure that the parcel is accessible, the applicant is not required to include the property on the preliminary plat, and they have indicated that the access proposed is acceptable.

There are no buildings currently on the property, although remnants of past structures are visible, and there is pavement still located around these areas. Information on the current or past use of the site was not provided with the application for the preliminary plat. The site contains a significant amount of trees; however, outside of a few areas the majority of the trees are not considered to be climax forest. The timber that will be preserved will be primarily located along the stream buffer area in the northern half of the property.

Mill Creek crosses the property from east to west in the northern portion of the site. The Parks and Recreation Department's long-range trail plan identifies this stream as a trail location. An easement will be dedicated on the final plat (note #18) to allow Parks to construct a trail in the future.

The layout of the site includes 495 single-family lots that range in size and width. A number of residential lots are larger than one acre that are generally located in the southern portion of the site. The lots get progressively smaller moving to the north end of the subdivision, with many approaching the minimum 60-foot lot width within the proposed R-1 zoned area of the development. The street

network provides good connectivity, with the exception of excessive block lengths (discussed later in the report) and includes few cul-de-sacs relative to the size of the development. Two of the cul-de-sacs do exceed the 300-foot standard limit on length, but it was determined that there were topographical constraints allowing their length to be increased to the maximum of 750 feet. Both cul-de-sacs are considerably shorter than permitted with Whisper Drive being the longest at a little over 500 feet.

Many of the common lots identified on the plan will include stormwater management infrastructure and are arranged and sized in a way that may make them usable by the neighborhood for recreation purposes. Several of these lots are also shown with walking trails, which would be the responsibility of the developer to install, but would become a significant community amenity that would help to encourage pedestrian travel. Other common lots are located along the natural drainageways on the property. As previously mentioned, the Mill Creek corridor may include a City trail in the future, and it falls within Lots 498, 500 and 501 on the north parcel.

In addition to the single-family portion of the site, the preliminary plat includes larger lots that will incorporate the potential for multi-family dwellings. These include the 12.9-acre Lot 496 (located at the northwest corner of Crabapple and Darlington Drive), the 3.6-acre Lot 670 (located at the southwest corner of Sinclair and Needle Rush Drive), and the 2.5-acre Lot 728 (located at the southwest corner of Crossvine and Needle Rush). There are two additional R-MF zoned lots identified as Lots 499 and 500, (16.8 and 21.9 acres respectively) that are on either side of the extension of Southampton and the proposed roundabout at that intersection. None of the R-MF lots directly border any R-1 lots, as common lots have been located to provide a buffer between them. The existing drainage area also provides a natural separation between the uses.

The proposed development will also include three lots of M-N (Mixed-use Neighborhood) zoned property. These lots are located with frontage along Sinclair and border a neighborhood collector on the south. It is expected that there will not be direct access permitted to these lots from Sinclair and they would be accessed from the surrounding streets internal to the development.

The final two lots on the site are located at the far north edge of the property - Lots 498 and 500. They are unusual in that they are larger lots that are proposed to be rezoned to R-1. Lot 498 will be donated to the City (discussed later in the report), and Lot 500 which directly abuts Mill Creek Elementary school, per the applicant, is expected to be donated to the Columbia Public Schools (CPS). One area of note for Lot 500 is that it will lack direct street access to a road expected to be constructed by the developer. As shown on the preliminary plat, Lot 500 will front on the portion of Southampton that is expected to be a bridge, if constructed.

This would normally be of concern; however, given this lot is to be donated to CPS and become part of the Mill Creek school site with access to Vawter School and Sinclair Roads access is not a concern. Furthermore, per the applicant, it is expected that CPS intends to preserve the site in its natural state. Staff has not verified with CPS that they are acceptable to the donation at this time. In order to address the potential access issue were the lot not donated to CPS, there is a note on the preliminary plat that stipulates that if the lot is not given to CPS shall remain unplatted until street access is established. Establishing such access would likely require a revision to the preliminary plat and the construction of additional streets by the developer.

Access to the site will be primarily from Sinclair Road, which is identified as a major collector. Seven new intersections with Sinclair will be constructed as part of the development; two of the intersections include streets identified as major roadways. The northernmost major roadway intersection would be an

extension of the existing Southampton Drive that currently terminates at Sinclair; this street is identified

as a neighborhood collector on the CATSO Major Roadway Plan (MRP). The intersection is shown as a roundabout on the preliminary plat. Construction of the proposed new roundabout is discussed later in this report. The dedication of the right of way for Southampton is shown extending from Sinclair to the western edge of the property; however, the pavement terminates approximately 500 feet west of Sinclair Road. The extension of Southampton beyond this distance will require a bridge structure. Pursuant to the City Code, the developer is only responsible for a payment-in-lieu of constructing the residential portion of the street and the City would be responsible for construction of the bridge.

The other major road extending through the site will be the extension of Crabapple Lane. Currently Crabapple terminates at the west edge of the property where it is stubbed from and extends through the Mill Creek Manor subdivision. The extension of this neighborhood collector through the subject property will connect Sinclair with Old Mill Creek Road to the west. As it is a collector-level street, no private residential driveways will be permitted to take access from it within the proposed development. In addition to the extension of the Crabapple stub, an additional existing stub street within Mill Creek Manor, Cromford Mill Drive, will be extended into the preliminary plat.

In addition to extending existing street stubs, the development will stub several new streets to adjacent undeveloped properties to provide for the extension of the street network through those sites if they develop in the future. Stubs are provided for Needle Rush Drive and Darlington Drive to the west edge of the north parcel. On the south parcel, Delosia Drive will stub to the property to the west, and there will also be a stub street along the south property line named Gulley Drive.

Prior to the submission of the preliminary plat, the developer submitted the street layout for review by CATSO since the street layout included deviations from the MRP plan for the property. The developer presented their revised layout for major roadways on the property. Their layout proposes the removal of a north/south roadway that would have been located along the west side of the property extending all the way north to Old Mill Creek Road. The requested revisions also included the addition of the extension of Southampton as a collector west of Sinclair (as shown on the plan), which would eventually connect to Old Mill Creek Road, providing another east/west collector connection. A connection into Arrowhead Lake Estates was also proposed for removal from the MRP. The alignment and extension of Crabapple remained unchanged. The CATSO Coordinating Committee is set to conduct a public hearing on the proposed revisions to the MRP at 2:30 p.m. on February 24, the day of this public hearing. Staff will update the Commission on the outcome of the meeting during its hearing that evening. Presuming the proposed revisions are approved by CATSO, the submitted street alignment shown on the preliminary plat would be considered to be consistent with the MRP.

Per UDC requirements, a traffic study was submitted to ascertain the impact of the development on the surrounding street infrastructure and to identify potential improvements that would need to be made. The conclusions of the study (attached) indicated that turn lanes should be constructed at key development entrance intersections along Sinclair Road into the subdivision. The turn lanes locations are reflected on the preliminary plat. In addition, the study recommended that a roundabout be considered at the intersection of Sinclair and Southampton Drive. The applicant has stated that they will be responsible for these two improvements. Given the needed offsite improvements, staff will be recommending that a development agreement accompany the preliminary plat when it goes before City Council.

The development agreement will also include other provisions. The traffic study identified several other intersections that will either not operate at an acceptable level of service once the entire site is

constructed or currently do not operate at an acceptable level of service and development of this site will contribute to their further degradation. These intersections are Nifong/Sinclair, Southampton/Forum,

and Southampton/Bethel. Given the impacts of the development on these intersections, staff recommended that a corresponding proportional contribution be made by the applicant to address the needed improvements.

The applicant has generally agreed to the contributions as described above. However, they have proposed that in lieu of a payment for those improvements they would donate Lot 498 as shown on the preliminary plat to the City at no cost. Public Works has been in the process of identifying and acquiring a location for a second salt dome in the southern portion of the City and have indicated that this site would be acceptable for that use. If accepted, the donation would be roughly equivalent to the amount of the expected contributions needed for the offsite intersection improvements and the amount of the payment- in-lieu required for the local residential portion of the extension of Southampton Drive as mentioned previously in this report.

One other item to be addressed within the development agreement is the construction of a pedestrian crossing along Sinclair Road. CPS currently operates John Warner Middle School on the east side of Sinclair directly across the street from the proposed development and has announced plans to construct an elementary school immediately adjacent to and north of the middle school with a potential opening date of fall of 2024. Given the proposed development will include school-aged children that could be attending the schools, the applicant will be installing infrastructure to facilitate the safe crossing of pedestrians to and from the schools and the proposed development.

Installation of this improvement was seen as a critical contribution to the surrounding area and will create an opportunity for students to walk and access these neighborhood assets. The ability to safely connect future residents to the schools furthers city-wide objectives encouraging healthy lifestyles and alternative modes of transportation. Final design and installation of the crossing will be undertaken by the applicant and coordinated with CPS to ensure its location is optimized based on the final elementary school design plans.

In terms of utility provision to the site, the City of Columbia's sanitary sewer will serve the area. A pump station will be required to service the area that is within the Little Bonne Femme watershed, which is roughly the area south of Makana Lane. Boone Electric will serve the site with electric, and the City will be providing water.

Design Adjustments

Associated with the proposed division of the property is a request for a design adjustment from the UDC provisions, which is discussed below.

Section 29-5.1(c)(3)(ii)

The design adjustment requested is to Section 29-5.1(c)(3)(ii), which requires that streets intersect at intervals not exceeding 600 feet resulting in blocks that are less than 600 feet in length. This provision is intended to ensure that the street network within a subdivision has good connectivity and provides multiple route options for vehicle and pedestrian travel. Shorter blocks are more efficient at moving both vehicular and pedestrian traffic and reduces the reliance on one stretch of roadway within a development from having to carrying the majority of the development's trips which in turn can assist in reduces the wear and tear on any single stretch of roadway within the development.

There are 15 block segments in the subdivision that exceed 600 feet. An exhibit is attached to this report that identifies the location of the blocks in question with a blue shading. The lengths of the blocks vary from approximately 650 feet to a little over 1,000 feet in length.

The applicant states that the request is consistent with the comprehensive plan's goals of reducing long-term maintenance costs and infrastructure costs (p. 145) over time by reducing the amount of pavement that would be required to be included in a development via the additional street connections and that the absence of the connections will not have an adverse impact on the property. Furthermore, the applicant states that the additional intersections create more opportunities for vehicular and pedestrian conflicts that could result in accidents which would be detrimental to public safety. Pedestrian walkways between lots are proposed to allow for pedestrian connectivity at midpoints of the longer blocks, which will be a unique design feature.

Referring to the design adjustment criteria specifically, (1) as stated in the comprehensive plan, shorter block lengths are a product of sustainable communities, and promote more walkable development. Block length is not specifically discussed in the goals of Columbia Imagined, but it is identified as a component of Sustainable Infrastructure for Livable and Sustainable Communities (p. 69). Additional street connections are also intended to allow for additional vehicular routes to ensure efficient traffic flow throughout a subdivision by providing multiple pathways between two points.

While requiring additional street connections may result in additional pavement, it serves the purpose of enhancing development connectivity. Given the subdivision regulations were adopted with the 600-foot block length limit, such adopted regulation implies that the trade-offs between limiting block length and increased paving/maintenance costs were considered and found to be justified in order to provide greater connectivity. The applicant is suggesting that increased pavement was an unintended consequence of the specific block length criteria, but it is not certain if that were the case.

But, since the block lengths are an internal street design feature, it is unlikely that (2) there will be a negative impact on the abutting property. And given that there are still multiple street intersections and stubs to surrounding property, it would not seem that (3) the longer block lengths would significantly make it more dangerous to circulate through the development. It certainly won't have an impact on pedestrians since there will be pedestrian connections and the impact it would have on vehicular travel, with for instance several 1,000-foot blocks instead of 600-foot blocks, is hard to quantify exactly and even more difficult to say that it would be "significant".

Furthermore, in reviewing the proposal there does appear to be the aim to (4) create a unique design feature with the proposed pedestrian walkways. In terms of public health and safety (5), there is the potential that the longer block length could create an issue, for example, with an emergency vehicle response, where a shorter block length would have allowed a faster response to a site. But the probability that longer blocks would create adverse impacts on public health and safety appears low.

It is worth noting that recently, City Council approved a subdivision with a design adjustment (Old Hawthorne North) that provided pedestrian walkways as a substitute for complaint block lengths following the Commission's review of the development and an ultimate recommendation of denial. Given the Commission wasn't afforded the opportunity to consider the pedestrian walkways as an alternative it is unclear what the outcome would have been. While the UDC does not specifically account for this substitution, it is a creative method to at least address pedestrian connectivity, albeit it does not account for vehicular connectivity.

In addition, the site does not lack overall internal connectivity, with multiple street intersections, and few cul-de-sacs within the site. To that point, the UDC requires a minimum connectivity index (which is the ratio of the number of street segments between intersections within the plat over the number of

intersections within and at the boundaries of the plat). The connectivity index is meant to measure how well the street network is connected by ensuring there are more street segments than intersections. Four-way intersections will increase the connectivity index while developments with cul-de-sacs and extremely long block lengths with fewer intersections will decrease the connectivity index. Considering this requirement, the site complies with the required connectivity index as established by the UDC.

While staff's findings are that the request may meet a majority of the design adjustment standards, there are also some concerns with potential shortcomings of the pedestrian walkway design. The long-term maintenance of the walkways and how the walkways will appeal to pedestrians is in question. There is also the question of the abutting property owners' perception of the pedestrian walkways. It also does not address the vehicle connectivity that the block length maximum is meant to address and the fact that some of the blocks are significantly longer than the maximum block length permitted. However, overall, staff finds that the request does meet the standards for granting the design adjustment.

Conclusion

Staff is recommending approval of the design adjustment for block lengths and, as a result, also recommend approval of the preliminary plat.

RECOMMENDATION

1. Approval of the Design Adjustment from **Section 29-5.1(c)(3)(ii)** to allow block lengths to exceed 600 feet.
2. Approval of the preliminary plat

SUPPORTING DOCUMENTS (ATTACHED)

- Locator maps
- Preliminary Plat
- Zoning Exhibit
- Traffic Impact Study
- Design Adjustment Worksheet and Exhibit
- Correspondence

SITE CHARACTERISTICS

Area (acres)	383.43
Topography	Site includes several ridges and valleys, with the north $\frac{2}{3}$ of the site draining to the Mill Creek watershed, and the south $\frac{1}{3}$ draining to the Little Bonne Femme.
Vegetation/Landscaping	Large areas of timber coverage, with areas of climax forest trees mostly located along creeks and drainage areas.
Watershed/Drainage	Little Bonne Femme Creek, Mill Creek
Existing structures	Scattered pavement and potential building foundations.

HISTORY

Annexation date	North 2000' of site: 1969; Property to the south: 1998
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Zoning District	A
Land Use Plan designation	Columbia Imagine: Neighborhood
Previous Subdivision/Legal Lot Status	Unplatted

UTILITIES & SERVICES

Sanitary Sewer	City of Columbia
Water	City of Columbia
Fire Protection	City of Columbia
Electric	Boone Electric

ACCESS

Sinclair Road	
Location	Along the east side of property
Major Roadway Plan	Major Collector; City of Columbia maintained (66-76 feet of ROW required; 33-38-foot half-width required); Additional right-of-way shown for dedication.
CIP projects	None
Sidewalk	Pedway required

Crabapple Lane	
Location	Stubs to west side of site
Major Roadway Plan	Neighborhood Collector; (60-foot ROW required for extension); additional ROW to be dedicated at time of final plat.
CIP projects	None
Sidewalk	Sidewalks required

PARKS & RECREATION

Neighborhood Parks	Partially within MKT-Scott Blvd Park service area; also within Parks acquisition area
Trails Plan	Future trail along Mill Creek
Bicycle/Pedestrian Plan	Pedway proposed along Sinclair Road

PUBLIC NOTIFICATION

All property owners within 200 feet and City-recognized neighborhood associations within 1,000 feet of the boundaries of the subject property were notified of this pending request on January 25. Eighty-six postcards were distributed.

Report prepared by Clint Smith

Approved by Patrick Zenner