FILE #: 12-SD-20-C
AGENDA ITEM #: 18
12-SD-20-C
AGENDA DATE: 12/10/2020

SUBDIVISION: EMORY GREEN SUBDIVISION (FKA HATMAKER SUBDIVISION)
APPLICANT/DEVELOPER: BALL HOMES, LLC
OWNER(S): Charles L. Hatmaker

TAX IDENTIFICATION: 77 083 (PART OF)
JURISDICTION: County Commission District 6
STREET ADDRESS: 8935 W. Emory Rd.
LOCATION: Southwest side of W. Emory Rd., North of Karns Valley Dr.

SECTOR PLAN: Northwest County
GROWTH POLICY PLAN: Planned Growth Area
WATERSHED: Beaver Creek

APPROXIMATE ACREAGE:

ZONING: PR (Planned Residential)
EXISTING LAND USE: Agricultural
PROPOSED USE: Detached and attached residential subdivision
SURROUNDING LAND USE AND ZONING: The area along the improved Karns Valley Drive is comprised of a mix of single family and multi-family residential. The rest of the surrounding area is primarily large lot agricultural zoned properties and low density residential zoning.

NUMBER OF LOTS: 112
SURVEYOR/ENGINEER: William C., Jr. Fulghum
ACCESSIBILITY: Access is via W. Emory Road, a minor collector street with 21 feet of pavement width within 50 - 64 feet of right-of-way.

SUBDIVISION VARIANCES REQUIRED:

STAFF RECOMMENDATION:
APPROVE the Concept Plan subject to 11 conditions.
1. Connection to sanitary sewer and meeting any other relevant requirements of the utility provider.
2. Provision of street names which are consistent with the Uniform Street Naming and Addressing System within Knox County (County Ord. 91-1-102).
3. Implementing the recommendations of the Hatmaker Subdivision Transportation Impact Study (Fulghum MacIndoe, 10/26/2020), as revised and approved by Planning Commission staff and Knox County Engineering and Public Works (see Exhibit A).
4. Providing a 25’ common area strip between the W. Emory Road and lots 31-33, in accordance with section View map on KGIS

AGENDA ITEM #: 18 FILE #: 12-SD-20-C 12/3/2020 09:23 AM MIKE REYNOLDS PAGE #: 18-1
3.02.A.4 (Double Frontage Lots) of the Knoxville-Knox County Subdivision Regulations, and as shown on the Concept Plan.
5. Providing a minimum 10’ landscape buffer between the private driveway and parking spaces and W. Emory Road for the condominiums along the eastern boundary of the site.
6. Certifying that the required sight distance is available at all access points with documentation provided to Knox County Engineering and Public Works for review and approval during the design plan phase.
7. Reforesting the disturbed areas as proposed on sheet C2.
8. Meeting all applicable requirements of Knox County Engineering and Public Works.
9. Meeting all applicable requirements of the Knox County Zoning Ordinance.
10. Submitting to Planning staff prior to final plat review by the Planning Commission or Planning staff, the certification of design plan approval form as required by the Knoxville-Knox County Subdivision Regulations.
11. Prior to certification of the final plat for the subdivision, establishing a property owners association that will be responsible for the maintenance of the common areas, drainage system, and any recreational amenities.

► APPROVE the development plan for up to 55 detached residential lots and 58 residential condominiums, and a reduction of the peripheral setback from 35 feet to 20 feet for Old Cobb Ferry Road frontage and 15 feet for the W. Emory Road frontage west of the Road ‘A’ intersection, as shown, subject to 1 condition.

1) Meeting all applicable requirements of the Knox County Zoning Ordinance.

With the conditions noted, this plan meets the requirements for approval in the PR district and the other criteria for approval of a use on review.

COMMENTS:

This proposal is for a residential development with 55 lots for detached houses and 58 condominium units. There will be a total of 113 dwellings on the 28.06-acre site at a density of 4.03 du/ac. The property was recently rezoned PR up to 5 du/ac (8-A-20-RZ). There are approximately 11.3 acres of common area which includes the area where the condominiums are located but exclude the buildings and pavement. There is an amenity field proposed on the western portion of the property in the TVA powerline easement. This area is shown as a graded area that can be used for various activities.

The Hatmaker Subdivision Transportation Impact Study (Fulghum MacIndoe, 10/26/2020) was prepared to address the impact of the proposed development on W. Emory Road (see Exhibit A). There were no recommended improvements to the external street system.

EFFECT OF THE PROPOSAL ON THE SUBJECT PROPERTY, SURROUNDING PROPERTY AND THE COMMUNITY AS A WHOLE

1) Utilities are available to service the site.
2) The proposed low density residential development is compatible with the scale and intensity of recent development that has occurred in this area.

CONFORMITY OF THE PROPOSAL TO CRITERIA ESTABLISHED BY THE KNOX COUNTY ZONING ORDINANCE

1) With the stated conditions, the proposal meets the standards for development within a PR (Planned Residential) Zone, the zoning conditions, and all other requirements of the Zoning Ordinance.
2) The proposed subdivision is consistent with the general standards for uses permitted on review: The proposed development is consistent with the adopted plans and policies of the General Plan and Sector Plan. The use is in harmony with the general purpose and intent of the Zoning Ordinance. The use is compatible with the character of the neighborhood where it is proposed. The use will not significantly injure the value of adjacent property. The use will not draw additional traffic through residential areas.

CONFORMITY OF THE PROPOSAL TO ADOPTED PLANS

1) The Northwest County Sector Plan designates this property for low density residential use with a maximum density of 5 du/ac. At a proposed density of 4.03 du/ac, the proposed development is consistent with the Sector Plan and the zoning on the property.
2) The site is located within the Planned Growth Area on the Knoxville-Knox County-Farragut Growth Policy Plan map.
ESTIMATED TRAFFIC IMPACT: A traffic impact study was prepared by the applicant. The findings of that study were used in formulating the recommendations of this staff report.

ESTIMATED STUDENT YIELD: 27 (public school children, grades K-12)

Schools affected by this proposal: Karns Elementary, Karns Middle, and Karns High.

- Potential new school population is estimated using locally-derived data on public school student yield generated by new housing.
- Students are assigned to schools based on current attendance zones as determined by Knox County Schools. Students may request transfers to different zones, and zone boundaries are subject to change.
- Estimates presume full build-out of the proposed development. Build-out is subject to market forces, and timing varies widely from proposal to proposal.
- Student yields from new development do not reflect a net addition of children in schools. Additions occur incrementally over the build-out period. New students may replace current population that ages through the system or moves from the attendance zone.

Knoxville-Knox County Planning Commission's approval or denial of this concept plan request is final, unless the action is appealed to Knox County Chancery Court. The date of the Knox County Chancery Court hearing will depend on when the appeal application is filed.

Knoxville-Knox County Planning Commission's approval or denial of this use on review request is final, unless the action is appealed to the Knox County Board of Zoning Appeals. The date of the Knox County Board of Zoning Appeals hearing will depend on when the appeal application is filed.
LEGEND:
- PROPOSED PROPERTY/ROW LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED REFORESTATION

1. SEEDLINGS, TYP TO 12" MIN DEPTH.
2. RIP FINAL SURFACE TREATMENT WITH HYDROSEED MIX
3. FUSION SURFACE

NOTES:
1. SLOPE TOP OF PROTECT FINISHED SLOPE FROM BEING DISTURBED. PER THE MANUFACTURER'S RECOMMENDATIONS.
2. ADD ANNUAL COVER CROP TO THE HYDROSEED MIX AS FOLLOWS: OATS (JANUARY TO FEBRUARY) AND WHITE OAK. INSTALL ON 12' X 12' GRID OR 300 PER ACRE. PLANTING DATES RANGE FROM DECEMBER TO MID-APRIL.
3. ADD FERTILIZER TO THE HYDROSEED MIX. USE 19-19-19 AND APPLIED AT A RATE OF 400 LBS/AC.
4. APPLY FUSION SURFACE TREATMENT (JEN-HILL CONSTRUCTION MATERIALS) AT A RATE OF 4,500 LBS/AC RYE GRAIN (SEPTEMBER TO DECEMBER) APPLIED AT 30 LBS/AC; BROWNTOP MILLET (MARCH TO AUGUST) APPLIED AT 10 LBS/AC; WINTER
5. HYDROSEED SLOPE WITH ERNST NC MOUNTAINS UPL MEADOW MIX (ERNMX 303). APPLY 20 LBS/AC.
EXHIBIT A

HATMAKER SUBDIVISION
Transportation Impact Analysis
W Emory Road
Knoxville, TN

A Transportation Impact Analysis for the Hatmaker Subdivision

Submitted to

Knoxville – Knox County Planning Commission

October 26, 2020
FMA Project No. 592.009

Submitted By:

12-SD-20-C
12-F-20-UR
10/26/2020
TABLE OF CONTENTS

EXECUTIVE SUMMARY ............................................................................................................ 3

1 INTRODUCTION ............................................................................................................. 4
   1.1 PROJECT DESCRIPTION .............................................................................................. 4
   1.2 EXISTING SITE CONDITIONS ....................................................................................... 7

2 EXISTING TRAFFIC VOLUMES ............................................................................................ 8

3 BACKGROUND GROWTH ............................................................................................... 10

4 TRIP GENERATION AND TRIP DISTRIBUTION ................................................................. 12
   TABLE 4-1 HATMAKER SUBDIVISION TRIP GENERATION SUMMARY

5 PROJECTED CAPACITY AND LEVEL OF SERVICE ............................................................. 18
   TABLE 5-1 INTERSECTION ANALYSIS LEVEL OF SERVICE (LOS) SUMMARY

6 TURN LANE WARRANT ANALYSIS .................................................................................... 20

7 CONCLUSIONS AND RECOMMENDATIONS ....................................................................... 20
   7.1 W EMORY ROAD @ HENDERSON ROAD ................................................................. 20
   7.2 W EMORY ROAD @ DRIVEWAY CONNECTIONS ...................................................... 20
   7.3 SUBDIVISION ROADS .............................................................................................. 21
FIGURES
1 LOCATION MAP ............................................................................................................. 5
2 SITE PLAN ...................................................................................................................... 6
3 2020 EXISTING PEAK HOUR TRAFFIC ........................................................................ 9
4 2023 BACKGROUND PEAK HOUR TRAFFIC ................................................................. 11
5 PEAK HOUR TRIP DISTRIBUTION – MAIN DRIVEWAY .................................................... 14
6 PEAK HOUR TRIP DISTRIBUTION – TOWNHOME DRIVEWAYS ......................................... 15
7 HATMAKER SUBDIVISION PEAK HOUR SITE TRIPS ......................................................... 16
8 2023 FULL BUILDOUT PEAK HOUR TRAFFIC ................................................................ 17

ATTACHMENTS
1 AERIAL PHOTO
2 TRAFFIC COUNTS
3 ADT TRENDS
4 TRIP GENERATION
5 INTERSECTION WORKSHEETS – EXISTING AM/PM Peaks
6 INTERSECTION WORKSHEETS – BACKGROUND AM/PM Peaks
7 INTERSECTION WORKSHEETS – FULL BUILDOUT AM/PM Peaks
8 TURN LANE WARRANT ANALYSIS
Executive Summary

Ball Homes, LLC is proposing a residential development (i.e. Hatmaker Subdivision) with single-family housing located in Knox County. The project is located at the intersection of W Emory Road at Henderson Road. The full build out of the development will consist of 54 single family lots and 58 townhomes for a total of 112 units. Construction is proposed to take place this year and this study assumes full build out for the development will occur in 2023.

There are three proposed driveway connections to W Emory Road. The main driveway connection will be located west of the intersection of W Emory Road at Henderson Road. The townhomes located south of the intersection of W Emory Road at Henderson Road will have two driveway connections to W Emory Road.

In order to maintain or provide an acceptable level-of-service for each of the intersections studied, some recommendations are presented.

**W Emory Road at Henderson Road**
The full buildout traffic conditions for the eastbound left turn movement (W Emory Road) operates at a LOS A during both the AM and PM peak hours and the southbound approach (Henderson Road) operates at a LOS B during both the AM and PM peak hours.

**W Emory Road at Driveway Connections**
At the intersection of W Emory Road at the main driveway connection the westbound left turn movement (W Emory Road) operates at a LOS A during both the AM and PM peak hour and the northbound approach (driveway) operates at a LOS A during both the AM and PM peak hours after the completion of the Hatmaker Subdivision.

Neither an eastbound right turn lane nor a westbound left turn lane are warranted at the intersection of W Emory Road at the main driveway connection.
1 Introduction

1.1 Project Description

This report provides a summary of a traffic impact study that was performed for the Hatmaker Subdivision. The project is located at the intersection of W Emory Road at Henderson Road north of Oak Ridge Highway (SR 62) in Knox County, Tennessee. The location of the site is shown in Figure 1.

The full build out of the development will consist of 54 single family lots and 58 townhomes for a total of 112 units. Construction is proposed to take place this year, and this study assumes full build out for the development will occur in 2023.

There are three proposed driveway connections to W Emory Road. The main driveway connection will be located 555 feet west of the intersection of W Emory Road at Henderson Road and approximately 425 feet east of the intersection of Old Cobbs Ferry Road. The townhomes located along W Emory Road will have two driveway connections to W Emory Road. The first driveway connection will be located 315 feet south of the intersection of W Emory Road and the second driveway connection will be located 510 feet south of the first driveway connection. The proposed site layout is shown in Figure 2.

The purpose of this study is to evaluate the impacts to the traffic conditions caused by the proposed development.
Figure 1: Location Map
1.2 Existing Site Conditions

W Emory Road is a two-lane road at the intersection with Henderson Road. Knoxville-Knox County Planning classifies W Emory Road between Oak Ridge Highway (SR 62) and Karns Valley Road as a Minor Collector with a 60 foot right-of-way. The posted speed limit on W Emory Road is 30 mph.

Henderson Road is a two-lane road at the intersection with W Emory Road. Knoxville-Knox County Planning classifies Henderson Road between W Emory Road and the Anderson County line as a Minor Collector with a 60 foot right-of-way. The posted speed limit on Henderson Road is 30 mph.

There are no existing sidewalks or designated bike lanes along W Emory Road or Henderson Road in the vicinity of the proposed development.

An aerial photo of the existing intersection is included in Attachment 1.
2 Existing Traffic Volumes

FMA conducted a turning movement count at the intersection of W Emory Road at Henderson Road on Thursday September 10, 2020.

The current AM peak hour and PM peak hour were determined using the turning movement count that FMA conducted. At the intersection of W Emory Road at Henderson Road the AM peak hour occurred between 7:15 a.m. and 8:15 a.m., and the PM peak hour occurred between 5:15 p.m. and 6:15 p.m.

The existing volumes including the AM and PM peak hour traffic volumes at the count locations are shown in Figure 3, and the count data collected is included in Attachment 2.
LEGEND:

← 5 (16) TURNING MOVEMENT VOLUME AM (PM)

Figure 3: 2020 Existing Peak Hour Traffic
3 Background Growth

The Tennessee Department of Transportation (TDOT) maintains count stations in the vicinity of the proposed development.

TDOT count station ID: 000178 is located on Henderson Road at the Anderson County line. The annual growth rate for this station over the last ten years is approximately 0.87% and the 2019 ADT was 1,129 vehicles per day.

TDOT count station ID: 000468 is located on Karns Valley Drive west of the intersection of W Emory Road and north of Oak Ridge Highway (SR 62). The annual growth rate for this station over the last eight years is approximately 4.82% and the 2018 ADT was 4,894 vehicles per day.

For the purpose of this study, an annual growth rate of 2.0% was assumed for the traffic at the intersection of W Emory Road at Henderson Road until full occupancy is reached in 2023. Attachment 3 shows the trend line growth charts for the TDOT count stations.

Figure 4 demonstrates the projected background peak hour volumes at the intersection of W Emory Road at Henderson Road after applying the background growth rate to the existing conditions.
Figure 4: 2023 Background Peak Hour Traffic
4 Trip Generation and Trip Distribution

The Hatmaker Subdivision proposes 54 single family lots and 58 townhomes for a total of 112 units. Single-Family Detached Housing or Land Use 210 was used to calculate site trips for the subdivision using the fitted curve equations from the *Trip Generation, 10th Edition*, published by the Institute of Transportation Engineers.

The Knoxville-Knox County Planning Commission published a memorandum (“Local Trip Generation Rates for Multi-Family Residential Uses”, August 14, 2000) for the purpose of providing locally collected data for all multi-family residential developments. The fitted curve equations from the local study were used to calculate site trips for the 58 townhomes. The land use worksheets are included in Attachment 4.

The total trips generated by the full buildout of the Hatmaker Subdivision was estimated to be 1,175 daily trips. The estimated trips are 75 trips during the AM peak hour and 105 trips during the PM peak hour. A trip generation summary is shown in Table 4-1.

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Density</th>
<th>Daily Trips</th>
<th>AM Peak Hour Enter</th>
<th>PM Peak Hour Enter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-Family Detached Housing (Land Use 210)</td>
<td>54 lots</td>
<td>590</td>
<td>11</td>
<td>35</td>
</tr>
<tr>
<td>Apartments (Local Trip Gen Study)</td>
<td>30 units</td>
<td>304</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>Total – Main Driveway</td>
<td>87 units</td>
<td>894</td>
<td>15</td>
<td>49</td>
</tr>
<tr>
<td>Apartments (Local Trip Gen Study)</td>
<td>28 units</td>
<td>281</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>Townhome Driveways</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total – Overall</td>
<td>115 units</td>
<td>1,175</td>
<td>18</td>
<td>62</td>
</tr>
</tbody>
</table>

Table 4-1
Hatmaker Subdivision
Trip Generation Summary
The existing distribution of traffic at the intersection of W Emory Road at Henderson Road is approximately 50% W Emory Road to/from Karns Valley Drive, 25% Henderson Road and 25% W Emory Road to/from Hackworth Road during both the AM and PM peak hours.

The directional distribution of the traffic generated by the Hatmaker Subdivision was determined using the existing traffic volumes at the intersection of W Emory Road at Henderson Road in combination with the concept plan layout. FMA assumed that 76% of traffic would enter/exit from the main entrance on W Emory Road and 12% of traffic would enter/exit from each of the townhomes driveways on W Emory Road.

Figure 5 shows the peak hour trip distribution for the main driveway and Figure 6 shows the peak hour trip distribution for the townhomes driveways.

Figure 7 shows the peak hour site trips generated by the Hatmaker Subdivision and Figure 8 shows the projected full buildout peak hour traffic after the completion of the Hatmaker Subdivision.
Figure 5: Peak Hour Trip Distribution - Main Driveway
Figure 6: Peak Hour Trip Distribution - Townhome Driveways
LEGEND:

← 5 (16) TURNING MOVEMENT VOLUME AM (PM)

Figure 7: Hatmaker Subdivision Peak Hour Site Trips
Figure 8: 2023 Full Buildout Peak Hour Traffic
5 Projected Capacity and Level of Service

The existing intersection of W Emory Road at Henderson Road is a three-legged intersection with a stop sign for southbound traffic on Henderson Road.

Unsignalized intersection capacity analyses were performed using the Highway Capacity Software (HCS7) for the AM and PM peak hours to evaluate the existing, background and full buildout conditions at the intersection of W Emory Road at Henderson Road and the full buildout conditions at the intersection of W Emory Road at the three driveway connections.

The results from the analyses are expressed with a term “level of service” (LOS), which is based on the amount of delay experienced at the intersection. The LOS index ranges from LOS A, indicating excellent traffic conditions with minimal delay, to LOS F indicating very congested conditions with excessive delay. LOS D generally is considered the minimum acceptable condition in urban areas. The HCS7 worksheets are included in Attachments 5, 6 and 7.

Table 5-1 shows the results of the capacity analyses.

<table>
<thead>
<tr>
<th>Table 5-1</th>
<th>Intersection Analysis</th>
<th>Level of Service (LOS) Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Delay (sec)/LOS</td>
</tr>
<tr>
<td>W Emory Road @ Henderson Road (Existing 2020)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AM Peak</td>
<td>EB Left Turn</td>
<td>7.3 / A</td>
</tr>
<tr>
<td>SB Approach</td>
<td></td>
<td>9.7 / A</td>
</tr>
<tr>
<td>PM Peak</td>
<td>EB Left Turn</td>
<td>7.5 / A</td>
</tr>
<tr>
<td>SB Approach</td>
<td></td>
<td>9.7 / A</td>
</tr>
<tr>
<td>W Emory Road @ Henderson Road (Background 2023)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AM Peak</td>
<td>EB Left Turn</td>
<td>7.3 / A</td>
</tr>
<tr>
<td>SB Approach</td>
<td></td>
<td>9.8 / A</td>
</tr>
<tr>
<td>PM Peak</td>
<td>EB Left Turn</td>
<td>7.5 / A</td>
</tr>
<tr>
<td>SB Approach</td>
<td></td>
<td>9.8 / A</td>
</tr>
</tbody>
</table>
## W Emory Road @ Henderson Road (Full Buildout 2023)

<table>
<thead>
<tr>
<th>Time</th>
<th>Direction</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM Peak</td>
<td>EB Left Turn</td>
<td>7.4 / A</td>
</tr>
<tr>
<td></td>
<td>SB Approach</td>
<td>10.4 / B</td>
</tr>
<tr>
<td>PM Peak</td>
<td>EB Left Turn</td>
<td>7.6 / A</td>
</tr>
<tr>
<td></td>
<td>SB Approach</td>
<td>10.2 / B</td>
</tr>
</tbody>
</table>

## W Emory Road @ Main Driveway (Full Buildout 2023)

<table>
<thead>
<tr>
<th>Time</th>
<th>Direction</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM Peak</td>
<td>WB Left Turn</td>
<td>7.4 / A</td>
</tr>
<tr>
<td></td>
<td>NB Approach</td>
<td>9.1 / A</td>
</tr>
<tr>
<td>PM Peak</td>
<td>WB Left Turn</td>
<td>7.5 / A</td>
</tr>
<tr>
<td></td>
<td>NB Approach</td>
<td>9.2 / A</td>
</tr>
</tbody>
</table>

## W Emory Road @ Townhome Driveway (North) (Full Buildout 2023)

<table>
<thead>
<tr>
<th>Time</th>
<th>Direction</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM Peak</td>
<td>EB Approach</td>
<td>9.5 / A</td>
</tr>
<tr>
<td></td>
<td>NB Left Turn</td>
<td>7.6 / A</td>
</tr>
<tr>
<td>PM Peak</td>
<td>EB Approach</td>
<td>9.6 / A</td>
</tr>
<tr>
<td></td>
<td>NB Left Turn</td>
<td>7.5 / A</td>
</tr>
</tbody>
</table>

## W Emory Road @ Townhome Driveway (South) (Full Buildout 2023)

<table>
<thead>
<tr>
<th>Time</th>
<th>Direction</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM Peak</td>
<td>EB Approach</td>
<td>9.5 / A</td>
</tr>
<tr>
<td></td>
<td>NB Left Turn</td>
<td>7.6 / A</td>
</tr>
<tr>
<td>PM Peak</td>
<td>EB Approach</td>
<td>9.4 / A</td>
</tr>
<tr>
<td></td>
<td>NB Left Turn</td>
<td>7.5 / A</td>
</tr>
</tbody>
</table>
6 Turn Lane Warrant Analysis

The intersection of W Emory Road at the main driveway connection was evaluated to determine if a right turn lane or a left turn lane are warranted. The Knox County Department of Engineering and Public Works handbook, “Access Control and Driveway Design Policy,” was used to analyze the information. Neither an eastbound right turn lane nor a westbound left turn lane on W Emory Road is warranted. The turn lane warrant worksheets and analysis are included in Attachment 8.

7 Conclusions and Recommendations

7.1 W Emory Road @ Henderson Road

The existing, background and full buildout conditions at the unsignalized intersection of W Emory Road at Henderson Road were analyzed using the Highway Capacity Software (HCS7).

The existing and background traffic conditions for the eastbound left turn movement (W Emory Road) operate at a LOS A during both the AM and PM peak hours and the southbound approach (Henderson Road) operates at a LOS A during both the AM and PM peak hours.

The full buildout traffic conditions for the eastbound left turn movement (W Emory Road) operate at a LOS A during both the AM and PM peak hours and the southbound approach (Henderson Road) operates at a LOS B during both the AM and PM peak hours.

7.2 W Emory Road @ Driveway Connections

The full buildout conditions at the unsignalized intersections of W Emory Road at the main driveway connection, townhome driveway (north) and townhome driveway (south) were analyzed using the Highway Capacity Software (HCS7).

At the intersection of W Emory Road at the main driveway connection the westbound left turn movement (W Emory Road) operates at a LOS A during both the AM and PM peak hour and the northbound approach (driveway) operates at a LOS A during both the AM and PM peak hours after the completion of the Hatmaker Subdivision.

Neither an eastbound right turn lane nor a westbound left turn lane are warranted at the intersection of W Emory Road at the main driveway connection.
At the intersection of W Emory Road at the townhome driveway (north) the eastbound approach (driveway) operates at a LOS A during both the AM and PM peak hour and the northbound left turn movement (W Emory Road) operates at a LOS A during both the AM and PM peak hours after the completion of the Hatmaker Subdivision.

At the intersection of W Emory Road at the townhome driveway (south) the eastbound approach (driveway) operates at a LOS A during both the AM and PM peak hour and the northbound left turn movement (W Emory Road) operates at a LOS A during both the AM and PM peak hours after the completion of the Hatmaker Subdivision.

W Emory Road is classified as a Minor Collector per the Major Road Plan. The minimum intersection spacing required on a collector is 300 feet per the “Knoxville-Knox County Subdivision Regulations” amended through February 13, 2020. The proposed main driveway connection is located approximately 425 feet east of the intersection with Old Cobbs Ferry Road. The townhome driveway (north) is located 315 feet south of the intersection of W Emory Road and the townhome driveway (south) is located 510 feet south of the townhome driveway (north). All three driveway connections exceed the typical minimum separation on a collector; therefore, no change is necessary.

The minimum required sight distance for a road with a posted speed limit of 30 mph is 300 feet in each direction in accordance with the “Knoxville-Knox County Subdivision Regulations” amended through February 13, 2020. FMA measured the sight distance at the proposed driveway intersections at W Emory Road in September 2020. For the intersection of W Emory Road at the main driveway connection at 15 feet from the edge of pavement the sight distance is greater than 450 feet eastbound and westbound. For the intersection of W Emory Road at the townhome driveway (north) at 15 feet from the edge of pavement the sight distance is greater than 450 feet eastbound and westbound. For the intersection of W Emory Road at the townhome driveway (south) at 15 feet from the edge of pavement the sight distance is greater than 450 feet eastbound and westbound.

7.3 Subdivision Roads

Road “A”, Road “B”, Road “C”, Road “D”, Road “E” and Road “F” will have a width of 26 feet in accordance with the “Knoxville-Knox County Subdivision Regulations” amended through February 13, 2020.

Any required sight distance easements for the internal subdivision intersections of Road “A”, Road “B”, Road “C”, Road “D”, Road “E” and Road “F” should be coordinated with Knox County Engineering and Public Works and included on the final design drawings prior to construction of the subdivision.
DEVELOPMENT REQUEST

DEVELOPMENT
☐ Development Plan
☐ Planned Development
☒ Use on Review / Special Use

SUBDIVISION
☐ Concept Plan
☐ Final Plat

ZONING
☐ Plan Amendment
☐ Rezoning

Ball Homes, LLC
Developer

Applicant Name

10/26/2020
Date Filed

December 10, 2020
Meeting Date (if applicable)

12-SD-20-C / 12-F-20-UR
File Numbers(s)

CORRESPONDENCE
All correspondence related to this application should be directed to the approved contact listed below.

☒ Applicant  ☐ Owner  ☐ Option Holder  ☐ Project Surveyor  ☐ Engineer  ☐ Architect/Landscape Architect

Mr. Brian Stephens
Ball Homes, LLC

Name
Company

3609 Walden Drive
Lexington
KY
40517

Address
City
State
Zip

859.268.1191
bstephens@ballhomes.com
Phone
Email

CURRENT PROPERTY INFO

Charles L Hatmaker
8925 West Emory Rd, Knoxville TN 37931

Owner Name (if different)
Owner Address
Owner Phone

8935 W Emory Road Knoxville, TN 37931
077 083

Property Address
Parcel ID

North of Karns Valley Drive between W Emory Rd & Old Cobbs Ferry Rd
36.41 ac

General Location
Tract Size

W6
PR (<5 DU/AC)

Jurisdiction (specify district above)  ☐ City  ☐ County
Zoning District

Northwest County
LDR

Planned Growth

Planning Sector
Sector Plan Land Use Classification
Growth Policy Plan Designation

AgForVac
N
WKUD
WKUD

Existing Land Use
Septic (Y/N)
Sewer Provider
Water Provider
REQUEST

- Development Plan □ Use on Review / Special Use
  - Residential □ Non-Residential
  - Home Occupation (specify): Single Family Residential
  □ Other (specify):

Hatmaker Subdivision
- Proposed Subdivision Name
- Parcel Change
  - Combine Parcels □ Divide Parcel
  □ Other (specify):
  □ Attachments / Additional Requirements

- Zoning Change:
  - Proposed Zoning
- Plan Amendment Change:
  - Proposed Plan Designation(s)

- Proposed Density (units/acre)
- Previous Rezoning Requests
  □ Other (specify):

PLAT TYPE
- □ Staff Review □ Planning Commission

ATTACHMENTS
- □ Property Owners / Option Holders □ Variance Request

ADDITIONAL REQUIREMENTS
- □ Design Plan Certification (Final Plat only)
- □ Use on Review / Special Use (Concept Plan only)
- □ Traffic Impact Study

FEE 1: 0406 $3,641.00
FEE 2:
FEE 3:
TOTAL: $3,641.00

AUTHORIZATION
By signing below, I certify I am the property owner, applicant or the owners authorized representative.

Brian Stephens
Applicant Signature: 859.268.1191
Please Print: bstephens@ballhomes.com
Phone Number: Email
Staff Signature: Elizabeth Albertson
Please Print: Date 10/26/2020
## NAMES OF ALL PROPERTY OWNERS INVOLVED OR HOLDERS OF OPTION ON SAME
MUST BE LISTED BELOW:

Please print or type in black ink:

<table>
<thead>
<tr>
<th>NAME</th>
<th>ADDRESS</th>
<th>CITY</th>
<th>STATE</th>
<th>ZIP</th>
<th>OWNER / OPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ball Homes, LLC</td>
<td>3609 Walden Dr</td>
<td>Lexington</td>
<td>KY</td>
<td>40517</td>
<td>x x</td>
</tr>
<tr>
<td>Charles L. Hatmaker</td>
<td>8925 W. Emory Road</td>
<td>Knoxville</td>
<td>TN</td>
<td>37931</td>
<td>x</td>
</tr>
</tbody>
</table>

If more space is needed, attach additional sheets.
1. Reduce minimum horizontal curve radius from 250-FT to 100-FT for Road "A" from Sta 7 + 21.63 to Sta 9 + 44.09
Justify variance by indicating hardship: Site Topography

2. Increase allowable grade approaching an intersection from 1% to a maximum of 3% for Road "D" Sta 0 + 13.00 to Sta 0 + 45.18 & Road "H" from Sta 0 + 00.00 to Sta 0 + 67.36
Justify variance by indicating hardship: Site Topography

3. 
Justify variance by indicating hardship:

4. 
Justify variance by indicating hardship:

5. 
Justify variance by indicating hardship:

6. 
Justify variance by indicating hardship:

7. 
Justify variance by indicating hardship:

I certify that any and all variances needed to meet regulations are requested above, or are attached. I understand and agree that no additional variances can be acted upon by the legislative body upon appeal and none will be requested. I hereby waive the requirement for approval or disapproval of the plat within sixty (60) days after its submission, in accordance with the provisions of Tennessee Code Annotated 13-3-404.

Signature

Date