

SUBDIVISION REPORT - CONCEPT/USE ON REVIEW

► FILE #: 6-SD-22-C AGENDA ITEM #: 28

6-G-22-UR AGENDA DATE: 6/9/2022

► SUBDIVISION: ANDES HILL

► APPLICANT/DEVELOPER: TURNER HOMES, LLC

OWNER(S): Buckner Investment Trust

TAX IDENTIFICATION: 105 A A 017 & 002 <u>View map on KGIS</u>

JURISDICTION: County Commission District 6

STREET ADDRESS: 8531 Troutman Ln. (1925 Andes Rd.)

► LOCATION: West side of Andes Rd., north side of Troutman

SECTOR PLAN: Northwest County

GROWTH POLICY PLAN: Planned Growth Area

WATERSHED: Beaver Creek

APPROXIMATE ACREAGE: 14.61 acres

ZONING: PR (Planned Residential)

EXISTING LAND USE: Vacant land, Single family residential

► PROPOSED USE: Attached residential subdivision

SURROUNDING LAND

North: Attached residential / PR (Planned Residential)

USE AND ZONING:

South: Single family residential / A (Agricultural)

East: Single family residential / PR (Planned Residential), A (Agricultural)

West: Single family residential / PR (Planned Residential)

► NUMBER OF LOTS: 100

SURVEYOR/ENGINEER: Stefan Claar / Turner Homes, LLC

ACCESSIBILITY: Access is via Andes Road, a major collector road with 21 ft of pavement

width within 60 ft of right-of-way; and via Troutman Lane, a local street with

19 ft of pavement width within 47 ft of right-of-way.

SUBDIVISION VARIANCES

REQUIRED:

VARIANCES

1. Reduce the minimum broken back tangent from 150' to 20' from STA

16+07.04 to 16+27.04

2. Reduce the minimum intersection separation between Road 'A' and

Norway Street from 300' to 176'

3. Reduce the minimum intersection right-of-way radius on the north

side of Road 'A' at Andes Road from 25' to 0'

4. Reduce the minimum intersection curb radius on the north side of

Road 'A' at Andes Road from 25' to 12'

5. Reduce the minimum vertical curve K value from K=25 to K=20.73 on

Road 'A' at STA 13+87.72

ALTERNATIVE DESIGN STANDARDS REQUIRING KNOXVILLE-KNOX

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COUNTY PLANNING COMMISSION APPROVAL

- 1. Reduce the minimum private right-of-way width from 50' to 40' from STA 7+00 to the terminus of the road
- 2. Reduce the minimum pavement width from 26' to 25'
- 3. Reduce the minimum horizontal curve radius from 250' to 100' on Road 'A' at STA 6+35.70
- 4. Reduce the minimum horizontal curve radius from 250' to 100' on Road 'A' at STA 14+37.72
- 5. Reduce the minimum horizontal curve radius from 250' to 100' on Road 'A' at STA 16+27.04
- 6. Reduce the minimum horizontal curve radius from 250' to 100' on Road 'A' at STA 21+33.25

STAFF RECOMMENDATION:

Postpone the Concept Plan until the July 14, 2022 Planning Commission meeting as recommended by staff.

Staff is recommending a 30-day postponement because the concept plan requires additional revisions before it can be considered for approval. The staff report may be amended before the June 7th agenda review meeting if the required revisions are submitted and there is sufficient time for staff to review the plans and make a recommendation.

▶ Postpone the Use on Review until the July 14, 2022 Planning Commission meeting as recommended by staff.

COMMENTS:

This proposal is for 95 attached residential (townhouse) lots and 5 detached houses. The two existing house on Lot 1 will remain and is separate from the subdivision. There are 3 new detached residential lots that will front Troutman Lane. All of townhouse lots will be use the new private road system that connects to Andes Road. The property was rezoned from A (Agricultural) to PR (Planned Residential) up to 7 du/ac in March 2022 (1-N-22-RZ).

The Transportation Impact Study for the Andes Hill Subdivision (AJAX Engineering, revised 4/25/2022) studied the proposed access point on Andes Road. The only recommendation at the proposed entrance is for a registered land surveyor to confirm that the sight distance is available to the north because of the vertical curve in Andes Road, a utility pole, and road signage.

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: 7 (public school children, grades K-12)

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

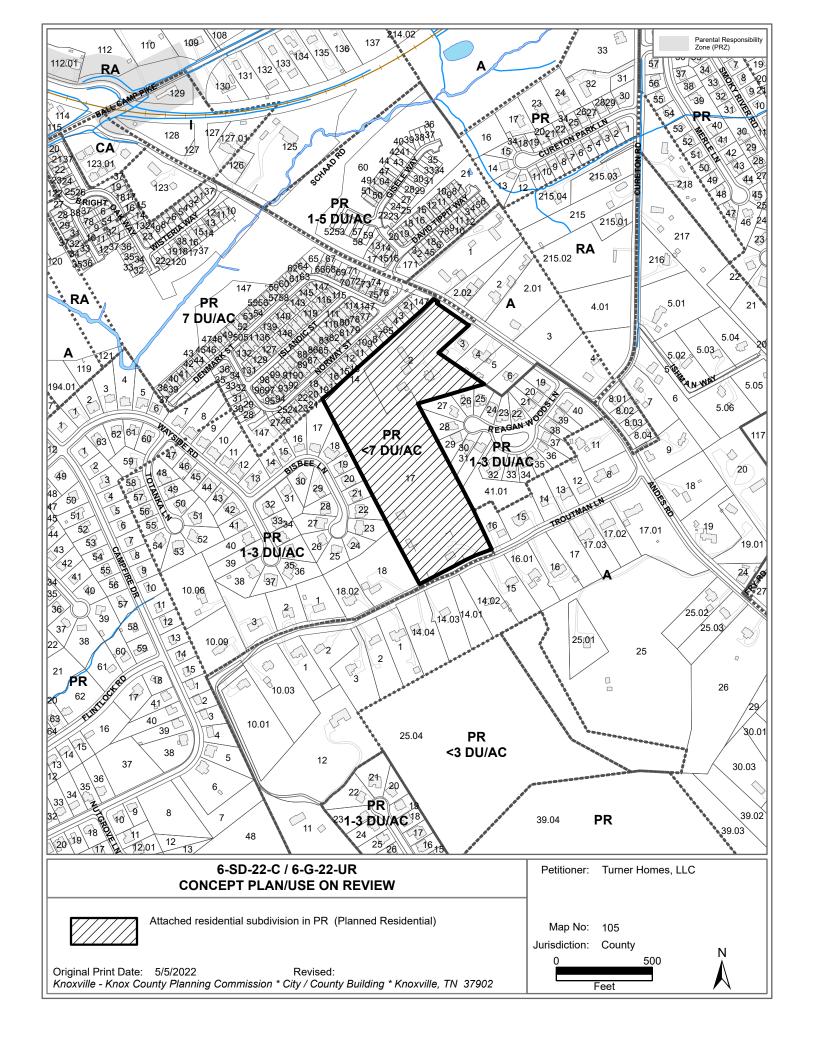
- Potential new school population is estimated using locally-derived data on public school student yield generated by new housing.
- Students are assigned to schools based on current attendance zones as determined by Knox County Schools. Students may request transfers to different zones, and zone boundaries 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.

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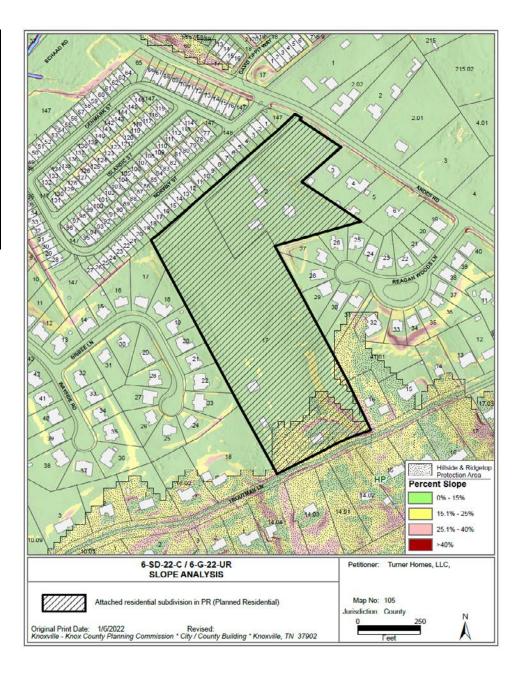
Knoxville-Knox County Planning Commission's approval or denial of this use on review request is final, unless the action is appealed to the Knox County Board of Zoning Appeals. The date of the Knox County Board of Zoning Appeals hearing will depend on when the appeal application is filed.

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Case: 6-SD-22-C / 6-G-22-UR

| CATEGORY | ACRES | RECOMMENDED DISTURBANCE BUDGET (Percent) | DISTURBANCE AREA (Acres) |
|-------------------------------|-------|-------------------------------------------------------------|-----------------------------|
| Total Area of Site | 14.08 | | |
| Non-Hillside | 12.52 | N/A | |
| 0-15% Slope | 0.47 | 100% | 0.5 |
| 15-25% Slope | 0.92 | 50% | 0.5 |
| 25-40% Slope | 0.16 | 20% | 0.0 |
| Greater than 40% Slope | 0.01 | 10% | 0.0 |
| Ridgetops | 0 | | |
| Hillside Protection (HP) Area | 1.56 | Recommended disturbance budget within HP Area (acres) | 1.0 |
| | | Percent of HP Area | 62% |



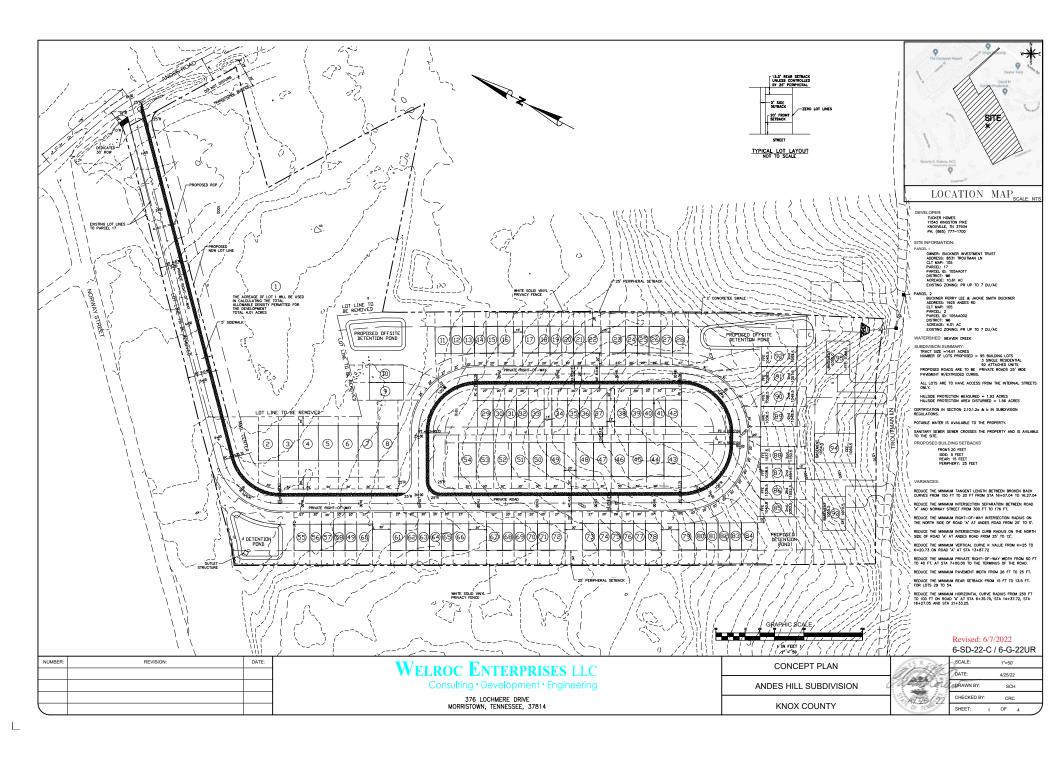
VARIANCES/ALTERNATIVE DESIGN STANDARDS REQUESTED

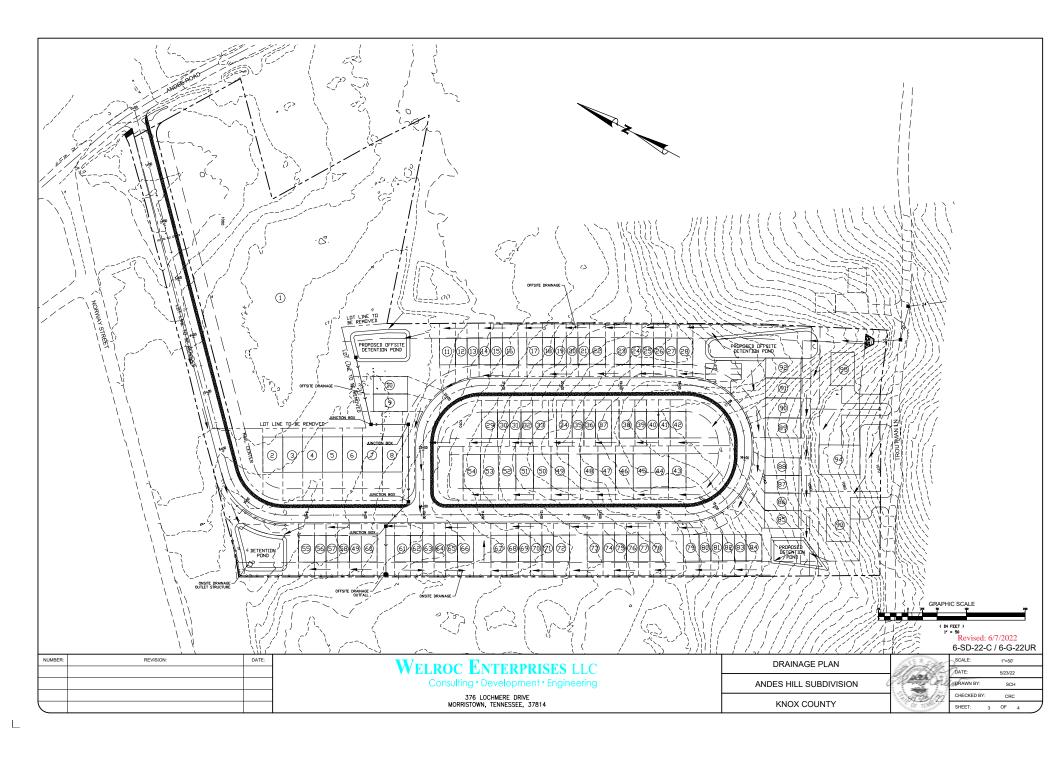
requested.

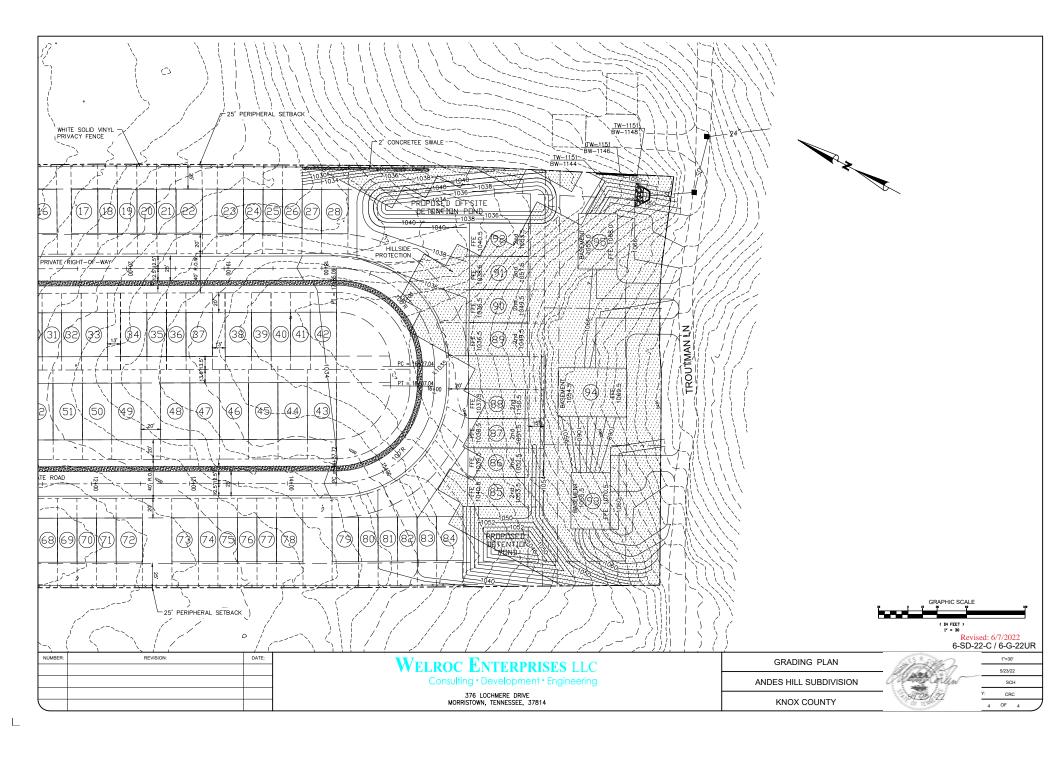


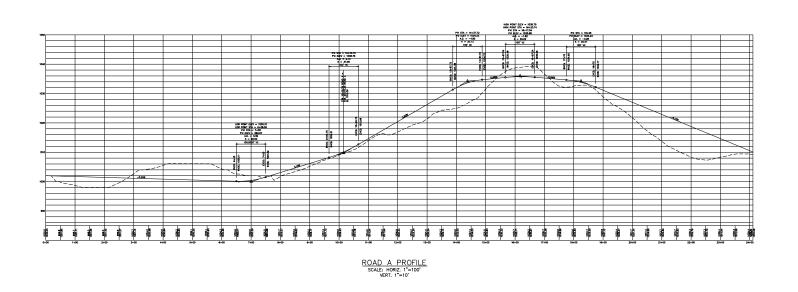
| 1. Change the 300 feet distance between center | line of roads from 300 to 175 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Justify request by indicating hardship: | The only location on Andes is 175 feet from Norway Drive at Chips Crossing to allow access to |
| 95 planned attached units located on the 10.6 acre | es |
| 2. Reduce the minimum tangent length between | the broken back curves from 150' to 20' from Sta 16 + 07.04 to Sta 16 + 27.04 |
| Justify request by indicating hardship: | The over all width of the property and the layout doesn't allow the tangent length to be any lor |
| | radius on the northside of the proposed road from 25' to 25' feet and the Southside |
| | this is required by the area available on Andes Road where the 95 unit access if located and the |
| is a blue line stream that restricts any larger radius | |
| | |
| | 50' to 40' from station 7+00 to the end of the project |
| Justify request by indicating hardship: | the private roadway is Real going to be a slower speed and this will make for a larger front yard |
| and therefore provide a sidewalk in the planned co | |
| 5. CHange the pavement width from 26' to 25' | |
| Justify request by indicating hardship: | This is required that the limited amount of space can afford a pavement width from 26' to 25' |
| from face of curb to face of curb | |
| | (c _i ; ² |
| 6. Reduce the minmum horizontal curve radius from | m 250 feet to 100 feet at STA 6 + 35.70 and similar locations |
| | This neighboorhood would not be able to provide a proper infill if these radii are not reduced |
| | slower design speed in the project; these locations are PC Sta 6 + 35.70, PC Sta 14 + 37.72, |
| PC Sta 16 + 27.04 and PC Sta 21 + 33.25 | |
| Reduce the peripherial setback from 35' to 25' | |
| ustify request by indicating hardship: (| Due to the narrow width of the lot and the need to provide some sufficient front yard Turner Ho |
| s erecting a solid White Privacy Fence along the enti | |
| certify that any and all requests needed to meet n bove, or are attached. I understand and agree tha an be acted upon by the legislative body upon app | regulations are requested to no additional variances |
| , out and about about | May 23, 2022 |

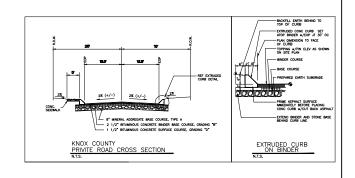
Date











Revised: 6/7/2022

6-SD-22-C / 6-G-22UR

| NUMBER: | REVISION: | DATE: |
|---------|-----------|-------|
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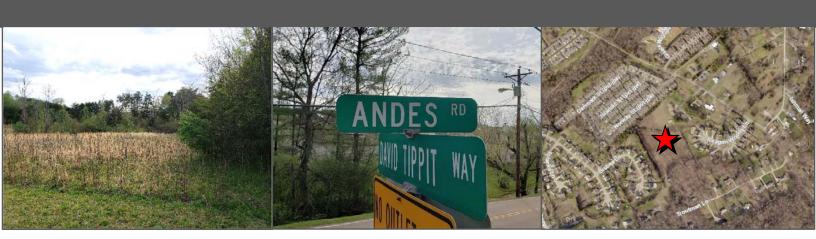
WELROC ENTERPRISES LLC
Consulting • Development • Engineering
376 LOCHMERE DRIVE
MORRISTOWN, TENNESSEE, 37814

| ROAD PROFILE | |
|------------------------|-----------|
| ANDES HILL SUBDIVISION | THE PARTY |
| KNOX COUNTY | 41 |

| | 0 00 | O / O O EEO. | | |
|------------|-------------|--------------|--|--|
| S. S. Sign | _SCALE: | AS NOTED | | |
| | DATE: | 5/23/22 | | |
| 61.951.99 | DRAWN BY: | SCH | | |
| | CHECKED BY: | CRC | | |
| OF TEN | SHEET: | 2 OF 4 | | |



Transportation Impact Study Andes Hill Subdivision Knox County, Tennessee



April 2022

Prepared for: Turner Homes, LLC 11543 Kingston Pike Knoxville, TN 37934



6-SD-22-C / 6-G-22-UR TIS Version 1 4/25/2022

CONCLUSIONS & RECOMMENDATIONS

The following is an overview of recommendations to minimize the transportation impacts of the proposed Andes Hill Subdivision on the adjacent transportation system while attempting to achieve an acceptable traffic flow and safety level.



Andes Road at Proposed Entrance: The 2025 projected level of service calculations for the Proposed Entrance intersection at Andes Road resulted in low vehicle delays. The construction of left and right-turn lanes on Andes Road for entering traffic is not warranted at the Proposed Entrance. A single exiting lane for the development entrance will be sufficient.

- 1a) It is recommended that a Stop Sign (R1-1) be installed, and a 24" white stop bar be applied to the Proposed Entrance approach at Andes Road. The stop bar should be applied a minimum of 4 feet away from the edge of the intersecting roadway and placed at the desired stopping point that maximizes the sight distance.
- 1b) Sight distances at the Proposed Entrance approach must not be impacted by future landscaping, signage, or vegetation. Based on a posted speed limit of 30-mph on Andes Road, the desirable intersection sight distance is 300 feet looking in each direction at each entrance. The required stopping sight distance is 195 feet looking to the north and 205 feet to the south at the Proposed Entrance. A visual inspection determined that the intersection and stopping sight distances are available. However, the view to the north is reduced by the vertical curvature of Andes Road, a utility pole, and road signage. The site designer must ensure that these sight distances are accounted for and provided in the design plans. It is recommended that a registered land surveyor confirm that the sight distances are available at the Proposed Entrance location on Andes Road.
- 1c) Knox County requires a 300-foot minimum intersection spacing distance on Collector roads. The intersection of Andes Road at the Proposed Entrance will be 150 feet away to the southeast from Norway Street.

The site designer should request a variance to allow the proposed intersection spacing to be less than the minimum. This variance should be requested since the development property only has a narrow and limited access point to provide an entrance on Andes Road. Shifting the Proposed Entrance further away from Norway Street is not an option



due to the property frontage limitations.

The longest calculated 95th percentile vehicle queue length for the existing northbound left-turn movement at Norway Street on Andes Road in the PM peak hour is only 2.5 feet. This queue length result is shown in the Synchro software results in Appendix F. This calculated queue suggests that vehicles turning left from Andes Road onto Norway Street at Chip's Crossing Subdivision will not back up to the Proposed Entrance for Andes Hill Subdivision. Andes Hill Subdivision entering vehicles from the north, turning right at the Proposed Entrance, will not experience vehicle queues since this is a free movement without conflicts. Traffic operations from the entering right-turning movement at the Proposed Entrance will not back up to the Andes Road at Norway Street intersection. It is not expected that the traffic operations on Andes Road at the intersection of Norway Street will be detrimental to traffic operations at the Proposed Entrance for Andes Hill Subdivision and vice versa.

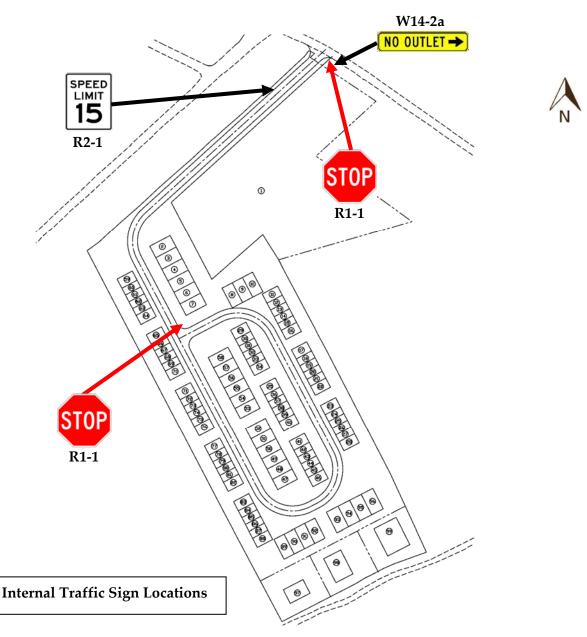
Furthermore, while the proposed intersection spacing does not meet the requirement on a collector road, it will meet the local road intersection spacing requirement of 150 feet. The proposed spacing of 150 feet will provide greater spacing than what currently exists on Andes Road between Norway Street and David Tippit Way, which is only 130 feet.





<u>Andes Hill Subdivision Internal Roads:</u> The layout plan shows one entrance on Andes Road constructed for the development, as shown in Figure 3.

- A 15-mph Speed Limit Sign (R2-1) is recommended to be posted near the beginning of the development entrance off Andes Road. Since the entrance driveway will not be a public road, a posted speed limit of less than 25-mph is acceptable. It is recommended that a "No Outlet" Sign (W14-2a) be installed at the front of the subdivision at Andes Road. This sign can be installed below the street name sign.
- 2b) Stop Signs (R1-1) with 24" white stop bars and other traffic signage are recommended to be installed at the internal locations, as shown below:





- 2c) Sight distance at the new internal road intersection must not be impacted by signage, parked cars, or future landscaping. With a proposed speed limit of 15-mph in the development, the internal intersection sight distance is 170 feet. The required stopping sight distance is 80 feet for a level road grade. The site designer should ensure that internal sight distance lengths are met.
- 2d) Traffic calming measures may be needed to decrease internal vehicle speeds. The internal roadway has long and straight segments. It is recommended that the site designer consider installing speed humps or speed tables within the development to reduce internal speeds.
- 2e) All drainage grates and covers for the residential development must be pedestrian and bicycle safe.
- 2f) Sidewalks are proposed on one side of the internal roadway. Sidewalks should have appropriate ADA-compliant ramps at intersection corners, and the internal sidewalks are recommended to be 5 feet minimum in width to meet Knox County regulations. White crosswalks should be marked on the road pavement internally where pedestrians are expected to cross.
- 2g) If directed by the local post office, the site designer should include a parking area within the development for a centralized mail delivery center. The site plan shows a general location at the front of the development, but a specific plan with a parking area should be designed and provided.
- 2h) All road grade and intersection elements should be designed to AASHTO, TDOT, and Knox County specifications and guidelines to ensure proper operation.

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Planning Sector

Development Request

SUBDIVISION ZC

| Planning KNOXVILLE I KNOX COUNTY | DEVELOPMENT ☐ Development Plan Planned Development ☐ Use on Review / Special Use ☐ Hillside Protection COA | SUBDIVISION ■ Concept Plan □ Final Plat | ZONING ☐ Plan Amendment SP ☐ OYP ☐ Rezoning |
|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------------|
| Turner Homes, LLC Andes H | ill Subdivision | | |
| Applicant Name | L 0. 0000 | Affilia | ation |
| April 25, 2022 | June 9, 2022 -May 12, 2022 | | File Number(s |
| Date Filed | Meeting Date (if applicable) | | 1 N 22 RZ 1-E-22-SP |
| CORRESPONDENCE | Il correspondence related to this and live in | | 2-C / 6-G-22-UF |
| | Il correspondence related to this application | | |
| ■ Applicant ☐ Property Owner Stefan Claar Director of Land | | eyor Engineer Arcl | hitect/Landscape Architect |
| Name | | rner Homes, LLC | |
| 11543 Kingston Pike | | npany | |
| Address | | oxville TN | 37814 |
| 865-777-1700 | City | E 300-51 | ZIP |
| | Stefan.claar@turnerhom | es.com | |
| Phone | Email | | |
| CURRENT PROPERTY INFO | | | |
| Buckner Investment Trust | 8531 Troutman La | ne | 865-804-9802 |
| Property Owner Name (if different) | Property Owner Addre | ess | Property Owner Phone |
| 8531 Troutman Lane & 1925 | Andes Road | 105 A A 017 & 105 A | |
| Property Address | | Parcel ID | |
| West Knox Utility | West Knox | | N |
| Sewer Provider | Water Provide | | Septic (Y/N) |
| STAFF USE ONLY | | | 3eptic (1/14) |
| West side of Andes Road, no | orth side of Troutman Lane | | |
| General Location | | 14.61 a | |
| 2 :1 | DD (") | | |
| ☐ City ☑ County 6th District | PR (pending) Zoning District | Rural residential & Existing Land Use | vacant land |
| Northwest County | MDR (pending) | (W) | ed Growth |

Sector Plan Land Use Classification

Growth Policy Plan Designation

| Development Plan Use on Review / Special Use Hillside Protection COA Residential Non-Residential Home Occupation (specify) Attached Family Dwelling Units | | | | Related City Permit Number(s) | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------------------|------------------------------------------|-------------------------------|------------------|----|
| Other (specify) | | | | | | |
| SUBDIVISION REQUEST | | | | | | |
| Andes Hill Proposed Subdivision Name 1 Unit / Phase Number Other (specify) 95 attached singlefal | 95 allohed W Divide Parcel Total mily dwelling units with | Number of Lot | anits] default 3 Private Res 5 Created | ed 1- | | |
| M Attachments / Additional Paguiroments | 7 95 4.4 | and Truca | la come de Co | on P | interest a | fe |
| Attachments / Additional Requirements 1925 Andes ZONING REQUEST | and The 3 | detached | homes ! | ave | accessed to | y |
| MDR approved by Plant zoning change Proposed Zoning | anning Commission Ma | | - | | Plat File Number | |
| Proposed Plan | | per acie | | | 2 | |
| 6 15 | non Previous Rezoning Requests | | | | | |
| Other (specify) | | | | | | |
| STAFF USE ONLY | | | | | | |
| PLAT TYPE | | Fee 1 | | | Total | |
| ☐ Staff Review ☐ Planning Commission ATTACHMENTS | | 108 | Concept Plan | | | |
| ADDITIONAL REQUIREMENTS Design Plan Certification (Final Plat) Use on Review / Special Use (Concept Plan) Traffic Impact Study COA Checklist (Hillside Protection) | | Fee 2 | (98 lots x \$ + \$500 | (98 lots x \$30/lot) | | |
| | | Fee 3 | | | | |
| AUTHORIZATION P.F. | Turner Homes II | C Andos Hill | Cubdidata | 4/25/ | 2000 | |
| Applicant Signature | Please Print | Turner Homes, LLC Andes Hill Subdivision Please Print | | on 4/25/2022 Date | | |
| 423-312-8371 | rcorlew@enterpr | ises.com | | | | |
| Phone Number | Email | | | | | |
| See attached authorization letters | Buckner Investme | nt Trust | | 4/25/ | 2022 | |

Please Print

Date

Property Owner Signature