



PLAN AMENDMENT/ REZONING REPORT

▶ **FILE #:** 6-E-21-RZ **AGENDA ITEM #:** 17
6-B-21-SP **AGENDA DATE:** 6/10/2021

▶ **APPLICANT:** **ROBYN ASKEW, TRUSTEE FOR OPTION HOLDER**
OWNER(S): Richard & Stephanie Briggs Trust

TAX ID NUMBER: 129 128 [View map on KGIS](#)

JURISDICTION: Commission District 6

STREET ADDRESS: 1928 Marietta Church Rd.

▶ **LOCATION:** **East side of Marietta Church Road, northeast of intersection of Buttermilk Road, south of Hardin Valley Road**

▶ **TRACT INFORMATION:** **94.12 acres.**

SECTOR PLAN: Northwest County

GROWTH POLICY PLAN: Rural Area

ACCESSIBILITY: Access is via Marietta Church Road, a minor collector, with a pavement width of 19-ft within a right-of-way width of 40-ft.

UTILITIES: Water Source: West Knox Utility District

Sewer Source: West Knox Utility District

WATERSHED: Conner Creek

▶ **PRESENT PLAN DESIGNATION/ZONING:** **AG (Agricultural) / HP (Hillside Protection) / A (Agricultural)**

▶ **PROPOSED PLAN DESIGNATION/ZONING:** **LDR (Low Density Residential) / HP (Hillside Protection) / PR (Planned Residential)**

▶ **EXISTING LAND USE:** **Agriculture/forestry/vacant**

▶ **DENSITY PROPOSED:** **2 du/ac**

EXTENSION OF PLAN DESIGNATION/ZONING: Yes, LDR is adjacent to the East and West.

HISTORY OF ZONING REQUESTS: None noted.

SURROUNDING LAND USE, PLAN DESIGNATION, ZONING

North: Agriculture/forestry/vacant - AG (Agriculture)
South: Agriculture/forestry/vacant - LDR (Low Density Residential)
East: Agriculture/forestry/vacant, single family residential -LDR (Low Density Residential)
West: Agriculture/forestry/vacant, single family residential - LDR (Low Density Residential)

NEIGHBORHOOD CONTEXT: The area is largely comprised of agricultural, forestry and vacant lands, and single family residential homes and a church.

STAFF RECOMMENDATION:

- ▶ **Approve RR (Rural Residential) / HP (Hillside Protection) because it is consistent with the Growth Policy Plan.**

- ▶ **Approve PR (Planned Residential) zoning up to 1.6 du/ac consistent with the slope analysis and the Growth Policy Plan.**

COMMENTS:

SECTOR PLAN AMENDMENT REQUIREMENTS FROM GENERAL PLAN (May meet any one of these):

CHANGES OF CONDITIONS WARRANTING AMENDMENT OF THE LAND USE PLAN:

1. The West Knox Utility District has recently added a new wastewater treatment facility to expand capacity in the Northwest County Sector.
2. The Hardin Valley Mobility Plan adopted in 2019 prioritized improvement projects in the Hardin Valley area.

INTRODUCTION OF SIGNIFICANT NEW ROADS OR UTILITIES THAT WERE NOT ANTICIPATED IN THE PLAN AND MAKE DEVELOPMENT MORE FEASIBLE:

1. There have been no new road improvements in this area.
2. There has been a recently completed expansion of wastewater capacity in this area by the West Knox Utility District and a new middle school built for the Hardin Valley community by Knox County Schools. A study for forthcoming electrical line improvements by the West Knox Utility District and TVA is also underway.
3. While utility infrastructure does support additional residential growth in the area, the adopted Growth Policy Plan does not support residential densities greater than 2 du/ac, thus the Rural Residential is the maximum residential land use classification that staff can support at this location.

AN OBVIOUS OR SIGNIFICANT ERROR OR OMISSION IN THE PLAN:

1. There are no obvious or significant errors or omissions in the plan regarding these parcels. The 2016 update of the Northwest County Sector Plan took into consideration that this area is within the Rural Area of the Growth Policy Plan, which is intended to remain rural through limiting residential density growth and development of commercial and industrial land uses.
2. Zoning for residential densities in the general area are approximately 2 du/ac, which the proposed Rural Residential land use classification recommends.
3. The slope analysis yields a recommended density of 1.8 du/ac, the RR (Rural Residential) land use classification is consistent with the maximum recommended residential density in the Hillside Protection (HP) Overlay land use classification

TRENDS IN DEVELOPMENT, POPULATION OR TRAFFIC THAT WARRANT RECONSIDERATION OF THE ORIGINAL PLAN PROPOSAL:

1. The Rural Residential land use classification allows consideration of additional residential density at this location up to 2 dwelling units per acre and the majority of the surrounding residential densities are within that range as well.
2. The slope analysis for the property also recommends a reduced density up to 1.6 du/ac.

State law regarding amendments of the general plan (which includes Sector Plan amendments) was changed with passage of Public Chapter 1150 by the Tennessee Legislature in 2008. The law now provides for two methods to amend the plan at TCA 13-3-304:

- The Planning Commission may initiate an amendment by adopting a resolution and certifying the amendment to the Legislative Body. Once approved by majority vote of the Legislative Body, the amendment is operative.
- The Legislative Body may also initiate an amendment and transmit the amendment to the Planning Commission. Once the Planning Commission has considered the proposed amendment and approved, not approved, or taken no action, the Legislative Body may approve the amendment by majority vote and the amendment is operative.

REZONING REQUIREMENTS FROM ZONING ORDINANCES (must meet all of these):

THE PROPOSED AMENDMENT SHALL BE NECESSARY BECAUSE OF SUBSTANTIALLY CHANGED OR CHANGING CONDITIONS IN THE AREA AND DISTRICTS AFFECTED, OR IN THE CITY/COUNTY GENERALLY:

1. The West Knox Utility District has recently added a new wastewater treatment facility to expand capacity in the Northwest County Sector.
2. New electrical transmission lines are being planned for this area by TVA to accommodate the growth and development in the Hardin Valley area.

THE PROPOSED AMENDMENT SHALL BE CONSISTENT WITH THE INTENT AND PURPOSE OF THE APPLICABLE ZONING ORDINANCE:

1. The proposed amendment to PR zoning is intended to provide optional methods of land development which encourage more imaginative solutions to environmental design problems. Residential areas thus established would be characterized by a unified building and site development program, open space for recreation and provision for commercial, religious, educational, and cultural facilities which are integrated with the total project by unified architectural and open space treatment.
2. Each planned unit development shall be compatible with the surrounding or adjacent zones. Such compatibility shall be determined by the planning commission by review of the development plans.

THE PROPOSED AMENDMENT SHALL NOT ADVERSELY AFFECT ANY OTHER PART OF THE COUNTY, NOR SHALL ANY DIRECT OR INDIRECT ADVERSE EFFECTS RESULT FROM SUCH AMENDMENT.

1. If PR up to 2 du/ac is approved a possible total build-out of 188 single family residential dwelling units may be accommodated on the site meeting all other standards.
2. A Transportation Impact Study was submitted on May 20, 2021 by CDM Smith for cases 6-B-21-SP / 6-E-21-RZ for a rezoning for the 94 acre property. The following conclusions and recommendations for the transportation network were noted by CDM Smith to accommodate the development of this site at the density requested by the applicant.

Hardin Valley Road, east of the site, should be improved to a 4-lane divided or 5-lane arterial from Pellissippi Parkway to west of Campbell Station Road where it might transition to a 3-lane arterial to west of Marietta Church Road. A 3-lane section may accommodate traffic at a LOS E with the 2025 traffic condition but may also need to be improved to a multi-lane arterial as development continues to occur along the Hardin Valley Road corridor. An exemption of a second access policy would be required if a subdivision density exceeded 150 single-family units.

Recommendations for the proposed site include the following:

1. Construct a 125-foot left-turn lane from westbound Hardin Valley Road to southbound Marietta Church Road. (Warranted with background traffic conditions)
2. Locate the access to Marietta Church Road to insure a minimum 300-foot line of sight along Marietta Church Road.
3. Provide a second access street to and from the site if an alternative access is found feasible.
4. The subdivision layout and design shall be in accordance with current Knoxville-Knox County Subdivision Regulations.
5. Intersection design should conform to the recommended standards and practices of the American Association of State Highway and Transportation Officials, the Institute of Transportation Engineers, and the Knox County Public Works Department.

THE PROPOSED AMENDMENT SHALL BE CONSISTENT WITH AND NOT IN CONFLICT WITH THE GENERAL PLAN OF KNOXVILLE AND KNOX COUNTY, INCLUDING ANY OF ITS ELEMENTS, MAJOR ROAD PLAN, LAND USE PLAN, COMMUNITY FACILITIES PLAN, AND OTHERS:

1. The staff recommended rezoning to PR up to 1.6 du/ac is consistent with the recommended plan amendment to RR (Rural Residential) for the Northwest County Sector Plan at this location, and is consistent with the slope analysis and the Growth Policy Plan.

ESTIMATED TRAFFIC IMPACT: 1859 (average daily vehicle trips)

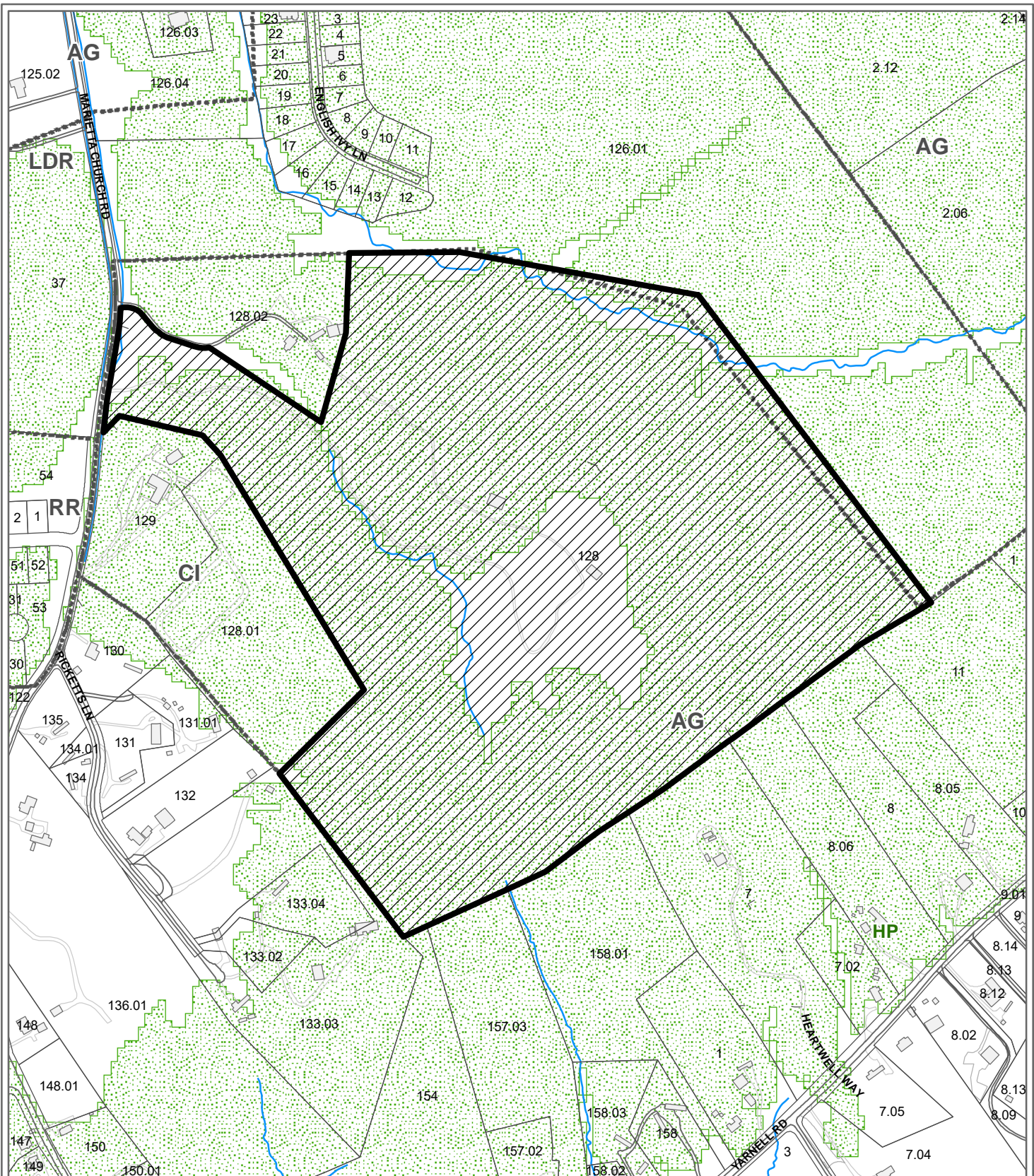
Average Daily Vehicle Trips are computed using national average trip rates reported in the latest edition of "Trip Generation," published by the Institute of Transportation Engineers. Average Daily Vehicle Trips represent the total number of trips that a particular land use can be expected to generate during a 24-hour day (Monday through Friday), with a "trip" counted each time a vehicle enters or exits a proposed development.

ESTIMATED STUDENT YIELD: 77 (public school children, grades K-12)

Schools affected by this proposal: Hardin Valley Elementary, Hardin Valley Middle, and Hardin Valley Academy.

- 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.

If approved, this item will be forwarded to Knox County Commission for action on 7/26/2021. If denied, Knoxville-Knox County Planning Commission's action is final, unless the action to deny is appealed to Knox County Commission. The date of the appeal hearing will depend on when the appeal application is filed. Appellants have 30 days to appeal a Planning Commission decision in the County.



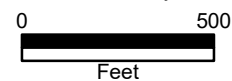
**6-B-21-SP / 6-E-21-RZ
NORTHWEST COUNTY SECTOR PLAN AMENDMENT**

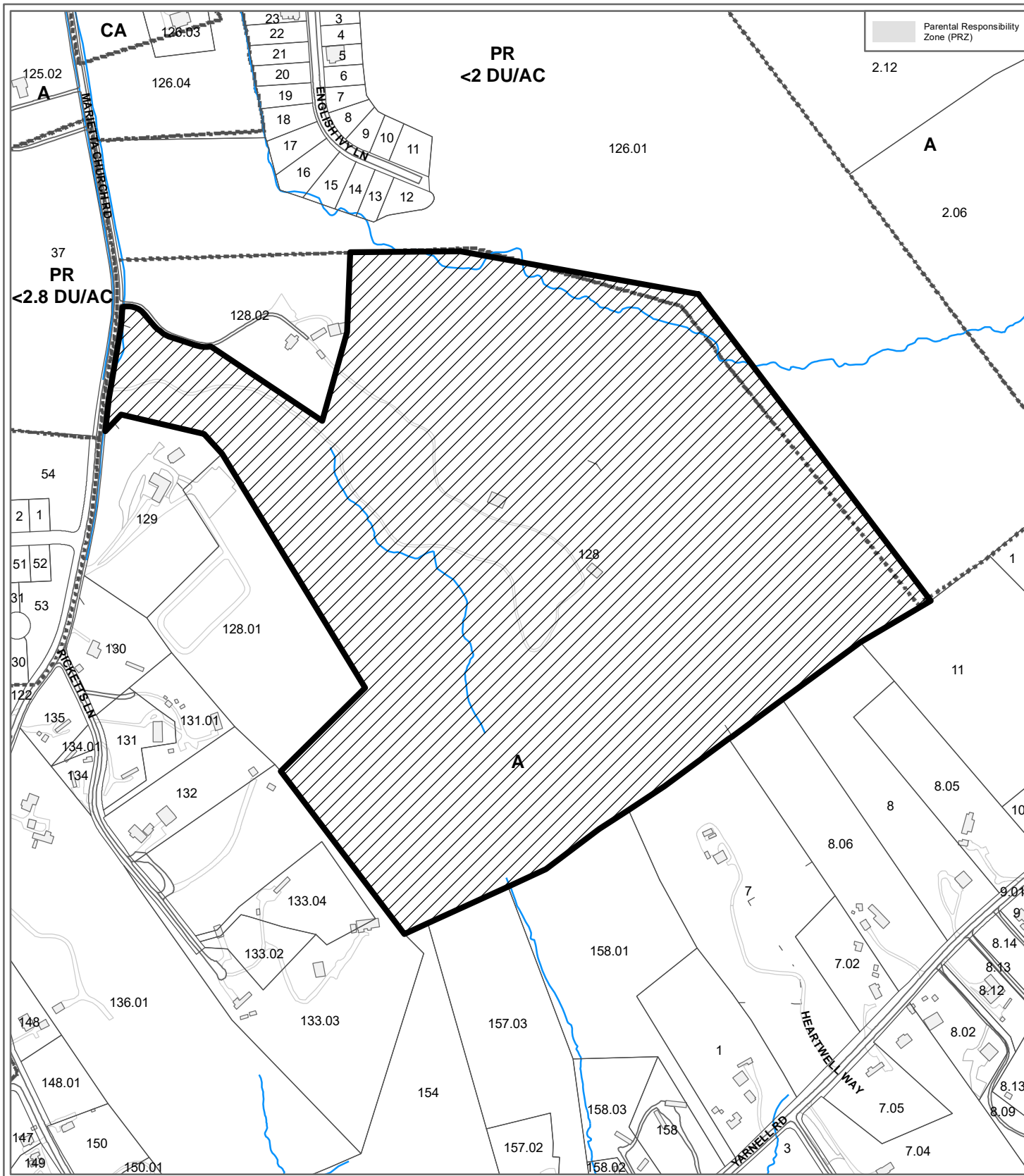
From: AG (Agricultural) / HP (Hillside Protection)
 To: LDR (Low Density Residential) / HP (Hillside Protection)



Petitioner: Askew, Trustee for Option Holder, Robyn

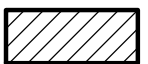
Map No: 129
 Jurisdiction: County





**6-E-21-RZ
REZONING**

From: A (Agricultural)
To: PR (Planned Residential)



Petitioner: Askew, Trustee for Option Holder, Robyn

Map No: 129
Jurisdiction: County

Original Print Date: 5/6/2021
Revised:
Knoxville - Knox County Planning Commission * City / County Building * Knoxville, TN 37902



**KNOXVILLE-KNOX COUNTY PLANNING COMMISSION
A RESOLUTION AMENDING THE NORTHWEST COUNTY SECTOR PLAN**

WHEREAS, the Knoxville-Knox County Planning Commission, a regional planning commission established pursuant to state statute, has the duty to make, adopt and amend plans for the physical development of Knoxville and Knox County; and

WHEREAS, the Planning Commission pursuant to state statute has prepared and adopted the Knoxville-Knox County General Plan 2033, as the official comprehensive plan for Knoxville and Knox County; and

WHEREAS, the Council of the City of Knoxville and the Commission of Knox County have adopted the Knoxville Knox County General Plan 2033, as the official comprehensive plan for Knoxville and Knox County; and

WHEREAS, the Planning Commission has prepared the Knox County Future Land Use Map, a portion of which is contained within the Northwest County Sector Plan, consistent with the requirements of the General Plan; and

WHEREAS, the Knoxville-Knox County General Plan 2033, provides criteria for periodic updates and amendments of the land use maps contained within plans initiated by the Planning Commission or in response to applications from property owners; and

WHEREAS, Robin Askew has submitted an application for an amendment to the Northwest County Sector Plan for property described in the application; and

WHEREAS, the Planning Commission recommends approval of an amendment to the Sector Plan from Agriculture/Hillside Protection to Rural Residential/Hillside Protection consistent with General Plan requirements that such amendment represents either a logical extension of a development pattern, or is warranted because of changing conditions in the sector as enumerated in the Plan; and

WHEREAS, the Planning Commission, at its regularly scheduled public hearing on June 10, 2021, after consideration of the staff recommendation and testimony from those persons in support and opposed to the plan amendment, approved the amendment for the subject property, as requested, and/or amended.

NOW, THEREFORE, BE IT RESOLVED BY THE KNOXVILLE-KNOX COUNTY PLANNING COMMISSION:

SECTION 1: The Planning Commission hereby adopts the revised amendment to the Northwest County Sector Plan, with its accompanying staff report and map, file #6-B-21-SP.

SECTION 2: This Resolution shall take effect upon its approval.

SECTION 3: The Planning Commission further recommends that Knox County Commission likewise consider this revised amendment to the General Plan 2033.

Date

Chairman

Secretary

Slope / Density Analysis
Case: 6-E-21-RZ

CATEGORY	ACRES	RECOMMENDED DENSITY (Dwelling Units / Acre)	NUMBER OF UNITS
Non-Hillside	14.33	2.00	28.7
0-15% Slope	26.21	2.00	52.4
15-25% Slope	27.43	2.00	54.9
25-40% Slope	20.26	0.50	10.1
Greater than 40% Slope	5.75	0.20	1.2
Ridgetops	0.00		0.0
Subtotal: Sloped Land	79.65		118.6
Maximum Density Guideline (Hillside & Ridgetop Protection Plan)	93.98	1.57	147.2
Proposed Density (Applicant)	93.98	2.00	188.0

From Hillside & Ridgetop Protection Plan, page 33

LOW DENSITY AND RURAL RESIDENTIAL USES

Density and Land Disturbance Guidelines

As proposals for changes to the zoning map and development plans/concept plans are considered, the following factors are recommended to determine the overall allowable density for residential rezonings and the overall land disturbance allowable in new development or subdivisions for those portions of parcels that are within the Hillside and Ridgetop Protection Area. These factors should be codified as regulations in the future. The areas of the Growth Policy Plan referenced below are presented on page 18.

Table 3: Residential Density and Land Disturbance Guidelines
for Recommendations on Changes to the Zoning Map and Development Plan/
Concept Plan Review within the Hillside and Ridgetop Protection Area
that is within the Urban Growth and the Planned Growth Area

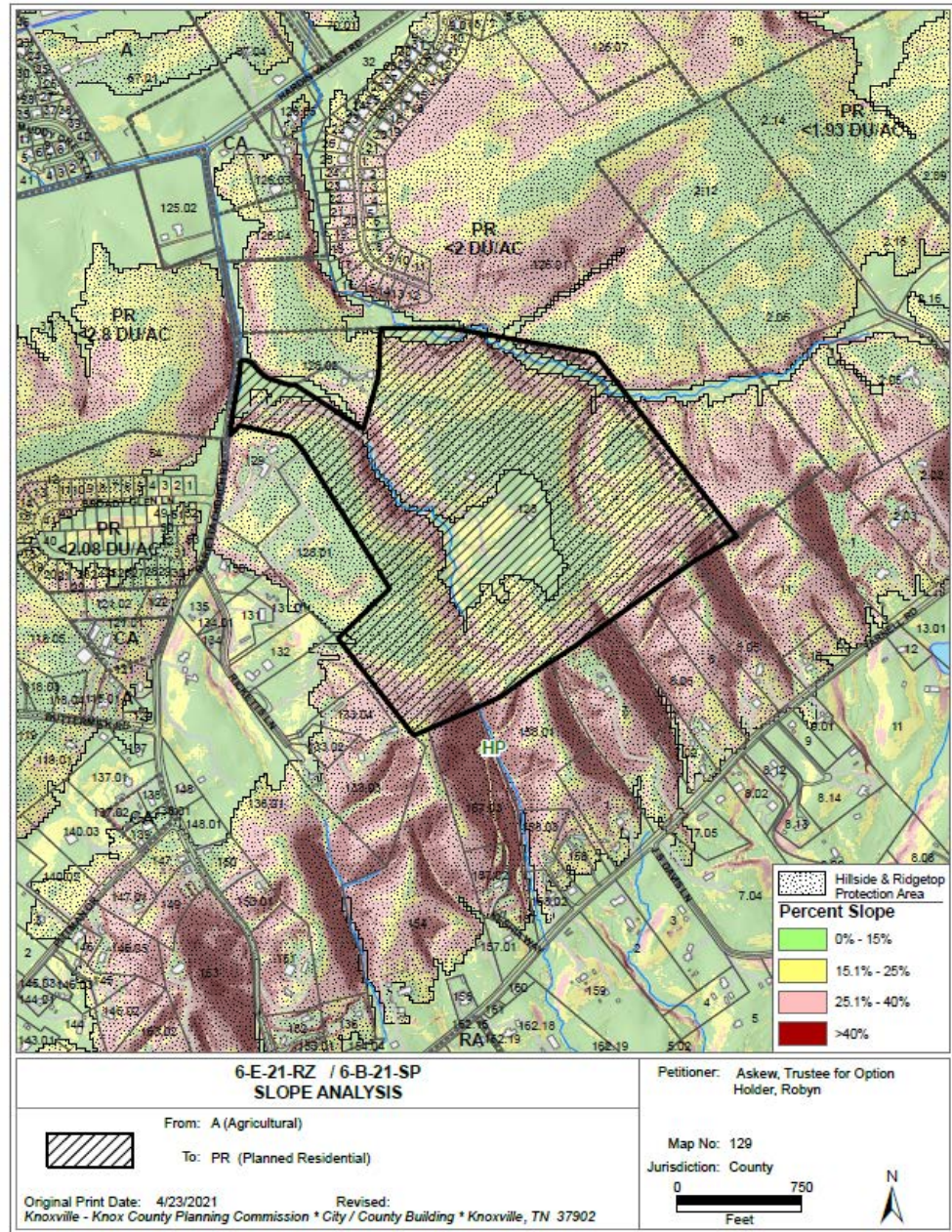
Percent of Slope	Recommended Maximum Density Factor*	Recommended Maximum Land Disturbance Factor**
0 - 15	Knox County: 5 dua City of Knoxville: 6 dua	100%
15 - 25	2 dua	50%
25 - 40	0.5 dua	20%
40 or more	0.2 dua	10%
Ridgetops***	***	***

dua: dwelling units per acre

* These factors should be considered guidelines to determine an overall recommended residential density for requests for changes to the zoning map to planned residential (RP-1 in the city and PR in the county) zone districts that are considered by the Metropolitan Planning Commission prior to being considered by the appropriate legislative body. The resulting zone district development right would be considered a budget for dwelling units to be applied over the entire proposed development.

** Until such time as regulations are codified by the appropriate legislative body, these factors should be considered guidelines to determine an overall recommended land disturbance area for development plans and concept plans that are considered for approval by the Metropolitan Planning Commission. The overall land disturbance area would be considered a budget for land disturbance to be applied over the entire proposed development.

*** Ridgetops are generally the more level areas on the highest elevations of a ridge. Because the shapes of Knox County ridges are so varied (see pages 8 - 9), the ridgetop area should be determined on a case-by-case basis with each rezoning and related development proposal.



**6-E-21-RZ / 6-B-21-SP
SLOPE ANALYSIS**

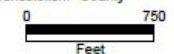
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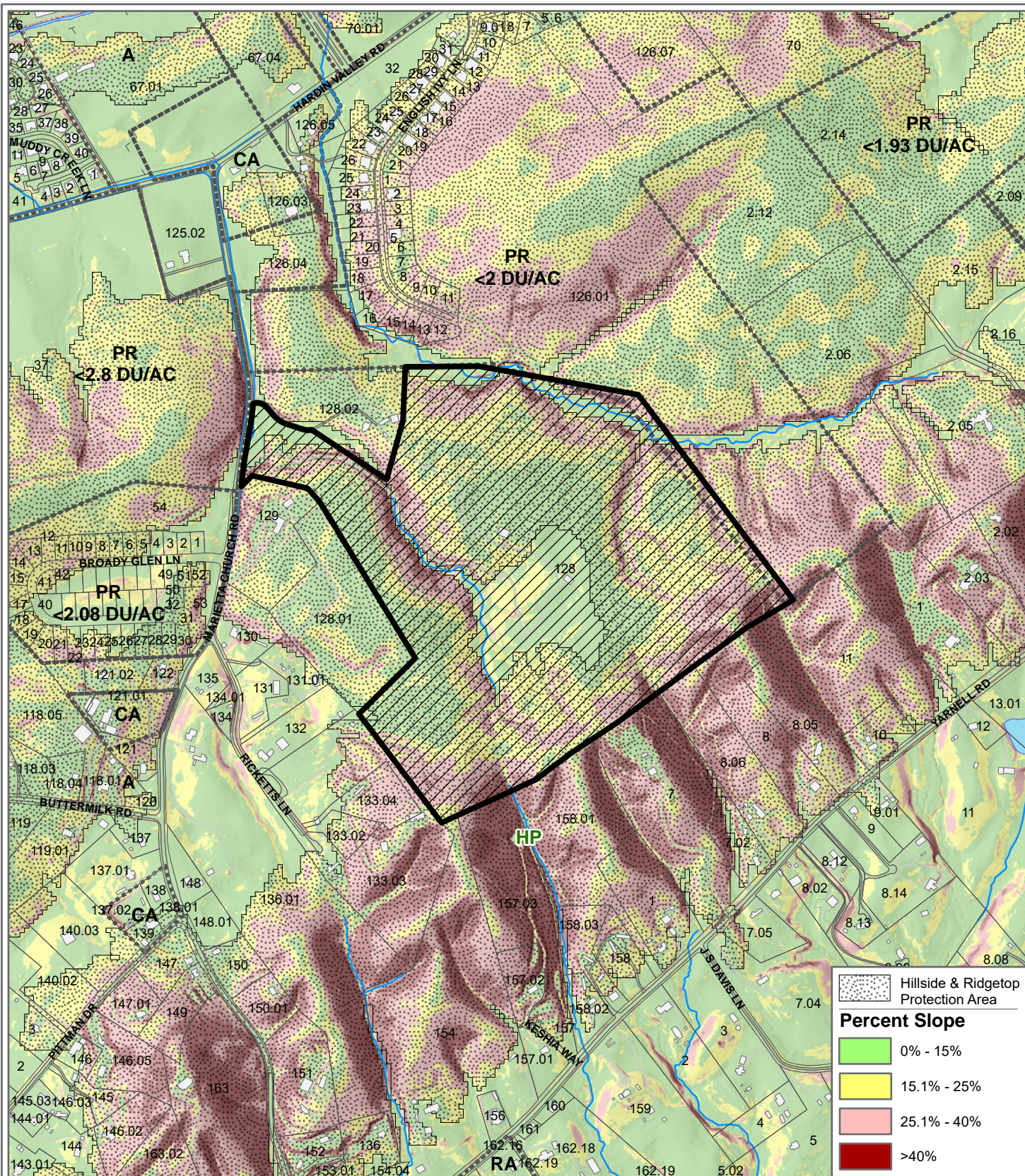


Original Print Date: 4/23/2021 Revised:
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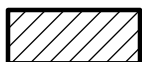
Map No: 129
Jurisdiction: County





**6-E-21-RZ / 6-B-21-SP
SLOPE ANALYSIS**

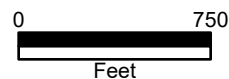
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Map No: 129
Jurisdiction: County



6-E-21-RZ / 6-B-21-SP

			Acres
Non-Hillside Portions			14.33
Hillside and Ridgetop Protection Area			
Value	Percent Slope	Count	Acres
1	0%-15%	45663	26.21
2	15%-25%	47794	27.43
3	25%-40%	35308	20.26
4	>40%	10023	5.75
			79.65
Ridgetop Area			0
Site Total			93.98

Exhibit B. 6-B-21-SP / 6-E-21-RZ Contextual Images

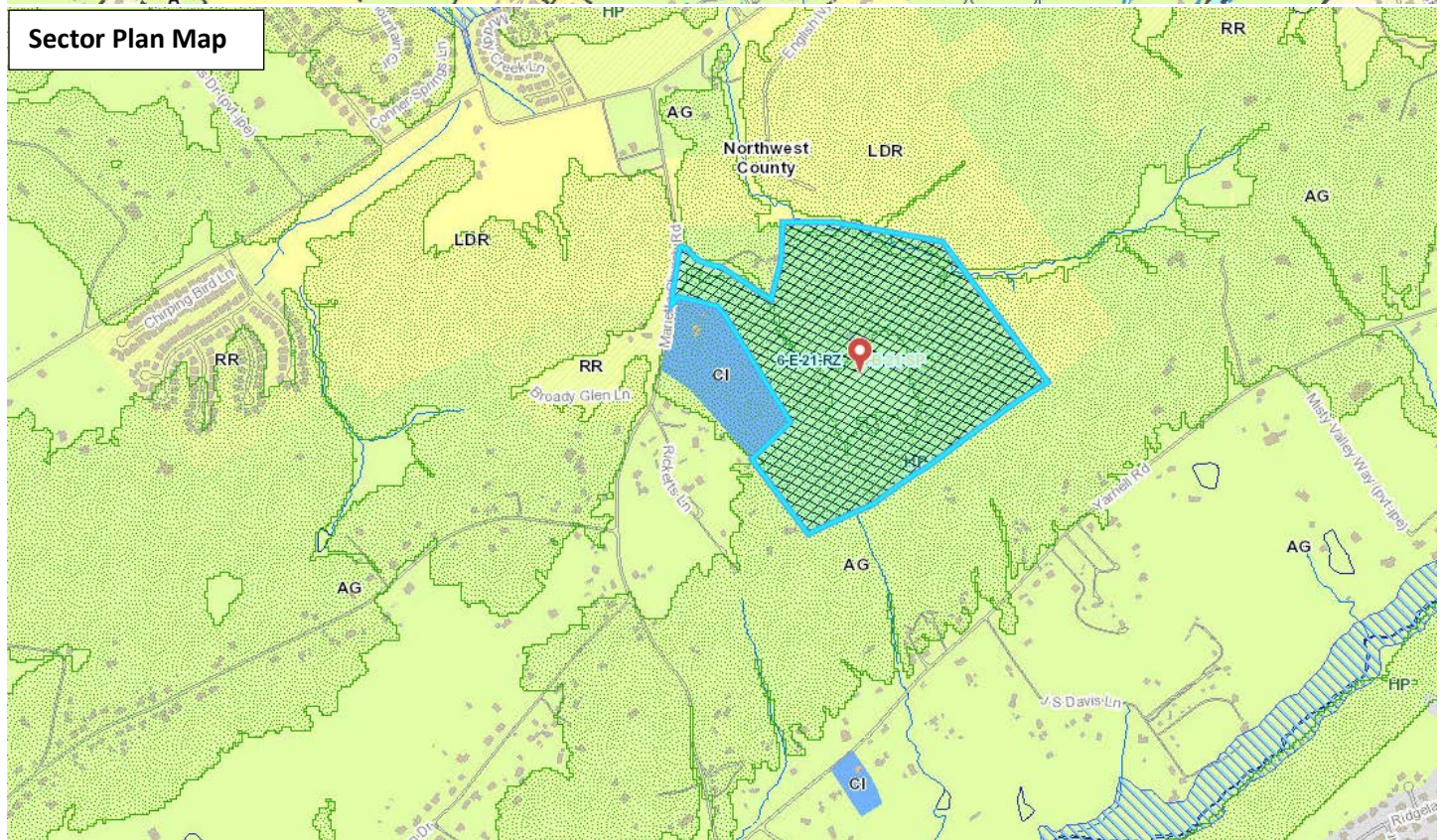
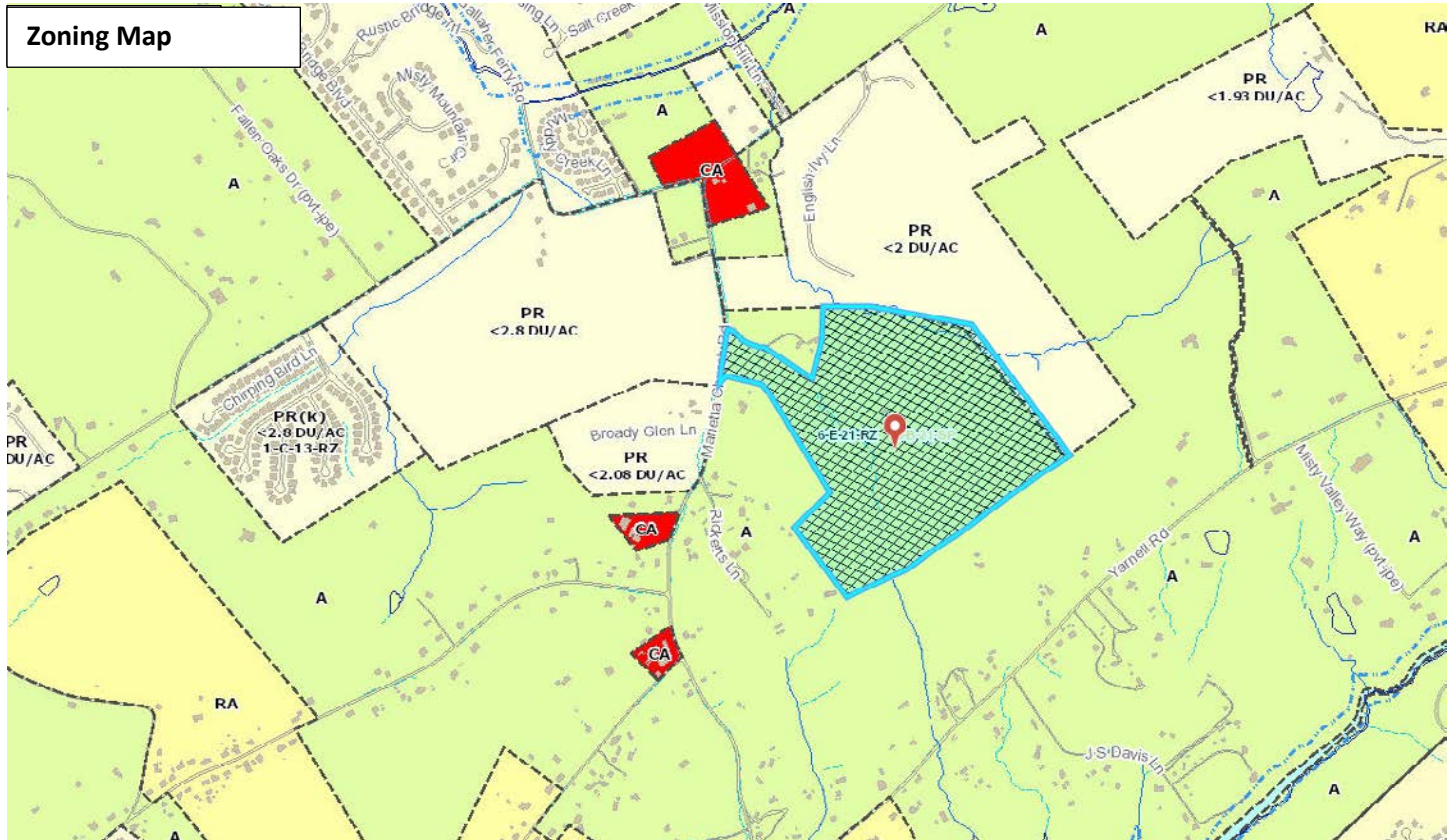
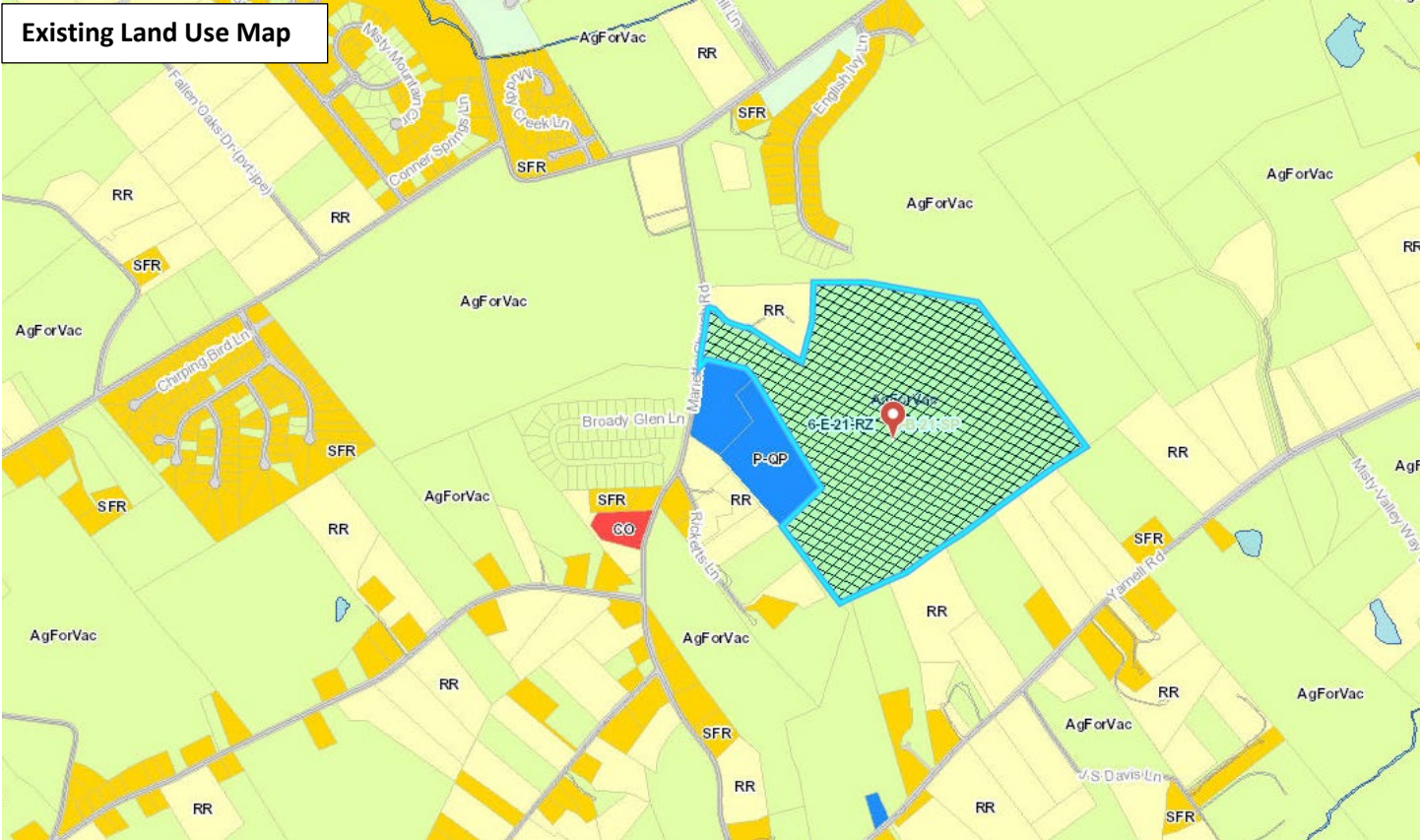


Exhibit B. 6-B-21-SP / 6-E-21-RZ Contextual Images

Existing Land Use Map



Aerial Map

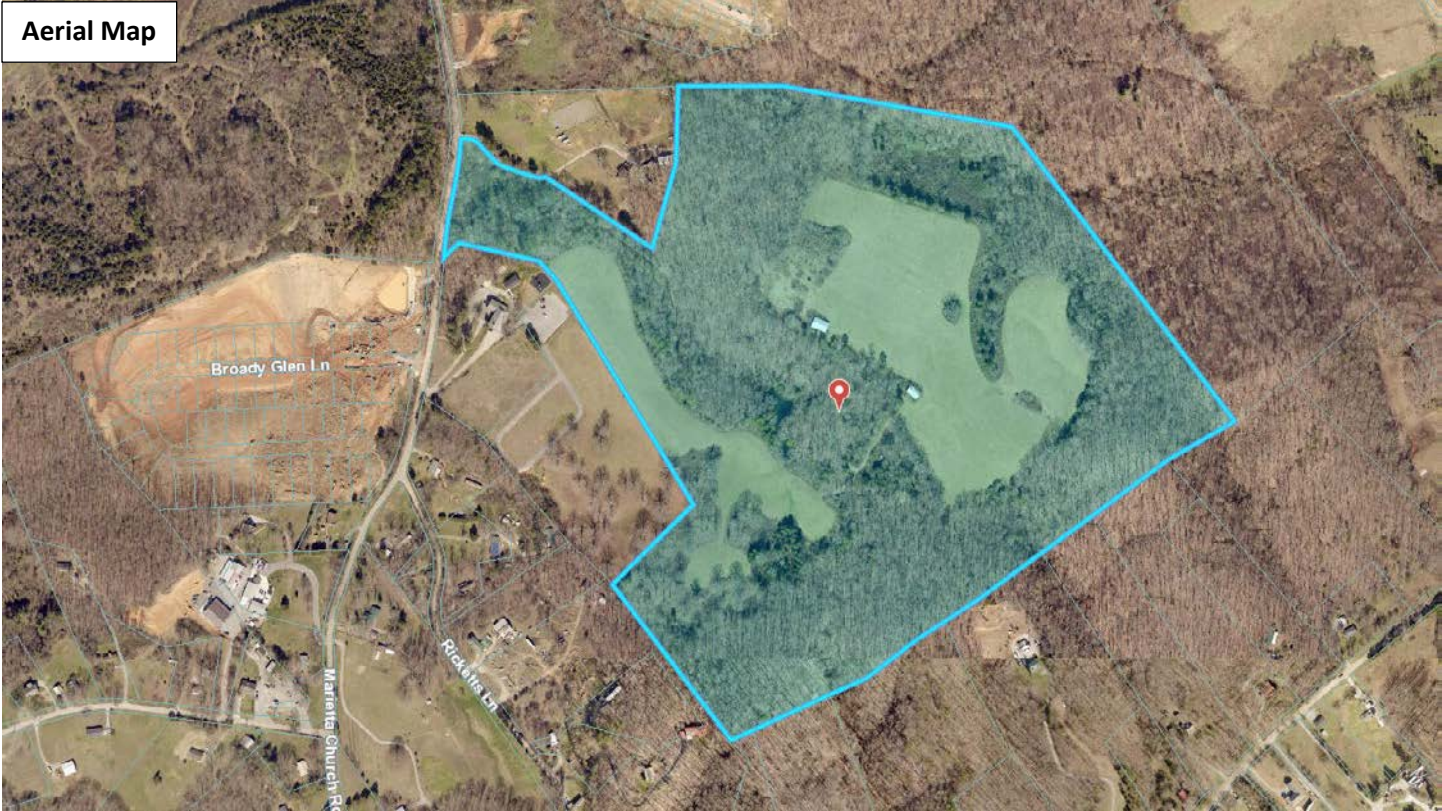


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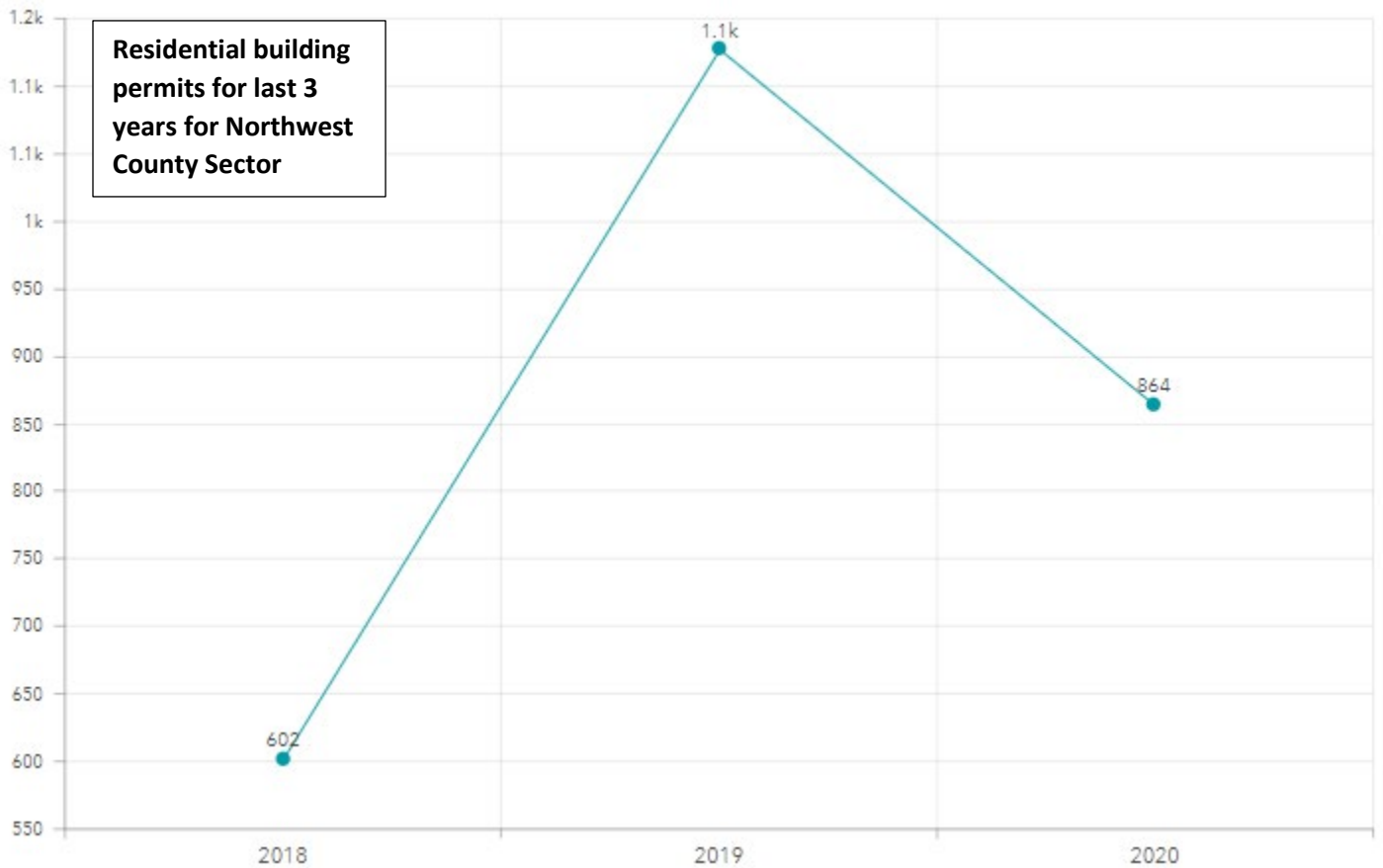
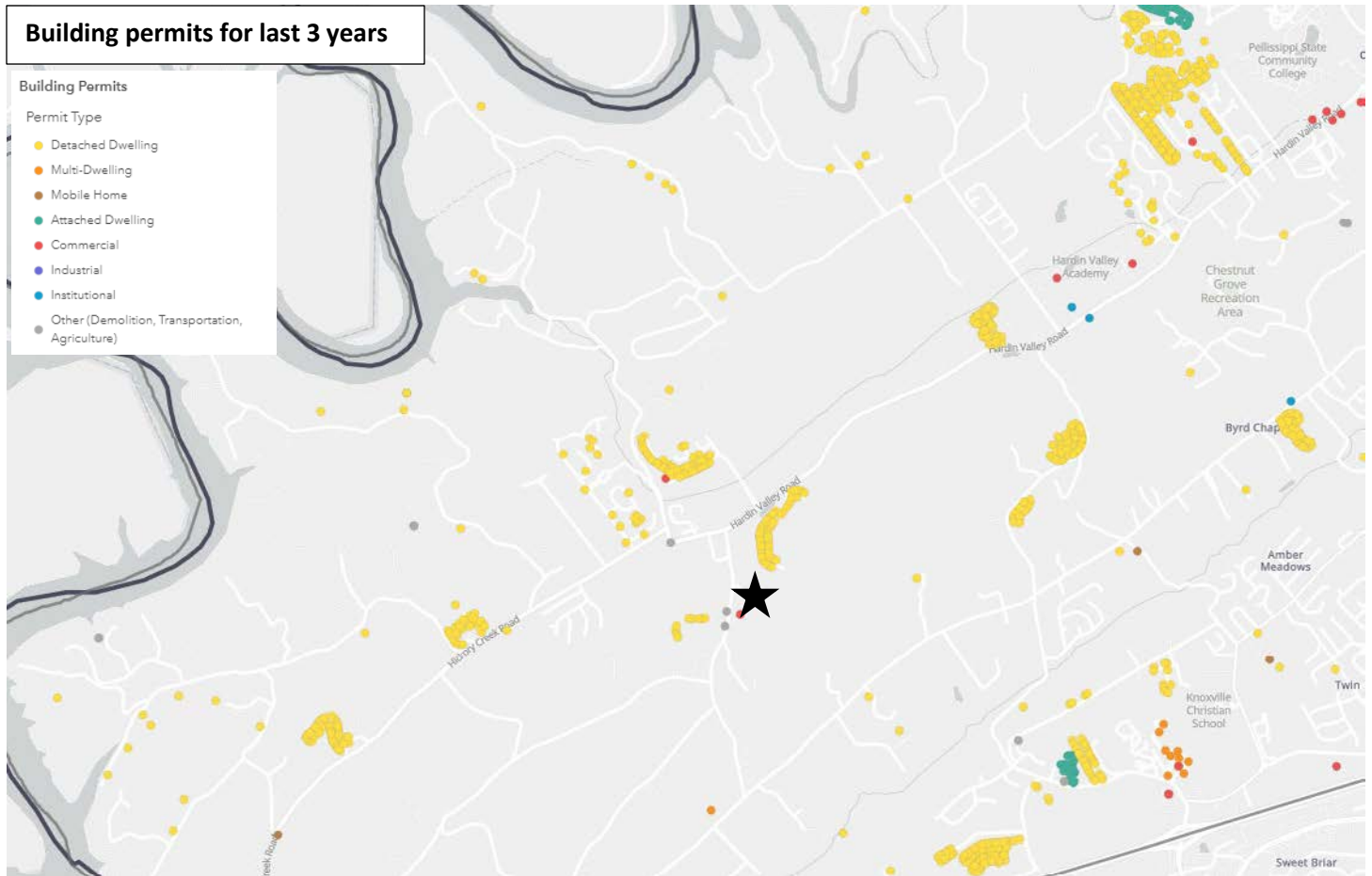
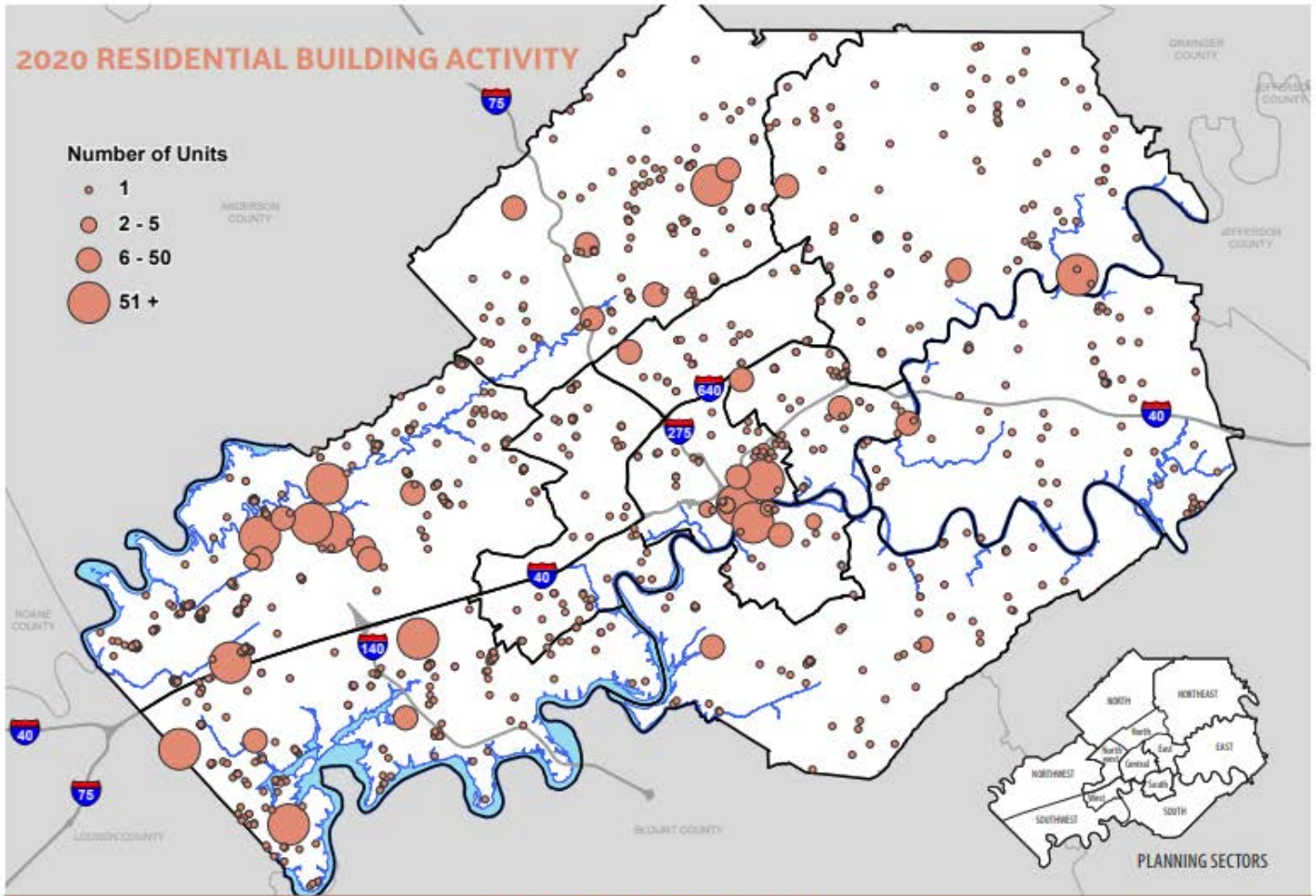


Exhibit B. 6-B-21-SP / 6-E-21-RZ Contextual Images



2020 BUILDING ACTIVITY

Sector	All Units	Residential					Non-Residential				
	Total	Detached Dwelling	Multi-Dwelling	Mobile Home	Attached Dwelling	Total	Commercial	Industrial	Institutional	Other	Total
CITY PLANNING SECTORS											
Central	439	36	384	0	3	423	12	1	3	0	16
East	152	35	103	0	10	148	2	1	0	1	4
North	71	61	2	0	0	63	3	1	3	1	8
Northwest	51	18	6	2	18	44	5	0	1	1	7
South	186	11	168	2	4	185	1	0	0	0	1
West	38	26	4	0	0	30	7	0	1	0	8
COUNTY PLANNING SECTORS											
East	115	72	1	19	0	92	2	19	0	2	23
North	403	249	3	33	100	385	13	0	0	5	18
Northeast	250	208	0	29	10	247	3	0	0	0	3
Northwest	1,190	714	392	10	45	1,161	21	1	4	3	29
South	117	94	0	19	2	115	2	0	0	0	2
Southwest	766	297	420	2	25	744	16	1	1	4	22
All Sectors	3,778	1,821	1,483	116	217	3,637	87	24	13	17	141
% Share of All Sectors Total	100.0	48.2	39.3	3.1	5.7	96.3	2.3	0.6	0.3	0.4	3.7
City of Knoxville	1,181	192	859	1	78	1,130	37	4	8	2	51
Knox County (outside cities)	2,268	1,550	396	115	125	2,186	43	20	5	14	82
Town of Farragut	329	79	228	0	14	321	7	0	0	1	8

DEVELOPMENT INFORMATION

Project name: Briggs Station

Project Description: Single family residential subdivision

Project Location: 1928 Marietta Church Rd

Existing Zoning: A

Development Name: TBD

Developer name & address: Robyn Askew, Trustee - 620 Market Street, 5th Floor, Knoxville, TN 37902

Telephone number: 865-546-4646

Email: RAskew@LewisThomason.com

Tax Map & Parcel #: 129 128

CHECKLIST (All items should be available at the time of discussion)

Complete description of the development that includes:

Site Map details (this should be attached):

- | | | |
|--------------------------|---|----------------------------|
| <input type="checkbox"/> | Building footprints | 50-70 ft wide x 80 ft deep |
| <input type="checkbox"/> | Number of units/unit size | 2 units / acre |
| <input type="checkbox"/> | Access points | 1 |
| <input type="checkbox"/> | Internal roadways (if any) | yes |
| <input type="checkbox"/> | Adjacent streets | Marietta Church Rd |
| <input type="checkbox"/> | Proposed sidewalks and bicycle facilities, and | No |
| <input type="checkbox"/> | Location and number of proposed parking spaces
(if applicable) | N/A |

Phasing plan (if applicable) that includes:

- | | | |
|--------------------------|--------------------------------|------------------------------------|
| <input type="checkbox"/> | Phase size, location, & timing | 2 phases approx half & half - ASAP |
|--------------------------|--------------------------------|------------------------------------|

BELOW TO BE FILLED OUT BY KNOXVILLE-KNOX COUNTY PLANNING STAFF

Pre-study scope meeting **needed**

Pre-study scope meeting **not needed**

Intersection(s) to study:

Level of Analysis:

Notes:

Signature

Date



1100 Marion St., Suite 300
Knoxville, Tennessee 37921
tel: 865.963.4300
fax: 865.524-5311

May 20, 2021

Mr. John Anderson P.E.
SITE Inc.
10215 Technology Drive, Suite 304
Knoxville, Tennessee 37932

RE: BRIGGS STATION. MARIETTA CHURCH ROAD, KNOX COUNTY, TN.

Dear Mr. Anderson:

CDM Smith is pleased to submit this report to address the impact and access of a proposed Briggs Station residential development with access to Marietta Church Road south of Hardin Valley Road in northwest Knox County. Discussions with Knoxville-Knox County Planning determined that this proposed residential development required a Traffic Impact Letter (TIL) to be performed to determine the adequacy of Hardin Valley and Marietta Church Road with the site impact.

If you have any questions regarding this Traffic Impact Letter, please call me.

Sincerely,
CDM SMITH INC.



John F Gould, P.E.
Senior Traffic Engineer

Enclosures





Mr. John Anderson P.E.
Site Inc
May 20, 2021
Page 2

BRIGGS STATION ZONE CHANGE AND PROPOSED RESIDENTIAL SUBDIVISION

Project Description

The proposed Briggs Station development is on a 94-acre property currently zoned agriculture. Proposed PR zoning would permit as many as 188 single-family units. This density of residential may require a second access as it exceeds 150 single-family units, which a single access street is permitted with respect to Knox County residential access policy. The actual development may be less than the requested zoning and will depend largely on the site topography and the subdivision layout. The layout of the site and internal residential streets will be governed by the **Knox County Subdivision Regulations** and the necessary site drainage. **Figure 1** shows the proposed site location and adjacent zoning.

Site Location

The location of the proposed residential development is east of Marietta Church Road in northwest Knox County, Tennessee, and northwest of the Knoxville central business district (CBD). Hardin Valley Road is north of the site. **Figure 2** illustrates the site location relative to local and regional access.

Existing Roadways

The proposed residential development will access Marietta Church Road on the site's west boundary. Marietta Church Road is an 18-foot two-lane Minor Collector extending south from Hardin Valley Road to Yarnell Road. Its 2019 daily traffic is approximately 2,050. This collector facility primarily serves residential subdivisions. Marietta Church Road has a posted speed limit of 30mph.

Hardin Valley Road, to the north of the site is an approximate 22-foot two-lane Minor Arterial with an approximate average weekday traffic volume of daily of 11,070. Hardin Valley Road extends east and west from the Hickory Creek Road and E. Gallaher Ferry Road intersection, just to the west of the Marietta Church Road intersection, to the Ball Camp Byington Road and Middlebrook Pike intersection to the east. Traffic can access Pellissippi Parkway (SR 162) to the east. Hardin Valley Road becomes a three-lane facility at Campbell Station Road and a signalized corridor starting at Steele Road. Hardin Valley Road includes mixed uses with residential subdivisions, schools, and commercial offices and retail development. Interstate 40/75 can be accessed from Pellissippi Parkway and Campbell Station Road to the south. The posted speed limit for Hardin Valley Road is 40mph.

Hickory Creek Road is another classified Minor Arterial which extends southwest from the site vicinity to the Watt Road corridor and the I-40/75 interchange near the Loudon County line.

Marietta Church Road is STOP controlled at Hardin Valley Road without any turn lanes.





Mr. John Anderson P.E.
 Site Inc
 May 20, 2021
 Page 3

There are not any KAT services in the site vicinity. Neither sidewalks nor bike facilities are available in the site vicinity.

Existing Traffic Volumes

Automated traffic counts (ATCs) were obtained from Knoxville-Knox County Planning for Hardin Valley Road and Marietta Church Road. These ATCs were conducted in 2019, prior to the Covid-19 pandemic. Daily traffic and AM and PM peak hour traffic are illustrated in **Figure 3**. **Figure 4** illustrates 2021 traffic which reflects a factored turning movement count conducted in 2016 (factor of 1.5 to reflect 2021) for the intersection of Hardin Valley Road and Marietta Church Road. The 2019 station counts were factored by 1.2 for 2021.

Background Traffic Volumes

Background traffic is traffic that can be anticipated regardless of the proposed development. Traffic within the study area should continue to grow due to other developments as well as the continued growth within the surrounding area. The background traffic reflects the historical traffic growth and any planned adjacent development in the study area vicinity. Hardin Valley Road is experiencing significant growth. At the direction of Knoxville-Knox County Planning, background traffic was developed using an annual growth rate of 10-percent. This growth rate is a very aggressive rate of growth but must reflect both future traffic not currently planned and currently planned developments of Vining Mill and Hoppe property subdivisions. **Figure 5** illustrates the 2019 traffic increased by a factor of 1.60 to reflect 2025 traffic with the anticipated growth. The turning movement traffic for Hardin Valley Road intersection with Marietta Church Road reflects the 1.6 growth but also the turning movements to and from the north leg generated by the planned Hoppe Property development.

Trip Generation and Distribution

Project conditions were developed by generating traffic for the proposed residential development and distributing the trips to the adjacent roadway. Briggs Station project trips were determined using the publication, **Trip Generation, 10th Edition**. The study generated trips for 188 single-family units. From the trip generation calculations, the proposed site may generate approximately 1,859 daily trips. **Table 1** presents the trip generation of this proposed site.

TABLE 1. TRIP GENERATION

LAND USE	L.U.C	UNITS	DAILY TRAFFIC	AM PEAK			PM PEAK		
				ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
SINGLE FAMILY	210	188	1,859	34	104	138	117	69	186

Reference: (1) Trip Generation, 10 Edition

These trips were distributed to Marietta Church Road and Hardin Valley Road with 80-percent traveling Hardin Valley Road to the east and 10-percent to the west. Marietta Road was assigned 10-percent. **Figure 6** illustrates this distribution.



Projected Traffic

By multiplying the trips generated by the distribution percentages, the project site volumes were determined. **Figure 7** illustrates the resulting assigned trips associated with the proposed Briggs Station development. Background and assigned trips were added together to develop post-development traffic volumes for the year 2025. **Table 2** presents projected traffic development for the proposed Briggs Station.

TABLE 2. TRAFFIC PROJECTIONS

ROAD SEGMENT	COUNT STATION	2019 ADT	GROWTH RATE 10%	2025 BACK-GROUND TRAFFIC	TRIP ASSIGNMENT	PROJECTED TRIPS	2025 PROJECTED TRAFFIC
Hardin Valley Rd	M393	15,109	1.60	24,174	80%	1,487	25,662
Hardin Valley Rd	M353	6,921	1.60	11,074	80%	1,487	12,561
Marietta Church Rd	M275	2,054	1.60	3,286	10%	186	3,472

Figure 8 illustrates the 2025 traffic projections. For 2025 traffic conditions, Briggs Station traffic represents an approximate 6- and 12-percent of the projected Hardin Valley Road traffic east of Steele Road, and east of Marietta Church Road, respectively. Marietta Church Road may have a 5-percent traffic impact south of the site. Adjacent roadway capacities are limited by the widths and lack of shoulders.

Roadway Capacity and Level of Service

Roadway segment capacities for the 2019, 2025 background, and the 2025 projected traffic conditions were examined using a generalized Florida criterium for an urbanized area. For the 2019, this evaluation determined that Hardin Valley Road east of Steele Road exceeds capacity and operates at a LOS F. The evaluation of the 2019 and projected 2025 capacity and LOS is presented in **Table 3**.

TABLE 3. TRAFFIC PROJECTIONS

ROAD SEGMENT	COUNT STATION	FACILITY CLASSIFICATION & SECTION	CAPACITY	V/C			LOS		
				2019	2025 BACK-GROUND	2025 PRO-JECTED	2019	2025 BACK-GROUND	2025 PRO-JECTED
Hardin Valley Rd	M393	3-Lanes Undivided Minor Arterial w Signals	12600	1.20	1.92	2.04	F	F	F
Hardin Valley Rd	M353	2-Lanes Undivided Minor Arterial	12480 *	0.55	0.89	1.01	C	D	F
Marietta Church Rd	M275	2-Lane Undivided Minor Collector	12480 *	0.16	0.26	0.28	C	C	C

*Note: Without left-turn lanes, the capacity for a 2-lane undivided roadway of 15,600 was reduced 20% for a capacity of 12,480



Figures 9A, 9B, and 9C illustrate the capacity and levels of service for the roadway segments for 2019, 2025 background, and 2025 projected traffic conditions, respectively. The results determined that Hardin Valley Road east of Marietta Church Road is approaching capacity with the 2025 background traffic conditions and should operate at a LOS D. With the proposed development, Hardin Valley Road may exceed the segment capacity and operate at a LOS F. The mitigation would require a multi-lane (4-lane) arterial improvement from the Pellissippi Parkway (SR 163) to Marietta Church Road. The provision of left-turn lanes for Hardin Valley Road at its intersections including Marietta Church Road would improve Hardin Valley Road west of Steele Road providing a LOS E for this roadway segment. A left-turn lane warrant analysis conducted for the 2025 background and projected traffic conditions for the Hardin Valley Road intersection with Marietta Church Road determined that a turn lane is warranted for the background traffic conditions. The recommended left-turn storage is 100-foot with the background traffic conditions and 125-foot with the projected traffic conditions including Briggs Station residential subdivision.

Conclusion and Recommendations

Hardin Valley Road, east of the site, should be improved to a 4-lane divided or 5-lane arterial from Pellissippi Parkway to west of Campbell Station Road where it might transition to a 3-lane arterial to west of Marietta Church Road. A 3-lane section may accommodate traffic at a LOS E with the 2025 traffic condition but may also need to be improved to a multi-lane arterial as development continues to occur along the Hardin Valley Road corridor.

An exemption of a second access policy would be required if a subdivision density exceeded 150 single-family units.

Recommendations for the proposed site include the following:

1. Construct a 125-foot left-turn lane from westbound Hardin Valley Road to southbound Marietta Church Road. (Warranted with background traffic conditions)
2. Locate the access to Marietta Church Road to insure a minimum 300-foot line of sight along Marietta Church Road.
3. Provide a second access street to and from the site if an alternative access is found feasible.
4. The subdivision layout and design shall be in accordance with current Knoxville-Knox County Subdivision Regulations.
5. Intersection design should conform to the recommended standards and practices of the American Association of State Highway and Transportation Officials, the Institute of Transportation Engineers, and the Knox County Public Works Department.



SITE

Briggs Station

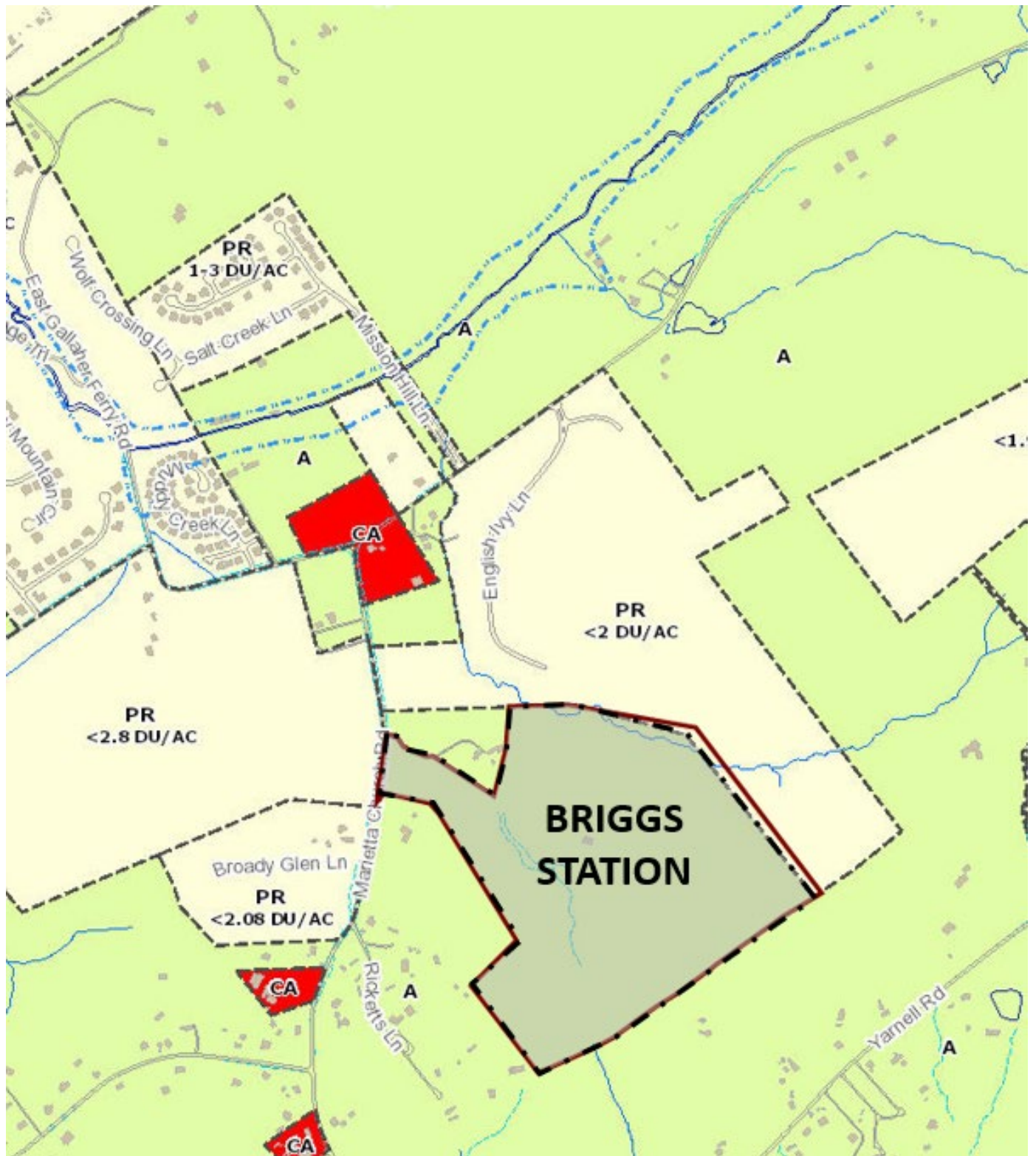


Figure 1

VICINITY MAP

Briggs Station

SITE

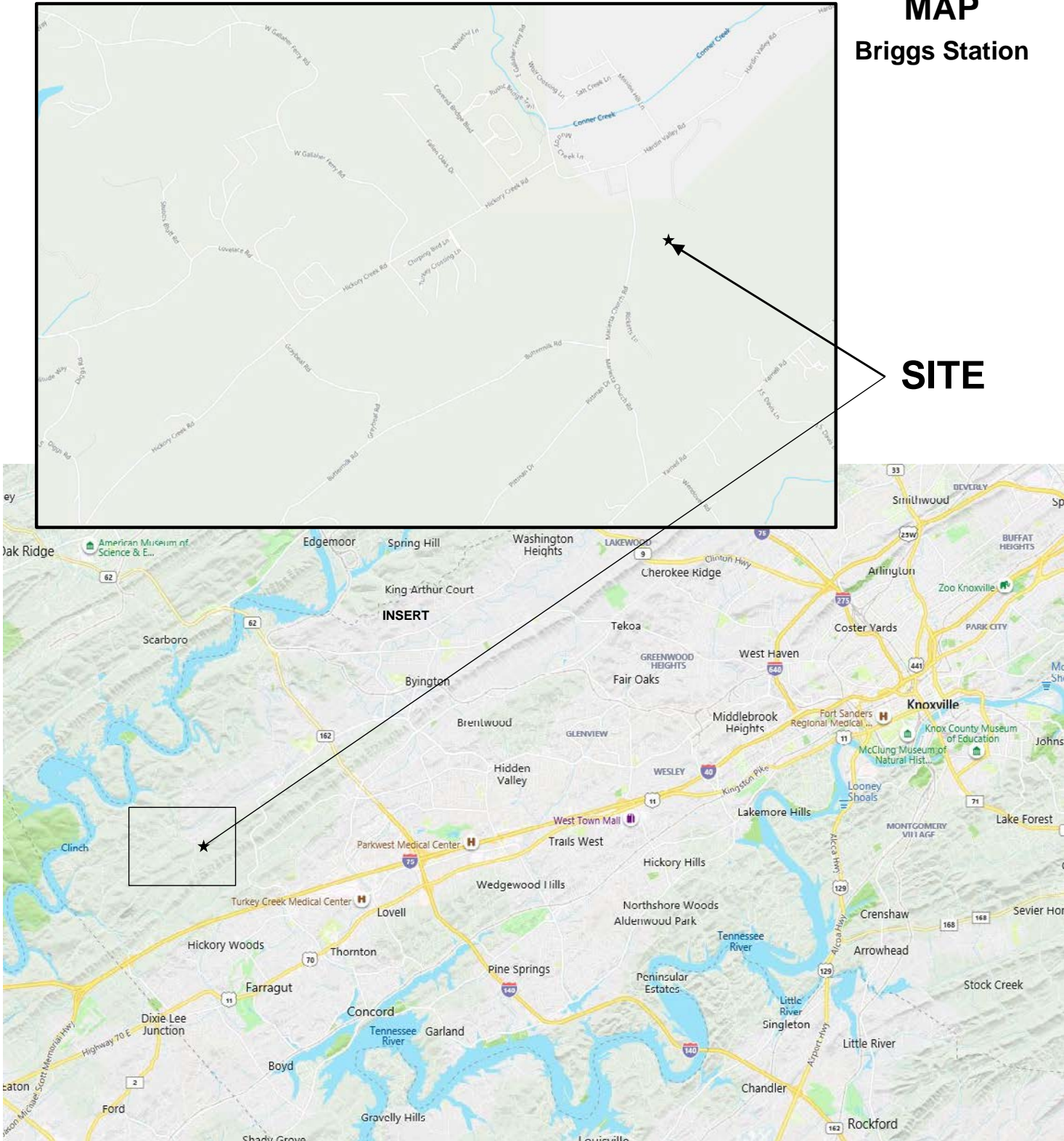


Figure 2

2019 TRAFFIC Briggs Station



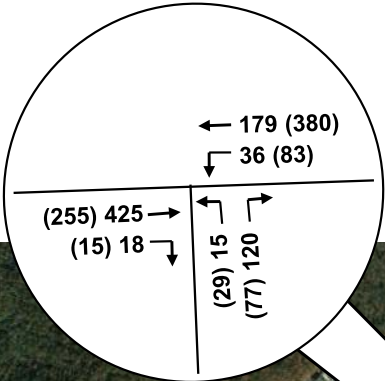
LEGEND

XXX AM PEAK
(XXX) PM PEAK



Figure 3

2021 TRAFFIC Briggs Station

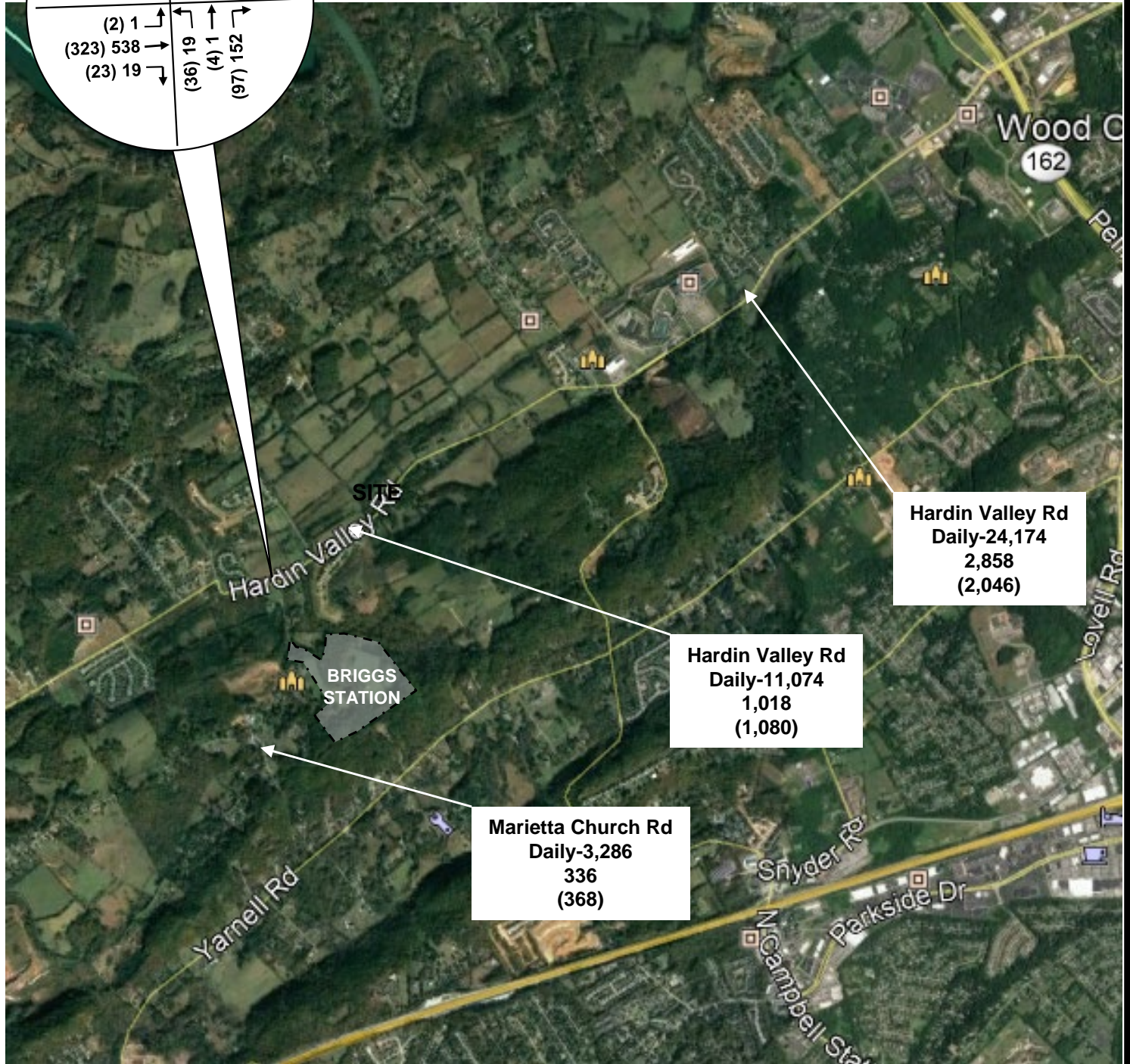
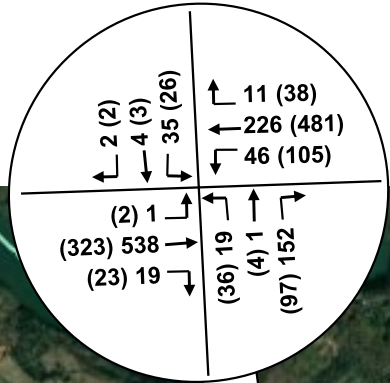


LEGEND
 XXX AM PEAK
 (XXX) PM PEAK



Figure 4

2025 BACKGROUND TRAFFIC Briggs Station



LEGEND

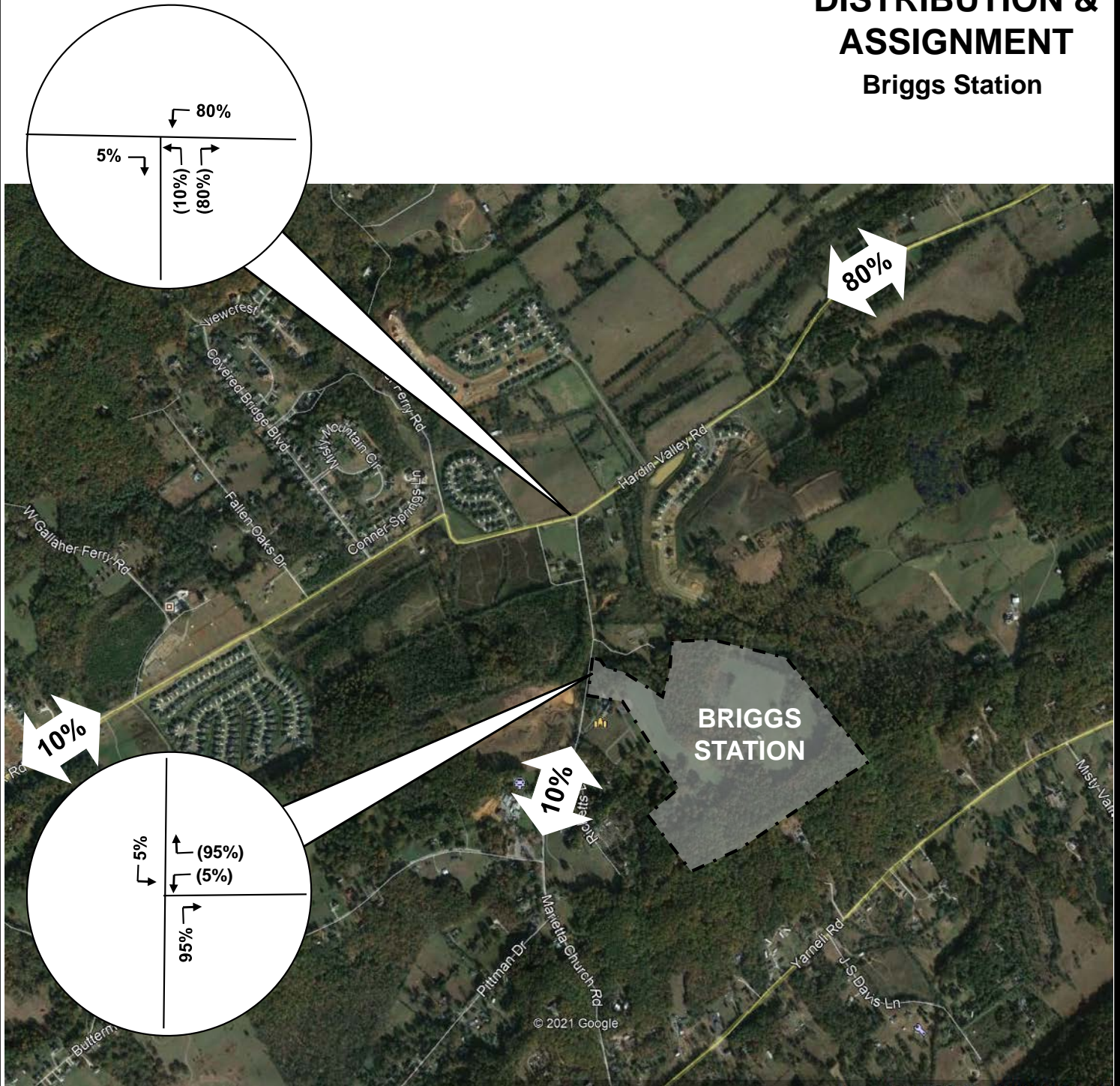
XXX AM PEAK
(XXX) PM PEAK



Figure 5

TRIP DISTRIBUTION & ASSIGNMENT

Briggs Station



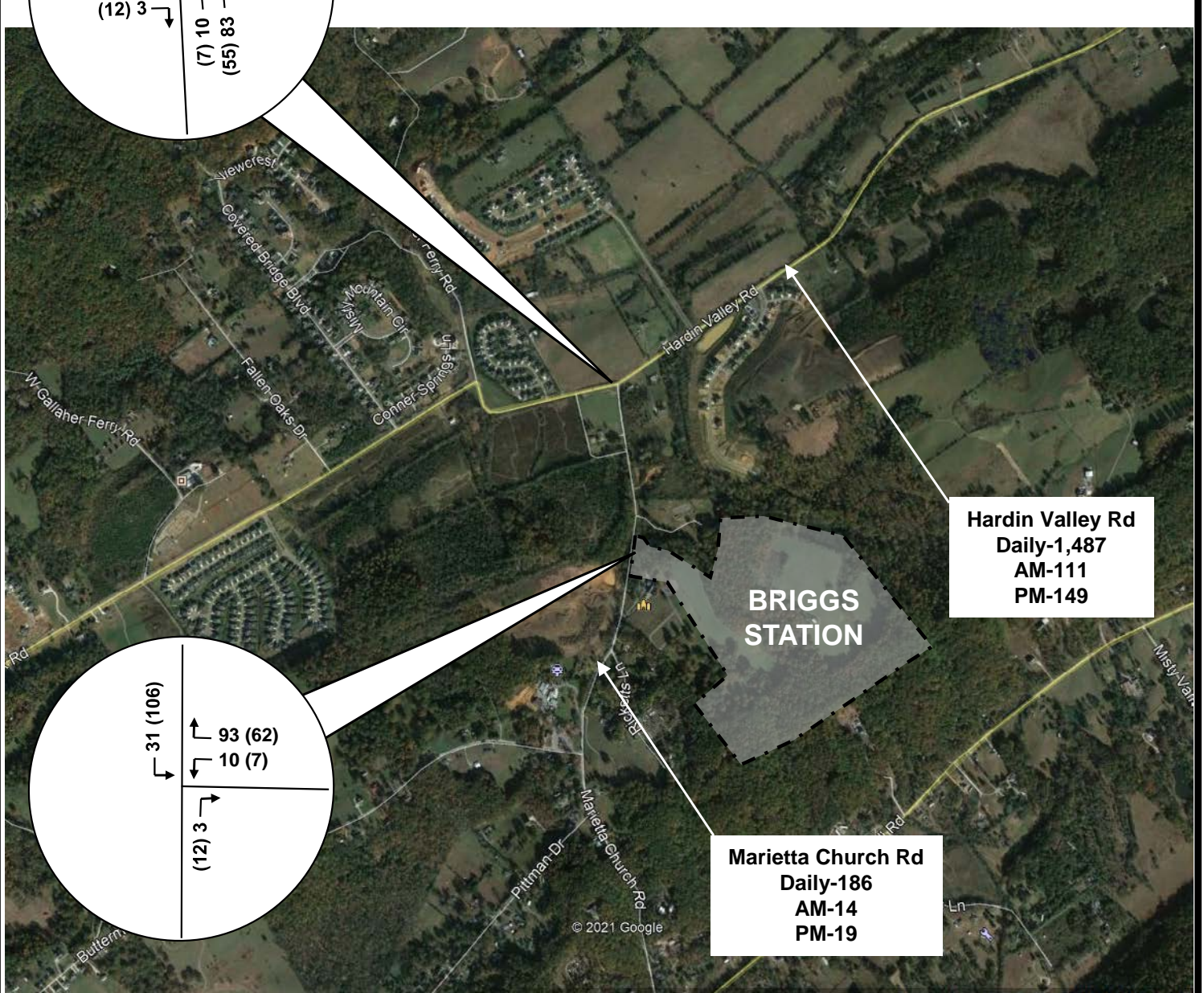
LEGEND
 XX% Entering Trips
 (XX%) Exiting Trips



Figure 6

SITE TRIPS

Briggs Station

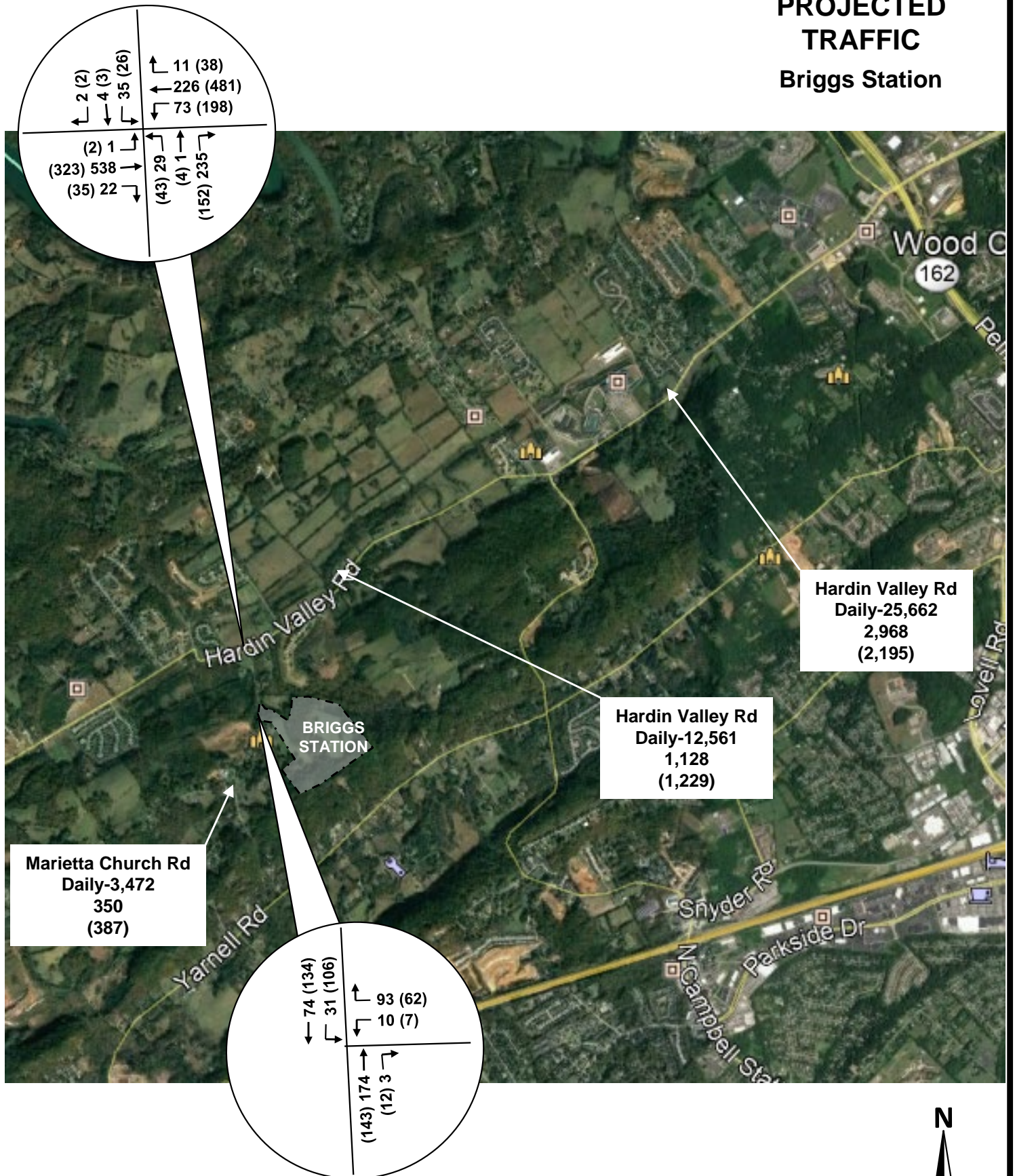


LEGEND
 XXX AM PEAK
 (XXX) PM PEAK



Figure 7

2025 PROJECTED TRAFFIC Briggs Station



LEGEND

XXX AM PEAK
(XXX) PM PEAK



Figure 8

**2019 EXISTING
LEVELS OF SERVICE
Briggs Station**



Figure 9A

2025
BACKGROUND
LEVELS OF SERVICE
Briggs Station

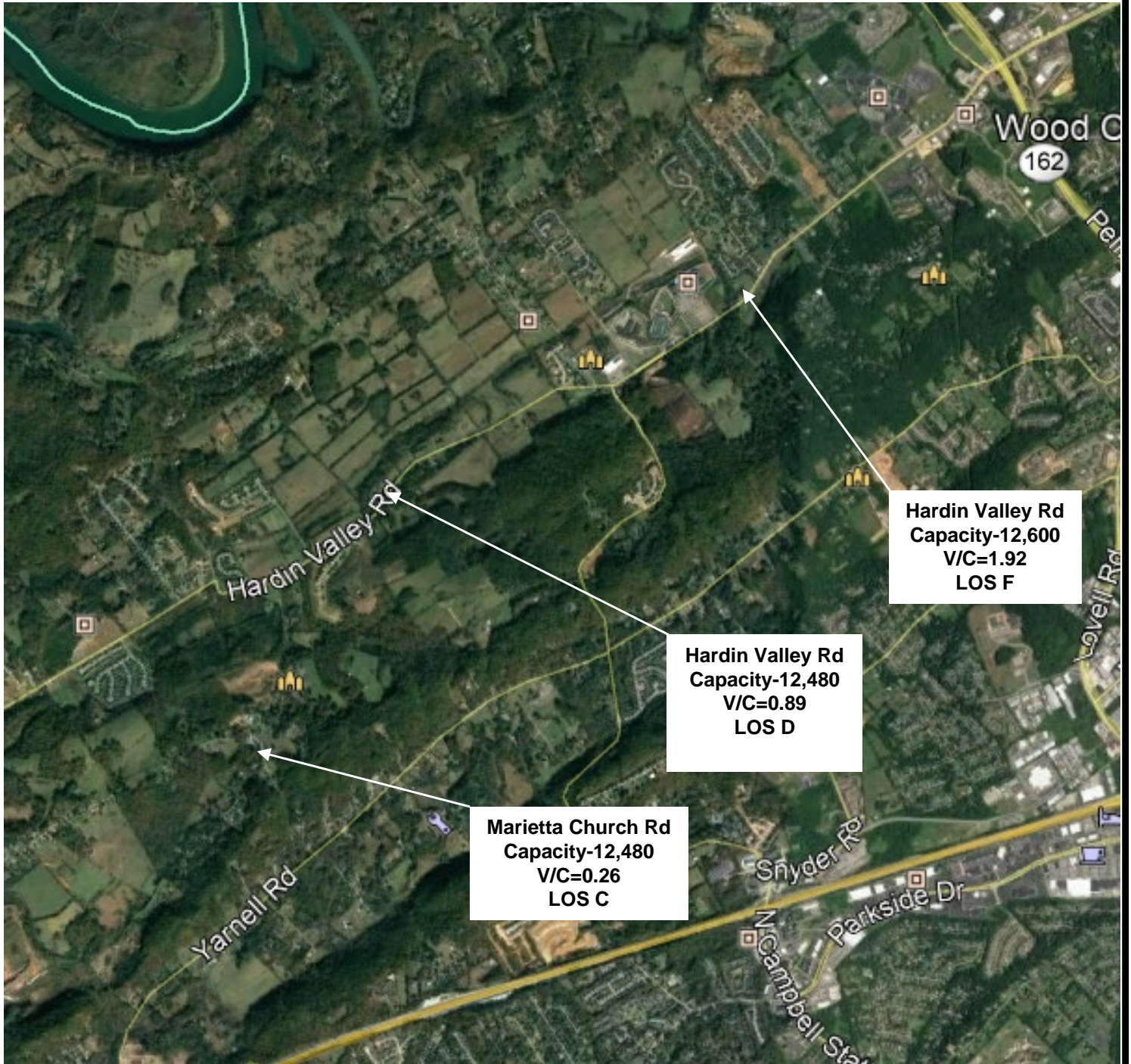


Figure 9B

2025
PROJECTED
LEVELS OF SERVICE
Briggs Station



X% Briggs Station Traffic Percentage



Figure 9C

**TABLE 4 - 1
GENERALIZED ANNUAL AVERAGE DAILY VOLUMES FOR FLORIDA'S
URBANIZED AREAS***

UNINTERRUPTED FLOW HIGHWAYS						FREEWAYS					
Level of Service						Interchange spacing \geq 2 mi. apart					
Lanes Divided	A	B	C	D	E	Lanes	A	B	C	D	E
2 Undivided	2,000	7,000	13,800	19,600	27,000	4	23,800	39,600	55,200	67,100	74,600
4 Divided	20,400	33,000	47,800	61,800	70,200	6	36,900	61,100	85,300	103,600	115,300
6 Divided	30,500	49,500	71,600	92,700	105,400	8	49,900	82,700	115,300	140,200	156,000
STATE TWO-WAY ARTERIALS						Interchange spacing $<$ 2 mi. apart					
Class I (>0.00 to 1.99 signalized intersections per mile)						Level of Service					
Lanes Divided	A	B	C	D	E	Lanes	A	B	C	D	E
2 Undivided	**	4,200	13,800	16,400	16,900	4	22,000	36,000	52,000	67,200	76,500
4 Divided	4,800	29,300	34,700	35,700	***	6	34,800	56,500	81,700	105,800	120,200
6 Divided	7,300	44,700	52,100	53,500	***	8	47,500	77,000	111,400	144,300	163,900
8 Divided	9,400	58,000	66,100	67,800	***	10	60,200	97,500	141,200	182,600	207,600
Class II (2.00 to 4.50 signalized intersections per mile)						Level of Service					
Lanes Divided	A	B	C	D	E	Lanes	A	B	C	D	E
2 Undivided	**	1,900	11,200	15,400	16,300	4	22,000	36,000	52,000	67,200	76,500
4 Divided	**	4,100	26,000	32,700	34,500	6	34,800	56,500	81,700	105,800	120,200
6 Divided	**	6,500	40,300	49,200	51,800	8	47,500	77,000	111,400	144,300	163,900
8 Divided	**	8,500	53,300	63,800	67,000	10	60,200	97,500	141,200	182,600	207,600
Class III (more than 4.5 signalized intersections per mile and not within primary city central business district of an urbanized area over 750,000)						Level of Service					
Lanes Divided	A	B	C	D	E	Lanes	A	B	C	D	E
2 Undivided	**	**	5,300	12,600	15,500	4	**	**	3,200	13,800	>13,800
4 Divided	**	**	12,400	28,900	32,800	50-84%	**	2,500	4,100	>4,100	***
6 Divided	**	**	19,500	44,700	49,300	85-100%	3,100	7,200	>7,200	***	***
8 Divided	**	**	25,800	58,700	63,800						
Class IV (more than 4.5 signalized intersections per mile and within primary city central business district of an urbanized area over 750,000)						BICYCLE MODE					
Lanes Divided	A	B	C	D	E	(Note: Level of service for the bicycle mode in this table is based on roadway geometrics at 40 mph posted speed and traffic conditions, not number of bicyclists using the facility.) (Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)					
2 Undivided	**	**	5,200	13,700	15,000	Paved Shoulder/ Bicycle Lane					
4 Divided	**	**	12,300	30,300	31,700	Coverage	A	B	C	D	E
6 Divided	**	**	19,100	45,800	47,600	0-49%	**	**	3,200	13,800	>13,800
8 Divided	**	**	25,900	59,900	62,200	50-84%	**	2,500	4,100	>4,100	***
						85-100%	3,100	7,200	>7,200	***	***
						PEDESTRIAN MODE					
						(Note: Level of service for the pedestrian mode in this table is based on roadway geometrics at 40 mph posted speed and traffic conditions, not number of pedestrians using the facility.) (Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)					
						Level of Service					
						Sidewalk Coverage	A	B	C	D	E
						0-49%	**	**	**	6,400	15,500
						50-84%	**	**	**	9,900	19,000
						85-100%	**	2,200	11,300	>11,300	***
						BUS MODE (Scheduled Fixed Route)					
						(Buses per hour)					
						(Note: Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.)					
						Level of Service					
						Sidewalk Coverage	A	B	C	D	E
						0-84%	**	>5	\geq 4	\geq 3	\geq 2
						85-100%	>6	>4	\geq 3	\geq 2	\geq 1
						ARTERIAL/NON-STATE ROADWAY ADJUSTMENTS					
						DIVIDED/UNDIVIDED					
						(alter corresponding volume by the indicated percent)					
						Lanes	Median	Left Turn Lanes	Adjustment Factors		
						2	Divided	Yes	+5%		
						2	Undivided	No	-20%		
						Multi	Undivided	Yes	-5%		
						Multi	Undivided	No	-25%		
						ONE-WAY FACILITIES					
						Decrease corresponding two-directional volumes in this table by 40% to obtain the equivalent one directional volume for one-way facilities.					
Source: Florida Department of Transportation Systems Planning Office 605 Suwannee Street, MS 19 Tallahassee, FL 32399-0450 http://www11.myflorida.com/planning/systems/sm/los/default.htm						02/22/02					

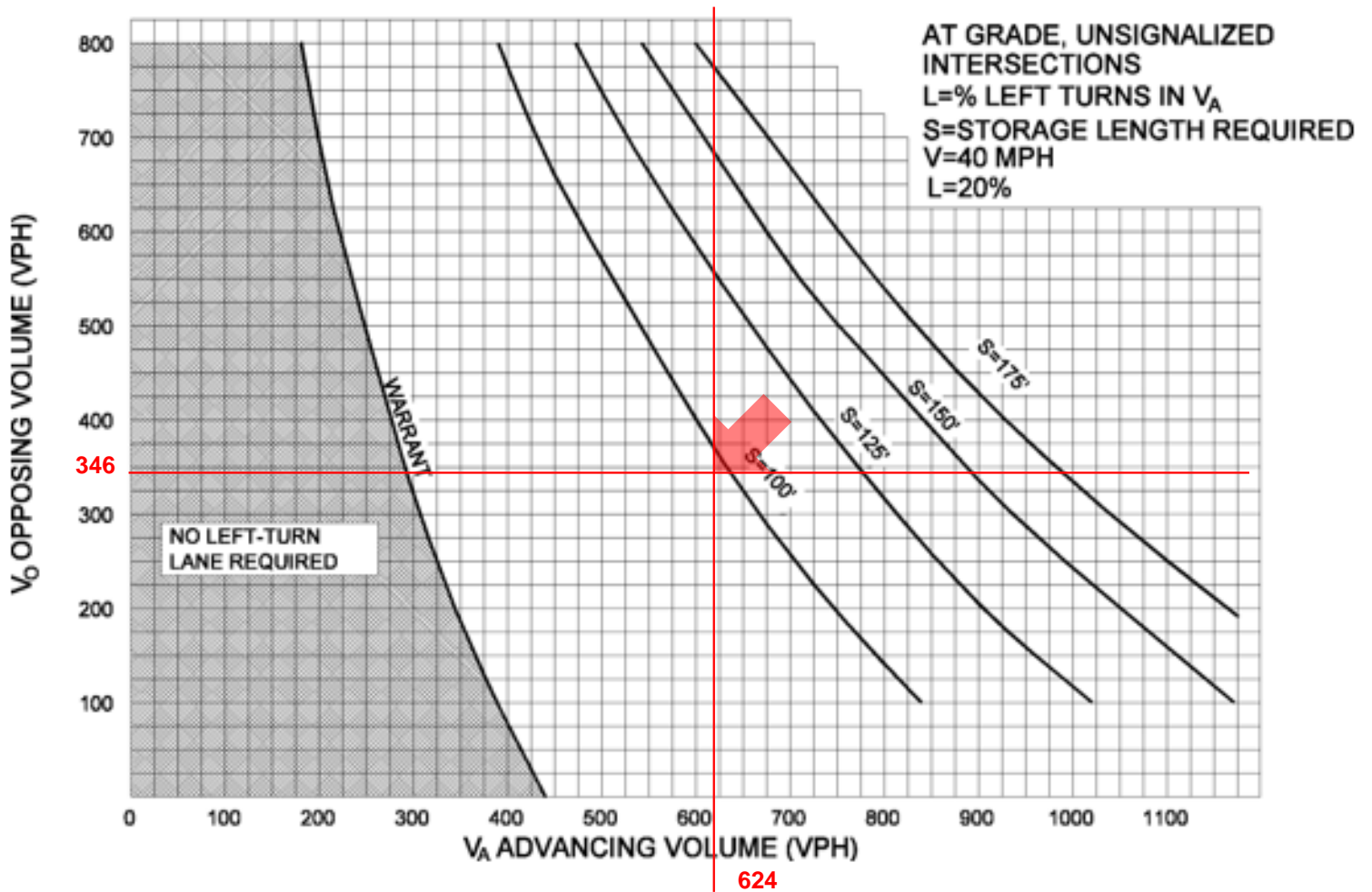
*This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Values shown are two-way annual average daily volumes (based on K_{100} factors) for levels of service and are for the automobile/truck modes unless specifically stated. Level of service letter grade thresholds are probably not comparable across modes and, therefore, cross modal comparisons should be made with caution. Furthermore, combining levels of service of different modes into one overall roadway level of service is not recommended. The table's input value defaults and level of service criteria appear on the following page. Calculations are based on planning applications of the Highway Capacity Manual, Bicycle LOS Model, Pedestrian LOS Model and Transit Capacity and Quality of Service Manual, respectively for the automobile/truck, bicycle, pedestrian and bus modes.

**Cannot be achieved using table input value defaults.

***Not applicable for that level of service letter grade. For automobile/truck modes, volumes greater than level of service D become F because intersection capacities have been reached. For bicycle and pedestrian modes, the level of service letter grade (including F) is not achievable, because there is no maximum vehicle volume threshold using table input value defaults.

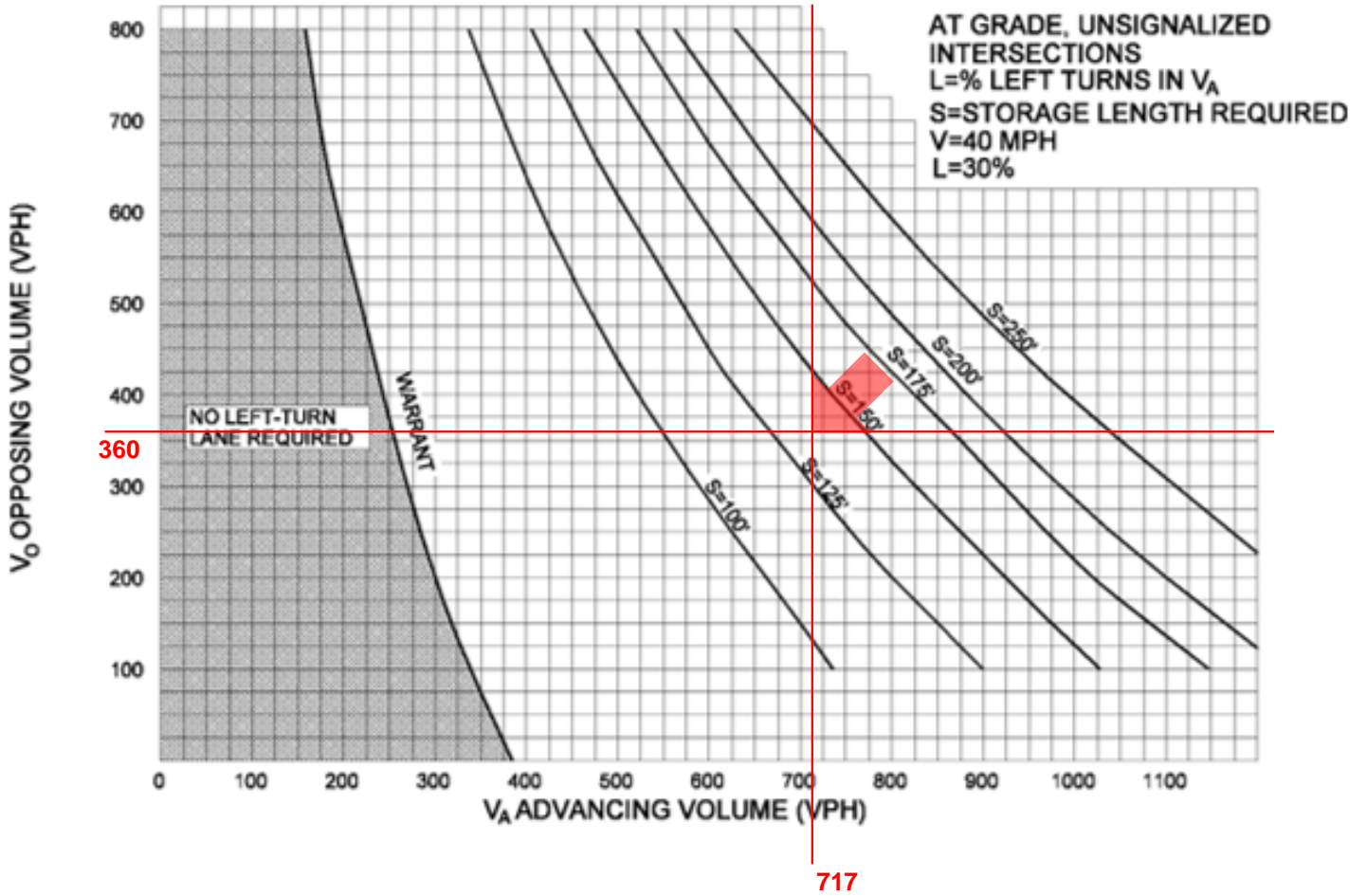
HARDIN VALLEY ROAD LEFT-TURN LANE FOR THE WESTBOUND APPROACH TO MARIETTA CHURCH ROAD

(2025 Background Traffic)



HARDIN VALLEY ROAD LEFT-TURN LANE FOR THE WESTBOUND APPROACH TO MARIETTA CHURCH ROAD

(2025 Traffic Projections)





Development Request

DEVELOPMENT

- Development Plan
- Planned Development
- Use on Review / Special Use
- Hillside Protection COA

SUBDIVISION

- Concept Plan
- Final Plat

ZONING

- Plan Amendment
 - SP OYP
- Rezoning

Robyn Askew, Trustee for Option Holder

Atty/Trustee - Option Holder

Applicant Name

Affiliation

04/26/2021

06/10/2021

File Number(s)

Date Filed

Meeting Date (if applicable)

6-E-21-RZ

6-B-21-SP

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

Robyn Askew, Trustee for Option Holder

Lewis Thomason, PC

Name

Company

620 Market Street, 5th Floor

Knoxville

TN

37902

Address

City

State

ZIP

865-546-4646

RAskew@LewisThomason.com

Phone

Email

CURRENT PROPERTY INFO

Richard & Stephanie Briggs Trust

2235 Breakwater Dr, Knoxville, TN 37934

Owner Name (if different)

Owner Address

Owner Phone

1928 Marietta Church Rd

129 128

Property Address

Parcel ID

WKUD

WKUD

N

Sewer Provider

Water Provider

Septic (Y/N)

STAFF USE ONLY

East side of Marietta Church Rd., northeast of intersection of Buttermilk Rd., 94.12 acres
 General Location South of Hardin Valley Rd. Tract Size

City County District 6th Zoning District A Ag For Vacant Existing Land Use

Northwest County Planning Sector AG / HP Sector Plan Land Use Classification Rural Growth Growth Policy Plan Designation

DEVELOPMENT REQUEST

- Development Plan
 Use on Review / Special Use
 Hillside Protection COA
 Residential
 Non-Residential

Home Occupation (specify) _____

Other (specify) _____

Related City Permit Number(s)

SUBDIVISION REQUEST

Proposed Subdivision Name _____

Unit / Phase Number _____

- Combine Parcels
 Divide Parcel

Total Number of Lots Created _____

Other (specify) _____

Attachments / Additional Requirements _____

Related Rezoning File Number

ZONING REQUEST

Zoning Change **PR**
 Proposed Zoning _____

Plan Amendment Change **LDR**
 Proposed Plan Designation(s) _____

Pending Plat File Number

2 DU/Acre

Proposed Density (units/acre) _____

Previous Rezoning Requests _____

Other (specify) _____

STAFF USE ONLY

PLAT TYPE

- Staff Review
 Planning Commission

ATTACHMENTS

- Property Owners / Option Holders
 Variance Request

ADDITIONAL REQUIREMENTS

- Design Plan Certification (*Final Plat*)
 Use on Review / Special Use (*Concept Plan*)
 Traffic Impact Study
 COA Checklist (*Hillside Protection*)

Fee 1		Total
0325	5000.00	
Fee 2		
0527	800.00	
Fee 3		
		\$5800.00

AUTHORIZATION

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

Robyn Askew, Trustee
Applicant Signature

Robyn Askew, Trustee for Option Holder

04/26/2021

Please Print

Date

865-546-4646

RAskew@LewisThomason.com

Phone Number

Email

Sherry Michienzi
Staff Signature

Sherry Michienzi

4/26/2021 swm

Please Print

Date