Town of Thompson's Station
Municipal Planning Commission
Meeting Agenda
January 28, 2020

Meeting Called To Order

Pledge Of Allegiance

Minutes-

Consideration Of The Minutes Of The November 19, 2019 Meeting

Documents:

NOVEMBER 2019 MINUTES.PDF

Public Comments-

Town Planner Report

New Business:

1. Preliminary Plat For The Creation Of 69 Single Family Lots, Five Open Space Lots, A Pump Station Lot And The Removal Of 18 Trees Totaling 455 Inches Of Trees (PP-2020-001).

Documents:

ITEM 1 AVENUE DOWNS PC STAFF REPORT.PDF
ITEM 1 AVENUE DOWNS PRELIMINARY PLAT.PDF
ITEM 1 - AVENUE DOWNS TRAFFIC STUDY 7132018.PDF

2. Surety Reduction Request – Bridgemore Village, Section 6C

Documents:

ITEM 2 BRIDGEMORE VILLAGE 6C SURETY REDUCTION STAFF REPORT.PDF
ITEM 2 - BV SURETY REDUCTION REQUEST 6C_6D.PDF
ITEM 2 BRIDGEMORE VILLAGE 6C BOND REDUCTION CLIFTON.PDF

3. Surety Reduction Request – Bridgemore Village, Section 6D

Documents:

ITEM 3 BRIDGEMORE VILLAGE 6D SURETY REDUCTION STAFF REPORT.PDF
ITEM 3 BRIDGEMORE VILLAGE 6D BOND REDUCTION CLIFTON.PDF

4. Rezone For 1786 Through 1910 Lewisburg Pike (REZONE 2020-001)

Documents:

ITEM 4 STAFF REPORT THE CROSSROAD AT PLEASANT CREEK REZONE.PDF
ITEM 4 REZONE LETTER FROM APPLICANT.PDF

Adjourn

This meeting will be held at 7:00 p.m. at the Thompson's Station Community Center
1555 Thompson's Station Rd West

Minutes of the Meeting
of the Municipal Planning Commission
of the Town of Thompson 's Station, Tennessee
November 19, 2019

Call to Order:
The meeting of the Municipal Planning Commission of the Town of Thompson's Station was called to order at 7:00 p.m. on 19th day of November 2019 at the Thompson's Station Community Center with the required quorum. Members and staff in attendance were: Chairman Trent Harris; Alderman Shaun Alexander; Commissioner Luis Parra; Commissioner Tara Rumpler; Commissioner Sheila Shipman; Commissioner Kreis White; Commissioner Bob Whitmer; Town Planner Wendy Deats, Planning Technician Jennifer Jones; Interim Town Planner Micah Wood and Town Attorney Andrew Mills.

Pledge of Allegiance.

> **Alderman Alexander moved to add an agenda item, voting on members of a "Board of Appeals for Code Maintenance".**

Minutes:

The minutes of the October 22, 2019 regular meeting were presented.

> **Commissioner Whitmer made a motion to approve the October 22, 2019 meeting minutes. The motion was seconded and carried unanimously by all present.**

Public Comment:

None.

Town Planner Report:

> **Concept Plan – The development of a neighborhood consisting of 41 single-family lots on 225.64 acres located at 1780 Dean Road.**

Mrs. Deats reviewed her memo to the Planning Commission. Tim Turner with T-Square Engineering came forward to speak on behalf of the applicant and answer any questions. The commission had questions regarding the deviation of curb and gutter and asked the applicant to reconsider the deviation request.

Unfinished Business:

1. **Revision to the specific plan approval for the Roderick Place Specific Plan (CP 2019-002).**

Mrs. Deats reviewed her memo to the Planning Commission and recommends that the Planning Commission direct the applicant to make the necessary corrections to the planning documents and resubmit for the Board of Mayor and Aldermen. Staff also recommends that the Planning Commission recommends to the Board of Mayor and Aldermen to consider approval of the proposed amendment to the Roderick Place Specific Plan with the following contingencies:

1. The project density shall be three (3) units per acre based on the total land area for the residential uses with 45% open space.
2. The project shall maintain 50% open space within the commercial designated area.
3. The project shall include the roadway cross sections and street lighting accordance with the Land Development Ordinance.
4. The mitigation/recommendations for traffic improvements shall be incorporated into the traffic study and shall be incorporated into the project.
5. A tree inventory and replacement plan shall be developed and considered during plat review before the Planning Commission.
6. All future plats and site plans shall conform to the general regulations set forth within the approved pattern book and all applicable standards with the Land Development Ordinance.

Michal Ray, civil engineer for the project, and Bob Murphy, traffic engineer for the project, came forward to speak and answer questions on behalf of the applicant, Samson J/V.

After discussion, the commission wanted to add that the project shall include the ST 50-26 for the local roadway and ST 60-36 for the collector roadway and street lighting in accordance with the Land Development Ordinance. The developer, Jay Franks with Samson J/V acknowledged agreement to all 6 contingencies.

After discussion, Commissioner Whitmer made a motion to recommend up to BOMA for consideration with the following contingencies:

1. **The project density shall be three (3) units per acre based on the total land area for the residential uses with 45% open space.**
2. **The project shall maintain 50% open space within the commercial designated area.**
3. **The project shall include the ST 50-26 for the local roadway and ST 60 -36 for the collector roadway and street lighting accordance with the Land Development Ordinance.**
4. **The mitigation/recommendations for traffic improvements shall be incorporated into the traffic study and shall be incorporated into the project.**
5. **A tree inventory and replacement plan shall be developed and considered during plat review before the Planning Commission.**
6. **All future plats and site plans shall conform to the general regulations set forth within the approved pattern book and all applicable standards with the Land Development Ordinance.**

Plus, additionally clean up documents for re-submittal. The motion was seconded and carried by all.

New Business:

2. **Site plan for the development of a gas station/market along the west side of Columbia Pike (SP 2019-005).**

Mrs. Deats reviewed her staff report and Based on the lack of compliance with the standards set forth in the Land Development Ordinance, specifically Table 4.4 – maximum driveway width and Section 4.11.5 – Automotive Uses in addition to the lack of adequate utilities (wastewater management) as required by LDO, Staff recommends a denial of this site plan request.

Drew Cunningham and Kelly Hiett came forward on behalf of the applicant to request a deferral.

After discussion, Commissioner White made a motion to deny the request to defer, and to deny the project due to lack of utilities. The motion was seconded and carried by a vote of 6 to 1 with Commissioner Perra casting the dissenting vote.

3. **Board of Appeals for Code Maintenance**

Alderman Alexander, Commissioner Shipman and Commissioner White volunteered to be on the Board of Appeals.

There being no further business, the meeting was adjourned at 9:04 p.m.

_____
Trent Harris, Chairman

Attest:

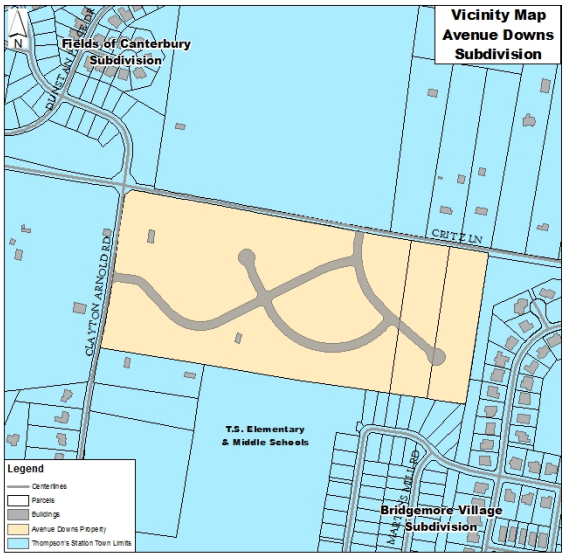
_____
Shaun Alexander, Secretary

Thompson's Station Planning Commission
Staff Report – Item 1 (PP 2020-01)
January 28, 2020

Avenue Downs Preliminary Plat for the creation of 69 single family lots, five open space lots, and a pump station lot.

PROJECT DESCRIPTION

Ragan Smith & Associates, on behalf of Amber Lane Development, submitted a request for a preliminary plat for a two-phase project which will include 69 single family lots, a pump station lot and open space lots. The plat also includes the removal of 18 trees for a total of 455 inches.



ANALYSIS

Land Use/Density

The development is located within the D2 – Medium Intensity zoning district which permits one and a half units an acre and permits housing options that include single-family. This project includes 69 single family lots on 46.4 acres for a density of one and a half units per acre.

Lot Width and Setbacks

The single family lots will vary in size from .21 acres to .40 acres with lot widths greater than 65 feet. The proposed setbacks are 20 feet for the front and rear yard setbacks and 10 feet for the side yard setback. Therefore, the lot widths and setbacks comply with Land Development Ordinance (LDO).

Roadways

The standard for local roadways is 50 feet. Three new roads are proposed and will have a 50-foot right-of-way with a five-foot sidewalk and a five-foot landscape strip between the sidewalk and the road is required. Otterham Drive will connect to Clayton Arnold Road, Arundel Lane is an internal roadway, Cain Terrace is an internal cul-de-sac and Avenue Downs will connect to Critz Lane. Streetlights will be located in the landscape strip between the sidewalk and the roadway. Critz Lane is currently in design for improvements and there is a slight elevation change at the connection of Road C. However, the developer is working on an agreement with the Town and Encompass Land

Group for the completion of these improvements. Should this agreement be reached this issue would not be applicable. If an agreement is not reached and the construction of the site moves forward, Staff would recommend that the developer coordinate with the Town during the construction to ensure no conflicts occur between the construction of the proposed road and the improvements to Critz Lane.

Open Space/Amenities
The minimum open space requirement is 45%. Five open space lots are proposed for a total of approximately 25 acres or 54% of the project site. Therefore, the project is consistent with the LDO.

The LDO requires that neighborhoods with greater than 50 lots shall incorporate one of the following amenities: children's playground, swimming pool with amenities center, passive recreation areas, and trails throughout the open space where feasible. The developer is proposing a trail network through the site and a sidewalk along Clayton Arnold Road to provide amenity and access to the Town's future pedestrian paths and neighboring school. Therefore, the project is consistent with the LDO.

Trees
Development of site, as proposed, will result in the removal of 18 trees for a total of 455 inches. The LDO requires the replacement of trees 18 inches and greater at a ratio of one and a half inches for every inch removed. Therefore, 682.5 inches of trees are required to be replaced within the development. A landscape plan was submitted, and the developer proposes to install/plant 342 trees for a total of 684 inches of replacement trees. The proposed trees will include street trees along the proposed roads with the remaining trees within the open space area. This includes a buffer type 2 (broken screen) between the neighboring properties zoned D1 and the neighborhood zoned D2 as required by the LDO.

Traffic Study
A traffic study was submitted and reviewed by the Town's traffic engineer. A revised traffic study was submitted to the Town and has been reviewed by the traffic engineer. The traffic engineer is recommending acceptance of the traffic study with its recommendations. All recommended mitigation shall be incorporated into the development agreement.

In addition, as the mitigation and improvements relate to Critz Lane, on July 10, 2018, the Planning Commission held a work session to discuss improvements to Critz Lane in conjunction with the plat submittals for The Fields of Canterbury and Avenue Downs. During the work session, the Commission expressed concerns over permitting any plats along the Critz corridor given the need for the improvements to Critz Lane. The developers of The Fields of Canterbury and Avenue Downs indicated that they would like to develop an agreement with the Town to pursue the roadway improvements and are working on the agreement to present to the Town for review.

On November 12, 2019 the Board of Mayor and Aldermen approved a participation agreement for the Town and the developers of The Fields of Canterbury and Avenue Downs for the improvements related to Critz Lane.

Utilities
As part of the process for the participation agreement, the Town approved a sewer agreement in order to allow the 69 taps required for this development. The sewer agreement was approved by the

BOMA at the November 12th meeting. Therefore, the project does conform LDO in terms of sewerage.

RECOMMENDATION

Per approved participation agreement, sewer agreement and consistency with the Land Development Ordinance, Staff recommends approval with the following contingencies:

1. Prior to the approval of construction plans, the developer shall enter into a development agreement for the project.
2. Prior to the approval of construction plans, the developer shall obtain any necessary permits through the Tennessee Department of Environment and Conservation.
3. Prior to the approval of construction plans, all applicable codes and regulations shall be addressed to the satisfaction of the Town Engineer. Any corrections or issues with the drawings related to regulations may be subject to further Planning Commission review.
4. Any signage proposed for the subdivision shall comply requirements set forth within the Land Development Ordinance and shall be located within the open space and maintained by the homeowner's association.
5. Streetlights shall be incorporated in accordance with the Land Development Ordinance and shall be documented on the construction drawings.
6. All recommendations within the geotechnical report shall be adhered to during construction activities. Any new information or features not identified shall be subject to the review by a geotechnical engineer.
7. All recommendations within the traffic study shall be completed.
8. Any change of use or expansion of the project site shall conform to the requirements set forth within the Land Development Ordinance and shall be approved prior to the implementation of any changes to the project.

ATTACHMENTS
Preliminary Plat
Landscape Plan
Traffic Study (7/13/2018)

GENERAL NOTES

1. THE PURPOSE OF THIS PLAT IS TO CREATE 69 SINGLE FAMILY LOTS, A PUMP STATION LOT, OPEN SPACE TRACTS, AND DEDICATE PUBLIC RIGHT OF WAY.

2. BEARINGS SHOWN HEREON ARE BASED ON THE TENNESSEE STATE PLANE COORDINATE SYSTEM (NAD 1983). GPS EQUIPMENT WAS USED TO DETERMINE THE POSITION OF TWO CONTROL POINTS ON THE SURVEYED PROPERTY IN ORDER TO ESTABLISH THE BEARING BASE FOR THE SURVEY. TYPE EQUIPMENT USED: LEICA, MODEL GX1230, DUAL FREQUENCY RECEIVER. THE TYPE OF GPS SURVEY: NETWORK ADJUSTED REAL TIME KINEMATIC. THE RELATIVE POSITIONAL ACCURACY IS 0.05'.

3. THE PROPERTY IS ZONED D2 (MEDIUM DENSITY RESIDENTIAL).
MAXIMUM LOT COVERAGE (SINGLE FAMILY) – 55%.
MINIMUM BUILDING SETBACKS:
FRONT – 20'
SIDE – 10'
REAR – 20

4. BY SCALED MAP LOCATION AND GRAPHIC PLOTTING ONLY, THIS PROPERTY LIES WITHIN FLOOD ZONE "X" (OTHER AREAS), AS DESIGNATED ON CURRENT FEDERAL EMERGENCY MANAGEMENT AGENCY MAP NOS. 47187C0345F AND 47187C0365F WITH AN EFFECTIVE DATE OF SEPTEMBER 29, 2006, WHICH MAKES UP A PART OF THE NATIONAL FLOOD INSURANCE ADMINISTRATION REPORT; COMMUNITY NO. 470424, PANEL NOS. 0345 AND 0365, SUFFIX F, WHICH IS THE CURRENT FLOOD INSURANCE RATE MAP FOR THE COMMUNITY IN WHICH SAID PREMISES IS SITUATED. SAID MAP DEFINES ZONE "X" (OTHER AREAS) UNDER "OTHER AREAS" AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

5. THIS SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. ABOVE GRADE AND UNDERGROUND UTILITIES SHOWN WERE TAKEN FROM VISIBLE APPURTENANCES, PUBLIC RECORDS, AND/OR MAPS PREPARED BY OTHERS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. THEREFORE, RELIANCE UPON THE TYPE, SIZE AND LOCATION OF UTILITIES SHOWN SHOULD BE DONE SO WITH THIS CIRCUMSTANCE CONSIDERED. DETAILED VERIFICATION OF EXISTENCE, LOCATION AND DEPTH SHOULD ALSO BE MADE PRIOR TO ANY DECISION RELATIVE THERETO IS MADE. AVAILABILITY AND COST OF SERVICE SHOULD BE CONFIRMED WITH THE APPROPRIATE UTILITY COMPANY. IN TENNESSEE, IT IS A REQUIREMENT, PER "THE UNDERGROUND UTILITY DAMAGE PREVENTION ACT", THAT ANYONE WHO ENGAGES IN EXCAVATION MUST NOTIFY ALL KNOWN UNDERGROUND UTILITY OWNERS NO LESS THAN THREE (3) NOR MORE THAN TEN (10) WORKING DAYS PRIOR TO THE DATE OF THEIR INTENT TO EXCAVATE AND ALSO TO AVOID ANY POSSIBLE HAZARD OR CONFLICT. TENNESSEE ONE CALL, DIAL 811.

6. SANITARY SEWER LINES AND STORM LINES SHOWN HEREON WERE TAKEN FROM A PRELIMINARY DESIGN. FINAL PLACEMENT OF UTILITIES WILL BE DEPICTED ON THE FINAL PLAT.

7. DOMESTIC WATER SUPPLY INFORMATION SHOWN HEREON IS BASED ON A PRELIMINARY DESIGN.

8. ALL PUBLIC STREETS AND DRAINAGE STRUCTURES WITHIN THE RIGHTS–OF–WAY WILL BE MAINTAINED BY THE TOWN OF THOMPSON'S STATION.

9. HOMEOWNER'S ASSOCIATION WILL BE RESPONSIBLE FOR LONG TERM OPERATION AND MAINTENANCE OF STORMWATER INFRASTRUCTURE LOCATED IN DRAINAGE EASEMENTS AND ALL OPEN SPACE, INCLUDING LANDSCAPE AND DETENTION/RETENTION AREAS.

10. ELEVATIONS SHOWN HEREON ARE BASED ON NAVD 88. CONTOURS ARE AT TWO FOOT INTERVALS AND ARE BASED ON A FIELD RUN SURVEY USING RANDOM SPOT ELEVATIONS. CONTOURS WERE DERIVED USING SURFACE MODELING TECHNIQUES.

11. LOTS SHOWN THUS (*) ARE DESIGNATED AS CRITICAL LOTS AND HAVE NATURAL SLOPES IN EXCESS OF 15%. PER SECTION 3–102.104 OF THE SUBDIVISION REGULATIONS, PRIOR TO THE ISSUANCE OF A BUILDING PERMIT, A SITE GRADING PLAN FOR DEVELOPMENT OF THE LOT SHALL BE SUBMITTED ADDRESSING SITE SPECIFIC NATURAL RESOURCE ISSUES TO THE TOWN OF THOMPSON'S STATION FOR REVIEW AND APPROVAL. NO BUILDING PERMIT WILL BE ISSUED ON SAID LOTS UNTIL AND UNLESS THE TOWN ENGINEER HAS RECEIVED AND APPROVED THE SITE PLAN.

12. I HEREBY STATE THAT THIS SURVEY WAS DONE IN COMPLIANCE WITH THE CURRENT TENNESSEE MINIMUM STANDARDS OF PRACTICE AND THIS IS A CATEGORY I SURVEY AND THE RATIO OF PRECISION OF THE UNADJUSTED SURVEY IS 1:15,715.

BY________________________ DATE: JANUARY 15, 2020
JOHN T. DARNALL, TN RLS #1571

13. ALL OPEN SPACE IS A PUBLIC UTILITY AND DRAINAGE EASEMENT.

14. STREET LIGHT LOCATIONS SHOWN HEREON ARE APPROXIMATE. FINAL LOCATION TO BE COORDINATED WITH MIDDLE TENNESSEE ELECTRIC MEMBERSHIP CORPORATION.

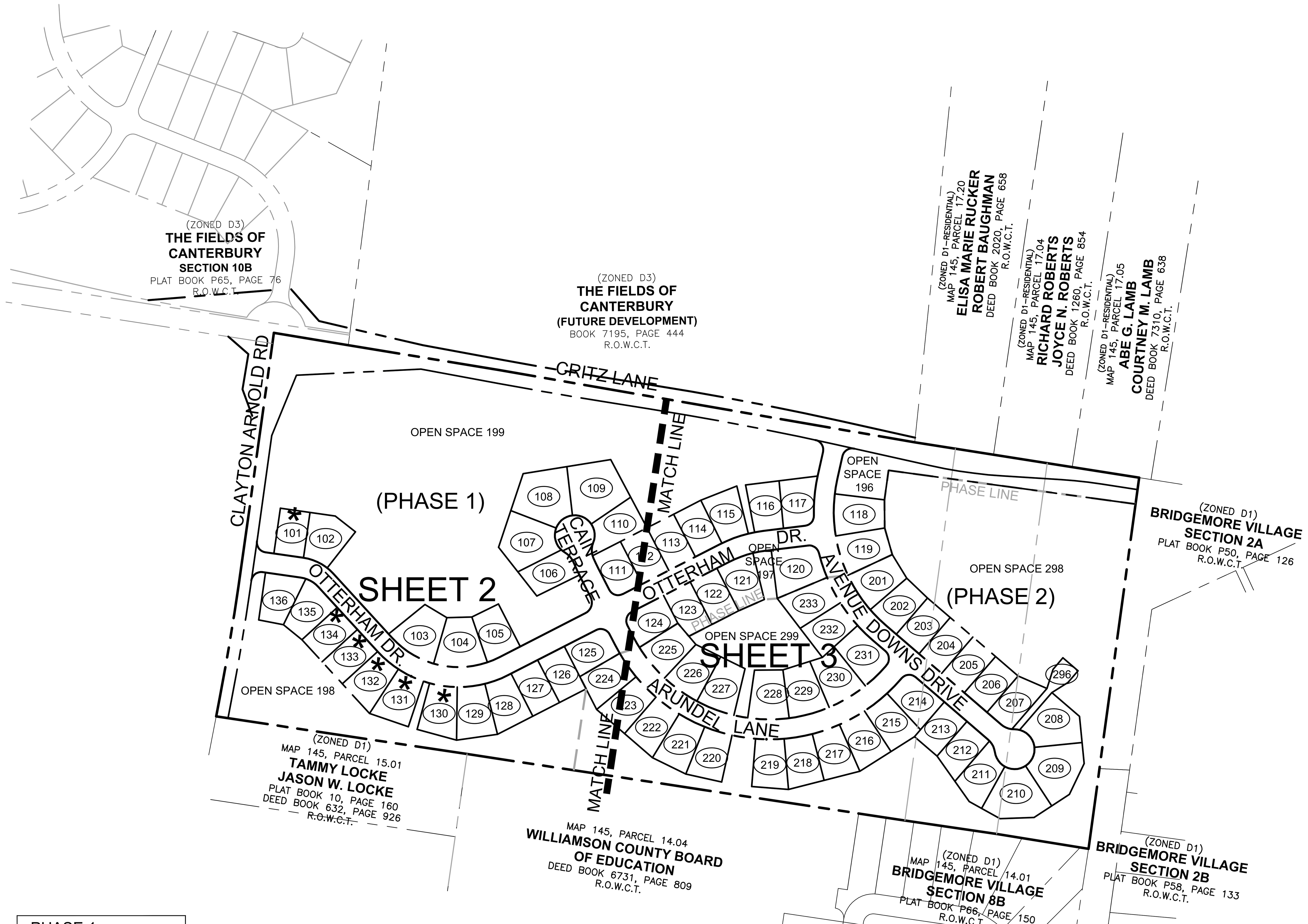
3. THE PROPOSED RIGHT OF WAY DEDICATION SHOWN HEREON WAS TAKEN FROM ROADWAY PLANS FOR CRITZ LANE IMPROVEMENTS PREPARED BY RAGAN–SMITH ASSOCIATES DATED JANUARY 14, 2018.

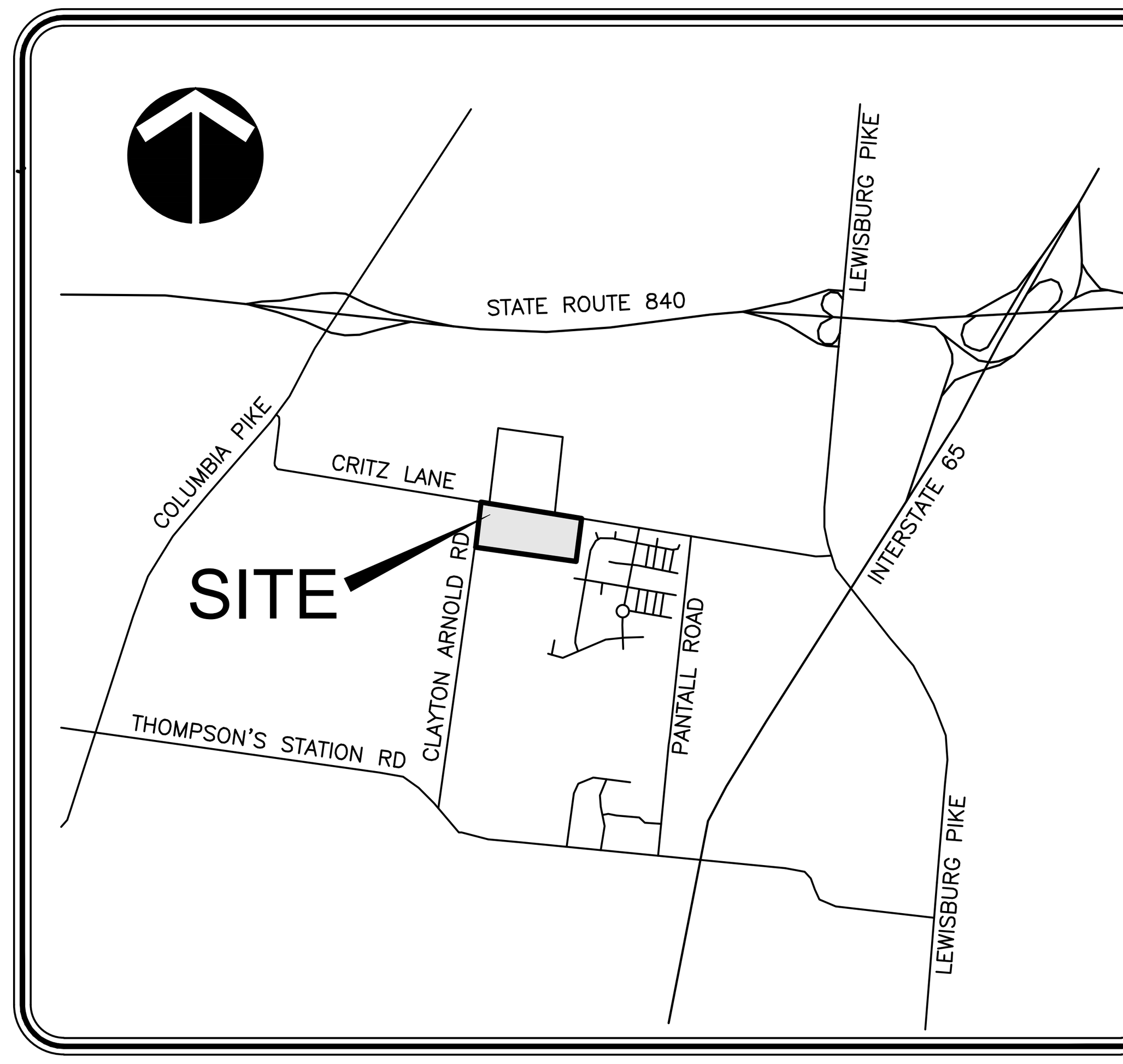
DEED REFERENCE

BEING THE SAME PROPERTY CONVEYED TO BYRD D. CAIN, JR. FROM AMBER LANE DEVELOPMENT, LLC BY WARRANTY DEED OF RECORD IN BOOK 7258, PAGE 303, REGISTER'S OFFICE FOR WILLIAMSON COUNTY, TENNESSEE.

PROPERTY MAP REFERENCE

BEING PARCEL NUMBERS 6.01, 6.02, AND 6.03 AS SHOWN ON WILLIAMSON COUNTY PROPERTY MAP NUMBER 145.





LOCATION MAP
N.T.S.

PHASE 1
LOTS 101–136
OPEN SPACE LOTS 197–199

PHASE 2
LOTS 201–233
OPEN SPACE LOTS 298–299
PUMP STATION LOT 296

SITE DATA TABLE (PH. 1 & 2)	
TOTAL LOT AREA	– 16.61 ACRES±
TOTAL OPEN SPACE AREA	– 24.21 ACRES±
PUMP STATION LOT 296	– 0.13 ACRES±
TOTAL CRITZ. LN AND CLAYTON ARNOLD RD. R.O.W. DEDICATION AREA	– 2.82 ACRES±
TOTAL INTERNAL R.O.W. AREA	– 4.45 ACRES±
TOTAL SITE AREA	– 48.22 ACRES±
TOTAL LINEAR FEET OF ROAD	– 3,787 FEET

Know what's **below.** **Call** before you dig.

LEGEND

OS	OPEN SPACE
R.O.W.	R.O.W.
R.O.W.C.T.	REGISTER'S OFFICE WILLIAMSON COUNTY, TENNESSEE
*	CRITICAL LOT (SEE NOTE 11)

SURVEYOR:
RAGAN–SMITH ASSOCIATES, INC.
TOM DARNALL, RLS
315 WOODLAND STREET
NASHVILLE, TENNESSEE 37206
(615) 244-8591

OWNER / DEVELOPER
AMBER LANE DEVELOPMENT, LLC
C/O JORDAN CLARK
1804 WILLIAMSON COURT, SUITE 107
BRENTWOOD, TENNESSEE 37027
(615) 794-6401

LOT AREA TABLE		
LOT	SQ. FT.±	ACRES±
101	8,625	0.20
102	11,334	0.26
103	12,166	0.28
104	12,270	0.28
105	9,978	0.23
106	9,532	0.22
107	14,521	0.33
108	16,625	0.38
109	17,293	0.40
110	10,498	0.24
111	9,456	0.22
112	9,000	0.21
113	9,000	0.21
114	9,081	0.21
115	10,041	0.23
116	9,469	0.22
117	10,054	0.23
118	11,148	0.26
119	10,841	0.25
120	12,687	0.29
121	10,237	0.24
122	9,000	0.21
123	8,795	0.20
124	9,432	0.22
125	9,308	0.21
126	9,000	0.21
127	9,000	0.21
128	10,447	0.24
129	11,238	0.26
130	10,690	0.25
131	10,665	0.24
132	10,473	0.24
133	9,000	0.21
134	9,000	0.21
135	10,475	0.24
136	10,145	0.23

LOT AREA TABLE		
LOT	SQ. FT.±	ACRES±
201	10,657	0.24
202	9,834	0.23
203	9,000	0.21
204	9,000	0.21
205	9,000	0.21
206	9,000	0.21
207	9,805	0.23
208	13,160	0.30
209	15,026	0.34
210	15,026	0.34
211	10,496	0.24
212	9,326	0.21
213	8,625	0.20
214	10,110	0.23
215	10,154	0.23
216	10,101	0.23
217	10,036	0.23
218	10,036	0.23
219	10,036	0.23
220	10,036	0.23
221	10,428	0.24
222	10,113	0.23
223	10,113	0.23
224	9,878	0.23
225	9,838	0.23
226	10,270	0.24
227	10,436	0.24
228	10,800	0.25
229	10,946	0.25
230	10,911	0.25
231	10,827	0.25
232	9,632	0.22
233	10,382	0.24

OPEN SPACE LOT AREA TABLE		
LOT	SQ. FT.±	ACRES±
196	32,958	0.76
197	4,800	0.11
198	113,106	2.60
199	484,891	11.13
298	379,361	8.71
299	39,283	0.90

PUMP STATION LOT AREA		
LOT	SQ. FT.±	ACRES±
296	5,502	0.13

RAGAN•SMITH
LAND PLANNERS • CIVIL ENGINEERS
LANDSCAPE ARCHITECTS • SURVEYORS
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315 WOODLAND STREET
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NASHVILLE, TN 37206
(615) 244-8591
CHATTANOOGA
www.ragansmith.com

AVENUE DOWNS

PHASES 1 AND 2

TOWN OF THOMPSON'S STATION, WILLIAMSON COUNTY, TENNESSEE

REV. #	DATE:	DESCRIPTION:
1	01/15/2020	PER TOWN REVIEW COMMENTS

JOB NO.	16-107
WK. ORDER	0646
DESIGNED:	N/A
DRAWN:	AMR
SCALE:	1"=200'
DATE:	DECEMBER 17, 2019

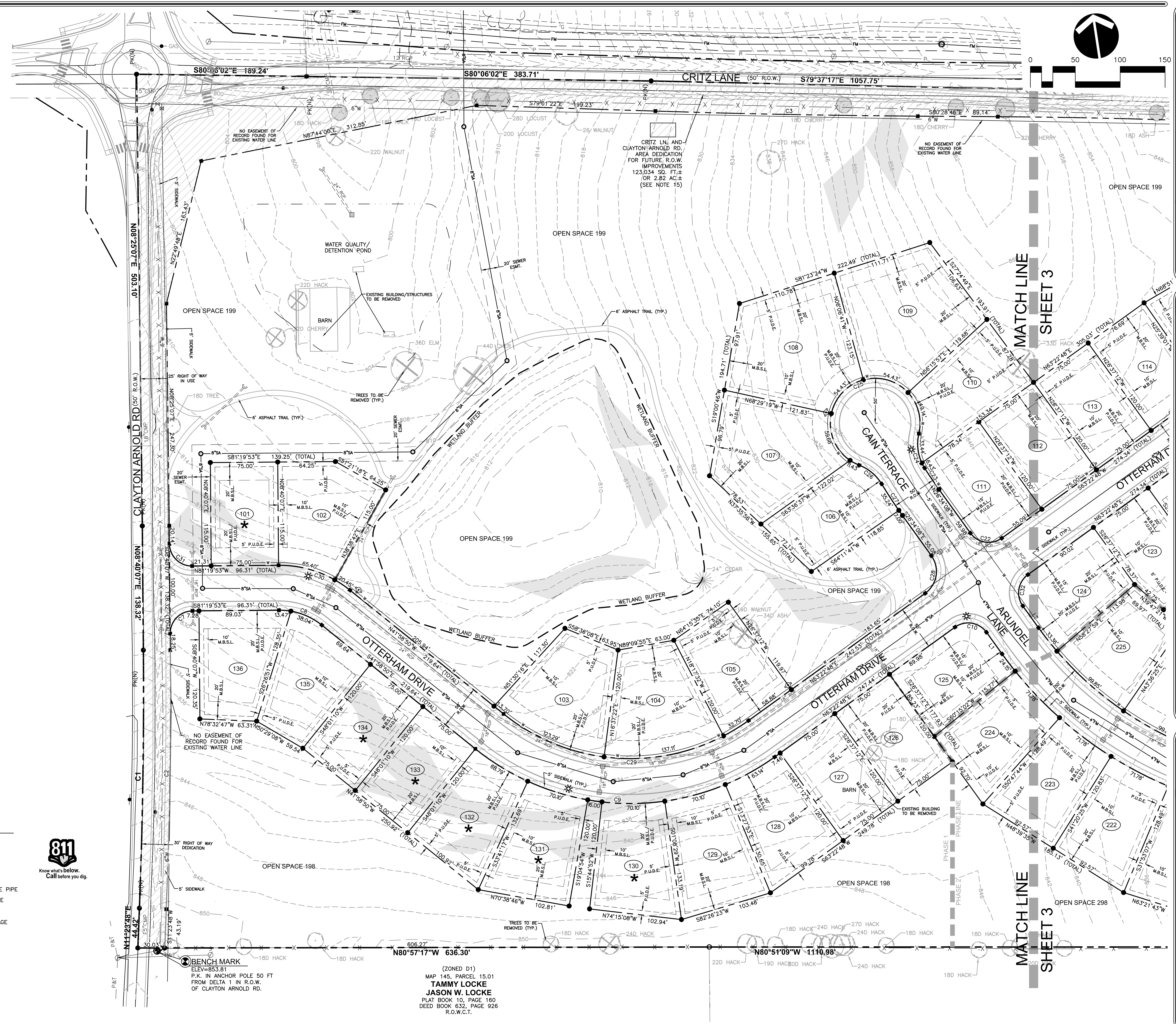
PRELIMINARY PLAT

GENERAL NOTES

SEE SHEET 1 FOR NOTES, REFERENCES AND AREA TABLES.

CURVE TABLE						
CURVE	RADIUS	LENGTH	DELTA	TANGENT	CHORD	CHD BRG
C1	6036.20'	287.39'	2°43'40"	143.72	287.36'	N10°01'57"E
C2	6066.20'	288.82'	2°43'40"	144.44	288.79'	N10°01'57"E
C3	11489.00'	292.11'	1°27'24"	146.06	292.10'	S79°45'04"E
C7	25.00'	39.27'	90°00'00"	25.00	35.36'	S53°40'07"W
C8	75.00'	51.51'	39°21'03"	26.82	50.50'	S61°39'21"E
C9	275.00'	358.24'	74°38'23"	209.64	333.44'	S79°18'01"E
C10	25.00'	39.29'	90°03'05"	25.02	35.37'	S71°35'40"E
C22	25.00'	39.29'	90°03'05"	25.02	35.37'	N71°35'40"W
C23	475.00'	28.64'	3°27'15"	14.32	28.63'	S24°50'30"E
C24	50.00'	39.87'	45°41'27"	21.06	38.82'	N00°16'09"W
C25	50.00'	229.10'	262°31'55"	56.98	75.17'	S71°18'37"W
C26	50.00'	33.16'	37°59'49"	17.21	32.55'	N40°57'27"W
C27	525.00'	42.24'	4°36'36"	21.13	42.23'	S24°15'50"E
C28	30.00'	47.10'	89°56'55"	29.97	42.41'	S18°24'20"W
C29	225.00'	293.11'	74°38'23"	171.53	272.82'	N79°18'01"W
C30	125.00'	85.85'	39°21'03"	44.70	84.17'	N61°39'21"W
C31	25.00'	39.27'	90°00'00"	25.00	35.36'	S36°19'53"E
C32	25.00'	39.25'	89°56'55"	24.98	35.34'	N18°24'20"E

LINE TABLE		
LINE	BEARING	DISTANCE
L1	S26°34'08"E	29.75'
L2	S26°34'08"E	29.84'



LEGEND

- CM(N) MONUMENT (NEW) (4" DIAMETER ALUMINUM DISC W/ 1/2" IRON ROD MARKED "RAGAN-SMITH ASSOCIATES")
- IR(N) IRON ROD (NEW) (1/2" X 18" W/CAP STAMPED "RAGAN SMITH & ASSOCIATES")
- IRON ROD (OLD)
- CABLE TV BOX
- ELECTRIC BOX
- CATCH BASIN
- SANITARY SEWER MANHOLE
- STREET LIGHT
- (XXX) LOT NUMBER
- R.O.W. RIGHT-OF-WAY
- DECIDUOUS TREE
- EVERGREEN TREE
- R.O.W.C.T. REGISTER'S OFFICE FOR WILLIAMSON COUNTY, TN
- FIRE HYDRANT
- WATER VALVE
- WATER METER
- —SA— SANITARY SEWER LINE
- RCP REINFORCED CONCRETE PIPE
- ST PROPOSED STORM PIPE
- —X—X— FENCE
- P.U.D.E. PUBLIC UTILITY DRAINAGE EASEMENT
- R.O.W. RIGHT-OF-WAY
- M.B.S.L. MINIMUM BUILDING SETBACK LINE
- CONCRETE SURFACE
- 15-25% SLOPES
- * CRITICAL LOT (SEE NOTE 11)

RAGAN•SMITH
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SUITE 200
CHATTANOOGA, TN 37408
(423) 490-9400
www.ragansmith.com

JOHN T. DARNALL TENNESSEE NO. 1571

AVENUE DOWNS
PHASES 1 AND 2
TOWN OF THOMPSON'S STATION, WILLIAMSON COUNTY, TENNESSEE

REV. #	DATE:	DESCRIPTION:
	01/15/2020	PER TOWN REVIEW COMMENTS

JOB NO. 16107	WK. ORDER 0646
DESIGNED:	N/A
DRAWN:	AMR
SCALE:	1"=50'
DATE:	DECEMBER 17, 2019

PRELIMINARY PLAT

2 OF 3

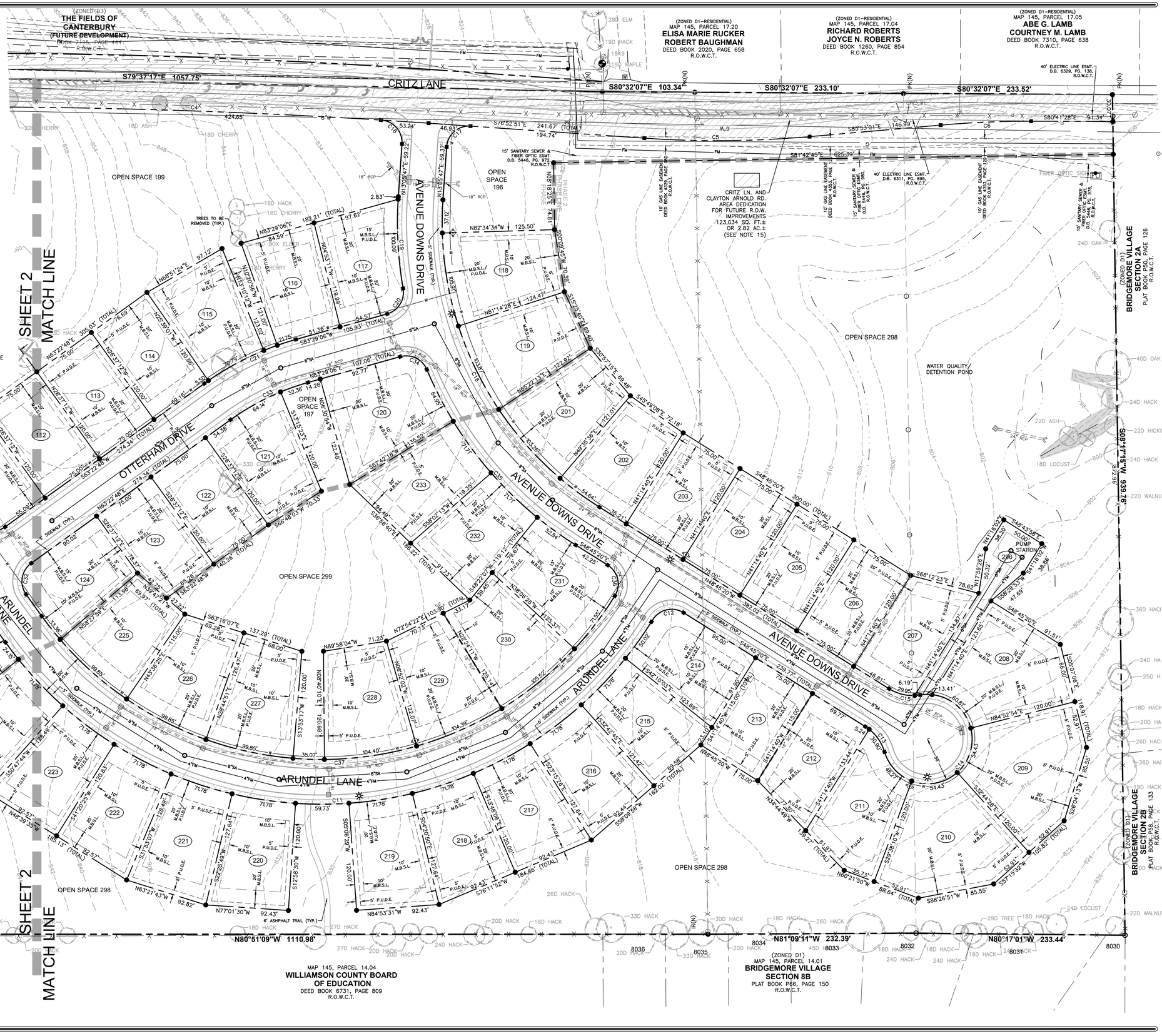
GENERAL NOTES

SEE SHEET 1 FOR NOTES, REFERENCES AND AREA TABLES.

CURVE TABLE						
CURVE	RADIUS	LENGTH	DELTA	TANGENT	CHORD	CHD BRG
C4	7609.00'	477.89'	3°35'55"	239.03	477.82'	N78°40'48"W
C5	1176.00'	184.78'	9°00'10"	92.58	184.59'	S81°22'56"E
C6	1116.00'	101.14'	5°11'33"	50.60	101.10'	N83°17'15"W
C11	435.00'	851.74'	112°11'13"	647.19	722.06'	S82°39'44"E
C12	25.00'	39.27'	90°00'00"	25.00	35.36'	N86°14'40"E
C13	50.00'	36.14'	41°24'35"	18.90	35.36'	S28°03'03"E
C14	50.00'	229.35'	262°49'09"	56.69	75.00'	N41°14'40"E
C15	50.00'	36.14'	41°24'35"	18.90	35.36'	N69°27'38"W
C16	374.99'	404.81'	61°51'07"	224.66	385.44'	N17°49'47"W
C17	25.00'	39.28'	90°01'22"	25.01	35.36'	N58°06'28"E
C18	25.00'	39.43'	90°22'41"	25.17	35.47'	N32°05'34"W
C19	424.99'	102.92'	13°52'30"	51.71	102.67'	S06°09'32"W
C20	25.00'	36.77'	84°15'49"	22.61	33.54'	N41°21'11"E
C21	325.00'	114.04'	20°06'18"	57.61	113.46'	S73°25'57"W
C33	275.00'	96.50'	20°06'18"	48.75	96.00'	N73°25'57"E
C34	25.00'	36.21'	82°58'35"	22.11	33.12'	S55°01'37"E
C35	424.99'	261.22'	35°13'01"	134.88	257.13'	S31°08'50"E
C36	25.00'	39.27'	90°00'00"	25.00	35.36'	N03°45'20"W
C37	385.00'	753.84'	112°11'13"	572.80	639.06'	N82°39'44"W

LEGEND

■ CM(N)	MONUMENT (NEW) (4" DIAMETER ALUMINUM DISC W/ 1/2" IRON ROD MARKED "RAGAN-SMITH ASSOCIATES")	⊚	FIRE HYDRANT
● IR(N)	IRON ROD (NEW) (1/2" X 18" W/CAP STAMPED "RAGAN SMITH & ASSOCIATES")	⋈	WATER VALVE
		W	WATER METER
		—SA—	SANITARY SEWER LINE
○	IRON ROD (OLD)	RCP ====	REINFORCED CONCRETE PIPE
C	CABLE TV BOX	_ST_	PROPOSED STORM PIPE
E	ELECTRIC BOX	-X—X-	FENCE
▤	CATCH BASIN	P.U.D.E.	PUBLIC UTILITY DRAINAGE EASEMENT
◎	SANITARY SEWER MANHOLE		
☼	STREET LIGHT	R.O.W.	RIGHT-OF-WAY
(XXX)	LOT NUMBER	M.B.S.L.	MINIMUM BUILDING SETBACK LINE
R.O.W.	RIGHT-OF-WAY	▨	CONCRETE SURFACE
○	DECIDUOUS TREE		
✳	EVERGREEN TREE	▨	15-25% SLOPES
R.O.W.C.T.	REGISTER'S OFFICE FOR WILLIAMSON COUNTY, TN	*	CRITICAL LOT (SEE NOTE 11)



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PRELIMINARY PLAT

3 OF 3

TRAFFIC IMPACT STUDY

for

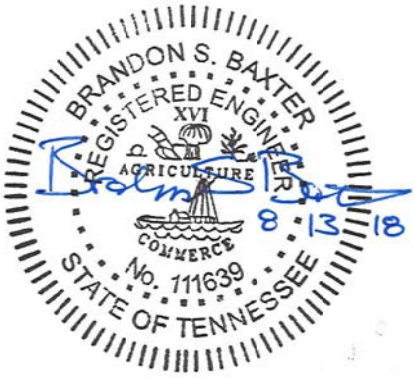
AVENUE DOWNS

Thompson's Station, Tennessee

February 16, 2018
Revised July 31, 2018

Prepared for:

BARLOW BUILDERS
1804 Williamson Court, Suite 107
Brentwood, Tennessee 37027



Prepared by:

RAGAN-SMITH ASSOCIATES, INC.
315 Woodland Street, P.O. Box 60070
Nashville, Tennessee 37206-0070
(615) 244-8591

16-107 / 0646

AVENUE DOWNS
TRAFFIC IMPACT STUDY

TABLE OF CONTENTS

AVENUE DOWNS
TRAFFIC IMPACT STUDY

LIST OF FIGURES

LIST OF TABLES

EXECUTIVE SUMMARY

INTRODUCTION

Avenue Downs is located on the southeast corner of Critz Lane and Clayton Arnold Road in the Town of Thompson's Station, Tennessee. When completed, Avenue Downs will consist of 69 single family homes. The purpose of this traffic impact study is to review the traffic impact of Avenue Downs.

BACKGROUND TRAFFIC

Based upon the proposed development schedule, the year 2021 will be used to analyze the impact of Avenue Downs.

To establish background traffic growth, TDOT historical traffic data was obtained in the project vicinity. Traffic growth due to outside developments and general population growth was based upon linear regression analysis of the historical traffic count data. Background traffic growth was established by increasing existing traffic by ***2 percent annually*** for the period from 2017 to 2021. In addition to the annual growth rate, specific traffic growth estimates from three (3) underway, approved, or proposed developments were included in the determination of background traffic.

SITE TRAFFIC

The traffic impact of Avenue Downs is based upon a calculation of the number of vehicle trips that will enter and/or exit the site. The analysis periods of this report are the a.m. and p.m. peak hours of a typical weekday. Therefore, trips were generated according to the *Trip Generation Manual, 10th Edition* published by the Institute of Transportation Engineers (ITE). The total estimated trip generation for Avenue Downs is shown in the table below.

TOTAL TRIP GENERATION: AVENUE DOWNS								
Land Use	**Total Units**	**Daily Trips**	**A.M. Peak Hour**			**P.M. Peak Hour**		
			Enter	**Exit**	**Total**	**Enter**	**Exit**	**Total**
Single Family Homes	69 Units	739	15	43	58	48	27	75

TRAFFIC ANALYSIS

The following public intersections were analyzed for capacity deficiencies and improvement needs:

- Critz Lane at Clayton Arnold Road
- Clayton Arnold Road at Proposed Access
- Critz Lane at Proposed Access

For these intersections, the following traffic scenarios were analyzed, where applicable:

- 2017 Existing Traffic
- 2021 Background Traffic
- 2021 Total Traffic that contains all traffic projected in the study area, including the completion of Avenue Downs

CONCLUSIONS AND RECOMMENDATIONS

Critz Lane at Clayton Arnold Road

- The Town of Thompson's Station's proposal to construct a roundabout at this intersection is appropriate based on the operational and safety advantages that a roundabout will have over two-way stop control at this location. The developer for Avenue Downs and the developer for the adjacent Fields of Canterbury have established a proposal to assist the Town with the construction of the roundabout.

Clayton Arnold Road at Proposed Access

- The Proposed Access should consist of one lane in each direction with pavement widths in compliance with the appropriate roadway section shown in the Town's Land Development Ordinance.

- Proposed grading, landscaping, and development monumentation or signage should be designed so that AASHTO intersection sight distance is not obstructed for the proposed access.

Critz Lane at Proposed Access

- The Town of Thompson's Station's proposal to reconstruct Critz Lane's vertical alignment from the intersection of Clayton Arnold Road at Critz Lane to approximately 1,500 east of the intersection is appropriate based on the operational and safety advantages. The developer for Avenue Downs and the developer for the adjacent Fields of Canterbury have established a proposal to assist the Town with the construction of the vertical realignment.

- The Proposed Access should consist of one lane in each direction with pavement widths in compliance with the appropriate roadway section shown in the Town's Land Development Ordinance.

- Turn lane warrants were not met, but the Town has requested the installation of left-turn lanes at the intersection to accommodate future traffic volumes. Left turn lanes will be installed in both the eastbound and westbound directions.

- Proposed grading, landscaping, and development monumentation or signage should be designed so that AASHTO intersection sight distance is not obstructed for the proposed access.

I. INTRODUCTION

The purpose of this study is to review the traffic impact of the proposed Avenue Downs development in the Town of Thompson's Station, Tennessee. Avenue Downs will include 69 new residential units and one project access to Clayton Arnold Road and one project access to Critz Lane. This report has been requested by Town of Thompson's Station staff in order to address transportation impacts and to identify recommended mitigating measures as part of the development plan review process.

In order to evaluate the traffic impact of Avenue Downs, an inventory of the existing transportation system was carried out along with an assessment of its adequacy. Based on the anticipated project schedule, a design year was established and system-wide growth rates as well as traffic growth due to specific developments in the area were applied to existing traffic volumes. Site traffic was generated, distributed and assigned to the roadway to quantify the impact of Avenue Downs. Transportation analyses were performed in order to assess any site or non-site related impacts on the system. Finally, recommendations for project access and mitigating measures related to Avenue Downs were offered.

II. PROJECT DESCRIPTION

A. Existing Development

As shown in Figure 1, Avenue Downs is located on the southeast corner of Critz Lane and Clayton Arnold Road in the Town of Thompson's Station, Tennessee. The Avenue Downs Concept Plan includes a total area of 48.22 acres. The Avenue Downs proposal consists of 69 single family homes.

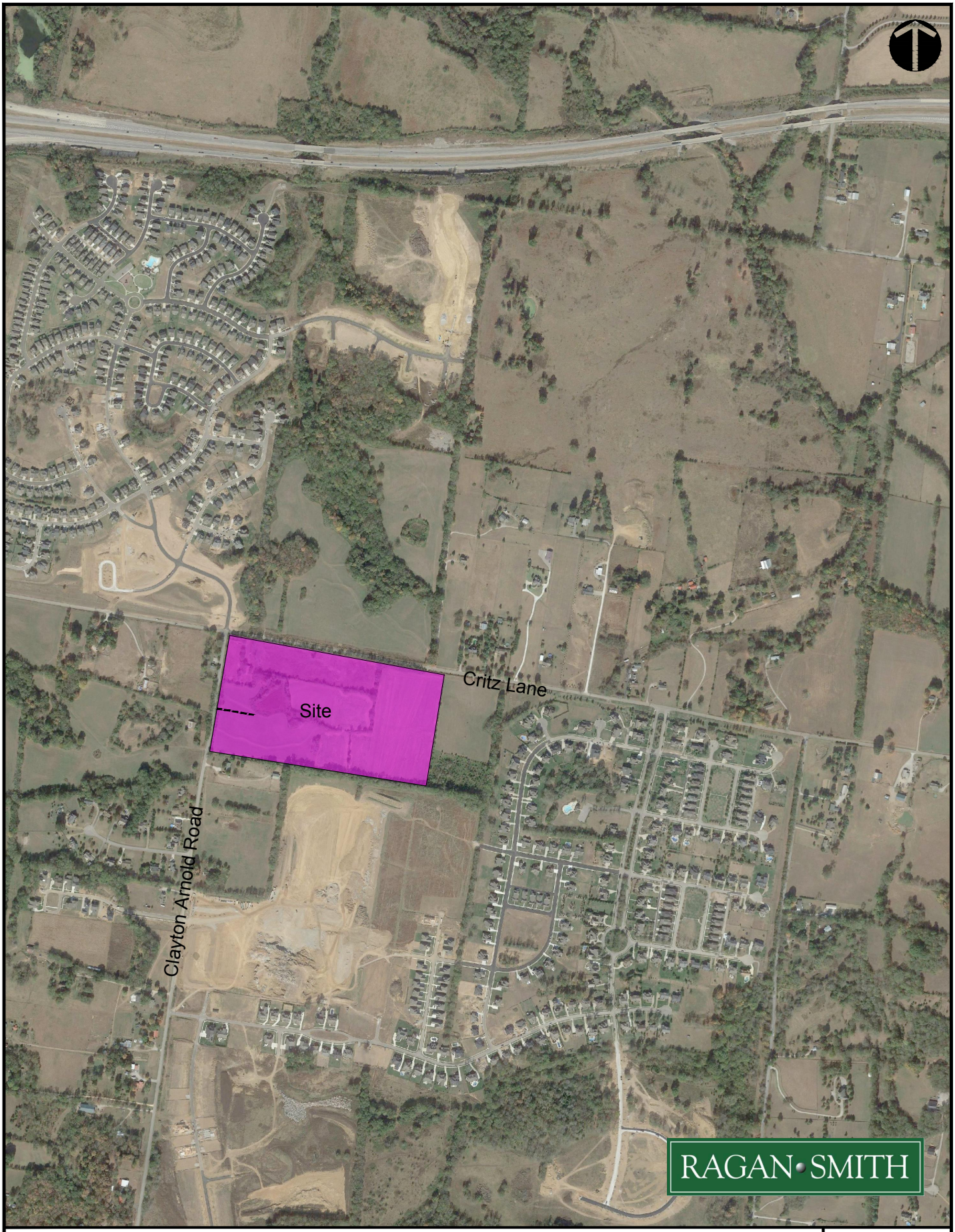
Figure 2 shows the concept plan for Avenue Downs.

B. Project Access

Access to Avenue Downs will be provided by two locations. One access to Clayton Arnold Road will be located approximately 600 feet south of the intersection with Critz Lane. The second access will be located on Critz Lane approximately 1,400 feet east of the intersection with Clayton Arnold Road. This access will align with a proposed access for the Fields of Canterbury north of Critz Lane.

C. Phasing and Timing

For the analysis of this report, the full build-out of Avenue Downs has been assumed to occur in the year 2021. The year 2021 is established as the horizon year for this study.



Avenue Downs
Location Map

Figure
1

GENERAL NOTES

1. THE PURPOSE OF THIS PLAT IS TO CREATE 69 SINGLE FAMILY LOTS, A PUMP STATION LOT, OPEN SPACE TRACTS, AND PUBLIC RIGHT OF WAY.

2. BEARINGS SHOWN HEREON ARE BASED ON THE TENNESSEE STATE PLANE COORDINATE SYSTEM NAD 1983). GPS EQUIPMENT WAS USED TO DETERMINE THE POSITION OF TWO CONTROL POINTS ON THE SURVEYED PROPERTY IN ORDER TO ESTABLISH THE BEARING BASE FOR THE SURVEY. TYPE EQUIPMENT USED: LEICA, MODEL GX1230, DUAL FREQUENCY RECEIVER. THE TYPE OF GPS SURVEY: NETWORK ADJUSTED REAL TIME KINEMATIC. THE RELATIVE POSITIONAL ACCURACY IS 0.05'.

3. THE PROPERTY IS ZONED D2 (MEDIUM DENSITY RESIDENTIAL).
MAXIMUM LOT COVERAGE (SINGLE FAMILY) – 55%.
MINIMUM BUILDING SETBACKS:
FRONT – 20'
SIDE – 10'
REAR – 20'

4. BY SCALED MAP LOCATION AND GRAPHIC PLOTTING ONLY, THIS PROPERTY LIES WITHIN FLOOD ZONES "X" (OTHER FLOOD AREAS) AND "X" (OTHER AREAS), AS DESIGNATED ON CURRENT FEDERAL EMERGENCY MANAGEMENT AGENCY MAP NOS. 47187C0345F AND 47187C0365F WITH AN EFFECTIVE DATE OF SEPTEMBER 29, 2006, WHICH MAKES UP A PART OF THE NATIONAL FLOOD INSURANCE ADMINISTRATION REPORT; COMMUNITY NO. 470424, PANEL NOS. 0345 AND 0365, SUFFIX F, WHICH IS THE CURRENT FLOOD INSURANCE RATE MAP FOR THE COMMUNITY IN WHICH SAID PREMISES IS SITUATED. SAID MAP DEFINES ZONE "AE" UNDER "SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD" AS BASE FLOOD ELEVATIONS DETERMINED. SAID MAP DEFINES ZONE "X" (OTHER FLOOD AREAS) UNDER "OTHER FLOOD AREAS" AS AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD. SAID MAP DEFINES ZONE "X" (OTHER AREAS) UNDER "OTHER AREAS" AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

5. THIS SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. ABOVE GRADE AND UNDERGROUND UTILITIES SHOWN WERE TAKEN FROM VISIBLE APPURTENANCES, PUBLIC RECORDS, AND/OR MAPS PREPARED BY OTHERS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. THEREFORE, RELIANCE UPON THE TYPE, SIZE AND LOCATION OF UTILITIES SHOWN SHOULD BE DONE SO WITH THIS CIRCUMSTANCE CONSIDERED. DETAILED VERIFICATION OF EXISTENCE, LOCATION AND DEPTH SHOULD ALSO BE MADE PRIOR TO ANY DECISION RELATIVE THERETO IS MADE. AVAILABILITY AND COST OF SERVICE SHOULD BE CONFIRMED WITH THE APPROPRIATE UTILITY COMPANY. IN TENNESSEE, IT IS A REQUIREMENT, PER "THE UNDERGROUND UTILITY DAMAGE PREVENTION ACT", THAT ANYONE WHO ENGAGES IN EXCAVATION MUST NOTIFY ALL KNOWN UNDERGROUND UTILITY OWNERS NO LESS THAN THREE (3) NOR MORE THAN TEN (10) WORKING DAYS PRIOR TO THE DATE OF THEIR INTENT TO EXCAVATE AND ALSO TO AVOID ANY POSSIBLE HAZARD OR CONFLICT. TENNESSEE ONE CALL, DIAL 811.

6. SANITARY SEWER LINES AND STORM LINES SHOWN HEREON WERE TAKEN FROM A PRELIMINARY DESIGN. FINAL PLACEMENT OF UTILITIES WILL BE DEPICTED ON THE FINAL PLAT.

7. DOMESTIC WATER SUPPLY INFORMATION SHOWN HEREON IS BASED ON A PRELIMINARY DESIGN.

8. ALL PUBLIC STREETS AND DRAINAGE STRUCTURES WITHIN THE RIGHTS–OF–WAY WILL BE MAINTAINED BY THE TOWN OF THOMPSON'S STATION.

9. HOMEOWNER'S ASSOCIATION WILL BE RESPONSIBLE FOR LONG TERM OPERATION AND MAINTENANCE OF STORMWATER INFRASTRUCTURE LOCATED IN DRAINAGE EASEMENTS AND ALL OPEN SPACE, INCLUDING LANDSCAPE AND DETENTION/RETENTION AREAS.

10. ELEVATIONS SHOWN HEREON ARE BASED ON NAVD 88. CONTOURS ARE AT TWO FOOT INTERVALS AND ARE BASED ON A FIELD RUN SURVEY USING RANDOM SPOT ELEVATIONS. CONTOURS WERE DERIVED USING SURFACE MODELING TECHNIQUES.

11. LOTS SHOWN THUS (*) ARE DESIGNATED AS CRITICAL LOTS AND HAVE NATURAL SLOPES IN EXCESS OF 15%. PER SECTION 3–102.104 OF THE SUBDIVISION REGULATIONS, PRIOR TO THE ISSUANCE OF A BUILDING PERMIT, A SITE GRADING PLAN FOR DEVELOPMENT OF THE LOT SHALL BE SUBMITTED ADDRESSING SITE SPECIFIC NATURAL RESOURCE ISSUES TO THE TOWN OF THOMPSON'S STATION FOR REVIEW AND APPROVAL. NO BUILDING PERMIT WILL BE ISSUED ON SAID LOTS UNTIL AND UNLESS THE TOWN ENGINEER HAS RECEIVED AND APPROVED THE SITE PLAN.

12. I HEREBY STATE THAT THIS SURVEY WAS DONE IN COMPLIANCE WITH THE CURRENT TENNESSEE MINIMUM STANDARDS OF PRACTICE AND THIS IS A CATEGORY I SURVEY AND THE RATIO OF PRECISION OF THE UNADJUSTED SURVEY IS 1:15,715.

BY____________________ DATE: JULY 25, 2018
JOHN T. DARNALL, TN RLS #1571

13. ALL OPEN SPACE IS A PUBLIC UTILITY AND DRAINAGE EASEMENT.

14. STREET LIGHT LOCATIONS SHOWN HEREON ARE APPROXIMATE. FINAL LOCATION TO BE COORDINATED WITH MIDDLE TENNESSEE ELECTRIC MEMBERSHIP CORPORATION.

DEED REFERENCE

BEING THE SAME PROPERTY CONVEYED TO BYRD D. CAIN, JR. FROM AMBER LANE DEVELOPMENT, LLC BY WARRANTY DEED OF RECORD IN BOOK 7258, PAGE 303, REGISTER'S OFFICE FOR WILLIAMSON COUNTY, TENNESSEE.

PROPERTY MAP REFERENCE

BEING PARCEL NUMBERS 6.01, 6.02, AND 6.03 AS SHOWN ON WILLIAMSON COUNTY PROPERTY MAP NUMBER 145.

PHASE 1
LOTS 101–124
OPEN SPACE LOTS 198–199

PHASE 2
LOTS 201–245
OPEN SPACE LOTS 297–299
PUMP STATION LOT 296

SITE DATA TABLE (PH. 1 & 2)

TOTAL LOT AREA	– 16.61 ACRES±
TOTAL OPEN SPACE AREA	– 25.08 ACRES±
PUMP STATION LOT 296	– 0.14 ACRES±
TOTAL CRITZ. LN R.O.W. IN USE AREA	– 1.26 ACRES±
TOTAL CLAYTON ARNOLD RD. R.O.W. IN USE AREA	– 0.54 ACRES±
TOTAL CLAYTON ARNOLD RD. R.O.W. DEDICATION	– 0.11 ACRES±
TOTAL INTERNAL R.O.W. AREA	– 4.48 ACRES±
TOTAL SITE AREA	– 48.22 ACRES±
TOTAL LINEAR FEET OF ROAD	– 3,797 FEET

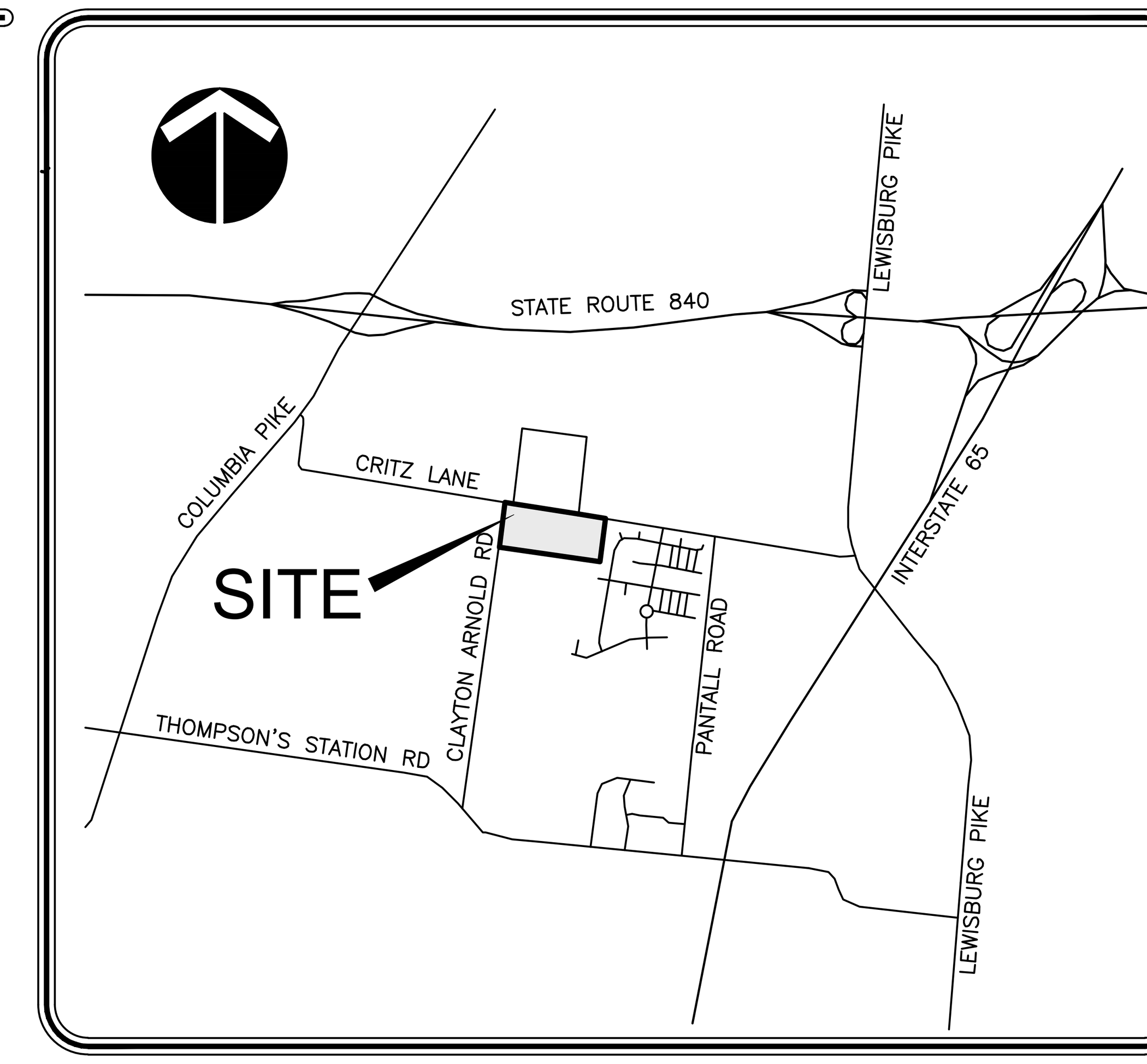
SURVEYOR:
RAGAN–SMITH ASSOCIATES, INC.
TOM DARNALL, RLS
315 WOODLAND STREET
NASHVILLE, TENNESSEE 37206
(615) 244–8591

OWNER / DEVELOPER
AMBER LANE DEVELOPMENT, LLC
C/O JORDAN CLARK
1804 WILLIAMSON COURT, SUITE 107
BRENTWOOD, TENNESSEE 37027
(615) 794–6401

Know what's below. Call before you dig.

LEGEND

OS	OPEN SPACE
R.O.W.	R.O.W.
R.O.W.C.T.	REGISTER'S OFFICE WILLIAMSON COUNTY, TENNESSEE
*	CRITICAL LOT (SEE NOTE 12)



LOCATION MAP
N.T.S.

LOT AREA TABLE

LOT	SQ. FT.±	ACRES±
101	8,625	0.20
102	11,334	0.26
103	12,166	0.28
104	12,270	0.28
105	9,978	0.23
106	9,532	0.22
107	14,521	0.33
108	16,625	0.38
109	17,293	0.40
110	10,498	0.24
111	9,456	0.22
112	9,432	0.22
113	9,308	0.21
114	9,000	0.21
115	9,000	0.21
116	10,447	0.24
117	11,238	0.26
118	10,690	0.25
119	10,665	0.24
120	10,473	0.24
121	9,000	0.21
122	9,000	0.21
123	10,475	0.24
124	10,145	0.23
201	10,452	0.24
202	10,452	0.24
203	10,452	0.24
204	9,908	0.23
205	9,000	0.21
206	9,000	0.21
207	9,000	0.21
208	9,000	0.21
209	9,805	0.23
210	13,160	0.30
211	15,026	0.34

LOT AREA TABLE

LOT	SQ. FT.±	ACRES±
212	15,026	0.34
213	10,496	0.24
214	9,326	0.21
215	8,625	0.20
216	10,110	0.23
217	10,154	0.23
218	10,101	0.23
219	10,036	0.23
220	10,036	0.23
221	10,036	0.23
222	10,036	0.23
223	10,428	0.24
224	10,113	0.23
225	10,113	0.23
226	9,878	0.23
227	9,838	0.23
228	10,270	0.24
229	10,436	0.24
230	10,800	0.25
231	10,946	0.25
232	10,901	0.25
233	10,773	0.25
234	9,765	0.22
235	10,628	0.24
236	13,053	0.30
237	10,237	0.24
238	9,000	0.21
239	8,795	0.20
240	9,000	0.21
241	9,000	0.21
242	9,081	0.21
243	10,041	0.23
244	9,757	0.22
245	10,433	0.24

OPEN SPACE LOT AREA TABLE

LOT	SQ. FT.±	ACRES±
198	113,106	2.60
199	436,381	10.02
297	424,739	9.75
298	74,390	1.71
299	44,025	1.01

PUMP STATION LOT AREA

LOT	SQ. FT.±	ACRES±
296	5,939	0.14

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PRELIMINARY PLAT

III. EXISTING CONDITIONS

A. Transportation System

The existing transportation system in the area that provides access to Avenue Downs consists of collector and local roadways. The following roadways will comprise the study area for consideration of traffic mitigation measures at Avenue Downs.

- **Critz Lane** is listed as a collector roadway in the General Plan for Thompson's Station. Critz Lane is a two-lane roadway that connects Columbia Pike and Lewisburg Pike with a total length of approximately 2.6 miles. The posted speed limit on Critz Lane is 40 mph.

- **Clayton Arnold Road** is listed as a collector roadway in the General Plan for Thompson's Station. Clayton Arnold Road is a two-lane roadway that connects Critz Lane and Thompson's Station Road with a total length of approximately 1.3 miles. The posted speed limit on Clayton Arnold Road is 35 mph.

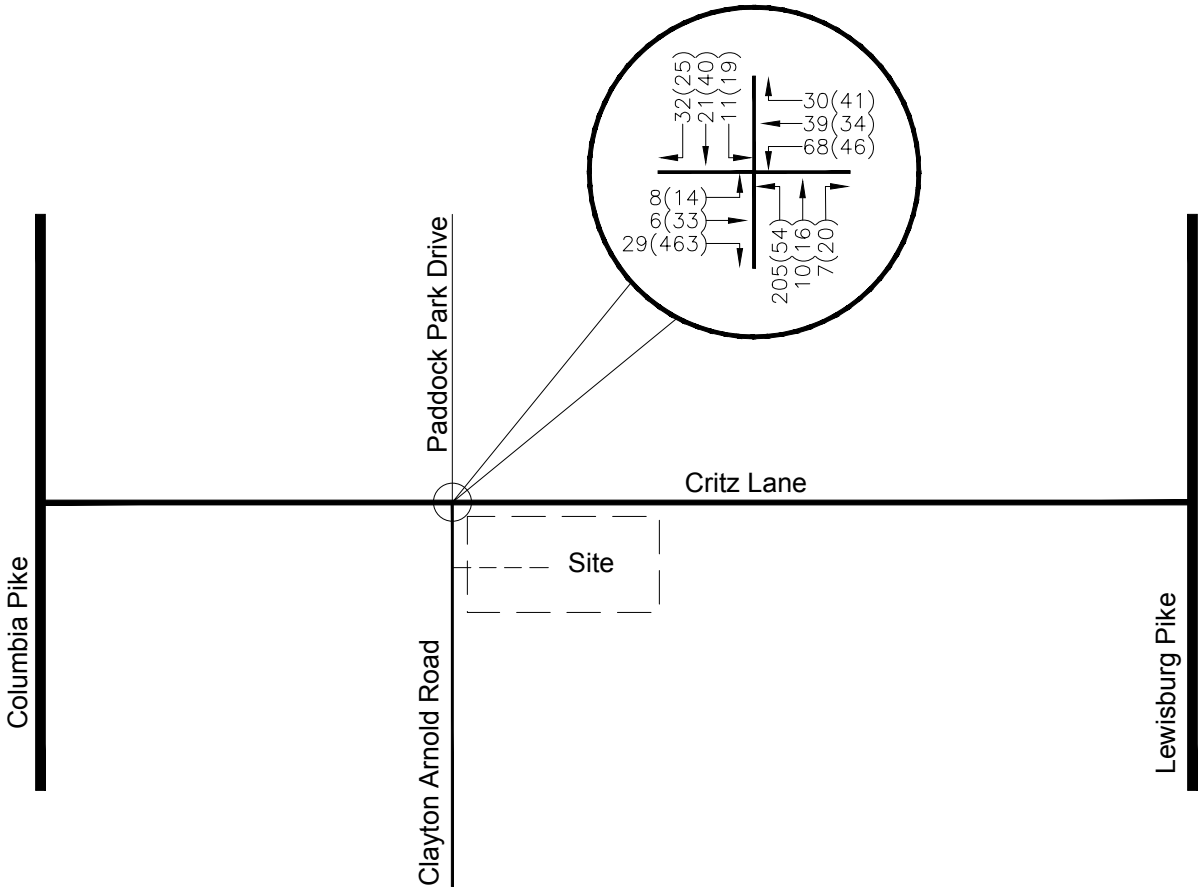
The Town of Thompson's Station has proposed to improve Critz Lane between Columbia Pike and Lewisburg Pike, including widening Critz Lane to provide 11' travel lanes and 4' shoulders, constructing roundabout intersections at Clayton Arnold Road and Pantall Road, constructing turn lanes at other appropriate intersections, and correcting vertical alignment deficiencies. Survey work for this project was initiated in the fall of 2016 and a preliminary set of construction plans was provided by the Town in November 2017. The current construction schedule is not known for this project.

B. Traffic Volumes

In order to assess the adequacy of the local transportation system, an evaluation of the current operational quality of intersections within the study area was required.

The peak hour of the adjacent street traffic was used to evaluate the traffic operations for Avenue Downs. In order to identify the peak periods for analysis, traffic counts were conducted in December 2017 at the intersection of Critz Lane at Clayton Arnold Road. The peak hours for analysis are 6:30 – 7:30 a.m. and 4:30 – 5:30 p.m.

Figure 3 shows the existing peak hour traffic volumes for the intersections in the study area.



Peak Hours
AM (PM)

RAGAN SMITH

Avenue Downs
2017 Existing Traffic Volumes

Figure
3

IV. FORECASTED BACKGROUND TRAFFIC

A. Introduction

Before any impacts to the study area can be addressed, some estimate of background traffic volumes for the horizon year 2021 must be established. Background traffic volumes were established by segregating potential growth into two categories:

- Specific development traffic growth within the immediate study area
- Growth due to small scale development and/or general population growth

B. Specific Development Growth

Traffic growth from the three (3) specific developments described below was included in the background traffic forecasts for the analysis of this report.

- The Fields of Canterbury – The existing approved portions of The Fields of Canterbury include approximately 90 single family homes and 54 townhomes that are not yet constructed or occupied. Site traffic from these units has been included in the background traffic growth forecast of this report.

- Thompson's Station Elementary and Middle Schools – Williamson County Schools is currently constructing a new campus on Clayton Arnold Road south of Critz Lane that will include a new Elementary School and a new Middle School, each with a capacity of 800 students. While it is unlikely that both schools will have arrival or dismissal times coinciding with the peak hour of the adjacent streets, the analysis of this report conservatively applies trips for both schools to the peak hour analysis.

- Proposed Additions to The Fields of Canterbury – Additions to The Fields of Canterbury are proposed, but not yet approved, for east of the existing sections of The Fields of Canterbury. The proposed additions to The Fields of Canterbury will consist of 180 single family homes and 138 townhomes. Due to the proximity of The Fields of Canterbury to Avenue Downs, site traffic from the proposed additions has been included in the background traffic growth forecast of this report.

Trip generation for the specific background developments is shown in Table 1. The trip distribution for these background developments is shown in the appendix of this report.

TABLE 1

TRIP GENERATION: BACKGROUND SPECIFIC DEVELOPMENTS

Land Use and Total Units	Daily Trips	A.M. Peak Hour			P.M. Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
The Fields of Canterbury Approved but not Constructed Units (90 Single Family and 54 Townhomes)	1,311	28	77	105	84	50	134
Proposed School 1,600 Students	3,216	540	460	1,000	132	140	272
50% of Proposed Additions to The Fields at Canterbury	1,394	29	79	108	86	53	139
TOTAL	**5,921**	**597**	**616**	**1,213**	**302**	**243**	**545**

C. Annual Growth

To establish traffic growth due to population growth or small scale development, TDOT historical traffic count data was obtained at locations within the general project vicinity. The TDOT historical traffic count data includes traffic volume counts conducted annually on Columbia Pike beginning in 1985. The available historical count data was tabulated and analyzed to identify patterns or growth trends.

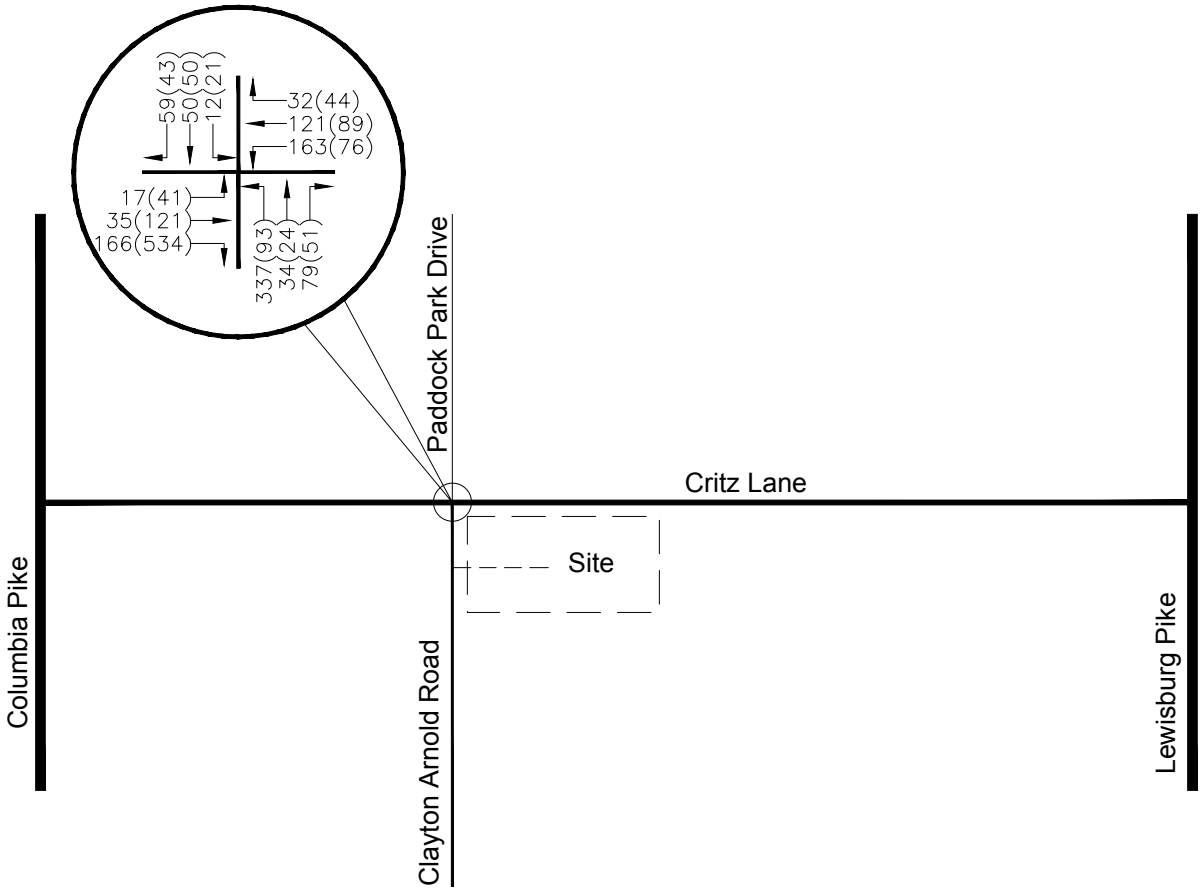
Based upon linear regression analysis of this data, we will use a ***2 percent annual growth rate*** as the base growth for the existing traffic volumes. This annual growth rate is consistent with the Comprehensive Traffic Impact Study prepared by RPM Transportation Consultants, LLC for the Town of Thompson's Station.

D. Background Traffic

Background traffic for the future traffic forecasts was compiled based on the following:

- 2017 existing traffic data
- Specific development expected traffic volumes
    - The Fields of Canterbury – approved but not yet constructed units
    - Thompson's Station Elementary and Middle Schools
    - Proposed Additions to The Fields of Canterbury
- 2% annual increase of traffic volumes for the period from 2017 to 2021

Background traffic volumes on the future roadway, representing existing traffic volumes plus background growth, for the year 2021 are shown in Figure 4.



Peak Hours
AM (PM)

RAGAN SMITH

Avenue Downs
2021 Background Traffic Volumes

Figure
4

V. PROPOSED SITE TRAFFIC

A. Site Trip Generation

In order to quantify site-related impacts within the study area, some estimates of site trip generation and traffic assignment had to be established. Trip generation rates for the development were established using information for the weekday a.m. and p.m. peak hour of the adjacent street as shown in the *Trip Generation Manual, 10th Edition* published by the Institute of Transportation Engineers (ITE). It should be noted that ITE's "Peak Hour of Generator" rates were utilized for the residential development to be conservative. For this study, horizon year 2021 will include the completion of Avenue Downs. Trip generation for Avenue Downs is shown in Table 2.

TABLE 2

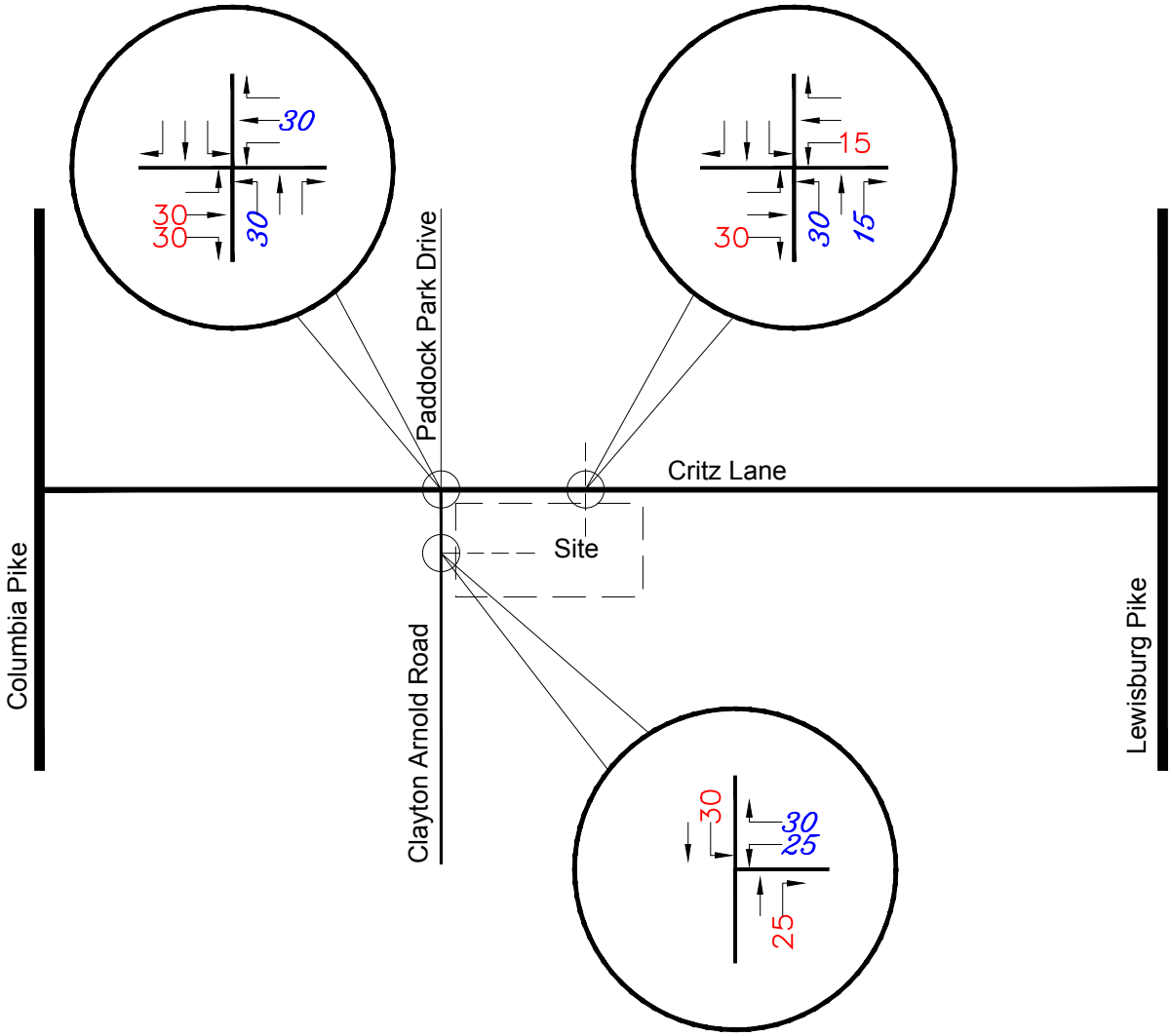
TRIP GENERATION: AVENUE DOWNS

Land Use	Total Units	Daily Trips	A.M. Peak Hour			P.M. Peak Hour		
			Enter	Exit	Total	Enter	Exit	Total
Single Family Homes	69 units	739	15	43	58	48	27	75

B. Site Trip Distribution and Assignment

Site trips were distributed based primarily upon the prevalent commuter patterns in the area and the proximity and routes to major transportation facilities. Figure 5 shows the distribution of the residential trips for Avenue Downs on the adjacent roadway.

Site traffic volumes generated by Avenue Downs in the horizon year 2021 are shown in Figure 6. The accumulation of existing, background growth, and site-generated traffic for the horizon year 2021 is shown in Figure 7.

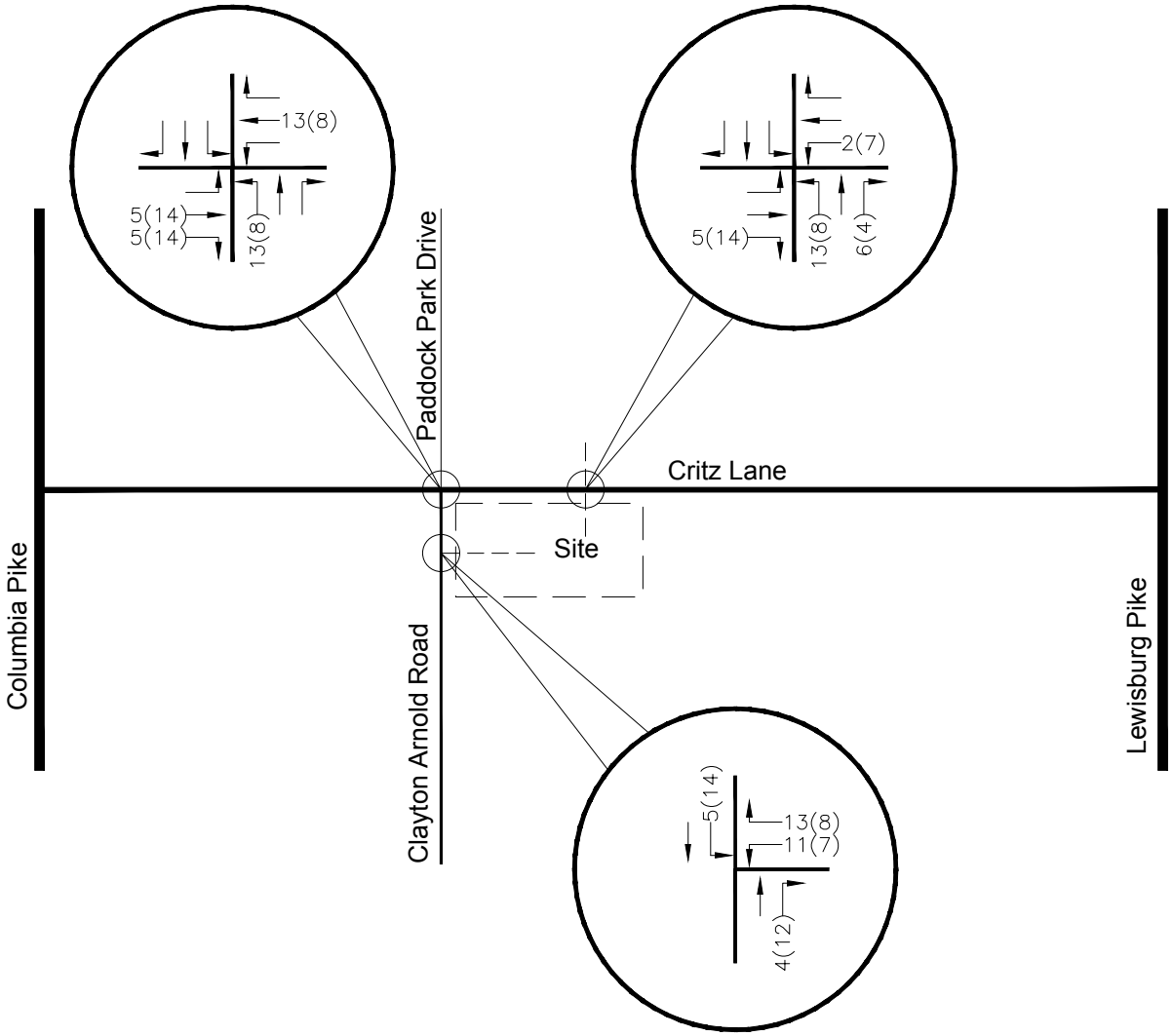


XX INBOUND
XX OUTBOUND

RAGAN·SMITH

Avenue Downs
Site Trip Distribution

Figure
5

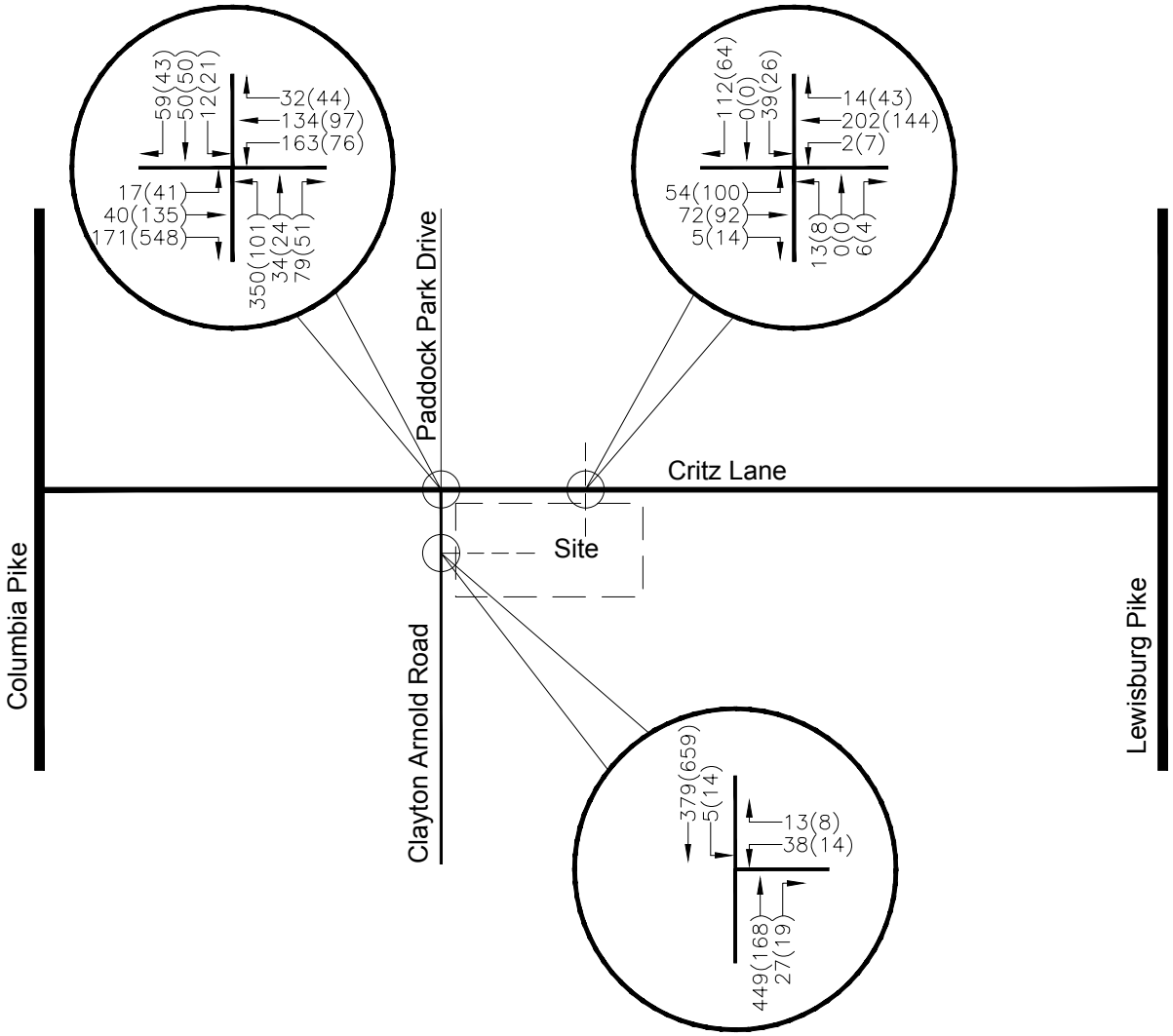


Peak Hours
AM (PM)

RAGAN SMITH

Avenue Downs
Site Traffic Volumes

Figure
6



Peak Hours
AM (PM)

RAGAN·SMITH

Avenue Downs
2021 Total Traffic Volumes

Figure
7

VI. TRANSPORTATION ANALYSIS

A. Intersection Capacity Analysis

In order to determine the quality of existing traffic operations and identify capacity deficiencies, intersection capacity analyses were conducted at the following intersections.

- Critz Lane at Clayton Arnold Road
- Clayton Arnold Road at Proposed Access

Capacity analyses were conducted according to the methodology and procedures outlined in the *Highway Capacity Manual*, HCM 2010, published by Transportation Research Board. Capacity analysis results for the a.m. peak hour are shown in Table 3.

TABLE 3

INTERSECTION CAPACITY ANALYSIS RESULTS – A.M. PEAK HOUR

Intersection	Condition[(1)]	Level of Service (avg. delay/vehicle – sec.)		
		2017 Existing	2021 Background	2021 Total
Critz Lane at Clayton Arnold Road	EB Left	A (7.4)	-	-
	WB Left	A (7.4)	-	-
	TWSC NB	C (16.3)	-	-
	TWSC SB	B (10.4)	-	-
	Overall Roundabout	-	B (10.9)	B (11.5)
Clayton Arnold Road at Project Access	SB Left	-	-	A (8.4)
	TWSC WB	-	-	C (17.8)
Critz Lane at Project Access	EB Left	-	-	A (7.8)
	WB Left	-	-	A (7.4)
	TWSC NB	-	-	B (12.6)
	TWSC SB	-	-	B (11.7)

(1) TWSC = Two-way Stop Control

Capacity analysis results for the p.m. peak hour are shown in Table 4.

TABLE 4				
INTERSECTION CAPACITY ANALYSIS RESULTS – P.M. PEAK HOUR				
Intersection	**Condition[(1)]**	**Level of Service (avg. delay/vehicle – sec.)**		
		2017 Existing	**2021 Background**	**2021 Total**
Critz Lane at Clayton Arnold Road	EB Left	A (7.4)	-	-
	WB Left	A (8.7)	-	-
	TWSC NB	C (15.2)	-	-
	TWSC SB	C (15.3)	-	-
	Overall Roundabout	-	C (15.2)	C (16.8)
Clayton Arnold Road at Project Access	SB Left	-	-	A (7.7)
	TWSC WB	-	-	C (15.1)
Critz Lane at Project Access	EB Left	-	-	A (7.9)
	WB Left	-	-	A (7.5)
	TWSC NB	-	-	B (12.8)
	TWSC SB	-	-	B (11.3)
[(1)] TWSC = Two-way Stop Control				

Level of service (LOS) criteria for unsignalized intersections is shown in Table 5.

TABLE 5		
LEVEL OF SERVICE DESCRIPTIONS FOR UNSIGNALIZED INTERSECTIONS		
Level of Service	**Description**	**Control Delay (sec. /veh.)**
A	Usually no conflicting traffic	0 - 10
B	Occasionally some delay due to conflicting traffic	> 10 - 15
C	Delay is noticeable but not inconveniencing	> 15 - 25
D	Delay is noticeable and irritating, increased risk taking	> 25 - 35
E	Delay approaches tolerance level, risk taking likely	> 35 - 50
F	Delay exceeds tolerance level, high likelihood of risk taking	> 50
Source: Highway Capacity Manual, HCM 2010		

B. Analysis Impact Thresholds

The Town of Thompson's Station has developed traffic impact thresholds for this project to determine the quality of future traffic operations and identify capacity deficiencies. The following thresholds indicate unsatisfactory conditions that would require mitigation:

- Overall intersections or intersection approaches operating at or below LOS E.
- Individual turning movements operating at LOS F.
- 95th percentile turn lane queues exceeding the available storage length.

- 95th percentile thru movement queues stretching back far enough to block an adjacent intersection or major driveway.

After conducting the capacity analysis, the intersections and individual turning movements are expected to operate at acceptable level of service based on the guidelines presented above and the queue lengths are not expected to exceed the storage length provided.

C. Turn Lane Warrants

The National Cooperative Highway Research Program (NCHRP) Report 457 provides guidance for evaluating intersection improvements at unsignalized intersections. Specific volume-based warrants have been checked to evaluate the need for right turn and left turn deceleration and storage lanes.

Table 6 below details pertinent right turn lane warrant information for applicable intersections in the study area.

TABLE 6

RIGHT TURN LANE WARRANT ANALYSIS

Location	Peak Hour	Speed	Major-Road Volume	Right-Turn Volume	Right-Turn Bay Warranted
Clayton Arnold Road (NB) at Project Access	A.M.	35	476	27	No
	P.M.		187	19	No
Critz Lane (EB) at Project Access	A.M.	40	131	5	No
	P.M.		206	14	No
Critz Lane (WB) at Project Access	A.M.	40	218	14	No
	P.M.		194	43	No

Table 7 below details pertinent left turn lane warrant information for applicable intersections in the study area.

TABLE 7

LEFT TURN LANE WARRANT ANALYSIS

Location	Peak Hour	Speed	Opposing Volume	Advancing Volume	L%	Left-Turn Bay Warranted
Clayton Arnold Road (SB) at Project Access	A.M.	35	476	384	1	No
	P.M.		187	673	2	No
Critz Lane (WB) at Project Access	A.M.	40	77	218	1	No
	P.M.		106	194	4	No
Critz Lane (EB) at Project Access	A.M.	40	216	131	41	No
	P.M.		187	206	49	No

D. Safety Analysis

A summary of historic crash data on Critz Lane between Columbia Pike and Lewisburg Pike for the period between 2010 and 2017 is shown below in Table 8.

TABLE 8

HISTORIC CRASH SUMMARY

Year	Crash Type				Total Crashes
	Fatal	Incapacitating Injury	Other Injury	Property Damage	
2010	0	0	0	1	1
2011	0	0	2	1	3
2012	0	0	3	1	4
2013	0	1	2	7	10
2014	0	0	1	3	4
2015	0	0	1	7	8
2016	0	0	2	3	5
2017	1	0	2	5	8

Source: TDOT Enhanced Tennessee Roadway Information Management System (E-TRIMS)

Even though there are not sufficient historical traffic counts available on Critz Lane to determine average crash rates and make comparisons to regional or statewide averages, the Highway Safety Manual and Crash Modification Factors Clearinghouse indicated that the planned improvements to Critz Lane can improve safety as described below.

- The crash reduction factor for increasing the lane width is 28 percent. The lane width on Critz Lane is being increased to 11 feet.

- The reduction factor for property damage crashes when providing a new shoulder that is 4 feet wide is 19 percent. The Critz Lane improvements will provide a shoulder with a width of 4 feet.

- The reduction factor for all crash types is 25 percent and the reduction factor for injury and fatal crashes is 35% when replacing a two-way stop intersection with a roundabout. On Critz Lane, the two-way stop intersections at Clayton Arnold Road / Paddock Park Drive and at Pantall Road will be replaced with roundabouts.

VII. CONCLUSIONS AND RECOMMENDATIONS

A. Introduction

Based upon a review of the existing and future proposed conditions within the study area, recommendations have been developed to provide efficient ingress and egress for Avenue Downs while managing the impact to non-site trips on the roadway network.

B. Critz Lane Improvements

The Town of Thompson's Station has proposed to improve Critz Lane between Columbia Pike and Lewisburg Pike, including widening Critz Lane to provide 11' travel lanes and 4' shoulders, constructing roundabout intersections at Clayton Arnold Road and Pantall Road, constructing turn lanes at other appropriate intersections, and correcting vertical alignment deficiencies. Survey work for this project was initiated in the fall of 2016 and a preliminary set of construction plans was provided by the Town in November 2017. The current construction schedule is not known for this project.

The Town of Thompson Station concluded that Critz Lane could not operate efficiently with an increase in traffic due to additional developments. Mainly, there was concern regarding two main locations: the intersection of Critz Lane at Clayton Arnold Road and the vertical alignment approximately 1,500 feet east of Clayton Arnold Road. These two areas of concern would be improved with the Town's plan, however, a construction schedule has not been developed.

The developer for Avenue Downs and the developer for the adjacent Fields of Canterbury have established a proposal to assist the Town with the construction of the two areas of concern. The roadway construction is intended to be completed at the same time as the development of the first phases of the two projects.

C. Critz Lane at Clayton Arnold Road

As previously discussed, the developer for Avenue Downs and the developer for the adjacent Fields of Canterbury have established a proposal to assist the Town with the construction of the roundabout. The Critz Lane improvements proposed by the Town of Thompson's Station include a single lane roundabout at this intersection with one lane entrances and exits on all four approaches.

Traffic operations in the horizon year 2021 for total traffic conditions at the intersection of Critz Lane at Clayton Arnold Road are expected to be characterized by level of service B during the a.m. peak hour and level of service C in the p.m. peak hour.

The following improvements are recommended at the intersection of Critz Lane at Clayton Arnold Road:

- The Town of Thompson's Station's proposal to construct a roundabout at this intersection is appropriate based on the operational and safety advantages that a roundabout will have over two-way stop control at this location. The developer for Avenue Downs and the developer for the adjacent Fields of Canterbury have established a proposal to assist the Town with the construction of the roundabout.

D. Clayton Arnold Road at Proposed Access

One access for Avenue Downs will be located on Clayton Arnold Road approximately 600 feet south of the intersection with Critz Lane. Traffic operations in the horizon year 2021 for total traffic conditions at the unsignalized intersection of Clayton Arnold Road at the proposed

access is expected to be characterized by level of service C during the a.m. peak hour and p.m. peak hour.

Right turn and left turn lane warrants were conducted at the intersection of Clayton Arnold Road at the proposed access. It was concluded that turn lanes are not warranted at this intersection based on the forecasted traffic volumes.

The following improvements are recommended at the intersection of Clayton Arnold Road at the proposed access:

- The Proposed Access should consist of one lane in each direction with pavement widths in compliance with the appropriate roadway section shown in the Town's Land Development Ordinance.

- Proposed grading, landscaping, and development monumentation or signage should be designed so that AASHTO intersection sight distance is not obstructed for the proposed access.

E. Critz Lane at Proposed Access

The second access for Avenue Downs will be located on Critz Lane approximately 1,400 feet east of the intersection with Clayton Arnold Road. This access will align with a proposed access for the Fields of Canterbury north of Critz Lane. As previously discussed, the developer for Avenue Downs and the developer for the adjacent Fields of Canterbury have established a proposal to assist the Town with the construction of the vertical alignment where the proposed access will be located.

Right turn and left turn lane warrants were conducted at the intersection of Critz Lane at the proposed access. It was concluded that turn lanes are not warranted at this intersection based on the forecasted 2021 total traffic volumes. However, the Town has requested the installation of left turn lanes to ensure future traffic volumes can be accommodated.

The following improvements are recommended at the intersection of Critz Lane at the proposed access:

- The Town of Thompson's Station's proposal to reconstruct Critz Lane's vertical alignment from the intersection of Clayton Arnold Road at Critz Lane to approximately 1,500 east of the intersection is appropriate based on the operational and safety advantages. The developer for Avenue Downs and the developer for the adjacent Fields of Canterbury have established a proposal to assist the Town with the construction of the vertical realignment.

- The Proposed Access should consist of one lane in each direction with pavement widths in compliance with the appropriate roadway section shown in the Town's Land Development Ordinance.

- Turn lane warrants were not met, but the Town has requested the installation of left-turn lanes at the intersection to accommodate future traffic volumes. Left turn lanes will be installed in both the eastbound and westbound directions.

- Proposed grading, landscaping, and development monumentation or signage should be designed so that AASHTO intersection sight distance is not obstructed for the proposed access.

APPENDIX

A. **TRAFFIC COUNT DATA**

B. **TRIP GENERATION & FUTURE TRAFFIC DERIVATION**

C. **2017 EXISTING CONDITIONS CAPACITY ANALYSIS WORKSHEETS**

D. **2021 BACKGROUND CONDITIONS CAPACITY ANALYSIS WORKSHEETS**

E. **2021 TOTAL CONDITIONS CAPACITY ANALYSIS WORKSHEETS**

APPENDIX A

TRAFFIC COUNT DATA

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Date: 13-Dec-17
Location: Critz Lane at Clayton Arnold Road / Paddock
Time Interval: AM

	Clayton Arnold Road			Paddock Park Drive			Critz Lane			Critz Lane		
Time	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right
0:00 - 0:15												
0:15 - 0:30												
0:30 - 0:45												
0:45 - 1:00												
1:00 - 1:15												
1:15 - 1:30												
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5:15 - 5:30												
5:30 - 5:45												
5:45 - 6:00												
6:00 - 6:15	12	3	1	0	1	4	2	1	2	3	1	1
6:15 - 6:30	36	2	1	1	6	4	2	0	6	12	9	1
6:30 - 6:45	55	1	1	0	1	6	2	2	3	14	7	3
6:45 - 7:00	47	0	0	1	6	13	1	1	7	15	13	11
7:00 - 7:15	56	2	5	2	12	9	1	2	7	26	13	6
7:15 - 7:30	47	7	1	8	2	4	4	1	12	13	6	10
7:30 - 7:45	30	3	5	0	2	5	2	1	13	12	8	10
7:45 - 8:00	36	6	6	5	12	6	4	2	10	11	7	10
8:00 - 8:15	26	3	3	4	12	5	1	5	14	9	4	6
8:15 - 8:30	31	6	2	13	5	7	2	2	5	11	12	4
8:30 - 8:45	26	2	2	5	7	12	1	4	6	4	8	5
8:45 - 9:00	16	4	2	1	9	6	3	5	11	6	5	13
9:00 - 9:15												
9:15 - 9:30												
9:30 - 9:45												
9:45 - 10:00												
10:00 - 10:15												
10:15 - 10:30												
10:30 - 10:45												
10:45 - 11:00												
11:00 - 11:15												
11:15 - 11:30												
11:30 - 11:45												
11:45 - 12:00												

RAGAN • SMITH

Date: 13-Dec-17
Location: Critz Lane at Clayton Arnold Road / Paddock
Time Interval: PM

	Clayton Arnold Road			Paddock Park Drive			Critz Lane			Critz Lane		
Time	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right
12:00 - 12:15												
12:15 - 12:30												
12:30 - 12:45												
12:45 - 13:00												
13:00 - 13:15												
13:15 - 13:30												
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15:45 - 16:00												
16:00 - 16:15	12	8	5	4	2	4	2	7	51	9	13	13
16:15 - 16:30	17	3	6	3	7	2	4	5	53	15	7	18
16:30 - 16:45	13	2	2	1	12	11	1	5	121	16	7	11
16:45 - 17:00	16	6	3	4	8	3	5	7	108	9	6	8
17:00 - 17:15	16	7	9	8	9	7	3	14	114	9	17	6
17:15 - 17:30	9	1	6	6	11	4	5	7	120	12	4	16
17:30 - 17:45	11	4	6	3	5	2	3	4	97	8	9	13
17:45 - 18:00	9	2	6	15	4	3	1	8	45	4	7	4
18:00 - 18:15	5	5	1	3	5	2	3	8	36	8	5	8
18:15 - 18:30	9	2	3	4	4	3	0	5	31	7	2	6
18:30 - 18:45	3	0	4	0	1	1	0	6	31	2	1	10
18:45 - 19:00	6	1	1	2	4	2	3	7	28	5	5	8
19:00 - 19:15												
19:15 - 19:30												
19:30 - 19:45												
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22:45 - 23:00												
23:00 - 23:15												
23:15 - 23:30												
23:30 - 23:45												
23:45 - 24:00												

RAGAN • SMITH

Date: 13-Dec-17
Location: Critz Lane at Clayton Arnold Road / Paddock

A.M. Peak Hour (6:00 - 9:00)

	Clayton Arnold Road			Paddock Park Drive			Critz Lane			Critz Lane		
Time	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right
6:30 - 6:45	55	1	1	0	1	6	2	2	3	14	7	3
6:45 - 7:00	47	0	0	1	6	13	1	1	7	15	13	11
7:00 - 7:15	56	2	5	2	12	9	1	2	7	26	13	6
7:15 - 7:30	47	7	1	8	2	4	4	1	12	13	6	10
6:30 - 7:30	**205**	**10**	**7**	**11**	**21**	**32**	**8**	**6**	**29**	**68**	**39**	**30**

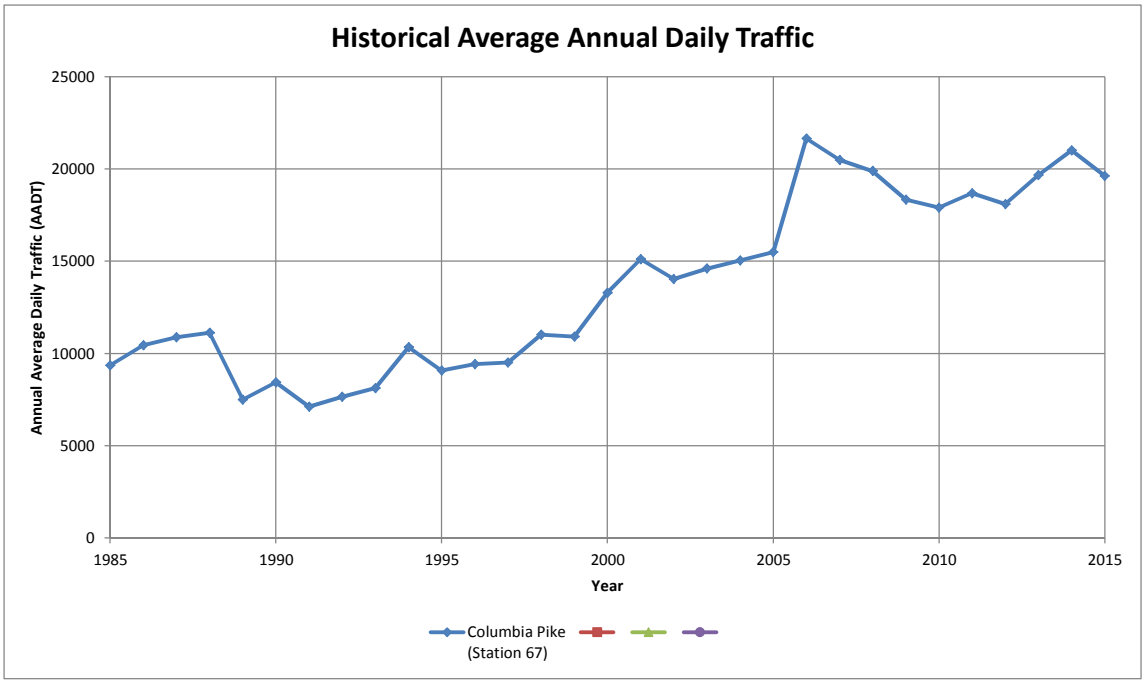
Peak Hour Factor: 0.826

P.M. Peak Hour (4:00 - 7:00)

	Clayton Arnold Road			Paddock Park Drive			Critz Lane			Critz Lane		
Time	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right
16:30 - 16:45	13	2	2	1	12	11	1	5	121	16	7	11
16:45 - 17:00	16	6	3	4	8	3	5	7	108	9	6	8
17:00 - 17:15	16	7	9	8	9	7	3	14	114	9	17	6
17:15 - 17:30	9	1	6	6	11	4	5	7	120	12	4	16
16:30 - 17:30	**54**	**16**	**20**	**19**	**40**	**25**	**14**	**33**	**463**	**46**	**34**	**41**

Peak Hour Factor: 0.919

HISTORICAL TRAFFIC COUNT DATA				
Year	Columbia Pike (Station 67)			
1985	9342			
1986	10443			
1987	10883			
1988	11127			
1989	7490			
1990	8427			
1991	7117			
1992	7654			
1993	8121			
1994	10337			
1995	9079			
1996	9418			
1997	9499			
1998	11015			
1999	10915			
2000	13289			
2001	15108			
2002	14037			
2003	14599			
2004	15037			
2005	15488			
2006	21645			
2007	20488			
2008	19891			
2009	18342			
2010	17900			
2011	18685			
2012	18101			
2013	19666			
2014	21013			
2015	19620			
2016	19816			



		Columbia Pike (Station 67)	-	-	-
Analysis Period	Begin	2011	2008	-	-
	End	2016	2015	-	-
Future Year		2021	2017	-	-
Forecasted Traffic Volume		21960	-	-	-
Annual Growth Rate		2.08%	-	-	-
Growth Factor		1.108	-	-	-

APPENDIX B

TRIP GENERATION &
FUTURE TRAFFIC DERIVATION

TRAFFIC VOLUME WORKSHEET
SPECIFIC NON-SITE TRIP GENERATION &
PROPOSED DEVELOPMENT TRIP GENERATION

RAGAN SMITH

SPECIFIC NON-SITE DEVELOPMENT TRIP GENERATION							
Development	Daily	A.M. Peak Hour			P.M. Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Remaining Canterbury (Phase 12B, 12C, 13: 90 SF, 54 TH)	1,311	28	77	105	84	50	134
K-8 Proposed School on Clayton Arnold (1,600 Students)	3,216	540	460	1,000	132	140	272
Proposed Canterbury (50%)	1,394	29	79	108	86	53	139
				0			0
TOTAL	**5,921**	**597**	**616**	**1,213**	**302**	**243**	**545**

AVENUE DOWNS TRIP GENERATION 2021 HORIZON YEAR							
Development	Daily	A.M. Peak Hour			P.M. Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Avenue Downs (69 Single Family)	739	15	43	58	48	27	75
TOTAL	**739**	**15**	**43**	**58**	**48**	**27**	**75**

TRIP GENERATION - 10th EDITION - AVENUE DOWNS

Single-Family Detached Housing - 69 Dwelling Units

Use ITE Land Use Code 210 (Single-Family Detached Housing) and associated trip generation rates for 24-hour total trips and peak hour trips.

Average Daily Traffic

Ln(T) = 0.92 Ln(X) + 2.71
Ln(T) = 0.92 Ln(69) + 2.71
T = 739

A.M. Peak Hour of Generator

Ln(T) = 0.91 Ln(X) + 0.20
Ln(T) = 0.91 Ln(69) + 0.20
T = 58

Enter = 0.26(58) = 15
Exit = 0.74(58) = 43

P.M. Peak Hour of Generator

Ln(T) = 0.94 Ln(X) + 0.34
Ln(T) = 0.94 Ln(69) + 0.34
T = 75

Enter = 0.64(75) = 48
Exit = 0.36(75) = 27

TRIP GENERATION - 10th EDITION

Elementary School - 800 Students

Use ITE Land Use Code 520 (Elementary School) and associated trip generation rates for 24-hour total trips and peak hour trips.

Average Daily Traffic

T = 1.89(X)
T = 1.89(800)
T = 1512

A.M. Peak Hour

T = 0.67(X)
T = 0.67(800)
T = 536

Enter = 0.54(536) = 289
Exit = 0.46(536) = 247

P.M. Peak Hour of Adjacent Street Traffic

T = 0.17(X)
T = 0.17(800)
T = 136

Enter = 0.48(136) = 65
Exit = 0.52(136) = 71

TRIP GENERATION - 10th EDITION

Middle School/Junior High School - 800 Students

Use ITE Land Use Code 522 (Middle School/Junior High School) and associated trip generation rates for 24-hour total trips and peak hour trips.

Average Daily Traffic

T = 2.13(X)
T = 2.13(800)
T = 1704

A.M. Peak Hour

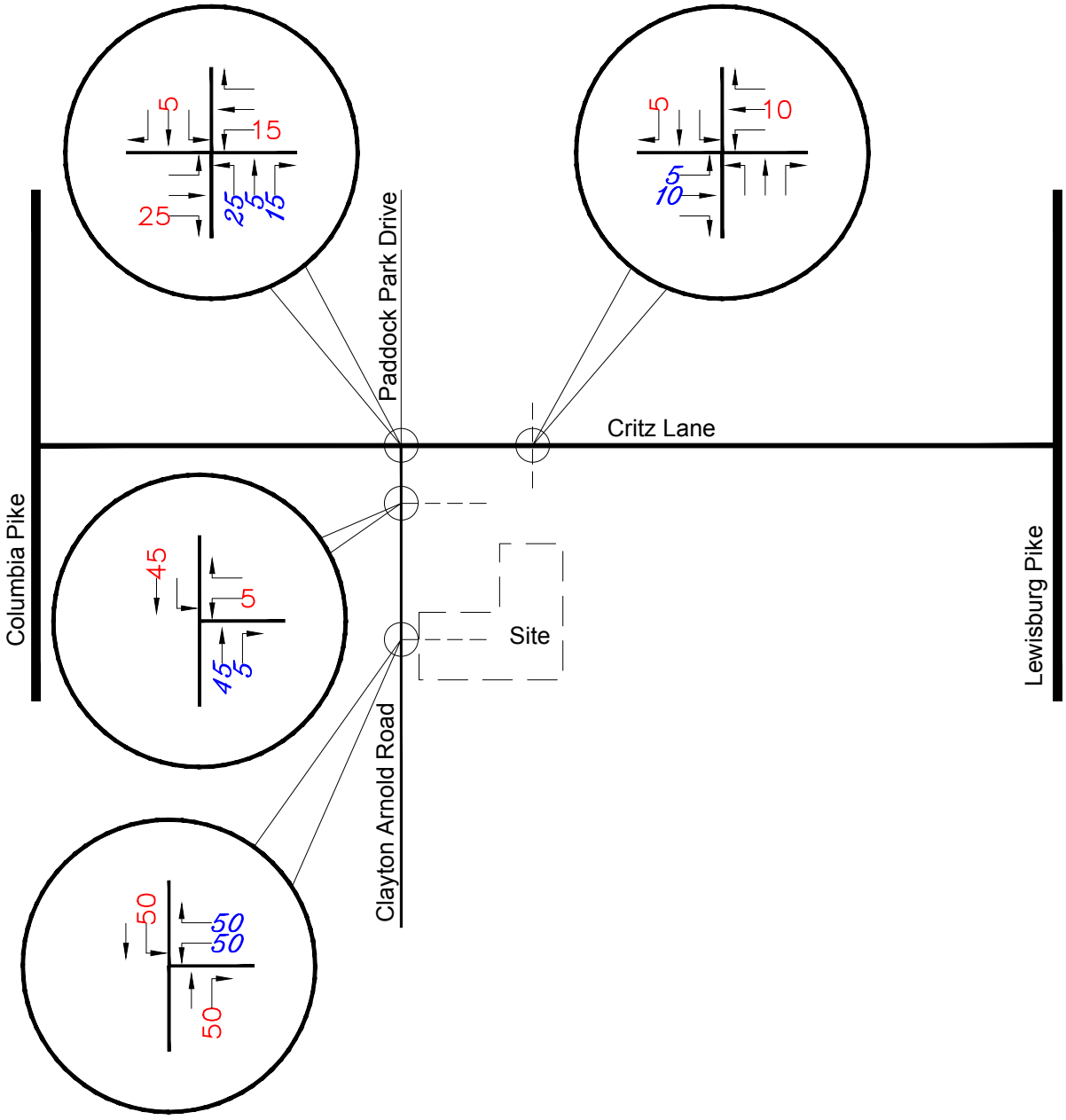
T = 0.58(X)
T = 0.58(800)
T = 464

Enter = 0.54(464) = 251
Exit = 0.46(464) = 213

P.M. Peak Hour of Adjacent Street Traffic

T = 0.17(X)
T = 0.17(800)
T = 136

Enter = 0.49(136) = 67
Exit = 0.51(136) = 69

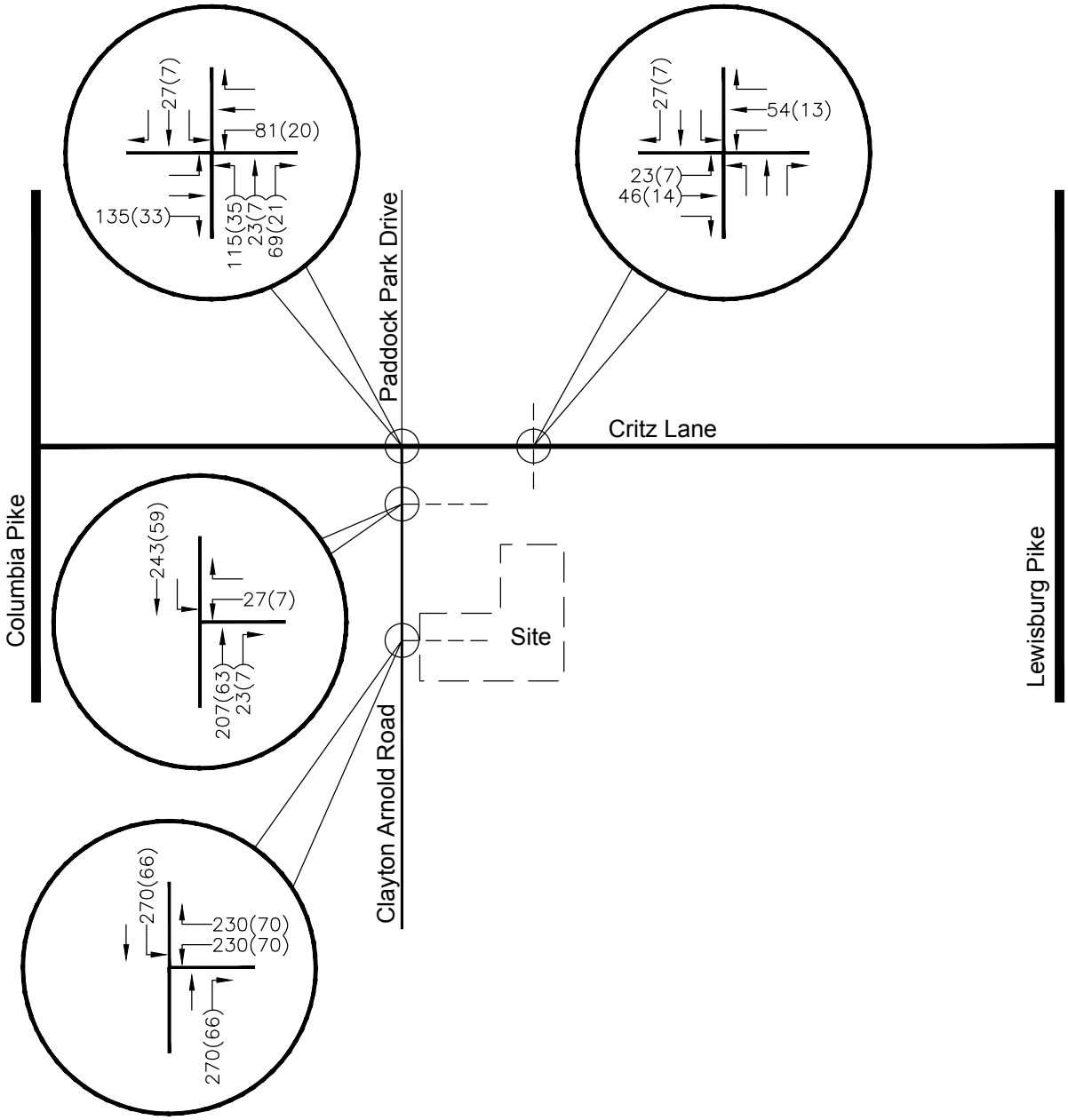


XX INBOUND
XX OUTBOUND

RAGAN·SMITH

Clayton Arnold Road School
Trip Distribution

Appendix
B-1



Peak Hours
AM (PM)

RAGAN·SMITH

Clayton Arnold Road School
Site Volumes

Appendix
B-2

TRIP GENERATION - 10th EDITION - REMAINING CANTERBURY

Single-Family Detached Housing - 90 Dwelling Units

Use ITE Land Use Code 210 (Single-Family Detached Housing) and associated trip generation rates for 24-hour total trips and peak hour trips.

Average Daily Traffic

Ln(T) = 0.92 Ln(X) + 2.71
Ln(T) = 0.92 Ln(90) + 2.71
T = 944

A.M. Peak Hour of Generator

Ln(T) = 0.91 Ln(X) + 0.20
Ln(T) = 0.91 Ln(90) + 0.20
T = 73

Enter = 0.26(73) = 19
Exit = 0.74(73) = 54

P.M. Peak Hour of Generator

Ln(T) = 0.94 Ln(X) + 0.34
Ln(T) = 0.94 Ln(90) + 0.34
T = 97

Enter = 0.64(97) = 62
Exit = 0.36(97) = 35

TRIP GENERATION - 10th EDITION - REMAINING CANTERBURY

Multifamily H 54 Dwelling Units

Low-rise multifamily housing includes apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and that have one or two levels.

Average Daily Traffic

T = 7.56(X) - 40.86
T = 7.56(54) - 40.86
T = 367

A.M. Peak Hour of Generator

Ln(T) = 0.94 Ln(X) - 0.29
Ln(T) = 0.94 Ln(54) - 0.29
T = 32

Enter = 0.28(32) = 9
Exit = 0.72(32) = 23

P.M. Peak Hour of Generator

T = 0.66(X) + 1.41
T = 0.66(54) + 1.41
T = 37

Enter = 0.59(37) = 22
Exit = 0.41(37) = 15

TRIP GENERATION - 10th EDITION - PROPOSED CANTERBURY

Single-Family Detached Housing - 179 Dwelling Units

Use ITE Land Use Code 210 (Single-Family Detached Housing) and associated trip generation rates for 24-hour total trips and peak hour trips.

Average Daily Traffic

Ln(T) = 0.92 Ln(X) + 2.71
Ln(T) = 0.92 Ln(179) + 2.71
T = 1776

A.M. Peak Hour of Generator

Ln(T) = 0.91 Ln(X) + 0.20
Ln(T) = 0.91 Ln(179) + 0.20
T = 137

Enter = 0.26(137) = 36
Exit = 0.74(137) = 101

P.M. Peak Hour of Generator

Ln(T) = 0.94 Ln(X) + 0.34
Ln(T) = 0.94 Ln(179) + 0.34
T = 184

Enter = 0.64(184) = 118
Exit = 0.36(184) = 66

TRIP GENERATION - 10th EDITION - PROPOSED CANTERBURY

Multifamily H 141 Dwelling Units

Low-rise multifamily housing includes apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and that have one or two levels.

Average Daily Traffic

T = 7.56(X) - 40.86
T = 7.56(141) - 40.86
T = 1025

A.M. Peak Hour of Generator

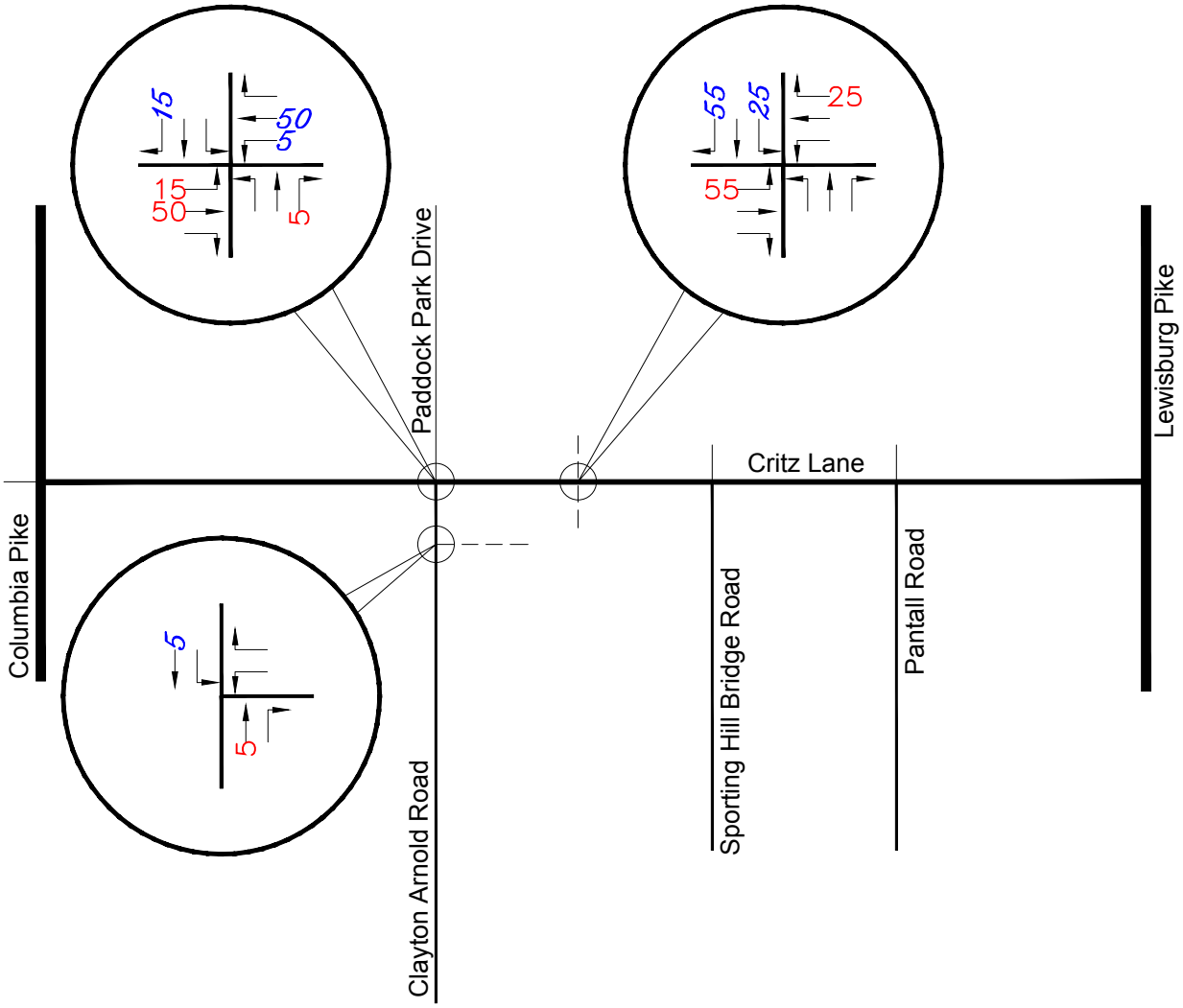
Ln(T) = 0.94 Ln(X) - 0.29
Ln(T) = 0.94 Ln(141) - 0.29
T = 78

Enter = 0.28(78) = 22
Exit = 0.72(78) = 56

P.M. Peak Hour of Generator

T = 0.66(X) + 1.41
T = 0.66(141) + 1.41
T = 94

Enter = 0.59(94) = 55
Exit = 0.41(94) = 39

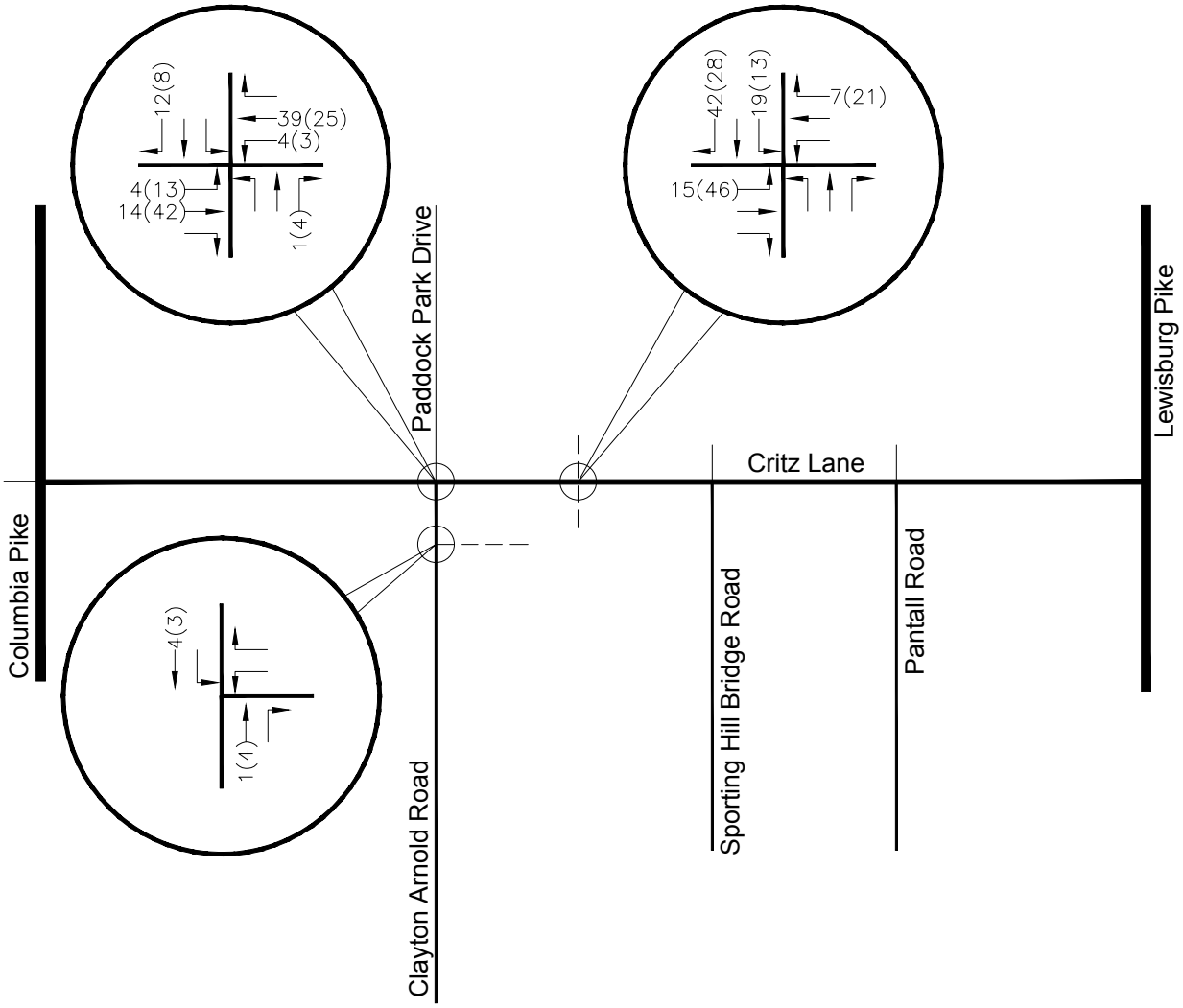


XX INBOUND
XX OUTBOUND

RAGAN·SMITH

Fields of Canterbury
Trip Distribution

Appendix
B-3

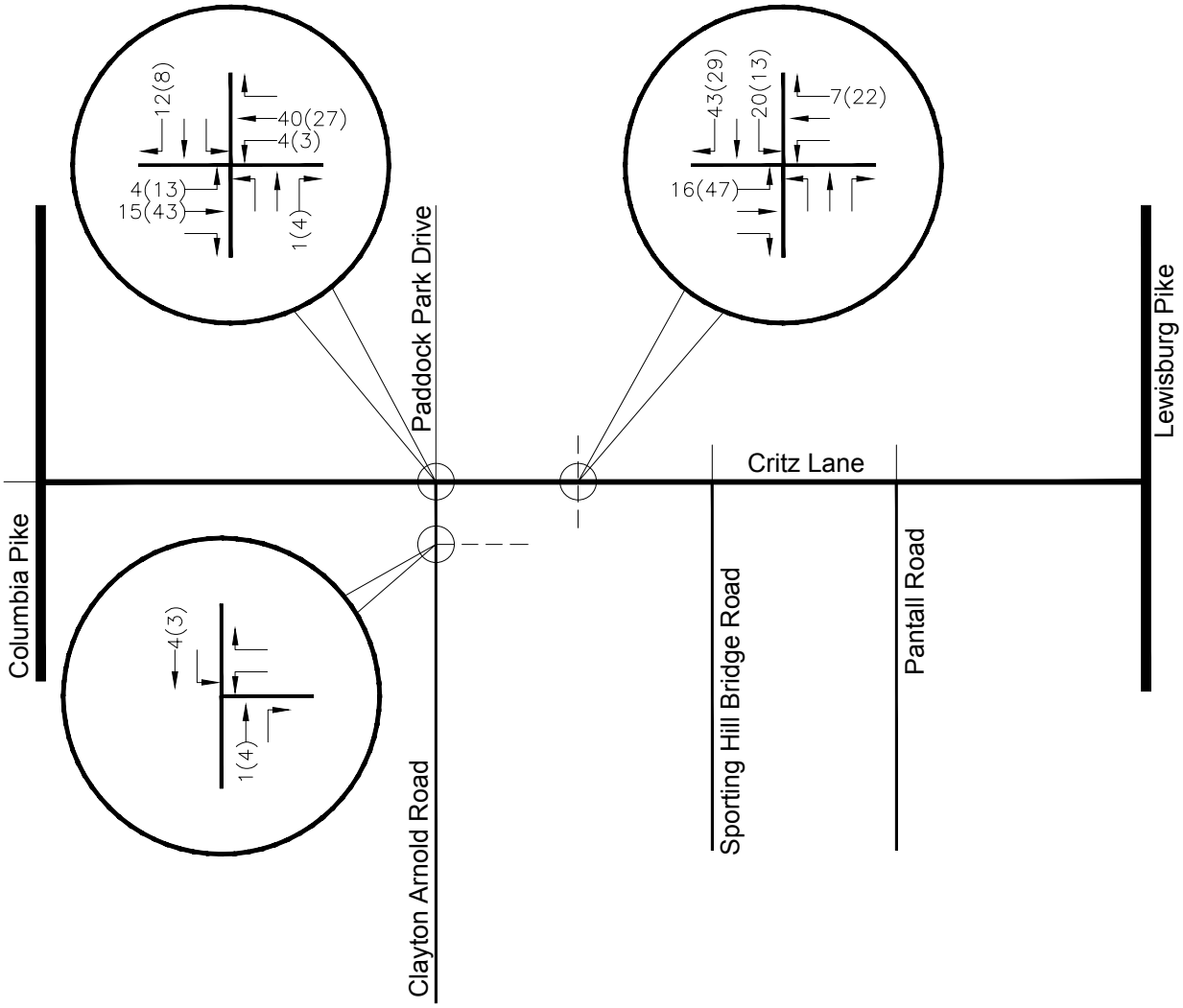


Peak Hours
AM (PM)

RAGAN SMITH

Approved Fields of Canterbury (Phases 12B, 12C and 13) Site Volumes

Appendix
B-4



Peak Hours
AM (PM)

RAGAN SMITH

Proposed Fields of Canterbury (50%)
Site Volumes

Appendix
B-5

TRAFFIC VOLUME WORKSHEET
CRITZ LANE AT CLAYTON ARNOLD ROAD
A.M. PEAK HOUR

Description		Northbound Clayton Arnold Road			Southbound Paddock Park Drive			Eastbound Critz Lane			Westbound Critz Lane		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2017 EXISTING TRAFFIC VOLUMES		205	10	7	11	21	32	8	6	29	68	39	30
2021 BACKGROUND TRAFFIC VOLUMES													
Annual Background Growth													
Growth Rate (%/year)		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Growth Factor		1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08
Annual Background Growth Trips		17	1	1	1	2	3	1	0	2	6	3	2
Specific Development Background Growth													
Remaining Canterbury (Phase 12B, 12C, 13: 90 SF, 54 TH)	% In			5				15	50				
	% Out						15				5	50	
	Trips	0	0	1	0	0	12	4	14	0	4	39	0
K-8 Proposed School on Clayton Arnold (1,600 Students)	% In					5				25	15		
	% Out	25	5	15									
	Trips	115	23	69	0	27	0	0	0	135	81	0	0
Proposed Canterbury (50%)	% In			5				15	50				
	% Out						15				5	50	
	Trips	0	0	1	0	0	12	4	15	0	4	40	0
Specific Development Background Growth Trips		115	23	71	0	27	24	8	29	135	89	79	0
2021 Background Traffic Volumes		337	34	79	12	50	59	17	35	166	163	121	32
2021 SITE TRAFFIC VOLUMES													
Avenue Downs (69 Single Family)	% In								30	30			
	% Out	30										30	
	Trips	13	0	0	0	0	0	0	5	5	0	13	0
2021 Site Traffic Volumes		13	0	0	0	0	0	0	5	5	0	13	0
2021 TOTAL TRAFFIC VOLUMES		350	34	79	12	50	59	17	40	171	163	134	32

TRAFFIC VOLUME WORKSHEET
CRITZ LANE AT CLAYTON ARNOLD ROAD
P.M. PEAK HOUR

Description		Northbound Clayton Arnold Road			Southbound Paddock Park Drive			Eastbound Critz Lane			Westbound Critz Lane		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2017 EXISTING TRAFFIC VOLUMES		54	16	20	19	40	25	14	33	463	46	34	41
2021 BACKGROUND TRAFFIC VOLUMES													
Annual Background Growth													
Growth Rate (%/year)		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Growth Factor		1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08
Annual Background Growth Trips		4	1	2	2	3	2	1	3	38	4	3	3
Specific Development Background Growth													
Remaining Canterbury (Phase 12B, 12C, 13: 90 SF, 54 TH)	% In			5				15	50				
	% Out						15				5	50	
	Trips	0	0	4	0	0	8	13	42	0	3	25	0
K-8 Proposed School on Clayton Arnold (1,600 Students)	% In					5				25	15		
	% Out	25	5	15									
	Trips	35	7	21	0	7	0	0	0	33	20	0	0
Proposed Canterbury (50%)	% In			5				15	50				
	% Out						15				5	50	
	Trips	0	0	4	0	0	8	13	43	0	3	27	0
Specific Development Background Growth Trips		35	7	29	0	7	16	26	85	33	26	52	0
2021 Background Traffic Volumes		93	24	51	21	50	43	41	121	534	76	89	44
2021 SITE TRAFFIC VOLUMES													
Avenue Downs (69 Single Family)	% In								30	30			
	% Out	30										30	
	Trips	8	0	0	0	0	0	0	14	14	0	8	0
2021 Site Traffic Volumes		8	0	0	0	0	0	0	14	14	0	8	0
2021 TOTAL TRAFFIC VOLUMES		101	24	51	21	50	43	41	135	548	76	97	44

TRAFFIC VOLUME WORKSHEET
CLAYTON ARNOLD ROAD AT PROJECT ACCESS
A.M. PEAK HOUR

RAGAN·SMITH

Description		Northbound Clayton Arnold Road			Southbound Clayton Arnold Road			Eastbound			Westbound Project Access		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2017 EXISTING TRAFFIC VOLUMES			222			118							
2021 BACKGROUND TRAFFIC VOLUMES													
Annual Background Growth													
Growth Rate (%/year)			2.0			2.0							
Growth Factor		1.00	1.08	1.00	1.00	1.08	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Annual Background Growth Trips		0	18	0	0	10	0	0	0	0	0	0	0
Specific Development Background Growth													
Remaining Canterbury (Phase 12B, 12C, 13: 90 SF, 54 TH)	% In		5										
	% Out					5							
	Trips	0	1	0	0	4	0	0	0	0	0	0	0
K-8 Proposed School on Clayton Arnold (1,600 Students)	% In					45					5		
	% Out		45	5									
	Trips	0	207	23	0	243	0	0	0	0	27	0	0
Proposed Canterbury (50%)	% In		5										
	% Out					5							
	Trips	0	1	0	0	4	0	0	0	0	0	0	0
Specific Development Background Growth Trips		0	209	23	0	251	0	0	0	0	27	0	0
2021 Background Traffic Volumes		0	449	23	0	379	0	0	0	0	27	0	0
2021 SITE TRAFFIC VOLUMES													
Avenue Downs (69 Single Family)	% In			25	30								
	% Out										25		30
	Trips	0	0	4	5	0	0	0	0	0	11	0	13
2021 Site Traffic Volumes		0	0	4	5	0	0	0	0	0	11	0	13
2021 TOTAL TRAFFIC VOLUMES		0	449	27	5	379	0	0	0	0	38	0	13

TRAFFIC VOLUME WORKSHEET
CLAYTON ARNOLD ROAD AT PROJECT ACCESS
P.M. PEAK HOUR

RAGAN SMITH

Description		Northbound Clayton Arnold Road			Southbound Clayton Arnold Road			Eastbound			Westbound Project Access		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2017 EXISTING TRAFFIC VOLUMES			90			549							
2021 BACKGROUND TRAFFIC VOLUMES													
Annual Background Growth													
Growth Rate (%/year)			2.0			2.0							
Growth Factor		1.00	1.08	1.00	1.00	1.08	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Annual Background Growth Trips		0	7	0	0	45	0	0	0	0	0	0	0
Specific Development Background Growth													
Remaining Canterbury (Phase 12B, 12C, 13: 90 SF, 54 TH)	% In		5										
	% Out					5							
	Trips	0	4	0	0	3	0	0	0	0	0	0	0
K-8 Proposed School on Clayton Arnold (1,600 Students)	% In					45					5		
	% Out		45	5									
	Trips	0	63	7	0	59	0	0	0	0	7	0	0
Proposed Canterbury (50%)	% In		5										
	% Out					5							
	Trips	0	4	0	0	3	0	0	0	0	0	0	0
Specific Development Background Growth Trips		0	71	7	0	65	0	0	0	0	7	0	0
2021 Background Traffic Volumes		0	168	7	0	659	0	0	0	0	7	0	0
2021 SITE TRAFFIC VOLUMES													
Avenue Downs (69 Single Family)	% In			25	30								
	% Out										25		30
	Trips	0	0	12	14	0	0	0	0	0	7	0	8
2021 Site Traffic Volumes		0	0	12	14	0	0	0	0	0	7	0	8
2021 TOTAL TRAFFIC VOLUMES		0	168	19	14	659	0	0	0	0	14	0	8

TRAFFIC VOLUME WORKSHEET
CRITZ LANE AT PROJECT ACCESS
A.M. PEAK HOUR

Description		Northbound Project Access			Southbound Project Access			Eastbound Critz Lane			Westbound Critz Lane		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2017 EXISTING TRAFFIC VOLUMES									24			137	
2021 BACKGROUND TRAFFIC VOLUMES													
Annual Background Growth													
Growth Rate (%/year)									2.0			2.0	
Growth Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.08	1.00	1.00	1.08	1.00
Annual Background Growth Trips		0	0	0	0	0	0	0	2	0	0	11	0
Specific Development Background Growth													
Remaining Canterbury (Phase 12B, 12C, 13: 90 SF, 54 TH)	% In							55					25
	% Out				25		55						
	Trips	0	0	0	19	0	42	15	0	0	0	0	7
K-8 Proposed School on Clayton Arnold (1,600 Students)	% In						5					10	
	% Out							5	10				
	Trips	0	0	0	0	0	27	23	46	0	0	54	0
Proposed Canterbury (50%)	% In							55					25
	% Out				25		55						
	Trips	0	0	0	20	0	43	16	0	0	0	0	7
Specific Development Background Growth Trips		0	0	0	39	0	112	54	46	0	0	54	14
2021 Background Traffic Volumes		0	0	0	39	0	112	54	72	0	0	202	14
2021 SITE TRAFFIC VOLUMES													
Avenue Downs (69 Single Family)	% In									30	15		
	% Out	30		15									
	Trips	13	0	6	0	0	0	0	0	5	2	0	0
2021 Site Traffic Volumes		13	0	6	0	0	0	0	0	5	2	0	0
2021 TOTAL TRAFFIC VOLUMES		13	0	6	39	0	112	54	72	5	2	202	14

TRAFFIC VOLUME WORKSHEET
CRITZ LANE AT PROJECT ACCESS
P.M. PEAK HOUR

Description		Northbound Project Access			Southbound Project Access			Eastbound Critz Lane			Westbound Critz Lane		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2017 EXISTING TRAFFIC VOLUMES									72			121	
2021 BACKGROUND TRAFFIC VOLUMES													
Annual Background Growth													
Growth Rate (%/year)									2.0			2.0	
Growth Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.08	1.00	1.00	1.08	1.00
Annual Background Growth Trips		0	0	0	0	0	0	0	6	0	0	10	0
Specific Development Background Growth													
Remaining Canterbury (Phase 12B, 12C, 13: 90 SF, 54 TH)	% In							55					25
	% Out				25		55						
	Trips	0	0	0	13	0	28	46	0	0	0	0	21
K-8 Proposed School on Clayton Arnold (1,600 Students)	% In						5					10	
	% Out							5	10				
	Trips	0	0	0	0	0	7	7	14	0	0	13	0
Proposed Canterbury (50%)	% In							55					25
	% Out				25		55						
	Trips	0	0	0	13	0	29	47	0	0	0	0	22
Specific Development Background Growth Trips		0	0	0	26	0	64	100	14	0	0	13	43
2021 Background Traffic Volumes		0	0	0	26	0	64	100	92	0	0	144	43
2021 SITE TRAFFIC VOLUMES													
Avenue Downs (69 Single Family)	% In									30	15		
	% Out	30		15									
	Trips	8	0	4	0	0	0	0	0	14	7	0	0
2021 Site Traffic Volumes		8	0	4	0	0	0	0	0	14	7	0	0
2021 TOTAL TRAFFIC VOLUMES		8	0	4	26	0	64	100	92	14	7	144	43

APPENDIX C

2017 EXISTING CONDITIONS CAPACITY ANALYSIS WORKSHEETS

Intersection	
Int Delay, s/veh	10.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	6	29	68	39	30	205	10	7	11	21	32
Future Vol, veh/h	8	6	29	68	39	30	205	10	7	11	21	32
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	7	35	82	47	36	247	12	8	13	25	39

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	83	0	0	42	0	0	305	291	25	283	290	65
Stage 1	-	-	-	-	-	-	44	44	-	229	229	-
Stage 2	-	-	-	-	-	-	261	247	-	54	61	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1514	-	-	1567	-	-	647	619	1051	669	620	999
Stage 1	-	-	-	-	-	-	970	858	-	774	715	-
Stage 2	-	-	-	-	-	-	744	702	-	958	844	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1514	-	-	1567	-	-	573	581	1051	622	582	999
Mov Cap-2 Maneuver	-	-	-	-	-	-	573	581	-	622	582	-
Stage 1	-	-	-	-	-	-	963	852	-	769	676	-
Stage 2	-	-	-	-	-	-	651	663	-	930	838	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	3.7	16.3	10.4
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	582	1514	-	-	1567	-	-	746
HCM Lane V/C Ratio	0.46	0.006	-	-	0.052	-	-	0.103
HCM Control Delay (s)	16.3	7.4	0	-	7.4	0	-	10.4
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	2.4	0	-	-	0.2	-	-	0.3

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	14	33	463	46	34	41	54	16	20	19	40	25
Future Vol, veh/h	14	33	463	46	34	41	54	16	20	19	40	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	36	503	50	37	45	59	17	22	21	43	27

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	82	0	0	539	0	0	513	500	288	497	729	59
Stage 1	-	-	-	-	-	-	318	318	-	159	159	-
Stage 2	-	-	-	-	-	-	195	182	-	338	570	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1515	-	-	1029	-	-	472	473	751	483	350	1007
Stage 1	-	-	-	-	-	-	693	654	-	843	766	-
Stage 2	-	-	-	-	-	-	807	749	-	676	505	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1515	-	-	1029	-	-	392	442	751	432	327	1007
Mov Cap-2 Maneuver	-	-	-	-	-	-	392	442	-	432	327	-
Stage 1	-	-	-	-	-	-	683	644	-	830	727	-
Stage 2	-	-	-	-	-	-	701	711	-	629	497	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	3.3	15.2	15.3
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	449	1515	-	-	1029	-	-	439
HCM Lane V/C Ratio	0.218	0.01	-	-	0.049	-	-	0.208
HCM Control Delay (s)	15.2	7.4	0	-	8.7	0	-	15.3
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.8	0	-	-	0.2	-	-	0.8

APPENDIX D

2021 BACKGROUND CONDITIONS CAPACITY ANALYSIS WORKSHEETS

Intersection	
Intersection Delay, s/veh	10.9
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	262	381	542	145
Demand Flow Rate, veh/h	267	389	553	147
Vehicles Circulating, veh/h	275	476	77	763
Vehicles Exiting, veh/h	635	154	465	102
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.7	14.3	10.0	11.0
Approach LOS	A	B	B	B

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	267	389	553	147
Cap Entry Lane, veh/h	858	702	1046	527
Entry HV Adj Factor	0.982	0.980	0.980	0.985
Flow Entry, veh/h	262	381	542	145
Cap Entry, veh/h	843	688	1026	519
V/C Ratio	0.311	0.554	0.529	0.279
Control Delay, s/veh	7.7	14.3	10.0	11.0
LOS	A	B	B	B
95th %tile Queue, veh	1	3	3	1

Intersection	
Intersection Delay, s/veh	15.2
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	757	228	182	124
Demand Flow Rate, veh/h	773	233	186	126
Vehicles Circulating, veh/h	163	176	204	287
Vehicles Exiting, veh/h	250	214	732	122
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	21.5	6.4	6.0	5.8
Approach LOS	C	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	773	233	186	126
Cap Entry Lane, veh/h	960	948	921	848
Entry HV Adj Factor	0.980	0.979	0.981	0.984
Flow Entry, veh/h	757	228	182	124
Cap Entry, veh/h	941	927	904	834
V/C Ratio	0.805	0.246	0.202	0.149
Control Delay, s/veh	21.5	6.4	6.0	5.8
LOS	C	A	A	A
95th %tile Queue, veh	9	1	1	1

APPENDIX E

2021 TOTAL CONDITIONS CAPACITY ANALYSIS WORKSHEETS

Intersection	
Intersection Delay, s/veh	11.5
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	274	396	558	145
Demand Flow Rate, veh/h	279	404	569	147
Vehicles Circulating, veh/h	275	492	83	794
Vehicles Exiting, veh/h	666	160	471	102
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.9	15.5	10.4	11.5
Approach LOS	A	C	B	B

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	279	404	569	147
Cap Entry Lane, veh/h	858	691	1040	511
Entry HV Adj Factor	0.982	0.980	0.981	0.985
Flow Entry, veh/h	274	396	558	145
Cap Entry, veh/h	843	677	1020	503
V/C Ratio	0.325	0.585	0.547	0.288
Control Delay, s/veh	7.9	15.5	10.4	11.5
LOS	A	C	B	B
95th %tile Queue, veh	1	4	3	1

Intersection	
Intersection Delay, s/veh	16.8
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	788	236	191	124
Demand Flow Rate, veh/h	804	241	195	126
Vehicles Circulating, veh/h	163	185	219	304
Vehicles Exiting, veh/h	267	229	748	122
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	24.2	6.5	6.2	5.9
Approach LOS	C	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	804	241	195	126
Cap Entry Lane, veh/h	960	939	908	834
Entry HV Adj Factor	0.980	0.979	0.982	0.984
Flow Entry, veh/h	788	236	191	124
Cap Entry, veh/h	941	919	891	820
V/C Ratio	0.838	0.257	0.215	0.151
Control Delay, s/veh	24.2	6.5	6.2	5.9
LOS	C	A	A	A
95th %tile Queue, veh	10	1	1	1

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	38	13	449	27	5	379
Future Vol, veh/h	38	13	449	27	5	379
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	14	488	29	5	412

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	926	503	0	0	517	0
Stage 1	503	-	-	-	-	-
Stage 2	423	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	298	569	-	-	1049	-
Stage 1	607	-	-	-	-	-
Stage 2	661	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	296	569	-	-	1049	-
Mov Cap-2 Maneuver	296	-	-	-	-	-
Stage 1	607	-	-	-	-	-
Stage 2	657	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.8	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	337	1049	-
HCM Lane V/C Ratio	-	-	0.164	0.005	-
HCM Control Delay (s)	-	-	17.8	8.4	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0	-

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	14	8	168	19	14	659
Future Vol, veh/h	14	8	168	19	14	659
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	9	183	21	15	716

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	940	193	0	0	203	0
Stage 1	193	-	-	-	-	-
Stage 2	747	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	293	849	-	-	1369	-
Stage 1	840	-	-	-	-	-
Stage 2	468	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	288	849	-	-	1369	-
Mov Cap-2 Maneuver	288	-	-	-	-	-
Stage 1	840	-	-	-	-	-
Stage 2	460	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.1	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	379	1369	-
HCM Lane V/C Ratio	-	-	0.063	0.011	-
HCM Control Delay (s)	-	-	15.1	7.7	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	54	72	5	2	202	14	13	0	6	39	0	112
Future Vol, veh/h	54	72	5	2	202	14	13	0	6	39	0	112
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	59	78	5	2	220	15	14	0	7	42	0	122

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	235	0	0	84	0	0	490	437	81	434	433	227
Stage 1	-	-	-	-	-	-	198	198	-	232	232	-
Stage 2	-	-	-	-	-	-	292	239	-	202	201	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1332	-	-	1513	-	-	489	513	979	532	516	812
Stage 1	-	-	-	-	-	-	804	737	-	771	713	-
Stage 2	-	-	-	-	-	-	716	708	-	800	735	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1332	-	-	1513	-	-	401	490	979	510	492	812
Mov Cap-2 Maneuver	-	-	-	-	-	-	401	490	-	510	492	-
Stage 1	-	-	-	-	-	-	768	704	-	737	712	-
Stage 2	-	-	-	-	-	-	608	707	-	759	702	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.2	0.1	12.6	11.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	493	1332	-	-	1513	-	-	704
HCM Lane V/C Ratio	0.042	0.044	-	-	0.001	-	-	0.233
HCM Control Delay (s)	12.6	7.8	-	-	7.4	-	-	11.7
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.9

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	100	92	14	7	144	43	8	0	4	26	0	64
Future Vol, veh/h	100	92	14	7	144	43	8	0	4	26	0	64
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	109	100	15	8	157	47	9	0	4	28	0	70

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	203	0	0	115	0	0	555	543	108	522	528	180
Stage 1	-	-	-	-	-	-	325	325	-	195	195	-
Stage 2	-	-	-	-	-	-	230	218	-	327	333	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1369	-	-	1474	-	-	442	447	946	465	456	863
Stage 1	-	-	-	-	-	-	687	649	-	807	739	-
Stage 2	-	-	-	-	-	-	773	723	-	686	644	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1369	-	-	1474	-	-	380	409	946	433	417	863
Mov Cap-2 Maneuver	-	-	-	-	-	-	380	409	-	433	417	-
Stage 1	-	-	-	-	-	-	632	597	-	743	735	-
Stage 2	-	-	-	-	-	-	707	719	-	628	593	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.8	0.3	12.8	11.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	475	1369	-	-	1474	-	-	671
HCM Lane V/C Ratio	0.027	0.079	-	-	0.005	-	-	0.146
HCM Control Delay (s)	12.8	7.9	-	-	7.5	-	-	11.3
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0.3	-	-	0	-	-	0.5

Thompson's Station Planning Commission
Staff Report – Item 2 Bridgemore Village Section 6C
January 28, 2020

SURETY REDUCTION REQUEST
Bridgemore Village, Sections 6C

"The surety instruments guaranteeing installation of improvements may be reduced upon completion of the base asphalt and again upon completion, dedication and acceptance of such improvements and then only to the ratio that the cost of the public improvements dedicated bears to the total cost of public improvements included in said plat" (LDO Section 5.2.13). Sureties may not be reduced below 15% of the cost for said improvements.

On November 28, 2017, Section 6C was approved for the creation of single-family lots within Bridgemore Village. The plat was approved with a $215,000 surety for roads, drainage and erosion control and a $170,000 surety for the sewer. Upon review of the sureties, the Town Engineer noted:

> *Roadway is completed, with surface course remaining to be installed. Approximate nine lots are under construction or remain to be constructed. Drainage and utilities are in place. EC has been installed and is functioning as intended. The most recent EC site observation date is 1/14/2020.*

Recommendation

Based on the recommendation from the Town Engineer, Staff recommends that the Planning Commission

1. Reduce the roads, drainage and erosion control surety in from $215,000 to $158,000 for an additional year with automatic renewal each year thereafter.
2. Reduce the sewer surety from $170,000 to $70,000 for an additional year with automatic renewal each year thereafter.

Attachments

Engineer Memo 6C

Town of Thompson's Station Planning Department
P. O. Box 100
1550 Thompson's Station Road West
615-794-4333

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General Application / Request: File No.: _____

Applicant Information: (Please print)

Company / Business Name: Blueprint Properties, LLC

Contact: Huntly Gordon Phone # 1: 615-302-0100

Mailing / Street Address: 245 Noah Drive

City, State, Zip: Franklin, TN 37064

E-mail: huntly@huntlygordon.com Phone # 2: _____

SUBDIVISIONS:

	RESIDENTIAL		NON-RESIDENTIAL
	Development Concept Presentation		Development Concept Presentation
	Single Lot Site Plan – Lot #: ____		Single Lot Site Plan – Lot #: ____
	Site Plan		Site Plan
	Preliminary Plat		Preliminary Plat
	Final Plat		Final Plat
	Revision to Final Plat		Revision to Final Plat
	Construction Drawing		Construction Drawing

SIGNS:

XX	**BOND REDUCTION**		
	Master Sign Plan / Program		Sign Permit / Review
	Billboard Sign Face Replacement		Temporary Sign Permit

OTHER:

	Annexation		Change of Use
	Rezone		Residential Business
	Temporary Use/Event permit		Home Occupation
	Special Exception		Variance Request

Parcel / Property Information:

Parcel Location / Address: PLEASE SEE ATTACHED PLATS

Tax Map & Parcel #: _____ Acreage: _____

Owner Name: _____

Owner Address (if different from Parcel Address): _____

_____

Deed Book & Page #: _____

Check one : ☒ sewer ☐ septic ☐ n/a

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1456 $500

Project Description Information:

Subdivision / Project Name: BRIDGEMORE SECTION 6C AND BRIDGEMORE SECTION 6D

Plat Book & Page #: 6C - Book P67 Page 142
6D - Book P68 Page 81 Lot #(s):

Project Description:

Improvements for Bridgemore Section 6C and Bridgemore Section 6D have been installed per the Engineer's Certification which is attached as an Exhibit to this application - the final paving quote for BOTH sections is $64,400.00 per the attached quote from Tennessee Valley Paving.
The total lot count is as follows: Section 6C = 28 and Section 6D = 17.
There are 45 lots in BOTH sections.
Section 6C comprises 62% of the total lots (28/45)
Section 6D comprises 38% of the total lots (17/45)

Justification Statement: State why the application(s) should be approved, based on the required findings (if any). Attach additional pages if necessary.

The paving quote for BOTH Sections should be prorated per the above percentages and the bond for each Section reduced accordingly.
Section 6C final paving is 62% of $64,400.00 = $43,792.00 x 110% = $48,171.20
Section 6D final paving is 38% of $64,400.00 = $24,472.00 x 110% = $26,919.20

Existing Performance Bonds for Section 6C are as follows:
Roadway/Drainage $125,000.00
Sewer = $71,000.00

Request is to reduce the Performance Bond for Section 6C as follows:
Roadway/Drainage $50,000.00
Sewer = none

Existing Performance Bonds for Section 6D are as follows:
Roadway/Drainage $102,000.00
Sewer = $78,000.00

Request is to reduce the Performance Bond for Section 6D as follows:
Roadway/Drainage $27,000.00
Sewer = none

Signature of Applicant

11 Dec 19
Date

Engineer Information: (Please print)

Company / Business Name: RAGAN SMITH ASSOCIATES

Contact: JACOB VINCENT Phone # 1: (615) 244-8591

Street / Mailing Address: 315 Woodland St

City, State, Zip: Nashville, TN 37206

E-mail: _____ Phone # 2: _____

Architect Information: (Please print)

Company / Business Name: _____

Contact: _____ Phone # 1: _____

Street / Mailing Address: _____

City, State, Zip: _____

E-mail: _____ Phone # 2: _____

Consultant Information: (Please print)

Company / Business Name: _____

Contact: HUNTLY GORDON Phone # 1: 615-302-0100

Street / Mailing Address: PO BOX 461

City, State, Zip: THOMPSON'S STATION, TN 37179

E-mail: huntly@huntlygordon.com Phone # 2: _____

Engineer's Certification Form

We, the undersigned engineers, known as:

Ragan Smith Associates

For the public improvements on a real estate development project commonly known as:

Bridgemore - Phases 6C and 6D (The Project)

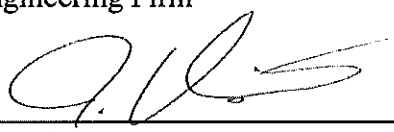
Located at:

Off of Clayton Arnold Road

In Williamson County, TN do hereby certify that to the best of our knowledge, The Project has been built in accordance with the plans approved by the Town of Thompson's Station and has passed all required tests under State law and/or specifications and ordinances of the Town of Thompson's Station.

12/11/19
Date

Ragan Smith Associates
Engineering Firm


Signed

Jacob F. Vincent
Printed Name

Project Engineer
Title/Project Role

Subject: Bridgemore Village Bonds
Date: Tuesday, October 29, 2019 at 12:35:54 PM Central Daylight Time
From: Moore
To: Huntly Gordon
CC: Jimmy
Attachments: Bridgemore 6D recorded plat.pdf, Bridgemore Village 6C Plat (recorded).pdf, BRIDGEMORE 6A PLAT BK P64 PG 110.pdf, Bridgemore 6B Plat (recorded).pdf

Huntly,

Attached are the recorded plats for all 4 sections of Bridgemore Village phase 6. Also, below is the surety breakdown. We have officially requested a full release for 6A and 6B. I am not sure what their stance on a % reduction for 6B would be.

6A:
-Roadway/Drainage= $120,600
-Sewer= $70,000

6B:
-Roadway/Drainage= $215,000
-Sewer= $170,000

6C:
-Roadway/Drainage= $125,000
-Sewer= $71,000

6D:
-Roadway/Drainage= $102,000
-Sewer= $78,000

Thank you,
Moore Russell, RLA
Tennessee Valley Homes, Inc.
245 Noah Drive
Franklin, TN 37064
615.794.7415 ext. 242 Office

TENNESSEE VALLEY PAVING

Quality Work Since 1957
Hot Mix Sales
Franklin
Fairview
Columbia
Shelbyville

135 Old Carter's Creek Pike
Franklin, Tn. 37064

Phone: 615-794-2351
Fax:615-794-2408

PROPOSAL TO:

TENNESSEE VALLEY HOMES, INC.

ATTN: MOORE

PROJECT / BID:

BRIDGEMOORE VILLAGE PH. 6

DATE: 11-1-2019

ROADS ROAD AND PULPMILL DRIVE

CLEAN, APPLY TACK COAT, 1½" HOT MIX ASPHALT - 7,507 SQ. YD. AREA

TOTAL FOR ABOVE IS: $ 64,400.00

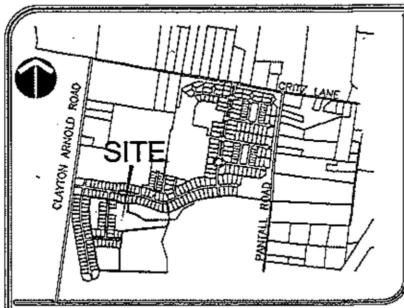
* NIC - ANY BINDER REPAIR OR CURBING REPAIR THAT CITY MAY REQUIRE @ WALK THRU INSPECTION.

QUOTE FOR SECTION 6C AND SECTION 6D

Prices quoted based on current TDOT bituminous index unless noted above and may be subject to change. OCT. 2019
Stakes and layout to be provided by others.
Material testing not provided unless noted above.
All accounts payable within 30 days upon completion.
Quote subject to change after 30 days.

AUTHORIZED SIGNATURE _____

ACCEPTED BY _____ DATE _____

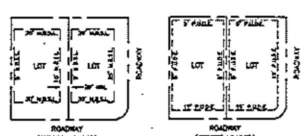


LOCATION MAP
(NOT TO SCALE)

GENERAL NOTES

1. THE PURPOSE OF THIS PLAT IS TO CREATE 28 SINGLE FAMILY LOTS AND 3 OPEN SPACE TRACTS AND TO DEDICATE R.O.W. AND EASEMENTS.
2. BEARINGS SHOWN HEREON ARE BASED ON THE TENNESSEE COORDINATE SYSTEM OF 1983. GPS EQUIPMENT WAS USED TO DETERMINE THE POSITION OF TWO CONTROL POINTS ON THE SURVEYED PROPERTY IN ORDER TO ESTABLISH THE BEARING BASE FOR THE SURVEY. TYPE EQUIPMENT USED: LEICA, MODEL GX1230, DUAL FREQUENCY RECEIVER. THE TYPE OF GPS SURVEY: NETWORK ADJUSTED REAL TIME KINEMATIC.
3. THE PROPERTY IS ZONED LOW INTENSITY RESIDENTIAL (D1)
MINIMUM BUILDING SETBACKS: FRONT – 30'
SIDE – 5'/15'
REAR – 20'
4. BY SCALED MAP LOCATION AND GRAPHIC PLOTTING ONLY, THIS PROPERTY LIES WITHIN FLOOD ZONE "X" (OTHER AREAS), AS DESIGNATED ON CURRENT FEDERAL EMERGENCY MANAGEMENT AGENCY MAP NO.'S 47187C0340F AND 47187C0365F, WITH AN EFFECTIVE DATE OF SEPTEMBER 29, 2006, WHICH MAKES UP A PART OF THE NATIONAL FLOOD INSURANCE ADMINISTRATION REPORT; COMMUNITY NO. 470424, PANEL NO.'S 0340 AND 0365, SUFFIX F, WHICH IS THE CURRENT FLOOD INSURANCE RATE MAP FOR THE COMMUNITY IN WHICH SAID PREMISES IS SITUATED. SAID MAP DEFINES ZONE "X" (OTHER AREAS) UNDER "OTHER AREAS" AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.
5. THIS SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. ABOVE GRADE AND UNDERGROUND UTILITIES SHOWN WERE TAKEN FROM VISIBLE APPURTENANCES, PUBLIC RECORDS, AND/OR MAPS PREPARED BY OTHERS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. THEREFORE, RELIANCE UPON THE TYPE, SIZE AND LOCATION OF UTILITIES SHOWN SHOULD BE DONE SO WITH THIS CIRCUMSTANCE CONSIDERED. DETAILED VERIFICATION OF EXISTENCE, LOCATION AND DEPTH SHOULD ALSO BE MADE PRIOR TO ANY DECISION RELATIVE THERETO IS MADE. AVAILABILITY AND COST OF SERVICE SHOULD BE CONFIRMED WITH THE APPROPRIATE UTILITY COMPANY. IN TENNESSEE, IT IS A REQUIREMENT, PER "THE UNDERGROUND UTILITY DAMAGE PREVENTION ACT", THAT ANYONE WHO ENGAGES IN EXCAVATION MUST NOTIFY ALL KNOWN UNDERGROUND UTILITY OWNERS NO LESS THAN THREE (3) NOR MORE THAN TEN (10) WORKING DAYS PRIOR TO THE DATE OF THEIR INTENT TO EXCAVATE AND ALSO TO AVOID ANY POSSIBLE HAZARD OR CONFLICT. TENNESSEE ONE CALL DIAL 811.
6. HOMEOWNER'S ASSOCIATION WILL MAINTAIN ALL SIDEWALKS AND OPEN SPACE, INCLUDING LANDSCAPE AND DETENTION/RETENTION AREAS. ALL ROADWAYS SHALL BE PUBLIC STREETS, CONSTRUCTED TO THE SPECIFICATIONS OF THOMPSON'S STATION AS PUBLIC R.O.W.S.
7. ALL OPEN SPACE SHALL BE PUBLIC UTILITY AND DRAINAGE EASEMENTS.
8. ON CORNER LOTS, THE ADDRESS WILL BE WHERE THE MAILBOX IS PLACED.
9. I HEREBY STATE THAT THIS SURVEY WAS DONE IN COMPLIANCE WITH THE CURRENT TENNESSEE MINIMUM STANDARDS OF PRACTICE AND THIS IS A CATEGORY I SURVEY AND THE RATIO OF PRECISION OF THE UNADJUSTED SURVEY IS 1:114,450.

BY: [signature] DATE: 11-30-17
JOHN T. DARNALL, TN RLS #1577



TYPICAL LOT SETBACK LINES
(NOT TO SCALE)

TYPICAL LOT EASEMENT LINES
(NOT TO SCALE)

AREA SUMMARY TABLE

TOTAL LOT AREA –	11.03 AC.±
OPEN SPACE AREA –	22.52 AC.±
R.O.W. AREA –	1.87 AC.±
TOTAL SITE AREA –	35.42 AC.±

LEGEND

R.O.W.C.T. REGISTER'S OFFICE WILLIAMSON COUNTY, TENNESSEE

PROPERTY MAP REFERENCE

BEING A PORTION OF PARCEL NUMBER 14.02 AS SHOWN ON WILLIAMSON COUNTY PROPERTY MAP NUMBER 145.

DEED REFERENCE

BEING A PORTION OF THE SAME PROPERTY CONVEYED TO BLUEPRINT PROPERTIES, LLC FROM MBSC BRIDGEMORE, LLC BY ORIGINAL WARRANTY DEED OF RECORD IN BOOK 6463, PAGE 979, REGISTER'S OFFICE FOR WILLIAMSON COUNTY, TENNESSEE.

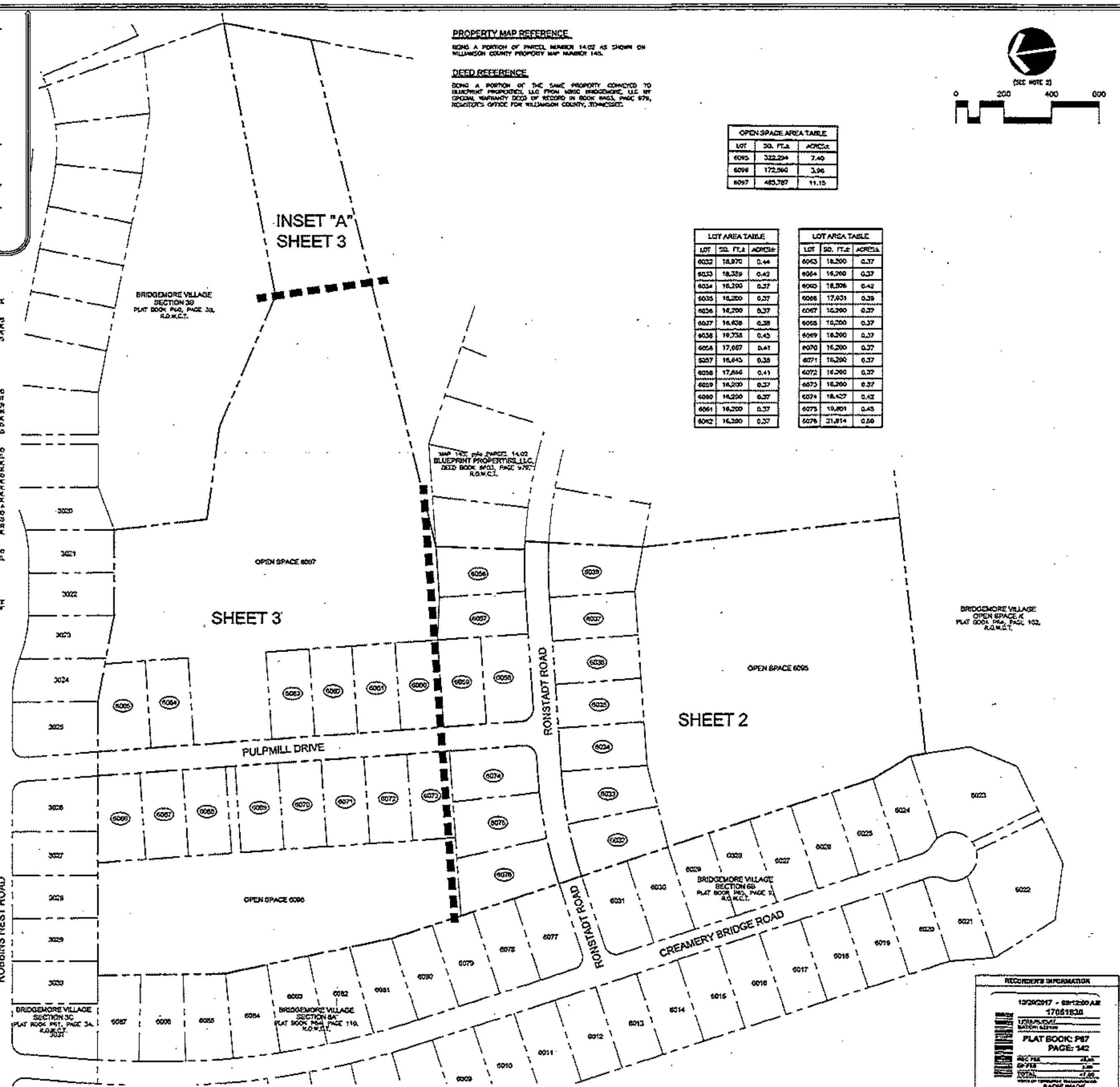
(SEE NOTE 2)

0 200 400 600

OPEN SPACE AREA TABLE		
LOT	SQ. FT.±	ACRES±
6095	322,294	7.40
6096	172,560	3.96
6097	485,787	11.15

LOT AREA TABLE		
LOT	SQ. FT.±	ACRES±
6032	18,970	0.44
6033	18,359	0.42
6034	16,200	0.37
6035	16,200	0.37
6036	16,200	0.37
6037	16,638	0.38
6038	19,738	0.45
6056	17,667	0.41
6057	16,643	0.38
6058	17,864	0.41
6059	16,200	0.37
6060	16,200	0.37
6061	16,200	0.37
6062	16,200	0.37

LOT AREA TABLE		
LOT	SQ. FT.±	ACRES±
6063	16,200	0.37
6064	16,200	0.37
6065	18,306	0.42
6066	17,031	0.39
6067	16,200	0.37
6068	16,200	0.37
6069	16,200	0.37
6070	16,200	0.37
6071	16,200	0.37
6072	16,200	0.37
6073	16,200	0.37
6074	18,427	0.42
6075	19,801	0.45
6076	21,814	0.50



TOTAL AREA = 1,542,874 SQUARE FEET OR 35.42 ACRES ±

RECORDER'S INFORMATION

12/20/2017 - 09:12:00 AM
17051830
PLAT BOOK: P67
PAGE: 142
SADIE WADE

CERTIFICATE OF OWNERSHIP & DEDICATION

[signature] BLUEPRINT PROPERTIES, LLC
DATE: Dec 1st 17 TITLE: Member

CERTIFICATE OF ACCURACY

RAGAN – SMITH – ASSOCIATES, INC.
DATE: 11-30-17 [signature and seal]

CERTIFICATE OF APPROVAL OF UTILITY SYSTEMS

WATER SYSTEM DATE: 12/6/17 [signature]
SEWER SYSTEM DATE: 12/15/17 [signature]

CERTIFICATION OF THE APPROVAL OF STREETS

DATE: 12/19/17 [signature] TOWN ENGINEER

CERTIFICATE OF APPROVAL OF MIDDLE TENNESSEE ELECTRIC MEMBERSHIP CORPORATION

DATE: 12/5/17 [signature] MIDDLE TENNESSEE ELECTRIC MEMBERSHIP CORPORATION

CERTIFICATE OF APPROVAL FOR RECORDING

DATE: 12/19/17 [signature] SECRETARY OF PLANNING COMMISSION

CERTIFICATE OF APPROVAL OF SUBDIVISION NAME AND STREET NAMES

DATE: 12/1/17 [signature]

CERTIFICATE FOR ADDRESSES

DATE: 12/1/17 [signature]

FINAL PLAT

BRIDGEMORE VILLAGE

SECTION 6C

LOTS 6032-6038, 6056-6076
AND OPEN SPACE 6095-6097

11TH CIVIL DISTRICT OF WILLIAMSON COUNTY,
TOWN OF THOMPSON'S STATION, TENNESSEE

REVISED: NOVEMBER 30, 2017
DATE: OCTOBER 13, 2017
JOB NO. 11-052
SCALE: 1"=200'
W.O. 0329

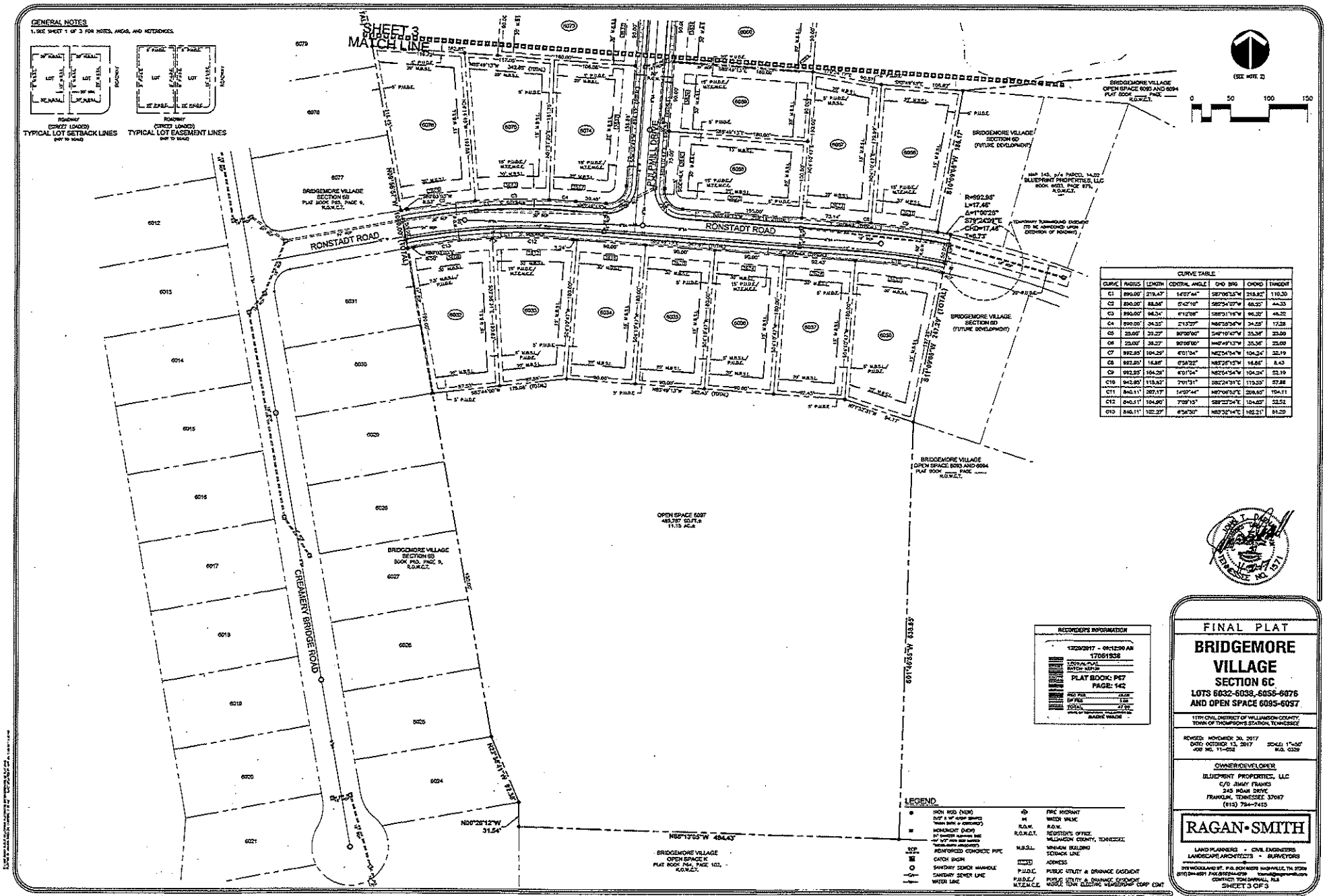
OWNER/DEVELOPER
BLUEPRINT PROPERTIES, LLC
C/O JIMMY FRANKS
245 NOAH DRIVE
FRANKLIN, TENNESSEE 37067
(615) 794-7413

RAGAN•SMITH

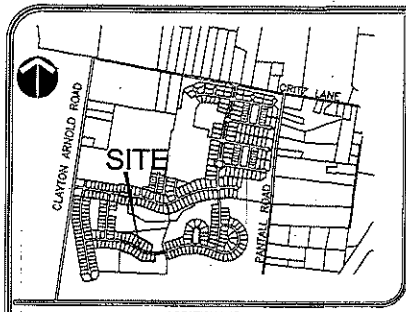
LAND PLANNERS - CIVIL ENGINEERS
LANDSCAPE ARCHITECTS - SURVEYORS
CONTACT: TOM DARNALL, RLS

SHEET 1 OF 3


GENERAL NOTES
1. SEE SHEET 1 OF 3 FOR NOTES, AREAS, AND REFERENCES.
TYPICAL LOT SETBACK LINES
TYPICAL LOT EASEMENT LINES
ROBBINS NEST ROAD
OPEN SPACE 3096
BRIDGEMORE VILLAGE SECTION 3C PLAT BOOK P51, PAGE 34, R.O.W.C.T.
S81°45'29"E 568.00' (TOTAL)
S71°03'42"E 183.18' (TOTAL)
S81°45'29"E 180.00'
PULPMILL DRIVE
OPEN SPACE 6096
OPEN SPACE 6097
DETENTION POND
OPEN SPACE 3095
BRIDGEMORE VILLAGE SECTION 3B PLAT BOOK P50, PAGE 36, R.O.W.C.T.
S74°02'25"E 195.94'
S56°25'27"E 285.54'
STREAM BUFFER
MATCH LINE SHEET 3
SEE INSET "A" MATCH LINE
S84°24'39"W 1091.24'
BRIDGEMORE VILLAGE OPEN SPACE 6093 AND 6094
BRIDGEMORE VILLAGE SECTION 6D (FUTURE DEVELOPMENT)
MAP 145, P/O PARCEL 14.02 BLUEPRINT PROPERTIES, LLC
BRIDGEMORE VILLAGE SECTION 6A
N03°00'40"W 354.78'
N07°32'47"E 282.07'
INSET "A" 1"=50'
MATCH LINE
N87°34'54"E 580.18'
PLAT BOOK: P67
PAGE: 142
LEGEND
IRON ROD (NEW)
FIRE HYDRANT
WATER VALVE
R.O.W.
MONUMENT (NEW)
REGISTER'S OFFICE WILLIAMSON COUNTY, TENNESSEE
REINFORCED CONCRETE PIPE
MINIMUM BUILDING SETBACK LINE
CATCH BASIN
ADDRESS
SANITARY SEWER MANHOLE
PUBLIC UTILITY & DRAINAGE EASEMENT
SANITARY SEWER LINE
WATER LINE
FINAL PLAT
BRIDGEMORE VILLAGE
SECTION 6C
LOTS 6032-6038, 6056-6076
AND OPEN SPACE 6095-6097
11TH CIVIL DISTRICT OF WILLIAMSON COUNTY, TOWN OF THOMPSON'S STATION, TENNESSEE
REVISED: NOVEMBER 30, 2017
DATE: OCTOBER 13, 2017
SCALE: 1"=50'
OWNER/DEVELOPER
BLUEPRINT PROPERTIES, LLC
RAGAN•SMITH
LAND PLANNERS • CIVIL ENGINEERS
LANDSCAPE ARCHITECTS • SURVEYORS
SHEET 2 OF 3



CURVE TABLE						
CURVE	RADIUS	LENGTH	CENTRAL ANGLE	CHD BRG	CHORD	TANGENT
C1	890.00'	219.43'	14°07'44"	S82°06'58"W	218.92'	110.30
C2	890.00'	88.58'	5°42'10"	S82°34'07"W	88.55'	44.33
C3	890.00'	96.34'	6°12'08"	S88°31'18"W	96.29'	48.20
C4	890.00'	34.35'	2°13'27"	N85°38'34"W	34.35'	17.28
C5	25.00'	39.27'	90°00'00"	S45°10'47"W	35.36'	25.00
C6	25.00'	39.27'	90°00'00"	N44°49'13"W	35.36'	25.00
C7	992.96'	104.29'	6°01'04"	N82°34'54"W	104.24'	52.19
C8	992.96'	16.88'	0°58'22"	N85°26'13"W	16.88'	8.43
C9	992.96'	104.29'	6°01'04"	N82°34'54"W	104.24'	52.19
C10	942.96'	115.82'	7°01'31"	S82°24'39"E	115.75'	57.88
C11	840.11'	207.17'	14°07'44"	N82°06'58"E	206.62'	104.11
C12	840.11'	104.90'	7°09'15"	S88°22'04"E	104.83'	52.52
C13	840.11'	102.27'	6°58'30"	N85°36'14"E	102.21'	51.20



LOCATION MAP
(NOT TO SCALE)

GENERAL NOTES

1. THE PURPOSE OF THIS PLAT IS TO CREATE 17 SINGLE FAMILY LOTS AND TO DEDICATE R.O.W. AND EASEMENTS.
2. BEARINGS SHOWN HEREON ARE BASED ON THE TENNESSEE COORDINATE SYSTEM OF 1983. GPS EQUIPMENT WAS USED TO DETERMINE THE POSITION OF TWO CONTROL POINTS ON THE SURVEYED PROPERTY IN ORDER TO ESTABLISH THE BEARING BASE FOR THE SURVEY. TYPE EQUIPMENT USED: LEICA, MODEL GX1230, DUAL FREQUENCY RECEIVER. THE TYPE OF GPS SURVEY: NETWORK ADJUSTED REAL TIME KINEMATIC.
3. THE PROPERTY IS ZONED LOW INTENSITY RESIDENTIAL (D1)
   MINIMUM BUILDING SETBACKS: FRONT – 30' SIDE – 5'/15' REAR – 20'
4. BY SCALED MAP LOCATION AND GRAPHIC PLOTTING ONLY, THIS PROPERTY LIES WITHIN FLOOD ZONE "X" (OTHER AREAS), AS DESIGNATED ON CURRENT FEDERAL EMERGENCY MANAGEMENT AGENCY MAP NO.'S 47187C0345F AND 47187C0365F, WITH AN EFFECTIVE DATE OF SEPTEMBER 29, 2006, WHICH MAKES UP A PART OF THE NATIONAL FLOOD INSURANCE ADMINISTRATION REPORT) COMMUNITY NO. 470424, PANEL NO.'S 0345 AND 0365, SUFFIX F, WHICH IS THE CURRENT FLOOD INSURANCE RATE MAP FOR THE COMMUNITY IN WHICH SAID PREMISES IS SITUATED. SAID MAP DEFINES ZONE "X" (OTHER AREAS) UNDER "OTHER AREAS" AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.
5. THIS SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. ABOVE GRADE AND UNDERGROUND UTILITIES SHOWN WERE TAKEN FROM VISIBLE APPURTENANCES, PUBLIC RECORDS, AND/OR MAPS PREPARED BY OTHERS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. THEREFORE, RELIANCE UPON THE TYPE, SIZE AND LOCATION OF UTILITIES SHOWN SHOULD BE DONE SO WITH THIS CIRCUMSTANCE CONSIDERED. DETAILED VERIFICATION OF EXISTENCE, LOCATION AND DEPTH SHOULD ALSO BE MADE PRIOR TO ANY DECISION RELATIVE THERETO IS MADE. AVAILABILITY AND COST OF SERVICE SHOULD BE CONFIRMED WITH THE APPROPRIATE UTILITY COMPANY. IN TENNESSEE, IT IS A REQUIREMENT, PER "THE UNDERGROUND UTILITY DAMAGE PREVENTION ACT", THAT ANYONE WHO ENGAGES IN EXCAVATION MUST NOTIFY ALL KNOWN UNDERGROUND UTILITY OWNERS, NO LESS THAN THREE (3) NOR MORE THAN TEN (10) WORKING DAYS PRIOR TO THE DATE OF THEIR INTENT TO EXCAVATE AND ALSO TO AVOID ANY POSSIBLE HAZARD OR CONFLICT. TENNESSEE ONE CALL, DIAL 811.
6. HOMEOWNER'S ASSOCIATION WILL MAINTAIN ALL SIDEWALKS AND OPEN SPACE, INCLUDING LANDSCAPE AND DETENTION/RETENTION AREAS. ALL ROADWAYS SHALL BE PUBLIC STREETS CONSTRUCTED TO THE SPECIFICATIONS OF THOMPSON'S STATION AS PUBLIC R.O.W.S.
7. ALL OPEN SPACE SHALL BE PUBLIC UTILITY AND DRAINAGE EASEMENTS.
8. DOMESTIC WATER SUPPLY INFORMATION TAKEN FROM PLANS FOR HBATS BY JAMES C. HAILEY AND CO., DATED NOVEMBER 23, 2015.
9. I HEREBY STATE THAT THIS SURVEY WAS DONE IN COMPLIANCE WITH THE CURRENT TENNESSEE MINIMUM STANDARDS OF PRACTICE AND THIS IS A CATEGORY I SURVEY AND THE RATIO OF PRECISION OF THE UNADJUSTED SURVEY IS 1:114,450.

BY: [signature] DATE: 2-1-18
JOHN T. DARNALL, TN RLS #1571

TYPICAL LOT SETBACK LINES (NOT TO SCALE)

TYPICAL LOT EASEMENT LINES (NOT TO SCALE)

AREA SUMMARY TABLE		
TOTAL LOT AREA	–	7.84 AC.±
OPEN SPACE AREA	–	0.00 AC.±
R.O.W. AREA	–	1.28 AC.±
TOTAL SITE AREA	–	9.12 AC.±

PROPERTY MAP REFERENCE

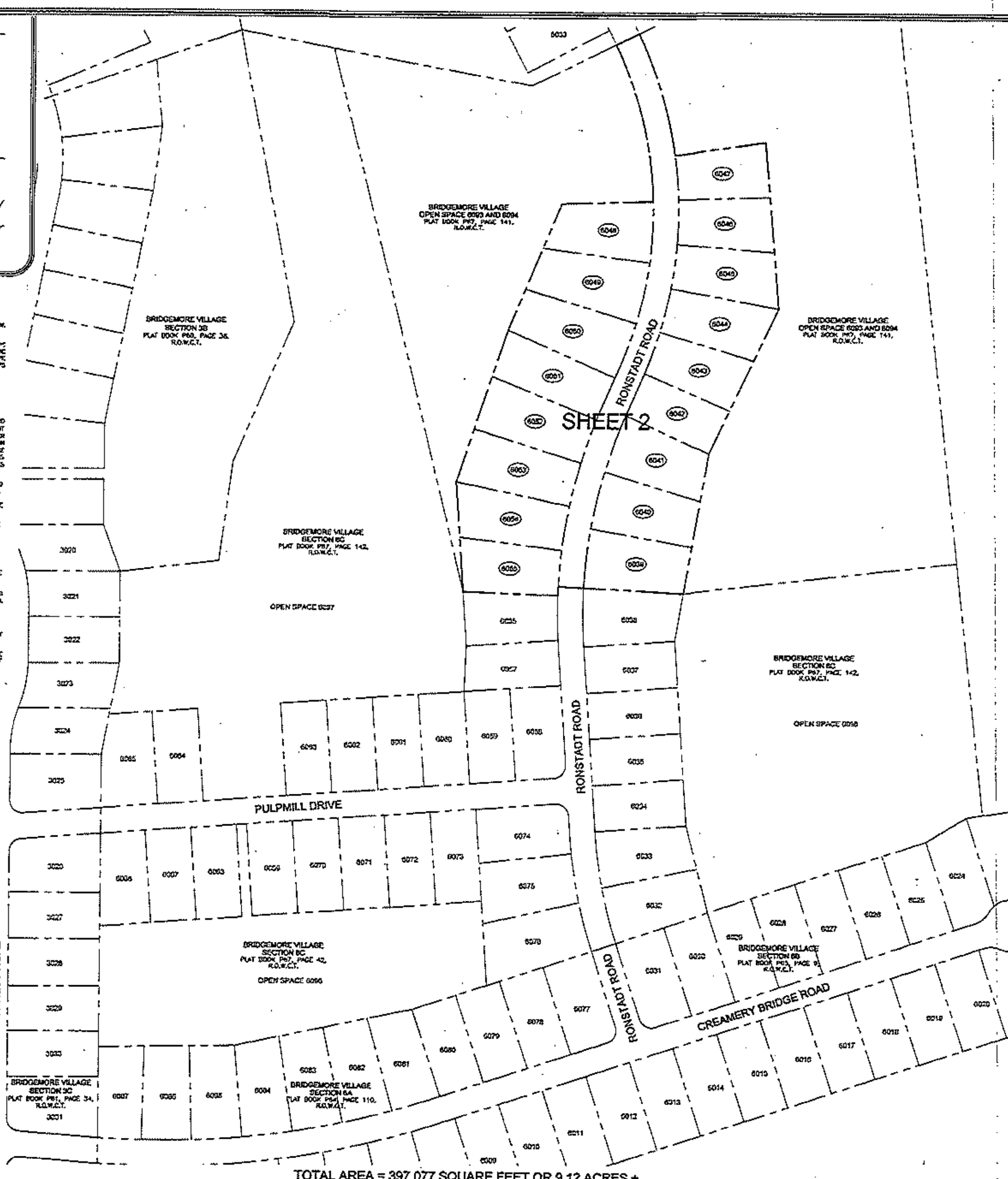
BEING A PORTION OF PARCEL NUMBER 14.02 AS SHOWN ON WILLIAMSON COUNTY PROPERTY MAP NUMBER 145.

DEED REFERENCE

BEING A PORTION OF THE SAME PROPERTY CONVEYED TO BLUEPRINT PROPERTIES, LLC FROM WDSC BRIDGEMORE, LLC BY SPECIAL WARRANTY DEED OF RECORD IN BOOK 6403, PAGE 979, REGISTER'S OFFICE FOR WILLIAMSON COUNTY, TENNESSEE.

LEGEND

R.O.W.C.T. REGISTER'S OFFICE WILLIAMSON COUNTY, TENNESSEE



(SEE NOTE 2)

LOT AREA TABLE		
LOT	SQ. FT.±	ACRES±
6039	20,767	0.48
6040	20,767	0.48
6041	19,738	0.45
6042	16,462	0.38
6043	18,242	0.42
6044	20,044	0.46
6045	19,903	0.46
6046	18,011	0.41
6047	17,381	0.40
6048	20,729	0.48
6049	22,795	0.52
6050	23,136	0.53
6051	20,927	0.48
6052	21,448	0.49
6053	21,757	0.50
6054	20,786	0.48
6055	18,609	0.43

RECORDER'S INFORMATION
18012292
PLAT BOOK: P68
PAGE: 81

CERTIFICATE OF OWNERSHIP & DEDICATION

2-28-18 [signature] BLUEPRINT PROPERTIES, LLC (Member)

CERTIFICATE OF ACCURACY

RAGAN – SMITH – ASSOCIATES, INC.

2-1-18 [signature]

CERTIFICATE OF APPROVAL OF UTILITY SYSTEMS

CERTIFICATION OF THE APPROVAL OF STREETS

4/4/18 [signature]

CERTIFICATE OF APPROVAL OF MIDDLE TENNESSEE ELECTRIC MEMBERSHIP CORPORATION

2/12/18 [signature]

CERTIFICATE OF APPROVAL FOR RECORDING

4/3/18 [signature]

CERTIFICATE OF APPROVAL OF SUBDIVISION NAME AND STREET NAMES

2/12/18 [signature]

CERTIFICATE FOR ADDRESSES

I DO HEREBY CERTIFY THAT THE ADDRESSES DENOTED ON THIS FINAL PLAT ARE THOSE ASSIGNED BY DEPARTMENT OF INFORMATION TECHNOLOGY (IT).

2/18/18 [signature]

FINAL PLAT

BRIDGEMORE VILLAGE

SECTION 6D

LOTS 6039-6055

11TH CIVIL DISTRICT OF WILLIAMSON COUNTY, TOWN OF THOMPSON'S STATION, TENNESSEE

REVISED: FEBRUARY 1, 2018
REVISED: JANUARY 5, 2018
DATE: DECEMBER 14, 2017 SCALE: 1"=200'
JOB NO. 11-052 P.O. 0529

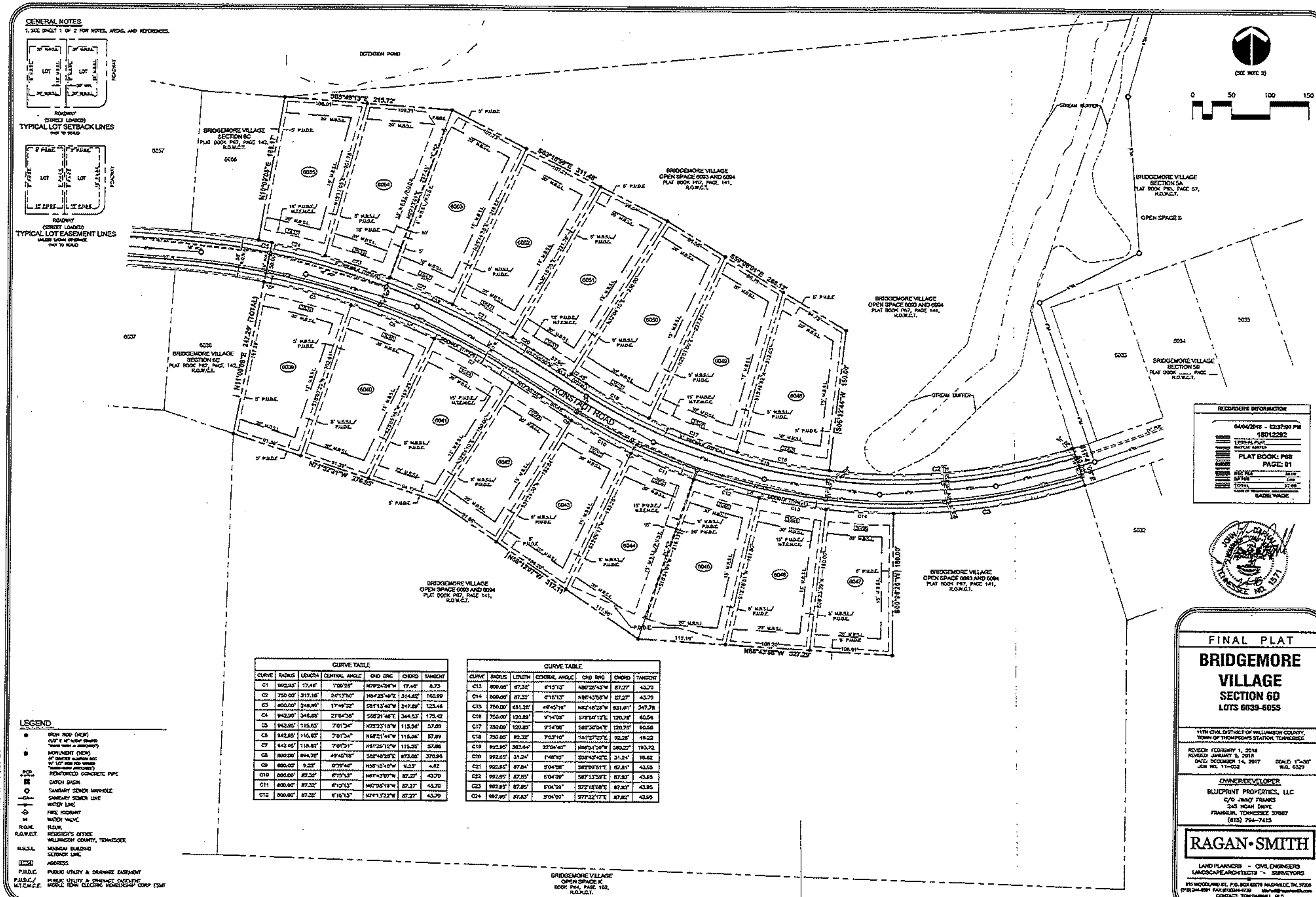
OWNER/DEVELOPER
BLUEPRINT PROPERTIES, LLC
C/O JIMMY FRANKS
245 NOAH DRIVE
FRANKLIN, TENNESSEE 37067
(615) 794-7415

RAGAN•SMITH

LAND PLANNERS • CIVIL ENGINEERS
LANDSCAPE ARCHITECTS • SURVEYORS

315 WOODLAND ST. P.O. BOX 60070 NASHVILLE, TN 37206
CONTACT: TOM DARNALL, RLS

SHEET 1 OF 2



CURVE TABLE						
CURVE	RADIUS	LENGTH	CENTRAL ANGLE	CHD BRG	CHORD	TANGENT
C1	992.95'	17.46'	1°00'28"	N79°24'24"W	17.46'	8.73
C2	750.00'	317.16'	24°13'50"	N84°25'49"E	314.82'	160.99
C3	800.00'	248.89'	17°49'32"	S81°13'40"W	247.89'	125.46
C4	942.95'	346.88'	21°04'38"	S08°21'46"E	344.53'	175.42
C5	942.95'	115.63'	7°01'34"	N75°23'18"W	115.56'	57.80
C6	942.95'	115.63'	7°01'34"	N68°21'44"W	115.56'	57.89
C7	942.95'	115.63'	7°01'31"	N61°20'12"W	115.55'	57.86
C8	800.00'	694.70'	49°45'18"	S82°46'28"E	673.08'	370.96
C9	800.00'	9.23'	0°39'40"	N56°10'40"W	9.23'	4.62
C10	800.00'	87.32'	6°15'13"	N67°43'07"W	87.27'	43.70
C11	800.00'	87.32'	6°15'13"	N67°58'19"W	87.27'	43.70
C12	800.00'	87.32'	6°15'13"	N74°13'32"W	87.27'	43.70

CURVE TABLE						
CURVE	RADIUS	LENGTH	CENTRAL ANGLE	CHD BRG	CHORD	TANGENT
C13	800.00'	87.32'	6°15'13"	N80°28'45"W	87.27'	43.70
C14	800.00'	87.32'	6°15'13"	N86°43'58"W	87.27'	43.70
C15	700.00'	651.28'	49°45'16"	N82°46'28"W	631.01'	347.78
C16	750.00'	120.89'	9°14'08"	S78°54'12"E	120.76'	60.56
C17	750.00'	120.89'	9°14'08"	S69°30'04"E	120.76'	60.56
C18	750.00'	92.32'	7°03'10"	S01°27'25"E	92.28'	46.22
C19	992.95'	382.64'	22°04'46"	N66°51'39"W	380.27'	193.72
C20	992.95'	31.24'	1°48'10"	S58°43'42"E	31.24'	15.62
C21	992.95'	87.84'	5°04'08"	S62°09'51"E	87.81'	43.95
C22	992.95'	87.85'	5°04'09"	S67°13'59"E	87.82'	43.95
C23	992.95'	87.85'	5°04'09"	S72°18'08"E	87.82'	43.95
C24	992.95'	87.85'	5°04'09"	S77°22'17"E	87.82'	43.95

FINAL PLAT

BRIDGEMORE VILLAGE

SECTION 6D

LOTS 6039-6055

11TH CIVIL DISTRICT OF WILLIAMSON COUNTY,
TOWN OF THOMPSON'S STATION, TENNESSEE

REVISED: FEBRUARY 1, 2018
REVISED: JANUARY 5, 2018
DATE: DECEMBER 14, 2017 SCALE: 1"=50'
JOB NO. 11-032 W.O. 0329

OWNER/DEVELOPER

BLUEPRINT PROPERTIES, LLC
C/O JIMMY FRANKS
245 NOAH DRIVE
FRANKLIN, TENNESSEE 37067
(615) 794-7415

RAGAN•SMITH

LAND PLANNERS - CIVIL ENGINEERS
LANDSCAPE ARCHITECTS - SURVEYORS

315 WOODLAND ST., P.O. BOX 60070 NASHVILLE, TN. 37206
(615) 244-8591 FAX (615) 244-6739
CONTACT: TOM DARNALL, RLS

SHEET 2 OF 2

PROPERTY OWNER(S) STATEMENT

STATE OF TENNESSEE
COUNTY OF WILLIAMSON
TOWN OF THOMPSON'S STATION

I / We, **Blueprint Properties, LLC**, declare that I / we am / are the owner(s) of the property described herein and hereby give authorization for the filing of this application. Further, I / we do, by my / our signature(s) on this agreement, absolve the Town of Thompson's Station of all liabilities regarding any deed restrictions that may be applicable to the property described herein. (Signature of all property owners is required. The owner in escrow is not acceptable.)

I / We declare that all encumbrances on the subject property are shown on the submitted site plan (or are attached on a separate sheet) and that the purpose of all encumbrances (and ownership of all easements) is stated. In the case of a tentative map, I / we further declare that the property involved in this application is free from all encumbrances that would conflict with the project application, particularly dedications of the right to further subdivide to the Town of Thompson's Station.

I / We hereby grant the Town admittance to the subject property as necessary for processing of the project application.

I / We declare under penalty of perjury that the foregoing statements and answers herein contained and the information herewith submitted are in all respects true and correct to the best of my knowledge and belief.

Signed: Lauren Cook, authorized agent Date: 12-16-19

Signed: _____ Date: _____

Signed: _____ Date: _____

STEVEN CLIFTON, PE
LAND DEVELOPMENT CONSULTING

2183 Hillsboro Rd, Ste. 302
Franklin, TN
(615) 207-9339

01/16/2020

BRIDGEMORE 6C
Bond Reduction

28 Lots & 0.61 mi Road (3240 ft)

Roadway is completed, with surface course remaining to be installed. Approximate nine lots are under construction or remain to be constructed. Some remediation of the binder course may be required. Drainage and utilities are in place. EC has been installed and is functioning as intended. The most recent EC site observation date is 1/14/2020.

Bond for Roads, grading, drainage, and erosion control: $158,000

Sanitary sewer is in place all services are installed and system is operating.

Bonds for sanitary sewer main and services: $70,000

Thompson's Station Planning Commission
Staff Report – Item 3 Bridgemore Village Section 6D
January 28, 2020

SURETY REDUCTION REQUEST
Bridgemore Village, Sections 6D

"The surety instruments guaranteeing installation of improvements may be reduced upon completion of the base asphalt and again upon completion, dedication and acceptance of such improvements and then only to the ratio that the cost of the public improvements dedicated bears to the total cost of public improvements included in said plat" (LDO Section 5.2.13). Sureties may not be reduced below 15% of the cost for said improvements.

On January 23, 2018, Section 6D was approved for the creation of single-family lots within Bridgemore Village. The plat was approved with a $215,000 surety for roads, drainage and erosion control and a $170,000 surety for the sewer. Upon review of the sureties, the Town Engineer noted:

> *Roadway is completed, with surface course remaining to be installed. Residential construction is almost complete. Some remediation of the binder course may be required. Drainage and utilities are in place. EC has been installed and is functioning as intended. The most recent EC site observation date is 1/14/2020.*

Recommendation
Based on the recommendation from the Town Engineer, Staff recommends that the Planning Commission

1. Reduce the roads, drainage and erosion control surety in from $120,600 to $65,000 for an additional year with automatic renewal each year thereafter.
2. Reduce the sewer surety from $70,000 to $27,000 for an additional year with automatic renewal each year thereafter.

Attachments
Engineer Memo 6D

STEVEN CLIFTON, PE
LAND DEVELOPMENT CONSULTING

2183 Hillsboro Rd, Ste. 302
Franklin, TN
(615) 207-9339

1/16/2020

BRIDGEMORE 6D
BOND REDUCTION

17 Lots & 0.21 mi. road (1109 ft)

Roadway is completed, with surface course remaining to be installed. Residential construction is almost complete. Some remediation of the binder course may be required. Drainage and utilities are in place. EC has been installed and is functioning as intended. The most recent EC site observation date is 1/14/2020.

Bond for Roads, grading, drainage, and erosion control: $65,000

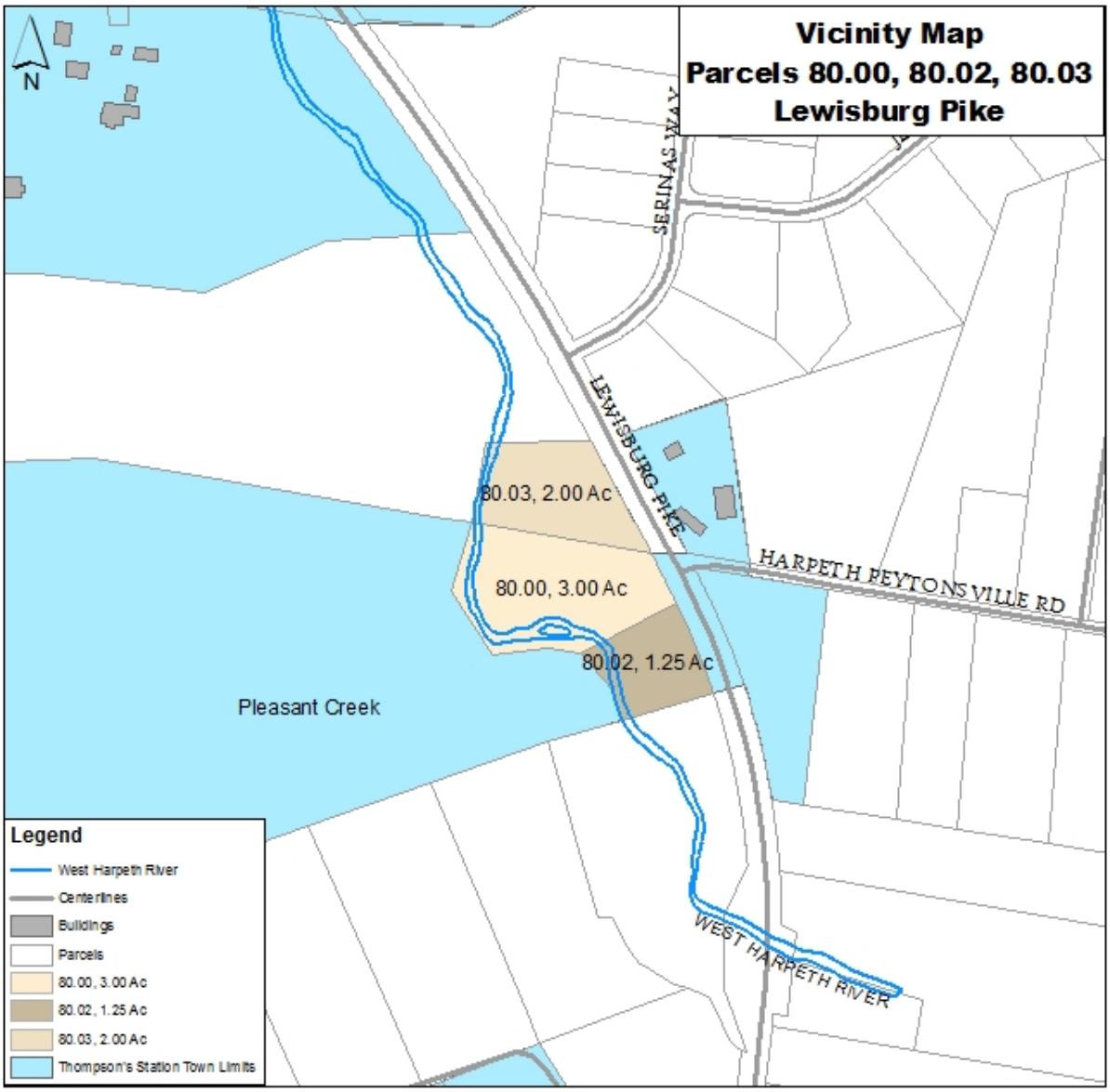
Sanitary sewer is in place all services are installed and system is operating.

Bonds for sanitary sewer main and services: $27,000

Thompson's Station Planning Commission
Staff Report – Item 4 (Rezone 2020-001)
January 28, 2020
Amend the Zoning Map to Rezone 6.19 acres for The Crossroad at Pleasant Creek (Map 144 80.00, Map 144 80.02, and Map 144 80.03) from D1 zoning to Community Commercial (CC) zoning.

PROJECT DESCRIPTION

A request from Pleasant Creek, LLC to rezone 212.2 acres north of Thompson's Station Road East, along the west side of State Route 106/Highway 431 (Lewisburg Pike), east of Interstate 65, along the north side of Thompsons Station Road East to Community Commercial (CC) for a The Crossroad at Pleasant Creek.



PURPOSE OF A ZONING MAP AMENDMENT OR REZONING REQUEST

Amendments to the zoning ordinance or the zoning map are considered on a case by case basis upon request or petition to the Planning Commission. Zoning to the Transect Community (TC) district is not permitted by right. All proposed map amendments, including amendment to utilize the transect community zoning must be "predicated by a finding that the proposed amendment is consistent with the intent of the Town's General Plan and the proposed amendment will not have a deleterious effect on surrounding properties or the Town as a whole" (LDO 5.3.3).

Changing the zoning of a particular parcel will allow the owner of the parcel to develop or use their property based on the corresponding use table within the Land Development Ordinance (Table 4.1 Land Use and Building Type). The Planning Commission is to evaluate the request based on the General Plan and make a formal recommendation to the Board of Mayor and Aldermen. The recommendation can be one of denial or approval.

ZONING

The subject site is located within the G1 – Controlled Growth sector of the General Plan and is zoned as D1, which is a low intensity residential district that permits the development of single family residential with a density of one unit per acre. The site is bounded by agricultural and residential to the north, commercial and vacant land to the east, and residential to the south.

ANALYSIS

The subject property is located north of Thompson's Station Road East, east of Interstate 65 with road frontage on Lewisburg Pike and is across from the intersection with Harpeth Peytonsville Road. The site is predominantly vacant with a few barn/outbuildings on site. The subject property is located within the G1 – Controlled Growth Sector of the General Plan which.

This site is located along an arterial state highway and an intersection with a major collector. Therefore, the transportation network adjacent to this site is conducive to commercial zoning. Additionally, commercial zoning exists across Lewisburg Pike and there is an existing commercial establishment located at 1883 Lewisburg Pike. Thus, this request functions as an extension of an existing commercial zone.

The General Plan recommends both a balanced mix of uses and a balanced mixed of nonresidential uses throughout the Town. This request fits within the Goals and Policy of the General Plan.

Staff's analysis finds that the CC zoning for the property is consistent with the General Plan goals and policies and will be developed in accordance with the Town's Land Development Ordinance

RECOMMENDATION

Based on the findings for General Plan consistency, Staff recommends a favorable recommendation onto the Board of Mayor and Aldermen.

ATTACHMENTS

Rezone Map
Request Letter

HUNTLY GORDON
A PROFESSIONAL LIMITED LIABILITY CORPORATION
ATTORNEY AT LAW

January 21, 2020

Micah Wood, AICP
Interim Town Planner
Town of Thompson's Station
1550 Thompson's Station Road
Thompson's Station, Tn. 37179

Re: Reifschneider Rezone
Williamson County Tax Map 144 Parcels 008.00, 008.02 and 008.03
Approximately 6.19 acres

Dear Mr. Wood:

Please accept this letter as a rezoning request to the Town of Thompson's Station for the property referenced above which is currently zoned D-1 to CC – *Commercial Center*. It is adjacent to (across Lewisburg Pike) two parcels within the Town of Thompson's Station of the same designation sought - CC – *Commercial Center*. The adjacent Williamson County parcel across Lewisburg Pike has the hamlet designation.

Prior to annexation by the Town of Thompson's Station, Williamson County designated the subject parcels as community crossroads which is now referenced as hamlet in Williamson County. There are no adjacent properties not designated CC – *Commercial Center* within the Town of Thompson's Station.

The adjacent property to the north is in Williamson County's zoning jurisdiction and designated Municipal Growth Area (MGA-1). The adjacent property to the south is in Williamson County's zoning jurisdiction and designated Municipal Growth Area (MGA-1).

The subject parcels were originally designated as a commercial gateway to the original Pleasant Creek development; however, they are now independent of the Pleasant Creek development and seek rezoning to CC – *Commercial Center*.

Attached are the three vesting deeds for the parcels with descriptions. Extensive high-intensity septic mapping has occurred, and approval is currently pending with the State of Tennessee. The owner agrees to delay development until final septic approval is attained after which a formal development proposal consistent with the CC – *Commercial Center* zoning will be presented for consideration.

The subject parcels most recent use has been agricultural (cornfield) and they do not have any existing structures. The subject parcels front Lewisburg Pike which is designated as an arterial street with a minimum right of way of eighty-four (84) feet per the LDO. Please telephone me with any questions or concerns at the number below or email huntly@huntlygordon.com.

Cordially yours,

HUNTLY GORDON
(615) 302-0100

Map	Parcel	First Name	Last Name	Street Address	City	State	Zip
144	34	SL	Parsley Jr.	1870 Lewisburg Pike	Franklin	TN	37064
154	5	Pleasant Creek Investments, LLC		144 Southeast Parkway, Suite 23(	Franklin	TN	37064
144	79	Jeffrey S	Jobe	1914 Lewisburg Pike	Franklin	TN	37064
144	76	Jason	Wagner	9093 Chardonay Trace	Franklin	TN	37067
144	37	Gary	King	1883 Lewisburg Pike	Franklin	TN	37064
144P A	1	Connie	Rice	4000 Serinas Way	Franklin	TN	37064