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*(Space above reserved for Recorder of Deeds certification)*

**Document Recording Cover Sheet**

1. **Title of Document:** Development Agreement
2. **Date of Document:** April 21, 2026
3. **Grantor(s)/Party indexed as Grantor(s):** Tori-Ben Farms, LLC  
\_\_\_\_\_
4. **Grantee(s)/Party indexed as Grantee(s):** City of Columbia, Missouri  
\_\_\_\_\_
5. **Mailing Address of Grantee or Party:** P.O. Box 6015, Columbia, MO 65205-6015  
\_\_\_\_\_
6. **Legal Description:** See attached Exhibit A  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
7. **Reference Book and Page(s):** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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*(If there is not sufficient space on this page for the information required, state the page reference where it is contained within the document.)*

## DEVELOPMENT AGREEMENT

**THIS AGREEMENT** ("Agreement") is made and entered into by and between Tori-Ben Farms, LLC, a Missouri limited liability company ("Developer") and the City of Columbia, Missouri, a municipal corporation of the State of Missouri ("City") and will be effective the date of signature by the Party last executing this Agreement ("Effective Date"). The City and the Developer may hereinafter be collectively referred to as the Parties and individually as a Party.

### RECITALS

**WHEREAS**, Developer is the owner of a tract of land consisting of approximately 50.8 acres, more or less, located in the City of Columbia, generally located south of Richland Road at the intersection of Rolling Hills Road/Grace Lane and northeast of The Brooks Plat No. 1, and legally described in **Exhibit A attached hereto and incorporated herein by this reference** (the "Subject Property"); and

**WHEREAS**, a planned development plan for the Subject Property known as The Vantage was submitted to the City for approval and is attached hereto as **Exhibit B and incorporated herein by this reference** (the "PD Plan"); and

**WHEREAS**, Developer desires to develop the Subject Property for multifamily residential complexes containing two hundred and forty (240) units total. When fully developed, the Subject Property is anticipated to consist of four multifamily residential structures and associated accessory facilities as shown in the PD Plan; and

**WHEREAS**, City plans to improve the intersection of Richland Road/Grace Lane with a roundabout within the next five to ten years; and

**WHEREAS**, CBB Transportation Engineers and Planners prepared a Traffic Impact Study ("TIS") dated November 17, 2025 relating to the Subject Property attached hereto as **Exhibit C and incorporated herein by this reference**; and

**WHEREAS**, the parties desire to set forth responsibility for the construction and dedication of certain public improvements associated with development of the Subject Property in this Agreement, it being the intent of this agreement to provide milestones for which the construction and dedication of such public improvements shall occur;

**NOW, THEREFORE**, in view of the foregoing Recitals and in consideration of the mutual promises, declarations, covenants and agreements of the City and Developer as hereinafter set forth, the Parties hereby agree as follows:

1. **Agreement to Run with the Land.** The provisions of this contract constitute covenants running with the entirety of the Subject Property. In the event Developer conveys the Subject Property to any third party, the Developer's obligations under this contract shall automatically be assigned to, and be binding upon, the then-current owners of the Subject Property and all of such owners' successors and assigns. In the event one or more third parties purchase the Subject Property, each of the purchasers shall be bound by the terms of this Agreement and hereby agree to perform all obligations of Developer under this Agreement. If any sale or transfer (including transfer by operation of law) of the Subject Property by Developer (or any other subsequent owner of the Subject Property making such a transfer) occurs, Developer (or such subsequent transferor) shall be relieved from any and all obligations and liabilities under this Agreement.

2. **Developer's Obligations.**

a) **Proportional Monetary Contribution for Roundabout Construction.** Developer shall pay to the City the lump-sum amount of Twenty-Eight Thousand, Two Hundred and Fifteen Dollars (\$28,215.00) at the time of the submission of any final plat relating to the Subject Property, towards future construction of the roundabout at the intersection of Richland Road and Rolling Hills Road/Grace Lane. Should the final plat of the Subject Property fail to be approved by City Council, or if the Agreement is terminated by the City, said proportional monetary contribution shall be refunded to Developer in its entirety.

b) **Dedication of Right-of-Way for Roundabout Construction.** Developer shall dedicate all easements for street purposes, as recorded in Book 4648, Page 156 of the Boone County Recorder of Deeds, and depicted on page two of the PD Plan, as right-of-way for the construction of the roundabout at the intersection of Richland Road and Rolling Hills Road/Grace Lane. Said right-of-way shall be dedicated to the City, at no cost to the City, by Developer on the final plat of the Subject Property.

c) **Dedication of Right-of-Way for Richland Road.** Developer shall dedicate right-of-way for Richland Road to provide a width of no less than fifty-five feet (55') as measured southward from the northern section line of the Subject Property, as shown on the PD Plan. Said right-of-way shall be dedicated to the City, at no cost to the City, by Developer on the final plat of the Subject Property.

d) **Dedication of Right-of-Way for Rolling Hills Road.** Developer shall dedicate right-of-way for Rolling Hills Road to provide a width of no less than one-hundred feet (100') as measured along the existing centerline of Rolling Hills Road (fifty feet on the east side of the centerline and fifty feet on the west side of the centerline), as depicted on the PD Plan. Said right-of-way shall be dedicated to the City, at no cost to the City, by Developer on the final plat of the Subject Property.

e) Trail Easement. Developer shall dedicate, at no cost to the City, an easement for a trail along the north fork of the Grindstone Creek. Said easement shall be located in close proximity to the Grindstone Creek as described and depicted on the PD Plan, however, the precise location of the trail easement shall be determined by the City Parks and Recreation Department and fixed upon the final plat of the Subject Property. Said trail easement shall be no less than sixteen (16') feet in width and shall not unreasonably interfere with the development of the Subject Property.

f) Trail Head. Developer shall convey by separate warranty deed, at no cost to the City, Lot No. 3, consisting approximately 1.5 acres of land, more or less, generally depicted on the PD Plan as Lot No. 3 for the purpose of constructing a Trail Head for the trail described herein. The location of said Lot No. 3 shall be substantially as depicted upon the PD Plan, however, the exact location of Lot No. 3 shall be determined by the City Parks and Recreation Department and fixed upon the final plat of the Subject Property. The location of said Lot No. 3 shall not unreasonably interfere with development of the Subject Property. Developer further agrees as follows:

- i. Lot No. 3 shall be conveyed by special warranty deed to be prepared by Boone-Central Title Company, and shall provide marketable fee title of record free and clear of all liens and encumbrances except for any then existing matters of record.
- ii. Developer shall cause Boone-Central Title Company to issue a policy of owner's title insurance insuring City's fee simple title to Lot No. 3, subject only to real estate taxes for the year of the closing and any deeds of trust to be released at closing upon the transfer of Lot No. 3 from Developer to City and except for any then existing matters of record. Developer covenants not to further encumber Lot No. 3 other than easements and other matters approved by the City in the process of developing the Subject Property. In the event City notifies Developer of a title objection, Developer shall have sixty (60) days to remove the encumbrance or defect. If unable to do so with respect to any encumbrance by closing date, then City may terminate this Agreement and this Agreement shall be void. At closing, Developer shall pay the premium for the issuance of the title insurance and costs for any associated title searches and service fees.
- iii. Developer represents that it is not aware of any restrictive covenants affecting Lot No. 3, other than any matters of record.
- iv. Closing shall occur within ninety (90) days of final plat approval at Boone-Central Title Company, 601 E. Broadway, Columbia, Missouri. At such time title to the property shall be delivered to City and all monies and papers shall be delivered, transferred, and exchanged. In no case

shall any occupancy permit be issued to Developer or any other person on the Subject Property until Lot No. 3 is closed upon pursuant to the provisions of this paragraph 2(f).

- v. Developer shall pay all real estate taxes on Lot No. 3 for all years prior to the year in which the closing occurs. All real estate taxes not yet due for the year in which the closing occurs shall be prorated between Developer and City through the date of closing. The proration of such taxes shall be based on the most recent tax bill if taxes or assessments for the year of closing are unknown as of the date of closing. Developer's portion of said taxes shall be paid to the Boone County Collector at the time of closing.
- vi. The parties agree to employ Boone-Central Title Company as their closing agent and closing fees shall be paid by Developer.
- vii. The parties agree there are no commissions being paid by either party relevant to this transaction.

g) Sidewalk Construction. Developer shall construct, or shall cause to be constructed, a five-foot (5') wide sidewalk located one foot inside the right-of-way along the west side of Rolling Hills Road and the south side of Richland Road as depicted on the PD Plan, and in compliance with the City's standard specifications. Developer further agrees as follows:

- i. Developer shall construct said sidewalks within thirty-six (36) months after City Council approval of the final plat of the Subject Property.
- ii. If street, utility, or other construction of public improvements should occur on or adjacent to land in the subdivision at the initiative of the City Council as benefit assessment projects, Developer agrees to bear Developer's equitable and proportionate share of construction costs, as determined by such assessments.
- iii. No occupancy permit shall be issued to Developer or any other person for any structure constructed on the Subject Property unless and until the sidewalks as described herein have been completed in compliance with the City's Standard Street Specifications.
- iv. City may construct any sidewalk not constructed by Developer as required by this Agreement. City may perform such work using City employees or City may contract for performance of the work. Developer shall reimburse City for all reasonable and documented expenses incurred by City in connection with the construction of said sidewalks

under this paragraph. Developer agrees to pay City all reasonable and documented expenses and costs, including reasonable attorney's fees, incurred by City in collecting amounts owed by Developer under this paragraph.

For the avoidance of doubt, if the final plat is not approved by the City, or if the Agreement is terminated by the City, Developer will have no obligation to construct the sidewalks, transfer the trailhead, dedicate the trail easement, or dedicate the right-of-ways as set forth in this Section 2.

3. **Construction and Bonding of Improvements.** Except as otherwise expressly indicated herein, all public improvements required under the regulations of the City or this Agreement must be constructed in accordance with the City's Street, Storm Sewer, and Sanitary Sewer Specifications and Standards, as may be amended, or any successor specifications and standards adopted by the City together with any final construction plans approved by the City prior to construction of such facilities. In connection with construction, the Developer shall be required to post bonds or other security as required by the city code. Developer is responsible for obtaining all necessary easements to construct improvements related to Developer's Development of the Subject Property.

4. **Phasing Plan.** If any development of the Subject Property, including final platting, will be phased, then a plan which generally describes the sequence of development of the Subject Property ("Phasing Plan") must be submitted to the Director of Community Development ("Director") concurrently with the first application for a Final Plat on the Subject Property. The Phasing Plan shall become final and binding upon Developer upon approval of the first Final Plat on the Subject Property. Thereafter, development and platting of the Subject Property shall occur in the sequence established in the Phasing Plan, and any amendments thereto. However, nothing contained in this paragraph shall be construed as precluding Developer from filing or developing more than one phase at a time. The Phasing Plan may not be amended except upon written approval of the Director, which shall not be unreasonably withheld, conditioned or delayed.

5. **Recording.** The City shall record this Agreement in the office of the Boone County Recorder of Deeds at the cost and expense of the Developer.

6. **Amendments.** Any amendment to this Agreement must be in writing and must be executed by the City and the Developer, and any future Developer of any part of the Subject Property who would otherwise be obligated to perform any of the requirements imposed upon the Developer by this Agreement. Oral modifications or amendments of this Agreement are of no force or effect.

7. **Remedies.** The parties to this Agreement may, either in law or equity, by suit, action, mandamus or other proceedings in court, seek declaratory relief, enforce and compel specific performance of this Agreement provided that in no event will the City have any liability in damages, costs or any other monetary liability to Developer or any affiliate of Developer, any person claiming through Developer, or to their respective successors, assigns, heirs and personal representatives in respect of any suit, claim, or cause of action arising out of this Agreement or any of the actions or transactions contemplated herein.

8. **Third Party Actions.** Developer will have the right, but not the obligation to assume the costs of defense of any action or proceeding initiated by a third party challenging this Agreement, the zoning or rezoning of the Subject Property, or any other actions or transactions contemplated by this Agreement (including, without limitation, to settle or compromise any claim or action for which Developer has assumed the defense) with counsel of Developer's choosing and the City and Developer agree that so long as no conflicts of interest exist between them, the same attorney or attorneys may simultaneously represent the City and Developer in any such proceeding. In no event will the City have any liability to Developer for damages or otherwise in the event that all or any part of this Agreement, or the approval of a zoning request or platting request, are declared invalid or unconstitutional in whole or in part by a final (as to which all rights of appeal have been exhausted or expired) judgment of a court of competent jurisdiction, and, in the event Developer elects not to assume such defense and costs, the City will have no obligation to defend or to assume the costs of defense of any such action.

9. **Notices.** All notices between the parties hereto must be in writing and must be sent by certified or registered mail, return receipt requested, by personal delivery against receipt or by overnight courier, will be deemed to have been validly served, given or delivered immediately when delivered against receipt or three (3) business days after deposit in the mail, postage prepaid, or one (1) business day after deposit with an overnight courier, and must be addressed as follows:

If to the City:

City of Columbia  
Attn: City Manager  
701 E. Broadway  
Columbia, MO 65205

If to Developer:

Tori-Ben Farms, LLC  
1103 East Broadway, P.O. Box 1017  
Columbia, MO 65205

With a copy to:

Vantage Apartments LLC  
c/o SC Bodner Company  
11585 N. Pennsylvania St.  
Carmel, IN 46032-7423

Each party will have the right to specify that notice is to be addressed to another address by giving to the other party ten (10) days written notice thereof.

10. **Insurance.** Developer must provide, at its sole expense, and maintain during all times in which Developer is constructing public improvements pursuant to this Agreement commercial general liability insurance with a reputable, qualified, and financially sound company licensed to do business in the State of Missouri, and unless otherwise approved by the City, with a rating by Best of not less than "A," that will protect the Developer, the City, and the City's officials, officers, and employees from claims which may arise from operations under this Agreement, whether such operations are by the Developer, its officers, directors, employees and agents, or any subcontractors of Developer. This liability insurance must include, but will not be limited to, protection against claims arising from bodily and personal injury and damage to property, resulting from all Developer operations, products, services or use of automobiles, or construction equipment. The amount of insurance required herein must be in no event less than the individual and combined sovereign immunity limits established by § 537.610 RSMo. for political subdivisions; provided that nothing herein will be deemed to waive the City's sovereign immunity. An endorsement must be provided which states that the City is named as an additional insured and stating that the policy will not be canceled or materially modified so as to be out of compliance with the requirements of this Section, or not renewed without 30 days advance written notice of such event being given to the City.

11. **Hold Harmless.** Developer at its sole cost and expense, hereby agrees to indemnify, protect, release, defend (with counsel acceptable to the City) and hold harmless the City, its municipal officials, elected officials, boards, commissions, officers, employees, attorneys, and agents from and against any and all causes of action, claims, demands, all contractual damages and losses, economic damages and losses, all other damages and losses, liabilities, fines, charges, penalties, administrative and judicial proceedings and orders, judgments, remedial actions of any kind, and all costs and expenses of any kind, including, without limitation, reasonable attorney's fees and costs of defense arising, directly or indirectly, in whole or in part, from the action or inaction of Developer, its agents, representatives, employees, contractors, subcontractors or any other person for whose acts Developer may be liable, in the activities performed, or failed to be performed, by Developer under this Agreement or in the development of the Subject property, except to the extent arising from or caused by the sole or gross negligence or willful misconduct of the City, its elected officials, officers, employees, agents or contractors. The indemnification, duty to defend and hold harmless obligations set forth in this Section will survive for a period of five (5) years from the date of expiration or termination of this Agreement.

12. **Sovereign Immunity.** Nothing in this Agreement shall constitute or be construed as a waiver of the City's governmental or official immunity or its officers or employees from liability or suit pursuant to Section 537.600 RSMo.

13. **No Third Party Beneficiaries.** There are no third party beneficiaries to this Agreement.

14. **Failure or Delay to Enforce.** No failure to exercise or delay in exercising any right hereunder on the part of any Party to this Agreement shall operate as a waiver thereof, and no single or partial exercise of any right of such Party shall preclude any other or further exercise of such right or the exercise of any other right.

15. **Power of the City.** Notwithstanding anything set forth in this Agreement to the contrary, no provision contained herein shall in any manner diminish or usurp the inherent rights and powers of the City to act in its capacity as a public body. Nothing herein shall relieve Developer from complying with all applicable laws and requirements.

16. **Inspection.** Upon reasonable prior notice, the City may conduct such periodic inspections of the projects herein, including any applicable phase, as may be generally provided in the applicable law or regulation for inspection thereof in order to confirm compliance with the terms of this Agreement. The Developer shall not deny the City and its officers and employees the right to inspect, upon reasonable prior written request, all engineering plans, construction contracts or other documents pertaining to the construction of the public infrastructure on the Subject Property. Notwithstanding the foregoing, Developer shall not be required to produce documents for inspection if such documents are attorney-client privileged or contain confidential, proprietary information or if production would violate the rights of any third parties.

17. **Force Majeure.** Performance shall be excused during, and deadlines equitably adjusted for delays or other incapacities due to circumstances beyond the control of the Party claiming Force Majeure, which by exercise of due diligence and foresight, could not have been reasonably avoided, including but not limited to, acts of God, pandemics, acts of a foreign adversary, tornadoes, fires, labor disputes or strikes, war, riot, civil disturbance, building moratoria, or any other cause beyond the control of the Party claiming Force Majeure.

18. **Governing Law.** This Agreement will be construed according to the laws of the State of Missouri. The Parties will comply with all local, state, and federal laws and regulations relating to the performance of this Agreement.

19. **Venue.** Any action at law, suit in equity, or other judicial proceeding to enforce or construe this Agreement, or regarding its alleged breach, must be instituted only in the Circuit Court of Boone County, Missouri.

20. **Entire Agreement.** This Agreement contains the entire and complete agreement between the City and the Developer with respect to the requirements imposed upon the Developer for the providing of certain rights-of-way and interests in land, and the construction and installation of certain improvements, all as hereinabove described in the Recitals for this Agreement and the above numbered paragraphs of this Agreement. Parties agree that this Agreement constitutes a lawful contract between the Parties and Developer hereby acknowledges and agrees that this Agreement and provisions of the City's Code of Ordinances applicable to this Agreement constitute lawful exercises of the City's authority and police power.

**IN WITNESS WHEREOF, the Parties have executed this Agreement and shall be effective on the last day and year indicated below.**

**CITY:  
City of Columbia, Missouri**

By: \_\_\_\_\_  
De'Carlton Seewood, City Manager **CS**

Date: \_\_\_\_\_

ATTEST:

\_\_\_\_\_  
Sheela Amin, City Clerk

Approved as to form:

\_\_\_\_\_  
Nancy Thompson, City Counselor/jwc

On this \_\_\_\_\_ day of \_\_\_\_\_, 2026, before me appeared De'Carlton Seewood, to me personally known, who, being by me duly sworn, did say that he is the City Manager of the City of Columbia, Missouri, and that the seal affixed to the foregoing instrument is the corporate seal of the City and that this instrument was signed and sealed on behalf of the City by authority of its City Council and the City Manager acknowledged this instrument to be the free act and deed of the City.

IN TESTIMONY WHEREOF, I have hereunto set by hand and affixed my official seal, at my office in Columbia, Boone County, Missouri, the day and year first above written.

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_.

DEVELOPER:

Tori-Ben Farms, LLC, a Missouri Limited Liability Company

By: B. Holt

Name Printed: B. Holt

Date 3/17/26

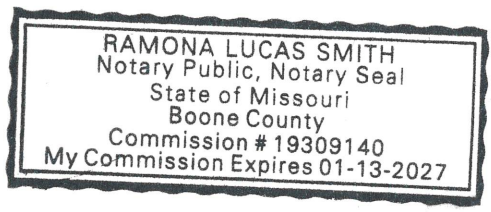
STATE OF MISSOURI )  
 ) SS  
COUNTY OF BOONE )

On this 17th day of March, 2026, before me appeared Benjamin Holt, to me personally known, who, being by me duly sworn did say that he or she is the Manager of Tori-Ben Farms, LLC, and that said instrument was signed on behalf of said company, acknowledged said instrument to be the free act and deed of said company and that he or she executed the same for the purposes therein stated.

IN TESTIMONY WHEREOF, I have hereunto affixed my hand and notarial seal at my office in the State and County aforesaid, on the day and year hereinabove first written.

Ramona Lucas Smith  
Notary Public

My commission expires: 1-13-27



**EXHIBIT A**  
**Legal Description Subject Property**

A TRACT OF LAND LOCATED IN THE NORTH HALF OF SECTION 15, TOWNSHIP 48 NORTH, RANGE 12 WEST AND BEING ALL OF TRACTS 2, 3 AND 4 OF A SURVEY RECORDED IN BOOK 4333, PAGE 100 AND BEING PART OF A TRACT DESCRIBED BY WARRANTY DEED RECORDED IN BOOK 3835, PAGE 73 AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF THE NORTHEAST QUARTER OF SAID SECTION 15 AND WITH THE NORTH LINE THEREOF, S 89°21'50"E, 1213.67 FEET; THENCE LEAVING SAID NORTH LINE AND WITH THE EAST LINE OF SAID TRACT 4 THE FOLLOWING COURSES AND DISTANCES, S 1°28'50"W, 399.90 FEET; THENCE S 23°44'05"W, 397.02 FEET; THENCE S 41°00'10"W, 1679.54 FEET; THENCE LEAVING SAID EAST LINE AND WITH THE WEST LINE OF SAID TRACT 4, THE FOLLOWING COURSES AND DISTANCES, 16.17 FEET ALONG A 1004.00-RADIUS NON-TANGENT CURVE TO THE RIGHT, SAID CURVE HAVING A CHORD, N 14°20'50"W, 16.17 FEET; THENCE N 14°48'35"W, 460.38 FEET; THENCE 184.82 FEET ALONG A 996.97-FOOT RADIUS TANGENT CURVE TO THE RIGHT, SAID CURVE HAVING A CHORD, N 9°33'55"W, 184.56 FEET TO THE SOUTHEAST CORNER OF SAID TRACT 2; THENCE LEAVING SAID WEST LINE AND WITH THE SOUTH LINE OF SAID TRACT 2, S 89°16'45"W, 203.98 FEET TO THE SOUTHWEST CORNER OF SAID TRACT 2; THENCE LEAVING SAID SOUTH LINE AND WITH THE WEST LINE OF SAID TRACT 2, N 1°28'40"E, 740.52 FEET; THENCE LEAVING SAID WEST LINE, N 88°55'05"W, 62.66 FEET TO THE SOUTHEAST CORNER OF TRACT 1 OF A SURVEY RECORDED IN BOOK 4333, PAGE 100; THENCE WITH THE EAST LINE OF SAID TRACT 1, SAID LINE ALSO BEING THE WEST LINE OF SAID TRACT 2, N 1°05'15"E, 657.15 FEET TO THE NORTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 15; THENCE LEAVING SAID WEST LINE AND WITH SAID NORTH LINE, N 89°17'25"E, 445.92 FEET TO THE POINT OF BEGINNING AND CONTAINING 50.80 ACRES.



*David W. Borden*  
 \_\_\_\_\_  
 DAVID W. BORDEN, PLS-2002000244  
 12/10/25  
 \_\_\_\_\_  
 DATE

<b>CROCKETT</b> <b>ENGINEERING CONSULTANTS</b> 1000 W. Nifong Blvd. Building 1 Columbia, Missouri 65203 (573) 447-0292 www.crockettengineering.com	CORPORATE NUMBER 2000151304	<b>OUT-BOUNDARY DESC.</b>
	DATE: 12/10/2025	
	PROJECT: 250339	

**EXHIBIT B**  
**Planned Development Plan**

PD PLANNED DEVELOPMENT PLAN AND PRELIMINARY PLAT OF  
**THE VANTAGE**

SHEET 1 OF 3

APPROVED BY THE CITY OF COLUMBIA PLANNING AND ZONING COMMISSION THIS

5<sup>th</sup> DAY OF February 2026.

SHAWN GEEB, JONES, CHAIRPERSON

A MAJOR SUBDIVISION LOCATED IN  
 SECTION 16, TOWNSHIP 48 NORTH, RANGE 12 WEST  
 COLUMBIA, BOONE COUNTY, MISSOURI  
 JANUARY 28, 2026

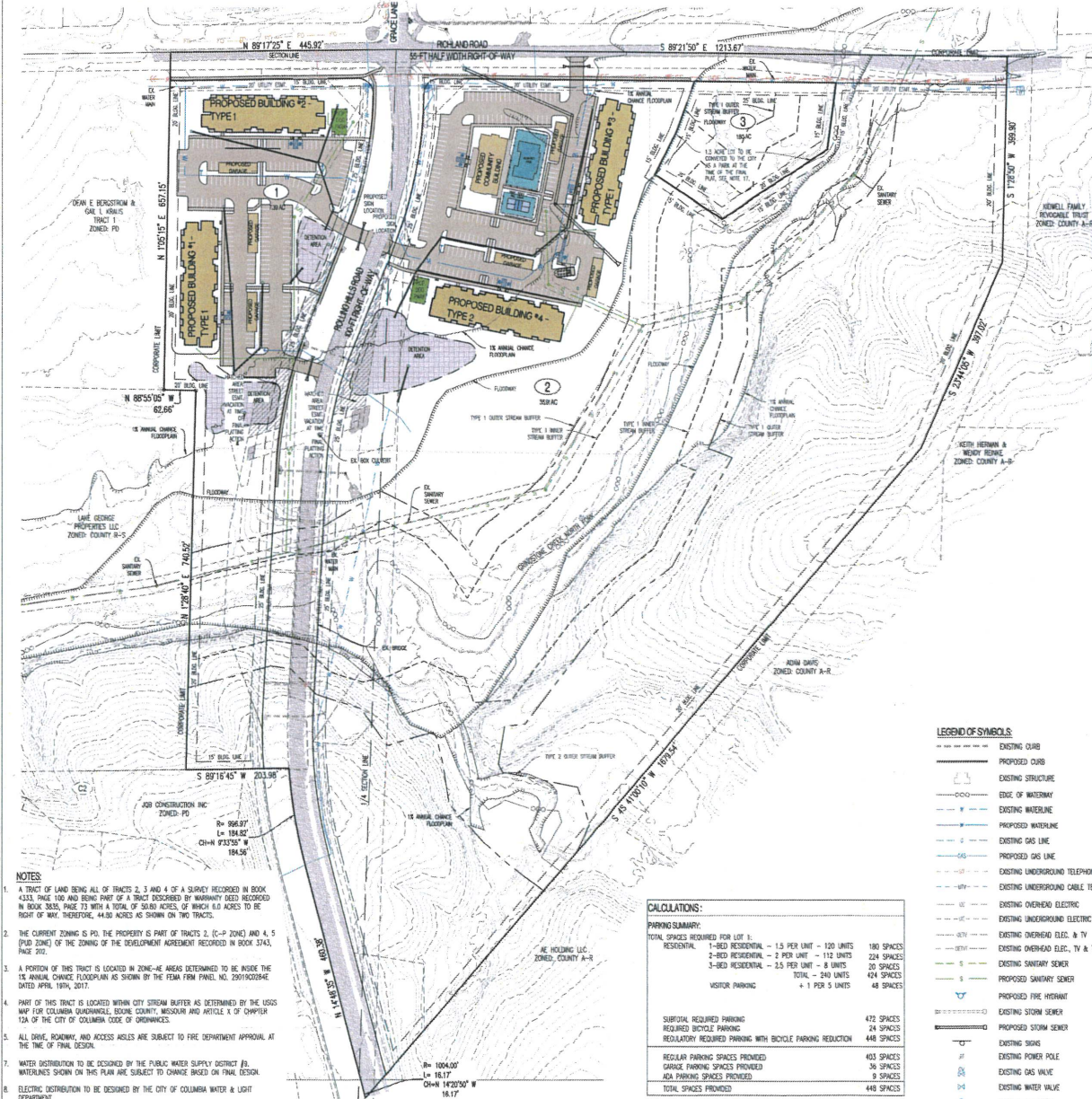
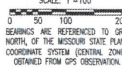
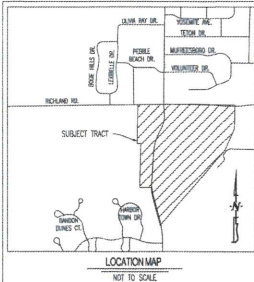
OWNER:  
 TORI - BEN FARMS, LLC  
 1002 HAMPTON DR.  
 CENTRALIA, MO 65240

DEVELOPER:  
 VANTAGE APARTMENTS LLC  
 5661 TELEGRAPH ROAD, STE 48  
 ST. LOUIS, MO 63129-4275

APPROVED BY CITY COUNCIL PURSUANT TO ORDINANCE  
 ON THE \_\_\_\_ DAY OF \_\_\_\_\_ 2026.

BARBARA BUFFALO, MAYOR

SHEILA AMIN, CITY CLERK



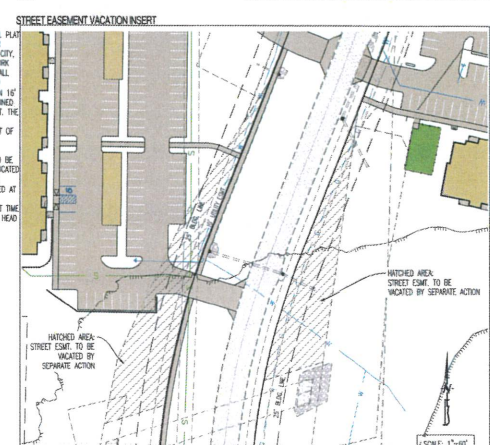
- NOTES**
- A TRACT OF LAND BEING ALL OF TRACTS 2, 3 AND 4 OF A SURVEY RECORDED IN BOOK 4333, PAGE 100 AND BEING PART OF A TRACT DESCRIBED BY WARRANTY DEED RECORDED IN BOOK 3838, PAGE 73 WITH A TOTAL OF 50.80 ACRES, OF WHICH 44.50 ACRES TO BE RIGHT OF WAY, THEREFORE, 44.50 ACRES AS SHOWN ON TWO TRACTS.
  - THE CURRENT ZONING IS PD. THE PROPERTY IS PART OF TRACTS 2, 3 (L-P ZONE) AND 4, 5 (PUD ZONE) OF THE ZONING OF THE DEVELOPMENT AGREEMENT RECORDED IN BOOK 3743, PAGE 207.
  - A PORTION OF THIS TRACT IS LOCATED IN ZONE-A AREAS DETERMINED TO BE INSIDE THE 15 ANNUAL CHANCE FLOODPLAIN AS SHOWN BY THE FEMA FIRM PANEL NO. 200100020E, DATED APRIL 18TH, 2017.
  - PART OF THIS TRACT IS LOCATED WITHIN CITY STREAM BUFFER AS DETERMINED BY THE USFS MAP FOR COLUMBIA QUAD, BOONE COUNTY, MISSOURI AND ARTICLE 3 OF CHAPTER 12A OF THE CITY OF COLUMBIA CODE OF ORDINANCES.
  - ALL DRIVE, ROWWAY, AND ACCESS AREAS ARE SUBJECT TO FIRE DEPARTMENT APPROVAL AT THE TIME OF FINAL DESIGN.
  - WATER DISTRIBUTION TO BE DESIGNED BY THE PUBLIC WATER SUPPLY DISTRICT #8. WATERLINES SHOWN ON THIS PLAN ARE SUBJECT TO CHANGE BASED ON FINAL DESIGN.
  - ELECTRIC DISTRIBUTION TO BE DESIGNED BY THE CITY OF COLUMBIA WATER & LIGHT DEPARTMENT.
  - THE BUILDINGS AND PARKING SHOWN ON THIS PLAN MAY BE CONSTRUCTED IN SEPARATE PHASES AS LONG AS RESIDUAL PARKING AND OTHER SITE REQUIREMENTS ARE PROVIDED FOR THE BUILDING BEING CONSTRUCTED AT THAT TIME.
  - ALL LIGHTING SHALL BE IN ACCORDANCE WITH THE CITY OF COLUMBIA LIGHTING ORDINANCE.
  - DEVELOPMENT WILL FOLLOW ALL CITY CODES FOR SIGNAGE.
  - THE MAX BUILDING HEIGHT FOR THIS DEVELOPMENT IS 45' FEET.
  - THIS DEVELOPMENT SHALL FOLLOW ALL CITY OF COLUMBIA STANDARDS AND REGULATIONS FOR STORMWATER.
  - EXISTING STREET WATER QUALITY UNITS CAN BE RELOCATED ABOUT THE SITE AS NEEDED BUT ARE STILL REQUIRED TO FUNCTION WITH THE SAME PURPOSE AS EXISTING.
  - THE BUILDING SETBACKS OF LOTS 1 & 2 SHALL BE AS DESCRIBED BELOW WITH THE FRONTAGE OF EACH LOT FACING BOLLING HILLS RD. THE BUILDING SETBACKS OF LOT 3 SHALL BE AS DESCRIBED BELOW WITH THE FRONTAGE OF THE LOT FACING RICHLAND RD. FRONT: 20 FEET REAR: 20 FEET SIDE: 15 FEET

**CALCULATIONS:**

PARKING SUMMARY:		
TOTAL SPACES REQUIRED FOR LOT 1:		
RESIDENTIAL - 1-BED RESIDENTIAL - 1.5 PER UNIT - 120 UNITS	180 SPACES	
2-BED RESIDENTIAL - 2 PER UNIT - 112 UNITS	224 SPACES	
3-BED RESIDENTIAL - 2.5 PER UNIT - 8 UNITS	20 SPACES	
TOTAL - 340 UNITS	424 SPACES	
VISITOR PARKING + 1 PER 5 UNITS	48 SPACES	
SUBTOTAL REQUIRED PARKING	472 SPACES	
REQUIRED BICYCLE PARKING	24 SPACES	
REGULATORY REQUIRED PARKING WITH BICYCLE PARKING REDUCTION	448 SPACES	
REGULAR PARKING SPACES PROVIDED	453 SPACES	
GAUGE PARKING SPACES PROVIDED	36 SPACES	
ADA PARKING SPACES PROVIDED	9 SPACES	
TOTAL SPACES PROVIDED	498 SPACES	

- LEGEND OF SYMBOLS**
- EXISTING CURB
  - PROPOSED CURB
  - EXISTING STRUCTURE
  - EDGE OF WATERWAY
  - EXISTING WATERLINE
  - PROPOSED WATERLINE
  - EXISTING GAS LINE
  - PROPOSED GAS LINE
  - EXISTING UNDERGROUND TELEPHONE
  - EXISTING UNDERGROUND CABLE TELEVISION
  - EXISTING OVERHEAD ELECTRIC
  - EXISTING UNDERGROUND ELECTRIC
  - EXISTING OVERHEAD ELEC. & TV
  - EXISTING OVERHEAD ELEC., TV & TELE
  - EXISTING SANITARY SINKER
  - EXISTING SANITARY SINKER
  - PROPOSED FIRE HYDRANT
  - EXISTING STORM SEWER
  - PROPOSED STORM SEWER
  - EXISTING SIGNS
  - EXISTING POWER POLE
  - EXISTING GAS VALVE
  - EXISTING WATER VALVE
  - EXISTING GAS METER
  - EXISTING WATER METER
  - DUMPSTER PAD
  - EXISTING FIRE HYDRANT
  - EXISTING SANITARY SINKER LATERAL
  - PROPOSED SANITARY SINKER LATERAL
  - EXISTING AIR CONDITIONER
  - EXISTING TELEPHONE PEDESTAL
  - EXISTING LIGHT POLE
  - EXISTING CURB MOUNT
  - EXISTING MINOR CONTOUR
  - EXISTING MAJOR CONTOUR
  - PROPOSED PAVEMENT
  - PROPOSED LOT
  - EXISTING

- NOTES CONT:**
- TRAIL EASEMENT UPON SUBMISSION OF THE FINAL PLAT RELATING TO THE SUBJECT PROPERTY DEVELOPER SHALL GRANT TO THE CITY, AT NO COST TO THE CITY, AN EASEMENT FOR A TRAIL ALONG THE NORTH FORK OF COLUMBIA CREEK. SAID TRAIL EASEMENT SHALL BE REASONABLY LOCATED IN CLOSE PROXIMITY TO COLUMBIA CREEK AND SHALL BE NO LESS THAN 10' IN WIDTH WITH PRECISE LOCATION TO BE DETERMINED BY THE CITY PARKS AND RECREATION DEPARTMENT. THE LOCATION OF SAID EASEMENT SHALL NOT UNREASONABLY INTERFERE WITH THE DEVELOPMENT OF THE SUBJECT PROPERTY.
  - CITY PARK LOT 3, APPROXIMATELY 1.5 ACRES, TO BE CONVEYED TO THE CITY OF COLUMBIA FOR A DEDICATED CITY PARK/TRAIL HEAD AT NO COST TO THE CITY. EXACT LOCATION OF THE SAME SHALL BE FINALEED AT THE TIME OF FINAL PLAT. SAID LOT TO BE CONVEYED TO THE CITY OF COLUMBIA BY DEED AT TIME OF FINAL PLATING. THE LOCATION OF SAID TRAIL HEAD SHALL NOT UNREASONABLY INTERFERE WITH THE DEVELOPMENT OF THE SUBJECT PROPERTY.



**CALCULATIONS:**

60.8 ACRES TRACT BOUNDARY		IMPERVIOUS AREA	
60.8 ACRES TO RIGHT OF WAY & 44.8 ACRES TO DEVELOPMENT			
<b>BUILDING AREA:</b>			
BUILDING 1 - TYPE 1			
4 STORES EACH 15,400 SQ FT (EACH FLOOR RESIDENTIAL USAGE)	32 TOTAL 1-BED	44.8 TOTAL AREA	100%
(8) 1-BED AND (7) 2-BED UNITS PER FLOOR	28 TOTAL 2-BED	7.09 IMPERVIOUS	15%
		27.71 PERVIOUS	85%
<b>BUILDING 2 - TYPE 1</b>			
4 STORES EACH 15,400 SQ FT (EACH FLOOR RESIDENTIAL USAGE)	32 TOTAL 1-BED	44.8 TOTAL UNITS /	
(8) 1-BED AND (7) 2-BED UNITS PER FLOOR	28 TOTAL 2-BED	44.8 ACRES =	5.36 UNITS/ACRE
<b>BUILDING 3 - TYPE 1</b>			
4 STORES EACH 15,400 SQ FT (EACH FLOOR RESIDENTIAL USAGE)	32 TOTAL 1-BED	120 - 1-BED UNITS = 50%	
(8) 1-BED AND (7) 2-BED UNITS PER FLOOR	28 TOTAL 2-BED	112 - 2-BED UNITS = 46.7%	
		8 - 3-BED UNITS = 3.3%	
		TOTAL - 240 UNITS	
<b>BUILDING 4 - TYPE 2</b>			
4 STORES EACH 14,200 SQ FT (EACH FLOOR RESIDENTIAL USAGE)	24 TOTAL 1-BED		
(4) 1-BED AND (7) 2-BED AND (2) 3-BED UNITS PER FLOOR	28 TOTAL 2-BED		
	8 TOTAL 3-BED		

**CROCKETT ENGINEERS & ARCHITECTS**

1000 East Wing Drive, Suite 1  
 Columbia, Missouri 65203  
 (314) 435-0999

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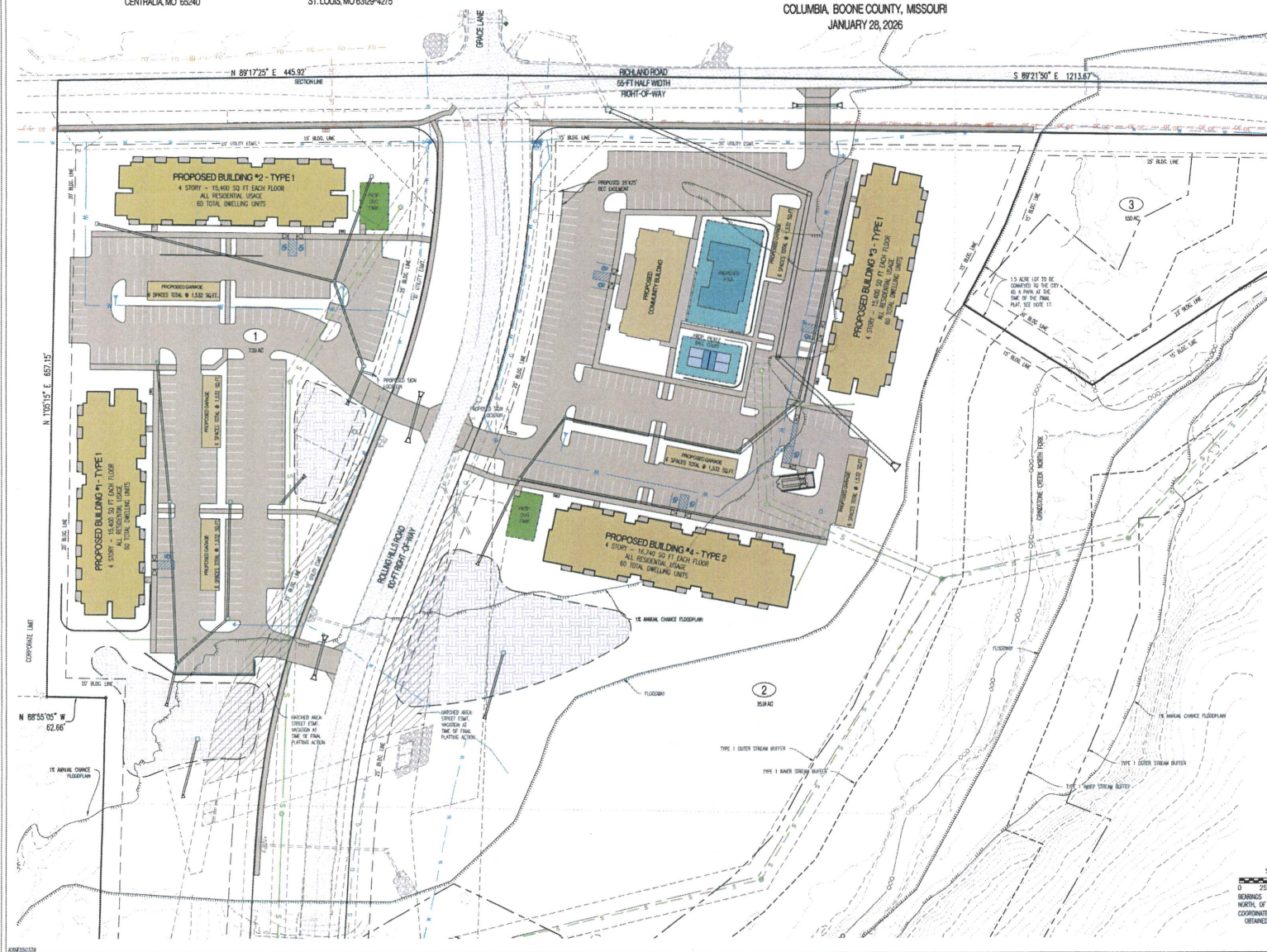
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 REVISION 1 01/12/2026  
 ORIGINAL 12/12/2025  
 CROCKETT JOB #2025039

PD PLANNED DEVELOPMENT PLAN AND PRELIMINARY PLAT OF  
**THE VANTAGE**

OWNER:  
 TORI - BEN FARMS, LLC  
 1002 HAMPTON DR.  
 CENTRALIA, MO 65240

DEVELOPER:  
 VANTAGE APARTMENTS LLC  
 5961 TELEGRAPH ROAD, STE 48  
 ST. LOUIS, MO 63109-4275

A MAJOR SUBDIVISION LOCATED IN  
 SECTION 15, TOWNSHIP 48 NORTH, RANGE 12 WEST  
 COLUMBIA, BOONE COUNTY, MISSOURI  
 JANUARY 28, 2026



**LEGEND OF SYMBOLS:**

—	EXISTING CURB	□	EXISTING SIGNS
- - -	PROPOSED CURB	⊕	EXISTING POWER POLE
▭	EXISTING STRUCTURE	⊕	EXISTING GAS VALVE
—	EDGE OF WATERWAY	⊕	EXISTING WATER VALVE
—	EXISTING WATERLINE	⊕	EXISTING GAS METER
—	PROPOSED WATERLINE	⊕	EXISTING WATER METER
—	EXISTING GAS LINE	⊕	DAMPSTER PAD
—	PROPOSED GAS LINE	⊕	EXISTING FIRE HYDRANT
—	EXISTING UNDERGROUND TELEPHONE	⊕	MANHOLE
—	EXISTING UNDERGROUND CABLE TELEVISION	—	EXISTING SANITARY SEWER LATERAL
—	EXISTING OVERHEAD ELECTRIC	—	PROPOSED SANITARY SEWER LATERAL
—	EXISTING UNDERGROUND ELECTRIC	⊕	EXISTING AIR CONDITIONER
—	EXISTING OVERHEAD ELEC. & TV	⊕	EXISTING TELEPHONE PEDESTAL
—	EXISTING OVERHEAD ELEC., TV & TELE.	⊕	EXISTING LIGHT POLE
—	EXISTING SANITARY SEWER	—	EXISTING GUY WIRE
—	PROPOSED SANITARY SEWER	—	EXISTING MAJOR CONDUIT
—	PROPOSED FIRE HYDRANT	—	EXISTING MAJOR CONDUIT
—	EXISTING STORM SEWER	—	PROPOSED PAVEMENT
—	PROPOSED STORM SEWER		

- NOTES:**
- A TRACT OF LAND BEING ALL OF TRACTS 2, 3 AND 4 OF A SURVEY RECORDED IN BOOK 4333, PAGE 100 AND BEING PART OF A TRACT DESCRIBED BY MANUALLY DEED RECORDED IN BOOK 3625, PAGE 73 WITH A TOTAL OF 50.00 ACRES, OF WHICH 4.0 ACRES TO BE PART OF WAT. RESOURCES, 44.00 ACRES AS SHOWN ON TWO TRACTS.
  - THE CURRENT ZONING IS PD. THE PROPERTY IS PART OF TRACTS 2, 3, 4 & 5 (PD-ZONE) OF THE ZONING OF THE DEVELOPMENT AGREEMENT RECORDED IN BOOK 3743, PAGE 202.
  - A PORTION OF THIS TRACT IS LOCATED IN ZONE-AE AREAS DETERMINED TO BE INSIDE THE 1% ANNUAL CHANCE FLOODPLAIN AS SHOWN BY THE FEMA FIRM PANEL NO. 29010C0204E DATED APRIL 19TH, 2017.
  - PART OF THIS TRACT IS LOCATED WITHIN CITY STREAM BUFFER AS DETERMINED BY THE USGS MAP FOR COLUMBIA QUADRANGLE, BOONE COUNTY, MISSOURI AND ARTICLE 4 OF CHAPTER 12A OF THE CITY OF COLUMBIA CODE OF ORDINANCES.
  - ALL DRIVE, PARKWAY, AND ACCESS ROADS ARE SUBJECT TO FIRE DEPARTMENT APPROVAL AT THE TIME OF FINAL DESIGN.
  - WATER DISTRIBUTION TO BE DESIGNED BY THE PUBLIC WATER SUPPLY DISTRICT #4. WATERLINES SHOWN ON THIS PLAN ARE SUBJECT TO CHANGE BASED ON FINAL DESIGN.
  - ELECTRIC DISTRIBUTION TO BE DESIGNED BY THE CITY OF COLUMBIA WATER & LIGHT DEPARTMENT.
  - THE BUILDINGS AND PARKING SHOWN ON THIS PLAN MAY BE CONSTRUCTED IN SEPARATE PHASES AS LONG AS ADEQUATE PARKING AND OTHER SITE REQUIREMENTS ARE PROVIDED FOR THE BUILDING BEING CONSTRUCTED AT THIS TIME.
  - ALL LIGHTING SHALL BE IN ACCORDANCE WITH THE CITY OF COLUMBIA LIGHTING ORDINANCE.
  - DEVELOPMENT WILL FOLLOW ALL CITY CODES FOR SIGNAGE.
  - THE MAX BUILDING HEIGHT FOR THIS DEVELOPMENT IS 45' FEET.
  - THIS DEVELOPMENT SHALL FOLLOW ALL CITY OF COLUMBIA STANDARDS AND REGULATIONS FOR STORMWATER.
  - EXISTING STREET WATER QUALITY UNITS CAN BE RELOCATED ABOUT THE SITE AS NEEDED BUT ARE STILL REQUIRED TO FUNCTION WITH THE SAME PURPOSE AS EXISTING.
  - THE BUILDING SETBACKS OF LOTS 1 & 2 SHALL BE AS DESCRIBED BELOW WITH THE FRONTAGE OF EACH LOT FACING PAULING HILLS RD. THE BUILDING SETBACKS OF LOT 3 SHALL BE AS DESCRIBED BELOW WITH THE FRONTAGE OF THE LOT FACING RICHLAND RD.  
 FRONT: 25 FEET  
 REAR: 20 FEET  
 SIDE: 15 FEET
  - TRAIL EXISTENCE: UPON SUBMISSION OF THE FINAL PLAT RELATING TO THE SUBJECT PROPERTY, DEVELOPER SHALL CONVEY TO THE CITY, AT NO COST TO THE CITY, AN EASEMENT FOR A TRAIL ALONG THE NORTH FENCE OF CROCKETT CREEK. SAID TRAIL EXISTENCE SHALL BE REASONABLY LOCATED IN CLOSE PROXIMITY TO CROCKETT CREEK AND SHALL BE NO LESS THAN 16' IN WIDTH, WITH PRECISE LOCATION TO BE DETERMINED BY THE CITY PARKS AND RECREATION DEPARTMENT. THE LOCATION OF SAID EASEMENT SHALL NOT UNREASONABLY INTERFERE WITH THE DEVELOPMENT OF THE SUBJECT PROPERTY.
  - CITY PARK: LOT 3, APPROXIMATELY 1.5 ACRES, TO BE CONVEYED TO THE CITY OF COLUMBIA FOR A DEDICATED CITY PARK/TRAIL HEAD AT NO COST TO THE CITY. EXACT LOCATION OF THE SAME SHALL BE FINALIZED AT THE TIME OF FINAL PLATING. SAID LOT TO BE CONVEYED TO THE CITY OF COLUMBIA BY DEED AT THE TIME OF FINAL PLATING. THE LOCATION OF SAID TRAIL HEAD SHALL NOT UNREASONABLY INTERFERE WITH THE DEVELOPMENT OF THE SUBJECT PROPERTY.

PREPARED BY:  
**CROCKETT**  
 ENGINEERING CONSULTANTS  
 1000 West Ring Blvd., Bldg 1  
 Columbia, Missouri 65202  
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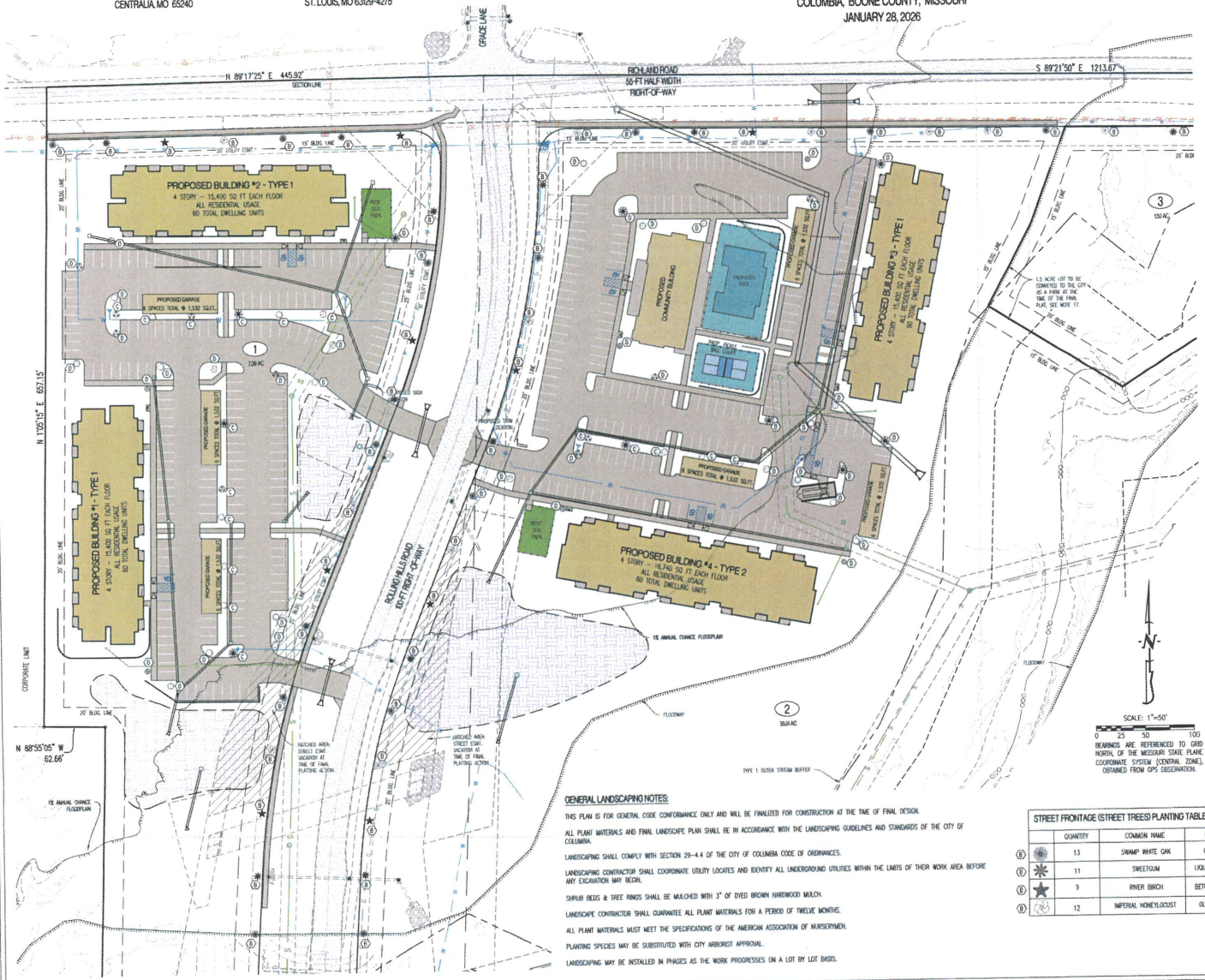
SCALE: 1"=50'  
 0' 25' 50' 100'  
 BEARINGS ARE REFERENCED TO GRID NORTH, OF THE MISSOURI STATE PLANE COORDINATE SYSTEM (CENTRAL ZONE), OBTAINED FROM GPS OBSERVATION.

PD PLANNED DEVELOPMENT PLAN AND PRELIMINARY PLAT OF  
**THE VANTAGE**

A MAJOR SUBDIVISION LOCATED IN  
SECTION 15, TOWNSHIP 48 NORTH, RANGE 12 WEST  
COLUMBIA, BOONE COUNTY, MISSOURI  
JANUARY 28, 2026

OWNER:  
TORI - BEN FARMS, LLC  
1022 HAMPTON DR.  
CENTRALIA, MO 65240

DEVELOPER:  
VANTAGE APARTMENTS LLC  
5669 TELEGRAPH ROAD, STE 4B  
ST. LOUIS, MO 63129-4275



LEGEND OF SYMBOLS:

- |     |                                       |   |                                 |
|-----|---------------------------------------|---|---------------------------------|
| --- | EXISTING CURB                         | ○ | EXISTING SINK                   |
| --- | PROPOSED CURB                         | ○ | EXISTING POWER POLE             |
| --- | EXISTING STRUCTURE                    | ○ | EXISTING GAS VALVE              |
| --- | EDGE OF WATERWAY                      | ○ | EXISTING WATER VALVE            |
| --- | EXISTING WATERLINE                    | ○ | EXISTING GAS METER              |
| --- | PROPOSED WATERLINE                    | ○ | EXISTING WATER METER            |
| --- | EXISTING GAS LINE                     | ○ | PROPOSED WATERLINE              |
| --- | PROPOSED GAS LINE                     | ○ | DUMPSTER PAD                    |
| --- | EXISTING UNDERGROUND CABLE TELEVISION | ○ | EXISTING FIRE HYDRANT           |
| --- | EXISTING UNDERGROUND ELECTRIC         | ○ | MANHOLE                         |
| --- | EXISTING UNDERGROUND ELECTRIC         | ○ | EXISTING SANITARY SEWER LATERAL |
| --- | EXISTING OVERHEAD ELECTRIC            | ○ | EXISTING AIR CONDITIONER        |
| --- | EXISTING OVERHEAD ELEC. & TV          | ○ | EXISTING TELEPHONE PEDESTAL     |
| --- | EXISTING OVERHEAD ELEC. & TV & TELE   | ○ | EXISTING LIGHT POLE             |
| --- | PROPOSED SANITARY SEWER               | ○ | EXISTING GUY WIRE               |
| --- | PROPOSED SANITARY SEWER               | ○ | EXISTING MAJOR CONTOUR          |
| --- | PROPOSED FIRE HYDRANT                 | ○ | EXISTING MAJOR CONTOUR          |
| --- | EXISTING STORM SEWER                  | ○ | PROPOSED PAVEMENT               |
| --- | PROPOSED STORM SEWER                  | ○ |                                 |

**LANDSCAPE COMPLIANCE:**

**29-4.40 - GENERAL PROVISIONS:**

TOTAL SITE AREA: 44.81 AC. (1,500)  
REQUIRED 15% OF TOTAL SITE TO BE LANDSCAPED: 6.72 AC. (1,500)  
MINIMUM PROPOSED AREA OF TOTAL SITE TO BE LANDSCAPED: 37.95 AC. (85%)

**29-4.40 - STREET FRONTAGE LANDSCAPING:**

(1) LENGTH OF PARKED AREA (OVER 40' IN LENGTH) WITHIN 25' OF R/W TO HAVE 6" WIDE LANDSCAPED BUFFER (REFER TO TYPICAL SCREENING BED PLANTING DETAIL). 0 L.F. TO ANY R/W  
1 TREE (2" CALIPER, 10' TALL AT TIME OF PLANTING) PER 200 S.F. OF BUFFER AREA. 0 TREES

(2) 1 TREE PER 60' OF STREET FRONTAGE WITH RIGHT OF WAY GREATER THAN 50 FEET. 45 TREES

**29-4.40 - PROPERTY EDGE BUFFERING:**

N/A

**29-4.40 - PARKING AREA LANDSCAPING:**

(1) IF PARKING AREA CONTAINS MORE THAN 100 SPACES, PARKING SPACE AREA TO INCLUDE LANDSCAPING AREA EQUAL TO 10% OF PARKING AREA. PARKING AREAS BETWEEN 100 AND 149 SPACES SHALL BE SEPARATED BY 10' WIDE LANDSCAPE STRIP WITH 4 CATEGORIES OF PLANTING MATERIALS FROM SECTION 29-4.40(6). 15.50 S.F. REQUIRED

(2) 1 TREE PER 40' L.F. OF LANDSCAPED AREA - 660 L.F. 17 TREES

(3) 1 TREE PER 4,000 S.F. OF PARKING PARKED AREA - 155,350 S.F. OF PARKING AND DRIVE LANES. 39 TREES  
0 EXISTING PARKING LOT TREES. 0 TREES  
PARKING LOT TREES REQUIRED. 39 TREES

(4) MIN. 30% TOTAL TREES TO BE MEDIUM SIZE TREES. 12 TREES  
MIN. 40% TOTAL TREES TO BE LARGE SIZE TREES. 16 TREES

**29-4.40 - PRESERVATION OF EXISTING LANDSCAPING:**

TOTAL SIGNIFICANT TREES (OUTSIDE OF PRESERVED AREAS): 28 TREES  
(20) MINIMUM OF 25% OF TOTAL SIGNIFICANT TREES TO BE PRESERVED (8 TREES)

**PARKING AREA LANDSCAPING PLANTING:**

QUANTITY	COMMON NAME	BOTANICAL NAME	PLANT TYPE	SIZE
4	HEDGE MAPLE	ACER CAMPESTRIS	MEDIUM TREE	2.5" CALIPER
4	GOLDBARKHONEY	KOELREUTHERIA PANICULATA	MEDIUM TREE	2.5" CALIPER
4	RED OAK	QUERCUS RUBRA	LARGE TREE	2.5" CALIPER
8	SUGAR MAPLE	ACER SACCARUM	LARGE TREE	2.5" CALIPER
5	REDBIRD	CERCIS CANADENSIS	SMALL TREE	2.0" CALIPER
7	JAPANESE TREE LILAC	SYRINGA RETICULATA	ORNAMENTAL TREE	2.0" CALIPER
<b>TOTALS</b>	<b>17</b>	<b>39</b>		

**STREET FRONTAGE (STREET TREES) PLANTING TABLE:**

QUANTITY	COMMON NAME	BOTANICAL NAME	PLANT TYPE	SIZE
13	SWAMP WHITE OAK	QUERCUS BICOLOR	LARGE TREE	2.5" CALIPER
11	SWEETGUM	LIQUIDAMBAR STYRACIFLUA	LARGE TREE	2.5" CALIPER
9	RIVER BIRCH	BETULA NIGRA 'HERAC	MEDIUM TREE	2.5" CALIPER
12	IMPERIAL HONEYLOCUST	GLEDITSIA TRICANTHOS	MEDIUM TREE	2.5" CALIPER

**GENERAL LANDSCAPING NOTES:**

THIS PLAN IS FOR GENERAL CODE COMPLIANCE ONLY AND WILL BE FINALIZED FOR CONSTRUCTION AT THE TIME OF FINAL DESIGN.

ALL PLANT MATERIALS AND FINAL LANDSCAPE PLAN SHALL BE IN ACCORDANCE WITH THE LANDSCAPING GUIDELINES AND STANDARDS OF THE CITY OF COLUMBIA.

LANDSCAPING SHALL COMPLY WITH SECTION 29-4.4 OF THE CITY OF COLUMBIA CODE OF ORDINANCES.

LANDSCAPING CONTRACTOR SHALL COORDINATE UTILITY LOCATES AND IDENTIFY ALL UNDERGROUND UTILITIES WITHIN THE LIMITS OF THEIR WORK AREA BEFORE ANY EXCAVATION MAY BEGIN.

SHRUB BEDS & TREE FRINGS SHALL BE MATCHED WITH 3" OF DIED BROWN HARDWOOD MATCH.

LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIALS FOR A PERIOD OF TWELVE MONTHS.

ALL PLANT MATERIALS MUST MEET THE SPECIFICATIONS OF THE AMERICAN ASSOCIATION OF NURSERYMEN.

PLANTING SPECIES MAY BE SUBSTITUTED WITH CITY ARBORIST APPROVAL.

LANDSCAPING MAY BE INSTALLED IN PHASES AS THE WORK PROGRESSES ON A LOT BY LOT BASIS.

PREPARED BY:  
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CROCKETT JOB #250339



**EXHIBIT C**  
**Traffic Impact Study by CBB Dated November 17, 2025**

November 17, 2025

Mr. Tim Crockett, P.E.  
Crockett Engineering  
1000 West Nifong Boulevard, Building 1  
Columbia, MO 65203

RE: Traffic Impact Study – Multi-Family Development  
Richland Road and Rolling Hills Road  
Columbia, Missouri  
CBB Job No. 101-25

Dear Mr. Crockett:

As requested, CBB has completed a traffic impact study pertaining to a proposed multi-family residential development in Columbia, Missouri. The development site is located in the southeast and southwest quadrants of Richland Road and Rolling Hills Road. The location of the site relative to the surrounding area is depicted in **Figure 1**.

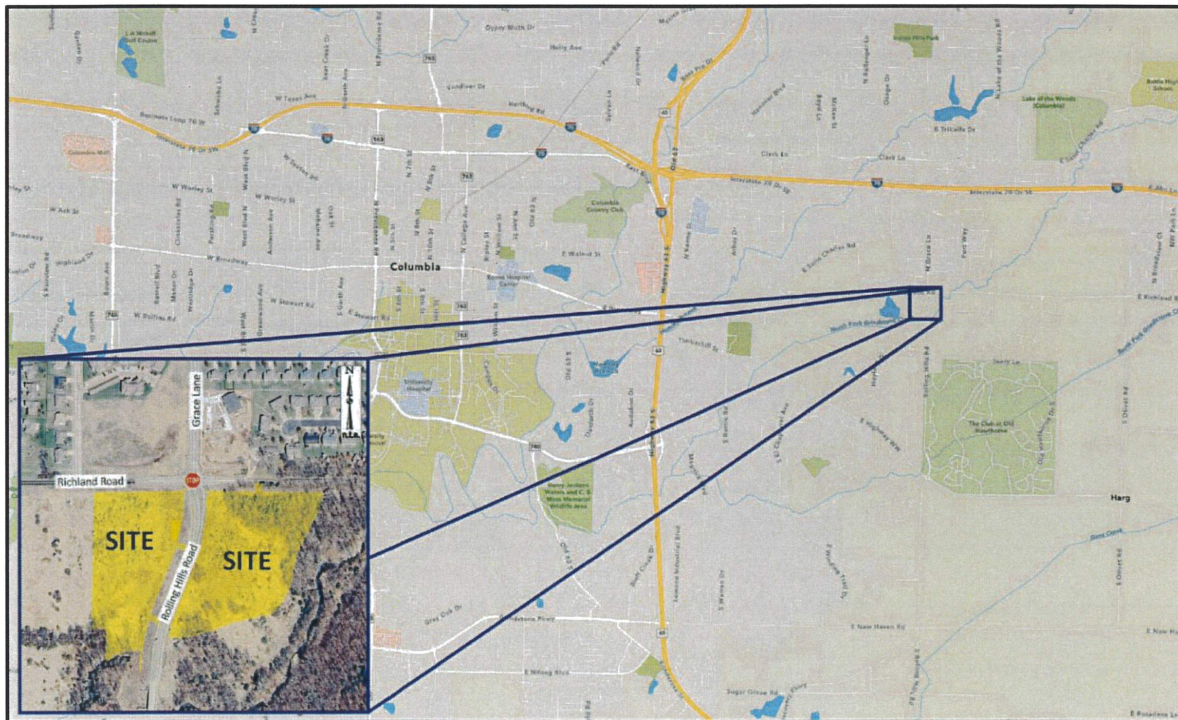


Figure 1: Project Location Map



Based on the site plan provided by you, the proposed development will include approximately 240 multi-family apartment units. Access for the portion of the development on the west side of Rolling Hills Road is proposed via two new drives on Rolling Hills Road, while access for the portion of the development on the east side of Rolling Hills Road is proposed via one new drive on Rolling Hills Road and one new drive on Richland Road. A schematic of the concept plan provided is shown in **Exhibit 1**.

The purpose of this study was to determine the number of additional trips that would be generated by the proposed development, assign the trips to the adjoining roadways, evaluate the impact of the additional trips on the operating conditions for the adjacent roadways, and determine the ability of motorists to safely enter and exit the site. The focus of this study was the AM and PM peak hours of a typical weekday.

As requested, the following key intersections were included in the study:

- Richland Road and Rolling Hills Road;
- Richland Road and the proposed site access drive; and
- Rolling Hills Road and the proposed site access drives.

As requested, the traffic impact study evaluated the following analysis scenarios for the weekday AM and PM peak hours:

- 2025 Base Conditions (Existing plus approved area developments); and
- 2025 Build Conditions (2025 Base plus proposed site trips).

The following report presents the methodology and findings relative to the 2025 Existing/Base and 2025 Build conditions.



Exhibit 1: Preliminary Site Plan (provided by others)



## **EXISTING CONDITIONS**

**Area Roadway System: Richland Road** is a local east-west roadway owned by Boone County, east of subject site and the City of Columbia adjacent to the subject site and further west of Rolling Hills Road. Within the study area, Richland Road provides two travel lanes, one lane in each direction, and connects St. Charles Road on the west to Rangeline Road to the east. Richland Road has a posted speed limit of 45 miles per hour (mph). Shoulders, sidewalks, and marked bike lanes are not provided along the roadway.

**Rolling Hills Road** is a two-lane roadway that runs north/south along the east side of Columbia and connects to Highway 63 approximately 4.25 miles to the south. Rolling Hills Road is owned by the City of Columbia. Rolling Hills Road consists of a 30-foot cross-section with two travel lanes, one lane in each direction, with curb and gutter. A sidewalk is provided along the east side of the roadway to near Highway WW. The posted speed on Rolling Hills Road south of Richland Road is 35 mph.

Rolling Hills Road north of Richland Road changes names to **Grace Lane** to the north to St. Charles Road and is owned by Boone County. Sidewalk is provided adjacent to some of the developed areas. Grace Lane has two travel lanes, one lane in each direction. The posted speed on Grace Lane is 30 mph.

The intersection of Rolling Hills Road/Grace Lane and Richland Road is currently controlled as an All-Way STOP. A separate left-turn lane and one shared through/right-turn lane are provided on northbound Rolling Hills Road and eastbound Richland Road, while a single lane approach (shared left/through/right-turn lane) is provided for the westbound Richland Road and southbound Grace Lane approaches. **Figure 2** provides an aerial view of the Richland Road and Rolling Hills Road/Grace Lane intersection.

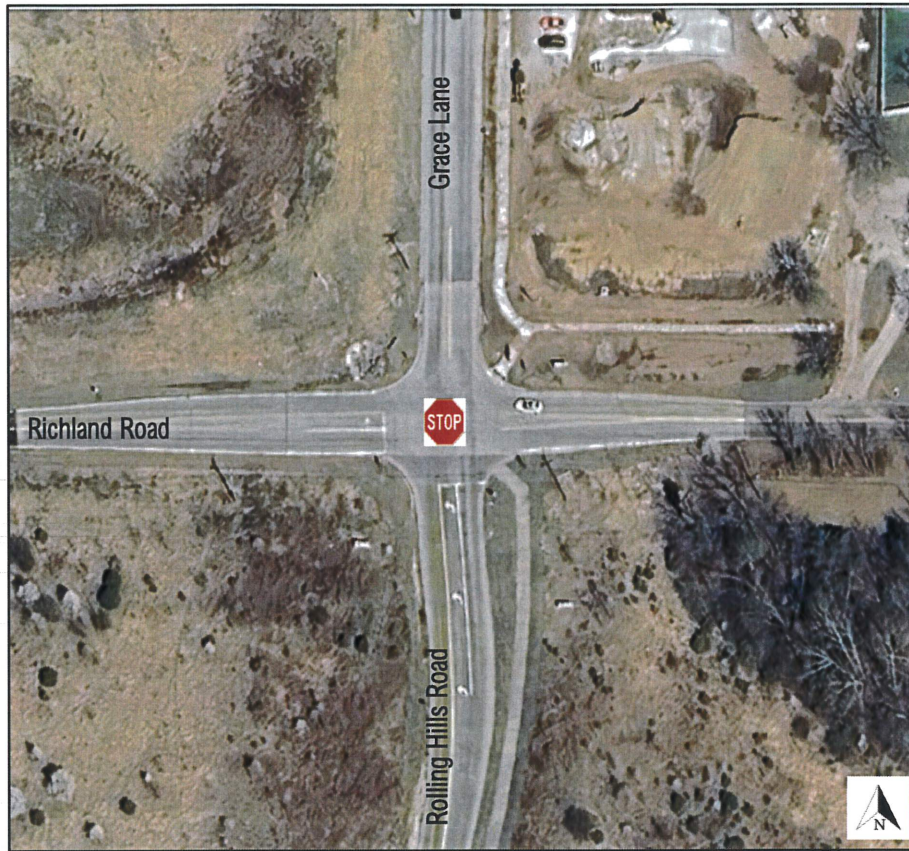


Figure 2: Aerial View of the Richland Road and Rolling Hills Road Intersection

**Existing Traffic Volumes:** Video, turning movement traffic counts were conducted at the intersection of Richland Road and Rolling Hills Road during the weekday morning (6:00 - 9:00 a.m.) and weekday afternoon (3:00 - 6:00 p.m.) peak periods on Tuesday, October 14, 2025.

Based on the traffic data collected, the morning peak hour occurred between 7:30 and 8:30 a.m. and the afternoon peak hour occurred between 4:30 and 5:30 p.m. The existing peak hour traffic volumes are summarized in **Exhibit 2**.

Given the traffic characteristics in the area and the anticipated trip generation for the proposed development, the weekday AM and PM peak periods would represent a “worst-case scenario” with regards to the traffic impact. If traffic operations are acceptable during these peak periods, it can be reasoned that conditions would be acceptable throughout the remainder of the day.



Exhibit 2: 2025 Existing Traffic Volumes



### AREA APPROVED DEVELOPMENTS

At the time of the October 2025 traffic counts, there were several approved developments in the immediate area that were approved but not fully built out, including the following:

- The Vineyards;
- Brooks Phase II;
- Old Hawthorne North;
- Richland Estates;
- Silver Lakes; and
- Five Pines.

For reference, the approved developments are graphically shown in **Figure 3**.



Figure 3: Approved Developments in Area



Based on information provided by Crockett Engineering and prior traffic impact studies completed by CBB for the area planned developments, it is our understanding that as of October 14, 2025 (the time of the traffic counts) the following approximate number of homes within the respective developments are yet to be built:

- The Vineyards – 200 homes
- Brooks Phase II – 100 homes
- Old Hawthorne North – 100 homes
- Richland Estates – 152 homes
- Silver Lakes – 348 homes
- Five Pines – 370 homes

In summary, this study considers the potential build-out of an additional 1,270 homes in the Base conditions.

To account for these approved/proposed but not built developments, the trip generation for the remaining homes within the six developments were estimated and assigned to the study intersections based on the respective traffic studies for each development. The amount of traffic the approved but not built residential developments would generate during the weekday AM and PM peak hours is shown in **Table 1** as previously presented in the respective traffic studies.

**Table 1: Trip Estimate – Approved/Proposed Residential Developments**

Land Use (ITE Code)	# Homes	ADT (VPD)	Weekday AM Peak Hour			Weekday PM Peak Hour		
			In	Out	Total	In	Out	Total
The Vineyards	200	1,910	35	105	140	120	70	190
Brooks Phase II	100	1,010	20	55	75	65	35	100
Old Hawthorne North	100	1,010	20	55	75	65	35	100
Richland Estates	152	1,485	25	85	110	95	55	150
Silver Lakes	348	3,275	65	190	255	210	125	335
Five Pines	370	3,465	65	200	265	225	130	355
<b>Total Approved/Proposed Residential Developments</b>	<b>1,270</b>	<b>12,155</b>	<b>230</b>	<b>690</b>	<b>920</b>	<b>780</b>	<b>450</b>	<b>1,230</b>

\* Trips rounded to nearest 5



The site-generated trips for the approved but not built developments were assigned to the study intersections based on the respective trip distribution estimates from the traffic studies for each development, if available. The site-generated trips for the approved residential developments are shown in **Exhibit 3**.

The site-generated trips for the area approved developments (Exhibit 3) were added to the 2025 Existing Traffic Volumes (Exhibit 2) to develop the 2025 Base Traffic Volumes. The 2025 Base Traffic Volumes for the AM and PM peak hours are shown in **Exhibit 4**.

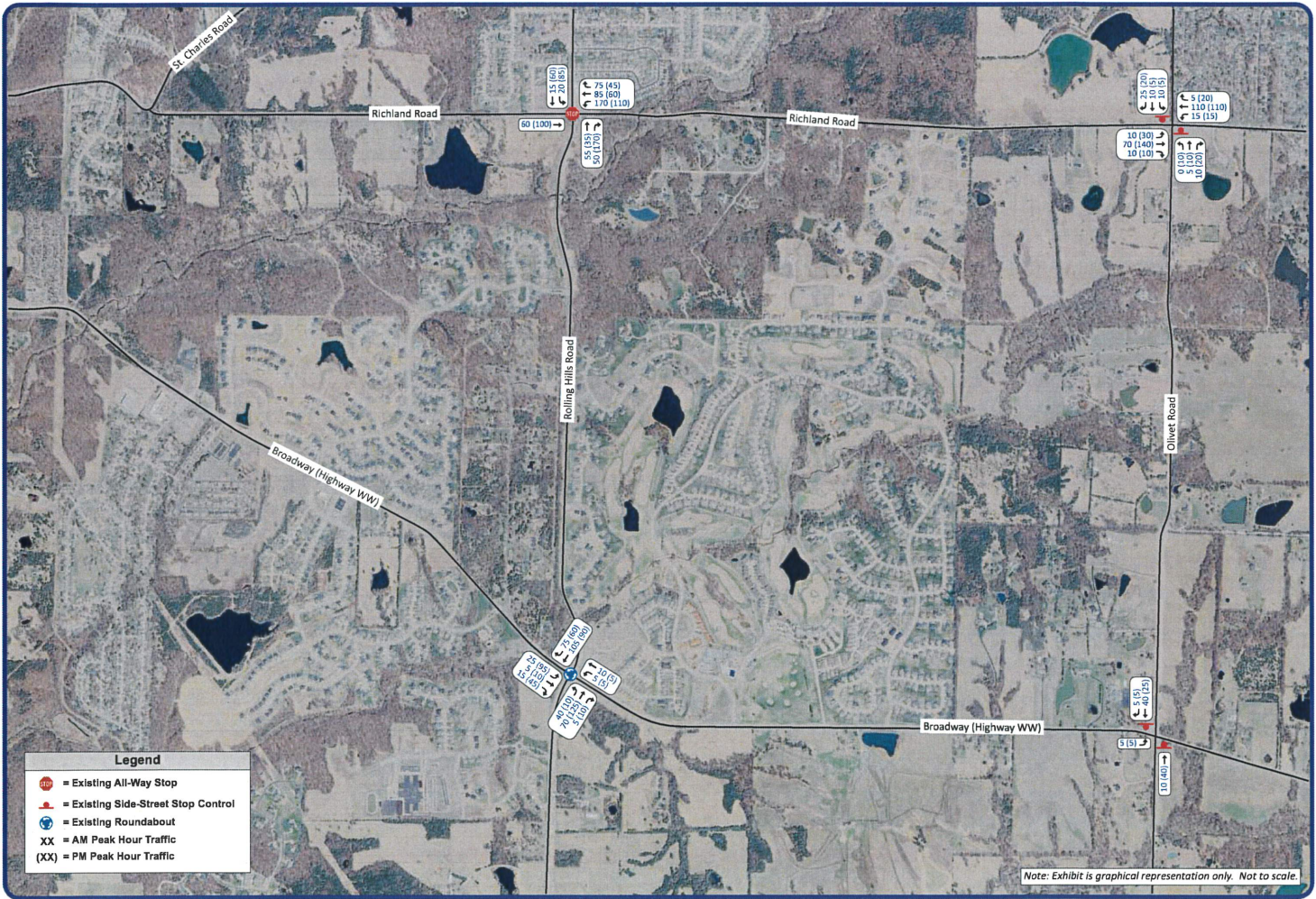




Exhibit 4: 2025 Base Traffic Volumes



## PROPOSED SITE

Once the base traffic volumes within the study area were established, we then considered the traffic associated with the proposed multi-family development.

**Proposed Land Use:** Based upon the concept plan provided by Crockett Engineering, previously shown in Exhibit 1, the proposed development will include approximately 240 multi-family apartment units.

**Site Access:** Access for the portion of the development on the west side of Rolling Hills Road is proposed via two new drives on Rolling Hills Road, while access for the portion of the development on the east side of Rolling Hills Road is proposed via one new drive on Rolling Hills Road and one new drive on Richland Road.

**Intersection Sight Distance:** Based on guidelines published in *A Policy on Geometric Design of Highways and Streets* published by the American Association of State Highway and Transportation Officials (AASHTO) often referred to as the *Green Book*, the intersection sight distance requirement for the proposed drive on Richland Road is 555 feet (assuming a 45 mph posted speed limit and 50 mph design speed) and the proposed drives on Rolling Hills Road is 445 feet (assuming a 35 mph posted speed limit and 40 mph design speed). Note that the sight distance was not measured in the field to evaluate the available sight distance at the proposed site drive. It is recommended the site design engineer verify adequate sight distance is provided at the proposed site drives.

Furthermore, careful consideration should be given to sight distance obstructions when planning any future aesthetic enhancements, such as berms, fencing and landscaping, at any of the subdivision entrances to ensure that these improvements do not obstruct the view of entering and exiting traffic at the site intersections with the public roads. It is generally recommended that all improvements wider than two inches (posts, tree trunks, etc.) and higher than 3.5 feet above the elevation of the nearest pavement edge be held back at least 20 feet from the traveled roadway.

**Trip Generation:** Forecasts were prepared to estimate the amount of traffic the proposed development would generate during the weekday AM and PM peak periods. These forecasts were based upon information provided in the *Trip Generation Manual*, 12<sup>th</sup> Edition. Estimates for the proposed development were based upon Land Use 220 – Multifamily Housing (Low-Rise).

The peak hour of adjacent street traffic (one hour between 7 and 9 a.m.) was utilized for the AM peak hour and the peak hour of adjacent street traffic (one hour between 4 and 6 p.m.) was utilized for the PM peak hour trip generation.



Based on this data, the trip generation forecast for the proposed multi-family development is shown in **Table 2**. As shown, the proposed development would generate a total of 100 new trips during the weekday AM peak hour and 125 new trips during the weekday PM peak hour.

**Table 2: Trip Estimate – Multi-Family Development**

ITE Code	Land Use	Unit	ADT (VPD)	Weekday AM Peak Hour			Weekday PM Peak Hour		
				In	Out	Total	In	Out	Total
220	Multi-Family	240 Units	1,490	25	75	100	75	50	125

\* Rounded to nearest 5

**Trip Distribution:** The site-generated trips for the proposed multi-family development were then assigned into and out of the site based upon an estimated directional distribution. Based upon the existing travel patterns and the surrounding area and roadway network, it is anticipated that the distribution of the site-generated trips would be as summarized in **Table 3**.

**Table 3: Trip Distribution Assumptions**

DIRECTION OF TRAVEL	TRIP DISTRIBUTION
To/from the north via Rolling Hills	20%
To/from the south via Rolling Hills	40%
To/from the east on Richland Road	10%
To/from the west on Richland Road	30%

**2025 Build Traffic Volumes (2025 Base plus Site Trips):** The assigned traffic volumes resulting from the trip distribution for the proposed multi-family development (Exhibit 5) were added to the 2025 Base traffic volumes (Exhibit 4) to determine the total volumes in the forecasted scenario. The forecasted, or 2025 Build, traffic volumes for the weekday AM and PM peak hours are shown in **Exhibit 6**.



Exhibit 5: Site-Generated Trips





## TRAFFIC ANALYSIS

**Study Procedures:** The 2025 Base and Build operating conditions were analyzed using SYNCHRO 11, a macro-level analytical traffic flow model. SYNCHRO is based on study procedures outlined in the *Highway Capacity Manual*, published by the Transportation Research Board. This manual, which is used universally by traffic engineers to measure roadway capacity, establishes six levels of traffic service: Level A ("Free Flow"), to Level F ("Fully Saturated"). Levels of service (LOS) are measures of traffic flow, which consider such factors as speed, delay, traffic interruptions, safety, driver comfort, and convenience. Level C, which is normally used for highway design, represents a roadway with volumes ranging from 70% to 80% of its capacity. However, Level D is often considered acceptable for peak period conditions in urban and suburban areas.

The thresholds that define level of service at an intersection are based upon the type of control used (i.e., whether it is signalized or unsignalized) and the calculated delay. For signalized and all-way stop intersections, the average control delay per vehicle is estimated for each movement and aggregated for each approach and then the intersection as a whole. At intersections with partial (side-street) stop control, delay is calculated for the minor movements only since motorists on the main road are not required to stop.

Level of service is directly related to control delay. At signalized intersections, the level of service criteria differ from that at unsignalized intersections primarily because varying transportation facilities create different driver expectations. The expectation is that a signalized intersection is designed to carry higher traffic volumes, and consequently may experience greater delay than an unsignalized intersection. **Table 4** summarizes the thresholds used in the analysis for signalized and unsignalized intersections.

**Table 4: Level of Service Thresholds**

LEVEL OF SERVICE (LOS)	CONTROL DELAY PER VEHICLE (SEC/VEH)	
	SIGNALIZED INTERSECTIONS	UNSIGNALIZED INTERSECTIONS
A	≤ 10	0-10
B	> 10-20	> 10-15
C	> 20-35	> 15-25
D	> 35-55	> 25-35
E	> 55-80	> 35-50
F	> 80	> 50



**Auxiliary Left-Turn Lane Warrants:** The need for left-turn lanes on Richland Road and Rolling Hills Road at the proposed driveways were evaluated using the *Left-Turn Guidelines for Two-lane Roadway* nomograph which is based on criteria using MoDOT's Engineering Policy Guidelines (EPG), commonly used by the City. The MoDOT criteria provides guidelines for separate left-turn lanes on the through roadway by comparing the total advancing volume (which includes all turning traffic) to the total opposing volume (which includes opposing through and right-turn movements) during the design hour with respect to the number of mainline left-turns. Then, the percentage of left-turns is determined by dividing the number of left-turns by the total advancing volume. If the point lies to the right of the percentage line, then a left-turn lane should be considered.

Based on the site-generated trip assignment, the forecasted left-turn volumes at the proposed site drives are 10 or less vph. The MoDOT EPG provides guidance that a left-turn lane is typically not necessary for left-turn volumes of 10 vph or less. As such, separate left-turn lanes would not be required at the proposed site drives.

**Auxiliary Right-Turn Lane Warrants:** The need for right-turn lanes on Richland Road and Rolling Hills Road at the proposed driveways were evaluated using the *Right-Turn Guidelines for Two-Lane Roadway* nomograph which is based on criteria from MoDOT's EPG. The MoDOT EPG provides guidelines for separate right-turn lanes on the through roadway by comparing the total advancing volume (which includes all turning traffic) to the number of mainline right-turns. The operating speed (posted speed limit) of the major roadway is used to determine if a right-turn lane is warranted. If the point lies to the right of the operating speed line, then a right-turn lane should be considered. If the plotted point is to the left of the line, then a left-turn lane is not necessary. Richland Road is 45 mph, so the 50-mph graph line was used and the posted speed on Rolling Hills Road is 35 mph, so the 40-mph graph line was used.

Note, that the MoDOT EPG provides guidance that a right-turn lane is typically not necessary for right-turn volumes less than 10 vph. As such, a separate right-turn lane would not be required on Richland Road at the proposed north drive given the low traffic volume.

**Figure 4** graphically illustrates the northbound/southbound Rolling Hills Road right-turn lane evaluations at the proposed site drives assuming the 2025 Build traffic volumes. As can be seen in Figure 4, separate northbound/southbound right-turn lanes on Rolling Hills Road are not warranted at the proposed site drives in the 2025 Build conditions.

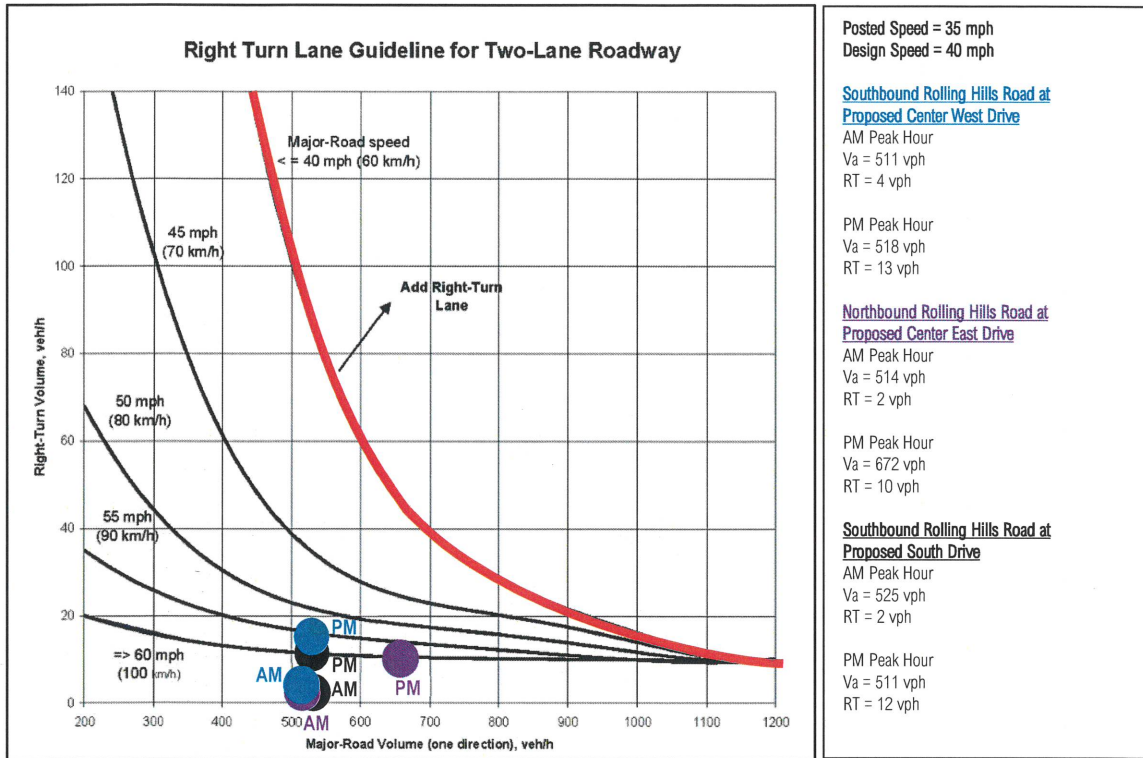


Figure 4: Rolling Hills Road Right-Turn Warrant at Proposed Site Drives – 2025 Build

**Operating Conditions:** The study intersections were evaluated using the methodologies described previously. The existing lane configurations and traffic control were used in the analysis (i.e., no roadway or traffic control improvements). The proposed site drives were assumed to have one lane exiting and one lane entering.

**Table 5** summarizes the results of these analyses, which reflect the 2025 Base and 2025 Build operating conditions and average delay for each of the study intersections during the weekday AM and PM peak hours. The maximum volume to capacity ratio ( $v/c$ ) is also noted in the table to better understand the available capacity of the intersection and the impact of the proposed multi-family development on the overall capacity. The 95<sup>th</sup> percentile Synchro estimated queues for movements with a queue greater than 50 feet is also noted in the table.

The  $v/c$  ratio, also referred to as degree of saturation, represents the sufficiency of an intersection to accommodate the vehicular demand. A  $v/c$  ratio less than 0.85 generally indicates that adequate capacity is available, and vehicles are not expected to experience significant queues and delays. As the  $v/c$  ratio approaches 1.0, traffic flow may become unstable, and delay and queuing conditions may occur. Once the demand exceeds the capacity (i.e., a  $v/c$  ratio greater than 1.0), traffic flow is unstable and excessive delay and queuing is expected.



Table 5: 2025 Capacity Analysis Summary

Intersection / Approach	AM Peak Hour		PM Peak Hour	
	2025 Base	2025 Build	2025 Base	2025 Build
<b>Richland Road and Rolling Hills Road/Grace Lane (All-Way STOP)</b>				
Eastbound Richland Road Approach	B (14.3) 95 <sup>th</sup> Queue: 30'	B (14.6) 95 <sup>th</sup> Queue: 30'	C (17.2) 95 <sup>th</sup> Queue: 55'	C (18.7) 95 <sup>th</sup> Queue: 65'
Westbound Richland Road Approach	F (155.3) 95 <sup>th</sup> Queue: 565'	F (164.8) 95 <sup>th</sup> Queue: 570'	F (65.2) 95 <sup>th</sup> Queue: 260'	F (74.3) 95 <sup>th</sup> Queue: 280'
Northbound Rolling Hills Road Approach	F (128.3) 95 <sup>th</sup> Queue: 480'	F (143.9) 95 <sup>th</sup> Queue: 535'	F (272.3) 95 <sup>th</sup> Queue: 880'	F (294.0) 95 <sup>th</sup> Queue: 920'
Southbound Grace Lane Approach	F (55.1) 95 <sup>th</sup> Queue: 245'	F (58.3) 95 <sup>th</sup> Queue: 255'	F (158.3) 95 <sup>th</sup> Queue: 505'	F (186.7) 95 <sup>th</sup> Queue: 550'
<b>Overall</b>	<b>F (111.1) v/c: 0.90</b>	<b>F (120.7) v/c: 0.92</b>	<b>F (165.6) v/c: 1.01</b>	<b>F (183.4) v/c: 1.05</b>

X (XX.X) - Level of Service (Vehicular delay in seconds per vehicle)

As shown in the table, in the AM peak hour, the v/c ratio for the Richland Road and Rolling Hills Road intersection increases from 0.90 to 0.92 with the proposed site trips utilizing about two percent of the intersection capacity. In the PM peak hour, the v/c ratio increases from 1.01 to 1.05 with the proposed site trips utilizing about four percent of the Richland Road and Rolling Hills Road intersection capacity.

More importantly, in the PM peak hour base conditions, the v/c ratio at the intersection of Richland Road and Rolling Hills Road is 1.01 which is "over capacity" and will likely result in long delays without roadway and/or traffic control improvements should the full build-out of the area approved developments, an additional 1,270 homes, occur prior to improvements at the Richland Road and Rolling Hills Road.

As shown, during the AM peak hour, the Richland Road and Rolling Hills Road intersection is forecasted to continue to operate at overall LOS F with approximately 111 seconds of delay per vehicle on average for the 2025 Base conditions to LOS F with approximately 120 seconds of delay per vehicle on average for the 2025 Build conditions. As shown, during the PM peak hour, the Richland Road and Rolling Hills Road intersection is forecasted to continue to operate at overall LOS F with approximately 165 seconds of delay per vehicle on average for the 2025 Base conditions to LOS F with approximately 183 seconds of delay per vehicle on average for the 2025 Build conditions.

With the full build-out of the area approved developments the intersection of Richland Road and Rolling Hills Road will operate poorly (i.e., LOS F) in the base conditions without any additional trips from the proposed multi-family developments. As such, improvement



alternatives were considered at the intersection of Richland Road and Rolling Hills Road/Grace Lane as follows:

- Maintain All-Way Stop control with the addition of a southbound left-turn lane on Grace Lane and a westbound left-turn lane on Richland Road; and
- Construct a single-lane roundabout at the intersection.

**Tables 6 and 7** respectively summarize the analysis results of the improved All-Way STOP and roundabout alternatives for the intersection of Richland Road and Rolling Hills Road/Grace Lane during the weekday AM and PM peak hours for the 2025 Base and 2025 Build conditions.

**Table 6: 2025 Capacity Analysis Summary – Improved All-Way STOP Control**

Intersection / Approach	AM Peak Hour		PM Peak Hour	
	2025 Base	2025 Build	2025 Base	2025 Build
<b>Richland Road and Rolling Hills Road/Grace Lane (All-Way STOP w/ SB and WB Lefts Added)</b>				
Eastbound Richland Road Approach	B (12.6) 95 <sup>th</sup> Queue: 25'	B (12.9) 95 <sup>th</sup> Queue: 30'	B (14.5) 95 <sup>th</sup> Queue: 50'	C (15.5) 95 <sup>th</sup> Queue: 60'
Westbound Richland Road Approach	C (20.2) 95 <sup>th</sup> Queue: 115'	C (20.8) 95 <sup>th</sup> Queue: 115'	C (16.2) 95 <sup>th</sup> Queue: 65'	C (16.9) 95 <sup>th</sup> Queue: 70'
Northbound Rolling Hills Road Approach	F (91.8) 95 <sup>th</sup> Queue: 480'	F (106.5) 95 <sup>th</sup> Queue: 545'	F (195.7) 95 <sup>th</sup> Queue: 845'	F (215.7) 95 <sup>th</sup> Queue: 915'
Southbound Grace Lane Approach	C (22.9) 95 <sup>th</sup> Queue: 145'	C (23.9) 95 <sup>th</sup> Queue: 150'	D (25.2) 95 <sup>th</sup> Queue: 175'	D (29.0) 95 <sup>th</sup> Queue: 200'
<b>Overall</b>	<b>E (44.6)</b> <b>v/c: 0.58</b>	<b>F (51.3)</b> <b>v/c: 0.60</b>	<b>F (87.7)</b> <b>v/c: 0.73</b>	<b>F (96.7)</b> <b>v/c: 0.75</b>

X (XX.X) - Level of Service (Vehicular delay in seconds per vehicle)

**Table 7: 2025 Capacity Analysis Summary – Improved Roundabout Control**

Intersection / Approach	AM Peak Hour		PM Peak Hour	
	2025 Base	2025 Build	2025 Base	2025 Build
<b>Richland Road and Rolling Hills Road/Grace Lane (Roundabout)</b>				
Eastbound Richland Road Approach	A (6.9)	A (7.1)	A (9.7) 95 <sup>th</sup> Queue: 35'	B (10.7) 95 <sup>th</sup> Queue: 45'
Westbound Richland Road Approach	C (15.8) 95 <sup>th</sup> Queue: 180'	C (17.7) 95 <sup>th</sup> Queue: 200'	B (12.1) 95 <sup>th</sup> Queue: 90'	B (13.0) 95 <sup>th</sup> Queue: 100'
Northbound Rolling Hills Road Approach	A (8.4) 95 <sup>th</sup> Queue: 85'	A (9.0) 95 <sup>th</sup> Queue: 95'	C (18.8) 95 <sup>th</sup> Queue: 330'	C (20.9) 95 <sup>th</sup> Queue: 385'
Southbound Grace Lane Approach	A (9.9) 95 <sup>th</sup> Queue: 75'	B (10.5) 95 <sup>th</sup> Queue: 80'	B (10.4) 95 <sup>th</sup> Queue: 110'	B (11.3) 95 <sup>th</sup> Queue: 130'
<b>Overall</b>	<b>B (11.2)</b> <b>v/c: 0.66</b>	<b>B (12.1)</b> <b>v/c: 0.70</b>	<b>B (13.9)</b> <b>v/c: 0.76</b>	<b>B (15.3)</b> <b>v/c: 0.80</b>

X (XX.X) - Level of Service (Vehicular delay in seconds per vehicle)



As shown in Table 6, the improved All-Way stop control with adding the southbound and westbound left-turn lanes provides a significant improvement over the existing lane configuration. However, with the full build-out of all the approved area developments the intersection of Richland Road and Rolling Hills Road will operate poorly (i.e., LOS F) in the base conditions without any additional trips from the proposed multi-family developments.

Ultimately, it is our understanding that the City plans to improve the intersection of Richland Road and Rolling Hills Road/Grace Lane to a roundabout in the next 5 to 10 years. As shown in Table 7, a single-lane roundabout provides a significant improvement over the existing lane configuration with all approaches operating at LOS C or better in the peak hours.

As shown in Table 7, the northbound Rolling Hills Road approach has a maximum queue of approximately 385 feet in the PM peak hour. The East and West Site Drives for the proposed multi-family development are located approximately 300 feet south of Richland Road. Consequently, in the build-out condition with the area 1,270 homes, there is a potential for the East and West Site Drives to periodically be blocked by the northbound queues from the roundabout during the PM peak hour. As such, it is recommended that consideration be given to shifting the proposed East and West Site Drives further to the south, away from the roundabout.

Note, it is our understanding that the City intends to design the roundabout at Richland Road and Rolling Hills Road/Grace Lane as a two-lane roundabout, even though initially it would likely be a single lane roundabout. **Table 8** summarizes the results of a dual lane roundabout configuration at Richland Road and Rolling Hills Road/Grace Lane. As can be seen, with a two-lane roundabout configuration the maximum queue for northbound Rolling Hills Road approach is expected to be 95 in the PM peak hour, which is not anticipated to reach the proposed East and West Site Drives.

**Table 8: 2025 Build Capacity Analysis Summary – Dual Lane Roundabout**

Intersection / Approach	AM Peak Hour	PM Peak Hour
<b>Richland Road and Rolling Hills Road/Grace Lane (Dual Lane Roundabout)</b>		
Eastbound Richland Road Approach	A (7.1)	B (10.7) 95 <sup>th</sup> Queue: 45'
Westbound Richland Road Approach	A (7.9) 95 <sup>th</sup> Queue: 40'	A (7.2) 95 <sup>th</sup> Queue: 95'
Northbound Rolling Hills Road Approach	A (6.5) 95 <sup>th</sup> Queue: 60'	A (8.6) 95 <sup>th</sup> Queue: 95'
Southbound Grace Lane Approach	A (9.0) 95 <sup>th</sup> Queue: 60'	A (9.8) 95 <sup>th</sup> Queue: 95'
Overall	A (7.6) v/c: 0.43	A (8.9) v/c: 0.52

X (XX.X) - Level of Service (Vehicular delay in seconds per vehicle)



**Table 9** summarizes the 2025 Build operating conditions and average delay for the proposed site drive study intersections during the weekday AM and PM peak hours.

As shown, all of the site drive study intersections are forecasted to operate at acceptable levels of service in the 2025 Build conditions with most movements operating at LOS C or better in the peak hours.

**Table 9: 2025 Build Capacity Analysis Summary – Site Drives**

Intersection / Approach	AM Peak Hour	PM Peak Hour
<b>Richland Road and Proposed North Site Drive (Side-Street STOP)</b>		
Eastbound Richland Road Approach	A (<1.0)	A (1.1)
Westbound Richland Road Approach	A (<1.0)	A (<1.0)
Northbound Proposed Site Drive Approach	B (11.9)	B (13.7)
<b>Rolling Hills Road and Proposed Center Drive (Side-Street STOP)</b>		
Eastbound Center Drive Approach	C (21.6)	D (26.4)
Westbound Center Drive Approach	C (19.9)	C (23.7)
Northbound Rolling Hills Road Approach	A (<1.0)	A (<1.0)
Southbound Rolling Hills Road Approach	A (<1.0)	A (<1.0)
<b>Rolling Hills Road and Proposed South Drive (Side-Street STOP)</b>		
Eastbound South Drive Approach	C (18.3)	C (21.1)
Northbound Rolling Hills Road Approach	A (<1.0)	A (<1.0)
Southbound Rolling Hills Road Approach	Free Flow	Free Flow

X (XX.X) - Level of Service (Vehicular delay in seconds per vehicle)



## **SUMMARY**

CBB completed the preceding study to address the anticipated traffic impacts associated with the proposed multi-family development located in the southeast and southwest quadrants of the Richland Road and Rolling Hills Road intersection in Columbia, Missouri.

In summary, the following findings and improvements should be considered in conjunction with the proposed multi-family development:

- The 2025 Base traffic volumes include the build-out of an additional 1,270 homes in the area.
- The proposed multi-family residential development is expected to add 100 trips during the weekday AM peak hour and 125 trips during the weekday PM peak hour to the adjacent roadways.
- It is recommended the site design engineer verify adequate sight distance is provided at all proposed site drives.
- Careful consideration should be given to sight distance obstructions when planning any future aesthetic enhancements, such as berms, fencing and landscaping, at any of the subdivision entrances to ensure that these improvements do not obstruct the view of entering and exiting traffic at the site intersections with the public roads. It is generally recommended that all improvements wider than two inches (posts, tree trunks, etc.) and higher than 3.5 feet above the elevation of the nearest pavement edge be held back at least 20 feet from the traveled roadway.
- In the existing configuration, the intersection of Richland Road and Rolling Hills Road/Grace Lane is forecasted to operate at LOS F under 2025 Base and 2025 Build conditions during the AM and PM peak hours.
- Improvement alternatives were considered at the intersection of Richland Road and Rolling Hills Road/Grace Lane including maintaining All-Way Stop control with the addition of southbound and westbound left-turn lanes and the provision of a single-lane roundabout.

The improved All-Way stop control provides a significant improvement over the existing lane configuration. However, with the full build-out of all the approved area developments the intersection of Richland Road and Rolling Hills Road will operate poorly (i.e., LOS F) in the base conditions without any additional trips from the proposed multi-family developments.

Ultimately, it is our understanding that the City plans to improve the intersection of Richland Road and Rolling Hills Road/Grace Lane to a roundabout in the next 5 to 10 years. A single-lane roundabout provides a significant improvement over the existing lane configuration with all approaches operating at LOS C or better in the peak hours for



the 2025 Base and Build conditions which would include the build-out of the area approved developments.

- Considering the full build-out of the area approved developments with a future roundabout at the Richland Road and Rolling Hills Road intersection, there is a potential for the proposed East and West Site Drives to be periodically blocked by the northbound queues from the roundabout during the PM peak hour. As such, it is recommended that consideration be given to shifting the proposed East and West Site Drives further to the south.

We trust this traffic impact study adequately describes the forecasted traffic conditions that should be expected as a result of the proposed multi-family development. If additional information is desired, please feel free to contact me at 314-449-9572 or [swhite@cbbtraffic.com](mailto:swhite@cbbtraffic.com).

Sincerely,

Shawn Lerai White, P.E., PTOE  
Associate - Senior Traffic Engineer

