

**DEVELOPER AGREEMENT
GUARANTEEING INSTALLATION OF PUBLIC IMPROVEMENTS
IRREVOCABLE LETTER OF CREDIT**

THIS AGREEMENT ("Agreement"), is made and entered into by and between _____, a registered Missouri _____ ("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.

WITNESSETH:

WHEREAS, the Developer has title or intends to acquire title to approximately 45.2 acres of land currently located in the City of Columbia, generally located at the northwest and southwest corner of Scott Boulevard and Smith Drive, legally described in the attached **Exhibit A**. ("Property"); and

WHEREAS, as a condition of approval of the final plat for Property, shown in the preliminary plat of Westbury Village Subdivision attached as **Exhibit B**, certain public improvements are required to be completed by the Developer as more fully set forth herein; and

WHEREAS, the Developer wants to contribute financially to certain improvements and provide security or collateral sufficient in the judgment of the City to make reasonable provision for the completion of other required public improvements and warranties on such public improvements; and

WHEREAS, the Parties desire to establish the public improvements guarantees in the form of this Agreement and accompanying Irrevocable Standby Letter of Credit; and

WHEREAS, the Developer and City seek to have Developer, at the Developer's cost, provide the following public infrastructure improvements or services, pursuant to the applicable Codes and Regulations of the City;

NOW, THEREFORE, in consideration of the mutual covenants, promises, declarations and conditions herein provided the Parties agree as follows:

Developer's Obligations:

1. **Public Improvements.** The Developer must, at its cost, install and pay for all public infrastructure improvements or services identified in the July 18, 2018 Traffic

Impact Study by CBB Transportation Engineers + Planners, incorporated herein as **Exhibit C**, and fully listed below (“Public Improvements”). The Public Improvements will be constructed in accordance with the City Code and the City’s *Street, Storm Sewer, and Sanitary Sewer Specifications and Standards*, in place at the time of construction. Design for the Public Improvements shall be prepared by Developer and approved by the City before construction may begin on any Public Improvement. All Public Improvements must be completed by Developer, at Developer’s expense, in the time and manner set forth in paragraph 7 below. City may allow Developer to proceed with final platting without completing all or some of the following Public Improvements upon receipt of a security guarantee from the Developer in accordance with the process described herein that is sufficient to guarantee the installation of the remaining Public Improvements. Developer shall:

- a. Restripe Smith Drive adjacent to the proposed site to provide separate left-turn lanes at the site drives.
- b. Stripe left turn lanes on Faurot Drive adjacent to the proposed site to provide separate left-turn lanes at the site drives.
- c. Provide southbound right-turn lanes on Scott Boulevard with appropriate storage length and tapers at:
 - i. Faurot Drive
 - ii. Right in/right out site drive between Faurot Drive and Smith Drive
 - iii. Smith Drive
 - iv. Right in/right out site drive south of Smith Drive
- d. Provide additional eastbound left-turn lane of 250 feet plus taper on Smith Drive at Scott Boulevard to provide dual left-turns on Smith Drive. This will require signal adjustments to accommodate this additional lane.
- e. Lengthen the existing northbound left-turn lane on Scott Boulevard at Smith Drive to provide 250 feet of storage plus taper.
- f. Shift the first site drive off Smith Drive westward to provide a minimum of 300 feet from the edge of pavement on Scott Boulevard to the first site drive.
- g. Extend Faurot Drive westward through the proposed multi-family portion of the development to connect to Stone Valley Parkway at one of the existing streets on Stone Valley Parkway.

2. **Phasing Plan.** If any development of the Property, including final platting, will be phased, then a plan which generally describes the sequence of development of the Property (“Phasing Plan”) must be submitted to the Director of Community Development (“Director”) concurrently with the first application for a Final Plat on the Property. The Phasing Plan shall become final and binding upon Developer upon approval of the first Final Plat on the Property. Thereafter, development and platting of the Property shall occur in the sequence established in the Phasing Plan. 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. Once the Property has been preliminary platted, no part of the Property may be conveyed as a small area transfer or using a metes and bounds description. A conveyance of any part of the Property may only occur after the Property, or any applicable portion thereof, has been final platted in accordance with the City's Subdivision Regulation.

3. **Payment Offset for Smith and Scott Intersection Improvements.** Developer shall pay the City a lump sum of one-hundred sixty-thousand, seven-hundred and forty-five dollars (\$160,745.00) to offset the costs incurred by City to install traffic lights and acquire certain rights-of-way as part of the Smith Drive and Scott Boulevard Intersection widening project ("Payment Offset"). This Payment Offset must be submitted to the City before the City will accept any public streets associated with this Agreement or within one hundred fifty (150) calendar days of the issuance of any construction permit for the Property, whichever is earlier.

4. **Fee in Lieu for Stone Valley Parkway.** Developer shall pay the City a lump sum fee of twenty-seven thousand, seven hundred fifty-nine dollars and twenty-nine cents \$27,759.29 in lieu of constructing the Developers portion of one-half of the remaining unfinished section of Stone Valley Parkway ("Fee in Lieu"). This Fee in Lieu must be submitted before the City will accept any public streets associated with this Agreement or within one hundred fifty (150) calendar days of the issuance of any construction permit for the Property, whichever is earlier.

5. **Performance Guarantee for Public Improvements.** The Developer must provide security and collateral in the form of an Irrevocable Letter of Credit, as set forth in attached **Exhibit D**, for an amount equal to one hundred twenty-five percent (125%) of the estimated cost for the remaining Public Improvements ("Security") within ten (10) days of the Effective Date of this Agreement, payable to the City and guaranteeing the construction, installation, and completion of all required Public Improvements, as set forth in **Exhibit C** and with the City ordinances regulating the same. The estimated cost for the Public Improvements that serves as the basis for the Irrevocable Letter of Credit sum must be approved by the Director of Public Works before execution and acceptance of the Irrevocable Letter of Credit by the City. Nothing in the estimates or specification of component items will in any way require release of any portion of the Security based on each line item, and Developer agrees it will continue to be obligated to complete and guarantee completion of all Public Improvements until fully complete and accepted by the City.

The Developer warrants and guarantees that all Public Improvements hereunder will be constructed in a workmanlike manner, of materials as specified by the City's

Street, Storm Drain, and Sanitary Sewer Specifications and Standards for a period of two (2) years on workmanship and materials from the date of issuance of a Notice of Street and Storm Sewer Compliance thereof. The Developer will ensure that any contractor or subcontractor who works on the improvements will also warrant their work to the same extent as Developer. The Developer must convey title to the improvements and any necessary easements to the City via appropriate instrument approved by the City, free and clear of any lien, encumbrance or cloud upon such title, at the time of, and as a condition of, issuance of a Notice of Street and Storm Sewer Compliance by the City.

The Director of Public Works may approve a reduction in the required amount of the Security whenever, in the Director of Public Works reasonable opinion, changed circumstances justify the reduction. Any release of part of or a portion of the Security is only an accommodation to the Developer and is not a waiver of any kind by the City of its rights under this Agreement that the entire Security guarantees each and every improvement.

6. **Security.** The Security guarantees the construction, installation, maintenance, and completion of all Public Improvements in accordance with the approved Public Improvements which are incorporated in this Agreement as listed in **Exhibit C** and as required by the ordinances and regulations of the City.

7. **Completion Date.** The Developer guarantees that all Public Improvements will be installed, constructed and completed in accordance with **Exhibit C** and the ordinances of the City within two (2) years from the Effective Date (“Completion Date”), and the Public Improvements, including all lots, common ground, streets, and improvements, and all adjacent streets used for the hauling of construction equipment, materials and supplies will be safeguarded, protected and kept free of associated mud, trash, weeds, and debris during the construction period and otherwise properly maintained, and constructed all in accordance with City Code and Approved Improvement Plans.

8. **Extension of Time for Completion.** The Developer may seek an extension of this Agreement beyond the amount of time required herein for completion of all Public Improvements by submitting a written request for an extension to the Director of Public Works prior to the expiration of the permitted time. The request for an extension must state the reason for the request and the additional time needed. The Director of Public Works will have sole discretion to determine if an extension is warranted and may require any security and collateral it deems necessary to ensure completion of all Public Improvements. Upon approval, the extension will begin from a date determined by the Director of Public Works.

9. **Release.**

a. That the City may, through written authorization of the Director of Public Works, release or reduce portions of the Security upon completion of components within categories and will release corresponding portions of the Security upon completion of categories of improvements.

b. In order to obtain such written authorization for a release, upon completion of any such category of improvement the Developer must first make written request for inspection to the appropriate inspecting authority. Upon receipt of the Developer's written request for inspection the City (or the appropriate inspecting authority) will (i) inspect the construction, installation and completion of the Public Improvement(s) that have been noted as complete by the Developer. Upon receipt of the inspection report, the City's Director of Public Works will review the report, verify that the Public Improvement complies with all laws and requirements of the City, and authorize such release.

c. Except for discretionary releases that may be granted by the Director of Public Works in the public interest, no category of any Public Improvement will be eligible for release until each and every component and requirement that makes up that category of Public Improvement is deemed complete by the City. No category or public improvement may be deemed to be complete until there is a certification by the City that the project is complete. No certification will be issued by the City unless all of the following takes place: (i) the Developer submits a written request to the City for inspection of the Public Improvements; (ii) the inspection is completed by the City's inspector who determines that the Public Improvement are complete and recommends to the City's Director of Public Works that it be released; and (iii) the City's Director of Public Works reviews the City Inspector's inspection report, determines that the Public Improvement complies with all laws and requirements of the City, and authorizes such release.

d. Upon certification by the City that the construction and installation of a category of Public Improvement is complete (in accordance with section 9 (b) and (c) above), the City will authorize the release of the estimated cost originally retained for that category *minus* a maximum retention of five percent (5%), as otherwise provided in this Section. The Developer will not be released of any responsibility for installation, construction, completion, or maintenance for the required improvements, irrespective of any release that may have been issued based on specific improvements or inspections, prior to final approval of all improvements and release of the entire Security for all categories.

e. In no event will the City be required to release, disburse or otherwise dispose of more than ninety-five percent (95%) of the Security, until the City has certified as provided herein that all categories of Public Improvements have been completed in accordance with the **Exhibit B** and the City Code and the City's *Street and, Storm Sewer, Specifications and Standards*, in place at the time of construction.

10. **Before Final Release.** Upon completion of all of the Public Improvements and prior to final release of the Security, the Developer must submit to the City an electronic copy of "as built" drawings which show the actual installation of the said improvements, and that if after the City reviews the "as built" drawings submitted it reasonably determines that all of the improvements have been completed and, as applicable, accepted by the respective utilities, then the City will approve the "as built" drawings.

11. **Final Release.** Upon approval of the "as built" drawings and completion of the final improvements and certifications required, the final Security must be released not later than thirty (30) days after acceptance of the improvements by the City.

12. **Default or Abandonment.** In the event the Developer is in default or abandons the subdivision, or fails to complete the obligations herein, including, but not limited to, the failure to complete the Public Improvements by the Completion Date, the Developer will forfeit to the City the then current balance of the Security or any portion thereof, which funds the City will thereafter use to complete the Public Improvements or otherwise rectify the Developer's failure hereunder. The City may further apply such necessary amount of the Security to remedy any failure of the Developer to perform its maintenance obligations in the Public Improvements. For the purpose of this Agreement and the City's rights hereunder, any and all of the remaining Security may be applied to completion or maintenance of any City improvements reasonably related to the Public Improvements including, but not limited to, those listed herein, and no limitation of any kind will be implied from the line item calculations of separate improvements.

13. **No Waiver for Failure or Delay to Enforce.** Exercise or waiver by City of any enforcement action under this Agreement or the City's Code does not waive or foreclose any other or subsequent enforcement action whatsoever.

14. **Amendments or Modifications.** This Agreement may be amended from time to time provided that such amendment be mutually agreed upon in writing and signed by all Parties hereto, including any future Developer of any part of the Property who might 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 and Developer will not be released from any obligation to construct the Public Improvements by sale of any portion of the Property without the express written consent of the City and the execution of a substitute Irrevocable Letter of Credit which will, in the sole determination of the City, adequately protect the interest of the public in the required construction of the Public Improvements.

15. **Designation.** The Developer is an independent contractor, and nothing contained herein will constitute designation of the Developer or any of its employees or agents as an agent or employee of the City.

16. **Notices.** All notices between the parties hereto must be in writing and will 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
City Manager
701 E. Broadway
Columbia, MO 65205

with a copy to:
City of Columbia
Director of Public Works
701 E. Broadway
Columbia, MO 65205

If to Developer:

with a copy to:

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.

17. **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, out of Developer's breach of this Agreement which results in injury to any third party, except to the extent such injury arises from or is 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 City acceptance of public improvements.

18. **Insurance.** Any Party performing construction of public improvement under this Agreement must provide, at its sole expense, and maintain during construction of any public improvements related to this Agreement, commercial general liability insurance with a reputable, qualified, and financially sound company licensed to do business in the State of Missouri. The insuring company, unless otherwise approved by the City, must have a rating of not less than “A,” and it must protect the insured Party, the City, and the City’s officials, officers, and employees from claims which may arise from the construction operations, whether such operations are by the insured Party, its officers, directors, employees and agents, or any of its subcontractors. 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 insured Party operations, products, services or use of automobiles, or construction equipment. The amount of insurance for 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 cancelled 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.

19. **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.

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

21. **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. All financial obligations of the City shall be subject to future appropriation of the City in accordance with applicable laws and requirements. Further, nothing herein shall relieve Developer from complying with all applicable laws and requirements.

22. **Authorized Employees.** Developer acknowledges that Section 285.530, RSMo, prohibits any business entity or employer from knowingly employing, hiring for employment, or continuing to employ an unauthorized alien to perform work within the State of Missouri. Developer therefore covenants that it is not knowingly in violation of Section 285.530(1), RSMo, and that it will not knowingly employ, hire for employment, or continue to employ any unauthorized aliens to perform work on any project which is

the subject of this Agreement, and that its employees are lawfully eligible to work in the United States.

23. **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 pursuant to comply with the terms of this Agreement. The Developer shall not deny the City and its officers, employees, agents and independent contractors the right to inspect upon reasonable prior written request, all engineering or construction contracts or documents pertaining to the construction of the public infrastructure or any applicable phase thereof.

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

25. **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 located in Boone County, Missouri.

26. **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 financial security for the construction and installation of certain improvements, all as hereinabove described in this Agreement unless contained in a prior agreement and not expressly modified herein. Parties agree that this Agreement constitutes a lawful contract between the Parties and the Developer hereby acknowledges and agrees that this Agreement and the City's ordinances and regulations applicable to this Agreement constitute lawful exercises of the City's authority and police power.

27. **Contingencies.** Notwithstanding anything herein to the contrary, this Agreement and all obligations of Developer set forth herein are contingent and conditioned upon the City's approval of Developer's pending application for rezoning of the Property, the City's approval of Developer's pending application for approval of the Preliminary Plat attached hereto as Exhibit B and approval of a final plat which is conformance with the approved preliminary plat. In the event that either the pending rezoning, the pending preliminary plat or the final plat are not approved, then this Agreement shall become null and void.

28. **Agreement to Run with the Land.** The provisions of this Agreement will constitute covenants running with the entirety of the Property and will bind the then-current owners of the Property and all of such owners' successors and assigns. In the

event one or more third parties purchase the 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.

29. **Recording.** Upon adoption, the City shall cause this Development Agreement to be recorded with the Recorder of Deeds of Boone County, Missouri, at the cost and expense of the Developer. A copy of the recorded instrument shall be provided to the Developer by the City.

EXHIBIT A

(Legal Description of property)

DECEMBER 18, 2018

**PROPOSED WESTBURY VILLAGE SUBDIVISION
LOTS 1 AND 2, M-N ZONING
(MIXED-USE NEIGHBORHOOD)
QUIT CLAIM DEED BOOK 1117 PAGE 286**

A TRACT OF LAND LOCATED IN SOUTHEAST QUARTER OF SECTION 17 T48N R13W, IN COLUMBIA, BOONE COUNTY, MISSOURI, FURTHER DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF LOT 185 OF THE HAMLET PLAT 2, RECORDED IN PLAT BOOK 27 PAGE 15, THENCE ALONG THE NORTHERLY LINE OF SAID LOT, N 88°46'00"W 119.49 FEET TO THE NORTHWEST CORNER THEREOF; THENCE ALONG THE EASTERLY LINES OF LOTS 13G, 13F, 13E, 13D, 13C AND 13B OF THE HAMLET PLAT 1-A, RECORDED IN PLAT BOOK 25 PAGE 55, N 33°02'00"W 240.05 FEET; THENCE N 41°34'30"W 224.30 FEET TO THE SOUTHEAST CORNER OF A TRACT OF DESCRIBED BY SURVEY RECORDED IN BOOK 595 PAGE 385; THENCE ALONG THE EAST LINE OF SAID TRACT, N 1°14'00"E 128.50 FEET; THENCE S 88°46'30"E 407.01 FEET TO THE WESTERLY RIGHT-OF-WAY LINE OF STATE ROUTE TT (SCOTT BOULEVARD); THENCE ALONG SAID LINE, S 1°13'30"W 491.49 FEET TO THE POINT OF BEGINNING, AND CONTAINING 3.30 ACRES.

12/18/2018

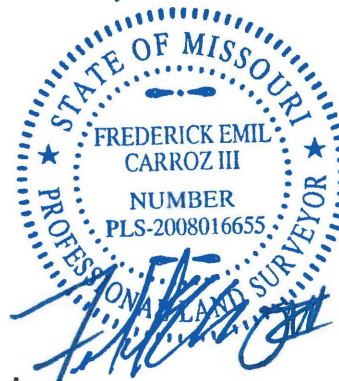


EXHIBIT "A"

PROJECT # 14065

Engineering Surveys and Services

1113 Fay Street Columbia, Missouri 65201
573-449-2646 - www.ESS-Inc.com
Missouri Land Surveying Corporation #2004004672

FREDERICK E. CARROZ III
PROFESSIONAL LAND SURVEYOR
PLS - 2008016655

**PROPOSED WESTBURY VILLAGE SUBDIVISION
LOT 3, M-C ZONING
(MIXED USE COMMERCIAL)
QUIT CLAIM DEED BOOK 1117 PAGE 286
WARRANTY DEED BOOK 690 PAGE 601**

DECEMBER 18, 2018

A TRACT OF LAND LOCATED IN THE SOUTHEAST QUARTER AND NORTHEAST QUARTER OF SECTION 17 T48N R13W, IN COLUMBIA, BOONE COUNTY, MISSOURI, FURTHER DESCRIBED AS FOLLOWS:

STARTING AT THE NORTHEAST CORNER OF LOT 185 OF THE HAMLET PLAT 2, RECORDED IN PLAT BOOK 27 PAGE 15, THENCE N 01°13'30"E, ALONG THE WESTERLY RIGHT- OF -WAY LINE OF STATE ROUTE TT (SCOTT BOULEVARD), 491.49 FEET TO THE POINT OF BEGINNING.

FROM THE POINT OF BEGINNING, THENCE N 88°46'30"W 407.01 FEET TO THE EAST LINE OF THE TRACT DESCRIBED BY SURVEY RECORDED IN BOOK 595 PAGE 385; THENCE ALONG THE LINES OF SAID TRACT, N 1°14'00"E 201.51; THENCE N 83°25'00"W 32.41 FEET TO THE SOUTHERLY RIGHT-OF-WAY LINE OF SMITH DRIVE; THENCE ALONG SAID RIGHT-OF-WAY LINE, ON A NON-TANGENT CURVE TO THE LEFT, HAVING A RADIUS OF 493.00 FEET, A DISTANCE OF 16.50 FEET, THE CHORD BEING N 74°32'30"E 16.49 FEET; THENCE N 73°35'00"E 140.96 FEET; THENCE N 80°03'20"E 47.00 FEET; THENCE N 73°35'00"E 30.29 FEET; THENCE ALONG A CURVE TO THE RIGHT, HAVING A RADIUS OF 421.70 FEET, A DISTANCE OF 129.72 FEET, THE CHORD BEING N 82°23'40"E 129.21 FEET; THENCE S 88°47'40"E 56.46 FEET; THENCE ALONG A CURVE TO THE RIGHT, HAVING A RADIUS OF 30.00 FEET, A DISTANCE OF 47.13 FEET, THE CHORD BEING S 43°47'00"E 42.43 FEET TO THE WESTERLY RIGHT-OF-WAY LINE OF STATE ROUTE TT (SCOTT BOULEVARD); THENCE ALONG SAID RIGHT-OF-WAY LINE, S 1°13'30"W 260.14 FEET TO THE POINT OF BEGINNING, AND CONTAINING 108,299 SQUARE FEET OR 2.49 ACRES.



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Missouri Land Surveying Corporation #2004004672

**FREDERICK E. CARROZ III
PROFESSIONAL LAND SURVEYOR
PLS - 2008016655**

**PROPOSED WESTBURY VILLAGE SUBDIVISION
LOTS 4, 5, 6, 7, 8, 9, 10, 11, 1/2 FAUROT DRIVE, AND 1/2 DAYSPRING DRIVE
M-C ZONING (MIXED-USE COMMERCIAL)
WARRANTY DEEDS BOOK 690 PAGE 601, AND BOOK 1538 PAGE 36**

DECEMBER 18, 2018

A TRACT OF LAND LOCATED IN NORTHEAST QUARTER OF SECTION 17 T48N R13W, IN COLUMBIA, BOONE COUNTY, MISSOURI, FURTHER DESCRIBED AS FOLLOWS:

STARTING AT THE SOUTHEAST CORNER OF LOT 12 OF KING'S MEADOW SUBDIVISION - BLOCK 1, RECORDED IN PLAT BOOK 14 PAGE 32, AND ON THE WESTERLY RIGHT-OF-WAY LINE OF STATE ROUTE TT (SCOTT BOULEVARD), THENCE ALONG SAID LINE S 1°13'30"W 256.37 FEET TO THE POINT OF BEGINNING.

FROM THE POINT OF BEGINNING, THENCE CONTINUING ALONG THE WESTERLY RIGHT-OF-WAY LINE OF STATE ROUTE TT (SCOTT BOULEVARD) S 1°13'30"W 788.35 FEET TO THE NORTHERLY RIGHT-OF-WAY LINE OF SMITH DRIVE; THENCE ALONG SAID LINE, ON A CURVE TO THE RIGHT, HAVING A RADIUS OF 65.00 FEET, A DISTANCE OF 110.34 FEET, THE CHORD BEING S 49°51'20"W 97.56 FEET; THENCE ALONG A CURVE TO THE LEFT, HAVING A RADIUS OF 210.00 FEET, A DISTANCE OF 36.32 FEET, THE CHORD BEING N 86°28'00"W 36.27 FEET; THENCE ALONG A CURVE TO THE LEFT, HAVING A RADIUS OF 500.70 FEET, A DISTANCE OF 181.19 FEET, THE CHORD BEING S 78°12'40"W 180.20 FEET; THENCE S 67°50'40"W 51.93 FEET; THENCE S 73°35'00"W 116.22 FEET; THENCE ALONG A CURVE TO THE RIGHT, HAVING A RADIUS OF 427.00 FEET, A DISTANCE OF 171.41 FEET, THE CHORD BEING S 85°05'00"W 170.26 FEET; THENCE N 83°25'00"W 161.38 FEET; THENCE LEAVING SAID LINE, N 6°35'00"E 81.69 FEET; THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 500.00 FEET, A DISTANCE OF 211.68 FEET, THE CHORD BEING N 5°32'50"W 210.11 FEET; THENCE N 17°40'30"W 249.87 FEET; THENCE ALONG A CURVE TO THE RIGHT, HAVING A RADIUS OF 500.00 FEET, A DISTANCE OF 132.66 FEET, THE CHORD BEING N 10°04'30"W 132.27 FEET; THENCE N 2°28'20"W 381.70 FEET; THENCE N 87°31'40"E 116.62 FEET; THENCE ALONG A CURVE TO THE RIGHT, HAVING A RADIUS OF 500.00 FEET, A DISTANCE OF 80.38 FEET, THE CHORD BEING S 87°52'00"E 80.30 FEET; THENCE S 83°15'40"E 484.01 FEET; THENCE ALONG A CURVE TO THE RIGHT, HAVING A RADIUS OF 200.00 FEET, A DISTANCE OF 39.66 FEET, THE CHORD BEING S 77°34'50"E 39.59 FEET; THENCE S 71°54'00"E 101.66 FEET; THENCE ALONG A CURVE TO THE LEFT, HAVING A RADIUS OF 200.00 FEET, A DISTANCE OF 58.90 FEET, THE CHORD BEING S 80°20'20"E 58.69 FEET; THENCE S 88°46'30"E 49.43 FEET TO THE POINT OF BEGINNING, AND CONTAINING 19.04 ACRES.

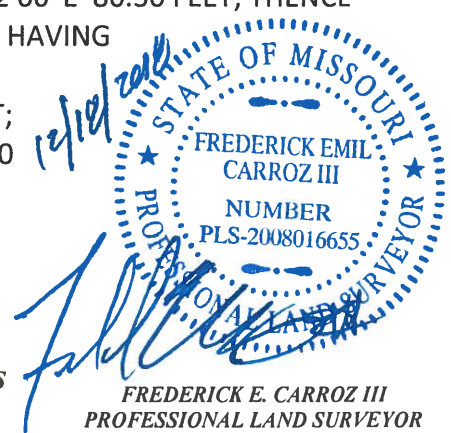


EXHIBIT "A"

PROJECT # 14065

Engineering Surveys and Services

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FREDERICK E. CARROZ III
PROFESSIONAL LAND SURVEYOR
PLS - 2008016655

**PROPOSED WESTBURY VILLAGE SUBDIVISION
LOTS 12, 13, 14, 1/2 FAUROT DRIVE, AND 1/2 DAYSPRING DRIVE
R-MF ZONING (MULTIFAMILY RESIDENTIAL)
WARRANTY DEEDS BOOK 690 PAGE 601, BOOK 1538 PAGE 36**

DECEMBER 18, 2018

A TRACT OF LAND LOCATED IN NORTHEAST QUARTER OF SECTION 17 T48N R13W, IN COLUMBIA, BOONE COUNTY, MISSOURI, FURTHER DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF LOT 12 OF KING'S MEADOW SUBDIVISION - BLOCK 1, RECORDED IN PLAT BOOK 14 PAGE 32, AND ON THE WESTERLY RIGHT-OF-WAY LINE OF STATE ROUTE TT (SCOTT BOULEVARD), THENCE ALONG SAID LINE S 1°13'30"W 256.37 FEET; THENCE LEAVING SAID LINE, N 88°46'30"W 49.43 FEET; THENCE ALONG A CURVE TO THE RIGHT, HAVING A RADIUS OF 200.00 FEET, A DISTANCE OF 58.90 FEET, THE CHORD BEING N 80°20'20"W 58.69 FEET; THENCE N 71°54'10"W 101.66 FEET; THENCE ALONG A CURVE TO THE LEFT, HAVING A RADIUS OF 200.00 FEET, A DISTANCE OF 39.66 FEET, THE CHORD BEING N 77°34'50"W 39.59 FEET; THENCE N 83°15'40"W 484.01 FEET; THENCE ALONG A CURVE TO THE LEFT, HAVING A RADIUS OF 500.00 FEET, A DISTANCE OF 80.38 FEET, THE CHORD BEING N 87°52'00"W 80.30 FEET; THENCE S 87°31'40"W 116.62 FEET; THENCE S 2°28'20"E 381.70 FEET; THENCE ALONG A CURVE TO THE LEFT, HAVING A RADIUS OF 500.00 FEET, A DISTANCE OF 132.66 FEET, THE CHORD BEING S 10°04'30"E 132.27 FEET; THENCE S 17°40'30"E 249.87 FEET; THENCE ALONG A CURVE TO THE RIGHT, HAVING A RADIUS OF 500.00 FEET, A DISTANCE OF 211.68 FEET, THE CHORD BEING S 5°32'50"E 210.11 FEET, THENCE S 6°35'00"W 81.69 FEET TO THE NORTHERLY RIGHT-OF-WAY LINE OF SMITH DRIVE; THENCE N 83°25'00"W 518.52 FEET TO THE EASTERLY RIGHT-OF-WAY LINE OF STONE VALLEY PARKWAY; THENCE ALONG SAID LINE, ON A CURVE TO THE RIGHT, HAVING A RADIUS OF 30.00 FEET A DISTANCE OF 47.12 FEET, THE CHORD BEING N 38°25'10"W 42.43 FEET; THENCE N 6°35'00"E 144.75 FEET; THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 533.00 FEET, A DISTANCE OF 194.49 FEET, THE CHORD BEING N 3°52'20"W 193.41 FEET; THENCE N 14°19'30"W 363.26 FEET; THENCE ALONG A CURVE TO THE RIGHT, HAVING A RADIUS OF 467.00 FEET, A DISTANCE OF 125.53 FEET, THE CHORD BEING N 6°37'30"W 125.15 FEET; THENCE N 1°04'40"E 454.12 TO THE QUARTER QUARTER SECTION LINE; THENCE S 83°15'40"E 1442.73 FEET TO THE POINT OF BEGINNING, AND CONTAINING 20.30 ACRES.

EXHIBIT "A"

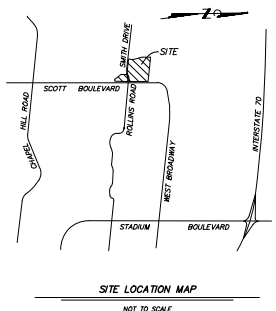
PROJECT # 14065

Engineering Surveys and Services

1113 Fay Street Columbia, Missouri 65201
573-449-2646 - www.ESS-Inc.com
Missouri Land Surveying Corporation #2004004672



EXHIBIT B
(Preliminary Plat)



SITE LOCATION MAP
NOT TO SCALE

STREAM BUFFER NOTE
A TYPE II STREAM BUFFER HAS BEEN PROVIDED IN ACCORDANCE WITH CHAPTER 12A OF THE CITY OF COLUMBIA CODE OF ORDINANCES SPECIFICALLY:

STREAM BUFFER AVERAGING SUMMARY:

EXISTING BUFFER	LENGTH (FT)	AREA (SF)
NORTH OF SMITH DRIVE	517	1.94
SOUTH OF SMITH DRIVE	311	1.58
TOTAL	1,228	2.52

EMBOSSED BUFFER:

NORTH OF SMITH DRIVE	465	0.76
SOUTH OF SMITH DRIVE	311	2.08
TOTAL	1,176	2.83

APPROVED BY THE PLANNING AND ZONING COMMISSION, COLUMBIA, MISSOURI, ON _____

SARA LOE, CHAIRPERSON

APPROVED BY THE CITY COUNCIL PURSUANT TO RESOLUTION # _____ ON THE _____ DAY OF _____, 2019.

ZONING & USE NOTE

EXISTING ZONING IS "P0"; PLANNED DEVELOPMENTS
 PROPOSED ZONING:
 LOTS 1-2: "M-1"; SHALL BE MIXED USE - NEIGHBORHOOD.
 LOTS 3-11: "M-C"; SHALL BE MIXED USE - CORRIDOR.
 LOTS 12-14: "R-MF"; SHALL BE MULTIPLE-FAMILY DWELLING.

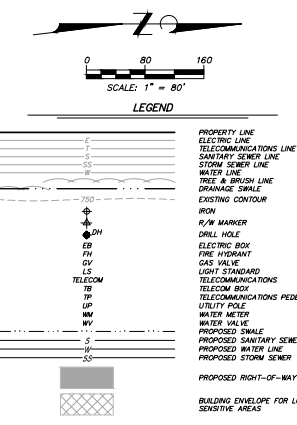
PROPERTY OWNERS

JOSEPH TOMM
552 N. COUNTRY ROAD, SUITE 1
ST. JAMES, NEW YORK 11783

WESTBURY VILLAGE JOINT VENTURE
552 N. COUNTRY ROAD, SUITE 1
ST. JAMES, NEW YORK 11783

HAMELEY LIMITED PARTNERSHIP
552 N. COUNTRY ROAD, SUITE 1
ST. JAMES, NEW YORK 11783

CONTRACT PURCHASER:
TMC CONSTRUCTION, LLC
308 S. NORTH ST., SUITE 101-M
COLUMBIA, MISSOURI 65201

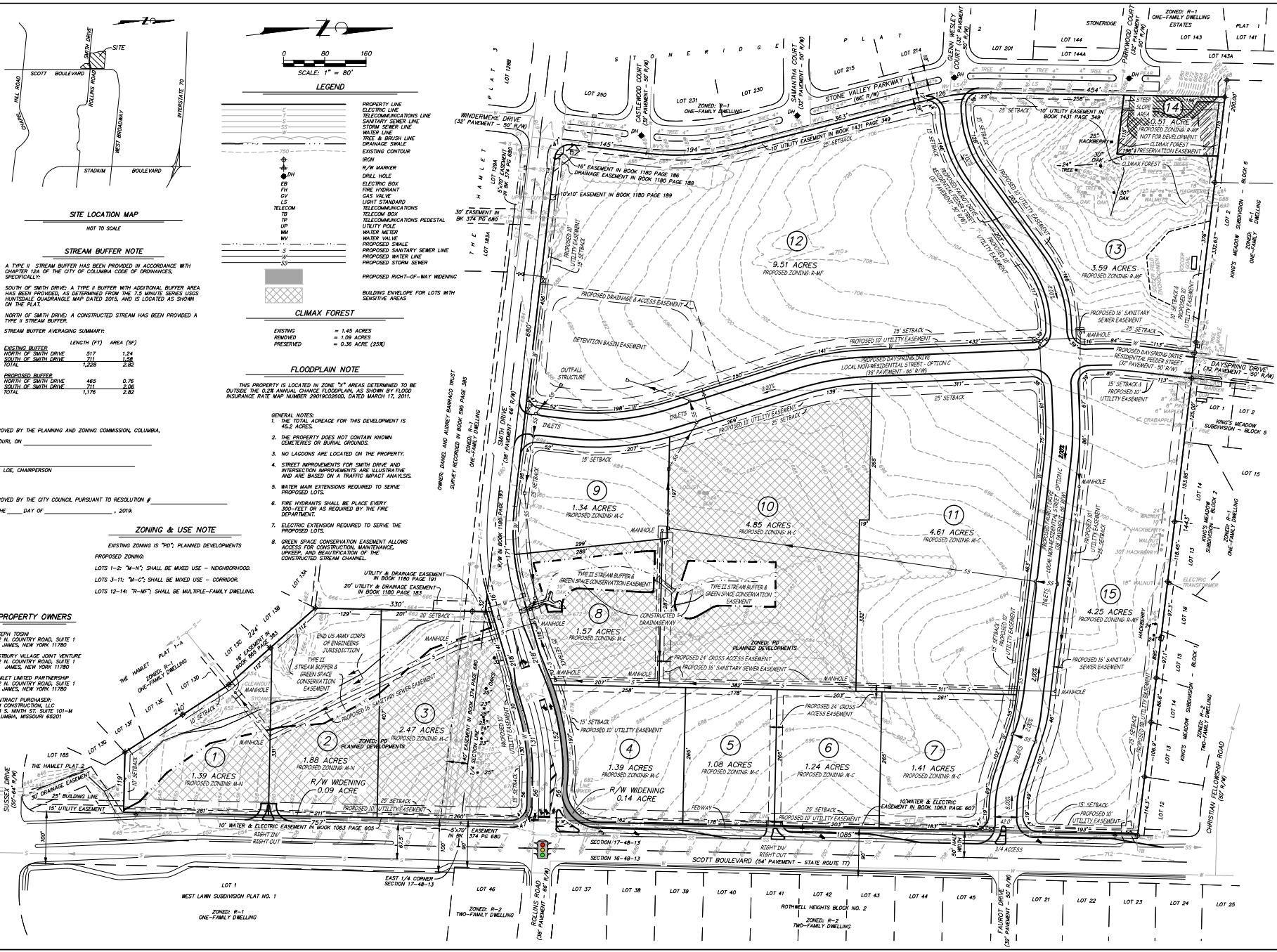


CLIMAX FOREST

EXISTING	= 1.45 ACRES
REMOVED	= 1.09 ACRES
PRESERVED	= 0.36 ACRES (25%)

FLOODPLAIN NOTE
THIS PROPERTY IS LOCATED IN ZONE "X" AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN BY FLOOD INSURANCE RATE MAP NUMBER 280800000, DATED MARCH 11, 2011.

- GENERAL NOTES:**
1. THE TOTAL ACREAGE FOR THIS DEVELOPMENT IS 48.2 ACRES.
 2. THE PROPERTY DOES NOT CONTAIN KNOWN CEMETERIES OR BURIAL SPACES.
 3. NO LAGOONS ARE LOCATED ON THE PROPERTY.
 4. STREET IMPROVEMENTS FOR SMITH DRIVE AND INTERSECTION IMPROVEMENTS ARE ILLUSTRATIVE AND ARE BASED ON A TRAFFIC IMPACT ANALYSIS.
 5. WATER MAIN EXTENSIONS REQUIRED TO SERVE PROPOSED LOTS.
 6. FIRE HYDRANTS SHALL BE PLACED EVERY 300 FEET OR AS REQUIRED BY THE FIRE DEPARTMENT.
 7. ELECTRIC EXTENSION REQUIRED TO SERVE THE PROPOSED LOTS.
 8. GREEN SPACE CONSERVATION EASEMENT ALLOWS ACCESS FOR CONSTRUCTION, MAINTENANCE, REPAIRS, AND RECONSTRUCTION OF THE CONSTRUCTED STREAM CHANNEL.



Engineering Surveys & Services, Inc.
 Consulting Engineers, Land Surveyors and Geographers
 1115 S. 11th Street, Suite 100
 St. James, Missouri 64501
 Phone: (660) 326-1111 | Fax: (660) 326-1112
 www.esandse.com

PRELIMINARY PLAT
WESTBURY VILLAGE SUBDIVISION
 COLUMBIA, BOONE COUNTY, MISSOURI



MATTHEW A. KRIEE
 PROFESSIONAL ENGINEER
 PE-200702081

Date
OCTOBER 16, 2018

Revised
 NOVEMBER 30, 2018
 DECEMBER 14, 2018

Design: MAK Drawn: BR

PRELIMINARY PLAT
 Sheet
CL01
 1 OF 2
 ESAS PROJECT NO. 13885

EXHIBIT C
(Traffic Impact Study)

July 18, 2018

Mr. Travis H. McGee
THM Construction LLC
308 South 9th Street, Suite 101-M
Columbia, Missouri 65201

RE: Traffic Impact Study
Westbury Village – Scott Boulevard and Smith Drive
Columbia, Missouri
CBB Job No. 051-18

Dear Mr. McGee:

As requested, CBB has completed a traffic impact study pertaining to a proposed mixed-use development, known as Westbury Village, generally located in the northwest quadrant of the intersection of Scott Boulevard and Smith Drive in Columbia, Missouri. The location of the site relative to the surrounding area is depicted in **Figure 1**.

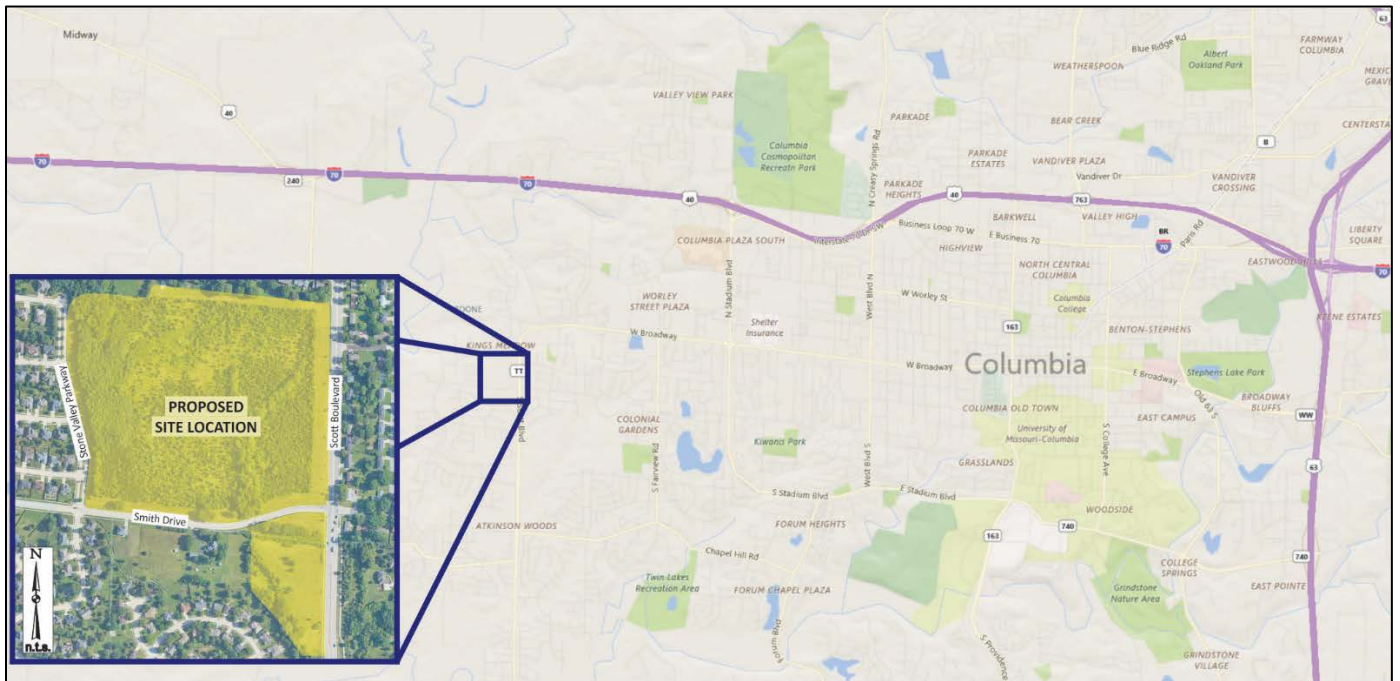


Figure 1: Project Location Map



Based on the concept plan provided by Engineering Surveys and Services Inc. (ESS), an approximate 45,000 square foot grocery store along with a 30,240 square foot retail building is proposed on the site. The proposed development will also include up to eleven (11) additional commercial outlots to be developed with a variety of neighborhood commercial type uses (i.e., restaurant, bank, convenience store with fuel, retail, office, etc.). The neighborhood commercial part of the development would be located along the frontage of Scott Boulevard, north and south of Smith Drive, with approximately 18.4 acres of multi-family housing (312 units) proposed as a buffer between the commercial uses and the existing single-family residential uses to the north and west of the development site.

In conjunction with the proposed development, Dayspring Drive would be extended south from its existing terminus on the north side of the development to Smith Drive. A new segment of Faurot Drive would also be constructed from Scott Boulevard to the west to the extended Dayspring Drive. Primary access to the area road system would be provided via the extension of Faurot Drive to Scott Boulevard and the existing traffic signal at Scott Boulevard and Smith Drive. Based on the concept plan provided by ESS, the following access points are proposed to accommodate the Westbury Village neighborhood commercial development:

- A right-in/right-out (RIRO) drive on Scott Boulevard between Faurot Drive and Smith Drive;
- A RIRO drive on Scott Boulevard south of Smith Drive;
- Two full access drives on the extension of Faurot Drive;
- Two full access drives on Smith Drive; and
- Three full access drives on Dayspring Drive.

Although preliminary at this time, it is anticipated that the multi-family portion of the development would have one access drive on Faurot Drive and up to three access drives on Dayspring Drive.

A schematic of the site 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. If necessary, roadway improvements (lane additions and/or traffic control modifications) would be recommended to mitigate the impact of the development and to accommodate the additional traffic. The focus of this study was the AM and PM peak hours of a typical weekday, as well as the Saturday midday peak hour.

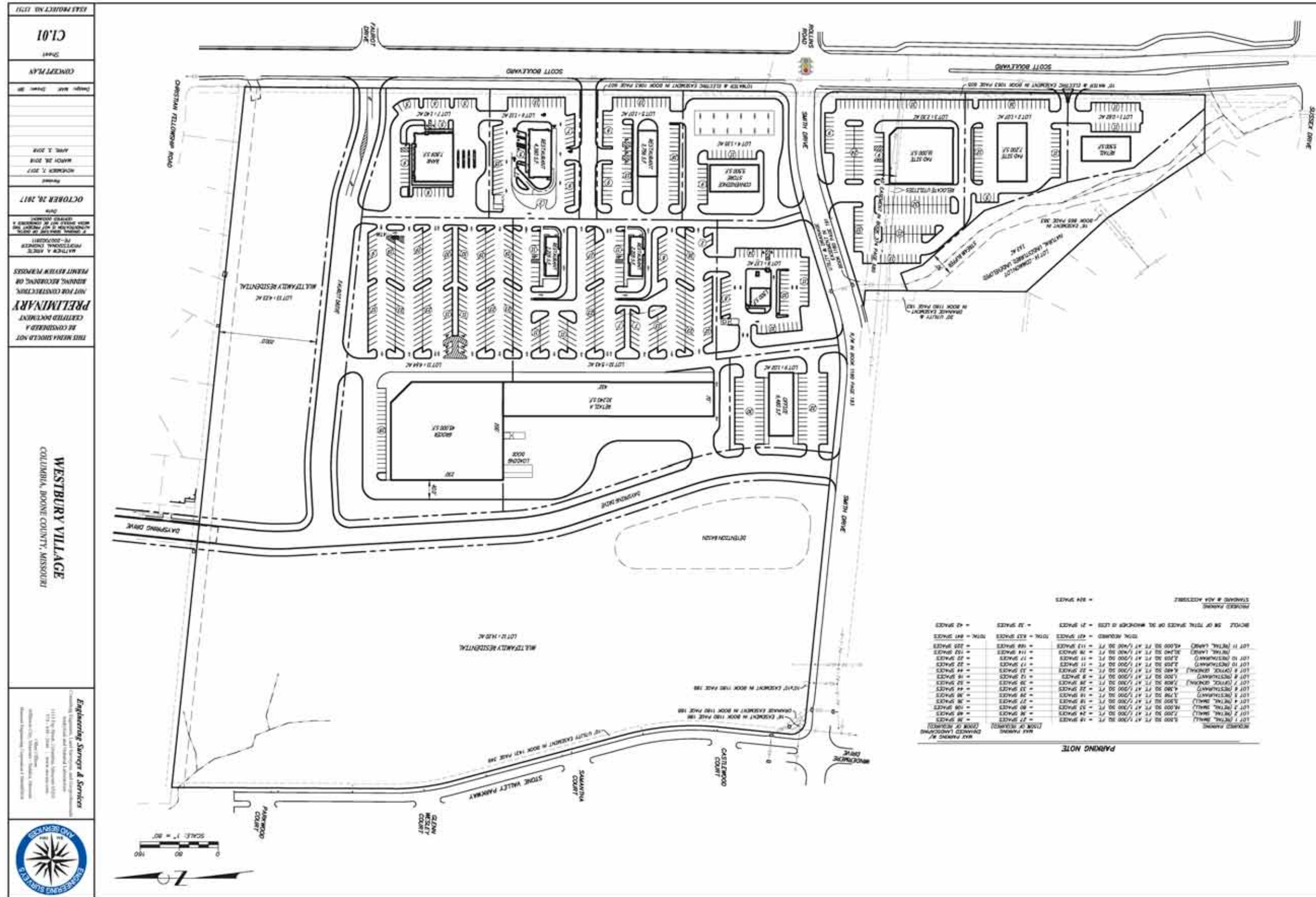


Exhibit 1: Conceptual Site Plan (provided by others)



CBB discussed the scope of work for this traffic study with the City of Columbia at the commencement of the traffic study process. CBB also provided the City a Technical Memo summarizing the proposed site trip generation and directional distribution estimates, as well as the Base traffic conditions and gained their consensus on the assumptions prior to completing the traffic analyses.

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

- Scott Boulevard and Faurot Drive;
- Scott Boulevard and proposed RIRO south of Faurot Drive;
- Scott Boulevard and Smith Drive;
- Scott Boulevard and proposed RIRO south of Smith Drive;
- Faurot Drive and proposed east site drive;
- Faurot Drive and proposed west site drive;
- Smith Drive and proposed east site drive;
- Smith Drive and proposed west site drive; and
- Smith Drive and Dayspring Drive.

As requested by the City, the following analysis scenarios were considered:

- 2018 Base Conditions (Existing plus Breckenridge Park) and
- 2018 Build Conditions (Existing plus Proposed Development).

The following report presents the methodology and findings relative to the Existing, 2018 Base and 2018 Build conditions.



EXISTING CONDITIONS

Area Roadway System: Scott Boulevard is five-lane Minor Arterial that runs north/south along the west side of Columbia from Broadway to Route K. North of Smith Drive, asphalt sidewalk is provided at the back of curb along both sides of the roadway. South of Smith Drive, sidewalk is provided along the west side of the roadway, with a multi-use path provided along the east side of the roadway. Bike lanes are provided along both sides of the roadway, south of Smith Drive. The posted speed on Scott Boulevard is 45 miles per hour (mph). **Figure 2** depicts a photo of Scott Boulevard near Smith Drive.



Figure 2: Scott Boulevard – Looking North Toward Smith Drive

Smith Drive is two-lane Neighborhood Collector that runs east/west through the study area from Scott Boulevard to the residential areas to the west. Smith Drive has a variable pavement width of 36 to 38 feet with curb and gutter. Sidewalk is provided along both sides of the roadway within developed parcels. The posted speed on Smith Drive is 30 mph.

Rollins Road is two-lane Major Collector that runs east/west through the study area from Scott Boulevard to the residential areas to the east. Rollins Road has an approximate 32 foot pavement width with curb and gutter. Traffic calming measures are implemented along Rollins Road to slow traffic. Sidewalk is provided along both sides of the roadway. The posted speed on Rollins Road is 25 mph.

Faurot Drive is two-lane Local road that runs east/west from Scott Boulevard to the residential areas to the east. Faurot Drive has an approximate 26 foot pavement width with curb and gutter. Sidewalks are not provided along the roadway. The posted speed is 25 mph.



The intersection of Scott Boulevard and Smith Drive/Rollins Road is controlled by a traffic signal. Separate left-turn lanes are provided for all approaches. The left-turn movements all operate under protected plus permissive phasing with a flashing yellow arrow to indicate permissive left turns. Push-button activated pedestrian signals and crosswalks are provided at the intersection. An aerial view of the Scott Boulevard and Smith Drive/Rollins Road intersection is shown in **Figure 3**.

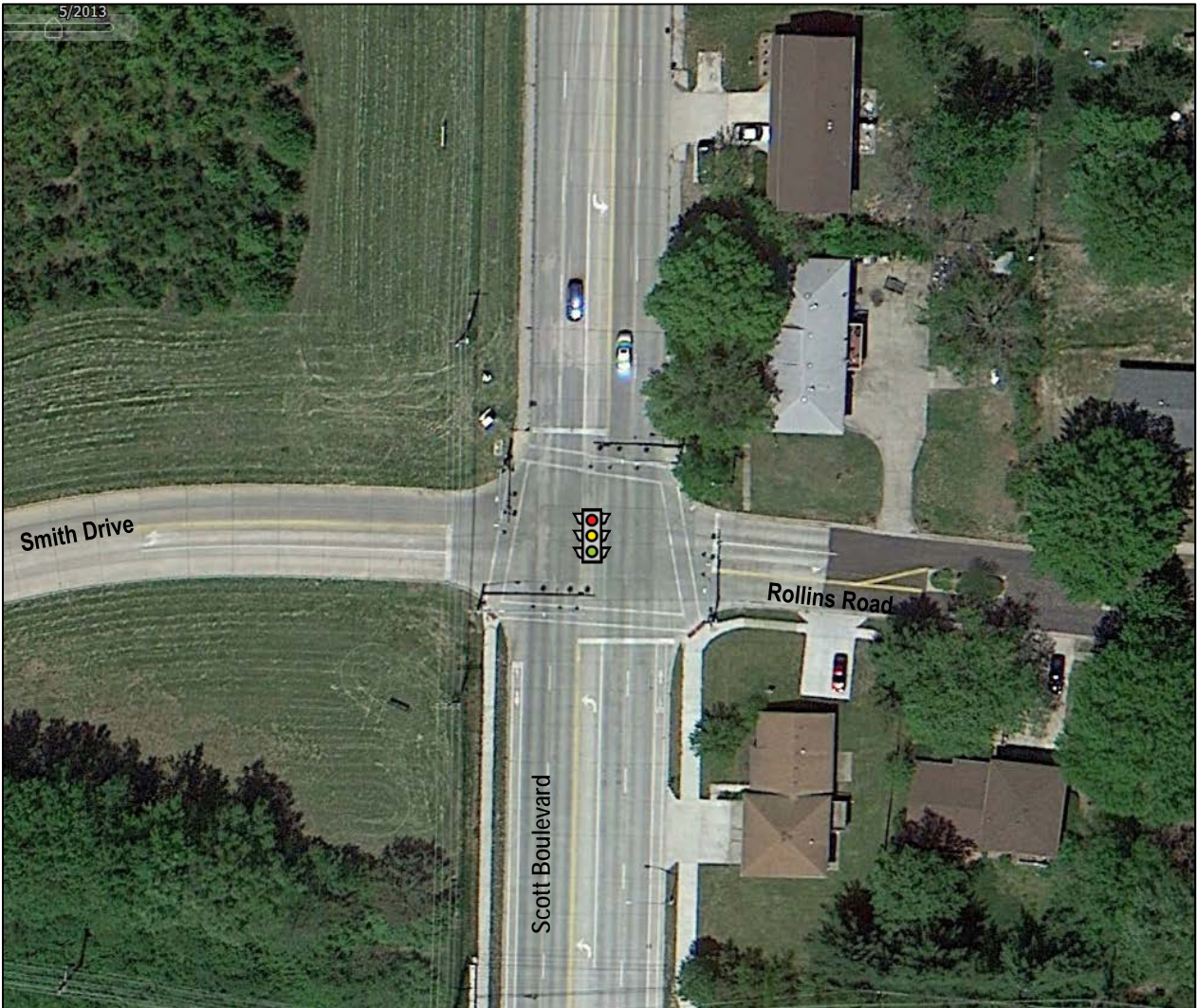


Figure 3: Scott Boulevard and Smith Drive/Rollins Road intersection

The intersection of Faurot Drive at Scott Boulevard is side-street STOP controlled. A two-way center left-turn lane is provided on Scott Boulevard to facilitate the left-turn movements to and from Faurot Drive.



Existing Traffic Volumes: Video, turning movement traffic counts were conducted at the following intersections during the weekday morning (7:00 - 9:00 a.m.), weekday afternoon (4:00 - 6:00 p.m.) and Saturday midday (12:00 – 2:00 p.m.) peak periods the second week of May 2018:

- Scott Boulevard and Smith Drive; and
- Scott Boulevard and Faurot Drive.

CBB also made observations during the school arrival (7:30 – 8:30 a.m.) and school dismissal (3:00 – 4:00 p.m.) peak hours at the intersection of Scott Boulevard and Christian Fellowship Road to observe the northbound left-turn queues and the turning movements at the intersection.

The Columbia public school and Christian Fellowship school academic calendars were reviewed to ensure that the data was collected during normal school operations. The existing peak hour volumes are summarized in **Exhibit 2**.

Based on the traffic data collected, the weekday morning peak hour occurred between 7:15 and 8:15 a.m., the weekday afternoon peak hour occurred between 5:00 and 6:00 p.m. and the Saturday midday peak hour occurred between 12:30 and 1:30 p.m. Given the traffic characteristics in the area and the anticipated trip generation for the proposed development, these 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: Existing Traffic Volumes



APPROVED DEVELOPMENTS – BRECKENRIDGE PARK

CBB previously conducted a Traffic Study in February 2016 for the Breckenridge Park residential subdivision to the west of the proposed Westbury Village development. CBB prepared a Trip Generation Comparison letter in August 2016 to reflect changes in that approved plan. The revised development plan for Breckenridge Park consists of 133 single-family homes. The project is currently under construction with only a couple of homes built to date.

As discussed in the previous studies, approximately 90 percent of the Breckenridge Park subdivision trips are expected to utilize Smith Drive to access Scott Boulevard, with the remaining 10 percent using the local streets to the south of the subdivision. As such, forecasts were prepared to estimate the amount of traffic that the approved Breckenridge Park development would generate during the weekday AM, weekday PM and Saturday Midday peak periods. These forecasts were based upon information provided in the 10th Edition of the *Trip Generation Manual*. Estimates for the Breckenridge Park development were based upon Land Use: 210 – Single-Family Detached Housing.

Table 1: Trip Estimate – Approved Breckenridge Park Subdivision

Land Use	Size	Weekday AM Peak Hour			Weekday PM Peak Hour			Saturday Midday Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
Single-Family Homes ITE Code 210	120 Homes Using Smith	25	65	90	75	45	120	65	55	120
Approved Breckenridge Park Total Trips		25	65	90	75	45	120	65	55	120

* Trips rounded to nearest 5

The Breckenridge Park site trips were assigned to the roadway network using the trip distribution assumptions described in the February 2016 Traffic Study. The trips associated with the approved Breckenridge Park development are shown in **Exhibit 3**.

The Breckenridge Park trips (Exhibit 3) were added to the existing traffic volumes (Exhibit 2) to develop the 2018 Base traffic volumes shown in **Exhibit 4**.

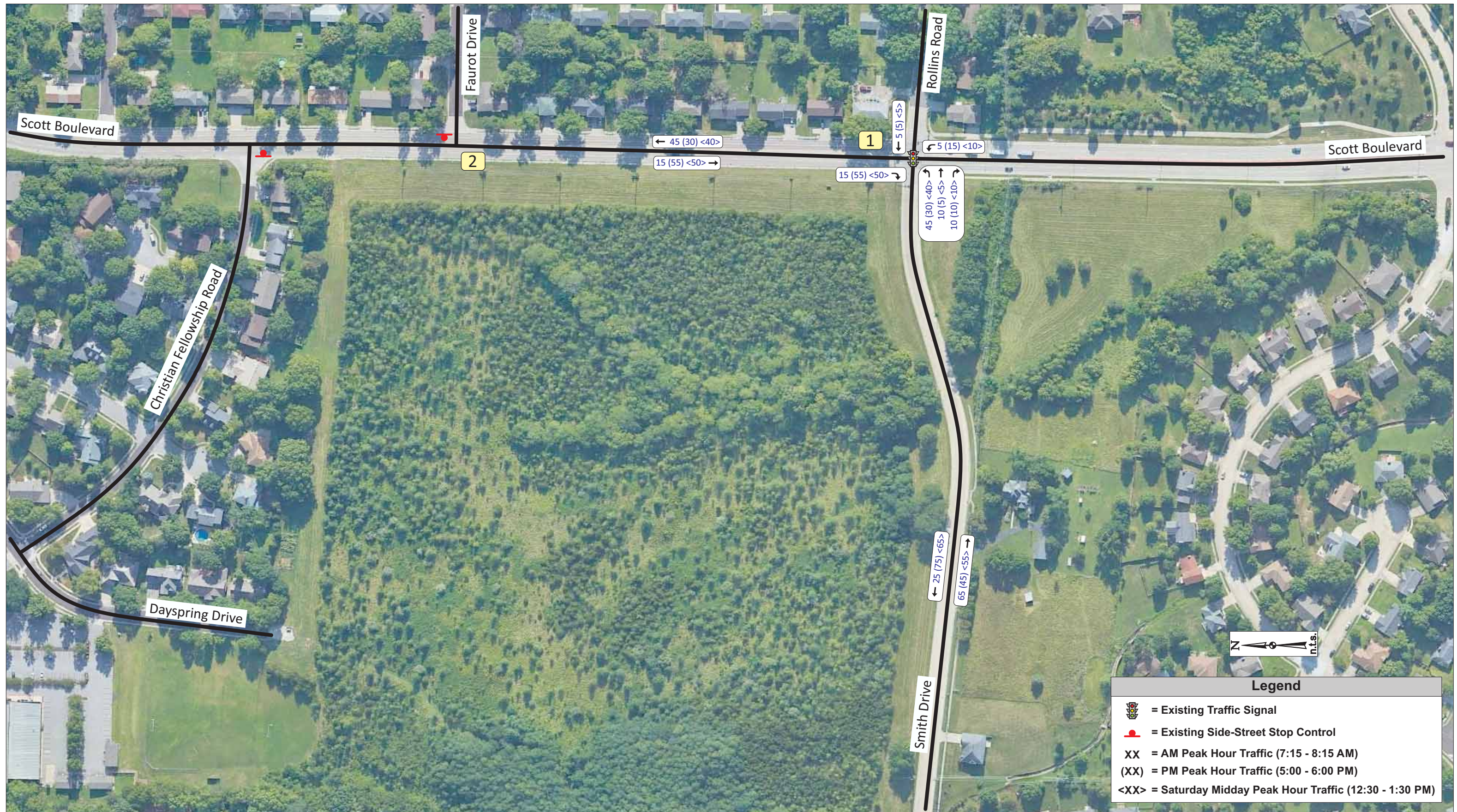


Exhibit 3: Breckenridge Park Site-Generated Trips



Exhibit 4: 2018 Base Traffic Volumes



PROPOSED SITE – WESTBURY VILLAGE

Once the base traffic volumes within the study area were established, we then considered the traffic associated with the proposed Westbury Village development.

Proposed Land Use: Based upon the concept plan provided by ESS, previously shown in Exhibit 1, the proposed development would consist of an approximate 45,000 square foot grocery store along with a 30,240 square foot retail building. The proposed development will also include up to eleven (11) additional commercial outlots to be developed with a variety of neighborhood commercial type uses (i.e., restaurant, bank, convenience store with fuel, retail, office, etc.) and approximately 18.4 acres of multi-family housing (312 units) proposed as a buffer between the commercial uses and the existing single-family residential uses to the north and west of the commercial site.

Site Access: As part of the project, Dayspring Drive would be extended south from its existing terminus on the north side of the development to Smith Drive. A new segment of Faurot Drive would also be constructed from Scott Boulevard to the west to the extended Dayspring Drive. Primary access to the area road system would be provided via the extension of Faurot Drive to Scott Boulevard and the existing traffic signal at Scott Boulevard and Smith Drive. Based on the concept plan provided by Engineering Surveys and Services Inc. (ESS), the following access points are proposed to accommodate the Westbury Village neighborhood commercial development:

- A right-in/right-out (RIRO) drive on Scott Boulevard between Faurot Drive and Smith Drive;
- A RIRO drive on Scott Boulevard south of Smith Drive;
- Two full access drives on the new section Faurot Drive;
- Two full access drives on Smith Drive; and
- Three full access drives on the new section of Dayspring Drive.

Although preliminary at this time, it is anticipated that the multi-family portion of the development would have one access drive on Faurot Drive and up to three access drives on Dayspring Drive.

Based on direction from the City of Columbia, the City has stated that the intersection of Scott Boulevard and Faurot Drive be restricted to $\frac{3}{4}$ access (left-in/right-in/right-out – no lefts outs). As such, this study makes the initial assumption that Faurot Drive (both the existing westbound approach and the proposed eastbound approach) will be $\frac{3}{4}$ access.

Based on the site plan, the extended segment of Faurot Drive would have a 38 foot back to back cross section which would accommodate left-turn lanes at the proposed site drives, if needed.



Additionally, the existing cross section of Smith Drive, adjacent to the proposed site, is 36 feet wide which would also accommodate left-turn lanes at the proposed site drives.

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 drives along Smith Drive is 415 feet (assuming a 30 mph posted speed limit and 35 mph design speed). It is recommended that the proposed drives along Smith Drive provide a minimum of 415 feet of sight distance. Note that the sight distance was not measured in the field to evaluate the available sight distance 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.

Driveway Spacing: Based on Section 14 of MoDOT's Access Management Guidelines (AMG), it is recommended that a minimum of 220 feet of corner clearance be provided from the edge of the major road to the proposed driveway. The first site drive on Faurot Drive is approximately 275 feet from Scott Boulevard (measured from the edge of pavement on Scott Boulevard to the center of the proposed site drive) which meets the recommended minimum spacing in the AMG. The first site drive on Smith Drive is approximately 240 feet from Scott Boulevard (measured from the edge of pavement on Scott Boulevard to the center of the proposed site drive) which also meets the recommended minimum spacing in the AMG.

Based on Section 13 of MoDOT's Access Management Guidelines (AMG), it is recommended that a minimum of 220 feet be provided between driveways on a minor roadway (measured from center to center). The proposed site drives on Faurot Drive have a spacing of approximately 310 to 360 feet (measured center to center) which meets the recommended minimum spacing in the AMG. The proposed site drives on Smith Drive have a spacing of approximately 260 to 290 feet (measured center to center) which also meets the recommended minimum spacing in the AMG.

Trip Generation: Traffic forecasts were prepared to estimate the amount of traffic that the proposed development would generate during the weekday AM, weekday PM and Saturday Midday peak periods. These forecasts were based upon information provided in the 10th Edition of the *Trip Generation Manual*, published by the Institute of Transportation Engineers (ITE). This manual, which is a standard resource for transportation engineers, is based on a compilation of



nationwide studies documenting the characteristics of various land uses. Estimates for proposed Westbury Village development were based upon the following land uses:

- Land Use: 220 – Multifamily Housing
- Land Use: 710 – General Office
- Land Use: 820 – Shopping Center/Retail
- Land Use: 850 – Supermarket
- Land Use: 912 – Drive-In Bank
- Land Use: 932 – High-Turnover Sit-Down Restaurant
- Land Use: 934 – Fast-Food Restaurant with Drive Through
- Land Use: 937 – Coffee/Donut Shop with Drive Through
- Land Use: 945 – Gasoline Station w/Convenience Store

The data provided for Peak Hour of the Adjacent Street was used for the traditional weekday AM and PM peak hour forecasts. The Saturday peak hour generator was utilized for the Saturday Midday peak hour forecasts. It should be acknowledged that not all the land uses are anticipated to peak simultaneously on Saturday, but were assumed to do so for our evaluations which would represent a worst case scenario.

It is important to note that ITE estimates assume each of the development's uses would be freestanding. Instead, the uses within the development area would share access to the main roadways surrounding the site and, in some cases, parking. Published studies show that patrons of multi-use developments often visit more than one use within the development during a single visit. As a result, a portion of the trips generated by the development would be captured internally and not impact the external road system. To account for internal capture trips within the proposed Westbury Village development, a 15% "common trip" reduction was applied during the weekday AM, weekday PM and Saturday Midday peak hours. It is important to note that the grocery store was considered the anchor for the development area and, as such, a common trip reduction was not applied to the grocery store trips in order to be conservative.

It should also be noted that not all of these trips would represent *new* traffic on the adjacent roadways. Specifically, a significant portion of the traffic attracted to this site would already be traveling on Scott Boulevard as part of another trip; i.e., "pass-by" trips. The actual percentage of traffic attributable to pass-by depends upon the nature of the use, the time of day and the traffic volume on the adjacent street. Therefore, statistical information provided in the *Trip Generation Handbook*, 3rd Edition, published by ITE, was utilized to estimate pass-by percentages for the proposed uses. The pass-by percentages applied are summarized in **Table 2**. The values shown in blue were derived using the pass-by percentages for similar uses and time periods. These pass-by trips would create turning movements at the driveways serving the site, but they would not represent new traffic on the adjacent roadways.



Table 2: Pass-by Trip Assumptions

LAND USE	PASS-BY TRIP ASSUMPTIONS		
	WEEKDAY AM PEAK	WEEKDAY PM PEAK	SATURDAY MIDDAY PEAK
Shopping Center/Retail Shops	20%	34%	26%
Supermarket	10%	36%	25%
Bank	29%	35%	38%
High-Turnover Sit-Down Restaurant	30%	43%	40%
Fast-Food Restaurant with Drive Through	49%	50%	50%
Coffee/Donut Shop with Drive Through	89%	89%	80%
Gasoline/Service Station with Convenience Market	62%	56%	50%

The trip generation estimates for the proposed Westbury Village development, including both new trips and pass-by trips are summarized in **Table 3**.

The full build out of the proposed Westbury Village mixed-use development would be expected to attract a total of approximately 310, 500 and 570 pass-by trips during the weekday AM, weekday PM and Saturday midday peak hours, respectively. In turn, the Westbury Village development would generate a total of 535 new trips during the weekday AM peak hour, 830 new trips during the weekday PM peak hour and 1,205 new trips during the Saturday midday peak hour



Table 3: Trip Estimate – Westbury Village Development

Land Use	Size	Daily Trips	Weekday AM Peak Hour			Weekday PM Peak Hour			Saturday Midday Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Residential Development											
Multi-Family	312 Units	2,320	30	110	140	100	60	160	155	150	305
Residential Trips		2,320	30	110	140	100	60	160	155	150	305
Commercial Development											
Lots 1, 2, 3 and 10: Shopping Center	58,940 ft ²	2,225	35	20	55	110	115	225	140	125	265
Lot 4: Gas Station	16 vfp	3,285	105	105	210	115	110	225	155	155	310
Lot 5: HTSD Restaurant	3,756 ft ²	420	20	20	40	20	20	40	20	20	40
Lot 6: HTSD Restaurant	4,380 ft ²	490	25	20	45	25	15	40	25	25	50
Lot 7: Bank	5 lanes	625	25	20	45	65	70	135	70	70	140
Lot 8: Coffee/Donut Shop	1,500 ft ²	1,230	70	65	135	35	35	70	65	65	130
Lot 9: Office	6,480 ft ²	65	5	5	10	5	5	10	5	5	10
Lot 10: Fast Food Restaurant	2,205 ft ²	1,040	45	40	85	35	35	70	60	60	120
Lot 10: Fast Food Restaurant (No AM)	2,205 ft ²	1,040				35	35	70	60	60	120
Lot 11: Grocery Store	45,000 ft ²	4,805	105	70	175	210	205	415	235	230	465
Commercial Gross Trips		15,225	435	365	800	655	645	1,300	835	815	1,650
15% Common Trip Reduction (Excludes Grocery Store)			(50)	(45)	(95)	(65)	(65)	(130)	(90)	(90)	(180)
Commercial Pass-By Trips			155	155	310	250	250	500	285	285	570
Commercial New Trips			230	165	395	340	330	670	460	440	900
Total Westbury Village											
Total Westbury Village Pass-By Trips			155	155	310	250	250	500	285	285	570
Total Westbury Village New Trips			260	275	535	440	390	830	615	590	1,205

* Trips rounded to nearest 5



Trip Distribution: The site-generated trips for the proposed development were then assigned into and out of the site based upon an estimated directional distribution. Based upon the existing travel patterns in the area, it is anticipated that the distribution of site-generated trips for the Westbury Village development would be as summarized in **Table 4**.

Table 4: Trip Distribution Assumptions (New Trips)

Land Use	Trip Distribution Assumptions	
	Commercial	Residential
To/from the north on Scott Boulevard	35%	70%
To/from the south on Scott Boulevard	40%	20%
To/from the east on Rollins Road	12%	10%
To/from the west on Smith Drive	13%	

It should be noted that the pass-by trips were assigned according to the existing traffic volumes on the adjacent roadways.

The site-generated trips for the weekday AM, weekday PM and Saturday midday peak hours are shown in **Exhibit 5**.

2018 Build Traffic Volumes (2018 Base plus Westbury Village): The assigned traffic volumes resulting from the trip distribution for the proposed Westbury Village development (Exhibit 5) were added to the 2018 Base traffic volumes (Exhibit 4) to determine the total volumes in the forecasted scenario. The forecasted, 2018 Build, traffic volumes for the weekday AM, weekday PM and Saturday midday peak hours are shown in **Exhibit 6**.

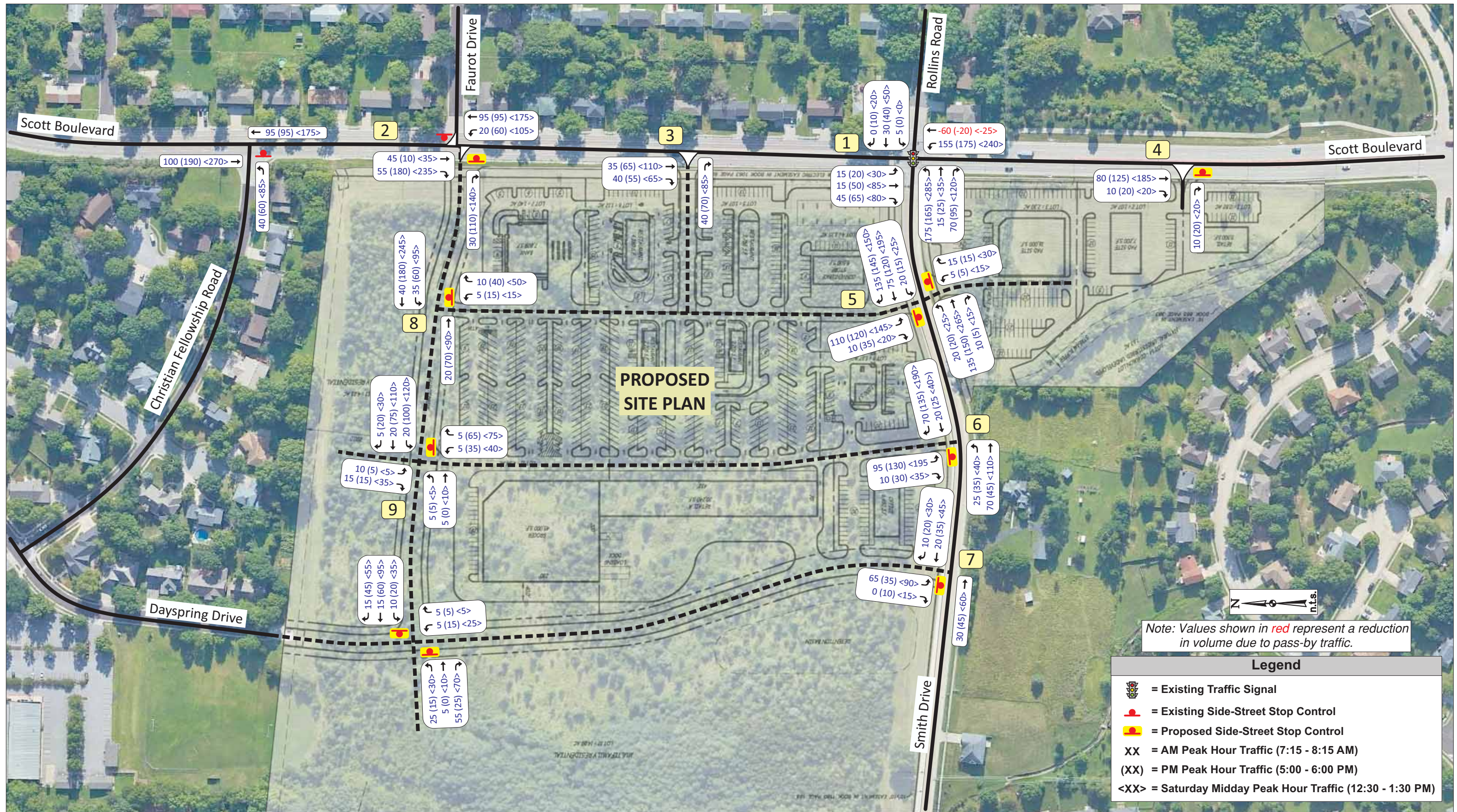


Exhibit 5: Site-Generated Trips

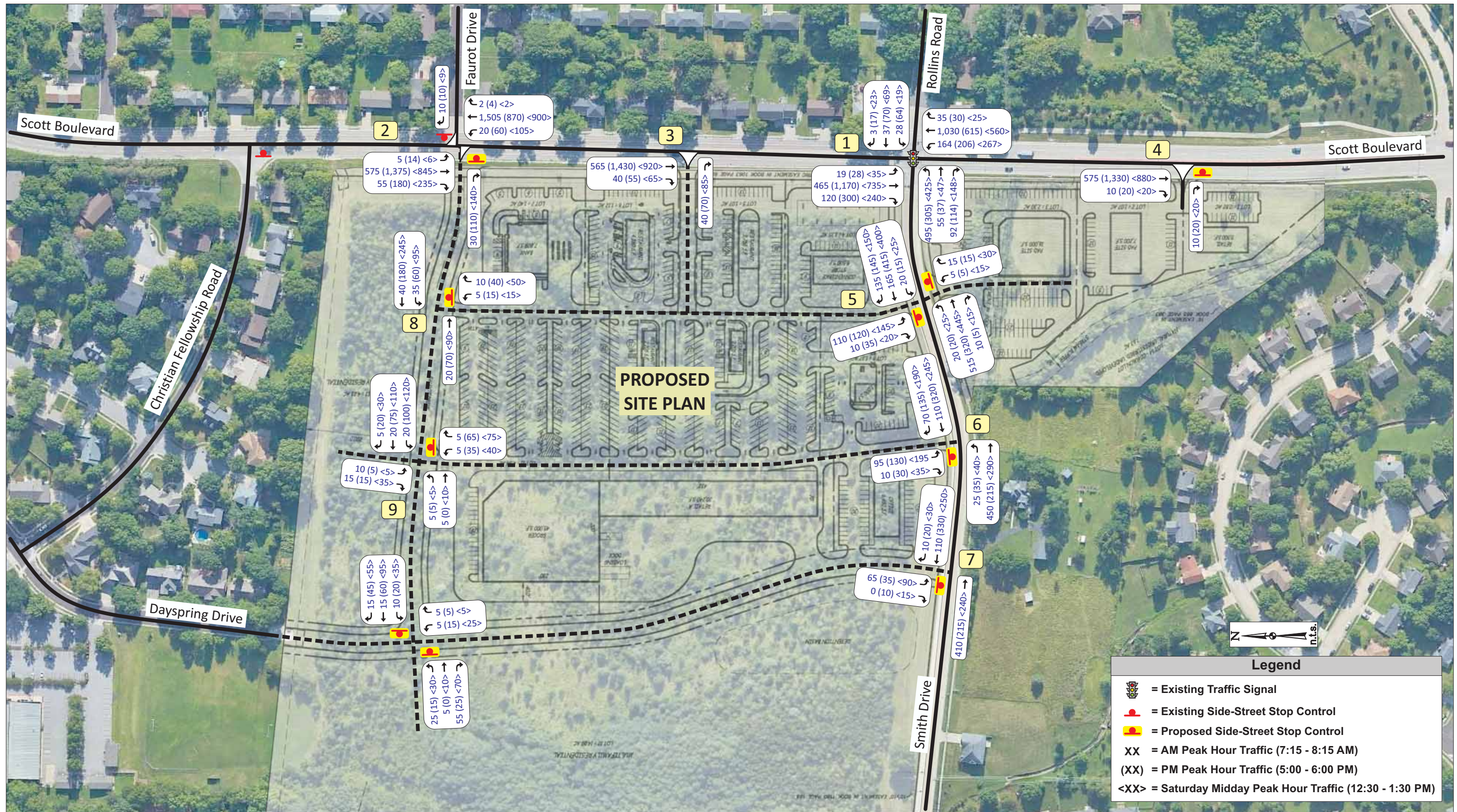


Exhibit 6: 2018 Build Traffic Volumes



TRAFFIC ANALYSIS

Study Procedures: The 2018 Base and 2018 Build operating conditions were analyzed using SYNCHRO 10, 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 5** summarizes the thresholds used in the analysis for signalized and unsignalized intersections.

Table 5: 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



2018 Build Auxiliary Turn Lane Needs: The need for right-turn lanes on Scott Boulevard and Smith Drive were evaluated using MoDOT's Access Management Guidelines (AMG). These guidelines consider auxiliary lanes an asset in promoting safety and improved traffic flow at relatively high conflict locations. Separate turn lanes are intended to remove turning vehicles from the through lanes to reduce the potential number of rear-end collisions at intersections.

The MoDOT method provides volume guidelines for the consideration of separate right-turn lanes by comparing the total advancing volume (which includes all turning traffic) to the number of right-turns during the design hour with respect to the major road speed.

Utilizing MoDOT's AMG *Right-Turn Lane Guideline for Four-lane Roadway* nomograph, separate southbound right-turn lanes are warranted on Scott Boulevard at the proposed Faurot Drive extension, the proposed RIRO site drive between Faurot Drive and Smith Drive, at Smith Drive, and at the proposed RIRO site drive just south of Smith Drive.

Utilizing MoDOT's AMG *Right-Turn Lane Guideline for Two-lane Roadway* nomograph, separate westbound right-turn lanes are not warranted on Smith Drive at the proposed east (outlots) and west (grocery) access drives.

The need for left-turn lanes on Smith Drive and Faurot Drive at the proposed site drives were not evaluated for warrants since the existing roadway width on Smith Drive and the proposed roadway width on Faurot Drive is sufficient to accommodate left-turn lanes at the site drives; and, based on discussion with the developer would be striped to provide separate left-turn lanes at the site drives.

Operating Conditions: The study intersections were evaluated using the methodologies described above. The following right-turn lanes (assumed to provide 200 feet of storage plus taper) were included in the 2018 Build analyses as discussed previously:

- southbound right-turn lane on Scott Boulevard at the proposed Faurot Drive extension;
- southbound right-turn lane on Scott Boulevard at the proposed RIRO site drive between Faurot Drive and Smith Drive; and
- southbound right-turn lane on Scott Boulevard at the proposed RIRO site drive just south of Smith Drive.

It was also assumed that separate left-turn lanes (assumed to provide 100 feet of storage plus taper) would be provided on Smith Drive and Faurot Drive at the proposed site drives. The site drives along Smith Drive and Faurot Drive were assumed to have one lane exiting and one lane entering.

Based on the forecasted operating conditions at the signalized intersection of Scott Boulevard and Smith Drive along with the heavy southbound right-turn and eastbound left-turn volumes,



it is recommended that a separate southbound right-turn lane be provided on Scott Boulevard at Smith Drive and that dual eastbound left-turn lanes be provided on Smith Drive at Scott Boulevard.

Table 6 summarizes the results of these analyses, which reflect the 2018 Base and 2018 Build operating conditions and average delay for each of the study intersections during the weekday AM, weekday PM and Saturday midday peak hours. Again, the 2018 Build analyses in the table reflect the previously noted lane additions. The existing traffic signal timing was maintained for the Build analyses. The Synchro estimated average and 95th percentile queue lengths for the key approaches are also shown in the table.

As shown in **Table 6**, all of the study intersections currently operate at favorable levels of service overall and would continue to operate at favorable levels of service during the peak period 2018 Build conditions with the previously noted improvements.

As noted in Table 6, the eastbound approach of Smith Drive at Scott Boulevard operates at LOS E with approximately 73 seconds of delay on average per vehicle with a Synchro estimated 95th percentile queue length of 315 feet for the single left-turn lane. With the addition of dual eastbound left-turn lanes, the eastbound approach of Smith Drive at Scott Boulevard is still forecasted to operate at LOS E but with an improved delay of approximately 57 seconds of delay on average per vehicle with a Synchro estimated 95th percentile queue length of 290 feet.

However, it is reasonable that with additional development trips, the signal timings would be modified. In reviewing the traffic signal timings at Scott Boulevard and Smith Drive, the following signal timing modifications are recommended:

- AM Peak Hour – reallocate 5 seconds of green time from Scott Boulevard (N/S through) to the eastbound left-turn on Smith Drive.
- PM Peak Hour – reallocate 5 seconds of green time from the southbound Scott Boulevard through to the northbound left-turn on Scott Boulevard.
- Saturday Midday Peak Hour – reallocate 2 seconds of green time from Scott Boulevard (N/S through) to the eastbound left-turn on Smith Drive; and reallocate 2 seconds of green time from the southbound Scott Boulevard through to the northbound left-turn on Scott Boulevard.



Table 6: 2018 Base and 2018 Build Capacity Analysis Summary

INTERSECTION/MOVEMENT	AM PEAK HOUR		PM PEAK HOUR		SAT PEAK HOUR	
	2018 BASE	2018 BUILD	2018 BASE	2018 BUILD	2018 BASE	2018 BUILD
1 – Scott Boulevard and Smith Drive/Rollins Road (Signalized)						
Eastbound Smith Drive Approach	E (72.9) 95 th Q: 315' L	E (57.1) 95 th Q: 290' L AvgQ: 195' L	D (38.4) 95 th Q: 140' L	D (40.7) 95 th Q: 160' L AvgQ: 115' L	C (29.1) 95 th Q: 130' L	D (45.2) 95 th Q: 220' L AvgQ: 160' L
Westbound Rollins Road Approach	C (34.3) 95 th Q: 30' L	D (39.6) 95 th Q: 65' T	D (37.1) 95 th Q: 70' L	D (41.4) 95 th Q: 110' L	C (32.4) 95 th Q: 35' T	D (46.5) 95 th Q: 65' T
Northbound Scott Boulevard Approach	B (13.5) 95 th Q: 455' T	B (19.2) 95 th Q: 430' T	B (11.1) 95 th Q: 225' T	C (23.5) 95 th Q: 285' L	B (11.7) 95 th Q: 200' T	C (24.6) 95 th Q: 240' L
Southbound Scott Boulevard Approach	A (9.9) 95 th Q: 170' T	B (17.3) 95 th Q: 170' T	C (21.2) 95 th Q: 665' T	C (28.9) 95 th Q: 575' T	B (16.3) 95 th Q: 280' T	C (21.0) 95 th Q: 290' T
Overall	C (24.3)	C (29.0)	C (20.2)	C (29.8)	B (16.4)	C (29.1)
2 – Scott Boulevard and Faurot Drive (3/4 Side-Street Stop Control)						
Eastbound Faurot Drive Right-Turn		B (10.5)		C (20.2)		B (14.0)
Westbound Faurot Dr Approach/RT-Turn	B (12.9)	B (10.2)	B (11.9)	B (10.1)	B (10.5)	B (10.4)
Northbound Scott Boulevard Left-Turn		A (9.1)		C (16.7)		B (12.5)
Southbound Scott Boulevard Left-Turn	B (12.3)	B (13.2)	A (9.3)	A (9.7)	A (9.0)	A (9.8)
3 – Scott Boulevard and North RIRO Site Drive (Side-Street Stop Control)						
Site Drive Right-Turn		B (10.6)		C (18.6)		B (13.5)
4 – Scott Boulevard and South RIRO Site Drive (Side-Street Stop Control)						
Site Drive Right-Turn		A (9.0)		B (10.1)		A (9.1)
5 – Smith Drive and East Site Drive (Side-Street Stop Control)						
Eastbound Smith Drive Left-Turn		A (8.0)		A (8.9)		A (8.9)
Westbound Smith Drive Left-Turn		A (8.7)		A (8.0)		A (8.5)
Northbound Site Drive Approach		B (12.8)		B (11.6)		B (13.9)
Southbound Site Drive Approach		C (20.6) 95 th Q: 40'		C (21.6) 95 th Q: 55'		D (32.9) 95 th Q: 90'
6 – Smith Drive and West Site Drive (Side-Street Stop Control)						
Eastbound Smith Drive Left-Turn		A (7.7)		A (8.5)		A (8.5)
Southbound Site Drive Approach		C (17.1) 95 th Q: 30'		C (20.8) 95 th Q: 55'		D (31.8) 95 th Q: 115'

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

Denotes a movement on the approach with LOS E; Denotes a movement on the approach with LOS F
95th percentile queue for the critical movement of the approach and lane (L-Left, TR-Shared Thru/Right, R-Right)



Table 6: Existing and 2037 No Build Capacity Analysis Summary (cont.)

INTERSECTION/MOVEMENT	AM PEAK HOUR		PM PEAK HOUR		SAT PEAK HOUR	
	2018 BASE	2018 BUILD	2018 BASE	2018 BUILD	2018 BASE	2018 BUILD
7 – Smith Drive and Dayspring Drive (Side-Street Stop Control)						
Eastbound Smith Drive Left-Turn		A (<1.0)		A (<1.0)		A (<1.0)
Southbound Dayspring Drive Approach		B (13.8)		B (13.0)		B (13.8)
8 – Faurot Drive and East Site Drive (Side-Street Stop Control)						
Westbound Faurot Drive Left-Turn		A (7.3)		A (8.4)		A (8.6)
Northbound Site Drive Approach		A (8.8)		B (12.3)		B (13.3)
9 – Faurot Drive and West Site Drive (Side-Street Stop Control)						
Eastbound Faurot Drive Left-Turn		A (7.3)		A (7.4)		A (7.5)
Westbound Faurot Drive Left-Turn		A (7.3)		A (7.4)		A (7.4)
Northbound Site Drive Approach		A (8.8)		A (10.0)		B (10.8)
Southbound Site Drive Approach		A (8.8)		A (9.7)		A (9.7)
10 – Faurot Drive and Dayspring Drive (Side-Street Stop Control – Faurot Drive STOP Control)						
Eastbound Faurot Drive Approach		A (9.2)		A (9.0)		A (9.6)
Westbound Faurot Drive Approach		A (9.1)		A (9.3)		A (9.9)
Northbound Dayspring Drive Approach		A (3.6)		A (5.5)		A (6.1)
Southbound Dayspring Drive Approach		A (3.0)		A (3.0)		A (3.0)

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

Denotes a movement on the approach with LOS E;
 Denotes a movement on the approach with LOS F
 95th percentile queue for the critical movement of the approach and lane (L-Left, TR-Shared Thru/Right, R-Right)

Table 7 reflects the above noted signal timing modifications at Scott Boulevard and Smith Drive. As shown in the table, all of the approaches are forecasted to operate at LOS D or better with minor timing adjustments.

Based on the Synchro estimated 95th percentile queues, it is recommended that the dual eastbound left-turn lanes on Smith Drive at Scott Boulevard provide a minimum of 250 feet of storage (exclusive of taper). It is recommended that the northbound left-turn storage on Scott Boulevard at Smith Drive be extended to provide a minimum of 250 feet of storage (exclusive of taper).



Table 7: 2018 Base and 2018 Build Capacity Analysis Summary

INTERSECTION/MOVEMENT	AM PEAK HOUR		PM PEAK HOUR		SAT PEAK HOUR	
	2018 BUILD (ORIGINAL TIMINGS)	2018 BUILD (REVISED TIMINGS)	2018 BUILD (ORIGINAL TIMINGS)	2018 BUILD (REVISED TIMINGS)	2018 BUILD (ORIGINAL TIMINGS)	2018 BUILD (REVISED TIMINGS)
1 – Scott Boulevard and Smith Drive/Rollins Road (Signalized)						
Eastbound Smith Drive Approach	E (57.1) 95 th Q: 290' L AvgQ: 195' L	D (46.6) 95 th Q: 245' L AvgQ: 185' L	D (40.7) 95 th Q: 160' L AvgQ: 115' L	D (40.7) 95 th Q: 160' L AvgQ: 115' L	D (45.2) 95 th Q: 220' L AvgQ: 160' L	D (42.2) 95 th Q: 215' L AvgQ: 160' L
Westbound Rollins Road Approach	D (39.6) 95 th Q: 65' T	D (38.6) 95 th Q: 65' T	D (41.4) 95 th Q: 110' L	D (41.4) 95 th Q: 110' L	D (46.5) 95 th Q: 65' T	D (46.3) 95 th Q: 65' T
Northbound Scott Boulevard Approach	B (19.2) 95 th Q: 430' T	C (21.5) 95 th Q: 460' T	C (23.5) 95 th Q: 285' L	C (24.4) 95 th Q: 245' L	C (24.6) 95 th Q: 245' L	C (24.6) 95 th Q: 250' L
Southbound Scott Boulevard Approach	B (17.3) 95 th Q: 170' T	B (19.1) 95 th Q: 185' T	C (28.9) 95 th Q: 575' T	C (29.0) 95 th Q: 625' T	C (21.0) 95 th Q: 290' T	C (23.1) 95 th Q: 305' T
Overall	C (29.0)	C (27.8)	C (29.8)	C (30.1)	C (29.1)	C (29.2)

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

Denotes a movement on the approach with LOS E;
 Denotes a movement on the approach with LOS F
 95th percentile queue for the critical movement of the approach and lane (L-Left, TR-Shared Thru/Right, R-Right)

Smith Drive Intersection Spacing: As shown in **Table 7**, even with the recommended roadway and signal timings improvements, the Synchro estimated 95th percentile queue for the eastbound approach of Smith Drive at Scott Boulevard is 245 feet in the AM peak hour, although the average queue is only about 185 feet. As such, it is recommended that the first site drive off Smith Drive be located a minimum of 300 feet from the edge of pavement on Scott Boulevard to minimize the potential for the site drive to be blocked. There is currently about 240 feet of storage from the edge of Scott Boulevard to the center of the first site driveway.

It is also important to note that with the dual eastbound left-turn lanes at the signal and the recommended westbound left-turn lane at the first site drive within close proximity to one another, these left-turn lanes would have to be side by side (i.e., there is not room for back to back left-turns) resulting in a five-lane cross section on Smith Drive at the first site drive.

Christian Fellowship Road and Scott Boulevard Queues: As mentioned previously observations were made during the school arrival and dismissal peak hours at the intersection of Scott Boulevard and Christian Fellowship Road to observe the northbound left-turn queues at the intersection. Based on the observations, during the school arrival peak hour (7:30 – 8:30 a.m.), a maximum queue of five (5) vehicles occurred once at 8:13 a.m. and a queue of two (2) vehicles occurred twice at 7:50 and 7:55 a.m. During the school dismissal peak hour (3:00 – 4:00 p.m.), a maximum queue of four (4) vehicles occurred once at 3:25 p.m., a queue of three (3) vehicles occurred twice at 3:23 and 3:28 p.m. with queues of two or less vehicles for most of the school dismissal peak hour.



There is approximately 400 feet between Faurot Drive and Christian Fellowship Road. With the maximum observed queue of five (5) vehicles in the northbound left-turn queue occurring only once over both the school arrival and dismissal peak hours, there is ample distance between Faurot Drive and Christian Fellowship Road to accommodate the observed queue of approximately 125 feet.

Future Roadway Network and Connectivity: The City's CATSO Roadway Plan shows the extension of West Broadway as a Major Arterial from its current terminus near Scott Boulevard to Route UU. This proposed alignment is approximately ¼ mile north of the proposed development site.

Stone Valley Parkway is a median divided parkway that currently ends approximately 1,200 feet north of Smith Drive. Based on the City's CATSO Roadway Plan, Stone Valley Parkway would eventually be extended to the north to tie into the Broadway extension.

Stone Valley Parkway borders the western side of the proposed mixed-use development. Given the future planned roadway network, it is recommended that a roadway connection be provided from the proposed mixed-use development site to Stone Valley Parkway. Ideally, it is recommended that Faurot Drive be extended through the proposed multi-family portion of the development to connect to Stone Valley Parkway, opposite Parkwood Court. This connection would provide a vital connection for patrons and residents of the proposed mixed-use development to and from the north giving them an alternative to Smith Drive. The heavy eastbound left-turn movement on Smith Drive at Scott Boulevard would be reduced if motorists from the proposed development had the option to use Stone Valley Parkway to go north to the Broadway extension. It is noted that even without the extension of Faurot Drive to Stone Valley Parkway, motorists within the proposed development could take Smith Drive to Stone Valley Parkway to then proceed back north, though this option would not provide as much of a benefit to the road system and would require circuitous travel.



SUMMARY

CBB completed the preceding study to address the anticipated traffic impacts associated with the proposed mixed-use development, known as Westbury Village, generally located in the northwest quadrant of the intersection of Scott Boulevard and Smith Drive in Columbia, Missouri.

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

- Restripe Smith Drive adjacent to the proposed site to provide separate left-turn lanes at the site drives.
- Given adequate width is being constructed along Faurot Drive, stripe Faurot Drive adjacent to the proposed site to provide separate left-turn lanes at the site drives.
- Provide southbound right-turn lanes (200 feet plus taper) on Scott Boulevard at the following locations:
 - the proposed Faurot Drive extension;
 - the proposed RIRO site drive between Faurot Drive and Smith Drive;
 - Smith Drive; and
 - the proposed RIRO site drive just south of Smith Drive.
- Provide an additional eastbound left-turn lane (250 feet plus taper) on Smith Drive at Scott Boulevard to provide dual left turns on Smith Drive.
- Lengthen the existing northbound left-turn lane on Scott Boulevard at Smith Drive to provide 250 feet of storage plus taper.
- Implement minor signal timings adjustments at the Scott Boulevard and Smith Drive intersection.
- Shift the first site drive off Smith Drive approximately 60 feet further west to provide a minimum of 300 feet from the edge of pavement on Scott Boulevard to the first site drive.
- Extend Faurot Drive through the proposed multi-family portion of the development to connect to Stone Valley Parkway, opposite Parkwood Court.

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

Sincerely,

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

November 5, 2018

Mr. Travis H. McGee
THM Construction LLC
308 South 9th Street, Suite 101-M
Columbia, Missouri 65201

RE: Trip Generation Update – Proposed Westbury Village Development
Smith Drive West of Scott Boulevard
Columbia, Missouri
CBB Job No. 051-18

Dear Mr. McGee:

As requested, CBB has prepared a Trip Generation update related to the proposed mixed-use development, known as Westbury Village, generally located in the northwest quadrant of the intersection of Scott Boulevard and Smith Drive in Columbia, Missouri.

CBB completed a traffic study earlier this year, in July 2018, for the Westbury Village development. The original traffic study was based on a variety of commercial uses with a residential component consisting of 312 apartment units. It is our understanding that the current development plan consists of a 150 bed Congregate Care Retirement Community (i.e., senior living) and only 130 apartment units.

As such, the City of Columbia requested a comparison of the original trip generation estimates for the residential component to the current trip generation estimates based on the current plan to ensure that the findings in the original traffic study remain valid.

The primary purpose of this assessment was to determine the number of trips that would be generated by the current development plan and compare those trips to the trips estimated in the original traffic study (July 2018). It should be noted that no additional traffic data collection or analyses were completed for this assessment, and this does not represent a detailed traffic impact study.

Trip Generation Comparison

The July 2018 Traffic Study assumed 312 apartment units for the residential component of the Westbury Village mixed-use development, while the current plan proposes a 150 bed Congregate Care Retirement Community and only 130 apartment units. As in the original traffic study, traffic forecasts were based upon information provided in the *Trip Generation*



Manual, 10th Edition, published by the Institute of Transportation Engineers (ITE). Estimates for the proposed residential development were based on ITE Land Use 220 – Multifamily Housing and ITE Land Use 255 - Continuing Care Retirement Community.

A continuing care retirement community (CCRC) is a land use that provides multiple elements of senior adult living. CCRCs combine aspects of independent living with increased care, as lifestyle needs change with time. Housing options may include various combinations of senior adult (detached), senior adult (attached), congregate care, assisted living, and skilled nursing care—aimed at allowing the residents to live in one community as their medical needs change.

Table 1 provides a comparison of the trip generation estimates between the previously proposed plan and the currently proposed plan for the residential component of the Westbury Village mixed-use development

Table 1: Westbury Village (Residential Component) – Trip Generation Estimate Comparison

Land Use	Units	Weekday AM Peak Hour			Weekday PM Peak Hour		
		In	Out	Total	In	Out	Total
<i>Previously Proposed Plan – July 2018 Traffic Study</i>							
Apartments	312 Units	32	108	140	102	60	162
Total Trips (July 2018 Plan)		32	108	140	102	60	162
<i>Current Proposed Plan</i>							
Apartments	130 Units	14	47	61	47	28	75
Continuing Care Retirement Community	150 Beds	20	11	31	13	20	33
Total Trips (November 2018 Plan)		34	58	92	60	48	108
Net Difference		+2	-50	-48	-42	-12	-54

As shown in **Table 1**, the revised development plan is expected to generate approximately 48 fewer trips during the weekday AM peak hour and 54 fewer trips during the weekday PM peak hour.

Summary

Although no specific traffic assignments or operational capacity evaluations were performed for the study intersections using the lower trip estimates, it can be reasoned that operating conditions would have similar, or slightly improved, results as reported in the July 2018 Traffic Study since the current development plan is expected to generate less trips.



Mr. Travis H. McGee
Page 3 of 3
November 5, 2018

We trust that this trip generation assessment adequately addresses the trip generation differences associated with the revised development plan. Please contact me should there be any questions regarding this letter.

Sincerely,

A handwritten signature in blue ink that reads "Shawn Lerai White". The signature is written in a cursive style.

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

EXHIBIT D

(Irrevocable Standby Letter of Credit)

Date: _____

IRREVOCABLE LETTER OF CREDIT NO. _____

Beneficiary:
City of Columbia, MO
P.O. Box 6015

Columbia, MO 65205

Applicant:

Issuer:
Name of Bank: _____

Address: _____

Phone _____
Fax: _____

Amount: \$xxxx

Initial One Year Term with Automatic Extensions until released by the City of Columbia

Attention: Chief Financial Officer

We hereby establish our Irrevocable Letter of Credit No. _____ in favor of the City of Columbia, MO (the "City") for the account of _____ (applicant/developer) and authorize the City of Columbia to draw on _____ (the "Bank") up to an aggregate amount not to exceed \$_____, for the purpose of completing certain public improvements related to Applicant/Developer's Westbury Village project, which is generally located at the northwest and southwest corner of the intersection of Scott Boulevard and Smith Drive in Columbia, Missouri, on the terms and conditions set forth in this Letter.

This Letter of Credit is available by payment with the Bank against presentation of the City of Columbia draft(s) at sight drawn on the Bank up to an aggregate amount not to exceed \$_____, for those certain public improvements related to Applicant/Developer's Westbury Village project which Applicant/Developer is obligated to complete.

The sight draft drawn under this letter of credit must bear on its face the clause "Drawn under _____ (the Bank) Letter of Credit No. _____ for full or partial payment."

The initial term of this Letter of Credit will be one year from the date issued and shall automatically renew for up to four (4) additional one year renewal terms, until released by the City of Columbia, Missouri, unless we notify you in writing by overnight courier to City of Columbia; Attn: Finance Director; 701 E. Broadway; Columbia, MO 65205 at least 60 days prior to any such expiration date that we elect not to extend this Letter of Credit for any such additional period.

Demand for payment as per "Exhibit A" may be made in the form of a fax, by courier, United States postal service mail or other telecommunication facility. A fax or other written demand for payment must be followed by the appropriate original sight draft specified above within three (3) business days of the sending of such telecommunication. As used herein, the term "business day" means a day on which the Bank is open for the purpose of conducting commercial banking business.

If demand for payment is made by City of Columbia hereunder at or prior to 12:00 p.m. C.S.T./C.D.T., on a business day and such demand for payment conforms to the terms and conditions hereof, payment shall be made to City of Columbia of the amount demanded, in immediately available funds, not later than 3:00 p.m., C.S.T./C.D.T., on the same business day. If the demand for payment does not conform to the terms and conditions of this Letter of Credit, the bank shall give City of Columbia prompt notice not later than 3:00 p.m., C.S.T. /C.D.T., on the same business day.

If demand for payment is made by City of Columbia hereunder after 12:00 p.m. C.S.T./C.D.T., on a business day and such demand for payment conforms to the terms and conditions hereof, payment shall be made to City of Columbia of the amount demanded, in immediately available funds, not later than 3:00 p.m., C.S.T./C.D.T., the next business day. If the demand for payment does not conform to the terms and conditions of this Letter of Credit, the bank shall give City of Columbia prompt notice not later than 3:00 p.m., C.S.T. /C.D.T., on the next business day.

Any demand for payment hereunder shall not exceed the aggregate amount.

Partial draws are permitted.

It is a condition of this Letter of Credit that it shall be automatically extended for up to four (4) additional one year renewal terms until released by the City of Columbia, Missouri, unless we notify you in writing by overnight courier to City of Columbia; Attn: Finance Director; 701 E. Broadway; Columbia, MO 65205 at least 60 days prior to any such expiration date that we elect not to extend this Letter of Credit for any such additional period.

This Letter of Credit may not be transferred or assigned.

This Letter of Credit shall be governed by the Laws of the State of Missouri.

Communications with respect to this Letter of Credit shall be in writing and shall be addressed to the bank at its address set forth above, specifically referring to the number of this Letter of Credit.

Attached hereto as "Exhibit B" is a true and correct copy of the Bank's resolution, minutes or excerpts from the Bank's bylaws adopted by the Board of Directors in compliance with the Board's bylaws which are still in effect, giving requisite authority to the officer or agent signing this Letter of Credit to do so on behalf of the Bank.

We, the Issuer, hereby agree with City of Columbia that all drafts presented in accordance with the terms and conditions of this Letter of Credit will be duly honored upon presentation to us or to the Bank's designated nominated person and confirmer.

Name of Bank: _____

Authorized Signature

Name: _____

Title: _____

EXHIBIT A: TO LETTER OF CREDIT NO. xxx-xxxx

CERTIFICATE WITH RESPECT TO AUTHORIZED SIGNATURES

The undersigned, City Manager, for the City of Columbia, MO (the "City"), hereby certifies to _____, (the "Bank"), with reference to the Bank's Irrevocable Letter of Credit No. xxx-xxxx (the "Letter of Credit") dated L/C Date, that the following persons are duly authorized officers or agents of the City for the Purpose of performing all duties of authorized representative as defined in the Letter of Credit and the following are the true and genuine signatures, respectively, of such officers or agents:

Name	Office	Signature
Janice Frazier	Interim Finance Director	
Lynn Cannon	Deputy Finance Director	
John Glascock	City Manager	

This certificate amends and supersedes any prior certificates with respect to authorized signatures received by the Bank in connection with the Letter of Credit.

IN WITNESS WHEREOF, the City has executed and delivered this certificate as of the _____ day of _____, 20__.

CITY OF COLUMBIA

By:

Name: _____
John Glascock

Attest: _____
Sheela Amin

Approved as to form:

Nancy Thompson

EXHIBIT B: EVIDENCE OF AUTHORITY OF BANK'S OFFICER OR AGENT TO EXECUTE LETTER OF CREDIT NO. XX-XXXX.