



**The Town of Clayton
Town Council Work Session Meeting Agenda
Monday, August 21, 2017 @ 6:30 PM
Council Chambers**

1. CALL TO ORDER

Pledge of Allegiance and Invocation

2. ADJUSTMENT OF THE AGENDA

3. CONSENT AGENDA

(Items on the consent agenda are considered routine in nature or have been thoroughly discussed at previous meetings. Any member of the Council may request to have an item removed from the consent agenda for further discussion.)

a. Warranty Acceptance

- RWAC Eagle Crest, Phase 2B-3
- Stone Ridge Subdivision, Phase 2 (Final)
- RWAC Asphalt Overlay Sections: Manning Drive, Payton Drive, Pearson Place, Charleston Lane, Sarazen Drive, Cunningham Lane, Stansbury Lane, Nelson Lane, Boswell Lane and Faldo Ridge

[Cover - Warranty Acceptance](#)

[Warranty Acceptance - RWAC Eagle Crest Phase 2B-3](#)

[Warranty Acceptance - Stone Ridge Subdivision Phase 2](#)

[Warranty Acceptance - RWAC Asphalt Overlay Sections](#)

b. Appointment to Public Art Advisory Board

- Kim Helmer - Filling Vacancy - Term Expiration 12/31/17

[PAAB Application - Kim Helmer](#)

POTENTIAL ACTION: Adoption of Consent Agenda as Presented

4. ADMINISTRATIVE ITEMS

5. INTRODUCTIONS AND SPECIAL PRESENTATIONS

a. Employee Introductions

Presenters: Byron Poelman - Utility Service Superintendent
Dale Medlin, Electric Distribution System Director
Steve Blasko, Street/Property Maintenance Supervisor

RECENTLY PROMOTED EMPLOYEES:

- Tim Callihan - Utility Coordinator
- Brandon Carroll - Utility Compliance Technician
- John Huber - Electrical Crew Leader

NEW EMPLOYEES:

- Jeremy Riddle - Property Maintenance Worker
- Holden Blackmon - Property Maintenance Worker
- b. Fire Advisory Board - Annual Update
Presenter: Matt Sutphin, Fire Advisory Board Chair
[Cover - Fire Advisory Board Update](#)
[Fire Advisory Board 2017 Update](#)
- c. Clayton High School Highlight & Preview of Upcoming School Year
Presenter: Bennett Jones, Principal
[Cover - CHS Principal Bennett Jones](#)
- d. Synchronized Streets Presentation
Presenter: James Dunlop, NCDOT Congestion Management Engineer

6. ITEMS SCHEDULED FOR THE REGULAR MEETING

- a. Building Inspector Position
Presenter: Rich Cappola, Town Engineer
[Cover - Building Inspector Request](#)
[Memo -New Building Inspector FTE Request](#)

POTENTIAL ACTION: Place on September 5, 2017 Consent Agenda
- b. Inspection Fees
Presenter: Rich Cappola, Town Engineer
[Cover - New Inspection Fees](#)
[Memo - New Inspection Fees Request-FINAL](#)
[NC Residential Code 2012 Elec. 10.8](#)
[Comparison - New Inspection Fees](#)
[Comprehensive List Fees & Charges - New Inspection Fees](#)
[DRAFT Ordinance - Inspection Fees](#)

POTENTIAL ACTION: Place on September 5, 2017 Consent Agenda
- c. Residential Utility Deposit Policy
Presenter: Ann Game, Customer Service Director
[Cover - Residential Utility Deposit Policy](#)
[Residential Deposit Policy Information](#)
[Requested Changes to the Residential Deposit Schedule](#)
[DRAFT Ordinance - Residential Utility Deposit](#)

POTENTIAL ACTION: Place on September 5, 2017 Consent Agenda
- d. Variable Credit Card Fees for Utilities
Presenter: Ann Game, Customer Service Director
[Cover - Variable Credit Card Fees](#)

POTENTIAL ACTION: Place on September 5, 2017 Consent Agenda
- e. Development Agreement - 231 E. Second Street
Presenter: Katherine Ross, Town Attorney
POTENTIAL ACTION: Set Public Hearing for September 5, 2017

- f. 2017-96-RZ - Clayton Corners & Town Center Blvd.
Presenter: Planning Department
[Cover - 2017-96-RZ Clayton Corners and Town Center Blvd](#)
[Application - 2017-96-RZ Clayton Corners and Town Center Blvd](#)
[Staff Report - 2017-96-RZ Clayton Corners and Town Center Blvd](#)
[Map - 2017-96-RZ Clayton Corners Rezoning](#)
[Map - 2017-96-RZ Town Center Blvd Rezoning](#)
[Neighborhood Meeting Info - 2017-96-RZ](#)
[PB Recommendation- 2017-96-RZ Clayton Corners and Town Center Blvd](#)
[Consistency & Reasonableness Statement- 2017-96-RZ](#)
[Newspaper Ad - 2017-96-RZ](#)

POTENTIAL ACTION: Set Public Hearing for September 5, 2017

- g. 2017-99-RZ - Capps Tract
Presenter: Planning Department
[Cover Sheet- 2017-99-RZ Capps Tract](#)
[Application- 2017-99-RZ- Capps Tract](#)
[Staff Report - 2017-99-RZ- Capps Tract](#)
[Map - 2017-99-RZ- Capps Tract](#)
[Site Plan- 2017-99-RZ- Capps Tract](#)
[TIA- 2017-99-RZ- Capps Tract](#)
[Neighborhood Meeting Report - 2017-99-RZ -Capps Tract](#)
[Adjacent Property Notification - 2017-99-RZ](#)
[PB Recommendation - 2017-99-RZ Capps Tract](#)
[Consistency Statement - 2017-99-RZ Capps Tract](#)
[Newspaper Ad - 2017-99-RZ](#)

POTENTIAL ACTION: Set Public Hearing for September 5, 2017

7. ITEMS CONTINGENT FOR THE REGULAR MEETING

8. ITEMS FOR DISCUSSION

9. ITEMS REQUIRING ACTION

(In order for any action to be taken during a Work Session, a motion must be made and seconded to suspend the rule to allow action to be taken.)

10. OLD BUSINESS

11. STAFF REPORTS

- a. Town Manager
- b. Town Attorney
- c. Town Clerk
- d. Other Staff

12. OTHER BUSINESS

- a. Informal Discussion & Public Comment

b. Council Comments

13. ADJOURNMENT



Town Council Agenda Cover Sheet

Meeting Date

August 21, 2017

Agenda Location

Administrative

Item Title

Warranty Acceptance

Presenter

Chris Rowland, Construction Project Administrator

Summary/Description

- RWAC, Eagle Crest, Phase 2B-3: Warranty acceptance request for public water, sewer, associated storm drainage utilities and all pertinent easements. Following the acceptance, the utilities will be subject to a one-year warranty period. Following expiration of the warranty, a final inspection will be done and all deficient items corrected by the developer prior to final acceptance.
- Stone Ridge Subdivision, Phase 2: Final acceptance request for public water, sewer, associated storm drainage utilities, all pertinent easements and asphalt pavement structure.
- RWAC Asphalt Overlay Sections: Manning Drive, Payton Drive, Pearson Place, Charleston Lane, Sarazen Drive, Cunningham Lane, Stansbury Lane, Nelson Lane, Boswell Lane & Faldo Ridge. The final lift of asphalt pavement has been installed within the referenced streets. Acceptance of this work is subject to a five-year warranty period. Following the warranty period, pavement and base course condition will be evaluated and any identifiable faults corrected by the developer prior to final acceptance.

Requested Action

Place on Consent Agenda

Additional Documents To Be Included in Agenda Packet

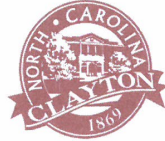
Memorandum provided.

TOWN OF CLAYTON OPERATIONS CENTER

"SERVICE"

ELECTRIC SERVICE
(919) 553-1530

VEHICLE MAINTENANCE
(919) 553-1530



"ENVIRONMENT"

PUBLIC WORKS
(919) 553-1530

WATER RECLAMATION
(919) 553-1535

MEMORANDUM

To: Kimberly Moffett, Town Clerk

From: Chris Rowland, Construction Project Administrator 

Copy: Donnie Adams, Adams & Hodge Engineering
Para Smith, Development Services Coordinator

Date: July 28, 2017

Subject: RWAC, Eagle Crest, Phase 2B-3

Please place a warranty acceptance request for the subject public water, sewer, associated storm drainage utilities, and all pertinent easements on the next available agenda. Record drawings have been reviewed and accepted. Following acceptance, the utilities will be subject to a one-year warranty period. Following expiration of the warranty, a final inspection will be done and all deficient items corrected by the developer prior to final acceptance.

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WATER RECLAMATION
(919) 553-1535

MEMORANDUM

To: Kimberly Moffett, Town Clerk

From: Chris Rowland, Construction Project Administrator 

Date: August 3, 2017

Cc: Para Smith, Development Services Coordinator
Danny Blackburn, Blackburn Engineering

Subject: Stone Ridge Subdivision, Phase 2

Please place a final acceptance request for the subject public water, sewer, associated storm drainage utilities, all pertinent easements, and asphalt pavement structure on the next available agenda. A final inspection was performed with all noted deficiencies corrected. Upon Council acceptance, the Town will assume all permanent maintenance duties.

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(919) 553-1530



"ENVIRONMENT"

PUBLIC WORKS
(919) 553-1530

WATER RECLAMATION
(919) 553-1535

MEMORANDUM

To: Kimberly Moffett, Town Clerk

From: Chris Rowland, Construction Inspector 

Copy: Para Smith, Development Services Coordinator
Donnie Adams, Adams & Hodge Engineering
Fred Smith, Fred Smith Company

Date: August 14, 2017

Re: RWAC Asphalt Overlay Sections: Manning Drive, Payton Drive, Pearson Place, Charleston Lane, Sarazen Drive, Cunningham Lane, Stansbury Lane, Nelson Lane, Boswell Lane, & Faldo Ridge

The final lift of asphalt pavement has been installed within the referenced streets. Please schedule Council action for the acceptance of this work subject to a five-year warranty period. Following the warranty period, pavement and base course condition will be evaluated and any identifiable faults corrected by the developer prior to final acceptance.



Clerk's Office Use

Date Rec'd: 6/2/17

Town/ETJ: ✓ 6/2/17

ADVISORY BOARD CANDIDATE APPLICATION

The Town of Clayton welcomes and appreciates your interest in serving the Town. This application is designed to gather information to evaluate your qualifications. Candidates may be interviewed prior to appointment.

If requesting consideration for more than one board, please submit a separate application for each board.

CHOOSE ONE:

☐ Planning Board

☐ Board of Adjustment

☐ Downtown Development Association

☐ Library Advisory Board

☐ Recreation Advisory Committee

☐ Fire Department Advisory Board

☒ Public Arts Advisory Board

PLEASE NOTE: In accordance with North Carolina law, this application is a public record and will be disclosed upon request without notice. If there is any information you do not want released to the public, please do not include it.

Please type or print using dark ink.

Name: Kim Helmer

Mailing Address: 726 Riverwood Dr. Clayton NC 27527

Physical HOME Address: same as above

Phone Number (HOME): 919-359-0695 cell (WORK) 919-454-1006

FAX Number: _____ Mobile Number: _____

Email Address: kimhelmer12@gmail.com

☒ Female*

☐ Male*

Employer: NA

Occupation: former school teacher

*This information is voluntary and is requested for the sole purpose of assuring that a cross section of the community is appointed; NCGS 143-157.1

Residency within the Town limits or ETJ (extra territorial jurisdiction) is required for membership on **most** Council advisory boards.

Length of residence in Clayton: 17 years

Do you live in Clayton Corporate Limits: ☐ Yes ☐ No ETJ: ☒ Yes ☐ No

How did you find out about this board?

☐ Facebook ☐ Website ☐ Newspaper ☐ Twitter
☐ TV ☒ Friend ☐ Email ☐ Other

Outline your qualifications and why you wish to serve on the board you indicated:

I was an elementary school teacher for 10 years. I currently have a middle school student. I hope to use my experiences with students to give a unique

State why you believe you would be an asset to this board: perspective to projects. I hope to provide the perspective of a town resident. I am interested in seeing our town grow in all areas, including aesthetics.

Do you anticipate a conflict of interest if asked to serve as a member of the requested board:

☒ No ☐ Yes If Yes, please explain:

Please list any current or previous service to the community, civic organizations, activities and any special talents:

Boards/Civic Organization/Talents	From	To
<u>Board of Directors-Partnership for Children</u>	<u>2007</u>	<u>2010</u>
<u>Buxwood Middle School</u>	<u>2016</u>	<u>current</u>
<u>PTA Vice President</u>	<u>2015</u>	<u>current</u>
<u>Member Holy Cross Lutheran Church</u>	<u>2005</u>	<u>2011</u>
<u>Former member MOMS Club</u>	<u>2005</u>	<u>6/2/17</u>
<u>Kim Helmer</u>		<u>Date</u>

- Please do not submit resumes or attachments.
- This application is a PUBLIC RECORD.
- Information contained in the application will be considered when making appointments.
- Candidates may be interviewed prior to appointment.
- If not initially appointed to serve, applications will remain active for one year from date of receipt.

Applications should be submitted to the Town Clerk in person at 111 East Second Street, by mail at Town of Clayton, PO Box 879, Clayton, NC 27528 or via email at kmoffett@townofclaytonnc.org



Town Council Agenda Cover Sheet

Meeting Date

August 21, 2017

Agenda Location

Introductions & Special Presentations

Item Title

Fire Department Advisory Board Annual Update

Presenter *(Name & Title)*

Matt Sutphin, Battalion Chief & Chair of Fire Advisory Board

Summary/Description

This will be the first of annual updates from all of the town's advisory boards. Chief Sutphin will present and share some of the highlights of the past year and share goals of the Fire Advisory Board for the upcoming year.

Requested Action

Informational Only

Additional Documents To Be Included in Agenda Packet

[Click or tap here to enter text.](#)



ANNUAL REPORT

Clayton Fire Advisory Board

Clayton Fire Advisory Board

Background

Purpose

The Clayton Fire Department Advisory Board shall serve as the advisory body for the Clayton Fire Department and the Town Council for the Town of Clayton. The purpose of the advisory board as stated in Chapter 32 of the Town of Clayton Code of Ordinances, is to provide an instrument of communication between the Clayton Fire Department membership, the Fire Chief, and the Town Council. To assist the Fire Chief and the membership address and resolve issues of mutual concern. To insure that there are adequate personnel, revenue, and equipment for the protection of life and property to the citizens (customers) of the Town of Clayton and the Claytex Fire District. To assist the Fire Chief and assure that all resources will be used in the fairest and most efficient manner possible for all concerned.

Duties

The Fire Department Advisory Board shall assist the Fire Chief with annual budget planning and assist with Short and Long-term Capital Improvements Planning. In addition, the Fire Department Advisory Board will insure that communication between the Fire Chief and the membership remains open and productive, and that concerns of the members are presented in an honest, fair and unbiased manner. The Fire Department Advisory Board will report to the Town Council at least annually on activities, recommendations, and/or issues of concern.

Clayton Fire Advisory Board

Current Membership

Matthew Sutphin, Clayton Fire Battalion Chief (Chairman)

Serving Since November 2, 2015

JoAnn Hardee, Claytex Resident

Background in Insurance, Serving Since November 2, 2015

Jim McLaurin Jr., Claytex Resident

Retired Firefighter, Serving Since January 1, 2014

Karen Patterson, Clayton Resident

Retired from Forestry Service, Serving Since May 5, 2008

Matthew Vessie, Clayton Resident

Part-Time Firefighter with Clayton, Serving Since February 3, 2014

Kenneth Wendel, Clayton Resident

Retired Firefighter, Serving Since June 19, 2006

Paul Zais, Clayton Fire Engineer

Serving Since August 6, 2007

Ex-Officio Member

Bob Satterfield, Councilman

Retired Firefighter

Clayton Fire Advisory Board

Meeting Information

January 26, 2017

March 23, 2017

May 25, 2017

July 27, 2017

September 28, 2017

November 16, 2017*

Meetings are held on the FOURTH Thursday of odd-numbered months, except for the month of November *, at 7:00 p.m. at Clayton Fire Station One which is located at 325 W. Horne Street.

Clayton Fire Advisory Board

2017 Accomplishments/Milestones/Highlights

Assisted with the purchase of a new apparatus (2017 Pierce Pumper/Tanker)

Assisted with the implementation of the Johnston County Schools system new high school fire program

Assisted with the 2017 Facility Study

Assisted with the donation of a surplus 1993 E-One Engine to Fairmont City Fire Department

Clayton Fire Advisory Board

Looking Ahead

The Clayton Fire Advisory Board members look forward to continuing to assist the Fire Chief and members of the Clayton Fire Department. We will continue to maintain and improve communications between the Fire Department membership, the Fire Chief, and the Town Council. Our goal is to insure that the Town of Clayton and Claytex Fire District customers are satisfied with the protection they are receiving and that resources are being used efficiently.



Town Council Agenda Cover Sheet

Meeting Date

August 21, 2017

Agenda Location

Introductions & Special Presentations

Item Title

A Look Back and Ahead at Clayton High School Goals & Accomplishments

Presenter *(Name & Title)*

Bennett Jones, Clayton High School Principal

Summary/Description

Principal Bennett Jones is excited to update the Mayor and Town Council on the great accomplishments of Clayton High School and its students in the past year. He's also looking forward to sharing the even greater goals and programs that lie ahead for Clayton High, the students, staff and community.

Requested Action

Informational Only

Additional Documents To Be Included in Agenda Packet

Click or tap here to enter text.



Town Council Agenda Cover Sheet

Meeting Date

August 21, 2017

Agenda Location

Items Scheduled for the Regular Meeting

Item Title

Building Inspector Position

Presenter *(Name & Title)*

Rich Cappola, Engineering & Inspections Director

Summary/Description

Request is being made for consideration of additional of a building inspector position to the current budget.

Requested Action

Place on Consent Agenda

Additional Documents To Be Included in Agenda Packet

Click or tap here to enter text.

Engineering & Inspections

111 East Second Street
Clayton, North Carolina 27520

The Premier Community



For Active Families

MEMORANDUM

TO: Adam Lindsay – Town Manager

CC: Nancy Medlin –Deputy Town Manager

FROM: Rich Cappola, P.E. – Director of Engineering & Inspections

DATE: August 14, 2017

SUBJECT: New Building Inspector FTE request

In reviewing the current workload associated with the Building Inspections function and in anticipation of future needs I am requesting that Town Council approve a fifth (5th) Full Time Equivalent (FTE) Building Inspector Position.

The workload currently associated with approved Planning & Zoning applications and the NOVO-DAPI project has increased to the point where service levels are being strained. Inspections are being “rolled” or delayed to the next day due to staff not having enough time to get to every request. The NOVO project is anticipated to hit full-stride with regards to construction activity later this year. In order to fulfill our obligation to NOVO we will be dedicating one FTE to their project as agreed to by the Town Council as part of the incentive agreement. Additionally, several development applications currently approved and in the process will continue to generate demand on the Building Inspections Department.

Currently there are 4 inspector positions approved with the FY18 Budget however an additional FTE will ensure the NOVO project is adequately serviced by one FTE, while allowing the remaining 4 FTEs to focus on the growing workload.

Staff is requesting the approval of a 5th FTE to be staffed as a Building Inspector with the Engineering & Inspections Department and a general fund allocation to the Building Inspections Department in the amount of \$55,000 to cover personnel and operating costs.



Town Council Agenda Cover Sheet

Meeting Date

August 21, 2017
Meeting

Agenda Location

Items Scheduled for the Regular

Item Title

New Inspection Fees

Presenter *(Name & Title)*

Rich Cappola, Engineering & Inspections Director

Summary/Description

Request is being made for consideration of additional of Conditional Power Application & Fee to the Comprehensive List of Fees & Charges.

Requested Action

Place on Consent Agenda

Additional Documents To Be Included in Agenda Packet

Click or tap here to enter text.

Engineering & Inspections

111 East Second Street
Clayton, North Carolina 27520

The Premier Community



For Active Families

MEMORANDUM

TO: Adam Lindsay – Town Manager

CC: Nancy Medlin – Deputy Town Manager

FROM: Rich Cappola, P.E. – Director of Engineering & Inspections

DATE: August 14, 2017

SUBJECT: New Inspections Department Fees request

In reviewing the current processes and fees for the Building Inspections Department staff has identified two procedures that do not currently require fees that we are recommending establishing one for. The following are requested to be added to the standard fees sheet.

Contractor/Sub-Contractor Change Fee

When an applicant changes contractors there is an administrative effort needed to verify new contractors and sub-contractor licenses, update the permit database, and re-issue the permits with the updated information. This time and expense add up and some municipalities charge for this as listed below. Staff is requesting the addition of a fee to recover some of the cost associated with staff time to process a contractor change on permits. Below is a comparison of several neighboring municipalities and what they charge:

<u>General Contractor Change</u>		
Municipality	Fee	
	Comm.	Res.
Johnston Co.	\$0.00	\$0.00
Wake Co.	Full Permit Price	
Raleigh ¹	Full Permit Price	
Garner	\$50.00	\$50.00
Holly Springs	Full Permit Price	
Knightdale	\$60.00	\$60.00
<i>1 - If the Owner pulled the permit, no fee is charged</i>		

<u>Sub-Contractor Contractor Change</u>		
Municipality	Fee	
	Comm.	Res.
Johnston Co.	\$0.00	\$0.00
Wake Co.	\$0.00	\$0.00
Raleigh	\$0.00	\$0.00
Garner	\$50.00	\$50.00
Holly Springs	\$100.00	\$100.00
Knightdale	\$60.00	\$60.00

Staff recommendation: \$50 per General Contractor and/or Sub-contractor

P.O. Box 879 • Clayton, North Carolina 27528 • Office (919)553-5002 • Fax (919)553-8919

www.townofclaytonnc.org

Conditional Services (Electric/Gas/etc.) Fee

The North Carolina Electrical and Plumbing codes allow for the request of “Temporary” service (commonly referred to as “*Conditional Power*” or “*Conditional Gas*”) which many applicants have requested however the town does not have a fee to recover costs associated with it. There is additional administrative time to process the requests, Inspector staff time (both travel and performance of the inspection), and capital costs associated with vehicle usage, tools etc. that there is not currently cost recovery for. Staff is requesting the creation of this new fee to offset the costs associated with this effort. Below is a comparison of several neighboring municipalities and what they charge:

<u>Conditional Services (Electric/Gas/etc.)</u>		
Municipality	Fee	
	Comm.	Res.
Johnston Co.	\$60.00	\$60.00
Wake Co.	\$120.00	\$120.00
Raleigh	\$124.00	\$106.00
Garner	\$80.00	\$80.00
Holly Springs	\$150.00	\$150.00
Knightdale ²	\$120.00	\$120.00
<i>2-Wake County provides this service</i>		

Staff recommendation: \$75 per trade requested (Electric, Gas, etc.)

10.8 TEMPORARY POWER

10.8.1 Scope. The provisions of this section apply to the utilization of portions of the wiring system within a building to facilitate construction.

10.8.2 Provisions for Temporary Power. The Code enforcement official shall give permission and issue a permit to energize the electrical service when the provisions of 10.8 and the following requirements have been met:

- 1) The service wiring and equipment, including the meter socket enclosure, shall be installed, the service wiring terminated, and the service equipment covers installed.
- 2) The portions of the electrical system that are to be energized shall be complete and physically protected.
- 3) The grounding electrode system shall be complete.
- 4) The grounding and the grounded conductors shall be terminated in the service equipment.
- 5) At least one receptacle outlet with ground fault circuit interrupter protection for personnel shall be installed with the circuit wiring terminated.
- 6) The applicable requirements of the North Carolina Electrical Code apply.

10.8.3 Uses Prohibited. In no case shall any portion of the permanent wiring be energized until the portions have been inspected and approved by an electrical Code Enforcement Official. Failure to comply with this section may result in disconnection of power or revocation of permit.

10.8.4 Application for Temporary Power. Application for temporary power shall be made by and in the name of the applicant. The application shall explicitly state the portions of the energized electrical system, mechanical system, or plumbing system for which application is made, its intended use and duration.

10.8.5 Security and Notification. The applicant shall maintain the energized electrical system or that portion of the building containing the energized electrical system in a secured and locked manner or under constant supervision to exclude unauthorized personnel. The applicant shall alert personnel working in the vicinity of the energized electrical system to its presence.

10.9 REQUIREMENTS OF OTHER STATE AGENCIES, OCCUPATIONAL LICENSING BOARDS, OR COMMISSIONS. The North Carolina State Building Codes do not include all additional requirements for buildings and structures that may be imposed by other State agencies, occupational licensing boards, and commissions. It shall be the responsibility of a permit holder, design professional, contractor, or occupational license holder to determine whether any additional requirements exist.

<u>General Contractor Change</u>		
Municipality	Fee	
	Comm.	Res.
Johnston Co.	\$0.00	\$0.00
Wake Co.	Full Permit Price	
Raleigh ¹	Full Permit Price	
Garner	\$50.00	\$50.00
Holly Springs	Full Permit Price	
Knightdale	\$60.00	\$60.00
<i>1 - If the Owner pulled the permit, no fee is charged</i>		

Link

http://www.johnstonnc.com/mainpage.cfm?category_level_id=530&content_id=347

<http://www.wakegov.com/inspect/permits/Pages/fees.aspx>

<http://www.raleighnc.gov/content/extra/Books/PlanDev/DevelopmentFeeSchedule/>

<http://garnernc.gov/home/showdocument?id=3784>

<http://www.hollyspringsnc.us/DocumentCenter/View/12970>

<u>Sub-Contractor Contractor Change</u>		
Municipality	Fee	
	Comm.	Res.
Johnston Co.	\$0.00	\$0.00
Wake Co.	\$0.00	\$0.00
Raleigh	\$0.00	\$0.00
Garner	\$50.00	\$50.00
Holly Springs	\$100.00	\$100.00
Knightdale	\$60.00	\$60.00

Link

<http://www.hollyspringsnc.us/DocumentCenter/View/12970>

<u>Conditional Services (Electric/Gas/etc.)</u>		
Municipality	Fee	
	Comm.	Res.
Johnston Co.	\$60.00	\$60.00
Wake Co.	\$120.00	\$120.00
Raleigh	\$124.00	\$106.00
Garner	\$80.00	\$80.00
Holly Springs	\$150.00	\$150.00
Knightdale ²	\$120.00	\$120.00
<i>2-Wake County provides this service</i>		

Link

<http://www.hollyspringsnc.us/DocumentCenter/View/14489>



TOWN OF CLAYTON

COMPREHENSIVE

LIST OF

FEES AND CHARGES

Adopted 6/15/2015; Latest Amendment 8/1/2016



Indicates a link.

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FARM STORAGE BUILDINGS

Livestock Production Buildings	\$ 40
Bulk Tobacco Barns:	
Building	\$ 1
Electrical	\$ 25

PERMIT FEE FOR COMMERCIAL BUILDINGS (Based on Project Cost Per Trade):

\$0-2,500	Trade fee (Min. \$50)
\$2,501-25,000	\$ 200
\$25,001- 50,000	\$ 400
\$50,001-100,000	\$ 805
\$100,001-200,000	\$1,610
\$200,001-350,000	\$2,815
\$350,001-500,000	\$3,720
\$500,001-750,000	\$4,975
\$750,001-1,000,000	\$6,230

(fees over \$6,230=plus 0.2% of each added million dollars or portion thereof)

RE-INSPECTION FEES

First re-inspection	\$ 50
Additional fee for each re-inspection of same item	\$ 20
Day Care re-certification fee	\$ 50 (12/18/00)

SERVICE POLE INSPECTIONS

Electrical	\$ 30
(\$1 Building if no building permit exists)	

UPDATE FOR PERMITS

\$ 150

CONTRACTOR CHANGE

\$ 50

SERVICE CHANGE INSPECTIONS

Building	\$ 1
Electrical	\$ 50

CONDITIONAL SERVICE (ELEC., GAS, ETC.)

\$ 75

SIGN

Building	\$ 25
Electrical	\$ 50

SWIMMING POOLS

Building	\$ 35
Electrical	\$ 50

PEDESTALS

Building	\$ 1
Electrical	\$ 30

LP GAS TANKS

Building	\$30
Electrical	\$25

Adopted 6/15/2015; Latest Amendment 8/1/2016

Town of Clayton
Amendment to the Comprehensive
List of Fees and Charges
Inspections Department Fees

BE IT HEREBY APPROVED BY THE TOWN COUNCIL FOR THE TOWN OF CLAYTON, NORTH CAROLINA, THAT THE FOLLOWING SHALL BE AMENDED TO ITS COMPREHENSIVE LIST OF FEES AND CHARGES:

Inspections Department

Update for Permits	\$150
ADD: Contractor Change	\$ 50
Service Change Inspection	
ADD: Conditional Service (Electric, Gas, Etc.)	\$ 75

Duly adopted this 5th day of September 2017 while in regular session.

Jody L. McLeod
Mayor

ATTEST:

Kimberly A. Moffett
Town Clerk



Town Council Agenda Cover Sheet

Meeting Date

August 21, 2017

Agenda Location

Items Scheduled for the Regular Meeting

Item Title

Adjustments to the Residential Deposit Schedule

Presenter *(Name & Title)*

Ann Game, Utilities & Billing Director

Summary/Description

We would like to simplify the residential deposit process.

Requested Action

Place on Consent Agenda

Additional Documents To Be Included in Agenda Packet

Residential Deposit Policy Information
Requested Changes to Policy



TOWN OF CLAYTON

Utilities & Billing/Customer Service
111 E. Second Street, Clayton, NC 27520
P.O. Box 879, Clayton, NC 27528
Phone: 919-553-5002 Fax: 919-553-0719

Account # _____

Residential Utility Deposit Information

A. Account History Waiver: PROPERTY OWNERS ONLY Customer must provide at time of establishing service: proof of social security number, valid photo ID and a **letter of credit** from current utility provider demonstrating good payment history defined as: **no** late payments, **no** returned checks, **no** returned drafts and **no** disconnects for nonpayment within the immediate preceding 12 months.*

B. Deposit without Account History Waiver: Customer must provide at time of establishing service: proof of social security number, valid photo ID and deposit (listed below);

Electric	\$250
Water	\$50
Sewer	\$50
Irrigation (if applicable)	\$50
TOTAL	\$50-400

Home Owners: The deposit shall be refunded by written request after 12 months of demonstrated good payment history defined as: no late payments, no returned checks, no returned drafts and no disconnects for nonpayment within the first 12 months of service.

Renters: All renters shall have their deposit applied to the balance of the account at closing prior to any refunds being issued.

If the utility account is closed, either by customer choice or due to non-payment, the deposit will be applied to the balance prior to any refunds being issued.

C. High Risk Deposit: Customer must provide at time of establishing service: valid photo ID and deposit (listed below); the customer declines to provide proof of social security number.

Electric	\$800
Water	\$120
Sewer	\$120
Irrigation (if applicable)	\$120
TOTAL	\$120-1160

The deposit shall only be refunded, net of any outstanding bill, at the time of account closing.

NO EXCEPTIONS

I, _____, have read the above information and elect deposit option _____.
Customer's printed name

*I understand that I may be required to pay an additional higher deposit, establish a new deposit, or reestablish a deposit after my original deposit has been refunded if any or all of the following conditions apply to my account: disconnection for nonpayment, failure to honor payment arrangement, returned checks/drafts, meter tampering, and/or falsification of information provided on service application. Under these terms, the deposit must be paid immediately or disconnection may occur.

Customer's Signature

Service Address

NOTE: Customers with unpaid delinquent balance with other units of government shall be required to bring all delinquent accounts current before services can be established with the Town of Clayton, and they may be subject to a higher deposit.

Town of Clayton Witness Signature

Date

NOTE: Customers with unpaid delinquent balance with other units of government shall be required to bring all delinquent accounts current before services can be established with the Town of Clayton, and they may be subject to a higher deposit.

Requested Changes to the Residential Deposit Schedule

- Letter of credit would only waive deposits for home owners
- Remove the requirement for bank drafting
- Everyone pays the same deposit amount

Submitted by Ann Game

August 14, 2017

Town of Clayton
Amendment to the Comprehensive
List of Fees and Charges
Residential Utility Deposits

BE IT HEREBY APPROVED BY THE TOWN COUNCIL FOR THE TOWN OF CLAYTON, NORTH CAROLINA, THAT THE FOLLOWING SHALL BE AMENDED TO ITS COMPREHENSIVE LIST OF FEES AND CHARGES:

Residential Utility Deposit Information

- A. Account History Waiver: PROPERTY OWNERS ONLY** Customer must provide at time of establishing service: proof of social security number, valid photo ID and a **letter of credit** from current utility provider demonstrating good payment history defined as: **no** late payments, **no** returned checks, **no** returned drafts and **no** disconnects for nonpayment within the immediate preceding 12 months.*
- B. Deposit without Account History Waiver:** Customer must provide at time of establishing service: proof of social security number, valid photo ID and deposit (listed below);

Electric	\$250
Water	\$50
Sewer	\$50
Irrigation (if applicable)	\$50
TOTAL	\$50-400

Home Owners: The deposit shall be refunded by written request after 12 months of demonstrated good payment history defined as: no late payments, no returned checks, no returned drafts and no disconnects for nonpayment within the first 12 months of service.

Renters: All renters shall have their deposit applied to the balance of the account at closing prior to any refunds being issued.

If the utility account is closed, either by customer choice or due to non-payment, the deposit will be applied to the balance prior to any refunds being issued.

C. **High Risk Deposit:** Customer must provide at time of establishing service: valid photo ID and deposit (listed below); the customer declines to provide proof of social security number.

Electric	\$800
Water	\$120
Sewer	\$120
Irrigation (if applicable)	\$120
TOTAL	\$120-1160

The deposit shall only be refunded, net of any outstanding bill, at the time of account closing.

NO EXCEPTIONS

Duly adopted this 5th day of September 2017 while in regular session.

Jody L. McLeod
Mayor

ATTEST:

Kimberly A. Moffett
Town Clerk



Town Council Agenda Cover Sheet

Meeting Date

August 21, 2017

Agenda Location

Items Scheduled for the Regular Meeting

Item Title

Updating credit card fee for utility customers

Presenter *(Name & Title)*

Ann Game, Utilities & Billing Director

Summary/Description

Currently our utility customers pay a flat fee of \$3.95 for each credit card transaction. Our credit card processor has notified us that the flat fee is no longer covering the processing fees. We are requesting to change from the flat fee to a percentage based fee.

Requested Action

Place on Consent Agenda

Additional Documents To Be Included in Agenda Packet

Click or tap here to enter text.



Town Council Agenda Cover Sheet

Meeting Date

August 21, 2017

Agenda Location

Items Scheduled for the Regular Meeting

Item Title

2017-96-RZ Clayton Corners & Town Center Blvd Rezoning

Presenter (Name & Title)

Planning Department

Summary/Description

Request to rezone the subject parcels from Highway-Business Special Use District (B-3 SUD) to Highway-Business (B-3), in order to remove the Special Use District.

Requested Action

Set Public Hearing

Additional Documents To Be Included in Agenda Packet

Staff Report Maps
Application
Neighborhood Meeting Materials
Planning Board Recommendation



Town of Clayton
Planning Department
111 E. Second Street, Clayton, NC 27520
P.O. Box 879, Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720

REZONING APPLICATION

Pursuant to Article 7, Section 155.704 of the Unified Development Code, an owner of land within the jurisdiction of the Town (or a duly authorized agent) may petition the Town Council to amend the Official Zoning Map.

Application Fees: **Standard Rezoning Fee: \$500.00**
Rezoning to Planned Development District Fee: \$1,000.00 + \$5.00 acre
Advertisement Fee: \$100.00
All fees are due when the application is submitted.

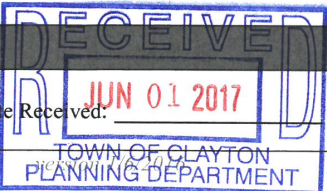
Note on Planned Developments: Requests to rezone to a Planned Development District must be accompanied by a Master Plan submittal. Master Plans are approved as Preliminary Subdivision Plats – please submit a concurrent Preliminary Subdivision Plat application and Master Plan.

SITE INFORMATION

Name of Project: Clayton Corners & Town Center Blvd Rezoning **Acreage of Property:** 22.04 & 9.09
County Tag Number: 05025005E, 05G02005G, 05G02001I **NC PIN:** 165915-53-6108, 165915-53-0737, 164900-86-6735
Address/Location: 11689 & 11649 US HWY 70 BUS and 957 Town Center Blvd
Existing Zoning District: Highway-Business Special Use District (B-3 SUD)
Proposed Zoning District: Highway-Business (B-3)

APPLICANT INFORMATION

Applicant: Town of Clayton
Mailing Address: PO BOX 879 Clayton, NC 27528
Phone Number: 919-359-2102 **Fax:** 919-553-1720
Contact Person: Haley Hogg, Planner
Email Address: hhogg@townofclaytonnc.org

FOR OFFICE USE ONLY		
	Date Received:	<u>JUN 01 2017</u>
	Amount Paid:	<u>Town initiated</u>
	File Number:	<u>2017-96-RZ</u>

PROPERTY OWNER INFORMATION

Name: DDRM Clayton Corners, LLC & Eagledale Realty, LLC

Mailing Address: 3300 Enterprise Pkwy Beachwood, Ohio 44122 and 10689 N Pennsylvania St STE 100 Indianapolis, IN 46280-1099

Phone Number: _____ **Fax:** _____

Email Address: _____

EXPLANATION OF PROJECT

Please provide detailed information concerning all requests. Attach additional sheets if necessary.

Rezoning subject properties from Highway-Business Special Use District (B-3 SUD) to Highway Business (B-3) in order to remove the Special Use District from the properties.

REQUIRED INFORMATION (to be submitted with the application)

The following items must accompany a Rezoning application.

To be completed by the applicant:			For staff use only:		
Submit 9 copies of all materials unless otherwise noted or directed by staff	Yes	N/A	Yes	No	N/A
1. A pre-application conference was held with Town of Clayton staff. Date: _____	☐	☒			
2. Review Fee (\$500 for standard rezoning OR \$1,000 + \$5.00/acre for Planned Developments) and Advertisement Fee (\$100)	☐	☒	<i>*Town initiated</i>		
3. Completed application	☒				
4. Owner's Consent Form <i>Required if applicant is not property owner.</i>	☒	☐			
5. A signed and sealed boundary survey (not more than a year old unless otherwise approved by the Planning Department).	☐	☒			
6. If property to be rezoned is a <u>portion</u> of a parcel: - Property legal description typed (10 pt. font or greater, and also submitted electronically in MS Word format.) - Plat showing property to be rezoned, matching legal description.	☐	☒			
7. Adjacent property owners list	☒	☐			
8. Neighborhood meeting notice letter (1 copy) <i>See sample letter and meeting requirements included in this packet</i>	☒				
9. Neighborhood meeting summary form (1 copy) <i>Included in this packet</i>			Must be submitted after neighborhood meeting is held and at least 10 days prior to Planning Board meeting.		
10. Stamped, addressed, empty envelopes with no return address, using the adjacent property owner list (1 set) <i>This for a public notice of the public hearing mailed by the Town – thus, neighbors will receive both a neighborhood meeting letter from the applicant, and a notice of the hearing from the Town.</i>	☒				

APPROVAL CRITERIA

All applications for a Rezoning must address the following findings:

1. Consistency with the adopted plans of the Town.

The request is consistent with the adopted plans of the Town. The requested zoning change remains consistent with the future land use map, and does not affect the underlying zoning district of B-3.

2. Suitability of the subject property for uses permitted by the current vs. the proposed district.

Removing the special use district overlay will not affect the suitability of the properties for uses permitted by the current vs. proposed district. The requested change will not alter the underlying district of B-3. Instead, uses that are permitted outright in B-3 will now be permitted outright on these properties without the requirement of them having to obtain a special use permit.

3. Whether the proposed change tends to improve the balance of uses, or meets specific demand in the Town.

The proposed change meets and exceeds specific demand within the Town. Removing the special use district overlay from these properties shortens the approval process for businesses to operate that consist of uses permitted outright in the B-3 zoning district.

4. The capacity of adequate public facilities and services including schools, roads, recreation facilities, wastewater treatment, potable water supply and stormwater drainage facilities is available for the proposed use.

The proposed zoning will not have an impact on these facilities. This request is to simply rezone the properties, and does not impact public facilities and services.

5. It has been determined that the legal purposes for which zoning exists are not violated.

The proposed rezoning does not violate the legal purposes for which zoning exists.

6. It has been determined that there will be no adverse effect upon adjoining property owners unless such effect can be justified by the overwhelming public good or welfare.

There will be no adverse effect upon adjoining property owners. The proposed rezoning does not change the underlying zoning district of B-3.

7. It has been determined that no one property owner or small group of property owners will benefit materially from the change to the detriment of the general public.

No one property owner or small group will benefit materially from the change to the detriment of the general public.

APPLICANT AFFIDAVIT

I/We, the undersigned, do hereby make application and petition to the Town Council of the Town of Clayton to amend the Zoning Ordinance and change the Official Zoning Map of the Town of Clayton as requested. I hereby certify that I have full legal right to request such action and that the statements or information made in any paper or plans submitted herewith are true and correct to the best of my knowledge. I understand this application, related material and all attachments become official records of the Planning Department of the Town of Clayton, North Carolina, and will not be returned.

Haley Hogg (on behalf of Planning Dept.)

Print Name



Signature of Applicant

6-1-17

Date

NEIGHBORHOOD MEETING INFORMATION

Purpose:

The purpose of the Neighborhood Meeting is to inform the surrounding property owners of the nature of the proposed land use and/or development features, answer questions, respond to concerns, and solicit comments.

Meeting Date:

The meeting must be held at least ten (10) calendar days prior to the Planning Board meeting.

Meeting Time & Location:

The meeting must be held no earlier than 6:00 pm Monday through Friday, and must be held in a location generally accessible to residents within close proximity of the request. The meeting space must be able to comfortably accommodate everyone that receives an invitation.

Meeting Notice Mailing requirements:

1. The applicant must contact all adjacent property owners via first class mailing (see sample letter).
2. The mailing must include all the persons, firms, or corporations owning property within 100 feet and immediately adjacent to the subject property. Where the subject property immediately adjoins a public or private right-of-way, landscape or riparian buffer, commonly-owned private area, public property, or homeowners' association property, then letters of notification shall be sent to adjoining property owners as if they directly abut the subject property.
3. The notice must be mailed at least ten (10) calendar days but not more than twenty-five (25) days prior to the date of the Neighborhood Meeting.

Information provided at the Neighborhood Meeting:

At a minimum, the following materials must be present for inspection at a Neighborhood Meeting:

1. A copy of the project application.
2. A map at a scale that is appropriate to the project and shows neighboring properties and roads.
3. A map, drawing, or other depiction of the proposed land use change or development proposal.

Information provided to Planning Department:

Alert the Planning Department once the date, location, and time of the Neighborhood Meeting are determined. Planning staff may attend the Neighborhood Meeting to answer process/code questions.

Deliver the following items to the Planning Department at least ten (10) calendar days prior to the Planning Board meeting in electronic or hard copy format:

- ☐ Adjacent Property Owner's List (aka "mailing list")
- ☐ Copy of the letter mailed
- ☐ Attendance Roster (aka "sign-in sheet")
- ☐ Neighborhood Meeting Summary Form with minutes (see below)



**Town of Clayton
Planning Department**
111 E. Second Street, Clayton, NC 27520
P.O. Box 879, Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720

OWNER'S CONSENT FORM

Consent is required from the property owner(s) if an agent will act on their behalf. A separate form is required from each owner. Consent is valid for one year from date of notary, unless otherwise specified. All fields must be completed.

Project Name: Clayton Corners Rezoning **Address or PIN #:** 165915-53-0737 & 165915-53-6108

AGENT/APPLICANT INFORMATION:

Town of Clayton

(Name - type, print clearly)

111 East Second Street

(Address)

Clayton, NC 27528

(City, State, Zip)

I hereby give **CONSENT** to the above referenced agent/applicant to act on my behalf, to submit applications and all required materials and documents, and to attend and represent me at all meetings and public hearings pertaining to the following processes (*list applicable requests*):

Rezoning Application (B-3 SUD to B-3)

Furthermore, I hereby give consent to the party designated above to agree to all terms and conditions which may arise as part of the approval of this application.

I hereby certify that I have authority to execute this consent form as/on behalf of the property owner. I understand that any false, inaccurate or incomplete information provided by me or my agent will result in the denial, revocation or administrative withdrawal of this application, request, approval or permits. I further agree to all terms and conditions which may be imposed as part of the approval of this application.

OWNER AUTHORIZATION:

Don Thompson

(Name - type, print clearly)

3500 Piedmont Rd NE Suite 730

(Address)

Atlanta, GA 30305

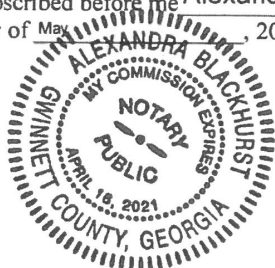
(City, State, Zip)

STATE OF Georgia

COUNTY OF Gwinnett

Sworn and subscribed before me Alexandra Blackhurst, a Notary Public for the above State and County, this the 31st day of May, 2017.

SEAL



October 2013

Alexandra Blackhurst
Notary Public

My Commission Expires: April 16, 2021



**Town of Clayton
Planning Department**

111 E. Second Street, Clayton, NC 27520

P.O. Box 879, Clayton, NC 27528

Phone: 919-553-5002

Fax: 919-553-1720

OWNER'S CONSENT FORM

Consent is required from the property owner(s) if an agent will act on their behalf. A separate form is required from each owner. Consent is valid for one year from date of notary, unless otherwise specified. All fields must be completed.

Project Name: Town Centre Blvd Rezoning **Address or PIN #:** 957 Town Centre Blvd (05G020011 / 164900-66-6735)

AGENT/APPLICANT INFORMATION:

Town of Clayton
(Name - type, print clearly)

111 East Second Street

(Address)

Clayton, NC 27528

(City, State, Zip)

I hereby give **CONSENT** to the above referenced agent/applicant to act on my behalf, to submit applications and all required materials and documents, and to attend and represent me at all meetings and public hearings pertaining to the following processes (*list applicable requests*):

Rezoning application (B-3 SUD to B-3) to remove
the special use district

Furthermore, I hereby give consent to the party designated above to agree to all terms and conditions which may arise as part of the approval of this application.

I hereby certify that I have authority to execute this consent form as/on behalf of the property owner. I understand that any false, inaccurate or incomplete information provided by me or my agent will result in the denial, revocation or administrative withdrawal of this application, request, approval or permits. I further agree to all terms and conditions which may be imposed as part of the approval of this application.

OWNER AUTHORIZATION:

EMERALD DALE REALTY, LLC
(Name - type, print clearly)

10689 N. Pennsylvania St. STE 100
(Address)

(Owner's Signature)

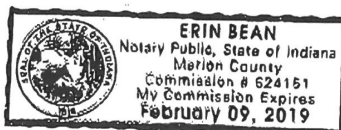
Indianapolis, IN 46280
(City, State, Zip)

STATE OF INDIANA
COUNTY OF MARION

Sworn and subscribed before me ERIN BEAN
the 8th day of JUNE, 20 17.

, a Notary Public for the above State and County, this

SEAL



October 2013

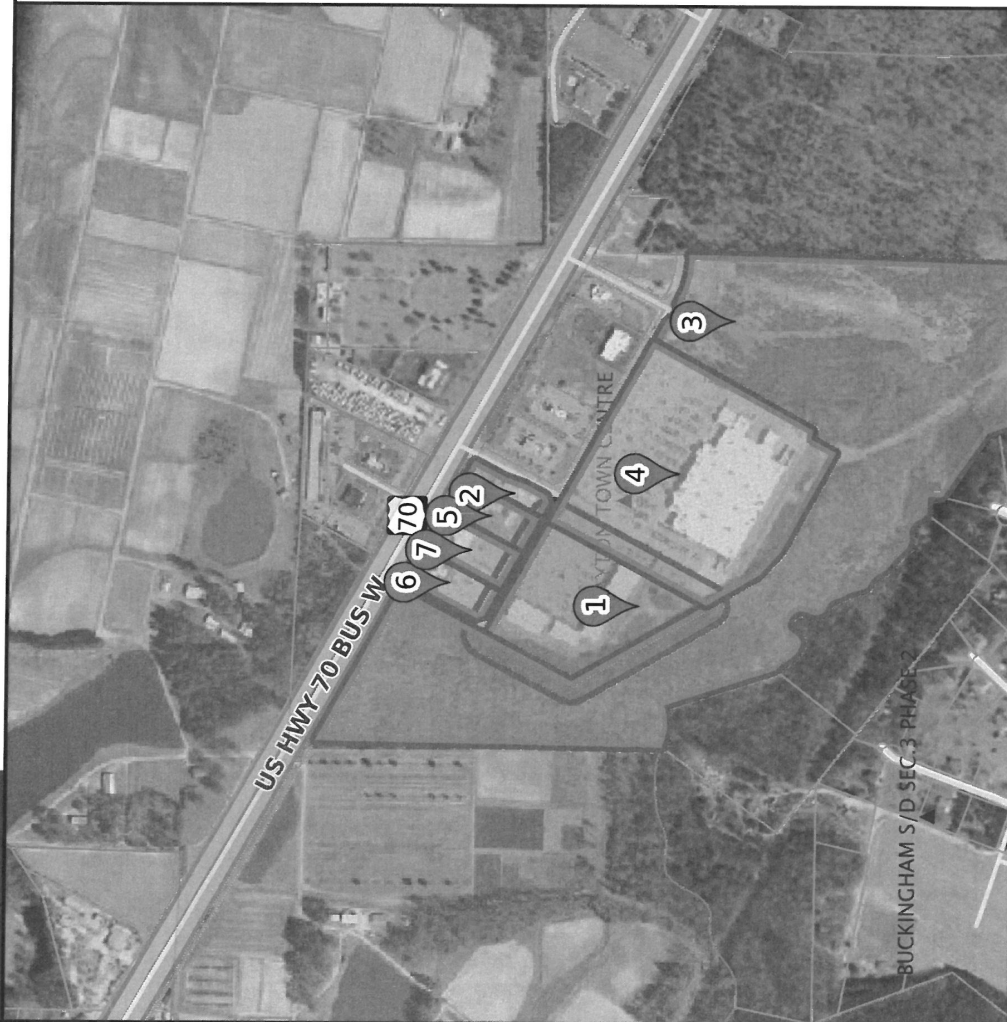
Erin Bean
Notary Public

My Commission Expires: 2/9/2019



*** DISCLAIMER ***

Johnston County assumes no legal responsibility for the information represented here.



Result 1

id: 05G02001I
Tag: 05G02001I
Tax Unique Id: 4883371
Owner Name 1: EAGLEDALE REALTY, LLC
Owner Name 2:
Mail Address 1: 10689 N PENNSYLVANIA ST
STE 100
Mail Address 2:
Mail Address 3: INDIANAPOLIS, IN 46280-1099
Book: 04873
Page: 0376

Result 2

id: 05G02001E
Tag: 05G02001E
Tax Unique Id: 4705924
Owner Name 1: MURPHY OIL USA INC
Owner Name 2:
Mail Address 1: 200 PEACH STREET
Mail Address 2: PO BOX 7300
Mail Address 3: EL DORADO, AR 71731-0000
Book: 03587
Page: 0776



Scale: 1:8906 - 1 in. = 742.14 feet

(The scale is only accurate when printed landscape on a 8 1/2 x 11 size sheet with no page scaling.)

Johnston County GIS
June 9, 2017



*** DISCLAIMER ***

Johnston County assumes no legal responsibility for the information represented here.

Result 3

id: 05G02001A
Tag: 05G02001A
Tax Unique Id: 4681315
Owner Name 1: STEPHEN DOUGLAS I
IRRVOABLE TRUST
Owner Name 2: CYNTHIA M STEPHENS
IRRVOABLE TRUST
Mail Address 1: 319 CHAPANOKE RD STE 102
Mail Address 2:
Mail Address 3: RALEIGH, NC 27603-0000
Book: 01875
Page: 0903

Result 4

id: 05G02001J
Tag: 05G02001J
Tax Unique Id: 4747740
Owner Name 1: WALMART REAL ESTATE
BUSINESS TRUST
Owner Name 2:
Mail Address 1:
Mail Address 2: PO BOX 8050, MS 0555
Mail Address 3: BENTONVILLE, AR 72712-8050
Book: 02278
Page: 0313

Result 5

id: 05G02001F
Tag: 05G02001F
Tax Unique Id: 4692950
Owner Name 1: PCG ENTERPRISES OF
CLAYTON LLC
Owner Name 2:
Mail Address 1: 12905 HIGHWAY 70 WEST
Mail Address 2:
Mail Address 3: CLAYTON, NC 27520-0000
Book: 02571
Page: 0265

Result 6

id: 05G02001H
Tag: 05G02001H
Tax Unique Id: 4692958
Owner Name 1: LEVINSON, JAMES R.
Owner Name 2:
Mail Address 1:
Mail Address 2: P O BOX 117
Mail Address 3: BENSON, NC 27504-0117
Book: 03680
Page: 0193

Result 7

id: 05G02001G
Tag: 05G02001G
Tax Unique Id: 4747720
Owner Name 1: CAROLINA PARK LLC
Owner Name 2:
Mail Address 1: 9005 PEACHTREE TOWN LN
Mail Address 2:
Mail Address 3: KNIGHTDALE, NC 27545-9710
Book: 04541
Page: 0642



Town of Clayton
Planning Department
111 E. Second Street, Clayton, NC 27520
P.O. Box 879, Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720

Planning Board
July 24, 2017

STAFF REPORT

Application Number: 2017-96-RZ

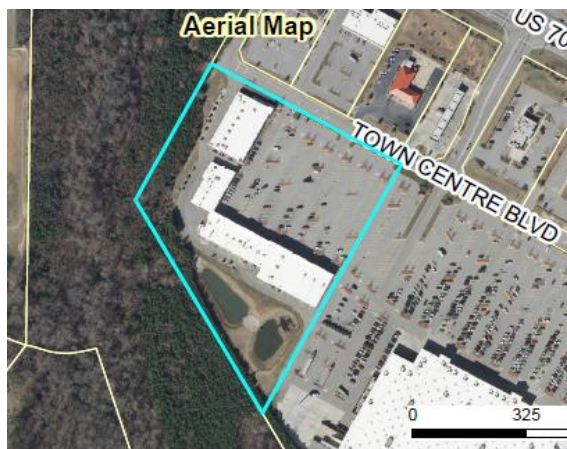
Project Name: Clayton Corners and Town Center Blvd Rezoning

NC PIN / Tag #: 165915-53-6108 / 05025005e, 165915-53-0737 / 05g02005g, 164900-86-6735 / 05g02001
Town Limits/ETJ: Town Limits
Overlay: Thoroughfare Overlay District
Applicant: Town of Clayton
Owner: DDRM Clayton Corners, LLC and Eagledale Realty, LLC
Location: 11689 and 11649 US HWY 70 BUS, and 957 Town Center Blvd

Public Noticing:

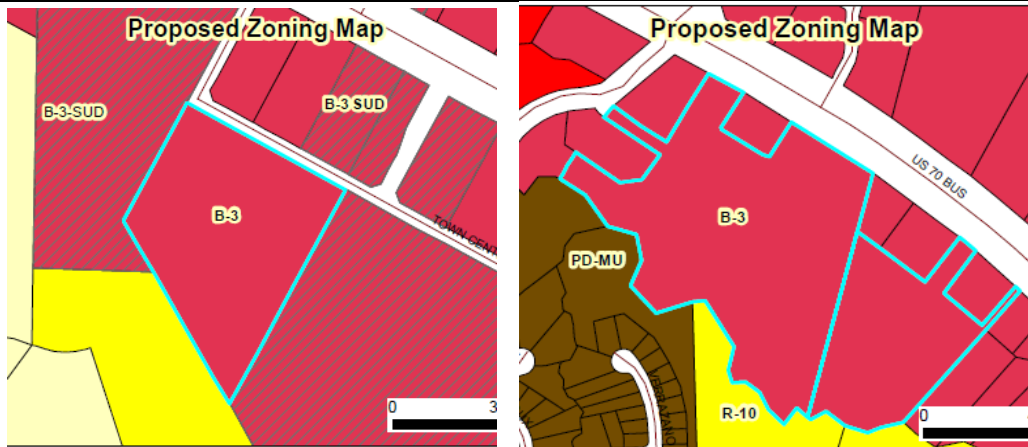
- Neighborhood meeting July 6, 2017
- Signs Posted prior to April 14, 2017
- Letters mailed prior to August 25, 2017
- Newspaper ad published August 23 2017 and August 30, 2017

REQUEST: Request to rezone the parcels from Highway Business-Special Use District (B-3-SUD) to Highway Business (B-3).



SITE DATA:**Acreage:** 22.04 acres (Clayton Corners) and 9.09 (Town Center Blvd)**Existing Uses:** Commercial**ADJACENT ZONING AND LAND USES:**

Direction	Zoning	Existing Use
North	Highway-Business (B-3) / Highway-Business Special Use District (B-3 SUD)	Commercial
South	Residential-10 (R-10) / Planned Development Mixed Use (PD-MU)	Vacant / Residential
East	Highway Business Special Use District (B-3 SUD) / Highway-Business (B-3)	Commercial
West	Highway-Business Special Use District (B-3 SUD) / Highway-Business (B-3)	Vacant / Commercial

**STAFF ANALYSIS AND COMMENTARY:****Overview**

The Town is requesting to rezone the subject parcels from Highway-Business Special Use District (B-3 SUD) to Highway-Business (B-3), in order to remove the Special Use District designation. Special Use Districts require all potential uses to go through the special use process in order to be permitted, regardless of what the base zoning district typically permits. In 2015, staff was directed by Town Council to examine the locations of special use districts within Clayton and consider the removal of these districts on a case-by-case basis.

Compatibility with Surrounding Land Uses

The proposed zoning change is to remove the special use district designation from the parcels, but the base zoning district of B-3 will remain. Therefore, the proposed zoning change does not affect the compatibility of these parcels with the surrounding land uses.

Consistency with the 2040 Comprehensive Plan

The proposed zoning change is generally consistent with the Comprehensive Plan 2040.

CONSIDERATIONS:

- Rezoning is decided by the Town Council. The Planning Board shall make a recommendation to the Town Council.
 - When adopting or rejecting the rezoning, the Town Council shall approve a statement describing whether its action is consistent with adopted plans and/or policies of the Town and explaining why the Council considers the action taken to be reasonable and in the public interest.
 - If approved, this rezoning will result in a modification to amend the official zoning map for The Town of Clayton.
-

APPROVAL CRITERIA:

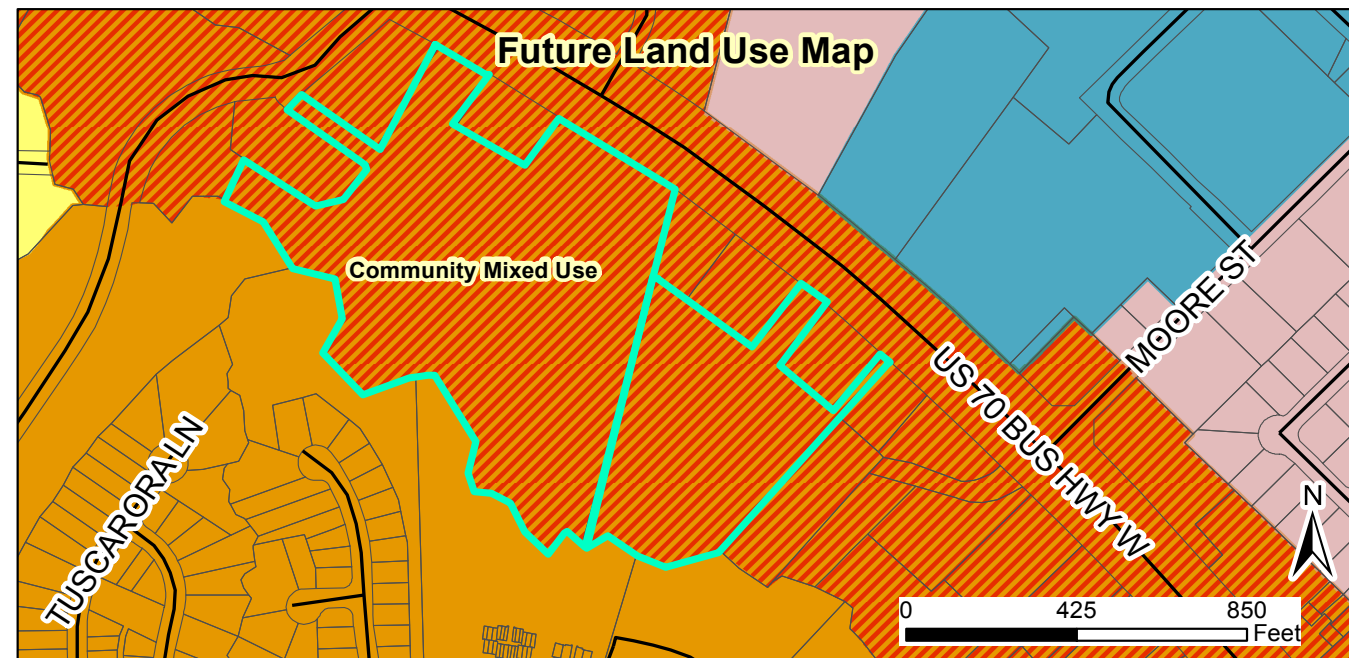
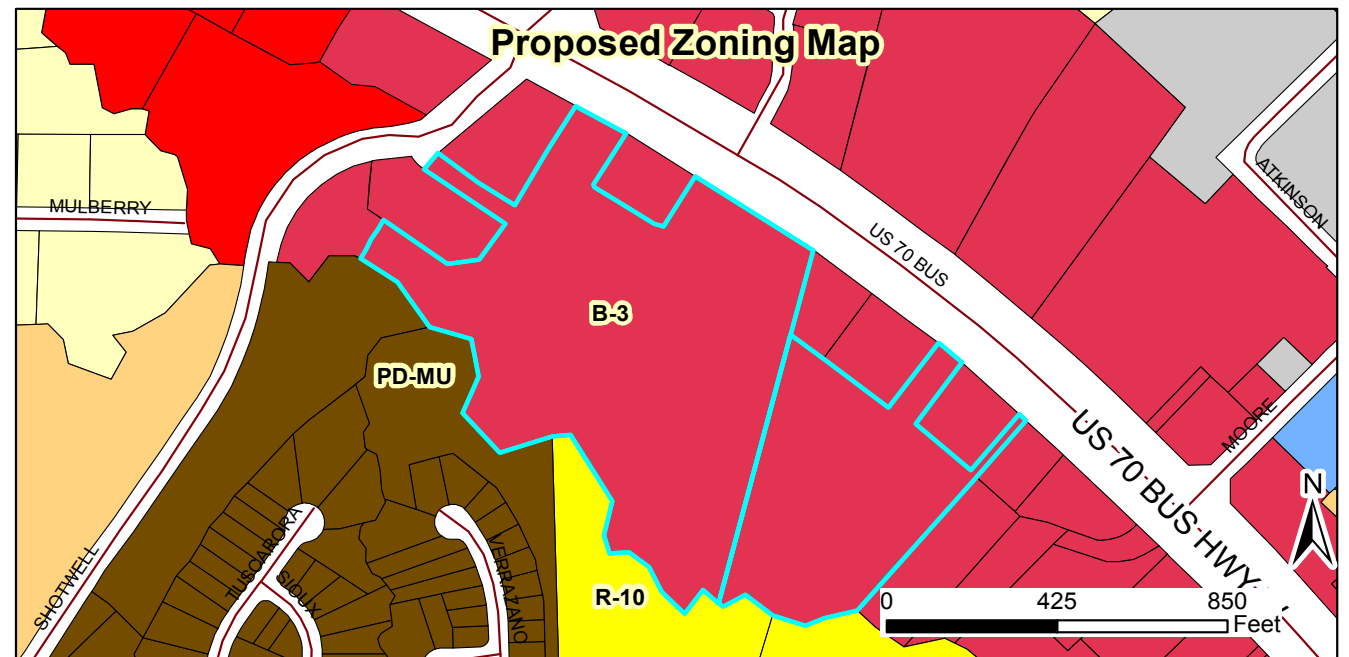
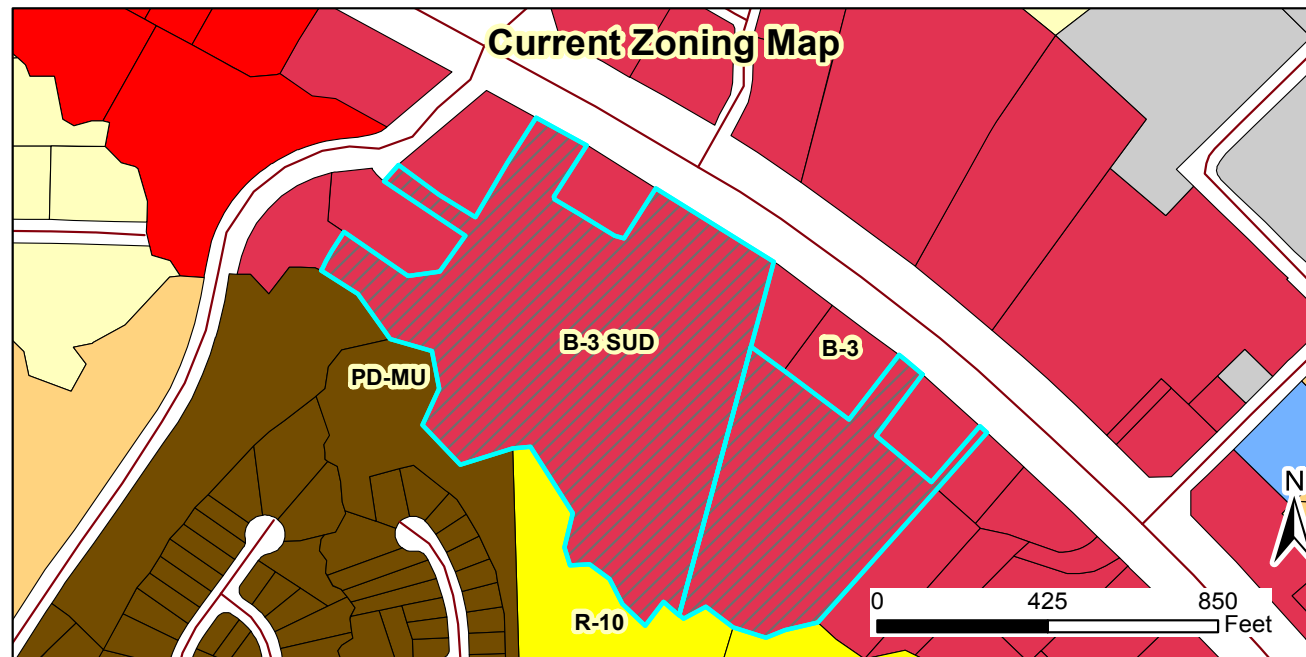
The applicant has addressed the Rezoning Approval Criteria outlined in §155.704. The applicant's responses are incorporated as an attachment to the Staff Report.

STAFF RECOMMENDATION:

Staff is recommending approval of the rezoning of the subject parcels.

ATTACHMENTS:

- 1) Staff Report Maps
- 2) Application
- 3) Neighborhood Meeting Materials



2017-96-RZ Clayton Corners & Town Center Blvd Rezoning

Request: To rezone from B-3 SUD to B-3

Applicant: Town of Clayton

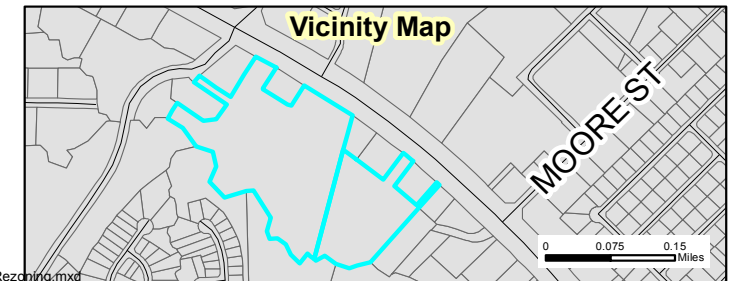
Property Owners: DDRM Clayton Corners, LLC & Eagledale Realty, LLC

Parcel ID: 165915-53-6108, 165915-53-0737, 164900-86-6735

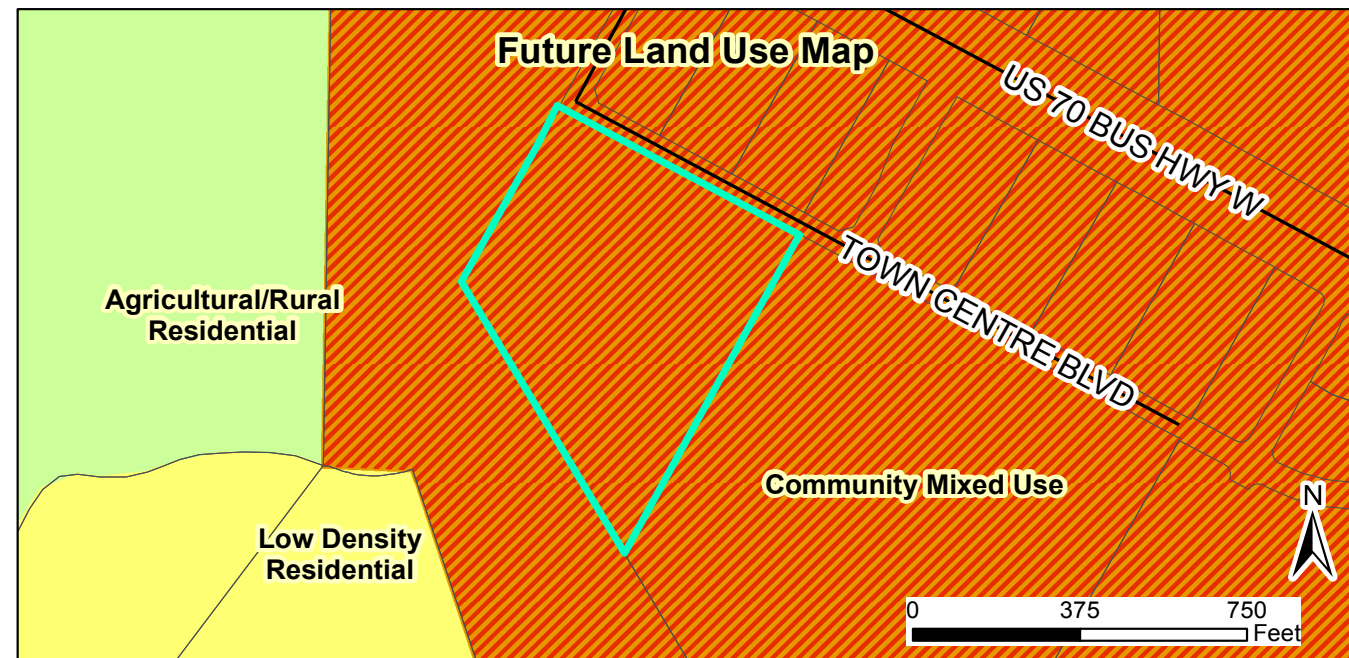
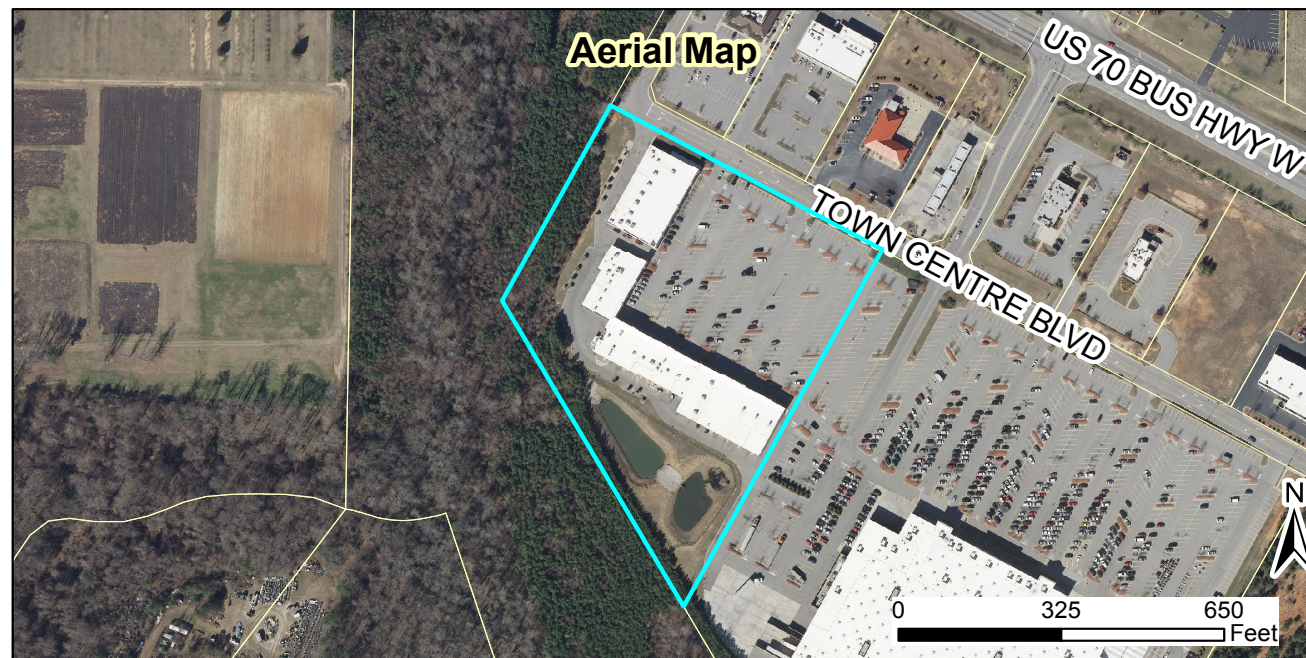
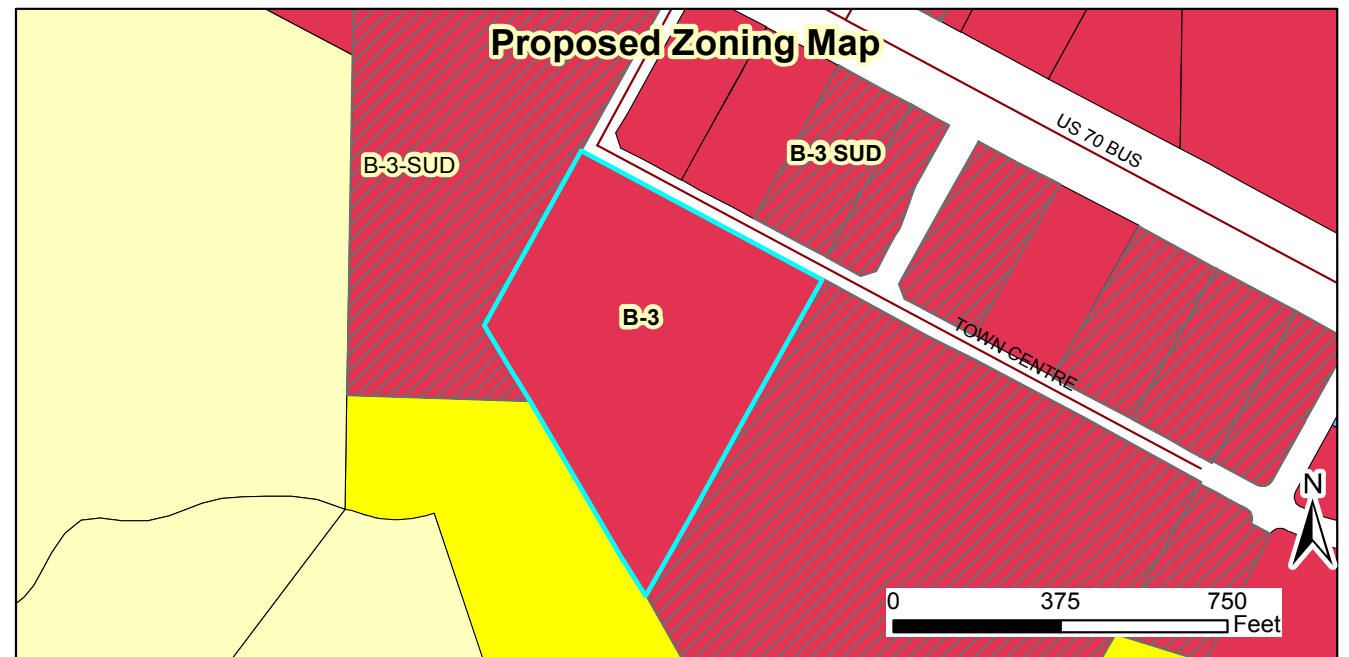
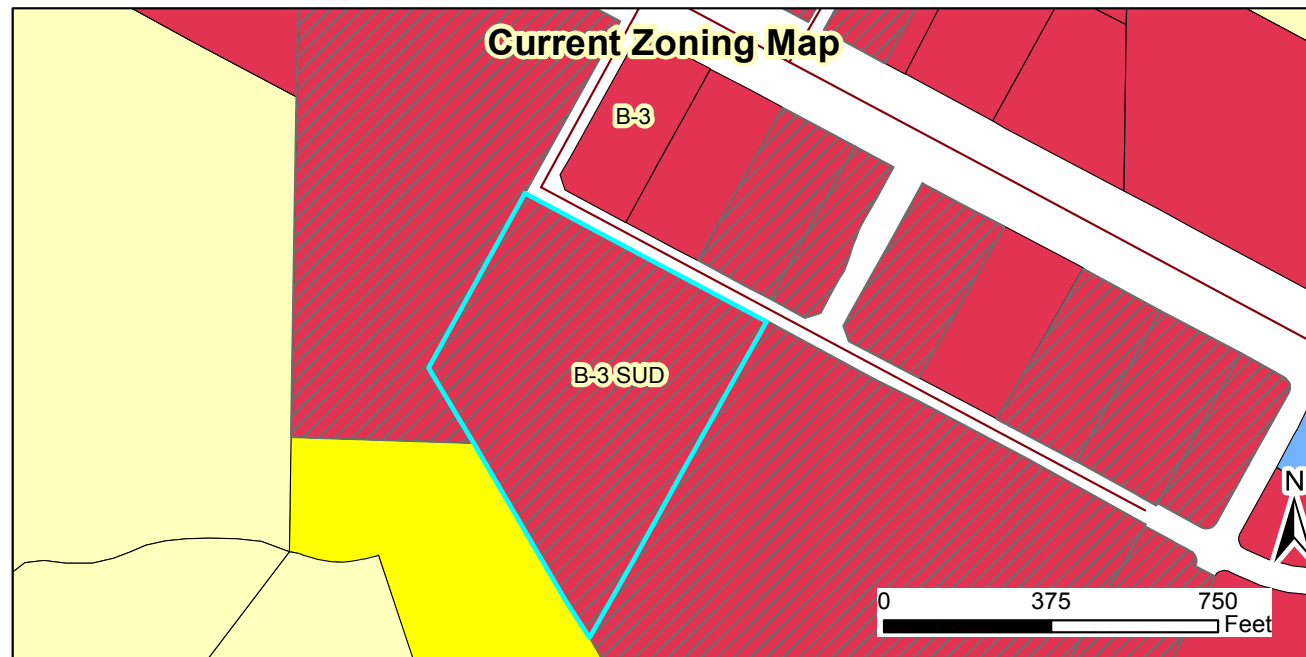
Tag #: 05025005e, 05g02005g, 05g02001



- Parcels
- All_Roads
- Special Use District
- Scenic Highway Overlay
- Roads
- Railroads



Document Path: O:\PLANNING\REZONING\Rezoning\2017\2017-53-RZ 9257 US Hwy 70 Bus W - Mooring Capital Fund\Map\StaffReportMap- 2017-53-RZ 9257 US HWY 70 Rezoning.mxd



2017-96-RZ Clayton Corners & Town Center Blvd Rezoning

Request: To rezone from B-3 SUD to B-3

Applicant: Town of Clayton

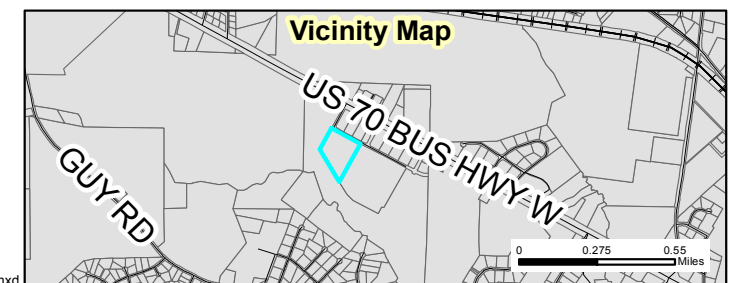
Property Owners: DDRM Clayton Corners, LLC & Eagledale Realty, LLC

Parcel ID: 165915-53-6108, 165915-53-0737, 164900-86-6735

Tag #: 05025005e, 05g02005g, 05g02001



- Parcels
- All_Roads
- Special Use District
- Scenic Highway Overlay
- Roads
- Railroads



Document Path: O:\PLANNING\REZONING\Rezoning\2017\2017-96-RZ Clayton Corners & Town Center Blvd\Maps\StaffReportMap- 2017-96-RZ Town Center Blvd Rezoning.mxd

NEIGHBORHOOD MEETING SUMMARY FORM

FILL OUT THE FOLLOWING:

Application: 2017-96-RZ Clayton Corners + Town Center Blvd. RZ

Date of Mailing: 6/13/17

Date of Meeting: 7/6/17

Time of Meeting: 6:00 PM

Location of Meeting: Clayton Center Lobby

I hereby attest that letters were mailed to the addresses listed on the Adjacent Property Owners List (attached) ten days prior to the Neighborhood Meeting, and that all required information was presented at the Meeting:

Printed Name: Haley Hogg

Signature: Haley Hogg

Meeting Summary/Minutes: *provide a summary of the discussion held at the meeting, including issues raised and any resolution discussed, and any changes made to the application as a result of the meeting.*

No one attended the meeting. The meeting ended
at 6:30 PM.

Please write clearly (or submit a typed summary). Use additional sheets if necessary.

NEIGHBORHOOD MEETING ATTENDANCE ROSTER

Project: 2017-96-RZ Clayton Corners + Town Center Blvd Rezoning

Application: Rezoning

Location/Date: Clayton Center Lobby, 7/6/17

	NAME	ADDRESS
1	Haley Hogg	TOC
2		
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**TOWN OF CLAYTON
PLANNING BOARD WRITTEN RECOMMENDATION
ZONING AMENDMENT
(REZONING AMENDMENT)**

**Clayton Corners & Town Center Blvd
2017-96-RZ**

On July 24, 2017, the Planning Board heard the above-referenced request and made the following vote:

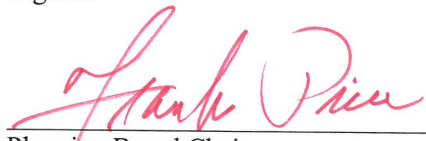
Recommendation to the Town Council to

☒ approve the request;

☐ deny the request.

Recommendation(s) made this 24 day of July 2017 while in regular session.

Signed:



Planning Board Chair

TOWN OF CLAYTON
ZONING AMENDMENT
CONSISTENCY AND REASONABLENESS STATEMENT

2017-96-RZ Clayton Corners and Town Center Blvd Rezoning

The Town Council of the Town of Clayton hereby states:

Section 1: The above referenced zoning amendment IS CONSISTENT with:

The Town of Clayton's Comprehensive Plan, specifically:

- Objective LU1.2: Encourage the redevelopment or adaptive reuse of under-utilized commercial development.
- Objective LU1: Preserve Clayton's small-town character while allowing for growth and development in appropriate areas.

Section 2: Based upon information presented at the public hearings and by the applicant, and based upon the recommendations and detailed information developed by staff and the Planning Board contained in the staff report, and considering the criteria applicable sections of the Unified Development Code of the Town of Clayton, specifically **(insert specifics to case)**

_____ ,

the above referenced zoning amendment is reasonable and in the public interest.

PUBLIC NOTICE

In accordance with NC GS 160A-384, the Clayton Town Council will hold a public hearing on Tuesday, September 5, 2017, at 6:30 PM at Town Hall, 111 East Second Street, to consider rezoning request 2017-96-RZ Clayton Corners and Town Center Blvd Rezoning for parcel number(s) 165915-53-6108, 165915-53-0737, and 164900-86-6735. The requested change is from Highway Business Special Use District (B-3 SUD) to Highway-Business (B-3).

The Clayton Town Council reserves the right to approve the request as presented or any portion of the request without necessity of withdrawal or modification of the application or additional public hearing on the matter. Likewise, the Town Council may designate approval to the district requested or another district or districts without modification of the request or additional public hearing.

This is an open meeting and the public is invited to attend.

Haley Hogg, Planner
919-553-5002

The Clayton News Star

Please advertise on the following dates:

August 23, 2017

August 30, 2017

Dates are the two Wednesdays prior to the hearing

Affidavit of publication required.



Town Council Agenda Cover Sheet

Meeting Date

August 21, 2017

Agenda Location

Items Scheduled for the Regular Meeting

Item Title

2017-99-RZ Capps Tract Rezoning

Presenter (Name & Title)

Planning Department

Summary/Description

Request to rezone the subject parcels from Residential-Estate (R-E) and Highway Business (B-3) to Residential-10 (R-10), with some land also being rezoned from Residential-Estate (R-E) to Highway Business (B-3).

Requested Action

Set Public Hearing

Additional Documents To Be Included in Agenda Packet

Staff Report Map

Application

Neighborhood Meeting Materials

Planning Board Recommendation

Statement of Consistency



TOWN OF CLAYTON

Planning Department

111 E. Second Street, Clayton, NC 27520

P.O. Box 879, Clayton, NC 27528

Phone: 919-553-5002

Fax: 919-553-1720

REZONING APPLICATION

Pursuant to Article 7, Section 155.704 of the Unified Development Code, an owner of land within the jurisdiction of the Town (or a duly authorized agent) may petition the Town Council to amend the Official Zoning Map.

Application Fees: **Standard Rezoning Fee: \$500.00**
Rezoning to Planned Development District Fee: \$1,000.00 + \$5.00 acre
Advertisement Fee: \$100.00
All fees are due when the application is submitted.

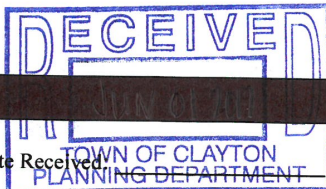
Note on Planned Developments: Requests to rezone to a Planned Development District must be accompanied by a Master Plan submittal. Master Plans are approved as Preliminary Subdivision Plats – please submit a concurrent Preliminary Subdivision Plat application and Master Plan.

SITE INFORMATION

Name of Project: Capps Tract Acreage of Property: 35.40
County Tag Number: 05026073 NC PIN: p/o 165911-65-2257
Address/Location: X:2156265.4327436 Y:695040.09389218
Existing Zoning District: RE
Proposed Zoning District: R-10

APPLICANT INFORMATION

Applicant: WithersRavenel
Mailing Address: 115 MacKenan Drive, Cary, NC 27511
Phone Number: 919-535-5237 Fax: 919-467-6008
Contact Person: Don Mizelle
Email Address: dmizelle@withersravenel.com



FOR OFFICE USE ONLY

Date Received: 2017-09-14

Amount Paid: \$1600

File Number: 2017-09-142

version 1/6/2016

Page 1 of 10

PROPERTY OWNER INFORMATION

Name: Stella Puckett Capps Estate c/o Jerry Capps

Mailing Address: 3620 Wind Sock Court, Eastover, NC 28312

Phone Number: n/a

Fax: n/a

Email Address: n/a

EXPLANATION OF PROJECT

Please provide detailed information concerning all requests. Attach additional sheets if necessary.

The owner intends to rezone the residential estate portion of the site to R-10 so that a residential community can be developed near Clayton's downtown.

REQUIRED INFORMATION (to be submitted with the application)

The following items must accompany a Rezoning application.

To be completed by the applicant:			For staff use only:		
Submit 9 copies of all materials unless otherwise noted or directed by staff	Yes	N/A	Yes	No	N/A
1. A pre-application conference was held with Town of Clayton staff. Date: <u>05/02/17</u>	☒	☐			
2. Review Fee (\$500 for standard rezoning <u>OR</u> \$1,000 + \$5.00/acre for Planned Developments) and Advertisement Fee (\$100)	☒				
3. Completed application	☒				
4. Owner's Consent Form <i>Required if applicant is not property owner.</i>	☒	☐			
5. A signed and sealed boundary survey (not more than a year old unless otherwise approved by the Planning Department).	☒				
6. If property to be rezoned is a <u>portion</u> of a parcel: - Property legal description typed (10 pt. font or greater, and also submitted electronically in MS Word format.) - Plat showing property to be rezoned, matching legal description.	☒ ☒	☐ ☐			
7. Adjacent property owners list	☒	☐			
8. Neighborhood meeting notice letter (1 copy) <i>See sample letter and meeting requirements included in this packet</i>	☐				
9. Neighborhood meeting summary form (1 copy) <i>Included in this packet</i>			Must be submitted after neighborhood meeting is held and at least 10 days prior to Planning Board meeting.		
10. Stamped, addressed, empty envelopes with no return address, using the adjacent property owner list (1 set) <i>This for a public notice of the public hearing mailed by the Town – thus, neighbors will receive both a neighborhood meeting letter from the applicant, and a notice of the hearing from the Town.</i>	☒				

APPROVAL CRITERIA

All applications for a Rezoning must address the following findings:

1. Consistency with the adopted plans of the Town.
The Town's 2040 Comprehensive Plan indicates that the future land use of the portion of the site to be rezoned is Downtown Residential. Under this land use, the proposed rezoning of R-10 is considered compatible with the Town's future land use designation.
2. Suitability of the subject property for uses permitted by the current vs. the proposed district.
The rezoning would increase the density of residential development potential on the site. The site is in close proximity to existing roadway infrastructure and is large enough to support a higher density zoning.
3. Whether the proposed change tends to improve the balance of uses, or meets specific demand in the Town.
The proposed change will allow expanded residential options in close proximity to downtown. This directly aligns with the Goals LU1 & LU2 of the Comprehensive Plan, applying increased densities of residential development near the downtown and maximizing existing infrastructure and pedestrian opportunities.
4. The capacity of adequate public facilities and services including schools, roads, recreation facilities, wastewater treatment, potable water supply and stormwater drainage facilities is available for the proposed use.
Water, sewer, and stormwater infrastructure currently exists to serve the site. Extensions to these systems will likely occur with the development of the subject site. Transportation systems are being evaluated via a traffic impact analysis and will be reviewed by Town staff. According to the County, schools are at capacity, however; plans to accommodate growth in the area are being developed. 80-81 additional students may result from this project.
5. It has been determined that the legal purposes for which zoning exists are not violated.
The rezoning of this site from R-E to R-10 would not violate any legal purposes for which zoning exists as the zoning district proposed is an allowed district within the Town of Clayton. The table of permitted uses and other use restrictions of the UDO for R-10 districts will remain in place to preserve the purpose of the district.
6. It has been determined that there will be no adverse effect upon adjoining property owners unless such effect can be justified by the overwhelming public good or welfare.
No adverse effects have been determined for the adjoining property owners at the time of this submittal. The residential nature of the proposed zoning classification should compliment both adjoining residential areas to the north and the institutional, office, and retail uses nearby to the south and west of the property.
7. It has been determined that no one property owner or small group of property owners will benefit materially from the change to the detriment of the general public.
No property owner will benefit at the cost of the general public with this development. The site will abide by the standards of the Town's Land Development Ordinance and other policies and procedures of the Town which in part serve to protect the public health, safety, and general welfare.

APPLICANT AFFIDAVIT

I/We, the undersigned, do hereby make application and petition to the Town Council of the Town of Clayton to amend the Zoning Ordinance and change the Official Zoning Map of the Town of Clayton as requested. I hereby certify that I have full legal right to request such action and that the statements or information made in any paper or plans submitted herewith are true and correct to the best of my knowledge. I understand this application, related material and all attachments become official records of the Planning Department of the Town of Clayton, North Carolina, and will not be returned.

Don Mizelle
Print Name

Don Mizelle
Signature of Applicant

6/1/2017
Date

LEGAL DESCRIPTION
CAPPS TRACT TOWNES - REZONING AREA
CAPPS, STELLA PUCKETT ESTATE
PIN: 165911-65-2257

BEGINNING AT AN EXISTING REBAR WITH NC GRID (NAD 83(2011)) COORDINATES: N 695,178.53 AND E 2,155,700.72, SAID POINT IS SOUTH 59°38'11" EAST 10,270.69' (GROUND), 10,270.54' (GRID) FROM N.C.G.S "MORIAH RESET 2" N.C GRID COORDINATES (2011): N 701,370.11; E 2,146,838.92 WITH COMBINED FACTOR 0.99988797. FROM SAID POINT OF BEGINNING THE FOLLOWING COURSES AND DISTANCES:

SOUTH 56°16'04" EAST 393.84 FEET TO A REBAR FOUND,
THENCE NORTH 45°29'49" EAST 222.05 FEET TO AN IRON PIPE FOUND,
THENCE NORTH 45°27'26" EAST 111.76 FEET TO AN IRON PIPE SET,
THENCE SOUTH 43°40'36" EAST 1120.70 FEET TO AN IRON PIPE SET,
THENCE SOUTH 47°35'41" WEST 455.28 FEET TO AN IRON PIPE SET,
THENCE SOUTH 42°59'32" EAST 217.00 FEET TO AN IRON PIPE SET,
THENCE SOUTH 47°00'28" WEST 277.01 FEET TO AN IRON PIPE SET,
THENCE SOUTH 50°44'34" WEST 424.96 FEET TO A POINT,
THENCE LEAVING THE CAPPS EASTERN BOUNDARY LINE NORTH 46°34'20" WEST 160.68 FEET TO A POINT,
THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 500.00 FEET, AN ARC LENGTH OF 126.73 FEET, AND A CHORD BEARING AND DISTANCE OF NORTH 53°50'00" WEST 126.39 FEET,
THENCE NORTH 61°05'40" WEST 291.71 FEET TO A POINT ON THE CAPPS WESTERN BOUNDARY LINE,
THENCE NORTH 14°12'58" EAST 27.60 FEET TO A REBAR FOUND,
THENCE NORTH 59°41'09" WEST 398.25 FEET TO AN IRON PIPE FOUND,
THENCE NORTH 30°17'58" EAST 400.00 FEET TO AN IRON PIPE SET,
THENCE NORTH 59°42'01" WEST 32.68 FEET TO AN IRON PIPE SET,
THENCE NORTH 30°17'58" EAST 399.69 FEET TO AN IRON PIPE FOUND,
THENCE NORTH 59°39'57" WEST 479.78 FEET TO AN IRON PIPE FOUND,
THENCE NORTH 46°52'42" EAST 315.58 FEET TO A REBAR FOUND,
AND THE POINT AND PLACE OF BEGINNING
CONTAINING 1541844 SQ. FT. OR 35.396 ACRES MORE OR LESS.

OWNER	ADDR1	ADDR2
WILLIAMS, FRANCES	PO BOX 233	CLAYTON, NC 27528
FELLOWSHIP BAPTIST CHURCH	204 ATKINSON ST	CLAYTON, NC 27520
MMP PROPERTIES LLC	PO BOX 565	BENSON, NC 27505
CAPPS, JOSEPH EDWIN	222 SUMMIT ST	CLAYTON, NC 27520
DURHAM, LARRY N & DURHAM, PATRICIA P	1198 PEELE RD	CLAYTON, NC 27520
SHACKLEFORD-BUNN DEV CO LLC	1025 RIDGE RD	CLAYTON, NC 27520
CORPORATE DEVELOPERS LLC	155 BENNETT PL	CLAYTON, NC 27527
WOOD, HEIDI CAPPS & WOOD, BRENT E	222 SUMMIT ST	CLAYTON, NC 27520
RARY, JAMES KENNETH JR & RARY, SHELIA	219 SUMMIT ST	CLAYTON, NC 27520
BV 173 LLC	1414 YANCEYVILLE ST STE 300	GREENSBORO, NC 27405
MICHAEL LYNN MARVEL REVOCABLE TRUST & MARVEL, MICHAEL LYNN TRUSTEE	2127 WILLOW HILL LN	CLAYTON, NC 27520
MASSEY, JOHN WESLEY	8041 ST ANDREWS DR	LAURINBURG, NC 28352
LEE BROTHERS RENTAL	400 W MAIN STREET	CLAYTON, NC 27528
ALLEN, MARY & SHALLINGTON, KATHERINE ALLEN	PO BOX 1633	CLAYTON, NC 27528
SANT HOSPITALITY LLC	761 ENTERPRISE DR	CLAYTON, NC 27520



TOWN OF CLAYTON
Planning Department
111 E. Second Street, Clayton, NC 27520
P.O. Box 879, Clayton, NC 27528
Phone: 919-553-5002

OWNER'S CONSENT FORM

Consent is required from the property owner(s) if an agent will act on their behalf. A separate form is required from each owner. Consent is valid for one year from date of notary, unless otherwise specified. All fields must be completed.

Project Name: Capps Tract Address or PIN #: 05026073

AGENT/APPLICANT INFORMATION:

WithersRavenel, Inc. - Attn: Don Mizelle
(Name - type, print clearly)

115 MacKenan Drive
(Address)
Cary, NC 27511
(City, State, Zip)

I hereby give **CONSENT** to the above referenced agent/applicant to act on my behalf, to submit applications and all required materials and documents, and to attend and represent me at all meetings and public hearings pertaining to the following processes (*list applicable requests below*):

Rezoning

Subdivision Preliminary Plat

Special Use

Site Plan

Furthermore, I hereby give consent to the party designated above to agree to all terms and conditions which may arise as part of the approval of this application.

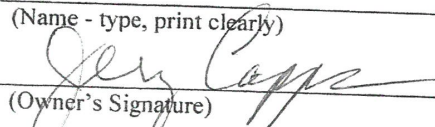
I hereby certify that I have authority to execute this consent form as/on behalf of the property owner. I understand that any false, inaccurate or incomplete information provided by me or my agent will result in the denial, revocation or administrative withdrawal of this application, request, approval or permits. I further agree to all terms and conditions which may be imposed as part of the approval of this application.

OWNER AUTHORIZATION:

Jerry Capps

(Name - type, print clearly)

3620 Wind Sock Court
(Address)


(Owner's Signature)

Eastover, NC 28312
(City, State, Zip)

STATE OF

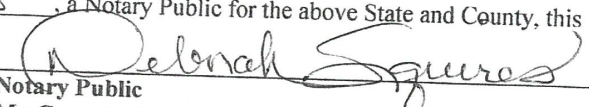
North Carolina

COUNTY OF

Cumberland

Sworn and subscribed before me Deborah Squires, a Notary Public for the above State and County, this the 22 day of May, 2017.

SEAL


Notary Public
My Commission
Expires:

September 15, 2021

version 10/15/2015



Page 10 of 10



TOWN OF CLAYTON

Planning Department

111 E. Second Street, Clayton, NC 27520

P.O. Box 879, Clayton, NC 27528

Phone: 919-553-5002

OWNER'S CONSENT FORM

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Project Name: Capps Tract

Address or PIN #: 05026073

AGENT/APPLICANT INFORMATION:

WithersRavenel, Inc. - Attn: Don Mizelle

(Name - type, print clearly)

115 MacKenan Drive

(Address)

Cary, NC 27511

(City, State, Zip)

I hereby give **CONSENT** to the above referenced agent/applicant to act on my behalf, to submit applications and all required materials and documents, and to attend and represent me at all meetings and public hearings pertaining to the following processes (*list applicable requests below*):

Rezoning

Subdivision Preliminary Plat

Special Use

Site Plan

Furthermore, I hereby give consent to the party designated above to agree to all terms and conditions which may arise as part of the approval of this application.

I hereby certify that I have authority to execute this consent form as/on behalf of the property owner. I understand that any false, inaccurate or incomplete information provided by me or my agent will result in the denial, revocation or administrative withdrawal of this application, request, approval or permits. I further agree to all terms and conditions which may be imposed as part of the approval of this application.

OWNER AUTHORIZATION:

JACQUELINE CAPPS

(Name - type, print clearly)

6621 WAKEHURST ROAD

(Address)

CHARLOTTE, NC 28226

(City, State, Zip)

STATE OF

COUNTY OF

North Carolina
Mecklenburg

Sworn and subscribed before me Bridget Speller-Purinton, a Notary Public for the above State and County, this the 22nd day of May, 2017.

SEAL

BRIDGET SPELLER-PURINGTON
Notary Public
Mecklenburg Co., North Carolina
My Commission Expires March 23, 2021

[Signature]
Notary Public
My Commission
Expires:

March 23, 2021



**Town of Clayton
Planning Department**

111 E. Second Street, Clayton, NC 27520

P.O. Box 879, Clayton, NC 27528

Phone: 919-553-5002

Fax: 919-553-1720

Consent is required from the property owner(s) if an agent will act on their behalf. A separate form is required from each owner. Consent is valid for one year from date of notary, unless otherwise specified. All fields must be completed.

Project Name: Capps Tract Rezoning **Address or PIN #:** 165915-54-6707

AGENT/APPLICANT INFORMATION:

Don Mizelle - Withers Ravenel

(Name - type, print clearly)

115 MacKenan Drive

(Address)

Cary, NC 27511

(City, State, Zip)

I hereby give **CONSENT** to the above referenced agent/applicant to act on my behalf, to submit applications and all required materials and documents, and to attend and represent me at all meetings and public hearings pertaining to the following processes (*list applicable requests*):

Rezoning of a portion of the parcel above from B3 to R-10

Furthermore, I hereby give consent to the party designated above to agree to all terms and conditions which may arise as part of the approval of this application.

I hereby certify that I have authority to execute this consent form as/on behalf of the property owner. I understand that any false, inaccurate or incomplete information provided by me or my agent will result in the denial, revocation or administrative withdrawal of this application, request, approval or permits. I further agree to all terms and conditions which may be imposed as part of the approval of this application.

OWNER AUTHORIZATION:

MICHAEL L. MARVER
(Name - type, print clearly)

(Owner's Signature)

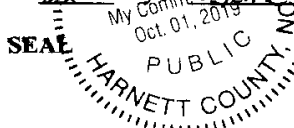
2127 Wilkes Hill Lane
(Address)

CLAYTON, NC 27520
(City, State, Zip)

STATE OF North Carolina

COUNTY OF Johnston

Sworn and subscribed before me Imogene Cogswell, a Notary Public for the above State and County, this 2nd day of October, 2019.



Imogene Cogswell
Notary Public

My Commission
Expires: 10-1-2019

October 2013



Town of Clayton
Planning Department
111 E. Second Street, Clayton, NC 27520
P.O. Box 879, Clayton, NC 27528
Phone: 919-553-1545

*Planning Board
July 24, 2017*

STAFF REPORT

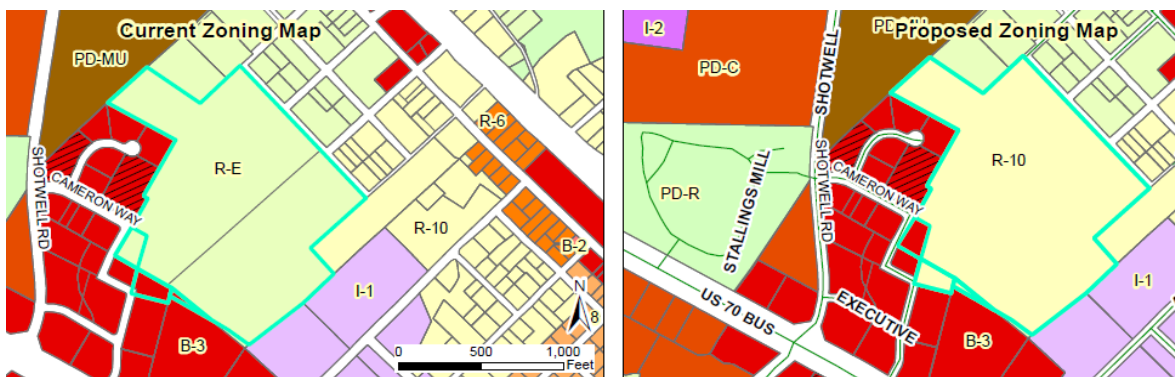
Application Number: 2017-99-RZ Project Name: Capps Tract Rezoning

NC PIN / Tag #: portions of 165911-65-2257 / 05026073 and 165915-54-6707 / 05g02005y
Town Limits/ETJ: portion within town limits, portion within ETJ
Overlay: none
Applicant: Withers Ravenel (c/o Don Mizelle)
Owner: Stella Puckett Capps Estate (c/o Jerry Capps)
Location: The property is located behind the commercial development at Enterprise Drive and Cameron Way.

Public Noticing:

- Neighborhood meeting July 11, 2017
- Site posted July 14, 2017
- Letters mailed prior to August 18, 2017
- Newspaper ad posted prior to August 25, 2017

REQUEST: Rezoning from Residential-Estate (R-E) and Highway Business (B-3) to Residential-10 (R-10), with some land also being rezoned from Residential-Estate (R-E) to Highway Business (B-3).



SITE DATA:

Acreage: 36.318 acres being rezoned
Existing Use: Agriculture or vacant

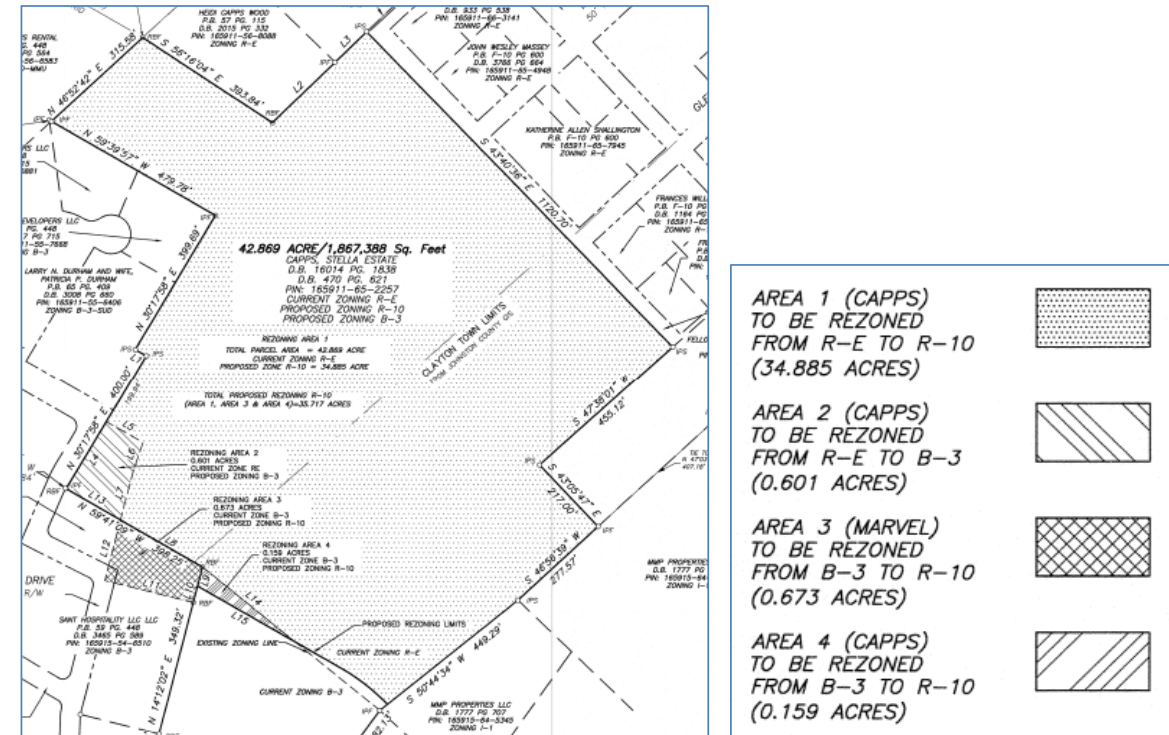
ADJACENT ZONING AND LAND USES:

Direction	Zoning	Existing Use
North	Residential-Estate (R-E)	Single Family Residential
South	Highway Business (B-3)	Commercial and Vacant
East	Residential-10 (R-10) and Light Industrial (I-1)	Church, Industrial, and Vacant
West	Residential-Estate (R-E) and Highway Business (B-3)	Agricultural, Commercial, and Vacant

STAFF ANALYSIS AND COMMENTARY:

Overview

The applicant is requesting to rezone 36± acres. The land is currently agricultural or vacant and primarily tucked behind the Cameron Way / Enterprise Drive commercial park. The land is partially within and without the Town Limits. The rezoning request is in anticipation of a potential right-of-way abandonment (part of Enterprise Drive) and realignment as well as a potential future subdivision request, although neither have been formally submitted at this time.



Existing vs. Proposed Zoning

The following uses are typical (but not exhaustive) of the zoning district: **Highway Business (B-3)**

- Nursing home
- Upper-story residence
- Daycare
- Hospital
- Trade or technical school
- Government service
- Fitness center
- Nursery
- Car-wash
- Convenience store
- Creative studio
- Bank
- Hotel
- Office
- Microbrewery
- Restaurant
- Retail
- Service

The following uses are typical (but not exhaustive) of the zoning district: **Residential-10 (R-10)**

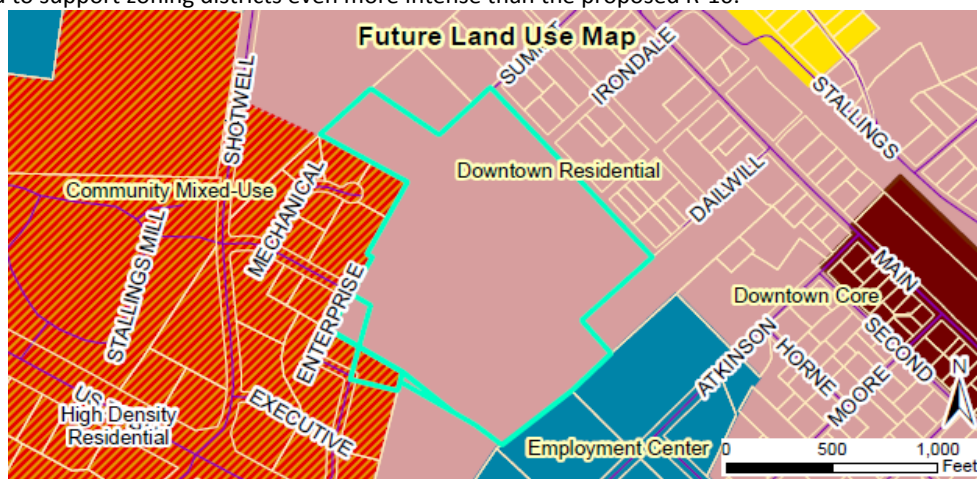
- Single family detached residential
- Apartments, Duplexes, and Townhomes are allowed by Special Use Permit only
- Daycares and Churches are allowed by Conditional Use Permit only
- Golf Course or Park

The following uses are typical (but not exhaustive) of the zoning district: **Residential-Estate (R-E)**

- Single family detached residential
- Apartments, Duplexes, and Townhomes are not allowed
- Manufactured Home Park is allowed by Special Use Permit only
- Daycares, Churches, Funeral Homes, and Kennels are allowed by Conditional Use Permit only
- Golf Course, Park, or Private Stable

Consistency with the Comprehensive Plan 2040

The property is identified primarily in the adopted Future Land Use Map as Downtown Residential, which is intended to support zoning districts even more intense than the proposed R-10.



The following table identifies which zoning districts are consistent with the Future Land Use Map categories (designations).

Future Land Use Designation	COMPATIBLE ZONING DISTRICTS												
	R-E	R-10	R-8	R-6	O-R	O-I	B-1	B-2	B-3	I-1	I-2	PF	PDD
ARR	X											X	
LDR	X	X										X	
MDR		X	X	X								X	
HDR			X	X								X	
DR			X	X	X	X	X					X	X
NC						X	X	X				X	X
CC								X	X			X	X
DC							X					X	X
EC									X	X	X	X	X
ROS												X	

Comprehensive Plan Goals supporting the rezoning request include:

- LU1: Preserve Clayton's small-town character, while allowing for growth and development in appropriate areas.
- LU2: Encourage quality development which maximizes existing infrastructure...
- H1: Encourage a range of housing types and lot sizes that meets the needs of various income levels, family sizes, and ages.

Comprehensive Plan Goals not supporting the rezoning request include:

- none

Consistency with Overlay Districts

There are no Overlay Districts.

Compatibility with surrounding land uses and potential for adverse effects

The site is located adjacent to properties zoned Residential-Estate, Residential-10, Light Industrial, and Highway Business. Some of the adjacent properties are occupied by active uses as permitted by their zoning district, but not all adjacent properties have active uses. A rezoning to Residential-10 would be consistent with the existing and surrounding residential uses, and supportive of the surrounding nonresidential uses.

Capacity/adequacy of public facilities and services

Town water and sewer facilities are adjacent and could potentially be tapped to serve any future development on this parcel.

CONSIDERATIONS:

- Rezonings are decided by the Town Council. The Planning Board shall make a recommendation to the Town Council.

Staff Report
2017-99-RZ

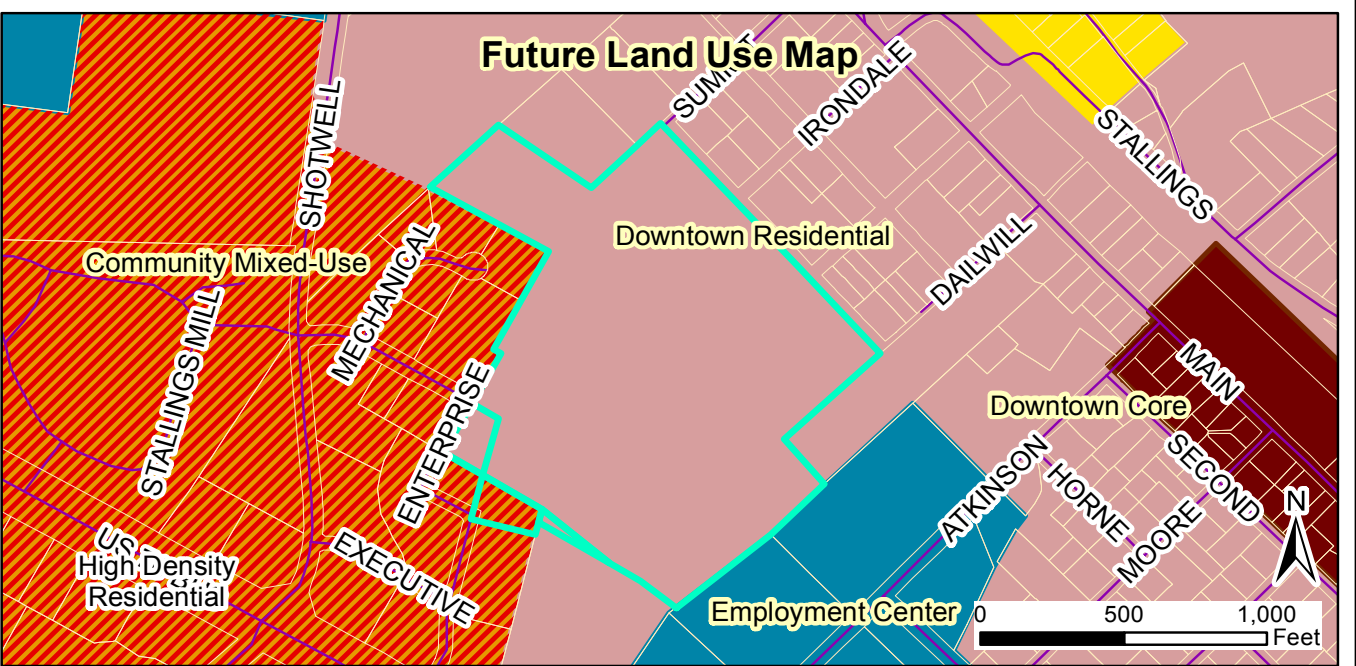
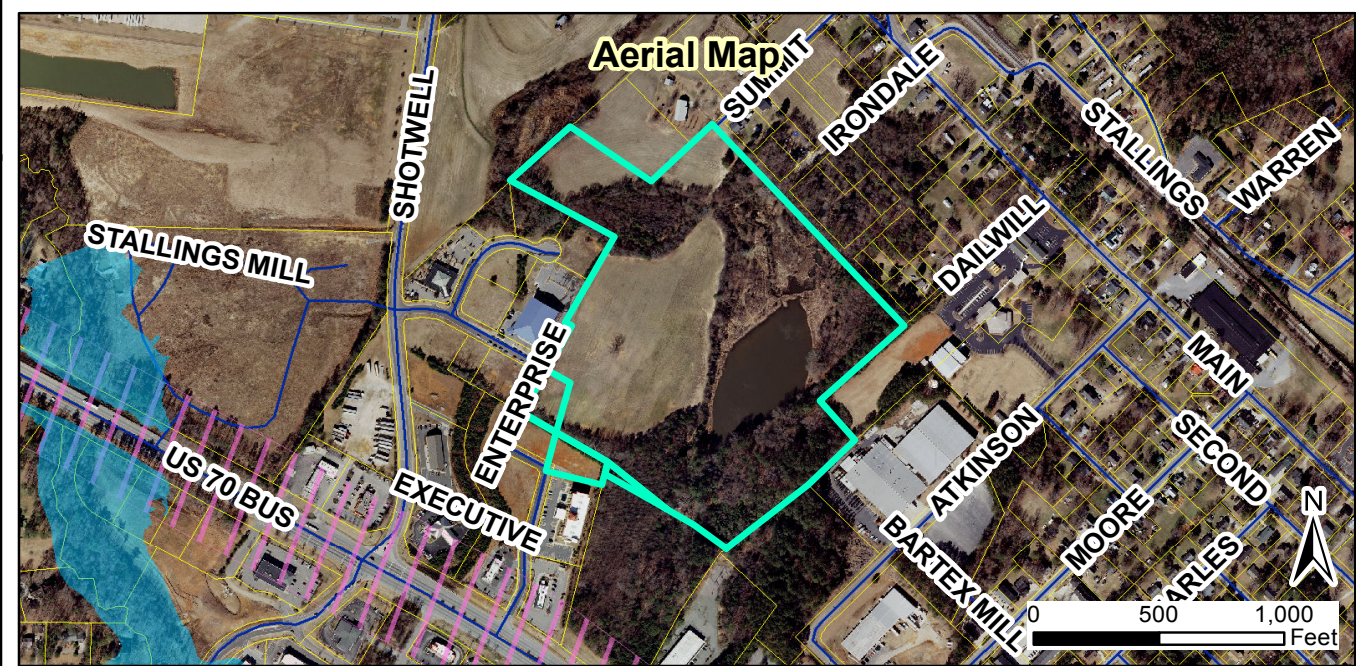
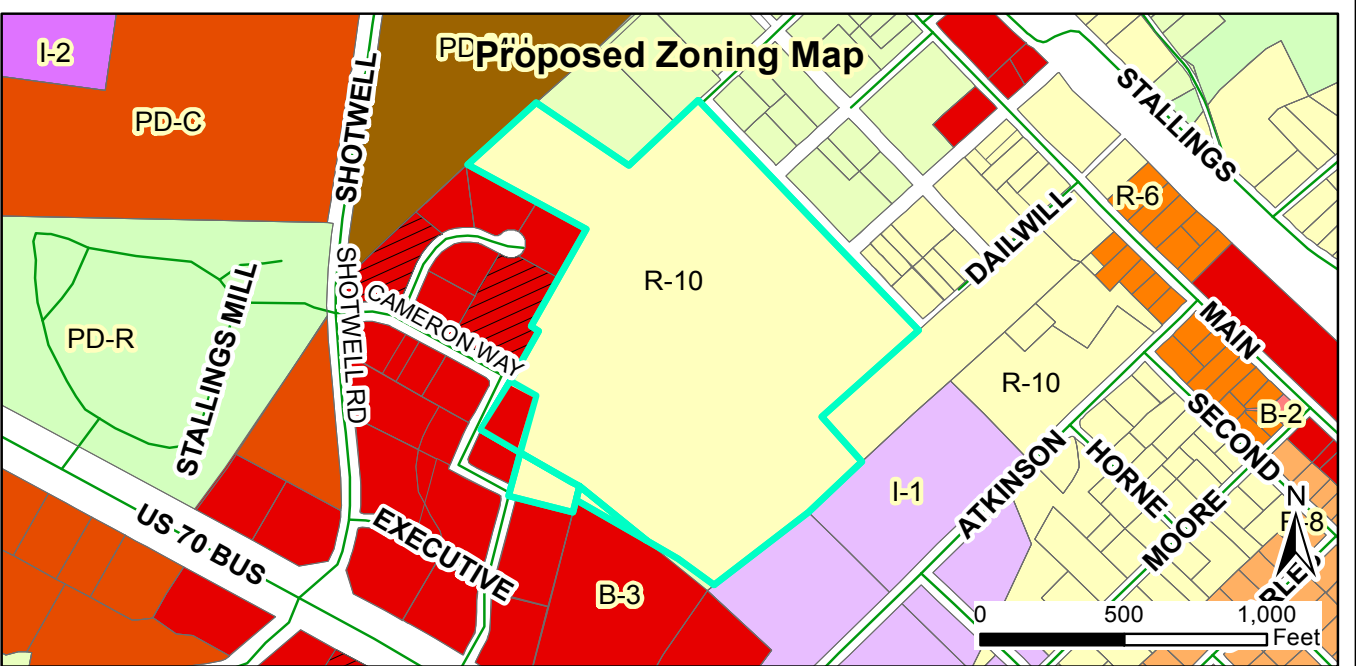
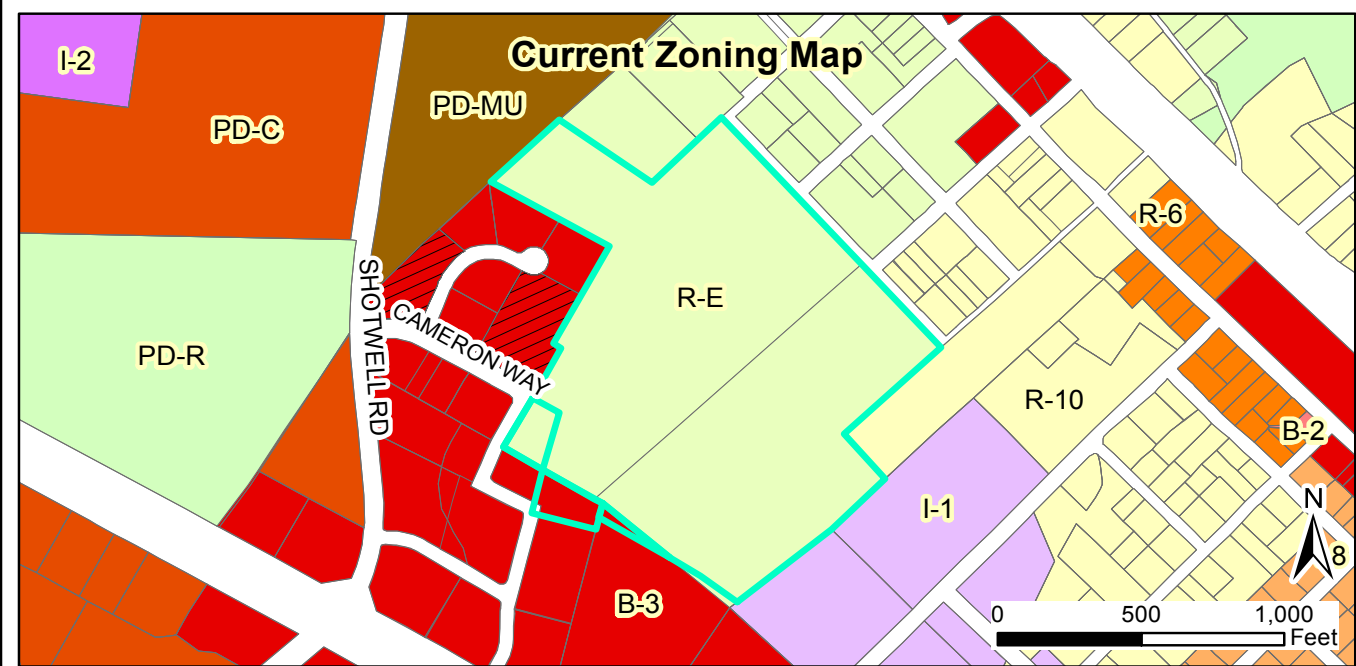
- When adopting or rejecting the rezoning, the Town Council shall approve a statement describing whether its action is consistent with adopted plans and/or policies of the Town and explaining why the Council considers the action taken to be reasonable and in the public interest.

STAFF RECOMMENDATION:

Approval of the rezoning.

ATTACHMENTS:

- 1) Application
- 2) Site Plan and Legal Description
- 3) Staff Report Map
- 4) Neighborhood Meeting Materials



Request:
2017-99-RZ, Capps Tract, Rezoning to R-10 and B-3

Applicant: Withers Ravenel
 Property Owners: Capps Estate & Mike Marvel
 Parcel ID: 165911-65-2257 & 165915-54-6707
 Tag #: 05026073 & 05g02005y

Staff Report Map

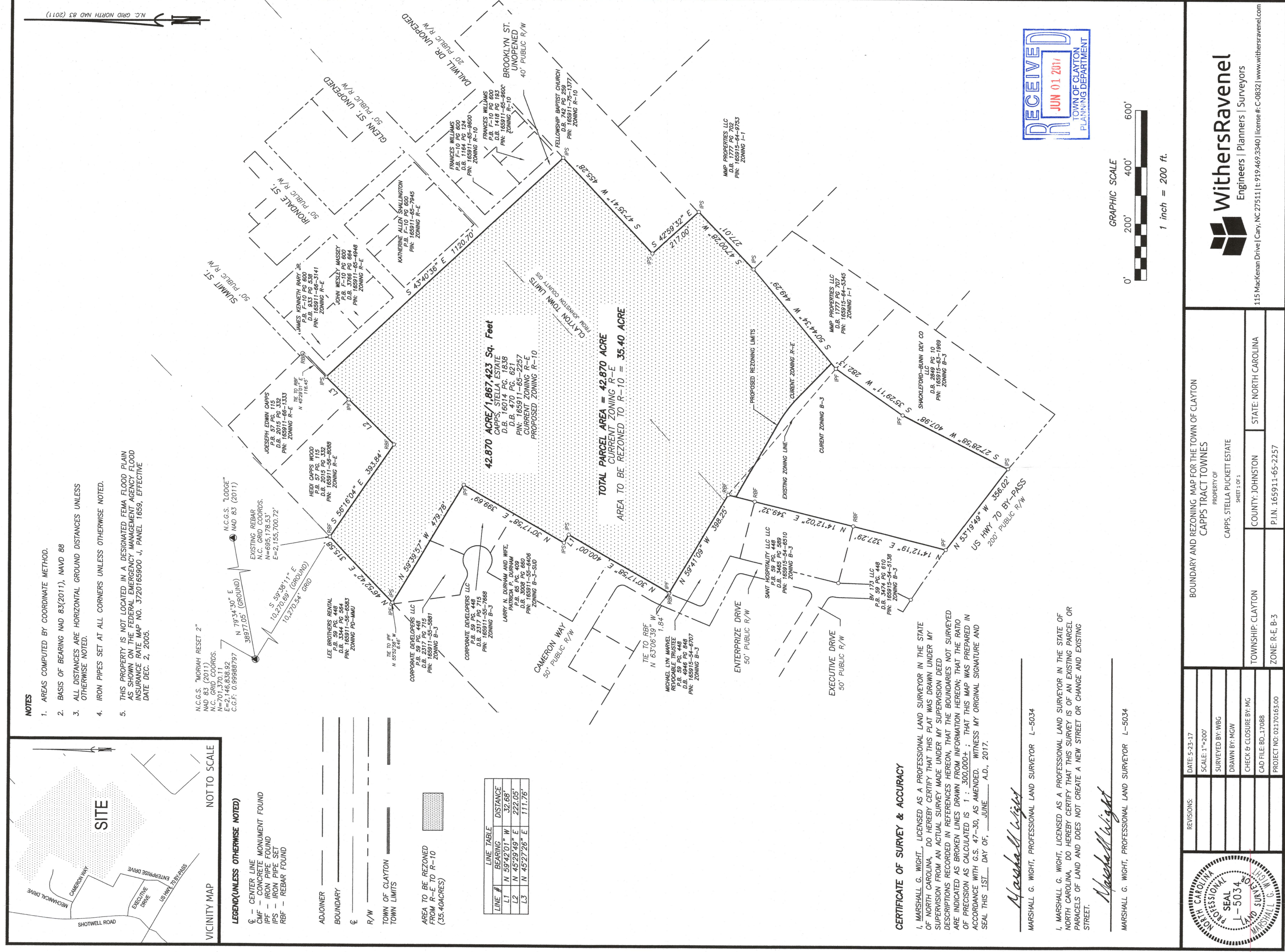


Document Path: O:\PLANNING\REZONING\Rezoning\2017\2017-99-RZ Capps Tract rezoning\Maps\Map - Capps tract rezoning 2017-99-RZ.mxd

Legend

- Site
- 100-yr Flood Zone
- Thoroughfare Overlay
- Scenic Highway Overlay
- Watershed Protection Overlay

07/18/2017
 Produced by: TOC Planning
 Disclaimer: Town of Clayton assumes no legal responsibility for the quality of the data represented here.





TECHNICAL APPENDIX

TECHNICAL APPENDIX

APPENDIX A

TRAFFIC COUNTS



RAMEY KEMP & ASSOCIATES TRANSPORTATION ENGINEERS

5808 Faringdon Place, Suite 100
Raleigh, NC 27609
PH: 919 872-5115
FX: 919 878-5416

File Name : Shotwell Road and US 70
Site Code : 00051717
Start Date : 5/17/2017
Page No : 1

Groups Printed- Cars & Trucks

Start Time	Shotwell Road Southbound					US 70 Westbound					Shotwell Road Northbound					US 70 Eastbound					Exclu. Total	Truck Total	Int. Total
	Right	Thru	Left	TRKS	App. Total	Right	Thru	Left	TRKS	App. Total	Right	Thru	Left	TRKS	App. Total	Right	Thru	Left	TRKS	App. Total			
07:00 AM	30	22	38	5	90	49	488	10	15	547	4	56	43	0	103	9	127	13	2	149	22	889	911
07:15 AM	23	23	48	8	94	70	475	11	7	556	3	57	37	1	97	10	152	12	1	174	17	921	938
07:30 AM	22	26	47	3	95	98	362	11	6	471	2	41	40	2	83	22	183	27	14	232	25	881	906
07:45 AM	29	36	45	5	110	49	357	12	8	418	3	59	45	2	107	21	195	22	19	238	34	873	907
Total	104	107	178	21	389	266	1682	44	36	1992	12	213	165	5	390	62	657	74	36	793	98	3564	3662
08:00 AM	37	30	64	2	131	18	322	14	7	354	10	48	51	0	109	14	203	45	12	262	21	856	877
08:15 AM	23	19	34	7	76	35	323	13	5	371	10	60	38	2	108	11	171	40	12	222	26	777	803
08:30 AM	29	30	40	8	99	38	317	15	10	370	6	39	34	1	79	11	149	47	12	207	31	755	786
08:45 AM	42	22	48	7	112	30	329	26	20	385	10	43	44	1	97	26	159	34	11	219	39	813	852
Total	131	101	186	24	418	121	1291	68	42	1480	36	190	167	4	393	62	682	166	47	910	117	3201	3318
*** BREAK ***																							
04:00 PM	33	38	45	4	116	24	223	16	12	263	19	36	33	1	88	38	281	46	6	365	23	832	855
04:15 PM	15	33	44	10	92	21	184	12	3	217	6	40	28	1	74	53	367	62	5	482	19	865	884
04:30 PM	35	46	46	6	127	69	186	22	4	277	7	47	50	0	104	54	341	73	11	468	21	976	997
04:45 PM	23	37	47	5	107	41	189	15	3	245	8	38	30	1	76	59	454	76	7	589	16	1017	1033
Total	106	154	182	25	442	155	782	65	22	1002	40	161	141	3	342	204	1443	257	29	1904	79	3690	3769
05:00 PM	19	45	64	6	128	43	242	19	4	304	13	42	57	2	112	62	414	69	7	545	19	1089	1108
05:15 PM	20	46	55	3	121	38	240	25	14	303	6	25	40	0	71	56	428	49	13	533	30	1028	1058
05:30 PM	19	79	52	1	150	45	272	40	1	357	8	50	39	2	97	66	350	67	4	483	8	1087	1095
05:45 PM	21	44	52	2	117	51	152	28	3	231	18	39	42	1	99	55	412	45	2	512	8	959	967
Total	79	214	223	12	516	177	906	112	22	1195	45	156	178	5	379	239	1604	230	26	2073	65	4163	4228
Grand Total	420	576	769	82	1765	719	4661	289	122	5669	133	720	651	17	1504	567	4386	727	138	5680	359	14618	14977
Approch %	23.8	32.6	43.6			12.7	82.2	5.1			8.8	47.9	43.3			10	77.2	12.8					
Total %	2.9	3.9	5.3		12.1	4.9	31.9	2		38.8	0.9	4.9	4.5		10.3	3.9	30	5		38.9	2.4	97.6	

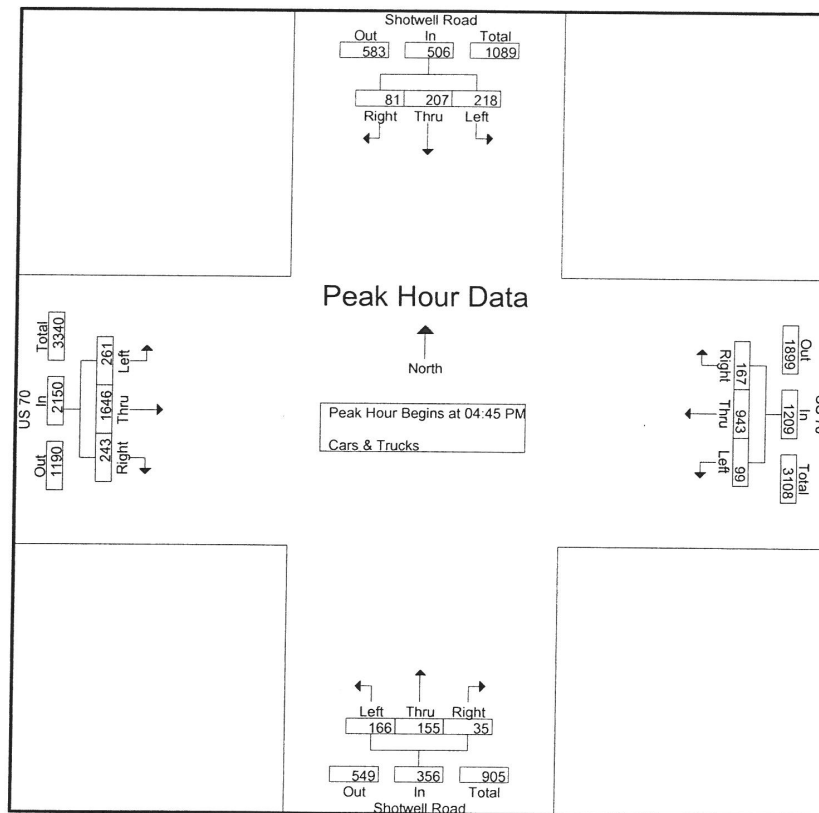


RAMEY KEMP & ASSOCIATES TRANSPORTATION ENGINEERS

5808 Faringdon Place, Suite 100
Raleigh, NC 27609
PH: 919 872-5115
FX: 919 878-5416

File Name : Shotwell Road and US 70
Site Code : 00051717
Start Date : 5/17/2017
Page No : 3

	Shotwell Road Southbound				US 70 Westbound				Shotwell Road Northbound				US 70 Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	2	37	47	107	41	189	15	245	8	38	30	76	59	414	76	549	1017
05:00 PM	19	45	64	128	43	242	19	304	13	42	57	112	62	414	69	545	1089
05:15 PM	20	46	55	121	38	240	25	303	6	25	40	71	56	428	49	533	1028
05:30 PM	19	79	52	150	45	272	40	357	8	50	39	97	66	350	67	483	1087
Total Volume	81	207	218	506	167	943	99	1209	35	155	166	356	243	1646	261	2150	4221
% App. Total	16	40.9	43.1		13.8	78	8.2		9.8	43.5	46.6		11.3	76.6	12.1		
PHF	.880	.655	.852	.843	.928	.867	.619	.847	.673	.775	.728	.795	.920	.906	.859	.913	.969

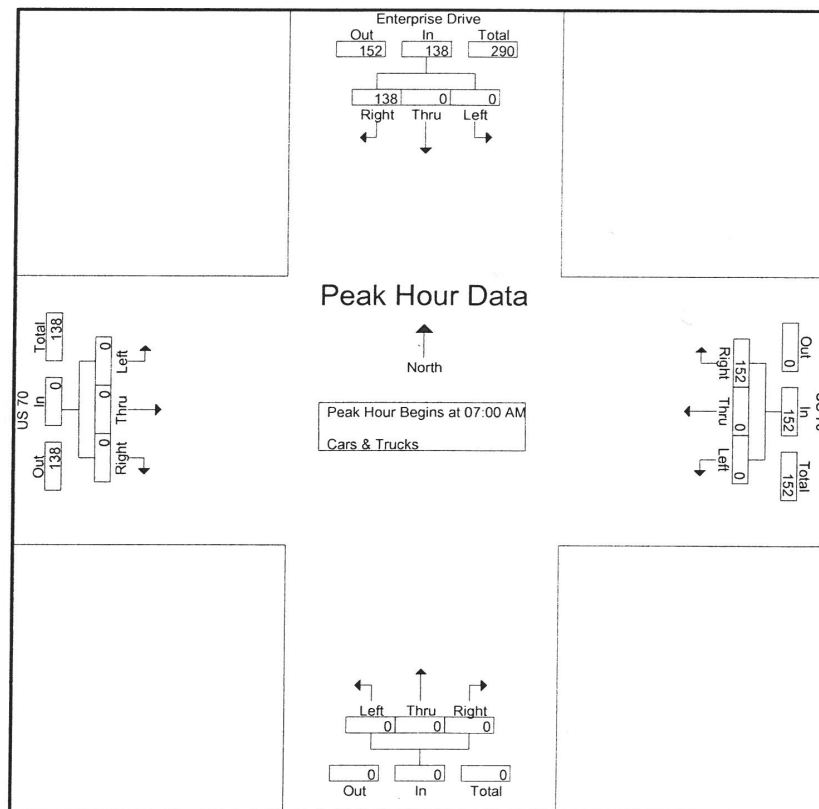




5808 Faringdon Place, Suite 100
 Raleigh, NC 27609
 PH: 919 872-5115
 FX: 919 878-5416

File Name : US 70 and Enterprise Drive
 Site Code : 00051817
 Start Date : 5/18/2017
 Page No : 2

	Enterprise Drive Southbound				US 70 Westbound				Northbound				US 70 Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	32	0	0	32	41	0	0	41	0	0	0	0	0	0	0	0	73
07:15 AM	26	0	0	26	42	0	0	42	0	0	0	0	0	0	0	0	68
07:30 AM	37	0	0	37	27	0	0	27	0	0	0	0	0	0	0	0	64
07:45 AM	43	0	0	43	42	0	0	42	0	0	0	0	0	0	0	0	85
Total Volume	138	0	0	138	152	0	0	152	0	0	0	0	0	0	0	0	290
% App. Total	100	0	0		100	0	0		0	0	0		0	0	0		
PHF	.802	.000	.000	.802	.905	.000	.000	.905	.000	.000	.000	.000	.000	.000	.000	.000	.853





RAMEY KEMP & ASSOCIATES

TRANSPORTATION ENGINEERS

5808 Faringdon Place, Suite 100
Raleigh, NC 27609
PH: 919 872-5115
FX: 919 878-5416

File Name : Shotwell Road and Cameron Way
Site Code : 00051717
Start Date : 5/18/2017
Page No : 1

Groups Printed- Cars & Trucks

Start Time	Shotwell Road Southbound					Cameron Way Westbound					Shotwell Road Northbound					Stallings Mill Apartments Eastbound					Exclu. Total	Inclu. Total	Int. Total
	Right	Thru	Left	TRKS	App. Total	Right	Thru	Left	TRKS	App. Total	Right	Thru	Left	TRKS	App. Total	Right	Thru	Left	TRKS	App. Total			
07:00 AM	0	63	16	8	79	12	0	9	0	21	1	101	0	4	102	0	0	0	0	0	12	202	214
07:15 AM	0	88	7	5	95	5	1	15	0	21	7	154	0	1	161	1	0	1	0	2	6	279	285
07:30 AM	1	86	7	1	94	7	1	7	0	15	8	97	1	1	106	1	0	0	0	1	2	216	218
07:45 AM	0	93	14	1	107	5	0	8	0	13	9	134	0	9	143	0	0	0	0	0	10	263	273
Total	1	330	44	15	375	29	2	39	0	70	25	486	1	15	512	2	0	1	0	3	30	960	990
08:00 AM	0	97	4	7	101	7	0	7	0	14	4	87	1	1	92	1	0	1	0	2	8	209	217
08:15 AM	0	95	15	6	110	9	0	10	0	19	2	95	1	4	98	1	0	0	0	1	10	228	238
08:30 AM	1	80	7	4	88	9	0	1	1	10	8	77	3	4	88	0	0	2	0	2	9	188	197
08:45 AM	0	102	5	7	107	4	0	10	0	14	7	68	0	0	75	2	0	0	0	2	7	198	205
Total	1	374	31	24	406	29	0	28	1	57	21	327	5	9	353	4	0	3	0	7	34	823	857
*** BREAK ***																							
04:00 PM	0	109	5	2	114	8	0	10	0	18	8	98	0	9	106	6	0	1	0	7	11	245	256
04:15 PM	1	95	10	3	106	4	0	6	0	10	1	108	1	5	110	3	0	0	0	3	8	229	237
04:30 PM	0	132	4	4	136	7	0	4	0	11	8	118	2	4	128	1	0	0	0	1	8	276	284
04:45 PM	1	141	8	5	150	8	0	12	0	20	9	121	2	2	132	0	0	0	0	0	7	302	309
Total	2	477	27	14	506	27	0	32	0	59	26	445	5	20	476	10	0	1	0	11	34	1052	1086
05:00 PM	1	124	6	2	131	6	0	7	0	13	2	138	0	4	140	4	0	1	0	5	6	289	295
05:15 PM	2	142	7	4	151	12	0	10	0	22	12	127	1	6	140	1	0	1	0	2	10	315	325
05:30 PM	0	132	15	1	147	11	0	9	0	20	9	116	0	3	125	2	1	0	0	3	4	295	299
05:45 PM	4	116	10	0	130	8	0	7	0	15	4	90	0	5	94	2	0	0	0	2	5	241	246
Total	7	514	38	7	559	37	0	33	0	70	27	471	1	18	499	9	1	2	0	12	25	1140	1165
Grand Total	11	1695	140	60	1846	122	2	132	1	256	99	1729	12	62	1840	25	1	7	0	33	123	3975	4098
Apprch %	0.6	91.8	7.6			47.7	0.8	51.6			5.4	94	0.7			75.8	3	21.2					
Total %	0.3	42.6	3.5		46.4	3.1	0.1	3.3		6.4	2.5	43.5	0.3		46.3	0.6	0	0.2		0.8	3	97	

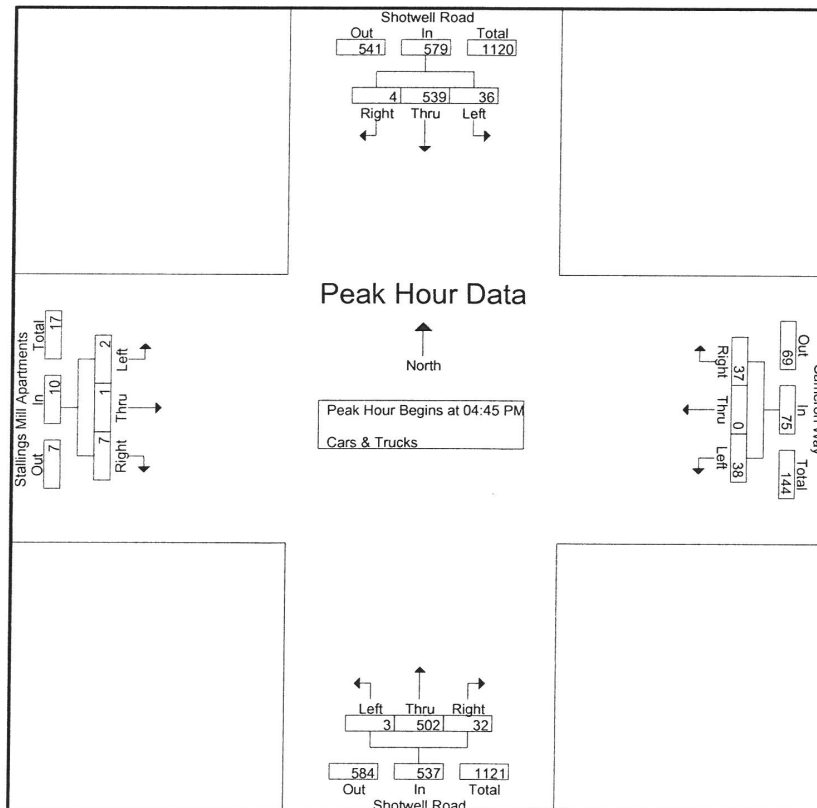


RAMEY KEMP & ASSOCIATES TRANSPORTATION ENGINEERS

5808 Faringdon Place, Suite 100
Raleigh, NC 27609
PH: 919 872-5115
FX: 919 878-5416

File Name : Shotwell Road and Cameron Way
Site Code : 00051717
Start Date : 5/18/2017
Page No : 3

	Shotwell Road Southbound				Cameron Way Westbound				Shotwell Road Northbound				Stallings Mill Apartments Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	1	141	8	150	8	0	12	20	9	121	2	132	0	0	0	0	302
05:00 PM	1	124	6	131	6	0	7	13	2	118	0	120	4	0	1	5	289
05:15 PM	2	142	7	151	12	0	10	22	12	127	1	140	1	0	1	2	315
05:30 PM	0	132	15	147	11	0	9	20	9	116	0	125	2	1	0	3	295
Total Volume	4	539	36	579	37	0	38	75	32	502	3	537	7	1	2	10	1201
% App. Total	0.7	93.1	6.2		49.3	0	50.7		6	93.5	0.6		70	10	20		
PHF	.500	.949	.600	.959	.771	.000	.792	.852	.667	.909	.375	.959	.438	.250	.500	.500	.953



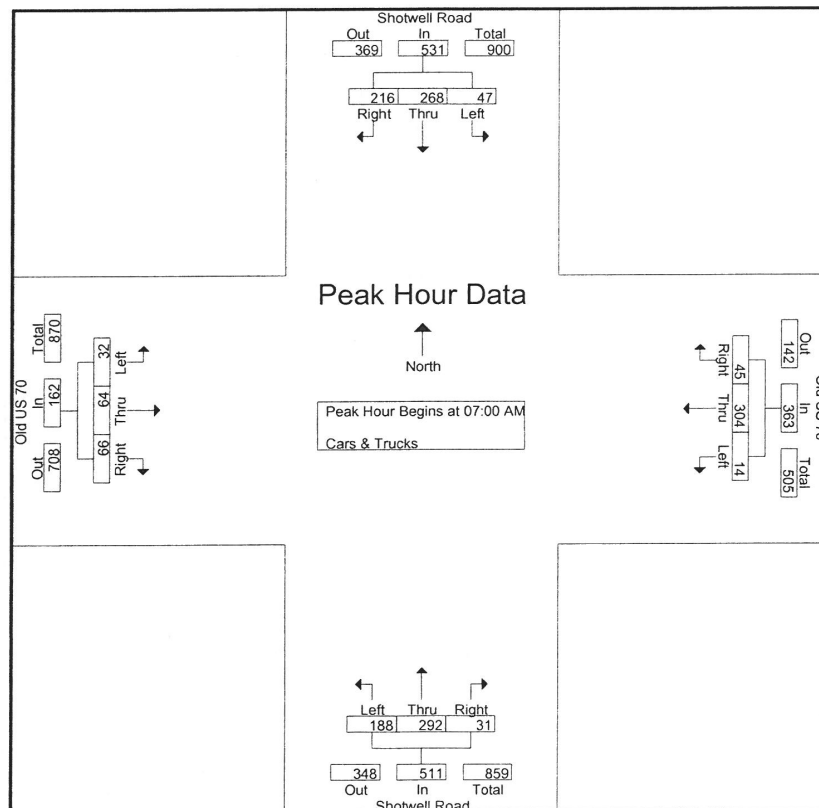


RAMEY KEMP & ASSOCIATES TRANSPORTATION ENGINEERS

5808 Faringdon Place, Suite 100
Raleigh, NC 27609
PH: 919 872-5115
FX: 919 878-5416

File Name : Old US 70 and Shotwell Road
Site Code : 00052317
Start Date : 5/23/2017
Page No : 2

	Shotwell Road Southbound				Old US 70 Westbound				Shotwell Road Northbound				Old US 70 Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	56	58	9	123	19	87	3	111	8	74	50	132	16	20	8	44	410
07:15 AM	61	64	10	135	15	96	3	114	7	77	58	142	15	12	10	37	428
07:30 AM	57	54	12	123	5	84	4	93	7	78	50	135	13	17	9	39	390
07:45 AM	42	92	16	150	6	37	2	45	9	63	30	102	22	15	5	42	339
Total Volume	216	268	47	531	45	304	14	363	31	292	188	511	66	64	32	162	1567
% App. Total	40.7	50.5	8.9		12.4	83.7	3.9		6.1	57.1	36.8		40.7	39.5	19.8		
PHF	.885	.728	.734	.885	.592	.792	.700	.796	.861	.936	.810	.900	.750	.800	.800	.920	.915





**RAMEY KEMP
&
ASSOCIATES**
TRANSPORTATION ENGINEERS

5808 Faringdon Place, Suite 100
Raleigh, NC 27609
PH: 919 872-5115
FX: 919 878-5416

File Name : Shotwell Road and Executive Drive
Site Code : 00052317
Start Date : 5/23/2017
Page No : 1

Groups Printed- Cars & Trucks

Start Time	Shotwell Road Southbound					Executive Drive Westbound					Shotwell Road Northbound					Eastbound					Excl. Total	Incl. Total	Int. Total
	Right	Thru	Left	TRKS	App. Total	Right	Thru	Left	TRKS	App. Total	Right	Thru	Left	TRKS	App. Total	Right	Thru	Left	TRKS	App. Total			
07:00 AM	0	0	0	0	0	5	0	0	0	5	5	0	0	0	5	0	0	0	0	0	0	10	10
07:15 AM	0	0	0	0	0	12	0	0	1	12	1	0	0	0	1	0	0	0	0	0	1	13	14
07:30 AM	0	0	0	0	0	3	0	0	0	3	7	0	0	0	7	0	0	0	0	0	0	10	10
07:45 AM	0	0	0	0	0	2	0	0	0	2	12	0	0	0	12	0	0	0	0	0	0	14	14
Total	0	0	0	0	0	22	0	0	1	22	25	0	0	0	25	0	0	0	0	0	1	47	48
08:00 AM	0	0	0	0	0	2	0	0	0	2	4	0	0	0	4	0	0	0	0	0	0	6	6
08:15 AM	0	0	0	0	0	6	0	0	0	6	23	0	0	0	23	0	0	0	0	0	0	29	29
08:30 AM	0	0	0	0	0	14	0	0	0	14	10	0	0	0	10	0	0	0	0	0	0	24	24
08:45 AM	0	0	0	0	0	5	0	0	0	5	10	0	0	0	10	0	0	0	0	0	0	15	15
Total	0	0	0	0	0	27	0	0	0	27	47	0	0	0	47	0	0	0	0	0	0	74	74
*** BREAK ***																							
04:00 PM	0	0	0	0	0	12	0	0	0	12	6	0	0	0	6	0	0	0	0	0	0	18	18
04:15 PM	0	0	0	0	0	9	0	0	1	9	8	0	0	0	8	0	0	0	0	0	1	17	18
04:30 PM	0	0	0	0	0	10	0	0	0	10	7	0	0	0	7	0	0	0	0	0	0	17	17
04:45 PM	0	0	0	0	0	5	0	0	0	5	8	0	0	0	8	0	0	0	0	0	0	13	13
Total	0	0	0	0	0	36	0	0	1	36	29	0	0	0	29	0	0	0	0	0	1	65	66
05:00 PM	0	0	0	0	0	6	0	0	0	6	3	0	0	0	3	0	0	0	0	0	0	9	9
05:15 PM	0	0	0	0	0	8	0	0	0	8	7	0	0	0	7	0	0	0	0	0	0	15	15
05:30 PM	0	0	0	0	0	6	0	0	0	6	4	0	0	0	4	0	0	0	0	0	0	10	10
05:45 PM	0	0	0	0	0	4	0	0	0	4	8	0	0	0	8	0	0	0	0	0	0	12	12
Total	0	0	0	0	0	24	0	0	0	24	22	0	0	0	22	0	0	0	0	0	0	46	46
Grand Total	0	0	0	0	0	109	0	0	2	109	123	0	0	0	123	0	0	0	0	0	2	232	234
Apprch %	0	0	0			100	0	0			100	0	0			0	0	0					
Total %	0	0	0			47	0	0		47	53	0	0		53	0	0	0			0.9	99.1	

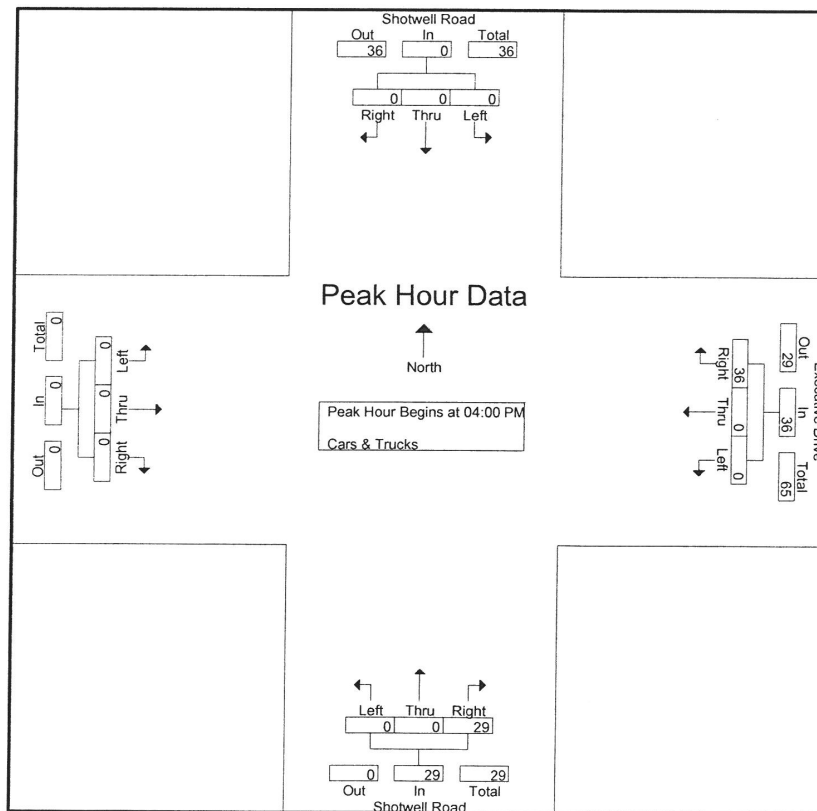


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Page No : 3

	Shotwell Road Southbound				Executive Drive Westbound				Shotwell Road Northbound				Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	12	0	0	12	6	0	0	6	0	0	0	0	18
04:15 PM	0	0	0	0	9	0	0	9	8	0	0	8	0	0	0	0	17
04:30 PM	0	0	0	0	10	0	0	10	7	0	0	7	0	0	0	0	17
04:45 PM	0	0	0	0	5	0	0	5	8	0	0	8	0	0	0	0	13
Total Volume	0	0	0	0	36	0	0	36	29	0	0	29	0	0	0	0	65
% App. Total	0	0	0	0	100	0	0	100	100	0	0	100	0	0	0	0	100
PHF	.000	.000	.000	.000	.750	.000	.000	.750	.906	.000	.000	.906	.000	.000	.000	.000	.903



APPENDIX B

SIGNAL PLANS

Shotwell Apartments

Clayton, NC

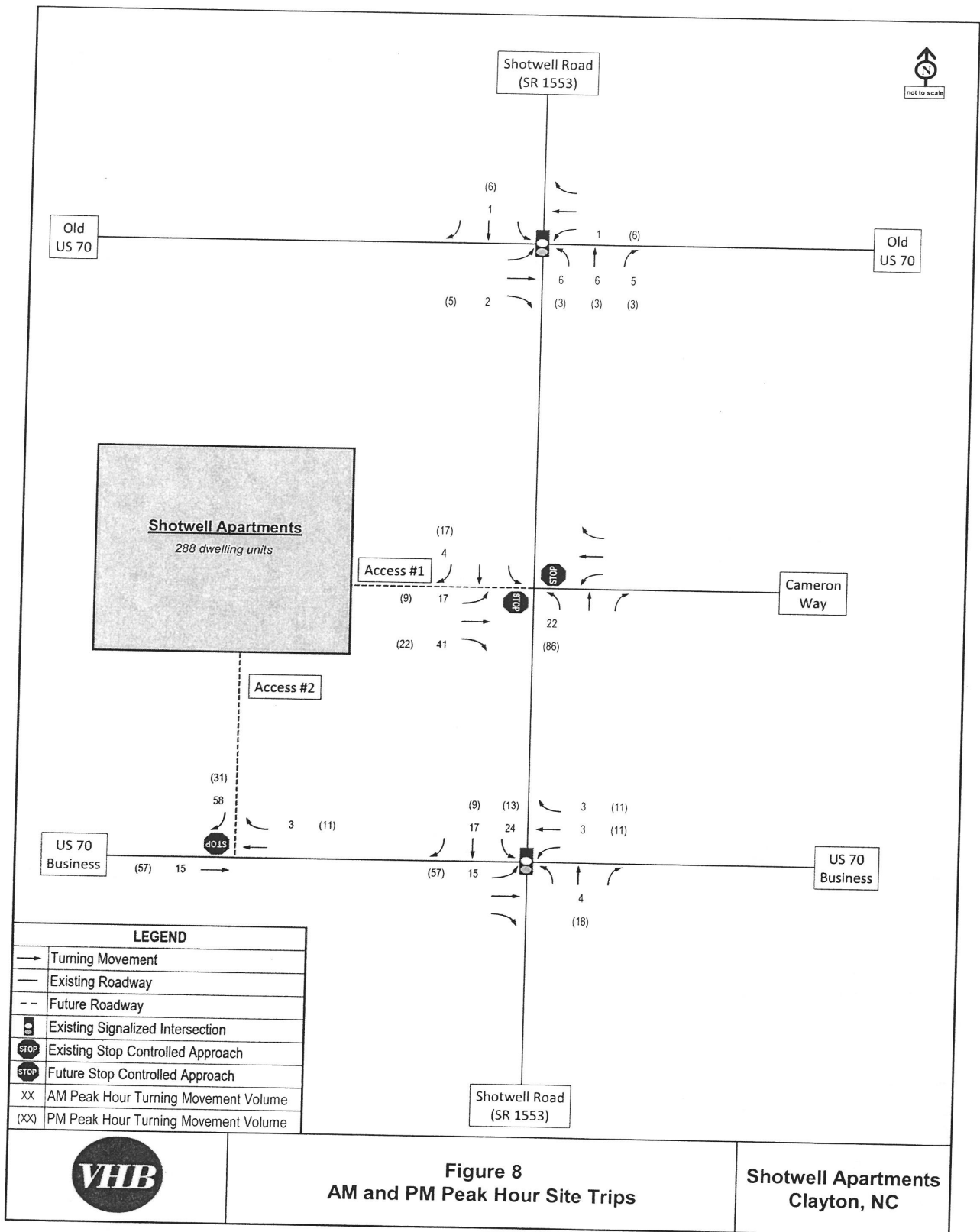
Prepared for **Caviness and Cates, LLC**
c/o Maggie Lockwood, CAM, NC Broker
639 Executive Place, Suite 400
Fayetteville, NC 28305

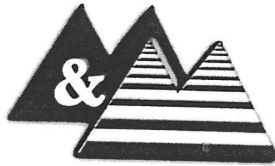
Prepared by **VHB Engineering NC, P.C. (C-3705)**
4000 Westchase Boulevard, Suite 530
Raleigh, NC 27607
919.829.0328 • Fax 919.829.0329
www.vhb.com

August 30, 2013



Transportation | Land Development | Environmental





Traffic Impact Analysis

For

“Creech Subdivision”

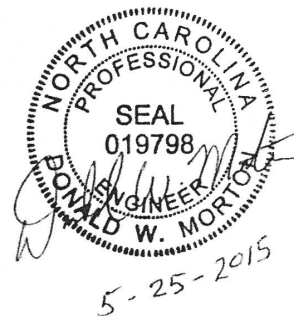
**Site Plan Development
Clayton, Johnston County, North Carolina**

Morton & Morton

Design Services, PLLC

4700 Homewood CT, Suite 200
Raleigh, North Carolina 27609
(919) 882-6066

May 25, 2015



APPENDIX D

FUTURE ROADWAY IMPROVEMENTS

AREA #1 – SHOTWELL ROAD TO MOORE STREET



APPENDIX E

CAPACITY ANALYSIS CALCULATIONS US HIGHWAY 70 BUSINESS & SHOTWELL ROAD

Lanes, Volumes, Timings
1: Shotwell Road & US Highway 70

Existing (2017) AM
6/13/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	657	62	44	1682	266	165	213	12	178	107	104
Future Volume (vph)	74	657	62	44	1682	266	165	213	12	178	107	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	775		475	175		150	275		0	0		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.992			0.926	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	5085	1583	1770	1848	0	1770	1725	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	5085	1583	1770	1848	0	1770	1725	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			45	
Link Distance (ft)		2628			576			500			338	
Travel Time (s)		39.8			8.7			9.7			5.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	82	730	69	49	1869	296	183	237	13	198	119	116
Shared Lane Traffic (%)												
Lane Group Flow (vph)	82	730	69	49	1869	296	183	250	0	198	235	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases			2			6						
Detector Phase	5	2	2	1	6	6	3	3		4	4	
Switch Phase												
Minimum Initial (s)	7.0	12.0	12.0	7.0	12.0	12.0	7.0	7.0		7.0	7.0	
Minimum Split (s)	13.3	18.0	18.0	13.5	17.6	17.6	13.2	13.2		13.6	13.6	
Total Split (s)	26.0	73.0	73.0	22.0	69.0	69.0	30.0	30.0		25.0	25.0	
Total Split (%)	17.3%	48.7%	48.7%	14.7%	46.0%	46.0%	20.0%	20.0%		16.7%	16.7%	
Maximum Green (s)	19.7	67.0	67.0	15.5	63.4	63.4	23.8	23.8		18.4	18.4	
Yellow Time (s)	3.0	4.7	4.7	3.0	4.3	4.3	3.7	3.7		4.7	4.7	
All-Red Time (s)	3.3	1.3	1.3	3.5	1.3	1.3	2.5	2.5		1.9	1.9	
Lost Time Adjust (s)	-1.3	-1.0	-1.0	-1.5	-0.6	-0.6	-1.2	-1.2		-1.6	-1.6	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	15.0	15.0	0.0	15.0	15.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	30.0	30.0	0.0	30.0	30.0	0.0	0.0		0.0	0.0	
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	
Act Effect Green (s)	13.6	75.8	75.8	11.2	70.7	70.7	23.7	23.7		22.0	22.0	
Actuated g/C Ratio	0.09	0.51	0.51	0.07	0.47	0.47	0.16	0.16		0.15	0.15	
v/c Ratio	0.51	0.41	0.09	0.37	0.78	0.40	0.65	0.86		0.76	0.93	
Control Delay	75.6	24.8	21.1	73.2	36.3	28.3	70.8	87.4		81.5	103.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	75.6	24.8	21.1	73.2	36.3	28.3	70.8	87.4		81.5	103.9	

Shotwell Road Residential
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Lanes, Volumes, Timings
1: Shotwell Road & US Highway 70

Existing (2017) PM
6/13/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			  						 	
Traffic Volume (vph)	261	1646	243	99	943	167	166	155	35	218	207	81
Future Volume (vph)	261	1646	243	99	943	167	166	155	35	218	207	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	775		475	175		150	275		0	0		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.972			0.958	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	5085	1583	1770	1811	0	1770	1785	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	5085	1583	1770	1811	0	1770	1785	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			45	
Link Distance (ft)		2628			576			500			338	
Travel Time (s)		39.8			8.7			9.7			5.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	290	1829	270	110	1048	186	184	172	39	242	230	90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	290	1829	270	110	1048	186	184	211	0	242	320	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases			2			6						
Detector Phase	5	2	2	1	6	6	3	3		4	4	
Switch Phase												
Minimum Initial (s)	7.0	12.0	12.0	7.0	12.0	12.0	7.0	7.0		7.0	7.0	
Minimum Split (s)	13.3	18.0	18.0	13.5	17.6	17.6	13.2	13.2		13.6	13.6	
Total Split (s)	33.0	93.0	93.0	22.0	82.0	82.0	35.0	35.0		30.0	30.0	
Total Split (%)	18.3%	51.7%	51.7%	12.2%	45.6%	45.6%	19.4%	19.4%		16.7%	16.7%	
Maximum Green (s)	26.7	87.0	87.0	15.5	76.4	76.4	28.8	28.8		23.4	23.4	
Yellow Time (s)	3.0	4.7	4.7	3.0	4.3	4.3	3.7	3.7		4.7	4.7	
All-Red Time (s)	3.3	1.3	1.3	3.5	1.3	1.3	2.5	2.5		1.9	1.9	
Lost Time Adjust (s)	-1.3	-1.0	-1.0	-1.5	-0.6	-0.6	-1.2	-1.2		-1.6	-1.6	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	15.0	15.0	0.0	15.0	15.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	30.0	30.0	0.0	30.0	30.0	0.0	0.0		0.0	0.0	
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	
Act Effct Green (s)	28.0	89.3	89.3	15.7	77.0	77.0	26.1	26.1		28.9	28.9	
Actuated g/C Ratio	0.16	0.50	0.50	0.09	0.43	0.43	0.14	0.14		0.16	0.16	
v/c Ratio	1.05	1.04	0.34	0.71	0.48	0.27	0.72	0.81		0.85	1.12	
Control Delay	138.8	76.8	29.4	104.4	38.1	34.8	88.9	96.8		98.4	152.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	138.8	76.8	29.4	104.4	38.1	34.8	88.9	96.8		98.4	152.7	

Shotwell Road Residential
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Lanes, Volumes, Timings
1: Shotwell Road & US Highway 70

Background (2019) AM
6/13/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			  		 				 	
Traffic Volume (vph)	112	697	66	47	1787	308	175	241	13	242	143	136
Future Volume (vph)	112	697	66	47	1787	308	175	241	13	242	143	136
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	775		475	350		150	200		0	0		0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.993			0.927	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	5085	1583	3433	1850	0	1770	1727	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	5085	1583	3433	1850	0	1770	1727	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			45	
Link Distance (ft)		2628			576			500			338	
Travel Time (s)		39.8			8.7			9.7			5.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	124	774	73	52	1986	342	194	268	14	269	159	151
Shared Lane Traffic (%)												
Lane Group Flow (vph)	124	774	73	52	1986	342	194	282	0	269	310	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases			2			6						
Detector Phase	5	2	2	1	6	6	3	3		4	4	
Switch Phase												
Minimum Initial (s)	7.0	12.0	12.0	7.0	12.0	12.0	7.0	7.0		7.0	7.0	
Minimum Split (s)	13.3	18.0	18.0	13.5	17.6	17.6	13.2	13.2		13.6	13.6	
Total Split (s)	26.0	73.0	73.0	22.0	69.0	69.0	30.0	30.0		25.0	25.0	
Total Split (%)	17.3%	48.7%	48.7%	14.7%	46.0%	46.0%	20.0%	20.0%		16.7%	16.7%	
Maximum Green (s)	19.7	67.0	67.0	15.5	63.4	63.4	23.8	23.8		18.4	18.4	
Yellow Time (s)	3.0	4.7	4.7	3.0	4.3	4.3	3.7	3.7		4.7	4.7	
All-Red Time (s)	3.3	1.3	1.3	3.5	1.3	1.3	2.5	2.5		1.9	1.9	
Lost Time Adjust (s)	-1.3	-1.0	-1.0	-1.5	-0.6	-0.6	-1.2	-1.2		-1.6	-1.6	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	15.0	15.0	0.0	15.0	15.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	30.0	30.0	0.0	30.0	30.0	0.0	0.0		0.0	0.0	
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	
Act Effct Green (s)	16.7	75.8	75.8	11.5	67.9	67.9	24.7	24.7		20.7	20.7	
Actuated g/C Ratio	0.11	0.51	0.51	0.08	0.45	0.45	0.16	0.16		0.14	0.14	
v/c Ratio	0.63	0.43	0.09	0.39	0.86	0.48	0.34	0.92		1.10	1.30	
Control Delay	77.5	25.3	21.3	73.4	42.1	32.1	57.3	96.8		145.2	212.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	77.5	25.3	21.3	73.4	42.1	32.1	57.3	96.8		145.2	212.1	

Shotwell Road Residential
RKA

Synchro 9 Report
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Lanes, Volumes, Timings
1: Shotwell Road & US Highway 70

Background (2019) PM
6/13/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	386	1735	258	105	996	238	176	199	37	288	245	122
Future Volume (vph)	386	1735	258	105	996	238	176	199	37	288	245	122
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	775		475	350		150	200		0	0		0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.977			0.950	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	5085	1583	3433	1820	0	1770	1770	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	5085	1583	3433	1820	0	1770	1770	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			45	
Link Distance (ft)		2628			576			500			338	
Travel Time (s)		39.8			8.7			9.7			5.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	429	1928	287	117	1107	264	196	221	41	320	272	136
Shared Lane Traffic (%)												
Lane Group Flow (vph)	429	1928	287	117	1107	264	196	262	0	320	408	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases			2			6						
Detector Phase	5	2	2	1	6	6	3	3		4	4	
Switch Phase												
Minimum Initial (s)	7.0	12.0	12.0	7.0	12.0	12.0	7.0	7.0		7.0	7.0	
Minimum Split (s)	13.3	18.0	18.0	13.5	17.6	17.6	13.2	13.2		13.6	13.6	
Total Split (s)	33.0	93.0	93.0	22.0	82.0	82.0	35.0	35.0		30.0	30.0	
Total Split (%)	18.3%	51.7%	51.7%	12.2%	45.6%	45.6%	19.4%	19.4%		16.7%	16.7%	
Maximum Green (s)	26.7	87.0	87.0	15.5	76.4	76.4	28.8	28.8		23.4	23.4	
Yellow Time (s)	3.0	4.7	4.7	3.0	4.3	4.3	3.7	3.7		4.7	4.7	
All-Red Time (s)	3.3	1.3	1.3	3.5	1.3	1.3	2.5	2.5		1.9	1.9	
Lost Time Adjust (s)	-1.3	-1.0	-1.0	-1.5	-0.6	-0.6	-1.2	-1.2		-1.6	-1.6	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	15.0	15.0	0.0	15.0	15.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	30.0	30.0	0.0	30.0	30.0	0.0	0.0		0.0	0.0	
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	
Act Effct Green (s)	28.0	88.9	88.9	16.1	77.0	77.0	29.0	29.0		26.0	26.0	
Actuated g/C Ratio	0.16	0.49	0.49	0.09	0.43	0.43	0.16	0.16		0.14	0.14	
v/c Ratio	1.56	1.10	0.37	0.74	0.51	0.39	0.36	0.90		1.25	1.60	
Control Delay	314.1	97.6	30.1	106.4	38.7	37.5	68.9	104.8		199.8	331.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	314.1	97.6	30.1	106.4	38.7	37.5	68.9	104.8		199.8	331.2	

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Lanes, Volumes, Timings
1: Shotwell Road & US Highway 70

Combined (2019) AM
6/13/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	117	697	66	47	1801	308	175	242	13	256	146	147
Future Volume (vph)	117	697	66	47	1801	308	175	242	13	256	146	147
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	775		475	350		150	200		0	0		0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.993			0.925	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	5085	1583	3433	1850	0	1770	1723	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	5085	1583	3433	1850	0	1770	1723	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			45	
Link Distance (ft)		2628			576			500			338	
Travel Time (s)		39.8			8.7			9.7			5.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	130	774	73	52	2001	342	194	269	14	284	162	163
Shared Lane Traffic (%)												
Lane Group Flow (vph)	130	774	73	52	2001	342	194	283	0	284	325	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases			2			6						
Detector Phase	5	2	2	1	6	6	3	3		4	4	
Switch Phase												
Minimum Initial (s)	7.0	12.0	12.0	7.0	12.0	12.0	7.0	7.0		7.0	7.0	
Minimum Split (s)	13.3	18.0	18.0	13.5	17.6	17.6	13.2	13.2		13.6	13.6	
Total Split (s)	26.0	73.0	73.0	22.0	69.0	69.0	30.0	30.0		25.0	25.0	
Total Split (%)	17.3%	48.7%	48.7%	14.7%	46.0%	46.0%	20.0%	20.0%		16.7%	16.7%	
Maximum Green (s)	19.7	67.0	67.0	15.5	63.4	63.4	23.8	23.8		18.4	18.4	
Yellow Time (s)	3.0	4.7	4.7	3.0	4.3	4.3	3.7	3.7		4.7	4.7	
All-Red Time (s)	3.3	1.3	1.3	3.5	1.3	1.3	2.5	2.5		1.9	1.9	
Lost Time Adjust (s)	-1.3	-1.0	-1.0	-1.5	-0.6	-0.6	-1.2	-1.2		-1.6	-1.6	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	15.0	15.0	0.0	15.0	15.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	30.0	30.0	0.0	30.0	30.0	0.0	0.0		0.0	0.0	
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	
Act Effect Green (s)	17.1	76.0	76.0	11.5	67.7	67.7	24.7	24.7		20.5	20.5	
Actuated g/C Ratio	0.11	0.51	0.51	0.08	0.45	0.45	0.16	0.16		0.14	0.14	
v/c Ratio	0.65	0.43	0.09	0.39	0.87	0.48	0.34	0.93		1.17	1.38	
Control Delay	78.0	25.2	21.3	73.4	42.8	32.3	57.3	97.3		167.2	242.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	78.0	25.2	21.3	73.4	42.8	32.3	57.3	97.3		167.2	242.6	

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Lanes, Volumes, Timings
1: Shotwell Road & US Highway 70

Combined (2019) PM
6/13/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	410	1735	258	105	1003	238	176	202	37	295	246	127
Future Volume (vph)	410	1735	258	105	1003	238	176	202	37	295	246	127
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	775		475	350		150	200		0	0		0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.977			0.949	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	5085	1583	3433	1820	0	1770	1768	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	5085	1583	3433	1820	0	1770	1768	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			45	
Link Distance (ft)		2628			576			500			338	
Travel Time (s)		39.8			8.7			9.7			5.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	456	1928	287	117	1114	264	196	224	41	328	273	141
Shared Lane Traffic (%)												
Lane Group Flow (vph)	456	1928	287	117	1114	264	196	265	0	328	414	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases			2			6						
Detector Phase	5	2	2	1	6	6	3	3		4	4	
Switch Phase												
Minimum Initial (s)	7.0	12.0	12.0	7.0	12.0	12.0	7.0	7.0		7.0	7.0	
Minimum Split (s)	13.3	18.0	18.0	13.5	17.6	17.6	13.2	13.2		13.6	13.6	
Total Split (s)	33.0	93.0	93.0	22.0	82.0	82.0	35.0	35.0		30.0	30.0	
Total Split (%)	18.3%	51.7%	51.7%	12.2%	45.6%	45.6%	19.4%	19.4%		16.7%	16.7%	
Maximum Green (s)	26.7	87.0	87.0	15.5	76.4	76.4	28.8	28.8		23.4	23.4	
Yellow Time (s)	3.0	4.7	4.7	3.0	4.3	4.3	3.7	3.7		4.7	4.7	
All-Red Time (s)	3.3	1.3	1.3	3.5	1.3	1.3	2.5	2.5		1.9	1.9	
Lost Time Adjust (s)	-1.3	-1.0	-1.0	-1.5	-0.6	-0.6	-1.2	-1.2		-1.6	-1.6	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	15.0	15.0	0.0	15.0	15.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	30.0	30.0	0.0	30.0	30.0	0.0	0.0		0.0	0.0	
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	
Act Effect Green (s)	28.0	88.9	88.9	16.1	77.0	77.0	29.0	29.0		26.0	26.0	
Actuated g/C Ratio	0.16	0.49	0.49	0.09	0.43	0.43	0.16	0.16		0.14	0.14	
v/c Ratio	1.66	1.10	0.37	0.74	0.51	0.39	0.35	0.90		1.29	1.63	
Control Delay	353.8	97.6	30.1	106.4	38.8	37.5	68.9	106.0		211.9	342.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	353.8	97.6	30.1	106.4	38.8	37.5	68.9	106.0		211.9	342.9	

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Lanes, Volumes, Timings
1: Shotwell Road & US Highway 70

Alternate Scenario Combined (2019) PM
6/13/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	407	1738	258	106	1008	238	176	202	37	288	245	122
Future Volume (vph)	407	1738	258	106	1008	238	176	202	37	288	245	122
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	775		475	350		150	200		0	0		0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.977			0.950	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	5085	1583	3433	1820	0	1770	1770	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	5085	1583	3433	1820	0	1770	1770	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			45	
Link Distance (ft)		2628			576			500			338	
Travel Time (s)		39.8			8.7			9.7			5.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	452	1931	287	118	1120	264	196	224	41	320	272	136
Shared Lane Traffic (%)												
Lane Group Flow (vph)	452	1931	287	118	1120	264	196	265	0	320	408	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases			2			6						
Detector Phase	5	2	2	1	6	6	3	3		4	4	
Switch Phase												
Minimum Initial (s)	7.0	12.0	12.0	7.0	12.0	12.0	7.0	7.0		7.0	7.0	
Minimum Split (s)	13.3	18.0	18.0	13.5	17.6	17.6	13.2	13.2		13.6	13.6	
Total Split (s)	33.0	93.0	93.0	22.0	82.0	82.0	35.0	35.0		30.0	30.0	
Total Split (%)	18.3%	51.7%	51.7%	12.2%	45.6%	45.6%	19.4%	19.4%		16.7%	16.7%	
Maximum Green (s)	26.7	87.0	87.0	15.5	76.4	76.4	28.8	28.8		23.4	23.4	
Yellow Time (s)	3.0	4.7	4.7	3.0	4.3	4.3	3.7	3.7		4.7	4.7	
All-Red Time (s)	3.3	1.3	1.3	3.5	1.3	1.3	2.5	2.5		1.9	1.9	
Lost Time Adjust (s)	-1.3	-1.0	-1.0	-1.5	-0.6	-0.6	-1.2	-1.2		-1.6	-1.6	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	15.0	15.0	0.0	15.0	15.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	30.0	30.0	0.0	30.0	30.0	0.0	0.0		0.0	0.0	
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	
Act Effect Green (s)	28.0	88.9	88.9	16.1	77.0	77.0	29.0	29.0		26.0	26.0	
Actuated g/C Ratio	0.16	0.49	0.49	0.09	0.43	0.43	0.16	0.16		0.14	0.14	
v/c Ratio	1.64	1.10	0.37	0.75	0.51	0.39	0.35	0.90		1.25	1.60	
Control Delay	347.9	98.4	30.1	106.9	38.8	37.5	68.9	106.0		200.9	332.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	347.9	98.4	30.1	106.9	38.8	37.5	68.9	106.0		200.9	332.8	

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APPENDIX F

CAPACITY ANALYSIS CALCULATIONS

US HIGHWAY 70 BUSINESS

&

ENTERPRISE DRIVE

HCM 2010 TWSC
2: US Highway 70 & Enterprise Drive

Existing (2017) AM
6/13/2017

Intersection

Int Delay, s/veh 3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑↑↑		↑↑↑	↑		↑
Traffic Vol, veh/h	0	847	1854	152	0	138
Future Vol, veh/h	0	847	1854	152	0	138
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	None
Storage Length	-	-	-	125	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	941	2060	169	0	153

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	- 0	- 0	- 1030
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -
Critical Hdwy	- -	- -	- 7.14
Critical Hdwy Stg 1	- -	- -	- -
Critical Hdwy Stg 2	- -	- -	- -
Follow-up Hdwy	- -	- -	- 3.92
Pot Cap-1 Maneuver	0 -	- -	0 198
Stage 1	0 -	- -	0 -
Stage 2	0 -	- -	0 -
Platoon blocked, %	- -	- -	- -
Mov Cap-1 Maneuver	- -	- -	- 198
Mov Cap-2 Maneuver	- -	- -	- -
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	66.8
HCM LOS			F

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	198
HCM Lane V/C Ratio	-	-	-	0.774
HCM Control Delay (s)	-	-	-	66.8
HCM Lane LOS	-	-	-	F
HCM 95th %tile Q(veh)	-	-	-	5.3

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HCM 2010 TWSC
2: US Highway 70 & Enterprise Drive

Combined (2019) AM
6/13/2017

Intersection

Int Delay, s/veh 6.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑↑↑		↑↑↑	↑		↑
Traffic Vol, veh/h	0	966	1996	163	0	160
Future Vol, veh/h	0	966	1996	163	0	160
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	None
Storage Length	-	-	-	125	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1073	2218	181	0	178

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	- 0	- 0	- 1109
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -
Critical Hdwy	- -	- -	- 7.14
Critical Hdwy Stg 1	- -	- -	- -
Critical Hdwy Stg 2	- -	- -	- -
Follow-up Hdwy	- -	- -	- 3.92
Pot Cap-1 Maneuver	0 -	- -	0 ~ 175
Stage 1	0 -	- -	0 -
Stage 2	0 -	- -	0 -
Platoon blocked, %	- -	- -	- -
Mov Cap-1 Maneuver	- -	- -	- ~ 175
Mov Cap-2 Maneuver	- -	- -	- -
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	126.2
HCM LOS			F

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	175
HCM Lane V/C Ratio	-	-	-	1.016
HCM Control Delay (s)	-	-	-	126.2
HCM Lane LOS	-	-	-	F
HCM 95th %tile Q(veh)	-	-	-	8.3

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

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HCM 2010 TWSC
2: US Highway 70 & Enterprise Drive

Alternate Scenario Combined (2019) AM
6/13/2017

Intersection

Int Delay, s/veh 8.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑	↑		↑
Traffic Vol, veh/h	0	953	1996	162	0	174
Future Vol, veh/h	0	953	1996	162	0	174
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	None
Storage Length	-	-	-	125	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1059	2218	180	0	193

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	- 0	- 0	- 1109
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -
Critical Hdwy	- -	- -	- 7.14
Critical Hdwy Stg 1	- -	- -	- -
Critical Hdwy Stg 2	- -	- -	- -
Follow-up Hdwy	- -	- -	- 3.92
Pot Cap-1 Maneuver	0 -	- -	0 ~ 175
Stage 1	0 -	- -	0 -
Stage 2	0 -	- -	0 -
Platoon blocked, %	- -	- -	- -
Mov Cap-1 Maneuver	- -	- -	- ~ 175
Mov Cap-2 Maneuver	- -	- -	- -
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	153
HCM LOS			F

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	- -	- -	- 175	
HCM Lane V/C Ratio	- -	- -	- 1.105	
HCM Control Delay (s)	- -	- -	- 153	
HCM Lane LOS	- -	- -	- F	
HCM 95th %tile Q(veh)	- -	- -	- 9.7	

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Shotwell Road Residential
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Synchro 9 Report
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APPENDIX G

CAPACITY ANALYSIS CALCULATIONS

SHOTWELL ROAD

&

CAMERON WAY

HCM 2010 TWSC
3: Shotwell Road & Stallings Mill Site Drive/Cameron Way

Existing (2017) AM
6/13/2017

Intersection

Int Delay, s/veh 1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	4	3	37	2	24	2	472	28	32	364	1
Future Vol, veh/h	2	4	3	37	2	24	2	472	28	32	364	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	-	-	250	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	4	3	41	2	27	2	524	31	36	404	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1035	1036	405	1024	1021	540	406	0	0	556	0	0
Stage 1	476	476	-	544	544	-	-	-	-	-	-	-
Stage 2	559	560	-	480	477	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	210	232	646	214	236	542	1153	-	-	1015	-	-
Stage 1	570	557	-	523	519	-	-	-	-	-	-	-
Stage 2	513	511	-	567	556	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	193	223	646	204	227	542	1153	-	-	1015	-	-
Mov Cap-2 Maneuver	193	223	-	204	227	-	-	-	-	-	-	-
Stage 1	569	537	-	522	518	-	-	-	-	-	-	-
Stage 2	485	510	-	540	536	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.5	23	0	0.7
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1153	-	-	193	310	269	1015	-	-
HCM Lane V/C Ratio	0.002	-	-	0.012	0.025	0.26	0.035	-	-
HCM Control Delay (s)	8.1	-	-	23.9	16.9	23	8.7	-	-
HCM Lane LOS	A	-	-	C	C	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	1	0.1	-	-

Shotwell Road Residential
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HCM 2010 TWSC
3: Shotwell Road & Stallings Mill Site Drive/Cameron Way

Background (2019) AM
6/13/2017

Intersection

Int Delay, s/veh 7.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	4	44	71	2	36	24	516	67	46	421	5
Future Vol, veh/h	19	4	44	71	2	36	24	516	67	46	421	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	-	-	250	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	4	49	79	2	40	27	573	74	51	468	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1258	1274	471	1263	1240	611	473	0	0	648	0	0
Stage 1	573	573	-	664	664	-	-	-	-	-	-	-
Stage 2	685	701	-	599	576	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	148	167	593	147	175	494	1089	-	-	938	-	-
Stage 1	505	504	-	450	458	-	-	-	-	-	-	-
Stage 2	438	441	-	488	502	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	127	154	593	124	161	494	1089	-	-	938	-	-
Mov Cap-2 Maneuver	127	154	-	124	161	-	-	-	-	-	-	-
Stage 1	492	477	-	439	447	-	-	-	-	-	-	-
Stage 2	391	430	-	419	475	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.7	69.9	0.3	0.9
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1089	-	-	127	479	166	938	-	-
HCM Lane V/C Ratio	0.024	-	-	0.166	0.111	0.73	0.054	-	-
HCM Control Delay (s)	8.4	-	-	38.9	13.5	69.9	9.1	-	-
HCM Lane LOS	A	-	-	E	B	F	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.4	4.5	0.2	-	-

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HCM 2010 TWSC
3: Shotwell Road & Stallings Mill Site Drive/Cameron Way

Combined (2019) AM
6/13/2017

Intersection

Int Delay, s/veh 17.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	4	44	99	2	50	24	516	73	49	421	5
Future Vol, veh/h	19	4	44	99	2	50	24	516	73	49	421	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	-	-	-	250	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	4	49	110	2	56	27	573	81	54	468	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1275	1287	471	1273	1249	614	473	0	0	654	0	0
Stage 1	579	579	-	667	667	-	-	-	-	-	-	-
Stage 2	696	708	-	606	582	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	144	164	593	144	173	492	1089	-	-	933	-	-
Stage 1	501	501	-	448	457	-	-	-	-	-	-	-
Stage 2	432	438	-	484	499	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	119	151	593	121	159	492	1089	-	-	933	-	-
Mov Cap-2 Maneuver	119	151	-	121	159	-	-	-	-	-	-	-
Stage 1	489	472	-	437	446	-	-	-	-	-	-	-
Stage 2	372	427	-	414	470	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.5	137.3	0.3	0.9
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1089	-	-	119	477	162	933	-	-
HCM Lane V/C Ratio	0.024	-	-	0.177	0.112	1.036	0.058	-	-
HCM Control Delay (s)	8.4	-	-	41.7	13.5	137.3	9.1	-	-
HCM Lane LOS	A	-	-	E	B	F	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.4	8.3	0.2	-	-

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HCM 2010 TWSC

Combined (2019) AM with Improvements

3: Shotwell Road & Stallings Mill Site Drive/Cameron Way

6/22/2017

Intersection

Int Delay, s/veh 11.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	4	44	99	2	50	24	516	73	49	421	5
Future Vol, veh/h	19	4	44	99	2	50	24	516	73	49	421	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	75	-	-	250	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	4	49	110	2	56	27	573	81	54	468	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1275	1287	471	1273	1249	614	473	0	0	654	0	0
Stage 1	579	579	-	667	667	-	-	-	-	-	-	-
Stage 2	696	708	-	606	582	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	144	164	593	144	173	492	1089	-	-	933	-	-
Stage 1	501	501	-	448	457	-	-	-	-	-	-	-
Stage 2	432	438	-	484	499	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	119	151	593	121	159	492	1089	-	-	933	-	-
Mov Cap-2 Maneuver	119	151	-	121	159	-	-	-	-	-	-	-
Stage 1	489	472	-	437	446	-	-	-	-	-	-	-
Stage 2	372	427	-	414	470	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.5	87.8	0.3	0.9
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1089	-	-	119	477	121	455	933	-	-
HCM Lane V/C Ratio	0.024	-	-	0.177	0.112	0.909	0.127	0.058	-	-
HCM Control Delay (s)	8.4	-	-	41.7	13.5	126.5	14.1	9.1	-	-
HCM Lane LOS	A	-	-	E	B	F	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.4	5.8	0.4	0.2	-	-

Shotwell Road Residential
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Synchro 9 Report
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APPENDIX H

CAPACITY ANALYSIS CALCULATIONS

SHOTWELL ROAD

&

OLD US HIGHWAY 70

Lanes, Volumes, Timings
4: Shotwell Road & Old US Highway 70

Existing (2017) AM
6/13/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	64	66	14	304	45	188	292	31	47	268	216
Future Volume (vph)	32	64	66	14	304	45	188	292	31	47	268	216
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	550		0	250		0	100		25	550		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.924			0.981				0.850		0.933	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1721	0	1770	1827	0	1770	1863	1583	1770	1738	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1721	0	1770	1827	0	1770	1863	1583	1770	1738	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			45	
Link Distance (ft)		1257			974			160			1609	
Travel Time (s)		19.0			14.8			3.1			24.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	36	71	73	16	338	50	209	324	34	52	298	240
Shared Lane Traffic (%)												
Lane Group Flow (vph)	36	144	0	16	388	0	209	324	34	52	538	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Free	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									Free			
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	12.0		7.0	12.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	11.6	17.9		11.8	17.7		13.3	12.6		13.2	12.5	
Total Split (s)	20.0	90.0		20.0	90.0		20.0	30.0		20.0	30.0	
Total Split (%)	12.5%	56.3%		12.5%	56.3%		12.5%	18.8%		12.5%	18.8%	
Maximum Green (s)	15.4	84.1		15.2	84.3		13.7	24.4		13.8	24.5	
Yellow Time (s)	3.0	4.5		3.0	4.4		3.0	4.5		3.0	4.5	
All-Red Time (s)	1.6	1.4		1.8	1.3		3.3	1.1		3.2	1.0	
Lost Time Adjust (s)	0.4	-0.9		0.2	-0.7		-1.3	-0.6		-1.2	-0.5	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	1.0	6.0		1.0	6.0		1.0	1.0		1.0	1.0	
Minimum Gap (s)	1.0	3.0		1.0	3.0		1.0	1.0		1.0	1.0	
Time Before Reduce (s)	0.0	15.0		0.0	15.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	45.0		0.0	45.0		0.0	0.0		0.0	0.0	
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effct Green (s)	6.8	32.6		6.9	28.2		15.3	35.1	90.6	8.8	25.4	
Actuated g/C Ratio	0.08	0.36		0.08	0.31		0.17	0.39	1.00	0.10	0.28	
v/c Ratio	0.27	0.23		0.12	0.68		0.70	0.45	0.02	0.30	1.10	
Control Delay	49.4	21.2		46.4	34.6		52.6	27.9	0.0	47.0	106.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	49.4	21.2		46.4	34.6		52.6	27.9	0.0	47.0	106.6	

Shotwell Road Residential
RKA

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Lanes, Volumes, Timings
4: Shotwell Road & Old US Highway 70

Existing (2017) PM
6/13/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	382	100	23	75	39	56	339	54	108	269	37
Future Volume (vph)	150	382	100	23	75	39	56	339	54	108	269	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	550		0	250		0	100		25	550		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr		0.969			0.949				0.850		0.982	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1805	0	1770	1768	0	1770	1863	1583	1770	1829	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1805	0	1770	1768	0	1770	1863	1583	1770	1829	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			45	
Link Distance (ft)		1257			974			160			1609	
Travel Time (s)		19.0			14.8			3.1			24.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	167	424	111	26	83	43	62	377	60	120	299	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	167	535	0	26	126	0	62	377	60	120	340	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Free	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									Free			
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	12.0		7.0	12.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	11.6	17.9		11.8	17.7		13.3	12.6		13.2	12.5	
Total Split (s)	20.0	90.0		20.0	90.0		20.0	30.0		20.0	30.0	
Total Split (%)	12.5%	56.3%		12.5%	56.3%		12.5%	18.8%		12.5%	18.8%	
Maximum Green (s)	15.4	84.1		15.2	84.3		13.7	24.4		13.8	24.5	
Yellow Time (s)	3.0	4.5		3.0	4.4		3.0	4.5		3.0	4.5	
All-Red Time (s)	1.6	1.4		1.8	1.3		3.3	1.1		3.2	1.0	
Lost Time Adjust (s)	0.4	-0.9		0.2	-0.7		-1.3	-0.6		-1.2	-0.5	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	1.0	6.0		1.0	6.0		1.0	1.0		1.0	1.0	
Minimum Gap (s)	1.0	3.0		1.0	3.0		1.0	1.0		1.0	1.0	
Time Before Reduce (s)	0.0	15.0		0.0	15.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	45.0		0.0	45.0		0.0	0.0		0.0	0.0	
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effect Green (s)	15.4	40.5		7.0	26.4		9.5	25.6	99.7	11.8	31.2	
Actuated g/C Ratio	0.15	0.41		0.07	0.26		0.10	0.26	1.00	0.12	0.31	
v/c Ratio	0.61	0.73		0.21	0.27		0.37	0.79	0.04	0.57	0.59	
Control Delay	54.0	32.7		54.4	29.1		53.4	50.9	0.0	55.9	38.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	54.0	32.7		54.4	29.1		53.4	50.9	0.0	55.9	38.9	

Shotwell Road Residential
RKA

Synchro 9 Report
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Lanes, Volumes, Timings
4: Shotwell Road & Old US Highway 70

Alternate Scenario Combined (2019) AM
6/13/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	68	78	22	323	51	217	337	45	55	323	250
Future Volume (vph)	36	68	78	22	323	51	217	337	45	55	323	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	550		0	250		0	100		25	550		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.920			0.979				0.850		0.935	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1714	0	1770	1824	0	1770	1863	1583	1770	1742	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1714	0	1770	1824	0	1770	1863	1583	1770	1742	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			45	
Link Distance (ft)		1257			974			241			1609	
Travel Time (s)		19.0			14.8			4.7			24.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	40	76	87	24	359	57	241	374	50	61	359	278
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	163	0	24	416	0	241	374	50	61	637	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Free	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									Free			
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	12.0		7.0	12.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	11.6	17.9		11.8	17.7		13.3	12.6		13.2	12.5	
Total Split (s)	20.0	90.0		20.0	90.0		20.0	30.0		20.0	30.0	
Total Split (%)	12.5%	56.3%		12.5%	56.3%		12.5%	18.8%		12.5%	18.8%	
Maximum Green (s)	15.4	84.1		15.2	84.3		13.7	24.4		13.8	24.5	
Yellow Time (s)	3.0	4.5		3.0	4.4		3.0	4.5		3.0	4.5	
All-Red Time (s)	1.6	1.4		1.8	1.3		3.3	1.1		3.2	1.0	
Lost Time Adjust (s)	0.4	-0.9		0.2	-0.7		-1.3	-0.6		-1.2	-0.5	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	1.0	6.0		1.0	6.0		1.0	1.0		1.0	1.0	
Minimum Gap (s)	1.0	3.0		1.0	3.0		1.0	1.0		1.0	1.0	
Time Before Reduce (s)	0.0	15.0		0.0	15.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	45.0		0.0	45.0		0.0	0.0		0.0	0.0	
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effct Green (s)	6.9	32.6		6.9	30.3		15.3	34.9	92.8	9.0	25.4	
Actuated g/C Ratio	0.07	0.35		0.07	0.33		0.16	0.38	1.00	0.10	0.27	
v/c Ratio	0.30	0.27		0.18	0.70		0.83	0.53	0.03	0.35	1.34	
Control Delay	51.4	23.2		48.9	34.8		64.8	31.3	0.0	49.1	194.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	51.4	23.2		48.9	34.8		64.8	31.3	0.0	49.1	194.9	

Shotwell Road Residential
RKA

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Lanes, Volumes, Timings
4: Shotwell Road & Old US Highway 70

Alternate Scenario Combined (2019) PM
6/13/2017

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	176	404	126	41	79	48	73	410	68	124	325	43
Future Volume (vph)	176	404	126	41	79	48	73	410	68	124	325	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	550		0	250		0	100		25	550		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.964			0.944				0.850		0.982	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1796	0	1770	1758	0	1770	1863	1583	1770	1829	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1796	0	1770	1758	0	1770	1863	1583	1770	1829	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			35			45	
Link Distance (ft)		1257			974			235			1609	
Travel Time (s)		19.0			14.8			4.6			24.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	196	449	140	46	88	53	81	456	76	138	361	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	196	589	0	46	141	0	81	456	76	138	409	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	Free	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									Free			
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	7.0	12.0		7.0	12.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	11.6	17.9		11.8	17.7		13.3	12.6		13.2	12.5	
Total Split (s)	20.0	90.0		20.0	90.0		20.0	30.0		20.0	30.0	
Total Split (%)	12.5%	56.3%		12.5%	56.3%		12.5%	18.8%		12.5%	18.8%	
Maximum Green (s)	15.4	84.1		15.2	84.3		13.7	24.4		13.8	24.5	
Yellow Time (s)	3.0	4.5		3.0	4.4		3.0	4.5		3.0	4.5	
All-Red Time (s)	1.6	1.4		1.8	1.3		3.3	1.1		3.2	1.0	
Lost Time Adjust (s)	0.4	-0.9		0.2	-0.7		-1.3	-0.6		-1.2	-0.5	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	1.0	6.0		1.0	6.0		1.0	1.0		1.0	1.0	
Minimum Gap (s)	1.0	3.0		1.0	3.0		1.0	1.0		1.0	1.0	
Time Before Reduce (s)	0.0	15.0		0.0	15.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	45.0		0.0	45.0		0.0	0.0		0.0	0.0	
Recall Mode	None	Min		None	Min		None	None		None	None	
Act Effct Green (s)	15.4	45.5		7.6	34.5		10.6	25.6	109.4	13.3	31.9	
Actuated g/C Ratio	0.14	0.42		0.07	0.32		0.10	0.23	1.00	0.12	0.29	
v/c Ratio	0.79	0.79		0.37	0.25		0.47	1.05	0.05	0.64	0.77	
Control Delay	71.5	37.0		63.1	27.3		60.5	98.4	0.1	63.6	51.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	71.5	37.0		63.1	27.3		60.5	98.4	0.1	63.6	51.0	

Shotwell Road Residential
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APPENDIX I

CAPACITY ANALYSIS CALCULATIONS

SHOTWELL ROAD

&

EXECUTIVE DRIVE

HCM 2010 TWSC
5: Shotwell Road & Executive Drive

Existing (2017) AM
6/13/2017

Intersection

Int Delay, s/veh 0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↖			↖↗
Traffic Vol, veh/h	0	27	506	47	0	404
Future Vol, veh/h	0	27	506	47	0	404
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	30	562	52	0	449

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	- 588	0 0	- -
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -
Critical Hdwy	- 6.23	- -	- -
Critical Hdwy Stg 1	- -	- -	- -
Critical Hdwy Stg 2	- -	- -	- -
Follow-up Hdwy	- 3.319	- -	- -
Pot Cap-1 Maneuver	0 508	- -	0 -
Stage 1	0 -	- -	0 -
Stage 2	0 -	- -	0 -
Platoon blocked, %	-	- -	- -
Mov Cap-1 Maneuver	- 508	- -	- -
Mov Cap-2 Maneuver	- -	- -	- -
Stage 1	- -	- -	- -
Stage 2	- -	- -	- -

Approach	WB	NB	SB
HCM Control Delay, s	12.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	- - 508	-	-
HCM Lane V/C Ratio	- - 0.059	-	-
HCM Control Delay (s)	- - 12.5	-	-
HCM Lane LOS	- - B	-	-
HCM 95th %tile Q(veh)	- - 0.2	-	-

Shotwell Road Residential
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HCM 2010 TWSC
5: Shotwell Road & Executive Drive

Background (2019) AM
6/13/2017

Intersection

Int Delay, s/veh 0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↖			↗↖
Traffic Vol, veh/h	0	29	611	50	0	537
Future Vol, veh/h	0	29	611	50	0	537
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	32	679	56	0	597

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	707	0 0
Stage 1	-	-	- -
Stage 2	-	-	- -
Critical Hdwy	-	6.23	- -
Critical Hdwy Stg 1	-	-	- -
Critical Hdwy Stg 2	-	-	- -
Follow-up Hdwy	-	3.319	- -
Pot Cap-1 Maneuver	0	434	- -
Stage 1	0	-	- -
Stage 2	0	-	- -
Platoon blocked, %	-	-	- -
Mov Cap-1 Maneuver	-	434	- -
Mov Cap-2 Maneuver	-	-	- -
Stage 1	-	-	- -
Stage 2	-	-	- -

Approach	WB	NB	SB
HCM Control Delay, s	14	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	- 434	-
HCM Lane V/C Ratio	-	- 0.074	-
HCM Control Delay (s)	-	- 14	-
HCM Lane LOS	-	- B	-
HCM 95th %tile Q(veh)	-	- 0.2	-

Shotwell Road Residential
RKA

Synchro 9 Report
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HCM 2010 TWSC
5: Shotwell Road & Executive Drive

Combined (2019) AM
6/13/2017

Intersection

Int Delay, s/veh 0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		7	7			77
Traffic Vol, veh/h	0	29	617	50	0	565
Future Vol, veh/h	0	29	617	50	0	565
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	32	686	56	0	628

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	713	0 0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.23	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.319	-
Pot Cap-1 Maneuver	0	431	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	431	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	- 431	-
HCM Lane V/C Ratio	-	- 0.075	-
HCM Control Delay (s)	-	- 14	-
HCM Lane LOS	-	- B	-
HCM 95th %tile Q(veh)	-	- 0.2	-

Shotwell Road Residential
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Synchro 9 Report
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HCM 2010 TWSC
5: Shotwell Road & Executive Drive

Alternate Scenario Combined (2019) AM
6/13/2017

Intersection

Int Delay, s/veh 0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↖			↗↖
Traffic Vol, veh/h	0	29	616	50	0	537
Future Vol, veh/h	0	29	616	50	0	537
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	32	684	56	0	597

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	-	712	0 0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.23	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.319	-
Pot Cap-1 Maneuver	0	431	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	431	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	- 431	-
HCM Lane V/C Ratio	-	- 0.075	-
HCM Control Delay (s)	-	- 14	-
HCM Lane LOS	-	- B	-
HCM 95th %tile Q(veh)	-	- 0.2	-

Shotwell Road Residential
RKA

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ADJACENT PROPERTY OWNERS LIST

Project Name: Capps Tract

The following are all the persons, firms, or corporations owning property within 100 feet and immediately adjacent to the property (including across street rights of way) subject to this request. Where the subject property immediately adjoins a public or private right-of-way, landscape or riparian buffer, commonly-owned private area, public property, or homeowners' association property, then letters of notification shall be sent to adjoining property owners as if they directly abut the subject property. Please use a separate sheet if necessary

It is the responsibility of the applicant to correctly identify the current owner, based upon records in the Johnston County GIS Office, for all property owners of land within the required public notice radius.

PARCEL NUMBER	NAME	ADDRESS
05026078, 05026076, 05026077	WILLIAMS, FRANCES	PO BOX 233, CLAYTON, NC 27528
05026041	FELLOWSHIP BAPTIST CHURCH	(204 Atkinson St. Clayton, NC 27520)
05026095T, 05026095D,	MMP PROPERTIES LLC	P O BOX 565, BENSON, NC 27505
05026073D	CAPPS, JOSEPH EDWIN	222 SUMMITT ST, CLAYTON, NC 27520
05026073M	DURHAM, LARRY N & DURHAM, PATRICIA P	1198 PEELE RD, CLAYTON, NC 27520
05027001	SHACKLEFORD-BUNN DEV CO LLC	1025 RIDGE ROAD, CLAYTON, NC 27520
05026073E, 05026073T, 05026073S, 05026073J	CORPORATE DEVELOPERS LLC	155 BENNETT PLACE, CLAYTON, NC 27527
05026073Q	WOOD, HEIDI CAPPS & WOOD, BRENT E	222 SUMMIT ST, CLAYTON, NC 27520
05G01014W	RARY, JAMES KENNETH JR & RARY, SHELIA	219 SUMMIT ST, CLAYTON, NC 27520
05G02005T	BV 173 LLC	1414 YANCEYVILLE ST STE 300, GREENSBORO, NC 27405
05G02005V, 05G02005Y	MICHAEL LYNN MARVEL REVOCABLE TRUST & MARVEL, MICHAEL LYNN TRUST	2127 WILLOW HILL LN, CLAYTON, NC 27520
05E99012D	MASSEY, JOHN WESLEY	8041 ST ANDREWS DR, LAURINBURG, NC 28352
05G02005A	LEE BROTHERS RENTAL	400 W MAIN STREET, CLAYTON, NC 27520
05E99002D	ALLEN, MARY & SHALLINGTON, KATHERINE ALLEN	PO BOX 1633, CLAYTON, NC 27528
05G02005W	SANT HOSPITALITY LLC	761 ENTERPRISE DR., CLAYTON, NC 27520



WithersRavenel

Our People. Your Success.

06-27-17

Dear Clayton Area Property Owner:

The purpose of this letter is to notify you of an application filed with the Town of Clayton for a land use change proposal involving property adjacent to, or in close proximity to, property shown in your ownership by Johnston County tax records. Per Town of Clayton regulations, a Neighborhood Meeting will be held to provide information to area residents about the nature of the proposal. A representative of the applicant will be present to explain their application, answer questions, and solicit comments.

Meeting Date: July 11th, 2017

Meeting Time: 6:00p.m. – 7:00p.m.

Meeting Location: The Clayton Center (111 East 2nd Street)

Type of Application: Rezoning Application

Parcel/Pin #: 165911-65-2257

Description of project/proposal: Proposed rezoning from Residential Estate to R-10.

At a minimum, the following will be available for your inspection at the Neighborhood Meeting:

1. A copy of the project application.
2. A map at a scale that is appropriate to the project and shows neighboring properties and roads.
3. A map, drawing, or other depiction of the proposed land use change.

A map is enclosed with this letter showing the location of the property that is subject to this application for land use change proposal.

If you have any questions prior to or after this meeting, you may contact us at 919-535-5237. You may also contact the Town of Clayton Planning Department at 919-553-5002.

Sincerely,

Don Mizelle

WithersRavenel

Cc: Town of Clayton Planning Dept

115 MacKenan Drive | Cary, NC 27511
t: 919.469.3340 | f: 919.467.6008 | www.withersravenel.com | License No. C-0832
Cary | Greensboro | Pittsboro | Raleigh | Wilmington

NEIGHBORHOOD MEETING ATTENDANCE ROSTER

Project: Capps Tract
 Application: Rezoning
 Location/Date: The Clayton Center/ July 11 6pm / 2017

	NAME	ADDRESS
1	Ken Alford	150 MICHAEL WAY CLAYTON
2	Jim & Shelia Rary	219 Summit St., Clayton
3	Enni ^{Reckoway} Barty	P.O. Box 535 Clayton
4	Brent & Heidi Wood	236 Summit St.
5	Joseph Capps	222 SUMMIT ST.
6	Keran Swan	11684 US 70
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NEIGHBORHOOD MEETING SUMMARY FORM

FILL OUT THE FOLLOWING:

Application: Capps Tract Rezoning

Date of Mailing: 6/27/2017

I hereby attest that letters were mailed to the addresses listed on the Adjacent Property Owners List (attached) ten days prior to the Neighborhood Meeting:

Printed Name: Don Mizelle

Signature: 

Date of Meeting: 7/11/2017

Time of Meeting: 6pm

Location of Meeting: The Clayton Center

Meeting Summary/Minutes: *provide a summary of the discussion held at the meeting, including issues raised and any resolution discussed, and any changes made to the application as a result of the meeting.*

Meeting began at 6:05pm at the Pool Meeting Room at the Clayton Center. Approximately 12 people were in attendance including the applicant and his consultants.

WithersRavenel explained the nature of the R-10 rezoning request and the process moving forward. The purpose of the neighborhood meeting was explained as was the future permitting requirements that would be needed prior to any construction work on the subject property. WithersRavenel reviewed the conceptual plan with those in attendance explaining potential road connections, reconfigurations of existing streets, wetlands, stream, buffers, and the developer's planned use of the site for townhomes.

A list of comments, concerns, and questions is attached along with any action items to address such.

Please write clearly (or submit a typed summary). Use additional sheets if necessary.

Capps Tract Rezoning

Neighborhood Meeting Report – Discussion items

Q: How will Summit Street connection (with barricades) impact access to adjacent properties (Heidi & Brent Woods tract, which appears to be currently landlocked)? How can access be secured while limiting additional traffic from accessing Summit Street? What type of barrier will be constructed to prevent new traffic on Summit Street?

A: WR explained the potential future connection to Summit from the planned internal street network. Discussed the geometry of the roadway design possibilities and options for providing a permanent access easement to secure access to Summit Drive. Barricade type TBD by the Town of Clayton at site plan review.

Action: Developer will meet with adjoining owners to plan access easements as needed to address the issue.

Q: What will be the price point of the townhomes envisioned for the site?

A: Market dictates such – currently, the market suggests around \$225K. It was also discussed that some other townhome developments in this general part of town are currently selling from \$150K-180K. The market will determine specifics of product and price.

Q: How will the development and the townhomes be maintained?

A: HOA will be established for the perpetual care of the site.

Q: How soon could the project be constructed?

A: WR offered a projected timeline of 2-3 years based on other similar projects. It was also pointed out that sitework construction could begin within the next year.

Q: Does the developer have plans to develop or own other parcels in the immediate area?

A: No plans for such.

Q: Will the proposed recreation area be buffered with landscaping – can it be evergreen?

A: Yes – to what extent is to be determined.

Q: What will become of the undeveloped west side of the property along Summit Drive?

A: Likely open space or buffer area.

Q: What happens in the stream buffer and undeveloped property in the north eastern portion of the site?

A: Left as-is.

Q: Any perimeter buffers planned?

A: Yes – extent TBD at site plan.

Q: What type of townhomes are planned – like “the Pointe”

A: No – those are age targeted units – 55 and older. Market will determine but likely 2 stories 1800-2400 square feet.

Comments:

- Existing well location on Joseph Capps site should be considered with respect to potential access easement to Wood property and connection to Summit Drive extension.
- Exiting offsite safety issues at Main Street and Summit intersection because of odd geometry.
- Don't want starter townhomes in this area.



Town of Clayton
Planning Department
111 E. Second Street, Clayton, NC 27520
P.O. Box 879, Clayton, NC 27528
Phone: 919-553-5002
Fax: 919-553-1720

August 14, 2017

NOTICE

SUBJECT: Rezoning application 2017-99-RZ, Capps Tract rezoning.
Address: The properties are located behind (east and north of) the commercial development on Cameron Way and Enterprise Drive; (portions of parcels 165911-65-2257 / 05026073 and 165915-54-6707 / 05g02005y)
Applicant: Withers Ravenel (c/o Don Mizelle)
Request: Requested rezoning is primarily from Residential-Estate (R-E) and Highway Business (B-3) to Residential-10 (R-10), with some land also being rezoned from Residential-Estate (R-E) to Highway Business (B-3).

Dear Clayton Area Property Owner:

Notice is hereby given that the Clayton Town Council will hold a public hearing on Tuesday, Sept. 5, 2017 at 6:30 PM at Town Hall, 111 E Second Street, to consider 2017-99-RZ (Capps Tract rezoning), requesting the rezoning of approx. 36 acres at the above referenced location. The requested rezoning change is primarily from Residential-Estate (R-E) and Highway Business (B-3) to Residential-10 (R-10), with some land also being rezoned from Residential-Estate (R-E) to Highway Business (B-3). Please see the map on the back of this letter.

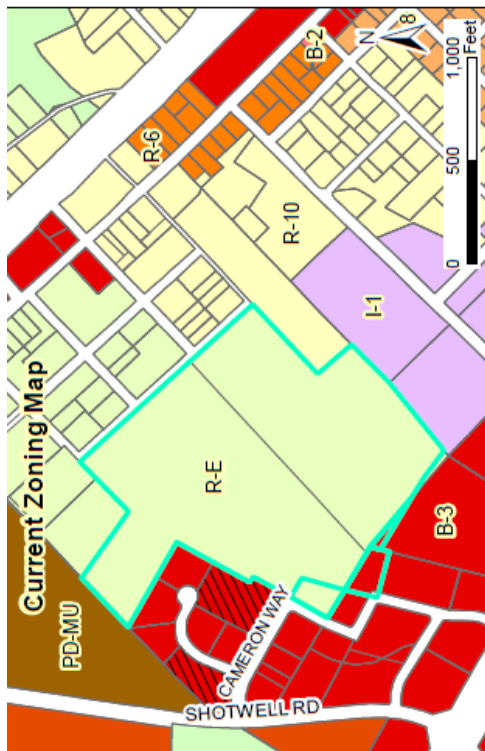
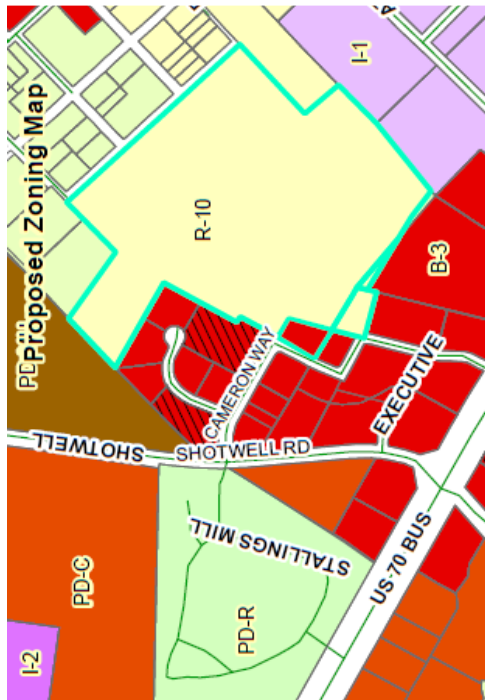
Based upon records in the Johnston County Tax Office, you are the owner of property that is within 100 feet of this proposed rezoning request. You are invited to attend this public meeting and express your opinions on this request to Council.

If you should need additional assistance or information, please contact Jay McLeod, Senior Planner with the Town Planning Department at (919) 553-5002, or email at jwmcleod@townofclaytonnc.org.

Sincerely,


Jay McLeod, AICP
Senior Planner

cc: File folder
Kimberly Moffett, CMC, Town Clerk



**TOWN OF CLAYTON
PLANNING BOARD WRITTEN RECOMMENDATION
ZONING AMENDMENT
(REZONING AMENDMENT)**

**Capps Tract
2017-99-RZ**

On July 24, 2017, the Planning Board heard the above-referenced request and made the following vote:

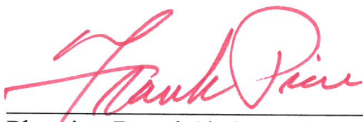
Recommendation to the Town Council to

☒ approve the request;

☐ deny the request.

Recommendation(s) made this 24 day of July 2017 while in regular session.

Signed:



Planning Board Chair

TOWN OF CLAYTON
ZONING AMENDMENT
CONSISTENCY AND REASONABLENESS STATEMENT

2017-99-RZ, Capps Tract Rezoning

The Town Council of the Town of Clayton hereby states:

Section 1: The above referenced zoning amendment IS CONSISTENT with:

The Town of Clayton's Comprehensive Plan, specifically:

- LU1: Preserve Clayton's small-town character while allowing for growth and development in appropriate areas.
- LU2: Encourage quality development which maximizes existing infrastructure...

Section 2: Based upon information presented at the public hearings and by the applicant, and based upon the recommendations and detailed information developed by staff and the Planning Board contained in the staff report, and considering the criteria applicable sections of the Unified Development Code of the Town of Clayton, specifically **(insert specifics to case)**

That the rezoning is consistent with the desire to encourage development near downtown, and is also consistent with the Town's adopted future land use map,

the above referenced zoning amendment is reasonable and in the public interest.

PUBLIC NOTICE

In accordance with NC GS 160A-384, the Clayton Town Council will hold a public hearing on September, 5, 2017, at 6:30 PM at Town Hall, 111 East Second Street, to consider rezoning request 2017-99-RZ (Capps Tract rezoning) for portions of parcel number(s) 165911-65-2257 and 165915-54-6707, within both the town limits and the extra-territorial jurisdiction. The requested change is primarily from Residential-Estate (R-E) and Highway Business (B-3) to Residential-10 (R-10), with some portions also being rezoned from Residential-Estate (R-E) to Highway Business (B-3).

The Clayton Town Council reserves the right to approve the request as presented or any portion of the request without necessity of withdrawal or modification of the application or additional public hearing on the matter. Likewise, the Town Council may designate approval to the district requested or another district or districts without modification of the request or additional public hearing.

This is an open meeting and the public is invited to attend.

Jay McLeod, Planner
919-553-5002

The Clayton News Star

Please advertise on the following dates:
August 23, 2017
August 30, 2017

Affidavit of publication required.