Town of Summerville
Planning Commission
May 18, 2020 - 4:00 PM
Town Hall, Town Council Chambers
The public and Town Council members are strongly encouraged to attend virtually
The meeting will be live-streamed through the live-streaming link on the Town's website**:** https://sc-summerville.civicplus.com/159/Live-Streaming-Meetings

For additional information regarding items on this agenda including any public hearings, please contact the Planning Department at planning@summervillesc.gov or 843.851.4217. Applications and related documents for this meeting are available for review at any time at www.summervillesc.gov/AgendaCenter Public that chooses to attend this meeting in person will be required to have their temperature scanned and abide by social distancing requirements.

I. APPROVAL OF MINUTES:

1. Approval of minutes from meeting on April 20, 2020.

II. PUBLIC HEARINGS: (*public hearing signs posted on properties beginning on 05.01.20 and with notice in Post & Courier on 05.03.20)*

1. Petition by The Whitfield Company to annex Berkeley County TMS# 208-00-02-013 (approximately 973 acres) located along Interstate 26, Drop Off Drive, and Linda Way, currently zoned HI, Heavy Industrial, and Flex1, Agricultural, in Berkeley County and will be zoned PUD, Planned Development District, upon annexation into the Town of Summerville's municipal limits. (Council District 2)

2. Petition by Thomas A. Limehouse and Robert L. Arrington to annex Berkeley County TMS# 221-00-00-007 (approximately 2.926 acres) located at 1321 Beagle Road; currently zoned HI, Heavy Industrial, in Berkeley County and will be zoned G-B, General Business, upon annexation into the Town of Summerville's municipal limits. (Council District 2)

3. Petition by JSCA Investments, LLC to annex Berkeley County TMS# 221-00-00-006 (approximately 7.36 acres) located on Beagle Road; currently zoned HI, Heavy Industrial, in Berkeley County and will be zoned G-B, General Business, upon annexation into the Town of Summerville's municipal limits. (Council District 2)

4. Request to rezone TMS#s 154-00-00-073, Miles-Jamison Road; and 154-06-15-006, 310 Beverly Drive (approximately 306.809 acres), and owned by Dorchester County from PUD, Planned Development District, to PL, Public Lands (Council District 6).

5. Petition by Knightsville, LLC to annex Dorchester County TMS# 144-01-00-005 (approximately1.00 acre) located at 795 Orangeburg Road, currently zoned R-4 Multi-Family

Residential in Dorchester County and will be zoned PUD Planned Development District upon annexation into the Town of Summerville's municipal limits and the existing PUD for the Knightsville Tract shall be amended to include this parcel for open space and commercial uses. (Council District 4)

III. OLD BUSINESS:

1. Petition by The Whitfield Company to annex Berkeley County TMS# 208-00-02-013 (approximately 973 acres) located along Interstate 26, Drop Off Drive, and Linda Way, currently zoned HI, Heavy Industrial, and Flex1, Agricultural, in Berkeley County and will be zoned PUD, Planned Development District, upon annexation into the Town of Summerville's municipal limits. (Council District 2)

IV. NEW BUSINESS:

1. New Street Names:
    a. *Knightsville Tract*: Cantona, Cruyff, Weldin Gate, and Wolverton

2. Petition by Thomas A. Limehouse and Robert L. Arrington to annex Berkeley County TMS# 221-00-00-007 (approximately 2.926 acres) located at 1321 Beagle Road; currently zoned HI, Heavy Industrial, in Berkeley County and will be zoned G-B, General Business, upon annexation into the Town of Summerville's municipal limits. (Council District 2)

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5. Petition by Knightsville, LLC to annex Dorchester County TMS# 144-01-00-005 (approximately1.00 acre) located at 795 Orangeburg Road, currently zoned R-4 Multi-Family Residential in Dorchester County and will be zoned PUD Planned Development District upon annexation into the Town of Summerville's municipal limits and the existing PUD for the Knightsville Tract shall be amended to include this parcel for open space and commercial uses. (Council District 4)

V. MISCELLANEOUS:

1. Comprehensive Plan & Master Transportation Plan Update

VI. ADJOURNMENT:

_____

Chairman or Vice Chairman

Posted May 8, 2020

The Town of Summerville Planning Commission Meeting
Minutes
April 20, 2020

This meeting of the Town of Summerville Planning Commission was held virtually through the Zoom Cloud Meetings application and was attended by Commission Members, Jim Reaves, Chairman; Kevin Carroll; Tom Hart; Jonathan Lee; Charlie Stoudenmire; Betty Profit; and Elaine Segelken. Staff in attendance included Jessi Shuler, AICP, Director of Planning, and Tim Macholl, Zoning Administrator. The public was invited to view the meeting as a Zoom Webinar and could submit comments through the chat function of the webinar. The public was also invited to submit any comments in advance of the meeting through email or by phone.

Jim Reaves, Chairman, called the meeting to order at 4:00 PM.

Approval of Minutes:
The Chairman asked if there were any edits or additions to the minutes from the meeting on March 16, 2020. Ms. Segelken made a motion to approve the minutes as presented, and Mr. Lee made the second. The motion passed unanimously.

Public Hearings:
The first public hearing opened at 4:01 PM and was for the petition by Lina and Francisco Elizondo to annex Charleston County TMS# 379-00-00-028 (approximately 0.21 acres), located at 516 E. Richardson Avenue, currently zoned R-4 Single-Family Residential in Charleston County and will be zoned GR-5 General Residential upon annexation into the Town of Summerville's municipal limits. (Proposed Council District 1) Mr. Reaves introduced the item and asked if the applicant was participating in the meeting. The applicant was not logged into the meeting. Mr. Reaves then asked Ms. Shuler if she had received any other public comment. Ms. Shuler responded that she had not received anything.

Hearing no requests from the public to offer any comments, this public hearing was closed at 4:02 PM.

The second public hearing opened at 4:02 PM and was for a petition by James P. Doherty and Andrea Doherty to annex Dorchester County TMS# 136-12-01-019 (approximately 0.39 acres), Lot 3, Block D, located at 1116 Central Avenue, currently zoned R-2 Single-Family Residential in Dorchester County and will be zoned GR-5 General Residential upon annexation into the Town of Summerville's municipal limits. (Proposed Council District 4) Mr. Reaves introduced the request and asked if the applicant was participating in the meeting and would like to present their request. Andrea Doherty stated that they would like to be a part of the Town of Summerville, and they were surprised that they were not a part of the Town as they are surrounded by it. Mr. Reaves then asked Ms. Shuler if she had received any public comment. Ms. Shuler responded that she had not received anything.

Hearing no requests from the public to offer any comments, this public hearing was closed at 4:03 PM.

Old Business
There were no items under Old Business.

New Business:
The first item under New Business was New Street Names for the Knightsville Tract. Ms. Shuler stated that the Commission had previously approved some names for this same development off of Orangeburg Rd. just south of Knightsville Elementary School, and they would have more in the future. At this time, only one proposed name, Felkin Place, passed review by the County addressing entities. Mr. Lee made a motion to approve Felkin Place, and Ms. Segelken made the second. The motion passed unanimously.

DRAFT

The second item under New Business was the petition by Lina and Francisco Elizondo to annex Charleston County TMS# 379-00-00-028 (approximately 0.21 acres), located at 516 E. Richardson Avenue, currently zoned R-4 Single-Family Residential in Charleston County and will be zoned GR-5 General Residential upon annexation into the Town of Summerville's municipal limits. (Proposed Council District 1) Mr. Carroll made a motion to recommend approval to Town Council as presented with Mr. Lee making the second. Mr. Hart asked for clarification on the location of this lot and the requested zoning. Ms. Shuler brought the map exhibit up on the screen and explained that this property is right across from Challedon just after you cross the Sawmill Branch. It is immediately adjacent to the other property on E. Richardson Ave. that was annexed last year and just had a house built on it. Ms. Shuler explained that they were also building a house on this lot, and the requested GR-5 zoning would only allow for a detached single-family home. Following the discussion, the motion passed unanimously.

The third item was the petition by James P. Doherty and Andrea Doherty to annex Dorchester County TMS# 136-12-01-019 (approximately 0.39 acres), Lot 3, Block D, located at 1116 Central Avenue, currently zoned R-2 Single-Family Residential in Dorchester County and will be zoned GR-5 General Residential upon annexation into the Town of Summerville's municipal limits. (Proposed Council District 4) Ms. Segelken made a motion to recommend approval to Town Council with Mr. Carroll making the second. Following no discussion, the motion carried.

Miscellaneous:

The first item under Miscellaneous was the Comprehensive Plan & Master Transportation Plan Update. Ms. Shuler informed the Commission that staff was in the process of reviewing the first full draft of the plan, and unfortunately, given the recent situation with COVID-19, the plan schedule was running a little further behind. She explained that once staff finished the review of the initial draft and changes were made, the revised draft would then be reviewed by the applicable Committees and Commission, such as themselves.

Adjourn

With no further business for the Commission, Mr. Carroll made a motion to adjourn with Mr. Lee making the second. The motion carried and the meeting was adjourned at 4:09 PM.

Respectfully Submitted,

Date: _____

Jessi Shuler, AICP
Director of Planning

Approved: _____
Jim Reaves, Chairman or Kevin Carroll, Vice Chairman

DRAFT

ANNEXATION/PUD
STAFF REPORT
PLANNING COMMISSION
May 18, 2020

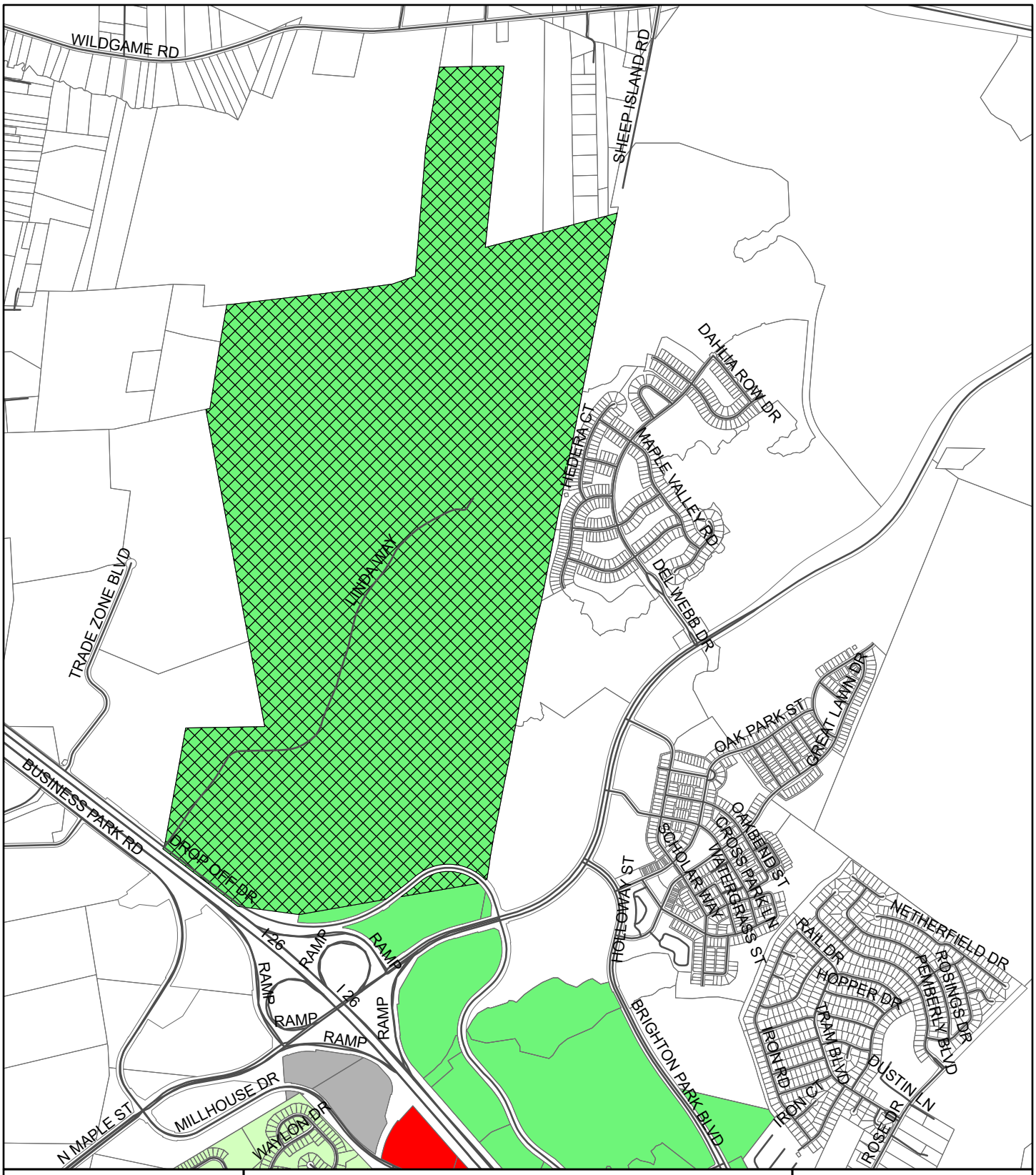
TMS#s: 208-00-02-013
Location: Nexton Parkway Interchange, Drop Off Drive, and Linda Way
Description: one lot, approximately 973 acres
Request: Annexation and zoning to PUD

The property owner is requesting for the above referenced parcel to be annexed into the Town from Berkeley County. The existing zoning in Berkeley County is HI, Heavy Industrial, and Flex1, Agricultural. This property was originally before the Commission in May 2019; however, since that time, the conceptual plan has changed significantly due to a substantial increase in the amount of wetlands on the property (from approximately 367 acres originally to 573 acres currently).

This property is included in the Town's 'Employment Growth' District within the Town's 2009-2011 Comprehensive Plan and Update as well as on the accompanying Future Land Use Map. Industrial land uses such as construction, manufacturing, transportation, communication, utilities, and wholesale trade are recommended for the Employment Growth District, and residential land uses are not encouraged. The Comprehensive Plan is in the process of being updated, and it should be noted that the draft Future Land Use Map currently shows this area as a mix of general commercial and residential uses. The original PUD proposed a maximum of 1,700 single-family dwelling units, 600 multi-family dwelling units, and 400,000 sf of general commercial uses. The revised PUD proposes 700 single-family dwelling units, a maximum of 500,000 sf of commercial uses, and a maximum of 250,000 sf of light industrial uses. Staff has reviewed the proposed PUD and has a number of issues that they would like to see addressed before recommending approval:

- First and foremost, the 3rd party TIA review must be completed and comments from it reviewed/addressed. Having one access on Drop off Drive seems inadequate for a development of this size and the developer should work with adjacent property owners or otherwise provide for another connection to the surrounding roadway network.
- All of the references to the current regulations should be changed to the applicable UDO sections.
- Need clarification on the wetland/upland acreage. The PUD language states 573 acres of wetlands, but the Boundary and Wetland Map in Exhibit B shows 571 acres.
- Under Intent on p.1, the description includes multi-family uses, but they are not included in Table 1: Density Allocation on p.4, in the land uses, or on the Conceptual Master Land Use Plan in Exhibit E. Please clarify.
- At the end of p. 2, remove "by the Town of Summerville Town Engineer or its authorized representative."
- Need consistency on proposed land uses between all portions of Sections II and III. Only four land uses are included in Section II, A, B, and C, but a number of others are included in Section II, D, and then defined in Section III.
- Clarification needed on Continuing Care Retirement Community units. Need MF usage if CCRC units will count towards MF. Provide equivalency matrix in order to relate its density to residential units and commercial square footage. Also, disagree with footnote b on p. 4 - How can it not count towards SF if it is in a residential area?
- Clarify Civic areas in relation to the Fire Station Site: Fire stations are allowed in civic areas; however only min of 2 acres Civic (Sec. C p.6) is specified in the PUD, but the Fire Station Site is 3.6 acres in the DA (Sec XVIII p.17).

- On p.7 if a gated active adult community or other age restricted community is built, please detail that the streets will remain private and be maintained by the POA/HOA, not the Town.
- On p.8, Section J, buffers should be required within the development if you have SF immediately adjacent to the Commercial/Industrial uses.
- In Table 2: Development Criteria (p.10), the side setbacks for accessory structures for SF is 3', but 5' for duplexes and townhomes. These should all be the same with a preference for 5' due to building code requirements.
- In Table 2: Development Criteria (p.10), it states that the maximum impervious coverage for commercial and industrial uses will be calculated as gross acreage. Will these sites be developed or planned all at the same time? If not, this will be very difficult to regulate, and the final sites built could be negatively affected.
- On p.12, under Street Trees, should the planter strip be a minimum of 5' deep or 5' wide? If width is intended, this contradicts the Street Sections, which show a minimum of 6' in width. Also, not entirely sure what is meant by a "block" in regards to the scheduling of inspections – this needs to be clarified.
- On p.13, under Tree Clearing, please add that every effort should be made to design around any A or B graded Grand trees, but if this is not possible, they will be mitigated at 100%.
- On p. 14, Signage Regulations, these need to be updated to reflect the new Conceptual Land Use Plan, and off-site signage will not be allowed.
- On p.14, Residential Architectural Standards, item four, staff requests that at least two windows be incorporated to each side of the house.
- On p.16, Fire Station Site – add that the site should be determined at the time of final platting for the first residential phase.
- Exhibit E, Conceptual Land Use Master Plan, appears to be incomplete. The existing ponds and proposed parks are not shown, and Commercial should be changed to Commercial/Light Industrial. Also, it should be noted that any civic uses would fall under the Commercial/Light Industrial Area.



Annexation Request

Zoning

- G-B
- LI
- PUD
- PUD/DA

Annexation Exhibit

Disclaimer: This map is a graphic representation of data obtained from various sources. All efforts have been made to warrant the accuracy of this map; however, the Town of Summerville disclaims all representation and liability for the use of this map.

2020

Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere

N

0 0.15 0.3 Mi

0 0.3 0.6 Km

TOWN OF SUMMERVILLE
ANNEXATION APPLICATION

1. **OWNER INFORMATION:** Please complete the following application to request that your property be incorporated into the municipal limits of the Town of Summerville. Phone numbers will not be published. All owners of the property sign page two and submit it to the Planning Department. *Required

*Property Owner(s): The Whitfield Company

*Mailing Address: 6518 Dorchester RD Suite C *Telephone: (843) 552-6615

*City: N. Chas *State: SC *Zip: 29418 Email: _____

2. **PROPERTY INFORMATION:** Municipalities must provide the U. S. Justice Department with the population demographics and the land use of each property added to the Town. Write "None" if the property is vacant. Population data is used to create voting districts and does not impact the decision to approve your annexation.

*Property Address: I-26 & Nexton Parkway Tax Map Number: 208-00-02-013

*Number of Current Residents: N/A *Race of Current Residents: N/A

Current Land Use: Vacant (i.e. home, bank, carwash, etc.) Future Land Use: Mixed use (i.e. home, bank, carwash, etc.)

Current County Zoning Classification: Berkeley County Flex-1 & HI

Requested Zoning Classification: PUD Planned Development District

3. **SUBMIT APPLICATION:** Please submit signed* application and a copy of the recorded plat and recorded deed to:

MAIL: Town of Summerville, 200 S. Main Street, Planning Department

PICKUP: Call the Planning Department at 843.851.4214

STATE OF SOUTH CAROLINA)
) PETITION FOR ANNEXATION
COUNTY OF BERKELEY)

TO THE HONORABLE MAYOR AND TOWN COUNCIL OF SUMMERVILLE

WHEREAS, SECTION 5-3-150 (3) Code of laws of South Carolina provides for the annexation of an area or property which is contiguous to a Town by filing with the municipal governing body a petition signed by all persons owning real estate in the area requesting annexation, and

WHEREAS, the undersigned are all persons owning real estate in the area requesting annexation, and

WHEREAS, the area requesting annexation is described as follows, to wit:

SAID PROPERTY, located at I-26 & Nexton Parkway (approximately 973 acres) to be annexed is identified by the Berkeley County Assessor's Office as Property Identification Number: TMS #208-00-02-013 to include, if necessary to establish contiguity, any road, waterway, easement, railroad track, marshland or utility line that intervenes between this property and the municipal limits of the Town of Summerville.

NOW, THEREFORE, the undersigned petition the Town Council of Summerville to annex the above described area into the municipal limits of the Town of Summerville.

Dated this 26th day of April, 2019.

FREEHOLDERS (OWNERS) SIGNED	DATE OF SIGNATURE
(Signature)	4/26/2019 (Date)
C. David Whitfield (Agent - The Whitfield Company) (Print Name)	
(Date)	(Signature)
(Print Name)	

(5)

0059006 Bk: 1609 Pg: 0238

STATE OF SOUTH CAROLINA

COUNTY OF BERKELEY

TITLE TO REAL ESTATE

KNOW ALL MEN BY THESE PRESENTS

Tri-County Developers, Limited Partnership, hereinafter referred to as grantor(s), in consideration of ONE MILLION, ONE HUNDRED, TEN THOUSAND AND NO 100 ($1,110,000.00) the receipt of which is hereby acknowledged, have granted bargained, sold and released, and by these presents do(es) grant, bargain, sell and release unto

THE WHITFIELD COMPANY, A SOUTH CAROLINA PARTNERSHIP

hereinafter referred to as grantee(s), heirs, successors and assigns:

All that piece, parcel or tract of land in St. James Goose Creek Parish, Berkeley County, said State, which is known as the Allen Tract, the Burbage Tract, and a portion of the Anderson Tract which contains in the aggregate 1000 acres, more or less, butting and bounding as follows: On the North by lands now or formerly of McGill or Mazyck and by lands of West Virginia Pulp and Paper Company (Chinners Tract) and by land now or formerly of Gibbs; East by lands formerly of McGill and Peter Walker and now or formerly of Mazyck and by lands of West Virginia Pulp and Paper Company, formerly of Prettyman & Sons; South by the remainder of the Anderson Tract now said to be of West Virginia Pulp and Paper Company, and lands now or formerly of Salisbury; and on the West by lands now or formerly of T. W. Salisbury, Gibbs and West Virginia Pulp and Paper Company; said property being shown and delineated on a map thereof by J. W. Foster, R.E. dated January 30, 1943, the same having been revised by H. B. Fishburne, R.S. on August 20, 1953, which revision shows line "C" and "D" as being the line which separates said property from property of Mazyck, said map being recorded in the Office of the Clerk of Court for Berkeley County in Plat Book E at page 4.

Being the same premises conveyed to the grantor herein by deed of Charles S. Bernstein, Joseph D. Judge, Jr. and Alan J. Davis by deed dated February 20, 1966 and recorded in Book A-168 at page 118 RMC Office, Berkeley County.

LESS that portion of said property which was taken by the South Carolina Department of Transportation by Condemnation Notice dated May 19, 1980 and filed in the South Carolina Department of Transportation Deed Vault in Columbia, South Carolina under Route I-26, File 8.548.

FILED, RECORDED, INDEXED
04/16/1999 12:23:24PM
Rec Fee: 10.00 St Fee: 2866.00
Co Fee: 1221.00 Pages: 4
Issued to: BAILEY, KENNETH
Register of Deeds Berkeley Co. SC
Cynthia B. Forte

TMS NUMBER 2080002013

ALSO

All that certain piece, parcel or tract of land containing approximately 5.34 acres, situate, lying and being on the North side Route I-26 in Berkeley county, State of south Carolina, and being shown on the South Carolina Department of Transportation Plans for route I-26, File 8.458, Tract 4.

Said tract being more fully described in that certain deed from South Carolina Department of Transportation to Tri-County Developers, Limited Partnership dated March 11, 1997 and recorded June 20, 1997, in Book 1091 at Page 0129, RMC Office for Berkeley County.

RECEIVED
BERKELEY COUNTY
ASSESSOR'S OFFICE
APR 26 1999

4

Being the same premises conveyed to the grantors by deed of South Carolina Department of Transportation dated March 11, 1997 and recorded June 20, 1997, in Book 1091 at Page 0129, RMC Office for Berkeley County

TMS NUMBER 2080002013

ALSO

All that parcel of land, a portion of the Taylor's Johnson tract containing 18.57 acres, more or less, located in Berkeley County, South Carolina described as follows:

Beginning at a concrete corner of the property line separating lands of West Virginia Pulp and Paper Company and lands of Tri-County Developers, thence N 14°-01E 9503.7 feet to a concrete corner; thence N 74°-21'-30" 103.82 feet to an iron pipe; thence S 14°-05' W 9524.5 feet along the west edge of Taylors Old Tram to an iron pipe; thence S 83°-07' 57" W 85.90 feet to the point of beginning.

Being the same premises conveyed to the grantors by deed of West Virginia Pulp and Paper Company dated May 6, 1968, and recorded June 19, 1968, in Book A-85 at Page 67, Office of the Clerk of Court for Berkeley County.

TMS NUMBER 2080002013

Together will all and singular rights, members, heriditaments and appurtenances to said premises belonging or in any wise incident or appertaining; To Have and to Hold all and singular premises before mentioned unto the grantees(s), and the grantee's(s')heirs or successors and assigns, forever. And, the grantor(s) do(es) hereby bind the grantor(s) and the grantor's(s') heirs or successors, executors and administrators to warrant and forever defend all and singular premises unto the grantee(s) and the grantee's(s') heirs or successors and against every person whomsoever lawfully claiming or to claim the same or any part thereof.

WITNESS the grantor's(s) hand(s) and seal(s) this 24th day of March, 1999

TRI-COUNTY DEVELOPERS, LIMITED PARTNERSHIP
BY: _____ (SEAL)
Charles S. Bernstein as General Partner
and Trustee in Liquidation

BY: _____ (SEAL)
Joseph D. Judge, Jr. as General Partner
and Trustee in Liquidation

0039006 Bk: 1609 Pg: 0240

AS TO CHARLES S. BERNSTEIN

SIGNED, sealed and delivered in the presence of:

Jessica A. Winters

Jan A. Smith

STATE OF SOUTH CAROLINA

COUNTY OF CHARLESTON

PROBATE

Personally appeared the undersigned witness and made oath that (s)he saw the within named grantor TRI-COUNTY DEVELOPERS, LIMITED PARTNERSHIP by Charles S. Bernstein sign, seal and as the grantor's(s') act and deed deliver the within written deed and that Deponent, with the other witness subscribed above witnessed the execution thereof.

SWORN to before me this 24 day of March, 1999.

Debra L. Carmichael (SEAL) Jan A. Smith

Notary Public for South Carolina

My Commission expires: MY COMMISSION EXPIRES MARCH 19, 2008.

AS TO JOSEPH D. JUDGE, JR.

SIGNED, sealed and delivered in the presence of:

Felicia Feiber

Sandy Chow

STATE OF FLORIDA

COUNTY OF Palm Beach

Sandy Chow

PROBATE

Personally appeared the undersigned witness and made oath that (s)he saw the within named grantor TRI-COUNTY DEVELOPERS, LIMITED PARTNERSHIP by Joseph D. Judge, Jr. sign, seal and as the grantor's(s') act and deed deliver the within written deed and that Deponent, with the other witness subscribed above witnessed the execution thereof.

SWORN to before me this 25th day of March, 1999.

(SEAL)

Notary Public for Florida

My Commission expires: 11-03-2001.

ALBA J. BULNES
MY COMMISSION # CC 688761
EXPIRES: November 3, 2001
Bonded Thru Notary Public Underwriters

0059006 Bk: 1609 Pg: 0241

STATE OF SOUTH CAROLINA)
) AFFIDAVIT
COUNTY OF BERKELEY)

PERSONALLY APPEARED before me the undersigned, who being duly sworn, deposes and says:

1 I have read the information concerning the new exemption numbers (Senate Bill 564-June 10, 1997), and I understand the information.

2. The property being transferred is located at I-26 @ SHEEP ISLAND ROAD, BERKELEY COUNTY, SC, bearing Berkeley County Tax Map Number TMS#: 208-00-02-013, was transferred by TRI COUNTY DEVELOPERS, PARTNERSHIP to THE WHITFIELD COMPANY on March 31, 1999.

3. The Deed is NOT EXEMPT from the deed recording fee and the FAIR MARKET VALUE IS $1,110,000.00

4. The Deed IS EXEMPT from the recording fee because (Use new exemption numbers and explain reason for exemption):

EXEMPTION #:

EXPLANATION FOR EXEMPTION:

5. As required by Code Section 12-24-70, I state that I am a responsible person who was connected with the transaction as: ATTORNEY FOR THE BUYER

6. I understand that a person required to furnish this affidavit who willfully furnishes a false or fraudulent affidavit is guilty of a misdeameanor and, upon conviction, must be fined not more than one thousand dollars or imprisoned not more than one year, or both.

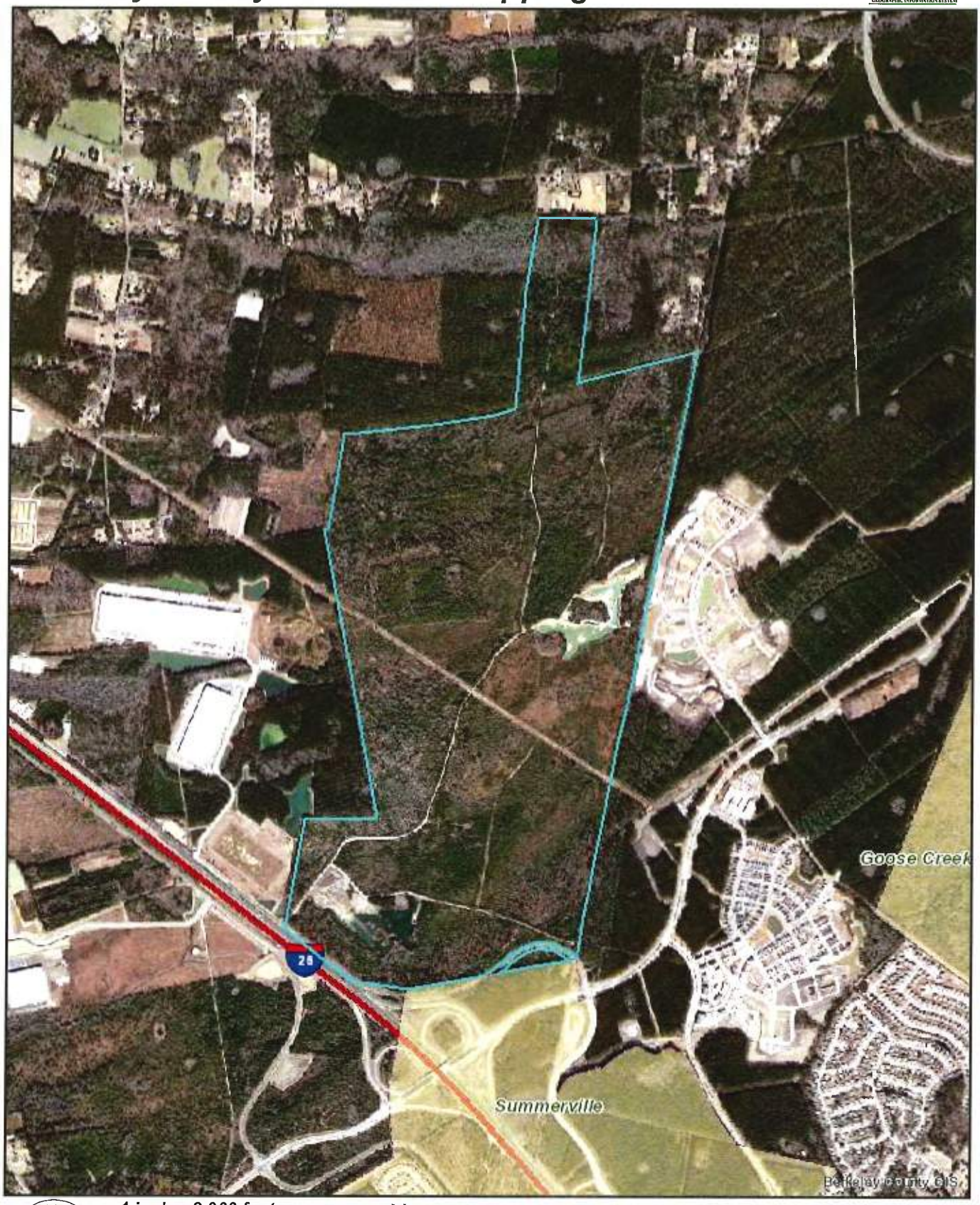
C. Kenneth Bailey, Esquire
C. KENNETH BAILEY, ESQUIRE

SWORN TO BEFORE ME THIS 31st DAY OF March, 1999 .

Lucile S. Bailey (L.S.)
Notary Public for South Carolina
My Commission Expires: 08-28-2000

*The fee is based on the real property's value. Value means the realty's fair market value. In arm's length real property transactions, this value is the sales price to be paid in money or money's worth (e.g. stocks, personal property, other realty, forgiveness of debt, mortgages assumed or placed on the realty as a result of the transaction). However a deduction is allowed from this value for the amount of any lien or encumbrance existing on land, tenement, or realty before the transfer and remaining on it after the transfer.

Berkeley County GIS Online Mapping



1 inch = 2,000 feet

1 in

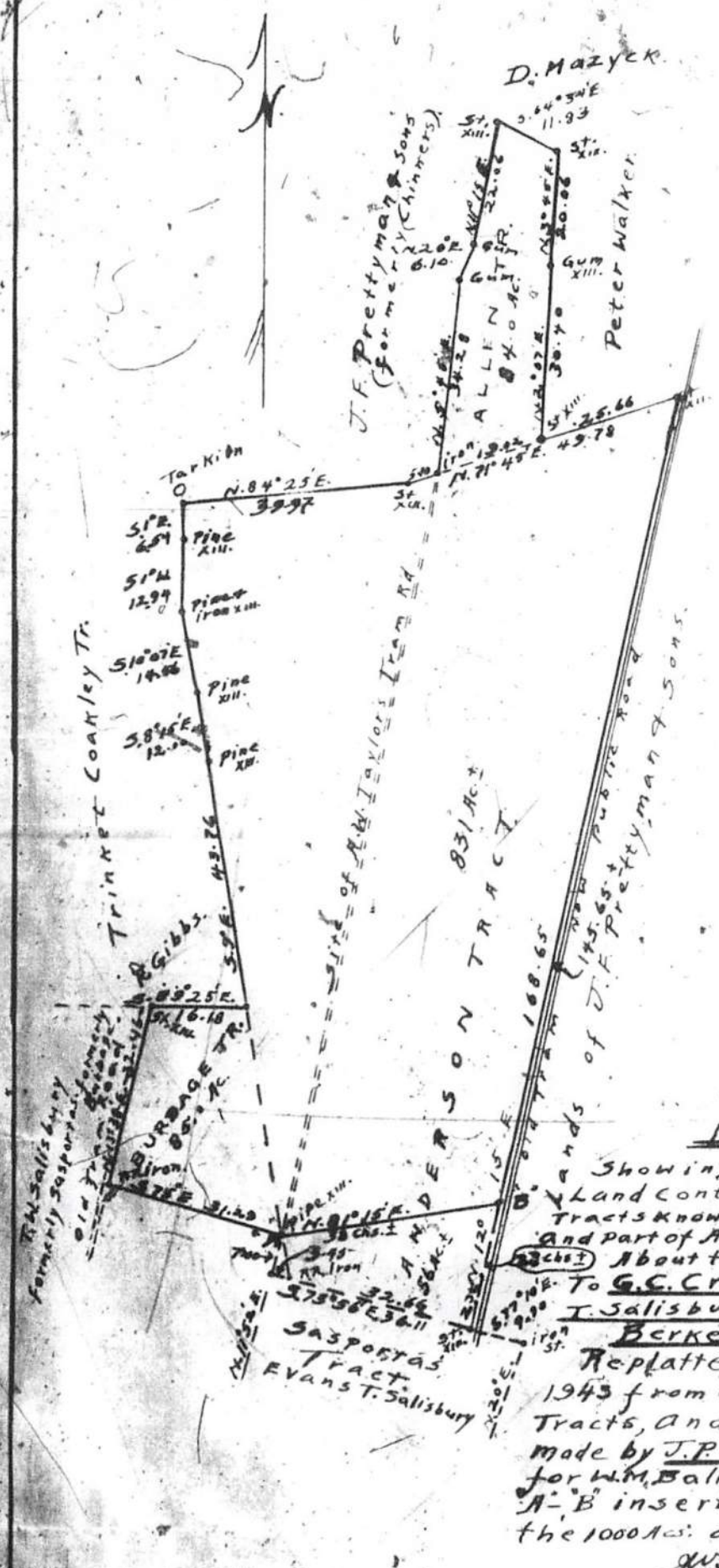
Date: 4/30/2019

Berkeley County GIS

N

The county of Berkeley and its GIS Department disclaims accountability for this product and makes no warranty express or implied concerning the accuracy thereof. Responsibility for interpretation and application of this product lies with the user.

E/4



MAP

Showing 1000 Acres of Land Contained in Three Tracts known as Allen, Burbage and part of Anderson Tracts, About to be Conveyed To G.C. Croft by Evans T. Salisbury, Situate in Berkeley County S.C.

Replatted January 30th. 1943 from Survey of these Tracts, and Sasportas Tract made by J.P. Gaillard Jan. 1926 for W.M. Ball and the Line "A"-"B" inserted to cut off the 1000 Acs. as Shown by:

J.W. Foster, R.E.

Jan 30th 1943

Scale: 1 in. 20 chs.

THOMAS & HUTTON

REZONING APPLICATION

SHEEP ISLAND
PLANNED UNIT DEVELOPMENT (PUD)
TOWN OF SUMMERVILLE, SOUTH CAROLINA

Prepared for:
HOYER INVESTMENT COMPANY

J - 27603

April 2019
Revised March 2020
Revised May 2020

thomasandhutton.com

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Development Schedule I
Tree Survey ..... J

I. GENERAL DESCRIPTION OF THE PLANNED UNIT DEVELOPMENT

The Sheep Island Planned Development District (PUD) is in unincorporated Berkeley County on the eastern side Interstate Highway 26 at the Nexton Parkway Interchange. The property is contiguous to lands within the Town of Summerville and will be annexed into the Town as part of the PUD rezoning process. The site consists of approximately 973 acres (973 ac.) and includes all of parcel number 208-00-02-013 from the Berkeley County Tax Map. Approximately 923 acres are zoned Heavy Industrial and the remaining 50 acres located in the northern pan-handle of the property are zoned FLEX in Berkeley County. The property is bounded on the south by Nexton Parkway Interchange and Interstate Highway 26, on the north a portion of the Nexton PD-MU and agricultural lands, to the west by the FTZ Industrial Park and to the east by Sheep Island Road and The Del Webb Neighborhood of the Nexton PD-MU. Vehicular access to the property is off Drop Off Drive. An aerial photograph and context map of the property is included as **Exhibit A – Context Map**.

The total property is approximately nine hundred seventy-three acres (973 ac.) consisting of approximately four hundred acres (400 ac.) of uplands and approximately five hundred and seventy-three acres (573 ac.) of wetlands. A Boundary and Wetland Map is attached as **Exhibit B – Boundary and Wetland Map.** The map depicts the property boundary, wetlands, borrow pits, and surrounding land uses.

A. Property Ownership

The Sheep Island PUD is comprised of one tract of land owned by The Whitfield Company. The property ownership group has given written consent for Hoyer Investment Company to submit this proposed zoning change to The Town of Summerville. See **Exhibit C – Consent Letter.**

B. Intent of The Sheep Island PUD

The proposed PUD is in a "Principle Growth Area" designated as a Base Employment area/Town Center Node surrounded by suburban residential development on the Berkeley County Comprehensive Plan and Future Land Use Map. The Town of Summerville also included the property in the Future land Use Map as an Employment Growth District. The intent of the PUD rezoning is to provide a mixture of uses including a Town Center node adjacent to the Nexton Parkway Interchange consisting of high density (Multi-family) residential housing, commercial, civic, hospitality, retail, service, and restaurant uses to serve the growing population in the vicinity. As the property moves away from the interchange the proposed land use will fan out to suburban development with a mixture attached and detached residential units to meet the demand for housing options in the Town of Summerville and this area of Berkeley County.

Individual neighborhoods within the residential areas of the PUD will be established based on the natural features of the land including the wetlands and existing lakes.

Neighborhood and commercial streets will include 5-foot sidewalks on both sides of the street accented with street trees as depicted on **Exhibit D - Street Sections.** The Sheep Island PUD shall commit a minimum Open Space acreage equal to 20% of the total upland acreage. Not less than 25% of the minimum acreage of Open Space shall be Usable Open Space.

C. <u>The Conceptual Land Use Master Plan</u>

The Sheep Island PUD is anticipated to be constructed in multiple phases over a period of approximately fourteen (14) years. Initial development is tentatively believed to begin in 2020 with single-family residential followed by general commercial and civic uses. Development will occur in accordance with the **Conceptual Land Use Master Plan (Exhibit E)** and Section II.A as set forth in this document or as amended in the future. The Conceptual Land Use Master Plan and this text outline the general scope of the development including number of units, maximum commercial use, development standards, open space, and other issues.

The Conceptual Land Use Master Plan shows a maximum 700 single-family dwelling units, 500,000 SF of general commercial uses and 250,000 SF of light industrial.

The Conceptual Land Use Master Plan and the elements of this text seek to establish areas of open space. The open space, ponds, and amenities will be owned and maintained by the developer, homeowner's association, or other legally designated entity. Property deeded to a governmental entity or dedicated to the public becomes the maintenance responsibility of that entity upon proper dedication and acceptance.

The Conceptual Land Use Master Plan and associated PUD text includes amendments and exceptions to the current Town of Summerville Ordinances. The provisions of the Conceptual Land Use Master Plan, Exhibits, and Appendices shall apply to the development of the Sheep Island Planned Unit Development. In the event of a conflict, the hierarchy of documents that control development shall be the Development Agreement, the Sheep Island PUD, and the Current regulations that are defined in the Development Agreement.

Preliminary and Final Plats for each phase of the development shall be submitted for review and approval at staff level by the Town of Summerville Town Engineer or its authorized representative.

II. PROPOSED LAND USES AND INTENSITIES

A. Introduction

The Sheep Island PUD has been divided into four (4) Land Use Areas as indicated on the Conceptual Land Use Master Plan included as Exhibit E. The Areas include:

1. Commercial/Light Industrial
2. Attached and Detach Single Family Residential
3. Existing Ponds
4. Wetlands

The Conceptual Land Use Master Plan for Sheep Island PUD shall maintain flexibility to accommodate specific soil conditions, environmental concerns, physical constraints, market conditions, and design parameters. Accordingly, the exact location of boundary lines between planning areas, the location and size of land uses indicated within planning areas, and preliminary design concepts for each tract described herein shall be subject to change as phases of the Conceptual Land Use Master Plan area are submitted for detailed development review over the life of the development; provided that the maximum densities, perimeter buffers, minimum open space, and other conditions of the Sheep Island PUD will be adhered to.

B. Allowed Density and Transfer of Density Between Planning Areas

An overall density cap for the Sheep Island PUD has been established at 700 single family dwelling units, 500,000 square feet of commercial and 250,000 SF of light industrial development.

The PUD Master Plan for the Sheep Island PUD shall allow for the transfer of the undeveloped residential dwelling units from one Tract to another and increasing the receiving district's density provided the following conditions are met:

1. Commercial/Light Industrial uses shall only be allowed on the Commercial Tract.
2. Commercial/Light Industrial densities may not be transferred to residential densities.
3. The maximum densities for development included within the Sheep Island PUD shall not be exceeded.

For planning purposes, densities for each area have been estimated. The actual number of dwellings or commercial acreage shall not exceed the maximum allowed total densities for the Sheep Island PUD.

C. Density Allocation

TABLE 1 Density Allocation Table *Sheep Island Village*						
Planning Areas and Land Use	**Total Acres**	**Upland Acres**	**Wetland Acres**	**Max. DU's**	**Maximum Commercial SF**	**Maximum Light Industrial SF**
Commercial/Light Industrial	58	58	-	--	500,000	250,000
Single Family Attached and Detached Residential	342	342	-	700	-	-
Wetlands	573	0	573	0	0	0
Total	973	400	573	700	500,000	250,000

FOOTNOTES:

(a) The PUD Master Plan shall allow for the transfer of the undeveloped dwellings from one area to another.

(b) Continuing Care retirement Community units will not count towards the single-family density but shall count towards commercial square footage or multi-family density, dependent on which Land Use area they are in. If Assisted and Independent Living units are in the com3mercial land use area, they shall not exceed 30% of the total allowed commercial acreage.

D. Allowed Land Uses

The following land uses as designated for each individual Planning Area shall be permitted in the Sheep Island PUD. The purpose of this portion of the Sheep Island PUD document is to state which land uses shall be allowed within individual Planning Areas, however, allowing these land uses, and densities does not obligate the Property Owner or his successors to develop the uses, densities or facilities stated herein provided the minimum open space standards, Commercial acreage and civic acreage are adhered too. The development standards for each use are outlined.

Land Uses Terms are defined in Section III below.

Commercial/Light Industrial Area

The following uses as defined herein:

a. Hotels
b. Restaurants
c. Retail
d. Other Commercial uses as provided in the Town of Summerville General Business zoning district
e. Civic
f. Community Recreation
g. Model Home/Modular Sales Center
h. Continuing Care Retirement Communities and Senior Housing associated with such (maximum of 30% of Commercial Area)
i. Light Industrial

Single Family Attached and Detached Residential Areas

The following uses as defined herein:

a. Community Recreation
b. Model Home/Modular Sales Center
f. Open Space
g. Single Family Attached and Detached Dwelling Units
h. Continuing Care Retirement Communities
i. Active Adult Communities
j. Churches and Uses customarily incidental to the operation of a church including, but not limited to, recreation facilities and buildings, educational buildings, parsonage facilities and parking areas.

Parks and Existing Lakes

The following uses as defined herein:

a. Community Recreation
b. Open Space

Wetlands

The following uses as defined herein:

a. Community Recreation as allowed by ACOE wetland permit
b. Forestry Management as allowed by ACOE Wetland Permit
c. Open Space

III DEFFINITIONS OF LAND USE TERMS

In the absence of a term definition in Sheep Island PUD, the definitions included in the Current Regulations as defined in the Development Agreement shall apply.

A. Community Recreation

This designation allows for the recreational amenities to serve the Sheep Island PUD. Land uses may consist of private indoor and outdoor lighted and unlighted recreation facilities, establishments and services which include active and passive sports, and entertainment facilities. Permitted uses include:

a. Outdoor recreational facilities may include:
   1) Swimming pools, pool bath houses and gazebos/pavilions
   2) Playgrounds
   3) Neighborhood parks
   4) Community parks
   5) Leisure trails and bike trails 8-foot min. width*
   6) Other recreational uses

   *Trails, sidewalks, or multi-use paths shall connect to like trails, sidewalks, or multi-use paths on adjacent property where public access is provided.

b. Swim Club with pavilion
c. Accessory Structures
d. Community offices/administration buildings

B. Dwellings

a. Single family Attached or Detached includes:

- Detached dwelling other than a mobile home designed for or occupied exclusively by one family.

- *Townhouse,* one of a series of attached one-family dwelling units which:
  - May or may not have a common roof;
  - Share at least one common wall;
  - Primarily sold as individual lots of record.
- *Duplex,* a detached or semidetached dwelling designed for or occupied exclusively by two families living independently of each other.

C. Civic

Civic areas shall allow uses that relate to duties and activities of the people in relation to their town, city or local area. Lands for civic uses shall be a minimum of two (2) acres. Civic uses may include:

- Government Offices
- Fire Station
- Educational uses
- Public uses
- Parks and recreation

- Community assembly
- Community services
- Social services

D. Commercial

Commercial uses in the sheep Island PUD shall include the allowed uses in B-3 General Business in the Current Ordinance except for the following uses that shall not be allowed:

- Junkyards or salvage yards
- Video Poker Parlors
- Sexually oriented businesses

Continuing Care Retirement Communities will not count towards the single-family attached and detached density but shall count towards commercial acreage or multi-family density, dependent on which Land Use area they are in. If Continuing Care Retirement Communities units are in the commercial land use area, they shall not exceed 30% of the total allowed commercial acreage.

E. Light Industrial

Light Industrial uses in the sheep Island PUD shall include the allowed uses in I-1 Industrial in the Current Ordinance.

F. Continuing Care Retirement Community (CCRC)

CCRCs may contain up to four levels of care:

- Independent living, in which residents care for themselves and enjoy housekeeping services and a wide array of other services and amenities in the community. Some CCRCs have special programs, e.g., in partnership with Masterpiece Living, to help residents with successful aging.
- Assisted living, in which residents are given help as needed with daily tasks such as bathing and dressing in the residential unit or in a dedicated facility in the community.
- 24-hour nursing home care, usually in a dedicated skilled nursing facility.
- Many CCRCs have a fourth level of memory support care, in addition to assisted living and skilled nursing; some offer home- and community-based care, expanding their reach into the greater community; and a few provide the last level of end-of-life care.

G. Active Adult Community

Active adult Community refers to either an age-targeted or an Age-restricted community designed for people aged 55 or older (sometimes 50 or older). AAC's typically contain recreational facilities promoting active and healthy lifestyles. AAC's shall be allowed to be access restricted (gated) for residents only.

H. Model Home/Modular Sales Center

This designation allows for the model homes and office/administrative facilities associated with the primary sale of residential lots and homes. The facility(s) may be permanent in nature with the model homes or sales office being sold as dwelling in the future or a temporary mobile building that may relocate from time to time during the period of development to meet the needs of development phasing.

I. Open Space

Total open space for the Sheep Island PUD shall be calculated for the boundary of the Property and not on a site-specific basis. Open Spaces shall not be confined to one area but shall be blended throughout the development. The minimum Open Space acreage provided shall be equal to 20% of the total upland acreage. Not less than 25% of the minimum acreage of Open Space shall be Usable Open Space. Refer to Section III Definitions of Land Use Terms for allowed open space uses.

Open space shall consist of:

a. Wetland Buffers (Passive use)
b. Parks, active and passive
c. Amenity centers
d. Stormwater Ponds (water surface can only be included toward open space requirement if it is greater than 5 acres and has accessibility to on-water activities)
e. Utility Corridors that include sports fields or trails
f. Trails and paths*
g. Natural areas
h. Landscape areas

Usable Open Space shall consist of:

a. Parks, active and passive
b. Amenity centers
c. Trails and paths (Calculated as a 25-foot wide corridor)*
d. Utility Corridors that include sports fields or trails
e. Community gardens
f. Playgrounds
g. Dog parks
h. Sports fields
i. Stormwater Ponds greater than 5 acres with accessibility to on-water activities
j. Other recreational uses

*5' sidewalk along existing or proposed roads will not be considered as a corridor and will not count towards required open space

J. Setbacks and Buffers

Setbacks and buffers shall meet the minimum requirement established herein. Buffers shall apply to the perimeter of the Property only; provided,

however, that any required wetlands buffers shall apply according to law throughout the Property.

Wetland buffers shall allow selective clearing and tree pruning as allowed by the South Carolina Department of Health and Environmental Control, The Army Corps of Engineers and the Town of Summerville Tree Protection Ordinance, unless otherwise noted herein.

Perimeter setbacks and buffers are indicated on the Conceptual Land Use Master Plan (Exhibit E):

Allowed uses within perimeter setback and buffer zones shall include:

a. Selective clearing and tree pruning
b. Landscape Development
c. Earth berming
d. Bike/leisure trails/sidewalks
e. Utilities
f. Road crossings
g. Signage and entry monuments.

K. Signage Control

Signage for the Sheep Island PUD shall comply with Article VI-SIGNS of the Current Town of Summerville Regulations and Section XI "Signage Regulations".

L. Single-Family

Residential Refer to Dwellings above.

M. Neighborhood

Section of the Sheep Island property that is a grouping of like uses with distinguishing characteristics such as individual entry monumentation, unique architecture, amenities, etc. Neighborhoods may also be designated by geographical constraints, such as wetlands or existing waterbodies.

IV. DEVELOPMENT CRITERIA

The Following development criteria shall apply to the Commercial. Civic, Multi-Family and Attached and Detached Single Family Residential Areas of the PUD

TABLE 2
Development Criteria
Sheep Island Village

Lot Type	Min. Lot Size	Min. Lot Width	Min. Front Yd. Setback (ft.)	Min. Side Yd. Setback (ft.)	Min. Rear Yd. Setback (ft.)	Accessory Structure Setback		Max. Impervious Coverage (%)	Max. ht (ft.)
						Side	Rear		
Single Family Detached Dwelling	4,000 SF	40	20 (a)(c)	5(c)	10(c)	3(c)	3(c)	70	35(e)
Duplex	N/A	30	20(a)(c)	5 (b)(c)	10(c)	5(c)	5(c)	80	35(e)
Townhouse	N/A	16	20 (a)(c)	5 (b)(c)	10(c)	5(c)	5(c)	80	40(e)
Commercial	N/A	50	0	10 (b)(c)	10(c)	5(c)	5(c)	80(d)	N/A
Light Industrial	N/A	100	30 (b)(c)	10 (b)(c)	10(c)	5(c)	5(c)	80(d)	55(e)

FOOTNOTES:

(a) A minimum front yard setback of 10 feet is allowed when parking is provided at the rear of fee simple single family detached homes, duplex and townhouses. Parking in the rear of a residential lot may be accessed from the front street or by an alley with a minimum 20 foot right of way. Required parking shall be contained within the residential lot.
(b) Zero setback if buildings are adjoining.
(c) Steps, eaves and chimneys may encroach into setback areas but not into easements. Front porch setback shall be a minimum of 10 feet provided the garage is setback a minimum of 20 feet from the public right-of-way.
(d) Maximum impervious coverage for the Commercial Tract shall be based on gross acreage.
(e) Building heights are measured to the eve of structure.

GENERAL NOTES

1. Minimum distance between buildings shall be determined based on Fire Code requirements at the time the building permit application is submitted.
2. Setbacks are measured to the face of proposed structures.
3. Accessory structures are permitted in the rear and side yards only with indicated minimum setbacks from the side and rear property lines.
4. Accessory Dwelling Units (ADU's/garage apartments) shall be allowed and will count as an additional dwelling unit.
5. Corner lots shall comply with development criteria listed in this chart and be considered to have one front, two sides and a rear.
6. Senior Housing associated with Continuing Care Retirement Communities shall utilize the Single-Family Attached and Detached Residential development criteria regardless of the Land Use Area they are in.
7. Residential driveways may not front Type 1, Type 2 or Type 3 Collector Streets.
8. Where Residential Dwelling Units back up to Type1, Type 2 or Type 3 Collector Streets, a 25' undisturbed buffer of trees shall remain.

V. OPEN SPACE

Total open space for the Sheep Island PUD shall be calculated for the boundary of the Property and not on a site-specific basis. Open Spaces shall not be confined to one area but shall be blended throughout the development. The minimum Open Space acreage provided shall be equal to 20% of the total upland acreage. Not less than 25% of the minimum acreage of Open Space shall be Usable Open Space. Refer to Section III Definitions of Land Use Terms for allowed open space uses.

VI. STORM WATER MANAGEMENT

The Property Owner or his successors will prepare a storm water management plan for each phase of the Sheep Island project in accordance with the current stormwater management standards of the Town. The plan will address site hydrological characteristics, predevelopment conditions, post development runoff, and storm water management facilities for flood control and treatment. The storm water management plan will consider future construction, and it will detail the ability of the drainage system to treat runoff and control release rates during storm events as required. A preliminary Drainage Map is included as **Exhibit F - Preliminary Drainage Map.**

VII. WETLANDS

Freshwater wetlands on the property have been estimated by Sabine and Waters. The Sheep Island PUD shall have the wetlands on the property delineated and approved by the Army Corps of Engineers prior to submittal for development of future phases of the Property.

VIII. WATER AND SEWER SERVICE/UTILITY SERVICES/STREET LIGHTS

Water and Sewer service shall be provided to development within the Property. A coordination letter from Berkeley County Water and Sanitation is provided in **Exhibit G – Coordination Letters**.

Developers within the Property shall provide electrical utility services. Coordination letter from Berkeley Electric Cooperative is included in **Exhibit G – Coordination Letters**.

Developers within the property shall coordinate the placement of proposed street lights with the street tree planting required in, X. TREE REGULATIONS below to avoid conflict between the two streetscape elements.

IX. SITE ACCESS AND TRAFFIC

Access to the Property currently exists at the Nexton Parkway Interchange and Drop Off Drive. The Sheep Island PUD includes a hierarchy of street types for internal vehicular traffic. Streets within the property shall be interconnected, as site and environmental conditions allow, except for Active Adult and Continuing Care Retirement Communities which may be gated but shall include emergency vehicle access to adjacent neighborhoods. Street sections are included as **Exhibit D – Street Sections.**

Ramey Kemp Associates has completed an up dated traffic study included herein as **Exhibit H**. The Sheep Island PUD shall comply with the improvements recommended by the study or any future Study approved by the Town.

X. TREE REGULATIONS

The Sheep Island PUD shall be subject to the requirements of Article VII-BUILDING DESIGN AND SITE PLAN REVIEW Sec. 32-324 Tree Protection of the Current Town of Summerville Regulations with the following exceptions.

A. Street Trees

Street trees shall be planted in regular patterns of approximately 50' to 60' on-center. If the street trees are planted in a landscape planter strip between the back of curb and the sidewalk the planter strip shall be a minimum of five (5) feet deep. Each tree planted shall include a 12-month guaranty period. If the street tree fails to survive in the 12-month guaranty period another street tree shall be replanted with another 12-month guaranty period. Street trees shall be allowed to meet tree mitigation requirements provided the trees are planted adjacent to the mitigation area.

Exact location for planting of mitigation trees shall be approved by town staff prior to installation. Suitable areas may include public green spaces, buffers, passive recreational areas and the like.

The Property Owner or its designee shall be responsible for monitoring and implementation of the street tree planting requirement. If the Property Owner designates its obligations hereunder to another entity, the Property Owner must provide the Director of Planning written notification of same. A written schedule and detailed planting plan for the street tree planting requirement shall be submitted to the Town on a yearly basis. The schedule and planting plan shall correspond to implementation of the work no later than the last quarter of the year following the completion of the buildings within a block. Following the completion of the work the Property Owner of designee shall request Town inspection for compliance and approval.

Developers within the property shall coordinate the placement of proposed street lights with the street tree planting required to avoid conflict between the two streetscape elements.

Street Trees shall be a minimum of 2-1/2" caliper and of a variety from the following approved street tree list or as approved by the Town Arborist:

- Quercus lyrata 'Highbeam' Highbeam Overcup Oak
- Quercus nuttallii 'Highpoint' Highpoint Nuttall Oak
- Quercus phellos 'Hightower' Hightower Willow Oak
- Quercus virginiana 'highrise' Highrise Live Oak
- Ulmus parvifolia 'EmerII' Allee Allee Elem

B. Pine Tree Survey Requirements

Refer to **Exhibit J – Tree Survey.** Within areas of the property where stands of pine trees exist that are less than 8 inches in caliper the Sheep Island PUD shall allow for an estimate of pine trees less than 8" caliper per acre provided the following provisions are met:

- Pine trees greater than 8" caliper shall be surveyed per the requirements of the Current Regulations.
- Tree surveys as required by the Sheep Island PUD shall be allowed to occur by phase as particular development phases of the property are submitted for development review.

C. Tree Clearing

Mass grading and removal of trees is allowed for residential construction if the following conditions are met:

- Clearing and mass grading shall only occur one phase of development at a time per each Neighborhood within the project.
- Where clearing and grading the lots to final design elevations is required to positively drain the roads and lots or the final pad elevations of the proposed lots will exceed 24" of elevation change from existing grades.
- Grand trees graded A or B by a certified arborist shall be mitigated at 100%.
- There shall be 2 Canopy trees per single-family home and/or 1 tree per 2 townhome or duplex units planted in a location approved by the Director of Planning. These trees shall be in addition to the required street tree planting of Section X.A.
- Trees shall be planted at least 10' from any structure including drainage structures.
- Grand trees16 inches diameter at breast height shall be surveyed.
- The following tree species shall not be considered Grand:
  Liquidambar Styraciflua (Sweet Gum), *Pyrus Callerynna* (Bradford Pear), *Triadica Sebifera* (Chinese Tallow) and any other invasive species as identified by the State of South Carolina.
- Mitigation can be determined utilizing a ¼ acre sample area of existing 6" diameter breast height trees or greater in lieu of a tree survey. At least 50% of the lots in the cleared area must have building construction in process before mass clearing of the next phase will be approved.
- Clearing associated with Stormwater Management and Erosion Control and Maintenance shall be exempt from any mass clearing restrictions.

XI. LANDSCAPE REGULATIONS

The Sheep Island PUD shall comply with the landscape requirements included in Article VIII-BUILDING DESIGN AND SITE PLAN REVIEW Sec 32-323 Landscaping Requirements of the Current Regulations.

XII. SIGNAGE REGULATIONS

Signage for the Sheep Island PUD shall be governed by the Current Regulations except for the entry signage and monumentation for the community entries at the Nexton Parkway Interchange and Drop Off Drive Signage. These entry points shall allow for the following monument signs:

A. Nexton Parkway Interchange

- One Monument signs of 50 sf sign face for the Residential Development.
- Two Monument signs of 50 sf sign face for the Multi-Family Development.

B. Drop Off Drive

- One Monument sign of 50 sf sign face for the Civic development.
- Two Monument signs of 50 sf sign face for the Commercial development.

XIII. STREET LIGHTING

The streets within the Sheep Island PUD shall include street lights. Street lights shall be selected from the decorative fixtures offered by Berkeley Electric Coop. Light pole spacing shall be based on the photometric design standards recommended by Berkeley Electric Coop and shall comply with the Street Lighting requirements included in Article III Development Standards (Sec. K) Street Lighting of the Town's Current Regulations. Final light pole locations shall be coordinated with the street tree plantings to avoid conflict.

XIV. RESIDENTIAL ARCHITECTURAL STANDARDS

Single Family resident homes shall comply with the following standards:

1. Building pads will be designed to create positive drainage away from future homes. Pads will be designed to a minimum 18" above the back of curb of the fronting public road right-of-way or as otherwise approved by the Town of Summerville Director of Public Works
2. Garages shall be set back a minimum of 20 feet from Right-of-Way and shall not be closer to the front right-of-way than the front façade of the house. (No snout houses)
3. Stoops are required on the front façade of the homes. Front porches shall be encouraged, but not required. When incorporating a front porch, it shall be a minimum 6' in depth. Front porches may be set back a minimum of 10 feet from the front property line provided the garage is setback a minimum of 20 feet.
4. At least one window shall be incorporated to each side of the house
5. Minimal repetition of front facades – three lots skipped between matching front facades
6. Exterior siding material may include:

    - Hardiboard or equal

- Brick
- Stucco
- Vinyl

Vinyl siding shall meet the following minimum standards:

- Panels shall be at least 0.04 inches thick.
- Soffit panels shall be at least 0.05 inches thick.
- Siding shall contain anti-weathering protection.
- Siding product shall have a minimum 50-year warranty from the manufacturer.
- Vinyl shakes, beadboard and water tables are encouraged, but not required to achieve variety.

Vinyl specifications shall be submitted for review and approval to the Residential design review board of the community Owner's Association.

XV. PROPERTY OWNERS ASSOCIATIONS

Prior to the sale of any property, a Master Property Owners Association (MPOA) shall be established. Membership in the MPOA will be mandatory for any property owner. There may be individual Property Owner Associations (POA's) established for each parcel or group of parcels which will incorporate its own common areas and be managed by each POA and governed by the MPOA. The MPOA may be funded by dues to be established in its recorded restrictive covenants. The MPOA's responsibility will be to manage the affairs of the MPOA including the enforcement of the restrictive covenants and the maintenance of common areas. Common areas will include passive park space, landscape areas and stormwater detention facilities.

XVI. DESIGN REVIEW PROCESS

A. Residential Development

Design review for residential dwellings shall be the Property Owner's Association and based on the design guidelines included in Section XIV.

B. Commercial and Civic Development

Prior to developing any commercial or civic parcel, Design Guidelines addressing the following shall be prepared:

- Architectural Standards
- Site Development Standards
- Parking Requirements (Shared parking provisions to be included)
- Buffer requirements
- Tree protection requirements
- Landscaping
- Signage requirements
- Exterior lighting

These guidelines (Sheep Island PUD Commercial Design Review Guidelines) will be submitted for review and approval by the Town of Summerville staff and with the consultation with the Town's Commercial Design Review Board. The Sheep Island PUD Commercial Design Review Guidelines will also detail the formation and responsibilities

of a Sheep Island PUD Commercial Design Review Board which may be established by the MPOA. All new developments or major alterations to existing structures, including accessory structures, other than single family detach or attached residential, shall be reviewed by the Sheep Island PUD Commercial Design Review Board for conformance to the Design Review Guidelines prior to submittal to the Town of Summerville for building or other permits. No submittals to the Town of Summerville Commercial Design Review Board will be required. However, normal Town review processes will be followed until the Sheep Island PUD Commercial Design Review Guidelines are approved by the Town.

XVII. FIRE STATION SITE

Prior to the issuance of a Certificate of Occupancy for the first Single Family Dwelling, Property Owner shall convey 3.6 acres to the Town for the sole purpose of constructing a Fire Station facility to serve the development and surrounding areas.

XVIII. DEVELOPMENT SCHEDULE

Development schedule is provided in **Exhibit I – Development Schedule**.

THOMAS & HUTTON

REZONING APPLICATION

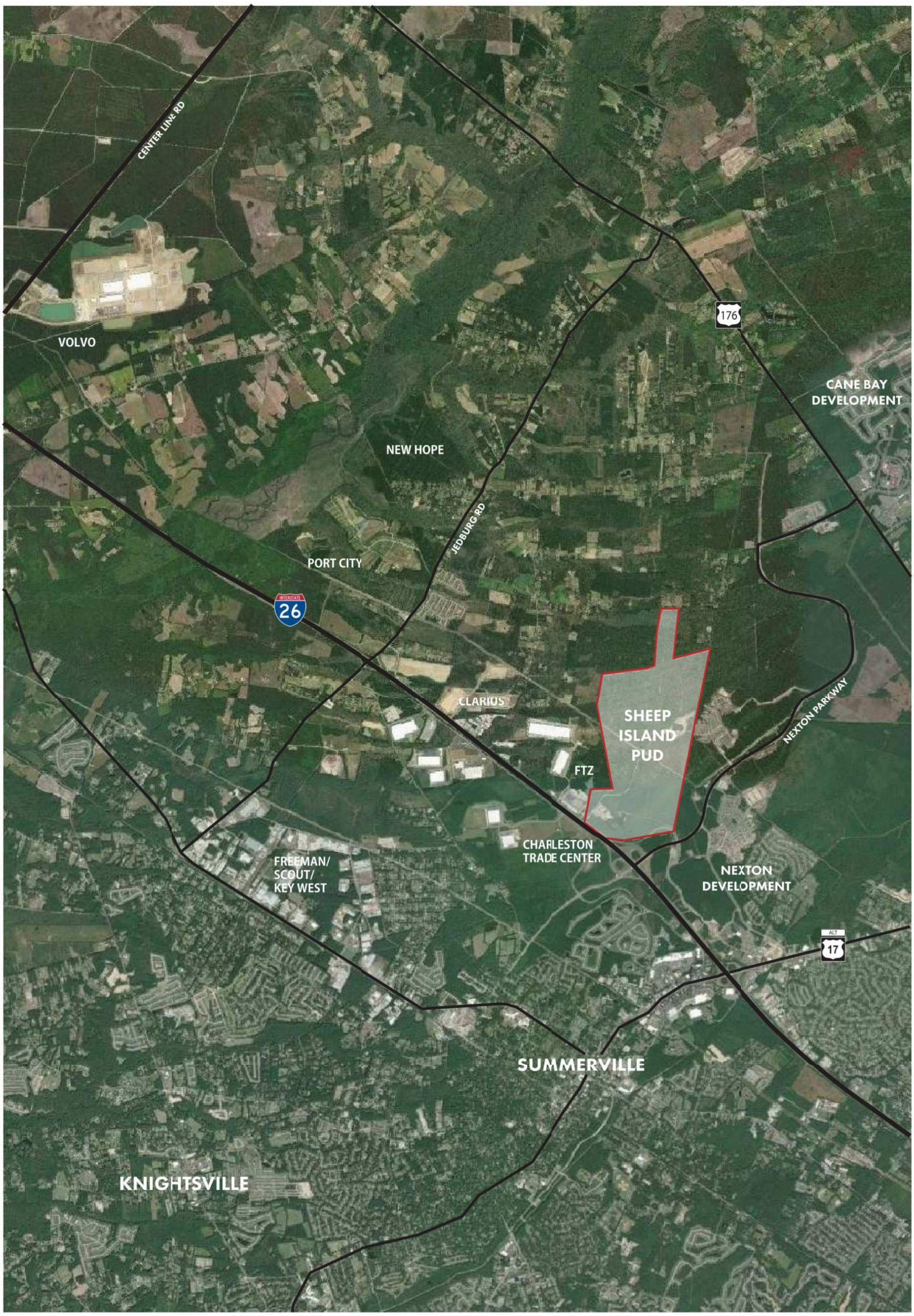
SHEEP ISLAND
PLANNED UNIT DEVELOPMENT (PUD)

EXHIBIT A
Context Map

J – 27603

March 2020

thomasandhutton.com



Prepared for:
HOYER INVESTMENT COMPANY

CONTEXT MAP

EXHIBIT A

THOMAS & HUTTON

This map illustrates a general plan of te development which is for discussion purposes only, does not limit or bind the owner/developer, and is subject to change and revision without prior written notice to the holder. Dimensions, boundaries, and position locations are for illustrative purposes only and are subject to an accurate survey and property description.

SHEEP ISLAND - PLANNED UNIT DEVELOPMENT

-2000 1000 2000 4000 8000

SCALE 1" = 2000'-0"

THOMAS & HUTTON

REZONING APPLICATION

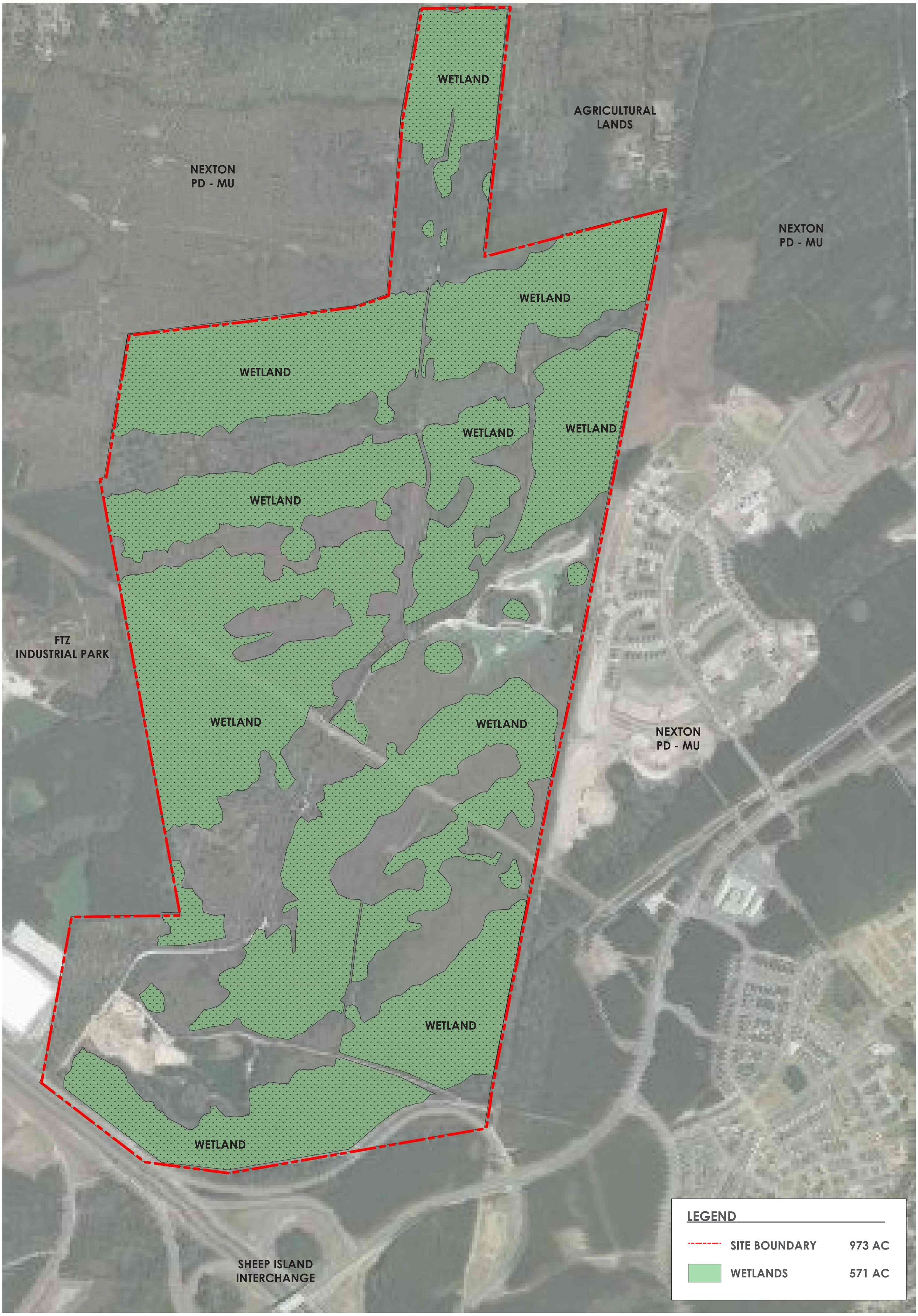
SHEEP ISLAND
PLANNED UNIT DEVELOPMENT (PUD)

EXHIBIT B
Boundary and Wetland Map

J – 27603

March 2020

thomasandhutton.com



Prepared for:
HOYER INVESTMENT COMPANY

WETLAND MAP

EXHIBIT B

THOMAS & HUTTON

This map illustrates a general plan of the development which is for discussion purposes only, does not limit or bind the owner/developer, and is subject to change and revision without prior written notice to the holder. Dimensions, boundaries, and position locations are for illustrative purposes only and are subject to an accurate survey and property description.

SHEEP ISLAND - PLANNED UNIT DEVELOPMENT

N

0 200 400 800 1600

SCALE: 1"=400'

THOMAS & HUTTON

REZONING APPLICATION

SHEEP ISLAND
PLANNED UNIT DEVELOPMENT (PUD)

EXHIBIT C
Consent Letter

J – 27603

March 2020

thomasandhutton.com

Whitfield Construction Company

April 22, 2019

Ms. Jessi Shuler
Director of Planning
Town of Summerville
200 S. Main Street
Summerville, SC 29483

RE: Sheep Island Planned Development, TMS No. 208-00-02-013, Berkeley County, SC

Dear Ms. Shuler,

Please be advised that representatives of HIC Land, LLC (Hoyer Investment Company) are authorized to represent The Whitfield Company, owner of the above-referenced property, with regard to the annexation, re-zoning, and development agreement applications associated with the property.

If you have any questions, please do not hesitate to contact me.

Sincerely,

David Whitfield
16518 Dorchester Road, Suite C
North Charleston, SC 29418

THOMAS & HUTTON

REZONING APPLICATION

SHEEP ISLAND
PLANNED UNIT DEVELOPMENT (PUD)

EXHIBIT D
Street Sections

J – 27603

March 2020

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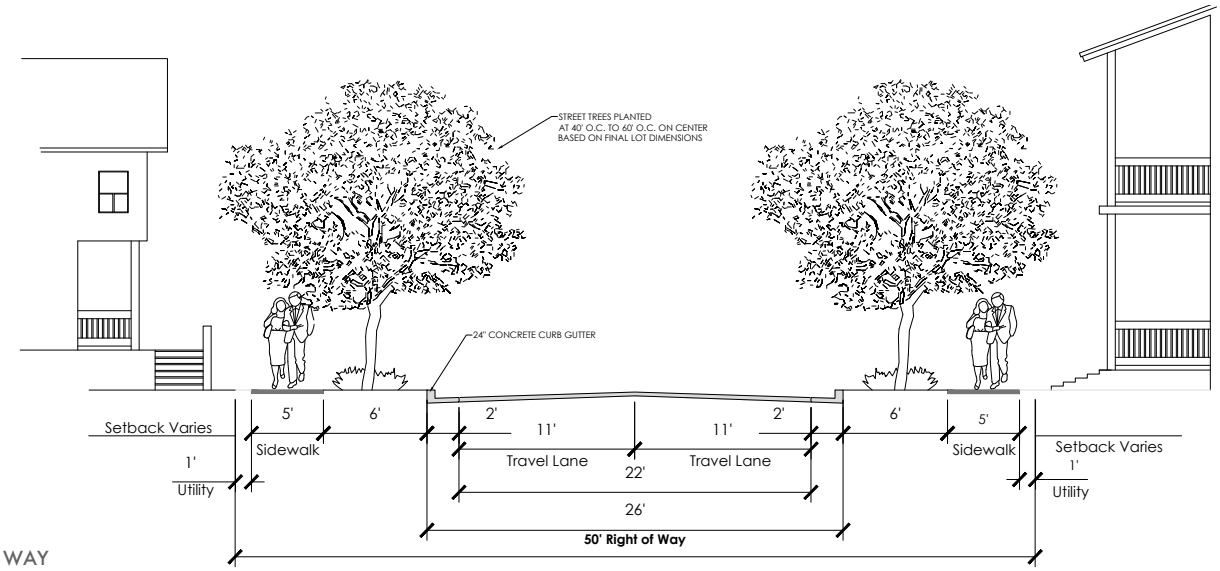
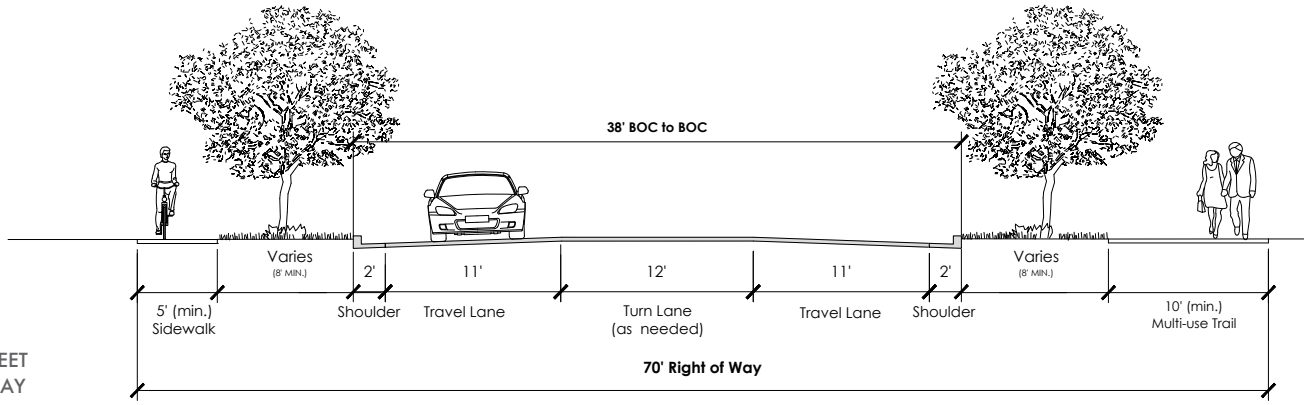
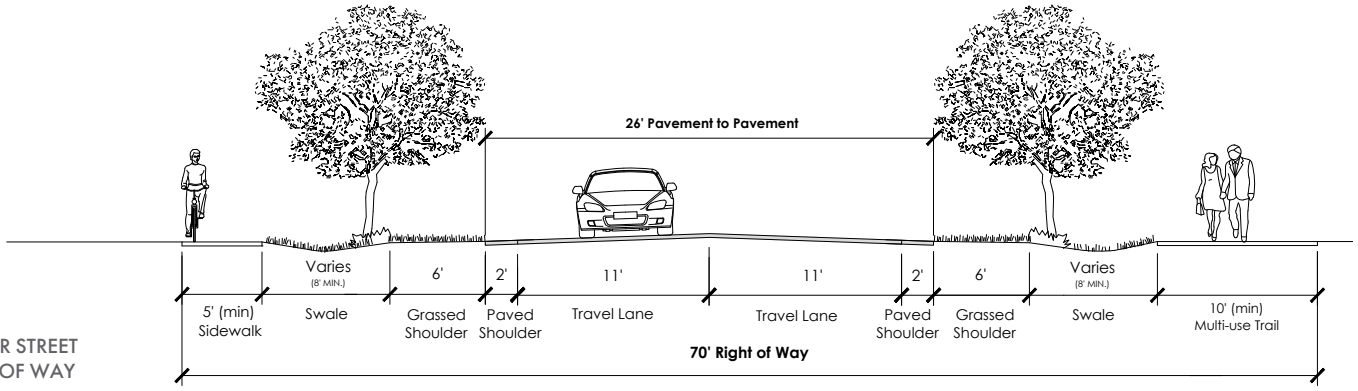


LOCAL STREET - 50′ RIGHT OF WAY



CENTRAL CONNECTOR STREET
(TYPE 1) - 70′ RIGHT OF WAY



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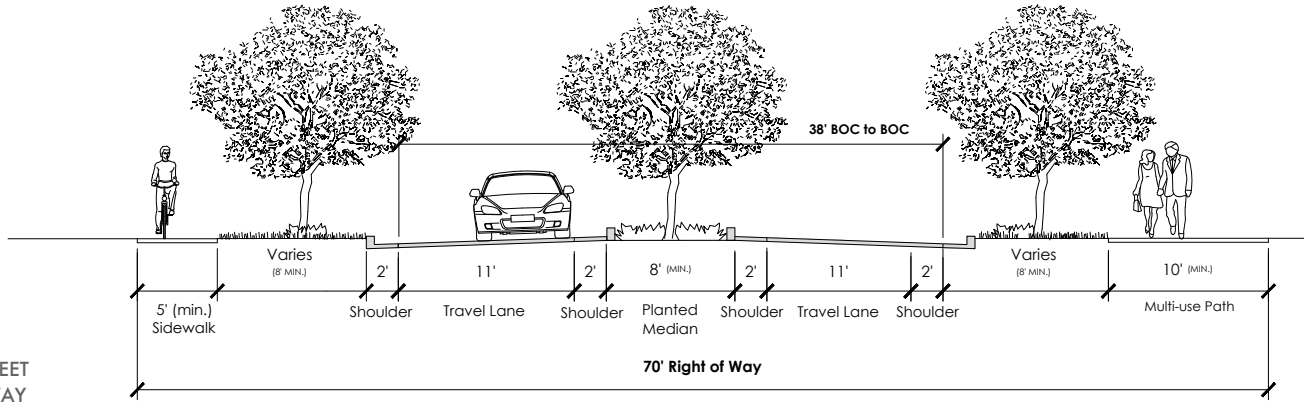

CENTRAL CONNECTOR STREET
(TYPE 3) - 70′ RIGHT OF WAY

Prepared for:
HOYER INVESTMENT COMPANY

CONCEPTUAL LAND USE MASTER PLAN

EXHIBIT D

THOMAS & HUTTON

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SHEEP ISLAND - PLANNED UNIT DEVELOPMENT

THOMAS & HUTTON

REZONING APPLICATION

SHEEP ISLAND
PLANNED UNIT DEVELOPMENT (PUD)

EXHIBIT E
Conceptual Land Use Master Plan

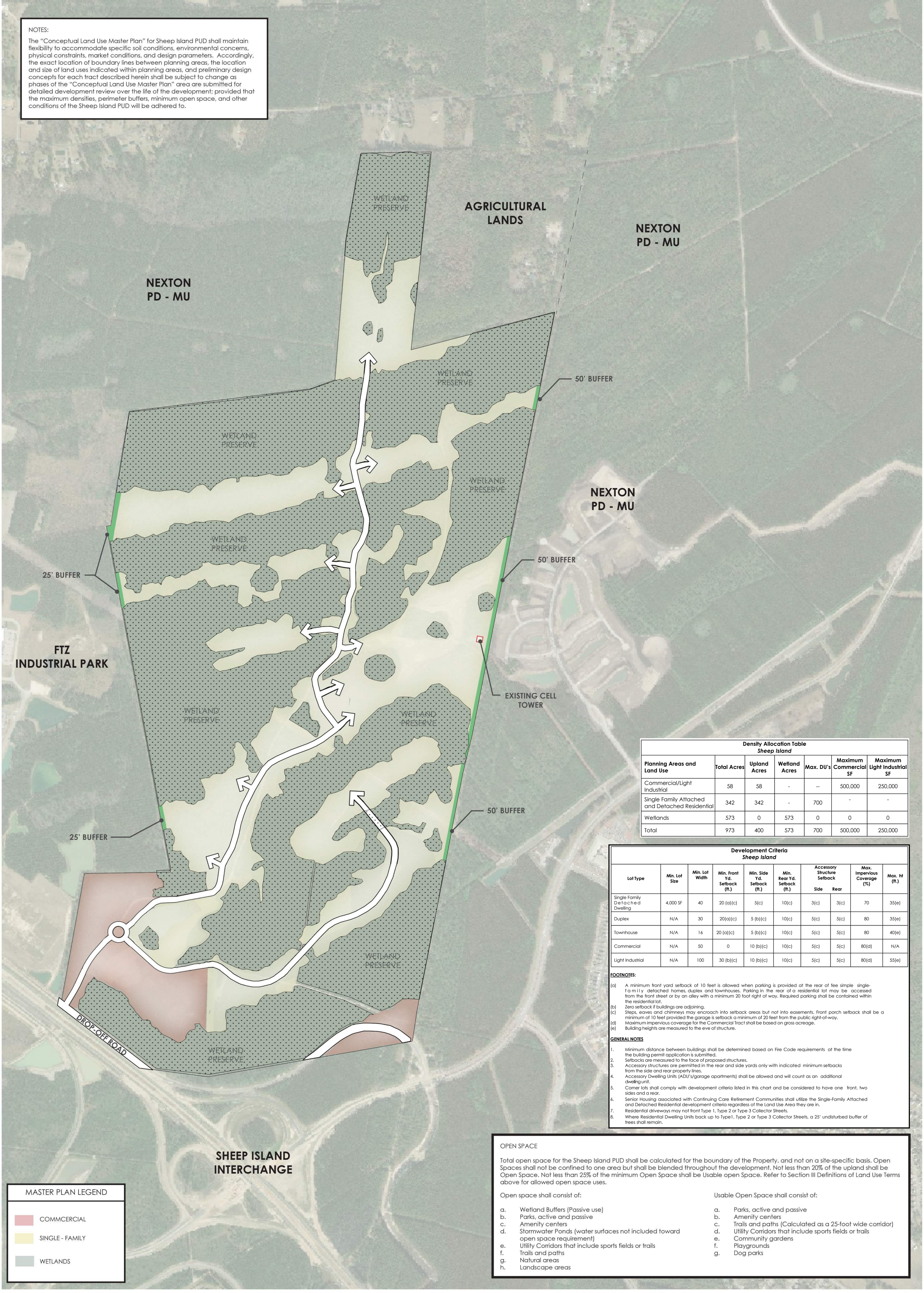
J – 27603

March 2020

thomasandhutton.com

NOTES:

The "Conceptual Land Use Master Plan" for Sheep Island PUD shall maintain flexibility to accommodate specific soil conditions, environmental concerns, physical constraints, market conditions, and design parameters. Accordingly, the exact location of boundary lines between planning areas, the location and size of land uses indicated within planning areas, and preliminary design concepts for each tract described herein shall be subject to change as phases of the "Conceptual Land Use Master Plan" area are submitted for detailed development review over the life of the development; provided that the maximum densities, perimeter buffers, minimum open space, and other conditions of the Sheep Island PUD will be adhered to.



Density Allocation Table
Sheep Island

Planning Areas and Land Use	Total Acres	Upland Acres	Wetland Acres	Max. DU's	Maximum Commercial SF	Maximum Light Industrial SF
Commercial/Light Industrial	58	58	-	--	500,000	250,000
Single Family Attached and Detached Residential	342	342	-	700	-	-
Wetlands	573	0	573	0	0	0
Total	973	400	573	700	500,000	250,000

Development Criteria
Sheep Island

Lot Type	Min. Lot Size	Min. Lot Width	Min. Front Yd. Setback (ft.)	Min. Side Yd. Setback (ft.)	Min. Rear Yd. Setback (ft.)	Accessory Structure Setback Side	Accessory Structure Setback Rear	Max. Impervious Coverage (%)	Max. ht (ft.)
Single Family Detached Dwelling	4,000 SF	40	20 (a)(c)	5(c)	10(c)	3(c)	3(c)	70	35(e)
Duplex	N/A	30	20(a)(c)	5 (b)(c)	10(c)	5(c)	5(c)	80	35(e)
Townhouse	N/A	16	20 (a)(c)	5 (b)(c)	10(c)	5(c)	5(c)	80	40(e)
Commercial	N/A	50	0	10 (b)(c)	10(c)	5(c)	5(c)	80(d)	N/A
Light Industrial	N/A	100	30 (b)(c)	10 (b)(c)	10(c)	5(c)	5(c)	80(d)	55(e)

FOOTNOTES:

(a) A minimum front yard setback of 10 feet is allowed when parking is provided at the rear of fee simple single-family detached homes, duplex and townhouses. Parking in the rear of a residential lot may be accessed from the front street or by an alley with a minimum 20 foot right of way. Required parking shall be contained within the residential lot.
(b) Zero setback if buildings are adjoining.
(c) Steps, eaves and chimneys may encroach into setback areas but not into easements. Front porch setback shall be a minimum of 10 feet provided the garage is setback a minimum of 20 feet from the public right-of-way.
(d) Maximum impervious coverage for the Commercial Tract shall be based on gross acreage.
(e) Building heights are measured to the eve of structure.

GENERAL NOTES

1. Minimum distance between buildings shall be determined based on Fire Code requirements at the time the building permit application is submitted.
2. Setbacks are measured to the face of proposed structures.
3. Accessory structures are permitted in the rear and side yards only with indicated minimum setbacks from the side and rear property lines.
4. Accessory Dwelling Units (ADU's/garage apartments) shall be allowed and will count as an additional dwelling unit.
5. Corner lots shall comply with development criteria listed in this chart and be considered to have one front, two sides and a rear.
6. Senior Housing associated with Continuing Care Retirement Communities shall utilize the Single-Family Attached and Detached Residential development criteria regardless of the Land Use Area they are in.
7. Residential driveways may not front Type 1, Type 2 or Type 3 Collector Streets.
8. Where Residential Dwelling Units back up to Type1, Type 2 or Type 3 Collector Streets, a 25' undisturbed buffer of trees shall remain.

OPEN SPACE

Total open space for the Sheep Island PUD shall be calculated for the boundary of the Property. and not on a site-specific basis. Open Spaces shall not be confined to one area but shall be blended throughout the development. Not less than 20% of the upland shall be Open Space. Not less than 25% of the minimum Open Space shall be Usable open Space. Refer to Section III Definitions of Land Use Terms above for allowed open space uses.

Open space shall consist of:

a. Wetland Buffers (Passive use)
b. Parks, active and passive
c. Amenity centers
d. Stormwater Ponds (water surfaces not included toward open space requirement)
e. Utility Corridors that include sports fields or trails
f. Trails and paths
g. Natural areas
h. Landscape areas

Usable Open Space shall consist of:

a. Parks, active and passive
b. Amenity centers
c. Trails and paths (Calculated as a 25-foot wide corridor)
d. Utility Corridors that include sports fields or trails
e. Community gardens
f. Playgrounds
g. Dog parks

MASTER PLAN LEGEND

- COMMCERCIAL
- SINGLE - FAMILY
- WETLANDS

Prepared for:
HOYER INVESTMENT COMPANY

CONCEPTUAL LAND USE MASTER PLAN

EXHIBIT E

THOMAS & HUTTON

This map illustrates a general plan of the development which is for discussion purposes only, does not limit or bind the owner/developer, and is subject to change and revision without prior written notice to the holder. Dimensions, boundaries, and position locations are for illustrative purposes only and are subject to an accurate survey and property description.

SHEEP ISLAND - PLANNED UNIT DEVELOPMENT

N

0 250 500 1000 2000

SCALE: 1"=500'

THOMAS & HUTTON

REZONING APPLICATION

SHEEP ISLAND
PLANNED UNIT DEVELOPMENT (PUD)

EXHIBIT F
Preliminary Drainage Map

J – 27603

March 2020

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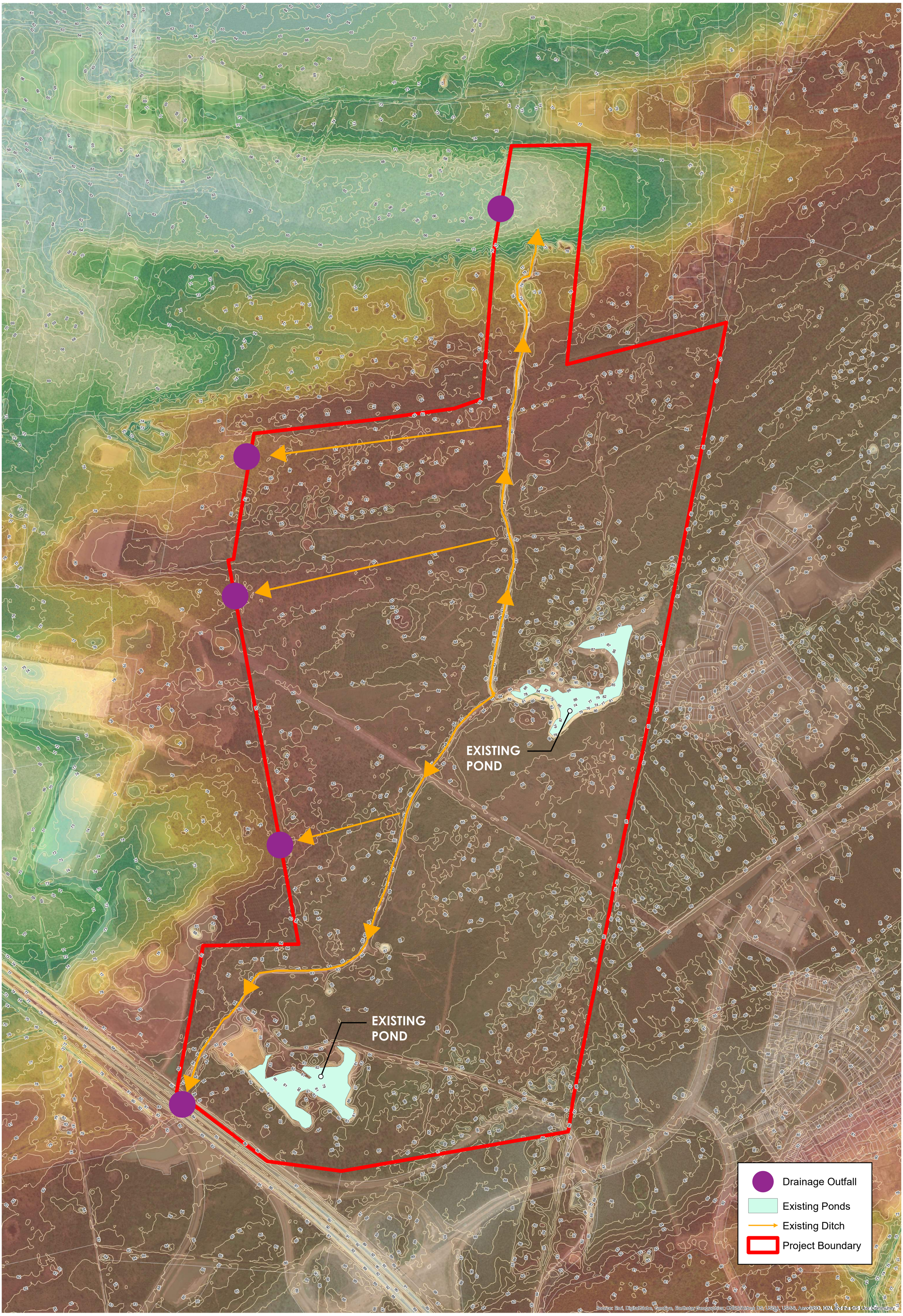

DISCLAIMER
Where Thomas & Hutton is cited as the data source, the firm has created or verified the data. For all other sources cited, Thomas & Hutton used the data "as is," has made no independent investigation of the data, and makes no representation as to the accuracy or completeness of the data. Please see each source for available documentation of its respective datasets.

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0 300 600 1,200 1,800 2,400 3,000 Feet

1 inch = 500 feet

Prepared for:
HOYER INVESTMENT COMPANY

PRELIMINARY DRAINAGE MAP

EXHIBIT G

THOMAS & HUTTON

SHEEP ISLAND - PLANNED UNIT DEVELOPMENT

N

THOMAS & HUTTON

REZONING APPLICATION

SHEEP ISLAND
PLANNED UNIT DEVELOPMENT (PUD)

EXHIBIT G
Coordination Letters

J – 27603

March 2020

thomasandhutton.com

January 9, 2019

Chris Magaldi
Thomas and Hutton
682 Johnnie Dodds Blvd, Suite 100
Mount Pleasant, SC 29464

RE: TMS # 208-00-02-013

This letter should <u>NOT</u> be used in the application for building permits.

Dear Magaldi:

We have received a request for water and sewer availability to serve a 982 acre development on the above referenced parcel. Water is currently available to this parcel via a 14 inch diameter water main located on Drop Off Dr. A hydrant flow test will need to be conducted to verify current pressures. Sewer service is NOT currently available to this parcel. Offsite extensions and or upgrades would be required. All necessary extensions and/or upgrades to our systems in order to provide required service to the said development on the above referenced site would be the sole responsibility and cost to the developer. The Water and Waste Water Treatment Plants that would provide water and treat wastewater generated by the development currently have capacity.

Berkeley County Water & Sanitation cannot guarantee nor reserve water and sewer capacity for the referenced property until (1) development plans are submitted to and approved by our office, (2) all applicable fees are paid, and (3) contracts are entered into with BCWS. All capacities referenced above are only valid for the date of this letter and are subject to change due to development changes within the BCWS system. Should you have any questions or comments, do not hesitate to call this office at (843) 719-2317.

Sincerely,

Joshua Hawkins, P.E.
Engineering Superintendent
Berkeley County Water & Sanitation
Engineering Department
212 Oakley Plantation Drive
Moncks Corner, SC 29461
Phone (843)-719-2313

Berkeley Electric Cooperative, Inc.
Your Touchstone Energy® Cooperative

January 15, 2019

Thomas and Hutton
C/o: Sophie Gawrych, Permit Coordinator
682 Johnnie Dodds Boulevard, Suite 100
Mount Pleasant, SC 29464

Re: Power Availability for Sheep Island Tract
Berkeley County, SC
TMS 208-00-02-013

Dear Sophie:

Berkeley Electric Cooperative will supply the electrical distribution requirements for the above referenced location and we look forward to extending our facilities to meet the needs of this facility.

All services that are rendered will be under our service rules and regulations at the time of service. If you have any questions, please don't hesitate to give me a call.

Sincerely,

Kevin Mims
Supervisor of Distribution Design

KM/ts

Cc: Thomas Barnette, Manager of Construction and Maintenance
Tony Simmons, Goose Creek District Line Superintendent
Chris Southerland, Goose Creek District Planning Supervisor
Rose Tucker, Goose Creek District Service Planner
Sophie Gawrych, Thomas and Hutton (emailed copy)
File

Berkeley Electric Cooperative, Inc. is an equal opportunity provider and employer.

Post Office Box 1234
Moncks Corner, SC 29461
(843) 761-8200
Fax (843) 572-1280

Post Office Box 128
Johns Island, SC 29457
(843) 559-2458
Fax (843) 559-3876

Post Office Box 1549
Goose Creek, SC 29445
(843) 553-5020
Fax (843) 553-6761

Post Office Box 340
Awendaw, SC 29429
(843) 884-7525
Fax (843) 884-3044

www.berkeleyelectric.coop

BERKELEY COUNTY
SCHOOL DISTRICT

Dr. Eddie Ingram, Superintendent

December 13, 2019

Mr. Doug Nicoll
Hoyer Investment Company
870 Walt Miller St., Suite 100B
Mt. Pleasant, SC 29464

Re: Sheep Island

We have reviewed your master plan for a mixed-use development consisting of approximately 1,200 single family residences, 600 multi-family units and associated commercial space.

The current attendance zones for your development are served by Nexton Elementary School, Cane Bay Middle School and Cane Bay High School. Currently, all of these schools are at capacity or exceed capacity. We are obligated and committed to serving all students residing in the county, and we are working hard to manage and address the growth of the student population at these schools.

We are employing both short-term strategies, such as attendance caps, and long-term strategies, such as building wings and new schools, to increase capacity in the area. It is also possible that the attendance zones applicable to your development may change over time. In any event, we will continue to provide educational services to all students residing in the county.

Please let me know if we can provide any additional information or assistance at this time.

Sincerely,

Dr. Eddie Ingram
Superintendent

Cc: Robert Robbins
Josh Whitley

THOMAS & HUTTON

REZONING APPLICATION

SHEEP ISLAND
PLANNED UNIT DEVELOPMENT (PUD)

EXHIBIT H
Traffic Study

J – 27603

March 2020

thomasandhutton.com

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TRAFFIC IMPACT STUDY

for the

SHEEP ISLAND PUD

Located in
Town of Summerville, South Carolina

Prepared for
HIC Land, LLC

Prepared by
Ramey Kemp & Associates, Inc.

May 2020
RKA Project #19073

DocuSign Envelope ID: 4F2EB240-FC14-467F-9B68-303794D74D7C

TRAFFIC IMPACT STUDY

for the

SHEEP ISLAND PUD

Located in
Town of Summerville, South Carolina

Prepared for
HIC Land, LLC
777 Brickell Avenue, Suite 1270
Miami, Florida 33131

Prepared by
Ramey Kemp & Associates, Inc.
7301 Rivers Avenue, Suite 242
North Charleston, South Carolina 29406

May 2020
RKA Project #19073

SOUTH CAROLINA
LICENSED PROFESSIONAL ENGINEER
No. 21331
5/6/2020
DocuSigned by:
Jeffrey J. Ingham
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This document has been digitally signed and sealed by Jeffrey Ingham, South Carolina Professional Engineer Number 21331, on May 06, 2020. This electronic document is 112 pages in length.

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EXECUTIVE SUMMARY

A traffic impact study was conducted for the proposed Sheep Island (PUD) in accordance with Town of Summerville and SCDOT guidelines. The proposed development is located east of I-26 in the northeast quadrant of the Nexton Parkway & Drop Off Drive intersection in the Town of Summerville and Berkeley County, South Carolina. The conceptual land use master plan consists of up to 700 residential units, approximately 500,000 square feet of commercial space, and 250,000 square feet of light industrial uses. Full access is planned at one location along Drop Off Drive.

The approved traffic volumes from the 2016 Nexton PUD traffic study were considered in the development of the future no-build traffic volumes. The Nexton PUD traffic volumes represent approximately 8% annual growth along Nexton Parkway and were considered in addition to a background growth rate.

With buildout of the Sheep Island PUD development, the following transportation improvements are recommended. The percentage-of-traffic-generated threshold metric was utilized due to the uncertainty of the development schedules for the residential, commercial, and industrial land uses within the Sheep Island PUD, which will be based upon market conditions.

% of Traffic Generated	Recommended Improvements
50%	Nexton Parkway & Drop Off Drive – Install the 1st exclusive SB right-turn lane
50%	Jedburg Road & Drop Off Drive – Intersection Signalization
50%	Drop Off Drive & Project Access – Intersection Signalization
75%	Nexton Parkway & Drop Off Drive – Install an exclusive WB right-turn lane
100%	Nexton Parkway & Drop Off Drive – Install the 2nd exclusive SB right-turn lane

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1. INTRODUCTION

The purpose of this report is to document a traffic impact study for the proposed Sheep Island PUD in accordance with Town of Summerville and SCDOT guidelines. This report summarizes the procedures and findings.

1.1. Project Background

The Sheep Island PUD is located east of I-26 in the northeast quadrant of the Nexton Parkway & Drop Off Drive intersection in the Town of Summerville and Berkeley County, South Carolina. The conceptual land use master plan consists of up to 700 residential units, approximately 500,000 square feet of commercial space, and 250,000 square feet of light industrial uses. Full access is planned at one location along Drop Off Drive.

The traffic impact study considers the weekday AM peak period (between 7:00 AM and 9:00 AM) and the weekday PM peak period (between 4:00 PM and 6:00 PM) as the study time frames. The following six existing intersections were considered in the analysis:

1) Nexton Parkway & Millhouse Drive (two-way, stop-controlled);
2) Nexton Parkway & I-26 Eastbound Ramps (signalized);
3) Nexton Parkway & I-26 Westbound Ramps (signalized);
4) Nexton Parkway & Drop Off Drive/Sigma Drive (two-way, stop-controlled);
5) Nexton Parkway & Brighton Park Boulevard (two-way, stop-controlled); and
6) Jedburg Road & Drop Off Drive (two-way, stop-controlled).

The development was assumed to be built out by the year 2030; therefore, year 2030 conditions were considered as the horizon year for the traffic analyses. Figure 1 shows the location of the project site. Figure 2 illustrates a preliminary site plan.

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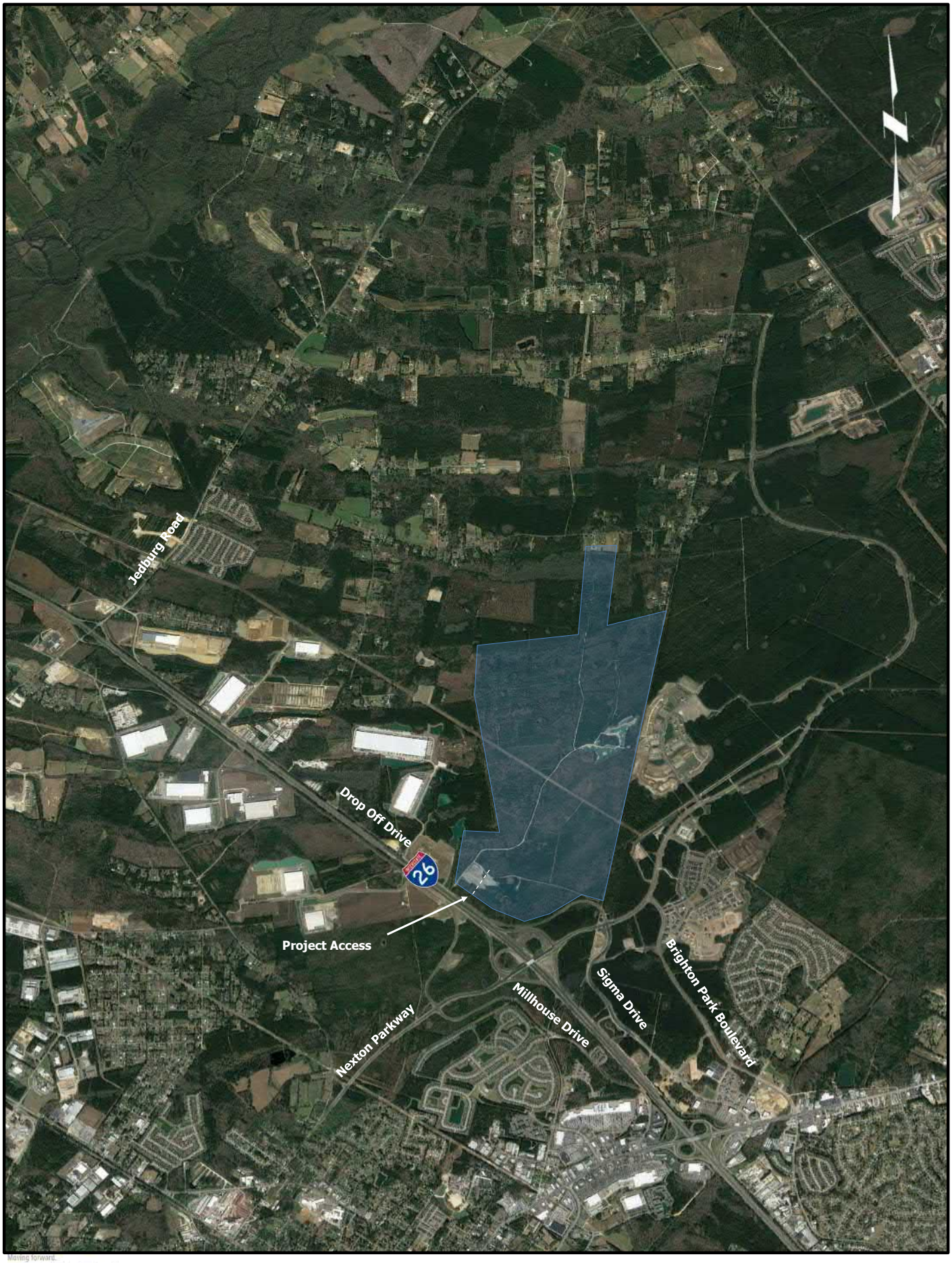

Moving forward.
RKA
RAMEY KEMP ASSOCIATES

Sheep Island PUD - Traffic Impact Study
Figure 1 - Project Location Map

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1.2. Existing Roadway Conditions

A review of the existing roadway conditions in the study area was conducted and is summarized in Table 1. Figure 3 illustrates the existing lane geometry.

Table 1 – Street Inventory

Roadway	SC Route #	Cross Section	2018 ADT	Speed Limit	Maintained By
Nexton Parkway	-	4-lane divided	-	40 mph east of Drop Off Drive 45 mph west of Drop Off Drive	Berkeley County
Drop Off Drive	S-1255	2-lane undivided	-	45 mph north of Nexton Parkway 50 mph 4,000′ north of Nexton Parkway	SCDOT
Sigma Drive	-	4-lane divided	-	30 mph	Berkeley County
Brighton Park Boulevard	-	4-lane divided	-	30 mph	Berkeley County
Millhouse Drive	S-1259	2-lane undivided	-	35 mph	SCDOT
Jedburg Road	S-16	2-lane undivided	9,200	45 mph	SCDOT

1.3. Committed Roadway Improvements

It is understood that there are several committed roadway improvements in the study area.

As part of the I-26 & Jedburg Road interchange reconstruction project, SCDOT and Berkeley County will widen Jedburg Road from Old Dairy Road through the I-26 interchange to Drop Off Drive. The improvements are currently underway and are expected to be complete by 2022. The improvements will widen Jedburg Road to four lanes through the Drop Off Drive intersection.

SCDOT and the Town of Summerville recently signalized the intersection of Nexton Parkway & Millhouse Drive. For the purposes of this analysis, the intersection is considered as unsignalized for existing conditions due to the fact that the data collection was gathered prior to signalization.

The 2016 Nexton PUD traffic study approved by the Town of Summerville identifies background and committed improvements for the Nexton Parkway corridor. The following improvements were included in the Nexton PUD traffic study as recommended improvements to mitigate the Nexton PUD traffic impacts:

- The widening of Nexton Parkway from four lanes to six lanes west of Drop Off Drive through east of Brighton Park Boulevard,

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- A second eastbound left-turn lane, an eastbound right-turn lane, a second northbound left-turn lane, a northbound right-turn lane, and signalization at the Nexton Parkway & Drop Off Drive/Sigma Drive intersection, and
- Signalization at the Nexton Parkway & Brighton Park Boulevard intersection and the addition of a second westbound left-turn lane, a second northbound left-turn lane, and a dedicated northbound right-turn lane at the intersection.

Additional improvements, including the widening of US 17A to six lanes through the Brighton Park Boulevard intersection were also included in the Nexton PUD traffic study as recommended improvements to mitigate the Nexton PUD traffic impacts but are outside the scope of this study.

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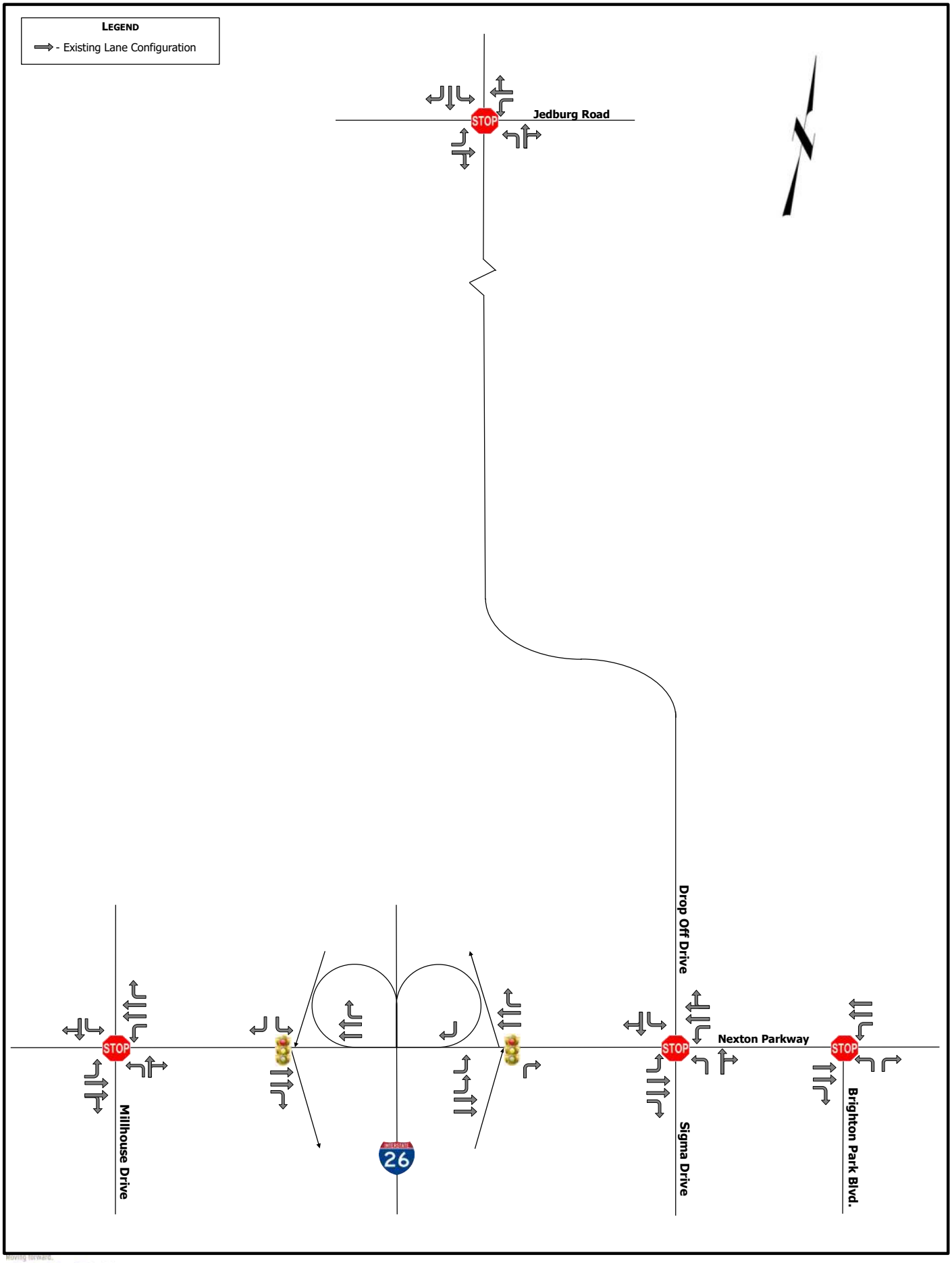

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2. DRIVEWAY SPACING REVIEW

Access to the development is proposed to be provided through one full-access driveway along Drop Off Drive (referred to as Project Access). A review of the driveway spacing for the project driveways was undertaken based upon information contained in SCDOT's *Access & Roadside Management Standards (ARMS)* manual.

Based upon the 45-mph posted speed limit and driveway spacing of *ARMS*, a minimum driveway spacing of 325 feet is required for driveways along Drop Off Drive.

Project Access is located approximately 5,000 feet north of Nexton Parkway. Based upon the project driveway location meeting the standards, no modifications to the driveway location are recommended.

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3. PROJECT TRAFFIC

3.1. Proposed Land Uses

The development is planned to consist of a combination of single-family residences and commercial retail. The site is currently vacant.

3.2. Trip Generation Estimates

The trip generation potential for the development was estimated using information contained in ITE's *Trip Generation Manual*, 10th Edition (2017) for land use code (LUC) 110 – General Light Industrial, LUC 210 – Single Family Detached Housing, and LUC 820 – Shopping Center. The weekday daily, the weekday AM peak hour of the adjacent street, and the weekday PM peak hour of the adjacent street time periods were considered.

Due to the mixed-use nature of the development, internal capture trips were also considered in the trip generation estimates. Internal capture considers interactions between multiple land uses within the same development. Internal capture traffic was estimated using information in ITE's *Trip Generation Manual*, 9th Edition (2012).

The trip generation estimates for full build out of the site, taking into account internal capture trips, are shown in Table 2 and documented in Appendix A.

Table 2 - Trip Generation Estimates

Land Use	ITE LUC	Size	Daily Traffic	AM Peak			PM Peak		
				Enter	Exit	Total	Enter	Exit	Total
General Light Industrial	110	250 KSF	1,006	164	22	186	9	61	70
Single-Family Detached Housing	210	700 Dwelling Units	6,230	126	376	502	415	243	658
Shopping Center	820	500 KSF	17,962	249	153	402	858	930	1,788
		Gross Trips:	25,198	539	551	1,090	1,282	1,234	2,516
		-Internal Capture Trips:	-5,405	-7	-7	-14	-277	-277	-554
		New External Trips:	**19,793**	**532**	**544**	**1,076**	**1,005**	**957**	**1,962**

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3.3 Trip Distribution & Assignment

New trips expected to be generated by the project was distributed and assigned to the roadway network based upon existing travel patterns and future travel patterns with the development of the nearby Nexton development. The general distribution is assumed as follows:

- 10% to/from the east via Nexton Parkway;
- 5% to/from the east via Jedburg Road;
- 25% to/from the west via Nexton Parkway;
- 5% to/from the west via Jedburg Road;
- 10% to/from the north via I-26;
- 5% to/from the south via Millhouse Drive;
- 30% to/from the south via I-26;
- 5% to/from the south via Sigma Drive; and
- 5% to/from the south via Brighton Park Boulevard.

The distribution and assignment of the project traffic are illustrated in Figures 4 and 5.

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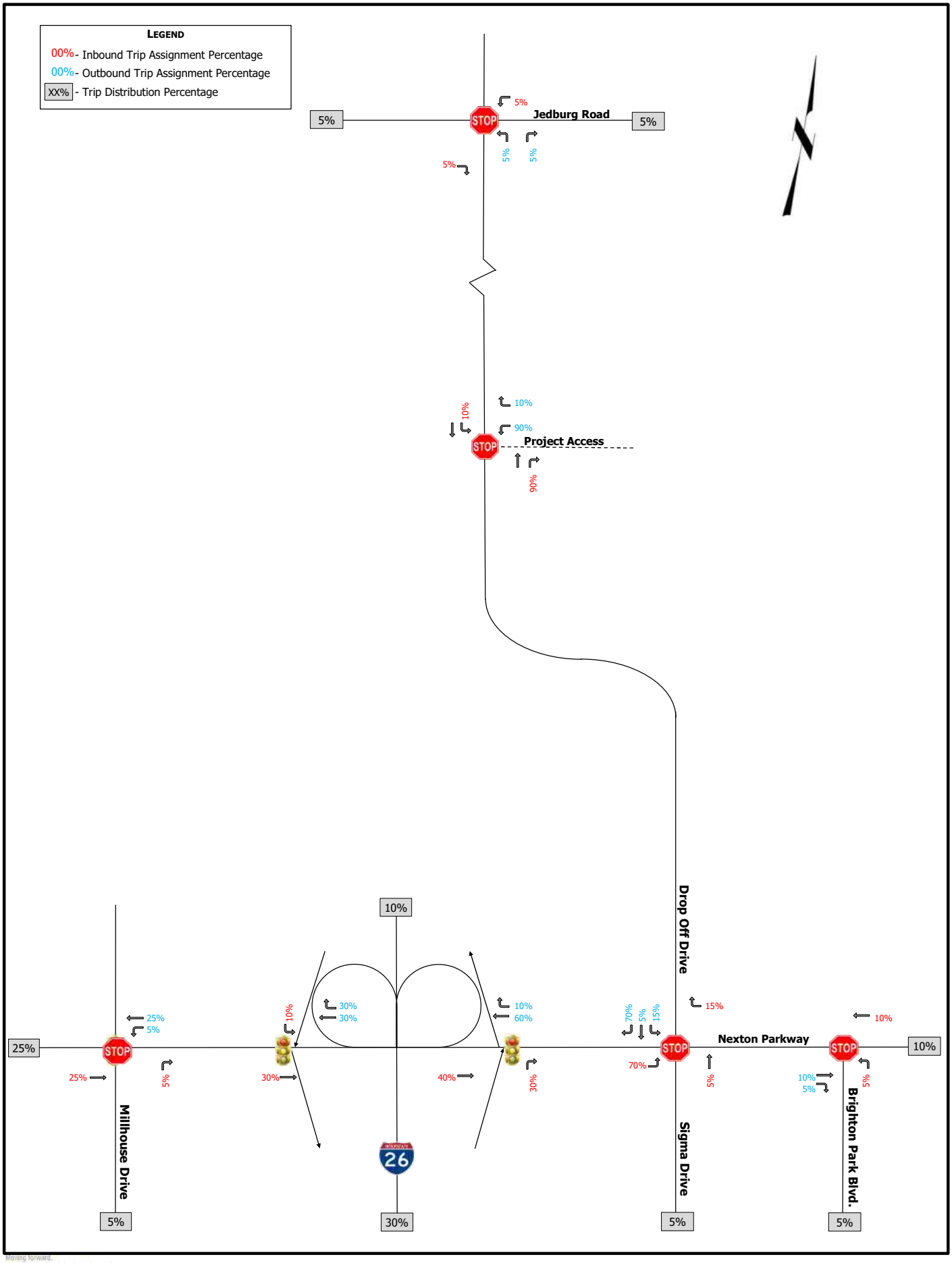

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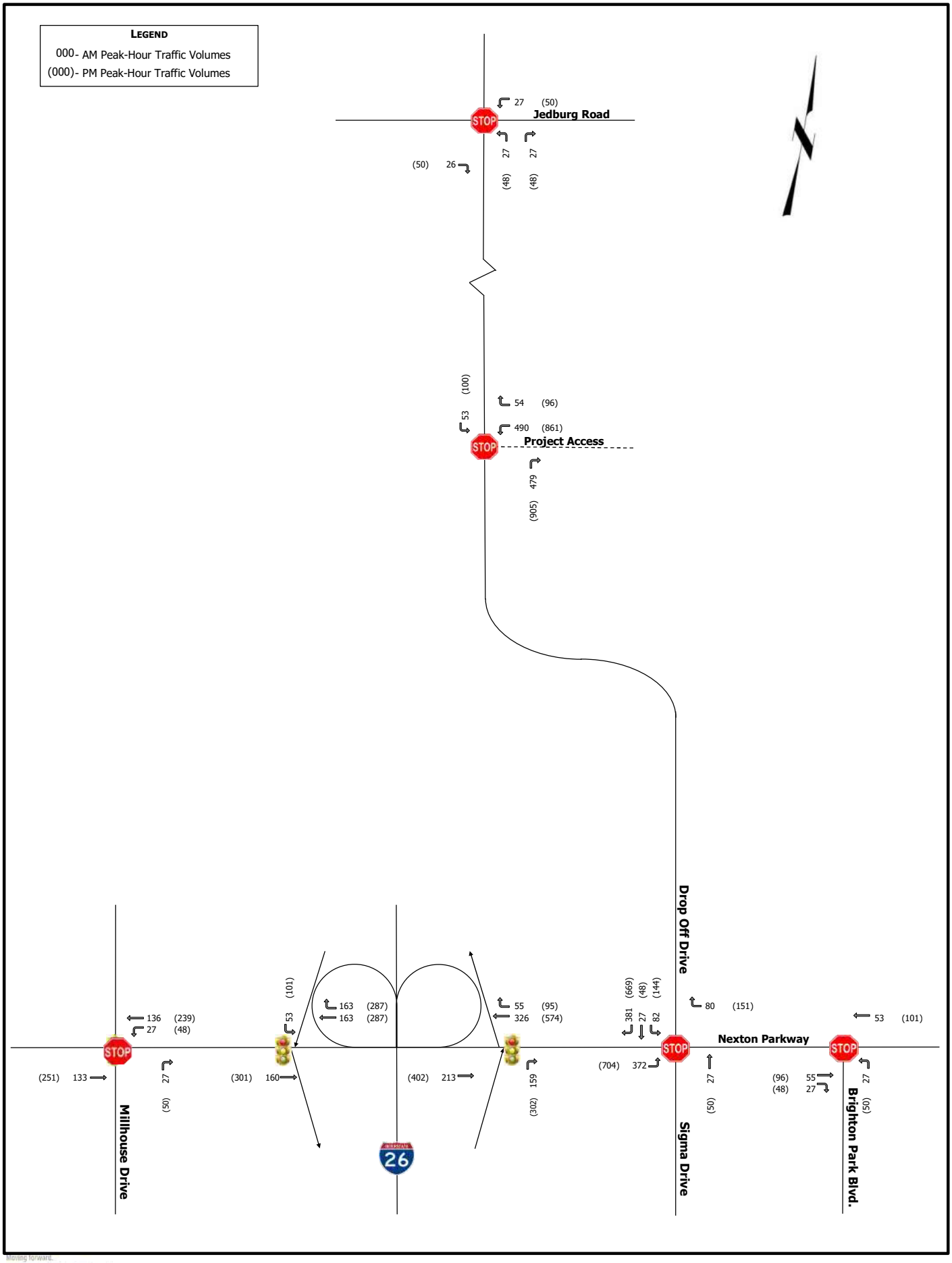

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4. TRAFFIC VOLUME DEVELOPMENT

4.1. Existing Traffic Volumes

Vehicle turning movement counts were conducted during the weekday AM peak period (7:00 AM to 9:00 AM) and the weekday PM peak period (4:00 PM to 6:00 PM) at the following intersections:

1) Nexton Parkway & Millhouse Drive;
2) Nexton Parkway & I-26 EB;
3) Nexton Parkway & I-26 WB;
4) Nexton Parkway & Drop Off Drive/Sigma Drive;
5) Nexton Parkway & Brighton Park Boulevard;
6) Jedburg Road & Drop Off Drive; and
7) Existing Site Access & Drop Off Drive.

The counts were conducted in December 2018 while the local school district was in session. The raw traffic counts are provided in Appendix B and illustrated in Figure 6.

4.2. Future No-Build Traffic Volumes

The approved traffic volumes from the 2016 Nexton PUD traffic study were considered in the development of the future no-build traffic volumes. The Nexton PUD traffic volumes represent approximately 8% annual growth along Nexton Parkway.

In addition, to develop an annual background growth rate for use in the analysis for traffic not associated with the Nexton PUD, historical count data along US 17A (SCDOT count stations #100 and #101) and N. Maple Street (SCDOT count station #247) was reviewed over the past 11 years. It was determined that the roadways have collectively experienced approximately 3% annual growth during this time.

A review of the long-range growth for Nexton Parkway was undertaken with Berkeley-Charleston-Dorchester Council of Governments' (BCDCOG) *Charleston Area Transportation Study (CHATS)* travel demand model. Several discrepancies in BCDCOG's official travel demand model were corrected with staff, including the completion of Nexton Parkway from I-26 to US 176 and the socioeconomic data for major developments in the area, including Nexton. The resultant traffic volumes from the *CHATS* travel demand model indicates annual growth along Nexton Parkway of approximately 10% per year.

Based upon the historical growth in the area, the projected Nexton PUD traffic volumes, and the *CHATS* projected growth in the area, a background growth rate of 2% annual growth was applied to the existing traffic count data to develop the 2030 No-Build background volumes.

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Vested traffic volumes from the Nexton PUD, the Rosemary PUD, and the Dustoff PUD were then added to the 2030 No-Build background volumes to develop the 2030 No-Build traffic volumes.

The 2030 No-Build traffic volumes are illustrated in Figure 7.

4.3. Build Out Traffic Volumes

The site generated traffic volumes (Figure 5) were added to the 2030 No-Build traffic volumes (Figure 7) to develop the 2030 Build volumes. The 2030 Build volumes are illustrated in Figure 8.

Worksheets documenting the traffic volume development are included in Appendix C.

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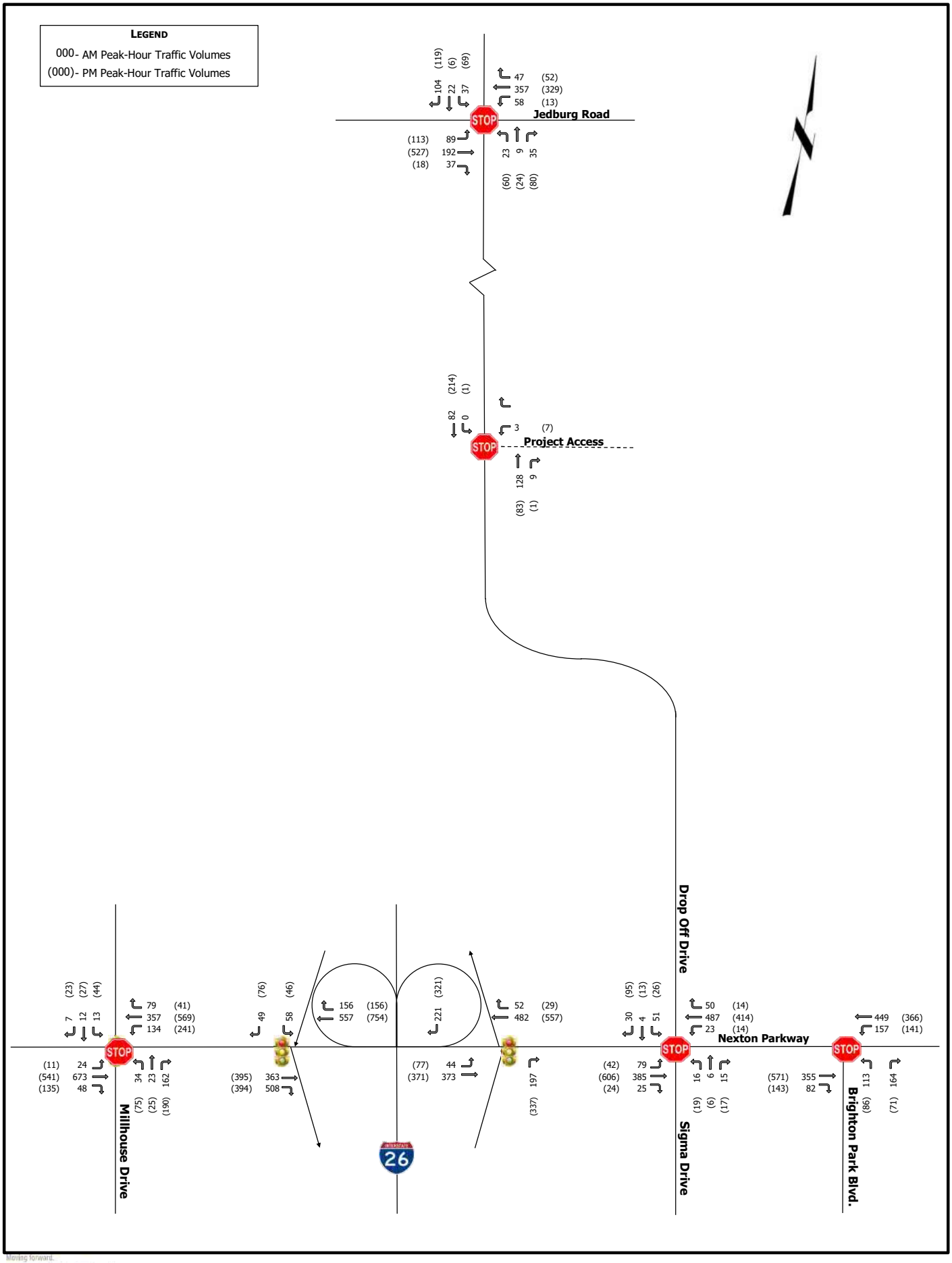

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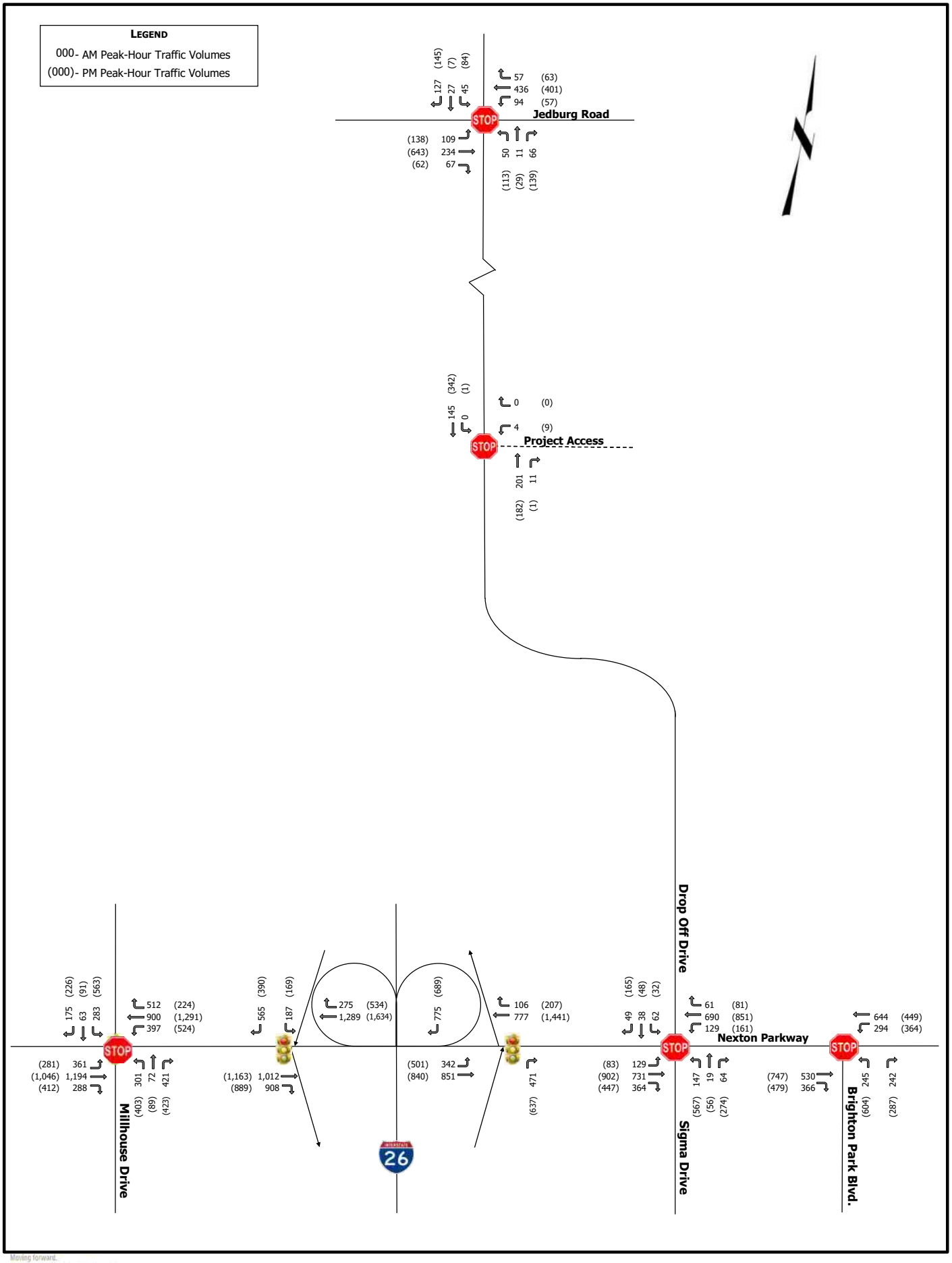

Sheep Island PUD - Traffic Impact Study
Figure 7 - No-Build (2030) Peak-Hour Traffic Volumes

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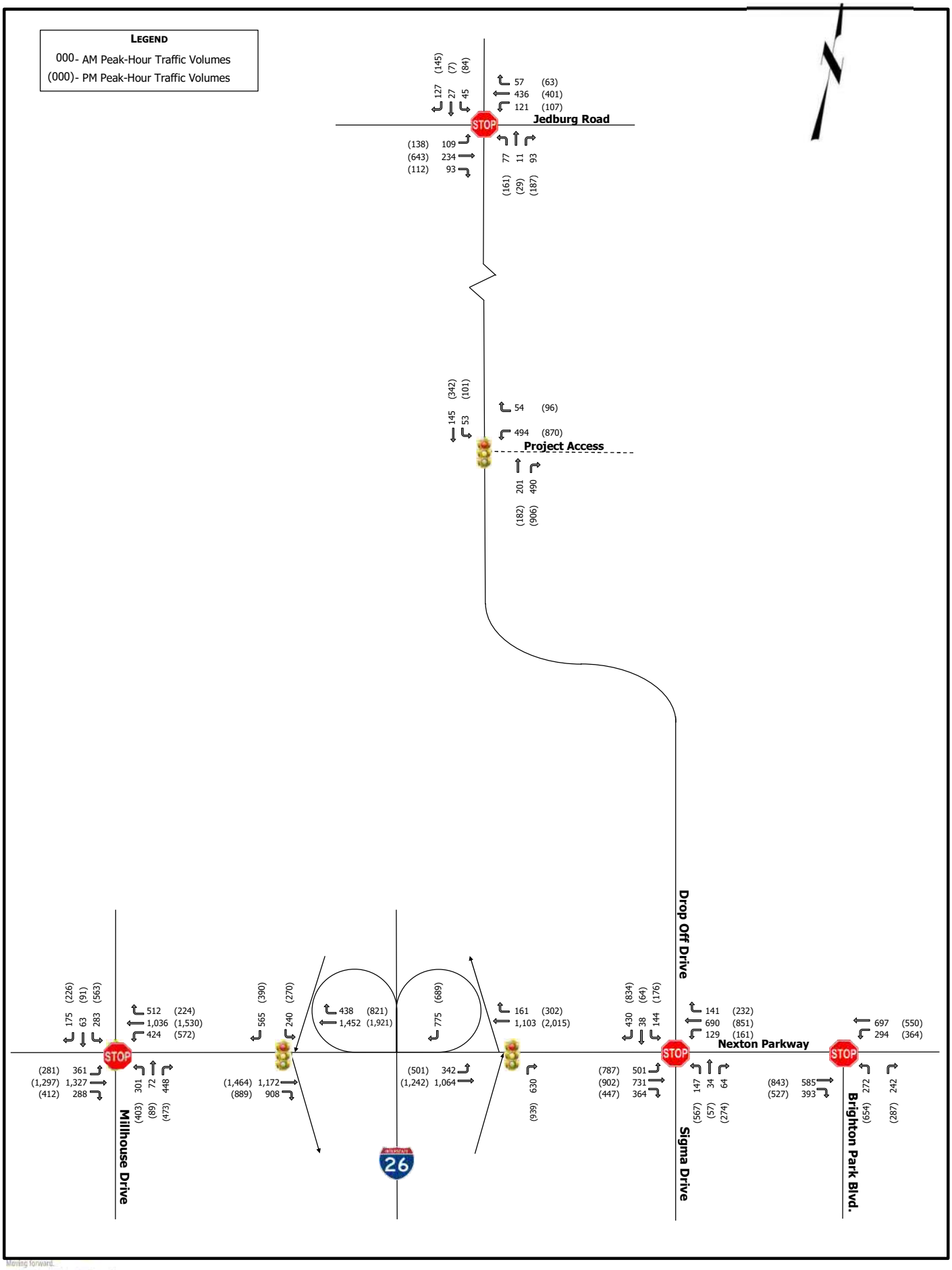

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5. TRAFFIC IMPACT ANALYSIS

Using the existing and proposed traffic volumes, intersection analyses were conducted for the study and project driveway intersections considering 2019 Existing conditions, 2030 No-Build conditions, and 2030 Build conditions. This analysis was conducted using the Transportation Research Board's *Highway Capacity Manual 2010 (HCM 2010)* methodologies of the *Synchro*, Version 10 software.

Intersection level of service (LOS) grades range from LOS A to LOS F, which are directly related to the level of control delay at the intersection and characterize the operational conditions of the intersection traffic flow. LOS A operations typically represent ideal, free-flow conditions where vehicles experience little to no delays, and LOS F operations typically represent poor, forced-flow (bumper-to-bumper) conditions with high vehicular delays, and are generally considered undesirable. Table 3 summarizes the *HCM 2010* control delay thresholds associated with each LOS grade for signalized and unsignalized intersections.

Table 3 – *HCM 2010* LOS Criteria for Unsignalized Intersections & Signalized Intersections

Unsignalized Intersections	
LOS	**Control Delay per Vehicle (seconds)**
A	≤ 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

Signalized Intersections	
LOS	**Control Delay per Vehicle (seconds)**
A	≤ 10
B	> 10 and ≤ 20
C	> 20 and ≤ 35
D	> 35 and ≤ 55
E	> 55 and ≤ 80
F	> 85

As part of the intersection analysis, SCDOT's default *Synchro* parameters were utilized. Existing peak-hour factors (PHF) were utilized for all the existing scenarios. A PHF of 0.95 was assumed for the future-year scenarios. Existing heavy vehicle percentages were utilized for all scenarios, with a minimum percentage of 2% considered.

Using the existing and projected traffic volumes, arterial analyses were conducted for Drop Off Drive considering 2019 Existing conditions, 2030 No-Build conditions, and 2030 Build conditions. This analysis was conducted using the Transportation Research Board's Highway Capacity Manual 2010 (HCM 2010) methodologies of the *SimTraffic*, version 10 software.

The committed improvements by SCDOT, Berkeley County, and the Nexton PUD development previously discussed were included in the analysis of the future-year scenarios.

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Using the *Synchro* and *SimTraffic* softwares, intersection and arterial analyses were conducted for 2019 Existing conditions, 2030 No-Build conditions, and 2030 Build conditions for the weekday AM peak-hour and weekday PM peak-hour time periods. The results of the intersection and arterial analyses are summarized in the following sections.

5.1. 2019 Existing Conditions

Intersection analyses were conducted for 2019 Existing conditions and the results are shown in Table 4.

Table 4 – 2019 Intersection Analysis Results

Intersection	Control	Approach	LOS/Delay (s)	
			AM	PM
Nexton Parkway & Millhouse Drive	Two-Way Stop	EB	A/0.3	A/0.1
		WB	A/2.5	A/3.2
		NB	D/30.8	F/>200
		SB	F/64.9	F/>200
Nexton Parkway & Drop Off Drive/Sigma Drive	Two-Way Stop	EB	A/1.6	A/0.6
		WB	A/0.3	A/0.3
		NB	C/22.9	D/25.7
		SB	D/34.8	C/17.1
Nexton Parkway & Brighton Park Boulevard	Two-Way Stop	EB	A/0.0	A/0.0
		WB	A/2.4	A/2.9
		NB	E/42.1	E/41.8
Jedburg Road & Drop Off Drive	Two-Way Stop	EB	A/2.5	A/1.5
		WB	A/1.0	A/0.3
		NB	C/18.2	D/29.6
		SB	C/17.4	D/26.0
Nexton Parkway & I-26 EB Off Ramp	Signalized	EB	A/4.8	A/4.2
		WB	A/5.3	A/5.0
		SB	B/13.7	B/15.0
		Overall	***A/5.6***	***A/5.1***
Nexton Parkway & I-26 WB On Ramp	Signalized	EB	A/2.0	A/1.2
		WB	A/5.0	A/5.4
		Overall	***A/3.7***	***A/3.6***

The results of the 2019 Existing conditions analyses indicate that the study intersections currently operate with acceptable LOS conditions with the exception of the Nexton Parkway & Millhouse Drive intersection, which experiences high delays on the side-street approaches during the PM peak hour. The Millhouse Drive has been temporarily signalized since the existing traffic counts were taken and the intersection will be fully signalized by the Town by 2020, which will mitigate the high existing delays.

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Worksheets documenting the 2019 Existing conditions intersection analyses are provided in Appendix D.

5.2. 2030 No-Build Conditions

Intersection analyses were conducted for 2030 No-Build conditions and the results are shown in Table 5. These results reflect the current lane configurations with the exception of the Nexton Parkway & Millhouse Drive intersection; lane configurations for this intersection was based upon recommendations found in the Rosemary PUD TIS conducted by Bihl Engineering.

Table 5 – 2030 No-Build Intersection Analysis Results

Intersection	Control	Approach	LOS/Delay (s)	
			2030 No-Build	
			AM	PM
Nexton Parkway & Millhouse Drive	Signalized	EB	D/45.6	D/48.3
		WB	D/38.4	E/65.7
		NB	D/42.3	D/41.6
		SB	D/42.4	E/69.7
		Overall	***D/42.1***	***E/57.0***
Nexton Parkway & Drop Off Drive/Sigma Drive	Signalized	EB	B/17.9	C/33.4
		WB	B/16.7	C/28.5
		NB	B/20.0	C/28.6
		SB	C/23.7	D/43.4
		Overall	***B/18.0***	***C/31.2***
Nexton Parkway & Brighton Park Boulevard	Signalized	EB	B/15.9	C/23.3
		WB	B/11.9	B/18.4
		NB	C/21.7	C/29.1
		Overall	***B/15.5***	***C/23.7***
Jedburg Road & Drop Off Drive	Two-Way Stop	EB	A/2.4	A/1.5
		WB	A/1.3	A/1.1
		NB	D/32.4	F/>200
		SB	C/24.5	F/145.8
Nexton Parkway & I-26 EB Off Ramp	Signalized	EB	A/5.4	A/5.6
		WB	A/7.2	A/9.0
		SB	C/21.9	C/24.7
		Overall	***A/7.8***	***A/8.6***
Nexton Parkway & I-26 WB On Ramp	Signalized	EB	A/4.3	A/3.8
		WB	A/6.5	A/5.8
		Overall	***A/5.2***	***A/4.9***

In the 2030 No-Build conditions, all intersections are expected to function at acceptable LOS with the exception of the Jedburg Road & Drop Off Drive intersection, which will need traffic

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signalization in the future. Worksheets documenting the 2030 No-Build conditions intersection analyses are provided in Appendix E.

5.3. 2030 Build Conditions

Intersection analyses were conducted for 2030 Build conditions and the results are shown in Table 6.

Table 6 – 2030 Build Intersection Analysis Results

Intersection	Control	Approach	LOS/Delay (s)				Improvements
			2030 Build		2030 Build + Imps.		
			AM	PM	AM	PM	
Nexton Parkway & Millhouse Drive	Signalized	EB	D/48.1	E/73.4	--	--	Additional lanes as noted in the Rosemary PUD TIS
		WB	D/37.4	E/59.7	--	--	
		NB	D/48.6	D/54.4	--	--	
		SB	D/48.4	E/69.7	--	--	
		Overall	***D/44.2***	***E/64.8***	--	--	
Nexton Parkway & Drop Off Drive/Sigma Drive	Signalized	EB	C/32.2	F/103.8	C/25.1	D/49.0	WB Right-Turn Lane Two SB Right-Turn Lanes
		WB	D/37.8	F/199.3	C/23.7	D/53.0	
		NB	C/32.0	F/163.6	C/27.7	D/53.7	
		SB	F/141.4	F/>200	B/17.7	C/34.1	
		Overall	***E/55.9***	***F/>200***	***C/23.4***	***D/47.6***	
Nexton Parkway & Brighton Park Boulevard	Signalized	EB	B/15.4	C/29.3	--	--	--
		WB	B/15.6	B/18.5	--	--	
		NB	D/36.4	C/29.9	--	--	
		Overall	***B/19.9***	***C/26.4***	--	--	
Jedburg Road & Drop Off Drive	Two-Way Stop	EB	A/2.3	A/1.4	B/17.1	C/31.2	Signalization
		WB	A/1.6	A/1.9	B/18.6	B/19.3	
		NB	F/63.1	F/>200	B/18.3	C/24.2	
		SB	D/28.6	F/>200	C/21.5	C/26.2	
		Overall	-	-	***B/18.5***	***C/26.1***	
Nexton Parkway & I-26 EB Off Ramp	Signalized	EB	A/7.6	A/8.3	--	--	--
		WB	A/9.8	B/13.8	--	--	
		SB	C/23.6	D/51.9	--	--	
		Overall	***B/10.1***	***B/14.4***	--	--	
Nexton Parkway & I-26 WB On Ramp	Signalized	EB LT	A/4.7	A/4.6	--	--	--
		WB	A/6.5	A/7.8	--	--	
		Overall	***A/5.5***	***A/6.6***	--	--	
Drop Off Drive & Project Access	Signalized	WB	B/11.5	C/34.6	--	--	Two WB Approach Lanes NB Right-Turn Lane SB Left-Turn Lane
		NB	A/5.5	A/8.0	--	--	
		SB	B/10.8	C/29.5	--	--	
		Overall	***A/8.5***	***C/22.1***	--	--	

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For 2030 Build conditions, several intersections will need improvements to maintain acceptable LOS conditions, which are described below.

- *Nexton Parkway & Drop Off Drive/Sigma Drive*: an exclusive WB right-turn lane, two exclusive SB right-turn lanes.
- *Jedburg Road & Drop Off Drive*: signalization when warranted.
- *Drop Off Drive & Project Access:* signalization when warranted, exclusive WB left-turn and right turn lanes, an exclusive NB right-turn lane, and an exclusive SB left-turn lane.

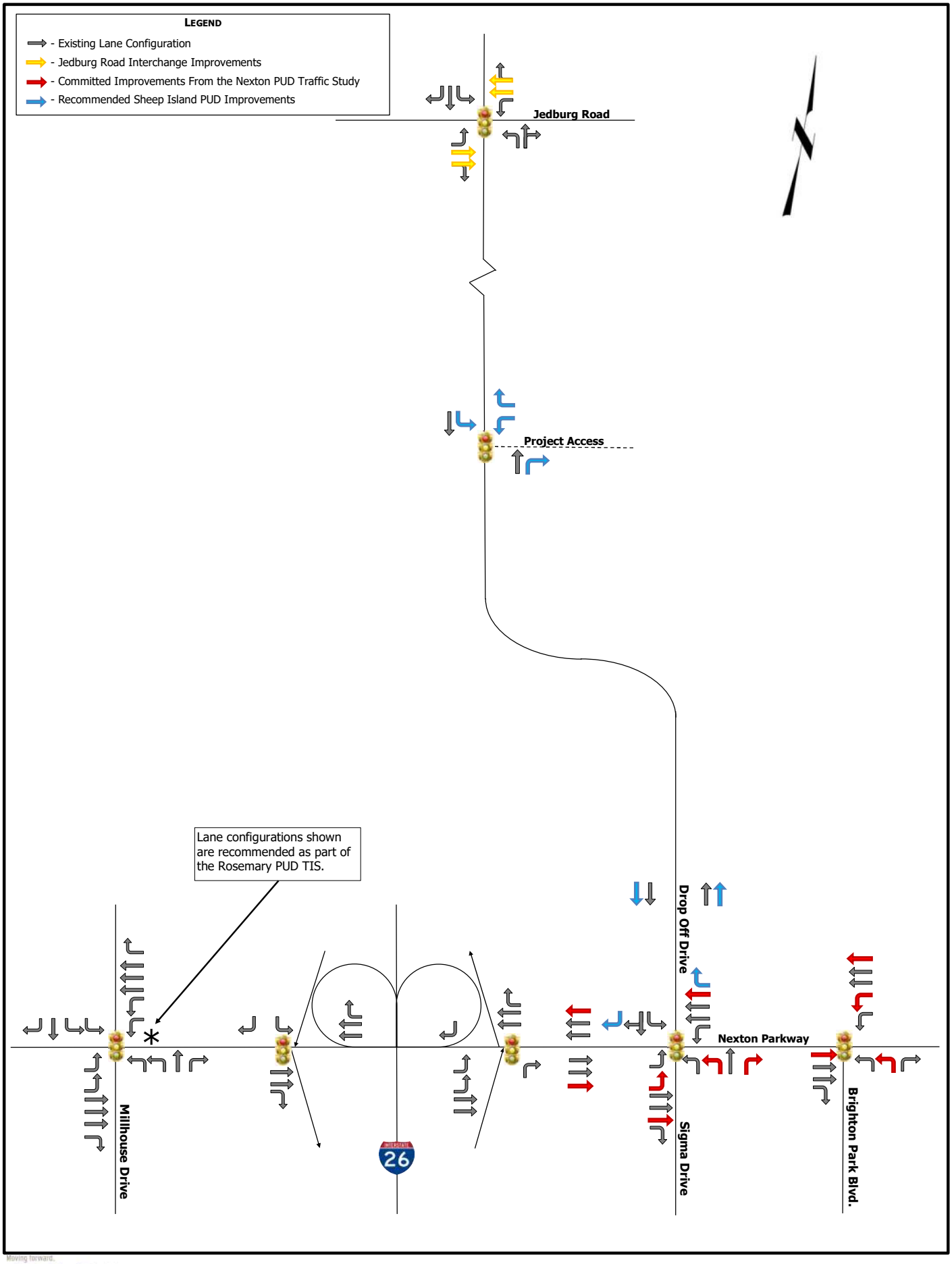
The recommended lane configurations, including the previously committed improvements, are illustrated in Figure 9. Worksheets documenting the 2030 Build conditions intersection analyses are provided in Appendix F.

5.4. Phasing

An analysis was conducted to determine the approximate timing of the recommended transportation improvements in the study area. It was assumed that the traffic volumes associated with the Sheep Island PUD would have straight-line growth from 2022 (the earliest year for occupation of new development) to the 2030 horizon year. It was also assumed that the Nexton PUD traffic volumes would have straight-line growth from 2019 to the 2030 horizon year. Table 7 summarizes the anticipated percentage-of-traffic-generated threshold for the installation of each recommended improvement. The percentage-of-traffic-generated threshold metric was utilized due to the uncertainty of the development schedules for the residential, commercial, and industrial land uses for the Sheep Island PUD, which will be based upon market conditions.

Table 7 – Phasing Improvements

% of Traffic Generated	Recommended Improvements
50%	Nexton Parkway & Drop Off Drive – Install the 1st exclusive SB right-turn lane
50%	Jedburg Road & Drop Off Drive – Intersection Signalization
50%	Drop Off Drive & Project Access – Intersection Signalization
75%	Nexton Parkway & Drop Off Drive – Install an exclusive WB right-turn lane
100%	Nexton Parkway & Drop Off Drive – Install the 2nd exclusive SB right-turn lane


LEGEND
- Existing Lane Configuration
- Jedburg Road Interchange Improvements
- Committed Improvements From the Nexton PUD Traffic Study
- Recommended Sheep Island PUD Improvements
Jedburg Road
Project Access
Lane configurations shown are recommended as part of the Rosemary PUD TIS.
Drop Off Drive
Nexton Parkway
Sigma Drive
Brighton Park Blvd.
Millhouse Drive
26

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6. SUMMARY OF FINDINGS AND RECOMMENDATIONS

A traffic impact study was conducted for the proposed Sheep Island (PUD) in accordance with Town of Summerville and SCDOT guidelines. The proposed development is located east of I-26 in the northeast quadrant of the Nexton Parkway & Drop Off Drive intersection in the Town of Summerville and Berkeley County, South Carolina. The conceptual land use master plan consists of up to 700 residential units, approximately 500,000 square feet of commercial space, and 250,000 square feet of light industrial uses. Full access is planned at one location along Drop Off Drive.

The approved traffic volumes from the 2016 Nexton PUD traffic study were considered in the development of the future no-build traffic volumes. The Nexton PUD traffic volumes represent approximately 8% annual growth along Nexton Parkway and were considered in addition to a background growth rate.

With buildout of the Sheep Island PUD development, the following transportation improvements are recommended. The percentage-of-traffic-generated threshold metric was utilized due to the uncertainty of the development schedules for the residential, commercial, and industrial land uses within the Sheep Island PUD, which will be based upon market conditions.

% of Traffic Generated	Recommended Improvements
50%	Nexton Parkway & Drop Off Drive – Install the 1st exclusive SB right-turn lane
50%	Jedburg Road & Drop Off Drive – Intersection Signalization
50%	Drop Off Drive & Project Access – Intersection Signalization
75%	Nexton Parkway & Drop Off Drive – Install an exclusive WB right-turn lane
100%	Nexton Parkway & Drop Off Drive – Install the 2nd exclusive SB right-turn lane

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APPENDIX A

Trip Generation Worksheet

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SHEEP ISLAND PUD
TRIP GENERATION ESTIMATES

Daily Trips

Land Use	ITE LUC Code	Size	Unit	Equation					Directional Distribution		Gross Trips			Internal Capture				New External Trips		
									In	Out	In	Out	Total	%	In	Out	Total	In	Out	Total
Shopping Center	820	500	ksf	Ln(T)=	0.68	Ln(X)	+	5.57	50%	50%	8,981	8,981	17,962	15.5%	1,391	1,391	2,783	7,590	7,590	15,179
Single Family Detached Housing	210	700	DU	Ln(T)=	0.92	Ln(X)	+	2.71	50%	50%	3,115	3,115	6,230	42.1%	1,311	1,311	2,623	1,804	1,804	3,607
General Light Industrial	110	250	ksf	T=	3.79	(X)	+	57.96	50%	50%	503	503	1,006	0.0%	0	0	0	503	503	1,006
										Total:	12,599	12,599	25,198	21.5%	2,703	2,703	5,405	**9,896**	**9,896**	**19,793**

AM Peak Hour Trips

Land Use	ITE LUC Code	Size	Unit	Equation					Directional Distribution		Gross Trips			Internal Capture				New External Trips		
									In	Out	In	Out	Total	%	In	Out	Total	In	Out	Total
Shopping Center	820	500	ksf	T=	0.50	(X)	+	151.78	62%	38%	249	153	402	1.7%	4	3	7	245	150	395
Single Family Detached Housing	210	700	DU	T=	0.71	(X)	+	4.8	25%	75%	126	376	502	1.4%	3	4	7	123	372	495
General Light Industrial	110	250	ksf	T=	0.74	(X)	+	0.39	88%	12%	164	22	186	0.0%	0	0	0	164	22	186
										Total:	539	551	1,090	1.3%	7	7	14	**532**	**544**	**1,076**

PM Peak Hour Trips

Land Use	ITE LUC Code	Size	Unit	Equation					Directional Distribution		Gross Trips			Internal Capture				New External Trips		
									In	Out	In	Out	Total	%	In	Out	Total	In	Out	Total
Shopping Center	820	500	ksf	Ln(T)=	0.74	Ln(X)	+	2.89	48%	52%	858	930	1,788	15.5%	86	191	277	772	739	1,511
Single Family Detached Housing	210	700	DU	Ln(T)=	0.96	Ln(X)	+	0.2	63%	37%	415	243	658	42.1%	191	86	277	224	157	381
General Light Industrial	110	250	ksf	Ln(T)=	0.69	Ln(X)	+	0.43	13%	87%	9	61	70	0.0%	0	0	0	9	61	70
										Total:	1,282	1,234	2,516	22.0%	277	277	554	**1,005**	**957**	**1,962**

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APPENDIX B

Traffic Count Data

DocuSign Envelope ID: 4F2EB240-FC14-467F-9B68-303794D74D7C

Short Counts

File Name : Nexton Pkwy @ Business Park-Holiday Dr
Site Code :
Start Date : 12/6/2018
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles - Buses

	Business Park Rd From North				Nexton Pkwy From East				Holiday Rd From South				Nexton Pkwy From West				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
07:00 AM	4	5	1	0	10	70	21	0	6	4	35	0	8	155	10	0	329
07:15 AM	1	2	4	0	28	100	18	0	11	7	68	0	3	180	11	0	433
07:30 AM	4	1	1	0	57	98	24	0	7	6	31	1	6	169	10	0	415
07:45 AM	4	4	1	0	39	89	16	0	10	6	28	0	7	169	17	0	390
Total	13	12	7	0	134	357	79	0	34	23	162	1	24	673	48	0	1567
08:00 AM	5	1	3	0	20	74	19	0	7	4	35	0	4	115	15	0	302
08:15 AM	8	3	2	0	26	98	10	0	7	5	40	0	3	125	14	0	341
08:30 AM	7	5	1	0	29	65	12	0	7	4	31	0	8	85	16	0	270
08:45 AM	3	6	3	0	25	74	10	0	3	3	20	0	1	96	20	0	264
Total	23	15	9	0	100	311	51	0	24	16	126	0	16	421	65	0	1177
04:00 PM	18	11	10	0	53	125	10	0	20	6	52	0	5	133	28	0	471
04:15 PM	13	10	6	0	74	165	7	0	17	3	52	0	2	105	32	0	486
04:30 PM	9	7	8	0	71	136	10	0	18	7	39	0	2	113	31	0	451
04:45 PM	9	9	0	0	57	145	7	0	23	6	37	0	2	122	28	0	445
Total	49	37	24	0	255	571	34	0	78	22	180	0	11	473	119	0	1853
05:00 PM	12	5	11	0	43	139	9	0	19	5	56	0	4	159	34	0	496
05:15 PM	14	6	4	0	70	149	15	0	15	7	58	0	3	147	42	0	530
05:30 PM	12	5	7	0	49	133	8	0	24	7	41	0	4	127	22	0	439
05:45 PM	6	7	4	0	37	120	10	0	22	5	59	0	4	112	28	0	414
Total	44	23	26	0	199	541	42	0	80	24	214	0	15	545	126	0	1879
Grand Total	129	87	66	0	688	1780	206	0	216	85	682	1	66	2112	358	0	6476
Apprch %	45.7	30.9	23.4	0	25.7	66.6	7.7	0	22	8.6	69.3	0.1	2.6	83.3	14.1	0	
Total %	2	1.3	1	0	10.6	27.5	3.2	0	3.3	1.3	10.5	0	1	32.6	5.5	0	
Passenger Vehicles	97	78	61	0	680	1695	164	0	208	81	674	1	62	2066	353	0	6220
% Passenger Vehicles	75.2	89.7	92.4	0	98.8	95.2	79.6	0	96.3	95.3	98.8	100	93.9	97.8	98.6	0	96
Heavy Vehicles	32	9	5	0	7	83	41	0	8	3	6	0	4	45	4	0	247
% Heavy Vehicles	24.8	10.3	7.6	0	1	4.7	19.9	0	3.7	3.5	0.9	0	6.1	2.1	1.1	0	3.8
Buses	0	0	0	0	1	2	1	0	0	1	2	0	0	1	1	0	9
% Buses	0	0	0	0	0.1	0.1	0.5	0	0	1.2	0.3	0	0	0	0.3	0	0.1

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Short Counts

File Name : Nexton Pkwy @ Business Park-Holiday Dr
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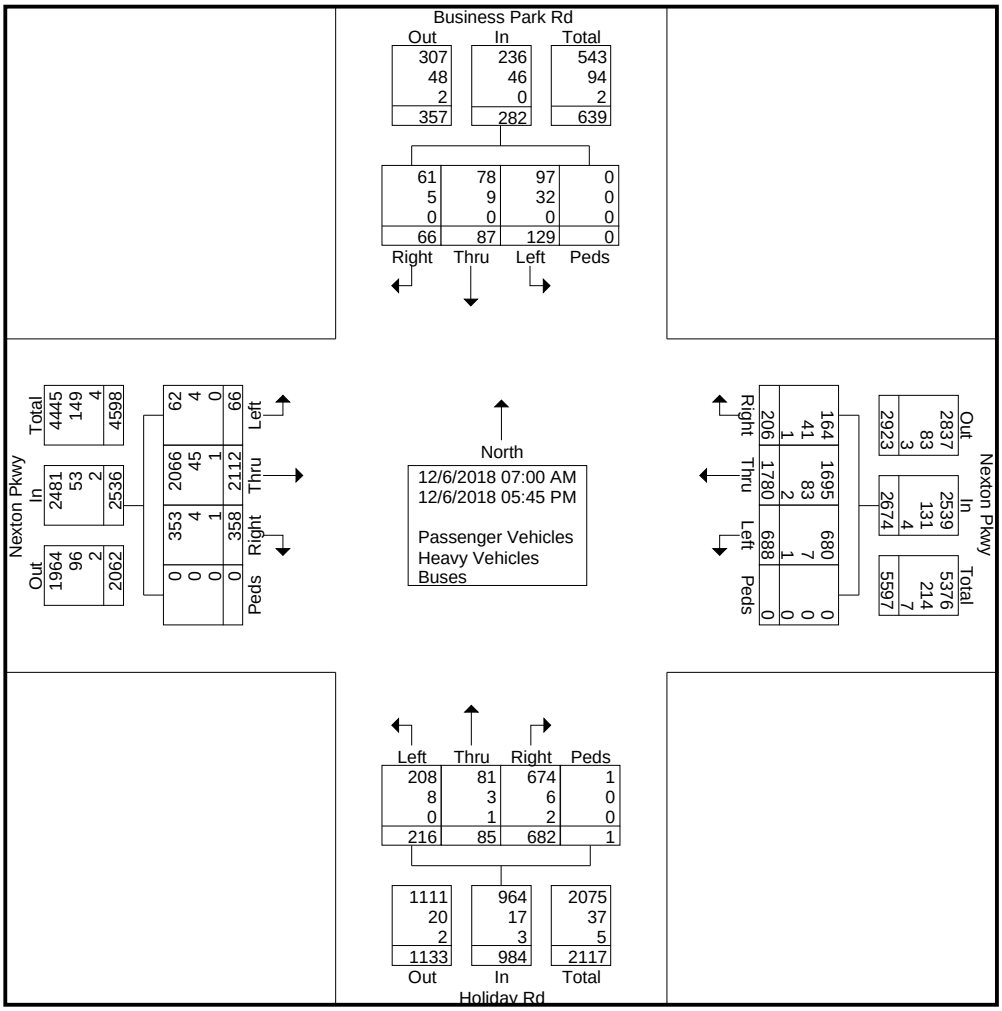

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Short Counts

File Name : Nexton Pkwy @ Business Park-Holiday Dr
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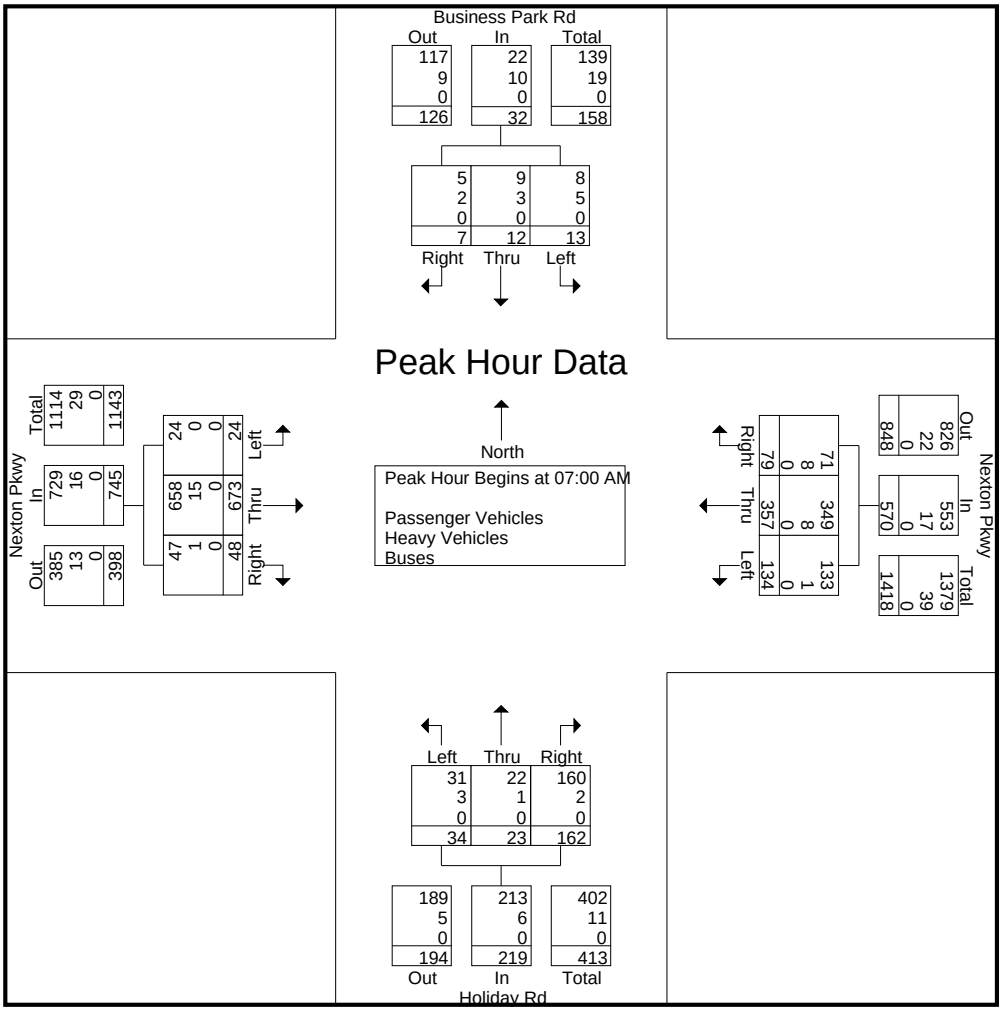
	Business Park Rd From North				Nexton Pkwy From East				Holiday Rd From South				Nexton Pkwy From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**4**	**5**	1	**10**	10	70	21	101	6	4	35	45	**8**	155	10	173	329
07:15 AM	1	2	**4**	7	28	**100**	18	146	**11**	**7**	**68**	**86**	3	**180**	11	**194**	**433**
07:30 AM	4	1	1	6	**57**	98	**24**	**179**	7	6	31	44	6	169	10	185	414
07:45 AM	4	4	1	9	39	89	16	144	10	6	28	44	7	169	**17**	193	390
Total Volume	13	12	7	32	134	357	79	570	34	23	162	219	24	673	48	745	1566
% App. Total	40.6	37.5	21.9		23.5	62.6	13.9		15.5	10.5	74		3.2	90.3	6.4		
PHF	.813	.600	.438	.800	.588	.893	.823	.796	.773	.821	.596	.637	.750	.935	.706	.960	.904
Passenger Vehicles	8	9	5	22	133	349	71	553	31	22	160	213	24	658	47	729	1517
% Passenger Vehicles	61.5	75.0	71.4	68.8	99.3	97.8	89.9	97.0	91.2	95.7	98.8	97.3	100	97.8	97.9	97.9	96.9
Heavy Vehicles	5	3	2	10	1	8	8	17	3	1	2	6	0	15	1	16	49
% Heavy Vehicles	38.5	25.0	28.6	31.3	0.7	2.2	10.1	3.0	8.8	4.3	1.2	2.7	0	2.2	2.1	2.1	3.1
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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Short Counts

File Name : Nexton Pkwy @ Business Park-Holiday Dr
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Start Date : 12/6/2018
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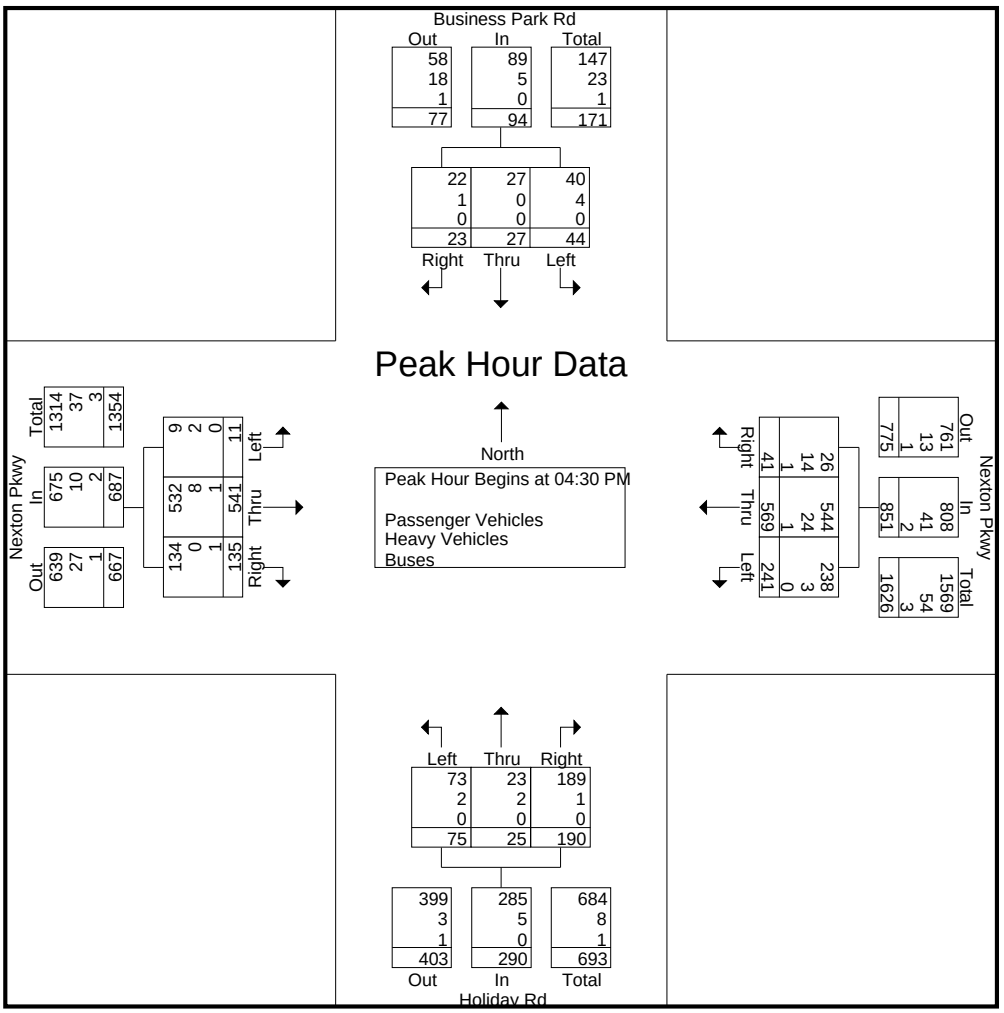
	Business Park Rd From North				Nexton Pkwy From East				Holiday Rd From South				Nexton Pkwy From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	9	7	8	24	**71**	136	10	217	18	**7**	39	64	2	113	31	146	451
04:45 PM	9	**9**	0	18	57	145	7	209	**23**	6	37	66	2	122	28	152	445
05:00 PM	12	5	**11**	**28**	43	139	9	191	19	5	56	**80**	**4**	**159**	34	**197**	496
05:15 PM	**14**	6	4	24	70	**149**	**15**	**234**	15	7	**58**	80	3	147	**42**	192	**530**
Total Volume	44	27	23	94	241	569	41	851	75	25	190	290	11	541	135	687	1922
% App. Total	46.8	28.7	24.5		28.3	66.9	4.8		25.9	8.6	65.5		1.6	78.7	19.7		
PHF	.786	.750	.523	.839	.849	.955	.683	.909	.815	.893	.819	.906	.688	.851	.804	.872	.907
Passenger Vehicles	40	27	22	89	238	544	26	808	73	23	189	285	9	532	134	675	1857
% Passenger Vehicles	90.9	100	95.7	94.7	98.8	95.6	63.4	94.9	97.3	92.0	99.5	98.3	81.8	98.3	99.3	98.3	96.6
Heavy Vehicles	4	0	1	5	3	24	14	41	2	2	1	5	2	8	0	10	61
% Heavy Vehicles	9.1	0	4.3	5.3	1.2	4.2	34.1	4.8	2.7	8.0	0.5	1.7	18.2	1.5	0	1.5	3.2
Buses	0	0	0	0	0	1	1	2	0	0	0	0	0	1	1	2	4
% Buses	0	0	0	0	0	0.2	2.4	0.2	0	0	0	0	0	0.2	0.7	0.3	0.2



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Short Counts

File Name : Nexton Pkwy @ I 26 EB Off-On Ramps
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Groups Printed- Passenger Vehicles - Heavy Vehicles - Buses

	I 236 EB Ramp From North				Nexton Pkwy From East				From South				Nexton Pkwy From West				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
07:00 AM	13	0	7	0	0	104	32	0	0	0	0	0	0	80	129	0	365
07:15 AM	21	0	8	0	0	138	27	0	0	0	0	0	0	126	126	0	446
07:30 AM	12	0	20	0	0	185	56	0	0	0	0	0	0	78	129	0	480
07:45 AM	12	0	14	0	0	130	41	0	0	0	0	0	0	79	124	0	400
Total	58	0	49	0	0	557	156	0	0	0	0	0	0	363	508	0	1691
08:00 AM	5	0	12	0	0	106	33	0	0	0	0	0	0	66	93	0	315
08:15 AM	9	0	8	0	0	122	36	0	0	0	0	0	0	78	99	0	352
08:30 AM	6	0	11	0	0	98	38	0	0	0	0	0	0	48	78	0	279
08:45 AM	6	0	15	0	0	98	36	0	0	0	0	0	0	38	73	0	266
Total	26	0	46	0	0	424	143	0	0	0	0	0	0	230	343	0	1212
04:00 PM	10	0	22	0	0	172	23	0	0	0	0	0	0	128	80	0	435
04:15 PM	8	0	13	0	0	230	36	0	0	0	0	0	0	100	75	0	462
04:30 PM	10	0	20	0	0	196	45	0	0	0	0	0	0	83	79	0	433
04:45 PM	9	0	16	0	0	183	24	0	0	0	0	0	0	80	86	0	398
Total	37	0	71	0	0	781	128	0	0	0	0	0	0	391	320	0	1728
05:00 PM	16	0	17	0	0	183	33	0	0	0	0	0	0	116	109	0	474
05:15 PM	8	0	27	0	0	209	50	0	0	0	0	0	0	118	102	0	514
05:30 PM	13	0	16	0	0	179	49	0	0	0	0	0	0	81	97	0	435
05:45 PM	6	0	15	0	0	147	40	0	0	0	0	0	0	103	69	0	380
Total	43	0	75	0	0	718	172	0	0	0	0	0	0	418	377	0	1803
Grand Total	164	0	241	0	0	2480	599	0	0	0	0	0	0	1402	1548	0	6434
Apprch %	40.5	0	59.5	0	0	80.5	19.5	0	0	0	0	0	0	47.5	52.5	0	
Total %	2.5	0	3.7	0	0	38.5	9.3	0	0	0	0	0	0	21.8	24.1	0	
Passenger Vehicles	143	0	239	0	0	2372	566	0	0	0	0	0	0	1375	1494	0	6189
% Passenger Vehicles	87.2	0	99.2	0	0	95.6	94.5	0	0	0	0	0	0	98.1	96.5	0	96.2
Heavy Vehicles	21	0	2	0	0	103	33	0	0	0	0	0	0	23	53	0	235
% Heavy Vehicles	12.8	0	0.8	0	0	4.2	5.5	0	0	0	0	0	0	1.6	3.4	0	3.7
Buses	0	0	0	0	0	5	0	0	0	0	0	0	0	4	1	0	10
% Buses	0	0	0	0	0	0.2	0	0	0	0	0	0	0	0.3	0.1	0	0.2

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Short Counts

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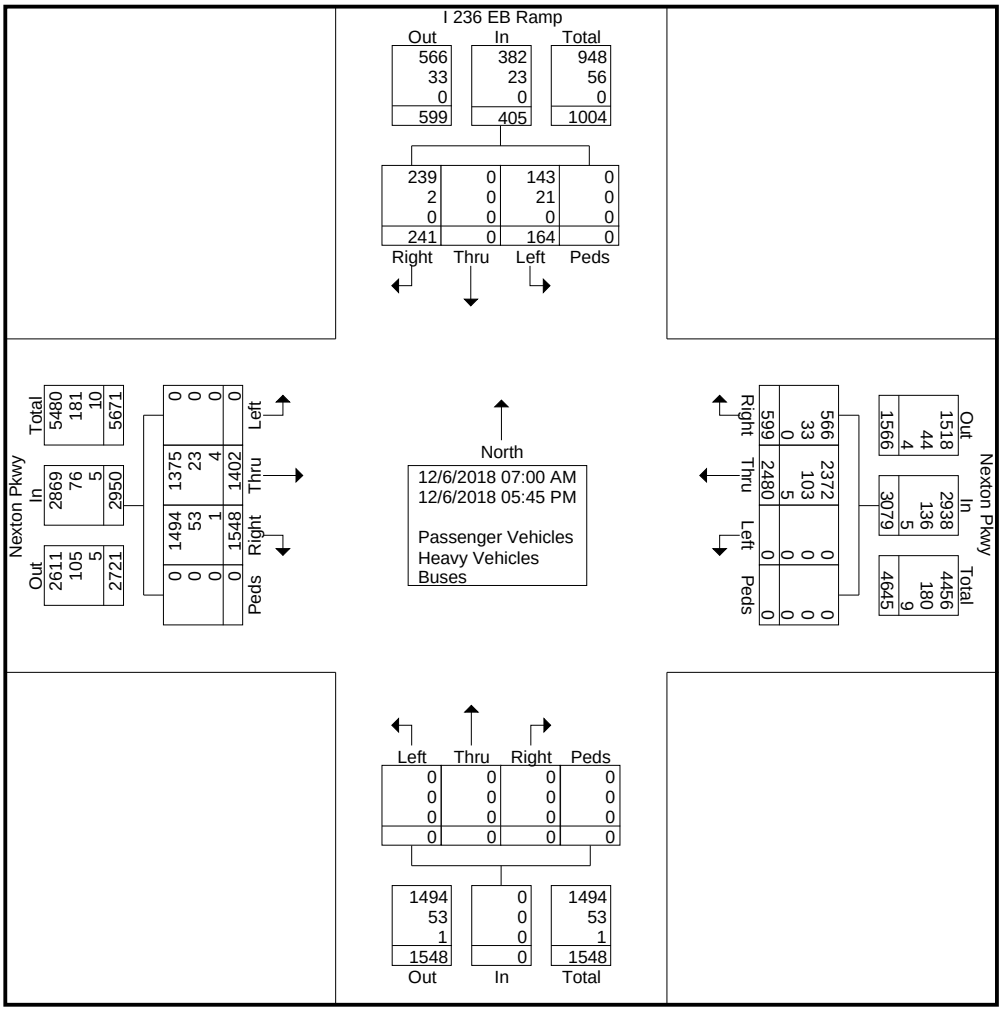

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Short Counts

File Name : Nexton Pkwy @ I 26 EB Off-On Ramps
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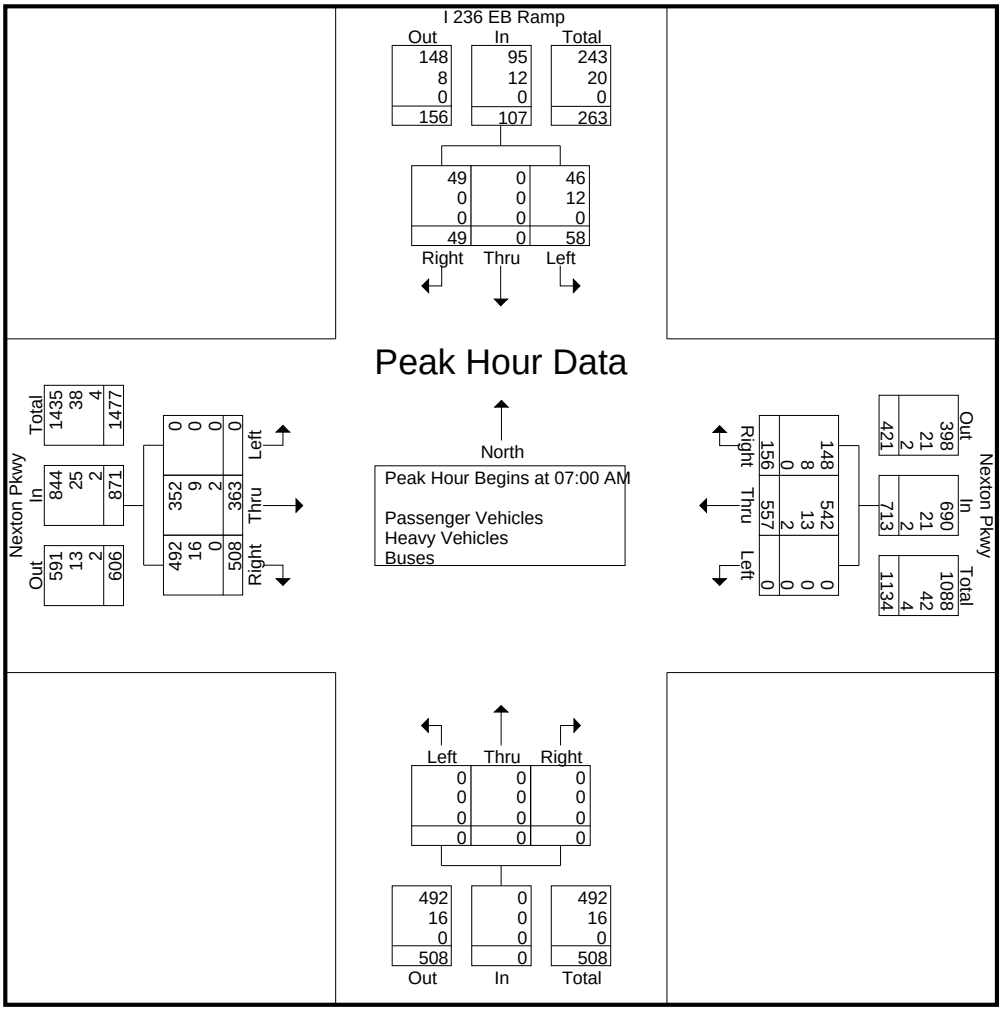
	I 236 EB Ramp From North				Nexton Pkwy From East				From South				Nexton Pkwy From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	13	0	7	20	0	104	32	136	0	0	0	0	0	80	**129**	209	365
07:15 AM	**21**	0	8	29	0	138	27	165	0	0	0	0	0	**126**	126	**252**	446
07:30 AM	12	0	**20**	**32**	0	**185**	**56**	**241**	0	0	0	0	0	78	129	207	**480**
07:45 AM	12	0	14	26	0	130	41	171	0	0	0	0	0	79	124	203	400
Total Volume	58	0	49	107	0	557	156	713	0	0	0	0	0	363	508	871	1691
% App. Total	54.2	0	45.8		0	78.1	21.9		0	0	0		0	41.7	58.3		
PHF	.690	.000	.613	.836	.000	.753	.696	.740	.000	.000	.000	.000	.000	.720	.984	.864	.881
Passenger Vehicles	46	0	49	95	0	542	148	690	0	0	0	0	0	352	492	844	1629
% Passenger Vehicles	79.3	0	100	88.8	0	97.3	94.9	96.8	0	0	0	0	0	97.0	96.9	96.9	96.3
Heavy Vehicles	12	0	0	12	0	13	8	21	0	0	0	0	0	9	16	25	58
% Heavy Vehicles	20.7	0	0	11.2	0	2.3	5.1	2.9	0	0	0	0	0	2.5	3.1	2.9	3.4
Buses	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
% Buses	0	0	0	0	0	0.4	0	0.3	0	0	0	0	0	0.6	0	0.2	0.2



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Short Counts

File Name : Nexton Pkwy @ I 26 EB Off-On Ramps
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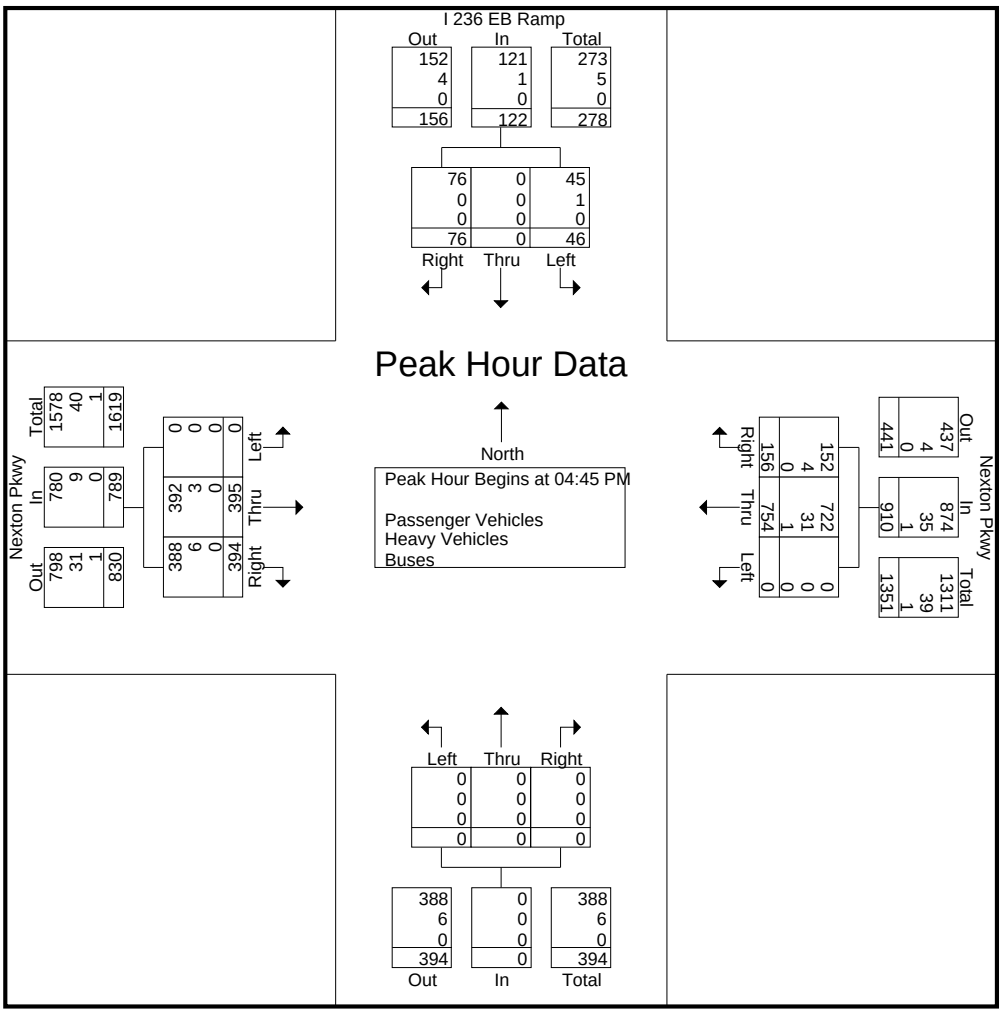
	I 236 EB Ramp From North				Nexton Pkwy From East				From South				Nexton Pkwy From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	9	0	16	25	0	183	24	207	0	0	0	0	0	80	86	166	398
05:00 PM	**16**	0	17	33	0	183	33	216	0	0	0	0	0	116	**109**	**225**	474
05:15 PM	8	0	**27**	**35**	0	**209**	**50**	**259**	0	0	0	0	0	**118**	102	220	**514**
05:30 PM	13	0	16	29	0	179	49	228	0	0	0	0	0	81	97	178	435
Total Volume	46	0	76	122	0	754	156	910	0	0	0	0	0	395	394	789	1821
% App. Total	37.7	0	62.3		0	82.9	17.1		0	0	0		0	50.1	49.9		
PHF	.719	.000	.704	.871	.000	.902	.780	.878	.000	.000	.000	.000	.000	.837	.904	.877	.886
Passenger Vehicles	45	0	76	121	0	722	152	874	0	0	0	0	0	392	388	780	1775
% Passenger Vehicles	97.8	0	100	99.2	0	95.8	97.4	96.0	0	0	0	0	0	99.2	98.5	98.9	97.5
Heavy Vehicles	1	0	0	1	0	31	4	35	0	0	0	0	0	3	6	9	45
% Heavy Vehicles	2.2	0	0	0.8	0	4.1	2.6	3.8	0	0	0	0	0	0.8	1.5	1.1	2.5
Buses	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
% Buses	0	0	0	0	0	0.1	0	0.1	0	0	0	0	0	0	0	0	0.1



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Groups Printed- Passenger Vehicles - Heavy Vehicles - Buses

	I 26 WB Ramp From North				Nexton Pkwy From East				I 26 WB Ramp From South				Nexton Pkwy From West				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
07:00 AM	0	0	43	0	0	90	11	0	0	0	47	0	15	71	0	0	277
07:15 AM	0	0	42	0	0	119	16	0	0	0	52	0	14	131	0	0	374
07:30 AM	0	0	68	0	0	150	16	0	0	0	52	0	8	92	0	0	386
07:45 AM	0	0	68	0	0	123	9	0	0	0	46	0	7	79	0	0	332
Total	0	0	221	0	0	482	52	0	0	0	197	0	44	373	0	0	1369
08:00 AM	0	0	52	0	0	86	8	0	0	0	36	0	11	73	0	0	266
08:15 AM	0	0	60	0	0	111	3	0	0	0	35	0	11	72	0	0	292
08:30 AM	0	0	55	0	0	90	8	0	0	0	53	0	10	51	0	0	267
08:45 AM	0	0	33	0	0	100	8	0	0	0	32	0	5	35	0	0	213
Total	0	0	200	0	0	387	27	0	0	0	156	0	37	231	0	0	1038
04:00 PM	0	0	55	0	0	120	9	0	0	0	60	0	15	110	0	0	369
04:15 PM	0	0	59	0	0	162	10	0	0	0	70	0	16	92	0	0	409
04:30 PM	0	0	40	0	0	177	11	0	0	0	64	0	16	75	0	0	383
04:45 PM	0	0	44	0	0	142	5	0	0	0	90	0	10	87	0	0	378
Total	0	0	198	0	0	601	35	0	0	0	284	0	57	364	0	0	1539
05:00 PM	0	0	75	0	0	128	14	0	0	0	92	0	29	100	0	0	438
05:15 PM	0	0	104	0	0	152	7	0	0	0	69	0	22	107	0	0	461
05:30 PM	0	0	98	0	0	135	3	0	0	0	86	0	16	77	0	0	415
05:45 PM	0	0	88	0	0	97	7	0	0	0	58	0	19	90	0	0	359
Total	0	0	365	0	0	512	31	0	0	0	305	0	86	374	0	0	1673
Grand Total	0	0	984	0	0	1982	145	0	0	0	942	0	224	1342	0	0	5619
Apprch %	0	0	100	0	0	93.2	6.8	0	0	0	100	0	14.3	85.7	0	0	
Total %	0	0	17.5	0	0	35.3	2.6	0	0	0	16.8	0	4	23.9	0	0	
Passenger Vehicles	0	0	927	0	0	1947	130	0	0	0	911	0	220	1302	0	0	5437
% Passenger Vehicles	0	0	94.2	0	0	98.2	89.7	0	0	0	96.7	0	98.2	97	0	0	96.8
Heavy Vehicles	0	0	57	0	0	35	10	0	0	0	31	0	4	40	0	0	177
% Heavy Vehicles	0	0	5.8	0	0	1.8	6.9	0	0	0	3.3	0	1.8	3	0	0	3.2
Buses	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	5
% Buses	0	0	0	0	0	0	3.4	0	0	0	0	0	0	0	0	0	0.1

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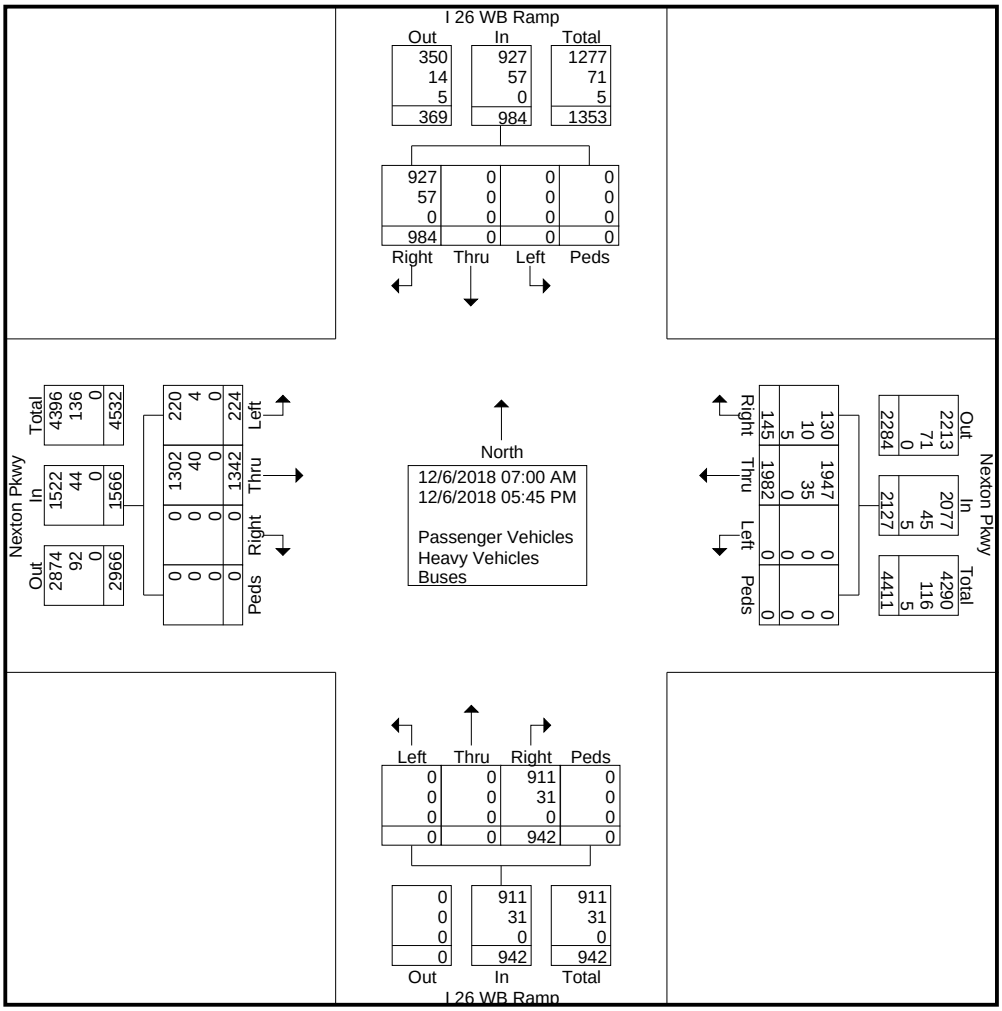

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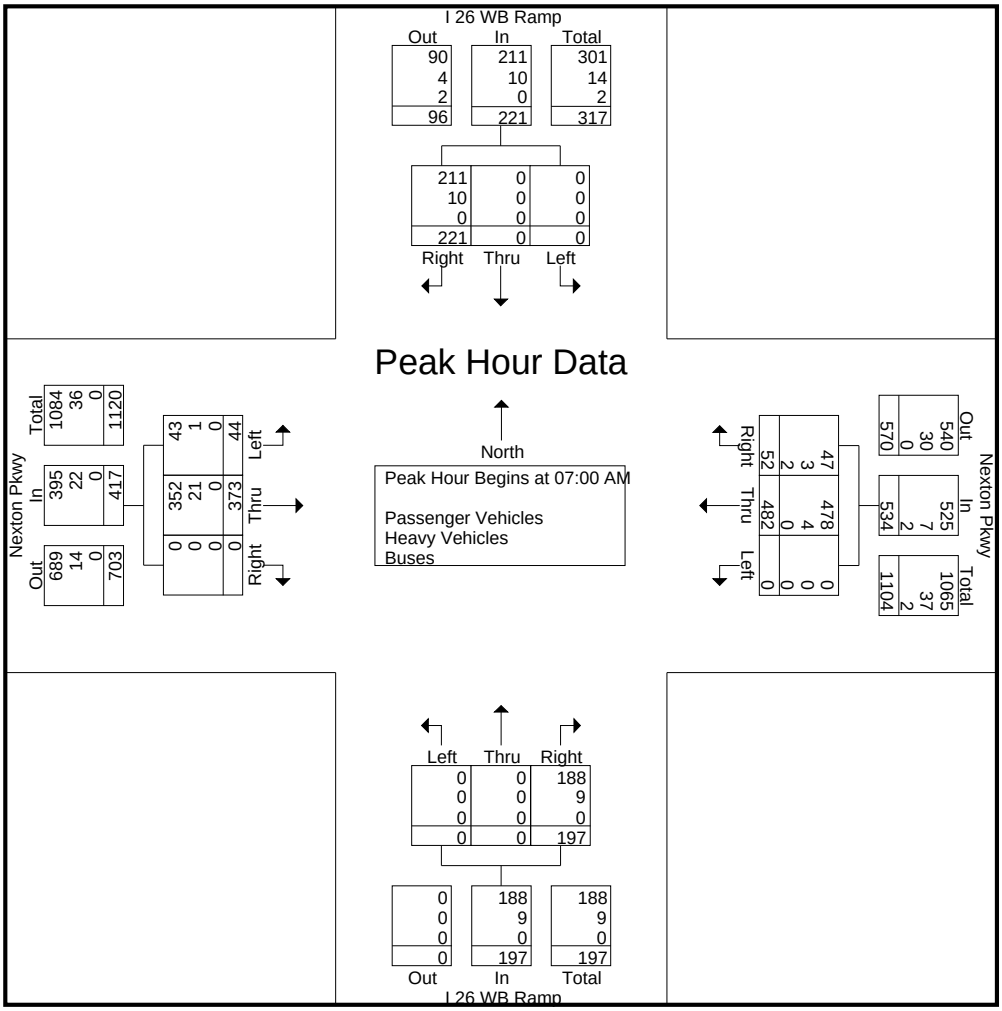
	I 26 WB Ramp From North				Nexton Pkwy From East				I 26 WB Ramp From South				Nexton Pkwy From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	43	43	0	90	11	101	0	0	47	47	**15**	71	0	86	277
07:15 AM	0	0	42	42	0	119	**16**	135	0	0	**52**	**52**	14	**131**	0	**145**	374
07:30 AM	0	0	**68**	**68**	0	**150**	16	**166**	0	0	52	52	8	92	0	100	**386**
07:45 AM	0	0	68	68	0	123	9	132	0	0	46	46	7	79	0	86	332
Total Volume	0	0	221	221	0	482	52	534	0	0	197	197	44	373	0	417	1369
% App. Total	0	0	100		0	90.3	9.7		0	0	100		10.6	89.4	0		
PHF	.000	.000	.813	.813	.000	.803	.813	.804	.000	.000	.947	.947	.733	.712	.000	.719	.887
Passenger Vehicles	0	0	211	211	0	478	47	525	0	0	188	188	43	352	0	395	1319
% Passenger Vehicles	0	0	95.5	95.5	0	99.2	90.4	98.3	0	0	95.4	95.4	97.7	94.4	0	94.7	96.3
Heavy Vehicles	0	0	10	10	0	4	3	7	0	0	9	9	1	21	0	22	48
% Heavy Vehicles	0	0	4.5	4.5	0	0.8	5.8	1.3	0	0	4.6	4.6	2.3	5.6	0	5.3	3.5
Buses	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	2
% Buses	0	0	0	0	0	0	3.8	0.4	0	0	0	0	0	0	0	0	0.1



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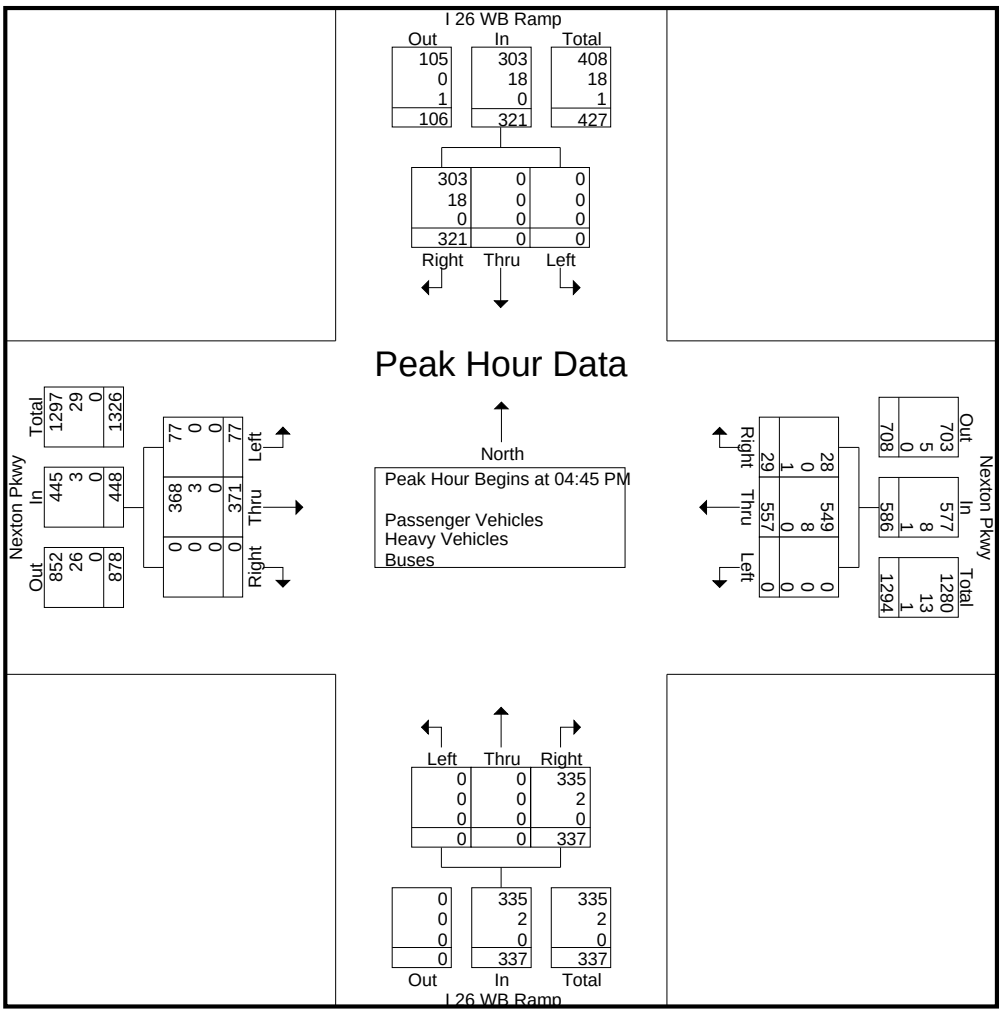
Short Counts

File Name : Nexton Pkwy @ I 26 WB On-Off Ramps
Site Code :
Start Date : 12/6/2018
Page No : 4

	I 26 WB Ramp From North				Nexton Pkwy From East				I 26 WB Ramp From South				Nexton Pkwy From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	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	0	0	44	44	0	142	5	147	0	0	90	90	10	87	0	97	378
05:00 PM	0	0	75	75	0	128	**14**	142	0	0	**92**	**92**	**29**	100	0	**129**	438
05:15 PM	0	0	**104**	**104**	0	**152**	7	**159**	0	0	69	69	22	**107**	0	129	**461**
05:30 PM	0	0	98	98	0	135	3	138	0	0	86	86	16	77	0	93	415
Total Volume	0	0	321	321	0	557	29	586	0	0	337	337	77	371	0	448	1692
% App. Total	0	0	100		0	95.1	4.9		0	0	100		17.2	82.8	0		
PHF	.000	.000	.772	.772	.000	.916	.518	.921	.000	.000	.916	.916	.664	.867	.000	.868	.918
Passenger Vehicles	0	0	303	303	0	549	28	577	0	0	335	335	77	368	0	445	1660
% Passenger Vehicles	0	0	94.4	94.4	0	98.6	96.6	98.5	0	0	99.4	99.4	100	99.2	0	99.3	98.1
Heavy Vehicles	0	0	18	18	0	8	0	8	0	0	2	2	0	3	0	3	31
% Heavy Vehicles	0	0	5.6	5.6	0	1.4	0	1.4	0	0	0.6	0.6	0	0.8	0	0.7	1.8
Buses	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
% Buses	0	0	0	0	0	0	3.4	0.2	0	0	0	0	0	0	0	0	0.1



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Short Counts

File Name : Nexton Pkwy @ Drop Off-Sigma 181214
Site Code : 00000000
Start Date : 12/11/2018
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles - Buses

	Drop Off Dr From North				Nexton Pkwy From East				Sigma Dr From South				Nexton Pkwy From West				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
07:00 AM	9	1	3	0	2	87	6	0	5	3	4	0	17	77	7	0	221
07:15 AM	22	2	11	0	10	136	16	0	3	0	2	0	32	109	11	0	354
07:30 AM	17	1	9	0	10	132	21	0	5	3	3	0	13	119	6	0	339
07:45 AM	3	0	7	0	1	132	7	0	3	0	6	0	17	80	1	0	257
Total	51	4	30	0	23	487	50	0	16	6	15	0	79	385	25	0	1171
08:00 AM	7	2	11	0	4	68	2	0	2	0	1	0	8	58	1	0	164
08:15 AM	4	3	8	1	5	91	6	0	6	3	3	0	19	79	8	0	236
08:30 AM	5	2	8	0	5	96	8	0	4	0	2	0	14	86	5	0	235
08:45 AM	4	1	6	0	7	83	3	0	1	2	3	0	7	52	3	0	172
Total	20	8	33	1	21	338	19	0	13	5	9	0	48	275	17	0	807
04:00 PM	6	3	22	0	3	54	2	0	3	1	1	0	16	86	4	0	201
04:15 PM	7	1	25	0	5	135	6	0	6	2	2	0	10	161	6	0	366
04:30 PM	10	3	39	0	3	103	2	0	6	2	5	0	4	171	10	0	358
04:45 PM	2	2	8	0	3	61	3	0	2	0	4	0	12	105	3	0	205
Total	25	9	94	0	14	353	13	0	17	5	12	0	42	523	23	0	1130
05:00 PM	7	7	23	0	3	115	3	0	5	2	6	0	16	169	5	0	361
05:15 PM	9	5	15	0	3	115	2	0	17	4	6	0	14	158	8	0	356
05:30 PM	9	4	32	0	1	125	5	0	4	2	7	0	7	144	7	0	347
05:45 PM	5	2	14	0	0	66	1	0	2	0	2	0	5	86	7	0	190
Total	30	18	84	0	7	421	11	0	28	8	21	0	42	557	27	0	1254
Grand Total	126	39	241	1	65	1599	93	0	74	24	57	0	211	1740	92	0	4362
Apprch %	31	9.6	59.2	0.2	3.7	91	5.3	0	47.7	15.5	36.8	0	10.3	85.2	4.5	0	
Total %	2.9	0.9	5.5	0	1.5	36.7	2.1	0	1.7	0.6	1.3	0	4.8	39.9	2.1	0	
Passenger Vehicles	125	36	221	0	65	1586	90	0	73	24	57	0	186	1730	92	0	4285
% Passenger Vehicles	99.2	92.3	91.7	0	100	99.2	96.8	0	98.6	100	100	0	88.2	99.4	100	0	98.2
Heavy Vehicles	0	3	20	1	0	6	0	0	1	0	0	0	24	3	0	0	58
% Heavy Vehicles	0	7.7	8.3	100	0	0.4	0	0	1.4	0	0	0	11.4	0.2	0	0	1.3
Buses	1	0	0	0	0	7	3	0	0	0	0	0	1	7	0	0	19
% Buses	0.8	0	0	0	0	0.4	3.2	0	0	0	0	0	0.5	0.4	0	0	0.4

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Short Counts

File Name : Nexton Pkwy @ Drop Off-Sigma 181214
Site Code : 00000000
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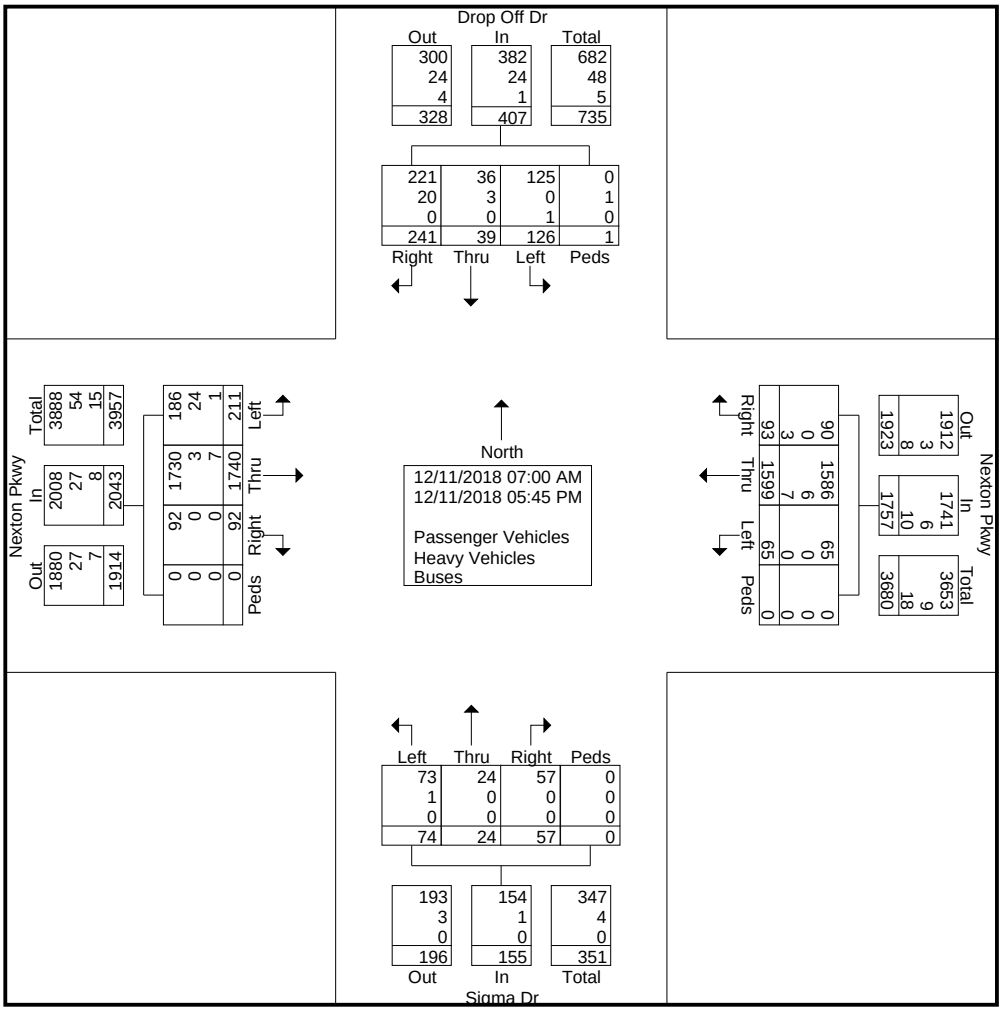

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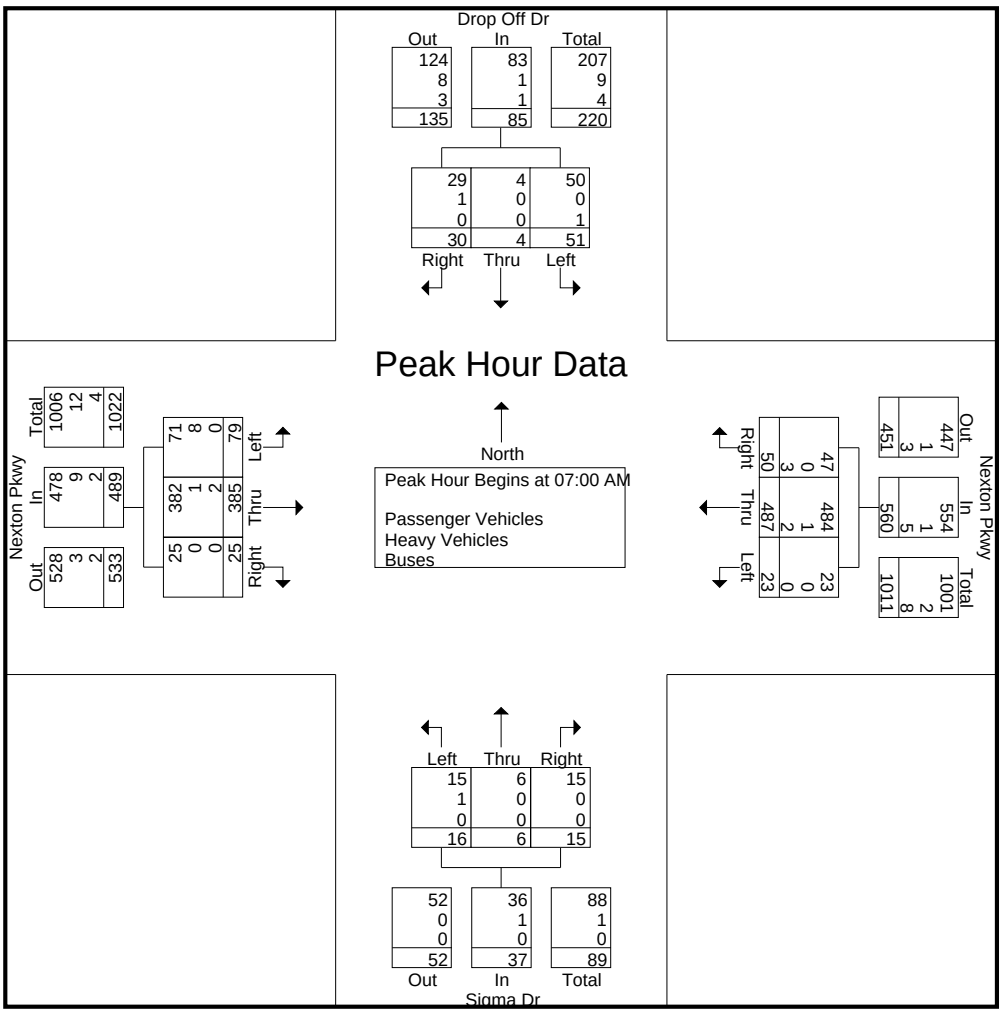
Short Counts

File Name : Nexton Pkwy @ Drop Off-Sigma 181214
Site Code : 00000000
Start Date : 12/11/2018
Page No : 3

	Drop Off Dr From North				Nexton Pkwy From East				Sigma Dr From South				Nexton Pkwy From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	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	9	1	3	13	2	87	6	95	**5**	**3**	4	**12**	17	77	7	101	221
07:15 AM	**22**	**2**	**11**	**35**	**10**	**136**	16	162	3	0	2	5	**32**	109	**11**	**152**	**354**
07:30 AM	17	1	9	27	10	132	**21**	**163**	5	3	3	11	13	**119**	6	138	339
07:45 AM	3	0	7	10	1	132	7	140	3	0	**6**	9	17	80	1	98	257
Total Volume	51	4	30	85	23	487	50	560	16	6	15	37	79	385	25	489	1171
% App. Total	60	4.7	35.3		4.1	87	8.9		43.2	16.2	40.5		16.2	78.7	5.1		
PHF	.580	.500	.682	.607	.575	.895	.595	.859	.800	.500	.625	.771	.617	.809	.568	.804	.827
Passenger Vehicles	50	4	29	83	23	484	47	554	15	6	15	36	71	382	25	478	1151
% Passenger Vehicles	98.0	100	96.7	97.6	100	99.4	94.0	98.9	93.8	100	100	97.3	89.9	99.2	100	97.8	98.3
Heavy Vehicles	0	0	1	1	0	1	0	1	1	0	0	1	8	1	0	9	12
% Heavy Vehicles	0	0	3.3	1.2	0	0.2	0	0.2	6.3	0	0	2.7	10.1	0.3	0	1.8	1.0
Buses	1	0	0	1	0	2	3	5	0	0	0	0	0	2	0	2	8
% Buses	2.0	0	0	1.2	0	0.4	6.0	0.9	0	0	0	0	0	0.5	0	0.4	0.7



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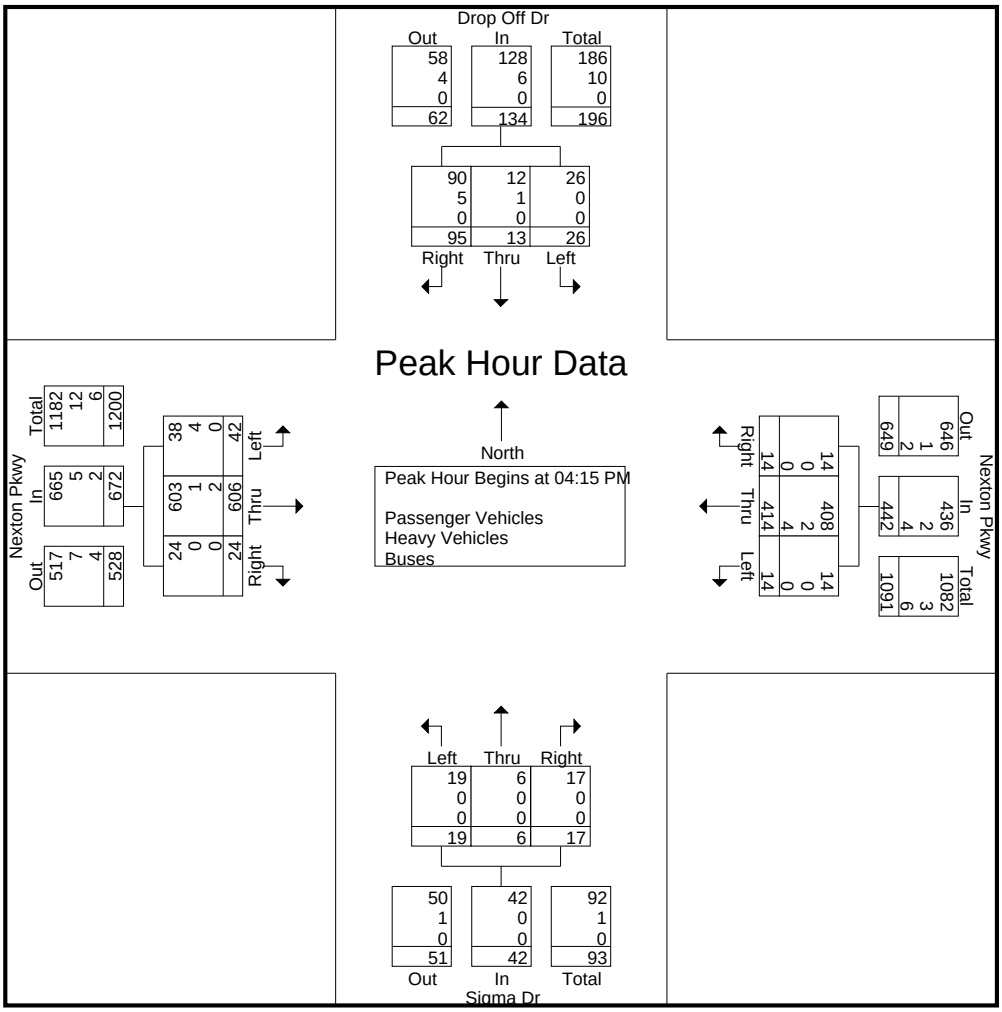
Short Counts

File Name : Nexton Pkwy @ Drop Off-Sigma 181214
Site Code : 00000000
Start Date : 12/11/2018
Page No : 4

	Drop Off Dr From North				Nexton Pkwy From East				Sigma Dr From South				Nexton Pkwy From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	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 04:15 PM																	
04:15 PM	7	1	25	33	**5**	**135**	**6**	**146**	**6**	**2**	2	10	10	161	6	177	**366**
04:30 PM	**10**	3	**39**	**52**	3	103	2	108	6	2	5	**13**	4	**171**	**10**	185	358
04:45 PM	2	2	8	12	3	61	3	67	2	0	4	6	12	105	3	120	205
05:00 PM	7	**7**	23	37	3	115	3	121	5	2	**6**	13	**16**	169	5	**190**	361
Total Volume	26	13	95	134	14	414	14	442	19	6	17	42	42	606	24	672	1290
% App. Total	19.4	9.7	70.9		3.2	93.7	3.2		45.2	14.3	40.5		6.2	90.2	3.6		
PHF	.650	.464	.609	.644	.700	.767	.583	.757	.792	.750	.708	.808	.656	.886	.600	.884	.881
Passenger Vehicles	26	12	90	128	14	408	14	436	19	6	17	42	38	603	24	665	1271
% Passenger Vehicles	100	92.3	94.7	95.5	100	98.6	100	98.6	100	100	100	100	90.5	99.5	100	99.0	98.5
Heavy Vehicles	0	1	5	6	0	2	0	2	0	0	0	0	4	1	0	5	13
% Heavy Vehicles	0	7.7	5.3	4.5	0	0.5	0	0.5	0	0	0	0	9.5	0.2	0	0.7	1.0
Buses	0	0	0	0	0	4	0	4	0	0	0	0	0	2	0	2	6
% Buses	0	0	0	0	0	1.0	0	0.9	0	0	0	0	0	0.3	0	0.3	0.5



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Short Counts

File Name : Nexton Pkwy @ Brighton Park Blvd 181214
Site Code : 00000000
Start Date : 12/11/2018
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles - Buses

	From North				Nexton Pkwy From East				Brighton Park Blvd From South				Nexton Pkwy From West				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
07:00 AM	0	0	0	0	16	95	0	0	25	0	47	0	0	90	18	0	291
07:15 AM	0	0	0	0	59	120	0	0	21	0	58	0	0	121	23	0	402
07:30 AM	0	0	0	0	57	158	0	0	38	0	33	0	0	98	23	0	407
07:45 AM	0	0	0	0	25	76	0	0	29	0	26	0	0	46	18	0	220
Total	0	0	0	0	157	449	0	0	113	0	164	0	0	355	82	0	1320
08:00 AM	0	0	0	0	13	76	0	0	15	0	25	0	0	57	16	0	202
08:15 AM	0	0	0	0	23	72	0	0	26	0	45	0	0	75	21	0	262
08:30 AM	0	0	0	0	23	95	0	0	19	0	40	0	0	65	13	0	255
08:45 AM	0	0	0	0	17	68	0	0	13	0	14	0	0	38	18	0	168
Total	0	0	0	0	76	311	0	0	73	0	124	0	0	235	68	0	887
04:00 PM	0	0	0	0	31	61	0	0	17	0	15	0	0	79	45	1	249
04:15 PM	0	0	0	0	64	98	0	0	15	0	22	0	0	157	35	0	391
04:30 PM	0	0	0	0	35	104	0	0	13	0	13	0	0	157	37	0	359
04:45 PM	0	0	0	0	23	76	0	0	28	0	16	0	0	120	36	0	299
Total	0	0	0	0	153	339	0	0	73	0	66	0	0	513	153	1	1298
05:00 PM	0	0	0	0	19	88	0	0	30	0	20	0	0	137	35	0	329
05:15 PM	0	0	0	0	27	100	0	0	25	0	25	0	0	146	41	0	364
05:30 PM	0	0	0	0	17	86	0	0	26	0	19	0	0	106	47	0	301
05:45 PM	0	0	0	0	12	45	0	0	29	0	12	0	0	48	21	0	167
Total	0	0	0	0	75	319	0	0	110	0	76	0	0	437	144	0	1161
Grand Total	0	0	0	0	461	1418	0	0	369	0	430	0	0	1540	447	1	4666
Apprch %	0	0	0	0	24.5	75.5	0	0	46.2	0	53.8	0	0	77.5	22.5	0.1	
Total %	0	0	0	0	9.9	30.4	0	0	7.9	0	9.2	0	0	33	9.6	0	
Passenger Vehicles	0	0	0	0	452	1410	0	0	366	0	422	0	0	1532	445	1	4628
% Passenger Vehicles	0	0	0	0	98	99.4	0	0	99.2	0	98.1	0	0	99.5	99.6	100	99.2
Heavy Vehicles	0	0	0	0	2	1	0	0	0	0	2	0	0	2	2	0	9
% Heavy Vehicles	0	0	0	0	0.4	0.1	0	0	0	0	0.5	0	0	0.1	0.4	0	0.2
Buses	0	0	0	0	7	7	0	0	3	0	6	0	0	6	0	0	29
% Buses	0	0	0	0	1.5	0.5	0	0	0.8	0	1.4	0	0	0.4	0	0	0.6

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Short Counts

File Name : Nexton Pkwy @ Brighton Park Blvd 181214
Site Code : 00000000
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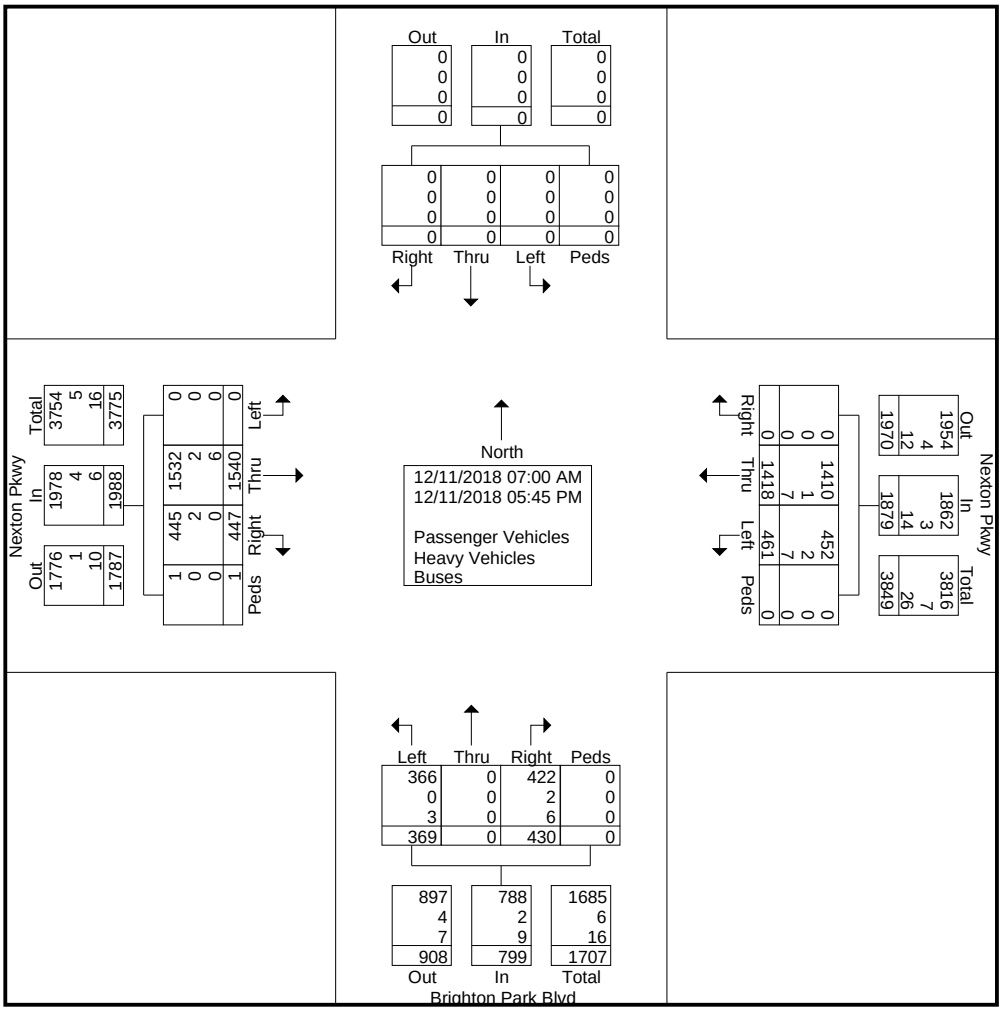

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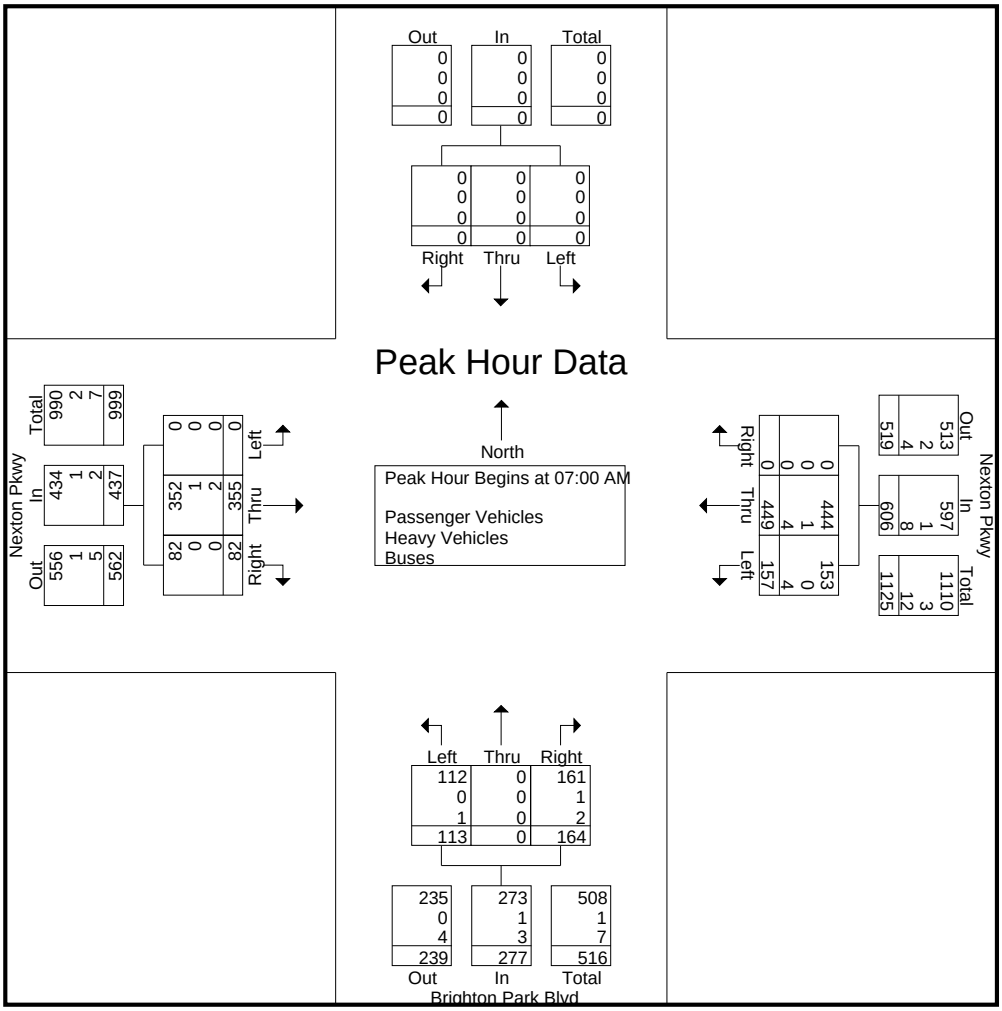
Short Counts

File Name : Nexton Pkwy @ Brighton Park Blvd 181214
Site Code : 00000000
Start Date : 12/11/2018
Page No : 3

	From North				Nexton Pkwy From East				Brighton Park Blvd From South				Nexton Pkwy From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	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	0	0	0	0	16	95	0	111	25	0	47	72	0	90	18	108	291
07:15 AM	0	0	0	0	**59**	120	0	179	21	0	**58**	**79**	0	**121**	**23**	**144**	402
07:30 AM	0	0	0	0	57	**158**	0	**215**	**38**	0	33	71	0	98	23	121	**407**
07:45 AM	0	0	0	0	25	76	0	101	29	0	26	55	0	46	18	64	220
Total Volume	0	0	0	0	157	449	0	606	113	0	164	277	0	355	82	437	1320
% App. Total	0	0	0		25.9	74.1	0		40.8	0	59.2		0	81.2	18.8		
PHF	.000	.000	.000	.000	.665	.710	.000	.705	.743	.000	.707	.877	.000	.733	.891	.759	.811
Passenger Vehicles	0	0	0	0	153	444	0	597	112	0	161	273	0	352	82	434	1304
% Passenger Vehicles	0	0	0	0	97.5	98.9	0	98.5	99.1	0	98.2	98.6	0	99.2	100	99.3	98.8
Heavy Vehicles	0	0	0	0	0	1	0	1	0	0	1	1	0	1	0	1	3
% Heavy Vehicles	0	0	0	0	0	0.2	0	0.2	0	0	0.6	0.4	0	0.3	0	0.2	0.2
Buses	0	0	0	0	4	4	0	8	1	0	2	3	0	2	0	2	13
% Buses	0	0	0	0	2.5	0.9	0	1.3	0.9	0	1.2	1.1	0	0.6	0	0.5	1.0



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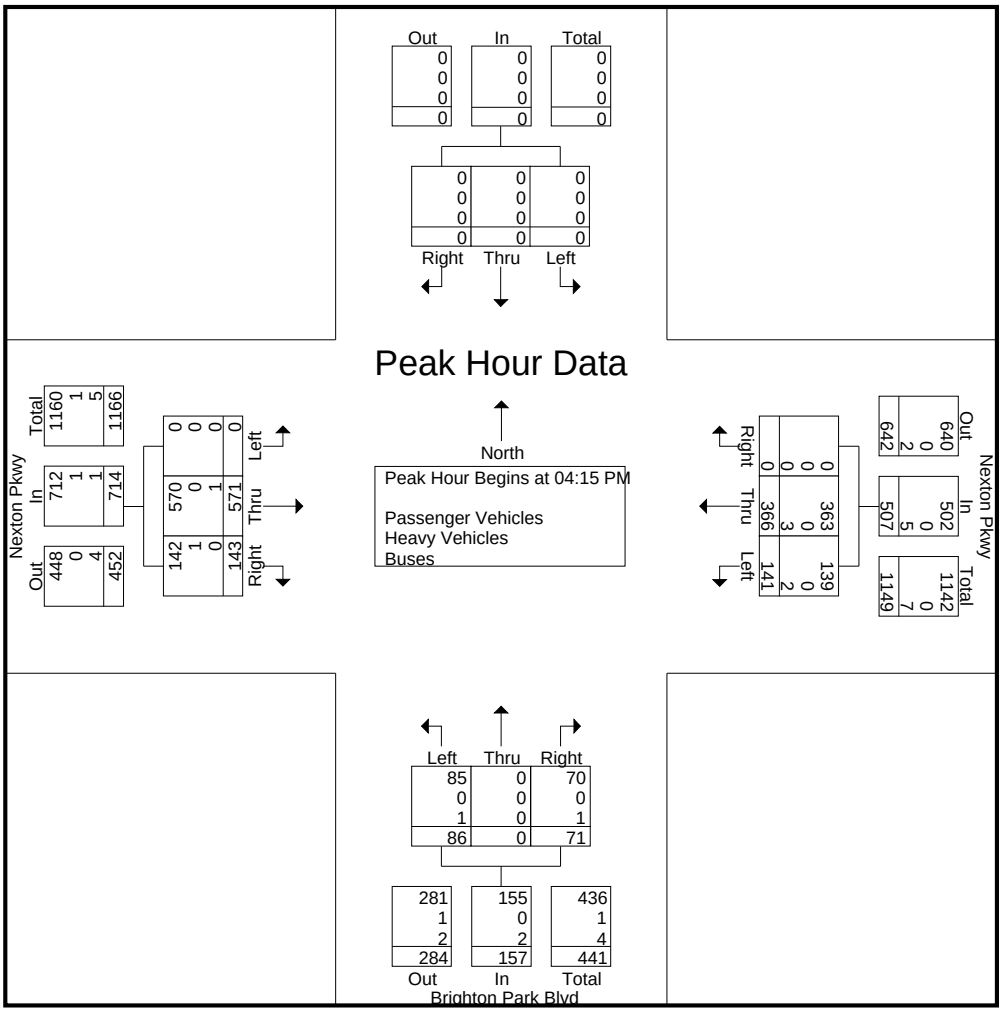
Short Counts

File Name : Nexton Pkwy @ Brighton Park Blvd 181214
Site Code : 00000000
Start Date : 12/11/2018
Page No : 4

	From North				Nexton Pkwy From East				Brighton Park Blvd From South				Nexton Pkwy From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	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 04:15 PM																	
04:15 PM	0	0	0	0	**64**	98	0	**162**	15	0	**22**	37	0	**157**	35	192	**391**
04:30 PM	0	0	0	0	35	**104**	0	139	13	0	13	26	0	157	**37**	**194**	359
04:45 PM	0	0	0	0	23	76	0	99	28	0	16	44	0	120	36	156	299
05:00 PM	0	0	0	0	19	88	0	107	**30**	0	20	**50**	0	137	35	172	329
Total Volume	0	0	0	0	141	366	0	507	86	0	71	157	0	571	143	714	1378
% App. Total	0	0	0		27.8	72.2	0		54.8	0	45.2		0	80	20		
PHF	.000	.000	.000	.000	.551	.880	.000	.782	.717	.000	.807	.785	.000	.909	.966	.920	.881
Passenger Vehicles	0	0	0	0	139	363	0	502	85	0	70	155	0	570	142	712	1369
% Passenger Vehicles	0	0	0	0	98.6	99.2	0	99.0	98.8	0	98.6	98.7	0	99.8	99.3	99.7	99.3
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	0.1	0.1
Buses	0	0	0	0	2	3	0	5	1	0	1	2	0	1	0	1	8
% Buses	0	0	0	0	1.4	0.8	0	1.0	1.2	0	1.4	1.3	0	0.2	0	0.1	0.6



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Short Counts

File Name : Drop Off Dr @ Site Location
Site Code :
Start Date : 12/6/2018
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Groups Printed- Passenger Vehicles - Heavy Vehicles - Buses

	Drop Off Dr From North				Site Location From East				Drop Off Dr From South				From West				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
07:00 AM	0	20	0	0	0	0	0	0	0	25	3	0	0	0	0	0	48
07:15 AM	0	28	0	0	1	0	0	0	0	36	2	0	0	0	0	0	67
07:30 AM	0	16	0	0	1	0	0	0	0	34	1	0	0	0	0	0	52
07:45 AM	0	18	0	0	1	0	0	0	0	33	3	0	0	0	0	0	55
Total	0	82	0	0	3	0	0	0	0	128	9	0	0	0	0	0	222
08:00 AM	0	12	0	0	0	0	0	0	0	27	1	0	0	0	0	0	40
08:15 AM	0	14	0	0	1	0	0	0	0	16	6	0	0	0	0	0	37
08:30 AM	0	11	0	0	0	0	0	0	0	25	1	0	0	0	0	0	37
08:45 AM	0	14	0	0	1	0	0	0	0	12	1	0	0	0	0	0	28
Total	0	51	0	0	2	0	0	0	0	80	9	0	0	0	0	0	142
04:00 PM	0	37	0	0	0	0	0	0	0	20	0	0	0	0	0	0	57
04:15 PM	0	54	0	0	2	0	0	0	0	18	0	0	0	0	0	0	74
04:30 PM	1	84	0	0	1	0	0	0	0	19	0	0	0	0	0	0	105
04:45 PM	0	32	0	0	3	0	0	0	0	24	1	0	0	0	0	0	60
Total	1	207	0	0	6	0	0	0	0	81	1	0	0	0	0	0	296
05:00 PM	0	44	0	0	1	0	0	0	0	22	0	0	0	0	0	0	67
05:15 PM	0	22	0	0	13	0	0	0	0	18	0	0	0	0	0	0	53
05:30 PM	0	18	0	0	3	0	0	0	0	18	1	0	0	0	0	0	40
05:45 PM	0	7	0	0	1	0	0	0	0	8	0	0	0	0	0	0	16
Total	0	91	0	0	18	0	0	0	0	66	1	0	0	0	0	0	176
Grand Total	1	431	0	0	29	0	0	0	0	355	20	0	0	0	0	0	836
Apprch %	0.2	99.8	0	0	100	0	0	0	0	94.7	5.3	0	0	0	0	0	
Total %	0.1	51.6	0	0	3.5	0	0	0	0	42.5	2.4	0	0	0	0	0	
Passenger Vehicles	1	393	0	0	29	0	0	0	0	333	19	0	0	0	0	0	775
% Passenger Vehicles	100	91.2	0	0	100	0	0	0	0	93.8	95	0	0	0	0	0	92.7
Heavy Vehicles	0	37	0	0	0	0	0	0	0	19	1	0	0	0	0	0	57
% Heavy Vehicles	0	8.6	0	0	0	0	0	0	0	5.4	5	0	0	0	0	0	6.8
Buses	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0	4
% Buses	0	0.2	0	0	0	0	0	0	0	0.8	0	0	0	0	0	0	0.5

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Short Counts

File Name : Drop Off Dr @ Site Location
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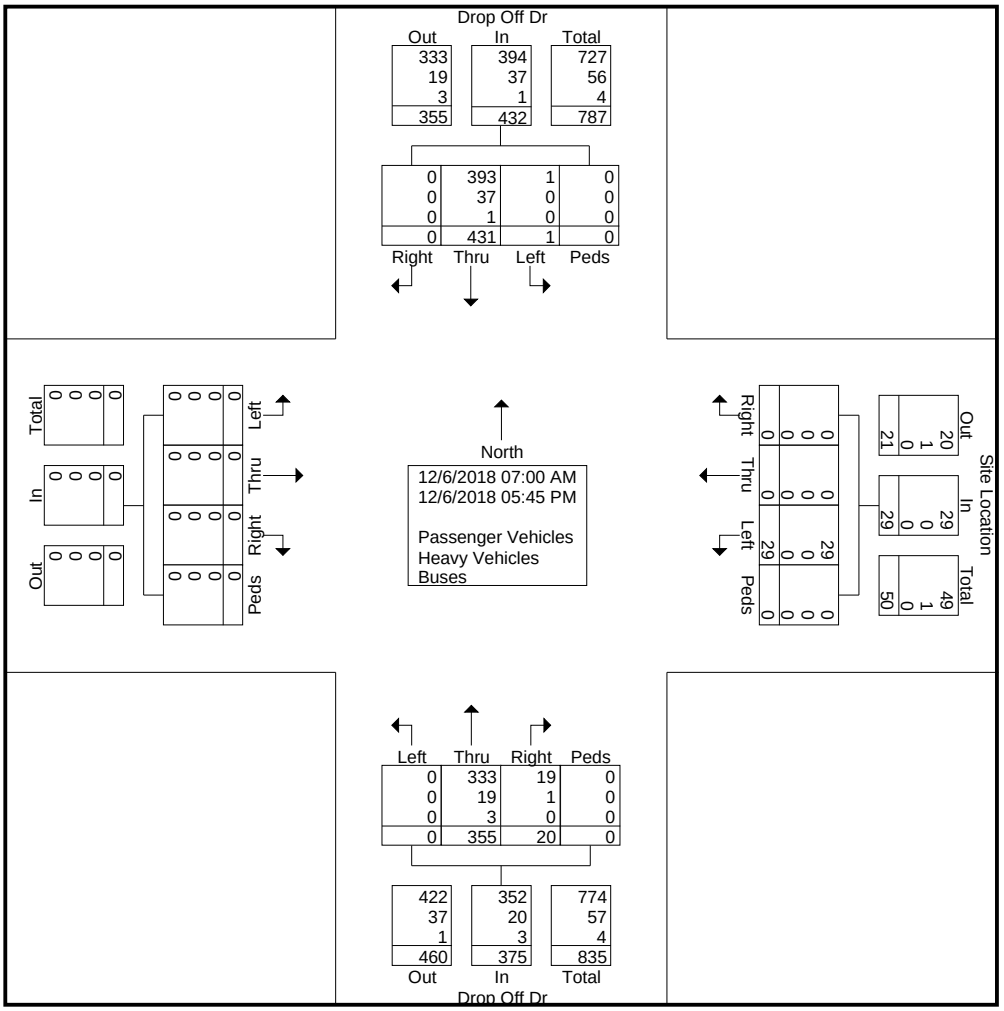

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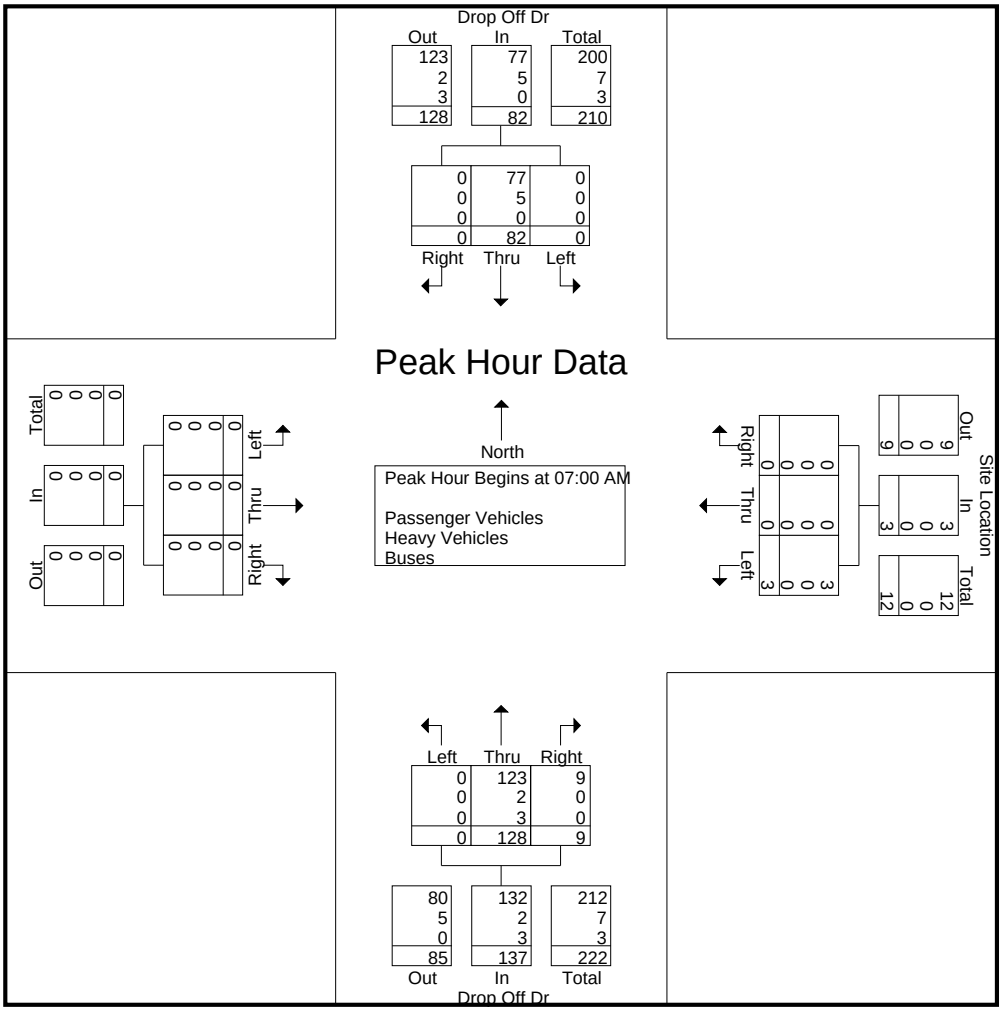
Short Counts

File Name : Drop Off Dr @ Site Location
Site Code :
Start Date : 12/6/2018
Page No : 3

	Drop Off Dr From North				Site Location From East				Drop Off Dr From South				From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	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	0	20	0	20	0	0	0	0	0	25	**3**	28	0	0	0	0	48
07:15 AM	0	**28**	0	**28**	**1**	0	0	**1**	0	**36**	2	**38**	0	0	0	0	**67**
07:30 AM	0	16	0	16	1	0	0	1	0	34	1	35	0	0	0	0	52
07:45 AM	0	18	0	18	1	0	0	1	0	33	3	36	0	0	0	0	55
Total Volume	0	82	0	82	3	0	0	3	0	128	9	137	0	0	0	0	222
% App. Total	0	100	0		100	0	0		0	93.4	6.6		0	0	0		
PHF	.000	.732	.000	.732	.750	.000	.000	.750	.000	.889	.750	.901	.000	.000	.000	.000	.828
Passenger Vehicles	0	77	0	77	3	0	0	3	0	123	9	132	0	0	0	0	212
% Passenger Vehicles	0	93.9	0	93.9	100	0	0	100	0	96.1	100	96.4	0	0	0	0	95.5
Heavy Vehicles	0	5	0	5	0	0	0	0	0	2	0	2	0	0	0	0	7
% Heavy Vehicles	0	6.1	0	6.1	0	0	0	0	0	1.6	0	1.5	0	0	0	0	3.2
Buses	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
% Buses	0	0	0	0	0	0	0	0	0	2.3	0	2.2	0	0	0	0	1.4



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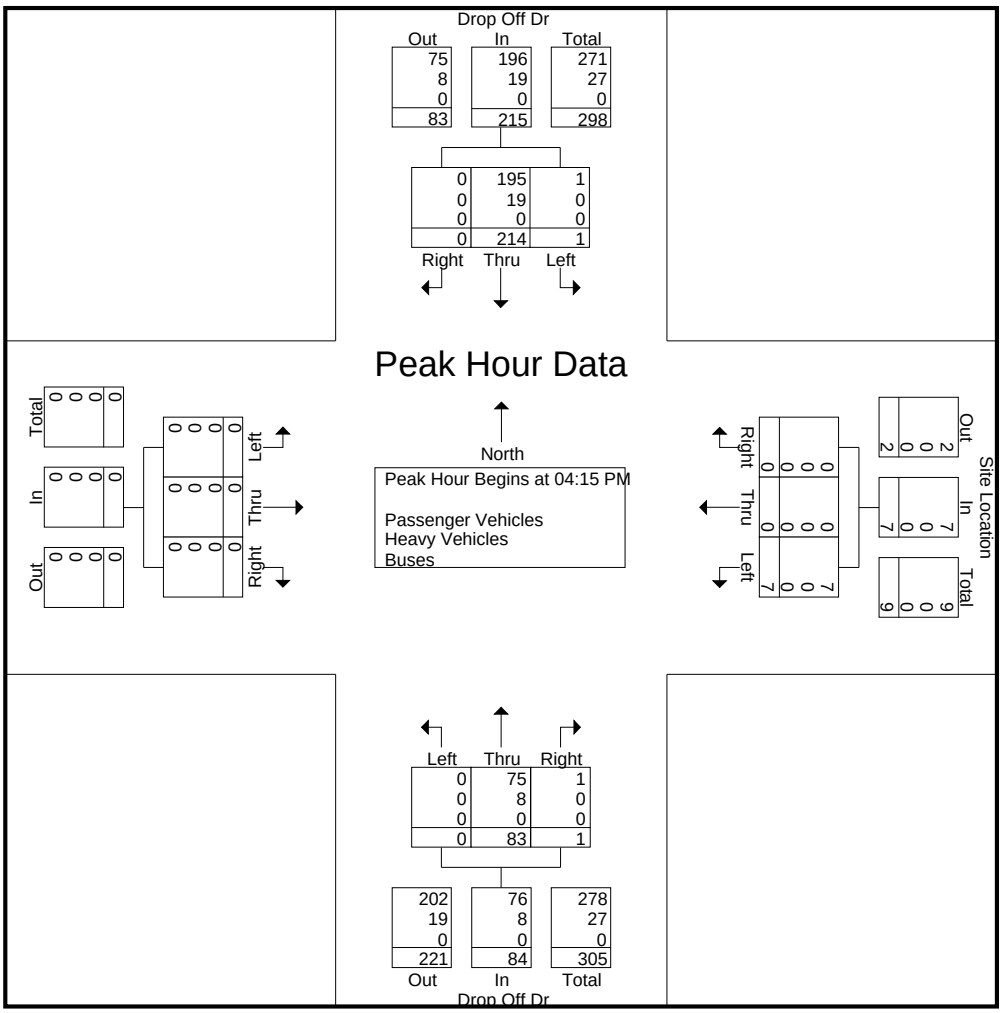
Short Counts

File Name : Drop Off Dr @ Site Location
Site Code :
Start Date : 12/6/2018
Page No : 4

	Drop Off Dr From North				Site Location From East				Drop Off Dr From South				From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	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 04:15 PM																	
04:15 PM	0	54	0	54	2	0	0	2	0	18	0	18	0	0	0	0	74
04:30 PM	**1**	**84**	0	**85**	1	0	0	1	0	19	0	19	0	0	0	0	**105**
04:45 PM	0	32	0	32	**3**	0	0	**3**	0	**24**	**1**	**25**	0	0	0	0	60
05:00 PM	0	44	0	44	1	0	0	1	0	22	0	22	0	0	0	0	67
Total Volume	1	214	0	215	7	0	0	7	0	83	1	84	0	0	0	0	306
% App. Total	0.5	99.5	0		100	0	0		0	98.8	1.2		0	0	0		
PHF	.250	.637	.000	.632	.583	.000	.000	.583	.000	.865	.250	.840	.000	.000	.000	.000	.729
Passenger Vehicles	1	195	0	196	7	0	0	7	0	75	1	76	0	0	0	0	279
% Passenger Vehicles	100	91.1	0	91.2	100	0	0	100	0	90.4	100	90.5	0	0	0	0	91.2
Heavy Vehicles	0	19	0	19	0	0	0	0	0	8	0	8	0	0	0	0	27
% Heavy Vehicles	0	8.9	0	8.8	0	0	0	0	0	9.6	0	9.5	0	0	0	0	8.8
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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Short Counts

File Name : Jedburg Rd @ Drop Off Dr
Site Code :
Start Date : 12/6/2018
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles - Buses

	Drop Off Dr From North				Jedburg Rd From East				Drop Off Dr From South				Jedburg Rd From West				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
07:00 AM	9	4	20	0	25	75	5	0	8	1	10	0	18	35	5	0	215
07:15 AM	11	8	24	0	18	114	13	0	4	5	8	0	28	46	4	0	283
07:30 AM	8	8	30	0	8	88	13	0	3	1	13	0	22	43	11	0	248
07:45 AM	9	2	30	0	7	80	16	0	8	2	4	0	21	68	17	0	264
Total	37	22	104	0	58	357	47	0	23	9	35	0	89	192	37	0	1010
08:00 AM	7	2	20	0	7	67	10	0	5	3	2	0	24	49	18	0	214
08:15 AM	6	1	30	0	2	83	13	0	5	3	4	0	15	57	9	0	228
08:30 AM	10	4	22	0	4	78	14	0	4	6	2	0	21	57	13	0	235
08:45 AM	6	2	25	0	5	75	9	0	7	3	3	0	16	47	9	0	207
Total	29	9	97	0	18	303	46	0	21	15	11	0	76	210	49	0	884
04:00 PM	6	0	24	0	6	65	13	0	14	3	14	0	27	106	12	0	290
04:15 PM	16	2	29	0	9	68	8	0	21	2	23	0	27	103	16	0	324
04:30 PM	24	1	25	0	0	91	9	0	29	5	24	0	35	110	4	0	357
04:45 PM	12	2	25	0	4	68	18	0	10	7	27	0	20	118	3	0	314
Total	58	5	103	0	19	292	48	0	74	17	88	0	109	437	35	0	1285
05:00 PM	14	3	35	0	2	70	15	0	11	10	16	0	32	163	6	0	377
05:15 PM	19	0	34	0	7	100	10	0	10	2	13	0	26	136	5	0	362
05:30 PM	24	0	20	0	1	77	11	0	12	3	20	0	27	122	2	0	319
05:45 PM	18	1	19	0	1	94	10	0	5	5	5	0	30	93	3	0	284
Total	75	4	108	0	11	341	46	0	38	20	54	0	115	514	16	0	1342
Grand Total	199	40	412	0	106	1293	187	0	156	61	188	0	389	1353	137	0	4521
Apprch %	30.6	6.1	63.3	0	6.7	81.5	11.8	0	38.5	15.1	46.4	0	20.7	72	7.3	0	
Total %	4.4	0.9	9.1	0	2.3	28.6	4.1	0	3.5	1.3	4.2	0	8.6	29.9	3	0	
Passenger Vehicles	193	36	353	0	102	1208	179	0	144	58	182	0	327	1272	99	0	4153
% Passenger Vehicles	97	90	85.7	0	96.2	93.4	95.7	0	92.3	95.1	96.8	0	84.1	94	72.3	0	91.9
Heavy Vehicles	6	4	59	0	3	84	8	0	12	3	2	0	59	77	35	0	352
% Heavy Vehicles	3	10	14.3	0	2.8	6.5	4.3	0	7.7	4.9	1.1	0	15.2	5.7	25.5	0	7.8
Buses	0	0	0	0	1	1	0	0	0	0	4	0	3	4	3	0	16
% Buses	0	0	0	0	0.9	0.1	0	0	0	0	2.1	0	0.8	0.3	2.2	0	0.4

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Short Counts

File Name : Jedburg Rd @ Drop Off Dr
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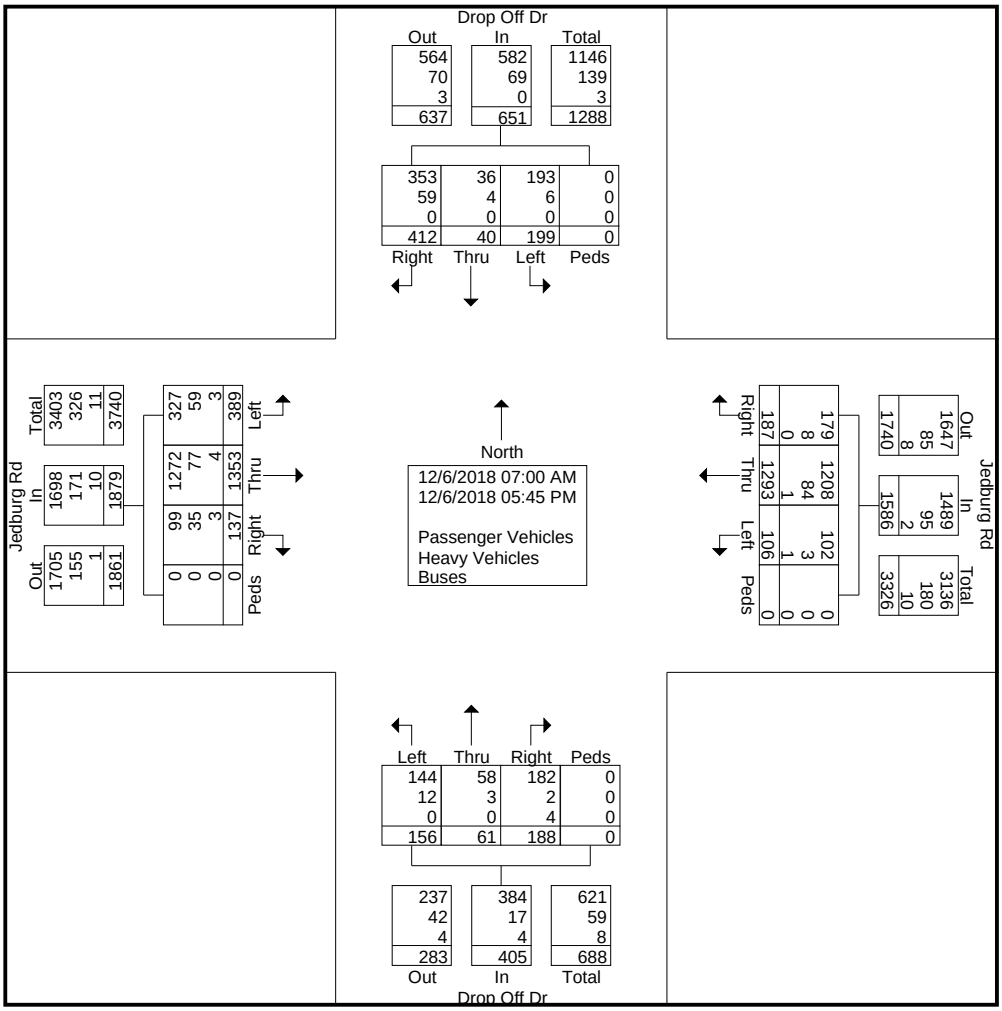

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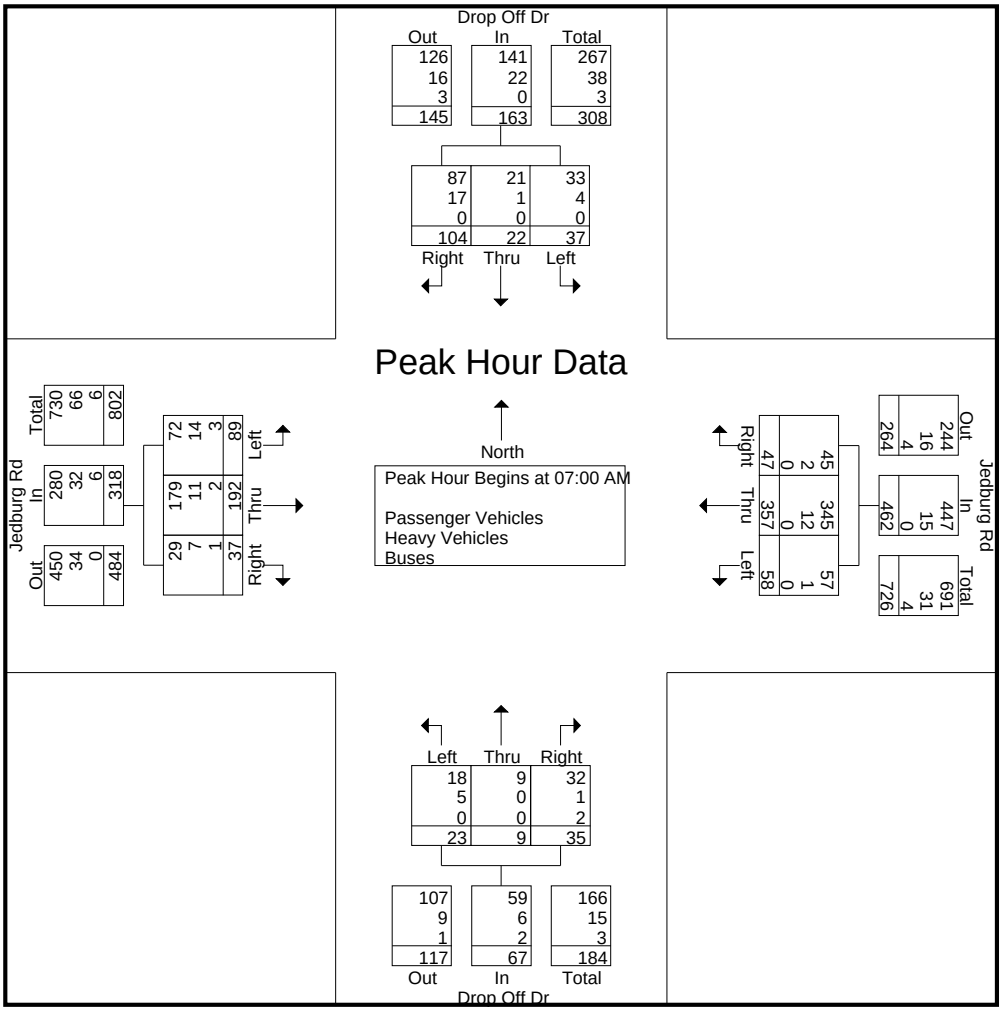
Short Counts

File Name : Jedburg Rd @ Drop Off Dr
Site Code :
Start Date : 12/6/2018
Page No : 3

	Drop Off Dr From North				Jedburg Rd From East				Drop Off Dr From South				Jedburg Rd From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	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	9	4	20	33	**25**	75	5	105	**8**	1	10	**19**	18	35	5	58	215
07:15 AM	**11**	**8**	24	43	18	**114**	13	**145**	4	**5**	8	17	**28**	46	4	78	**283**
07:30 AM	8	8	**30**	**46**	8	88	13	109	3	1	**13**	17	22	43	11	76	248
07:45 AM	9	2	30	41	7	80	**16**	103	8	2	4	14	21	**68**	**17**	**106**	264
Total Volume	37	22	104	163	58	357	47	462	23	9	35	67	89	192	37	318	1010
% App. Total	22.7	13.5	63.8		12.6	77.3	10.2		34.3	13.4	52.2		28	60.4	11.6		
PHF	.841	.688	.867	.886	.580	.783	.734	.797	.719	.450	.673	.882	.795	.706	.544	.750	.892
Passenger Vehicles	33	21	87	141	57	345	45	447	18	9	32	59	72	179	29	280	927
% Passenger Vehicles	89.2	95.5	83.7	86.5	98.3	96.6	95.7	96.8	78.3	100	91.4	88.1	80.9	93.2	78.4	88.1	91.8
Heavy Vehicles	4	1	17	22	1	12	2	15	5	0	1	6	14	11	7	32	75
% Heavy Vehicles	10.8	4.5	16.3	13.5	1.7	3.4	4.3	3.2	21.7	0	2.9	9.0	15.7	5.7	18.9	10.1	7.4
Buses	0	0	0	0	0	0	0	0	0	0	2	2	3	2	1	6	8
% Buses	0	0	0	0	0	0	0	0	0	0	5.7	3.0	3.4	1.0	2.7	1.9	0.8



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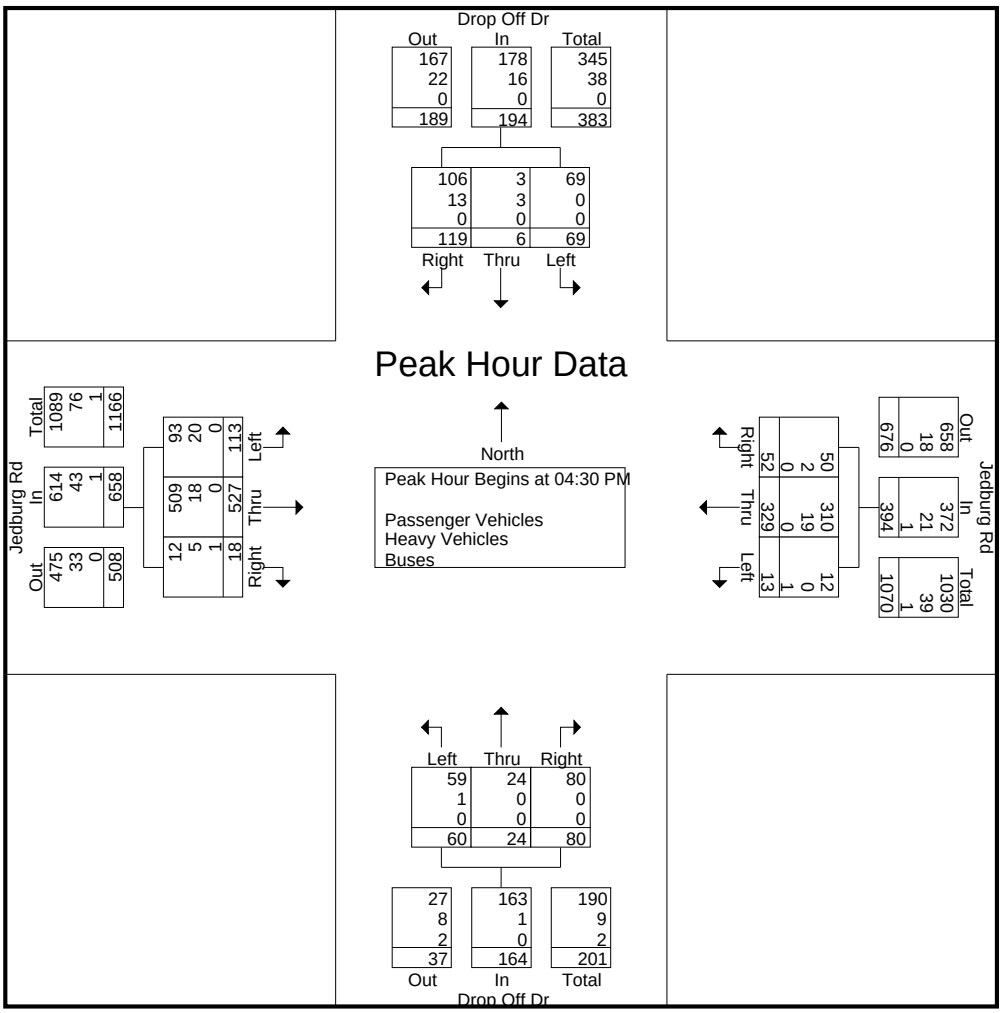
Short Counts

File Name : Jedburg Rd @ Drop Off Dr
Site Code :
Start Date : 12/6/2018
Page No : 4

	Drop Off Dr From North				Jedburg Rd From East				Drop Off Dr From South				Jedburg Rd From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	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 04:30 PM																	
04:30 PM	**24**	1	25	50	0	91	9	100	**29**	5	24	**58**	**35**	110	4	149	357
04:45 PM	12	2	25	39	4	68	**18**	90	10	7	**27**	44	20	118	3	141	314
05:00 PM	14	**3**	**35**	52	2	70	15	87	11	**10**	16	37	32	**163**	**6**	**201**	**377**
05:15 PM	19	0	34	**53**	**7**	**100**	10	**117**	10	2	13	25	26	136	5	167	362
Total Volume	69	6	119	194	13	329	52	394	60	24	80	164	113	527	18	658	1410
% App. Total	35.6	3.1	61.3		3.3	83.5	13.2		36.6	14.6	48.8		17.2	80.1	2.7		
PHF	.719	.500	.850	.915	.464	.823	.722	.842	.517	.600	.741	.707	.807	.808	.750	.818	.935
Passenger Vehicles	69	3	106	178	12	310	50	372	59	24	80	163	93	509	12	614	1327
% Passenger Vehicles	100	50.0	89.1	91.8	92.3	94.2	96.2	94.4	98.3	100	100	99.4	82.3	96.6	66.7	93.3	94.1
Heavy Vehicles	0	3	13	16	0	19	2	21	1	0	0	1	20	18	5	43	81
% Heavy Vehicles	0	50.0	10.9	8.2	0	5.8	3.8	5.3	1.7	0	0	0.6	17.7	3.4	27.8	6.5	5.7
Buses	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	1	2
% Buses	0	0	0	0	7.7	0	0	0.3	0	0	0	0	0	0	5.6	0.2	0.1



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APPENDIX C

Traffic Volume Development Worksheets

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INTERSECTION TRAFFIC VOLUME DEVELOPMENT

Nexton Parkway & Millhouse Drive

TRAFFIC CONTROL: Unsignalized

DATE COUNTED: Thursday, December 06, 2018

AM PEAK HOUR (7:00-8:00 AM)	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2019 TRAFFIC VOLUMES	**24**	**673**	**48**	**134**	**357**	**79**	**34**	**23**	**162**	**13**	**12**	**7**
Years To Buildout (2030)	11	11	11	11	11	11	11	11	11	11	11	11
Yearly Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Background Traffic Growth	5	148	11	29	79	17	7	5	36	3	3	2
Nexton PUD New Trips		234		17	87				47			
Nexton PUD Pass-by Trips												
Rosemary PUD New Trips	183	201	210	194	299	117	220	44	150	161	48	130
Rosemary PUD Pass-By Trips	43	-62	19	23	-55	32	40		26	42		31
Dustoff PUD New Trips	106				133	267				64		5
Dustoff PUD Pass-By Trips												
Vested Traffic Volumes	332	373	229	234	464	416	260	44	223	267	48	166
2030 NO-BUILD TRAFFIC VOLUMES	**361**	**1,194**	**288**	**397**	**900**	**512**	**301**	**72**	**421**	**283**	**63**	**175**
New Project Traffic		133		27	136				27			
Nexton/Sheep Island Trip Adjustment												
2030 BUILD TRAFFIC VOLUMES	**361**	**1,327**	**288**	**424**	**1,036**	**512**	**301**	**72**	**448**	**283**	**63**	**175**

PM PEAK HOUR (4:15-5:15 PM)	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2019 TRAFFIC VOLUMES	**11**	**541**	**135**	**241**	**569**	**41**	**75**	**25**	**190**	**44**	**27**	**23**
Years To Current Year (2019)	0	0	0	0	0	0	0	0	0	0	0	0
Yearly Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
2019 TRAFFIC VOLUMES	**11**	**541**	**135**	**241**	**569**	**41**	**75**	**25**	**190**	**44**	**27**	**23**
Years To Buildout (2030)	11	11	11	11	11	11	11	11	11	11	11	11
Yearly Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Background Traffic Growth	2	119	30	53	125	9	17	6	42	10	6	5
Nexton PUD New Trips		228		69	348				46			
Nexton PUD Pass-by Trips												
Rosemary PUD New Trips	205	217	228	137	271	88	271	58	127	118	58	148
Rosemary PUD Pass-By Trips	40	-59	19	24	-51	27	40		18	38		26
Dustoff PUD New Trips	23				29	59				353		24
Dustoff PUD Pass-By Trips												
Vested Traffic Volumes	268	386	247	230	597	174	311	58	191	509	58	198
2030 NO-BUILD TRAFFIC VOLUMES	**281**	**1,046**	**412**	**524**	**1,291**	**224**	**403**	**89**	**423**	**563**	**91**	**226**
New Project Traffic		251		48	239				50			
Nexton/Sheep Island Trip Adjustment												
2030 BUILD TRAFFIC VOLUMES	**281**	**1,297**	**412**	**572**	**1,530**	**224**	**403**	**89**	**473**	**563**	**91**	**226**

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INTERSECTION TRAFFIC VOLUME DEVELOPMENT

Nexton Parkway & I-26 EB

TRAFFIC CONTROL: Signalized

DATE COUNTED: Thursday, December 06, 2018

AM PEAK HOUR (7:00-8:00 AM)	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2019 TRAFFIC VOLUMES		**363**	**508**		**557**	**156**				**58**		**49**
Years To Buildout (2030)		11	11		11	11				11		11
Yearly Growth Rate		2.0%	2.0%		2.0%	2.0%				2.0%		2.0%
Background Traffic Growth		80	112		123	34				13		11
Nexton PUD New Trips		281			104	85				116		
Nexton PUD Pass-by Trips												
Rosemary PUD New Trips		256	256		305							305
Rosemary PUD Pass-By Trips												
Dustoff PUD New Trips		32	32		200							200
Dustoff PUD Pass-By Trips												
Vested Traffic Volumes	0	569	288	0	609	85	0	0	0	116	0	505
2030 NO-BUILD TRAFFIC VOLUMES		**1,012**	**908**		**1,289**	**275**				**187**		**565**
New Project Traffic		160			163	163				53		
Nexton/Sheep Island Trip Adjustment												
2030 BUILD TRAFFIC VOLUMES		**1,172**	**908**		**1,452**	**438**				**240**		**565**

PM PEAK HOUR (4:45-5:45 PM)	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2019 TRAFFIC VOLUMES		**395**	**394**		**754**	**156**				**46**		**76**
Years To Current Year (2019)		0	0		0	0				0		0
Yearly Growth Rate		2.0%	2.0%		2.0%	2.0%				2.0%		2.0%
Background Traffic Growth		0	0		0	0				0		0
2019 TRAFFIC VOLUMES		**395**	**394**		**754**	**156**				**46**		**76**
Years To Buildout (2030)		11	11		11	11				11		11
Yearly Growth Rate		2.0%	2.0%		2.0%	2.0%				2.0%		2.0%
Background Traffic Growth		87	87		166	34				10		17
Nexton PUD New Trips		274			417	344				113		
Nexton PUD Pass-by Trips												
Rosemary PUD New Trips		231	231		253							253
Rosemary PUD Pass-By Trips												
Dustoff PUD New Trips		176	177		44							44
Dustoff PUD Pass-By Trips												
Vested Traffic Volumes	0	681	408	0	714	344	0	0	0	113	0	297
2030 NO-BUILD TRAFFIC VOLUMES		**1,163**	**889**		**1,634**	**534**				**169**		**390**
New Project Traffic		301			287	287				101		
Nexton/Sheep Island Trip Adjustment												
2030 BUILD TRAFFIC VOLUMES		**1,464**	**889**		**1,921**	**821**				**270**		**390**

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INTERSECTION TRAFFIC VOLUME DEVELOPMENT

Nexton Parkway & I-26 WB

TRAFFIC CONTROL: Signalized

DATE COUNTED: Thursday, December 06, 2018

AM PEAK HOUR (7:00-8:00 AM)	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2019 TRAFFIC VOLUMES	**44**	**373**			**482**	**52**			**197**			**221**
Years To Buildout (2030)	11	11			11	11			11			11
Yearly Growth Rate	2.0%	2.0%			2.0%	2.0%			2.0%			2.0%
Background Traffic Growth	10	82			106	11			43			49
Nexton PUD New Trips		396			189	43			231			
Nexton PUD Pass-by Trips												
Rosemary PUD New Trips	256											305
Rosemary PUD Pass-By Trips												
Dustoff PUD New Trips	32											200
Dustoff PUD Pass-By Trips												
Vested Traffic Volumes	288	396	0	0	189	43	0	0	231	0	0	505
2030 NO-BUILD TRAFFIC VOLUMES	**342**	**851**			**777**	**106**			**471**			**775**
New Project Traffic		213			326	55			159			
Nexton/Sheep Island Trip Adjustment												
2030 BUILD TRAFFIC VOLUMES	**342**	**1,064**			**1,103**	**161**			**630**			**775**

PM PEAK HOUR (4:45-5:45 PM)	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2019 TRAFFIC VOLUMES	**77**	**371**			**557**	**29**			**337**			**321**
Years To Current Year (2019)	0	0			0	0			0			0
Yearly Growth Rate	2.0%	2.0%			2.0%	2.0%			2.0%			2.0%
Background Traffic Growth	0	0			0	0			0			0
2019 TRAFFIC VOLUMES	**77**	**371**			**557**	**29**			**337**			**321**
Years To Buildout (2030)	11	11			11	11			11			11
Yearly Growth Rate	2.0%	2.0%			2.0%	2.0%			2.0%			2.0%
Background Traffic Growth	17	82			123	6			74			71
Nexton PUD New Trips		387			761	172			226			
Nexton PUD Pass-by Trips												
Rosemary PUD New Trips	231											253
Rosemary PUD Pass-By Trips												
Dustoff PUD New Trips	176											44
Dustoff PUD Pass-By Trips												
Vested Traffic Volumes	407	387	0	0	761	172	0	0	226	0	0	297
2030 NO-BUILD TRAFFIC VOLUMES	**501**	**840**			**1,441**	**207**			**637**			**689**
New Project Traffic		402			574	95			302			
Nexton/Sheep Island Trip Adjustment												
2030 BUILD TRAFFIC VOLUMES	**501**	**1,242**			**2,015**	**302**			**939**			**689**

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INTERSECTION TRAFFIC VOLUME DEVELOPMENT

Nexton Parkway & Drop Off Drive/Sigma Drive

TRAFFIC CONTROL: Signalized

DATE COUNTED: Thursday, December 06, 2018

AM PEAK HOUR (7:00-8:00 AM)	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2019 TRAFFIC VOLUMES	**79**	**385**	**25**	**23**	**487**	**50**	**16**	**6**	**15**	**51**	**4**	**30**
Years To Buildout (2030)	11	11	11	11	11	11	11	11	11	11	11	11
Yearly Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Background Traffic Growth	17	85	6	5	107	11	4	1	3	11	1	7
Nexton PUD New Trips	33	264	330	99	98		122	12	37		33	12
Nexton PUD Pass-by Trips		-3	3	2	-2		5		9			
Rosemary PUD New Trips												
Rosemary PUD Pass-By Trips												
Dustoff PUD New Trips												
Dustoff PUD Pass-By Trips												
Vested Traffic Volumes	33	261	333	101	96	0	127	12	46	0	33	12
2030 NO-BUILD TRAFFIC VOLUMES	**129**	**731**	**364**	**129**	**690**	**61**	**147**	**19**	**64**	**62**	**38**	**49**
New Project Traffic	372					80		27		82	27	381
Nexton/Sheep Island Trip Adjustment								-12			-27	
2030 BUILD TRAFFIC VOLUMES	**501**	**731**	**364**	**129**	**690**	**141**	**147**	**34**	**64**	**144**	**38**	**430**

PM PEAK HOUR (4:15-5:15 PM)	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2019 TRAFFIC VOLUMES	**42**	**606**	**24**	**14**	**414**	**14**	**19**	**6**	**17**	**26**	**13**	**95**
Years To Current Year (2019)	0	0	0	0	0	0	0	0	0	0	0	0
Yearly Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
2019 TRAFFIC VOLUMES	**42**	**606**	**24**	**14**	**414**	**14**	**19**	**6**	**17**	**26**	**13**	**95**
Years To Buildout (2030)	11	11	11	11	11	11	11	11	11	11	11	11
Yearly Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Background Traffic Growth	9	133	5	3	91	3	4	1	4	6	3	21
Nexton PUD New Trips	32	258	323	97	393	64	491	49	147		32	49
Nexton PUD Pass-by Trips		-95	95	47	-47		53		106			
Rosemary PUD New Trips												
Rosemary PUD Pass-By Trips												
Dustoff PUD New Trips												
Dustoff PUD Pass-By Trips												
Vested Traffic Volumes	32	163	418	144	346	64	544	49	253	0	32	49
2030 NO-BUILD TRAFFIC VOLUMES	**83**	**902**	**447**	**161**	**851**	**81**	**567**	**56**	**274**	**32**	**48**	**165**
New Project Traffic	704					151		50		144	48	669
Nexton/Sheep Island Trip Adjustment								-49			-32	
2030 BUILD TRAFFIC VOLUMES	**787**	**902**	**447**	**161**	**851**	**232**	**567**	**57**	**274**	**176**	**64**	**834**

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INTERSECTION TRAFFIC VOLUME DEVELOPMENT

Nexton Parkway & Brighton Park Blvd.

TRAFFIC CONTROL: Signalized

DATE COUNTED: Thursday, December 06, 2018

AM PEAK HOUR (7:00-8:00 AM)	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2019 TRAFFIC VOLUMES		**355**	**82**	**157**	**449**		**113**		**164**			
Years To Buildout (2030)		11	11	11	11		11		11			
Yearly Growth Rate		2.0%	2.0%	2.0%	2.0%		2.0%		2.0%			
Background Traffic Growth		78	18	35	99		25		36			
Nexton PUD New Trips		99	264	99	99		98		37			
Nexton PUD Pass-by Trips		-2	2	3	-3		9		5			
Rosemary PUD New Trips												
Rosemary PUD Pass-By Trips												
Dustoff PUD New Trips												
Dustoff PUD Pass-By Trips												
Vested Traffic Volumes	0	97	266	102	96	0	107	0	42	0	0	0
2030 NO-BUILD TRAFFIC VOLUMES		**530**	**366**	**294**	**644**		**245**		**242**			
New Project Traffic		55	27		53		27					
Nexton/Sheep Island Trip Adjustment												
2030 BUILD TRAFFIC VOLUMES		**585**	**393**	**294**	**697**		**272**		**242**			

PM PEAK HOUR (4:15-5:15 PM)	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2019 TRAFFIC VOLUMES		**571**	**143**	**141**	**366**		**86**		**71**			
Years To Current Year (2019)		0	0	0	0		0		0			
Yearly Growth Rate		2.0%	2.0%	2.0%	2.0%		2.0%		2.0%			
Background Traffic Growth		0	0	0	0		0		0			
2019 TRAFFIC VOLUMES		**571**	**143**	**141**	**366**		**86**		**71**			
Years To Buildout (2030)		11	11	11	11		11		11			
Yearly Growth Rate		2.0%	2.0%	2.0%	2.0%		2.0%		2.0%			
Background Traffic Growth		126	31	31	81		19		16			
Nexton PUD New Trips		97	258	97	97		393		147			
Nexton PUD Pass-by Trips		-47	47	95	-95		106		53			
Rosemary PUD New Trips												
Rosemary PUD Pass-By Trips												
Dustoff PUD New Trips												
Dustoff PUD Pass-By Trips												
Vested Traffic Volumes	0	50	305	192	2	0	499	0	200	0	0	0
2030 NO-BUILD TRAFFIC VOLUMES		**747**	**479**	**364**	**449**		**604**		**287**			
New Project Traffic		96	48		101		50					
Nexton/Sheep Island Trip Adjustment												
2030 BUILD TRAFFIC VOLUMES		**843**	**527**	**364**	**550**		**654**		**287**			

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INTERSECTION TRAFFIC VOLUME DEVELOPMENT

Project Access & Drop Off Drive

TRAFFIC CONTROL: Unsignalized

DATE COUNTED: Thursday, December 06, 2018

AM PEAK HOUR (7:00-8:00 AM)	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2019 TRAFFIC VOLUMES				**3**		**0**		**128**	**9**	**0**	**82**	
Years To Buildout (2030)				11		11		11	11	11	11	
Yearly Growth Rate				2.0%		2.0%		2.0%	2.0%	2.0%	2.0%	
Background Traffic Growth				1		0		28	2	0	18	
Nexton PUD New Trips								45			45	
Nexton PUD Pass-by Trips												
Rosemary PUD New Trips												
Rosemary PUD Pass-By Trips												
Dustoff PUD New Trips												
Dustoff PUD Pass-By Trips												
Vested Traffic Volumes	0	0	0	0	0	0	0	45	0	0	45	0
2030 NO-BUILD TRAFFIC VOLUMES				**4**		**0**		**201**	**11**	**0**	**145**	
New Project Traffic				490		54			479	53		
Nexton/Sheep Island Trip Adjustment												
2030 BUILD TRAFFIC VOLUMES				**494**		**54**		**201**	**490**	**53**	**145**	

PM PEAK HOUR (4:15-5:15 PM)	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2019 TRAFFIC VOLUMES				**7**		**0**		**83**	**1**	**1**	**214**	
Years To Current Year (2019)				0		0		0	0	0	0	
Yearly Growth Rate				2.0%		2.0%		2.0%	2.0%	2.0%	2.0%	
Background Traffic Growth				0		0		0	0	0	0	
2019 TRAFFIC VOLUMES				**7**		**0**		**83**	**1**	**1**	**214**	
Years To Buildout (2030)				11		11		11	11	11	11	
Yearly Growth Rate				2.0%		2.0%		2.0%	2.0%	2.0%	2.0%	
Background Traffic Growth				2		0		18	0	0	47	
Nexton PUD New Trips								81			81	
Nexton PUD Pass-by Trips												
Rosemary PUD New Trips												
Rosemary PUD Pass-By Trips												
Dustoff PUD New Trips												
Dustoff PUD Pass-By Trips												
Vested Traffic Volumes	0	0	0	0	0	0	0	81	0	0	81	0
2030 NO-BUILD TRAFFIC VOLUMES				**9**		**0**		**182**	**1**	**1**	**342**	
New Project Traffic				861		96			905	100		
Nexton/Sheep Island Trip Adjustment												
2030 BUILD TRAFFIC VOLUMES				**870**		**96**		**182**	**906**	**101**	**342**	

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INTERSECTION TRAFFIC VOLUME DEVELOPMENT

Jedburg Road & Drop Off Drive

TRAFFIC CONTROL: Unsignalized

DATE COUNTED: Thursday, December 06, 2018

AM PEAK HOUR (7:00-8:00 AM)	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2019 TRAFFIC VOLUMES	**89**	**192**	**37**	**58**	**357**	**47**	**23**	**9**	**35**	**37**	**22**	**104**
Years To Buildout (2030)	11	11	11	11	11	11	11	11	11	11	11	11
Yearly Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Background Traffic Growth	20	42	8	13	79	10	5	2	8	8	5	23
Nexton PUD New Trips			22	23			22		23			
Nexton PUD Pass-by Trips												
Rosemary PUD New Trips												
Rosemary PUD Pass-By Trips												
Dustoff PUD New Trips												
Dustoff PUD Pass-By Trips												
Vested Traffic Volumes	0	0	22	23	0	0	22	0	23	0	0	0
2030 NO-BUILD TRAFFIC VOLUMES	**109**	**234**	**67**	**94**	**436**	**57**	**50**	**11**	**66**	**45**	**27**	**127**
New Project Traffic			26	27			27		27			
Nexton/Sheep Island Trip Adjustment												
2030 BUILD TRAFFIC VOLUMES	**109**	**234**	**93**	**121**	**436**	**57**	**77**	**11**	**93**	**45**	**27**	**127**

PM PEAK HOUR (4:30-5:30 PM)	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2019 TRAFFIC VOLUMES	**113**	**527**	**18**	**13**	**329**	**52**	**60**	**24**	**80**	**69**	**6**	**119**
Years To Current Year (2019)	0	0	0	0	0	0	0	0	0	0	0	0
Yearly Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
2019 TRAFFIC VOLUMES	**113**	**527**	**18**	**13**	**329**	**52**	**60**	**24**	**80**	**69**	**6**	**119**
Years To Buildout (2030)	11	11	11	11	11	11	11	11	11	11	11	11
Yearly Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Background Traffic Growth	25	116	4	3	72	11	13	5	18	15	1	26
Nexton PUD New Trips			40	41			40		41			
Nexton PUD Pass-by Trips												
Rosemary PUD New Trips												
Rosemary PUD Pass-By Trips												
Dustoff PUD New Trips												
Dustoff PUD Pass-By Trips												
Vested Traffic Volumes	0	0	40	41	0	0	40	0	41	0	0	0
2030 NO-BUILD TRAFFIC VOLUMES	**138**	**643**	**62**	**57**	**401**	**63**	**113**	**29**	**139**	**84**	**7**	**145**
New Project Traffic			50	50			48		48			
Nexton/Sheep Island Trip Adjustment												
2030 BUILD TRAFFIC VOLUMES	**138**	**643**	**112**	**107**	**401**	**63**	**161**	**29**	**187**	**84**	**7**	**145**

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APPENDIX D

Synchro Analysis Worksheets (2019 Existing Conditions)

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Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	673	48	134	357	79	34	23	162	13	12	7
Future Vol, veh/h	24	673	48	134	357	79	34	23	162	13	12	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	300	-	-	250	-	360	250	-	50	230	-	50
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	3	3	3	3	3	3	31	31	31
Mvmt Flow	27	748	53	149	397	88	38	26	180	14	13	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	485	0	0	801	0	0	1332	1612	401	1136	1550	199
Stage 1	-	-	-	-	-	-	829	829	-	695	695	-
Stage 2	-	-	-	-	-	-	503	783	-	441	855	-
Critical Hdwy	4.14	-	-	4.16	-	-	7.56	6.56	6.96	8.12	7.12	7.52
Critical Hdwy Stg 1	-	-	-	-	-	-	6.56	5.56	-	7.12	6.12	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.56	5.56	-	7.12	6.12	-
Follow-up Hdwy	2.22	-	-	2.23	-	-	3.53	4.03	3.33	3.81	4.31	3.61
Pot Cap-1 Maneuver	1074	-	-	812	-	-	111	102	596	125	86	726
Stage 1	-	-	-	-	-	-	329	381	-	338	378	-
Stage 2	-	-	-	-	-	-	517	400	-	494	312	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1074	-	-	812	-	-	79	81	596	56	69	726
Mov Cap-2 Maneuver	-	-	-	-	-	-	79	81	-	56	69	-
Stage 1	-	-	-	-	-	-	321	371	-	330	309	-
Stage 2	-	-	-	-	-	-	400	327	-	313	304	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	2.5	30.8	64.9
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	79	81	596	1074	-	-	812	-	-	56	69	726
HCM Lane V/C Ratio	0.478	0.316	0.302	0.025	-	-	0.183	-	-	0.258	0.193	0.011
HCM Control Delay (s)	86.8	68.7	13.6	8.4	-	-	10.4	-	-	90.3	69.3	10
HCM Lane LOS	F	F	B	A	-	-	B	-	-	F	F	B
HCM 95th %tile Q(veh)	2	1.2	1.3	0.1	-	-	0.7	-	-	0.9	0.7	0

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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	363	557	0	58	49
Future Volume (veh/h)	0	363	557	0	58	49
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1845	1845	0	1712	1712
Adj Flow Rate, veh/h	0	412	633	0	66	0
Adj No. of Lanes	0	2	2	0	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	3	3	0	11	11
Cap, veh/h	0	1382	1382	0	122	109
Arrive On Green	0.00	0.39	0.39	0.00	0.08	0.00
Sat Flow, veh/h	0	3689	3689	0	1630	1455
Grp Volume(v), veh/h	0	412	633	0	66	0
Grp Sat Flow(s),veh/h/ln	0	1752	1752	0	1630	1455
Q Serve(g_s), s	0.0	1.8	3.0	0.0	0.9	0.0
Cycle Q Clear(g_c), s	0.0	1.8	3.0	0.0	0.9	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	1382	1382	0	122	109
V/C Ratio(X)	0.00	0.30	0.46	0.00	0.54	0.00
Avail Cap(c_a), veh/h	0	4184	4184	0	1514	1351
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	4.7	5.1	0.0	10.1	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.2	0.0	3.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.9	1.5	0.0	0.5	0.0
LnGrp Delay(d),s/veh	0.0	4.8	5.3	0.0	13.7	0.0
LnGrp LOS		A	A		B	
Approach Vol, veh/h		412	633		66	
Approach Delay, s/veh		4.8	5.3		13.7	
Approach LOS		A	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				14.9		7.7		14.9
Change Period (Y+Rc), s				6.0		6.0		6.0
Max Green Setting (Gmax), s				27.0		21.0		27.0
Max Q Clear Time (g_c+I1), s				3.8		2.9		5.0
Green Ext Time (p_c), s				2.4		0.1		3.9

Intersection Summary	
HCM 2010 Ctrl Delay	5.6
HCM 2010 LOS	A

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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	44	373	482	52	0	0
Future Volume (veh/h)	44	373	482	52	0	0
Number	7	4	8	18		
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1810	1810	1863	1863		
Adj Flow Rate, veh/h	49	419	542	58		
Adj No. of Lanes	2	2	2	1		
Peak Hour Factor	0.89	0.89	0.89	0.89		
Percent Heavy Veh, %	5	5	2	2		
Cap, veh/h	198	2469	1335	597		
Arrive On Green	0.06	0.72	0.38	0.38		
Sat Flow, veh/h	3343	3529	3632	1583		
Grp Volume(v), veh/h	49	419	542	58		
Grp Sat Flow(s),veh/h/ln	1672	1719	1770	1583		
Q Serve(g_s), s	0.3	0.8	2.4	0.5		
Cycle Q Clear(g_c), s	0.3	0.8	2.4	0.5		
Prop In Lane	1.00			1.00		
Lane Grp Cap(c), veh/h	198	2469	1335	597		
V/C Ratio(X)	0.25	0.17	0.41	0.10		
Avail Cap(c_a), veh/h	2356	8721	5486	2454		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	9.6	1.0	4.9	4.3		
Incr Delay (d2), s/veh	0.6	0.0	0.2	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.2	0.4	1.2	0.2		
LnGrp Delay(d),s/veh	10.2	1.0	5.1	4.4		
LnGrp LOS	B	A	A	A		
Approach Vol, veh/h		468	600			
Approach Delay, s/veh		2.0	5.0			
Approach LOS		A	A			

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4			7	8
Phs Duration (G+Y+Rc), s				21.3			7.3	14.0
Change Period (Y+Rc), s				6.0			6.0	6.0
Max Green Setting (Gmax), s				54.0			15.0	33.0
Max Q Clear Time (g_c+I1), s				2.8			2.3	4.4
Green Ext Time (p_c), s				2.7			0.1	3.7

Intersection Summary	
HCM 2010 Ctrl Delay	3.7
HCM 2010 LOS	A

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Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	79	385	25	23	487	50	16	6	15	51	4	30
Future Vol, veh/h	79	385	25	23	487	50	16	6	15	51	4	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	480	-	150	300	-	-	350	-	-	250	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	3	3	3	2	2	2
Mvmt Flow	95	464	30	28	587	60	19	7	18	61	5	36

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	647	0	-	464	0	0	1006	1357	232	1099	1327	324
Stage 1	-	-	-	-	-	-	654	654	-	673	673	-
Stage 2	-	-	-	-	-	-	352	703	-	426	654	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.56	6.56	6.96	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.56	5.56	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.56	5.56	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.53	4.03	3.33	3.52	4.02	3.32
Pot Cap-1 Maneuver	934	-	0	1094	-	-	194	147	767	167	154	672
Stage 1	-	-	0	-	-	-	420	459	-	411	452	-
Stage 2	-	-	0	-	-	-	635	436	-	577	461	-
Platoon blocked, %		-			-	-						
Mov Cap-1 Maneuver	934	-	-	1094	-	-	162	129	767	141	135	672
Mov Cap-2 Maneuver	-	-	-	-	-	-	162	129	-	141	135	-
Stage 1	-	-	-	-	-	-	377	412	-	369	440	-
Stage 2	-	-	-	-	-	-	579	425	-	497	414	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.6	0.3	22.9	34.8
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	162	318	934	-	1094	-	-	141	458
HCM Lane V/C Ratio	0.119	0.08	0.102	-	0.025	-	-	0.436	0.089
HCM Control Delay (s)	30.2	17.3	9.3	-	8.4	-	-	48.9	13.6
HCM Lane LOS	D	C	A	-	A	-	-	E	B
HCM 95th %tile Q(veh)	0.4	0.3	0.3	-	0.1	-	-	1.9	0.3

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Intersection	
Int Delay, s/veh	9.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	355	82	157	449	113	164
Future Vol, veh/h	355	82	157	449	113	164
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	250	280	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	438	101	194	554	140	202

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	539	0	1103	219
Stage 1	-	-	-	-	438	-
Stage 2	-	-	-	-	665	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1025	-	206	785
Stage 1	-	-	-	-	618	-
Stage 2	-	-	-	-	473	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1025	-	167	785
Mov Cap-2 Maneuver	-	-	-	-	167	-
Stage 1	-	-	-	-	618	-
Stage 2	-	-	-	-	384	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.4	42.1
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	167	785	-	-	1025	-
HCM Lane V/C Ratio	0.835	0.258	-	-	0.189	-
HCM Control Delay (s)	86.9	11.2	-	-	9.3	-
HCM Lane LOS	F	B	-	-	A	-
HCM 95th %tile Q(veh)	5.7	1	-	-	0.7	-

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Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	89	192	37	58	357	47	23	9	35	37	22	104
Future Vol, veh/h	89	192	37	58	357	47	23	9	35	37	22	104
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	250	-	-	165	-	-	100	-	20
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	12	12	12	3	3	3	12	12	12	14	14	14
Mvmt Flow	100	216	42	65	401	53	26	10	39	42	25	117

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	454	0	0	258	0	0	780	1021	129	871	1016	227
Stage 1	-	-	-	-	-	-	437	437	-	558	558	-
Stage 2	-	-	-	-	-	-	343	584	-	313	458	-
Critical Hdwy	4.34	-	-	4.16	-	-	7.74	6.74	7.14	7.78	6.78	7.18
Critical Hdwy Stg 1	-	-	-	-	-	-	6.74	5.74	-	6.78	5.78	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.74	5.74	-	6.78	5.78	-
Follow-up Hdwy	2.32	-	-	2.23	-	-	3.62	4.12	3.42	3.64	4.14	3.44
Pot Cap-1 Maneuver	1035	-	-	1296	-	-	268	219	866	226	218	740
Stage 1	-	-	-	-	-	-	542	553	-	452	481	-
Stage 2	-	-	-	-	-	-	619	472	-	640	536	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1035	-	-	1296	-	-	181	188	866	185	187	740
Mov Cap-2 Maneuver	-	-	-	-	-	-	181	188	-	185	187	-
Stage 1	-	-	-	-	-	-	489	499	-	408	457	-
Stage 2	-	-	-	-	-	-	468	448	-	541	484	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.5	1	18.2	17.4
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	181	498	1035	-	-	1296	-	-	185	187	740
HCM Lane V/C Ratio	0.143	0.099	0.097	-	-	0.05	-	-	0.225	0.132	0.158
HCM Control Delay (s)	28.2	13	8.8	-	-	7.9	-	-	30	27.2	10.8
HCM Lane LOS	D	B	A	-	-	A	-	-	D	D	B
HCM 95th %tile Q(veh)	0.5	0.3	0.3	-	-	0.2	-	-	0.8	0.4	0.6

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Intersection	
Int Delay, s/veh	78

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	541	135	241	569	41	75	25	190	44	27	23
Future Vol, veh/h	11	541	135	241	569	41	75	25	190	44	27	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	300	-	-	250	-	360	250	-	50	230	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	5	5	5	2	2	2	5	5	5
Mvmt Flow	12	595	148	265	625	45	82	27	209	48	30	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	670	0	0	743	0	0	1551	1893	372	1490	1922	313
Stage 1	-	-	-	-	-	-	693	693	-	1155	1155	-
Stage 2	-	-	-	-	-	-	858	1200	-	335	767	-
Critical Hdwy	4.14	-	-	4.2	-	-	7.54	6.54	6.94	7.6	6.6	7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.6	5.6	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.6	5.6	-
Follow-up Hdwy	2.22	-	-	2.25	-	-	3.52	4.02	3.32	3.55	4.05	3.35
Pot Cap-1 Maneuver	916	-	-	841	-	-	~ 77	69	625	83	64	674
Stage 1	-	-	-	-	-	-	400	443	-	204	263	-
Stage 2	-	-	-	-	-	-	318	256	-	644	402	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	916	-	-	841	-	-	~ 26	47	625	~ 23	43	674
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 26	47	-	~ 23	43	-
Stage 1	-	-	-	-	-	-	395	437	-	201	180	-
Stage 2	-	-	-	-	-	-	175	175	-	397	397	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	3.2	$ 356.7	$ 464.4
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	26	47	625	916	-	-	841	-	-	23	43	674
HCM Lane V/C Ratio	3.17	0.585	0.334	0.013	-	-	0.315	-	-	2.102	0.69	0.037
HCM Control Delay (s)	$ 1291.9	158.1	13.6	9	-	-	11.2	-	-	$ 867.3	194.6	10.5
HCM Lane LOS	F	F	B	A	-	-	B	-	-	F	F	B
HCM 95th %tile Q(veh)	10.1	2.2	1.5	0	-	-	1.4	-	-	6.1	2.6	0.1

Notes

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

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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	395	754	0	46	76
Future Volume (veh/h)	0	395	754	0	46	76
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1827	0	1863	1863
Adj Flow Rate, veh/h	0	444	847	0	52	0
Adj No. of Lanes	0	2	2	0	1	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	2	4	0	2	2
Cap, veh/h	0	1660	1628	0	107	96
Arrive On Green	0.00	0.47	0.47	0.00	0.06	0.00
Sat Flow, veh/h	0	3725	3654	0	1774	1583
Grp Volume(v), veh/h	0	444	847	0	52	0
Grp Sat Flow(s),veh/h/ln	0	1770	1736	0	1774	1583
Q Serve(g_s), s	0.0	1.9	4.4	0.0	0.7	0.0
Cycle Q Clear(g_c), s	0.0	1.9	4.4	0.0	0.7	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	1660	1628	0	107	96
V/C Ratio(X)	0.00	0.27	0.52	0.00	0.49	0.00
Avail Cap(c_a), veh/h	0	4025	3948	0	1322	1180
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	4.1	4.8	0.0	11.6	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.3	0.0	3.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.9	2.1	0.0	0.4	0.0
LnGrp Delay(d),s/veh	0.0	4.2	5.0	0.0	15.0	0.0
LnGrp LOS		A	A		B	
Approach Vol, veh/h		444	847		52	
Approach Delay, s/veh		4.2	5.0		15.0	
Approach LOS		A	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				18.0		7.5		18.0
Change Period (Y+Rc), s				6.0		6.0		6.0
Max Green Setting (Gmax), s				29.0		19.0		29.0
Max Q Clear Time (g_c+I1), s				3.9		2.7		6.4
Green Ext Time (p_c), s				2.7		0.1		5.6

Intersection Summary	
HCM 2010 Ctrl Delay	5.1
HCM 2010 LOS	A

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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	77	371	557	29	0	0
Future Volume (veh/h)	77	371	557	29	0	0
Number	7	4	8	18		
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863		
Adj Flow Rate, veh/h	84	403	605	32		
Adj No. of Lanes	2	2	2	1		
Peak Hour Factor	0.92	0.92	0.92	0.92		
Percent Heavy Veh, %	2	2	2	2		
Cap, veh/h	1338	2618	1377	616		
Arrive On Green	0.09	0.74	0.39	0.39		
Sat Flow, veh/h	3442	3632	3632	1583		
Grp Volume(v), veh/h	84	403	605	32		
Grp Sat Flow(s),veh/h/ln	1721	1770	1770	1583		
Q Serve(g_s), s	0.3	0.8	2.9	0.3		
Cycle Q Clear(g_c), s	0.3	0.8	2.9	0.3		
Prop In Lane	1.00			1.00		
Lane Grp Cap(c), veh/h	1338	2618	1377	616		
V/C Ratio(X)	0.06	0.15	0.44	0.05		
Avail Cap(c_a), veh/h	2968	8292	5374	2404		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	2.8	0.9	5.2	4.4		
Incr Delay (d2), s/veh	0.0	0.0	0.2	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.1	0.3	1.4	0.1		
LnGrp Delay(d),s/veh	2.8	0.9	5.4	4.4		
LnGrp LOS	A	A	A	A		
Approach Vol, veh/h		487	637			
Approach Delay, s/veh		1.2	5.4			
Approach LOS		A	A			

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4			7	8
Phs Duration (G+Y+Rc), s				23.0			8.1	15.0
Change Period (Y+Rc), s				6.0			6.0	6.0
Max Green Setting (Gmax), s				54.0			13.0	35.0
Max Q Clear Time (g_c+I1), s				2.8			2.3	4.9
Green Ext Time (p_c), s				2.6			0.1	4.1

Intersection Summary	
HCM 2010 Ctrl Delay	3.6
HCM 2010 LOS	A

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Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	42	606	24	14	414	14	19	6	17	26	13	95
Future Vol, veh/h	42	606	24	14	414	14	19	6	17	26	13	95
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	480	-	150	300	-	-	350	-	-	250	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	5	5	5
Mvmt Flow	48	689	27	16	470	16	22	7	19	30	15	108

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	486	0	-	689	0	0	1060	1303	345	954	1295	243
Stage 1	-	-	-	-	-	-	785	785	-	510	510	-
Stage 2	-	-	-	-	-	-	275	518	-	444	785	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.6	6.6	7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.6	5.6	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.6	5.6	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.55	4.05	3.35
Pot Cap-1 Maneuver	1073	-	0	901	-	-	178	159	651	209	157	749
Stage 1	-	-	0	-	-	-	352	402	-	507	528	-
Stage 2	-	-	0	-	-	-	708	531	-	555	395	-
Platoon blocked, %		-			-	-						
Mov Cap-1 Maneuver	1073	-	-	901	-	-	134	149	651	187	147	749
Mov Cap-2 Maneuver	-	-	-	-	-	-	134	149	-	187	147	-
Stage 1	-	-	-	-	-	-	336	384	-	484	518	-
Stage 2	-	-	-	-	-	-	578	521	-	505	377	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.3	25.7	17.1
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	134	346	1073	-	901	-	-	187	502
HCM Lane V/C Ratio	0.161	0.076	0.044	-	0.018	-	-	0.158	0.244
HCM Control Delay (s)	37	16.3	8.5	-	9.1	-	-	27.8	14.5
HCM Lane LOS	E	C	A	-	A	-	-	D	B
HCM 95th %tile Q(veh)	0.6	0.2	0.1	-	0.1	-	-	0.5	1

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Intersection	
Int Delay, s/veh	5.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	571	143	141	366	86	71
Future Vol, veh/h	571	143	141	366	86	71
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	250	280	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	649	163	160	416	98	81

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	812	0	1177	325
Stage 1	-	-	-	-	649	-
Stage 2	-	-	-	-	528	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	810	-	184	671
Stage 1	-	-	-	-	482	-
Stage 2	-	-	-	-	556	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	810	-	148	671
Mov Cap-2 Maneuver	-	-	-	-	148	-
Stage 1	-	-	-	-	482	-
Stage 2	-	-	-	-	446	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.9	41.8
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	148	671	-	-	810	-
HCM Lane V/C Ratio	0.66	0.12	-	-	0.198	-
HCM Control Delay (s)	67.2	11.1	-	-	10.5	-
HCM Lane LOS	F	B	-	-	B	-
HCM 95th %tile Q(veh)	3.7	0.4	-	-	0.7	-

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Intersection	
Int Delay, s/veh	7.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	113	527	18	13	329	52	60	24	80	69	6	119
Future Vol, veh/h	113	527	18	13	329	52	60	24	80	69	6	119
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	250	-	-	165	-	-	100	-	20
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	7	7	7	6	6	6	2	2	2	8	8	8
Mvmt Flow	120	561	19	14	350	55	64	26	85	73	6	127

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	405	0	0	580	0	0	1017	1244	290	940	1226	203
Stage 1	-	-	-	-	-	-	811	811	-	406	406	-
Stage 2	-	-	-	-	-	-	206	433	-	534	820	-
Critical Hdwy	4.24	-	-	4.22	-	-	7.54	6.54	6.94	7.66	6.66	7.06
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.66	5.66	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.66	5.66	-
Follow-up Hdwy	2.27	-	-	2.26	-	-	3.52	4.02	3.32	3.58	4.08	3.38
Pot Cap-1 Maneuver	1115	-	-	963	-	-	192	173	707	209	169	786
Stage 1	-	-	-	-	-	-	339	391	-	577	581	-
Stage 2	-	-	-	-	-	-	777	580	-	483	373	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1115	-	-	963	-	-	142	152	707	146	149	786
Mov Cap-2 Maneuver	-	-	-	-	-	-	142	152	-	146	149	-
Stage 1	-	-	-	-	-	-	302	349	-	515	572	-
Stage 2	-	-	-	-	-	-	635	571	-	351	333	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0.3	29.6	26
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	142	384	1115	-	-	963	-	-	146	149	786
HCM Lane V/C Ratio	0.45	0.288	0.108	-	-	0.014	-	-	0.503	0.043	0.161
HCM Control Delay (s)	49.6	18.1	8.6	-	-	8.8	-	-	52.3	30.2	10.5
HCM Lane LOS	E	C	A	-	-	A	-	-	F	D	B
HCM 95th %tile Q(veh)	2	1.2	0.4	-	-	0	-	-	2.4	0.1	0.6

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APPENDIX E

Synchro Analysis Worksheets (2030 No-Build Conditions)

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	361	1194	288	397	900	512	301	72	421	283	63	175
Future Volume (veh/h)	361	1194	288	397	900	512	301	72	421	283	63	175
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1845	1845	1845	1845	1845	1845	1450	1450	1450
Adj Flow Rate, veh/h	380	1257	303	418	947	539	317	76	443	298	66	184
Adj No. of Lanes	2	3	1	2	3	1	2	1	1	2	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	3	3	3	3	3	3	31	31	31
Cap, veh/h	465	1271	574	469	1272	592	383	346	510	335	290	413
Arrive On Green	0.13	0.25	0.25	0.14	0.25	0.25	0.11	0.19	0.19	0.13	0.20	0.20
Sat Flow, veh/h	3442	5085	1583	3408	5036	1568	3408	1845	1568	2680	1450	1233
Grp Volume(v), veh/h	380	1257	303	418	947	539	317	76	443	298	66	184
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1704	1679	1568	1704	1845	1568	1340	1450	1233
Q Serve(g_s), s	8.6	19.7	12.1	9.6	13.8	20.2	7.3	2.8	15.0	8.8	3.1	9.3
Cycle Q Clear(g_c), s	8.6	19.7	12.1	9.6	13.8	20.2	7.3	2.8	15.0	8.8	3.1	9.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	465	1271	574	469	1272	592	383	346	510	335	290	413
V/C Ratio(X)	0.82	0.99	0.53	0.89	0.74	0.91	0.83	0.22	0.87	0.89	0.23	0.45
Avail Cap(c_a), veh/h	516	1271	574	469	1272	592	383	346	510	335	290	413
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.6	29.9	20.1	33.9	27.5	23.6	34.7	27.5	25.4	34.5	26.8	20.8
Incr Delay (d2), s/veh	9.2	22.5	0.9	19.0	2.4	18.3	13.9	0.3	14.9	24.1	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	11.8	5.4	5.8	6.7	14.2	4.2	1.4	11.2	4.4	1.3	3.3
LnGrp Delay(d),s/veh	42.8	52.4	21.0	52.9	30.0	41.9	48.6	27.9	40.3	58.6	27.2	21.5
LnGrp LOS	D	D	C	D	C	D	D	C	D	E	C	C
Approach Vol, veh/h		1940			1904			836			548	
Approach Delay, s/veh		45.6			38.4			42.3			42.4	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	21.0	17.0	26.0	15.0	22.0	16.8	26.2
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	10.0	15.0	11.0	20.0	9.0	16.0	12.0	19.0
Max Q Clear Time (g_c+I1), s	10.8	17.0	11.6	21.7	9.3	11.3	10.6	22.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.4	0.2	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	42.1
HCM 2010 LOS	D

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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	724	1289	0	187	565
Future Volume (veh/h)	0	724	1289	0	187	565
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1845	1845	0	1712	1712
Adj Flow Rate, veh/h	0	762	1357	0	197	0
Adj No. of Lanes	0	2	2	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	3	3	0	11	11
Cap, veh/h	0	1936	1936	0	252	225
Arrive On Green	0.00	0.55	0.55	0.00	0.15	0.00
Sat Flow, veh/h	0	3689	3689	0	1630	1455
Grp Volume(v), veh/h	0	762	1357	0	197	0
Grp Sat Flow(s),veh/h/ln	0	1752	1752	0	1630	1455
Q Serve(g_s), s	0.0	5.1	11.6	0.0	4.8	0.0
Cycle Q Clear(g_c), s	0.0	5.1	11.6	0.0	4.8	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	1936	1936	0	252	225
V/C Ratio(X)	0.00	0.39	0.70	0.00	0.78	0.00
Avail Cap(c_a), veh/h	0	2739	2739	0	637	568
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	5.2	6.7	0.0	16.6	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.5	0.0	5.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.5	5.6	0.0	2.5	0.0
LnGrp Delay(d),s/veh	0.0	5.4	7.2	0.0	21.9	0.0
LnGrp LOS		A	A		C	
Approach Vol, veh/h		762	1357		197	
Approach Delay, s/veh		5.4	7.2		21.9	
Approach LOS		A	A		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				28.6		12.3		28.6
Change Period (Y+Rc), s				6.0		6.0		6.0
Max Green Setting (Gmax), s				32.0		16.0		32.0
Max Q Clear Time (g_c+I1), s				7.1		6.8		13.6
Green Ext Time (p_c), s				5.0		0.3		9.0

Intersection Summary	
HCM 2010 Ctrl Delay	7.8
HCM 2010 LOS	A

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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	342	851	777	106	0	0
Future Volume (veh/h)	342	851	777	106	0	0
Number	7	4	8	18		
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1810	1810	1863	1863		
Adj Flow Rate, veh/h	360	896	818	112		
Adj No. of Lanes	2	2	2	1		
Peak Hour Factor	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	5	5	2	2		
Cap, veh/h	584	2768	1542	690		
Arrive On Green	0.17	0.81	0.44	0.44		
Sat Flow, veh/h	3343	3529	3632	1583		
Grp Volume(v), veh/h	360	896	818	112		
Grp Sat Flow(s),veh/h/ln	1672	1719	1770	1583		
Q Serve(g_s), s	3.1	2.1	5.2	1.3		
Cycle Q Clear(g_c), s	3.1	2.1	5.2	1.3		
Prop In Lane	1.00			1.00		
Lane Grp Cap(c), veh/h	584	2768	1542	690		
V/C Ratio(X)	0.62	0.32	0.53	0.16		
Avail Cap(c_a), veh/h	1086	6029	4367	1954		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	11.8	0.8	6.4	5.3		
Incr Delay (d2), s/veh	1.1	0.1	0.3	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.5	0.9	2.6	0.6		
LnGrp Delay(d),s/veh	12.8	0.9	6.7	5.4		
LnGrp LOS	B	A	A	A		
Approach Vol, veh/h		1256	930			
Approach Delay, s/veh		4.3	6.5			
Approach LOS		A	A			

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4			7	8
Phs Duration (G+Y+Rc), s				30.8			11.4	19.4
Change Period (Y+Rc), s				6.0			6.0	6.0
Max Green Setting (Gmax), s				54.0			10.0	38.0
Max Q Clear Time (g_c+I1), s				4.1			5.1	7.2
Green Ext Time (p_c), s				6.9			0.6	6.2

Intersection Summary	
HCM 2010 Ctrl Delay	5.2
HCM 2010 LOS	A

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	731	364	129	690	61	147	19	64	62	38	49
Future Volume (veh/h)	129	731	364	129	690	61	147	19	64	62	38	49
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1845	1845	1845	1863	1863	1900
Adj Flow Rate, veh/h	136	769	0	136	726	64	155	20	67	65	40	52
Adj No. of Lanes	2	3	1	1	3	0	2	1	1	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	3	3	3	2	2	2
Cap, veh/h	287	1333	415	379	1248	109	295	561	477	271	74	96
Arrive On Green	0.08	0.26	0.00	0.08	0.26	0.26	0.09	0.30	0.30	0.10	0.10	0.10
Sat Flow, veh/h	3442	5085	1583	1774	4762	417	3408	1845	1568	1305	736	957
Grp Volume(v), veh/h	136	769	0	136	516	274	155	20	67	65	0	92
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1774	1695	1789	1704	1845	1568	1305	0	1694
Q Serve(g_s), s	1.9	6.8	0.0	2.8	6.8	6.9	2.2	0.4	1.6	2.4	0.0	2.7
Cycle Q Clear(g_c), s	1.9	6.8	0.0	2.8	6.8	6.9	2.2	0.4	1.6	2.4	0.0	2.7
Prop In Lane	1.00		1.00	1.00		0.23	1.00		1.00	1.00		0.57
Lane Grp Cap(c), veh/h	287	1333	415	379	889	469	295	561	477	271	0	170
V/C Ratio(X)	0.47	0.58	0.00	0.36	0.58	0.58	0.52	0.04	0.14	0.24	0.00	0.54
Avail Cap(c_a), veh/h	603	2475	771	611	1782	940	597	1293	1099	674	0	692
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.5	16.5	0.0	12.5	16.5	16.5	22.4	12.6	13.0	21.9	0.0	22.0
Incr Delay (d2), s/veh	1.2	0.4	0.0	0.6	0.6	1.2	1.4	0.0	0.1	0.5	0.0	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	3.2	0.0	1.4	3.2	3.5	1.1	0.2	0.7	0.9	0.0	1.4
LnGrp Delay(d),s/veh	23.7	16.9	0.0	13.0	17.1	17.7	23.9	12.6	13.1	22.3	0.0	24.6
LnGrp LOS	C	B		B	B	B	C	B	B	C		C
Approach Vol, veh/h		905			926			242			157	
Approach Delay, s/veh		17.9			16.7			20.0			23.7	
Approach LOS		B			B			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		21.6	10.3	19.5	10.5	11.2	10.3	19.5
Change Period (Y+Rc), s		6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s		36.0	11.0	25.0	9.0	21.0	9.0	27.0
Max Q Clear Time (g_c+I1), s		3.6	4.8	8.8	4.2	4.7	3.9	8.9
Green Ext Time (p_c), s		0.3	0.2	4.4	0.2	0.5	0.2	4.6

Intersection Summary	
HCM 2010 Ctrl Delay	18.0
HCM 2010 LOS	B

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	530	366	294	644	245	242
Future Volume (veh/h)	530	366	294	644	245	242
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	558	385	309	678	258	255
Adj No. of Lanes	3	1	2	3	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1702	530	459	2922	731	337
Arrive On Green	0.33	0.33	0.13	0.57	0.21	0.21
Sat Flow, veh/h	5253	1583	3442	5253	3442	1583
Grp Volume(v), veh/h	558	385	309	678	258	255
Grp Sat Flow(s),veh/h/ln	1695	1583	1721	1695	1721	1583
Q Serve(g_s), s	4.6	12.0	4.8	3.7	3.6	8.5
Cycle Q Clear(g_c), s	4.6	12.0	4.8	3.7	3.6	8.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1702	530	459	2922	731	337
V/C Ratio(X)	0.33	0.73	0.67	0.23	0.35	0.76
Avail Cap(c_a), veh/h	2978	927	1038	5054	1344	618
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.0	16.5	23.3	5.9	18.9	20.8
Incr Delay (d2), s/veh	0.1	1.9	1.7	0.0	0.3	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	5.5	2.4	1.7	1.7	4.0
LnGrp Delay(d),s/veh	14.1	18.4	25.0	5.9	19.2	24.3
LnGrp LOS	B	B	C	A	B	C
Approach Vol, veh/h	943			987	513	
Approach Delay, s/veh	15.9			11.9	21.7	
Approach LOS	B			B	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	13.5	24.9				38.4		18.0
Change Period (Y+Rc), s	6.0	6.0				6.0		6.0
Max Green Setting (Gmax), s	7.0	33.0				56.0		22.0
Max Q Clear Time (g_c+I1), s	6.8	14.0				5.7		10.5
Green Ext Time (p_c), s	0.8	4.8				5.0		1.5

Intersection Summary	
HCM 2010 Ctrl Delay	15.5
HCM 2010 LOS	B

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Intersection	
Int Delay, s/veh	8.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	109	234	67	94	436	57	50	11	66	45	27	127
Future Vol, veh/h	109	234	67	94	436	57	50	11	66	45	27	127
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	250	-	-	165	-	-	100	-	20
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	12	12	12	3	3	3	12	12	12	14	14	14
Mvmt Flow	115	246	71	99	459	60	53	12	69	47	28	134

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	519	0	0	317	0	0	954	1229	159	1046	1234	260
Stage 1	-	-	-	-	-	-	512	512	-	687	687	-
Stage 2	-	-	-	-	-	-	442	717	-	359	547	-
Critical Hdwy	4.34	-	-	4.16	-	-	7.74	6.74	7.14	7.78	6.78	7.18
Critical Hdwy Stg 1	-	-	-	-	-	-	6.74	5.74	-	6.78	5.78	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.74	5.74	-	6.78	5.78	-
Follow-up Hdwy	2.32	-	-	2.23	-	-	3.62	4.12	3.42	3.64	4.14	3.44
Pot Cap-1 Maneuver	977	-	-	1233	-	-	199	163	827	167	159	704
Stage 1	-	-	-	-	-	-	488	510	-	376	417	-
Stage 2	-	-	-	-	-	-	538	408	-	600	487	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	977	-	-	1233	-	-	115	132	827	122	129	704
Mov Cap-2 Maneuver	-	-	-	-	-	-	115	132	-	122	129	-
Stage 1	-	-	-	-	-	-	430	450	-	332	384	-
Stage 2	-	-	-	-	-	-	371	375	-	472	430	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.4	1.3	32.4	24.5
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	115	472	977	-	-	1233	-	-	122	129	704
HCM Lane V/C Ratio	0.458	0.172	0.117	-	-	0.08	-	-	0.388	0.22	0.19
HCM Control Delay (s)	60.4	14.2	9.2	-	-	8.2	-	-	52.1	40.6	11.3
HCM Lane LOS	F	B	A	-	-	A	-	-	F	E	B
HCM 95th %tile Q(veh)	2	0.6	0.4	-	-	0.3	-	-	1.6	0.8	0.7

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	281	1046	412	524	1291	224	403	89	423	563	91	226
Future Volume (veh/h)	281	1046	412	524	1291	224	403	89	423	563	91	226
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1810	1810	1810	1863	1863	1863	1810	1810	1810
Adj Flow Rate, veh/h	296	1101	434	552	1359	236	424	94	445	593	96	238
Adj No. of Lanes	2	3	1	2	3	1	2	1	1	2	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	5	5	5	2	2	2	5	5	5
Cap, veh/h	371	1130	581	520	1334	672	498	352	545	557	381	490
Arrive On Green	0.11	0.22	0.22	0.16	0.27	0.27	0.14	0.19	0.19	0.17	0.21	0.21
Sat Flow, veh/h	3442	5085	1583	3343	4940	1538	3442	1863	1583	3343	1810	1538
Grp Volume(v), veh/h	296	1101	434	552	1359	236	424	94	445	593	96	238
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1672	1647	1538	1721	1863	1583	1672	1810	1538
Q Serve(g_s), s	7.6	19.3	20.0	14.0	24.3	9.2	10.8	3.9	17.0	15.0	4.0	11.2
Cycle Q Clear(g_c), s	7.6	19.3	20.0	14.0	24.3	9.2	10.8	3.9	17.0	15.0	4.0	11.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	371	1130	581	520	1334	672	498	352	545	557	381	490
V/C Ratio(X)	0.80	0.97	0.75	1.06	1.02	0.35	0.85	0.27	0.82	1.06	0.25	0.49
Avail Cap(c_a), veh/h	421	1130	581	520	1334	672	535	352	545	557	381	490
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.2	34.7	24.8	38.0	32.9	16.9	37.5	31.2	26.9	37.5	29.6	24.7
Incr Delay (d2), s/veh	9.3	20.7	5.3	56.8	29.5	0.3	11.8	0.4	9.4	56.3	0.3	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	11.2	10.3	10.5	14.6	4.0	5.9	2.0	11.4	11.2	2.0	4.9
LnGrp Delay(d),s/veh	48.5	55.5	30.1	94.8	62.4	17.2	49.4	31.6	36.3	93.8	29.9	25.5
LnGrp LOS	D	E	C	F	F	B	D	C	D	F	C	C
Approach Vol, veh/h		1831			2147			963			927	
Approach Delay, s/veh		48.3			65.7			41.6			69.7	
Approach LOS		D			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	23.0	20.0	26.0	19.0	25.0	15.7	30.3
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	15.0	17.0	14.0	20.0	14.0	18.0	11.0	23.0
Max Q Clear Time (g_c+I1), s	17.0	19.0	16.0	22.0	12.8	13.2	9.6	26.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.2	0.6	0.2	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	57.0
HCM 2010 LOS	E

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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	1163	1634	0	169	390
Future Volume (veh/h)	0	1163	1634	0	169	390
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1827	0	1863	1863
Adj Flow Rate, veh/h	0	1224	1720	0	178	0
Adj No. of Lanes	0	2	2	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	4	0	2	2
Cap, veh/h	0	2163	2121	0	233	208
Arrive On Green	0.00	0.61	0.61	0.00	0.13	0.00
Sat Flow, veh/h	0	3725	3654	0	1774	1583
Grp Volume(v), veh/h	0	1224	1720	0	178	0
Grp Sat Flow(s),veh/h/ln	0	1770	1736	0	1774	1583
Q Serve(g_s), s	0.0	9.6	17.8	0.0	4.5	0.0
Cycle Q Clear(g_c), s	0.0	9.6	17.8	0.0	4.5	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2163	2121	0	233	208
V/C Ratio(X)	0.00	0.57	0.81	0.00	0.76	0.00
Avail Cap(c_a), veh/h	0	2430	2384	0	609	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	5.4	7.0	0.0	19.5	0.0
Incr Delay (d2), s/veh	0.0	0.2	2.0	0.0	5.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.7	9.0	0.0	2.5	0.0
LnGrp Delay(d),s/veh	0.0	5.6	9.0	0.0	24.7	0.0
LnGrp LOS		A	A		C	
Approach Vol, veh/h		1224	1720		178	
Approach Delay, s/veh		5.6	9.0		24.7	
Approach LOS		A	A		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				34.5		12.1		34.5
Change Period (Y+Rc), s				6.0		6.0		6.0
Max Green Setting (Gmax), s				32.0		16.0		32.0
Max Q Clear Time (g_c+I1), s				11.6		6.5		19.8
Green Ext Time (p_c), s				8.4		0.3		8.7

Intersection Summary	
HCM 2010 Ctrl Delay	8.6
HCM 2010 LOS	A

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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	501	840	1441	207	0	0
Future Volume (veh/h)	501	840	1441	207	0	0
Number	7	4	8	18		
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863		
Adj Flow Rate, veh/h	527	884	1517	218		
Adj No. of Lanes	2	2	2	1		
Peak Hour Factor	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2		
Cap, veh/h	887	3064	2193	981		
Arrive On Green	0.11	0.87	0.62	0.62		
Sat Flow, veh/h	3442	3632	3632	1583		
Grp Volume(v), veh/h	527	884	1517	218		
Grp Sat Flow(s),veh/h/ln	1721	1770	1770	1583		
Q Serve(g_s), s	1.8	2.0	12.7	2.7		
Cycle Q Clear(g_c), s	1.8	2.0	12.7	2.7		
Prop In Lane	1.00			1.00		
Lane Grp Cap(c), veh/h	887	3064	2193	981		
V/C Ratio(X)	0.59	0.29	0.69	0.22		
Avail Cap(c_a), veh/h	1196	4279	3091	1383		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	8.6	0.5	5.7	3.7		
Incr Delay (d2), s/veh	0.6	0.1	0.4	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.2	0.9	6.2	1.2		
LnGrp Delay(d),s/veh	9.3	0.6	6.1	3.9		
LnGrp LOS	A	A	A	A		
Approach Vol, veh/h		1411	1735			
Approach Delay, s/veh		3.8	5.8			
Approach LOS		A	A			

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4			7	8
Phs Duration (G+Y+Rc), s				44.7			11.0	33.7
Change Period (Y+Rc), s				6.0			6.0	6.0
Max Green Setting (Gmax), s				54.0			9.0	39.0
Max Q Clear Time (g_c+I1), s				4.0			3.8	14.7
Green Ext Time (p_c), s				6.8			0.9	12.9

Intersection Summary	
HCM 2010 Ctrl Delay	4.9
HCM 2010 LOS	A

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	902	447	161	851	81	567	56	274	32	48	165
Future Volume (veh/h)	83	902	447	161	851	81	567	56	274	32	48	165
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1810	1810	1900
Adj Flow Rate, veh/h	87	949	0	169	896	85	597	59	288	34	51	174
Adj No. of Lanes	2	3	1	1	3	0	2	1	1	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	5	5	5
Cap, veh/h	185	1163	362	289	1275	121	708	838	712	259	61	207
Arrive On Green	0.05	0.23	0.00	0.09	0.27	0.27	0.21	0.45	0.45	0.17	0.17	0.17
Sat Flow, veh/h	3442	5085	1583	1774	4727	447	3442	1863	1583	1000	361	1231
Grp Volume(v), veh/h	87	949	0	169	642	339	597	59	288	34	0	225
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1774	1695	1784	1721	1863	1583	1000	0	1592
Q Serve(g_s), s	1.9	14.0	0.0	5.7	13.5	13.6	13.2	1.4	9.7	2.3	0.0	10.9
Cycle Q Clear(g_c), s	1.9	14.0	0.0	5.7	13.5	13.6	13.2	1.4	9.7	2.3	0.0	10.9
Prop In Lane	1.00		1.00	1.00		0.25	1.00		1.00	1.00		0.77
Lane Grp Cap(c), veh/h	185	1163	362	289	914	481	708	838	712	259	0	268
V/C Ratio(X)	0.47	0.82	0.00	0.58	0.70	0.71	0.84	0.07	0.40	0.13	0.00	0.84
Avail Cap(c_a), veh/h	390	1282	399	322	914	481	868	1010	858	305	0	341
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.4	29.0	0.0	21.8	26.1	26.1	30.3	12.4	14.7	28.4	0.0	31.9
Incr Delay (d2), s/veh	1.9	3.9	0.0	2.2	2.4	4.7	6.4	0.0	0.4	0.2	0.0	13.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	7.0	0.0	2.9	6.6	7.3	6.9	0.7	4.3	0.7	0.0	5.8
LnGrp Delay(d),s/veh	38.3	32.9	0.0	24.0	28.5	30.8	36.7	12.4	15.1	28.6	0.0	45.6
LnGrp LOS	D	C		C	C	C	D	B	B	C		D
Approach Vol, veh/h		1036			1150			944			259	
Approach Delay, s/veh		33.4			28.5			28.6			43.4	
Approach LOS		C			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		41.7	13.5	24.1	22.3	19.4	10.3	27.4
Change Period (Y+Rc), s		6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s		43.0	9.0	20.0	20.0	17.0	9.0	20.0
Max Q Clear Time (g_c+I1), s		11.7	7.7	16.0	15.2	12.9	3.9	15.6
Green Ext Time (p_c), s		1.4	0.1	2.1	1.1	0.5	0.1	2.3

Intersection Summary	
HCM 2010 Ctrl Delay	31.2
HCM 2010 LOS	C

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	747	479	364	449	604	287
Future Volume (veh/h)	747	479	364	449	604	287
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	786	504	383	473	636	302
Adj No. of Lanes	3	1	2	3	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1877	585	499	3027	834	384
Arrive On Green	0.37	0.37	0.14	0.60	0.24	0.24
Sat Flow, veh/h	5253	1583	3442	5253	3442	1583
Grp Volume(v), veh/h	786	504	383	473	636	302
Grp Sat Flow(s),veh/h/ln	1695	1583	1721	1695	1721	1583
Q Serve(g_s), s	8.5	21.8	7.9	3.1	12.7	13.2
Cycle Q Clear(g_c), s	8.5	21.8	7.9	3.1	12.7	13.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1877	585	499	3027	834	384
V/C Ratio(X)	0.42	0.86	0.77	0.16	0.76	0.79
Avail Cap(c_a), veh/h	2065	643	792	3648	1165	536
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.4	21.6	30.4	6.7	26.0	26.2
Incr Delay (d2), s/veh	0.1	10.8	2.5	0.0	2.0	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	11.3	3.9	1.4	6.2	6.3
LnGrp Delay(d),s/veh	17.5	32.4	32.9	6.7	28.0	31.4
LnGrp LOS	B	C	C	A	C	C
Approach Vol, veh/h	1290			856	938	
Approach Delay, s/veh	23.3			18.4	29.1	
Approach LOS	C			B	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	16.7	33.3				50.0		23.9
Change Period (Y+Rc), s	6.0	6.0				6.0		6.0
Max Green Setting (Gmax), s	17.0	30.0				53.0		25.0
Max Q Clear Time (g_c+I1), s	10.9	23.8				5.1		15.2
Green Ext Time (p_c), s	0.8	3.5				3.3		2.7

Intersection Summary	
HCM 2010 Ctrl Delay	23.7
HCM 2010 LOS	C

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Intersection	
Int Delay, s/veh	50.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	138	643	62	57	401	63	113	29	139	84	7	145
Future Vol, veh/h	138	643	62	57	401	63	113	29	139	84	7	145
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	250	-	-	165	-	-	100	-	20
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	7	7	7	6	6	6	2	2	2	8	8	8
Mvmt Flow	145	677	65	60	422	66	119	31	146	88	7	153

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	488	0	0	742	0	0	1335	1608	371	1219	1607	244
Stage 1	-	-	-	-	-	-	1000	1000	-	575	575	-
Stage 2	-	-	-	-	-	-	335	608	-	644	1032	-
Critical Hdwy	4.24	-	-	4.22	-	-	7.54	6.54	6.94	7.66	6.66	7.06
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.66	5.66	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.66	5.66	-
Follow-up Hdwy	2.27	-	-	2.26	-	-	3.52	4.02	3.32	3.58	4.08	3.38
Pot Cap-1 Maneuver	1037	-	-	835	-	-	~ 112	104	626	130	98	739
Stage 1	-	-	-	-	-	-	261	319	-	456	486	-
Stage 2	-	-	-	-	-	-	653	484	-	414	295	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1037	-	-	835	-	-	~ 70	83	626	~ 61	78	739
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 70	83	-	~ 61	78	-
Stage 1	-	-	-	-	-	-	224	274	-	392	451	-
Stage 2	-	-	-	-	-	-	473	449	-	242	254	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	1.1	208.1	145.8
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	70	294	1037	-	-	835	-	-	61	78	739
HCM Lane V/C Ratio	1.699	0.602	0.14	-	-	0.072	-	-	1.45	0.094	0.207
HCM Control Delay (s)	$ 466.9	34.1	9	-	-	9.6	-	-	$ 385.9	55.9	11.1
HCM Lane LOS	F	D	A	-	-	A	-	-	F	F	B
HCM 95th %tile Q(veh)	10.4	3.6	0.5	-	-	0.2	-	-	7.7	0.3	0.8

Notes

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

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APPENDIX F

Synchro Analysis Worksheets (2030 Build Conditions)

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	361	1327	288	424	1036	512	301	72	448	283	63	175
Future Volume (veh/h)	361	1327	288	424	1036	512	301	72	448	283	63	175
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1845	1845	1845	1845	1845	1845	1450	1450	1450
Adj Flow Rate, veh/h	380	1397	303	446	1091	539	317	76	472	298	66	184
Adj No. of Lanes	2	3	1	2	3	1	2	1	1	2	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	3	3	3	3	3	3	31	31	31
Cap, veh/h	455	1413	616	492	1461	646	379	348	523	328	290	409
Arrive On Green	0.13	0.28	0.28	0.14	0.29	0.29	0.11	0.19	0.19	0.12	0.20	0.20
Sat Flow, veh/h	3442	5085	1583	3408	5036	1568	3408	1845	1568	2680	1450	1233
Grp Volume(v), veh/h	380	1397	303	446	1091	539	317	76	472	298	66	184
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1704	1679	1568	1704	1845	1568	1340	1450	1233
Q Serve(g_s), s	9.7	24.6	13.0	11.6	17.7	26.1	8.2	3.1	17.0	9.9	3.4	10.5
Cycle Q Clear(g_c), s	9.7	24.6	13.0	11.6	17.7	26.1	8.2	3.1	17.0	9.9	3.4	10.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	455	1413	616	492	1461	646	379	348	523	328	290	409
V/C Ratio(X)	0.84	0.99	0.49	0.91	0.75	0.83	0.84	0.22	0.90	0.91	0.23	0.45
Avail Cap(c_a), veh/h	497	1413	616	492	1461	646	379	348	523	328	290	409
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	32.4	20.8	37.9	29.0	23.7	39.2	30.9	28.6	39.0	30.2	23.6
Incr Delay (d2), s/veh	11.0	21.3	0.6	20.3	2.2	9.2	15.1	0.3	19.0	28.1	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	14.3	5.7	6.8	8.5	13.6	4.7	1.6	13.9	4.9	1.4	3.7
LnGrp Delay(d),s/veh	49.1	53.6	21.4	58.2	31.1	32.9	54.3	31.2	47.6	67.1	30.6	24.4
LnGrp LOS	D	D	C	E	C	C	D	C	D	E	C	C
Approach Vol, veh/h		2080			2076			865			548	
Approach Delay, s/veh		48.1			37.4			48.6			48.4	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	23.0	19.0	31.0	16.0	24.0	17.9	32.1
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	11.0	17.0	13.0	25.0	10.0	18.0	13.0	25.0
Max Q Clear Time (g_c+I1), s	11.9	19.0	13.6	26.6	10.2	12.5	11.7	28.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.4	0.2	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	44.2
HCM 2010 LOS	D

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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	1172	1452	0	240	565
Future Volume (veh/h)	0	1172	1452	0	240	565
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1845	1845	0	1712	1712
Adj Flow Rate, veh/h	0	1234	1528	0	253	0
Adj No. of Lanes	0	2	2	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	3	3	0	11	11
Cap, veh/h	0	1958	1958	0	312	279
Arrive On Green	0.00	0.56	0.56	0.00	0.19	0.00
Sat Flow, veh/h	0	3689	3689	0	1630	1455
Grp Volume(v), veh/h	0	1234	1528	0	253	0
Grp Sat Flow(s),veh/h/ln	0	1752	1752	0	1630	1455
Q Serve(g_s), s	0.0	11.5	16.4	0.0	7.1	0.0
Cycle Q Clear(g_c), s	0.0	11.5	16.4	0.0	7.1	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	1958	1958	0	312	279
V/C Ratio(X)	0.00	0.63	0.78	0.00	0.81	0.00
Avail Cap(c_a), veh/h	0	2335	2335	0	543	485
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	7.2	8.3	0.0	18.6	0.0
Incr Delay (d2), s/veh	0.0	0.4	1.5	0.0	5.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.6	8.0	0.0	3.6	0.0
LnGrp Delay(d),s/veh	0.0	7.6	9.8	0.0	23.6	0.0
LnGrp LOS		A	A		C	
Approach Vol, veh/h		1234	1528		253	
Approach Delay, s/veh		7.6	9.8		23.6	
Approach LOS		A	A		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				32.8		15.2		32.8
Change Period (Y+Rc), s				6.0		6.0		6.0
Max Green Setting (Gmax), s				32.0		16.0		32.0
Max Q Clear Time (g_c+I1), s				13.5		9.1		18.4
Green Ext Time (p_c), s				8.1		0.4		8.5

Intersection Summary	
HCM 2010 Ctrl Delay	10.1
HCM 2010 LOS	B

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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	342	1064	1103	161	0	0
Future Volume (veh/h)	342	1064	1103	161	0	0
Number	7	4	8	18		
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1810	1810	1863	1863		
Adj Flow Rate, veh/h	360	1120	1161	169		
Adj No. of Lanes	2	2	2	1		
Peak Hour Factor	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	5	5	2	2		
Cap, veh/h	534	2906	1878	840		
Arrive On Green	0.16	0.85	0.53	0.53		
Sat Flow, veh/h	3343	3529	3632	1583		
Grp Volume(v), veh/h	360	1120	1161	169		
Grp Sat Flow(s),veh/h/ln	1672	1719	1770	1583		
Q Serve(g_s), s	3.9	2.9	8.9	2.2		
Cycle Q Clear(g_c), s	3.9	2.9	8.9	2.2		
Prop In Lane	1.00			1.00		
Lane Grp Cap(c), veh/h	534	2906	1878	840		
V/C Ratio(X)	0.67	0.39	0.62	0.20		
Avail Cap(c_a), veh/h	776	4789	3561	1593		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	15.3	0.7	6.4	4.8		
Incr Delay (d2), s/veh	1.5	0.1	0.3	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.9	1.3	4.3	1.0		
LnGrp Delay(d),s/veh	16.8	0.8	6.7	4.9		
LnGrp LOS	B	A	A	A		
Approach Vol, veh/h		1480	1330			
Approach Delay, s/veh		4.7	6.5			
Approach LOS		A	A			

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4			7	8
Phs Duration (G+Y+Rc), s				38.8			12.2	26.6
Change Period (Y+Rc), s				6.0			6.0	6.0
Max Green Setting (Gmax), s				54.0			9.0	39.0
Max Q Clear Time (g_c+I1), s				4.9			5.9	10.9
Green Ext Time (p_c), s				9.6			0.4	9.7

Intersection Summary	
HCM 2010 Ctrl Delay	5.5
HCM 2010 LOS	A

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	501	731	364	129	690	141	147	34	64	144	38	430
Future Volume (veh/h)	501	731	364	129	690	141	147	34	64	144	38	430
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1845	1845	1845	1863	1863	1900
Adj Flow Rate, veh/h	527	769	0	136	726	148	155	36	67	152	40	453
Adj No. of Lanes	2	3	1	1	3	0	2	1	1	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	3	3	3	2	2	2
Cap, veh/h	591	1490	464	357	862	174	238	405	344	514	31	350
Arrive On Green	0.17	0.29	0.00	0.08	0.20	0.20	0.07	0.22	0.22	0.09	0.24	0.24
Sat Flow, veh/h	3442	5085	1583	1774	4245	856	3408	1845	1568	1774	130	1473
Grp Volume(v), veh/h	527	769	0	136	578	296	155	36	67	152	0	493
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1774	1695	1712	1704	1845	1568	1774	0	1603
Q Serve(g_s), s	11.3	9.5	0.0	4.5	12.4	12.6	3.4	1.2	2.6	4.9	0.0	18.0
Cycle Q Clear(g_c), s	11.3	9.5	0.0	4.5	12.4	12.6	3.4	1.2	2.6	4.9	0.0	18.0
Prop In Lane	1.00		1.00	1.00		0.50	1.00		1.00	1.00		0.92
Lane Grp Cap(c), veh/h	591	1490	464	357	688	347	238	405	344	514	0	381
V/C Ratio(X)	0.89	0.52	0.00	0.38	0.84	0.85	0.65	0.09	0.19	0.30	0.00	1.29
Avail Cap(c_a), veh/h	591	1490	464	423	717	362	406	439	373	568	0	381
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.6	22.3	0.0	21.0	29.0	29.0	34.3	23.5	24.1	19.8	0.0	28.8
Incr Delay (d2), s/veh	15.6	0.3	0.0	0.7	8.6	16.9	3.0	0.1	0.3	0.3	0.0	150.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	4.5	0.0	2.2	6.6	7.5	1.7	0.6	1.2	2.4	0.0	23.7
LnGrp Delay(d),s/veh	46.3	22.6	0.0	21.7	37.5	45.9	37.3	23.6	24.3	20.1	0.0	178.8
LnGrp LOS	D	C		C	D	D	D	C	C	C		F
Approach Vol, veh/h		1296			1010			258			645	
Approach Delay, s/veh		32.2			37.8			32.0			141.4	
Approach LOS		C			D			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	22.6	12.2	28.2	11.3	24.0	19.0	21.4
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	9.0	18.0	9.0	20.0	9.0	18.0	13.0	16.0
Max Q Clear Time (g_c+I1), s	13.3	4.6	6.5	11.5	5.4	20.0	13.3	14.6
Green Ext Time (p_c), s	0.1	0.3	0.1	3.1	0.1	0.0	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	55.9
HCM 2010 LOS	E

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	585	393	294	697	272	242
Future Volume (veh/h)	585	393	294	697	272	242
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	616	414	309	734	286	255
Adj No. of Lanes	3	1	2	3	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2423	755	403	3380	664	305
Arrive On Green	0.48	0.48	0.12	0.66	0.19	0.19
Sat Flow, veh/h	5253	1583	3442	5253	3442	1583
Grp Volume(v), veh/h	616	414	309	734	286	255
Grp Sat Flow(s),veh/h/ln	1695	1583	1721	1695	1721	1583
Q Serve(g_s), s	6.1	15.6	7.3	4.8	6.2	13.1
Cycle Q Clear(g_c), s	6.1	15.6	7.3	4.8	6.2	13.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2423	755	403	3380	664	305
V/C Ratio(X)	0.25	0.55	0.77	0.22	0.43	0.84
Avail Cap(c_a), veh/h	2423	755	613	3380	899	413
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.1	15.6	36.1	5.5	29.9	32.7
Incr Delay (d2), s/veh	0.3	2.9	3.2	0.1	0.4	10.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	7.4	3.7	2.2	3.0	6.6
LnGrp Delay(d),s/veh	13.4	18.5	39.3	5.7	30.4	43.2
LnGrp LOS	B	B	D	A	C	D
Approach Vol, veh/h	1030			1043	541	
Approach Delay, s/veh	15.4			15.6	36.4	
Approach LOS	B			B	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	15.9	46.1				62.0		22.2
Change Period (Y+Rc), s	6.0	6.0				6.0		6.0
Max Green Setting (Gmax), s	15.0	35.0				56.0		22.0
Max Q Clear Time (g_c+I1), s	9.3	17.6				6.8		15.1
Green Ext Time (p_c), s	0.5	5.2				5.5		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	19.9
HCM 2010 LOS	B

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Intersection	
Int Delay, s/veh	13.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	109	234	93	121	436	57	77	11	93	45	27	127
Future Vol, veh/h	109	234	93	121	436	57	77	11	93	45	27	127
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	250	-	-	165	-	-	100	-	20
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	12	12	12	3	3	3	12	12	12	14	14	14
Mvmt Flow	115	246	98	127	459	60	81	12	98	47	28	134

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	519	0	0	344	0	0	1023	1298	172	1102	1317	260
Stage 1	-	-	-	-	-	-	525	525	-	743	743	-
Stage 2	-	-	-	-	-	-	498	773	-	359	574	-
Critical Hdwy	4.34	-	-	4.16	-	-	7.74	6.74	7.14	7.78	6.78	7.18
Critical Hdwy Stg 1	-	-	-	-	-	-	6.74	5.74	-	6.78	5.78	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.74	5.74	-	6.78	5.78	-
Follow-up Hdwy	2.32	-	-	2.23	-	-	3.62	4.12	3.42	3.64	4.14	3.44
Pot Cap-1 Maneuver	977	-	-	1205	-	-	177	148	811	152	141	704
Stage 1	-	-	-	-	-	-	479	503	-	347	392	-
Stage 2	-	-	-	-	-	-	498	384	-	600	473	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	977	-	-	1205	-	-	97	117	811	104	111	704
Mov Cap-2 Maneuver	-	-	-	-	-	-	97	117	-	104	111	-
Stage 1	-	-	-	-	-	-	422	444	-	306	351	-
Stage 2	-	-	-	-	-	-	332	344	-	453	417	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.3	1.6	63.1	28.6
HCM LOS			F	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	97	498	977	-	-	1205	-	-	104	111	704
HCM Lane V/C Ratio	0.836	0.22	0.117	-	-	0.106	-	-	0.455	0.256	0.19
HCM Control Delay (s)	128.9	14.3	9.2	-	-	8.3	-	-	65.8	48.2	11.3
HCM Lane LOS	F	B	A	-	-	A	-	-	F	E	B
HCM 95th %tile Q(veh)	4.6	0.8	0.4	-	-	0.4	-	-	2	0.9	0.7

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Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	494	54	201	490	53	145
Future Volume (veh/h)	494	54	201	490	53	145
Number	1	16	8	18	7	4
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1827	1827	1792	1792
Adj Flow Rate, veh/h	520	57	212	516	56	153
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	4	4	6	6
Cap, veh/h	658	587	522	1019	340	512
Arrive On Green	0.37	0.37	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1774	1583	1827	1553	697	1792
Grp Volume(v), veh/h	520	57	212	516	56	153
Grp Sat Flow(s),veh/h/ln	1774	1583	1827	1553	697	1792
Q Serve(g_s), s	9.1	0.8	3.3	6.0	2.5	2.3
Cycle Q Clear(g_c), s	9.1	0.8	3.3	6.0	5.7	2.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	658	587	522	1019	340	512
V/C Ratio(X)	0.79	0.10	0.41	0.51	0.16	0.30
Avail Cap(c_a), veh/h	1625	1450	837	1287	460	821
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.8	7.2	10.1	3.1	12.4	9.7
Incr Delay (d2), s/veh	2.2	0.1	0.5	0.4	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	0.4	1.7	6.7	0.5	1.2
LnGrp Delay(d),s/veh	12.0	7.2	10.6	3.5	12.6	10.1
LnGrp LOS	B	A	B	A	B	B
Approach Vol, veh/h	577		728			209
Approach Delay, s/veh	11.5		5.5			10.8
Approach LOS	B		A			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				16.0		19.0		16.0
Change Period (Y+Rc), s				6.0		6.0		6.0
Max Green Setting (Gmax), s				16.0		32.0		16.0
Max Q Clear Time (g_c+I1), s				7.7		11.1		8.0
Green Ext Time (p_c), s				0.6		1.8		2.0

Intersection Summary	
HCM 2010 Ctrl Delay	8.5
HCM 2010 LOS	A

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	281	1297	412	572	1530	224	403	89	473	563	91	226
Future Volume (veh/h)	281	1297	412	572	1530	224	403	89	473	563	91	226
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1810	1810	1810	1863	1863	1863	1810	1810	1810
Adj Flow Rate, veh/h	296	1365	434	602	1611	236	424	94	498	593	96	238
Adj No. of Lanes	2	3	1	2	3	1	2	1	1	2	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	5	5	5	2	2	2	5	5	5
Cap, veh/h	310	1271	618	568	1630	769	482	317	538	568	362	446
Arrive On Green	0.09	0.25	0.25	0.17	0.33	0.33	0.14	0.17	0.17	0.17	0.20	0.20
Sat Flow, veh/h	3442	5085	1583	3343	4940	1538	3442	1863	1583	3343	1810	1538
Grp Volume(v), veh/h	296	1365	434	602	1611	236	424	94	498	593	96	238
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1672	1647	1538	1721	1863	1583	1672	1810	1538
Q Serve(g_s), s	8.6	25.0	23.0	17.0	32.4	9.1	12.1	4.4	17.0	17.0	4.5	13.0
Cycle Q Clear(g_c), s	8.6	25.0	23.0	17.0	32.4	9.1	12.1	4.4	17.0	17.0	4.5	13.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	310	1271	618	568	1630	769	482	317	538	568	362	446
V/C Ratio(X)	0.96	1.07	0.70	1.06	0.99	0.31	0.88	0.30	0.93	1.04	0.27	0.53
Avail Cap(c_a), veh/h	310	1271	618	568	1630	769	482	317	538	568	362	446
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.3	37.5	25.6	41.5	33.3	14.8	42.2	36.3	31.8	41.5	33.8	29.8
Incr Delay (d2), s/veh	39.3	47.5	3.6	54.4	19.5	0.2	16.9	0.5	22.0	49.5	0.4	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	17.3	10.6	12.1	17.6	3.9	6.8	2.3	16.4	11.7	2.3	5.6
LnGrp Delay(d),s/veh	84.6	85.0	29.2	95.9	52.8	15.0	59.1	36.8	53.8	91.0	34.2	31.1
LnGrp LOS	F	F	C	F	D	B	E	D	D	F	C	C
Approach Vol, veh/h		2095			2449			1016			927	
Approach Delay, s/veh		73.4			59.7			54.4			69.7	
Approach LOS		E			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	23.0	23.0	31.0	20.0	26.0	15.0	39.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	17.0	17.0	17.0	25.0	14.0	20.0	9.0	33.0
Max Q Clear Time (g_c+I1), s	19.0	19.0	19.0	27.0	14.1	15.0	10.6	34.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	64.8
HCM 2010 LOS	E

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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	1464	1921	0	270	390
Future Volume (veh/h)	0	1464	1921	0	270	390
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1827	0	1863	1863
Adj Flow Rate, veh/h	0	1541	2022	0	284	0
Adj No. of Lanes	0	2	2	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	4	0	2	2
Cap, veh/h	0	2377	2331	0	323	288
Arrive On Green	0.00	0.67	0.67	0.00	0.18	0.00
Sat Flow, veh/h	0	3725	3654	0	1774	1583
Grp Volume(v), veh/h	0	1541	2022	0	284	0
Grp Sat Flow(s),veh/h/ln	0	1770	1736	0	1774	1583
Q Serve(g_s), s	0.0	20.8	37.6	0.0	12.8	0.0
Cycle Q Clear(g_c), s	0.0	20.8	37.6	0.0	12.8	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2377	2331	0	323	288
V/C Ratio(X)	0.00	0.65	0.87	0.00	0.88	0.00
Avail Cap(c_a), veh/h	0	2631	2581	0	368	328
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	7.8	10.6	0.0	32.7	0.0
Incr Delay (d2), s/veh	0.0	0.5	3.2	0.0	19.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	10.2	18.7	0.0	8.0	0.0
LnGrp Delay(d),s/veh	0.0	8.3	13.8	0.0	51.9	0.0
LnGrp LOS		A	B		D	
Approach Vol, veh/h		1541	2022		284	
Approach Delay, s/veh		8.3	13.8		51.9	
Approach LOS		A	B		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				61.1		20.9		61.1
Change Period (Y+Rc), s				6.0		6.0		6.0
Max Green Setting (Gmax), s				61.0		17.0		61.0
Max Q Clear Time (g_c+I1), s				22.8		14.8		39.6
Green Ext Time (p_c), s				15.0		0.2		15.5

Intersection Summary	
HCM 2010 Ctrl Delay	14.4
HCM 2010 LOS	B

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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	201	1242	2015	302	0	0
Future Volume (veh/h)	201	1242	2015	302	0	0
Number	7	4	8	18		
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863		
Adj Flow Rate, veh/h	212	1307	2121	318		
Adj No. of Lanes	2	2	2	1		
Peak Hour Factor	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2		
Cap, veh/h	318	3201	2536	1134		
Arrive On Green	0.09	0.90	0.72	0.72		
Sat Flow, veh/h	3442	3632	3632	1583		
Grp Volume(v), veh/h	212	1307	2121	318		
Grp Sat Flow(s),veh/h/ln	1721	1770	1770	1583		
Q Serve(g_s), s	3.7	3.5	26.6	4.5		
Cycle Q Clear(g_c), s	3.7	3.5	26.6	4.5		
Prop In Lane	1.00			1.00		
Lane Grp Cap(c), veh/h	318	3201	2536	1134		
V/C Ratio(X)	0.67	0.41	0.84	0.28		
Avail Cap(c_a), veh/h	494	3609	2763	1236		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	27.6	0.5	6.3	3.2		
Incr Delay (d2), s/veh	2.4	0.1	2.2	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.9	1.5	13.2	2.0		
LnGrp Delay(d),s/veh	30.0	0.5	8.5	3.3		
LnGrp LOS	C	A	A	A		
Approach Vol, veh/h		1519	2439			
Approach Delay, s/veh		4.6	7.8			
Approach LOS		A	A			

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4			7	8
Phs Duration (G+Y+Rc), s				62.8			11.8	51.0
Change Period (Y+Rc), s				6.0			6.0	6.0
Max Green Setting (Gmax), s				64.0			9.0	49.0
Max Q Clear Time (g_c+I1), s				5.5			5.7	28.6
Green Ext Time (p_c), s				12.5			0.2	16.4

Intersection Summary	
HCM 2010 Ctrl Delay	6.6
HCM 2010 LOS	A

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	787	902	447	161	851	232	567	57	274	176	64	834
Future Volume (veh/h)	787	902	447	161	851	232	567	57	274	176	64	834
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1810	1810	1900
Adj Flow Rate, veh/h	828	949	0	169	896	244	597	60	288	185	67	878
Adj No. of Lanes	2	3	1	1	3	0	2	1	1	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	5	5	5
Cap, veh/h	660	1356	422	281	664	180	430	683	581	506	35	457
Arrive On Green	0.19	0.27	0.00	0.09	0.17	0.17	0.13	0.37	0.37	0.08	0.32	0.32
Sat Flow, veh/h	3442	5085	1583	1774	3982	1080	3442	1863	1583	1723	110	1444
Grp Volume(v), veh/h	828	949	0	169	762	378	597	60	288	185	0	945
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1774	1695	1672	1721	1863	1583	1723	0	1555
Q Serve(g_s), s	23.0	20.2	0.0	9.4	20.0	20.0	15.0	2.5	16.9	8.8	0.0	38.0
Cycle Q Clear(g_c), s	23.0	20.2	0.0	9.4	20.0	20.0	15.0	2.5	16.9	8.8	0.0	38.0
Prop In Lane	1.00		1.00	1.00		0.65	1.00		1.00	1.00		0.93
Lane Grp Cap(c), veh/h	660	1356	422	281	565	279	430	683	581	506	0	492
V/C Ratio(X)	1.26	0.70	0.00	0.60	1.35	1.36	1.39	0.09	0.50	0.37	0.00	1.92
Avail Cap(c_a), veh/h	660	1356	422	281	565	279	430	683	581	506	0	492
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	48.5	39.7	0.0	36.9	50.0	50.0	52.5	24.9	29.4	24.9	0.0	41.0
Incr Delay (d2), s/veh	127.0	1.6	0.0	3.6	168.5	181.7	188.3	0.3	3.0	0.4	0.0	421.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.5	9.6	0.0	4.8	22.6	23.3	18.4	1.3	7.8	4.2	0.0	73.9
LnGrp Delay(d),s/veh	175.5	41.3	0.0	40.5	218.5	231.7	240.8	25.1	32.4	25.3	0.0	462.3
LnGrp LOS	F	D		D	F	F	F	C	C	C		F
Approach Vol, veh/h		1777			1309			945			1130	
Approach Delay, s/veh		103.8			199.3			163.6			390.8	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	50.0	17.0	38.0	21.0	44.0	29.0	26.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	9.0	44.0	11.0	32.0	15.0	38.0	23.0	20.0
Max Q Clear Time (g_c+I1), s	10.8	18.9	11.4	22.2	17.0	40.0	25.0	22.0
Green Ext Time (p_c), s	0.0	1.3	0.0	4.2	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	201.8
HCM 2010 LOS	F

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	843	527	364	550	654	287
Future Volume (veh/h)	843	527	364	550	654	287
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	887	555	383	579	688	302
Adj No. of Lanes	3	1	2	3	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1896	590	490	3015	866	398
Arrive On Green	0.37	0.37	0.14	0.59	0.25	0.25
Sat Flow, veh/h	5253	1583	3442	5253	3442	1583
Grp Volume(v), veh/h	887	555	383	579	688	302
Grp Sat Flow(s),veh/h/ln	1695	1583	1721	1695	1721	1583
Q Serve(g_s), s	10.2	26.1	8.3	4.0	14.4	13.6
Cycle Q Clear(g_c), s	10.2	26.1	8.3	4.0	14.4	13.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1896	590	490	3015	866	398
V/C Ratio(X)	0.47	0.94	0.78	0.19	0.79	0.76
Avail Cap(c_a), veh/h	1911	595	714	3361	1204	554
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.4	23.4	31.9	7.2	27.0	26.7
Incr Delay (d2), s/veh	0.2	23.1	3.5	0.0	2.6	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	15.0	4.2	1.9	7.1	6.4
LnGrp Delay(d),s/veh	18.6	46.4	35.4	7.2	29.6	30.6
LnGrp LOS	B	D	D	A	C	C
Approach Vol, veh/h	1442			962	990	
Approach Delay, s/veh	29.3			18.5	29.9	
Approach LOS	C			B	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	17.0	34.8				51.7		25.4
Change Period (Y+Rc), s	6.0	6.0				6.0		6.0
Max Green Setting (Gmax), s	16.0	29.0				51.0		27.0
Max Q Clear Time (g_c+I1), s	10.3	28.1				6.0		16.4
Green Ext Time (p_c), s	0.7	0.7				4.2		3.0

Intersection Summary	
HCM 2010 Ctrl Delay	26.4
HCM 2010 LOS	C

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Intersection	
Int Delay, s/veh	137.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	138	643	112	107	401	63	161	29	187	84	7	145
Future Vol, veh/h	138	643	112	107	401	63	161	29	187	84	7	145
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	250	-	-	165	-	-	100	-	20
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	7	7	7	6	6	6	2	2	2	8	8	8
Mvmt Flow	145	677	118	113	422	66	169	31	197	88	7	153

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	488	0	0	795	0	0	1467	1740	398	1325	1766	244
Stage 1	-	-	-	-	-	-	1026	1026	-	681	681	-
Stage 2	-	-	-	-	-	-	441	714	-	644	1085	-
Critical Hdwy	4.24	-	-	4.22	-	-	7.54	6.54	6.94	7.66	6.66	7.06
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.66	5.66	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.66	5.66	-
Follow-up Hdwy	2.27	-	-	2.26	-	-	3.52	4.02	3.32	3.58	4.08	3.38
Pot Cap-1 Maneuver	1037	-	-	797	-	-	~ 89	86	601	108	78	739
Stage 1	-	-	-	-	-	-	251	310	-	393	434	-
Stage 2	-	-	-	-	-	-	565	433	-	414	278	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1037	-	-	797	-	-	~ 51	63	601	~ 37	58	739
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 51	63	-	~ 37	58	-
Stage 1	-	-	-	-	-	-	216	267	-	338	372	-
Stage 2	-	-	-	-	-	-	377	372	-	212	239	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	1.9	$ 550.5	$ 316.9
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	51	280	1037	-	-	797	-	-	37	58	739
HCM Lane V/C Ratio	3.323	0.812	0.14	-	-	0.141	-	-	2.39	0.127	0.207
HCM Control Delay (s)	$ 1213.7	56.1	9	-	-	10.3	-	-	$ 864.9	75.9	11.1
HCM Lane LOS	F	F	A	-	-	B	-	-	F	F	B
HCM 95th %tile Q(veh)	18.3	6.5	0.5	-	-	0.5	-	-	9.8	0.4	0.8

Notes

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

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Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	870	96	182	906	101	342
Future Volume (veh/h)	870	96	182	906	101	342
Number	1	16	8	18	7	4
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1727	1727	1743	1743
Adj Flow Rate, veh/h	916	101	192	954	106	360
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	10	10	9	9
Cap, veh/h	956	853	557	1265	192	562
Arrive On Green	0.54	0.54	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1774	1583	1727	1468	457	1743
Grp Volume(v), veh/h	916	101	192	954	106	360
Grp Sat Flow(s),veh/h/ln	1774	1583	1727	1468	457	1743
Q Serve(g_s), s	42.7	2.7	7.4	22.3	20.0	15.3
Cycle Q Clear(g_c), s	42.7	2.7	7.4	22.3	27.3	15.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	956	853	557	1265	192	562
V/C Ratio(X)	0.96	0.12	0.34	0.75	0.55	0.64
Avail Cap(c_a), veh/h	1022	912	557	1265	192	562
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.1	9.8	22.4	2.4	32.8	25.1
Incr Delay (d2), s/veh	18.3	0.1	0.4	2.6	3.4	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	25.5	1.2	3.6	26.9	2.7	7.7
LnGrp Delay(d),s/veh	37.3	9.9	22.8	5.0	36.2	27.5
LnGrp LOS	D	A	C	A	D	C
Approach Vol, veh/h	1017		1146			466
Approach Delay, s/veh	34.6		8.0			29.5
Approach LOS	C		A			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				34.0		52.8		34.0
Change Period (Y+Rc), s				6.0		6.0		6.0
Max Green Setting (Gmax), s				28.0		50.0		28.0
Max Q Clear Time (g_c+I1), s				29.3		44.7		24.3
Green Ext Time (p_c), s				0.0		2.1		2.0

Intersection Summary	
HCM 2010 Ctrl Delay	22.1
HCM 2010 LOS	C

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	501	731	364	129	690	141	147	34	64	144	38	430
Future Volume (veh/h)	501	731	364	129	690	141	147	34	64	144	38	430
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1845	1845	1845	1863	1863	1863
Adj Flow Rate, veh/h	527	769	0	136	726	148	155	36	67	152	40	453
Adj No. of Lanes	2	3	1	1	3	1	2	1	1	1	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	3	3	3	2	2	2
Cap, veh/h	631	1525	590	381	1019	469	248	280	369	454	326	998
Arrive On Green	0.18	0.30	0.00	0.08	0.20	0.20	0.07	0.15	0.15	0.10	0.18	0.18
Sat Flow, veh/h	3442	5085	1583	1774	5085	1583	3408	1845	1568	1774	1863	2787
Grp Volume(v), veh/h	527	769	0	136	726	148	155	36	67	152	40	453
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1774	1695	1583	1704	1845	1568	1774	1863	1393
Q Serve(g_s), s	9.6	8.1	0.0	3.9	8.7	4.7	2.9	1.1	2.2	4.6	1.2	8.1
Cycle Q Clear(g_c), s	9.6	8.1	0.0	3.9	8.7	4.7	2.9	1.1	2.2	4.6	1.2	8.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	631	1525	590	381	1019	469	248	280	369	454	326	998
V/C Ratio(X)	0.84	0.50	0.00	0.36	0.71	0.32	0.63	0.13	0.18	0.33	0.12	0.45
Avail Cap(c_a), veh/h	687	1562	602	478	1250	541	471	510	565	529	515	1281
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.6	18.8	0.0	18.1	24.3	17.8	29.3	23.9	19.9	20.2	22.6	16.0
Incr Delay (d2), s/veh	8.3	0.3	0.0	0.6	1.5	0.4	2.6	0.2	0.2	0.4	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	3.8	0.0	1.9	4.2	2.1	1.4	0.6	1.0	2.3	0.6	3.1
LnGrp Delay(d),s/veh	33.9	19.1	0.0	18.7	25.8	18.2	31.9	24.1	20.1	20.6	22.8	16.3
LnGrp LOS	C	B		B	C	B	C	C	C	C	C	B
Approach Vol, veh/h		1296			1010			258			645	
Approach Delay, s/veh		25.1			23.7			27.7			17.7	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.2	15.9	11.4	25.5	10.7	17.4	17.9	19.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	9.0	18.0	9.0	20.0	9.0	18.0	13.0	16.0
Max Q Clear Time (g_c+I1), s	6.6	4.2	5.9	10.1	4.9	10.1	11.6	10.7
Green Ext Time (p_c), s	0.1	0.3	0.1	3.4	0.2	1.3	0.3	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	23.4
HCM 2010 LOS	C

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	234	93	121	436	57	77	11	93	45	27	127
Future Volume (veh/h)	109	234	93	121	436	57	77	11	93	45	27	127
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1696	1696	1900	1845	1845	1900	1696	1696	1900	1667	1667	1667
Adj Flow Rate, veh/h	115	246	98	127	459	60	81	12	98	47	28	134
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	12	12	12	3	3	3	12	12	12	14	14	14
Cap, veh/h	342	476	184	412	664	86	398	25	207	330	230	196
Arrive On Green	0.08	0.21	0.21	0.08	0.21	0.21	0.07	0.16	0.16	0.05	0.14	0.14
Sat Flow, veh/h	1616	2272	881	1757	3120	406	1616	160	1306	1587	1667	1417
Grp Volume(v), veh/h	115	172	172	127	257	262	81	0	110	47	28	134
Grp Sat Flow(s),veh/h/ln	1616	1612	1541	1757	1752	1773	1616	0	1466	1587	1667	1417
Q Serve(g_s), s	2.6	4.6	4.8	2.6	6.5	6.6	2.0	0.0	3.3	1.2	0.7	4.3
Cycle Q Clear(g_c), s	2.6	4.6	4.8	2.6	6.5	6.6	2.0	0.0	3.3	1.2	0.7	4.3
Prop In Lane	1.00		0.57	1.00		0.23	1.00		0.89	1.00		1.00
Lane Grp Cap(c), veh/h	342	337	323	412	373	377	398	0	232	330	230	196
V/C Ratio(X)	0.34	0.51	0.53	0.31	0.69	0.69	0.20	0.00	0.47	0.14	0.12	0.68
Avail Cap(c_a), veh/h	513	536	512	591	583	590	589	0	487	550	554	471
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.5	16.8	16.9	13.2	17.5	17.5	15.9	0.0	18.4	16.5	18.2	19.7
Incr Delay (d2), s/veh	0.6	1.2	1.4	0.4	2.3	2.3	0.2	0.0	1.5	0.2	0.2	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.1	2.1	1.3	3.4	3.4	0.9	0.0	1.4	0.5	0.3	1.9
LnGrp Delay(d),s/veh	14.1	18.0	18.3	13.6	19.8	19.8	16.2	0.0	19.9	16.7	18.4	23.9
LnGrp LOS	B	B	B	B	B	B	B		B	B	B	C
Approach Vol, veh/h		459			646			191			209	
Approach Delay, s/veh		17.1			18.6			18.3			21.5	
Approach LOS		B			B			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	13.6	10.1	16.1	9.3	12.7	9.9	16.2
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	9.0	16.0	9.0	16.0	9.0	16.0	9.0	16.0
Max Q Clear Time (g_c+I1), s	3.2	5.3	4.6	6.8	4.0	6.3	4.6	8.6
Green Ext Time (p_c), s	0.0	0.3	0.1	1.2	0.1	0.3	0.1	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	18.5
HCM 2010 LOS	B

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	787	902	447	161	851	232	567	57	274	176	64	834
Future Volume (veh/h)	787	902	447	161	851	232	567	57	274	176	64	834
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1810	1810	1810
Adj Flow Rate, veh/h	828	949	0	169	896	244	597	60	288	185	67	878
Adj No. of Lanes	2	3	1	1	3	1	2	1	1	1	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	5	5	5
Cap, veh/h	803	1589	776	346	904	457	612	394	491	415	261	1023
Arrive On Green	0.23	0.31	0.00	0.10	0.18	0.18	0.18	0.21	0.21	0.11	0.14	0.14
Sat Flow, veh/h	3442	5085	1583	1774	5085	1583	3442	1863	1583	1723	1810	2707
Grp Volume(v), veh/h	828	949	0	169	896	244	597	60	288	185	67	878
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1774	1695	1583	1721	1863	1583	1723	1810	1354
Q Serve(g_s), s	21.0	14.2	0.0	6.9	15.8	11.7	15.5	2.4	13.8	8.1	3.0	13.0
Cycle Q Clear(g_c), s	21.0	14.2	0.0	6.9	15.8	11.7	15.5	2.4	13.8	8.1	3.0	13.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	803	1589	776	346	904	457	612	394	491	415	261	1023
V/C Ratio(X)	1.03	0.60	0.00	0.49	0.99	0.53	0.98	0.15	0.59	0.45	0.26	0.86
Avail Cap(c_a), veh/h	803	1589	776	427	904	457	612	394	491	416	261	1023
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.5	26.2	0.0	26.1	36.9	26.9	36.8	28.9	26.2	28.0	34.2	25.8
Incr Delay (d2), s/veh	40.0	0.6	0.0	1.1	27.7	1.2	30.2	0.8	5.1	0.8	2.4	9.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.4	6.7	0.0	3.4	9.7	5.2	9.9	1.3	6.7	3.9	1.6	11.3
LnGrp Delay(d),s/veh	74.5	26.8	0.0	27.1	64.6	28.1	67.0	29.7	31.2	28.7	36.6	35.1
LnGrp LOS	F	C		C	E	C	E	C	C	C	D	D
Approach Vol, veh/h		1777			1309			945			1130	
Approach Delay, s/veh		49.0			53.0			53.7			34.1	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	25.0	14.9	34.1	22.0	19.0	27.0	22.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	10.0	19.0	13.0	24.0	16.0	13.0	21.0	16.0
Max Q Clear Time (g_c+I1), s	10.1	15.8	8.9	16.2	17.5	15.0	23.0	17.8
Green Ext Time (p_c), s	0.0	0.4	0.2	3.6	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	47.6
HCM 2010 LOS	D

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	138	643	112	107	401	63	161	29	187	84	7	145
Future Volume (veh/h)	138	643	112	107	401	63	161	29	187	84	7	145
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1776	1776	1900	1792	1792	1900	1863	1863	1900	1759	1759	1759
Adj Flow Rate, veh/h	145	677	118	113	422	66	169	31	197	88	7	153
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	7	7	7	6	6	6	2	2	2	8	8	8
Cap, veh/h	386	786	137	278	759	118	478	40	251	281	241	205
Arrive On Green	0.09	0.27	0.27	0.07	0.26	0.26	0.11	0.18	0.18	0.06	0.14	0.14
Sat Flow, veh/h	1691	2874	500	1707	2955	459	1774	220	1397	1675	1759	1495
Grp Volume(v), veh/h	145	397	398	113	242	246	169	0	228	88	7	153
Grp Sat Flow(s),veh/h/ln	1691	1687	1687	1707	1703	1711	1774	0	1616	1675	1759	1495
Q Serve(g_s), s	3.6	13.1	13.1	2.8	7.2	7.3	4.7	0.0	7.9	2.6	0.2	5.8
Cycle Q Clear(g_c), s	3.6	13.1	13.1	2.8	7.2	7.3	4.7	0.0	7.9	2.6	0.2	5.8
Prop In Lane	1.00		0.30	1.00		0.27	1.00		0.86	1.00		1.00
Lane Grp Cap(c), veh/h	386	461	461	278	438	440	478	0	291	281	241	205
V/C Ratio(X)	0.38	0.86	0.86	0.41	0.55	0.56	0.35	0.00	0.78	0.31	0.03	0.75
Avail Cap(c_a), veh/h	497	490	490	418	494	497	559	0	442	430	481	409
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.3	20.2	20.2	15.7	18.8	18.9	18.4	0.0	22.9	19.9	21.9	24.3
Incr Delay (d2), s/veh	0.6	13.9	14.1	1.0	1.1	1.1	0.4	0.0	5.1	0.6	0.0	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	7.9	7.9	1.4	3.5	3.6	2.3	0.0	3.9	1.2	0.1	2.7
LnGrp Delay(d),s/veh	14.9	34.2	34.3	16.6	19.9	20.0	18.9	0.0	28.1	20.6	21.9	29.6
LnGrp LOS	B	C	C	B	B	B	B		C	C	C	C
Approach Vol, veh/h		940			601			397			248	
Approach Delay, s/veh		31.2			19.3			24.2			26.2	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	16.5	10.2	22.0	12.3	14.0	11.2	21.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	9.0	16.0	9.0	17.0	9.0	16.0	9.0	17.0
Max Q Clear Time (g_c+I1), s	4.6	9.9	4.8	15.1	6.7	7.8	5.6	9.3
Green Ext Time (p_c), s	0.1	0.6	0.1	0.9	0.1	0.3	0.1	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	26.1
HCM 2010 LOS	C

THOMAS & HUTTON

REZONING APPLICATION

SHEEP ISLAND
PLANNED UNIT DEVELOPMENT (PUD)

EXHIBIT I
Development Schedule

J – 27603

March 2020

thomasandhutton.com

Estimated Development Schedule for the Sheep Island PUD

Phases of Construction and Development

Sheep Island PUD will have a build-out program which should take approximately 20 years. The timing of development within the Sheep Island PUD will be very much affected by the health of the national and local economies, as well as the demand for various housing types for the region. It is extremely difficult, if not impossible, to accurately project timing of future phases of development and lot demand. The property owner has provided the following estimates which are based on information believed to be reasonable at this time. The estimates are subject to change substantially, from time to time, based on market conditions, the supply of competing lots within the area, and other factors not under the control of the property owner.

A. Initial Construction 2020

B. <u>2021 – 2030</u>

- +/- 500 Single family attached and/or detached homes
- +/- 250,000 SF of Commercial/Light Industrial

C. <u>2030 – 2040</u>

- +/- 200 Single family attached and/or detached homes
- +/- 500,000 SF of Commercial/Light Industrial

THOMAS & HUTTON

REZONING APPLICATION

SHEEP ISLAND
PLANNED UNIT DEVELOPMENT (PUD)

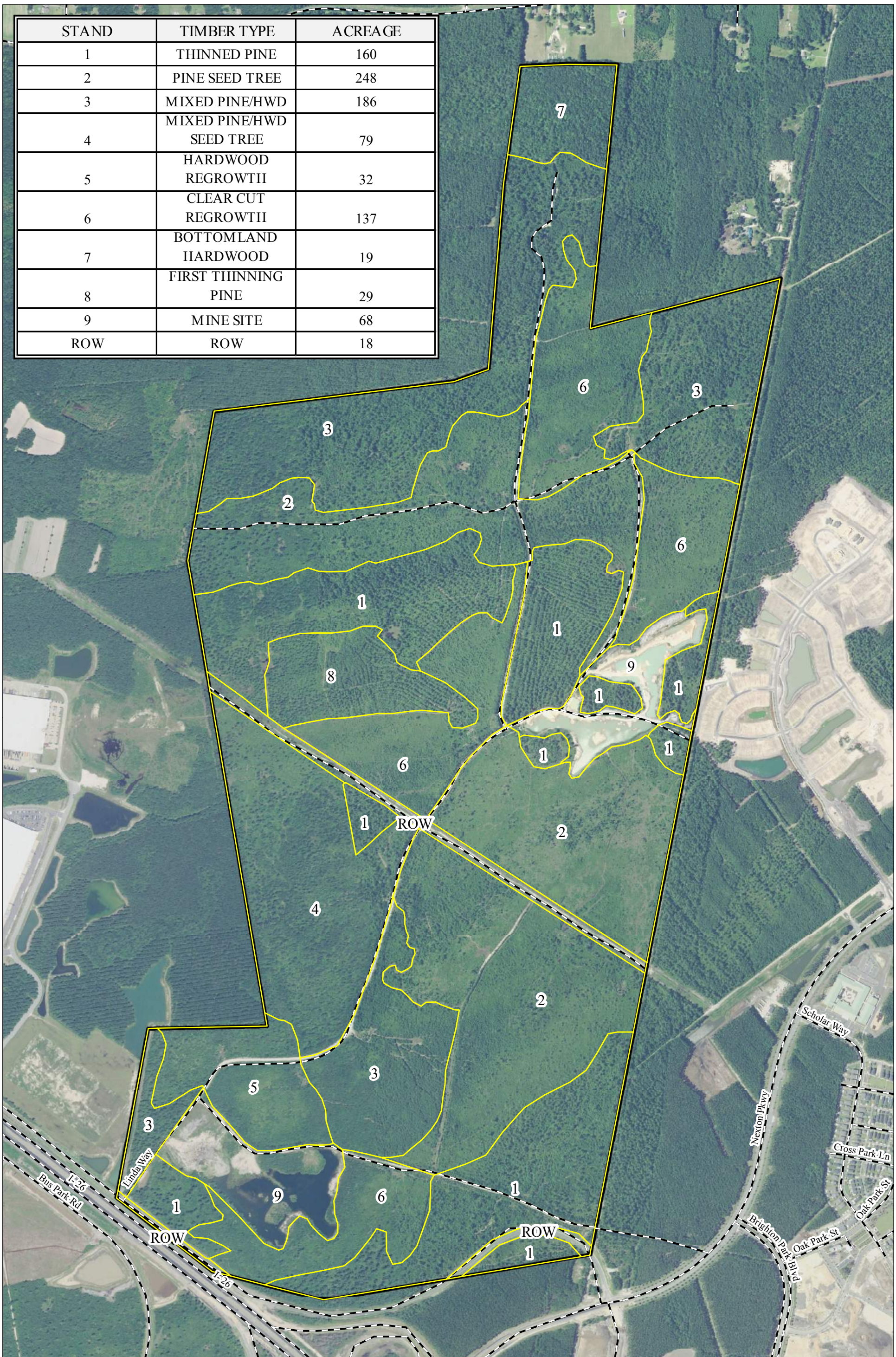
EXHIBIT J
Tree Survey

J – 27603

March 2020

thomasandhutton.com

STAND	TIMBER TYPE	ACREAGE
1	THINNED PINE	160
2	PINE SEED TREE	248
3	MIXED PINE/HWD	186
4	MIXED PINE/HWD SEED TREE	79
5	HARDWOOD REGROWTH	32
6	CLEAR CUT REGROWTH	137
7	BOTTOMLAND HARDWOOD	19
8	FIRST THINNING PINE	29
9	MINE SITE	68
ROW	ROW	18



EXTERNAL SOURCES: NAIP 2017 TRUE COLOR AERIAL, BERKELEY COUNTY GIS PARCEL, U.S. CENSUS ROADS

Created By: Stephen Bennett
Date Created: January 29, 2019
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http://www.sabinc.net

Disclaimer: This map is a graphic representation of data obtained from various sources. All efforts have been made to warrant the accuracy of this map. However, Sabine & Waters, Inc. disclaims all responsibility and liability for the use of this map.

REVISED: 4/23/2019

STANDS MAP
SHEEP ISLAND TREE SURVEY
BERKELEY COUNTY, SC

0 850 1,700
Feet

LEGEND

- PROPERTY BOUNDARY: +/- 976 AC
- STANDS
- ROADS

Stand Number: 1

Area (acres): 160.0

Stand ID: 1

#Points: 14

4/15/19

Loblolly Pine

	DBH	Basal Area Per Acre	# Trees Per Acre	Volume 2 Per Acre	Total Basal Area	Total # Trees	Total Volume 2
	inches	*sq. ft.*	*#*	*Tons*	*sq. ft.*	*#*	*Tons*
	6	0.7	3.4	0.3	114.3	545.1	48.5
	7	1.4	5.1	0.6	228.6	819.9	93.0
	8	1.4	4.1	0.7	228.6	654.8	115.4
	9	2.1	4.8	1.1	342.9	767.7	173.2
	10	2.1	3.8	1.1	342.9	601.4	179.8
	11	10.7	15.6	5.7	1,714.3	2,500.6	910.6
	12	2.9	3.6	1.6	457.1	573.6	257.5
	13	3.6	3.8	1.8	571.4	604.4	295.3
	14	2.9	2.7	2.1	457.1	427.8	331.7
	15	0.7	0.6	0.4	114.3	89.5	61.5
	16	3.6	2.5	2.7	571.4	403.3	437.0
	17	1.4	0.9	1.2	228.6	148.5	192.7
	18	1.4	0.8	1.8	228.6	133.0	287.6
	22	1.4	0.6	1.6	228.6	89.4	260.8
ALL	10.90	36.4	52.2	22.8	5,828.6	8,359.1	3,644.6

Longleaf Pine

	DBH	Basal Area Per Acre	# Trees Per Acre	Volume 2 Per Acre	Total Basal Area	Total # Trees	Total Volume 2
	inches	*sq. ft.*	*#*	*Tons*	*sq. ft.*	*#*	*Tons*
	15	0.7	0.6	0.5	114.3	98.3	75.4
ALL	14.60	0.7	0.6	0.5	114.3	98.3	75.4

Sweetgum

	DBH	Basal Area Per Acre	# Trees Per Acre	Volume 2 Per Acre	Total Basal Area	Total # Trees	Total Volume 2
	inches	*sq. ft.*	*#*	*Tons*	*sq. ft.*	*#*	*Tons*
	6	0.7	3.1	0.3	114.3	495.9	47.6
	8	0.7	2.0	0.4	114.3	327.4	69.1
ALL	7.10	1.4	5.1	0.7	228.6	823.4	116.7

Stand Number: 2

Area (acres): 248.0

Stand ID: 2

#Points: 23

4/15/19

Black Gum

	DBH	Basal Area Per Acre	# Trees Per Acre	Volume 2 Per Acre	Total Basal Area	Total # Trees	Total Volume 2
	i	*sq. ft.*	*#*	*Tons*	*sq. ft.*	*#*	*Tons*
	6	0.4	2.1	0.1	107.8	531.3	35.6
ALL	6.10	0.4	2.1	0.1	107.8	531.3	35.6

Loblolly Pine

	DBH	Basal Area Per Acre	# Trees Per Acre	Volume 2 Per Acre	Total Basal Area	Total # Trees	Total Volume 2
	inches	*sq. ft.*	*#*	*Tons*	*sq. ft.*	*#*	*Tons*
	6	1.3	6.1	0.3	323.5	1,512.0	75.7
	7	0.9	3.2	0.3	215.7	786.2	83.5
	8	2.2	6.2	0.7	539.1	1,533.3	162.2
	9	0.9	2.0	0.3	215.7	483.9	80.5
	10	0.9	1.6	0.3	215.7	393.8	85.2
	11	0.4	0.7	0.2	107.8	166.4	43.3
	12	1.3	1.7	0.6	323.5	419.3	146.2
	13	1.3	1.5	0.8	323.5	365.8	187.0
	15	0.9	0.7	0.5	215.7	176.9	114.6
	16	0.9	0.6	0.4	215.7	154.5	108.7
	17	0.9	0.5	0.6	215.7	129.9	144.9
	18	0.4	0.2	0.2	107.8	58.4	59.4
	20	0.4	0.2	0.3	107.8	49.4	76.8
	21	0.4	0.2	0.3	107.8	44.4	83.4
	26	0.4	0.1	0.4	107.8	29.2	90.3
ALL	9.24	13.5	25.4	6.2	3,342.6	6,303.5	1,541.5

Longleaf Pine

	DBH	Basal Area Per Acre	# Trees Per Acre	Volume 2 Per Acre	Total Basal Area	Total # Trees	Total Volume 2
	inches	*sq. ft.*	*#*	*Tons*	*sq. ft.*	*#*	*Tons*
	8	0.4	1.2	0.2	107.8	294.0	44.7
	11	0.4	0.6	0.3	107.8	160.5	62.5
	12	0.4	0.5	0.2	107.8	128.6	56.1
	13	0.4	0.5	0.2	107.8	115.2	56.0
	14	0.9	0.9	0.5	215.7	212.2	131.4
ALL	11.19	2.6	3.7	1.4	647.0	910.5	350.6

Stand Number: 2

Area (acres): 248.0

Stand ID: 2

#Points: 23

4/15/19

Sweetgum

	DBH	Basal Area Per Acre	# Trees Per Acre	Volume 2 Per Acre	Total Basal Area	Total # Trees	Total Volume 2
	inches	*sq. ft.*	*#*	*Tons*	*sq. ft.*	*#*	*Tons*
	7	0.4	1.5	0.2	107.8	381.4	37.4
	14	0.4	0.4	0.3	107.8	98.0	66.9
ALL	8.63	0.9	1.9	0.4	215.7	479.4	104.3

Stand Number: 3

Area (acres): 186.0

Stand ID: 3

#Points: 23

4/15/19

Black Gum

	DBH	Basal Area Per Acre	# Trees Per Acre	Volume 2 Per Acre	Total Basal Area	Total # Trees	Total Volume 2
	inches	*sq. ft.*	*#*	*Tons*	*sq. ft.*	*#*	*Tons*
	7	0.4	1.7	0.2	80.9	311.4	43.0
	9	0.4	1.1	0.3	80.9	200.5	48.1
	10	0.4	0.8	0.3	80.9	157.6	53.7
	18	0.4	0.3	0.4	80.9	46.8	71.4
ALL	8.70	1.7	3.9	1.2	323.5	716.3	216.2

Loblolly Pine

	DBH	Basal Area Per Acre	# Trees Per Acre	Volume 2 Per Acre	Total Basal Area	Total # Trees	Total Volume 2
	inches	*sq. ft.*	*#*	*Tons*	*sq. ft.*	*#*	*Tons*
	6	1.7	7.8	0.7	323.5	1,451.3	124.8
	7	3.0	11.0	1.3	566.1	2,046.6	242.0
	8	0.9	2.5	0.4	161.7	471.9	70.9
	9	0.9	2.0	0.4	161.7	379.5	67.6
	10	1.7	3.0	0.9	323.5	559.9	173.6
	11	0.9	1.4	0.5	161.7	256.8	99.2
	12	1.7	2.2	1.1	323.5	400.5	196.5
	13	1.7	1.8	1.1	323.5	333.2	208.1
	14	2.2	2.0	1.8	404.3	377.7	339.8
	15	1.7	1.4	1.3	323.5	255.1	233.3
	17	2.2	1.3	1.5	404.3	249.1	284.1
	18	1.7	0.9	1.3	323.5	176.2	243.2
	20	0.4	0.2	0.3	80.9	37.1	63.2
	22	0.9	0.3	0.9	161.7	60.4	164.8
ALL	9.57	21.7	37.9	13.5	4,043.5	7,055.3	2,511.1

Longleaf Pine

	DBH	Basal Area Per Acre	# Trees Per Acre	Volume 2 Per Acre	Total Basal Area	Total # Trees	Total Volume 2
	inches	*sq. ft.*	*#*	*Tons*	*sq. ft.*	*#*	*Tons*
	11	0.4	0.7	0.4	80.9	132.0	69.8
	12	0.4	0.5	0.2	80.9	94.9	46.0
	15	0.4	0.3	0.3	80.9	64.2	55.3
ALL	12.23	1.3	1.6	0.9	242.6	291.0	171.1

Stand Number: 3

Area (acres): 186.0

Stand ID: 3

#Points: 23

4/15/19

Red Maple

	DBH	Basal Area Per Acre	# Trees Per Acre	Volume 2 Per Acre	Total Basal Area	Total # Trees	Total Volume 2
	inches	*sq. ft.*	*#*	*Tons*	*sq. ft.*	*#*	*Tons*
	7	0.9	3.2	0.5	161.7	588.6	92.4
	9	0.4	1.0	0.3	80.9	191.5	58.4
	14	0.4	0.4	0.3	80.9	76.7	63.6
ALL	8.09	1.7	4.6	1.2	323.5	856.8	214.4

Sweetgum

	DBH	Basal Area Per Acre	# Trees Per Acre	Volume 2 Per Acre	Total Basal Area	Total # Trees	Total Volume 2
	inches	*sq. ft.*	*#*	*Tons*	*sq. ft.*	*#*	*Tons*
	7	2.2	7.9	1.0	404.3	1,474.2	179.1
	9	0.9	1.9	0.5	161.7	355.8	89.9
	12	0.4	0.6	0.4	80.9	106.5	71.6
ALL	7.72	3.5	10.4	1.8	647.0	1,936.4	340.5

Water Oak

	DBH	Basal Area Per Acre	# Trees Per Acre	Volume 2 Per Acre	Total Basal Area	Total # Trees	Total Volume 2
	inches	*sq. ft.*	*#*	*Tons*	*sq. ft.*	*#*	*Tons*
	7	1.3	4.5	0.5	242.6	843.1	88.0
	8	0.4	1.3	0.2	80.9	243.7	39.0
	9	0.9	2.0	0.5	161.7	366.6	100.4
	10	2.2	4.1	1.2	404.3	760.8	218.3
	11	0.9	1.2	0.5	161.7	230.3	101.3
	14	0.4	0.4	0.4	80.9	77.9	71.8
ALL	8.93	6.1	13.6	3.3	1,132.2	2,522.5	618.9

Stand Number: 4

Area (acres): 79.0

Stand ID: 4

#Points: 7

4/15/19

Black Gum

	DBH	Basal Area Per Acre	# Trees Per Acre	Volume 2 Per Acre	Total Basal Area	Total # Trees	Total Volume 2
	inches	*sq. ft.*	*#*	*Tons*	*sq. ft.*	*#*	*Tons*
	8	1.4	4.1	0.8	112.9	323.3	60.1
	10	1.4	2.7	1.0	112.9	215.5	82.1
ALL	8.72	2.9	6.8	1.8	225.7	538.8	142.2

Loblolly Pine

	DBH	Basal Area Per Acre	# Trees Per Acre	Volume 2 Per Acre	Total Basal Area	Total # Trees	Total Volume 2
	inches	*sq. ft.*	*#*	*Tons*	*sq. ft.*	*#*	*Tons*
	6	1.4	6.6	0.4	112.9	521.3	33.6
	7	1.4	6.0	0.8	112.9	475.0	62.2
	8	1.4	3.6	0.2	112.9	286.4	18.2
	11	1.4	2.0	0.9	112.9	156.5	67.2
	13	1.4	1.5	0.9	112.9	115.2	71.9
	14	4.3	4.2	3.0	338.6	329.2	238.9
	15	1.4	1.2	0.9	112.9	94.5	72.5
	18	1.4	0.8	1.0	112.9	66.8	79.2
	21	2.9	1.2	2.5	225.7	96.6	197.8
ALL	9.94	17.1	27.1	10.7	1,354.3	2,141.5	841.6

Red Maple

	DBH	Basal Area Per Acre	# Trees Per Acre	Volume 2 Per Acre	Total Basal Area	Total # Trees	Total Volume 2
	inches	*sq. ft.*	*#*	*Tons*	*sq. ft.*	*#*	*Tons*
	8	2.9	7.7	1.6	225.7	608.6	128.2
	9	1.4	3.2	1.2	112.9	255.5	94.5
	10	1.4	2.6	1.2	112.9	202.8	93.5
ALL	8.78	5.7	13.5	4.0	451.4	1,066.9	316.2

Water Oak

	DBH	Basal Area Per Acre	# Trees Per Acre	Volume 2 Per Acre	Total Basal Area	Total # Trees	Total Volume 2
	inches	*sq. ft.*	*#*	*Tons*	*sq. ft.*	*#*	*Tons*
	7	1.4	4.9	0.7	112.9	388.3	53.6
	11	1.4	2.2	0.7	112.9	174.2	55.7
ALL	8.41	2.9	7.1	1.4	225.7	562.4	109.3

Stand Number: 5

Area (acres): 32.0

Stand ID: 5

#Points: 3

4/15/19

Loblolly Pine

	DBH	Basal Area Per Acre	# Trees Per Acre	Volume 2 Per Acre	Total Basal Area	Total # Trees	Total Volume 2
	inches	*sq. ft.*	*#*	*Tons*	*sq. ft.*	*#*	*Tons*
	7	3.3	11.2	0.9	106.7	357.1	28.0
	8	6.7	18.3	2.6	213.3	584.0	82.4
ALL	7.88	10.0	29.4	3.4	320.0	941.2	110.4

Sweetgum

	DBH	Basal Area Per Acre	# Trees Per Acre	Volume 2 Per Acre	Total Basal Area	Total # Trees	Total Volume 2
	inches	*sq. ft.*	*#*	*Tons*	*sq. ft.*	*#*	*Tons*
	7	10.0	33.5	4.2	320.0	1,071.8	133.6
	8	3.3	10.0	2.1	106.7	321.4	67.8
	9	3.3	7.9	2.1	106.7	252.5	68.7
	15	3.3	2.7	2.9	106.7	86.9	92.2
ALL	8.06	20.0	54.1	11.3	640.0	1,732.7	362.4

Stand Number: 6

Area (acres): 137.0

Stand ID: 6

#Points: 16

4/15/19

Loblolly Pine

	DBH	Basal Area Per Acre	# Trees Per Acre	Volume 2 Per Acre	Total Basal Area	Total # Trees	Total Volume 2
	inches	*sq. ft.*	*#*	*Tons*	*sq. ft.*	*#*	*Tons*
	6	0.6	2.7	0.2	85.6	371.6	24.0
	7	1.3	4.6	0.4	171.3	634.1	54.7
	8	3.8	10.6	1.2	513.8	1,459.0	164.4
	9	1.3	2.9	0.4	171.3	392.3	58.5
	10	1.3	2.4	0.5	171.3	333.7	67.6
	11	0.6	0.9	0.4	85.6	122.9	52.8
	17	0.6	0.4	0.4	85.6	51.3	51.7
	20	0.6	0.3	0.5	85.6	40.5	69.0
ALL	8.35	10.0	24.9	4.0	1,370.0	3,405.3	542.8

Longleaf Pine

	DBH	Basal Area Per Acre	# Trees Per Acre	Volume 2 Per Acre	Total Basal Area	Total # Trees	Total Volume 2
	inches	*sq. ft.*	*#*	*Tons*	*sq. ft.*	*#*	*Tons*
	15	1.3	1.0	0.5	171.3	137.7	73.4
ALL	15.10	1.3	1.0	0.5	171.3	137.7	73.4

Sweetgum

	DBH	Basal Area Per Acre	# Trees Per Acre	Volume 2 Per Acre	Total Basal Area	Total # Trees	Total Volume 2
	inches	*sq. ft.*	*#*	*Tons*	*sq. ft.*	*#*	*Tons*
	8	0.6	1.6	0.4	85.6	217.3	56.9
	9	1.3	2.7	1.0	171.3	371.1	131.3
ALL	8.94	1.9	4.3	1.4	256.9	588.4	188.2

Stand Number: 7

Area (acres): 19.0

Stand ID: 7

#Points: 1

4/15/19

Black Gum

	DBH	Basal Area Per Acre	# Trees Per Acre	Volume 2 Per Acre	Total Basal Area	Total # Trees	Total Volume 2
	inches	*sq. ft.*	*#*	*Tons*	*sq. ft.*	*#*	*Tons*
	11	10.0	15.4	10.2	190.0	293.2	192.9
	12	10.0	12.1	5.1	190.0	230.3	96.2
	17	10.0	6.1	9.5	190.0	115.1	181.2
	21	10.0	4.2	10.7	190.0	80.5	202.8
ALL	13.50	40.0	37.8	35.4	760.0	719.0	673.1

Loblolly Pine

	DBH	Basal Area Per Acre	# Trees Per Acre	Volume 2 Per Acre	Total Basal Area	Total # Trees	Total Volume 2
	inches	*sq. ft.*	*#*	*Tons*	*sq. ft.*	*#*	*Tons*
	23	10.0	3.4	9.7	190.0	64.7	184.9
ALL	23.20	10.0	3.4	9.7	190.0	64.7	184.9

Red Maple

	DBH	Basal Area Per Acre	# Trees Per Acre	Volume 2 Per Acre	Total Basal Area	Total # Trees	Total Volume 2
	inches	*sq. ft.*	*#*	*Tons*	*sq. ft.*	*#*	*Tons*
	12	10.0	11.9	5.9	190.0	226.6	112.1
	23	10.0	3.6	10.5	190.0	68.2	199.6
ALL	14.76	20.0	15.5	16.4	380.0	294.8	311.8

Water Oak

	DBH	Basal Area Per Acre	# Trees Per Acre	Volume 2 Per Acre	Total Basal Area	Total # Trees	Total Volume 2
	inches	*sq. ft.*	*#*	*Tons*	*sq. ft.*	*#*	*Tons*
	12	10.0	11.7	4.6	190.0	222.9	87.3
ALL	12.50	10.0	11.7	4.6	190.0	222.9	87.3

Stand Number: 7 Area (acres): 19.0

Stand ID: 7 #Points: 1 4/15/19

White Oak

	DBH	Basal Area Per Acre	# Trees Per Acre	Volume 2 Per Acre	Total Basal Area	Total # Trees	Total Volume 2
	inches	*sq. ft.*	*#*	*Tons*	*sq. ft.*	*#*	*Tons*
	11	10.0	16.3	10.0	190.0	310.0	189.1
	15	10.0	7.7	7.1	190.0	146.9	134.6
ALL	12.14	20.0	24.0	17.0	380.0	456.9	323.8

Yellow-Poplar

	DBH	Basal Area Per Acre	# Trees Per Acre	Volume 2 Per Acre	Total Basal Area	Total # Trees	Total Volume 2
	inches	*sq. ft.*	*#*	*Tons*	*sq. ft.*	*#*	*Tons*
	10	10.0	19.1	10.3	190.0	362.7	196.2
	12	10.0	11.7	5.8	190.0	222.9	110.4
	23	10.0	3.6	13.1	190.0	68.2	248.9
	26	10.0	2.7	12.9	190.0	51.1	245.7
ALL	13.07	40.0	37.1	42.2	760.0	705.0	801.2

Stand Number: 8 Area (acres): 29.0

Stand ID: 8 #Points: 3 4/22/19

Loblolly Pine

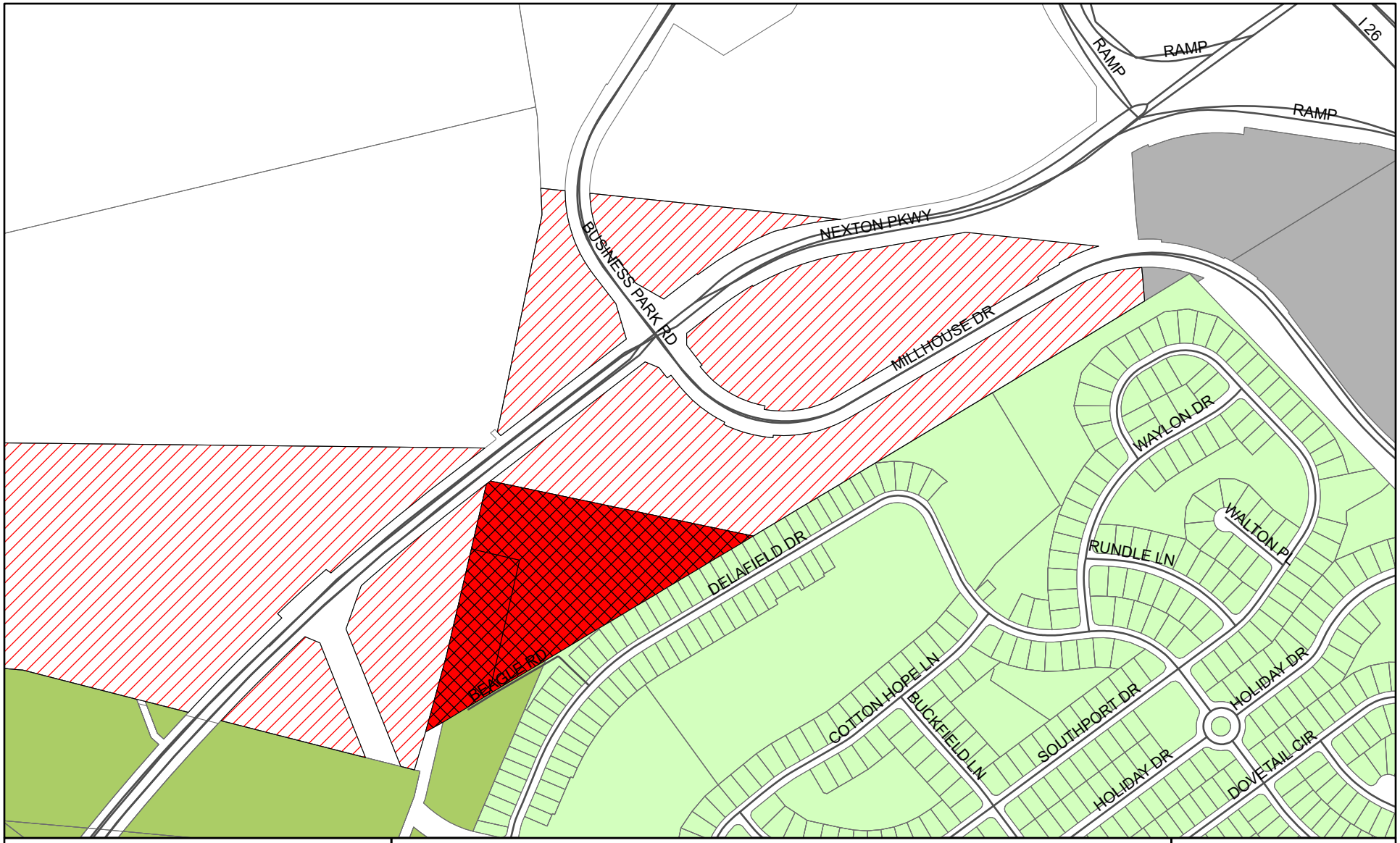
	DBH	Basal Area Per Acre	# Trees Per Acre	Volume 2 Per Acre	Total Basal Area	Total # Trees	Total Volume 2
	inches	*sq. ft.*	*#*	*Tons*	*sq. ft.*	*#*	*Tons*
	6	13.3	63.2	4.3	386.7	1,834.0	123.5
	7	6.7	22.9	2.0	193.3	665.5	58.0
	8	10.0	28.7	4.4	290.0	831.0	126.2
	10	3.3	5.9	1.6	96.7	170.4	47.3
	11	6.7	10.2	3.2	193.3	295.7	94.0
	12	3.3	4.3	1.6	96.7	125.2	45.9
ALL	7.49	43.3	135.2	17.1	1,256.7	3,921.8	494.9

ANNEXATIONS
STAFF REPORT
PLANNING COMMISSION
May 18, 2020

TMS#s: 221-00-00-006 and 007
Location: 1321 Beagle Rd., Beagle Rd., and N. Maple Street,
Description: two lots totaling approximately 10.286 acres
Request: Annexation and Zoning to G-B

The property owners are requesting that the above referenced parcels be annexed into the Town from Berkeley County. The existing zoning in Berkeley County is HI, Heavy Industrial. These two properties are surrounded on two sides by the Rosemary Tract properties that the Commission recommended for annexation and zoning to G-B at the March 16, 2020 meeting.

This property is included in the Town's 'Employment Growth' District within the Town's 2009-2011 Comprehensive Plan and Update as well as on the accompanying Future Land Use Map, and it also falls just outside a Commercial Activity Node. The area also falls inside of the Sheep Island focus area in the 2014 Vision Plan appended to the Comprehensive Plan. That plan proposes a mix of uses, including single-family and multi-family residential, commercial, industrial, and civic uses. Under the G-B "General Business" zoning district, most of these uses would be allowed, with the exception of single-family detached and industrial uses. Based on these findings this request is interpreted by staff to be in conformance with the Town's Comprehensive Plan and is recommended for approval.



Zoning

- AC
- LI
- PUD
- Annexation Request
- Rosemary Tract

Annexation Exhibit - Beagle Road

Disclaimer: This map is a graphic representation of data obtained from various sources. All efforts have been made to warrant the accuracy of this map; however, the Town of Summerville disclaims all representation and liability for the use of this map.

2020

Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere

N

0 0.1 0.2 Mi

TOWN OF SUMMERVILLE
ANNEXATION APPLICATION

1. **OWNER INFORMATION:** Please complete the following application to request that your property be incorporated into the municipal limits of the Town of Summerville. Phone numbers will not be published. All owners of the property sign page two and submit it to the Planning Department. *Required

*Property Owner(s): Thomas A. Limehouse/Robert L. Arrington

*Mailing Address: Box 2005 *Telephone: (843) 270-4443

*City: Summerville *State: SC *Zip: 29484 Email: thewoodlands1906@gmail.com

2. **PROPERTY INFORMATION:** Municipalities must provide the U. S. Justice Department with the population demographics and the land use of each property added to the Town. Write "None" if the property is vacant. Population data is used to create voting districts and does not impact the decision to approve your annexation.

*Property Address: 1321 Beagle Rd Tax Map Number: 221-00-00-007

*Number of Current Residents: Ø *Race of Current Residents: N/A

Current Land Use: Home Future Land Use: Commecial
(i.e. home, bank, carwash, etc.) (i.e. home, bank, carwash, etc.)

Current County Zoning Classification: HI

Requested Zoning Classification: G-B General Business

3. **SUBMIT APPLICATION:** Please submit signed* application and a copy of the recorded plat and recorded deed to:

MAIL: Town of Summerville, 200 S. Main Street, Planning Department

PICKUP: Call the Planning Department at 843.851.4214

STATE OF SOUTH CAROLINA)
) PETITION FOR ANNEXATION
COUNTY OF Dorchester)

TO THE HONORABLE MAYOR AND TOWN COUNCIL OF SUMMERVILLE

WHEREAS, SECTION 5-3-150 (3) Code of laws of South Carolina provides for the annexation of an area or property which is contiguous to a Town by filing with the municipal governing body a petition signed by all persons owning real estate in the area requesting annexation, and

WHEREAS, the undersigned are all persons owning real estate in the area requesting annexation, and

WHEREAS, the area requesting annexation is described as follows, to wit:

SAID PROPERTY, located at 1321 Beagle Road (approximately 2.9 acres) to be annexed is identified by the Berkeley County Assessor's Office as Property Identification Number: TMS # 221-00-00-007 to include, if necessary to establish contiguity, any road, waterway, easement, railroad track, marshland or utility line that intervenes between this property and the municipal limits of the Town of Summerville.

NOW, THEREFORE, the undersigned petition the Town Council of Summerville to annex the above described area into the municipal limits of the Town of Summerville.

Dated this 14th day of April, 2020.

FREEHOLDERS (OWNERS) SIGNED	DATE OF SIGNATURE
(Signature)	4/14/20 (Date)
Thomas A. Limehouse (Print Name)	
4/14/20 (Date)	(Signature)
Robert L Arrington (Print Name)	

TOWN OF SUMMERVILLE
ANNEXATION APPLICATION

1. **OWNER INFORMATION:** Please complete the following application to request that your property be incorporated into the municipal limits of the Town of Summerville. Phone numbers will not be published. All owners of the property sign page two and submit it to the Planning Department.
*Required

*Property Owner(s): Rebecca B Harper / JSCR Investments LLC

*Mailing Address: Box 2005 *Telephone: (843) 270-2443

*City: Summerville *State: SC *Zip: 29484 Email: thewoodlands1906@gmail.com

2. **PROPERTY INFORMATION:** Municipalities must provide the U. S. Justice Department with the population demographics and the land use of each property added to the Town. Write "None" if the property is vacant. Population data is used to create voting districts and does not impact the decision to approve your annexation.

*Property Address: Beagle Road Tax Map Number: 221-00-00-006

*Number of Current Residents: Ø *Race of Current Residents: N/A

Current Land Use: Vacant Land Future Land Use: Commercial
(i.e. home, bank, carwash, etc.) (i.e. home, bank, carwash, etc.)

Current County Zoning Classification: HI

Requested Zoning Classification: G-B General Business

3. **SUBMIT APPLICATION:** Please submit signed* application and a copy of the recorded plat and recorded deed to:

MAIL: Town of Summerville, 200 S. Main Street, Planning Department

PICKUP: Call the Planning Department at 843.851.4214

STATE OF SOUTH CAROLINA)
) PETITION FOR ANNEXATION
COUNTY OF Dorchester)

TO THE HONORABLE MAYOR AND TOWN COUNCIL OF SUMMERVILLE

WHEREAS, SECTION 5-3-150 (3) Code of laws of South Carolina provides for the annexation of an area or property which is contiguous to a Town by filing with the municipal governing body a petition signed by all persons owning real estate in the area requesting annexation, and

WHEREAS, the undersigned are all persons owning real estate in the area requesting annexation, and

WHEREAS, the area requesting annexation is described as follows, to wit:

SAID PROPERTY, located at Beagle Road (approximately 7.3 acres) to be annexed is identified by the Berkeley County Assessor's Office as Property Identification Number: TMS # 221-00-00-006 to include, if necessary to establish contiguity, any road, waterway, easement, railroad track, marshland or utility line that intervenes between this property and the municipal limits of the Town of Summerville.

NOW, THEREFORE, the undersigned petition the Town Council of Summerville to annex the above described area into the municipal limits of the Town of Summerville.

Dated this 14th day of April, 2020

FREEHOLDERS (OWNERS) SIGNED DATE OF SIGNATURE

JSCA INVESTMENTS, LLC / Robert [illegible] member
(Signature)

4/14/20
(Date)

JSCA Investments LLC
(Print Name)

4/14/20
(Date)

[illegible] (Signature)

Rebecca B Harper
(Print Name)

CYNTHIA B FORTE
BERKELEY COUNTY
REGISTER OF DEEDS

Po Box 6122 ~ Moncks Corner, SC 29461 (843) 719-4084

***** THIS PAGE IS PART OF THE INSTRUMENT - DO NOT REMOVE *****

Instrument #:	2019030759		
Receipt Number:	138472	**Return To:**	BRUCE A BERLINSKY
Recorded As:	DEED		ONE CARRIAGE LANE BLDG F
Recorded On:	August 26, 2019		CHARLESTON, SC, 29407
Recorded At:	03:43:17 PM	**Received From:**	BRUCE A BERLINSKY
Recorded By:	LYNETTE SHELTON	**Parties:**	
Book/Page:	RB 3117: 29 - 33	Direct- SCHULZE JR, JOHN WILSON	
Total Pages:	5	Indirect- LIMEHOUSE, THOMAS A	

***** EXAMINED AND CHARGED AS FOLLOWS *****

Recording Fee:	$15.00
Consideration:	$275,000.00
County Tax:	$302.50
State Tax:	$715.00
Tax Charge:	$1,017.50

RECEIVED

AUG 26, 2019

ASSESSOR
BERKELEY COUNTY SC
JANET B. JUROSKO
AUDITOR BERKELEY COUNTY SC

Cynthia B. Forte

Cynthia B Forte - Register of Deeds

Doc: 2019030759
Total Pages: 5

STATE OF SOUTH CAROLINA)
)
COUNTY OF BERKELEY)

TITLE TO REAL ESTATE

KNOW ALL MEN BY THESE PRESENTS, THAT I, **JOHN WILSON SCHULZE, JR.,** in the State aforesaid for/and in consideration of the sum of TWO HUNDRED SEVENTY FIVE THOUSAND and 00/100 DOLLARS ($275,000.00), to me in hand paid at and before the sealing of these presents by **THOMAS A. LIMEHOUSE and ROBERT L. ARRINGTON**, in the State aforesaid the receipt of which is hereby acknowledged, has granted, bargained, sold and released unto the said **THOMAS A. LIMEHOUSE and ROBERT L. ARRINGTON**, their heirs and assigns forever, all of my right, title, and interest, in the following described property:

> ALL that certain piece, parcel or tract of land, with the buildings and improvements thereon, situate, lying and being near Summerville, in Berkeley County, South Carolina, measuring and containing 2.926 acres, and butting, bounding and measuring as follows, to wit: On the Northeast by lands of Charles W. Fredericks and measuring thereon 207.74 feet; On the Southeast by lands of Charles W. Frederick and measuring thereon 515.42 feet; on the South and Southwest by Old Tram Road and measuring thereon 285.92 feet; and On the West and Northwest by Old Road and measuring thereon 711.88 feet.
>
> The above described tract of land is more fully delineated on "PLAT SHOWING PROPERTY OF SANDRA J. SCHULZE ET. AL. LOCATED NEAR SUMMERVILLE BERKELEY COUNTY S.C., Date: Sept. 5, 1990", by Richard J. Rhode, S.C.R.L.S. No. 11366, which said plat is of record in the Office of the RMC for Berkeley County in Plat Cabinet I, Slide 185.
>
> BEING the same property conveyed to the Grantor herein by Deed of Distribution in the Estate of Sandra Joyce Schulze (Berkeley County Probate Case No.: 2018-ES-08-240) dated May 2, 2019, and recorded in the ROD Office for Berkeley County in Book 3012, at Page 925.
>
> TMS No.: 221-00-00-007

Bruce A. Berlinsky
P.O. Box 206
Charleston, SC 29402

GRANTEE'S ADDRESS: P.O. Box 2005
Summerville, SC 29484

TOGETHER with, all and singular, the Rights, Members, Hereditaments and Appurtenances to the said Premises/Property belonging or in anywise incident or appertaining.

TO HAVE AND TO HOLD, all and singular, the said Premises unto the said Grantees, their heirs and assigns forever.

AND the said Grantor does hereby bind himself and his heirs and assigns, executors and administrators, to warrant and forever defend all and singular, the said Premises unto the said Grantees, their heirs and assigns forever, against the said Grantor and his heirs and all persons whomsoever lawfully claiming or to claim the same or any part thereof.

WITNESS our hand and seal this 23rd day of August, in the year of our Lord Two Thousand Nineteen (2019) and in the Two Hundred and Forty Third year of the sovereignty and Independence of the United States of America.

SIGNED, SEALED AND DELIVERED
IN THE PRESENCE OF:

JOHN WILSON SCHULZE, JR.

STATE OF SOUTH CAROLINA)
) ACKNOWLEDGMENT
COUNTY OF CHARLESTON)

I, Susan L. Scott, Notary Public for the State of South Carolina, do hereby certify that JOHN WILSON SCHULZE, JR. personally appeared before me this day and acknowledged the due execution of the foregoing instrument.

Witness my hand and official seal this 23rd day of August, 2019.

Notary Public for South Carolina
My commission expires: 4-18-24

SUSAN L. SCOTT NOTARY PUBLIC SOUTH CAROLINA

STATE OF SOUTH CAROLINA)
COUNTY OF CHARLESTON)

AFFIDAVIT

PERSONALLY appeared before me the undersigned, who being duly sworn, deposes and says:

1. I have read the information on this Affidavit and I understand such information.

2. The property being transferred is located at 2.926 Acres, Summerville, SC, bearing Charleston County Tax Map Number 221-00-00-007 by John Wilson Schulze, Jr. to Thomas A. Limehouse and Robert L. Arrington on August 23, 2019.

3. Check one of the following: ***The DEED is***
   (a)__X___ subject to the deed recording fee as a transfer for consideration paid or to be paid in money or money's worth.
   (b)_____ subject to the deed recording fee as a transfer between a partnership, or other entity and a stockholder, partner, or an owner of the entity, or is a transfer to a trust or as a distribution to a trust beneficiary.
   (c)_____ EXEMPT from the deed recording fee because * (If exempt, please skip items 4-7 and go to item 8 of this affidavit.)

4. Check one of the following if either item 3(a) or item 3(b) above has been checked.
   (a)__X___ The fee is computed on the consideration paid or to be paid money or money's worth in the amount of **$275,000.00**.
   (b)_____ The fee is computed on the fair market value of the realty, which is $_____.
   (c)_____ The fee is computed on the fair market value of the realty as established for property tax purposes which is $_____.

5. Check YES_____ or NO ____ to the following: A lien or encumbrance existed on the land, tenement, or realty before the transfer and remained on the land, tenement, or realty after the transfer. If "YES", then the amount of the outstanding balance of this lien or encumbrance is $ _____.

6. The DEED Recording Fee is computed as follows:
   (a)___X___ the amount listed in item 4 above.
   (b)_____ the amount listed in item 5 above (no amount place zero)
   (c)_____ Subtract Line 6(b) from Line 6(a) and place the result.

7. As required by Code Section 12-24-70, I state that I am a responsible person who was connected with the transaction as: Settlement Attorney.

8. I understand that a person required to furnish this affidavit who willfully furnishes a false or fraudulent affidavit is guilty to a misdemeanor and, upon conviction, must be fined not more than one thousand dollars or imprisoned not more than one year, or both.

Bruce A. Berlinsky
As: Settlement Attorney

SWORN to before me this 23rd
day of August, 2019.

Notary Public for South Carolina
My Commission Expires: 4.18.24

SUSAN L. SCOTT NOTARY PUBLIC SOUTH CAROLINA

CYNTHIA B FORTE
BERKELEY COUNTY
REGISTER OF DEEDS

Po Box 6122 ~ Moncks Corner, SC 29461 (843) 719-4084

***** THIS PAGE IS PART OF THE INSTRUMENT - DO NOT REMOVE *****

Instrument #:	2019030758		
Receipt Number:	138472	**Return To:**	BRUCE A BERLINSKY
Recorded As:	DEED		ONE CARRIAGE LANE BLDG F
Recorded On:	August 26, 2019		CHARLESTON, SC, 29407
Recorded At:	03:43:16 PM	**Received From:**	BRUCE A BERLINSKY
Recorded By:	LYNETTE SHELTON	**Parties:**	
Book/Page:	RB 3117: 24 - 28		Direct- CHINNERS, SHANNON SCHULZE
Total Pages:	5		Indirect- HARPER, REBECCA B

***** EXAMINED AND CHARGED AS FOLLOWS *****

Recording Fee:	$15.00
Consideration:	$40,000.00
County Tax:	$44.00
State Tax:	$104.00
Tax Charge:	$148.00

RECEIVED

AUG 26, 2019

ASSESSOR
BERKELEY COUNTY SC
JANET B. JUROSKO
AUDITOR BERKELEY COUNTY SC

Cynthia B. Forte

Cynthia B Forte - Register of Deeds

After recording return to: Bruce A. Berlinsky, PA
One Carriage Lane, Bldg. F
Charleston, SC 29407

STATE OF SOUTH CAROLINA)
)
COUNTY OF BERKELEY)

TITLE TO REAL ESTATE
(Quitclaim Deed)
"Title Not Examined"

* aka John Wilson Schulze, Jr.

KNOW ALL MEN BY THESE PRESENTS, that we, **SHANNON SCHULZE CHINNERS and JOHN W. SCHULZE*** ("Grantors"), in the State aforesaid for and in consideration of the sum of **FORTY THOUSAND AND NO/100 ($40,000.00) DOLLARS** to me in hand paid at and before the sealing of these Presents by **REBECCA B. HARPER**, ("Grantee"), the receipt whereof is hereby acknowledged, have remised, released, relinquished and forever quit-claimed, and by these Presents do remise, release, relinquish, and forever quit-claim unto Grantee, Grantee's heirs and assigns forever, all of the Grantors' right, title and interest, if any, in and to the following described real property (the "Property"), to wit:

All that piece, parcel or tract of land situate, lying and being near the Summerville, in the County of Berkeley, in the State aforesaid, measuring and containing Seven and 36/100 (7.36) acres, more or less; butting and bounding North on lands now or formerly of T.W. Salisbury; Southeast on a proposed Road; South and West on lands now or formerly of J. F. Prettyman and Sons.

The property hereby conveyed having such shape, marks, courses, distances, and boundaries, as shown on a plat thereof by N. J. Smith, C.E., dated November 1920 and recorded in the Office of the Clerk of Court for Berkeley County in Book C 21 at page 506.

Being the same property conveyed to Charles H. Friedrichs, Trustee, et al by deed of T.W. Salisbury dated January 15, 1921 and recorded in the Office of the Clerk of Court for Berkeley County in Book C 21 at page 506.

TMS # 221-00-00-006

Grantee's Address: Post Office Box 2005, Summerville, SC 29484

TO HAVE AND TO HOLD all and singular the said property, before mentioned unto the Grantee, REBECCA B. HARPER, her heirs, successors and assigns forever, the aforesaid premises and appurtenances thereto belonging or in anywise appertaining, and all the estate, right, title, interest and claim whatsoever of Grantors, if any.

IN WITNESS WHEREOF, we have hereunto set our Hands and Seals this 23 day of August, 2019.

SIGNED, SEALED, AND DELIVERED
IN THE PRESENCE OF:

Rhonda G. Long
(Witness #1)

(Witness #2 – can be Notary Public)

(Witness #1)

(Witness #2 – can be Notary Public)

Shannon Schulze Chinners
SHANNON SCHULZE CHINNERS

JOHN W. SCHULZE aka John Wilson Schulze, Jr.

Doc: 201903075B
Total Pages: 5

4

STATE OF SOUTH CAROLINA)
) ACKNOWLEDGEMENT
COUNTY OF GREENVILLE)

I, the undersigned, a Notary Public for the State of South Carolina, do hereby certify that **SHANNON SCHULZE CHINNERS**, personally appeared before me and acknowledged the due execution and delivery of the foregoing instrument, Title to Real Estate.

WITNESS my hand and seal on this
21 day of August, 2019.

NOTARY SIGNATURE

William L. Glenn

PRINT NOTARY NAME

NOTARY PUBLIC FOR SOUTH CAROLINA

My Commission Expires: 11/28/2022

AFFIX SEAL OR STAMP

WILLIAM L. GLENN
NOTARY PUBLIC
MY COMMISSION EXPIRES 11/28/2022
SOUTH CAROLINA

STATE OF SOUTH CAROLINA)
)
COUNTY OF CHARLESTON)

ACKNOWLEDGEMENT

I, the undersigned, a Notary Public for the State of South Carolina, do hereby certify that **JOHN W. SCHULZE a/k/a JOHN WILSON SCHULZE, JR.**, personally appeared before me and acknowledged the due execution and delivery of the foregoing instrument, Title to Real Estate.

WITNESS my hand and seal on this
23rd day of August, 2019.

NOTARY SIGNATURE

Susan L. Scott
PRINT NOTARY NAME

NOTARY PUBLIC FOR SOUTH CAROLINA

My Commission Expires: 4-18-24

AFFIX SEAL OR STAMP

SUSAN L. SCOTT
NOTARY
PUBLIC
SOUTH CAROLINA

STATE OF SOUTH CAROLINA }
COUNTY OF BERKELEY }

AFFIDAVIT FOR TAXABLE OR EXEMPT TRANSFERS

PERSONALLY appeared before me the undersigned, who being duly sworn, deposes and says:

1. I have read the information on this affidavit and I understand such information.

2. The property was transferred by SHANNON SCHULZE CHINNERS and JOHN W. SCHULZE aka John Wilson Schulze, Jr. to REBECCA B. HARPER on August 23, 2019.

3. Check one of the following: The deed is
   (A) [✓] subject to the deed recording fee as a transfer for consideration paid or to be paid in money or money's worth.
   (B) [ ] subject to the deed recording fee as a transfer between a corporation, a partnership, or other entity and a stockholder, partner, or owner of the entity , or is a transfer to a trust or as distribution to a trust beneficiary.
   (C) [ ] exempt from the deed recording fee because (See Information section of affidavit): _____ (Explanation required)
   (If exempt, please skip items 4-7, and go to item 8 of this affidavit.)

   If exempt under exemption #14 as described in the Information section of this affidavit, did the agent and principal relationship exist at the time of the original sale and was the purpose of this relationship to purchase the realty? Check Yes [ ] or No [ ]

4. Check one of the following if either item 3(a) or item 3(b) above has been checked. (See Information section of this affidavit):
   (A) [✓] The fee is computed on the consideration paid or to be paid in money or money's worth in the amount of $40,000.00.
   (B) [ ] The fee is computed on the fair market value of the realty which is _____.
   (C) [ ] The fee is computed on the fair market value of the realty as established for property tax purposes which is _____.

5. Check YES [ ] or NO [✓] to the following: A lien or encumbrance existed on the land, tenement, or realty before the transfer and remained on the land, tenement, or realty after the transfer. If "YES," the amount of the outstanding balance of this lien or encumbrance is _____.

6. The deed recording fee is computed as follows:
   (A) Place the amount listed in item 4 above here: $40,000.00
   (B) Place the amount listed in item 5 above here: 0
   (If no amount is listed, place zero here.)
   (C) Subtract Line 6(b) from Line 6(a) and place the result here: $40,000.00

7. The deed recording fee is based on the amount listed on Line 6(c) above and the deed recording fee due is: $40,000.00.

8. As required by Code Section '12-24-70, I state that I am a responsible person who was connected with the transaction as: Bruce A. Berlinsky, Esquire.

9. I understand that a person required to furnish this affidavit who wilfully furnishes a false or fraudulent affidavit is guilty of a misdemeanor and, upon conviction, must be fined not more than one thousand dollars or imprisoned not more than one year, or both.

Responsible Person Connected with the Transaction

Bruce A. Berlinsky
Print or Type Name Here

Sworn this 23rd day of August 2019

S. Scott
Notary Public for South Carolina
My Commission Expires: 4/18/2024

SUSAN L. SCOTT NOTARY PUBLIC SOUTH CAROLINA

CYNTHIA B FORTE
BERKELEY COUNTY
REGISTER OF DEEDS

Po Box 6122 ~ Moncks Corner, SC 29461 (843) 719-4084

***** THIS PAGE IS PART OF THE INSTRUMENT - DO NOT REMOVE *****

Instrument #:	2019038134		
Receipt Number:	144313	**Return To:**	JSCA INVESTMENTS LLC
Recorded As:	DEED		308 SUMTER AVE
Recorded On:	October 21, 2019		SUMMERVILLE, SC, 29483
Recorded At:	12:19:17 PM	**Received From:**	JSCA INVESTMENTS LLC
Recorded By:	HELEN SEXTON	**Parties:**	
Book/Page:	RB 3166: 933 - 936	Direct- HARPER, REBECCA B	
Total Pages:	4	Indirect- JSCA INVESTMENTS LLC	

***** EXAMINED AND CHARGED AS FOLLOWS *****

Recording Fee:	$15.00
Consideration:	$20,262.50
County Tax:	$22.55
State Tax:	$53.30
Tax Charge:	$75.85

RECEIVED

OCT 21, 2019

ASSESSOR
BERKELEY COUNTY SC
JANET B. JUROSKO
AUDITOR BERKELEY COUNTY SC

Cynthia B. Forte

Cynthia B Forte - Register of Deeds

Doc: 201903134
Total Pages: 4

After recording return to: REBBECA B. HARPER
P.O. BOX 2005
SUMMERVILLE, SC 29484

STATE OF SOUTH CAROLINA)
)
COUNTY OF BERKELEY)

TITLE TO REAL ESTATE
(Quitclaim Deed)

KNOW ALL MEN BY THESE PRESENTS, that I, **REBECCA B. HARPER** ("Grantor"), in the State aforesaid for and in consideration of the sum of **TWENTY THOUSAND TWO HUNDRED SIXTY-TWO AND 50/100 ($20,262.50) DOLLARS** to me in hand paid at and before the sealing of these Presents by **JSCA INVESTMENTS, LLC**, ("Grantee"), the receipt whereof is hereby acknowledged, have remised, released, relinquished and forever quit-claimed, and by these Presents do remise, release, relinquish, and forever quit-claim unto Grantee, Grantee's heirs, successors and assigns forever, a one-half undivided interest of the Grantor's right, title and interest, if any, in and to the following described real property (the "Property"), to wit:

All that piece, parcel or tract of land situate, lying and being near the Summerville, in the County of Berkeley, in the State aforesaid, measuring and containing Seven and 36/100 (7.36) acres, more or less; butting and bounding North on lands now or formerly of T.W. Salisbury; Southeast on a proposed Road; South and West on lands now or formerly of J. F. Prettyman and Sons.

The property hereby conveyed having such shape, marks, courses, distances, and boundaries, as shown on a plat thereof by N. J. Smith, C.E., dated November 1920 and recorded in the Office of the Clerk of Court for Berkeley County in Book C 21 at page 506.

Being the same property conveyed to Charles H. Friedrichs, Trustee, et al by deed of T.W. Salisbury dated January 15, 1921 and recorded in the Office of the Clerk of Court for Berkeley County in Book C 21 at page 506. Also, being the same property conveyed to Rebecca B. Harper by deed of Shannon Schulze Chinners and John W. Schulze a/k/a John Wilson Schulze, Jr. dated August 23, 2019 and recorded in the Office of the Register of Deeds for Berkeley County in Book RB 3117 at pages 24-28.

TMS # 221-00-00-006

Grantee's Address: Post Office Box 2005, Summerville, SC 29484

TO HAVE AND TO HOLD all and singular the said property, before mentioned unto the Grantee, **JSCA INVESTMENTS, LLC**, its successors and assigns forever, the aforesaid premises and appurtenances thereto belonging or in anywise appertaining, and all the estate, right, title, interest and claim whatsoever of Grantor, if any, to the one-half undivided interest.

IN WITNESS WHEREOF, I have hereunto set my Hand and Seal this 27th day of September, 2019.

SIGNED, SEALED, AND DELIVERED
IN THE PRESENCE OF:

REBECCA B. HARPER

STATE OF SOUTH CAROLINA)
)
COUNTY OF DORCHESTER)

ACKNOWLEDGEMENT

I, the undersigned, a Notary Public for the State of South Carolina, do hereby certify that **REBECCA B. HARPER**, personally appeared before me and acknowledged the due execution and delivery of the foregoing instrument, Title to Real Estate.

WITNESS my hand and seal on this
27th day of September, 2019.

NOTARY SIGNATURE

James H. Hesley, Jr
PRINT NOTARY NAME

NOTARY PUBLIC FOR SOUTH CAROLINA
My Commission Expires:

AFFIX SEAL OR STAMP

My commission Expires 8/7/2027

STATE OF SOUTH CAROLINA)
COUNTY OF DORCHESTER) Affidavit

PERSONALLY appeared before me the undersigned, who being duly sworn, deposes and says:

1. I have read the information on this affidavit and I understand such information.

2. The property being transferred is located at 7.36 +/- Acres Maple Street & Beagle Road in Summerville, bearing BERKELEY County Tax Map Number 221-00-00-006, was transferred by REBECCA B. HARPER to JSCA INVESTMENTS, LLC on SEPTEMBER 27, 2019.

3. Check one of the following: The deed is
   (a) ✓ subject to the deed recording fee as a transfer for consideration paid or to be paid in money or money's worth.
   (b) _____ subject to the deed recording fee as a transfer between a corporation, a partnership, or other entity and a stockholder, partner, or owner of the entity, or is a transfer to a trust or as a distribution to a trust beneficiary.
   (c) _____ exempt from the deed recording fee because (see information section of affidavit): _____ (If exempt, please skip items 4 – 7 and go to item 8 of this affidavit.)

4. Check one of the following if either item 3(a) or item 3(b) above has been checked (see information section of this affidavit):
   (a) ✓ The fee is computed on the consideration paid or to be paid in money or money's worth in the amount of $20,262.50.
   (b) _____ The fee is computed on the fair market value of the realty which is _____.
   (c) _____ The fee is computed on the fair market value of the realty as established for property tax purposes which is _____.

5. Check Yes _____ or No ✓ to the following: A lien or encumbrance existed on the land, tenement, or realty before the transfer and remained on the land, tenement, or realty after the transfer. If "yes" the amount of the outstanding balance of this lien or encumbrance is: _____.

6. The deed recording fee is computed as follows:

(a) Place the amount listed in item 4 above here:	$20,262.50
(b) Place the amount listed in item 5 above here: (If no amount is listed, place zero here)	0
(c) Subtract line 6(b) from line 6(a) and place result here:	$20,262.50

7. The deed recording fee due is based on the amount listed on line 6(c) above and the deed recording fee due is : _____.

8. As required by Code Section 12-24-70, I state that I am a responsible person who was connected with the transaction as: GRANTOR.

9. I understand that a person required to furnish this affidavit who willfully furnishes a false or fraudulent affidavit is guilty of a misdemeanor and, upon conviction, must be fined not more than one thousand dollars or imprisoned not more than one year, or both.

Responsible Person Connected with the Transaction

REBECCA B. HARPER
Print or Type Name Here

SWORN to before me this 27th day of SEPTEMBER 2019

Notary Public for SOUTH CAROLINA
My Commission Expires: 8/7/2024

Jack H. Hessery, Jr

I-185

REFERENCE PLAT BY:

H.H. FOSTER OCT. 28, 1975 BK. A302-009

CHARLES W. FREDERICKS

POST

11

S 71°22'38"E

207.74

CMO

13

MAG.

Cal F. page 185
Rec'd A.M.
9-28-90

2.926 ACRES

F.T. SALISBURY

WELL

N 18°37'22"E

711.88

S 18°37'22"W

515.42

CARPORT

24.00

24.00

17.00

8.00

1.00

49.55

TWO STORY WOOD

50.34

36.34

50.34

7.00

30.40

46.58

CHARLES W. FREDERICKS

140.65

OLD ROAD 40' R/W

CMO

9

0.8 MI. TO FRONTAGE RD.

OLD TRAM ROAD (UNIMPROVED) 40' R/W

285.92

S 65°13'15"W

CMO

10

I-26

FRONTAGE RD.

0.2 MI.

S-8-275

OLD TRAM RD.

SITE

LOCATION MAP

NOTES:

1. PROPERTY IS NOT LOCATED IN A HAZARDOUS FLOOD ZONE.

LEGEND:

—o—	PROPERTY LINE WITH IRON PIN
IPO	IRON PIN OLD
IPN	IRON PIN NEW
CMO	CONC. MON. OLD

THERE ARE NO ENCHROACHMENTS OR PROJECTIONS OTHER THAN SHOWN.

Berkeley County Planning Commission
Exempt

No new road
(Reason)

Larry Wyndham
9-28-90 Date

PLAT

SHOWING
PROPERTY OF

SANDRA J. SCHULZE ET.AL.

LOCATED

NEAR SUMMERVILLE
BERKELEY COUNTY S.C.

SCALE: 1" = 100' DATE: SEPT. 5, 1990

I, RICHARD J. RHODE A REGISTERED SURVEYOR OF THE STATE OF SOUTH CAROLINA, DO HEREBY CERTIFY THAT I HAVE SURVEYED THE PROPERTY SHOWN HEREON AND THAT THIS PLAT SHOWS THE TRUE DIMENSIONS OF THIS PROPERTY AND ALL NECESSARY MARKERS HAVE BEEN INSTALLED AND THE PRECISION IS 1/10000. THE AREA WAS DETERMINED BY THE COORDINATE METHOD.

Richard J. Rhode

S.C.R.L.S. NO. 11866

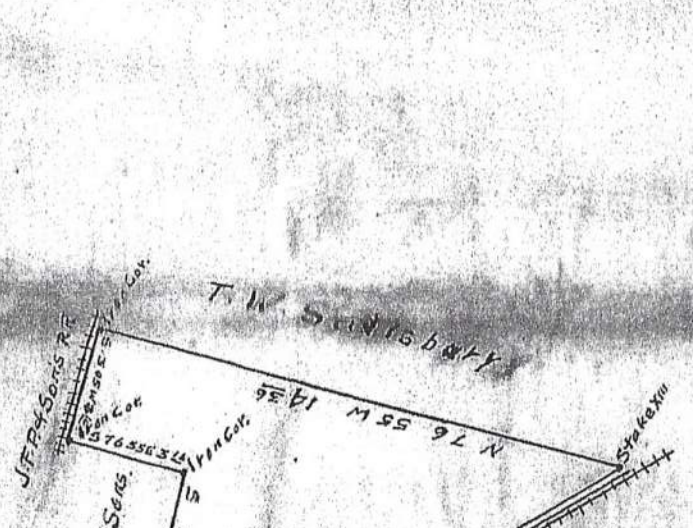
RHODE LAND SURVEYING
RT. 1 BOX 72
DORCHESTER, S.C. 29437
(803) 563-2514

100 50 0 100 200 300

SCALE IN FEET

90135

ACAD



MAP

Lands of Charles H. Frederichs, Trustee, et al

Situate

Berkeley County, S.C.

Contents 7.36 A.

Surveyed Nov. 1920

by

N. J. Smith, C.E.

Note: ~~30 ft from ditch by J.F.P. & Son's Track to line~~ Resurveyed August, 1956
~~20 ft from center of J.F.P. & Son's Track to line~~ Dec. E 45' from bearings shown

N. J. Smith, R.L.S.

Recorded Feby. 22. 1921.
in Book 6. 2 page 506
D. W. Williams
Clerk of Court

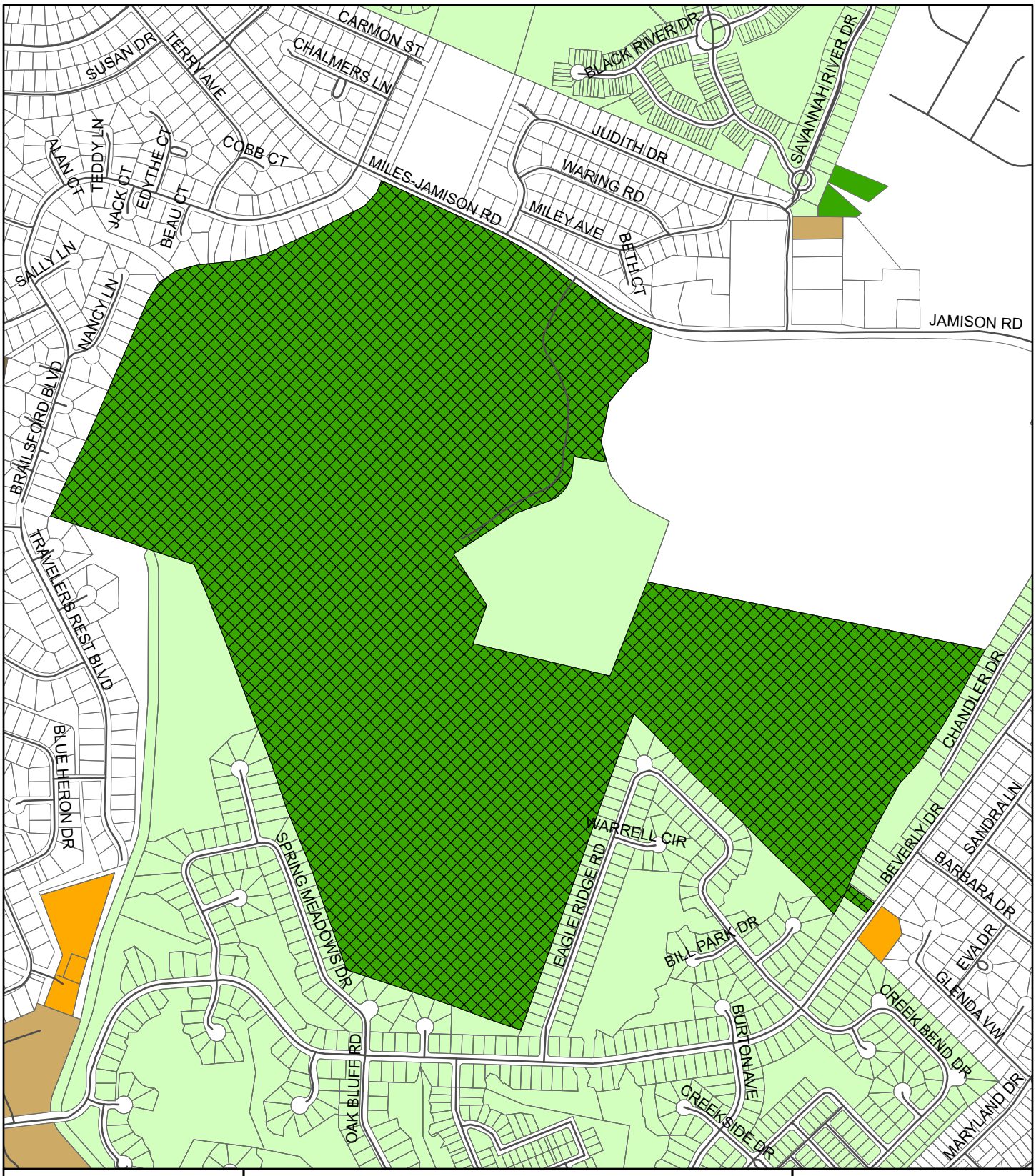
REZONINGS
STAFF REPORT
PLANNING COMMISSION
May 18, 2020

TMS#: 154-00-00-073 and 154-06-15-006
Location: Miles-Jamison Road and 310 Beverly Drive
Description: two parcels, approximately 306.809 acres, vacant land
Request: Rezoning of the properties to PL

The property owner is requesting for the above referenced parcels to be rezoned from PUD, Planned Development District, to PL, Public Lands.

This property is included in the Town's 'Neighborhood Mixed Use' area as identified within the Town's 2009-2011 Comprehensive Plan and Update as well as on the accompanying Future Land Use Map, which is intended to encourage the integration of neighborhood service-oriented businesses and residential land uses. Services should include low intensity commercial land uses such as sales of consumer goods, health and personal care, insurance, real estate, financial services, senior housing and religious institutions. The Comprehensive Plan is in the process of being updated, and it should be noted that the draft Future Land Use Map currently shows this area as parks and open space.

With the increase in the amount of wetlands on this property, the approved PUD is no longer feasible. Dorchester County plans to make the entire tract a park. A conceptual master plan for Pine Trace has been completed and the wetland permit for the site has been issued. The plan includes trails, a pond, disc golf course, picnic shelter, outdoor classroom, dog parks, and it will be the northern anchor for the Eagle Chandler Bridge Creek Multiuse Path. Based on these findings this request is interpreted by staff to be in conformance with the Town's Comprehensive Plan and is recommended for approval.



Rezoning Request

Zoning

- GR-5
- MF-R
- MH-R
- N-B
- PL
- PUD

Rezoning Exhibit
PUD to PL

Disclaimer: This map is a graphic representation of data obtained from various sources. All efforts have been made to warrant the accuracy of this map; however, the Town of Summerville disclaims all representation and liability for the use of this map.

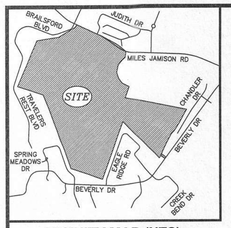
2020

Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere

N

0 0.15 0.3 Mi

0 0.3 0.6 Km



VICINITY MAP (NTS)

NOTES:

1) AREA WAS DETERMINED BY THE COORDINATE METHOD.
2) ANYTHING SHOWN OUTSIDE THE DEFINED BOUNDARY IS FOR DESCRIPTIVE PURPOSES ONLY.
3) THE PUBLIC RECORDS REFERENCED ON THIS PLAT ARE ONLY USED AND/OR NECESSARY TO THE ESTABLISHMENT OF THE BOUNDARY OF THIS PROPERTY. THEY ARE NOT AND DO NOT CONSTITUTE A TITLE SEARCH.
4) DISTANCE SHOWN HEREON ARE HORIZONTAL GROUND DISTANCES.
5) NO SUBSURFACE OR ENVIRONMENTAL INVESTIGATION OR SURVEYS WERE PERFORMED FOR THIS PLAT. THEREFORE THIS PLAT DOES NOT REFLECT THE EXISTENCE OR NONEXISTENCE OF WETLANDS, CONTAMINATION, OR OTHER CONDITIONS WHICH MAY AFFECT THIS PROPERTY.
6) THE WETLANDS SHOWN ON THIS SURVEY WERE TAKEN FROM A WETLAND SURVEY SHOWING A 311.40 ACRE TRACT OF LAND, BY DAVIS AND FLOYD, INC, DATED DECEMBER 29, 2005.
7) THERE ARE NO APPLICABLE OCRM CRITICAL LINE BUFFERS OR SETBACKS ON THIS PROPERTY.
8) TMS NO. 154-00-00-073, TMS NO. 146-00-00-068 & 154-06-15-006
9) BOUNDARY LINES DELINEATED FROM A TO B REPRESENT ZONING LINES BETWEEN THE TOWN OF SUMMERVILLE AND DORCHESTER COUNTY. (SEE REF NO. 2)
10) ANNEXED INTO THE TOWN OF SUMMERVILLE DECEMBER 17, 2008 AS PINE TRACE, ZONED "PUD" PLANNED UNIT DEVELOPMENT.
11) THE GRAVITY SANITARY SEWER LINE IS OWNED AND OPERATED BY SUMMERVILLE COMMISSIONERS OF PUBLIC WORKS.

REFERENCES:

1) PLAT BY THOMAS W. BAILEY, DATED MARCH 1964. RECORDED IN PLAT CABINET B PAGE 34. DORCHESTER COUNTY RMC.
2) PETITION SUBMITTED BY M. RICHBOURG ROBERSON DATED SEPTEMBER 25, 2008 AND PLAT EXHIBIT BY RICHARD ALDRIDGE, DATED JUNE 27, 2007. UNRECORDED.
3) PLAT BY W.E. GILBERT & ASSOC., DATED APRIL 12, 1977. RECORDED IN PLAT CABINET C PAGE 184. DORCHESTER COUNTY RMC.
4) PLAT BY G.E. MILEY, JR., DATED DECEMBER 22, 1975. RECORDED IN PLAT CABINET C PAGE 57. DORCHESTER COUNTY RMC.
5) PLAT BY W.E. GILBERT & ASSOC., DATED MARCH 31, 1977. RECORDED IN PLAT CABINET C PAGE 94. DORCHESTER COUNTY RMC.
6) PLAT BY TRICO ENGINEERING CONSULTANTS, INC., DATED SEPTEMBER 19, 2001. RECORDED IN PLAT CABINET K PAGE 12. DORCHESTER COUNTY RMC.
7) PLAT BY TRICO ENGINEERING CONSULTANTS, INC., DATED OCTOBER 8, 2001. RECORDED IN PLAT CABINET K PAGE 12. DORCHESTER COUNTY RMC.
8) PLAT BY TRICO ENGINEERING CONSULTANTS, INC., DATED OCTOBER 8, 2001. RECORDED IN PLAT CABINET K PAGE 12. DORCHESTER COUNTY RMC.
9) PLAT BY TRICO ENGINEERING CONSULTANTS, INC., DATED JUNE 28, 1989. RECORDED IN PLAT CABINET G PAGE 281. DORCHESTER COUNTY RMC.
10) PLAT BY A. VINT THORNBURG, DATED JULY 2, 1985. RECORDED IN PLAT CABINET E PAGE 254. DORCHESTER COUNTY RMC.
11) PLAT BY BAILEY & ASSOC., INC., DATED AUGUST 22, 1974. RECORDED IN PLAT CABINET C PAGE 159. DORCHESTER COUNTY RMC.
12) PLAT BY TRICO ENGINEERING CONSULTANTS, INC., DATED JUNE 25, 2003. RECORDED IN PLAT CABINET K PAGE 72. DORCHESTER COUNTY RMC.
13) PLAT BY TRICO ENGINEERING CONSULTANTS, INC., DATED DECEMBER 4, 2001. RECORDED IN PLAT CABINET K PAGE 13. DORCHESTER COUNTY RMC.
14) PLAT BY TRICO ENGINEERING CONSULTANTS, INC., DATED JULY 10, 2003. RECORDED IN PLAT CABINET K PAGE 70. DORCHESTER COUNTY RMC.
15) PLAT BY TRICO ENGINEERING CONSULTANTS, INC., DATED SEPTEMBER 30, 2003. RECORDED IN PLAT CABINET K PAGE 82. DORCHESTER COUNTY RMC.
16) PLAT BY TRICO ENGINEERING CONSULTANTS, INC., DATED AUGUST 27, 2002. RECORDED IN PLAT CABINET K PAGE 41. DORCHESTER COUNTY RMC.
17) PLAT BY TRICO ENGINEERING CONSULTANTS, INC., DATED OCTOBER 9, 2001. RECORDED IN PLAT CABINET K PAGE 6. DORCHESTER COUNTY RMC.
18) PLAT BY JOHN DAVID BASS, DATED DECEMBER 19, 2001. RECORDED IN PLAT CABINET K PAGE 10. DORCHESTER COUNTY RMC.
19) PLAT BY W.E. GILBERT & ASSOC., DATED APRIL 12, 1977. RECORDED IN PLAT CABINET C PAGE 94. DORCHESTER COUNTY RMC.
20) PLAT BY THOMAS W. BAILEY, DATED NOVEMBER 30, 1972. RECORDED IN PLAT CABINET B PAGE 200. DORCHESTER COUNTY RMC.
21) PLAT BY JOHN DAVID BASS, DATED OCTOBER 22, 1999. RECORDED IN PLAT CABINET J PAGE 145. DORCHESTER COUNTY RMC.
22) S.C. DEPARTMENT OF TRANSPORTATION DOCKET NO. 18.342 SHEETS 15B, 15C & 15D OF 20.
23) EAGLE CREEK FLOOD CONTROL PROJECT PLANS BY ARMY CORPS OF ENGINEERS, STA 173+00 THROUGH 222+00. (ALSO SEE DEED 503 PAGE 447)
24) PLAT BY TRICO ENGINEERING CONSULTANTS, INC., DATED JANUARY 3, 1999. RECORDED IN PLAT CABINET J PAGE 130. DORCHESTER COUNTY RMC.
25) DEED BOOK 5851, PAGE 174 – J. FOSTER SMITH SOLD TO DPG-SUMMERVILLE, LLC
26) DEED BOOK 7891, PAGE 232 – DPG-SUMMERVILLE, LLC SOLD TO STATE OF SOUTH CAROLINA.
27) DEED BOOK 394, PAGE 265 – 20' SCE&G POWER LINE EASEMENT.
28) DEED BOOK 3277, PAGE 165 – 20' SCPW SEWER EASEMENT.

FLOOD NOTE:

THIS PROPERTY IS LOCATED IN FLOOD ZONE X AND AE (ELEV. 22, 23, 24 & 25) AS SHOWN FROM FEMA FLOOD MAPS. PANEL NO. 4500680245D & 4500680265D, REVISED APRIL 15, 1994.

I, JOHNATHAN F. BURNS, A PROFESSIONAL LAND SURVEYOR IN THE STATE OF SOUTH CAROLINA, HEREBY STATE THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THE SURVEY HEREIN WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF MINIMUM STANDARDS MANUAL FOR THE PRACTICE OF LAND SURVEYING IN SOUTH CAROLINA, AND MEETS OR EXCEEDS THE REQUIREMENTS FOR A CLASS A SURVEY AS SPECIFIED THEREIN, ALSO THERE ARE NO VISIBLE ENCROACHMENTS OR PROJECTIONS OTHER THAN SHOWN.

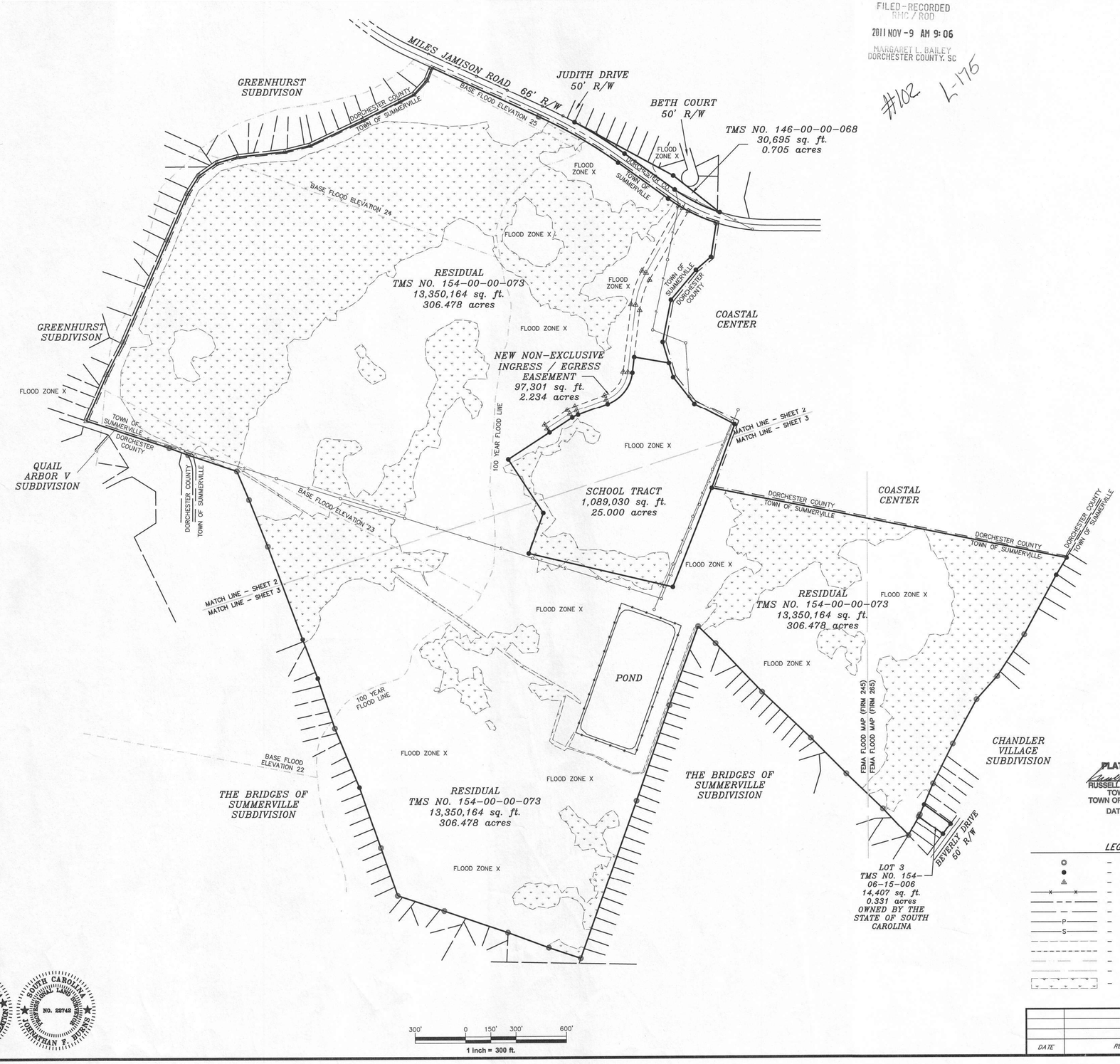
THIS SURVEY IS NOT VALID UNLESS EMBOSSED WITH AN ORIGINAL SURVEYOR'S SEAL. THIS SURVEY HAS BEEN DONE WITHOUT THE BENEFIT OF REVIEWING A CURRENT TITLE SEARCH.

WITNESS MY ORIGINAL SIGNATURE, LICENSE NUMBER AND SEAL THIS 14TH DAY OF OCTOBER, 2011.

JOHNATHAN F. BURNS, PLS-22742

SOUTH CAROLINA GPA PROFESSIONAL LAND SURVEYORS No. C01558 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA PROFESSIONAL ENGINEER SEAL NO. 22742 JOHNATHAN F. BURNS



FILED-RECORDED
RMC / ROD
2011 NOV -9 AM 9:06
MARGARET L. BAILEY
DORCHESTER COUNTY, SC

#102 L-176

PLAT APPROVED
RUSSELL W. CORNETTE, P.E.
TOWN ENGINEER
TOWN OF SUMMERVILLE, SC
DATE 7 Nov 2011

LEGEND

- IRON FOUND (AS DESCRIBED)
- IRON SET (5/8" REBAR)
- CALCULATED POINT
- FENCE LINE
- RIGHT-OF-WAY
- CENTER LINE
- OVERHEAD POWER LINE
- SEWER LINE
- WETLANDS LINE
- TOWN/COUNTY LIMIT LINE
- FLOOD LINE
- MATCH LINE
- WETLANDS

DATE	REVISION	BY

GPA
PROFESSIONAL LAND SURVEYORS
237 OLD SUMMERVILLE RD UNIT H
SUMMERVILLE SC 29483
OFFICE (843) 285-2424

(CHARLOTTE BRANCH)
605 PHILLIP DAVIS DRIVE
CHARLOTTE NC 28236-6916
OFFICE (704) 335-8600

CHARLESTON SC 29492
OFFICE (843) 971-9099
FAX (843) 971-9992

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www.gpaland.com

S.C. GRID

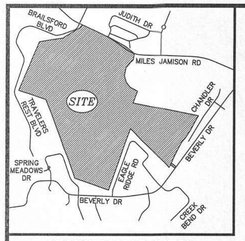
SCALE 1"=300'
FLD. BK. PG.
JOB NO. 115081
DATE 09/28/11
DRAWN BY WGM
CHECKED BY DLG

PREPARED FOR DORCHESTER COUNTY

SUBDIVISION PLAT

SHOWING THE SUBDIVISION OF TMS NO. 154-00-00-073 TO CREATE SCHOOL TRACT AND SHOWING TMS NO. 154-00-00-073 & TMS NO. 146-00-00-068 OWNED BY S.C. RETARDED CHILDRENS HABILITATION CENTER AND TMS NO. 154-06-15-006 OWNED BY THE STATE OF SOUTH CAROLINA LOCATED IN AND NEAR THE TOWN SUMMERVILLE DORCHESTER COUNTY, SOUTH CAROLINA

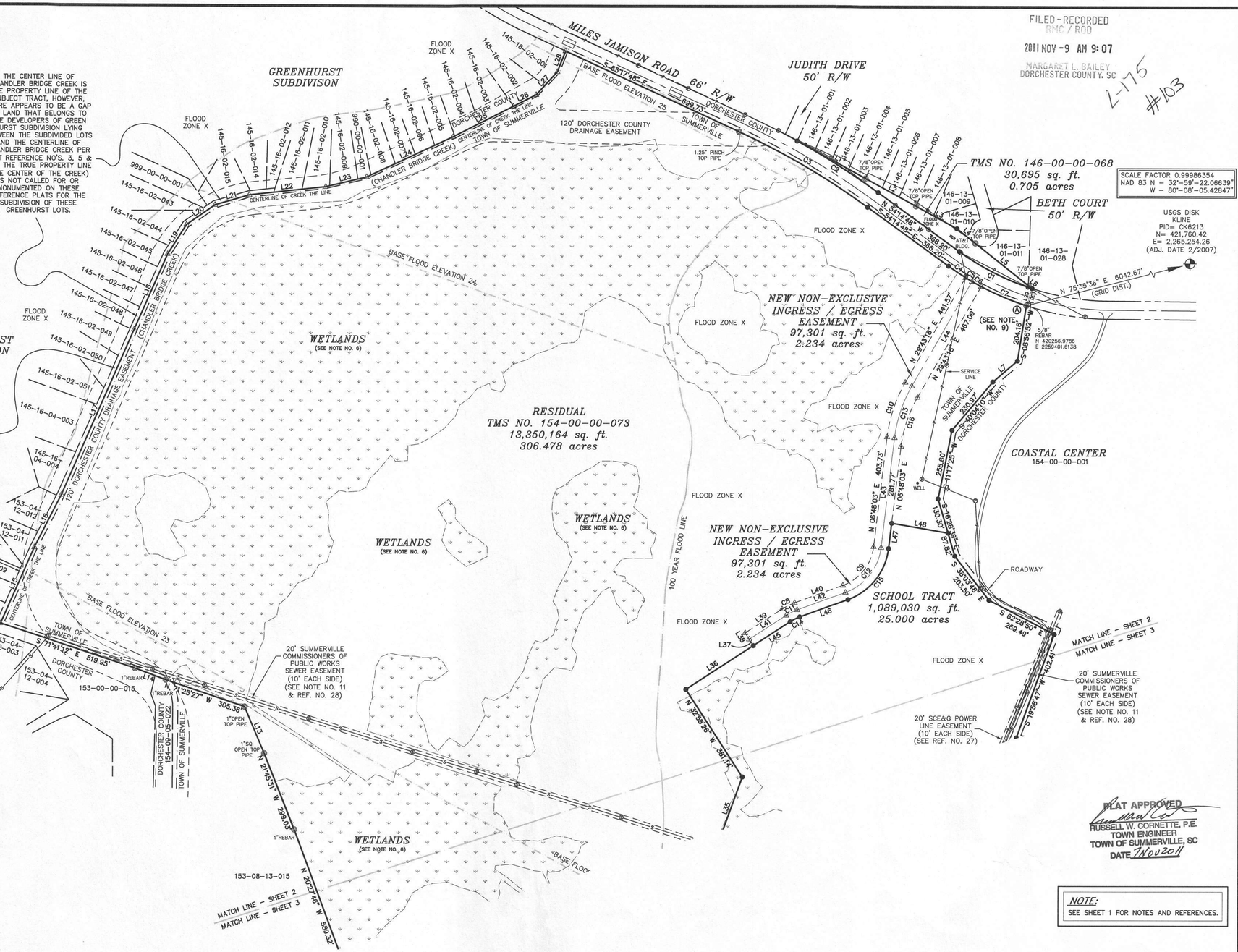
SHEET 1 OF 3



VICINITY MAP (NTS)

CURVE TABLE						
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD	BEARING
C1	300.59	956.69	18°00'07"	151.54	299.35	S63°14'52"E
C2	351.46	2898.73	6°56'49"	175.94	351.24	N57°43'12"W
C3	546.32	2832.73	11°03'00"	274.01	545.47	N59°48'18"W
C4	74.91	1022.69	4°11'48"	37.47	74.89	S56°20'42"E
C5	27.51	1022.69	1°32'28"	13.75	27.50	S59°12'50"E
C6	38.51	1022.69	2°09'26"	19.26	38.50	S61°03'47"E
C7	179.77	1022.69	10°04'18"	90.12	179.54	S67°10'39"E
C8	51.28	227.50	12°54'53"	25.75	51.17	S63°28'58"W
C9	190.09	172.50	63°08'21"	106.00	180.62	N38°22'14"E
C10	211.02	527.50	22°55'15"	106.94	209.62	S18°15'41"W
C11	45.08	200.00	12°54'53"	22.64	44.99	S63°28'58"W
C12	220.40	200.00	63°08'21"	122.89	209.41	N38°22'14"E
C13	200.02	500.00	22°55'15"	101.37	198.69	S18°15'41"W
C14	38.88	172.50	12°54'53"	19.52	38.80	S63°28'58"W
C15	250.70	227.50	63°08'21"	139.79	238.21	N38°22'14"E
C16	190.02	475.00	22°55'15"	96.30	188.76	S18°15'41"W

LINE TABLE		
LINE	LENGTH	BEARING
L1	284.94	S61°27'31"E
L2	210.97	S61°27'31"E
L3	170.82	S61°27'31"E
L4	85.64	S51°42'15"E
L5	248.74	S51°42'15"E
L6	16.98	S51°42'15"E
L7	118.03	S49°26'13"W
L8	119.52	S31°09'10"W
L9	184.91	S42°02'29"W
L10	127.37	N28°34'13"E
L11	221.88	N43°07'41"W
L12	144.61	N45°38'46"W
L13	184.79	N23°05'28"W
L14	119.76	N69°27'59"W
L15	303.51	N23°54'34"E
L16	215.30	N27°07'52"E
L17	658.81	N23°42'45"E
L18	301.22	N23°49'39"E
L19	127.50	N32°34'37"E
L20	127.30	N55°14'01"E
L21	130.42	N73°44'10"E
L22	282.01	N83°44'56"E
L23	154.00	N76°26'54"E
L24	349.15	N84°55'31"E
L25	246.27	N63°09'38"E
L26	93.61	N63°18'04"E
L27	113.79	N42°34'24"E
L28	81.30	N21°52'51"E
L29	66.00	S18°18'02"W
L30	64.30	S23°07'54"W
L31	15.09	S28°26'55"W
L32	194.73	S53°40'50"E
L33	77.55	N36°19'06"E
L34	177.99	N53°40'52"W
L35	254.93	N19°54'00"E
L36	293.64	N57°01'32"E
L37	27.50	N32°58'28"W
L38	27.50	N32°58'28"W
L39	160.87	N57°01'32"E
L40	187.68	N69°56'24"E
L41	160.87	N57°01'32"E
L42	187.68	N69°56'24"E
L43	403.73	N06°48'03"E
L44	441.05	N29°43'18"E
L45	160.87	N57°01'32"E
L46	187.68	N69°56'24"E
L47	93.21	N06°48'03"E
L48	209.47	S80°10'20"E



THE CENTER LINE OF CHANDLER BRIDGE CREEK IS THE PROPERTY LINE OF THE SUBJECT TRACT, HOWEVER, THERE APPEARS TO BE A GAP OF LAND THAT BELONGS TO THE DEVELOPERS OF GREEN HURST SUBDIVISION LYING BETWEEN THE SUBDIVIDED LOTS AND THE CENTERLINE OF CHANDLER BRIDGE CREEK PER PLAT REFERENCE NO'S. 3, 5 & 19. THE TRUE PROPERTY LINE (THE CENTER OF THE CREEK) IS NOT CALLED FOR OR MONUMENTED ON THESE REFERENCE PLATS FOR THE SUBDIVISION OF THESE GREENHURST LOTS.

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BASED UPON FIELD EVIDENCE AND FOUND PROPERTY CORNERS, THERE APPEARS TO BE A GAP OF LAND BETWEEN QUAIL ARBOR V AND GREENHURST SUBDIVISION. THIS GAP APPEARS TO BELONG TO THE DEVELOPERS OF QUAIL ARBOR V. (SEE PLAT REFERENCE NO'S. 11 & 19).

S.C. GRID

LEGEND

- IRON FOUND (AS DESCRIBED)
- IRON SET (5/8" REBAR)
- CALCULATED POINT
- FENCE LINE
- RIGHT-OF-WAY
- CENTER LINE
- OVERHEAD POWER LINE
- SEWER LINE
- WETLANDS LINE
- TOWN/COUNTY LIMIT LINE
- FLOOD LINE
- MATCH LINE
- WETLANDS

GPA PROFESSIONAL LAND SURVEYORS No. COI586 — CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA PROFESSIONAL LAND SURVEYOR NO. 22742 JONATHAN F. BURNS

I, JOHNATHAN F. BURNS, A PROFESSIONAL LAND SURVEYOR IN THE STATE OF SOUTH CAROLINA, HEREBY STATE THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THE SURVEY HEREIN WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF MINIMUM STANDARDS MANUAL FOR THE PRACTICE OF LAND SURVEYING IN SOUTH CAROLINA, AND MEETS OR EXCEEDS THE REQUIREMENTS FOR A CLASS A SURVEY AS SPECIFIED THEREIN, ALSO THERE ARE NO VISIBLE ENCROACHMENTS OR PROJECTIONS OTHER THAN SHOWN.

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WITNESS MY ORIGINAL SIGNATURE, LICENSE NUMBER AND SEAL THIS 14TH DAY OF OCTOBER, 2011.

JOHNATHAN F. BURNS, PLS-22742

200' 0 100' 200' 400'

1 inch = 200 ft.

FILED-RECORDED
RMC / ROD
2011 NOV -9 AM 9:07
MARGARET L. BAILEY
DORCHESTER COUNTY, SC

L-175
#103

GPA
PROFESSIONAL LAND SURVEYORS
237 OLD SUMMERVILLE RD
UNIT H
SUMMERVILLE SC 29483
OFFICE (843) 285-2424

(CHARLOTTE BRANCH)
605 PHILLIP DAVIS DRIVE
CHARLOTTE NC 28236-6916
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CHARLESTON SC 29492
OFFICE (843) 971-9099
FAX (843) 971-9992

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www.gpaland.com

SCALE	1"=200'
FLD. BK.	PG.
JOB NO.	115081
DATE	09/29/11
DRAWN BY	WGM
CHECKED BY	DLG

PLAT APPROVED
RUSSELL W. CORNETTE, P.E.
TOWN ENGINEER
TOWN OF SUMMERVILLE, SC
DATE 7 Nov 2011

NOTE:
SEE SHEET 1 FOR NOTES AND REFERENCES.

SUBDIVISION PLAT

SHOWING THE SUBDIVISION OF TMS NO. 154-00-00-073 TO CREATE SCHOOL TRACT AND SHOWING TMS NO. 154-00-00-073 & TMS NO. 146-00-00-068 OWNED BY S.C. RETARDED CHILDRENS HABILITATION CENTER AND TMS NO. 154-06-15-006 OWNED BY THE STATE OF SOUTH CAROLINA LOCATED IN AND NEAR THE TOWN SUMMERVILLE DORCHESTER COUNTY, SOUTH CAROLINA

PREPARED FOR DORCHESTER COUNTY

TAX PARCEL NO.	PROPERTY OWNER
154-00-00-073	SC RETARDED CHILDREN CTR
154-06-13-001	STANLEY T. MCCARDLE
154-06-13-002	DAVID CHRISTOPHER GAETANO
154-06-13-003	BILLY F. HUBBARD
154-00-00-010	J. FOSTER SMITH
154-06-15-010	J. FOSTER SMITH
154-06-15-009	J. FOSTER SMITH
154-06-16-002	DEREK J. CLEMENTS
154-06-15-003	J. FOSTER SMITH
154-06-15-004	ANNE E. TARTER
154-06-15-005	J. FOSTER SMITH
154-06-15-006	STATE OF SOUTH CAROLINA
154-06-15-007	J. FOSTER SMITH
154-06-15-008	J. FOSTER SMITH
154-06-15-011	REGINALD & KARTIKA RIVERS SR.
154-06-15-022	EDWARD & MICHELE NEVILLE
154-05-09-006	SUMMERVILLE PROP OWNER ASSC.
154-05-09-013	WILLIAM COSTANZO
154-05-09-014	SAMUEL A. RICHARDSON
154-05-09-015	HALE SHANNON
154-05-09-016	JEFFREY & DENISE MOKINNEY

TAX PARCEL NO.	PROPERTY OWNER
154-05-09-017	PATRICK & SEAN HINSON
154-05-09-018	SC PARK PLANNING TRUST
154-05-09-019	HARRY & CHRISTINA BECK
154-05-09-020	RYAN & JENNIFER MULLIGAN
154-05-09-021	JAMES & DEBRA GONZALES
154-05-09-022	CHRIS & NICHOLE YOUNG
154-05-09-023	JOSEFINA ACEVEDO
154-05-09-024	ROBERT & NOREEN MITCHELL
154-05-09-025	NICHOLAS & JAMIE SULLIVAN
154-05-09-026	ALBIE & JULIA CLIFTON
154-05-09-027	LAWRENCE & VALERIE WIGGINS
154-05-09-028	ERIK & SARAH THOMSEN
154-05-09-029	BRIAN K. FERGUSON
154-05-09-030	ROBERT & DORIS CAREY
154-05-09-031	WANG HUE & JENNIFER ZHANG
154-05-09-032	DANIEL & ALEXANDRIA BUTLER
154-05-09-033	DUSTIN & SHANNON EUGLEY
154-05-09-034	DEUTSCHE BANK & TRUST
154-05-09-035	JOHN A. ADCOCK JR.
154-05-09-036	YOULANDA L. COAXUM
154-05-09-037	RICKY & SARAH SMITH

TAX PARCEL NO.	PROPERTY OWNER
154-05-09-038	PETER F. SCHWARTZ
154-05-09-039	BRANNON & ANGELA MOBLEY
154-05-09-040	TOM & NGA PHAM DUONG
154-05-09-041	WILLIAM E. BAKER JR.
154-05-09-042	DAVID & MICHELLE ARELLANES
154-05-09-043	CRAIG & PAULA TWIGGS
154-05-09-044	MELVIN & MARIE GRAY
154-05-09-045	THOMAS & JENNIFER GRAHAM
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154-05-09-050	MARLON A. POWELL
154-05-09-051	BRIDGETTE L. KIFER
154-05-09-052	JOHN & LISA CLAY
154-05-09-053	VUILLE GEOFFREY
154-05-09-054	EDWARD & BEVERLY SYNICKY
154-09-14-011	BEAZER HOMES COPORATION
154-05-07-008	DAVE & RITA OBERSTAR
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154-05-07-012	ARDIE PEDEN

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154-05-07-015	JOHN W. CORCORAN TRUSTEE
154-05-07-016	BRANCH BANKING & TRUST
154-05-07-017	ANTHONY & FRANCES VACCARO
154-05-07-018	WILLIAM E. PELLMAN
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154-05-07-021	JAMES J. HABERCAM
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154-05-07-023	SAMUEL R. MUSCARELLA
154-05-07-024	LARRY & BARBARA HARPER
154-05-07-025	NANCY NEUMAN & JUNIE CAMMAROTA
154-05-07-026	DENNIS E. MARTIN
154-05-07-027	MELISSA L. ENRIQUEZ
154-05-07-028	MILTON & AMY SEYMOUR
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154-05-07-036	JACK & DONNA AUTRY
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145-16-02-047	MARCHE CALDWELL
145-16-02-046	DAVID F. THORNTON

TAX PARCEL NO.	PROPERTY OWNER
145-16-02-045	DAVID A. MANNGOING
145-16-02-044	SANDRA L. BEL (JOHNSON)
145-16-02-043	SANDRA M. DILLS
145-16-02-015	BROOK N. CAMPBELL
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145-16-02-012	CARL SMITH
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154-00-00-001	SC RETARDED CHILDREN CTR
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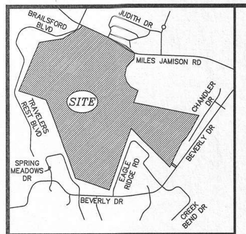
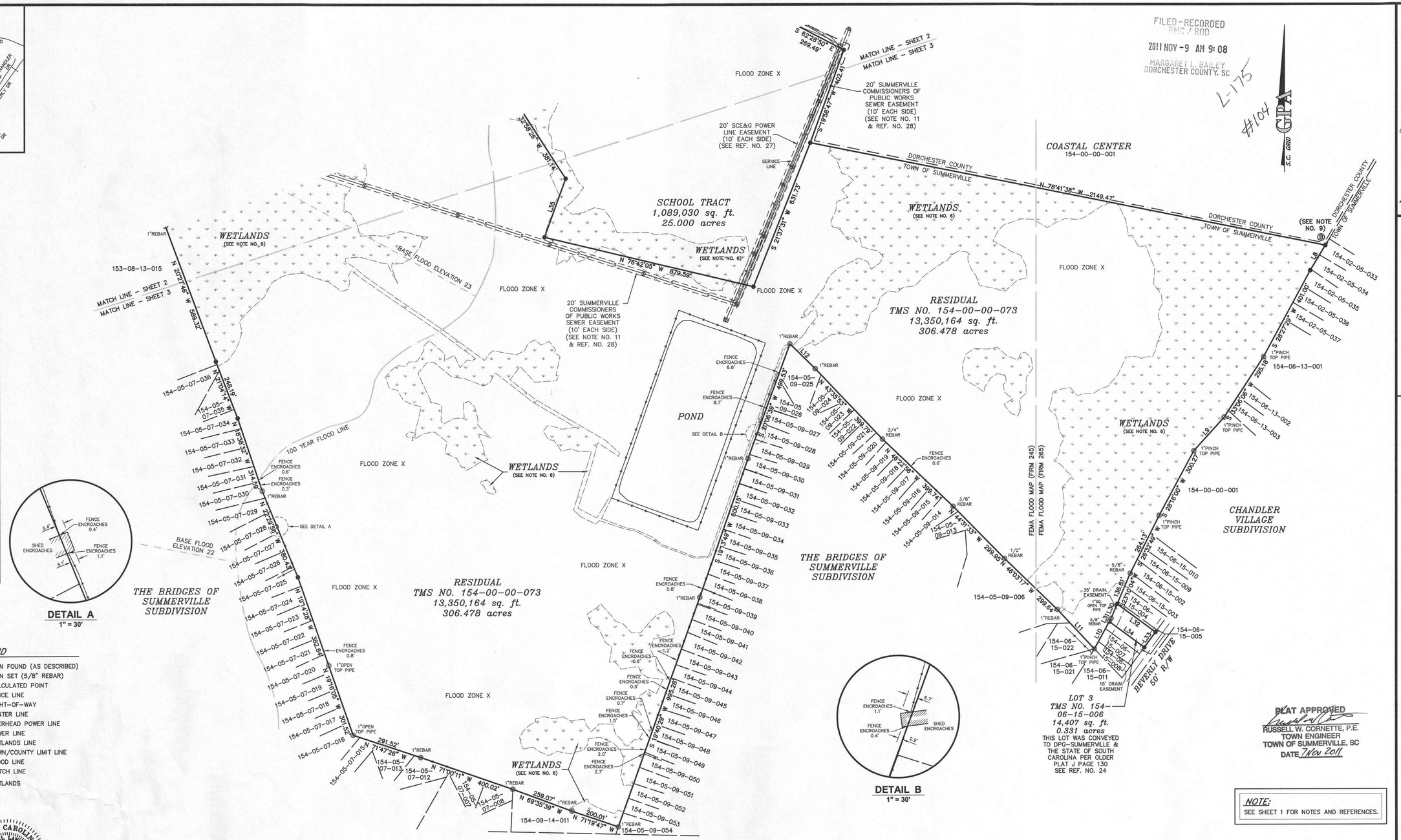
146-13-01-027	NORMAN & SANDRA CARVALHO

SHEET	OF
2	3



VICINITY MAP (NTS)

LINE TABLE		
LINE	LENGTH	BEARING
L1	284.94	S61°27'31"E
L2	210.97	S61°27'31"E
L3	170.82	S61°27'31"E
L4	85.64	S51°42'15"E
L5	248.74	S51°42'15"E
L6	16.98	S51°42'15"E
L7	118.03	S49°26'13"W
L8	119.52	S31°09'10"W
L9	184.91	S42°02'29"W
L10	127.37	N28°34'13"E
L11	221.88	N43°07'41"W
L12	144.61	N45°36'46"W
L13	184.79	N23°05'28"W
L14	119.76	N69°27'59"W
L15	303.51	N23°54'34"E
L16	215.30	N27°07'52"E
L17	658.81	N23°42'45"E
L18	301.22	N23°49'39"E
L19	127.50	N32°34'37"E
L20	127.30	N55°14'01"E
L21	130.42	N73°44'10"E
L22	282.01	N83°44'56"E
L23	154.00	N76°26'54"E
L24	349.15	N64°55'31"E
L25	246.27	N63°09'38"E
L26	93.61	N63°18'04"E
L27	113.79	N42°34'24"E
L28	81.30	N21°52'51"E
L29	66.00	S18°18'02"W
L30	64.30	S23°07'54"W
L31	15.09	S28°26'55"W
L32	194.73	S53°40'50"E
L33	77.55	N36°19'06"E
L34	177.99	N53°40'52"W
L35	254.93	N19°54'00"E
L36	293.64	N57°01'32"E
L37	27.50	N32°58'28"W
L38	27.50	N32°58'28"W
L39	160.87	N57°01'32"E
L40	187.68	N69°56'24"E
L41	160.87	N57°01'32"E
L42	187.68	N69°56'24"E
L43	403.73	N06°48'03"E
L44	441.05	N29°43'18"E
L45	160.87	N57°01'32"E
L46	187.68	N69°56'24"E
L47	93.21	N06°48'03"E
L48	209.47	S80°10'20"E



LEGEND

- IRON FOUND (AS DESCRIBED)
- IRON SET (5/8" REBAR)
- CALCULATED POINT
- FENCE LINE
- RIGHT-OF-WAY
- CENTER LINE
- OVERHEAD POWER LINE
- SEWER LINE
- WETLANDS LINE
- TOWN/COUNTY LIMIT LINE
- FLOOD LINE
- MATCH LINE
- WETLANDS

SOUTH CAROLINA GPA PROFESSIONAL LAND SURVEYORS No. C01580 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA PROFESSIONAL LAND SURVEYOR NO. 22742 JOHNATHAN F. BURNS

I, JOHNATHAN F. BURNS, A PROFESSIONAL LAND SURVEYOR IN THE STATE OF SOUTH CAROLINA, HEREBY STATE THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THE SURVEY HEREIN WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF MINIMUM STANDARDS MANUAL FOR THE PRACTICE OF LAND SURVEYING IN SOUTH CAROLINA, AND MEETS OR EXCEEDS THE REQUIREMENTS FOR A CLASS A SURVEY AS SPECIFIED THEREIN, ALSO THERE ARE NO VISIBLE ENCROACHMENTS OR PROJECTIONS OTHER THAN SHOWN.

THIS SURVEY IS NOT VALID UNLESS EMBOSSED WITH AN ORIGINAL SURVEYOR'S SEAL. THIS SURVEY HAS BEEN DONE WITHOUT THE BENEFIT OF REVIEWING A CURRENT TITLE SEARCH.

WITNESS MY ORIGINAL SIGNATURE, LICENSE NUMBER AND SEAL THIS 14TH DAY OF OCTOBER, 2011.

JOHNATHAN F. BURNS, PLS-22742

TAX PARCEL NO.	PROPERTY OWNER
154-00-00-073	SC RETARDED CHILDREN CTR
154-06-13-001	STANLEY T. MCCARDLE
154-06-13-002	DAVID CHRISTOPHER GAETANO
154-06-13-003	BILLY F. HUBBARD
154-00-00-010	J. FOSTER SMITH
154-06-15-010	J. FOSTER SMITH
154-06-15-009	J. FOSTER SMITH
154-06-16-002	DEREK J. CLEMENTS
154-06-15-003	J. FOSTER SMITH
154-06-15-004	ANNE E. TARTER
154-06-15-005	J. FOSTER SMITH
154-06-15-006	STATE OF SOUTH CAROLINA
154-06-15-007	J. FOSTER SMITH
154-06-15-008	J. FOSTER SMITH
154-06-15-011	REGINALD & KARTIKA RIVERS SR.
154-06-15-022	EDWARD & MICHELE NEVILLE
154-05-09-006	SUMMERVILLE PROP OWNER ASSC.
154-05-09-013	WILLIAM COSTANZO
154-05-09-014	SAMUEL A. RICHARDSON
154-05-09-015	HALE SHANNON
154-05-09-016	JEFFREY & DENISE MCKINNEY

TAX PARCEL NO.	PROPERTY OWNER
154-05-09-017	PATRICK & SEAN HINSON
154-05-09-018	SC PARK PLANNING TRUST
154-05-09-019	HARRY & CHRISTINA BECK
154-05-09-020	RYAN & JENNIFER MULLIGAN
154-05-09-021	JAMES & DEBRA GONZALES
154-05-09-022	CHRIS & NICHOLE YOUNG
154-05-09-023	JOSEFINA ACEVEDO
154-05-09-024	ROBERT & NOREEN MITCHELL
154-05-09-025	NICHOLAS & JAMIE SULLIVAN
154-05-09-026	ALBIE & JULIA CLIFTON
154-05-09-027	LAWRENCE & VALERIE WIGGINS
154-05-09-028	ERIK & SARAH THOMSEN
154-05-09-029	BRIAN K. FERGUSON
154-05-09-030	ROBERT & DORIS CAREY
154-05-09-031	WANG HUE & JENNIFER ZHANG
154-05-09-032	DANIEL & ALEXANDRIA BUTLER
154-05-09-033	DUSTIN & SHANNON EUGLEY
154-05-09-034	DEUTSCHE BANK & TRUST
154-05-09-035	JOHN A. ADCOCK JR.
154-05-09-036	YOULANDA L. COAXUM
154-05-09-037	RICKY & SARAH SMITH

TAX PARCEL NO.	PROPERTY OWNER
154-05-09-038	PETER F. SCHWARTZ
154-05-09-039	BRANNON & ANGELA MOBLEY
154-05-09-040	TOM & NGA PHAM DUONG
154-05-09-041	WILLIAM E. BAKER JR.
154-05-09-042	DAVID & MICHELLE ARELLANES
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145-16-02-047	MARCHE CALDWELL
145-16-02-046	DAVID F. THORNTON

TAX PARCEL NO.	PROPERTY OWNER
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145-16-02-044	SANDRA L. BEL (JOHNSON)
145-16-02-043	SANDRA M. DILLS
145-16-02-015	BROOK N. CAMPBELL
145-16-02-014	ANDREW MAZO
145-16-02-012	CARL SMITH
145-16-02-011	SHERALD M. THOMAS ET. AL.
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145-16-02-005	GEORGE R. GOBLET
145-16-02-004	MAZZIE BROOKS
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145-16-02-002	SHIRLEY S. BATES
145-16-02-001	ENKNA PRINGLE
154-00-00-001	SC RETARDED CHILDREN CTR
146-00-00-068	SC RETARDED CHILDREN CTR
146-13-07-001	KENNETH & BRENDA MACK
146-13-06-002	GREENHURST DEV. CO. INC

TAX PARCEL NO.	PROPERTY OWNER
146-13-05-006	KENNETH L. NICHOLS
146-13-05-005	JOSE PROPERTIES
146-13-01-001	JAMES & MELISSA MILD
146-13-01-002	LAURA K. ELLIS
146-13-01-003	TOBY LEE HAGEN
146-13-01-004	TERRELL R. GOODWINE
146-13-01-005	BRENDA C. LEMON
146-13-01-007	DIONNE W. ROLLERSON
146-13-01-008	GEORGE & APRIL SHREAD
146-13-01-009	SHORE PROPERTIES LLC
146-13-01-010	LUTHA WILLIAMS & ETHEL &
	CRAIG & MARK & PAMELA PLOWDEN
146-13-01-011	THELMA D. HAINES
146-13-01-028	KEVIN P. MILES
146-13-01-027	NORMAN & SANDRA CARVALHO

PLAT APPROVED
RUSSELL W. CORNETTE, P.E.
TOWN ENGINEER
TOWN OF SUMMERVILLE, SC
DATE 7 Nov 2011

NOTE:
SEE SHEET 1 FOR NOTES AND REFERENCES.

GPA
PROFESSIONAL LAND SURVEYORS

237 OLD SUMMERVILLE RD
UNIT H
SUMMERVILLE SC 29483
OFFICE (843) 285-2424

(CHARLOTTE BRANCH)
605 PHILLIP DAVIS DRIVE
CHARLOTTE NC 28236-6916
OFFICE (704) 335-8600

CHARLESTON SC 29492
OFFICE (843) 971-9099
FAX (843) 971-9992

"Integrity Without Boundaries"
www.gpaland.com

SCALE 1"=200'
FLD. BK. P.G.
JOB NO. 115081
DATE 09/29/11
DRAWN BY WGM
CHECKED BY DLG

PREPARED FOR DORCHESTER COUNTY

SHOWING THE SUBDIVISION OF TMS NO. 154-00-00-073
TO CREATE SCHOOL TRACT
AND SHOWING TMS NO. 154-00-00-073 & TMS NO. 146-00-00-068
OWNED BY S.C. RETARDED CHILDRENS HABILITATION CENTER
AND TMS NO. 154-06-15-006 OWNED BY THE STATE OF SOUTH CAROLINA
LOCATED IN AND NEAR THE TOWN SUMMERVILLE DORCHESTER COUNTY, SOUTH CAROLINA

SUBDIVISION PLAT

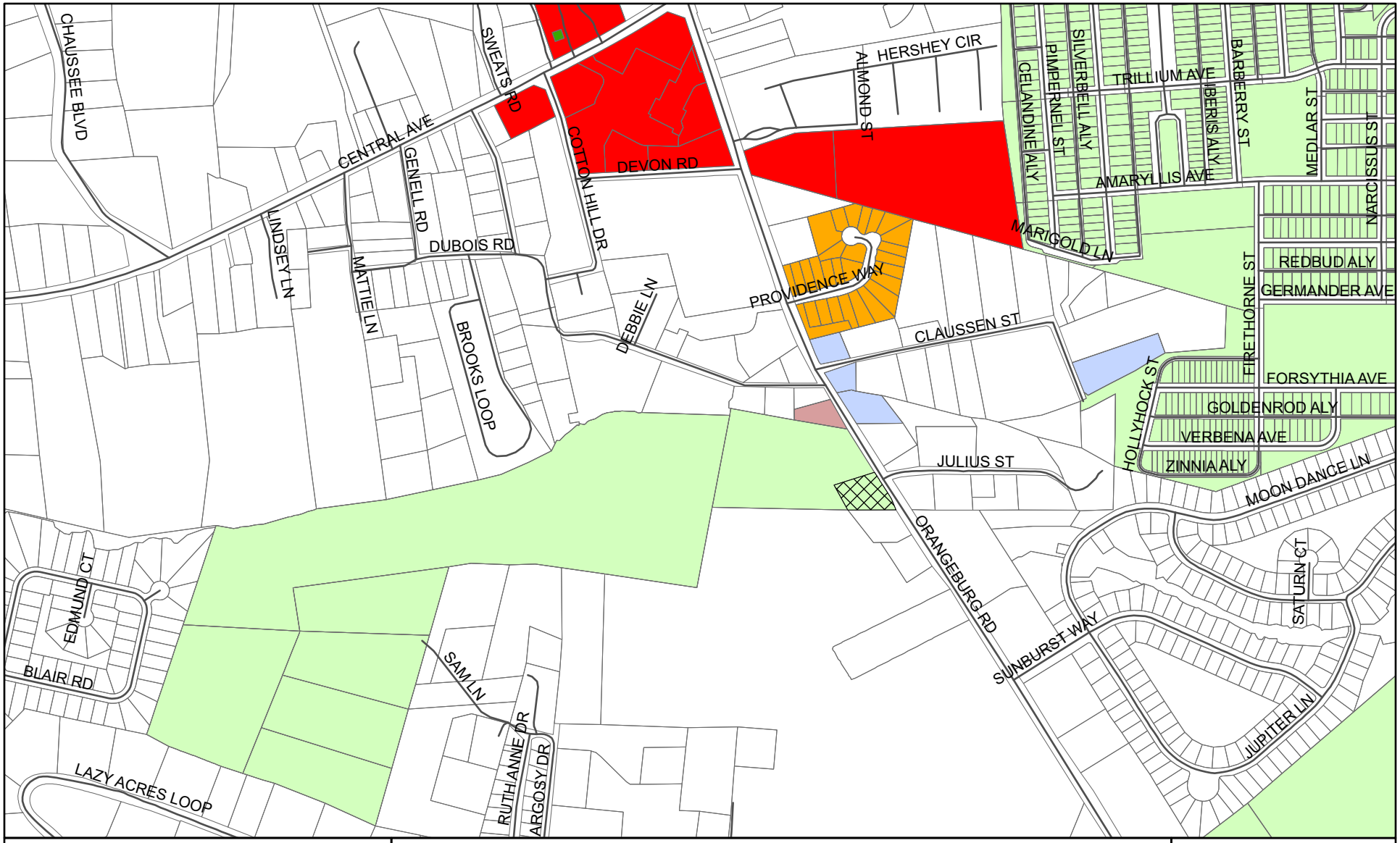
SHEET 3 OF 3

ANNEXATION AND PUD AMENDMENT
STAFF REPORT
PLANNING COMMISSION
May 18, 2020

TMS#s: 144-01-00-005
Location: 795 and 803 Orangeburg Road
Description: one lot, approximately one acre for annexation, PUD amendment to Knightsville Tract PUD to add said lot for open space and commercial uses
Request: Annexation and PUD amendment

The property owner is requesting for the above referenced parcel to be annexed into the Town from Dorchester County. The existing zoning in Dorchester County is R-4, Multi-family Residential.

This property lies outside of the Planning Area that was established at the time the Town's Comprehensive Plan and Update was completed in 2011. The Comprehensive Plan is in the process of being updated, and it should be noted that the draft Future Land Use Map currently shows this area as general commercial. The property owner is requesting to amend the existing Knightsville Tract PUD to include this property for open space and commercial uses. Based on these findings this request is is recommended for approval.



Annexation Request

Zoning

G-B

GR-5

N-B

N-R

PL

PUD

Annexation & PUD Amendment Exhibit
Knightsville Tract

Disclaimer: This map is a graphic representation of data obtained from various sources. All efforts have been made to warrant the accuracy of this map; however, the Town of Summerville disclaims all representation and liability for the use of this map.

2020

Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere

N

0 0.1 0.2 Mi

TOWN OF SUMMERVILLE
ANNEXATION APPLICATION

1. **OWNER INFORMATION:** Please complete the following application to request that your property be incorporated into the municipal limits of the Town of Summerville. Phone numbers will not be published. All owners of the property sign page two and submit it to the Planning Department. *Required

*Property Owner(s): KNIGHTSVILLE LLC

*Mailing Address: 572 SAVANNAH HWY *Telephone: 843.693.4141

*City: CHARLESTON *State: SC *Zip: 29407 Email: joshua.craig@crescenthomes.net

2. **PROPERTY INFORMATION:** Municipalities must provide the U. S. Justice Department with the population demographics and the land use of each property added to the Town. Write "None" if the property is vacant. Population data is used to create voting districts and does not impact the decision to approve your annexation.

*Property Address: 795 ORANGEBURG RD. Tax Map Number: 144-01-00-005

*Number of Current Residents: 0 *Race of Current Residents: N/A

Current Land Use: HOME (i.e. home, bank, carwash, etc.) Future Land Use: COMMERCIAL / OPEN SPACE (i.e. home, bank, carwash, etc.)

Current County Zoning Classification: R4

Requested Zoning Classification: PUD

3. **SUBMIT APPLICATION:** Please submit signed* application and a copy of the recorded plat and recorded deed to:

MAIL: Town of Summerville, 200 S. Main Street, Planning Department

PICKUP: Call the Planning Department at 843.851.4214

STATE OF SOUTH CAROLINA)
) PETITION FOR ANNEXATION
COUNTY OF DORCHESTER)

TO THE HONORABLE MAYOR AND TOWN COUNCIL OF SUMMERVILLE

WHEREAS, SECTION 5-3-150 (3) Code of laws of South Carolina provides for the annexation of an area or property which is contiguous to a Town by filing with the municipal governing body a petition signed by all persons owning real estate in the area requesting annexation, and

WHEREAS, the undersigned are all persons owning real estate in the area requesting annexation, and

WHEREAS, the area requesting annexation is described as follows, to wit:

SAID PROPERTY, located at 795 ORANGEBURG RD. (approximately 1.00 acres) to be annexed is identified by the DORCHESTER County Assessor's Office as Property Identification Number: TMS # 144-01-00-005 to include, if necessary to establish contiguity, any road, waterway, easement, railroad track, marshland or utility line that intervenes between this property and the municipal limits of the Town of Summerville.

NOW, THEREFORE, the undersigned petition the Town Council of Summerville to annex the above described area into the municipal limits of the Town of Summerville.

Dated this 27 day of MARCH, 2020.

FREEHOLDERS (OWNERS) SIGNED	DATE OF SIGNATURE
CFO (Signature)	3/27/2020 (Date)
Jim Cone (Print Name)	
(Date)	(Signature)
(Print Name)	

MARGARET L BAILEY

DORCHESTER COUNTY

REGISTER OF DEEDS

201 Johnston Street ~ Saint George, SC 29477 (843) 563-0181

***** THIS PAGE IS PART OF THE INSTRUMENT - DO NOT REMOVE *****

***** ELECTRONICALLY RECORDED DOCUMENT *****

Instrument #:	2020002061		
Receipt Number:	79920	**Return To:**	
Recorded As:	EREC-DEED		
Recorded On:	January 28, 2020		
Recorded At:	08:38:53 AM	**Received From:**	SIMPLIFILE
Recorded By:	NW	**Parties:**	
Book/Page:	RB 12299: 202 - 206		Direct- CHARPIA, GEORGE LEWIS
Total Pages:	5		Indirect- KNIGHTSVILLE LLC

***** EXAMINED AND CHARGED AS FOLLOWS *****

Recording Fee:	$15.00
Consideration:	$115,000.00
County Tax:	$126.50
State Tax:	$299.00
Tax Charge:	$425.50

Margaret Bailey

Margaret Bailey - Register of Deeds

Prepared By:

Cooperative Title, LLC
852 Orleans Rd., Suite 205
Charleston, SC 29407

STATE OF SOUTH CAROLINA)
)
COUNTY OF DORCHESTER)

GENERAL WARRANTY DEED

The designation Grantor and Grantee as used herein shall include the named parties and their heirs, successors and assigns and shall include singular, plural, masculine, feminine or neuter as required by context.

KNOW ALL MEN BY THESE PRESENTS, that **Donald J. Charpia, Personal Representative of the Estate of George Lewis Charpia**, in the State aforesaid, for and in consideration of the sum of ONE HUNDRED FIFTEEN THOUSAND AND NO/100 DOLLARS ($115,000.00), the receipt and sufficiency of which is here acknowledged, has granted, bargained, sold and released, and by these presents do grant, bargain, sell and release unto the said:

Knightsville, LLC

All Grantor's right, title and equitable or legal interest in and to:

ALL that certain piece, parcel or tract of land. with the buildings and improvements thereon , situate, lying and being in the County of Dorchester, State of South Carolina and in School District #14 pf the County aforesaid, measuring and containing one (1) acre, more or less, butting and bounding as follows, to-wit: on the North and West by lands now or formerly of Henry E. Busch; on the East by Orangeburg Road, known now as SC Highway 642; and on the South by lands now or formerly of Rosalee Grooms, Said property having such size, shape, form, marks, courses, distances, boundings and contents are delineated on a plat prepared by Hugh Hamilton, dated December 3, 1943, and recorded in the Office of the Register of Deeds for Dorchester County in Plat Book 6 at Page 185. Reference is made to said plat for a more complete and accurate description; all measurements being a little more or less.

Being the same property conveyed to George Lewis Charpia and Delores G. Charpia by deed of Delores G. Charpia by deed dated September 27, 2007 and recorded in Book 6284 at page 124 in the Dorchester County ROD's Office. Also being a portion of the property conveyed to George L. Charpia by deed of distribution of the Estate of Julia Delores Charpia by deed of Distribution dated February 24, 2009 and recorded February 27, 2009 in Book 6964 at page 164 in the Dorchester County ROD's Office.

TMS # 144-01-00-005.000

HARVEY & VALLINI, LLC
ATTORNEYS AND COUNSELORS AT LAW
497 BRAMSON COURT, SUITE 201
MT. PLEASANT, SC 29464-8325
FILE NO. 19-6446 sch

Dorchester County Tax Map No.: 144-01-00-005.000

Common Address: 795 Orangeburg Road, Summerville, SC 29485

Grantee Address: 572 Savannah Highway, Charleston, SC 29407

TOGETHER with all and singular, the rights, members, hereditaments and appurtenances to the said premises belonging or in anywise incident or appertaining.

TO HAVE AND TO HOLD, all and singular the said premises before mentioned unto the said Grantee, and Grantee's heirs and assigns forever.

AND GRANTOR DOES hereby promise, for themselves and Grantor's heirs, successors, assigns, and representatives, to warrant and forever defend the above premises unto the Grantee, Grantee's heirs and assigns, against the Grantor and Grantor's heirs, successors, assigns, and representatives and against every person whomsoever lawfully claiming, or to claim, the same or any part thereof.

WITNESS the Hand and Seal of Donald J. Charpia, Personal Representative of the Estate of George Lewis Charpia this 24th **day of** January and in the year of our Lord, Two Thousand and Twenty (2020) and in the Two Hundred Forty Fourth (244th) year of the Sovereignty and Independence of the United States of America.

Signed, Sealed and Delivered
in the presence of:

Witness No. 1

Witness No. 2 (NOTARY)

The Estate of George Lewis Charpia

BY: _____
Donald J. Charpia
Personal Representative for The Estate of George Lewis Charpia

STATE OF South Carolina

County OF Dorchester

I, Raymond W Smith, a Notary Public for the State of and State of South Carolina, do hereby certify that Donald J. Charpia, Personal Representative of the Estate of George Lewis Charpia personally appeared before me this day and acknowledged the due execution of the foregoing instrument.

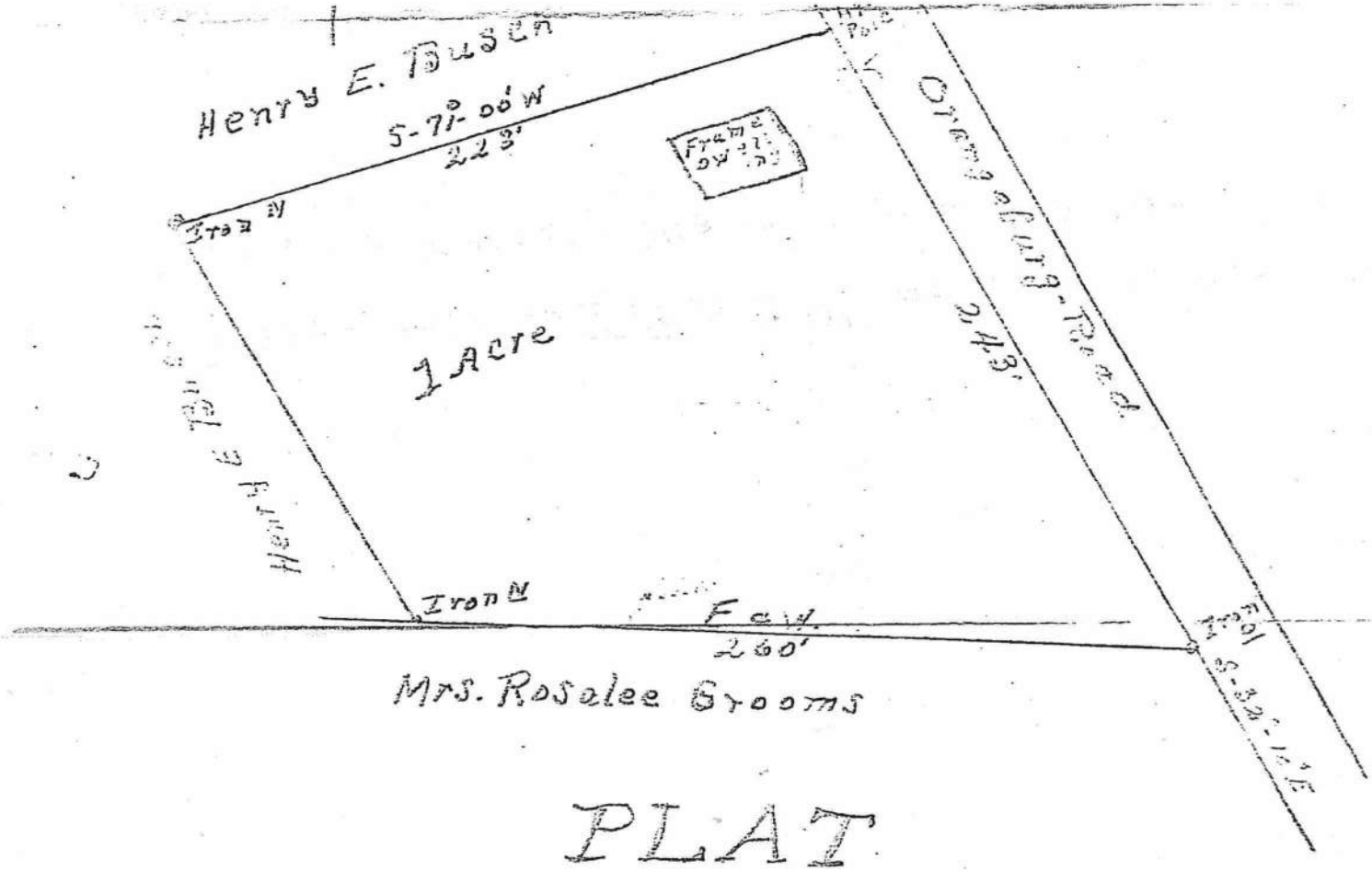
Witness my hand and official seal, this the 24th of January, 2020.

Notary Public

My Commission Expires: 2/3/25

(SEAL)

RAYMOND W. SMITH
My Commission Expires
NOTARY PUBLIC
02-03-2025
STATE OF SOUTH CAROLINA



PLAT

Represents "A TRACT" of Land in the village of Knightsville in the County of Dorchester in the State of South Carolina Said Tract is about to be Conveyed to;

JOSEPH H. and MRS HAZEL I. BUSCH

Scale 1in = 60 feet
November 3rd 1943

Hugh Hamilton Surveyor
Summerville S.C.

Recorded Dec. 3rd 1943 1-P.M.

Deed Book # 0110 Pg. 575
Plat Book #6 Page 185

PLANNED UNIT DEVELOPMENT

FOR THE

KNIGHTSVILLE TRACT

Town of Summerville
Dorchester County, South Carolina

April 12, 2018
Amendment April 22, 2020

Prepared by:
Seamon, Whiteside and Associates, Inc.
128 South Main Street
Suite B
Summerville, South Carolina 29483

Project Summary and Objectives of the Proposed Neighborhood

The proposed development of the Knightsville Tract as a Planned Development is to allow for the construction of a mixed use development, primarily residential in nature that incorporates an educational interpretive path around the preserved areas. It is envisioned that the interpretive path will meander around the property and provide opportunities for interpretive "stations" to be created for the education of the users. The stations would be located in areas where amenities such as wetland ecosystems, native vegetation or wildlife can be explored. It is the intent of the planned development to preserve many of the existing trees in the residential portion. Care has been taken to situate lot lines and roadways in order to minimize the removal of trees.

Project Location

The Knightsville Tract is a compilation of several parcels with frontage on Orangeburg Road. The property is approximately 77 acres consisting of 67 acres of wooded highland and 10 acres of wetland. All tracts are located in Dorchester County and zoned R4.

The TMS numbers for the properties are:

1. 144-01-00-004
2. 143-04-00-013
3. 143-04-00-012
4. 143-04-00-018
5. 143-04-00-019
6. 143-04-00-020
7. 143-04-00-021
8. 144-01-00-005

It is requested that all of the parcels be annexed into the Town and the entire acreage to be zoned PUD. All parties have agreed to annex into the Town and there are no longer any adverse annexation concerns.

Development Guidelines

The current zoning and planning regulations of the Town of Summerville as of the time of this PUD as approved by Town Council shall govern any zoning or planning item not specifically addressed with this rezoning application. The PUD may be amended by adding contiguous properties through the "Major Changes" section 32-125 of the Town of Summerville Zoning Ordinance.

Permitted Uses

This PUD shall allow a mixture of land uses including single family detached, single family attached, educational, recreational, and commercial uses. The commercial tract will be

approximately 1 acre in size as designated on the Conceptual Development Plan at the entrance along Orangeburg Road. Allowable commercial uses for the commercial tract will be those currently allowed under the Town's B-1 and B-2 zoning.

Area and Yard Requirements

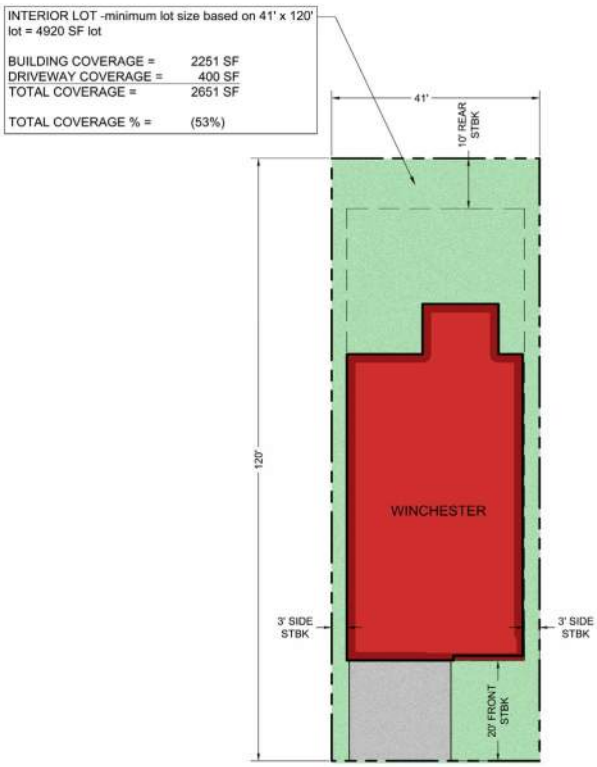
Maximum Density	300 units
Minimum Single Family Lot Size	3,850 square feet (35' x 110')
Minimum Town Home Lot Size	2,000 square feet (20'x100')
Minimum Lot Frontage	20' (measured from the front setback, along curves)
Front Yard Setback	20' (15' if building is rear loaded)
Side Yard Setback	3' (same for accessory structures)
Side Yard Adjacent to Side Street	5' (same for accessory structures)
Rear Yard Setback	10' if front loaded; (15' for rear loaded garages) (5' for accessory structures)

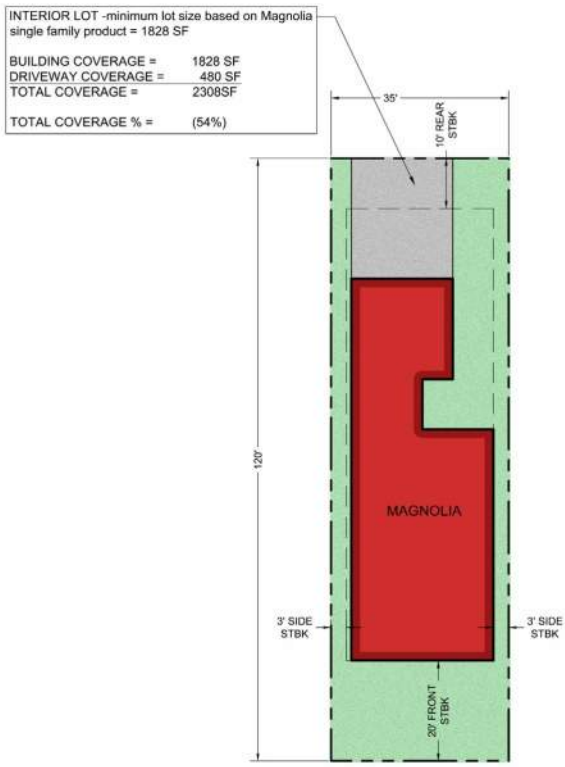
Notes:

- Building setbacks are measured to the face of the structure. Roof overhangs, steps, porches, mechanical equipment servicing the building, and screening walls are allowed to encroach into the setback by a maximum of three feet (3'), but not into easements or rights of ways.
- There are zero setbacks if buildings are adjoining, such as town homes or commercial uses.
- Corner lots require only one front setback.
- The minimum distance between buildings shall be determined based on Fire Code requirements at the time the building permit application is submitted.
- Buffering of adjacent properties outside of this PUD will comply with current Town of Summerville zoning regulations.

Building Design and Site Plan Review

Maximum Lot Impervious Ratio	60% (Single Family) 75% (Town Home)
Maximum Building Height	35' 20' for accessory structures





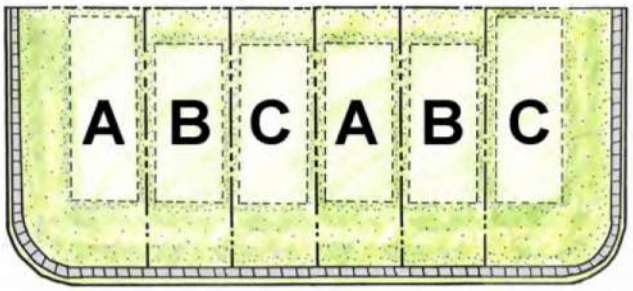
- Building heights are measured from average adjacent ground at the corners of the building to the eave of the structure, excluding any decorative cupolas and/or fireplace chimneys.
- Accessory buildings shall not be taller than the primary structure.
- The architecture will be in keeping with already present styles located with the Town of Summerville. All homes will be constructed with brick and cementitious siding. Vinyl siding is not an approved siding material. Vinyl siding may be used in trim, soffit, and fascia on all elevations and along porch ceilings.

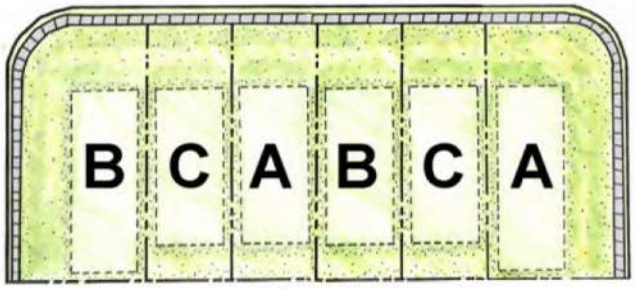
Façade Variety Program

In order to avoid monotony of architectural design, no approval shall be issued for the construction of a single family home if it substantially like any proposed neighboring building for which an approval has already been issued.

- A building shall be considered neighboring it if fronts on the same street as the building under construction or an intersecting street; no building elevation be repeated across from, adjacent to, or diagonal to a similar building elevation. There shall be a minimum of a 2-lot gap between each similar building elevation (see diagram above in which A, B, C represent different elevation styles).

- Vary garage door locations to the front façade of the house when possible. Avoid continuous runs of garages in the same unbroken plain.
- Vary roof orientation, ridge lines and eave heights between each lot when possible.
- Building façade colors and design elements should vary between each lot with a variation of massing and architectural details on each block.
- Landscaping shall vary in composition, layout and species of plants between each lot.





Surveys
A tree survey of all trees 24" dbh and larger has been completed for all the highland acreage. Prior to clearing, a tree survey of trees 16" – 24" will be prepared and submitted to staff during the preparation of Construction Documents for review and approval of tree removal.

A boundary, tree, and wetland survey has been prepared and is included in this PUD.

Signage
Monument Signage, one or one on each side of roadway, identifying the development shall be permitted with a maximum of 25 square feet of sign area. The sign shall be located within the limits of the property along Orangeburg Road, and are allowed within the landscape buffer or border area, as long as they are not located in the intersection line of site. All other Town of Summerville sign regulations at the time of approval shall be incorporated.

Landscape Buffering
A 25' buffer landscape buffer shall be provided along Orangeburg Road. The buffer may be adjusted to provide the required SCDOT site distances at the proposed intersections. Buffer planting shall follow the regulations outlined for a Class 3 buffer in the current Town of Summerville buffer requirements with the exception that no fence shall be required. Installation of specified buffers must completed within the first phase of development.

Tree Protection and Mitigation

All mitigation for tree removal will be provided on site though planting new canopy trees 2 1/2" caliper or larger along streets, parks or buffers. Grand trees will be graded by a certified arborist. Trees that are A and B will require mitigation. However, trees less than a B, do not require mitigation. These would typically be trees that are diseased, dying, or have poor form.

Sweet Gum trees, regardless of size or condition, are not required to be mitigated. Trees less than 16" may be required to be surveyed, protected, or mitigated in Single Family Home or Town Home lots.

Trees are allowed to be planted within street rights of way with no underground root barrier required. Street trees and sidewalks shall be maintained by the HOA. The Town is allowed to maintain trees in emergency situations such as if a tree is blocking traffic.

Allowable street trees shall be Elms, Overcup Oaks, Live Oaks, Nutall Oaks, Willow Oaks, and Shumard Oaks. Tree species not listed may be used if approved by Town staff.

Phased Earthwork

Mass grading and removal of trees is allowed if the following conditions are met:

- On those lots having proposed building pads with elevation changes in excess of 24" over existing grade.
- Street Trees shall be planted along both sides all streets and shall have an average spacing of 35' to 50'. Street trees shall be 2 ½" minimum caliper.
- Each single family home shall have at least 3 trees and town homes shall have 1 tree, 2 ½" minimum caliper, to be planted on the lot.
- Trees shall be planted at least 10' from any structure.
- Grand trees graded A & B, if removed, shall be mitigated at 100%.
- A ¼ acre sample area of existing trees 6" d.b.h. and greater shall be provided to determine mitigation on lots and HOA areas, in lieu of a 6" tree survey.
- Clearing and mass grading can only occur one phase at a time.
- Street trees will be allowed to count towards mitigation.
- At least 50% of the lots must have construction started before clearing will be approved for the next phase.

Interpretive Pathway

A five foot (5') minimum width interpretive path utilizing a system of trails, boardwalks, and sidewalks is to be constructed throughout the development. An approximate location of the path is shown on the Conceptual Development Plan. It is the intent to field locate the path during construction in order to minimize the disturbance or removal of existing vegetation. Interpretive signs shall be installed to educate the residents about the diversity and ecology of the wetland system. Signage shall be at the sole discretion of the developer and are not required to meet any of the Town of Summerville's codes. Installation of the path must be completed during the phase in which it occurs, and the overall path must be complete prior to 80% of the residential lots being constructed and certificates of occupancy issued.

All pathways, trails and sidewalks shall be maintained by the HOA and open to the public. Pathways must be utilized in wetland areas and they shall be permanent surfaces such as plantation mix and boardwalks. Permanent materials shall be used for all other paths to ensure long-term viability. Trails will also include fitness stations.

Open Space, Parks and Recreation Areas

An amenity center is being proposed within the development to provide for recreation and opportunities for residents to congregate and socialize. The amenity center will have a pool, amenity building, pool deck, be well landscaped, have a playground, and will tie into the overall trail system. The amenity center will be available to the public for a fee through a Club Membership program. The architectural design, massing, and finishes will be equal to or better than the attached example. Installation of improvements must be completed prior to 80% of the residential lots being constructed and certificates of occupancy issued.

Five percent (5%) of the developable areas shall be devoted to open space. Developable areas shall be defined as the total project area minus dedicated roadways and wetlands.

Open space can include wetland buffers, storm water ponds (if amenitized), landscape buffers, trails, boardwalks, and paths. Open space may not be confined to one area, but should blend throughout the development.

Five percent (5%) of the developable area shall be improved Park Spaces such as neighborhood parks, squares and greens, play grounds, and amenity centers. These areas shall be landscaped, have benches, bike racks, other site furnishings and shall serve as focal points for the neighborhood. Designs of these areas shall be submitted to Town staff for approval and compliance with this PUD.

No residential unit shall be further than ¼ mile from a Park Space. All park spaces shall be constructed, owned, and maintained by the developer or the HOA.

The Hurricane Branch and wetlands shall be essentially a Conservation Area with walking trails, boardwalks, and educational opportunities. An interpretive pathway will be provided as outlined above to encourage residents to interact with the natural environment.

All amenities will be built at the developer's expense and reviewed by Town staff to ensure compliance with the intent of the PUD.

Roads and Transportation

The roads and drainage system shall be designed per the Town of Summerville standards with a maximum speed limit of 25 miles per hour. The roads shall be curb and gutter and within a minimum 50' right of way to be dedicated to the public. Alleys shall be private with a 20' right of way and 16' travel lane.

A five foot (5') sidewalk shall be on each side of the roadway. Sidewalks within common areas, not fronting on lots, will be constructed with the infrastructure. A sidewalk, or a trail, will be run from within the development, along the entry road to tie into Orangeburg Road.

A trail or sidewalk will be provided from the project site along Orangeburg Road to the Knightsville Elementary School Campus. This will be at the developer's expense. This trail will encourage pedestrian interconnectivity between the neighborhood and school.

Should adjacent tracts be developed in the future, a minimum of two stub outs will be provided to allow future road and sidewalk interconnectivity between tracts. Final locations shall be determined and coordinated with Town staff.

Construction routes for different phases shall be submitted to Town staff for review and approval. The locations, applications and potential modifications of the proposed road sections shall be submitted for review and approval by the Town Engineer. It shall be the developer's responsibility to ensure construction access does not negatively impact existing neighborhood roads. If an alternate construction route cannot be acquired, a surety bond shall be posted to cover road maintenance.

A preliminary Traffic Impact Analysis has been performed addressing access to the development, existing and proposed traffic volumes and distributions, and the effects of the project on adjacent roadways. A copy of this report is included in this PUD. Road improvements required for this project as outlined in the Traffic Impact Analysis will be built at the developer's expense.

The Central Avenue/Orangeburg Road traffic improvements shall be completed by the 100th living unit (Single Family Home or Townhome) is completed, Certificate of Occupancy issued, or sooner. The improvements to Orangeburg Road at the site entrance shall be completed before a final plat is recorded.

Drainage

The property drains from highland along the boundary lines towards the wetland fingers and then to the Hurricane Branch along the center of the property. Runoff from developed property will be routed through detention pond systems prior to its ultimate outfall. These ponds will be designed to limit post-development runoff to pre-development rates. Temporary ditches, which will be maintained by the developer, may be utilized until the ultimate pond and pipe systems are constructed in specific areas.

Along the Hurricane Branch canal, a drainage easement will be provided and dedicated to the Town and/or Dorchester County for maintenance access of Hurricane Branch. The final size and limits of the drainage easement shall be determined by the Town and/or Dorchester County.

All storm water within the neighborhood will be routed by a combination of grassed swales, underground piping, and overland flow into a series of ponds to be detained and treated before exiting the development. Detention areas will be appropriately landscaped and stabilized in accordance with applicable regulations. The storm water system will be analyzed to ensure that surrounding properties will not be adversely affected by the proposed development.

Storm water management will be designed and implemented in accordance with the Town of Summerville's development standards as well as the requirements of the South Carolina Department of Health and Environmental Control – Office of Ocean and Resource Management.

Storm water Best Management Practices (BMPs), Low Impact Development (LIDs), and other accepted measures will be implemented to reduce post-development runoff rates, improve storm water quality, and potentially reduce existing downstream problems.

Upon its completion and approval, the drainage system, with the exception of ponds and certain LID practices, will be dedicated to and maintained by the Town of Summerville. A Conceptual Drainage Master Plan is included in the Appendix.

Flexibility of Uses and Tracts

The Conceptual Master Plan must maintain flexibility to accommodate specific soil conditions, design parameters, and changing trends and strategies in planning and development. Accordingly the exact location of lot types or land uses may change, as long as the maximum intensities, overall density, and design intent, as described in this document do not increase.

Service Providers

Sanitary Sewer System	Dorchester County Water and Sewer Department*
Domestic Water System	Dorchester Count Water Authority*
Electric	SCE&G
Communications	To be determined

*Letters of availability are included in the PUD.

All utilities will be installed underground. All underground utilities will be coordinated with the applicable utility providers for review and approval, as needed, prior to installation within the neighborhood.

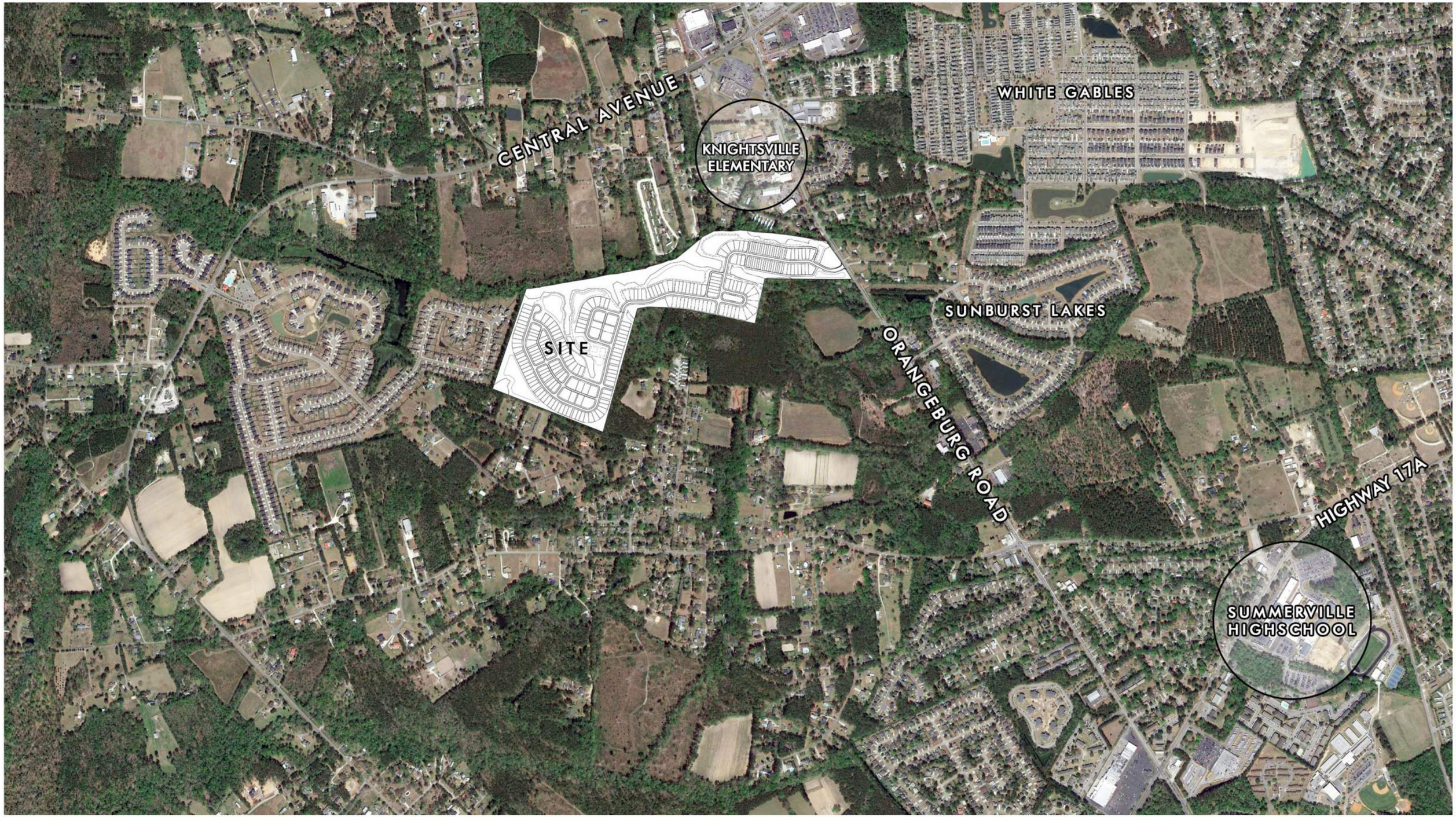
Development Schedule

It is anticipated this development will be completed in 5 to 6 phases of 40 to 60 single family lots per year, over 5 to 7 years, until build out. The timing of development within the PUD will be very much affected by the health of the national and local economies, as well as the demand for various housing types for the region. It is extremely difficult, if not impossible, to accurately project timing of future phases of development and lot demand. The developer has provided the following estimates which are believed to be reasonable at this time. The estimates are subject to change substantially, from time to time, based on market conditions, the supply of competing lots within the area, and other factors, not under the control of the developer. The final schedule will be at the sole discretion of the developer.

Phase One	
Begin Design and Permitting of site infrastructure	Spring 2018
Finish Permitting and begin construction	Summer 2020
Complete Infrastructure and commence residential building	Spring 2021
Complete residential building	Spring 2023
Complete neighborhood build-out	2027

Attachments

Vicinity map
Preliminary Survey
Conceptual Development Plan
Conceptual Open Space Plan
Conceptual Drainage Plan
Coordination Letters
Traffic Study



NOTE: THIS PLAN IS CONCEPTUAL IN NATURE AND SUBJECT TO CHANGE.

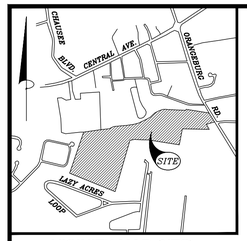
SEAMONWHITESIDE

VICINITY MAP

DORCHESTER COUNTY, SOUTH CAROLINA

7996

4.22.2020



VICINITY MAP (NTS)

S.C. GRID

NOTES:

1) AREA WAS DETERMINED BY THE COORDINATE METHOD.
2) ANYTHING SHOWN OUTSIDE THE DEFINED BOUNDARY IS FOR DESCRIPTIVE PURPOSES ONLY.
3) THE PUBLIC RECORDS REFERENCED ON THIS PLAT ARE ONLY USED AND/OR NECESSARY TO THE ESTABLISHMENT OF THE BOUNDARY OF THIS PROPERTY. THEY ARE NOT AND DO NOT CONSTITUTE A TITLE SEARCH.
4) DISTANCE SHOWN HEREON ARE HORIZONTAL GROUND DISTANCES.
5) NO SUBSURFACE OR ENVIRONMENTAL INVESTIGATION OR SURVEYS WERE PERFORMED FOR THIS PLAT. THEREFORE THIS PLAT DOES NOT REFLECT THE EXISTENCE OR NONEXISTENCE OF WETLANDS, CONTAMINATION, OR OTHER CONDITIONS WHICH MAY AFFECT THIS PROPERTY.
6) PROPERTY IS ZONED PUD PER TOWN OF SUMMERVILLE.
7) TMS NO. 143-04-00-013, 143-04-00-021, 143-04-00-020, 143-04-00-019, 143-04-00-018, 143-04-00-012, 144-01-00-004
8) THERE ARE NO APPLICABLE OCRM CRITICAL LINE BUFFERS OR SETBACKS ON THIS PROPERTY.
9) DORCHESTER COUNTY WATER AND SEWER WILL PROVIDE SANITARY SEWAGE DISPOSAL AND DORCHESTER WATER AUTHORITY WILL PROVIDE WATER SUPPLY.
10) ALL ELEVATIONS ARE BASED ON NAVD 88 DATUM.
11) NO LAND OR OTHER AREA IS DEDICATED FOR PUBLIC USE BY THIS PLAT UNLESS A DEDICATION IS EXPRESSLY STATED HEREON.
12) THE WETLANDS SHOWN HEREON WERE LOCATED BY GPA PROFESSIONAL LAND SURVEYORS AS DELINEATED BY OTHERS. GPA HAS MADE A "BEST GUESS" AS TO THIS LOCATION, SIZE, AND TYPE OF THE UNDERGROUND UTILITIES SHOWN HERON.

FLOOD NOTE:

THIS PROPERTY IS LOCATED IN FLOOD ZONE X, ZONE X (SHADED) AND ZONE AE AS SHOWN FROM FEMA FLOOD MAPS. PANEL NO. 45035C 0338E, REVISED JULY 18, 2017.

LEGEND

- IRON FOUND (AS DESCRIBED)
- IRON SET (5/8" REBAR)
- CONCRETE MONUMENT FOUND
- CONCRETE MONUMENT SET
- CALCULATED POINT
- POWER POLE
- GUY WIRE
- FIRE HYDRANT
- WATER VALVE
- WATER METER
- GAS VALVE
- GAS LINE MARKER
- SEWER MANHOLE
- FORCE MAIN MANHOLE
- STORM DRAIN MANHOLE
- TELEPHONE MANHOLE
- TELEPHONE PEDESTAL
- SATELLITE DISH
- +7.86 – SPOT ELEVATION
- FENCE LINE
- ADJOINER LINE
- RIGHT-OF-WAY
- CENTER LINE
- EASEMENT LINE (AS DESCRIBED)
- SETBACK LINE
- BUFFER LINE (AS DESCRIBED)
- CONTOUR LINE
- WETLAND LINE
- P – OVERHEAD POWER LINE
- S – SEWER LINE
- SD – STORM DRAIN
- W – WATER LINE
- G – GAS LINE
- FM – FORCE MAIN
- CITY LIMITS
- MATCH LINE
- FLOOD LINE
- WETLAND AREA
- EDGE OF PAVEMENT

I, JOHNATHAN F. BURNS, A PROFESSIONAL LAND SURVEYOR IN THE STATE OF SOUTH CAROLINA, HEREBY STATE THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THE SURVEY HEREIN WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF MINIMUM STANDARDS MANUAL FOR THE PRACTICE OF LAND SURVEYING IN SOUTH CAROLINA, AND MEETS OR EXCEEDS THE REQUIREMENTS FOR A CLASS A SURVEY AS SPECIFIED THEREIN, ALSO THERE ARE NO VISIBLE ENCROACHMENTS OR PROJECTIONS OTHER THAN SHOWN.

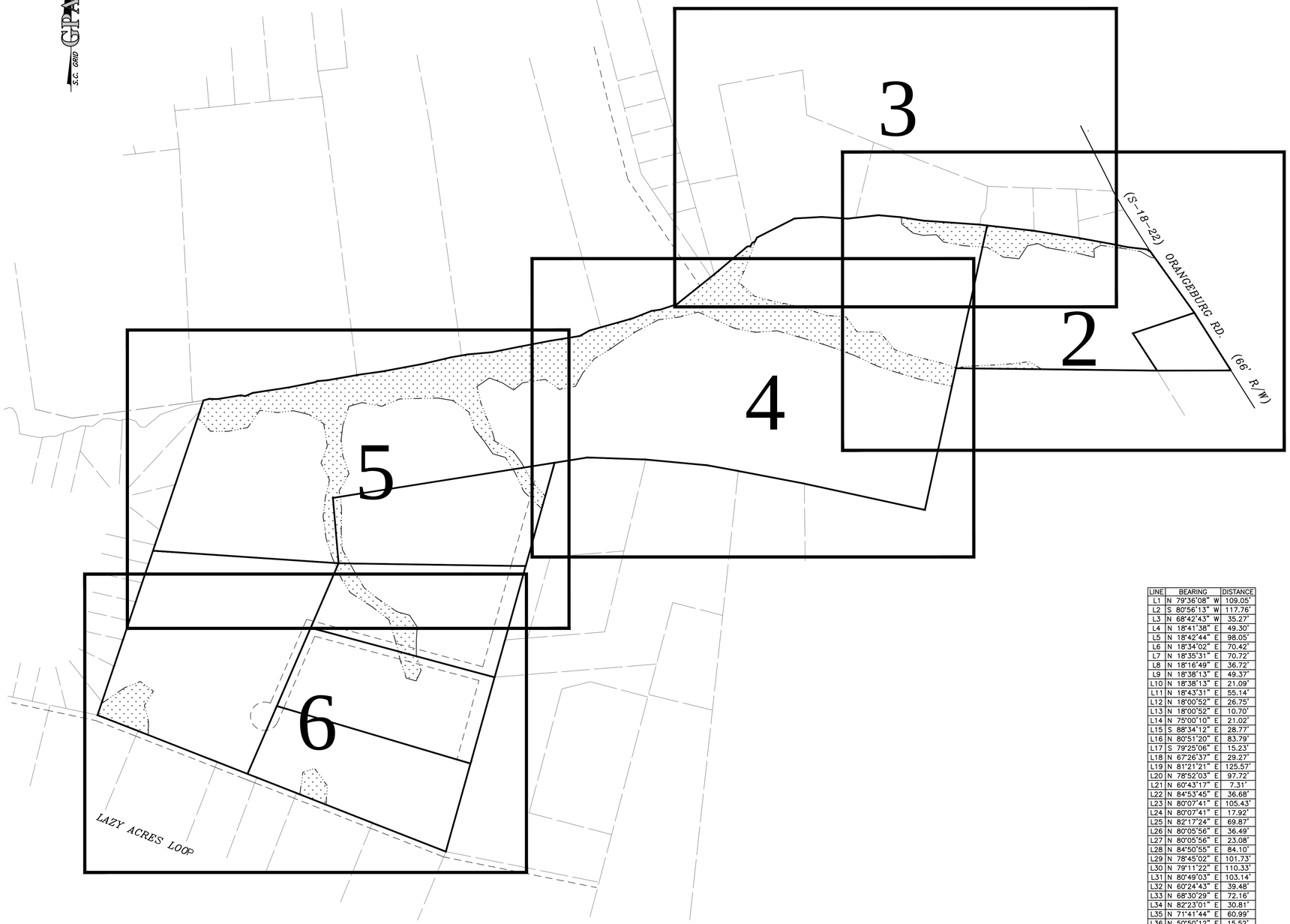
THIS SURVEY IS NOT VALID UNLESS EMBOSSED WITH AN ORIGINAL SURVEYOR'S SEAL. THIS SURVEY HAS BEEN DONE WITHOUT THE BENEFIT OF REVIEWING A CURRENT TITLE SEARCH.

WITNESS MY ORIGINAL SIGNATURE, LICENSE NUMBER AND SEAL THIS 23RD DAY OF MARCH, 2020.

JOHNATHAN F. BURNS, PLS-22742

SOUTH CAROLINA – GPA, INC. No. C04379 – CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA – PROFESSIONAL LAND SURVEYOR – NO. 22742 – JOHNATHAN F. BURNS



200' 0 100' 200' 400'

1 inch = 200 ft.

BENCHMARK NOTE:

CONTRACTOR OR PRIVATE PARTIES WILL VERIFY ALL BENCHMARKS BEFORE BEGINNING CONSTRUCTION.

☒ CHECKED JAP ☒ CHECKED JFB

LINE	BEARING	DISTANCE
L1	N 79°36'08" W	109.05'
L2	S 80°56'13" W	117.76'
L3	N 68°42'43" W	35.27'
L4	N 18°41'38" E	49.30'
L5	N 18°42'44" E	98.05'
L6	N 18°34'02" E	70.42'
L7	N 18°35'31" E	70.72'
L8	N 18°16'49" E	36.72'
L9	N 18°38'13" E	49.37'
L10	N 18°38'13" E	21.09'
L11	N 18°43'31" E	55.14'
L12	N 18°00'52" E	26.75'
L13	N 18°00'52" E	10.70'
L14	N 75°00'10" E	21.02'
L15	S 88°34'12" E	28.77'
L16	N 80°51'20" E	83.79'
L17	S 79°25'06" E	15.23'
L18	N 67°26'37" E	29.27'
L19	N 81°21'21" E	125.57'
L20	N 78°52'03" E	97.72'
L21	N 60°43'17" E	7.31'
L22	N 84°53'45" E	36.68'
L23	N 80°07'41" E	105.43'
L24	N 80°07'41" E	17.92'
L25	N 82°17'24" E	69.87'
L26	N 80°05'56" E	36.49'
L27	N 80°05'56" E	23.08'
L28	N 84°50'55" E	84.10'
L29	N 78°45'02" E	101.73'
L30	N 79°11'22" E	110.33'
L31	N 80°49'03" E	103.14'
L32	N 60°24'43" E	39.48'
L33	N 68°30'29" E	72.16'
L34	N 82°23'01" E	30.81'
L35	N 71°41'44" E	60.99'
L36	N 50°50'12" E	15.52'
L37	N 82°20'54" E	11.20'
L38	N 29°18'57" E	13.18'
L39	N 63°36'02" E	10.62'
L40	N 27°21'18" E	15.75'
L41	N 86°54'31" E	96.70'
L42	S 86°11'55" E	88.86'
L43	N 83°44'16" E	110.37'
L44	S 84°49'16" E	80.09'
L45	S 81°20'36" E	78.91'
L46	S 83°32'21" E	25.80'
L47	S 78°44'38" E	54.81'
L48	S 83°24'59" E	67.45'
L49	S 63°43'24" E	13.51'
L50	S 81°14'27" W	39.83'
L51	N 07°04'57" W	11.35'

REFERENCES:

1. PLAT BY COVERT BOYD NELSON, DATED JANUARY 12, 2018, RECORDED IN PLAT BOOK M, PAGE 146, DORCHESTER COUNTY
2. PLAT BY PAUL C. LAWSON, DATED MARCH 15, 2010, RECORDED IN PLAT BOOK L, PAGE 157, DORCHESTER COUNTY
3. PLAT BY F. LEE HOWELL, DATED NOVEMBER 19, 2008, RECORDED IN PLAT BOOK L, PAGE 119, DORCHESTER COUNTY
4. PLAT BY MARK ELLIS LAMB, SR., DATED MAY 13, 2008, RECORDED IN PLAT BOOK L, PAGE 106, DORCHESTER COUNTY
5. PLAT BY THOMASL. WESTBURY, DATED DECEMBER 18, 2007, RECORDED IN PLAT BOOK L, PAGE 093, DORCHESTER COUNTY
6. PLAT BY PAUL C. LAWSON, DATED FEBRUARY 22, 2007, RECORDED IN PLAT BOOK L, PAGE 057, DORCHESTER COUNTY
7. PLAT BY MARK A. CORNELIUS, DATED MARCH 17, 2006, REVISED NOVEMBER 02, 2006 RECORDED IN PLAT BOOK L, PAGE 038, DORCHESTER COUNTY
8. PLAT BY W. MASON LINDSEY, JR., DATED JULY 10, 2006, RECORDED IN PLAT BOOK L, PAGE 057, DORCHESTER COUNTY
9. PLAT BY PAUL C. LAWSON, DATED JANUARY 29, 2002, RECORDED IN PLAT BOOK K, PAGE 018, DORCHESTER COUNTY
10. PLAT BY C. A. SIMMONS, RECORDED FEBRUARY 21, 2001, RECORDED IN PLAT BOOK J, PAGE 183, DORCHESTER COUNTY
11. PLAT BY PAUL C. LAWSON, DATED JANUARY 21, 2000, RECORDED IN PLAT BOOK J, PAGE 157, DORCHESTER COUNTY
12. PLAT BY JOHN DAVID BASS, DATED OCTOBER 25, 1999, RECORDED IN PLAT BOOK J, PAGE 162, DORCHESTER COUNTY
13. PLAT BY RICHARD J. RHODE, DATED FEBRUARY 8, 1999, RECORDED IN PLAT BOOK J, PAGE 128, DORCHESTER COUNTY
14. PLAT BY PAUL C. LAWSON, DATED DECEMBER 4, 1998, RECORDED IN PLAT BOOK J, PAGE 125 DORCHESTER COUNTY
15. PLAT BY JOHN DAVID BASS, DATED AUGUST 16, 1993, RECORDED IN PLAT BOOK I, PAGE 158, DORCHESTER COUNTY
16. PLAT BY ROBERT DAVID BRANTON, DATED AUGUST 06, 1992, RECORDED IN PLAT BOOK H, PAGE 379, DORCHESTER COUNTY
17. PLAT BY J. HUGH CAMPBELL, DATED APRIL 28, 1990, RECORDED IN PLAT BOOK G, PAGE 386, DORCHESTER COUNTY
18. PLAT BY RICHARD J. RHODE, DATED JANUARY 6, 1989, RECORDED IN PLAT BOOK G, PAGE 181, DORCHESTER COUNTY
19. PLAT BY W. MICHAEL LINES, DATED AUGUST 17, 1987, RECORDED IN PLAT BOOK F, PAGE 262, DORCHESTER COUNTY
20. PLAT BY HAGER E. METTS, DATED JANUARY 6, 1986, RECORDED IN PLAT BOOK F, PAGE 242, DORCHESTER COUNTY
21. PLAT BY T. R. DION, DATED MAY 29, 1984, RECORDED IN PLAT BOOK E, PAGE 046, DORCHESTER COUNTY
22. PLAT BY ALBERT HEATLEY, JR., DATED JANUARY, 1974, RECORDED IN PLAT BOOK 21, PAGE 147, DORCHESTER COUNTY
23. PLAT BY H. EXO HILTON, DATED JANUARY 1973, RECORDED IN PLAT BOOK 20, PAGE 086, DORCHESTER COUNTY
24. PLAT BY W. H. MATHENY, DATED SEPTEMBER 14, 1962, RECORDED IN PLAT BOOK 14, PAGE 035, DORCHESTER COUNTY
25. PLAT BY W. H. MATHENY, RECORDED MAY 9, 1962, RECORDED IN PLAT BOOK 14, PAGE 017, DORCHESTER COUNTY
26. PLAT BY R. B. CUTHBERT, DATED APRIL 8, 1961, RECORDED IN PLAT BOOK 13, PAGE 097, DORCHESTER COUNTY
27. PLAT BY HUGH HAMILTON, DATED JULY 4, 1945, RECORDED IN PLAT BOOK 20, PAGE 268, DORCHESTER COUNTY
28. PLAT BY HUGH HAMILTON, DATED NOVEMBER 3, 1943, RECORDED IN PLAT BOOK 6, PAGE 185, DORCHESTER COUNTY
29. PLAT BY HUGH HAMILTON, DATED OCTOBER 4, 1941, RECORDED IN PLAT BOOK 10, PAGE 004, DORCHESTER COUNTY

DATE	REVISION	BY
3/19/20	UPDATED ADD. AREAS & UTILITIES	JFB
6/10/19	UPDATED ADD. AREAS & UTILITIES	JFB
4/11/19	UPDATED PER ADD. AREAS	JAB
2/8/19	UPDATED WITH MISSED TREES	JFB

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FLD. BK. PG.

JOB NO. 185187

DATE 11/15/2018

DRAWN BY JAP

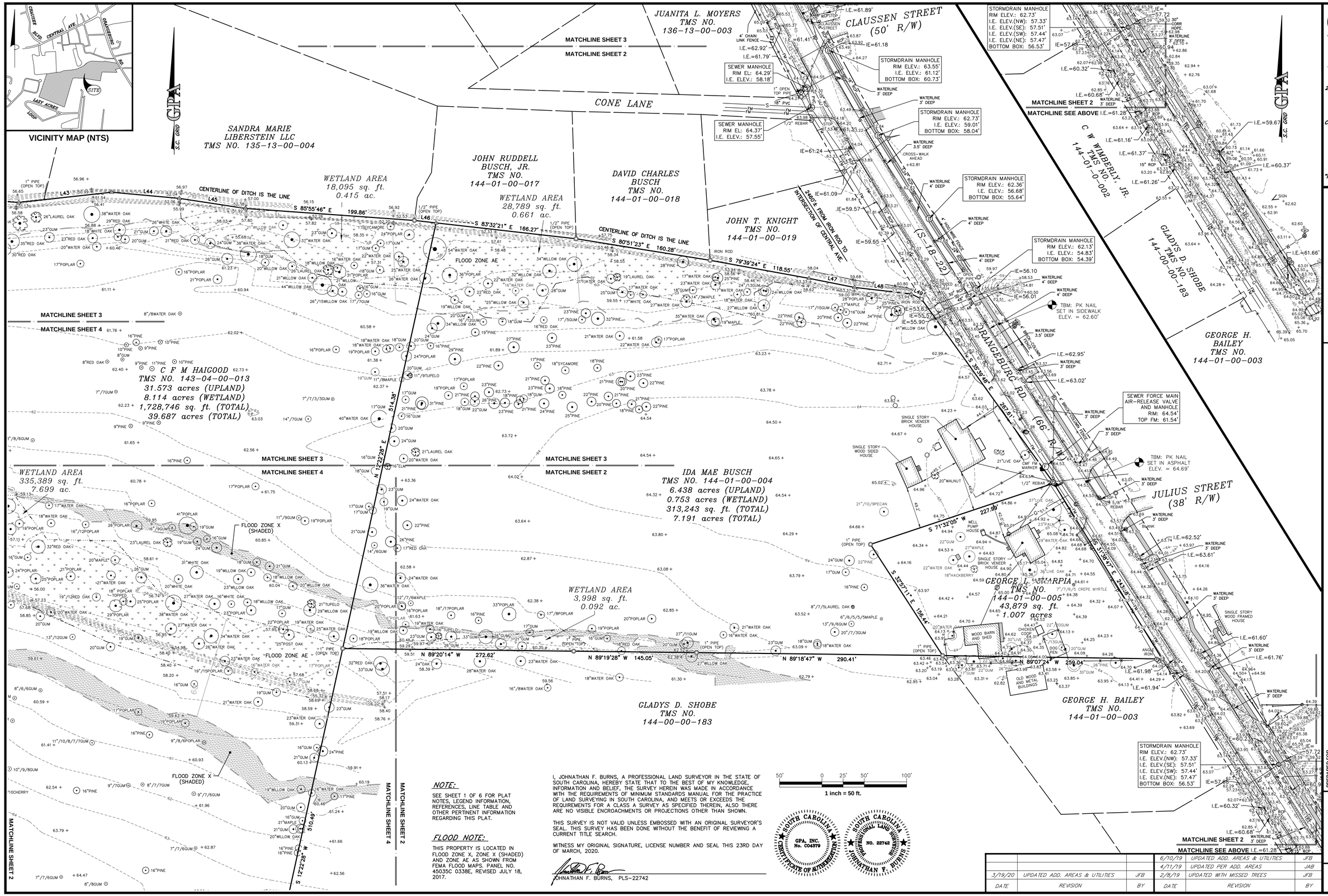
CHECKED BY DLG

PREPARED FOR
LEVI GRANTHAM, LLC

SHOWING 7 TRACTS - TMS NO. 144-01-00-004 (7.191 ACRES), TMS NO. 143-04-00-013 (39.687 ACRES), TMS NO. 143-04-00-012 (4.851 ACRES), TMS NO. 143-04-00-018 (4.855 ACRES), TMS NO. 143-04-00-019 (4.855 ACRES), TMS NO. 143-04-00-020 (4.864 ACRES), TMS NO. 143-04-00-021 (9.689 ACRES) & TMS NO. 144-01-00-005 (1.007 ACRES)
LOCATED IN THE TOWN OF SUMMERVILLE, DORCHESTER COUNTY, SOUTH CAROLINA

BOUNDARY TOPOGRAPHIC TREE SURVEY

SHEET 1 OF 6



NOTE:

SEE SHEET 1 OF 6 FOR PLAT NOTES, LEGEND INFORMATION, REFERENCES, LINE TABLE AND OTHER PERTINENT INFORMATION REGARDING THIS PLAT.

FLOOD NOTE:

THIS PROPERTY IS LOCATED IN FLOOD ZONE X, ZONE X (SHADED) AND ZONE AE AS SHOWN FROM FEMA FLOOD MAPS. PANEL NO. 45035C 0338E, REVISED JULY 18, 2017.

I, JOHNATHAN F. BURNS, A PROFESSIONAL LAND SURVEYOR IN THE STATE OF SOUTH CAROLINA, HEREBY STATE THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THE SURVEY HEREIN WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF MINIMUM STANDARDS MANUAL FOR THE PRACTICE OF LAND SURVEYING IN SOUTH CAROLINA, AND MEETS OR EXCEEDS THE REQUIREMENTS FOR A CLASS A SURVEY AS SPECIFIED THEREIN, ALSO THERE ARE NO VISIBLE ENCROACHMENTS OR PROJECTIONS OTHER THAN SHOWN.

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WITNESS MY ORIGINAL SIGNATURE, LICENSE NUMBER AND SEAL THIS 23RD DAY OF MARCH, 2020.

JOHNATHAN F. BURNS, PLS-22742

50' 0 25' 50' 100'

1 inch = 50 ft.

SOUTH CAROLINA GPA, INC. No. C04979 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA PROFESSIONAL LAND SURVEYOR NO. 22742 JOHNATHAN F. BURNS

DATE	REVISION	BY
3/19/20	UPDATED ADD. AREAS & UTILITIES	JFB

DATE	REVISION	BY
6/10/19	UPDATED ADD. AREAS & UTILITIES	JFB
4/11/19	UPDATED PER ADD. AREAS	JAB
2/8/19	UPDATED WITH MISSED TREES	JFB

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JOB NO. 185187

DATE 11/15/2018

DRAWN BY JAP

CHECKED BY DLG

BOUNDARY TOPOGRAPHIC TREE SURVEY

SHOWING 7 TRACTS - TMS NO. 144-01-00-004 (7.191 ACRES), TMS NO. 143-04-00-013 (39.687 ACRES), TMS NO. 143-04-00-012 (4.851 ACRES), TMS NO. 143-04-00-018 (4.855 ACRES), TMS NO. 143-04-00-019 (4.855 ACRES), TMS NO. 143-04-00-020 (4.864 ACRES), TMS NO. 143-04-00-021 (9.689 ACRES) & TMS NO. 144-01-00-005 (1.007 ACRES)
LOCATED IN THE TOWN OF SUMMERVILLE, DORCHESTER COUNTY, SOUTH CAROLINA

PREPARED FOR
LEVI GRANTHAM, LLC

SHEET 2 OF 6

VICINITY MAP (NTS)

50' 0 25' 50' 100'

1 inch = 50 ft.

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WITNESS MY ORIGINAL SIGNATURE, LICENSE NUMBER AND SEAL THIS 23RD DAY OF MARCH, 2020.

JOHNATHAN F. BURNS, PLS–22742

SOUTH CAROLINA — GPA, INC. No. C04379 — CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA — PROFESSIONAL LAND SURVEYOR — No. 22742 — JOHNATHAN F. BURNS

DATE	REVISION	BY
3/19/20	UPDATED ADD. AREAS & UTILITIES	JFB
6/10/19	UPDATED ADD. AREAS & UTILITIES	JFB
4/11/19	UPDATED PER ADD. AREAS	JAB
2/8/19	UPDATED WITH MISSED TREES	JFB

FLOOD NOTE:

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NOTE:

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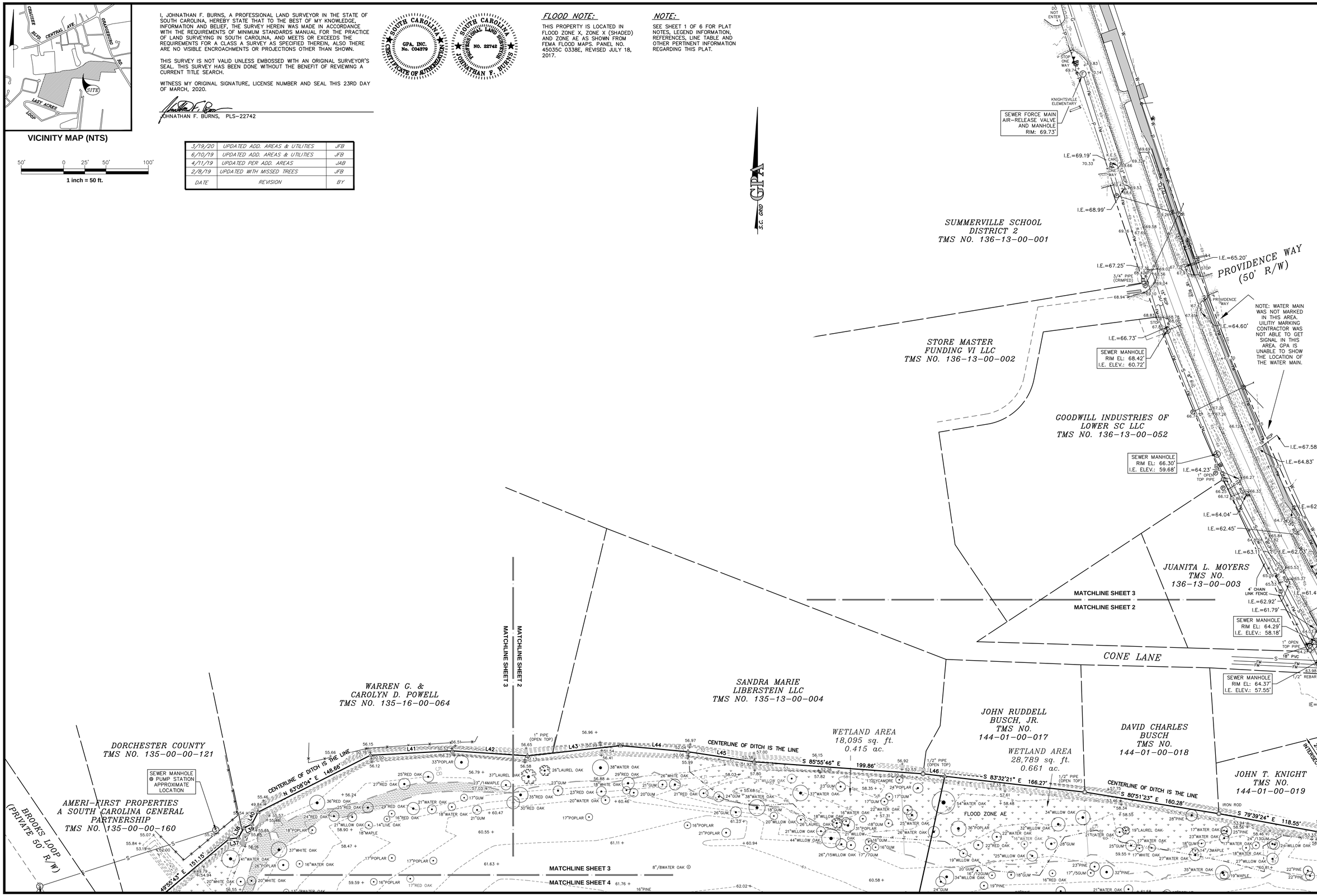
S.C. GRID



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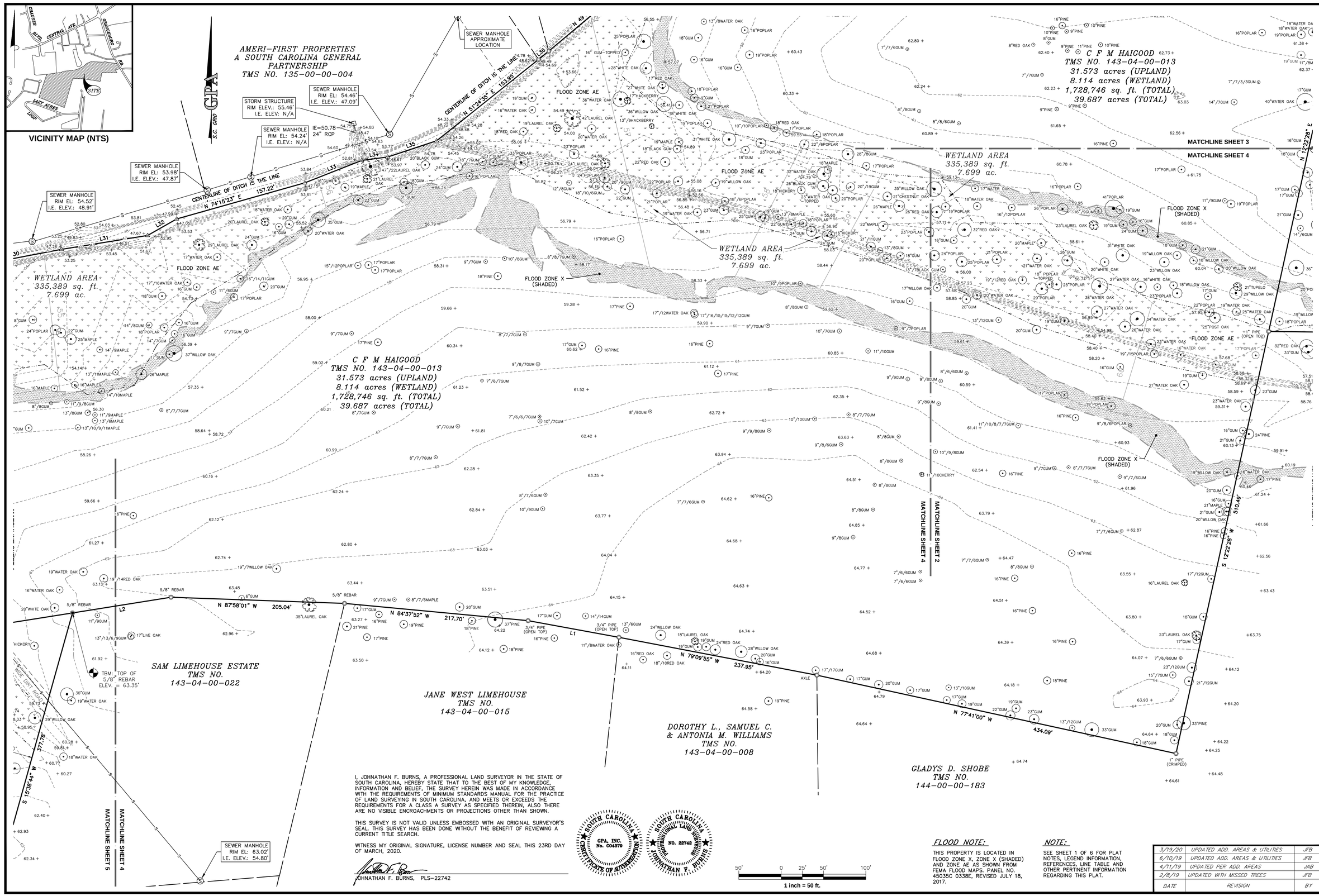
FLD. BK.	PG.
JOB NO.	185187
DATE	11/15/2018
DRAWN BY	JAP
CHECKED BY	DLG

PREPARED FOR
LEVI GRANTHAM, LLC

SHOWING 7 TRACTS - TMS NO. 144-01-00-004 (7.191 ACRES), TMS NO. 143-04-00-013 (39.687 ACRES), TMS NO. 143-04-00-012 (4.851 ACRES), TMS NO. 143-04-00-018 (4.855 ACRES), TMS NO. 143-04-00-019 (4.855 ACRES), TMS NO. 143-04-00-020 (4.864 ACRES), TMS NO. 143-04-00-021 (9.689 ACRES) & TMS NO. 144-01-00-005 (1.007 ACRES) LOCATED IN THE TOWN OF SUMMERVILLE, DORCHESTER COUNTY, SOUTH CAROLINA

BOUNDARY TOPOGRAPHIC TREE SURVEY



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WITNESS MY ORIGINAL SIGNATURE, LICENSE NUMBER AND SEAL THIS 23RD DAY OF MARCH, 2020.

JOHNATHAN F. BURNS, PLS-22742

SOUTH CAROLINA PROFESSIONAL LAND SURVEYING BUSINESS — GPA, INC. No. C04379 — CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA PROFESSIONAL LAND SURVEYOR — NO. 22742 — JOHNATHAN F. BURNS

FLOOD NOTE:

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NOTE:

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6/10/19	UPDATED ADD. AREAS & UTILITIES	JFB
4/11/19	UPDATED PER ADD. AREAS	JAB
2/8/19	UPDATED WITH MISSED TREES	JFB

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DATE 11/15/2018

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CHECKED BY DLG

PREPARED FOR
LEVI GRANTHAM, LLC

BOUNDARY TOPOGRAPHIC TREE SURVEY

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LOCATED IN THE TOWN OF SUMMERVILLE, DORCHESTER COUNTY, SOUTH CAROLINA

SHEET 4 OF 6

VICINITY MAP (NTS)

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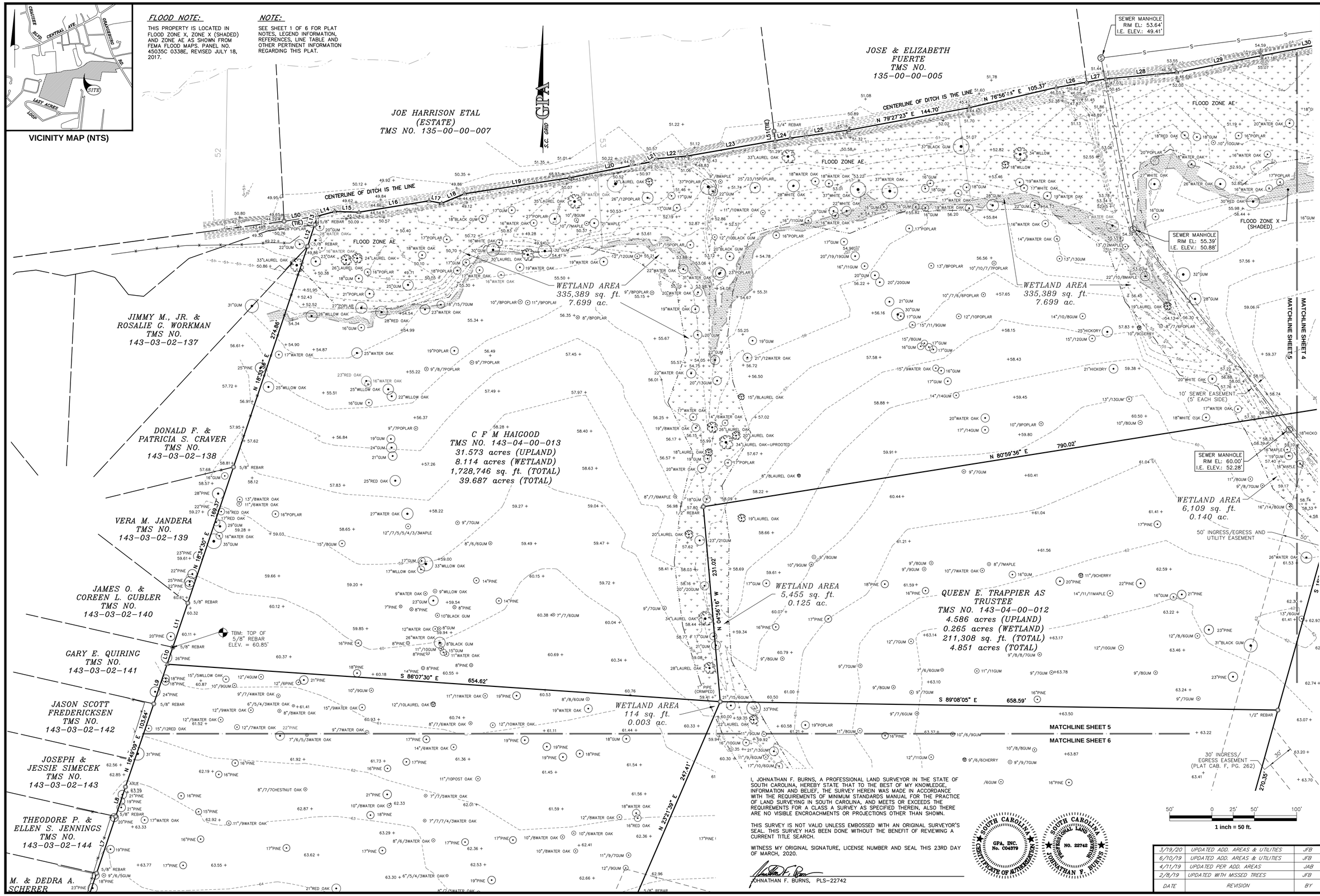

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WITNESS MY ORIGINAL SIGNATURE, LICENSE NUMBER AND SEAL THIS 23RD DAY OF MARCH, 2020.

JOHNATHAN F. BURNS, PLS-22742

SOUTH CAROLINA GPA, INC. No. C04370 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA PROFESSIONAL LAND SURVEYOR NO. 22742 JOHNATHAN F. BURNS

DATE	REVISION	BY
3/19/20	UPDATED ADD. AREAS & UTILITES	JFB
6/10/19	UPDATED ADD. AREAS & UTILITES	JFB
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DATE 11/14/2016

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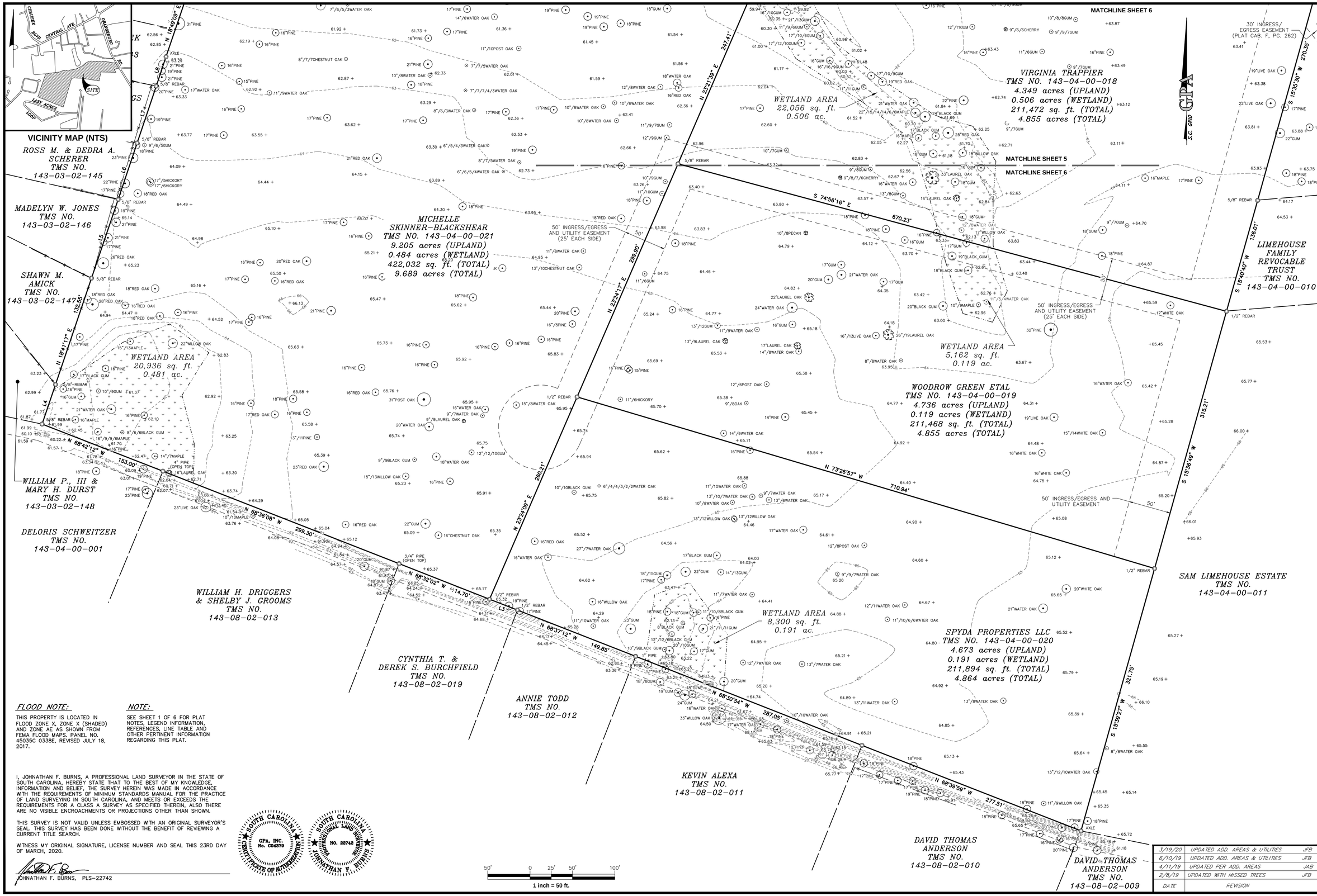
CHECKED BY DLG

PREPARED FOR LEVI GRANTHAM, LLC

BOUNDARY TOPOGRAPHIC TREE SURVEY

SHOWING 7 TRACTS - TMS NO. 144-01-00-004 (7.191 ACRES), TMS NO. 143-04-00-013 (39.687 ACRES), TMS NO. 143-04-00-012 (4.851 ACRES), TMS NO. 143-04-00-018 (4.855 ACRES), TMS NO. 143-04-00-019 (4.855 ACRES), TMS NO. 143-04-00-020 (4.864 ACRES), TMS NO. 143-04-00-021 (9.689 ACRES) & TMS NO. 144-01-00-005 (1.007 ACRES), SOUTH CAROLINA
LOCATED IN THE TOWN OF SUMMERVILLE, DORCHESTER COUNTY, SOUTH CAROLINA

SHEET 5 OF 6



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JOHNATHAN F. BURNS, PLS-22742

SOUTH CAROLINA GPA, INC. No. C04379 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA PROFESSIONAL LAND SURVEYOR NO. 22742 JOHNATHAN F. BURNS

DATE	REVISION	
3/19/20	UPDATED ADD. AREAS & UTILITES	JFB
6/10/19	UPDATED ADD. AREAS & UTILITES	JFB
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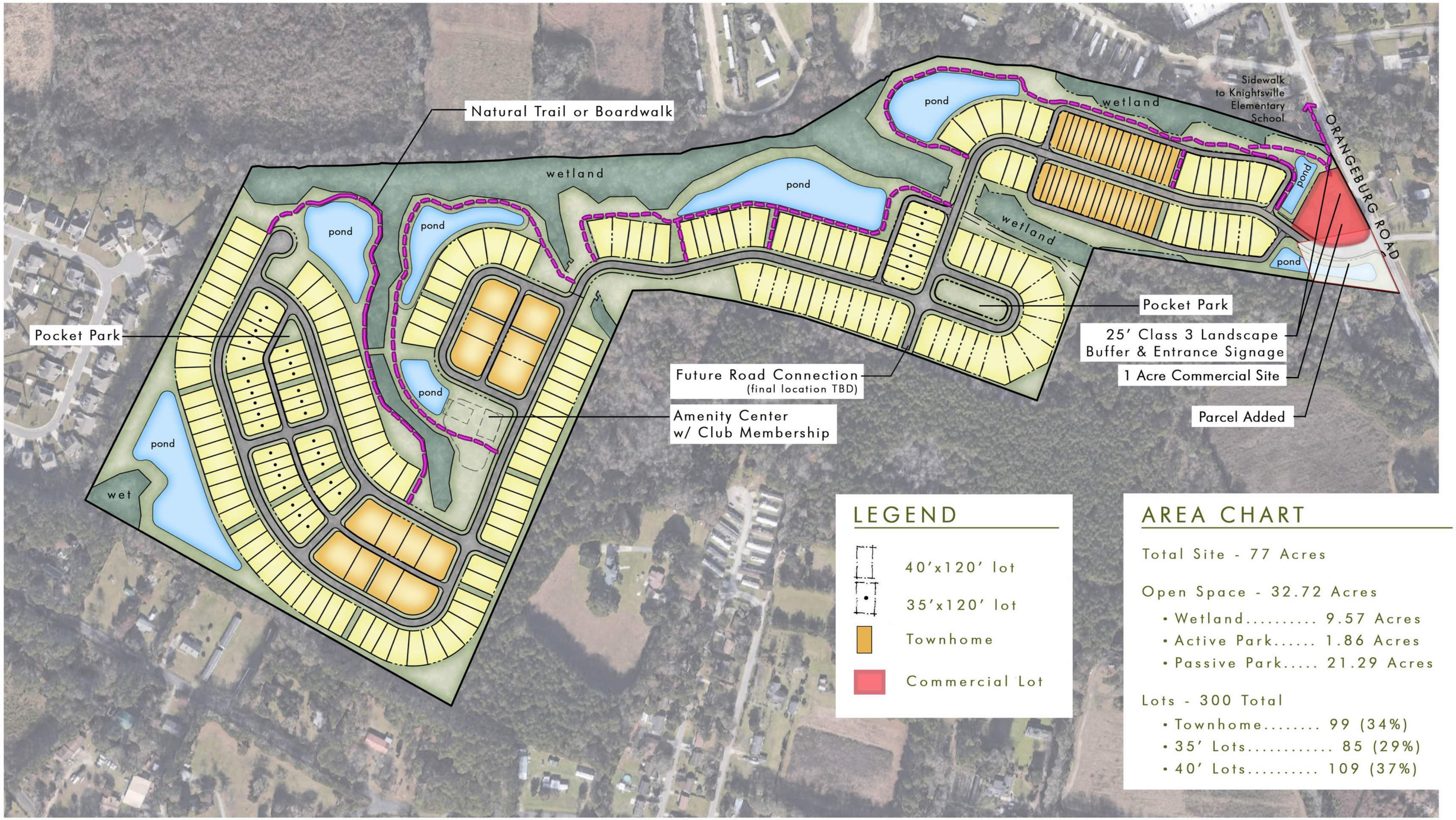
BOUNDARY TOPOGRAPHIC TREE SURVEY

SHEET 6 OF 6



Note:
This plan is conceptual and based upon incomplete survey information.
It is subject to change upon receipt of full survey, final programming, final engineering and review and approval of governmental regulating bodies.

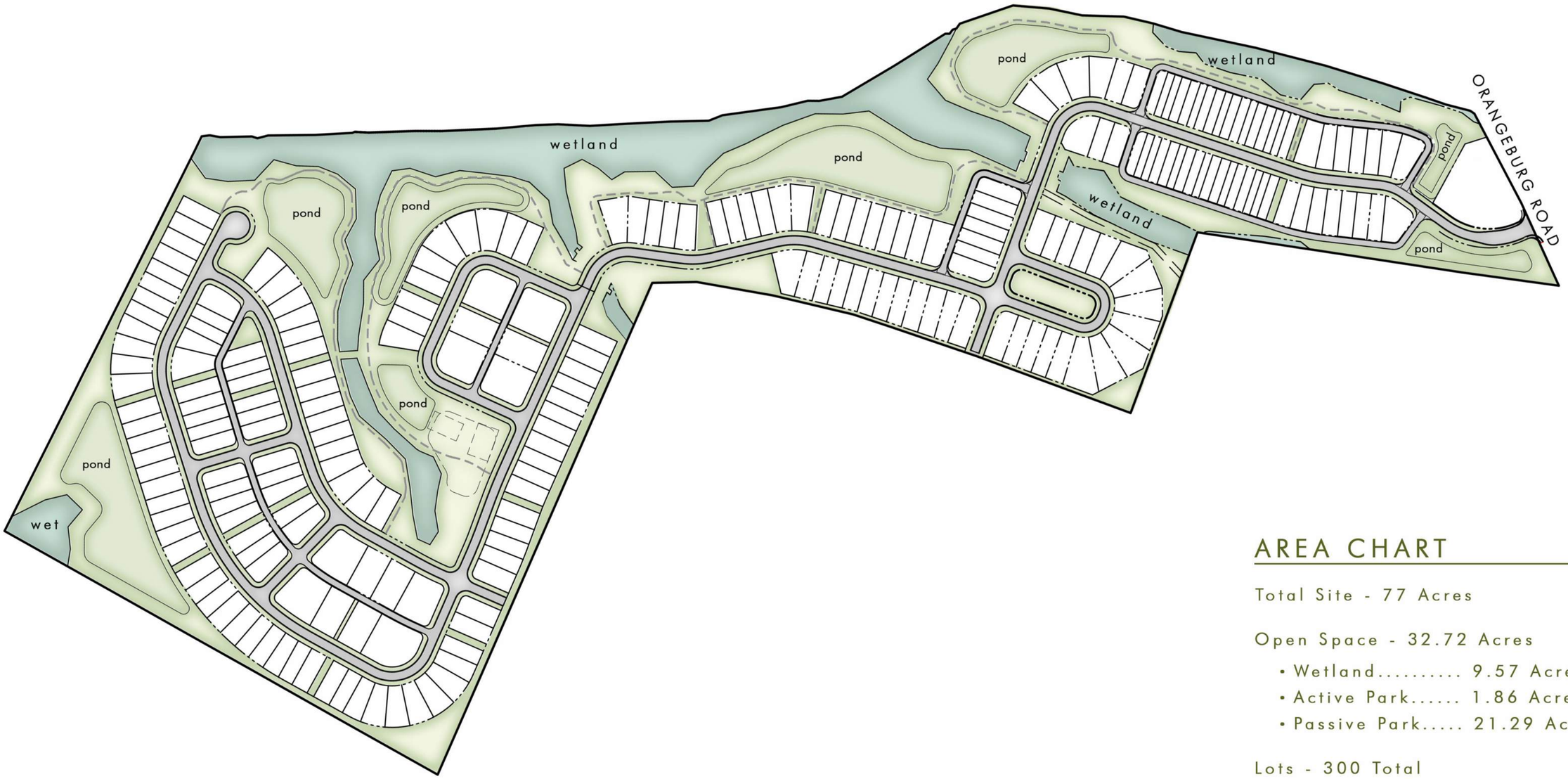
0' 200' 400' 600'

NOTE: THIS PLAN IS CONCEPTUAL IN NATURE AND SUBJECT TO CHANGE.

SEAMONWHITESIDE

CONCEPTUAL DEVELOPMENT PLAN

DORCHESTER COUNTY, SOUTH CAROLINA
7996
04.22.2020



AREA CHART

Total Site - 77 Acres

Open Space - 32.72 Acres

- Wetland..... 9.57 Acres
- Active Park..... 1.86 Acres
- Passive Park..... 21.29 Acres

Lots - 300 Total

- Townhome..... 99 (34%)
- 35' Lots..... 85 (29%)
- 40' Lots..... 109 (37%)

Note:
This plan is conceptual and based upon incomplete survey information.
It is subject to change upon receipt of full survey, final programming, final engineering and review and approval of governmental regulating bodies.

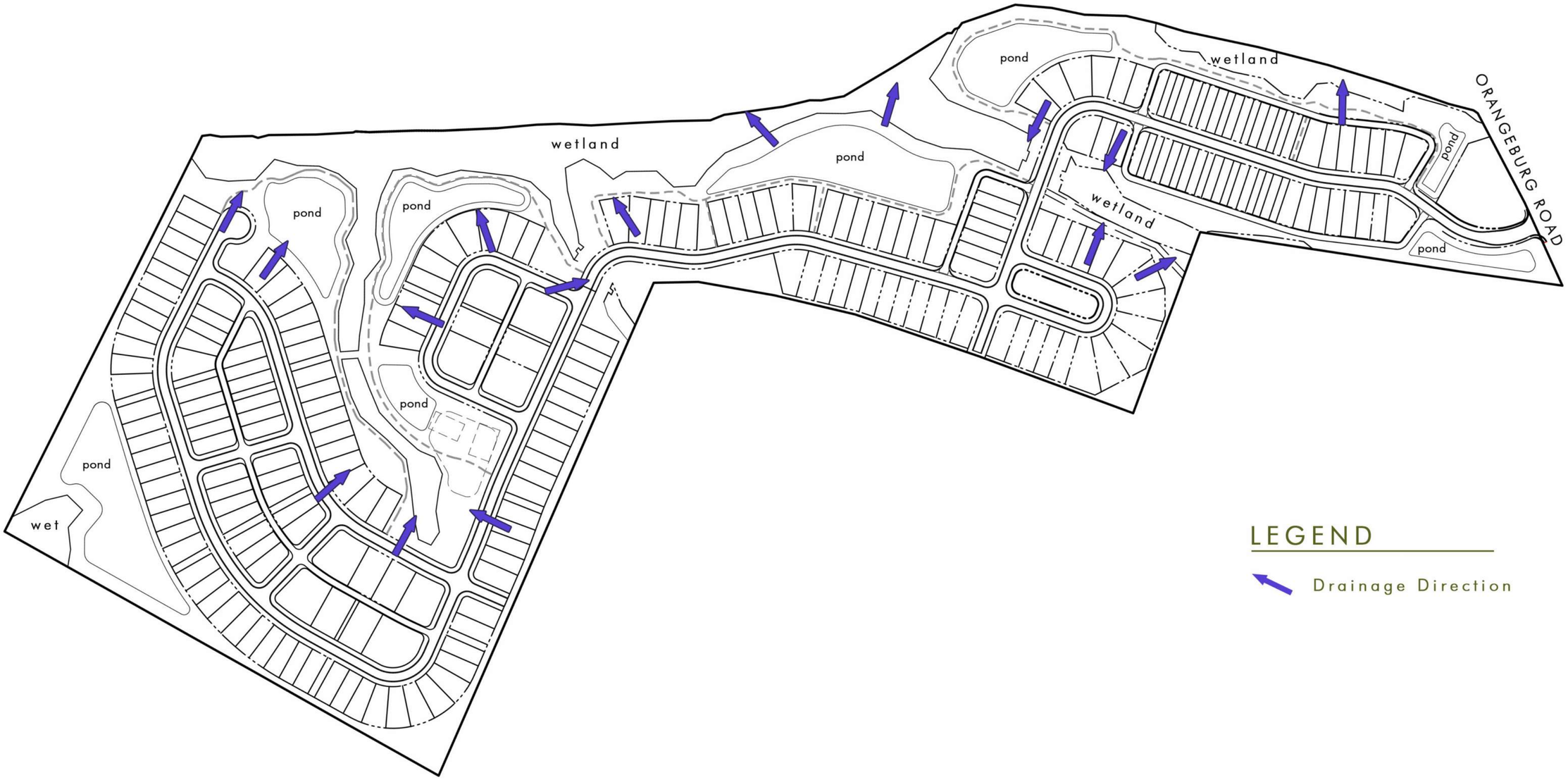
0' 200' 400' 600'

NOTE: THIS PLAN IS CONCEPTUAL IN NATURE AND SUBJECT TO CHANGE.

SEAMONWHITESIDE

CONCEPTUAL OPEN SPACE PLAN

DORCHESTER COUNTY, SOUTH CAROLINA
7996
04.22.2020



LEGEND

Drainage Direction

Note:
This plan is conceptual and based upon incomplete survey information.
It is subject to change upon receipt of full survey, final programming, final engineering and review and approval of governmental regulating bodies.

0' 200' 400' 600'

NOTE: THIS PLAN IS CONCEPTUAL IN NATURE AND SUBJECT TO CHANGE.

SEAMONWHITESIDE

CONCEPTUAL DRAINAGE PLAN

DORCHESTER COUNTY, SOUTH CAROLINA
7996
04.22.2020

Dorchester County Water Authority

P. O. Box 250 P. O. Box 1565 Summerville, SC 29484
(843) 875-0140 Fax (843) 851-6790

ADMINISTRATOR
ROBERT C. HENSLEY

BOARD MEMBERS
LINDA B. EVANS-CHAIR
PAT LADOLCETTA-VICE CHAIR
JOHN WHEELER-SECRETARY/TREASURER
BRAD RAWLINGS-MEMBER
ROBBY ROBBINS-MEMBER

September 19, 2017

Chris P Campeau
Seamon & Whiteside
128 S Main Street
Suite B
Summerville, SC 29483

Reference: Knightsville Tract
Note Only if a looped connection between Orangeburg Rd & Central Ave.

Dear Mr. Campeau,

Dorchester County Water Authority is the authorized supplier of water, for the above reference, and is in conformance with its water supply service area. We are willing, and have the quantity of water to provide to this development. Dorchester County Water Authority's commitment for the availability of water will expire one year from the date of this letter.

Sincerely,

Richie Murdaugh, Operations Manager

RM/fb

DORCHESTER COUNTY WATER AND SEWER
235 DEMING WAY
SUMMERVILLE, SC 29483

Jason D. Coffman, P.E. – Engineering Manager
(843) 832-0093 * (843) 563-0093 * Fax (843) 832-0073 * (843) 563-0073

September 25, 2017

Chris Campeau
128 S. Main St.
Summerville, SC 29483

RE: Knightsville Subdivision
TMS 143-04-00-013 and surrounding properties.

Dear Mr. Campeau:

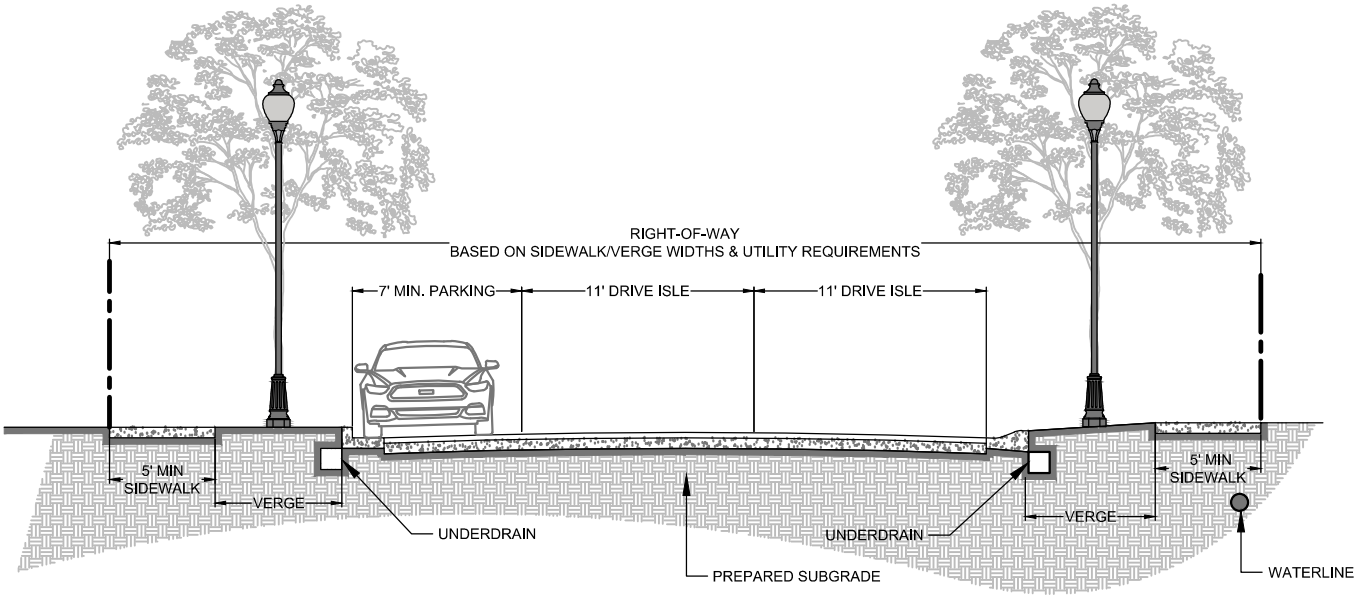
The referenced properties are in Dorchester County's sewer service area. At this time, there is a gravity sewer main on TMS 143-04-00-013 leading to our Pump Station 3. An upgrade of this pump station is expect to be complete in 18-36 months and will be designed to accommodate long term future flows including this project. After factoring in Dorchester County's current commitments and projects in design and permitting, we estimate the system in this area can accommodate an additional 300 homes. Please note capacity is available on a first come first served basis upon payment of impact fees. Also, service with Dorchester county for projects exceeding 10 ERUs require approval by County Council. Do not hesitate to call me at (843) 832-0093 if you have any questions or need additional information.

Sincerely,

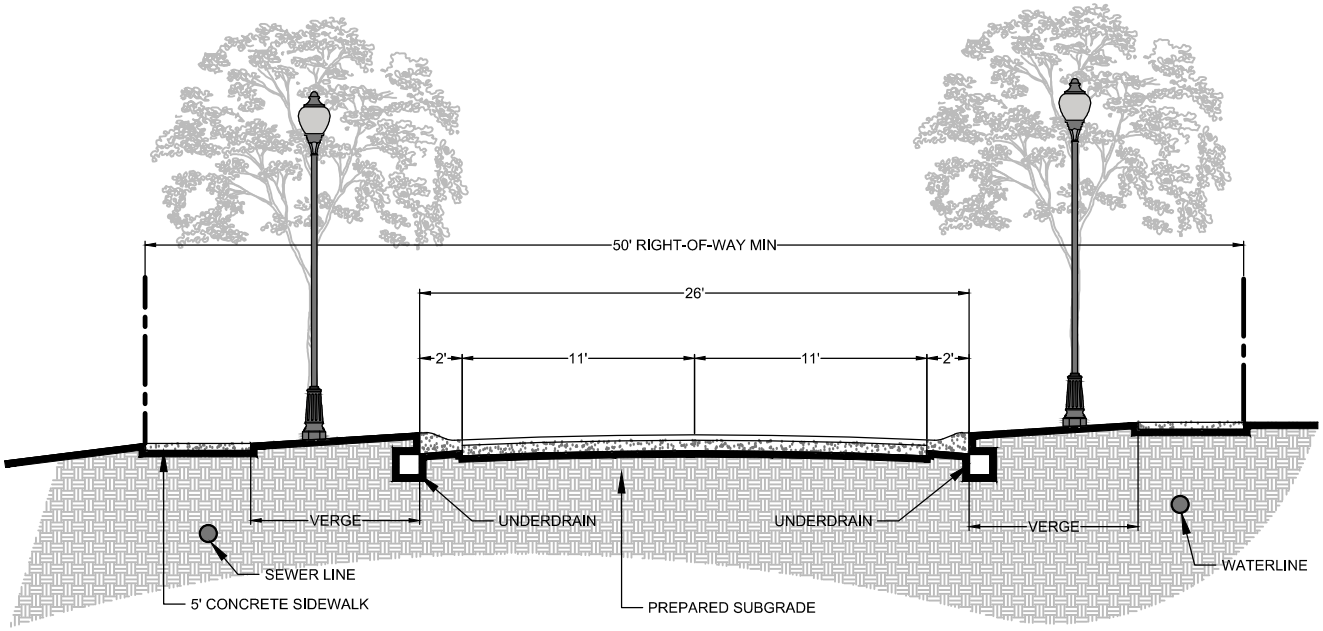
Jason D. Coffman

Jason D. Coffman, P.E.
Engineering Manager

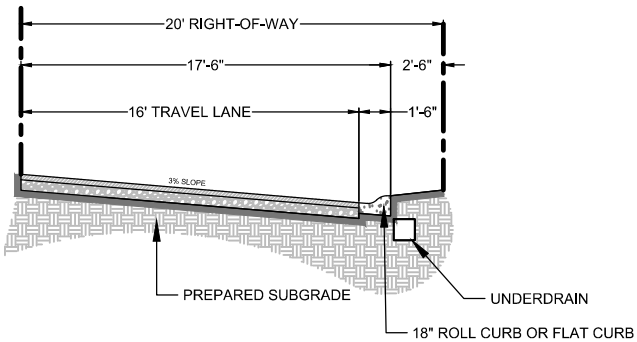
cc: Larry Harper – DCWS
Steven Ricker - DCWS



24' STREET PARKING ON ONE SIDE (TWO-WAY)



24' STREET NO PARKING (TWO-WAY)



16' ALLEY STREET

TREE NOTES:

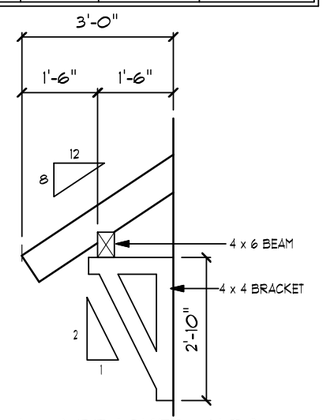
1 - CANOPY TREES MUST BE LOCATED A MINIMUM OF 5' FROM BACK OF CURB.
2 - THERE MUST BE A 5' SEPARATION FROM TREES AND ANY WATER/SEWER UTILITY LINES THAT ARE SHALLOWER THAN 5' DEEP.
3 - THERE MUST BE A MINIMUM SEPARATION OF 15' BETWEEN STREET LIGHTS AND STREET TREES.

SEAMONWHITESIDE

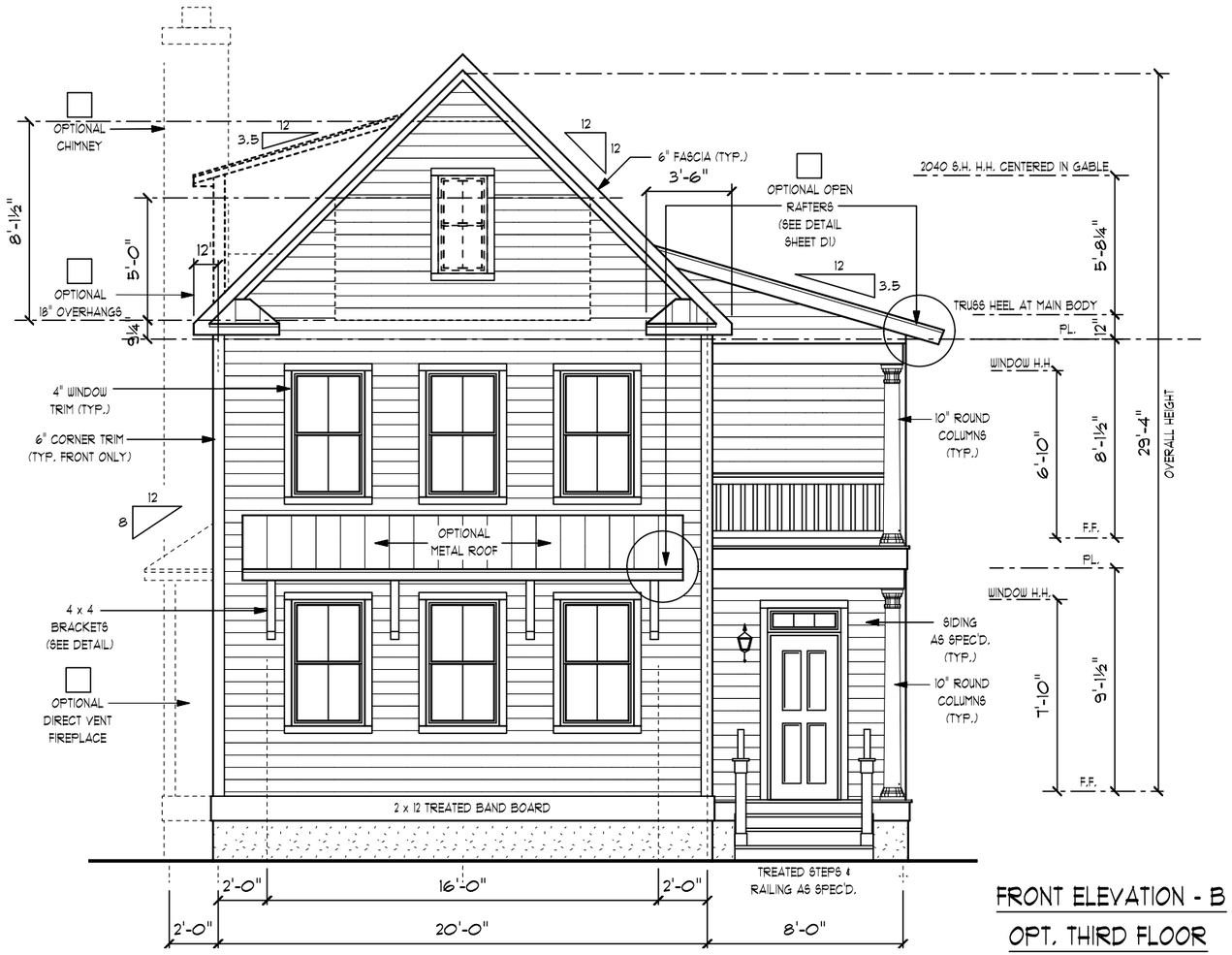
CRESCENT homes

ELEVATION-B	HEATED	UNHEATED	TOTAL AREA
FIRST FLOOR	1096 sf		
SECOND FLOOR	1113 sf		
FRONT PORCH		112 sf	
REAR PORCH		112 sf	
UPPER BALCONY-1		112 sf	
TOTAL AREA	**2209 sf**	**336 sf**	**2545 sf**

OPTIONS	HEATED	UNHEATED	TOTAL AREA
SCREENED PORCH		140 sf	
SUNROOM	140 sf		
THIRD FLOOR	250 sf		
THIRD FLOOR w/BATH	+90 sf		



4 x 4 BRACKET N.T.S.



FRONT ELEVATION - B
OPT. THIRD FLOOR

"MAGNOLIA"

ELEVATION B

PLAN HISTORY:

1/5/15 Create plan
2/16/15 Added shed roof for opt. third floor
4/1/15 Plan review
2/12/16 Added opt. attached garage

DRAWING INDEX

A1 TITLE PAGE & FRONT ELEVATION
A2 LEFT & RIGHT ELEVATIONS
A3 REAR ELEVATIONS & ROOF PLANS
A4 FIRST FLOOR PLAN
A5 SECOND FLOOR PLAN
A6 THIRD FLOOR PLAN
A7 OPT. ATTACHED GARAGE w/SCREEN PORCH
A8 OPT. ATTACHED GARAGE
E1 ELECTRICAL FIRST FLOOR
E2 ELECTRICAL SECOND FLOOR
E3 ELECTRICAL THIRD FLOOR
P1 PLUMBING FIRST & THIRD FLOOR
P2 PLUMBING SECOND FLOOR

FIELD NOTES

CRESCENT homes
572 Savannah Highway
Charleston, South Carolina
Fax (843) 402-0135
Phone (843) 573-9635

CUSTOM DESIGN for the
"Magnolia"
Cottage Series

LOT # _____
ADDRESS _____

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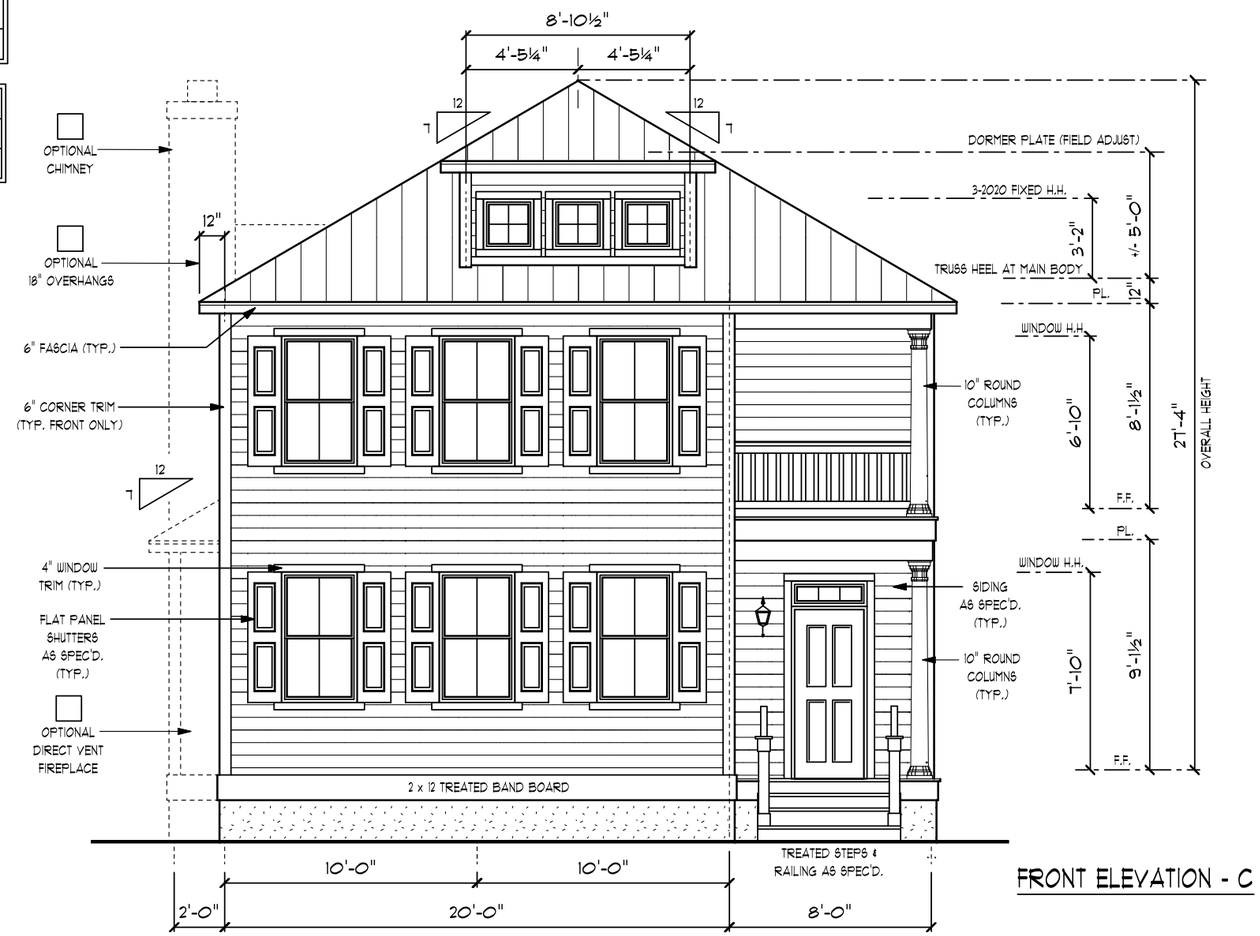
A1
ELEV.-B

ELEVATION-C	HEATED	UNHEATED	TOTAL AREA
FIRST FLOOR	1096 sf		
SECOND FLOOR	1113 sf		
FRONT PORCH		112 sf	
REAR PORCH		112 sf	
UPPER BALCONY-1		112 sf	
TOTAL AREA	**2209 sf**	**336 sf**	**2545 sf**

OPTIONS	HEATED	UNHEATED	TOTAL AREA
SCREENED PORCH		140 sf	
SUNROOM	140 sf		



FRONT ELEVATION - C

"MAGNOLIA"

ELEVATION C

PLAN HISTORY:

1/5/15 Create plan
2/16/15 Added shed roof for opt. third floor
4/1/15 Plan review
2/12/16 Added opt. attached garage

DRAWING INDEX

A1 TITLE PAGE & FRONT ELEVATION
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A7 OPT. ATTACHED GARAGE w/SCREEN PORCH
A8 OPT. ATTACHED GARAGE
E1 ELECTRICAL FIRST FLOOR
E2 ELECTRICAL SECOND FLOOR
E3 ELECTRICAL THIRD FLOOR
P1 PLUMBING FIRST & THIRD FLOOR
P2 PLUMBING SECOND FLOOR

FIELD NOTES

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Charleston, South Carolina
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Phone (843) 573-9635

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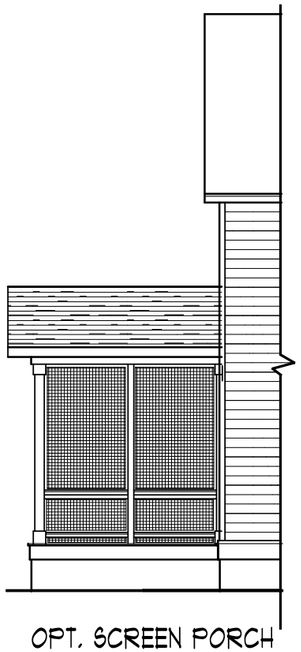
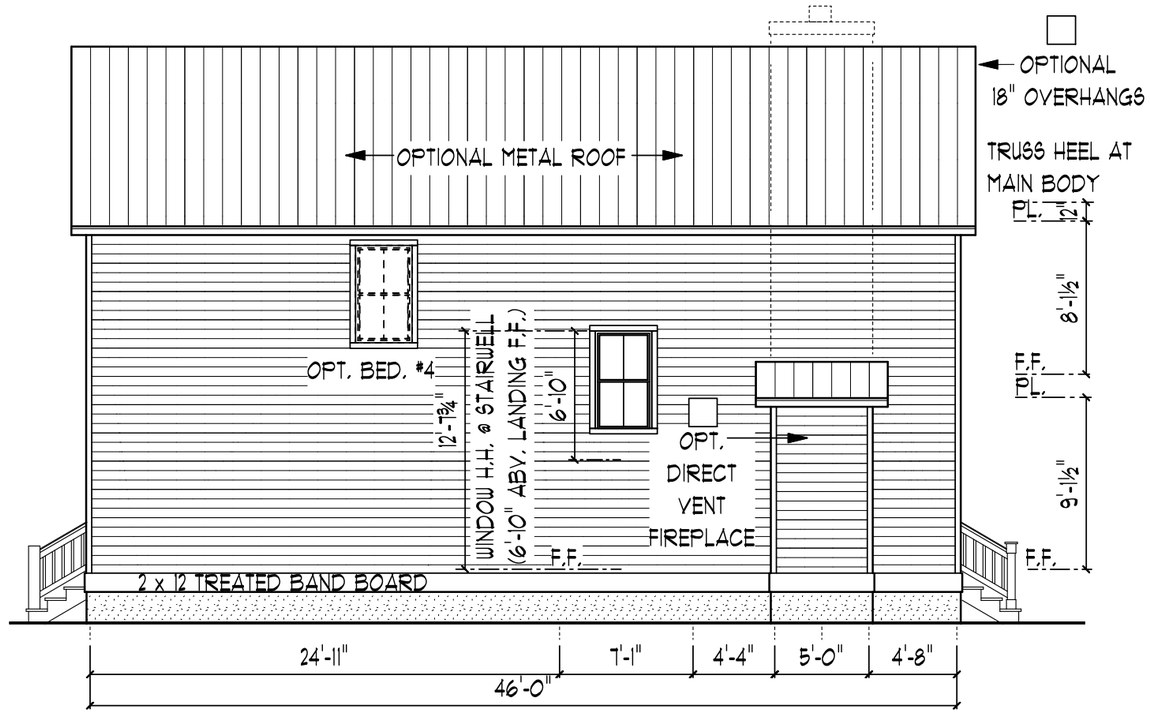
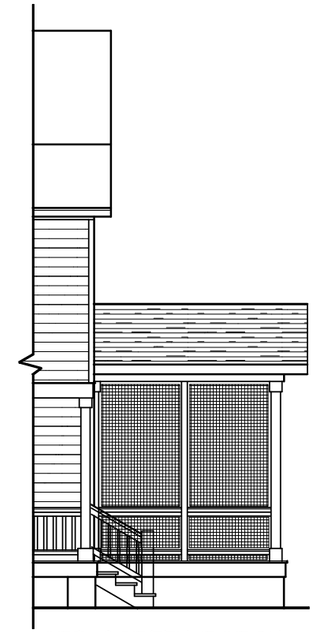
A1
ELEV.-C



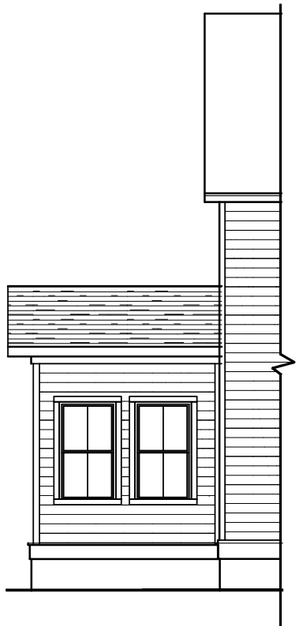
OPT. SCREEN PORCH
LEFT SIDE ELEVATION



LEFT SIDE ELEVATION - A

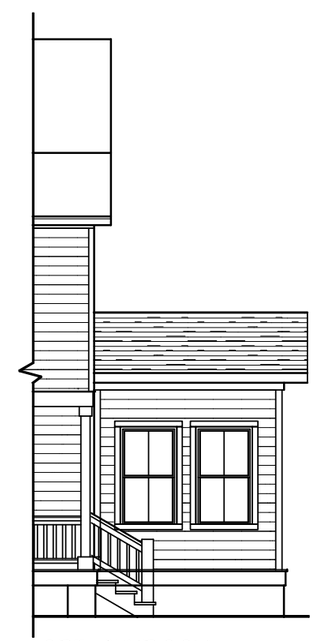


OPT. SCREEN PORCH
RIGHT SIDE ELEVATION



OPT. SUNROOM
LEFT SIDE ELEVATION

RIGHT SIDE ELEVATION - A



OPT. SUNROOM
RIGHT SIDE ELEVATION

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572 Savannah Highway
Charleston, South Carolina
Fax (843) 402-0135
Phone (843) 573-9635

CUSTOM DESIGN
for the
"Magnolia"
ELEVATIONS-A / DOOR RIGHT

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PLAN NAME: MAGNOLIA

REVISIONS:

DRAWN BY: CLE

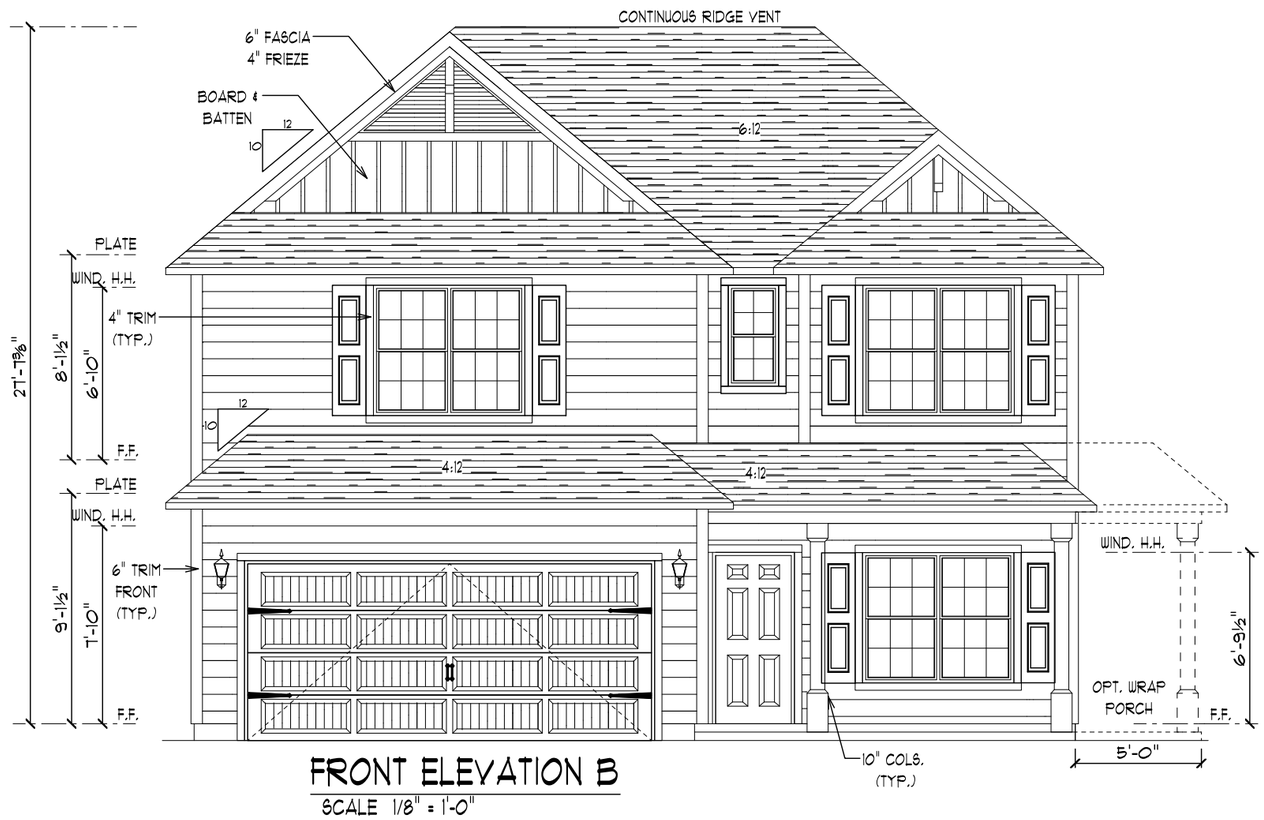
DATE: 1/5/15

JOB NO.:

TITLE: SIDE ELEVATIONS

SHEET: **A2**
ELEV.-A

CRESCENT homes



FRONT ELEVATION B

SCALE 1/8" = 1'-0"

NAME	HEATED	UNHEATED
FIRST FLOOR	1560 sq ft.	
SECOND FLOOR	1216 sq ft.	
TOTAL HEATED	2776 sq. ft.	
GARAGE		417 sq. ft.
FRONT PORCH		68 sq. ft.
OPT. WRAP PORCH		+86 sq. ft.
OPT. SCREEN PORCH		+140 sq. ft.
OPT. SUNROOM	+140 sq. ft.	

"WINCHESTER"

ELEVATION B

PLAN HISTORY:

2/1/16 Create plan
3/15/16 Markups
4/1/16 Plan Review

DRAWING INDEX

A1 TITLE PAGE & FRONT ELEVATION
A2 LEFT & RIGHT ELEVATIONS
A3 REAR ELEVATIONS & ROOF PLANS
A4 FIRST FLOOR PLAN
A5 SECOND FLOOR PLAN
A6 SECTIONS/DETAILS
E1 ELECTRICAL FIRST FLOOR
E2 ELECTRICAL SECOND FLOOR
P1 PLUMBING PLAN

FIELD NOTES

CRESCENT homes
572 Savannah Highway
Charleston, South Carolina
Fax (843) 402-0135
Phone (843) 573-9635

CUSTOM DESIGN
for the
"Winchester"
Heritage Series

LOT # _____
ADDRESS _____

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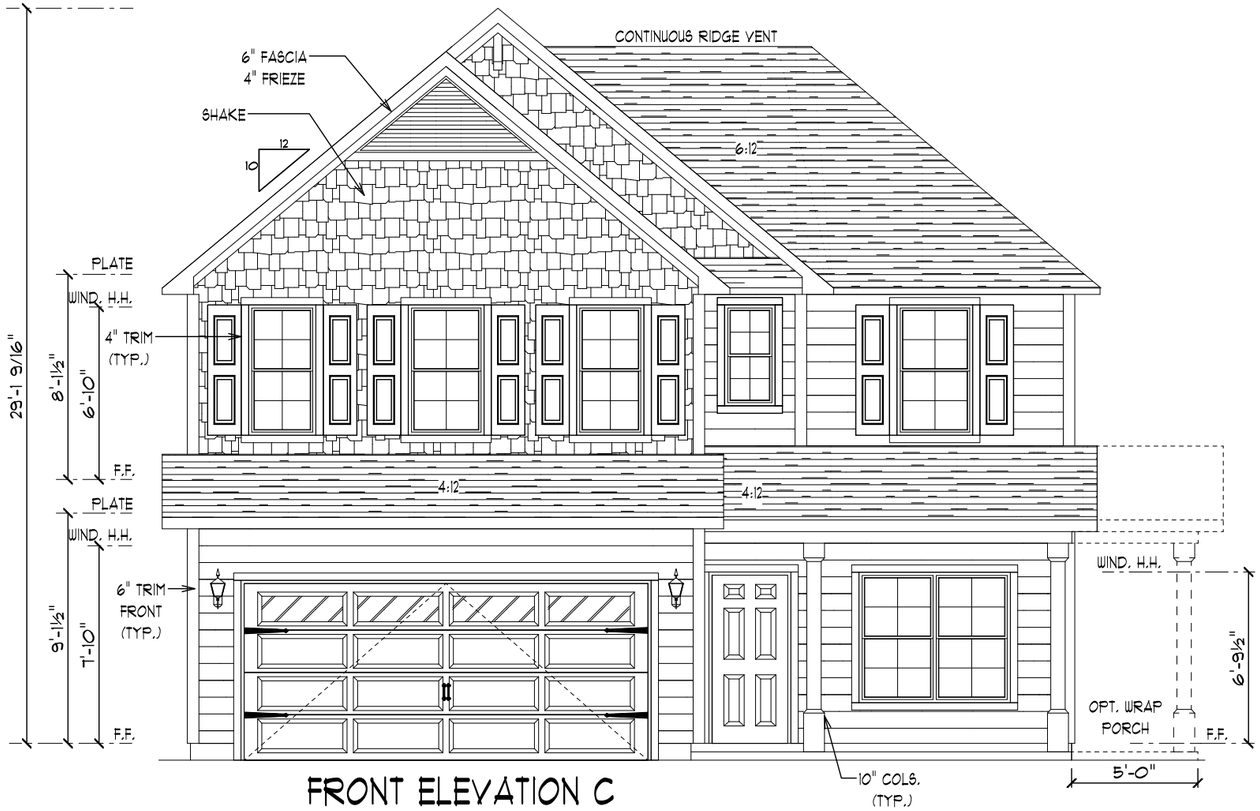
A1
ELEV.-B

RESCENT homes



FRONT ELEVATION C

SCALE 1/8" = 1'-0"

NAME	HEATED	UNHEATED
FIRST FLOOR	1560 sq ft.	
SECOND FLOOR	1194 sq ft.	
TOTAL HEATED	2754 sq. ft.	
GARAGE		417 sq. ft.
FRONT PORCH		68 sq. ft.
OPT. WRAP PORCH		+86 sq. ft.
OPT. SCREEN PORCH		+140 sq. ft.
OPT. SUNROOM	+140 sq. ft.	

"WINCHESTER"

ELEVATION C

PLAN HISTORY:

2/1/16 Create plan
3/15/16 Markups
4/1/16 Plan Review

DRAWING INDEX

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E1 ELECTRICAL FIRST FLOOR
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FIELD NOTES

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Charleston, South Carolina
Fax (843) 402-0135
Phone (843) 573-9635

CUSTOM DESIGN
for the
"Winchester"
Heritage Series

LOT # _____
ADDRESS _____

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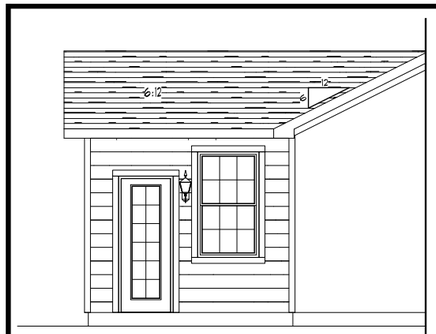
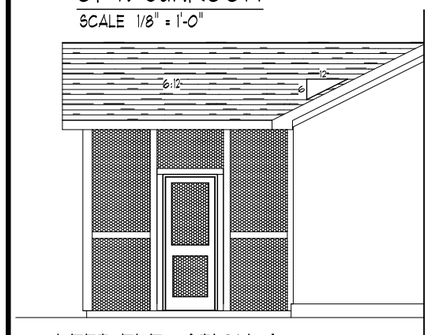
A1
ELEV.-C



LEFT ELEVATION A

OPT. SUNROOM

SCALE 1/8" = 1'-0"



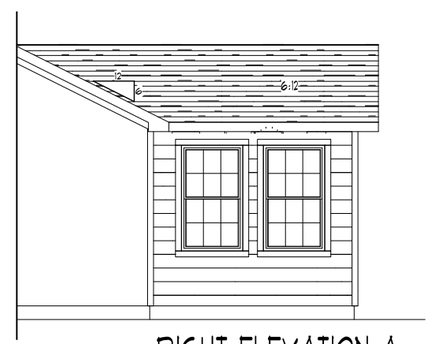
LEFT ELEVATION A

OPT. SCREEN PORCH

SCALE 1/8" = 1'-0"

LEFT ELEVATION A

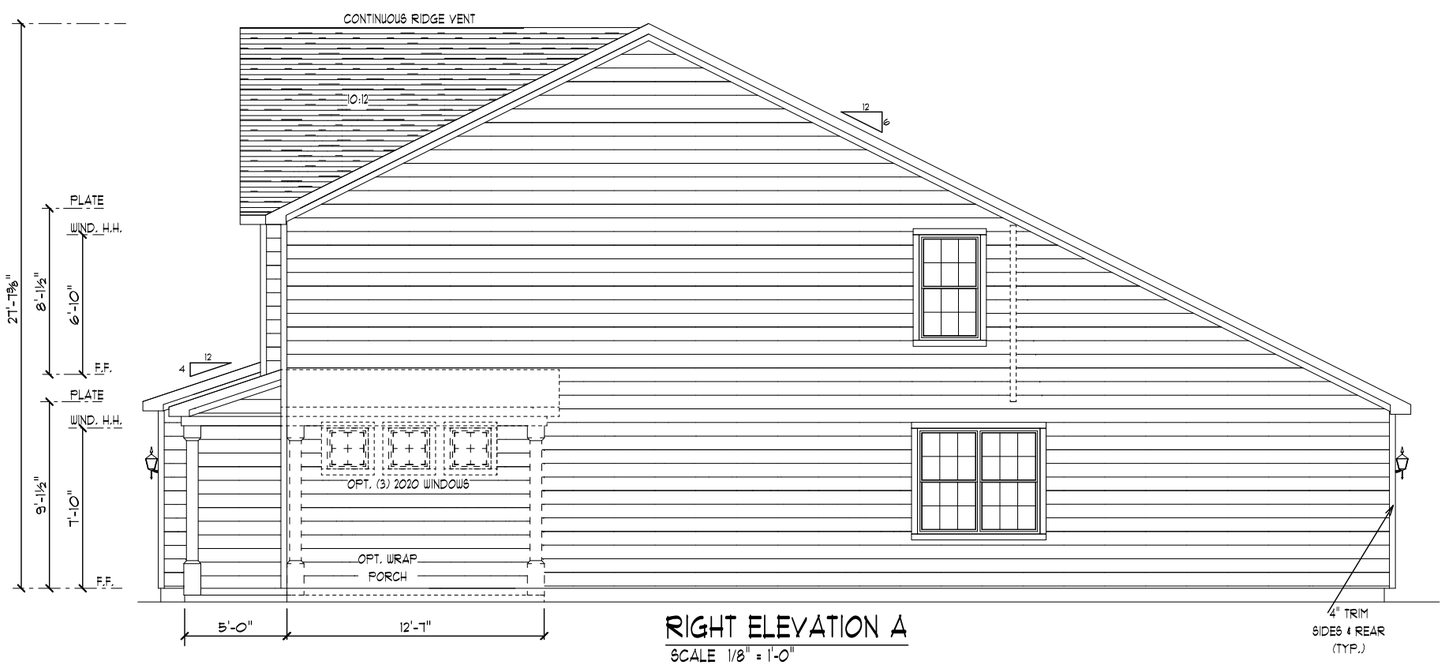
SCALE 1/8" = 1'-0"



RIGHT ELEVATION A

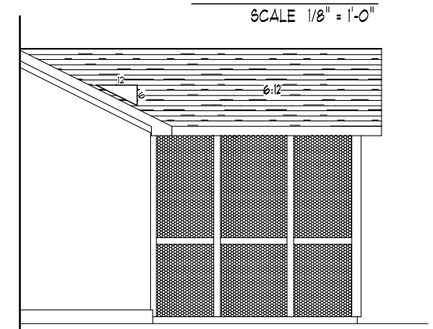
OPT. SUNROOM

SCALE 1/8" = 1'-0"



RIGHT ELEVATION A

SCALE 1/8" = 1'-0"



RIGHT ELEVATION A

OPT. SCREEN PORCH

SCALE 1/8" = 1'-0"

RESCENT homes

572 Savannah Highway
Charleston, South Carolina

Fax (843) 402-0135
Phone (843) 573-0635

CUSTOM DESIGN
for the

"Winchester"

ELEVATIONS-A / GARAGE LEFT

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PLAN NAME: WINCHESTER

REVISIONS:

DRAWN BY: CLE

DATE: 2/1/16

JOB NO.:

TITLE: SIDE ELEVATIONS

SHEET: **A2**

ELEV.-A

Traffic Impact Analysis

Knightsville Residential Development
Knightsville, SC

Prepared for:
Levi Grantham, LLC

© Bihl Engineering, LLC 2019

BIHL

ENGINEERING

Traffic Impact Analysis
Knightsville Residential Development
Knightsville, SC

Prepared for:
Levi Grantham, LLC

Prepared by:
Bihl Engineering, LLC
304 Meeting Street, Suite D
Charleston, SC 29401
Mail:
P.O. Box 31318
Charleston, SC 29417
(843) 637-9187

SOUTH CAROLINA
BIHL ENGINEERING LLC.
No. 4620
CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA
LICENSED PROFESSIONAL ENGINEER
No. 25271
8/27/19
JENNIFER TROPEA BIHL

December 2017
Updated March 2018
Updated August 2019

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1.0 Executive Summary

This report updates the December 4, 2017 traffic study for the Knightsville Residential Development from 273 units to 300 total single-family and multi-family units. The report also updates the March 20, 2018 traffic study for the Knightsville Residential Development to revise the recommendations for the intersection of Orangeburg Road at Central Avenue per discussion of overall intersection improvements with South Carolina Department of Transportation (SCDOT).

The Knightsville Residential Development is planned to be located on Orangeburg Road in Knightsville, SC. The proposed development will consist of 195 single-family homes and 105 low-rise townhomes. The development is planned to be accessed by a full access driveway on Orangeburg Road. This driveway location has been coordinated with SCDOT staff. For the purposes of this Traffic Impact Analysis (TIA), the development is assumed complete by 2021.

This report presents the trip generation, distribution, traffic analyses, and any recommendations for transportation improvements required to meet anticipated traffic demands.

The intersection of Orangeburg Road at Central Avenue currently operates at level of service (LOS) D during the AM and PM peak hours. Based on the projected traffic growth, the intersection is projected to experience elevated delay during the AM and PM peak hours for the 2021 No Build and 2021 Build conditions with signal optimization. Based on the results of the study, the addition of a northbound right-turn lane and optimization of the traffic signal operations, including the addition of a right-turn overlap phase, is recommended to be installed as part of the Build with Improvements conditions. With these improvements, the intersection is projected to improve and operate at LOS D and LOS E during the AM and PM peak hour conditions, respectively. Intersection laneage improvements, traffic signal improvements, and integration with existing driveways will need to be coordinated with SCDOT.

The study area intersections of Orangeburg Road at Julius Street and Orangeburg Road at Cone Lane/Claussen Street operate at LOS E or better in the existing conditions.

As part of the project improvements around the Site Driveway an exclusive 100-foot left-turn lane will be installed opening into a two-way left-turn lane (TWLTL) extending past Julius Street, as coordinated in concept with SCDOT. Detailed design will need to be approved by SCDOT.

With these improvements the intersections of Orangeburg Road at Julius Street and Orangeburg Road at Cone Lane/Claussen Street will operate at the existing conditions level of service or better.

The intersection of Orangeburg Road at the Site Driveway is projected to experience elevated delay during the AM and PM peak hours in the 2021 Build with Improvements conditions. Improvements to the driveway include exclusive eastbound left- and right-turn lanes exiting the site, the northbound left-turn lane and TWLTL on Orangeburg Road at the Site Driveway, and a southbound right-turn lane on Orangeburg Road.

It is typical for stop-controlled side streets and driveways on major streets to experience longer delays during peak hours while most of the traffic moving through the corridor experiences little or not delay. Maximum queues for the eastbound left-turning traffic were calculated to be approximately six vehicles or fewer during the peak hours.

Based on the projected future conditions and discussion with SCDOT staff, the following transportation improvements are recommended as a part of this project:

- Installation of exclusive northbound right-turn lane on Orangeburg Road at the intersection of Orangeburg Road at Central Avenue – details to be coordinated with SCDOT
- Update traffic signal timings at the intersection of Orangeburg Road at Central Avenue including the installation of a right-turn overlap operation and associated signal hardware
- Installation of an exclusive 100-foot northbound left-turn lane opening to a TWLTL, and an exclusive southbound right-turn lane on Orangeburg Road at the intersection of Orangeburg Road at the Site Driveway per previous discussion with SCDOT
- Installation of exclusive eastbound left- and right-turn lanes exiting the Site Driveway at Orangeburg Road

2.0 Introduction

The Knightsville Residential Development is planned to be located on Orangeburg Road in Knightsville, SC. The proposed development will consist of 195 single-family homes and 105 low-rise townhomes. The development is planned to be accessed by a full access driveway on Orangeburg Road. This driveway location has been coordinated with SCDOT staff. For the purposes of this TIA, the development is assumed complete by 2021.

3.0 Inventory

3.1 Study Area

The study area for the TIA includes the following existing intersections:

- Orangeburg Road at Central Avenue
- Orangeburg Road at Julius Street
- Orangeburg Road at Cone Lane
- Orangeburg Road at Claussen Street

Figure 1 (**Appendix**) shows the site location and **Figure 2** (**Appendix**) shows the project conceptual site plan.

3.2 Existing Conditions

Roadways in the project vicinity include Orangeburg Road, Central Avenue, Julius Street, Cone Lane, and Claussen Street.

Orangeburg Road is a two-lane roadway with a posted speed limit of 35 miles per hour (mph) in the vicinity of the project. Per 2016 SCDOT Average Annual Daily Traffic (AADT) data, Orangeburg Road carries approximately 13,500 vehicles per day (vpd) in the project area.

Central Avenue is a two-lane roadway with a posted speed limit of 40 mph at the intersection of Central Avenue at Orangeburg Road. The roadway is in the process of being improved to a three-lane section in the vicinity of the intersection of Central Avenue at Orangeburg Road. Central Avenue has a 2016 SCDOT AADT of 10,200 vpd west of Orangeburg Road and 13,700 vpd east of Orangeburg Road.

Julius Street is a two-lane roadway with a posted speed limit of 25 mph.

Cone Lane is a two-lane roadway.

Claussen Street is a two-lane roadway with a posted speed limit of 35 mph.

Figure 3 (**Appendix**) shows the existing roadway laneage in the study area.

4.0 Traffic Generation

The traffic generation potential of the proposed development was determined using trip generation rates published in Institute of Transportation Engineers (ITE) *Trip Generation* (Institute of Transportation Engineers, Tenth Edition).

Table 1 summarizes the daily and peak hour trips associated with the proposed site.

Table 1:
Trip Generation[1]

Land Use and Intensity	ITE Land Use Code	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
195 Single Family Homes	210	1,922	143	36	107	193	122	71
105 Low-Rise Townhomes	220	753	50	12	38	62	39	23
New Trips		**2,675**	**193**	**48**	**145**	**255**	**161**	**94**

1. Source: ITE *Trip Generation*, Tenth Edition

The proposed development is projected to generate 2,675 daily trips with 193 trips during the AM peak hour (48 entering and 145 exiting) and 255 trips during the PM peak hour (161 entering and 94 exiting).

5.0 Site Traffic Distribution

The proposed project traffic was assigned to the surrounding roadway network. The directional distribution and assignment were based on qualitative knowledge of the project area, quantitative application of existing traffic patterns, and expected trip length.

The following general trip distribution was applied to the project trips:

- 20% to/from the north on Orangeburg Road
- 45% to/from the south on Orangeburg Road
- 5% to/from the west on Central Avenue
- 30% to/from the east on Central Avenue

Figure 4 shows the proposed traffic distribution for the project trips.

6.0 Traffic Volumes

6.1 2017 Existing Traffic

Peak hour intersection turning movement counts including vehicular, pedestrian, and heavy vehicle traffic were performed in October 2017 from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM at the following intersections:

- Orangeburg Road at Central Avenue
- Orangeburg Road at Julius Street
- Orangeburg Road at Cone Lane
- Orangeburg Road at Claussen Street

The turning movement count data is included in the **Appendix** and the AM and PM peak hour existing traffic volumes are shown in **Figure 5** (**Appendix**). The study intersections of Orangeburg Road at Cone Lane and Orangeburg Road at Claussen Street were counted as one intersection due to their proximity but were analyzed as two separate intersections.

6.2 2021 No Build Traffic

Historic growth is defined as the increase in existing traffic volumes due to usage increases and non-specific growth throughout the area. Based on historic daily traffic trends, a 3.5 percent per year growth rate was applied for this analysis.

The 2021 No Build traffic volumes include existing traffic grown to the buildout year. **Figure 6** (**Appendix**) and **Figure 7** (**Appendix**) show the 2021 No Build AM and PM peak hour traffic volumes, respectively.

6.3 Project Traffic

The AM peak hour and PM peak hour projected project trips were assigned based on the trip distribution discussed in **Section 5.**

6.4 2021 Build Traffic

The 2021 total traffic volumes include the 2021 background traffic and the proposed development traffic at buildout. The 2021 AM and PM peak hour total traffic volumes are shown in **Figure 6** (**Appendix**) and **Figure 7** (**Appendix**), respectively.

Intersection volume development worksheets are included in the **Appendix**.

7.0 Capacity Analysis

Capacity analyses were performed for the AM and PM peak hours for the 2017 Existing, 2021 No Build, and 2021 Build conditions using the Synchro software to determine the operating characteristics of the adjacent roadway network and the impacts of the proposed project. The analyses were conducted with methodologies contained in the *2010 Highway Capacity Manual* (Transportation Research Board, December 2010).

Capacity of an intersection is defined as the maximum number of vehicles that can pass through an intersection during a specified time, typically an hour. Capacity is described by level of service (LOS) for the operating characteristics of an intersection. LOS is a qualitative measure that describes operational conditions and motorist perceptions within a traffic stream. The *Highway Capacity Manual* defines six levels of service, LOS A through LOS F, with A being the best and F being the worst.

LOS for signalized intersections is determined by the overall intersection operations and is reflected in average delay per vehicle. LOS D or better is typically considered acceptable for signalized intersections.

LOS for a two-way stop-controlled (TWSC) intersection is determined by the delay of the poorest performing minor approach, as LOS is not defined for TWSC intersections as a whole. It is typical for minor stop-controlled side streets and driveways on major streets to experience longer delays at LOS E and LOS F while the majority of the traffic moving through the corridor typically experiences little or no delay.

Capacity analyses were performed for the 2017 Existing, 2021 No Build, and 2021 Build AM and PM peak hour traffic conditions for the following intersections:

- Orangeburg Road at Central Avenue (signalized)
- Orangeburg Road at Julius Street (unsignalized)
- Orangeburg Road at Cone Lane (unsignalized)

- Orangeburg Road at Claussen Street (unsignalized)
- Orangeburg Road at the Site Driveway (unsignalized) (Build conditions only)

Existing signal timings were applied to the signalized intersection of Orangeburg Road at Central Avenue, and the signal timings were optimized in the 2021 No Build and 2021 Build conditions. In the 2021 Build with Improvements conditions, the signal timings were optimized and included the addition of a right-turn overlap phase.

7.1 Orangeburg Road at Central Avenue

Table 2 summarizes LOS and control delay (average seconds of delay per vehicle) for the projected Existing, 2021 No Build, 2021 Build, and 2021 Build with Improvements AM and PM peak hour conditions at the signalized intersection of Orangeburg Road at Central Avenue.

Table 2:
LOS Analysis Summary
Orangeburg Road at Central Avenue

Analysis Scenario	Approach	AM Peak Hour		PM Peak Hour	
		Approach LOS (Delay[1])	Overall LOS (Delay[1])	Approach LOS (Delay[1])	Overall LOS (Delay[1])
Existing	NB SB EB WB	D (36.4) D (41.2) D (36.6) D (36.1)	D (37.8)	D (53.6) D (43.6) D (35.8) D (39.1)	D (43.2)
2021 No Build[2]	NB SB EB WB	D (53.4) E (71.3) E (62.1) D (53.8)	E (60.4)	E (68.9) E (56.1) E (65.7) E (78.3)	E (67.6)
2021 Build[3]	NB SB EB WB	F (100.6) E (79.1) E (62.1) E (61.6)	E (77.1)	F (95.2) E (66.9) E (65.7) F (99.5)	F (83.2)
2021 Build with Improvements[4]	NB SB EB WB	C (25.8) E (67.3) E (62.0) D (54.4)	D (51.7)	C (32.6) E (68.3) E (67.9) F (71.6)	E (59.6)

1. Delay = average seconds per vehicle
2. Signal timings optimized
3. Signal timings optimized, no laneage improvements
4. Exclusive northbound right-turn lane added, signal timings optimized, right-turn overlap phases added

As shown in **Table 2**, the intersection of Orangeburg Road at Central Avenue currently operates at LOS D during the AM and PM peak hours. Based on the projected traffic growth, the intersection is projected to experience elevated delay during the AM and PM peak hours in the 2021 No Build and 2021 Build conditions with signal timing optimization only. Installation of a northbound right-turn lane with an overlap phase was included in the Build with Improvements conditions based on discussion with SCDOT on potential improvements for the intersection. With these improvements, the intersection is projected to operate at LOS D in the 2021 AM peak hour Build with Improvements conditions and LOS E in the PM peak hour Build with Improvements conditions. Intersection laneage improvements, traffic signal timing adjustments, and integration with existing driveways will need to be coordinated with SCDOT in the design phase.

7.2 Orangeburg Road at Julius Street

Table 3 summarizes LOS and control delay (average seconds of delay per vehicle) for the projected Existing, 2021 No Build, and 2021 Build AM and PM peak hour conditions for the unsignalized intersection of Orangeburg Road at Julius Street.

Table 3:
LOS Analysis Summary
Orangeburg Road at Julius Street

Analysis Scenario	Approach	AM Peak Hour Approach LOS (Delay[1,3])	PM Peak Hour Approach LOS (Delay[1,3])
Existing	NB SB WB[2]	A (0.0) A (0.0) D (25.6)	A (0.0) A (0.0) C (21.4)
2021 No Build	NB SB WB[2]	A (0.0) A (0.0) D (32.7)	A (0.0) A (0.0) D (26.0)
2021 Build with Improvements[4]	NB SB WB[2]	A (0.0) A (0.0) C (19.7)	A (0.0) A (0.0) C (20.3)

1. Delay = average seconds per vehicle
2. Stop controlled approach for unsignalized intersection
3. Overall intersection LOS is not provided for two-way stop controlled unsignalized intersections
4. The Build conditions include a two-way left-turn lane on Orangeburg Road at this intersection as part of the improvements associated with the intersection of Orangeburg Road at the Site Driveway.

As shown in **Table 3**, the intersection of Orangeburg Road at Julius Street currently operates at LOS D in the AM peak hour and LOS C in the PM peak hour. Based on the projected intersection operations, the intersection is projected to operate at LOS D during the AM and PM peak hours in the 2021 No Build conditions. The intersection is projected to operate at LOS C during the AM and PM peak hours in the 2021 Build with Improvements conditions with the inclusion of the TWLTL associated with the Site Driveway.

7.3 Orangeburg Road at Cone Lane

Table 4 summarizes LOS and control delay (average seconds of delay per vehicle) for the projected Existing, 2021 No Build, and 2021 Build AM and PM peak hour conditions for the unsignalized intersection of Orangeburg Road at Cone Lane.

Table 4:
LOS Analysis Summary
Orangeburg Road at Cone Lane

Analysis Scenario	Approach	AM Peak Hour Approach LOS (Delay[1,3])	PM Peak Hour Approach LOS (Delay[1,3])
Existing	NB SB EB[2]	A (0.1) A (0.0) C (19.7)	A (0.2) A (0.0) B (14.6)
2021 No Build	NB SB EB[2]	A (0.1) A (0.0) C (23.1)	A (0.2) A (0.0) C (16.3)
2021 Build	NB SB EB[2]	A (0.1) A (0.0) D (25.1)	A (0.2) A (0.0) C (18.5)

1. Delay = average seconds per vehicle
2. Stop controlled approach for unsignalized intersection
3. Overall intersection LOS is not provided for two-way stop controlled unsignalized intersections

As shown in **Table 4**, the intersection of Orangeburg Road at Cone Lane currently operates at LOS C or better during the Existing AM and PM peak hour conditions. Based on the projected intersection operations, the intersection of Orangeburg Road at Cone Lane is expected to operate at LOS D or better in the 2021 No Build and 2021 Build conditions during the AM and PM peak hours.

7.4 Orangeburg Road at Claussen Street

Table 5 summarizes LOS and control delay (average seconds of delay per vehicle) for the projected Existing, 2021 No Build, and 2021 Build AM and PM peak hour conditions for the unsignalized intersection of Orangeburg Road at Claussen Street.

As shown in **Table 5**, the intersection of Orangeburg Road at Claussen Street currently operates at LOS D during the AM peak hour and LOS B during the PM peak hour. Based on the projected intersection operations the intersection is projected to operate at LOS D during the AM peak hour and LOS C during the PM peak hour in the 2021 No Build conditions. The intersection is projected to experience some delay during the AM peak hour and to operate at LOS C during the PM peak hour in the 2021 Build conditions. It is typical for stop-controlled side streets to experience longer delays during peak hours while most of the traffic moving through the corridor typically experiences little or no delay.

Table 5: LOS Analysis Summary Orangeburg Road at Claussen Street			
Analysis Scenario	**Approach**	**AM Peak Hour Approach LOS (Delay[1,3])**	**PM Peak Hour Approach LOS (Delay[1,3])**
Existing	NB SB WB[2]	A (0.0) A (0.0) D (25.2)	A (0.0) A (0.1) B (14.8)
2021 No Build	NB SB WB[2]	A (0.0) A (0.0) D (32.7)	A (0.0) A (0.1) C (16.5)
2021 Build	NB SB WB[2]	A (0.0) A (0.0) E (38.9)	A (0.0) A (0.1) C (17.6)

1. Delay = average seconds per vehicle
2. Stop controlled approach for unsignalized intersection
3. Overall intersection LOS is not provided for two-way stop controlled unsignalized intersections

7.5 Orangeburg Road at the Site Driveway

Table 6 summarizes LOS and control delay (average seconds of delay per vehicle) for the projected 2021 Build with Improvements AM and PM peak hour conditions at the unsignalized intersection of Orangeburg Road at the Site Driveway.

Table 6: LOS Analysis Summary Orangeburg Road at the Site Driveway			
Analysis Scenario	**Approach**	**AM Peak Hour Approach LOS (Delay[1,3])**	**PM Peak Hour Approach LOS (Delay[1,3])**
2021 Build with Improvements[4]	NB SB EB[2]	A (0.5) A (0.0) F (123.6)	A (0.8) A (0.0) F (72.8)

1. Delay = average seconds per vehicle
2. Stop controlled approach for unsignalized intersection
3. Overall intersection LOS is not provided for two-way stop controlled unsignalized intersections
4. Addition of an exclusive 100-foot northbound left-turn lane opening to a TWLTL on Orangeburg Road, exclusive southbound right-turn lane, and exclusive eastbound left- and right-turn lanes exiting the site

In the 2021 Build with Improvements conditions, exclusive eastbound left- and right-turn lanes exiting the development were included at the intersection.

The intersection was further reviewed for consideration of the installation of an exclusive southbound right-turn lane and an exclusive northbound left-turn lane on Orangeburg Road based on SCDOT Design Manual guidelines and projected intersection volumes. Based on the analysis, the AM and PM peak hour conditions are projected to meet the guidelines for installation of an exclusive northbound left-turn lane and the PM peak hour conditions are projected to meet the guidelines for installation of an exclusive southbound right-turn lane.

With the inclusion of these improvements, the eastbound traffic exiting the development is still projected to experience some delay in the 2021 Build with Improvements peak hour conditions. The eastbound left-turn queue exiting the site is projected to be approximately six vehicles in the 2021 Build with Improvements AM peak hour conditions and approximately four vehicles in the 2021 Build with Improvements PM conditions. The eastbound right-turn queue is projected to be approximately one vehicle in the 2021 Build with Improvements AM and PM peak hour conditions. These operations are typical for stop-controlled side streets and driveways on major streets, which may experience longer delays during peak hours while most of the traffic moving through the corridor typically experiences little or no delay.

7.6 Preliminary Coordination with SCDOT

At a February 6, 2018 meeting with SCDOT, the Site Driveway location and turn lane concepts at the intersection of Orangeburg Road at the Site Driveway was discussed. Based on that discussion, it was determined that at the Site Driveway, the exclusive southbound right-turn lane length on Orangeburg Road will be maximized with the taper beginning just after the driveway south of Cone Lane. The exclusive northbound left-turn lane will have approximately 100 feet of storage, then open into TWLTL to the south, past the intersection of Orangeburg Road at Julius Street. The Site Driveway will be full access and have exclusive outbound left- and right-turn lanes.

Overall intersection improvements to the intersection of Orangeburg Road at Central Avenue were discussed with SCDOT for inclusion in the analysis.

7.7 Summary

In summary, based on the projected future conditions and discussion with SCDOT staff, the following transportation improvements are recommended as a part of this project:

- Installation of exclusive northbound right-turn lane on Orangeburg Road at the intersection of Orangeburg Road at Central Avenue – details to be coordinated with SCDOT
- Update traffic signal timings at the intersection of Orangeburg Road at Central Avenue including the installation of a right-turn overlap operation and associated signal hardware
- Installation of an exclusive 100-foot northbound left-turn lane opening to a TWLTL, and an exclusive southbound right-turn lane on Orangeburg Road at the intersection of Orangeburg Road at the Site Driveway per previous discussion with SCDOT

- Installation of exclusive eastbound left- and right-turn lanes exiting the Site Driveway at Orangeburg Road

8.0 Conclusion

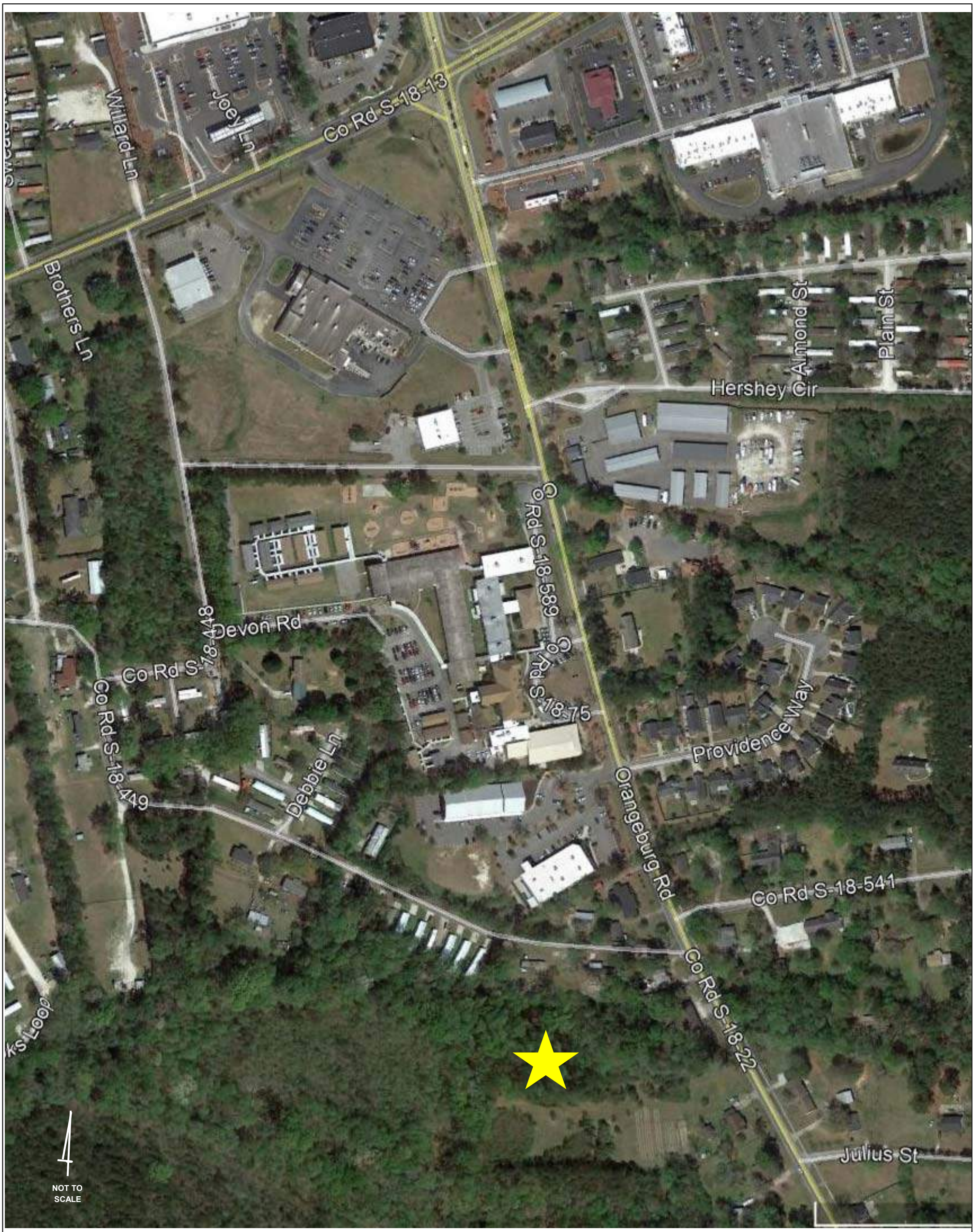
This report updates the December 4, 2017 traffic study for the Knightsville Residential Development from 273 units to 300 total single-family and multi-family units. The report also updates the March 20, 2018 traffic study for the Knightsville Residential Development to revise the recommendations for the intersection of Orangeburg Road at Central Avenue per discussion of overall intersection improvements with SCDOT.

The Knightsville Residential Development is planned to be located on Orangeburg Road in Knightsville, SC. The proposed development will consist of 195 single-family homes and 105 low-rise townhomes. The development is planned to be accessed by a full access driveway on Orangeburg Road. This driveway location has been coordinated with SCDOT staff. For the purposes of this TIA, the development is assumed complete by 2021.

Based on the projected future conditions and discussion with SCDOT staff, the following transportation improvements are recommended as a part of this project:

- Installation of exclusive northbound right-turn lane on Orangeburg Road at the intersection of Orangeburg Road at Central Avenue – details to be coordinated with SCDOT
- Update traffic signal timings at the intersection of Orangeburg Road at Central Avenue including the installation of a right-turn overlap operation and associated signal hardware
- Installation of an exclusive 100-foot northbound left-turn lane opening to a TWLTL, and an exclusive southbound right-turn lane on Orangeburg Road at the intersection of Orangeburg Road at the Site Driveway per previous discussion with SCDOT
- Installation of exclusive eastbound left- and right-turn lanes exiting the Site Driveway at Orangeburg Road

Appendix



LEGEND
★ Project Site

BIHL ENGINEERING	Knightsville Residential Development Traffic Impact Analysis	Site Location	Figure 1

Knightsville Residential Development
Traffic Impact Analysis

Site Plan

Figure 2

Note:
This plan is conceptual and based upon incomplete survey information. It is subject to change upon receipt of full survey, final programming, final engineering and review and approval of governmental regulating bodies.

LEGEND

- 40'x120' lot
- 35'x120' lot
- Townhome

AREA CHART

Total Site - 75.41 Acres

Open Space - 32.72 Acres
- Wetland..... 9.57 Acres
- Active Park..... 1.86 Acres
- Passive Park..... 21.29 Acres

Lots - 300 Total
- Townhome..... 105 (29%)
- 35' Lots..... 86 (71%)
- 40' Lots..... 109 (71%)

0' 200' 400' 600'

NOTE: THIS PLAN IS CONCEPTUAL IN NATURE AND SUBJECT TO CHANGE.

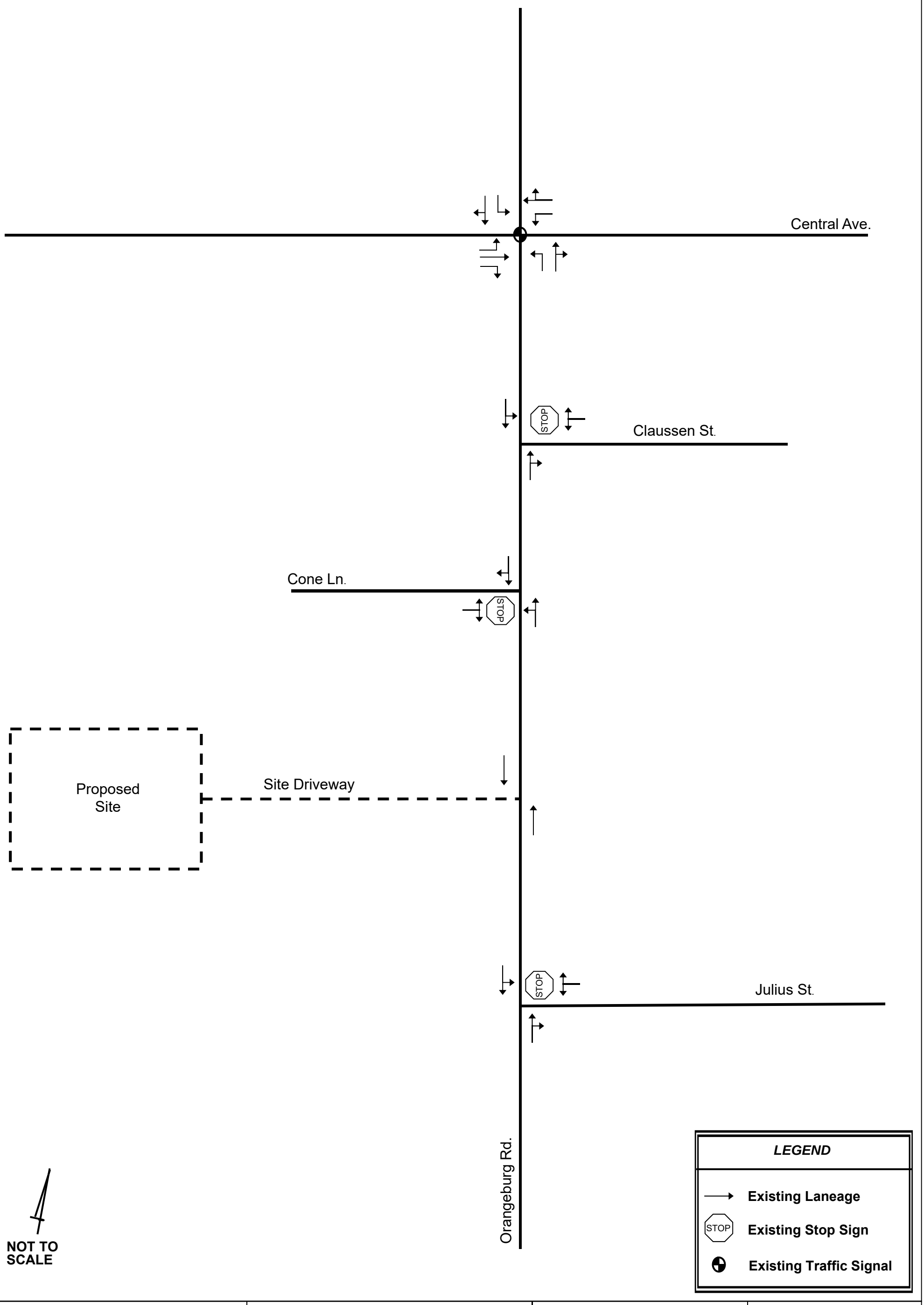
SEAMONWHITESIDE

CONCEPTUAL DEVELOPMENT PLAN

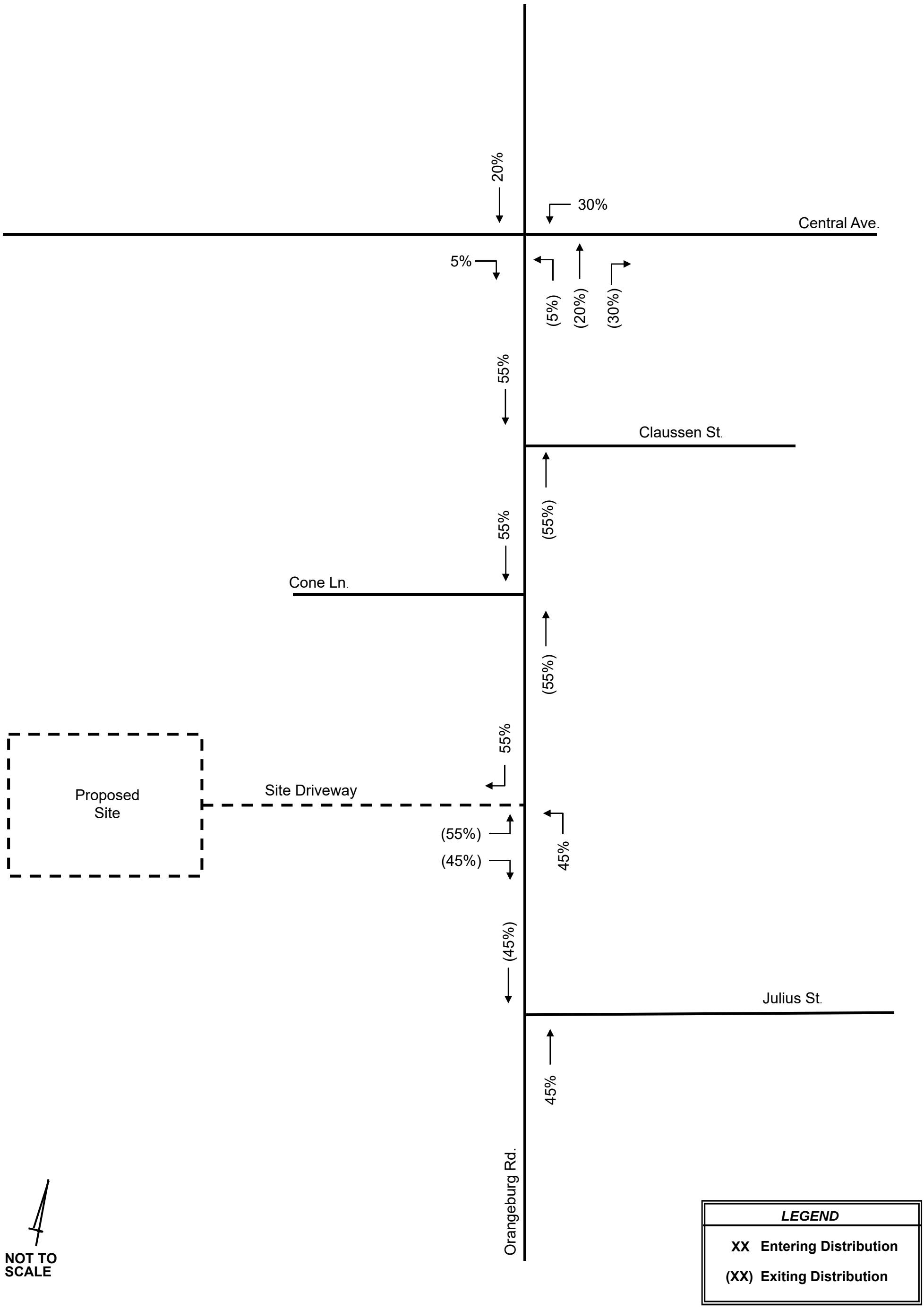
DORCHESTER COUNTY, SOUTH CAROLINA

7690

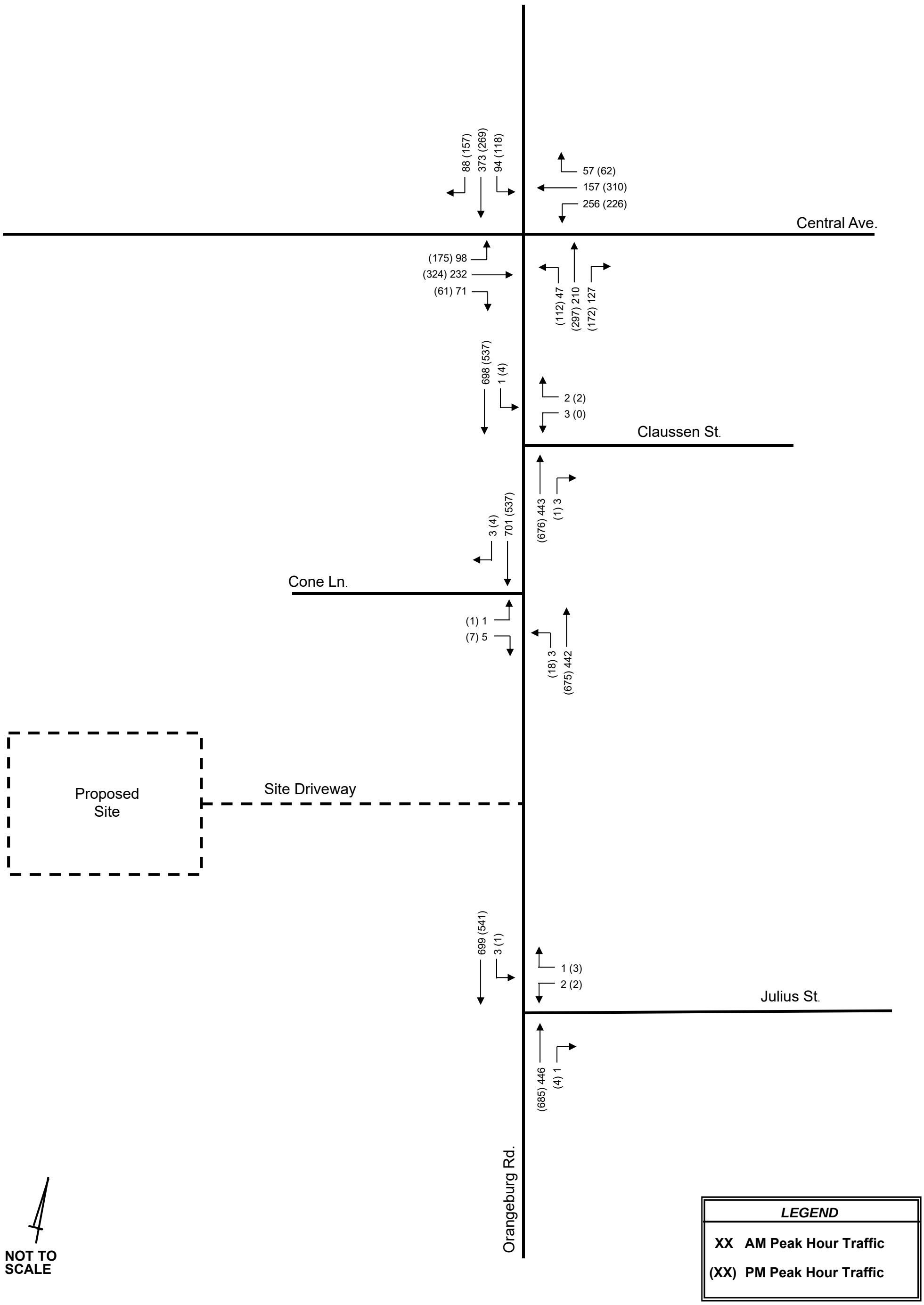
01.11.18



BIHL ENGINEERING	**Knightsville Residential Development Traffic Impact Analysis**	**Existing Laneage**	**Figure 3**



BIHL ENGINEERING	**Knightsville Residential Development Traffic Impact Analysis**	**Trip Distribution**	**Figure 4**

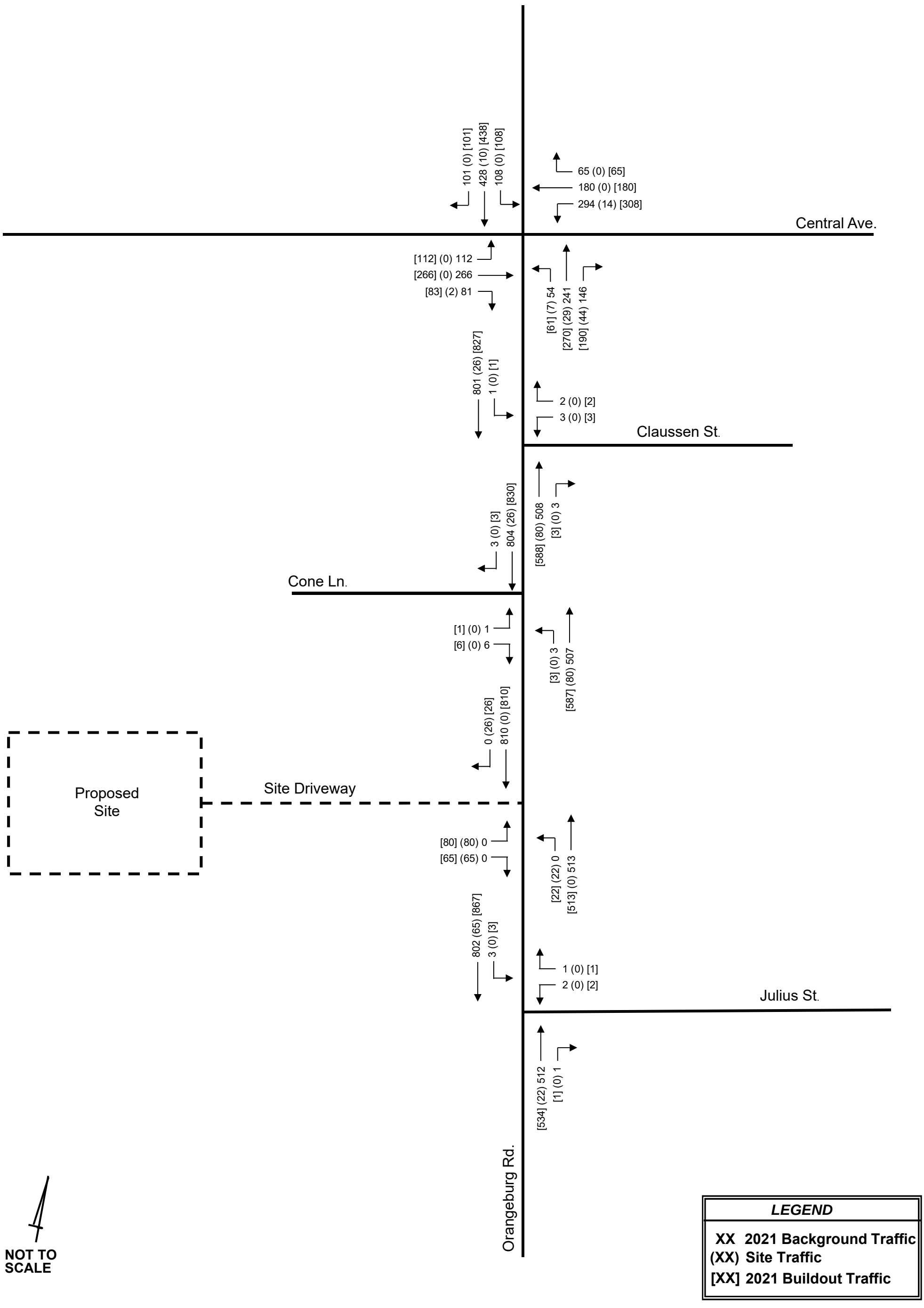


BIHL ENGINEERING

Knightsville Residential Development Traffic Impact Analysis

Existing Traffic Volumes

Figure 5

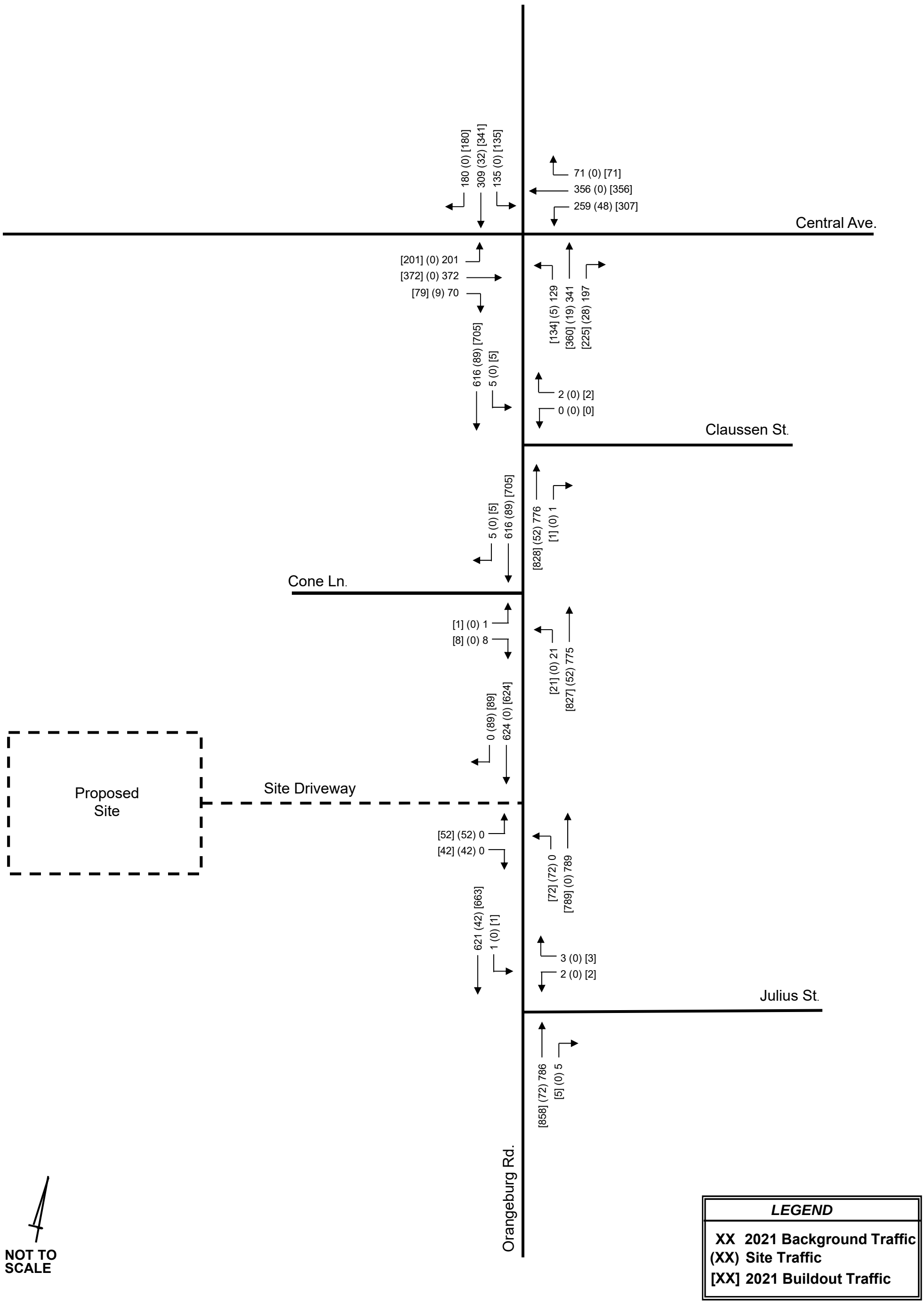


BIHL ENGINEERING

Knightsville Residential Development Traffic Impact Analysis

2021 AM Peak Traffic Volumes

Figure 6



BIHL ENGINEERING

Knightsville Residential Development Traffic Impact Analysis

2021 PM Peak Traffic Volumes

Figure 7

Short Counts

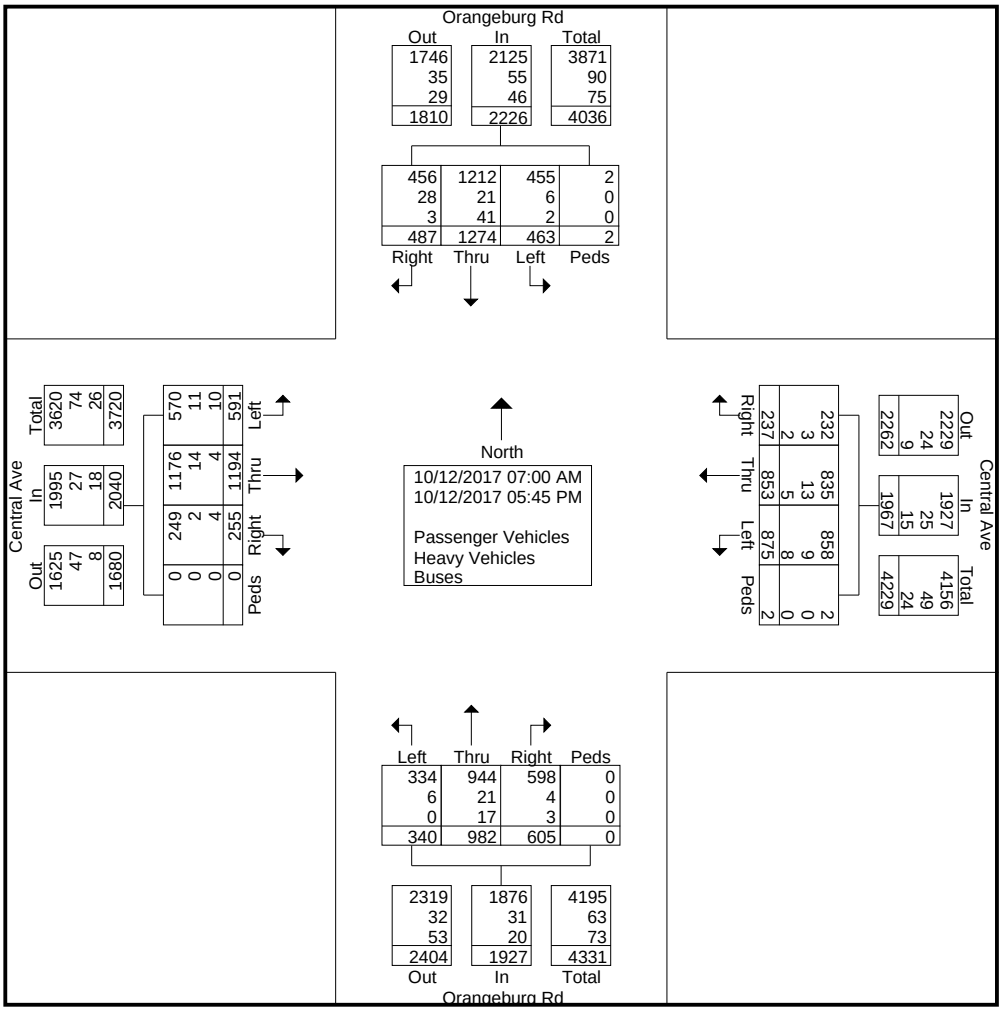
File Name : Orangeburg Rd @ Central Ave
Site Code :
Start Date : 10/12/2017
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles - Buses

	Orangeburg Rd From North				Central Ave From East				Orangeburg Rd From South				Central Ave From West				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
07:00 AM	25	87	35	0	46	32	8	0	13	41	25	0	58	103	11	0	484
07:15 AM	24	77	21	0	41	16	14	0	10	74	31	0	40	85	10	0	443
07:30 AM	28	80	24	0	49	30	9	0	7	49	32	0	50	77	10	0	445
07:45 AM	21	85	25	0	49	30	13	0	11	38	30	0	28	73	14	0	417
Total	98	329	105	0	185	108	44	0	41	202	118	0	176	338	45	0	1789
08:00 AM	21	101	29	0	51	44	15	0	9	46	18	0	20	57	16	0	427
08:15 AM	21	114	18	0	99	37	12	0	5	44	27	0	26	53	24	0	480
08:30 AM	30	101	24	0	78	42	11	0	14	57	37	0	19	58	9	0	480
08:45 AM	22	57	17	0	28	34	19	0	19	63	45	0	33	64	22	0	423
Total	94	373	88	0	256	157	57	0	47	210	127	0	98	232	71	0	1810
04:00 PM	36	69	40	0	62	83	14	0	22	74	44	0	37	72	17	0	570
04:15 PM	26	67	37	0	50	72	20	0	32	79	40	0	44	92	11	0	570
04:30 PM	31	64	47	0	50	69	17	0	36	77	41	0	48	87	17	0	584
04:45 PM	25	69	33	2	64	86	11	2	22	67	47	0	46	73	16	0	563
Total	118	269	157	2	226	310	62	2	112	297	172	0	175	324	61	0	2287
05:00 PM	40	63	33	0	42	63	21	0	34	73	49	0	32	86	17	0	553
05:15 PM	34	84	41	0	68	75	16	0	40	49	61	0	34	57	14	0	573
05:30 PM	44	76	35	0	61	69	24	0	33	80	35	0	36	74	16	0	583
05:45 PM	35	80	28	0	37	71	13	0	33	71	43	0	40	83	31	0	565
Total	153	303	137	0	208	278	74	0	140	273	188	0	142	300	78	0	2274
Grand Total	463	1274	487	2	875	853	237	2	340	982	605	0	591	1194	255	0	8160
Apprch %	20.8	57.2	21.9	0.1	44.5	43.4	12	0.1	17.6	51	31.4	0	29	58.5	12.5	0	
Total %	5.7	15.6	6	0	10.7	10.5	2.9	0	4.2	12	7.4	0	7.2	14.6	3.1	0	
Passenger Vehicles	455	1212	456	2	858	835	232	2	334	944	598	0	570	1176	249	0	7923
% Passenger Vehicles	98.3	95.1	93.6	100	98.1	97.9	97.9	100	98.2	96.1	98.8	0	96.4	98.5	97.6	0	97.1
Heavy Vehicles	6	21	28	0	9	13	3	0	6	21	4	0	11	14	2	0	138
% Heavy Vehicles	1.3	1.6	5.7	0	1	1.5	1.3	0	1.8	2.1	0.7	0	1.9	1.2	0.8	0	1.7
Buses	2	41	3	0	8	5	2	0	0	17	3	0	10	4	4	0	99
% Buses	0.4	3.2	0.6	0	0.9	0.6	0.8	0	0	1.7	0.5	0	1.7	0.3	1.6	0	1.2

Short Counts

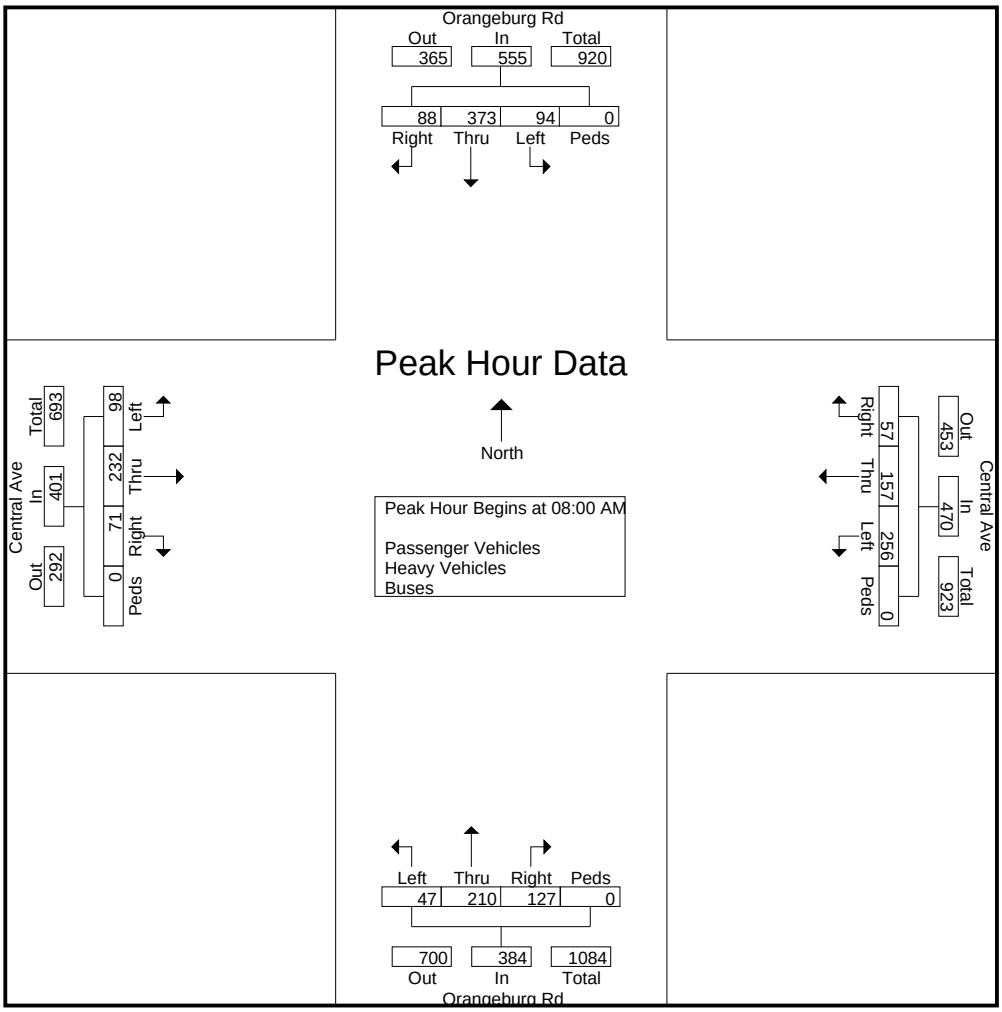
File Name : Orangeburg Rd @ Central Ave
Site Code :
Start Date : 10/12/2017
Page No : 2



Short Counts

File Name : Orangeburg Rd @ Central Ave
Site Code :
Start Date : 10/12/2017
Page No : 3

	Orangeburg Rd From North					Central Ave From East					Orangeburg Rd From South					Central Ave From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	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 08:00 AM																					
08:00 AM	21	101	**29**	0	151	51	**44**	15	0	110	9	46	18	0	73	20	57	16	0	93	427
08:15 AM	21	**114**	18	0	153	**99**	37	12	0	**148**	5	44	27	0	76	26	53	**24**	0	103	**480**
08:30 AM	**30**	101	24	0	**155**	78	42	11	0	131	14	57	37	0	108	19	58	9	0	86	480
08:45 AM	22	57	17	0	96	28	34	**19**	0	81	**19**	**63**	**45**	0	**127**	**33**	**64**	22	0	**119**	423
Total Volume	94	373	88	0	555	256	157	57	0	470	47	210	127	0	384	98	232	71	0	401	1810
% App. Total	16.9	67.2	15.9	0		54.5	33.4	12.1	0		12.2	54.7	33.1	0		24.4	57.9	17.7	0		
PHF	.783	.818	.759	.000	.895	.646	.892	.750	.000	.794	.618	.833	.706	.000	.756	.742	.906	.740	.000	.842	.943



Short Counts

File Name : Orangeburg Rd @ Central Ave
Site Code :
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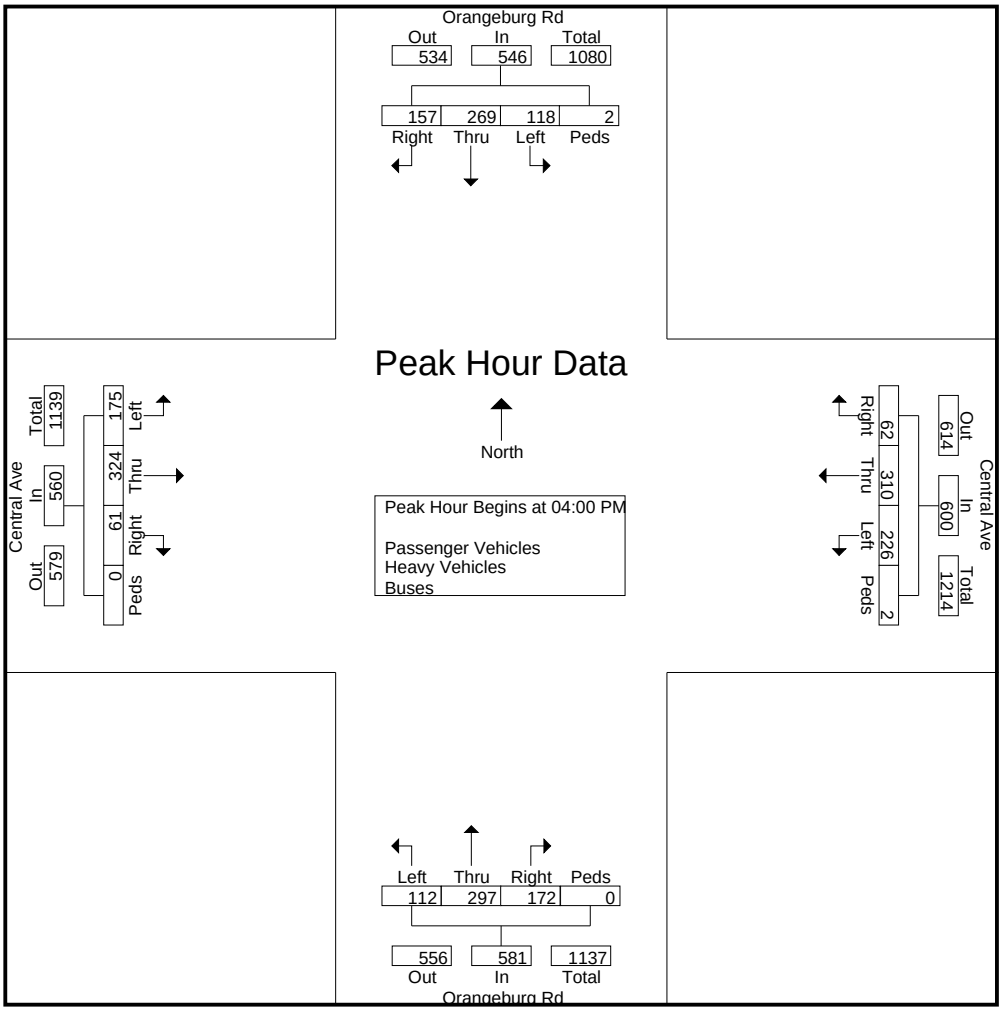
	Orangeburg Rd From North					Central Ave From East					Orangeburg Rd From South					Central Ave From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	**36**	**69**	40	0	**145**	62	83	14	0	159	22	74	44	0	140	37	72	**17**	0	126	570
04:15 PM	26	67	37	0	130	50	72	**20**	0	142	32	**79**	40	0	151	44	**92**	11	0	147	570
04:30 PM	31	64	**47**	0	142	50	69	17	0	136	**36**	77	41	0	**154**	**48**	87	17	0	**152**	**584**
04:45 PM	25	69	33	**2**	129	**64**	**86**	11	**2**	**163**	22	67	**47**	0	136	46	73	16	0	135	563
Total Volume	118	269	157	2	546	226	310	62	2	600	112	297	172	0	581	175	324	61	0	560	2287
% App. Total	21.6	49.3	28.8	0.4		37.7	51.7	10.3	0.3		19.3	51.1	29.6	0		31.2	57.9	10.9	0		
PHF	.819	.975	.835	.250	.941	.883	.901	.775	.250	.920	.778	.940	.915	.000	.943	.911	.880	.897	.000	.921	.979



Short Counts

File Name : Orangeburg Rd @ Julius St
Site Code :
Start Date : 10/12/2017
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles - Buses

	Orangeburg Rd From North				Julius St From East				Orangeburg Rd From South				From West				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
07:00 AM	0	139	0	0	1	0	0	1	0	101	1	0	0	0	0	0	243
07:15 AM	0	142	0	0	0	0	0	1	0	121	0	0	0	0	0	0	264
07:30 AM	0	140	0	0	0	0	0	0	0	102	0	0	0	0	0	0	242
07:45 AM	0	144	0	0	0	0	1	0	0	78	0	0	0	0	0	0	223
Total	0	565	0	0	1	0	1	2	0	402	1	0	0	0	0	0	972
08:00 AM	1	169	0	0	0	0	0	1	0	84	0	0	0	0	0	0	255
08:15 AM	0	240	0	0	0	0	1	0	0	110	0	0	0	0	0	0	351
08:30 AM	2	191	0	0	2	0	0	0	0	125	0	0	0	0	0	0	320
08:45 AM	0	99	0	0	0	0	0	0	0	127	1	0	0	0	0	0	227
Total	3	699	0	0	2	0	1	1	0	446	1	0	0	0	0	0	1153
04:00 PM	0	136	0	0	0	0	1	0	0	211	3	0	0	0	0	0	351
04:15 PM	0	135	0	1	2	0	1	1	0	149	1	0	0	0	0	0	290
04:30 PM	1	133	0	0	0	0	1	2	0	184	0	0	0	0	0	0	321
04:45 PM	0	137	0	0	0	0	0	0	0	141	0	0	0	0	0	0	278
Total	1	541	0	1	2	0	3	3	0	685	4	0	0	0	0	0	1240
05:00 PM	0	124	0	0	1	0	0	0	0	144	0	0	0	0	0	0	269
05:15 PM	0	152	0	0	0	0	0	0	0	159	0	0	0	0	0	0	311
05:30 PM	0	152	0	0	0	0	0	0	0	163	0	0	0	0	0	0	315
05:45 PM	0	136	0	0	0	0	0	0	0	156	0	0	0	0	0	0	292
Total	0	564	0	0	1	0	0	0	0	622	0	0	0	0	0	0	1187
Grand Total	4	2369	0	1	6	0	5	6	0	2155	6	0	0	0	0	0	4552
Apprch %	0.2	99.8	0	0	35.3	0	29.4	35.3	0	99.7	0.3	0	0	0	0	0	
Total %	0.1	52	0	0	0.1	0	0.1	0.1	0	47.3	0.1	0	0	0	0	0	
Passenger Vehicles	4	2286	0	1	6	0	5	6	0	2106	6	0	0	0	0	0	4420
% Passenger Vehicles	100	96.5	0	100	100	0	100	100	0	97.7	100	0	0	0	0	0	97.1
Heavy Vehicles	0	32	0	0	0	0	0	0	0	29	0	0	0	0	0	0	61
% Heavy Vehicles	0	1.4	0	0	0	0	0	0	0	1.3	0	0	0	0	0	0	1.3
Buses	0	51	0	0	0	0	0	0	0	20	0	0	0	0	0	0	71
% Buses	0	2.2	0	0	0	0	0	0	0	0.9	0	0	0	0	0	0	1.6

Short Counts

File Name : Orangeburg Rd @ Julius St
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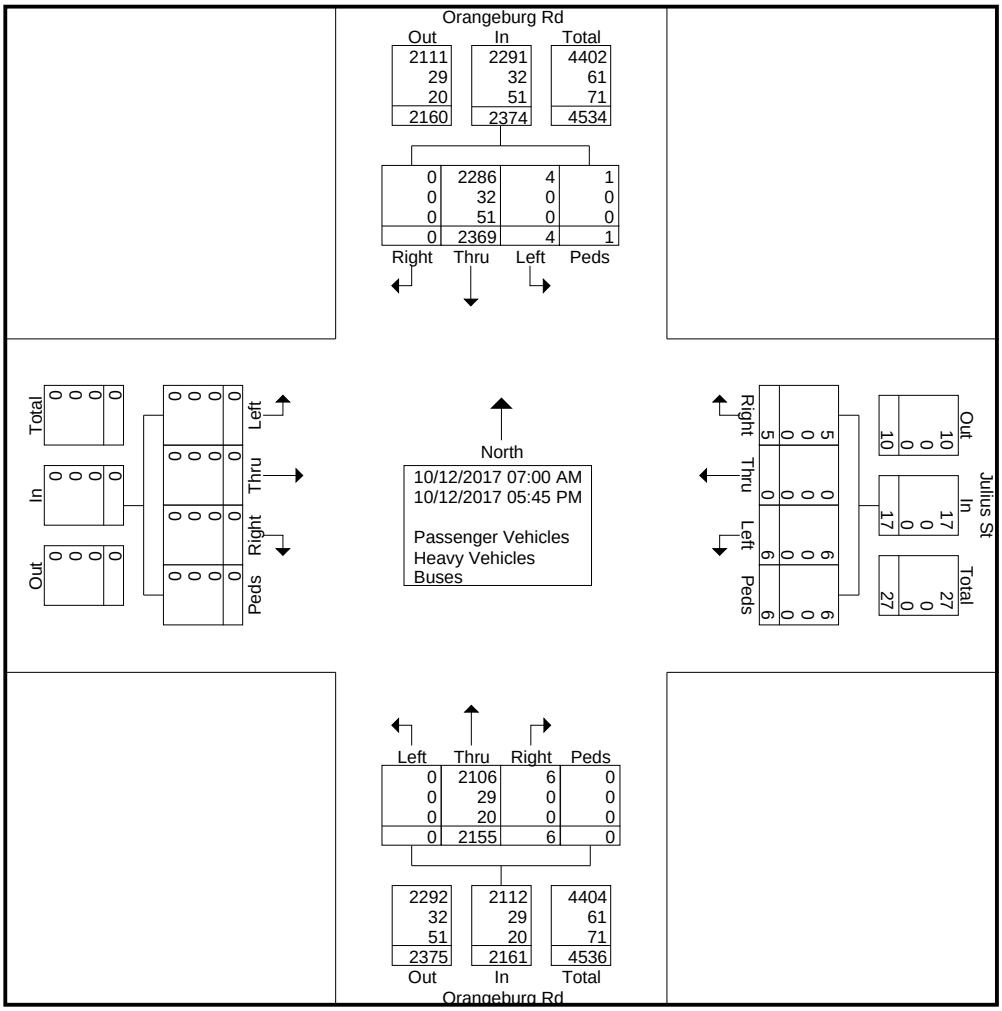
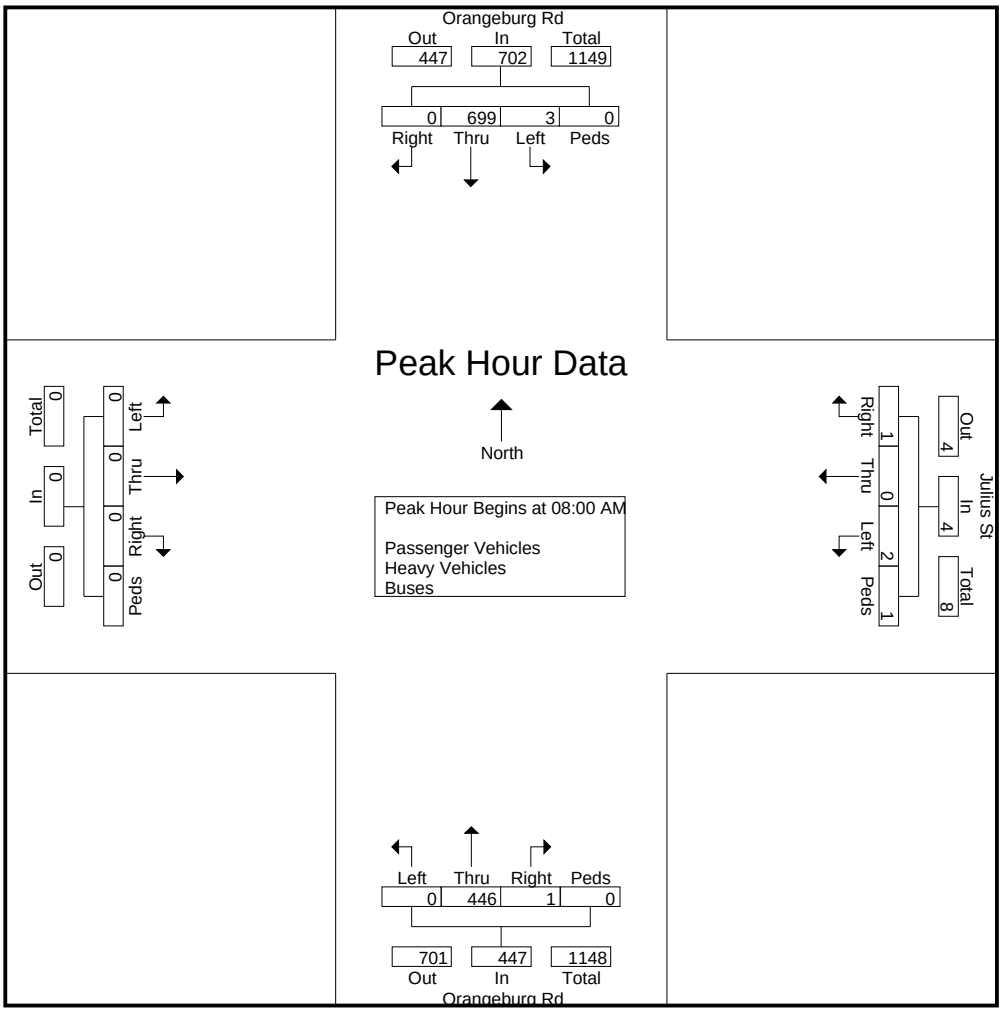


Short Counts

File Name : Orangeburg Rd @ Julius St
Site Code :
Start Date : 10/12/2017
Page No : 3

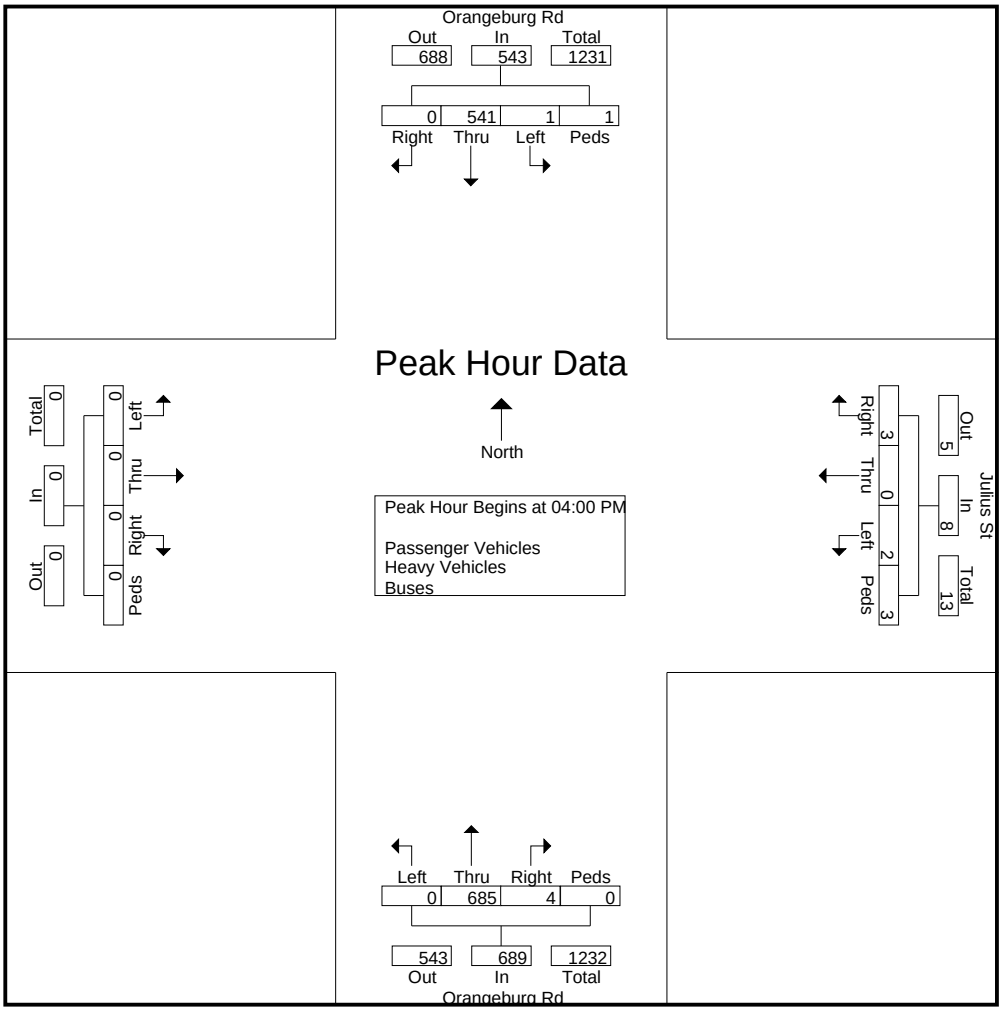
	Orangeburg Rd From North					Julius St From East					Orangeburg Rd From South					From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	1	169	0	0	170	0	0	0	**1**	1	0	84	0	0	84	0	0	0	0	0	255
08:15 AM	0	**240**	0	0	**240**	0	0	**1**	0	1	0	110	0	0	110	0	0	0	0	0	**351**
08:30 AM	**2**	191	0	0	193	**2**	0	0	0	**2**	0	125	0	0	125	0	0	0	0	0	320
08:45 AM	0	99	0	0	99	0	0	0	0	0	0	**127**	**1**	0	**128**	0	0	0	0	0	227
Total Volume	3	699	0	0	702	2	0	1	1	4	0	446	1	0	447	0	0	0	0	0	1153
% App. Total	0.4	99.6	0	0		50	0	25	25		0	99.8	0.2	0		0	0	0	0		
PHF	.375	.728	.000	.000	.731	.250	.000	.250	.250	.500	.000	.878	.250	.000	.873	.000	.000	.000	.000	.000	.821



Short Counts

File Name : Orangeburg Rd @ Julius St
Site Code :
Start Date : 10/12/2017
Page No : 4

	Orangeburg Rd From North					Julius St From East					Orangeburg Rd From South					From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	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	136	0	0	136	0	0	**1**	0	1	0	**211**	**3**	0	**214**	0	0	0	0	0	**351**
04:15 PM	0	135	0	**1**	136	**2**	0	1	1	**4**	0	149	1	0	150	0	0	0	0	0	290
04:30 PM	**1**	133	0	0	134	0	0	1	**2**	3	0	184	0	0	184	0	0	0	0	0	321
04:45 PM	0	**137**	0	0	**137**	0	0	0	0	0	0	141	0	0	141	0	0	0	0	0	278
Total Volume	1	541	0	1	543	2	0	3	3	8	0	685	4	0	689	0	0	0	0	0	1240
% App. Total	0.2	99.6	0	0.2		25	0	37.5	37.5		0	99.4	0.6	0		0	0	0	0		
PHF	.250	.987	.000	.250	.991	.250	.000	.750	.375	.500	.000	.812	.333	.000	.805	.000	.000	.000	.000	.000	.883



Short Counts

File Name : orangeburg rd @ cone-claussen st
Site Code :
Start Date : 10/12/2017
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles - Buses

	Orangeburg Rd From North				Claussen St From East				Orangeburg Rd From South				Cone St From West				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
07:00 AM	0	138	2	0	1	0	0	1	5	97	0	0	1	0	2	0	247
07:15 AM	0	136	2	0	0	0	2	1	1	119	0	0	1	0	1	0	263
07:30 AM	0	147	1	0	0	0	2	0	1	96	0	0	1	0	0	0	248
07:45 AM	1	135	1	0	1	0	0	0	1	85	0	3	1	0	2	0	230
Total	1	556	6	0	2	0	4	2	8	397	0	3	4	0	5	0	988
08:00 AM	0	158	1	0	1	0	2	1	1	85	0	0	0	0	1	0	250
08:15 AM	0	236	0	0	2	0	0	1	1	99	3	0	0	0	2	0	344
08:30 AM	0	203	1	0	0	0	0	1	0	118	0	0	1	0	1	0	325
08:45 AM	1	101	0	0	0	0	0	0	1	140	0	0	0	0	1	0	244
Total	1	698	2	0	3	0	2	3	3	442	3	0	1	0	5	0	1163
04:00 PM	1	134	0	0	0	0	0	2	5	203	0	2	0	0	1	0	348
04:15 PM	0	127	0	0	0	0	0	0	7	146	1	0	0	0	4	0	285
04:30 PM	1	134	4	0	0	0	1	2	5	196	0	0	1	0	1	0	345
04:45 PM	2	142	0	0	0	0	1	0	1	130	0	0	0	0	1	0	277
Total	4	537	4	0	0	0	2	4	18	675	1	2	1	0	7	0	1255
05:00 PM	0	116	1	0	0	0	0	0	3	145	1	0	1	0	0	0	267
05:15 PM	3	154	0	0	0	0	1	0	0	158	0	0	0	0	0	0	316
05:30 PM	2	148	1	0	0	0	1	0	2	156	0	0	0	0	0	0	310
05:45 PM	0	137	0	0	0	0	1	0	2	157	0	0	1	0	0	0	298
Total	5	555	2	0	0	0	3	0	7	616	1	0	2	0	0	0	1191
Grand Total	11	2346	14	0	5	0	11	9	36	2130	5	5	8	0	17	0	4597
Apprch %	0.5	98.9	0.6	0	20	0	44	36	1.7	97.9	0.2	0.2	32	0	68	0	
Total %	0.2	51	0.3	0	0.1	0	0.2	0.2	0.8	46.3	0.1	0.1	0.2	0	0.4	0	
Passenger Vehicles	11	2262	14	0	5	0	11	9	35	2074	5	5	8	0	16	0	4455
% Passenger Vehicles	100	96.4	100	0	100	0	100	100	97.2	97.4	100	100	100	0	94.1	0	96.9
Heavy Vehicles	0	29	0	0	0	0	0	0	0	34	0	0	0	0	0	0	63
% Heavy Vehicles	0	1.2	0	0	0	0	0	0	0	1.6	0	0	0	0	0	0	1.4
Buses	0	55	0	0	0	0	0	0	1	22	0	0	0	0	1	0	79
% Buses	0	2.3	0	0	0	0	0	0	2.8	1	0	0	0	0	5.9	0	1.7

Short Counts

File Name : orangeburg rd @ cone-claussen st
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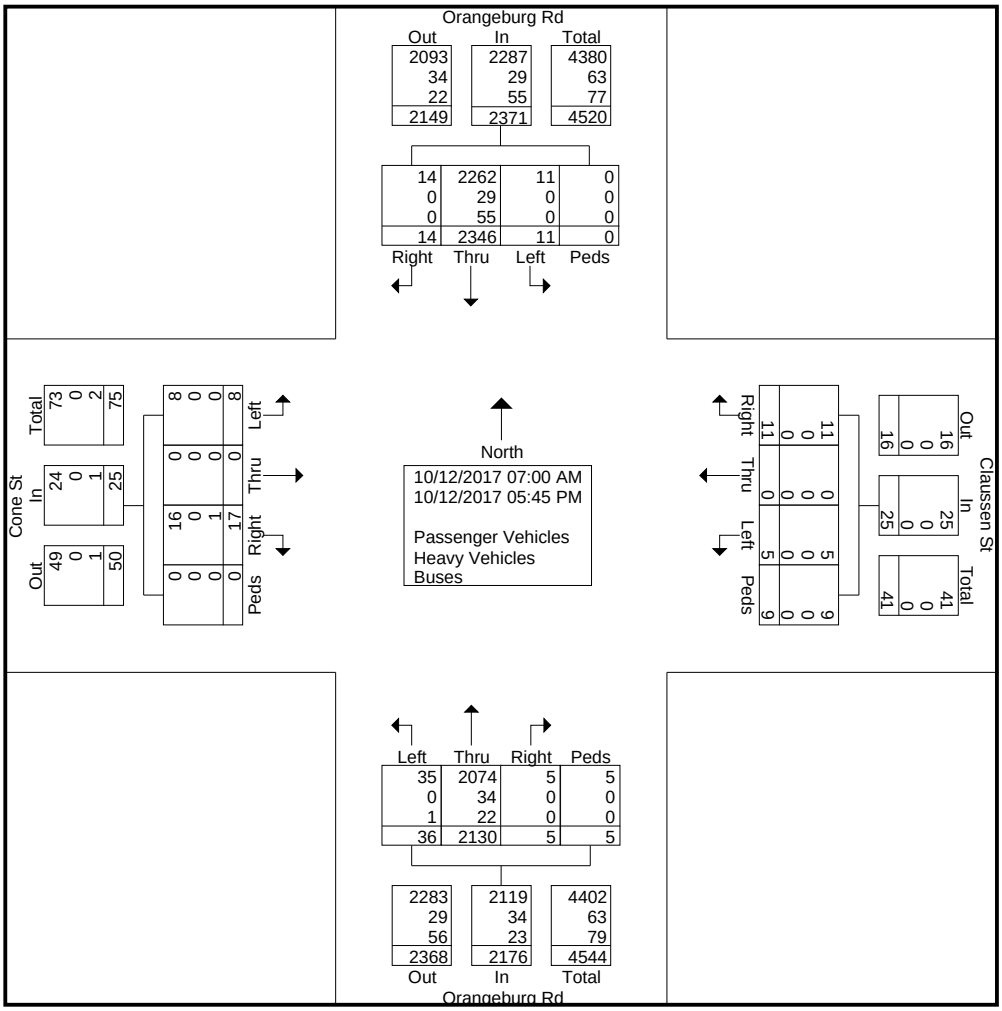
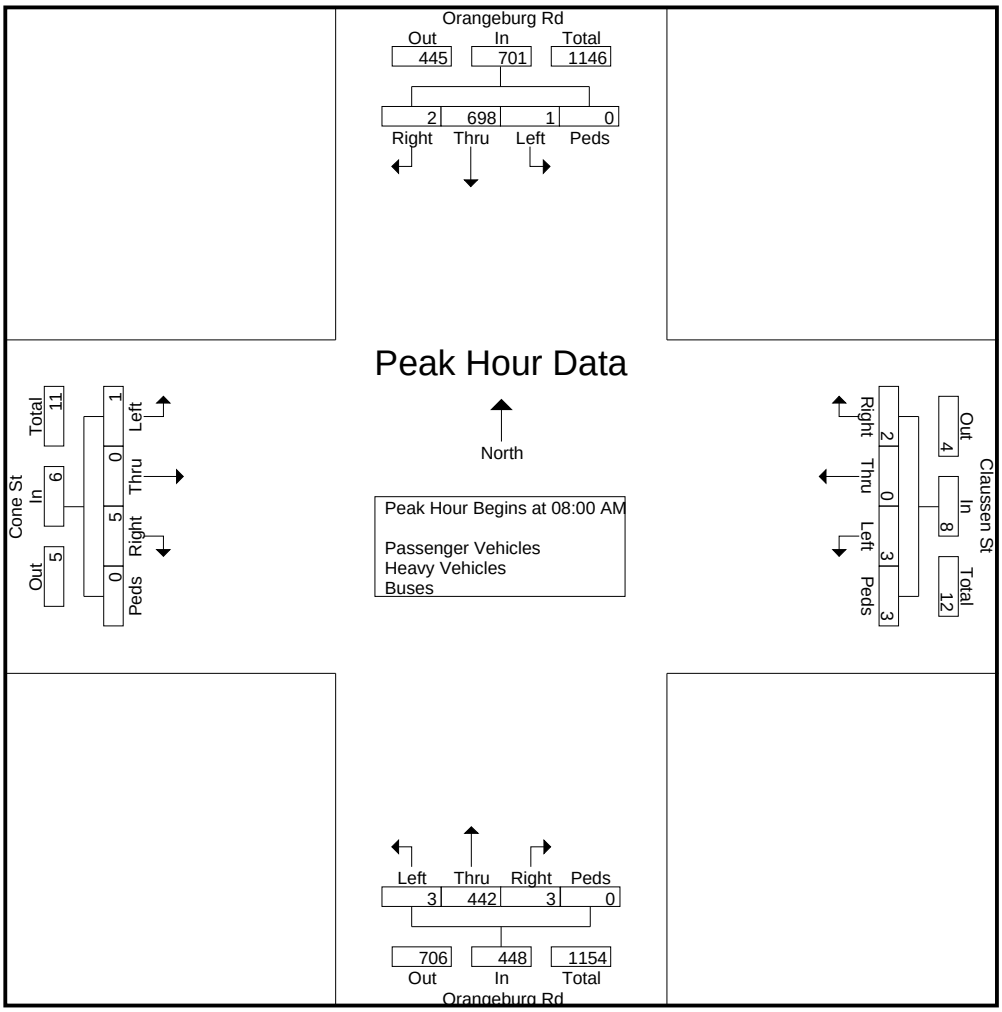


Short Counts

File Name : orangeburg rd @ cone-claussen st
Site Code :
Start Date : 10/12/2017
Page No : 3

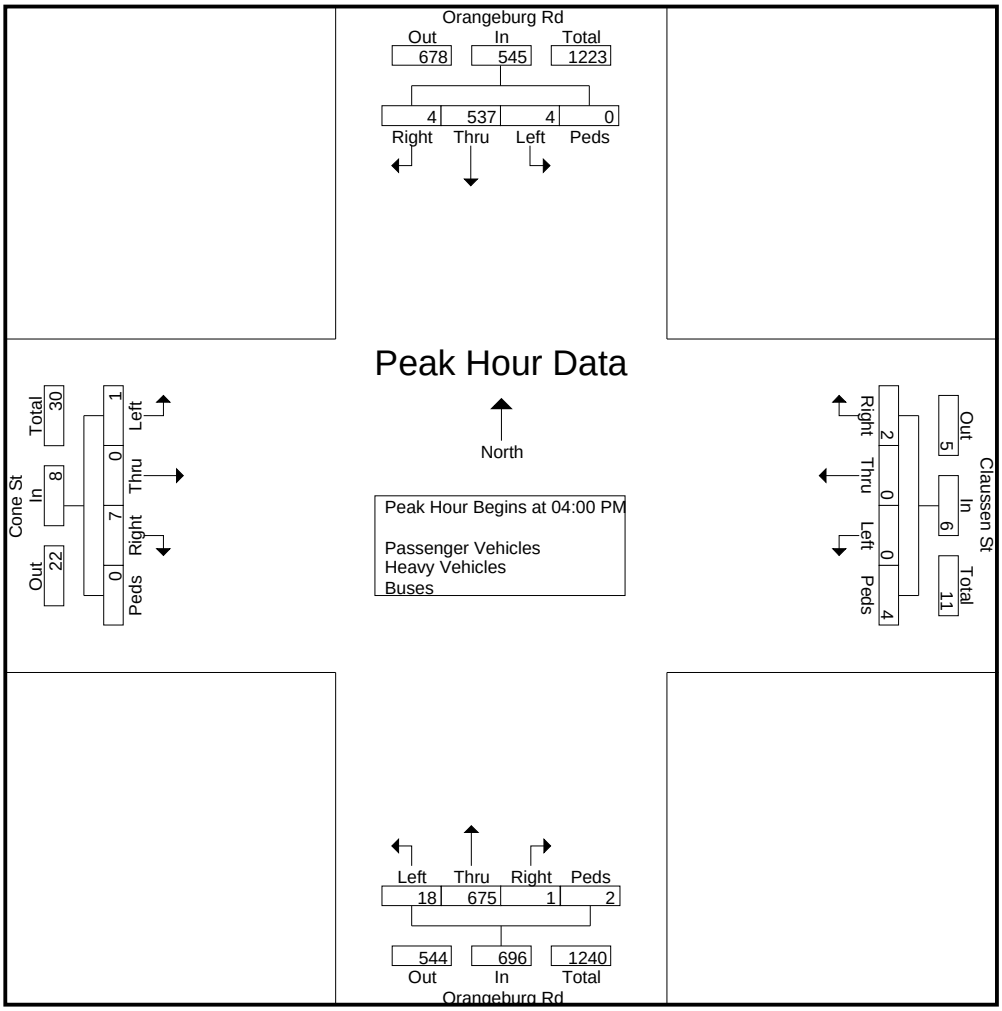
	Orangeburg Rd From North					Claussen St From East					Orangeburg Rd From South					Cone St From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	158	**1**	0	159	1	0	**2**	**1**	**4**	**1**	85	0	0	86	0	0	1	0	1	250
08:15 AM	0	**236**	0	0	**236**	**2**	0	0	1	3	1	99	**3**	0	103	0	0	**2**	0	**2**	**344**
08:30 AM	0	203	1	0	204	0	0	0	1	1	0	118	0	0	118	**1**	0	1	0	2	325
08:45 AM	**1**	101	0	0	102	0	0	0	0	0	1	**140**	0	0	**141**	0	0	1	0	1	244
Total Volume	1	698	2	0	701	3	0	2	3	8	3	442	3	0	448	1	0	5	0	6	1163
% App. Total	0.1	99.6	0.3	0		37.5	0	25	37.5		0.7	98.7	0.7	0		16.7	0	83.3	0		
PHF	.250	.739	.500	.000	.743	.375	.000	.250	.750	.500	.750	.789	.250	.000	.794	.250	.000	.625	.000	.750	.845



Short Counts

File Name : orangeburg rd @ cone-claussen st
Site Code :
Start Date : 10/12/2017
Page No : 4

	Orangeburg Rd From North					Claussen St From East					Orangeburg Rd From South					Cone St From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	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	1	134	0	0	135	0	0	0	**2**	2	5	**203**	0	**2**	**210**	0	0	1	0	1	**348**
04:15 PM	0	127	0	0	127	0	0	0	0	0	**7**	146	**1**	0	154	0	0	**4**	0	**4**	285
04:30 PM	1	134	**4**	0	139	0	0	**1**	2	**3**	5	196	0	0	201	**1**	0	1	0	2	345
04:45 PM	**2**	**142**	0	0	**144**	0	0	1	0	1	1	130	0	0	131	0	0	1	0	1	277
Total Volume	4	537	4	0	545	0	0	2	4	6	18	675	1	2	696	1	0	7	0	8	1255
% App. Total	0.7	98.5	0.7	0		0	0	33.3	66.7		2.6	97	0.1	0.3		12.5	0	87.5	0		
PHF	.500	.945	.250	.000	.946	.000	.000	.500	.500	.500	.643	.831	.250	.250	.829	.250	.000	.438	.000	.500	.902



INTERSECTION VOLUME DEVELOPMENT

Orangeburg Road at Central Avenue
AM PEAK HOUR

Description	Orangeburg Road Northbound			Orangeburg Road Southbound			Central Avenue Eastbound			Central Avenue Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing 2017 AM Volumes	47	210	127	94	373	88	98	232	71	256	157	57
Pedestrians		0			0			0			0	
Heavy Vehicle %		2.6%			4.5%			2.2%			2.0%	
Peak Hour Factor		0.76			0.90			0.84			0.79	
Annual Growth Rate	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Growth Factor	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148
Approved Development Traffic	0	0	0	0	0	0	0	0	0	0	0	0
2021 Background Traffic	54	241	146	108	428	101	112	266	81	294	180	65
New Project Trips												
Trip Distribution IN					20%				5%	30%		
Trip Distribution OUT	5%	20%	30%									
Pass-by Project Trips												
Trip Distribution IN												
Trip Distribution OUT												
New Trips	7	29	44	0	10	0	0	0	2	14	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	7	29	44	0	10	0	0	0	2	14	0	0
2021 Buildout Total	**61**	**270**	**190**	**108**	**438**	**101**	**112**	**266**	**83**	**308**	**180**	**65**

PM PEAK HOUR

Description	Orangeburg Road Northbound			Orangeburg Road Southbound			Central Avenue Eastbound			Central Avenue Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing 2017 PM Volumes	112	297	172	118	269	157	175	324	61	226	310	62
Pedestrians		0			2			0			2	
Heavy Vehicle %		2.6%			4.5%			2.2%			2.0%	
Peak Hour Factor		0.94			0.94			0.92			0.92	
Annual Growth Rate	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Growth Factor	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148
Approved Development Traffic	0	0	0	0	0	0	0	0	0	0	0	0
2021 Background Traffic	129	341	197	135	309	180	201	372	70	259	356	71
New Project Trips												
Trip Distribution IN					20%				5%	30%		
Trip Distribution OUT	5%	20%	30%									
Pass-by Project Trips												
Trip Distribution IN												
Trip Distribution OUT												
New Trips	5	19	28	0	32	0	0	0	9	48	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	5	19	28	0	32	0	0	0	9	48	0	0
2021 Buildout Total	**134**	**360**	**225**	**135**	**341**	**180**	**201**	**372**	**79**	**307**	**356**	**71**

INTERSECTION VOLUME DEVELOPMENT

Orangeburg Road at Claussen Street
AM PEAK HOUR

Description	Orangeburg Road Northbound			Orangeburg Road Southbound			- Eastbound			Claussen Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing 2017 AM Volumes	0	443	3	1	698	0	0	0	0	3	0	2
Pedestrians		0			0			0			3	
Heavy Vehicle %		2.6%			3.5%			0.0%			0.0%	
Peak Hour Factor		0.79			0.74			0.00			0.42	
Annual Growth Rate	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Growth Factor	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148
Approved Development Traffic	0	0	0	0	0	0	0	0	0	0	0	0
2021 Background Traffic	0	508	3	1	801	0	0	0	0	3	0	2
New Project Trips												
Trip Distribution IN					55%							
Trip Distribution OUT		55%										
Pass-by Project Trips												
Trip Distribution IN												
Trip Distribution OUT												
New Trips	0	80	0	0	26	0	0	0	0	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	80	0	0	26	0	0	0	0	0	0	0
2021 Buildout Total	**0**	**588**	**3**	**1**	**827**	**0**	**0**	**0**	**0**	**3**	**0**	**2**

PM PEAK HOUR

Description	Orangeburg Road Northbound			Orangeburg Road Southbound			- Eastbound			Claussen Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing 2017 PM Volumes	0	676	1	4	537	0	0	0	0	0	0	2
Pedestrians		2			0			0			6	
Heavy Vehicle %		2.6%			3.5%			0.0%			0.0%	
Peak Hour Factor		0.83			0.95			0.50			0.50	
Annual Growth Rate	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Growth Factor	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148
Approved Development Traffic	0	0	0	0	0	0	0	0	0	0	0	0
2021 Background Traffic	0	776	1	5	616	0	0	0	0	0	0	2
New Project Trips												
Trip Distribution IN					55%							
Trip Distribution OUT		55%										
Pass-by Project Trips												
Trip Distribution IN												
Trip Distribution OUT												
New Trips	0	52	0	0	89	0	0	0	0	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	52	0	0	89	0	0	0	0	0	0	0
2021 Buildout Total	**0**	**828**	**1**	**5**	**705**	**0**	**0**	**0**	**0**	**0**	**0**	**2**

INTERSECTION VOLUME DEVELOPMENT

Orangeburg Road at Cone Lane
AM PEAK HOUR

Description	Orangeburg Road Northbound			Orangeburg Road Southbound			Cone Lane Eastbound			- Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing 2017 AM Volumes	3	442	0	0	701	3	1	0	5	0	0	0
Pedestrians		0			0			0			0	
Heavy Vehicle %		2.6%			3.5%			4.0%			0.0%	
Peak Hour Factor		0.79			0.74			0.75			0.00	
Annual Growth Rate	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Growth Factor	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148
Approved Development Traffic	0	0	0	0	0	0	0	0	0	0	0	0
2021 Background Traffic	3	507	0	0	804	3	1	0	6	0	0	0
New Project Trips												
Trip Distribution IN					55%							
Trip Distribution OUT		55%										
Pass-by Project Trips												
Trip Distribution IN												
Trip Distribution OUT												
New Trips	0	80	0	0	26	0	0	0	0	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	80	0	0	26	0	0	0	0	0	0	0
2021 Buildout Total	**3**	**587**	**0**	**0**	**830**	**3**	**1**	**0**	**6**	**0**	**0**	**0**

PM PEAK HOUR

Description	Orangeburg Road Northbound			Orangeburg Road Southbound			Cone Lane Eastbound			- Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing 2017 PM Volumes	18	675	0	0	537	4	1	0	7	0	0	0
Pedestrians		2			0			0			0	
Heavy Vehicle %		2.6%			3.5%			4.0%			0.0%	
Peak Hour Factor		0.83			0.95			0.50			0.00	
Annual Growth Rate	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Growth Factor	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148
Approved Development Traffic	0	0	0	0	0	0	0	0	0	0	0	0
2021 Background Traffic	21	775	0	0	616	5	1	0	8	0	0	0
New Project Trips												
Trip Distribution IN					55%							
Trip Distribution OUT		55%										
Pass-by Project Trips												
Trip Distribution IN												
Trip Distribution OUT												
New Trips	0	52	0	0	89	0	0	0	0	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	52	0	0	89	0	0	0	0	0	0	0
2021 Buildout Total	**21**	**827**	**0**	**0**	**705**	**5**	**1**	**0**	**8**	**0**	**0**	**0**

INTERSECTION VOLUME DEVELOPMENT

Orangeburg Road at Julius Street
AM PEAK HOUR

Description	Orangeburg Street Northbound			Orangeburg Street Southbound			- Eastbound			Julius Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing 2017 AM Volumes	0	446	1	3	699	0	0	0	0	2	0	1
Pedestrians		0			0			0			1	
Heavy Vehicle %		2.3%			3.5%			0.0%			0.0%	
Peak Hour Factor		0.87			0.73			0.00			0.38	
Annual Growth Rate	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Growth Factor	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148
Approved Development Traffic	0	0	0	0	0	0	0	0	0	0	0	0
2021 Background Traffic	0	512	1	3	802	0	0	0	0	2	0	1
New Project Trips												
Trip Distribution IN		45%										
Trip Distribution OUT					45%							
Pass-by Project Trips												
Trip Distribution IN												
Trip Distribution OUT												
New Trips	0	22	0	0	65	0	0	0	0	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	22	0	0	65	0	0	0	0	0	0	0
2021 Buildout Total	**0**	**534**	**1**	**3**	**867**	**0**	**0**	**0**	**0**	**2**	**0**	**1**

PM PEAK HOUR

Description	Orangeburg Street Northbound			Orangeburg Street Southbound			- Eastbound			Julius Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing 2017 PM Volumes	0	685	4	1	541	0	0	0	0	2	0	3
Pedestrians		4			1			0			3	
Heavy Vehicle %		2.3%			3.5%			0.0%			0.0%	
Peak Hour Factor		0.81			0.99			0.00			0.42	
Annual Growth Rate	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Growth Factor	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148
Approved Development Traffic	0	0	0	0	0	0	0	0	0	0	0	0
2021 Background Traffic	0	786	5	1	621	0	0	0	0	2	0	3
New Project Trips												
Trip Distribution IN		45%										
Trip Distribution OUT					45%							
Pass-by Project Trips												
Trip Distribution IN												
Trip Distribution OUT												
New Trips	0	72	0	0	42	0	0	0	0	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	0	72	0	0	42	0	0	0	0	0	0	0
2021 Buildout Total	**0**	**858**	**5**	**1**	**663**	**0**	**0**	**0**	**0**	**2**	**0**	**3**

INTERSECTION VOLUME DEVELOPMENT

Orangeburg Road at Site Driveway #1
AM PEAK HOUR

Description	Orangeburg Road Northbound			Orangeburg Road Southbound			Site Driveway #1 Eastbound			- Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing 2017 AM Volumes	0	447	0	0	706	0	0	0	0	0	0	0
Pedestrians		0			0			0			0	
Heavy Vehicle %		2.6%			3.5%			2.0%			2.0%	
Peak Hour Factor		0.79			0.74			0.90			0.90	
Annual Growth Rate	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Growth Factor	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148
Approved Development Traffic												
2021 Background Traffic	0	513	0	0	810	0	0	0	0	0	0	0
New Project Trips												
Trip Distribution IN	45%					55%						
Trip Distribution OUT							55%		45%			
Pass-by Project Trips												
Trip Distribution IN												
Trip Distribution OUT												
New Trips	22	0	0	0	0	26	80	0	65	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	22	0	0	0	0	26	80	0	65	0	0	0
2021 Buildout Total	**22**	**513**	**0**	**0**	**810**	**26**	**80**	**0**	**65**	**0**	**0**	**0**

PM PEAK HOUR

Description	Orangeburg Road Northbound			Orangeburg Road Southbound			Site Driveway #1 Eastbound			- Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing 2017 PM Volumes	0	688	0	0	544	0	0	0	0	0	0	0
Pedestrians		0			0			0			0	
Heavy Vehicle %		2.6%			3.5%			2.0%			2.0%	
Peak Hour Factor		0.83			0.95			0.90			0.90	
Annual Growth Rate	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Growth Factor	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148
Approved Development Traffic												
2021 Background Traffic	0	789	0	0	624	0	0	0	0	0	0	0
New Project Trips												
Trip Distribution IN	45%					55%						
Trip Distribution OUT							55%		45%			
Pass-by Project Trips												
Trip Distribution IN												
Trip Distribution OUT												
New Trips	72	0	0	0	0	89	52	0	42	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0
Total Project Trips	72	0	0	0	0	89	52	0	42	0	0	0
2021 Buildout Total	**72**	**789**	**0**	**0**	**624**	**89**	**52**	**0**	**42**	**0**	**0**	**0**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	232	71	256	157	57	47	210	127	94	373	88
Future Volume (veh/h)	98	232	71	256	157	57	47	210	127	94	373	88
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1845	1845	1900	1810	1810	1900
Adj Flow Rate, veh/h	117	276	0	324	199	72	62	276	167	104	414	98
Adj No. of Lanes	1	1	1	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.84	0.84	0.84	0.79	0.79	0.79	0.76	0.76	0.76	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	3	3	3	5	5	5
Cap, veh/h	342	335	285	383	333	121	223	349	211	270	471	112
Arrive On Green	0.07	0.18	0.00	0.15	0.26	0.26	0.05	0.32	0.32	0.06	0.33	0.33
Sat Flow, veh/h	1774	1863	1583	1774	1307	473	1757	1078	652	1723	1415	335
Grp Volume(v), veh/h	117	276	0	324	0	271	62	0	443	104	0	512
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1779	1757	0	1730	1723	0	1750
Q Serve(g_s), s	4.7	12.8	0.0	13.0	0.0	12.0	2.0	0.0	20.9	3.5	0.0	24.7
Cycle Q Clear(g_c), s	4.7	12.8	0.0	13.0	0.0	12.0	2.0	0.0	20.9	3.5	0.0	24.7
Prop In Lane	1.00		1.00	1.00		0.27	1.00		0.38	1.00		0.19
Lane Grp Cap(c), veh/h	342	335	285	383	0	454	223	0	560	270	0	583
V/C Ratio(X)	0.34	0.82	0.00	0.85	0.00	0.60	0.28	0.00	0.79	0.38	0.00	0.88
Avail Cap(c_a), veh/h	476	697	592	383	0	665	397	0	560	425	0	583
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.0	35.4	0.0	24.8	0.0	29.3	21.5	0.0	27.5	20.7	0.0	28.2
Incr Delay (d2), s/veh	0.6	5.1	0.0	16.0	0.0	1.3	0.7	0.0	10.9	0.9	0.0	17.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	7.1	0.0	7.9	0.0	6.0	1.0	0.0	11.7	1.7	0.0	14.7
LnGrp Delay(d),s/veh	27.6	40.4	0.0	40.8	0.0	30.6	22.1	0.0	38.4	21.6	0.0	45.2
LnGrp LOS	C	D		D		C	C		D	C		D
Approach Vol, veh/h		393			595			505			616	
Approach Delay, s/veh		36.6			36.1			36.4			41.2	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	35.8	20.0	22.6	11.9	35.0	13.3	29.3
Change Period (Y+Rc), s	6.4	6.0	* 6.8	6.5	6.4	6.0	* 6.8	6.5
Max Green Setting (Gmax), s	13.6	29.0	* 13	33.5	13.6	29.0	* 13	33.5
Max Q Clear Time (g_c+I1), s	4.0	26.7	15.0	14.8	5.5	22.9	6.7	14.0
Green Ext Time (p_c), s	0.1	0.7	0.0	1.3	0.1	1.4	0.1	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	37.8
HCM 2010 LOS	D

Notes

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	2	443	3	1	698
Future Vol, veh/h	3	2	443	3	1	698
Conflicting Peds, #/hr	0	3	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	42	42	79	79	74	74
Heavy Vehicles, %	2	2	3	3	4	4
Mvmt Flow	7	5	561	4	1	943

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1508	566	0	0	565	0
Stage 1	563	-	-	-	-	-
Stage 2	945	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.14	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.236	-
Pot Cap-1 Maneuver	133	524	-	-	997	-
Stage 1	570	-	-	-	-	-
Stage 2	378	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	133	523	-	-	997	-
Mov Cap-2 Maneuver	133	-	-	-	-	-
Stage 1	569	-	-	-	-	-
Stage 2	378	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	25.2	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	190	997	-
HCM Lane V/C Ratio	-	-	0.063	0.001	-
HCM Control Delay (s)	-	-	25.2	8.6	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	1	446	1	3	699
Future Vol, veh/h	2	1	446	1	3	699
Conflicting Peds, #/hr	0	1	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	38	38	87	87	73	73
Heavy Vehicles, %	2	2	2	2	4	4
Mvmt Flow	5	3	513	1	4	958

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1480	515	0	0	514	0
Stage 1	514	-	-	-	-	-
Stage 2	966	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.14	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.236	-
Pot Cap-1 Maneuver	138	560	-	-	1041	-
Stage 1	600	-	-	-	-	-
Stage 2	369	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	137	560	-	-	1041	-
Mov Cap-2 Maneuver	137	-	-	-	-	-
Stage 1	595	-	-	-	-	-
Stage 2	369	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	25.6	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	183	1041	-
HCM Lane V/C Ratio	-	-	0.043	0.004	-
HCM Control Delay (s)	-	-	25.6	8.5	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	5	3	442	701	3
Future Vol, veh/h	1	5	3	442	701	3
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	75	75	79	79	74	74
Heavy Vehicles, %	4	4	3	3	4	4
Mvmt Flow	1	7	4	559	947	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1516	949	951	0	-	0
Stage 1	949	-	-	-	-	-
Stage 2	567	-	-	-	-	-
Critical Hdwy	6.44	6.24	4.13	-	-	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	2.227	-	-	-
Pot Cap-1 Maneuver	130	313	718	-	-	-
Stage 1	373	-	-	-	-	-
Stage 2	564	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	129	313	718	-	-	-
Mov Cap-2 Maneuver	129	-	-	-	-	-
Stage 1	370	-	-	-	-	-
Stage 2	564	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.7	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	718	-	253	-	-
HCM Lane V/C Ratio	0.005	-	0.032	-	-
HCM Control Delay (s)	10	0	19.7	-	-
HCM Lane LOS	B	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	175	324	61	226	310	62	112	297	172	118	269	157
Future Volume (veh/h)	175	324	61	226	310	62	112	297	172	118	269	157
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1845	1845	1900	1810	1810	1900
Adj Flow Rate, veh/h	190	352	0	246	337	67	119	316	183	126	286	167
Adj No. of Lanes	1	1	1	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	3	3	3	5	5	5
Cap, veh/h	295	429	365	351	383	76	243	334	193	215	331	193
Arrive On Green	0.10	0.23	0.00	0.13	0.25	0.25	0.07	0.30	0.30	0.07	0.31	0.31
Sat Flow, veh/h	1774	1863	1583	1774	1509	300	1757	1096	635	1723	1071	626
Grp Volume(v), veh/h	190	352	0	246	0	404	119	0	499	126	0	453
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1808	1757	0	1730	1723	0	1697
Q Serve(g_s), s	7.6	17.1	0.0	9.9	0.0	20.4	4.4	0.0	26.8	4.7	0.0	24.0
Cycle Q Clear(g_c), s	7.6	17.1	0.0	9.9	0.0	20.4	4.4	0.0	26.8	4.7	0.0	24.0
Prop In Lane	1.00		1.00	1.00		0.17	1.00		0.37	1.00		0.37
Lane Grp Cap(c), veh/h	295	429	365	351	0	459	243	0	527	215	0	524
V/C Ratio(X)	0.64	0.82	0.00	0.70	0.00	0.88	0.49	0.00	0.95	0.59	0.00	0.86
Avail Cap(c_a), veh/h	360	656	557	374	0	636	379	0	527	342	0	524
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.9	34.8	0.0	24.9	0.0	34.1	23.6	0.0	32.3	24.4	0.0	31.0
Incr Delay (d2), s/veh	2.8	4.9	0.0	5.4	0.0	10.3	1.5	0.0	28.0	2.5	0.0	17.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	9.4	0.0	5.2	0.0	11.5	2.2	0.0	16.9	2.4	0.0	13.7
LnGrp Delay(d),s/veh	28.7	39.7	0.0	30.3	0.0	44.4	25.1	0.0	60.3	26.9	0.0	48.2
LnGrp LOS	C	D		C		D	C		E	C		D
Approach Vol, veh/h		542			650			618			579	
Approach Delay, s/veh		35.8			39.1			53.6			43.6	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.6	35.4	18.8	28.4	13.0	35.0	16.5	30.7
Change Period (Y+Rc), s	6.4	6.0	* 6.8	6.5	6.4	6.0	* 6.8	6.5
Max Green Setting (Gmax), s	13.6	29.0	* 13	33.5	13.6	29.0	* 13	33.5
Max Q Clear Time (g_c+I1), s	6.4	26.0	11.9	19.1	6.7	28.8	9.6	22.4
Green Ext Time (p_c), s	0.1	0.8	0.1	1.6	0.2	0.1	0.2	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	43.2
HCM 2010 LOS	D

Notes

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	2	676	1	4	537
Future Vol, veh/h	0	2	676	1	4	537
Conflicting Peds, #/hr	0	6	0	2	2	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	50	50	83	83	95	95
Heavy Vehicles, %	2	2	3	3	4	4
Mvmt Flow	0	4	814	1	4	565

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1390	823	0	0	817	0
Stage 1	817	-	-	-	-	-
Stage 2	573	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.14	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.236	-
Pot Cap-1 Maneuver	157	373	-	-	802	-
Stage 1	434	-	-	-	-	-
Stage 2	564	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	156	371	-	-	801	-
Mov Cap-2 Maneuver	156	-	-	-	-	-
Stage 1	430	-	-	-	-	-
Stage 2	564	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.8	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	371	801	-
HCM Lane V/C Ratio	-	-	0.011	0.005	-
HCM Control Delay (s)	-	-	14.8	9.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	3	685	4	1	541
Future Vol, veh/h	2	3	685	4	1	541
Conflicting Peds, #/hr	0	3	0	4	4	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	42	42	81	81	99	99
Heavy Vehicles, %	2	2	2	2	4	4
Mvmt Flow	5	7	846	5	1	546

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1401	856	0	0	855	0
Stage 1	853	-	-	-	-	-
Stage 2	548	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.14	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.236	-
Pot Cap-1 Maneuver	154	357	-	-	776	-
Stage 1	418	-	-	-	-	-
Stage 2	579	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	153	355	-	-	773	-
Mov Cap-2 Maneuver	153	-	-	-	-	-
Stage 1	416	-	-	-	-	-
Stage 2	579	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.4	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	232	773	-
HCM Lane V/C Ratio	-	-	0.051	0.001	-
HCM Control Delay (s)	-	-	21.4	9.7	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	7	18	675	537	4
Future Vol, veh/h	1	7	18	675	537	4
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	50	50	83	83	95	95
Heavy Vehicles, %	4	4	3	3	4	4
Mvmt Flow	2	14	22	813	565	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1424	567	569	0	-	0
Stage 1	567	-	-	-	-	-
Stage 2	857	-	-	-	-	-
Critical Hdwy	6.44	6.24	4.13	-	-	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	2.227	-	-	-
Pot Cap-1 Maneuver	148	519	998	-	-	-
Stage 1	564	-	-	-	-	-
Stage 2	412	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	142	519	998	-	-	-
Mov Cap-2 Maneuver	142	-	-	-	-	-
Stage 1	541	-	-	-	-	-
Stage 2	412	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.6	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	998	-	390	-	-
HCM Lane V/C Ratio	0.022	-	0.041	-	-
HCM Control Delay (s)	8.7	0	14.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	266	81	294	180	65	54	241	146	108	428	101
Future Volume (veh/h)	112	266	81	294	180	65	54	241	146	108	428	101
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1845	1845	1900	1810	1810	1900
Adj Flow Rate, veh/h	133	317	0	372	228	82	71	317	192	120	476	112
Adj No. of Lanes	1	1	1	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.84	0.84	0.84	0.79	0.79	0.79	0.76	0.76	0.76	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	3	3	3	5	5	5
Cap, veh/h	324	330	280	373	351	126	177	336	203	214	456	107
Arrive On Green	0.07	0.18	0.00	0.16	0.27	0.27	0.06	0.31	0.31	0.07	0.32	0.32
Sat Flow, veh/h	1774	1863	1583	1774	1309	471	1757	1077	652	1723	1417	333
Grp Volume(v), veh/h	133	317	0	372	0	310	71	0	509	120	0	588
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1780	1757	0	1730	1723	0	1751
Q Serve(g_s), s	5.5	15.2	0.0	14.4	0.0	13.9	2.4	0.0	25.8	4.2	0.0	28.9
Cycle Q Clear(g_c), s	5.5	15.2	0.0	14.4	0.0	13.9	2.4	0.0	25.8	4.2	0.0	28.9
Prop In Lane	1.00		1.00	1.00		0.26	1.00		0.38	1.00		0.19
Lane Grp Cap(c), veh/h	324	330	280	373	0	477	177	0	539	214	0	563
V/C Ratio(X)	0.41	0.96	0.00	1.00	0.00	0.65	0.40	0.00	0.94	0.56	0.00	1.04
Avail Cap(c_a), veh/h	324	330	280	373	0	477	197	0	539	216	0	563
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.8	36.7	0.0	25.8	0.0	29.1	23.1	0.0	30.2	22.9	0.0	30.5
Incr Delay (d2), s/veh	0.8	39.4	0.0	45.9	0.0	3.1	1.5	0.0	27.2	3.2	0.0	50.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	11.4	0.0	6.9	0.0	7.2	1.2	0.0	16.4	2.2	0.0	21.6
LnGrp Delay(d),s/veh	28.7	76.1	0.0	71.7	0.0	32.2	24.6	0.0	57.4	26.1	0.0	80.6
LnGrp LOS	C	E		E		C	C		E	C		F
Approach Vol, veh/h		450			682			580			708	
Approach Delay, s/veh		62.1			53.8			53.4			71.3	
Approach LOS		E			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.4	34.9	21.2	22.4	12.3	34.0	13.0	30.6
Change Period (Y+Rc), s	6.4	6.0	* 6.8	6.5	6.4	6.0	* 6.8	6.5
Max Green Setting (Gmax), s	6.0	28.0	* 14	15.9	6.0	28.0	* 6.2	24.1
Max Q Clear Time (g_c+I1), s	4.4	30.9	16.4	17.2	6.2	27.8	7.5	15.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	60.4
HCM 2010 LOS	E

Notes

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	2	508	3	1	801
Future Vol, veh/h	3	2	508	3	1	801
Conflicting Peds, #/hr	0	3	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	42	42	79	79	74	74
Heavy Vehicles, %	2	2	3	3	4	4
Mvmt Flow	7	5	643	4	1	1082

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1729	648	0	0	647	0
Stage 1	645	-	-	-	-	-
Stage 2	1084	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.14	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.236	-
Pot Cap-1 Maneuver	97	470	-	-	929	-
Stage 1	522	-	-	-	-	-
Stage 2	324	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	97	469	-	-	929	-
Mov Cap-2 Maneuver	97	-	-	-	-	-
Stage 1	520	-	-	-	-	-
Stage 2	324	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	32.7	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	142	929	-
HCM Lane V/C Ratio	-	-	0.084	0.001	-
HCM Control Delay (s)	-	-	32.7	8.9	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	1	512	1	3	802
Future Vol, veh/h	2	1	512	1	3	802
Conflicting Peds, #/hr	0	1	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	38	38	87	87	73	73
Heavy Vehicles, %	2	2	2	2	4	4
Mvmt Flow	5	3	589	1	4	1099

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1697	591	0	0	590	0
Stage 1	590	-	-	-	-	-
Stage 2	1107	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.14	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.236	-
Pot Cap-1 Maneuver	102	507	-	-	976	-
Stage 1	554	-	-	-	-	-
Stage 2	316	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	101	507	-	-	976	-
Mov Cap-2 Maneuver	101	-	-	-	-	-
Stage 1	548	-	-	-	-	-
Stage 2	316	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	32.7	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	138	976	-
HCM Lane V/C Ratio	-	-	0.057	0.004	-
HCM Control Delay (s)	-	-	32.7	8.7	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	6	3	507	804	3
Future Vol, veh/h	1	6	3	507	804	3
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	75	75	79	79	74	74
Heavy Vehicles, %	4	4	3	3	4	4
Mvmt Flow	1	8	4	642	1086	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1738	1088	1090	0	-	0
Stage 1	1088	-	-	-	-	-
Stage 2	650	-	-	-	-	-
Critical Hdwy	6.44	6.24	4.13	-	-	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	2.227	-	-	-
Pot Cap-1 Maneuver	95	260	636	-	-	-
Stage 1	320	-	-	-	-	-
Stage 2	516	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	94	260	636	-	-	-
Mov Cap-2 Maneuver	94	-	-	-	-	-
Stage 1	317	-	-	-	-	-
Stage 2	516	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	23.1	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	636	-	208	-	-
HCM Lane V/C Ratio	0.006	-	0.045	-	-
HCM Control Delay (s)	10.7	0	23.1	-	-
HCM Lane LOS	B	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	201	372	70	259	356	71	129	341	197	135	309	180
Future Volume (veh/h)	201	372	70	259	356	71	129	341	197	135	309	180
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1845	1845	1900	1810	1810	1900
Adj Flow Rate, veh/h	218	404	0	282	387	77	137	363	210	144	329	191
Adj No. of Lanes	1	1	1	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	3	3	3	5	5	5
Cap, veh/h	244	422	358	297	376	75	206	353	204	185	346	201
Arrive On Green	0.09	0.23	0.00	0.12	0.25	0.25	0.06	0.32	0.32	0.06	0.32	0.32
Sat Flow, veh/h	1774	1863	1583	1774	1508	300	1757	1096	634	1723	1074	623
Grp Volume(v), veh/h	218	404	0	282	0	464	137	0	573	144	0	520
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1808	1757	0	1730	1723	0	1697
Q Serve(g_s), s	9.0	20.4	0.0	11.2	0.0	23.7	4.9	0.0	30.6	5.3	0.0	28.4
Cycle Q Clear(g_c), s	9.0	20.4	0.0	11.2	0.0	23.7	4.9	0.0	30.6	5.3	0.0	28.4
Prop In Lane	1.00		1.00	1.00		0.17	1.00		0.37	1.00		0.37
Lane Grp Cap(c), veh/h	244	422	358	297	0	451	206	0	557	185	0	547
V/C Ratio(X)	0.89	0.96	0.00	0.95	0.00	1.03	0.66	0.00	1.03	0.78	0.00	0.95
Avail Cap(c_a), veh/h	244	422	358	297	0	451	206	0	557	185	0	547
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.5	36.3	0.0	27.4	0.0	35.7	24.2	0.0	32.2	24.5	0.0	31.5
Incr Delay (d2), s/veh	31.3	33.2	0.0	39.0	0.0	49.9	7.7	0.0	45.5	19.0	0.0	28.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	14.3	0.0	8.9	0.0	18.0	2.8	0.0	21.6	3.5	0.0	17.6
LnGrp Delay(d),s/veh	58.8	69.5	0.0	66.4	0.0	85.5	32.0	0.0	77.7	43.5	0.0	59.6
LnGrp LOS	E	E		E		F	C		F	D		E
Approach Vol, veh/h		622			746			710			664	
Approach Delay, s/veh		65.7			78.3			68.9			56.1	
Approach LOS		E			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	36.6	18.0	28.0	12.4	36.6	15.8	30.2
Change Period (Y+Rc), s	6.4	6.0	* 6.8	6.5	6.4	6.0	* 6.8	6.5
Max Green Setting (Gmax), s	6.0	30.6	* 11	21.5	6.0	30.6	* 9	23.7
Max Q Clear Time (g_c+I1), s	6.9	30.4	13.2	22.4	7.3	32.6	11.0	25.7
Green Ext Time (p_c), s	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	67.6
HCM 2010 LOS	E

Notes

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	2	776	1	5	616
Future Vol, veh/h	0	2	776	1	5	616
Conflicting Peds, #/hr	0	6	0	2	2	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	50	50	83	83	95	95
Heavy Vehicles, %	2	2	3	3	4	4
Mvmt Flow	0	4	935	1	5	648

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1596	944	0	0	938	0
Stage 1	938	-	-	-	-	-
Stage 2	658	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.14	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.236	-
Pot Cap-1 Maneuver	117	318	-	-	722	-
Stage 1	381	-	-	-	-	-
Stage 2	515	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	115	316	-	-	721	-
Mov Cap-2 Maneuver	115	-	-	-	-	-
Stage 1	376	-	-	-	-	-
Stage 2	515	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.5	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	316	721	-
HCM Lane V/C Ratio	-	-	0.013	0.007	-
HCM Control Delay (s)	-	-	16.5	10	0
HCM Lane LOS	-	-	C	B	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	3	786	5	1	621
Future Vol, veh/h	2	3	786	5	1	621
Conflicting Peds, #/hr	0	3	0	4	4	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	42	42	81	81	99	99
Heavy Vehicles, %	2	2	2	2	4	4
Mvmt Flow	5	7	970	6	1	627

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1606	980	0	0	980	0
Stage 1	977	-	-	-	-	-
Stage 2	629	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.14	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.236	-
Pot Cap-1 Maneuver	116	303	-	-	696	-
Stage 1	365	-	-	-	-	-
Stage 2	531	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	115	301	-	-	694	-
Mov Cap-2 Maneuver	115	-	-	-	-	-
Stage 1	363	-	-	-	-	-
Stage 2	531	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	26	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	183	694	-
HCM Lane V/C Ratio	-	-	0.065	0.001	-
HCM Control Delay (s)	-	-	26	10.2	0
HCM Lane LOS	-	-	D	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	8	21	775	616	5
Future Vol, veh/h	1	8	21	775	616	5
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	50	50	83	83	95	95
Heavy Vehicles, %	4	4	3	3	4	4
Mvmt Flow	2	16	25	934	648	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1635	651	653	0	-	0
Stage 1	651	-	-	-	-	-
Stage 2	984	-	-	-	-	-
Critical Hdwy	6.44	6.24	4.13	-	-	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	2.227	-	-	-
Pot Cap-1 Maneuver	110	465	929	-	-	-
Stage 1	515	-	-	-	-	-
Stage 2	359	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	104	465	929	-	-	-
Mov Cap-2 Maneuver	104	-	-	-	-	-
Stage 1	486	-	-	-	-	-
Stage 2	359	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.3	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	929	-	336	-	-
HCM Lane V/C Ratio	0.027	-	0.054	-	-
HCM Control Delay (s)	9	0	16.3	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	266	83	308	180	65	61	270	190	108	438	101
Future Volume (veh/h)	112	266	83	308	180	65	61	270	190	108	438	101
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1845	1845	1900	1810	1810	1900
Adj Flow Rate, veh/h	133	317	0	390	228	82	80	355	250	120	487	112
Adj No. of Lanes	1	1	1	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.84	0.84	0.84	0.79	0.79	0.79	0.76	0.76	0.76	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	3	3	3	5	5	5
Cap, veh/h	324	330	280	373	351	126	181	314	221	193	455	105
Arrive On Green	0.07	0.18	0.00	0.16	0.27	0.27	0.06	0.31	0.31	0.07	0.32	0.32
Sat Flow, veh/h	1774	1863	1583	1774	1309	471	1757	1009	710	1723	1424	328
Grp Volume(v), veh/h	133	317	0	390	0	310	80	0	605	120	0	599
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1780	1757	0	1719	1723	0	1752
Q Serve(g_s), s	5.5	15.2	0.0	14.4	0.0	13.9	2.7	0.0	28.0	4.2	0.0	28.7
Cycle Q Clear(g_c), s	5.5	15.2	0.0	14.4	0.0	13.9	2.7	0.0	28.0	4.2	0.0	28.7
Prop In Lane	1.00		1.00	1.00		0.26	1.00		0.41	1.00		0.19
Lane Grp Cap(c), veh/h	324	330	280	373	0	477	181	0	536	193	0	559
V/C Ratio(X)	0.41	0.96	0.00	1.05	0.00	0.65	0.44	0.00	1.13	0.62	0.00	1.07
Avail Cap(c_a), veh/h	324	330	280	373	0	477	197	0	536	195	0	559
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.8	36.7	0.0	25.8	0.0	29.1	23.1	0.0	30.9	23.1	0.0	30.6
Incr Delay (d2), s/veh	0.8	39.4	0.0	59.1	0.0	3.1	1.7	0.0	79.7	5.9	0.0	58.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	11.4	0.0	8.2	0.0	7.2	1.4	0.0	25.0	2.3	0.0	22.8
LnGrp Delay(d),s/veh	28.7	76.1	0.0	84.9	0.0	32.2	24.8	0.0	110.7	29.0	0.0	89.1
LnGrp LOS	C	E		F		C	C		F	C		F
Approach Vol, veh/h		450			700			685			719	
Approach Delay, s/veh		62.1			61.6			100.6			79.1	
Approach LOS		E			E			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.6	34.7	21.2	22.4	12.3	34.0	13.0	30.6
Change Period (Y+Rc), s	6.4	6.0	* 6.8	6.5	6.4	6.0	* 6.8	6.5
Max Green Setting (Gmax), s	6.0	28.0	* 14	15.9	6.0	28.0	* 6.2	24.1
Max Q Clear Time (g_c+I1), s	4.7	30.7	16.4	17.2	6.2	30.0	7.5	15.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	77.1
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	266	83	308	180	65	61	270	190	108	438	101
Future Volume (veh/h)	112	266	83	308	180	65	61	270	190	108	438	101
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1845	1845	1845	1810	1810	1900
Adj Flow Rate, veh/h	133	317	0	390	228	82	80	355	250	120	487	112
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	1	0
Peak Hour Factor	0.84	0.84	0.84	0.79	0.79	0.79	0.76	0.76	0.76	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	3	3	3	5	5	5
Cap, veh/h	339	336	370	392	366	132	167	598	780	311	476	109
Arrive On Green	0.07	0.18	0.00	0.17	0.28	0.28	0.05	0.32	0.32	0.06	0.33	0.33
Sat Flow, veh/h	1774	1863	1583	1774	1309	471	1757	1845	1568	1723	1424	328
Grp Volume(v), veh/h	133	317	0	390	0	310	80	355	250	120	0	599
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1780	1757	1845	1568	1723	0	1752
Q Serve(g_s), s	6.0	16.7	0.0	17.2	0.0	15.1	2.9	16.0	9.5	4.6	0.0	33.2
Cycle Q Clear(g_c), s	6.0	16.7	0.0	17.2	0.0	15.1	2.9	16.0	9.5	4.6	0.0	33.2
Prop In Lane	1.00		1.00	1.00		0.26	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	339	336	370	392	0	498	167	598	780	311	0	585
V/C Ratio(X)	0.39	0.94	0.00	0.99	0.00	0.62	0.48	0.59	0.32	0.39	0.00	1.02
Avail Cap(c_a), veh/h	339	336	370	392	0	498	179	598	780	323	0	585
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.1	40.2	0.0	27.2	0.0	31.2	25.4	28.1	14.9	21.5	0.0	33.1
Incr Delay (d2), s/veh	0.7	34.8	0.0	43.7	0.0	2.4	2.1	4.3	1.1	0.8	0.0	43.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	11.9	0.0	13.1	0.0	7.7	1.5	8.8	4.3	2.2	0.0	23.0
LnGrp Delay(d),s/veh	30.8	75.0	0.0	70.9	0.0	33.6	27.5	32.4	16.0	22.3	0.0	76.3
LnGrp LOS	C	E		E		C	C	C	B	C		F
Approach Vol, veh/h		450			700			685			719	
Approach Delay, s/veh		62.0			54.4			25.8			67.3	
Approach LOS		E			D			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.7	39.2	24.0	24.4	12.7	38.2	14.1	34.3
Change Period (Y+Rc), s	6.4	6.0	* 6.8	6.5	6.4	6.0	* 6.8	6.5
Max Green Setting (Gmax), s	6.0	33.2	* 17	17.9	7.0	32.2	* 7.3	27.8
Max Q Clear Time (g_c+I1), s	4.9	35.2	19.2	18.7	6.6	18.0	8.0	17.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	2.5	0.0	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	51.7
HCM 2010 LOS	D

Notes

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	2	588	3	1	827
Future Vol, veh/h	3	2	588	3	1	827
Conflicting Peds, #/hr	0	3	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	42	42	79	79	74	74
Heavy Vehicles, %	2	2	3	3	4	4
Mvmt Flow	7	5	744	4	1	1118

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1866	749	0	0	748	0
Stage 1	746	-	-	-	-	-
Stage 2	1120	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.14	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.236	-
Pot Cap-1 Maneuver	80	412	-	-	852	-
Stage 1	469	-	-	-	-	-
Stage 2	312	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	80	411	-	-	852	-
Mov Cap-2 Maneuver	80	-	-	-	-	-
Stage 1	468	-	-	-	-	-
Stage 2	312	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	38.9	0	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	118	852	-
HCM Lane V/C Ratio	-	-	0.101	0.002	-
HCM Control Delay (s)	-	-	38.9	9.2	0
HCM Lane LOS	-	-	E	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	1	534	1	3	867
Future Vol, veh/h	2	1	534	1	3	867
Conflicting Peds, #/hr	0	1	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	38	38	87	87	73	73
Heavy Vehicles, %	2	2	2	2	4	4
Mvmt Flow	5	3	614	1	4	1188

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1811	616	0	0	615	0
Stage 1	615	-	-	-	-	-
Stage 2	1196	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.14	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.236	-
Pot Cap-1 Maneuver	86	491	-	-	955	-
Stage 1	539	-	-	-	-	-
Stage 2	287	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	85	491	-	-	955	-
Mov Cap-2 Maneuver	203	-	-	-	-	-
Stage 1	533	-	-	-	-	-
Stage 2	287	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.7	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	252	955	-
HCM Lane V/C Ratio	-	-	0.031	0.004	-
HCM Control Delay (s)	-	-	19.7	8.8	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	6	3	587	830	3
Future Vol, veh/h	1	6	3	587	830	3
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	75	75	79	79	74	74
Heavy Vehicles, %	4	4	3	3	4	4
Mvmt Flow	1	8	4	743	1122	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1875	1124	1126	0	-	0
Stage 1	1124	-	-	-	-	-
Stage 2	751	-	-	-	-	-
Critical Hdwy	6.44	6.24	4.13	-	-	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	2.227	-	-	-
Pot Cap-1 Maneuver	78	248	617	-	-	-
Stage 1	308	-	-	-	-	-
Stage 2	463	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	77	248	617	-	-	-
Mov Cap-2 Maneuver	77	-	-	-	-	-
Stage 1	305	-	-	-	-	-
Stage 2	463	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	25.1	0.1	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	617	-	188	-	-
HCM Lane V/C Ratio	0.006	-	0.05	-	-
HCM Control Delay (s)	10.9	0	25.1	-	-
HCM Lane LOS	B	A	D	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	10.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	80	65	22	513	810	26
Future Vol, veh/h	80	65	22	513	810	26
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	0	100	-	-	175
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	79	79	74	74
Heavy Vehicles, %	2	2	3	3	4	4
Mvmt Flow	89	72	28	649	1095	35

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1800	1095	1130	0	-	0
Stage 1	1095	-	-	-	-	-
Stage 2	705	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.13	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.227	-	-	-
Pot Cap-1 Maneuver	~ 88	260	615	-	-	-
Stage 1	321	-	-	-	-	-
Stage 2	490	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 84	260	615	-	-	-
Mov Cap-2 Maneuver	~ 84	-	-	-	-	-
Stage 1	306	-	-	-	-	-
Stage 2	490	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	123.6	0.5	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	615	-	84	260	-	-
HCM Lane V/C Ratio	0.045	-	1.058	0.278	-	-
HCM Control Delay (s)	11.1	-	204.4	24.1	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	0.1	-	6.1	1.1	-	-

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	201	372	79	307	356	71	134	360	225	135	341	180
Future Volume (veh/h)	201	372	79	307	356	71	134	360	225	135	341	180
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1845	1845	1900	1810	1810	1900
Adj Flow Rate, veh/h	218	404	0	334	387	77	143	383	239	144	363	191
Adj No. of Lanes	1	1	1	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	3	3	3	5	5	5
Cap, veh/h	244	422	358	297	376	75	187	342	214	185	360	189
Arrive On Green	0.09	0.23	0.00	0.12	0.25	0.25	0.06	0.32	0.32	0.06	0.32	0.32
Sat Flow, veh/h	1774	1863	1583	1774	1508	300	1757	1062	663	1723	1116	587
Grp Volume(v), veh/h	218	404	0	334	0	464	143	0	622	144	0	554
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1808	1757	0	1725	1723	0	1704
Q Serve(g_s), s	9.0	20.4	0.0	11.2	0.0	23.7	5.2	0.0	30.6	5.3	0.0	30.6
Cycle Q Clear(g_c), s	9.0	20.4	0.0	11.2	0.0	23.7	5.2	0.0	30.6	5.3	0.0	30.6
Prop In Lane	1.00		1.00	1.00		0.17	1.00		0.38	1.00		0.34
Lane Grp Cap(c), veh/h	244	422	358	297	0	451	187	0	556	185	0	549
V/C Ratio(X)	0.89	0.96	0.00	1.13	0.00	1.03	0.77	0.00	1.12	0.78	0.00	1.01
Avail Cap(c_a), veh/h	244	422	358	297	0	451	187	0	556	185	0	549
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.5	36.3	0.0	28.4	0.0	35.7	24.5	0.0	32.2	24.5	0.0	32.2
Incr Delay (d2), s/veh	31.3	33.2	0.0	90.5	0.0	49.9	17.1	0.0	75.3	19.0	0.0	40.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	14.3	0.0	9.7	0.0	18.0	3.4	0.0	26.1	3.5	0.0	20.5
LnGrp Delay(d),s/veh	58.8	69.5	0.0	118.9	0.0	85.5	41.6	0.0	107.5	43.5	0.0	73.0
LnGrp LOS	E	E		F		F	D		F	D		F
Approach Vol, veh/h		622			798			765			698	
Approach Delay, s/veh		65.7			99.5			95.2			66.9	
Approach LOS		E			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	36.6	18.0	28.0	12.4	36.6	15.8	30.2
Change Period (Y+Rc), s	6.4	6.0	* 6.8	6.5	6.4	6.0	* 6.8	6.5
Max Green Setting (Gmax), s	6.0	30.6	* 11	21.5	6.0	30.6	* 9	23.7
Max Q Clear Time (g_c+I1), s	7.2	32.6	13.2	22.4	7.3	32.6	11.0	25.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	83.2
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	201	372	79	307	356	71	134	360	225	135	341	180
Future Volume (veh/h)	201	372	79	307	356	71	134	360	225	135	341	180
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1845	1845	1845	1810	1810	1900
Adj Flow Rate, veh/h	218	404	0	334	387	77	143	383	239	144	363	191
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	3	3	3	5	5	5
Cap, veh/h	261	412	445	334	401	80	177	583	721	283	354	186
Arrive On Green	0.10	0.22	0.00	0.14	0.27	0.27	0.06	0.32	0.32	0.06	0.32	0.32
Sat Flow, veh/h	1774	1863	1583	1774	1508	300	1757	1845	1563	1723	1116	587
Grp Volume(v), veh/h	218	404	0	334	0	464	143	383	239	144	0	554
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	0	1808	1757	1845	1563	1723	0	1704
Q Serve(g_s), s	9.5	21.6	0.0	14.5	0.0	25.3	5.5	17.9	9.7	5.7	0.0	31.7
Cycle Q Clear(g_c), s	9.5	21.6	0.0	14.5	0.0	25.3	5.5	17.9	9.7	5.7	0.0	31.7
Prop In Lane	1.00		1.00	1.00		0.17	1.00		1.00	1.00		0.34
Lane Grp Cap(c), veh/h	261	412	445	334	0	481	177	583	721	283	0	540
V/C Ratio(X)	0.83	0.98	0.00	1.00	0.00	0.96	0.81	0.66	0.33	0.51	0.00	1.03
Avail Cap(c_a), veh/h	261	412	445	334	0	481	177	583	721	283	0	540
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.7	38.7	0.0	27.4	0.0	36.2	26.2	29.5	17.1	23.1	0.0	34.2
Incr Delay (d2), s/veh	20.3	39.3	0.0	48.9	0.0	32.0	23.2	5.7	1.2	1.5	0.0	45.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	15.6	0.0	11.6	0.0	16.9	3.8	10.1	4.4	2.8	0.0	21.7
LnGrp Delay(d),s/veh	49.0	78.1	0.0	76.3	0.0	68.2	49.4	35.2	18.4	24.6	0.0	79.6
LnGrp LOS	D	E		E		E	D	D	B	C		F
Approach Vol, veh/h		622			798			765			698	
Approach Delay, s/veh		67.9			71.6			32.6			68.3	
Approach LOS		E			E			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	37.7	21.3	28.6	12.5	37.6	16.8	33.1
Change Period (Y+Rc), s	6.4	6.0	* 6.8	6.5	6.4	6.0	* 6.8	6.5
Max Green Setting (Gmax), s	6.0	31.7	* 15	22.1	6.1	31.6	* 10	26.6
Max Q Clear Time (g_c+I1), s	7.5	33.7	16.5	23.6	7.7	19.9	11.5	27.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	59.6
HCM 2010 LOS	E

Notes

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	2	828	1	5	705
Future Vol, veh/h	0	2	828	1	5	705
Conflicting Peds, #/hr	0	6	0	2	2	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	50	50	83	83	95	95
Heavy Vehicles, %	2	2	3	3	4	4
Mvmt Flow	0	4	998	1	5	742

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1753	1007	0	0	1001	0
Stage 1	1001	-	-	-	-	-
Stage 2	752	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.14	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.236	-
Pot Cap-1 Maneuver	94	292	-	-	684	-
Stage 1	355	-	-	-	-	-
Stage 2	466	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	93	290	-	-	683	-
Mov Cap-2 Maneuver	93	-	-	-	-	-
Stage 1	350	-	-	-	-	-
Stage 2	466	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.6	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	290	683	-
HCM Lane V/C Ratio	-	-	0.014	0.008	-
HCM Control Delay (s)	-	-	17.6	10.3	0
HCM Lane LOS	-	-	C	B	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	3	858	5	1	663
Future Vol, veh/h	2	3	858	5	1	663
Conflicting Peds, #/hr	0	3	0	4	4	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	42	42	81	81	99	99
Heavy Vehicles, %	2	2	2	2	4	4
Mvmt Flow	5	7	1059	6	1	670

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1738	1069	0	0	1069	0
Stage 1	1066	-	-	-	-	-
Stage 2	672	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.14	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.236	-
Pot Cap-1 Maneuver	96	269	-	-	644	-
Stage 1	331	-	-	-	-	-
Stage 2	508	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	96	267	-	-	642	-
Mov Cap-2 Maneuver	223	-	-	-	-	-
Stage 1	329	-	-	-	-	-
Stage 2	508	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	247	642	-
HCM Lane V/C Ratio	-	-	0.048	0.002	-
HCM Control Delay (s)	-	-	20.3	10.6	0
HCM Lane LOS	-	-	C	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	8	21	827	705	5
Future Vol, veh/h	1	8	21	827	705	5
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	50	50	83	83	95	95
Heavy Vehicles, %	4	4	3	3	4	4
Mvmt Flow	2	16	25	996	742	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1791	745	747	0	-	0
Stage 1	745	-	-	-	-	-
Stage 2	1046	-	-	-	-	-
Critical Hdwy	6.44	6.24	4.13	-	-	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.336	2.227	-	-	-
Pot Cap-1 Maneuver	88	411	857	-	-	-
Stage 1	466	-	-	-	-	-
Stage 2	335	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	82	411	857	-	-	-
Mov Cap-2 Maneuver	82	-	-	-	-	-
Stage 1	436	-	-	-	-	-
Stage 2	335	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.5	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	857	-	284	-	-
HCM Lane V/C Ratio	0.03	-	0.063	-	-
HCM Control Delay (s)	9.3	0	18.5	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	52	42	72	789	624	89
Future Vol, veh/h	52	42	72	789	624	89
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	0	100	-	-	175
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	83	83	95	95
Heavy Vehicles, %	2	2	3	3	4	4
Mvmt Flow	58	47	87	951	657	94

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1782	657	751	0	-	0
Stage 1	657	-	-	-	-	-
Stage 2	1125	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.13	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.227	-	-	-
Pot Cap-1 Maneuver	90	465	854	-	-	-
Stage 1	516	-	-	-	-	-
Stage 2	310	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	81	465	854	-	-	-
Mov Cap-2 Maneuver	81	-	-	-	-	-
Stage 1	463	-	-	-	-	-
Stage 2	310	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	72.8	0.8	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	854	-	81	465	-	-
HCM Lane V/C Ratio	0.102	-	0.713	0.1	-	-
HCM Control Delay (s)	9.7	-	120.7	13.6	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.3	-	3.4	0.3	-	-