Application for
Rezoning

OFFICE USE ONLY
Date Received:

Received 8.16.22

RZ22-00008

Case Number: RZ __ __ __ __–__ __ __ __

Complete this application in its entirety and submit pages 4 and 5 along with the required materials (including any required supplements) as listed on page 2 to the address below:

City of Hampton
Community Development Department, Planning Division
22 Lincoln Street, 5th Floor
Hampton, Virginia 23669

1. PROPERTY INFORMATION

Address or Location: See Exhibit A (Site Master Plan)

LRSN: See Exhibit B Current Zoning District: R-M Proposed Zoning District: DT-1

Current Land Use: Multifamily

Proposed Land Use: Multifamily, Townhouses, Light Commercial

The proposed use will be in: ☐ an existing building ☐ a new addition ☑ a new building

2. PROPERTY OWNER INFORMATION (an individual or a legal entity may be listed as owner)

Owner's Name: Hampton Redevelopment and Housing Authority (HRHA)

Address: 1 S Armistead Avenue City: Hampton State: VA Zip: 23669

Phone: 7577271111 Email: amaat@hamptonrha.com

3. APPLICANT INFORMATION (if different from owner)

Applicant's Name: Olde Hampton Village Developers, LLC

Address: 1439 N. Great Neck Road City: Virginia Beach State: VA Zip: 23454

Phone: 7578574777 Email: rvierra@axisge.com

4. APPLICANT AGENT INFORMATION (if different from applicant)

Agent's Name: _____

Address: _____ City: _____ State: _____ Zip: _____

Phone: _____ Email: _____

5. CERTIFICATION FOR LEGAL ENTITY PROPERTY OWNERS

*Complete this section only if the property owner is **not** an individual but rather a legal entity such as a corporation, trust, LLC, partnership, diocese, etc. as specified in Step 2 above.*

"I hereby submit that I am legally authorized to execute this application on behalf of the fee-simple owner of this property. I have read this application and it is submitted with my full knowledge and consent. I authorize city staff and representatives to have access to this property for inspection. The information contained in this application is accurate and correct to the best of my knowledge."

Name(s), title(s), signature(s), and date(s) of authorized representative(s) of the legal entity (attach additional page if necessary):

Name of Legal Entity Hampton Redevelopment and Housing Authority (HRHA)

Signed by:

Name (printed) Aaru Ma`at, Its (title) Executive Director

Signature Aaru Ma`at Date 8/8/2022

Name (printed) _____, Its (title) _____

Signature _____ Date _____

Name (printed) _____, Its (title) _____

Signature _____ Date _____

6. CERTIFICATION FOR INDIVIDUAL PROPERTY OWNERS

Complete this section only if the property owner is an individual or individuals.

"I hereby submit that I am the fee-simple owner of this property. I have read this application and it is submitted with my full knowledge and consent. I authorize city staff and representatives to have access to this property for inspection. The information contained in this application is accurate and correct to the best of my knowledge."

Name(s), signature(s), and date(s) of owner(s) (attach additional page if necessary):

Name (printed) _____

Signature _____ Date _____

Name (printed) _____

Signature _____ Date _____

OFFICE USE ONLY

❑ Application Form	❑ Narrative Statement	❑ Proffer Statement
❑ Application Fee	❑ Survey Plat	❑ Additional materials (if required)

Application for

Use Permit

OFFICE USE ONLY
Date Received:

Received 8.16.22

UP22-00011

Case Number: UP __ __ __ __–__ __ __ __

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Name (printed) _____, Its (title) _____

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Signature _____ Date _____

Name (printed) _____

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OFFICE USE ONLY

❑ Application Form	❑ Narrative Statement	❑ Proffer Statement
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Olde Hampton Village Developers, LLC

REZONING AND USE PERMIT APPLICATION
OLDE HAMPTON VILLAGE COMMUNITY NARRATIVE

Former Lincoln Park and Associated Parcels Site

Submitted to:
Director of Planning
City of Hampton
1 Franklin Street, Suite 603
Hampton, Virginia 23669

Submitted by:

Ross D. Vierra
Managing Director
Olde Hampton Village, LLC

Nick Jacovides
Managing Director
Olde Hampton Village, LLC

AXISGLOBAL ENTERPRISES
DEVELOPMENT | CONSTRUCTION | INTEGRATED SECURITY

EDC HOMES

5 August 2022

Rezoning Narrative

Need for the rezoning:

Our company is submitting this rezoning application based on our Master Site plan design which will positively redevelop and create a transformative new gateway community near old Hampton at the vacant site of the former Lincoln Park Housing Area and several adjacent surrounding properties identified in the master plan. The following parcels identified are being purchased through a purchase and development agreement with HRHA by our companies Axis Global Enterprises Inc. and EDC Homes.

This strategic joint venture of our two companies has come together to create our combined company known as Olde Hampton Village Developers, LLC. The former Lincoln Park site has been vacant for over a decade and underserving city which greatly in need of quality housing and commercial space to serve the community. Our team in Olde Hampton Village Developers; working together with HRHA and the City of Hampton, over the past several years to bring this vibrant and positively transformational mixed-use community development to life at this wonderful area of Hampton.

The properties are the former Lincoln Park site, 1226 W Queen Street, 1224 W Queen Street, 1222 W Queen Street, 1220 W Queen Street, 1218 W Queen Street, 2216 W Queen Street. Our team started with using the concepts in the UDA Master Plan dated 8 February 2013 and have planned a wonderful revitalize plan of these properties to enhance the surrounding community creating a new vibrate neighborhood community village feel for new residences to live, work, play and embrace the history of the area.

This development will be an investment of approximately $100 million dollars in the design, development, construction, operations, and management to bring Olde Hampton Village to life. It will have a massive economic development impact generating tens of millions of dollars in new tax revenue over the lifetime of the property which today generates zero tax revenue to the city. It will provide over 498 new quality housing options from for sale townhomes, apartment living, and senior housing complete with a large central park and resort style amenities. There is a need for quality childcare and part of our development will an opportunity for our 5,000sf retail space to have a first-class childcare center along as part of the retail component to serve the community. We truly believe that this rezoning and the master plan for Olde Hampton Village will serve to enhance the community and provide a community for a lifetime!

Proposed use of the site:

The proposed use of the site is a mixed-use development with fee simple for sale townhomes, multifamily apartments, senior living apartments, resort style amenities, a vibrant and walkable central park, and light commercial uses to to include a childcare center, hair salon, and potential coffee shop, as a few of the anticipated uses.

Description of any new structures to be constructed

Our proposal is to create a revitalized mixed-use gateway development called "**Olde Hampton Village**". This mixed-use development will be comprised of 118 three- and two-story for sale townhomes, 3 buildings that will have 284-unit multifamily apartment complex, and 1 building for 96 Senior Housing multifamily living units with an attached 6,000 sf of light retail which will include a proposed childcare center and salon. These structures will be designed and constructed with a coastal architectural feel and color palette reflected in the renderings below.

Anticipated impact to adjacent properties

This development will have a positive impact to the whole city not just the adjacent parcels. It will create new tax revenues and improve the community aesthetics, provide needed quality housing, additional open green space and will improve property values of adjacent properties in the community.

Anticipated impact to city services

The property has previously had a high-density living environment and this new redevelopment will have a limited increase in city services from that prior use. The townhomes will be serves by public trash services and the whole community will have public utilities that are already running to the site.

How the rezoning conforms to the Hampton Community Plan (2006, as amended)

This rezoning conforms directly with the Hampton Community Plan and a UDA study conducted in 2013 by the City of Hampton and the HRHA.

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DEVELOPMENT | CONSTRUCTION | INTEGRATED SECURITY

EDC HOMES

Advantages of Olde Hampton Village

The **Olde Hampton Village** is designed to provide a unique opportunity to balance the options of home ownership and multifamily living in a new construction community built with quality design and materials in a walkable environment with an emphasis on outdoor living. Our living environments will transform the corridor in line the with UDA Master plan to enhance the community while at the same time provide a distinctive new choice for potential home ownership and multifamily living alike. It will of an appropriate density, scope and scale to complement the existing community and will have a considerable positive impact on neighborhood property values.

We anticipate many positive programs earmarked and offered to include a new **Bike Share Program**; *The Olde Hampton Village* will be an invaluable asset to the connectivity modern cities strive for today's mobile society. Our village community will be the perfect fit for the citizens of Hampton as well as future visitors to enjoy going for a bike ride, walking their pets, or just enjoying the neighborhood's open space where folks can meet after a long day to enjoy the interaction with neighbors.

Development Renderings (Master Site Plan)

AXISGLOBAL ENTERPRISES
DEVELOPMENT | CONSTRUCTION | INTEGRATED SECURITY

EDC HOMES

286 Unit Apartment Buildings

Age-Restricted Apartment Building

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DEVELOPMENT | CONSTRUCTION | INTEGRATED SECURITY

EDC HOMES

Clubhouse and Pool

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DEVELOPMENT | CONSTRUCTION | INTEGRATED SECURITY

EDC HOMES

Rear Load Harbor Model View (Street A & H facing Units)

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DEVELOPMENT | CONSTRUCTION | INTEGRATED SECURITY

EDC HOMES

Rear Load Harbor Model View (Typical – Not facing street A or H)

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DEVELOPMENT | CONSTRUCTION | INTEGRATED SECURITY

EDC HOMES

Front Load Compass Model Townhome Design

Townhome Model 2 Design Style

The Harbor Model will be units that are rear loading two car garage and driveways for ample parking spaces for homeowners and guest. The units facing roads A and H will have side entrance to garage. In the Front Load model (compass) the 2-car garage will be in the front of unit. The townhomes will be 18" above grade per the proffers.

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EDC HOMES

Gourmet kitchens with a center island create a wonderful area for entertaining and family dining experience.

Spacious living area with wonderful natural light and fireplace features available.

Beautiful open Bedrooms with spacious layouts.

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EDC HOMES

Rezoning Use Permit

Part of our rezoning application is the addition of the Use Permit for the zoning classification of DT-1.

Based on our master design plan and site conditions we wish to have the following Deviation for the Olde Hampton Village Development.

1. **42 (b) x - Deviate for the 36" above grade for the Apartments and Clubhouse Related Buildings and all townhome units: The senior building being age restricted and the childcare building needs to be on grade to support the residences and to ensure ADA requirements and prevent any deterrent to ingress and egress. This will include the 286-unit apartment building and clubhouse elements. We would be able to agree with 18" above grade as stated in the proffers for the townhomes.**

2. **42 (b) iv – Deviate as the apartments will mostly consist of internal streets except for the Senior Apartments and Retail on Michigan Drive which we request the waiver of restrictions of parking in the front of the building. This is to support the retail space and short-term parking for the senior apartments. This requirement should not apply to the remainder of the development.**
3. **42 vi - Deviate to reduce the ground floor units' glass from 20% TO 15%. While this requirement only effects the units on LaSalle and Michigan Avenue, we request it be reduced due to the residential nature of the design.**

4. **42 iv - Deviate to reduce the ground floor ceiling height from 10' to 9'. This reduction by 1 foot is to promote energy efficiency and for product availability as the standard stud length and additional materials supports the 9' ceiling heights for the townhomes and apartments on the ground floor.**

Beautiful Welcome Entrance Signage

LA SALLE AVENUE

Beautiful Welcome Entrance Signage 2

REAR-LOADED TOWNHOMES

REAR-LOADED TOWNHOMES

MICHIGAN DRIVE

REAR-LOADED TOWNHOMES

STREET 'A'

STREET 'B'

STREET 'B'

W PEMBROKE AVENUE

CLUBHOUSE

PARK

STREET 'H'

STREET 'C'

DAYCARE
5,000 SF
1-STORY

SALON
1,100 SF

STREET 'G'

STREET 'F'

STREET 'E'

BUILDING 4

BUILDING 1

BUILDING 2

BUILDING 3

STREET 'D'

STREET 'D'

REAR-LOADED TOWNHOMES

FRONT-LOADED TOWNHOMES

W QUEEN STREET

MICHIGAN DR

Olde Hampton Village Master Plan
11.23.2022

SITE / GROUND FLOOR PLAN

0 5 10 25 50 100
SCALE: 1" = 50' – 0"

1. EXISTING ZONING INFORMATION, PROPERTY, EASEMENT, SETBACK AND RIGHT-OF-WAY LINES SHOWN ON THESE PLANS WERE TAKEN FROM SITE INFORMATION PROVIDED BY THE DEVELOPER (NO SURVEY AVAILABLE).
2. THIS PLAN IS CONCEPTUAL IN NATURE. THE CONFIGURATIONS AND YIELD ARE APPROXIMATE AND MAYBE SUBJECT TO CHANGE.
3. THIS DRAWING IS FOR THE SOLE USE OF OUR CLIENT IN THE INTERNAL EVALUATION OF THE VIABILITY OF THE PROPERTY FOR THE PROPOSED USE. IT SHALL NOT BE USED, COPIED, OR TRANSFERRED ELECTRONICALLY TO ANY THIRD PARTY WITHOUT THE PRIOR APPROVAL BY COX, KLIEWER, AND COMPANY.

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OLDE HAMPTON APARTMENTS

NEW RESIDENTIAL DEVELOPMENT

LA SALLE AVENUE
HAMPTON, VIRGINIA

AUGUST 30, 2021 (revised 11/23/22)

*BUILDING MATERIALS ARE SHOWN AS TYPICAL

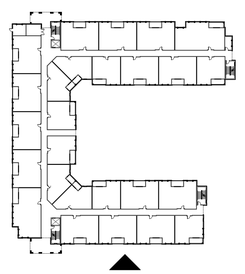
Olde Hampton Apartments,Senior Apartments, Clubhouse Elevations_111422

F1 / A211 BUILDING 1 WEST ELEVATION

SCALE: 1/8" = 1'-0"

M1 / A211 BUILDING 1 SOUTH ELEVATION

SCALE: 1/8" = 1'-0"



Q17 / A211 ELEVATION KEY PLAN

SCALE: N.T.S

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PROGRESS SET
NOT FOR CONSTRUCTION
SEPTEMBER 19, 2022

Project No.	22130_01
Date	09.19.2022
Scale	AS NOTED
Drawn	RLH
Checked	JGM

REVISIONS		
MARK	DATE	INITIAL

BUILDING 1 ELEVATIONS

NEW MULTI-FAMILY RESIDENTIAL DEVELOPMENT

OLDE HAMPTON APARTMENTS

LA SALLE AVENUE
HAMPTON, VIRGINIA

A211

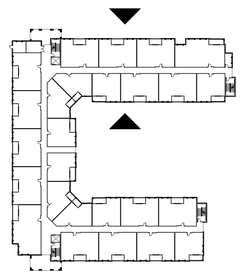
*BUILDING MATERIALS ARE SHOWN AS TYPICAL

F1 / A212 BUILDING 1 NORTH ELEVATION

SCALE: 1/8" = 1'-0"

M1 / A212 BUILDING 1 INTERIOR NORTH ELEVATION

SCALE: 1/8" = 1'-0"



Q17 / A212 ELEVATION KEY PLAN

SCALE: N.T.S

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BUILDING 1 ELEVATIONS

NEW MULTI-FAMILY RESIDENTIAL DEVELOPMENT
OLDE HAMPTON APARTMENTS
LA SALLE AVENUE
HAMPTON, VIRGINIA

A212

*BUILDING MATERIALS ARE SHOWN AS TYPICAL

F1
A213

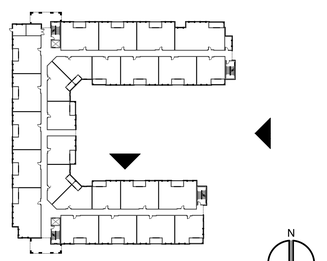
BUILDING 1 EAST ELEVATION

SCALE: 1/8" = 1'-0"

M1
A213

BUILDING 1 INTERIOR SOUTH ELEVATION

SCALE: 1/8" = 1'-0"



Q17
A213

ELEVATION KEY PLAN

SCALE: N.T.S

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BUILDING 1 ELEVATIONS

NEW MULTI-FAMILY RESIDENTIAL DEVELOPMENT

OLDE HAMPTON APARTMENTS

LA SALLE AVENUE
HAMPTON, VIRGINIA

A213

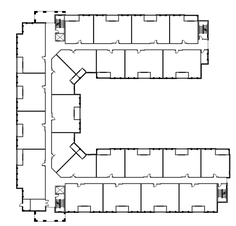
*BUILDING MATERIALS ARE SHOWN AS TYPICAL

F1 / A221 BUILDING 2 WEST ELEVATION

SCALE: 1/8" = 1'-0"

M1 / A221 BUILDING 2 SOUTH ELEVATION

SCALE: 1/8" = 1'-0"



Q17 / A221 ELEVATION KEY PLAN

SCALE: N.T.S

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REVISIONS

MARK	DATE	INITIAL

BUILDING 2 ELEVATIONS

NEW MULTI-FAMILY RESIDENTIAL DEVELOPMENT

OLDE HAMPTON APARTMENTS

LA SALLE AVENUE
HAMPTON, VIRGINIA

A221

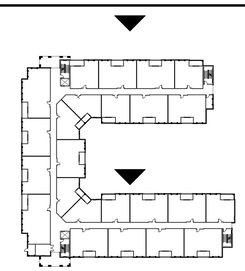
*BUILDING MATERIALS ARE SHOWN AS TYPICAL

F1 / A222 BUILDING 2 NORTH ELEVATION

SCALE: 1/8" = 1'-0"

M1 / A222 BUILDING 2 INTERIOR SOUTH ELEVATION

SCALE: 1/8" = 1'-0"



Q17 / A222 ELEVATION KEY PLAN

SCALE: N.T.S

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BUILDING 2 ELEVATIONS

NEW MULTI-FAMILY RESIDENTIAL DEVELOPMENT

OLDE HAMPTON APARTMENTS

LA SALLE AVENUE
HAMPTON, VIRGINIA

A222

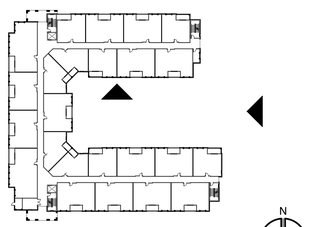
*BUILDING MATERIALS ARE SHOWN AS TYPICAL

F1 / A223 BUILDING 2 EAST ELEVATION

SCALE: 1/8" = 1'-0"

M1 / A223 BUILDING 2 INTERIOR NORTH ELEVATION

SCALE: 1/8" = 1'-0"



Q17 / A223 ELEVATION KEY PLAN

SCALE: N.T.S

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Checked	JGM

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MARK	DATE	INITIAL

BUILDING 2 ELEVATIONS

NEW MULTI-FAMILY RESIDENTIAL DEVELOPMENT

OLDE HAMPTON APARTMENTS

LA SALLE AVENUE
HAMPTON, VIRGINIA

A223

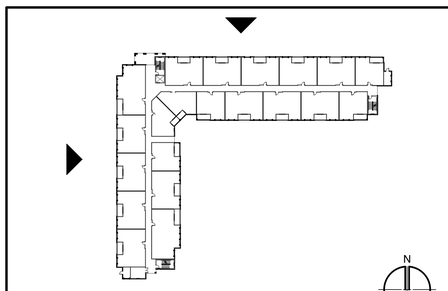
*BUILDING MATERIALS ARE SHOWN AS TYPICAL

F1 A231 BUILDING 3 WEST ELEVATION

SCALE: 1/8" = 1'-0"

M1 A231 BUILDING 3 NORTH ELEVATION

SCALE: 1/8" = 1'-0"



Q17 A231 ELEVATION KEY PLAN

SCALE: N.T.S

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REVISIONS

MARK	DATE	INITIAL

BUILDING 3 ELEVATIONS

NEW MULTI-FAMILY RESIDENTIAL DEVELOPMENT

OLDE HAMPTON APARTMENTS

LA SALLE AVENUE
HAMPTON, VIRGINIA

A231

*BUILDING MATERIALS ARE SHOWN AS TYPICAL

F1
A232

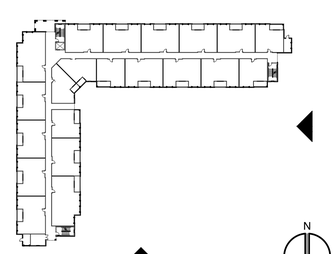
BUILDING 3 EAST ELEVATION

SCALE: 1/8" = 1'-0"

M1
A232

BUILDING 3 SOUTH ELEVATION

SCALE: 1/8" = 1'-0"



Q17
A232

ELEVATION KEY PLAN

SCALE: N.T.S

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PROGRESS SET
NOT FOR CONSTRUCTION
SEPTEMBER 19, 2022

Project No.	22130_01
Date	09.19.2022
Scale	AS NOTED
Drawn	RLH
Checked	JGM

REVISIONS

MARK	DATE	INITIAL

BUILDING 3 ELEVATIONS

NEW MULTI-FAMILY RESIDENTIAL DEVELOPMENT

OLDE HAMPTON APARTMENTS

LA SALLE AVENUE
HAMPTON, VIRGINIA

A232

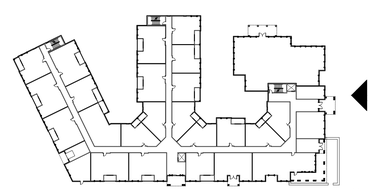
*BUILDING MATERIALS ARE SHOWN AS TYPICAL

F1 A241 AGE RESTRICTED BUILDING - SOUTH ELEVATION

SCALE: 1/8" = 1'-0"

M1 A241 AGE RESTRICTED BUILDING - EAST ELEVATION

SCALE: 1/8" = 1'-0"



Q17 A241 ELEVATION KEY PLAN

SCALE: N.T.S

Cox, Kliewer & Company, P.C.
ARCHITECTURE
2533 VIRGINIA BEACH BOULEVARD
VIRGINIA BEACH, VIRGINIA • 23452 - 7635
Voice 757-431-0033 • Facsimile 757-463-0330
www.coxkliewer.com • webmaster@coxkliewer.com

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AGE RESTRICTED BUILDING ELEVATIONS

NEW MULTI-FAMILY RESIDENTIAL DEVELOPMENT

OLDE HAMPTON APARTMENTS

LA SALLE AVENUE
HAMPTON, VIRGINIA

A241

*BUILDING MATERIALS ARE SHOWN AS TYPICAL

E1 / A242 AGE RESTRICTED BUILDING - NORTH ELEVATION

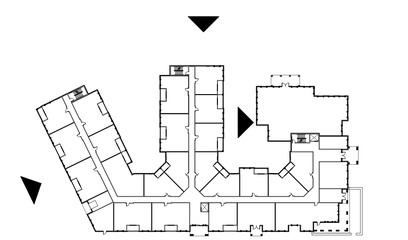
SCALE: 1/8" = 1'-0"

K1 / A242 AGE RESTICTED BUILDING EAST WING - WEST ELEVATION

SCALE: 1/8" = 1'-0"

Q1 / A242 AGE RESTICTED BUILDING - WEST ELEVATION

SCALE: 1/8" = 1'-0"



Q17 / A242 ELEVATION KEY PLAN

SCALE: N.T.S

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AGE RESTRICTED BUILDING ELEVATIONS

NEW MULTI-FAMILY RESIDENTIAL DEVELOPMENT

OLDE HAMPTON APARTMENTS

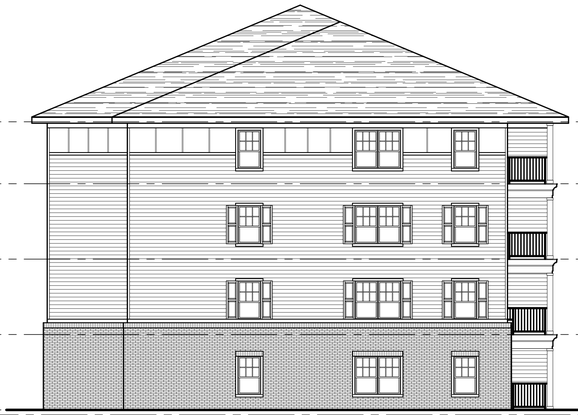
LA SALLE AVENUE
HAMPTON, VIRGINIA

A242

*BUILDING MATERIALS ARE SHOWN AS TYPICAL

E1 / A243 AGE RESTRICTED BUILDING NORTH WING - WEST ELEVATION

SCALE: 1/8" = 1'-0"



E13 / A243 AGE RESTRICTED BUILDING WEST WING - NORTH ELEVATION

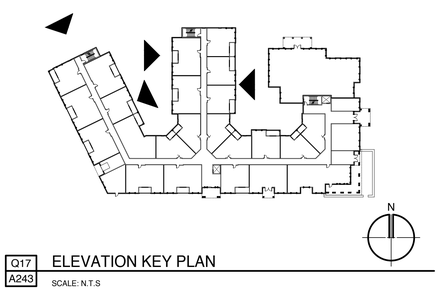
SCALE: 1/8" = 1'-0"

K1 / A243 AGE RESTRICTED BUILDING WEST WING - EAST ELEVATION

SCALE: 1/8" = 1'-0"

Q1 / A243 AGE RESTRICTED BUILDING NORTH WING - EAST ELEVATION

SCALE: 1/8" = 1'-0"



Q17 / A243 ELEVATION KEY PLAN

SCALE: N.T.S

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AGE RESTRICTED BUILDING ELEVATIONS

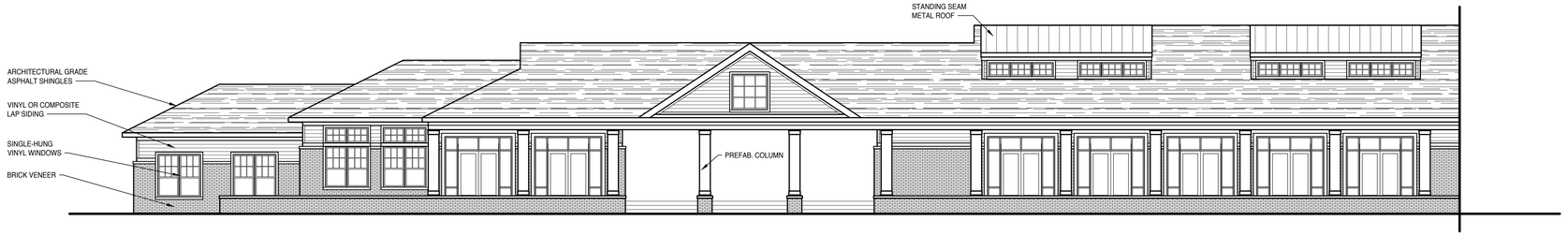
NEW MULTI-FAMILY RESIDENTIAL DEVELOPMENT

OLDE HAMPTON APARTMENTS

LA SALLE AVENUE
HAMPTON, VIRGINIA

A243

*BUILDING MATERIALS ARE SHOWN AS TYPICAL



E1 / A251 FITNESS CENTER & CLUBHOUSE ELEVATION A - WEST

SCALE: 1/8" = 1'-0"

E16 / A251 FITNESS CENTER & CLUBHOUSE ELEVATION B - NORTH

SCALE: 1/8" = 1'-0"

K1 / A251 FITNESS CENTER AND CLUBHOUSE ELEVATION C - EAST

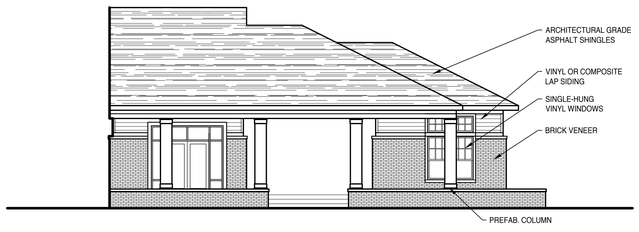
SCALE: 1/8" = 1'-0"

Q1 / A251 FITNESS CENTER & CLUBHOUSE ELEVATION D - SOUTHWEST

SCALE: 1/8" = 1'-0"

Q9 / A251 LEASING & MAIL ROOM ELEVATION E - NORTHEAST

SCALE: 1/8" = 1'-0"



Q16 / A251 LEASING & MAIL ROOM ELEVATION F - NORTH

SCALE: 1/8" = 1'-0"

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AMENITY CENTER ELEVATIONS

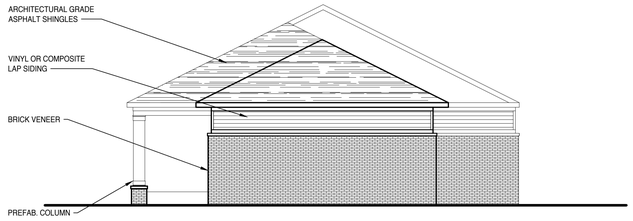
NEW MULTI-FAMILY RESIDENTIAL DEVELOPMENT

OLDE HAMPTON APARTMENTS

LA SALLE AVENUE
HAMPTON, VIRGINIA

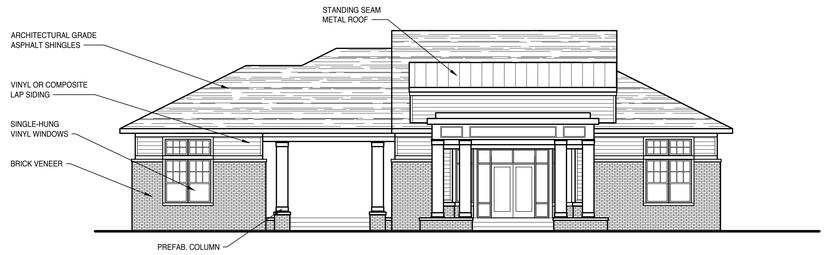
A251

*BUILDING MATERIALS ARE SHOWN AS TYPICAL



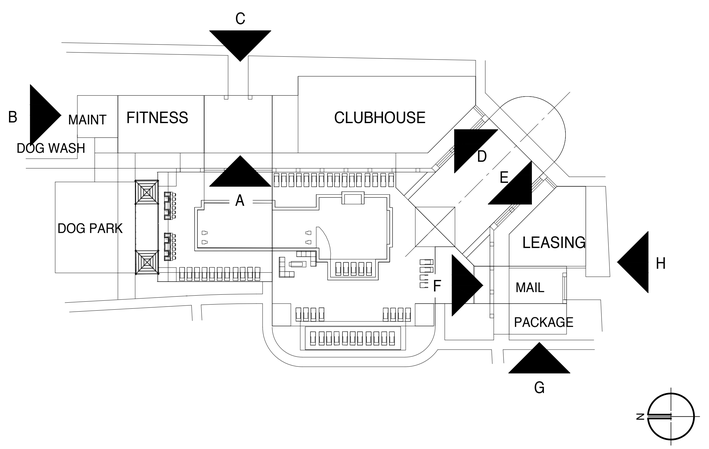
E1 / A252 LEASING & MAIL ROOM ELEVATION G - WEST

SCALE: 1/8" = 1'-0"



E9 / A252 LEASING & MAIL ROOM ELEVATION H - SOUTH

SCALE: 1/8" = 1'-0"



Q13 / A252 ELEVATION KEY PLAN

SCALE: N.T.S

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AMENITY CENTER ELEVATIONS

NEW MULTI-FAMILY RESIDENTIAL DEVELOPMENT

OLDE HAMPTON APARTMENTS

LA SALLE AVENUE
HAMPTON, VIRGINIA

A252

Olde Hampton Village - Rear Load Garage Harbor Model

12/13/22

6 Units *(Elevations Facing Street "A" and Street "H")*

Front View

*building materials are shown as typical
*siding colors may vary from renderings

Rear View

Side View

Olde Hampton Village - Rear Load Garage Harbor Model

11/29/22

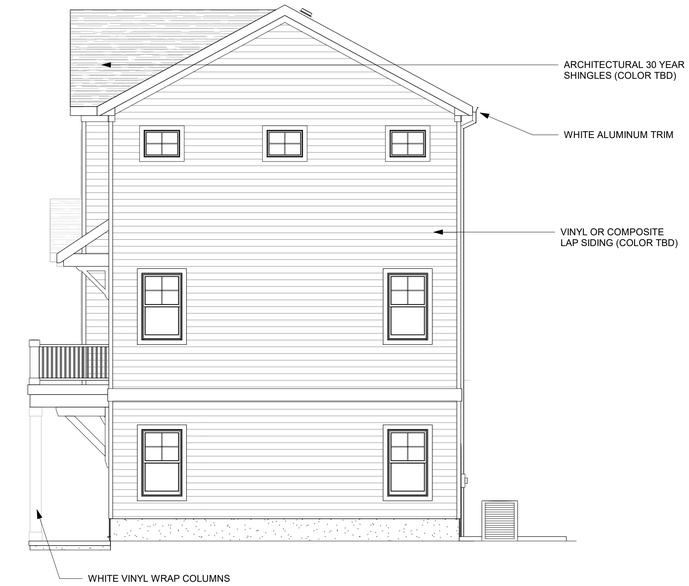
6 Units Typical townhouse elevation

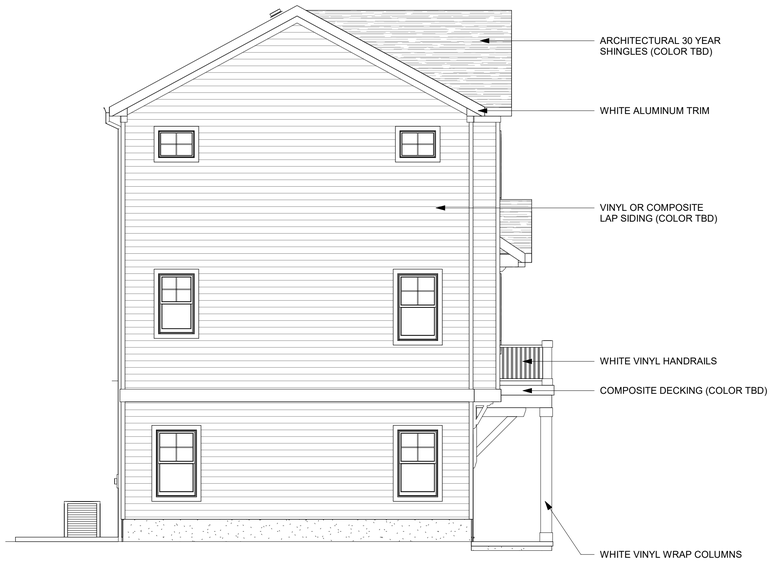
Front View

*building materials are shown as typical
*siding colors may vary from renderings

Rear View

Side View





OLDE HAMPTON VILLAGE - FRONT LOAD COMPASS MODELS

BASE

0' 2' 4' 8' 16'

3/16" = 1'-0"

Graphic Scale

NOTE - ALL MATERIALS SHOWN TYPICAL

11/8/22

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.

2901 S Lynnhaven Road
Suite 200
Virginia Beach, VA 23452

P 757.213.6679
F 757.340.1415
www.timmons.com

December 13, 2022

Ross Vierra
Axis Global Enterprises, Inc.
1439 N. Great Neck Road
Virginia Beach, VA 23454

Subject: Olde Hampton Village Multifamily Apartments and Resiliency Considerations

Dear Ross:

Timmons Group has designed the Olde Hampton Apartments redevelopment of the Lincoln Park Community to provide appropriate elevation separation from the base flood plain while also maintaining accessibility in accordance with the Americans with Disabilities Act (ADA).

Building 4, which contains the senior living apartments, is located on the low side of the site. Currently portions of that area are below elevation 8 and considered part of the AE flood zone as determined by the Federal Emergency Management Agency (FEMA). The proposed building finished floor for building 4 is 10.0' which is safely above the flood plain elevation. We will submit a Conditional Letter of Map Revision (CLOMR) to FEMA to document that the site will be raised out of the floodplain.

Similar considerations were given to buildings 1-3 to provide high enough finished floor elevations of 10.50', 10.50' and 12.00' accordingly to be resilient as well as meet ADA requirements.

Raising the elevation of the multifamily portion of the site, as described, provides the improved resiliency and flood protection compared to the existing condition. Additionally, stormwater management improvements are provided with the design to meet all local and state ordinances and requirements for water quantity and quality that further improve resiliency in and around the development.

Additionally, the building cannot reasonably be set at a higher elevation while achieving the accessibility requirements of the ADA. The design provides for the required access points to meet the minimum/maximum slopes allowable. Further, the drop off loop accessed from Michigan Drive has a maximized slope to keep the building as high as possible without creating an unsafe condition. The elevation of Michigan Drive cannot be changed due to the existing entrances to the adjacent residential neighborhoods, Barrington Woods and Asbury Place.

Please feel free to contact me should you have any questions or require any additional information.

Sincerely,

Dan Ruby, PE
Sr. Project Manager
TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.

dan.ruby@timmons.com
Office: 757-213-6661

Prepared by:

Steven A. Meade, Esq.
VSB# 37150
PATTEN, WORNOM, HATTEN & DIAMONSTEIN, L.C.
12350 Jefferson Avenue, Suite 300
Newport News, Virginia 23602

After recording return to:
Office of the City Attorney
22 Lincoln Street
Hampton, Va. 23669
(bnb)

LRSN: **2000229; 2000230; 2000231; 2000232; 2000233; 2000234 2000368; 2000369; 2000370; 2000385; 2000386; 2000400; 2000401; 2000403; 2000404**

PROFFER AGREEMENT

THIS PROFFER AGREEMENT ("**Agreement**") made this 30 day of DECEMBER 2022 by and between **OLDE HAMPTON VILLAGE DEVELOPERS, LLC**, a Virginia limited liability company (the "**Grantor**"), with an address of 1439 N. Great Neck Road, Suite 201, Virginia Beach, Virginia 23454; and **THE CITY OF HAMPTON, VIRGINIA**, a municipal corporation of the Commonwealth of Virginia (the "**Grantee**"), with an address of Hampton City Hall, 22 Lincoln Street, Hampton, Virginia 23669.

RECITALS

A. Olde Hampton Village Developers, LLC is the selected purchaser, as it is the successor and assignee of Axis Global Enterprises Inc. and EDC Homes, Inc., of certain parcels of property located in the City of Hampton (the "**City**"), herein known as LRSN Numbers shown above and as fully described on **Exhibit A** (the "**Property**").

B. Grantor has initiated a conditional amendment to the zoning map of the City of Hampton, Virginia, by petition addressed to the Grantee so as to change the zoning classification of the Property from R-M to DT-1.

C. Grantor has requested approval of this Agreement.

D. Grantee's policy is to provide for the orderly development of land for a mixed-use community that will have multifamily, fee-simple townhomes, for-lease childcare center, central community open space park, dog park, and club house with pool, fitness center, and other amenities as shown on the Master Plan provided in the rezoning application.

E. Grantor desires to offer the City of Hampton certain conditions for the enhancement of the community and to provide for the highest quality and orderly development of the Property.

F. The conditions outlined in this Agreement have been proffered by Grantor and allowed and accepted by Grantee as a part of the amendment of the City Zoning Ordinance and the Zoning Map. These conditions shall continue in full force and effect until a subsequent amendment changes the zoning of the Property; provided, however, that such conditions shall continue if the subsequent amendment is part of the comprehensive implementation of a new or substantially revised zoning ordinance of Grantee.

NOW, THEREFORE, for and in consideration of the approval and acceptance by the City of this Agreement, Grantor agrees that it will meet and comply with all of the following conditions in developing the Property. In the event the requested change of zoning classification is not granted by the City, these Proffers shall thereupon become null and void. Grantor, its heirs, successors, assigns, grantees and other successors in title or interest to the Property, voluntarily and without any requirement by or

exaction from Grantee or its governing body and without any element or compulsion or quid pro quo for zoning, rezoning, site plan, building permit or subdivision approval, makes the foregoing declaration of conditions and restrictions governing the use and physical development and operation of the Property, and covenants and agrees that this declaration and the further terms of this Agreement shall constitute covenants running with the Property, which shall be binding upon the Property, and upon all persons and entities claiming under or through the Grantor, its heirs, successors and assigns, grantees, and other successors in interest or title to the Property; namely:

CONDITIONS

1. The permitted use of the Property shall be limited to the following:

Multifamily dwellings, together with all accessory uses;
Townhouses (on fee simple lots), together with all accessory uses;
Bank, without a drive-through;
Barber shop/beauty salon;
Short-term rental with a use permit;
Bed & breakfast 1 with a use permit;
Bed & breakfast 2 with a use permit;
Bicycle sales and repair;
Clothing maker, custom;
Day care 1 family;
Day care 2 family;
Day care 1, commercial with a zoning administrator permit;
Day care 2, commercial with a use permit;
Day spa;
Dry cleaning, collection or pick-up station;
Laundromat;
Liquor store;
Office, general;
Office, government;
Office, medical;
Print shop/private postal service, max. 500 sq.ft.;
Restaurant 1;
Restaurant 2 with a zoning administrator permit;
Restaurant 3 with a use permit; and
Retail sales, general.

All permitted uses shall meet all applicable standards and conditions contained within the Zoning Ordinance. The location of uses shall be limited to those areas identified on the Conceptual Site Plan as defined below.

2. The minimum number of multifamily dwelling units shall be 350 and the maximum number of units shall be 380. The minimum number of townhouse units shall be 110 and the maximum number shall be 118.
3. The site shall be developed in substantial conformance with the conceptual site plan entitled "Olde Hampton Village Master Plan", dated 11.23.2022, prepared by Timmons Group (the "Conceptual Site Plan"), a copy of which is on file with the Planning and Zoning Administration Division of the Community Development Department and has been exhibited to the Planning Commission and the Hampton City Council for illustrative purposes and to provide justification for this re-zoning action. Minor changes may be made to accommodate environmental, engineering, architectural, topographic or other development conditions, or site plan approval requirements as required or allowed by law and subject to the approval of the Director of Community Development. A copy of the formal approved site plan shall be placed in the file with the Planning and Zoning Division of the Department of Community Development and shall supersede any previous filed Conceptual Site Plan.
    a. There shall be a minimum of 6,000 square feet of commercial space, not to include common areas, as shown on the Conceptual Site Plan. Commercial space shall be located on the first floor of the applicable building to facilitate public pedestrian access and walkability. Additional square footage of commercial area beyond the required 6,000 square feet may be located on upper floors.

b. As shown on the Conceptual Site Plan, the community amenities shall include, but are not limited to, a pool, clubhouse, fitness center, dog park, dog wash station, 2,500 square foot common area, and central park space. Other similar amenities intended to provide a communal focal point may be provided in place of those previously listed with the approval of the Director of Community Development or his designee.

c. Community amenities shall be shared and accessible between all residential units of the project except the age-restricted apartments.

d. A minimum of fifty (50) bicycle parking spaces shall be provided in the locations shown on the Conceptual Site Plan. Bicycle parking shall be placed in highly visible areas within close proximity to primary building entrances and/or community amenities and located such as to not impede pedestrian access and safety.

e. Fencing located between a building and the public right-of-way or *Street "A", Street "H", Street "B", and Street "C"* shall be limited to a maximum of four (4") foot picket style fencing and shall be at least fifty percent (50%) transparent.

    i. Fencing materials shall be PVC, wood composite, and/or decorative aluminum pickets. Other suitable fencing materials of similar quality and complementary to the building architecture may be approved by the Director of Community Development or his designee.

f. Ground-mounted HVAC systems and other similar mechanical equipment shall not be located between the building and the right-of-way or *Street "A", Street "H", Street "B", and Street "C".*

g. Sidewalks shall be constructed and maintained on Michigan Drive along the project boundaries and along all internal drive aisles and streets, not to include the alleys, as shown on the Conceptual Site Plan. Sidewalks shall be a minimum of five (5) feet wide and constructed to the Department of Public Works standards, outlined in the City of Hampton, VA Design and Construction Standards manual. Individual unit private sidewalks shall be constructed to connect the front door of the townhouse units to the corresponding drive aisle or street. Individual unit private sidewalks shall be a minimum of three (3) feet wide.

4. At the time of the site plan review process, a landscape plan and entryway design shall be provided to the Planning and Zoning Division of the Community Development Department to be reviewed and approved by the Director of Community Development or his/her designee. The landscape plan and entryway design shall be consistent with the following criteria:

   a. The landscape plan shall be in conformance with the City of Hampton Landscape Guidelines.

   b. Plant materials shall be native species to the Hampton Roads region, as found within the "Native Plants for Southeast Virginia including Hampton Roads Region" guidebook, on file with the Planning and Zoning Division, except that up to 25% of the plant materials may include crepe myrtles, palms, and other southern planting elements even if not native to the Hampton Roads Region, provided other requirements of the Agreement are met.

   c. Street trees shall be provided and maintained on Michigan Drive, LaSalle Avenue, *Street "H", Street "B" and Street "C"*. Along Michigan Drive and

LaSalle Avenue, one (1) street tree shall be planted within the City right-of-way every thirty-five (35') to forty (40') feet, on-center. The street trees shall include a mix of plant species (not less than 3 species) to promote a hearty landscape and visual interest. Large canopy trees that provide shading for sidewalk canopy coverage at maturity shall be used as street trees.

d. The entryway design shall include enhanced landscaping, lighting, and signage as further described below.

e. Enhanced entryway landscaping shall be provided and maintained at the site entry locations along LaSalle Avenue and Michigan Drive, identified as "Beautiful Welcome Entrance Signage" on the Conceptual Site Plan. The enhanced entryway landscaping shall occur within the street median and either side of the entryway street. The plant material shall consist of, but not limited to, a mixture of ornamental trees; deciduous and evergreen shrubs, flowering and non-flowering; perennials; annuals; and groundcover.

f. Entryway signage shall consist of ground-mounted monument signage of a maximum of five (5') feet in height. Sign materials shall be consistent with and complementary to the building architecture.

5. The buildings shall be constructed in substantial conformance with the Elevations entitled "Olde Hampton Apartments, Senior Apartments, Clubhouse Elevations 111422", prepared by architects from Cox, Kliever, and Associates and dated 11.14.2022; "Olde Hampton Village – Rear Load Garage Harbor Model" from Tymoff and Moss Architects dated 11.29.2022, and "Olde Hampton Village Townhomes Front Load Compass Model" from RBA Architects dated 11.8.22 collectively known as "Olde Hampton Village

Elevations" copies of which are on file with the Planning and Zoning Administration Division of the Community Development Department and have been exhibited to the Planning Commission and the Hampton City Council for illustrative purposes and to provide justification for this re-zoning action. Minor changes may be made to accommodate environmental, engineering, architectural, topographic or other development conditions, or building plan approval requirements as required or allowed by law and subject to the approval of the Director of Community Development. A copy of the formal approved elevations shall be placed in the file with the Planning and Zoning Administration Division of the Department of Community Development and shall supersede any previously filed elevations.

a. As generally depicted on the elevations entitled collectively as "Olde Hampton Village Elevations", the construction of all building elevations shall be as follows:

    i. Primary and secondary building materials for the front, side, and rear elevations shall be brick, full-face brick veneer, cement fiber board, concrete panels, premium, fade resistant vinyl with a .046" minimum thickness, ground face or polished concrete block, precast or cut stone, engineered wood, wood or composite lap siding, metal or composite panel systems, and/or glass.

    ii. Trim materials shall be EIFS, stucco, engineered wood, composite wood, cement fiber board, precast or cut stone, PVC, vinyl, and/or metal.

    iii. Roof materials shall be 30-year architectural asphalt composition shingles and/or standing seam metal construction.

b. The townhouses shall be constructed with a minimum of an eighteen (18") inches raised slab foundation or crawl space to necessitate a minimum of three steps to access the front porch/stoop or finished floor elevation of the unit.

c. Foundations shall be clad with full-face brick veneer brick skirting on all raised foundations extending at a minimum from the ground to 18" in height.

d. Each townhouse's primary front façade plane shall be set forward or setback of the adjacent unit's primary façade plane by a minimum of two (2) feet. No more than two adjacent units may have their primary front facades on the same plane.

e. Any vinyl siding shall be a minimum of 0.046 inches of thickness and a minimum of five inches (5") in width.

6. Within the same building containing three or more townhome units, primary siding color shall vary for each individual unit, as generally represented on the Olde Hampton Village Elevations. Notwithstanding the above, the design shall not be limited to the specific colors, and order of the colors, depicted on the building elevations. The color of all four end-cap townhome units along "Street A" shall be a different color from one another.

7. The multifamily buildings shall be constructed with a minimum of a ten (10") finished floor elevation from grade except for where grading is necessary to provide American with Disabilities Act related access.

8. All exterior lighting, both site and building, shall comply with the "City of Hampton Outdoor Lighting Policy and Procedures" and shall consist of full cut-off fixtures that are directed downward and inward to the site.

9. It is understood that all phases of the proposed project shall comply with all ordinances of the City of Hampton.

10. Further lawful conditions or restrictions against the Property may be required by Grantee during the detailed Site Plan review and administration of applicable codes and regulations of Grantee by all appropriate agencies and departments of Grantee, which shall be observed or performed by Grantor. Grantor acknowledges that additional further lawful conditions or restrictions may be imposed by Grantee as a condition of approvals, including but not limited to final site plan approval.

11. All references hereinabove to zoning districts and to regulations applicable thereto, refer to the City Zoning Ordinance of the City of Hampton, in force as of the date the conditional rezoning amendment is approved by the Grantee.

12. The Grantor covenants and agrees that (1) the Zoning Administrator of the City of Hampton, Virginia, shall be vested with all necessary authority on behalf of the governing body of the City of Hampton, Virginia, to administer and enforce the foregoing conditions and restrictions specified in this Agreement, including (i) the ordering in writing of the remedying of any noncompliance with such conditions, and (ii) the bringing of legal action or suit to ensure compliance with such conditions, including mandatory or prohibitory injunction, abatement, damages or other appropriate action, suit or proceedings; (2) the failure to meet all conditions shall constitute cause to deny the issuance of any of the required building or occupancy permits as may be appropriate; and (3) the Zoning Map shall show by an appropriate symbol on the Map the existence of conditions attaching to the zoning of the subject Property on the Map and that the ordinance and conditions may be made readily available and accessible for public inspection in the office of the Zoning Administrator and in the Department of Community Development and that this Agreement shall be recorded in the Clerk's Office

of the Circuit Court of the City of Hampton, Virginia and indexed in the name of the Grantor and Grantee.

(Signatures on the following pages)

WITNESS the following signature:

GRANTOR:

Olde Hampton Village Developers, LLC
a Virginia limited liability company

Nick Jacovides, Managing Partner

COMMONWEALTH OF VIRGINIA
CITY OFHAMPTON to-wit:

I, Mary Kathryn Easton, the undersigned, a Notary Public in and for the City and State aforesaid, do hereby certify that **Nick Jacovides**, whose name is signed to the foregoing instrument as) **Managing Partner** of Olde Hampton Village Developers, LLC, a Virginia limited liability company has sworn to, subscribed, and acknowledged the same before me in the City and State aforesaid, this 30 day of December, 2022 on behalf of said Olde Hampton Village Developers, LLC. He is personally known to me or has produced NA as identification.

Notary Public

My commission expires: 3/31/2026
Registration No. 8004565

MARY KATHRYN EASTON
NOTARY PUBLIC
REG. # 8004565
MY COMMISSION EXPIRES 3/31/2026
COMMONWEALTH OF VIRGINIA

(Signatures continue on next page)

WITNESS the following signature:

GRANTOR:

Olde Hampton Village Developers, LLC
a Virginia limited liability company

Ross D. Vierra, Managing Partner

COMMONWEALTH OF VIRGINIA
CITY OF HAMPTON, to-wit:

I, Mary Kathryn Easton, the undersigned, a Notary Public in and for the City and State aforesaid, do hereby certify that **Ross D. Vierra**, whose name is signed to the foregoing instrument as **Managing Partner** of Olde Hampton Village Developers, LLC, a Virginia limited liability company has sworn to, subscribed, and acknowledged the same before me in the City and State aforesaid, this 30 day of December, 2022, on behalf of said Olde Hampton Village Developers, LLC. He is personally known to me or has produced NA as identification.

Notary Public

My commission expires: 3/31/2026
Registration No. 8004565

MARY KATHRYN EASTON
NOTARY PUBLIC
REG. # 8004565
MY COMMISSION EXPIRES 3/31/2026
COMMONWEALTH OF VIRGINIA

(Signatures continue on next page)

WITNESS the following signatures:

HAMPTON REDEVELOPMENT AND HOUSING AUTHORITY

By: _____
Aaru Ma'at, Executive Director

COMMONWEALTH OF VIRGINIA
CITY OF HAMPTON, to-wit:

The foregoing instrument was acknowledged before me this 30th day of December 2022 by Aaru Ma'at, Executive Director, Hampton Redevelopment and Housing Authority.

_____
Notary Public

CHRISTINA E. CAMPANA
NOTARY PUBLIC
REGISTRATION # 218896
COMMONWEALTH OF VIRGINIA
MY COMMISSION EXPIRES
8-31-24

My commission expires: 8-31-24
Registration No. 218896

Exhibit A
Legal Description

Parcel 2000370 - ALL OF BLOCK 8 (Eight) - (Lots 1-30) LINCOLN PARK:

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Raymond P. Lentz and Lorma M. Lintz, dated January 5, 1968, recorded February 5, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 402, at Page 796. **Lots One (1), Two (2), Three (3) and Four (4)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from J. W. W. Chisman and Elizabeth W. Chisman and Paul R. Bickford and Betty L. Bickford, dated April 12, 1967, recorded May 15, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 392, at Page 245. **Lots Five (5), Six (6) and Seven (7)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Clyde Johnson and Louella C. Johnson, dated February 22, 1968, recorded March 27, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 404, at Page 784. **Lots Eight (8) and Nine (9)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Commissioner's Report and Order of the Circuit Court of the City of Hampton (property owned by Caesar Battle), dated April 10, 1968, recorded April 22, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 405, at Page 712. **Lots Ten (10) and Eleven (11)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Charles B. Buie, dated January 18, 1968, recorded February 5, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 402, at Page 792. **Lots Twelve (12) and (13)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Birdie Wilson, dated January 18, 1968, recorded February 5, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 402, at Page 790. **Lots Fourteen (14) and Fifteen (15)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Goldie Fisch, dated May 14, 1969, recorded July 2, 1969, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 421, at Page 106. **Lot Sixteen (16)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Goldie Fisch, dated June 1, 1967, recorded July 7, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 394, at Page 588. **Lots Seventeen (17) and Eighteen (18)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Anthony Roberts, Jr. and Helen M. Roberts, dated January 3, 1966, recorded February 1, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 388, at Page 277. **Lot Nineteen (19) and Twenty (20)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from D. Henry Wright and Angie Thomas Wright, dated March 12, 1968, recorded November 20, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 413, at Page 735. **Lot Twenty-One (21)**
*Also Lots Twenty-Four (24) and Twenty- Five (25)

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Ralph Liggins and Maynola Liggins, dated February 9, 1968, recorded March 27, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 404, at Page 782. **Lots Twenty-Two (22) and Twenty-Three (23)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from D. Henry Wright and Angie Thomas Wright, dated March 12, 1968, recorded November 20, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 413, at Page 735. **Lots Twenty-Four (24) and Twenty- Five (25)**
*Also Lot Twenty-One (21)

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Commissioner's Report and Order of the Circuit Court of the City of Hampton (property owned by James Harrison AKA Jim Harrison), dated January 18, 1968, recorded April 10, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 405, at Page 362. **Lots Twenty-Six (26), Twenty-Seven (27), Twenty-Eight (28) and Twenty-Nine (29)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from James Harrison AKA Jim Harrison and Pearl Harrison, dated February 7, 1968, recorded April 9, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 405, at Page 335. **Lot Thirty (30)**

LESS AND EXCEPT that portion of Lot Thirty (30) conveyed to the Commonwealth of Virginia, for highway purposes, in Deed recorded in Deed Book 269, at Page 170.

Parcel 2000404 - ALL OF BLOCK 13 (Thirteen) - (Lots 1-20) LINCOLN PARK:

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from D. Henry Wright and Angie Thomas Wright, dated March 12, 1968, recorded November 20, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 413, at Page 735. **Lots One (1) and Two (2)**
*Also Lot Twenty (20)

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Kenneth F. Wilson and Vivian R.

Wilson, dated January 3, 1967, recorded February 1, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 388, at Page 272. **Lots Three (3), Four (4) and Five (5)**
*Also Lots Fourteen (14), Fifteen (15), Sixteen (16), Seventeen (17) and Eighteen (18)

It Being the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Emanuel Williams and Virginia Williams, dated September 16, 1966, recorded September 30, 1966, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 384, at Page 246. **Lots Six (6), Seven (7), Eight (8), Nine (9), Ten (10), Eleven (11), Twelve (12) and Thirteen (13)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Kenneth F. Wilson and Vivian R. Wilson, dated January 3, 1967, recorded February 1, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 388, at Page 272.
Lots Fourteen (14), Fifteen (15), Sixteen (16), Seventeen (17) and Eighteen (18)
*Also Lots Three (3), Four (4) and Five (5)

It Being the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Commissioner's Report and Order of the Circuit Court of the City of Hampton (property owned by J. W. Hutchens and R. W. Jones), dated January 16, 1978, recorded April 5, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 405, at Page 178. **Lot Nineteen (19)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from D. Henry Wright and Angie Thomas Wright, dated March 12, 1968, recorded November 20, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 413, at Page 735. **Lot Twenty (20)**
*Also Lots One (1) and Two (2)

Parcel 2000400 - ALL OF BLOCK 11 (Eleven) - (Lots 1-36) LINCOLN PARK:

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Herbert H. Billups and Mary L. Billups, dated January 17, 1968, recorded February 28, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 403, at Page 678. **Lots One (1), Two (2), Three (3), Four (4), Five (5)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Fletcher Grant, dated October 24, 1966, recorded October 31, 1966, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 385, at Page 300. **Lot Six (6)**
*Also Lots Twelve (12), Thirteen (13) and Fourteen (14) under Parcel IV

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Fletcher Grant, dated April 30, 1969, recorded May 28, 1969, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 419, at Page 715. **Lots Seven (7), Eight (8) and Nine (9)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Rebecca S. Hunt, Johnny Smith

and Marion E. Smith, Linwood Smith, Maurice Smith, Askew Smith and Willie Smith, all heirs at law of Crawley Smith, deceased, dated December 22, 1966, recorded January 3, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 387, at Page 335. **Lot Ten (10)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Fletcher Grant, dated July 21, 1967, recorded August 11, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 396, at Page 228. **Lots Eleven (11)**

SUBJECT TO the existing street and right of way now owned by the Chesapeake and Ohio Railroad, Highway Department of Virginia and City of Hampton, Virginia.

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Fletcher Grant, dated October 24, 1966, recorded October 31, 1966, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 385, at Page 300. **Lots Twelve (12), Thirteen (13) and Fourteen (14)**
*Also Lot Six (6) under Parcel III

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Willie A. Shelton and Hazel M. J. Shelton, dated February 17, 1967, recorded March 14, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 389, at Page 630. **Lots Fifteen (15), Sixteen (16) Seventeen (17) and Eighteen (18)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from James Harrison, dated January 5, 1968, recorded February 5, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 402, at Page 794. **Lots Nineteen (19) and Twenty (20)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Anthony Roberts, Jr. and Helen M. Roberts, dated January 3, 1966, recorded February 1, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 388, at Page 277. **Lots Twenty-One (21) and Twenty-Two (22)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Fletcher Grant, dated October 24, 1966, recorded October 31, 1966, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 385, at Page 300. **Lots Twenty-Three (23) and Twenty-Four (24)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Lee Grant Brunson and Betty Jean Brunson, dated April 1, 1968, recorded April 19, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 405, at Page 635. **Lots Twenty-Five (25) Twenty-Six (26) and Twenty-Seven (27)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Samuel Baily, Jr. and Ester Baily, dated February 20, 1968, recorded April 19, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 405, at Page 631. **Lots Twenty-Eight (28), Twenty-Nine (29) and Thirty (30)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Oliver H. Davis, Jr. and Gladys D. Davis, dated December 29, 1966, recorded January 2, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 387, at Page 331. **Lots Thirty-One (31), Thirty-Two (32) and Thirty-Three (33)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Kenneth F. Wilson and Vivian R. Wilson, dated January 3, 1967, recorded February 1, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 388, at Page 275. **Lots Thirty-Four (34) and Northerly one-half of Lot Thirty-Five (35)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Alfred Goldstein and Gertrude Goldstein, Stanley Goldstein and Ethel Goldstein, Herbert Goldstein and Ruth Goldstein, dated December 21, 1966, recorded January 3, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 387, at Page 333. **Southerly one-half of Lot Thirty-Five (35) and All of Lot Thirty-Six (36)**

LESS AND EXCEPT 0.002 acres or more or less, conveyed to the Commonwealth of Virginia by Deed Recorded July 21, 1959 in Deed Bool 284, at Page 272.

SUBJECT TO existing streets and rights of way owned by Chesapeake and Ohio Railway Company.

Parcel 2000369 - ALL OF BLOCK SEVEN (7) - LINCOLN PARK (Lots 1-36):

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Commissioner's Report and Order of the Circuit Court of the City of Hampton (property represented by William D. Butts Jr., Guardian Ad Litem), dated February 15, 1968, recorded April 10, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 405, at Page 380. **Lot One (1)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Amy A. Scott, dated August 2, 1967, recorded August 11, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 396, at Page 247. **Lots Two (2) and Three (3)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from William A. Spratley and Virginia Mae Spratley, dated December 29, 1966, recorded January 3, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 387, at Page 329. **Lot Three (3)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from D. Henry Wright and Angie Thomas Wright, dated March 12, 1968, recorded November 20, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 413, at Page 735. **Lots Four (4), Five (5)** *{Also Twenty-Six (26), Thirty-Five (35) and Thirty-Six (36)}

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Jerilyn Mallow Pearlman and William E. Pearlman, dated February 7, 1968, recorded April 19, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 405, at Page 637. **Lot Six (6)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Clarence Sears and Elizabeth Sears, dated April 21, 1967, recorded May 15, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 392, at Page 243. **Lots Seven (7) and Eight (8)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from The People's Building and Loan Association of Hampton, Virginia, dated November 4, 1966, recorded December 1, 1966, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 386, at Page 393. **Lot Nine (9)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Leonard Callis, Frances Watford, Hattie Watford, Irene Watford, Edward Eugene Watford, Jesse M. Watford, Mary Louise Watford, Mary Oliver, Jack E. Oliver, Martha E. Johnson and R. C. Johnson, Virginia Callis and John Henry Callis, being all of the Heirs at law of Jesse Watford, deceased, dated January 19, 1968, recorded June 5, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 407, at Page 399. **Lots Ten (10) and Eleven (11)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Henry Altman and Emma Altman, dated April 21, 1967, recorded May 15, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 392, at Page 241. **Lots Twelve (12), Thirteen (13)** *{Also Thirty-Two (32), Thirty-Three (33), and Thirty-Four (34)}

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Commissioner's Report and Order of the Circuit Court of the City of Hampton (property owned by James R. Mills and Thelma Mills), dated February 1, 1968, recorded April 10, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 405, at Page 358. **Lots Fourteen (14) and Fifteen (15)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Commissioner's Report and Order of the Circuit Court of the City of Hampton (property owned by Darline C. Mitchell and James C. Mitchell), dated March 15, 1968, recorded March 18, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 404, at Page 341. **Lot Sixteen (16)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Commissioner's Report and Order of the Circuit Court of the City of Hampton (Property owned by Arlington Chandler), et als, dated April 4, 1968, recorded April 5, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 405, at Page 176. **Lot Seventeen (17)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Rebecca S. Hunt, Johnny Smith and Marion E. Smith, Linwood Smith, Maurice Smith, Askew Smith and Willie Smith, all heirs at law of

Crawley Smith, deceased, dated December 22, 1966, recorded in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 387, at Page 335. **Lot Eighteen (18)**

LESS AND EXCEPT 0.003 Acres, more or less, conveyed to the Commonwealth of Virginia, for Interstate 64, dated September 13, 1956, recorded March 17, 1958, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 269, at Page 648.

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Nelson L. Barkers, dated March 31, 1967, recorded May 15, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 392, at Page 247. **Lot Nineteen (19)**

LESS AND EXCEPT .012 acres conveyed to the Commonwealth of Virginia for Hampton Roads Bridge Tunnel Project, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 263, at Page 389.

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Commissioner's Report and Order of the Circuit Court of the City of Hampton (property owned by James Harrison AKA Jim Harrison), dated January 18, 1968, recorded April 10, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 405, at Page 362. **Lots Twenty (20), Twenty-One (21) and Twenty-Two (22)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Andrew Cook and Marie Cook, dated July 21, 1967, recorded August 11, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 396, at Page 233. **Lots Twenty-Three (23), Twenty-Four (24) and Twenty-Five (25)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from D. Henry Wright and Angie Thomas Wright, dated March 12, 1968, recorded November 20, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 413, at Page 735. **Twenty-Six (26)** *{Also Lots Four (4), Five (5), Thirty-Five (35) and Thirty-Six (36)}

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Mable H. Rose and William Rose, dated June 1, 1967, recorded July 7, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 394, at Page 586. **Lot Twenty-Seven (27)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Florence F. Kline and Sidney J. Kline, dated March 1, 1968, recorded March 27, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 404, at Page 786. **Lots Twenty-Eight (28) and Twenty-Nine (29)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Fletcher Grant, dated October 24, 1966, recorded October 31, 1966, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 385, at Page 300. **Lots Thirty (30) and Thirty-One (31)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Henry Altman and Emma Altman, dated April 21, 1967, recorded May 15, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 392, at Page 241. **Thirty-Two (32), Thirty-Three (33), and Thirty-Four (34)** *{Also Lots Twelve (12), Thirteen (13)}
It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from D. Henry Wright and Angie Thomas Wright, dated March 12, 1968, recorded November 20, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 413, at Page 735. **Lots Thirty-Five (35) and Thirty-Six (36)** *{Also Twenty-Six (26), Four (4), Five (5),}

Parcel 2000403 - ALL OF BLOCK TWELVE (12) - LINCOLN PARK (Lots 1-32):

It Being a portion of the property conveyed to Hampton Redevelopment and Housing Authority, a political Subdivision of the Commonwealth of Virginia, by Deed from F. A. Saunders and Helen V. Saunders, and H. H. Saunders and Marguerite C. Saunders, dated 09/20/1966 and recorded 09/30/1966, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 384, at Page 239.

Parcel 2000401 - ALL OF BLOCK 10 (Ten) - (Lots 1-42) LINCOLN PARK:

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Rebecca S. Hunt, Johnny Smith and Marion E. Smith, Linwood Smith, Maurice Smith, Askew Smith and Willie Smith, all heirs at law of A. T. Smith, deceased, dated December 22, 1966, recorded January 3, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 387, at Page 337. **Lots One (1) and Two (2)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Anna M. Redman and Charles Allen, dated March 14, 1967, recorded May 15, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 392, at Page 249. **Lots Three (3), Four (4) and Lots Five (5)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Commissioner's Report and Order of the Circuit Court of the City of Hampton (property owned by Leslie L. Davis, if living, or heirs, devisees or assigns if deceased), dated January 19, 1968, recorded April 9, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 405, at Page 341. **Lots Six (6) and Seven (7)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Z. H. Milburn and Dorothy L. Foster (joining in Deed to convey any existing right in interest by preceding contract), dated June 23, 1967, recorded August 11, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 396, at Page 241. **Lots Eight (8) and Nine (9)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from F. A. Sanders and Helen V. Saunders and H. H. Saunders and Marguerite C. Saunders, dated September 20, 1966, recorded

September 30, 1966, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 384, at Page 239. **Lot Ten (10)**
*(Also Lot Forty-Two (42) under Parcel II

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from J. W. W. Chisman and Elizabeth W. Chisman and Paul R. Bickford and Betty L. Bickford, dated April 12, 1967, recorded May 15, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 392, at Page 245. **Lot Eleven (11)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Eloise Sinclair Hardy, sole Heir at law of Mary B. Sinclair, who died intestate, dated December 8, 1967, recorded December 21, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 401, at Page 503. **Lot Twelve (12)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Commissioner's Report and Order of the Circuit Court of the City of Hampton (property owned by Leona N. Butts, et als), dated February 15, 1968, recorded April 10, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 405, at Page 382. **Lot Thirteen (13)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from J. B. Morgan and Alice S. Morgan, dated January 16, 1968, recorded February 5, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 402, at Page 798. **Lots Fourteen (14) and Southerly One-Half of Lot Fifteen (15)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Herman M. Simmons and Lucille C. Simmons, dated July 17, 1967, recorded August 11, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 396, at Page 230. **Lot Sixteen (16) and Northerly One-Half (1/2) front-to-rear of Lot Fifteen (15)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from James A. Toliver, dated March 1, 1968, recorded April 19, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 405, at Page 633. **Lots Seventeen (17) and Eighteen (18)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Fletcher Grant, dated October 24, 1966, recorded October 31, 1966, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 385, at Page 300. **Lot Nineteen (19)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Commissioner's Report and Order of the Circuit Court of the City of Hampton (property owned by Leslie L. Davis, if living, or heirs, devisees or assigns if deceased), dated January 19, 1968, recorded April 9, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 405, at Page 339. **Lots Twenty (20) and Twenty-One (21)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Frances S. Cornwall and Paul R. Cornwall, dated January 5, 1968, recorded February 13, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 403, at Page 202. **Lots Twenty-Two (22) and Twenty-Three (23)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Mattie Kirby, dated September 20, 1966, recorded September 30, 1966, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 384, at Page 248. **Lots Twenty-Four (24), Twenty-Five (25) and Twenty-Six (26)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Mazzie Adams, dated October 20, 1967, recorded December 7, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 401, at Page 50. **Lots Twenty-Seven (27), Twenty-Eight (28), Twenty-Nine (29) and Thirty (30)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from William M. Phillips, Jr. and Doris Philips, dated January 5, 1968, recorded February 5, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 402, at Page 800. **Lots Thirty-One (31) and Thirty-Two (32)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from F. A. Sanders and Helen V. Saunders and H. H. Saunders and Marguerite C. Saunders, dated September 20, 1966, recorded September 30, 1966, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 384, at Page 239. **Lots Thirty-Three (33), Thirty-Four (34), Thirty-Five (35), Thirty-Six (36) and Thirty-Seven (37)** * Under Parcel III

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from J. B. Morgan and Alice S. Morgan, Edwin J. Morgan and Laura B. Morgan and Elizabeth M. Cox, dated January 5, 1968, recorded February 5, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 402, at Page 802. **Lot Thirty-Eight (38)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Emmet Roberts, dated November 4, 1966, recorded December 15, 1966, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 386, at Page 772. **Lots Thirty-Nine (39) and Forty (40)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Commissioner's Report and Order of the Circuit Court of the City of Hampton (property owned by Sarah C. Anderson, et als), dated February 1, 1968, recorded April 4, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 405, at Page 180. **Lot Forty-One (41)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from F. A. Sanders and Helen V. Saunders and H. H. Saunders and Marguerite C. Saunders, dated September 20, 1966, recorded

September 30, 1966, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 384, at Page 239. **Lot Forty-Two (42)**
*Also Lot Ten (10) under Parcel II

Parcel 2000368 – PART of BLOCK 6 (Six) - (Lots 14-43) LINCOLN PARK:

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from F. A. Sanders and Helen V. Saunders and H. H. Saunders and Marguerite C. Saunders, dated September 20, 1966, recorded September 30, 1966, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 384, at Page 239. **Lots Fourteen (14), Fifteen (15) and Sixteen (16)**

Subject to Right-of-Way easement to the Commonwealth of Virginia dated September 12, 1956 and recorded July 21, 1959 in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 284, at Page 273.

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Thomas D. Robinson, Executor of the Estate of Jon C. Robinson, deceased, dated October 20, 1967, recorded December 7, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 401, at Page 48. **Lot Seventeen (17)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Alma M. Harris and Robert S. Harris, dated July 26, 1967, recorded August 11, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 396, at Page 224. **Lots Eighteen (18), Nineteen (19) and Twenty (20)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from George A. Grogins and Frenchie Grogins, dated July 28, 1967, recorded August 11, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 396, at Page 226. **Lots Twenty-One (21) and Twenty-Two (22)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Laura V. Newsome, Willie V. Newsome and Delzora Newsome, Sylvester H. Newsome and Gwendolyn Newsome, Norton D, Newsome and Betty Newsome, all Heirs at Law of James Henry Newsome, deceased, dated August 11, 1967, recorded September 7, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 397, at Page 400. **Lots Twenty-Three (23), Twenty-Four (24), Twenty-Five (25), Twenty-Six (26), Twenty-Seven (27), Twenty-Eight (28), Twenty-Nine (29), Thirty (30) and Thirty-One (31)**

Less and Except that part of Lot Twenty-Three (23) conveyed to the State Highway Commissioner.

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Commissioner's Report and Order of the Circuit Court of the City of Hampton (property owned by James H. Parker), dated January 16, 1968, recorded April 10, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 405, at Page 360. **Lot Thirty-Two (32)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Laura V. Newsome, dated August 11, 1967, recorded September 7, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 397, at Page 403. **Lots Thirty-Three (33), Thirty-Four (34) and Thirty-Five (35)**
(Note: Property devised in Will Book 15, page 116)

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Herman M. Simmons and Lucille C. Simmons, dated July 17, 1967, recorded August 11, 1967, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 396, at Page 230. **Lots Thirty-Six (36) and Thirty-Seven (37)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Commissioner's Report and Order of the Circuit Court of the City of Hampton (property owned by Mary L. Smith), dated January 16, 1968, recorded April 9, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 405, at Page 337. **Lot Thirty-Eight (38)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Commissioner's Report and Order of the Circuit Court of the City of Hampton (property owned by Sydney Griffin, et als), dated March 13, 1968, recorded March 27, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 404, at Page 773. **Lots Thirty-Nine (39), Forty (40), Forty-One (41), Forty-Two (42) and Forty-Three (43)**

Parcels 2000385, 2000386- ALL OF BLOCK 9 (Nine) - (Lots 1-5, 38-46) LINCOLN PARK:

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from D. Henry Wright and Angie Thomas Wright, dated March 12, 1968, recorded November 20, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 413, at Page 735. **Lots One (1), Two (2), Three (3), Four (4), Five (5)**
*(Also Lots Forty-Four (44), Forty-Five (45) and Forty-Six (46)

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from D. Henry Wright, et als, dated February 1, 1968, recorded April 13, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 406, at Page 109. **Lots Thirty-Eight (38), Thirty-Nine (39), Forty (40) and Forty-One (41)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Wellington Lewelling and Frances F. Lewelling, dated September 23, 1966, recorded September 30, 1966, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 384, at Page 244. **Lot Forty-Two (42)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from Cornelia B. Lewelling, Dorothy Ann Vernon and Robert W. Vernon, dated September 23, 1966, recorded September 30, 1966, in the

Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 384, at Page 242. **Lot Forty-Three (43)**

It Being a portion of the same property conveyed to Hampton Redevelopment and Housing Authority, a Political Subdivision of the Commonwealth of Virginia, by Deed from D. Henry Wright and Angie Thomas Wright, dated March 12, 1968, recorded November 20, 1968, in the Clerk's Office of the Circuit Court of the City of Hampton, Virginia, in Deed Book 413, at Page 735. **Forty-Four (44), Forty-Five (45) and Forty-Six (46)**
*(Also Lots One (1), Two (2), Three (3), Four (4), and Five (5)

Parcel 2000229 – 1226 W Queen St. -LINCOLN PARK:

It Being a part of the same property conveyed to Hampton Redevelopment and Housing Authority by Bank of America, N.A., as Successor Trustee of a Trust Agreement with Kenneth McDonald dated November 30, 1954, and Amendments thereto, and Bank of America, N.A., Successor Trustee of the Marjorie McDonald Gordon M-1 Trust, Bank of America, N.A., Successor Trustee of the Marjorie McDonald Gordon M-2 Trust; Bank of America, N.A., Successor Trustee of the Kenneth McDonald, Jr. K-1 Trust; and Bank of America, N.A., as Successor Trustee of the Kenneth McDonald, Jr. K-2, Trust in a Deed dated 04/13/2016 and recorded 05/02/2016 in Instrument No. 160005536, in the Clerk's Office of the Circuit Court of Hampton, VA.

Parcel 2000230 – 1224 W Queen St. -LINCOLN PARK:

It Being a part of the same property conveyed to Hampton Redevelopment and Housing Authority by Bank of America, N.A., as Successor Trustee of a Trust Agreement with Kenneth McDonald dated November 30, 1954, and Amendments thereto, and Bank of America, N.A., Successor Trustee of the Marjorie McDonald Gordon M-1 Trust, Bank of America, N.A., Successor Trustee of the Marjorie McDonald Gordon M-2 Trust; Bank of America, N.A., Successor Trustee of the Kenneth McDonald, Jr. K-1 Trust; and Bank of America, N.A., as Successor Trustee of the Kenneth McDonald, Jr. K-2, Trust in a Deed dated 04/13/2016 and recorded 05/02/2016 in Instrument No. 160005536, in the Clerk's Office of the Circuit Court of Hampton, VA.

Parcel 2000231 – 1222 W Queen St. -LINCOLN PARK:

It Being a part of the same property conveyed to Hampton Redevelopment and Housing Authority by Bank of America, N.A., as Successor Trustee of a Trust Agreement with Kenneth McDonald dated November 30, 1954, and Amendments thereto, and Bank of America, N.A., Successor Trustee of the Marjorie McDonald Gordon M-1 Trust, Bank of America, N.A., Successor Trustee of the Marjorie McDonald Gordon M-2 Trust; Bank of America, N.A., Successor Trustee of the Kenneth McDonald, Jr. K-1 Trust; and Bank of America, N.A., as Successor Trustee of the Kenneth McDonald, Jr. K-2, Trust in a Deed dated 04/13/2016 and recorded 05/02/2016 in Instrument No. 160005536, in the Clerk's Office of the Circuit Court of Hampton, VA.

Parcel 2000232 – 1220 W Queen St. -LINCOLN PARK:

It Being a part of the same property conveyed to Hampton Redevelopment and Housing Authority by Bank of America, N.A., as Successor Trustee of a Trust Agreement with Kenneth McDonald dated

November 30, 1954, and Amendments thereto, and Bank of America, N.A., Successor Trustee of the Marjorie McDonald Gordon M-1 Trust, Bank of America, N.A., Successor Trustee of the Marjorie McDonald Gordon M-2 Trust; Bank of America, N.A., Successor Trustee of the Kenneth McDonald, Jr. K-1 Trust; and Bank of America, N.A., as Successor Trustee of the Kenneth McDonald, Jr. K-2, Trust in a Deed dated 04/13/2016 and recorded 05/02/2016 in Instrument No. 160005536, in the Clerk's Office of the Circuit Court of Hampton, VA.

Parcel 2000233 – 1218 W Queen St. -LINCOLN PARK:

It Being a part of the same property conveyed to Hampton Redevelopment and Housing Authority by Bank of America, N.A., as Successor Trustee of a Trust Agreement with Kenneth McDonald dated November 30, 1954, and Amendments thereto, and Bank of America, N.A., Successor Trustee of the Marjorie McDonald Gordon M-1 Trust, Bank of America, N.A., Successor Trustee of the Marjorie McDonald Gordon M-2 Trust; Bank of America, N.A., Successor Trustee of the Kenneth McDonald, Jr. K-1 Trust; and Bank of America, N.A., as Successor Trustee of the Kenneth McDonald, Jr. K-2, Trust in a Deed dated 04/13/2016 and recorded 05/02/2016 in Instrument No. 160005536, in the Clerk's Office of the Circuit Court of Hampton, VA.

Parcel 2000234 – 1216 W Queen St. -LINCOLN PARK:

It Being a part of the same property conveyed to Hampton Redevelopment and Housing Authority by Bank of America, N.A., as Successor Trustee of a Trust Agreement with Kenneth McDonald dated November 30, 1954, and Amendments thereto, and Bank of America, N.A., Successor Trustee of the Marjorie McDonald Gordon M-1 Trust, Bank of America, N.A., Successor Trustee of the Marjorie McDonald Gordon M-2 Trust; Bank of America, N.A., Successor Trustee of the Kenneth McDonald, Jr. K-1 Trust; and Bank of America, N.A., as Successor Trustee of the Kenneth McDonald, Jr. K-2, Trust in a Deed dated 04/13/2016 and recorded 05/02/2016 in Instrument No. 160005536, in the Clerk's Office of the Circuit Court of Hampton, VA.

Exhibit B

Plan-Conceptual Master Plan

SURVEY NOTES:

1. PROJECT DATUM
   SURVEY CONTROL POINTS ESTABLISHED USING REAL-TIM KINEMATIC (RTK) GPS UTILIZING VIRTUAL REFERENCE STATION (VRS) - RTK HxGN SMARTNEET SERVICE PROVIDED BY LEICA GEOSYSTEMS.

   HORIZONTAL DATUM: NAD83, VIRGINIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE
   VERTICAL DATUM: NAVD88

2. THIS PLAT WAS PREPARED WITH THE BENEFIT OF TITLE REPORTS PREPARED BY FIRST AMERICAN TITLE COMPANY.

3. UTILITIES SHOWN HEREON ARE BASED UPON: SUE QUALITY LEVEL B (ASCE 38.02) SURVEY COMPLETED IN SEPTEMBER OF 2021 BY TIMMONS GROUP. ALL SIZES AND TYPES OF UNDERGROUND UTILITY LINES ARE TAKEN FROM REFERENCE MAPPING OR PRE-EXISTING MISS UTILITY MARKINGS. ALL UNDERGROUND UTILITIES LOCATED, DEPICTED AS QLB, UNLESS OTHERWISE NOTED.

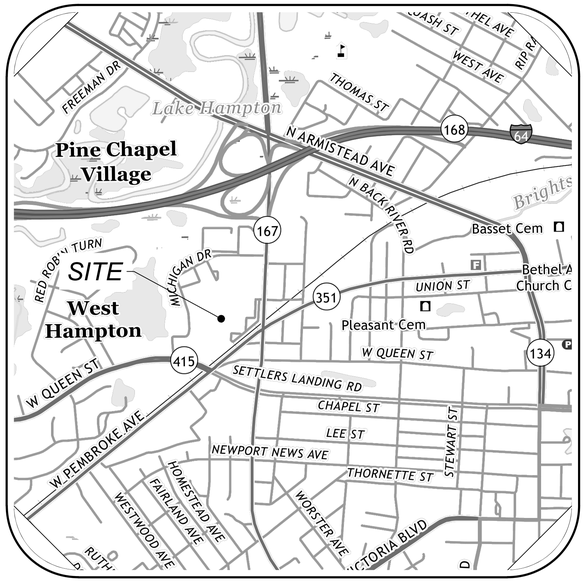
4. THIS SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF XXXX, L.S. FROM AN ACTUAL GROUND SURVEY MADE UNDER MY SUPERVISION; AND THAT THE IMAGERY AND ORIGINAL DATA WERE OBTAINED IN AUGUST, 2021 AND THIS PLAT MEETS MINIMUM ACCURACY STANDARDS.

5. PROPERTY LINES SHOWN HEREON ARE BASED UPON A CURRENT FIELD BOUNDARY SURVEY PERFORMED BY TIMMONS GROUP.

6. THE PROPERTY SHOWN HEREON IS LOCATED IN FLOOD ZONES X, AE (BFE=8) AND X (SHADED) BASED ON FEMA FLOOD INSURANCE RATE MAP (FIRM), MAP NO. 5155270025H EFFECTIVE MAY 16, 2016.

7. MATTERS PERTAINING TO ARCHAEOLOGICAL OR HISTORICAL FEATURES, WETLANDS OR FLOOD CONDITIONS, IF ANY, HAVE NOT BEEN ADDRESSED AS PART OF THIS SURVEY

8. THIS SURVEY DEPICTS TOPOGRAPHICAL INFORMATION AND PHYSICAL IMPROVEMENTS AND IS A COMPILATION OF INFORMATION OBTAINED BY AN ACTUAL FIELD SURVEY CONDUCTED BY TIMMONS GROUP AND INFORMATION PROVIDED BY THE CLIENT. TIMMONS GROUP PERFORMED A FIELD BOUNDARY SURVEY OF ALL PARCELS INCLUDED IN THIS SURVEY. TIMMONS GROUP PERFORMED A TOPOGRAPHIC SURVEY OF THE AREA IDENTIFIED AS SITE 2 ON SHEET 5. TOPOGRAPHIC INFORMATION SHOWN FOR SITE 1 WAS TAKEN FROM A PLANS AND INFORMATION PROVIDED BY DJG INC. TIMMONS GROUP HAS RECEIVED WRITTEN PERMISSION FROM DJG, INC. TO USE THE INFORMATION PROVIDED FOR THE PURPOSES OF THIS ALTA/NSPS LAND TITLE SURVEY.



VICINITY MAP
SCALE: 1" = 1,000'

SOURCE DEED REFERENCES:

- COMMITMENT NO. 052123078-1
  LASALLE AVENUE PARCEL 2000370

  DEED BOOK 388, PAGE 277
  DEED BOOK 392, PAGE 245
  DEED BOOK 394, PAGE 588
  DEED BOOK 402, PAGE 790
  DEED BOOK 402, PAGE 792
  DEED BOOK 402, PAGE 796
  DEED BOOK 404, PAGE 780
  DEED BOOK 404, PAGE 784
  DEED BOOK 405, PAGE 335
  DEED BOOK 405, PAGE 362
  DEED BOOK 405, PAGE 712
  DEED BOOK 413, PAGE 735
  DEED BOOK 421, PAGE 106

- COMMITMENT NO. 052123078-2
  LASALLE AVENUE PARCEL 2000404

  DEED BOOK 384, PAGE 246
  DEED BOOK 388, PAGE 272
  DEED BOOK 405, PAGE 178
  DEED BOOK 413, PAGE 735

- COMMITMENT NO. 052123078-3
  LASALLE AVENUE PARCEL 2000402

  DEED BOOK 385, PAGE 300
  DEED BOOK 385, PAGE 300
  DEED BOOK 387, PAGE 331
  DEED BOOK 387, PAGE 333
  DEED BOOK 387, PAGE 335
  DEED BOOK 388, PAGE 275
  DEED BOOK 388, PAGE 277
  DEED BOOK 389, PAGE 630
  DEED BOOK 396, PAGE 228
  DEED BOOK 402, PAGE 794
  DEED BOOK 403, PAGE 678
  DEED BOOK 419, PAGE 715
  DEED BOOK 405, PAGE 631
  DEED BOOK 405, PAGE 635

- COMMITMENT NO. 052123078-4
  LASALLE AVENUE PARCEL 2000369

  DEED BOOK 385, PAGE 300
  DEED BOOK 386, PAGE 393
  DEED BOOK 387, PAGE 329
  DEED BOOK 387, PAGE 335
  DEED BOOK 392, PAGE 241
  DEED BOOK 392, PAGE 243
  DEED BOOK 392, PAGE 247
  DEED BOOK 394, PAGE 586
  DEED BOOK 396, PAGE 233
  DEED BOOK 396, PAGE 247
  DEED BOOK 404, PAGE 341
  DEED BOOK 404, PAGE 786
  DEED BOOK 405, PAGE 176
  DEED BOOK 405, PAGE 358
  DEED BOOK 405, PAGE 362
  DEED BOOK 405, PAGE 380
  DEED BOOK 405, PAGE 637
  DEED BOOK 407, PAGE 399
  DEED BOOK 413, PAGE 735

- COMMITMENT NO. 052123078-5
  LASALLE AVENUE PARCEL 2000403

  DEED BOOK 280, PAGE 17
  DEED BOOK 384, PAGE 239

- COMMITMENT NO. 052123078-6
  LASALLE AVENUE PARCEL 2000401

  DEED BOOK 384, PAGE 248
  DEED BOOK 385, PAGE 300
  DEED BOOK 386, PAGE 772
  DEED BOOK 387, PAGE 337
  DEED BOOK 392, PAGE 245
  DEED BOOK 392, PAGE 249
  DEED BOOK 396, PAGE 230
  DEED BOOK 396, PAGE 241
  DEED BOOK 401, PAGE 50
  DEED BOOK 401, PAGE 503
  DEED BOOK 402, PAGE 798
  DEED BOOK 402, PAGE 800
  DEED BOOK 402, PAGE 802
  DEED BOOK 403, PAGE 202
  DEED BOOK 405, PAGE 180
  DEED BOOK 405, PAGE 341
  DEED BOOK 405, PAGE 382
  DEED BOOK 405, PAGE 339
  DEED BOOK 405, PAGE 633

- COMMITMENT NO. 052123078-7
  LASALLE AVENUE PARCEL 2000368

  DEED BOOK 384, PAGE 239
  DEED BOOK 396, PAGE 224
  DEED BOOK 396, PAGE 230
  DEED BOOK 397, PAGE 400
  DEED BOOK 401, PAGE 48
  DEED BOOK 405, PAGE 337
  DEED BOOK 405, PAGE 360

- COMMITMENT NO. 052123078-9
  LASALLE AVENUE PARCELS 2000385, 2000386, AND 2000400

  DEED BOOK 413, PAGE 735
  DEED BOOK 406, PAGE 109
  DEED BOOK 384, PAGE 242
  DEED BOOK 384, PAGE 244

- COMMITMENT NO. 052123078-14
  1226 W. QUEEN STREET PARCEL 2000229

  INSTRUMENT NO. 160005536

- COMMITMENT NO. 052123078-14
  1224 W. QUEEN STREET PARCEL 2000230

  INSTRUMENT NO. 160005536

- COMMITMENT NO. 052123078-14
  1222 W. QUEEN STREET PARCEL 2000231

  INSTRUMENT NO. 160005536

- COMMITMENT NO. 052123078-14
  1220 W. QUEEN STREET PARCEL 2000232

  INSTRUMENT NO. 160005536

- COMMITMENT NO. 052123078-14
  1218 W. QUEEN STREET PARCEL 2000233

  INSTRUMENT NO. 160005536

- COMMITMENT NO. 052123078-14
  1216 W. QUEEN STREET PARCEL 2000234

  INSTRUMENT NO. 160005536

SURVEYOR'S CERTIFICATE

TO EDC HOMES AND FIRST AMERICAN TITLE INSURANCE COMPANY.

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 7(a), 8, 9,11(b), 13 AND 14 OF TABLE A THEREOF.

THE FIELDWORK WAS COMPLETED ON AUGUST 6, 2021
DATE OF PLAT OR MAP: DECEMBER 1, 2021

ROBERT D. MANN L.S. LICENSE NUMBER # 002509

COMMONWEALTH OF VIRGINIA
ROBERT D. MANN
Lic. No. 002509
12/1/2021
LAND SURVEYOR

ALTA/NSPS LAND TITLE SURVEY
LINCOLN PARK & W. QUEEN STREET PARCELS
PROPERTY OF
HAMPTON HOUSING AND
REDEVELOPMENT AUTHORITY

Wythe District	Hampton
Date:12/1/2021	Scale: As Shown
Sheet1 of 10	J.N.:48544
Drawn by: R. Mann	Checked by:R. Mann
Revised:	

THIS DRAWING PREPARED AT THE
CORPORATE OFFICE
1001 Boulders Parkway, Suite 300 | Richmond, VA 23225
TEL: 804.200.6500 FAX: 804.560.1016 www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

TIMMONS GROUP

COMMITMENT NO.: 052123078-1
PROPERTY ADDRESS: LASALLE AVENUE (BLOCK 8), HAMPTON, VA 23669
PARCEL NO.: 2000370
COMMITMENT DATE: SEPTEMBER 3, 2021

SCHEDULE B, PART II
EXCEPTIONS

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

THE POLICY WILL NOT INSURE AGAINST LOSS OR DAMAGE RESULTING FROM THE TERMS AND PROVISIONS OF ANY LEASE OR EASEMENT IDENTIFIED IN SCHEDULE A, AND WILL INCLUDE THE FOLLOWING EXCEPTIONS UNLESS CLEARED TO THE SATISFACTION OF THE COMPANY:

1. ANY DEFECT, LIEN, ENCUMBRANCE, ADVERSE CLAIM, OR OTHER MATTER THAT APPEARS FOR THE FIRST TIME IN THE PUBLIC RECORDS OR IS CREATED, ATTACHES, OR IS DISCLOSED BETWEEN THE COMMITMENT DATE AND THE DATE ON WHICH ALL OF THE SCHEDULE B, PART I - REQUIREMENTS ARE MET.
   NOT SURVEY RELATED
2. ANY LIEN OR RIGHT TO A LIEN, FOR SERVICES, LABOR, OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS.
   NOT SURVEY RELATED
3. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION AND EASEMENTS OR CLAIMS OF EASEMENTS NOT SHOWN BY THE PUBLIC RECORDS, BOUNDARY LINE DISPUTES, OVERLAPS, ENCROACHMENTS AND ANY MATTERS NOT OF RECORD WHICH WOULD BE DISCLOSED BY AN ACCURATE SURVEY AND INSPECTION OF THE PREMISES.
   NOTE: LFPON RECEIPT OF SATIS/ACFORY PLAT OF SORVEY AND INSPECTION REPORT, THIS EXCEPTION WILL BE ELIMINATED OR AMENDED IN ACCORDANCE WITH THE FACTS DISCLOSED THEREBY.
4. TAXES FOR DECEMBER 7, 2021 AND ANY/ALL SUPPLEMENTAL TAXES POSTED SUBSEQUENT TO THE EFFECTIVE DATE HEREOF ARE A LIEN, NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
5. TAXES OR SPECIAL ASSESSMENTS WHICH ARE NOT SHOWN AS EXISTING LIENS BY THE PUBLIC RECORDS.
   NOT SURVEY RELATED
6. POSSIBLE SUPPLEMENTAL ASSESSMENTS AND TAXES FOR IMPROVEMENTS CONSTRUCTED ON THE LAND, NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
7. STORM WATER FEES NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
8. COVENANTS AND RESTRICTIONS APPEARING IN THE PUBLIC RECORDS, BUT OMITTING ANY COVENANTS OR RESTRICTIONS, IF ANY, BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, OR SOURCE OF INCOME, AS SET FORTH INAPPLICABLE STATE OR FEDERAL LAWS, EXCEPT TO THE EXTENT THAT SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW.
9. MAINTENANCE ASSESSMENTS AS SET FORTH IN THE AFORESAID RESTRICTIVE COVENANTS.
   NOT SURVEY RELATED
10. ANY INACCURACY IN THE LAND DESCRIBED IN SCHEDULE A. THE COMPANY DOES NOT INSURE THE AREA, SQUARE FOOTAGE, OR ACREAGE OF THE LAND.
11. EASEMENT FOR THE BENEFIT OF THE COMMONWEALTH OF VIRGINIA CONTAINED IN DEED BOOK 269, PAGE 170.
    MAY AFFECT THE PROPERTY; NOT PLOTTABLE, UNABLE TO LOCATE
12. EASEMENTS GRANTED TO WARNER CABLE COMMUNICATIONS, INC. BY DOCUMENT RECORDED 09/15/1987 IN DEED BOOK 862, PAGES 146 AND 149.
    AFFECTS THE PROPERTY; NOT PLOTTABLE, BLANKET IN NATURE
13. DECLARATIONS OF TRUST WITH THE DEPARTMENT OF HOUSING AND DEVELOPMENT AUTHORITY RECORDED IN DEED BOOK 416, PAGE 294, BOOK 935, PAGE 738 AND BOOK 1052, PAGE 693.
    AFFECTS THE PROPERTY; NOT PLOTTABLE
14. UNFILED MECHANIC'S AND MATERIALMEN'S LIENS, IF ANY, NOT WITHIN THE PROVISIONS OF THE ALTA 32 -06 ENDORSEMENT ATTACHED HERETO AND MADE A PART HEREON.
    NOT SURVEY RELATED
15. NOTE: ADDITIONAL EXCEPTIONS MAY BE ADDED BASED ON FURTHER DISCOVERY OF INFORMATION ON SUBJECT PROPERTY BETWEEN PRELIMINARY COMMITMENT AND FINAL COMMITMENT.

COMMITMENT NO.: 052123078-2
PROPERTY ADDRESS: LASALLE AVENUE, HAMPTON, VA 23669
PARCEL NO.: 2000404
COMMITMENT DATE: SEPTEMBER 3, 2021

SCHEDULE B, PART II
EXCEPTIONS

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

THE POLICY WILL NOT INSURE AGAINST LOSS OR DAMAGE RESULTING FROM THE TERMS AND PROVISIONS OF ANY LEASE OR EASEMENT IDENTIFIED IN SCHEDULE A, AND WILL INCLUDE THE FOLLOWING EXCEPTIONS UNLESS CLEARED TO THE SATISFACTION OF THE COMPANY:

1. ANY DEFECT, LIEN, ENCUMBRANCE, ADVERSE CLAIM, OR OTHER MATTER THAT APPEARS FOR THE FIRST TIME IN THE PUBLIC RECORDS OR IS CREATED, ATTACHES, OR IS DISCLOSED BETWEEN THE COMMITMENT DATE AND THE DATE ON WHICH ALL OF THE SCHEDULE B, PART I - REQUIREMENTS ARE MET.
   NOT SURVEY RELATED
2. ANY LIEN OR RIGHT TO A LIEN, FOR SERVICES, LABOR, OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS.
   NOT SURVEY RELATED
3. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION AND EASEMENTS OR CLAIMS OF EASEMENTS NOT SHOWN BY THE PUBLIC RECORDS, BOUNDARY LINE DISPUTES, OVERLAPS, ENCROACHMENTS AND ANY MATTERS NOT OF RECORD WHICH WOULD BE DISCLOSED BY AN ACCURATE SURVEY AND INSPECTION OF THE PREMISES.
   NOTE: UPON RECEIPT OF SATISFACTORY PLAT OF SURVEY AND INSPECTION REPORT, THIS EXCEPTION WILL BE ELIMINATED OR AMENDED IN ACCORDANCE WITH THE FACTS DISCLOSED THEREBY.
4. ANY ENCROACHMENT, ENCUMBRANCE, VIOLATION, VARIATION, OR ADVERSE CIRCUMSTANCE AFFECTING THE TITLE THAT WOULD BE DISCLOSED BY AN ACCURATE AND COMPLETE LAND SURVEY OF THE LAND. THE TERM "ENCROACHMENT" INCLUDES ENCROACHMENTS OF EXISTING IMPROVEMENTS LOCATED ON THE LAND ONTO ADJOINING LAND, AND ENCROACHMENTS ONTO THE LAND OF EXISTING IMPROVEMENTS LOCATED ON ADJOINING LAND.
5. TAXES FOR DECEMBER 7, 2021 AND ANY/ALL SUPPLEMENTAL TAXES POSTED SUBSEQUENT TO THE EFFECTIVE DATE HEREOF ARE A LIEN, NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
6. TAXES OR SPECIAL ASSESSMENTS WHICH ARE NOT SHOWN AS EXISTING LIENS BY THE PUBLIC RECORDS.
   NOT SURVEY RELATED
7. POSSIBLE SUPPLEMENTAL ASSESSMENTS AND TAXES FOR IMPROVEMENTS CONSTRUCTED ON THE LAND, NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
8. STORM WATER FEES NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
9. COVENANTS AND RESTRICTIONS APPEARING IN THE PUBLIC RECORDS, BUT OMITTING ANY COVENANTS OR RESTRICTIONS, IF ANY, BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, OR SOURCE OF INCOME, AS SET FORTH INAPPLICABLE STATE OR FEDERAL LAWS, EXCEPT TO THE EXTENT THAT SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW.
10. MAINTENANCE ASSESSMENTS AS SET FORTH IN THE AFORESAID RESTRICTIVE COVENANTS.
    NOT SURVEY RELATED
11. EASEMENTS GRANTED TO WARNER CABLE COMMUNICATIONS, INC. BY DOCUMENT RECORDED 09/15/1987 IN DEED BOOK 862, PAGES 146.
    AFFECTS THE PROPERTY; NOT PLOTTABLE, BLANKET IN NATURE
12. EASEMENT GRANTED TO VIRGINIA ELECTRIC AND POWER COMPANY RECORDED 08/08/1988 IN DEED BOOK 913, PAGE 879.
    AFFECTS THE PROPERTY AS SHOWN HEREON
13. RIGHT-OF-WAY EASEMENT TO THE COMMONWEALTH OF VIRGINIA DATED SEPTEMBER 12, 1956 AND RECORDED JULY 21, 1959 IN THE CLERK'S OFFICE OF THE CIRCUIT COURT OF THE CITY OF HAMPTON, VIRGINIA, IN DEED BOOK 284, AT PAGE 272.
    DOES NOT AFFECT THE PROPERTY
14. DECLARATIONS OF TRUST WITH THE DEPARTMENT OF HOUSING AND DEVELOPMENT AUTHORITY RECORDED IN DEED BOOK 416, PAGE 294, BOOK 935, PAGE 738 AND BOOK 1052, PAGE 693.
    AFFECTS THE PROPERTY; NOT PLOTTABLE
15. ANY INACCURACY IN THE LAND DESCRIBED IN SCHEDULE A. THE COMPANY DOES NOT INSURE THE AREA, SQUARE FOOTAGE, OR ACREAGE OF THE LAND.
16. UNFILED MECHANIC'S AND MATERIALMEN'S LIENS, IF ANY, NOT WITHIN THE PROVISIONS OF THE ALTA 32 -06 ENDORSEMENT ATTACHED HERETO AND MADE A PART HEREON.
    NOT SURVEY RELATED
17. NOTE: ADDITIONAL EXCEPTIONS MAY BE ADDED BASED ON FURTHER DISCOVERY OF INFORMATION ON SUBJECT PROPERTY BETWEEN PRELIMINARY COMMITMENT AND FINAL COMMITMENT.

COMMITMENT NO.: 052123078-3
PROPERTY ADDRESS: LASALLE AVENUE, HAMPTON, VA 23669
PARCEL NO.: 2000402
COMMITMENT DATE: SEPTEMBER 3, 2021

SCHEDULE B, PART II
EXCEPTIONS

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

THE POLICY WILL NOT INSURE AGAINST LOSS OR DAMAGE RESULTING FROM THE TERMS AND PROVISIONS OF ANY LEASE OR EASEMENT IDENTIFIED IN SCHEDULE A, AND WILL INCLUDE THE FOLLOWING EXCEPTIONS UNLESS CLEARED TO THE SATISFACTION OF THE COMPANY:

1. ANY DEFECT, LIEN, ENCUMBRANCE, ADVERSE CLAIM, OR OTHER MATTER THAT APPEARS FOR THE FIRST TIME IN THE PUBLIC RECORDS OR IS CREATED, ATTACHES, OR IS DISCLOSED BETWEEN THE COMMITMENT DATE AND THE DATE ON WHICH ALL OF THE SCHEDULE B, PART I - REQUIREMENTS ARE MET.
   NOT SURVEY RELATED
2. ANY LIEN OR RIGHT TO A LIEN, FOR SERVICES, LABOR, OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS.
   NOT SURVEY RELATED
3. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION AND EASEMENTS OR CLAIMS OF EASEMENTS NOT SHOWN BY THE PUBLIC RECORDS, BOUNDARY LINE DISPUTES, OVERLAPS, ENCROACHMENTS AND ANY MATTERS NOT OF RECORD WHICH WOULD BE DISCLOSED BY AN ACCURATE SURVEY AND INSPECTION OF THE PREMISES.
   NOTE: UPON RECEIPT OF SATISFACTORY PLAT OF SORVEY AND INSPECTION REPORT, THIS EXCEPTION WILL BE ELIMINATED OR AMENDED IN ACCORDANCE WITH THE FACTS DISCLOSED THEREBY.
4. TAXES FOR DECEMBER 7, 2021 AND ANY/ALL SUPPLEMENTAL TAXES POSTED SUBSEQUENT TO THE EFFECTIVE DATE HEREOF ARE A LIEN, NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
5. TAXES OR SPECIAL ASSESSMENTS WHICH ARE NOT SHOWN AS EXISTING LIENS BY THE PUBLIC RECORDS.
   NOT SURVEY RELATED
6. POSSIBLE SUPPLEMENTAL ASSESSMENTS AND TAXES FOR IMPROVEMENTS CONSTRUCTED ON THE LAND, NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
7. STORM WATER FEES NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
8. COVENANTS AND RESTRICTIONS APPEARING IN THE PUBLIC RECORDS, BUT OMITTING ANY COVENANTS OR RESTRICTIONS, IF ANY, BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, OR SOURCE OF INCOME, AS SET FORTH INAPPLICABLE STATE OR FEDERAL LAWS, EXCEPT TO THE EXTENT THAT SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW.
9. MAINTENANCE ASSESSMENTS AS SET FORTH IN THE AFORESAID RESTRICTIVE COVENANTS.
   NOT SURVEY RELATED
10. EASEMENTS FOR EXISTING STREETS AND RIGHTS OF WAY NOW OWNED BY THE CHESAPEAKE AND OHIO RAILROAD, HIGHWAY DEPARTMENT OF VIRGINIA AND CITY OF HAMPTON, VIRGINIA.
11. RIGHT-OF-WAY EASEMENT TO THE COMMONWEALTH OF VIRGINIA DATED SEPTEMBER 12, 1956 AND RECORDED JULY 21, 1959 IN THE CLERK'S OFFICE OF THE CIRCUIT COURT OF THE CITY OF HAMPTON, VIRGINIA, IN DEED BOOK 284, AT PAGE 272.
    DOES NOT AFFECT THE PROPERTY
12. EASEMENTS GRANTED TO WARNER CABLE COMMUNICATIONS, INC. BY DOCUMENT RECORDED 09/15/1987 IN DEED BOOK 862, PAGES 146.
    AFFECTS THE PROPERTY; NOT PLOTTABLE, BLANKET IN NATURE
13. EASEMENT GRANTED TO VIRGINIA ELECTRIC AND POWER COMPANY RECORDED 08/08/1988 IN DEED BOOK 913, PAGE 879.
    AFFECTS THE PROPERTY AS SHOWN HEREON
14. DECLARATIONS OF TRUST WITH THE DEPARTMENT OF HOUSING AND DEVELOPMENT AUTHORITY RECORDED IN DEED BOOK 416, PAGE 294, BOOK 935, PAGE 738 AND BOOK 1052, PAGE 693.
    AFFECTS THE PROPERTY; NOT PLOTTABLE
15. ANY INACCURACY IN THE LAND DESCRIBED IN SCHEDULE A. THE COMPANY DOES NOT INSURE THE AREA, SQUARE FOOTAGE, OR ACREAGE OF THE LAND.
16. UNFILED MECHANIC'S AND MATERIALMEN'S LIENS, IF ANY, NOT WITHIN THE PROVISIONS OF THE ALTA 32 -06 ENDORSEMENT ATTACHED HERETO AND MADE A PART HEREON.
    NOT SURVEY RELATED
17. NOTE: ADDITIONAL EXCEPTIONS MAY BE ADDED BASED ON FURTHER DISCOVERY OF INFORMATION ON SUBJECT PROPERTY BETWEEN PRELIMINARY COMMITMENT AND FINAL COMMITMENT.

COMMITMENT NO.: 052123078-4
PROPERTY ADDRESS: LASALLE AVENUE, HAMPTON, VA 23669
PARCEL NO.: 2000369
COMMITMENT DATE: SEPTEMBER 3, 2021

SCHEDULE B, PART II
EXCEPTIONS

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

THE POLICY WILL NOT INSURE AGAINST LOSS OR DAMAGE RESULTING FROM THE TERMS AND PROVISIONS OF ANY LEASE OR EASEMENT IDENTIFIED IN SCHEDULE A, AND WILL INCLUDE THE FOLLOWING EXCEPTIONS UNLESS CLEARED TO THE SATISFACTION OF THE COMPANY:

1. ANY DEFECT, LIEN, ENCUMBRANCE, ADVERSE CLAIM, OR OTHER MATTER THAT APPEARS FOR THE FIRST TIME IN THE PUBLIC RECORDS OR IS CREATED, ATTACHES, OR IS DISCLOSED BETWEEN THE COMMITMENT DATE AND THE DATE ON WHICH ALL OF THE SCHEDULE B, PART I - REQUIREMENTS ARE MET.
   NOT SURVEY RELATED
2. ANY LIEN OR RIGHT TO A LIEN, FOR SERVICES, LABOR, OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS.
   NOT SURVEY RELATED
3. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION AND EASEMENTS OR CLAIMS OF EASEMENTS NOT SHOWN BY THE PUBLIC RECORDS, BOUNDARY LINE DISPUTES, OVERLAPS, ENCROACHMENTS AND ANY MATTERS NOT OF RECORD WHICH WOULD BE DISCLOSED BY AN ACCURATE SURVEY AND INSPECTION OF THE PREMISES.
   NOTE: UPON RECEIPT OF SATISFACTORY PLAT OF SORVEY AND INSPECTION REPORT, THIS EXCEPTION WILL BE ELIMINATED OR AMENDED IN ACCORDANCE WITH THE FACTS DISCLOSED THEREBY.
4. TAXES FOR DECEMBER 7, 2021 AND ANY/ALL SUPPLEMENTAL TAXES POSTED SUBSEQUENT TO THE EFFECTIVE DATE HEREOF ARE A LIEN, NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
5. TAXES OR SPECIAL ASSESSMENTS WHICH ARE NOT SHOWN AS EXISTING LIENS BY THE PUBLIC RECORDS.
   NOT SURVEY RELATED
6. POSSIBLE SUPPLEMENTAL ASSESSMENTS AND TAXES FOR IMPROVEMENTS CONSTRUCTED ON THE LAND, NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
7. STORM WATER FEES NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
8. COVENANTS AND RESTRICTIONS APPEARING IN THE PUBLIC RECORDS, BUT OMITTING ANY COVENANTS OR RESTRICTIONS, IF ANY, BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, OR SOURCE OF INCOME, AS SET FORTH INAPPLICABLE STATE OR FEDERAL LAWS, EXCEPT TO THE EXTENT THAT SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW.
9. MAINTENANCE ASSESSMENTS AS SET FORTH IN THE AFORESAID RESTRICTIVE COVENANTS.
   NOT SURVEY RELATED
10. DECLARATIONS OF TRUST WITH THE DEPARTMENT OF HOUSING AND DEVELOPMENT AUTHORITY RECORDED IN DEED BOOK 416, PAGE 294, BOOK 935, PAGE 738 AND BOOK 1052, PAGE 693.
    AFFECTS THE PROPERTY; NOT PLOTTABLE
11. EASEMENT FOR THE BENEFIT OF THE COMMONWEALTH OF VIRGINIA, FOR INTERSTATE 64, DATED SEPTEMBER 13, 1956, RECORDED MARCH 17, 1958, IN THE CLERK'S OFFICE OF THE CIRCUIT COURT OF THE CITY OF HAMPTON, VIRGINIA, IN DEED BOOK 269, AT PAGE 648.
    MAY AFFECT THE PROPERTY; NOT PLOTTABLE, UNABLE TO LOCATE
12. EASEMENT FOR THE BENEFIT OF THE COMMONWEALTH OF VIRGINIA FOR HAMPTON ROADS BRIDGE TUNNEL PROJECT, IN THE CLERK'S OFFICE OF THE CIRCUIT COURT OF THE CITY OF HAMPTON, VIRGINIA, IN DEED BOOK 263, AT PAGE 389.
    MAY AFFECT THE PROPERTY; NOT PLOTTABLE, UNABLE TO LOCATE
13. EASEMENTS GRANTED TO WARNER CABLE COMMUNICATIONS, INC. BY DOCUMENT RECORDED 09/15/1987 IN DEED BOOK 862, PAGES 146 AND 149.
    AFFECTS THE PROPERTY; NOT PLOTTABLE, BLANKET IN NATURE
14. EASEMENT GRANTED TO THE BELL ATLANTIC TELEPHONE COMPANY OF VIRGINIA. BY DOCUMENT RECORDED IN DEED BOOK 1203, PAGE 864.
    AFFECTS THE PROPERTY AS SHOWN HEREON
15. EASEMENT GRANTED TO VIRGINIA ELECTRIC AND POWER COMPANY RECORDED 08/08/1988 IN DEED BOOK 913, PAGE 879.
    AFFECTS THE PROPERTY AS SHOWN HEREON
16. ANY INACCURACY IN THE LAND DESCRIBED IN SCHEDULE A. THE COMPANY DOES NOT INSURE THE AREA, SQUARE FOOTAGE, OR ACREAGE OF THE LAND.
17. UNFILED MECHANIC'S AND MATERIALMEN'S LIENS, IF ANY, NOT WITHIN THE PROVISIONS OF THE ALTA 32 -06 ENDORSEMENT ATTACHED HERETO AND MADE A PART HEREON.
    NOT SURVEY RELATED
18. NOTE: ADDITIONAL EXCEPTIONS MAY BE ADDED BASED ON FURTHER DISCOVERY OF INFORMATION ON SUBJECT PROPERTY BETWEEN PRELIMINARY COMMITMENT AND FINAL COMMITMENT.

COMMONWEALTH OF VIRGINIA
ROBERT D. MANN
Lic. No. 002509
12/1/2021
LAND SURVEYOR

COMMITMENT NO.: 052123078-5
PROPERTY ADDRESS: LASALLE AVENUE, HAMPTON, VA 23669
PARCEL NO.: 2000403
COMMITMENT DATE: SEPTEMBER 3, 2021

SCHEDULE B, PART II
EXCEPTIONS

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

THE POLICY WILL NOT INSURE AGAINST LOSS OR DAMAGE RESULTING FROM THE TERMS AND PROVISIONS OF ANY LEASE OR EASEMENT IDENTIFIED IN SCHEDULE A, AND WILL INCLUDE THE FOLLOWING EXCEPTIONS UNLESS CLEARED TO THE SATISFACTION OF THE COMPANY:

1. ANY DEFECT, LIEN, ENCUMBRANCE, ADVERSE CLAIM, OR OTHER MATTER THAT APPEARS FOR THE FIRST TIME IN THE PUBLIC RECORDS OR IS CREATED, ATTACHES, OR IS DISCLOSED BETWEEN THE COMMITMENT DATE AND THE DATE ON WHICH ALL OF THE SCHEDULE B, PART I - REQUIREMENTS ARE MET.
   NOT SURVEY RELATED
2. ANY LIEN OR RIGHT TO A LIEN, FOR SERVICES, LABOR, OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS.
   NOT SURVEY RELATED
3. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION AND EASEMENTS OR CLAIMS OF EASEMENTS NOT SHOWN BY THE PUBLIC RECORDS, BOUNDARY LINE DISPUTES, OVERLAPS, ENCROACHMENTS AND ANY MATTERS NOT OF RECORD WHICH WOULD BE DISCLOSED BY AN ACCURATE SURVEY AND INSPECTION OF THE PREMISES.
   NOTE: UPON RECEIPT OF SATISFACTORY PLAT OF SORVEY AND INSPECTION REPORT, THIS EXCEPTION WILL BE ELIMINATED OR AMENDED IN ACCORDANCE WITH THE FACTS DISCLOSED THEREBY.
4. TAXES FOR JUNE 7, 2021 AND ANY/ALL SUPPLEMENTAL TAXES POSTED SUBSEQUENT TO THE EFFECTIVE DATE HEREOF ARE A LIEN, NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
5. TAXES OR SPECIAL ASSESSMENTS WHICH ARE NOT SHOWN AS EXISTING LIENS BY THE PUBLIC RECORDS.
   NOT SURVEY RELATED
6. POSSIBLE SUPPLEMENTAL ASSESSMENTS AND TAXES FOR IMPROVEMENTS CONSTRUCTED ON THE LAND, NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
7. STORM WATER FEES NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
8. COVENANTS AND RESTRICTIONS APPEARING IN THE PUBLIC RECORDS, BUT OMITTING ANY COVENANTS OR RESTRICTIONS, IF ANY, BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, OR SOURCE OF INCOME, AS SET FORTH INAPPLICABLE STATE OR FEDERAL LAWS, EXCEPT TO THE EXTENT THAT SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW.
9. MAINTENANCE ASSESSMENTS AS SET FORTH IN THE AFORESAID RESTRICTIVE COVENANTS.
   NOT SURVEY RELATED
10. EASEMENT GRANTED TO WARNER CABLE COMMUNICATIONS, INC. BY DOCUMENT RECORDED 09/15/1987 IN DEED BOOK 862, PAGES 146.
    AFFECTS THE PROPERTY; NOT PLOTTABLE, BLANKET IN NATURE
11. DECLARATIONS OF TRUST WITH THE DEPARTMENT OF HOUSING AND DEVELOPMENT AUTHORITY RECORDED IN DEED BOOK 416, PAGE 294, BOOK 935, PAGE 738 AND BOOK 1052, PAGE 693.
    AFFECTS THE PROPERTY; NOT PLOTTABLE
12. ANY INACCURACY IN THE LAND DESCRIBED IN SCHEDULE A. THE COMPANY DOES NOT INSURE THE AREA, SQUARE FOOTAGE, OR ACREAGE OF THE LAND.
13. UNFILED MECHANIC'S AND MATERIALMEN'S LIENS, IF ANY, NOT WITHIN THE PROVISIONS OF THE ALTA 32 -06 ENDORSEMENT ATTACHED HERETO AND MADE A PART HEREON.
    NOT SURVEY RELATED
14. NOTE: ADDITIONAL EXCEPTIONS MAY BE ADDED BASED ON FURTHER DISCOVERY OF INFORMATION ON SUBJECT PROPERTY BETWEEN PRELIMINARY COMMITMENT AND FINAL COMMITMENT.

ALTA/NSPS LAND TITLE SURVEY
LINCOLN PARK & W. QUEEN STREET PARCELS
PROPERTY OF
HAMPTON HOUSING AND
REDEVELOPMENT AUTHORITY

Wythe District	Hampton
Date: 12/1/2021	Scale: As Shown
Sheet 1 of 10	J.N.: 48544
Drawn by: R. Mann	Checked by: R. Mann
Revised:	

THIS DRAWING PREPARED AT THE
CORPORATE OFFICE
1001 Boulders Parkway, Suite 300 | Richmond, VA 23225
TEL: 804.200.6500 FAX: 804.560.1016 www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

TIMMONS GROUP

COMMITMENT NO.: 052123078-6
PROPERTY ADDRESS: LASALLE AVENUE, HAMPTON, VA 23669
PARCEL NO.: 2000401
COMMITMENT DATE: SEPTEMBER 3, 2021

SCHEDULE B, PART II
EXCEPTIONS

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

THE POLICY WILL NOT INSURE AGAINST LOSS OR DAMAGE RESULTING FROM THE TERMS AND PROVISIONS OF ANY LEASE OR EASEMENT IDENTIFIED IN SCHEDULE A, AND WILL INCLUDE THE FOLLOWING EXCEPTIONS UNLESS CLEARED TO THE SATISFACTION OF THE COMPANY:

1. ANY DEFECT, LIEN, ENCUMBRANCE, ADVERSE CLAIM, OR OTHER MATTER THAT APPEARS FOR THE FIRST TIME IN THE PUBLIC RECORDS OR IS CREATED, ATTACHES, OR IS DISCLOSED BETWEEN THE COMMITMENT DATE AND THE DATE ON WHICH ALL OF THE SCHEDULE B, PART I - REQUIREMENTS ARE MET.
   NOT SURVEY RELATED
2. ANY LIEN OR RIGHT TO A LIEN, FOR SERVICES, LABOR, OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS.
   NOT SURVEY RELATED
3. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION AND EASEMENTS OR CLAIMS OF EASEMENTS NOT SHOWN BY THE PUBLIC RECORDS, BOUNDARY LINE DISPUTES, OVERLAPS, ENCROACHMENTS AND ANY MATTERS NOT OF RECORD WHICH WOULD BE DISCLOSED BY AN ACCURATE SURVEY AND INSPECTION OF THE PREMISES.

   NOTE: UPON RECEIPT OF SATISFACTORY PLAT OF SORVEY AND INSPECTION REPORT, THIS EXCEPTION WILL BE ELIMINATED OR AMENDED IN ACCORDANCE WITH THE FACTS DISCLOSED THEREBY.
4. TAXES FOR DECEMBER 7, 2021 AND ANY/ALL SUPPLEMENTAL TAXES POSTED SUBSEQUENT TO THE EFFECTIVE DATE HEREOF ARE A LIEN, NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
5. TAXES OR SPECIAL ASSESSMENTS WHICH ARE NOT SHOWN AS EXISTING LIENS BY THE PUBLIC RECORDS.
   NOT SURVEY RELATED
6. POSSIBLE SUPPLEMENTAL ASSESSMENTS AND TAXES FOR IMPROVEMENTS CONSTRUCTED ON THE LAND, NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
7. STORM WATER FEES NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
8. COVENANTS AND RESTRICTIONS APPEARING IN THE PUBLIC RECORDS, BUT OMITTING ANY COVENANTS OR RESTRICTIONS, IF ANY, BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, OR SOURCE OF INCOME, AS SET FORTH INAPPLICABLE STATE OR FEDERAL LAWS, EXCEPT TO THE EXTENT THAT SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW.
9. MAINTENANCE ASSESSMENTS AS SET FORTH IN THE AFORESAID RESTRICTIVE COVENANTS.
   NOT SURVEY RELATED
10. EASEMENTS GRANTED TO THE BELL ATLANTIC TELEPHONE COMPANY OF VIRGINIA. BY DOCUMENT RECORDED IN DEED BOOK 1205, PAGE 1280.
    AFFECTS THE PROPERTY AS SHOWN HEREON
11. EASEMENT GRANTED TO WARNER CABLE COMMUNICATIONS, INC. BY DOCUMENT RECORDED 09/15/1987 IN DEED BOOK 862, PAGES 146.
    AFFECTS THE PROPERTY; NOT PLOTTABLE, BLANKET IN NATURE
12. DECLARATIONS OF TRUST WITH THE DEPARTMENT OF HOUSING AND DEVELOPMENT AUTHORITY RECORDED IN DEED BOOK 416, PAGE 294, BOOK 935, PAGE 738 AND BOOK 1052, PAGE 693.
    AFFECTS THE PROPERTY; NOT PLOTTABLE
13. RIGHT-OF-WAY EASEMENT TO THE COMMONWEALTH OF VIRGINIA DATED SEPTEMBER 12, 1956 AND RECORDED JULY 21, 1959 IN THE CLERK'S OFFICE OF THE CIRCUIT COURT OF THE CITY OF HAMPTON, VIRGINIA, IN DEED BOOK 284, AT PAGE 272.
    DOES NOT AFFECT THE PROPERTY
14. ANY INACCURACY IN THE LAND DESCRIBED IN SCHEDULE A. THE COMPANY DOES NOT INSURE THE AREA, SQUARE FOOTAGE, OR ACREAGE OF THE LAND.
15. UNFILED MECHANIC'S AND MATERIALMEN'S LIENS, IF ANY, NOT WITHIN THE PROVISIONS OF THE ALTA 32 -06 ENDORSEMENT ATTACHED HERETO AND MADE A PART HEREON.
    NOT SURVEY RELATED
16. NOTE: ADDITIONAL EXCEPTIONS MAY BE ADDED BASED ON FURTHER DISCOVERY OF INFORMATION ON SUBJECT PROPERTY BETWEEN PRELIMINARY COMMITMENT AND FINAL COMMITMENT.

COMMITMENT NO.: 052123078-7
PROPERTY ADDRESS: LASALLE AVENUE, HAMPTON, VA 23669
PARCEL NO.: 2000368
COMMITMENT DATE: SEPTEMBER 3, 2021

SCHEDULE B, PART II
EXCEPTIONS

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

THE POLICY WILL NOT INSURE AGAINST LOSS OR DAMAGE RESULTING FROM THE TERMS AND PROVISIONS OF ANY LEASE OR EASEMENT IDENTIFIED IN SCHEDULE A, AND WILL INCLUDE THE FOLLOWING EXCEPTIONS UNLESS CLEARED TO THE SATISFACTION OF THE COMPANY:

1. ANY DEFECT, LIEN, ENCUMBRANCE, ADVERSE CLAIM, OR OTHER MATTER THAT APPEARS FOR THE FIRST TIME IN THE PUBLIC RECORDS OR IS CREATED, ATTACHES, OR IS DISCLOSED BETWEEN THE COMMITMENT DATE AND THE DATE ON WHICH ALL OF THE SCHEDULE B, PART I - REQUIREMENTS ARE MET.
   NOT SURVEY RELATED
2. ANY LIEN OR RIGHT TO A LIEN, FOR SERVICES, LABOR, OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS.
   NOT SURVEY RELATED
3. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION AND EASEMENTS OR CLAIMS OF EASEMENTS NOT SHOWN BY THE PUBLIC RECORDS, BOUNDARY LINE DISPUTES, OVERLAPS, ENCROACHMENTS AND ANY MATTERS NOT OF RECORD WHICH WOULD BE DISCLOSED BY AN ACCURATE SURVEY AND INSPECTION OF THE PREMISES.

   NOTE: UPON RECEIPT OF SATISFACTORY PLAT OF SORVEY AND INSPECTION REPORT, THIS EXCEPTION WILL BE ELIMINATED OR AMENDED IN ACCORDANCE WITH THE FACTS DISCLOSED THEREBY.
4. TAXES FOR DECEMBER 7, 2021 AND ANY/ALL SUPPLEMENTAL TAXES POSTED SUBSEQUENT TO THE EFFECTIVE DATE HEREOF ARE A LIEN, NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
5. TAXES OR SPECIAL ASSESSMENTS WHICH ARE NOT SHOWN AS EXISTING LIENS BY THE PUBLIC RECORDS.
   NOT SURVEY RELATED
6. POSSIBLE SUPPLEMENTAL ASSESSMENTS AND TAXES FOR IMPROVEMENTS CONSTRUCTED ON THE LAND, NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
7. STORM WATER FEES NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
8. COVENANTS AND RESTRICTIONS APPEARING IN THE PUBLIC RECORDS, BUT OMITTING ANY COVENANTS OR RESTRICTIONS, IF ANY, BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, OR SOURCE OF INCOME, AS SET FORTH INAPPLICABLE STATE OR FEDERAL LAWS, EXCEPT TO THE EXTENT THAT SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW.
9. MAINTENANCE ASSESSMENTS AS SET FORTH IN THE AFORESAID RESTRICTIVE COVENANTS.
   NOT SURVEY RELATED
10. RIGHT-OF-WAY EASEMENT TO THE COMMONWEALTH OF VIRGINIA DATED SEPTEMBER 12, 1956 AND RECORDED JULY 21, 1959 IN THE CLERK'S OFFICE OF THE CIRCUIT COURT OF THE CITY OF HAMPTON, VIRGINIA, IN DEED BOOK 284, AT PAGE 27.
11. EASEMENT OVER LOT TWENTY-THREE (23) FOR THE BENEFIT OFF TO THE STATE HIGHWAY COMMISSIONER.
12. DECLARATIONS OF TRUST WITH THE DEPARTMENT OF HOUSING AND DEVELOPMENT AUTHORITY RECORDED IN DEED BOOK 416, PAGE 294, BOOK 935, PAGE 738 AND BOOK 1052, PAGE 693.
    AFFECT THE PROPERTY; NOT PLOTTABLE
13. RIGHT-OF-WAY EASEMENT TO THE COMMONWEALTH OF VIRGINIA DATED SEPTEMBER 12, 1956 AND RECORDED JULY 21, 1959 IN THE CLERK'S OFFICE OF THE CIRCUIT COURT OF THE CITY OF HAMPTON, VIRGINIA, IN DEED BOOK 284, AT PAGE 272.
    DOES NOT AFFECT THE PROPERTY
14. EASEMENTS GRANTED TO WARNER CABLE COMMUNICATIONS, INC. BY DOCUMENTS RECORDED 09/15/1987 IN DEED BOOK 862, PAGES 146 AND 149.
    AFFECT THE PROPERTY; NOT PLOTTABLE, BLANKET IN NATURE
15. EASEMENTS GRANTED TO THE BELL ATLANTIC TELEPHONE COMPANY OF VIRGINIA. BY DOCUMENTS RECORDED IN DEED BOOK 1203, PAGE 864 AND IN DEED BOOK 1205, PAGE 1280.
    AFFECT THE PROPERTY AS SHOWN HEREON
16. ANY INACCURACY IN THE LAND DESCRIBED IN SCHEDULE A. THE COMPANY DOES NOT INSURE THE AREA, SQUARE FOOTAGE, OR ACREAGE OF THE LAND.
17. UNFILED MECHANIC'S AND MATERIALMEN'S LIENS, IF ANY, NOT WITHIN THE PROVISIONS OF THE ALTA 32 -06 ENDORSEMENT ATTACHED HERETO AND MADE A PART HEREON.
    NOT SURVEY RELATED
18. NOTE: ADDITIONAL EXCEPTIONS MAY BE ADDED BASED ON FURTHER DISCOVERY OF INFORMATION ON SUBJECT PROPERTY BETWEEN PRELIMINARY COMMITMENT AND FINAL COMMITMENT.

COMMITMENT NO.: 052123078-9
PROPERTY ADDRESS: LASALLE AVENUE PARCELS, HAMPTON, VA 23669
PARCEL NO.: 2000385, 2000386, AND 2000400
COMMITMENT DATE: SEPTEMBER 3, 2021

SCHEDULE B, PART II
EXCEPTIONS

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

THE POLICY WILL NOT INSURE AGAINST LOSS OR DAMAGE RESULTING FROM THE TERMS AND PROVISIONS OF ANY LEASE OR EASEMENT IDENTIFIED IN SCHEDULE A, AND WILL INCLUDE THE FOLLOWING EXCEPTIONS UNLESS CLEARED TO THE SATISFACTION OF THE COMPANY:

1. ANY DEFECT, LIEN, ENCUMBRANCE, ADVERSE CLAIM, OR OTHER MATTER THAT APPEARS FOR THE FIRST TIME IN THE PUBLIC RECORDS OR IS CREATED, ATTACHES, OR IS DISCLOSED BETWEEN THE COMMITMENT DATE AND THE DATE ON WHICH ALL OF THE SCHEDULE B, PART I - REQUIREMENTS ARE MET.
   NOT SURVEY RELATED
2. ANY LIEN OR RIGHT TO A LIEN, FOR SERVICES, LABOR, OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS.
   NOT SURVEY RELATED
3. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION AND EASEMENTS OR CLAIMS OF EASEMENTS NOT SHOWN BY THE PUBLIC RECORDS, BOUNDARY LINE DISPUTES, OVERLAPS, ENCROACHMENTS AND ANY MATTERS NOT OF RECORD WHICH WOULD BE DISCLOSED BY AN ACCURATE SURVEY AND INSPECTION OF THE PREMISES.

   NOTE: UPON RECEIPT OF SATISFACTORY PLAT OF SORVEY AND INSPECTION REPORT, THIS EXCEPTION WILL BE ELIMINATED OR AMENDED IN ACCORDANCE WITH THE FACTS DISCLOSED THEREBY.
4. TAXES FOR DECEMBER 7, 2021 AND ANY/ALL SUPPLEMENTAL TAXES POSTED SUBSEQUENT TO THE EFFECTIVE DATE HEREOF ARE A LIEN, NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
5. TAXES OR SPECIAL ASSESSMENTS WHICH ARE NOT SHOWN AS EXISTING LIENS BY THE PUBLIC RECORDS.
   NOT SURVEY RELATED
6. POSSIBLE SUPPLEMENTAL ASSESSMENTS AND TAXES FOR IMPROVEMENTS CONSTRUCTED ON THE LAND, NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
7. STORM WATER FEES NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
8. COVENANTS AND RESTRICTIONS APPEARING IN THE PUBLIC RECORDS, BUT OMITTING ANY COVENANTS OR RESTRICTIONS, IF ANY, BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, OR SOURCE OF INCOME, AS SET FORTH INAPPLICABLE STATE OR FEDERAL LAWS, EXCEPT TO THE EXTENT THAT SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW.
9. MAINTENANCE ASSESSMENTS AS SET FORTH IN THE AFORESAID RESTRICTIVE COVENANTS.
   NOT SURVEY RELATED
10. UNFILED MECHANIC'S AND MATERIALMEN'S LIENS, IF ANY, NOT WITHIN THE PROVISIONS OF THE ALTA 32 -06 ENDORSEMENT ATTACHED HERETO AND MADE A PART HEREON.
    NOT SURVEY RELATED
11. ANY INACCURACY IN THE LAND DESCRIBED IN SCHEDULE A. THE COMPANY DOES NOT INSURE THE AREA, SQUARE FOOTAGE, OR ACREAGE OF THE LAND.
12. EASEMENT GRANTED TO WARNER CABLE COMMUNICATIONS, INC. BY DOCUMENT RECORDED 09/15/1987 IN DEED BOOK 862, PAGE 146.
    AFFECTS THE PROPERTY; NOT PLOTTABLE, BLANKET IN NATURE
13. EASEMENT GRANTED TO VIRGINIA ELECTRIC AND POWER COMPANY BY DOCUMENT RECORDED 03/03/1989 IN DEED BOOK 945, PAGE 371.
    DOES NOT AFFECT THESE PARCELS
14. EASEMENT GRANTED TO THE BELL ATLANTIC TELEPHONE COMPANY OF VIRGINIA. BY DOCUMENT RECORDED IN DEED BOOK 1205, PAGE 1280.
    AFFECTS THE PROPERTY AS SHOWN HEREON
15. DECLARATIONS OF TRUST WITH THE DEPARTMENT OF HOUSING AND DEVELOPMENT AUTHORITY RECORDED IN DEED BOOK 416, PAGE 294, BOOK 935, PAGE 738 AND BOOK 1052, PAGE 693
    AFFECTS THE PROPERTY; NOT PLOTTABLE
16. NOTE: ADDITIONAL EXCEPTIONS MAY BE ADDED BASED ON FURTHER DISCOVERY OF INFORMATION ON SUBJECT PROPERTY BETWEEN PRELIMINARY COMMITMENT AND FINAL COMMITMENT.

COMMITMENT NO.: 052123078-14
PROPERTY ADDRESS: 1226 W. QUEEN STREET, HAMPTON, VA 23669
PARCEL NO.: 2000229
COMMITMENT DATE: JUNE 3, 2021

SCHEDULE B, PART II
EXCEPTIONS

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

THE POLICY WILL NOT INSURE AGAINST LOSS OR DAMAGE RESULTING FROM THE TERMS AND PROVISIONS OF ANY LEASE OR EASEMENT IDENTIFIED IN SCHEDULE A, AND WILL INCLUDE THE FOLLOWING EXCEPTIONS UNLESS CLEARED TO THE SATISFACTION OF THE COMPANY:

1. ANY DEFECT, LIEN, ENCUMBRANCE, ADVERSE CLAIM, OR OTHER MATTER THAT APPEARS FOR THE FIRST TIME IN THE PUBLIC RECORDS OR IS CREATED, ATTACHES, OR IS DISCLOSED BETWEEN THE COMMITMENT DATE AND THE DATE ON WHICH ALL OF THE SCHEDULE B, PART I - REQUIREMENTS ARE MET.
   NOT SURVEY RELATED
2. ANY LIEN OR RIGHT TO A LIEN, FOR SERVICES, LABOR, OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS.
   NOT SURVEY RELATED
3. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION AND EASEMENTS OR CLAIMS OF EASEMENTS NOT SHOWN BY THE PUBLIC RECORDS, BOUNDARY LINE DISPUTES, OVERLAPS, ENCROACHMENTS AND ANY MATTERS NOT OF RECORD WHICH WOULD BE DISCLOSED BY AN ACCURATE SURVEY AND INSPECTION OF THE PREMISES.

   NOTE: UPON RECEIPT OF SATISFACTORY PLAT OF SORVEY AND INSPECTION REPORT, THIS EXCEPTION WILL BE ELIMINATED OR AMENDED IN ACCORDANCE WITH THE FACTS DISCLOSED THEREBY.
4. TAXES FOR AND ANY/ALL SUPPLEMENTAL TAXES POSTED SUBSEQUENT TO THE EFFECTIVE DATE HEREOF ARE A LIEN, NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
5. TAXES OR SPECIAL ASSESSMENTS WHICH ARE NOT SHOWN AS EXISTING LIENS BY THE PUBLIC RECORDS.
   NOT SURVEY RELATED
6. POSSIBLE SUPPLEMENTAL ASSESSMENTS AND TAXES FOR IMPROVEMENTS CONSTRUCTED ON THE LAND, NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
7. STORM WATER FEES NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
8. COVENANTS AND RESTRICTIONS APPEARING IN THE PUBLIC RECORDS, BUT OMITTING ANY COVENANTS OR RESTRICTIONS, IF ANY, BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, OR SOURCE OF INCOME, AS SET FORTH INAPPLICABLE STATE OR FEDERAL LAWS, EXCEPT TO THE EXTENT THAT SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW.
9. MAINTENANCE ASSESSMENTS AS SET FORTH IN THE AFORESAID RESTRICTIVE COVENANTS.
   NOT SURVEY RELATED
10. THE EXACT AMOUNT, COMPUTATION, ACREAGE AND ACCURACY OF THE AREA CONTENT OF THE LAND DESCRIBED IN SCHEDULE A HEREOF IS NOT INSURED.
11. EASEMENT GRANTED VIRGINIA ELECTRIC AND POWER COMPANY BY INSTRUMENT RECORDED IN DEED BOOK 229, PAGE 84 AND DEED BOOK 365, PAGE 606.
    DOES NOT AFFECT THIS PARCEL
12. TERMS AND CONDITIONS OF CONTRACT FOR SEWER CONECTION PERMIT RECORDED IN DEED BOOK 975, PAGE 1893 (AS TO PARCEL 3 ONLY)
    DOES NOT AFFECT THIS PARCEL
13. EASEMENT GRANTED TO VIRGINIA ELECTRIC AND POWER COMPANY IN DEED BOOK 418, PAGES 82-89, DEED BOOK 426, PAGE 618 AND DEED BOOK 945, PAGE 371.
    DEED BOOK 418, PAGES 82-89 - DOES NOT AFFECT THE PROPERTY
    DEED BOOK 426, PAGE 618 - DOES NOT AFFECT THE PROPERTY
    DEED BOOK 945, PAGE 371 - DOES NOT AFFECT THIS PARCEL
14. DEED OF EASEMENT FOR INGRESS/EGRESS, AND THE RIGHT OF THERS IN AND TO USE THE SAME.GRANTED TO THE CITY OF HAMPTON IN DEED BOOK 409, PAGE 735.
    DOES NOT AFFECT THIS PARCEL
15. ANY INACCURACY IN THE LAND DESCRIBED IN SCHEDULE A. THE COMPANY DOES NOT INSURE THE AREA, SQUARE FOOTAGE, OR ACREAGE OF THE LAND.
16. ANY STATUTORY LIEN OR CLAIM OF LIEN, AFFECTING THE TITLE, THAT ARISES FROM SERVICES PROVIDED, LABOR PERFORMED, OR MATERIALS OR EQUIPMENT FURNISHED, EXCEPT AS INSURED BY THE ATTACHED ALTA 32-06 ENDORSEMENT AS IT MAY BE REVISED BY ALTA 33- 06 (DISBURSEMENT) ENDORSEMENTS.
    UNFILED MECHANIC'S AND MATERIALMEN'S LIENS, IF ANY, NOT WITHIN THE PROVISIONS OF THE ALTA 32 -06 ENDORSEMENT ATTACHED HERETO AND MADE A PART HEREON.
    NOT SURVEY RELATED
17. NOTE: ADDITIONAL EXCEPTIONS MAY BE ADDED BASED ON FURTHER DISCOVERY OF INFORMATION ON SUBJECT PROPERTY BETWEEN PRELIMINARY COMMITMENT AND FINAL COMMITMENT.

COMMONWEALTH OF VIRGINIA
ROBERT D. MANN
Lic. No. 002509
12/1/2021
LAND SURVEYOR

COMMITMENT NO.: 052123078-15
PROPERTY ADDRESS: 1224 W. QUEEN STREET, HAMPTON, VA 23669
PARCEL NO.: 2000230
COMMITMENT DATE: JUNE 3, 2021

SCHEDULE B, PART II
EXCEPTIONS

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

THE POLICY WILL NOT INSURE AGAINST LOSS OR DAMAGE RESULTING FROM THE TERMS AND PROVISIONS OF ANY LEASE OR EASEMENT IDENTIFIED IN SCHEDULE A, AND WILL INCLUDE THE FOLLOWING EXCEPTIONS UNLESS CLEARED TO THE SATISFACTION OF THE COMPANY:

1. ANY DEFECT, LIEN, ENCUMBRANCE, ADVERSE CLAIM, OR OTHER MATTER THAT APPEARS FOR THE FIRST TIME IN THE PUBLIC RECORDS OR IS CREATED, ATTACHES, OR IS DISCLOSED BETWEEN THE COMMITMENT DATE AND THE DATE ON WHICH ALL OF THE SCHEDULE B, PART I - REQUIREMENTS ARE MET.
   NOT SURVEY RELATED
2. ANY LIEN OR RIGHT TO A LIEN, FOR SERVICES, LABOR, OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS.
   NOT SURVEY RELATED
3. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION AND EASEMENTS OR CLAIMS OF EASEMENTS NOT SHOWN BY THE PUBLIC RECORDS, BOUNDARY LINE DISPUTES, OVERLAPS, ENCROACHMENTS AND ANY MATTERS NOT OF RECORD WHICH WOULD BE DISCLOSED BY AN ACCURATE SURVEY AND INSPECTION OF THE PREMISES.

   NOTE: UPON RECEIPT OF SATISFACTORY PLAT OF SORVEY AND INSPECTION REPORT, THIS EXCEPTION WILL BE ELIMINATED OR AMENDED IN ACCORDANCE WITH THE FACTS DISCLOSED THEREBY.
4. TAXES FOR DECEMBER 7, 2021 AND ANY/ALL SUPPLEMENTAL TAXES POSTED SUBSEQUENT TO THE EFFECTIVE DATE HEREOF ARE A LIEN, NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
5. TAXES OR SPECIAL ASSESSMENTS WHICH ARE NOT SHOWN AS EXISTING LIENS BY THE PUBLIC RECORDS.
   NOT SURVEY RELATED
6. POSSIBLE SUPPLEMENTAL ASSESSMENTS AND TAXES FOR IMPROVEMENTS CONSTRUCTED ON THE LAND, NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
7. STORM WATER FEES NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED
8. COVENANTS AND RESTRICTIONS APPEARING IN THE PUBLIC RECORDS, BUT OMITTING ANY COVENANTS OR RESTRICTIONS, IF ANY, BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, OR SOURCE OF INCOME, AS SET FORTH INAPPLICABLE STATE OR FEDERAL LAWS, EXCEPT TO THE EXTENT THAT SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW.
9. MAINTENANCE ASSESSMENTS AS SET FORTH IN THE AFORESAID RESTRICTIVE COVENANTS.
   NOT SURVEY RELATED
10. THE EXACT AMOUNT, COMPUTATION, ACREAGE AND ACCURACY OF THE AREA CONTENT OF THE LAND DESCRIBED IN SCHEDULE A HEREOF IS NOT INSURED.
11. ANY EASEMENTS, RIGHTS OF WAY OR SERVITUDES APPEARING IN THE PUBLIC RECORDS.
12. EASEMENT GRANTED TO VIRGINIA ELECTRIC AND POWER COMPANY IN DEED BOOK 418, PAGES 82-89, DEED BOOK 426, PAGE 618 AND DEED BOOK 945, PAGE 371.
    DEED BOOK 418, PAGES 82-89 - DOES NOT AFFECT THE PROPERTY
    DEED BOOK 426, PAGE 618 - DOES NOT AFFECT THE PROPERTY
    DEED BOOK 945, PAGE 371 - DOES NOT AFFECT THIS PARCEL
13. DEED OF EASEMENT FOR INGRESS/EGRESS, AND THE RIGHT OF THERS IN AND TO USE THE SAME.GRANTED TO THE CITY OF HAMPTON IN DEED BOOK 409, PAGE 735.
    DOES NOT AFFECT THIS PARCEL
14. UNFILED MECHANIC'S AND MATERIALMEN'S LIENS, IF ANY, NOT WITHIN THE PROVISIONS OF THE ALTA 32 -06 ENDORSEMENT ATTACHED HERETO AND MADE A PART HEREON.
    NOT SURVEY RELATED
15. ANY INACCURACY IN THE LAND DESCRIBED IN SCHEDULE A. THE COMPANY DOES NOT INSURE THE AREA, SQUARE FOOTAGE, OR ACREAGE OF THE LAND.
16. NOTE: ADDITIONAL EXCEPTIONS MAY BE ADDED BASED ON FURTHER DISCOVERY OF INFORMATION ON SUBJECT PROPERTY BETWEEN PRELIMINARY COMMITMENT AND FINAL COMMITMENT.

ALTA/NSPS LAND TITLE SURVEY
LINCOLN PARK & W. QUEEN STREET PARCELS
PROPERTY OF
HAMPTON HOUSING AND REDEVELOPMENT AUTHORITY

Wythe District	Hampton
Date: 12/1/2021	Scale: As Shown
Sheet1 of 10	J.N.: 48544
Drawn by: R. Mann	Checked by: R. Mann
Revised:	

THIS DRAWING PREPARED AT THE
CORPORATE OFFICE
1001 Boulders Parkway, Suite 300 | Richmond, VA 23225
TEL: 804.200.6500 FAX 804.560.1016 www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

TIMMONS GROUP

COMMITMENT NO.: 052123078-16
PROPERTY ADDRESS: 1222 W. QUEEN STREET, HAMPTON, VA 23669
PARCEL NO.: 2000231
COMMITMENT DATE: JUNE 3, 2021

SCHEDULE B, PART II
EXCEPTIONS

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

THE POLICY WILL NOT INSURE AGAINST LOSS OR DAMAGE RESULTING FROM THE TERMS AND PROVISIONS OF ANY LEASE OR EASEMENT IDENTIFIED IN SCHEDULE A, AND WILL INCLUDE THE FOLLOWING EXCEPTIONS UNLESS CLEARED TO THE SATISFACTION OF THE COMPANY:

1. ANY DEFECT, LIEN, ENCUMBRANCE, ADVERSE CLAIM, OR OTHER MATTER THAT APPEARS FOR THE FIRST TIME IN THE PUBLIC RECORDS OR IS CREATED, ATTACHES, OR IS DISCLOSED BETWEEN THE COMMITMENT DATE AND THE DATE ON WHICH ALL OF THE SCHEDULE B, PART I - REQUIREMENTS ARE MET.
   NOT SURVEY RELATED

2. ANY LIEN OR RIGHT TO A LIEN, FOR SERVICES, LABOR, OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS.
   NOT SURVEY RELATED

3. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION AND EASEMENTS OR CLAIMS OF EASEMENTS NOT SHOWN BY THE PUBLIC RECORDS, BOUNDARY LINE DISPUTES, OVERLAPS, ENCROACHMENTS AND ANY MATTERS NOT OF RECORD WHICH WOULD BE DISCLOSED BY AN ACCURATE SURVEY AND INSPECTION OF THE PREMISES.

   NOTE: UPON RECEIPT OF SATISFACTORY PLAT OF SURVEY AND INSPECTION REPORT, THIS EXCEPTION WILL BE ELIMINATED OR AMENDED IN ACCORDANCE WITH THE FACTS DISCLOSED THEREBY.

4. TAXES FOR DECEMBER 7, 2021 AND ANY/ALL SUPPLEMENTAL TAXES POSTED SUBSEQUENT TO THE EFFECTIVE DATE HEREOF ARE A LIEN, NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED

5. TAXES OR SPECIAL ASSESSMENTS WHICH ARE NOT SHOWN AS EXISTING LIENS BY THE PUBLIC RECORDS.
   NOT SURVEY RELATED

6. POSSIBLE SUPPLEMENTAL ASSESSMENTS AND TAXES FOR IMPROVEMENTS CONSTRUCTED ON THE LAND, NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED

7. STORM WATER FEES NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED

8. COVENANTS AND RESTRICTIONS APPEARING IN THE PUBLIC RECORDS, BUT OMITTING ANY COVENANTS OR RESTRICTIONS, IF ANY, BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, OR SOURCE OF INCOME, AS SET FORTH INAPPLICABLE STATE OR FEDERAL LAWS, EXCEPT TO THE EXTENT THAT SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW.

9. MAINTENANCE ASSESSMENTS AS SET FORTH IN THE AFORESAID RESTRICTIVE COVENANTS.
   NOT SURVEY RELATED

10. EASEMENT GRANTED TO VIRGINIA ELECTRIC AND POWER COMPANY IN DEED BOOK 418, PAGES 82-89, DEED BOOK 426, PAGE 618 AND DEED BOOK 945, PAGE 371.
    DEED BOOK 418, PAGES 82-89 - DOES NOT AFFECT THE PROPERTY
    DEED BOOK 426, PAGE 618 - DOES NOT AFFECT THE PROPERTY
    DEED BOOK 945, PAGE 371 - DOES NOT AFFECT THIS PARCEL

11. DEED OF EASEMENT FOR INGRESS/EGRESS, AND THE RIGHT OF THERS IN AND TO USE THE SAME.GRANTED TO THE CITY OF HAMPTON IN DEED BOOK 409, PAGE 735.
    DOES NOT AFFECT THIS PARCEL

12. ANY INACCURACY IN THE LAND DESCRIBED IN SCHEDULE A. THE COMPANY DOES NOT INSURE THE AREA, SQUARE FOOTAGE, OR ACREAGE OF THE LAND.

13. UNFILED MECHANIC'S AND MATERIALMEN'S LIENS, IF ANY, NOT WITHIN THE PROVISIONS OF THE ALTA 32 -06 ENDORSEMENT ATTACHED HERETO AND MADE A PART HEREON.
    NOT SURVEY RELATED

14. NOTE: ADDITIONAL EXCEPTIONS MAY BE ADDED BASED ON FURTHER DISCOVERY OF INFORMATION ON SUBJECT PROPERTY BETWEEN PRELIMINARY COMMITMENT AND FINAL COMMITMENT.

COMMITMENT NO.: 052123078-17
PROPERTY ADDRESS: 1220 W. QUEEN STREET, HAMPTON, VA 23669
PARCEL NO.: 2000232
COMMITMENT DATE: JUNE 3, 2021

SCHEDULE B, PART II
EXCEPTIONS

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

THE POLICY WILL NOT INSURE AGAINST LOSS OR DAMAGE RESULTING FROM THE TERMS AND PROVISIONS OF ANY LEASE OR EASEMENT IDENTIFIED IN SCHEDULE A, AND WILL INCLUDE THE FOLLOWING EXCEPTIONS UNLESS CLEARED TO THE SATISFACTION OF THE COMPANY:

1. ANY DEFECT, LIEN, ENCUMBRANCE, ADVERSE CLAIM, OR OTHER MATTER THAT APPEARS FOR THE FIRST TIME IN THE PUBLIC RECORDS OR IS CREATED, ATTACHES, OR IS DISCLOSED BETWEEN THE COMMITMENT DATE AND THE DATE ON WHICH ALL OF THE SCHEDULE B, PART I - REQUIREMENTS ARE MET.
   NOT SURVEY RELATED

2. ANY LIEN OR RIGHT TO A LIEN, FOR SERVICES, LABOR, OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS.
   NOT SURVEY RELATED

3. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION AND EASEMENTS OR CLAIMS OF EASEMENTS NOT SHOWN BY THE PUBLIC RECORDS, BOUNDARY LINE DISPUTES, OVERLAPS, ENCROACHMENTS AND ANY MATTERS NOT OF RECORD WHICH WOULD BE DISCLOSED BY AN ACCURATE SURVEY AND INSPECTION OF THE PREMISES.

   NOTE: UPON RECEIPT OF SATISFACTORY PLAT OF SORVEY AND INSPECTION REPORT, THIS EXCEPTION WILL BE ELIMINATED OR AMENDED IN ACCORDANCE WITH THE FACTS DISCLOSED THEREBY.

4. TAXES FOR DECEMBER 7, 2021 AND ANY/ALL SUPPLEMENTAL TAXES POSTED SUBSEQUENT TO THE EFFECTIVE DATE
   HEREOF ARE A LIEN, NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED

5. TAXES OR SPECIAL ASSESSMENTS WHICH ARE NOT SHOWN AS EXISTING LIENS BY THE PUBLIC RECORDS.
   NOT SURVEY RELATED

6. POSSIBLE SUPPLEMENTAL ASSESSMENTS AND TAXES FOR IMPROVEMENTS CONSTRUCTED ON THE LAND, NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED

7. STORM WATER FEES NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED

8. COVENANTS AND RESTRICTIONS APPEARING IN THE PUBLIC RECORDS, BUT OMITTING ANY COVENANTS OR RESTRICTIONS, IF ANY, BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, OR SOURCE OF INCOME, AS SET FORTH INAPPLICABLE STATE OR FEDERAL LAWS, EXCEPT TO THE EXTENT THAT SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW.

9. TERMS AND CONDITIONS OF CONTRACT FOR SEWER CONNECTION PERMIT RECORDED IN DEED BOOK 975, PAGE 1893.

10. EASEMENT GRANTED TO VIRGINIA ELECTRIC AND POWER COMPANY IN DEED BOOK 418, PAGES 82-89, DEED BOOK 426, PAGE 618 AND DEED BOOK 945, PAGE 371.
    DEED BOOK 418, PAGES 82-89 - DOES NOT AFFECT THE PROPERTY
    DEED BOOK 426, PAGE 618 - DOES NOT AFFECT THE PROPERTY
    DEED BOOK 945, PAGE 371 - DOES NOT AFFECT THIS PARCEL

11. DEED OF EASEMENT FOR INGRESS/EGRESS, AND THE RIGHT OF THERS IN AND TO USE THE SAME.GRANTED TO THE CITY OF HAMPTON IN DEED BOOK 409, PAGE 735.
    DOES NOT AFFECT THIS PARCEL

12. MAINTENANCE ASSESSMENTS AS SET FORTH IN THE AFORESAID RESTRICTIVE COVENANTS.
    NOT SURVEY RELATED

13. ANY INACCURACY IN THE LAND DESCRIBED IN SCHEDULE A. THE COMPANY DOES NOT INSURE THE AREA, SQUARE FOOTAGE, OR ACREAGE OF THE LAND.

14. UNFILED MECHANIC'S AND MATERIALMEN'S LIENS, IF ANY, NOT WITHIN THE PROVISIONS OF THE ALTA 32 -06 ENDORSEMENT ATTACHED HERETO AND MADE A PART HEREON.
    NOT SURVEY RELATED

15. NOTE: ADDITIONAL EXCEPTIONS MAY BE ADDED BASED ON FURTHER DISCOVERY OF INFORMATION ON SUBJECT PROPERTY BETWEEN PRELIMINARY COMMITMENT AND FINAL COMMITMENT.

- *ADD ITEM*
  TERMS AND CONDITIONS OF CONTRACT FOR SEWER CONECTION PERMIT
  RECORDED IN DEED BOOK 975, PAGE 1893 (AS TO PARCEL 3 ONLY)
  AFFECTS THE PROPERTY; NOT PLOTTABLE

COMMITMENT NO.: 052123078-18
PROPERTY ADDRESS: 1218 W. QUEEN STREET, HAMPTON, VA 23669
PARCEL NO.: 2000233
COMMITMENT DATE: JUNE 3, 2021

SCHEDULE B, PART II
EXCEPTIONS

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

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   NOT SURVEY RELATED

2. ANY LIEN OR RIGHT TO A LIEN, FOR SERVICES, LABOR, OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS.
   NOT SURVEY RELATED

3. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION AND EASEMENTS OR CLAIMS OF EASEMENTS NOT SHOWN BY THE PUBLIC RECORDS, BOUNDARY LINE DISPUTES, OVERLAPS, ENCROACHMENTS AND ANY MATTERS NOT OF RECORD WHICH WOULD BE DISCLOSED BY AN ACCURATE SURVEY AND INSPECTION OF THE PREMISES.

   NOTE: UPON RECEIPT OF° SATISF'ACTORY PLAT O/ SURVEY AND INSPECTION REPORT, THIS EXCEPTION WILL BE ELIMINATED OR AMENDED IN ACCORDANCE WITH THE FACTS DISCLOSED THEREBY.

4. TAXES FOR DECEMBER 7, 2021 AND ANY/ALL SUPPLEMENTAL TAXES POSTED SUBSEQUENT TO THE EFFECTIVE DATE HEREOF ARE A LIEN, NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED

5. TAXES OR SPECIAL ASSESSMENTS WHICH ARE NOT SHOWN AS EXISTING LIENS BY THE PUBLIC RECORDS.
   NOT SURVEY RELATED

6. POSSIBLE SUPPLEMENTAL ASSESSMENTS AND TAXES FOR IMPROVEMENTS CONSTRUCTED ON THE LAND, NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED

7. STORM WATER FEES NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED

8. COVENANTS AND RESTRICTIONS APPEARING IN THE PUBLIC RECORDS, BUT OMITTING ANY COVENANTS OR RESTRICTIONS, IF ANY, BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, OR SOURCE OF INCOME, AS SET FORTH INAPPLICABLE STATE OR FEDERAL LAWS, EXCEPT TO THE EXTENT THAT SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW.

9. MAINTENANCE ASSESSMENTS AS SET FORTH IN THE AFORESAID RESTRICTIVE COVENANTS.
   NOT SURVEY RELATED

10. EASEMENT GRANTED TO VIRGINIA ELECTRIC AND POWER COMPANY IN DEED BOOK 418, PAGES 82-89, DEED BOOK 426, PAGE 618 AND DEED BOOK 945, PAGE 371.
    DEED BOOK 418, PAGES 82-89 - DOES NOT AFFECT THE PROPERTY
    DEED BOOK 426, PAGE 618 - DOES NOT AFFECT THE PROPERTY
    DEED BOOK 945, PAGE 371 - DOES NOT AFFECT THIS PARCEL

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    DOES NOT AFFECT THIS PARCEL

12. ANY INACCURACY IN THE LAND DESCRIBED IN SCHEDULE A. THE COMPANY DOES NOT INSURE THE AREA, SQUARE FOOTAGE, OR ACREAGE OF THE LAND.

13. UNFILED MECHANIC'S AND MATERIALMEN'S LIENS, IF ANY, NOT WITHIN THE PROVISIONS OF THE ALTA 32 -06 ENDORSEMENT ATTACHED HERETO AND MADE A PART HEREON.
    NOT SURVEY RELATED

14. NOTE: ADDITIONAL EXCEPTIONS MAY BE ADDED BASED ON FURTHER DISCOVERY OF INFORMATION ON SUBJECT PROPERTY BETWEEN PRELIMINARY COMMITMENT AND FINAL COMMITMENT.

COMMITMENT NO.: 052123078-19
PROPERTY ADDRESS: 1216 W. QUEEN STREET, HAMPTON, VA 23669
PARCEL NO.: 2000234
COMMITMENT DATE: JUNE 3, 2021

SCHEDULE B, PART II
EXCEPTIONS

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

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   NOT SURVEY RELATED

2. ANY LIEN OR RIGHT TO A LIEN, FOR SERVICES, LABOR, OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS.
   NOT SURVEY RELATED

3. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION AND EASEMENTS OR CLAIMS OF EASEMENTS NOT SHOWN BY THE PUBLIC RECORDS, BOUNDARY LINE DISPUTES, OVERLAPS, ENCROACHMENTS AND ANY MATTERS NOT OF RECORD WHICH WOULD BE DISCLOSED BY AN ACCURATE SURVEY AND INSPECTION OF THE PREMISES.

   NOTE: UPON RECEIPT OF SATISFACTORY PLAT OF SURVEY AND INSPECTION REPORT, THIS EXCEPTION WILL BE ELIMINATED OR AMENDED IN ACCORDANCE WITH THE FACTS DISCLOSED THEREBY.

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   NOT SURVEY RELATED

5. TAXES OR SPECIAL ASSESSMENTS WHICH ARE NOT SHOWN AS EXISTING LIENS BY THE PUBLIC RECORDS.
   NOT SURVEY RELATED

6. POSSIBLE SUPPLEMENTAL ASSESSMENTS AND TAXES FOR IMPROVEMENTS CONSTRUCTED ON THE LAND, NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED

7. STORM WATER FEES NOT YET DUE AND PAYABLE.
   NOT SURVEY RELATED

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9. MAINTENANCE ASSESSMENTS AS SET FORTH IN THE AFORESAID RESTRICTIVE COVENANTS.
   NOT SURVEY RELATED

10. EASEMENT GRANTED TO VIRGINIA ELECTRIC AND POWER COMPANY IN DEED BOOK 418, PAGES 82-89, DEED BOOK 426, PAGE 618 AND DEED BOOK 945, PAGE 371.
    DEED BOOK 418, PAGES 82-89 - DOES NOT AFFECT THE PROPERTY
    DEED BOOK 426, PAGE 618 - DOES NOT AFFECT THE PROPERTY
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    NOT SURVEY RELATED

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COMMONWEALTH OF VIRGINIA
ROBERT D. MANN
Lic. No. 002509
12/1/2021
LAND SURVEYOR

ALTA/NSPS LAND TITLE SURVEY
LINCOLN PARK & W. QUEEN STREET PARCELS
PROPERTY OF
HAMPTON HOUSING AND
REDEVELOPMENT AUTHORITY

Wythe District	*Hampton*
Date: 12/1/2021	*Scale: As Shown*
Sheet1 of 10	*J.N.:48544*
Drawn by: R. Mann	*Checked by:R. Mann*
Revised:	

THIS DRAWING PREPARED AT THE
CORPORATE OFFICE
1001 Boulders Parkway, Suite 300 | Richmond, VA 23225
TEL 804.200.6500 FAX 804.560.1016 www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

TIMMONS GROUP

NAD 83

PIN #2000225
NOW OR FORMERLY
FAITH ANN REYNOLDS & WENDY G. FRIESZ
INSTR. #110008780

ROD /S — 240.87' N6°22'01"W — ROD /S

ROD /S — ROD /F — N89°32'51"E 557.30'

MICHIGAN DRIVE
50' PUBLIC R/W

PIN #2000236
NOW OR FORMERLY
VIRGINIA ELECTRIC & POWER
D.B. 426, PG. 618

PIN #2000240
NOW OR FORMERLY
ROANOKE-VINTON RADIO INC
D.B. 605, PG. 670
D.B. 1275, PG. 881

SHEET 6

W. QUEEN STREET
VARIABLE WIDTH PUBLIC R/W

SITE 2
134522 SF
3.088 AC

IPF — 570.81' N89°45'37"E

ASBURY PLACE APARTMENTS

PIN #2000235
PIN #2000239
NOW OR FORMERLY
HAMPTON REDEVELOPMENT &
HOUSING AUTHORITY
INSTR. #130011863

ROD /S — IPF — 443.06' N29°20'21"W — 697.42' N89°08'07"E

ROD /S — 807.83' N3°10'52"W

S3°10'52"E 14.92' — 237.73' S3°10'52"E — ROD /F

N89°32'51"E 19.66' — ROD /S — ROD /S

BLOCK 13

BLOCK 12

JUNE ST. 30' R/W

BLOCK 9

FLOR STREET 40' R/W

OAK AVENUE 40' PUBLIC R/W

BARRINGTON WOODS APARTMENTS

PIN #2000242
NOW OR FORMERLY
DBC BARRINGTON BSD LLC
P.B. 6, PG. 52
INSTR. #210022919

SHEET 7

SHEET 8

BLOCK 10

SITE 1
857733 SF
19.691 AC

BLOCK 11

LINCOLN PARK
ADDITION

GEORGIA STREET 40' R/W

CAROLINA STREET 40' R/W

BLOCK 8

MICHIGAN DRIVE
UNRECORDED 50' R/W

CSX RAILROAD — 1997' — S49°36'34"W

FLOYD AVENUE 40' PUBLIC R/W

GREATER DISCIPLESHIP CENTER

PIN #2000246
NOW OR FORMERLY
TRUSTEES OF THE CORNERSTONE
FELLOWSHIP CHURCH OF GOD
D.B.2786, PG. 165
INSTR. #180008132

N88°37'57"E 200.00'

BLOCK 6

BLOCK 7

MON — IPF

ROD /S — 826.84' S1°06'15"W — ROD /S

S3°20'21"W 115.42'

N89°34'03"E 29.72'

LASALLE AVENUE
VARIABLE WIDTH PUBLIC R/W

SHEET 9

SHEET 10

COMMONWEALTH OF VIRGINIA
ROBERT D. MANN
Lic. No. 002509
12/1/2021
LAND SURVEYOR

SCALE 1"=80'
0 80' 160'

ALTA/NSPS LAND TITLE SURVEY
LINCOLN PARK & W. QUEEN STREET PARCELS
PROPERTY OF
HAMPTON HOUSING AND REDEVELOPMENT AUTHORITY

Wythe District	Hampton
Date: 12/1/2021	Scale: As Shown
Sheet 1 of 10	J.N.: 48544
Drawn by: R. Mann	Checked by: R. Mann
Revised:	

THIS DRAWING PREPARED AT THE
CORPORATE OFFICE
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TEL. 804.200.6500 FAX 804.560.1016 www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

TIMMONS GROUP

NAD 83

PIN #2000225
NOW OR FORMERLY
FAITH ANN REYNOLDS & WENDY G. FRIESZ
INSTR. #110008780

WEST QUEEN STREET
RTE. #415
50' PUBLIC R/W

MICHIGAN DRIVE
50' PUBLIC R/W

MICHIGAN DRIVE
50' PUBLIC R/W

STORM MH
TOP=12.83
INV. IN=
INV. OUT=

CURB DROP INLET
TOP=13.11
INV. IN=
INV. OUT=

STORM MH
TOP=12.52
INV. IN=
INV. OUT=

DROP INLET
W/ GRATE
TOP=11.09
INV. IN=
INV. OUT=

SAN. MH
TOP=12.82
INV. IN=
INV. OUT=

DROP INLET
W/ GRATE
TOP=10.28
INV. IN=
INV. OUT=

DROP INLET
W/ GRATE

U/G WATERLINE - 16"
(NEWPORT NEWS WW)

PID #2000229
HAMPTON REDEVELOPMENT
AND HOUSING AUTHORITY
INSTR. #16005536

N6°22'01"W
240.87'

S89°32'51"W
455.20'

N89°45'37"E
570.81'

ROD /S

ROD /F

ASBURY PLACE APARTMENTS

PIN #2000235
PIN #2000239
NOW OR FORMERLY
HAMPTON REDEVELOPMENT &
HOUSING AUTHORITY
INSTR. #130011863

ASBURY PLACE APARTMENTS

PIN #2000237
NOW OR FORMERLY
HAMPTON REDEVELOPMENT &
HOUSING AUTHORITY
INSTR. #130011863

FEMA FLOOD ZONE X (SHADED)

FEMA FLOOD ZONE X (SHADED)

FEMA FLOOD ZONE X (SHADED)

SCALE 1"=30'

0 30' 60'

COMMONWEALTH OF VIRGINIA
ROBERT L. MANN
Lic. No. 002509
12/1/2021
LAND SURVEYOR

ALTA/NSPS LAND TITLE SURVEY
LINCOLN PARK & W. QUEEN STREET PARCELS
PROPERTY OF
HAMPTON HOUSING AND REDEVELOPMENT AUTHORITY

Wythe District	City of Hampton, VA
Date:12/1/2021	Scale: 1"=30'
Sheet6 of 10	J.N.:48544-909
Drawn by: C. Judson	Checked by:R. Mann
Revised:	

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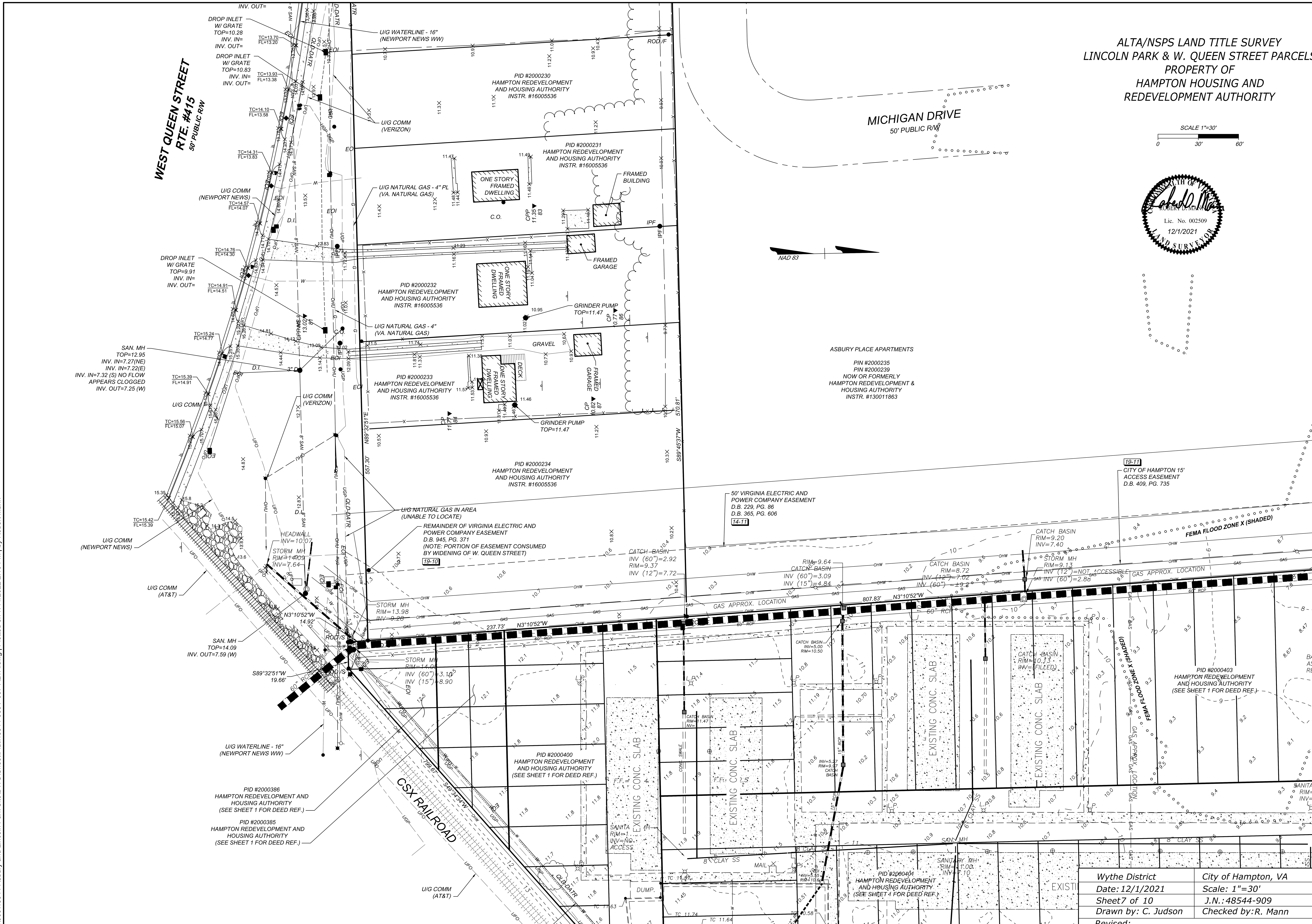
TEL 804.200.6500 FAX 804.560.1016 www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

TIMMONS GROUP

ALTA/NSPS LAND TITLE SURVEY
LINCOLN PARK & W. QUEEN STREET PARCELS
PROPERTY OF
HAMPTON HOUSING AND
REDEVELOPMENT AUTHORITY



COMMONWEALTH OF VIRGINIA
ROBERT D. MANN
Lic. No. 002509
12/1/2021
LAND SURVEYOR

Wythe District	City of Hampton, VA
Date: 12/1/2021	Scale: 1"=30'
Sheet7 of 10	J.N.: 48544-909
Drawn by: C. Judson	Checked by: R. Mann
Revised:	

THIS DRAWING PREPARED AT THE
CORPORATE OFFICE
1001 Boulders Parkway, Suite 300 | Richmond, VA 23225
TEL 804.200.6500 FAX 804.560.1016 www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

TIMMONS GROUP

Y:\909\48544-Asbury and Lincoln Park Site\DWG\Sheet\Plat\48544-909V-007-ALTA.dwg | Plotted on 7/11/2022 2:10 PM | by Robert Mann

MICHIGAN DRIVE
50' PUBLIC R/W

NAD 83

MICHIGAN DRIVE
50' PUBLIC R/W

BOX CULVERT DETAIL
N.T.S.

ASBURY PLACE APARTMENTS

PIN #2000235
PIN #2000239
NOW OR FORMERLY
HAMPTON REDEVELOPMENT &
HOUSING AUTHORITY
INSTR. #130011863

PIN #2000236
NOW OR FORMERLY
VIRGINIA ELECTRIC & POWER
D.B. 426, PG. 618

PIN #2000240
NOW OR FORMERLY
ROANOKE-VINTON RADIO INC
D.B. 605, PG. 670
D.B. 1275, PG. 881

50' VIRGINIA ELECTRIC AND
POWER COMPANY EASEMENT
D.B. 229, PG. 86
D.B. 365, PG. 606
14-11

CITY OF HAMPTON 15'
ACCESS EASEMENT
D.B. 409, PG. 735
19-11

18' VIRGINIA ELECTRIC AND
POWER COMPANY EASEMENT
D.B. 913, PG. 879
2-12 3-13 4-15

FEMA FLOOD ZONE X (SHADED)
FEMA FLOOD ZONE AE (BFE = 8)

U/G UNKNOWN
SIGNAL CONDUCTORS

U/G NATURAL GAS - 2" PL
(VA. NATURAL GAS)

U/G WATERLINE - 8"
(NEWPORT NEWS WW)

U/G POWER

GAS APPROX. LOCATION
N3°10'52"W
807.83'

GAS APPROX. LOCATION
N29°20'21"W
443.09'

GAS APPROX. LOCATION
N89°08'07"E
697.42'

PID #2000403
HAMPTON REDEVELOPMENT
AND HOUSING AUTHORITY
(SEE SHEET 1 FOR DEED REF.)

PID #2000404
HAMPTON REDEVELOPMENT
AND HOUSING AUTHORITY
(SEE SHEET 1 FOR DEED REF.)

PID #2000401
HAMPTON REDEVELOPMENT
AND HOUSING AUTHORITY
(SEE SHEET 1 FOR DEED REF.)

PID #2000402
HAMPTON REDEVELOPMENT
AND HOUSING AUTHORITY
(SEE SHEET 1 FOR DEED REF.)

PID #2000370
HAMPTON REDEVELOPMENT
AND HOUSING AUTHORITY
(SEE SHEET 1 FOR DEED REF.)

BARRINGTON WOODS APARTMENTS

PIN #2000242
NOW OR FORMERLY
DBC BARRINGTON BSD LLC
P.B. 6, PG. 52
INSTR. #210022919

EXISTING CONC. SLAB

CONC. SWALE

CATCH BASIN
RIM=6.74
INV=4.64

CATCH BASIN
RIM=7.48
INV=4.33

CATCH BASIN
RIM=7.28
INV=5.48

CATCH BASIN
RIM=9.09
INV=4.19

CATCH BASIN
RIM=8.93
INV=4.43

CATCH BASIN
RIM=9.46
INV=4.56

CATCH BASIN
RIM=9.00
INV=4.75

CATCH BASIN
RIM=9.10
INV=4.95

CATCH BASIN
RIM=7.42
INV=3.32

CATCH BASIN
RIM=7.0
INV=4.50

CATCH BASIN
RIM=6.9
INV=4.60

CATCH BASIN
RIM=7.24
INV=(FILLED)

CATCH BASIN
RIM=7.28
INV=4.30

CATCH BASIN
RIM=7.52
INV=4.72

CATCH BASIN
RIM=8.04
INV=4.26

CATCH BASIN
RIM=6.9
INV=4.90

CATCH BASIN
RIM=6.7
INV=4.70

CATCH BASIN
RIM=6.7
INV=4.85

CATCH BASIN
RIM=7.06
INV=5.26

CATCH BASIN
RIM=7.17
INV=4.47

CATCH BASIN
RIM=6.5

CATCH BASIN
RIM=6.5

STORM MH
RIM=7.18
INV=1.83
WATER LEVEL @ 4.7

STORM MH
IM=8.89
IV (24")=NOT ACCESSIBLE
IV (60")=8.89

STORM MH
RIM=8.67
INV (60")=2.17

STORM MH
RIM=8.71
INV=2.13

SANITARY MH
RIM=9.30
INV=5.42

SANITARY MH
RIM=7.42
INV=(-0.48)

SANITARY MH
RIM=7.80
INV=0.50

SANITARY MH
RIM=7.32
INV=4.27

SANITARY MH
RIM=8.87
INV=4.77

SANITARY MH
RIM=8.72
INV=4.07

SANITARY MH
RIM=7.67
INV=1.12

SANITARY MH
RIM=7.29

CONCRETE HEADWALL
UNDER CONC.
STRUCTURE
(NOT ACCESSIBLE)

DUMP

MAIL

ROD /S

IPF

WATER LEVEL @ TIME OF SURVEY

APPROX. LOCATION OF
U/G WATERLINE - 8"
(NEWPORT NEWS WW)
UNABLE TO FIELD LOCATE.

8" CLAY SS

12" CLAY SS

4" SS

6" SS

8" SS

SAN. MH
RIM=8.3
INV=3.71

FEMA FLOOD ZONE X (SHADED)
FEMA FLOOD ZONE AE (BFE = 8)

FEMA FLOOD
ZONE X (SHADED)

Lic. No. 002509
12/1/2021
ROBERT D. MANN
LAND SURVEYOR

SCALE 1"=50'
0 50' 100'

ALTA/NSPS LAND TITLE SURVEY
LINCOLN PARK & W. QUEEN STREET PARCELS
PROPERTY OF
HAMPTON HOUSING AND REDEVELOPMENT AUTHORITY

Wythe District	City of Hampton, VA
Date: 12/1/2021	Scale: 1"=30'
Sheet 8 of 10	J.N.: 48544-909
Drawn by: C. Judson	Checked by: R. Mann
Revised:	

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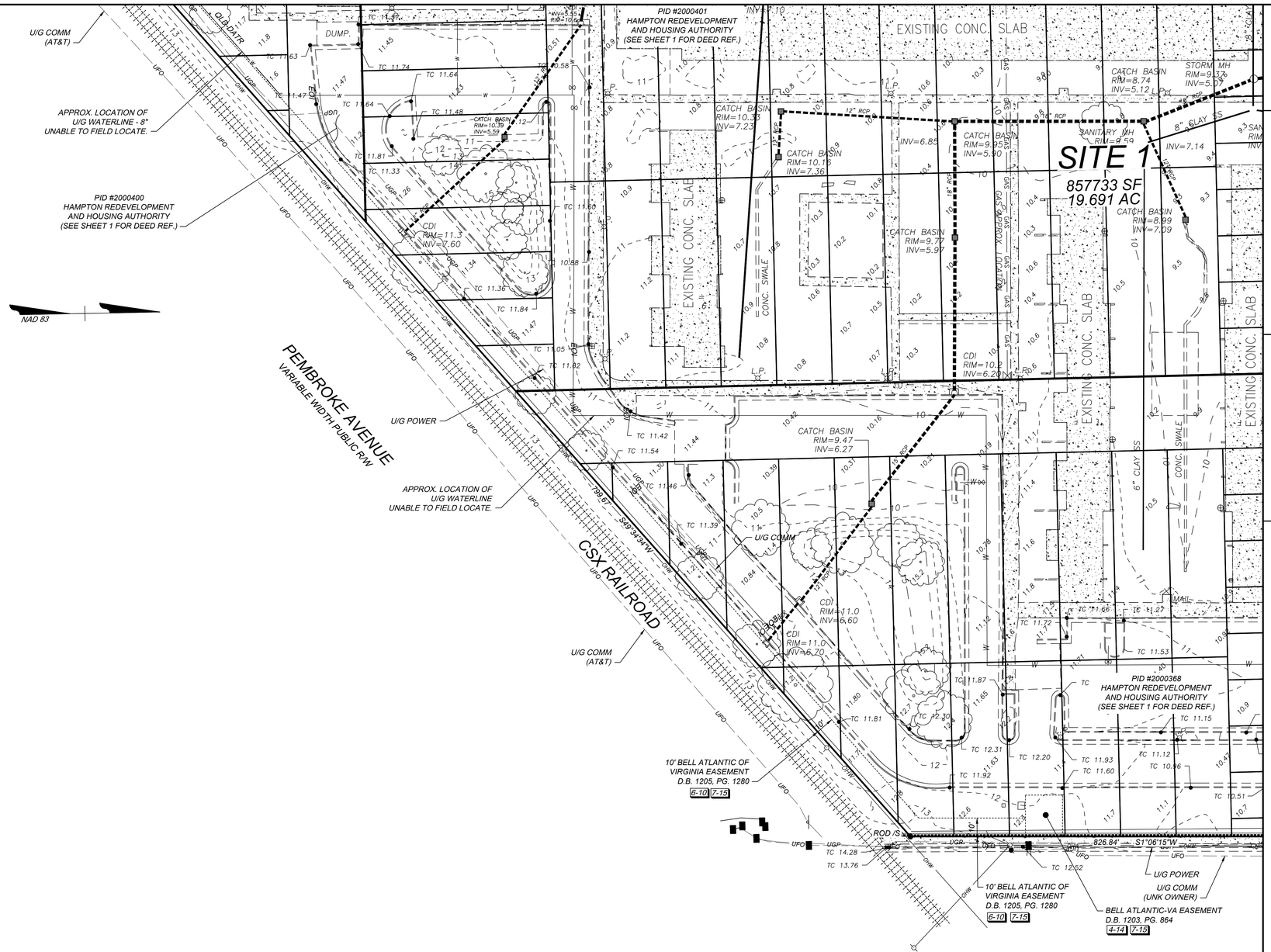

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COMMONWEALTH OF VIRGINIA
ROBERT D. MANN
Lic. No. 002509
12/1/2021
LAND SURVEYOR

SCALE 1"=30'
0 30' 60'

ALTA/NSPS LAND TITLE SURVEY
LINCOLN PARK & W. QUEEN STREET PARCELS
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HAMPTON HOUSING AND REDEVELOPMENT AUTHORITY

Wythe District	City of Hampton, VA
Date: 12/1/2021	Scale: 1"=30'
Sheet 9 of 10	J.N.: 48544-909
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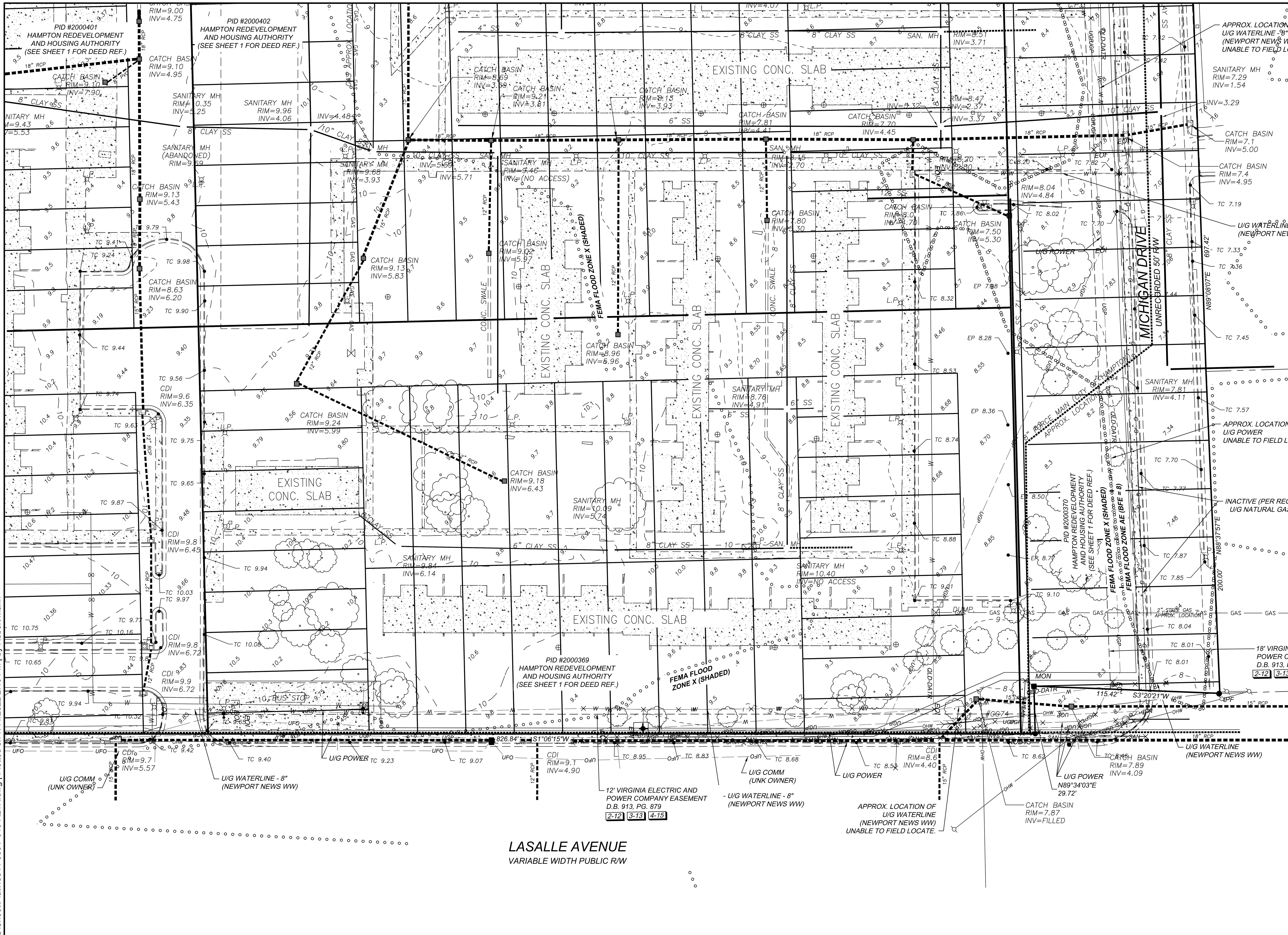

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COMMONWEALTH OF VIRGINIA
ROBERT D. MANN
Lic. No. 002509
12/1/2021
LAND SURVEYOR

SCALE 1"=30'
0 30' 60'

ALTA/NSPS LAND TITLE SURVEY
LINCOLN PARK & W. QUEEN STREET PARCELS
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LINCOLN PARK REDEVELOPMENT

Traffic Impact Analysis

CITY OF HAMPTON, VIRGINIA

November 2021

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1 EXECUTIVE SUMMARY

This report presents the findings of the traffic impact analysis prepared for the proposed Lincoln Park redevelopment in the City of Hampton, Virginia. The proposed development is located west of LaSalle Avenue, bordered by W. Pembroke Avenue to the south and Michigan Drive to the north as shown in Figure 1-1 (all figures are located at the end of their respective chapter).

The majority of site is currently vacant, with a small portion currently occupied by three (3) single family homes. The site currently has three (3) full movement access points: two (2) connecting to Michigan Drive and one (1) connecting to LaSalle Avenue.

As shown on Figure 1-2, the proposed development will repurpose the existing site with 320 apartments and 118 townhomes.

With the proposed redevelopment, access will be provided via three (3) full access points: one (1) existing full access point on LaSalle Avenue, and two (2) full access points on Michigan Avenue as shown in Figure 1-2. The existing full access point on Michigan Drive adjacent to the power lines and the three (3) individual driveways associated with the single-family homes will be closed.

As shown in Section 5, the proposed redevelopment will generate 163 trips during the AM peak hour, 203 trips during the PM peak hour, and 2,593 average daily trips.

For the purposes of this analysis, the development was assumed to be occupied and operational by 2023.

The purpose of this analysis is to determine the impact of the proposed development on the surrounding roadway network. The scope of this study was developed in conjunction with the City of Hampton and a copy of the correspondence is included in Appendix A.

As agreed upon with the City, the study limits include the following intersections:

- LaSalle Avenue and W. Pembroke Avenue (Signalized)
- LaSalle Avenue and Site Driveway/Georgia Street (Unsignalized)
- LaSalle Avenue and Michigan Drive/YMCA Driveway (Signalized)
- LaSalle Avenue and N. Armistead Avenue (Signalized)
- N. Armistead Avenue and Thomas Street (Signalized)

In accordance with the scoping agreement, analyses were completed for the following three (3) scenarios:

1. 2021 Existing Traffic Conditions;
2. 2023 Background Traffic Conditions (without development of the site);
3. 2023 Future Traffic Conditions (with development of the site).

Analyses were completed for all scenarios for the weekday AM and weekday PM peak hours.

The following steps were taken to determine the potential traffic impacts associated with this project:

1. Data Collection – Traffic counts were taken at the aforementioned study intersections on Thursday July 22, 2021 during the morning and evening peak hours.

2. Other Development – As agreed upon during scoping, no approved background developments were noted/accounted for within the study limits.

3. Traffic Growth – In order to be conservative and to account for development outside the study area, a 1% annual growth rate was applied to all traffic at the study intersections from 2021 to 2023.

4. Trip Generation – Traffic generated by the proposed development was based on information contained in the Institute of Transportation Engineers *Trip Generation Manual, 10th Edition*.

5. Traffic Distributions – The distribution of trips generated by the proposed developed were based on the existing traffic volumes and the nature of the use.

6. Traffic Projections – Future traffic volumes were determined using the existing traffic counts, the 1% growth rate, and the trips generated by the site.

7. Traffic Capacity Analysis – Level of service calculations for existing, background, and future conditions were performed using SYNCHRO Version 10.3 with SimTraffic for signalized and unsignalized intersections.

8. Queuing Analysis – The 95th percentile queue lengths (Synchro) and maximum queues (SimTraffic) were reviewed at the intersections listed above.

This traffic impact analysis (TIA) has been prepared in accordance with (1) the VDOT *Traffic Operations and Safety Analysis Manual (TOSAM)*, and (2) the Scope of Study agreed upon between the City of Hampton and Timmons Group.

Based on the operational analyses the following is offered:

- Under 2021 existing conditions:
    - At the signalized intersection of LaSalle Avenue and W. Pembroke Avenue, the overall intersection operates at a LOS C during the AM peak hour and LOS D during the PM peak hour. The eastbound and westbound lefts; and northbound approach operate at a LOS E during the PM peak hour.
        - During the AM peak hour, the maximum queue length for the eastbound left exceeds the available storage, spilling back into the through lanes. All other turn bays at this intersection have adequate storage to accommodate the 95th percentile (SYNCHRO) and maximum (SimTraffic) queue lengths during the AM peak hour.
        - During the PM peak hour, the 95th percentile queue length for the southbound and eastbound lefts exceeds the available storage, spilling back into the through lanes. The southbound approach 95th percentile queue length backs up through the adjacent intersection of LaSalle Avenue and Georgia Street.
    - At the unsignalized intersection of LaSalle Avenue and Georgia Street, the eastbound and westbound approaches operate at a LOS B or better during both AM and PM peak hours.

- At the signalized intersection of LaSalle Avenue and Michigan Drive, the overall intersection operates at a LOS B during both AM and PM peak hours. The eastbound and westbound approaches both operate at a LOS D during the AM peak hour and LOS E during the PM peak hour.

- At the signalized intersection of LaSalle Avenue and N. Armistead Avenue, the overall intersection operates at a LOS C during both AM and PM peak hours. The southbound approach operates at a LOS E during the PM peak hour.

- At the signalized intersection of N. Armistead Avenue and Thomas Street, the overall intersection operates at a LOS C during both AM and PM peak hours. All movements/approaches operate at LOS D or better during both peak hours.

- Except as noted above, all turn bays have adequate storage to accommodate the 95th percentile (SYNCHRO) and maximum (SimTraffic) queue lengths during both AM and PM peak hours.

- Under 2023 background conditions with the 1% annual growth rate in existing traffic:

  - At the signalized intersection of LaSalle Avenue and W. Pembroke Avenue, the overall intersection will continue to operate at a LOS C during the AM peak hour and LOS D during the PM peak hour. The eastbound and westbound lefts; and northbound approach will continue to operate at a LOS E during the PM peak hour.
    - During the AM peak hour, the maximum queue length for the eastbound left will continue to exceed the available storage, spilling back into the through lanes. All other turn bays at this intersection have adequate storage to accommodate the 95th percentile (SYNCHRO) and maximum (SimTraffic) queue lengths during the AM peak hour.
    - During the PM peak hour, the 95th percentile queue length for the southbound and eastbound lefts will continue to exceed the available storage, spilling back into the through lanes. The southbound approach 95th percentile queue length will continue to back up through the adjacent intersection of LaSalle Avenue and Georgia Street.

  - At the unsignalized intersection of LaSalle Avenue and Georgia Street, the eastbound approach will operate at a LOS B during the AM peak hour and LOS C during the PM peak hour. The westbound approach will operate at a LOS B during the AM peak hour and LOS A during the PM peak hour.

  - At the signalized intersection of LaSalle Avenue and Michigan Drive, the overall intersection will continue to operate at a LOS B during both AM and PM peak hours. The eastbound and westbound approaches will both continue to operate at a LOS D during the AM peak hour and LOS E during the PM peak hour.

  - At the signalized intersection of LaSalle Avenue and N. Armistead Avenue, the overall intersection will continue to operate at a LOS C during both AM and PM peak hours. The southbound approach will continue to operate at a LOS E during the PM peak hour.

  - At the signalized intersection of N. Armistead Avenue and Thomas Street, the overall intersection will continue to operate at a LOS C during both AM and PM peak hours.

  - Except as noted above, all turn bays will continue to have adequate storage to accommodate the 95th percentile (SYNCHRO) and maximum (SimTraffic) queue lengths during both AM and PM peak hours.

- There are no planned roadway improvements within the vicinity of the site.

- When complete, the proposed development will generate a total of 163 external AM peak hour trips (41 in and 122 out), 203 external PM peak hour trips (125 in and 78 out), and 2,593 external average weekday daily trips.

- Under 2023 total future conditions with the traffic from the proposed Lincoln Park redevelopment:

  - There are no significant changes in LOS or queueing between existing, background, and total future conditions for the study intersections.

  - The redevelopment of Lincoln Park will have minimal impact to the surrounding roadway network and no improvements are required at the study intersections.

  - At the signalized intersection of LaSalle Avenue and W. Pembroke Avenue, the overall intersection will continue to operate at a LOS C during the AM peak hour and LOS D during the PM peak hour.
    - During the AM peak hour, the maximum queue length for the eastbound left will continue to exceed the available storage, spilling back into the through lanes. All other turn bays at this intersection have adequate storage to accommodate the 95th percentile (SYNCHRO) and maximum (SimTraffic) queue lengths during the AM peak hour.
    - During the PM peak hour, the 95th percentile queue length for the southbound and eastbound lefts will continue to exceed the available storage, spilling back into the through lanes. The southbound approach 95th percentile queue length will continue to back up through the adjacent intersection of LaSalle Avenue and Georgia Street.

  - At the unsignalized intersection of LaSalle Avenue and Georgia Street, the eastbound approach will operate at a LOS B during the AM peak hour and LOS C during the PM peak hour. The westbound approach will operate at a LOS A during the AM peak hour and LOS B during the PM peak hour.

  - At the signalized intersection of LaSalle Avenue and Michigan Drive, the overall intersection will operate at a LOS C during the AM peak LOS B in the PM peak hour. The eastbound and westbound approaches will continue to operate at LOS D in the AM peak and LOS E in the PM peak.

  - At the signalized intersection of LaSalle Avenue and N. Armistead Avenue, the overall intersection will continue to operate at a LOS C during both AM and PM peak hours. The southbound approach will continue to operate at LOS D in the AM peak and LOS E in the PM peak.

- At the signalized intersection of N. Armistead Avenue and Thomas Street, the overall intersection will continue to operate at a LOS C during both AM and PM peak hours.

- Except as noted above, all turn bays will continue to have adequate storage to accommodate the 95th percentile (SYNCHRO) and maximum (SimTraffic) queue lengths during both AM and PM peak hours.

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Surrounding Roadway Network & Site Location
Lincoln Park Redevelopment
City of Hampton, Virginia

Figure 1-1

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Site Layout
Lincoln Park Redevelopment
Hampton, Virginia

Figure
1-2

2 BACKGROUND INFORMATION

2.1 DESCRIPTION OF ON-SITE DEVELOPMENT

The proposed development is located west of LaSalle Avenue, bordered by W. Pembroke Avenue to the south and Michigan Drive to the north as shown in Figure 1-1 (all figures are located at the end of their respective chapter).

The majority of site is currently vacant, with a small portion currently occupied by three (3) single family homes. The site currently has three (3) full movement access points: two (2) connecting to Michigan Drive and one (1) connecting to LaSalle Avenue.

As shown on Figure 1-2, the proposed development will repurpose the existing site with 320 apartments and 118 townhomes.

With the proposed redevelopment, access will be provided via three (3) full access points: one (1) existing full access point on LaSalle Avenue, and two (2) full access points on Michigan Avenue as shown in Figure 1-2. The existing full access point on Michigan Drive adjacent to the power lines and the three (3) individual driveways associated with the single-family homes will be closed.

2.2 STUDY LIMITS

As agreed upon with the City, the study limits include the following intersections:

- LaSalle Avenue and W. Pembroke Avenue (Signalized)
- LaSalle Avenue and Site Driveway/Georgia Street (Unsignalized)
- LaSalle Avenue and Michigan Drive/YMCA Driveway (Signalized)
- LaSalle Avenue and N. Armistead Avenue (Signalized)
- N. Armistead Avenue and Thomas Street (Signalized)

2.3 EXISTING ROADWAYS NETWORK

LaSalle Avenue is a four-lane minor arterial with auxiliary turning lanes and transitions from median divided to undivided across the study area. The roadway has a speed limit of 35 mph south of N. Armistead Avenue and 55 mph north of N. Armistead Avenue, carrying approximately 19,000 to 22,000 vpd (vehicles per day) per the VDOT traffic counts from 2019. For the purposes of this analysis, the road was assumed to run north-south through the study area.

W. Pembroke Avenue (Route 351) is a four-lane minor arterial with auxiliary turning lanes and transitions from median divided to undivided across the study area. The roadway has a speed limit of 35 mph, carrying approximately 10,000 vpd (vehicles per day) per the VDOT traffic counts from 2019. For the purposes of this analysis, the road was assumed to run east-west through the study area.

N. Armistead Avenue (Route 134) is a four-lane median-divided roadway with a speed limit of 45 mph. It is listed as a major arterial west of LaSalle Avenue and a minor arterial east of LaSalle Avenue, carrying approximately 17,000 vpd (vehicles per day) per the VDOT traffic counts from 2019.

Michigan Drive is a two-lane undivided local roadway with a speed limit of 25 mph that has no available VDOT traffic data. For the purposes of this analysis, the road was assumed to run east-west through the study area.

Thomas Street is a two-lane undivided local roadway with a speed limit of 25 mph that has no available VDOT traffic data. For the purposes of this analysis, the road was assumed to run north-south through the study area.

The existing lane use and traffic control at the study intersections is shown on Figure 2-1.

2.4 OTHER MODES OF TRANSPORTATION

Currently, there are sidewalks on both sides of LaSalle Avenue between Michigan Drive and W. Pembroke Avenue and on both sides of Michigan Drive. West Pembroke Avenue has a sidewalk on the south side of the road between LaSalle Avenue and Patterson Avenue. The applicant is proposing to maintain the existing pedestrian facilities with the construction of the site.

It is possible that a small number of site trips may be made via walking/biking; however, since the sidewalk network is incomplete (does not extend outside the immediate vicinity of the site), no reduction in trips were taken for walking or bicycling.

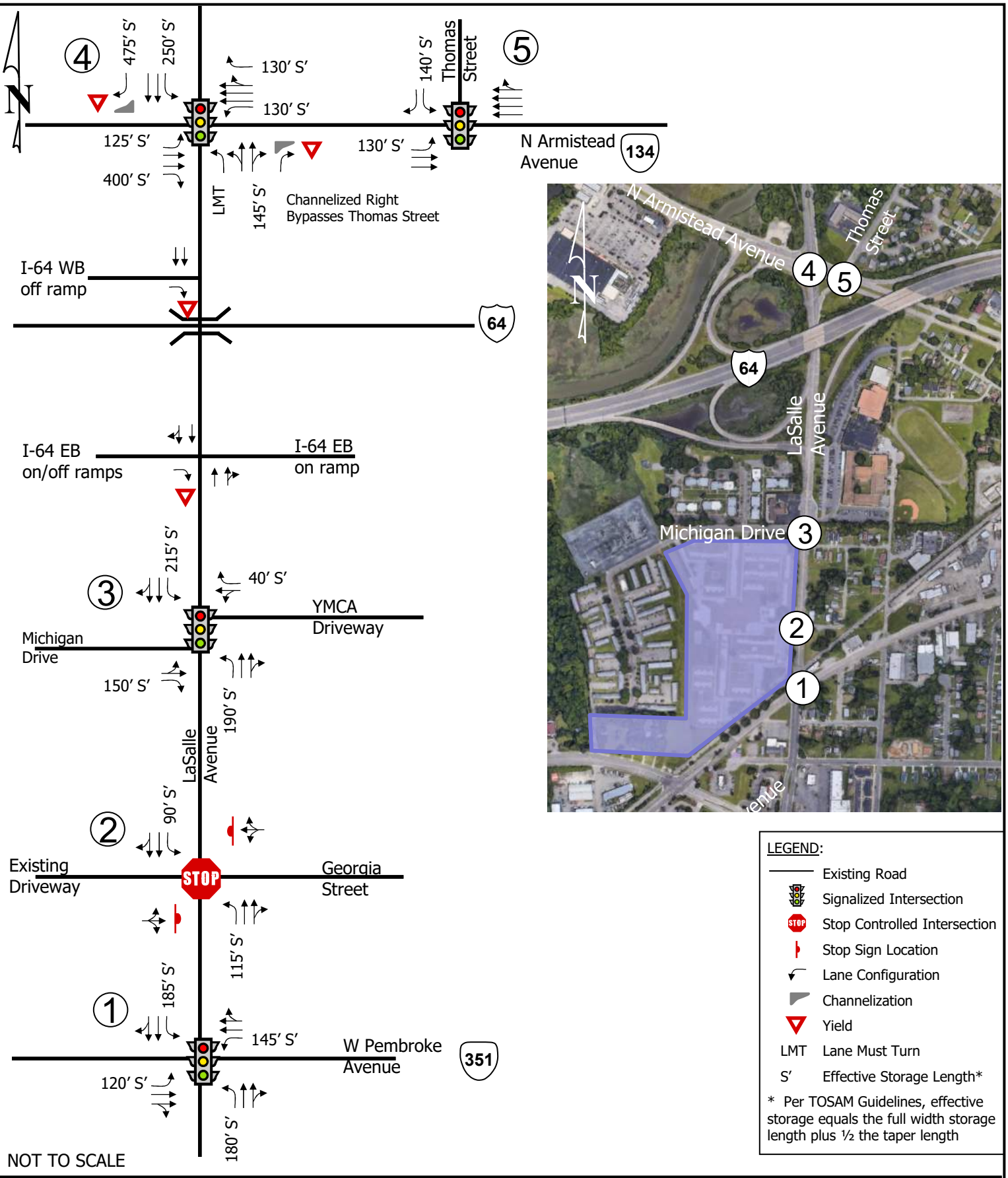
Three (3) Hampton Roads Transit (HRT) Routes (102, 110, and 118) currently run through the study area. All three routes connect to the Hampton Transit Center at the intersection of Pembroke Avenue and King Street.

Route 102 runs east-west through the study area with the closest bus stops located at the intersections of W. Queen Street and Michigan Drive; and W. Pembroke Avenue and LaSalle Avenue.

Route 110 runs east-west through the study area with the closest bus stops located at the intersections of LaSalle Avenue and Georgia Street; W. Queen Street and Michigan Drive; and along Michigan Drive.

Route 118 runs north-south through the study area with the closest bus stop located at the intersection of LaSalle Avenue and Georgia Street.

It is likely a portion of site trips will be made via transit and not passenger vehicles. However, in order to represent a conservative (worst case) analysis, no reductions in trips were applied for transit usage.



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Existing Intersection Geometry
Lincoln Park Redevelopment
Hampton, Virginia

Figure 2-1

3 2021 EXISTING CONDITIONS ANALYSIS

3.1 2021 EXISTING TRAFFIC VOLUMES

Existing AM and PM peak hours traffic counts were conducted at each of the study intersections on Thursday July 22, 2021. The counts were conducted from 7:00 to 9:00 AM and 4:00 to 6:00 PM and included heavy vehicles by movement and pedestrians. The southbound left movement at the intersection of N. Armistead Avenue and LaSalle Avenue was excluded from the counts per the scoping agreement with the City of Hampton.

The complete traffic data is included in Appendix B.

The 2021 traffic counts were compared to 2013 traffic counts provided by the City at the intersections of LaSalle Avenue with Michigan Drive and W. Pembroke Avenue to see if there was any discrepancy due to the COVID-19 pandemic. It was found that the 2021 AM traffic volumes were an average of 37.5% lower than those counted in 2013. The 2021 PM traffic volumes were an average of 2% higher than those counted in 2013.

Thus, the 2021 AM traffic counts were adjusted upwards by 37.5% at all intersections to account for new traffic patterns associated with the COVID-19 pandemic. The 2021 PM traffic counts were not adjusted.

The unadjusted 2021 Existing Volumes can be found in Figure 3-1 and the 2021 Adjusted Existing Volumes can be found in Figure 3-2.

3.2 CAPACITY ANALYSIS

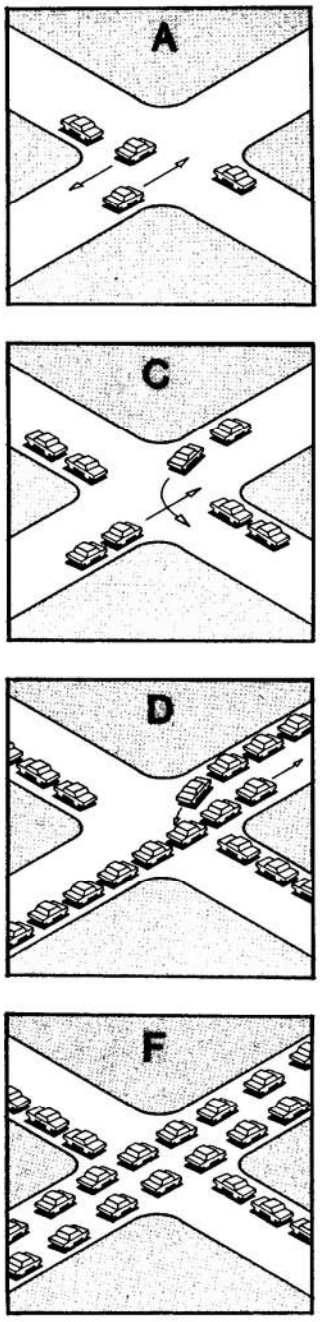
Capacity analysis allows traffic engineers to determine the impacts of traffic on the surrounding roadway network. The Transportation Research Board's (TRB) *Highway Capacity Manual* (HCM) methodologies govern how the capacity analyses are conducted and how the results are interpreted. There are six letter grades of Levels of Service (LOS) from A to F, with LOS A representing the best operating conditions and LOS F the worst operating conditions. Table 3-1 shows in detail each of these levels of service are interpreted.

Table 3-1: Level of Service Definitions

LEVEL OF SERVICE DEFINITIONS

L.O.S.	ROADWAY SEGMENTS OR CONTROLLED ACCESS HIGHWAYS	INTERSECTIONS
A	Free flow, low traffic density.	No vehicle waits longer than one signal indication.
B	Delay is not unreasonable, stable traffic flow.	On a rare occasion motorists wait through more than one signal indication.
C	Stable condition, movements somewhat restricted due to higher volumes, but not objectionable for motorists.	Intermittently drivers wait through more than one signal indication, and occasionally backups may develop behind left turning vehicles, traffic flow still stable and acceptable.
D	Movements more restricted, queues and delays may occur during short peaks, but lower demands occur often enough to permit clearing, thus preventing excessive backups.	Delays at intersections may become extensive with some, especially left-turning vehicles waiting two or more signal indications, but enough cycles with lower demand occur to permit periodic clearance, thus preventing excessive back-ups.
E	Actual capacity of the roadway involves delay to all motorists due to congestion.	Very long queues may create lengthy delays, especially for left turning vehicles.
F	Forced flow with demand volumes greater than capacity resulting in complete congestion. Volumes drop to zero in extreme cases.	Backups from locations downstream restrict or prevent movement of vehicles out of approach creating a storage area during part or all of an hour.

SOURCE: A Policy on Design of Design of Urban Highways and Arterial Streets - AASHTO, 1973 based upon material published in Highway Capacity Manual, National Academy of Sciences, 1965.



For both unsignalized and signalized intersections, level of service is defined in terms of delay, a measure of driver discomfort, frustration, fuel consumption and lost travel time. Table 3-2 summarizes the delay associated with each LOS category:

Table 3-2: Unsignalized and Signalized Intersection Level of Service Criteria

Unsignalized Intersections		Signalized Intersections	
Level of Service	Delay per Vehicle (sec)	Level of Service	Delay per Vehicle (sec)
A	≤10.0	A	≤ 10.0
B	>10.0 to ≤15.0	B	>10. to ≤20.0
C	>15.0 to ≤25.0	C	>20.1 to ≤35.0
D	>25.0 to ≤35.0	D	>35.1 to ≤55.0
E	>35.0 to ≤50.0	E	>55.1 to ≤80.0
F	>50.0	F	> 80.1

Capacity analyses were performed to assess existing (2021), background (2023), and future (2023) operational conditions. The signalized and unsignalized intersections were analyzed using SYNCHRO Version 10.3 based on HCM 2000 methodologies with the following assumptions:

- Level terrain;
- 12-foot lane widths;
- No parking activity or bus stops;
- Existing peak hour factor as determined by the traffic counts (by intersection) for existing scenario;
- Future peak hour factor as the higher of the existing peak hour factor as determined by traffic counts (by intersection) or a peak hour factor of 0.92;
- Heavy vehicle percentage as determined by the traffic counts (by movement); and
- Traffic signals timing data provided by the City of Hampton. Since the West Mercury Boulevard corridor is coordinated, the cycle length and splits were held consistent across all analysis scenarios.

3.3 2021 EXISTING CONDITIONS ANALYSIS RESULTS

Table 3-3 summarizes the 2021 existing intersection LOS, delay, 95th percentile (Synchro) queue lengths, and maximum (SimTraffic) queue lengths based on the 2021 adjusted existing peak hour traffic volumes shown on Figure 3-2, the existing lane geometry shown on Figure 2-1, and the existing traffic signal timings. The corresponding SYNCHRO worksheets are included in Appendix C.

As shown in Table 3-3, under 2021 existing conditions:

- At the signalized intersection of LaSalle Avenue and W. Pembroke Avenue, the overall intersection operates at a LOS C during the AM peak hour and LOS D during the PM peak hour. The eastbound and westbound lefts; and northbound approach operate at a LOS E during the PM peak hour.
    - During the AM peak hour, the maximum queue length for the eastbound left exceeds the available storage, spilling back into the through lanes. All other turn bays at this intersection have adequate storage to accommodate the 95th percentile (SYNCHRO) and maximum (SimTraffic) queue lengths during the AM peak hour.
    - During the PM peak hour, the 95th percentile queue length for the southbound and eastbound lefts exceeds the available storage, spilling back into the through lanes. The southbound approach 95th percentile queue length backs up through the adjacent intersection of LaSalle Avenue and Georgia Street.

- At the unsignalized intersection of LaSalle Avenue and Georgia Street, the eastbound and westbound approaches operate at a LOS B or better during both AM and PM peak hours.

- At the signalized intersection of LaSalle Avenue and Michigan Drive, the overall intersection operates at a LOS B during both AM and PM peak hours. The eastbound and westbound approaches both operate at a LOS D during the AM peak hour and LOS E during the PM peak hour.

- At the signalized intersection of LaSalle Avenue and N. Armistead Avenue, the overall intersection operates at a LOS C during both AM and PM peak hours. The southbound approach operates at a LOS E during the PM peak hour.

- At the signalized intersection of N. Armistead Avenue and Thomas Street, the overall intersection operates at a LOS C during both AM and PM peak hours. All movements/approaches operate at LOS D or better during both peak hours.

- Except as noted above, all turn bays have adequate storage to accommodate the 95th percentile (SYNCHRO) and maximum (SimTraffic) queue lengths during both AM and PM peak hours.

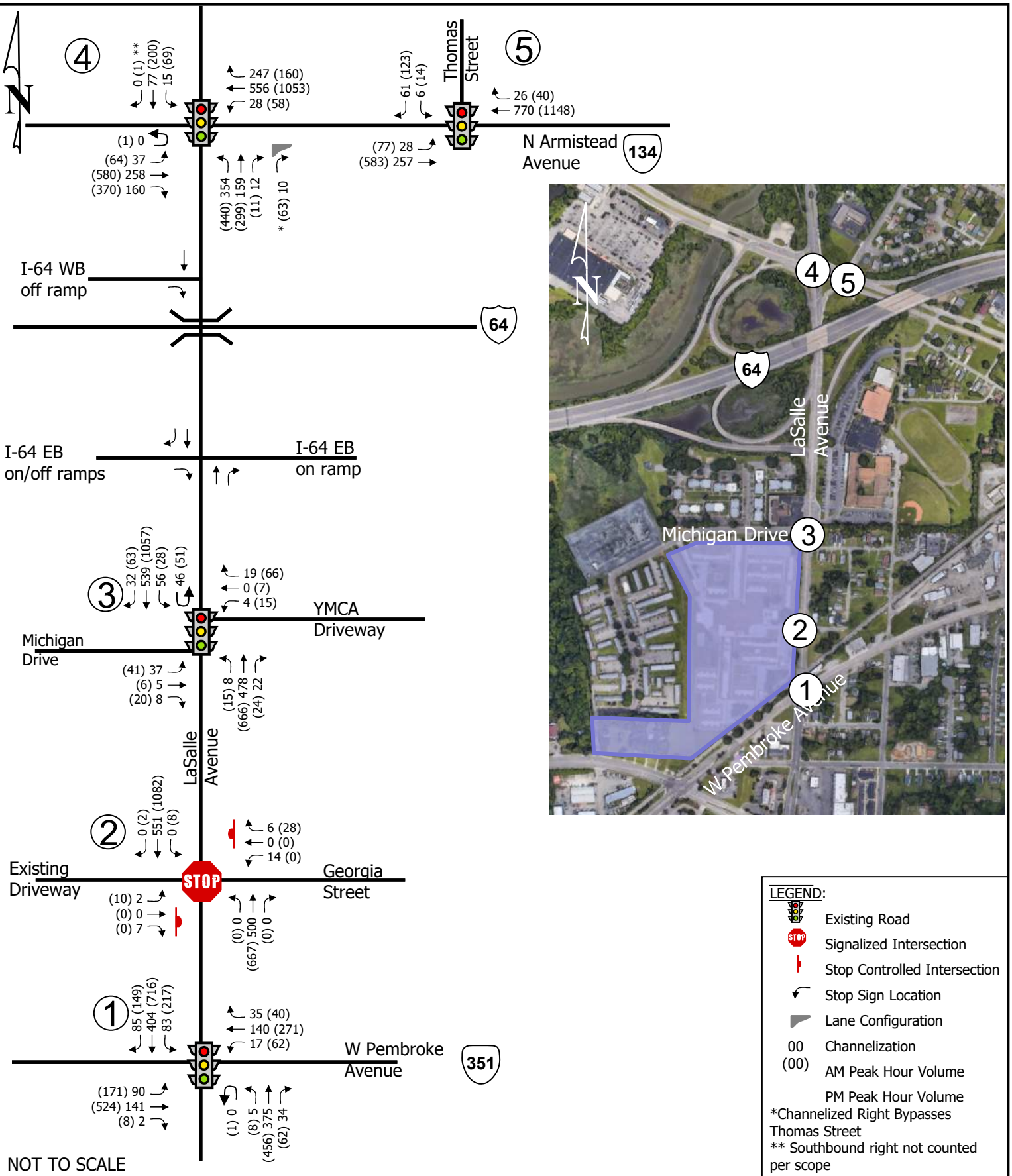
Table 3-3: 2021 Existing Conditions LOS and Queue Results

Intersection and Type of Control	Movement and Approach	Effective Turn Lane Storage (ft)	AM PEAK HOUR				PM PEAK HOUR			
			Delay [1] (sec/veh)	LOS [1]	Synchro 95th Percentile Queue Length (ft)	SimTraffic Max Queue Length (ft)	Delay [1] (sec/veh)	LOS [1]	Synchro 95th Percentile Queue Length (ft)	SimTraffic Max Queue Length (ft)
1. LaSalle Avenue (N-S) and	EB Left	120	52.6	D	151	118	57.4	E	#269	120
W. Pembroke Avenue (E-W)	EB Thru - Right		22.0	C	96	210	34.4	C	286	360
Signalized	*EB Approach*		*33.8*	*C*	--	--	*40.0*	*D*	--	--
	WB Left	145	53.1	D	45	74	66.8	E	101	144
	WB Thru - Right		29.5	C	133	175	41.2	D	174	222
	WB Approach		*31.6*	*C*	--	--	*45.4*	*D*	--	--
	NB Left	180	33.3	C	17	8	42.7	D	22	50
	NB Thru - Right		45.4	D	263	219	56.4	E	285	243
	NB Approach		*45.2*	*D*	--	--	*56.2*	*E*	--	--
	SB Left	185	22.6	C	105	184	33.0	C	249	184
	SB Thru - Right		26.3	C	281	275	36.6	D	495	301
	SB Approach		*25.8*	*C*	--	--	*35.9*	*D*	--	--
	Overall		**33.6**	**C**	**--**	**--**	**42.3**	**D**	**--**	**--**
2. LaSalle Avenue (N-S) and	*EB Approach*		10.3	B	1	40	19.2	B	3	50
Georgia Street/Site Driveway (E-W)	*WB Approach*		12.6	B	5	55	9.0	A	2	44
Unsignalized	NB Left	*115*	†	†	--	--	†	†	0	0
	NB Thru - Right		†	†	0	0	†	†	0	0
	NB Approach		†	†	0	--	†	†	--	--
	SB Left	*215*	†	†	--	--	8.4	A	1	26
	SB Thru - Right		†	†	0	18	†	†	0	87
	SB Approach		†	†	0	--	†	†	--	--
3. LaSalle Avenue (N-S) and	EB Left - Thru		51.4	D	84	131	61.5	E	81	133
Michigan Drive/YMCA Driveway (E-W)	EB Right	150	46.3	D	0	58	56.5	E	0	88
Signalized	*EB Approach*		*50.6*	*D*	--	--	*60.0*	*E*	--	--
	WB Left - Thru		51.7	D	19	55	61.3	E	49	120
	WB Right	40	51.0	D	0	39	59.3	E	0	50
	WB Approach		*51.2*	*D*	--	--	*59.8*	*E*	--	--
	NB Left	190	15.4	B	12	64	5.5	A	11	52
	NB Thru - Right		20.9	C	340	249	8.8	A	281	295
	NB Approach		*20.8*	*C*	--	--	*8.7*	*A*	--	--
	SB Left	90	7.6	A	83	76	5.1	A	36	81
	SB Thru - Right		8.1	A	223	150	6.5	A	253	188
	SB Approach		*8.0*	*A*	--	--	*6.4*	*A*	--	--
	Overall		**15.7**	**B**	**--**	**--**	**11.2**	**B**	**--**	**--**
4. LaSalle Avenue (N-S) and	EB Left	125	23.4	C	50	106	25.9	C	63	125
N. Armistead Avenue (E-W)	EB Thru		28.8	C	161	163	33.3	C	271	277
Signalized	EB Right	400	11.1	B	16	47	13.0	B	51	103
	EB Approach		*22.1*	*C*	--	--	*25.4*	*C*	--	--
	WB Left	130	4.5	A	8	56	3.9	A	9	66
	WB Thru		6.4	A	38	63	6.2	A	43	101
	WB Right	130	4.5	A	27	30	0.4	A	0	9
	WB Approach		*6.0*	*A*	--	--	*5.5*	*A*	--	--
	NB Left		53.8	D	319	212	27.6	C	178	196
	NB Thru		50.3	D	279	142	24.9	C	162	204
	NB Approach		*51.5*	*D*	--	--	*25.8*	*C*	--	--
	SB Left	250	48.0	D	42	56	56.5	E	108	131
	SB Thru		49.3	D	72	109	59.7	E	131	166
	SB Right	475	0.0	A	--	--	0.0	A	--	--
	SB Approach		*49.1*	*D*	--	--	*58.6*	*E*	--	--
	Overall		**24.5**	**C**	**--**	**--**	**20.5**	**C**	**--**	**--**
5. Thomas Street (S) and	EB Left	130	31.5	C	65	84	37.3	D	118	128
N. Armistead Avenue (E-W)	EB Thru		1.1	A	8	64	0.7	A	10	176
Signalized	*EB Approach*		*4.1*	*A*	--	--	*5.0*	*A*	--	--
	WB Thru - Right		29.2	C	239	234	31.0	C	295	240
	WB Approach		*29.2*	*C*	--	--	*31.0*	*C*	--	--
	SB Left	140	31.4	C	16	34	38.1	D	27	43
	SB Right		31.8	C	37	81	38.5	D	48	109
	SB Approach		*31.7*	*C*	--	--	*38.5*	*D*	--	--
	Overall		**23.1**	**C**	**--**	**--**	**22.9**	**C**	**--**	**--**

[1] *Overall intersection LOS and delay cannot be reported for unsignalized intersections.*

† SYNCHRO does not provide level of service or delay for unsignalized movements with no conflicting volumes.

SimTraffic queues are average maximum queues after 10 runs of 60 minutes each.



LEGEND:

- Existing Road
- Signalized Intersection
- Stop Controlled Intersection
- Stop Sign Location
- Lane Configuration
- 00 Channelization
- (00) AM Peak Hour Volume
- PM Peak Hour Volume

*Channelized Right Bypasses Thomas Street

** Southbound right not counted per scope

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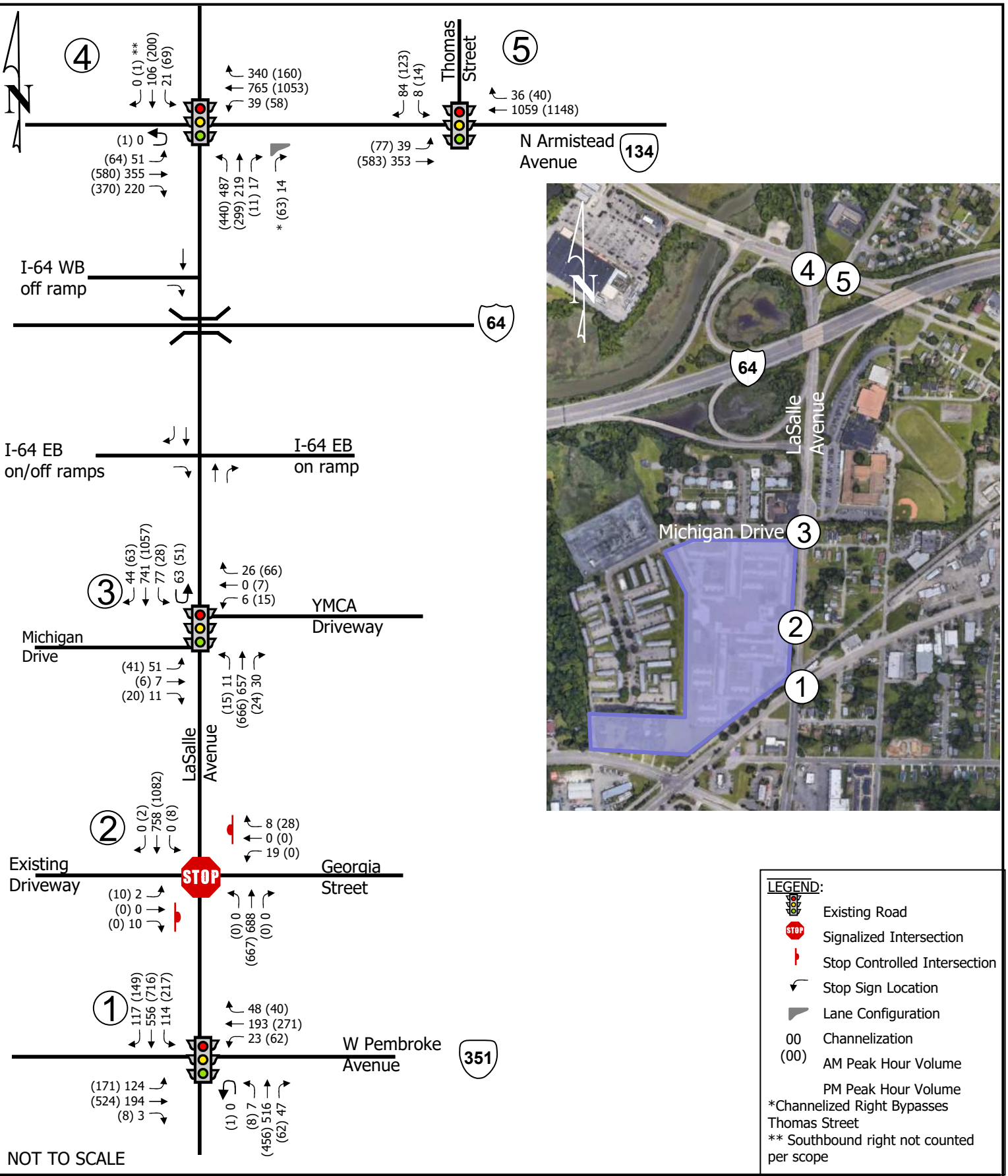
2021 Unadjusted Existing Volumes
Lincoln Park Redevelopment
Hampton, Virginia

Figure 3-1



LEGEND:

- Existing Road
- Signalized Intersection
- Stop Controlled Intersection
- Stop Sign Location
- Lane Configuration
- 00 Channelization
- (00) AM Peak Hour Volume
- PM Peak Hour Volume

*Channelized Right Bypasses Thomas Street

** Southbound right not counted per scope

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2021 Adjusted Existing Volumes
Lincoln Park Redevelopment
Hampton, Virginia

Figure 3-2

4 2023 BACKGROUND CONDITIONS AND ANALYSIS

The background 2023 volumes were analyzed assuming existing intersection geometry in conjunction with projected background traffic volumes.

The background traffic volumes were developed based on a 1% growth rate compounded annually.

4.1 2023 BACKGROUND TRAFFIC GROWTH

The 1% annual growth rate discussed above was compounded annually for the 2-year period from 2021 to 2023 and was applied to all movements at the study intersections. The resulting 2023 background (existing + growth) volumes are shown on Figure 4-1.

4.2 2023 BACKGROUND CONDITIONS ANALYSIS RESULTS

Table 4-1 summarizes the 2023 background intersection LOS, delay 95th percentile queue lengths (Synchro), and maximum queue lengths (SimTraffic) based on the 2021 existing intersection geometry and 2023 background peak hour traffic volumes shown on Figure 2-1 and Figure 4-1, respectively. The corresponding SYNCHRO worksheets are included in Appendix D.

As shown in Table 4-1, under 2023 background conditions with the 1% annual growth rate in existing traffic:

- At the signalized intersection of LaSalle Avenue and W. Pembroke Avenue, the overall intersection will continue to operate at a LOS C during the AM peak hour and LOS D during the PM peak hour. The eastbound and westbound lefts; and northbound approach will continue to operate at a LOS E during the PM peak hour.
    - During the AM peak hour, the maximum queue length for the eastbound left will continue to exceed the available storage, spilling back into the through lanes. All other turn bays at this intersection have adequate storage to accommodate the 95th percentile (SYNCHRO) and maximum (SimTraffic) queue lengths during the AM peak hour.
    - During the PM peak hour, the 95th percentile queue length for the southbound and eastbound lefts will continue to exceed the available storage, spilling back into the through lanes. The southbound approach 95th percentile queue length will continue to back up through the adjacent intersection of LaSalle Avenue and Georgia Street.

- At the unsignalized intersection of LaSalle Avenue and Georgia Street, the eastbound approach will operate at a LOS B during the AM peak hour and LOS C during the PM peak hour. The westbound approach will operate at a LOS B during the AM peak hour and LOS A during the PM peak hour.

- At the signalized intersection of LaSalle Avenue and Michigan Drive, the overall intersection will continue to operate at a LOS B during both AM and PM peak hours. The eastbound and westbound approaches will both continue to operate at a LOS D during the AM peak hour and LOS E during the PM peak hour.

- At the signalized intersection of LaSalle Avenue and N. Armistead Avenue, the overall intersection will continue to operate at a LOS C during both AM and PM peak hours. The southbound approach will continue to operate at a LOS E during the PM peak hour.

- At the signalized intersection of N. Armistead Avenue and Thomas Street, the overall intersection will continue to operate at a LOS C during both AM and PM peak hours.

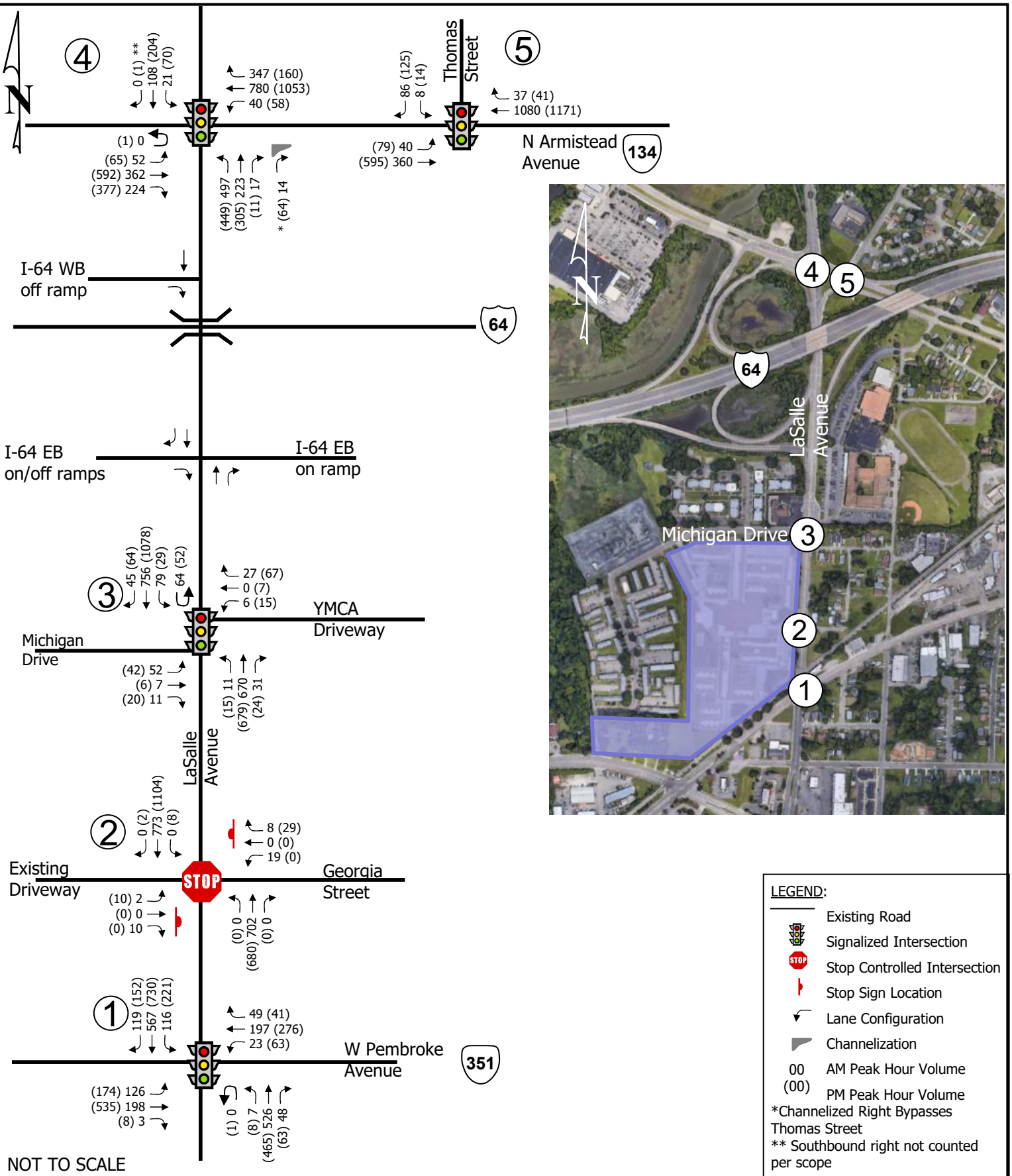
Table 4-1: 2023 Background Conditions LOS and Queue Results

Intersection and Type of Control	Movement and Approach	Effective Turn Lane Storage (ft)	AM PEAK HOUR				PM PEAK HOUR			
			Delay [1] (sec/veh)	LOS [1]	Synchro 95th Percentile Queue Length (ft)	SimTraffic Max Queue Length (ft)	Delay [1] (sec/veh)	LOS [1]	Synchro 95th Percentile Queue Length (ft)	SimTraffic Max Queue Length (ft)
1. LaSalle Avenue (N-S) and	EB Left	120	53.2	D	154	118	57.8	E	#299	120
W. Pembroke Avenue (E-W)	EB Thru - Right		22.2	C	99	202	35.8	D	288	380
Signalized	*EB Approach*		*34.1*	*C*	--	--	*41.1*	*D*	--	--
	WB Left	145	53.1	D	45	74	69.6	E	105	143
	WB Thru - Right		29.8	C	135	169	43.0	D	175	233
	WB Approach		*31.8*	*C*	--	--	*47.4*	*D*	--	--
	NB Left	180	33.2	C	17	8	42.3	D	22	30
	NB Thru - Right		45.7	D	267	248	56.4	E	290	255
	NB Approach		*45.6*	*D*	--	--	*55.8*	*E*	--	--
	SB Left	185	22.0	C	106	176	32.3	C	249	184
	SB Thru - Right		25.8	C	285	269	36.5	D	503	306
	SB Approach		*25.3*	*C*	--	--	*35.7*	*D*	--	--
	Overall		**33.6**	**C**	**--**	**--**	**42.7**	**D**	**--**	**--**
2. LaSalle Avenue (N-S) and	*EB Approach*		10.3	B	1	38	19.5	C	3	43
Georgia Street/Site Driveway (E-W)	*WB Approach*		12.7	B	5	61	9.0	A	3	47
Unsignalized	NB Left	*115*	†	†	--	--	†	†	0	0
	NB Thru - Right		†	†	0	5	†	†	0	0
	NB Approach		†	†	0	--	†	†	--	--
	SB Left	*215*	†	†	--	--	8.4	A	1	32
	SB Thru - Right		†	†	0	11	†	†	0	119
	SB Approach		†	†	0	--	†	†	--	--
3. LaSalle Avenue (N-S) and	EB Left - Thru		51.3	D	85	143	61.4	E	83	128
Michigan Drive/YMCA Driveway (E-W)	EB Right	150	46.3	D	0	52	56.4	E	0	84
Signalized	*EB Approach*		*50.5*	*D*	--	--	*59.9*	*E*	--	--
	WB Left - Thru		51.7	D	19	60	61.3	E	49	136
	WB Right	40	51.1	D	0	39	59.3	E	0	53
	WB Approach		*51.2*	*D*	--	--	*59.8*	*E*	--	--
	NB Left	190	15.8	B	12	44	5.4	A	11	71
	NB Thru - Right		21.5	C	346	276	8.5	A	285	326
	NB Approach		*21.4*	*C*	--	--	*8.4*	*A*	--	--
	SB Left	90	7.9	A	83	84	5.2	A	37	56
	SB Thru - Right		8.3	A	228	118	6.6	A	262	253
	SB Approach		*8.2*	*A*	--	--	*6.5*	*A*	--	--
	Overall		**16.1**	**B**	**--**	**--**	**11.1**	**B**	**--**	**--**
4. LaSalle Avenue (N-S) and	EB Left	125	23.5	C	51	109	26.2	C	63	125
N. Armistead Avenue (E-W)	EB Thru		28.9	C	164	179	33.6	C	276	280
Signalized	EB Right	400	11.1	B	16	45	13.1	B	55	104
	EB Approach		*22.2*	*C*	--	--	*25.7*	*C*	--	--
	WB Left	130	4.5	A	8	62	3.9	A	9	63
	WB Thru		6.6	A	39	71	6.3	A	44	103
	WB Right	130	4.7	A	29	43	0.4	A	0	19
	WB Approach		*6.1*	*A*	--	--	*5.6*	*A*	--	--
	NB Left		53.8	D	325	208	30.0	C	203	199
	NB Thru		50.1	D	284	205	26.9	C	185	204
	NB Approach		*51.3*	*D*	--	--	*27.9*	*C*	--	--
	SB Left	250	48.0	D	42	48	56.6	E	109	132
	SB Thru		49.3	D	73	100	60.2	E	133	174
	SB Right	475	0.0	A	--	--	0.0	A	--	--
	SB Approach		*49.1*	*D*	--	--	*59.1*	*E*	--	--
	Overall		**24.5**	**C**	**--**	**--**	**21.2**	**C**	**--**	**--**
5. Thomas Street (S) and	EB Left	130	31.6	C	67	82	37.2	D	120	134
N. Armistead Avenue (E-W)	EB Thru		1.0	A	8	61	0.8	A	10	86
Signalized	*EB Approach*		*4.1*	*A*	--	--	*5.0*	*A*	--	--
	WB Thru - Right		29.6	C	245	235	31.3	C	302	225
	WB Approach		*29.6*	*C*	--	--	*31.3*	*C*	--	--
	SB Left	140	31.2	C	16	34	37.9	D	27	52
	SB Right		31.6	C	38	98	38.4	D	49	108
	SB Approach		*31.6*	*C*	--	--	*38.4*	*D*	--	--
	Overall		**23.4**	**C**	**--**	**--**	**23.0**	**C**	**--**	**--**

[1] *Overall intersection LOS and delay cannot be reported for unsignalized intersections.*

† SYNCHRO does not provide level of service or delay for unsignalized movements with no conflicting volumes.

SimTraffic queues are average maximum queues after 10 runs of 60 minutes each.



LEGEND:

- Existing Road
- Signalized Intersection
- Stop Controlled Intersection
- Stop Sign Location
- Lane Configuration
- Channelization
- 00 AM Peak Hour Volume
- (00) PM Peak Hour Volume

*Channelized Right Bypasses Thomas Street

** Southbound right not counted per scope

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2023 Background Traffic Volumes
Lincoln Park Redevelopment
Hampton, Virginia

Figure 4-1

5 TRIP GENERATION

Site traffic for the proposed development was estimated based on the site characteristics and subsequently distributed to the surrounding roadway network.

Access to the site is proposed via two (2) full access points along Michigan Drive and one (1) existing full access point at the intersection of LaSalle Avenue and Georgia Street.

For the purposes of this analysis, the development was assumed to be complete and occupied by 2023.

5.1 TRIP GENERATION

The site-generated traffic volumes shown in Table 5-1 was estimated using the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 10th Edition* and was calculated using the number of dwelling units as the independent variable.

Table 5-1: 2023 Trip Generation Summary

LAND USE	ITE CODE	AMOUNT	UNITS	WEEKDAY						
				ADT	AM PEAK HOUR			PM PEAK HOUR		
					IN	OUT	TOTAL	IN	OUT	TOTAL
Proposed Development										
Townhomes	220	118	Units	851	13	43	56	43	25	68
Multifamily Housing (Mid-Rise)	221	320	Units	1,742	28	79	107	82	53	135
TOTAL				2,593	41	122	163	125	78	203

SOURCE: Institute of Transportation Engineers' *Trip Generation Manual* 10th Edition (2017)

As shown in Table 5-1, the proposed development will generate a total of 163 external AM peak hour trips (41 in and 122 out), 203 external PM peak hour trips (125 in and 78 out), and 2,593 external average weekday daily trips.

5.2 TRIP DISTRIBUTION METHODOLOGY

The distribution of external trips generated by the development was based on the existing travel patterns, traffic counts, and the nature of the use.

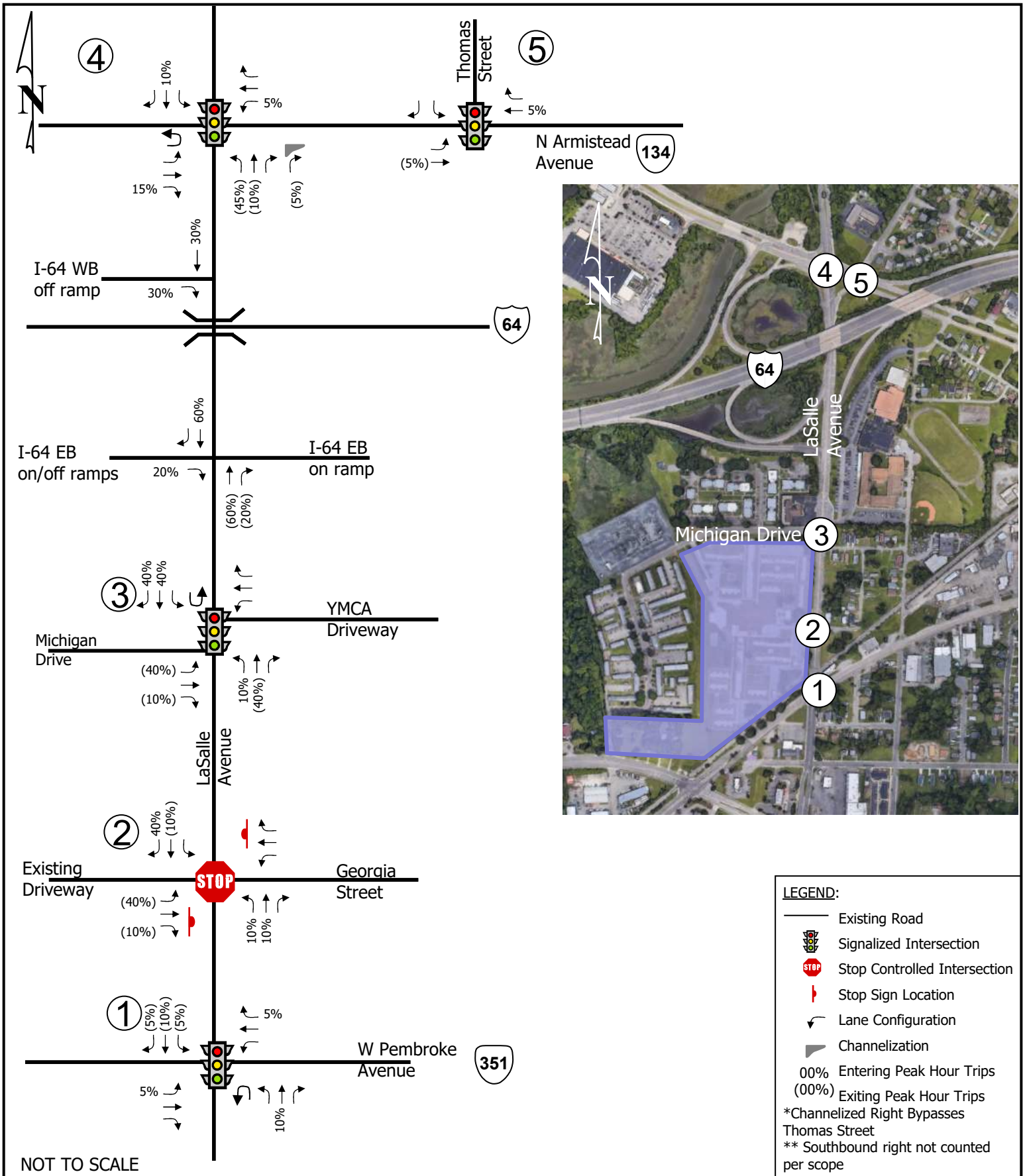
The following directional distributions were assumed for the site and are shown on Figure 5-1:

- 30% to/from the west on I-64;
- 20% to/from the east on I-64;
- 5% to/from the west on W. Pembroke Avenue;
- 5% to/from the east on W. Pembroke Avenue;
- 10% to/from the south on LaSalle Avenue;
- 10% to/from the north on LaSalle Avenue;
- 15% to/from the west on N. Armistead Avenue; and
- 5% to/from the east on N. Armistead Avenue.

5.3 TRAFFIC ASSIGNMENT

The trip distribution percentages for the external trips were applied to the trip generation shown in Table 5-1 to distribute the external trips to the surrounding roadway network. The resulting site generated external trips are shown on Figure 5-2.

Please note that due to the interchange ramp configurations, some traffic enters the network through one study intersection and exits through a difference study intersection.



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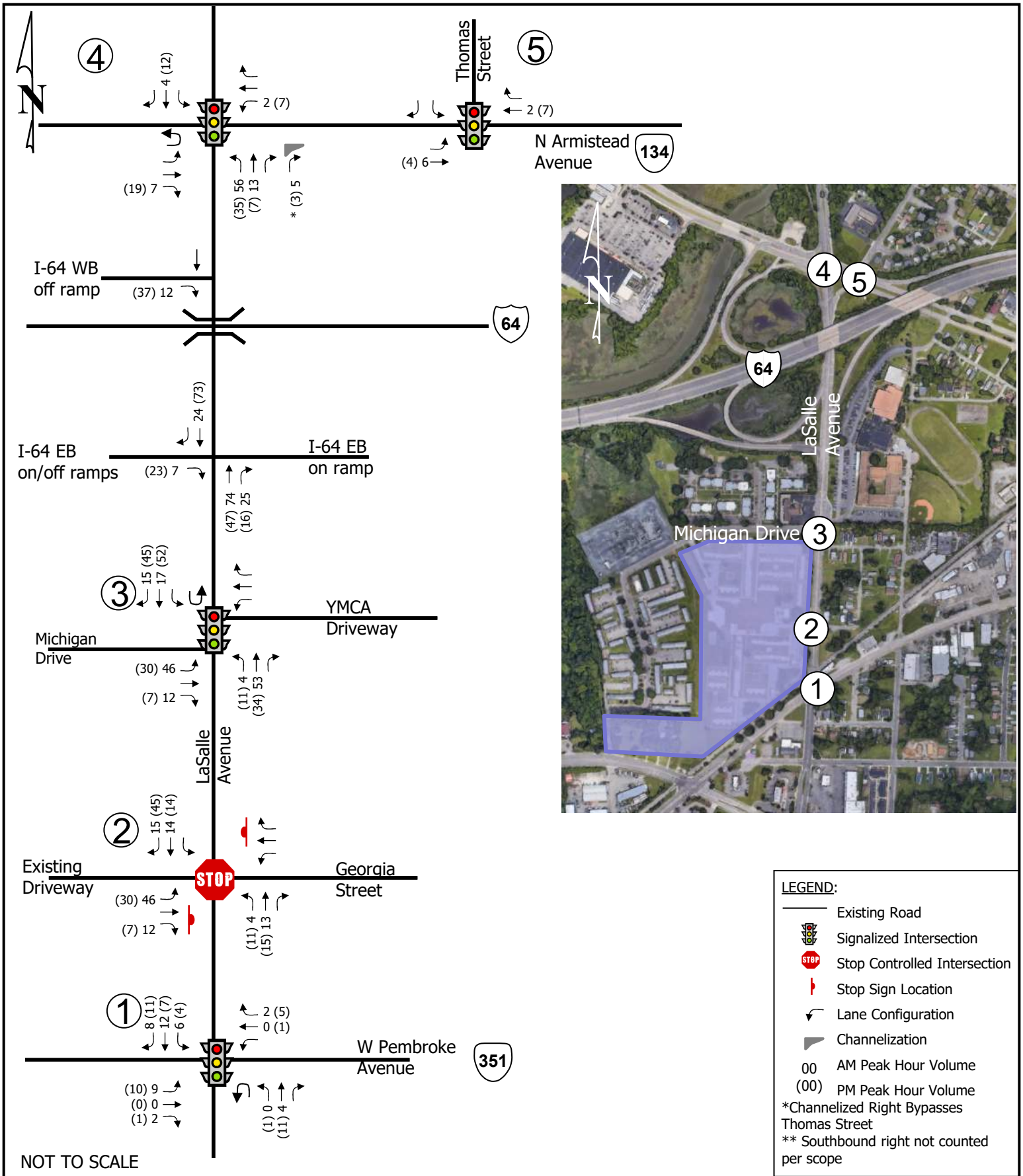
Trip Distribution
Lincoln Park Redevelopment
Hampton, Virginia

Figure 5-1



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Site Generated Trips
Lincoln Park Redevelopment
Hampton, Virginia

Figure 5-2

6 2023 TOTAL FUTURE CONDITIONS

6.1 TOTAL FUTURE TRAFFIC VOLUMES

To generate the 2023 total future traffic volumes, the site generated trips shown on Figure 5-2 and the background 2023 traffic volumes shown on Figure 4-1 were summed. The resulting 2023 total future traffic volumes are shown in Figure 6-1.

6.2 2023 TOTAL FUTURE CONDITIONS ANALYSIS RESULTS

Table 6-1 summarizes the 2023 future intersection LOS, delay, 95th percentile queue lengths (Synchro), and maximum queue lengths (SimTraffic) based on the existing intersection geometry and the 2023 future peak hour traffic volumes shown on Figure 2-1 and Figure 6-1, respectively. The corresponding SYNCHRO worksheets are included in Appendix E.

As shown in Table 6-1, under 2023 traffic conditions with the development of the site:

- There are no significant changes in LOS or queueing between existing, background, and total future conditions for the study intersections.

- The redevelopment of Lincoln Park will have minimal impact to the surrounding roadway network and no improvements are required at the study intersections.

- At the signalized intersection of LaSalle Avenue and W. Pembroke Avenue, the overall intersection will continue to operate at a LOS C during the AM peak hour and LOS D during the PM peak hour.
    - During the AM peak hour, the maximum queue length for the eastbound left will continue to exceed the available storage, spilling back into the through lanes. All other turn bays at this intersection have adequate storage to accommodate the 95th percentile (SYNCHRO) and maximum (SimTraffic) queue lengths during the AM peak hour.
    - During the PM peak hour, the 95th percentile queue length for the southbound and eastbound lefts will continue to exceed the available storage, spilling back into the through lanes. The southbound approach 95th percentile queue length will continue to back up through the adjacent intersection of LaSalle Avenue and Georgia Street.

- At the unsignalized intersection of LaSalle Avenue and Georgia Street, the eastbound approach will operate at a LOS B during the AM peak hour and LOS C during the PM peak hour. The westbound approach will operate at a LOS A during the AM peak hour and LOS B during the PM peak hour.

- At the signalized intersection of LaSalle Avenue and Michigan Drive, the overall intersection will operate at a LOS C during the AM peak LOS B in the PM peak hour. The eastbound and westbound approaches will continue to operate at LOS D in the AM peak and LOS E in the PM peak.

- At the signalized intersection of LaSalle Avenue and N. Armistead Avenue, the overall intersection will continue to operate at a LOS C during both AM and PM peak hours. The southbound approach will continue to operate at LOS D in the AM peak and LOS E in the PM peak.

- At the signalized intersection of N. Armistead Avenue and Thomas Street, the overall intersection will continue to operate at a LOS C during both AM and PM peak hours.

- Except as noted above, all turn bays will continue to have adequate storage to accommodate the 95th percentile (SYNCHRO) and maximum (SimTraffic) queue lengths during both AM and PM peak hours.

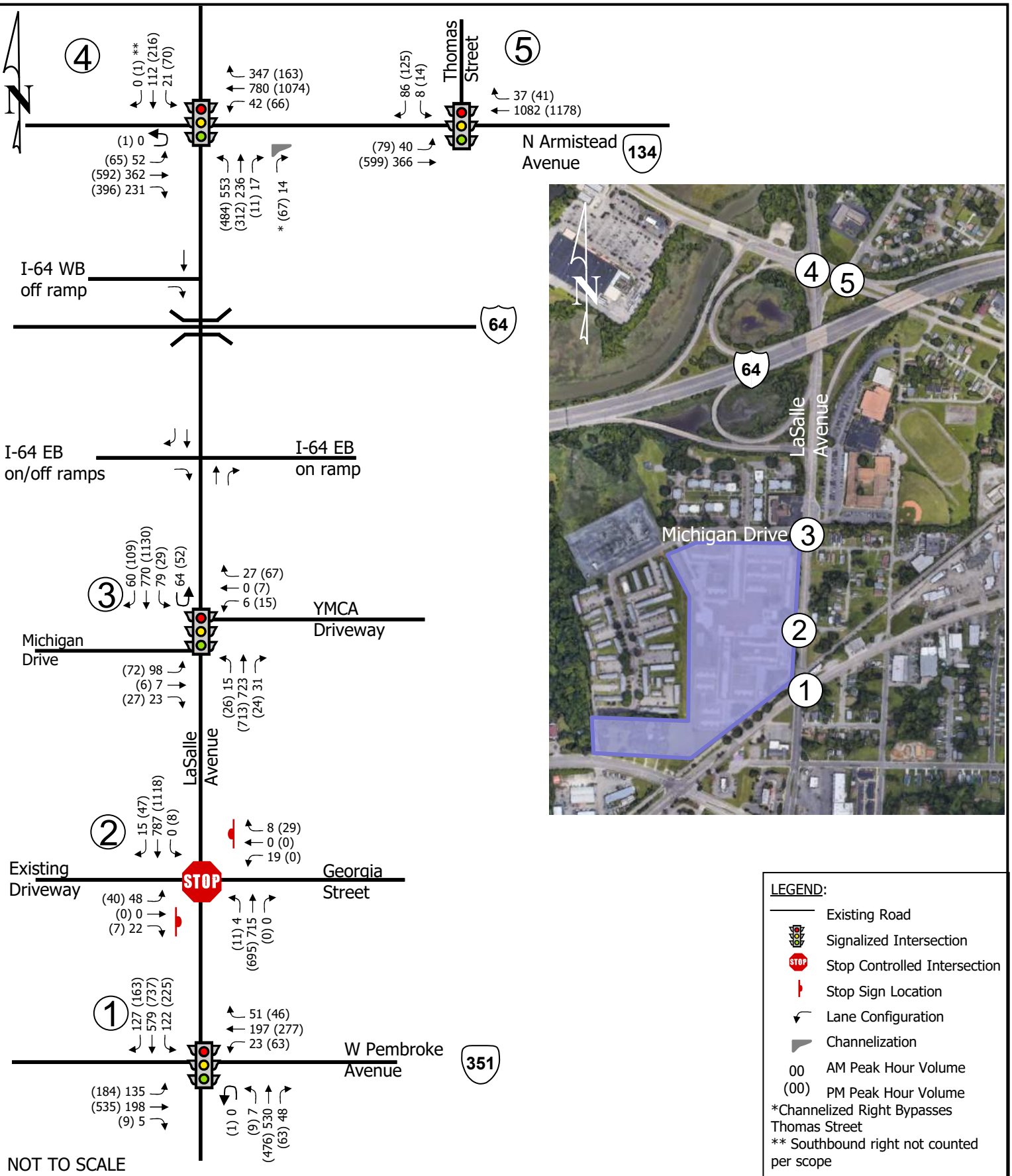
Table 6-1: 2023 Total Conditions LOS and Queue Results

Intersection and Type of Control	Movement and Approach	Effective Turn Lane Storage (ft)	AM PEAK HOUR				PM PEAK HOUR			
			Delay [1] (sec/veh)	LOS [1]	Synchro 95th Percentile Queue Length (ft)	SimTraffic Max Queue Length (ft)	Delay [1] (sec/veh)	LOS [1]	Synchro 95th Percentile Queue Length (ft)	SimTraffic Max Queue Length (ft)
1. LaSalle Avenue (N-S) and	EB Left	120	54.5	D	164	119	56.0	E	#338	120
W. Pembroke Avenue (E-W)	EB Thru - Right		22.3	C	98	138	37.0	D	287	348
Signalized	*EB Approach*		*35.3*	*D*	--	--	*41.8*	*D*	--	--
	WB Left	145	53.1	D	45	82	72.4	E	106	144
	WB Thru - Right		30.3	C	134	155	46.3	D	178	216
	WB Approach		*32.3*	*C*	--	--	*50.6*	*D*	--	--
	NB Left	180	33.3	C	17	4	41.9	D	22	56
	NB Thru - Right		45.6	D	267	236	55.4	E	295	244
	NB Approach		*45.4*	*D*	--	--	*55.2*	*E*	--	--
	SB Left	185	18.6	B	107	184	26.7	C	227	184
	SB Thru - Right	320	22.9	C	281	290	31.4	C	466	296
	SB Approach		*22.2*	*C*	--	--	*30.4*	*C*	--	--
	Overall		**32.5**	**C**	**--**	**--**	**41.1**	**D**	**--**	**--**
2. LaSalle Avenue (N-S) and	*EB Approach*		13.7	B	14	101	20.5	C	16	92
Georgia Street/Site Driveway (E-W)	*WB Approach*		12.5	B	5	52	9.0	A	3	51
Unsignalized	NB Left	*115*	9.1	A	0	24	10.6	B	1	38
	NB Thru - Right		†	†	0	0	†	†	0	0
	NB Approach		†	†	--	--	†	†	--	--
	SB Left	*215*	†	†	0	9	8.5	A	1	32
	SB Thru - Right		†	†	0	32	†	†	0	101
	SB Approach		†	†	--	--	†	†	--	--
3. LaSalle Avenue (N-S) and	EB Left - Thru		47.7	D	134	205	58.7	E	118	166
Michigan Drive/YMCA Driveway (E-W)	EB Right	150	41.9	D	0	126	53.0	D	0	87
Signalized	*EB Approach*		*46.7*	*D*	--	--	*57.2*	*E*	--	--
	WB Left - Thru		51.7	D	20	62	61.3	E	49	106
	WB Right	40	51.0	D	0	40	59.3	E	0	56
	WB Approach		*51.2*	*D*	--	--	*59.8*	*E*	--	--
	NB Left	190	21.3	C	m17	64	12.7	B	m26	98
	NB Thru - Right		28.3	C	373	275	14.1	B	401	299
	NB Approach		*28.1*	*C*	--	--	*14.1*	*B*	--	--
	SB Left	90	10.6	B	86	88	6.5	A	m42	55
	SB Thru - Right		10.9	B	240	137	8.7	A	326	226
	SB Approach		*10.9*	*B*	--	--	*8.6*	*A*	--	--
	Overall		**21.0**	**C**	**--**	**--**	**14.7**	**B**	**--**	**--**
4. LaSalle Avenue (N-S) and	EB Left	125	24.2	C	50	104	26.9	C	63	125
N. Armistead Avenue (E-W)	EB Thru		29.6	C	160	173	34.4	C	276	268
Signalized	EB Right	400	10.9	B	16	69	13.4	B	65	101
	EB Approach		*22.5*	*C*	--	--	*26.0*	*C*	--	--
	WB Left	130	4.4	A	m7	66	4.1	A	10	75
	WB Thru		6.3	A	34	68	6.5	A	44	90
	WB Right	130	4.7	A	26	88	0.4	A	0	102
	WB Approach		*5.9*	*A*	--	--	*5.7*	*A*	--	--
	NB Left		49.9	D	349	217	41.4	D	345	198
	NB Thru		45.0	D	300	144	37.2	D	308	141
	NB Approach		*46.7*	*D*	--	--	*38.6*	*D*	--	--
	SB Left	250	48.0	D	42	57	56.2	E	109	131
	SB Thru		49.3	D	74	120	60.8	E	140	174
	SB Right	475	0.0	A	--	--	0.0	A	--	--
	SB Approach		*49.1*	*D*	--	--	*59.5*	*E*	--	--
	Overall		**23.8**	**C**	**--**	**--**	**24.1**	**C**	**--**	**--**
5. Thomas Street (S) and	EB Left	130	31.3	C	m67	99	37.1	D	m120	135
N. Armistead Avenue (E-W)	EB Thru		1.1	A	8	68	0.8	A	11	88
Signalized	*EB Approach*		*4.1*	*A*	--	--	*5.1*	*A*	--	--
	WB Thru - Right		30.7	C	245	240	32.4	C	304	225
	WB Approach		*30.7*	*C*	--	--	*32.4*	*C*	--	--
	SB Left	140	30.3	C	16	36	37.1	D	27	45
	SB Right		30.7	C	38	92	37.7	D	49	110
	SB Approach		*30.6*	*C*	--	--	*37.6*	*D*	--	--
	Overall		**24.0**	**C**	**--**	**--**	**23.7**	**C**	**--**	**--**

[1] *Overall intersection LOS and delay cannot be reported for unsignalized intersections.*

† SYNCHRO does not provide level of service or delay for unsignalized movements with no conflicting volumes.

SimTraffic queues are average maximum queues after 10 runs of 60 minutes each.



LEGEND:

- Existing Road
- Signalized Intersection
- Stop Controlled Intersection
- Stop Sign Location
- Lane Configuration
- Channelization
- 00 AM Peak Hour Volume
- (00) PM Peak Hour Volume

*Channelized Right Bypasses Thomas Street

** Southbound right not counted per scope

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.

2023 Total Future Traffic Volumes
Lincoln Park Redevelopment
Hampton, Virginia

Figure 6-1

7 CONCLUSIONS & RECOMMENDATIONS

Based on the operational analyses the following is offered:

- Under 2021 existing conditions:
    - At the signalized intersection of LaSalle Avenue and W. Pembroke Avenue, the overall intersection operates at a LOS C during the AM peak hour and LOS D during the PM peak hour. The eastbound and westbound lefts; and northbound approach operate at a LOS E during the PM peak hour.
        - During the AM peak hour, the maximum queue length for the eastbound left exceeds the available storage, spilling back into the through lanes. All other turn bays at this intersection have adequate storage to accommodate the 95th percentile (SYNCHRO) and maximum (SimTraffic) queue lengths during the AM peak hour.
        - During the PM peak hour, the 95th percentile queue length for the southbound and eastbound lefts exceeds the available storage, spilling back into the through lanes. The southbound approach 95th percentile queue length backs up through the adjacent intersection of LaSalle Avenue and Georgia Street.
    - At the unsignalized intersection of LaSalle Avenue and Georgia Street, the eastbound and westbound approaches operate at a LOS B or better during both AM and PM peak hours.
    - At the signalized intersection of LaSalle Avenue and Michigan Drive, the overall intersection operates at a LOS B during both AM and PM peak hours. The eastbound and westbound approaches both operate at a LOS D during the AM peak hour and LOS E during the PM peak hour.
    - At the signalized intersection of LaSalle Avenue and N. Armistead Avenue, the overall intersection operates at a LOS C during both AM and PM peak hours. The southbound approach operates at a LOS E during the PM peak hour.
    - At the signalized intersection of N. Armistead Avenue and Thomas Street, the overall intersection operates at a LOS C during both AM and PM peak hours. All movements/approaches operate at LOS D or better during both peak hours.
    - Except as noted above, all turn bays have adequate storage to accommodate the 95th percentile (SYNCHRO) and maximum (SimTraffic) queue lengths during both AM and PM peak hours.
- Under 2023 background conditions with the 1% annual growth rate in existing traffic:
    - At the signalized intersection of LaSalle Avenue and W. Pembroke Avenue, the overall intersection will continue to operate at a LOS C during the AM peak hour and LOS D during the PM peak hour. The eastbound and westbound lefts; and northbound approach will continue to operate at a LOS E during the PM peak hour.
        - During the AM peak hour, the maximum queue length for the eastbound left will continue to exceed the available storage, spilling back into the through lanes. All other turn bays at this intersection have adequate storage to accommodate the

95th percentile (SYNCHRO) and maximum (SimTraffic) queue lengths during the AM peak hour.
    - During the PM peak hour, the 95th percentile queue length for the southbound and eastbound lefts will continue to exceed the available storage, spilling back into the through lanes. The southbound approach 95th percentile queue length will continue to back up through the adjacent intersection of LaSalle Avenue and Georgia Street.

  - At the unsignalized intersection of LaSalle Avenue and Georgia Street, the eastbound approach will operate at a LOS B during the AM peak hour and LOS C during the PM peak hour. The westbound approach will operate at a LOS B during the AM peak hour and LOS A during the PM peak hour.

  - At the signalized intersection of LaSalle Avenue and Michigan Drive, the overall intersection will continue to operate at a LOS B during both AM and PM peak hours. The eastbound and westbound approaches will both continue to operate at a LOS D during the AM peak hour and LOS E during the PM peak hour.

  - At the signalized intersection of LaSalle Avenue and N. Armistead Avenue, the overall intersection will continue to operate at a LOS C during both AM and PM peak hours. The southbound approach will continue to operate at a LOS E during the PM peak hour.

  - At the signalized intersection of N. Armistead Avenue and Thomas Street, the overall intersection will continue to operate at a LOS C during both AM and PM peak hours.

  - Except as noted above, all turn bays will continue to have adequate storage to accommodate the 95th percentile (SYNCHRO) and maximum (SimTraffic) queue lengths during both AM and PM peak hours.

- There are no planned roadway improvements within the vicinity of the site.

- When complete, the proposed development will generate a total of 163 external AM peak hour trips (41 in and 122 out), 203 external PM peak hour trips (125 in and 78 out), and 2,593 external average weekday daily trips.

- Under 2023 total future conditions with the traffic from the proposed Lincoln Park redevelopment:

  - There are no significant changes in LOS or queueing between existing, background, and total future conditions for the study intersections.

  - The redevelopment of Lincoln Park will have minimal impact to the surrounding roadway network and no improvements are required at the study intersections.

  - At the signalized intersection of LaSalle Avenue and W. Pembroke Avenue, the overall intersection will continue to operate at a LOS C during the AM peak hour and LOS D during the PM peak hour.
    - During the AM peak hour, the maximum queue length for the eastbound left will continue to exceed the available storage, spilling back into the through lanes. All other turn bays at this intersection have adequate storage to accommodate the 95th percentile (SYNCHRO) and maximum (SimTraffic) queue lengths during the AM peak hour.

- During the PM peak hour, the 95th percentile queue length for the southbound and eastbound lefts will continue to exceed the available storage, spilling back into the through lanes. The southbound approach 95th percentile queue length will continue to back up through the adjacent intersection of LaSalle Avenue and Georgia Street.

- At the unsignalized intersection of LaSalle Avenue and Georgia Street, the eastbound approach will operate at a LOS B during the AM peak hour and LOS C during the PM peak hour. The westbound approach will operate at a LOS A during the AM peak hour and LOS B during the PM peak hour.

- At the signalized intersection of LaSalle Avenue and Michigan Drive, the overall intersection will operate at a LOS C during the AM peak LOS B in the PM peak hour. The eastbound and westbound approaches will continue to operate at LOS D in the AM peak and LOS E in the PM peak.

- At the signalized intersection of LaSalle Avenue and N. Armistead Avenue, the overall intersection will continue to operate at a LOS C during both AM and PM peak hours. The southbound approach will continue to operate at LOS D in the AM peak and LOS E in the PM peak.

- At the signalized intersection of N. Armistead Avenue and Thomas Street, the overall intersection will continue to operate at a LOS C during both AM and PM peak hours.

- Except as noted above, all turn bays will continue to have adequate storage to accommodate the 95th percentile (SYNCHRO) and maximum (SimTraffic) queue lengths during both AM and PM peak hours.

Appendix A
Scoping Correspondence

Steve Schmidt

From: Scott Dunn
Sent: Tuesday, July 20, 2021 2:26 PM
To: Steve Schmidt
Subject: FW: Lincoln Park TIA - Request for Scoping

Scott Dunn, AICP, PTP

TIMMONS GROUP
Office: 804.200.6955 | Mobile: 804.402.0830

From: Newsome, McCord <mnewsome@hampton.gov>
Sent: Tuesday, June 8, 2021 1:24 PM
To: Scott Dunn <scott.dunn@timmons.com>
Subject: RE: Lincoln Park TIA - Request for Scoping

Scott,

Please look at the northbound right but you can exclude the southbound one.

From: Scott Dunn <scott.dunn@timmons.com>
Sent: Tuesday, June 08, 2021 12:30 PM
To: Newsome, McCord <mnewsome@hampton.gov>
Cc: Steve Schmidt <Steve.Schmidt@timmons.com>
Subject: [EXTERNAL] RE: Lincoln Park TIA - Request for Scoping

McCord,

Steve reached out to Carol earlier…..we'll follow up and add that intersection not the list for timings.

Are you ok with us focusing solely on the operations at the signal an excluding the NB and SB channelized right turns that are not controlled by the signa?

Scott

Scott Dunn, AICP, PTP

TIMMONS GROUP
Office: 804.200.6955 | Mobile: 804.402.0830

From: Newsome, McCord <mnewsome@hampton.gov>
Sent: Monday, June 7, 2021 1:26 PM
To: Scott Dunn <scott.dunn@timmons.com>
Subject: RE: Lincoln Park TIA - Request for Scoping

Scott,

Can you please add the intersection of LaSalle and Armistead to your list of analyzed intersections for the above referenced project?

From: Scott Dunn <scott.dunn@timmons.com>
Sent: Monday, May 31, 2021 9:50 PM
To: Newsome, McCord <mnewsome@hampton.gov>
Cc: Steve Schmidt <Steve.Schmidt@timmons.com>
Subject: [EXTERNAL] RE: Lincoln Park TIA - Request for Scoping

McCord,

Sorry we didn't connect last week. What is your availability Thursday or Friday of this week?

Scott

Scott Dunn, AICP, PTP

TIMMONS GROUP
Office: 804.200.6955 | Mobile: 804.402.0830

From: Newsome, McCord <mnewsome@hampton.gov>
Sent: Thursday, May 27, 2021 3:18 PM
To: Scott Dunn <scott.dunn@timmons.com>
Subject: RE: Lincoln Park TIA - Request for Scoping

I'll call you tomorrow.

From: Scott Dunn <scott.dunn@timmons.com>
Sent: Thursday, May 27, 2021 1:32 PM
To: Newsome, McCord <mnewsome@hampton.gov>
Cc: Steve Schmidt <Steve.Schmidt@timmons.com>
Subject: [EXTERNAL] RE: Lincoln Park TIA - Request for Scoping

McCord,

I wanted to follow up with you on a scoping call.

I'll be around most of the day tomorrow (Friday, 5/28) if you have any availability.

Next week, I'm generally available Thursday and Friday (6/3 and 6/4) if that works better for your schedule.

Please let know what works for your schedule.

Scott

Scott Dunn, AICP, PTP

TIMMONS GROUP
Office: 804.200.6955 | Mobile: 804.402.0830

From: Scott Dunn
Sent: Monday, May 24, 2021 11:51 AM
To: Newsome, McCord <mnewsome@hampton.gov>
Cc: Steve Schmidt <Steve.Schmidt@timmons.com>
Subject: RE: Lincoln Park TIA - Request for Scoping

McCord,

Sorry for the delayed response.

Our availability this week is –

- Tuesday (5/25) – 10a-12p
- Wednesday (5/26) -.1:30-3:30
- Thursday (5/27) – 9am-12p

Please let me know what works best for your schedule.

Thanks,
Scott

Scott Dunn, AICP, PTP

TIMMONS GROUP
Office: 804.200.6955 | Mobile: 804.402.0830

From: Newsome, McCord <mnewsome@hampton.gov>
Sent: Thursday, May 20, 2021 12:11 PM
To: Scott Dunn <scott.dunn@timmons.com>
Subject: RE: Lincoln Park TIA - Request for Scoping

Mr. Dunn,

I should have some time next week. Please provide several dates/times that work for you and I will let you know what works for me.

From: Scott Dunn <scott.dunn@timmons.com>
Sent: Wednesday, May 19, 2021 2:13 PM
To: Newsome, McCord <mnewsome@hampton.gov>
Subject: [EXTERNAL] Lincoln Park TIA - Request for Scoping

Mr. Newsome,

I talked with you a couple weeks prior regrading the City's threshold for a TIA.

That being said, I would like to know if you are available to discuss a project and the need/scope of a traffic study.

For your convenience, I've attached a preliminary site plan of the proposed Lincoln Park Development at West Pembroke/LaSalle intersection. The project will consist of 350 units and has proposed access points on LaSalle Avenue and Michigan Drive

Please let me know if you have any time later this week or early next week for a Zoom call to discuss the project and establish a TIA scope.

Thanks and looking forward to your response.

Scott

Scott Dunn, AICP, PTP
Senior Project Manager

TIMMONS GROUP | www.timmons.com [timmons.com] [nam11.safelinks.protection.outlook.com] [nam11.safelinks.protection.outlook.com] [nam11.safelinks.protection.outlook.com]
1001 Boulders Parkway, Suite 300 | Richmond, VA 23225
Office: 804.200.6955 | Fax: 804.560.1016
Mobile 804.402.0830 | scott.dunn@timmons.com
Your Vision Achieved Through Ours

Appendix B
Existing Traffic Counts

Data Collection Group

LSmith@DataCollectionGroup.net

File Name : Armistead and Thomas Peds
Site Code : 11111111
Start Date : 7/27/2021
Page No : 1

Groups Printed- Peds

	Thomas From North					Armistead From East					From South					Armistead From West					
Start Time	Right	Thru	Left	Uturns	App. Total	Right	Thru	Left	Uturns	App. Total	Right	Thru	Left	Uturns	App. Total	Right	Thru	Left	Uturns	App. Total	Int. Total
*** BREAK ***																					
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
Total %																					

Data Collection Group

LSmith@DataCollectionGroup.net

See LaSalle and Armistead for thru movements

File Name : Armistead and Thomas
Site Code : 11111111
Start Date : 7/27/2021
Page No : 1

Groups Printed- Passenger Veh - Trucks - Bikes

	Thomas From North					Armistead From East					From South					Armistead From West					
Start Time	Right	Thru	Left	Uturns	App. Total	Right	Thru	Left	Uturns	App. Total	Right	Thru	Left	Uturns	App. Total	Right	Thru	Left	Uturns	App. Total	Int. Total
07:00 AM	17	0	2	0	19	5	0	0	0	5	0	0	0	0	0	0	0	5	0	5	29
07:15 AM	11	0	3	0	14	9	0	0	0	9	0	0	0	0	0	0	0	5	0	5	28
07:30 AM	27	0	1	0	28	8	0	0	0	8	0	0	0	0	0	0	0	13	0	13	49
07:45 AM	12	0	1	0	13	3	0	0	0	3	0	0	0	0	0	0	0	6	0	6	22
Total	67	0	7	0	74	25	0	0	0	25	0	0	0	0	0	0	0	29	0	29	128
08:00 AM	11	0	1	0	12	6	0	0	0	6	0	0	0	0	0	0	0	4	0	4	22
08:15 AM	12	0	4	0	16	8	0	0	0	8	0	0	0	0	0	0	0	7	0	7	31
08:30 AM	17	0	1	0	18	13	0	0	0	13	0	0	0	0	0	0	0	7	0	7	38
08:45 AM	18	0	0	0	18	3	0	0	0	3	0	0	0	0	0	0	0	9	0	9	30
Total	58	0	6	0	64	30	0	0	0	30	0	0	0	0	0	0	0	27	0	27	121
*** BREAK ***																					
04:00 PM	35	0	1	0	36	4	0	0	0	4	0	0	0	0	0	0	0	17	0	17	57
04:15 PM	28	0	4	0	32	13	0	0	0	13	0	0	0	0	0	0	0	26	0	26	71
04:30 PM	34	0	5	0	39	9	0	0	0	9	0	0	0	0	0	0	0	23	0	23	71
04:45 PM	43	0	4	0	47	10	0	0	0	10	0	0	0	0	0	0	0	20	0	20	77
Total	140	0	14	0	154	36	0	0	0	36	0	0	0	0	0	0	0	86	0	86	276
05:00 PM	18	0	1	0	19	8	0	0	0	8	0	0	0	0	0	0	0	8	0	8	35
05:15 PM	22	0	3	0	25	8	0	0	0	8	0	0	0	0	0	0	0	7	0	7	40
05:30 PM	14	0	1	0	15	8	0	0	0	8	0	0	0	0	0	0	0	7	0	7	30
05:45 PM	20	0	2	0	22	8	0	0	0	8	0	0	0	0	0	0	0	13	0	13	43
Total	74	0	7	0	81	32	0	0	0	32	0	0	0	0	0	0	0	35	0	35	148
Grand Total	339	0	34	0	373	123	0	0	0	123	0	0	0	0	0	0	0	177	0	177	673
Apprch %	90.9	0	9.1	0		100	0	0	0		0	0	0	0		0	0	100	0		
Total %	50.4	0	5.1	0	55.4	18.3	0	0	0	18.3	0	0	0	0	0	0	0	26.3	0	26.3	
Passenger Veh	330	0	33	0	363	121	0	0	0	121	0	0	0	0	0	0	0	176	0	176	660
% Passenger Veh	97.3	0	97.1	0	97.3	98.4	0	0	0	98.4	0	0	0	0	0	0	0	99.4	0	99.4	98.1
Trucks	9	0	1	0	10	2	0	0	0	2	0	0	0	0	0	0	0	1	0	1	13
% Trucks	2.7	0	2.9	0	2.7	1.6	0	0	0	1.6	0	0	0	0	0	0	0	0.6	0	0.6	1.9
Bikes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bikes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Data Collection Group

LSmith@DataCollectionGroup.net

File Name : LaSalle and Armistead Peds
Site Code :
Start Date : 7/22/2021
Page No : 1

Groups Printed- Pedestrians

	LaSalle Ave From North					Armistead Ave From East					LaSalle Ave From South					Armistead Ave From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	3
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	3
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	3
Apprch %	0	0	0	0		0	0	0	0		0	0	0	100		0	0	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	100	100	0	0	0	0	0	

Data Collection Group

LSmith@DataCollectionGroup.net

See Excel table for notes about NB right

File Name : LaSalle and Armistead
Site Code :
Start Date : 7/22/2021
Page No : 1

Groups Printed- Passenger Veh - Trucks - Bikes

	LaSalle Ave From North					Armistead Ave From East					LaSalle Ave From South					Armistead Ave From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
07:00 AM	0	15	4	0	19	65	86	7	0	158	3	27	73	0	103	41	42	14	0	97	377
07:15 AM	0	27	4	0	31	76	133	2	0	211	6	49	78	0	133	42	50	10	0	102	477
07:30 AM	0	18	2	0	20	60	135	7	0	202	6	48	91	0	145	29	76	13	0	118	485
07:45 AM	0	20	6	0	26	51	159	10	0	220	7	47	103	0	157	52	65	9	0	126	529
Total	0	80	16	0	96	252	513	26	0	791	22	171	345	0	538	164	233	46	0	443	1868
08:00 AM	0	12	3	0	15	60	129	9	0	198	3	15	82	0	100	37	67	5	0	109	422
08:15 AM	0	19	6	0	25	33	142	4	0	179	2	40	88	0	130	29	67	8	1	105	439
08:30 AM	0	18	4	0	22	37	141	4	0	182	11	36	91	0	138	44	62	10	0	116	458
08:45 AM	0	21	3	0	24	32	165	6	0	203	7	37	88	0	132	44	78	4	1	127	486
Total	0	70	16	0	86	162	577	23	0	762	23	128	349	0	500	154	274	27	2	457	1805
04:00 PM	0	42	11	0	53	23	189	11	0	223	15	78	98	0	191	72	144	20	0	236	703
04:15 PM	0	52	22	0	74	41	253	9	0	303	20	75	97	0	192	73	182	10	1	266	835
04:30 PM	0	40	14	0	54	43	272	12	0	327	21	78	111	0	210	110	149	14	0	273	864
04:45 PM	0	65	21	0	86	32	251	12	0	295	19	71	111	0	201	98	115	21	0	234	816
Total	0	199	68	0	267	139	965	44	0	1148	75	302	417	0	794	353	590	65	1	1009	3218
05:00 PM	1	43	12	0	56	44	277	25	0	346	13	75	121	0	209	89	134	19	0	242	853
05:15 PM	0	41	4	0	45	29	220	10	1	260	17	67	95	0	179	82	155	18	1	256	740
05:30 PM	1	40	15	0	56	34	246	10	0	290	13	58	114	0	185	107	150	19	1	277	808
05:45 PM	0	40	14	0	54	24	235	12	0	271	14	52	104	0	170	63	118	18	0	199	694
Total	2	164	45	0	211	131	978	57	1	1167	57	252	434	0	743	341	557	74	2	974	3095
Grand Total	2	513	145	0	660	684	3033	150	1	3868	177	853	1545	0	2575	1012	1654	212	5	2883	9986
Apprch %	0.3	77.7	22	0		17.7	78.4	3.9	0		6.9	33.1	60	0		35.1	57.4	7.4	0.2		
Total %	0	5.1	1.5	0	6.6	6.8	30.4	1.5	0	38.7	1.8	8.5	15.5	0	25.8	10.1	16.6	2.1	0.1	28.9	
Passenger Veh	2	508	144	0	654	671	2980	141	1	3793	174	842	1491	0	2507	992	1625	210	5	2832	9786
% Passenger Veh	100	99	99.3	0	99.1	98.1	98.3	94	100	98.1	98.3	98.7	96.5	0	97.4	98	98.2	99.1	100	98.2	98
Trucks	0	5	1	0	6	13	53	9	0	75	3	11	54	0	68	19	28	2	0	49	198
% Trucks	0	1	0.7	0	0.9	1.9	1.7	6	0	1.9	1.7	1.3	3.5	0	2.6	1.9	1.7	0.9	0	1.7	2
Bikes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	2
% Bikes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1	0	0	0.1	0

Data Collection Group

LSmith@DataCollectionGroup.net

See Excel table for notes about NB right

File Name : LaSalle and Armistead
Site Code :
Start Date : 7/22/2021

	LaSalle Ave From North					Armistead Ave From East					LaSalle Ave From South					Armistead Ave From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	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 07:15 AM																					
07:15 AM	0	**27**	4	0	**31**	**76**	133	2	0	211	6	**49**	78	0	133	42	50	10	0	102	477
07:30 AM	0	18	2	0	20	60	135	7	0	202	6	48	91	0	145	29	**76**	**13**	0	118	485
07:45 AM	0	20	**6**	0	26	51	**159**	**10**	0	**220**	**7**	47	**103**	0	**157**	**52**	65	9	0	**126**	**529**
08:00 AM	0	12	3	0	15	60	129	9	0	198	3	15	82	0	100	37	67	5	0	109	422
Total Volume	0	77	15	0	92	247	556	28	0	831	22	159	354	0	535	160	258	37	0	455	1913
% App. Total	0	83.7	16.3	0		29.7	66.9	3.4	0		4.1	29.7	66.2	0		35.2	56.7	8.1	0		
PHF	.000	.713	.625	.000	.742	.813	.874	.700	.000	.944	.786	.811	.859	.000	.852	.769	.849	.712	.000	.903	.904
Passenger Veh	0	76	15	0	91	246	530	22	0	798	22	157	332	0	511	153	255	36	0	444	1844
% Passenger Veh	0	98.7	100	0	98.9	99.6	95.3	78.6	0	96.0	100	98.7	93.8	0	95.5	95.6	98.8	97.3	0	97.6	96.4
Trucks	0	1	0	0	1	1	26	6	0	33	0	2	22	0	24	7	3	1	0	11	69
% Trucks	0	1.3	0	0	1.1	0.4	4.7	21.4	0	4.0	0	1.3	6.2	0	4.5	4.4	1.2	2.7	0	2.4	3.6
Bikes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bikes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Data Collection Group

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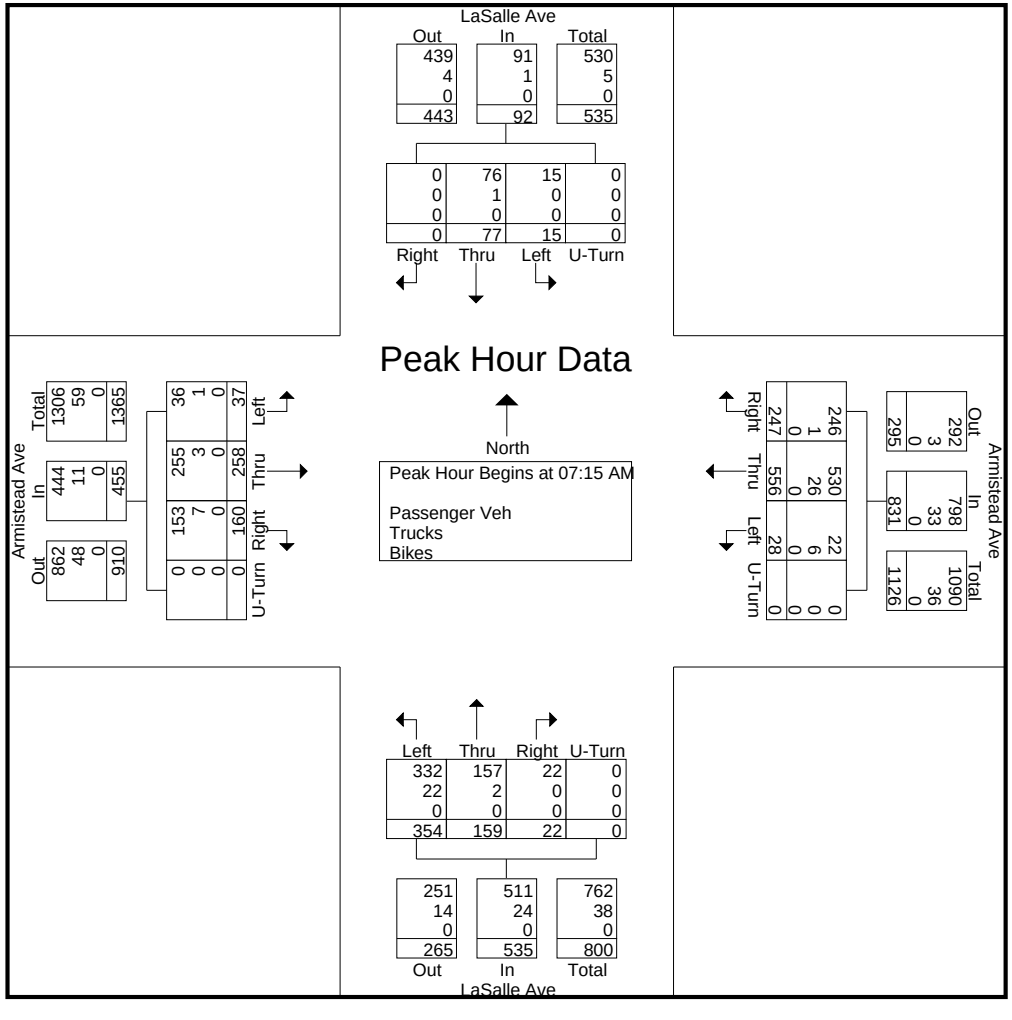
See Excel table for notes about NB right

File Name : LaSalle and Armistead
Site Code :
Start Date : 7/22/2021
Page No : 3



Data Collection Group

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See Excel table for notes about NB right

File Name : LaSalle and Armistead
Site Code :
Start Date : 7/22/2021
Page No : 4

	LaSalle Ave From North					Armistead Ave From East					LaSalle Ave From South					Armistead Ave From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	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	52	**22**	0	74	41	253	9	0	303	20	75	97	0	192	73	**182**	10	**1**	266	835
04:30 PM	0	40	14	0	54	43	272	12	0	327	**21**	**78**	111	0	**210**	**110**	149	14	0	**273**	**864**
04:45 PM	0	**65**	21	0	**86**	32	251	12	0	295	19	71	111	0	201	98	115	**21**	0	234	816
05:00 PM	**1**	43	12	0	56	**44**	**277**	**25**	0	**346**	13	75	**121**	0	209	89	134	19	0	242	853
Total Volume	1	200	69	0	270	160	1053	58	0	1271	73	299	440	0	812	370	580	64	1	1015	3368
% App. Total	0.4	74.1	25.6	0		12.6	82.8	4.6	0		9	36.8	54.2	0		36.5	57.1	6.3	0.1		
PHF	.250	.769	.784	.000	.785	.909	.950	.580	.000	.918	.869	.958	.909	.000	.967	.841	.797	.762	.250	.929	.975
Passenger Veh	1	199	69	0	269	159	1047	57	0	1263	72	296	430	0	798	365	573	64	1	1003	3333
% Passenger Veh	100	99.5	100	0	99.6	99.4	99.4	98.3	0	99.4	98.6	99.0	97.7	0	98.3	98.6	98.8	100	100	98.8	99.0
Trucks	0	1	0	0	1	1	6	1	0	8	1	3	10	0	14	5	7	0	0	12	35
% Trucks	0	0.5	0	0	0.4	0.6	0.6	1.7	0	0.6	1.4	1.0	2.3	0	1.7	1.4	1.2	0	0	1.2	1.0
Bikes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bikes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Data Collection Group

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See Excel table for notes about NB right

File Name : LaSalle and Armistead
Site Code :
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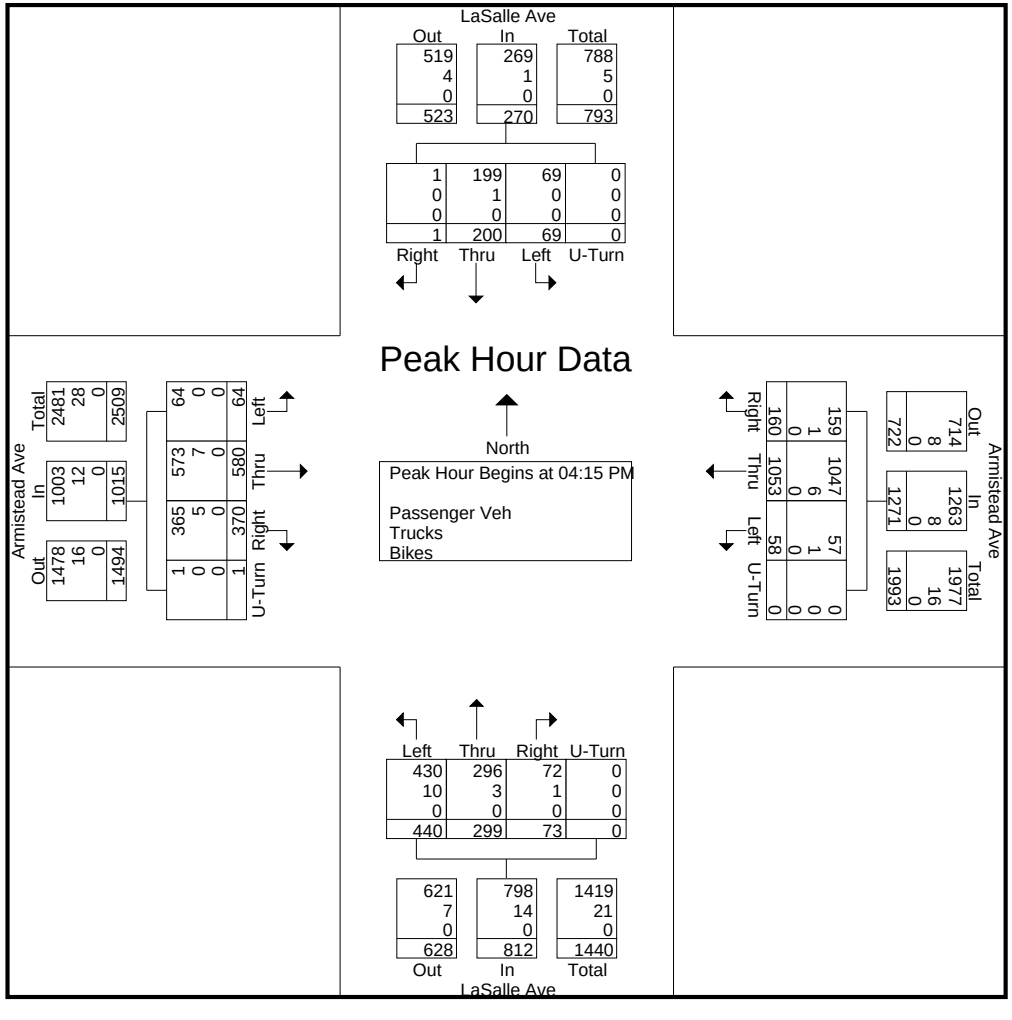

Data Collection Group

LSmith@DataCollectionGroup.net

File Name : LaSalle and Michigan Peds
Site Code :
Start Date : 7/22/2021
Page No : 1

Groups Printed- Peds

	LaSalle Ave From North					Driveway From East					LaSalle Ave From South					Michigan From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:15 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
07:45 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	3
Total	0	0	0	2	2	0	0	0	2	2	0	0	0	0	0	0	0	0	2	2	6
08:00 AM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
08:15 AM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
08:45 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	2	2	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	5
04:00 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	1	1	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	3
Total	0	0	0	1	1	0	0	0	2	2	0	0	0	1	1	0	0	0	0	0	4
05:00 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
05:30 PM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	2	2	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	4
Grand Total	0	0	0	7	7	0	0	0	8	8	0	0	0	1	1	0	0	0	3	3	19
Apprch %	0	0	0	100		0	0	0	100		0	0	0	100		0	0	0	100		
Total %	0	0	0	36.8	36.8	0	0	0	42.1	42.1	0	0	0	5.3	5.3	0	0	0	15.8	15.8	

Data Collection Group

LSmith@DataCollectionGroup.net

File Name : LaSalle and Michigan
Site Code :
Start Date : 7/22/2021
Page No : 1

Groups Printed- Passenger Veh - Trucks - Bikes

	LaSalle Ave From North					Driveway From East					LaSalle Ave From South					Michigan From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
07:00 AM	3	86	2	14	105	1	0	2	0	3	9	94	2	0	105	2	0	6	0	8	221
07:15 AM	5	143	9	12	169	1	0	0	0	1	0	115	2	0	117	4	0	8	0	12	299
07:30 AM	8	127	17	10	162	6	0	1	0	7	7	135	1	0	143	1	0	10	0	11	323
07:45 AM	13	152	17	11	193	8	0	1	0	9	11	121	3	0	135	2	0	13	0	15	352
Total	29	508	45	47	629	16	0	4	0	20	27	465	8	0	500	9	0	37	0	46	1195
08:00 AM	6	117	13	13	149	4	0	2	0	6	4	107	2	0	113	1	0	11	0	12	280
08:15 AM	4	121	6	10	141	4	0	2	0	6	6	95	1	0	102	3	0	5	0	8	257
08:30 AM	6	141	7	8	162	6	0	4	0	10	13	131	4	0	148	4	0	10	0	14	334
08:45 AM	10	139	14	13	176	5	0	10	0	15	7	112	1	0	120	3	0	7	0	10	321
Total	26	518	40	44	628	19	0	18	0	37	30	445	8	0	483	11	0	33	0	44	1192
04:00 PM	21	253	12	15	301	11	0	7	0	18	8	176	2	0	186	6	0	16	0	22	527
04:15 PM	7	258	5	13	283	19	0	3	0	22	9	138	5	0	152	3	0	14	0	17	474
04:30 PM	22	260	6	12	300	22	0	6	0	28	8	165	2	0	175	7	0	7	0	14	517
04:45 PM	20	277	6	15	318	16	0	8	0	24	3	177	2	0	182	7	0	15	0	22	546
Total	70	1048	29	55	1202	68	0	24	0	92	28	656	11	0	695	23	0	52	0	75	2064
05:00 PM	14	262	11	11	298	9	0	5	0	14	4	186	6	0	196	3	0	11	0	14	522
05:15 PM	19	261	6	11	297	8	0	4	0	12	5	148	8	0	161	6	0	15	0	21	491
05:30 PM	16	287	4	12	319	12	0	4	0	16	3	175	3	0	181	9	0	4	0	13	529
05:45 PM	11	278	7	13	309	5	0	1	0	6	8	155	4	0	167	1	0	13	0	14	496
Total	60	1088	28	47	1223	34	0	14	0	48	20	664	21	0	705	19	0	43	0	62	2038
Grand Total	185	3162	142	193	3682	137	0	60	0	197	105	2230	48	0	2383	62	0	165	0	227	6489
Apprch %	5	85.9	3.9	5.2		69.5	0	30.5	0		4.4	93.6	2	0		27.3	0	72.7	0		
Total %	2.9	48.7	2.2	3	56.7	2.1	0	0.9	0	3	1.6	34.4	0.7	0	36.7	1	0	2.5	0	3.5	
Passenger Veh	183	3072	141	193	3589	136	0	60	0	196	105	2167	41	0	2313	53	0	156	0	209	6307
% Passenger Veh	98.9	97.2	99.3	100	97.5	99.3	0	100	0	99.5	100	97.2	85.4	0	97.1	85.5	0	94.5	0	92.1	97.2
Trucks	2	89	1	0	92	1	0	0	0	1	0	61	7	0	68	9	0	9	0	18	179
% Trucks	1.1	2.8	0.7	0	2.5	0.7	0	0	0	0.5	0	2.7	14.6	0	2.9	14.5	0	5.5	0	7.9	2.8
Bikes	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
% Bikes	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0.1	0	0	0	0	0	0

Data Collection Group

LSmith@DataCollectionGroup.net

File Name : LaSalle and Michigan
Site Code :
Start Date : 7/22/2021
Page No : 2

	LaSalle Ave From North					Driveway From East					LaSalle Ave From South					Michigan From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	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 07:15 AM																					
07:15 AM	5	143	9	12	169	1	0	0	0	1	0	115	2	0	117	**4**	0	8	0	12	299
07:30 AM	8	127	**17**	10	162	6	0	1	0	7	7	**135**	1	0	**143**	1	0	10	0	11	323
07:45 AM	**13**	**152**	17	11	**193**	**8**	0	1	0	**9**	**11**	121	**3**	0	135	2	0	**13**	0	**15**	**352**
08:00 AM	6	117	13	**13**	149	4	0	**2**	0	6	4	107	2	0	113	1	0	11	0	12	280
Total Volume	32	539	56	46	673	19	0	4	0	23	22	478	8	0	508	8	0	42	0	50	1254
% App. Total	4.8	80.1	8.3	6.8		82.6	0	17.4	0		4.3	94.1	1.6	0		16	0	84	0		
PHF	.615	.887	.824	.885	.872	.594	.000	.500	.000	.639	.500	.885	.667	.000	.888	.500	.000	.808	.000	.833	.891
Passenger Veh	31	511	56	46	644	19	0	4	0	23	22	455	6	0	483	7	0	39	0	46	1196
% Passenger Veh	96.9	94.8	100	100	95.7	100	0	100	0	100	100	95.2	75.0	0	95.1	87.5	0	92.9	0	92.0	95.4
Trucks	1	28	0	0	29	0	0	0	0	0	0	22	2	0	24	1	0	3	0	4	57
% Trucks	3.1	5.2	0	0	4.3	0	0	0	0	0	0	4.6	25.0	0	4.7	12.5	0	7.1	0	8.0	4.5
Bikes	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
% Bikes	0	0	0	0	0	0	0	0	0	0	0	0.2	0	0	0.2	0	0	0	0	0	0.1

Data Collection Group

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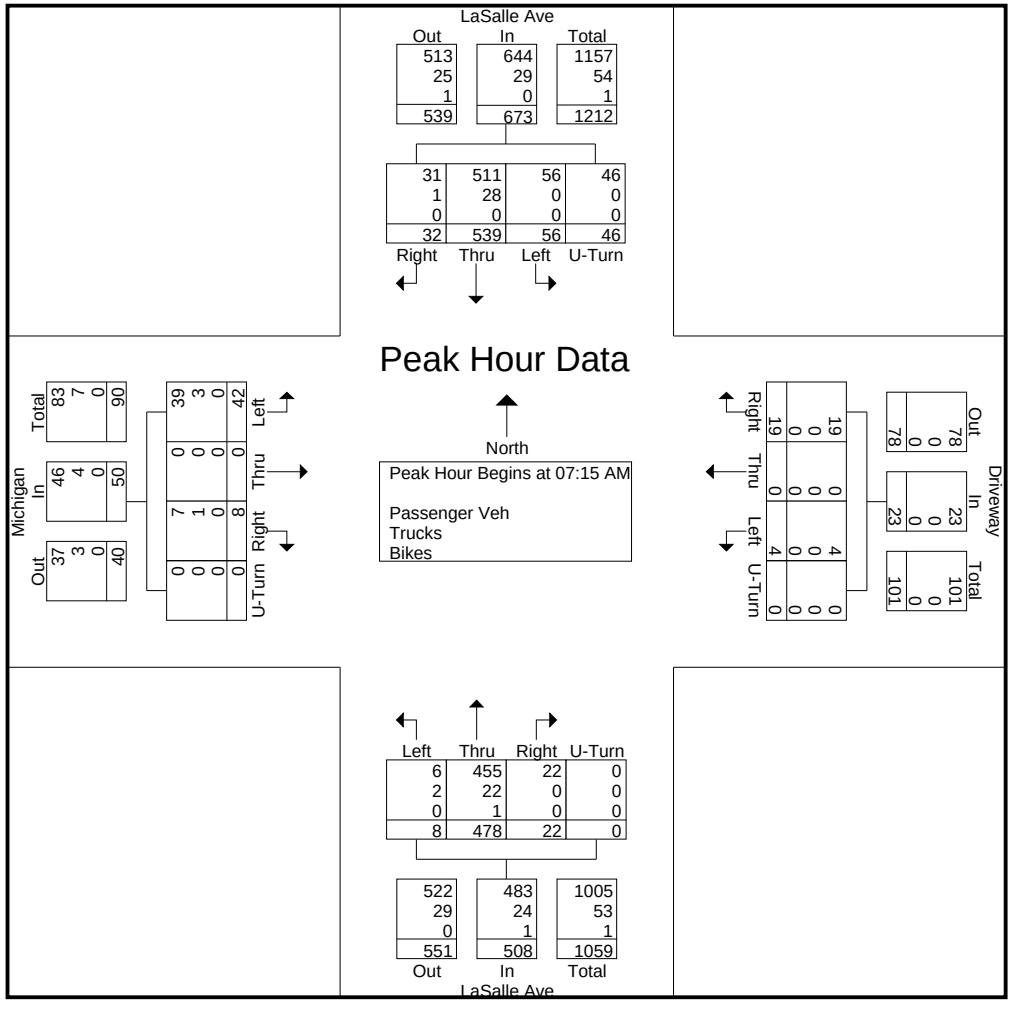

Data Collection Group

LSmith@DataCollectionGroup.net

File Name : LaSalle and Michigan
Site Code :
Start Date : 7/22/2021
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	LaSalle Ave From North					Driveway From East					LaSalle Ave From South					Michigan From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	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	**20**	277	6	**15**	318	**16**	0	**8**	0	**24**	3	177	2	0	182	7	0	**15**	0	**22**	**546**
05:00 PM	14	262	**11**	11	298	9	0	5	0	14	4	**186**	6	0	**196**	3	0	11	0	14	522
05:15 PM	19	261	6	11	297	8	0	4	0	12	**5**	148	**8**	0	161	6	0	15	0	21	491
05:30 PM	16	**287**	4	12	**319**	12	0	4	0	16	3	175	3	0	181	**9**	0	4	0	13	529
Total Volume	69	1087	27	49	1232	45	0	21	0	66	15	686	19	0	720	25	0	45	0	70	2088
% App. Total	5.6	88.2	2.2	4		68.2	0	31.8	0		2.1	95.3	2.6	0		35.7	0	64.3	0		
PHF	.863	.947	.614	.817	.966	.703	.000	.656	.000	.688	.750	.922	.594	.000	.918	.694	.000	.750	.000	.795	.956
Passenger Veh	69	1073	27	49	1218	45	0	21	0	66	15	674	18	0	707	22	0	43	0	65	2056
% Passenger Veh	100	98.7	100	100	98.9	100	0	100	0	100	100	98.3	94.7	0	98.2	88.0	0	95.6	0	92.9	98.5
Trucks	0	14	0	0	14	0	0	0	0	0	0	11	1	0	12	3	0	2	0	5	31
% Trucks	0	1.3	0	0	1.1	0	0	0	0	0	0	1.6	5.3	0	1.7	12.0	0	4.4	0	7.1	1.5
Bikes	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
% Bikes	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0.1	0	0	0	0	0	0.0

Data Collection Group

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File Name : LaSalle and Michigan
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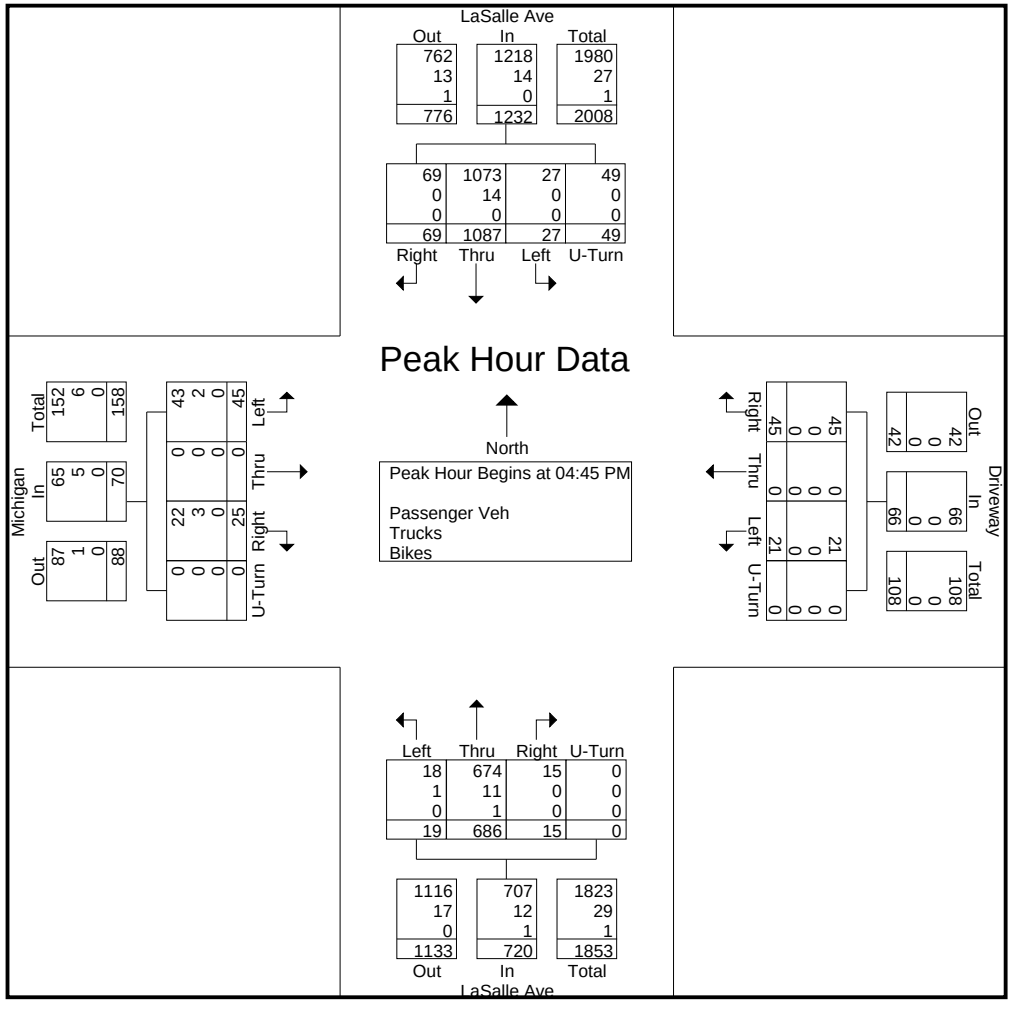

Data Collection Group

LSmith@DataCollectionGroup.net

File Name : LaSalle and Pembroke Peds
Site Code :
Start Date : 7/22/2021
Page No : 1

Groups Printed- Pedestrians

	LaSalle Ave From North					Pembroke Ave From East					LaSalle Ave From South					Pembroke Ave From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
04:30 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	3	3	5
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3
Grand Total	0	0	0	1	1	0	0	0	3	3	0	0	0	0	0	0	0	0	6	6	10
Apprch %	0	0	0	100		0	0	0	100		0	0	0	0		0	0	0	100		
Total %	0	0	0	10	10	0	0	0	30	30	0	0	0	0	0	0	0	0	60	60	

Data Collection Group

LSmith@DataCollectionGroup.net

File Name : LaSalle and Pembroke
Site Code :
Start Date : 7/22/2021
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Groups Printed- Passenger Ver - Trucks - Bikes

	LaSalle Ave From North					Pembroke Ave From East					LaSalle Ave From South					Pembroke Ave From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
07:00 AM	16	53	6	0	75	5	32	8	0	45	6	78	1	0	85	1	38	19	0	58	263
07:15 AM	33	100	23	0	156	13	44	6	0	63	6	79	1	0	86	0	34	25	0	59	364
07:30 AM	13	99	22	0	134	5	32	7	0	44	13	99	0	0	112	2	31	22	0	55	345
07:45 AM	17	116	16	0	149	10	35	3	0	48	8	112	3	0	123	0	42	25	0	67	387
Total	79	368	67	0	514	33	143	24	0	200	33	368	5	0	406	3	145	91	0	239	1359
08:00 AM	22	89	22	0	133	7	29	1	0	37	7	85	1	0	93	0	34	18	0	52	315
08:15 AM	14	89	13	0	116	4	35	10	0	49	6	80	0	0	86	1	43	25	0	69	320
08:30 AM	29	93	19	0	141	9	35	6	0	50	7	103	3	0	113	1	36	34	0	71	375
08:45 AM	26	119	21	0	166	5	33	8	0	46	6	90	0	0	96	0	27	19	0	46	354
Total	91	390	75	0	556	25	132	25	0	182	26	358	4	0	388	2	140	96	0	238	1364
04:00 PM	27	160	72	0	259	9	55	18	0	82	13	108	1	0	122	4	153	61	0	218	681
04:15 PM	40	157	65	0	262	7	65	17	0	89	17	97	3	0	117	3	133	39	0	175	643
04:30 PM	28	194	54	0	276	13	73	15	0	101	14	114	2	0	130	3	129	36	0	168	675
04:45 PM	50	182	52	0	284	10	65	15	0	90	20	122	3	0	145	1	144	51	0	196	715
Total	145	693	243	0	1081	39	258	65	0	362	64	441	9	0	514	11	559	187	0	757	2714
05:00 PM	31	183	46	0	260	10	68	15	0	93	11	123	0	1	135	1	118	45	0	164	652
05:15 PM	35	163	74	0	272	13	76	12	0	101	11	121	1	0	133	3	124	32	0	159	665
05:30 PM	35	190	62	0	287	13	57	17	0	87	13	119	2	0	134	7	100	39	0	146	654
05:45 PM	31	205	44	0	280	12	63	10	0	85	14	106	1	0	121	4	92	38	0	134	620
Total	132	741	226	0	1099	48	264	54	0	366	49	469	4	1	523	15	434	154	0	603	2591
Grand Total	447	2192	611	0	3250	145	797	168	0	1110	172	1636	22	1	1831	31	1278	528	0	1837	8028
Apprch %	13.8	67.4	18.8	0		13.1	71.8	15.1	0		9.4	89.4	1.2	0.1		1.7	69.6	28.7	0		
Total %	5.6	27.3	7.6	0	40.5	1.8	9.9	2.1	0	13.8	2.1	20.4	0.3	0	22.8	0.4	15.9	6.6	0	22.9	
Passenger Ver	427	2135	596	0	3158	133	762	158	0	1053	166	1598	22	1	1787	31	1244	509	0	1784	7782
% Passenger Ver	95.5	97.4	97.5	0	97.2	91.7	95.6	94	0	94.9	96.5	97.7	100	100	97.6	100	97.3	96.4	0	97.1	96.9
Trucks	20	57	15	0	92	12	35	10	0	57	6	38	0	0	44	0	34	19	0	53	246
% Trucks	4.5	2.6	2.5	0	2.8	8.3	4.4	6	0	5.1	3.5	2.3	0	0	2.4	0	2.7	3.6	0	2.9	3.1
Bikes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bikes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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File Name : LaSalle and Pembroke
Site Code :
Start Date : 7/22/2021
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	LaSalle Ave From North					Pembroke Ave From East					LaSalle Ave From South					Pembroke Ave From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	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 07:15 AM																					
07:15 AM	**33**	100	**23**	0	**156**	**13**	**44**	6	0	**63**	6	79	1	0	86	0	34	**25**	0	59	364
07:30 AM	13	99	22	0	134	5	32	**7**	0	44	**13**	99	0	0	112	**2**	31	22	0	55	345
07:45 AM	17	**116**	16	0	149	10	35	3	0	48	8	**112**	**3**	0	**123**	0	**42**	25	0	**67**	**387**
08:00 AM	22	89	22	0	133	7	29	1	0	37	7	85	1	0	93	0	34	18	0	52	315
Total Volume	85	404	83	0	572	35	140	17	0	192	34	375	5	0	414	2	141	90	0	233	1411
% App. Total	14.9	70.6	14.5	0		18.2	72.9	8.9	0		8.2	90.6	1.2	0		0.9	60.5	38.6	0		
PHF	.644	.871	.902	.000	.917	.673	.795	.607	.000	.762	.654	.837	.417	.000	.841	.250	.839	.900	.000	.869	.911
Passenger Ver	79	382	83	0	544	29	126	17	0	172	31	364	5	0	400	2	129	84	0	215	1331
% Passenger Ver	92.9	94.6	100	0	95.1	82.9	90.0	100	0	89.6	91.2	97.1	100	0	96.6	100	91.5	93.3	0	92.3	94.3
Trucks	6	22	0	0	28	6	14	0	0	20	3	11	0	0	14	0	12	6	0	18	80
% Trucks	7.1	5.4	0	0	4.9	17.1	10.0	0	0	10.4	8.8	2.9	0	0	3.4	0	8.5	6.7	0	7.7	5.7
Bikes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bikes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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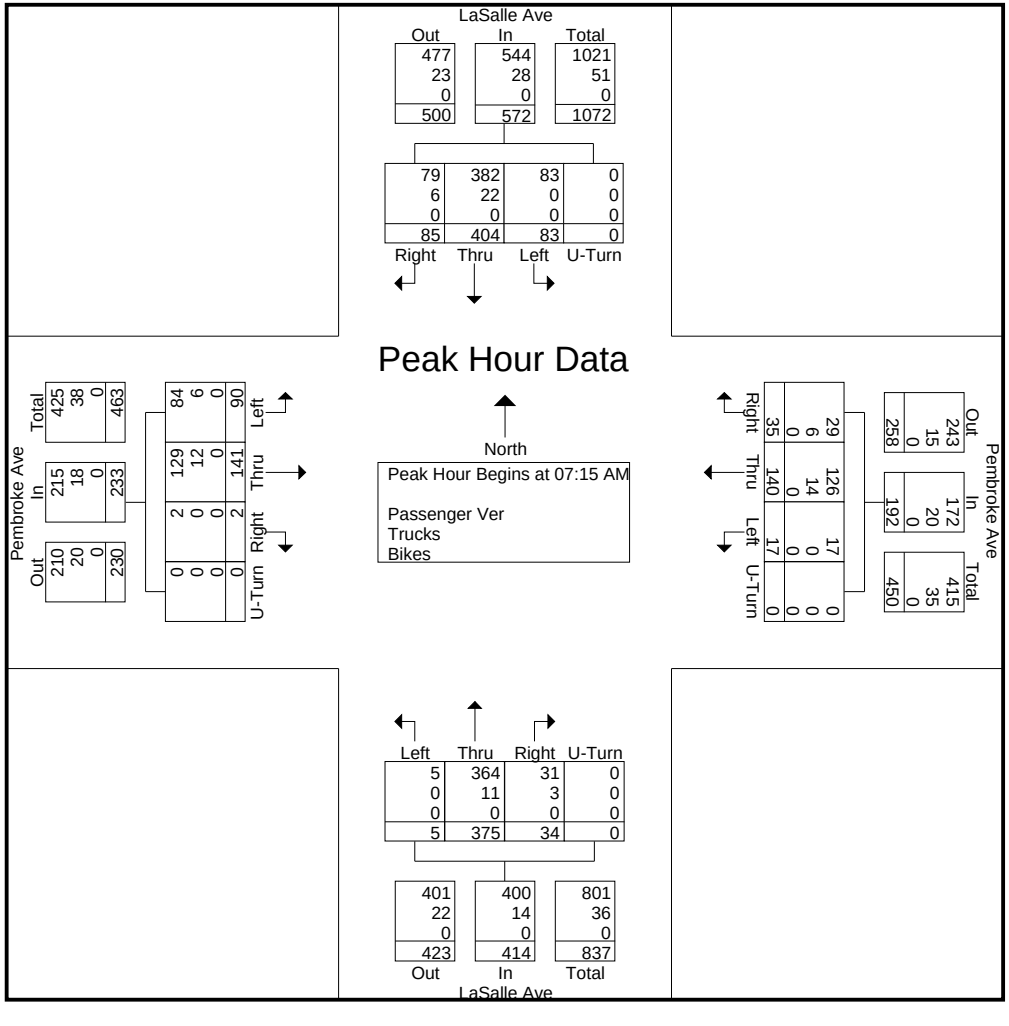

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	LaSalle Ave From North					Pembroke Ave From East					LaSalle Ave From South					Pembroke Ave From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. 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	27	160	**72**	0	259	9	55	**18**	0	82	13	108	1	0	122	**4**	**153**	**61**	0	**218**	681
04:15 PM	40	157	65	0	262	7	65	17	0	89	17	97	**3**	0	117	3	133	39	0	175	643
04:30 PM	28	**194**	54	0	276	**13**	**73**	15	0	**101**	14	114	2	0	130	3	129	36	0	168	675
04:45 PM	**50**	182	52	0	**284**	10	65	15	0	90	**20**	**122**	3	0	**145**	1	144	51	0	196	**715**
Total Volume	145	693	243	0	1081	39	258	65	0	362	64	441	9	0	514	11	559	187	0	757	2714
% App. Total	13.4	64.1	22.5	0		10.8	71.3	18	0		12.5	85.8	1.8	0		1.5	73.8	24.7	0		
PHF	.725	.893	.844	.000	.952	.750	.884	.903	.000	.896	.800	.904	.750	.000	.886	.688	.913	.766	.000	.868	.949
Passenger Ver	134	676	234	0	1044	39	249	62	0	350	62	433	9	0	504	11	552	185	0	748	2646
% Passenger Ver	92.4	97.5	96.3	0	96.6	100	96.5	95.4	0	96.7	96.9	98.2	100	0	98.1	100	98.7	98.9	0	98.8	97.5
Trucks	11	17	9	0	37	0	9	3	0	12	2	8	0	0	10	0	7	2	0	9	68
% Trucks	7.6	2.5	3.7	0	3.4	0	3.5	4.6	0	3.3	3.1	1.8	0	0	1.9	0	1.3	1.1	0	1.2	2.5
Bikes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bikes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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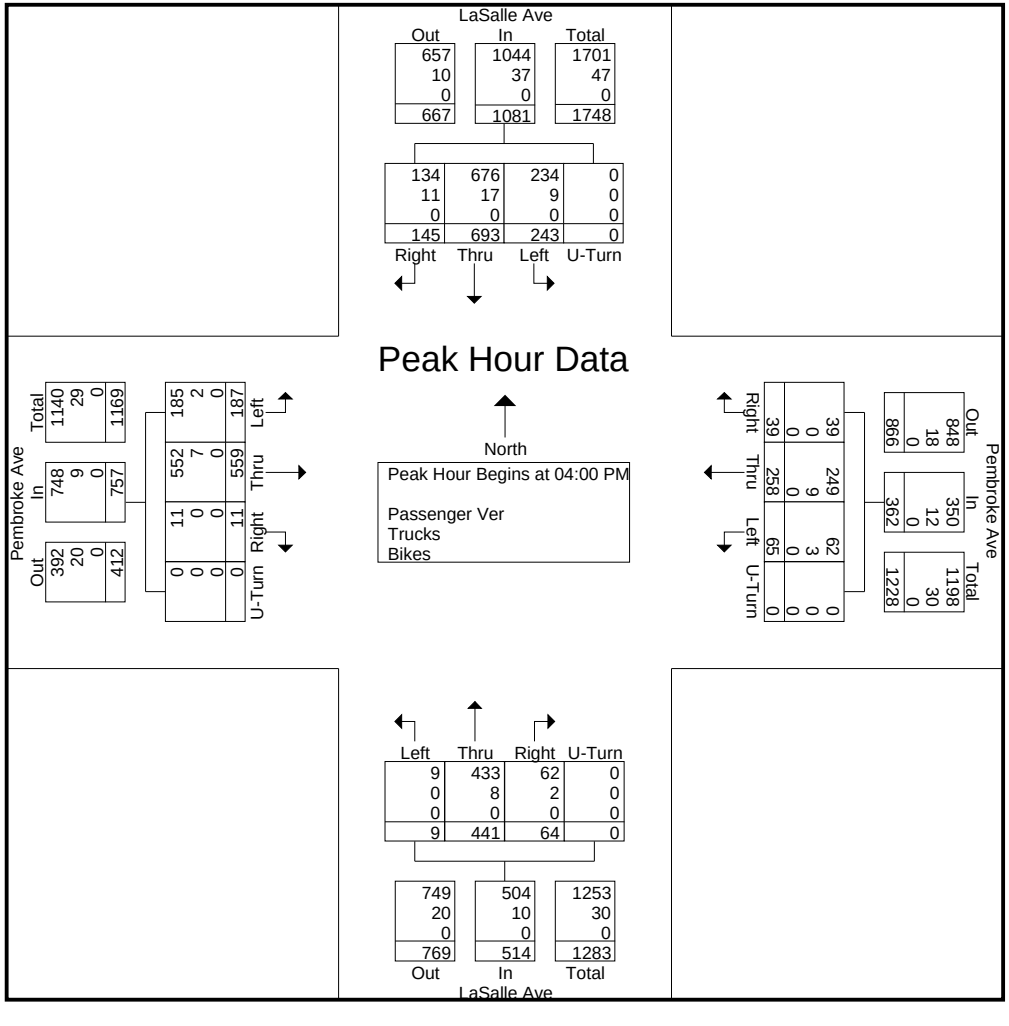
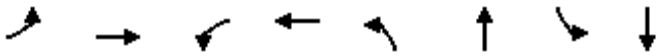
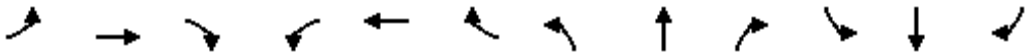


Appendix C
SYNCHRO Analysis Worksheets Sheets For 2021 Existing Conditions



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	136	216	25	265	8	619	125	740
v/c Ratio	0.66	0.16	0.21	0.27	0.05	0.79	0.44	0.57
Control Delay	60.5	24.2	52.6	33.0	31.3	47.8	23.1	26.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.5	24.2	52.6	33.0	31.3	47.8	23.1	26.9
Queue Length 50th (ft)	93	53	17	74	4	217	67	242
Queue Length 95th (ft)	151	96	45	133	17	263	105	281
Internal Link Dist (ft)		878		630		1378		320
Turn Bay Length (ft)	120		145		180		185	
Base Capacity (vph)	244	1480	155	1111	176	863	282	1361
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.15	0.16	0.24	0.05	0.72	0.44	0.54

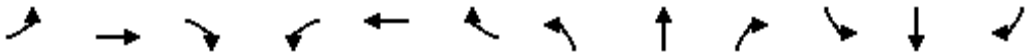
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	124	194	3	23	193	48	7	516	47	114	556	117
Future Volume (vph)	124	194	3	23	193	48	7	516	47	114	556	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	6.1		6.5	6.1		6.5	6.5		6.5	6.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.97		1.00	0.99		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1687	3308		1805	3143		1804	3444		1805	3330	
Flt Permitted	0.95	1.00		0.95	1.00		0.37	1.00		0.17	1.00	
Satd. Flow (perm)	1687	3308		1805	3143		704	3444		320	3330	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	136	213	3	25	212	53	8	567	52	125	611	129
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	136	216	0	25	265	0	8	619	0	125	740	0
Confl. Peds. (#/hr)			1	1			1					1
Heavy Vehicles (%)	7%	9%	0%	0%	10%	17%	0%	3%	9%	0%	5%	7%
Turn Type	Prot	NA		Prot	NA		Perm	NA		pm+pt	NA	
Protected Phases	1	6		5	2			8		3	4	
Permitted Phases							8			4		
Actuated Green, G (s)	13.5	43.2		4.6	33.8		25.0	25.0		43.1	43.1	
Effective Green, g (s)	13.5	43.2		4.6	33.8		25.0	25.0		43.1	43.1	
Actuated g/C Ratio	0.12	0.39		0.04	0.31		0.23	0.23		0.39	0.39	
Clearance Time (s)	7.0	6.1		6.5	6.1		6.5	6.5		6.5	6.5	
Vehicle Extension (s)	2.5	3.0		2.5	3.0		2.5	2.5		3.0	2.5	
Lane Grp Cap (vph)	207	1299		75	965		160	782		281	1304	
v/s Ratio Prot	c0.08	0.07		0.01	c0.08			c0.18		0.05	c0.22	
v/s Ratio Perm							0.01			0.13		
v/c Ratio	0.66	0.17		0.33	0.27		0.05	0.79		0.44	0.57	
Uniform Delay, d1	46.0	21.7		51.2	28.8		33.2	40.0		23.8	26.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		0.91	0.99	
Incremental Delay, d2	6.6	0.3		1.9	0.7		0.1	5.3		1.1	0.4	
Delay (s)	52.6	22.0		53.1	29.5		33.3	45.4		22.6	26.3	
Level of Service	D	C		D	C		C	D		C	C	
Approach Delay (s)		33.8			31.6			45.2			25.8	
Approach LOS		C			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	33.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	26.1
Intersection Capacity Utilization	63.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	10	19	0	8	0	688	0	0	758	0
Future Volume (Veh/h)	2	0	10	19	0	8	0	688	0	0	758	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	2	0	11	21	0	9	0	756	0	0	833	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								400			620	
pX, platoon unblocked	0.89	0.89	0.91	0.89	0.89	0.84	0.91			0.84		
vC, conflicting volume	1220	1589	416	1184	1589	378	833			756		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	513	929	146	472	929	0	606			329		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	99	95	100	99	100			100		
cM capacity (veh/h)	394	239	798	420	239	916	889			1044		

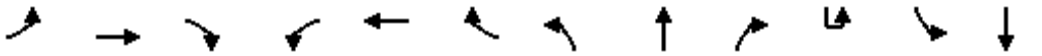
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	13	30	0	504	252	0	555	278
Volume Left	2	21	0	0	0	0	0	0
Volume Right	11	9	0	0	0	0	0	0
cSH	689	501	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.02	0.06	0.00	0.30	0.15	0.00	0.33	0.16
Queue Length 95th (ft)	1	5	0	0	0	0	0	0
Control Delay (s)	10.3	12.6	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B	B						
Approach Delay (s)	10.3	12.6	0.0			0.0		
Approach LOS	B	B						

Intersection Summary				
Average Delay	0.3			
Intersection Capacity Utilization	32.5%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	65	12	7	29	12	772	158	882
v/c Ratio	0.40	0.04	0.06	0.11	0.04	0.38	0.32	0.35
Control Delay	53.2	0.3	49.8	0.8	21.6	21.9	8.7	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.2	0.3	49.8	0.8	21.6	21.9	8.7	8.3
Queue Length 50th (ft)	44	0	5	0	7	284	37	128
Queue Length 95th (ft)	84	0	19	0	m12	340	83	223
Internal Link Dist (ft)	587		553			540		393
Turn Bay Length (ft)		150		40	190		215	
Base Capacity (vph)	169	295	147	289	287	2017	614	2560
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.04	0.05	0.10	0.04	0.38	0.26	0.34

Intersection Summary

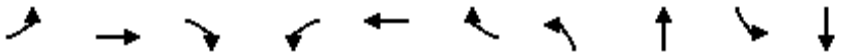
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	51	7	11	6	0	26	11	657	30	63	77	741
Future Volume (vph)	51	7	11	6	0	26	11	657	30	63	77	741
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0	7.0		7.0	7.0	6.6	6.6			6.6	6.6
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95			1.00	0.95
Frt		1.00	0.85		1.00	0.85	1.00	0.99			1.00	0.99
Flt Protected		0.96	1.00		0.95	1.00	0.95	1.00			0.95	1.00
Satd. Flow (prot)		1701	1429		1805	1615	1444	3423			1805	3413
Flt Permitted		0.96	1.00		0.95	1.00	0.32	1.00			0.28	1.00
Satd. Flow (perm)		1701	1429		1805	1615	490	3423			536	3413
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	57	8	12	7	0	29	12	738	34	71	87	833
RTOR Reduction (vph)	0	0	11	0	0	28	0	2	0	0	0	3
Lane Group Flow (vph)	0	65	1	0	7	1	12	770	0	0	158	879
Heavy Vehicles (%)	8%	0%	13%	0%	0%	0%	25%	5%	0%	0%	0%	5%
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		pm+pt	pm+pt	NA
Protected Phases	4	4		3	3			2		1	1	6
Permitted Phases			4			3	2			6	6	
Actuated Green, G (s)		9.1	9.1		4.2	4.2	60.6	60.6			76.1	76.1
Effective Green, g (s)		9.1	9.1		4.2	4.2	60.6	60.6			76.1	76.1
Actuated g/C Ratio		0.08	0.08		0.04	0.04	0.55	0.55			0.69	0.69
Clearance Time (s)		7.0	7.0		7.0	7.0	6.6	6.6			6.6	6.6
Vehicle Extension (s)		4.0	4.0		3.0	3.0	4.0	4.0			3.0	4.0
Lane Grp Cap (vph)		140	118		68	61	269	1885			473	2361
v/s Ratio Prot		c0.04			c0.00			c0.22			0.03	c0.26
v/s Ratio Perm			0.00			0.00	0.02				0.20	
v/c Ratio		0.46	0.01		0.10	0.02	0.04	0.41			0.33	0.37
Uniform Delay, d1		48.1	46.3		51.1	50.9	11.4	14.3			7.0	7.0
Progression Factor		1.00	1.00		1.00	1.00	1.33	1.42			1.04	1.08
Incremental Delay, d2		3.3	0.0		0.7	0.1	0.2	0.5			0.4	0.5
Delay (s)		51.4	46.3		51.7	51.0	15.4	20.9			7.6	8.1
Level of Service		D	D		D	D	B	C			A	A
Approach Delay (s)		50.6			51.2			20.8				8.0
Approach LOS		D			D			C				A

Intersection Summary			
HCM 2000 Control Delay	15.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	27.2
Intersection Capacity Utilization	61.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

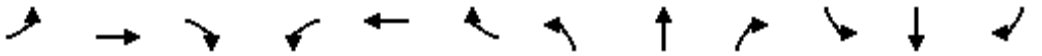
Movement	SBR
Lane Configurations	
Traffic Volume (vph)	44
Future Volume (vph)	44
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.89
Adj. Flow (vph)	49
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Heavy Vehicles (%)	3%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	57	394	244	43	952	276	270	533	23	118
v/c Ratio	0.27	0.34	0.24	0.12	0.56	0.41	0.71	0.67	0.17	0.45
Control Delay	22.4	30.0	1.3	5.0	6.3	2.2	57.3	51.4	50.5	54.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0
Total Delay	22.4	30.0	1.3	5.0	6.3	2.7	57.3	51.4	50.5	54.3
Queue Length 50th (ft)	22	116	0	3	29	0	218	214	16	42
Queue Length 95th (ft)	50	161	16	m8	38	27	319	279	42	72
Internal Link Dist (ft)		1054			136			168		1066
Turn Bay Length (ft)	125		400	130		130			250	
Base Capacity (vph)	214	1171	1053	348	1693	681	444	932	154	305
Starvation Cap Reductn	0	0	0	0	0	140	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.34	0.23	0.12	0.56	0.51	0.61	0.57	0.15	0.39

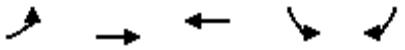
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	355	220	39	765	340	487	219	17	21	106	0
Future Volume (vph)	51	355	220	39	765	340	487	219	17	21	106	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.9	7.9	7.5	7.9	7.9	7.9	7.5	7.5		8.6	8.6	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.86	0.86	0.91	0.91		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.98	0.85	1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.98		0.95	1.00	
Satd. Flow (prot)	1752	3574	1553	1492	4617	1389	1550	3241		1805	3574	
Flt Permitted	0.21	1.00	1.00	0.46	1.00	1.00	0.95	0.98		0.95	1.00	
Satd. Flow (perm)	390	3574	1553	726	4617	1389	1550	3241		1805	3574	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	57	394	244	43	850	378	541	243	19	23	118	0
RTOR Reduction (vph)	0	0	104	0	12	179	0	2	0	0	0	0
Lane Group Flow (vph)	57	394	140	43	940	97	270	531	0	23	118	0
Heavy Vehicles (%)	3%	1%	4%	21%	5%	0%	6%	1%	0%	0%	1%	0%
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	Perm	Split	NA		Split	NA	Free
Protected Phases	5	2	3	1	6		3	3		4	4	
Permitted Phases	2		2	6		6						Free
Actuated Green, G (s)	40.4	36.0	63.1	45.4	38.5	38.5	27.1	27.1		8.1	8.1	
Effective Green, g (s)	40.4	36.0	63.1	45.4	38.5	38.5	27.1	27.1		8.1	8.1	
Actuated g/C Ratio	0.37	0.33	0.57	0.41	0.35	0.35	0.25	0.25		0.07	0.07	
Clearance Time (s)	7.9	7.9	7.5	7.9	7.9	7.9	7.5	7.5		8.6	8.6	
Vehicle Extension (s)	2.0	5.0	3.5	2.0	5.0	5.0	3.5	3.5		2.0	2.0	
Lane Grp Cap (vph)	197	1169	890	347	1615	486	381	798		132	263	
v/s Ratio Prot	c0.01	0.11	0.04	0.01	c0.20		c0.17	0.16		0.01	c0.03	
v/s Ratio Perm	0.09		0.05	0.04		0.07						
v/c Ratio	0.29	0.34	0.16	0.12	0.58	0.20	0.71	0.67		0.17	0.45	
Uniform Delay, d1	23.1	28.0	11.0	19.6	29.2	25.0	37.8	37.4		47.8	48.8	
Progression Factor	1.00	1.00	1.00	0.22	0.17	0.15	1.27	1.29		1.00	1.00	
Incremental Delay, d2	0.3	0.8	0.1	0.1	1.4	0.8	5.9	2.1		0.2	0.4	
Delay (s)	23.4	28.8	11.1	4.5	6.4	4.5	53.8	50.3		48.0	49.3	
Level of Service	C	C	B	A	A	A	D	D		D	D	
Approach Delay (s)		22.1			6.0			51.5			49.1	
Approach LOS		C			A			D			D	

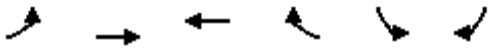
Intersection Summary			
HCM 2000 Control Delay	24.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	31.9
Intersection Capacity Utilization	61.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	41	368	1141	8	88
v/c Ratio	0.31	0.17	0.50	0.02	0.20
Control Delay	36.8	1.2	29.7	28.6	7.4
Queue Delay	0.0	0.2	0.0	0.0	0.0
Total Delay	36.8	1.4	29.7	28.6	7.4
Queue Length 50th (ft)	30	6	193	4	0
Queue Length 95th (ft)	m65	8	239	16	37
Internal Link Dist (ft)		136	72	558	
Turn Bay Length (ft)	115			140	
Base Capacity (vph)	154	2214	2305	517	504
Starvation Cap Reductn	0	1066	0	0	0
Spillback Cap Reductn	0	0	5	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.27	0.32	0.50	0.02	0.17

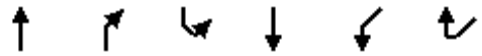
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	39	353	1059	36	8	84
Future Volume (vph)	39	353	1059	36	8	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.6	7.9	7.9		7.5	7.5
Lane Util. Factor	1.00	0.95	0.86		1.00	1.00
Frt	1.00	1.00	1.00		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1805	3539	6320		1805	1538
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1805	3539	6320		1805	1538
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	41	368	1103	38	8	88
RTOR Reduction (vph)	0	0	4	0	0	66
Lane Group Flow (vph)	41	368	1137	0	8	22
Heavy Vehicles (%)	0%	2%	3%	0%	0%	5%
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	4	2 4 1	6		3	
Permitted Phases						3
Actuated Green, G (s)	8.1	66.8	38.5		27.1	27.1
Effective Green, g (s)	8.1	66.8	38.5		27.1	27.1
Actuated g/C Ratio	0.07	0.61	0.35		0.25	0.25
Clearance Time (s)	8.6		7.9		7.5	7.5
Vehicle Extension (s)	2.0		5.0		3.5	3.5
Lane Grp Cap (vph)	132	2149	2212		444	378
v/s Ratio Prot	c0.02	c0.10	c0.18		0.00	
v/s Ratio Perm						c0.01
v/c Ratio	0.31	0.17	0.51		0.02	0.06
Uniform Delay, d1	48.3	9.5	28.3		31.4	31.7
Progression Factor	0.64	0.11	1.00		1.00	1.00
Incremental Delay, d2	0.5	0.0	0.9		0.0	0.1
Delay (s)	31.5	1.1	29.2		31.4	31.8
Level of Service	C	A	C		C	C
Approach Delay (s)		4.1	29.2		31.7	
Approach LOS		A	C		C	

Intersection Summary			
HCM 2000 Control Delay	23.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	31.9
Intersection Capacity Utilization	47.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	737	60	0	450	0	0
Future Volume (Veh/h)	737	60	0	450	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	801	65	0	489	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	691			999		
pX, platoon unblocked			0.88		0.88	0.88
vC, conflicting volume			866		1078	433
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			584		824	93
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			872		275	835

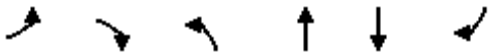
Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	534	332	244	244
Volume Left	0	0	0	0
Volume Right	0	65	0	0
cSH	1700	1700	1700	1700
Volume to Capacity	0.31	0.20	0.14	0.14
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	25.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	0	737	425	100	0	0
Future Volume (Veh/h)	0	737	425	100	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	801	462	109	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		983	707			
pX, platoon unblocked	1.00				0.91	1.00
vC, conflicting volume	571				917	286
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	565				688	279
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1000				344	717

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	400	400	308	263
Volume Left	0	0	0	0
Volume Right	0	0	0	109
cSH	1700	1700	1700	1700
Volume to Capacity	0.24	0.24	0.18	0.15
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	25.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	475	0	797	450	0
Future Volume (Veh/h)	0	475	0	797	450	0
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	516	0	866	489	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				473	1217	
pX, platoon unblocked	0.88					
vC, conflicting volume	922	244	489			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	635	244	489			
tC, single (s)	6.8	7.0	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	31	100			
cM capacity (veh/h)	361	753	1070			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	516	433	433	244	244
Volume Left	0	0	0	0	0
Volume Right	516	0	0	0	0
cSH	753	1700	1700	1700	1700
Volume to Capacity	0.69	0.25	0.25	0.14	0.14
Queue Length 95th (ft)	138	0	0	0	0
Control Delay (s)	19.5	0.0	0.0	0.0	0.0
Lane LOS	C				
Approach Delay (s)	19.5	0.0		0.0	
Approach LOS	C				

Intersection Summary				
Average Delay	5.4			
Intersection Capacity Utilization	48.5%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	723	14	0	365
Future Volume (Veh/h)	0	0	723	14	0	365
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.90	0.90	0.92	0.90
Hourly flow rate (vph)	0	0	803	16	0	406
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						248
pX, platoon unblocked	0.97					
vC, conflicting volume	1014	410			819	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	961	410			819	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	248	591			805	

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	535	284	203	203
Volume Left	0	0	0	0
Volume Right	0	16	0	0
cSH	1700	1700	1700	1700
Volume to Capacity	0.31	0.17	0.12	0.12
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	23.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations		↑↑	↑↑			↱
Traffic Volume (veh/h)	0	737	365	0	0	130
Future Volume (Veh/h)	0	737	365	0	0	130
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.90	0.90	0.92	0.92	0.92
Hourly flow rate (vph)	0	819	406	0	0	141
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		1300	390			
pX, platoon unblocked	0.98				0.93	0.98
vC, conflicting volume	406				816	203
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	351				554	144
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	84
cM capacity (veh/h)	1179				430	859

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	SE 1
Volume Total	410	410	203	203	141
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	141
cSH	1700	1700	1700	1700	859
Volume to Capacity	0.24	0.24	0.12	0.12	0.16
Queue Length 95th (ft)	0	0	0	0	15
Control Delay (s)	0.0	0.0	0.0	0.0	10.0
Lane LOS					B
Approach Delay (s)	0.0		0.0		10.0
Approach LOS					B

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	24.8%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection Sign configuration not allowed in HCM analysis.

Intersection: 1: LaSalle Ave & W Pembroke Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	118	210	128	74	175	152	8	209	219	184	264	275
Average Queue (ft)	63	58	30	10	81	54	0	117	116	55	135	161
95th Queue (ft)	124	145	87	42	148	120	4	196	202	133	233	254
Link Distance (ft)		855	855		628	628		1355	1355		289	289
Upstream Blk Time (%)											0	0
Queuing Penalty (veh)											0	0
Storage Bay Dist (ft)	120			145			180			185		
Storage Blk Time (%)	3	1		0	1			1		0	2	
Queuing Penalty (veh)	3	2		0	0			0		0	2	

Intersection: 2: LaSalle Ave & Georgia Street

Movement	EB	WB	SB	SB
Directions Served	LTR	LTR	T	TR
Maximum Queue (ft)	40	55	6	18
Average Queue (ft)	11	20	0	1
95th Queue (ft)	36	47	6	15
Link Distance (ft)	191	219	548	548
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 3: LaSalle Ave & Michigan Dr/Driveway

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LT	R	L	T	TR	UL	T	TR
Maximum Queue (ft)	131	58	55	39	64	207	249	76	103	150
Average Queue (ft)	52	12	9	21	7	38	48	21	20	27
95th Queue (ft)	105	42	36	49	35	129	159	55	67	94
Link Distance (ft)	619		583			548	548		370	370
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)		150		40	190			215		
Storage Blk Time (%)	0	0	0	2		0				
Queuing Penalty (veh)	0	0	0	0		0				

Intersection: 4: LaSalle Ave & N Armistead Ave

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	UL	T	T	R	L	T	T	TR	R	L	LT	TR
Maximum Queue (ft)	106	163	134	47	56	59	63	82	30	212	205	142
Average Queue (ft)	24	79	30	7	10	7	8	19	2	155	174	116
95th Queue (ft)	65	146	92	28	37	32	34	55	15	221	224	162
Link Distance (ft)		1062	1062		112	112	112	112	112	131	131	131
Upstream Blk Time (%)					0		0	0		21	30	3
Queuing Penalty (veh)					0		0	0		52	73	7
Storage Bay Dist (ft)	125			400								
Storage Blk Time (%)	0	2										
Queuing Penalty (veh)	0	1										

Intersection: 4: LaSalle Ave & N Armistead Ave

Movement	SB	SB	SB
Directions Served	L	T	T
Maximum Queue (ft)	56	109	86
Average Queue (ft)	15	48	30
95th Queue (ft)	42	90	70
Link Distance (ft)		1062	1062
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	250		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: N Armistead Ave & Thomas Street

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	T	TR	L	R
Maximum Queue (ft)	84	64	60	152	226	234	220	34	81
Average Queue (ft)	35	15	17	51	145	163	104	4	36
95th Queue (ft)	78	46	50	107	220	242	191	21	66
Link Distance (ft)	112	112	112	54	54	54	54		554
Upstream Blk Time (%)	0			13	41	47	33		
Queuing Penalty (veh)	0			35	112	129	91		
Storage Bay Dist (ft)								140	
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 12: LaSalle Ave

Movement	NB
Directions Served	TR
Maximum Queue (ft)	11
Average Queue (ft)	0
95th Queue (ft)	8
Link Distance (ft)	161
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 14: LaSalle Ave

Movement	NB
Directions Served	T
Maximum Queue (ft)	2
Average Queue (ft)	0
95th Queue (ft)	0
Link Distance (ft)	108
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 31: LaSalle Ave

Movement	EB	SB
Directions Served	R	T
Maximum Queue (ft)	204	30
Average Queue (ft)	74	1
95th Queue (ft)	143	12
Link Distance (ft)	382	161
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 41: LaSalle Ave

Movement	NB	NB
Directions Served	T	TR
Maximum Queue (ft)	125	162
Average Queue (ft)	22	53
95th Queue (ft)	86	141
Link Distance (ft)	19	19
Upstream Blk Time (%)	4	12
Queuing Penalty (veh)	16	45
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 42: LaSalle Ave

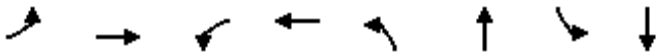
Movement	NB	NB	SB	SE
Directions Served	T	T	T	R
Maximum Queue (ft)	11	54	29	69
Average Queue (ft)	0	3	3	23
95th Queue (ft)	12	30	17	57
Link Distance (ft)	257	257	19	294
Upstream Blk Time (%)			0	
Queuing Penalty (veh)			0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 51: N Armistead Ave & I-64 WB off ramp

Movement	WB	WB	WB	NB	SW
Directions Served	T	T	T	>	R
Maximum Queue (ft)	3	84	166	27	248
Average Queue (ft)	0	6	36	2	69
95th Queue (ft)	1	43	117	15	180
Link Distance (ft)		1345	1345	212	443
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	200				
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

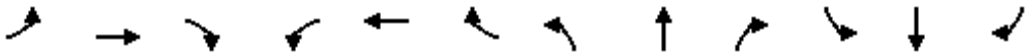
Network wide Queuing Penalty: 570



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	182	566	66	331	9	551	231	921
v/c Ratio	0.67	0.45	0.52	0.38	0.08	0.80	0.55	0.61
Control Delay	64.7	35.9	71.4	42.4	41.6	59.1	33.6	37.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.7	35.9	71.4	42.4	41.6	59.1	33.6	37.4
Queue Length 50th (ft)	145	195	54	122	6	235	165	413
Queue Length 95th (ft)	#269	286	101	174	22	285	249	495
Internal Link Dist (ft)		878		630		1378		320
Turn Bay Length (ft)	120		145		180		185	
Base Capacity (vph)	273	1652	136	1445	123	727	417	1510
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.34	0.49	0.23	0.07	0.76	0.55	0.61

Intersection Summary

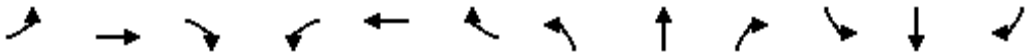
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	171	524	8	62	271	40	8	456	62	217	716	149
Future Volume (vph)	171	524	8	62	271	40	8	456	62	217	716	149
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	6.1		6.5	6.1		6.5	6.5		6.4	6.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.98		1.00	0.98		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1787	3565		1641	3422		1805	3466		1752	3424	
Flt Permitted	0.95	1.00		0.95	1.00		0.31	1.00		0.17	1.00	
Satd. Flow (perm)	1787	3565		1641	3422		589	3466		312	3424	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	182	557	9	66	288	43	9	485	66	231	762	159
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	182	566	0	66	331	0	9	551	0	231	921	0
Confl. Peds. (#/hr)	2		4	4		2			1	1		
Heavy Vehicles (%)	1%	1%	0%	10%	3%	5%	0%	2%	3%	3%	2%	6%
Turn Type	Prot	NA		Prot	NA		Perm	NA		pm+pt	NA	
Protected Phases	1	6		5	2			8		3	4	
Permitted Phases							8			4		
Actuated Green, G (s)	19.9	44.9		8.7	33.2		25.7	25.7		57.3	57.3	
Effective Green, g (s)	19.9	44.9		8.7	33.2		25.7	25.7		57.3	57.3	
Actuated g/C Ratio	0.15	0.35		0.07	0.26		0.20	0.20		0.44	0.44	
Clearance Time (s)	7.0	6.1		6.5	6.1		6.5	6.5		6.4	6.5	
Vehicle Extension (s)	2.5	3.0		2.5	3.0		2.5	2.5		3.0	2.5	
Lane Grp Cap (vph)	273	1231		109	873		116	685		416	1509	
v/s Ratio Prot	c0.10	c0.16		0.04	0.10			c0.16		0.11	c0.27	
v/s Ratio Perm							0.02			0.14		
v/c Ratio	0.67	0.46		0.61	0.38		0.08	0.80		0.56	0.61	
Uniform Delay, d1	51.9	33.1		59.0	39.9		42.5	49.8		25.5	27.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.23	1.30	
Incremental Delay, d2	5.4	1.2		7.8	1.3		0.2	6.6		1.5	0.6	
Delay (s)	57.4	34.4		66.8	41.2		42.7	56.4		33.0	36.6	
Level of Service	E	C		E	D		D	E		C	D	
Approach Delay (s)		40.0			45.4			56.2			35.9	
Approach LOS		D			D			E			D	

Intersection Summary			
HCM 2000 Control Delay	42.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	26.0
Intersection Capacity Utilization	76.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	0	0	0	28	0	667	0	8	1082	2
Future Volume (Veh/h)	10	0	0	0	0	28	0	667	0	8	1082	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	11	0	0	0	0	30	0	710	0	9	1151	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								400			620	
pX, platoon unblocked	0.93	0.93	0.86	0.93	0.93	0.86	0.86			0.86		
vC, conflicting volume	1555	1880	576	1304	1881	355	1153			710		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	765	1115	181	494	1116	0	852			333		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	96	100	100	100	100	97	100			99		
cM capacity (veh/h)	265	193	719	427	193	937	684			1063		

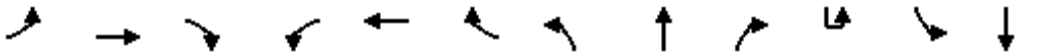
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	11	30	0	473	237	9	767	386
Volume Left	11	0	0	0	0	9	0	0
Volume Right	0	30	0	0	0	0	0	2
cSH	265	937	1700	1700	1700	1063	1700	1700
Volume to Capacity	0.04	0.03	0.00	0.28	0.14	0.01	0.45	0.23
Queue Length 95th (ft)	3	2	0	0	0	1	0	0
Control Delay (s)	19.2	9.0	0.0	0.0	0.0	8.4	0.0	0.0
Lane LOS	C	A				A		
Approach Delay (s)	19.2	9.0	0.0			0.1		
Approach LOS	C	A						

Intersection Summary				
Average Delay	0.3			
Intersection Capacity Utilization	43.9%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	50	21	23	70	16	735	84	1191
v/c Ratio	0.37	0.09	0.21	0.31	0.06	0.32	0.16	0.45
Control Delay	63.6	0.8	62.8	3.5	7.2	9.4	6.0	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.6	0.8	62.8	3.5	7.2	9.4	6.0	6.9
Queue Length 50th (ft)	41	0	19	0	5	234	16	155
Queue Length 95th (ft)	81	0	49	0	m11	281	36	253
Internal Link Dist (ft)	587		553			540		393
Turn Bay Length (ft)		150		40	190		215	
Base Capacity (vph)	194	276	155	263	268	2270	541	2652
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.08	0.15	0.27	0.06	0.32	0.16	0.45

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	41	6	20	15	7	66	15	666	24	51	28	1057
Future Volume (vph)	41	6	20	15	7	66	15	666	24	51	28	1057
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0	7.0		7.0	7.0	6.6	6.6			6.6	6.6
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95			1.00	0.95
Frpb, ped/bikes		1.00	1.00		1.00	0.98	1.00	1.00			1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00			1.00	1.00
Frt		1.00	0.85		1.00	0.85	1.00	0.99			1.00	0.99
Flt Protected		0.96	1.00		0.97	1.00	0.95	1.00			0.95	1.00
Satd. Flow (prot)		1686	1292		1836	1555	1686	3554			1805	3505
Flt Permitted		0.96	1.00		0.97	1.00	0.24	1.00			0.31	1.00
Satd. Flow (perm)		1686	1292		1836	1555	420	3554			596	3505
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	44	6	21	16	7	70	16	709	26	54	30	1124
RTOR Reduction (vph)	0	0	20	0	0	67	0	2	0	0	0	2
Lane Group Flow (vph)	0	50	1	0	23	3	16	733	0	0	84	1189
Confl. Peds. (#/hr)	1					1	2		1		1	
Heavy Vehicles (%)	9%	0%	25%	0%	0%	2%	7%	1%	0%	0%	0%	2%
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		pm+pt	pm+pt	NA
Protected Phases	4	4		3	3			2		1	1	6
Permitted Phases			4			3	2			6	6	
Actuated Green, G (s)		9.0	9.0		6.2	6.2	80.2	80.2			94.2	94.2
Effective Green, g (s)		9.0	9.0		6.2	6.2	80.2	80.2			94.2	94.2
Actuated g/C Ratio		0.07	0.07		0.05	0.05	0.62	0.62			0.72	0.72
Clearance Time (s)		7.0	7.0		7.0	7.0	6.6	6.6			6.6	6.6
Vehicle Extension (s)		4.0	4.0		3.0	3.0	4.0	4.0			3.0	4.0
Lane Grp Cap (vph)		116	89		87	74	259	2192			500	2539
v/s Ratio Prot		c0.03			c0.01			0.21			0.01	c0.34
v/s Ratio Perm			0.00			0.00	0.04				0.11	
v/c Ratio		0.43	0.02		0.26	0.05	0.06	0.33			0.17	0.47
Uniform Delay, d1		58.0	56.4		59.7	59.1	9.9	12.0			6.0	7.5
Progression Factor		1.00	1.00		1.00	1.00	0.52	0.71			0.83	0.79
Incremental Delay, d2		3.5	0.1		1.6	0.3	0.3	0.3			0.2	0.6
Delay (s)		61.5	56.5		61.3	59.3	5.5	8.8			5.1	6.5
Level of Service		E	E		E	E	A	A			A	A
Approach Delay (s)		60.0			59.8			8.7				6.4
Approach LOS		E			E			A				A

Intersection Summary			
HCM 2000 Control Delay	11.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	27.2
Intersection Capacity Utilization	67.3%	ICU Level of Service	C
Analysis Period (min)	15		

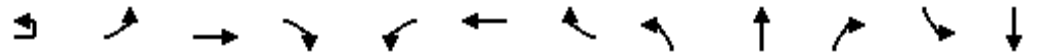
c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	63
Future Volume (vph)	63
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.94
Adj. Flow (vph)	67
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	2
Heavy Vehicles (%)	2%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	67	598	381	60	1103	148	254	519	71	206	1
v/c Ratio	0.35	0.47	0.36	0.18	0.57	0.23	0.66	0.65	0.43	0.63	0.00
Control Delay	26.0	34.4	3.3	4.8	6.3	0.7	31.4	26.6	63.7	65.8	0.0
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.5	0.0	0.0	0.0	0.0	0.0
Total Delay	26.0	34.4	3.3	4.9	6.3	1.2	31.4	26.6	63.7	65.8	0.0
Queue Length 50th (ft)	30	212	26	4	32	0	76	75	57	88	0
Queue Length 95th (ft)	63	271	51	9	43	0	178	162	108	131	0
Internal Link Dist (ft)		1054			136			168		1066	
Turn Bay Length (ft)	125		400	130		130			250		475
Base Capacity (vph)	192	1284	1112	340	1944	657	452	936	186	368	1615
Starvation Cap Reductn	0	0	0	28	0	237	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.47	0.34	0.19	0.57	0.35	0.56	0.55	0.38	0.56	0.00

Intersection Summary

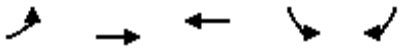


Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	1	64	580	370	58	1053	160	440	299	11	69	200
Future Volume (vph)	1	64	580	370	58	1053	160	440	299	11	69	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.9	7.9	7.5	7.9	7.9	7.9	7.5	7.5		8.6	8.6
Lane Util. Factor		1.00	0.95	1.00	1.00	0.86	0.86	0.91	0.91		1.00	0.95
Frt		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00		1.00	1.00
Flt Protected		0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.98		0.95	1.00
Satd. Flow (prot)		1805	3574	1599	1770	4842	1375	1610	3330		1805	3574
Flt Permitted		0.17	1.00	1.00	0.31	1.00	1.00	0.95	0.98		0.95	1.00
Satd. Flow (perm)		315	3574	1599	581	4842	1375	1610	3330		1805	3574
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	1	66	598	381	60	1086	165	454	308	11	71	206
RTOR Reduction (vph)	0	0	0	94	0	1	91	0	2	0	0	0
Lane Group Flow (vph)	0	67	598	287	60	1102	57	254	517	0	71	206
Heavy Vehicles (%)	0%	0%	1%	1%	2%	1%	1%	2%	1%	9%	0%	1%
Turn Type	pm+pt	pm+pt	NA	pm+ov	pm+pt	NA	Perm	Split	NA		Split	NA
Protected Phases	5	5	2	3	1	6		3	3		4	4
Permitted Phases	2	2		2	6		6					
Actuated Green, G (s)		51.4	46.7	77.7	59.0	50.5	50.5	31.0	31.0		11.9	11.9
Effective Green, g (s)		51.4	46.7	77.7	59.0	50.5	50.5	31.0	31.0		11.9	11.9
Actuated g/C Ratio		0.40	0.36	0.60	0.45	0.39	0.39	0.24	0.24		0.09	0.09
Clearance Time (s)		7.9	7.9	7.5	7.9	7.9	7.9	7.5	7.5		8.6	8.6
Vehicle Extension (s)		2.0	5.0	3.5	2.0	5.0	5.0	3.5	3.5		2.0	2.0
Lane Grp Cap (vph)		178	1283	955	341	1880	534	383	794		165	327
v/s Ratio Prot		c0.01	0.17	0.07	0.01	c0.23		c0.16	0.16		0.04	c0.06
v/s Ratio Perm		0.13		0.11	0.07		0.04					
v/c Ratio		0.38	0.47	0.30	0.18	0.59	0.11	0.66	0.65		0.43	0.63
Uniform Delay, d1		25.5	32.1	12.8	20.8	31.5	25.4	44.8	44.6		55.8	56.9
Progression Factor		1.00	1.00	1.00	0.18	0.16	0.00	0.52	0.51		1.00	1.00
Incremental Delay, d2		0.5	1.2	0.2	0.1	1.2	0.4	4.3	1.9		0.7	2.7
Delay (s)		25.9	33.3	13.0	3.9	6.2	0.4	27.6	24.9		56.5	59.7
Level of Service		C	C	B	A	A	A	C	C		E	E
Approach Delay (s)			25.4			5.5			25.8			58.6
Approach LOS			C			A			C			E

Intersection Summary			
HCM 2000 Control Delay	20.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	31.9
Intersection Capacity Utilization	72.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

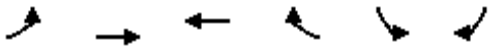
Movement	SBR
Lane Configurations	
Traffic Volume (vph)	1
Future Volume (vph)	1
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1615
Flt Permitted	1.00
Satd. Flow (perm)	1615
Peak-hour factor, PHF	0.97
Adj. Flow (vph)	1
RTOR Reduction (vph)	0
Lane Group Flow (vph)	1
Heavy Vehicles (%)	0%
Turn Type	Free
Protected Phases	
Permitted Phases	Free
Actuated Green, G (s)	130.0
Effective Green, g (s)	130.0
Actuated g/C Ratio	1.00
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	1615
v/s Ratio Prot	
v/s Ratio Perm	0.00
v/c Ratio	0.00
Uniform Delay, d1	0.0
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	0.0
Level of Service	A
Approach Delay (s)	
Approach LOS	

Intersection Summary



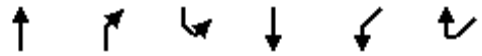
Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	82	620	1264	15	131
v/c Ratio	0.50	0.27	0.49	0.03	0.27
Control Delay	46.0	1.0	31.6	35.2	7.2
Queue Delay	2.1	0.2	0.0	0.0	0.0
Total Delay	48.0	1.2	31.6	35.2	7.2
Queue Length 50th (ft)	67	7	246	10	0
Queue Length 95th (ft)	118	10	295	27	48
Internal Link Dist (ft)		136	72	558	
Turn Bay Length (ft)	115			140	
Base Capacity (vph)	186	2340	2584	506	547
Starvation Cap Reductn	37	803	0	0	0
Spillback Cap Reductn	0	0	7	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.55	0.40	0.49	0.03	0.24

Intersection Summary



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	77	583	1148	40	14	123
Future Volume (vph)	77	583	1148	40	14	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.6	7.9	7.9		7.5	7.5
Lane Util. Factor	1.00	0.95	0.86		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1805	3574	6434		1805	1615
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1805	3574	6434		1805	1615
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	82	620	1221	43	15	131
RTOR Reduction (vph)	0	0	3	0	0	100
Lane Group Flow (vph)	82	620	1261	0	15	31
Heavy Vehicles (%)	0%	1%	1%	3%	0%	0%
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	4	2 4 1	6		3	
Permitted Phases						3
Actuated Green, G (s)	11.9	82.9	50.5		31.0	31.0
Effective Green, g (s)	11.9	82.9	50.5		31.0	31.0
Actuated g/C Ratio	0.09	0.64	0.39		0.24	0.24
Clearance Time (s)	8.6		7.9		7.5	7.5
Vehicle Extension (s)	2.0		5.0		3.5	3.5
Lane Grp Cap (vph)	165	2279	2499		430	385
v/s Ratio Prot	c0.05	c0.17	c0.20		0.01	
v/s Ratio Perm						c0.02
v/c Ratio	0.50	0.27	0.50		0.03	0.08
Uniform Delay, d1	56.2	10.3	30.2		38.0	38.4
Progression Factor	0.65	0.07	1.00		1.00	1.00
Incremental Delay, d2	0.8	0.0	0.7		0.0	0.1
Delay (s)	37.3	0.7	31.0		38.1	38.5
Level of Service	D	A	C		D	D
Approach Delay (s)		5.0	31.0		38.5	
Approach LOS		A	C		D	

Intersection Summary			
HCM 2000 Control Delay	22.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	31.9
Intersection Capacity Utilization	49.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	813	11	0	549	0	0
Future Volume (Veh/h)	813	11	0	549	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	884	12	0	597	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	691			999		
pX, platoon unblocked			0.91		0.91	0.91
vC, conflicting volume			896		1188	448
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			677		1000	182
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			837		217	751

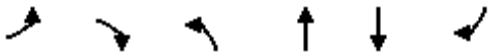
Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	589	307	298	298
Volume Left	0	0	0	0
Volume Right	0	12	0	0
cSH	1700	1700	1700	1700
Volume to Capacity	0.35	0.18	0.18	0.18
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	26.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	0	813	549	199	0	0
Future Volume (Veh/h)	0	813	549	199	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	884	597	216	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		983	707			
pX, platoon unblocked	0.96				0.93	0.96
vC, conflicting volume	813				1147	406
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	714				807	289
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	857				302	683

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	442	442	398	415
Volume Left	0	0	0	0
Volume Right	0	0	0	216
cSH	1700	1700	1700	1700
Volume to Capacity	0.26	0.26	0.23	0.24
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	26.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	650	0	824	549	0
Future Volume (Veh/h)	0	650	0	824	549	0
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	691	0	877	584	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				473	1217	
pX, platoon unblocked	0.90					
vC, conflicting volume	1022	292	584			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	811	292	584			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	2	100			
cM capacity (veh/h)	290	704	1001			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	691	438	438	292	292
Volume Left	0	0	0	0	0
Volume Right	691	0	0	0	0
cSH	704	1700	1700	1700	1700
Volume to Capacity	0.98	0.26	0.26	0.17	0.17
Queue Length 95th (ft)	382	0	0	0	0
Control Delay (s)	53.5	0.0	0.0	0.0	0.0
Lane LOS	F				
Approach Delay (s)	53.5	0.0		0.0	
Approach LOS	F				

Intersection Summary			
Average Delay	17.2		
Intersection Capacity Utilization	62.1%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	750	63	0	628
Future Volume (Veh/h)	0	0	750	63	0	628
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	0	0	773	65	0	647
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						248
pX, platoon unblocked	0.95					
vC, conflicting volume	1129	419			838	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1025	419			838	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	222	589			805	

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	515	323	324	324
Volume Left	0	0	0	0
Volume Right	0	65	0	0
cSH	1700	1700	1700	1700
Volume to Capacity	0.30	0.19	0.19	0.19
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	26.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations		↑↑	↑↑			↱
Traffic Volume (veh/h)	0	813	628	0	0	120
Future Volume (Veh/h)	0	813	628	0	0	120
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	884	683	0	0	130
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		1300	390			
pX, platoon unblocked	0.95				0.95	0.95
vC, conflicting volume	683				1125	342
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	559				778	199
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	83
cM capacity (veh/h)	970				319	771

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	SE 1
Volume Total	442	442	342	342	130
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	130
cSH	1700	1700	1700	1700	771
Volume to Capacity	0.26	0.26	0.20	0.20	0.17
Queue Length 95th (ft)	0	0	0	0	15
Control Delay (s)	0.0	0.0	0.0	0.0	10.6
Lane LOS					B
Approach Delay (s)	0.0		0.0		10.6
Approach LOS					B

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	31.5%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection Sign configuration not allowed in HCM analysis.

Intersection: 1: LaSalle Ave & W Pembroke Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	120	360	312	144	222	188	50	229	243	184	299	301
Average Queue (ft)	100	183	142	49	107	83	2	116	125	118	176	197
95th Queue (ft)	147	324	267	119	187	164	28	197	210	210	296	302
Link Distance (ft)		855	855		628	628		1355	1355		289	289
Upstream Blk Time (%)											1	1
Queuing Penalty (veh)											3	6
Storage Bay Dist (ft)	120			145			180			185		
Storage Blk Time (%)	12	16		0	4			2		1	5	
Queuing Penalty (veh)	32	28		0	3			0		5	10	

Intersection: 2: LaSalle Ave & Georgia Street

Movement	EB	WB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR
Maximum Queue (ft)	50	44	26	55	87
Average Queue (ft)	11	19	2	3	7
95th Queue (ft)	38	45	16	29	41
Link Distance (ft)	191	219		548	548
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			90		
Storage Blk Time (%)				0	
Queuing Penalty (veh)				0	

Intersection: 3: LaSalle Ave & Michigan Dr/Driveway

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LT	R	L	T	TR	UL	T	TR
Maximum Queue (ft)	133	88	120	50	52	239	295	81	181	188
Average Queue (ft)	49	20	37	33	7	76	108	12	50	59
95th Queue (ft)	103	63	92	52	25	197	259	50	135	146
Link Distance (ft)	619		583			548	548		370	370
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)		150		40	190			215		
Storage Blk Time (%)	0	0	7	6	0	1		0	0	
Queuing Penalty (veh)	0	0	5	1	0	0		0	0	

Intersection: 4: LaSalle Ave & N Armistead Ave

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	UL	T	T	R	L	T	T	TR	R	L	LT	TR
Maximum Queue (ft)	125	277	242	103	66	37	81	101	9	196	204	138
Average Queue (ft)	48	156	108	26	14	3	19	36	0	130	154	108
95th Queue (ft)	120	250	209	67	45	20	59	82	5	214	227	165
Link Distance (ft)		1062	1062		112	112	112	112	112	131	131	131
Upstream Blk Time (%)							0	0		11	18	2
Queuing Penalty (veh)							0	0		28	44	4
Storage Bay Dist (ft)	125			400								
Storage Blk Time (%)	0	14										
Queuing Penalty (veh)	1	9										

Intersection: 4: LaSalle Ave & N Armistead Ave

Movement	SB	SB	SB
Directions Served	L	T	T
Maximum Queue (ft)	131	166	150
Average Queue (ft)	50	81	71
95th Queue (ft)	107	142	132
Link Distance (ft)		1062	1062
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	250		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: N Armistead Ave & Thomas Street

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	T	TR	L	R
Maximum Queue (ft)	128	67	82	176	231	240	213	43	109
Average Queue (ft)	65	18	30	83	194	192	67	10	48
95th Queue (ft)	118	52	71	151	251	256	156	33	90
Link Distance (ft)	112	112	112	54	54	54	54		554
Upstream Blk Time (%)	3	0	0	26	49	52	19		
Queuing Penalty (veh)	6	0	0	76	145	155	55		
Storage Bay Dist (ft)								140	
Storage Blk Time (%)									0
Queuing Penalty (veh)									0

Intersection: 12: LaSalle Ave

Movement	NB	SB
Directions Served	TR	T
Maximum Queue (ft)	18	4
Average Queue (ft)	0	0
95th Queue (ft)	7	3
Link Distance (ft)	161	108
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 14: LaSalle Ave

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 31: LaSalle Ave

Movement	EB	SB
Directions Served	R	T
Maximum Queue (ft)	330	31
Average Queue (ft)	135	2
95th Queue (ft)	255	13
Link Distance (ft)	382	161
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 41: LaSalle Ave

Movement	NB	NB
Directions Served	T	TR
Maximum Queue (ft)	141	165
Average Queue (ft)	19	52
95th Queue (ft)	85	159
Link Distance (ft)	19	19
Upstream Blk Time (%)	3	9
Queuing Penalty (veh)	12	37
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 42: LaSalle Ave

Movement	NB	NB	SB	SB	SE
Directions Served	T	T	T	T	R
Maximum Queue (ft)	71	150	2	34	80
Average Queue (ft)	3	12	0	4	33
95th Queue (ft)	40	76	2	21	66
Link Distance (ft)	257	257	19	19	294
Upstream Blk Time (%)		0	0	0	
Queuing Penalty (veh)		0	0	1	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

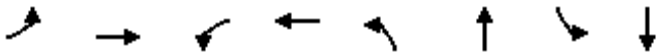
Intersection: 51: N Armistead Ave & I-64 WB off ramp

Movement	WB	WB	WB	NB	SW
Directions Served	T	T	T	>	R
Maximum Queue (ft)	61	164	196	60	296
Average Queue (ft)	3	34	52	12	114
95th Queue (ft)	33	112	143	40	257
Link Distance (ft)		1345	1345	212	443
Upstream Blk Time (%)					1
Queuing Penalty (veh)					0
Storage Bay Dist (ft)	200				
Storage Blk Time (%)		0			
Queuing Penalty (veh)		0			

Network Summary

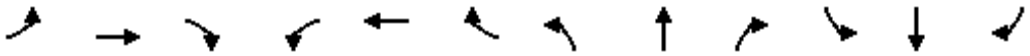
Network wide Queuing Penalty: 667

Appendix D
SYNCHRO Analysis Worksheets Sheets For 2023 Background Conditions



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	138	221	25	270	8	631	127	754
v/c Ratio	0.67	0.16	0.21	0.28	0.05	0.80	0.45	0.57
Control Delay	61.2	24.5	52.6	33.3	31.1	47.9	22.6	26.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.2	24.5	52.6	33.3	31.1	47.9	22.6	26.4
Queue Length 50th (ft)	94	55	17	76	4	221	67	244
Queue Length 95th (ft)	154	99	45	135	17	267	106	285
Internal Link Dist (ft)		878		630		1378		320
Turn Bay Length (ft)	120		145		180		185	
Base Capacity (vph)	242	1473	155	1104	175	867	281	1367
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.15	0.16	0.24	0.05	0.73	0.45	0.55

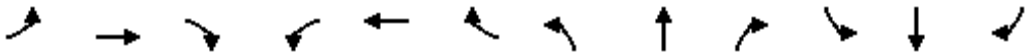
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	126	198	3	23	197	49	7	526	48	116	567	119
Future Volume (vph)	126	198	3	23	197	49	7	526	48	116	567	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	6.1		6.5	6.1		6.5	6.5		6.5	6.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.97		1.00	0.99		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1687	3308		1805	3143		1804	3444		1805	3330	
Flt Permitted	0.95	1.00		0.95	1.00		0.37	1.00		0.16	1.00	
Satd. Flow (perm)	1687	3308		1805	3143		694	3444		309	3330	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	138	218	3	25	216	54	8	578	53	127	623	131
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	138	221	0	25	270	0	8	631	0	127	754	0
Confl. Peds. (#/hr)			1	1			1					1
Heavy Vehicles (%)	7%	9%	0%	0%	10%	17%	0%	3%	9%	0%	5%	7%
Turn Type	Prot	NA		Prot	NA		Perm	NA		pm+pt	NA	
Protected Phases	1	6		5	2			8		3	4	
Permitted Phases							8			4		
Actuated Green, G (s)	13.5	42.9		4.6	33.5		25.2	25.2		43.4	43.4	
Effective Green, g (s)	13.5	42.9		4.6	33.5		25.2	25.2		43.4	43.4	
Actuated g/C Ratio	0.12	0.39		0.04	0.30		0.23	0.23		0.39	0.39	
Clearance Time (s)	7.0	6.1		6.5	6.1		6.5	6.5		6.5	6.5	
Vehicle Extension (s)	2.5	3.0		2.5	3.0		2.5	2.5		3.0	2.5	
Lane Grp Cap (vph)	207	1290		75	957		158	788		281	1313	
v/s Ratio Prot	c0.08	0.07		0.01	c0.09			c0.18		0.05	c0.23	
v/s Ratio Perm							0.01			0.13		
v/c Ratio	0.67	0.17		0.33	0.28		0.05	0.80		0.45	0.57	
Uniform Delay, d1	46.1	21.9		51.2	29.1		33.1	40.0		23.7	26.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		0.88	0.97	
Incremental Delay, d2	7.1	0.3		1.9	0.7		0.1	5.7		1.1	0.5	
Delay (s)	53.2	22.2		53.1	29.8		33.2	45.7		22.0	25.8	
Level of Service	D	C		D	C		C	D		C	C	
Approach Delay (s)		34.1			31.8			45.6			25.3	
Approach LOS		C			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	33.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	26.1
Intersection Capacity Utilization	64.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	10	19	0	8	0	702	0	0	773	0
Future Volume (Veh/h)	2	0	10	19	0	8	0	702	0	0	773	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	2	0	11	21	0	9	0	771	0	0	849	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								400			620	
pX, platoon unblocked	0.89	0.89	0.90	0.89	0.89	0.84	0.90			0.84		
vC, conflicting volume	1244	1620	424	1206	1620	386	849			771		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	516	941	143	474	941	0	614			335		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	99	95	100	99	100			100		
cM capacity (veh/h)	392	235	798	418	235	912	879			1034		

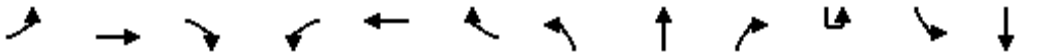
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	13	30	0	514	257	0	566	283
Volume Left	2	21	0	0	0	0	0	0
Volume Right	11	9	0	0	0	0	0	0
cSH	688	499	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.02	0.06	0.00	0.30	0.15	0.00	0.33	0.17
Queue Length 95th (ft)	1	5	0	0	0	0	0	0
Control Delay (s)	10.3	12.7	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B	B						
Approach Delay (s)	10.3	12.7	0.0			0.0		
Approach LOS	B	B						

Intersection Summary				
Average Delay	0.3			
Intersection Capacity Utilization	32.9%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	66	12	7	33	12	788	161	900
v/c Ratio	0.40	0.04	0.06	0.13	0.04	0.39	0.33	0.36
Control Delay	53.2	0.3	49.8	1.0	22.4	22.6	8.9	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.2	0.3	49.8	1.0	22.4	22.6	8.9	8.5
Queue Length 50th (ft)	45	0	5	0	7	290	38	174
Queue Length 95th (ft)	85	0	19	0	m12	346	83	228
Internal Link Dist (ft)	587		553			540		393
Turn Bay Length (ft)		150		40	190		215	
Base Capacity (vph)	170	297	147	289	282	2012	606	2557
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.04	0.05	0.11	0.04	0.39	0.27	0.35

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

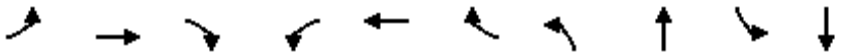


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	52	7	11	6	0	29	11	670	31	64	79	756
Future Volume (vph)	52	7	11	6	0	29	11	670	31	64	79	756
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0	7.0		7.0	7.0	6.6	6.6			6.6	6.6
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95			1.00	0.95
Frt		1.00	0.85		1.00	0.85	1.00	0.99			1.00	0.99
Flt Protected		0.96	1.00		0.95	1.00	0.95	1.00			0.95	1.00
Satd. Flow (prot)		1700	1429		1805	1615	1444	3422			1805	3413
Flt Permitted		0.96	1.00		0.95	1.00	0.32	1.00			0.28	1.00
Satd. Flow (perm)		1700	1429		1805	1615	481	3422			523	3413
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	58	8	12	7	0	33	12	753	35	72	89	849
RTOR Reduction (vph)	0	0	11	0	0	32	0	2	0	0	0	3
Lane Group Flow (vph)	0	66	1	0	7	1	12	786	0	0	161	897
Heavy Vehicles (%)	8%	0%	13%	0%	0%	0%	25%	5%	0%	0%	0%	5%
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		pm+pt	pm+pt	NA
Protected Phases	4	4		3	3			2		1	1	6
Permitted Phases			4			3	2			6	6	
Actuated Green, G (s)		9.2	9.2		4.2	4.2	60.5	60.5			76.0	76.0
Effective Green, g (s)		9.2	9.2		4.2	4.2	60.5	60.5			76.0	76.0
Actuated g/C Ratio		0.08	0.08		0.04	0.04	0.55	0.55			0.69	0.69
Clearance Time (s)		7.0	7.0		7.0	7.0	6.6	6.6			6.6	6.6
Vehicle Extension (s)		4.0	4.0		3.0	3.0	4.0	4.0			3.0	4.0
Lane Grp Cap (vph)		142	119		68	61	264	1882			465	2358
v/s Ratio Prot		c0.04			c0.00			c0.23			0.03	c0.26
v/s Ratio Perm			0.00			0.00	0.02				0.21	
v/c Ratio		0.46	0.01		0.10	0.02	0.05	0.42			0.35	0.38
Uniform Delay, d1		48.1	46.2		51.1	50.9	11.4	14.5			7.1	7.1
Progression Factor		1.00	1.00		1.00	1.00	1.36	1.45			1.05	1.09
Incremental Delay, d2		3.3	0.0		0.7	0.1	0.2	0.5			0.4	0.5
Delay (s)		51.3	46.3		51.7	51.1	15.8	21.5			7.9	8.3
Level of Service		D	D		D	D	B	C			A	A
Approach Delay (s)		50.5			51.2			21.4				8.2
Approach LOS		D			D			C				A

Intersection Summary			
HCM 2000 Control Delay	16.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	27.2
Intersection Capacity Utilization	61.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	45
Future Volume (vph)	45
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.89
Adj. Flow (vph)	51
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Heavy Vehicles (%)	3%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary



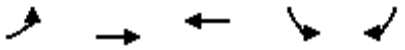
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	58	402	249	44	971	282	276	543	23	120
v/c Ratio	0.28	0.35	0.25	0.13	0.58	0.41	0.72	0.67	0.17	0.45
Control Delay	22.8	30.2	1.3	5.0	6.5	2.2	57.5	51.2	50.3	54.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0
Total Delay	22.8	30.2	1.3	5.0	6.5	2.8	57.5	51.2	50.3	54.3
Queue Length 50th (ft)	23	118	0	3	29	0	226	221	16	43
Queue Length 95th (ft)	51	164	16	m8	39	29	325	284	42	73
Internal Link Dist (ft)		1054			136			168		1066
Turn Bay Length (ft)	125		400	130		130			250	
Base Capacity (vph)	208	1164	1053	343	1681	682	444	932	154	305
Starvation Cap Reductn	0	0	0	0	0	143	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.35	0.24	0.13	0.58	0.52	0.62	0.58	0.15	0.39

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	362	224	40	780	347	497	223	17	21	108	0
Future Volume (vph)	52	362	224	40	780	347	497	223	17	21	108	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.9	7.9	7.5	7.9	7.9	7.9	7.5	7.5		8.6	8.6	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.86	0.86	0.91	0.91		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.98	0.85	1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.98		0.95	1.00	
Satd. Flow (prot)	1752	3574	1553	1492	4617	1389	1550	3241		1805	3574	
Flt Permitted	0.20	1.00	1.00	0.46	1.00	1.00	0.95	0.98		0.95	1.00	
Satd. Flow (perm)	371	3574	1553	719	4617	1389	1550	3241		1805	3574	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	58	402	249	44	867	386	552	248	19	23	120	0
RTOR Reduction (vph)	0	0	106	0	12	184	0	2	0	0	0	0
Lane Group Flow (vph)	58	402	143	44	959	98	276	541	0	23	120	0
Heavy Vehicles (%)	3%	1%	4%	21%	5%	0%	6%	1%	0%	0%	1%	0%
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	Perm	Split	NA		Split	NA	Free
Protected Phases	5	2	3	1	6		3	3		4	4	
Permitted Phases	2		2	6		6						Free
Actuated Green, G (s)	40.4	35.9	63.2	45.0	38.2	38.2	27.3	27.3		8.1	8.1	
Effective Green, g (s)	40.4	35.9	63.2	45.0	38.2	38.2	27.3	27.3		8.1	8.1	
Actuated g/C Ratio	0.37	0.33	0.57	0.41	0.35	0.35	0.25	0.25		0.07	0.07	
Clearance Time (s)	7.9	7.9	7.5	7.9	7.9	7.9	7.5	7.5		8.6	8.6	
Vehicle Extension (s)	2.0	5.0	3.5	2.0	5.0	5.0	3.5	3.5		2.0	2.0	
Lane Grp Cap (vph)	192	1166	892	341	1603	482	384	804		132	263	
v/s Ratio Prot	c0.01	0.11	0.04	0.01	c0.21		c0.18	0.17		0.01	c0.03	
v/s Ratio Perm	0.10		0.05	0.04		0.07						
v/c Ratio	0.30	0.34	0.16	0.13	0.60	0.20	0.72	0.67		0.17	0.46	
Uniform Delay, d1	23.2	28.1	11.0	19.9	29.6	25.2	37.8	37.3		47.8	48.8	
Progression Factor	1.00	1.00	1.00	0.23	0.17	0.15	1.26	1.28		1.00	1.00	
Incremental Delay, d2	0.3	0.8	0.1	0.1	1.5	0.9	6.2	2.2		0.2	0.5	
Delay (s)	23.5	28.9	11.1	4.5	6.6	4.7	53.8	50.1		48.0	49.3	
Level of Service	C	C	B	A	A	A	D	D		D	D	
Approach Delay (s)		22.2			6.1			51.3			49.1	
Approach LOS		C			A			D			D	

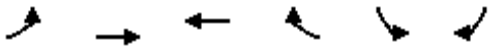
Intersection Summary			
HCM 2000 Control Delay	24.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	31.9
Intersection Capacity Utilization	61.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	42	375	1164	8	90
v/c Ratio	0.32	0.17	0.51	0.02	0.20
Control Delay	37.0	1.2	30.0	28.6	7.3
Queue Delay	0.0	0.2	0.0	0.0	0.0
Total Delay	37.0	1.4	30.0	28.6	7.3
Queue Length 50th (ft)	30	6	200	4	0
Queue Length 95th (ft)	m67	8	245	16	38
Internal Link Dist (ft)		136	72	558	
Turn Bay Length (ft)	115			140	
Base Capacity (vph)	154	2206	2289	517	505
Starvation Cap Reductn	0	1044	0	0	0
Spillback Cap Reductn	0	0	5	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.27	0.32	0.51	0.02	0.18

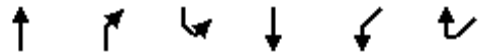
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	40	360	1080	37	8	86
Future Volume (vph)	40	360	1080	37	8	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.6	7.9	7.9		7.5	7.5
Lane Util. Factor	1.00	0.95	0.86		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1805	3539	6320		1805	1538
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1805	3539	6320		1805	1538
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	42	375	1125	39	8	90
RTOR Reduction (vph)	0	0	4	0	0	68
Lane Group Flow (vph)	42	375	1160	0	8	22
Heavy Vehicles (%)	0%	2%	3%	0%	0%	5%
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	4	2 4 1	6		3	
Permitted Phases						3
Actuated Green, G (s)	8.1	66.6	38.2		27.3	27.3
Effective Green, g (s)	8.1	66.6	38.2		27.3	27.3
Actuated g/C Ratio	0.07	0.61	0.35		0.25	0.25
Clearance Time (s)	8.6		7.9		7.5	7.5
Vehicle Extension (s)	2.0		5.0		3.5	3.5
Lane Grp Cap (vph)	132	2142	2194		447	381
v/s Ratio Prot	c0.02	c0.11	c0.18		0.00	
v/s Ratio Perm						c0.01
v/c Ratio	0.32	0.18	0.53		0.02	0.06
Uniform Delay, d1	48.3	9.6	28.7		31.2	31.5
Progression Factor	0.64	0.11	1.00		1.00	1.00
Incremental Delay, d2	0.5	0.0	0.9		0.0	0.1
Delay (s)	31.6	1.0	29.6		31.2	31.6
Level of Service	C	A	C		C	C
Approach Delay (s)		4.1	29.6		31.6	
Approach LOS		A	C		C	

Intersection Summary			
HCM 2000 Control Delay	23.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	31.9
Intersection Capacity Utilization	47.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	754	61	0	459	0	0
Future Volume (Veh/h)	754	61	0	459	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	820	66	0	499	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	691			999		
pX, platoon unblocked			0.88		0.88	0.88
vC, conflicting volume			886		1102	443
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			595		842	91
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			859		267	834

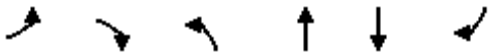
Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	547	339	250	250
Volume Left	0	0	0	0
Volume Right	0	66	0	0
cSH	1700	1700	1700	1700
Volume to Capacity	0.32	0.20	0.15	0.15
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	26.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	0	751	450	105	0	0
Future Volume (Veh/h)	0	751	450	105	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	816	489	114	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		983	707			
pX, platoon unblocked	1.00				0.90	1.00
vC, conflicting volume	603				954	302
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	595				717	292
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	974				329	702

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	408	408	326	277
Volume Left	0	0	0	0
Volume Right	0	0	0	114
cSH	1700	1700	1700	1700
Volume to Capacity	0.24	0.24	0.19	0.16
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

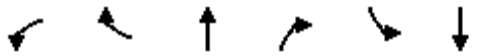
Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	26.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	485	0	815	459	0
Future Volume (Veh/h)	0	485	0	815	459	0
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	527	0	886	499	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				473	1217	
pX, platoon unblocked	0.87					
vC, conflicting volume	942	250	499			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	647	250	499			
tC, single (s)	6.8	7.0	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	29	100			
cM capacity (veh/h)	353	747	1061			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	527	443	443	250	250
Volume Left	0	0	0	0	0
Volume Right	527	0	0	0	0
cSH	747	1700	1700	1700	1700
Volume to Capacity	0.71	0.26	0.26	0.15	0.15
Queue Length 95th (ft)	148	0	0	0	0
Control Delay (s)	20.5	0.0	0.0	0.0	0.0
Lane LOS	C				
Approach Delay (s)	20.5	0.0		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	5.6		
Intersection Capacity Utilization	49.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	737	14	0	372
Future Volume (Veh/h)	0	0	737	14	0	372
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.90	0.90	0.92	0.90
Hourly flow rate (vph)	0	0	819	16	0	413
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						248
pX, platoon unblocked	0.97					
vC, conflicting volume	1034	418			835	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	979	418			835	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	241	584			794	

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	546	289	206	206
Volume Left	0	0	0	0
Volume Right	0	16	0	0
cSH	1700	1700	1700	1700
Volume to Capacity	0.32	0.17	0.12	0.12
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	24.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations		↑↑	↑↑			↱
Traffic Volume (veh/h)	0	751	372	0	0	150
Future Volume (Veh/h)	0	751	372	0	0	150
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.90	0.90	0.92	0.92	0.92
Hourly flow rate (vph)	0	834	413	0	0	163
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		1300	390			
pX, platoon unblocked	0.98				0.93	0.98
vC, conflicting volume	413				830	206
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	357				558	146
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	81
cM capacity (veh/h)	1173				427	857

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	SE 1
Volume Total	417	417	206	206	163
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	163
cSH	1700	1700	1700	1700	857
Volume to Capacity	0.25	0.25	0.12	0.12	0.19
Queue Length 95th (ft)	0	0	0	0	17
Control Delay (s)	0.0	0.0	0.0	0.0	10.2
Lane LOS					B
Approach Delay (s)	0.0		0.0		10.2
Approach LOS					B

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	26.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection Sign configuration not allowed in HCM analysis.

Intersection: 1: LaSalle Ave & W Pembroke Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	118	202	142	74	169	144	8	244	248	176	252	269
Average Queue (ft)	58	54	30	10	76	56	0	119	120	53	137	163
95th Queue (ft)	115	129	88	41	146	122	5	202	207	127	227	247
Link Distance (ft)		855	855		628	628		1355	1355		289	289
Upstream Blk Time (%)											0	0
Queuing Penalty (veh)											0	1
Storage Bay Dist (ft)	120			145			180			185		
Storage Blk Time (%)	2	1		0	1			2		0	1	
Queuing Penalty (veh)	2	1		0	0			0		0	2	

Intersection: 2: LaSalle Ave & Georgia Street

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	TR	T	TR
Maximum Queue (ft)	38	61	5	11	9
Average Queue (ft)	11	21	0	1	1
95th Queue (ft)	36	52	5	16	11
Link Distance (ft)	191	219	289	548	548
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)				0	
Queuing Penalty (veh)				0	

Intersection: 3: LaSalle Ave & Michigan Dr/Driveway

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LT	R	L	T	TR	UL	T	TR
Maximum Queue (ft)	143	52	60	39	44	209	276	84	107	118
Average Queue (ft)	55	12	12	20	5	45	59	24	17	26
95th Queue (ft)	109	41	46	48	24	142	191	62	61	81
Link Distance (ft)	619		583			548	548		370	370
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)		150		40	190			215		
Storage Blk Time (%)	0		1	2		0				
Queuing Penalty (veh)	0		0	0		0				

Intersection: 4: LaSalle Ave & N Armistead Ave

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	UL	T	T	R	L	T	T	TR	R	L	LT	TR
Maximum Queue (ft)	109	179	134	45	62	71	69	83	43	208	205	141
Average Queue (ft)	26	79	34	7	10	9	11	21	3	159	175	114
95th Queue (ft)	71	149	97	28	38	39	42	61	21	223	227	162
Link Distance (ft)		1062	1062		112	112	112	112	112	131	131	131
Upstream Blk Time (%)					0		0	0		23	32	2
Queuing Penalty (veh)					0		0	0		57	78	6
Storage Bay Dist (ft)	125			400								
Storage Blk Time (%)	0	2										
Queuing Penalty (veh)	0	1										

Intersection: 4: LaSalle Ave & N Armistead Ave

Movement	SB	SB	SB
Directions Served	L	T	T
Maximum Queue (ft)	48	100	88
Average Queue (ft)	14	48	31
95th Queue (ft)	39	90	69
Link Distance (ft)		1062	1062
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	250		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: N Armistead Ave & Thomas Street

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	T	TR	L	R
Maximum Queue (ft)	82	61	57	148	225	235	229	34	98
Average Queue (ft)	32	16	16	55	154	175	109	6	38
95th Queue (ft)	72	48	48	113	233	251	207	25	75
Link Distance (ft)	112	112	112	54	54	54	54		554
Upstream Blk Time (%)	0	0		14	43	49	33		
Queuing Penalty (veh)	0	0		39	121	138	92		
Storage Bay Dist (ft)								140	
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 12: LaSalle Ave

Movement	NB	NB
Directions Served	T	TR
Maximum Queue (ft)	10	19
Average Queue (ft)	0	1
95th Queue (ft)	8	10
Link Distance (ft)	161	161
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 14: LaSalle Ave

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	5	5
Average Queue (ft)	0	0
95th Queue (ft)	5	5
Link Distance (ft)	257	257
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 31: LaSalle Ave

Movement	EB	SB
Directions Served	R	T
Maximum Queue (ft)	165	23
Average Queue (ft)	74	1
95th Queue (ft)	131	12
Link Distance (ft)	382	161
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 41: LaSalle Ave

Movement	NB	NB
Directions Served	T	TR
Maximum Queue (ft)	133	165
Average Queue (ft)	24	60
95th Queue (ft)	88	154
Link Distance (ft)	19	19
Upstream Blk Time (%)	6	15
Queuing Penalty (veh)	21	56
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 42: LaSalle Ave

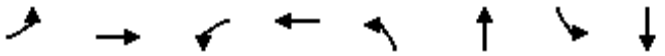
Movement	NB	NB	SB	SE
Directions Served	T	T	T	R
Maximum Queue (ft)	32	75	38	88
Average Queue (ft)	1	4	4	30
95th Queue (ft)	15	34	21	70
Link Distance (ft)	257	257	19	294
Upstream Blk Time (%)			0	
Queuing Penalty (veh)			1	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 51: N Armistead Ave & I-64 WB off ramp

Movement	WB	WB	WB	NB	SW
Directions Served	T	T	T	>	R
Maximum Queue (ft)	14	144	219	22	270
Average Queue (ft)	1	12	50	2	92
95th Queue (ft)	13	77	156	13	220
Link Distance (ft)		1345	1345	212	443
Upstream Blk Time (%)					0
Queuing Penalty (veh)					0
Storage Bay Dist (ft)	200				
Storage Blk Time (%)		0			
Queuing Penalty (veh)		0			

Network Summary

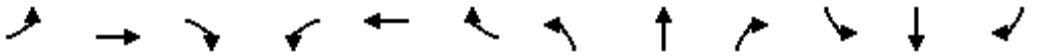
Network wide Queuing Penalty: 617



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	185	578	67	338	9	562	235	939
v/c Ratio	0.67	0.47	0.54	0.41	0.08	0.81	0.54	0.61
Control Delay	65.0	36.8	73.9	43.8	41.2	58.8	33.2	37.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.0	36.8	73.9	43.8	41.2	58.8	33.2	37.4
Queue Length 50th (ft)	147	204	55	127	6	240	171	424
Queue Length 95th (ft)	#299	288	105	175	22	290	249	503
Internal Link Dist (ft)		878		630		1378		320
Turn Bay Length (ft)	120		145		180		185	
Base Capacity (vph)	275	1633	132	1444	122	735	432	1552
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.35	0.51	0.23	0.07	0.76	0.54	0.61

Intersection Summary

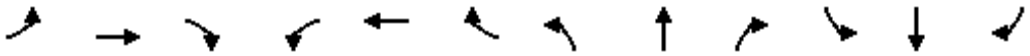
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	174	535	8	63	276	41	8	465	63	221	730	152
Future Volume (vph)	174	535	8	63	276	41	8	465	63	221	730	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	6.1		6.5	6.1		6.5	6.5		6.4	6.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.98		1.00	0.98		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1787	3566		1641	3421		1805	3466		1752	3424	
Flt Permitted	0.95	1.00		0.95	1.00		0.30	1.00		0.17	1.00	
Satd. Flow (perm)	1787	3566		1641	3421		579	3466		307	3424	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	185	569	9	67	294	44	9	495	67	235	777	162
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	185	578	0	67	338	0	9	562	0	235	939	0
Confl. Peds. (#/hr)	2		4	4		2			1	1		
Heavy Vehicles (%)	1%	1%	0%	10%	3%	5%	0%	2%	3%	3%	2%	6%
Turn Type	Prot	NA		Prot	NA		Perm	NA		pm+pt	NA	
Protected Phases	1	6		5	2			8		3	4	
Permitted Phases							8			4		
Actuated Green, G (s)	20.0	43.5		8.4	31.4		26.2	26.2		59.0	59.0	
Effective Green, g (s)	20.0	43.5		8.4	31.4		26.2	26.2		59.0	59.0	
Actuated g/C Ratio	0.15	0.33		0.06	0.24		0.20	0.20		0.45	0.45	
Clearance Time (s)	7.0	6.1		6.5	6.1		6.5	6.5		6.4	6.5	
Vehicle Extension (s)	2.5	3.0		2.5	3.0		2.5	2.5		3.0	2.5	
Lane Grp Cap (vph)	274	1193		106	826		116	698		432	1553	
v/s Ratio Prot	c0.10	c0.16		0.04	0.10			c0.16		0.11	c0.27	
v/s Ratio Perm							0.02			0.14		
v/c Ratio	0.68	0.48		0.63	0.41		0.08	0.81		0.54	0.60	
Uniform Delay, d1	51.9	34.3		59.3	41.5		42.1	49.5		24.6	26.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.26	1.35	
Incremental Delay, d2	5.9	1.4		10.3	1.5		0.2	6.5		1.3	0.5	
Delay (s)	57.8	35.8		69.6	43.0		42.3	56.0		32.3	36.5	
Level of Service	E	D		E	D		D	E		C	D	
Approach Delay (s)		41.1			47.4			55.8			35.7	
Approach LOS		D			D			E			D	

Intersection Summary			
HCM 2000 Control Delay	42.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	26.0
Intersection Capacity Utilization	77.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	0	0	0	29	0	680	0	8	1104	2
Future Volume (Veh/h)	10	0	0	0	0	29	0	680	0	8	1104	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	11	0	0	0	0	31	0	723	0	9	1174	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								400			620	
pX, platoon unblocked	0.93	0.93	0.85	0.93	0.93	0.86	0.85			0.86		
vC, conflicting volume	1586	1916	588	1328	1917	362	1176			723		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	773	1130	177	495	1131	0	865			339		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	96	100	100	100	100	97	100			99		
cM capacity (veh/h)	260	189	719	425	188	934	672			1054		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	11	31	0	482	241	9	783	393
Volume Left	11	0	0	0	0	9	0	0
Volume Right	0	31	0	0	0	0	0	2
cSH	260	934	1700	1700	1700	1054	1700	1700
Volume to Capacity	0.04	0.03	0.00	0.28	0.14	0.01	0.46	0.23
Queue Length 95th (ft)	3	3	0	0	0	1	0	0
Control Delay (s)	19.5	9.0	0.0	0.0	0.0	8.4	0.0	0.0
Lane LOS	C	A				A		
Approach Delay (s)	19.5	9.0	0.0			0.1		
Approach LOS	C	A						

Intersection Summary				
Average Delay	0.3			
Intersection Capacity Utilization	44.5%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	51	21	23	71	16	748	86	1215
v/c Ratio	0.38	0.09	0.21	0.31	0.06	0.33	0.17	0.46
Control Delay	63.7	0.8	62.8	3.6	7.1	9.0	6.1	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.7	0.8	62.8	3.6	7.1	9.0	6.1	7.0
Queue Length 50th (ft)	41	0	19	0	4	238	17	159
Queue Length 95th (ft)	83	0	49	0	m11	285	37	262
Internal Link Dist (ft)	587		553			540		393
Turn Bay Length (ft)		150		40	190		215	
Base Capacity (vph)	194	276	155	263	261	2266	533	2650
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.08	0.15	0.27	0.06	0.33	0.16	0.46

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	42	6	20	15	7	67	15	679	24	52	29	1078
Future Volume (vph)	42	6	20	15	7	67	15	679	24	52	29	1078
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0	7.0		7.0	7.0	6.6	6.6			6.6	6.6
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95			1.00	0.95
Frpb, ped/bikes		1.00	1.00		1.00	0.98	1.00	1.00			1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00			1.00	1.00
Frt		1.00	0.85		1.00	0.85	1.00	0.99			1.00	0.99
Flt Protected		0.96	1.00		0.97	1.00	0.95	1.00			0.95	1.00
Satd. Flow (prot)		1686	1292		1836	1555	1686	3554			1805	3505
Flt Permitted		0.96	1.00		0.97	1.00	0.23	1.00			0.31	1.00
Satd. Flow (perm)		1686	1292		1836	1555	410	3554			586	3505
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	45	6	21	16	7	71	16	722	26	55	31	1147
RTOR Reduction (vph)	0	0	20	0	0	68	0	2	0	0	0	2
Lane Group Flow (vph)	0	51	1	0	23	3	16	746	0	0	86	1213
Confl. Peds. (#/hr)	1					1	2		1		1	
Heavy Vehicles (%)	9%	0%	25%	0%	0%	2%	7%	1%	0%	0%	0%	2%
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		pm+pt	pm+pt	NA
Protected Phases	4	4		3	3			2		1	1	6
Permitted Phases			4			3	2			6	6	
Actuated Green, G (s)		9.1	9.1		6.2	6.2	80.1	80.1			94.1	94.1
Effective Green, g (s)		9.1	9.1		6.2	6.2	80.1	80.1			94.1	94.1
Actuated g/C Ratio		0.07	0.07		0.05	0.05	0.62	0.62			0.72	0.72
Clearance Time (s)		7.0	7.0		7.0	7.0	6.6	6.6			6.6	6.6
Vehicle Extension (s)		4.0	4.0		3.0	3.0	4.0	4.0			3.0	4.0
Lane Grp Cap (vph)		118	90		87	74	252	2189			493	2537
v/s Ratio Prot		c0.03			c0.01			0.21			0.01	c0.35
v/s Ratio Perm			0.00			0.00	0.04				0.12	
v/c Ratio		0.43	0.02		0.26	0.05	0.06	0.34			0.17	0.48
Uniform Delay, d1		58.0	56.3		59.7	59.1	10.0	12.1			6.1	7.6
Progression Factor		1.00	1.00		1.00	1.00	0.51	0.68			0.83	0.79
Incremental Delay, d2		3.4	0.1		1.6	0.3	0.4	0.3			0.2	0.6
Delay (s)		61.4	56.4		61.3	59.3	5.4	8.5			5.2	6.6
Level of Service		E	E		E	E	A	A			A	A
Approach Delay (s)		59.9			59.8			8.4				6.5
Approach LOS		E			E			A				A

Intersection Summary			
HCM 2000 Control Delay	11.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	27.2
Intersection Capacity Utilization	68.0%	ICU Level of Service	C
Analysis Period (min)	15		

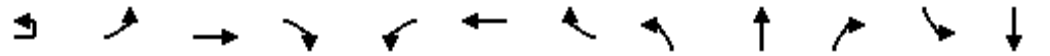
c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	64
Future Volume (vph)	64
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.94
Adj. Flow (vph)	68
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	2
Heavy Vehicles (%)	2%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	68	610	389	61	1124	151	259	529	72	210	1
v/c Ratio	0.36	0.48	0.37	0.18	0.58	0.23	0.67	0.66	0.43	0.64	0.00
Control Delay	26.6	34.8	3.6	4.9	6.4	0.7	33.7	28.5	63.7	66.0	0.0
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.5	0.0	0.0	0.1	0.0	0.0
Total Delay	26.6	34.8	3.6	4.9	6.4	1.2	33.7	28.5	63.8	66.0	0.0
Queue Length 50th (ft)	31	217	29	4	33	0	72	72	58	90	0
Queue Length 95th (ft)	63	276	55	9	44	0	203	185	109	133	0
Internal Link Dist (ft)		1054			136			168		1066	
Turn Bay Length (ft)	125		400	130		130			250		475
Base Capacity (vph)	187	1277	1107	332	1932	654	452	936	186	368	1615
Starvation Cap Reductn	0	0	0	24	0	235	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	3	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.48	0.35	0.20	0.58	0.36	0.57	0.57	0.39	0.57	0.00

Intersection Summary

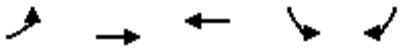


Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	1	65	592	377	59	1074	163	449	305	11	70	204
Future Volume (vph)	1	65	592	377	59	1074	163	449	305	11	70	204
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.9	7.9	7.5	7.9	7.9	7.9	7.5	7.5		8.6	8.6
Lane Util. Factor		1.00	0.95	1.00	1.00	0.86	0.86	0.91	0.91		1.00	0.95
Frt		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00		1.00	1.00
Flt Protected		0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.98		0.95	1.00
Satd. Flow (prot)		1805	3574	1599	1770	4842	1375	1610	3330		1805	3574
Flt Permitted		0.16	1.00	1.00	0.30	1.00	1.00	0.95	0.98		0.95	1.00
Satd. Flow (perm)		301	3574	1599	566	4842	1375	1610	3330		1805	3574
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	1	67	610	389	61	1107	168	463	314	11	72	210
RTOR Reduction (vph)	0	0	0	92	0	1	93	0	2	0	0	0
Lane Group Flow (vph)	0	68	610	297	61	1123	58	259	527	0	72	210
Heavy Vehicles (%)	0%	0%	1%	1%	2%	1%	1%	2%	1%	9%	0%	1%
Turn Type	pm+pt	pm+pt	NA	pm+ov	pm+pt	NA	Perm	Split	NA		Split	NA
Protected Phases	5	5	2	3	1	6		3	3		4	4
Permitted Phases	2	2		2	6		6					
Actuated Green, G (s)		51.2	46.5	77.7	58.8	50.3	50.3	31.2	31.2		11.9	11.9
Effective Green, g (s)		51.2	46.5	77.7	58.8	50.3	50.3	31.2	31.2		11.9	11.9
Actuated g/C Ratio		0.39	0.36	0.60	0.45	0.39	0.39	0.24	0.24		0.09	0.09
Clearance Time (s)		7.9	7.9	7.5	7.9	7.9	7.9	7.5	7.5		8.6	8.6
Vehicle Extension (s)		2.0	5.0	3.5	2.0	5.0	5.0	3.5	3.5		2.0	2.0
Lane Grp Cap (vph)		172	1278	955	334	1873	532	386	799		165	327
v/s Ratio Prot		c0.01	0.17	0.07	0.01	c0.23		c0.16	0.16		0.04	c0.06
v/s Ratio Perm		0.14		0.11	0.07		0.04					
v/c Ratio		0.40	0.48	0.31	0.18	0.60	0.11	0.67	0.66		0.44	0.64
Uniform Delay, d1		25.7	32.3	12.9	21.0	31.8	25.5	44.8	44.6		55.9	57.0
Progression Factor		1.00	1.00	1.00	0.18	0.16	0.00	0.57	0.56		1.00	1.00
Incremental Delay, d2		0.5	1.3	0.2	0.1	1.3	0.4	4.6	2.1		0.7	3.2
Delay (s)		26.2	33.6	13.1	3.9	6.3	0.4	30.0	26.9		56.6	60.2
Level of Service		C	C	B	A	A	A	C	C		E	E
Approach Delay (s)			25.7			5.6			27.9			59.1
Approach LOS			C			A			C			E

Intersection Summary			
HCM 2000 Control Delay	21.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	31.9
Intersection Capacity Utilization	73.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

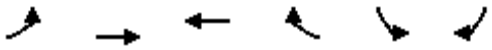
Movement	SBR
Lane Configurations	
Traffic Volume (vph)	1
Future Volume (vph)	1
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1615
Flt Permitted	1.00
Satd. Flow (perm)	1615
Peak-hour factor, PHF	0.97
Adj. Flow (vph)	1
RTOR Reduction (vph)	0
Lane Group Flow (vph)	1
Heavy Vehicles (%)	0%
Turn Type	Free
Protected Phases	
Permitted Phases	Free
Actuated Green, G (s)	130.0
Effective Green, g (s)	130.0
Actuated g/C Ratio	1.00
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	1615
v/s Ratio Prot	
v/s Ratio Perm	0.00
v/c Ratio	0.00
Uniform Delay, d1	0.0
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	0.0
Level of Service	A
Approach Delay (s)	
Approach LOS	

Intersection Summary



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	84	633	1290	15	133
v/c Ratio	0.51	0.28	0.50	0.03	0.27
Control Delay	46.0	1.0	31.9	35.1	7.2
Queue Delay	2.4	0.2	0.0	0.0	0.0
Total Delay	48.4	1.2	31.9	35.1	7.2
Queue Length 50th (ft)	68	8	254	10	0
Queue Length 95th (ft)	120	10	302	27	49
Internal Link Dist (ft)		136	72	558	
Turn Bay Length (ft)	115			140	
Base Capacity (vph)	186	2333	2569	506	549
Starvation Cap Reductn	39	793	0	0	0
Spillback Cap Reductn	0	0	8	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.57	0.41	0.50	0.03	0.24

Intersection Summary



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	79	595	1171	41	14	125
Future Volume (vph)	79	595	1171	41	14	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.6	7.9	7.9		7.5	7.5
Lane Util. Factor	1.00	0.95	0.86		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1805	3574	6434		1805	1615
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1805	3574	6434		1805	1615
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	84	633	1246	44	15	133
RTOR Reduction (vph)	0	0	4	0	0	101
Lane Group Flow (vph)	84	633	1286	0	15	32
Heavy Vehicles (%)	0%	1%	1%	3%	0%	0%
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	4	2 4 1	6		3	
Permitted Phases						3
Actuated Green, G (s)	11.9	82.7	50.3		31.2	31.2
Effective Green, g (s)	11.9	82.7	50.3		31.2	31.2
Actuated g/C Ratio	0.09	0.64	0.39		0.24	0.24
Clearance Time (s)	8.6		7.9		7.5	7.5
Vehicle Extension (s)	2.0		5.0		3.5	3.5
Lane Grp Cap (vph)	165	2273	2489		433	387
v/s Ratio Prot	c0.05	c0.18	c0.20		0.01	
v/s Ratio Perm						c0.02
v/c Ratio	0.51	0.28	0.52		0.03	0.08
Uniform Delay, d1	56.3	10.5	30.5		37.9	38.3
Progression Factor	0.65	0.07	1.00		1.00	1.00
Incremental Delay, d2	0.8	0.0	0.8		0.0	0.1
Delay (s)	37.2	0.8	31.3		37.9	38.4
Level of Service	D	A	C		D	D
Approach Delay (s)		5.0	31.3		38.4	
Approach LOS		A	C		D	

Intersection Summary			
HCM 2000 Control Delay	23.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	31.9
Intersection Capacity Utilization	49.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	825	15	0	560	0	0
Future Volume (Veh/h)	825	15	0	560	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	897	16	0	609	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	691			999		
pX, platoon unblocked			0.90		0.90	0.90
vC, conflicting volume			913		1210	456
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			688		1017	183
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			826		211	748

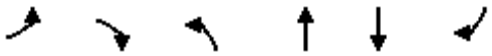
Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	598	315	304	304
Volume Left	0	0	0	0
Volume Right	0	16	0	0
cSH	1700	1700	1700	1700
Volume to Capacity	0.35	0.19	0.18	0.18
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	26.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	0	825	560	202	0	0
Future Volume (Veh/h)	0	825	560	202	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	897	609	220	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		983	707			
pX, platoon unblocked	0.96				0.93	0.96
vC, conflicting volume	829				1168	414
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	727				818	293
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	846				297	678

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	448	448	406	423
Volume Left	0	0	0	0
Volume Right	0	0	0	220
cSH	1700	1700	1700	1700
Volume to Capacity	0.26	0.26	0.24	0.25
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

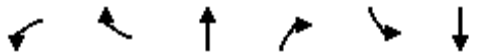
Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	26.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	663	0	840	560	0
Future Volume (Veh/h)	0	663	0	840	560	0
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	705	0	894	596	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				473	1217	
pX, platoon unblocked	0.90					
vC, conflicting volume	1043	298	596			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	827	298	596			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	0	100			
cM capacity (veh/h)	283	698	990			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	705	447	447	298	298
Volume Left	0	0	0	0	0
Volume Right	705	0	0	0	0
cSH	698	1700	1700	1700	1700
Volume to Capacity	1.01	0.26	0.26	0.18	0.18
Queue Length 95th (ft)	417	0	0	0	0
Control Delay (s)	60.8	0.0	0.0	0.0	0.0
Lane LOS	F				
Approach Delay (s)	60.8	0.0		0.0	
Approach LOS	F				

Intersection Summary				
Average Delay	19.5			
Intersection Capacity Utilization	63.2%	ICU Level of Service		B
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	765	64	0	640
Future Volume (Veh/h)	0	0	765	64	0	640
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	0	0	789	66	0	660
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						248
pX, platoon unblocked	0.95					
vC, conflicting volume	1152	428			855	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1046	428			855	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	215	581			793	

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	526	329	330	330
Volume Left	0	0	0	0
Volume Right	0	66	0	0
cSH	1700	1700	1700	1700
Volume to Capacity	0.31	0.19	0.19	0.19
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	26.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations		↑↑	↑↑			↱
Traffic Volume (veh/h)	0	829	640	0	0	122
Future Volume (Veh/h)	0	829	640	0	0	122
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	901	696	0	0	133
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		1300	390			
pX, platoon unblocked	0.95				0.94	0.95
vC, conflicting volume	696				1146	348
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	569				790	202
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	83
cM capacity (veh/h)	960				313	766

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	SE 1
Volume Total	450	450	348	348	133
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	133
cSH	1700	1700	1700	1700	766
Volume to Capacity	0.27	0.27	0.20	0.20	0.17
Queue Length 95th (ft)	0	0	0	0	16
Control Delay (s)	0.0	0.0	0.0	0.0	10.7
Lane LOS					B
Approach Delay (s)	0.0		0.0		10.7
Approach LOS					B

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	31.9%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection Sign configuration not allowed in HCM analysis.

Intersection: 1: LaSalle Ave & W Pembroke Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	120	380	321	143	233	193	30	241	255	184	306	301
Average Queue (ft)	103	192	153	55	115	84	1	126	132	111	175	195
95th Queue (ft)	145	335	277	128	193	166	9	208	219	206	302	308
Link Distance (ft)		855	855		628	628		1355	1355		289	289
Upstream Blk Time (%)											1	1
Queuing Penalty (veh)											6	8
Storage Bay Dist (ft)	120			145			180			185		
Storage Blk Time (%)	14	17		0	5			2		1	5	
Queuing Penalty (veh)	37	30		0	3			0		5	11	

Intersection: 2: LaSalle Ave & Georgia Street

Movement	EB	WB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR
Maximum Queue (ft)	43	47	32	103	119
Average Queue (ft)	10	20	3	6	9
95th Queue (ft)	34	47	18	42	53
Link Distance (ft)	191	219		548	548
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			90		
Storage Blk Time (%)				0	
Queuing Penalty (veh)				0	

Intersection: 3: LaSalle Ave & Michigan Dr/Driveway

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LT	R	L	T	TR	UL	T	TR
Maximum Queue (ft)	128	84	136	53	71	234	326	56	184	253
Average Queue (ft)	50	19	43	32	9	64	98	12	55	70
95th Queue (ft)	103	59	105	54	42	181	255	39	138	176
Link Distance (ft)	619		583			548	548		370	370
Upstream Blk Time (%)										0
Queuing Penalty (veh)										0
Storage Bay Dist (ft)		150		40	190			215		
Storage Blk Time (%)	0	0	9	6	0	1			0	
Queuing Penalty (veh)	0	0	6	1	0	0			0	

Intersection: 4: LaSalle Ave & N Armistead Ave

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	UL	T	T	R	L	T	T	TR	R	L	LT	TR
Maximum Queue (ft)	125	280	237	104	63	50	93	103	19	199	204	142
Average Queue (ft)	41	164	118	31	14	5	19	37	1	122	148	107
95th Queue (ft)	107	251	212	77	45	27	59	82	10	208	224	165
Link Distance (ft)		1062	1062		112	112	112	112	112	131	131	131
Upstream Blk Time (%)							0	0		10	17	2
Queuing Penalty (veh)							0	0		26	44	5
Storage Bay Dist (ft)	125			400								
Storage Blk Time (%)	0	17										
Queuing Penalty (veh)	0	11										

Intersection: 4: LaSalle Ave & N Armistead Ave

Movement	SB	SB	SB
Directions Served	L	T	T
Maximum Queue (ft)	132	174	152
Average Queue (ft)	49	86	76
95th Queue (ft)	103	150	136
Link Distance (ft)		1062	1062
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	250		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: N Armistead Ave & Thomas Street

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	T	TR	L	R
Maximum Queue (ft)	134	63	86	177	225	230	222	52	108
Average Queue (ft)	69	15	28	87	202	197	83	12	47
95th Queue (ft)	127	47	69	154	248	258	193	40	86
Link Distance (ft)	112	112	112	54	54	54	54		554
Upstream Blk Time (%)	3		0	27	50	54	20		
Queuing Penalty (veh)	7		0	83	153	164	62		
Storage Bay Dist (ft)								140	
Storage Blk Time (%)									0
Queuing Penalty (veh)									0

Intersection: 12: LaSalle Ave

Movement	NB	SB
Directions Served	TR	T
Maximum Queue (ft)	6	5
Average Queue (ft)	0	0
95th Queue (ft)	4	5
Link Distance (ft)	161	108
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 14: LaSalle Ave

Movement	NB	SB
Directions Served	T	TR
Maximum Queue (ft)	2	5
Average Queue (ft)	0	0
95th Queue (ft)	2	5
Link Distance (ft)	108	257
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 31: LaSalle Ave

Movement	EB	SB	SB
Directions Served	R	T	T
Maximum Queue (ft)	350	3	32
Average Queue (ft)	152	0	3
95th Queue (ft)	300	0	17
Link Distance (ft)	382	161	161
Upstream Blk Time (%)	1		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 41: LaSalle Ave

Movement	NB	NB
Directions Served	T	TR
Maximum Queue (ft)	123	167
Average Queue (ft)	12	39
95th Queue (ft)	66	133
Link Distance (ft)	19	19
Upstream Blk Time (%)	3	8
Queuing Penalty (veh)	10	32
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 42: LaSalle Ave

Movement	NB	NB	SB	SE
Directions Served	T	T	T	R
Maximum Queue (ft)	30	145	34	77
Average Queue (ft)	2	12	5	35
95th Queue (ft)	24	86	22	68
Link Distance (ft)	257	257	19	294
Upstream Blk Time (%)		0	0	
Queuing Penalty (veh)		0	1	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

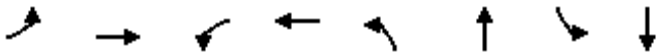
Intersection: 51: N Armistead Ave & I-64 WB off ramp

Movement	WB	WB	WB	NB	SW
Directions Served	T	T	T	>	R
Maximum Queue (ft)	98	197	230	47	330
Average Queue (ft)	6	47	67	12	140
95th Queue (ft)	50	140	177	39	303
Link Distance (ft)		1345	1345	212	443
Upstream Blk Time (%)					2
Queuing Penalty (veh)					0
Storage Bay Dist (ft)	200				
Storage Blk Time (%)		0			
Queuing Penalty (veh)		0			

Network Summary

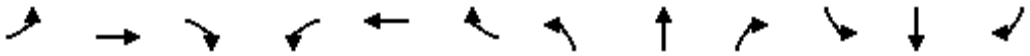
Network wide Queuing Penalty: 706

Appendix E
SYNCHRO Analysis Worksheets Sheets For 2023 Future Conditions



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	147	218	25	269	8	628	133	767
v/c Ratio	0.69	0.16	0.21	0.29	0.05	0.80	0.47	0.58
Control Delay	62.3	24.6	52.6	33.7	31.1	47.9	20.0	23.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.3	24.6	52.6	33.7	31.1	47.9	20.0	23.5
Queue Length 50th (ft)	100	54	17	77	4	220	68	242
Queue Length 95th (ft)	164	98	45	134	17	267	107	281
Internal Link Dist (ft)		878		630		1378		320
Turn Bay Length (ft)	120		145		180		185	
Base Capacity (vph)	243	1472	155	1095	172	867	286	1369
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.15	0.16	0.25	0.05	0.72	0.47	0.56

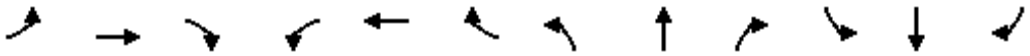
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	135	198	3	23	197	51	7	530	48	122	579	127
Future Volume (vph)	135	198	3	23	197	51	7	530	48	122	579	127
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	6.1		6.5	6.1		6.5	6.5		6.5	6.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.97		1.00	0.99		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1687	3308		1805	3140		1804	3445		1805	3326	
Flt Permitted	0.95	1.00		0.95	1.00		0.36	1.00		0.16	1.00	
Satd. Flow (perm)	1687	3308		1805	3140		685	3445		311	3326	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	147	215	3	25	214	55	8	576	52	133	629	138
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	147	218	0	25	269	0	8	628	0	133	767	0
Confl. Peds. (#/hr)			1	1			1					1
Heavy Vehicles (%)	7%	9%	0%	0%	10%	17%	0%	3%	9%	0%	5%	7%
Turn Type	Prot	NA		Prot	NA		Perm	NA		pm+pt	NA	
Protected Phases	1	6		5	2			8		3	4	
Permitted Phases							8			4		
Actuated Green, G (s)	13.9	42.7		4.6	32.9		25.1	25.1		43.6	43.6	
Effective Green, g (s)	13.9	42.7		4.6	32.9		25.1	25.1		43.6	43.6	
Actuated g/C Ratio	0.13	0.39		0.04	0.30		0.23	0.23		0.40	0.40	
Clearance Time (s)	7.0	6.1		6.5	6.1		6.5	6.5		6.5	6.5	
Vehicle Extension (s)	2.5	3.0		2.5	3.0		2.5	2.5		3.0	2.5	
Lane Grp Cap (vph)	213	1284		75	939		156	786		286	1318	
v/s Ratio Prot	c0.09	0.07		0.01	c0.09			c0.18		0.05	c0.23	
v/s Ratio Perm							0.01			0.13		
v/c Ratio	0.69	0.17		0.33	0.29		0.05	0.80		0.47	0.58	
Uniform Delay, d1	46.0	22.0		51.2	29.6		33.2	40.1		23.6	26.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		0.74	0.86	
Incremental Delay, d2	8.5	0.3		1.9	0.8		0.1	5.5		1.1	0.5	
Delay (s)	54.5	22.3		53.1	30.3		33.3	45.6		18.6	22.9	
Level of Service	D	C		D	C		C	D		B	C	
Approach Delay (s)		35.3			32.3			45.4			22.2	
Approach LOS		D			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	32.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	26.1
Intersection Capacity Utilization	65.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	0	22	19	0	8	4	715	0	0	785	15
Future Volume (Veh/h)	48	0	22	19	0	8	4	715	0	0	785	15
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.91	0.92	0.91	0.91	0.91	0.92	0.92	0.92	0.91	0.91	0.91
Hourly flow rate (vph)	52	0	24	21	0	9	4	777	0	0	863	16
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								400			620	
pX, platoon unblocked	0.90	0.90	0.88	0.90	0.90	0.84	0.88			0.84		
vC, conflicting volume	1276	1656	440	1240	1664	388	879			777		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	490	914	101	450	923	0	599			346		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	87	100	97	95	100	99	100			100		
cM capacity (veh/h)	412	245	831	431	242	914	873			1025		

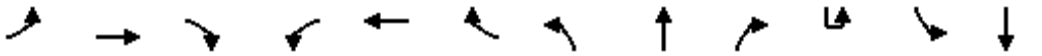
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	76	30	4	518	259	0	575	304
Volume Left	52	21	4	0	0	0	0	0
Volume Right	24	9	0	0	0	0	0	16
cSH	490	512	873	1700	1700	1700	1700	1700
Volume to Capacity	0.16	0.06	0.00	0.30	0.15	0.00	0.34	0.18
Queue Length 95th (ft)	14	5	0	0	0	0	0	0
Control Delay (s)	13.7	12.5	9.1	0.0	0.0	0.0	0.0	0.0
Lane LOS	B	B	A					
Approach Delay (s)	13.7	12.5	0.0			0.0		
Approach LOS	B	B						

Intersection Summary				
Average Delay	0.8			
Intersection Capacity Utilization	33.4%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	115	25	7	29	16	820	156	902
v/c Ratio	0.53	0.08	0.06	0.11	0.06	0.45	0.37	0.39
Control Delay	53.4	0.4	49.8	0.9	27.1	28.8	11.3	10.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.4	0.4	49.8	0.9	27.1	28.8	11.3	10.7
Queue Length 50th (ft)	76	0	5	0	10	314	47	193
Queue Length 95th (ft)	134	0	20	0	m17	373	86	240
Internal Link Dist (ft)	587		553			540		393
Turn Bay Length (ft)		150		40	190		215	
Base Capacity (vph)	218	333	147	289	252	1806	549	2380
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.08	0.05	0.10	0.06	0.45	0.28	0.38

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

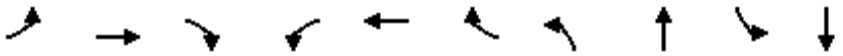


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	98	7	23	6	0	27	15	723	31	64	79	770
Future Volume (vph)	98	7	23	6	0	27	15	723	31	64	79	770
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0	7.0		7.0	7.0	6.6	6.6			6.6	6.6
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95			1.00	0.95
Frt		1.00	0.85		1.00	0.85	1.00	0.99			1.00	0.99
Flt Protected		0.96	1.00		0.95	1.00	0.95	1.00			0.95	1.00
Satd. Flow (prot)		1690	1429		1805	1615	1444	3423			1805	3406
Flt Permitted		0.96	1.00		0.95	1.00	0.32	1.00			0.25	1.00
Satd. Flow (perm)		1690	1429		1805	1615	480	3423			468	3406
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	107	8	25	7	0	29	16	786	34	70	86	837
RTOR Reduction (vph)	0	0	22	0	0	28	0	2	0	0	0	5
Lane Group Flow (vph)	0	115	3	0	7	1	16	818	0	0	156	897
Heavy Vehicles (%)	8%	0%	13%	0%	0%	0%	25%	5%	0%	0%	0%	5%
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		pm+pt	pm+pt	NA
Protected Phases	4	4		3	3			2		1	1	6
Permitted Phases			4			3	2			6	6	
Actuated Green, G (s)		14.2	14.2		4.2	4.2	55.1	55.1			71.0	71.0
Effective Green, g (s)		14.2	14.2		4.2	4.2	55.1	55.1			71.0	71.0
Actuated g/C Ratio		0.13	0.13		0.04	0.04	0.50	0.50			0.65	0.65
Clearance Time (s)		7.0	7.0		7.0	7.0	6.6	6.6			6.6	6.6
Vehicle Extension (s)		4.0	4.0		3.0	3.0	4.0	4.0			3.0	4.0
Lane Grp Cap (vph)		218	184		68	61	240	1714			415	2198
v/s Ratio Prot		c0.07			c0.00			c0.24			0.03	c0.26
v/s Ratio Perm			0.00			0.00	0.03				0.21	
v/c Ratio		0.53	0.02		0.10	0.02	0.07	0.48			0.38	0.41
Uniform Delay, d1		44.8	41.8		51.1	50.9	14.2	18.0			9.4	9.4
Progression Factor		1.00	1.00		1.00	1.00	1.47	1.53			1.08	1.10
Incremental Delay, d2		3.0	0.1		0.7	0.1	0.4	0.8			0.6	0.6
Delay (s)		47.7	41.9		51.7	51.0	21.3	28.3			10.6	10.9
Level of Service		D	D		D	D	C	C			B	B
Approach Delay (s)		46.7			51.2			28.1				10.9
Approach LOS		D			D			C				B

Intersection Summary			
HCM 2000 Control Delay	21.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	27.2
Intersection Capacity Utilization	63.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	60
Future Volume (vph)	60
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.92
Adj. Flow (vph)	65
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Heavy Vehicles (%)	3%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

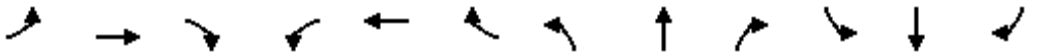
Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	57	393	251	46	950	275	300	576	23	122
v/c Ratio	0.28	0.35	0.25	0.14	0.58	0.41	0.75	0.68	0.17	0.46
Control Delay	23.2	30.7	1.3	4.9	6.1	2.3	53.9	46.4	50.3	54.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0
Total Delay	23.2	30.7	1.3	4.9	6.1	2.9	53.9	46.4	50.3	54.5
Queue Length 50th (ft)	24	116	0	3	25	0	247	236	16	44
Queue Length 95th (ft)	50	160	16	m7	34	26	349	300	42	74
Internal Link Dist (ft)		1054			136			168		1066
Turn Bay Length (ft)	125		400	130		130			250	
Base Capacity (vph)	205	1134	1043	333	1630	665	444	931	154	305
Starvation Cap Reductn	0	0	0	0	0	147	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.35	0.24	0.14	0.58	0.53	0.68	0.62	0.15	0.40

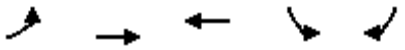
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	362	231	42	780	347	553	236	17	21	112	0
Future Volume (vph)	52	362	231	42	780	347	553	236	17	21	112	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.9	7.9	7.5	7.9	7.9	7.9	7.5	7.5		8.6	8.6	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.86	0.86	0.91	0.91		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.98	0.85	1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.97		0.95	1.00	
Satd. Flow (prot)	1752	3574	1553	1492	4617	1389	1550	3238		1805	3574	
Flt Permitted	0.20	1.00	1.00	0.46	1.00	1.00	0.95	0.97		0.95	1.00	
Satd. Flow (perm)	377	3574	1553	729	4617	1389	1550	3238		1805	3574	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	57	393	251	46	848	377	601	257	18	23	122	0
RTOR Reduction (vph)	0	0	106	0	12	183	0	2	0	0	0	0
Lane Group Flow (vph)	57	393	145	46	938	93	300	574	0	23	122	0
Heavy Vehicles (%)	3%	1%	4%	21%	5%	0%	6%	1%	0%	0%	1%	0%
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	Perm	Split	NA		Split	NA	Free
Protected Phases	5	2	3	1	6		3	3		4	4	
Permitted Phases	2		2	6		6						Free
Actuated Green, G (s)	39.3	34.9	63.5	43.5	37.0	37.0	28.6	28.6		8.1	8.1	
Effective Green, g (s)	39.3	34.9	63.5	43.5	37.0	37.0	28.6	28.6		8.1	8.1	
Actuated g/C Ratio	0.36	0.32	0.58	0.40	0.34	0.34	0.26	0.26		0.07	0.07	
Clearance Time (s)	7.9	7.9	7.5	7.9	7.9	7.9	7.5	7.5		8.6	8.6	
Vehicle Extension (s)	2.0	5.0	3.5	2.0	5.0	5.0	3.5	3.5		2.0	2.0	
Lane Grp Cap (vph)	189	1133	896	333	1552	467	403	841		132	263	
v/s Ratio Prot	c0.01	0.11	0.04	0.01	c0.20		c0.19	0.18		0.01	c0.03	
v/s Ratio Perm	0.10		0.05	0.05		0.07						
v/c Ratio	0.30	0.35	0.16	0.14	0.60	0.20	0.74	0.68		0.17	0.46	
Uniform Delay, d1	23.9	28.8	10.8	20.8	30.4	26.0	37.3	36.6		47.8	48.9	
Progression Factor	1.00	1.00	1.00	0.21	0.15	0.15	1.15	1.17		1.00	1.00	
Incremental Delay, d2	0.3	0.8	0.1	0.1	1.6	0.8	6.9	2.2		0.2	0.5	
Delay (s)	24.2	29.6	10.9	4.4	6.3	4.7	49.9	45.0		48.0	49.3	
Level of Service	C	C	B	A	A	A	D	D		D	D	
Approach Delay (s)		22.5			5.9			46.7			49.1	
Approach LOS		C			A			D			D	

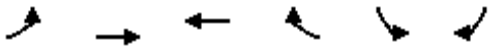
Intersection Summary			
HCM 2000 Control Delay	23.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	31.9
Intersection Capacity Utilization	63.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	42	381	1166	8	90
v/c Ratio	0.32	0.18	0.53	0.02	0.19
Control Delay	36.6	1.2	30.9	28.2	7.3
Queue Delay	0.0	0.2	0.0	0.0	0.0
Total Delay	36.6	1.4	30.9	28.2	7.3
Queue Length 50th (ft)	30	6	206	4	0
Queue Length 95th (ft)	m67	8	245	16	38
Internal Link Dist (ft)		136	72	558	
Turn Bay Length (ft)	115			140	
Base Capacity (vph)	154	2165	2219	517	505
Starvation Cap Reductn	0	984	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.27	0.32	0.53	0.02	0.18

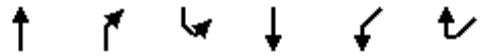
Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	40	366	1082	37	8	86
Future Volume (vph)	40	366	1082	37	8	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.6	7.9	7.9		7.5	7.5
Lane Util. Factor	1.00	0.95	0.86		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1805	3539	6320		1805	1538
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1805	3539	6320		1805	1538
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	42	381	1127	39	8	90
RTOR Reduction (vph)	0	0	4	0	0	67
Lane Group Flow (vph)	42	381	1162	0	8	23
Heavy Vehicles (%)	0%	2%	3%	0%	0%	5%
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	4	2 4 1	6		3	
Permitted Phases						3
Actuated Green, G (s)	8.1	65.3	37.0		28.6	28.6
Effective Green, g (s)	8.1	65.3	37.0		28.6	28.6
Actuated g/C Ratio	0.07	0.59	0.34		0.26	0.26
Clearance Time (s)	8.6		7.9		7.5	7.5
Vehicle Extension (s)	2.0		5.0		3.5	3.5
Lane Grp Cap (vph)	132	2100	2125		469	399
v/s Ratio Prot	c0.02	c0.11	c0.18		0.00	
v/s Ratio Perm						c0.02
v/c Ratio	0.32	0.18	0.55		0.02	0.06
Uniform Delay, d1	48.3	10.2	29.7		30.3	30.6
Progression Factor	0.64	0.10	1.00		1.00	1.00
Incremental Delay, d2	0.5	0.0	1.0		0.0	0.1
Delay (s)	31.3	1.1	30.7		30.3	30.7
Level of Service	C	A	C		C	C
Approach Delay (s)		4.1	30.7		30.6	
Approach LOS		A	C		C	

Intersection Summary			
HCM 2000 Control Delay	24.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	31.9
Intersection Capacity Utilization	48.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	814	81	0	475	0	0
Future Volume (Veh/h)	814	81	0	475	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	885	88	0	516	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	691			999		
pX, platoon unblocked			0.85		0.85	0.85
vC, conflicting volume			973		1187	486
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			625		876	55
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			813		246	853

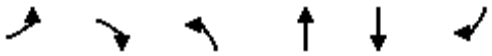
Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	590	383	258	258
Volume Left	0	0	0	0
Volume Right	0	88	0	0
cSH	1700	1700	1700	1700
Volume to Capacity	0.35	0.23	0.15	0.15
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	28.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	0	813	450	105	0	0
Future Volume (Veh/h)	0	813	450	105	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	884	489	114	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		983	707			
pX, platoon unblocked	1.00				0.88	1.00
vC, conflicting volume	603				988	302
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	592				686	289
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	975				335	704

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	442	442	326	277
Volume Left	0	0	0	0
Volume Right	0	0	0	114
cSH	1700	1700	1700	1700
Volume to Capacity	0.26	0.26	0.19	0.16
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	28.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	495	0	895	475	0
Future Volume (Veh/h)	0	495	0	895	475	0
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	538	0	973	516	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				473	1217	
pX, platoon unblocked	0.85					
vC, conflicting volume	1002	258	516			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	651	258	516			
tC, single (s)	6.8	7.0	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	27	100			
cM capacity (veh/h)	341	738	1046			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	538	486	486	258	258
Volume Left	0	0	0	0	0
Volume Right	538	0	0	0	0
cSH	738	1700	1700	1700	1700
Volume to Capacity	0.73	0.29	0.29	0.15	0.15
Queue Length 95th (ft)	161	0	0	0	0
Control Delay (s)	21.8	0.0	0.0	0.0	0.0
Lane LOS	C				
Approach Delay (s)	21.8	0.0		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	5.8		
Intersection Capacity Utilization	50.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	794	19	0	381
Future Volume (Veh/h)	0	0	794	19	0	381
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.90	0.90	0.92	0.90
Hourly flow rate (vph)	0	0	882	21	0	423
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						248
pX, platoon unblocked	0.97					
vC, conflicting volume	1104	452			903	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1050	452			903	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	216	555			749	

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	588	315	212	212
Volume Left	0	0	0	0
Volume Right	0	21	0	0
cSH	1700	1700	1700	1700
Volume to Capacity	0.35	0.19	0.12	0.12
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	25.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations		↑↑	↑↑			↱
Traffic Volume (veh/h)	0	813	381	0	0	150
Future Volume (Veh/h)	0	813	381	0	0	150
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.90	0.90	0.92	0.92	0.92
Hourly flow rate (vph)	0	903	423	0	0	163
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		1300	390			
pX, platoon unblocked	0.98				0.90	0.98
vC, conflicting volume	423				874	212
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	365				530	149
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	81
cM capacity (veh/h)	1164				431	852

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	SE 1
Volume Total	452	452	212	212	163
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	163
cSH	1700	1700	1700	1700	852
Volume to Capacity	0.27	0.27	0.12	0.12	0.19
Queue Length 95th (ft)	0	0	0	0	18
Control Delay (s)	0.0	0.0	0.0	0.0	10.2
Lane LOS					B
Approach Delay (s)	0.0		0.0		10.2
Approach LOS					B

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	26.5%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection Sign configuration not allowed in HCM analysis.

Intersection: 1: LaSalle Ave & W Pembroke Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	119	206	138	82	172	155	4	220	236	184	254	290
Average Queue (ft)	66	56	32	11	78	59	0	120	121	57	133	164
95th Queue (ft)	124	141	85	46	143	126	3	196	206	133	223	253
Link Distance (ft)		855	855		628	628		1355	1355		289	289
Upstream Blk Time (%)											0	0
Queuing Penalty (veh)											0	1
Storage Bay Dist (ft)	120			145			180			185		
Storage Blk Time (%)	3	1		0	1			1		0	2	
Queuing Penalty (veh)	3	1		0	0			0		0	2	

Intersection: 2: LaSalle Ave & Georgia Street

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	L	T	TR
Maximum Queue (ft)	101	52	24	9	32
Average Queue (ft)	40	21	1	0	1
95th Queue (ft)	78	49	12	7	16
Link Distance (ft)	191	219		548	548
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			115		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: LaSalle Ave & Michigan Dr/Driveway

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LT	R	L	T	TR	UL	T	TR
Maximum Queue (ft)	205	126	62	40	64	238	275	88	114	137
Average Queue (ft)	90	22	9	21	8	72	95	27	24	42
95th Queue (ft)	163	76	40	48	37	192	242	64	76	103
Link Distance (ft)	619		583			548	548		370	370
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)		150		40	190			215		
Storage Blk Time (%)	2	0	1	2	0	1				
Queuing Penalty (veh)	0	0	0	0	0	0				

Intersection: 4: LaSalle Ave & N Armistead Ave

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	UL	T	T	R	L	T	T	TR	R	L	LT	TR
Maximum Queue (ft)	104	173	127	69	66	55	68	88	40	217	218	144
Average Queue (ft)	26	85	34	8	10	7	12	21	3	168	181	120
95th Queue (ft)	74	152	98	35	38	33	44	62	19	224	225	159
Link Distance (ft)		1062	1062		112	112	112	112	112	131	131	131
Upstream Blk Time (%)							0	0		26	33	3
Queuing Penalty (veh)							0	0		69	87	8
Storage Bay Dist (ft)	125			400								
Storage Blk Time (%)	0	2										
Queuing Penalty (veh)	0	1										

Intersection: 4: LaSalle Ave & N Armistead Ave

Movement	SB	SB	SB
Directions Served	L	T	T
Maximum Queue (ft)	57	120	91
Average Queue (ft)	14	48	35
95th Queue (ft)	41	92	70
Link Distance (ft)		1062	1062
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	250		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: N Armistead Ave & Thomas Street

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	T	TR	L	R
Maximum Queue (ft)	99	68	67	132	232	240	229	36	92
Average Queue (ft)	36	17	17	56	159	177	115	5	38
95th Queue (ft)	80	50	52	112	238	250	208	23	77
Link Distance (ft)	112	112	112	54	54	54	54		554
Upstream Blk Time (%)	0		0	15	45	51	35		
Queuing Penalty (veh)	0		0	43	125	144	98		
Storage Bay Dist (ft)								140	
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 12: LaSalle Ave

Movement	NB
Directions Served	TR
Maximum Queue (ft)	13
Average Queue (ft)	0
95th Queue (ft)	6
Link Distance (ft)	161
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 14: LaSalle Ave

Movement	SB
Directions Served	T
Maximum Queue (ft)	2
Average Queue (ft)	0
95th Queue (ft)	2
Link Distance (ft)	257
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 31: LaSalle Ave

Movement	EB	SB
Directions Served	R	T
Maximum Queue (ft)	202	30
Average Queue (ft)	79	2
95th Queue (ft)	151	15
Link Distance (ft)	382	161
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 41: LaSalle Ave

Movement	NB	NB
Directions Served	T	TR
Maximum Queue (ft)	142	164
Average Queue (ft)	32	66
95th Queue (ft)	102	162
Link Distance (ft)	19	19
Upstream Blk Time (%)	7	14
Queuing Penalty (veh)	29	59
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 42: LaSalle Ave

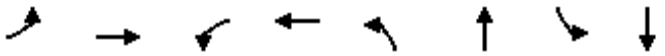
Movement	NB	NB	SB	SE
Directions Served	T	T	T	R
Maximum Queue (ft)	14	55	38	72
Average Queue (ft)	0	4	4	27
95th Queue (ft)	6	28	19	62
Link Distance (ft)	257	257	19	294
Upstream Blk Time (%)			0	
Queuing Penalty (veh)			1	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 51: N Armistead Ave & I-64 WB off ramp

Movement	WB	WB	WB	NB	SW
Directions Served	T	T	T	>	R
Maximum Queue (ft)	15	141	211	29	287
Average Queue (ft)	1	14	54	2	94
95th Queue (ft)	12	77	161	15	220
Link Distance (ft)		1345	1345	212	443
Upstream Blk Time (%)					0
Queuing Penalty (veh)					0
Storage Bay Dist (ft)	200				
Storage Blk Time (%)		0			
Queuing Penalty (veh)		0			

Network Summary

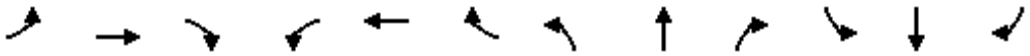
Network wide Queuing Penalty: 673



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	196	579	67	344	10	573	239	957
v/c Ratio	0.67	0.49	0.56	0.46	0.09	0.80	0.53	0.60
Control Delay	63.3	37.9	76.0	46.6	41.2	58.0	27.7	32.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.3	37.9	76.0	46.6	41.2	58.0	27.7	32.3
Queue Length 50th (ft)	155	209	55	134	7	242	170	422
Queue Length 95th (ft)	#338	287	106	178	22	295	227	466
Internal Link Dist (ft)		878		630		1378		320
Turn Bay Length (ft)	120		145		180		185	
Base Capacity (vph)	294	1615	128	1442	122	746	448	1596
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.36	0.52	0.24	0.08	0.77	0.53	0.60

Intersection Summary

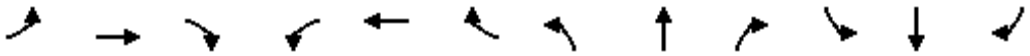
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	184	535	9	63	277	46	9	476	63	225	737	163
Future Volume (vph)	184	535	9	63	277	46	9	476	63	225	737	163
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	6.1		6.5	6.1		6.5	6.5		6.4	6.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.98		1.00	0.98		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1787	3565		1641	3413		1805	3468		1752	3419	
Flt Permitted	0.95	1.00		0.95	1.00		0.30	1.00		0.16	1.00	
Satd. Flow (perm)	1787	3565		1641	3413		568	3468		304	3419	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	196	569	10	67	295	49	10	506	67	239	784	173
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	196	579	0	67	344	0	10	573	0	239	957	0
Confl. Peds. (#/hr)	2		4	4		2			1	1		
Heavy Vehicles (%)	1%	1%	0%	10%	3%	5%	0%	2%	3%	3%	2%	6%
Turn Type	Prot	NA		Prot	NA		Perm	NA		pm+pt	NA	
Protected Phases	1	6		5	2			8		3	4	
Permitted Phases							8			4		
Actuated Green, G (s)	21.4	42.1		8.1	28.3		26.8	26.8		60.7	60.7	
Effective Green, g (s)	21.4	42.1		8.1	28.3		26.8	26.8		60.7	60.7	
Actuated g/C Ratio	0.16	0.32		0.06	0.22		0.21	0.21		0.47	0.47	
Clearance Time (s)	7.0	6.1		6.5	6.1		6.5	6.5		6.4	6.5	
Vehicle Extension (s)	2.5	3.0		2.5	3.0		2.5	2.5		3.0	2.5	
Lane Grp Cap (vph)	294	1154		102	742		117	714		448	1596	
v/s Ratio Prot	c0.11	c0.16		0.04	0.10			c0.17		0.11	c0.28	
v/s Ratio Perm							0.02			0.14		
v/c Ratio	0.67	0.50		0.66	0.46		0.09	0.80		0.53	0.60	
Uniform Delay, d1	51.0	35.5		59.6	44.2		41.7	49.1		23.7	25.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.08	1.21	
Incremental Delay, d2	5.1	1.6		12.8	2.1		0.2	6.3		1.1	0.4	
Delay (s)	56.0	37.0		72.4	46.3		41.9	55.4		26.7	31.4	
Level of Service	E	D		E	D		D	E		C	C	
Approach Delay (s)		41.8			50.6			55.2			30.4	
Approach LOS		D			D			E			C	

Intersection Summary			
HCM 2000 Control Delay	41.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	26.0
Intersection Capacity Utilization	77.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	0	7	0	0	29	11	695	0	8	1118	47
Future Volume (Veh/h)	40	0	7	0	0	29	11	695	0	8	1118	47
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	43	0	7	0	0	31	12	739	0	9	1189	50
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								400			620	
pX, platoon unblocked	0.89	0.89	0.82	0.89	0.89	0.85	0.82			0.85		
vC, conflicting volume	1656	1995	620	1382	2020	370	1239			739		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	753	1133	89	446	1161	0	846			352		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	83	100	99	100	100	97	98			99		
cM capacity (veh/h)	255	177	784	433	171	931	654			1040		

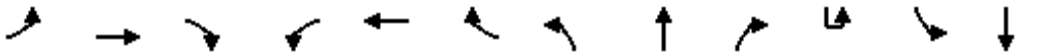
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	50	31	12	493	246	9	793	446
Volume Left	43	0	12	0	0	9	0	0
Volume Right	7	31	0	0	0	0	0	50
cSH	281	931	654	1700	1700	1040	1700	1700
Volume to Capacity	0.18	0.03	0.02	0.29	0.14	0.01	0.47	0.26
Queue Length 95th (ft)	16	3	1	0	0	1	0	0
Control Delay (s)	20.5	9.0	10.6	0.0	0.0	8.5	0.0	0.0
Lane LOS	C	A	B			A		
Approach Delay (s)	20.5	9.0	0.2			0.1		
Approach LOS	C	A						

Intersection Summary				
Average Delay	0.7			
Intersection Capacity Utilization	48.4%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	83	29	23	71	28	785	86	1318
v/c Ratio	0.50	0.11	0.21	0.31	0.13	0.37	0.19	0.54
Control Delay	65.2	0.9	62.8	3.6	16.2	14.8	7.2	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.2	0.9	62.8	3.6	16.2	14.8	7.2	9.1
Queue Length 50th (ft)	67	0	19	0	14	245	17	213
Queue Length 95th (ft)	118	0	49	0	m26	401	m42	326
Internal Link Dist (ft)	587		553			540		393
Turn Bay Length (ft)		150		40	190		215	
Base Capacity (vph)	199	280	155	263	208	2120	483	2467
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.10	0.15	0.27	0.13	0.37	0.18	0.53

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	72	6	27	15	7	67	26	713	24	52	29	1130
Future Volume (vph)	72	6	27	15	7	67	26	713	24	52	29	1130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0	7.0		7.0	7.0	6.6	6.6			6.6	6.6
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	0.95			1.00	0.95
Frpb, ped/bikes		1.00	1.00		1.00	0.98	1.00	1.00			1.00	1.00
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00	1.00			1.00	1.00
Frt		1.00	0.85		1.00	0.85	1.00	1.00			1.00	0.99
Flt Protected		0.96	1.00		0.97	1.00	0.95	1.00			0.95	1.00
Satd. Flow (prot)		1676	1292		1836	1555	1686	3555			1805	3486
Flt Permitted		0.96	1.00		0.97	1.00	0.20	1.00			0.29	1.00
Satd. Flow (perm)		1676	1292		1836	1555	350	3555			543	3486
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	77	6	29	16	7	71	28	759	26	55	31	1202
RTOR Reduction (vph)	0	0	26	0	0	68	0	2	0	0	0	5
Lane Group Flow (vph)	0	83	3	0	23	3	28	783	0	0	86	1313
Confl. Peds. (#/hr)	1					1	2		1		1	
Heavy Vehicles (%)	9%	0%	25%	0%	0%	2%	7%	1%	0%	0%	0%	2%
Turn Type	Split	NA	Perm	Split	NA	Perm	Perm	NA		pm+pt	pm+pt	NA
Protected Phases	4	4		3	3			2		1	1	6
Permitted Phases			4			3	2			6	6	
Actuated Green, G (s)		12.9	12.9		6.2	6.2	76.1	76.1			90.3	90.3
Effective Green, g (s)		12.9	12.9		6.2	6.2	76.1	76.1			90.3	90.3
Actuated g/C Ratio		0.10	0.10		0.05	0.05	0.59	0.59			0.69	0.69
Clearance Time (s)		7.0	7.0		7.0	7.0	6.6	6.6			6.6	6.6
Vehicle Extension (s)		4.0	4.0		3.0	3.0	4.0	4.0			3.0	4.0
Lane Grp Cap (vph)		166	128		87	74	204	2081			450	2421
v/s Ratio Prot		c0.05			c0.01			0.22			0.01	c0.38
v/s Ratio Perm			0.00			0.00	0.08				0.12	
v/c Ratio		0.50	0.02		0.26	0.05	0.14	0.38			0.19	0.54
Uniform Delay, d1		55.5	52.9		59.7	59.1	12.2	14.3			7.5	9.7
Progression Factor		1.00	1.00		1.00	1.00	0.96	0.96			0.84	0.81
Incremental Delay, d2		3.2	0.1		1.6	0.3	1.1	0.4			0.2	0.9
Delay (s)		58.7	53.0		61.3	59.3	12.7	14.1			6.5	8.7
Level of Service		E	D		E	E	B	B			A	A
Approach Delay (s)		57.2			59.8			14.1				8.6
Approach LOS		E			E			B				A

Intersection Summary			
HCM 2000 Control Delay	14.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	27.2
Intersection Capacity Utilization	72.5%	ICU Level of Service	C
Analysis Period (min)	15		

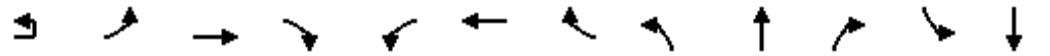
c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	109
Future Volume (vph)	109
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.94
Adj. Flow (vph)	116
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	2
Heavy Vehicles (%)	2%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	68	610	408	68	1124	151	274	558	72	223	1
v/c Ratio	0.38	0.49	0.39	0.21	0.60	0.23	0.69	0.68	0.43	0.67	0.00
Control Delay	27.5	35.3	4.2	5.2	6.5	0.8	45.2	38.8	63.2	66.9	0.0
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.5	0.0	0.0	0.1	0.0	0.0
Total Delay	27.5	35.3	4.2	5.2	6.5	1.3	45.2	38.8	63.2	66.9	0.0
Queue Length 50th (ft)	32	217	37	5	33	0	75	76	58	96	0
Queue Length 95th (ft)	63	276	65	10	44	0	345	308	109	140	0
Internal Link Dist (ft)		1054			136			168		1066	
Turn Bay Length (ft)	125		400	130		130			250		475
Base Capacity (vph)	181	1253	1091	321	1888	643	452	934	186	368	1615
Starvation Cap Reductn	0	0	0	17	0	229	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	3	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.49	0.37	0.22	0.60	0.36	0.61	0.60	0.39	0.61	0.00

Intersection Summary

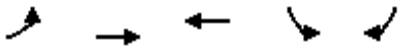


Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	1	65	592	396	66	1074	163	484	312	11	70	216
Future Volume (vph)	1	65	592	396	66	1074	163	484	312	11	70	216
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.9	7.9	7.5	7.9	7.9	7.9	7.5	7.5		8.6	8.6
Lane Util. Factor		1.00	0.95	1.00	1.00	0.86	0.86	0.91	0.91		1.00	0.95
Frt		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00		1.00	1.00
Flt Protected		0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.98		0.95	1.00
Satd. Flow (prot)		1805	3574	1599	1770	4842	1375	1610	3328		1805	3574
Flt Permitted		0.15	1.00	1.00	0.30	1.00	1.00	0.95	0.98		0.95	1.00
Satd. Flow (perm)		291	3574	1599	563	4842	1375	1610	3328		1805	3574
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	1	67	610	408	68	1107	168	499	322	11	72	223
RTOR Reduction (vph)	0	0	0	84	0	1	94	0	1	0	0	0
Lane Group Flow (vph)	0	68	610	324	68	1123	57	274	557	0	72	223
Heavy Vehicles (%)	0%	0%	1%	1%	2%	1%	1%	2%	1%	9%	0%	1%
Turn Type	pm+pt	pm+pt	NA	pm+ov	pm+pt	NA	Perm	Split	NA		Split	NA
Protected Phases	5	5	2	3	1	6		3	3		4	4
Permitted Phases	2	2		2	6		6					
Actuated Green, G (s)		50.3	45.6	77.8	57.1	49.0	49.0	32.2	32.2		12.2	12.2
Effective Green, g (s)		50.3	45.6	77.8	57.1	49.0	49.0	32.2	32.2		12.2	12.2
Actuated g/C Ratio		0.39	0.35	0.60	0.44	0.38	0.38	0.25	0.25		0.09	0.09
Clearance Time (s)		7.9	7.9	7.5	7.9	7.9	7.9	7.5	7.5		8.6	8.6
Vehicle Extension (s)		2.0	5.0	3.5	2.0	5.0	5.0	3.5	3.5		2.0	2.0
Lane Grp Cap (vph)		167	1253	956	322	1825	518	398	824		169	335
v/s Ratio Prot		c0.01	0.17	0.08	0.01	c0.23		c0.17	0.17		0.04	c0.06
v/s Ratio Perm		0.14		0.12	0.08		0.04					
v/c Ratio		0.41	0.49	0.34	0.21	0.62	0.11	0.69	0.68		0.43	0.67
Uniform Delay, d1		26.4	33.0	13.2	22.1	32.9	26.3	44.4	44.2		55.6	56.9
Progression Factor		1.00	1.00	1.00	0.18	0.16	0.00	0.82	0.79		1.00	1.00
Incremental Delay, d2		0.6	1.4	0.3	0.1	1.4	0.4	4.9	2.2		0.6	3.8
Delay (s)		26.9	34.4	13.4	4.1	6.5	0.4	41.4	37.2		56.2	60.8
Level of Service		C	C	B	A	A	A	D	D		E	E
Approach Delay (s)			26.0			5.7			38.6			59.5
Approach LOS			C			A			D			E

Intersection Summary			
HCM 2000 Control Delay	24.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	31.9
Intersection Capacity Utilization	74.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	1
Future Volume (vph)	1
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.0
Lane Util. Factor	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1615
Flt Permitted	1.00
Satd. Flow (perm)	1615
Peak-hour factor, PHF	0.97
Adj. Flow (vph)	1
RTOR Reduction (vph)	0
Lane Group Flow (vph)	1
Heavy Vehicles (%)	0%
Turn Type	Free
Protected Phases	
Permitted Phases	Free
Actuated Green, G (s)	130.0
Effective Green, g (s)	130.0
Actuated g/C Ratio	1.00
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	1615
v/s Ratio Prot	
v/s Ratio Perm	0.00
v/c Ratio	0.00
Uniform Delay, d1	0.0
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	0.0
Level of Service	A
Approach Delay (s)	
Approach LOS	

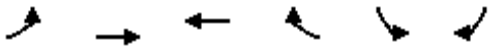
Intersection Summary



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	84	637	1297	15	133
v/c Ratio	0.50	0.28	0.52	0.03	0.27
Control Delay	45.4	1.1	32.8	34.9	7.1
Queue Delay	2.9	0.2	0.0	0.0	0.0
Total Delay	48.3	1.3	32.8	34.9	7.1
Queue Length 50th (ft)	68	9	264	9	0
Queue Length 95th (ft)	m120	11	304	27	49
Internal Link Dist (ft)		136	72	558	
Turn Bay Length (ft)	115			140	
Base Capacity (vph)	186	2300	2509	506	549
Starvation Cap Reductn	43	755	0	0	0
Spillback Cap Reductn	0	0	7	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.59	0.41	0.52	0.03	0.24

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	79	599	1178	41	14	125
Future Volume (vph)	79	599	1178	41	14	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	8.6	7.9	7.9		7.5	7.5
Lane Util. Factor	1.00	0.95	0.86		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1805	3574	6434		1805	1615
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1805	3574	6434		1805	1615
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	84	637	1253	44	15	133
RTOR Reduction (vph)	0	0	3	0	0	100
Lane Group Flow (vph)	84	637	1294	0	15	33
Heavy Vehicles (%)	0%	1%	1%	3%	0%	0%
Turn Type	Prot	NA	NA		Prot	Perm
Protected Phases	4	2 4 1	6		3	
Permitted Phases						3
Actuated Green, G (s)	12.2	81.7	49.0		32.2	32.2
Effective Green, g (s)	12.2	81.7	49.0		32.2	32.2
Actuated g/C Ratio	0.09	0.63	0.38		0.25	0.25
Clearance Time (s)	8.6		7.9		7.5	7.5
Vehicle Extension (s)	2.0		5.0		3.5	3.5
Lane Grp Cap (vph)	169	2246	2425		447	400
v/s Ratio Prot	c0.05	c0.18	c0.20		0.01	
v/s Ratio Perm						c0.02
v/c Ratio	0.50	0.28	0.53		0.03	0.08
Uniform Delay, d1	56.0	10.9	31.6		37.1	37.6
Progression Factor	0.65	0.07	1.00		1.00	1.00
Incremental Delay, d2	0.8	0.0	0.8		0.0	0.1
Delay (s)	37.1	0.8	32.4		37.1	37.7
Level of Service	D	A	C		D	D
Approach Delay (s)		5.1	32.4		37.6	
Approach LOS		A	C		D	

Intersection Summary			
HCM 2000 Control Delay	23.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	31.9
Intersection Capacity Utilization	49.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	867	25	0	612	0	0
Future Volume (Veh/h)	867	25	0	612	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	942	27	0	665	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	691			999		
pX, platoon unblocked			0.89		0.89	0.89
vC, conflicting volume			969		1288	484
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			712		1067	166
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			796		193	754

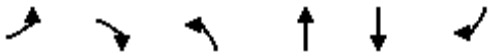
Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	628	341	332	332
Volume Left	0	0	0	0
Volume Right	0	27	0	0
cSH	1700	1700	1700	1700
Volume to Capacity	0.37	0.20	0.20	0.20
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	28.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	0	867	612	202	0	0
Future Volume (Veh/h)	0	867	612	202	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	942	665	220	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		983	707			
pX, platoon unblocked	0.95				0.92	0.95
vC, conflicting volume	885				1246	442
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	777				856	312
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	807				277	656

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	471	471	443	442
Volume Left	0	0	0	0
Volume Right	0	0	0	220
cSH	1700	1700	1700	1700
Volume to Capacity	0.28	0.28	0.26	0.26
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	28.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	695	0	892	612	0
Future Volume (Veh/h)	0	695	0	892	612	0
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	739	0	949	651	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				473	1217	
pX, platoon unblocked	0.89					
vC, conflicting volume	1126	326	651			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	884	326	651			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	0	100			
cM capacity (veh/h)	256	670	945			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	739	474	474	326	326
Volume Left	0	0	0	0	0
Volume Right	739	0	0	0	0
cSH	670	1700	1700	1700	1700
Volume to Capacity	1.10	0.28	0.28	0.19	0.19
Queue Length 95th (ft)	537	0	0	0	0
Control Delay (s)	90.0	0.0	0.0	0.0	0.0
Lane LOS	F				
Approach Delay (s)	90.0	0.0		0.0	
Approach LOS	F				

Intersection Summary			
Average Delay	28.4		
Intersection Capacity Utilization	66.6%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	800	67	0	671
Future Volume (Veh/h)	0	0	800	67	0	671
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	0	0	825	69	0	692
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						248
pX, platoon unblocked	0.94					
vC, conflicting volume	1206	447			894	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1096	447			894	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	199	564			767	

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	550	344	346	346
Volume Left	0	0	0	0
Volume Right	0	69	0	0
cSH	1700	1700	1700	1700
Volume to Capacity	0.32	0.20	0.20	0.20
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	27.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations		↑↑	↑↑			↱
Traffic Volume (veh/h)	0	867	671	0	0	143
Future Volume (Veh/h)	0	867	671	0	0	143
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	942	729	0	0	155
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		1300	390			
pX, platoon unblocked	0.94				0.93	0.94
vC, conflicting volume	729				1200	364
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	595				799	210
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	79
cM capacity (veh/h)	936				305	755

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	SE 1
Volume Total	471	471	364	364	155
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	155
cSH	1700	1700	1700	1700	755
Volume to Capacity	0.28	0.28	0.21	0.21	0.21
Queue Length 95th (ft)	0	0	0	0	19
Control Delay (s)	0.0	0.0	0.0	0.0	11.0
Lane LOS					B
Approach Delay (s)	0.0		0.0		11.0
Approach LOS					B

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	34.1%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection Sign configuration not allowed in HCM analysis.

Intersection: 1: LaSalle Ave & W Pembroke Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	120	387	348	144	246	216	56	247	244	184	297	296
Average Queue (ft)	109	206	165	58	115	90	2	122	123	107	157	181
95th Queue (ft)	142	341	293	132	203	174	32	212	216	202	290	303
Link Distance (ft)		855	855		628	628		1355	1355		289	289
Upstream Blk Time (%)											1	1
Queuing Penalty (veh)											4	4
Storage Bay Dist (ft)	120			145			180			185		
Storage Blk Time (%)	16	17		0	5		0	3		1	4	
Queuing Penalty (veh)	43	30		0	3		0	0		5	9	

Intersection: 2: LaSalle Ave & Georgia Street

Movement	EB	WB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	L	T	TR
Maximum Queue (ft)	92	51	38	32	77	101
Average Queue (ft)	35	21	6	3	5	8
95th Queue (ft)	70	48	27	17	41	49
Link Distance (ft)	191	219			548	548
Upstream Blk Time (%)	0					
Queuing Penalty (veh)	0					
Storage Bay Dist (ft)			115	90		
Storage Blk Time (%)					0	
Queuing Penalty (veh)					0	

Intersection: 3: LaSalle Ave & Michigan Dr/Driveway

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LT	R	L	T	TR	UL	T	TR
Maximum Queue (ft)	166	87	106	56	98	253	299	55	206	226
Average Queue (ft)	72	25	41	34	16	89	119	12	73	92
95th Queue (ft)	136	67	91	54	56	215	270	37	171	199
Link Distance (ft)	619		583			548	548		370	370
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)		150		40	190			215		
Storage Blk Time (%)	1	0	9	6	0	1			0	
Queuing Penalty (veh)	0	0	6	1	0	0			0	

Intersection: 4: LaSalle Ave & N Armistead Ave

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	UL	T	T	R	L	T	T	TR	R	L	LT	TR
Maximum Queue (ft)	125	268	227	101	75	60	90	102	15	196	198	141
Average Queue (ft)	51	162	116	30	18	6	24	43	1	145	165	114
95th Queue (ft)	125	252	215	76	54	32	68	94	10	224	231	162
Link Distance (ft)		1062	1062		112	112	112	112	112	131	131	131
Upstream Blk Time (%)					0	0	0	0		16	26	3
Queuing Penalty (veh)					0	0	0	1		42	69	7
Storage Bay Dist (ft)	125			400								
Storage Blk Time (%)	0	15										
Queuing Penalty (veh)	1	10										

Intersection: 4: LaSalle Ave & N Armistead Ave

Movement	SB	SB	SB
Directions Served	L	T	T
Maximum Queue (ft)	131	174	161
Average Queue (ft)	51	90	87
95th Queue (ft)	104	155	148
Link Distance (ft)		1062	1062
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	250		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: N Armistead Ave & Thomas Street

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB
Directions Served	L	T	T	T	T	T	TR	L	R
Maximum Queue (ft)	135	68	88	199	235	234	225	45	110
Average Queue (ft)	65	18	29	89	197	199	82	9	48
95th Queue (ft)	126	50	72	161	254	260	185	34	87
Link Distance (ft)	112	112	112	54	54	54	54		554
Upstream Blk Time (%)	3		0	27	50	55	22		
Queuing Penalty (veh)	7		0	84	153	167	68		
Storage Bay Dist (ft)								140	
Storage Blk Time (%)									0
Queuing Penalty (veh)									0

Intersection: 12: LaSalle Ave

Movement	NB
Directions Served	TR
Maximum Queue (ft)	23
Average Queue (ft)	1
95th Queue (ft)	11
Link Distance (ft)	161
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 14: LaSalle Ave

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	13	14
Average Queue (ft)	0	1
95th Queue (ft)	8	10
Link Distance (ft)	257	257
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 31: LaSalle Ave

Movement	EB	NB	SB	SB
Directions Served	R	T	T	T
Maximum Queue (ft)	401	4	10	43
Average Queue (ft)	197	0	0	4
95th Queue (ft)	378	5	6	23
Link Distance (ft)	382	370	161	161
Upstream Blk Time (%)	6			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 41: LaSalle Ave

Movement	NB	NB
Directions Served	T	TR
Maximum Queue (ft)	143	166
Average Queue (ft)	25	66
95th Queue (ft)	98	178
Link Distance (ft)	19	19
Upstream Blk Time (%)	4	14
Queuing Penalty (veh)	19	61
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 42: LaSalle Ave

Movement	NB	NB	SB	SB	SE
Directions Served	T	T	T	T	R
Maximum Queue (ft)	72	162	4	35	114
Average Queue (ft)	4	17	0	4	41
95th Queue (ft)	38	91	3	21	83
Link Distance (ft)	257	257	19	19	294
Upstream Blk Time (%)	0	0	0	0	
Queuing Penalty (veh)	0	0	0	2	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 51: N Armistead Ave & I-64 WB off ramp

Movement	WB	WB	WB	NB	SW
Directions Served	T	T	T	>	R
Maximum Queue (ft)	126	197	240	92	381
Average Queue (ft)	9	51	72	15	151
95th Queue (ft)	63	150	185	55	323
Link Distance (ft)		1345	1345	212	443
Upstream Blk Time (%)					1
Queuing Penalty (veh)					0
Storage Bay Dist (ft)	200				
Storage Blk Time (%)	0	0			
Queuing Penalty (veh)	0	0			

Network Summary

Network wide Queuing Penalty: 800

Diocese of Southern Virginia
Saint Cyprian's Episcopal Church
1242 West Queen Street
Hampton, Virginia 23669
757-723-8253
FAX: 757-723-8856

October 27, 2022

TO: City of Hampton Planning and Zoning Division/Planning Commission

CC: Olde Hampton Village Developers, LLC

FROM: The Very Rev. Dr. Ronald Ramsey, St. Cyprian's Episcopal Church RER

RE: Support for the Olde Hampton Village Development

The Vestry of St. Cyprian's Episcopal Church at 1242 West Queen Street, Hampton is happy to support the Olde Hampton Village Development. The plans presented to us by Nick Jacovides of EDC Homes and Ross Vierra of Axis Global Enterprises are thoughtful and visionary. Their proposal takes into consideration the need for fee simple properties, rental apartments and senior residences in our neighborhood. We believe that this project, once completed, will add significant value to the surrounding properties and make our neighborhood an attractive place to live for people in search of a new home in Hampton.

We have expressed our desire both orally and in writing that the natural forest green barrier behind the church along the property line be preserved. We are concerned about the privacy of the new residents if this barrier is removed and about the potential loss of the natural beauty the barrier provides. In addition, the easement (Gravel Drive and Asphalt Drive), which crosses our property, was intended for use by a single family home. Given this original intention, we expect that the easement will continue to be used as a private road only and not for any construction traffic. We have also received assurances that the physical integrity and beauty of our property will not be diminished by the construction of these new residences.

With these concerns being addressed to our satisfaction, we offer our full support for the Olde Hampton Village Development.

Mailing Address: P.O. Box 65
Hampton, VA 23669-0065

Office@stcyprianshamptonva.org