# City of St. Charles 

TWO EAST MAIN STREET
ST. CHARLES, ILLINOIS 60174-1984


COMMUNITY \& ECONOMIC DEV./PLANNING DIVISION Phone: (630) 377-4443 fax: (630) 377-4062

## Zoning Map Amendment Application



## Instructions:



To request a zoning map amendment (rezoning) for a property, complete this application and submit it with all required attachments to the Planning Division.
City staff will review submittals for completeness and for compliance with applicable requirements prior to establishing a Plan Commission public hearing or meeting date.

The information you provide must be complete and accurate. If you have a question please call the Planning Division and we will be happy to assist you.

| 1. Property Information: | Location: 26 Acres at Mark and 9th Street, St. Charles, IL |  |
| :---: | :---: | :---: |
|  | $\begin{array}{\|l\|} \text { Parcel Number (s): } \begin{array}{l} \text { 09-27-303-001, } 09-28-452-003, ~ 09-28-476-008,09-28-479-019, \\ 09-28-477-003, ~ 09-28-477-008, ~ 09-28-478-011, ~ 09-28-477-014, ~ 09-28-400-002, ~ 09-28-400-003 ~ \end{array} \end{array}$ |  |
|  | Proposed PUD Name: Lexington Club |  |
| 2. Applicant Information: | Name Lexington Homes, LLC | Phone <br> (773) 360-0300 |
|  | $\begin{array}{\|l} \hline \text { Address } \\ \\ \\ \\ \\ \text { Chicago, IL } 60614 \end{array}$ | Fax (773) 360-0301 |
|  |  | Email brotolo@lexingtonchicago.com |
| 3. Record Owner Information: | Name St. Charles - 333 North Sixth Street LLC | Phone (773) 360-0300 |
|  | Address  <br>  1731 N. Marcey Street, \#200 <br>  Chicago, IL 60614 | Fax (773) 360-0301 |
|  |  | Email brotolo@lexingtonchicago.com |

## Zoning and Use Information:

Comprehensive Plan Land Use Designation of the property: ATTACHED SINGLE FAMmLUX of DEWACHEN SINGCE FAm!LY
Current zoning of the property: $R M-2 P U D \& R T-3 P U D$
Is the property a designated Landmark or in a Historic District? NO
Current use of the property: $V A C A N$ :
Proposed zoning of the property: $R T-3$
Proposed use of the property: RESWENLUT PUD
If the proposed Map Amendment is approved, what improvements or construction are planned? (An accurate site plan may be required to establish that the proposed improvement can meet the minimum zoning requirements)
SEEPRELIMINAA: PUP SHE PLAN \& PLAT.

## Attachment Checklist:

If multiple zoning or subdivision applications are being submitted concurrently, do not submit duplicate checklist items or plans. Fee must be paid for each application.

## - APPLICATION FEE:

Application fee in accordance with Appendix B of the Zoning Ordinance. (\$500)
a REIMBURSEMENT OF FEES AGREEMENT:
An original, executed Reimbursement of Fees Agreement and deposit of funds in escrow with the City, as provided by Appendix B of the Zoning Ordinance.

## - REIMBURSEMENT OF FEES INITIAL DEPOSIT:

Deposit of funds in escrow with the City. Required deposit is based on review items (number of applications filed) and the size of the site:

| Number of <br> Review Ilems | Under 5 Acres | 5-15 Acres | 16-75 Acres | Over 75 Acres |
| :---: | :---: | :---: | :---: | :---: |
| 1 | $\$ 1,000$ | $\$ 2,000$ | $\$ 3,000$ | $\$ 4,000$ |
| 2 or 3 | $\$ 2,000$ | $\$ 4,000$ | $\$ 5,000$ | $\$, 000$ |
| 4 or more | $\$ 3,000$ | $\$ 5,000$ | $\$ 7,000$ | $\$ 10,000$ |

## - PROOF OF OWNERSHIP and DISCLOSURE:

a) A current title policy report; or
b) A deed and a current title search.

If the owner is not the applicant, an original letter of authorization from the owner permitting the applicant to act on his/her behalf is required. If the owner or applicant is a Trust, a disclosure of all beneficiaries; if the owner or applicant is a Partnership, a disclosure of all partners; if the owner or applicant is a Corporation, a disclosure of all owners with an interest of at least ten percent ( $10 \%$ ).
NOTE: Private covenants and deed restrictions can limit private property rights with respect to the use of land even though the City's Zoning Ordinance may authorize the use or a less restrictive use. We strongly advise that you perform a title search on the property to determine if there any private covenants containing use restrictions or other deed restrictions, As those private covenants and deed restrictions may conflict with the City's Zoning Ordinance, it is further recommended that you consult with an attorney to obtain an opinion with respect to whether your intended use is compatible with those restrictions.
a LEGAL DESCRIPTION: For entire subject property, on $81 / 2 \times 11$ inch paper

- PLAT OF SURVEY:

A current plat of survey for the Subject Realty showing all existing improvements on the property, prepared by a registered Illinois Professional Land Surveyor.

- SITE PLAN:

Simple site plan drawn to scale to demonstrate that the property can meet the requirements of the proposed zoning district (parking requirements, setbacks, landscaping, etc.)

- FINDINGS OF FACT:

Fill out the attached form or submit responses on a separate sheet.

- LIST OF PROPERTY OWNERS WITHIN 250 FT.

Fill out the attached form or submit on a separate sheet. The form or the list must be signed and notarized.

- SOIL AND WATER CONSERVATION DISTRICT APPLICATION:

Copy of completed Land Use Opinion application as required by state law, as submitted to The Kane-Dupage Soil and Water Conservation District. htur://www, kanedupageswed. ore/
Submit the application form and fee directly to the Kane-DuPage Soil and Water Conservation District. Provide a copy with this application.

## - ENDANGERED SPECIES REPORT:

Copy of Endangered Species Consultation Agency Action to be filed with the Illinois Department of Natural Resources. hitp://dnrecocat.state,il.us/ecopublic/
Fill out the online form, print the report and submit with this application.

1 (we) certify that this application and the documents submitted with it are true and correct to the best of my (our) knowledge and belief.


## Ownership Disclosure Form <br> Limited Liability Company (L.L.C.)

State of illinois ) ) SS.
Kane County )
I, Ronald Bench being first duly sworn on oath depose and say that I am Manager of St. Charles - $33 N \cdot 6 \pm 37$ L LC , an Illinois Limited Liability Company (L.L.C.), and that the following persons are all of the members of the said L.L.C.:

Ronald Bench, Mgr. $\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Ste. $2144100-333 N \cdot 6+5 t, 42 \bar{c}$

By:


Subscribed and Sworn before me this
 day of January
$\qquad$


## Findings of Fact - Map Amendment

The St. Charles Zoning Ordinance requires the Plan Commission to consider factors listed below in making a recommendation to the City Council.

As an applicant, the "burden of proof" is on you to show why the proposed zoning is more appropriate than the existing zoning. Therefore, you need to "make your case" by


ST, CHARLES SINCE 1834 explaining how the following factors support your proposal. If a factor does not apply to the property in question, indicate "not applicable" and explain why it does not apply.

## Lexington Club

January 19, 2015
Project Name or Address
Date

## From the Charles Zoning Ordinance, Section 17.04.320.D:

In making its recommendation to grant or deny an application for a Zoning Map Amendment, including changes to Zoning District and Overlay boundaries, the Plan Commission shall consider:

1. The existing uses and zoning of nearby property. (Relate the proposed land use and zoning to the land use and zoning of other properties in the area)

The subject property is bounded by existing industrial M-1 zoning and uses along the westerly, northwesterly (across the railroad ROW), and a portion of the south central and easterly boundaries of the site. The balance of the surrounding land use is residential with RM-2, RT-2, RT-3, and RT-4 zoning along the southern part of the subject property and RS-3 and RM-2 zoning along the north across the railroad ROW. The existing zoning on the subject property is RT-3 in the northeast part of the property and RM-2 for the balance of the property.
2. The extent to which property values are diminished by the existing zoning restrictions. (Compare the value of the subject property and nearby properties under the current zoning to their potential value under the proposed zoning.)

The subject property has been previously rezoned from the M-1 zoning district to the RM-2 and RT-3 zoning districts per a approved PUD plan. The proposed rezoning of the RM-2 portion of the property to the RT-3 zoning category will allow the development of single family homes on the entire property versus the currently permitted townhomes under the existing RM-2 zoning. The RT-3 will provide for a more marketable product based on current market conditions which will help facilitate a more timely redevelopment of the property and thereby, expedite the elimination of a site whose current degraded condition has a negative impact on the adjacent property values caused by the past industrial uses on the property.
3. The extent to which the reduction of the property's value under the existing zoning restrictions promotes the health, safety, morals or general welfare of the public. (If the existing zoning decreases the value of the subject realty, does it also produce any perceptible public benefits?

The existing RM-2 and RT-3 zoning on the subject property were approved as part of an overall PUD plan consistent with the objectives of the City's Comprehensive Plan to re-zone and redevelop the subject property from obsolete M-1 uses to residential uses. The proposed RT-3 re-zoning of the RM-2 portion of the property will further promote the health, safety, morals, and general welfare of the public by reducing density from that permitted under the current approved plan and zoning which will create an all single family development more compatible with the surrounding neighborhoods.
4. The suitability of the property for the purposes for which it is presently zoned, i.e. the feasibility of developing the property for one or more of the uses permitted under the existing zoning classification. (Can the subject property reasonably be used for any of the uses currently permitted? Physical and market conditions may be considered.)

The portion of the property currently zoned RM-2 allows for the development of 102 townhome units. Based on current market conditions, there is limited demand for attached housing at the price points necessary to be achieved in order to develop the current site plan. The proposed rezoning to RT-3 will allow for the development of single family homes which have a greater market appeal that will initiate a more timely redevelopment of the property.
5. The length of time that the property has been vacant, as presently zoned, considered in the context of the land development in the area where the property is located. (If a property has been vacant longer than other similar properties in the area, it may be an indicator that the existing zoning is inappropriate.)

The subject property has remained an inactive and obsolete industrial site for an extended period of time. The existing RM-2 and RT-3 zoning was approved under a PUD to facilitate the redevelopment of the property. The request to re-zone the RM-2 portion to RT-3 is a refinement to the approved PUD to permit a change in the primary product from townhome to single family so as to be more responsive to current market conditions and thereby, to help accelerate the redevelopment process.
6. The evidence, or lack of evidence, of the community's need for the uses permitted under the proposed district. (Development trends, market forces, and the Comprehensive Plan may be considered.)

The Comprehensive Plan includes residential uses for the subject property. The proposed rezoning of a portion of the property maintains the residential use and would allow for an all single family residential development more consistent with current development trends and market preferences.
7. The consistency of the proposed amendment with the City's Comprehensive Plan.

The proposed map amendment would allow for additional single family uses which is consistent with the Comprehensive Plan in terms of creating a single family neighborhood more in scale and character to the existing adjacent neighborhoods.
8. Whether the proposed amendment corrects an error or omission in the Zoning Map.

Not Applicable
9. The extent to which the proposed amendment creates nonconformities. (Generally it is not appropriate to rezone a property unless it can comply with the requirements of the new zoning.)

To the Applicant's knowledge, the proposed map amendment will not create or cause any nonconformities to exist within the subject property or adjacent properties under the City's Zoning Ordinance
10. The trend of development, if any, in the general area of the property in question. (New development, redevelopment, changes in use, or other changes in the area may help to justify a change in zoning.)

The housing industry has undergone an unprecedented recession over the last several years. Although the market conditions are still soft, single family homes are more marketable than townhomes. The proposed map amendment to permit more single family is a direct response to these circumstances. The proposed modest lot sizes and detailed and varied architecture is consistent with the trend of development where the buyer is looking for less maintenance and better not bigger housing to suit their current needs and lifestyle.

Plan Commission recommendation shall be based upon the preponderance of the evidence presented and the Commission shall not be required to find each Finding of Fact in the affirmative to recommend approval of an application for Map Amendment.

# City of St. Charles 

TWO EAST MAIN STREET
ST. CHARLES, ILLINOIS 60174-1984

## Special Use Application

(To request a Special Use or Amendment, or a Special Use for PUD or Amendment)

| For City Use Project Name: | Cexinxtas als |
| :---: | :---: |
| Project Number: | 2807 - 20222 |
| Application Number: | $2015-A P-000$ |

To request a Special Use for a property, or to request to amend an existing Special Use Ordinance for a property, complete this application and submit it with all required attachments to the Planning Division.

City staff will review submittals for completeness and for compliance with applicable requirements prior to establishing a public hearing date for an application.

The information you provide must be complete and accurate. If you have a question please call the Planning Division and we will be happy to assist you.

| 1. Property <br> Information: | Location: | 26 Acres at Mark and 9th Street, St. Charles, IL |
| :--- | :--- | :--- | :--- | :--- | :--- |

## Please check the type of application:

$\square$ Special Use for Planned Unit Development - PUD Name:
LEXINGTON CLUB
$\square$ New PUD
Q. Amendment to existing PUD- Ordinance $\#$ :
$2013-2 \cdot 2$
D. PUD Preliminary Plan filed concurrently
$\square$ Other Special Use (from list in the Zoning Ordinance): $\qquad$
$\square$ Newly established Special Use
$\square$ Amendment to an existing Special Use Ordinance \#:

## Information Regarding Special Use:

Comprehensive Plan designation of the property: ATTACHED SINGLEFAMMLQ Q
Is the property a designated Landmark or in a Historic District? NO
What is the property's current zoning?
$R M-2 P U D \& R T 3 P U D$
What is the property currently used for?
vacant
If the proposed Special Use is approved, what improvements or construction are planned?
REDEVELOPMENT OF ANOBSOLETE INOUSTRIAL STTETO A
RESIDENTIA COMMUNIT:

## For Special Use Amendments onlv:

Why is the proposed change necessary?
TOCHANGE THE PREDOMNANT HOUSWG TTHE ON THE APPROUGD
PUD PLAN FROMTOWNHOMES TO SINGLE FAMILY TO ADDRESS MARKEG CONDITIONS.
What are the proposed amendments? (Attach proposed language if necessary)
ARE-2ONING OF THE EXISTWGRM-2 PORTIONTO RT-3 ANA AREUISED
PUD SIUE PLAN TO REFLELI AND INCOMOMTE AN ALL SWGLE FAMILY Monou Fon tuE Propenty.

## Note for existing buildings:

If your project involves using an existing building, whether you plan to alter it or not, please contact the St . Charles Fire Department (630-377-4458) and the Building and Code Enforcement Division (630-377-4406) for information on building, life safety and other code requirements. Depending on the proposed use, size of structure and type of construction, these requirements can result in substantial costs.

## Attachment Checklist:

If multiple zoning or subdivision applications will be submitted concurrently, do not submit duplicate checklist items or plans. Fee must be paid for each application.

## - APPLICATION FEE:

Application fee in accordance with Appendix B of the Zoning Ordinance. (Special Use for PUD $\$ 1,000$; all other Special Use requests \$750)

## - REIMBURSEMENT OF FEES AGREEMENT:

An original, executed Reimbursement of Fees Agreement and deposit of funds in escrow with the City, as provided by Appendix B of the Zoning Ordinance.

- REIMBURSEMENT OF FEES INITIAL DEPOSIT:

Deposit of funds in escrow with the City. Required deposit is based on review items (number of applications filed) and the size of the site:

| Number of <br> Review Items | Under 5 Acres | $5-15$ Acres | $16-75$ Acres | Over 75 Acres |
| :---: | :---: | :---: | :---: | :---: |
| 1 | $\$ 1,000$ | $\$ 2,000$ | $\$ 3,000$ | $\$ 4,000$ |
| 2 or 3 | $\$ 2,000$ | $\$ 4,000$ | $\$ 5,000$ | $\$ 7,000$ |
| 4 or more | $\$ 3,000$ | $\$ 5,000$ | $\$ 7,000$ | $\$ 10,000$ |

## - PROOF OF OWNERSHIP and DISCLOSURE:

a) A current title policy report; or
b) A deed and a current title search.

If the owner is not the applicant, an original letter of authorization from the owner permitting the applicant to act on his/her behalf is required. If the owner or applicant is a Trust, a disclosure of all beneficiaries; if the owner or applicant is a Partnership, a disclosure of all partners; if the owner or applicant is a Corporation, a disclosure of all owners with an interest of at least ten percent ( $10 \%$ ).

NOTE: Private covenants and deed restrictions can limit private property rights with respect to the use of land even though the City's Zoning Ordinance may authorize the use or a less restrictive use. We strongly advise that you perform a title search on the property to determine if there any private covenants containing use restrictions or other deed restrictions. As those private covenants and deed restrictions may conflict with the City's Zoning Ordinance, it is further recommended that you consult with an attorney to obtain an opinion with respect to whether your intended use is compatible with those restrictions.

LEGAL DESCRIPTION: For entire subject property, on $81 / 2 \times 11$ inch paper

- PLAT OF SURVEY:

A current plat of survey for the Subject Realty showing all existing improvements on the property, prepared by a registered Illinois Professional Land Surveyor.

## - FINDINGS OF FACT:

Fill out the attached forms or submit responses on a separate sheet (Submit "Criteria for PUD" for any PUD application; "Findings for Special Use" for all other Special Use applications.)

- LIST OF PROPERTY OWNERS WITHIN 250 FT.:

Fill out the attached form or submit on a separate sheet. The form or the list must be signed and notarized.

## - SOIL AND WATER CONSERVATION DISTRICT APPLICATION:

Copy of completed Land Use Opinion application as required by state law, as submitted to The Kane-Dupage Soil and Water Conservation District. http://www.kanedupageswed.org/

Submit the application form and fee directly to the Kane-DuPage Soil and Water Conservation District. Provide a copy with this application.

## - ENDANGERED SPECIES REPORT:

Copy of Endangered Species Consultation Agency Action to be filed with the Illinois Department of Natural Resources. http://dnr.illinois.gov/EcoPublic/

Fill out the online form, print the report and submit with this application.

- TRAFFIC STUDY: If requested by the Director of Community Development.

Staff will advise you whether a traffic study is recommended based on the project. Regardless, the Plan Commission or City Council may request a traffic study as a part of the review process.

## - PLANS:

All required plans shall be drawn on sheets no larger than $24^{\prime \prime} \times 36^{\prime \prime}$, unless the Director of Community Development permits a larger size when necessary to show a more comprehensive view of the project. All required plans shall show north arrow and scale, and shall be drawn at the same scale (except that a different scale may be used to show details or specific features). All plans shall include the name of the project, developer or owner of site, person or firm preparing the plan, and the date of plan preparation and all revisions.

## Copies of Plans:

Initial Submittal - Ten (10) full size copies, Three (3) 11 " by 17 ", and a PDF electronic file (On a CD-ROM or may be emailed to the Project Manager). For subsequent submittals, please contact the Project Manager to determine how many copies are required.

- SITE PLAN (Note: For a Special Use for PUD, submit PUD Preliminary Plan Application in lieu of Site Plan)

A plan or plans showing the following information:

1. Accurate boundary lines with dimensions
2. Streets on and adjacent to the tract: Name and right-of-way width
3. Location, size, shape, height, and use of existing and proposed structures
4. Location and description of streets, sidewalks, and fences
5. Surrounding land uses
6. Date, north point, and scale ${ }^{2}$
7. Ground elevation contour lines
8. Building/use setback lines
9. Location of any significant natural features
10. Location of any 100 -year recurrence interval floodplain and floodway boundaries
11. Location and classification of wetland areas as delineated in the National Wetlands Inventory
12. Existing zoning classification of property
13. Existing and proposed land use
14. Area of property in square feet and acres
15. Proposed off-street parking and loading areas
16. Number of parking spaces provided, and number required by ordinance
17. Angle of parking spaces
18. Parking space dimensions and aisle widths
19. Driveway radii at the street curb line
20. Width of driveways at sidewalk and street curb line
21. Provision of handicapped parking spaces
22. Dimensions of handicapped parking spaces
23. Depressed ramps available to handicapped parking spaces
24. Location, dimensions and elevations of freestanding signs
25. Location and elevations of trash enclosures
26. Provision for required screening, if applicable
27. Exterior lighting plans showing:
a. Location, height, intensity and fixture type of all proposed exterior lighting
b. Photometric information pertaining to locations of proposed lighting fixtures

I (we) certify that this application and the documents submitted with it are true and correct to the best of my (our) knowledge and belief.

Ronald Benach.Mgn


## Criteria for Planned Unit Developments (PUDs)

*For Special Use for PUD or PUD Amendment applications. *
The St. Charles Zoning Ordinance requires the Plan Commission to consider the
 criteria listed below in making a recommendation to the City Council on whether a proposed Planned Unit Development is in the public interest.

As the applicant, the "burden of proof" is on you to provide information that addresses the criteria below in order to demonstrate that the project is in the public interest.
(You may utilize this form or provide the responses on another sheet.)

Lexington Club<br>PUD Name

January 19, 2015

## Date

## From the St. Charles Zoning Ordinance, Section 17.04.410.3:

The Plan Commission shall not favorably recommend, and the City Council shall not approve, a Special Use for a PUD or an amendment to a Special Use for a PUD unless they each make findings of fact based on the application and the evidence presented at the public hearing that the PUD is in the public interest, based on the following criteria:
i. The proposed PUD advances one or more of the purposes of the Planned Unit Development procedure stated in Section 17.04.400.A:

1. To promote a creative approach to site improvements and building design that results in a distinctive, attractive development that has a strong sense of place, yet becomes an integral part of the community.
2. To create places oriented to the pedestrian that promote physical activity and social interaction, including but not limited to walkable neighborhoods, usable open space and recreational facilities for the enjoyment of all.
3. To encourage a harmonious mix of land uses and a variety of housing types and prices.
4. To preserve native vegetation, topographic and geological features, and environmentally sensitive areas.
5. To promote the economical development and efficient use of land, utilities, street improvements, drainage facilities, structures and other facilities.
6. To encourage redevelopment of sites containing obsolete or inappropriate buildings or uses.
7. To encourage a collaborative process among developers, neighboring property owners and residents, governmental bodies and the community

The proposed amendment to the approved PUD is consistent with the City's stated objectives of establishing a distinctive and attractive residential development within the subject property through the elimination of dilapidated buildings and structures, the mitigation of existing environmental hazards and the transition of land use to a residential community that is more compatible with the existing adjacent neighborhoods. The existing State Street creek corridor along the southern portion of the property is being protected with pedestrian connections to the Belgium Town Park and the future trail proposed for the
railroad spur line located along the north property line. Considerable emphasis has been placed on varied, yet compatible, architectural designs for the proposed single family house types within the subject property. The proposed pedestrian links, open space preservation and architectural components of the proposed amendment to the PUD all serve to implement the purposes and objectives as set forth and articulated in the City's Zoning Ordinance for planned unit developments.
ii. The proposed PUD and PUD Preliminary Plans conform to the requirements of the underlying zoning district or districts in which the PUD is located and to the applicable Design Review Standards contained in Chapter 17.06, except where:
A. Conforming to the requirements would inhibit creative design that serves community goals, or
B. Conforming to the requirements would be impractical and the proposed PUD will provide benefits that outweigh those that would have been realized by conforming to the applicable requirements.

Factors listed in Section 17.04.400.B shall be used to justify the relief from requirements:

1. The PUD will provide community amenities beyond those required by ordinance, such as recreational facilities, public plazas, gardens, public are, pedestrian and transit facilities.
2. The PUD will preserve open space, natural beauty and critical environmental areas in excess of what is required by ordinance or other regulation.
3. The PUD will provide superior landscaping, buffering or screening.
4. The buildings within the PUD offer high quality architectural design.
5. The PUD provides for energy efficient building and site design.
6. The PUD provides for the use of innovative stormwater management techniques.
7. The PUD provides accessible dwelling units in numbers or with features beyond what is required by the Americans with Disabilities Act (ADA) or other applicable codes.
8. The PUD provides affordable dwelling units in conformance with, or in excess of, City policies and ordinances.
9. The PUD preserves historic buildings, sites or neighborhoods.

For the reasons as set forth in item (i) above, and to accommodate the proposed reduction in the existing approved density from 130 units to 107 units by eliminating the townhome product and changing to an all single family development while still providing $34.8 \%$ of the site in open space, to permit a diversity of architectural styles and square footages and to facilitate the redevelopment of a challenging site, certain departures from the City's Zoning Ordinance are being requested as enumerated in the Residential Zoning Compliance Table elsewhere in this application.

## iii. The proposed PUD conforms with the standards applicable to Special Uses (section 17.04.330.C.2):

A. Public Convenience: The Special Use will serve the public convenience at the proposed location.

The City has identified objectives of removing the existing industrial buildings and structures as well as the mitigation of existing environmental problems affecting the site in order to benefit the public health, safety, and welfare of the community. The proposed amendment to the Special Use will serve to promote and facilitate those objectives.
B. Sufficient Infrastructure: That adequate utilities, access roads, drainage and/or necessary facilities have been, or are being, provided.

The proposed Special Use has been designed to address and comply with all applicable laws and regulations pertaining to public utilities, access, drainage and storm water detention so as to bring the subject property in full compliance with today's standards. Based upon the existing approved PUD plan there is and will be sufficient line and service capacity to accommodate the infrastructure requirements generated by the subject property when fully developed in conformance with the proposed Special Use
C. Effect on Nearby Property: That the Special Use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish or impair property values within the neighborhood.

The Special Use will implement the planning objectives as identified in the City's Comprehensive Plan for the subject property by transitioning from the obsolete industrial use to a residential use. The density of the proposed development, together with the architectural design quality and details will create a development that is more in character with the adjacent neighborhoods. As a result the Special Use will not be injurious to the use and enjoyment of other residential and industrial property in the immediate vicinity where the use is already permitted nor will it substantially diminish or impair values within the adjacent residential and industrial neighborhoods.
D. Effect on Development of Surrounding Property: That the establishment of the Special Use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.

The adjacent residential neighborhoods have been previously developed and are well established. The implementation of the Special Use will, therefor, not impede nor negatively impact the normal or orderly development and improvement of the surrounding residential neighborhoods. The proposed site plan for the Special Use has been designed to be sensitive to impacts generated from adjacent non-residential properties, which properties are also fully developed.
E. Effect on General Welfare: That the establishment, maintenance or operation of the Special Use will not be detrimental to or endanger the public health, safety, comfort or general welfare.

If adopted and implemented, the Special Use will serve to promote and improve the public health, safety, comfort and general welfare of the community by facilitating the elimination of dilapidated structures, the mitigation of environmental hazards and the transition to a more compatible residential character with the existing residential neighborhoods.
F. Conformance with Codes: That the proposed Special Use conforms to all existing Federal, State and local legislation and regulation and meets or exceeds all applicable provisions of this Title, except as may be varied pursuant to a Special Use for Planned Unit Development.

The proposed Special Use will fully conform with all applicable federal, state and local legislation and regulations, including, without limitation, the City's Zoning Ordinance and Subdivision Ordinance, except as to those variations or deviations which are expressly approved as a part of the Special Use.
iv. The proposed PUD will be beneficial to the physical development, diversity, tax base and economic well-being of the City.

The subject property in its current condition is a blight on the landscape. In addition, the past industrial activity upon the subject property has resulted in certain environmental contaminations which further inhibits the benefit and value of the subject property. The proposed PUD will eliminate the blighted condition, address the environmental challenges and convert the subject property into an attractive residential community that will enhance the value of the subject property, thereby, resulting in an improvement to the City's tax base.
v. The proposed PUD conforms to the purposes and intent of the Comprehensive Plan.

The proposed PUD has been designed in substantial compliance with the Comprehensive Plan for the subject property. The proposed dwelling types, residential density, site plan, utility plan, landscape plan and open space planning all are directed at accommodating the specific goals and objectives as set forth in the Comprehensive Plan.

## RESIDENTIAL ZONING COMPLIANCE TABLE

Name of Development: LEXINGTON CLUB

|  |  | Approved PUD Plans |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | RT-3 Zoning District | RT-3 Area (Single Family) | RM-2 Area (Townhomes) | Proposed Concept Plan |
| Minimum Lot Area | 5,000 sf | 5,884 sf | 3,912 sf per unit | $\begin{gathered} 4,452 \mathrm{sf} \\ \text { (average 5,161 sf) } \end{gathered}$ |
| Minimum Lot Width | 50 ft . | 56 ft . | 24 ft . | 42 ft . |
| Maximum Building Coverage | Buildings $11 / 2$ stories or less: $30 \%$ | 45\% | NA | 45\% |
| Maximum Building Coverage | Buildings over $11 / 2$ stories: $25 \%$ | 45\% | 35\% | 45\% |
| Max. Building Height | Lesser of 32 ft . or 2 stories | 32 ft . | 35 ft . | Greater of 37 ft. 10 in. or 2 stories |
| Min. Front Yard | 20 ft . | 20 ft . | 15-20 ft. | 20 ft . |
| Min. Interior Side Yard | Buildings over $11 / 2$ stories: greater of 6 ft . or $10 \%$ lot width | 5 ft . | 9 ft . | 5 ft . |
| Min. Exterior Side Yard | 15 ft . | $15-20 \mathrm{ft}$. | 15 ft . | 15 ft . <br> (10 ft. for Lot 27 only) |
| Min. Rear Yard | 30 ft . | 25 ft. | 25 ft . | 25 ft . |
| Max. Width of Attached, FrontLoaded Garage | $50 \%$ of overall building width | Meets requirement | Requirement does not apply | 66.7\% of overall building width |
| Set Back of Attached, Front-Loaded Garage | Garage 5 ft . back from front of house | Meets requirement | Requirement does not apply | Not met |

# STATEMENT OF PUBLIC BENEFIT AND DEPARTURES FROM EXISTING ZONING REQUIREMENTS 

Lexington Club PUD / January 20, 2015(rev. March 10, 2015)

Public Benefit:
The Lexington Club is an approved residential PUD to be constructed on blighted and environmentally contaminated industrial land within walking distance to the downtown. The proposed site plan and residential home designs have been designed to be in harmony with the residential character of the surrounding neighborhood and to eliminate the incompatibility which has existed due to past industrial use of the subject property. The redevelopment of the property will bring the subject property into full conformity with applicable storm water management and detention requirements, and will provide offsite roadway improvements to certain adjacent streets that will improve the infrastructure within the area. The site plan provides approximately $35 \%$ of the site in open space which includes the preservation of the State Street Creek corridor and the provision for trail connections to a future trail system along the north property line in the existing railroad spur line.

Departures:

1. Minimum Lot Size and Lot Width.

The applicant is seeking a reduction in the required $5,000 \mathrm{sf}$ minimum lot size to between $4,452 \mathrm{sf}$ and $4,700 \mathrm{sf}$ for approximately 52 or $48.6 \%$ of the 107 total proposed lots. The applicant is also seeking a reduction in the required minimum lot width of 50 ft . to between 42 ft . and 48 ft . for approximately 56 or $52.3 \%$ of the 107 proposed lots. The request is a result of the proposed amendment to the existing PUD to replace the townhome product with single family homes that results in a loss of 23 units for a $17.7 \%$ reduction in the overall density from the approved plan. The requested departure is necessary in order to maintain a reasonable number of units to help absorb the additional development and land costs that will be attributable to the fewer number of overall units.
2. Maximum Building Cover.

The existing approved PUD previously granted a departure to allow an increase in the maximum allowable building cover from the $25 \%$ to $30 \%$ permitted, based on the number of stories, to permit a maximum building cover of $45 \%$ for all model types. The prior justification for the increase in allowable building cover was to accommodate ranch and first floor master bedroom model type homes. These model types, which are also proposed for the amended PUD, produce a larger building footprint and therefor, a greater ground coverage that requires a higher percentage of the lot to be occupied by structure. It is expected that not all of the final unit designs will require the requested maximum building coverage, but will still require a departure. The applicant is seeking to retain the previously granted departure to permit a maximum building cover of $45 \%$ for all model types for the proposed amended PUD plan.

## 3. Maximum Building Height.

An integral part of the architecture for the amended PUD plan is to include a variety of different historical and trend setting exterior elevation styles which traditionally have higher roofs due to steeper roof pitches. The applicant is seeking a departure to increase the maximum allowable building height from the required 32 ft . or 2 stories to the greater of 37 ft .10 in . or 2 stories in order to enable the use of these thematic elevations.

## 4. Minimum Interior Side Yard:

The existing approved PUD previously granted a departure to reduce the required minimum interior side yard of 6 ft . or $10 \%$ of the lot width for $11 / 2$ stories to 5 ft . The applicant is seeking to retain the previously granted 5 ft . minimum side yard departure for the proposed amended PUD plan.

## 5. Minimum Exterior Side Yard:

The applicant is seeking a departure to reduce the required minimum exterior side yard from the 15 ft . required to 10 ft . for lot 27 only. This lot is in the northeast part of the property and backs on to a large permanent open space area. The 5 ft . reduction provides extra lot width to allocate to adjacent lots, which creates a more meaningful and aesthetic value to the streetscape.

## 6. Maximum Width of Attached Front Loaded Garage:

The applicant is seeking a departure to permit an increase in the percentage of the maximum width of an attached front loaded garage to the overall building width from the $50 \%$ required to $66.7 \%$. The architecture for the proposed amended PUD includes a variety of architectural details and elements as an alternative solution to addressing garages. In addition, the site plan includes a distribution of wider lots that will accommodate side-loaded garage product to further address the garages.

## 7. Minimum Setback of Attached Front Loaded Garage:

The applicant is seeking a waiver to eliminate the 5 ft . setback requirement for an attached front loaded garage from the front façade of the building. As per (6) above, the architecture and site plan have incorporated alternate solutions to reduce the impact of the garage on the streetscape.

# City of St. Charles 

TWO EAST MAIN STREET
ST. CHARLES, ILLINOIS 60174-1984

COMMUNITY \& ECONOMIC DEV./PLANNING DIVISION Phone: (630) 377-4443 fax: (630) 377-4062

## PUD Preliminary Plan Application



To request approval of a PUD Preliminary Plan, complete this application and submit it with all required plans and attachments to the Planning Division. Normally this application will track with an application for Special Use for a PUD, unless a Special Use for a PUD has previously been granted and no amendment is necessary.
When the application is complete staff will distribute the plans to other City departments for review. When the staff has determined that the plans are ready for Plan Commission review, we will place the PUD Preliminary Plan on a Plan Commission meeting agenda.

The information you provide must be complete and accurate. If you have a question please call the Planning Division and we will be happy to assist you.

| 1. Property Information: | Location: 26 Acres at Mark and 9th Street, St. Charles, IL |  |
| :---: | :---: | :---: |
|  | Parcel Number (s): 09-27-303-001, 09-28-452-003, 09-28-476-008, 09-28-479-019, <br> 09-28-477-003, 09-28-477-008, 09-28-478-011, 09-28-477-014, 09-28-400-002, 09-28-400-003 |  |
|  | Proposed PUD Name: |  |
| 2. Applicant Information: | Name Lexington Homes, LLC | Phone <br> (773) 360-0300 |
|  | 1731 N. Marcey Street, \#200 Chicago, IL 60614 | Fax (773) 360-0301 |
|  |  | Email brotolo@lexingtonchicago.com |
| 3. Record Owner Information: | St. Charles - 333 North Sixth Street LLC <br> 1731 N. Marcey Street, \#200 Chicago, IL 60614 | Phone (773) 360-0300 |
|  |  | Fax (773) 360-0301 |
|  |  | Email brotolo@lexingtonchicago.com |

## Please check the tyo of application:

New proposed PUD- Plamned Unit Development (Special Use Application filed concurrently)
Existing PUD-Planned Unit Development
Q PUD Amendment Required for proposed plan (Special Use Application filed concurrently)

## Subdivision of land:



Proposed lot has already been platted and a new subdivision is not required.
(X) New subdivision of property required:Final Plat of Subdivision Application filed concurrently
Final Plat of Subdivision Application to be filed later

## Attachment Checklist:

If muliiple zoning or subdivision applications are being submitted concurrently, do not submit duplicate checklist items or plans. Fee must be paid for each application.

Note: The City Staff, Plan Commission, or City Council, may request other pertinent information during the review process.

- APPLICATION FEE: Application fee in accordance with Appendix B of the Zoning Ordinance. (\$500)
- REIMBURSEMENT OF FEES AGREEMENT:

An original, executed Reimbursement of Fees Agreement and deposit of funds in escrow with the City, as provided by Appendix $B$ of the Zoning Ordinance.

## - REIMBURSEMENT OF FEES INITIAL DEPOSIT:

Deposit of funds in escrow with the City. Required deposit is based on review items (number of applications fled) and the size of the site:

| Number of <br> Review Items | Under 5 Acres | 5-15 Acres | $16-75$ Acres | Over 75 Acres |
| :---: | :---: | :---: | :---: | :---: |
| 1 | $\$ 1,000$ | $\$ 2,000$ | $\$ 3,000$ | $\$ 4,000$ |
| 2 or 3 | $\$ 2,000$ | $\$ 4,000$ | $\$ 5,000$ | $\$ 7,000$ |
| 4 or more | $\$ 3,000$ | $\$ 5,000$ | $\$ 7,000$ | $\$ 10,000$ |

## - PROOF OF OWNERSHIP and DISCLOSURE:

a) a current title policy report; or
b) a deed and a current title search.

If the owner is not the applicant, an original Ietter of authorization from the owner permitting the applicant to act on his/her behalf is required. If the owner or applicant is a Trust, a disclosure of all beneficiaries; if the owner or applicant is a Partnership, a disclosure of all partners; if the owner or applicant is a Corporation, a disclosure of all owners with an interest of at least ten percent ( $10 \%$ ).
NOTE: Private covenants and deed restrictions can limit private property rights with respect to the use of land even though the City's Zoning Ordinance may authorize the use or a less restrictive use. We strongly advise that you perform a title search on the property to determine if there any private covenants containing ase restrictions or other deed restrictions. As those private covenants and deed restrictions may conflict with the C'ill's Zoning Ordinance, it is further recommended that you consult with an attorney to obtain an opinion with respect to whether your intended use is compatible with those restrictions.

- LEGAL DESCRIPTION: For entire subject property, on $81 / 2 \times 11$ inch paper


## - PLAT OF SURVEY:

A current plat of survey for the Subject Realty showing all existing improvements on the property, prepared by a registered Illinois Professional Land Surveyor.

## - SOIL AND WATER CONSERVATION DISTRICT APPLICATION:

Copy of completed Land Use Opinion application as required by state law, as submitted to The Kane-Dupage Soil and Water Conservation District. http://www.kanedupageswed.org/

Submit the application form and fee directly to the Kane-DuPage Soil and Water Conservation District. Provide a copy with this application.

## - ENDANGERED SPECIES REPORT:

Copy of Endangered Species Consultation Agency Action to be filed with the Illinois Department of Natural Resources. http://dnr.illinois.gov/EcoPublic/

Fill out the online form, print the report and submit with this application.

## - PLANS:

All required plans shall be drawn on sheets no larger than $24^{\prime \prime} \times 36^{\prime \prime}$, unless the Director of Community Development permits a larger size when necessary to show a more comprehensive view of the project. All required plans shall show north arrow and scale, and shall be drawn at the same scale (except that a different scale may be used to show details or specific features). All plans shall include the name of the project, developer or owner of site, person or firm preparing the plan, and the date of plan preparation and all revisions.

## Copies of Plans:

Initial Submittal - Ten (10) full size copies for non-residential projects OR Twelve (12) full size copies for residential projects; Three (3) $11^{\prime \prime}$ by $17^{\prime \prime}$; and a PDF electronic file (On a CD-ROM or may be emailed to the Project Manager). For subsequent submittals, please contact the Project Manager to determine how many copies are required.

## - SITE/ENGINEERING PLAN:

## PRELIMINARY ENGINNERING PLANS - DRAWING REQUIREMENTS/CHECKLIST:

Complete the attached checklist and ensure that all required information is included on the Preliminary Engineering Plans:

1. Accurate boundary lines with dimensions
2. Existing and proposed easements: location, width, purpose
3. Streets on and adjacent to the tract: Name and right-of-way width, center line elevation, and culverts
4. Location, size, shape, height, and use of existing and proposed structures
5. Location and description of streets, sidewalks, and fences
6. Surrounding land uses
7. Legal and common description
8. Date, north point, and scale
9. Existing and proposed topography
10. All parcels of land intended to be dedicated for public use or reserved for the use of all property owners with
the proposal indicated
11. Location of utilities
12. Building/use setback lines
13. Location of any significant natural features
14. Location of any 100 -year recurrence interval floodplain and floodway boundaries
15. Location and classification of wetland areas as delineated in the National Wetlands Inventory
16. Existing zoning classification of property
17. Existing and proposed land use
18. Area of property in square feet and acres
19. Proposed off-strect parking and loading areas
20. Number of parking spaces provided, and number required by ordinance
21. Angle of parking spaces
22. Parking space dimensions and aisle widths
23. Driveway radii at the street curb line
24. Width of driveways at sidewalk and street curb line
25. Provision of handicapped parking spaces
26. Dimensions of handicapped parking spaces
27. Depressed ramps available to handicapped parking spaces
28. Location, dimensions and elevations of freestanding signs
29. Location and elevations of trash enclosures
30. Provision for required screening, if applicable
31. Provision for required public sidewalks
32. Certification of site plan by a registered land surveyor or professional engineer
33. Geometric plan showing all necessary geometric data required for accurate layout of the site
34. Grading plans showing paving design, all storm sewers, and detention/retention facilities including detention/retention calculations) and erosion control measures
35. Utility plans showing all storm sewers, sanitary sewers, watermains, and appropriate appurtenant structures
36. Exterior lighting plans showing:

- Location, height, intensity and fixture type of all proposed exterior lighting
- Photometric information pertaining to locations of proposed lighting fixtures

37. Typical construction details and specifications
38. Certification of site engineering plans by a registered professional engineer
39. Proof of application for Stormwater Management Permit

## - SKETCH PLAN FOR LATER PHASES OF PUD: (N, A.)

For phased PUD's, where a sketch plan is permitted, it shall include, at minimum, the following:

- General location of arterial and collector streets
- Location of any required landscape buffers
- Location of proposed access to the site from public streets
- Maximum number of square feet of floor area for nonresidential development
- Maximum number of dwelling units for residential development
- Open space and storm water management land


## - ARCHITECTURAL PLANS:

Architectural plans and data for all principal buildings shall be submitted in sufficient detail to permit an understanding of the exterior appearance and architectural style of the proposed buildings, the number, size and type of dwelling units, the proposed uses of nonresidential and mixed use buildings, total floor area and total building coverage of each building.

## - TREE PRESERVATION PLAN:

Tree Preservation Plan when required in accordance with Chapter 8.30 of the St. Charles Municipal Code. The information required for this plan may be included as part of the Landscape Plan set. See attachment, "Tree Preservation Requirements for Preliminary Plans".

## - LANDSCAPE PLAN:

Landscape Plan showing the following information:

1. Delineation of the buildings, structures, and paved surfaces situated on the site and/or contemplated to be built thereon
2. Delineation of all areas to be graded and limits of land disturbance, including proposed contours as shown on the Site/Engineering Plan.
3. Accurate property boundary lines
4. Accurate location of proposed structures and other improvements, including paved areas, berms, lights, retention and detention areas, and landscaping
5. Site area proposed to be landscaped in square feet and as a percentage of the total site area
6. Percent of landscaped area provided as per code requirement
7. Dimensions of landscape islands
8. Setbacks of proposed impervious surfaces from property lines, street rights-of-way, and private drives
9. Location and identification of all planting beds and plant materials
10. Planting list including species of all plants, installation size (caliper, height, or spread as appropriate) and quantity of plants by species
11. Landscaping of ground signs and screening of dumpsters and other equipment

## - STORMWATER MANAGEMENT:

Written information (reports, calculations, etc.) as described in the Stormwater Management Requirements for Preliminary Plans (attached)

## - SUBDIVISION PLAT DRAWING REQUIREMENTS/CHECKLIST:

If the PUD Preliminary Plan involves the subdivision of land, a completed Subdivision Plat Drawing Requirements Checklist must be submitted.

## - PUBLIC BENEFITS, DEPARTURES FROM CODE:

A description of how the PUD meets the purposes and requirements set out in Section 17.04.400 of the Zoning Ordinance. Any requests for departures from the requirements of Title 16, "Subdivisions and Land Improvement," and Title 17, "Zoning," shall be listed and reasons for requesting each departure shall be given.

- SCHEDULE: Construction schedule indicating:
a. Phases in which the project will be built with emphasis on area, density, use and public facilities, such as open space, to be developed with each phase. Overall design of each phase shall be shown on the plat and through supporting material.
b. Approximate dates for beginning and completion of each phase.
c. If different land use types are to be included within the PUD, the schedule must include the mix of uses to be built in each phase.
- PARK AND SCHOOL LAND/CASH WORKSHEETS

For residential developments, Park and School land/cash worksheets in accordance with Title 16 of the St. Charles Municipal Code with population projections establishing anticipated population and student yields.

- INCLUSIONARY HOUSING SUMMARY \& WORKSHEET:

For residential developments, submit information describing how the development will comply with the requirements of Chapter 17.18, Inclusionary Housing, including:

- The number and rental/for sale status of Market-Rate Units and Affordable Units to be constructed including type of dwelling, number of bedrooms per unit, proposed pricing, and construction schedule, including anticipated timing of issuance of building permits and occupancy certificates.
- Documentation and plans regarding locations of Affordable Units and Market-Rate Units, and their exterior appearance, materials, and finishes.
- A description of the marketing plan that the Applicant proposes to utilize and implement to promote the sale or rental of the Affordable Units within the development; and,
- Any proposal to pay fees in lieu of providing the required Affordable Unit, per section 17.18.050.

1 (we) certify that this application and the documents submitted with it are true and correct to the best of my (our) knowledge and belief.


Name of Development: LEXINGTON CLUB
Date of PUD Site Plan : 01/13/15
Prepared By: Jen Land LLC

| Instructions: Enter unit counts in yellow boxes; blue boxes automatically calculate required land donation \& cash contribution |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Dwelling Type/Bedroom Count |  | \# of Units | Park | Est. Park Pop. | Elem. School | Est. Pop. | Middle School | Est. Pop. | High School | Est. Pop. |
|  |  |  |  |  |  |  |  |  |  |  |
| Detached Single Family |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  | 3 bedroom | 54 | 2.899 | 156.546 | 0.369 | 19.926 | 0.173 | 9.342 | 0.184 | 9.936 |
|  | 4 bedroom | 53 | 3.764 | 199.492 | 0.53 | 28.09 | 0.298 | 15.794 | 0.36 | 19.08 |
|  | 5 bedroom | 0 | 3.77 | 0 | 0.345 | 0 | 0.248 |  | 0.3 | $\bigcirc$ |
|  |  |  |  |  |  |  |  |  |  |  |
| Attached Single Family (Townhomes) |  |  |  |  |  |  |  |  |  |  |
|  | 1 bedroom | 0 | 1.193 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 2 bedroom | 0 | 1.99 | 0 | 0.088 | 0 | 0.048 | 0 | 0.038 | $\bigcirc$ |
|  | 3 bedroom | 0 | 2.392 | 0 | 0.234 | 0 | 0.058 | 0 | 0.059 | $\bigcirc$ |
|  | 4 bedroom | 0 | 3.145 | 0 | 0.322 | 0 | 0.154 | 0 | 0.173 | $\square$ |
|  |  |  |  |  |  |  |  |  |  |  |
| Multi Family (Condo/Apartment) |  |  |  |  |  |  |  |  |  |  |
|  | Efficiency | 0 | 1.294 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 1 bedroom | 0 | 1.758 | 0 | 0.002 | 0 | 0.001 | 0 | 0.001 | 0 |
|  | 2 bedroom | 0 | 1.914 | 0 | 0.086 | 0 | 0.042 | 0 | 0.046 | $\bigcirc$ |
|  | 3 bedroom | 0 | 3.053 | 0 | 0.234 | 0 | 0.123 | 0 | 0.118 | $\square$ |
|  |  |  |  |  |  |  |  |  |  |  |
| Estimated Population |  | 107 |  | 356.038 |  | 48.016 |  | 25.136 |  | 29.016 |
|  |  |  |  |  |  |  |  |  |  |  |
| Park Acreage @ 10 acres per 1,000 population |  |  |  | 3.56038 | acres |  |  |  |  |  |
| Park Land Dedication |  |  |  | 0.09 | acres |  |  |  |  |  |
| Park Cash in Lieu @ \$ 240,500 per acre |  |  |  | \$834,626.39 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Elementary School Acreage @. 025 acres per student |  |  |  |  |  | 1.2004 |  |  |  |  |
| Middle School Acreage @ . 0389 acres per student |  |  |  |  |  |  |  | 0.9777904 |  |  |
| High School Acreage @ . 072 acres per student |  |  |  |  |  |  |  |  |  | 2.089152 |
|  |  |  |  |  |  |  |  |  |  |  |
| Total School Acreage <br> Total School Cash in Lieu @ \$240,500 per acre |  |  |  | 4.2673424 |  |  |  |  |  |  |
|  |  |  |  | \$1,026,295.85 |  |  |  |  |  |  |

## Traffic Impact Study <br> For <br> The Lexington Club

St. Charles, Illinois



Prepared For:
Lexington Homes

Prepared By

February 6, 2015

## Introduction

This report summarizes the methodologies, results and findings of a site traffic impact study conducted by Kenig, Lindgren, O’Hara, Aboona, Inc. (KLOA, Inc.) for The Lexington Club, a proposed residential development to be located north of State Street, between $6^{\text {th }}$ Street and $12^{\text {th }}$ Street in St. Charles, Illinois.

The site was formerly occupied by a light-industrial complex with approximately 220,500 square feet of building space. These buildings have since been razed and the site is cleared. The proposed development proposes a single-family subdivision with 107 lots. Access to the development will use the existing roadway system. The development proposes to extend $9^{\text {th }}$ Street, $7^{\text {th }}$ Street, $6^{\text {th }}$ Street and Mark Street.

The purpose of this study includes the following.

- Determine the existing traffic conditions in the area to establish a base condition.
- Assess the impact that the proposed residential development will have on traffic conditions in the area.
- Determine if any roadway or traffic control improvements are necessary to accommodate the proposed residential development.

The following sections of this report present the following.

- Existing roadway conditions.
- A detailed description of the proposed The Lexington Club residential development.
- Directional distribution of development-generated traffic.
- Vehicle trip generation and comparison of the former light-industrial land use and the proposed residential land use.
- Future transportation conditions, including regional ambient growth in traffic and potential future developments.
- Traffic analyses for the weekday morning and evening peak hours for both the existing and future condition.
- Recommendations with respect to site access and circulation to the surrounding roadway network for the future condition.


## Existing Conditions

Existing street conditions were documented based on field visits conducted by KLOA, Inc. The following provides a detailed description of the physical characteristics of the roadways including the existing geometry and traffic control, adjacent land uses and peak hour traffic volumes on area roadways.

## Site Location

As noted, the site is roughly bound by railroad tracks to the north, State Street, Dean Street and residential homes to the south, residential homes and $6^{\text {th }}$ Street to the east and industrial $/ 12^{\text {th }}$ Street to the west.

Adjacent land uses in the area include single-family residential homes and small light-industrial land uses. Figure 1 illustrates the location of the proposed development with respect to the area roadway system. Figure 2 shows an aerial view of the site and surrounding area.

## Existing Roadway System Characteristics

The characteristics of the existing roadways that surround or are nearby the proposed development are illustrated in Figure 3 and described below.
$9^{\text {th }}$ Street is a two-lane north-south local roadway that extends north from its southern T-intersection terminus with State Street. Also, that portion of roadway between Main Street and the Dean Street/State Street intersection also has the $9^{\text {th }}$ Street designation. Parking is prohibited on the east side of the road and the posted speed limit is $25 \mathrm{mph} .9^{\text {th }}$ Street is under stop sign control at its T-intersection with State Street and at its T-intersection with Main Street. At Main Street, a southbound left-turn lane and a southbound right-turn lane are provided. 9 ${ }^{\text {th }}$ Street is under the jurisdiction of the City of St. Charles and is classified as a collector roadway between Dean Street and Main Street. As part of the proposed development, $9^{\text {th }}$ Street will be improved and extended north into The Lexington Club development.
$7^{\text {th }}$ Street is a two-lane north-south local roadway. At its signalized intersection with Main Street (IL 64), a single-lane is provided on the north approach and a left-turn lane and a shared through/right-turn lane is provided on the south approach. Single-lane approaches are provided at its two-way stop controlled intersection with State Street. Parking is prohibited on the east side of the street and the posted speed limit is $25 \mathrm{mph} .7^{\text {th }}$ Street is under the jurisdiction of the City of St. Charles and is classified as a collector roadway south of Main Street. As part of the proposed development, $7^{\text {th }}$ Street will be improved and extended north into The Lexington Club development, where it will T-intersect the $9^{\text {th }}$ Street extension from the east.



## Aerial View of Site Location

Figure 2

$6^{\text {th }}$ Street is a two-lane north-south local roadway. At its stop sign controlled intersection with Main Street, single-lanes are provided on both the north and south approaches allowing left, through and right-turn movements. On the north approach at Main Street, signage prohibits southbound to eastbound left-turn movements. $6^{\text {th }}$ Street is under freeflow conditions at its intersection with State Street (State Street is under stop sign control), providing single-lane approaches. Parking is prohibited on the west side of the roadway and the posted speed limit is $25 \mathrm{mph} .6^{\text {th }}$ Street is under the jurisdiction of the City of St. Charles. As part of the proposed development, $6^{\text {th }}$ Street will be improved from The Lexington Club's southern property line to its T-intersection with Mark Street.

State Street is a two-lane local roadway that extends from its western T-intersection terminus with Dean Street $/ 9^{\text {th }}$ Street to its eastern T-intersection terminus with $2^{\text {nd }}$ Street (IL 31). State Street is under stop sign control at its intersections with Dean Street $/ 9^{\text {th }}$ Street, $6^{\text {th }}$ Street and $2^{\text {nd }}$ Street, providing single-lane approaches at it each of these intersections. Parking is prohibited on the south side of the roadway and the posted speed is 25 mph . State Street is under the jurisdiction of the City of St. Charles and is classified as a collector roadway. No improvements are proposed to this roadway in conjunction with The Lexington Club development.

Mark Street is a two-lane east-west local roadway that connects $6^{\text {th }}$ Street, $5^{\text {th }}$ Street and $4^{\text {th }}$ Street. Mark Street has a posted speed limit is 25 mph and is under the jurisdiction of the City of St. Charles. As part of The Lexington Club development, Mark Street will be improved from $6^{\text {th }}$ Street through the site's frontage.

Dean Street is a two-lane northwest/southeast roadway that remains freeflow at its intersection with State $/ 9^{\text {th }}$ Street. This roadway provides parking on the east/north side of the roadway. Dean Street is under the jurisdiction of the City of St. Charles and is classified as a collector roadway. No improvements are proposed to this roadway in conjunction with The Lexington Club development.

Main Street (IL 64) is a five-lane major arterial providing two through lanes in each direction and a center lane used for left-turn storage at minor roadway intersections. Parking is prohibited on both sides of the roadway and the posted speed limit is 30 mph in the vicinity of the site. IL 64 is under the jurisdiction of the Illinois Department of Transportation (IDOT) and is designated as a Strategic Regional Arterial (SRA). No improvements are proposed to this arterial roadway in conjunction with The Lexington Club development.
$2^{\text {nd }}$ Street (IL 31) is a four-lane roadway north of IL 64, providing shared through/left-turn lanes and shared through/right-turn lanes at its respective minor roadway intersections. The posted speed limit is 30 mph and parking is prohibited on both sides of the roadway. IL 31 is under the jurisdiction of IDOT. No improvements are proposed to this roadway in conjunction with The Lexington Club development.

## Existing Traffic Volumes

In order to determine current traffic conditions on the existing roadways, KLOA, Inc. conducted manual traffic counts on Tuesday, January 27, 2015 and on Wednesday, January 28, 2015 between 7:00 and 9:00 A.M. and between 3:00 and 6:00 P.M. at the following 6 intersections.

- State Street with Dean Street $/ 9^{\text {th }}$ Street
- $\quad$ State Street with $7^{\text {th }}$ Street
- $\quad$ State Street with $6^{\text {th }}$ Street
- $\quad$ State Street with $2^{\text {nd }}$ Street (IL 31)
- Main Street (IL 64) with $9^{\text {th }}$ Street
- Main Street (IL 64) with $7^{\text {th }}$ Street.

The results of the counts showed that the weekday morning peak hour occurs between 7:15 and 8:15 A.M. and the weekday evening peak hour occurs between 4:30 and 5:30 P.M. Figure 4 illustrates the existing peak hour traffic volumes.

The results of the traffic counts were compared with those conducted most recently in 2012. Table 1 is prepared comparing the total traffic volumes traveling through each intersection during the weekday morning and evening peak hour. As can be seen, the counts in 2015 are generally higher at most of the intersections than 2012

Table 1
COMPARISON OF EXISTING PEAK HOUR TRAFFIC VOLUMES (2012 TO 2015) ST. CHARLES, ILLINOIS

| Intersection | Peak Hour | Year 2012 | Year 2015 | Difference | \% Difference |
| :--- | :---: | :---: | :---: | :---: | :---: |
| $7^{\text {th }}$ Street at | Wkdy AM | 2,410 | 2,606 | +196 | $+8 \%$ |
| Main Street | Wkdy PM | 2,754 | 2,916 | +162 | $+6 \%$ |
| $2^{\text {nd }}$ Street at | Wkdy AM | 1,342 | 1,247 | -95 | $-7 \%$ |
| State Street | Wkdy PM | 1,564 | 1,369 | -195 | $-12 \%$ |
| $9^{\text {th }}$ Street at | Wkdy AM | 2,207 | 2,402 | +195 | $+9 \%$ |
| Main Street | Wkdy PM | 2,414 | 2,621 | +207 | $+9 \%$ |
| $9^{\text {th }}$ St/Dean St | Wkdy AM | 324 | 369 | +45 | $+14 \%$ |
| at State St | Wkdy PM | 415 | 492 | +77 | $+19 \%$ |
| $9^{\text {th }}$ Street at | Wkdy AM | 210 | 271 | +61 | $+29 \%$ |
| State Street | Wkdy PM | 255 | 298 | +43 | $+17 \%$ |



## Traffic Characteristics of The Lexington Club

To evaluate the impact of the proposed residential development on the area roadway system, it was necessary to quantify the number of vehicle trips the site will generate during the weekday morning and evening peak hours, compare it to the previous land use and then determine the directions from which this traffic will approach and depart the site.

## Proposed Site and Development Plan

The Lexington Club development proposes 107 single-family homes. Access to The Lexington Club development will be from planned extensions of existing roadways intersecting the site, specifically:

- 9th Street will be extended north to its T-intersection terminus with the Mark Street extension.
- $\quad 7^{\text {th }}$ Street will be extended north and west, where it will T-intersect $9^{\text {th }}$ Street from the east.
- $\quad 6^{\text {th }}$ Street will be improved at its intersection with Mark Street.
- Mark Street will be extended west of $6^{\text {th }}$ Street through the site and will also be improved along the site frontage east of $6^{\text {th }}$ Street.

These proposed improvements are in conjunction with The Lexington Club development. The Lexington Club proposed site plan dated January 13, 2015 is included in the Appendix of this report.

## Directional Distribution of Site Traffic

The directional distribution of traffic accessing the proposed development was based on the background travel patterns near the site and the surrounding residential land uses. The anticipated directional distribution of site traffic is illustrated in Figure 5.


## Site Traffic Generation

The estimates of traffic to be generated by the overall site are based upon the proposed land use type and size. The volume of traffic generated by the proposed residential development was estimated using trip rates published in the Institute of Transportation Engineers (ITE) Trip Generation Manual, $9^{\text {th }}$ Edition.

Table 2 tabulates the total trips anticipated with this site for the weekday morning and evening peak hours, as well as the total two-way weekday daily volume.

Table 2
SITE-GENERATED TRAFFIC VOLUMES

|  |  | Weekday A.M. <br> Peak Hour |  |  | Weekday P.M. <br> Peak Hour |  |  | Daily <br> Two-way |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ITE LandUse Code | Type/Size | In | Out | Total | In | Out | Total | In | Out |
| 210 | Single-Family 107 units | 21 | 64 | 85 | 71 | 41 | 112 | 559 | 559 |

## Site Traffic Assignment

The peak hour traffic volumes projected to be generated by the proposed development (refer to Table 2) were assigned to the area roadways based on the directional distribution analysis (Figure 5). Figure 6 shows the assignment of the site-generated peak hour traffic volumes as tabulated in Table 2.


## Traffic Generation Comparison

As noted, the site was formerly a light-industrial complex with approximately 220,500 square feet of building space. Using established ITE rates for light-industrial building space (ITE Land Use Code 110), a trip generation comparison was performed to show the amount of traffic that was potentially generated by the former light-industrial land use versus the amount of traffic to be potentially generated by the proposed residential land use. Furthermore, the site was previously approved for a residential development with 28 single family homes and 102 multifamily homes for a total of 130 units. Table 3 shows a comparison of the total weekday morning and evening peak hours, as well as the total two-way weekday daily volumes generated by the current proposed development, the previously approved development, as well as the former industrial use.

Table 3
COMPARISON OF FORMER AND PROPOSED LAND USE TRAFFIC VOLUMES

| ITE LandUse Code |  | Weekday A.M. <br> Peak Hour | Weekday P.M. <br> Peak Hour | Daily Two-way |
| :---: | :---: | :---: | :---: | :---: |
|  | Type/Size | Total | Total |  |
| 210 | The Lexington Club (current) | 85 | 112 | 1,118 |
| 210/230 | The Lexington Club (former) | 81 | 94 | 976 |
| 110 | Light-Industrial (220,500 s.f.) | 170 | 160 | 1,749 |
|  | Percentage of Previous Approved Lexington Club: | 105\% | 119\% | 115\% |
|  | Percentage of Light-Industrial Land Use: | 50\% | 70\% | 63\% |

As shown in Table 3, the amount of traffic estimated to be generated by the proposed development is similar to the previously approved development and is considerably less than the total traffic that was potentially generated by the former initial land use. As such, The Lexington Club development will have a significantly lesser traffic impact on the surrounding roadway system than what was experienced from the former initial land use.

## Planned Development

There are no particular planned developments in the nearby area. However, there is an unoccupied industrial building located on $9^{\text {th }}$ Street, just south of the proposed The Lexington Club development. As such, trips were generated for this approximate 55,000 square feet building, assuming full occupation. Table 4 shows the trip generation for the weekday morning, evening and two-way daily traffic volumes. These trips were then assigned to the roadway system using the directional distribution that was established and shown in Figure 5. Figure 7 shows the traffic assignment for the industrial building, assuming occupancy.

Table 4
PLANNED DEVELOPMENT TRAFFIC VOLUMES
(OCCUPANCY OF INDUSTRIAL BUILDING)

|  |  | Weekday A.M. Peak Hour |  |  | Weekday P.M. <br> Peak Hour |  |  | Daily <br> Two-Way |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ITE LandUse Code | Type/Size | In | Out | Total | In | Out | Total | In | Out |
| 110 | $\begin{aligned} & \text { Light-Industrial } \\ & 55,000 \text { s.f. } \end{aligned}$ | 45 | 5 | 50 | 6 | 47 | 53 | 155 | 155 |



## Regional Traffic Growth

The existing traffic volumes (Figure 4) were increased by a regional growth factor to account for regional ambient growth not attributable to any particular planned development. Based on the Chicago Metropolitan Agency for Planning (CMAP) year 2040 population and employment projections, the existing traffic volumes were increased by approximately one percent per year for six years (construction year plus five), to project the year 2021 conditions.

## Total Projected Traffic Conditions

The peak hour traffic volumes that will be generated by the proposed development (Figure 6) were combined with the existing traffic volumes (Figure 4), the planned background development volumes (Figure 7) and the regional growth in traffic volumes to determine the total projected peak hour traffic volumes, which are shown in Figure 8. The total projected traffic volumes shown in Figure 9 and the traffic analysis discussed in the next section will be indicative of traffic operations under projected conditions.


## Traffic Analysis and Recommendations

Traffic analyses were performed for the study area intersections to determine the operation of the existing roadway system, evaluate the impact of the proposed development and determine the ability of the roadway system to accommodate projected traffic demands. Analyses were performed for the weekday morning and evening peak hours for the existing and future (Year 2021) traffic conditions for the following intersections:

- State Street with Dean Street $/ 9$ th Street
- $\quad$ State Street with $7^{\text {th }}$ Street
- $\quad$ State Street with $6^{\text {th }}$ Street
- $\quad$ State Street with $2^{\text {nd }}$ Street (IL 31)
- Main Street (IL 64) with $9^{\text {th }}$ Street
- Main Street (IL 64) with $7^{\text {th }}$ Street

The traffic analyses were performed using HCS 2010 computer software, which is based on the methodologies outlined in the Transportation Research Board's Highway Capacity Manual (HCM), 2010. The ability of an intersection to accommodate traffic flow is expressed in terms of level of service, which is assigned a letter grade from A to F based on the average control delay experienced by vehicles passing through the intersection. Control delay is that portion of the total delay attributed to the stop sign control operation and includes initial deceleration delay, queue move-up time, stopped delay and final acceleration delay. Level of Service A is the highest grade (best traffic flow and least delay), Level of Service E represents saturated or at-capacity conditions and Level of Service F is the lowest grade (oversaturated conditions, extensive delays).

The Highway Capacity Manual definitions for levels of service and the corresponding control delay for unsignalized intersections are shown in the Appendix. The results of the capacity analysis for existing and Year 2021 projected traffic volumes are summarized in Tables 5 and Table 6, respectively.

Table 5
CAPACITY ANALYSIS RESULTS - EXISTING TRAFFIC VOLUMES

| Intersection | Weekday Morning Peak Hour |  | Weekday Evening Peak Hour |  |
| :---: | :---: | :---: | :---: | :---: |
|  | LOS | Delay | LOS | Delay |
| Main Street with $7^{\text {th }}$ Street ${ }^{1}$ |  |  |  |  |
| - Overall | B | 17.1 | B | 15.6 |
| - Northbound Approach | D | 47.4 | D | 51.8 |
| - Southbound Approach | D | 43.8 | D | 43.4 |
| - Eastbound Approach | B | 15.3 | B | 10.3 |
| - Westbound Approach | A | 7.4 | A | 9.7 |
| State Street with Dean Street $/{ }^{\text {th }}$ Street ${ }^{2}$ |  |  |  |  |
| - Westbound Approach | B | 12.7 | B | 11.5 |
| - Southbound Lefts | A | 8.2 | A | 7.9 |
| State Street with ${ }^{\text {nd }}$ Street $^{2}$ |  |  |  |  |
| - Eastbound Approach | C | 22.3 | D | 30.2 |
| - Westbound Approach | C | 18.7 | C | 22.3 |
| - Northbound Lefts | A | 9.8 | A | 9.0 |
| - Southbound Lefts | A | 8.3 | A | 8.8 |
| Main Street with $9^{\text {th }}$ Street ${ }^{2}$ |  |  |  |  |
| - Southbound Approach | C | 20.1 | E | 39.6 |
| - Eastbound Lefts | A | 9.7 | B | 14.4 |
| State Street with ${ }^{\text {th }}$ Street $^{2}$ |  |  |  |  |
| - Southbound Approach | A | 9.4 | A | 9.6 |
| - Eastbound Lefts | A | 7.4 | A | 7.5 |
| State Street with $7^{\text {th }}$ Street ${ }^{2}$ |  |  |  |  |
| - Southbound Approach | B | 11.3 | B | 11.0 |
| - Northbound Approach | B | 11.0 | B | 10.4 |
| - Eastbound Lefts | A | 7.5 | A | 7.5 |
| - Westbound Lefts | A | 7.8 | A | 7.6 |
| State Street with $6^{\text {th }}$ Street $^{2}$ |  |  |  |  |
| - Eastbound Approach | A | 9.9 | A | 9.8 |
| - Westbound Approach | A | 10.0 | A | 9.9 |
| - Northbound Lefts | A | 7.2 | A | 7.2 |
| - Southbound Lefts | A | 7.2 | A | 7.2 |
| LOS = Level of Service |  |  |  |  |
| Delay is measured in seconds. |  |  |  |  |
| 1 - Signalized Intersection2- Unsignalized Intersection |  |  |  |  |
| 2 - Unsignalized Intersection |  |  |  |  |

Table 6
CAPACITY ANALYSIS RESULTS - PROJECTED YEAR 2021 TRAFFIC VOLUMES

| Intersection | Weekday Morning Peak Hour |  | Weekday Evening Peak Hour |  |
| :---: | :---: | :---: | :---: | :---: |
|  | LOS | Delay | LOS | Delay |
| Main Street with $7^{\text {th }}$ Street $^{\text {1 }}$ |  |  |  |  |
| - Overall | B | 19.5 | B | 16.6 |
| - Northbound Approach | D | 49.3 | D | 53.9 |
| - Southbound Approach | D | 45.7 | D | 44.1 |
| - Eastbound Approach | B | 18.3 | B | 10.9 |
| - Westbound Approach | A | 8.5 | B | 10.7 |
| State Street with Dean Street $/ 9^{\text {th }}$ Street ${ }^{2}$ |  |  |  |  |
| - Westbound Approach | C | 16.3 | B | 14.1 |
| - Southbound Lefts | A | 8.3 | A | 8.1 |
| State Street with $2^{\text {nd }}$ Street ${ }^{2}$ |  |  |  |  |
| - Eastbound Approach | D | 30.6 | F | 50.6 |
| - Westbound Approach | C | 21.0 | D | 25.6 |
| - Northbound Lefts | B | 10.2 | A | 9.3 |
| - Southbound Lefts | A | 8.3 | A | 8.9 |
| Main Street with $9^{\text {th }}$ Street ${ }^{2}$ |  |  |  |  |
| - Southbound Approach | C | 21.8 | F | 55.2 |
| - Eastbound Lefts | B | 10.1 | C | 15.9 |
| State Street with 9 ${ }^{\text {th }}$ Street ${ }^{2}$ |  |  |  |  |
| - Southbound Approach | A | 9.4 | B | 10.1 |
| - Eastbound Lefts | A | 7.4 | A | 7.6 |
| State Street with $7^{\text {th }}$ Street ${ }^{2}$ |  |  |  |  |
| - Southbound Approach | B | 14.5 | B | 12.5 |
| - Northbound Approach | B | 13.6 | B | 11.9 |
| - Eastbound Lefts | A | 7.5 | A | 7.6 |
| - Westbound Lefts | A | 7.9 | A | 7.7 |
| State Street with $6^{\text {th }}$ Street $^{2}$ |  |  |  |  |
| - Eastbound Approach | B | 10.5 | B | 10.1 |
| - Westbound Approach | B | 10.5 | B | 10.2 |
| - Northbound Lefts | A | 7.2 | A | 7.2 |
| - Southbound Lefts | A | 7.2 | A | 7.2 |

LOS $=$ Level of Service
Delay is measured in seconds.
1 - Signalized Intersection
2 - Unsignalized Intersection

## Discussion and Recommendations

The following summarizes how the study area intersections are projected to operate with the addition of the site generated traffic and other area growth.

Main Street (IL 64) with $7^{\text {th }}$ Street.
The results of the capacity analysis indicate that overall this signalized intersection currently operates at the acceptable level of service (LOS) B during the morning and evening peak hour and will continue to operate at LOS B during the peak hours with an increase in delay of less than three seconds during the morning peak hour and an increase in delay of one second during the evening peak hour. Furthermore, the northbound, southbound, and eastbound approaches are expected to maintain their existing levels of service during the morning and evening peak hours with increases in delay of less than three seconds. The westbound approach which currently operates at LOS A during the morning and evening peak hours is projected to continue operating at LOS A during the morning peak hour with an increase in delay of approximately one second and is projected to operate at LOS B during the evening peak hour with an increase in delay of one second. These results indicate that the development generated traffic will not have a significant impact on this intersection and that traffic control or geometric improvements will not be necessary.

## State Street with Dean Street $/ 9^{\text {th }}$ Street

The results of the capacity analysis indicate that the State Street approach currently operates at LOS B during the morning and evening peak hour. Under future conditions, this intersection is expected to operate at LOS C during the morning peak hour with an increase in delay of less than four seconds and at LOS B during the evening peak hour with an increase in delay of less than three seconds. Furthermore, the left turning movement from Dean Street onto State Street is projected to maintain the LOS A with minimal increases in delay. These results indicate that the development generated traffic will not have a significant impact on this intersection and that intersection improvements will not be necessary.

State Street with $2^{\text {nd }}$ Street (IL 31)
The results of the capacity analysis indicate the eastbound approach currently operates at LOS C during the morning peak hour and at LOS D during the evening peak hour. Under future conditions this approach is projected to operate at LOS D during the morning peak hour with an increase in delay of approximately eight seconds. During the evening peak hour the eastbound approach is projected to operate at LOS F with an increase in delay of approximately 20 seconds, which is typical for a minor street intersecting a major roadway like $2^{\text {nd }}$ Street. The $95^{\text {th }}$ percentiles queues show eastbound queues will not extend beyond $3{ }^{\text {rd }}$ Street. Furthermore, the signalized intersection of Main Street and $2^{\text {nd }}$ Street located approximately 650 feet to the south will provide gaps in the northbound traffic stream to allow exiting movements onto $2^{\text {nd }}$ Street.

Based on GIS aerial previously received by the City of St. Charles, there is sufficient right-ofway along $2^{\text {nd }}$ Street to accommodate the widening of the west leg of this intersection to provide a shared left/through lane and an exclusive right-turn lane. When analyzed with the shared left/through lane and an exclusive right-turn lane, the eastbound approach overall is projected to operate at LOS E. However, the left-turn lane is still projected to operate at LOS F. Therefore, providing any lane improvements for this approach will not be necessary. It should be noted that the total intersection volumes do not meet the peak hour warrant for a traffic signal found in chapter 4C of the Manual on Uniform Traffic Control Devices (MUTCD).

Main Street (IL 64) with $9^{\text {th }}$ Street
The results of the capacity analysis indicate that the southbound approach for this intersection currently operates at LOS C during the morning peak hour and at LOS E during the evening peak hour. Under future conditions, this intersection is expected to continue operating at LOS C during the morning peak hour with an increase in delay of approximately two seconds. During the evening peak hour the southbound approach is projected to operate at LOS F during the evening peak hour with an increase in delay of less than 16 seconds which is typical for a minor roadway intersecting a major roadway like Main Street. The $95^{\text {th }}$ percentiles queues show that both left-turn and right-turn queues will be contained within the respective turn lanes. Furthermore, the signalized intersection of Main Street and $7^{\text {th }}$ Street located approximately 800 feet to the east will provide gaps in the westbound traffic stream to allow exiting movements onto Main Street. It should be noted that the total intersection volumes do not meet the peak hour warrant for a traffic signal found in chapter 4C of the MUTCD.

State Street with $9^{\text {th }}$ Street, $7^{\text {th }}$ Street and $6^{\text {th }}$ Street
The results of the capacity analysis indicate that the internal neighborhood intersections of State Street with $9^{\text {th }}$ Street, $7^{\text {th }}$ Street and $6^{\text {th }}$ Street are projected to operate at the acceptable LOS B or better during the morning and evening peak hours with minimal increases in delay. This indicates that the additional traffic generated by the proposed development will not have a significant impact on the internal roadway system and that by extending these roadways to provide access to the development will provide adequate and efficient access.

## Conclusion

- The site was formerly occupied by a light-industrial complex, with approximately 220,500 square feet of building space. A trip generation comparison of the calculated trips potentially generated by the former land use compared to the proposed residential land use shows that The Lexington Club development will generate considerably less vehicle traffic that what was potentially generated by the former land use. As such, the proposed development will have a minimal impact on the surrounding roadway network.
- Traffic capacity analyses show that no roadway or traffic control improvements are needed at the study intersections in direct connection with the proposed The Lexington Club development.
- $\quad$ Providing access to the proposed development by extending $9^{\text {th }}$ Street, $7^{\text {th }}$ Street and $6^{\text {th }}$ Street will provide adequate and efficient access to the development.
- The Lexington Club site is located within an established residential neighborhood that has numerous access points to adjoining arterials (e.g. Main Street or $2^{\text {nd }}$ Street) which will allow for the site traffic to disperse over a larger area. Therefore, the additional traffic generated by The Lexington Club will be imperceptible to the traveling motorist in the neighborhood.
- A signal warrant analysis review conducted at the intersections of $9^{\text {th }}$ Street with Main Street and $2^{\text {nd }}$ Street with State Street show that traffic signals are not warranted at either intersection.


## Appendix

Site Plan

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## Level of Service Criteria

## LEVEL OF SERVICE CRITERIA

## Signalized Intersections

| Level of Service | Interpretation | Average Control Delay (seconds per vehicle) |
| :---: | :---: | :---: |
| A | Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping. | $\leq 10$ |
| B | Good progression, with more vehicles stopping than for Level of Service A. | >10-20 |
| C | Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear. Number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping. | >20-35 |
| D | The volume-to-capacity ratio is high and either progression is ineffective or the cycle length is too long. Many vehicles stop and individual cycle failures are noticeable. | > $35-55$ |
| E | Progression is unfavorable. The volume-to-capacity ratio is high and the cycle length is long. Individual cycle failures are frequent. | >55-80 |
| F | The volume-to-capacity ratio is very high, progression is very poor and the cycle length is long. Most cycles fail to clear the queue. | > 80.0 |
| Unsignalized Intersections |  |  |
| Level of Service |  | Average Total Delay (SEC/VEH) |
|  | A 0 | 0-10 |
|  | B $>10$ | > $10-15$ |
|  | C $\quad>15$ | > $15-25$ |
|  | D $>25$ | > $25-35$ |
|  | E $>35$ | > $35-50$ |
|  | F $>$ | $>50$ |

## Capacity Analysis Summary Sheets

HCS 2010 Signalized Intersection Results Summary


HCS 2010 Signalized Intersection Results Summary



Vehicle Volumes and Adjustments

| Major Street | Northbound |  |  | Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
|  | L | T | R | L | T | R |
| Volume (veh/h) |  | 104 | 18 | 162 | 44 |  |
| Peak-Hour Factor, PHF | 1.00 | 0.70 | 0.70 | 0.70 | 0.70 | 1.00 |
| Hourly Flow Rate, HFR (veh/h) | 0 | 148 | 25 | 231 | 62 | 0 |
| Percent Heavy Vehicles | 0 | -- | -- | 10 | -- | -- |
| Median Type | Undivided |  |  |  |  |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration |  |  | TR | LT |  |  |
| Upstream Signal |  | 0 |  |  | 0 |  |


| Minor Street | Eastbound |  |  | Westbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
|  | L | T | R | L | T | R |
| Volume (veh/h) |  |  |  | 26 |  | 63 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 0.70 | 1.00 | 0.70 |
| Hourly Flow Rate, HFR (veh/h) | 0 | 0 | 0 | 37 | 0 | 90 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 8 | 0 | 11 |
| Percent Grade (\%) |  | 0 |  |  | 0 |  |
| Flared Approach |  | N |  |  | N |  |
| Storage |  | 0 |  |  | 0 |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 0 | 0 | 0 | 0 | 0 |
| Configuration |  |  |  |  | $L R$ |  |

Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound |  |  | Eastbound |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration |  | $L T$ |  | $L R$ |  |  |  |  |
| $\mathrm{~V}(\mathrm{veh} / \mathrm{h})$ |  | 231 |  | 127 |  |  |  |  |
| $\mathrm{C}(\mathrm{m})(\mathrm{veh} / \mathrm{h})$ |  | 1357 |  | 592 |  |  |  |  |
| V c |  | 0.17 |  | 0.21 |  |  |  |  |
| $95 \%$ queue length |  | 0.61 |  | 0.81 |  |  |  |  |
| Control Delay (s/veh) |  | 8.2 |  | 12.7 |  |  |  |  |
| LOS |  | $A$ |  | $B$ |  |  |  |  |
| Approach Delay (s/veh) | -- | -- | 12.7 |  |  |  |  |  |
| Approach LOS | -- | -- | $B$ |  |  |  |  |  |



Vehicle Volumes and Adjustments

| Major Street | Northbound |  |  | Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
|  | L | T | R | L | T | R |
| Volume (veh/h) |  | 143 | 9 | 144 | 58 |  |
| Peak-Hour Factor, PHF | 1.00 | 0.84 | 0.84 | 0.84 | 0.84 | 1.00 |
| Hourly Flow Rate, HFR (veh/h) | 0 | 170 | 10 | 171 | 69 | 0 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type | Undivided |  |  |  |  |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration |  |  | TR | LT |  |  |
| Upstream Signal |  | 0 |  |  | 0 |  |


| Minor Street | Eastbound |  |  | Westbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
|  | L | T | R | L | T | R |
| Volume (veh/h) |  |  |  | 27 |  | 116 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 0.84 | 1.00 | 0.84 |
| Hourly Flow Rate, HFR (veh/h) | 0 | 0 | 0 | 32 | 0 | 138 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 1 |
| Percent Grade (\%) |  | 0 |  |  | 0 |  |
| Flared Approach |  | N |  |  | N |  |
| Storage |  | 0 |  |  | 0 |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 0 | 0 | 0 | 0 | 0 |
| Configuration |  |  |  |  | $L R$ |  |

Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound |  |  | Eastbound |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration |  | $L T$ |  | $L R$ |  |  |  |  |
| $\mathrm{~V}(\mathrm{veh} / \mathrm{h})$ |  | 171 |  | 170 |  |  |  |  |
| $\mathrm{C}(\mathrm{m})(\mathrm{veh} / \mathrm{h})$ |  | 1408 |  | 723 |  |  |  |  |
| $\mathrm{~V} / \mathrm{c}$ |  | 0.12 |  | 0.24 |  |  |  |  |
| $95 \%$ queue length |  | 0.41 |  | 0.91 |  |  |  |  |
| Control Delay (s/veh) |  | 7.9 |  | 11.5 |  |  |  |  |
| LOS |  | $A$ |  | $B$ |  |  |  |  |
| Approach Delay (s/veh) | -- | -- | 11.5 |  |  |  |  |  |
| Approach LOS | -- | -- | $B$ |  |  |  |  |  |



Vehicle Volumes and Adjustments

| Major Street | Northbound |  |  | Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 19 | 425 | 3 | 2 | 555 | 133 |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly Flow Rate, HFR (veh/h) | 20 | 461 | 3 | 2 | 603 | 144 |
| Percent Heavy Vehicles | 17 | -- | -- | 0 | -- | -- |
| Median Type | Undivided |  |  |  |  |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 2 | 0 | 0 | 2 | 0 |
| Configuration | LT |  | TR | LT |  | TR |
| Upstream Signal |  | 0 |  |  | 0 |  |


| Minor Street | Eastbound |  |  | Westbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 50 | 0 | 54 | 2 | 2 | 2 |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly Flow Rate, HFR (veh/h) | 54 | 0 | 58 | 2 | 2 | 2 |
| Percent Heavy Vehicles | 4 | 0 | 4 | 0 | 0 | 0 |
| Percent Grade (\%) |  | 0 |  |  | 0 |  |
| Flared Approach |  | N |  |  | $N$ |  |
| Storage |  | 0 |  |  | 0 |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration |  | LTR |  |  | LTR |  |

Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound |  |  | Eastbound |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | $L T$ | $L T$ |  | $L T R$ |  |  | LTR |  |
| V (veh/h) | 20 | 2 |  | 6 |  |  | 112 |  |
| C (m) (veh/h) | 765 | 1108 |  | 268 |  |  | 319 |  |
| $\mathrm{~V} / \mathrm{c}$ | 0.03 | 0.00 |  | 0.02 |  |  | 0.35 |  |
| $95 \%$ queue length | 0.08 | 0.01 |  | 0.07 |  |  | 1.53 |  |
| Control Delay (s/veh) | 9.8 | 8.3 |  | 18.7 |  |  | 22.3 |  |
| LOS | A | A |  | $C$ |  |  | $C$ |  |
| Approach Delay (s/veh) | -- | -- | 18.7 |  |  | 22.3 |  |  |
| Approach LOS | -- | -- | $C$ |  |  | $C$ |  |  |



Vehicle Volumes and Adjustments

| Major Street | Northbound |  |  | Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 27 | 584 | 3 | 1 | 493 | 131 |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly Flow Rate, HFR (veh/h) | 29 | 634 | 3 | 1 | 535 | 142 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type | Undivided |  |  |  |  |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 2 | 0 | 0 | 2 | 0 |
| Configuration | LT |  | TR | LT |  | TR |
| Upstream Signal |  | 0 |  |  | 0 |  |


| Minor Street | Eastbound |  |  | Westbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 77 | 0 | 49 | 2 | 1 | 1 |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly Flow Rate, HFR (veh/h) | 83 | 0 | 53 | 2 | 1 | 1 |
| Percent Heavy Vehicles | 1 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (\%) | 0 |  |  | 0 |  |  |
| Flared Approach |  | N |  |  | $N$ |  |
| Storage |  | 0 |  |  | 0 |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration |  | LTR |  |  | LTR |  |

Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound |  |  | Eastbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | LT | LT |  | LTR |  |  | LTR |  |
| v (veh/h) | 29 | 1 |  | 4 |  |  | 136 |  |
| C (m) (veh/h) | 924 | 956 |  | 212 |  |  | 275 |  |
| v/c | 0.03 | 0.00 |  | 0.02 |  |  | 0.49 |  |
| 95\% queue length | 0.10 | 0.00 |  | 0.06 |  |  | 2.56 |  |
| Control Delay (s/veh) | 9.0 | 8.8 |  | 22.3 |  |  | 30.2 |  |
| LOS | A | A |  | C |  |  | D |  |
| Approach Delay (s/veh) | -- | -- |  | 22.3 |  |  | 30.2 |  |
| Approach LOS | -- | -- |  | C |  |  | D |  |


| TWO-WAY STOP CONTROL SUMMARY |  |  |  |
| :---: | :---: | :---: | :---: |
| General Information |  | Site Information |  |
| Analyst | BSM | Intersection | Main Street and 9th Street |
| Agency/Co. | KLOA, Inc. | Jurisdiction | IDOT |
| Date Performed | 2/5/2015 | Analysis Year | 2015 |
| Analysis Time Period | AM Existing Peak Hour |  |  |
| Project Description 9-169-Lexington Club in St. Charles |  |  |  |
| East/West Street: Main Street |  | North/South Street: 9th Street |  |
| Intersection Orientation: East-West |  | Study Period (hrs): 0.25 |  |

Vehicle Volumes and Adjustments

| Major Street | Eastbound |  |  | Westbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 16 | 1533 |  |  | 667 | 106 |
| Peak-Hour Factor, PHF | 0.94 | 0.94 | 0.92 | 0.92 | 0.94 | 0.94 |
| Hourly Flow Rate, HFR (veh/h) | 17 | 1630 | 0 | 0 | 709 | 112 |
| Percent Heavy Vehicles | 6 | -- | -- | 0 | -- | -- |
| Median Type | Two Way Left Turn Lane |  |  |  |  |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 1 | 2 | 0 | 0 | 2 | 0 |
| Configuration | L | T |  |  | T | TR |
| Upstream Signal |  | 0 |  |  | 0 |  |
| Minor Street | Northbound |  |  | Southbound |  |  |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
|  | L | T | R | L | T | R |
| Volume (veh/h) |  |  |  | 44 |  | 26 |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.94 | 0.92 | 0.94 |
| Hourly Flow Rate, HFR (veh/h) | 0 | 0 | 0 | 46 | 0 | 27 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 2 | 0 | 12 |
| Percent Grade (\%) | 0 |  |  | 0 |  |  |
| Flared Approach |  | $N$ |  |  | N |  |
| Storage |  | 0 |  |  | 0 |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 0 | 0 | 1 | 0 | 1 |
| Configuration |  |  |  | L |  | $R$ |

Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound |  |  | Southbound |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | $L$ |  |  |  |  | $L$ |  | $R$ |
| v (veh/h) | 17 |  |  |  |  | 46 |  | 27 |
| C (m) (veh/h) | 779 |  |  |  |  | 222 |  | 610 |
| v/c | 0.02 |  |  |  |  | 0.21 |  | 0.04 |
| $95 \%$ queue length | 0.07 |  |  |  |  | 0.76 |  | 0.14 |
| Control Delay (s/veh) | 9.7 |  |  |  |  | 25.4 |  | 11.2 |
| LOS | A |  |  |  |  | $D$ |  | $B$ |
| Approach Delay (s/veh) | -- | -- |  |  | 20.1 |  |  | $C$ |
| Approach LOS | -- | -- |  |  | $C$ |  |  |  |


| TWO-WAY STOP CONTROL SUMMARY |  |  |  |
| :---: | :---: | :---: | :---: |
| General Information |  | Site Information |  |
| Analyst | BSM | Intersection | Main Street and 9th Street |
| Agency/Co. | KLOA, Inc. | Jurisdiction | IDOT |
| Date Performed | 2/5/2015 | Analysis Year | 2015 |
| Analysis Time Period | PM Existing Peak Hour |  |  |
| Project Description 9-169-Lexington Club in St. Charles |  |  |  |
| East/West Street: Main Street |  | North/South Street: 9th Street |  |
| Intersection Orientation: East-West |  | Study Period (hrs): 0.25 |  |

Vehicle Volumes and Adjustments

| Major Street | Eastbound |  |  | Westbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 14 | 954 |  |  | 1430 | 138 |
| Peak-Hour Factor, PHF | 0.95 | 0.95 | 0.92 | 0.92 | 0.95 | 0.95 |
| Hourly Flow Rate, HFR (veh/h) | 14 | 1004 | 0 | 0 | 1505 | 145 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type | Two Way Left Turn Lane |  |  |  |  |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 1 | 2 | 0 | 0 | 2 | 0 |
| Configuration | L | T |  |  | T | TR |
| Upstream Signal |  | 0 |  |  | 0 |  |
| Minor Street | Northbound |  |  | Southbound |  |  |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
|  | L | T | R | L | T | R |
| Volume (veh/h) |  |  |  | 52 |  | 33 |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.95 | 0.92 | 0.95 |
| Hourly Flow Rate, HFR (veh/h) | 0 | 0 | 0 | 54 | 0 | 34 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (\%) | 0 |  |  | 0 |  |  |
| Flared Approach |  | N |  |  | N |  |
| Storage |  | 0 |  |  | 0 |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 0 | 0 | 1 | 0 | 1 |
| Configuration |  |  |  | L |  | $R$ |

Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound |  |  | Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | L |  |  |  |  | L |  | $R$ |
| v (veh/h) | 14 |  |  |  |  | 54 |  | 34 |
| C (m) (veh/h) | 397 |  |  |  |  | 124 |  | 376 |
| v/c | 0.04 |  |  |  |  | 0.44 |  | 0.09 |
| 95\% queue length | 0.11 |  |  |  |  | 1.90 |  | 0.30 |
| Control Delay (s/veh) | 14.4 |  |  |  |  | 54.7 |  | 15.5 |
| LOS | B |  |  |  |  | $F$ |  | C |
| Approach Delay (s/veh) | -- | -- |  |  |  |  | 9.6 |  |
| Approach LOS | -- | -- |  |  |  |  | E |  |



Vehicle Volumes and Adjustments

| Major Street | Eastbound |  |  | Westbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 1 | 179 |  |  | 88 | 1 |
| Peak-Hour Factor, PHF | 0.95 | 0.95 | 1.00 | 0.84 | 0.95 | 0.95 |
| Hourly Flow Rate, HFR (veh/h) | 1 | 188 | 0 | 0 | 92 | 1 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type | Undivided |  |  |  |  |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | LT |  |  |  |  | TR |
| Upstream Signal |  | 0 |  |  | 0 |  |
| Minor Street | Northbound |  |  | Southbound |  |  |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
|  | L | T | R | L | T | R |
| Volume (veh/h) |  |  |  | 1 |  | 1 |
| Peak-Hour Factor, PHF | 1.00 | 0.84 | 0.84 | 0.95 | 0.84 | 0.95 |
| $\begin{array}{l}\text { Hourly Flow Rate, HFR } \\ \text { (veh/h) }\end{array}$ | 0 | 0 | 0 | 1 | 0 | 1 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (\%) | 0 |  |  | 0 |  |  |
| Flared Approach |  | N |  |  | N |  |
| Storage |  | 0 |  |  | 0 |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 0 | 0 | 0 | 0 | 0 |
| Configuration |  |  |  |  | $L R$ |  |

Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound |  |  | Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | LT |  |  |  |  |  | LR |  |
| v (veh/h) | 1 |  |  |  |  |  | 2 |  |
| C (m) (veh/h) | 1514 |  |  |  |  |  | 822 |  |
| v/c | 0.00 |  |  |  |  |  | 0.00 |  |
| 95\% queue length | 0.00 |  |  |  |  |  | 0.01 |  |
| Control Delay (s/veh) | 7.4 |  |  |  |  |  | 9.4 |  |
| LOS | A |  |  |  |  |  | A |  |
| Approach Delay (s/veh) | -- | -- |  |  |  |  | 9.4 |  |
| Approach LOS | -- | -- |  |  |  |  | A |  |



Vehicle Volumes and Adjustments

| Major Street | Eastbound |  |  | Westbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 1 | 152 |  |  | 142 | 1 |
| Peak-Hour Factor, PHF | 0.95 | 0.95 | 1.00 | 0.84 | 0.95 | 0.95 |
| Hourly Flow Rate, HFR (veh/h) | 1 | 160 | 0 | 0 | 149 | 1 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type | Undivided |  |  |  |  |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | LT |  |  |  |  | TR |
| Upstream Signal |  | 0 |  |  | 0 |  |
| Minor Street | Northbound |  |  | Southbound |  |  |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
|  | L | T | R | L | T | R |
| Volume (veh/h) |  |  |  | 1 |  | 1 |
| Peak-Hour Factor, PHF | 1.00 | 0.84 | 0.84 | 0.95 | 0.84 | 0.95 |
| Hourly Flow Rate, HFR (veh/h) | 0 | 0 | 0 | 1 | 0 | 1 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (\%) | 0 |  |  | 0 |  |  |
| Flared Approach |  | N |  |  | N |  |
| Storage |  | 0 |  |  | 0 |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 0 | 0 | 0 | 0 | 0 |
| Configuration |  |  |  |  | LR |  |

Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound |  |  | Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | LT |  |  |  |  |  | LR |  |
| v (veh/h) | 1 |  |  |  |  |  | 2 |  |
| C (m) (veh/h) | 1444 |  |  |  |  |  | 779 |  |
| v/c | 0.00 |  |  |  |  |  | 0.00 |  |
| 95\% queue length | 0.00 |  |  |  |  |  | 0.01 |  |
| Control Delay (s/veh) | 7.5 |  |  |  |  |  | 9.6 |  |
| LOS | A |  |  |  |  |  | A |  |
| Approach Delay (s/veh) | -- | -- |  |  |  |  | 9.6 |  |
| Approach LOS | -- | -- |  |  |  |  | A |  |



Vehicle Volumes and Adjustments

| Major Street | Eastbound |  |  | Westbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 3 | 107 | 69 | 33 | 85 | 0 |
| Peak-Hour Factor, PHF | 0.67 | 0.67 | 0.67 | 0.67 | 0.67 | 0.67 |
| Hourly Flow Rate, HFR (veh/h) | 4 | 159 | 102 | 49 | 126 | 0 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type | Undivided |  |  |  |  |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | LTR |  |  | LTR |  |  |
| Upstream Signal |  | 0 |  |  | 0 |  |
| Minor Street | Northbound |  |  | Southbound |  |  |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 3 | 1 | 3 | 1 | 1 | 1 |
| Peak-Hour Factor, PHF | 0.67 | 0.67 | 0.67 | 0.67 | 0.67 | 0.67 |
| $\begin{array}{l}\text { Hourly Flow Rate, HFR } \\ \text { (veh/h) }\end{array}$ | 4 | 1 | 4 | 1 | 1 | 1 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (\%) | 0 |  |  | 0 |  |  |
| Flared Approach |  | N |  |  | N |  |
| Storage |  | 0 |  |  | 0 |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration |  | LTR |  |  | LTR |  |

Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound |  |  | Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | LTR | LTR |  | LTR |  |  | LTR |  |
| v (veh/h) | 4 | 49 |  | 9 |  |  | 3 |  |
| C (m) (veh/h) | 1473 | 1315 |  | 613 |  |  | 574 |  |
| v/c | 0.00 | 0.04 |  | 0.01 |  |  | 0.01 |  |
| 95\% queue length | 0.01 | 0.12 |  | 0.04 |  |  | 0.02 |  |
| Control Delay (s/veh) | 7.5 | 7.8 |  | 11.0 |  |  | 11.3 |  |
| LOS | A | A |  | B |  |  | B |  |
| Approach Delay (s/veh) | -- | -- |  | 11.0 |  |  | 11.3 |  |
| Approach LOS | -- | -- |  | B |  |  | B |  |


| TWO-WAY STOP CONTROL SUMMARY |  |  |  |
| :---: | :---: | :---: | :---: |
| General Information |  | Site Information |  |
| Analyst | BSM | Intersection | State Street and 7th Street |
| Agency/Co. | KLOA, Inc. | Jurisdiction | St. Charles |
| Date Performed | 2/5/2015 | Analysis Year | 2015 |
| Analysis Time Period | PM Existing Peak Hour |  |  |
| Project Description 9-169-Lexington Club in St. Charles |  |  |  |
| East/West Street: State Street |  | North/South Street: 7th Street |  |
| Intersection Orientation: East-West |  | Study Period (hrs): 0.25 |  |

Vehicle Volumes and Adjustments

| Major Street | Eastbound |  |  | Westbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 1 | 109 | 43 | 12 | 134 | 0 |
| Peak-Hour Factor, PHF | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Hourly Flow Rate, HFR (veh/h) | 1 | 131 | 51 | 14 | 161 | 0 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type | Undivided |  |  |  |  |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | LTR |  |  | LTR |  |  |
| Upstream Signal |  | 0 |  |  | 0 |  |
| Minor Street | Northbound |  |  | Southbound |  |  |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 9 | 1 | 6 | 1 | 0 | 0 |
| Peak-Hour Factor, PHF | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Hourly Flow Rate, HFR (veh/h) | 10 | 1 | 7 | 1 | 0 | 0 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (\%) | 0 |  |  | 0 |  |  |
| Flared Approach |  | N |  |  | N |  |
| Storage |  | 0 |  |  | 0 |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration |  | LTR |  |  | LTR |  |

Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound |  |  | Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | LTR | LTR |  | LTR |  |  | LTR |  |
| v (veh/h) | 1 | 14 |  | 18 |  |  | 1 |  |
| C (m) (veh/h) | 1430 | 1405 |  | 690 |  |  | 597 |  |
| v/c | 0.00 | 0.01 |  | 0.03 |  |  | 0.00 |  |
| 95\% queue length | 0.00 | 0.03 |  | 0.08 |  |  | 0.01 |  |
| Control Delay (s/veh) | 7.5 | 7.6 |  | 10.4 |  |  | 11.0 |  |
| LOS | A | A |  | B |  |  | B |  |
| Approach Delay (s/veh) | -- | -- |  | 10.4 |  |  | 11.0 |  |
| Approach LOS | -- | -- |  | B |  |  | B |  |



Vehicle Volumes and Adjustments

| Major Street | Northbound |  |  | Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 5 | 3 | 0 | 1 | 2 | 1 |
| Peak-Hour Factor, PHF | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 |
| Hourly Flow Rate, HFR (veh/h) | 6 | 4 | 0 | 1 | 2 | 1 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type | Undivided |  |  |  |  |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | LTR |  |  | LTR |  |  |
| Upstream Signal |  | 0 |  |  | 0 |  |
| Minor Street | Eastbound |  |  | Westbound |  |  |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 2 | 108 | 2 | 1 | 112 | 2 |
| Peak-Hour Factor, PHF | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 |
| $\begin{array}{l}\text { Hourly Flow Rate, HFR } \\ \text { (veh/h) }\end{array}$ | 2 | 144 | 2 | 1 | 149 | 2 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 1 |
| Percent Grade (\%) | 0 |  |  | 0 |  |  |
| Flared Approach |  | N |  |  | $N$ |  |
| Storage |  | 0 |  |  | 0 |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration |  | LTR |  |  | LTR |  |

Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound |  |  | Eastbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | LTR | LTR |  | LTR |  |  | LTR |  |
| v (veh/h) | 6 | 1 |  | 152 |  |  | 148 |  |
| C (m) (veh/h) | 1632 | 1631 |  | 875 |  |  | 875 |  |
| v/c | 0.00 | 0.00 |  | 0.17 |  |  | 0.17 |  |
| 95\% queue length | 0.01 | 0.00 |  | 0.63 |  |  | 0.61 |  |
| Control Delay (s/veh) | 7.2 | 7.2 |  | 10.0 |  |  | 9.9 |  |
| LOS | A | A |  | A |  |  | A |  |
| Approach Delay (s/veh) | -- | -- |  | 10.0 |  |  | 9.9 |  |
| Approach LOS | -- | -- |  | A |  |  | A |  |



Vehicle Volumes and Adjustments

| Major Street | Northbound |  |  | Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 4 | 2 | 3 | 2 | 0 | 6 |
| Peak-Hour Factor, PHF | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Hourly Flow Rate, HFR (veh/h) | 4 | 2 | 3 | 2 | 0 | 6 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type | Undivided |  |  |  |  |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | LTR |  |  | LTR |  |  |
| Upstream Signal |  | 0 |  |  | 0 |  |
| Minor Street | Eastbound |  |  | Westbound |  |  |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 2 | 112 | 2 | 2 | 136 | 2 |
| Peak-Hour Factor, PHF | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Hourly Flow Rate, HFR (veh/h) | 2 | 116 | 2 | 2 | 141 | 2 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 1 |
| Percent Grade (\%) | 0 |  |  | 0 |  |  |
| Flared Approach |  | N |  |  | $N$ |  |
| Storage |  | 0 |  |  | 0 |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration |  | LTR |  |  | LTR |  |

Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound |  |  | Eastbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | LTR | LTR |  | LTR |  |  | LTR |  |
| v (veh/h) | 4 | 2 |  | 145 |  |  | 120 |  |
| C (m) (veh/h) | 1628 | 1630 |  | 875 |  |  | 876 |  |
| v/c | 0.00 | 0.00 |  | 0.17 |  |  | 0.14 |  |
| 95\% queue length | 0.01 | 0.00 |  | 0.59 |  |  | 0.47 |  |
| Control Delay (s/veh) | 7.2 | 7.2 |  | 9.9 |  |  | 9.8 |  |
| LOS | A | A |  | A |  |  | A |  |
| Approach Delay (s/veh) | -- | -- |  | 9.9 |  |  | 9.8 |  |
| Approach LOS | -- | -- |  | A |  |  | A |  |

HCS 2010 Signalized Intersection Results Summary


HCS 2010 Signalized Intersection Results Summary


| TWO-WAY STOP CONTROL SUMMARY |  |  |  |
| :---: | :---: | :---: | :---: |
| General Information |  | Site Information |  |
| Analyst | BSM | Intersection | State Street and Dean Street |
| Agency/Co. | KLOA, Inc. | Jurisdiction | St. Charles |
| Date Performed | 2/5/2015 | Analysis Year | 2021 |
| Analysis Time Period | AM Projected Peak Hour |  |  |
| Project Description 9-169-Lexington Club in St. Charles |  |  |  |
| East/West Street: State Street |  | North/South Street: Dean Street |  |
| Intersection Orientation: North-South |  | Study Period (hrs): 0.25 |  |

Vehicle Volumes and Adjustments

| Major Street | Northbound |  |  | Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
|  | L | T | R | L | T | R |
| Volume (veh/h) |  | 110 | 28 | 178 | 47 |  |
| Peak-Hour Factor, PHF | 1.00 | 0.70 | 0.70 | 0.70 | 0.70 | 1.00 |
| Hourly Flow Rate, HFR (veh/h) | 0 | 157 | 40 | 254 | 67 | 0 |
| Percent Heavy Vehicles | 0 | -- | -- | 10 | -- | -- |
| Median Type | Undivided |  |  |  |  |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration |  |  | TR | LT |  |  |
| Upstream Signal |  | 0 |  |  | 0 |  |


| Minor Street | Eastbound |  |  | Westbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
|  | L | T | R | L | T | R |
| Volume (veh/h) |  |  |  | 48 |  | 71 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 0.70 | 1.00 | 0.70 |
| Hourly Flow Rate, HFR (veh/h) | 0 | 0 | 0 | 68 | 0 | 101 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 8 | 0 | 11 |
| Percent Grade (\%) |  | 0 |  |  | 0 |  |
| Flared Approach |  | N |  |  | N |  |
| Storage |  | 0 |  |  | 0 |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 0 | 0 | 0 | 0 | 0 |
| Configuration |  |  |  |  | $L R$ |  |

Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound |  |  | Eastbound |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration |  | $L T$ |  | $L R$ |  |  |  |  |
| $\mathrm{~V}(\mathrm{veh} / \mathrm{h})$ |  | 254 |  | 169 |  |  |  |  |
| $\mathrm{C}(\mathrm{m})(\mathrm{veh} / \mathrm{h})$ |  | 1329 |  | 486 |  |  |  |  |
| V c |  | 0.19 |  | 0.35 |  |  |  |  |
| $95 \%$ queue length |  | 0.71 |  | 1.54 |  |  |  |  |
| Control Delay (s/veh) |  | 8.3 |  | 16.3 |  |  |  |  |
| LOS |  | A |  | $C$ |  |  |  |  |
| Approach Delay (s/veh) | -- | -- | 16.3 |  |  |  |  |  |
| Approach LOS | -- | -- | $C$ |  |  |  |  |  |



Vehicle Volumes and Adjustments

| Major Street | Northbound |  |  | Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
|  | L | T | R | L | T | R |
| Volume (veh/h) |  | 151 | 39 | 157 | 61 |  |
| Peak-Hour Factor, PHF | 1.00 | 0.84 | 0.84 | 0.84 | 0.84 | 1.00 |
| Hourly Flow Rate, HFR (veh/h) | 0 | 179 | 46 | 186 | 72 | 0 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type | Undivided |  |  |  |  |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration |  |  | TR | LT |  |  |
| Upstream Signal |  | 0 |  |  | 0 |  |


| Minor Street | Eastbound |  |  | Westbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
|  | L | T | R | L | T | R |
| Volume (veh/h) |  |  |  | 56 |  | 130 |
| Peak-Hour Factor, PHF | 1.00 | 1.00 | 1.00 | 0.84 | 1.00 | 0.84 |
| Hourly Flow Rate, HFR (veh/h) | 0 | 0 | 0 | 66 | 0 | 154 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 1 |
| Percent Grade (\%) |  | 0 |  |  | 0 |  |
| Flared Approach |  | N |  |  | N |  |
| Storage |  | 0 |  |  | 0 |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 0 | 0 | 0 | 0 | 0 |
| Configuration |  |  |  |  | $L R$ |  |

Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound |  |  | Eastbound |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration |  | $L T$ |  | $L R$ |  |  |  |  |
| $\mathrm{~V}(\mathrm{veh} / \mathrm{h})$ |  | 186 |  | 220 |  |  |  |  |
| $\mathrm{C}(\mathrm{m})($ veh/h $)$ |  | 1356 |  | 616 |  |  |  |  |
| $\mathrm{~V} / \mathrm{c}$ |  | 0.14 |  | 0.36 |  |  |  |  |
| $95 \%$ queue length |  | 0.48 |  | 1.61 |  |  |  |  |
| Control Delay (s/veh) |  | 8.1 |  | 14.1 |  |  |  |  |
| LOS |  | $A$ |  | $B$ |  |  |  |  |
| Approach Delay (s/veh) | -- | -- | 14.1 |  |  |  |  |  |
| Approach LOS | -- | -- | B |  |  |  |  |  |


| TWO-WAY STOP CONTROL SUMMARY |  |  |  |
| :---: | :---: | :---: | :---: |
| General Information |  | Site Information |  |
| Analyst | BSM | Intersection | State Street and 2nd Street |
| Agency/Co. | KLOA, Inc. | Jurisdiction | IDOT |
| Date Performed | 2/5/2015 | Analysis Year | 2021 |
| Analysis Time Period | AM Projected Peak Hour |  |  |
| Project Description 9-169-Lexington Club in St. Charles |  |  |  |
| East/West Street: State Street |  | North/South Street: |  |
| Intersection Orientation | rth-South | Study Period (hrs): |  |

Vehicle Volumes and Adjustments

| Major Street | Northbound |  |  | Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 29 | 450 | 3 | 2 | 588 | 151 |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly Flow Rate, HFR (veh/h) | 31 | 489 | 3 | 2 | 639 | 164 |
| Percent Heavy Vehicles | 17 | -- | -- | 0 | -- | -- |
| Median Type | Undivided |  |  |  |  |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 2 | 0 | 0 | 2 | 0 |
| Configuration | LT |  | TR | LT |  | TR |
| Upstream Signal |  | 0 |  |  | 0 |  |


| Minor Street | Eastbound |  |  | Westbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 64 | 0 | 68 | 2 | 2 | 2 |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly Flow Rate, HFR (veh/h) | 69 | 0 | 73 | 2 | 2 | 2 |
| Percent Heavy Vehicles | 4 | 0 | 4 | 0 | 0 | 0 |
| Percent Grade (\%) |  | 0 |  |  | 0 |  |
| Flared Approach |  | N |  |  | $N$ |  |
| Storage |  | 0 |  |  | 0 |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration |  | LTR |  |  | LTR |  |

Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound |  |  | Eastbound |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | $L T$ | $L T$ |  | $L T R$ |  |  | LTR |  |
| V (veh/h) | 31 | 2 |  | 6 |  |  | 142 |  |
| C (m) (veh/h) | 726 | 1082 |  | 231 |  |  | 279 |  |
| $\mathrm{~V} / \mathrm{c}$ | 0.04 | 0.00 |  | 0.03 |  |  | 0.51 |  |
| $95 \%$ queue length | 0.13 | 0.01 |  | 0.08 |  |  | 2.69 |  |
| Control Delay (s/veh) | 10.2 | 8.3 |  | 21.0 |  |  | 30.6 |  |
| LOS | $B$ | $A$ |  | $C$ |  |  | $D$ |  |
| Approach Delay (s/veh) | -- | -- | 21.0 |  |  | 30.6 |  |  |
| Approach LOS | -- | -- | $C$ |  |  | C |  |  |


| TWO-WAY STOP CONTROL SUMMARY |  |  |  |
| :---: | :---: | :---: | :---: |
| General Information |  | Site Information |  |
| Analyst | BSM | Intersection | State Street and 2nd Street |
| Agency/Co. | KLOA, Inc. | Jurisdiction | IDOT |
| Date Performed | 2/5/2015 | Analysis Year | 2021 |
| Analysis Time Period | PM Projected Peak Hour |  |  |
| Project Description 9-169-Lexington Club in St. Charles |  |  |  |
| East/West Street: State Street |  | North/South Street: |  |
| Intersection Orientation | rth-South | Study Period (hrs): |  |

Vehicle Volumes and Adjustments

| Major Street | Northbound |  |  | Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 41 | 619 | 3 | 1 | 523 | 151 |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly Flow Rate, HFR (veh/h) | 44 | 672 | 3 | 1 | 568 | 164 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type | Undivided |  |  |  |  |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 2 | 0 | 0 | 2 | 0 |
| Configuration | LT |  | TR | LT |  | TR |
| Upstream Signal |  | 0 |  |  | 0 |  |


| Minor Street | Eastbound |  |  | Westbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 95 | 0 | 65 | 2 | 1 | 1 |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Hourly Flow Rate, HFR (veh/h) | 103 | 0 | 70 | 2 | 1 | 1 |
| Percent Heavy Vehicles | 1 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (\%) |  | 0 |  |  | 0 |  |
| Flared Approach |  | N |  |  | $N$ |  |
| Storage |  | 0 |  |  | 0 |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration |  | LTR |  |  | LTR |  |

Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound |  |  | Eastbound |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | $L T$ | $L T$ |  | $L T R$ |  |  | LTR |  |
| V (veh/h) | 44 | 1 |  | 4 |  |  | 173 |  |
| C (m) (veh/h) | 882 | 926 |  | 179 |  |  | 241 |  |
| $\mathrm{~V} / \mathrm{c}$ | 0.05 | 0.00 |  | 0.02 |  |  | 0.72 |  |
| $95 \%$ queue length | 0.16 | 0.00 |  | 0.07 |  |  | 4.86 |  |
| Control Delay (s/veh) | 9.3 | 8.9 |  | 25.6 |  |  | 50.6 |  |
| LOS | A | A |  | $D$ |  |  | $F$ |  |
| Approach Delay (s/veh) | -- | -- | 25.6 |  |  | 50.6 |  |  |
| Approach LOS | -- | -- | $D$ |  |  | F |  |  |


| TWO-WAY STOP CONTROL SUMMARY |  |  |  |
| :---: | :---: | :---: | :---: |
| General Information |  | Site Information |  |
| Analyst | BSM | Intersection | Main Street and 9th Street |
| Agency/Co. | KLOA, Inc. | Jurisdiction | IDOT |
| Date Performed | 2/5/2015 | Analysis Year | 2021 |
| Analysis Time Period | AM Projected Peak Hour |  |  |
| Project Description 9-169-Lexington Club in St. Charles |  |  |  |
| East/West Street: Main Street |  | North/South Street: 9th Street |  |
| Intersection Orientation: East-West |  | Study Period (hrs): 0.25 |  |

Vehicle Volumes and Adjustments

| Major Street | Eastbound |  |  | Westbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 28 | 1626 |  |  | 707 | 118 |
| Peak-Hour Factor, PHF | 0.94 | 0.94 | 0.92 | 0.92 | 0.94 | 0.94 |
| Hourly Flow Rate, HFR (veh/h) | 29 | 1729 | 0 | 0 | 752 | 125 |
| Percent Heavy Vehicles | 6 | -- | -- | 0 | -- | -- |
| Median Type | Two Way Left Turn Lane |  |  |  |  |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 1 | 2 | 0 | 0 | 2 | 0 |
| Configuration | L | T |  |  | T | TR |
| Upstream Signal |  | 0 |  |  | 0 |  |
| Minor Street | Northbound |  |  | Southbound |  |  |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
|  | L | T | R | L | T | R |
| Volume (veh/h) |  |  |  | 53 |  | 42 |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.94 | 0.92 | 0.94 |
| Hourly Flow Rate, HFR (veh/h) | 0 | 0 | 0 | 56 | 0 | 44 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 2 | 0 | 12 |
| Percent Grade (\%) | 0 |  |  | 0 |  |  |
| Flared Approach |  | $N$ |  |  | N |  |
| Storage |  | 0 |  |  | 0 |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 0 | 0 | 1 | 0 | 1 |
| Configuration |  |  |  | L |  | $R$ |

Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound |  |  | Southbound |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | $L$ |  |  |  |  | $L$ |  | $R$ |
| v (veh/h) | 29 |  |  |  |  | 56 |  | 44 |
| C (m) (veh/h) | 741 |  |  |  |  | 200 |  | 588 |
| v/c | 0.04 |  |  |  |  | 0.28 |  | 0.07 |
| $95 \%$ queue length | 0.12 |  |  |  |  | 1.10 |  | 0.24 |
| Control Delay (s/veh) | 10.1 |  |  |  |  | 29.9 |  | 11.6 |
| LOS | $B$ |  |  |  |  | $D$ |  | $B$ |
| Approach Delay (s/veh) | -- | -- |  |  | 21.8 |  |  | $C$ |
| Approach LOS | -- | -- |  |  | $C$ |  |  |  |


| TWO-WAY STOP CONTROL SUMMARY |  |  |  |
| :---: | :---: | :---: | :---: |
| General Information |  | Site Information |  |
| Analyst | BSM | Intersection | Main Street and 9th Street |
| Agency/Co. | KLOA, Inc. | Jurisdiction | IDOT |
| Date Performed | 2/5/2015 | Analysis Year | 2021 |
| Analysis Time Period | PM Projected Peak Hour |  |  |
| Project Description 9-169-Lexington Club in St. Charles |  |  |  |
| East/West Street: Main Street |  | North/South Street: 9th Street |  |
| Intersection Orientation: East-West |  | Study Period (hrs): 0.25 |  |

Vehicle Volumes and Adjustments

| Major Street | Eastbound |  |  | Westbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 27 | 1014 |  |  | 1516 | 164 |
| Peak-Hour Factor, PHF | 0.95 | 0.95 | 0.92 | 0.92 | 0.95 | 0.95 |
| Hourly Flow Rate, HFR (veh/h) | 28 | 1067 | 0 | 0 | 1595 | 172 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type | Two Way Left Turn Lane |  |  |  |  |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 1 | 2 | 0 | 0 | 2 | 0 |
| Configuration | L | T |  |  | T | TR |
| Upstream Signal |  | 0 |  |  | 0 |  |
| Minor Street | Northbound |  |  | Southbound |  |  |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
|  | L | T | R | L | T | R |
| Volume (veh/h) |  |  |  | 66 |  | 51 |
| Peak-Hour Factor, PHF | 0.92 | 0.92 | 0.92 | 0.95 | 0.92 | 0.95 |
| Hourly Flow Rate, HFR (veh/h) | 0 | 0 | 0 | 69 | 0 | 53 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (\%) | 0 |  |  | 0 |  |  |
| Flared Approach |  | N |  |  | N |  |
| Storage |  | 0 |  |  | 0 |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 0 | 0 | 1 | 0 | 1 |
| Configuration |  |  |  | L |  | $R$ |

Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound |  |  | Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | $L$ |  |  |  |  | L |  | $R$ |
| v (veh/h) | 28 |  |  |  |  | 69 |  | 53 |
| C (m) (veh/h) | 358 |  |  |  |  | 108 |  | 347 |
| v/c | 0.08 |  |  |  |  | 0.64 |  | 0.15 |
| 95\% queue length | 0.25 |  |  |  |  | 3.20 |  | 0.53 |
| Control Delay (s/veh) | 15.9 |  |  |  |  | 84.3 |  | 17.2 |
| LOS | C |  |  |  |  | $F$ |  | C |
| Approach Delay (s/veh) | -- | -- |  |  |  |  | 5.2 |  |
| Approach LOS | -- | -- |  |  |  |  | $F$ |  |


| TWO-WAY STOP CONTROL SUMMARY |  |  |  |
| :---: | :---: | :---: | :---: |
| General Information |  | Site Information |  |
| Analyst | BSM | Intersection | State Street and 9th Street |
| Agency/Co. | KLOA, Inc. | Jurisdiction | St. Charles |
| Date Performed | 2/5/2015 | Analysis Year | 2021 |
| Analysis Time Period | AM Projected Peak Hour |  |  |
| Project Description 9-169-Lexington Club in St. Charles |  |  |  |
| East/West Street: State Street |  | North/South Street: 9th Street |  |
| Intersection Orientation: East-West |  | Study Period (hrs): 0.25 |  |

Vehicle Volumes and Adjustments

| Major Street | Eastbound |  |  | Westbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 11 | 190 |  |  | 93 | 17 |
| Peak-Hour Factor, PHF | 0.95 | 0.95 | 1.00 | 0.84 | 0.95 | 0.95 |
| Hourly Flow Rate, HFR (veh/h) | 11 | 200 | 0 | 0 | 97 | 17 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type | Undivided |  |  |  |  |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | LT |  |  |  |  | TR |
| Upstream Signal |  | 0 |  |  | 0 |  |
| Minor Street | Northbound |  |  | Southbound |  |  |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
|  | L | T | R | L | T | R |
| Volume (veh/h) |  |  |  | 9 |  | 25 |
| Peak-Hour Factor, PHF | 1.00 | 0.84 | 0.84 | 0.95 | 0.84 | 0.95 |
| $\begin{array}{l}\text { Hourly Flow Rate, HFR } \\ \text { (veh/h) }\end{array}$ | 0 | 0 | 0 | 9 | 0 | 26 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (\%) | 0 |  |  | 0 |  |  |
| Flared Approach |  | N |  |  | N |  |
| Storage |  | 0 |  |  | 0 |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 0 | 0 | 0 | 0 | 0 |
| Configuration |  |  |  |  | $L R$ |  |

Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound |  |  | Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | LT |  |  |  |  |  | LR |  |
| v (veh/h) | 11 |  |  |  |  |  | 35 |  |
| C (m) (veh/h) | 1488 |  |  |  |  |  | 859 |  |
| v/c | 0.01 |  |  |  |  |  | 0.04 |  |
| 95\% queue length | 0.02 |  |  |  |  |  | 0.13 |  |
| Control Delay (s/veh) | 7.4 |  |  |  |  |  | 9.4 |  |
| LOS | A |  |  |  |  |  | A |  |
| Approach Delay (s/veh) | -- | -- |  |  |  |  | 9.4 |  |
| Approach LOS | -- | -- |  |  |  |  | A |  |


| TWO-WAY STOP CONTROL SUMMARY |  |  |  |
| :---: | :---: | :---: | :---: |
| General Information |  | Site Information |  |
| Analyst | BSM | Intersection | State Street and 9th Street |
| Agency/Co. | KLOA, Inc. | Jurisdiction | St. Charles |
| Date Performed | 2/5/2015 | Analysis Year | 2021 |
| Analysis Time Period | PM Projected Peak Hour |  |  |
| Project Description 9-169-Lexington Club in St. Charles |  |  |  |
| East/West Street: State Street |  | North/South Street: 9th Street |  |
| Intersection Orientation: East-West |  | Study Period (hrs): 0.25 |  |

Vehicle Volumes and Adjustments

| Major Street | Eastbound |  |  | Westbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 33 | 161 |  |  | 150 | 10 |
| Peak-Hour Factor, PHF | 0.95 | 0.95 | 1.00 | 0.84 | 0.95 | 0.95 |
| Hourly Flow Rate, HFR (veh/h) | 34 | 169 | 0 | 0 | 157 | 10 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type | Undivided |  |  |  |  |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | LT |  |  |  |  | TR |
| Upstream Signal |  | 0 |  |  | 0 |  |
| Minor Street | Northbound |  |  | Southbound |  |  |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
|  | L | T | R | L | T | R |
| Volume (veh/h) |  |  |  | 19 |  | 35 |
| Peak-Hour Factor, PHF | 1.00 | 0.84 | 0.84 | 0.95 | 0.84 | 0.95 |
| $\begin{array}{l}\text { Hourly Flow Rate, HFR } \\ \text { (veh/h) }\end{array}$ | 0 | 0 | 0 | 20 | 0 | 36 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (\%) | 0 |  |  | 0 |  |  |
| Flared Approach |  | N |  |  | N |  |
| Storage |  | 0 |  |  | 0 |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 0 | 0 | 0 | 0 | 0 |
| Configuration |  |  |  |  | $L R$ |  |

Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound |  |  | Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | LT |  |  |  |  |  | LR |  |
| v (veh/h) | 34 |  |  |  |  |  | 56 |  |
| C (m) (veh/h) | 1423 |  |  |  |  |  | 756 |  |
| v/c | 0.02 |  |  |  |  |  | 0.07 |  |
| 95\% queue length | 0.07 |  |  |  |  |  | 0.24 |  |
| Control Delay (s/veh) | 7.6 |  |  |  |  |  | 10.1 |  |
| LOS | A |  |  |  |  |  | B |  |
| Approach Delay (s/veh) | -- | -- |  |  |  |  | 10.1 |  |
| Approach LOS | -- | -- |  |  |  |  | B |  |


| TWO-WAY STOP CONTROL SUMMARY |  |  |  |
| :---: | :---: | :---: | :---: |
| General Information |  | Site Information |  |
| Analyst | BSM | Intersection | State Street and 7th Street |
| Agency/Co. | KLOA, Inc. | Jurisdiction | St. Charles |
| Date Performed | 2/5/2015 | Analysis Year | 2021 |
| Analysis Time Period | AM Projected Peak Hour |  |  |
| Project Description 9-169-Lexington Club in St. Charles |  |  |  |
| East/West Street: State Street |  | North/South Street: 7th Street |  |
| Intersection Orientation: East-West |  | Study Period (hrs): 0.25 |  |

Vehicle Volumes and Adjustments

| Major Street | Eastbound |  |  | Westbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 3 | 128 | 68 | 35 | 106 | 1 |
| Peak-Hour Factor, PHF | 0.67 | 0.67 | 0.67 | 0.67 | 0.67 | 0.67 |
| Hourly Flow Rate, HFR (veh/h) | 4 | 191 | 101 | 52 | 158 | 1 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type | Undivided |  |  |  |  |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | LTR |  |  | LTR |  |  |
| Upstream Signal |  | 0 |  |  | 0 |  |
| Minor Street | Northbound |  |  | Southbound |  |  |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 3 | 24 | 3 | 5 | 24 | 1 |
| Peak-Hour Factor, PHF | 0.67 | 0.67 | 0.67 | 0.67 | 0.67 | 0.67 |
| Hourly Flow Rate, HFR (veh/h) | 4 | 35 | 4 | 7 | 35 | 1 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (\%) | 0 |  |  | 0 |  |  |
| Flared Approach |  | N |  |  | $N$ |  |
| Storage |  | 0 |  |  | 0 |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration |  | LTR |  |  | LTR |  |

Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound |  |  | Southbound |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | LTR | LTR |  | LTR |  |  | $L T R$ |  |
| v (veh/h) | 4 | 52 |  | 43 |  |  | 43 |  |
| C (m) (veh/h) | 1433 | 1281 |  | 462 |  |  | 423 |  |
| v/c | 0.00 | 0.04 |  | 0.09 |  |  | 0.10 |  |
| $95 \%$ queue length | 0.01 | 0.13 |  | 0.31 |  |  | 0.34 |  |
| Control Delay (s/veh) | 7.5 | 7.9 |  | 13.6 |  |  | 14.5 |  |
| LOS | $A$ | $A$ |  | $B$ |  |  | $B$ |  |
| Approach Delay (s/veh) | -- | -- |  | 13.6 |  | 14.5 |  |  |
| Approach LOS | -- | -- | $B$ |  |  |  |  |  |


| TWO-WAY STOP CONTROL SUMMARY |  |  |  |
| :---: | :---: | :---: | :---: |
| General Information |  | Site Information |  |
| Analyst | BSM | Intersection | State Street and 7th Street |
| Agency/Co. | KLOA, Inc. | Jurisdiction | St. Charles |
| Date Performed | 2/5/2015 | Analysis Year | 2021 |
| Analysis Time Period | PM Projected Peak Hour |  |  |
| Project Description 9-169-Lexington Club in St. Charles |  |  |  |
| East/West Street: State Street |  | North/South Street: 7th Street |  |
| Intersection Orientation: East-West |  | Study Period (hrs): 0.25 |  |

Vehicle Volumes and Adjustments

| Major Street | Eastbound |  |  | Westbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 1 | 133 | 46 | 13 | 150 | 4 |
| Peak-Hour Factor, PHF | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Hourly Flow Rate, HFR (veh/h) | 1 | 160 | 55 | 15 | 180 | 4 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type | Undivided |  |  |  |  |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | LTR |  |  | LTR |  |  |
| Upstream Signal |  | 0 |  |  | 0 |  |
| Minor Street | Northbound |  |  | Southbound |  |  |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 10 | 20 | 6 | 3 | 28 | 0 |
| Peak-Hour Factor, PHF | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 | 0.83 |
| Hourly Flow Rate, HFR (veh/h) | 12 | 24 | 7 | 3 | 33 | 0 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Grade (\%) | 0 |  |  | 0 |  |  |
| Flared Approach |  | N |  |  | N |  |
| Storage |  | 0 |  |  | 0 |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration |  | LTR |  |  | LTR |  |

Delay, Queue Length, and Level of Service

| Approach | Eastbound | Westbound | Northbound |  |  | Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | LTR | LTR |  | LTR |  |  | LTR |  |
| v (veh/h) | 1 | 15 |  | 43 |  |  | 36 |  |
| C (m) (veh/h) | 1403 | 1367 |  | 562 |  |  | 515 |  |
| v/c | 0.00 | 0.01 |  | 0.08 |  |  | 0.07 |  |
| 95\% queue length | 0.00 | 0.03 |  | 0.25 |  |  | 0.22 |  |
| Control Delay (s/veh) | 7.6 | 7.7 |  | 11.9 |  |  | 12.5 |  |
| LOS | A | A |  | B |  |  | B |  |
| Approach Delay (s/veh) | -- | -- |  | 11.9 |  |  | 12.5 |  |
| Approach LOS | -- | -- |  | B |  |  | B |  |


| TWO-WAY STOP CONTROL SUMMARY |  |  |  |
| :---: | :---: | :---: | :---: |
| General Information |  | Site Information |  |
| Analyst | BSM | Intersection | State Street and 6th Street |
| Agency/Co. | KLOA, Inc. | Jurisdiction | St. Charles |
| Date Performed | 2/5/2015 | Analysis Year | 2021 |
| Analysis Time Period | AM Projected Peak Hour |  |  |
| Project Description 9-169-Lexington Club in St. Charles |  |  |  |
| East/West Street: State Street |  | North/South Street: 6th Street |  |
| Intersection Orientation: North-South |  | Study Period (hrs): 0.25 |  |

Vehicle Volumes and Adjustments

| Major Street | Northbound |  |  | Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 5 | 3 | 0 | 11 | 2 | 1 |
| Peak-Hour Factor, PHF | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 |
| Hourly Flow Rate, HFR (veh/h) | 6 | 4 | 0 | 14 | 2 | 1 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type | Undivided |  |  |  |  |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | LTR |  |  | LTR |  |  |
| Upstream Signal |  | 0 |  |  | 0 |  |
| Minor Street | Eastbound |  |  | Westbound |  |  |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 2 | 132 | 2 | 1 | 136 | 5 |
| Peak-Hour Factor, PHF | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 |
| Hourly Flow Rate, HFR (veh/h) | 2 | 176 | 2 | 1 | 181 | 6 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 1 |
| Percent Grade (\%) | 0 |  |  | 0 |  |  |
| Flared Approach |  | N |  |  | $N$ |  |
| Storage |  | 0 |  |  | 0 |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration |  | LTR |  |  | LTR |  |

Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound |  |  | Eastbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | LTR | LTR |  | LTR |  |  | LTR |  |
| v (veh/h) | 6 | 14 |  | 188 |  |  | 180 |  |
| C (m) (veh/h) | 1632 | 1631 |  | 844 |  |  | 840 |  |
| v/c | 0.00 | 0.01 |  | 0.22 |  |  | 0.21 |  |
| 95\% queue length | 0.01 | 0.03 |  | 0.85 |  |  | 0.81 |  |
| Control Delay (s/veh) | 7.2 | 7.2 |  | 10.5 |  |  | 10.5 |  |
| LOS | A | A |  | B |  |  | B |  |
| Approach Delay (s/veh) | -- | -- |  | 10.5 |  |  | 10.5 |  |
| Approach LOS | -- | -- |  | B |  |  | B |  |


| TWO-WAY STOP CONTROL SUMMARY |  |  |  |
| :---: | :---: | :---: | :---: |
| General Information |  | Site Information |  |
| Analyst | BSM | Intersection | State Street and 6th Street |
| Agency/Co. | KLOA, Inc. | Jurisdiction | St. Charles |
| Date Performed | 2/5/2015 | Analysis Year | 2021 |
| Analysis Time Period | PM Projected Peak Hour |  |  |
| Project Description 9-169-Lexington Club in St. Charles |  |  |  |
| East/West Street: State Street |  | North/South Street: 6th Street |  |
| Intersection Orientation: North-South |  | Study Period (hrs): 0.25 |  |

Vehicle Volumes and Adjustments

| Major Street | Northbound |  |  | Southbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 2 | 3 | 4 | 5 | 6 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 4 | 2 | 3 | 8 | 0 | 6 |
| Peak-Hour Factor, PHF | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Hourly Flow Rate, HFR (veh/h) | 4 | 2 | 3 | 8 | 0 | 6 |
| Percent Heavy Vehicles | 0 | -- | -- | 0 | -- | -- |
| Median Type | Undivided |  |  |  |  |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration | LTR |  |  | LTR |  |  |
| Upstream Signal |  | 0 |  |  | 0 |  |
| Minor Street | Eastbound |  |  | Westbound |  |  |
| Movement | 7 | 8 | 9 | 10 | 11 | 12 |
|  | L | T | R | L | T | R |
| Volume (veh/h) | 2 | 138 | 2 | 2 | 157 | 13 |
| Peak-Hour Factor, PHF | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Hourly Flow Rate, HFR (veh/h) | 2 | 143 | 2 | 2 | 163 | 13 |
| Percent Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 1 |
| Percent Grade (\%) | 0 |  |  | 0 |  |  |
| Flared Approach |  | N |  |  | $N$ |  |
| Storage |  | 0 |  |  | 0 |  |
| RT Channelized |  |  | 0 |  |  | 0 |
| Lanes | 0 | 1 | 0 | 0 | 1 | 0 |
| Configuration |  | LTR |  |  | LTR |  |

## Delay, Queue Length, and Level of Service

| Approach | Northbound | Southbound | Westbound |  |  | Eastbound |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | 1 | 4 | 7 | 8 | 9 | 10 | 11 | 12 |
| Lane Configuration | LTR | LTR |  | LTR |  |  | LTR |  |
| v (veh/h) | 4 | 8 |  | 178 |  |  | 147 |  |
| C (m) (veh/h) | 1628 | 1630 |  | 869 |  |  | 859 |  |
| v/c | 0.00 | 0.00 |  | 0.20 |  |  | 0.17 |  |
| 95\% queue length | 0.01 | 0.01 |  | 0.77 |  |  | 0.62 |  |
| Control Delay (s/veh) | 7.2 | 7.2 |  | 10.2 |  |  | 10.1 |  |
| LOS | A | A |  | B |  |  | B |  |
| Approach Delay (s/veh) | -- | -- |  | 10.2 |  |  | 10.1 |  |
| Approach LOS | -- | -- |  | B |  |  | B |  |

