

VILLAGE BOARD
Committee of the Whole Meeting

April 16, 2018 – 7:00 PM (following Village Board Meeting)
Lemont Village Hall – Village Board Room
418 Main St., Lemont, IL 60439

AGENDA

- I. Call to Order
- II. Roll Call
- III. Discussion Items
 - A. Government Insurance Network (GIN) Intergovernmental Agreement (IGA) and Proposed Bylaws Discussion
(Administration)(Egofske)(Schafer)
 - B. 4th Street Connection Discussion
(Administration)(Egofske)(Schafer)
 - C. UDO Deviations in PUDs Discussion
(Community Development)(Stapleton)(Berry)
- IV. Unfinished Business
- V. New Business
- VI. Audience Participation
- VII. Executive Session
 - A. Setting of a price for sale or lease or property owned by the Village-
5 ILCS 2(c)3
 - B. Pending Litigation – 5 ILCS 2(c)11
- VIII. Adjourn

TO: Mayor and Village Board
FROM: George J. Schafer, Village Administrator

SUBJECT: Government Insurance Network (GIN) Intergovernmental Agreement and Proposed Bylaws Discussion

DATE: April 13, 2018

SUMMARY/ BACKGROUND

As the Village heads into FY 2018-19 budget planning, we are once again faced with declining revenues in our main revenue streams and increased costs. Along with salaries and pension obligations, health insurance coverage for our Village employees is one of the Village's primary cost drivers, especially significant to the Village's general fund.

Myself and several other managers/administrators of nearby Villages and cities have been evaluating more advantageous options for our communities. The purpose of this evaluation is to realize savings and improved service in the short-term and for the ability to have more local control over decisions made by the pool to realize long-term savings. These key decisions include the addition of new members, the plan design and vendors offered to the group, and decision on distribution of dividends to the pool.

Because of the Village's size (approximately 70 employee lives) a pooled option is preferred to cooperatively purchase health insurance and share costs among a larger sample to smooth out the effects of years with bad experience. As such, we have been investigating a new pool with enough covered lives to be credible, while small enough to maintain control of key decisions. Over the last several months, we have collaborated with two other communities from our existing sub-pool and four others to create a new pool to meet our desired outcomes. The initial and founding members of the pool will be Lemont, Romeoville, New Lenox, Elmhurst, Frankfort, Westmont and Shorewood.

In order to implement the pool, there is an intergovernmental agreement required of each member. The IGA is intended to be broad and cover major business points, where the pool board will also approve bylaws that govern the more detailed rules and regulations that may change over time. If acceptable, staff will prepare a formal resolution at the next Village Board Meeting.

ATTACHMENTS

1. Draft IGA
2. Draft Bylaws (not required for approval by board, included for information only)

SPECIFIC VILLAGE BOARD ACTION REQUIRED

Discussion

**Intergovernmental Agreement to Establish
Government Insurance Network**

This Agreement to establish the Government Insurance Network Agreement (the “Agreement”) is made April ___, 2018 by and among the units of local government that are listed on Appendix A, attached hereto and expressly incorporated, herein, each of which may hereafter be referred to as “Member” and which, collectively, may be referred to hereinafter as “Members.” Appendix A lists the names and address of the Members that are parties as of the Effective Date and may be amended from time to time as new Members join or as Members withdraw. This Agreement supersedes any prior written or oral agreement. This agreement is effective upon the full approval and execution of this Agreement by the City of Elmhurst, Village of Frankfort, Village of Lemont, Village of New Lenox, Village of Romeoville, Village of Shorewood, and the Village of Westmont (“Effective Date”).

WITNESSETH

WHEREAS, the Illinois Constitution of 1970, Art, §10 and Intergovernmental Cooperation Act (5 ILCS § 220/1 et seq.) provide that units of local government may contract or otherwise associate among themselves to obtain or share services or to exercise, combine, or transfer any power or function in any manner not prohibited by law or ordinance. Units of local government may contract and otherwise associate with individuals, associations, and corporations in any matter not prohibited by law or ordinance; and,

WHEREAS, the Intergovernmental Cooperation Act specifically provides that an intergovernmental contract may, among other undertakings, authorize public agencies to jointly self-insure and authorize each public agency member of the contract to utilize its funds to pay to a joint insurance pool its costs and reserves to protect, wholly or partially, itself or any public agency member of the contract against liability or loss in the designated insurable area (5 ILCS 220/6); and,

WHEREAS, the Members have undertaken a series of studies to determine the feasibility of entering into an Intergovernmental Benefits Cooperative for the purpose of administering some or all of the personnel benefits programs offered by its Member units of local government to their respective officers and employees and have concluded that the creation of such a cooperative is financially and administratively feasible; and,

WHEREAS, the Members desire to establish a cooperative for funding and administering insurance benefit programs including, but not limited to, health, life, , dental, and vision; and,

WHEREAS, the Members desire to create an intergovernmental joint insurance pool hereby designated as Governmental Insurance Network, hereinafter referred to as “GIN”; and,

WHEREAS, the Members, by this Agreement, are desirous of establishing their mutual rights and obligations with respect to their membership in GIN; and,

THEREFORE, in consideration of the foregoing recitals and of the mutual covenants, promises, and obligations contained hereinafter, the adequacy and sufficiency of which the parties hereby stipulate, the Members covenant, promise, and agree as follows:

ARTICLE I

ESTABLISH OF THE GOVERNMENT INSURANCE NETWORK

1.1 PREAMBLE- The recitals set forth in the foregoing preamble are specifically incorporated into and made a part of this Agreement, as though fully set forth in this Section 1.1

1.2 NAME- The Members hereby establish a benefit Network as authorized by the provisions of the Constitution of Illinois and the Illinois Intergovernmental Cooperation Act, which shall be known as the Government Insurance Network (the “Network” or “GIN”).

1.3 PURPOSE – The purpose of the Network is to create a joint insurance pool to administer and provide certain benefits including, but not limited to, health, life, , dental, and vision for the Members’ eligible employees, employees’ dependents, and retirees and the officers and employees of other governmental entities and the quasi-governmental, and non-profit public service entities with which some or all Members have separately arranged to list (“Listed Entities”), and the Board of Directors has approved, as if such officers and employees were employed by the Member pursuant to a group plan (“The Plan”). Each Member remains individually responsible for any and all benefit programs that are not a part of any Network Plan.

The Network is not intended to transact insurance business within the State of Illinois. The intent of the parties is to separately establish benefit programs and to utilize the Network to achieve reduced costs of administration and insurance purchases by providing similar services to

all Members and to require Members to pay for the costs of such benefits or to share such costs in the manner from time-to-time established by the Board of Directors.

1.4 FISCAL YEAR – The Fiscal Year shall be the one-year period commencing on July 1 and ending on June 30, unless otherwise modified by the Board of Directors.

ARTICLE II

AUTHORITY AND DUTIES OF BOARD

2.1 COMPOSITION OF BOARD – The Network shall be managed by a Board of Directors (the “Board”) pursuant to the terms of this Agreement and the attached Bylaws for the Board, as amended from time to time by the Board not otherwise inconsistent with this agreement (Exhibit “C”). The Board shall be comprised of one (1) representative of each Member chosen in the manner applicable to that governmental body and shall promptly notify the Network of such selection. The Member may also send an alternate representative to serve when the primary representative is unable to carry out his or her duties, or otherwise resigns from the Board. Board members and alternate representatives must be an employee of each Member. Each Member shall only have one (1) vote on the Board of Directors.

2.2 POWERS AND DUTIES OF NETWORK BOARD – The Board shall determine the general policy of GIN which shall be followed by the Member and the representative and/or alternate of the Member. No one serving on the Board of Directors of GIN shall receive any salary or other payment from GIN for providing such service thereto. The Board shall have the authority to take any action necessary to do the following:

- A. To enter into written contracts in order to procure the necessary services, supplies, insurance and/or property necessary to accomplish the purpose of the Plan.
- B. To establish Members’ monthly contributions for payments to the Plan, as described below, on an annual basis.
- C. To require Members to make additional supplementary payments to the Plan during the fiscal year, as may be required in extraordinary circumstance to avoid insolvency.
- D. To place all or part of the assets of the GIN Plan into funds necessary for the administration and operation of the Network and establish an investment policy.
- E. To study issues with Members and make recommendations.

- F. To recommend to its Members programs and educational materials relating to claim reductions.
- G. To direct the collection, accounting and distribution of funds to be used for the administration of the Plan and the providing of benefits hereunder.
- H. To cause to be purchased stop loss, and other types of insurance as authorized by the Board.
- I. To approve changes in its operating policies and procedures.
- J. To approve the fees for all authorized service providers.
- K. To procure fidelity bonds, fiduciary liability insurance, errors and omissions coverage, and any other insurance or coverage for Board members, officers, consultants, claims administrators, employees, representatives or other persons, as required by this Agreement or by law, or as deemed appropriate by the Board.
- L. To expel any Member from the participation in the Plan for failure to perform its obligations under this Agreement or as otherwise enumerated herein.
- M. To hire employees to perform any duties including but not limited to conducting day to day or ministerial functions, reviewing benefit claims and appeals, studying issues, recommendations or proposals and making recommendations to the Board.
- N. To retain brokers, consultants, employees, independent contractors, insurance consultants, a cooperative (group) administrator, attorneys, auditors, or other professionals as to accomplish the purposes of the Network. To appoint a claim administrator, who shall be responsible for the processing of benefit payment applications and for paying benefit claims under the direction and control of the Board, provided that the claim administrator shall be bonded to provide faithful performance of its duties and responsibilities, and shall provide acceptable insurance coverage for errors and omissions.
- O. To provide to the Members an annual audit of the financial affairs of the Network to be made by a certified public accountant at the end of each fiscal year in accordance with generally accepted auditing principals and to otherwise file all necessary audits and actuarial opinions as required by the Illinois Department of Insurance and/or the Director of Insurance.

- P. To delegate any or all of its duties and obligations, not otherwise limited by law, to any entity(ies) or individual(s), as may be necessary to administer and accomplish the purpose of the Plan, including: an agent(s), broker(s), employee(s), independent contractor(s), claim administrator(s), attorney(s), accountant(s), consultant(s), investment manager(s), and such other persons as may be necessary to administer and accomplish the purpose of the Plan.
- Q. Within the budgetary limits established by the Members, to perform such other activities as are necessarily implied or required to carry out the purpose of the Plan or the specific activities enumerated herein.

2.3 MEETINGS OF THE BOARD AND DUTIES OF OFFICERS

Regular meetings of the Board shall be held as necessary to carry out the purpose and business of the Network. A minimum of four (4) meetings shall be scheduled each fiscal year. The dates of regular meetings of the Board shall be established at the beginning of each fiscal year. Meetings will follow a previously prepared agenda containing all business items requested by any Board Member and/or any Member for consideration. The agenda should be provided to each Member five (5) business days in advance of such meeting.

Officers shall be elected from among the Board members and shall include one President, one Vice President, one Secretary and one Treasurer. All checks authorized by the Board must be signed by any two of these four (4) Officers. The Officers shall be elected by a majority vote. Each Officer shall serve two (2) year terms until he or she is replaced by a subsequent election or until the effective date of his or her resignation. There shall be no term limits for elected Officers. Officers shall be elected at GIN's first organizational meeting, which shall take place within 30 days of the commencement of GIN, and thereafter at the last regular meeting of a fiscal year in which elections are to be held. Officers shall serve until their successors have been chosen and begin their terms. The Board may from time to time establish other offices and may elect a Board member to serve in any of the newly established offices. An Officer may resign his or her office by giving the President written notice of such resignation at least thirty (30) days in advance of the effective date of such resignation. In the event that an Officer resigns, dies, becomes disabled or is otherwise unable or unwilling to act, such Officer may be replaced by a majority vote. .

The President shall preside at all meetings of the Board and shall have such other powers and duties as are set forth in the Bylaws or by other action of the Board of Directors. The Vice President shall carry out all duties of the President during the absence or inability of the President to perform such duties and shall carry out such other functions as are assigned from time to time by the President and/or the Board of Directors. The Treasurer shall have charge and custody and shall be responsible for all funds and securities of the Network; receive and give all receipts of monies due and payable to the Network from any source whatsoever; deposit all such monies in the name of Network in such banks, savings and loan associations or other depositories as shall be selected by the Board of Directors; invest the funds of the Network as are not immediately required in such investments as the Board of Directors shall specifically or generally select from time to time; and maintain the financial books and records of the Network; provided, however, that all investments of Network funds shall be made only in those securities which may be purchased pursuant to Illinois law. The Treasurer shall perform all duties incident to the office of Treasurer and such other duties as from time to time may be assigned to him/her by the President and/or the Board of Directors. Notwithstanding the duties and responsibilities of the Treasurer herein provided, the Board of Directors by vote may, except as otherwise limited by law, delegate, wholly or in part, the responsibility for, and the regular or routine administration of, one or more of the Treasurer's duties to one or more agents, other officers, or employees of the Network who are not Directors. To the extent that the Board does delegate the duties of the Treasurer, the Treasurer shall be released from such duties and responsibilities. The powers, duties, and compensation of any agents for the Treasurer shall be approved by the Board of Directors. The Secretary shall create and maintain a file of all minutes. The Secretary shall be designated as the custodian of the minutes. The Board of Directors by vote may, except as otherwise limited by law, delegate, wholly or in part, the responsibility and authority for, and the regular or routine administration of, one or more of the Secretary's duties to one or more agents, other officers, or employees of the Network who are not Directors.

Meetings of the Board may be called by its President or by any two Board members. Five (5) business days written notice, including electronic mail, of regular meetings of the Board shall be given to each Board member and an agenda specifying the subject(s) of any regular meeting shall accompany such notice. Emergency or Special Meetings may have shorter notice as otherwise provided by law. Unless otherwise agreed to by a Member and the Board, notice

shall be mailed to the Member's last known address, as listed in Appendix A. Business conducted at special meetings shall be limited to those items specified in the agenda. The time, date and location of regular meetings of the Board shall be determined by the Board.

A quorum shall consist of a majority of the Board. Once a quorum is established, a simple majority of those Board members in attendance shall be sufficient to pass upon all matters, unless otherwise specified herein or by the Bylaws of the Board of Directors. Each Member shall be entitled to one (1) vote on the Board of Directors. Proxy or absentee voting shall not be permitted. Board members may attend meetings in person or via telephone if a physical quorum is present at the meeting.

The Board may establish rules governing its own conduct and procedure, consistent with the Agreement and applicable laws and regulations. Minutes of all regular and special meetings of the Board shall be kept in writing and sent to all Members and other service providers as may be deemed appropriate by the Board.

ARTICLE III
PLAN ADMINISTRATION

3.1 ACCOUNTS- The Network, through its Board may establish and maintain accounts for payment of claims and of reserves as it deems appropriate from time to time (the "Plan Accounts"). The Plan Accounts shall be invested in such manner as is permitted by this Agreement and the Bylaws or investment policies of the Board. Earnings on Plan Accounts shall be used to provide benefits, defray administrative expenses, or reduce future Member contributions. No Member, employee or other person or entity shall acquire any right, title or interest in any Plan Accounts or other assets of the Plan except upon termination of the Plan as provided herein.

3.2 RESERVE ESCROW FUNDS As security for the financial obligations described herein, each of the original seven (7) Members shall, within thirty (30) days of the effective date of entry in GIN, place on deposit with GIN as reserves an amount of money equal to at least one and one-half (1 ½) times the Member's anticipated monthly participation. New Member reserve contributions will be determined by the Board pursuant to the Bylaws and policies of the Board.

Accrued interest shall be credited to each individual member on a pro rata basis determined by the amount on deposit with GIN by the Member as compared to the entire GIN reserve fund. In the event that a Member fails to timely pay funds due to GIN in any month (as set forth in the invoice), the Benefit Administrator of GIN shall notify the President of the Board of GIN and the representative of the Member in writing, that the funds shall be withdrawn from the escrow account unless payment is made within five (5) business days. The GIN Benefit Administrator shall have the authority together with the GIN Treasurer to withdraw from any account within the Escrow fund the amount due after prescribed notice is given. In the event that monies are withdrawn in the manner prescribed above, all Members will be notified of the withdrawal from the Escrow fund and the delinquent Member shall take prompt action to restore the escrow account to the original amount. At the beginning of each fiscal year, the Benefit Administrator shall recommend to the GIN Board of Directors any adjustments required in the Escrow Fund as a result of an increase or decrease in the anticipated monthly payment to GIN. At any time in the fiscal year, GIN may require a supplementary deposit to the escrow account, if necessary, to reduce an anticipated deficit to the escrow account. Upon withdrawal or expulsion from GIN, any amount due after satisfying all outstanding claims shall be returned to the former Member.

3.3 MEMBER CONTRIBUTIONS- Beginning with Fiscal Year 2018-2019 and prior to the start of each fiscal year thereafter, the Board will prepare a projection of the contributions to be charged to Members. The contributions shall be projected in such amount to fully pay the projected annual claims and expenses of the Plan as a whole and to fund the Plan Accounts and reserves during the fiscal year. Each separate Member of GIN shall be responsible for its share of the cost of the Plan Accounts.

Prior to the beginning of each fiscal year, the Board shall approve the annual or monthly amount to be charged to Members to fully fund the Plan Accounts. The amounts to be charged to each Member shall be in direct proportion to the number of enrolled employees and officers of the Member (and Listed Entities whose benefit programs are to be administered by the Network) as compared to the total number of such persons served by the Network, along with uniform methods to determine differences in benefit plans and claims history under formulas approved by the Board. The Plan Account funds shall be treated as a single fund which can be utilized for the

payment of the claims of any Member. 3.4 PLAN OF BENEFITS – Each Member agrees to accept the Plan of Benefits put in place at the direction of the Board of Directors of GIN.

3.5 CHANGES IN BENEFIT PLANS – The Board may, from time to time, elect to provide or administer new or additional benefit plans or to amend or modify the Plan. Before modifying benefits or implementing any new or additional benefit plan, the Board shall (1) calculate the amount of additional payments, if any, due the Plan Accounts with respect to such change, (2) advise the Members of the new terms, and (3) receive advice from the Members regarding their level of interest in the new terms. Thereafter, any Plan may be amended, modified, or terminated by the Board upon ninety (90) days prior notice to the Members.

If a Member should choose to end continuing participation with regard to officers and employees of the Member due to placement of employees on a union-sponsored program through collective bargaining, the Network must permit the withdrawal of those union employees, but it may re-price the costs and benefits to the Member's continuing employees or officers based upon the same underwriting criteria used by the Network in the normal course of business, but no member will be expelled from the Network if the continuing employees or officers meet the general criteria required of other members. Union employees withdrawn into a union-sponsored program may subsequently be returned to coverage, but only on an underwriting basis. The Network will not interfere with the statutory obligation of any public agency member to bargain over or to reach agreement with a labor organization over a mandatory subject of collective bargaining as those terms are used in the Illinois Public Labor Relations Act. The Network will not discriminate against public agency members or otherwise retaliate against such members for limiting their participation in the Network as a result of a collective bargaining agreement.

3.6 ADDITIONAL INSURANCE – When purchased, the Board shall cause stop loss insurance coverage to be purchased from an "A" or higher rated company by A.M. Best or such other rating agency deemed appropriate by the Board and approved by the Illinois Department of Insurance. The characteristics and extent of coverage of the stop loss or other insurance shall be established by the Board. Participation in the Plan shall not preclude any Member from purchasing any insurance coverage above those amounts purchased by the Board as a part of the Plan.

3.7 MEMBERSHIP – The membership of GIN shall consist of those members which are parties to this Agreement plus any other governmental entity admitted to membership as a Member from time to time, less any Member which withdraws or is expelled from GIN in accordance with the provisions of this Agreement. With prior approval of the Board of Directors, Members of GIN may also add Listed Entities which they have separately arranged to list as if such officers and employees of the Member. The Member who lists other entities to its membership shall be the sole Member of GIN and shall be responsible for all costs and duties of membership provided herein. Listed Entities will have no voting rights or Membership rights in GIN. The member may make such arrangement as is desired with the Listed Entities regarding the manner of payment, sharing of risks, and duration of such arrangement. Such arrangement is not a part of this Agreement.

The addition of new municipal or other governmental Members and its listed entities, as well as new Listed Entities added by any current Member, shall take place only after at least the concurrence of the vote of two thirds (2/3) of the entire membership of the Board of Directors of GIN and subject to the following provisions.

At the time of admission, each Member and new Member shall be required to have all of its employees and employee groups (police, public works, fire, clerical, administration, etc.) become Members of and participate in GIN programs (subject to the right of individuals to opt out of the coverage in accordance with the terms of the Plan); provided, however, if there is a collective bargaining agreement covering any such employee group which provides for employee benefits and would exclude participation of such employees in the benefits of GIN, then any such employee group need not be included at the time of initial admission of such Member or new Member.

(a) A formal application for consideration must be submitted by the applicant no later than one hundred twenty (120) days prior to the new fiscal year. The applicant must provide any and all information requested by the Board. The applicant may also be required to pay any and all costs or fees incurred or assessed by the Board in relation to the review, approval and enrollment of the applicant and its employees.

(b) The Board shall obtain such recommendations from consultants and other professionals as it deems necessary to determine whether it may accept the applicant as a

Member, provided that the Board shall give the applicant notice of its determination to the applicant within 60 days of application of its determination.

(c) If the Board approves the application submitted by the applicant, the applicant's corporate authorities, through its duly authorized representative, must formally agree to be bound by these terms and conditions by executing an Adoption Agreement in the form attached as Appendix B hereto.

(d) As a condition of new membership, the Member must pay into the Plan Accounts an amount required to meet its funding ~~two (2)~~ of the reserve account on such terms as determined by the Board in its discretion. The amount of reserves will be based on reasonable actuarial or insurance underwriting evidence.

3.8 DISPUTES REGARDING CLAIMS – Disputes regarding Plan benefits shall be brought before the Board's claims administrator, in accordance with the rules for such disputes as established by the claims administrator.

ARTICLE IV RIGHTS AND OBLIGATIONS OF MEMBERS

The obligations of each Member are as follows:

(a) To promptly pay all contributions, supplementary payments, payments to escrow funds, and other payments at such times and in such amounts as are established by the Board pursuant to this Agreement.

(b) In the event timely payments are not made and the Board must initiate collection actions against such Member to recover such funds as are owed, plus attorneys' fees and any other expenses in the amounts or percentages as authorized hereunder.

(c) To appoint a representative to the Board of Directors and cooperate with the Board, other Members, and any agent, employee, officer or independent contractor of the Board in any matter relating to the Plan or the purposes and powers of the Board.

(d) To provide a prompt monthly listing of any newly enrolled or terminated employees.

(e) To provide the Board with any information and records deemed appropriate by the Board in order to carry out the purposes of the Plan and to furnish full cooperation with GIN attorneys, claims adjusters, the Benefit Administrator, and any agent, employee, officer, or independent contractor of GIN relating to the purpose and powers of GIN.

(g) To act promptly and within a reasonable period of time on all matters requiring approval by Members and to not withhold such approval unreasonably or arbitrarily.

ARTICLE V

ADDITIONAL TERMS

5.1 STANDARD OF CARE - The Board shall administer the Plan and carry out its obligations under this Agreement with the care, skill, prudence and diligence under the circumstances then prevailing that a prudent person in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims and objectives. The Board may delegate these duties to such consultants, brokers or other employees, service providers or professionals as it sees fit.

5.2 HOLD HARMLESS PROVISION - No Board member shall be liable for any action taken or omitted by any other Board member. Board members, Officers and employees of the Board shall be indemnified and held harmless by the Network for claims by third parties arising out of the good faith discharge of their duties in the administration of the Plan. Such indemnification shall include, but not be limited to, court costs and reasonable attorneys' fees. Plan assets may be used to defend and hold harmless any Board members, Officers and employees of the Board hereunder. The Board may utilize plan assets to purchase insurance providing fiduciary liability coverage and/or errors and omissions coverage for itself as an entity and for its Officers and employees in connection with the administration and operation of the Plan.

ARTICLE VI

TERM AND TERMINATION

6.1 WITHDRAWAL OF MEMBERSHIP

(a) Members shall have the right to withdraw from membership if proper notice of withdrawal is given in the manner provided in this Article. Members may not choose to withdraw or end continuing participation in GIN for groups of officers and employees of the Member (police, public works, fire, clerical, administration, etc.) unless is solely due to placement of employees on a union-sponsored program through collective bargaining.

(b) A Member who intends to voluntarily withdraw must notify the Board through its President of its intent to withdraw from the Plan at least one hundred twenty (120) days prior to withdrawal. Such notice shall be in writing and accompanied by a resolution or ordinance from the Corporate Authorities of the Member electing to withdraw from the Network. Notice of termination will be non-retractable. The Member will remain subject to all of the provisions of this Agreement until the Member withdraws or as otherwise specified herein.

(c) If a Member withdraws from the Network, no benefit claims of the Member shall be processed or paid by GIN after withdrawal of the Member, unless the withdrawing Member shall, in order to receive such services, provide funds to pay said claims, or there are already adequate reserve funds applicable to the withdrawing Member available to pay said claims.

(d) A final accounting of the withdrawing Members' fair share of its reserve funds shall occur during the audit process for the last fiscal year that the withdrawing Member was a Member of GIN. Any remaining funds shall be refunded to the withdrawing Member, unless the withdrawing Member is in default, in which case it will be retained by GIN to cover costs of default.

(d) All withdrawing Members shall remain fully obligated for their portion of all expenses of and claims against the Network incurred during the period of their membership.

6.2 EXPULSION OF MEMBERS – By at least the concurrence of the vote of two-thirds (2/3) of the entire remaining membership of the Board, The Board may terminate the right of any Member to participate in the Plan whenever the Member fails to perform any of its obligations under this Agreement, provided that the Member shall first be given a reasonable opportunity of not less than fifteen (15) nor more than sixty (60) days to cure the alleged failure. The Member, within the provided cure period, may request a hearing before the Board before any decision is made as to whether the expulsion shall take place. The Board shall set the date

for a hearing which shall not be less than fifteen (15) days after the expiration of the time to cure has passed. The Board of Directors may appoint a hearing officer to conduct such hearing and make a recommendation to the Board based upon findings of fact. If the Board conducts the hearing itself, it may make a decision at the close of the hearing. A decision by the Board of Directors to expel a Member after notice and hearing and a failure to cure the alleged defect shall be final.

The rights and obligations of an expelled Member are as follows:

(a) An expelled Member may not apply for membership or re-join the Network for two (2) years after being expelled or after voluntary termination unless the Board determines in its sole discretion that there is good and sufficient cause for re-admission.

(b) The expelled Member shall continue to be fully liable for any contributions or supplementary payments due prior to the effective date of such expulsion or voluntary termination and/or any other unfulfilled obligation as if it was still a Member.

(c) Except as provided below, the Board shall have no obligation with respect to claims incurred under the Plan(s) of the expelled Member after the effective date of such expulsion or voluntary termination.

(d) The obligation of the Board to administer claims incurred under the Plan of an expelled Member prior to the effective date of expulsion shall continue for claims that are filed within 90 days after such effective date, provided Member has otherwise provided the funds to pay said claims. Expelled Members will be required to continue to make contributions and supplemental payments during such 90-day period.

(e) Any claim submitted by an employee or dependent of the expelled Member incurred after the effective date of termination shall become the sole responsibility of the expelled Member.

(f) Notwithstanding the above, if the Board is required by law to administer and process claims on behalf of a Participating Member, pursuant to the federal health care continuation provisions of the Public Health Service Act (COBRA) and/or the Illinois Continuation Law, the Board will make such coverage available.

(g) The Network will not discriminate against public agency members or otherwise retaliate against such members for limiting their participation in the Network as a result of a collective bargaining agreement and such will not be the basis for expelling a Member.

6.3 TERMINATION OF THE NETWORK - The Network shall terminate at the determination of the Board, in its sole discretion. The Network shall also terminate upon the enactment of State or Federal law and/or a final determination by a court of competent jurisdiction, after all appeals have been exhausted or time for appeal has expired, that the Network is invalid, constitutes the transaction of the business of insurance under the Illinois Insurance Code or is contrary to law.

In the event that the Network is terminated, the Board shall:

- (a) Set an effective date for termination that is at least ninety (90) days in the future.
- (b) Provide notice of termination to all Members at least ninety (90) days in advance of the effective date thereof.
- (c) Collect all participating Member contributions, supplementary payments, income and assets of the Network.
- (d) Cause to be paid all claims incurred prior to the effective date of termination provided that such claims are submitted for payment within one year of the date on which they are incurred provided that all contributions and supplemental payments have been made by the Member. If assets are not sufficient to pay all such claims, claim payments may be reduced and paid pro rata until all assets are exhausted. The Board may also purchase insurance coverage to pay any or all of such claims.
- (e) Pay all administrative expenses and other liabilities of the Board in connection with the Network.
- (f) If the assets of the Network are not sufficient to satisfy the Network's liabilities, the Board may charge each current Member and each former participating Member who was a participating Member at any time during the twelve (12) month period prior to the effective date of termination a supplementary payment or payments in an amount that is equal to the amount of such shortfall multiplied by a fraction, the numerator of which is the amount of contributions and

supplementary payments required of the former participating Member or the Member during the twelve (12) months prior to the effective date of termination and the denominator of which is the amount of contributions and supplementary payments required of the all former participating Members and Members during the twelve (12) months prior to the effective date of termination. The Board shall not be obligated to make claim payments unless and until the shortfall is paid as provided herein.

(g) In the event that Network assets exceed Network liabilities, the Board shall pay each Member who was a participating Member on the effective date of termination, an amount that is equal to the amount of such surplus multiplied by a fraction, the numerator of which is the amount of contributions and supplementary payments paid by the Member during the twelve (12) months prior to the effective date of termination and the denominator of which is the amount of contributions and supplementary payments paid by all Members during the twelve (12) months prior to termination. Such determination shall be made as of twenty-four (24) months after the effective date of termination and any payments required hereby will be made within thirty (30) days thereof.

(h) No one other than a Member who was a participating Member on the effective date of termination shall have any claim on the assets of the Network or any right, title or interest in any payment made pursuant to paragraph (g) hereof: Upon the later of the payment required by paragraph (g) or twenty-four (24) months after the effective date of termination. the Network and Plan Accounts shall be dissolved and the Board and the Network shall have no further obligations whatsoever with respect thereto.

(i) Prior to dissolution, the Board shall make adequate provision for the maintenance of the records of the Network which shall be retained for ten (10) years after the effective date of termination.

6.4 TERM OF COOPERATIVE – The Governmental Insurance Network shall operate beginning with fiscal year July 1, 2018 and shall continue in existence with a term ending on June 30, 2030. At the end of this multi-year period, the term of GIN may be extended for a multi-year period of time, or if not acted upon by the Members, it shall continue in existence from year-to-year as an intergovernmental agreement with the membership of those governmental bodies which do not provide a notice of withdrawal.

ARTICLE VII
MISCELLANEOUS

7.1 NOTICE - Any notice required by this Agreement shall be in writing and shall be deemed to have been given when deposited in a United States Post Office, registered or certified mail, postage prepaid, return receipt requested and addressed as follows:

(a) If to the Board, at the business address of the then current Board President or as otherwise specified in writing by the Board to the Members.

(b) If to a Member, to the address set forth in the Adoption Agreement of such Member or to such other address as the Member may specify in writing to the Board.

7.2 SEVERABILITY - In the event any provision within this Agreement shall be declared by a final judgment of a Court of competent jurisdiction to be unlawful or unconstitutional or invalid as applied to the Board, the Plan, or to any Member, the lawfulness, constitutionality or validity of the remainder of this Agreement shall not be deemed affected thereby.

7.3 EXCLUSIVE PURPOSE - The funds and assets retained by the Board pursuant to this Agreement shall be the sole property of the Board to be used for the exclusive purpose of carrying out the purposes of the Plan. Neither individual Members nor their employees or dependents shall have any vested right, interest, or title with respect to the funds or assets held by the Board, including, but not limited to, amounts held in the Plan Accounts, interest, dividends, refunds, rebates, reserves, life insurance refunds, except as otherwise specifically provided herein.

7.4 BINDING EFFECT - The obligations and responsibilities of the Members set forth in this Agreement, including the obligation to take no action inconsistent herewith as originally written or validly amended, shall remain a continuing obligation and responsibility of each Member. This Agreement may be enforced in law or equity either by the Board itself or by a Member. The consideration for the duties imposed upon the Members by this Agreement is based upon the mutual promises and agreements of the Members to each other set forth herein

and the advantages gained by the Members through the sharing of risk and the potential for reduced administrative costs for the processing of employee benefits. This Agreement and any amendments thereto may be executed in any number of counterparts which taken together constitute a single instrument.

7.5 LIMITATION OF OBLIGATIONS - The obligation of the Board to pay claims is limited to the assets of the Plan. Neither the Board nor any Board member, Officer or employee thereof is responsible for claim payments or payment of any sum or other obligations under the Plan.

7.6 TAXES AND LEGAL STATUS - The Network and any Plan of benefits provided thereby are intended to be a “governmental plan” that is exempt from the requirements of the Employee Retirement Income Security Act. The Network and any benefits or Plan of benefits are also intended to be exempt from federal, state and local taxes. Any and all actions or provisions of the Network or the Plan(s) shall be interpreted to garner such status. The Board is hereby empowered and authorized to take any and all action to ensure that such status will be accorded to the Network and the Plan(s).

7.7 AMENDMENT - This Agreement may be amended, modified, or terminated, upon at least the concurrence of the vote of two-thirds (2/3) of the corporate authorities of all participating Members. The corporate authorities of each Member specifically agrees to be bound by any such action.

7.8 ADOPTION - As a condition of participation and continued participation, the Agreement and the Adoption Agreement attached hereto must be duly adopted by the corporate authorities of each Member by May 11, 2018. This Agreement shall initially become effective once it is adopted by all seven (7) Members listed in Appendix “A”.

The Secretary of the Board shall certify the same.

APPENDIX A

MEMBERS

City of Elmhurst

209 N. York Street
Elmhurst, IL 60126

Village of Frankfort

452 W. Nebraska Street
Frankfort, IL 60423

Village of Lemont

418 Main Street
Lemont, IL 60439

Village of New Lenox

1 Veterans Parkway
New Lenox, IL 60451

Village of Romeoville

1050 West Romeo Road
Romeoville, IL 60446

Village of Shorewood (including the Will County Governmental League as a Listed Entity)

One Towne Center Blvd
Shorewood, IL 60404

Village of Westmont

31 W. Quincy St
Westmont, IL 60559

APPENDIX B

ADOPTION AGREEMENT

WHEREAS, the Illinois unit of local government named below (the "Member") has reviewed the Governmental Insurance Network Agreement ("Agreement"); and

WHEREAS, the Member desires and intends to become or continue as a Member in the Governmental Insurance Network pursuant to the Agreement; and

WHEREAS, the Board of the Governmental Insurance Network has determined to accept the above-named entity as a Member in the Governmental Insurance Network.

NOW THEREFORE, it is hereby agreed that the Member shall be and is accepted as a Member in the Governmental Insurance Network for the term provided in the Agreement in consideration of which the Member shall at all times comply with and he bound by the attached Agreement, as the same may be modified from time to time.

_____ (“Member”) GOVERNMENT INSURANCE NETWORK

By: _____

By: _____

Its: _____

Its: _____

Date: _____

Date: _____

APPENDIX C
BY-LAWS
OF THE
GOVERNMENT INSURANCE NETWORK (GIN)

DRAFT

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DRAFT

Article I. Name

The organization shall be known as the Governmental Insurance Network (GIN).

Article II. Purpose-Limitation of Participation

[PURPOSE LISTED IN 1.3 OF FINAL IGA TO GO HERE]

Article III. Authority

GIN is established pursuant to the Illinois Constitution, Article VII, Sec 10 and the Intergovernmental Cooperation Act 5 ILCS 220/1 et seq. and in particular, Sec 220/6.

Article IV. Directors and Officers

- A. There is hereby established a Board of Directors of GIN (BOD). The Board of Directors of GIN shall consist of one delegate of each Member who is an employee of the Member (BOD Members). Each representative may send a designee in his or her absence who shall also be an employee of the Member. Each of the representatives from the Members of GIN are eligible to run for election for the position of BOD officers.
- B. If a Board vacancy occurs, the respective unit of local government seat will be filled by an employee of that Member.
- C. The Board of Directors of GIN shall appoint from among their number a President, Vice President, Secretary, and Treasurer. The Board of Directors may also appoint additional Officers and assign duties to them.

[LISTED OFFICERS AND DUTIES FROM 2.3 OF IGA TO GO HERE]

- D. GIN shall purchase a bond in sufficient amount as determined by the Board of Directors to assure the fidelity of the President, Vice President, Treasurer, and any other Officer, employee, or entity that contract with GIN who shall have the right to authorize the transfer or payment of GIN funds. The Board of Directors, by motion, may increase or decrease the amount or such bonds or change the persons covered.
- E. A quorum shall consist of a majority of the Board of Directors unless otherwise noted in these By-laws. A simple majority or a quorum shall be sufficient to pass upon all matters unless otherwise provided by the GIN Agreement or these Bylaws.
- F. A greater vote than a majority of a quorum shall be required to approve the following GIN's matters:
 - 1. The Board of Directors may establish one or more rules requiring approval by a vote greater than a majority of a quorum; provided, however, that such rules may only be established by a greater than a

majority vote at least equal to the greater than majority percentage stated within the proposed rule;

2. The admission of a new Member shall require at least the concurrence of the vote of two-thirds (2/3) of the Board of Directors (IGA).
3. The determination and approval of the benefit levels, benefit plans, and the recommended insurance provider(s), as well as the proposed term(s) of the plan(s).
4. After notice as otherwise provided herein, any amendment or these By-Laws shall require at least the concurrence of the vote of two thirds (2/3) of the Board of Directors; provided, however, no amendment shall have the effect of depriving a member of a vested contractual right without the consent of the Member.
5. Expulsion of a Member shall require at least the concurrence of the vote of two-thirds (2/3) by the remaining Board of Directors (IGA).
6. Termination of GIN shall require a two-thirds (2/3) vote for approval by the entire Board of Directors. (IGA)

G. No one serving on the Board of Directors shall receive any salary from GIN.

Article V. Powers and Duties of the Board of Directors

The Board shall determine the general policy of GIN which shall be followed by the Member and the representative and/or alternate of the Member. No one serving on the Board of Directors of GIN shall receive any salary or other payment from GIN for providing such service thereto. The Board shall have the authority to take any action necessary to do the following:

[DUTIES APPROVED IN FINAL IGA TO BE LISTED HERE]

Article VI. Meetings of the Board

[FINAL FIRST TWO PARAGRAPHS SECTION 2.3 OF FINAL IGA TO GO HERE]

Proceedings of all meetings shall be governed by Robert's Rules of Order.

Article VII. Liability by GIN, Its Officers and Directors

No BOD member shall be liable for any action taken or omitted by any other BOD member. BOD members, Officers and employees of the Board, shall be indemnified and held harmless by GIN for claims by third parties arising out of the good faith discharge of their duties in the administration of the Plan or the Trust. Such indemnification shall include, but not be

limited to, court costs and reasonable attorneys' fees. Plan assets may be used to defend and hold harmless any BOD members, Officers and employees of the Board hereunder. The Board may utilize plan assets to purchase insurance providing fiduciary liability coverage and/or errors and omissions coverage for itself as an entity and for its Officials and employees in connection with the administration and operation of the Plan and Trust.

If any claim or action not covered by insurance is instituted against a BOD, Officer or employee of GIN allegedly arising out of an act or omission occurring within the scope of his or her duties, GIN shall at the request of them:

- A. Appear and defend against the claim or action; and
- B. Pay or indemnify the BOD member, Officer or employee for a judgment and court costs based on such claim or action, provided there shall be no indemnification for any portion of a judgment representing an award of punitive or exemplary damages; and
- C. Pay or indemnify the BOD member Officer or employee for a compromise or settlement of such claim or action providing the settlement is approved by the Board of Directors of GIN.

The term BOD member. Officer or employee shall include former BOD members, Officers and employees. This indemnification resolution shall not apply if the Board of Directors finds that the claim or action is based on malicious, willful or criminal misconduct. In such case the action to be taken by the Board of Directors will be determined after an investigation of the facts.

Article VIII. Programs of Insurance and/or Self-Insurance

GIN may purchase insurance policies from insurance companies having a Certificate of Authority issued by the Department of Insurance of the State of Illinois.

Article IX. Fiscal Year - Budget

- A. The fiscal year of GIN shall commence on July 1 and end on June 30.
- B. During the last quarter of each fiscal year, the Board of Directors of GIN shall approve a preliminary budget for the administration of each Benefit for the next fiscal year. The preliminary budget shall set forth the method by which payments of Members are to be determined for the following GIN fiscal year. The Board of Directors shall annually approve a final budget.
- C. Failure of the Board of Directors to approve a preliminary or final budget within these time limits shall not relieve the Members or the obligation to make annual or

supplementary payment to GIN as hereinafter provided.

- D. Funds shall be audited annually after June 30, by a firm of Certified Public Accountants.

Article X. Finances

- A. New Member Reserve Contributions: As a condition of new Membership, the new Member must pay into the Plan Accounts two (2) months of participation as funding for the reserve account.
- B. Surplus: At the end of each fiscal year, the Board will determine how any surplus in Plan Account funds will be utilized in the best interests of GIN. Where the Board has elected to return any surplus Plan Account funds to the Members, it will be allocated to each Member as a percentage of total premium paid in by the Member for that fiscal year compared to the total premiums paid by all Members for that fiscal year. In lieu of receiving a refund of surplus Plan Account funds, each Member may elect to place the refund of the surplus funds in the GIN reserve fund.
- C. Early Withdrawal from Plan: Any Member voluntarily withdrawing from GIN at any date prior to the end of the fiscal year shall immediately pay into the Plan Accounts, as reserves, an equivalent of two (2) months of participation.

Article XI. Term and Termination

These By-laws will follow the guidelines for Term and Termination as outlined in the GIN Agreement dated [DATE]

Article XII. Notices

All notices of claims or any other notice required to be given pursuant to these By- Laws shall be sent by registered or certified mail, postage prepaid, return receipt requested and addressed as follows:

Assurance c/o GIN
111 N. Canal St., Suite 550
Chicago, IL 60606

City of Elmhurst
209 N. York Street
Elmhurst, IL 60126

Village of Frankfort
452 W. Nebraska Street
Frankfort, IL 60423

Village of Lemont
418 Main Street
Lemont, IL 60439

Village of New Lenox
1 Veterans Parkway
New Lenox, IL 60451

Village of Romeoville
1050 West Romeo Road
Romeoville, IL 60446

Village of Shorewood (including the Will County Governmental League as a Listed Entity)
One Towne Center Blvd
Shorewood, IL 60404

Village of Westmont
31 W. Quincy St
Westmont, IL 60559

ARTICLE XIII. Amendments

These By-Laws may be amended at any regular meeting of the Board of Directors by providing the amendment was stated in the call for the meeting and voted on at a subsequent regularly scheduled board meeting.

TO: Mayor and Village Board

FROM: George J. Schafer, Village Administrator

SUBJECT: 4th Street Connection Discussion

DATE: March 20, 2018

SUMMARY/BACKGROUND

A connection of Fourth Street at Keogh street has been discussed for several years since the development of Covington Knolls and extension of utilities on Fourth Street. The connection would provide for a continuous roadway from Covington Knolls through the neighborhood to the north to McCarthy Road. There has been much discussion over the years over the necessity of the connection, the traffic and safety impacts, and the legal authority to make a connection. The issue has been brought up by several residents over the last few months and staff has been evaluating the issue and ready to discuss with the Committee of the Whole.

There are three components to this discussion in which staff/legal will give an overview including the legal aspect of the connection, the operational and access needs of public works and public safety personnel, and the larger traffic/safety impact as a result of the connection.

1. Legal Considerations – There have been questions on the legal ability the Village has to open the roadway to through traffic. The Village’s attorney has reviewed available recorded documents and case law on the issue and has determined that the Village does have the authority to remove the gate and allow through traffic. While the Village does not have title to a portion of the roadway, a series of easements were recorded in favor of the Village to operate, repair and maintain the roadway. The full legal opinion based on available legal records is attached to this memo.
2. Operational and Access needs of public works and public safety personnel – The Police Department discussed the issue with its traffic safety committee and has conducted traffic analysis of the existing conditions and proposed connection. The committee determined that the opening of the road would provide for more even flow of traffic in the area and be preferred from an emergency response aspect. However, the committee also noted potential issues for McCarthy Road that are existing but would be increased due to additional traffic. The full report is attached to this memo.
3. Traffic/Safety Impact of the connection – In 2009 the issue was discussed at length and the Village commissioned a third party to complete a traffic study to examine the issue. The study concluded that while current (2009) volumes of traffic yield an

acceptable level of service for traffic on McCarthy Road, the increased traffic expected from both the connection and the regional increase in traffic over time, the intersection will fail specifically for the north bound traffic turning onto McCarthy Road. If the connection were to be made, the study recommends significant improvements to McCarthy Road. Both the full study and the engineers estimates (2009) for the improvements are included with this memo.

CONCLUSIONS & RECOMMENDATIONS

The connection aligns with our goals set out in our Active Transportation Plan regarding connectivity of streets within the Village. The connection would also disperse traffic in the area and provide for quicker access to areas of town for emergency personnel. However, the connection has the potential to create additional safety impacts that should be further analyzed. Since traffic patterns and intensity has likely changed from the previous study completed in 2009, staff recommends that the Village update the previous comprehensive traffic study before moving forward with a plan to make the connection.

ATTACHMENTS

1. Legal Opinion
2. Police Department Memo on the issue
3. Previous Traffic Study Completed by KOLA – 2009
4. Cost Estimates of improvements to McCarthy Road

SPECIFIC VILLAGE BOARD ACTION REQUIRED

Motion to approve the Resolution Accepting Certain Public Improvements and Reducing the Letter of Credit for The Glens of Connemara Subdivision



MEMORANDUM

CONFIDENTIAL

PROTECTED BY ATTORNEY-CLIENT PRIVILEGE AND WORK-PRODUCT DOCTRINE

To: President and Board of Trustees, Village of Lemont
George Schafer, Village Administrator

From: Andrew Paine & Michael Peters
Tressler LLP

Date: April 11, 2018

Re: 4th Street Traffic Gate

We understand that the Village has an issue with a particular traffic gate located at or near 668 4th Street, south of McCarthy Road. In particular, there is a continuous roadway extending south from McCarthy Road to Covington Drive. Although the roadway is continuous, the name of the street changes from 4th Street to Keough Street just south of where 4th Street intersects with Country Lane. The area of the roadway highlighted in red on Exhibit A is 4th Street, the area highlighted in blue is Keough Street.¹

We also understand that at the end of 4th Street, a traffic gate has been built which restricts through traffic. The traffic gate is depicted on Exhibit B. The west side of the traffic gate is located on property owned by the homeowner at 668 Fourth Street. The east side of the gate is located on land dedicated to the Village.² The traffic gate eliminates a shorter route for cars between 127th Street and McCarthy Road and, therefore, decreases the amount of traffic on 4th Street. Finally, we understand that various citizens have asked about whether or not the Village can open or remove the traffic gate.

4th Street was developed as a privately owned roadway with ownership of the street extending to the centerline for the surrounding homes: the homeowners of the lots on the east of 4th Street owned the eastern half of the roadway, the homeowners of the lots on the west side of 4th Street owned the western half of the roadway. However, over the years, various portions of 4th Street have been dedicated to the Village on both the east and west sides of 4th Street. Currently, the Village has title to roughly 40% of 4th Street.

¹ Note, we have not reviewed property records for Keough Street. A tax map for Keough Street shows that no PIN has been assigned to Keough Street; therefore, we assume that Keough Street has been dedicated to the Village of Lemont.

² See the Wohead Second Plat of Subdivision recorded with the Cook County Recorder of Deed's Office as document #87511037.

Of the 60% of 4th Street that the Village does not hold title to, title remains vested in the various homeowners. However, between the years 1998 and 2000, a series of easements were recorded in favor of the Village affecting both the east and west sides of the street as well. The easements all have the same language and grant to the Village the perpetual right to “operate, repair and maintain roadways.”³ We believe that because the Village has the right to “operate” a roadway, the Village can regulate whether or not the roadway can have a traffic gate.

Note, that there are two lots on 4th Street where there does not appear to be a recorded easement allowing the Village to operate the roadway. The first lot is 1140 McCarthy Road, the property on the southwest corner of the intersection of 4th Street and McCarthy Road.⁴ The second lot is 560 4th Street: a vacant lot without any improvements. Note, 560 4th Street owns a portion of 4th Street only 47 feet long, the Village has an easement for 27 of the 47 feet of this portion.

Based on the foregoing, we believe that the Village has the authority to open the traffic gate located at 668 4th Street. Finally, it should be noted that there is a concern that because the lot owners retain title to 4th Street they may install blockades or remove portions of the street if it is opened to traffic. However, this concern is nullified by the fact that the easements provide that the owners cannot construct improvements or change the finish of the road without the Village’s approval.⁵

³ Note, we could not find the recorded easements for the properties on the east side of the road only from 509 through 565 4th Street. However, for these properties, there was a subsequent easement recorded between the Village and ComEd. This easement to ComEd references that a previous easement was recorded for these properties for the road. We assume that these easements are the same as the other easements and grant the Village the right to operate the roadway.

⁴ Note, the current owner of 1140 McCarthy Road does not own any part of 4th Street. As a consequence, the ability of the current owner of 1140 McCarthy Road to challenge opening 4th Street to through traffic is limited.

⁵ Note, the easements specifically provide “The [home owner] shall not construct improvements in the Easement Area or change the finish grade of the Easement Area without the consent of the [Village].” The word “Easement Area” is relevant because it is not defined in the document. Instead, the document defines area where the Village has an easement as the “Easement Premises.” We believe this mistake, however, to be a harmless error.

EXHIBIT A

Map Depicting 4th Street and Keough Street

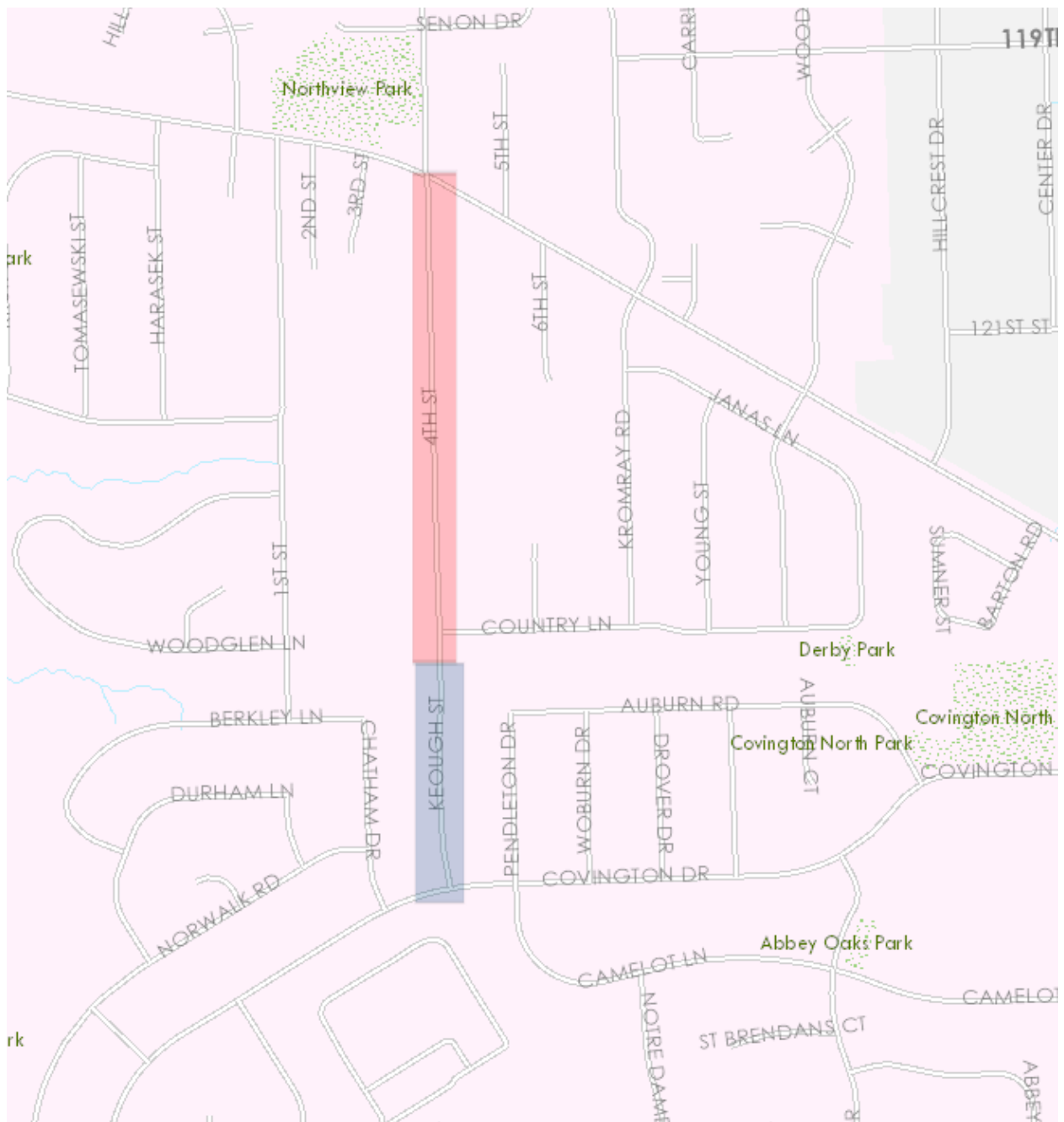


EXHIBIT B

Depiction of the Traffic Gate



TO: Committee of the Whole
FROM: Cmdr. Dan Tully
THROUGH: Chief Marc R. Maton
SUBJECT: Fourth Street Gate Opening
DATE: April 16, 2018

Project Analysis

Fourth Street Gate Opening Study and Recommendations

Summary of Project

The Traffic Safety Committee reviewed the feasibility and potential public safety issues with connecting 4th Street south of Country Lane. The Committee looked at potential traffic calming measures and signage should a decision be made to open the street where a gate currently exists.

As part of the review, a traffic study was conducted to determine the current traffic volume and speed of units traveling both north and south on Fourth Street. The study utilized electronic speed measuring devices. Additional studies were conducted in the 500 block of First Street to determine the comparative traffic counts and speed of the units traveling both north and southbound.

Analysis of Study

Fourth Street (measured on the 500 block) yielded a count of 173 vehicles traveling northbound each day with an average speed of 27 mph. Conversely, 109 vehicles traveled southbound each day with an average speed of 28 mph. The speed limit is 20 mph on Fourth Street. Although these average speeds exceed the posted limits, it additionally appears that 15% of the vehicles were traveling above 35.51 mph.

The study on First Street (measured on the 500 block) yielded a count of 748 vehicles traveling northbound each day and 662 vehicles traveling southbound each day. Both north and southbound vehicles averaged 26 mph, with 15% of the vehicles traveling above 30.48 mph.

Both First and Fourth Street have peak volumes northbound from 7:45 a.m. to 8:00 a.m. and southbound from 2:45 p.m. to 3:00 p.m.

Additional Potential Measures

If 4th Street became an open road between McCarthy Road and Keough Street, additional traffic control measures would be needed. The committee recommends a three-way stop sign intersection at Fourth Street and Country Lane to potentially slow motorists to the south. Fixed electronic speed signs are recommended to be erected in the 500 block of Fourth Street to educate and slow motorists to the north. Additional speed limit signs need to be posted north of the opening.

A Fourth Street gate opening should be followed by a post-opening vehicle and speed analysis on Fourth Street. If public safety concerns are present, additional speed calming measures such as speed tables or bumps could be placed every 300 feet to calm traffic even further.

The committee also recommends post-opening motorist education through use of portable speed trailers, and periodic and random enforcement by officers in the area.

Additional traffic approaching McCarthy Road also has the potential for increasing crashes at the intersection of 4th Street and McCarthy Road. Visibility is restricted due to roadway curvature for vehicles turning Eastbound on McCarthy. The Village of Lemont has no authority over the signalization at that intersection since McCarthy Road is a state highway. A request for a signal would need to be made to IDOT.

Committee Conclusion

The opening of the Fourth Street gate would increase the traffic flow on Fourth Street but reduce the traffic flow on First Street. This would create a more even flow of traffic. Fourth Street has an updated and wider roadway to allow for a safer movement of vehicles when compared to First Street (which is unimproved north of Schultz Street). The committee believes that through traffic from 127th Street will still be minimal due to lack of a direct route. The emergency response of the Police and Fire Departments would be better served from the north and south if the Fourth Street gate were opened.

DT:jr

to: Mayor Brian K. Reaves
Village Board of Trustees

from: James L. Cainkar, P.E., P.L.S., Acting Village Engineer

subject: 4th Street Traffic Impact Study
(4th Street Connection to Keogh Street)

date: May 13, 2009

BACKGROUND

A connection of 4th Street to Keogh Street is being considered, in order to allow a continuous roadway for two-way traffic between the neighborhood to the north and the Covington Knolls residential development to the south,. In order to achieve this, KLOA was instructed to perform a Traffic Impact Study for the feasibility of this connection, and its potential positive and/or negative impacts.

PROS/CONS/ALTERNATIVES

Allowing Mr. Bill Woodward from KLOA to present this Traffic Study Impact, for the 4th Street connection to Keogh Street, will help clarify the impact this project would have on the Village, and answer any questions that may arise concerning same.

RECOMMENDATION

None at this time.

ATTACHMENTS

- Traffic Impact Study, as performed by KLOA, dated April 10, 2009.

VILLAGE BOARD ACTION REQUIRED

Discussion of the impact this potential roadway connection will have on the Village.

08414

Traffic Impact Study 4th Street Connection to Keogh Street Lemont, Illinois



Submitted by

Kenig, Lindgren, O'Hara, Aboona, Inc.

April 10, 2009

Introduction

Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) was retained by the Village of Lemont to provide a traffic study for the intersection of 4th Street and McCarthy Road in Lemont, Illinois.

The Village of Lemont is considering connecting 4th Street to Keogh Street to allow two-way traffic operations between the neighborhood to the north and the Covington Knolls residential development to the south. Currently, these two roadways align, but there is an approximate 80-foot span of pavement with a barrier that disconnects the two roadways.

The primary purpose of the study is to determine what, if any, roadway and traffic control improvements will be needed at the intersection of 4th Street and McCarthy Road to accommodate the additional traffic traversing through this intersection should this connection be established.

This report summarizes the methodologies, results and findings of this traffic analysis conducted for the intersection of 4th Street and McCarthy Road in Lemont, Illinois. **Figure 1** shows the location of the intersection in relation to the area roadway system. **Figure 2** shows an aerial view of the area.

The following sections of this report present the following:

- Existing roadway conditions, including traffic volumes for the weekday morning and evening peak hours
- Estimated redistribution and assignment of existing traffic utilizing the proposed 4th Street/Keogh Street connection
- Directional distribution of development-generated traffic
- Regional ambient growth in traffic
- Traffic analyses conducted for the weekday morning and evening peak hours for the following two conditions:
 1. Existing Conditions - Analyzes the capacity of the existing intersection of 4th Street and McCarthy Road using currently recorded traffic volumes in the surrounding area.
 2. Year 2030 Total Traffic Volumes – To comply with the Illinois Department of Transportation (IDOT) standards, traffic is projected to Year 2030, which includes the existing traffic volumes increased by a regional growth factor of forty-two percent, in addition to the additional turning movement traffic estimated to use the 4th Street/Keogh Street connection.
- Future transportation conditions, including planned roadway improvements.

Existing Conditions

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

Existing Roadway System Characteristics

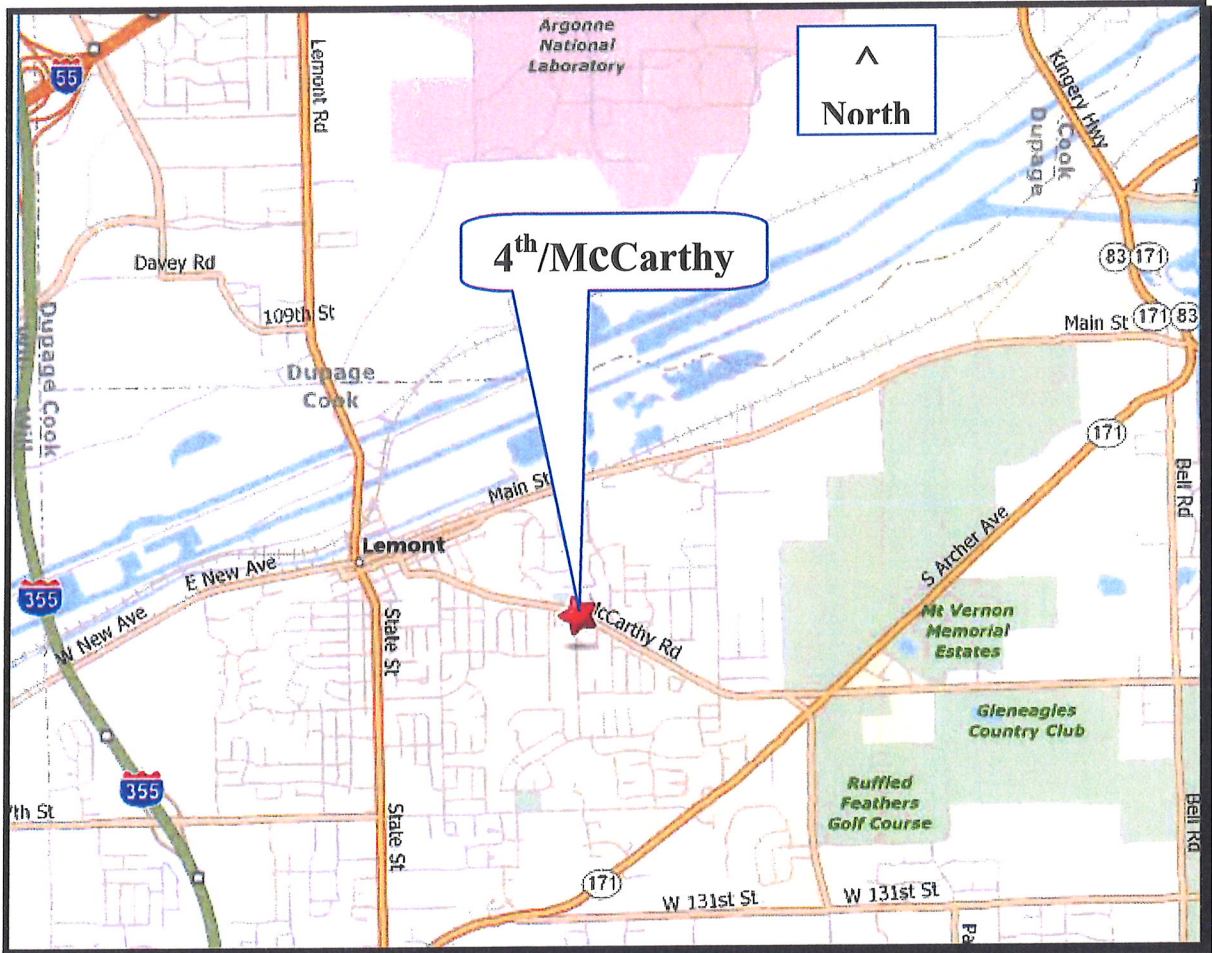
The characteristics of the existing roadways that surround the proposed development are illustrated in **Figure 3** and described below.

McCarthy Road is a two-lane east-west minor arterial with an average daily traffic volume of approximately 14,000 vehicles. At its unsignalized intersection with 4th Street and its unsignalized intersection with Walker Road, a single lane is provided on both the east and west approaches to allow shared left, through, and right-turning vehicle movements. The posted speed limit is 40 mph, and parking is prohibited on both sides of the roadway. McCarthy Road is under the jurisdiction of IDOT.

4th Street is a north-south two-lane local road with a posted speed limit of 20 mph. At its stop sign controlled intersection with McCarthy Road, a single lane approach is provided to allow left, through, or right-turning vehicle movements. Signage is posted on 4th Street, south of McCarthy Road restricting vehicles to a four-ton limit, and that 4th Street is for local traffic only. Parking is permitted on both sides of the roadway. 4th Street is under the jurisdiction of the Village of Lemont.

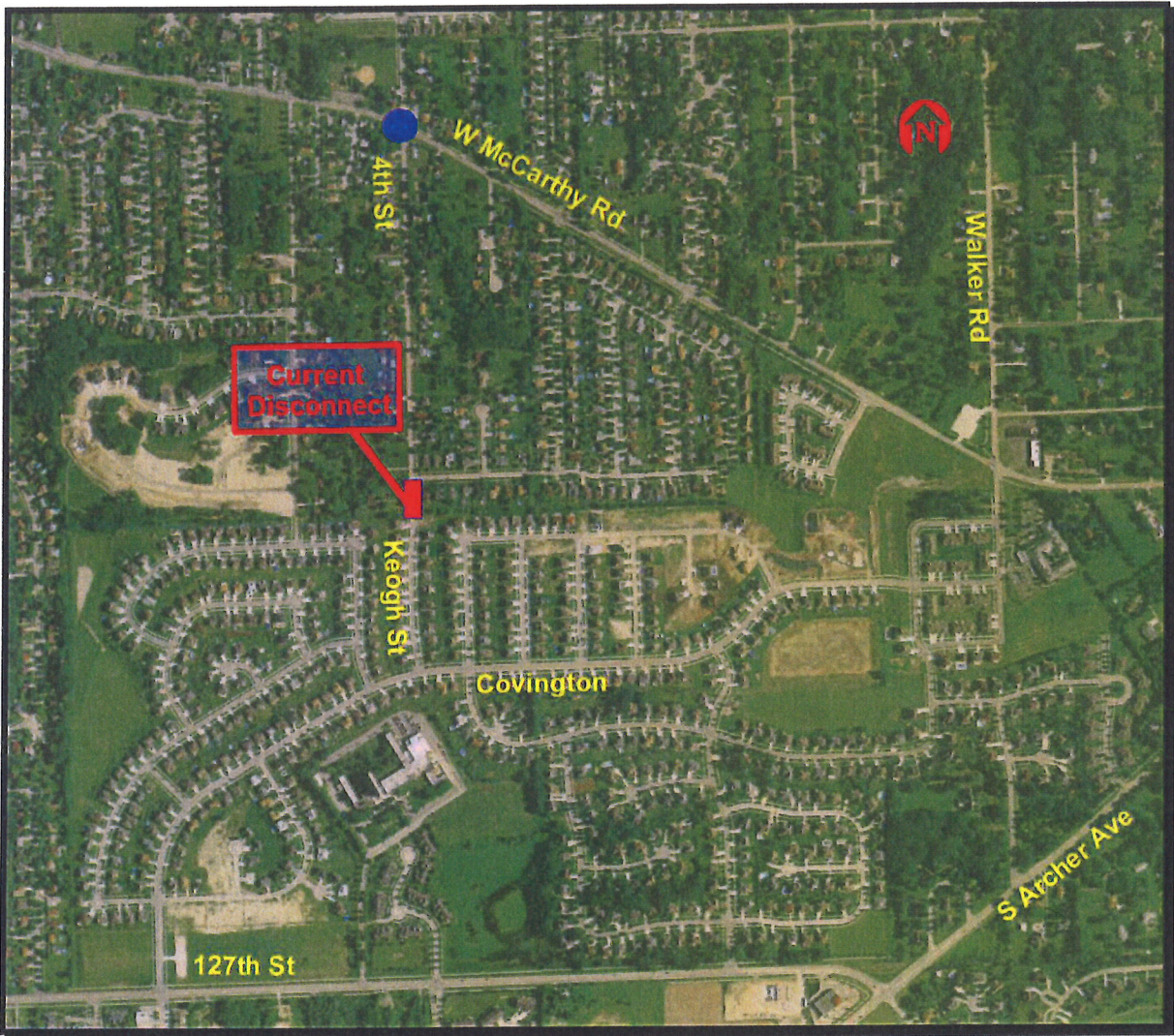
Keogh Street is a north-south two-lane, approximately 30-foot wide local road within the Covington Knolls residential development. Keogh Street T-intersects Covington Lane and is under stop sign control. Sidewalks are located on both sides of the road, and parking is permitted on both sides of the roadway. The posted speed limit is 20 mph. Keogh Street is under the jurisdiction of the Village of Lemont.

Covington Lane is a collector road through the Covington Knolls residential development that has a posted speed limit of 20 mph. At its stop sign controlled intersection with 127th Street, a left-turn lane and a shared through/right-turn lane are provided on the north approach. On the south approach, the road is called Chestnut Crossing, which provides a single-lane approach at its intersection with 127th Street. A “No Thru Traffic” sign is posted on southbound Chestnut Crossing. Covington Lane is under the jurisdiction of the Village of Lemont.



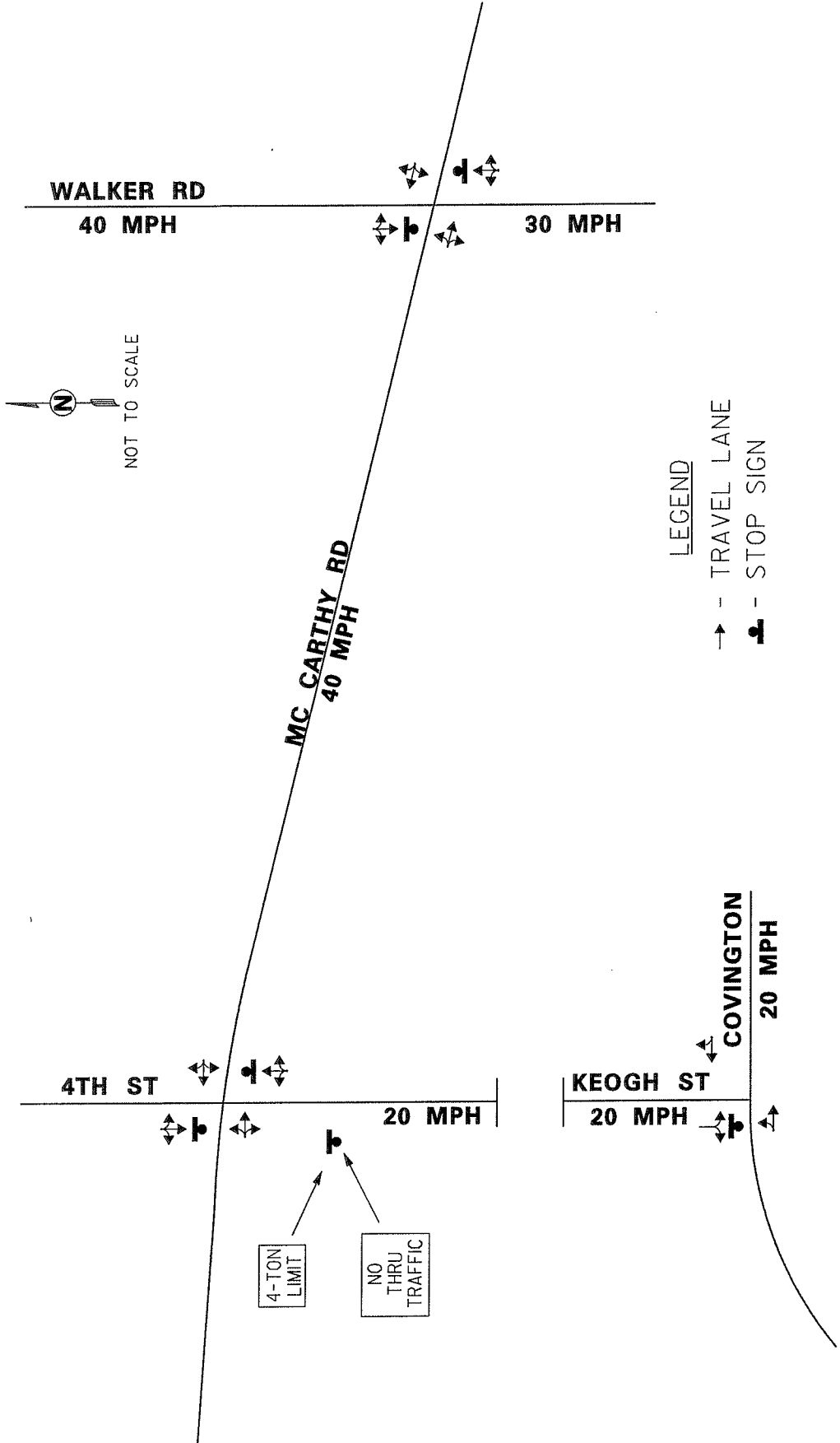
Site Location

Figure 1



Aerial View of Site Location

Figure 2



PROJECT NO: 09-016



FIGURE NO: 3

EXISTING ROADWAY CHARACTERISTICS

PROJECT: 4TH STREET CONNECTION TO KEOGH STREET LEMONT, ILLINOIS

TITLE:

Existing Traffic Volumes

At the direction of the Village of Lemont, manual turning movement traffic counts were conducted during the weekday morning (6:00 to 8:00 A.M.) on Tuesday, January 27, 2009, and during the weekday evening (4:30 to 6:30 P.M.) on Thursday, January 22, 2009 at the following intersections:

- 4th Street and McCarthy Road
- Covington Lane and 127th Street

From the manual turning movement count data, it was determined that the weekday morning peak hour occurs between 7:00 and 8:00 A.M. and the weekday evening peak hour occurs between 4:45 and 5:45 P.M.

In addition to these traffic volume counts, traffic counts previously conducted by KLOA, Inc. in Year 2008 at the intersection of McCarthy Road and Walker Road were utilized.

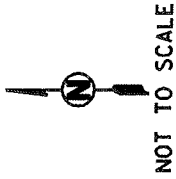
Figure 4 shows the existing peak hour traffic volumes at the respective intersections. The traffic volumes that are boxed are the traffic movements that were analyzed for redirection, assuming 4th Street is connected to Keogh Street.

The complete traffic count data is included in the Appendix of this report.

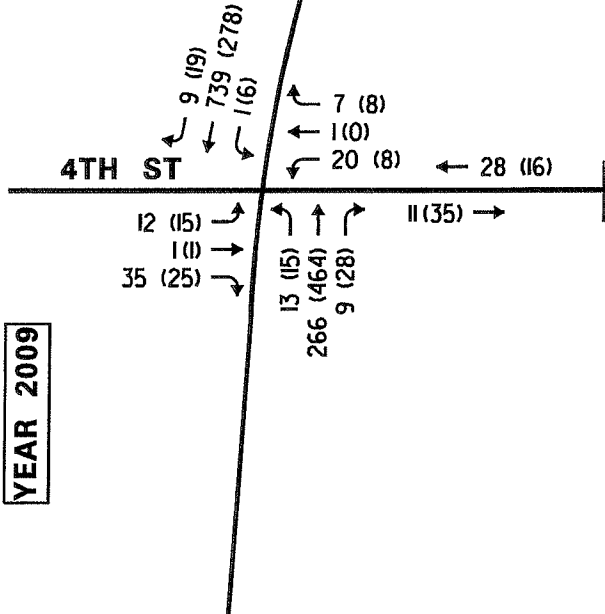
Accident Data

Accident data from Year 2003 through Year 2007 was provided by IDOT for the intersection of 4th Street and McCarthy Road. The data shows that this intersection has limited accident history, incurring a total of four accidents during these five years. No accidents were reported in Year 2003 or Year 2007.

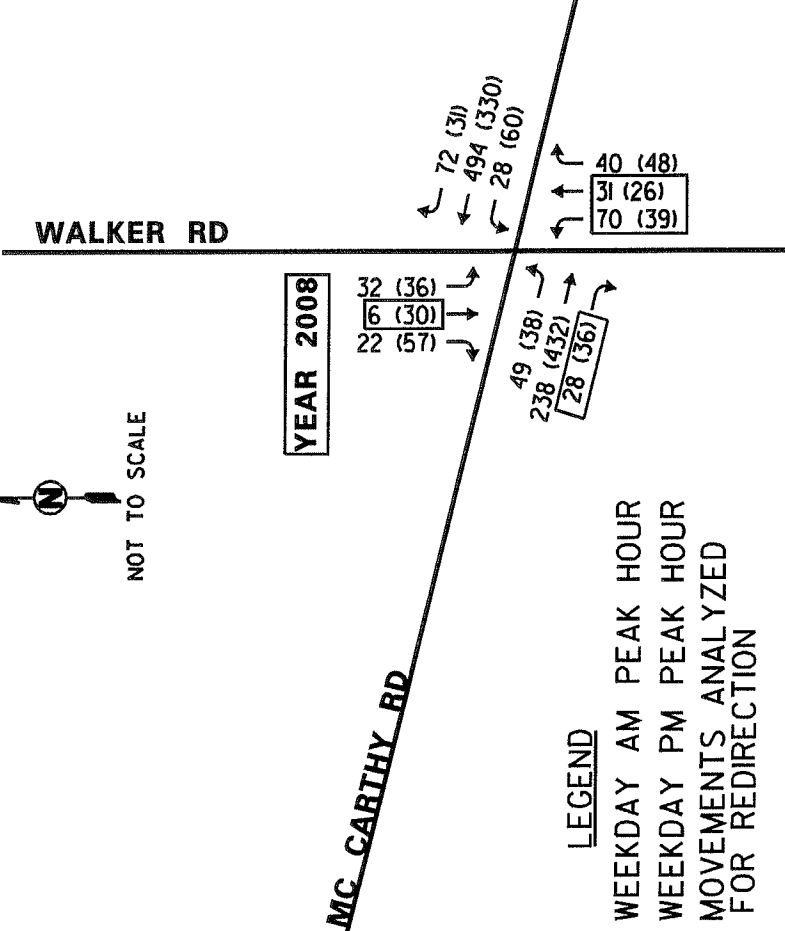
The accident data is included in the Appendix of this report.



YEAR 2009

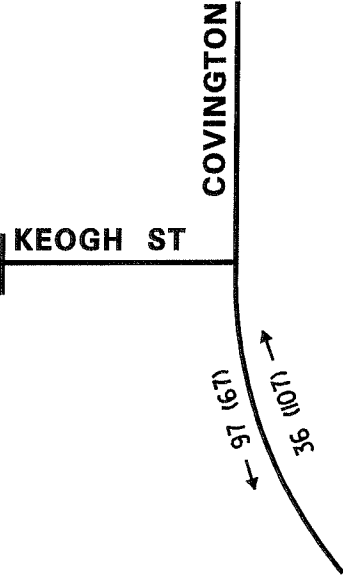
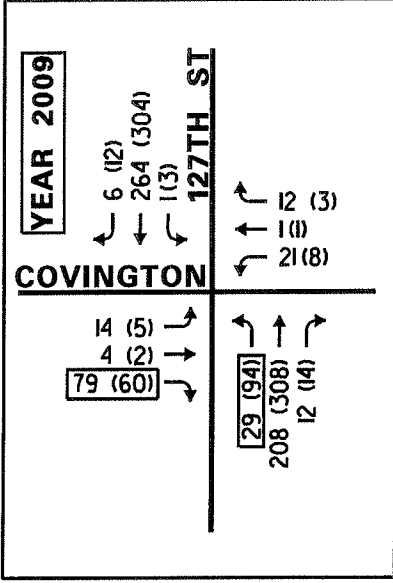


YEAR 2008



LEGEND

- 00 - WEEKDAY AM PEAK HOUR
- (00) - WEEKDAY PM PEAK HOUR
- 00 (00) - MOVEMENTS ANALYZED FOR REDIRECTION



TITLE: EXISTING TRAFFIC VOLUMES

PROJECT: 4TH STREET CONNECTION TO KEOGH STREET LEMONT, ILLINOIS

Redirection and Redistribution of Existing Traffic Volumes

To evaluate the impact of connecting 4th Street to Keogh Street, it was necessary to determine the direction from which existing traffic would be redirected to the intersection of 4th Street and McCarthy Road and to quantify the number of vehicle trips that would now traverse the intersection of 4th Street and McCarthy Road during the weekday morning and evening peak hours

The intersections of McCarthy Road and Walker Road and 127th Street and Covington were reviewed to determine how traffic would be redirected with the connection of 4th Street to Keogh Street for those vehicles coming to/from the Covington Knolls development and those vehicles accessing the existing residential neighborhood north of the Covington Knolls development.

Currently, traveling to/from the northwest on McCarthy Road, vehicles access the Covington Knolls residential development via the intersection of McCarthy Road and Walker Road. Walker Road provides access to the Covington Knolls residential development south of McCarthy Road.

Traveling to/from the west on 127th Street, vehicles can access Covington Knolls either from Covington Lane or from St. Vincent Drive, which is located east of Covington Lane. As shown from the existing traffic volumes, a high volume of eastbound 127th Street to northbound Covington left-turn movements were recorded (94 vehicles) during the weekday evening peak hour, indicating that this is a primary access to Covington Knolls.

Based on the surrounding roadway orientations and existing traffic patterns, it was determined that the following traffic movements would be affected with the 4th Street connection to Keogh Street:

McCarthy Road and Walker Road

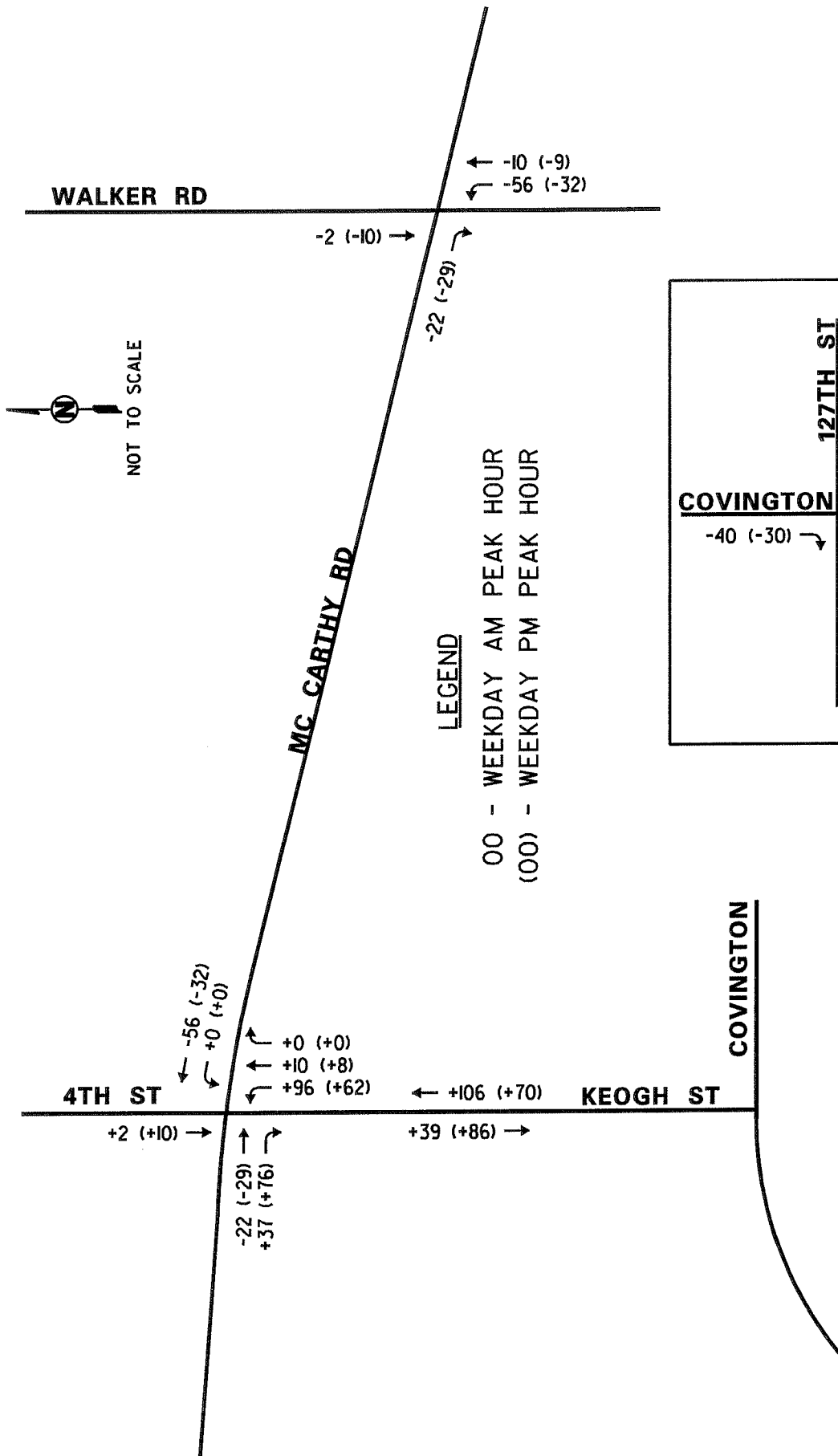
- Southbound through movement
- Northbound left-turn movement
- Northbound through movement

127th Street and Covington

- Southbound right-turn movement
- Eastbound left-turn movement

As noted, these individual movements are boxed in Figure 4 (Existing Traffic Volumes).

Using an established directional distribution based on the existing traffic volumes and circulation patterns, traffic volumes from these movements were reduced and redistributed to the intersection of 4th Street and McCarthy Road. **Figure 5** shows the estimated redirected traffic volumes for this intersection.



PROJECT NO: 09-016



FIGURE NO: 5

PROJECT: 4TH STREET CONNECTION TO KEOGH STREET LEMONT, ILLINOIS

TITLE: ESTIMATED REDIRECTED TRAFFIC VOLUMES

Planned Roadway Improvements

An intersection design study (IDS) was completed by KLOA, Inc. for the intersection of McCarthy Road and Walker Road with planned improvements to signalize the intersection and provide an exclusive left-turn lane and a shared through/right-turn lane on all four approaches (currently, this intersection has a single-lane approach on all four approaches). Walker Road is located approximately 3,900 feet southeast of 4th Street.

It is our understanding that as of the date of this study these improvements are not scheduled or financed and are considered a long-term improvement.

Planned Development

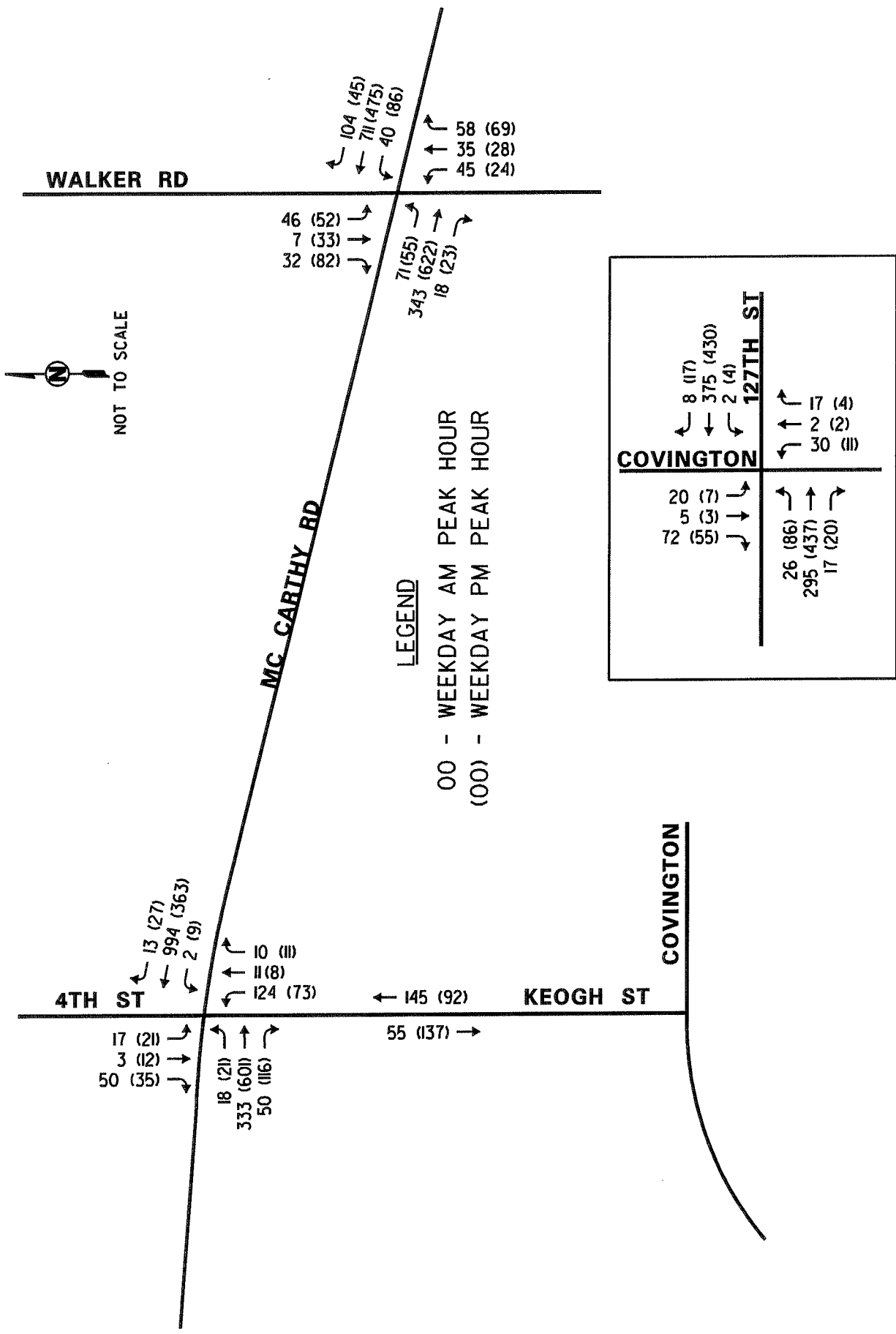
No developments are planned in the nearby area. As such, traffic generated by a particular planned development was not considered or included when projecting Year 2030 traffic volumes.

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. The same growth rate of two percent per year that was used for the McCarthy Road/Walker Road IDS was applied to the existing traffic volumes recorded at the intersection of 4th Street and McCarthy Road. As such, the existing traffic volumes were increased by forty-two percent.

Year 2030 Total Traffic Volumes

To comply with IDOT standards, traffic was projected to Year 2030. The Year 2030 total traffic volumes include the existing traffic volumes increased by the regional growth rate of forty-two percent (two percent per year for twenty-one years), and the redirection of traffic volumes assuming the connection of 4th Street to Keogh Street. **Figure 6** illustrates the Year 2030 Total Traffic Volumes.



TITLE:

YEAR 2030 TRAFFIC VOLUMES

PROJECT:

4TH STREET CONNECTION
 TO KEOGH STREET
 LEMONT, ILLINOIS

Traffic Evaluation

The following provides an evaluation conducted for the weekday morning and evening peak hour periods for the intersection of 4th Street and McCarthy Road. The evaluation includes conducting capacity analyses to provide an indication of how well the existing roadway infrastructure accommodates the existing traffic volumes, as well as the anticipated traffic demands placed upon them for Year 2030 conditions assuming the 4th Street connection to Keogh Street is implemented.

Traffic Analyses

Capacity analyses were performed for the two peak hour periods for Year 2009 (existing conditions), and Year 2030 conditions for the intersection of 4th Street and McCarthy Road in Lemont, Illinois.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM)*, 2000. HCS+ software was used to perform the calculations.

The analyses for the unsignalized intersections determine the average delay a vehicle experiences at a stop sign controlled intersection. The delay (or control delay) is the elapsed time from a vehicle joining the queue at a stop sign (including the time required to decelerate to a stop) until its departure from the stop sign and resumption of free flow speed. The methodology analyzes each intersection approach controlled by a stop sign and considers traffic volumes on all approaches and lane characteristics.

The ability of an intersection to accommodate traffic flow is expressed in terms of level of service, which is assigned a letter from A to F based on the average control delay experienced by vehicles passing through the intersection. Level of Service A is the highest grade (best traffic flow and least delay), whereas a 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 both signalized and unsignalized intersections are included in the Appendix of this report.

Summaries of the capacity analysis results for the two analyzed conditions are presented in **Table 3**. A discussion of these analyses follows.

Table 3
 CAPACITY ANALYSES RESULTS—4th Street and McCarthy Road

Intersection	Weekday A.M. Peak Hour	Weekday P.M. Peak Hour
Year 2009 (Existing) Conditions (TWSC)	D – 25.3	C – 15.5
Year 2030 (Projected) Conditions	F > 60.0 (TWSC)	F – 56.0 (TWSC)
	F > 60.0 (TWSC) ¹	C – 24.8 (TWSC) ¹
	C – 26.0 (Signal) ²	B – 17.4 (Signal) ²

TWSC = Two-way stop controlled intersection.

LOS represents the minor approach under stop control.

Delay is measured in seconds.

¹Assumes two-way stop controlled intersection with exclusive eastbound and westbound left-turn lanes on McCarthy Road.

²Assumes signalized intersection with exclusive eastbound and westbound left-turn lanes on McCarthy Road. The LOS and corresponding delay represents the intersection as a whole.

Discussion and Recommendations

The capacity analyses show that the intersection of 4th Street and McCarthy Road currently operates at an acceptable level of service during both the weekday morning and evening peak hours as a two-way stop sign controlled intersection. With the increase in traffic expected from both the connection of 4th Street to Keogh Street and the regional increase in traffic expected for Year 2030 conditions, this intersection will fail during both the weekday morning and evening peak hours, specifically for the northbound approach. As such, alternative capacity analyses were performed for Year 2030 conditions to mitigate the impact from both the regional growth in traffic and the increase from the redirected traffic volumes.

Stop Sign Controlled Intersection

The first alternative assumes exclusive eastbound and westbound left-turn lanes on McCarthy Road at its intersection with 4th Street. Due to the limited volume of vehicles making a left-turn from McCarthy Road to travel northbound or southbound on 4th Street, these left-turn lanes (or center lane) can be used as a refuge for those vehicles wanting to make a left-turn or through movement. This alternative improves the performance of this intersection for the weekday evening peak hour, but the northbound approach would still operate at an unacceptable level of service during the weekday morning peak hour.

Traffic Signal Controlled Intersection

The second alternative analyzed the intersection under traffic signal control. For this analysis, it was assumed that McCarthy Road would be widened to provide an eastbound left-turn lane and a westbound left-turn lane, and 4th Street would maintain a single lane approach on both the north and south approaches. The analysis shows that assuming these improvements, this intersection would operate at an acceptable level of service for both weekday peak hours for Year 2030 conditions. Based on the peak traffic volumes for Year 2030 conditions, a traffic signal is warranted under Warrant 2: Four-Hour Volume Warrant. A signal is not warranted under Warrant 1: Eight-Hour Traffic Volumes.

Geometric Improvements

If a traffic signal is pursued, in addition to widening McCarthy Road to provide eastbound and westbound left-turn lanes, IDOT may require 4th Street to be widened to provide a northbound and southbound left-turn lane on each approach. Further investigation needs to be done to determine if sufficient right-of-way exists to provide these widening improvements both on McCarthy Road and on 4th Street.

It is important to note that an eastbound left-turn lane is warranted (according to IDOT standards) based on the recently recorded existing traffic volumes during the weekday evening peak hour. For Year 2030 total traffic volumes, this eastbound left-turn lane is warranted for both weekday peak hours. A westbound left-turn lane is not warranted for either peak hour for either Year 2009 or Year 2030 traffic conditions; however, good engineering practice recommends providing a westbound left-turn lane to mirror the proposed eastbound left-turn lane.

An eastbound right-turn lane is warranted based on Year 2030 traffic volumes during the weekday evening peak hour.

Based on a design speed of 45 mph (posted speed of 40 mph plus 5 mph), the two left-turn lanes and the eastbound right-turn lane should provide a minimum of 185 feet of storage and 200 feet of taper.

Sight Distance

Field observations noted that there is limited sight-distance on the northbound approach of 4th Street at its intersection with McCarthy Road. McCarthy Road curves immediately to the west of 4th Street, reducing visibility of oncoming eastbound traffic on McCarthy Road. Visibility is further reduced when vehicles are parked on the residential driveway that serves the home on the southwest corner of the intersection and intersects McCarthy Road from the south. A sight distance analysis is recommended when developing roadway widening plans on McCarthy Road to accommodate the eastbound and westbound left-turn lanes.

Keogh Street

As noted, Keogh Street is approximately 30-feet wide and parking is permitted on both sides of the roadway. This road is wide enough to allow opposing vehicles to pass each other simultaneously and can accommodate the limited increase in traffic anticipated if it is connected to 4th Street. Therefore, no improvements are recommended in conjunction with the connection to 4th Street.

Conclusion

The Village of Lemont is considering connecting 4th Street to Keogh Street to allow two-way traffic flow between McCarthy Road and a residential neighborhood to the north, and the Covington Knolls residential development to the south. Based on the findings of this traffic study, the following conclusions are noted.

- Connecting 4th Street to Keogh Street allows convenient access between the Covington Knolls development and McCarthy Road. Currently, all traffic from this development accesses McCarthy Road via Walker Road. Walker Road is the eastern boundary to the Covington Knolls development.
- Accident data for a five year period (Year 2003 through Year 2007) show that this intersection has limited accident history, averaging less than one accident per year.
- Based on IDOT standards, the existing traffic volumes recorded at the intersection of 4th Street and McCarthy Road show that an eastbound left-turn lane on McCarthy Road is warranted for the weekday evening peak hour. Year 2030 traffic projections show that an eastbound left-turn lane is warranted for both the weekday morning and evening peak hours. In addition, an eastbound right-turn lane is warranted based on Year 2030 traffic projections during the weekday evening peak hour.
- Regardless of whether 4th Street is connected to Keogh Street, an eastbound and a westbound left-turn lane on McCarthy Road should be considered.
- The intersection of 4th Street and McCarthy Road currently operates at an acceptable level of service for both the weekday morning and evening peak hours.
- With the addition of the redirected traffic from the 4th Street/Keogh Street connection and the regional growth in traffic, this intersection will operate at a poor level of service during both the weekday morning and evening peak hours.
- A traffic signal is warranted (Warrant 2: Four Hour Volume) at the intersection of 4th Street and McCarthy Road based on Year 2030 traffic projections. It is recommended that if/when 4th Street is connected to Keogh Street this intersection should be annually monitored to determine when a traffic signal is warranted.
- Capacity analyses for a signalized intersection show that this intersection will operate at an acceptable level of service for both the weekday morning and evening peak hours for Year 2030 conditions.

- The analyses for a signalized intersection assumed an eastbound and westbound left-turn lane on McCarthy Road. No widening improvements were assumed for 4th Street (4th Street would continue to provide a single-lane approach on both the north and south approaches of 4th Street). It is important to note that if a traffic signal is pursued at this intersection, IDOT may also require widening 4th Street to provide a left-turn lane and a shared through/right-turn lane on both the north and south approaches.
- If a traffic signal is installed at this intersection, it should be interconnected and coordinated with the proposed traffic signal at the intersection of Walker Road and McCarthy Road.
- Due to the limited visibility for northbound turning traffic on 4th Street at its intersection with McCarthy Road, a sight distance study should be conducted when developing roadway improvement plans for this intersection.
- The “No Thru Traffic” sign posted for southbound traffic on 4th Street, just south of McCarthy Road should be considered for removal if 4th Street is connected to Keogh Street.
- Keogh Street is approximately 30-feet wide and allows parking on both sides of the roadway. As such, opposing vehicles are able to pass one another simultaneously. Therefore, no improvements are recommended to Keogh Street to accommodate the limited increase in traffic expected with the proposed connected to 4th Street.

Technical Appendix
4th Street Connection to Keogh Street
Lemont, Illinois

Traffic Volume Counts

LEMONT, IL
 127TH & COVINGTON/CHESTNUT
 TUESDAY 1/27/09

URNS/TEAPAC [Ver 3.43.14] - 15-Minute Flow Rates: Appr/Exit Totals

Begin Time	Approach Totals				Exit Totals				Int Total
	N	E	S	W	N	E	S	W	
600	48	48	12	116	20	116	4	84	224
615	60	76	36	80	0	104	4	144	252
630	44	132	20	136	8	128	12	184	332
645	56	140	32	176	32	168	4	200	404
700	136	228	32	156	12	180	0	360	552
715	64	264	36	248	40	228	12	332	612
730	104	304	24	292	40	252	44	388	724
745	84	288	44	300	52	276	12	376	716

URNS/TEAPAC [Ver 3.43.14] - 60-Minute Volumes: by Movement

Begin Time	N-Approach			E-Approach			S-Approach			W-Approach			Int Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
600	41	1	10	1	96	2	7	2	16	3	112	12	303
615	60	0	14	1	141	2	7	2	21	3	124	10	385
630	62	0	13	4	186	1	7	2	21	6	156	17	475
645	71	4	15	5	228	1	7	3	21	10	185	23	573
700	79	4	14	6	264	1	12	1	21	12	208	29	651
715	52	4	7	6	207	1	10	1	15	12	172	26	513*
730	39	4	4	3	144	1	8	1	8	9	120	19	360*
745	19	0	2	2	69	1	5	0	6	2	62	11	179*

URNS/TEAPAC [Ver 3.43.14] - 60-Minute Volumes: Appr/Exit Totals

Begin Time	Approach Totals				Exit Totals				Int Total
	N	E	S	W	N	E	S	W	
600	52	99	25	127	15	129	6	153	303
615	74	144	30	137	13	145	5	222	385
630	75	191	30	179	23	176	7	269	475
645	90	234	31	218	31	207	15	320	573
700	97	271	34	249	36	234	17	364	651
715	63	214	26	210	33	189	17	274	513*
730	47	148	17	148	23	132	14	191	360*
745	21	72	11	75	13	69	3	94	179*

LEMONT, IL
 127TH & COVINGTON/CHESTNUT
 THURSDAY 1/22/09

URNS/TEAPAC[Ver 3.43.14] - 15-Minute Flow Rates: Appr/Exit Totals

Begin Time	Approach Totals				Exit Totals				Int Total
	N	E	S	W	N	E	S	W	
1630	72	308	24	432	116	312	36	372	836
1645	92	344	8	412	72	336	24	424	856
1700	72	336	4	416	124	304	8	392	828
1715	60	312	28	400	108	316	24	352	800
1730	44	284	8	436	124	308	20	320	772
1745	64	268	12	456	136	332	28	304	800
1800	84	196	16	324	100	240	28	252	620
1815	52	272	0	412	112	288	32	304	736

URNS/TEAPAC[Ver 3.43.14] - 60-Minute Volumes: by Movement

Begin Time	N-Approach			E-Approach			S-Approach			W-Approach			Int Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
1630	68	2	4	13	307	5	5	1	10	16	308	91	830
1645	60	2	5	12	304	3	3	1	8	14	308	94	814
1700	52	1	7	14	281	5	3	1	9	14	305	108	800
1715	51	2	10	14	244	7	2	2	12	16	287	101	748
1730	51	1	9	11	236	8	0	1	8	18	283	106	732
1745	41	1	8	9	168	7	0	1	6	14	207	77	539*
1800	29	1	4	6	107	4	0	1	3	10	128	46	339*
1815	12	0	1	2	64	2	0	0	0	6	71	26	184*

URNS/TEAPAC[Ver 3.43.14] - 60-Minute Volumes: Appr/Exit Totals

Begin Time	Approach Totals				Exit Totals				Int Total
	N	E	S	W	N	E	S	W	
1630	74	325	16	415	105	317	23	385	830
1645	67	319	12	416	107	316	19	372	814
1700	60	300	13	427	123	315	20	342	800
1715	63	265	16	404	117	299	25	307	748
1730	61	255	9	407	118	292	27	295	732
1745	50	184	7	298	87	215	22	215	539*
1800	34	117	4	184	53	132	15	139	339*
1815	13	68	0	103	28	72	8	76	184*

LEMONT, IL
 4TH & MC CARTHY
 TUESDAY 1/27/09

URNS/TEAPAC[Ver 3.43.14] - 15-Minute Flow Rates: Appr/Exit Totals

Begin Time	Approach Totals				Exit Totals				Int Total
	N	E	S	W	N	E	S	W	
600	4	204	16	132	8	136	4	208	356
615	12	240	28	68	4	80	4	260	348
630	24	316	16	120	20	128	4	324	476
645	32	376	20	144	12	144	16	400	572
700	44	600	20	224	8	228	4	648	888
715	56	788	12	344	32	320	12	836	1200
730	28	836	32	292	20	280	8	880	1188
745	64	772	48	292	32	312	20	812	1176

URNS/TEAPAC[Ver 3.43.14] - 60-Minute Volumes: by Movement

Begin Time	N-Approach			E-Approach			S-Approach			W-Approach			Int Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
600	11	0	7	6	276	2	8	1	11	5	107	4	438
615	19	0	9	6	375	2	6	1	14	5	130	4	571
630	27	0	12	8	511	1	3	0	14	8	190	10	784
645	30	0	10	5	644	1	4	0	17	9	229	13	962
700	35	1	12	9	739	1	7	1	20	9	266	13	1113
715	26	1	10	8	590	1	6	1	16	8	212	12	891*
730	15	1	7	6	395	1	6	1	13	5	135	6	591*
745	9	1	6	5	187	1	4	1	7	3	68	2	294*

URNS/TEAPAC[Ver 3.43.14] - 60-Minute Volumes: Appr/Exit Totals

Begin Time	Approach Totals				Exit Totals				Int Total
	N	E	S	W	N	E	S	W	
600	18	284	20	116	11	122	7	298	438
615	28	383	21	139	11	145	7	408	571
630	39	520	17	208	18	205	9	552	784
645	40	650	21	251	18	243	10	691	962
700	48	749	28	288	23	285	11	794	1113
715	37	599	23	232	21	228	10	632	891*
730	23	402	20	146	13	148	7	423	591*
745	16	193	12	73	8	78	5	203	294*

LEMONT, IL
 4TH & MC CARTHY
 THURSDAY 1/22/09

URNS/TEAPAC[Ver 3.43.14] - 15-Minute Flow Rates: Appr/Exit Totals

Begin Time	Approach Totals				Exit Totals				Int Total
	N	E	S	W	N	E	S	W	
1630	20	292	16	388	28	360	16	312	716
1645	36	356	20	568	36	556	20	368	980
1700	60	252	24	428	32	428	32	272	764
1715	44	328	4	516	36	480	56	320	892
1730	24	276	20	516	32	484	32	288	836
1745	8	380	28	336	24	304	28	396	752
1800	12	348	32	324	12	312	24	368	716
1815	12	356	20	280	16	264	16	372	668

URNS/TEAPAC[Ver 3.43.14] - 60-Minute Volumes: by Movement

Begin Time	N-Approach			E-Approach			S-Approach			W-Approach			Int Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
1630	24	0	16	17	285	5	7	0	9	26	433	16	838
1645	25	1	15	19	278	6	8	0	9	28	464	15	868
1700	22	1	11	17	285	7	7	0	12	29	406	14	811
1715	16	1	5	13	312	8	6	0	15	26	384	13	799
1730	11	1	2	8	325	7	5	0	20	17	334	13	743
1745	7	0	1	5	260	6	3	0	17	11	216	8	534*
1800	5	0	1	3	169	4	2	0	11	6	141	4	346*
1815	3	0	0	2	85	2	0	0	5	2	66	2	167*

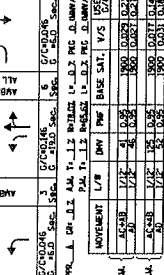
URNS/TEAPAC[Ver 3.43.14] - 60-Minute Volumes: Appr/Exit Totals

Begin Time	Approach Totals				Exit Totals				Int Total
	N	E	S	W	N	E	S	W	
1630	40	307	16	475	33	456	31	318	838
1645	41	303	17	507	34	487	35	312	868
1700	34	309	19	449	31	424	37	319	811
1715	22	333	21	423	26	395	35	343	799
1730	14	340	25	364	21	341	25	356	743
1745	8	271	20	235	13	220	17	284	534*
1800	6	176	13	151	7	144	10	185	346*
1815	3	89	5	70	4	66	4	93	167*

SIGNALIZED INTERSECTION CAPACITY ANALYSIS

HIGHWAY CAPACITY SOFTWARE
 VERSION 4.0
 DATE: 10/20/00

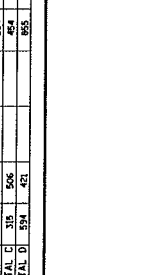
BASIC CONDITIONS
 AREA: CND
 SIGNAL TYPE: ACTUATED
 PHASES: 4
 C = SIGNAL CYCLE = 120 SEC. A.M.
 C = SIGNAL CYCLE = 120 SEC. P.M.



MOVEMENT	L/R	PHASE	PMF	BASE SAT.	V/S	U/S/D	RELAT. LOS	APPR. DELAY	STOPPED PERIOD	RELAT. LOS	APPR. DELAY	STOPPED PERIOD	RELAT. LOS	APPR. DELAY	STOPPED PERIOD
A.A.	L	1	100	0.22	0.22	0.22	0.22	3.81	0.00	0.22	3.81	0.00	0.22	3.81	0.00
P.A.	L	1	100	0.22	0.22	0.22	0.22	3.81	0.00	0.22	3.81	0.00	0.22	3.81	0.00
A.A.	R	1	100	0.22	0.22	0.22	0.22	3.81	0.00	0.22	3.81	0.00	0.22	3.81	0.00
P.A.	R	1	100	0.22	0.22	0.22	0.22	3.81	0.00	0.22	3.81	0.00	0.22	3.81	0.00

INTERSECTION RELAY 258 (A.M.), 212 (P.M.)
 INTERSECTION LOS: 0.22 (A.M.), 0.22 (P.M.)

MOVEMENT	YEAR 2000	PERCENT TRAFFIC	ESTIMATED YEAR 2000	PERCENT TRAFFIC
A.A.	100	100	100	100
P.A.	100	100	100	100
A.R.	100	100	100	100
P.R.	100	100	100	100
A.L.	100	100	100	100
P.L.	100	100	100	100
A.T.	100	100	100	100
P.T.	100	100	100	100
TOTAL A	400	100	400	100
TOTAL B	400	100	400	100
TOTAL C	400	100	400	100
TOTAL D	400	100	400	100



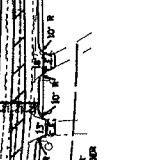
ELEMENTS CONTROLLING DESIGN

1. HIGHWAY DESIGN CLASSIFICATION: WALKER ROAD - MINOR ARTERIAL
 WALKER ROAD - COLLECTOR

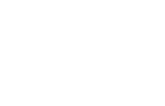
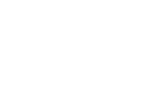
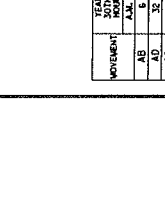
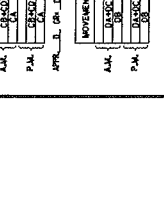
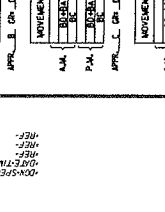
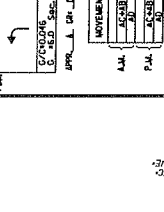
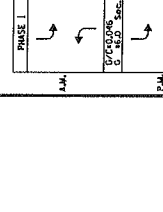
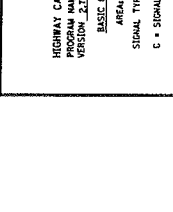
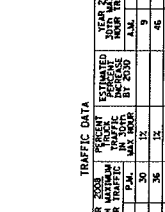
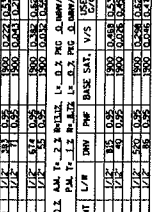
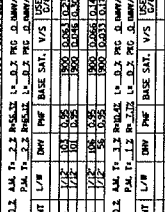
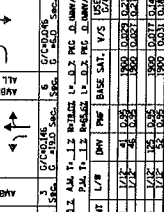
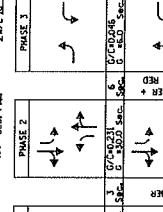
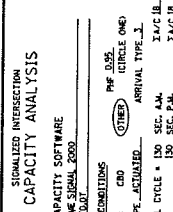
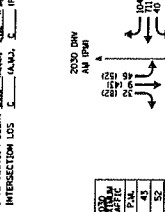
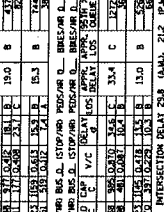
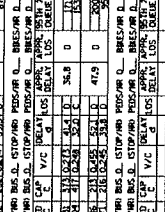
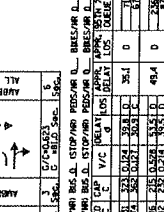
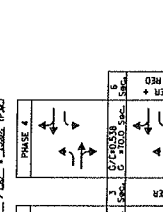
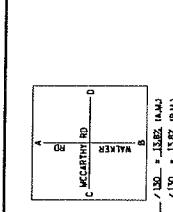
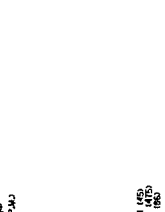
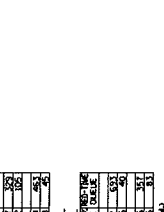
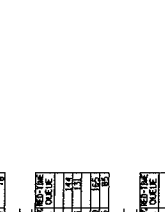
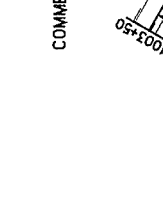
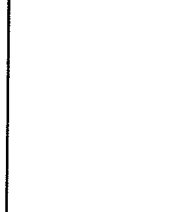
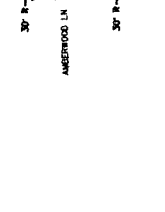
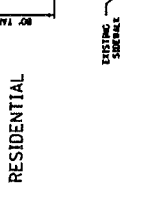
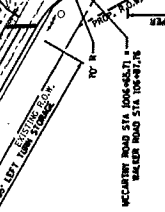
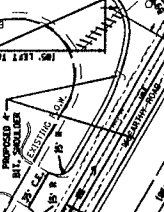
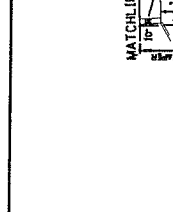
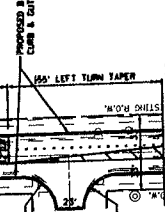
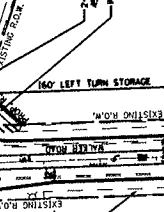
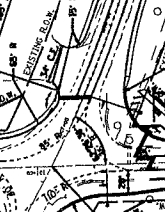
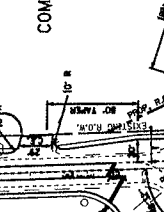
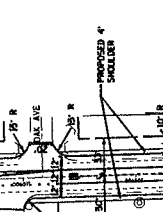
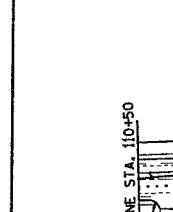
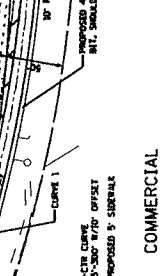
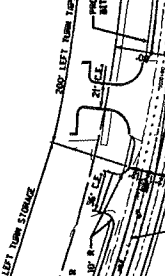
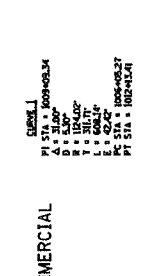
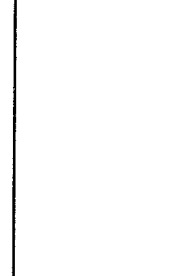
2. AVERAGE DAILY TRAFFIC (ADT) DATA:
 WALKER ROAD - EXISTING: 14,000
 WALKER ROAD - DESIGN: 24,000

3. INTERSECTION TYPE: IS THE PREFERENCE ROUTE
 4. ANTICIPATED YEAR OF CONSTRUCTION: 2007
 5. TRAFFIC CONTROL: TO BE DETERMINED
 6. DESIGN CRITERIA: TO BE DETERMINED
 7. DESIGN VEHICLE: TO BE DETERMINED
 8. DESIGN SPEED: TO BE DETERMINED

GENERAL NOTES
 1. PROFILES AND NOT PROVIDED, SINCE APPROACH GRADES ARE 1%
 2. TYPE BEHALD CURB AND CUTTER TO BE USED ON OUTER EDGES OF PAVEMENT
 3. ALL DIMENSIONS ARE SHOWN IN FEET AND INCHES
 4. ALL DIMENSIONS ARE SHOWN IN FEET AND INCHES
 5. INTERSECTION APPROX 40' FROM E. END OF WALKER ROAD
 6. INTERSECTION APPROX 40' FROM W. END OF WALKER ROAD
 7. FROM 25' VALUES AND RAMP AS SHOWN USE IN COMPLIANCE WITH THE AMERICAN
 8. EXPECTED PEDESTRIAN/BIKE USAGE NONE
 9. ALL ENTRANCES AS SHOWN ARE TO BE IN COMPLIANCE WITH DOT POLICIES ON ACCESS TO
 10. SCOPE OF WORK: ADDITION OF LEFT TURN LANES ON ALL APPROACHES
 11. DESIGN EXCEPTIONS: 30' V/S 30' MB THROUGH CURBING, 10' L. PAV.



PROJECT INFORMATION
 DRAWING NO.:
 INTERSECTION DESIGN STUDY
 ELLI ROUTE 1587 WALKER ROAD
 CH ROUTE 1587 WALKER ROAD
 SEC. NO. 08-0002-00-01 PROJ. NO. 08-0002-00-01
 SCALE: 1" = 50'
 COUNTY CODE:
 SHEET NO.:
 ENGINEER NAME: DANA M. SCHMIDT, PE
 DATE: 07/20/01
 INITIAL SUBMITTAL: 07/20/01
 REVISED: 08/28/01
 CAD FILE NAME: 08-0002-00-01.dwg
 PLOT FILE NAME: 08-0002-00-01.dwg



Accident Data



Collision Diagram
 1/1/2004 to 12/31/2004

Crash Route: TS191 | From MileStation 0.85 to 0.85 | County : Cook | Intersection Related: Intersections | *See Notes at End of Report.

Date	Weather	Roadway	A	Injuries	B	C	Killed	Type of Crash	Light Condition	Mile	Vehicle Type	DIRP	Maneuver	Event 1	Loc 1	Event 2	Loc 2	Event 3	Loc 3	Unit	
12/23/2004 8:20 PM	Other	Dry	0	0	0	0	0	15-Angle	Darkness, lighted road	0.85	Passenger	North	Starting in traffic	Motor vehicle in traffic	On-pavement (roadway)	(UNK)	Unknown	Unknown	Unknown	Unknown	1
											Van/mini van	West	Straight ahead	Motor vehicle in traffic	On-pavement (roadway)	Ran off the roadway	Off pavement - left	Unknown	Unknown	2	

45313376



Collision Diagram
 1/1/2004 to 12/31/2004

Crash Route: TS191 | From MileStation 0.85 to 0.85 | County : Cook | Intersection Related: Intersections | *See Notes at End of Report.

SNS@X BQ@RGDR	E@S@X BQ@RGDR	HMI T@X BQ@RGDR	OQNDQ@SX C@.@F D BQ@RGDR	SNS@X JHKDC	SNS@X HMI TQDC	A INJURIES	B INJURIES	C INJURIES
1	0	0	1	0	0	0	0	0

Type of Crash	Total	%	Day of Wk	Total	%	Hour of Day	Total	%	Vehicle Type	Total	%
15-Angle	1	100.0%	Thursday	1	100.0%	8 PM	1	100.0%	Passenger	1	50.0%
TOTAL:	1		TOTAL:	1		TOTAL:	1		Van/mini van	1	50.0%
									TOTAL:	2	

Weather Cond	Total	%	Light Cond	Total	%	Road Surface	Total	%	DIRP	Total	%
Other	1	100.0%	Darkness, lighted road	1	100.0%	Dry	1	100.0%	North	1	50.0%
TOTAL:	1		TOTAL:	1		TOTAL:	1		West	1	50.0%
									TOTAL:	2	



Collision Diagram

1/1/2005 to 12/31/2005

Crash Route: TS191 | From MileStation 0.9 to 0.9 | County : Cook | Intersection Related: Intersections | *See Notes at End of Report.

SNS@ BQ@GDR	E@@ BQ@GDR	HMI T QX BQ@GDR	OO@DQX C @ D BQ@GDR	SNS@ JHKDC	SNS@ HMI T QDC	A INJURIES	B INJURIES	C INJURIES
2	0	0	2	0	0	0	0	0

Type of Crash	Total	%	Day of Wk	Total	%	Hour of Day	Total	%	Vehicle Type	Total	%
15-Angle	2	100.0%	Wednesday	1	50.0%	3 PM	1	50.0%	Passenger	3	75.0%
TOTAL:	2		Tuesday	1	50.0%	7 PM	1	50.0%	Van/mini van	1	25.0%
	TOTAL:			2		TOTAL:	2		TOTAL:	4	

Weather Cond	Total	%	Light Cond	Total	%	Road Surface	Total	%	DIRP	Total	%
Clear	2	100.0%	Daylight	1	50.0%	Dry	2	100.0%	North	2	50.0%
TOTAL:	2		Dusk	1	50.0%	TOTAL:	2		West	2	50.0%
	TOTAL:			2			TOTAL:		TOTAL:	4	



Illinois Department of Transportation
Division of Traffic Safety

Collision Diagram

1/1/2006 to 12/31/2006

Crash Route: TS191 | From MileStation 0.9 to 0.9 | County : Cook | Intersection Related: Intersections | *See Notes at End of Report.

Date	Weather	Roadway	A	Injuries	B	C	Killed	Type of Crash	Light Condition	Mile	Vehicle Type	DIRP	Maneuver	Event 1	Loc 1	Event 2	Loc 2	Event 3	Loc 3	Unit	
8/29/2006 11:17 AM	Clear	Dry	0	0	0	0	0	10-Turning	Daylight	0.90	Van/mini van	North	Turning left	Motor vehicle in n traffic	Intersectio n	(UNK)	(UNK)	(UNK)	(UNK)	(UNK)	1
											Pickup	West	Straight ahead	Motor vehicle in n traffic	Intersectio n	(UNK)	(UNK)	(UNK)	(UNK)	(UNK)	2

53275697



Collision Diagram

1/1/2006 to 12/31/2006

Crash Route: TS191 | From MileStation 0.9 to 0.9 | County : Cook | Intersection Related: Intersections | *See Notes at End of Report.

SNS@X BQ@GDR	EQ@X BQ@GDR	HM T QX BQ@GDR	OO@QX C@CFD BO@GDR	SNS@X JHKDC	SNS@X HMTQDC	A INJURIES	B INJURIES	C INJURIES
1	0	0	1	0	0	0	0	0

Type of Crash	Total	%	Dayof Wk	Total	%	Hour of Day	Total	%	Vehicle Type	Total	%
10-Turning	1	100.0%	Tuesday	1	100.0%	11 AM	1	100.0%	Pickup	1	50.0%
TOTAL:	1		TOTAL:	1		TOTAL:	1		TOTAL:	1	50.0%
									Van/mini van	1	50.0%
									TOTAL:	2	

Weather Cond	Total	%	Light Cond	Total	%	Road Surface	Total	%	DIRP	Total	%
Clear	1	100.0%	Daylight	1	100.0%	Dry	1	100.0%	North	1	50.0%
TOTAL:	1		TOTAL:	1		TOTAL:	1		West	1	50.0%
									TOTAL:	2	

Capacity Analysis

LEVEL OF SERVICE CRITERIA

Signalized Intersections		
Level of Service	Interpretation	Average Control Delay (seconds per vehicle)
A	Very short delay, with extremely favorable progression. Most vehicles arrive during the green phase and do not stop at all.	≤ 10
B	Good progression, with more vehicles stopping than for Level of Service A, causing higher levels of average delay.	> 10 - 20
C	Light congestion, with individual cycle failures beginning to appear. Number of vehicles stopping is significant at this level.	> 20 - 35
D	Congestion is more noticeable, with longer delays resulting from combinations of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop, and the proportion of vehicles not stopping declines.	> 35 - 55
E	High delays result from poor progression, high cycle lengths, and high V/C ratios.	> 55 - 80
F	Unacceptable delays occurring, with oversaturation.	> 80
Unsignalized Intersections		
Level of Service	Average Control Delay (seconds per vehicle)	
A	0 - 10	
B	> 10 - 15	
C	> 15 - 25	
D	> 25 - 35	
E	> 35 - 50	
F	> 50	

Source: *Highway Capacity Manual*, 2000.

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	WRW			Intersection	4th St/McCarthy Rd			
Agency/Co.	KLOA			Jurisdiction	IDOT			
Date Performed	4/13/2009			Analysis Year	2009			
Analysis Time Period	Weekday AM							
Project Description 09-016; Lemont, IL								
East/West Street: <i>McCarthy Road</i>				North/South Street: <i>4th Street</i>				
Intersection Orientation: <i>East-West</i>				Study Period (hrs): <i>0.25</i>				
Vehicle Volumes and Adjustments								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	13	266	9	1	739	9		
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95		
Hourly Flow Rate, HFR (veh/h)	13	280	9	1	777	9		
Percent Heavy Vehicles	2	--	--	2	--	--		
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)	20	1	7	12	1	35		
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95		
Hourly Flow Rate, HFR (veh/h)	21	1	7	12	1	36		
Percent Heavy Vehicles	2	2	2	2	2	2		
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)	13	1	29			49		
C (m) (veh/h)	833	1273	206			304		
v/c	0.02	0.00	0.14			0.16		
95% queue length	0.05	0.00	0.48			0.57		
Control Delay (s/veh)	9.4	7.8	25.3			19.1		
LOS	A	A	D			C		
Approach Delay (s/veh)	--	--	25.3			19.1		
Approach LOS	--	--	D			C		

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	WRW			Intersection	4th St/McCarthy Rd			
Agency/Co.	KLOA			Jurisdiction	IDOT			
Date Performed	4/13/2009			Analysis Year	2030			
Analysis Time Period	Weekday AM							
Project Description 09-016; Lemont, IL								
East/West Street: McCarthy Road				North/South Street: 4th 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)	18	333	50	2	994	13		
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95		
Hourly Flow Rate, HFR (veh/h)	18	350	52	2	1046	13		
Percent Heavy Vehicles	2	--	--	2	--	--		
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)	125	11	10	17	3	50		
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95		
Hourly Flow Rate, HFR (veh/h)	131	11	10	17	3	52		
Percent Heavy Vehicles	2	2	2	2	2	2		
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)	18	2	152			72		
C (m) (veh/h)	658	1157	85			180		
v/c	0.03	0.00	1.79			0.40		
95% queue length	0.08	0.01	12.82			1.77		
Control Delay (s/veh)	10.6	8.1	480.7			37.7		
LOS	B	A	F			E		
Approach Delay (s/veh)	--	--	480.7			37.7		
Approach LOS	--	--	F			E		

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	WRW			Intersection	4th St/McCarthy Rd		
Agency/Co.	KLOA			Jurisdiction	IDOT		
Date Performed	4/13/2009			Analysis Year	2030 (left-turn lanes)		
Analysis Time Period	Weekday AM						
Project Description 09-016; Lemont, IL							
East/West Street: McCarthy Road				North/South Street: 4th 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)	18	333	50	2	994	13	
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	
Hourly Flow Rate, HFR (veh/h)	18	350	52	2	1046	13	
Percent Heavy Vehicles	2	--	--	2	--	--	
Median Type	Two Way Left Turn Lane						
RT Channelized			0			0	
Lanes	1	1	0	1	1	0	
Configuration	L		TR	L		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)	125	11	10	17	3	50	
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	
Hourly Flow Rate, HFR (veh/h)	131	11	10	17	3	52	
Percent Heavy Vehicles	2	2	2	2	2	2	
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
Lane Configuration	L	L		LTR			LTR
v (veh/h)	18	2		152			72
C (m) (veh/h)	658	1157		162			242
v/c	0.03	0.00		0.94			0.30
95% queue length	0.08	0.01		6.95			1.20
Control Delay (s/veh)	10.6	8.1		111.2			26.1
LOS	B	A		F			D
Approach Delay (s/veh)	--	--		111.2			26.1
Approach LOS	--	--		F			D

Analyst: WRW
 Agency: KLOA
 Date: 4/13/2009
 Period: Weekday AM
 Project ID: 09-016; Lemont, IL
 E/W St: McCarthy Road

Inter.: 4th Street/McCarthy Road
 Area Type: All other areas
 Jurisd: IDOT
 Year : 2030
 N/S St: 4th Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	1	1	0	0	1	0	0	1	0
LGConfig	L	TR		L	TR		LTR			LTR		
Volume	18	333	50	2	994	13	124	11	10	17	3	50
Lane Width	12.0	12.0		12.0	12.0		12.0			12.0		
RTOR Vol			0			0	0			0		

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left		A			NB Left	A		
Thru					Thru	A		
Right					Right	A		
Peds					Peds			
WB Left		A			SB Left	A		
Thru					Thru	A		
Right					Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green		6.0	84.0			25.0		
Yellow		3.0	4.0			4.0		
All Red		0.0	2.0			2.0		

Cycle Length: 130.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	180	1770	0.11	0.74	22.1	C		
TR	1180	1826	0.34	0.65	10.6	B	11.1	B
Westbound								
L	659	1770	0.00	0.74	5.1	A		
TR	1201	1859	0.88	0.65	26.9	C	26.9	C
Northbound								
LTR	257	1335	0.60	0.19	51.8	D	51.8	D
Southbound								
LTR	296	1538	0.25	0.19	45.0	D	45.0	D

Intersection Delay = 26.0 (sec/veh) Intersection LOS = C

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: WRW
 Agency/Co.: KLOA
 Date Performed: 4/13/2009
 Analysis Time Period: Weekday AM
 Intersection: 4th Street/McCarthy Road
 Area Type: All other areas
 Jurisdiction: IDOT
 Analysis Year: 2030
 Project ID: 09-016; Lemont, IL
 E/W St: McCarthy Road N/S St: 4th Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound			
	L	T	R	L	T	R	L	T	R	L	T	R	
Volume	18	333	50	2	994	13	124	11	10	17	3	50	
% Heavy Veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
PK 15 Vol	5	88	13	1	262	4	33	3	3	5	1	13	
Hi Ln Vol													
% Grade		0			0			0			0		
Ideal Sat	1900	1900		1900	1900			1900			1900		
ParkExist													
NumPark													
No. Lanes		1	1	0		1	1	0		0	1	0	
LGConfig		L		TR		L		TR			LTR		LTR
Lane Width	12.0	12.0		12.0	12.0		12.0			12.0			
RTOR Vol			0			0			0			0	
Adj Flow	19	404		2	1060			154			74		
%InSharedLn													
Prop LTs	1.000	0.000		1.000	0.000			0.851			0.243		
Prop RTs		0.131			0.013			0.071			0.716		
Peds Bikes		0			0			0			0		
Buses	0	0		0	0			0			0		
%InProtPhase	0.0			0.0									
Duration	0.25												

Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0		0.0	0.0			0.0			0.0	
Arriv. Type	3	3		3	3			3			3	
Unit Ext.	3.0	3.0		3.0	3.0			3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time	2.0	2.0		2.0	2.0			2.0			2.0	
Ext of g	2.0	2.0		2.0	2.0			2.0			2.0	
Ped Min g		3.2			3.2			3.2			3.2	

PHASE DATA

Phase Combination	1	2	3	4	5	6	7	8
EB Left Thru Right Peds	A	A			NB Left Thru Right Peds	A		
WB Left Thru Right Peds	A	A			SB Left Thru Right Peds	A		
NB Right					EB Right			
SB Right					WB Right			
Green	6.0	84.0			25.0			
Yellow	3.0	4.0			4.0			
All Red	0.0	2.0			2.0			

Cycle Length: 130.0 secs

VOLUME ADJUSTMENT AND SATURATION FLOW WORKSHEET

Volume Adjustment

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume, V	18	333	50	2	994	13	124	11	10	17	3	50
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj flow	19	351	53	2	1046	14	131	12	11	18	3	53
No. Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Lane group	L	TR		L	TR		LTR			LTR		
Adj flow	19	404		2	1060		154			74		
Prop LTs	1.000	0.000		1.000	0.000		0.851			0.243		
Prop RTs	0.131			0.013			0.071			0.716		

Saturation Flow Rate (see Exhibit 16-7 to determine the adjustment factors)

	Eastbound			Westbound			Northbound			Southbound		
	L	TR		L	TR		LTR			LTR		
So	1900	1900		1900	1900		1900			1900		
Lanes	1	1	0	1	1	0	0	1	0	0	1	0
fW	1.000	1.000		1.000	1.000		1.000			1.000		
fHV	0.980	0.980		0.980	0.980		0.980			0.980		
fG	1.000	1.000		1.000	1.000		1.000			1.000		
fP	1.000	1.000		1.000	1.000		1.000			1.000		
fBB	1.000	1.000		1.000	1.000		1.000			1.000		
fA	1.000	1.000		1.000	1.000		1.000			1.000		
fLU	1.000	1.000		1.000	1.000		1.000			1.000		
fRT		0.980			0.998		0.990			0.903		
fLT	0.950	1.000		0.950	1.000		0.724			0.914		
Sec.	0.076			0.447								
fLpb	1.000	1.000		1.000	1.000		1.000			1.000		
fRpb		1.000			1.000		1.000			1.000		
S	1770	1826		1770	1859		1335			1538		
Sec.	142			833								

CAPACITY AND LOS WORKSHEET

Capacity Analysis and Lane Group Capacity

Appr/ Mvmt	Lane Group	Adj Flow Rate (v)	Adj Sat Flow Rate (s)	Flow Ratio (v/s)	Green Ratio (g/C)	--Lane Group-- Capacity (c)	v/c Ratio
Eastbound							
Prot		19	1770	# 0.01	0.046	82	0.23
Perm		0	142	0.00	0.692	98	0.00
Left	L	19			0.74	180	0.11
Prot							
Perm							
Thru	TR	404	1826	0.22	0.65	1180	0.34
Right							
Westbound							
Prot		2	1770	0.00	0.046	82	0.02
Perm		0	833	0.00	0.692	577	0.00
Left	L	2			0.74	659	0.00
Prot							
Perm							
Thru	TR	1060	1859	# 0.57	0.65	1201	0.88
Right							
Northbound							
Prot							
Perm							
Left							
Prot							
Perm							
Thru	LTR	154	1335	# 0.12	0.19	257	0.60
Right							
Southbound							
Prot							
Perm							
Left							
Prot							
Perm							
Thru	LTR	74	1538	0.05	0.19	296	0.25
Right							

Sum of flow ratios for critical lane groups, $Y_c = \text{Sum (v/s)} = 0.70$
Total lost time per cycle, $L = 18.00 \text{ sec}$
Critical flow rate to capacity ratio, $X_c = (Y_c)(C)/(C-L) = 0.81$

Control Delay and LOS Determination

Appr/ Lane Grp	Ratios		Unf Del d1	Prog Adj Fact	Lane Grp Cap	Incremental Factor k	Res Del d2	Res Del d3	Lane Group		Approach	
	v/c	g/C							Delay	LOS	Delay	LOS
Eastbound												
L	0.11	0.74	21.8	1.000	180	0.11	0.3	0.0	22.1	C		
TR	0.34	0.65	10.5	1.000	1180	0.11	0.2	0.0	10.6	B	11.1	B
Westbound												
L	0.00	0.74	5.1	1.000	659	0.11	0.0	0.0	5.1	A		
TR	0.88	0.65	18.9	1.000	1201	0.41	8.0	0.0	26.9	C	26.9	C
Northbound												
LTR	0.60	0.19	47.9	1.000	257	0.19	3.8	0.0	51.8	D	51.8	D
Southbound												
LTR	0.25	0.19	44.5	1.000	296	0.11	0.4	0.0	45.0	D	45.0	D

SUPPLEMENTAL PERMITTED LT WORKSHEET

for exclusive lefts

Input	EB	WB	NB	SB
Opposed by Single(S) or Multiple(M) lane approach				
Cycle length, C	130.0	sec		
Total actual green time for LT lane group, G (s)	93.0	93.0		
Effective permitted green time for LT lane group, g(s)	90.0	90.0		
Opposing effective green time, go (s)	84.0	84.0		
Number of lanes in LT lane group, N	1	1		
Number of lanes in opposing approach, No	1	1		
Adjusted LT flow rate, VLT (veh/h)	19	2		
Proportion of LT in LT lane group, PLT	1.000	1.000		
Proportion of LT in opposing flow, PLTo	0.00	0.00		
Adjusted opposing flow rate, Vo (veh/h)	1060	404		
Lost time for LT lane group, tL	6.00	6.00		
Computation				
LT volume per cycle, LTC=VLTC/3600	0.69	0.07		
Opposing lane util. factor, fLUo	1.000	1.000	1.000	1.000
Opposing flow, Volc=VoC/[3600(No)fLUo] (veh/ln/cyc)	38.28	14.59		
gf=G[exp(- a * (LTC ** b))]-tL, gf<=g	0.0	0.0		
Opposing platoon ratio, Rpo (refer Exhibit 16-11)	1.00	1.00		
Opposing Queue Ratio, qro=Max[1-Rpo(go/C),0]	0.35	0.35		
gq, (see Exhibit C16-4,5,6,7,8)	65.89	13.31		
gu=g-gq if gq>=gf, or = g-gf if gq<gf	24.11	76.69		
n=Max(gq-gf)/2,0)	32.95	6.66		
PTHo=1-PLTo	1.00	1.00		
PL*=PLT[1+(N-1)g/(gf+gu/EL1+4.24)]	1.00	1.00		
EL1 (refer to Exhibit C16-3)	3.51	1.91		
EL2=Max((1-Ptho**n)/Plto, 1.0)				
fmin=2(1+PL)/g or fmin=2(1+Pl)/g	0.04	0.04		
gdifff=max(gq-gf,0)	0.00	0.00		
fm=[gf/g]+[gu/g]/[1+PL(EL1-1)], (min=fmin;max=1.00)	0.08	0.45		
flt=fm=[gf/g]+[gu/g]/[1+PL(EL1-1)]+[gdifff/g]/[1+PL(EL2-1)], (fmin<=fm<=1.00)				
or flt=[fm+0.91(N-1)]/N**				
Left-turn adjustment, fLT	0.076	0.447		

For special case of single-lane approach opposed by multilane approach, see text.

* If Pl>=1 for shared left-turn lanes with N>1, then assume de-facto left-turn lane and redo calculations.

** For permitted left-turns with multiple exclusive left-turn lanes, flt=fm.

For special case of multilane approach opposed by single-lane approach or when gf>gq, see text.

SUPPLEMENTAL PERMITTED LT WORKSHEET

for shared lefts

Input	EB	WB	NB	SB
Opposed by Single(S) or Multiple(M) lane approach				
Cycle length, C	130.0	sec		
Total actual green time for LT lane group, G (s)			25.0	25.0
Effective permitted green time for LT lane group, g(s)			25.0	25.0
Opposing effective green time, go (s)			25.0	25.0
Number of lanes in LT lane group, N			1	1

Number of lanes in opposing approach, No			1	1
Adjusted LT flow rate, VLT (veh/h)			131	18
Proportion of LT in LT lane group, PLT	0.000	0.000	0.851	0.243
Proportion of LT in opposing flow, PLTo			0.24	0.85
Adjusted opposing flow rate, Vo (veh/h)			74	154
Lost time for LT lane group, tL			6.00	6.00
Computation				
LT volume per cycle, LTC=VLTC/3600			4.73	0.65
Opposing lane util. factor, fLUo	1.000	1.000	1.000	1.000
Opposing flow, Volc=VoC/[3600(No)fLUo] (veh/ln/cyc)			2.67	5.56
gf=G[exp(- a * (LTC ** b))]-tL, gf<=g			0.0	7.0
Opposing platoon ratio, Rpo (refer Exhibit 16-11)			1.00	1.00
Opposing Queue Ratio, gro=Max[1-Rpo(go/C),0]			0.81	0.81
gq, (see Exhibit C16-4,5,6,7,8)			2.33	8.57
gu=g-gq if gq>=gf, or = g-gf if gq<gf			22.67	16.43
n=Max(gq-gf)/2,0)			1.17	0.80
PTHo=1-PLTo			0.76	0.15
PL*=PLT[1+(N-1)g/(gf+gu/EL1+4.24)]			0.85	0.24
EL1 (refer to Exhibit C16-3)			1.49	1.62
EL2=Max((1-Ptho**n)/Plto, 1.0)			1.14	1.00
fmin=2(1+PL)/g or fmin=2(1+PL)/g			0.15	0.10
gdifff=max(gq-gf,0)			2.33	1.59
fm=[gf/g]+[gu/g]/[1+PL(EL1-1)], (min=fmin;max=1.00)			0.72	0.91
flt=fm=[gf/g]+[gu/g]/[1+PL(EL1-1)]+[gdifff/g]/[1+PL(EL2-1)], (fmin<=fm<=1.00)				
or flt=[fm+0.91(N-1)]/N**				
Left-turn adjustment, fLT			0.724	0.914

For special case of single-lane approach opposed by multilane approach, see text.

* If Pl>=1 for shared left-turn lanes with N>1, then assume de-facto left-turn lane and redo calculations.

** For permitted left-turns with multiple exclusive left-turn lanes, flt=fm.

For special case of multilane approach opposed by single-lane approach or when gf>gq, see text.

SUPPLEMENTAL PEDESTRIAN-BICYCLE EFFECTS WORKSHEET

Permitted Left Turns

EB WB NB SB

Effective pedestrian green time, gp (s)
 Conflicting pedestrian volume, Vped (p/h)
 Pedestrian flow rate, Vpedg (p/h)
 OCCpedg
 Opposing queue clearing green, gq (s)
 Eff. ped. green consumed by opp. veh. queue, gq/gp
 OCCpedu
 Opposing flow rate, Vo (veh/h)
 OCCr
 Number of cross-street receiving lanes, Nrec
 Number of turning lanes, Nturn
 ApbT
 Proportion of left turns, PLT
 Proportion of left turns using protected phase, PLTA
 Left-turn adjustment, fLpb
 Permitted Right Turns
 Effective pedestrian green time, gp (s)
 Conflicting pedestrian volume, Vped (p/h)
 Conflicting bicycle volume, Vbic (bicycles/h)
 Vpedg
 OCCpedg
 Effective green, g (s)
 Vbicg

OCCbicg
 OCCr
 Number of cross-street receiving lanes, Nrec
 Number of turning lanes, Nturn
 ApbT
 Proportion right-turns, PRT
 Proportion right-turns using protected phase, PRTA
 Right turn adjustment, fRpb

SUPPLEMENTAL UNIFORM DELAY WORKSHEET

	EBLT	WBLT	NBLT	SBLT
Cycle length, C				
Adj. LT vol from Vol Adjustment Worksheet, v	19	2		
v/c ratio from Capacity Worksheet, X	0.11	0.00		
Protected phase effective green interval, g (s)	6.0	6.0		
Opposing queue effective green interval, gq	65.89	13.31		
Unopposed green interval, gu	24.11	76.69		
Red time r=(C-g-gq-gu)	34.0	34.0		
Arrival rate, qa=v/(3600(max[X,1.0]))	0.01	0.00		
Protected ph. departure rate, Sp=s/3600	0.492	0.492		
Permitted ph. departure rate, Ss=s(gq+gu)/(gu*3600)	0.15	0.27		
XPerm	0.13	0.00		
XProt	0.07	0.01		
Case	1	1		
Queue at beginning of green arrow, Qa	0.18	0.02		
Queue at beginning of unsaturated green, Qu	0.35	0.01		
Residual queue, Qr	0.00	0.00		
Uniform Delay, d1	21.8	5.1		

DELAY/LOS WORKSHEET WITH INITIAL QUEUE

Appr/ Lane Group	Initial Unmet Demand Q veh	Dur. Unmet Demand t hrs.	Uniform Delay		Initial Queue Param. u	Final Unmet Demand Q veh	Initial Queue Delay d3 sec	Lane Group Delay d sec
			Unadj. ds	Adj. d1 sec				
Eastbound								
L	0.0	0.00		21.8	0.00	0.0	0.0	22.1
TR	0.0	0.00	23.0	10.5	0.00	0.0	0.0	10.6
	0.0						0.0	
Westbound								
L	0.0	0.00		5.1	0.00	0.0	0.0	5.1
TR	0.0	0.00	23.0	18.9	0.00	0.0	0.0	26.9
	0.0						0.0	
Northbound								
	0.0						0.0	
LTR	0.0	0.00	52.5	47.9	0.00	0.0	0.0	51.8
	0.0						0.0	
Southbound								
	0.0						0.0	
LTR	0.0	0.00	52.5	44.5	0.00	0.0	0.0	45.0
	0.0						0.0	

Intersection Delay 26.0 sec/veh Intersection LOS C

BACK OF QUEUE WORKSHEET

	Eastbound			Westbound			Northbound			Southbound		
LaneGroup	L	TR		L	TR		LTR		LTR		LTR	
Init Queue	0.0	0.0		0.0	0.0		0.0		0.0		0.0	
Flow Rate	19	404		2	1060		154		74			
So	1900	1900		1900	1900		1900		1900			
No.Lanes	1	1	0	1	1	0	1	0	1	0	0	
SL	244	1826		892	1859		1335		1538			
LnCapacity	180	1180		659	1201		257		296			
Flow Ratio	0.1	0.2		0.0	0.6		0.1		0.0			
v/c Ratio	0.11	0.34		0.00	0.88		0.60		0.25			
Grn Ratio	0.74	0.65		0.74	0.65		0.19		0.19			
I Factor		1.000			1.000		1.000		1.000			
AT or PVG	3	3		3	3		3		3			
Pltn Ratio	1.00	1.00		1.00	1.00		1.00		1.00			
PF2	1.00	1.00		1.00	1.00		1.00		1.00			
Q1	0.2	6.6		0.0	31.5		5.1		2.3			
kB	0.3	0.9		0.7	1.0		0.4		0.4			
Q2	0.0	0.5		0.0	5.5		0.5		0.1			
Q Average	0.2	7.1		0.0	37.0		5.6		2.4			
Q Spacing	25.0	25.0		25.0	25.0		25.0		25.0			
Q Storage	0	0		0	0		0		0			
Q S Ratio												
70th Percentile Output:												
fB%	1.2	1.2		1.2	1.1		1.2		1.2			
BOQ	0.3	8.4		0.0	42.2		6.7		2.9			
QSRatio												
85th Percentile Output:												
fB%	1.6	1.5		1.6	1.4		1.5		1.6			
BOQ	0.3	10.9		0.0	51.4		8.7		3.8			
QSRatio												
90th Percentile Output:												
fB%	1.8	1.7		1.8	1.5		1.7		1.8			
BOQ	0.4	12.0		0.0	54.2		9.6		4.2			
QSRatio												
95th Percentile Output:												
fB%	2.1	1.9		2.1	1.6		1.9		2.0			
BOQ	0.5	13.6		0.0	58.4		10.9		4.9			
QSRatio												
98th Percentile Output:												
fB%	2.7	2.3		2.7	1.8		2.3		2.5			
BOQ	0.6	16.2		0.1	65.1		13.2		6.1			
QSRatio												

ERROR MESSAGES

No errors to report.

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	WRW			Intersection	4th St/McCarthy Rd			
Agency/Co.	KLOA			Jurisdiction	IDOT			
Date Performed	4/13/2009			Analysis Year	2009			
Analysis Time Period	Weekday PM							
Project Description 09-016; Lemont, IL								
East/West Street: McCarthy Road				North/South Street: 4th 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)	15	464	28	6	278	19		
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95		
Hourly Flow Rate, HFR (veh/h)	15	488	29	6	292	20		
Percent Heavy Vehicles	2	--	--	2	--	--		
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)	8	0	8	15	1	25		
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95		
Hourly Flow Rate, HFR (veh/h)	8	0	8	15	1	26		
Percent Heavy Vehicles	2	2	2	2	2	2		
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)	15	6	16			42		
C (m) (veh/h)	1248	1049	358			446		
v/c	0.01	0.01	0.04			0.09		
95% queue length	0.04	0.02	0.14			0.31		
Control Delay (s/veh)	7.9	8.5	15.5			13.9		
LOS	A	A	C			B		
Approach Delay (s/veh)	--	--	15.5			13.9		
Approach LOS	--	--	C			B		

TWO-WAY STOP CONTROL SUMMARY							
General Information				Site Information			
Analyst	WRW			Intersection	4th St/McCarthy Rd		
Agency/Co.	KLOA			Jurisdiction	IDOT		
Date Performed	4/13/2009			Analysis Year	2030		
Analysis Time Period	Weekday PM						
Project Description 09-016; Lemont, IL							
East/West Street: McCarthy Road				North/South Street: 4th 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)	21	601	116	9	363	27	
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	
Hourly Flow Rate, HFR (veh/h)	22	632	122	9	382	28	
Percent Heavy Vehicles	2	--	--	2	--	--	
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)	73	8	11	21	12	35	
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	
Hourly Flow Rate, HFR (veh/h)	76	8	11	22	12	36	
Percent Heavy Vehicles	2	2	2	2	2	2	
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
Lane Configuration	LTR	LTR	LTR			LTR	
v (veh/h)	22	9	95			70	
C (m) (veh/h)	1149	856	160			264	
v/c	0.02	0.01	0.59			0.27	
95% queue length	0.06	0.03	3.16			1.04	
Control Delay (s/veh)	8.2	9.3	56.0			23.5	
LOS	A	A	F			C	
Approach Delay (s/veh)	--	--	56.0			23.5	
Approach LOS	--	--	F			C	

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	WRW			Intersection	4th St/McCarthy Rd			
Agency/Co.	KLOA			Jurisdiction	IDOT			
Date Performed	4/13/2009			Analysis Year	2030 (left-turn lanes)			
Analysis Time Period	Weekday PM							
Project Description 09-016; Lemont, IL								
East/West Street: McCarthy Road				North/South Street: 4th 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)	21	601	116	9	363	27		
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95		
Hourly Flow Rate, HFR (veh/h)	22	632	122	9	382	28		
Percent Heavy Vehicles	2	--	--	2	--	--		
Median Type	Two Way Left Turn Lane							
RT Channelized			0			0		
Lanes	1	1	0	1	1	0		
Configuration	L		TR	L		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)	73	8	11	21	12	35		
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95		
Hourly Flow Rate, HFR (veh/h)	76	8	11	22	12	36		
Percent Heavy Vehicles	2	2	2	2	2	2		
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	L	L	LTR			LTR		
v (veh/h)	22	9	95			70		
C (m) (veh/h)	1149	856	275			346		
v/c	0.02	0.01	0.35			0.20		
95% queue length	0.06	0.03	1.49			0.74		
Control Delay (s/veh)	8.2	9.3	24.8			18.0		
LOS	A	A	C			C		
Approach Delay (s/veh)	--	--	24.8			18.0		
Approach LOS	--	--	C			C		

Analyst: WRW
 Agency: KLOA
 Date: 4/13/2009
 Period: Weekday PM
 Project ID: 09-016; Lemont, IL
 E/W St: McCarthy Road

Inter.: 4th Street/McCarthy Road
 Area Type: All other areas
 Jurisd: IDOT
 Year : 2030
 N/S St: 4th Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	1	1	0	0	1	0	0	1	0
LGConfig	L	TR		L	TR		LTR			LTR		
Volume	21	601	116	9	363	27	73	8	11	21	12	35
Lane Width	12.0	12.0		12.0	12.0		12.0			12.0		
RTOR Vol			0			0	0			0		

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A	A			NB Left	A		
Thru		A			Thru	A		
Right		A			Right	A		
Peds					Peds			
WB Left	A	A			SB Left	A		
Thru		A			Thru	A		
Right		A			Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	6.0	84.0			25.0			
Yellow	3.0	4.0			4.0			
All Red	0.0	2.0			2.0			

Cycle Length: 130.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios		Lane Group		Approach	
			v/c	g/C	Delay	LOS	Delay	LOS
Eastbound								
L	653	1770	0.03	0.74	5.2	A		
TR	1175	1818	0.64	0.65	15.1	B	14.8	B
Westbound								
L	390	1770	0.02	0.74	8.8	A		
TR	1192	1844	0.34	0.65	10.6	B	10.6	B
Northbound								
LTR	261	1359	0.37	0.19	46.6	D	46.6	D
Southbound								
LTR	298	1550	0.24	0.19	44.9	D	44.9	D

Intersection Delay = 17.4 (sec/veh) Intersection LOS = B

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: WRW
 Agency/Co.: KLOA
 Date Performed: 4/13/2009
 Analysis Time Period: Weekday PM
 Intersection: 4th Street/McCarthy Road
 Area Type: All other areas
 Jurisdiction: IDOT
 Analysis Year: 2030
 Project ID: 09-016; Lemont, IL
 E/W St: McCarthy Road N/S St: 4th Street

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	21	601	116	9	363	27	73	8	11	21	12	35
% Heavy Veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PK 15 Vol	6	158	31	3	96	7	19	2	3	6	3	9
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat	1900	1900		1900	1900			1900			1900	
ParkExist												
NumPark												
No. Lanes	1	1	0	1	1	0	0	1	0	0	1	0
LGConfig	L	TR		L	TR			LTR			LTR	
Lane Width	12.0	12.0		12.0	12.0			12.0			12.0	
RTOR Vol			0			0			0			0
Adj Flow	22	755		9	410			97			72	
%InSharedLn									0			0
Prop LTs	1.000	0.000		1.000	0.000			0.794			0.306	
Prop RTs		0.162			0.068			0.124			0.514	
Peds Bikes	0			0			0			0		
Buses	0	0		0	0			0			0	
%InProtPhase	0.0			0.0								
Duration	0.25											

Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0		0.0	0.0			0.0			0.0	
Arriv. Type	3	3		3	3			3			3	
Unit Ext.	3.0	3.0		3.0	3.0			3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time	2.0	2.0		2.0	2.0			2.0			2.0	
Ext of g	2.0	2.0		2.0	2.0			2.0			2.0	
Ped Min g		3.2			3.2			3.2			3.2	

PHASE DATA

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A	A			NB Left	A		
Thru		A			Thru	A		
Right		A			Right	A		
Peds					Peds			
WB Left	A	A			SB Left	A		
Thru		A			Thru	A		
Right		A			Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			

Green	6.0	84.0	25.0
Yellow	3.0	4.0	4.0
All Red	0.0	2.0	2.0

Cycle Length: 130.0 secs

VOLUME ADJUSTMENT AND SATURATION FLOW WORKSHEET

Volume Adjustment

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume, V	21	601	116	9	363	27	73	8	11	21	12	35
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj flow	22	633	122	9	382	28	77	8	12	22	13	37
No. Lanes	1	1	0	1	1	0	0	1	0	0	1	0
Lane group	L	TR		L	TR			LTR			LTR	
Adj flow	22	755		9	410			97			72	
Prop LTs	1.000	0.000		1.000	0.000			0.794			0.306	
Prop RTs		0.162			0.068			0.124			0.514	

Saturation Flow Rate (see Exhibit 16-7 to determine the adjustment factors)

LG	Eastbound			Westbound			Northbound			Southbound		
	L	TR		L	TR		LTR			LTR		
So	1900	1900		1900	1900		1900			1900		
Lanes	1	1	0	1	1	0	0	1	0	0	1	0
fW	1.000	1.000		1.000	1.000		1.000			1.000		
fHV	0.980	0.980		0.980	0.980		0.980			0.980		
fG	1.000	1.000		1.000	1.000		1.000			1.000		
fP	1.000	1.000		1.000	1.000		1.000			1.000		
fBB	1.000	1.000		1.000	1.000		1.000			1.000		
fA	1.000	1.000		1.000	1.000		1.000			1.000		
fLU	1.000	1.000		1.000	1.000		1.000			1.000		
fRT		0.976			0.990		0.983			0.931		
fLT	0.950	1.000		0.950	1.000		0.742			0.894		
Sec.	0.443			0.239								
fLpb	1.000	1.000		1.000	1.000		1.000			1.000		
fRpb		1.000			1.000		1.000			1.000		
S	1770	1818		1770	1844		1359			1550		
Sec.	825			445								

CAPACITY AND LOS WORKSHEET

Capacity Analysis and Lane Group Capacity

Appr/ Mvmt	Lane Group	Adj Flow Rate (v)	Adj Sat Flow Rate (s)	Flow Ratio (v/s)	Green Ratio (g/C)	--Lane Group-- Capacity (c)	v/c Ratio
Eastbound							
Prot		22	1770	# 0.01	0.046	82	0.27
Perm		0	825	0.00	0.692	571	0.00
Left	L	22			0.74	653	0.03
Prot							
Perm							
Thru	TR	755	1818	# 0.42	0.65	1175	0.64
Right							
Westbound							
Prot		9	1770	0.01	0.046	82	0.11
Perm		0	445	0.00	0.692	308	0.00
Left	L	9			0.74	390	0.02
Prot							
Perm							
Thru	TR	410	1844	0.22	0.65	1192	0.34
Right							
Northbound							
Prot							
Perm							
Left							
Prot							
Perm							
Thru	LTR	97	1359	# 0.07	0.19	261	0.37
Right							
Southbound							
Prot							
Perm							
Left							
Prot							
Perm							
Thru	LTR	72	1550	0.05	0.19	298	0.24
Right							

Sum of flow ratios for critical lane groups, $Y_c = \text{Sum (v/s)} = 0.50$
Total lost time per cycle, $L = 18.00 \text{ sec}$
Critical flow rate to capacity ratio, $X_c = (Y_c)(C)/(C-L) = 0.58$

Control Delay and LOS Determination												
Appr/ Lane Grp	Ratios		Unf Del d1	Prog Adj Fact	Lane Grp Cap	Incremental Factor k	Res Del d2	Res Del d3	Lane Group		Approach	
	v/c	g/C							Delay	LOS	Delay	LOS
Eastbound												
L	0.03	0.74	5.2	1.000	653	0.11	0.0	0.0	5.2	A		
TR	0.64	0.65	13.9	1.000	1175	0.22	1.2	0.0	15.1	B	14.8	B
Westbound												
L	0.02	0.74	8.8	1.000	390	0.11	0.0	0.0	8.8	A		
TR	0.34	0.65	10.5	1.000	1192	0.11	0.2	0.0	10.6	B	10.6	B
Northbound												
LTR	0.37	0.19	45.7	1.000	261	0.11	0.9	0.0	46.6	D	46.6	D
Southbound												
LTR	0.24	0.19	44.5	1.000	298	0.11	0.4	0.0	44.9	D	44.9	D

SUPPLEMENTAL PERMITTED LT WORKSHEET

for exclusive lefts

Input	EB	WB	NB	SB
Opposed by Single(S) or Multiple(M) lane approach				
Cycle length, C	130.0	sec		
Total actual green time for LT lane group, G (s)	93.0	93.0		
Effective permitted green time for LT lane group, g(s)	90.0	90.0		
Opposing effective green time, go (s)	84.0	84.0		
Number of lanes in LT lane group, N	1	1		
Number of lanes in opposing approach, No	1	1		
Adjusted LT flow rate, VLT (veh/h)	22	9		
Proportion of LT in LT lane group, PLT	1.000	1.000		
Proportion of LT in opposing flow, PLTo	0.00	0.00		
Adjusted opposing flow rate, Vo (veh/h)	410	755		
Lost time for LT lane group, tL	6.00	6.00		
Computation				
LT volume per cycle, LTC=VLT/3600	0.79	0.33		
Opposing lane util. factor, fLUo	1.000	1.000	1.000	1.000
Opposing flow, Volc=VoC/[3600(No)fLUo] (veh/ln/cyc)	14.81	27.26		
gf=G[exp(- a * (LTC ** b))]-tL, gf<=g	0.0	0.0		
Opposing platoon ratio, Rpo (refer Exhibit 16-11)	1.00	1.00		
Opposing Queue Ratio, gro=Max[1-Rpo(go/C),0]	0.35	0.35		
gq, (see Exhibit C16-4,5,6,7,8)	13.57	33.23		
gu=g-gq if gq>=gf, or = g-gf if gq<gf	76.43	56.77		
n=Max(gq-gf)/2,0)	6.78	16.62		
PTHo=1-PLTo	1.00	1.00		
PL*=PLT[1+(N-1)g/(gf+gu/EL1+4.24)]	1.00	1.00		
EL1 (refer to Exhibit C16-3)	1.92	2.64		
EL2=Max((1-Ptho**n)/Plto, 1.0)				
fmin=2(1+PL)/g or fmin=2(1+PL)/g	0.04	0.04		
gdiff=max(gq-gf,0)	0.00	0.00		
fm=[gf/g]+[gu/g]/[1+PL(EL1-1)], (min=fmin;max=1.00)	0.44	0.24		
flt=fm=[gf/g]+[gu/g]/[1+PL(EL1-1)]+[gdiff/g]/[1+PL(EL2-1)], (fmin<=fm<=1.00)				
or flt=[fm+0.91(N-1)]/N**				
Left-turn adjustment, fLT	0.443	0.239		

For special case of single-lane approach opposed by multilane approach, see text.

* If Pl>=1 for shared left-turn lanes with N>1, then assume de-facto left-turn lane and redo calculations.

** For permitted left-turns with multiple exclusive left-turn lanes, flt=fm.

For special case of multilane approach opposed by single-lane approach or when gf>gq, see text.

SUPPLEMENTAL PERMITTED LT WORKSHEET

for shared lefts

Input	EB	WB	NB	SB
Opposed by Single(S) or Multiple(M) lane approach				
Cycle length, C	130.0	sec		
Total actual green time for LT lane group, G (s)			25.0	25.0
Effective permitted green time for LT lane group, g(s)			25.0	25.0
Opposing effective green time, go (s)			25.0	25.0
Number of lanes in LT lane group, N			1	1

Number of lanes in opposing approach, No			1	1
Adjusted LT flow rate, VLT (veh/h)			77	22
Proportion of LT in LT lane group, PLT	0.000	0.000	0.794	0.306
Proportion of LT in opposing flow, PLTo			0.31	0.79
Adjusted opposing flow rate, Vo (veh/h)			72	97
Lost time for LT lane group, tL			6.00	6.00
Computation				
LT volume per cycle, LTC=VLTC/3600			2.78	0.79
Opposing lane util. factor, fLUo	1.000	1.000	1.000	1.000
Opposing flow, Volc=VoC/[3600(No)fLUo] (veh/ln/cyc)			2.60	3.50
gf=G[exp(- a * (LTC ** b))]-tL, gf<=g			0.0	5.9
Opposing platoon ratio, Rpo (refer Exhibit 16-11)			1.00	1.00
Opposing Queue Ratio, gro=Max[1-Rpo(go/C),0]			0.81	0.81
gq, (see Exhibit C16-4,5,6,7,8)			2.16	4.24
gu=g-gq if gq>=gf, or = g-gf if gq<gf			22.84	19.12
n=Max(gq-gf)/2,0)			1.08	0.00
PTHo=1-PLTo			0.69	0.21
PL*=PLT[1+(N-1)g/(gf+gu/EL1+4.24)]			0.79	0.31
EL1 (refer to Exhibit C16-3)			1.49	1.52
EL2=Max((1-Ptho**n)/Plto, 1.0)			1.07	1.00
fmin=2(1+PL)/g or fmin=2(1+Pl)/g			0.14	0.10
gdiff=max(gq-gf,0)			2.16	0.00
fm=[gf/g]+[gu/g]/[1+PL(EL1-1)], (min=fmin;max=1.00)			0.74	0.89
flt=fm=[gf/g]+[gu/g]/[1+PL(EL1-1)]+[gdiff/g]/[1+PL(EL2-1)], (fmin<=fm<=1.00)				
or flt=[fm+0.91(N-1)]/N**				
Left-turn adjustment, fLT			0.742	0.894

For special case of single-lane approach opposed by multilane approach, see text.

* If Pl>=1 for shared left-turn lanes with N>1, then assume de-facto left-turn lane and redo calculations.

** For permitted left-turns with multiple exclusive left-turn lanes, flt=fm.

For special case of multilane approach opposed by single-lane approach or when gf>qg, see text.

SUPPLEMENTAL PEDESTRIAN-BICYCLE EFFECTS WORKSHEET

Permitted Left Turns

EB WB NB SB

Effective pedestrian green time, gp (s)
 Conflicting pedestrian volume, Vped (p/h)
 Pedestrian flow rate, Vpedg (p/h)
 OCCpedg
 Opposing queue clearing green, gq (s)
 Eff. ped. green consumed by opp. veh. queue, gq/gp
 OCCpedu
 Opposing flow rate, Vo (veh/h)
 OCCr
 Number of cross-street receiving lanes, Nrec
 Number of turning lanes, Nturn
 ApbT
 Proportion of left turns, PLT
 Proportion of left turns using protected phase, PLTA
 Left-turn adjustment, fLpb
 Permitted Right Turns
 Effective pedestrian green time, gp (s)
 Conflicting pedestrian volume, Vped (p/h)
 Conflicting bicycle volume, Vbic (bicycles/h)
 Vpedg
 OCCpedg
 Effective green, g (s)
 Vbicg

OCCbicg
 OCCr
 Number of cross-street receiving lanes, Nrec
 Number of turning lanes, Nturn
 ApbT
 Proportion right-turns, PRT
 Proportion right-turns using protected phase, PRTA
 Right turn adjustment, fRpb

SUPPLEMENTAL UNIFORM DELAY WORKSHEET

	EBLT	WBLT	NBLT	SBLT
Cycle length, C				
Adj. LT vol from Vol Adjustment Worksheet, v	22	9		
v/c ratio from Capacity Worksheet, X	0.03	0.02		
Protected phase effective green interval, g (s)	6.0	6.0		
Opposing queue effective green interval, gq	13.57	33.23		
Unopposed green interval, gu	76.43	56.77		
Red time r=(C-g-gq-gu)	34.0	34.0		
Arrival rate, qa=v/(3600(max[X,1.0]))	0.01	0.00		
Protected ph. departure rate, Sp=s/3600	0.492	0.492		
Permitted ph. departure rate, Ss=s(gq+gu)/(gu*3600)	0.27	0.20		
XPerm	0.03	0.02		
XProt	0.08	0.03		
Case	1	1		
Queue at beginning of green arrow, Qa	0.21	0.09		
Queue at beginning of unsaturated green, Qu	0.08	0.08		
Residual queue, Qr	0.00	0.00		
Uniform Delay, d1	5.2	8.8		

DELAY/LOS WORKSHEET WITH INITIAL QUEUE

Appr/ Lane Group	Initial		Uniform Delay		Initial Queue Param. u	Final Unmet Demand Q veh	Initial Queue Delay d3 sec	Lane Group Delay d sec
	Unmet Demand Q veh	Dur. Unmet Demand t hrs.	Unadj. ds	Adj. d1 sec				
Eastbound								
L	0.0	0.00		5.2	0.00	0.0	0.0	5.2
TR	0.0	0.00	23.0	13.9	0.00	0.0	0.0	15.1
	0.0						0.0	
Westbound								
L	0.0	0.00		8.8	0.00	0.0	0.0	8.8
TR	0.0	0.00	23.0	10.5	0.00	0.0	0.0	10.6
	0.0						0.0	
Northbound								
	0.0						0.0	
LTR	0.0	0.00	52.5	45.7	0.00	0.0	0.0	46.6
	0.0						0.0	
Southbound								
	0.0						0.0	
LTR	0.0	0.00	52.5	44.5	0.00	0.0	0.0	44.9
	0.0						0.0	
Intersection Delay			17.4	sec/veh	Intersection LOS			B

	Eastbound			Westbound			Northbound			Southbound		
LaneGroup	L	TR		L	TR		LTR		LTR		LTR	
Init Queue	0.0	0.0		0.0	0.0		0.0		0.0		0.0	
Flow Rate	22	755		9	410		97		72			
So	1900	1900		1900	1900		1900		1900			
No.Lanes	1	1	0	1	1	0	0	1	0	0	1	0
SL	884	1818		528	1844		1359		1550			
LnCapacity	653	1175		390	1192		261		298			
Flow Ratio	0.0	0.4		0.0	0.2		0.1		0.0			
v/c Ratio	0.03	0.64		0.02	0.34		0.37		0.24			
Grn Ratio	0.74	0.65		0.74	0.65		0.19		0.19			
I Factor		1.000			1.000		1.000		1.000			
AT or PVG	3	3		3	3		3		3			
Pltn Ratio	1.00	1.00		1.00	1.00		1.00		1.00			
PF2	1.00	1.00		1.00	1.00		1.00		1.00			
Q1	0.2	16.5		0.1	6.7		3.0		2.2			
kB	0.7	0.9		0.5	1.0		0.4		0.4			
Q2	0.0	1.7		0.0	0.5		0.2		0.1			
Q Average	0.2	18.1		0.1	7.2		3.3		2.3			
Q Spacing	25.0	25.0		25.0	25.0		25.0		25.0			
Q Storage	0	0		0	0		0		0			
Q S Ratio												
70th Percentile Output:												
fB%	1.2	1.2		1.2	1.2		1.2		1.2			
BOQ	0.3	21.1		0.1	8.6		3.9		2.8			
QSRatio												
85th Percentile Output:												
fB%	1.6	1.5		1.6	1.5		1.6		1.6			
BOQ	0.4	26.6		0.2	11.1		5.1		3.7			
QSRatio												
90th Percentile Output:												
fB%	1.8	1.6		1.8	1.7		1.7		1.8			
BOQ	0.4	28.3		0.2	12.1		5.7		4.1			
QSRatio												
95th Percentile Output:												
fB%	2.1	1.7		2.1	1.9		2.0		2.0			
BOQ	0.5	31.2		0.2	13.8		6.5		4.7			
QSRatio												
98th Percentile Output:												
fB%	2.7	1.9		2.7	2.3		2.5		2.5			
BOQ	0.6	35.3		0.3	16.4		8.1		5.9			
QSRatio												

ERROR MESSAGES

No errors to report.

James L. Cainkar

From: James L. Cainkar
Sent: Monday, June 21, 2010 12:30 PM
To: 'Ben Wehmeier'
Subject: Traffic Study
Attachments: 20100621112827890.pdf

Ben:

Please see the attached Traffic Study performed by KLOA back in early 2009, for 4th Street and McCarthy Road. An estimated cost of the improvements at the intersection is:

Traffic Signal Installation	\$175,000.00
Signal Interconnect to Walker Road	50,000.00
Turn lanes on McCarthy Road	<u>250,000.00</u>
Total Estimated Cost:	\$475,000.00

Also, as noted in the study, IDOT may require a turn lane(s) on 4th Street. In this case, there is not currently sufficient right-of-way to construct the turn lane. Please call if I can be of further assistance.

James L. Cainkar, PE, PLS

Frank Novotny & Associates, Inc.

825 Midway Drive
 Willowbrook, IL. 60527
 630-887-8640 Office
 630-887-0132 Fax

File No. 08414

Disclaimer:

This e-mail is only intended for the person(s) to whom it is addressed and may contain confidential information. Unless stated to the contrary, any opinions or comments are personal to the writer and do not represent the official view of the company. If you have received this e-mail in error, please notify us immediately by reply e-mail and then delete this message from your system. Please do not copy it or use it for any purposes, or disclose its contents to any other person.

Thank you for your cooperation.

TO: Committee of the Whole
FROM: Jason Berry, AICP, Community Development Director
THRU:
SUBJECT: UDO Deviations in PUDs
DATE: October 16, 2017

SUMMARY/BACKGROUND

Village Board and the Planning & Zoning Commission held a joint meeting on March 21 to discuss potential amendments to the Unified Development Ordinance (UDO). These included setbacks, lot coverage, ROW and pavement widths, and architectural standards. Staff compared regulations from neighboring communities to Lemont's UDO.

At the direction of the Village Administrator, Staff has summarized Planned Unit Development (PUD) approvals from 2014-2017, listing the deviations granted to the developer.

ATTACHMENTS

1. PUD Deviations by Regulation
2. PUD Deviations by Development

Recent Variances (Organized by Regulation)

Development	Case	Section	Regulation	Required	Variance
Vistancia	16-10	17.06.030.H	Impervious Yard Coverage	36%	Front: 45-50%; Rear: 40%
Seven Oaks Townhomes	15-05	17.07.01 (Table)	Corner Side Setback (R-5)	25'	22'
Estates of Montefiori	15-08	17.07.01 (Table)	Front Setback (R-5)	25'	20'
Seven Oaks Townhomes	15-05	17.07.01 (Table)	Front Setback (R-5)	25'	22'
Equestrian Meadows	15-14	17.07.01 (Table)	Interior Side Setback (R-4)	15'	10'
Fox Meadows	16-01	17.07.01 (Table)	Interior Side Setback (R-4)	15'	10'
Vistancia	16-10	17.07.01 (Table)	Interior Side Setback (R-4)	15'	7.5'
Hartz	17-08	17.07.01 (Table)	Interior Side Setback (R-4)	15'	8'
Estates of Montefiori	15-08	17.07.01 (Table)	Interior Side Setback (R-4)	15'	9'
Vistancia	16-10	17.07.01 (Table)	Interior Side Setback (R-5)	15'	10'
Seven Oaks Townhomes	15-05	17.07.01 (Table)	Interior Side Setback (R-5)	15'	10'
Seven Oaks Townhomes	15-05	17.07.01 (Table)	Minimum Lot Area Per Unit (R-5)	3,000 sf/du	2,441 sf/du
Hartz	17-08	17.07.01 (Table)	Minimum Lot Size (R-4)	12,500 sf	10,200 sf
Equestrian Meadows	15-14	17.07.01 (Table)	Minimum Lot Size (R-4)	12,500 sf	11,700 sf
Estates of Montefiori	15-08	17.07.01 (Table)	Minimum Lot Size (R-4)	12,500 sf	11,700 sf
Fox Meadows	16-01	17.07.01 (Table)	Minimum Lot Size (R-4)	12,500 sf	9,303 sf
Vistancia	16-10	17.07.01 (Table)	Minimum Lot Size (R-4)	12,500 sf	8,500 sf min
Seven Oaks Townhomes	15-05	17.07.01 (Table)	Minimum Lot Size (R-5)	10,000 sf	9,186 sf
Hartz	17-08	17.07.01 (Table)	Minimum Lot Size (R-5)	10,000 sf	9,792 sf
Vistancia	16-10	17.07.01 (Table)	Minimum Lot Width (R-4)	90'	60' / 70'
Fox Meadows	16-01	17.07.01 (Table)	Minimum Lot Width (R-4)	90'	75'
Hartz	17-08	17.07.01 (Table)	Minimum Lot Width (R-4)	90'	80'
Equestrian Meadows	15-14	17.07.01 (Table)	Minimum Lot Width (R-4)	90'	85'
Seven Oaks Townhomes	15-05	17.07.01 (Table)	Minimum Lot Width (R-5)	80'	66'
Vistancia	16-10	17.07.01 (Table)	Minimum Lot Width (R-5)	80'	75'
Vistancia	16-10	17.07.01 (Table)	Rear Setback (R-4)	30'	25'
Hartz	17-08	17.07.01 (Table)	Rear Setback (R-5)	30'	25'
Hartz	17-08	17.08.030.D	Open Space for Residential PUDs	15%	12%
Seven Oaks Townhomes	15-05	17.08.030.D	Open Space for Residential PUDs	15%	Less than 15%
Equestrian Meadows	15-14	17.08.030.D	Open Space for Residential PUDs	15%	None
Fox Meadows	16-01	17.08.030.D	Open Space for Residential PUDs	15%	None
Derby Pines	17-05	17.26.040.C.1	Cul-de-sac maximum length	300'	384'
Derby Pines	17-05	17-26-01 (Table)	Parkway width	12'	10'
Fox Meadows	16-01	17-26-01 (Table)	Parkway width	12'	10'
Equestrian Meadows	15-14	17-26-01 (Table)	Parkway width	12'	10.5'
Equestrian Meadows	15-14	Appendix G LS-10	Pavement width	30'	27'
Hartz	17-08	Appendix G LS-10	Pavement width	30'	27'
Vistancia	16-10	Appendix G LS-10	Right-of-way width	66'	60'
Derby Pines	17-05	Appendix G LS-10	Right-of-way width	66'	60'
Equestrian Meadows	15-14	Appendix G LS-10	Right-of-way width	66'	60'
Fox Meadows	16-01	Appendix G LS-10	Right-of-way width	66'	60'
Hartz	17-08	Appendix G LS-10	Right-of-way width	66'	60'

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Derby Pines	17-05	17-26-01 (Table)	Parkway width	12'	10'
Derby Pines	17-05	Appendix G LS-10	Right-of-way width	66'	60'
Equestrian Meadows	15-14	17.07.01 (Table)	Interior Side Setback (R-4)	15'	10'
Equestrian Meadows	15-14	17.07.01 (Table)	Minimum Lot Size (R-4)	12,500 sf	11,700 sf
Equestrian Meadows	15-14	17.07.01 (Table)	Minimum Lot Width (R-4)	90'	85'
Equestrian Meadows	15-14	17.08.030.D	Open Space for Residential PUDs	15%	None
Equestrian Meadows	15-14	17-26-01 (Table)	Parkway width	12'	10.5'
Equestrian Meadows	15-14	Appendix G LS-10	Pavement width	30'	27'
Equestrian Meadows	15-14	Appendix G LS-10	Right-of-way width	66'	60'
Estates of Montefiori	15-08	17.07.01 (Table)	Front Setback (R-5)	25'	20'
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Fox Meadows	16-01	17.07.01 (Table)	Minimum Lot Size (R-4)	12,500 sf	9,303 sf
Fox Meadows	16-01	17.07.01 (Table)	Minimum Lot Width (R-4)	90'	75'
Fox Meadows	16-01	17.08.030.D	Open Space for Residential PUDs	15%	None
Fox Meadows	16-01	17-26-01 (Table)	Parkway width	12'	10'
Fox Meadows	16-01	Appendix G LS-10	Right-of-way width	66'	60'
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Hartz	17-08	17.07.01 (Table)	Minimum Lot Size (R-5)	10,000 sf	9,792 sf
Hartz	17-08	17.07.01 (Table)	Minimum Lot Width (R-4)	90'	80'
Hartz	17-08	17.07.01 (Table)	Rear Setback (R-5)	30'	25'
Hartz	17-08	17.08.030.D	Open Space for Residential PUDs	15%	12%
Hartz	17-08	Appendix G LS-10	Pavement width	30'	27'
Hartz	17-08	Appendix G LS-10	Right-of-way width	66'	60'
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Vistancia	16-10	17.07.01 (Table)	Minimum Lot Size (R-4)	12,500 sf	8,500 sf min
Vistancia	16-10	17.07.01 (Table)	Minimum Lot Width (R-4)	90'	60' / 70'
Vistancia	16-10	17.07.01 (Table)	Minimum Lot Width (R-5)	80'	75'
Vistancia	16-10	17.07.01 (Table)	Rear Setback (R-4)	30'	25'
Vistancia	16-10	Appendix G LS-10	Right-of-way width	66'	60'