CITY OF WATERTOWN, NEW YORK
AGENDA
Monday, August 15, 2016

This shall serve as notice that the next regularly scheduled meeting of the City Council will be held on Monday, August 15, 2016, at 7:00 p.m. in the City Council Chambers, 245 Washington Street, Watertown, New York.

MOMENT OF SILENCE

PLEDGE OF ALLEGIANCE

ROLL CALL

ADOPTION OF MINUTES

COMMUNICATIONS

PRIVILEGE OF THE FLOOR

RESOLUTIONS

Resolution No. 1 -	Authorizing Standard Federal Aid Highway And Marchiselli Aid Project Agreement, Western Boulevard (Arsenal St. to Gaffney Drive), PIN 783002; D0353157, Preliminary Engineering Phase
Resolution No. 2 -	Authorizing Correction of the 2016 Tax Roll Entry for 105 Washington Street
Resolution No. 3 -	Authorizing Application to the NYS Public Library Construction Grant Program, Roswell P. Flower Memorial Library
Resolution No. 4 -	Authorizing Application to the BRIDGE NY For Local Government Bridge Projects
Resolution No. 5 -	Approving the Site Plan for the construction of a 2,730 square-foot addition, a 20-foot wide emergency access drive, a 7,950 square-foot parking area expansion and associated improvements located at 1425 Washington Street, Parcel Number 13-22-101.000

Resolution No. 6 - Approving the Site Plan for the construction of three 3-story, 36,402 square-foot residential buildings, two 2-story, 17,000 square-foot office buildings, a 5,588 square-foot community center, an interior parking lot and associated site improvements at 218 Stone Street, Parcel Number 7-16-114.000; 123 Massey Street South, Parcel Number 10-02-113.000; 253 Arsenal Street, Parcel Number 10-02-118.000 and 271 Arsenal Street, Parcel Number 10-02-116.000

Resolution No. 7 - Approving the Site Plan for the construction of an 11-space, 4,000 square-foot parking lot and associated site improvements located at 1340 Washington Street and 115 Brook Drive, Parcel Number 14-21-102.100 and 14-21-131.000

Resolution No. 8 - Approving 2016-2019 Contract Between the City of Watertown and the International Brotherhood of Electrical Workers, Local 1249

ORDINANCES

Ordinance No. 1 - An Ordinance Authorizing the Issuance of $6,500,000 Bonds of the City of Watertown, Jefferson County, New York, to Pay the Costs of the Design and Construction of and Right-of-Way Acquisitions for the Western Boulevard Extension Project, in and for Said City

LOCAL LAW

Local Law No. 3 of 2016 A Local Law adopting Chapter 177 of the Code of the City of Watertown Entitled Rental Properties

PUBLIC HEARING

7:30 p.m. A Local Law Amending Various Provisions of the Code of the City of Watertown to Allow for the Establishment of a Schedule of Fees to be Approved Annually by the Watertown City Council

OLD BUSINESS

STAFF REPORTS

1. Clinton Street Lightpole Relocations
2. Creating a Cross-City Trail Connection Plan
3. 250 Rexford Place – Dr. Jason White Property
4. Thompson Park Pool and Bathhouse Projected Debt Service
5. Local Initiatives Support Corporation Zombie and Vacant Properties Remediation and Prevention Initiative Grant

NEW BUSINESS

EXECUTIVE SESSION

WORK SESSION

ADJOURNMENT

NEXT REGULARLY SCHEDULED CITY COUNCIL MEETING IS TUESDAY, SEPTEMBER 6, 2016.

Res No. 1

August 7, 2010

To: The Honorable Mayor and City Council

From: Sharon Addison, City Manager

Subject: Authorizing Standard Federal Aid Highway
And Marchiselli Aid Project Agreement,
Western Boulevard (Arsenal St. to Gaffney Drive),
PIN 783002; D035315,
Preliminary Engineering Phase

The City of Watertown has received notification from the State of New York, Department of Transportation that the Western Boulevard Project has been added to the State's Capital Construction Program and received both Federal STP Small Urban and State funds to support the Preliminary Engineering Phase for the design of this project.

This project will be similar in scope to that of Factory Street. The full construction of the road and underground infrastructure will be from Arsenal Street to Gaffney Drive.

At this point in time, the City is prepared to move forward with the Preliminary Engineering Phase of the project. The estimated cost associated with completing this Phase is $350,000. Based on the standard Federal Aid Highway and Marchiselli Aid Project Agreement, the federal share of the Project is $280,000, and the non-federal share $70,000. The non-federal share of 20% will be funded by State Personal Income Tax (PIT) Bonds.

Resolution No. 1

August 15, 2016

RESOLUTION

Authorizing Standard Federal Aid Highway
And Marchiselli Aid Project Agreement,
Western Boulevard (Arsenal St. to Gaffney Drive),
PIN 783002; D0353157,
Preliminary Engineering Phase

	YEA	NAY
Council Member HORBACZ, Cody J.		
Council Member JENNINGS, Stephen A.		
Council Member MACALUSO, Teresa R.		
Council Member WALCZYK, Mark C.		
Mayor BUTLER, Jr., Joseph M.		
Total		

Introduced by

_____

WHEREAS a project for the reconstruction of Western Boulevard (Arsenal St. to Gaffney Drive), PIN 783002, D035315 (the "Project") is eligible for funding under Title 23 U.S. Code, as amended that calls for the apportionment of the cost of such program to be borne at the ratio of 80% Federal and 20% non-federal funds, and

WHEREAS the City of Watertown desires to advance the Project by making a commitment of 100% of the non-federal share of the costs of the Preliminary Engineering Phase in the amount of $350,000,

NOW THERFORE BE IT RESOLVED that the City Council of the City of Watertown authorizes the City Comptroller to pay in the first instance 100% of the federal and non-federal share of the costs of preliminary engineering design for the project to cover the 20% non-federal share, and

BE IT FURTHER RESOLVED that the sum of $70,000 has been made available by State Personal Income Tax (PIT) Bonds in the above phase of the Project, and

BE IT FURTHER RESOLVED that the City Comptroller is hereby authorized to pay in the first instance 100% of the federal and non-federal share of the costs of the preliminary engineering and design phase for the project in the amount of $350,000 from an appropriation of the City of Watertown Capital Budget, and

BE IT FURTHER RESOLVED that in the event the full federal and non-federal share costs of the projects exceeds the amount appropriated above, the City Council of the City of Watertown shall convene as soon as possible to appropriate said excess amount immediately upon notification by the City Manager's Office, and

Resolution No. 1

August 15, 2016

RESOLUTION

Authorizing Standard Federal Aid Highway
And Marchiselli Aid Project Agreement,
Western Boulevard (Arsenal St. to Gaffney Drive),
PIN 783002; D0353157,
Preliminary Engineering Phase

	YEA	NAY
Council Member HORBACZ, Cody J.		
Council Member JENNINGS, Stephen A.		
Council Member MACALUSO, Teresa R.		
Council Member WALCZYK, Mark C.		
Mayor BUTLER, Jr., Joseph M.		
Total		

BE IT FURTHER RESOLVED that Mayor of the City of Watertown is hereby authorized and directed to execute all necessary Agreements, certifications or reimbursement requests for federal aid on behalf of the City of Watertown with the New York State Department of Transportation in connection with the advancement or approval of the Project and providing for the administration of the Project and the municipality's first instance funding of Project costs and permanent funding for the local share of federal aid eligible project costs and all Project costs within appropriations that are not so eligible, and

BE IT FURTHER RESOLVED that a certified copy of this resolution be filed with the New York State Commissioner of Transportation by attaching it to any necessary Agreement in connection with the Project, and

BE IT FURTHER RESOLVED that the City Council of the City of Watertown hereby approves the Standard Federal Aid Highway and Marchiselli Aid Project Agreement, a copy of which is attached and made a part of said resolution, and

BE IT FURTHER RESOLVED that this resolution shall take effect immediately.

Seconded by

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

ANDREW M. CUOMO
Governor

MATTHEW J. DRISCOLL
Commissioner

STEVEN G. KOKKORIS, P.E.
Regional Director

July 28, 2016

Ms. Sharon Addison, City Manager
Watertown City Hall
245 Washington Street, Room 302
Watertown, NY 13601

RE: PIN 783002 – STANDARD FEDERAL AID PROJECT AGREEMENT
CONTRACT #: D035315
PROJECT: Western Boulevard (Arsenal St. to Gaffney Drive)
PHASE(S): Preliminary Design
MUNICIPALITY: City of Watertown

Dear Ms. Addison:

It is our understanding that the City of Watertown is ready to begin the ***Preliminary Engineering Phase*** of work for the above captioned project, under the Locally Administered Federally Aided Process. This Phase will utilize Federal STP (Surface Transportation Program) Small Urban funds and therefore requires the enclosed agreement to be initiated to enable the City to receive reimbursement

The New York State Department of Transportation (NYSDOT) will be performing the Right of Way (ROW) task for this project. Therefore, it must be administered under a separate agreement. The ROW agreement will be forthcoming under a separate cover letter.

The City must obligate 100% of the Federal (80%) and Non-Federal share (20%) for all phases within this agreement. Marchiselli will be requested in the 2017- 2018 State Budget and upon its approval (if approved) will be applied to the appropriate phases by means of a Supplemental Agreement.

Enclosed are two (2) complete copies of the above captioned Agreement text package containing the following:

- Schedule "A" (*Design* Phase);
- Schedule "B" (All Phases except ROW);
- Appendix "A" NYS Required Contract Provisions;
- Appendix "A-1" Supplemental Title VI Provisions;
- Appendix "B" U.S. Government Required Clauses; and
- A Sample Resolution.

Also enclosed are seven (7) additional copies of the signature sheet (page10).

The Resolution:

The Resolution should be worded to authorize all project phases, but it appropriates money for only the ***Preliminary Engineering Phase***. Your Resolution should, to the extent possible, follow closely to the format of the Resolution attached to this memo.

To Complete the Enclosed Text Package:

The Signature Sheet (page 10) requires the signature of the local official authorized to act on the City's behalf, and the signature of the City Attorney, each at the place indicated. The Acknowledgment Statement on Page 10 requires a Notary's signature and stamp affixed as indicated.

Your Resolution should have a number assigned, the Acknowledgment Statement completed, and signatures on all copies of both the Signature Sheet and on the Resolution should be in original ball point pen (blue ink). The Resolution must contain the Municipal Seal, either embossed or foil self-adhesive seals are acceptable.

To Progress the Project:

Please execute and return to my office one (1) complete agreement and the seven (7) additional signed signature sheets along with eight (8) original resolutions. Questions concerning this project should be addressed to Nancy Catalina, Local Project Liaison at (315) 785-2300.

Sincerely,

For Scott A. Docteur, P.E.
Director, Regional Planning & Program Mgmt.

Copy with Attachment:
Mr. Justin Wood, City Engineer, City of Watertown
Kristopher H. Reff, Acting Program & Project Management Supervisor (Center File)
Nancy Catalina, Regional Local Program Liaison

MUNICIPALITY/SPONSOR: **City of Watertown**
PROJECT ID NUMBER: **783002** BIN: **N/A**
CFDA NUMBER: 20.205
PHASE: PER SCHEDULES A

Federal aid Local Project Agreement

COMPTROLLER'S CONTRACT NO **D035315**

This Agreement is by and between:

the New York State Department of Transportation ("NYSDOT"), having its principal office at 50 Wolf Road, Albany, NY 12232, on behalf of New York State ("State");

and

the ***City of Waterown*** (the "Municipality/Sponsor")
acting by and through ***the City Council***
with its office at ***the Municipal Building, 245 Washington St., Watertown, NY 13601.***

This Agreement covers eligible costs incurred on or after **__/__/2016**.

This Agreement identifies the party responsible for administration and establishes the method or provision for funding of applicable phases of a Federal aid project for the improvement of a street or highway, not on the State highway system, as such project and phases are more fully described by Schedule A annexed to this Agreement or one or more Supplemental Schedule(s) A to this Agreement as duly executed and approved by the parties hereto. The phases that are potentially the subject of this Agreement, as further enumerated below, are: Preliminary Engineering ("PE") and Right-of-Way Incidental ("ROW Incidentals") work; Right-of-Way Acquisition; Construction; and/or Construction Supervision and Inspection. The Federal aid project shall be identified for the purposes of this Agreement as ***Western Boulevard (Arsenal St to Gaffney Drive)*** (as more specifically described in such Schedule A, the "Project").

W I T N E S S E T H:

WHEREAS, the United States has provided for the apportionment of Federal aid funds to the State for the purpose of carrying out Federal aid highway projects pursuant to the appropriate sections of Title 23 U.S. Code as administered by the Federal Highway Administration ("FHWA"); and

WHEREAS, the New York State Highway Law authorizes the Commissioner of Transportation (hereinafter referred to as "Commissioner") to use Federal aid available under the Federal aid highway acts and provides for the consent to and approval by the Municipality/Sponsor of any project under the Federal aid highway program which is not on the State highway system before such Project is commenced; and

WHEREAS, pursuant to Highway Law §10(34-a) and section 15 of Chapter 329 of the Laws of 1991 as amended by section 9 of Chapter 330 of the Laws of 1991, as further amended by Chapter 57 of the Laws of New York of 2014, the State has established the "Marchiselli" Program, which provides certain State-aid for Federal aid highway projects not on the State highway system; and

WHEREAS, funding of the "State share" of projects under the Marchiselli Program is administered through the New York State Office of the Comptroller ("State Comptroller"); and

WHEREAS, Highway Law §80-b authorizes the funding of eligible costs of Federal aid Municipal/Sponsor streets and highway projects using State-aid and Federal aid; and

WHEREAS, project eligibility for Marchiselli Program funds is determined by NYSDOT; and

WHEREAS, pursuant to authorizations therefore, NYSDOT and the Municipality/Sponsor are desirous of progressing the Project under the Federal aid and, if applicable, Marchiselli-aid Programs; and

WHEREAS, The Legislative Body of the Municipality/Sponsor by Resolution No. _____ adopted at meeting held on _____ approved the Project, the Municipality/Sponsor's entry into this Agreement, has appropriated necessary funds in connection with any applicable Municipal/Sponsor Deposit identified in applicable Schedules A and has further authorized the ***City Council*** of the Municipality/Sponsor to execute this Agreement and the applicable Schedule A on behalf of the Municipality/Sponsor and a copy of such Resolution is attached to and made a part of this Agreement (where New York City is the Municipality/Sponsor, such resolution is not required).

NOW, THEREFORE, the parties agree as follows:

1. *Documents Forming this Agreement.* The Agreement consists of the following:

- Agreement Form - this document titled "Federal aid Local Project Agreement";
- Schedule "A" - Description of Project Phase, Funding and Deposit Requirements;
- Schedule "B" - Phases, Subphase/Tasks, and Allocation of Responsibility
- Appendix "A" - New York State Required Contract Provisions
- Appendix "A-1"- Supplemental Title VI Provisions (Civil Rights Act)
- Appendix "B" - U.S. Government Required Clauses (Only required for agreements with federal funding)
- Municipal/Sponsor Resolution(s) - duly adopted Municipal/Sponsor resolution authorizing the appropriate Municipal/Sponsor official to execute this Agreement on behalf of the Municipality/Sponsor and appropriating the funding required therefore. (Where New York City is the Municipality/Sponsor, such resolution is not required).

2. *General Description of Work and Responsibility for Administration and Performance*. Subject to the allocations of responsibility for administration and performance thereof as shown in Schedule B (attached), the work of the Project may consist generally of the categories of work marked and described in Schedule B for the scope and phase in effect according to Schedule A or one or more Supplemental Schedule(s) A as may hereafter be executed and approved by the parties hereto as required for a State contract, and any additions or deletions made thereto by NYSDOT subsequent to the development of such Schedule(s) A for the purposes of conforming to New York State or to Federal Highway Administration requirements.

The Municipality/Sponsor understands that funding is contingent upon the Municipality/Sponsor's compliance with the applicable requirements of the "Procedures for Locally Administered Federal aid Projects" (available through NYSDOT's web site at https://www.dot.ny.gov/plafap, and as such may be amended from time to time.

3. *Municipal/Sponsor Deposit*. Where the work is performed by consultant or construction contract entered into with NYSDOT, or by NYSDOT forces, and unless the total non-Federal share of the Project phase is under $5,000, the Municipality/Sponsor shall deposit with the State Comptroller, prior to the award of NYSDOT's contract or NYSDOT's performance of work by its own forces, the full amount of the non-Federal share of the Project costs due in accordance with Schedule A.

4. *Payment or Reimbursement of Costs*. For work performed by NYSDOT, NYSDOT will directly apply Federal aid and the required Municipality/Sponsor Deposit for the non-Federally aided portion, and, if applicable, shall request State Comptroller funding of Marchiselli aid to the Municipality/Sponsor as described below. For work performed by or through the Municipality/Sponsor, NYSDOT will reimburse the Municipality/Sponsor with Federal aid and, if applicable, Marchiselli aid as described below. NYSDOT will make reimbursements periodically upon request and certification by the Sponsor. The frequency of billing must be in conformance with that stipulated in the *NYSDOT Standard Specifications; Construction and Materials (section 109-06, Contract Payments)*. NYSDOT recommends that bills not be submitted more frequently than monthly for a typical project. In all cases, bills must be submitted at least once every six months.

4.1 *Federal aid*. NYSDOT will administer Federal funds for the benefit of the Municipality/Sponsor for the Federal share and will fund the applicable percentage designated in Schedule A of Federal aid participating costs incurred in connection with the work covered by this Agreement, subject to the limitations set forth on Schedule A. For work performed by or through the Municipality/Sponsor, NYSDOT will reimburse Federal aid-eligible expenditures in accordance with NYSDOT policy and procedures.

4.1.1 *Participating Items.* NYSDOT shall apply Federal funds only for that work and those items that are eligible for Federal participation under Title 23 of U.S. Code, as amended, that requires Federal aid eligible projects to be on the Federal aid Highway System ("FAHS"), except for bridge and safety projects that can be off the FAHS. Included among the Federal participating items are the actual cost of employee personal services, and leave and fringe benefit additives. Other participating costs include materials and supplies, equipment use charges or other Federal Participating costs directly identifiable with the eligible project.

4.2 *Marchiselli Aid (if applicable)*. NYSDOT will request State Comptroller reimbursement to the Municipality of the upset amount and designated percentage in Schedule A of the non-overmatched non-Federal share of Federal participating cost, (the "State share"), incurred in connection with the work covered by this Agreement, subject to the limitations set forth on Schedule A. Not all Federal aid-eligible participating costs are eligible for Marchiselli aid. Only "Eligible Project Costs" (as defined in Marchiselli Program instructions issued by NYSDOT) incurred after April 1, 1991 are reimbursable.

4.2.1 *Marchiselli Eligible Project Costs.* To be eligible for Marchiselli Aid, Project costs must: (a) be eligible for Federal participation as described under ' 4.1; (b) be for work which, when completed, has a certifiable service life of at least 10 years; and (c) be for a work type that relates directly and exclusively to a municipally-owned highway, bridge or highway-railroad crossing off the State Highway System.

4.3 In no event shall this Agreement create any obligation to the Municipality/Sponsor for funding or reimbursement of any amount in excess of:

(a) the amount stated in Schedule A for the Federal Share; or
(b) the amount stated in Schedule A as the State (Marchiselli) share or the amount stated in the Comprehensive List, whichever is lower.

4.4 All items included by the Municipality/Sponsor in the record of costs shall be in conformity with accounting procedures acceptable to NYSDOT and the FHWA. Such items shall be subject to audit by the State, the federal government or their representatives.

4.5 If Project-related work is performed by NYSDOT, NYSDOT will be paid for the full costs thereof. To effect such payment, the reimbursement to the Municipality/Sponsor provided for in sections 4.1 and 4.2 above may be reduced by NYSDOT by the amounts thereof in excess of the Municipality/Sponsor Deposit available for such payment to NYSDOT.

5. *Supplemental Agreements and Supplemental Schedule(s) A.* Supplemental Agreements or Supplemental Schedule(s) A may be entered into by the parties, and must be executed and approved in the manner required for a State contract. A Supplemental Schedule A is defined as a Supplemental Agreement which revises only the Schedule A of a prior Agreement or Supplemental Agreement. In the event Project cost estimates increase over the amounts provided for in Schedule A, no additional reimbursement shall be due to the Municipality/Sponsor unless the parties enter into a Supplemental Agreement or Supplemental Schedule A for reimbursement of additional Eligible Project Costs.

6. *State Recovery of Ineligible Reimbursements.* NYSDOT shall be entitled to recover from the Municipality/Sponsor any monies paid to the Municipality/Sponsor pursuant to this Agreement which are subsequently determined to be ineligible for Federal aid or Marchiselli Aid hereunder.

7. *Loss of Federal Participation.* In the event the Municipality/Sponsor withdraws its approval of the project, suspends or delays work on the Project or takes other action that results in the loss of Federal participation for the costs incurred pursuant to this Agreement, the Municipality/Sponsor shall refund to the State all reimbursements received from the State, and shall reimburse the State for 100% of all preliminary engineering and right-of-way incidental costs incurred by NYSDOT. The State may offset any other State or Federal aid due to the Municipality/Sponsor by such amount and apply such offset to satisfy such refund.

8. *Municipal/Sponsor Liability*.

8.1 If the Municipality/Sponsor performs work under this Agreement with its own forces, it shall be responsible for all damage to person or property arising from any act or negligence performed by or on behalf of the Municipality/Sponsor, its officers, agents, servants or employees, contractors, subcontractors or others in connection therewith. The Municipality/Sponsor specifically agrees that its agents or employees shall possess the experience, knowledge and character necessary to qualify them individually for the particular duties they perform.

8.2 The Municipality/Sponsor shall indemnify and save harmless the State for all damages and costs arising out of any claims, suits, actions, or proceedings resulting from the negligent performance of work by or on behalf of the Municipality/Sponsor its officers, agents, servants, employees, contractors, subcontractors or others under this Agreement. Negligent performance of service, within the meaning of this section, shall include, in addition to negligence founded upon tort, negligence based upon the Municipality/Sponsor's failure to meet professional standards and resulting in obvious or patent errors in the progression of its work.

8.3 The Municipality/Sponsor shall at all times during the Contract term remain responsible. The Municipality/Sponsor agrees, if requested by the Commissioner of Transportation or his or her designee, to present evidence of its continuing legal authority to do business in New York State, integrity, experience, ability, prior performance, and organizational and financial capacity.

8.4 The Commissioner of Transportation or his or her designee, in his or her sole discretion, reserves the right to suspend any or all activities under this Contract, at any time, when he or she discovers information that calls into question the responsibility of the Municipality/Sponsor. In the event of such suspension, the Municipality/Sponsor will be given written notice outlining the particulars of such suspension. Upon issuance of such notice, the Municipality/Sponsor must comply with the terms of the suspension order. Contract activity may resume at such time as the Commissioner of Transportation or his or her designee issues a written notice authorizing a resumption of performance under the Contract.

8.5 Upon written notice to the Municipality/Sponsor, and a reasonable opportunity to be heard with appropriate Department of Transportation officials or staff, the Contract may be terminated by the Commissioner of Transportation or his or her designee at the Municipality's/Sponsor's expense where the Municipality/Sponsor is determined by the Commissioner of Transportation or his or her designee to be non-responsible. In such event, the Commissioner of Transportation or his or her designee may complete the contractual requirements in any manner he or she may deem advisable and pursue available legal or equitable remedies for breach.

9. *Maintenance.* The Municipality/Sponsor shall be responsible for the maintenance of the project at the sole cost and expense of the Municipality/Sponsor. If the Municipality/Sponsor intends to have the project maintained by another, any necessary maintenance agreement will be executed and submitted to NYSDOT before construction of the Project is begun. Upon its completion, the Municipality/Sponsor will operate and maintain the Project at no expense to NYSDOT; and during the useful life of the Project, the Municipality/Sponsor shall not discontinue operation and maintenance of the Project, nor dispose of the Project, unless it receives prior written approval to do so from NYSDOT.

9.1 The Municipality/Sponsor may request such approved disposition from NYSDOT where the Municipality/Sponsor either causes the purchaser or transferee to assume the Municipality/Sponsor's continuing obligations under this Agreement, or agrees immediately to reimburse NYSDOT for the pro-rata share of the funds received for the project, plus any direct costs incurred by NYSDOT, over the remaining useful life of the Project.

9.2 If a Municipality/Sponsor fails to obtain prior written approval from NYSDOT before discontinuing operation and maintenance of the Project or before disposing of the project, in addition to the costs provided, above in 9.1, Municipality/Sponsor shall be liable for liquidated damages for indirect costs incurred by NYSDOT in the amount of 5% of the total Federal and non-Federal funding provided through NYSDOT.

9.3 For NYSDOT-administered projects, NYSDOT is responsible for maintenance only during the NYSDOT administered construction phase. Upon completion of the construction phase, the Municipality/Sponsor's maintenance obligations start or resume.

10. *Independent Contractor.* The officers and employees of the Municipality/Sponsor, in accordance with the status of the Municipality/Sponsor as an independent contractor, covenant and agree that they will conduct themselves consistent with such status, that they will neither hold themselves out as, nor claim to be, an officer or employee of the State by reason hereof, and that they will not by reason hereof, make any claim, demand or application to or for any right or privilege applicable to an officer or employee of the State, including, but not limited to, Workers Compensation coverage, Unemployment Insurance benefits, Social Security or Retirement membership or credit.

11. *Contract Executory; Required Federal Authorization.* It is understood by and between the parties hereto that this Agreement shall be deemed executory only to the extent of the monies available to the State and no liability on account thereof shall be incurred by the State beyond monies available for the purposes hereof. No phase of work for the project shall be commenced unless and until NYSDOT receives authorization from the Federal government.

12. *Assignment or Other Disposition of Agreement.* The Municipality/Sponsor agrees not to assign, transfer, convey, sublet or otherwise dispose of this Agreement or any part thereof, or of its right, title or interest therein, or its power to execute such Agreement to any person, company or corporation without previous consent in writing of the Commissioner.

13. *Term of Agreement.* As to the Project and phase(s) described in the Schedule A executed herewith, the term of this Agreement shall begin on the date of this Agreement as first above written. This Agreement shall remain in effect so long as Federal aid and Marchiselli-aid funding authorizations are in effect and funds are made available pursuant to the laws controlling such authorizations and availabilities. However, if such authorizations or availabilities lapse and are not renewed, continued or reenacted, as to funds encumbered or available and to the extent of such encumbrances or availabilities, this Agreement shall remain in effect for the duration of such encumbrances or availabilities. Although the liquidity of encumbrances or the availability of funds may be affected by budgetary hiatuses, a Federal or State budgetary hiatus will not by itself be construed to cause a lapse in this Agreement provided any necessary Federal or State appropriations or other funding authorizations therefore are eventually enacted.

14. *NYSDOT Obligations.* NYSDOT's responsibilities and obligations are as specifically set forth in this contract, and neither NYSDOT nor any of its officers or employees shall be responsible or liable, nor shall the Municipality/Sponsor assert, make or join in any claim or demand against NYSDOT, its officers or employees, for any damages or other relief based on any alleged failure of NYSDOT, its officers or employees, to undertake or perform any act, or for undertaking or performing any act, which is not specifically required or prohibited by this Agreement.

15. *Offset Rights.* In addition to any and all set-off rights provided to the State in the attached and incorporated Appendix A, Standard Clauses for New York Contracts, NYSDOT shall be entitled to recover and offset from the Municipality/Sponsor any ineligible reimbursements and any direct or indirect costs to the State as to paragraph 6 above, as well as any direct or indirect costs incurred by the State for any breach of the term of this agreement, including, but not limited to, the useful life requirements in paragraph 9 above. At its sole discretion NYSDOT shall have the option to permanently withhold and offset such direct and indirect cost against any monies due to the Municipality/Sponsor from the State of New York for any other reason, from any other source, including but not limited to, any other Federal or State Local Project Funding, and/or any Consolidated Highway and Local Street Improvement Program (CHIPS) funds

16. *Reporting Requirements.* The Municipality/Sponsor agrees to comply with and submit to NYSDOT in a timely manner all applicable reports required under the provisions of this Agreement and the Procedures for Locally Administered Federal aid Projects manual and in accordance with current Federal and State laws, rules, and regulations.

17. *Notice Requirements.*

17.1 All notices permitted or required hereunder shall be in writing and shall be transmitted:
(a) Via certified or registered United States mail, return receipt requested;
(b) By facsimile transmission;
(c) By personal delivery;
(d) By expedited delivery service; or
(e) By e-mail.

Such notices shall be address as follows or to such different addresses as the parties may from time-to-time designate:

New York State Department of Transportation (NYSDOT)
Name: ***Nancy Catalina***
Title: ***Regional Local Project Liaison***

Address: ***317 Washington Street, Watertown, NY 13601***
Telephone Number: ***(315) 785-2300***
Facsimile Number: ***(315) 785-2315***
E-Mail Address: ***nancy.catalina@dot.ny.gov***

[Municipality/Sponsor] ***City of Watertown***
Name: ***Ms. Sharon Addison***
Title: ***City Manager***
Address: ***245 Washington Street, Watertown, NY 13601***
Telephone Number: ***(315) 785-7730***
Facsimile Number: ***(315) 782-9014***
E-Mail Address: ***saddison@watertown-ny.gov***

17.2 Any such notice shall be deemed to have been given either at the time of personal delivery or, in the case of expedited delivery service or certified or registered United States Mail, as of the date of first attempted delivery at the address and in the manner provided herein, or in the case of facsimile transmission or email, upon receipt. The parties may, from time to time, specify any new or different address in the United States as their address for purpose of receiving notice under this Agreement by giving fifteen (15) days written notice to the other party sent in accordance herewith. The parties agree to mutually designate individuals as their respective representatives for the purposes of receiving notices under this Agreement. Additional individuals may be designated in writing by the parties for purposes of implementation and administration/billing, resolving issues and problems and/or for dispute resolution.

18. *Electronic Contract Payments.* Municipality/Sponsor shall provide complete and accurate supporting documentation of eligible local expenditures as required by this Agreement, NYSDOT and the State Comptroller. Following NYSDOT approval of such supporting documentation, payment for invoices submitted by the Municipality/Sponsor shall only be rendered electronically unless payment by paper check is expressly authorized by the Commissioner, in the Commissioner's sole discretion, due to extenuating circumstances. Such electronic payment shall be made in accordance with ordinary State procedures and practices. The contracting local Municipality/Sponsor shall comply with the State Comptroller's procedures for all Federal and applicable State Aid to authorize electronic payments. Authorization forms are available on the State Comptroller's website at www.osc.state.ny.us/epay/index.htm or by email at epunit@osc.state.ny.us. When applicable to State Marchiselli and other State reimbursement by the State Comptroller, registration forms and instructions can be found at the NYSDOT Electronic Payment Guidelines website.

The Municipality/Sponsor herein acknowledges that it will not receive payment on any invoices submitted under this agreement if it does not comply with the applicable State Comptroller and/or NYS State Comptroller's electronic payment procedures, except where the Commissioner has expressly authorized payment by paper check as set forth above.

19. *Compliance with Legal Requirements.* Municipality/Sponsor must comply with all applicable federal, state and local laws, rules and regulations, including but not limited to the following:

19.1 Title 49 of the Code of Federal Regulations Part 26 (49 CFR 26), *Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs;* Title 23 Code of Federal Regulations Part 230 (23 CFR 230), *External Programs;* and, Title 41 of the Code of Federal Regulations Part 60 Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor, including the requirements thereunder related to utilization goals for contracting opportunities for disadvantaged business enterprises (DBEs) and equal employment opportunity.

19.1.1 If the Municipality/Sponsor fails to monitor and administer contracts funded in whole or in part in accordance with Federal requirements, the Municipality/Sponsor will not be reimbursed for ineligible activities within the affected contracts. The Municipality/Sponsor must ensure that the prime contractor has a Disadvantaged Business Enterprise (DBE) Utilization Plan and complies with such plan. If, without prior written approval by NYSDOT, the Municipality/Sponsor's contractors and subcontractors fail to complete work for the project as proposed in the DBE Schedule of Utilization, NYSDOT at its discretion may (1) cancel, terminate or suspend this agreement or such portion of this agreement or (2) assess liquidated damages in an amount of up to 20% of the pro rata share of the Municipality/Sponsor's contracts and subcontracts funded in whole or in part by this agreement for which contract goals have been established.

19.2 New York State Environmental Law, Article 6, the State *Smart Growth Public Infrastructure Policy Act,* including providing true, timely and accurate information relating to the project to ensure compliance with the Act.

20. *Compliance with Procedural Requirements.* The Municipality/Sponsor understands that funding is contingent upon the Municipality/Sponsor's compliance with the applicable requirements of the Procedures for Locally Administered Federal Aid Projects (PLAFAP) manual, which, as such, may be amended from time to time.

Locally administered Federal aid transportation projects must be constructed in accordance with the current version of *NYSDOT Standard Specifications; Construction and Materials,* including any and all modifications to the Standard Specifications issued by the Engineering Information Issuance System, and NYSDOT-approved Special Specifications for general use. (Cities with a population of 3 million or more may pursue approval of their own construction specifications and procedures on a project by project basis).

D035315

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duly authorized officials as of the date first above written.

MUNICIPALITY/SPONSOR:

By:_____

Print Name:_____

Title:_____

MUNICIPALITY/SPONSOR ATTORNEY:

By:_____

Print Name:_____

STATE OF NEW YORK)
)ss.:
COUNTY OF ***Jefferson***)

On this _____ day of _____, 2016 before me personally came _____ to me known, who, being by me duly sworn did depose and say that he/she resides at _____; that he/she is the _____ of the Municipal/Sponsor Corporation described in and which executed the above instrument; (except New York City) that it was executed by order of the _____ of said Municipal/Sponsor Corporation pursuant to a resolution which was duly adopted on _____ and which a certified copy is attached and made a part hereof; and that he/she signed his name thereto by like order.

_____
Notary Public

APPROVED FOR NYSDOT:

By:_____
For Commissioner of Transportation

Agency Certification: In addition to the acceptance of this contract I also certify that original copies of this signature page will be attached to all other exact copies of this contract.

Date:_____

APPROVED AS TO FORM:
STATE OF NEW YORK ATTORNEY GENERAL

By:_____
Assistant Attorney General

COMPTROLLER'S APPROVAL:

By:_____
For the New York State Comptroller
Pursuant to State Finance Law §112

SCHEDULE A

SCHEDULE A – Description of Project Phase, Funding and Deposit Requirements
NYSDOT/ State-Local Agreement - Schedule A for PIN 7830.02

OSC Municipal Contract #: D035315	**Contract Start Date:** / /2016 (mm/dd/yyyy) **Contract End Date:** 2/5/2020 (mm/dd/yyyy) ☐ *Check, if date changed from the last Schedule A*

Purpose: ☒ Original Standard Agreement ☐ Supplemental Schedule A No.

Agreement Type: ☒ Locally Administered — Municipality/Sponsor (Contract Payee): City of Watertown; Other Municipality/Sponsor (if applicable):

☐ State Administered — *List participating Municipality(ies) and the % of cost share for each and indicate by checkbox which Municipality this Schedule A applies.*

☐ Municipality: % of Cost share
☐ Municipality: % of Cost share
☐ Municipality: % of Cost share

Authorized Project Phase(s) to which this Schedule applies: ☒ PE/Design ☐ ROW Incidentals ☐ ROW Acquisition ☐ Construction/CI/CS

Work Type: HWY NEW CONST | **County** (If different from Municipality): Jefferson

Marchiselli Eligible ☒ **Yes** ☐ **No** *(Check, if Project Description has changed from last Schedule A):* ☐

Project Description: Western Boulevard (Arsenal St to Gaffney Drive)

Marchiselli Allocations Approved FOR All PHASES *All totals will calculate automatically.*

Check box to indicate change from last Schedule A	**State Fiscal Year(s)**	**Project Phase**			**TOTAL**
		PE/Design	ROW (RI & RA)	Construction/CI/CS	
☐	Cumulative total for all prior SFYs	$	$	$0.00	$ 0.00
☐	Current SFY	$0.00	$0.00	$0.00	$ 0.00
Authorized Allocations to Date		$ 0.00	$ 0.00	$ 0.00	$ 0.00

A. Summary of allocated MARCHISELLI Program Costs FOR ALL PHASES *For each PIN Fiscal Share below, show current costs on the rows indicated as "Current.". Show the old costs from the previous Schedule A on the row indicated as "Old." All totals will calculate automatically.*

PIN Fiscal Share	**"Current" or "Old" entry indicator**	**Federal Funding**	**Total Costs**	**FEDERAL Participating Share**	**STATE MARCHISELLI Match**	**LOCAL Matching Share**	**LOCAL DEPOSIT AMOUNT (Required only if State Administered)**
. . .	Current		$ 0.00	$	$	$	$
	Old		$ 0.00	$	$ *	$	$
. . .	Current		$ 0.00	$	$	$	$
	Old		$ 0.00	$	$	$	$
. . .	Current		$ 0.00	$	$	$	$
	Old		$ 0.00	$	$	$	$
. .	Current		$ 0.00	$	$	$	$
	Old		$ 0.00	$	$	$	$
. .	Current		$ 0.00	$	$	$	$
	Old		$ 0.00	$	$	$	$
. .	Current		$ 0.00	$	$	$	$
	Old		$ 0.00	$	$	$	$
TOTAL CURRENT COSTS:			$ 0.00	$ 0.00	$ 0.00	$ 0.00	$ 0.00

NYSDOT/State-Local Agreement – Schedule A

B. Summary of Other (including Non-allocated MARCHISELLI) Participating Costs FOR ALL PHASES *For each PIN Fiscal Share, show current costs on the rows indicated as "Current.". Show the old costs from the previous Schedule A on the row indicated as "Old." All totals will calculate automatically.*

Other PIN Fiscal Shares	'Current' or 'Old' entry indicator	Funding Source	TOTAL	Other FEDERAL	Other STATE	Other LOCAL
7830.02.121	Current	STP	$350,000.00	$280,000.00	$70,000.00	$0.00
.	Old		$ 0.00	$0.00	$0.00	$0.00
. .	Current		$ 0.00	$	$	$
.	Old		$ 0.00	$	$	$
. .	Current		$ 0.00	$	$	$
.	Old		$ 0.00	$	$	$
. .	Current		$ 0.00	$	$	$
	Old		$ 0.00	$	$	$
. .	Current		$ 0.00	$	$	$
	Old		$ 0.00	$	$	$
. .	Current		$ 0.00	$	$	$
	Old		$ 0.00	$	$	$
. .	Current		$ 0.00	$	$	$
	Old		$ 0.00	$	$	$
. .	Current		$ 0.00	$	$	$
	Old		$ 0.00	$	$	$
TOTAL CURRENT COSTS:			$350,000.00	$280,000.00	$70,000.00	$ 0.00

C. Total Local Deposit(s) Required for State Administered Projects:	$ 0.00

D. Total Project Costs *All totals will calculate automatically.*

Total FEDERAL Cost	Total STATE MARCHISELLI Cost	Total OTHER STATE Cost	Total LOCAL Cost	Total ALL SOURCES Cost
$280,000.00	$ 0.00	$70,000.00	$ 0.00	$350,000.00

E. Point of Contact for Questions Regarding this Schedule A (Must be completed)	Name: **Nancy Catalina** Phone No: 315-785-2300

See Agreement (or Supplemental Agreement Cover) for required contract signatures.

NYSDOT/State-Local Agreement – Schedule A

Footnotes: (See LPB's website for link to sample footnotes)

- PIN 783002 Design & Construction phases. OSC Municipal Contract No. D035315
- This Project is being funded by the 80% Federal Surface Transportation Program (STP) Small Urban funds and 20% State Personal Income Tax (PIT) Bond funds.
- At this time the non-federal share of Project costs identified for federal aid funding in this agreement is to be provided entirely by the Municipality. No subsidy or reimbursement of any portion of that local match is provided by New York State's Marchiselli Program or this contract at this time. Furthermore, this Agreement does not assure that any Marchiselli aid for the Project or phase hereunder will be authorized or available in the future. If the Project (and the phase of work) is eligible for State aid under the Marchiselli Program, and such aid is duly requested by the Municipality, NYSDOT may (subject to budgetary requirements) submit an appropriate request for Marchiselli funding authorization by the Legislature. If Legislative authorization for such funding is received, NYSDOT and the Municipality may enter a supplemental agreement providing such Marchiselli aid. Only then would Marchiselli aid be available to the affected Project and phase.
- This OSC Contract, D035315, is Locally Administered. Matching State Administered Contract Number D035316 for ROW phase.
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-
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SCHEDULE B

SCHEDULE B: Phases, Sub-phase/Tasks, and Allocation of Responsibility

Instructions: Identify the responsibility for each applicable Sub-phase task by entering *X* in either the *NYSDOT* column to allocate the task to State labor forces or a State Contract, or in the *Sponsor* column indicating non-State labor forces or a locally administered contract.

A1. Preliminary Engineering ("PE") Phase – N/A

Phase/Sub-phase/Task	Responsibility: NYSDOT	Sponsor
1. Scoping: Prepare and distribute all required project reports, including an Expanded Project Proposal (EPP) or Scoping Summary Memorandum (SSM), as appropriate.	☐	☒
2. Perform data collection and analysis for design, including traffic counts and forecasts, accident data, Smart Growth checklist, land use and development analysis and forecasts.	☒*	☒
3. Smart Growth Attestation (NYSDOT ONLY).	☒	☐
4. Preliminary Design: Prepare and distribute Design Report/Design Approval Document (DAD), including environmental analysis/assessments, and other reports required to demonstrate the completion of specific design sub-phases or tasks and/or to secure the approval/authorization to proceed.	☐	☒
5. Review and Circulate all project reports, plans, and other project data to obtain the necessary review, approval, and/or other input and actions required of other NYSDOT units and external agencies.	☒*	☒
6. Obtain aerial photography and photogrammetric mapping.	☐	☒
7. Perform all surveys for mapping and design.	☐	☒
8. Detailed Design: Perform all project design, including preparation of plan sheets, cross-sections, profiles, detail sheets, specialty items, shop drawings, and other items required in accordance with the Highway Design Manual, including all Highway Design, including pavement evaluations, including taking and analyzing cores; design of Pavement mixes and applications procedures; preparation of bridge site data package, if necessary, and all Structural Design, including hydraulic analyses, if necessary, foundation design, and all design of highway appurtenances and systems [e.g., Signals, Intelligent Transportation System (ITS) facilities], and maintenance protection of traffic plans. Federal Railroad Administration (FRA) criteria will apply to rail work.	☐	☒
9. Perform landscape design (including erosion control).	☐	☒
10. Design environmental mitigation, where appropriate, in connection with: Noise readings, projections, air quality monitoring, emissions projections, hazardous waste, asbestos, determination of need of cultural resources survey.	☐	☒

***Municipality has lead responsibility.**

Phase/Sub-phase/Task	Responsibility: NYSDOT	Sponsor
11. Prepare demolition contracts, utility relocation plans/contracts, and any other plans and/or contract documents required to advance, separate, any portions of the project which may be more appropriately progressed separately and independently.	☐	☒
12. Compile PS&E package, including all plans, proposals, specifications, estimates, notes, special contract requirements, and any other contract documents necessary to advance the project to construction.	☐	☒
13. Conduct any required soils and other geological investigations.	☐	☒
14. Obtain utility information, including identifying the locations and types of utilities within the project area, the ownership of these utilities, and prepare utility relocations plans and agreements, including completion of Form HC-140, titled Preliminary Utility Work Agreement.	☐	☒
15. Determine the need and apply for any required permits, including U.S. Coast Guard, U.S. Army Corps of Engineers, Wetlands (including identification and delineation of wetlands), SPDES, NYSDOT Highway Work Permits, and any permits or other approvals required to comply with local laws, such as zoning ordinances, historic districts, tax assessment and special districts.	☐	☒
16. Prepare and execute any required agreements, including: - Railroad force account - Maintenance agreements for sidewalks, lighting, signals, betterments - Betterment Agreements - Utility Work Agreements for any necessary Utility Relocations of Privately owned Utilities	☐	☒
17. Provide overall supervision/oversight of design to assure conformity with Federal and State design standards or conditions, including final approval of PS&E (Contract Bid Documents) by NYSDOT.	☒*	☒
18. The American Recovery and Reinvestment Act (ARRA) projects require additional extensive reporting. The Municipality/Sponsor must include in its construction contract the additional ARRA reporting requirements related to the weekly employment during Construction or as modified by the Federal Highway Administration (FHWA).	☐	☐ N/A
19. Pursuant to Title IX, Section 902 of the ARRA, the U.S. DOT Comptroller General and his representatives are authorized to: 1) examine any records of the contractor, or any records of its subcontractors, that directly pertain to and involve transactions relating to the contract or subcontract, and 2) interview any officer or employee of the contractor or any of its subcontractors regarding such transactions.	☐	☐ N/A

***Municipality has lead responsibility.**

A2. Right-of-Way (ROW) Incidentals - N/A

Phase/Sub-phase/Task	Responsibility: NYSDOT	Sponsor
1. Prepare ARM or other mapping, showing preliminary taking lines.	☐	☐
2. ROW mapping and any necessary ROW relocation plans.	☐	☐
3. Obtain abstracts of title and certify those having an interest in ROW to be acquired.	☐	☐
4. Secure Appraisals.	☐	☐
5. Perform Appraisal Review and establish an amount representing just compensation.	☐	☐
6. Determination of exemption from public hearing that is otherwise required by the Eminent Domain Procedure Law, including *de minimis* determination, as may be applicable. **If NYSDOT is responsible for acquiring the right-of-way, this determination may be performed by NYSDOT only if NYSDOT is responsible for the Preliminary Engineering Phase under Phase A1 of this Schedule B.**	☐	☐
7. Conduct any public hearings and/or informational meetings as may be required by the Eminent Domain Procedures Law, including the provision of stenographic services, preparation and distribution of transcripts, and response to issues raised at such meetings.	☐	☐
8. The American Recovery and Reinvestment Act (ARRA) projects require additional extensive reporting. The Municipality/Sponsor must include in its construction contract the additional ARRA reporting requirements related to the weekly employment during Construction or as modified by the Federal Highway Administration (FHWA).	☐	☐ N/A
9. Pursuant to Title IX, Section 902 of the ARRA, the U.S. DOT Comptroller General and his representatives are authorized to: 1) examine any records of the contractor, or any records of its subcontractors, that directly pertain to and involve transactions relating to the contract or subcontract, and 2) interview any officer or employee of the contractor or any of its subcontractors regarding such transactions.	☐	☐ N/A

B. Right-of-Way (ROW) Acquisition - N/A

Phase/Sub-phase/Task	Responsibility: NYSDOT	Sponsor
1. Perform all Right-of-Way (ROW) Acquisition work, including negotiations with property owners, acquisition of properties and accompanying legal work, payments to and/or deposits on behalf of property owners; Prepare, publish, and pay for any required legal notices; and all other actions necessary to secure title to, possession of, and entry to required properties. **If NYSDOT is to acquire property, including property described as an uneconomic remainder, on behalf of the Municipality/Sponsor, the Municipality/Sponsor agrees to accept and take title to any and all permanent property rights so acquired which form a part of the completed Project.**	☐	☐

***Municipality has lead responsibility.**

Phase/Sub-phase/Task	Responsibility: NYSDOT	Sponsor
2. Provide required relocation assistance, including payment of moving expenses, replacement supplements, mortgage interest differentials, closing costs, mortgage prepayment fees.	☐	☐
3. Conduct eminent domain proceedings, court and any other legal actions required to acquire properties.	☐	☐
4. Monitor all ROW Acquisition work and activities, including review and processing of payments of property owners.	☐	☐
5. Provide official certification that all right-of-way required for the construction has been acquired in compliance with applicable Federal, State or Local requirements and is available for use and/or making projections of when such property(ies) will be available if such properties are not in hand at the time of contract award.	☐	☐
6. Conduct any property management activities, including establishment and collecting rents, building maintenance and repairs, and any other activities necessary to sustain properties and/or tenants until the sites are vacated, demolished, or otherwise used for the construction project.	☐	☐
7. Subsequent to completion of the Project, conduct ongoing property management activities in a manner consistent with applicable Federal, State and Local requirements including, as applicable, the development of any ancillary uses, establishment and collection of rent, property maintenance and any other related activities.	☐	☐
8. The American Recovery and Reinvestment Act (ARRA) projects require additional extensive reporting. The Municipality/Sponsor must include in its construction contract the additional ARRA reporting requirements related to the weekly employment during Construction or as modified by the Federal Highway Administration (FHWA).	☐	☐N/A
9. Pursuant to Title IX, Section 902 of the ARRA, the U.S. DOT Comptroller General and his representatives are authorized to: 1) examine any records of the contractor, or any records of its subcontractors, that directly pertain to and involve transactions relating to the contract or subcontract, and 2) interview any officer or employee of the contractor or any of its subcontractors regarding such transactions.	☐	☐N/A

C. Construction, Construction Support (C/S) and Construction Inspection (C/I) Phase - N/A

Phase/Sub-phase/Task	Responsibility: NYSDOT	Sponsor
1. Advertise contract lettings and distribute contract documents to prospective bidders.	☒*	☒
2. Conduct all contract lettings, including receipt, opening, and analysis of bids, evaluation/certification of bidders, notification of rejected bids/bidders, and awarding of the construction contract(s).	☐	☒
3. Receive and process bid deposits and verify any bidder's insurance and bond coverage that may be required.	☐	☒

***Municipality has lead responsibility.**

Phase/Sub-phase/Task	Responsibility: NYSDOT	Sponsor
4. Compile and submit Contract Award Documentation Package.	☐	☒
5. Review/approve any proposed subcontractors, vendors, or suppliers.	☒*	☒
6. Conduct and control all construction activities in accordance with the plans and proposal for the project. Maintain accurate, up-to-date project records and files, including all diaries and logs, to provide a detailed chronology of project construction activities. Procure or provide all materials, supplies and labor for the performance of the work on the project, and insure that the proper materials, equipment, human resources, methods and procedures are used.	☐	☒
7a. For non-NHS or non-State Highway System Projects: Test and accept materials, including review and approval for any requests for substitutions.	☐	☒
7b. For NHS or State Highway System Projects: Inspection and approval of materials such as bituminous concrete, Portland cement concrete, structural steel, concrete structural elements and/or their components to be used in a federal aid project will be performed by, and according to the requirements of NYSDOT. The Municipality/Sponsor shall make or require provision for such materials inspection in any contract or subcontract that includes materials that are subject to inspection and approval in accordance with the applicable NYSDOT design and construction standards associated with the federal aid project.	☐	☐N/A
7c. For projects that fall under both 7a and 7b above, check boxes for each.		
8. Design and/or re-design the project or any portion of the project that may be required because of conditions encountered during construction.	☐	☒
9. Administer construction contract, including the review and approval of all contactor requests for payment, orders-on-contract, force account work, extensions of time, exceptions to the plans and specifications, substitutions or equivalents, and special specifications.	☒*	☒
10. The American Recovery and Reinvestment Act (ARRA) projects require additional extensive reporting. The Municipality/Sponsor must include in its construction contract the additional ARRA reporting requirements related to the weekly employment during Construction or as modified by the Federal Highway Administration (FHWA).	☐	☐N/A
11. Pursuant to Title IX, Section 902 of the ARRA, the U.S. DOT Comptroller General and his representatives are authorized to: 1) examine any records of the contractor, or any records of its subcontractors, that directly pertain to and involve transactions relating to the contract or subcontract, and 2) interview any officer or employee of the contractor or any of its subcontractors regarding such transactions.	☐	☐N/A
12. Review and approve all shop drawings, fabrication details, and other details of structural work.	☒*	☒

***Municipality has lead responsibility.**

Phase/Sub-phase/Task	Responsibility: NYSDOT	Sponsor
13. Administer all construction contract claims, disputes or litigation.	☐	☒
14. Perform final inspection of the complete work to determine and verify final quantities, prices, and compliance with plans specifications, and such other construction engineering supervision and inspection work necessary to conform to Municipal, State and FHWA requirements, including the final acceptance of the project by NYSDOT.	☒*	☒
15. Pursuant to Federal Regulation 49 CFR 18.42(e)(1) The awarding agency and the Comptroller General of the United States, or any of their authorized representatives, shall have the right of access to any pertinent books, documents, papers, or other records of grantees and subgrantees which are pertinent to the grant, in order to make audits, examinations, excerpts, and transcripts.	☐	☒

***Municipality has lead responsibility.**

APPENDIX A

APPENDIX A

STANDARD CLAUSES FOR NEW YORK STATE CONTRACTS

PLEASE RETAIN THIS DOCUMENT
FOR FUTURE REFERENCE.

January 2014

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STANDARD CLAUSES FOR NYS CONTRACTS

The parties to the attached contract, license, lease, amendment or other agreement of any kind (hereinafter, "the contract" or "this contract") agree to be bound by the following clauses which are hereby made a part of the contract (the word "Contractor" herein refers to any party other than the State, whether a contractor, licenser, licensee, lessor, lessee or any other party):

1. EXECUTORY CLAUSE. In accordance with Section 41 of the State Finance Law, the State shall have no liability under this contract to the Contractor or to anyone else beyond funds appropriated and available for this contract.

2. NON-ASSIGNMENT CLAUSE. In accordance with Section 138 of the State Finance Law, this contract may not be assigned by the Contractor or its right, title or interest therein assigned, transferred, conveyed, sublet or otherwise disposed of without the State's previous written consent, and attempts to do so are null and void. Notwithstanding the foregoing, such prior written consent of an assignment of a contract let pursuant to Article XI of the State Finance Law may be waived at the discretion of the contracting agency and with the concurrence of the State Comptroller where the original contract was subject to the State Comptroller's approval, where the assignment is due to a reorganization, merger or consolidation of the Contractor's business entity or enterprise. The State retains its right to approve an assignment and to require that any Contractor demonstrate its responsibility to do business with the State. The Contractor may, however, assign its right to receive payments without the State's prior written consent unless this contract concerns Certificates of Participation pursuant to Article 5-A of the State Finance Law.

3. COMPTROLLER'S APPROVAL. In accordance with Section 112 of the State Finance Law (or, if this contract is with the State University or City University of New York, Section 355 or Section 6218 of the Education Law), if this contract exceeds $50,000 (or the minimum thresholds agreed to by the Office of the State Comptroller for certain S.U.N.Y. and C.U.N.Y. contracts), or if this is an amendment for any amount to a contract which, as so amended, exceeds said statutory amount, or if, by this contract, the State agrees to give something other than money when the value or reasonably estimated value of such consideration exceeds $10,000, it shall not be valid, effective or binding upon the State until it has been approved by the State Comptroller and filed in his office. Comptroller's approval of contracts let by the Office of General Services is required when such contracts exceed $85,000 (State Finance Law Section 163.6-a). However, such pre-approval shall not be required for any contract established as a centralized contract through the Office of General Services or for a purchase order or other transaction issued under such centralized contract.

4. WORKERS' COMPENSATION BENEFITS. In accordance with Section 142 of the State Finance Law, this contract shall be void and of no force and effect unless the Contractor shall provide and maintain coverage during the life of this contract for the benefit of such employees as are required to be covered by the provisions of the Workers' Compensation Law.

5. NON-DISCRIMINATION REQUIREMENTS. To the extent required by Article 15 of the Executive Law (also known as the Human Rights Law) and all other State and Federal statutory and constitutional non-discrimination provisions, the Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, sex (including gender identity or expression), national origin, sexual orientation, military status, age, disability, predisposing genetic characteristics, marital status or domestic violence victim status. Furthermore, in accordance with Section 220-e of the Labor Law, if this is a contract for the construction, alteration or repair of any public building or public work or for the manufacture, sale or distribution of materials, equipment or supplies, and to the extent that this contract shall be performed within the State of New York, Contractor agrees that neither it nor its subcontractors shall, by reason of race, creed, color, disability, sex, or national origin: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract. If this is a building service contract as defined in Section 230 of the Labor Law, then, in accordance with Section 239 thereof, Contractor agrees that neither it nor its subcontractors shall by reason of race, creed, color, national origin, age, sex or disability: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract. Contractor is subject to fines of $50.00 per person per day for any violation of Section 220-e or Section 239 as well as possible termination of this contract and forfeiture of all moneys due hereunder for a second or subsequent violation.

6. WAGE AND HOURS PROVISIONS. If this is a public work contract covered by Article 8 of the Labor Law or a building service contract covered by Article 9 thereof, neither Contractor's employees nor the employees of its subcontractors may be required or permitted to work more than the number of hours or days stated in said statutes, except as otherwise provided in the Labor Law and as set forth in prevailing wage and supplement schedules issued by the State Labor Department. Furthermore, Contractor and its subcontractors must pay at least the prevailing wage rate and pay or provide the prevailing supplements, including the premium rates for overtime pay, as determined by the State Labor Department in accordance with the Labor Law. Additionally, effective April 28, 2008, if this is a public work contract covered by Article 8 of the Labor Law, the Contractor

understands and agrees that the filing of payrolls in a manner consistent with Subdivision 3-a of Section 220 of the Labor Law shall be a condition precedent to payment by the State of any State approved sums due and owing for work done upon the project.

7. NON-COLLUSIVE BIDDING CERTIFICATION. In accordance with Section 139-d of the State Finance Law, if this contract was awarded based upon the submission of bids, Contractor affirms, under penalty of perjury, that its bid was arrived at independently and without collusion aimed at restricting competition. Contractor further affirms that, at the time Contractor submitted its bid, an authorized and responsible person executed and delivered to the State a non-collusive bidding certification on Contractor's behalf.

8. INTERNATIONAL BOYCOTT PROHIBITION. In accordance with Section 220-f of the Labor Law and Section 139-h of the State Finance Law, if this contract exceeds $5,000, the Contractor agrees, as a material condition of the contract, that neither the Contractor nor any substantially owned or affiliated person, firm, partnership or corporation has participated, is participating, or shall participate in an international boycott in violation of the federal Export Administration Act of 1979 (50 USC App. Sections 2401 et seq.) or regulations thereunder. If such Contractor, or any of the aforesaid affiliates of Contractor, is convicted or is otherwise found to have violated said laws or regulations upon the final determination of the United States Commerce Department or any other appropriate agency of the United States subsequent to the contract's execution, such contract, amendment or modification thereto shall be rendered forfeit and void. The Contractor shall so notify the State Comptroller within five (5) business days of such conviction, determination or disposition of appeal (2NYCRR 105.4).

9. SET-OFF RIGHTS. The State shall have all of its common law, equitable and statutory rights of set-off. These rights shall include, but not be limited to, the State's option to withhold for the purposes of set-off any moneys due to the Contractor under this contract up to any amounts due and owing to the State with regard to this contract, any other contract with any State department or agency, including any contract for a term commencing prior to the term of this contract, plus any amounts due and owing to the State for any other reason including, without limitation, tax delinquencies, fee delinquencies or monetary penalties relative thereto. The State shall exercise its set-off rights in accordance with normal State practices including, in cases of set-off pursuant to an audit, the finalization of such audit by the State agency, its representatives, or the State Comptroller.

10. RECORDS. The Contractor shall establish and maintain complete and accurate books, records, documents, accounts and other evidence directly pertinent to performance under this contract (hereinafter, collectively, "the Records"). The Records must be kept for the balance of the calendar year in which they were made and for six (6) additional years thereafter. The State Comptroller, the Attorney General and any other person or entity authorized to conduct an examination, as well as the agency or agencies involved in this contract, shall have access to the Records during normal business hours at an office of the Contractor within the State of New York or, if no such office is available, at a mutually agreeable and reasonable venue within the State, for the term specified above for the purposes of inspection, auditing and copying. The State shall take reasonable steps to protect from public disclosure any of the Records which are exempt from disclosure under Section 87 of the Public Officers Law (the "Statute") provided that: (i) the Contractor shall timely inform an appropriate State official, in writing, that said records should not be disclosed; and (ii) said records shall be sufficiently identified; and (iii) designation of said records as exempt under the Statute is reasonable. Nothing contained herein shall diminish, or in any way adversely affect, the State's right to discovery in any pending or future litigation.

11. IDENTIFYING INFORMATION AND PRIVACY NOTIFICATION. (a) Identification Number(s). Every invoice or New York State Claim for Payment submitted to a New York State agency by a payee, for payment for the sale of goods or services or for transactions (e.g., leases, easements, licenses, etc.) related to real or personal property must include the payee's identification number. The number is any or all of the following: (i) the payee's Federal employer identification number, (ii) the payee's Federal social security number, and/or (iii) the payee's Vendor Identification Number assigned by the Statewide Financial System. Failure to include such number or numbers may delay payment. Where the payee does not have such number or numbers, the payee, on its invoice or Claim for Payment, must give the reason or reasons why the payee does not have such number or numbers.

(b) Privacy Notification. (1) The authority to request the above personal information from a seller of goods or services or a lessor of real or personal property, and the authority to maintain such information, is found in Section 5 of the State Tax Law. Disclosure of this information by the seller or lessor to the State is mandatory. The principal purpose for which the information is collected is to enable the State to identify individuals, businesses and others who have been delinquent in filing tax returns or may have understated their tax liabilities and to generally identify persons affected by the taxes administered by the Commissioner of Taxation and Finance. The information will be used for tax administration purposes and for any other purpose authorized by law. (2) The personal information is requested by the purchasing unit of the agency contracting to purchase the goods or services or lease the real or personal property covered by this contract or lease. The information is maintained in the Statewide Financial System by the Vendor Management Unit within the Bureau of State Expenditures, Office of the State Comptroller, 110 State Street, Albany, New York 12236.

12. EQUAL EMPLOYMENT OPPORTUNITIES FOR MINORITIES AND WOMEN. In accordance with Section

312 of the Executive Law and 5 NYCRR 143, if this contract is: (i) a written agreement or purchase order instrument, providing for a total expenditure in excess of $25,000.00, whereby a contracting agency is committed to expend or does expend funds in return for labor, services, supplies, equipment, materials or any combination of the foregoing, to be performed for, or rendered or furnished to the contracting agency; or (ii) a written agreement in excess of $100,000.00 whereby a contracting agency is committed to expend or does expend funds for the acquisition, construction, demolition, replacement, major repair or renovation of real property and improvements thereon; or (iii) a written agreement in excess of $100,000.00 whereby the owner of a State assisted housing project is committed to expend or does expend funds for the acquisition, construction, demolition, replacement, major repair or renovation of real property and improvements thereon for such project, then the following shall apply and by signing this agreement the Contractor certifies and affirms that it is Contractor's equal employment opportunity policy that:

(a) The Contractor will not discriminate against employees or applicants for employment because of race, creed, color, national origin, sex, age, disability or marital status, shall make and document its conscientious and active efforts to employ and utilize minority group members and women in its work force on State contracts and will undertake or continue existing programs of affirmative action to ensure that minority group members and women are afforded equal employment opportunities without discrimination. Affirmative action shall mean recruitment, employment, job assignment, promotion, upgradings, demotion, transfer, layoff, or termination and rates of pay or other forms of compensation;

(b) at the request of the contracting agency, the Contractor shall request each employment agency, labor union, or authorized representative of workers with which it has a collective bargaining or other agreement or understanding, to furnish a written statement that such employment agency, labor union or representative will not discriminate on the basis of race, creed, color, national origin, sex, age, disability or marital status and that such union or representative will affirmatively cooperate in the implementation of the Contractor's obligations herein; and

(c) the Contractor shall state, in all solicitations or advertisements for employees, that, in the performance of the State contract, all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability or marital status.

Contractor will include the provisions of "a", "b", and "c" above, in every subcontract over $25,000.00 for the construction, demolition, replacement, major repair, renovation, planning or design of real property and improvements thereon (the "Work") except where the Work is for the beneficial use of the Contractor. Section 312 does not apply to: (i) work, goods or services unrelated to this contract; or (ii) employment outside New York State. The State shall consider compliance by a contractor or subcontractor with the requirements of any federal law concerning equal employment opportunity which effectuates the purpose of this section. The contracting agency shall determine whether the imposition of the requirements of the provisions hereof duplicate or conflict with any such federal law and if such duplication or conflict exists, the contracting agency shall waive the applicability of Section 312 to the extent of such duplication or conflict. Contractor will comply with all duly promulgated and lawful rules and regulations of the Department of Economic Development's Division of Minority and Women's Business Development pertaining hereto.

13. CONFLICTING TERMS. In the event of a conflict between the terms of the contract (including any and all attachments thereto and amendments thereof) and the terms of this Appendix A, the terms of this Appendix A shall control.

14. GOVERNING LAW. This contract shall be governed by the laws of the State of New York except where the Federal supremacy clause requires otherwise.

15. LATE PAYMENT. Timeliness of payment and any interest to be paid to Contractor for late payment shall be governed by Article 11-A of the State Finance Law to the extent required by law.

16. NO ARBITRATION. Disputes involving this contract, including the breach or alleged breach thereof, may not be submitted to binding arbitration (except where statutorily authorized), but must, instead, be heard in a court of competent jurisdiction of the State of New York.

17. SERVICE OF PROCESS. In addition to the methods of service allowed by the State Civil Practice Law & Rules ("CPLR"), Contractor hereby consents to service of process upon it by registered or certified mail, return receipt requested. Service hereunder shall be complete upon Contractor's actual receipt of process or upon the State's receipt of the return thereof by the United States Postal Service as refused or undeliverable. Contractor must promptly notify the State, in writing, of each and every change of address to which service of process can be made. Service by the State to the last known address shall be sufficient. Contractor will have thirty (30) calendar days after service hereunder is complete in which to respond.

18. PROHIBITION ON PURCHASE OF TROPICAL HARDWOODS. The Contractor certifies and warrants that all wood products to be used under this contract award will be in accordance with, but not limited to, the specifications and provisions of Section 165 of the State Finance Law, (Use of Tropical Hardwoods) which prohibits purchase and use of tropical hardwoods, unless specifically exempted, by the State or any governmental agency or political subdivision or public benefit corporation. Qualification for an exemption under this

law will be the responsibility of the contractor to establish to meet with the approval of the State.

In addition, when any portion of this contract involving the use of woods, whether supply or installation, is to be performed by any subcontractor, the prime Contractor will indicate and certify in the submitted bid proposal that the subcontractor has been informed and is in compliance with specifications and provisions regarding use of tropical hardwoods as detailed in §165 State Finance Law. Any such use must meet with the approval of the State; otherwise, the bid may not be considered responsive. Under bidder certifications, proof of qualification for exemption will be the responsibility of the Contractor to meet with the approval of the State.

19. MACBRIDE FAIR EMPLOYMENT PRINCIPLES (APPLICABLE ONLY IN NON-FEDERAL AID NEW YORK STATE CONTRACTS). In accordance with the MacBride Fair Employment Principles (Chapter 807 of the Laws of 1992), the Contractor hereby stipulates that the Contractor either (a) has no business operations in Northern Ireland, or (b) shall take lawful steps in good faith to conduct any business operations in Northern Ireland in accordance with the MacBride Fair Employment Principles (as described in Section 165 of the New York State Finance Law), and shall permit independent monitoring of compliance with such principles.

20. OMNIBUS PROCUREMENT ACT OF 1992 (APPLICABLE ONLY IN NON-FEDERAL AID NEW YORK STATE CONTRACTS). It is the policy of New York State to maximize opportunities for the participation of New York State business enterprises, including minority and women-owned business enterprises as bidders, subcontractors and suppliers on its procurement contracts.

Information on the availability of New York State subcontractors and suppliers is available from:

NYS Department of Economic Development
Division for Small Business
Albany, New York 12245
Telephone: 518-292-5100
Fax: 518-292-5884
email: opa@esd.ny.gov

A directory of certified minority and women-owned business enterprises is available from:

NYS Department of Economic Development
Division of Minority and Women's Business Development
633 Third Avenue
New York, NY 10017
212-803-2414
email: mwbecertification@esd.ny.gov
https://ny.newnycontracts.com/FrontEnd/VendorSearchPublic.asp

The Omnibus Procurement Act of 1992 requires that by signing this bid proposal or contract, as applicable, Contractors certify that whenever the total bid amount is greater than $1 million:

(a) The Contractor has made reasonable efforts to encourage the participation of New York State Business Enterprises as suppliers and subcontractors, including certified minority and women-owned business enterprises, on this project, and has retained the documentation of these efforts to be provided upon request to the State;

(b) The Contractor has complied with the Federal Equal Opportunity Act of 1972 (P.L. 92-261), as amended;

(c) The Contractor agrees to make reasonable efforts to provide notification to New York State residents of employment opportunities on this project through listing any such positions with the Job Service Division of the New York State Department of Labor, or providing such notification in such manner as is consistent with existing collective bargaining contracts or agreements. The Contractor agrees to document these efforts and to provide said documentation to the State upon request; and

(d) The Contractor acknowledges notice that the State may seek to obtain offset credits from foreign countries as a result of this contract and agrees to cooperate with the State in these efforts.

21. RECIPROCITY AND SANCTIONS PROVISIONS. Bidders are hereby notified that if their principal place of business is located in a country, nation, province, state or political subdivision that penalizes New York State vendors, and if the goods or services they offer will be substantially produced or performed outside New York State, the Omnibus Procurement Act 1994 and 2000 amendments (Chapter 684 and Chapter 383, respectively) require that they be denied contracts which they would otherwise obtain. NOTE: As of May 15, 2002, the list of discriminatory jurisdictions subject to this provision includes the states of South Carolina, Alaska, West Virginia, Wyoming, Louisiana and Hawaii. Contact NYS Department of Economic Development for a current list of jurisdictions subject to this provision.

22. COMPLIANCE WITH NEW YORK STATE INFORMATION SECURITY BREACH AND NOTIFICATION ACT. Contractor shall comply with the provisions of the New York State Information Security Breach and Notification Act (General Business Law Section 899-aa; State Technology Law Section 208).

23. COMPLIANCE WITH CONSULTANT DISCLOSURE LAW. If this is a contract for consulting services, defined for purposes of this requirement to include analysis, evaluation, research, training, data processing, computer programming, engineering, environmental, health,

and mental health services, accounting, auditing, paralegal, legal or similar services, then, in accordance with Section 163 (4-g) of the State Finance Law (as amended by Chapter 10 of the Laws of 2006), the Contractor shall timely, accurately and properly comply with the requirement to submit an annual employment report for the contract to the agency that awarded the contract, the Department of Civil Service and the State Comptroller.

24. PROCUREMENT LOBBYING. To the extent this agreement is a "procurement contract" as defined by State Finance Law Sections 139-j and 139-k, by signing this agreement the contractor certifies and affirms that all disclosures made in accordance with State Finance Law Sections 139-j and 139-k are complete, true and accurate. In the event such certification is found to be intentionally false or intentionally incomplete, the State may terminate the agreement by providing written notification to the Contractor in accordance with the terms of the agreement.

25. CERTIFICATION OF REGISTRATION TO COLLECT SALES AND COMPENSATING USE TAX BY CERTAIN STATE CONTRACTORS, AFFILIATES AND SUBCONTRACTORS.
To the extent this agreement is a contract as defined by Tax Law Section 5-a, if the contractor fails to make the certification required by Tax Law Section 5-a or if during the term of the contract, the Department of Taxation and Finance or the covered agency, as defined by Tax Law 5-a, discovers that the certification, made under penalty of perjury, is false, then such failure to file or false certification shall be a material breach of this contract and this contract may be terminated, by providing written notification to the Contractor in accordance with the terms of the agreement, if the covered agency determines that such action is in the best interest of the State.

26. **IRAN DIVESTMENT ACT**. By entering into this Agreement, Contractor certifies in accordance with State Finance Law §165-a that it is not on the "Entities Determined to be Non-Responsive Bidders/Offerers pursuant to the New York State Iran Divestment Act of 2012" ("Prohibited Entities List") posted at:
http://www.ogs.ny.gov/about/regs/docs/ListofEntities.pdf

Contractor further certifies that it will not utilize on this Contract any subcontractor that is identified on the Prohibited Entities List. Contractor agrees that should it seek to renew or extend this Contract, it must provide the same certification at the time the Contract is renewed or extended. Contractor also agrees that any proposed Assignee of this Contract will be required to certify that it is not on the Prohibited Entities List before the contract assignment will be approved by the State.

During the term of the Contract, should the state agency receive information that a person (as defined in State Finance Law §165-a) is in violation of the above-referenced certifications, the state agency will review such information and offer the person an opportunity to respond. If the person fails to demonstrate that it has ceased its engagement in the investment activity which is in violation of the Act within 90 days after the determination of such violation, then the state agency shall take such action as may be appropriate and provided for by law, rule, or contract, including, but not limited to, imposing sanctions, seeking compliance, recovering damages, or declaring the Contractor in default.

The state agency reserves the right to reject any bid, request for assignment, renewal or extension for an entity that appears on the Prohibited Entities List prior to the award, assignment, renewal or extension of a contract, and to pursue a responsibility review with respect to any entity that is awarded a contract and appears on the Prohibited Entities list after contract award.

APPENDIX A-1

APPENDIX A-1 SUPPLEMENTAL TITLE VI PROVISIONS (CIVIL RIGHTS ACT)
(To be included in all contracts)

During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

(1) Compliance with Regulations: The contractor shall comply with the Regulation relative to nondiscrimination in Federally assisted programs of the Department of Transportation of the United States, Title 49, Code of Federal Regulations, Part 21, and the Federal Highway Administration (hereinafter "FHWA") Title 23, Code of Federal Regulations, Part 200 as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.

(2) Nondiscrimination: The Contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, religion, age, color, sex or national origin, sex, age, and disability/handicap in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by 49 CFR, section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

(3) Solicitations for Subcontractors, Including Procurements of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin, sex, age, and disability/handicap.

(4) Information and Reports: The contractor shall provide all information and reports required by the Regulations or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by NYSDOT or the FHWA to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information the contractor shall so certify to NYSDOT's Office of Civil Rights or FHWA, as appropriate, and shall set forth what efforts it has made to obtain the information.

(5) Sanctions for Noncompliance: In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, NYSDOT shall impose such contract sanctions as it or the FHWA may determine to be appropriate, including, but not limited to:

a) Withholding of payments to the contractor under the contract until the contractor complies; and/or
b) Cancellation, termination or suspension of the contract, in whole or in part.

(6) Incorporation of Provisions: The contractor shall include the provisions of paragraphs (1) through (6) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto.

The contractor shall take such action with respect to any subcontractor procurement as NYSDOT or the FHWA may direct as a means of enforcing such provisions including sanctions for non-compliance: Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request NYSDOT to enter into such litigation to protect the interests of NYSDOT, and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

APPENDIX B

APPENDIX B
REQUIREMENTS FOR FEDERALLY-AIDED TRANSPORTATION PROJECTS
(June 2016)

There is a substantial body of requirements attached to the use of Federal highway or transportation aid. These requirements create or overlay processes, procedures, documentation requirements, authorizations, approvals and certifications that may be substantially greater or different from those that are not funded with Federal-aid and proceed under applicable State and local laws, customs and practices. Under Title 23 of the United States Code, the New York State Department of Transportation (NYSDOT) is responsible for the administration of transportation projects in New York State to which NYSDOT provides Federal highway or transportation-related aid. Through this Agreement, which provides or is associated with such funding, NYSDOT delegates various elements of project and funding administration as described elsewhere in this Agreement. In undertaking a Federally aided project, the Municipality/Sponsor, Authority or Project Manager designated under this Agreement with Federal-aid funding or project administration agrees to proceed in compliance with all the applicable Federal-aid requirements.

NYSDOT, in cooperation with FHWA, has assembled the body of Federal-aid requirements, procedures and practices in its Procedures for Locally Administered Federal-Aid Projects Manual (available through NYSDOT's web site at: http://www.dot.ny.gov/plafap). In addition, the Municipality/Sponsor, Authority or Project Manager designated under this Agreement for Federal-aid funding or project administration that enters into Federally aided project construction contracts is required to physically incorporate into all its Federally aided construction contracts and subcontracts there under the provisions that are contained in Form FHWA-1273 (available from NYSDOT or electronically at: http://www.fhwa.dot.gov/programadmin/contracts/1273.htm).

In addition to the referenced requirements, the attention of Municipality/Sponsor hereunder is directed to the following requirements and information:

NON DISCRIMINATION/EEO/DBE REQUIREMENTS

The Municipality/Sponsor and its contractors agree to comply with Executive Order 11246, entitled "Equal Employment Opportunity" and United States Department of Transportation (USDOT) regulations (49 CFR Parts 21, 23, 25, 26 and 27) and the following:

1. **NON DISCRIMINATION**. No person shall, on the ground of race, color, creed, national origin, sex, age or handicap, be excluded from participation in, or denied the benefits of, or be subject to, discrimination under the Project funded through this Agreement.

2. **EQUAL EMPLOYMENT OPPORTUNITY**. In connection with the execution of this Agreement, the Municipality/Sponsors contractors or subcontractors shall not discriminate against any employee or applicant for employment because of race, religion, age, color, sex or national origin. Such contractors shall take affirmative actions to ensure that applicants are employed, and that employees are treated during their employment, without regard to their race, religion, color, sex, national origin or age. Such actions shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.

3. **DISADVANTAGED BUSINESS ENTERPRISES**. In connection with the performance of this Agreement, the Municipality/Sponsor shall cause its contractors to cooperate with the State in meeting its commitments and goals with regard to the utilization of Disadvantaged Business Enterprises (DBEs) and will use its best efforts to ensure that DBEs will have opportunity to compete for subcontract work under this Agreement. Also, in this connection the Municipality or Municipality/Sponsor shall cause its contractors to undertake such actions as may be necessary to comply with 49 CFR Part 26.

   As a sub-recipient under 49 CFR Part 26.13, the Municipality/Sponsor hereby makes the following assurance.

   The Municipality/Sponsor shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of any United States Department of Transportation (USDOT)-assisted contract or in the administration of its Disadvantaged Business Enterprise (DBE) program or the requirements of 49 CFR Part 26. The Municipality/Sponsor shall take all necessary and reasonable steps under 49 CFR Part 26 to ensure nondiscrimination in the award and administration of the United States Department of Transportation-assisted contracts. The New York State Department of Transportation's DBE program, as required by 49 CFR Part 26 and as approved by the United States Department of Transportation, is incorporated by reference in this agreement. Implementation of this program is a legal obligation and failure to carry out its terms shall be treated as a violation of this agreement. Upon notification to the recipient of its failure to carry out its approved program, the USDOT may impose sanctions as provided for under part 26 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31 U.S.C. 3801 et seq.).

FEDERAL SINGLE AUDIT REQUIREMENTS

Non-Federal entities that expend $750,000 or more in a year in Federal awards from all sources are required to comply with the Federal Single Audit Act provisions contained in U.S. Office of Management and Budget (OMB) Circular No. A-133, Audits of States, Local Governments, and Non-Profit Organizations. Non-Federal entities that expend Federal awards from a single source may provide a program specific audit, as defined in the Circular. Non-Federal entities that expend less than the amount above in a year in Federal awards from all sources are exempt from Federal audit requirements for that year, except as noted in Sec. 215 (a) of OMB Circular A-133 Subpart B--Audits, records must be available for review or audit by appropriate officials of the cognizant Federal agency[1] the New York State Department of Transportation, the New York State Comptrollers Office and the U.S. Governmental Accountability Office (GAO).

Non-Federal entities are required to submit a copy of all audits, as described above, within 30 days of issuance of audit report, but no later than 9 months after the end of the entity's fiscal year, to the New York State Department of Transportation, Contract Audit Bureau, 50 Wolf Road, Albany, NY 12232. Unless a time extension has been granted by the cognizant Federal Agency and has been filed with the New York State Department of Transportation's Contract Audit Bureau, failure to comply with the requirements of OMB Circular A-133 may result in suspension or termination of Federal award payments.

[1] The designated cognizant agency for audit shall be the federal awarding agency that provides the predominant amount of direct funding to a recipient unless OMB changes it.

THE CATALOG OF FEDERAL DOMESTIC ASSISTANCE

The Catalog of Federal Domestic Assistance (CFDA[2]), is an on-line database of all Federally-aided programs available to State and local governments (including the District of Columbia); Federally recognized Indian tribal governments; Territories (and possessions) of the United States; domestic public, quasi-public, and private profit and nonprofit organizations and institutions; specialized groups; and individuals.

THE CFDA IDENTIFICATION NUMBER

OMB Circular A-133 requires all Federal-aid recipients to identify and account for awards and expenditures by CFDA Number. The Municipality/Sponsor is required to identify in its accounts all Federal awards received and expended, and the Federal programs under which they were received. Federal program and award identification shall include, as applicable, the CFDA title and number, award number and year, name of the Federal agency, and name of the pass-through entity.

The most commonly used CFDA number for the Federal Aid Highway Planning and Construction program is 20.205.
Additional CFDA numbers for other transportation and non-transportation related programs are:

20.215 Highway Training and Education
20.219 Recreational Trails Program
20.XXX Highway Planning and Construction - Highways for LIFE;
20.XXX Surface Transportation Research and Development;
20.500 Federal Transit-Capital Investment Grants
20.505 Federal Transit-Metropolitan Planning Grants
20.507 Federal Transit-Formula Grants
20.509 Formula Grants for Other Than Urbanized Areas
20.600 State and Community Highway Safety
23.003 Appalachian Development Highway System
23.008 Appalachian Local Access Roads

PROMPT PAYMENT MECHANISMS

In accordance with 49 CFR 26.29, and NY State Finance Law 139-f or NY General Municipal Law 106-b(2) as applicable:

(a) You must establish, as part of your DBE program, a contract clause to require prime contractors to pay subcontractors for satisfactory performance of their contracts no later than 7 calendar days from receipt of each payment you make to the prime contractor.
(b) You must ensure prompt and full payment of retainage from the prime contractor to the subcontractor within 7 calendar days after the subcontractor's work is satisfactorily completed. You must use one of the following methods to comply with this requirement:

(1) You may decline to hold retainage from prime contractors and prohibit prime contractors from holding retainage from subcontractors.

(2) You may decline to hold retainage from prime contractors and require a contract clause obligating prime contractors to make prompt and full payment of any retainage kept by

[2] http://www.cfda.gov/

prime contractor to the subcontractor within 7 calendar days after the subcontractor's work is satisfactorily completed.

(3) You may hold retainage from prime contractors and provide for prompt and regular incremental acceptances of portions of the prime contract, pay retainage to prime contractors based on these acceptances, and require a contract clause obligating the prime contractor to pay all retainage owed to the subcontractor for satisfactory completion of the accepted work within 7 calendar days after your payment to the prime contractor.

(c) For purposes of this section, a subcontractor's work is satisfactorily completed when all the tasks called for in the subcontract have been accomplished and documented as required by the recipient. When a recipient has made an incremental acceptance of a portion of a prime contract, the work of a subcontractor covered by that acceptance is deemed to be satisfactorily completed.

(d) Your DBE program must provide appropriate means to enforce the requirements of this section. These means may include appropriate penalties for failure to comply, the terms and conditions of which you set. Your program may also provide that any delay or postponement of payment among the parties may take place only for good cause, with your prior written approval.

(e) You may also establish, as part of your DBE program, any of the following additional mechanisms to ensure prompt payment:

(1) A contract clause that requires prime contractors to include in their subcontracts language providing that prime contractors and subcontractors will use appropriate alternative dispute resolution mechanisms to resolve payment disputes. You may specify the nature of such mechanisms.

(2) A contract clause providing that the prime contractor will not be reimbursed for work performed by subcontractors unless and until the prime contractor ensures that the subcontractors are promptly paid for the work they have performed.

(3) Other mechanisms, consistent with this part and applicable state and local law, to ensure that DBEs and other contractors are fully and promptly paid.

CARGO PREFERENCE ACT REQUIREMENTS – U.S. FLAG VESSELS

In accordance with 46 CFR 381, the contractor agrees:

(a) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

(b) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(c) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

RESOLUTION

SAMPLE RESOLUTION BY MUNICIPALITY
(Locally Administered Project)
RESOLUTION NUMBER:_____

Authorizing the implementation, and funding in the first instance 100% of the federal-aid and State "Marchiselli" Program-aid eligible costs, of a transportation federal-aid project, and appropriating funds therefore.

WHEREAS, a Project for the _____ _____, P.I.N. _____ (the Project") is eligible for funding under Title 23 U.S. Code, as amended, that calls for the apportionment of the costs such program to be borne at the ratio of _____% Federal funds and _____% non-federal funds; and

WHEREAS, the _____ of _____ desires to advance the Project by making a commitment of 100% of the non-federal share of the costs of _____ _____.

NOW, THEREFORE, the _____ Board, duly convened does hereby

RESOLVE, that the _____ Board hereby approves the above-subject project; and it is hereby further

RESOLVED, that the _____ Board hereby authorizes the _____ of _____ to pay in the first instance 100% of the federal and non-federal share of the cost of _____ work for the Project or portions thereof; and it is further

RESOLVED, that the sum of _____ is hereby appropriated from _____ [or, appropriated pursuant to _____] and made available to cover the cost of participation in the above phase of the Project; and it is further

RESOLVED, that in the event the full federal and non-federal share costs of the project exceeds the amount appropriated above, the _____ of _____ shall convene as soon as possible to appropriate said excess amount immediately upon the notification by the _____thereof, and it is further

RESOLVED, that the _____ of the _____ of the _____ of _____ be and is hereby authorized to execute all necessary Agreements, certifications or reimbursement requests for Federal Aid and/or Marchiselli Aid on behalf of the _____ of _____ with the New York State Department of Transportation in connection with the advancement or approval of the Project and providing for the administration of the Project and the municipality's first instance funding of project costs and permanent funding of the local share of federal-aid and state-aid eligible Project costs and all Project costs within appropriations therefore that are not so eligible, and it is further

RESOLVED, that a certified copy of this resolution be filed with the New York State Commissioner of Transportation by attaching it to any necessary Agreement in connection with the Project. and it is further

RESOLVED, this Resolution shall take effect immediately.

Res No. 2

August 4, 2016

To: The Honorable Mayor and City Council

From: Brian Phelps, City Assessor

Subject: Correction of Error to 2016 City Tax Roll

It was recently discovered that an exemption for that portion of the YMCA building that is no longer used by a for profit company (RBC Wealth Management) was not properly applied. The Assessor's office had properly received notice of the change of use entitling the property a full exemption well before the applicable deadline.

I recommend City Council exercise its authority under NYS Real Property Tax Law §554 to correct the 2016 City tax roll and to abate the total taxes due of $1,516.94.

In accordance with the applicable statute, an application for the correction to the final 2016 tax roll (form RP-554) has been submitted to the Jefferson County Real Property Director and has been approved. A resolution for Council consideration is attached, along with a copy of the application.

Res No. 2

August 15,2016

RESOLUTION

Authorizing Correction of the 2016
Tax Roll Entry for 105 Washington Street

	YEA	NAY
Council Member HORBACZ, Cody J		
Council Member JENNINGS, Stephen A.		
Council Member MACALUSO, Teresa R..		
Council Member WALCZYK, Mark C		
Mayor BUTLER, Jr., Joseph M.		
Total		

Introduced by

WHEREAS Real Property Tax Law §554 authorizes the appropriate tax levying body to make corrections to the tax roll before the expiration of the warrant, and

WHEREAS the property at 105 Washington Street is eligible for the benefit of a real property tax exemption for nonprofit organizations as authorized under Real Property Tax Law §420 by virtue of the current owner's nonprofit status, and

WHEREAS the current owner submitted the required application for the granting of said exemption, and

WHEREAS the exemption was not applied to the property, which resulted in the property being shown as taxable on the final 2016 tax roll,

NOW THEREFORE BE IT RESOLVED by the City Council of the City of Watertown that the 2016 City tax roll be amended to reflect that parcel 11-01-216.777 taxable value be reduced by $184,500 to $0, and

BE IT FURTHER RESOVLED by the City Council that the City Comptroller is hereby authorized to adjust the 2016 City tax bill for said property from $1,516.94 to $0, and

BE IT FURTHER RESOLVED that City Manager Sharon Addison is hereby authorized and directed to sign the Application for Corrected Tax Roll for the Year 2016, a copy of which is attached and made part of this Resolution.

Seconded by

NEW YORK STATE DEPARTMENT OF TAXATION AND FINANCE
OFFICE OF REAL PROPERTY TAX SERVICES

RP-554 (9/04)

CITY ASSESSOR'S DEPT. RECEIVED AUG 03 2016 WATERTOWN, NEW YORK

APPLICATION FOR CORRECTED TAX ROLL FOR THE YEAR 2016

Part 1: To be completed in duplicate by Applicant. APPLICANT MUST SUBMIT BOTH COPIES TO COUNTY DIRECTOR OF REAL PROPERTY TAX SERVICES. (In Nassau and Tompkins Counties, submit to Chief Assessing Officer). NOTE: To be used only prior to expiration of warrant for collection. For wholly exempt parcel, attach statement signed by assessor or majority of board of assessors substantiating that assessor(s) have obtained proof that parcel should have been granted tax exempt status on tax roll.

Bugbee Housing Development Fund Co
1a. Name of Owner

Day (315) 783-3635 Evening ( )
2. Telephone Number

Watertown Family YMCA

attn: Stacey Bristow

105 Washington St, Watertown, NY 13601
1b. Mailing Address

105 Washington Street
3. Parcel Location (if different than 1b.)

11-01-216.777; 105 Washington Street, Watertown, NY
4. Description of real property as shown on tax roll or tax bill (Include tax map designation)

5. Account No. _____

6. Amount of taxes currently billed **$1,516.94**

7. I hereby request a correction of tax levied by **City of Watertown**
(county/city/school district; town in Westchester County; non-assessing unit village)

for the following reasons (use additional sheets if necessary): **parcel was assessed as taxable, should have been fully tax exempt**

7/19/2016
Date

Signature of Applicant

PART II: For use by **COUNTY DIRECTOR:** Attach written report (including documentation of error in essential fact) and recommendation. Indicate type of error and paragraph of subdivision 2, 3 or 7 of Section 550 under which error falls.

Date application received: _____ Period of warrant for collection of taxes: _____

Last day for collection of taxes without interest: _____

Recommendation: ☒ Approve application* ☐ Deny Application

8/1/16
Date

Signature of County Director

*☐ If box is checked, this copy is for assessor and board of assessment review of city/town/village of _____ which are to consider attached report and recommendation as equivalent to petition filed pursuant to section 553.

PART III: For use by **TAX LEVYING BODY or OFFICIAL DESIGNATED BY RESOLUTION** _____:
(Insert Number or Date)

_____**APPLICATION APPROVED**

Amount of taxes currently billed: $ **$1,516.94**

Notice of approval mailed to applicant on (enter date): _____
Order transmitted to collecting officer on (enter date): _____

Corrected tax: $ 0

_____**APPLICATION DENIED** Reason: _____

Seal of Office

Date

Signature of Chief Executive Officer
or Official Designated by Resolution

Part IV. For use by COLLECTING OFFICER:

Payment may be made without interest and penalties ONLY if (1) the application has been filed with the County Director during the period when taxes may be paid without interest (see "Date application received" in Part II of this form) AND (2) the corrected tax is paid within eight days of the date on which the notice of approval is mailed to the applicant (see Part III of this form). If either of these conditions is not satisfied, interest and/or penalties must be paid on the corrected tax.

Order from tax levying body received: _____ Date

Corrected tax due: $_____

Interest and penalties (if applicable): $_____

Total corrected tax due: $_____

Tax roll corrected: _____ Date

Tax bill corrected: _____ Date

Application and Order annexed to tax roll: _____ Date

Payment of corrected tax received: _____ Date

_____ Date

_____ Signature of Collecting Officer

Res No. 3

August 7, 2016

To: The Honorable Mayor and City Council

From: Sharon Addison, City Manager

Subject: Authorizing Application to NYS Public Library Construction Grant Program, Roswell P. Flower Memorial Library

The Roswell P. Flower Memorial Library Board has a planned construction project of replacing three exterior doors at an estimated cost of $9,798 and is seeking City Council authorization to apply for a grant from the NYS Public Library Construction Grant Program. As detailed in Library Director Yvonne Reff's attached report, the funding would assist with the replacement of three doors by providing a minimum of 50% of the cost or as much as 75% of the cost. If approved for this grant, the City of Watertown Library Fund would be required to fund the remaining amount, which would come from Operating Expenses.

As the Roswell P. Flower Memorial Library is listed in the State and National Registers of Historic Places, Library Director Yvonne Reff has obtained approval for the submission from the New York State Division of Historic Preservation of the Office of Parks, Recreation and Historic Preservation (OPRHP).

Attached for City Council consideration is a resolution authorizing Library Director Yvonne Reff to sign and submit the grant application on behalf of the Roswell P. Flower Memorial Library.

Resolution No. 3

August 15, 2016

RESOLUTION

Authorizing Application to the NYS Public Library Construction Grant Program, Roswell P. Flower Memorial Library

	YEA	NAY
Council Member HORBACZ, Cody J.		
Council Member JENNINGS, Stephen A.		
Council Member MACALUSO, Teresa R.		
Council Member WALCZYK, Mark C.		
Mayor BUTLER, Jr., Joseph M.		
Total		

Introduced by

_____

WHEREAS the Roswell P. Flower Memorial Library is seeking City Council approval to apply for grant funding to the NYS Public Library Construction Grant Program, and

WHEREAS the purpose of this program is to assist construction projects, which the Library is planning for the replacement of three exterior doors in the amount of $9,798, and

WHEREAS the construction grant may cover between 50% to 75% of the costs of the project with the remaining to be paid for from the Library's Operating Budget,

NOW THEREFORE BE IT RESOLVED that the City Council of the City of Watertown hereby authorizes the Roswell P. Flower Memorial Library to submit a grant application to the NYS Public Library Construction Grant Program, a copy of which is attached and made part of this resolution, and

BE IT FURTHER RESOLVED that Library Director Yvonne F. Reff is hereby authorized and directed to execute the grant application on behalf of the Roswell P. Flower Memorial Library in the City of Watertown.

Seconded by

New York State Education Department
New York State Library
Division of Library Development
Library Construction Program

Application Form

Library or System Name:	Roswell P. Flower Memorial Library
SEDREF Institution ID:	800000051129
Mailing Address:	229 Washington St
Address:	
City, State, Zip:	Watertown NY 13601 3388
County:	Jefferson
Director of Institution:	Yvonne Reff
Title:	Library Director
Email:	yreff@ncls.org
State Judicial District: 5	State Assembly Districts: 118 122
State Senate Districts: 48	State Congressional Districts: 23
FEIN #: 100003438	School District: Watertown City Sd
Public Library System:	North Country Library System

NOTE: The institutional information listed above is pulled from the SEDREF database. SEDREF is the single authoritative source of identifying information about institutions which the NYS Education Department determines compliance with applicable policy, law and/or regulation.

If your institutional or director information is incorrect, it can only be updated once your Payee Information Form is received by Division of Library Development and approved by Grants Finance. Library Development staff do not have authority to update SEDREF information.

Note: Items marked with an asterisk * are required fields. You will not be able to save unless all required fields are completed.

***Building Information** - Provide the following information for the building (existing or proposed) or site that is the subject of this application.	
*Building Name	Roswell P. Flower Memori
*Street Address	229 Washington Street
*City	Watertown
*State	NY

*Zip Code	13601

***Building Type**

◉ Main Library	○ Branch Library
○ System Headquarters	○ Other

Library building is or will be accessible to persons with disabilities:

*Physical access	◉ Yes ○ No
*Program access	◉ Yes ○ No

***Library building is:**

- ○ Owned by applicant
- ○ Leased by applicant with a minimum of 10 years lease term from the date of anticipated completion
- ◉ Otherwise legally available (i.e., located in a municipal building)

***Library site is:**

- ○ Owned by applicant
- ○ Leased by applicant with a minimum of 10 years lease term from the date of anticipated completion
- ◉ Otherwise legally available (i.e., located in a municipal building)

*Year of initial construction of library building (yyyy)	1901
*Number of floors	3
*Square footage of building	39052
*The building is designated a historic landmark	◉ Yes ○ No
*The building is in a historic district	○ Yes ◉ No
*The building is over 50 years old	◉ Yes ○ No
*Does your Project involve ground disturbance?	○ Yes ◉ No
If your project is exempt from SHPO according to Appendix A, please state the reason and cite the language from Appendix A which provides evidence for the exemption. If you are unsure that your project activity is exempt please contact SHPO.	

Note: If your library building is 50 years old or older, and/or the project involves ground disturbance and/or demolition, please see the SHPO information page to determine if your project requires a SHPO approval. If appropriate, an approval letter from SHPO must be attached your construction grant application as a signed PDF. If your project is exempt from SHPO according to Appendix A please state the reason in the appropriate box on the application form.

*This library building is owned by a school district	○ Yes ◉ No
Which school district? (if applicable)	
*The total cost of this project will exceed $10,000	○ Yes ◉ No

Note: If the library building is owned by a school district and the cost of this project will exceed $10,000, the applicant must contact SED Office of Facilities Planning and include an OFP Certificate of Project Approval with this application.

Project Details	
*Project Title	Replacement of Exterior Doors for Energy Efficiency
Construction Project Manager (must be Library Staff or Board Member)	
*First Name	Andrea
*Last Name	Haley
*Phone	315-785-7702
Phone Extension	
*E-mail	ahaley@ncls.org

Library Director	
*First Name	Yvonne
*Last Name	Reff
*Phone (###-###-####)	315-785-7701
Phone Extension	
*Email	yreff@ncls.org

***Construction project application is for** (select all that apply):	
☐ New Construction	☑ Energy Conservation
☐ Building Expansion	☐ Accessibility
☐ Site Acquisition	☐ Safety
☑ Renovation/Rehabilitation	☐ Broadband
Will the library's completed project require a local Certificate of Occupancy?	○ Yes ◉ No

***Estimated Project Costs** (also see Project Budget)	
a. Total Project Cost ($) **NOTE:** If the project for which funding is being requested (b) is part of a larger comprehensive project, list the Total Project Cost of the larger project in "a". If the project for which funding is being requested (b) is not part of a larger project, "a" will equal "b".	9,798
b. Cost of Project for Which Funding is Being Requested **NOTE:** This system will populate this field with the total 'Cost' of all budget records entered on the Project Budget pages.	$9,798
c. Amount of Public Library Construction Funds requested for this Project (cannot be more than 50% of the amount in question b or 75% if you qualify for the Reduced Match.) Note: Contact your System regarding eligibility for reduced match. $7,349)	7,349
d. This project is or was funded, in whole or in part by funds secured through the issuance of tax exempt bonds, bond anticipation notes, or revenue anticipation notes.	○ Yes ◉ No

***Timeframe** (date format MUST BE mm/dd/yyyy)	
A valid date should be entered for each of the Timeframe items below. Valid date format is mm/dd/yyyy	
*This project is expected to start on or before	05/01/2017
*This project was/will be started on 05/01/2017 and is not complete at the time of this application. (**NOTE:** If the project has not started yet, the start date above should be the same as the expected start date from question 1).	
*This project is expected to be completed by	09/30/2017

Save Application

Additional Documents/Attachments

Return to Checklist page

The following attachments are only required for specific cases, please read the description to see if they are needed for your application.

- Certification of 10 year minimum lease/legal agreement and project approval from building owner:

This is needed only if the physical library building or site is not explicitly owned by the library. Libraries owned by a school system or BOCES do not need to complete this form.

- SED Office of Facilities Management Certificate of Project Approval:

This is needed only if the library or site is owned by a school district AND the project will cost over $10,000.

- State Historic Preservation Office (SHPO) Approval Documentation:

If your library building is 50 years old or older, and/or the project involves ground disturbance and/or demolition, please see the SHPO information page to determine if your project requires a SHPO approval. If appropriate, an approval letter from SHPO must be attached your construction grant application as a signed PDF. If your project is exempt from SHPO according to Appendix A please state the reason in the appropriate box on the application form.

. Home Construction Home Page Construction Checklist Help

August 5th, 2016

To: Sharon Addison, City Manager

From: Yvonne Reff, Library Director

Subject: Grant Application

The Roswell P. Flower Memorial Library Board is making an application to the New York State Library/Division of Library Development for a construction grant to replace three metal exterior steel doors and locks that are over 40 years old. These steel doors no longer open or shut properly and are not energy efficient.

The planned project involves the replacement of three metal exterior doors, frames and locks at an estimated cost of $9798. The construction grant will cover a minimum of 50% of the costs and may cover 75% of the costs. The percentage will be determined at the time of grant approval. The $4899 or $2450 that is not covered by the grant will be paid for from the library's Contracted Services.

The Roswell P. Flower Memorial Library is listed in the State and National Registers of Historic Places and as such is required to obtain permission from New York Parks, Recreation and Historic Preservation for changes using grant money. The library has already submitted information regarding the replacement and they have approved the changes.

We look forward to City Council's approval of this grant and the letter of support to be signed by Mayor Butler. Flower Memorial Library is excited about this project as it will decrease heating and cooling costs and improve patron and staff and patron comfort. We are looking for a favorable determination in our grant application.

NEW YORK
STATE OF
OPPORTUNITY.

Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

July 21, 2016

Ms. Yvonne Reff
Library Director
Roswell P. Flower Memorial Library
229 Washington Street
Watertown, NY 13601

Re: SED/L
Roswell P. Flower Memorial Library Replacement of 3 Doors
229 Washington Street, Watertown, NY 13601
16PR04497

Dear Ms. Reff:

Thank you for requesting the comments of the Division for Historic Preservation of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the submitted materials in accordance with the New York State Historic Preservation Act of 1980 (section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the Division for Historic Preservation and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6NYCRR Part 617).

We note that the Roswell P. Flower Memorial Library is listed in the State and National Registers of Historic Places.

We have reviewed the project submission received on 6/29/2016. Based upon this review, it is the OPRHP's opinion that the replacement of the three doors that were installed in the 1970s will have No Adverse Impact upon historic resources.

If there are substantive changes to the project, consultation with our office should resume. If you have any questions, I can be reached at (518) 268-2217.

Sincerely,

Christina Vagvolgyi

Christina Vagvolgyi
Historic Preservation Technical Specialist
e-mail: christina.vagvolgyi@parks.ny.gov

via e-mail only

Res No. 4

August 7, 2016

To: The Honorable Mayor and City Council

From: Sharon Addison, City Manager

Subject: Authorizing Application to BRIDGE NY Initiative

As stated in attached report of City Engineer Justin L. Wood, Governor Cuomo has announced the BRIDGE NY initiative providing $200 million in funding over the next two years for local government bridge projects.

Mr. Wood has identified two of our seven bridges that would qualify for this initiative for up to $5 million each. The application would provide up to 95% of each project, including design/engineering, right of way, construction and construction inspection costs.

If the application is approved, City Council will need to consider approving a bond ordinance prior to the start of the project.

Attached for City Council consideration is a resolution authorizing the application to BRIDGE NY for local government bridge projects.

Resolution No. 4

August 15, 2016

RESOLUTION

Authorizing Application to the BRIDGE NY
For Local Government Bridge Projects

	YEA	NAY
Council Member HORBACZ, Cody J.		
Council Member JENNINGS, Stephen A.		
Council Member MACALUSO, Teresa R.		
Council Member WALCZYK, Mark C.		
Mayor BUTLER, Jr., Joseph M.		
Total		

Introduced by

_____

WHEREAS Governor Cuomo has announced the BRIDGE NY Initiative to provide $200 million in funding over the next two years for local government bridge projects, and

WHEREAS the purpose of this program is to provide up to $5 million for each bridge project to include design/engineering, right of way, construction and construction inspection costs, and

WHEREAS the City Engineer has designated two bridges that qualify for this initiative, and

WHEREAS City Council deems this funding to be useful and necessary in maintaining the infrastructure for all users of our bridges,

NOW THEREFORE BE IT RESOLVED that the City Council of the City of Watertown hereby authorizes application to the BRIDGE NY Initiative for two bridges in the City of Watertown, and

BE IT FURTHER RESOLVED that City Engineer Justin L. Wood is hereby authorized and directed to make the grant application on behalf of the City of Watertown.

Seconded by

CITY OF WATERTOWN
ENGINEERING DEPARTMENT
MEMORANDUM

1869

DATE: August 5, 2016

TO: Sharon Addison, City Manager

FROM: Justin Wood, City Engineer

SUBJECT: BRIDGE NY Initiative

Governor Cuomo's recently announced "BRIDGE NY" Initiative will provide $200 Million in funding over the next two years, for local government bridge projects. Each municipality may apply for up to two bridge projects, not to exceed $5.0 Million each, which will be funded up to 95% including design/engineering, right of way, construction, and construction inspection costs. The applications will be evaluated and ranked on several criteria, including traffic volumes, current structural condition, detour considerations, the overall impact on commerce.

The City owns seven (7) bridges, most of which are relatively young, and overall in good condition. NYSDOT uses a rating scale of 1-7, with 7 being in new condition and a rating of 5 or greater considered as good condition. The City's bridge ratings range from 4.3 to 6.5, with an average rating of 5.3. The bridges vary in age from 1947 to 2004, with an average age of 1984.

The Pearl St Bridge (northspan) will be one application, due to the deteriorated condition of the concrete deck. The project is already listed in the 5 year Capital Plan, for $500,000 to replace the deck and other maintenance work. At 95% funding, the City's 5% share would only be $25,000, plus any water and sewer upgrades which could be incorporated into the project.

The Mill Street Bridge (northspan) will be the second application for deck rehabilitation, painting, and maintenance. The projected cost is $1.3 Million, of which the City's 5% share would be $65,000.

While the Cayuga Ave Bridge has been eyed for replacement over the past few years, the low traffic volumes and relative importance of this bridge, when compared to others across the state, makes it a low ranking application. The Cayuga Ave Bridge project is estimated at $850,000, which would replace the bridge with a modern structure meeting current standards for width, and HS-20 load ratings. It is currently posted for a 22 ton maximum weight limit.

The Court St. Bridge is in need of maintenance work as well, but is already programmed into the WJCTC MPO's TIP (Capital Plan), for maintenance work in 2020, which will be funded at 95%.

Applications are due September 9th 2016, and while there is no set date for announcement of awards, they will likely happen this fall. It is important to note, that any funded project must go to construction within 18 months of award and signed agreement with NYSDOT. These potential bridge projects could go to construction as early as 2018.

Please forward to City Council for concurrence to proceed with the submission of two bridge projects to the BRIDGE NY program. **The total commitment of City funds by the applications, if awarded, is anticipated to be approximately $90,000 (excluding any optional betterment work which would not be reimbursable).**

City of Watertown Bridge Inventory:

Bridge	Age	Length x Curb-Curb Width	Condition Rating
Cayuga Ave.	1947	34' x 14.4'	4.345
Court St.	1993	484' x 52'	5.083
***Mill St. NS**	1989	157' x 37'	4.688
Mill St. SS	1989	50' x 40'	5.524
***Pearl St. NS**	1978	92' x 40'	5.098
Pearl St. SS	2004	165' x 39'	6.453
Vanduzee St.	1993	387' x 28'	5.931

* Bridge to be submitted in application

cc: Jim Mills, City Comptroller
Eugene Hayes, Superintendent of Public Works
Vicky Murphy, Superintendent of Water

City of Watertown
2016 Bridge Condition Summary
(7 bridges)

1) BIN 2220260 – 283/ N BR Black River – NYS CR = 5.776
   - Needs a new deck (concrete wearing surface)
   - Needs new joints at the abutments
   - Needs curbing work with the deck work
   - Needs Concrete sealing
   - Needs Concrete grooving of the new deck

Estimated Costs:

Construction:	$ 350,000 (see attached estimate)
Design:	$ 75,000
Constr. Insp.:	$ 75,000
	$ 500,000

2) BIN 2220250 – 283/ S BR Black River– NYS CR = 6.453 (the highest rated of 7 bridges)
   - Bridge is in good shape – only needs cyclical maintenance
   - Could use a sealer on the deck
   - Joints recently done

   The steel, deck, sidewalks and parapets look good – Rate 5 or higher

3) BIN 2220230 – Mill St (US 11)/ Black River Overflow - NYS CR = 5.524
   - Needs minor deck repairs (south end at centerline)
   - Needs SW approach sidewalk repairs
   - Needs minor curbing repair at SW corner
   - Needs Concrete sealing
   - Needs Concrete grooving

   * Light pole at NE bridge corner is loose (Safety Flag 7P140004)

4) BIN 2220240 – Mill St (US 11)/ Black River- NYS CR = 4.688
   - Needs new paint on girders
   - Needs new joints at the abutments
   - Needs bearing restoration at four corners
   - Minor Concrete pedestal work
   - May need some concrete work at abutments
   - Needs Concrete sealing
   - Needs Concrete grooving of the new deck

   The steel, deck, sidewalks and parapets look good – Rate 5 or higher

Estimated Costs:

Construction:	$ 1,100,000 (see attached estimate)
Design:	$ 100,000
Constr. Insp.:	$ 100,000
	$ 1,300,000

5) BIN 2220240 – US 11/ Center City Drive - NYS CR = 5.306
   - Needs minor deck repairs
   - Needs new joints at the abutments
   - Ends of girders could be painted to prevent further corrosion due to leaky joints
   - Needs NE and SE approach sidewalk repairs
   - Needs Concrete sealing
   - Concrete grooving of the new deck

   The steel, deck, and parapets look good – Rate 5 or higher

6) BIN 2220210 – Van Duzee St / Black River– NYS CR = 5.875 (second highest rated of your bridges)
   - Bridge is in good shape – only needs cyclical maintenance
   - Could use a sealer on the deck
   - The mortar pads below the bridge railing posts may need some minor maintenance in the near future
   - Joints may need replacement in the near future

   The steel, deck, grooving, sidewalks, railing and lighting look good – Rate 5 or higher

7) BIN 2259300 – Cayuga / Kelsey Creek – NYS CR = 4.345 (lowest rated of your bridges)
   - Bridge is Posted for 22 tons
   - The bridge serves a small number of residences
   - Both abutments lean toward the creek
   - Some of the steel has section loss

   The cost to rehabilitate the structure, particularly to remove the load posting and secure the abutments from further movement and future scour would make bridge replacement prudent. An estimate for bridge replacement is provide below:

   Estimated Costs:

Construction:	$ 600,000 (50 ft. span bridge)
Design:	$ 125,000
Constr. Insp.:	$ 125,000
	$ 850,000

All estimates assume the work is performed by a contractor and consultant engineer under the requirements of federal and state funding.

ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST

CITY OF WATERTOWN DEPARTMENT OF PUBLIC WORKS **129.0XX.001**
BIN 2220260
REHABILITATION OF RTE 283 (PEARL ST) OVER N BR BLACK RIVER **8/3/2016 17:05**
CITY OF WATERTOWN

NYSDOT ITEM NO.	DESCRIPTION	UNITS	QUANTITY	UNIT COST	TOTAL
557.0503	CONCRETE DECK - TYPE 3 FRICTION	SY	370	$ 350.00	$ 129,500.00
558.02	LONGITDUINAL SAWCUT GROOVING OF STRUCTURAL SLAB SURFACE	SY	370	$ 5.00	$ 1,850.00
559.17960118	PROTECTIVE SEALING OF STRUCTURAL CONCRETE FOR EXISTING BRIDGE DECKS	SF	3300	$ 1.00	$ 3,300.00
567.60	ARMORLESS BRIDGE JOINT SYSTEM	LF	90	$ 250.00	$ 22,500.00
567.60000015	REMOVAL OF EXISTING STEEL JOINT SYSTEMS	LF	90	$ 100.00	$ 9,000.00
619.01	BASIC WORK ZONE TRAFFIC CONTROL	LS	NEC	$ 40,000.00	$ 40,000.00
619.1301	TEMPORARY TRAFFIC SIGNALS	ELOC	2	$ 30,000.00	$ 60,000.00
619.1702	TEMPORARY CONCRETE BARRIER, (UNPINNED) W WARNING LIGHTS	LF	300	$ 30.00	$ 9,000.00
697.03	FIELD CHANGE PAYMENT (FCP)	DC		$ 1.00	$ 13,758.00
699.040001	MOBILIZATION	LS	NEC		$ 11,556.00
	SUBTOTAL CONSTRUCTION COST				$ 300,464.00
	CONTINGENCIES (15%)				**$ 45,070.00**
	TOTAL CONSTRUCTION COST				**$ 345,534.00**

ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST

CITY OF WATERTOWN DEPARTMENT OF PUBLIC WORKS **129.0XX.001**
BIN 2220240
REHABILITATION OF USTR 11 (MILL ST) OVER BLACK RIVER **8/4/2016 11:08**
CITY OF WATERTOWN

NYSDOT ITEM NO.	DESCRIPTION	UNITS	QUANTITY	UNIT COST	TOTAL
558.02	LONGITUDINAL SAWCUT GROOVING OF STRUCTURAL SLAB SURFACE	SY	900	$ 5.00	$ 4,500.00
559.17960118	PROTECTIVE SEALING OF STRUCTURAL CONCRETE FOR EXISTING BRIDGE DECKS	SF	900	$ 1.00	$ 900.00
565.43020015	BRIDGE BEARING RESTORATION	EA	4	$ 1,500.00	$ 6,000.00
567.60	ARMORLESS BRIDGE JOINT SYSTEM	LF	100	$ 250.00	$ 25,000.00
567.60000015	REMOVAL OF EXISTING STEEL JOINT SYSTEMS	LF	100	$ 100.00	$ 10,000.00
570.15000100	CLASS A CONTAINMENT SYSTEM FOR PAINT REMOVAL	LS	1	$ 150,000.00	$ 150,000.00
571.03	DISPOSAL OF HAZARDOUS PAINT WASTE CONTAINING LEAD	LB	1000	$ 1.00	$ 1,000.00
574.020001	STRUCTURAL STEEL PAINTING: OVERCOATING	SF	16150	$ 15.00	$ 242,250.00
574.030001	STRUCTURAL STEEL PAINTING: LOCALIZED	SF	8000	$ 50.00	$ 400,000.00
582.06	REMOVAL OF STRUCTURAL CONCRETE - REPLACEMENT WITH CLASS D CONCRETE	SF	100	$ 200.00	$ 20,000.00
585.01	STRUCTURAL LIFTING OPERATIONS - TYPE A	EA	4	$ 2,500.00	$ 10,000.00
619.01	BASIC WORK ZONE TRAFFIC CONTROL	LS	NEC	$ 25,000.00	$ 25,000.00
697.03	FIELD CHANGE PAYMENT (FCP)	DC		$ 1.00	$ 44,733.00
699.040001	MOBILIZATION	LS	NEC		$ 37,575.00
	SUBTOTAL CONSTRUCTION COST				**$ 976,958.00**
	CONTINGENCIES (15%)				$ 146,544.00
	TOTAL CONSTRUCTION COST				**$ 1,123,502.00**

BRIDGE NY PROJECT DATA FORM

Project Sponsor	City of Watertown

First Name	Justin	Last Name	Wood
Address 1	245 Washington Street		
Address 2	Suite 305		
City	Watertown	State: NY	Zip Code 13601
email	jwood@watertown-ny.gov	phone	3157857740
County	Jefferson	Project Priority	1

BIN	2220260	Feature Carried	283 283 73011005
PIN		Feature Crossed	N BR BLACK RIVER
		Owner	City / Region 7

Facility Importance	
AADT	9846
% Trucks	5.36
Detour (mi)	2

Cost & Schedule	
Const. Cost	$410,000
Total Cost	$500,000
SFY Letting	2018-2019

Risk & Restrictions	
Posting	0
Hyd. Vuln. Rating	5
Fracture Critical	No
Design Type	Box, Adjacent
Material Type	Prestr Conc Pre-Tensioned

Structure Details	
Year Built	1978
Deck Area	3300

Capital Need	
Condition Rating	5.776
Structural Deficiency	Yes
Model Recmdn.	deckrepl

LBPI	0.205

Project Scope Description

Project Commentary

Sponsor to describe unique elements and important factors that cannot readily be captured soley by the available data.

BRIDGE NY PROJECT DATA FORM

Project Sponsor	City of Watertown

First Name	Justin	Last Name	Wood
Address 1	245 Washington Street		
Address 2	Suite 305		
City	Watertown	State: NY	Zip Code 13601
email	jwood@watertown-ny.gov	phone	315-785-7740
County	Jefferson	Project Priority	1

BIN	2220240	Feature Carried	MILL ST USTR 11
PIN		Feature Crossed	BLACK RIVER
		Owner	City / Region 7

Facility Importance	
AADT	7065
% Trucks	7.32
Detour (mi)	1

Cost & Schedule	
Const. Cost	$1,100,000
Total Cost	$1,300,000
SFY Letting	2018-2019

Risk & Restrictions	
Posting	0
Hyd. Vuln. Rating	4
Fracture Critical	No
Design Type	Multi Girder Plate Girder
Material Type	Steel

Structure Details	
Year Built	1989
Deck Area	8038

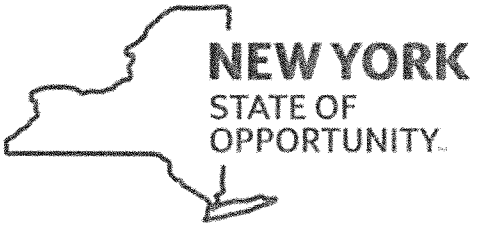
Capital Need	
Condition Rating	4.688
Structural Deficiency	No
Model Recmdn.	maintproject

LBPI	0.114

Project Scope Description

Project Commentary

Sponsor to describe unique elements and important factors that cannot readily be captured soley by the available data.



Department of Transportation

NEW YORK STATE DEPARTMENT OF TRANSPORTATION
BRIDGE NY
NOTICE OF FUNDING AVAILABILITY
July 5, 2016

Background

Pursuant to the new five-year State Transportation Plan, the New York State Department of Transportation (NYSDOT) is soliciting candidate projects for funding under the new BRIDGE NY program. The BRIDGE NY program provides enhanced assistance for local governments to rehabilitate and replace bridges and culverts. Particular emphasis will be provided for projects that address poor structural conditions; mitigate weight restrictions or detours; facilitate economic development or increase competitiveness; and/or reduce the risk of flooding.

Eligible Applicants

Any city, county, town, village or other political subdivision, including tribal governments and public benefit corporations, authorized to receive and administer State and federal transportation funding.

Eligible Projects

Bridge projects must be on a public roadway; eligible for federal aid; and shall follow the federal aid process. Culvert projects must be on a public highway and shall follow the State-aid process. The Department may consider bridge projects that incorporate sensors to monitor structural integrity.

Funding Availability

NYSDOT will be soliciting candidate projects for the first two years of the new BRIDGE NY program (State Fiscal Years 2016-17 and 2017-18). A total of $200 million - $100 million in each of the aforementioned fiscal years - in enhanced funding under BRIDGE NY will be awarded for local system projects during the two-year period. Of these amounts, no less than 10 percent of program funds shall be made available for culvert projects. Project sponsors will be required to submit a one-page summary for candidate

bridge and culvert projects detailing the scope, schedule and costs of the proposal. NYSDOT is committed to working with municipal sponsors to expedite this award process to ensure that the benefits of this investment accrue to the public as soon as possible.

Availability of Funds by Region
$ in millions

	Bridges	Culverts
Upstate	$108.7	—
Long Island	$16.5	—
New York City	$35.3	—
Hudson Valley	$19.5	—
Statewide	—	$20.0
Total	$180.0	$20.0

Maximum Award/Matching Funds/Eligibility

For bridge projects, the maximum project award shall not exceed $5.0 million for any single project and may include design/engineering, right-of-way, construction and construction inspection costs. Any costs beyond an authorized project award shall be the sole responsibility of the project sponsor. NYSDOT will provide up to 95 percent of the project costs, not to exceed $5.0 million.

For culvert projects, project awards shall be no less than $100,000 and no greater than $1.0 million for any single project and may include design/engineering, right-of-way, construction and construction inspection costs. In addition to rehabilitation and replacement, culvert relining projects may also be eligible. Any costs beyond an authorized project award shall be the sole responsibility of the project sponsor. NYSDOT will provide 100 percent of the project costs, not to exceed $1.0 million.

Project Review Process

For bridge projects, candidate projects will be subject to a two-step review process, including an initial screening of data driven scoring followed by centralized expert review of unique project elements. The review teams will be comprised of NYSDOT structures experts, a representative of Empire State Development (ESD) and one representative each from the Town and County Highway Superintendents associations.

For culvert projects, candidate projects will be subject to a similar review process, however, since individual parameter data does not exist for culverts, project review teams will be charged with considering similar types of general categories as for bridges.

Review teams will submit a formal recommendation of project priorities to the Commissioner of Transportation.

Project Evaluation Criteria - Bridges

Step 1 - Data Driven Initial Ranking - The Bridge Priority Index (BPI), Figure I, is a data driven metric aimed at prioritizing capital bridge work based on the relative importance of the structure and condition. It is similar to the index used by NYSDOT in recent years, but has been modified to more accurately reflect the local bridge system. The BPI is comprised four categories including:

- Capital Need - Reflects the condition of the bridge and an engineering assessment of whether it needs to be rehabilitated or replaced.
- Facility Importance - Includes factors such as detour length, truck and traffic volumes.
- Restrictions - Measures economic relative importance of the structure/impacts on commerce.
- Risk/Resiliency - Includes factors such as hydraulic vulnerability and structural resiliency.

Figure I

LOCAL BRIDGE PRIORITY INDEX (0 to 100)			
CATEGORY	CATEGORY POINTS	INDIVIDUAL PARAMETER	PARAMETER POINTS
CAPITAL NEED	47.5	Condition Rating	27.5
		Structural Deficiency	5
		Bridge Needs Tool (Rehab/Replace)	15
FACILITY IMPORTANCE	27.5		
		AADT	7
		% Trucks	7
		Detour Length	13.5
RESTRICTIONS	5	Postings	5
RISK/RESILIENCY	20	Fracture Critical	5
		Material Type	5
		Design Type	5
		Hydraulic Vulnerability	5
		TOTAL	100

Step 2- Review of Unique & Qualitative Factors – As noted above, NYSDOT structures experts, a representative of Empire State Development (ESD) and one representative each from the Town and County Highway Superintendents associations shall review the project rankings from Step 1 and recommend any modifications in rankings. This review will incorporate engineering judgment and a review of qualitative issues such as user benefits and context not fully captured by the available data in order to make a final recommendation regarding priorities to the Commissioner.

Project Evaluation Criteria - Culverts

While culverts face many of the same structural and hydraulic issues that bridges do, there is no analogous statewide database for local culverts. The project review teams will be charged with considering similar types of categories as for bridges (Figure II), but will not have the benefit of the data driven priority index step to inform this process. Instead, review team members will assign scores to each candidate project within the categories based on the information provided in the culvert application. This makes the qualitative, local knowledge evaluation more important for culvert projects.

Figure II

Simplified Culvert Rating Categories		
CATEGORY	CATEGORY POINTS	Review Criteria
CAPITAL NEED	50	This category reflects the condition of the culvert and an engineering assessment of whether it needs to be replaced. Culverts which appear to have significant remaining life should be rated low, while culverts which are at the end their useful life could earn the full 50 points.
FACILITY IMPORTANCE	25	This category is intended to reflect the importance of the culvert and route it carries within the transportation network. Factors to consider in this category include detour options and lengths, traffic volumes, nearby businesses and critical facilities such as hospitals, schools and emergency services.
POTENTIAL RISK	25	This category should include consideration of issues such as hydraulic vulnerability and structural resiliency. Structures with a history of overtopping during storms or those that are vulnerable to sudden failure should be given a higher score in this category.

Program Requirements/General Information

- All projects advanced through this process must:
    - Conform to the NYSDOT Bridge Design Specifications and Standards;
    - Have a service life appropriate for the level of work being performed:
        - 75 Years for bridge replacements;
        - 50 years for culvert replacements;
        - 30 years for major bridge rehabilitations; and
        - 10 years for culvert relining.
    - Will be subject to the required federal DBE requirements for federal-aid projects or to the state MWBE requirements for state-funded projects;
    - Begin construction no later than 18 months after award; and
    - Be completed within three years of commencing construction.

- Projects sponsors may not substitute BRIDGE NY funds for the local match to a federally-aided project.

- For Federal Aid Projects, municipalities must also comply with NYSDOT'S Procedures for Locally Administered Federal Aid Projects (PLAFAP) Manual.

- Applicants may submit up to two (2) applications for bridge projects and up to five (5) applications for culvert projects, however, only one (1) bridge project and up to three (3) culvert projects will be funded per year.

- Project sponsors will be required to submit applications to BRIDGENY@dot.ny.gov. Applications must be received by September 9, 2016.

- Once project selections are made, applicants will be notified that their project was either accepted as submitted or not selected.

BRIDGE NY
Frequently Asked Questions

GENERAL PROGRAM QUESTIONS

- **What is the Bridge NY Program?**

The new BRIDGE NY program provides enhanced assistance for local governments to rehabilitate and replace bridges and culverts. Particular emphasis will be provided for projects that address poor structural conditions; mitigate weight restrictions or detours; facilitate economic development or increase competitiveness; and/or reduce the risk of flooding.

- **Who can apply for this funding?**

Eligible Applicants (Project Sponsors) include any city, county, town, village or other political subdivision, including tribal governments and public benefit corporations, authorized to receive and administer State and federal transportation funding.

- **How many projects can be funded under this program per Applicant?**

Applicants (Project Sponsors) may submit up to two (2) applications for bridge projects and up to five (5) applications for culvert projects, however, only one (1) bridge project and up to three (3) culvert projects will be funded per year.

- **How much money is available to be used on my project?**

For bridge projects, the maximum project award shall not exceed $5.0 million for any single project and may include design/engineering, right-of-way, construction and construction inspection costs. Any costs beyond an authorized project award shall be the sole responsibility of the project sponsor. NYSDOT will provide up to 95 percent of the project costs, not to exceed $5.0 million.

For culvert projects, project awards shall be no less than $100,000 and no greater than $1.0 million for any single project and may include design/engineering, right-of-way, construction and construction inspection costs. In addition to rehabilitation and replacement, culvert relining projects may also be eligible. Any costs beyond an authorized project award shall be the sole responsibility of the project sponsor. NYSDOT will provide 100 percent of the project costs, not to exceed $1.0 million.

- **How is the money for these projects going to be distributed across the types of projects?**

NYSDOT is soliciting candidate projects for the first two years of the new BRIDGE NY program (State Fiscal Years 2016-17 and 2017-18). A total of $200 million - $100 million in each of the aforementioned fiscal years - in enhanced funding under BRIDGE NY will be awarded for local system projects during the two-year period. Of these

amounts, no less than 10 percent of program funds shall be made available for culvert projects.

- **Is there guidance for the match (i.e., what can constitute the match) for this grant program that you can share with me?**

NYSDOT will provide up to 95% for bridge projects. NYSDOT will provide 100% of the project costs for culvert projects.

- **Do the municipalities have to pay for the work first and then get reimbursed?**

Yes. BRIDGE NY is a reimbursement program.

- **May a municipality apply for, and receive, grant monies even though the project may be completed before the grant is awarded?**

No. Funding may not be used to supplant an existing local commitment.

- **DOT is handling the first two years of the grant process, will this continue past these two years?**

Yes, there will be additional rounds of funding under this program.

- **What is the purpose of the Regional Map provided on the website?**

Applications for bridge projects will be pre-populated with data based on the Bridge Identification Number (BIN). Therefore, each region has its own unique application for bridge projects. The map is provided in order for you to determine which NYSDOT Region/County your project is located in. Complete the application which corresponds to the region in which your project is located.

- **Are municipalities allowed to apply for state owned bridges that carry local roads (i.e., Erie Canal bridges)?**

Yes. The bridge data must be obtained from NYSDOT and will need to be entered manually on the application. NYSDOT would administer any project on the state-owned system.

- **Where should I address questions/inquiries related to this program?**

Please address all inquiries to BRIDGENY@dot.ny.gov.

- ***NEW* - What can constitute match for this grant program (i.e. In-Kind, land, etc.)?**

Project sponsors will need to identify local funds for project matching shares.

BRIDGE NY
Frequently Asked Questions

- ***NEW*** **- Please explain the difference between the Federal Aid Process and the State Aid Process. We are very familiar with the Federal Aid Process however I do not believe we have had to follow the State Aid Process. Would we need to provide a project design report? Public information meetings? Would full time inspection of the culvert project be required? M/WBE instead of DBE?**

  All bridge projects under this opportunity will be federally-aided and must follow federal planning, design and construction processes/standards. This includes the federal DBE process. Culvert projects will be State funded - and must follow applicable state processes/standards. This includes the State MWBE process.

- ***NEW*** **- The guidelines say that a bridge must be federal aid eligible which I am assuming means that it is located on a federal aid highway. Is this correct?**

  All federal-aid eligible bridges are candidate projects under BRIDGE NY.

- ***NEW*** **- We have an area that is continually flooded due to run off from culverts due to the poor or lack of drainage in a commercial section of our Town. Could this fall under this new program?**

  Drainage and/or storm water projects with independent utility are not eligible under BRIDGE NY. To the extent this work is necessitated by an eligible bridge and or culvert activity under this program, those costs may be eligible.

- ***NEW*** **- Please advise what the procedure is to obtain a PIN number.**

  Project Identification Numbers (PIN) will be assigned by the NYSDOT Regional Office after projects have been selected.

- ***NEW*** **- Page 5 of the Notice of Funding Availability states, "Begin construction no later than 18 months after award." Is there an actual end date where Bridge NY funds must be obligated by (i.e. FFY 9/30/2018 or SFY 3/31/2018)?**

  Date will be established based on execution of the State/Local Agreement.

- ***NEW*** **- Is there a specific construction schedule deadline for projects that are awarded funding?**

  Date will be established based on execution of the State/Local Agreement.

- ***NEW*** **- We have a bridge project on our 5 year Capital Plan, for construction in 2021. Is that an issue for this program, or does it hurt our chances?**

  No. Provided a project does not displace committed local funding, it would be eligible.

BRIDGE NY
Frequently Asked Questions

- ***NEW*** **- I am interested in submitting a grant application for a failed metal arch culvert bridge. Will this be considered a "Culvert" for the purposes of this bridge grant application?**

  Projects involving structures that have a BIN assigned, or if it is anticipated that the replacement structure will span more than 20 feet will qualify for the BRIDGE NY program. The determination of appropriate category, bridge or culvert, is based on span length not structure shape or material.

- ***NEW*** **- What is the MWBE contracting requirement for projects awarded a grant under BRIDGE NY?**

  Please refer to https://www.dot.ny.gov/divisions/engineering/design/dqab/hdm/chapter-21/dmwbe-goals for information related to the M/WBE goal setting on construction projects.

- ***NEW*** **– Can funds awarded through this program be used for future maintenance of a completed project?**

  Maintenance is not eligible under the Bridge NY Program.

BRIDGE SPECIFIC QUESTIONS

- **Are rehabilitation and replacement of pedestrian bridges eligible for funding under Bridge NY?**

  Rehabilitation or replacement pedestrian bridge projects are eligible if the bridge is over/under a public roadway and is eligible for federal aid. All publically-owned bridges are eligible to receive federal aid.

- **As this appears to be a two year program, can a municipality apply to do a structural assessment of a bridge in the first year, and then apply for design and construction next year? The structural assessment will provide a scope of work and a cost estimate that can be the basis of the grant application in the second year.**

  BRIDGE NY is capital program to rehabilitate and replace bridges and culverts. Structural and engineer assessments are not eligible expenses.

- **Can funds be used to plan/design/construct a new bridge?**

  The BRIDGE NY program provides capital assistance for local governments to *rehabilitate and replace* bridges and culverts. Funding to construct *new* bridges will not be available under this program.

BRIDGE NY
Frequently Asked Questions

- ***NEW*** **- For a bridge project, does the roadway have to be designated on the federal urban highway system maps as an eligible road?**

No. All federal-aid eligible bridges are candidate projects under BRIDGE NY.

- ***NEW*** **- Can projects that are currently on the STIP, but have not yet had construction funds approved be substituted into the Bridge NY program?**

Provided the submission is not displacing previously approved funds.

- ***NEW*** **- Could you tell me if bridges on roads functionally classified "Local" are eligible for this program?**

Yes. Bridges and culverts on local roads are eligible.

- ***NEW*** **- When applying for funding to replace a pedestrian bridge, would the traffic count be for the number of vehicles using the roadway over which the pedestrian bridge is located, or the number of pedestrians using the bridge?**

For pedestrian bridges, pedestrian counts and traffic counts on the facility crossed would both be helpful information in reviewing your application.

CULVERT SPECIFIC QUESTIONS

- **Does each individual culvert project have to be $100,000, or could there be three totaling $100,000?**

Yes, for the purposes of this solicitation, each culvert must meet the minimum threshold of $100,000 per culvert; three culverts which total $100,000 would not meet the threshold. For culvert projects, project awards shall be no less than $100,000 for any single project and may include design/engineering, right-of-way, construction and construction inspection costs.

- **Can a individual culvert project be less then the $100,000 dollar cap?**

No. To meet the minimum threshold of eligibility, a culvert project must be no less than $100,000.

- **I am inquiring into how large a culvert needs to be to qualify?**

For the purposes of this solicitation the minimum threshold for culvert projects is $100,000. Any single culvert requiring at least $100,000 in rehabilitation or replacement work is eligible for funding under this program.

BRIDGE NY
Frequently Asked Questions

- **Culvert pipes may be located on any public highway, not just federal aid highways. Is this correct?**

  Culvert projects must be on a public highway and shall follow the State-aid process.

- **On the Culvert Application there is a blank next to Culvert; what is supposed to be entered in that field?**

  If the Municipality has a culvert identification number it can enter that in this space. It is not required.

- ***NEW* - For culvert projects, can two culverts in close proximity to each other be considered as one project?**

  Groups of culverts can be considered a single culvert (for the $100,000 minimum threshold) if the fill between adjacent pipes is less than one-half the pipe diameter. If the out-to-out dimension of multiple pipes is greater than 20' and the fill between adjacent pipes is less than one-half the adjacent pipe diameter, the structure should be progressed as a bridge.

- ***NEW* - We have a drainage basin comprised of several culvert pipes that are failing. All the culverts run through one stream. May we group all of these culverts under one project for a Bridge NY Funding application?**

  Groups of culverts can be considered a single culvert (for the $100,000 minimum threshold) if the fill between adjacent pipes is less than one-half the pipe diameter. If the out-to-out dimension of multiple pipes is greater than 20' and the fill between adjacent pipes is less than one-half the adjacent pipe diameter, the structure should be progressed as a bridge.

Res No. 5

August 10, 2016

To: The Honorable Mayor and City Council

From: Michael A. Lumbis, Planning and Community Development Director

Subject: Approving the Site Plan for the construction of a 2,730 square-foot infirmary addition, a 633-foot long, 20-foot wide emergency access drive, a 7,950 square-foot parking area expansion and associated site improvements located at 1425 Washington Street, Parcel Number 13-22-101.000

A request has been submitted by Matthew R. Morgia of Aubertine and Currier, PLLC, on behalf of the Sisters of St. Joseph for the above subject site plan approval.

The City Planning Board reviewed the request on August 2, 2016, and voted to recommend that the City Council approve the site plan subject to the eight conditions listed in the resolution. Attached is an excerpt from their meeting minutes as well as the most updated set of site plan drawings.

The Staff Report prepared for the Planning Board, the Site Plan application, all previous drawings and other related materials have all been previously sent to Council as part of the Planning Board agenda package. The complete application package can also be found in the online version of the City Council agenda.

The applicant has completed Part 1 of the Short Environmental Assessment Form (EAF), which is attached for Council review. Based on the applicant's answers in Part 1, the applicant was required to provide letters from the State Historic Preservation Office (SHPO) and Department of Environmental Conservation (DEC) that determine whether or not the proposed project has the potential to affect any archeological resources or endangered species. The applicant has provided the attached letters as required to aid the Council in completing Part 2 of the Short EAF.

The City Council must respond to the questions in Part 2 of the Short EAF before it may vote on the resolution. The resolution prepared for City Council consideration states that the project will not have a significant negative impact on the environment and approves the revised site plan submitted to the City Engineering Department on August 2, 2016, subject to the conditions recommended by the Planning Board.

Resolution No. 5

August 15, 2016

RESOLUTION

Approving the Site Plan for the construction of a 2,730 square-foot addition, a 20-foot wide emergency access drive, a 7,950 square-foot parking area expansion and associated improvements located at 1425 Washington Street, Parcel Number 13-22-101.000

	YEA	NAY
Council Member HORBACZ, Cody J.		
Council Member JENNINGS, Stephen A.		
Council Member MACALUSO, Teresa R.		
Council Member WALCZYK, Mark C.		
Mayor BUTLER, Jr., Joseph M.		
Total		

Introduced by

_____

WHEREAS Matthew R. Morgia of Aubertine and Currier, PLLC, on behalf of the Sisters of St. Joseph, has submitted an application for Site Plan Approval for the construction of a 2,730 square-foot infirmary addition, a 633-foot long, 20-foot wide emergency access drive, a 7,950 square-foot parking area expansion and associated site improvements located at 1425 Washington Street, Parcel Number 13-22-101.000, and

WHEREAS the Planning Board of the City of Watertown reviewed the site plan at its meeting held on August 2, 2016, and voted to recommend that the City Council of the City of Watertown approve the site plan with the following conditions:

1. The applicant must provide sufficient access to water at the rear of the site for the Fire Department to fight a fire in the proposed addition.

2. The applicant must coordinate with the Fire Department regarding necessity of and locations for Knox Boxes.

3. The entire site must meet all requirements of the International Building Code that New York State recently adopted.

4. The applicant shall provide a letter from the New York State Department of Environmental Conservation that determines whether the proposed project has the potential to affect any endangered species or their habitats.

5. The applicant shall prepare a Stormwater Pollution Prevention Plan (SWPPP) and submit it to the City.

RESOLUTION

Approving the Site Plan for the construction of a 2,730 square-foot addition, a 20-foot wide emergency access drive, a 7,950 square-foot parking area expansion and associated improvements located at 1425 Washington Street, Parcel Number 13-22-101.000

	YEA	NAY
Council Member HORBACZ, Cody J.		
Council Member JENNINGS, Stephen A.		
Council Member MACALUSO, Teresa R.		
Council Member WALCZYK, Mark C.		
Mayor BUTLER, Jr., Joseph M.		
Total		

6. The applicant shall submit a Notice of Intent (NOI) to the NYS Department of Environmental Conservation (DEC) and forward all correspondence between the applicant and the DEC to the City Engineering Department.

7. The applicant shall provide an original plan set and engineering report stamped by a licensed Professional Engineer.

8. The applicant must obtain a Building Permit prior to demolition and construction.

And,

WHEREAS the City Council has reviewed the Short Environmental Assessment Form, responding to each of the questions contained in Part 2, and has determined that the project, as submitted, is an Unlisted Action and will not have a significant impact on the environment,

NOW THEREFORE BE IT RESOLVED that the City Council of the City of Watertown declares that the proposed construction and site plan constitute an Unlisted Action for the purposes of SEQRA and hereby determines that the project, as proposed, will not have a significant impact on the environment, and

BE IT FURTHER RESOLVED that it is an express condition of this Site Plan Approval that the applicant provide the City Engineer with a copy of any change in stamped plans forming the basis for this approval at the same time such plans are provided to the contractor. If plans are not provided as required by this condition of site plan approval, the City Code Enforcement Officer shall direct that work on the project site shall immediately cease until such time as the City Engineer is provided with the revised stamped plans. Additionally, any change in the approved plan, which, in the opinion of the City Engineer, would require Amended Site Plan Approval, will result in immediate cessation of the affected portion of the project work until such time as the amended site plan is approved. The City Code Enforcement Officer is requested to periodically review on-site plans to determine whether the City Engineer has been provided with plans as required by this approval, and

RESOLUTION

Approving the Site Plan for the construction of a 2,730 square-foot addition, a 20-foot wide emergency access drive, a 7,950 square-foot parking area expansion and associated improvements located at 1425 Washington Street, Parcel Number 13-22-101.000

	YEA	NAY
Council Member HORBACZ, Cody J.		
Council Member JENNINGS, Stephen A.		
Council Member MACALUSO, Teresa R.		
Council Member WALCZYK, Mark C.		
Mayor BUTLER, Jr., Joseph M.		
Total		

BE IT FURTHER RESOLVED by the City Council of the City of Watertown that Site Plan Approval is hereby granted to Matthew R. Morgia of Aubertine and Currier, PLLC and the Sisters of St. Joseph for the construction of a 2,730 square-foot infirmary addition, a 633-foot long, 20-foot wide emergency access drive, a 7,950 square-foot parking area expansion and associated site improvements located at 1425 Washington Street, Parcel Number 13-22-101.000 as depicted on the revised site plan submitted to the City Engineer on August 2, 2016, contingent upon the applicant meeting the conditions listed above.

Seconded by:

NEW YORK STATE OF OPPORTUNITY.

Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

July 27, 2016

Mr. Christopher Todd
Civil Design Engineer
Aubertine & Currier, PLLC
522 Bradley Street
Watertown, NY 13601

Re: SEQRA
Sisters of St Joseph Building Addition Project
1425 Washington Street, City of Watertown, Jefferson County, NY 13601
16PR05188

Dear Mr. Todd:

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the project in accordance with the New York State Historic Preservation Act of 1980 (Section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the OPRHP and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6 NYCRR Part 617).

Based upon this review, it is the New York State Office of Parks, Recreation and Historic Preservation's opinion that your project will have no impact on archaeological and/or historic resources listed in or eligible for the New York State and National Registers of Historic Places.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

Ruth L. Pierpont

Ruth L. Pierpont

Deputy Commissioner for Historic Preservation

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Permits, Region 6
Dulles State Office Building, 317 Washington Street, Watertown, NY 13601-3787
P: (315) 785-2245 | F: (315) 785-2242
www.dec.ny.gov

August 3, 2016

Christopher W. Todd
Aubertine and Currier
522 Bradley Street
Watertown, NY 13601

Re: Threatened and Endangered Species Review
Sisters of Saint Joseph (A&C Proj. #2014-131.002)
1425 Washington Street, Watertown NY

Dear Mr. Todd:

We received your letter dated August 1st 2016 regarding the building additions, access drive construction, and renovations at the Sisters of Saint Joseph facility, 1425 Washington Street, Watertown. Your letter requested information about threatened and endangered species, and other DEC environmental interests at the project site. We reviewed our environmental databases for this location, and offer the following comments:

The endangered Indiana bat (*Myotis sodalist*) and threatened northern long-eared bat (*Myotis septentrionalis)* potentially use the forested land on the Sisters of Saint Joseph parcel as habitat. To limit the disturbance to the Indiana bat and northern long-eared bat, we recommend that the tree removal required for this project take place between November 1st and March 31st, when the endangered and threatened bats are generally in their winter hibernacula. Furthermore, we encourage the use of downward-facing area lights with full cut-offs to limit spill light, and directing the lighting away from the forested areas to limit the incidental impact of the project on these species.

There are no DEC regulated freshwater wetlands, streams, or other waterbodies on this parcel. The location is mapped as a site of archeological sensitivity. You may wish to contact the New York State Office of Parks, Recreation and Historic Preservation for more information.

Coverage under the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activities will be required if the project results in a disturbance of a total of one acre or more of soil.

Our databases are continuously being updated and amended. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

Thank you for contacting us regarding this matter. Please do not hesitate to contact me if you have any questions.

Sincerely,

Ben Shubert
Environmental Analyst
benjamin.shubert@dec.ny.gov

SITE PLAN APPROVAL
1425 WASHINGTON STREET – PARCEL NUMBER 13-22-101.000

The Planning Board then considered a request submitted by Matthew R. Morgia, P.E. of Aubertine and Currier, PLLC on behalf of the Sisters of Saint Joseph for the construction of a 2,730 square-foot infirmary addition, a 633 foot-long, 20-foot wide emergency access drive and associated site improvements located at 1425 Washington Street, Parcel Number 13-22-101.000.

Mr. Morgia and Sister Mary Eamon were in attendance to represent the project.

Mr. Morgia began by saying that his team had received Staff's initial review comments and had prepared some draft responses. He then distributed written copies of the draft responses, and copies of a revised site plan, to the Planning Board and to Staff.

Mr. Morgia then said that the Sisters of St. Joseph were planning some renovations to the infirmary part of their building. He noted that with the proposed dimensions, City Code would require emergency access to the rear of the building and therefore the site plan depicted an emergency access drive around the north side of the building. He then pointed out proposed lighting on the site plan along that access drive.

Mr. Morgia then addressed water service needs. He said that the existing building was un-sprinklered at this time, and added that the proposed addition needed to be sprinklered. He said that the existing water system on Washington Street consisted of a 12-inch main on the opposite side of the street and a six-inch main on the near side of the street.

Mr. Morgia then said that he would like to begin discussing the summary items if that was all right with the Planning Board. Mr. Coburn agreed, and Mr. Morgia addressed the first summary item, which required the applicant to meet the parking requirement in the Zoning Ordinance and provide 58 parking spaces, rather than the originally proposed 42.

Mr. Morgia said that the existing building and proposed addition would result in 72 rooms, although planned interior renovations would reduce that number in the future. He said that rather than seek a variance to reduce the parking requirement, which would have taken too much time, his team had revised the site plan to provide 58 parking spaces, which he then pointed out in various places on the site plan.

Mr. Katzman then said that just because the convent had so many rooms, that did not mean that an equivalent number of occupants owned cars. Mr. Morgia replied that the facility was greatly underutilized as far as beds went, and said that even though there were 72 rooms, only 48 people lived there, and that Sister Mary Eamon told him that half of them do not drive. Mr. Morgia then said that the requirement was what it was, however.

Mr. Morgia said that planned interior renovations would aim to reduce the facility to 50 rooms. He then said that the convent realistically would not need more parking, but that the project could not spare two months to seek a variance. He then said that the required parking

expansion would likely end up as snow storage in the winter, and added that occasionally, the Sisters of St. Joseph's have used the lawn as overflow parking for special events in the past, so the added parking would have some utility.

Mr. Morgia then addressed the second summary item, which required that each accessible parking space have an adjacent eight-foot wide loading zone, in accordance with New York State Building Code. Mr. Morgia then pointed out reconfigured accessible spaces on the site plan that met this requirement.

Mr. Morgia then addressed the third summary item, which required the applicant to submit a Vehicle and Pedestrian Circulation Plan that depicts the movements of a City fire truck through the site. Mr. Morgia then said that he had created the plan and given it to Mr. Wood earlier during the Planning Board meeting.

Mr. Morgia then addressed the fourth summary item, which required the applicant to provide sufficient access to water at the rear of the site for the Fire Department to fight a fire in the proposed addition. Mr. Morgia said that his team would provide a new water line, with fire hydrants in the front and the rear of the building. He then said that this fire line would also feed a new sprinkler system in the proposed addition.

Mr. Morgia then addressed the fifth summary item, which required the applicant to investigate the necessity of, and potential locations for, Knox Boxes. Mr. Morgia said that his team would coordinate with the City Code Enforcement Bureau on this.

Mr. Morgia then addressed the sixth summary item, which required that the entire site meet all requirements of the International Building Code that New York State recently adopted. Mr. Morgia said that all architectural plans would meet IBC requirements.

Mr. Morgia then addressed the seventh summary item, which required the applicant to provide letters from SHPO and the DEC that determine any respective potential impacts to historic resources and/or endangered species. Mr. Morgia said that he had received a letter from SHPO and given a copy to Mr. Wood, but that he had not yet received a response from the DEC.

Mr. Morgia then addressed the eighth summary item, which required the applicant to prepare a SWPPP and submit it to the City. Mr. Morgia acknowledged that the project involved the disturbance of greater than an acre, and said that his team would prepare and submit a SWPPP.

Mr. Morgia then addressed the ninth summary item, which required the applicant to prepare an NOI and submit it to the DEC. Mr. Morgia said that his team would submit an NOI and forward all correspondence with the DEC to the City.

Mr. Morgia then addressed the tenth summary item, which required the applicant to provide an original plan set and engineering report stamped by a licensed Professional

Engineer. Mr. Morgia said that he would submit a stamped set to the City once his team finished making the modifications that the summary items necessitated.

Mr. Morgia then addressed the eleventh and final summary item, which stated that the applicant would need to obtain a building permit prior to construction. Mr. Morgia said that he would obtain the necessary permit.

Ms. Fields then asked if this project would have any impact on the animal hospital next door, which was just beginning work on an expansion of its own. Mr. Morgia replied that it should not affect the animal hospital. He said that he did the design for the animal hospital and their improvements were on the opposite side of their lot from the convent. He then said that the Sisters of St. Joseph would approach the animal hospital with a courtesy update, just as the animal hospital had done when they planned their own expansion.

Ms. Fields then moved to recommend that the City Council approve the request for Site Plan Approval submitted by Matthew R. Morgia, P.E. of Aubertine and Currier, PLLC on behalf of the Sisters of Saint Joseph for the construction of a 2,730 square-foot infirmary addition, a 633 foot-long, 20-foot wide emergency access drive and associated site improvements located at 1425 Washington Street, Parcel Number 13-22-101.000, as shown on the plans submitted to the City Engineering Department on August 2, 2016, contingent upon the following:

1. The applicant must provide sufficient access to water at the rear of the site for the Fire Department to fight a fire in the proposed addition.

2. The applicant must coordinate with the Fire Department regarding necessity of and locations for Knox Boxes.

3. The entire site must meet all requirements of the International Building Code that New York State recently adopted.

4. The applicant shall provide a letter from the New York State Department of Environmental Conservation that determines whether the proposed project has the potential to affect any endangered species or their habitats.

5. The applicant shall prepare a Stormwater Pollution Prevention Plan (SWPPP) and submit it to the City.

6. The applicant shall submit a Notice of Intent (NOI) to the NYS Department of Environmental Conservation (DEC) and forward all correspondence between the applicant and the DEC to the City Engineering Department.

7. The applicant shall provide an original plan set and engineering report stamped by a licensed Professional Engineer.

8. The applicant must obtain a Building Permit prior to demolition and construction.

Mr. Rowell seconded the motion and all voted in favor.

Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

Part 1 - Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 - Project and Sponsor Information

Project: Access Drive and Infirmary Addition Sponsor: Sisters of Saint Joseph

Name of Action or Project:
Access Drive and Infirmary Addition and Renovation

Project Location (describe, and attach a location map):
1425 Washington Street, Watertown, NY

Brief Description of Proposed Action:
The project consists of a 2,730 sf Infirmary Addition to the south side of the Sisters of Saint Joseph Motherhouse and a 633' long, 20' wide emergency access drive. Other project components include a 3,300 sf renovation of existing assisted living space to modernize the Motherhouse's infirmary. Miscellaneous site improvements include concrete walks, site stairs, drainage, and site lighting.

Name of Applicant or Sponsor:	Telephone: (315) 782-3460
Sisters of Saint Joseph	E-Mail: ssjmsup1@yahoo.com

Address:
1425 Washington Street

City/PO:	State:	Zip Code:
Watertown	NY	13601

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other governmental Agency? If Yes, list agency(s) name and permit or approval: City of Watertown Planning Board - Site Plan Approval	☐	☑

3.a. Total acreage of the site of the proposed action? 14.90 acres
b. Total acreage to be physically disturbed? 1.14 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 14.90 acres

4. Check all land uses that occur on, adjoining and near the proposed action.
☑ Urban ☐ Rural (non-agriculture) ☐ Industrial ☑ Commercial ☑ Residential (suburban)
☐ Forest ☐ Agriculture ☐ Aquatic ☑ Other (specify): Undeveloped Wooded Area
☐ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☐	☑	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area? If Yes, identify: _____	☑	☐
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☑	☐
b. Are public transportation service(s) available at or near the site of the proposed action?	☐	☑
c. Are any pedestrian accommodations or bicycle routes available on or near site of the proposed action?	☐	☑
9. Does the proposed action meet or exceed the state energy code requirements? If the proposed action will exceed requirements, describe design features and technologies: _____	☐	☑
10. Will the proposed action connect to an existing public/private water supply? If No, describe method for providing potable water: _____	☐	☑
11. Will the proposed action connect to existing wastewater utilities? If No, describe method for providing wastewater treatment: _____	☐	☑
12. a. Does the site contain a structure that is listed on either the State or National Register of Historic Places?	☑	☐
b. Is the proposed action located in an archeological sensitive area?	☐	☑
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☑	☐
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody? If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____	☑	☐

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:
☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☑ Early mid-successional
☐ Wetland ☑ Urban ☐ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☐	☑
16. Is the project site located in the 100 year flood plain?	☑	☐
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes,	☐	☑
a. Will storm water discharges flow to adjacent properties? ☐ NO ☑ YES		
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? If Yes, briefly describe: ☐ NO ☑ YES		

Site Stormwater runoff will continue to discharge similar to existing conditions. Stormwater discharges flow into City's municipal storm sewer at catch basin located along Iroquois Avenue East.

	NO	YES
18. Does the proposed action include construction or other activities that result in the impoundment of water or other liquids (e.g. retention pond, waste lagoon, dam)? If Yes, explain purpose and size:	☑	☐
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe:	☑	☐
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe:	☑	☐

I AFFIRM THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor name: Sisters of Saint Joseph; Sister Mary Eamon Date: 07/19/2016

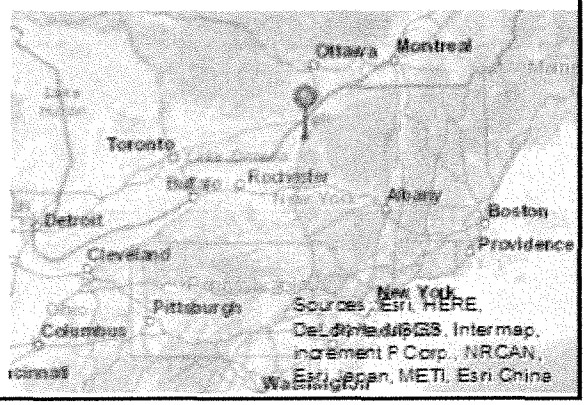
Signature: Sister of St. Joseph's Sister Mary Eamon Lipp

PRINT FORM

EAF Mapper Summary Report

Sunday, July 10, 2016 5:17 PM

Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National Register of Historic Places]	No
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	No
Part 1 / Question 15 [Threatened or Endangered Animal]	Yes
Part 1 / Question 16 [100 Year Flood Plain]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
Part 1 / Question 20 [Remediation Site]	No

SHORT EAF SUMMARY REPORT:

Questions 12b and 15 are answered automatically by the EAF mapper based upon limited digital mapping information that is available.

- Questions 12b, Archeological Sites, is answered yes due to the project being located within an archaeological sensitive area. A submission has been made to the Cultural Resource Information System for further information from SHPO.

- Question 15, Threatened or Endangered Species, is answered yes due to the listed presence of multiple rare endangered or threatened plants near the project site as listed on the NYS DEC environmental mapper database. A letter has been sent to the DEC requesting further information.

AUBERTINE and CURRIER
ARCHITECTS, ENGINEERS & LAND SURVEYORS, PLLC

NYS WBE/DBE Certified
SBA Woman Owned
Small Business (WOSB)

aubertinecurrier.com

522 Bradley Street
Watertown, New York 13601

Phone: 315.782.2005
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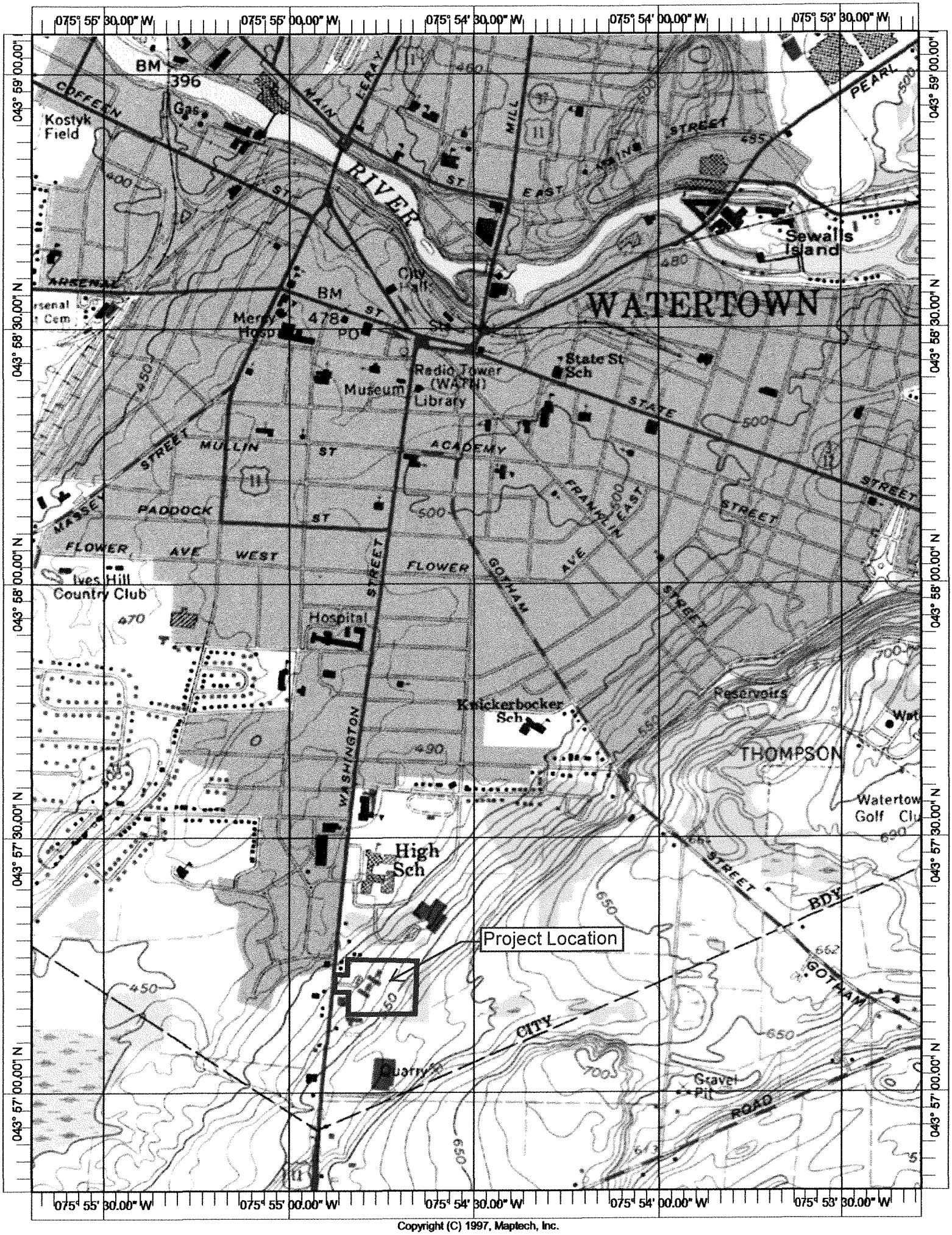
Architect

Patrick J. Currier, R.A.
Architect

Brian A. Jones, AIA.,
LEED AP BD+C
Architect

Matthew R. Morgia, P.E.
Civil Engineer

Jayson J. Jones, P.L.S.
Land Surveyor



Agency Use Only [If applicable]

Project:	
Date:	

Short Environmental Assessment Form
Part 2 - Impact Assessment

Part 2 is to be completed by the Lead Agency.
Answer all of the following questions in Part 2 using the information contained in Part 1 and other materials submitted by the project sponsor or otherwise available to the reviewer. When answering the questions the reviewer should be guided by the concept "Have my responses been reasonable considering the scale and context of the proposed action?"

	No, or small impact may occur	Moderate to large impact may occur
1. Will the proposed action create a material conflict with an adopted land use plan or zoning regulations?	☐	☐
2. Will the proposed action result in a change in the use or intensity of use of land?	☐	☐
3. Will the proposed action impair the character or quality of the existing community?	☐	☐
4. Will the proposed action have an impact on the environmental characteristics that caused the establishment of a Critical Environmental Area (CEA)?	☐	☐
5. Will the proposed action result in an adverse change in the existing level of traffic or affect existing infrastructure for mass transit, biking or walkway?	☐	☐
6. Will the proposed action cause an increase in the use of energy and it fails to incorporate reasonably available energy conservation or renewable energy opportunities?	☐	☐
7. Will the proposed action impact existing: a. public / private water supplies?	☐	☐
b. public / private wastewater treatment utilities?	☐	☐
8. Will the proposed action impair the character or quality of important historic, archaeological, architectural or aesthetic resources?	☐	☐
9. Will the proposed action result in an adverse change to natural resources (e.g., wetlands, waterbodies, groundwater, air quality, flora and fauna)?	☐	☐
10. Will the proposed action result in an increase in the potential for erosion, flooding or drainage problems?	☐	☐
11. Will the proposed action create a hazard to environmental resources or human health?	☐	☐

PRINT FORM

Agency Use Only [If applicable]	
Project:	
Date:	

Short Environmental Assessment Form
Part 3 Determination of Significance

For every question in Part 2 that was answered "moderate to large impact may occur", or if there is a need to explain why a particular element of the proposed action may or will not result in a significant adverse environmental impact, please complete Part 3. Part 3 should, in sufficient detail, identify the impact, including any measures or design elements that have been included by the project sponsor to avoid or reduce impacts. Part 3 should also explain how the lead agency determined that the impact may or will not be significant. Each potential impact should be assessed considering its setting, probability of occurring, duration, irreversibility, geographic scope and magnitude. Also consider the potential for short-term, long-term and cumulative impacts.

☐ Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action may result in one or more potentially large or significant adverse impacts and an environmental impact statement is required.

☐ Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action will not result in any significant adverse environmental impacts.

Name of Lead Agency	Date
Print or Type Name of Responsible Officer in Lead Agency	Title of Responsible Officer
Signature of Responsible Officer in Lead Agency	Signature of Preparer (if different from Responsible Officer)

PRINT FORM

July 19, 2016

City of Watertown
Attn: Justin Wood, City Engineer
Room 305, City Hall
245 Washington Street
Watertown, NY 13601

Re: **Site Plan Review Application**
Access Drive and Infirmary Addition and Renovation
Sisters of Saint Joseph (A&C Proj. #2014-131.002)
1425 Washington Street, Watertown, NY

Dear Mr. Wood:

Aubertine and Currier Architects, Engineers & Land Surveyors, PLLC on behalf of the Sisters of Saint Joseph is requesting to be included on the agenda for the August 2, 2016 City of Watertown Planning Board meeting for a proposed Access Drive, 2,730 sf Infirmary Addition and Renovation located at 1425 Washington Street, on Tax Parcel 13-22-101.000. Included with this submission is sixteen (16) copies of the Cover Letter, Site Plan Application, Short SEQR Environmental Assessment Form, and three (3) copies of the Engineering Report. Also attached are three (3) full size and thirteen (13) 11"x17" copies of the Site Plans and Details, and Preliminary Architectural Plans. A check for $50.00 is also included for the review fee.

The project consists of a 2,730 sf Infirmary Addition to the south side of the Sisters of Saint Joseph Motherhouse and a 633' long, 20' wide emergency access drive. Other project components include a 3,300 sf renovation of existing assisted living space to modernize the Motherhouse's infirmary. Miscellaneous site improvements include concrete walks, site stairs, drainage, and site lighting.

The Sisters of Saint Joseph intend to begin construction of the access drive this summer/fall and the infirmary addition/renovation in 2017. If there are any questions, please feel free to contact our office at your earliest convenience.

Sincerely,
Aubertine and Currier Architects, Engineers & Land Surveyors, PLLC

Matthew R. Morgia, P.E.
Civil Engineer

Attachments
Cc: Sister Mary Eamon – Sisters of Saint Joseph
Pat Currier – Aubertine & Currier

AUBERTINE and CURRIER
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Managing Partner
Annette M. Mason, P.E.
Structural Engineer
Partners
Michael L. Aubertine, R.A.
Architect
Patrick J. Currier, R.A.
Architect
Brian A. Jones, AIA.,
LEED AP BD+C
Architect
Matthew R. Morgia, P.E.
Civil Engineer
Jayson J. Jones, P.L.S.
Land Surveyor

CITY OF WATERTOWN
SITE PLAN APPLICATION

** Provide responses for all sections. INCOMPLETE APPLICATIONS WILL NOT BE PROCESSED. Failure to submit required information by the submittal deadline will result in **not** making the agenda for the upcoming Planning Board meeting.

PROPERTY LOCATION

Proposed Project Name: Sisters of Saint Joseph Building Renovation & Addition

Tax Parcel Number: 13-22-101.000

Property Address: 1425 Washington Street, Watertown NY 13601

Existing Zoning Classification: Residence B

OWNER OF PROPERTY

Name: Sisters of Saint Joseph

Address: 1425 Washington Street
Watertown, NY 13601

Telephone Number: 315-782-3460

Fax Number: --

APPLICANT

Name: Sisters of Saint Joseph

Address: 1425 Washington Street
Watertown, NY 13601

Telephone Number: 315-782-3460

Fax Number: --

Email Address: ssjmsup1@yahoo.com

ENGINEER/ARCHITECT/SURVEYOR

Name: Aubertine and Currier, PLLC

Address: 522 Bradley Street
Watertown, NY 13601

Telephone Number: 315-782-2005

Fax Number: 315-782-1472

Email Address: mrm@aubertinecurrier.com

OPTIONAL MATERIALS:

☐ **PROVIDE AN ELECTRONIC (.DWG) COPY OF THE SITE PLAN WITH AS-BUILT REVISIONS. This will assist the City in keeping our GIS mapping up-to-date.**

REQUIRED MATERIALS:

** The following drawings with the listed information **ARE REQUIRED, NOT OPTIONAL.** If the required information is not included and/or addressed, the Site Plan Application will **not** be processed**.**

☒ **COMPLETED ENVIRONMENTAL ASSESSMENT FORM** (Contact us if you need help choosing between the Short EAF and the Full EAF). The Complete EAF is available online at: http://www.dec.ny.gov/permits/6191.html

☒ **ELECTRONIC COPY OF ENTIRE SUBMISSION** (PDF) A single, combined PDF of the entire application, including cover letter, plans, reports, and all submitted material.

☒ **BOUNDARY and TOPOGRAPHIC SURVEY**
(Depict existing features as of the date of the Site Plan Application. This Survey and Map must be performed and created by a Professional Land Surveyor licensed and currently registered to practice in the State of New York. This Survey and Map must be stamped and signed with an original seal and signature on at least one copy, the rest may be copies thereof.

- ☒ All elevations are National Geodetic Vertical Datum of 1929 (NGVD29).
- ☒ 1' contours are shown and labeled with appropriate spot elevations.
- ☒ All existing features on and within 50 feet of the subject property are shown and labeled.
- ☒ All existing utilities on and within 50 feet of the subject property are shown and labeled.
- ☒ All existing easements and/or right-of-ways are shown and labeled.
- ☒ Existing property lines (bearings and distances), margins, acreage, zoning, existing land use, reputed owner, adjacent reputed owners and tax parcel numbers are shown and labeled.
- ☒ The north arrow and graphic scale are shown.

☒ **DEMOLITION PLAN** (If Applicable)

☒ All existing features on and within 50 feet of the subject property are shown and labeled.

☒ All items to be removed are labeled in darker text.

☒ **SITE PLAN**

☒ Include a reference to the coordinate system used(NYS NAD83-CF preferred).

☒ All proposed above ground features are depicted and clearly labeled.

☒ All proposed features are clearly labeled "proposed".

N/A ☐ All proposed easements and right-of-ways are shown and labeled.

☒ Land use, zoning, and tax parcel number are shown.

☒ The Plan is adequately dimensioned including radii.

☒ The line work and text for all proposed features is shown darker than existing features.

☒ All vehicular and pedestrian traffic circulation is shown including a delivery or refuse vehicle entering and exiting the property.

☒ Proposed parking and loading spaces including ADA accessible spaces are shown and labeled.

N/A ☐ Sidewalks within the City Right-of-Way meet Public-Right-of-Way (PROWAG) standards.

N/A ☐ Refuse Enclosure Area (Dumpster), if applicable, is shown. Section 161-19.1 of the Zoning Ordinance states, "No refuse vehicle or refuse container shall be parked or placed within 15 feet of a party line without the written consent of the adjoining owner, if the owner occupies any part of the adjoining property".

☒ Proposed snow storage areas are shown on the plans.

☒ The north arrow and graphic scale are shown.

☒ **GRADING PLAN**

☒ All proposed below ground features including elevations and inverts are shown and labeled.

☒ All proposed above ground features are shown and labeled.

☒ The line work and text for all proposed features is shown darker than existing features.

N/A ☐ All proposed easements and right-of-ways are shown and labeled.

☒ 1' existing contours are shown dashed and labeled with appropriate spot elevations.

☒ 1' proposed contours are shown and labeled with appropriate spot elevations.

☒ All elevations are North American Vertical Datum of 1988 (NAVD88).

☐ Sediment and Erosion control are shown and labeled on the grading plan unless separate drawings have been provided as part of a Stormwater Pollution Prevention Plan (SWPPP).

☒ **UTILITY PLAN**

☒ All proposed above and below ground features are shown and labeled.

☒ All existing above and below ground utilities including sanitary, storm water, water, electric, gas, telephone, cable, fiber optic, etc. are shown and labeled.

N/A ☐ All proposed easements and right-of-ways are shown and labeled.

☒ The Plan is adequately dimensioned including radii.

☒ The line work and text for all proposed features is shown darker than existing features.

☒ The following note has been added to the drawings stating, "All water main and service work must be coordinated with the City of Watertown Water Department. The Water Department requirements supersede all other plans and specifications provided."

N/A ☐ **LANDSCAPING PLAN**

☐ All proposed above ground features are shown and labeled.

☐ All proposed trees, shrubs, and other plantings are shown and labeled.

☐ All proposed landscaping and text are shown darker than existing features.

☐ All proposed landscaping is clearly depicted, labeled and keyed to a plant schedule that includes the scientific name, common name, size, quantity, etc.

☐ For additional landscaping requirements where nonresidential districts and land uses abut land in any residential district, please refer to Section 310-59, Landscaping of the City's Zoning Ordinance.

☐ **Site Plan complies with and meets acceptable guidelines set forth in Appendix A - Landscaping and Buffer Zone Guidelines (August 7, 2007).**

☒ **PHOTOMETRIC PLAN** (If Applicable)

☒ All proposed above ground features are shown.

☒ Photometric spot elevations or labeled photometric contours of the property are clearly depicted. Light spillage across all property lines shall not exceed 0.5 foot-candles.

☒ **CONSTRUCTION DETAILS and NOTES**

☒ All details and notes necessary to adequately complete the project including, but not limited to, landscaping, curbing, catch basins, manholes, water line, pavement, sidewalks, trench, lighting, trash enclosure, etc. are provided.

N/A ☐ Maintenance and protection and traffic plans and notes for all required work within City streets including driveways, water laterals, sanitary laterals, storm connections, etc. are provided.

☒ The following note must be added to the drawings stating:
"All work to be performed within the City of Watertown margin will require sign-off from a Professional Engineer, licensed and currently registered to practice in the State of New York, that the work was built according to the approved site plan and applicable City of Watertown standards. Compaction testing will be required for all work to be performed within the City of Watertown margin and must be submitted to the City of Watertown Codes Department."

☒ **PRELIMINARY ARCHITECTUAL PLANS** (If Applicable)

☒ Floor plan drawings, including finished floor elevations, for all buildings to be constructed are provided.

☐ Exterior elevations including exterior materials and colors for all buildings to be constructed are provided.

☐ Roof outline depicting shape, slope and direction is provided.

☒ **ENGINEERING REPORT**

**** The engineering report at a minimum includes the following:**

☒ Project location

☒ Project description

☒ Existing and proposed sanitary sewer flows and summary

☒ Water flows and pressure

☒ Storm Water Pre and Post Construction calculations and summary

☒ Traffic impacts

☒ Lighting summary

☒ Landscaping summary

☒ **GENERAL INFORMATION**

**Plans will be signed for Final Submission

☐ ALL ITEMS ARE STAMPED AND SIGNED WITH AN ORIGINAL SIGNATURE BY A PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR SURVEYOR LICENSED AND CURRENTLY REGISTERED TO PRACTICE IN THE STATE OF NEW YORK.

☐ If required, a copy of the Stormwater Pollution Prevention Plan (SWPPP) submitted to the NYSDEC will also be sent to the City of Watertown Engineering Department.

N/A ☐ ****** If required, a copy of all submittals sent to the New York State Department of Environmental Conservation (NYSDEC) for the sanitary sewer extension permit will also be sent to the City of Watertown Engineering Department.

N/A ☐ ****** If required, a copy of all submittals sent to the New York State Department of Health (NYSDOH) will also be sent to the City of Watertown Engineering Department.

****** When NYSDEC or NYSDOH permitting is required, the property owner/applicant shall retain a licensed Professional Engineer to perform inspections of the proposed utility work and to certify the completed works were constructed in substantial conformance with the approved plans and specifications.

N/A ☐ Signage will not be approved as part of this submission. It requires a sign permit from the City Code Enforcement Bureau. See Section 310-52.2 of the Zoning Ordinance.

☒ Plans have been collated and properly folded.

N/A ☐ If an applicant proposes a site plan with multiple buildings and any of those buildings front on a private drive, the City Council will name the private drive by resolution and the building(s) will be given an address number on that private drive by City staff. The applicant may propose a name for the private drive for the City Council's consideration.

Proposed Street Name: _____

N/A ☐ For non-residential uses, the proposed Hours of Operation shall be indicated.

☒ Signature Authorization form or letter signed by the owner is submitted allowing the applicant to apply on behalf of the owner if the applicant is not the property owner.

☐ Explanation for any item not checked in the Site Plan Checklist.

_____

_____

_____

_____

_____

Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

Part 1 - Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 - Project and Sponsor Information

Project: Access Drive and Infirmary Addition Sponsor: Sisters of Saint Joseph

Name of Action or Project:

Access Drive and Infirmary Addition and Renovation

Project Location (describe, and attach a location map):

1425 Washington Street, Watertown, NY

Brief Description of Proposed Action:

The project consists of a 2,730 sf Infirmary Addition to the south side of the Sisters of Saint Joseph Motherhouse and a 633' long, 20' wide emergency access drive. Other project components include a 3,300 sf renovation of existing assisted living space to modernize the Motherhouse's infirmary. Miscellaneous site improvements include concrete walks, site stairs, drainage, and site lighting.

Name of Applicant or Sponsor:	Telephone: (315) 782-3460
Sisters of Saint Joseph	E-Mail: ssjmsup1@yahoo.com

Address:

1425 Washington Street

City/PO:	State:	Zip Code:
Watertown	NY	13601

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other governmental Agency? If Yes, list agency(s) name and permit or approval: City of Watertown Planning Board - Site Plan Approval	☐	☑

3.a. Total acreage of the site of the proposed action? 14.90 acres

b. Total acreage to be physically disturbed? 1.14 acres

c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 14.90 acres

4. Check all land uses that occur on, adjoining and near the proposed action.

☑ Urban ☐ Rural (non-agriculture) ☐ Industrial ☑ Commercial ☑ Residential (suburban)

☐ Forest ☐ Agriculture ☐ Aquatic ☑ Other (specify): Undeveloped Wooded Area

☐ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☐	☑	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area? If Yes, identify: _____	☑	☐
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☑	☐
b. Are public transportation service(s) available at or near the site of the proposed action?	☐	☑
c. Are any pedestrian accommodations or bicycle routes available on or near site of the proposed action?	☐	☑
9. Does the proposed action meet or exceed the state energy code requirements? If the proposed action will exceed requirements, describe design features and technologies: _____	☐	☑
10. Will the proposed action connect to an existing public/private water supply? If No, describe method for providing potable water: _____	☐	☑
11. Will the proposed action connect to existing wastewater utilities? If No, describe method for providing wastewater treatment: _____	☐	☑
12. a. Does the site contain a structure that is listed on either the State or National Register of Historic Places?	☑	☐
b. Is the proposed action located in an archeological sensitive area?	☐	☑
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☑	☐
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody? If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____	☑	☐

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☑ Early mid-successional
☐ Wetland ☑ Urban ☐ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☐	☑
16. Is the project site located in the 100 year flood plain?	☑	☐
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes, a. Will storm water discharges flow to adjacent properties? ☐ NO ☑ YES	☐	☑

b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? If Yes, briefly describe: ☐ NO ☑ YES

Site Stormwater runoff will continue to discharge similar to existing conditions. Stormwater discharges flow into City's municipal storm sewer at catch basin located along Iroquois Avenue East.

	NO	YES
18. Does the proposed action include construction or other activities that result in the impoundment of water or other liquids (e.g. retention pond, waste lagoon, dam)? If Yes, explain purpose and size: _____	☑	☐
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe: _____	☑	☐
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe: _____	☑	☐

I AFFIRM THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor name: Sisters of Saint Joseph; Sister Mary Eamon Date: 07/19/2016

Signature: Sister of St. Joseph; Sister Mary Eamon Lynn

PRINT FORM

Agency Use Only [If applicable]

Project:	
Date:	

Short Environmental Assessment Form
Part 2 - Impact Assessment

Part 2 is to be completed by the Lead Agency.
Answer all of the following questions in Part 2 using the information contained in Part 1 and other materials submitted by the project sponsor or otherwise available to the reviewer. When answering the questions the reviewer should be guided by the concept "Have my responses been reasonable considering the scale and context of the proposed action?"

	No, or small impact may occur	**Moderate to large impact may occur**
1. Will the proposed action create a material conflict with an adopted land use plan or zoning regulations?		
2. Will the proposed action result in a change in the use or intensity of use of land?		
3. Will the proposed action impair the character or quality of the existing community?		
4. Will the proposed action have an impact on the environmental characteristics that caused the establishment of a Critical Environmental Area (CEA)?		
5. Will the proposed action result in an adverse change in the existing level of traffic or affect existing infrastructure for mass transit, biking or walkway?		
6. Will the proposed action cause an increase in the use of energy and it fails to incorporate reasonably available energy conservation or renewable energy opportunities?	☐	☐
7. Will the proposed action impact existing: a. public / private water supplies?		
b. public / private wastewater treatment utilities?		
8. Will the proposed action impair the character or quality of important historic, archaeological, architectural or aesthetic resources?		
9. Will the proposed action result in an adverse change to natural resources (e.g., wetlands, waterbodies, groundwater, air quality, flora and fauna)?		
10. Will the proposed action result in an increase in the potential for erosion, flooding or drainage problems?		
11. Will the proposed action create a hazard to environmental resources or human health?		

PRINT FORM

Agency Use Only [If applicable]

Project:	
Date:	

Short Environmental Assessment Form
Part 3 Determination of Significance

For every question in Part 2 that was answered "moderate to large impact may occur", or if there is a need to explain why a particular element of the proposed action may or will not result in a significant adverse environmental impact, please complete Part 3. Part 3 should, in sufficient detail, identify the impact, including any measures or design elements that have been included by the project sponsor to avoid or reduce impacts. Part 3 should also explain how the lead agency determined that the impact may or will not be significant. Each potential impact should be assessed considering its setting, probability of occurring, duration, irreversibility, geographic scope and magnitude. Also consider the potential for short-term, long-term and cumulative impacts.

Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action may result in one or more potentially large or significant adverse impacts and an environmental impact statement is required.

Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action will not result in any significant adverse environmental impacts.

Name of Lead Agency	Date
Print or Type Name of Responsible Officer in Lead Agency	Title of Responsible Officer
Signature of Responsible Officer in Lead Agency	Signature of Preparer (if different from Responsible Officer)

PRINT FORM

EAF Mapper Summary Report

Sunday, July 10, 2016 5:17 PM

Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.

Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National Register of Historic Places]	No
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	No
Part 1 / Question 15 [Threatened or Endangered Animal]	Yes
Part 1 / Question 16 [100 Year Flood Plain]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
Part 1 / Question 20 [Remediation Site]	No

SHORT EAF SUMMARY REPORT:

Questions 12b and 15 are answered automatically by the EAF mapper based upon limited digital mapping information that is available.

- Questions 12b, Archeological Sites, is answered yes due to the project being located within an archaeological sensitive area. A submission has been made to the Cultural Resource Information System for further information from SHPO.

- Question 15, Threatened or Endangered Species, is answered yes due to the listed presence of multiple rare endangered or threatened plants near the project site as listed on the NYS DEC environmental mapper database. A letter has been sent to the DEC requesting further information.

AUBERTINE and CURRIER
ARCHITECTS, ENGINEERS & LAND SURVEYORS, PLLC

NYS WBE/DBE Certified
SBA Woman Owned
Small Business (WOSB)

aubertinecurrier.com

522 Bradley Street
Watertown, New York 13601

Phone: 315.782.2005
Fax: 315.782.1472

Managing Partner
Annette M. Mason, P.E.
Structural Engineer

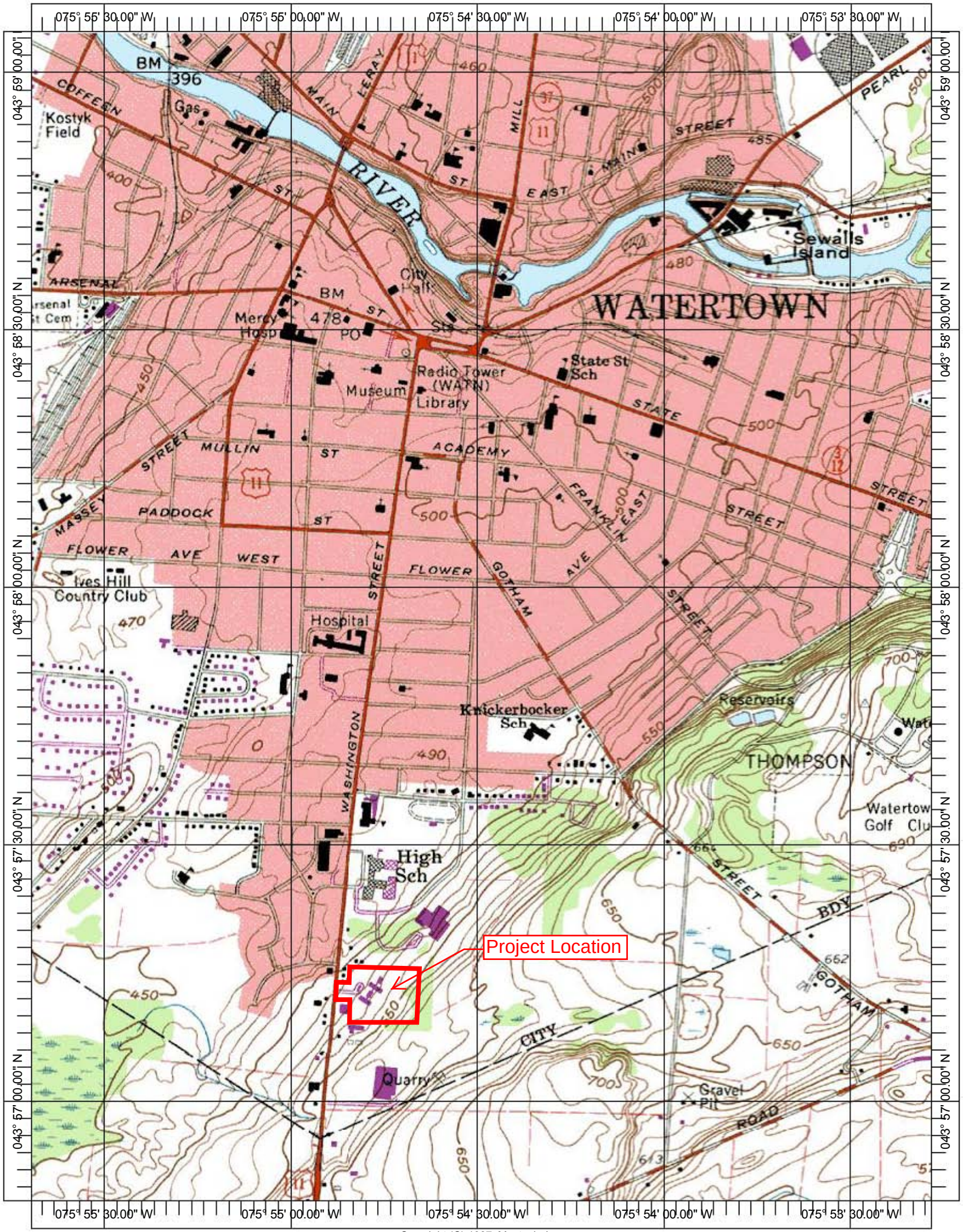
Partners
Michael L. Aubertine, R.A.
Architect

Patrick J. Currier, R.A.
Architect

Brian A. Jones, AIA.,
LEED AP BD+C
Architect

Matthew R. Morgia, P.E.
Civil Engineer

Jayson J. Jones, P.L.S.
Land Surveyor



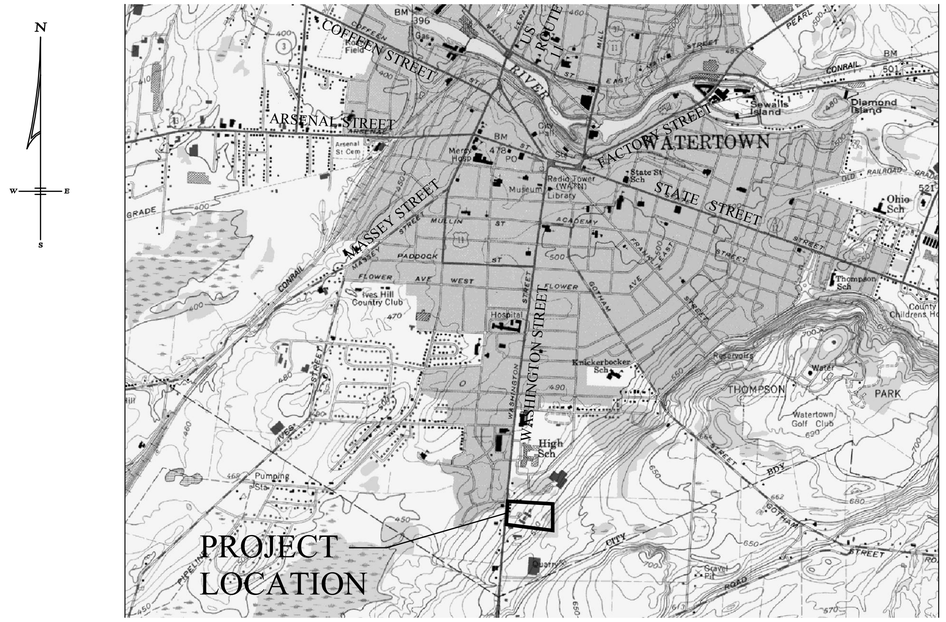
ACCESS DRIVE AND INFIRMARY ADDITION

OWNER: SISTERS OF SAINT JOSEPH

1425 WASHINGTON STREET, CITY OF WATERTOWN

JEFFERSON COUNTY, NEW YORK

SITE PLANS: 07/19/2016



OWNER

SISTERS OF SAINT JOSEPH
ATTN: SISTER MARY EAMON
1425 WASHINGTON STREET
WATERTOWN, NY 13601

INDEX OF DRAWINGS

ARCHITECT AND CIVIL/SITE ENGINEER

AUBERTINE and CURRIER, PLLC
522 BRADLEY STREET
WATERTOWN, NY 13601
TELE: (315) 782-2005
FAX: (315) 782-1472
www.aubertinecurrier.com

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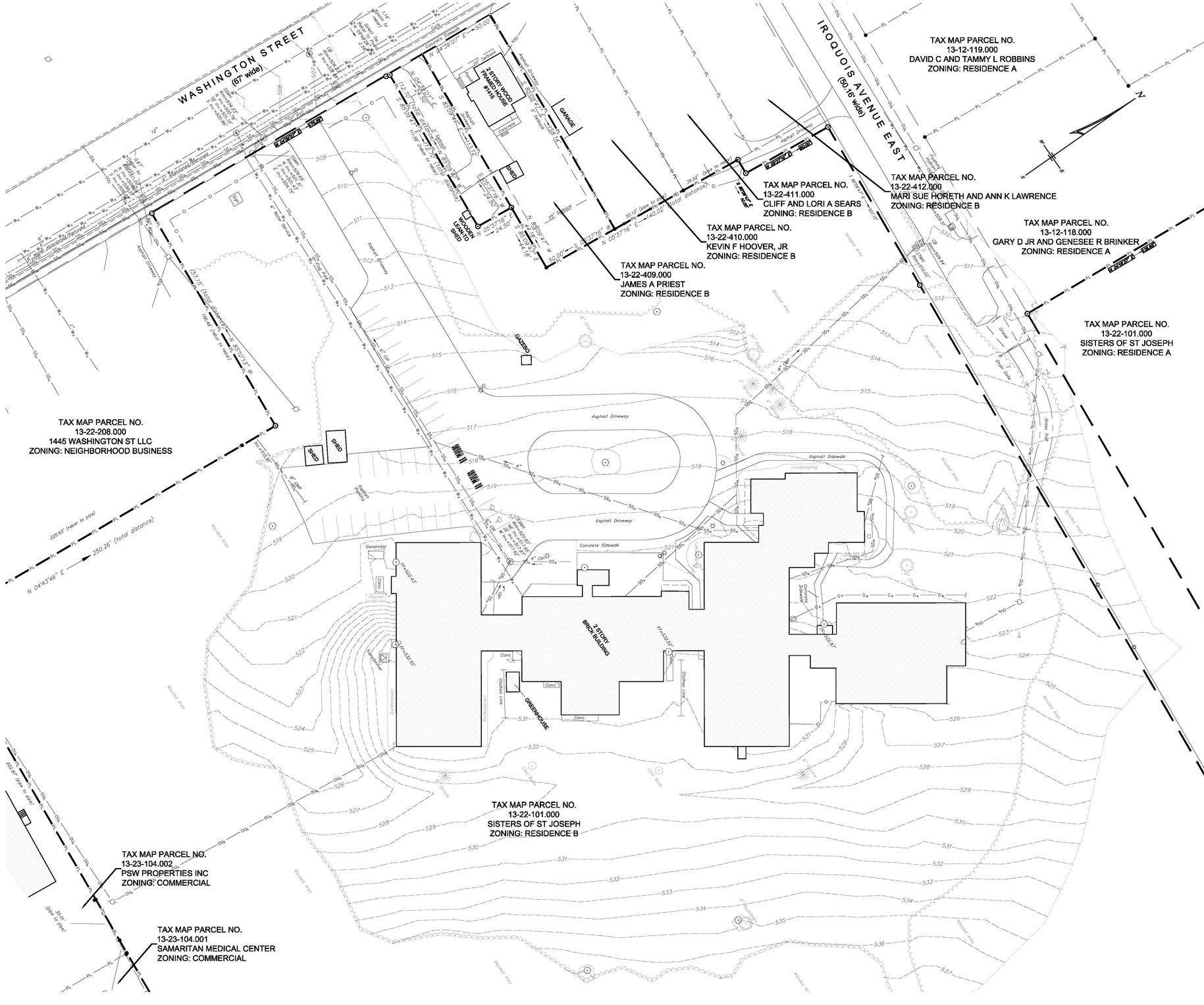
AUBERTINE and CURRIER
ARCHITECTS, ENGINEERS & LAND SURVEYORS, PLLC

LEGEND	EXISTING	PROPOSED
5' CONTOUR	155	155
1' CONTOUR	154	154
PROPERTY LINE	PL PL	PL PL
RIGHT OF WAY		
SETBACK		
BUILDING		
ASPHALT PAVEMENT		
CURB		
SIDEWALK		
EDGE OF GRAVEL		
FENCE	o o o	
WATERLINE	W_x W_x	W W
SANITARY SEWER	SS_x SS_x	SS SS
STORM SEWER	SD_x SD_x	SD SD
OVERHEAD UTILITIES	OU_x OU_x	OU OU
UNDERGROUND ELECTRIC	E_x E_x	E E
GAS	G_x G_x	G G
FIRE HYDRANT	⊙	
WATER VALVE	W	
SANITARY MANHOLE	Ⓢ	
STORM MANHOLE	Ⓓ	Ⓓ
CATCH BASIN	CB CB	CB CB
UTILITY POLE AND GUY		
LIGHT POLE		

GENERAL NOTES:

1. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN. PRIOR TO CONSTRUCTION CONTACT UNDERGROUND UTILITIES CALL CENTER OF NEW YORK FOR EXACT LOCATION OF ALL UNDERGROUND UTILITIES, (1-800-962-7962). CONTRACTOR IS RESPONSIBLE FOR LOCATING AND WORKING WITH THE APPROPRIATE UTILITY COMPANIES PRIOR TO CONSTRUCTION.
2. THE ONSITE TOPOGRAPHIC, UTILITY, AND PLANIMETRIC SURVEY FOR THE PROJECT AREA WAS CONDUCTED BY AUBERTINE AND CURRIER, PLLC ON 05/11/2016 AND 06/27/2016. UTILITY LOCATIONS WERE PLOTTED FROM VISIBLE EVIDENCE AND RECORD DRAWINGS PROVIDED BY THE CITY OF WATERTOWN ENGINEERING DEPARTMENT. VERTICAL DATUM IS BASED ON NAVD88 DATUM AND THE HORIZONTAL DATUM IS BASED ON NAD83(96).
3. ALL OUT-OF-SCOPE AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS WILL BE RESTORED TO CONDITIONS EQUAL TO OR BETTER THAN THAT PRIOR TO CONSTRUCTION. OUTSIDE OF PROPERTY BOUNDARIES AND EASEMENT AREAS THE CONTRACTOR IS REMINDED THAT HE MUST OBTAIN WRITTEN AUTHORIZATION TO USE PRIVATE PROPERTY AND ASSUMES ALL LIABILITY HIMSELF.
4. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE CHARACTERISTICS AND EXTENT OF SUBSURFACE SOILS, ROCK, WATER TABLE LEVELS, ETC., PRIOR TO BIDDING.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND BONDS NECESSARY TO OBTAIN SAID PERMITS WHERE APPLICABLE.
6. SITE CONTRACTOR TO PROVIDE EROSION AND DUST CONTROL AS REQUIRED.
7. A LICENSED LAND SURVEYOR SHALL BE RETAINED FOR ALL UTILITY AND FIELD STAKEOUT AT THE CONTRACTORS EXPENSE.
8. PAVED AREAS WILL BE SAWCUT PRIOR TO EXCAVATION AND PAVING OPERATIONS. SAW CUT AREAS WILL BE TACK COATED PRIOR TO PAVING. TACK COAT SHALL MEET THE REQUIREMENTS OF ASPHALT OF ASPHALT EMULSION FOR TACK COAT, NYSDOT TABLE 702-9.
9. CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES THROUGHOUT CONSTRUCTION UNTIL ESTABLISHMENT OF VEGETATIVE COVER. RUN-OFF CONTAINING SEDIMENTS FROM DISTURBED AREAS OF THE SITE SHALL NOT BE ALLOWED DIRECTLY INTO NATURAL STREAM CHANNELS.
10. ALL TREES AND WETLANDS TO REMAIN SHALL BE PROTECTED BY THE CONTRACTOR. CONSTRUCTION ACTIVITIES ADJACENT TO TREES SHALL BE CONDUCTED TO REDUCE THE IMPACT TO TREES TO THE MAXIMUM EXTENT PRACTICAL. ANY DAMAGE TO EXISTING TREES SHALL BE REPAIRED OR THE TREE REPLACED, AS DIRECTED BY THE OWNER AT THE CONTRACTORS EXPENSE.
11. CONTRACTOR SHALL PERFORM ALL ROADWAY CONNECTION WORK IN ACCORDANCE WITH NYSDOT SPECIFICATIONS. ALL ROADWAY WORK SHALL BE IN ACCORDANCE WITH NYSDOT MAINTENANCE AND PROTECTION OF TRAFFIC REGULATIONS, INCLUDING FLAGMEN, BARRICADES, WARNING SIGNS/LIGHTS, ETC., WHERE WARRANTED.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND PROPER DISPOSAL, AT A NYSDEC ACCEPTABLE LOCATION, OF ALL MATERIALS NOT REUSED AS TRENCH BACKFILL.
13. EXCAVATIONS SHALL BE TO DEPTHS SHOWN ON DRAWINGS. ALL UNSTABLE OR UNSUITABLE MATERIAL SHALL BE EXCAVATED AND REMOVED TO SUCH DEPTH AS REQUIRED TO PROVIDE SUFFICIENT BEARING CAPACITY. OVEREXCAVATED AREAS SHALL BE BACKFILLED WITH SUITABLE MATERIAL.
14. COMPACTION OF PIPE BEDDING AND BACKFILL MATERIAL SHALL BE BY MEANS OF HAND-GUIDED POWER DRIVEN OR DRUM-TYPE OR PLATE TAMPERS. BACKFILLING SHOULD PROCEED IN ACCORDANCE WITH LIFT THICKNESSES AND COMPACTION REQUIREMENTS AS SHOWN ON THE DRAWINGS. UNLESS OTHERWISE NOTED ON THE DRAWINGS, COMPACTION REQUIREMENTS REFER TO PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM STANDARD D1557 METHOD "C". CARE SHOULD BE TAKEN TO SHAPE PIPE BEDDING TO FIT THE LOWER PART OF THE PIPE. BACKFILLING AND COMPACTION SHOULD PROGRESS EVENLY ALONG THE PIPE SIDEWALLS AND TO THE TOP OF PIPE BEDDING.
15. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES OF DIMENSIONS, ELEVATIONS AND LOCATIONS DURING PRECONSTRUCTION FIELD VERIFICATION. SUCH INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR VERIFICATION OR MODIFICATION OF THE PLANS.
16. THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORD DRAWINGS INCLUDING, AS A MINIMUM, THE FOLLOWING INFORMATION AS WELL AS ALL REQUIREMENTS OF THE SPECIFICATION:
    - RECORD OF ALL UTILITIES ENCOUNTERED IN TRENCH EXCAVATION. INFORMATION SHALL INCLUDE DIAMETER OF UTILITY, DEPTH OF BURIAL AND LOCATION WITH REFERENCE TO NEAREST STRUCTURE SHOWN ON DRAWINGS. THIS INFORMATION SHALL BE KEPT CURRENT ON A WEEKLY BASIS. FAILURE TO DO SO MAY RESULT IN WITHHOLDING OF PAYMENTS.
    - DISTANCE TIES TO ALL MANHOLES, CLEANOUTS, BENDS AND CORPORATION STOPS.
    - UTILITY REPAIRS, SIDEWALK, AND DRIVEWAY REPLACEMENTS CENTERLINE.
    - STATIONS OF BENDS, CLEANOUTS, VALVES AND CORPORATION STOPS.
    - DENOTE BENCH MARK REFERENCE USED.
    - PERIODIC OFFSETS.
    - RECORD DETAILS NOT SHOWN ON THE ORIGINAL CONTRACT DOCUMENTS. ANY FIELD CHANGES OF DIMENSIONS AND DETAILS AND ANY CHANGES MADE BY CHANGE ORDER OR FIELD ORDER.
    - CERTIFICATE OF SUBSTANTIAL COMPLETION SHALL NOT BE ISSUED UNTIL AS-BUILT INFORMATION IS ACCEPTABLE.
    - PROVIDE TWO (2) SETS OF FINAL COMPLETE RECORD DRAWINGS. CONTRACTOR SHALL FURNISH AS-BUILT DATA ON PLAN SHEETS.
17. ALL WORK TO BE PERFORMED WITHIN THE CITY OF WATERTOWN MARGIN WILL REQUIRE SIGN-OFF FROM AN ENGINEER LICENSED IN THE STATE OF NEW YORK THAT THE WORK WAS BUILT ACCORDING TO THE APPROVED SITE PLAN AND APPLICABLE CITY OF WATERTOWN STANDARDS. COMPACTION TESTING WILL BE REQUIRED FOR ALL WORK TO BE PERFORMED WITHIN THE CITY OF WATERTOWN MARGIN AND MUST BE SUBMITTED TO THE CITY OF WATERTOWN CODES DEPARTMENT.
18. ALL WATER MAIN AND SERVICE WORK MUST BE COORDINATED WITH THE CITY OF WATERTOWN WATER DEPARTMENT. THE WATER DEPARTMENT REQUIREMENTS SUPERCEDE ALL OTHER PLANS AND SPECIFICATIONS PROVIDED.
19. UPON COMPLETION OF STORM SEWER FACILITIES AND ESTABLISHMENT OF VEGETATION, THE NEW AND EXISTING STORM SYSTEMS RECEIVING RUNOFF FROM THIS SITE SHALL BE CLEANED OF DEBRIS. ONLY AT THIS TIME SHALL THE EROSION AND SEDIMENTATION CONTROL MEASURES BE REMOVED.



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ARCHITECTS, ENGINEERS & LAND SURVEYORS, PLLC

522 Bradley Street
Watertown, New York 13601

aubertinecurrier.com

Phone: (315)782-2005
Fax: (315)782-1472

The above Architect, Engineer or Land Surveyor states that to the best of his or her knowledge, information and belief, the plans and specifications are in accordance with applicable requirements of New York State. It is a violation of New York State Law for any person, unless acting under the direct supervision of a Registered Architect, Licensed Professional Engineer or Licensed Land Surveyor to alter this document in any way. If altered, such licensee shall affix his or her seal and the notification "altered by" followed by his or signature, date and a specific description of the alteration.

ACCESS DRIVE AND INFIRMARY ADDITION
SISTERS OF SAINT JOSEPH
1425 WASHINGTON STREET
WATERTOWN, NEW YORK
JEFFERSON COUNTY

PROJECT NO: 2014-131.002
SCALE: 1"=30'
DRAWN BY: CWT
CHECKED BY: MRM
ISSUE DATES:
07/19/2016

EXISTING CONDITIONS PLAN

CD-100

LEGEND	EXISTING	PROPOSED
5' CONTOUR	155	155
1' CONTOUR	154	154
PROPERTY LINE	PL PL	PL PL
RIGHT OF WAY		
SETBACK		
BUILDING		
ASPHALT PAVEMENT		
CURB		
SIDEWALK		
EDGE OF GRAVEL		
FENCE		
WATERLINE	W_X W_X	W W
SANITARY SEWER	SS_X SS_X	SS SS
STORM SEWER	SD_X SD_X	SD SD
OVERHEAD UTILITIES	OU_X OU_X	OU OU
UNDERGROUND ELECTRIC	E_X E_X	E E
GAS	G_X G_X	G G
FIRE HYDRANT		
WATER VALVE	W	
SANITARY MANHOLE	S	
STORM MANHOLE	D	D
CATCH BASIN	CB CB	CB
UTILITY POLE AND GUY		
LIGHT POLE		

PLANNING DATA

ZONING: RESIDENCE B
USE: HOUSING/NURSING HOME (32,900 SF)

ITEM	REQUIRED	AS PROVIDED
MIN. LOT AREA	6,000 SQ. FT. (0.14 ACRES)	649,044 SQ. FT. (14.90 ACRES)
MIN. FRONTAGE	60'	1,102.44' (EXISTING)
MIN. FRONT SETBACK	20'	±260' (EXISTING)
MIN. REAR YARD SETBACK	25'	570' (ADDITION)
MIN. SIDE YARD SETBACK	5'	±76' (EXISTING)
MAX. BUILDING COVERAGE	35%	5%
PARKING REQUIREMENTS - RESIDENTIAL (1 SPACE PER ROOM) (43 ROOMS*1 PER ROOM = 8 SPACES = 48 SPACES) NURSING (1 PER 3 BEDS) (99 BEDS / 3 = 10 SPACES)	58 SPACES	58 SPACES (SEE SITE PLAN FOR ADDITIONAL AND RECONFIGURED PARKING SPACES)
HANDICAPPED SPACES (PER ADA)	3 SPACES	3 SPACES

GENERAL INFORMATION

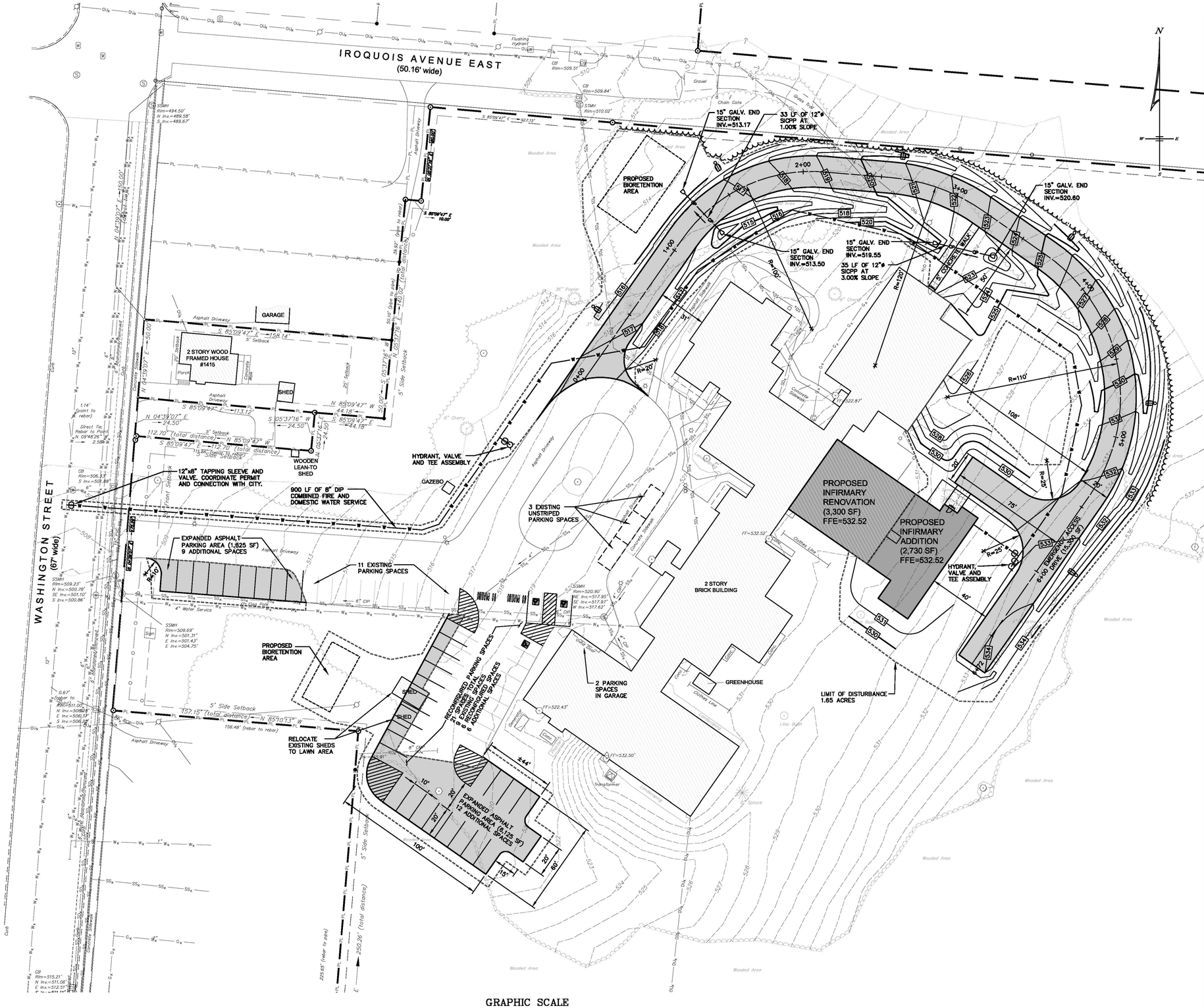
WATER SUPPLY SYSTEM	PROPOSED 8" COMBINED FIRE AND DOMESTIC WATER SERVICE
SANIATARY SEWER SYSTEM	EXISTING 6" GRAVITY LATERAL TO CITY MUNICIPAL SYSTEM
LIMITS OF DISTURBANCE	1.65 ACRES

SITE LIGHTING SCHEDULE

SYMBOL	FIXTURE	MOUNTING HEIGHT	QUANTITY
LED-1	RDG-E04-LED-E-U-SL4-BK BY EATON LIGHTING	21' MOUNTING HEIGHT (WITH CONCRETE BASE)	6
LED-2	IST-E02-LED-E1-SL4-BZ BY EATON LIGHTING	10' MOUNTING HEIGHT (MOUNTED ON BUILDING)	2

TRAFFIC INFORMATION
(ITE TRAFFIC GENERATION, 7TH EDITION)

WEEKDAY, AM	ENTERING	5
	EXITING	5
WEEKDKDAY, PM	ENTERING	9
	EXITING	6



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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Fax: (315)782-1472

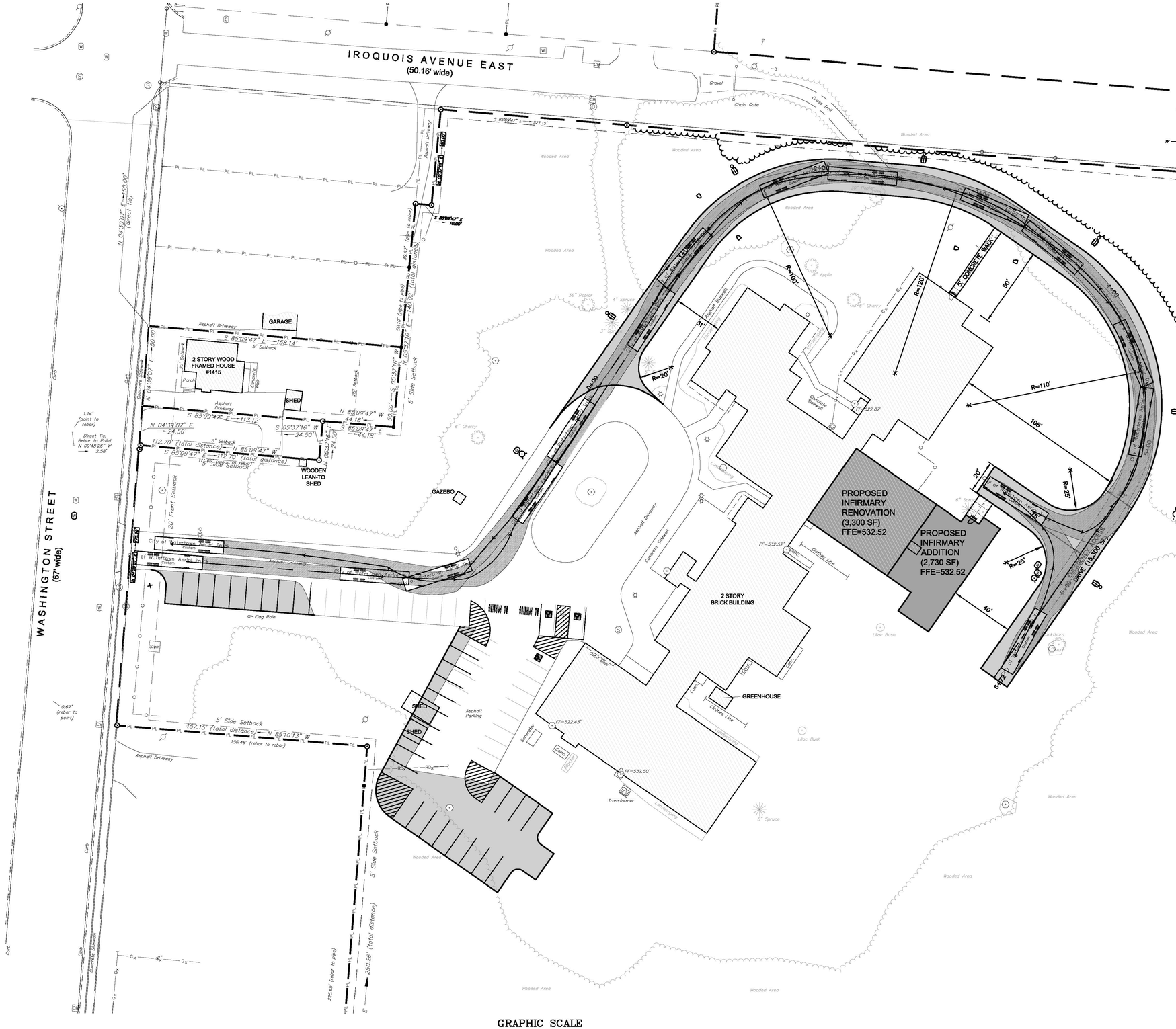
ACCESS DRIVE AND INFIRMARY ADDITION
SISTERS OF SAINT JOSEPH
1425 WASHINGTON STREET
WATERTOWN, NEW YORK
JEFFERSON COUNTY

PROJECT NO:	2014-131.002
SCALE:	1"=30'
DRAWN BY:	CWT
CHECKED BY:	MRM
ISSUE DATES:	08/02/2016

SITE DEVELOPMENT PLAN

C-100

LEGEND	EXISTING	PROPOSED
5' CONTOUR	155	155
1' CONTOUR	154	154
PROPERTY LINE	PL PL	PL PL
RIGHT OF WAY		
SETBACK		
BUILDING		
ASPHALT PAVEMENT		
CURB		
SIDEWALK		
EDGE OF GRAVEL		
FENCE		
WATERLINE	Wx Wx	W W
SANITARY SEWER	SSx SSx	SS SS
STORM SEWER	SDx SDx	SD SD
OVERHEAD UTILITIES	OUx OUx	OU OU
UNDERGROUND ELECTRIC	Ex Ex	E E
GAS	Gx Gx	G G
FIRE HYDRANT		
WATER VALVE	W	
SANITARY MANHOLE	S	
STORM MANHOLE	D	D
CATCH BASIN	CB CB	CB CB
UTILITY POLE AND GUY		
LIGHT POLE		



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ACCESS DRIVE AND INFIRMARY ADDITION
SISTERS OF SAINT JOSEPH
1425 WASHINGTON STREET
WATERTOWN, NEW YORK
JEFFERSON COUNTY

PROJECT NO: 2014-131.002
SCALE: 1"=30'
DRAWN BY: CWT
CHECKED BY: MRM
ISSUE DATES:
08/02/2016

VEHICLE MOVEMENT PLAN

CT-100

LEGEND	EXISTING	PROPOSED
5' CONTOUR	155	155
1' CONTOUR	154	154
PROPERTY LINE	PL PL	PL PL
RIGHT OF WAY		
SETBACK		
BUILDING		
ASPHALT PAVEMENT		
CURB		
SIDEWALK		
EDGE OF GRAVEL		
FENCE	O O O	
WATERLINE	W_X W_X	W W
SANITARY SEWER	SS_X SS_X	SS SS
STORM SEWER	SD_X SD_X	SD SD
OVERHEAD UTILITIES	OU_X OU_X	OU OU
UNDERGROUND ELECTRIC	E_X E_X	E E
GAS	G_X G_X	G G
FIRE HYDRANT		
WATER VALVE	W	
SANITARY MANHOLE	S	
STORM MANHOLE	D	D
CATCH BASIN	CB CB	CB
UTILITY POLE AND GUY		
LIGHT POLE		

SITE LIGHTING SCHEDULE

SYMBOL	FIXTURE	MOUNTING HEIGHT	QUANTITY
LED-1	RDG-E04-LED-E-U-SL4-BK BY EATON LIGHTING	21' MOUNTING HEIGHT (WITH CONCRETE BASE)	6
LED-2	IST-E02-LED-E1-BL4-BZ BY EATON LIGHTING	10' MOUNTING HEIGHT (MOUNTED ON BUILDING)	2

WASHINGTON STREET (67' wide)

IROQUOIS AVENUE EAST (50.16' wide)

TAX MAP PARCEL NO.
13-12-119.000
DAVID C AND TAMMY L ROBBINS
ZONING: RESIDENCE A

TAX MAP PARCEL NO.
13-22-412.000
MARI SUE HORETH AND ANN K LAWRENCE
ZONING: RESIDENCE B

TAX MAP PARCEL NO.
13-22-411.000
CLIFF AND LORI A SEARS
ZONING: RESIDENCE B

TAX MAP PARCEL NO.
13-22-410.000
KEVIN F HOOVER, JR
ZONING: RESIDENCE B

TAX MAP PARCEL NO.
13-22-409.000
JAMES A PRIEST
ZONING: RESIDENCE B

TAX MAP PARCEL NO.
13-12-118.000
GARY D JR AND GENESEE R BRINKER
ZONING: RESIDENCE A

TAX MAP PARCEL NO.
13-22-101.000
SISTERS OF ST JOSEPH
ZONING: RESIDENCE A

TAX MAP PARCEL NO.
13-22-208.000
1445 WASHINGTON ST LLC
ZONING: NEIGHBORHOOD BUSINESS

TAX MAP PARCEL NO.
13-22-101.000
SISTERS OF ST JOSEPH
ZONING: RESIDENCE B

TAX MAP PARCEL NO.
13-23-104.002
PSW PROPERTIES INC
ZONING: COMMERCIAL

TAX MAP PARCEL NO.
13-23-104.001
SAMARITAN MEDICAL CENTER
ZONING: COMMERCIAL

2 STORY WOOD FRAME HOUSE W/ATTD

GARAGE

SHED

WOODED LEANTO SHED

GAZEBO

2 STORY BRICK BUILDING

GREENHOUSE

PROPOSED INFIRMARY RENOVATION (3,300 SF) FFE=532.52

PROPOSED INFIRMARY ADDITION (2,730 SF) FFE=532.52

LED-1

LED-2

0+00 1+00 2+00 3+00 4+00 5+00 6+00 6+33 7+00

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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1425 WASHINGTON STREET
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JEFFERSON COUNTY

PROJECT NO:	2014-131.002
SCALE:	1"=30'
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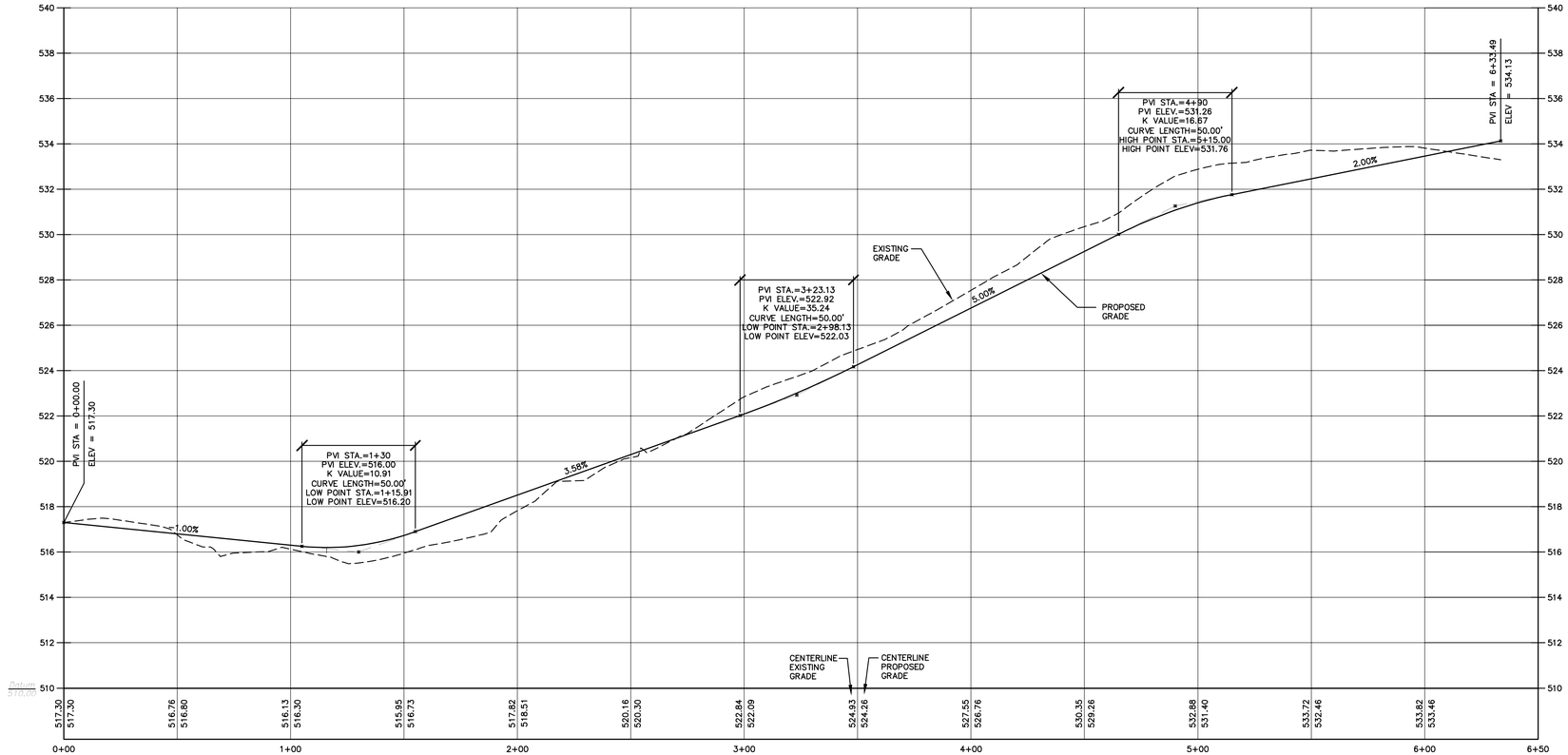
ISSUE DATES:	07/19/2016

PHOTOMETRIC PLAN

CP-100



EMERGENCY ACCESS DRIVE CENTERLINE PROFILE

SCALE: HORIZONTAL 1" = 30'
VERTICAL 1" = 3'

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ACCESS DRIVE AND INFIRMARY ADDITION
SISTERS OF SAINT JOSEPH
1425 WASHINGTON STREET
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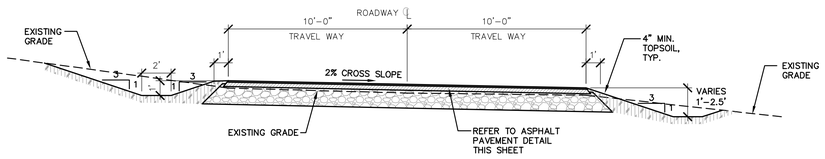
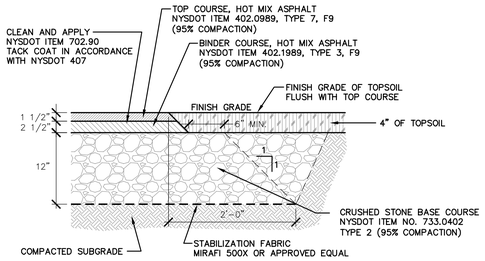
PROJECT NO:	2014-131.002
SCALE:	1"=30'
DRAWN BY:	CWT
CHECKED BY:	MRM
ISSUE DATES:	07/19/2016

ACCESS DRIVE
CENTERLINE PROFILE

CG-200



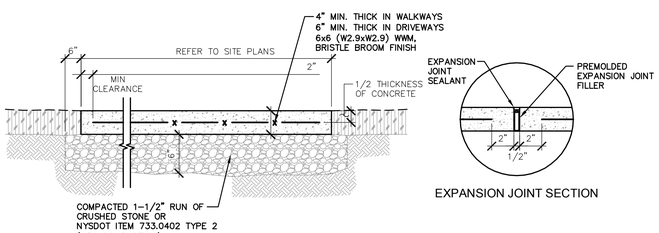
1 TYPICAL SECTION (EMERGENCY ACCESS DRIVE)
NOT TO SCALE



NOTES:
1. ALL HMA COMPACTION WILL BE TO 95% MADMTD (MIXTURE'S AVERAGE DAILY MAXIMUM THEORETICAL DENSITY) PER NYS DOT SPECIFICATIONS FOR HMA COMPACTION 402-3.07 BASE COURSE SHALL BE COMPACTED TO 95% MODIFIED PROCTOR MAXIMUM DENSITY.
2. FIELD VERIFICATION OF COMPACTION SHALL BE BY NUCLEAR DENSITY TESTING METHODS

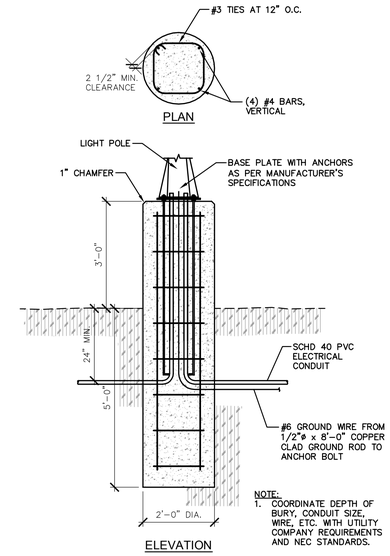
2 TYPICAL ASPHALT PAVEMENT DETAIL
NOT TO SCALE

3 TYPICAL ASPHALT PAVEMENT JOINT DETAIL
NOT TO SCALE



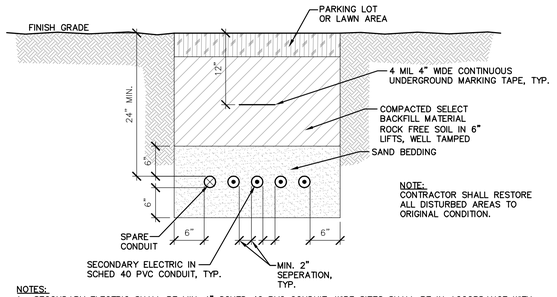
NOTES:
1. CONCRETE WALK EXPANSION JOINTS TO COINCIDE AT 20' O.C. MAX.,
2. CONTRACTION JOINTS TO BE SPACED EVENLY AT 4' to 6' O.C. MAX. BOTH DIRECTIONS. CONTRACTION JOINT SPACING SHALL BE SPACED SYMMETRICALLY BASED UPON THE SIDEWALK WIDTH BEING CONSTRUCTED.
   (I.E. 6' WIDE WALK – 6' CONTROL JOINTS
   5' WIDE WALK – 5' CONTROL JOINTS
   8' WIDE WALK – 4' CONTROL JOINTS)
3. EXPANSION JOINTS TO BE 1/2" WIDE FILLED WITH PREMOLDED JOINT FILLER AND SEALANT CONFORMING TO ASTM D1752 TYPE II.
4. CONTROL/CONTRACTION JOINTS SHALL BE TOOLED OR SAW CUT JOINT WITH A DEPTH OF 1/4 THE CONCRETE THICKNESS.
5. CONCRETE SHALL BE MIN. 4,500 PSI.

4 TYPICAL CONCRETE WALK DETAIL
NOT TO SCALE



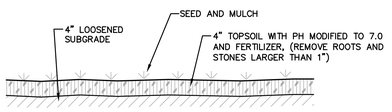
NOTE:
1. COORDINATE DEPTH OF BURY, CONDUIT SIZE, WIRE, ETC. WITH UTILITY COMPANY REQUIREMENTS AND NEC STANDARDS.

5 TYPICAL LIGHT POLE BASE DETAIL
NOT TO SCALE



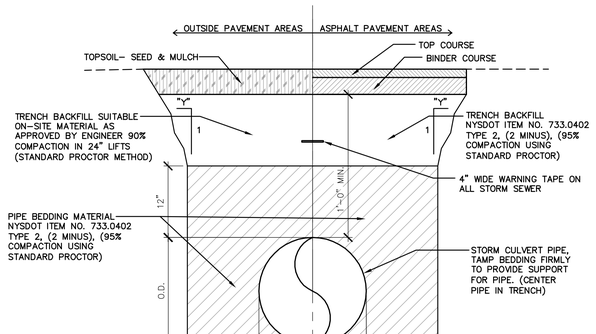
NOTES:
1. SECONDARY ELECTRIC SHALL BE MIN. 1" SCHED 40 PVC CONDUIT. WIRE SIZES SHALL BE IN ACCORDANCE WITH NEC REQUIREMENTS.
2. ALL BURIAL TYPE CONDUITS, SIZES, NUMBER, AND WIRES SHALL BE COORDINATED WITH THE RESPECTIVE UTILITIES.
3. WIDTH OF TRENCH IS DEPENDENT UPON THE NUMBER OF CONDUITS AND ARRANGEMENT REQUIRED BY EACH RESPECTIVE UTILITY COMPANY.

6 TYPICAL SECONDARY ELECTRICAL TRENCH DETAIL
NOT TO SCALE



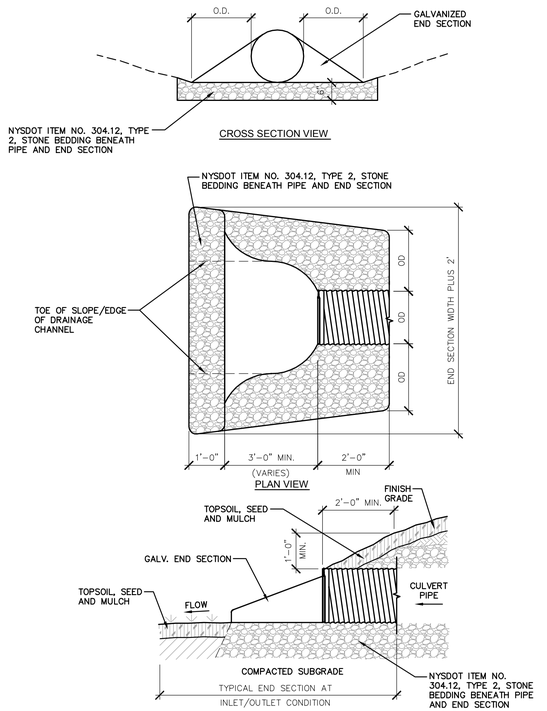
NOTE:
PROVIDE SOIL TESTS WITH SEED, FERTILIZER AND MULCH RECOMMENDATIONS (ONE PER EACH 5 ACRES OF SEEDING AND MIN. ONE PER TOPSOIL STOCKPILE)

7 TYPICAL TOPSOIL REPLACEMENT DETAIL
NOT TO SCALE



NOTES
1. DIMENSIONS 'X' AND 'Y' SHOWN ABOVE SHALL BE DETERMINED BY CONTRACTOR TO COMPLY WITH O.S.H.A., NEW YORK STATE DEPARTMENT OF LABOR, NEW YORK STATE INDUSTRIAL CODE AND ALL OTHER APPLICABLE SAFETY STANDARDS.
2. SAFETY SHEETING OR TRENCH BOX MAY BE USED IN PLACE OF SLOPED TRENCH WALLS.
3. SHEETING, WHEN REQUIRED, TO BE CUT OFF AT LEAST 5 FEET BELOW STREET AND A MINIMUM OF 1 FOOT ABOVE TOP OF PIPE. WOOD SHEETING DRIVEN BELOW MID-DIAMETER OF THE PIPE SHALL BE LEFT IN PLACE. STEEL SHEETING DRIVEN BELOW MID-DIAMETER MAY BE WITHDRAWN IF APPROVED IN WRITING BY THE ENGINEER. FOR PVC PIPE ALL SHEETING DRIVEN BELOW MID-DIAMETER SHALL BE LEFT IN PLACE.
4. TRENCHES LOCATED WITHIN 5' OF ROAD SHOULDERS SHALL BE TREATED THE SAME AS UNDER PAVEMENT.
5. PIPE TO TRENCH WALL DISTANCE MAY BE REDUCED WHEN INSTALLED IN SAWCUT ROCK TRENCH.

8 TYPICAL CULVERT TRENCH DETAIL
NOT TO SCALE



9 TYPICAL OUTLET PIPE END SECTION DETAIL
NOT TO SCALE

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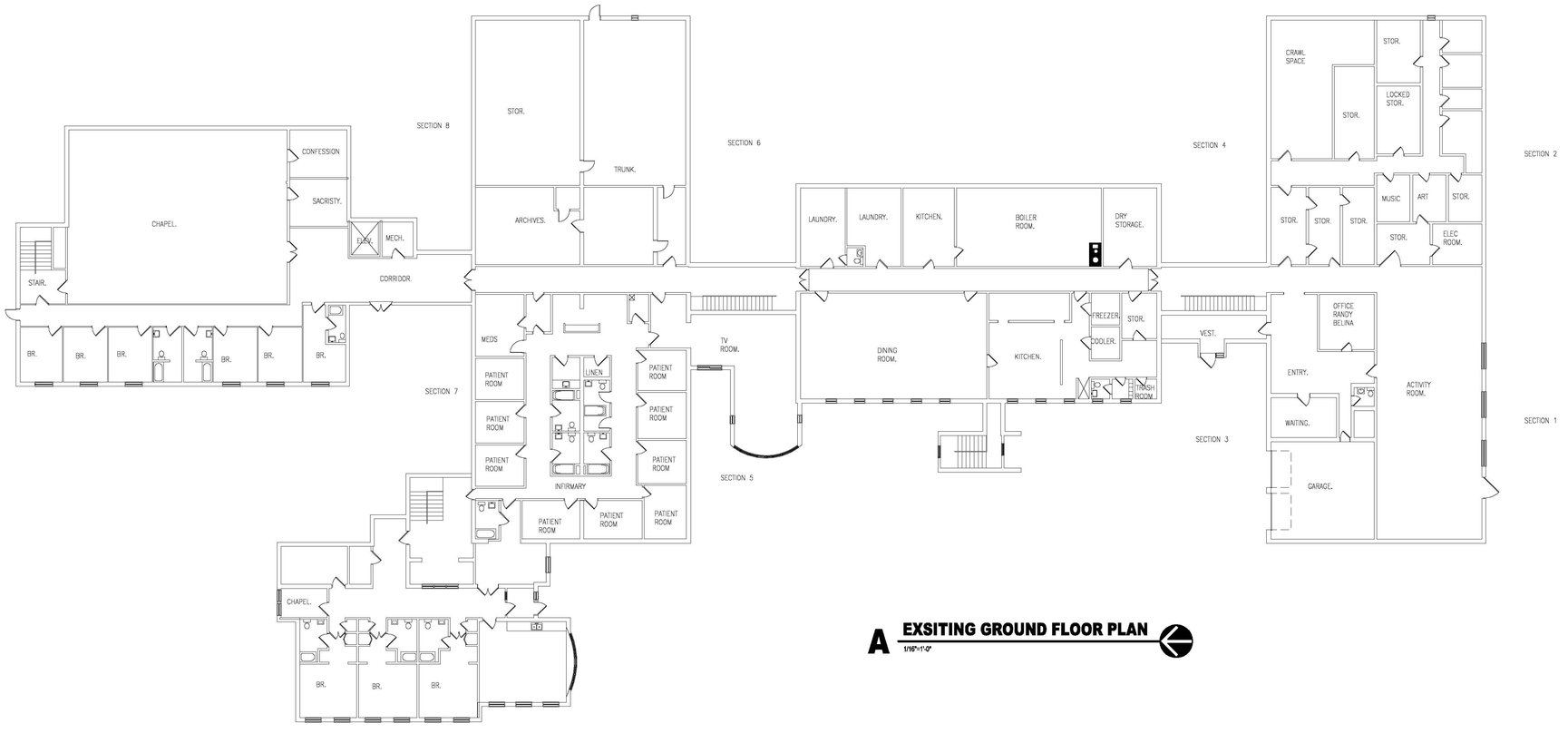
ACCESS DRIVE AND INFIRMARY ADDITION
SISTERS OF SAINT JOSEPH
1425 WASHINGTON STREET
WATERTOWN, NEW YORK
JEFFERSON COUNTY

PROJECT NO:	2014-131.002
SCALE:	AS NOTED
DRAWN BY:	CWT
CHECKED BY:	MRM
ISSUE DATES:	07/19/2016

SITE DETAILS

CS-500



A **EXSITING GROUND FLOOR PLAN**
1/16"=1'-0"

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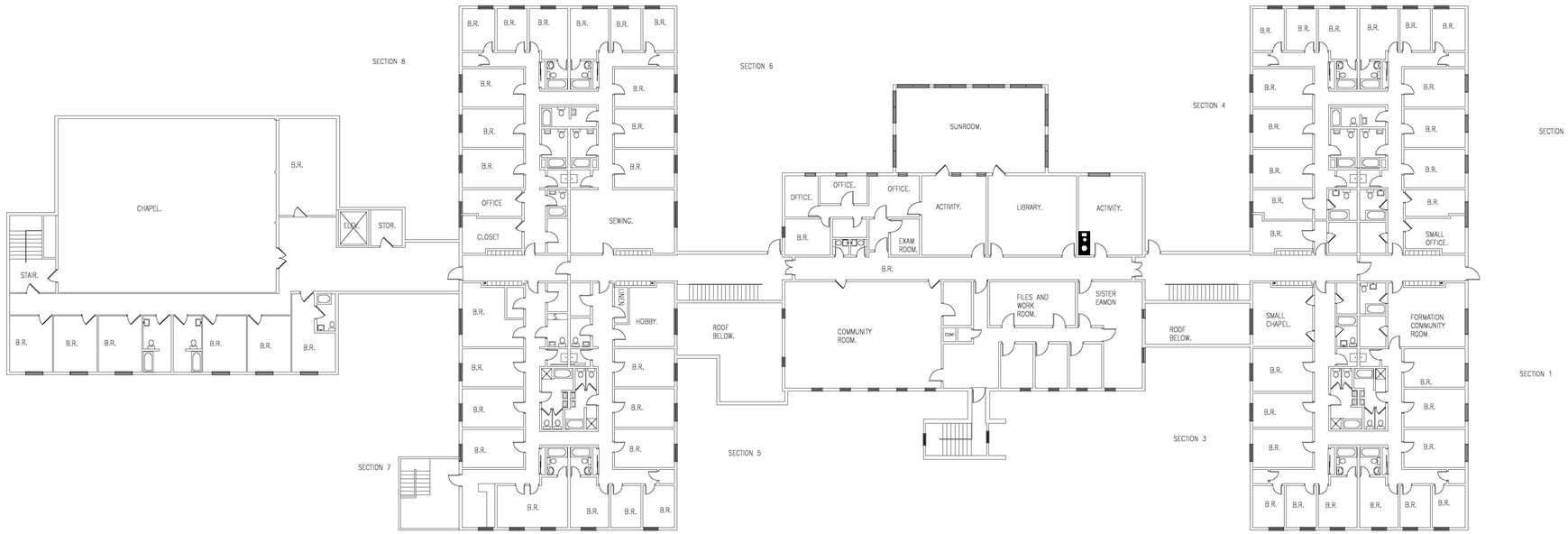
SISTERS OF SAINT JOSEPH RENOVATION AND ADDITION

1425 WASHINGTON STREET
WATERTOWN, NEW YORK
JEFFERSON COUNTY

PROJECT NO: 2014-131.002
SCALE: 1/16"=1'0"
DRAWN BY: PJC JR
CHECKED BY:
ISSUE DATES:
4/19/16

EXISTING GROUND FLOOR PLAN

A100



A **EXISTING FIRST FLOOR PLAN**
1/16"=1'-0"

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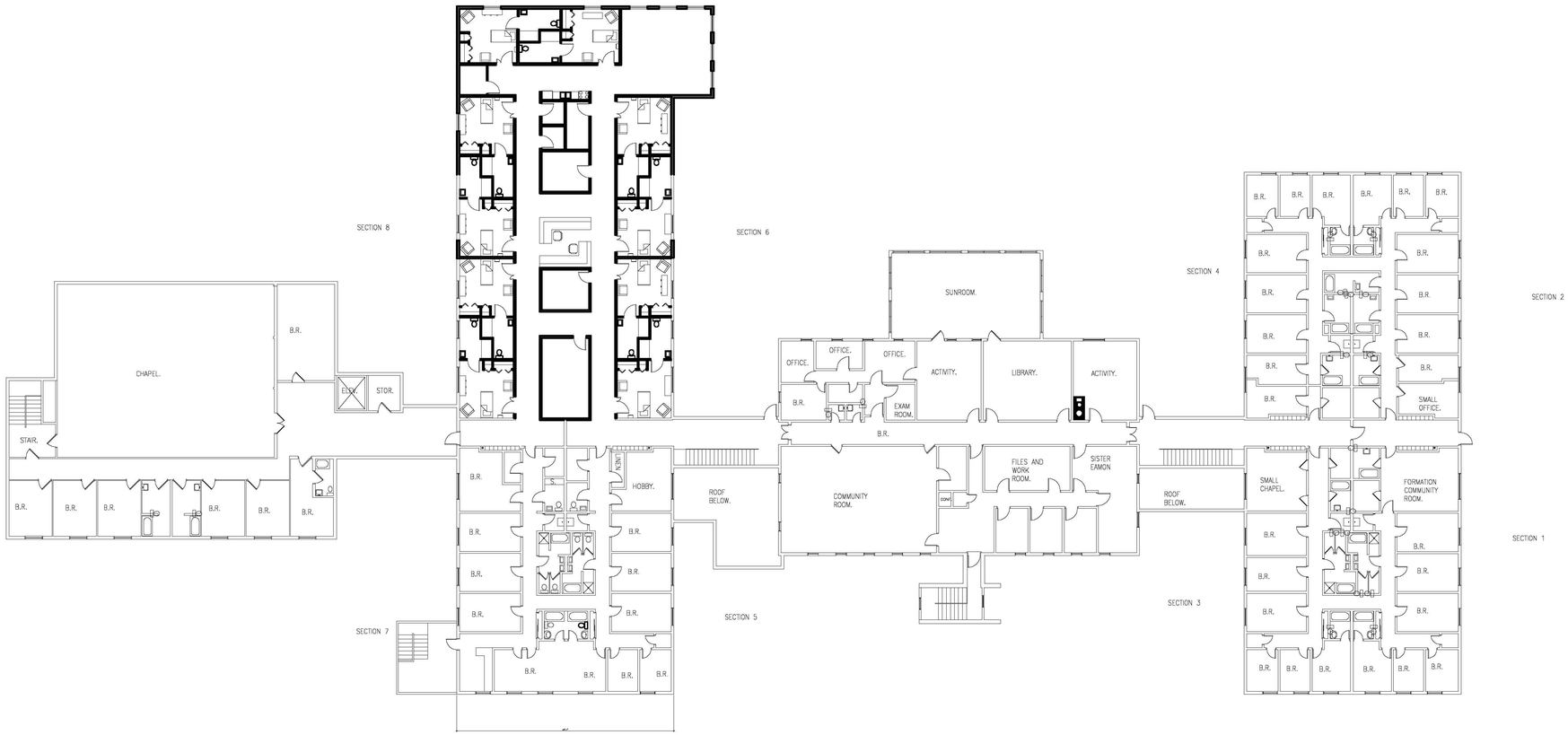
SISTERS OF SAINT JOSEPH
RENOVATION AND ADDITION
1425 WASHINGTON STREET
WATERTOWN, NEW YORK
JEFFERSON COUNTY

PROJECT NO:	2014-131.002
SCALE:	1/16"=1'0"
DRAWN BY:	PJC JR
CHECKED BY:	
ISSUE DATES:	4/19/16

EXISTING FIRST FLOOR PLAN

A101



A FIRST FLOOR PLAN
1/16"=1'-0"

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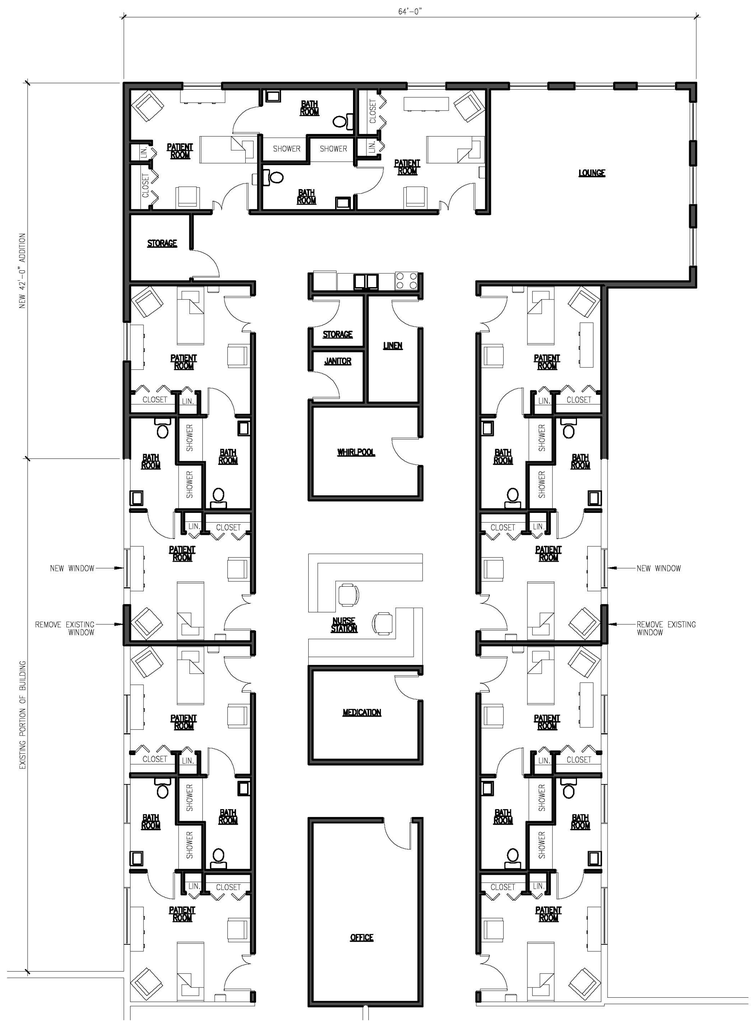
SISTERS OF SAINT JOSEPH
RENOVATION AND ADDITION
1425 WASHINGTON STREET
WATERTOWN, NEW YORK
JEFFERSON COUNTY

PROJECT NO:	2014-131.002
SCALE:	1/16=1'0"
DRAWN BY:	PJC JR
CHECKED BY:	
ISSUE DATES:	4/19/16

FIRST FLOOR PLAN

A102



A ENLARGED FLOOR PLAN

1/8"=1'-0" ADDITION 2,500 Sq. Ft.

PROGRESS PRINT
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SISTERS OF SAINT JOSEPH RENOVATION AND ADDITION

1425 WASHINGTON STREET
WATERTOWN, NEW YORK
JEFFERSON COUNTY

PROJECT NO:	2014-131.002
SCALE:	1/16=1'0"
DRAWN BY:	PJC JR
CHECKED BY:	
ISSUE DATES:	4/19/16

ENLARGED FLOOR PLAN

A103

PRELIMINARY ENGINEERING REPORT

SISTERS OF SAINT JOSEPH
ACCESS DRIVE AND INFIRMARY ADDITION
1425 WASHINGTON STREET
CITY OF WATERTOWN
JEFFERSON COUNTY, NEW YORK

Owner: Sisters of Saint Joseph
1425 Washington Street
Watertown, NY 13601

July 19, 2016

Matthew R. Morgia, P.E.
Civil Engineer

Aubertine and Currier Architects, Engineers & Land Surveyors, PLLC
522 Bradley Street Watertown, New York 13601 TELE: (315) 782-2005 FAX: (315) 782-1472

Table of Contents

Appendices

Appendix 1: Location Map
City of Watertown Zoning Map
City of Watertown GIS Floodplain & Wetlands Map
Soils Map
Soils Description

Appendix 2: Hydrologic and Hydraulic Analysis

Appendix 3: Traffic and Parking Calculations

1.0 SITE AND PROJECT DESCRIPTIONS

1.1 Location

The Sisters of Saint Joseph facility is located within the City of Watertown at 1425 Washington Street. The 14.90 acre property currently has a two (2) story brick building, two (2) small sheds, driveway asphalt parking area, surrounding lawn area and undeveloped wooded area south and east of the main building. The property is located on Tax Map Parcel No. 13-22-101.000. This parcel is zoned Residence B.

1.2 Project Description

The project consists of a 2,730 sf Infirmary Addition to the south side of the Sisters of Saint Joseph Motherhouse and a 633' long, 20' wide emergency access drive. Other project components include a 3,300 sf renovation of existing assisted living space to modernize the Motherhouse's infirmary. Miscellaneous site improvements include concrete walks, site stairs, drainage, and site lighting.

1.3 Site Topography

The existing 14.90 acre site is comprised of a 30,200 SF Motherhouse building, access drive, asphalt parking area, surrounding lawn area and wooded area south and east of the Motherhouse building. The area surrounding the existing Motherhouse Building, access drive, asphalt parking, lawn and undeveloped vegetated lawn and wooded area all slope west toward Washington Street at a slope varying between 4% and 7% via sheet flow. Runoff from the northern portion of the property drains west towards the Motherhouse Building and is diverted a drainage swale around the Motherhouse Building, and northerly towards drainage structures within Iroquois Avenue East. Runoff from the western portion of the property drains west towards the Motherhouse building and is diverted via a drainage swale around the Motherhouse, and southerly towards a drainage ditch located on the adjacent Animal Hospital property, which discharges to the Washington Street storm sewer. The remaining westerly frontage slopes west towards Washington Street.

The developed area of the project is not located within a 100 year flood plain.

1.4 Soil Classification

The project site is located in the City of Watertown, which is an urban environment and consists primarily of previously developed area. According to the USDA Web Soil Survey for Jefferson County, New York, the project area is classified as a silt loam and is a Hydrologic Group D.

Soil Symbol	Soil Name	Hydrologic Group

BgB	Benson-Galoo Complex	D
FaB	Farmington Loam	D

2.0 WATER FACILITIES

2.1 Existing Water Facilities

There is a 12" municipal water main and two (2) 6" water mains located within Washington Street. The building is currently served by a 4" water service pipe connected to the east 6" water main located within Washington Street. Multiple fire hydrants are located along the west side of Washington Street providing fire protection for the property.

2.2 Proposed Water Facilities

No water utilities are proposed for this project.

3.0 SANITARY SEWER FACILITIES

3.1 Existing Sanitary Sewer Facilities

The Sisters of Saint Joseph Motherhouse is served by an existing 6" sanitary sewer lateral that exits the west side of the building and connects into a sanitary manhole within the 12" sanitary main located along the east side of Washington Street.

3.2 Proposed Sanitary Sewer Facilities

No sanitary sewer utilities are proposed for this project.

4.0 STORMWATER FACILITIES

4.1 Existing Drainage

This existing property includes a two (2) story brick building, two (2) small storage sheds and asphalt parking area and access drive. Existing site drainage generally flows east to west via sheet flow. Multiple catch basins are located adjacent to the site along Washington Street and Iroquois Avenue East. Runoff that is collected by one of the multiple catch basins adjacent to the site is piped north along Washington Street through the City storm sewer system, which discharges into the Black River and ultimately flows to Lake Ontario.

The existing site drainage and runoff conditions were analyzed utilizing the Rational Method. HydroCAD calculations can be found in Appendix #2. Runoff calculations were completed for the 10, 25, 50 and 100 year, 24 hour storm events. Peak discharge from the 25 year, 24 hour, storm event has been utilized for design and discussion purposes. The existing condition 25 year site discharge is 0.79 CFS.

4.2 Proposed Drainage

Grading is required along the east side of the existing building and building addition to ensure all runoff drains away from the building. A drainage ditch will be graded along both sides of the proposed emergency access drive to direct runoff around the north side of the Motherhouse building. A 12" SICPP culvert will be installed under the emergency access drive to direct runoff from the northern portion of the site to drain northwest toward a catch basin located along Iroquois Avenue East, similar to existing conditions. The existing southern portion of the site drains east toward Washington Street, via a drainage ditch located on the adjacent Animal Hospital property. The western property frontage will continue to drain west by sheet flow towards Washington Street.

The proposed conditions 25 year, 24 hour storm, peak discharge is 0.84 CFS. The increase in stormwater runoff from existing to proposed conditions is attributed to an approximate 0.54 acres of additional impervious area being constructed as part of the proposed building addition and emergency access drive.

5.0 ROADS / DRIVEWAYS

5.1 Existing Roads / Driveways

The project site is accessed from the Washington Street entrance drive. The site contains a small internal access drive drop off loop, and parking along to the west of the Motherhouse. There are currently forty-two (42) existing parking spaces, serving the seventy-five (75) bedroom Motherhouse.

5.2 Proposed Roads / Driveways

A 633' LF x 20' wide emergency access drive will be constructed as part of the project to allow direct access to the modernized Motherhouse Infirmary. The proposed emergency access drive connects to the northern end of the existing drop off loop near the main entrance to the Motherhouse building. A turnaround will be provided at the end of the emergency access drive adjacent to the building addition. No additional parking is proposed as the Infirmary Addition and renovation will be reducing the bedroom count by two (2) to seventy-three (73). Additionally, the seventy-five (75) bedroom facility only utilizes fifty-three (53) of the bedrooms. Future planning includes further renovation of the entire facility to include expansion of the bedroom sizes and a reduction to fifty-three (53) bedrooms.

5.3 Traffic and Parking

Per the City of Watertown Zoning Laws (Section 310-45 and 310-47), one (1) parking space is required for every room for residential uses and one (1) parking space is required for every three (3) beds for Assisted Living/ Nursing Homes. The Sisters of Saint Joseph Motherhouse Building post-construction will contain forty-three (43) residential style bedrooms and twenty-nine (29) beds dedicated to assisted living portion of the Motherhouse. The resulting parking space requirement calculations equates to fifty-three (53) required parking spaces (Residential = 43 Parking Spaces, Assisted Living = 10 Parking Spaces). The proposed site has an existing parking lot with thirty-one (31) painted parking spaces and nine (9) unpainted parking spaces along the west edge of the existing access drive and directly east of the two (2) storage sheds for a total of forty (40) parking spaces plus two (2) parking spaces within the garage. The Sisters of Saint Joseph Motherhouse currently has seventy-five (75) rooms available for lodging, however many of the rooms are unused. Currently the Sisters of Saint Joseph Motherhouse houses thirty-five (35) nuns full time and three (3) priests, many of which do not own a vehicle. Only fifteen (15) nuns own vehicles and the Motherhouse has twelve (12) employee owned vehicles, bringing the total number of nuns and employees who utilize the existing parking area on a consistent basis to twenty-seven (27). There are also twelve (12) nuns who do not live at the Motherhouse full time but do have rooms to stay there when they are in the area. Part of this building and renovation is consistent with an overall masterplan to reduce the number of rooms at the Motherhouse from seventy-five (75) to around fifty-three (53) larger rooms. The proposed building addition and renovation actually reduces the number of rooms in the work area from twelve (12) rooms to

ten (10) rooms. Taking into account the number of nuns who are infirmed and don't own or utilize vehicles and the masterplan to reduce the number of rooms at the motherhouse, it seems very impractical to create additional parking spaces to meet the current City Zoning requirement of fifty-three (53) parking spaces.

Trip generation calculations were performed utilizing data from the ITE Trip Generation Manual, 7th Edition. The resulting anticipated trips to the existing building and also the building post-construction (includes proposed building addition). The Weekday AM Peak Hour generates approximately 5 trips/hour entering and 5 trips/hour exiting. The Weekday PM Peak Hour generates approximately 9 trips/hour entering and 6 trips/hour exiting. See Appendix C for calculations.

6.0 PRIVATE UTILITIES

6.1 Gas, Electric, Telephone and Cable

Existing gas, electric and communication services are located adjacent to the site along Washington Street. No new private utility connections are proposed.

7.0 LIGHTING

7.1 Existing Site Lighting

The existing site lighting is provided by multiple wall mounted lights mounted on the existing Motherhouse building and light poles located along the north side of the Washington Street entrance drive.

7.2 Proposed Site Lighting

A total of two (2) proposed building mounted LED wall pack cutoff light fixtures and six (6) pole mounted LED cutoff light fixture will be installed to illuminate the emergency access drive and areas adjacent to the building addition.

8.0 LANDSCAPING

8.1 Existing Landscaping

Existing landscape trees and shrubs are located along the perimeter of the building. Undeveloped wooded areas exist along the north, east and south property boundaries.

8.2 Proposed Landscaping

No additional landscaping is proposed for this project. The Motherhouse building and all existing and proposed site drives are surround by wooded area to the north, south and east.

Sincerely,
Aubertine and Currier Architects, Engineers & Land Surveyors, P.L.L.C.

Matthew R. Morgia, P.E.
Civil Engineer

APPENDIX #1

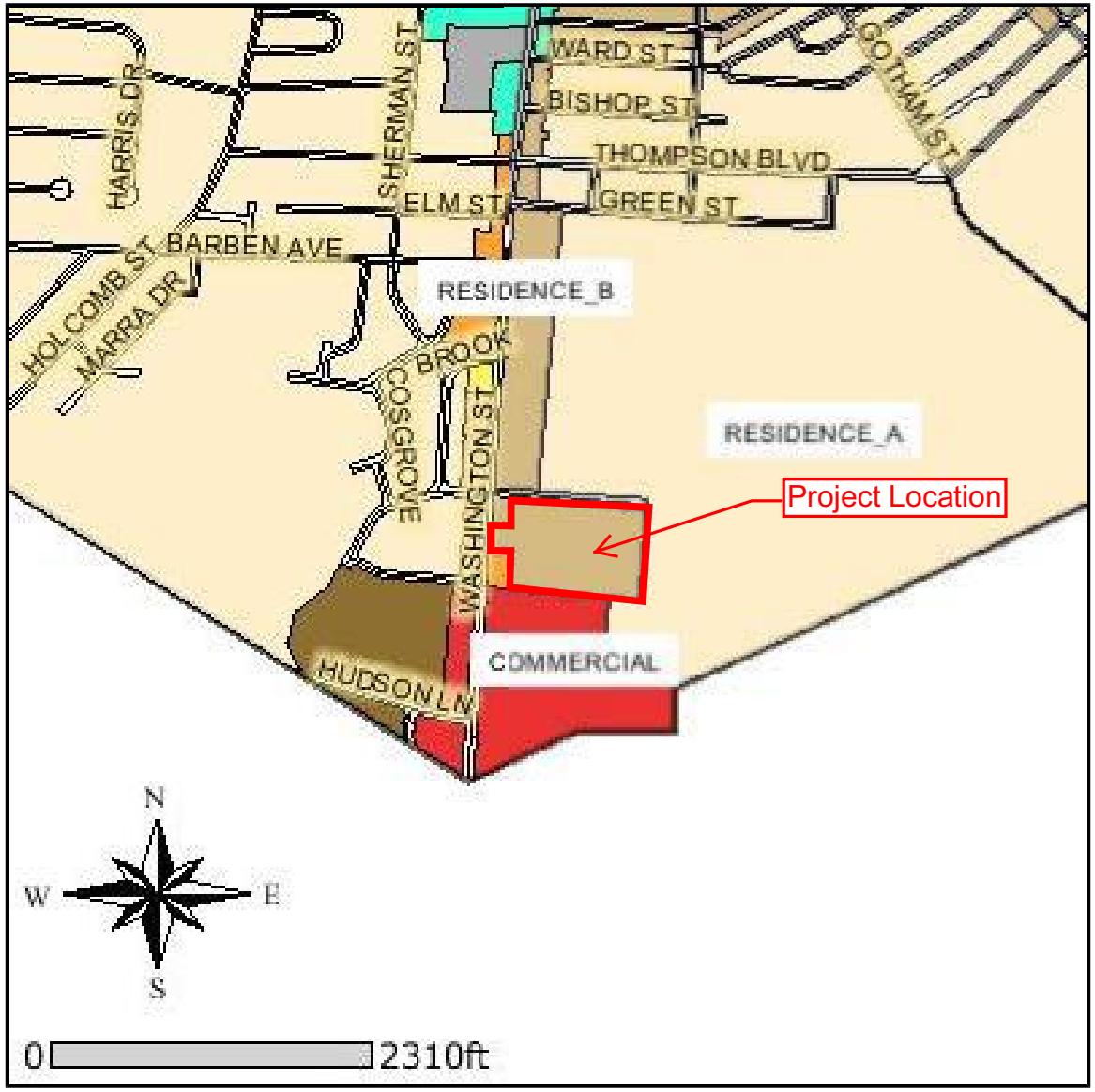
LOCATION MAP
CITY OF WATERTOWN ZONING MAP
CITY OF WATERTOWN GIS FLOODPLAIN & WETLANDS MAP
SOILS MAP
SOILS DESCRIPTION

Google earth

feet 1000

meters 500

Sisters of Saint Joseph
Zoning Map



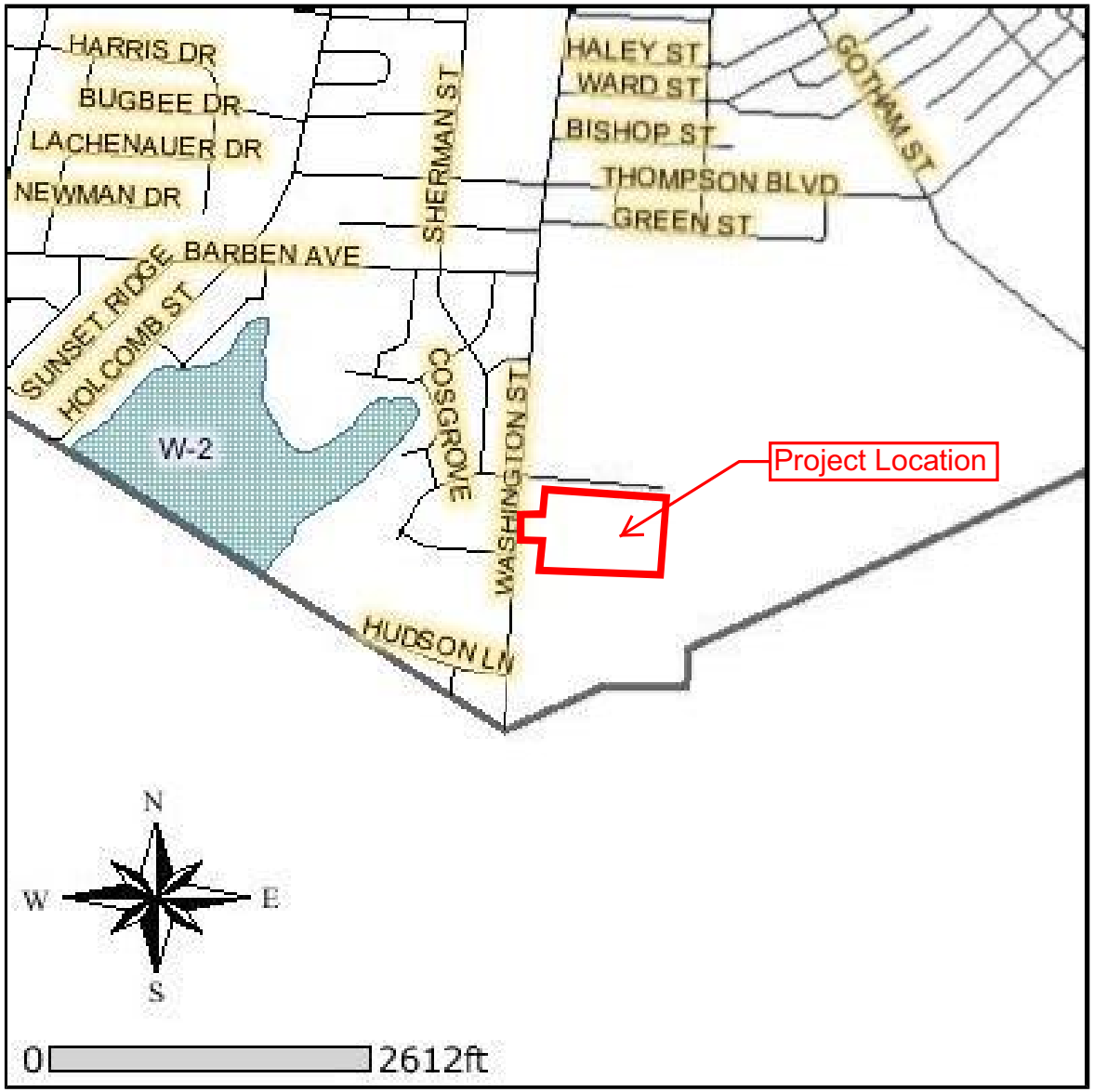
July 15, 2016

Disclaimer: This map was prepared by the City of Watertown Internet Mapping Application. The information was compiled using the most current data available. It is deemed accurate, but is not guaranteed.

Legend

- Roads
- Zoning
- Downtown Core
- River Development District
- DOWNTOWN
- WATERFRONT
- Open Space and Recreation
- COMMERCIAL
- HEALTH SERVICES
- HEAVY INDUSTRY
- LIGHT INDUSTRY
- LIMITED BUSINESS
- NEIGHBORHOOD BUSINESS
- PLANNED DEVELOPMENT
- RESIDENCE A
- RESIDENCE B
- RESIDENCE C
- City Boundary

SIsters of Saint Joseph
Flood & Wetlands Map



Legend

- Roads
- Wetlands
- Floodplains
- 100 Year Floodplain
- 500 Year Floodplain
- City Boundary

July 15, 2016

Disclaimer: **This map was prepared by the City of Watertown Internet Mapping Application. The information was compiled using the most current data available. It is deemed accurate, but is not guaranteed.**

Soil Map—Jefferson County, New York
(Sisters of Saint Joseph)

Map Scale: 1:1,830 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 25 50 100 150

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Jefferson County, New York
Survey Area Data: Version 12, Sep 21, 2015

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 11, 2011—Jul 2, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

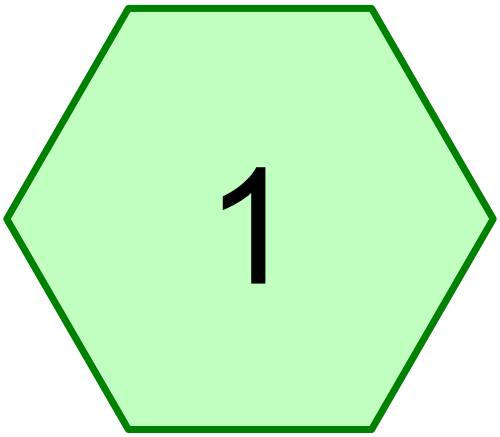
Map Unit Legend

Jefferson County, New York (NY045)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
BgB	Benson-Galoo complex, very rocky, 0 to 8 percent slopes	11.1	92.1%
FaB	Farmington loam, 0 to 8 percent slopes	1.0	7.9%
Totals for Area of Interest		**12.0**	**100.0%**

APPENDIX #2

HYDROLOGIC AND HYDRAULIC ANALYSIS

Aubertine and Currier Architects, Engineers & Land Surveyors, PLLC
522 Bradley Street Watertown, New York 13601 TELE: (315) 782-2005 FAX: (315) 782-1472



EX DA 1

Subcat Reach Pond Link

Routing Diagram for 2014-131.002 Existing
Prepared by Microsoft, Printed 7/19/2016

Area Listing (all nodes)

Area (acres)	C	Description (subcatchment-numbers)
1.540	0.95	Impervious, 'D' Soil (1)
2.870	0.20	Lawn Area, 'D' Soil (1)
10.490	0.25	Woods, 'D' Soil (1)
14.900	**0.31**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
14.900	Other	1
14.900		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.000	1.540	1.540	Impervious, 'D' Soil	1
0.000	0.000	0.000	0.000	2.870	2.870	Lawn Area, 'D' Soil	1
0.000	0.000	0.000	0.000	10.490	10.490	Woods, 'D' Soil	1
0.000	**0.000**	**0.000**	**0.000**	**14.900**	**14.900**	**TOTAL AREA**	

Time span=0.00-3.00 hrs, dt=0.01 hrs, 301 points
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc
Reach routing by Sim-Route method - Pond routing by Sim-Route method

Subcatchment 1: EX DA 1 Runoff Area=14.900 ac 10.34% Impervious Runoff Depth>0.11"
Flow Length=1,230' Tc=53.5 min C=0.31 Runoff=0.65 cfs 0.137 af

Total Runoff Area = 14.900 ac Runoff Volume = 0.137 af Average Runoff Depth = 0.11"
89.66% Pervious = 13.360 ac 10.34% Impervious = 1.540 ac

Summary for Subcatchment 1: EX DA 1

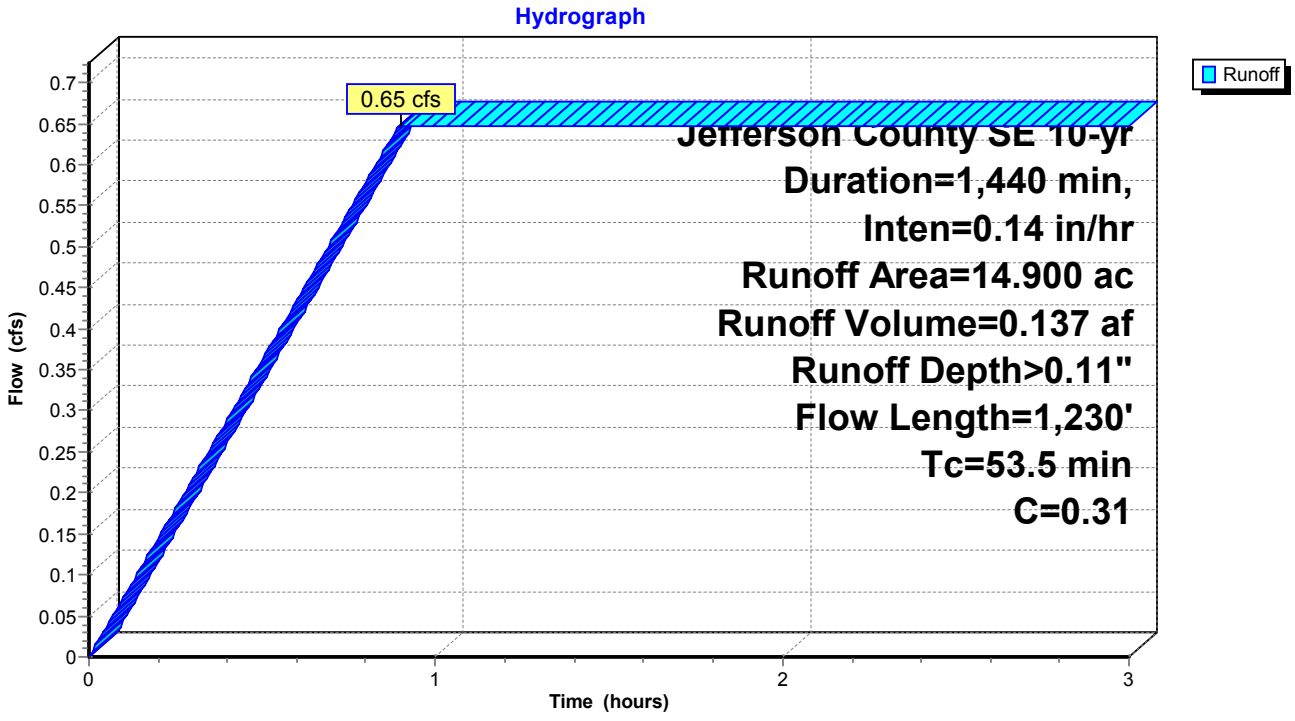
Runoff = 0.65 cfs @ 0.90 hrs, Volume= 0.137 af, Depth> 0.11"

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Jefferson County SE 10-yr Duration=1,440 min, Inten=0.14 in/hr

Area (ac)	C	Description
1.540	0.95	Impervious, 'D' Soil
2.870	0.20	Lawn Area, 'D' Soil
10.490	0.25	Woods, 'D' Soil
14.900	0.31	Weighted Average
13.360		89.66% Pervious Area
1.540		10.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.7	100	0.0250	0.04		**Sheet Flow, Sheet Flow - Gravel Dive** Woods: Dense underbrush n= 0.800 P2= 2.50"
14.8	1,130	0.0650	1.27		**Shallow Concentrated Flow, Shallow Concentated** Woodland Kv= 5.0 fps
53.5	1,230	Total			

Subcatchment 1: EX DA 1



Time span=0.00-3.00 hrs, dt=0.01 hrs, 301 points
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc
Reach routing by Sim-Route method - Pond routing by Sim-Route method

Subcatchment 1: EX DA 1 Runoff Area=14.900 ac 10.34% Impervious Runoff Depth>0.13"
Flow Length=1,230' Tc=53.5 min C=0.31 Runoff=0.79 cfs 0.167 af

Total Runoff Area = 14.900 ac Runoff Volume = 0.167 af Average Runoff Depth = 0.13"
89.66% Pervious = 13.360 ac 10.34% Impervious = 1.540 ac

Summary for Subcatchment 1: EX DA 1

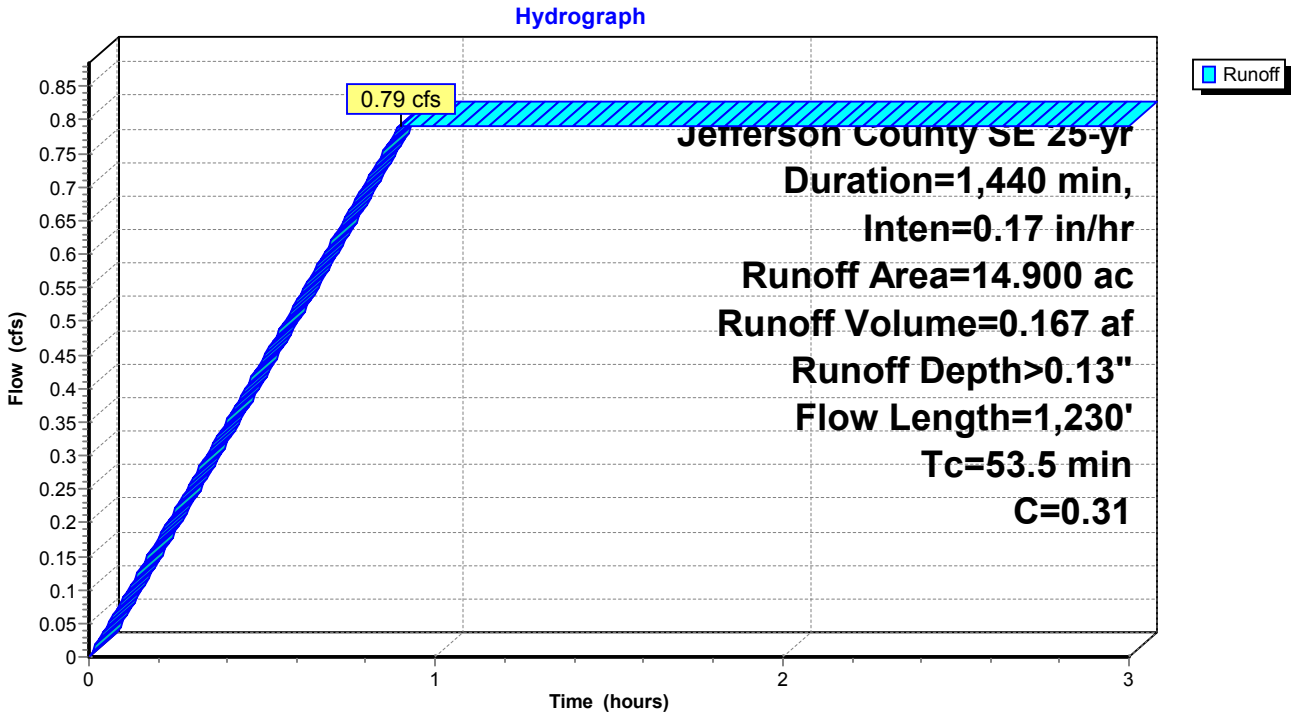
Runoff = 0.79 cfs @ 0.90 hrs, Volume= 0.167 af, Depth> 0.13"

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Jefferson County SE 25-yr Duration=1,440 min, Inten=0.17 in/hr

Area (ac)	C	Description
1.540	0.95	Impervious, 'D' Soil
2.870	0.20	Lawn Area, 'D' Soil
10.490	0.25	Woods, 'D' Soil
14.900	0.31	Weighted Average
13.360		89.66% Pervious Area
1.540		10.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.7	100	0.0250	0.04		**Sheet Flow, Sheet Flow - Gravel Dive** Woods: Dense underbrush n= 0.800 P2= 2.50"
14.8	1,130	0.0650	1.27		**Shallow Concentrated Flow, Shallow Concentated** Woodland Kv= 5.0 fps
53.5	1,230	Total			

Subcatchment 1: EX DA 1



Time span=0.00-3.00 hrs, dt=0.01 hrs, 301 points
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc
Reach routing by Sim-Route method - Pond routing by Sim-Route method

Subcatchment 1: EX DA 1 Runoff Area=14.900 ac 10.34% Impervious Runoff Depth>0.16"
Flow Length=1,230' Tc=53.5 min C=0.31 Runoff=0.92 cfs 0.195 af

Total Runoff Area = 14.900 ac Runoff Volume = 0.195 af Average Runoff Depth = 0.16"
89.66% Pervious = 13.360 ac 10.34% Impervious = 1.540 ac

Summary for Subcatchment 1: EX DA 1

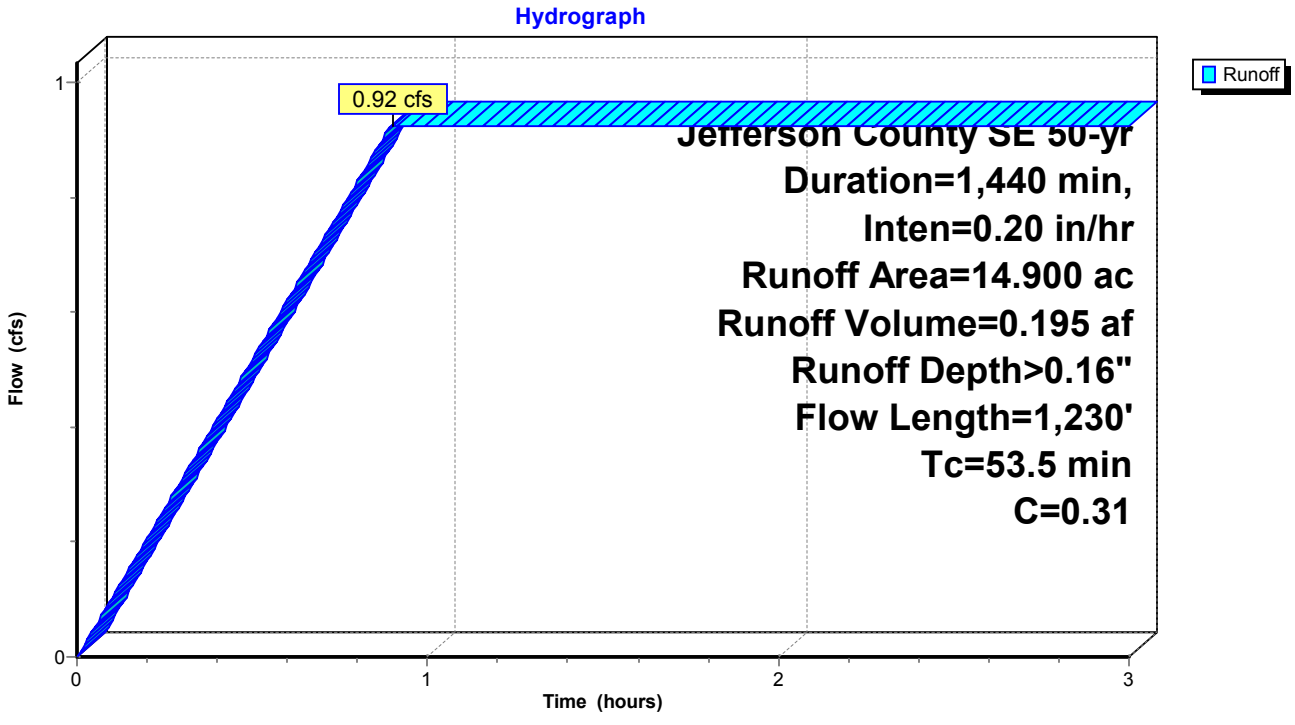
Runoff = 0.92 cfs @ 0.90 hrs, Volume= 0.195 af, Depth> 0.16"

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Jefferson County SE 50-yr Duration=1,440 min, Inten=0.20 in/hr

Area (ac)	C	Description
1.540	0.95	Impervious, 'D' Soil
2.870	0.20	Lawn Area, 'D' Soil
10.490	0.25	Woods, 'D' Soil
14.900	0.31	Weighted Average
13.360		89.66% Pervious Area
1.540		10.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.7	100	0.0250	0.04		**Sheet Flow, Sheet Flow - Gravel Dive** Woods: Dense underbrush n= 0.800 P2= 2.50"
14.8	1,130	0.0650	1.27		**Shallow Concentrated Flow, Shallow Concentated** Woodland Kv= 5.0 fps
53.5	1,230	Total			

Subcatchment 1: EX DA 1



Time span=0.00-3.00 hrs, dt=0.01 hrs, 301 points
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc
Reach routing by Sim-Route method - Pond routing by Sim-Route method

Subcatchment 1: EX DA 1 Runoff Area=14.900 ac 10.34% Impervious Runoff Depth>0.18"
Flow Length=1,230' Tc=53.5 min C=0.31 Runoff=1.08 cfs 0.227 af

Total Runoff Area = 14.900 ac Runoff Volume = 0.227 af Average Runoff Depth = 0.18"
89.66% Pervious = 13.360 ac 10.34% Impervious = 1.540 ac

Summary for Subcatchment 1: EX DA 1

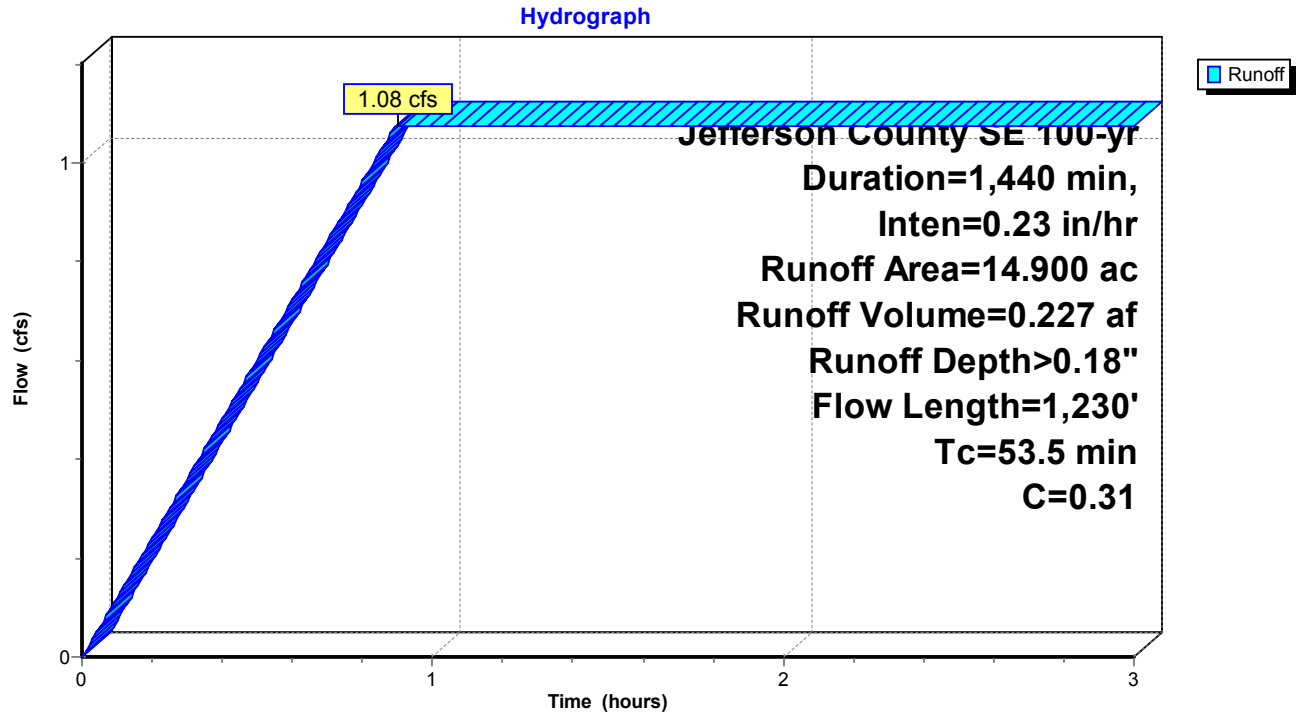
Runoff = 1.08 cfs @ 0.90 hrs, Volume= 0.227 af, Depth> 0.18"

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Jefferson County SE 100-yr Duration=1,440 min, Inten=0.23 in/hr

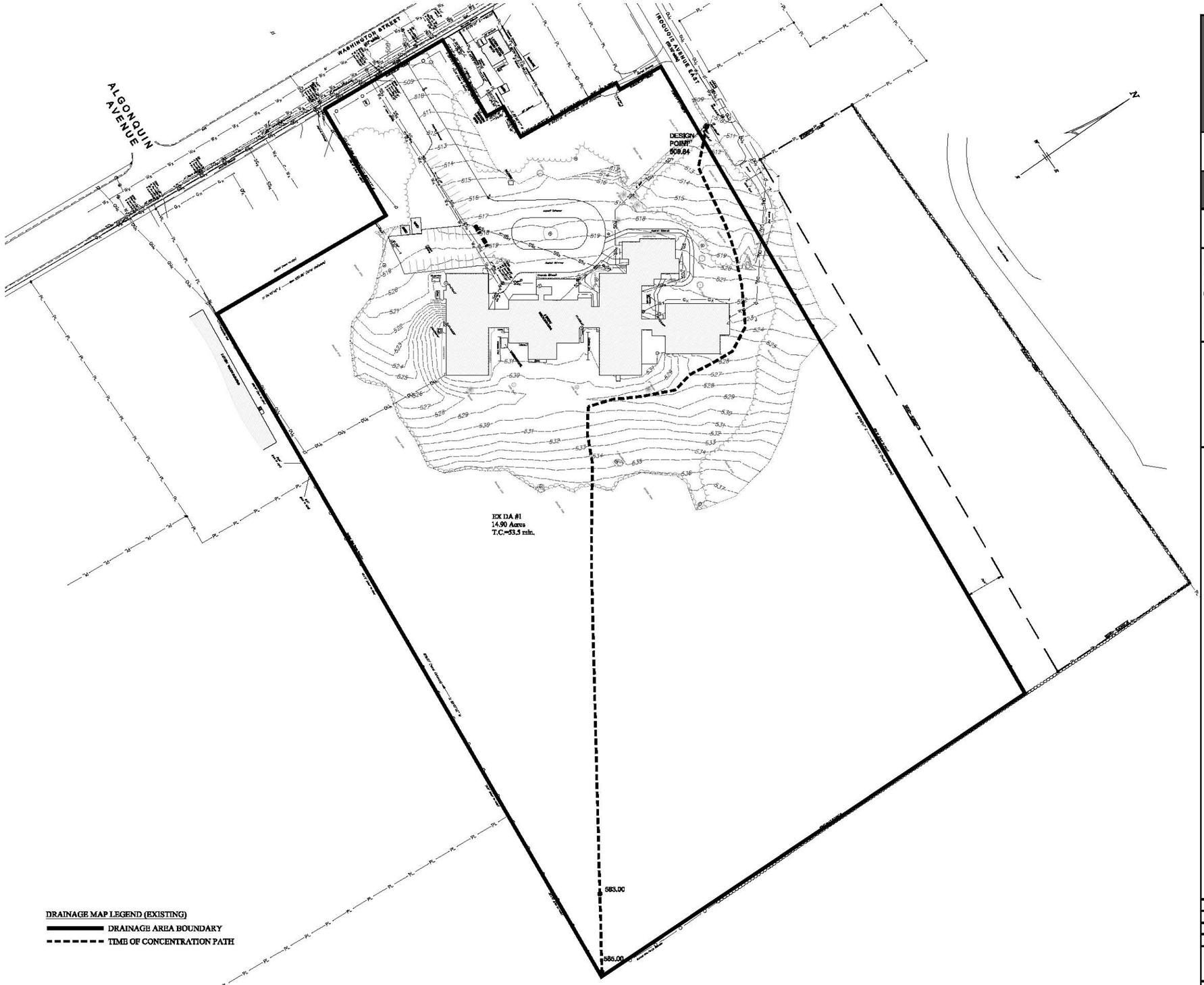
Area (ac)	C	Description
1.540	0.95	Impervious, 'D' Soil
2.870	0.20	Lawn Area, 'D' Soil
10.490	0.25	Woods, 'D' Soil
14.900	0.31	Weighted Average
13.360		89.66% Pervious Area
1.540		10.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.7	100	0.0250	0.04		**Sheet Flow, Sheet Flow - Gravel Dive** Woods: Dense underbrush n= 0.800 P2= 2.50"
14.8	1,130	0.0650	1.27		**Shallow Concentrated Flow, Shallow Concentated** Woodland Kv= 5.0 fps
53.5	1,230	Total			

Subcatchment 1: EX DA 1



LEGEND	EXISTING	PROPOSED
5' CONTOUR	155	155
1' CONTOUR	154	154
PROPERTY LINE	PL PL	PL PL
RIGHT OF WAY		
SETBACK		
BUILDING		
ASPHALT PAVEMENT		
CURB		
SIDEWALK		
EDGE OF GRAVEL		
FENCE	O O O	
WATERLINE	W_X W_X	W W
SANITARY SEWER	SS_X SS_X	SS SS
STORM SEWER	SD_X SD_X	SD SD
OVERHEAD UTILITIES	OU_X OU_X	OU OU
UNDERGROUND ELECTRIC	E_X E_X	E E
GAS	G_X G_X	G G
FIRE HYDRANT		
WATER VALVE	W	
SANITARY MANHOLE	S	
STORM MANHOLE	D	D
CATCH BASIN	CB	S B
UTILITY POLE AND GUY		
LIGHT POLE		



DRAINAGE MAP LEGEND (EXISTING)

DRAINAGE AREA BOUNDARY

TIME OF CONCENTRATION PATH

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

FOR APPROVALS ONLY
NOT FOR CONSTRUCTION

AUBERTINE CURRIER
ARCHITECTS, ENGINEERS & LAND SURVEYORS, PLLC

522 Bradley Street
Watertown, New York 13601

aubertinecurrier.com

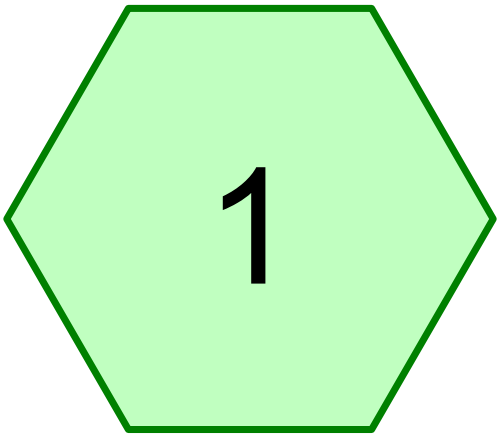
Phone: (315)782-2005
Fax: (315)782-1472

ACCESS DRIVE AND INFIRMARY ADDITION
SISTERS OF SAINT JOSEPH
1425 WASHINGTON STREET
WATERTOWN, NEW YORK
JEFFERSON COUNTY

PROJECT NO:	2014-131.002
SCALE:	1"=30'
DRAWN BY:	CWT
CHECKED BY:	MRN
ISSUE DATES:	07/19/2019

EXISTING DRAINAGE AREA MAP

EX-1



PR DA 1

Subcat Reach Pond Link

Routing Diagram for 2014-131.002 Proposed
Prepared by Microsoft, Printed 7/19/2016

Area Listing (all nodes)

Area (acres)	C	Description (subcatchment-numbers)
1.950	0.95	Impervious, 'D' Soil (1)
2.880	0.20	Lawn Area, 'D' Soil (1)
10.070	0.25	Woods, 'D' Soil (1)
14.900	**0.33**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
14.900	Other	1
14.900		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.000	1.950	1.950	Impervious, 'D' Soil	1
0.000	0.000	0.000	0.000	2.880	2.880	Lawn Area, 'D' Soil	1
0.000	0.000	0.000	0.000	10.070	10.070	Woods, 'D' Soil	1
0.000	**0.000**	**0.000**	**0.000**	**14.900**	**14.900**	**TOTAL AREA**	

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc
Reach routing by Sim-Route method - Pond routing by Sim-Route method

Subcatchment 1: PR DA 1 Runoff Area=14.900 ac 13.09% Impervious Runoff Depth>1.08"
Flow Length=1,270' Tc=54.4 min C=0.33 Runoff=0.69 cfs 1.339 af

Total Runoff Area = 14.900 ac Runoff Volume = 1.339 af Average Runoff Depth = 1.08"
86.91% Pervious = 12.950 ac 13.09% Impervious = 1.950 ac

Summary for Subcatchment 1: PR DA 1

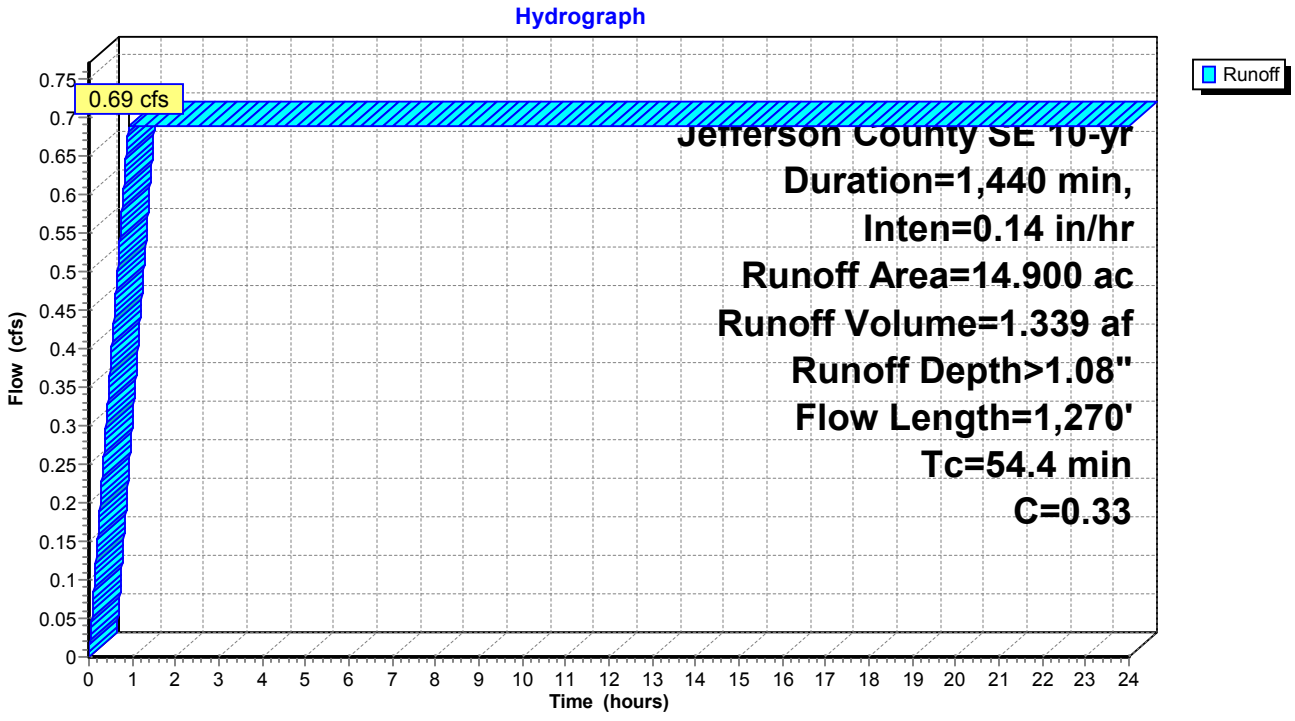
Runoff = 0.69 cfs @ 0.91 hrs, Volume= 1.339 af, Depth> 1.08"

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Jefferson County SE 10-yr Duration=1,440 min, Inten=0.14 in/hr

Area (ac)	C	Description
1.950	0.95	Impervious, 'D' Soil
2.880	0.20	Lawn Area, 'D' Soil
10.070	0.25	Woods, 'D' Soil
14.900	0.33	Weighted Average
12.950		86.91% Pervious Area
1.950		13.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.7	100	0.0250	0.04		**Sheet Flow, Wooded Area** Woods: Dense underbrush n= 0.800 P2= 2.50"
15.7	1,170	0.0620	1.24		**Shallow Concentrated Flow, Shallow Concentated** Woodland Kv= 5.0 fps
54.4	1,270	Total			

Subcatchment 1: PR DA 1



Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc
Reach routing by Sim-Route method - Pond routing by Sim-Route method

Subcatchment 1: PR DA 1 Runoff Area=14.900 ac 13.09% Impervious Runoff Depth>1.32"
Flow Length=1,270' Tc=54.4 min C=0.33 Runoff=0.84 cfs 1.637 af

Total Runoff Area = 14.900 ac Runoff Volume = 1.637 af Average Runoff Depth = 1.32"
86.91% Pervious = 12.950 ac 13.09% Impervious = 1.950 ac

Summary for Subcatchment 1: PR DA 1

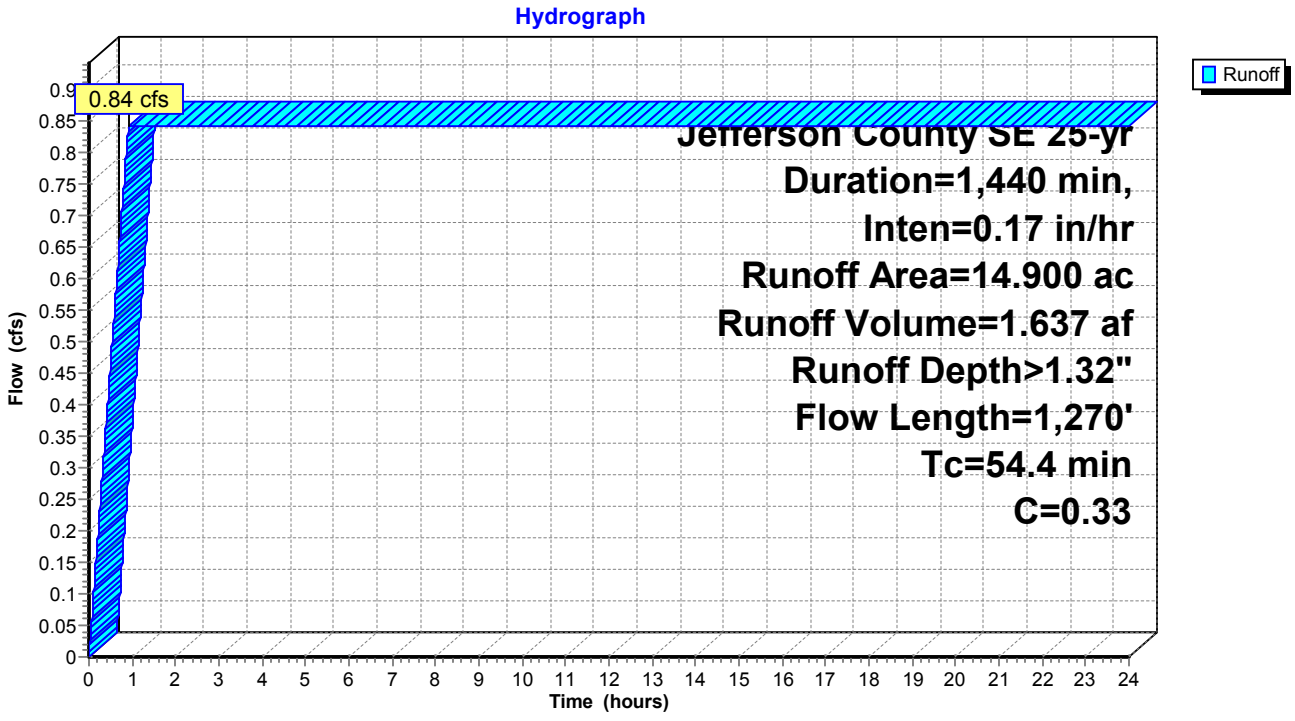
Runoff = 0.84 cfs @ 0.91 hrs, Volume= 1.637 af, Depth> 1.32"

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Jefferson County SE 25-yr Duration=1,440 min, Inten=0.17 in/hr

Area (ac)	C	Description
1.950	0.95	Impervious, 'D' Soil
2.880	0.20	Lawn Area, 'D' Soil
10.070	0.25	Woods, 'D' Soil
14.900	0.33	Weighted Average
12.950		86.91% Pervious Area
1.950		13.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.7	100	0.0250	0.04		**Sheet Flow, Wooded Area** Woods: Dense underbrush n= 0.800 P2= 2.50"
15.7	1,170	0.0620	1.24		**Shallow Concentrated Flow, Shallow Concentated** Woodland Kv= 5.0 fps
54.4	1,270	Total			

Subcatchment 1: PR DA 1



Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc
Reach routing by Sim-Route method - Pond routing by Sim-Route method

Subcatchment 1: PR DA 1 Runoff Area=14.900 ac 13.09% Impervious Runoff Depth>1.54"
Flow Length=1,270' Tc=54.4 min C=0.33 Runoff=0.98 cfs 1.910 af

Total Runoff Area = 14.900 ac Runoff Volume = 1.910 af Average Runoff Depth = 1.54"
86.91% Pervious = 12.950 ac 13.09% Impervious = 1.950 ac

Summary for Subcatchment 1: PR DA 1

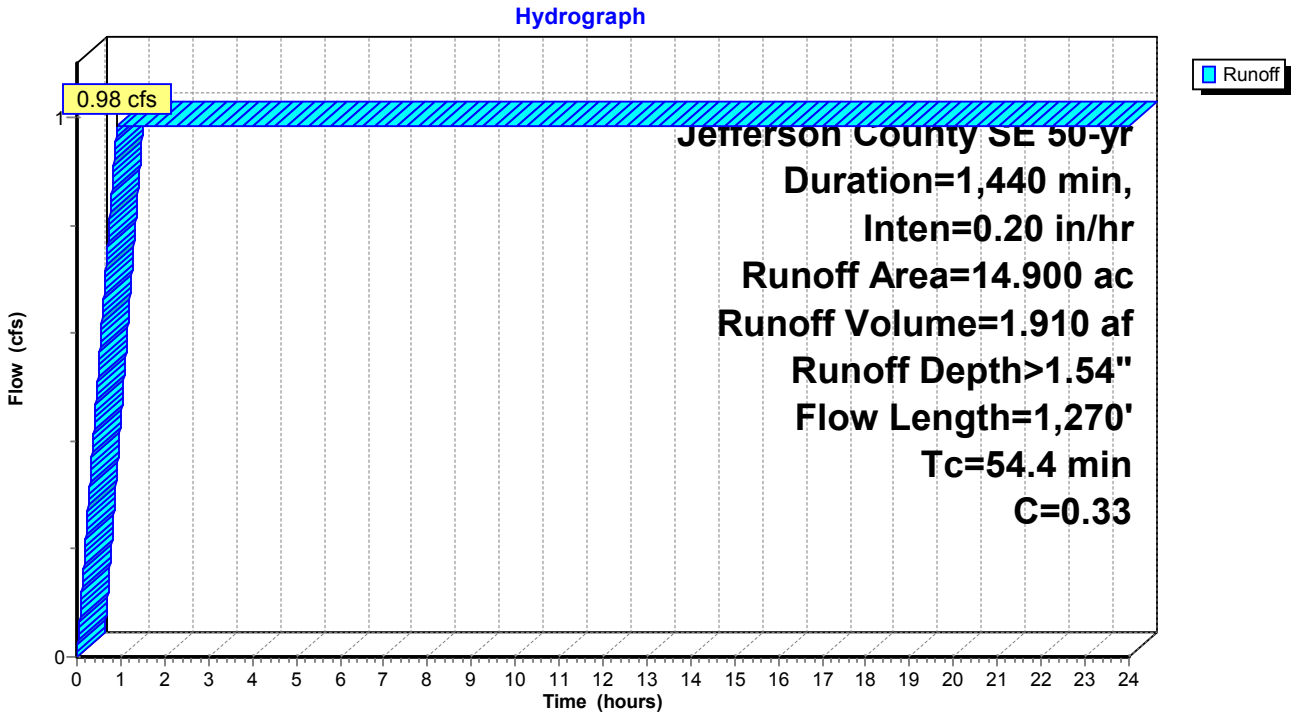
Runoff = 0.98 cfs @ 0.91 hrs, Volume= 1.910 af, Depth> 1.54"

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Jefferson County SE 50-yr Duration=1,440 min, Inten=0.20 in/hr

Area (ac)	C	Description
1.950	0.95	Impervious, 'D' Soil
2.880	0.20	Lawn Area, 'D' Soil
10.070	0.25	Woods, 'D' Soil
14.900	0.33	Weighted Average
12.950		86.91% Pervious Area
1.950		13.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.7	100	0.0250	0.04		**Sheet Flow, Wooded Area** Woods: Dense underbrush n= 0.800 P2= 2.50"
15.7	1,170	0.0620	1.24		**Shallow Concentrated Flow, Shallow Concentated** Woodland Kv= 5.0 fps
54.4	1,270	Total			

Subcatchment 1: PR DA 1



Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by Rational method, Rise/Fall=1.0/1.0 xTc
Reach routing by Sim-Route method - Pond routing by Sim-Route method

Subcatchment 1: PR DA 1 Runoff Area=14.900 ac 13.09% Impervious Runoff Depth>1.79"
Flow Length=1,270' Tc=54.4 min C=0.33 Runoff=1.14 cfs 2.228 af

Total Runoff Area = 14.900 ac Runoff Volume = 2.228 af Average Runoff Depth = 1.79"
86.91% Pervious = 12.950 ac 13.09% Impervious = 1.950 ac

Summary for Subcatchment 1: PR DA 1

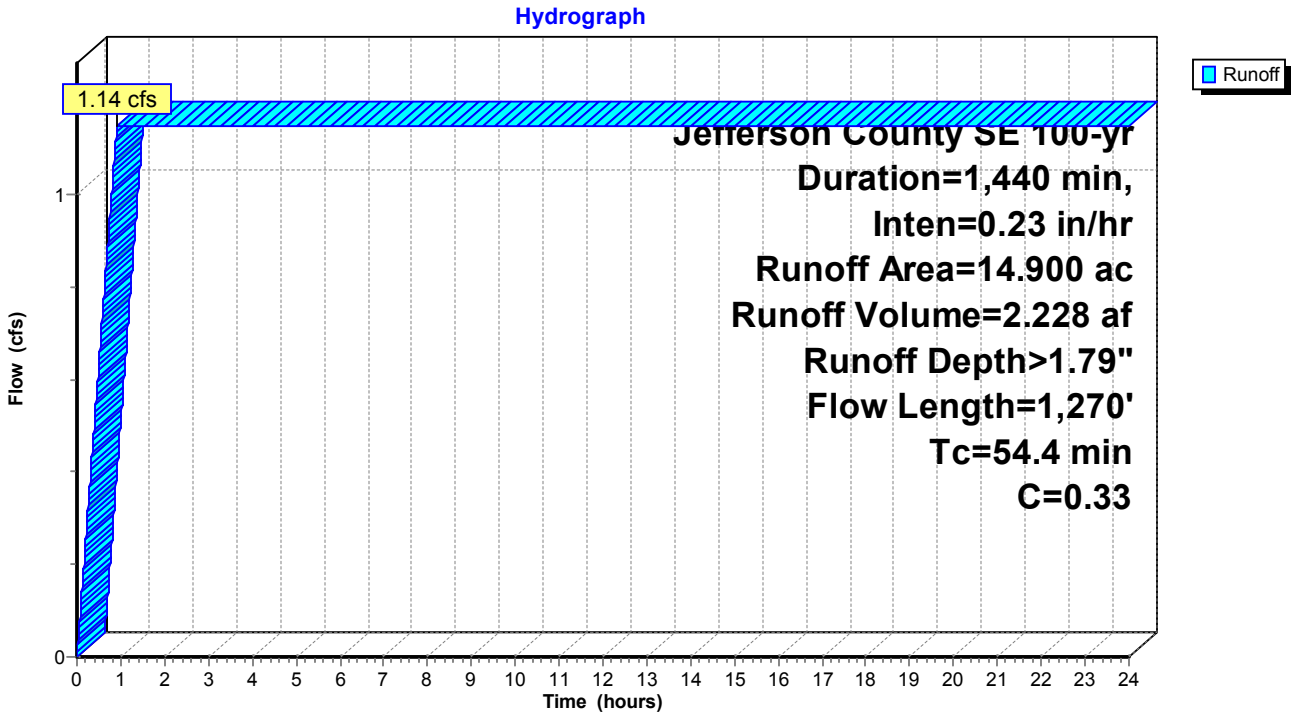
Runoff = 1.14 cfs @ 0.91 hrs, Volume= 2.228 af, Depth> 1.79"

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Jefferson County SE 100-yr Duration=1,440 min, Inten=0.23 in/hr

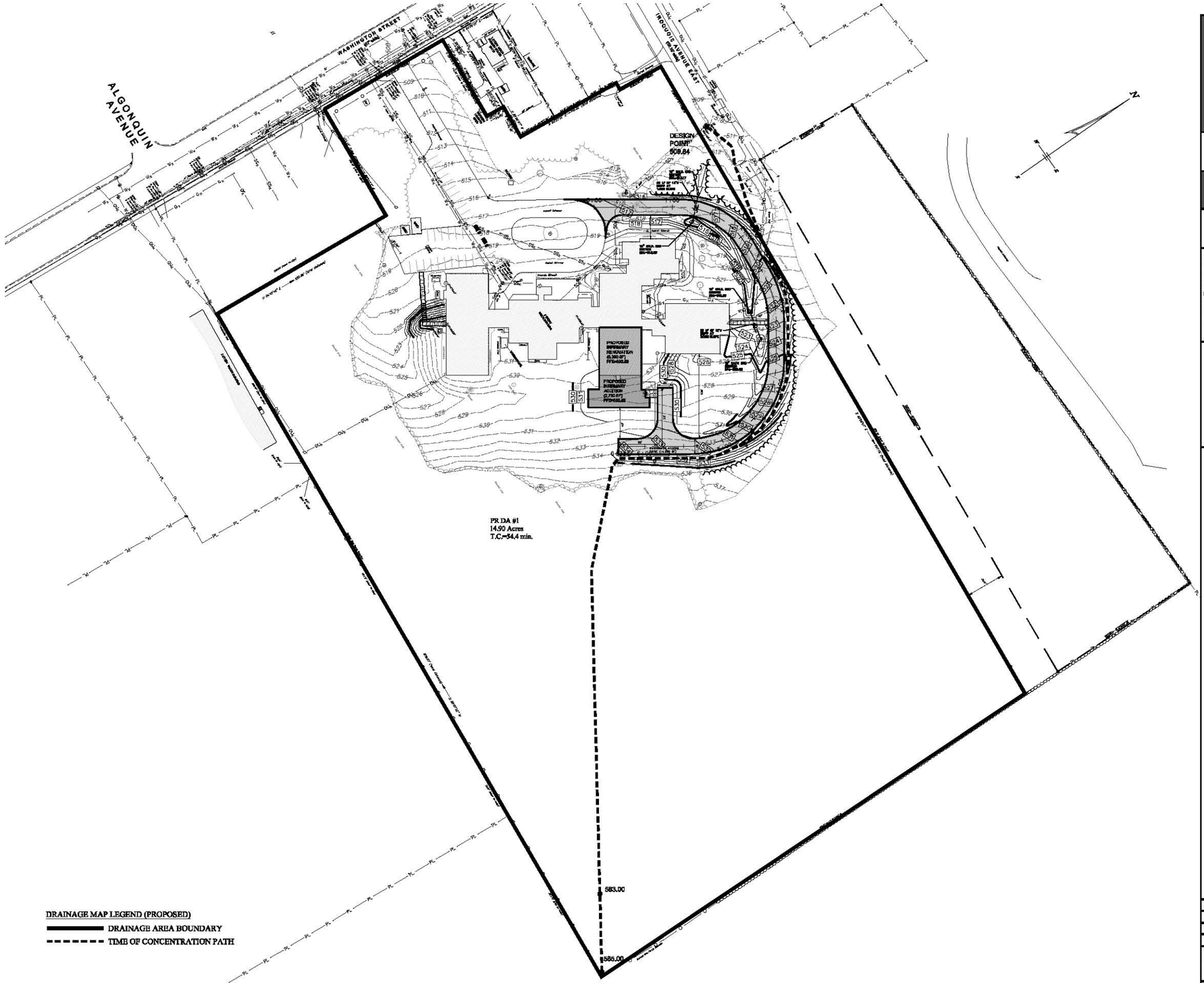
Area (ac)	C	Description
1.950	0.95	Impervious, 'D' Soil
2.880	0.20	Lawn Area, 'D' Soil
10.070	0.25	Woods, 'D' Soil
14.900	0.33	Weighted Average
12.950		86.91% Pervious Area
1.950		13.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
38.7	100	0.0250	0.04		**Sheet Flow, Wooded Area** Woods: Dense underbrush n= 0.800 P2= 2.50"
15.7	1,170	0.0620	1.24		**Shallow Concentrated Flow, Shallow Concentated** Woodland Kv= 5.0 fps
54.4	1,270	Total			

Subcatchment 1: PR DA 1



LEGEND	EXISTING	PROPOSED
5' CONTOUR	155	155
1' CONTOUR	154	154
PROPERTY LINE	PL PL	PL PL
RIGHT OF WAY		
SETBACK		
BUILDING		
ASPHALT PAVEMENT		
CURB		
SIDEWALK		
EDGE OF GRAVEL		
FENCE		
WATERLINE	W_X W_X	W W
SANITARY SEWER	SS_X SS_X	SS SS
STORM SEWER	SD_X SD_X	SD SD
OVERHEAD UTILITIES	OU_X OU_X	OU OU
UNDERGROUND ELECTRIC	E_X E_X	E E
GAS	G_X G_X	G G
FIRE HYDRANT		
WATER VALVE		
SANITARY MANHOLE		
STORM MANHOLE		
CATCH BASIN		
UTILITY POLE AND GUY		
LIGHT POLE		



DRAINAGE MAP LEGEND (PROPOSED)

DRAINAGE AREA BOUNDARY

TIME OF CONCENTRATION PATH

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

FOR APPROVALS ONLY
NOT FOR CONSTRUCTION

AUBERTINE CURRIER
ARCHITECTS, ENGINEERS & LAND SURVEYORS, PLLC

522 Bradley Street
Watertown, New York 13601

aubertinecurrier.com

Phone: (315)782-2005
Fax: (315)782-1472

ACCESS DRIVE AND INFIRMARY ADDITION
SISTERS OF SAINT JOSEPH
1425 WASHINGTON STREET
WATERTOWN, NEW YORK
JEFFERSON COUNTY

PROJECT NO: 2014-131.002
SCALE: 1"=30'
DRAWN BY: CWT
CHECKED BY: MRN
ISSUE DATES: 07/14/2016

PROPOSED DRAINAGE AREA MAP

PR-1

APPENDIX #3

PARKING CALCULATIONS

AUBERTINE and CURRIER
ARCHITECTS, ENGINEERS & LAND SURVEYORS, PLLC
522 BRADLEY STREET
WATERTOWN, NY 13601
TEL: (315) 782-2005
FAX: (315) 782-1472
www.AubertineCurrier.com

CALCULATION SHEET

Project Number: 2014-131.002 Date: 7/19/16
Project Name: SSJ Bldg Addition Page: 1 Of: 1
Location: Washington St, Watertown Calc'd By: LWT

Traffic Generation Calculations

- Trip Generation ITE 7th Edition

  Land Use: 253 Congregate Care ~ 73 Rooms Post-Construction

- Weekday AM Peak Hour ~ Avg. Rate = 0.14 Trips Per Room
  ~ 50% Entering, 50% Exiting

  73 Rooms x 0.14 Trips Per Room ≈ 10 Trips Per Hour

  5 Entering, 5 Exiting

- Weekday PM Peak Hour ~ Avg Rate = 0.20 Trips Per Room
  ~ 60% Entering, 40% Exiting

  73 Rooms x 0.20 Trips Per Room ≈ 15 Trips Per Hour

  9 Entering, 6 Exiting

Land Use: 253
Congregate Care Facility

Description

Congregate care facilities are independent living developments that provide centralized amenities such as dining, housekeeping, transportation and organized social/recreational activities. Limited medical services (such as nursing and dental) may or may not be provided. The resident may contract additional medical services or personal assistance. Senior adult housing—detached (Land Use 251), senior adult housing—attached (Land Use 252) and continuing care retirement community (Land Use 255) are related land uses.

Additional Data

Vehicle ownership levels were very low at congregate care facilities; the facilities' employees or services provided to the residents generated the majority of the trips to the sites.

The peak hour of the generator typically did not coincide with the peak hour of the adjacent street traffic.

The sites were surveyed in the 1980s and 2000s in Oregon.

Source Numbers

155, 584

Congregate Care Facility
(253)

Average Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
A.M. Peak Hour of Generator

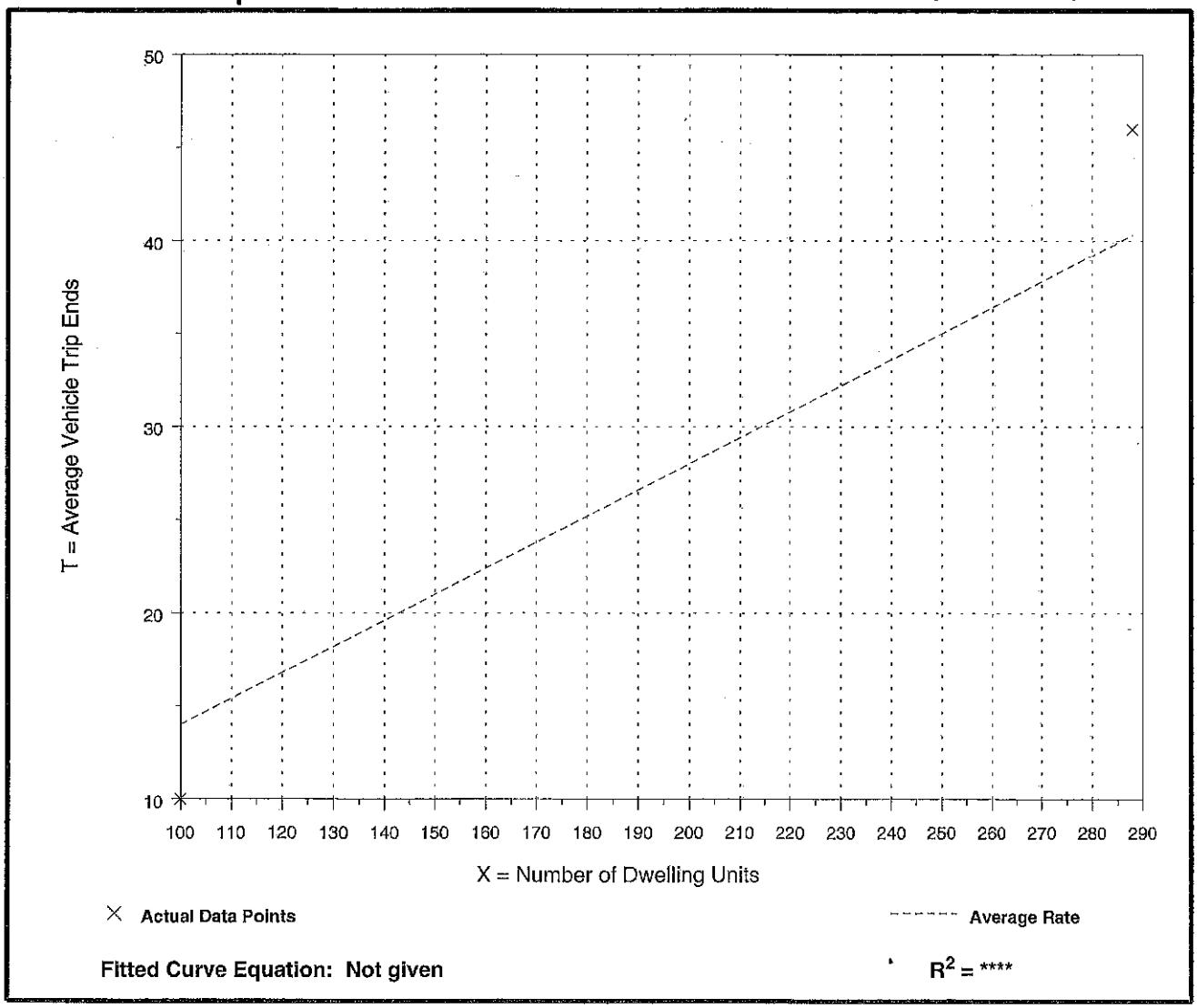
Number of Studies: 2
Avg. Number of Dwelling Units: 194
Directional Distribution: 50% entering, 50% exiting

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.14	0.10 - 0.16	*

Data Plot and Equation

Caution - Use Carefully - Small Sample Size



Fitted Curve Equation: Not given

R^2 = ****

Congregate Care Facility
(253)

Average Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
P.M. Peak Hour of Generator

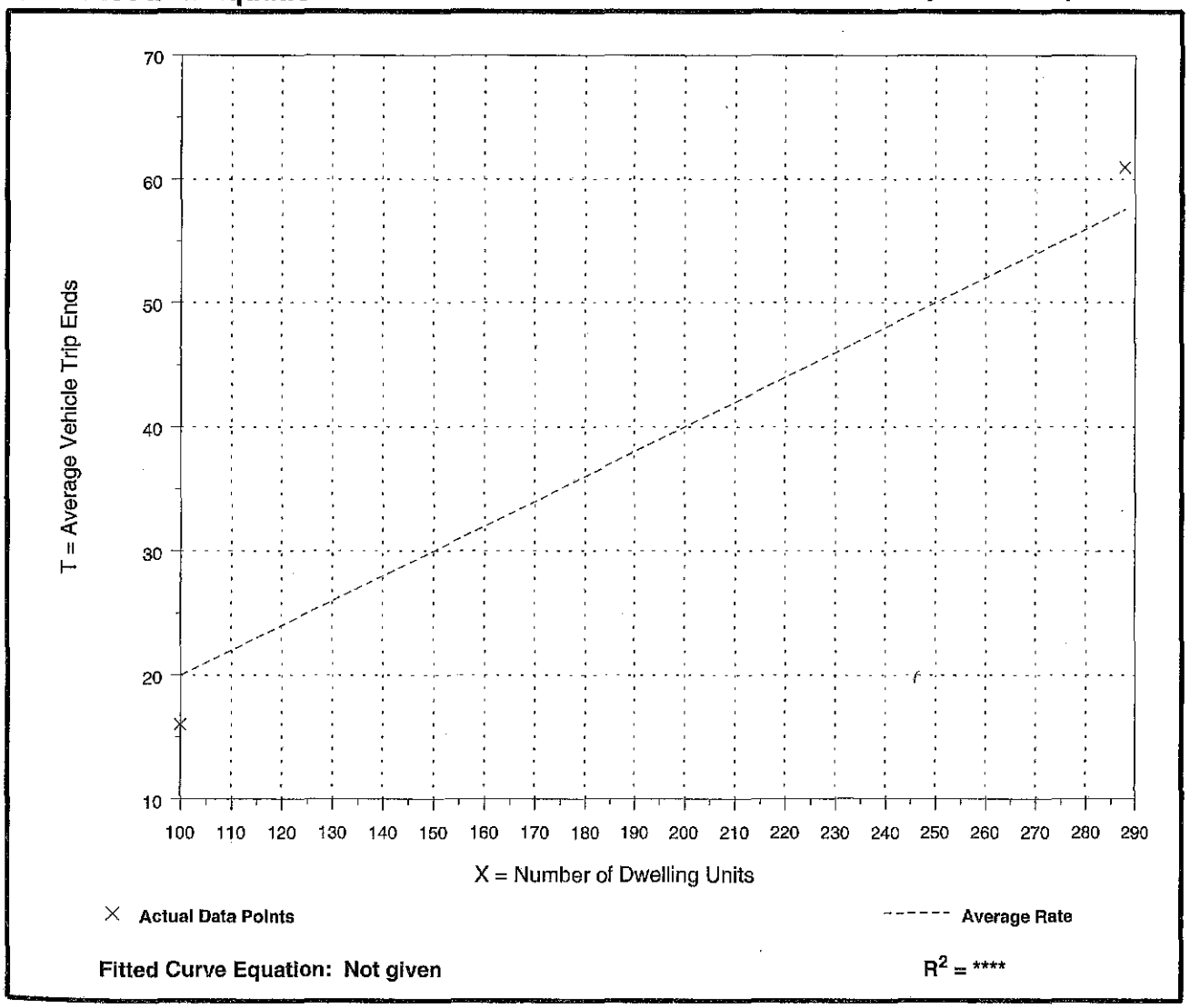
Number of Studies: 2
Avg. Number of Dwelling Units: 194
Directional Distribution: 60% entering, 40% exiting

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.20	0.16 - 0.21	*

Data Plot and Equation

Caution - Use Carefully - Small Sample Size



Fitted Curve Equation: Not given

R^2 = ****

MEMORANDUM

CITY OF WATERTOWN, NEW YORK
OFFICE OF PLANNING AND COMMUNITY DEVELOPMENT
245 WASHINGTON STREET, ROOM 304, WATERTOWN, NY 13601
PHONE: 315-785-7740 – FAX: 315-785-7829

TO:	Planning Board Members
FROM:	Michael A. Lumbis, Planning and Community Development Director
SUBJECT:	Site Plan Approval – 1425 Washington Street
DATE:	July 28, 2016

Request: Site Plan Approval for the construction of a 2,730 square-foot infirmary addition, a 633 foot long, 20 foot-wide emergency access drive and associated site improvements located at 1425 Washington Street, Parcel Number 13-22-101.000.

Applicant: Matthew R. Morgia, P.E. of Aubertine and Currier, PLLC on behalf of the Sisters of Saint Joseph

Proposed Use: Convent Infirmary

Property Owner: Sisters of Saint Joseph

Submitted:	
Property Survey: Site survey only.	Preliminary Architectural Drawings: Floor Plans only; no elevations provided.
Site Plan: Yes	Preliminary Site Engineering Plans: Yes
Vehicle and Pedestrian Circulation Plan: No	Construction Time Schedule: Yes
Landscaping and Grading Plan: Grading only	Description of Uses, Hours & Traffic Volume: Yes

SEQRA: Unlisted

Jefferson County 239-m Review: No

Zoning Information:	
District: Residence B	Maximum Lot Coverage: 35 percent
Setback Requirements: F: 20', S: 5', R: 25'	Buffer Zones Required: No

Project Overview: The applicant proposes to construct a 2,730 square-foot addition to the existing infirmary wing at the Sisters of St. Joseph, in addition to performing renovations to the existing infirmary. The addition would consist primarily of patient rooms, a new lounge and some janitorial and storage space. The applicant also proposes to construct a 633 foot-long, 20 foot-wide emergency access drive at the north end of the site.

Parking and Vehicle Circulation: Section 310-45 of the City Zoning Ordinance requires one parking space for every multi-family dwelling unit plus ten percent of the total for guest parking. The 43 residential style bedrooms located within the facility generally fall within this category and therefore require 48 parking spaces (43 + 4.3 = 47.3 or 48) Section 310-47 requires one parking space for every three beds for nursing homes. There are 29 beds dedicated to assisted living/nursing home use which requires an additional 10 spaces. The total number of required parking spaces is therefore 58. The applicant indicates in the Planning Data table that 42 will be provided. In the Engineering Report, the applicant attempts to justify that 42 spaces is adequate for the site given the current occupancy, the number of residents who actually own vehicles and future renovations that will reduce the number of beds at the facility. While Staff is understanding of this data, we unfortunately have to enforce the Zoning Ordinance which does not allow us to take into account these factors. Therefore, an additional 16 parking spaces will have to be provided to meet the required 58 parking spaces.

The site plan cannot be approved without the required number of spaces. If the applicant chooses not to provide the required number of spaces, then another option would be to petition the Zoning Board of Appeals (ZBA) to vary the parking requirement for the site.

New York State Building Code 1106.1.1 (Access Aisles) states that "accessible parking spaces shall be in conformance with ICC/ANSI A117.1, except that spaces shall be provided with access aisles at least eight feet (2440 mm) in width." The site plan, as submitted, appears to depict that only one of the two accessible spaces on site has a sufficient access aisle. The applicant must provide an eight-foot wide access aisle for both ADA accessible parking spaces to meet the State Code.

The applicant is also proposing an emergency access drive that would wrap around the north side of the building and allow emergency vehicles to access the proposed infirmary addition. However, the applicant does not depict the movements of a City fire truck along this drive. The applicant should submit a Vehicle and Pedestrian Circulation Plan that depicts the movements of a City fire truck through the site.

Fire Access: While the applicant proposes the emergency access drive to the rear of the site, the nearest available fire hydrants appear to be on Washington Street. In addition, only a single 4-inch water line feeds the entire site. The applicant must provide sufficient access to water in close enough proximity to the proposed addition for the Fire Department to fight a fire in this location. The applicant must also coordinate with the Fire Department to determine the potential necessity and locations for Knox Boxes.

The City Code Enforcement Bureau is also currently reviewing compliance with New York State and International Building Codes. New York State has adopted new IBC requirements, and the applicant is responsible for ensuring that the entire site meets these requirements.

Zoning: Residence B zoning allows any use permitted in a Residence A District, which includes a church or other place of worship, convent or parish house. Residence B Districts also permit such accessory uses as are customarily incidental to any uses permitted in the district. In this instance, the infirmary would qualify as such an accessory use, as it would only be intended to provide care for occupants of the convent while they are sick, and is not intended to operate as a commercial health care facility.

Setbacks and Buffers: The site plan, as proposed, meets all setback requirements of the Residence B District. There are also no required buffers for this site.

SEQR: The applicant indicates in his response to Question 12b of the State Environmental Quality Review (SEQR) Short Environmental Assessment Form (EAF) that the proposed action is located in an archeological sensitive area. The applicant should provide a letter from the New York State Historic Preservation Office (SHPO) that determines whether the proposed project has the potential to affect any archeological resources.

The applicant indicates in his response to question 15 that the site may contain endangered or threatened species or their associated habitats. The applicant should provide a letter from the New York State Department of Environmental Conservation (DEC) that determines whether the proposed project has the potential to impact any endangered species or their habitats.

Utilities and Hydrology: The applicant indicates on the Short EAF that the project will disturb 1.14 acres of land and increase the site's total impervious surface area by 0.54 acres. This will require the applicant to prepare a full Stormwater Pollution Prevention Plan (SWPPP) and submit it to the City. The applicant should also submit a Notice of Intent (NOI) to the DEC and forward all correspondence between the applicant and the DEC to the City Engineering Department.

Permits: The applicant must obtain the following permits, minimally, prior to construction: Building Permit.

Other Requirements: Typically, applications for Site Plan Approval require the applicant to submit a boundary and topographic survey that was performed and stamped by a licensed surveyor. Sheet CD-100 provides an existing conditions plan and survey that depicts some of the parcel boundaries and the site conditions in and around the existing building. A full boundary survey has not been provided but given the overall size and wooded nature of the parcel, a full boundary survey of the property will not be required.

None of the plans submitted are stamped by a licensed Professional Engineer (PE). The applicant should submit an original PE-stamped plan set and engineering report.

Summary:

1. The applicant must provide 58 parking spaces on the site, as required by the Zoning Ordinance, or obtain a variance from the ZBA to vary the parking requirement for this site.

2. The applicant must provide an accompanying eight-foot wide loading zone for each accessible parking space in accordance with New York State Building Code.

3. The applicant shall submit a Vehicle and Pedestrian Circulation Plan that depicts the movements of a City fire truck through the site.

4. The applicant must provide sufficient access to water at the rear of the site for the Fire Department to fight a fire in the proposed addition.

5. The applicant must coordinate with the Fire Department regarding necessity of and locations for Knox Boxes.

6. The entire site must meet all requirements of the International Building Code that New York State recently adopted.

7. The applicant shall provide a letter from the New York State Historic Preservation Office that determines whether the proposed project has the potential to affect any archeological resources and a letter from the New York State Department of Environmental Conservation that determines whether the proposed project has the potential to impact any endangered species or their habitats.

8. The applicant shall prepare a Stormwater Pollution Prevention Plan (SWPPP) and submit it to the City.

9. The applicant shall submit a Notice of Intent (NOI) to the NYS Department of Environmental Conservation (DEC) and forward all correspondence between the applicant and the DEC to the City Engineering Department.

10. The applicant shall provide an original plan set and engineering report stamped by a licensed Professional Engineer.

11. The applicant must obtain a Building Permit prior to demolition and construction.

cc: City Council Members
Justin Wood, City Engineer
Matthew R. Morgia, P.E., Aubertine and Currier, PLLC, 522 Bradley Street, Watertown, NY 13601
Sister Mary Eamon, Sisters of Saint Joseph, 1425 Washington Street, Watertown, NY 13601

SITE PLAN APPROVAL
1425 WASHINGTON STREET – PARCEL NUMBER 13-22-101.000

The Planning Board then considered a request submitted by Matthew R. Morgia, P.E. of Aubertine and Currier, PLLC on behalf of the Sisters of Saint Joseph for the construction of a 2,730 square-foot infirmary addition, a 633 foot-long, 20-foot wide emergency access drive and associated site improvements located at 1425 Washington Street, Parcel Number 13-22-101.000.

Mr. Morgia and Sister Mary Eamon were in attendance to represent the project.

Mr. Morgia began by saying that his team had received Staff's initial review comments and had prepared some draft responses. He then distributed written copies of the draft responses, and copies of a revised site plan, to the Planning Board and to Staff.

Mr. Morgia then said that the Sisters of St. Joseph were planning some renovations to the infirmary part of their building. He noted that with the proposed dimensions, City Code would require emergency access to the rear of the building and therefore the site plan depicted an emergency access drive around the north side of the building. He then pointed out proposed lighting on the site plan along that access drive.

Mr. Morgia then addressed water service needs. He said that the existing building was un-sprinklered at this time, and added that the proposed addition needed to be sprinklered. He said that the existing water system on Washington Street consisted of a 12-inch main on the opposite side of the street and a six-inch main on the near side of the street.

Mr. Morgia then said that he would like to begin discussing the summary items if that was all right with the Planning Board. Mr. Coburn agreed, and Mr. Morgia addressed the first summary item, which required the applicant to meet the parking requirement in the Zoning Ordinance and provide 58 parking spaces, rather than the originally proposed 42.

Mr. Morgia said that the existing building and proposed addition would result in 72 rooms, although planned interior renovations would reduce that number in the future. He said that rather than seek a variance to reduce the parking requirement, which would have taken too much time, his team had revised the site plan to provide 58 parking spaces, which he then pointed out in various places on the site plan.

Mr. Katzman then said that just because the convent had so many rooms, that did not mean that an equivalent number of occupants owned cars. Mr. Morgia replied that the facility was greatly underutilized as far as beds went, and said that even though there were 72 rooms, only 48 people lived there, and that Sister Mary Eamon told him that half of them do not drive. Mr. Morgia then said that the requirement was what it was, however.

Mr. Morgia said that planned interior renovations would aim to reduce the facility to 50 rooms. He then said that the convent realistically would not need more parking, but that the project could not spare two months to seek a variance. He then said that the required parking

expansion would likely end up as snow storage in the winter, and added that occasionally, the Sisters of St. Joseph's have used the lawn as overflow parking for special events in the past, so the added parking would have some utility.

Mr. Morgia then addressed the second summary item, which required that each accessible parking space have an adjacent eight-foot wide loading zone, in accordance with New York State Building Code. Mr. Morgia then pointed out reconfigured accessible spaces on the site plan that met this requirement.

Mr. Morgia then addressed the third summary item, which required the applicant to submit a Vehicle and Pedestrian Circulation Plan that depicts the movements of a City fire truck through the site. Mr. Morgia then said that he had created the plan and given it to Mr. Wood earlier during the Planning Board meeting.

Mr. Morgia then addressed the fourth summary item, which required the applicant to provide sufficient access to water at the rear of the site for the Fire Department to fight a fire in the proposed addition. Mr. Morgia said that his team would provide a new water line, with fire hydrants in the front and the rear of the building. He then said that this fire line would also feed a new sprinkler system in the proposed addition.

Mr. Morgia then addressed the fifth summary item, which required the applicant to investigate the necessity of, and potential locations for, Knox Boxes. Mr. Morgia said that his team would coordinate with the City Code Enforcement Bureau on this.

Mr. Morgia then addressed the sixth summary item, which required that the entire site meet all requirements of the International Building Code that New York State recently adopted. Mr. Morgia said that all architectural plans would meet IBC requirements.

Mr. Morgia then addressed the seventh summary item, which required the applicant to provide letters from SHPO and the DEC that determine any respective potential impacts to historic resources and/or endangered species. Mr. Morgia said that he had received a letter from SHPO and given a copy to Mr. Wood, but that he had not yet received a response from the DEC.

Mr. Morgia then addressed the eighth summary item, which required the applicant to prepare a SWPPP and submit it to the City. Mr. Morgia acknowledged that the project involved the disturbance of greater than an acre, and said that his team would prepare and submit a SWPPP.

Mr. Morgia then addressed the ninth summary item, which required the applicant to prepare an NOI and submit it to the DEC. Mr. Morgia said that his team would submit an NOI and forward all correspondence with the DEC to the City.

Mr. Morgia then addressed the tenth summary item, which required the applicant to provide an original plan set and engineering report stamped by a licensed Professional

Engineer. Mr. Morgia said that he would submit a stamped set to the City once his team finished making the modifications that the summary items necessitated.

Mr. Morgia then addressed the eleventh and final summary item, which stated that the applicant would need to obtain a building permit prior to construction. Mr. Morgia said that he would obtain the necessary permit.

Ms. Fields then asked if this project would have any impact on the animal hospital next door, which was just beginning work on an expansion of its own. Mr. Morgia replied that it should not affect the animal hospital. He said that he did the design for the animal hospital and their improvements were on the opposite side of their lot from the convent. He then said that the Sisters of St. Joseph would approach the animal hospital with a courtesy update, just as the animal hospital had done when they planned their own expansion.

Ms. Fields then moved to recommend that the City Council approve the request for Site Plan Approval submitted by Matthew R. Morgia, P.E. of Aubertine and Currier, PLLC on behalf of the Sisters of Saint Joseph for the construction of a 2,730 square-foot infirmary addition, a 633 foot-long, 20-foot wide emergency access drive and associated site improvements located at 1425 Washington Street, Parcel Number 13-22-101.000, as shown on the plans submitted to the City Engineering Department on August 2, 2016, contingent upon the following:

1. The applicant must provide sufficient access to water at the rear of the site for the Fire Department to fight a fire in the proposed addition.

2. The applicant must coordinate with the Fire Department regarding necessity of and locations for Knox Boxes.

3. The entire site must meet all requirements of the International Building Code that New York State recently adopted.

4. The applicant shall provide a letter from the New York State Department of Environmental Conservation that determines whether the proposed project has the potential to affect any endangered species or their habitats.

5. The applicant shall prepare a Stormwater Pollution Prevention Plan (SWPPP) and submit it to the City.

6. The applicant shall submit a Notice of Intent (NOI) to the NYS Department of Environmental Conservation (DEC) and forward all correspondence between the applicant and the DEC to the City Engineering Department.

7. The applicant shall provide an original plan set and engineering report stamped by a licensed Professional Engineer.

8. The applicant must obtain a Building Permit prior to demolition and construction.

Mr. Rowell seconded the motion and all voted in favor.

NEW YORK
STATE OF
OPPORTUNITY.

Parks, Recreation,
and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

July 27, 2016

Mr. Christopher Todd
Civil Design Engineer
Aubertine & Currier, PLLC
522 Bradley Street
Watertown, NY 13601

Re: SEQRA
Sisters of St Joseph Building Addition Project
1425 Washington Street, City of Watertown, Jefferson County, NY 13601
16PR05188

Dear Mr. Todd:

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the project in accordance with the New York State Historic Preservation Act of 1980 (Section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the OPRHP and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6 NYCRR Part 617).

Based upon this review, it is the New York State Office of Parks, Recreation and Historic Preservation's opinion that your project will have no impact on archaeological and/or historic resources listed in or eligible for the New York State and National Registers of Historic Places.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

Ruth L. Pierpont

Ruth L. Pierpont

Deputy Commissioner for Historic Preservation

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Permits, Region 6
Dulles State Office Building, 317 Washington Street, Watertown, NY 13601-3787
P: (315) 785-2245 | F: (315) 785-2242
www.dec.ny.gov

RECEIVED
AUG 05 2016

August 3, 2016

Christopher W. Todd
Aubertine and Currier
522 Bradley Street
Watertown, NY 13601

Re: Threatened and Endangered Species Review
Sisters of Saint Joseph (A&C Proj. #2014-131.002)
1425 Washington Street, Watertown NY

Dear Mr. Todd:

We received your letter dated August 1st 2016 regarding the building additions, access drive construction, and renovations at the Sisters of Saint Joseph facility, 1425 Washington Street, Watertown. Your letter requested information about threatened and endangered species, and other DEC environmental interests at the project site. We reviewed our environmental databases for this location, and offer the following comments:

The endangered Indiana bat (*Myotis sodalist*) and threatened northern long-eared bat (*Myotis septentrionalis)* potentially use the forested land on the Sisters of Saint Joseph parcel as habitat. To limit the disturbance to the Indiana bat and northern long-eared bat, we recommend that the tree removal required for this project take place between November 1st and March 31st, when the endangered and threatened bats are generally in their winter hibernacula. Furthermore, we encourage the use of downward-facing area lights with full cut-offs to limit spill light, and directing the lighting away from the forested areas to limit the incidental impact of the project on these species.

There are no DEC regulated freshwater wetlands, streams, or other waterbodies on this parcel. The location is mapped as a site of archeological sensitivity. You may wish to contact the New York State Office of Parks, Recreation and Historic Preservation for more information.

Coverage under the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activities will be required if the project results in a disturbance of a total of one acre or more of soil.

Our databases are continuously being updated and amended. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

Thank you for contacting us regarding this matter. Please do not hesitate to contact me if you have any questions.

Sincerely,

Ben Shubert
Environmental Analyst
benjamin.shubert@dec.ny.gov

Res No. 6

August 10, 2016

To: The Honorable Mayor and City Council

From: Michael A. Lumbis, Planning and Community Development Director

Subject: Approving the Site Plan for the construction of three 3-story, 36,402 square-foot residential buildings, two 2-story, 17,000 square-foot office buildings, a 5,588 square-foot community center, an interior parking lot and associated site improvements at 218 Stone Street, Parcel Number 7-16-114.000; 123 Massey Street South, Parcel Number 10-02-113.000; 253 Arsenal Street, Parcel Number 10-02-118.000 and 271 Arsenal Street, Parcel Number 10-02-116.000

A request has been submitted by Andrew M. Hart of Bergmann Associates, Inc. on behalf of COR Arsenal Street Company, LLC for the above subject Site Plan Approval.

The City Planning Board reviewed the request on August 2, 2016, and voted to recommend that the City Council approve the site plan subject to the seven conditions listed in the resolution. Attached is an excerpt from their meeting minutes as well as the most updated set of site plan drawings.

The Staff Report prepared for the Planning Board, the full Site Plan application, all previous drawings and other related materials have been previously sent to Council as part of the Planning Board agenda package. The complete application package can also be found in the online version of the City Council agenda.

This site plan application requires review by the Jefferson County Planning Board, pursuant to General Municipal Law, Section 239-m. The County Planning Board reviewed the request at its June 28, 2016 meeting and determined that the project does not have any significant County-wide or inter-municipal issues and is of local concern only.

The applicant has completed Part 1 of the State Environmental Quality Review (SEQR) Full Environmental Assessment Form (EAF), which is attached. The City Council must respond to the questions in Part 2 of the Full EAF before it may vote on the resolution.

As the Council will note, the applicant indicated in his answer to Question E.2.o that the site contains an endangered or threatened species or an identified habitat of

an endangered or threatened species. When completing the Full EAF for the project, the applicant used the online EAF mapping tool on the New York State Department of Environmental Conservation (DEC) website. This EAF Mapper automatically checks this box "yes" for any property in the City due to our proximity to the habitats of the Indiana Bat (Endangered) and the Northern Long-Eared Bat (Threatened).

However, the proposed project represents the redevelopment of an existing site and not a disturbance of undeveloped land so it will not reduce or degrade any habitat used by either species.

As the Council will also note, the applicant has provided the attached letter from the New York State Historic Preservation Office (SHPO) to aid the Council in completing the questions in Part 2 of the Full EAF that relate to historic and archeological resources.

The resolution prepared for City Council consideration states that the project will not have a significant negative impact on the environment and approves the revised site plan submitted to the City Engineering Department on August 10, 2016, subject to the conditions recommended by the Planning Board.

Resolution No. 6

August 15, 2016

RESOLUTION

	YEA	NAY
Council Member HORBACZ, Cody J.		
Council Member JENNINGS, Stephen A.		
Council Member MACALUSO, Teresa R.		
Council Member WALCZYK, Mark C.		
Mayor BUTLER, Jr., Joseph M.		
Total		

Approving the Site Plan for the construction of three 3-story, 36,402 square-foot residential buildings, two 2-story, 17,000 square-foot office buildings, a 5,588 square-foot community center, an interior parking lot and associated site improvements at 218 Stone Street, Parcel Number 7-16-114.000; 123 Massey Street South, Parcel Number 10-02-113.000; 253 Arsenal Street, Parcel Number 10-02-118.000 and 271 Arsenal Street, Parcel Number 10-02-116.000

Introduced by

_____

WHEREAS Andrew M. Hart of Bergmann Associates, Inc., on behalf of COR Arsenal Street Company, LLC, has submitted an application for Site Plan Approval for the construction of three 3-story, 36,402 square-foot residential buildings, two 2-story, 17,000 square-foot office buildings, a 5,588 square-foot community center, an interior parking lot and associated site improvements at 218 Stone Street, Parcel Number 7-16-114.000; 123 Massey Street South, Parcel Number 10-02-113.000; 253 Arsenal Street, Parcel Number 10-02-118.000 and 271 Arsenal Street, Parcel Number 10-02-116.000, and

WHEREAS the Jefferson County Planning Board reviewed the site plan at its meeting held on June 28, 2016, pursuant to General Municipal Law Section 239-m, and adopted a motion that the project does not have any significant County-wide or inter-municipal issues and is of local concern only, and

WHEREAS the Planning Board of the City of Watertown reviewed the site plan at its meeting held on August 2, 2016, and voted to recommend that the City Council of the City of Watertown approve the site plan with the following conditions:

1. The applicant must allow for unobstructed fire truck movement into and throughout the site, either by removing all curbs from a fire truck's path or by installing curbs with low enough heights as to be unobstructive.

2. The applicant shall perform a hydrant flow test and submit hydraulic calculations to the City Engineering Department.

RESOLUTION

Approving the Site Plan for the construction of three 3-story, 36,402 square-foot residential buildings, two 2-story, 17,000 square-foot office buildings, a 5,588 square-foot community center, an interior parking lot and associated site improvements at 218 Stone Street, Parcel Number 7-16-114.000; 123 Massey Street South, Parcel Number 10-02-113.000; 253 Arsenal Street, Parcel Number 10-02-118.000 and 271 Arsenal Street, Parcel Number 10-02-116.000

	YEA	NAY
Council Member HORBACZ, Cody J.		
Council Member JENNINGS, Stephen A.		
Council Member MACALUSO, Teresa R.		
Council Member WALCZYK, Mark C.		
Mayor BUTLER, Jr., Joseph M.		
Total		

3. The applicant shall provide the City Engineering Department with correspondence from the New York State Department of Environmental Conservation (DEC) that either approves the proposed sanitary sewer design or indicates that the DEC determined that a review was not necessary.

4. The applicant shall submit a Notice of Intent (NOI) to the DEC and forward the acknowledgement letter to the City upon receipt.

5. The applicant shall provide the City Engineering Department with correspondence from the New York State Department of Health (DOH) that either approves the proposed water system design or indicates that the DOH determined that a review was not necessary.

6. The applicant must address all concerns listed in the "Other Engineering Comments" section of the July 28, 2016 Planning Office memorandum to the satisfaction of the City Engineering Department prior to the issuance of any permits.

7. The applicant must obtain the following permits, minimally, prior to demolition and construction: Building Permit, Fence Permit and General City Permit and a Sanitary/Storm Sewer Connection Permit.

And,

WHEREAS the City Council has reviewed the Full Environmental Assessment Form, responding to each of the questions contained in Part 2, and has determined that the project, as submitted, is an Unlisted Action and will not have a significant impact on the environment,

RESOLUTION

Approving the Site Plan for the construction of three 3-story, 36,402 square-foot residential buildings, two 2-story, 17,000 square-foot office buildings, a 5,588 square-foot community center, an interior parking lot and associated site improvements at 218 Stone Street, Parcel Number 7-16-114.000; 123 Massey Street South, Parcel Number 10-02-113.000; 253 Arsenal Street, Parcel Number 10-02-118.000 and 271 Arsenal Street, Parcel Number 10-02-116.000

	YEA	NAY
Council Member HORBACZ, Cody J.		
Council Member JENNINGS, Stephen A.		
Council Member MACALUSO, Teresa R.		
Council Member WALCZYK, Mark C.		
Mayor BUTLER, Jr., Joseph M.		
Total		

NOW THEREFORE BE IT RESOLVED that the City Council of the City of Watertown declares that the proposed construction and site plan constitute an Unlisted Action for the purposes of SEQRA and hereby determines that the project, as proposed, will not have a significant impact on the environment, and

BE IT FURTHER RESOLVED that it is an express condition of this Site Plan Approval that the applicant provide the City Engineer with a copy of any change in stamped plans forming the basis for this approval at the same time such plans are provided to the contractor. If plans are not provided as required by this condition of Site Plan Approval, the City Code Enforcement Officer shall direct that work on the project site shall immediately cease until such time as the City Engineer is provided with the revised stamped plans. Additionally, any change in the approved plan, which, in the opinion of the City Engineer, would require Amended Site Plan Approval, will result in immediate cessation of the affected portion of the project work until such time as the amended site plan is approved. The City Code Enforcement Officer is requested to periodically review on-site plans to determine whether the City Engineer has been provided with plans as required by this approval, and

BE IT FURTHER RESOLVED by the City Council of the City of Watertown that Site Plan Approval is hereby granted to Andrew M. Hart of Bergmann Associates, Inc. and COR Arsenal Street Company, LLC for the construction of three 3-story, 36,402 square-foot residential buildings, two 2-story, 17,000 square-foot office buildings, a 5,588 square-foot community center, an interior parking lot and associated site improvements at 218 Stone Street, Parcel Number 7-16-114.000; 123 Massey Street South, Parcel Number 10-02-113.000; 253 Arsenal Street, Parcel Number 10-02-118.000 and 271 Arsenal Street, Parcel Number 10-02-116.000 as depicted on the revised site plan submitted to the City Engineer on August 10, 2016, contingent upon the applicant meeting the conditions listed above.

Seconded by:

NEW YORK
STATE OF
OPPORTUNITY.

Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

August 01, 2016

Mr. Michael A. Lumbis
Planning and Community Development Director
City of Watertown
245 Washington Street
Watertown, NY 13601

Re: DEC
Mercy Heights Project
Arsenal St, City of Watertown, Jefferson County, NY
16PR03907

Dear Mr. Lumbis:

Thank you for requesting the comments of the Division for Historic Preservation of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the submitted materials in accordance with the New York State Historic Preservation Act of 1980 (section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the Division for Historic Preservation and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6NYCRR Part 617).

We note that the proposed Mercy Heights project site include s portions of the St. Patrick's Catholic Church complex, which is eligible for listing in the State and National Registers of Historic Places. Two additional eligible buildings are located on the west side of South Massey Street, numbers 136 and 150. Additionally, two listed buildings, the Jefferson County Courthouse Complex and Trinity Episcopal Church and Parish House, are located on the east side of Sherman Street.

We have reviewed the project submission received on 6/7/2016 and the response to our questions received 8/19/2016, which included the revised site plan. Based upon this review, it is the OPRHP's opinion that the proposed project will have No Adverse Impact upon historic resources.

If there are substantive changes to the project, consultation with our office should resume. If you have any questions, I can be reached at (518) 268 -2217.

Sincerely,

Christina Vagvolgyi

Christina Vagvolgyi
Historic Preservation Technical Specialist
e-mail: christina.vagvolgyi@parks.ny.gov

via e-mail only

SITE PLAN APPROVAL
218 STONE STREET, 123 MASSEY STREET SOUTH, 253 and 271 ARSENAL STREET – PARCELS 7-16-114.000, 10-02-113.000, 10-02-118.000 and 10-02-116.000

The Planning Board then considered a tabled request for Site Plan Approval submitted by Andrew M. Hart, RLA, ASLA, of Bergmann Associates Inc. on behalf of COR Arsenal Street Company, LLC for the construction of three 3-story, 36,402 square-foot residential buildings, two 2-story, 17,000 square-foot office buildings, a 5,588 square-foot community center, an interior parking lot and associated site improvements at 21 8 Stone Street, Parcel Number 7-16-114.000; 123 Massey Street South, Parcel Number 10-02-113.000; 253 Arsenal Street, Parcel Number 10-02-118.000 and 271 Arsenal Street, Parcel Number 10-02-116.000.

Mr. Hart and Ms. Johnson were in attendance to represent the project, as was Amy Dake of SRF & Associates.

Ms. Johnson began by saying that she was just going to give the Planning Board an update from the June meeting, and that Mr. Hart and Ms. Dake would handle any technical questions.

Ms. Johnson said that her team had applied for and obtained setback variances from the Zoning Board of Appeals. She then drew the Planning Board's attention to the site plan and pointed out that the proposed office buildings on Arsenal Street were 10 feet off the property line instead of 20 feet, that the two proposed residential buildings on Stone Street were also 10 feet off the property line instead of 20 feet, and that the proposed residential building on Massey Street S was 10.5 feet off the property line instead of 20 feet.

Ms. Johnson said that her team had compromised with the City to arrive at these setbacks, and that they had reduced the size of the office buildings slightly because they needed to reduce parking.

Ms. Johnson then said that SRF & Associates had completed a traffic study since their previous appearance before the Planning Board. She added that they submitted a revised version of the study on the previous day that corrected an error regarding traffic signal timing, and submitted a revised site plan on the previous day as well as a result. She then said that the State Historic Preservation Office (SHPO) had sent COR a letter stating that the proposed project would have no adverse impact on historic resources.

Ms. Johnson then drew the Planning Board's attention back to the site plan, and pointed out that as a result of the traffic study, the proposed driveway connecting to Arsenal Street was now a right-in/right-out only, and was no longer full access. She noted that the other four driveways would still provide full access.

Ms. Johnson then said that the site plan, as proposed, still met the parking requirement for both individual properties. She said that the church had enough parking on its own, as did the proposed offices and residential buildings, and added that there would be reciprocal parking easements executed so the all three uses could share the interior parking lot.

Ms. Johnson then said that the proposed site plan had gone before the County Planning Board and they determined that the project was of local concern only. She then asked if any members of the Planning Board wanted to talk about engineering issues and said that Mr. Hart could answer their questions.

Mr. Coburn asked what the issues were with traffic light timing. Ms. Johnson deferred the question to Ms. Dake, who replied that when SRF performed the traffic study, one of their technicians was observing the light at the intersection of Arsenal and Massey Streets. She said that on Massey Street, only northbound or southbound traffic can go through the intersection at any given time. She said that the observation team had mistakenly assumed that both directions went at the same time, because that is how it works in other places, and then said that Mr. Wood pointed out to SRF that they had that wrong. She added that in the initial analysis, the traffic study rated the level of service as an F for northbound left turns, and now rated it as a D.

Mr. Coburn then asked about the potential for converting Stone Street from one-way westbound traffic to a two-way street. Mr. Wood replied that there had been passing remarks from various City Council members over the years, most recently from previous Councilwoman Roxanne Burns. Mr. Wood added that he does not anticipate a one-way to two-way conversion any time soon, but the possibility remains open.

Mr. Coburn asked if the City had jurisdiction over such decisions. Mr. Wood answered in the affirmative. Ms. Fields then noted that the Planning Board brought it up at the previous meeting. Mr. Wood said that Stone Street being a one-way street might help it serve its function of providing a route for westbound traffic to use to access the Mercy site. Mr. Wood added that he thought that two-way traffic on Stone Street was an independent discussion for another time.

Mr. Rowell then asked if both driveways on Massey Street S remained in and out. Ms. Dake replied in the affirmative.

Mr. Coburn then asked Mr. Herman if he could speak to the Fire Department's concerns. Mr. Herman replied that his primary concern was the configuration of internal curb islands. He said that Mr. Wood had forwarded him an email from Mr. Hart, which said that the movements depicted on the site plan were not where a fire truck's tires would go over a curb, but where the edge of the vehicle would go over the curb. Mr. Herman then said that this was still a concern, because of potential snow accumulation on the curb islands during the winter.

Mr. Herman then said that the other issue he needed to raise was that the bucket on a City fire truck is eight feet in front of the cab, and that because of this, the site plan should be conscious of poles or trees in the bucket's swing radius.

Mr. Neddo then said that this segued into Summary Item 1, which dealt with fire truck movements. Mr. Coburn asked Ms. Johnson if she would like to go through the summary items, noting that items 2, 3 and 5 need no longer apply, and she replied in the affirmative.

Ms. Johnson then addressed the first summary item, which required unobstructed fire truck access into and throughout the site. Ms. Johnson said that she thought her team had fixed this concern, since they did make some changes. She asked if the Planning Board could recommend Site Plan Approval with conditions, as long as COR worked out those concerns with Staff. Mr. Coburn replied in the affirmative.

Ms. Johnson then addressed the fourth summary item, which required New York State Department of Transportation (NYSDOT) approval of the traffic study, and said that Mr. Wood told her that he anticipated receiving such communication from NYSDOT in the near future. Mr. Wood then said that he had spoken with someone at NYSDOT, and that he expected NYSDOT would provide the City with a letter of No Concern. Mr. Wood then added that the Planning Board could eliminate the fourth summary item.

Mr. Hart then addressed the sixth summary item, which required the applicant to perform a hydrant flow test and submit hydraulic calculations to the City Engineering Department. Mr. Hart said that he had been working with the City Water Department, that his team had hydrant flow data at two locations on the site, and that the Water Department told him that two existing taps provide a loop through the site. Mr. Hart then said that COR would provide a water system through the middle of the site and that they just received updated flow test data earlier in the day. Mr. Hart said that there was plenty of water for the site.

Mr. Hart then addressed the seventh summary item, which required the applicant to provide correspondence from the New York State Department of Environmental Conservation (DEC) approving of the proposed sanitary sewer design. Mr. Hart said that he had submitted the design to the DEC, but had not received a response yet.

Mr. Hart then addressed the ninth summary item, which required the applicant to provide correspondence from the New York State Department of Health (DOH) approving the proposed water system design. Mr. Hart said that the DOH asked him for a sanitary sewer profile and that he had sent them one, but he had not received a response yet.

Mr. Hart then addressed the eighth summary item, which required the applicant to submit a Notice of Intent (NOI) to the DEC and forward the acknowledgement letter to the City upon receipt. Mr. Hart said that he did not intend to submit the NOI until the City no longer had any comments on the Stormwater Pollution Prevention Plan.

Mr. Hart then addressed the tenth summary item, which required the applicant to address all concerns listed in the "Other Engineering Comments" section of Staff's memorandum. Mr. Hart then addressed these concerns one-by-one. He said that his team would use a regular sanitary manhole in lieu of a doghouse manhole on Sherman Street. He said that they would also work to confirm the existing manhole construction materials, verify conformance to Public Right-of-Way Accessibility Guidelines and depict new curbing all along the Arsenal Street side on the site plan.

Mr. Hart then addressed the eleventh and final summary item, which listed the permits that the applicant would need to obtain, and said that COR and Bergmann understand the permitting process and would obtain all necessary permits.

Mr. Coburn then asked if any Planning Board members had further questions. Hearing none, he asked if there was a motion.

Mr. Neddo then moved to recommend that City Council approve the request for Site Plan Approval submitted by Andrew M. Hart, RLA, ASLA, of Bergmann Associates Inc. on behalf of COR Arsenal Street Company, LLC for the construction of three 3-story, 36,402 square-foot residential buildings, two 2-story, 17,000 square-foot office buildings, a 5,588 square-foot community center, an interior parking lot and associated site improvements at 218 Stone Street, Parcel Number 7-16-114.000; 123 Massey Street South, Parcel Number 10-02-113.000; 253 Arsenal Street, Parcel Number 10-02-118.000 and 271 Arsenal Street, Parcel Number 10-02-116.000, as shown on plans submitted to the City Engineering Department on August 1, 2016 contingent upon the following:

1. The applicant must allow for unobstructed fire truck movement into and throughout the site, either by removing all curbs from a fire truck's path or by installing curbs with low enough heights as to be unobstructive.

2. The applicant shall perform a hydrant flow test and submit hydraulic calculations to the City Engineering Department.

3. The applicant shall provide the City Engineering Department with correspondence from the New York State Department of Environmental Conservation (DEC) that either approves the proposed sanitary sewer design or indicates that the DEC determined that a review was not necessary.

4. The applicant shall submit a Notice of Intent (NOI) to the DEC and forward the acknowledgement letter to the City upon receipt.

5. The applicant shall provide the City Engineering Department with correspondence from the New York State Department of Health (DOH) that either approves the proposed water system design or indicates that the DOH determined that a review was not necessary.

6. The applicant must address all concerns listed in the "Other Engineering Comments" section of the July 28, 2016 Planning Office memorandum to the satisfaction of the City Engineering Department prior to the issuance of any permits.

7. The applicant must obtain the following permits, minimally, prior to demolition and construction: Building Permit, Fence Permit and General City Permit and a Sanitary/Storm Sewer Connection Permit.

Ms. Fields seconded the motion and all voted in favor.

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Sponsor Information.

Name of Action or Project: Mercy Heights		
Project Location (describe, and attach a general location map): Former Mercy Hospital site		
Brief Description of Proposed Action (include purpose or need): The applicant would like to construct a multi-use development on the former Mercy Hospital site. The project will consist of three multi-family residential buildings of 35,402 SF each, a 5,600 SF community center building, and two office buildings of 18,000 SF each. The applicant will also provide site improvements to St. Patrick's Church parcel to consolidate their parcel and re-organize their parking. 3 Multi-family residential buildings = 109,206 SF and 108 units 1 Community center building = 5,600 SF 2 Office buildings = 36,000 SF		
Name of Applicant/Sponsor: COR Arsenal Street Company LLC	Telephone: 315-663-2100 E-Mail: cjohnson@corcompanies.com	
Address: 540 Towne Drive		
City/PO: Fayetteville	State: NY	Zip Code: 13066
Project Contact (if not same as sponsor; give name and title/role):	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor): COR Arsenal Street Company LLC	Telephone: E-Mail:	
Address: 540 Towne Drive		
City/PO: Fayetteville	State: NY	Zip Code: 13066

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)		
Government Entity	**If Yes: Identify Agency and Approval(s) Required**	**Application Date (Actual or projected)**
a. City Council, Town Board, or Village Board of Trustees ☑Yes☐No	Site Plan approval	
b. City, Town or Village Planning Board or Commission ☑Yes☐No	Site Plan recommendation to City Council	
c. City Council, Town or Village Zoning Board of Appeals ☑Yes☐No	Variances to reduce front building setback along Arsenal St., S. Massey St., and Stone St.	
d. Other local agencies ☑Yes☐No	City water	
e. County agencies ☑Yes☐No	Jefferson County Planning, DANC (Funding)	
f. Regional agencies ☐Yes☐No		
g. State agencies ☑Yes☐No	NYS Dept. of Health, (Water), NYSDOT (Traffic)	NYSDEC (Sanitary and Storm Sewers)
h. Federal agencies ☐Yes☐No		

i. Coastal Resources.
i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes☑No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☑Yes☐No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☑Yes☐No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☐Yes☑No

If Yes, identify the plan(s):

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes☑No

If Yes, identify the plan(s):

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
Commercial

b. Is the use permitted or allowed by a special or conditional use permit? ☐ Yes ☑ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☑ No
If Yes,
i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? Watertown City School District

b. What police or other public protection forces serve the project site?
City of Watertown Police Department

c. Which fire protection and emergency medical services serve the project site?
City of Watertown Fire Department

d. What parks serve the project site?
Thompson Park, Jefferson County Fairgrounds, Veterans Memorial Riverwalk, and Whitewater Park

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Multi-family residential and office

b. a. Total acreage of the site of the proposed action? 7.498 acres
b. Total acreage to be physically disturbed? 6.75 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 7.498 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☑ Yes ☐ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
To consolidate two COR parcels and reconfigure church parcel.
ii. Is a cluster/conservation layout proposed? ☐ Yes ☑ No
iii. Number of lots proposed? 2
iv. Minimum and maximum proposed lot sizes? Minimum 1.791 Maximum 5.707

e. Will proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: 18-24 months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____ year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? ☑Yes ☐No

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase				108
At completion of all phases				108

g. Does the proposed action include new non-residential construction (including expansions)? ☑Yes ☐No

If Yes,

i. Total number of structures 2

ii. Dimensions (in feet) of largest proposed structure: 40 height; 69 width; and 193 length

iii. Approximate extent of building space to be heated or cooled: 36,000 square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☐Yes ☑No

If Yes,

i. Purpose of the impoundment: _____

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☐ Other specify: _____

iii. If other than water, identify the type of impounded/contained liquids and their source. _____

iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres

v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): _____

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) ☐Yes ☑No

If Yes:

i. What is the purpose of the excavation or dredging? _____

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): _____
- Over what duration of time? _____

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them. _____

iv. Will there be onsite dewatering or processing of excavated materials? ☐Yes ☑No

If yes, describe. _____

v. What is the total area to be dredged or excavated? _____ acres

vi. What is the maximum area to be worked at any one time? _____ acres

vii. What would be the maximum depth of excavation or dredging? _____ feet

viii. Will the excavation require blasting? ☐Yes ☑No

ix. Summarize site reclamation goals and plan: _____

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☐Yes ☑No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): _____

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

iii. Will proposed action cause or result in disturbance to bottom sediments? ☐Yes ☑No
If Yes, describe:

iv. Will proposed action cause or result in the destruction or removal of aquatic vegetation? ☐Yes ☑No
If Yes:

- acres of aquatic vegetation proposed to be removed:
- expected acreage of aquatic vegetation remaining after project completion:
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access):
- proposed method of plant removal:
- if chemical/herbicide treatment will be used, specify product(s):

v. Describe any proposed reclamation/mitigation following disturbance:

c. Will the proposed action use, or create a new demand for water? ☐Yes ☑No
If Yes:

i. Total anticipated water usage/demand per day: 15,880 gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☑Yes ☐No
If Yes:

- Name of district or service area:
- Does the existing public water supply have capacity to serve the proposal? ☑Yes ☐No
- Is the project site in the existing district? ☑Yes ☐No
- Is expansion of the district needed? ☐Yes ☑No
- Do existing lines serve the project site? ☑Yes ☐No

iii. Will line extension within an existing district be necessary to supply the project? ☐Yes ☑No
If Yes:

- Describe extensions or capacity expansions proposed to serve this project:
- Source(s) of supply for the district: City of Watertown

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☑No
If, Yes:

- Applicant/sponsor for new district:
- Date application submitted or anticipated:
- Proposed source(s) of supply for new district:

v. If a public water supply will not be used, describe plans to provide water supply for the project:

vi. If water supply will be from wells (public or private), maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☑Yes ☐No
If Yes:

i. Total anticipated liquid waste generation per day: 15,880 gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): sanitary wastewater

iii. Will the proposed action use any existing public wastewater treatment facilities? ☑Yes ☐No
If Yes:

- Name of wastewater treatment plant to be used: Watertown Pollution Control Plant
- Name of district:
- Does the existing wastewater treatment plant have capacity to serve the project? ☑Yes ☐No
- Is the project site in the existing district? ☑Yes ☐No
- Is expansion of the district needed? ☐Yes ☑No

- Do existing sewer lines serve the project site? ☑Yes ☐No
- Will line extension within an existing district be necessary to serve the project? ☐Yes ☑No

  If Yes:
  - Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐Yes ☑No

If Yes:
- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge, or describe subsurface disposal plans):

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑Yes ☐No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or 6.117 acres (impervious surface)

_____ Square feet or 7.498 acres (parcel size)

ii. Describe types of new point sources. Buildings and pavement

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

Below grade stormwater management facility.

- If to surface waters, identify receiving water bodies or wetlands: _____
- Will stormwater runoff flow to adjacent properties? ☐Yes ☑No

iv. Does proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☐Yes ☑No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☑Yes ☐No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

Minor delivery vehicles

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

HVAC units for heating & cooling

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

None

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐Yes ☑No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐Yes ☑No

ii. In addition to emissions as calculated in the application, the project will generate:
- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☐Yes ☑No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☑Morning ☑Evening ☐Weekend
☐Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of semi-trailer truck trips/day: _____

iii. Parking spaces: Existing 156 Proposed 440 Net increase/decrease 284 increase

iv. Does the proposed action include any shared use parking? ☑Yes ☐No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☑Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐Yes ☑No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☑Yes ☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☐Yes ☑No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

iii. Will the proposed action require a new, or an upgrade to, an existing substation? ☐Yes ☐No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 7AM - 4PM
- Saturday: TBD
- Sunday: TBD
- Holidays: TBD

ii. During Operations:

- Monday - Friday: Office 7:30AM- 5PM
- Saturday: TBD
- Sunday: TBD
- Holidays: TBD

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☐Yes ☑No

If yes:

i. Provide details including sources, time of day and duration:

X

ii. Will proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐Yes ☑No

Describe: _____

n.. Will the proposed action have outdoor lighting? ☑Yes ☐No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

Site lighting will be LED lights with a downward projection with a mix of mounted heights 12', 15' and 28'.

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐Yes ☑No

Describe: _____

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐Yes ☑No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐Yes ☑No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally describe proposed storage facilities: _____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐Yes ☑No

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☑ Yes ☐No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☑ Yes ☐No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: 100 tons per 18 (unit of time)
- Operation : 10 tons per months (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: Material that can be recycled will be collected.
- Operation: Typical trash recycling program per County.

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: Collected and take off site as needed.
- Operation: Collected in enclosed dumpster on site and then taken off twice a week.

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☑ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☑ Urban ☐ Industrial ☑ Commercial ☑ Residential (suburban) ☐ Rural (non-farm)
☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____

ii. If mix of uses, generally describe:

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	6.109	6.117	.008
• Forested	0	0	
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0	0	
• Agricultural (includes active orchards, field, greenhouse etc.)	0	0	
• Surface water features (lakes, ponds, streams, rivers, etc.)	0	0	
• Wetlands (freshwater or tidal)	0	0	
• Non-vegetated (bare rock, earth or fill)	0	0	
• Other Describe: Lawn	1.389	1.381	.008

c. Is the project site presently used by members of the community for public recreation? ☐Yes ☑No

i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☑Yes ☐No

If Yes,

i. Identify Facilities:

Jefferson County Human Services on Arsenal Street, the Northern Regional Center for Independent Living on Court Street, and a licensed Day Care Center located within the Dulles State Office Building.

e. Does the project site contain an existing dam? ☐Yes ☑No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

_____

_____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐Yes ☑No

If Yes:

i. Has the facility been formally closed? ☐Yes ☐ No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

_____

_____

iii. Describe any development constraints due to the prior solid waste activities: _____

_____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐Yes ☑No

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

_____

_____

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☑Yes ☐ No

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐Yes ☐No

☐ Yes – Spills Incidents database Provide DEC ID number(s): _____

☑ Yes – Environmental Site Remediation database Provide DEC ID number(s): _____

☐ Neither database Removed existing 5,000 Gal. diesel tank underground.

ii. If site has been subject of RCRA corrective activities, describe control measures: _____

_____

_____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☑Yes ☐No

If yes, provide DEC ID number(s): V00473

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

_____

_____

v. Is the project site subject to an institutional control limiting property uses? ☐Yes ☑No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐Yes ☑No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? 10 feet

b. Are there bedrock outcroppings on the project site? ☐Yes ☑No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____%

c. Predominant soil type(s) present on project site: Urban 100 %
_____ _____%
_____ _____%

d. What is the average depth to the water table on the project site? Average: 1.5 - 2 feet

e. Drainage status of project site soils: ☐ Well Drained: _____% of site
☑ Moderately Well Drained: 100 % of site
☐ Poorly Drained _____% of site

f. Approximate proportion of proposed action site with slopes: ☑ 0-10%: 100 % of site
☐ 10-15%: _____% of site
☐ 15% or greater: _____% of site

g. Are there any unique geologic features on the project site? ☐Yes ☑No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☐Yes ☑No

ii. Do any wetlands or other waterbodies adjoin the project site? ☐Yes ☑No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☐Yes ☑No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name _____ Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name _____ Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐Yes ☑No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐Yes ☑No

j. Is the project site in the 100 year Floodplain? ☐Yes ☑No

k. Is the project site in the 500 year Floodplain? ☑Yes ☐No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐Yes ☑No
If Yes:

i. Name of aquifer: _____

m. Identify the predominant wildlife species that occupy or use the project site: _____

n. Does the project site contain a designated significant natural community? ☐Yes ☑No
If Yes:
i. Describe the habitat/community (composition, function, and basis for designation): _____
ii. Source(s) of description or evaluation: _____
iii. Extent of community/habitat:
- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☑Yes ☐No

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐Yes ☑No

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐Yes ☑No
If yes, give a brief description of how the proposed action may affect that use: _____

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐Yes ☑No
If Yes, provide county plus district name/number: _____

b. Are agricultural lands consisting of highly productive soils present? ☐Yes ☑No
i. If Yes: acreage(s) on project site? _____
ii. Source(s) of soil rating(s): _____

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐Yes ☑No
If Yes:
i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature
ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐Yes ☑No
If Yes:
i. CEA name: _____
ii. Basis for designation: _____
iii. Designating agency and date: _____

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on, or has been nominated by the NYS Board of Historic Preservation for inclusion on, the State or National Register of Historic Places? ☑ Yes ☐ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☐ Historic Building or District

ii. Name: Jefferson County Courthouse Complex, Trinity Episcopal Church and Parish House

iii. Brief description of attributes on which listing is based:

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☑ Yes ☐ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☑ Yes ☐ No

If Yes:

i. Identify resource: Olympic Trail NYS Scenic By-Way and Black River Tail

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): Scenic By-Way

iii. Distance between project and resource: 1/4 miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Andrew M. Hart, RLA, ASLA (as agent) Date Revised June 6, 2016

Signature Andrew M. Hart Title Regional Business Segment Manager

PRINT FORM

Full Environmental Assessment Form
Part 2 - Identification of Potential Project Impacts

Agency Use Only [If applicable]
Project:
Date:

Part 2 is to be completed by the lead agency. Part 2 is designed to help the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency's reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

If the lead agency is a state agency **and** the action is in any Coastal Area, complete the Coastal Assessment Form before proceeding with this assessment.

Tips for completing Part 2:

- Review all of the information provided in Part 1.
- Review any application, maps, supporting materials and the Full EAF Workbook.
- Answer each of the 18 questions in Part 2.
- If you answer "**Yes**" to a numbered question, please complete all the questions that follow in that section.
- If you answer "**No**" to a numbered question, move on to the next numbered question.
- Check appropriate column to indicate the anticipated size of the impact.
- Proposed projects that would exceed a numeric threshold contained in a question should result in the reviewing agency checking the box "Moderate to large impact may occur."
- The reviewer is not expected to be an expert in environmental analysis.
- If you are not sure or undecided about the size of an impact, it may help to review the sub-questions for the general question and consult the workbook.
- When answering a question consider all components of the proposed activity, that is, the "whole action".
- Consider the possibility for long-term and cumulative impacts as well as direct impacts.
- Answer the question in a reasonable manner considering the scale and context of the project.

1. Impact on Land
Proposed action may involve construction on, or physical alteration of, the land surface of the proposed site. (See Part 1. D.1) ☐NO ☐YES
If "Yes", answer questions a - j. If "No", move on to Section 2.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may involve construction on land where depth to water table is less than 3 feet.	E2d	☐	☐
b. The proposed action may involve construction on slopes of 15% or greater.	E2f	☐	☐
c. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.	E2a	☐	☐
d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material.	D2a	☐	☐
e. The proposed action may involve construction that continues for more than one year or in multiple phases.	D1e	☐	☐
f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).	D2e, D2q	☐	☐
g. The proposed action is, or may be, located within a Coastal Erosion hazard area.	B1i	☐	☐
h. Other impacts: _____		☐	☐

2. Impact on Geological Features

The proposed action may result in the modification or destruction of, or inhibit access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves). (See Part 1. E.2.g) ☐NO ☐YES

If "Yes", answer questions a - c. If "No", move on to Section 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Identify the specific land form(s) attached: _____ _____	E2g	☐	☐
b. The proposed action may affect or is adjacent to a geological feature listed as a registered National Natural Landmark. Specific feature: _____	E3c	☐	☐
c. Other impacts: _____ _____		☐	☐

3. Impacts on Surface Water

The proposed action may affect one or more wetlands or other surface water bodies (e.g., streams, rivers, ponds or lakes). (See Part 1. D.2, E.2.h) ☐NO ☐YES

If "Yes", answer questions a - l. If "No", move on to Section 4.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may create a new water body.	D2b, D1h	☐	☐
b. The proposed action may result in an increase or decrease of over 10% or more than a 10 acre increase or decrease in the surface area of any body of water.	D2b	☐	☐
c. The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body.	D2a	☐	☐
d. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.	E2h	☐	☐
e. The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.	D2a, D2h	☐	☐
f. The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water.	D2c	☐	☐
g. The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s).	D2d	☐	☐
h. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.	D2e	☐	☐
i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.	E2h	☐	☐
j. The proposed action may involve the application of pesticides or herbicides in or around any water body.	D2q, E2h	☐	☐
k. The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.	D1a, D2d	☐	☐

l. Other impacts: _____ _____		☐	☐

4. Impact on groundwater

The proposed action may result in new or additional use of ground water, or may have the potential to introduce contamin ants to ground water or an aquifer. (See Part 1. D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t) ☐NO ☐YES

If "Yes", answer questions a - h. If "No", move on to Section 5.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.	D2c	☐	☐
b. Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer. Cite Source: _____	D2c	☐	☐
c. The proposed action may allow or result in residential uses in areas without water and sewer services.	D1a, D2c	☐	☐
d. The proposed action may include or require wastewater discharged to groundwater.	D2d, E2l	☐	☐
e. The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated.	D2c, E1f, E1g, E1h	☐	☐
f. The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.	D2p, E2l	☐	☐
g. The proposed action may involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources.	E2h, D2q, E2l, D2c	☐	☐
h. Other impacts: _____ _____		☐	☐

5. Impact on Flooding

The proposed action may result in development on lands subject to flooding. (See Part 1. E.2) ☐NO ☐YES

If "Yes", answer questions a - g. If "No", move on to Section 6.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in development in a designated floodway.	E2i	☐	☐
b. The proposed action may result in development within a 100 year floodplain.	E2j	☐	☐
c. The proposed action may result in development within a 500 year floodplain.	E2k	☐	☐
d. The proposed action may result in, or require, modification of existing drainage patterns.	D2b, D2e	☐	☐
e. The proposed action may change flood water flows that contribute to flooding.	D2b, E2i, E2j, E2k	☐	☐
f. If there is a dam located on the site of the proposed action, is the dam in need of repair, or upgrade?	E1e	☐	☐

g. Other impacts: _____ _____		☐	☐

6. Impacts on Air

The proposed action may include a state regulated air emission source. (See Part 1. D.2.f., D,2,h, D.2.g) ☐NO ☐YES

If "Yes", answer questions a - f. If "No", move on to Section 7.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. If the proposed action requires federal or state air emission permits, the action may also emit one or more greenhouse gases at or above the following levels:			
i. More than 1000 tons/year of carbon dioxide (CO_2)	D2g	☐	☐
ii. More than 3.5 tons/year of nitrous oxide (N_2O)	D2g	☐	☐
iii. More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs)	D2g	☐	☐
iv. More than .045 tons/year of sulfur hexafluoride (SF_6)	D2g	☐	☐
v. More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflourocarbons (HFCs) emissions	D2g	☐	☐
vi. 43 tons/year or more of methane	D2h	☐	☐
b. The proposed action may generate 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous air pollutants.	D2g	☐	☐
c. The proposed action may require a state air registration, or may produce an emissions rate of total contaminants that may exceed 5 lbs. per hour, or may include a heat source capable of producing more than 10 million BTU's per hour.	D2f, D2g	☐	☐
d. The proposed action may reach 50% of any of the thresholds in "a" through "c", above.	D2g	☐	☐
e. The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.	D2s	☐	☐
f. Other impacts: _____ _____		☐	☐

7. Impact on Plants and Animals

The proposed action may result in a loss of flora or fauna. (See Part 1. E.2. m.-q.) ☐NO ☐YES

If "Yes", answer questions a - j. If "No", move on to Section 8.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may cause reduction in population or loss of individuals of any threatened or endangered species, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2o	☐	☐
b. The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.	E2o	☐	☐
c. The proposed action may cause reduction in population, or loss of individuals, of any species of special concern or conservation need, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2p	☐	☐
d. The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.	E2p	☐	☐

e. The proposed action may diminish the capacity of a registered National Natural Landmark to support the biological community it was established to protect.	E3c	☐	☐
f. The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community. Source: _____	E2n	☐	☐
g. The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.	E2m	☐	☐
h. The proposed action requires the conversion of more than 10 acres of forest, grassland or any other regionally or locally important habitat. Habitat type & information source: _____ _____	E1b	☐	☐
i. Proposed action (commercial, industrial or recreational projects, only) involves use of herbicides or pesticides.	D2q	☐	☐
j. Other impacts: _____ _____		☐	☐

8. Impact on Agricultural Resources

The proposed action may impact agricultural resources. (See Part 1. E.3.a. and b.) ☐NO ☐YES

If "Yes", answer questions a - h. If "No", move on to Section 9.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.	E2c, E3b	☐	☐
b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc).	E1a, E1b	☐	☐
c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.	E3b	☐	☐
d. The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District, or more than 10 acres if not within an Agricultural District.	E1b, E3a	☐	☐
e. The proposed action may disrupt or prevent installation of an agricultural land management system.	E1 a, E1b	☐	☐
f. The proposed action may result, directly or indirectly, in increased development potential or pressure on farmland.	C2c, C3, D2c, D2d	☐	☐
g. The proposed project is not consistent with the adopted municipal Farmland Protection Plan.	C2c	☐	☐
h. Other impacts: _____		☐	☐

9. Impact on Aesthetic Resources

The land use of the proposed action are obviously different from, or are in sharp contrast to, current land use patterns between the proposed project and a scenic or aesthetic resource. (Part 1. E.1.a, E.1.b, E.3.h.) ☐NO ☐YES

If "Yes", answer questions a - g. If "No", go to Section 10.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.	E3h	☐	☐
b. The proposed action may result in the obstruction, elimination or significant screening of one or more officially designated scenic views.	E3h, C2b	☐	☐
c. The proposed action may be visible from publicly accessible vantage points: i. Seasonally (e.g., screened by summer foliage, but visible during other seasons) ii. Year round	E3h	 ☐ ☐	 ☐ ☐
d. The situation or activity in which viewers are engaged while viewing the proposed action is: i. Routine travel by residents, including travel to and from work ii. Recreational or tourism based activities	E3h E2q, E1c	 ☐ ☐	 ☐ ☐
e. The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.	E3h	☐	☐
f. There are similar projects visible within the following distance of the proposed project: 0-1/2 mile ½ -3 mile 3-5 mile 5+ mile	D1a, E1a, D1f, D1g	☐	☐
g. Other impacts: _____ _____		☐	☐

10. Impact on Historic and Archeological Resources

The proposed action may occur in or adjacent to a historic or archaeological resource. (Part 1. E.3.e, f. and g.) ☐NO ☐YES

If "Yes", answer questions a - e. If "No", go to Section 11.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may occur wholly or partially within, or substantially contiguous to, any buildings, archaeological site or district which is listed on or has been nominated by the NYS Board of Historic Preservation for inclusion on the State or National Register of Historic Places.	E3e	☐	☐
b. The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.	E3f	☐	☐
c. The proposed action may occur wholly or partially within, or substantially contiguous to, an archaeological site not included on the NY SHPO inventory. Source: _____	E3g	☐	☐

d. Other impacts: _____		☐	☐
e. If any of the above (a-d) are answered "Yes", continue with the following questions to help support conclusions in Part 3:			
i. The proposed action may result in the destruction or alteration of all or part of the site or property.	E3e, E3g, E3f	☐	☐
ii. The proposed action may result in the alteration of the property's setting or integrity.	E3e, E3f, E3g, E1a, E1b	☐	☐
iii. The proposed action may result in the introduction of visual elements which are out of character with the site or property, or may alter its setting.	E3e, E3f, E3g, E3h, C2, C3	☐	☐

11. Impact on Open Space and Recreation

The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan.
(See Part 1. C.2.c, E.1.c., E.2.q.)
If "Yes", answer questions a - e. If "No", go to Section 12.

☐ NO ☐ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in an impairment of natural functions, or "ecosystem services", provided by an undeveloped area, including but not limited to stormwater storage, nutrient cycling, wildlife habitat.	D2e, E1b E2h, E2m, E2o, E2n, E2p	☐	☐
b. The proposed action may result in the loss of a current or future recreational resource.	C2a, E1c, C2c, E2q	☐	☐
c. The proposed action may eliminate open space or recreational resource in an area with few such resources.	C2a, C2c E1c, E2q	☐	☐
d. The proposed action may result in loss of an area now used informally by the community as an open space resource.	C2c, E1c	☐	☐
e. Other impacts: _____		☐	☐

12. Impact on Critical Environmental Areas

The proposed action may be located within or adjacent to a critical environmental area (CEA). (See Part 1. E.3.d)
If "Yes", answer questions a - c. If "No", go to Section 13.

☐ NO ☐ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA.	E3d	☐	☐
b. The proposed action may result in a reduction in the quality of the resource or characteristic which was the basis for designation of the CEA.	E3d	☐	☐
c. Other impacts: _____		☐	☐

13. Impact on Transportation

The proposed action may result in a change to existing transportation systems. ☐NO ☐YES
(See Part 1. D.2.j)
If "Yes", answer questions a - g. If "No", go to Section 14.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Projected traffic increase may exceed capacity of existing road network.	D2j	☐	☐
b. The proposed action may result in the construction of paved parking area for 500 or more vehicles.	D2j	☐	☐
c. The proposed action will degrade existing transit access.	D2j	☐	☐
d. The proposed action will degrade existing pedestrian or bicycle accommodations.	D2j	☐	☐
e. The proposed action may alter the present pattern of movement of people or goods.	D2j	☐	☐
f. Other impacts: _____ _____		☐	☐

14. Impact on Energy

The proposed action may cause an increase in the use of any form of energy. ☐NO ☐YES
(See Part 1. D.2.k)
If "Yes", answer questions a - e. If "No", go to Section 15.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action will require a new, or an upgrade to an existing, substation.	D2k	☐	☐
b. The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use.	D1f, D1q, D2k	☐	☐
c. The proposed action may utilize more than 2,500 MWhrs per year of electricity.	D2k	☐	☐
d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.	D1g	☐	☐
e. Other Impacts: _____ _____		☐	☐

15. Impact on Noise, Odor, and Light

The proposed action may result in an increase in noise, odors, or outdoor lighting. ☐NO ☐YES
(See Part 1. D.2.m., n., and o.)
If "Yes", answer questions a - f. If "No", go to Section 16.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may produce sound above noise levels established by local regulation.	D2m	☐	☐
b. The proposed action may result in blasting within 1,500 feet of any residence, hospital, school, licensed day care center, or nursing home.	D2m, E1d	☐	☐
c. The proposed action may result in routine odors for more than one hour per day.	D2o	☐	☐

d. The proposed action may result in light shining onto adjoining properties.	D2n	☐	☐
e. The proposed action may result in lighting creating sky-glow brighter than existing area conditions.	D2n, E1a	☐	☐
f. Other impacts: _____ _____		☐	☐

16. Impact on Human Health

The proposed action may have an impact on human health from exposure to new or existing sources of contaminants. (See Part 1.D.2.q., E.1. d. f. g. and h.) ☐NO ☐YES

If "Yes", answer questions a - m. If "No", go to Section 17.

	Relevant Part I Question(s)	No,or small impact may cccur	Moderate to large impact may occur
a. The proposed action is located within 1500 feet of a school, hospital, licensed day care center, group home, nursing home or retirement community.	E1d	☐	☐
b. The site of the proposed action is currently undergoing remediation.	E1g, E1h	☐	☐
c. There is a completed emergency spill remediation, or a completed environmental site remediation on, or adjacent to, the site of the proposed action.	E1g, E1h	☐	☐
d. The site of the action is subject to an institutional control limiting the use of the property (e.g., easement or deed restriction).	E1g, E1h	☐	☐
e. The proposed action may affect institutional control measures that were put in place to ensure that the site remains protective of the environment and human health.	E1g, E1h	☐	☐
f. The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health.	D2t	☐	☐
g. The proposed action involves construction or modification of a solid waste management facility.	D2q, E1f	☐	☐
h. The proposed action may result in the unearthing of solid or hazardous waste.	D2q, E1f	☐	☐
i. The proposed action may result in an increase in the rate of disposal, or processing, of solid waste.	D2r, D2s	☐	☐
j. The proposed action may result in excavation or other disturbance within 2000 feet of a site used for the disposal of solid or hazardous waste.	E1f, E1g E1h	☐	☐
k. The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures.	E1f, E1g	☐	☐
l. The proposed action may result in the release of contaminated leachate from the project site.	D2s, E1f, D2r	☐	☐
m. Other impacts: _____ _____		☐	☐

17. Consistency with Community Plans

The proposed action is not consistent with adopted land use plans. ☐NO ☐YES
(See Part 1. C.1, C.2. and C.3.)
If "Yes", answer questions a - h. If "No", go to Section 18.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action's land use components may be different from, or in sharp contrast to, current surrounding land use pattern(s).	C2, C3, D1a E1a, E1b	☐	☐
b. The proposed action will cause the permanent population of the city, town or village in which the project is located to grow by more than 5%.	C2	☐	☐
c. The proposed action is inconsistent with local land use plans or zoning regulations.	C2, C2, C3	☐	☐
d. The proposed action is inconsistent with any County plans, or other regional land use plans.	C2, C2	☐	☐
e. The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure.	C3, D1c, D1d, D1f, D1d, E1b	☐	☐
f. The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure.	C4, D2c, D2d D2j	☐	☐
g. The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)	C2a	☐	☐
h. Other: _____ _____		☐	☐

18. Consistency with Community Character

The proposed project is inconsistent with the existing community character. ☐NO ☐YES
(See Part 1. C.2, C.3, D.2, E.3)
If "Yes", answer questions a - g. If "No", proceed to Part 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.	E3e, E3f, E3g	☐	☐
b. The proposed action may create a demand for additional community services (e.g. schools, police and fire)	C4	☐	☐
c. The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.	C2, C3, D1f D1g, E1a	☐	☐
d. The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.	C2, E3	☐	☐
e. The proposed action is inconsistent with the predominant architectural scale and character.	C2, C3	☐	☐
f. Proposed action is inconsistent with the character of the existing natural landscape.	C2, C3 E1a, E1b E2g, E2h	☐	☐
g. Other impacts: _____ _____		☐	☐

PRINT FULL FORM

Agency Use Only [If Applicable]

Project :

Date :

Full Environmental Assessment Form
Part 3 - Evaluation of the Magnitude and Importance of Project Impacts
and
Determination of Significance

Part 3 provides the reasons in support of the determination of significance. The lead agency must complete Part 3 for every question in Part 2 where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.

Based on the analysis in Part 3, the lead agency must decide whether to require an environmental impact statement to further assess the proposed action or whether available information is sufficient for the lead agency to conclude that the proposed action will not have a significant adverse environmental impact. By completing the certification on the next page, the lead agency can complete its determination of significance.

Reasons Supporting This Determination:

To complete this section:

- Identify the impact based on the Part 2 responses and describe its magnitude. Magnitude considers factors such as severity, size or extent of an impact.
- Assess the importance of the impact. Importance relates to the geographic scope, duration, probability of the impact occurring, number of people affected by the impact and any additional environmental consequences if the impact were to occur.
- The assessment should take into consideration any design element or project changes.
- Repeat this process for each Part 2 question where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.
- Provide the reason(s) why the impact may, or will not, result in a significant adverse environmental impact
- For Conditional Negative Declarations identify the specific condition(s) imposed that will modify the proposed action so that no significant adverse environmental impacts will result.
- Attach additional sheets, as needed.

Determination of Significance - Type 1 and Unlisted Actions

SEQR Status: ☐ Type 1 ☐ Unlisted

Identify portions of EAF completed for this Project: ☐ Part 1 ☐ Part 2 ☐ Part 3

Upon review of the information recorded on this EAF, as noted, plus this additional support information

_____

_____

_____

and considering both the magnitude and importance of each identified potential impact, it is the conclusion of the _____ as lead agency that:

☐ A. This project will result in no significant adverse impacts on the environment, and, therefore, an environmental impact statement need not be prepared. Accordingly, this negative declaration is issued.

☐ B. Although this project could have a significant adverse impact on the environment, that impact will be avoided or substantially mitigated because of the following conditions which will be required by the lead agency:

_____

_____

_____

_____

There will, therefore, be no significant adverse impacts from the project as conditioned, and, therefore, this conditioned negative declaration is issued. A conditioned negative declaration may be used only for UNLISTED actions (see 6 NYCRR 617.d).

☐ C. This Project may result in one or more significant adverse impacts on the environment, and an environmental impact statement must be prepared to further assess the impact(s) and possible mitigation and to explore alternatives to avoid or reduce those impacts. Accordingly, this positive declaration is issued.

Name of Action:	
Name of Lead Agency:	
Name of Responsible Officer in Lead Agency:	
Title of Responsible Officer:	
Signature of Responsible Officer in Lead Agency:	Date:
Signature of Preparer (if different from Responsible Officer)	Date:

For Further Information:

Contact Person:

Address:

Telephone Number:

E-mail:

For Type 1 Actions and Conditioned Negative Declarations, a copy of this Notice is sent to:

Chief Executive Officer of the political subdivision in which the action will be principally located (e.g., Town / City / Village of)
Other involved agencies (if any)
Applicant (if any)
Environmental Notice Bulletin: http://www.dec.ny.gov/enb/enb.html

PRINT FULL FORM

May 23, 2016

Mr. Justin Woods, P.E.
City Engineer
Rom 305, City Hall
Watertown, NY 13601

Re: Mercy Heights, Site Plan Application

Dear Mr. Woods

Bergmann Associates on behalf of the applicant, COR Arsenal Street Company, LLC, submits the attached materials depicting the proposed re-development of the former Mercy Hospital Site, 218 Stone Street, Watertown, NY. The proposed re-development project is a multi-use project and will include construction of three multi-family residential buildings, a community center, and two office buildings as well as associated utilities, parking, lighting and landscaping. The applicant has also been working closely with the St. Patrick's Society to include improvements to their parcel as part of the overall project which would not only enhance their parking but also reconfigure their 1.791 acre parcel to enhance the entire project.

The three multi-family residential buildings, located along Stone and South Massey Streets, are each three stories in height with 36 units at 36,402 square feet. This provides a total of 108 units and 109,206 square feet. The 5,588 square foot community center building is a single story structure and will house the support programs for the three multi-family buildings and the church. These programs includes; a fitness center, locker rooms, multi-purpose room, party room, and the leasing office.

The two office buildings, located along Arsenal Street, are two story structures with 18,000 square feet each for a total of 36,000 of office space.

The project will require obtaining setback variances for five of the proposed six buildings on site, re-subdivision of the two St. Patrick's parcels and the two COR owned parcels, and site plan approval for the overall project improvements. The Zoning Variance and Subdivision applications will follow under separate cover.

The following material is being submitted:

Submitted materials:
(4) collated full scale copies and (13) 11 x 17 collated copies of the following are included:

1. C000 – Cover Sheet
2. 1- Site Plan and Property Survey Map
3. C080 – Demolition Plan
4. C100 – Site Plan
5. C110 – Utility Plan
6. C120 – Grading Plan
7. C130 – Landscaping Plan
8. C160 – Lighting Plan
9. C500 – Sediment and erosion Control Details

10. C501 - Miscellaneous Details
11. C502 - Miscellaneous Details
12. C503 - Miscellaneous Details
13. Completed Site Plan Application Form
14. Engineer's Report (4 copies)

    Multi-Family Residential Buildings
15. A-1 - Front and Left Side Elevations
16. A-1.1 – Rear and Right Elevations
17. A-3 – Main Floor Plan
18. A-4 - 2nd and 3rd Floor Plan
19. A4.0 – Exterior Elevations

    Community Center Building
20. A-1 – Front and Ride Side Elevations
21. A-2 – Rear and Left Side Elevations
22. A-3 – Main Floor Plan

    Office Buildings
23. A-101 – Floor Plans
24. A-201 – Exterior Elevations
25. Check for $50.00
26. Letter from COR authorizing Bergmann to submit materials on their behalf

We would like to present the submitted materials to the Planning Board during their June 7th meeting.

Sincerely,
Bergmann Associates, Inc.

Andrew M. Hart

Andrew M. Hart, RLA, ASLA
Regional Business Segment Manager

Cc: Catherine Johnson, COR Arsenal Street Company, LLC

August 9, 2016

Mr. Justin Wood, P.E.
City Engineer
Rom 305, City Hall
Watertown, NY 13601

Re: ***Response to Comments for Site Plan Approval - 218 Stone Street and 123 Massey Street South***

Dear Mr. Wood:

Bergmann Associates, on behalf of the applicant COR Arsenal Street Company, LLC, (COR) is submitting the following material and written responses to a Memorandum prepared by Michael Lumbis dated July 28, 2016 with respect to the Site Plan Approval - 218 Stone Street and 123 Massey Street South.

Submitted materials:
(7) Collated full scale copies of the following are included:

1. C000 – Cover Sheet
2. 1- Site Plan and Property Survey Map
3. C080 – Demolition Plan
4. C100 – Site Plan
5. C110 – Utility Plan
6. C120 – Grading Plan
7. C130 – Landscaping Plan
8. C160 – Lighting Plan
9. C300 – Sanitary Profile Sheet
10. C500 – Sediment and Erosion Control Details
11. C501 - Miscellaneous Details
12. C502 - Miscellaneous Details
13. C503 - Miscellaneous Details
14. FR-1 - Fire truck Access Plan
15. GP-1 – Garbage Truck Access Plan
16. Engineer's Report (2 copies)

Responses to specific comments are below:

1. The applicant must allow for unobstructed fire truck movement into and throughout the sit, either by removing all curbs from a fire truck's path or by installing curbs with low enough heights as to be unobstructed.
   Response: We have revised the site plan to better accommodate the ladder truck movement through the site. We have included the 8' extension of the ladder on the front of the truck and the plan reflects the new turning movements. We have removed all vertical obstructions from the truck movements.

2. The applicant shall change the location of the sidewalks along Arsenal Street by relocating it so that it is adjacent to the building frontage and shall add grass and street trees between the sidewalk and the street to meet the landscaping requirements in this area.
   Response: The Site Plan has been revised to move the sidewalk adjacent to the building and trees have been added to the margin.

3. The applicant shall revise the entrance into the site from arsenal Street to a Right in Right out.
   Response: The change has been incorporated.

4. The applicant shall provide the City with a copy of NYSDOT's response to the traffic impact analysis.
   Response: The letter has been provided under separate cover.

5. The applicant shall provide a letter form the New York State Historic Preservation Office (SHPO)
   Response: The SHPO letter has been provided under separate cover.

6. The applicant shall perform a hydrant flow test and submit hydraulic calculations to the City Engineering.
   Reponses: The Hydrant Flow Test was provided to us by the City Water Department and the hydraulic calculations have been provided in Appendix C of the Engineer's Report.

7. The applicant shall provide the City Engineering Department with correspondence from the DEC that either approves the proposed sanitary sewer design or indicates that the DEC determined that a review was not necessary.
   Response: Bergmann is currently working with David Rarick on the review of the sanitary sewer. A final response will be provided after his review and approval.

8. The applicant shall submit a Notice of Intent (NOI) to the NYSDEC.
   Response: Bergmann will send the NOI to the NYSDEC after final site plan approval is obtained.

9. The applicant shall provide the City Engineering Department with correspondence from the DOH that either approves the proposed water system design or indicates that DOH determined that a review was not necessary.

Response: Bergmann is currently working with Claude Curley on the review of the water system. A final response will be provided after his review and approval.

10. The applicant must address all concerns listed in the "Other Engineering Comments" section of the June 2, 2016 Planning Office memorandum to the satisfaction of the City Engineering Department prior to the issuance of any permits.
    Response: See responses to "Other Engineering Comments" below.

11. The applicant must obtain the following permits, minimally, prior to demolition and construction: Building Permit, Fence Permit and General City Permit and a Sanitary/Storm Sewer Connection Permit.
    Response: Applicant understands the permit process.

Other Engineering Comments

1. The applicant should use a regular sanitary manhole in lieu of a doghouse for manhole #1.
   Response: The revision has been made.

2. The applicant should confirm if the existing manhole o Sherman Street is precast concrete, if so, applicant should core the manhole and install a rubber boot.
   Response: The applicant is connecting into an existing lateral and will not be performing work or coring a new invert in the man hole.

3. The applicant must construct all existing and proposed curb ramps and sidewalks within the City Margin fronting the properties to meet the requirements of Public Right of Way Accessibility Guidelines (PROWAG).
   Response: All sidewalk and curb ramps will meet PROWAG guidelines. The final submission of plans will have the specific details required.

4. The applicant should add a note to the site plan identifying where the curb infill of the existing driveway to Arsenal Street form the St. Patrick's parking lot will take place.
   Response: All the curb along Arsenal Street in front of the project will be replaced due to the existing poor condition.

Please feel free to contact me if you have any questions or concerns regarding the above responses or attached materials.

Sincerely,
Bergmann Associates

Andrew M. Hart, RLA, ASLA
Regional Business Segment Manager

Cc; Kate Johnson COR

CITY OF WATERTOWN
SITE PLAN APPLICATION

** Provide responses for all sections. INCOMPLETE APPLICATIONS WILL NOT BE PROCESSED. Failure to submit required information by the submittal deadline will result in **not** making the agenda for the upcoming Planning Board meeting.

PROPERTY LOCATION

Proposed Project Name: Mercy Heights

Tax Parcel Number: 10-02-101, 10-02-116, and 10-02-118

Property Address: 218 Stone St., 271 Arsenal St., 123 Massey St., and 253 Arsenal St.

Existing Zoning Classification: Commercial

OWNER OF PROPERTY

Name: COR Arsenal Street Company LLC

Address: 540 Towne Drive

Fayetteville, NY 13066

Telephone Number: 315-663-2100

Fax Number: 315-663-2107

APPLICANT

Name: COR Arsenal Street Company LLC

Address: 540 Towne Drive

Fayetteville, NY 13066

Telephone Number: 315-663-2100

Fax Number: 315-663-2107

Email Address: cjohnson@corcompanies.com

ENGINEER/ARCHITECT/SURVEYOR

Name: Bergmann Associates

Address: 28 East Main St., 200 First Federal Plaza

Rochester, NY 14614

Telephone Number: 585-232-5135

Fax Number: 585-232-4652

Email Address: ahart@bergmannpc.com

OPTIONAL MATERIALS:

☐ **PROVIDE AN ELECTRONIC (.DWG) COPY OF THE SITE PLAN WITH AS-BUILT REVISIONS. This will assist the City in keeping our GIS mapping up-to-date.**

REQUIRED MATERIALS:

** The following drawings with the listed information **ARE REQUIRED, NOT OPTIONAL.** If the required information is not included and/or addressed, the Site Plan Application will **not** be processed**.**

☒ **COMPLETED ENVIRONMENTAL ASSESSMENT FORM** (Contact us if you need help choosing between the Short EAF and the Full EAF). The Complete EAF is available online at: http://www.dec.ny.gov/permits/6191.html

☒ **ELECTRONIC COPY OF ENTIRE SUBMISSION** (PDF) A single, combined PDF of the entire application, including cover letter, plans, reports, and all submitted material.

☒ **BOUNDARY and TOPOGRAPHIC SURVEY**
(Depict existing features as of the date of the Site Plan Application. This Survey and Map must be performed and created by a Professional Land Surveyor licensed and currently registered to practice in the State of New York. This Survey and Map must be stamped and signed with an original seal and signature on at least one copy, the rest may be copies thereof.

☒ All elevations are National Geodetic Vertical Datum of 1929 (NGVD29).

☒ 1' contours are shown and labeled with appropriate spot elevations.

☒ All existing features on and within 50 feet of the subject property are shown and labeled.

☒ All existing utilities on and within 50 feet of the subject property are shown and labeled.

☒ All existing easements and/or right-of-ways are shown and labeled.

☒ Existing property lines (bearings and distances), margins, acreage, zoning, existing land use, reputed owner, adjacent reputed owners and tax parcel numbers are shown and labeled.

☒ The north arrow and graphic scale are shown.

☒ **DEMOLITION PLAN** (If Applicable)

☒ All existing features on and within 50 feet of the subject property are shown and labeled.

☒ All items to be removed are labeled in darker text.

☒ **SITE PLAN**

☒ Include a reference to the coordinate system used(NYS NAD83-CF preferred).

☒ All proposed above ground features are depicted and clearly labeled.

☒ All proposed features are clearly labeled "proposed".

☒ All proposed easements and right-of-ways are shown and labeled.

☒ Land use, zoning, and tax parcel number are shown.

☒ The Plan is adequately dimensioned including radii.

☒ The line work and text for all proposed features is shown darker than existing features.

☒ All vehicular and pedestrian traffic circulation is shown including a delivery or refuse vehicle entering and exiting the property.

☒ Proposed parking and loading spaces including ADA accessible spaces are shown and labeled.

☒ Sidewalks within the City Right-of-Way meet Public-Right-of-Way (PROWAG) standards.

☒ Refuse Enclosure Area (Dumpster), if applicable, is shown. Section 161-19.1 of the Zoning Ordinance states, "No refuse vehicle or refuse container shall be parked or placed within 15 feet of a party line without the written consent of the adjoining owner, if the owner occupies any part of the adjoining property".

☒ Proposed snow storage areas are shown on the plans.

☒ The north arrow and graphic scale are shown.

☒ **GRADING PLAN**

☒ All proposed below ground features including elevations and inverts are shown and labeled.

☒ All proposed above ground features are shown and labeled.

☒ The line work and text for all proposed features is shown darker than existing features.

☒ All proposed easements and right-of-ways are shown and labeled.

☒ 1’ existing contours are shown dashed and labeled with appropriate spot elevations.

☒ 1’ proposed contours are shown and labeled with appropriate spot elevations.

☒ All elevations are North American Vertical Datum of 1988 (NAVD88).

☒ Sediment and Erosion control are shown and labeled on the grading plan unless separate drawings have been provided as part of a Stormwater Pollution Prevention Plan (SWPPP).

☒ **UTILITY PLAN**

☒ All proposed above and below ground features are shown and labeled.

☒ All existing above and below ground utilities including sanitary, storm water, water, electric, gas, telephone, cable, fiber optic, etc. are shown and labeled.

☒ All proposed easements and right-of-ways are shown and labeled.

☒ The Plan is adequately dimensioned including radii.

☒ The line work and text for all proposed features is shown darker than existing features.

☒ The following note has been added to the drawings stating, “All water main and service work must be coordinated with the City of Watertown Water Department. The Water Department requirements supersede all other plans and specifications provided.”

☒ **LANDSCAPING PLAN**

☒ All proposed above ground features are shown and labeled.

☒ All proposed trees, shrubs, and other plantings are shown and labeled.

☒ All proposed landscaping and text are shown darker than existing features.

☒ All proposed landscaping is clearly depicted, labeled and keyed to a plant schedule that includes the scientific name, common name, size, quantity, etc.

☒ For additional landscaping requirements where nonresidential districts and land uses abut land in any residential district, please refer to Section 310-59, Landscaping of the City's Zoning Ordinance.

☒ **Site Plan complies with and meets acceptable guidelines set forth in Appendix A - Landscaping and Buffer Zone Guidelines (August 7, 2007).**

☐ **PHOTOMETRIC PLAN** (If Applicable)

☐ All proposed above ground features are shown.

☐ Photometric spot elevations or labeled photometric contours of the property are clearly depicted. Light spillage across all property lines shall not exceed 0.5 foot-candles.

☒ **CONSTRUCTION DETAILS and NOTES**

☒ All details and notes necessary to adequately complete the project including, but not limited to, landscaping, curbing, catch basins, manholes, water line, pavement, sidewalks, trench, lighting, trash enclosure, etc. are provided.

☒ Maintenance and protection and traffic plans and notes for all required work within City streets including driveways, water laterals, sanitary laterals, storm connections, etc. are provided.

☒ The following note must be added to the drawings stating:
"All work to be performed within the City of Watertown margin will require sign-off from a Professional Engineer, licensed and currently registered to practice in the State of New York, that the work was built according to the approved site plan and applicable City of Watertown standards. Compaction testing will be required for all work to be performed within the City of Watertown margin and must be submitted to the City of Watertown Codes Department."

☒ **PRELIMINARY ARCHITECTUAL PLANS** (If Applicable)

☒ Floor plan drawings, including finished floor elevations, for all buildings to be constructed are provided.

☒ Exterior elevations including exterior materials and colors for all buildings to be constructed are provided.

☒ Roof outline depicting shape, slope and direction is provided.

☒ **ENGINEERING REPORT**

**** The engineering report at a minimum includes the following:**

☒ Project location

☒ Project description

☒ Existing and proposed sanitary sewer flows and summary

☒ Water flows and pressure

☒ Storm Water Pre and Post Construction calculations and summary

☒ Traffic impacts

☒ Lighting summary

☒ Landscaping summary

☐ **GENERAL INFORMATION**

☒ ALL ITEMS ARE STAMPED AND SIGNED WITH AN ORIGINAL SIGNATURE BY A PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR SURVEYOR LICENSED AND CURRENTLY REGISTERED TO PRACTICE IN THE STATE OF NEW YORK.

☐ If required, a copy of the Stormwater Pollution Prevention Plan (SWPPP) submitted to the NYSDEC will also be sent to the City of Watertown Engineering Department.

☐ ****** If required, a copy of all submittals sent to the New York State Department of Environmental Conservation (NYSDEC) for the sanitary sewer extension permit will also be sent to the City of Watertown Engineering Department.

☐ ****** If required, a copy of all submittals sent to the New York State Department of Health (NYSDOH) will also be sent to the City of Watertown Engineering Department.

****** When NYSDEC or NYSDOH permitting is required, the property owner/applicant shall retain a licensed Professional Engineer to perform inspections of the proposed utility work and to certify the completed works were constructed in substantial conformance with the approved plans and specifications.

☒ Signage will not be approved as part of this submission. It requires a sign permit from the City Code Enforcement Bureau. See Section 310-52.2 of the Zoning Ordinance.

☒ Plans have been collated and properly folded.

☐ If an applicant proposes a site plan with multiple buildings and any of those buildings front on a private drive, the City Council will name the private drive by resolution and the building(s) will be given an address number on that private drive by City staff. The applicant may propose a name for the private drive for the City Council's consideration.

Proposed Street Name: _____

☒ For non-residential uses, the proposed Hours of Operation shall be indicated.

☒ Signature Authorization form or letter signed by the owner is submitted allowing the applicant to apply on behalf of the owner if the applicant is not the property owner.

☒ Explanation for any item not checked in the Site Plan Checklist.

SWPPP to follow.

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Sponsor Information.

Name of Action or Project: Mercy Heights		
Project Location (describe, and attach a general location map): Former Mercy Hospital site		
Brief Description of Proposed Action (include purpose or need): The applicant would like to construct a multi-use development on the former Mercy Hospital site. The project will consist of three multi-family residential buildings of 35,402 SF each, a 5,600 SF community center building, and two office buildings of 18,000 SF each. The applicant will also provide site improvements to St. Patrick's Church parcel to consolidate their parcel and re-organize their parking. 3 Multi-family residential buildings = 109,206 SF and 108 units 1 Community center building = 5,600 SF 2 Office buildings = 36,000 SF		
Name of Applicant/Sponsor: COR Arsenal Street Company LLC	Telephone: 315-663-2100 E-Mail: cjohnson@corcompanies.com	
Address: 540 Towne Drive		
City/PO: Fayetteville	State: NY	Zip Code: 13066
Project Contact (if not same as sponsor; give name and title/role):	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor): COR Arsenal Street Company LLC	Telephone: E-Mail:	
Address: 540 Towne Drive		
City/PO: Fayetteville	State: NY	Zip Code: 13066

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)		
Government Entity	**If Yes: Identify Agency and Approval(s) Required**	**Application Date (Actual or projected)**
a. City Council, Town Board, ☑Yes☐No or Village Board of Trustees	Site Plan approval	
b. City, Town or Village ☑Yes☐No Planning Board or Commission	Site Plan recommendation to City Council	
c. City Council, Town or ☑Yes☐No Village Zoning Board of Appeals	Variances to reduce front building setback along Arsenal St., S. Massey St., and Stone St.	
d. Other local agencies ☑Yes☐No	City water	
e. County agencies ☑Yes☐No	Jefferson County Planning, DANC (Funding)	
f. Regional agencies ☐Yes☐No		
g. State agencies ☑Yes☐No	NYS Dept. of Health, (Water), NYSDOT (Traffic)	NYSDEC (Sanitary and Storm Sewers)
h. Federal agencies ☐Yes☐No		

i. Coastal Resources.
i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes☑No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☑Yes☐No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☑Yes☐No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☐Yes☑No

If Yes, identify the plan(s):

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes☑No

If Yes, identify the plan(s):

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
Commercial

b. Is the use permitted or allowed by a special or conditional use permit? ☐ Yes ☑ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☑ No
If Yes,
i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? Watertown City School District

b. What police or other public protection forces serve the project site?
City of Watertown Police Department

c. Which fire protection and emergency medical services serve the project site?
City of Watertown Fire Department

d. What parks serve the project site?
Thompson Park, Jefferson County Fairgrounds, Veterans Memorial Riverwalk, and Whitewater Park

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Multi-family residential and office

b. a. Total acreage of the site of the proposed action? 7.498 acres
b. Total acreage to be physically disturbed? 6.75 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 7.498 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☑ Yes ☐ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
To consolidate two COR parcels and reconfigure church parcel.
ii. Is a cluster/conservation layout proposed? ☐ Yes ☑ No
iii. Number of lots proposed? 2
iv. Minimum and maximum proposed lot sizes? Minimum 1.791 Maximum 5.707

e. Will proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: 18-24 months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____ year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? ☑ Yes ☐ No

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase				108
At completion of all phases				108

g. Does the proposed action include new non-residential construction (including expansions)? ☑ Yes ☐ No

If Yes,

i. Total number of structures 2

ii. Dimensions (in feet) of largest proposed structure: 40 height; 69 width; and 193 length

iii. Approximate extent of building space to be heated or cooled: 36,000 square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☐ Yes ☑ No

If Yes,

i. Purpose of the impoundment: _____

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☐ Other specify: _____

iii. If other than water, identify the type of impounded/contained liquids and their source. _____

iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres

v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): _____

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) ☐ Yes ☑ No

If Yes:

i. What is the purpose of the excavation or dredging? _____

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): _____
- Over what duration of time? _____

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them. _____

iv. Will there be onsite dewatering or processing of excavated materials? ☐ Yes ☑ No

If yes, describe. _____

v. What is the total area to be dredged or excavated? _____ acres

vi. What is the maximum area to be worked at any one time? _____ acres

vii. What would be the maximum depth of excavation or dredging? _____ feet

viii. Will the excavation require blasting? ☐ Yes ☑ No

ix. Summarize site reclamation goals and plan: _____

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☐ Yes ☑ No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): _____

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

iii. Will proposed action cause or result in disturbance to bottom sediments? ☐Yes ☑No
If Yes, describe:

iv. Will proposed action cause or result in the destruction or removal of aquatic vegetation? ☐Yes ☑No
If Yes:

- acres of aquatic vegetation proposed to be removed:
- expected acreage of aquatic vegetation remaining after project completion:
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access):
- proposed method of plant removal:
- if chemical/herbicide treatment will be used, specify product(s):

v. Describe any proposed reclamation/mitigation following disturbance:

c. Will the proposed action use, or create a new demand for water? ☐Yes ☑No
If Yes:

i. Total anticipated water usage/demand per day: 15,880 gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☑Yes ☐No
If Yes:

- Name of district or service area:
- Does the existing public water supply have capacity to serve the proposal? ☑Yes ☐No
- Is the project site in the existing district? ☑Yes ☐No
- Is expansion of the district needed? ☐Yes ☑No
- Do existing lines serve the project site? ☑Yes ☐No

iii. Will line extension within an existing district be necessary to supply the project? ☐Yes ☑No
If Yes:

- Describe extensions or capacity expansions proposed to serve this project:
- Source(s) of supply for the district: City of Watertown

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☑No
If, Yes:

- Applicant/sponsor for new district:
- Date application submitted or anticipated:
- Proposed source(s) of supply for new district:

v. If a public water supply will not be used, describe plans to provide water supply for the project:

vi. If water supply will be from wells (public or private), maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☑Yes ☐No
If Yes:

i. Total anticipated liquid waste generation per day: 15,880 gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): sanitary wastewater

iii. Will the proposed action use any existing public wastewater treatment facilities? ☑Yes ☐No
If Yes:

- Name of wastewater treatment plant to be used: Watertown Pollution Control Plant
- Name of district:
- Does the existing wastewater treatment plant have capacity to serve the project? ☑Yes ☐No
- Is the project site in the existing district? ☑Yes ☐No
- Is expansion of the district needed? ☐Yes ☑No

- Do existing sewer lines serve the project site? ☑Yes ☐No
- Will line extension within an existing district be necessary to serve the project? ☐Yes ☑No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐Yes ☑No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge, or describe subsurface disposal plans):

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑Yes ☐No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or 6.117 acres (impervious surface)

_____ Square feet or 7.498 acres (parcel size)

ii. Describe types of new point sources. Buildings and pavement

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

Below grade stormwater management facility.

- If to surface waters, identify receiving water bodies or wetlands: _____
- Will stormwater runoff flow to adjacent properties? ☐Yes ☑No

iv. Does proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☐Yes ☑No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☑Yes ☐No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

Minor delivery vehicles

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

HVAC units for heating & cooling

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

None

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐Yes ☑No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐Yes ☑No

ii. In addition to emissions as calculated in the application, the project will generate:

- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☐Yes ☑No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☑ Morning ☑ Evening ☐Weekend ☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of semi-trailer truck trips/day: _____

iii. Parking spaces: Existing 156 Proposed 440 Net increase/decrease 284 increase

iv. Does the proposed action include any shared use parking? ☑Yes ☐No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☑Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐Yes ☑No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☑Yes ☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☐Yes ☑No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

iii. Will the proposed action require a new, or an upgrade to, an existing substation? ☐Yes ☐No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 7AM - 4PM
- Saturday: TBD
- Sunday: TBD
- Holidays: TBD

ii. During Operations:

- Monday - Friday: Office 7:30AM- 5PM
- Saturday: TBD
- Sunday: TBD
- Holidays: TBD

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☐ Yes ☑ No

If yes:

i. Provide details including sources, time of day and duration:

X

ii. Will proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☑ No

Describe: _____

n.. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

Site lighting will be LED lights with a downward projection with a mix of mounted heights 12', 15' and 28'.

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐ Yes ☑ No

Describe: _____

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally describe proposed storage facilities: _____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☑ No

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☑ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☑ Yes ☐ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: 100 tons per 18 (unit of time)
- Operation : 10 tons per months (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: Material that can be recycled will be collected.
- Operation: Typical trash recycling program per County.

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: Collected and take off site as needed.
- Operation: Collected in enclosed dumpster on site and then taken off twice a week.

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☑ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☑ Urban ☐ Industrial ☑ Commercial ☑ Residential (suburban) ☐ Rural (non-farm)
☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____

ii. If mix of uses, generally describe:

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	6.109	6.117	.008
• Forested	0	0	
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0	0	
• Agricultural (includes active orchards, field, greenhouse etc.)	0	0	
• Surface water features (lakes, ponds, streams, rivers, etc.)	0	0	
• Wetlands (freshwater or tidal)	0	0	
• Non-vegetated (bare rock, earth or fill)	0	0	
• Other Describe: Lawn	1.389	1.381	.008

c. Is the project site presently used by members of the community for public recreation? ☐Yes ☑No

i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☑Yes ☐No

If Yes,

i. Identify Facilities:

Jefferson County Human Services on Arsenal Street, the Northern Regional Center for Independent Living on Court Street, and a licensed Day Care Center located within the Dulles State Office Building.

e. Does the project site contain an existing dam? ☐Yes ☑No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

_____

_____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐Yes ☑No

If Yes:

i. Has the facility been formally closed? ☐Yes ☐ No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

_____

_____

iii. Describe any development constraints due to the prior solid waste activities: _____

_____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐Yes ☑No

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

_____

_____

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☑Yes ☐ No

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐Yes ☐No

☐ Yes – Spills Incidents database Provide DEC ID number(s): _____

☑ Yes – Environmental Site Remediation database Provide DEC ID number(s): _____

☐ Neither database Removed existing 5,000 Gal. diesel tank underground.

ii. If site has been subject of RCRA corrective activities, describe control measures: _____

_____

_____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☑Yes ☐No

If yes, provide DEC ID number(s): V00473

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

_____

_____

v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☑ No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☑ No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? 10 feet

b. Are there bedrock outcroppings on the project site? ☐ Yes ☑ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____ %

c. Predominant soil type(s) present on project site: Urban 100 %
_____ %
_____ %

d. What is the average depth to the water table on the project site? Average: 1.5 - 2 feet

e. Drainage status of project site soils:
☐ Well Drained: _____ % of site
☑ Moderately Well Drained: 100 % of site
☐ Poorly Drained _____ % of site

f. Approximate proportion of proposed action site with slopes:
☑ 0-10%: 100 % of site
☐ 10-15%: _____ % of site
☐ 15% or greater: _____ % of site

g. Are there any unique geologic features on the project site? ☐ Yes ☑ No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☐ Yes ☑ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☐ Yes ☑ No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☐ Yes ☑ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name _____ Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name _____ Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☑ No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐ Yes ☑ No

j. Is the project site in the 100 year Floodplain? ☐ Yes ☑ No

k. Is the project site in the 500 year Floodplain? ☑ Yes ☐ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐ Yes ☑ No
If Yes:

i. Name of aquifer: _____

m. Identify the predominant wildlife species that occupy or use the project site: _____

_____ _____ _____

_____ _____ _____

n. Does the project site contain a designated significant natural community? ☐Yes ☑No

If Yes:

i. Describe the habitat/community (composition, function, and basis for designation): _____

ii. Source(s) of description or evaluation: _____

iii. Extent of community/habitat:

- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☑Yes ☐No

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐Yes ☑No

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐Yes ☑No

If yes, give a brief description of how the proposed action may affect that use: _____

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐Yes ☑No

If Yes, provide county plus district name/number: _____

b. Are agricultural lands consisting of highly productive soils present? ☐Yes ☑No

i. If Yes: acreage(s) on project site? _____

ii. Source(s) of soil rating(s): _____

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐Yes ☑No

If Yes:

i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature

ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____

_____

_____

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐Yes ☑No

If Yes:

i. CEA name: _____

ii. Basis for designation: _____

iii. Designating agency and date: _____

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on, or has been nominated by the NYS Board of Historic Preservation for inclusion on, the State or National Register of Historic Places? ☑ Yes ☐ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☐ Historic Building or District

ii. Name: Jefferson County Courthouse Complex, Trinity Episcopal Church and Parish House

iii. Brief description of attributes on which listing is based:

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☑ Yes ☐ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

i. Describe possible resource(s):

ii. Basis for identification:

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☑ Yes ☐ No

If Yes:

i. Identify resource: Olympic Trail NYS Scenic By-Way and Black River Tail

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): Scenic By-Way

iii. Distance between project and resource: 1/4 miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation:

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Andrew M. Hart, RLA, ASLA (as agent) Date Revised June 6, 2016

Signature Andrew M. Hart Title Regional Business Segment Manager

PRINT FORM

Agency Use Only [If applicable]
Project :
Date :

Part 2 is to be completed by the lead agency. Part 2 is designed to help the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency's reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

If the lead agency is a state agency **and** the action is in any Coastal Area, complete the Coastal Assessment Form before proceeding with this assessment.

Tips for completing Part 2:

- Review all of the information provided in Part 1.
- Review any application, maps, supporting materials and the Full EAF Workbook.
- Answer each of the 18 questions in Part 2.
- If you answer "**Yes**" to a numbered question, please complete all the questions that follow in that section.
- If you answer "**No**" to a numbered question, move on to the next numbered question.
- Check appropriate column to indicate the anticipated size of the impact.
- Proposed projects that would exceed a numeric threshold contained in a question should result in the reviewing agency checking the box "Moderate to large impact may occur."
- The reviewer is not expected to be an expert in environmental analysis.
- If you are not sure or undecided about the size of an impact, it may help to review the sub-questions for the general question and consult the workbook.
- When answering a question consider all components of the proposed activity, that is, the "whole action".
- Consider the possibility for long-term and cumulative impacts as well as direct impacts.
- Answer the question in a reasonable manner considering the scale and context of the project.

1. Impact on Land
Proposed action may involve construction on, or physical alteration of, the land surface of the proposed site. (See Part 1. D.1) ☐NO ☐YES
If "Yes", answer questions a - j. If "No", move on to Section 2.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may involve construction on land where depth to water table is less than 3 feet.	E2d	☐	☐
b. The proposed action may involve construction on slopes of 15% or greater.	E2f	☐	☐
c. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.	E2a	☐	☐
d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material.	D2a	☐	☐
e. The proposed action may involve construction that continues for more than one year or in multiple phases.	D1e	☐	☐
f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).	D2e, D2q	☐	☐
g. The proposed action is, or may be, located within a Coastal Erosion hazard area.	B1i	☐	☐
h. Other impacts: _____		☐	☐

2. Impact on Geological Features

The proposed action may result in the modification or destruction of, or inhibit access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves). (See Part 1. E.2.g) ☐NO ☐YES

If "Yes", answer questions a - c. If "No", move on to Section 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Identify the specific land form(s) attached: _____ _____	E2g	☐	☐
b. The proposed action may affect or is adjacent to a geological feature listed as a registered National Natural Landmark. Specific feature: _____	E3c	☐	☐
c. Other impacts: _____ _____		☐	☐

3. Impacts on Surface Water

The proposed action may affect one or more wetlands or other surface water bodies (e.g., streams, rivers, ponds or lakes). (See Part 1. D.2, E.2.h) ☐NO ☐YES

If "Yes", answer questions a - l. If "No", move on to Section 4.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may create a new water body.	D2b, D1h	☐	☐
b. The proposed action may result in an increase or decrease of over 10% or more than a 10 acre increase or decrease in the surface area of any body of water.	D2b	☐	☐
c. The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body.	D2a	☐	☐
d. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.	E2h	☐	☐
e. The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.	D2a, D2h	☐	☐
f. The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water.	D2c	☐	☐
g. The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s).	D2d	☐	☐
h. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.	D2e	☐	☐
i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.	E2h	☐	☐
j. The proposed action may involve the application of pesticides or herbicides in or around any water body.	D2q, E2h	☐	☐
k. The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.	D1a, D2d	☐	☐

l. Other impacts: _____ _____		☐	☐

4. Impact on groundwater

The proposed action may result in new or additional use of ground water, or may have the potential to introduce contamin ants to ground water or an aquifer. (See Part 1. D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t) ☐NO ☐YES

If "Yes", answer questions a - h. If "No", move on to Section 5.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.	D2c	☐	☐
b. Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer. Cite Source: _____	D2c	☐	☐
c. The proposed action may allow or result in residential uses in areas without water and sewer services.	D1a, D2c	☐	☐
d. The proposed action may include or require wastewater discharged to groundwater.	D2d, E2l	☐	☐
e. The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated.	D2c, E1f, E1g, E1h	☐	☐
f. The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.	D2p, E2l	☐	☐
g. The proposed action may involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources.	E2h, D2q, E2l, D2c	☐	☐
h. Other impacts: _____ _____		☐	☐

5. Impact on Flooding

The proposed action may result in development on lands subject to flooding. (See Part 1. E.2) ☐NO ☐YES

If "Yes", answer questions a - g. If "No", move on to Section 6.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in development in a designated floodway.	E2i	☐	☐
b. The proposed action may result in development within a 100 year floodplain.	E2j	☐	☐
c. The proposed action may result in development within a 500 year floodplain.	E2k	☐	☐
d. The proposed action may result in, or require, modification of existing drainage patterns.	D2b, D2e	☐	☐
e. The proposed action may change flood water flows that contribute to flooding.	D2b, E2i, E2j, E2k	☐	☐
f. If there is a dam located on the site of the proposed action, is the dam in need of repair, or upgrade?	E1e	☐	☐

g. Other impacts: _____ _____		☐	☐

6. Impacts on Air

The proposed action may include a state regulated air emission source. (See Part 1. D.2.f., D,2,h, D.2.g) ☐NO ☐YES

If "Yes", answer questions a - f. If "No", move on to Section 7.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. If the proposed action requires federal or state air emission permits, the action may also emit one or more greenhouse gases at or above the following levels:			
i. More than 1000 tons/year of carbon dioxide (CO_2)	D2g	☐	☐
ii. More than 3.5 tons/year of nitrous oxide (N_2O)	D2g	☐	☐
iii. More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs)	D2g	☐	☐
iv. More than .045 tons/year of sulfur hexafluoride (SF_6)	D2g	☐	☐
v. More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflourocarbons (HFCs) emissions	D2g	☐	☐
vi. 43 tons/year or more of methane	D2h	☐	☐
b. The proposed action may generate 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous air pollutants.	D2g	☐	☐
c. The proposed action may require a state air registration, or may produce an emissions rate of total contaminants that may exceed 5 lbs. per hour, or may include a heat source capable of producing more than 10 million BTU's per hour.	D2f, D2g	☐	☐
d. The proposed action may reach 50% of any of the thresholds in "a" through "c", above.	D2g	☐	☐
e. The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.	D2s	☐	☐
f. Other impacts: _____ _____		☐	☐

7. Impact on Plants and Animals

The proposed action may result in a loss of flora or fauna. (See Part 1. E.2. m.-q.) ☐NO ☐YES

If "Yes", answer questions a - j. If "No", move on to Section 8.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may cause reduction in population or loss of individuals of any threatened or endangered species, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2o	☐	☐
b. The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.	E2o	☐	☐
c. The proposed action may cause reduction in population, or loss of individuals, of any species of special concern or conservation need, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2p	☐	☐
d. The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.	E2p	☐	☐

e. The proposed action may diminish the capacity of a registered National Natural Landmark to support the biological community it was established to protect.	E3c	☐	☐
f. The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community. Source: _____	E2n	☐	☐
g. The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.	E2m	☐	☐
h. The proposed action requires the conversion of more than 10 acres of forest, grassland or any other regionally or locally important habitat. Habitat type & information source: _____ _____	E1b	☐	☐
i. Proposed action (commercial, industrial or recreational projects, only) involves use of herbicides or pesticides.	D2q	☐	☐
j. Other impacts: _____ _____		☐	☐

8. Impact on Agricultural Resources

The proposed action may impact agricultural resources. (See Part 1. E.3.a. and b.) ☐NO ☐YES

If "Yes", answer questions a - h. If "No", move on to Section 9.

	Relevant Part I Question(s)	**No, or small impact may occur**	**Moderate to large impact may occur**
a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.	E2c, E3b	☐	☐
b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc).	E1a, E1b	☐	☐
c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.	E3b	☐	☐
d. The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District, or more than 10 acres if not within an Agricultural District.	E1b, E3a	☐	☐
e. The proposed action may disrupt or prevent installation of an agricultural land management system.	E1 a, E1b	☐	☐
f. The proposed action may result, directly or indirectly, in increased development potential or pressure on farmland.	C2c, C3, D2c, D2d	☐	☐
g. The proposed project is not consistent with the adopted municipal Farmland Protection Plan.	C2c	☐	☐
h. Other impacts: _____		☐	☐

9. Impact on Aesthetic Resources

The land use of the proposed action are obviously different from, or are in sharp contrast to, current land use patterns between the proposed project and a scenic or aesthetic resource. (Part 1. E.1.a, E.1.b, E.3.h.) ☐NO ☐YES

If "Yes", answer questions a - g. If "No", go to Section 10.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.	E3h	☐	☐
b. The proposed action may result in the obstruction, elimination or significant screening of one or more officially designated scenic views.	E3h, C2b	☐	☐
c. The proposed action may be visible from publicly accessible vantage points: i. Seasonally (e.g., screened by summer foliage, but visible during other seasons) ii. Year round	E3h	☐ ☐	☐ ☐
d. The situation or activity in which viewers are engaged while viewing the proposed action is: i. Routine travel by residents, including travel to and from work ii. Recreational or tourism based activities	E3h E2q, E1c	☐ ☐	☐ ☐
e. The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.	E3h	☐	☐
f. There are similar projects visible within the following distance of the proposed project: 0-1/2 mile ½ -3 mile 3-5 mile 5+ mile	D1a, E1a, D1f, D1g	☐	☐
g. Other impacts: _____ _____		☐	☐

10. Impact on Historic and Archeological Resources

The proposed action may occur in or adjacent to a historic or archaeological resource. (Part 1. E.3.e, f. and g.) ☐NO ☐YES

If "Yes", answer questions a - e. If "No", go to Section 11.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may occur wholly or partially within, or substantially contiguous to, any buildings, archaeological site or district which is listed on or has been nominated by the NYS Board of Historic Preservation for inclusion on the State or National Register of Historic Places.	E3e	☐	☐
b. The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.	E3f	☐	☐
c. The proposed action may occur wholly or partially within, or substantially contiguous to, an archaeological site not included on the NY SHPO inventory. Source: _____	E3g	☐	☐

d. Other impacts: _____		☐	☐
e. If any of the above (a-d) are answered "Yes", continue with the following questions to help support conclusions in Part 3:			
i. The proposed action may result in the destruction or alteration of all or part of the site or property.	E3e, E3g, E3f	☐	☐
ii. The proposed action may result in the alteration of the property's setting or integrity.	E3e, E3f, E3g, E1a, E1b	☐	☐
iii. The proposed action may result in the introduction of visual elements which are out of character with the site or property, or may alter its setting.	E3e, E3f, E3g, E3h, C2, C3	☐	☐

11. Impact on Open Space and Recreation

The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan.
(See Part 1. C.2.c, E.1.c., E.2.q.)
If "Yes", answer questions a - e. If "No", go to Section 12.

☐ NO ☐ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in an impairment of natural functions, or "ecosystem services", provided by an undeveloped area, including but not limited to stormwater storage, nutrient cycling, wildlife habitat.	D2e, E1b E2h, E2m, E2o, E2n, E2p	☐	☐
b. The proposed action may result in the loss of a current or future recreational resource.	C2a, E1c, C2c, E2q	☐	☐
c. The proposed action may eliminate open space or recreational resource in an area with few such resources.	C2a, C2c E1c, E2q	☐	☐
d. The proposed action may result in loss of an area now used informally by the community as an open space resource.	C2c, E1c	☐	☐
e. Other impacts: _____		☐	☐

12. Impact on Critical Environmental Areas

The proposed action may be located within or adjacent to a critical environmental area (CEA). (See Part 1. E.3.d)
If "Yes", answer questions a - c. If "No", go to Section 13.

☐ NO ☐ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA.	E3d	☐	☐
b. The proposed action may result in a reduction in the quality of the resource or characteristic which was the basis for designation of the CEA.	E3d	☐	☐
c. Other impacts: _____		☐	☐

13. Impact on Transportation
The proposed action may result in a change to existing transportation systems. ☐NO ☐YES
(See Part 1. D.2.j)
If "Yes", answer questions a - g. If "No", go to Section 14.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Projected traffic increase may exceed capacity of existing road network.	D2j	☐	☐
b. The proposed action may result in the construction of paved parking area for 500 or more vehicles.	D2j	☐	☐
c. The proposed action will degrade existing transit access.	D2j	☐	☐
d. The proposed action will degrade existing pedestrian or bicycle accommodations.	D2j	☐	☐
e. The proposed action may alter the present pattern of movement of people or goods.	D2j	☐	☐
f. Other impacts: _____ _____		☐	☐

14. Impact on Energy
The proposed action may cause an increase in the use of any form of energy. ☐NO ☐YES
(See Part 1. D.2.k)
If "Yes", answer questions a - e. If "No", go to Section 15.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action will require a new, or an upgrade to an existing, substation.	D2k	☐	☐
b. The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use.	D1f, D1q, D2k	☐	☐
c. The proposed action may utilize more than 2,500 MWhrs per year of electricity.	D2k	☐	☐
d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.	D1g	☐	☐
e. Other Impacts: _____ _____		☐	☐

15. Impact on Noise, Odor, and Light
The proposed action may result in an increase in noise, odors, or outdoor lighting. ☐NO ☐YES
(See Part 1. D.2.m., n., and o.)
If "Yes", answer questions a - f. If "No", go to Section 16.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may produce sound above noise levels established by local regulation.	D2m	☐	☐
b. The proposed action may result in blasting within 1,500 feet of any residence, hospital, school, licensed day care center, or nursing home.	D2m, E1d	☐	☐
c. The proposed action may result in routine odors for more than one hour per day.	D2o	☐	☐

d. The proposed action may result in light shining onto adjoining properties.	D2n	☐	☐
e. The proposed action may result in lighting creating sky-glow brighter than existing area conditions.	D2n, E1a	☐	☐
f. Other impacts: _____ _____		☐	☐

16. Impact on Human Health

The proposed action may have an impact on human health from exposure to new or existing sources of contaminants. (See Part 1.D.2.q., E.1. d. f. g. and h.) ☐NO ☐YES

If "Yes", answer questions a - m. If "No", go to Section 17.

	Relevant Part I Question(s)	No,or small impact may cccur	Moderate to large impact may occur
a. The proposed action is located within 1500 feet of a school, hospital, licensed day care center, group home, nursing home or retirement community.	E1d	☐	☐
b. The site of the proposed action is currently undergoing remediation.	E1g, E1h	☐	☐
c. There is a completed emergency spill remediation, or a completed environmental site remediation on, or adjacent to, the site of the proposed action.	E1g, E1h	☐	☐
d. The site of the action is subject to an institutional control limiting the use of the property (e.g., easement or deed restriction).	E1g, E1h	☐	☐
e. The proposed action may affect institutional control measures that were put in place to ensure that the site remains protective of the environment and human health.	E1g, E1h	☐	☐
f. The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health.	D2t	☐	☐
g. The proposed action involves construction or modification of a solid waste management facility.	D2q, E1f	☐	☐
h. The proposed action may result in the unearthing of solid or hazardous waste.	D2q, E1f	☐	☐
i. The proposed action may result in an increase in the rate of disposal, or processing, of solid waste.	D2r, D2s	☐	☐
j. The proposed action may result in excavation or other disturbance within 2000 feet of a site used for the disposal of solid or hazardous waste.	E1f, E1g E1h	☐	☐
k. The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures.	E1f, E1g	☐	☐
l. The proposed action may result in the release of contaminated leachate from the project site.	D2s, E1f, D2r	☐	☐
m. Other impacts: _____ _____		☐	☐

17. Consistency with Community Plans

The proposed action is not consistent with adopted land use plans. ☐NO ☐YES
(See Part 1. C.1, C.2. and C.3.)
If "Yes", answer questions a - h. If "No", go to Section 18.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action's land use components may be different from, or in sharp contrast to, current surrounding land use pattern(s).	C2, C3, D1a E1a, E1b	☐	☐
b. The proposed action will cause the permanent population of the city, town or village in which the project is located to grow by more than 5%.	C2	☐	☐
c. The proposed action is inconsistent with local land use plans or zoning regulations.	C2, C2, C3	☐	☐
d. The proposed action is inconsistent with any County plans, or other regional land use plans.	C2, C2	☐	☐
e. The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure.	C3, D1c, D1d, D1f, D1d, E1b	☐	☐
f. The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure.	C4, D2c, D2d D2j	☐	☐
g. The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)	C2a	☐	☐
h. Other: _____ _____		☐	☐

18. Consistency with Community Character

The proposed project is inconsistent with the existing community character. ☐NO ☐YES
(See Part 1. C.2, C.3, D.2, E.3)
If "Yes", answer questions a - g. If "No", proceed to Part 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.	E3e, E3f, E3g	☐	☐
b. The proposed action may create a demand for additional community services (e.g. schools, police and fire)	C4	☐	☐
c. The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.	C2, C3, D1f D1g, E1a	☐	☐
d. The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.	C2, E3	☐	☐
e. The proposed action is inconsistent with the predominant architectural scale and character.	C2, C3	☐	☐
f. Proposed action is inconsistent with the character of the existing natural landscape.	C2, C3 E1a, E1b E2g, E2h	☐	☐
g. Other impacts: _____ _____		☐	☐

PRINT FULL FORM

Agency Use Only [If Applicable]

Project :

Date :

Full Environmental Assessment Form
Part 3 - Evaluation of the Magnitude and Importance of Project Impacts
and
Determination of Significance

Part 3 provides the reasons in support of the determination of significance. The lead agency must complete Part 3 for every question in Part 2 where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.

Based on the analysis in Part 3, the lead agency must decide whether to require an environmental impact statement to further assess the proposed action or whether available information is sufficient for the lead agency to conclude that the proposed action will not have a significant adverse environmental impact. By completing the certification on the next page, the lead agency can complete its determination of significance.

Reasons Supporting This Determination:

To complete this section:

- Identify the impact based on the Part 2 responses and describe its magnitude. Magnitude considers factors such as severity, size or extent of an impact.
- Assess the importance of the impact. Importance relates to the geographic scope, duration, probability of the impact occurring, number of people affected by the impact and any additional environmental consequences if the impact were to occur.
- The assessment should take into consideration any design element or project changes.
- Repeat this process for each Part 2 question where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.
- Provide the reason(s) why the impact may, or will not, result in a significant adverse environmental impact
- For Conditional Negative Declarations identify the specific condition(s) imposed that will modify the proposed action so that no significant adverse environmental impacts will result.
- Attach additional sheets, as needed.

Determination of Significance - Type 1 and Unlisted Actions

SEQR Status: ☐ Type 1 ☐ Unlisted

Identify portions of EAF completed for this Project: ☐ Part 1 ☐ Part 2 ☐ Part 3

Upon review of the information recorded on this EAF, as noted, plus this additional support information

_____

_____

_____

and considering both the magnitude and importance of each identified potential impact, it is the conclusion of the _____ as lead agency that:

☐ A. This project will result in no significant adverse impacts on the environment, and, therefore, an environmental impact statement need not be prepared. Accordingly, this negative declaration is issued.

☐ B. Although this project could have a significant adverse impact on the environment, that impact will be avoided or substantially mitigated because of the following conditions which will be required by the lead agency:

_____

_____

_____

_____

There will, therefore, be no significant adverse impacts from the project as conditioned, and, therefore, this conditioned negative declaration is issued. A conditioned negative declaration may be used only for UNLISTED actions (see 6 NYCRR 617.d).

☐ C. This Project may result in one or more significant adverse impacts on the environment, and an environmental impact statement must be prepared to further assess the impact(s) and possible mitigation and to explore alternatives to avoid or reduce those impacts. Accordingly, this positive declaration is issued.

Name of Action:	
Name of Lead Agency:	
Name of Responsible Officer in Lead Agency:	
Title of Responsible Officer:	
Signature of Responsible Officer in Lead Agency:	Date:
Signature of Preparer (if different from Responsible Officer)	Date:

For Further Information:

Contact Person:

Address:

Telephone Number:

E-mail:

For Type 1 Actions and Conditioned Negative Declarations, a copy of this Notice is sent to:

Chief Executive Officer of the political subdivision in which the action will be principally located (e.g., Town / City / Village of)
Other involved agencies (if any)
Applicant (if any)
Environmental Notice Bulletin: http://www.dec.ny.gov/enb/enb.html

PRINT FULL FORM

MERCY HEIGHTS

City of Watertown
Jefferson County
State of New York

CONTACTS

APPLICANT

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540 TOWNE DRIVE
FAYETTEVILLE, NY 13066
MS. CATHERINE JOHNSON
(315) 663-2100; FAX (315) 663-2109

CONSULTANTS

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JAMES FAHY DESIGN
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ROCHESTER, NEW YORK 14623
MR. JAMES FAHY
(585) 272-1650

OFFICE ARCHITECT
BERGMANN ASSOCIATES
200 FIRST FEDERAL PLAZA
28 EAST MAIN STREET
ROCHESTER, NY 14614
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327 MULLIN STREET
WATERTOWN, NY 13601
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CIVIL ENGINEER
BERGMANN ASSOCIATES
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28 EAST MAIN STREET
ROCHESTER, NY 14614
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UTILITY COMPANIES

WATER
CITY OF WATERTOWN
245 WASHINGTON STREET
ROOM 202
WATERTOWN, NY 13601
MICHAEL SLIGAR, WATER SUPERINTENDENT
(315) 785-7757

STORM & SANITARY SEWER
CITY OF WATERTOWN
245 WASHINGTON STREET
WATERTOWN, NY 13601
(315) 785-7845

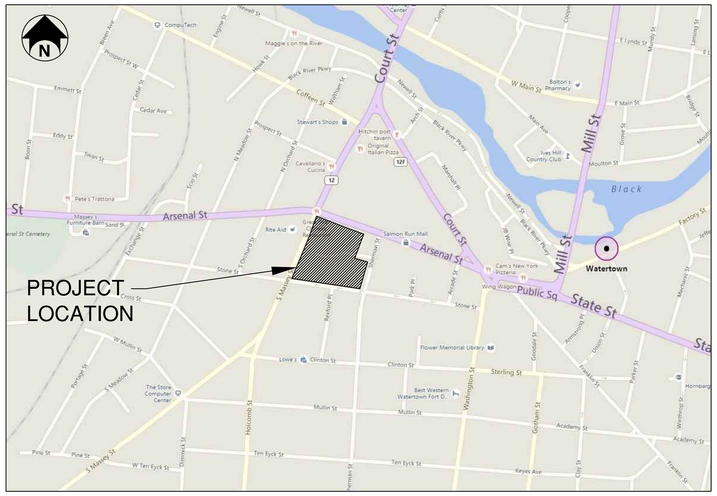
ELECTRIC & GAS
NATIONAL GRID
21265 STATE ROUTE 232
WATERTOWN, NY 13601-5306
(315)-785-7225

TELEPHONE
VERIZON
610 COFFEEN STREET
WATERTOWN, NY 13601
(315)-785-7563

GOVERNMENTAL APPROVAL AGENCIES

WATERTOWN REGIONAL OFFICE OF THE NEW YORK STATE DEPARTMENT OF HEALTH
STATE OFFICE BUILDING
317 WASHINGTON STREET
WATERTOWN, NY 13601
SHERI PALMER
(315)-785-2277

NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
NYSDEC DIVISION OF WATER
REGION 6
STATE OFFICE BUILDING
317 WASHINGTON STREET
WATERTOWN, NY 13601
TARA BLUM
(315)-785-2245



LOCATION MAP
NOT TO SCALE

PREPARED FOR
COR Arsenal Street Company, LLC
540 Towne Drive
Fayetteville, New York
13066

DATE ISSUED
MAY 24, 2016

DATE REVISED
JULY 14, 2016
AUGUST 1, 2016
AUGUST 8, 2016

DRAWING INDEX

PREPARED BY

Bergmann associates
architects // engineers // planners

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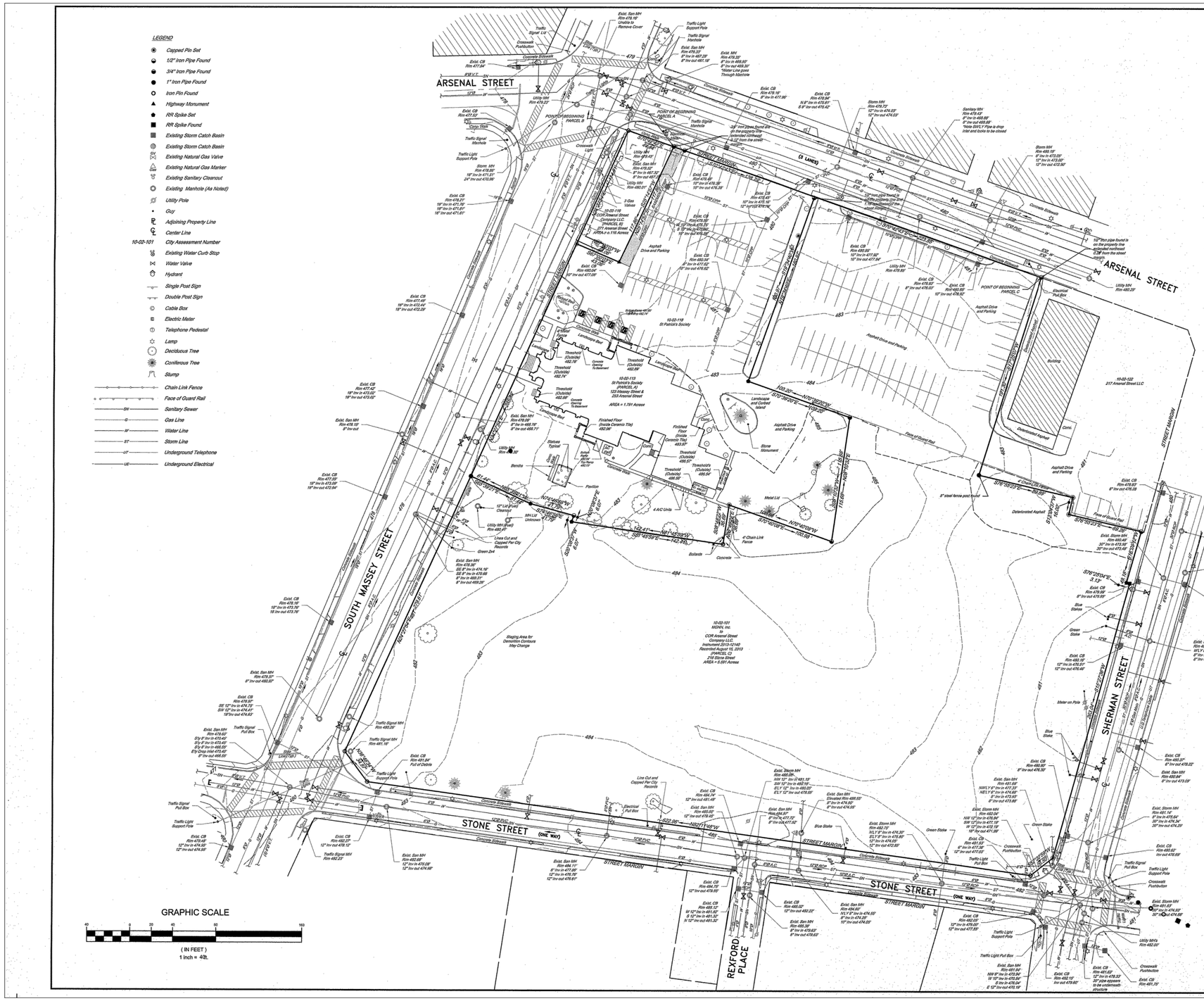
PRELIMINARY
NOT FOR
CONSTRUCTION

C000



DEED REFERENCES

PARCEL A

*Reverend John McClosky to The Society of St. Patrick's Church L. 194 P.151 Recorded September 15, 187_*

James & Catherine Bellew to The Society of St. Patrick's Church L.289 P.300 Recorded May 17, 1901

Henry Prusell & Francis K. Purcell as Executors of Kate A. Primeau to The Society of St. Patrick's Church L.342 P.175 Recorded February 21, 1914

Joseph H. Conroy & Frances C. Fitzgerald to The Society of St. Patrick's Church L.363 P.38 Recorded March 25, 1920

PARCEL B & EASEMENT STRIP

Part of the conveyance MGNH, Inc. to COR Arsenal Street Company, LLC Instrument 2013-12140 Recorded August 15, 2013

PARCEL C

MGNH, Inc. to COR Arsenal Street Company, LLC. Instrument 2013-12140 Recorded August 15, 2013

REFERENCE

Survey titled "Topographic and Property Map Prepared for The Society of St. Patrick's Church" by LaBare, White & McGivern, L.S., P.C. June1, 1992, File 9-7

NOTES

1. Unauthorized alteration or addition to a survey map bearing a licensed land surveyor's seal is a violation of Section 7209, Subdivision 2, of the New York State Education Law.

2. Subsurface and environmental conditions were not examined or considered as a part of this survey. No statement is made concerning the existence of underground or overhead containers or facilities that may affect the use or development of this tract.

3. Surveyor has made no investigation or independent search for easements of record, encumbrances, restrictive covenants, ownership title evidence, or any other facts that an accurate and current abstract title search may disclose.

6. This Topographic Survey is based on (City Monument No. 143 Located at the Southeast Corner of Washington Street and Thompson Boulevard. Said Monument having an elevation of 486.68 feet as described in the City of Watertown, GPS Monumentation Survey Report, dated January 11, 1996, prepared by LaBare, White & McGivern, L.S., P.C., Theress, New York and C.T. Male Associates, P.C., Latham, New York.)

7. The underground utilities and features shown hereon have been located from above ground visible features and other available records and therefore should be considered approximate only. Other underground utilities may exist, either in service or abandoned, that are not indicated on this survey. Dig Safely New York (UFPO) should be contacted prior to performing any excavation activities.

8. The horizontal datum for this survey is based on NYS Central Zone NAD83.

9. The vertical datum for this survey is based on the North American Vertical Datum of 1929 (NAVD29).

BERNIER CARR & ASSOCIATES

BERNIER, CARR & ASSOCIATES, ENGINEERS, ARCHITECTS & LAND SURVEYORS, P.C.

SITE PLAN & PROPERTY SURVEY MAP

SURVEY OF THE LAND OF COR ARSENAL STREET COMPANY, LLC & THE SOCIETY OF ST. PATRICK'S CHURCH
ARSENAL, SHERMAN, S. MASSEY AND STONE STREETS
CITY OF WATERTOWN COUNTY OF JEFFERSON STATE OF NEW YORK

Revisions:
5/19/2016 G.A.K.
5/20/2016 G.A.K.

THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AT THE SITE & NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES.

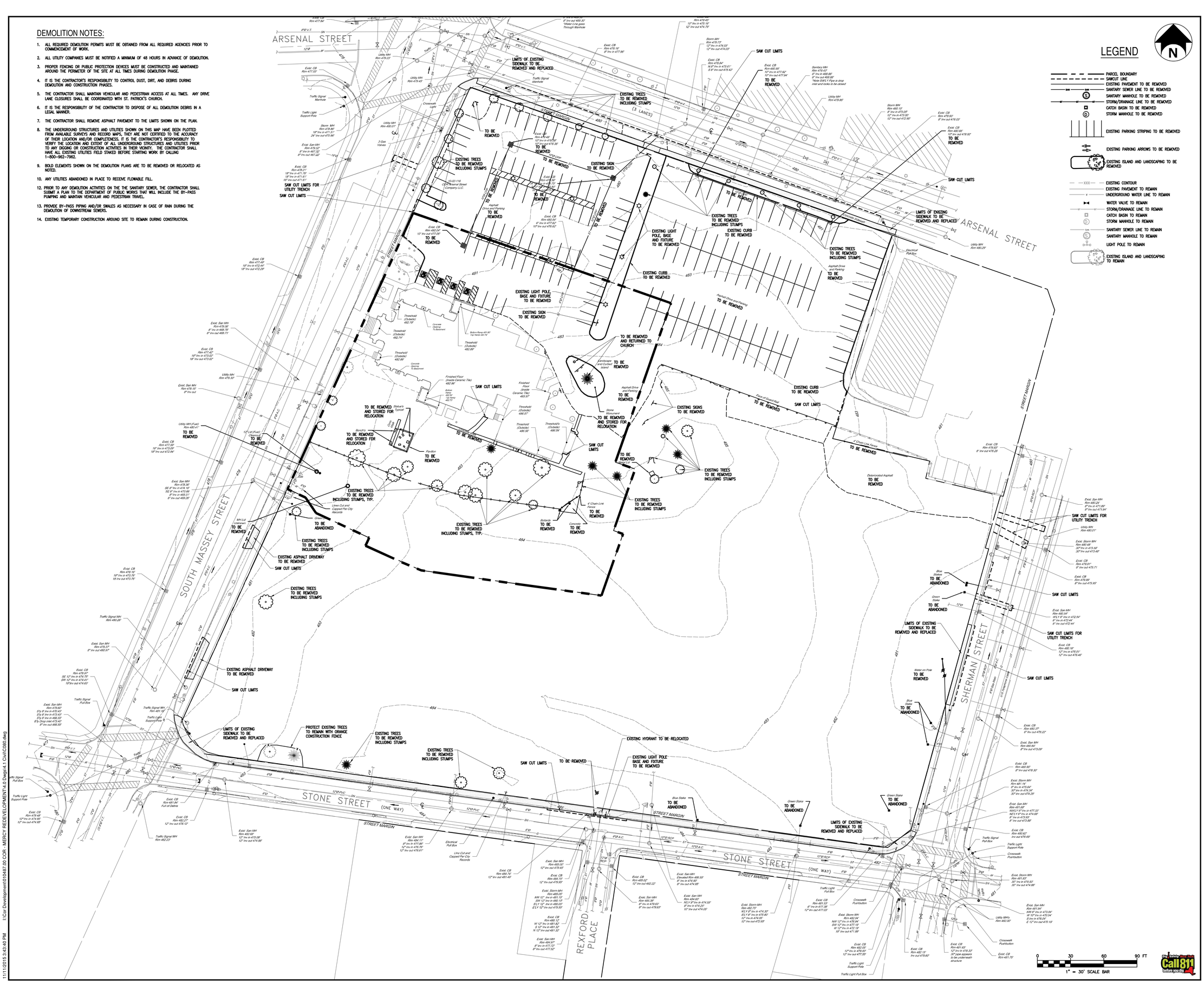
Drawn By	Checked By
MJM	GAK
Scale	Date
1"=40'	5/18/2016

File No. 2001-200

Sheet No. 1

DEMOLITION NOTES:

1. ALL REQUIRED DEMOLITION PERMITS MUST BE OBTAINED FROM ALL REQUIRED AGENCIES PRIOR TO COMMENCEMENT OF WORK.
2. ALL UTILITY COMPANIES MUST BE NOTIFIED A MINIMUM OF 48 HOURS IN ADVANCE OF DEMOLITION.
3. PROPER FENCING OR PUBLIC PROTECTION DEVICES MUST BE CONSTRUCTED AND MAINTAINED AROUND THE PERIMETER OF THE SITE AT ALL TIMES DURING DEMOLITION PHASE.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTROL DUST, DIRT, AND DEBRIS DURING DEMOLITION AND CONSTRUCTION PHASES.
5. THE CONTRACTOR SHALL MAINTAIN VEHICULAR AND PEDESTRIAN ACCESS AT ALL TIMES. ANY DRIVE LANE CLOSURES SHALL BE COORDINATED WITH ST. PATRICK'S CHURCH.
6. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DISPOSE OF ALL DEMOLITION DEBRIS IN A LEGAL MANNER.
7. THE CONTRACTOR SHALL REMOVE ASPHALT PAVEMENT TO THE LIMITS SHOWN ON THE PLAN.
8. THE UNDERGROUND STRUCTURES AND UTILITIES SHOWN ON THIS MAP HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORD MAPS, THEY ARE NOT CERTIFIED TO THE ACCURACY OF THEIR LOCATION AND/OR COMPLETENESS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION AND EXTENT OF ALL UNDERGROUND STRUCTURES AND UTILITIES PRIOR TO ANY DIGGING OR CONSTRUCTION ACTIVITIES IN THEIR VICINITY. THE CONTRACTOR SHALL HAVE ALL EXISTING UTILITIES FIELD STAKED BEFORE STARTING WORK BY CALLING 1-800-962-7962.
9. BOLD ELEMENTS SHOWN ON THE DEMOLITION PLANS ARE TO BE REMOVED OR RELOCATED AS NOTED.
10. ANY UTILITIES ABANDONED IN PLACE TO RECEIVE FLOWABLE FILL.
12. PRIOR TO ANY DEMOLITION ACTIVITIES ON THE THE SANITARY SEWER, THE CONTRACTOR SHALL SUBMIT A PLAN TO THE DEPARTMENT OF PUBLIC WORKS THAT WILL INCLUDE THE BY-PASS PUMPING AND MAINTAIN VEHICULAR AND PEDESTRIAN TRAVEL.
13. PROVIDE BY-PASS PIPING AND/OR SWALES AS NECESSARY IN CASE OF RAIN DURING THE DEMOLITION OF DOWNSTREAM SEWERS.
14. EXISTING TEMPORARY CONSTRUCTION AROUND SITE TO REMAIN DURING CONSTRUCTION.



LEGEND

▬ ▬ ▬	PARCEL BOUNDARY
- - - -	SAWCUT LINE
▬▬▬	EXISTING PAVEMENT TO BE REMOVED
—SAN—SAN—	SANITARY SEWER LINE TO BE REMOVED
Ⓢ	SANITARY MANHOLE TO BE REMOVED
—ST—ST—ST—	STORM/DRAINAGE LINE TO BE REMOVED
■	CATCH BASIN TO BE REMOVED
Ⓓ	STORM MANHOLE TO BE REMOVED
|||||	EXISTING PARKING STRIPING TO BE REMOVED
⇆	EXISTING PARKING ARROWS TO BE REMOVED
	EXISTING ISLAND AND LANDSCAPING TO BE REMOVED
— —XXX— —	EXISTING CONTOUR
———	EXISTING PAVEMENT TO REMAIN
—W—	UNDERGROUND WATER LINE TO REMAIN
⋈	WATER VALVE TO REMAIN
—ST—ST—	STORM/DRAINAGE LINE TO REMAIN
□	CATCH BASIN TO REMAIN
Ⓓ	STORM MANHOLE TO REMAIN
—SAN—	SANITARY SEWER LINE TO REMAIN
Ⓢ	SANITARY MANHOLE TO REMAIN
	LIGHT POLE TO REMAIN
	EXISTING ISLAND AND LANDSCAPING TO REMAIN

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NO.	DATE	DESCRIPTION	REV.	CK'D
1	7/14/16	CITY COMMENTS	JB	JCB
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3	8/8/16	ADDED LADDER TO TRUCK	JB	AMH

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PROFESSIONAL CERTIFICATION: I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE *STATE* OF NEW YORK.
LICENSE NO. 80472
EXPIRATION DATE: 05/2017

TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT, THE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE *2015* ENERGY CONSTRUCTION CONSERVATION CODE OF THE STATE OF NEW YORK.

Note:
Unauthorized alteration or addition to this drawing is a violation of the New York State Education Law Article 145, Section 7209.

Project Manager: **A. HART, RLA**	Checked By: **J. BASILE, PE**
Designed By: **T. BURKE**	Drawn By: **T. BURKE**
Date Issued: **MAY 23, 2016**	Scale: **1" = 30'**
Project Number: **010487.00**	

DEMOLITION PLAN

Drawing Number:
C080

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PROJECT DATA:

APPLICANT:

1. COR ARSENAL STREET COMPANY, LLC
   540 TOWNE DRIVE
   FAYETTEVILLE, NEW YORK 13066

2. TAX MAP No.: 10-02-101, 10-02-116 & 10-02-113

3. EXISTING ZONING: COMMERCIAL

4. TOTAL LOT AREA: 5.71± ACRES
   ST. PATRICK'S LOT AREA 1.79 ± ACRES

ZONING REQUIREMENTS:	REQUIRED	PROVIDED
MIN. LOT AREA:	1,000 SF	5.71± ACRES
FRONT SETBACK:	20'	-- **
SIDE SETBACK:	5'	8.9'
REAR SETBACK:	25'	N/A
PARKING STALL SIZE:	9'x18'	9'x18'

** NOTE: FRONT YARD EXCEPTIONS

IN CASES OTHER THAN CORNER LOTS, OTHER PROVISIONS OF THIS CHAPTER NOTWITHSTANDING, NO BUILDING IN ANY DISTRICT NEED HAVE A FRONT YARD GREATER IN DEPTH THAN THE AVERAGE DEPTH OF THE FRONT YARDS OF THE LOTS NEXT THERETO ON EITHER SIDE, A VACANT LOT OR LOT WITH A FRONT YARD GREATER THAN THE MINIMUM DEPTH BEING COUNTED AS IF IT WERE THE MINIMUM FRONT YARD FOR THE DISTRICT IN WHICH IT IS LOCATED, BUT IN NO CASE SHALL THE FRONT YARD IN ANY RESIDENCE DISTRICT BE LESS THAN 10 FEET IN DEPTH.

PARKING RATIO (RESIDENTIAL) – COMMERCIAL ZONE						
BUILDING	SQUARE FEET	TOTAL NO. OF UNITS	PARKING SPACES REQUIRED	PARKING RATIO	PARKING SPACES PROVIDED	PARKING RATIO PROVIDED
C1	36,402	36	40	1.0/UNIT+10%	40	1.0/UNIT+10%
C2	36,402	36	40	1.0/UNIT+10%	40	1.0/UNIT+10%
C3	36,402	36	40	1.0/UNIT+10%	40	1.0/UNIT+10%
CLUB HOUSE	5,588	N/A	28	5.0/1,000	43	7.7/1,000
TOTAL			148		163	

PARKING RATIO (OFFICE) – COMMERCIAL ZONE						
BUILDING	SQUARE FEET	TOTAL NO. OF UNITS	PARKING SPACES REQUIRED	PARKING RATIO	PARKING SPACES PROVIDED	PARKING RATIO PROVIDED
OFFICE 1	17,000	N/A	85	5.0/1,000	85	5.0/1,000
OFFICE 2	17,000	N/A	85	5.0/1,000	85	5.0/1,000
TOTAL	34,000		170		170	

PARKING RATIO (ASSEMBLY) – COMMERCIAL ZONE				
BUILDING	TOTAL # OF OCCUPANTS	PARKING SPACES REQUIRED	EXISTING PARKING ON CHURCH PROPERTY	PARKING SPACES PROVIDED
ST. PATRICK'S CHURCH	399	67	81	86

* NOTE:

1. TOTAL PARKING REQUIRED: 395 SPACES
   TOTAL PARKING PROVIDED: 419 SPACES

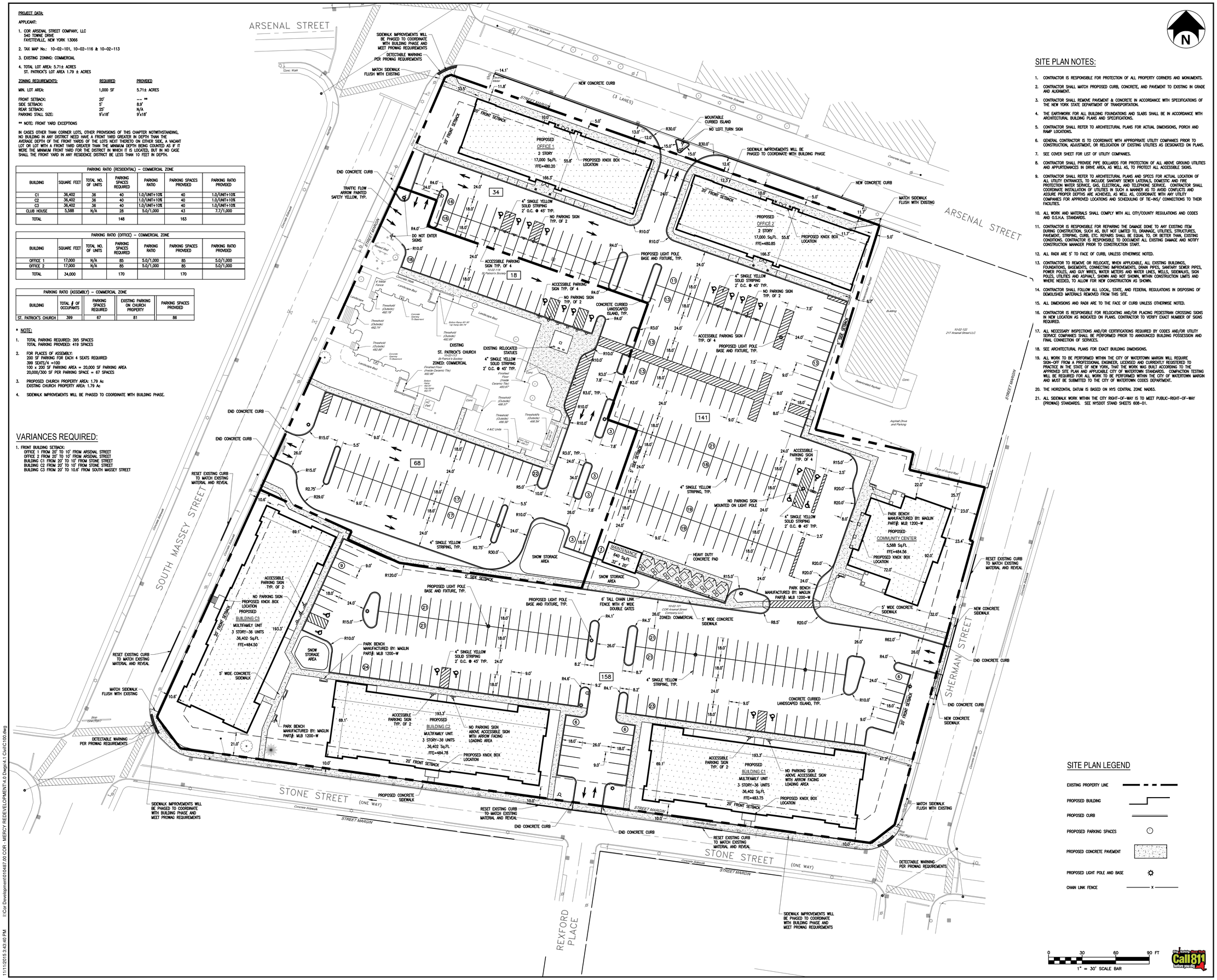
2. FOR PLACES OF ASSEMBLY:
   200 SF PARKING FOR EACH 4 SEATS REQUIRED
   399 SEATS/4 =100
   100 x 200 SF PARKING AREA = 20,000 SF PARKING AREA
   20,000/300 SF PER PARKING SPACE = 67 SPACES

3. PROPOSED CHURCH PROPERTY AREA: 1.79 Ac
   EXISTING CHURCH PROPERTY AREA: 1.79 Ac

4. SIDEWALK IMPROVEMENTS WILL BE PHASED TO COORDINATE WITH BUILDING PHASE.

VARIANCES REQUIRED:

1. FRONT BUILDING SETBACK:
   OFFICE 1 FROM 20' TO 10' FROM ARSENAL STREET
   OFFICE 2 FROM 20' TO 10' FROM ARSENAL STREET
   BUILDING C1 FROM 20' TO 10' FROM STONE STREET
   BUILDING C2 FROM 20' TO 10' FROM STONE STREET
   BUILDING C3 FROM 20' TO 10.6' FROM SOUTH MASSEY STREET



SITE PLAN NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL PROPERTY CORNERS AND MONUMENTS.
2. CONTRACTOR SHALL MATCH PROPOSED CURB, CONCRETE, AND PAVEMENT TO EXISTING IN GRADE AND ALIGNMENT.
3. CONTRACTOR SHALL REMOVE PAVEMENT & CONCRETE IN ACCORDANCE WITH SPECIFICATIONS OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION.
4. THE EARTHWORK FOR ALL BUILDING FOUNDATIONS AND SLABS SHALL BE IN ACCORDANCE WITH ARCHITECTURAL BUILDING PLANS AND SPECIFICATIONS.
5. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR ACTUAL DIMENSIONS, PORCH AND RAMP LOCATIONS.
6. GENERAL CONTRACTOR IS TO COORDINATE WITH APPROPRIATE UTILITY COMPANIES PRIOR TO CONSTRUCTION, ADJUSTMENT, OR RELOCATION OF EXISTING UTILITIES AS DESIGNATED ON PLANS.
7. SEE COVER SHEET FOR LIST OF UTILITY COMPANIES.
8. CONTRACTOR SHALL PROVIDE PIPE BOLLARDS FOR PROTECTION OF ALL ABOVE GROUND UTILITIES AND APPURTENANCES IN DRIVE AREA, AS WELL AS, TO PROTECT ALL ACCESSIBLE SIGNS.
9. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECS FOR ACTUAL LOCATION OF ALL UTILITY ENTRANCES, TO INCLUDE SANITARY SEWER LATERALS, DOMESTIC AND FIRE PROTECTION WATER SERVICE, GAS, ELECTRICAL AND TELEPHONE SERVICE. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND ASSURE PROPER DEPTHS ARE ACHIEVED, AS WELL AS, COORDINATE WITH ANY UTILITY COMPANIES FOR APPROVED LOCATIONS AND SCHEDULING OF TIE-INS/CONNECTIONS TO THEIR FACILITIES.
10. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL CITY/COUNTY REGULATIONS AND CODES AND O.S.H.A. STANDARDS.
11. CONTRACTOR IS RESPONSIBLE FOR REPAIRING THE DAMAGE DONE TO ANY EXISTING ITEM DURING CONSTRUCTION, SUCH AS, BUT NOT LIMITED TO, DRAINAGE, UTILITIES, STRUCTURES, PAVEMENT, STRIPING, CURB, ETC. REPAIRS SHALL BE EQUAL TO, OR BETTER THAN, EXISTING CONDITIONS. CONTRACTOR IS RESPONSIBLE TO DOCUMENT ALL EXISTING DAMAGE AND NOTIFY CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION START.
12. ALL RADII ARE 5' TO FACE OF CURB, UNLESS OTHERWISE NOTED.
13. CONTRACTOR TO REMOVE OR RELOCATE, WHEN APPLICABLE, ALL EXISTING BUILDINGS, FOUNDATIONS, BASEMENTS, CONNECTING IMPROVEMENTS, DRAIN PIPES, SANITARY SEWER PIPES, POWER POLES, AND GUY WIRES, WATER METERS AND WATER LINES, WELLS, SIDEWALKS, SIGN POLES, UTILITIES AND ASPHALT SHOWN AND NOT SHOWN, WITHIN CONSTRUCTION LIMITS AND WHERE NEEDED, TO ALLOW FOR NEW CONSTRUCTION AS SHOWN.
14. CONTRACTOR SHALL FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS IN DISPOSING OF DEMOLISHED MATERIALS REMOVED FROM THIS SITE.
15. ALL DIMENSIONS AND RADII ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
16. CONTRACTOR IS RESPONSIBLE FOR RELOCATING AND/OR PLACING PEDESTRIAN CROSSING SIGNS IN NEW LOCATION AS INDICATED ON PLANS. CONTRACTOR TO VERIFY EXACT NUMBER OF SIGNS REQUIRED.
17. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND FINAL CONNECTION OF SERVICES.
18. SEE ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS.
19. ALL WORK TO BE PERFORMED WITHIN THE CITY OF WATERTOWN MARGIN WILL REQUIRE SIGN-OFF FROM A PROFESSIONAL ENGINEER, LICENSED AND CURRENTLY REGISTERED TO PRACTICE IN THE STATE OF NEW YORK, THAT THE WORK WAS BUILT ACCORDING TO THE APPROVED SITE PLAN AND APPLICABLE CITY OF WATERTOWN STANDARDS. COMPACTION TESTING WILL BE REQUIRED FOR ALL WORK TO BE PERFORMED WITHIN THE CITY OF WATERTOWN MARGIN AND MUST BE SUBMITTED TO THE CITY OF WATERTOWN CODES DEPARTMENT.
20. THE HORIZONTAL DATUM IS BASED ON NYS CENTRAL ZONE NAD83.
21. ALL SIDEWALK WORK WITHIN THE CITY RIGHT-OF-WAY IS TO MEET PUBLIC-RIGHT-OF-WAY (PROWAG) STANDARDS. SEE NYSDOT STAND SHEETS 608-01.

SITE PLAN LEGEND

- EXISTING PROPERTY LINE
- PROPOSED BUILDING
- PROPOSED CURB
- PROPOSED PARKING SPACES
- PROPOSED CONCRETE PAVEMENT
- PROPOSED LIGHT POLE AND BASE
- CHAIN LINK FENCE

0 30 60 90 FT
1" = 30' SCALE BAR

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Project Manager	Checked By
A. HART, RLA	J. BASILE, PE
Designed By	Drawn By
J. BUSH	J. BUSH
Date Issued	Scale
MAY 23, 2016	1" = 30'
Project Number	
010487.00	

SITE PLAN

Drawing Number

C100

4 of 15

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WATER MAIN INSTALLATION:

1. WATER SERVICE LINE (LATERALS) SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REGULATIONS AND SPECIFICATIONS OF NYS HEALTH DEPARTMENT, AND THE LOCAL WATER AUTHORITY.
2. ALL EROSION CONTROL MEASURES SHALL BE EMPLOYED DURING ALL PHASES OF CONSTRUCTION IN ACCORDANCE WITH ALL APPROPRIATE STANDARDS AND REQUIREMENTS. BEST MANAGEMENT PRACTICES ARE TO BE FOLLOWED.
3. WATER MAINS AND ALL WATER SERVICE LINES SHALL HAVE A MINIMUM OF 5 FEET OF COVER FROM FINISH GRADE TO TOP OF PIPE.
4. THE MINIMUM VERTICAL SEPARATION BETWEEN WATER MAINS AND SEWER MAINS SHALL BE 18" MEASURED FROM THE OUTSIDE OF THE PIPES AT THE POINT OF CROSSING. THE MINIMUM HORIZONTAL SEPARATION BETWEEN WATER MAINS AND SEWER MAINS SHALL BE 10 FEET MEASURED FROM THE OUTSIDE OF THE PIPES. ONE FULL LENGTH OF WATER MAIN SHALL BE CENTERED UNDER OR OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT(COMPACTED SELECTED FILL) SHALL BE PROVIDED FOR THE SEWERS TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING ON AND BREAKING THE WATER MAINS.
5. HYDRANT TYPE SHALL BE AS NOTED ON THE PLANS OR AS REQUIRED BY THE APPLICANT. GUARD VALVES SHALL BE USED AND ALL HYDRANT STUB PIPING SHALL BE MECHANICAL JOINT. FIRE HYDRANT WEEP HOLES (DRAINS) SHALL BE PLUGGED WHEN GROUND WATER IS ENCOUNTERED WITHIN 3 FEET OF THE FINISHED GRADE. ALL PLUGS SHALL BE MECHANICAL METAL PLUGS. ALL HYDRANTS WITH PLUGGED WEEP HOLES SHALL BE APPROPRIATELY TAGGED.
6. ALL MECHANICAL JOINTS, FITTINGS(TEES, BENDS, PLUGS) ETC. SHALL BE BACKED WITH 3000 P.S.I. CONCRETE THRUST BLOCKS OR APPROVED MECHANICAL RESTRANTS.
7. ALL VALVES TO BE TIED DIRECTLY TO ANCHOR TEES UNLESS OTHERWISE SPECIFIED ON PLANS.
8. WHERE PIPING IS TO BE PLACED WITHIN FILL AREAS, THE FILL SHALL BE PLACED AND COMPACTED TO AT LEAST 95% MODIFIED PROCTOR PRIOR TO TRENCH EXCAVATION.
9. SHUTDOWN OF EXISTING WATER MAINS SHALL BE IN ACCORDANCE WITH THE LOCAL WATER DEPARTMENT. THE WATER DEPARTMENT MUST BE NOTIFIED IN ADVANCE OF ALL PROPOSED SHUTDOWNS IN ACCORDANCE WITH THEIR DIRECTION. WATER MUST BE TURNED BACK ON AS SOON AS POSSIBLE. ALL ENDS OF WATER MAINS MUST BE PROVIDED WITH ADEQUATE PLUG, BLOCK, AND BLOW-OFF AS INDICATED ON THE PLANS.
10. WATER METER(S) TO BE LOCATED ON THE INTERIOR OF EXTERIOR WALL(S) IMMEDIATELY UPON SERVICE ENTRANCE INTO THE BUILDING(S).
11. WATER SERVICE LINES SHALL BE SEPARATED AT LEAST 10 FEET, MEASURED FROM OUTSIDE OF THE PIPES, FROM SEWER MAINS OD SEPTIC SYSTEMS.

WATER SYSTEM TESTS:

1. SOIL TEST. THE CONTRACTOR SHALL PROVIDE A SOIL TEST EVALUATION TO DETERMINE THE NEED FOR POLYETHYLENE ENCASEMENT PER ANSI/AWWA C105/A21.5–82 PRIOR TO WATER MAIN INSTALLATION. SOIL TESTING SHALL BE CONDUCTED BY AN APPROVED SOIL TESTING LABORATORY IN ACCORDANCE WITH LOCAL WATER DISTRICT STANDARDS.
2. WATER PIPING SHALL BE FLUSHED AND TESTED IN CONFORMANCE WITH THE LATEST REVISION OF ANSI/AWWA C600 STANDARD FOR DUCTILE IRON PIPE, C605 FOR PVC PIPE, OR EQUIVALENT OF C600 AND/OR C605 FOR PE PIPE.
3. THE PROPOSED WORKS MUST CONFORM TO THE LATEST REVISION OF ANSI/AWWA C651 STANDARD, TABLET METHOD EXCEPTED. FOLLOWING FLUSHING AND TESTING, THE ENGINEER SHALL OVERSEE COLLECTION OF AN APPROPRIATE NUMBER OF BACTERIOLOGICAL SAMPLES FOR THE TOTAL AND FECAL COLIFORM AND FOR STANDARD BACTERIAL PLATE COUNT AFTER THE FIELD TEST FREE CHLORINE RESIDUAL IS LESS THAN 1.5 PPM AND THE SAMPLING POINTS HAVE BEEN DECONTAMINATED. PRIOR TO SAMPLING, THE ENGINEER SHALL COORDINATE THE APPROPRIATE NUMBER AND LOCATION OF SAMPLES TO BE COLLECTED WITH THE COUNTY OR
   STATE HEALTH DEPT/ HAVING JURISDICTION.
4. THE COMPLETED WORKS SHALL NOT BE PLACED INTO SERVICE UNTIL THE APPROVAL OF COMPLETED WORKS FORM IS ISSUED BY THE COUNTY OR STATE HEALTH DEPT. HAVING JURISDICTION. PRIOR TO ISSUANCE, A NYS–LICENCED PROFESSIONAL ENGINEER MUST SUBMIT CERTIFICATION TO THAT HEALTH DEPARTMENT THAT: THEY OR THEIR DESIGNATED REPRESENTATIVE WITNESSED THAT CONSTRUCTION WAS IN CONFORMANCE WITH THE PLANS AS APPROVED; FLUSHING, TESTING, AND DISINFECTION PROCEDURES NOTED HEREIN HAD BEEN PROPERLY PERFORMED; AND, MICROBACTERIAL SAMPLE RESULTS FROM THE COMPLETED WORKS WERE ACCEPTABLE. COPIES OF THE OFFICIAL LABORATORY RESULTS ARE TO BE INCLUDED
   WITH THE CERTIFICATION.
5. FIRE HYDRANTS ARE NOT ACCEPTABLE TESTING/SAMPLING POINTS.
6. WATER SERVICE LINES SIZED 4–INCHES OR GREATER SHALL BE:

– PRESSURE TESTED IN ACCORDANCE WITH THE LATEST SPECIFICATIONS OF THE LOCAL WATER AUTHORITY. THE PRESSURE TEST SHALL BE WITNESSED BY A REPRESENTATIVE FROM THE LOCAL WATER AUTHORITY.

– DISINFECTION BY USING THE CONTINUOUS FEED METHOD ACCORDING TO AWWA STANDARD SPECIFICATIONS. AFTER FLUSHING AND DISINFECTING THE SERVICE LINE, WATER SAMPLES SHALL BE COLLECTED BY THE COUNTY DEPARTMENT OF HEALTH. APPROVAL AND NOTIFICATION BY THE HEALTH DEPARTMENT MUST BE RECEIVED BEFORE THE LATERAL IS PLACED IN SERVICE.

– HYDRANT FLOW TEST DATA PROVIDED BY THE CITY OF WATERTOWN WATER DEPARTMENT ON MAY 2016. FLOW HYDRANT LOCATED EAST OF SHERMAN, AT THE CORNER OF STONE STREET PROVIDED THE FOLLOWING RESULTS:

  STATIC – 63 PSI
  RESIDUAL – 59 PSI @ 986 GPM
  GPM @ 20 PSI – 3,555 GPM (CALCULATED)

– HYDRANT FLOW TEST DATA PROVIDED BY THE CITY OF WATERTOWN WATER DEPARTMENT ON AUGUST 2016. FLOW HYDRANT LOCATED SOUTH OF ST. PATRICK'S CHURCH ON EAST SIDE OF SOUTH MASSEY STREET PROVIDED THE FOLLOWING RESULTS:

  STATIC – 67 PSI
  RESIDUAL – 62 PSI @ 1,049 GPM
  GPM @ 20 PSI – 3,518 GPM (CALCULATED)

UTILITY NOTES:

1. ALL WATER, STORM AND SANITARY UTILITIES ARE TO BE CONSTRUCTED AND TESTED WITH APPROVED MATERIALS IN ACCORDANCE WITH THE CITY OF WATERTOWN SPECIFICATIONS AND REGULATIONS AS AMENDED OR AS OTHERWISE APPROVED.
2. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF BUILDING ELECTRIC, TELEPHONE, GAS, STORM AND SANITARY LATERALS AND WATER SERVICES.
3. THE CONTRACTOR SHALL PERFORM ALL WORK IN COMPLIANCE WITH TITLE 29 OF FEDERAL REGULATIONS, PART 1926, SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION (OSHA).
4. IN ALL TRENCH EXCAVATIONS, CONTRACTOR MUST LAY THE TRENCH SIDE SLOPES BACK TO A SAFE SLOPE, USE A TRENCH SHIELD OR PROVIDE SHEETING AND BRACING.
5. IF SUSPICIOUS AND/OR HAZARDOUS MATERIAL IS ENCOUNTERED DURING CONSTRUCTION, ALL WORK SHALL STOP AND THE DEPARTMENT OF HEALTH AND THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION SHALL BE NOTIFIED IMMEDIATELY. WORK SHALL NOT RESUME UNTIL THE DEVELOPER HAS OUTLINED APPROPRIATE ACTION FOR DEALING WITH THE WASTE MATERIAL AND THE DEVELOPMENT PLANS ARE MODIFIED AS MAY BE NECESSARY.
6. EXCAVATED WASTE MATERIAL REMOVED FROM THE SITE SHALL BE PLACED AT A LOCATION ACCEPTABLE TO THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION. DOCUMENTATION OF DISPOSAL TO BE SUBMITTED TO OWNER.
7. CONTRACTOR SHALL USE SPECIAL CARE TO MAINTAIN A MINIMUM OF ONE FOOT OF COVER ABOVE ALL EXISTING AND PROPOSED PIPES AT ALL TIMES DURING ALL CONSTRUCTION STAGES.
8. THE CONTRACTOR SHALL CONSULT WITH THE DESIGN ENGINEER BEFORE DEVIATING FROM THESE PLANS.
9. ALL HDPE STORM SEWER PIPE SHALL BE SMOOTH FLOW INTERIOR.
10. ALL CATCH BASINS AND STORM MANHOLES WITHIN PAVEMENT TO BE CONSTRUCTED TO WITHSTAND H–20 LOADING.
11. ANY PROPOSED FOOD/RESTAURANT SERVICES WILL REQUIRE A MINIMUM 1000 GALLON GREASE INTERCEPTOR.
12. CLEANOUTS SHALL BE PROVIDED ON ALL LATERALS AT THE BUILDING FACE AND ALL BENDS.
13. ALL WATER MAIN AND SERVICE WORK MUST BE COORDINATED WITH THE CITY OF WATERTOWN WATER DEPARTMENT. THE WATER DEPARTMENT REQUIREMENTS SUPERSEDE ALL OTHER PLANS AND SPECIFICATIONS PROVIDED.
14. ALL WATER MAIN AND SERVICE WORK MUST BE COORDINATED WITH THE CITY OF WATERTOWN WATER DEPARTMENT. THE WATER DEPARTMENT REQUIREMENTS SUPERSEDE ALL OTHER PLANS AND SPECIFICATIONS PROVIDED.
15. EXISTING LATERALS THAT ARE TO BE ABANDONED SHALL BE CAPPED AND ANCHORED.

SANITARY SEWER NOTES:

1. ONLY DOMESTIC WASTE FROM THE PROJECT SHALL BE DISCHARGED INTO THE SANITARY SEWER.
2. ALL SANITARY LATERALS SHALL BE 6" PVC SDR–21 UNLESS OTHERWISE SPECIFIED ON THE PLANS.
3. A MINIMUM OF 4 FEET OF COVER SHALL BE PROVIDED OVER ENTIRE LENGTH OF ALL SANITARY LATERALS.
4. PRIOR TO CONSTRUCTION, A PERMIT MUST BE OBTAINED FROM THE CITY OF WATERTOWN.
5. THE CITY OF WATERTOWN SHALL BE NOTIFIED FORTY–EIGHT HOURS IN ADVANCE OF CONNECTION OR TAP.
6. SANITARY SEWER LATERAL (S) AND APPURTENANCES SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE REQUIREMENTS OF THE CITY OF WATERTOWN.
7. FLOOR DRAINS, IF CONSTRUCTED, SHALL BE CONNECTED TO THE SANITARY SEWER. FLOOR DRAINS DO NOT INCLUDE FOUNDATION/FOOTER DRAINS. NOTE: ALL DISCHARGES TO THE SANITARY SEWER MUST COMPLY WITH THE EFFLUENT LIMITS OF THE LOCAL AND/OR COUNTY SEWER USE LAW.
8. EXCESSIVE I AND/OR INFILTRATION FOR SANITARY SEWERS SHALL BE LIMITED TO 100 GALLONS PER DAY, PER MILE OF PIPE, PER INCH DIAMETER, AND SHALL BE PERFORMED IN ACCORDANCE WITH DISTRICT PROCEDURES. AIR TESTS, INCLUDING VACUUM TESTS, SHALL NOT BE ALLOWED ON SANITARY MANHOLES.
9. DEFLECTION TESTS SHALL BE PERFORMED ON ALL FLEXIBLE PIPE. THE TEST SHALL BE CONDUCTED AFTER ALL FINAL BACKFILL HAS BEEN IN PLACE AT LEAST THIRTY (30) DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF FIVE PERCENT (5%). IF THE DEFLECTION TEST IS TO BE RUN USING A RIGID BALL OR MANDREL, IT SHALL HAVE A MINIMUM DIAMETER EQUAL TO NINETY–FIVE PERCENT (95%) OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES.
10. ALL MANHOLES SHALL BE 4' DIAMETER UNLESS OTHERWISE SPECIFIED ON PLANS.

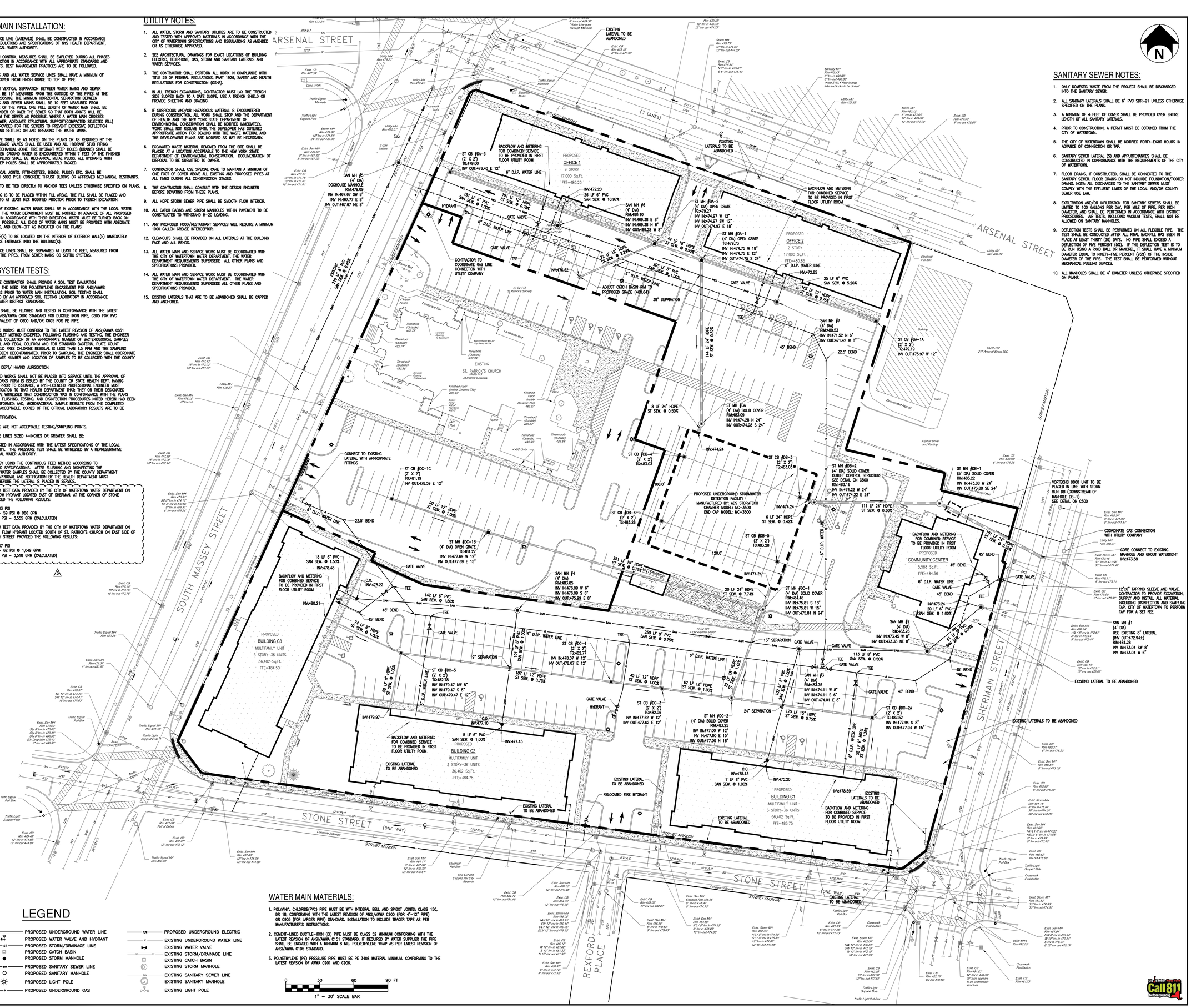
WATER MAIN MATERIALS:

1. POLYVINYL CHLORIDE(PVC) PIPE MUST BE WITH INTEGRAL BELL AND SPIGOT JOINTS; CLASS 150, DR 18; CONFORMING WITH THE LATEST REVISION OF ANSI/AWWA C900 (FOR 4"–12" PIPE) OR C905 (FOR LARGER PIPE) STANDARD. INSTALLATION TO INCLUDE TRACER TAPE AS PER MANUFACTURER'S INSTRUCTIONS.
2. CEMENT–LINED DUCTILE–IRON (DI) PIPE MUST BE CLASS 52 MINIMUM CONFORMING WITH THE LATEST REVISION OF ANSI/AWWA C151 STANDARD. IF REQUIRED BY WATER SUPPLIER THE PIPE SHALL BE ENCASED WITH A MINIMUM 8 MIL. POLYETHYLENE WRAP AS PER LATEST REVISION OF ANSI/AWWA C105 STANDARD.
3. POLYETHYLENE (PE) PRESSURE PIPE MUST BE PE 3408 MATERIAL MINIMUM. CONFORMING TO THE LATEST REVISION OF AWWA C901 AND C906.

LEGEND

- PROPOSED UNDERGROUND WATER LINE
- PROPOSED WATER VALVE AND HYDRANT
- PROPOSED STORM/DRAINAGE LINE
- PROPOSED CATCH BASIN
- PROPOSED STORM MANHOLE
- PROPOSED SANITARY SEWER LINE
- PROPOSED SANITARY MANHOLE
- PROPOSED LIGHT POLE
- PROPOSED UNDERGROUND GAS
- PROPOSED UNDERGROUND ELECTRIC
- EXISTING UNDERGROUND WATER LINE
- EXISTING WATER VALVE
- EXISTING STORM/DRAINAGE LINE
- EXISTING CATCH BASIN
- EXISTING STORM MANHOLE
- EXISTING SANITARY SEWER LINE
- EXISTING SANITARY MANHOLE
- EXISTING LIGHT POLE

0 30 60 90 FT
1" = 30' SCALE BAR



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PROFESSIONAL CERTIFICATION: I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NEW YORK.
LICENSE NO. 80472
EXPIRATION DATE: 05/2017

TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT, THE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE 2015 ENERGY CONSTRUCTION CONSERVATION CODE OF THE STATE OF NEW YORK.

Project Manager	Checked By
A. HART, RLA	J. BASILE, PE
Designed By	Drawn By
T. BURKE	T. BURKE
Date Issued	Scale
MAY 23, 2016	1" = 30'
Project Number	
010487.00	

UTILITY PLAN

Drawing Number:

C110

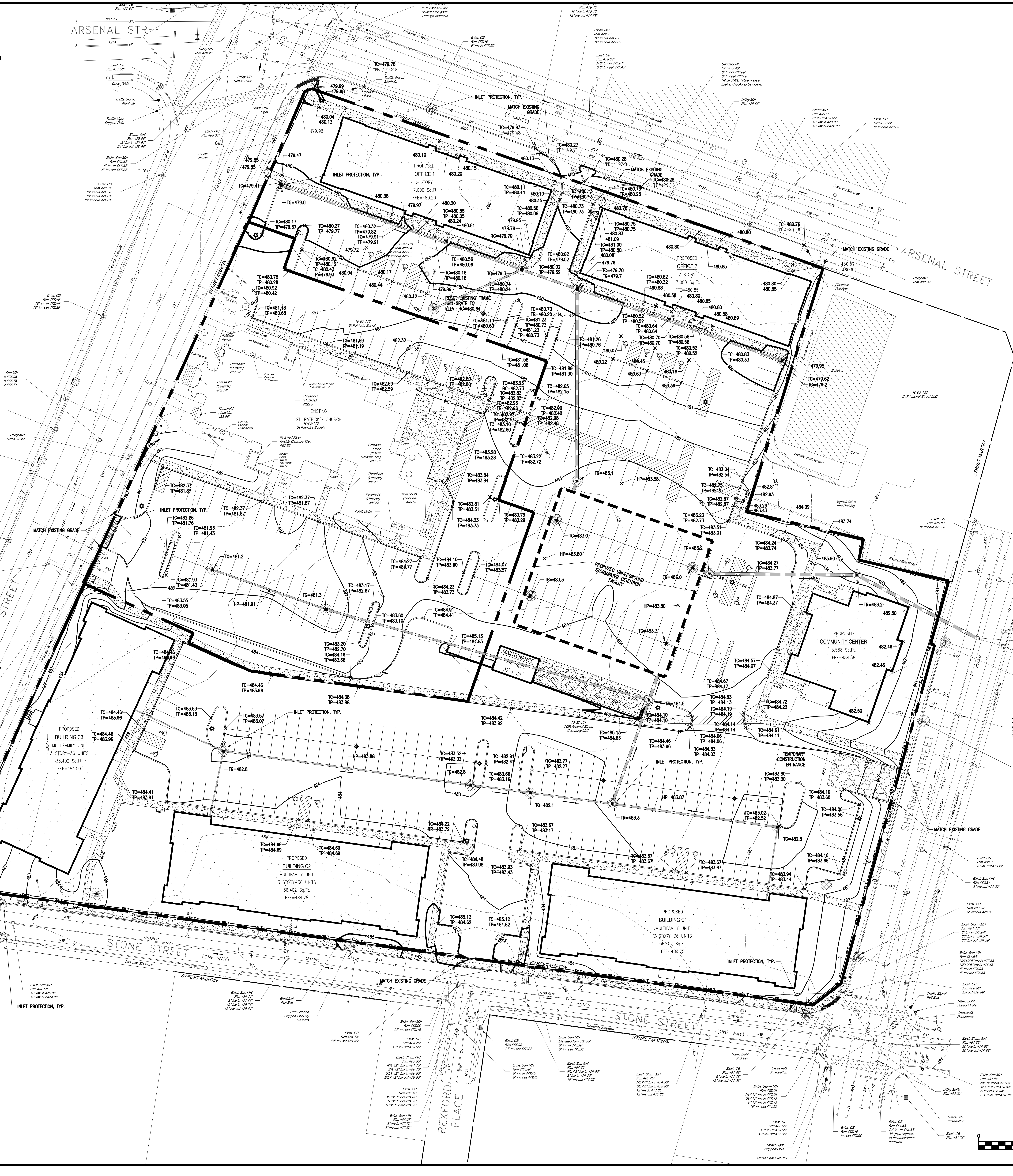
5 of 15

GRADING PLAN NOTES:

1. REFER EROSION AND SEDIMENT CONTROL PLANS FOR LOCATION OF ALL EROSION AND SEDIMENT CONTROL DEVICES.
2. THE EARTHWORK FOR ALL BUILDING FOUNDATIONS AND SLABS SHALL BE IN ACCORDANCE WITH ARCHITECTURAL BUILDING PLANS AND SPECIFICATIONS.
3. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
4. EXISTING DRAINAGE STRUCTURES TO BE INSPECTED AND REPAIRED AS NEEDED, AND EXISTING PIPES TO BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS.
5. EXISTING GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT INTERVALS.
6. PROPOSED GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT INTERVALS.
7. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THECONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
8. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
9. ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING LIDS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER".
10. THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
11. CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
12. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
13. TOPOGRAPHIC INFORMATION PROVIDED BY BERNIER CARR & ASSOCIATES. IF CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, HE SHALL HAVE MADE, AT HIS EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR AND SUBMIT IT TO THE OWNER FOR REVIEW.
14. ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE 4 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 1:2 OR STEEPER. CONTRACTOR SHALL SEED DISTURBED AREAS IN ACCORDANCE WITH THE LANDSCAPE PLAN AND THE SPDES PERMIT FOR CONSTRUCTION ACTIVITIES.
15. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.
16. ALL STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED MORTAR INVERT FROM INVERT IN TO INVERT OUT.
17. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL UTILITIES AND NOTIFYING THE APPROPRIATE UTILITY COMPANY PRIOR TO BEGINNING CONSTRUCTION.
18. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING STORM SEWER STRUCTURES, PIPES, AND ALL UTILITIES PRIOR TO CONSTRUCTION.
19. ALL CONCRETE TO HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH OF 3000 psi, UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS.
20. REFER TO UTILITY PLAN FOR STORM SEWER INFORMATION.
21. IT IS THE INTENT OF THIS DESIGN THAT ALL PAVEMENT SHALL HAVE A MINIMUM SLOPE OF 1.00%.
22. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICES.
23. THE VERTICAL DATUM IS BASED ON NORTH AMERICAN VERTICAL DATUM OF 1929 (NAVD29).

SEQUENCE OF CONSTRUCTION:

1. PRE-CONSTRUCTION MEETING HELD BY PROJECT MANAGER AND THE OPERATOR'S ENGINEER PRIOR TO LAND DISTURBING ACTIVITIES.
2. HAVE A QUALIFIED PROFESSIONAL CONDUCT AN ASSESSMENT OF THE SITE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND CERTIFY IN AN INSPECTION REPORT THAT THE APPROPRIATE EROSION AND SEDIMENT CONTROLS DESCRIBED IN THE SWPPP ARE REQUIRED BY PART OF THE GP-0-15-002 HAVE BEEN ADEQUATELY INSTALLED OR IMPLEMENTED TO ENSURE OVERALL PREPAREDNESS OF THE SITE FOR THE COMMENCEMENT OF CONSTRUCTION.
3. CONSTRUCT TEMPORARY CONSTRUCTION EXITS AT LOCATIONS SHOWN ON DRAWING C140.
4. INSTALL PERIMETER SILT FENCES AND TEMPORARY SEDIMENT BASIN IN THE LOCATIONS SHOWN ON DRAWING C140.
5. BEGIN CLEARING AND GRUBBING OPERATIONS. CLEARING AND GRUBBING SHALL BE DONE ONLY IN AREAS WHERE EARTHWORK WILL BE PERFORMED AND ONLY IN AREAS WHERE BUILDING IS PLANNED TO COMMENCE WITHIN 14 DAYS AFTER CLEARING AND GRUBBING.
6. COMMENCE SITE GRADING.
7. INSTALL EROSION CONTROL BLANKETS ON ALL SLOPES GREATER THAN 3:1.
8. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS CEASED FOR MORE THAN 14 DAYS SHALL BE TEMPORARILY SEEDED AND WATERED.
9. INSTALL INLET/OUTLET PROTECTION AT THE LOCATIONS OF ALL GRATE INLETS, CURB INLETS, AND AT THE ENDS OF ALL EXPOSED STORM SEWER PIPES.
10. CONSTRUCT ALL CURB, GUTTER INLETS, AREA INLETS, AND STORM SEWER MANHOLES, AS SHOWN ON THE PLANS. INLET PROTECTION MAY BE REMOVED TEMPORARILY FOR THIS CONSTRUCTION.
11. REMOVE INLET PROTECTION AROUND INLETS AND MANHOLES NO MORE THAN 48 HOURS PRIOR TO PLACING STABILIZED BASE COURSE.
12. INSTALL BASE MATERIAL AS REQUIRED FOR PAVEMENT.
13. CARRY OUT FINAL GRADING AND SEEDING AND PLANTING.
14. REMOVE SILT FENCING ONLY AFTER ALL PAVING IS COMPLETE AND EXPOSED SURFACES ARE STABILIZED.
15. REMOVE TEMPORARY CONSTRUCTION EXITS ONLY PRIOR TO PAVEMENT CONSTRUCTION IN THESE AREAS (THESE AREAS ARE TO BE PAVED LAST).



LEGEND:

EXISTING GRADE	— — — 415 — — —
PROPOSED MAJOR CONTOUR	415
PROPOSED MINOR CONTOUR	415
SPOT ELEVATIONS	+415.00
TOP OF GRATE ELEVATION	TG=415.30
TOP OF CURB/ TOP OF PAVEMENT	TC 414.75 TP 414.25
SILT FENCE	SILT
INLET PROTECTION	⊗
CONSTRUCTION ENTRANCE	▨
PROPOSED UNDERGROUND ELECTRIC	UGE
PROPOSED OVERHEAD ELECTRIC	OHE
PROPOSED GAS LINE	G
PROPOSED WATER	W
PROPOSED SANITARY SEWER	SAN
PROPOSED SANITARY FORCE MAIN	SFM
PROPOSED STORM SEWER	▬ ▬ ▬
PROPOSED GAS	G
LIGHTPOLE	☼
TEMPORARY SAMPLING AND DISINFECTION TAP	◉
WATER VALVE	⊟
HYDRANT	♉
CLEAN-OUT	C.O. ●
STORM CATCH BASIN	▣
STORM MANHOLE	◙
SANITARY MANHOLE	◎
SAW CUT LINE	— — — —

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COR Arsenal Street Company, LLC

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REVISIONS

NO.	DATE	DESCRIPTION	REV.	CK'D
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2	8/1/16	CITY COMMENTS	JB	JCB
3	8/8/16	ADDED LADDER TO TRUCK	JB	AMH

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Note:
Unauthorized alteration or addition to this drawing is a violation of the New York State Education Law Article 145, Section 7209.

Project Manager: **A. HART, RLA**	Checked By: **J. BASILE, PE**
Designed By: **J. BUSH**	Drawn By: **J. BUSH**
Date Issued: **MAY 23, 2016**	Scale: **1" = 30'**
Project Number: **010487.00**	

GRADING PLAN

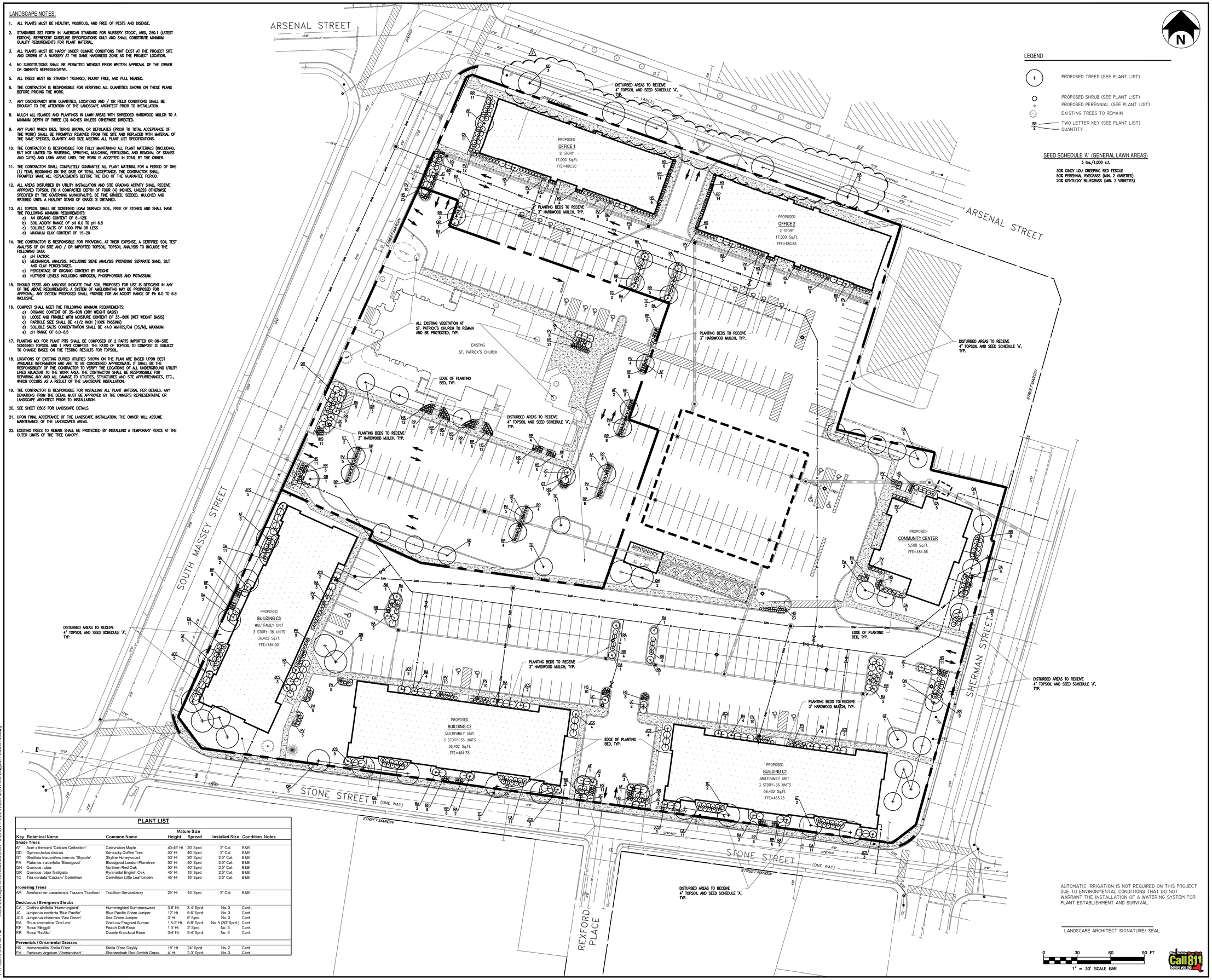
Dig Safely. New York Call 811 before you dig

Drawing Number:
C120
6 of 15

11/11/2015 3:43:40 PM I:\Cor Development\010487.00 COR - MERCY REDEVELOPMENT\4.0 Dwgs\4.1 Civil\C120.dwg

LANDSCAPE NOTES:

1. ALL PLANTS MUST BE HEALTHY, VIGOROUS, AND FREE OF PESTS AND DISEASE.
2. STANDARDS SET FORTH IN 'AMERICAN STANDARD FOR NURSERY STOCK', ANSI Z60.1 (LATEST EDITION), REPRESENT GUIDELINE SPECIFICATIONS ONLY AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIAL.
3. ALL PLANTS MUST BE HARDY UNDER CLIMATE CONDITIONS THAT EXIST AT THE PROJECT SITE AND GROWN AT A NURSERY AT THE SAME HARDINESS ZONE AS THE PROJECT LOCATION.
4. NO SUBSTITUTIONS SHALL BE PERMITTED WITHOUT PRIOR WRITTEN APPROVAL OF THE OWNER OR OWNER'S REPRESENTATIVE.
5. ALL TREES MUST BE STRAIGHT TRUNKED, INJURY FREE, AND FULL HEADED.
6. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON THESE PLANS BEFORE PRICING THE WORK.
7. ANY DISCREPANCY WITH QUANTITIES, LOCATIONS AND / OR FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
8. MULCH ALL ISLANDS AND PLANTINGS IN LAWN AREAS WITH SHREDDED HARDWOOD MULCH TO A MINIMUM DEPTH OF THREE (3) INCHES UNLESS OTHERWISE DIRECTED.
9. ANY PLANT WHICH DIES, TURNS BROWN, OR DEFOLIATES (PRIOR TO TOTAL ACCEPTANCE OF THE WORK) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY AND SIZE MEETING ALL PLANT LIST SPECIFICATIONS.
10. THE CONTRACTOR IS RESPONSIBLE FOR FULLY MAINTAINING ALL PLANT MATERIALS (INCLUDING, BUT NOT LIMITED TO: WATERING, SPRAYING, MULCHING, FERTILIZING, AND REMOVAL OF STAKES AND GUYS) AND LAWN AREAS UNTIL THE WORK IS ACCEPTED IN TOTAL BY THE OWNER.
11. THE CONTRACTOR SHALL COMPLETELY GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE (1) YEAR, BEGINNING ON THE DATE OF TOTAL ACCEPTANCE. THE CONTRACTOR SHALL PROMPTLY MAKE ALL REPLACEMENTS BEFORE THE END OF THE GUARANTEE PERIOD.
12. ALL AREAS DISTURBED BY UTILITY INSTALLATION AND SITE GRADING ACTIVITY SHALL RECEIVE APPROVED TOPSOIL (TO A COMPACTED DEPTH OF FOUR (4) INCHES, UNLESS OTHERWISE SPECIFIED BY THE GOVERNING MUNICIPALITY), BE FINE GRADED, SEEDED, MULCHED AND WATERED UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
13. ALL TOPSOIL SHALL BE SCREENED LOAM SURFACE SOIL, FREE OF STONES AND SHALL HAVE THE FOLLOWING MINIMUM REQUIREMENTS:
    a) AN ORGANIC CONTENT OF 6-12%
    b) SOIL ACIDITY RANGE OF pH 6.0 TO pH 6.8
    c) SOLUBLE SALTS OF 1000 PPM OR LESS
    d) MAXIMUM CLAY CONTENT OF 15-20
14. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING, AT THEIR EXPENSE, A CERTIFIED SOIL TEST ANALYSIS OF ON SITE AND / OR IMPORTED TOPSOIL. TOPSOIL ANALYSIS TO INCLUDE THE FOLLOWING DATA:
    a) pH FACTOR.
    b) MECHANICAL ANALYSIS, INCLUDING SIEVE ANALYSIS PROVIDING SEPARATE SAND, SILT AND CLAY PERCENTAGES.
    c) PERCENTAGE OF ORGANIC CONTENT BY WEIGHT
    d) NUTRIENT LEVELS INCLUDING NITROGEN, PHOSPHOROUS AND POTASSIUM.
15. SHOULD TESTS AND ANALYSIS INDICATE THAT SOIL PROPOSED FOR USE IS DEFICIENT IN ANY OF THE ABOVE REQUIREMENTS; A SYSTEM OF AMELIORATING MAY BE PROPOSED FOR APPROVAL. ANY SYSTEM PROPOSED SHALL PROVIDE FOR AN ACIDITY RANGE OF Ph 6.0 TO 6.8 INCLUSIVE.
16. COMPOST SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS:
    a) ORGANIC CONTENT OF 35-60% (DRY WEIGHT BASIS)
    b) LOOSE AND FRIABLE WITH MOISTURE CONTENT OF 35-60% (WET WEIGHT BASIS)
    c) PARTICLE SIZE SHALL BE <1/2 INCH (100% PASSING)
    d) SOLUBLE SALTS CONCENTRATION SHALL BE <4.0 MMHOS/CM (DS/M), MAXIMUM
    e) pH RANGE OF 6.0-8.5
17. PLANTING MIX FOR PLANT PITS SHALL BE COMPOSED OF 2 PARTS IMPORTED OR ON-SITE SCREENED TOPSOIL AND 1 PART COMPOST. THE RATIO OF TOPSOIL TO COMPOST IS SUBJECT TO CHANGE BASED ON THE TESTING RESULTS FOR TOPSOIL.
18. LOCATIONS OF EXISTING BURIED UTILITIES SHOWN ON THE PLAN ARE BASED UPON BEST AVAILABLE INFORMATION AND ARE TO BE CONSIDERED APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATIONS OF ALL UNDERGROUND UTILITY LINES ADJACENT TO THE WORK AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY AND ALL DAMAGE TO UTILITIES, STRUCTURES AND SITE APPURTENANCES, ETC., WHICH OCCURS AS A RESULT OF THE LANDSCAPE INSTALLATION.
19. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL PLANT MATERIAL PER DETAILS. ANY DEVIATIONS FROM THE DETAIL MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
20. SEE SHEET C503 FOR LANDSCAPE DETAILS.
21. UPON FINAL ACCEPTANCE OF THE LANDSCAPE INSTALLATION, THE OWNER WILL ASSUME MAINTENANCE OF THE LANDSCAPED AREAS.
22. EXISTING TREES TO REMAIN SHALL BE PROTECTED BY INSTALLING A TEMPORARY FENCE AT THE OUTER LIMITS OF THE TREE CANOPY.



LEGEND

- PROPOSED TREES (SEE PLANT LIST)
- PROPOSED SHRUB (SEE PLANT LIST)
- PROPOSED PERENNIAL (SEE PLANT LIST)
- EXISTING TREES TO REMAIN
- SR / 2 — TWO LETTER KEY (SEE PLANT LIST) / QUANTITY

SEED SCHEDULE 'A' (GENERAL LAWN AREAS)

5 lbs./1,000 s.f.

30% CINDY LOU CREEPING RED FESCUE
50% PERENNIAL RYEGRASS (MIN. 2 VARIETIES)
20% KENTUCKY BLUEGRASS (MIN. 2 VARIETIES)

AUTOMATIC IRRIGATION IS NOT REQUIRED ON THIS PROJECT DUE TO ENVIRONMENTAL CONDITIONS THAT DO NOT WARRANT THE INSTALLATION OF A WATERING SYSTEM FOR PLANT ESTABLISHMENT AND SURVIVAL.

LANDSCAPE ARCHITECT SIGNATURE/ SEAL

0 30 60 90 FT
1" = 30' SCALE BAR

Call 811 before you dig

PLANT LIST

Key	Botanical Name	Common Name	Mature Size Height	Spread	Installed Size	Condition	Notes
Shade Trees							
AF	Acer x freemanii 'Celzam Celbration'	Celevration Maple	40-45' Ht	20' Sprd	3" Cal.	B&B	
GD	Gymnocladus dioicus	Kentucky Coffee Tree	50' Ht	40' Sprd	3" Cal.	B&B	
GT	Gleditsia triacanthos inermis 'Skycole'	Skyline Honeylocust	50' Ht	30' Sprd	2.5" Cal.	B&B	
PA	Platanus x acerfolia 'Bloodgood'	Bloodgood London Planetree	50' Ht	40' Sprd	2.5" Cal.	B&B	
QN	Quercus rubra	Northern Red Oak	50' Ht	40' Sprd	2.5" Cal.	B&B	
QR	Quercus robur fastigiata	Pyramidal English Oak	40' Ht	15' Sprd	2.5" Cal.	B&B	
TC	Tilia cordata 'Corzam' Corinthian	Corinthian Little Leaf Linden	45' Ht	15' Sprd	2.5" Cal.	B&B	
Flowering Trees							
AM	Amelanchier canadensis Trazam 'Tradition'	Tradition Serviceberry	25' Ht	15' Sprd	3" Cal.	B&B	
Deciduous / Evergreen Shrubs							
CA	Clethra alnifolila 'Hummingbird'	Hummingbird Summersweet	3-5' Ht.	3-4' Sprd.	No. 3	Cont.	
JC	Juniperus conferta 'Blue Pacific'	Blue Pacific Shore Juniper	12" Ht.	5-6' Sprd.	No. 3	Cont.	
JCS	Juniperus chinensis 'Sea Green'	Sea Green Juniper	3' Ht.	6' Sprd.	No. 3	Cont.	
RA	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac	1.5-2' Ht.	6-8' Sprd.	No. 5 (30" Sprd.)	Cont.	
RP	Rosa 'Meiggili'	Peach Drift Rose	1.5' Ht.	2' Sprd.	No. 3	Cont.	
RR	Rosa 'Radtko'	Double Knockout Rose	3-4' Ht.	2-4' Sprd.	No. 3	Cont.	
Perennials / Ornamental Grasses							
HS	Hemerocallis 'Stella D'oro'	Stella D'oro Daylily	18" Ht.	24" Sprd.	No. 2	Cont.	
PV	Panicum virgatum 'Shenandoah'	Shenandoah Red Switch Grass	4' Ht.	2-3' Sprd.	No. 3	Cont.	

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REVISIONS

NO.	DATE	DESCRIPTION	REV.	CK'D
1	7/14/16	CITY COMMENTS	JB	JCB
2	8/1/16	CITY COMMENTS	JB	JCB
3	8/8/16	ADDED LADDER TO TRUCK	JB	AMH

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Designed By:	Drawn By:
T. LIDDELL, RLA	T. LIDDELL, RLA
Date Issued:	Scale:
MAY 23, 2016	1" = 30'

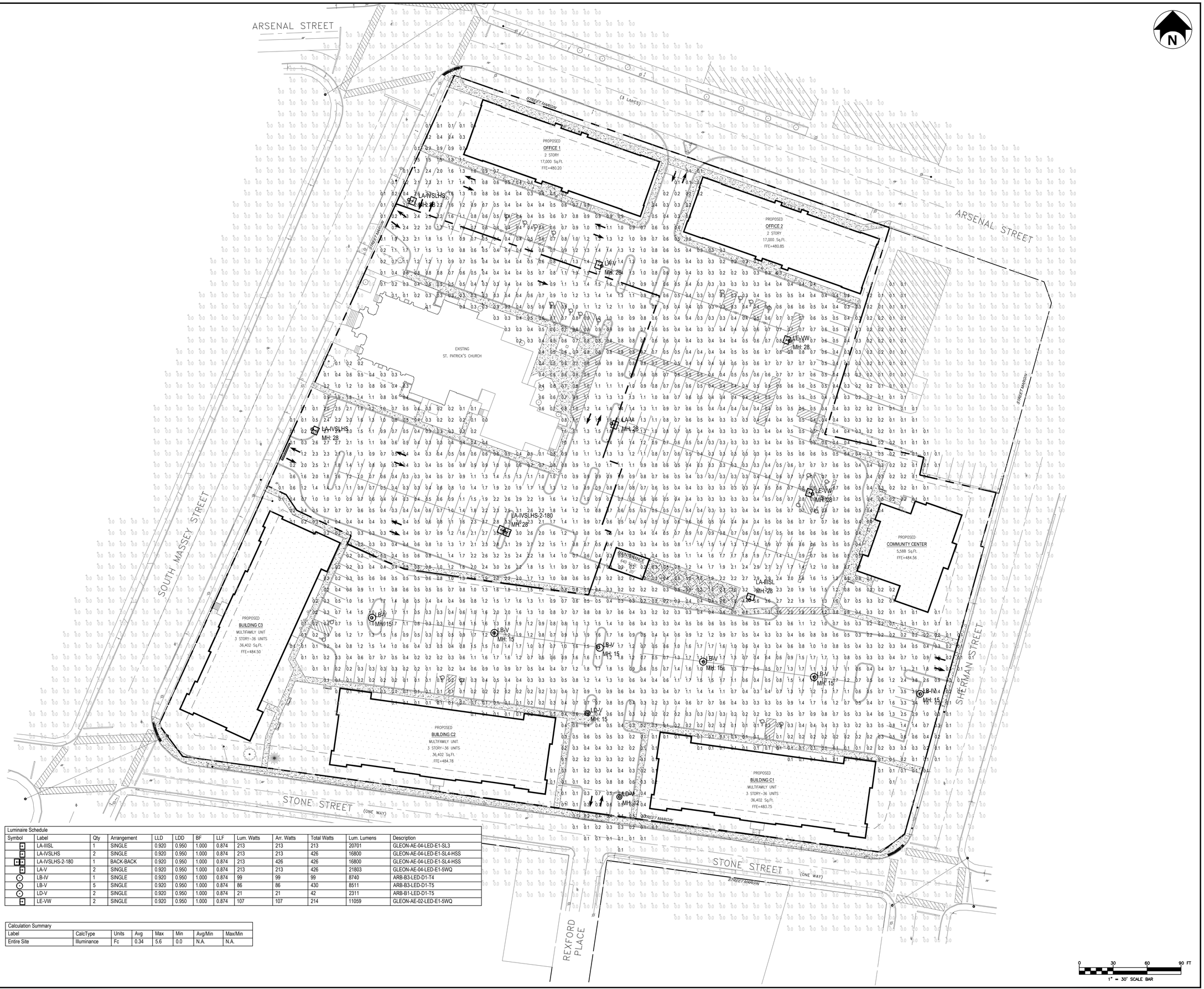
Project Number:
010487.00

LANDSCAPE PLAN

Drawing Number:

C130

7 of 15



Luminaire Schedule												
Symbol	Label	Qty	Arrangement	LLD	LDD	BF	LLF	Lum. Watts	Arr. Watts	Total Watts	Lum. Lumens	Description
	LA-IIISL	1	SINGLE	0.920	0.950	1.000	0.874	213	213	213	20701	GLEON-AE-04-LED-E1-SL3
	LA-IVSLHS	2	SINGLE	0.920	0.950	1.000	0.874	213	213	426	16800	GLEON-AE-04-LED-E1-SL4-HSS
	LA-IVSLHS-2-180	1	BACK-BACK	0.920	0.950	1.000	0.874	213	426	426	16800	GLEON-AE-04-LED-E1-SL4-HSS
	LA-V	2	SINGLE	0.920	0.950	1.000	0.874	213	213	426	21803	GLEON-AE-04-LED-E1-5WQ
	LB-IV	1	SINGLE	0.920	0.950	1.000	0.874	99	99	99	8740	ARB-B3-LED-D1-T4
	LB-V	5	SINGLE	0.920	0.950	1.000	0.874	86	86	430	8511	ARB-B3-LED-D1-T5
	LD-V	2	SINGLE	0.920	0.950	1.000	0.874	21	21	42	2311	ARB-B1-LED-D1-T5
	LE-VW	2	SINGLE	0.920	0.950	1.000	0.874	107	107	214	11059	GLEON-AE-02-LED-E1-5WQ

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Entire Site	Illuminance	Fc	0.34	5.6	0.0	N.A.	N.A.

0 30 60 90 FT

1" = 30' SCALE BAR

11/11/2015 3:43:40 PM I:\Cor Development\010487.00 COR - MERCY REDEVELOPMENT\4.0 Dwgs\4.1 Civil\C160.dwg

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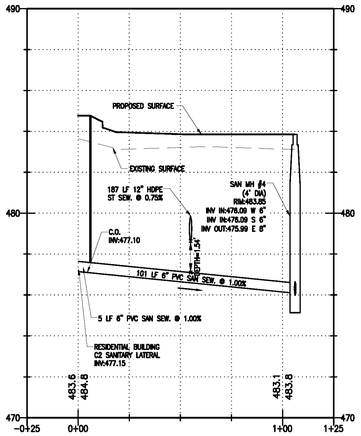
Designed By: R. GARCIA - OLS	Drawn By: T. BURKE
Date/Issue: MAY 23, 2016	Scale: 1" = 30'
Project Number: 010487.00	

SITE LIGHTING PLAN

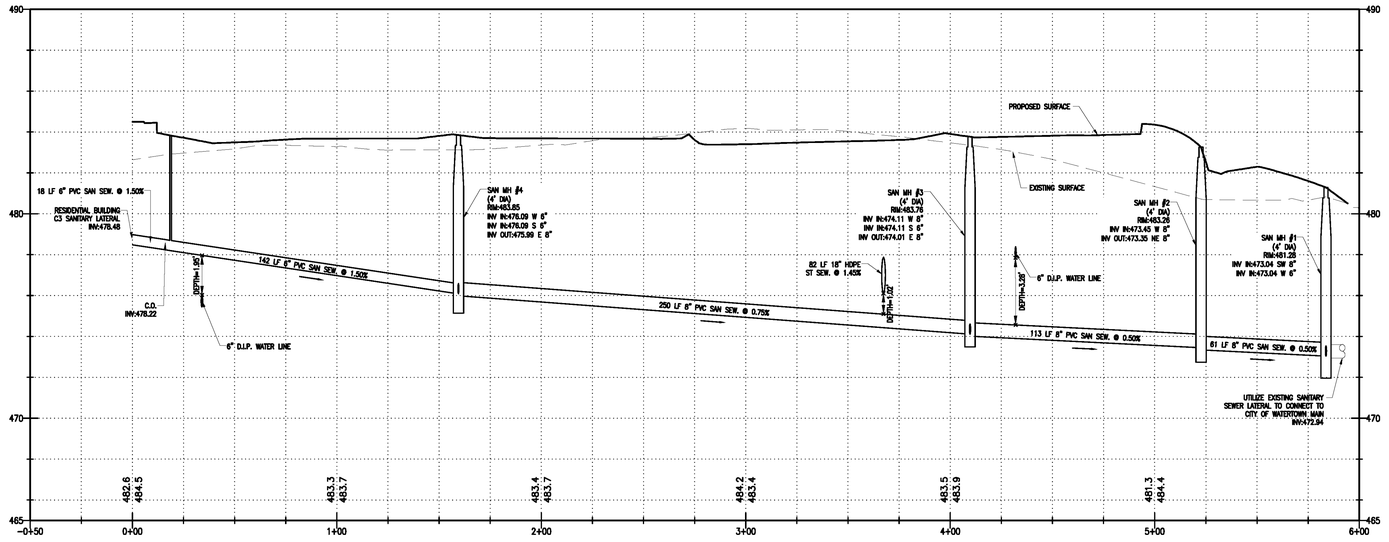
Drawing Number:

C160

8 of 15



RESIDENTIAL BUILDING C2 SANITARY SEWER PROFILE
1" = 3' VERTICAL
1" = 30' HORIZONTAL



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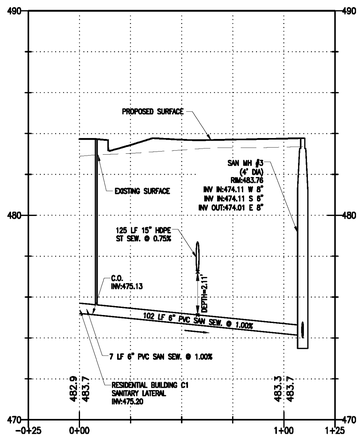
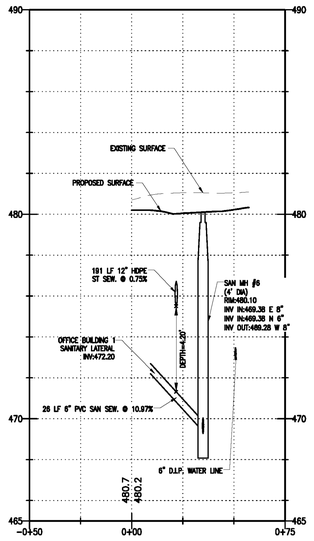


RESIDENTIAL BUILDING C1 SANITARY SEWER PROFILE
1" = 3' VERTICAL
1" = 30' HORIZONTAL



OFFICE BUILDING 1 SANITARY SEWER PROFILE
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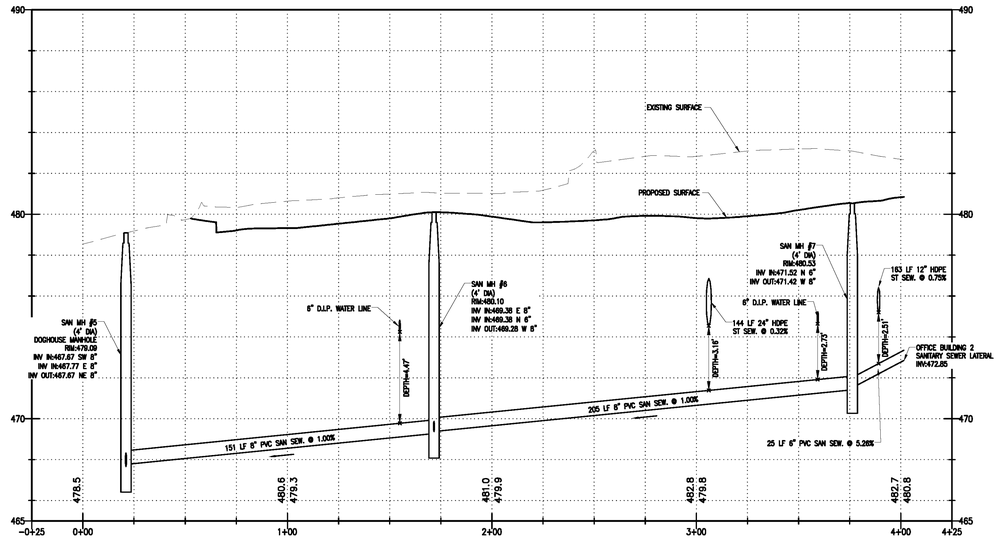
1" = 30' HORIZONTAL



OFFICE SANITARY SEWER PROFILE
1" = 3' VERTICAL
1" = 30' HORIZONTAL

MERCY HEIGHTS

City of Watertown
Jefferson County
State of New York

COR Arsenal Street Company, LLC

540 Towne Drive
Fayetteville, NY 13066

Bergmann associates
architects // engineers // planners

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REVISIONS

NO.	DATE	DESCRIPTION	REV.	CK'D
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2	8/1/16	CITY COMMENTS	JB	JCB
3	8/8/16	ADDED LADDER TO TRUCK	JB	AMH

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CONSTRUCTION

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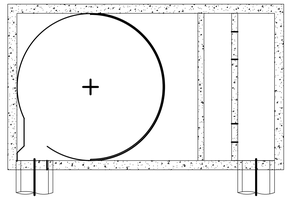
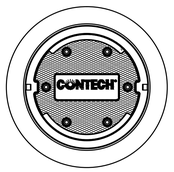
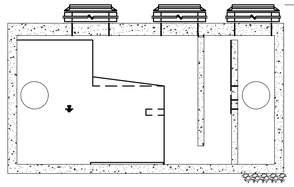
Project Manager: A. HART, RLA
Checked by: J. BASILE, PE
Designed by: T. BURKE
Drawn by: T. BURKE
Date Issued: MAY 23, 2016
Scale: AS SHOWN
Project Number: 010487.00

SANITARY PROFILE SHEET

Drawing Number: **C300**







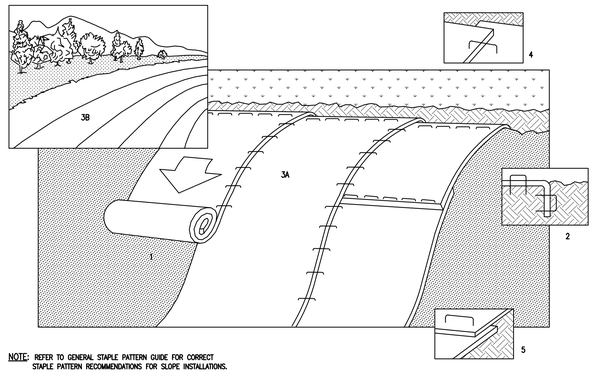
SITE SPECIFIC DATA REQUIREMENTS			
STRUCTURE ID			V9000
WATER QUALITY FLOW RATE (CFS)			4.91
PEAK FLOW RATE (CFS)			8.96
RETURN PERIOD OF PEAK FLOW (YRS)			100
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	473.88±	HDPE	24"
INLET PIPE 2	N/A	N/A	N/A
OUTLET PIPE	473.88±	HDPE	24"
RIM ELEVATION			483.20
ANTI-FLOTATION BALLAST		WIDTH	HEIGHT
		N/A	N/A
NOTES/SPECIAL REQUIREMENTS:			

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH [ ] ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH REPRESENTATIVE. www.contechES.com.
4. VORTECHS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO H520 AND CASTINGS SHALL MEET AASHTO M306 LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
6. INLET PIPE(S) MUST BE PERPENDICULAR TO THE VAULT AND AT THE CORNER TO INTRODUCE THE FLOW TANGENTIALLY TO THE SWIRL CHAMBER. DUAL INLETS NOT TO HAVE OPPOSING TANGENTIAL FLOW DIRECTIONS.
7. OUTLET PIPE(S) MUST BE DOWN STREAM OF THE FLOW CONTROL BAFFLE AND MAY BE LOCATED ON THE SIDE OR END OF THE VAULT. THE FLOW CONTROL WALL MAY BE TURNED TO ACCOMODATE OUTLET PIPE KNOCKOUTS ON THE SIDE OF THE VAULT.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE VORTECHS STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

Vortechs™
THIS PRODUCT MAY BE PROTECTED BY THE FOLLOWING U.S. PATENT: 5,759,415; RELATED FOREIGN PATENTS.

CONTECH STORMWATER SOLUTIONS LLC
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX



NOTE: REFER TO GENERAL STAPLE PATTERN GUIDE FOR CORRECT STAPLE PATTERN RECOMMENDATIONS FOR SLOPE INSTALLATIONS.

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 4" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.
6. MANUFACTURERS INSTALLATION INSTRUCTIONS SHALL SUPERCEDE THIS DETAIL.

INSTALLATION OF GEOSYNTHETICS EROSION CONTROL MATS

1. EROSION CONTROL MATS SHALL BE UTILIZED ON ALL SLOPES GREATER THAN 1:3 REQUIRING PERMANENT STABILIZATION.
2. SLOPES SHALL BE PREPARED AND EROSION CONTROL MATS SHALL BE INSTALLED, ANCHORED AND SOIL FILLED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS AND INSTALLATION PROCEDURES.
3. SEEDING SHALL BE COMPLETED IN ACCORDANCE WITH THE PERMANENT SEEDING SPECIFICATIONS ABOVE PRIOR TO PLACEMENT OF THE EROSION CONTROL MAT. A SECOND APPLICATION OF PERMANENT SEEDING SHALL BE APPLIED AFTER THE MAT IS IN PLACE, PRIOR TO SOIL FILLING THE MAT.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINANCE, RESEEDING AND REPAIR OF MATS AND SLOPES UNTIL PERMANENT STABILIZATION IS ACHIEVED.

EROSION CONTROL MAT INSTALLATION
NO SCALE

NOTE:
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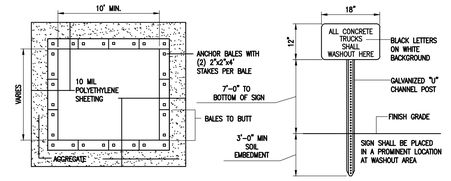
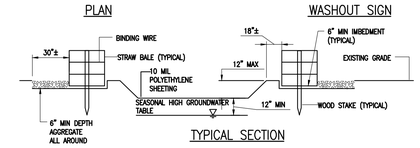


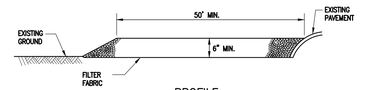
PLAN WASHOUT SIGN



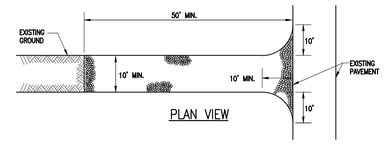
TYPICAL SECTION

NOTES:
1. CONTAINMENT MUST BE STRUCTURALLY SOUND AND LEAK FREE AND CONTAIN ALL LIQUID WASTES.
2. CONTAINMENT DEVICES MUST BE OF SUFFICIENT QUANTITY OR VOLUME TO COMPLETELY CONTAIN THE LIQUID WASTES GENERATED.
3. WASHOUT MUST BE CLEANED OR NEW FACILITIES CONSTRUCTED AND READY TO USE ONCE WASHOUT IS 75% FULL.
4. WASHOUT AREA(S) SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBLE BY CONCRETE TRUCKS.
5. ONE OR MORE AREAS MAY BE INSTALLED ON THE CONSTRUCTION SITE AND MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
6. AT LEAST WEEKLY REMOVE ACCUMULATION OF SAND AND AGGREGATE AND DISPOSE OF PROPERLY.

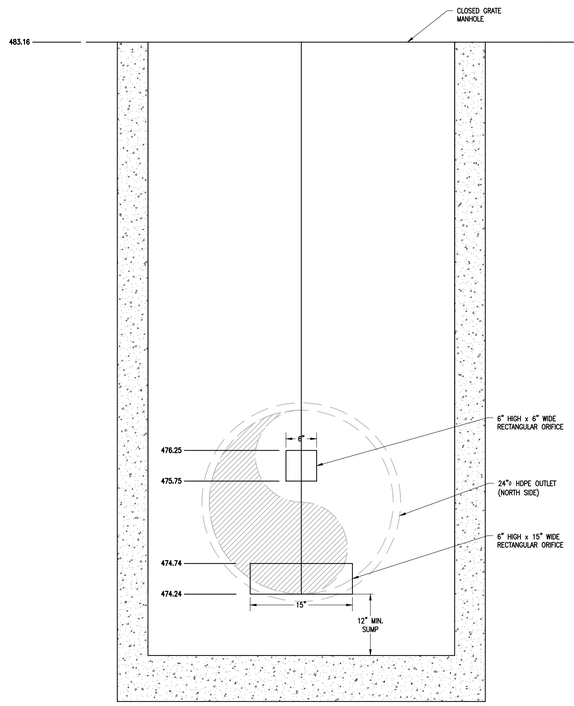
CONCRETE WASHOUT AREA
NO SCALE



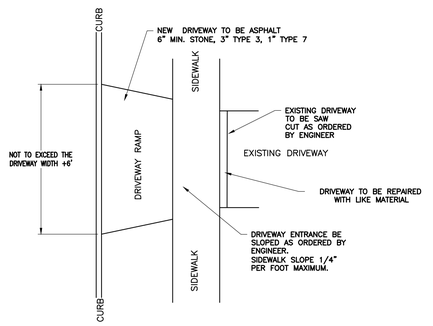
PROFILE



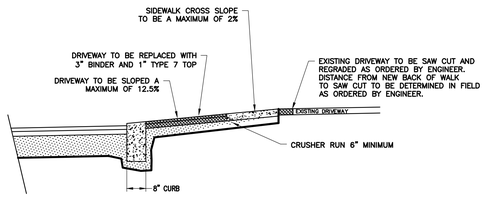
PLAN VIEW



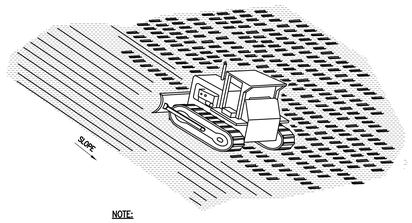
CONTROL STRUCTURE WEIR/ORIFICE DETAIL
UNDERGROUND STORAGE FACILITY
N.T.S.



TYPICAL DRIVEWAY APRON PLAN
NO SCALE

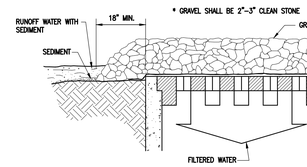


TYPICAL DRIVEWAY APRON SECTION
NO SCALE



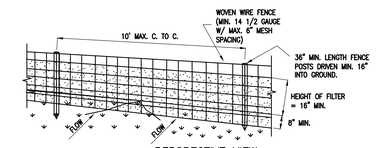
NOTE:
USE DOZER TRACKS TO CREATE GROOVES PERPENDICULAR TO THE SLOPE. GROOVES WILL CATCH SEED, FERTILIZER, MULCH, RAINFALL AND DECREASE SEDIMENT IN RUNOFF.

SLOPE TRACKING DETAIL
NO SCALE



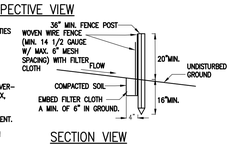
SPECIFIC APPLICATION
THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED, BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED ACRES.

GRAVEL AND WIRE MESH INLET SEDIMENT FILTER
NO SCALE



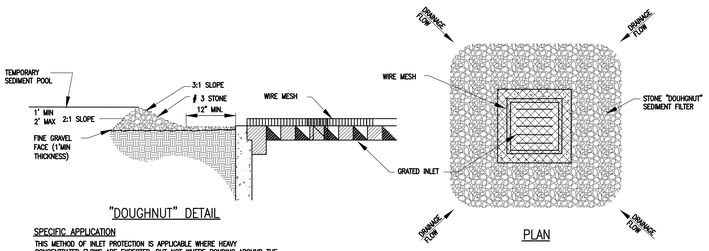
PERSPECTIVE VIEW

CONSTRUCTION SPECIFICATIONS
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. FILTER CLOTH TO BE TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 12 1/2 GAUGE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABLINKA T140N, OR APPROVED EQUIVALENT.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.



SECTION VIEW

SILT FENCE INSTALLATION DETAIL
NO SCALE



"DOUGHNUT" DETAIL

PLAN

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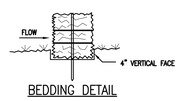
STONE DROP INLET PROTECTION STRUCTURE
NO SCALE

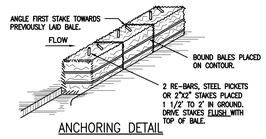
CONSTRUCTION SPECIFICATIONS
1. STONE SIZE – USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARDS CONSTRUCTION ENTRANCE SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED,WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING – WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

TEMPORARY STABILIZED CONSTRUCTION ENTRANCE DETAIL
NO SCALE



BEDDING DETAIL

DRAINAGE AREA NO MORE THAN 1/4 ACRE PER 100 FEET OF STRAW BALE DIKE FOR SLOPES LESS THAN 25%.



ANCHORING DETAIL

CONSTRUCTION SPECIFICATIONS
1. BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF (4) INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
4. INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE MADE PROMTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULLNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

STRAW BALE DIKE DETAIL
NO SCALE

MERCY HEIGHTS

City of Watertown
Jefferson County
State of New York

COR Arsenal Street Company, LLC

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REVISIONS

NO.	DATE	DESCRIPTION	REV.	CK'D
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Project Manager	Checked By
A. HART, RLA	J. BASILE, PE
Designed By	Drawn By
T. BURKE	T. BURKE
Date Issued	Scale
MAY 23, 2016	N.T.S.
Project Number	
010487.00	

EROSION AND SEDIMENT CONTROL DETAILS

Drawing Number
C500

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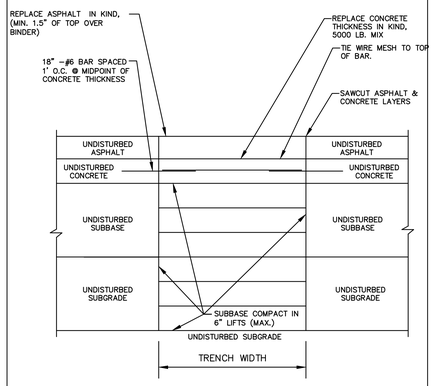
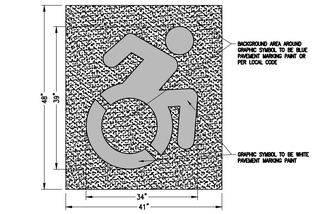
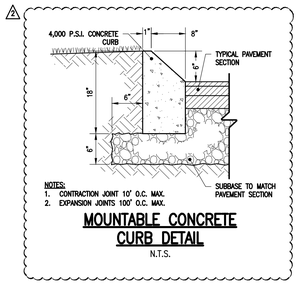


X/XX/XX REVISIONS	**CITY OF WATERTOWN** *ENGINEERING DEPARTMENT* ROOM 305, 245 WASHINGTON STREET, WATERTOWN NEW YORK 13601, PHONE: 315-785-7740, FAX: 315-785-7829	SCALE N.T.S.
8/22/06 ISSUE DATE		DWG. NAME **P-1**



ACCESSIBLE PARKING PAVEMENT SYMBOL
N.T.S.



MOUNTABLE CONCRETE CURB DETAIL
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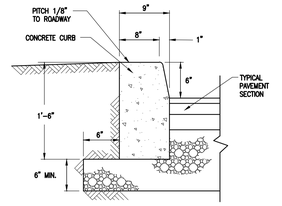
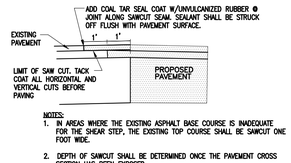
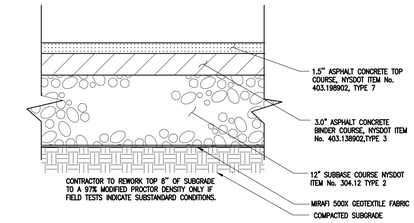


CONCRETE CURB DETAIL
NO SCALE

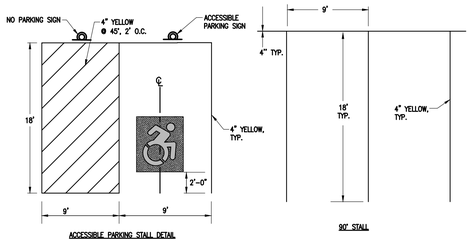


SHEAR STEP DETAIL
NO SCALE

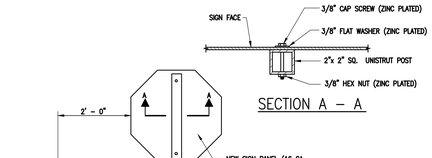


NOTE: ITEM 304.12 SHALL HAVE NO MORE THAN 7 PERCENT BY WEIGHT FINER THAN No. 200 SIEVE

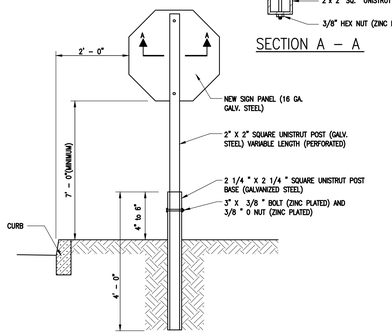
TYPICAL HEAVY DUTY ASPHALT PAVEMENT SECTION
NO SCALE



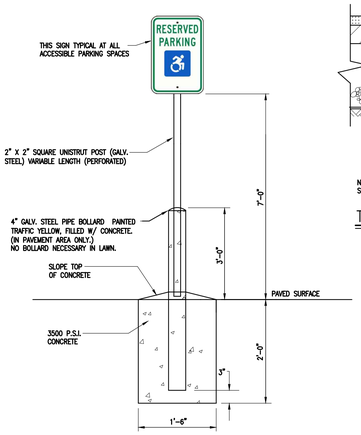
TYPICAL STRIPING DETAILS
NO SCALE



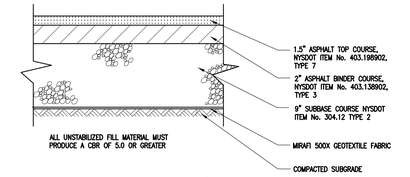
SECTION A – A



POST MOUNT SIGN INSTALLATION IN SOIL AND CONCRETE WALK
NO SCALE

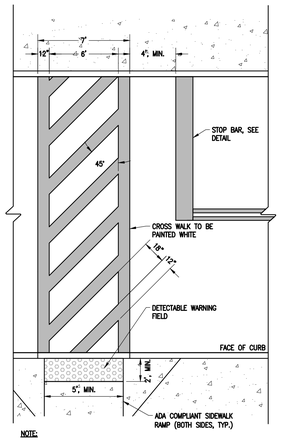


ACCESSIBLE PARKING SIGN DETAIL
NO SCALE



NOTE: ITEM 304.12 SHALL HAVE NO MORE THAN (7%) SEVEN PERCENT BY WEIGHT FINER THAN No. 200 SIEVE

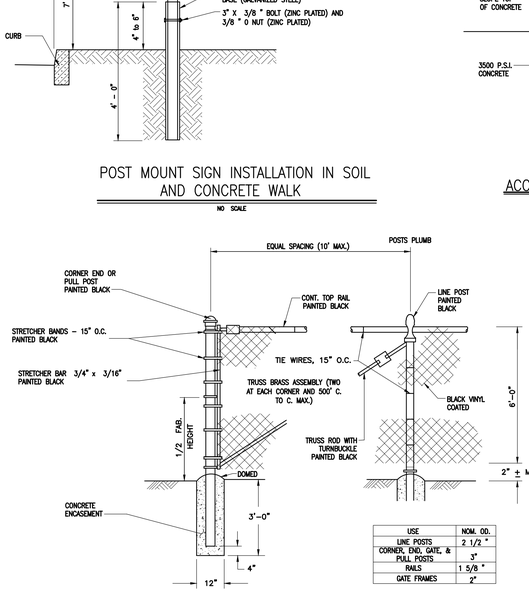
TYPICAL STANDARD DUTY ASPHALT PAVEMENT SECTION
NO SCALE



NOTE:

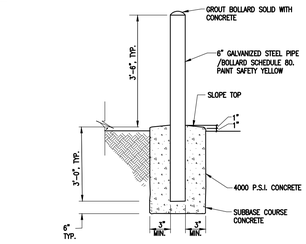
1. PAINT MARKINGS SHALL BE APPLIED ACCORDING TO THE REQUIREMENTS OUTLINED IN SECTION 3B OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.
2. MARKINGS SHALL BE APPLIED USING A REFLECTIVE WHITE PAINT ON ASPHALT AND REFLECTIVE YELLOW PAINT ON CONCRETE.

PAINTED CROSSWALK DETAIL
NO SCALE

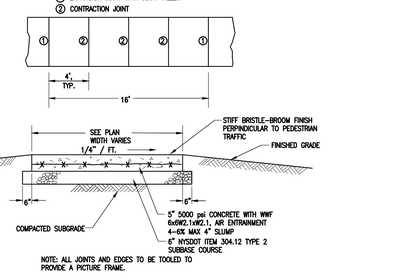


USE	NOM. OD.
LINE POSTS	2 1/2 "
CORNER, END, GATE, & PULL POSTS	3"
RAILS	1 5/8 "
GATE FRAMES	2"

CHAIN–LINK FENCE (6' HEIGHT) DETAIL
NO SCALE



6" GALV. STEEL PIPE BOLLARD DETAIL
NO SCALE

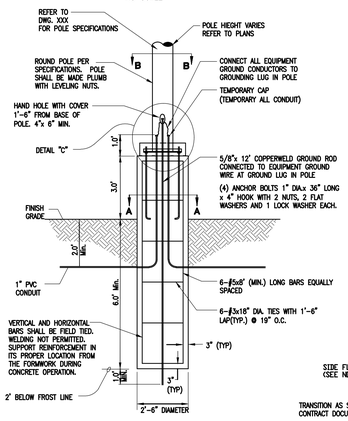


NOTE: ALL JOINTS AND EDGES TO BE TOOLED TO PROVIDE A PICTURE FRAME.

CONCRETE SIDEWALK SECTION
NO SCALE

NOTE: ALL TRAFFIC FLOW ARROWS TO BE SOLID WHITE REFLECTIVE TRAFFIC PAINT PER DIMENSIONS ABOVE.

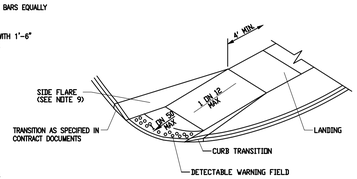
TRAFFIC FLOW ARROW
NO SCALE



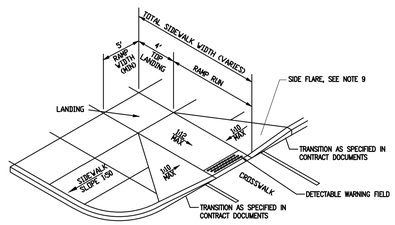
NOTES:

1. 3500 PSI MIN. 28 DAY COMPRESSIVE STRENGTH CONCRETE WITH GRADE 60 REINFORCING STEEL
2. IF WATER IS PRESENT IN HOLE, REMOVE BEFORE POURING CONCRETE. FOUNDATION EXCAVATION SHALL BE BY 24" AUGER IN UNDISTURBED OR PROPERLY COMPACTED
3. FILL PER SPECIFICATIONS.
4. FOUNDATION SHALL HAVE A MINIMUM ALLOWABLE END BEARING OF 2000 PSF.
5. FOUNDATION HAS BEEN DESIGNED FOR A COHESIVE SOIL BASED ON A MINIMUM COHESIVE VALUE OF 1000 PSF.
6. FOUNDATION HAS BEEN DESIGNED FOR A GRANULAR SOIL BASED ON A MINIMUM LATERAL SOIL PRESSURE OF 1000 PSF, UTILIZING AASHTO FIGURE 1.8.2C(4) OF "EMBEDMENT OF POSTS WITH OVERTURNING LOADS".
7. EXPOSED CONCRETE SHALL BE PAINTED TRAFFIC YELLOW.

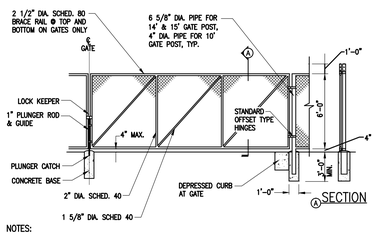
SITE LUMINAIRE FOUNDATION DETAIL (ROUND BASE)
NO SCALE



SIDEWALY RAMP (TYPE 3A)
NO SCALE



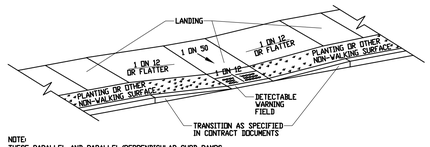
PERPENDICULAR SIDEWALK CURB RAMP (TYPE 1)
NO SCALE



NOTES:

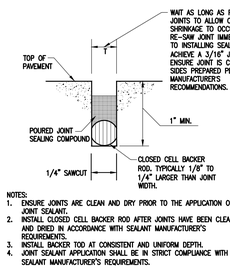
1. WELD ALL PIPE CONNECTIONS.
2. GATE FABRIC TO MATCH FENCE FABRIC. PROVIDE MATCHING POST CAPS WHERE REQUIRED.
3. NOTCH CURBS TO MAINTAIN 4" HEIGHT BETWEEN BOTTOM OF GATE AND PAVING.
4. PROVIDE EMBEDDED METAL SLEEVE AND HOLD OPEN FOR EACH LEAF OF GATE.

CHAIN–LINK FENCE (6' HEIGHT) SWING GATE DETAIL
NO SCALE



NOTE:
THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

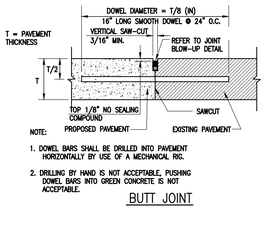
COMBINED PARALLEL / PERPENDICULAR CURB RAMP (TYPE 2A)
NO SCALE



NOTES:

1. ENSURE JOINTS ARE CLEAN AND DRY PRIOR TO THE APPLICATION OF THE JOINT SEALANT.
2. INSTALL CLOSED CELL BACKER ROD AFTER JOINTS HAVE BEEN CLEANED AND DRIED IN ACCORDANCE WITH SEALANT MANUFACTURER'S REQUIREMENTS.
3. INSTALL BACKER TOD AT CONSISTENT AND UNIFORM DEPTH.
4. JOINT SEALANT APPLICATION SHALL BE IN STRICT COMPLIANCE WITH SEALANT MANUFACTURER'S REQUIREMENTS.

JOINT BLOW–UP DETAIL



NOTE:

1. DOWEL BARS SHALL BE DRILLED INTO PAVEMENT HORIZONTALLY BY USE OF A MECHANICAL RIG.
2. DRILLING BY HAND IS NOT ACCEPTABLE. PUSHING DOWEL BARS INTO GREEN CONCRETE IS NOT ACCEPTABLE.

BUTT JOINT

CONCRETE JOINT DETAILS
NO SCALE

11/11/2015 3:43:40 PM I:\Cor Development\010487.00 COR - MERCY REDEVELOPMENT\4.0 Dwgs\4.1 Civil\C501.dwg

MERCY HEIGHTS

City of Watertown
Jefferson County
State of New York

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Fayetteville, NY 13066

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architects // engineers // planners

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28 East Main Street
200 First Federal Plaza
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REVISIONS

NO.	DATE	DESCRIPTION	REV.	CK'D
1	7/14/16	CITY COMMENTS	JB	JCB
2	8/1/16	CITY COMMENTS	JB	JCB
3	8/8/16	ADDED LADDER TO TRUCK	JB	AMH

PRELIMINARY
NOT FOR CONSTRUCTION

PROFESSIONAL CERTIFICATION: I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE *STATE* OF NEW YORK.
LICENSE NO. 80472
EXPIRATION DATE: 05/2017

TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT, THE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE *2015* ENERGY CONSTRUCTION CONSERVATION CODE OF THE STATE OF NEW YORK.

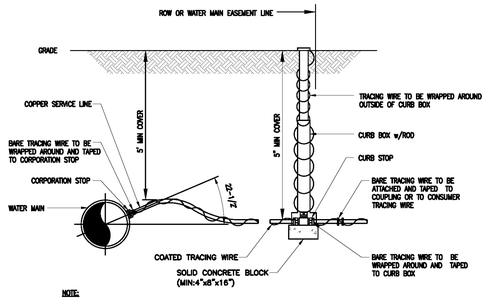
Project Manager: A. HART, RLA	Checked by: J. BASILE, PE
Designed by: T. BURKE	Drawn by: T. BURKE
Date/Issue: MAY 23, 2016	Scale: N.T.S.
Project Number: 010487.00	

MISCELLANEOUS DETAILS

Drawing Number:

C501

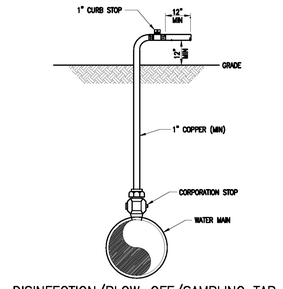
11 of 15



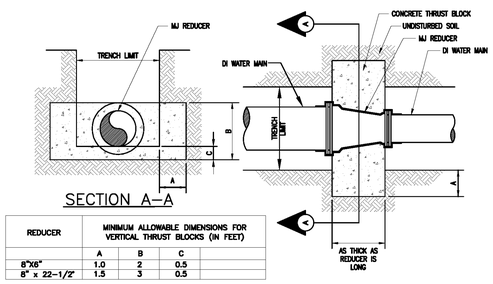
NOTE:

1. COPPER SERVICE TO BE USED UNLESS OTHERWISE APPROVED BY MCWA.
2. TRACING WIRE TO BE USED WITH POLYETHYLENE SERVICE ONLY.

SERVICE INSTALLATION
NO SCALE



DISINFECTION/BLOW-OFF/SAMPLING TAP
NOT TO SCALE

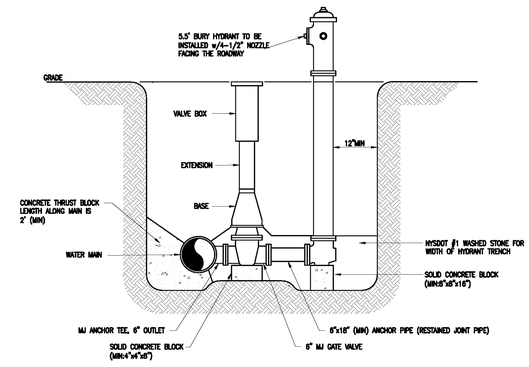


REDUCER	MINIMUM ALLOWABLE DIMENSIONS FOR VERTICAL THRUST BLOCKS (IN FEET)			
	A	B	C	
8"X6"	1.0	2	0.5	
8" x 22-1/2"	1.5	3	0.5	

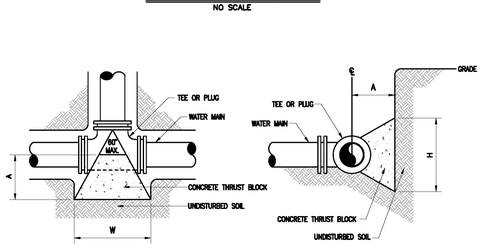
REDUCER
NOT TO SCALE

NOTE:

1. ALL WORK TO BE PERFORMED WITHIN THE CITY OF WATERTOWN MARGIN WILL REQUIRE SIGN-OFF FROM A PROFESSIONAL ENGINEER, LICENSED AND CURRENTLY REGISTERED TO PRACTICE IN THE STATE OF NEW YORK, THAT THE WORK WAS BUILT ACCORDING TO THE APPROVED SITE PLAN AND APPLICABLE CITY OF WATERTOWN STANDARDS. COMPACTION TESTING WILL BE REQUIRED FOR ALL WORK TO BE PERFORMED WITHIN THE CITY OF WATERTOWN MARGIN AND MUST BE SUBMITTED TO THE CITY OF WATERTOWN CODES DEPARTMENT.



PERPENDICULAR HYDRANT ASSEMBLY
NO SCALE

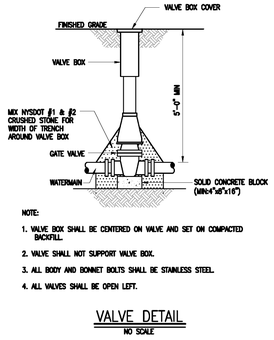


VERIFY TEST PRESSURE PRIOR TO INSTALLATION. THIS TABLE BASED ON TEST PRESSURE OF 150 PSI AND SOIL BEARING PRESSURE OF 1,500 PSF, PER THE GEOTECH REPORT.

MINIMUM HORIZONTAL THRUST BLOCK DIMENSIONS, IN FEET, TO BE POURED AGAINST UNDISTURBED SOIL			
FITTING 8" OR 12"	H	W	A
11-1/4° BEND	1.5	2.0	2.0
22-1/2° BEND	1.5	3.0	2.0
45° BEND	2.0	4.0	3.0
90° BEND	2.5	5.0	2.0
TEE OR PLUG	2.0	4.0	2.0

NOTE: WIDTH (W) OF BLOCK SHALL NOT EXCEED TWICE THE HEIGHT (H).

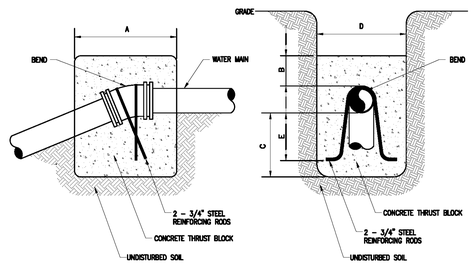
HORIZONTAL THRUST BLOCK FOR TEES AND PLUGS
NOT TO SCALE



NOTE:

1. VALVE BOX SHALL BE CENTERED ON VALVE AND SET ON COMPACTED BACKFILL.
2. VALVE SHALL NOT SUPPORT VALVE BOX.
3. ALL BODY AND BONNET BOLTS SHALL BE STAINLESS STEEL.
4. ALL VALVES SHALL BE OPEN LEFT.

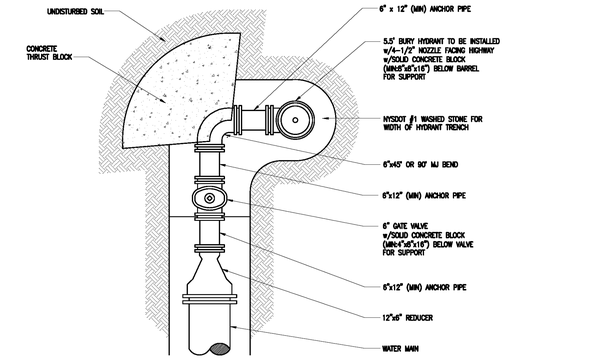
VALVE DETAIL
NO SCALE



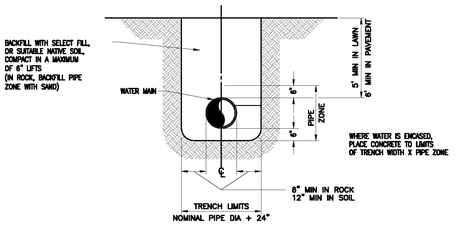
BEND ° 8" OR 12"	MINIMUM VOLUME OF CONCRETE	MINIMUM ALLOWABLE DIMENSIONS FOR VERTICAL THRUST BLOCKS (IN FEET)				
	DIMENSIONS	A	B	C	D	E
11-1/4°	0.35 CY	2.0	1.0	1.5	2.0	1.0
22-1/2°	0.7 CY	2.5	1.0	2.0	2.5	1.5
45°	1.4 CY	4.0	1.5	2.0	3.0	1.5

VERIFY TEST PRESSURE PRIOR TO INSTALLATION. THIS TABLE BASED ON TEST PRESSURE OF 150 PSI AND SOIL BEARING PRESSURE OF 1,500 PSF.

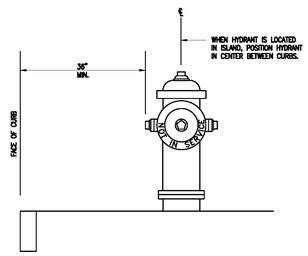
VERTICAL THRUST BLOCK
NOT TO SCALE



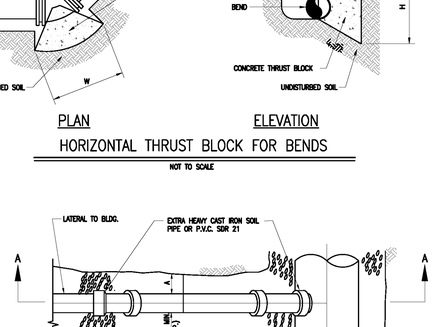
DEAD END PERPENDICULAR HYDRANT ASSEMBLY
NOT TO SCALE



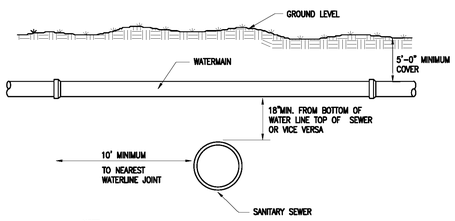
WATERMAIN TRENCH
NO SCALE



HYDRANT OFFSET AT CURB
NOT TO SCALE

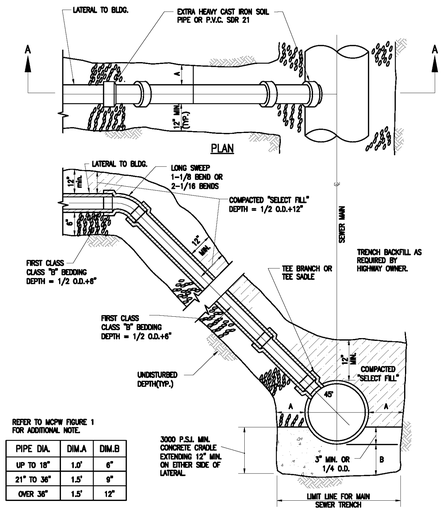


HORIZONTAL THRUST BLOCK FOR BENDS
NOT TO SCALE



NOTE:-
ALL EXCAVATIONS UNDER ANY UTILITY WILL BE BACKFILLED WITH NO. 1 CRUSHED STONE TO A POINT AT LEAST 6" OVER THE TOP OF THE UTILITY.

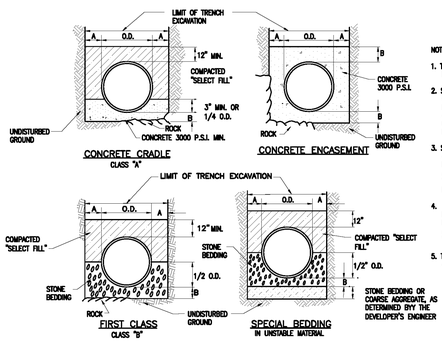
TYPICAL WATER LINE – SEWER LINE CROSSING
NO SCALE



REFER TO MCPW FIGURE 1 FOR ADDITIONAL NOTE.

PIPE DIA.	DIM.A	DIM.B
UP TO 18"	1.0'	6"
21" TO 36"	1.5'	9"
OVER 36"	1.5'	12"

LATERAL RISER CONNECTION
NO SCALE

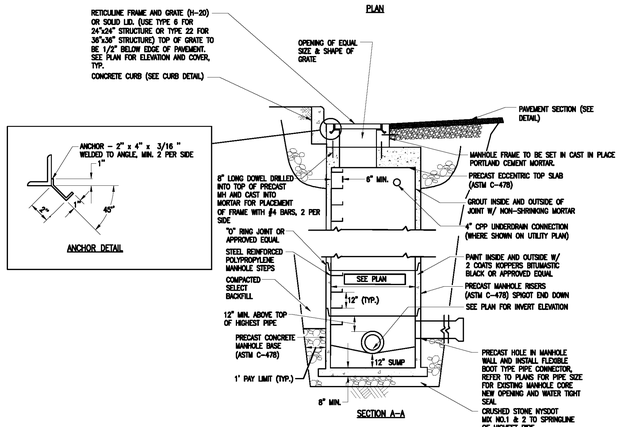


NOTES:

1. TRENCH BACKFILL SHALL BE AS REQUIRED BY THE ENGINEER.
2. SELECT FILL SHALL BE SAND, GRAVEL, AND SIMILAR MATERIAL WHICH SHALL BE FREE FROM CLAY, LOAM, ORGANIC MATERIAL, DEBRIS, FROZEN MATERIAL AND SHALL CONTAIN ONLY SMALL AMOUNTS OF STONE, PEBBLES OR LUMPS OVER ONE INCH IN GREATEST DIMENSION BUT NONE OVER TWO INCHES IN GREATEST DIMENSION.
3. STONE BEDDING SHALL MEAN APPROVED IMPORTED AGGREGATE MEETING THE REQUIREMENTS OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATION, JAN 2, 2002 EDITION, AS REVISED, SUBSECTION 703-0201 "CRUSHED STONE". PRIMARY SIZE 1 OR A MIXTURE OF PRIMARY SIZES 1 AND 2.
4. COARSE AGGREGATE SHALL MEAN APPROVED IMPORTED AGGREGATE MEETING THE REQUIREMENTS OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATION, JAN 2, 2002 EDITION, AS REVISED, SUBSECTION 703-0201 "CRUSHED STONE". PRIMARY SIZE 3 AND/OR 4
5. THIS FIGURE APPLIES TO SANITARY, STORM and COMBINED MAINLINE AND LATERAL PIPE INSTALLATIONS AS WELL AS FORCEMAINS.

PIPE DIA.	DIM. A	DIM. B
UP TO 18"	1.0'	6"
21" TO 36"	1.5'	9"
OVER 36"	1.5'	12"

UTILITY BEDDING MATERIAL DETAIL
NO SCALE



STORM MANHOLE DETAIL
NO SCALE

MERCY HEIGHTS

City of Watertown
Jefferson County
State of New York

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Fayetteville, NY 13066

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architects // engineers // planners

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200 First Federal Plaza
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REVISIONS

NO.	DATE	DESCRIPTION	REV.	CK'D
1	7/14/16	CITY COMMENTS	JB	JCB
2	8/1/16	CITY COMMENTS	JB	JCB
3	8/8/16	ADDED LADDER TO TRUCK	JB	AMH

PRELIMINARY
NOT FOR CONSTRUCTION

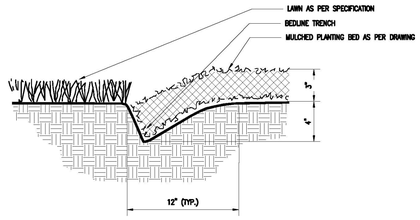
PROFESSIONAL CERTIFICATION: I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE *STATE* OF NEW YORK.
LICENSE NO. 80472
EXPIRATION DATE: 05/2017

TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT, THE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE *2015* ENERGY CONSTRUCTION CONSERVATION CODE OF THE STATE OF NEW YORK.

Project Manager: A. HART, RLA	Checked By: J. BASILE, PE
Designed By: T. BURKE	Drawn By: T. BURKE
Date Issued: MAY 23, 2016	Scale: N.T.S.
Project Number: 010487.00	

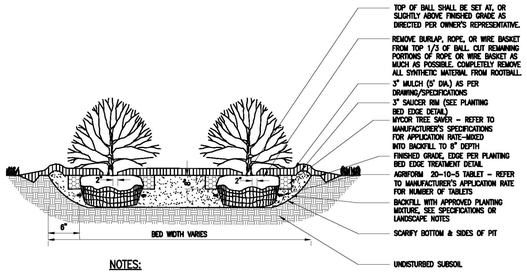
MISCELLANEOUS DETAILS

Drawing Number: **C502**



PLANTING BED EDGE TREATMENT

NOT TO SCALE

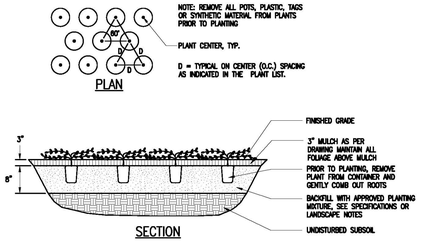


NOTES:

1. MAINTAIN A 2" MINIMUM RADIUS CLEAR OF MULCH AROUND THE TRUNK.
2. PLANTING BED DEPTH IN LAWN AREAS SHALL BE A MINIMUM OF 18" DEEP AND /OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
3. ALL PLANTING BEDS SHALL BE FREE OF CONSTRUCTION DEBRIS.

SHRUB PLANTING

NOT TO SCALE

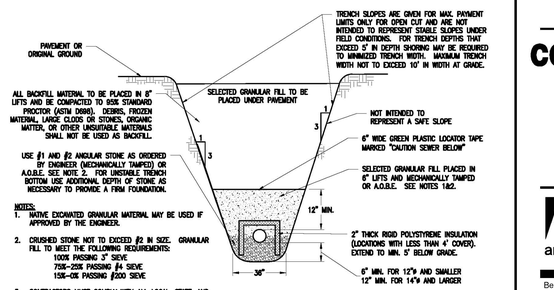


GROUNDCOVER/PERENNIAL/BULB PLANTING

NOT TO SCALE

NOTE:

1. ALL WORK TO BE PERFORMED WITHIN THE CITY OF WATERTOWN MARGIN WILL REQUIRE SIGN-OFF FROM A PROFESSIONAL ENGINEER, LICENSED AND CURRENTLY REGISTERED TO PRACTICE IN THE STATE OF NEW YORK, THAT THE WORK WAS BUILT ACCORDING TO THE APPROVED SITE PLAN AND APPLICABLE CITY OF WATERTOWN STANDARDS. COMPACTION TESTING WILL BE REQUIRED FOR ALL WORK TO BE PERFORMED WITHIN THE CITY OF WATERTOWN MARGIN AND MUST BE SUBMITTED TO THE CITY OF WATERTOWN CODES DEPARTMENT.

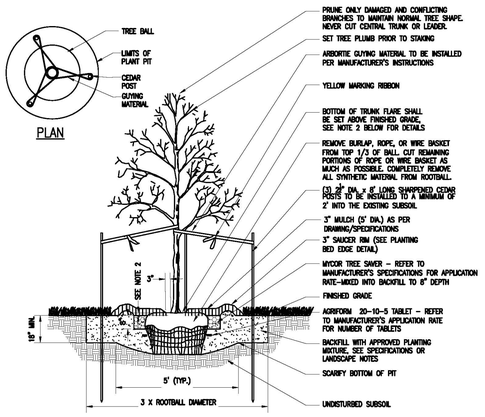


NOTES:

1. NATIVE EXCAVATED GRANULAR MATERIAL MAY BE USED IF APPROVED BY THE ENGINEER.
2. CRUSHED STONE NOT TO EXCEED #2 IN SIZE. GRANULAR FILL TO MEET THE FOLLOWING REQUIREMENTS:
   100% PASSING 3" SIEVE
   75%-25% PASSING #4 SIEVE
   10%-0% PASSING #200 SIEVE
3. CONTRACTORS MUST COMPLY WITH ALL LOCAL, STATE, AND FEDERAL SAFETY REGULATIONS (OSHA AND NYSDOT).
4. WHERE TRENCH SHIELD IS USED WITH THE APPROVAL OF THE ENGINEER, SHEETED TRENCH PAVMENT LIMITS WILL APPLY.

SANITARY SEWER BEDDING

N.T.S.

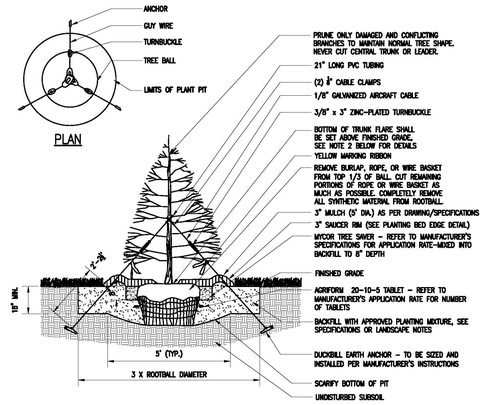


NOTES:

1. MAINTAIN A 3" MINIMUM RADIUS CLEAR OF MULCH AROUND THE TRUNK.
2. THE DISTANCE BETWEEN THE BOTTOM OF THE TRUNK FLARE AND THE FINISHED GRADE SHALL BE AS FOLLOWS:
   FOR SANDY OR LOAMY SOILS: 1"
   FOR CLAY OR POORLY DRAINED SOILS: 3"
   THE CONTRACTOR SHALL REVIEW THE APPROPRIATE PLANTING DEPTH WITH THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
3. WHEN TAGGING TREES AT THE NURSERY, MARK THE NORTH SIDE OF THE TREE IN THE FIELD AND WHEN INSTALLING, ROTATE TREE TO FACE NORTH WHENEVER POSSIBLE.

DECIDUOUS TREE PLANTING LESS THAN 4" CAL.

NOT TO SCALE



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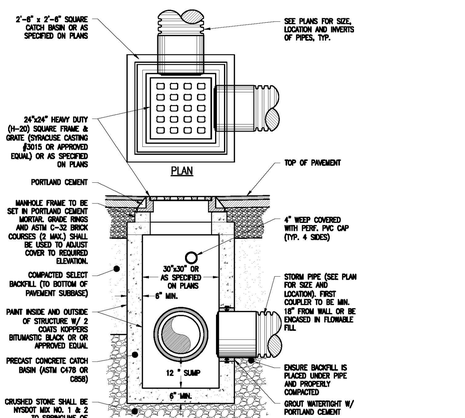
   THE CONTRACTOR SHALL REVIEW THE APPROPRIATE PLANTING DEPTH WITH THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
3. WHEN TAGGING TREES AT THE NURSERY, MARK THE NORTH SIDE OF THE TREE IN THE FIELD AND WHEN INSTALLING, ROTATE TREE TO FACE NORTH WHENEVER POSSIBLE.

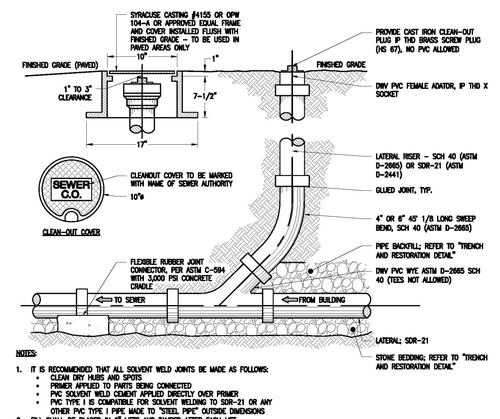
EVERGREEN TREE PLANTING

NOT TO SCALE



STORM CATCH BASIN DETAIL

N.T.S.

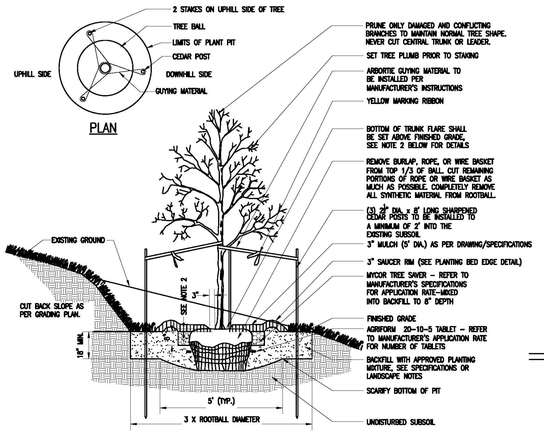


NOTES:

1. IT IS RECOMMENDED THAT ALL SOLVENT WELD JOINTS BE MADE AS FOLLOWS:
   - CLEAN DRY HUBS AND SPOTS
   - PRIMER APPLIED TO PARTS BEING CONNECTED
   - PVC SOLVENT WELD CEMENT APPLIED DIRECTLY OVER PRIMER
   - PVC TYPE I IS COMPATIBLE FOR SOLVENT WELDING TO SDR-21 OR ANY OTHER PVC TYPE I PIPE MADE TO "STEEL PIPE" OUTSIDE DIMENSIONS
2. FILL SHALL BE PLACED IN 6" LIFTS AND TAMPED AFTER EACH LIFT.
3. AVAILABLE LATERAL/CLEANOUT CONFIGURATIONS:
   - 4" x 4" x 4"
   - 6" x 6" x 6"
   - 6" x 6" X 4"

SANITARY SEWER LATERAL CLEAN-OUT

N.T.S.



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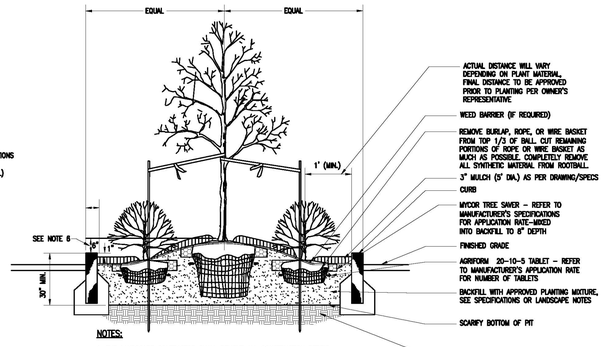
   FOR CLAY OR POORLY DRAINED SOILS: 3"
   THE CONTRACTOR SHALL REVIEW THE APPROPRIATE PLANTING DEPTH WITH THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
3. WHEN TAGGING TREES AT THE NURSERY, MARK THE NORTH SIDE OF THE TREE IN THE FIELD AND WHEN INSTALLING, ROTATE TREE TO FACE NORTH WHENEVER POSSIBLE.
4. FOR TREES 4" CAL OR GREATER, INSTALL GUY AS PER DECIDUOUS TREE PLANTING GREATER THAN 4" CAL DETAIL IN THE SAME CONFIGURATION AS SHOWN ABOVE.

DECIDUOUS TREE PLANTING ON SLOPE (LESS THAN 4" CAL.)

NOT TO SCALE

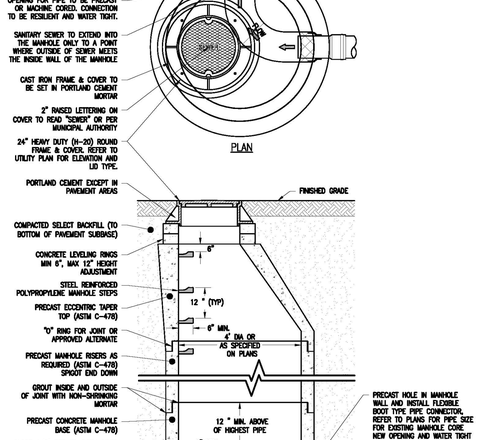


NOTES:

1. THE LANDSCAPE CONTRACTOR SHALL REMOVE ALL CONSTRUCTION DEBRIS, INORGANIC MATERIAL AND LARGE STONES WITHIN THE CURBED ISLAND AND RECEIVE APPROVAL FROM THE OWNER'S REPRESENTATIVE PRIOR TO FILLING WITH APPROVED PLANTING MIX TO A MINIMUM DEPTH OF 30".
2. TREES AND SHRUBS WITHIN THE CURBED ISLAND SHALL BE INSTALLED AS PER SPECIFIC PLANT DETAIL.
3. WEED BARRIER, IF REQUIRED, WILL BE AS PER THE SPECIFICATIONS.
4. FOR TREES LESS THAN 4" CAL, INSTALL STAKING AS PER DECIDUOUS TREE PLANTING LESS THAN 4" CAL. DETAIL.
5. FOR TREES GREATER THAN 4" CAL, INSTALL GUYING AS PER DECIDUOUS TREE PLANTING GREATER THAN 4" CA. DETAIL.
6. BERM HEIGHT SHALL BE 6" MIN. UNLESS OTHERWISE NOTED ON GRADING PLAN.

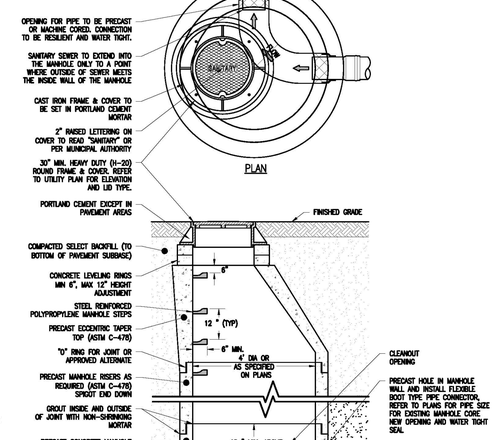
TYPICAL PARKING LOT ISLAND SECTION

NOT TO SCALE



SANITARY SEWER MANHOLE MANHOLE DETAIL

N.T.S.



DROP INLET MANHOLE DETAIL

N.T.S.

MERCY HEIGHTS

City of Watertown
Jefferson County
State of New York

COR Arsenal Street Company, LLC

540 Towne Drive
Fayetteville, NY 13066

Bergmann associates
architects // engineers // planners

Bergmann Associates, Architects, Engineers, Landscape Architects & Surveyors, D.P.C.
28 East Main Street
200 First Federal Plaza
Rochester, NY 14614

office: 585.232.5135
fax: 585.232.4652

www.bergmannpc.com

REVISIONS

NO.	DATE	DESCRIPTION	REV.	CK'D
1	7/14/16	CITY COMMENTS	JB	JCB
2	8/1/16	CITY COMMENTS	JB	JCB
3	8/8/16	ADDED LADDER TO TRUCK	JB	AMH

PRELIMINARY
NOT FOR CONSTRUCTION

PROFESSIONAL CERTIFICATION: I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NEW YORK.
LICENSE NO. 80472
EXPIRATION DATE: 05/2017

TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT, THE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE 2015 ENERGY CONSTRUCTION CONSERVATION CODE OF THE STATE OF NEW YORK.

Project Manager: A. HART, RLA	Checked by: J. BASILE, PE
Designed by: T. BURKE	Drawn By: T. BURKE
Field Book:	Scale: N.T.S.
Project Number: 010487.00	

MISCELLANEOUS DETAILS

Drawing Number:

C503

13 of 15

MERCY HEIGHTS

City of Watertown
Jefferson County
State of New York

COR Arsenal Street Company, LLC

540 Towne Drive
Fayetteville, NY 13066

Bergmann associates
architects // engineers // planners

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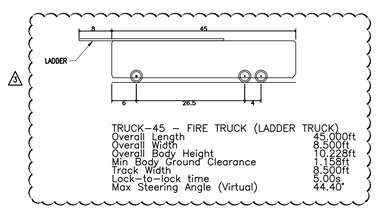
Project Manager: A. HART, RLA	Checked by: J. BASILE, PE
Designed By: J. BUSH	Drawn By: J. BUSH
Date Issued: MAY 23, 2016	Scale: 1" = 30'
Project Number: 010487.00	

FIRE TRUCK ACCESS PLAN

Drawing Number:

FP-1



TRUCK-45 -- FIRE TRUCK (LADDER TRUCK)

Overall Length	45.000ft
Overall Width	8.500ft
Overall Body Height	10.229ft
Min Body Ground Clearance	1.158ft
Track Width	8.500ft
Lock-to-lock time	5.00s
Max Steering Angle (Virtual)	44.40°

ARSENAL STREET
SOUTH MASSEY STREET
SHERMAN STREET
STONE STREET (ONE WAY)
REXFORD PLACE
STREET MARGIN
Concrete Sidewalk
Conc. Wall
Curb Line
EDGE OF LADDER, TYP.
TIRE TRACK, TYP.
PROPOSED OFFICE 1
2 STORY
17,000 Sq.Ft.
FFE=480.20
PROPOSED OFFICE 2
2 STORY
17,000 Sq.Ft.
FFE=480.85
PROPOSED HYDRANT
EXISTING ST. PATRICK'S CHURCH
10-52-113
St Patrick's Society
Finished Floor (Inside Ceramic Tile) 482.98'
Finished Floor (Inside Ceramic Tile) 483.97'
Finished Floor (Inside Ceramic Tile) 483.50'
Threshold (Outside) 482.19'
Threshold (Outside) 482.74'
Threshold (Outside) 482.68'
Threshold (Outside) 482.07'
Threshold (Outside) 486.54'
Button Ramp 481.90' Top Ramp 482.74'
Button Ramp 482.50' Top Ramp 482.70'
4 A/C Units
Concrete Opening To Basement
Landscape Beds
Concrete Walk
A Meter & Adapter
Electrical Meter
Generator
Conc. Pad
Conc.
TREE, TYP.
SHRUB, TYP.
LIGHT POLE, TYP.
PROPOSED BUILDING C3
MULTIFAMILY UNIT
3 STORY-36 UNITS
36,402 Sq.Ft.
FFE=484.50
PROPOSED BUILDING C2
MULTIFAMILY UNIT
3 STORY-36 UNITS
36,402 Sq.Ft.
FFE=484.78
PROPOSED BUILDING C1
MULTIFAMILY UNIT
3 STORY-36 UNITS
36,402 Sq.Ft.
FFE=483.75
PROPOSED COMMUNITY CENTER
5,588 Sq.Ft.
FFE=484.56
MAINTENANCE
640 Sq.Ft.
32' x 20'
10-52-10
CCR Arsenal Street Company LLC
10-52-122
217 Arsenal Street LLC
Existing Building
Asphalt Drive and Parking
Deteriorated Asphalt
Fence of Guard Rail
RELOCATED HYDRANT
TIRE TRACK, TYP.
EDGE OF LADDER, TYP
Stop Line (TYP.)
Fire Hydrant
Fire Dept Connection
Overhead Wires
Drainage Swale

SITE PLAN LEGEND

- EXISTING PROPERTY LINE
- PROPOSED BUILDING
- PROPOSED CURB
- PROPOSED PARKING SPACES
- PROPOSED CONCRETE PAVEMENT
- PROPOSED LIGHT POLE AND BASE
- PROPOSED HYDRANT
- CHAIN LINK FENCE
- TREE
- SHRUB

0 30 60 90 FT
1" = 30' SCALE BAR

Call 811 Before You Dig

MERCY HEIGHTS

City of Watertown
Jefferson County
State of New York

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REVISIONS

NO.	DATE	DESCRIPTION	REV.	CK'D
1	7/14/16	CITY COMMENTS	JB	JCB
2	8/1/16	CITY COMMENTS	JB	JCB
3	8/8/16	ADDED LADDER TO TRUCK	JB	AMH

PRELIMINARY
NOT FOR
CONSTRUCTION

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LICENSE NO. 80472
EXPIRATION DATE: 05/2017

TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT, THE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE *2015* ENERGY CONSTRUCTION CONSERVATION CODE OF THE STATE OF NEW YORK.

Project Manager	Checked By
A. HART, RLA	J. BASILE, PE
Designed By	Drawn By
J. BUSH	J. BUSH
Date Issued	Scale
MAY 23, 2016	1" = 30'
Project Number	
010487.00	

GARBAGE TRUCK ACCESS PLAN

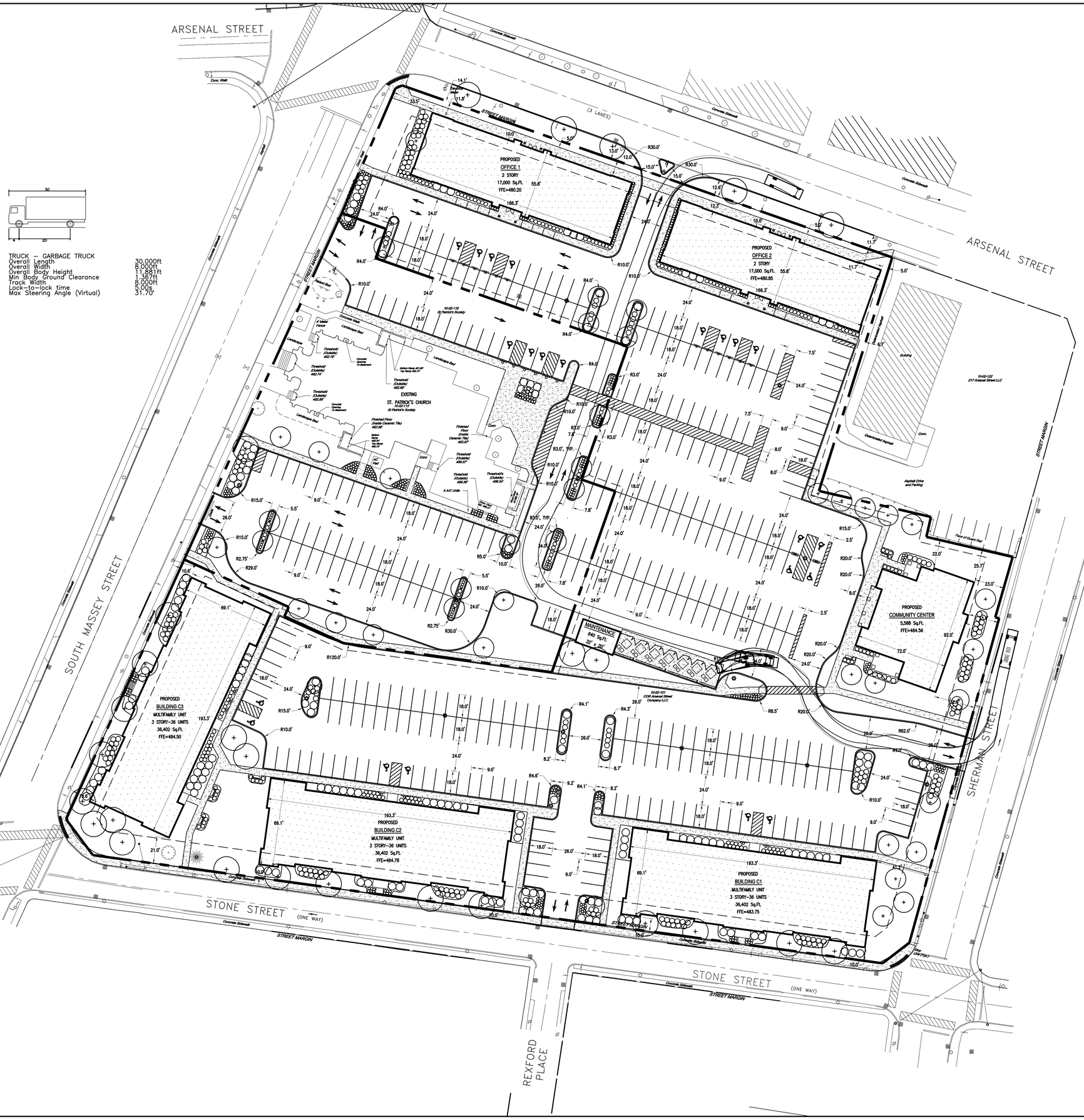
Drawing Number

GP-1

15 of 15

TRUCK – GARBAGE TRUCK

Overall Length	30.000ft
Overall Width	8.000ft
Overall Body Height	11.881ft
Min Body Ground Clearance	1.357ft
Track Width	8.000ft
Lock-to-lock time	3.00s
Max Steering Angle (Virtual)	31.70°



SITE PLAN LEGEND

- EXISTING PROPERTY LINE
- PROPOSED BUILDING
- PROPOSED CURB
- PROPOSED PARKING SPACES (S)
- PROPOSED CONCRETE PAVEMENT
- PROPOSED LIGHT POLE AND BASE
- CHAIN LINK FENCE — x —

0 30 60 90 FT
1" = 30' SCALE BAR

Call 811 before you dig

11/11/2015 3:43:40 PM I:\Cor Development\010487.00 COR - MERCY REDEVELOPMENT\4.0 Dwgs\4.1 Civil\C100.dwg

FRONT ELEVATION

SCALE: 3/16"=1'-0"

LEFT SIDE ELEVATION

SCALE: 3/16"=1'-0"

ELEVATION SPECIFICATION NOTES:

2.0 SITE WORK
- 2.1 GRADE VARIES (REFER TO SITE ENGINEERS GRADING PLAN)

3.0 CONCRETE
- 3.1 CONCRETE SPREAD FOOTING. REFER TO FOUNDATION PLAN FOR SIZING
- 3.2 POURED CONCRETE FOUNDATION WALL. REFER T FOUNDATION PLAN FOR SIZING.
- 3.3 CONCRETE PORCH, FLUSH WITH INTERIOR CONCRETE SLAB. SLOPE AWAY FROM BUILDING

4.0 MASONRY
- 4.1 BRICK VENEER (MFR., TYPE & COLOR T.B.D.)
- 4.2 BRICK ROWLOCK SILL (MFR., TYPE & COLOR T.B.D.)
- 4.3 BRICK SOLDIER COURSE (MFR., TYPE & COLOR T.B.D.)
- 4.4 SEGMENTAL BRICK ARCH
- 4.5 FRENCH BRICK ARCH
- 4.6 STACK BOND BRICK AT WINDOW OPENINGS
- 4.7 BRICK ROWLOCK COURSE

6.0 WOODS & PLASTICS
- 6.1 12" W x 10" H. AZEK WRAPPED BOX BEAM
- 6.2 12" x 12" AZEK WRAPPED COLUMN WITH BASE & CAP MOULDING

7.0 THERMAL & MOISTURE PROTECTION
- 7.1 VINYL SIDING, MFR., TYPE & COLOR T.B.D.
- 7.2 PARAPET MOLDINGS / CAP (T.B.D.)
- 7.3 PVC WINDOW CROSSHEAD, SIDE CASING AND SILL
- 7.4 PVC TRIM BAND
- 7.5 STANDING SEAM METAL ROOF. MFR., TYPE & COLOR T.B.D.
- 7.6 ENTRANCE AWNING AND BRACKETS. MFR., TYPE & COLOR T.B.D.

8.0 WINDOWS AND DOORS
- 8.1 PARADIGM, 8387 SERIES SINGLE HUNG WINDOWS W/ GRILLES AS SHOWN
- 8.2 ALUMINUM ENTRY DOOR SYSTEM OR EQUAL

10.0 SPECIALTIES
- 10.1 ALUMINUM VENT (NATIONAL COMFORT PRODUCTS COMFORT PACK CPG SERIES R410A SYSTEM OR EQUAL

16.0 ELECTRICAL
- 16.1 PROVIDE WALL OR CEILING MOUNTED LIGHTING AT ENTRY DOORS AND PATIO / DECK DOOR LOCATIONS.

  ADDITIONAL NOTE: ALL EXTERIOR LIGHTING ON A SUN SENSOR OR TIMER AT ALL EXTERIOR ENTRANCE DOORS AND ON ALL OUTDOOR LIGHTING FOR PROJECT IN AREAS WITH SECURITY CONCERNS. PROVIDE A SECURITY ALARM FOR ALL EXTERIOR DOOR UNTS.

DRAWING PRINTED AT 25% REDUCTION

James Fahy Design
2024 W. Henrietta Rd. Suite 3K
Rochester, New York 14623
phone: (585) 272-1006
email: info@jamesfahy.com
website: www.jamesfahy.com

REVISIONS:

NO.	DATE	BY	DESCRIPTION	NO.	DATE	BY	DESCRIPTION

PROJECT: MERCY HEIGHTS APARTMENTS
WATERTOWN, NY

CLIENT: COR ARSENAL STREET CO. L.L.C.

DRAWING TITLE: FRONT & TYPICAL SIDE ELEVATION

PHASE: PRELIMINARY DESIGN

JOB NO.	PROJECT NO.
A15-188	APARTMENTS
DRAWN BY: ART	DRAWING NO: A-1
CHECKED BY:	
DATE: 5-20-2016	

REAR ELEVATION

SCALE: 3/16"=1'-0"

RIGHT SIDE ELEVATION

SCALE: 3/16"=1'-0"

ELEVATION SPECIFICATION NOTES:

2.0 SITE WORK
- 2.1 GRADE VARIES (REFER TO SITE ENGINEERS GRADING PLAN).

3.0 CONCRETE
- 3.1 CONCRETE SPREAD FOOTING. REFER TO FOUNDATION PLAN FOR SIZING
- 3.2 POURED CONCRETE FOUNDATION WALL. REFER T FOUNDATION PLAN FOR SIZING.
- 3.3 CONCRETE PORCH, FLUSH WITH INTERIOR CONCRETE SLAB. SLOPE AWAY FROM BUILDING

4.0 MASONRY
- 4.1 BRICK, VENEER (MFR., TYPE # COLOR T.B.D.)
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- 7.6 ENTRANCE AWNING AND BRACKETS. MFR., TYPE # COLOR T.B.D.

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- 8.2 ALUMINUM ENTRY DOOR SYSTEM OR EQUAL

10.0 SPECIALTIES
- TQ.1 ALUMINUM VENT (NATIONAL COMFORT PRODUCTS COMFORT PACK CPG SERIES R410A SYSTEM OR EQUAL

16.0 ELECTRICAL
- 16.1 PROVIDE WALL OR CEILING MOUNTED LIGHTING AT ENTRY DOORS AND PATIO / DECK DOOR LOCATIONS.

  ADDITIONAL NOTE: ALL EXTERIOR LIGHTING ON A SUN SENSOR OR TIMER AT ALL EXTERIOR ENTRANCE DOORS AND ON ALL OUTDOOR LIGHTING FOR PROJECT IN AREAS WITH SECURITY CONCERNS. PROVIDE A SECURITY ALARM FOR ALL EXTERIOR DOOR UNITS.

DRAWING PRINTED AT 25% REDUCTION

James Fahy Design
2024 W. Henrietta Rd. Suite 3K
Rochester, New York 14623
phone: (585) 272-1006
email: info@jamesfahy.com
website: www.jamesfahy.com

REVISIONS:

NO.	DATE	BY	DESCRIPTION	NO.	DATE	BY	DESCRIPTION

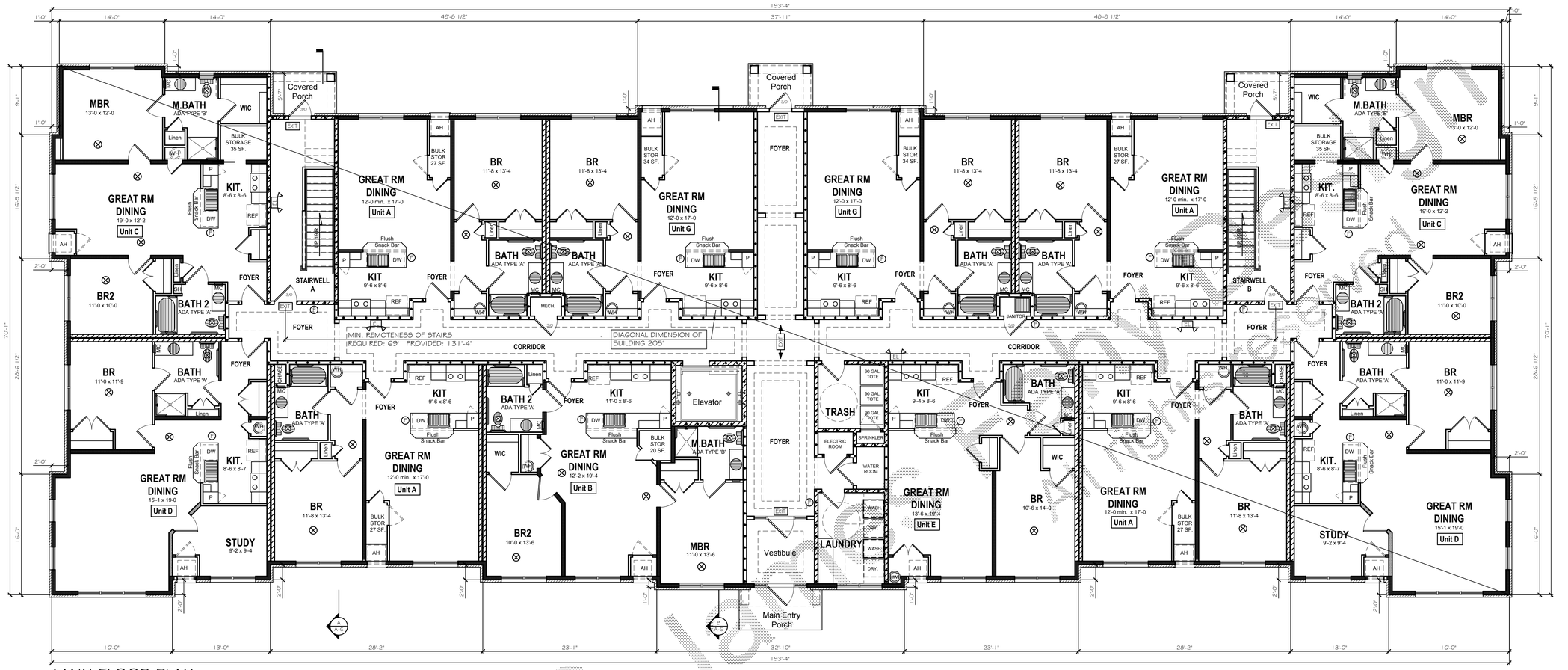
PROJECT:
MERCY HEIGHTS APARTMENTS
WATERTOWN, NY

CLIENT:
COR ARSENAL STREET CO. L.L.C.

DRAWING TITLE:
REAR ELEVATION

PHASE:
PRELIMINARY DESIGN

JOB NO.	PROJECT NO.
A15-188	APARTMENTS
DRAWN BY: ART	DRAWING NO: A-1.1
CHECKED BY:	
DATE: 5-20-2016	



MAIN FLOOR PLAN

SCALE: 3/16"=1'-0" BUILDING COMPOSITE w/ FIRE/ LIFE SAFETY PLAN

FIRE-LIFE SAFETY NOTES

SYMBOL KEY:

EXIT ★ : EXIT SIGN W/ BATTERY BACK-UP

★ : EMERGENCY LIGHT W/ BATTERY BACK-UP

P ★ : PORTABLE FIRE EXTINGUISHER

★ : SMOKE ALARM (FINAL LOCATIONS TO BE SHOWN ON ELECTRICAL PLANS BY OTHERS AND IN COMPLIANCE WITH 907.2.10.1.2 BCNYS)

EXIT ★ : EMERGENCY EXIT W/ LIGHTING & DIRECTIONAL ARROWS EACH DIRECTION TO EXITS

NOTE: ★ COORDINATE FINAL LOCATION WITH TOWN FIRE MARSHAL

ALL SIGNAGE FOR ACCESSIBILITY TO BE PROVIDED BY OTHERS IN COMPLIANCE WITH THE REQUIREMENTS OF SECTION 1110 BCNYS

SINGLE & MULTIPLE-STATION SMOKE ALARMS

LISTED SINGLE AND MULTIPLE-STATION SMOKE ALARMS COMPLYING WITH UL 217 SHALL BE INSTALLED IN ACCORDANCE WITH IBC SECTION 907.2.11.2 (R-2, R-3, R-4 AND I-1 OCCUPANCIES) AND NFPA 72

1. ON THE CEILING OR WALL OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF BEDROOMS.
2. IN EACH ROOM USED FOR SLEEPING PURPOSES.
3. IN EACH STORY WITHIN A DWELLING UNIT, INCLUDING BASEMENTS BUT NOT INCLUDING CRAWL SPACES AND UNINHABITABLE ATTICS. IN DWELLINGS OR DWELLING UNITS WITH SPLIT LEVELS AND WITHOUT AN INTERVENING DOOR BETWEEN THE ADJACENT LEVELS, A SMOKE ALARM INSTALLED ON THE UPPER LEVEL SHALL SUFFICE FOR THE ADJACENT LOWER LEVEL PROVIDED THAT THE LOWER LEVEL IS LESS THAN ONE FULL STORY BELOW THE UPPER LEVEL.

CARBON MONOXIDE ALARMS

CARBON MONOXIDE ALARMS (OR WHERE PERMITTED, CARBON MONOXIDE DETECTORS) SHALL BE PROVIDED IN ALL NEW AND EXISTING BUILDINGS THAT CONTAIN A FUEL-BURNING APPLIANCE, FUEL-BURNING FIREPLACE AND / OR FORCED-AIR FURNACES. THEY SHALL BE INSTALLED, OPERATED AND MAINTAINED IN ACCORDANCE WITH THE PROVISIONS OF THE INTERNATIONAL FIRE CODE AND NFPA 720 IN THE FOLLOWING LOCATIONS:

CARBON MONOXIDE DETECTION SHALL BE INSTALLED IN DWELLING UNITS OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS. WHERE A FUEL-BURNING APPLIANCE IS LOCATED WITHIN A BEDROOM OR ITS ATTACHED BATHROOM, CARBON MONOXIDE DETECTION SHALL BE INSTALLED WITHIN THE BEDROOM.

A MANUAL FIRE ALARM SYSTEM IS REQUIRED AND SHALL BE DESIGNED AND SPECIFIED BY OTHERS.

AUTOMATIC SPRINKLER SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13R. FINAL DESIGN AND SPECIFICATIONS BY OTHERS WITH CONSTRUCTION DOCUMENTS INCLUDING, BUT NOT LIMITED, TO THE ITEMS OUTLINED IN IBC SECTION 903

FIRE BLOCKING AND DRAFT STOPPING TO BE INSTALLED IN COMBUSTIBLE CONCEALED LOCATIONS PER SECTION 718 IBC AND AS FOLLOWS:

FIRE BLOCKING:

PROVIDE IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES AND PARALLEL ROWS OF STUDS OR STAGGERED STUDS AT:

1. VERTICALLY AT THE CEILING AND FLOOR LEVELS
2. HORIZONTALLY AT INTERVALS NOT EXCEEDING 10'

AT INTERCONNECTIONS BETWEEN CONCEALED VERTICAL STUD WALL OR PARTITION SPACES AND CONCEALED HORIZONTAL SPACES CREATED BY AN ASSEMBLY OF FLOOR JOISTS OR TRUSSES AND BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES AS OCCURRING AT SOFFITS, DROPPED CEILINGS OR SIMILAR LOCATIONS.

WITHIN CONCEALED SPACES BETWEEN STAIR STRINGERS AT TOP AND BOTTOM OF RUN.

AT OPENINGS AROUND VENTS, PIPES, DUCTS, CHIMNEYS AND FIREPLACES AT CEILING AND FLOOR LEVELS.

DRAFT STOPPING:

DRAFT STOPPING SHALL BE INSTALLED IN FLOOR/CEILING SPACES ABOVE AND IN-LINE WITH THE DWELLING UNIT SEPARATIONS.

DRAFT STOPPING SHALL BE INSTALLED IN ATTICS, OVERHANGS OR OTHER CONCEALED ROOF SPACES AS FOLLOWS. VENTILATION OF CONCEALED ROOF SPACES SHALL BE MAINTAINED IN ACCORDANCE WITH SECTION 1203.2 IBC:

WHERE CORRIDOR WALLS PROVIDE A SLEEPING UNIT OR DWELLING UNIT SEPARATION, DRAFTSTOPPING SHALL ONLY BE REQUIRED ABOVE ONE OF THE CORRIDOR WALLS.

SUBDIVIDING THE ATTIC SPACE INTO AREAS NOT EXCEEDING 3000 S.F. OR ABOVE EVERY TWO DWELLING UNITS, WHICHEVER IS SMALLER.

EXIT SIGNAGE:

CORRIDOR, STAIRWELL EXIT PASSAGEWAY:

EXITS AND EXIT ACCESS DOORS SHALL BE MARKED BY AN APPROVED EXIT SIGN READILY VISIBLE FROM ANY DIRECTION OF EGRESS TRAVEL. THE PATH OF EGRESS TRAVEL TO EXITS AND WITHIN EXITS SHALL BE MARKED BY READILY VISIBLE EXIT SIGNS TO CLEARLY INDICATE THE DIRECTION OF EGRESS TRAVEL IN CASES WHERE THE EXIT OR THE PATH OF EGRESS TRAVEL IS NOT IMMEDIATELY VISIBLE TO THE OCCUPANTS. INTERVENING MEANS OF EGRESS DOORS WITHIN EXITS SHALL BE MARKED BY EXIT SIGNS. EXIT SIGN PLACEMENT SHALL BE SUCH THAT NO POINT IN AN EXIT ACCESS CORRIDOR OR EXIT PASSAGEWAY IS MORE THAN 100 FEET OR THE LISTED VIEWING DISTANCE FOR THE SIGN, WHICHEVER IS LESS, FROM THE NEAREST VISIBLE EXIT SIGN.

MAIN EXTERIOR EXIT DOORS THAT ARE OBVIOUSLY IDENTIFIABLE AS EXITS NEED NOT HAVE EXIT SIGNS WHERE APPROVED BY THE LOCAL CODE OFFICIAL.

TACTILE EXIT SIGN STATING EXIT AND COMPLYING WITH ICC/ANSI A117.1 SHALL BE PROVIDED ADJACENT TO EACH DOOR TO AN EGRESS STAIRWAY, EXIT PASSAGEWAY AND EXIT DISCHARGE.

ILLUMINATION, GRAPHICS AND POWER SOURCE FOR EXIT SIGNS TO COMPLY WITH SECTION 1013 IBC

EMERGENCY POWER SHALL BE PROVIDED FOR EXIT SIGNS IN ACCORDANCE WITH SECTION 1013.6.3

SEE SHEET A-7.3 FOR ADDITIONAL STAIRWELL SIGNAGE

SEE SHEET A-7.4 FOR ADDITIONAL ELEVATOR SIGNAGE.

MEANS OF EGRESS ILLUMINATION:

THE MEANS OF EGRESS INCLUDING EXIT DISCHARGE, EXCLUDING SPACE WITHIN EACH DWELLING UNIT, SHALL BE ILLUMINATED AT ALL TIMES THE BUILDING IS OCCUPIED.

ILLUMINATION LEVEL, ITS POWER SUPPLY AND PERFORMANCE SHALL BE IN COMPLIANCE WITH SECTION 1008 IBC.

EMERGENCY POWER SHALL BE PROVIDED FOR MEANS OF EGRESS ILLUMINATION IN ACCORDANCE WITH SECTION 1008.3 IBC

WALL LEGEND:

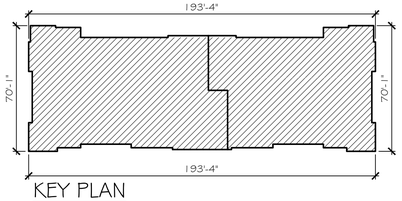
- 1 HOUR RATED CORRIDOR, AND SMALLER TENANT STORAGE AREAS BASED ON GA FILE NO WP3242, DETAIL 9, SHT. A-8 (FIRE PARTITION WALL)
- 1 HOUR RATED DWELLING SEPARATION BASED ON GA FILE NO WP5508, DETAIL 11, SHT A-8 (FIRE PARTITION WALL)
- 1 HOUR RATED STAIRWELL, ELEVATOR, TRASH AND LAUNDRY ROOMS BASED ON GA FILE NO WP3242, DETAIL 19-23 SHT. A-8.1 (FIRE BARRIER WALL)
- 2x6 EXTERIOR / INTERIOR WALL, NO RATING REQUIRED
- 2x4 INTERIOR WALL, NO RATING REQUIRED

FIRE PROTECTION REQ.:

	RATING PER IBC CHAP. 7	UL or GA FILE NO.
MAIN FLOOR PLAN:	USE GROUP R-2	
FLOOR/CEILING CONSTRUCTION:	1 HR.	FC5514
DWELLING SEPARATION WALL:	1 HR.	WP3370
CORRIDOR WALLS:	1 HR.	WP3241
ELEVATOR SHAFT AND STAIRWELL WALLS:	2 HR.	U905
2nd/3rd FLOOR PLAN:	USE GROUP R-2	
FLOOR/CEILING CONSTRUCTION:	1 HR.	FC5514
DWELLING SEPARATION WALL:	1 HR.	WP3370
CORRIDOR WALLS:	1 HR.	WP3241
ELEVATOR SHAFT AND STAIRWELL WALLS:	2 HR.	U905

UNIT SUMMARY

UNIT	BEDROOMS	STUDY	BATH	S.F.	NUMBER UNITS PER FLOOR			
					MAIN	2ND	3RD	ALL
UNIT A	1		1	737	4	4	4	16
UNIT B	2		2	927	1	2	2	5
UNIT C	2		2	966	2	2	2	6
UNIT D	1	1	1	924	2	2	2	6
UNIT E	1		1	723	1			1
UNIT F	2		2	923		1	1	2
UNIT G	1		1	747	2	1	1	4
TOTAL UNITS PER FLOOR					12	12	12	36



KEY PLAN

SCALE: 1"=30'-0"

James Fahy Design
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Rochester, New York 14623
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e-mail: info@jamesfahy.com
website: www.jamesfahy.com

REVISIONS:

NO.	DATE	BY	DESCRIPTION

NO.	DATE	BY	DESCRIPTION

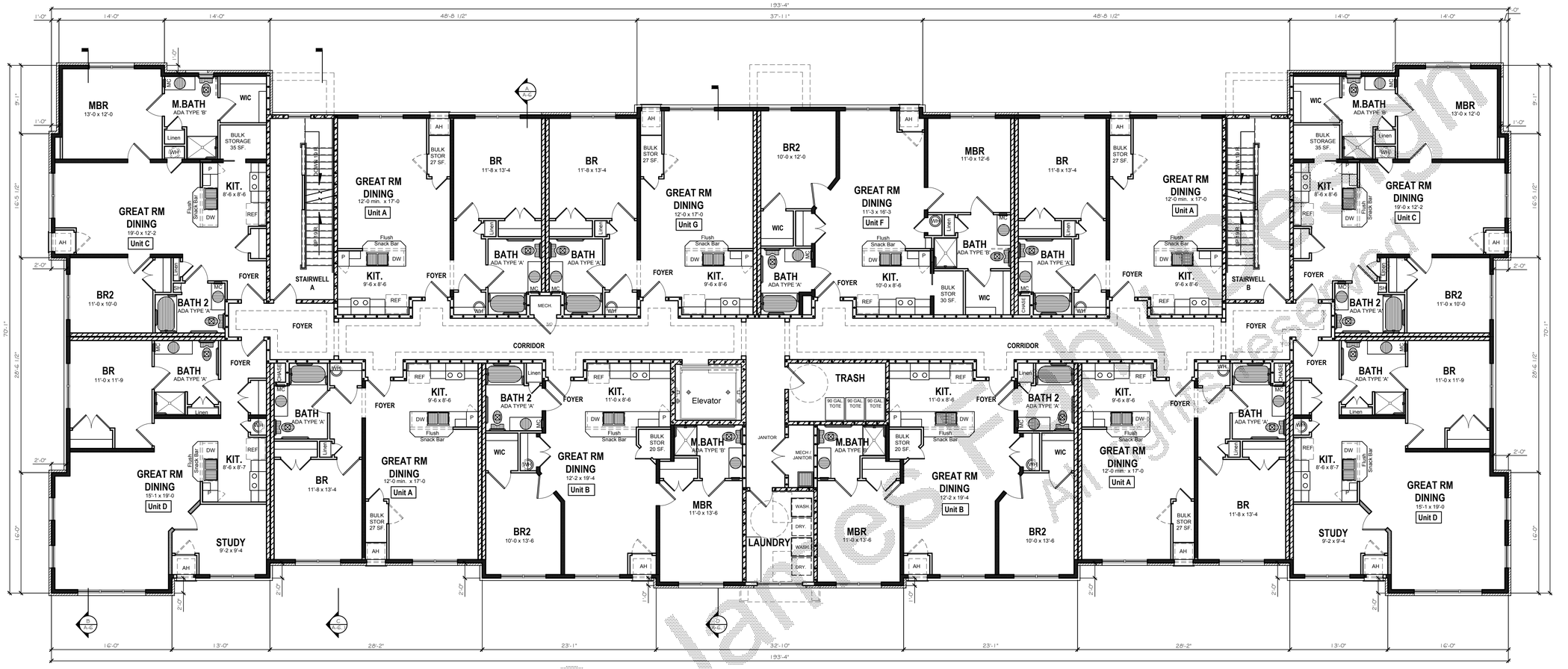
PROJECT: MERCY HEIGHTS APARTMENTS WATERTOWN, NY

CLIENT: COR ARSENAL STREET CO. L.L.C.

DRAWING TITLE: MAIN FLOOR PLAN BUILDING COMPOSITE W/ FIRE-LIFE SAFETY PLAN

PHASE: PRELIMINARY DESIGN

JOB NO. A15-188	PROJECT NO. APARTMENTS
DRAWN BY: ART	DRAWING NO: A-3
CHECKED BY:	
DATE: 5-20-2016	



2ND & 3RD FLOOR PLAN

SCALE: 3/16"= 1'-0"

BUILDING COMPOSITE
w/ FIRE/ LIFE SAFETY PLAN

FIRE-LIFE SAFETY NOTES

SYMBOL KEY:

EXIT ★ : EXIT SIGN W/ BATTERY BACK-UP

EL ★ : EMERGENCY LIGHT W/ BATTERY BACK-UP

P ★ : PORTABLE FIRE EXTINGUISHER

⊗ ★ : SMOKE ALARM (FINAL LOCATIONS TO BE SHOWN ON ELECTRICAL PLANS BY OTHERS AND IN COMPLIANCE WITH 907.2.10.1.2 BCNYS)

EXIT ★ : EMERGENCY EXIT W/ LIGHTING & DIRECTIONAL ARROWS EACH DIRECTION TO EXITS

NOTE: ★ COORDINATE FINAL LOCATION WITH TOWN FIRE MARSHAL

ALL SIGNAGE FOR ACCESSIBILITY TO BE PROVIDED BY OTHERS IN COMPLIANCE WITH THE REQUIREMENTS OF SECTION 1110 BCNYS

SINGLE & MULTIPLE-STATION SMOKE ALARMS:
LISTED SINGLE AND MULTIPLE-STATION SMOKE ALARMS COMPLYING WITH UL 217 SHALL BE INSTALLED IN ACCORDANCE WITH IBC SECTION 907.2.11.2 (R-2, R-3, R-4 AND I-1 OCCUPANCIES) AND NFPA 72

1. ON THE CEILING OR WALL OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF BEDROOMS.
2. IN EACH ROOM USED FOR SLEEPING PURPOSES.
3. IN EACH STORY WITHIN A DWELLING UNIT, INCLUDING BASEMENTS BUT NOT INCLUDING CRAWL SPACES AND UNINHABITABLE ATTICS. IN DWELLINGS OR DWELLING UNITS WITH SPLIT LEVELS AND WITHOUT AN INTERVENING DOOR BETWEEN THE ADJACENT LEVELS, A SMOKE ALARM INSTALLED ON THE UPPER LEVEL SHALL SUFFICE FOR THE ADJACENT LOWER LEVEL PROVIDED THAT THE LOWER LEVEL IS LESS THAN ONE FULL STORY BELOW THE UPPER LEVEL.

CARBON MONOXIDE ALARMS:
CARBON MONOXIDE ALARMS (OR WHERE PERMITTED, CARBON MONOXIDE DETECTORS) SHALL BE PROVIDED IN ALL NEW AND EXISTING BUILDINGS THAT CONTAIN A FUEL-BURNING APPLIANCE, FUEL-BURNING FIREPLACE AND / OR FORCED-AIR FURNACES. THEY SHALL BE INSTALLED, OPERATED AND MAINTAINED IN ACCORDANCE WITH THE PROVISIONS OF THE INTERNATIONAL FIRE CODE AND NFPA 720 IN THE FOLLOWING LOCATIONS:
CARBON MONOXIDE DETECTION SHALL BE INSTALLED IN DWELLING UNITS OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS . WHERE A FUEL-BURNING APPLIANCE IS LOCATED WITHIN A BEDROOM OR ITS ATTACHED BATHROOM, CARBON MONOXIDE DETECTION SHALL BE INSTALLED WITHIN THE BEDROOM.

A MANUAL FIRE ALARM SYSTEM IS REQUIRED AND SHALL BE DESIGNED AND SPECIFIED BY OTHERS.

AUTOMATIC SPRINKLER SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13R. FINAL DESIGN AND SPECIFICATIONS BY OTHERS WITH CONSTRUCTION DOCUMENTS INCLUDING, BUT NOT LIMITED, TO THE ITEMS OUTLINED IN IBC SECTION 903

FIRE BLOCKING AND DRAFT STOPPING TO BE INSTALLED IN COMBUSTIBLE CONCEALED LOCATIONS PER SECTION 718 IBC AND AS FOLLOWS:

FIRE BLOCKING:

PROVIDE IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES AND PARALLEL ROWS OF STUDS OR STAGGERED STUDS AT:

1. VERTICALLY AT THE CEILING AND FLOOR LEVELS
2. HORIZONTALLY AT INTERVALS NOT EXCEEDING 10'

AT INTERCONNECTIONS BETWEEN CONCEALED VERTICAL STUD WALLOW PARTITION SPACES AND CONCEALED HORIZONTAL SPACES CREATED BY AN ASSEMBLY OF FLOOR JOISTS OR TRUSSES AND BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES AS OCCURRING AT SOFFITS, DROPPED CEILINGS OR SIMILAR LOCATIONS.
FOR STAIRWAYS
WITHIN CONCEALED SPACES BETWEEN STAIR STRINGERS AT TOP AND BOTTOM OF RUN.

AT OPENINGS AROUND VENTS, PIPES, DUCTS, CHIMNEYS AND FIREPLACES AT CEILING AND FLOOR LEVELS.

DRAFT STOPPING:

DRAFT STOPPING SHALL BE INSTALLED IN FLOOR/CEILING SPACES ABOVE AND IN-LINE WITH THE DWELLING UNIT SEPARATIONS.

DRAFT STOPPING SHALL BE INSTALLED IN ATTICS, OVERHANGS OR OTHER CONCEALED ROOF SPACES AS FOLLOWS. VENTILATION OF CONCEALED ROOF SPACES SHALL BE MAINTAINED IN ACCORDANCE WITH SECTION 1203.2 IBC:

WHERE CORRIDOR WALLS PROVIDE A SLEEPING UNIT OR DWELLING UNIT SEPARATION, DRAFTSTOPPING SHALL ONLY BE REQUIRED ABOVE ONE OF THE CORRIDOR WALLS.

SUBDIVIDING THE ATTIC SPACE INTO AREAS NOT EXCEEDING 3000 S.F. OR ABOVE EVERY TWO DWELLING UNITS, WHICHEVER IS SMALLER.

EXIT SIGNAGE:

CORRIDOR, STAIRWELL, EXIT PASSAGEWAY

EXITS AND EXIT ACCESS DOORS SHALL BE MARKED BY AN APPROVED EXIT SIGN READILY VISIBLE FROM ANY DIRECTION OF EGRESS TRAVEL. THE PATH OF EGRESS TRAVEL TO EXITS AND WITHIN EXITS SHALL BE MARKED BY READILY VISIBLE EXIT SIGNS TO CLEARLY INDICATE THE DIRECTION OF EGRESS TRAVEL IN CASES WHERE THE EXIT OR THE PATH OF EGRESS TRAVEL IS NOT IMMEDIATELY VISIBLE TO THE OCCUPANTS. INTERVENING MEANS OF EGRESS DOORS WITHIN EXITS SHALL BE MARKED BY EXIT SIGNS. EXIT SIGN PLACEMENT SHALL BE SUCH THAT NO POINT IN AN EXIT ACCESS CORRIDOR OR EXIT PASSAGEWAY IS MORE THAN 100 FEET OR THE LISTED VIEWING DISTANCE FOR THE SIGN, WHICHEVER IS LESS, FROM THE NEAREST VISIBLE EXIT SIGN.

MAIN EXTERIOR EXIT DOORS THAT ARE OBVIOUSLY IDENTIFIABLE AS EXITS NEED NOT HAVE EXIT SIGNS WHERE APPROVED BY THE LOCAL CODE OFFICIAL.

TACTILE EXIT SIGN STATING EXIT AND COMPLYING WITH ICC/ANSI A117.1 SHALL BE PROVIDED ADJACENT TO EACH DOOR TO AN EGRESS STAIRWAY, EXIT PASSAGEWAY AND EXIT DISCHARGE.

ILLUMINATION, GRAPHICS AND POWER SOURCE FOR EXIT SIGNS TO COMPLY WITH SECTION 1013 IBC

EMERGENCY POWER SHALL BE PROVIDED FOR EXIT SIGNS IN ACCORDANCE WITH SECTION 1013.6.3

SEE SHEET A-7.3 FOR ADDITIONAL STAIRWELL SIGNAGE

SEE SHEET A-7.4 FOR ADDITIONAL ELEVATOR SIGNAGE.

MEANS OF EGRESS ILLUMINATION:

THE MEANS OF EGRESS INCLUDING EXIT DISCHARGE, EXCLUDING SPACE WITHIN EACH DWELLING UNIT, SHALL BE ILLUMINATED AT ALL TIMES THE BUILDING IS OCCUPIED.

ILLUMINATION LEVEL, ITS POWER SUPPLY AND PERFORMANCE SHALL BE IN COMPLIANCE WITH SECTION 1008 IBC.

EMERGENCY POWER SHALL BE PROVIDED FOR MEANS OF EGRESS ILLUMINATION IN ACCORDANCE WITH SECTION 1008.3 IBC

WALL LEGEND:

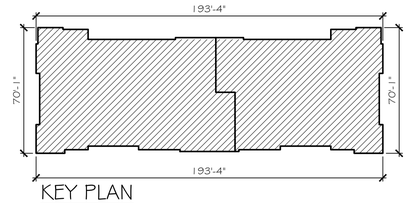
- 1 HOUR RATED CORRIDOR, AND SMALLER TENANT STORAGE AREAS BASED ON GA FILE NO WP3242, DETAIL 9, SHT. A-8 (FIRE PARTITION WALL)
- 1 HOUR RATED DWELLING SEPARATION BASED ON GA FILE NO WP5508, DETAIL 11, SHT A-8 (FIRE PARTITION WALL)
- 1 HOUR RATED STAIRWELL, ELEVATOR, TRASH AND LAUNDRY ROOMS BASED ON GA FILE NO WP3242, DETAIL 19-23 SHT. A-8.1 (FIRE BARRIER WALL)
- 2x6 EXTERIOR / INTERIOR WALL, NO RATING REQUIRED
- 2x4 INTERIOR WALL, NO RATING REQUIRED

FIRE PROTECTION REQ.:

	RATING PER IBC CHAP. 7	UL or GA FILE NO.
MAIN FLOOR PLAN:	USE GROUP R-2	
FLOOR/CEILING CONSTRUCTION:	1 HR.	FC5514
DWELLING SEPARATION WALL:	1 HR.	WP3370
CORRIDOR WALLS:	1 HR.	WP3241
ELEVATOR SHAFT AND STAIRWELL WALLS:	2 HR.	U905
2nd/3rd FLOOR PLAN:	USE GROUP R-2	
FLOOR/CEILING CONSTRUCTION:	1 HR.	FC5514
DWELLING SEPARATION WALL:	1 HR.	WP3370
CORRIDOR WALLS:	1 HR.	WP3241
ELEVATOR SHAFT AND STAIRWELL WALLS:	2 HR.	U905

UNIT SUMMARY

UNIT	BEDROOMS	STUDY	BATH	S.F.	NUMBER UNITS PER FLOOR			
					MAIN	2ND	3RD	ALL
UNIT A	1		1	737	4	4	4	16
UNIT B	2		2	927	1	2	2	5
UNIT C	2		2	966	2	2	2	6
UNIT D	1	1	1	924	2	2	2	6
UNIT E	1		1	723	1			1
UNIT F	2		2	923		1	1	2
UNIT G	1		1	747	2	1	1	4
TOTAL UNITS PER FLOOR					12	12	12	36



KEY PLAN

SCALE: 1"=30'-0"

DRAWING PRINTED AT 25% REDUCTION

James Fahy Design
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Rochester, New York 14623
585-272-1650 Fax 585-272-1006
e-mail: info@jamesfahy.com
website: www.jamesfahy.com

REVISIONS:							
NO.	DATE	BY	DESCRIPTION	NO.	DATE	BY	DESCRIPTION

PROJECT:
MERCY HEIGHTS APARTMENTS
WATERTOWN, NY

CLIENT:
COR ARSENAL STREET CO. L.L.C.

DRAWING TITLE: SECND & THIRD FLOOR BUILDING COMPOSITE W/ FIRE-LIFE SAFETY PLAN

PHASE: PRELIMINARY DESIGN

JOB NO.	PROJECT NO.
A15-188	APARTMENTS
DRAWN BY: ART	DRAWING NO: A-4
CHECKED BY:	
DATE: 5-20-2016	

5588 s.f.

right side elevation

scale: 1/4"=1'-0"

REVISIONS:

NO.	DATE	BY	DESCRIPTION

PROJECT:
MERCY HEIGHTS
COMMUNITY CENTER
WATERTOWN, NEW YORK

CLIENT:
COR ARSENAL STREET
COMPANY, L.L.C.

DRAWING TITLE:
FRONT & RIGHT SIDE ELEVATIONS

PHASE:
PRELIMINARY PLAN

JOB NO.	PROJECT NO.
A16-085	MULTI-FAMILY
DRAWN BY: CME	DRAWING NO: A-1
CHECKED BY: JRF	
DATE: 5-20-2016	

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Rochester, New York 14623
585-272-1650 Fax 585-272-1008
e-mail: info@jamesfahy.com
website: www.jamesfahy.com

left side elevation

scale: 1/4"=1'-0"

REVISIONS:

NO.	DATE	BY	DESCRIPTION

PROJECT:
MERCY HEIGHTS
COMMUNITY CENTER
WATERTOWN, NEW YORK

CLIENT:
COR ARSENAL STREET
COMPANY, L.L.C.

DRAWING TITLE:
REAR & LEFT SIDE ELEVATIONS

PHASE:
PRELIMINARY PLAN

JOB NO.	PROJECT NO.
A16-085	MULTI-FAMILY
DRAWN BY: CME	DRAWING NO: A-2
CHECKED BY: JRF	
DATE: 5-20-2016	

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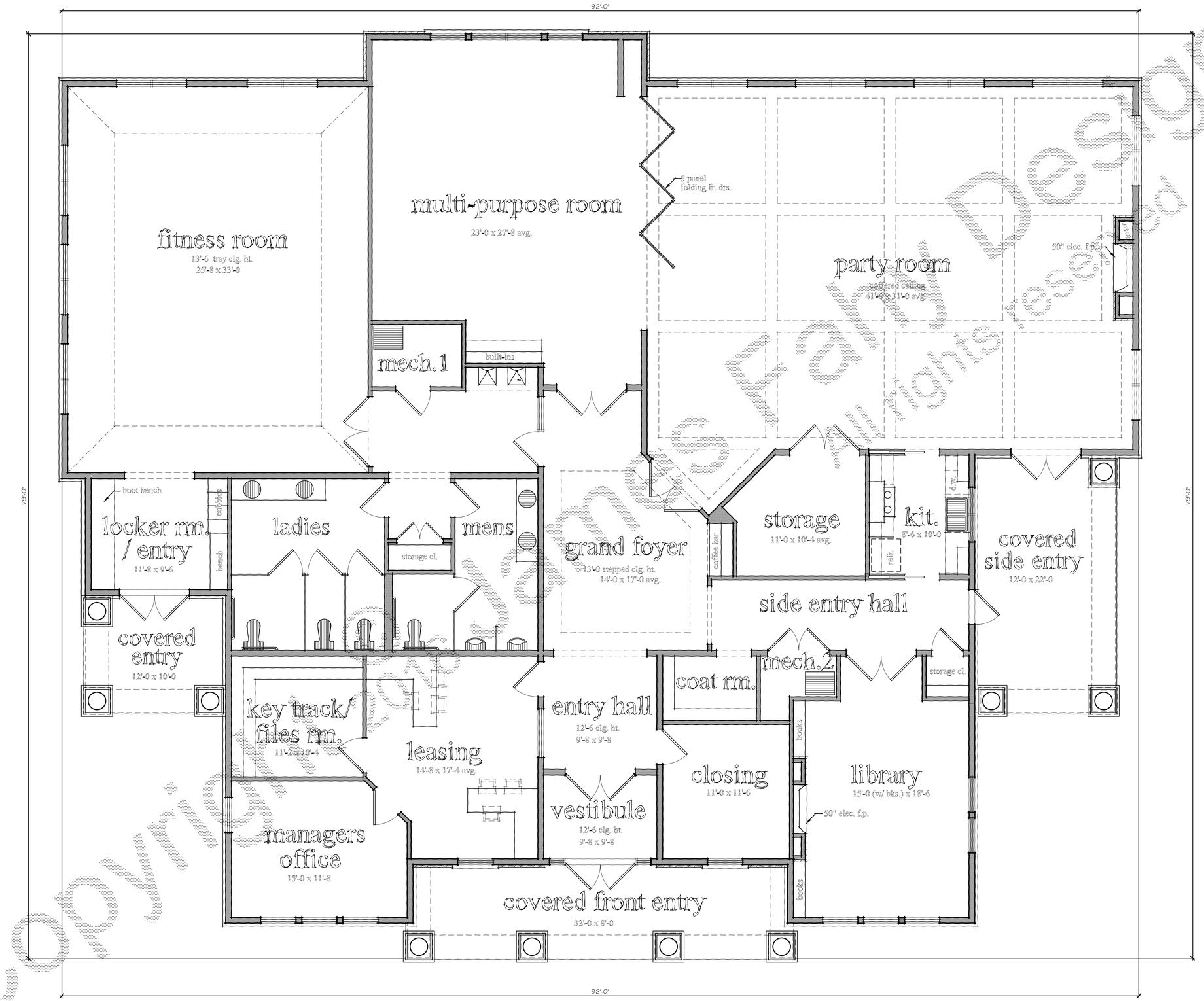

main floor plan

5588 s.f.

scale: 1/4"=1'-0"

~ 11'-6" ceiling ht. unless otherwise noted

REVISIONS:

NO.	DATE	BY	DESCRIPTION

PROJECT:
MERCY HEIGHTS
COMMUNITY CENTER
WATERTOWN, NEW YORK

CLIENT:
COR ARSENAL STREET
COMPANY, L.L.C.

DRAWING TITLE:
MAIN FLOOR PLAN

PHASE:
PRELIMINARY PLAN

JOB NO.	PROJECT NO.
A16-085	MULTI-FAMILY
DRAWN BY: CME	DRAWING NO: A-3
CHECKED BY: JRF	
DATE: 5-20-2016	

James Fahy Design
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585-272-1650 fax 585-272-1008
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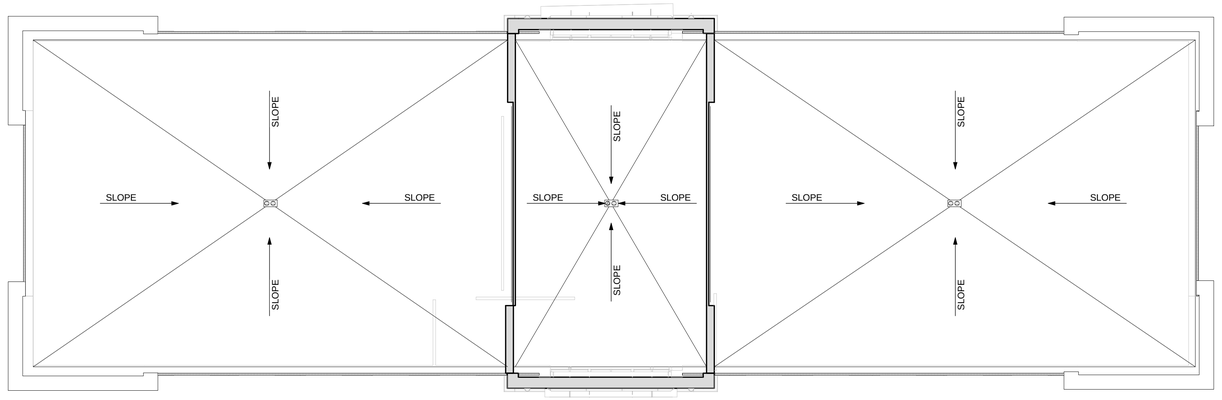
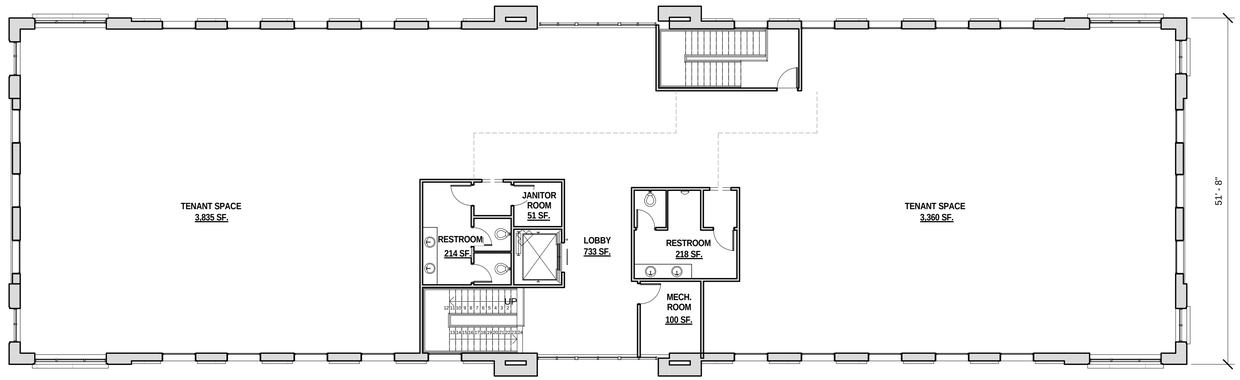
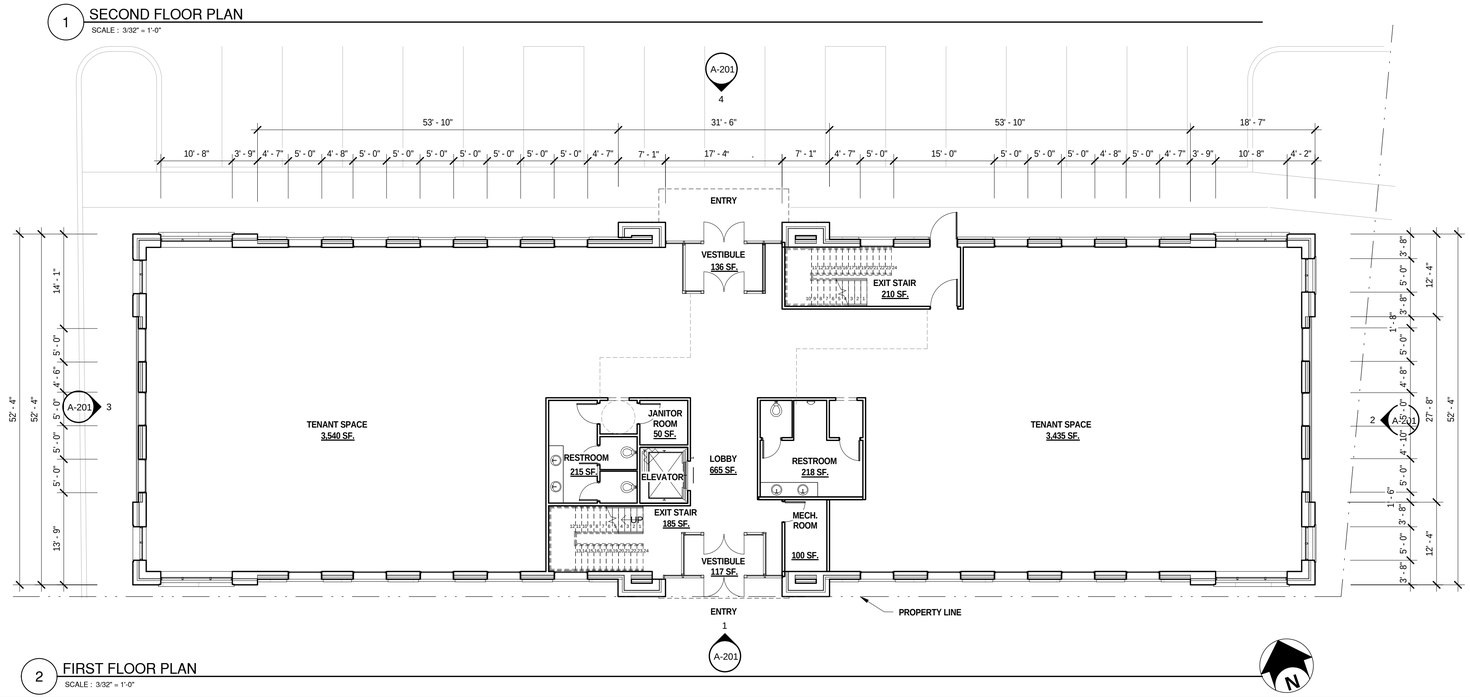


4 ROOF PLAN
SCALE : 3/32" = 1'-0"



1 SECOND FLOOR PLAN
SCALE : 3/32" = 1'-0"



2 FIRST FLOOR PLAN
SCALE : 3/32" = 1'-0"

5/23/2016 1:34:23 PM

LEGEND

- EXTERIOR WALL
- INTERIOR WALL
- WINDOW
- SWING DOOR
- CURTAIN WALL SYSTEM

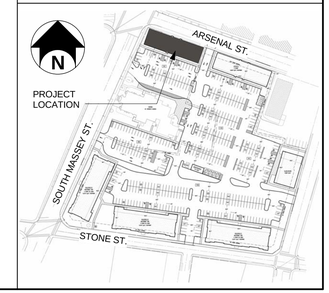
GENERAL NOTES

1. GENERAL CONTRACTOR TO VERIFY ALL CONDITIONS, REQUIREMENTS, NOTES, AND DIMENSIONS PRIOR TO THE START OF CONSTRUCTION. DO NOT SCALE DRAWINGS NOTIFY THE PROJECT ARCHITECT IMMEDIATELY IF FIELD CONDITIONS, DIMENSION, ETC. VARY FROM THOSE SHOWN IN THE DRAWINGS.
2. DIMENSIONS ARE TO FACE OF WALL FINISHES UNLESS OTHERWISE NOTED.
3. WHEN MATERIALS AND OR FINISHES ARE FOUND TO BE NOT SPECIFICALLY FOR A SURFACE, GENERAL CONTRACTOR SHALL NOTIFY ARCHITECT AND SEEK CLARIFICATION, PRIOR TO PROCEEDING WITH THE WORK.
4. PROVIDE ALL BLOCKING, FURRING, SHIMMING, AS NECESSARY FOR INSTALLATION OF OTHER VENDORS WORK, SUCH AS: FOR RAILINGS, GRAB BARS, TOILET ACCESSORIES AND PARTITIONS, TRIM, CABINETS, FURNITURE, MECHANICAL AND ELECTRICAL DEVICES.GENERAL CONTRACTOR SHALL INCORPORATE SUCH REQUIREMENTS INTO THE JOB AS NECESSARY FOR COMPLETION OF THE WORK.
5. ALL WORK SHALL BE PLUMB, LEVEL, AND SQUARE. SCRIBE AND MAKE FIT ALL WORK AS REQUIRED.
6. ALL DETAILS ARE SUBJECT TO ADJUSTMENT BASED ON FIELD CONDITIONS. CONTRACTOR SHALL NOTIFY PROJECT ARCHITECT OF ANY SUCH CONDITIONS SO RESOLUTION OF SUCH CONDITIONS CAN BE RESOLVED IN ADVANCE OF INSTALLATION.
7. GC SHALL PROVIDE MINIMUM 8FT WIDE X 8FT HIGH EXTERIOR WALL SECTION MOCK-UP ON SITE. WHICH SHOULD INCLUDE ALL MATERIAL / FINISH ASSEMBLIES REPRESENTED ON THE PROJECT. MOCK-UP TO BE REVIEWED BY OWNER / ARCHITECT PRIOR TO INSTALLATION OF ANY FINISHES.
8. REFER TO CIVIL PLANS UNDER SEPERATE SUBMISSION FOR LANDSCAPING SHOWN ON PLAN.

BUILDING DATA

FIRST FLOOR AREA:	9,000 SF.
SECOND FLOOR AREA:	9,000 SF.
TOTAL BUILDING AREA:	18,000 SF.
TOTAL BUILDING HEIGHT:	28' - 0"

KEY PLAN



OFFICES AT MERCY HEIGHTS

CITY OF WATER TOWN
COUNTY OF JEFFERSON
STATE OF NEW YORK

COR ARSENAL STREET COMPANY, LLC

540 TOWNE DRIVE
FAYETTEVILLE, NY 13066

Bergmann associates
architects // engineers // planners

28 East Main Street
200 First Federal Plaza
Rochester, NY 14614-1909

office: 585.232.5135
fax: 585.232.4652

www.bergmannpc.com

NO.	DATE	DESCRIPTION	REV.	CK'D

FLOOR PLANS

Project Manager: A. HART
Designed By: G.MCCAMY
Drawn By: L.REYNA
Checked By: Checker
Date Issued: 05.20.2016
Scale: AS INDICATED
Date:

Project Number: 10487.00
File Name:

Drawing Number:

A-101

1 EXTERIOR ELEVATION - SOUTH
SCALE : 1" = 10'-0"

2 EXTERIOR ELEVATION - EAST
SCALE : 1" = 10'-0"

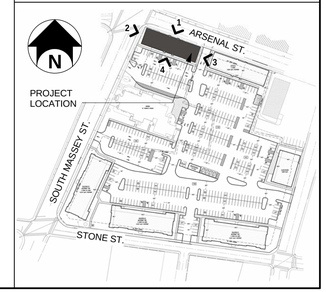
3 EXTERIOR ELEVATION - WEST
SCALE : 1" = 10'-0"

4 EXTERIOR ELEVATION - NORTH
SCALE : 1" = 10'-0"

KEY NOTES

1	FACE BRICK
2	SOLDIER COURSE BEIGE BRICK
3	DECORATIVE MASONRY WATER TABLE
4	CAST STONE WINDOW SILL
5	DOUBLE SOLDIER BRICK CORNICE
6	CAST STONE BAND
7	METAL EDGE FLASHING BEIGE
8	INSULATED SPANDREL GLASS
9	METAL PANEL
10	ROD/CLEVIS SUSPENDED METAL CANOPY
11	36" WALL SCONCE
12	EIFS CORNICE WITH BRACKETS
13	INSULATED GLASS

KEY PLAN



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REVISIONS

NO.	DATE	DESCRIPTION	REV.	CK'D

EXTERIOR ELEVATIONS

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Drawn By: L.REYNA
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Date Issued: 05.20.2016
Scale: AS INDICATED
Date:

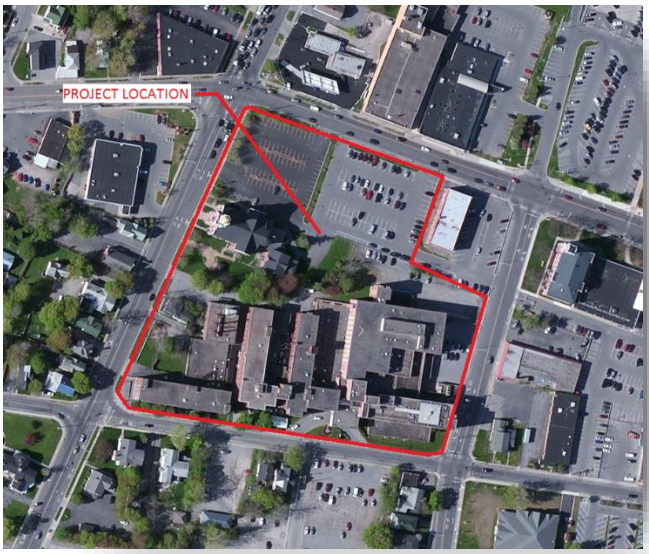
Project Number: 10487.00
File Name:
Drawing Number:

A-201

5/23/2016 1:34:43 PM

Bergmann associates
architects // engineers // planners

MERCY HEIGHTS
ENGINEER'S REPORT



City of Watertown, NY
May 2016
Revised: August 8, 2016

PREPARED FOR:

COR Arsenal Street Company, LLC
540 Towne Drive
Fayetteville, NY 13066

PREPARED BY:

Bergmann Associates
200 First Federal Plaza
28 East Main Street
Rochester, NY 14614

Table of Contents – Engineer's Report

Section I: Project Location and Description

A. Project Location

The project is located on the city block in Watertown, NY that is bounded on the North by Arsenal Street, the east by Sherman Street, the south by Stone Street, and the West by South Massey Street. A location map has been included on the cover of this report.

B. Project Description

The proposed re-development project is a multi-use project and will include construction of three multi-family residential buildings, a community center, and two office buildings as well as associated utilities, parking, lighting and landscaping. The applicant has also been working closely with the St. Patrick's Society to include improvements to their parcel as part of the overall project which would not only enhance the church lot but also reconfigure their 1.791 acre parcel to augment the entire project.

Three multi-family residential buildings, located along Stone and South Massey Streets, are each three stories in height with 36 units at 36,402 square feet. This provides a total of 108 units and 109,206 square feet. The 5,588 square foot community center building is a single story structure and will house the support programs for the three multi-family buildings. These programs includes; a fitness center, locker rooms, multi-purpose room, party room, and the leasing office.

The two office buildings, located along Arsenal Street, are two story structures with 17,000 square feet each for a total of 34,000 of office space.

Section II: Sanitary Sewer System

A. Existing Conditions

The City Sewer Department maintains sanitary service along the each of the streets that surround the site. The existing system is presumed to have ample capacity to accept flows for the proposed improvements based the previous use as a hospital/ nursing home. From the available historic data (bed count) and the NYS DEC Design Standards, the following was used to determine the prior flows to the pubic sanitary sewer.

Existing Average Daily Flows

Description	Number of Units	Loading Rate (gpd/ unit)	Total Flow (gpd)
Hospital Beds	224	175	39,200
Residence Beds	132	150	19,800
Total			**59,000**

B. Proposed Conditions

The proposed sanitary sewer system consists of a new of 6-inch diameter sewer main 4-foot diameter precast concrete manholes that will connect to the existing sewers on Arsenal and Sherman Streets. The proposed sanitary sewer will be constructed at a minimum slope of 1.0%. The following is a summary of the estimated average flows contributing to the connection points.

Anticipated Average Daily Flows

Description	Number of Units	Loading Rate (gpd/ unit)	Total Flow (gpd)
(3) Multifamily Units	108 (Bedrooms)	110	11,880
Community Bldg.	5000 (SF)	*0.20	1,000
(2) Office Bldg.	200 (employees)	15	3000
Total			**15,880**

* Assumed Flow rate

Section III: Water Distribution System

A. Description of Water System

The site has access to water from each adjacent street. There is an existing 12-inch diameter water main located beneath South Massey St., Sherman St. and Arsenal St. There is a 6-inch diameter water main beneath Stone St. Available pressures and flows have been determined from hydrant flow test data taken on the adjacent hydrants and provided by the City. Flow test information on the Sherman Street main was provided in May 2016 by the City of Watertown. An additional test along South Massey Street was performed to confirm the flow data. The corresponding flow data can be found on the Utility Plan (C110) and in the Water System Calculations provided in Appendix C.

In the provided WaterCAD calculations, we have used the May 2016 flow data provided by the City of Watertown. This flow data was used, as it is more conservative, given that the flow data is lower – pressure and flow – and further removed from the site. This longer run through existing pipe will provide a more conservative estimate than the South Massey Street flow data, since the Massey tested hydrant is located within 50 feet of the tie-in. Actual flow/pressure values should exceed the calculations, since the project will connect to the existing water system on the west and east side of the project.

The proposed buildings will be fed from a proposed 6" main that will connect to both the South Massey Street and Sherman Street mains. Combined fire and domestic services will be metered, and backflow protection will be provided inside each building. The water main running through the site will be dedicated to the City of Watertown. The existing system has adequate pressure and volume to supply the proposed improvements. WaterCAD calculations can be found in Appendix C.

B. Water System Summary

The table below summarizes the on-site pressures for water service to the highest demand building in domestic flow conditions, the highest demand building in fire flow, and two onsite hydrants. During maximum fire flow (1,000 gpm to Building C3), the average daily flow of 11 gpm is provided to the rest of the buildings onsite. All pressures noted below are more than adequate to service the site.

Scenario	*Node*	*Description*	*Pressure*	*Demand*
Domestic Demand	*Bldg. C2*	*Residential*	*61 psi*	*50 gpm*
Fire Demand @ Building	*Bldg. C3*	*Residential*	*27 psi*	*1,000 gpm*
Fire Demand @ Hydrant	*HYD-1*	*Residential*	*48 psi*	*750 gpm*
Fire Demand @ Hydrant	*HYD-2*	*Office*	*39 psi*	*750 gpm*

Section IV: Stormwater System

A. Project Description

Stormwater practices within the development area will consist of a network of pipes, inlets, manholes, Stormwater Quality treatment filters, and an underground infiltration basin. The proposed storm sewer system will be privately owned and maintained. Storm water from the developed area will discharge to either the Sherman Street system or the Arsenal Street system after treatment. The proposed underground detention basin will also collect the discharge from the water quality filter structure onsite and a majority of the site (6.784 Ac of 7.512 total) to provide the required quantity control.

The proposed design and mitigation measures are intended to address the water quality and quantity requirements of the New York State Department of Environmental Conservation. Refer to the Stormwater Management Report for more details and calculations (see Appendix A).

B. Soil Classification

According to the Natural Resources Conservation Service website (NRCS), there is one (1) mapped soil unit identified on the project property (see Appendix A). Urban Land is the dominant soil type and is located on approximately 99.9 percent of the project area. This soil type slopes at approximately 0 to 5 percent. These soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission. The complete list of soils found on the project site is identified in the table below (see Appendix E for soils map).

Table I- Jefferson County Soils Summary

Symbol	Soil Name	Hydrologic Soil Group
Ur	Urban Land	-

C. Hydrology

Methodology

Stormwater runoff rates discharged from the site under the existing conditions provide the basis on which to compare the impacts of the proposed site improvements. Analysis points are established where runoff exits the site to provide a fixed location at which existing and proposed stormwater quantities can be compared. The areas draining to each analysis point are delineated using topographic survey maps, grading plans and utility plans. HydroCAD 10.00-12 by HydroCAD Software Solutions, LLC was used to model the existing and proposed conditions. This program simulates the USDA Soil Conservations Service's TR-20 hydrologic model to analyze discharges from drainage areas and retention basins.

The parameters required to calculate stormwater runoff are area, curve number, and time of concentration. Each drainage area is evaluated using the guidelines described in USDA Soil Conservation Service's TR-55 to determine the curve number and time of concentration.

The runoff curve number (CN) is based on a weighted average of ground cover and soil type. The underlying soil types are described in county soil maps. Site and grading plans and survey maps outline existing and proposed ground cover. CN values for specific locations are determined from the tables presented in TR-55.

Time of concentration (Tc) represents the amount of time it takes for runoff to travel from the hydraulically most distant point of the watershed to the point of analysis. Surface roughness, slope, channel shape and flow patterns are the factors that affect the time of concentration. Stormwater runoff flows through the drainage area as sheet flow, shallow concentrated flow, open channel flow, or concentrated flow (such as in storm sewers). For this report sheet flow will become shallow concentrated flow after a maximum of 150 feet for the existing condition and 100 feet for the proposed condition. The sum of the travel times over the various surfaces within the assumed flow path for a specific drainage area determines that area's time of concentration. The figures and formulas in TR-55 are employed to compute travel times for sheet flow and shallow concentrated flow. Manning's equation is used to determine flow velocities through pipes.

The stage-storage-discharge relationship for the proposed detention area is determined from topographical data and outlet structure characteristics. Discharge rates and storage volumes at various elevations (stage) are represented by this relationship. The underground storage capacity is calculated by determined by the known volumes of the Stormtech chambers at specified elevations.

Existing Conditions

The existing drainage area comprises a total of 7.512 acres. The parcel to be re-developed consists of a large hospital complex (formerly Mercy Hospital), small grass areas surrounding the hospital complex, and two parking lots on the northwest corner of the site.

The overall drainage area was divided into four sub areas for analysis purposes, labeled DR-1 through DR-4 as shown on DR-PRE, the Existing Conditions Drainage Map in Appendix A.

Drainage Area DR-1, consisting of 2.441 acres, includes the two parking lots on the north side of the site, as well as St. Patrick's church. This area consists of mostly impervious parking area and building, with some associated yard areas. This area drains to the north via sheet and concentrated flow to the Arsenal Street storm system (POI#1).

Drainage Area DR-2, consisting of 1.495 acres, includes the northeast corner of the hospital complex and surrounding parking and lawn areas. This area consists of mostly impervious building area and parking, with some associated yard areas. This area drains to the east via sheet flow and storm laterals to the Sherman Street storm system (POI #2).

Drainage Area DR-3, consisting of 1.014 acres, includes the southeast corner of the hospital complex and surrounding areas. This area consists of mostly impervious building area and parking, with some associated yard areas. This area drains to the south via sheet flow and storm laterals to the Stone Street storm system (POI #3).

Drainage Area DR-4, consisting of 2.562 acres, includes the south/west side of the hospital complex and surrounding areas. This area consists of mostly impervious building area and parking, with some associated yard areas. This area drains to the west via sheet flow and storm lateral to the South Massey Street storm system (POI #4).

Table II summarizes the hydrologic characteristics of the drainage areas described above. See Appendix A for computations for the existing drainage conditions.

Table II
Existing Conditions Summary

Drainage Area	Description	Size (ac)	Composite Cn	Tc (min)
Area DR-1	Includes the two parking lots on the north side of the site, as well as St. Patrick's church. This area consists of mostly impervious parking area and building, with some associated yard areas.	2.441	93	6.0 minimum
Area DR-2	Includes the northeast corner of the hospital complex and surrounding parking and lawn areas. This area consists of mostly impervious building area and parking, with some associated yard areas.	1.495	95	10.0 assumed
Area DR-3	Includes the southeast corner of the hospital complex and surrounding areas. This area consists of mostly impervious building area and parking, with some associated yard areas.	1.014	93	10.0 assumed
Area DR-4	Includes the south/west side of the hospital complex and surrounding areas. This area consists of mostly impervious building area and parking, with some associated yard areas.	2.562	90	10.0 assumed

Proposed Conditions

The Proposed drainage area comprises a total of 7.512 acres. Proposed impervious area will drain via storm sewer and sheet flow to the proposed Underground Basin.

The overall drainage area was divided into four sub areas for analysis purposes, labeled DR-1, DR-2, DR-4, as shown on DR-POST, the Proposed Conditions Drainage Map in Appendix A.

Drainage Area DR-2A, consisting of 2.366 acres, includes the two office buildings on the north side of the site, St. Patrick's Church, and the associated parking areas in between. This area consists of mostly impervious parking area and building, with some associated landscaped islands. This area will be redirected away from the current northerly flow. This area will flow via storm sewer to the proposed underground basin, and exit via the Sherman Street storm system (POI#2).

Drainage Area DR-2, consisting of 4.418 acres, includes the three residential buildings, the Community Center, and the parking areas south of St. Patrick's Church. This area consists of mostly impervious building area and parking, with some associated landscaped islands

and yard areas. This area drains to the east via sheet flow and new storm system to the proposed Underground basin, and then the Sherman Street storm system (POI #2).

Drainage Area DR-3 is not included in proposed analysis. The existing area associated with DR-3 will be re-routed away from POI-3 into the proposed storm system and Underground Basin that treats most of the site, and then enters the Sherman Street system (POI #2).

Drainage Area DR-4, consisting of 0.728 acres, includes lawn areas south and west of the proposed residential buildings. This area consists of mostly pervious lawn areas and some sidewalks. This area drains to the west/south via sheet flow and existing storm system to the South Massey Street storm system (POI #4).

Table III summarizes the hydrologic characteristics of the drainage areas described above. See Appendix A for computations for the existing drainage conditions.

Table III
Proposed Conditions Summary

Drainage Area	Description	Size (ac)	Composite Cn	Tc (min)
Area DR-2A	Includes the two office buildings on the north side of the site, St. Patrick's Church, and the associated parking areas in between. This area consists of mostly impervious parking area and building, with some associated landscaped islands	2.366	94	6.0 minimum
Area DR-2	Includes the three residential buildings, the Community Center, and the parking areas south of St. Patrick's Church. This area consists of mostly impervious building area and parking, with some associated landscaped islands and yard areas	4.418	93	8.7
Area DR-4	Includes lawn areas south and west of the proposed residential buildings. This area consists of mostly pervious lawn areas and some sidewalks.	0.728	73	6.0 minimum

D. Stormwater Management & SPDES Phase II Requirements

State Pollutant Discharge Elimination System (SPDES)

Since the subject site will have land disturbance of more than 1-acre a State Pollutant Discharge Elimination System (SPDES) permit will be completed as part of the project. A Storm Water Pollution Prevention Plan (SWPPP) will be developed in accordance with the EPA Phase II regulations. The SWPPP will be modeled on the New York State DEC Guidelines and will meet the following criteria as the principle objectives contained in an approved SWPPP.

1) Reduction or elimination of erosion and sediment loading to water-bodies during construction activities.
2) Control the impact of storm water runoff on the water quality of the receiving waters.
3) Control the increase volume and peak runoff rate of runoff during and after construction.
4) Maintenance of storm water controls during and after completion of construction.

The aforementioned objectives will be accomplish by incorporating the several of the design criteria outlined within the Technical Guidelines provided by New York State Department of Environmental Conservation, Stormwater Management Design Manual and summarized below.

A. WATER QUALITY VOLUME

The New York State Department of Environmental Conservation, Stormwater Management Design Manual was used to determine the water quality criteria. Specifically, the unified storm water sizing criteria was followed for water quality to meet the State of New York pollutant goals. The water quantity volume is intended to improve water quality by capturing and treating 90% of the average annual storm water runoff volume. As detailed in section 9.2 of the Design Manual, 75% of the WQv will be treated by alternative practices – for the areas with increased or similar amounts of impervious area. An online Vortechs units have been proposed for DR-2, in order to provide water quality filtration.

Storm water quality calculations are provided within the Appendix A and are summarized in the Table below.

Water Quality Flows for Alternate Practices			
Drainage Area	**Practice**	**WQ Peak Discharge (cfs) - required**	**Max. Treatment Flow (cfs)**
DR-2	Vortechs 9000	4.91	5.70

B. CHANNEL PROTECTION VOLUME

The New York State Department of Environmental Conservation, Stormwater Management Design Manual was used to determine the water quantity criteria. As required by section 9.2, “if the hydrology and hydraulic analysis for the project site shows that the post-construction 1-year 24-hour discharge rate and velocity are less than or equal to the pre-construction discharge rate, providing 24-hour detention of the 1-year storm to meet the channel protection criteria is not required.” This requirement is satisfied in all of the proposed drainage areas, as seen in Table IV.

C. OVERBANK FLOOD

Overbank Flood protection is provided by controlling the peak discharge from the 10-year storm to 10-year predevelopment rates. This requirement is being satisfied as the proposed development is reducing the peak discharge from the 10-year storm below pre-development rates. Refer to Table IV for details.

D. EXTREME STORM

Extreme Storm protection is provided by controlling the peak discharge from the 100-year storm to 100-year predevelopment rates. This requirement is being satisfied as the proposed development is reducing the peak discharge from the 100-year storm below pre-development rates. Refer to Table IV for details.

Summary of Results

Table IV and Table V depicts the peak discharges from the site for each of the design storms for the existing and proposed conditions. Table V depicts the peak elevation of the Underground Detention Basin during the design storm events.

Table IV - Existing and Proposed Peak Discharge for the Type-II Storm Events (cfs)

	Drainage Area	POI-1		POI-2		POI-3		POI-4	
		Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed
Type II Storm Event	1-YR	5.81	0	3.46	3.41	2.52	0	4.63	0.42
	10-YR	10.86	0	6.20	5.90	4.70	0	9.34	1.51
	100-YR	16.76	0	9.96	8.96	7.24	0	14.95	3.06

Table V - Peak Underground Basin Elevations

Design Storm	Infiltration Basin U
10 Year	476.96
100 Year	479.47

As depicted in the above tables, the peak discharge from the site for each of the design storms will be decreased after this project is constructed and the stormwater management plan is implemented.

Conclusion

Based on the calculations attached in the appendices of this report, the proposed Stormwater Management Facility will decrease peak discharge rates from the site for all of the design storms under proposed conditions. The proposed facility also includes an Underground Detention Basin for water quantity storage. Alternative Practices have also been included to provide water quality treatment. As a result, this project has provided sufficient mitigation to minimize effect to stream systems and properties.

Section V: Traffic Impacts

A. General

The traffic study "Traffic Impact Study for the proposed Mercy Heights Redevelopment" – prepared by SRF & Associates – can be found in Appendix B.

Section VI: Lighting Summary

A. General Summary

A photometric analysis was performed by Quality Lighting Systems of Liverpool, NY. The Site Lighting has been proposed as a mix of Office/Commercial and Residential Lighting, with special care taken in transitions between land uses. The average site illuminance is shown at 0.36 foot-candles, with a maximum on-site illuminance of 5.4 foot-candles. The proposed site lighting fixtures are LED and are a combination of three mounted heights: 12, 15, and 28 feet. See Drawing C160 (Site Lighting Plan) and Appendix D (Site Lighting Specification Sheets) for further detail.

Section VII: Landscaping Summary

A. General Summary

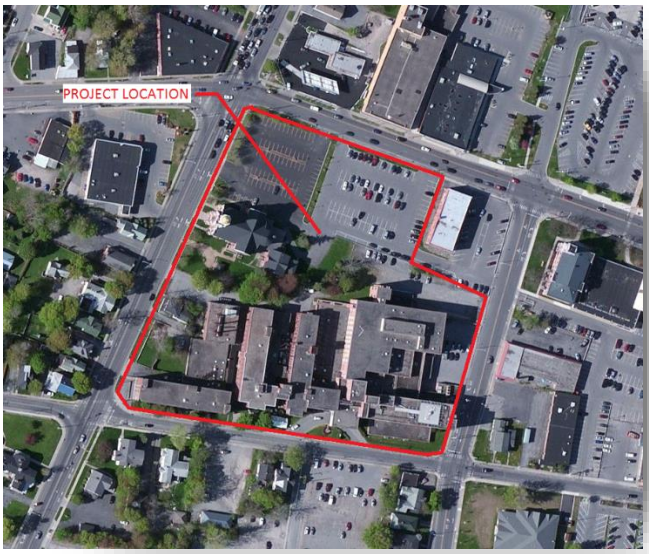
A Landscape Plan was completed for the Mercy Heights project using the guidelines set forth in Appendix A – Landscape and Buffer Zone Guidelines adopted by the City of Watertown Planning Board, August 7, 2007, including the following items:

- Landscape strips along street rights-of-way and exterior parking lot landscaping was provided on all roadways surrounding the site. These landscape strips are made up of shade trees from the Recommended Tree Species list, and a variety of shrub and perennial plant materials.
- Interior parking lot islands contain shade trees where possible and understory plant material.
- All planting beds will be mulched with 3" hardwood mulch.
- All disturbed areas, not a planting bed, will receive 4" topsoil and will be seeded with a lawn seed mix.
- All existing plant materials around St. Patrick's Church will be retained where possible.

APPENDIX A – Stormwater Management Report

Bergmann associates
architects // engineers // planners

MERCY HEIGHTS
STORMWATER MANAGEMENT REPORT



City of Watertown, NY
May 2016

PREPARED FOR:

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Fayetteville, NY 13066

PREPARED BY:

Bergmann Associates
200 First Federal Plaza
28 East Main Street
Rochester, NY 14614

Table of Contents – Stormwater Management Report

Section I: Project Location and Description

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The proposed re-development project is a multi-use project and will include construction of three multi-family residential buildings, a community center, and two office buildings as well as associated utilities, parking, lighting and landscaping. The applicant has also been working closely with the St. Patrick's Society to include improvements to their parcel as part of the overall project which would not only enhance the church lot but also reconfigure their 1.791 acre parcel to augment the entire project.

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Section II: Stormwater System

A. Project Description

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The proposed design and mitigation measures are intended to address the water quality and quantity requirements of the New York State Department of Environmental Conservation. Refer to the Stormwater Management Report for more details and calculations (see Appendix A).

B. Soil Classification

According to the Natural Resources Conservation Service website (NRCS), there is one (1) mapped soil unit identified on the project property (see Appendix A). Urban Land is the dominant soil type and is located on approximately 99.9 percent of the project area. This soil type slopes at approximately 0 to 5 percent. These soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission. The complete list of soils found on the project site is identified in the table below (see Appendix E for soils map).

Table I- Jefferson County Soils Summary

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C. Hydrology

Methodology

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The parameters required to calculate stormwater runoff are area, curve number, and time of concentration. Each drainage area is evaluated using the guidelines described in USDA Soil Conservation Service's TR-55 to determine the curve number and time of concentration.

The runoff curve number (CN) is based on a weighted average of ground cover and soil type. The underlying soil types are described in county soil maps. Site and grading plans and survey maps outline existing and proposed ground cover. CN values for specific locations are determined from the tables presented in TR-55.

Time of concentration (Tc) represents the amount of time it takes for runoff to travel from the hydraulically most distant point of the watershed to the point of analysis. Surface roughness, slope, channel shape and flow patterns are the factors that affect the time of concentration. Stormwater runoff flows through the drainage area as sheet flow, shallow concentrated flow, open channel flow, or concentrated flow (such as in storm sewers). For this report sheet flow will become shallow concentrated flow after a maximum of 150 feet for the existing condition and 100 feet for the proposed condition. The sum of the travel times over the various surfaces within the assumed flow path for a specific drainage area determines that area's time of concentration. The figures and formulas in TR-55 are employed to compute travel times for sheet flow and shallow concentrated flow. Manning's equation is used to determine flow velocities through pipes.

The stage-storage-discharge relationship for the proposed detention area is determined from topographical data and outlet structure characteristics. Discharge rates and storage volumes at various elevations (stage) are represented by this relationship. The underground storage capacity is calculated by determined by the known volumes of the Stormtech chambers at specified elevations.

Existing Conditions

The existing drainage area comprises a total of 7.512 acres. The parcel to be re-developed consists of a large hospital complex (formerly Mercy Hospital), small grass areas surrounding the hospital complex, and two parking lots on the northwest corner of the site.

The overall drainage area was divided into four sub areas for analysis purposes, labeled DR-1 through DR-4 as shown on DR-PRE, the Existing Conditions Drainage Map in Appendix A.

Drainage Area DR-1, consisting of 2.441 acres, includes the two parking lots on the north side of the site, as well as St. Patrick's church. This area consists of mostly impervious parking area and building, with some associated yard areas. This area drains to the north via sheet and concentrated flow to the Arsenal Street storm system (POI#1).

Drainage Area DR-2, consisting of 1.495 acres, includes the northeast corner of the hospital complex and surrounding parking and lawn areas. This area consists of mostly impervious building area and parking, with some associated yard areas. This area drains to the east via sheet flow and storm laterals to the Sherman Street storm system (POI #2).

Drainage Area DR-3, consisting of 1.014 acres, includes the southeast corner of the hospital complex and surrounding areas. This area consists of mostly impervious building area and parking, with some associated yard areas. This area drains to the south via sheet flow and storm laterals to the Stone Street storm system (POI #3).

Drainage Area DR-4, consisting of 2.562 acres, includes the south/west side of the hospital complex and surrounding areas. This area consists of mostly impervious building area and parking, with some associated yard areas. This area drains to the west via sheet flow and storm lateral to the South Massey Street storm system (POI #4).

Table II summarizes the hydrologic characteristics of the drainage areas described above. See Appendix A for computations for the existing drainage conditions.

Table II
Existing Conditions Summary

Drainage Area	Description	Size (ac)	Composite Cn	Tc (min)
Area DR-1	Includes the two parking lots on the north side of the site, as well as St. Patrick's church. This area consists of mostly impervious parking area and building, with some associated yard areas.	2.441	93	6.0 minimum
Area DR-2	Includes the northeast corner of the hospital complex and surrounding parking and lawn areas. This area consists of mostly impervious building area and parking, with some associated yard areas.	1.495	95	10.0 assumed
Area DR-3	Includes the southeast corner of the hospital complex and surrounding areas. This area consists of mostly impervious building area and parking, with some associated yard areas.	1.014	93	10.0 assumed
Area DR-4	Includes the south/west side of the hospital complex and surrounding areas. This area consists of mostly impervious building area and parking, with some associated yard areas.	2.562	90	10.0 assumed

Proposed Conditions

The Proposed drainage area comprises a total of 7.512 acres. Proposed impervious area will drain via storm sewer and sheet flow to the proposed Underground Basin.

The overall drainage area was divided into four sub areas for analysis purposes, labeled DR-1, DR-2, DR-4, as shown on DR-POST, the Proposed Conditions Drainage Map in Appendix A.

Drainage Area DR-2A, consisting of 2.366 acres, includes the two office buildings on the north side of the site, St. Patrick's Church, and the associated parking areas in between. This area consists of mostly impervious parking area and building, with some associated landscaped islands. This area will be redirected away from the current northerly flow. This area will flow via storm sewer to the proposed underground basin, and exit via the Sherman Street storm system (POI#2).

Drainage Area DR-2, consisting of 4.418 acres, includes the three residential buildings, the Community Center, and the parking areas south of St. Patrick's Church. This area consists of mostly impervious building area and parking, with some associated landscaped islands and yard areas. This area drains to the east via sheet flow and new storm system to the proposed Underground basin, and then the Sherman Street storm system (POI #2).

Drainage Area DR-3 is not included in proposed analysis. The existing area associated with DR-3 will be re-routed away from POI-3 into the proposed storm system and Underground Basin that treats most of the site, and then enters the Sherman Street system (POI #2).

Drainage Area DR-4, consisting of 0.728 acres, includes lawn areas south and west of the proposed residential buildings. This area consists of mostly pervious lawn areas and some sidewalks. This area drains to the west/south via sheet flow and existing storm system to the South Massey Street storm system (POI #4).

Table III summarizes the hydrologic characteristics of the drainage areas described above. See Appendix A for computations for the existing drainage conditions.

Table III
Proposed Conditions Summary

Drainage Area	Description	Size (ac)	Composite Cn	Tc (min)
Area DR-2A	Includes the two office buildings on the north side of the site, St. Patrick's Church, and the associated parking areas in between. This area consists of mostly impervious parking area and building, with some associated landscaped islands	2.366	94	6.0 minimum
Area DR-2	Includes the three residential buildings, the Community Center, and the parking areas south of St. Patrick's Church. This area consists of mostly impervious building area and parking, with some associated landscaped islands and yard areas	4.418	93	8.7
Area DR-4	Includes lawn areas south and west of the proposed residential buildings. This area consists of mostly pervious lawn areas and some sidewalks.	0.728	73	6.0 minimum

D. Stormwater Management & SPDES Phase II Requirements

State Pollutant Discharge Elimination System (SPDES)

Since the subject site will have land disturbance of more than 1-acre a State Pollutant Discharge Elimination System (SPDES) permit will be completed as part of the project. A Storm Water Pollution Prevention Plan (SWPPP) will be developed in accordance with the

EPA Phase II regulations. The SWPPP will be modeled on the New York State DEC Guidelines and will meet the following criteria as the principle objectives contained in an approved SWPPP.

1) Reduction or elimination of erosion and sediment loading to water-bodies during construction activities.
2) Control the impact of storm water runoff on the water quality of the receiving waters.
3) Control the increase volume and peak runoff rate of runoff during and after construction.
4) Maintenance of storm water controls during and after completion of construction.

The aforementioned objectives will be accomplish by incorporating the several of the design criteria outlined within the Technical Guidelines provided by New York State Department of Environmental Conservation, Stormwater Management Design Manual and summarized below.

A. WATER QUALITY VOLUME

The New York State Department of Environmental Conservation, Stormwater Management Design Manual was used to determine the water quality criteria. Specifically the unified storm water sizing criteria was followed for water quality to meet the State of New York pollutant goals. The water quantity volume is intended to improve water quality by capturing and treating 90% of the average annual storm water runoff volume. As detailed in section 9.2 of the Design Manual, 75% of the WQv will be treated by alternative practices – for the areas with increased or similar amounts of impervious area. An online Vortechs units have been proposed for DR-2, in order to provide water quality filtration.

Storm water quality calculations are provided within the Appendix A and are summarized in the Table below.

Water Quality Flows for Alternate Practices			
Drainage Area	**Practice**	**WQ Peak Discharge (cfs) - required**	**Max. Treatment Flow (cfs)**
DR-2	Vortechs 9000	4.91	5.70

B. CHANNEL PROTECTION VOLUME

The New York State Department of Environmental Conservation, Stormwater Management Design Manual was used to determine the water quantity criteria. As required by section 9.2, "if the hydrology and hydraulic analysis for the project site shows that the post-construction 1-year 24 hour discharge rate and velocity are less than or equal to the pre-construction discharge rate, providing 24 hour detention of the 1-year storm to meet the channel protection criteria is not required." This requirement is satisfied in all of the proposed drainage areas, as seen in Table IV.

C. OVERBANK FLOOD

Overbank Flood protection is provided by controlling the peak discharge from the 10-year storm to 10-year predevelopment rates. This requirement is being satisfied as the proposed development is reducing the peak discharge from the 10-year storm below pre-development rates. Refer to Table IV for details.

D. EXTREME STORM

Extreme Storm protection is provided by controlling the peak discharge from the 100-year storm to 100-year predevelopment rates. This requirement is being satisfied as the proposed development is reducing the peak discharge from the 100-year storm below pre-development rates. Refer to Table IV for details.

Summary of Results

Table IV and Table V depicts the peak discharges from the site for each of the design storms for the existing and proposed conditions. Table V depicts the peak elevation of the Underground Detention Basin during the design storm events.

Table IV - Existing and Proposed Peak Discharge for the Type-II Storm Events (cfs)

	Drainage Area	POI-1		POI-2		POI-3		POI-4	
		Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed
Type II Storm Event	1-YR	5.81	0	3.46	3.41	2.52	0	4.63	0.42
	10-YR	10.86	0	6.20	5.90	4.70	0	9.34	1.51
	100-YR	16.76	0	9.96	8.96	7.24	0	14.95	3.06

Table V - Peak Underground Basin Elevations

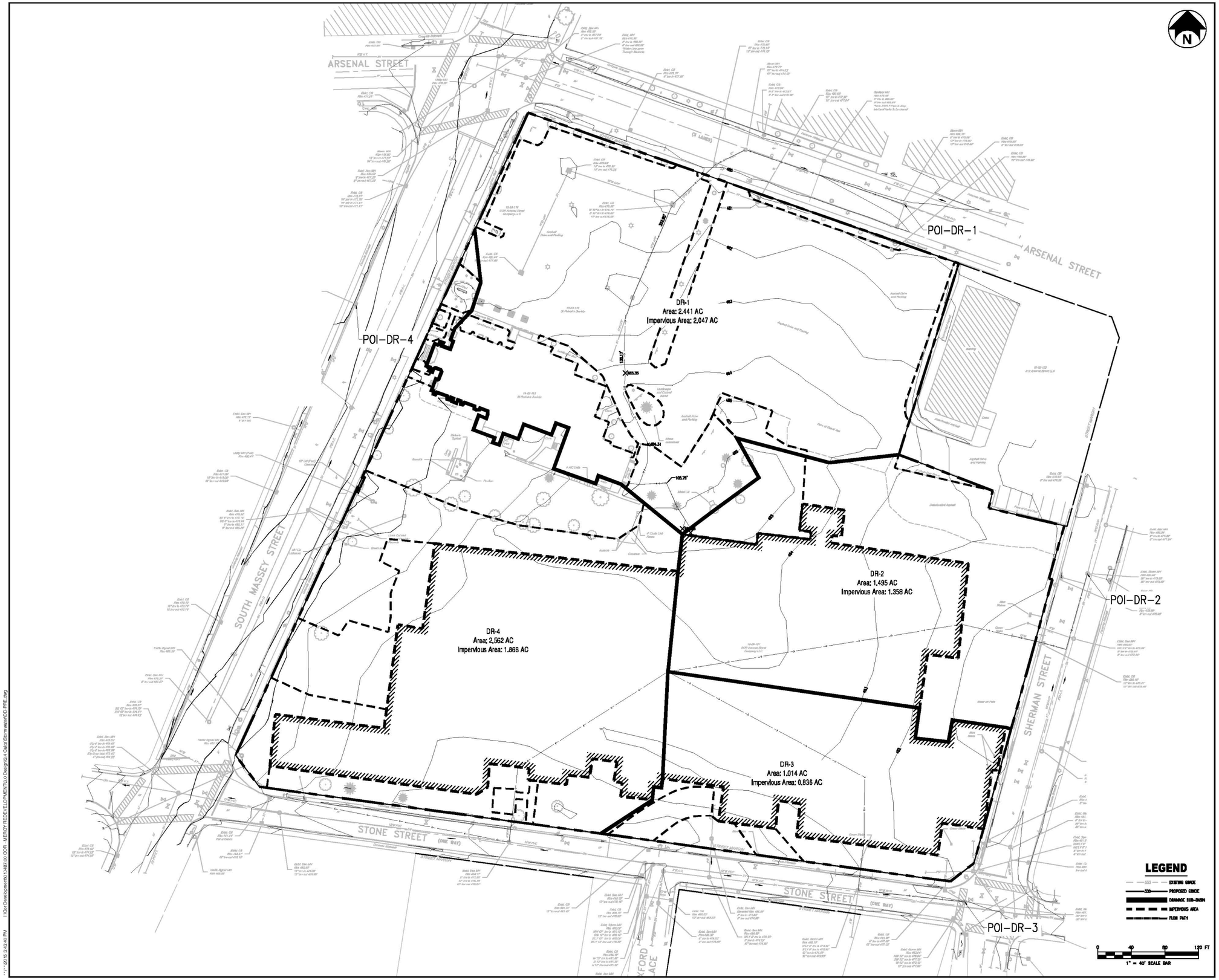
Design Storm	Infiltration Basin U
10 Year	476.96
100 Year	479.47

As depicted in the above tables, the peak discharge from the site for each of the design storms will be decreased after this project is constructed and the stormwater management plan is implemented.

Conclusion

Based on the calculations attached in the appendices of this report, the proposed Stormwater Management Facility will decrease peak discharge rates from the site for all of the design storms under proposed conditions. The proposed facility also includes an Underground Detention Basin for water quantity storage. Alternative Practices have also been included to provide water quality treatment. As a result, this project has provided sufficient mitigation to minimize effect to stream systems and properties.

APPENDIX A – Stormwater Calculations



MERCY HEIGHTS

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State of New York

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REVISIONS

NO.	DATE	DESCRIPTION	REV.	CK'D

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CONSTRUCTION

PROFESSIONAL CERTIFICATION I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NEW YORK.
LICENSE NO. 80472
EXPIRATION DATE: 09/2017

TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT, THE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE 2015 ENERGY CONSTRUCTION CONSERVATION CODE OF THE STATE OF NEW YORK.

Project Manager	Project Lead
A. HART, RLA	J. BASILE, PE
Designed	Drawn
T. BURKE	T. BURKE
Date Issued	Scale
MAY 25, 2016	1" = 40'

Project Number
010407.00

EXISTING CONDITIONS DRAINAGE MAP

Drawing Number
DD-PRE

1 of 2

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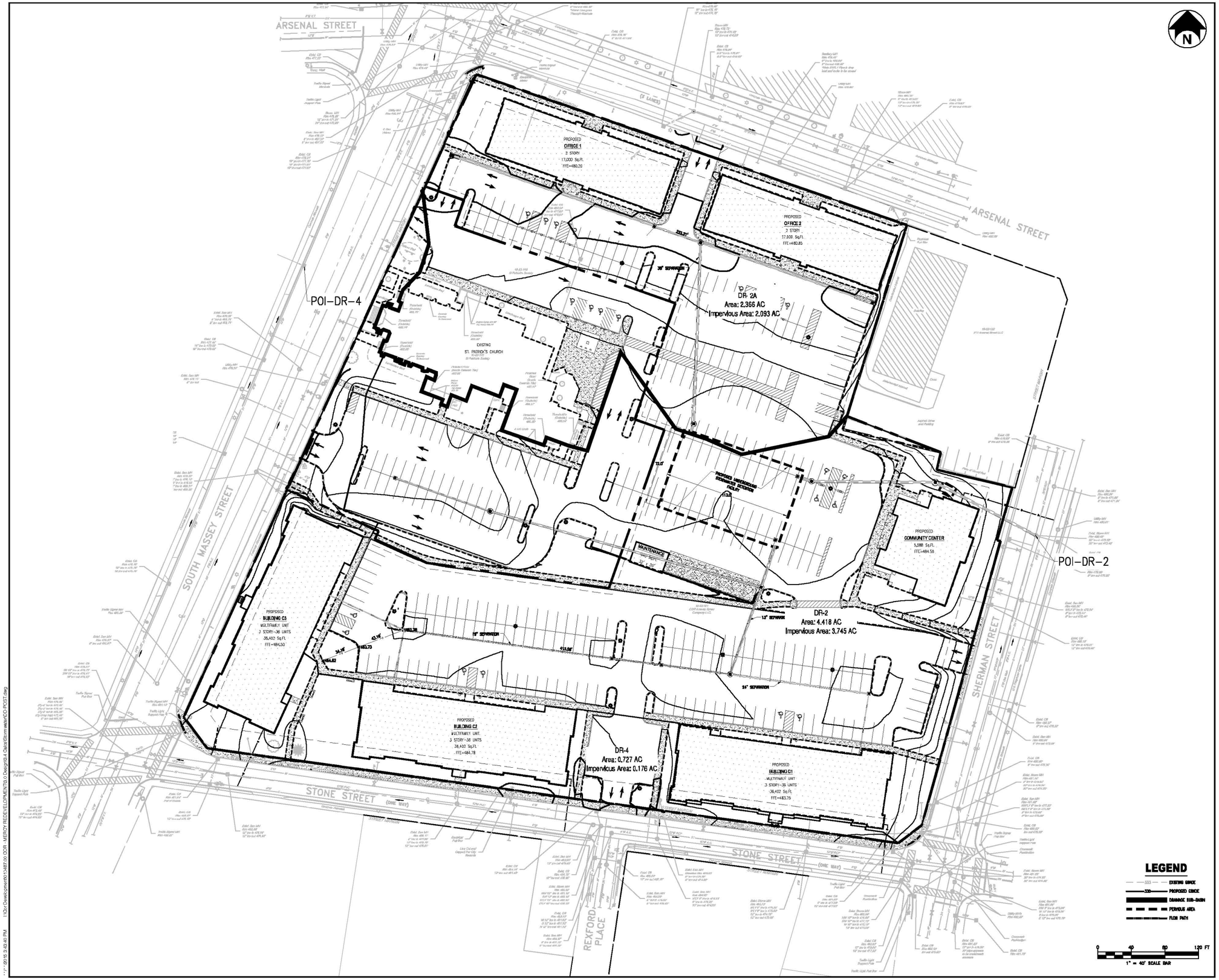

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A. HART, RLA	J. BASILE, PE
Designed By	Check By
T. BURKE	T. BURKE
Date Issued	Scale
MAY 25, 2016	1" = 40'

Project Number
010407.00

PROPOSED CONDITIONS DRAINAGE MAP

Drawing Number
DD-POST

8 of 8

Soil Map—Jefferson County, New York
(COR Mercy Redevelopment)

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Jefferson County, New York
Survey Area Data: Version 12, Sep 21, 2015

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 11, 2011—Jul 2, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Jefferson County, New York (NY045)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
CnB	Collamer silt loam, 3 to 8 percent slopes	0.0	0.1%
Ur	Urban land	9.8	99.9%
Totals for Area of Interest		**9.8**	**100.0%**

Map Unit Description

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. All the soils of a series have major horizons that are similar in composition, thickness, and arrangement. Soils of a given series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Additional information about the map units described in this report is available in other soil reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the soil reports define some of the properties included in the map unit descriptions.

Report—Map Unit Description

Jefferson County, New York

CnB—Collamer silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9smx
Mean annual precipitation: 33 to 50 inches
Mean annual air temperature: 45 to 46 degrees F
Frost-free period: 110 to 170 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Collamer and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Collamer

Setting

Landform: Lake plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Silty and clayey glaciolacustrine deposits

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 18 inches: silt loam
H3 - 18 to 32 inches: silty clay loam
H4 - 32 to 60 inches: stratified silt loam to very fine sand to clay

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)
Depth to water table: About 18 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 15 percent
Available water storage in profile: High (about 10.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C/D

Minor Components

Unnamed soils, clayey surface texture and sandy areas

Percent of map unit: 10 percent

Niagara

Percent of map unit: 8 percent

Canandaigua

Percent of map unit: 2 percent
Landform: Depressions

Ur—Urban land

Map Unit Setting

National map unit symbol: 9srz
Mean annual precipitation: 33 to 50 inches
Mean annual air temperature: 45 to 46 degrees F
Frost-free period: 110 to 170 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Minor Components

Udorthents, smoothed

Percent of map unit: 10 percent
Landform: Depressions

Data Source Information

Soil Survey Area: Jefferson County, New York
Survey Area Data: Version 12, Sep 21, 2015

NOAA Atlas 14, Volume 10, Version 2
Location name: Watertown, New York, US*
Latitude: 43.9761°, Longitude: -75.8753°
Elevation: 476 ft*
* source: Google Maps

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.317 (0.260-0.385)	0.378 (0.310-0.459)	0.477 (0.390-0.582)	0.560 (0.455-0.685)	0.674 (0.526-0.848)	0.762 (0.580-0.972)	0.850 (0.625-1.11)	0.967 (0.665-1.27)	1.12 (0.737-1.51)	1.24 (0.792-1.69)
10-min	0.449 (0.369-0.545)	0.535 (0.439-0.651)	0.676 (0.553-0.824)	0.794 (0.644-0.970)	0.955 (0.746-1.20)	1.08 (0.822-1.38)	1.20 (0.886-1.58)	1.37 (0.942-1.80)	1.59 (1.05-2.14)	1.76 (1.12-2.39)
15-min	0.528 (0.434-0.642)	0.630 (0.517-0.765)	0.796 (0.650-0.969)	0.934 (0.758-1.14)	1.12 (0.877-1.41)	1.27 (0.967-1.62)	1.42 (1.04-1.86)	1.61 (1.11-2.12)	1.87 (1.23-2.51)	2.07 (1.32-2.81)
30-min	0.686 (0.564-0.834)	0.817 (0.671-0.994)	1.03 (0.843-1.26)	1.21 (0.982-1.48)	1.46 (1.14-1.83)	1.65 (1.25-2.10)	1.83 (1.35-2.40)	2.09 (1.44-2.75)	2.43 (1.59-3.26)	2.68 (1.71-3.65)
60-min	0.844 (0.694-1.03)	1.01 (0.825-1.22)	1.27 (1.04-1.55)	1.49 (1.21-1.82)	1.79 (1.40-2.25)	2.02 (1.54-2.58)	2.25 (1.66-2.95)	2.57 (1.77-3.38)	2.98 (1.96-4.01)	3.30 (2.11-4.49)
2-hr	1.07 (0.884-1.29)	1.28 (1.06-1.55)	1.63 (1.34-1.97)	1.91 (1.56-2.32)	2.31 (1.82-2.89)	2.61 (2.01-3.32)	2.92 (2.18-3.82)	3.36 (2.34-4.39)	3.95 (2.62-5.27)	4.40 (2.84-5.93)
3-hr	1.22 (1.01-1.47)	1.46 (1.21-1.76)	1.86 (1.53-2.24)	2.18 (1.79-2.64)	2.64 (2.09-3.29)	2.98 (2.31-3.79)	3.33 (2.51-4.35)	3.85 (2.69-5.01)	4.53 (3.03-6.02)	5.05 (3.29-6.79)
6-hr	1.50 (1.25-1.79)	1.79 (1.49-2.14)	2.26 (1.88-2.71)	2.66 (2.19-3.19)	3.20 (2.55-3.96)	3.62 (2.82-4.55)	4.04 (3.06-5.22)	4.64 (3.28-5.98)	5.43 (3.68-7.15)	6.03 (3.98-8.04)
12-hr	1.80 (1.51-2.14)	2.13 (1.79-2.53)	2.66 (2.23-3.17)	3.11 (2.58-3.71)	3.72 (2.99-4.56)	4.19 (3.29-5.21)	4.66 (3.55-5.94)	5.27 (3.77-6.75)	6.08 (4.17-7.95)	6.69 (4.47-8.85)
24-hr	2.12 (1.80-2.50)	2.47 (2.09-2.92)	3.05 (2.57-3.60)	3.53 (2.95-4.18)	4.19 (3.38-5.08)	4.69 (3.71-5.76)	5.20 (3.97-6.52)	5.79 (4.20-7.35)	6.56 (4.57-8.51)	7.15 (4.85-9.39)
2-day	2.48 (2.11-2.90)	2.84 (2.42-3.33)	3.44 (2.92-4.04)	3.94 (3.32-4.63)	4.62 (3.76-5.56)	5.15 (4.10-6.26)	5.67 (4.36-7.04)	6.25 (4.59-7.88)	7.02 (4.95-9.04)	7.61 (5.22-9.91)
3-day	2.74 (2.34-3.19)	3.11 (2.66-3.63)	3.71 (3.16-4.34)	4.22 (3.57-4.94)	4.91 (4.02-5.88)	5.44 (4.36-6.59)	5.97 (4.63-7.38)	6.57 (4.85-8.24)	7.35 (5.22-9.41)	7.94 (5.50-10.3)
4-day	2.96 (2.54-3.45)	3.34 (2.86-3.88)	3.95 (3.37-4.60)	4.46 (3.78-5.21)	5.15 (4.24-6.16)	5.69 (4.58-6.88)	6.23 (4.85-7.68)	6.84 (5.08-8.56)	7.65 (5.46-9.76)	8.26 (5.75-10.7)
7-day	3.57 (3.07-4.12)	3.95 (3.41-4.57)	4.59 (3.94-5.32)	5.12 (4.37-5.95)	5.84 (4.84-6.94)	6.40 (5.19-7.70)	6.96 (5.47-8.55)	7.62 (5.72-9.48)	8.50 (6.13-10.8)	9.16 (6.45-11.8)
10-day	4.15 (3.59-4.78)	4.56 (3.95-5.26)	5.24 (4.51-6.05)	5.79 (4.97-6.71)	6.56 (5.45-7.76)	7.15 (5.82-8.56)	7.74 (6.12-9.45)	8.43 (6.36-10.4)	9.34 (6.78-11.8)	10.0 (7.11-12.8)
20-day	5.97 (5.20-6.83)	6.47 (5.63-7.41)	7.29 (6.32-8.36)	7.96 (6.87-9.16)	8.90 (7.44-10.4)	9.61 (7.88-11.4)	10.3 (8.19-12.4)	11.0 (8.42-13.5)	11.9 (8.79-14.9)	12.6 (9.06-16.0)
30-day	7.49 (6.56-8.54)	8.07 (7.06-9.20)	9.02 (7.86-10.3)	9.80 (8.50-11.2)	10.9 (9.14-12.7)	11.7 (9.63-13.8)	12.5 (9.97-14.9)	13.2 (10.2-16.2)	14.1 (10.5-17.6)	14.8 (10.8-18.7)
45-day	9.38 (8.24-10.6)	10.1 (8.82-11.4)	11.2 (9.76-12.7)	12.1 (10.5-13.8)	13.3 (11.3-15.5)	14.3 (11.8-16.7)	15.3 (12.2-18.1)	16.0 (12.4-19.5)	17.0 (12.7-21.1)	17.7 (13.0-22.3)
60-day	10.9 (9.64-12.4)	11.7 (10.3-13.2)	12.9 (11.4-14.7)	14.0 (12.2-15.9)	15.4 (13.0-17.8)	16.5 (13.7-19.2)	17.6 (14.1-20.7)	18.4 (14.3-22.3)	19.4 (14.7-24.0)	20.2 (14.9-25.3)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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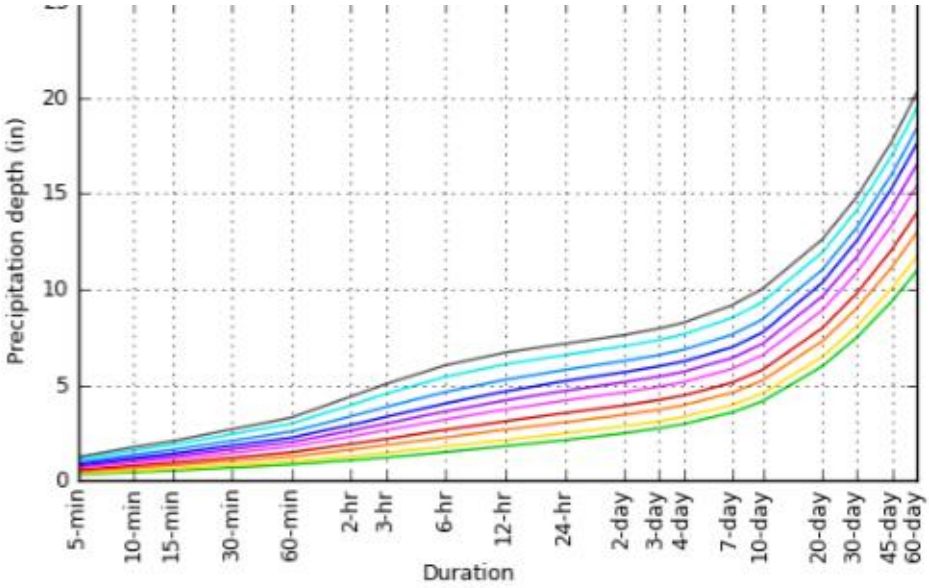
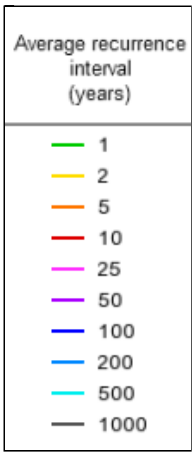
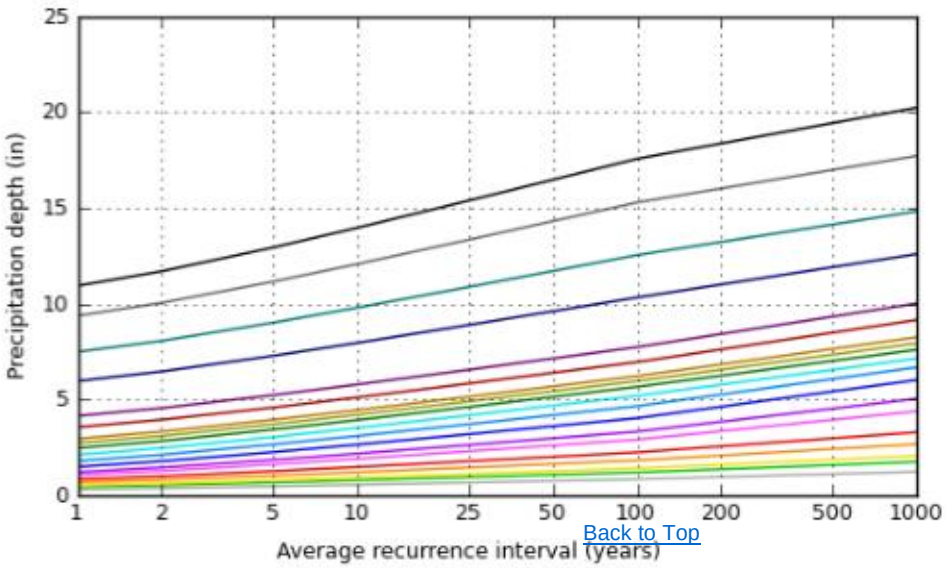
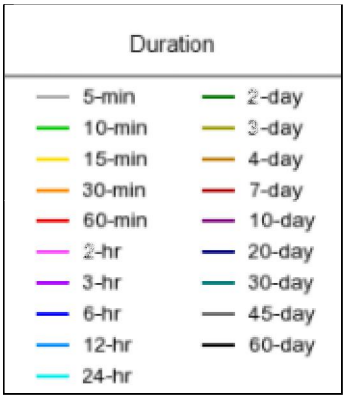
PF graphical









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Maps & aerials

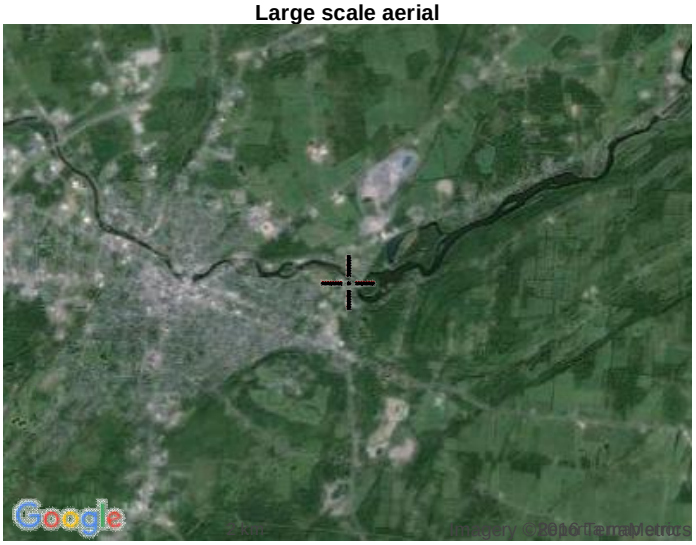
NOAA Atlas 14, Volume 10, Version 2 Created (GMT): Tue Mar 15 12:00:35 2016

Small scale terrain

Large scale terrain

Large scale map

Large scale aerial



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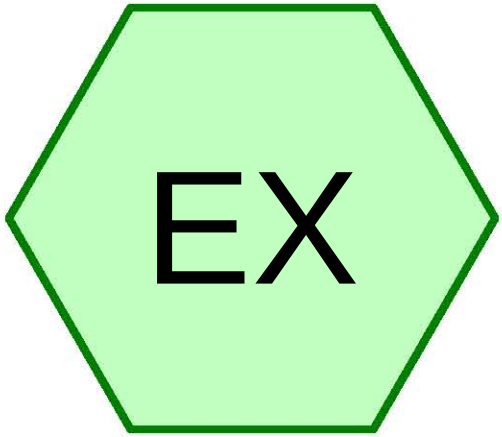
US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910



DR-1 PRE

Subcat Reach Pond Link

Routing Diagram for Pre&Post-DR1
Prepared by Bergmann Associates, Printed 7/13/2016

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.394	69	50-75% Grass cover, Fair, HSG B (EX)
2.047	98	Paved parking, HSG B (EX)
2.441	**93**	**TOTAL AREA**

Summary for Subcatchment EX: DR-1 PRE

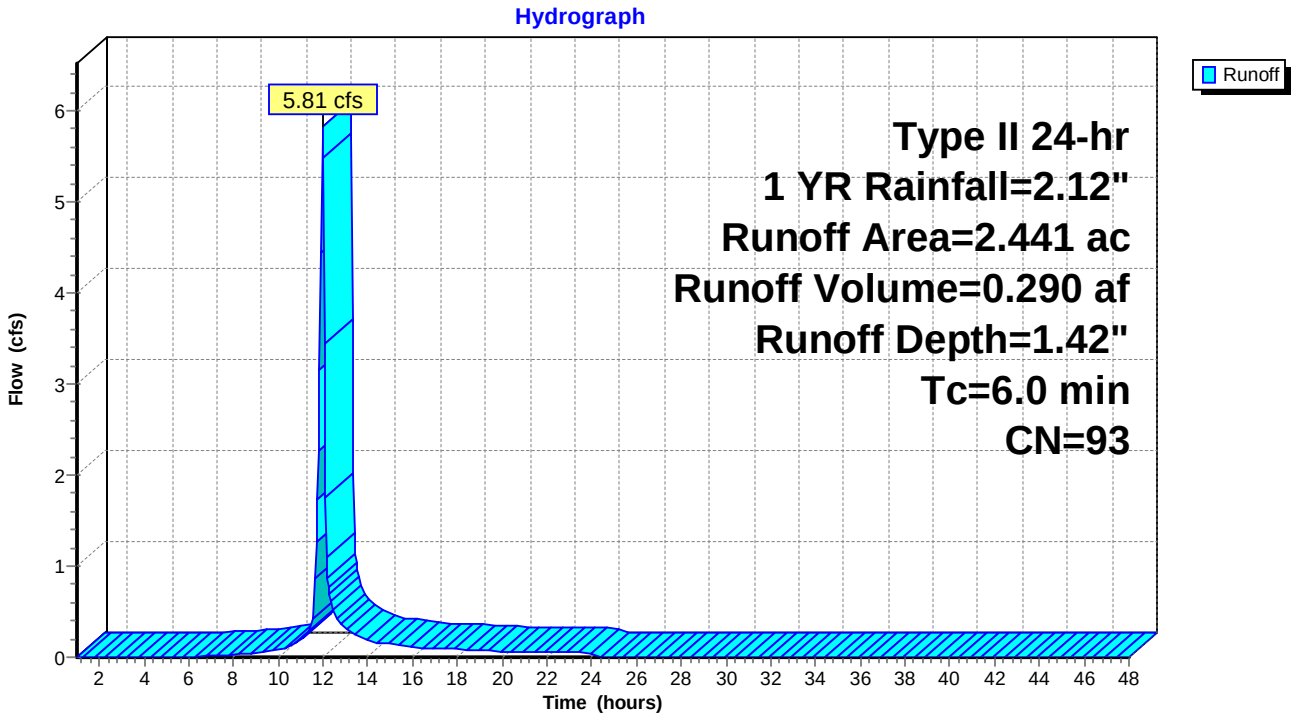
Runoff = 5.81 cfs @ 11.97 hrs, Volume= 0.290 af, Depth= 1.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1 YR Rainfall=2.12"

Area (ac)	CN	Description
2.047	98	Paved parking, HSG B
0.394	69	50-75% Grass cover, Fair, HSG B
2.441	93	Weighted Average
0.394		16.14% Pervious Area
2.047		83.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Calculated Tc=4.9, 6 assumed**

Subcatchment EX: DR-1 PRE



Summary for Subcatchment EX: DR-1 PRE

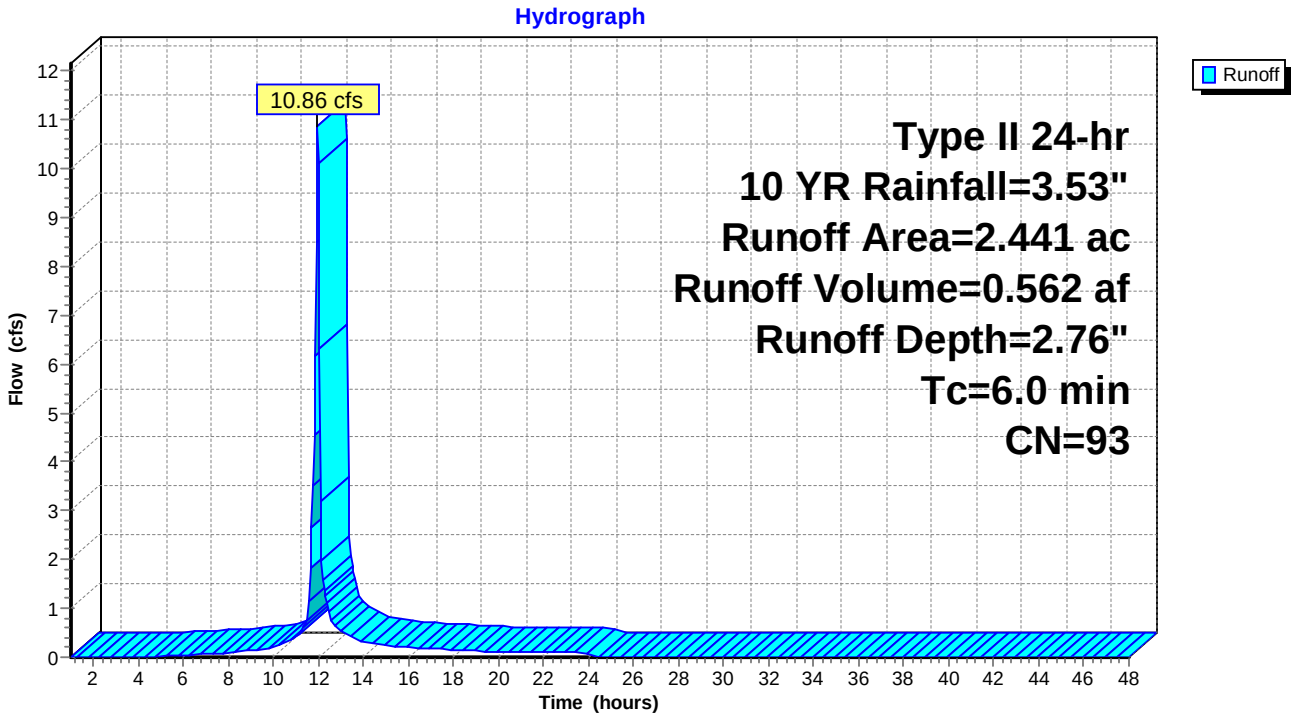
Runoff = 10.86 cfs @ 11.96 hrs, Volume= 0.562 af, Depth= 2.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10 YR Rainfall=3.53"

Area (ac)	CN	Description
2.047	98	Paved parking, HSG B
0.394	69	50-75% Grass cover, Fair, HSG B
2.441	93	Weighted Average
0.394		16.14% Pervious Area
2.047		83.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Calculated Tc=4.9, 6 assumed**

Subcatchment EX: DR-1 PRE



Summary for Subcatchment EX: DR-1 PRE

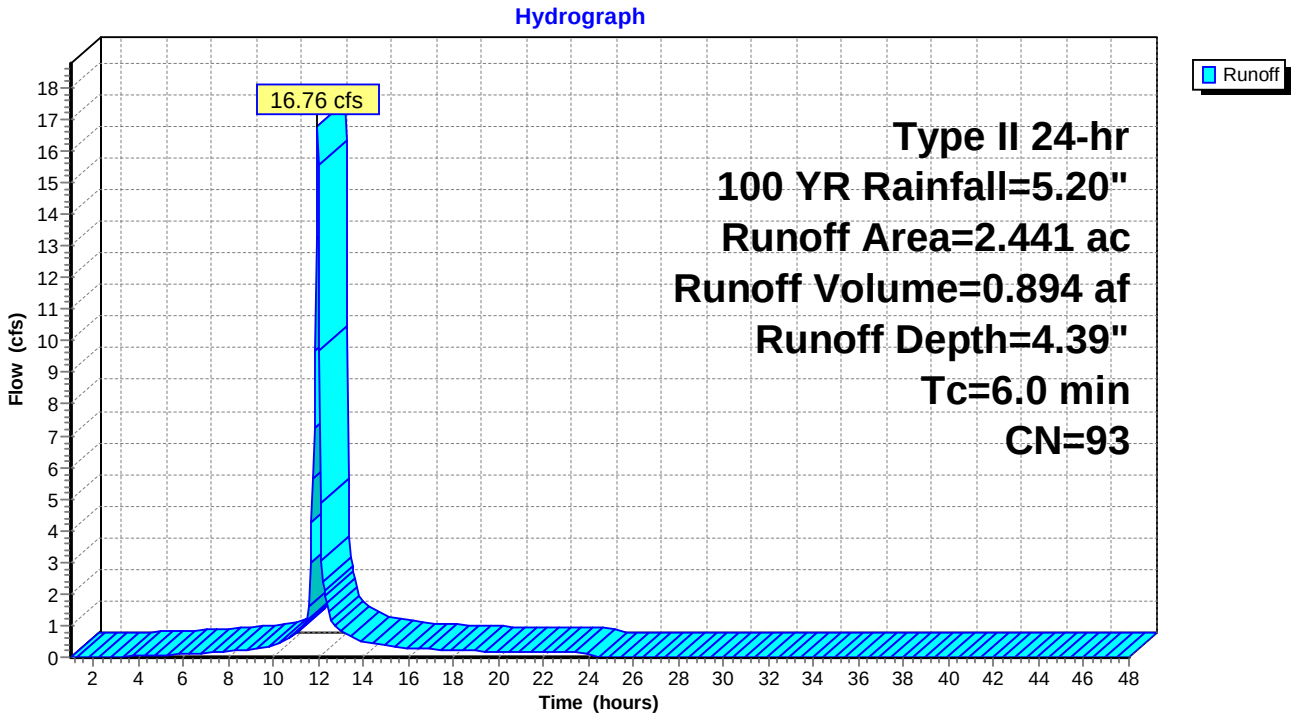
Runoff = 16.76 cfs @ 11.96 hrs, Volume= 0.894 af, Depth= 4.39"

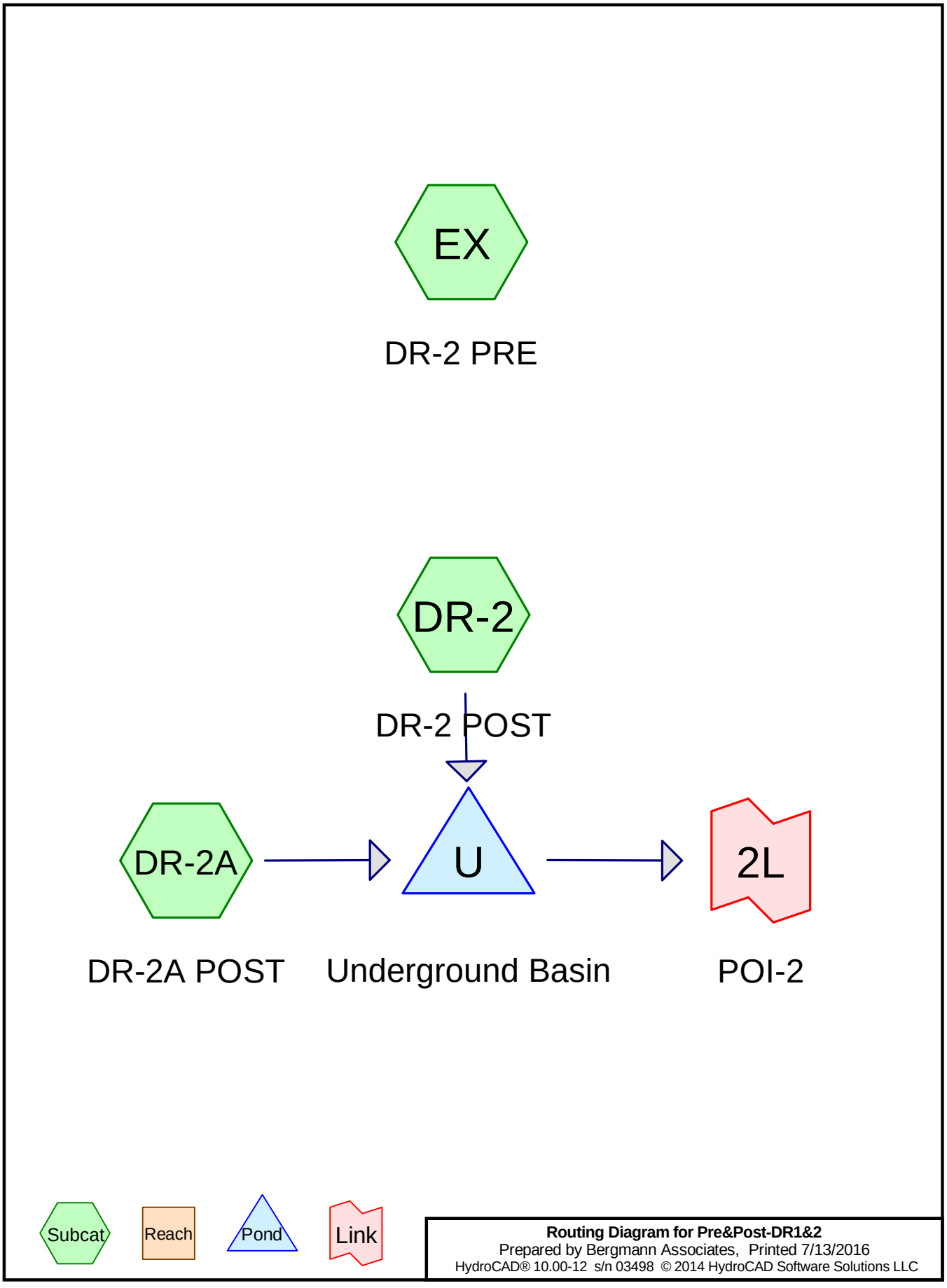
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100 YR Rainfall=5.20"

Area (ac)	CN	Description
2.047	98	Paved parking, HSG B
0.394	69	50-75% Grass cover, Fair, HSG B
2.441	93	Weighted Average
0.394		16.14% Pervious Area
2.047		83.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Calculated Tc=4.9, 6 assumed**

Subcatchment EX: DR-1 PRE





Routing Diagram for Pre&Post-DR1&2
Prepared by Bergmann Associates, Printed 7/13/2016

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.137	69	50-75% Grass cover, Fair, HSG B (EX)
0.946	61	>75% Grass cover, Good, HSG B (DR-2, DR-2A)
7.196	98	Paved parking, HSG B (DR-2, DR-2A, EX)
8.279	**93**	**TOTAL AREA**

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	DR-2	0.00	0.00	415.0	0.0088	0.013	12.0	0.0	0.0
2	U	474.24	473.58	220.0	0.0030	0.013	24.0	0.0	0.0

Summary for Subcatchment DR-2: DR-2 POST

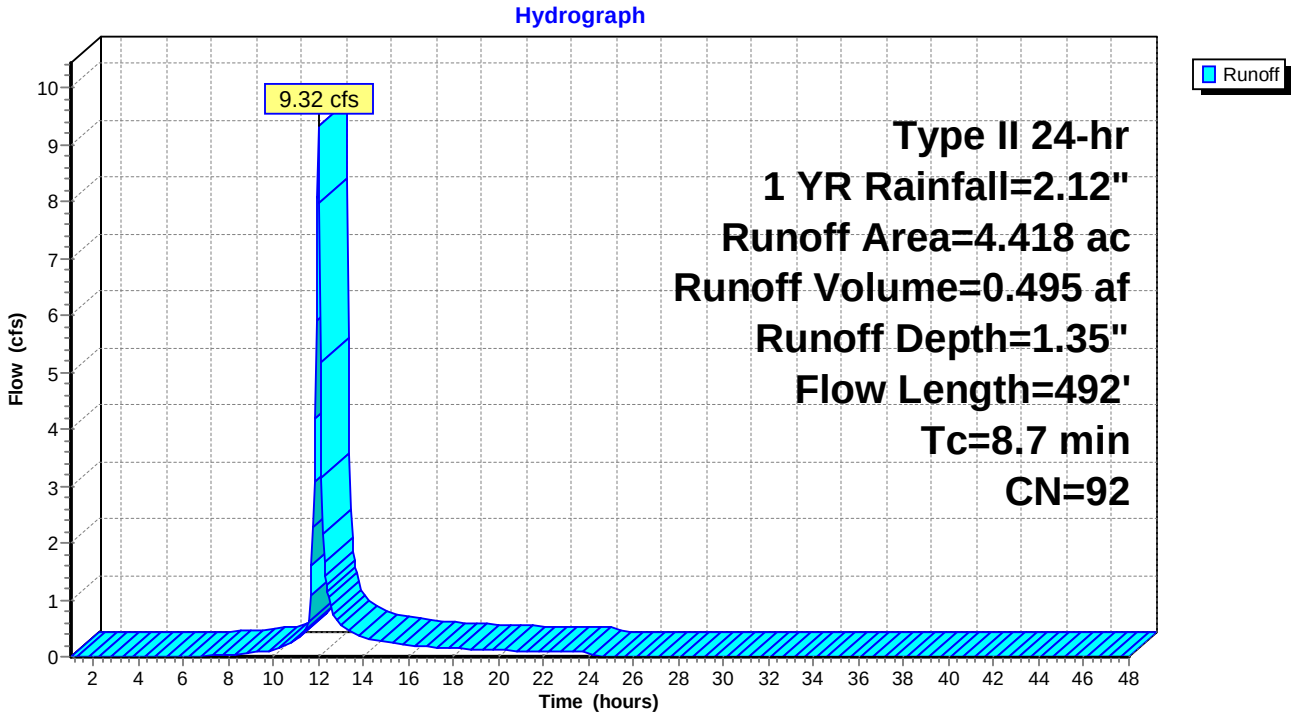
Runoff = 9.32 cfs @ 12.00 hrs, Volume= 0.495 af, Depth= 1.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1 YR Rainfall=2.12"

Area (ac)	CN	Description
3.745	98	Paved parking, HSG B
0.673	61	>75% Grass cover, Good, HSG B
4.418	92	Weighted Average
0.673		15.23% Pervious Area
3.745		84.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	34	0.0261	0.09		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.31"
0.7	43	0.0220	1.03		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.31"
1.6	415	0.0088	4.26	3.34	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
8.7	492	Total			

Subcatchment DR-2: DR-2 POST



Summary for Subcatchment DR-2A: DR-2A POST

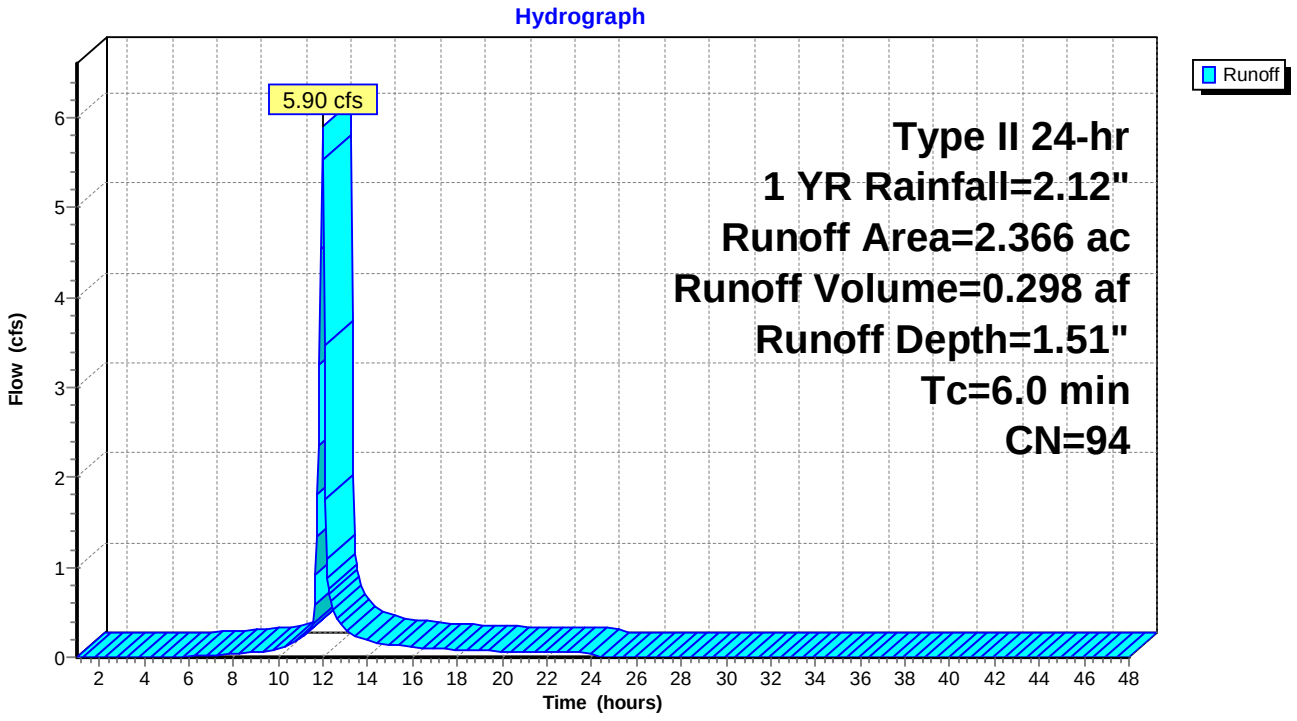
Runoff = 5.90 cfs @ 11.97 hrs, Volume= 0.298 af, Depth= 1.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1 YR Rainfall=2.12"

Area (ac)	CN	Description
2.093	98	Paved parking, HSG B
0.273	61	>75% Grass cover, Good, HSG B
2.366	94	Weighted Average
0.273		11.54% Pervious Area
2.093		88.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Min. Tc**

Subcatchment DR-2A: DR-2A POST



Summary for Subcatchment EX: DR-2 PRE

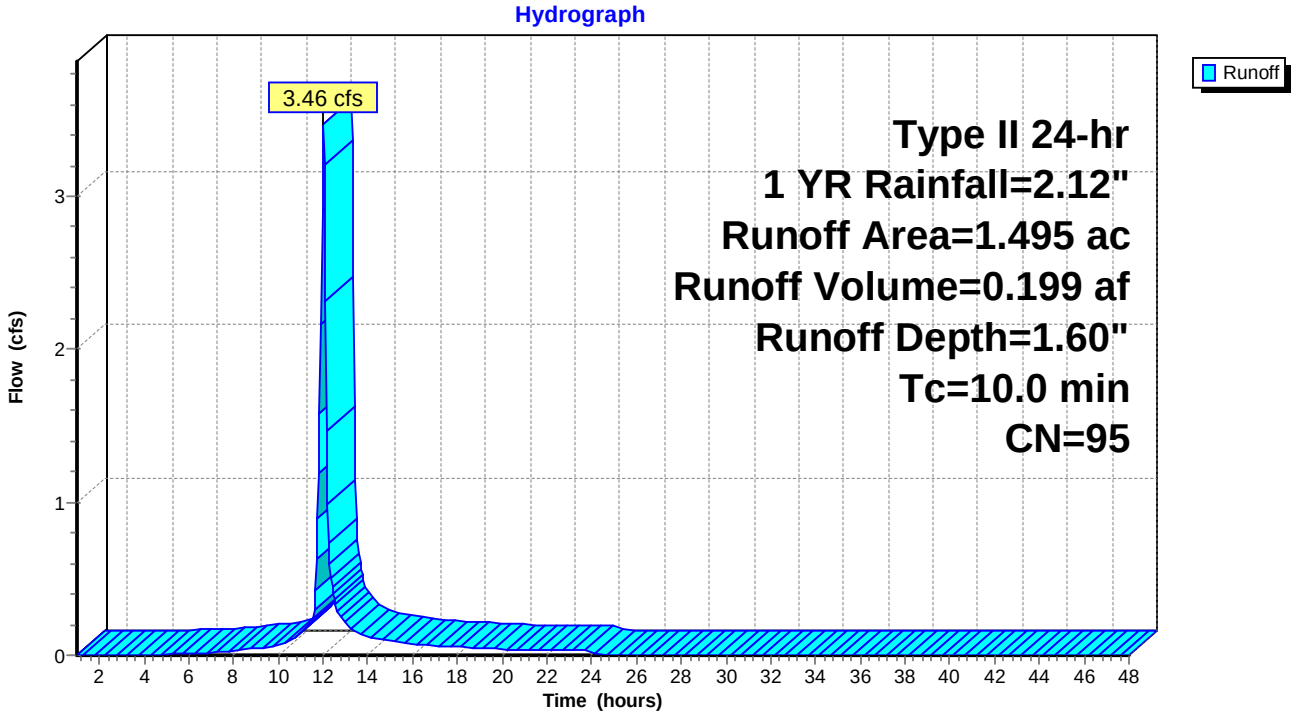
Runoff = 3.46 cfs @ 12.01 hrs, Volume= 0.199 af, Depth= 1.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1 YR Rainfall=2.12"

Area (ac)	CN	Description
1.358	98	Paved parking, HSG B
0.137	69	50-75% Grass cover, Fair, HSG B
1.495	95	Weighted Average
0.137		9.16% Pervious Area
1.358		90.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry,**

Subcatchment EX: DR-2 PRE



Summary for Pond U: Underground Basin

Inflow Area = 6.784 ac, 86.06% Impervious, Inflow Depth = 1.40" for 1 YR event
Inflow = 15.03 cfs @ 11.99 hrs, Volume= 0.793 af
Outflow = 3.41 cfs @ 12.19 hrs, Volume= 0.790 af, Atten= 77%, Lag= 12.1 min
Primary = 3.41 cfs @ 12.19 hrs, Volume= 0.790 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 475.77' @ 12.19 hrs Surf.Area= 0.301 ac Storage= 0.292 af

Plug-Flow detention time= 67.4 min calculated for 0.790 af (100% of inflow)
Center-of-Mass det. time= 65.5 min (873.0 - 807.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	474.24'	0.415 af	**108.75'W x 120.42'L x 5.50'H Field A** 1.653 af Overall - 0.616 af Embedded = 1.037 af x 40.0% Voids
#2A	474.99'	0.616 af	**ADS_StormTech MC-3500 d +Cap** x 240 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 15 Rows of 16 Chambers Cap Storage= +14.9 cf x 2 x 15 rows = 447.0 cf
		1.031 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	474.24'	**24.0" Round Culvert** L= 220.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 474.24' / 473.58' S= 0.0030 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	474.24'	**15.0" W x 6.0" H Vert. 1-YR** C= 0.600
#3	Device 1	475.75'	**6.0" W x 6.0" H Vert. 50-YR** C= 0.600

Primary OutFlow Max=3.41 cfs @ 12.19 hrs HW=475.77' TW=0.00' (Dynamic Tailwater)
↑└─**1=Culvert** (Passes 3.41 cfs of 7.70 cfs potential flow)
  ↑├─**2=1-YR** (Orifice Controls 3.40 cfs @ 5.45 fps)
  └─**3=50-YR** (Orifice Controls 0.01 cfs @ 0.49 fps)

Pond U: Underground Basin - Chamber Wizard Field A

Chamber Model = ADS_StormTech MC-3500 d +Cap (ADS StormTech® MC-3500 d rev 03/14 with Cap storage)
Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf
Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap
Cap Storage= +14.9 cf x 2 x 15 rows = 447.0 cf

77.0" Wide + 9.0" Spacing = 86.0" C-C Row Spacing

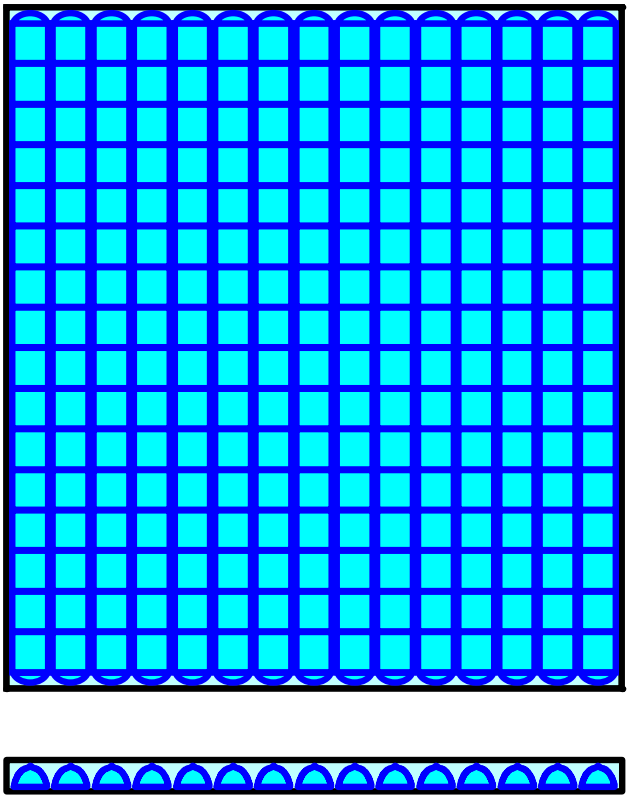
16 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 118.42' Row Length +12.0" End Stone x 2 = 120.42' Base Length
15 Rows x 77.0" Wide + 9.0" Spacing x 14 + 12.0" Side Stone x 2 = 108.75' Base Width
9.0" Base + 45.0" Chamber Height + 12.0" Cover = 5.50' Field Height

240 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 15 Rows = 26,835.5 cf Chamber Storage

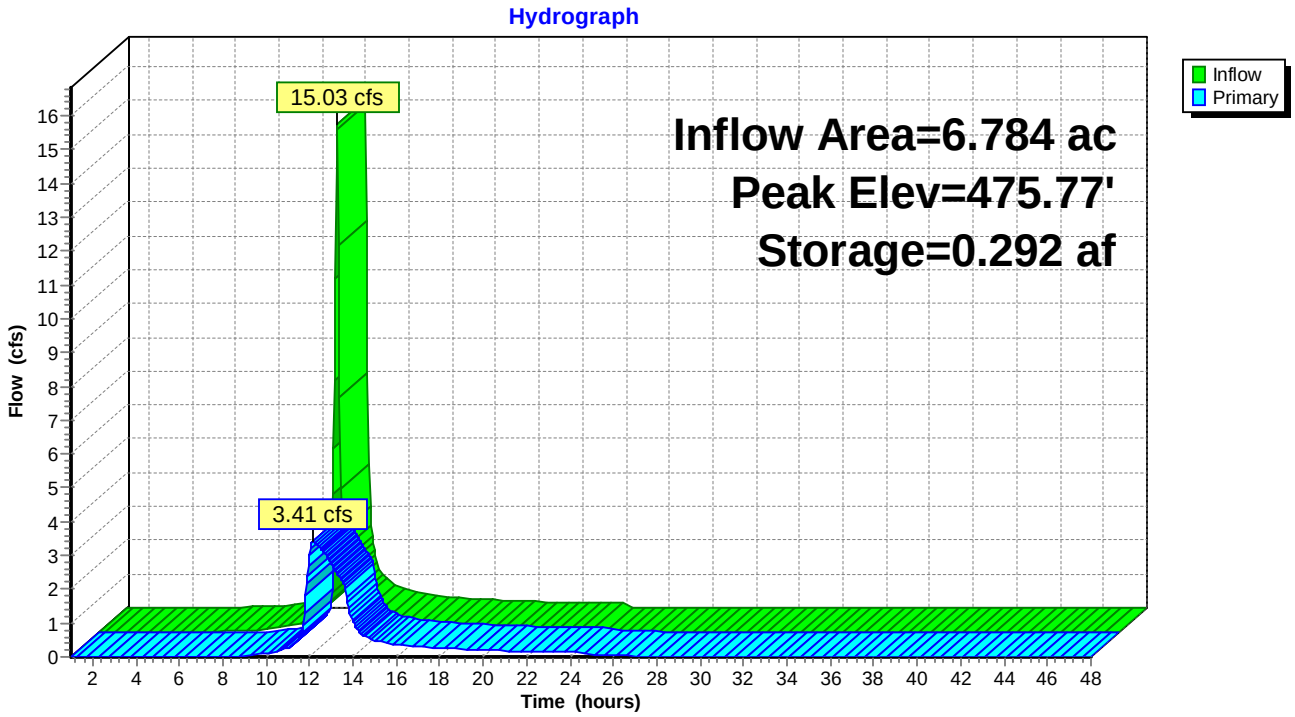
72,026.2 cf Field - 26,835.5 cf Chambers = 45,190.7 cf Stone x 40.0% Voids = 18,076.3 cf Stone Storage

Chamber Storage + Stone Storage = 44,911.8 cf = 1.031 af
Overall Storage Efficiency = 62.4%

240 Chambers
2,667.6 cy Field
1,673.7 cy Stone



Pond U: Underground Basin

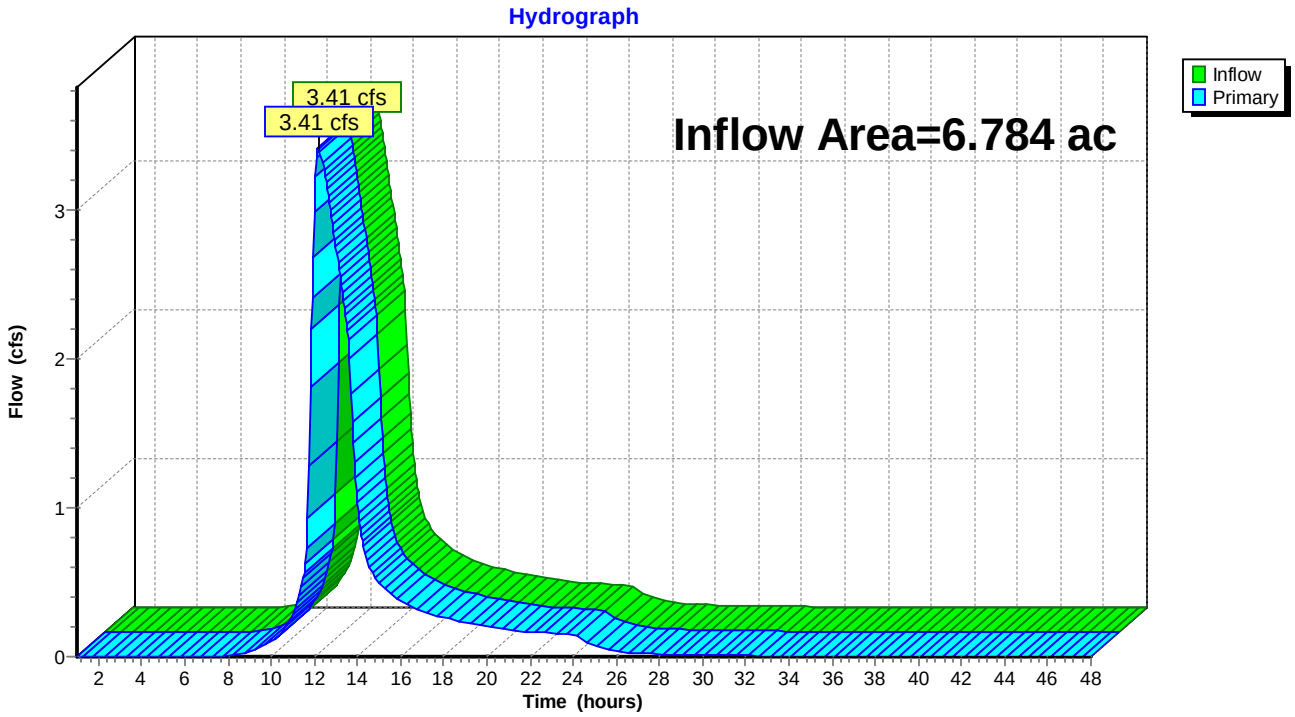


Summary for Link 2L: POI-2

Inflow Area = 6.784 ac, 86.06% Impervious, Inflow Depth > 1.40" for 1 YR event
Inflow = 3.41 cfs @ 12.19 hrs, Volume= 0.790 af
Primary = 3.41 cfs @ 12.19 hrs, Volume= 0.790 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Link 2L: POI-2



Summary for Subcatchment DR-2: DR-2 POST

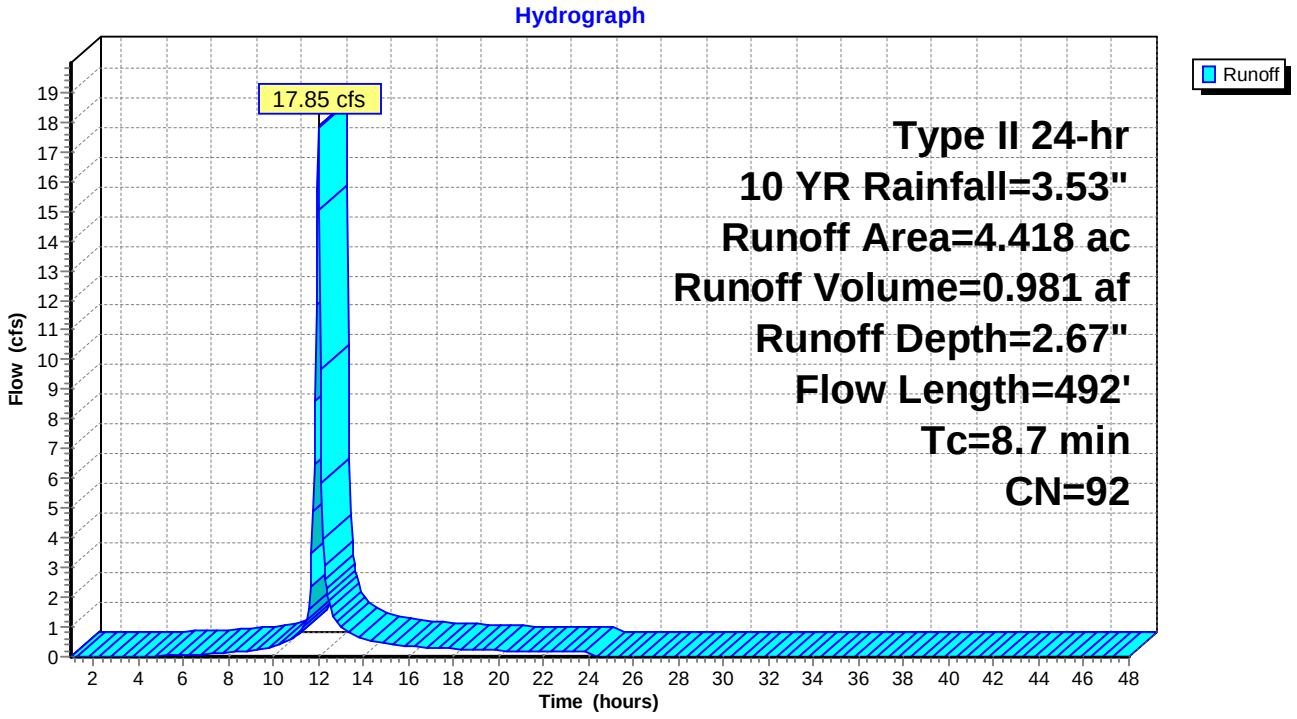
Runoff = 17.85 cfs @ 12.00 hrs, Volume= 0.981 af, Depth= 2.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10 YR Rainfall=3.53"

Area (ac)	CN	Description
3.745	98	Paved parking, HSG B
0.673	61	>75% Grass cover, Good, HSG B
4.418	92	Weighted Average
0.673		15.23% Pervious Area
3.745		84.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	34	0.0261	0.09		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.31"
0.7	43	0.0220	1.03		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.31"
1.6	415	0.0088	4.26	3.34	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
8.7	492	Total			

Subcatchment DR-2: DR-2 POST



Summary for Subcatchment DR-2A: DR-2A POST

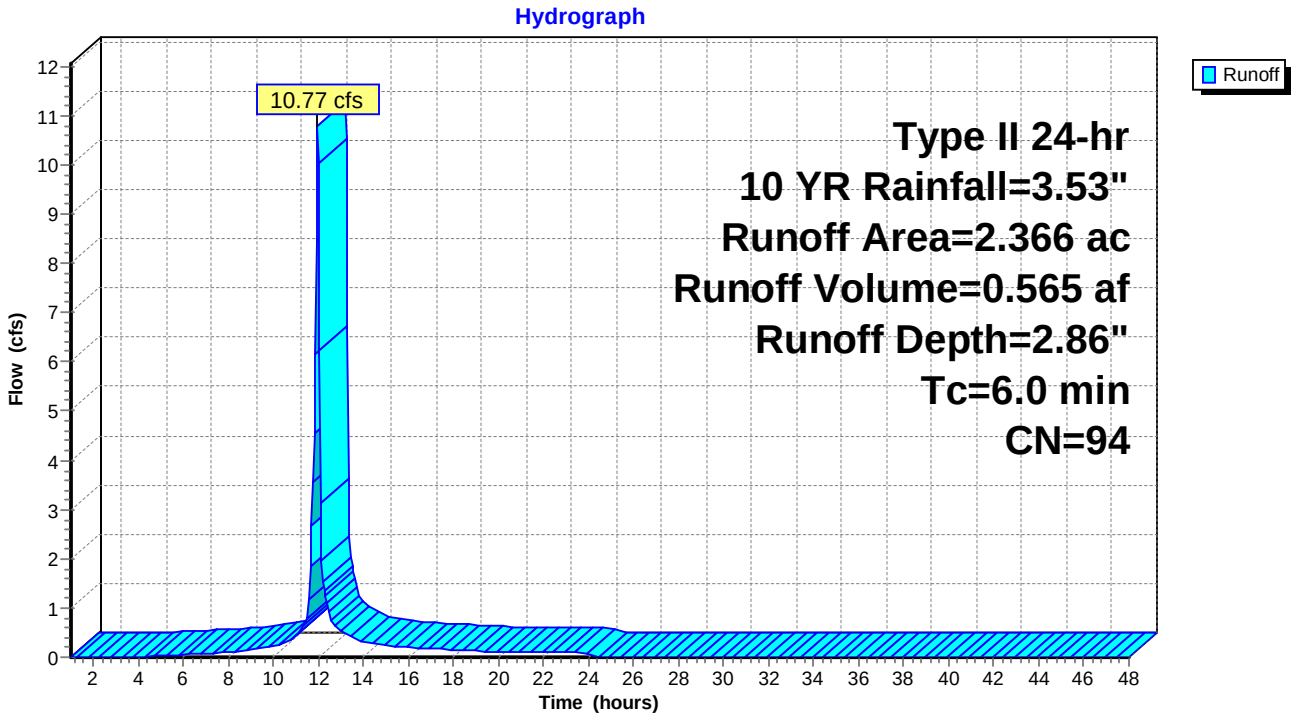
Runoff = 10.77 cfs @ 11.96 hrs, Volume= 0.565 af, Depth= 2.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10 YR Rainfall=3.53"

Area (ac)	CN	Description
2.093	98	Paved parking, HSG B
0.273	61	>75% Grass cover, Good, HSG B
2.366	94	Weighted Average
0.273		11.54% Pervious Area
2.093		88.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Min. Tc**

Subcatchment DR-2A: DR-2A POST



Summary for Subcatchment EX: DR-2 PRE

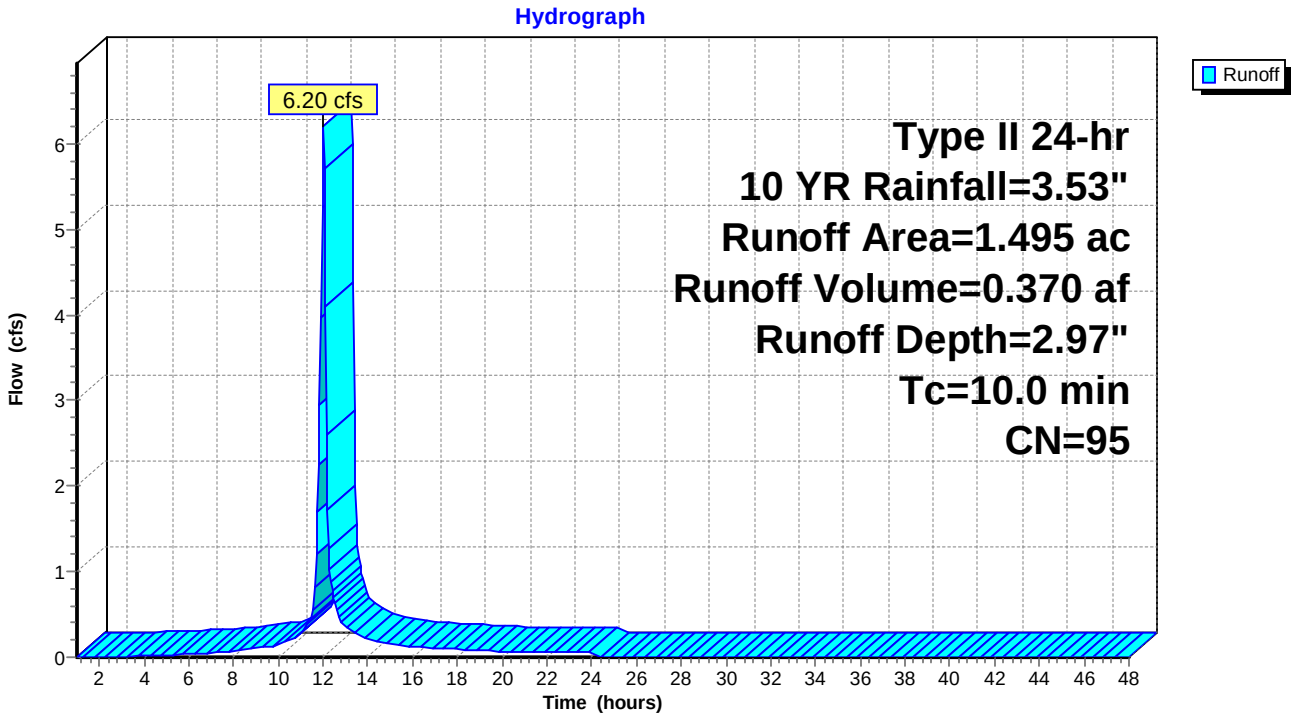
Runoff = 6.20 cfs @ 12.01 hrs, Volume= 0.370 af, Depth= 2.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10 YR Rainfall=3.53"

Area (ac)	CN	Description
1.358	98	Paved parking, HSG B
0.137	69	50-75% Grass cover, Fair, HSG B
1.495	95	Weighted Average
0.137		9.16% Pervious Area
1.358		90.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry,**

Subcatchment EX: DR-2 PRE



Summary for Pond U: Underground Basin

Inflow Area = 6.784 ac, 86.06% Impervious, Inflow Depth = 2.74" for 10 YR event
Inflow = 28.27 cfs @ 11.98 hrs, Volume= 1.546 af
Outflow = 5.90 cfs @ 12.20 hrs, Volume= 1.544 af, Atten= 79%, Lag= 12.8 min
Primary = 5.90 cfs @ 12.20 hrs, Volume= 1.544 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 476.96' @ 12.20 hrs Surf.Area= 0.301 ac Storage= 0.580 af

Plug-Flow detention time= 64.6 min calculated for 1.544 af (100% of inflow)
Center-of-Mass det. time= 63.6 min (852.4 - 788.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	474.24'	0.415 af	**108.75'W x 120.42'L x 5.50'H Field A** 1.653 af Overall - 0.616 af Embedded = 1.037 af x 40.0% Voids
#2A	474.99'	0.616 af	**ADS_StormTech MC-3500 d +Cap** x 240 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 15 Rows of 16 Chambers Cap Storage= +14.9 cf x 2 x 15 rows = 447.0 cf
		1.031 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	474.24'	**24.0" Round Culvert** L= 220.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 474.24' / 473.58' S= 0.0030 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	474.24'	**15.0" W x 6.0" H Vert. 1-YR** C= 0.600
#3	Device 1	475.75'	**6.0" W x 6.0" H Vert. 50-YR** C= 0.600

Primary OutFlow Max=5.90 cfs @ 12.20 hrs HW=476.96' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Passes 5.90 cfs of 14.36 cfs potential flow)
  ├**2=1-YR** (Orifice Controls 4.72 cfs @ 7.56 fps)
  └**3=50-YR** (Orifice Controls 1.17 cfs @ 4.70 fps)

Pond U: Underground Basin - Chamber Wizard Field A

Chamber Model = ADS_StormTech MC-3500 d +Cap (ADS StormTech® MC-3500 d rev 03/14 with Cap storage)
Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf
Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap
Cap Storage= +14.9 cf x 2 x 15 rows = 447.0 cf

77.0" Wide + 9.0" Spacing = 86.0" C-C Row Spacing

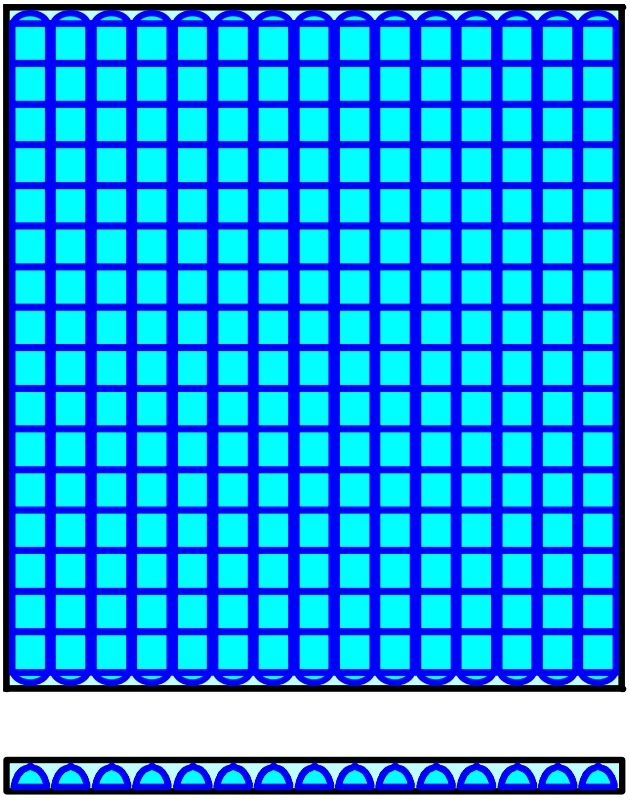
16 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 118.42' Row Length +12.0" End Stone x 2 = 120.42' Base Length
15 Rows x 77.0" Wide + 9.0" Spacing x 14 + 12.0" Side Stone x 2 = 108.75' Base Width
9.0" Base + 45.0" Chamber Height + 12.0" Cover = 5.50' Field Height

240 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 15 Rows = 26,835.5 cf Chamber Storage

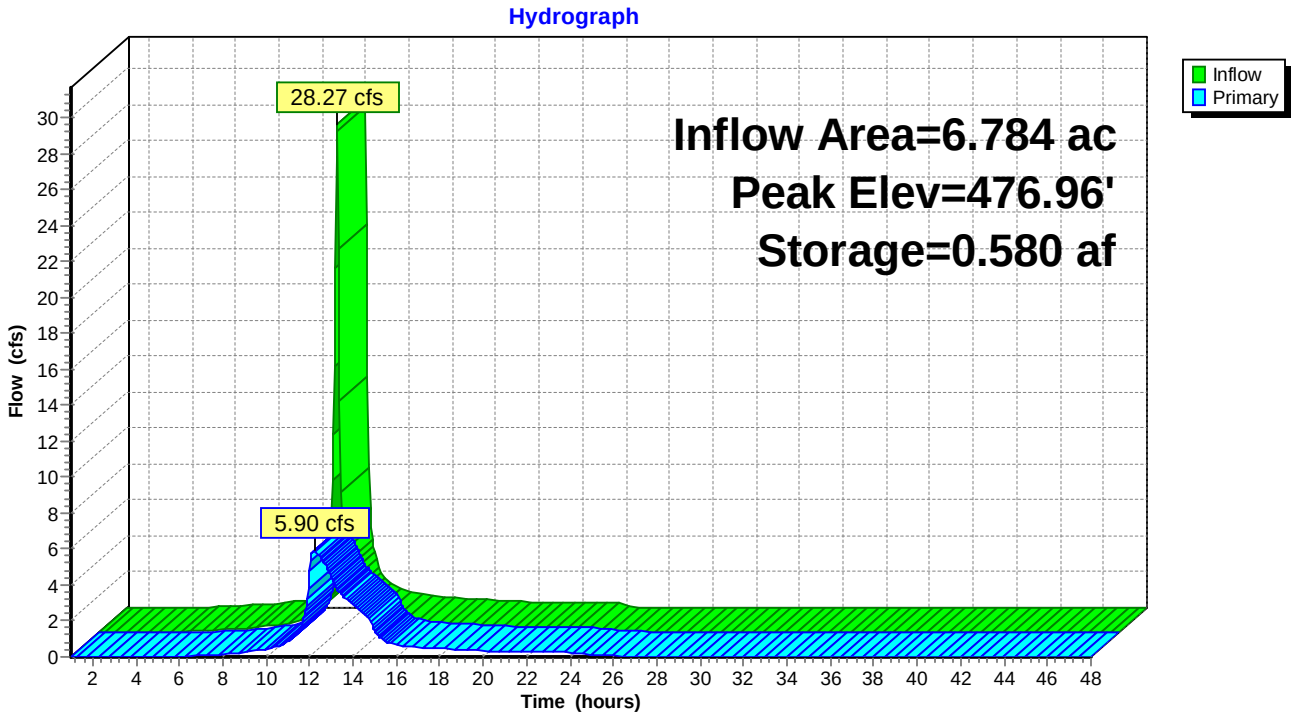
72,026.2 cf Field - 26,835.5 cf Chambers = 45,190.7 cf Stone x 40.0% Voids = 18,076.3 cf Stone Storage

Chamber Storage + Stone Storage = 44,911.8 cf = 1.031 af
Overall Storage Efficiency = 62.4%

240 Chambers
2,667.6 cy Field
1,673.7 cy Stone



Pond U: Underground Basin

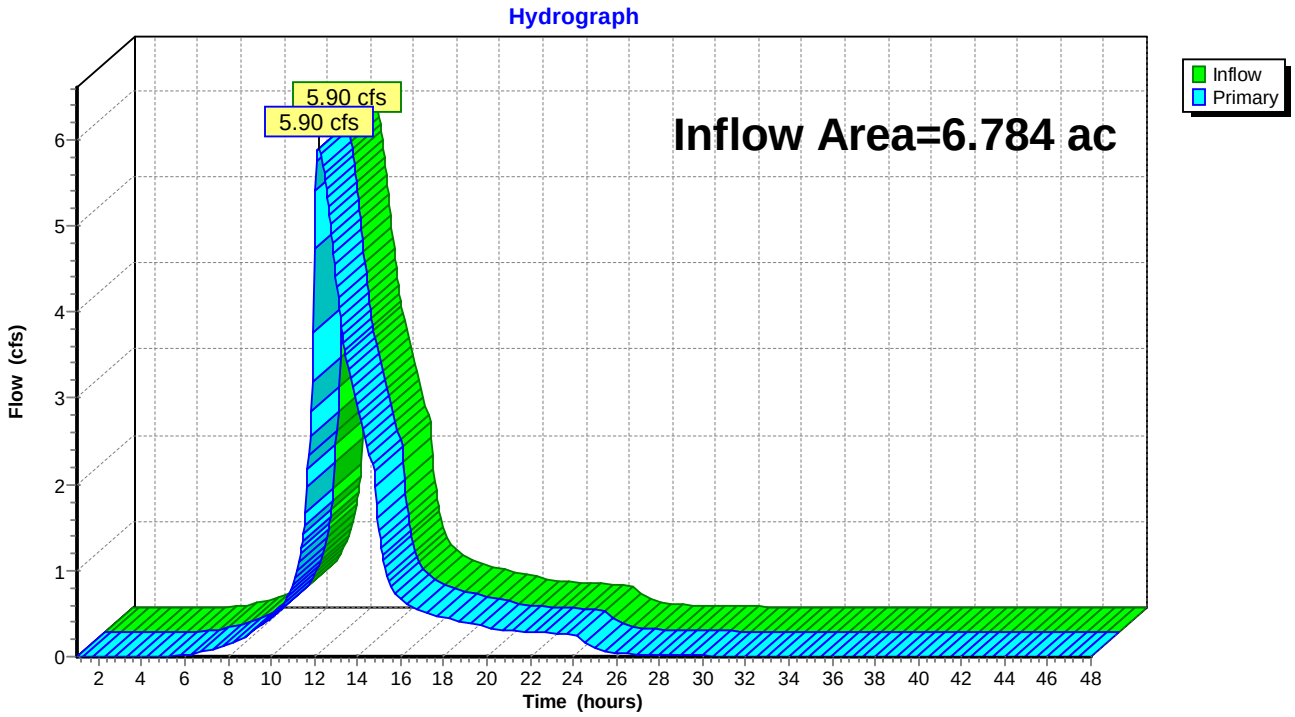


Summary for Link 2L: POI-2

Inflow Area = 6.784 ac, 86.06% Impervious, Inflow Depth > 2.73" for 10 YR event
Inflow = 5.90 cfs @ 12.20 hrs, Volume= 1.544 af
Primary = 5.90 cfs @ 12.20 hrs, Volume= 1.544 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Link 2L: POI-2



Summary for Subcatchment DR-2: DR-2 POST

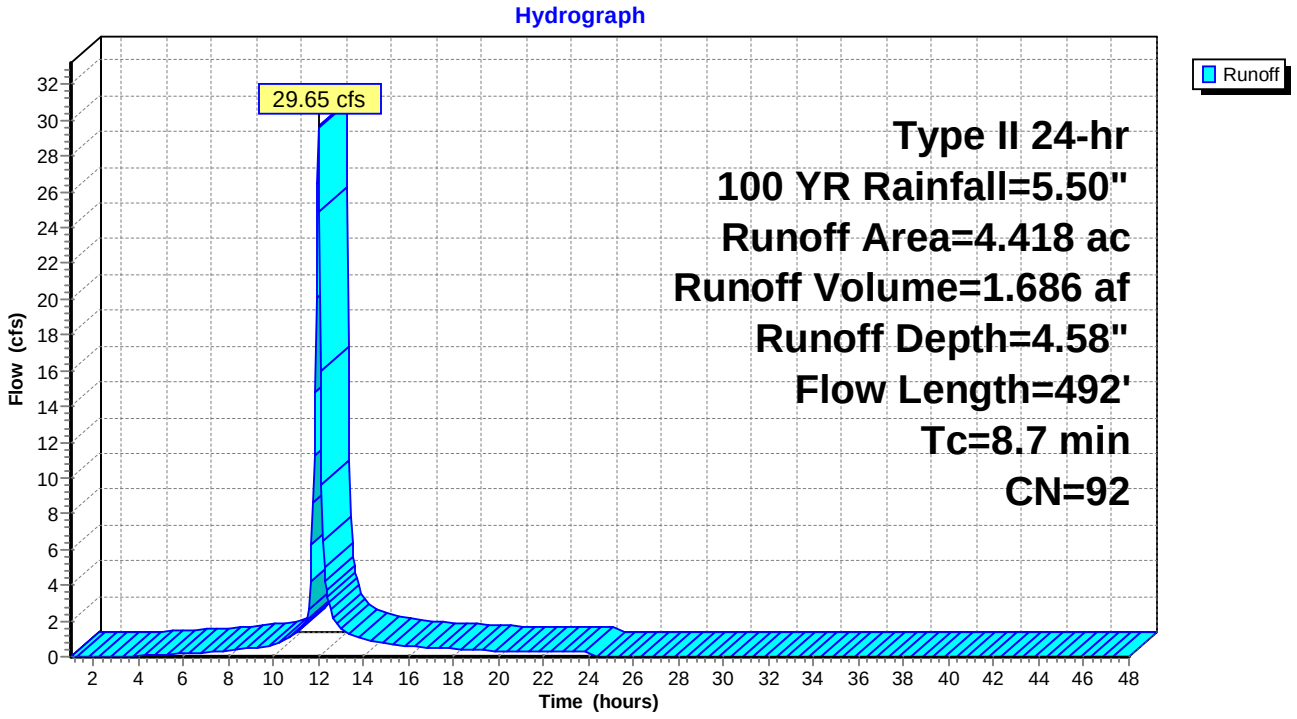
Runoff = 29.65 cfs @ 11.99 hrs, Volume= 1.686 af, Depth= 4.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100 YR Rainfall=5.50"

Area (ac)	CN	Description
3.745	98	Paved parking, HSG B
0.673	61	>75% Grass cover, Good, HSG B
4.418	92	Weighted Average
0.673		15.23% Pervious Area
3.745		84.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	34	0.0261	0.09		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.31"
0.7	43	0.0220	1.03		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.31"
1.6	415	0.0088	4.26	3.34	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
8.7	492	Total			

Subcatchment DR-2: DR-2 POST



Summary for Subcatchment DR-2A: DR-2A POST

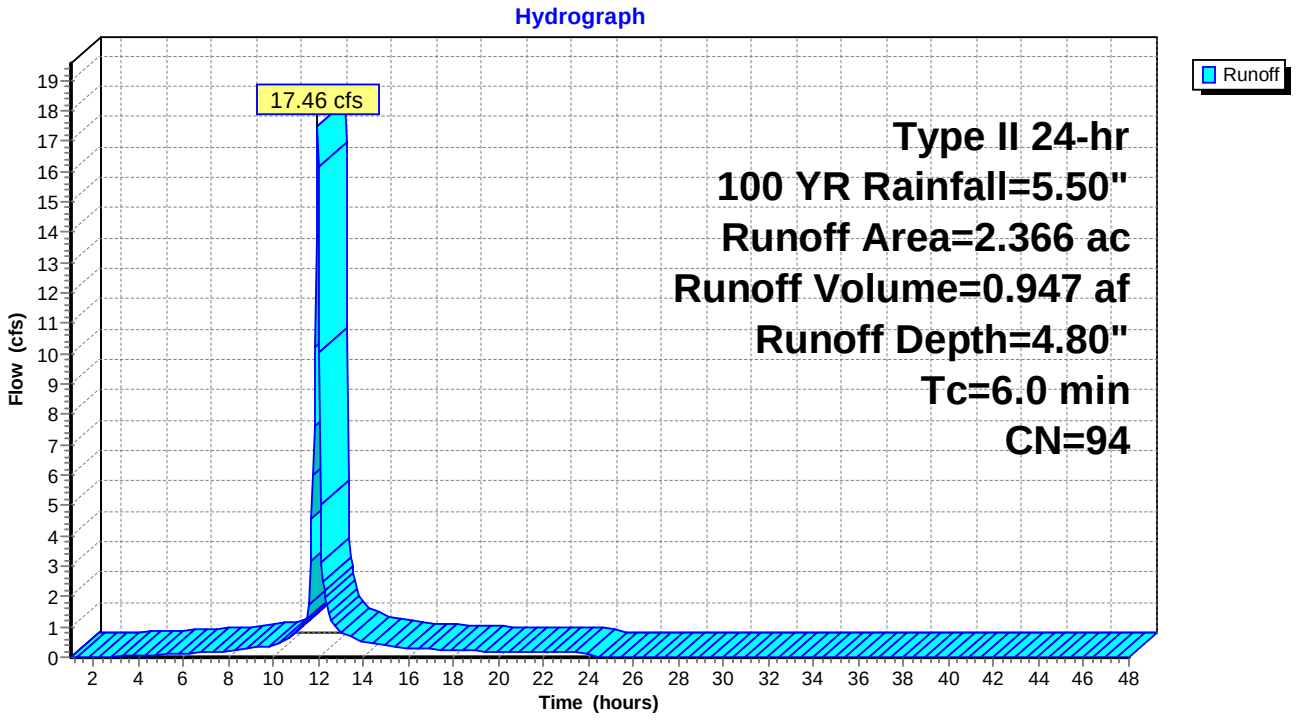
Runoff = 17.46 cfs @ 11.96 hrs, Volume= 0.947 af, Depth= 4.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100 YR Rainfall=5.50"

Area (ac)	CN	Description
2.093	98	Paved parking, HSG B
0.273	61	>75% Grass cover, Good, HSG B
2.366	94	Weighted Average
0.273		11.54% Pervious Area
2.093		88.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Min. Tc**

Subcatchment DR-2A: DR-2A POST



Summary for Subcatchment EX: DR-2 PRE

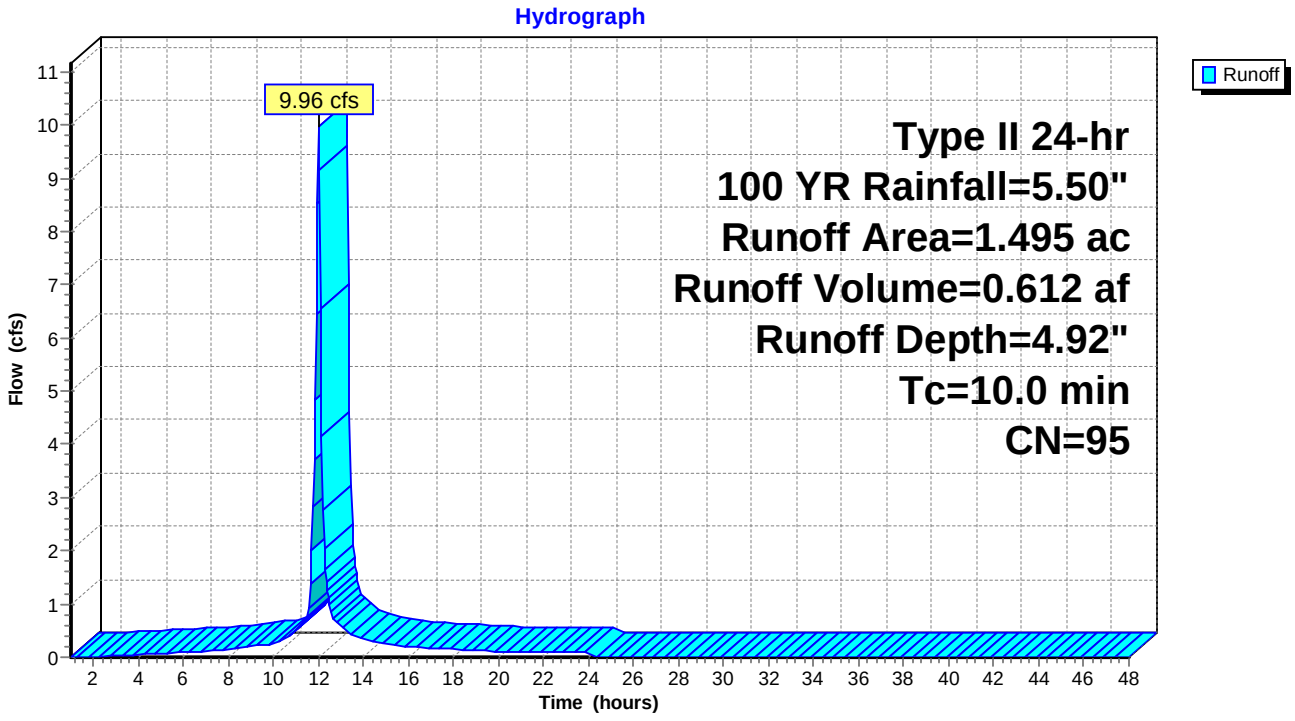
Runoff = 9.96 cfs @ 12.01 hrs, Volume= 0.612 af, Depth= 4.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100 YR Rainfall=5.50"

Area (ac)	CN	Description
1.358	98	Paved parking, HSG B
0.137	69	50-75% Grass cover, Fair, HSG B
1.495	95	Weighted Average
0.137		9.16% Pervious Area
1.358		90.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry,**

Subcatchment EX: DR-2 PRE



Summary for Pond U: Underground Basin

Inflow Area = 6.784 ac, 86.06% Impervious, Inflow Depth = 4.66" for 100 YR event
Inflow = 46.55 cfs @ 11.98 hrs, Volume= 2.632 af
Outflow = 8.96 cfs @ 12.21 hrs, Volume= 2.630 af, Atten= 81%, Lag= 13.6 min
Primary = 8.96 cfs @ 12.21 hrs, Volume= 2.630 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 479.47' @ 12.21 hrs Surf.Area= 0.301 ac Storage= 0.999 af

Plug-Flow detention time= 64.9 min calculated for 2.627 af (100% of inflow)
Center-of-Mass det. time= 65.1 min (839.8 - 774.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	474.24'	0.415 af	**108.75'W x 120.42'L x 5.50'H Field A** 1.653 af Overall - 0.616 af Embedded = 1.037 af x 40.0% Voids
#2A	474.99'	0.616 af	**ADS_StormTech MC-3500 d +Cap** x 240 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 15 Rows of 16 Chambers Cap Storage= +14.9 cf x 2 x 15 rows = 447.0 cf
		1.031 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	474.24'	**24.0" Round Culvert** L= 220.0' CMP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 474.24' / 473.58' S= 0.0030 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	474.24'	**15.0" W x 6.0" H Vert. 1-YR** C= 0.600
#3	Device 1	475.75'	**6.0" W x 6.0" H Vert. 50-YR** C= 0.600

Primary OutFlow Max=8.95 cfs @ 12.21 hrs HW=479.46' TW=0.00' (Dynamic Tailwater)
↑—**1=Culvert** (Passes 8.95 cfs of 24.12 cfs potential flow)
↑—**2=1-YR** (Orifice Controls 6.71 cfs @ 10.74 fps)
—**3=50-YR** (Orifice Controls 2.24 cfs @ 8.96 fps)

Pond U: Underground Basin - Chamber Wizard Field A

Chamber Model = ADS_StormTech MC-3500 d +Cap (ADS StormTech® MC-3500 d rev 03/14 with Cap storage)
Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf
Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap
Cap Storage= +14.9 cf x 2 x 15 rows = 447.0 cf

77.0" Wide + 9.0" Spacing = 86.0" C-C Row Spacing

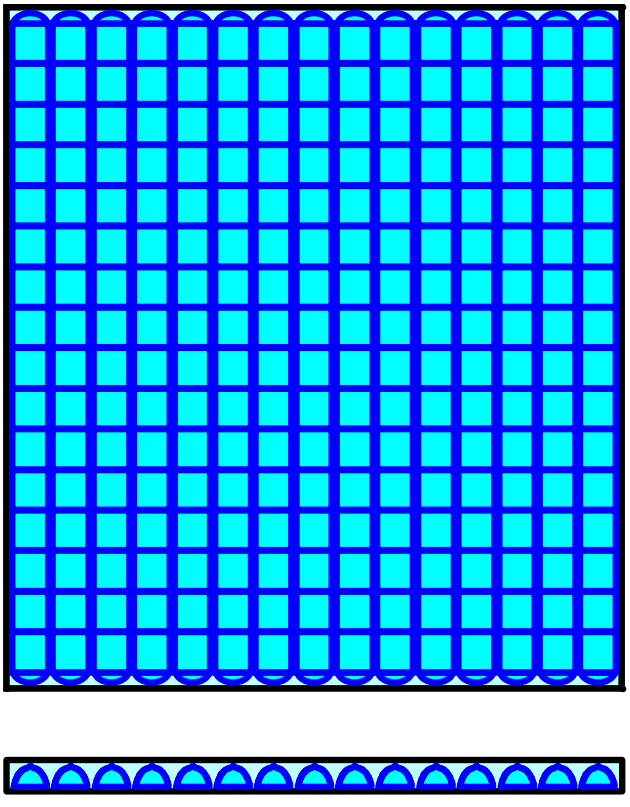
16 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 118.42' Row Length +12.0" End Stone x 2 = 120.42' Base Length
15 Rows x 77.0" Wide + 9.0" Spacing x 14 + 12.0" Side Stone x 2 = 108.75' Base Width
9.0" Base + 45.0" Chamber Height + 12.0" Cover = 5.50' Field Height

240 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 15 Rows = 26,835.5 cf Chamber Storage

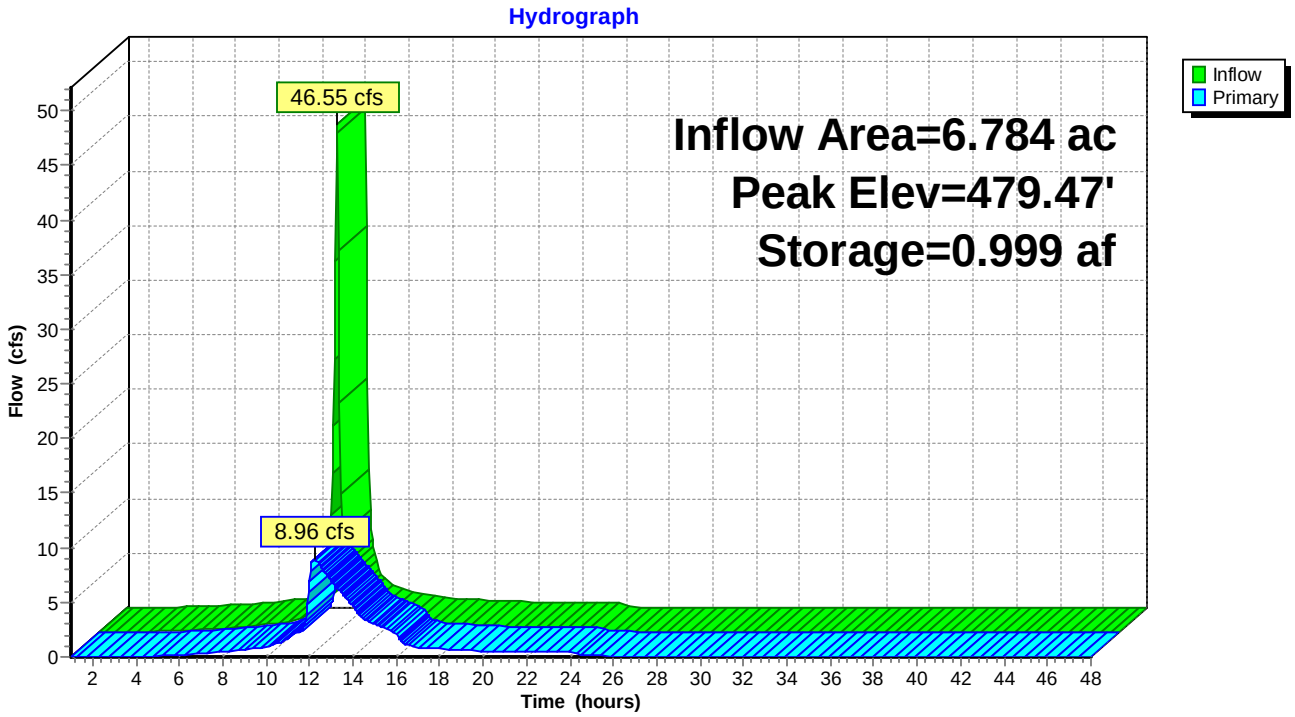
72,026.2 cf Field - 26,835.5 cf Chambers = 45,190.7 cf Stone x 40.0% Voids = 18,076.3 cf Stone Storage

Chamber Storage + Stone Storage = 44,911.8 cf = 1.031 af
Overall Storage Efficiency = 62.4%

240 Chambers
2,667.6 cy Field
1,673.7 cy Stone



Pond U: Underground Basin

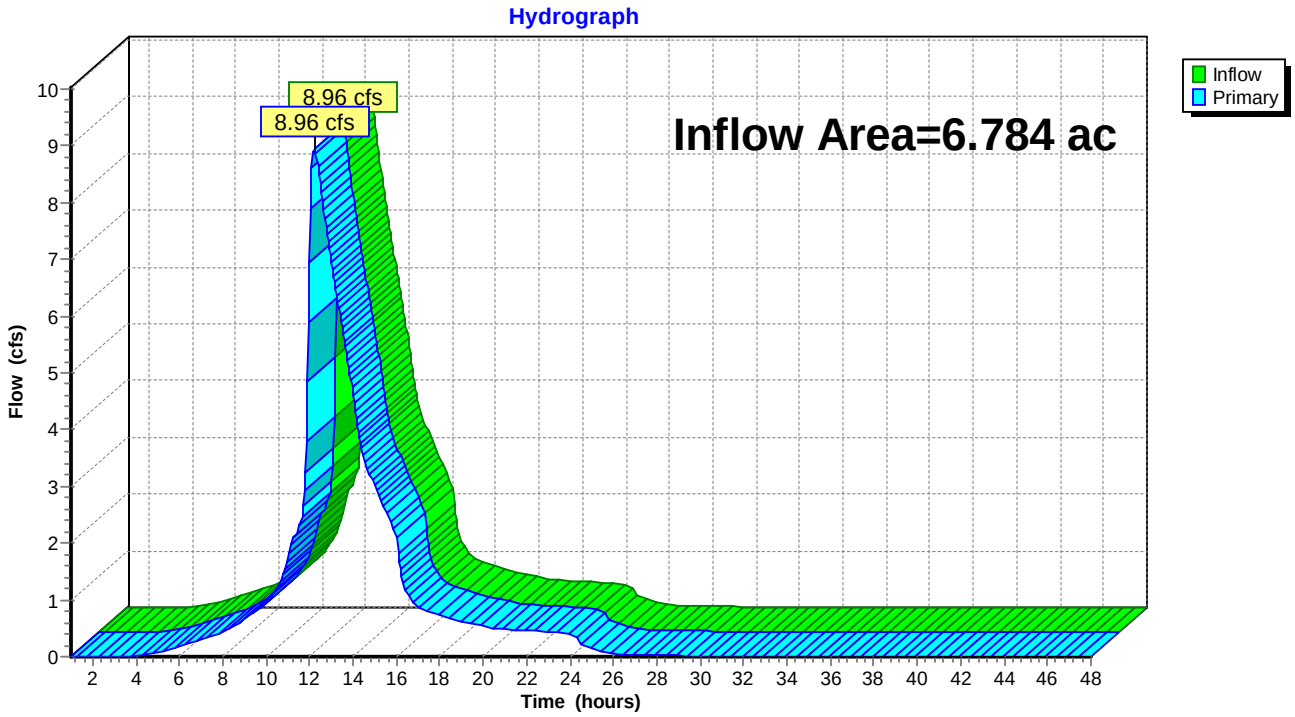


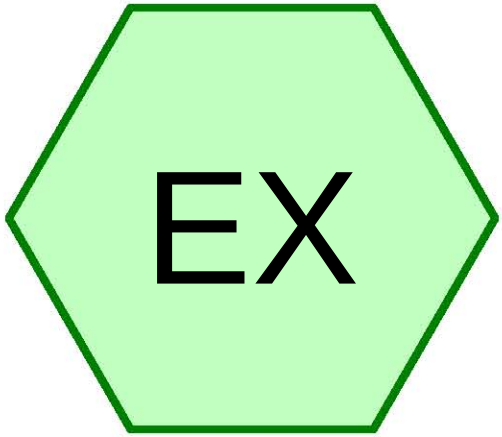
Summary for Link 2L: POI-2

Inflow Area = 6.784 ac, 86.06% Impervious, Inflow Depth > 4.65" for 100 YR event
Inflow = 8.96 cfs @ 12.21 hrs, Volume= 2.630 af
Primary = 8.96 cfs @ 12.21 hrs, Volume= 2.630 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs

Link 2L: POI-2





DR-3 PRE

Subcat Reach Pond Link

Routing Diagram for Pre&Post-DR3
Prepared by Bergmann Associates, Printed 7/13/2016

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.178	69	50-75% Grass cover, Fair, HSG B (EX)
0.836	98	Paved parking, HSG B (EX)
1.014	**93**	**TOTAL AREA**

Summary for Subcatchment EX: DR-3 PRE

[49] Hint: Tc<2dt may require smaller dt

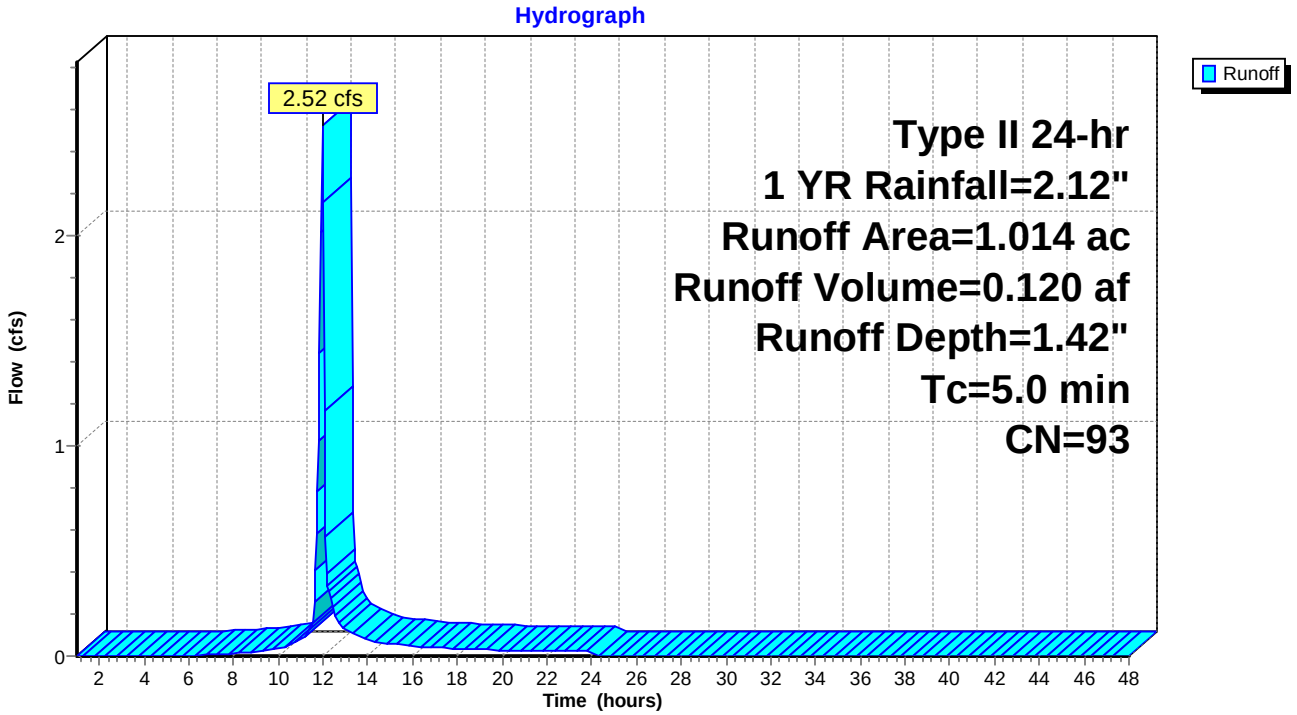
Runoff = 2.52 cfs @ 11.95 hrs, Volume= 0.120 af, Depth= 1.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1 YR Rainfall=2.12"

Area (ac)	CN	Description
0.836	98	Paved parking, HSG B
0.178	69	50-75% Grass cover, Fair, HSG B
1.014	93	Weighted Average
0.178		17.55% Pervious Area
0.836		82.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, 10**

Subcatchment EX: DR-3 PRE



Summary for Subcatchment EX: DR-3 PRE

[49] Hint: Tc<2dt may require smaller dt

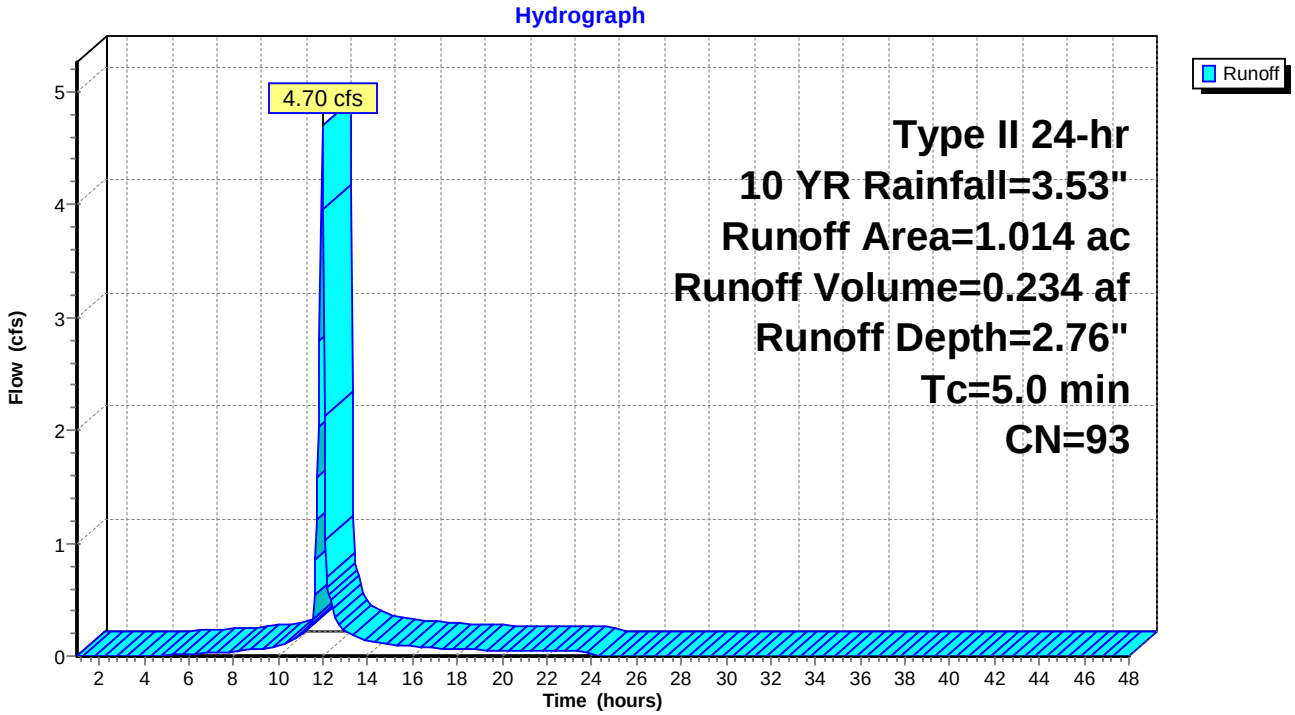
Runoff = 4.70 cfs @ 11.95 hrs, Volume= 0.234 af, Depth= 2.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10 YR Rainfall=3.53"

Area (ac)	CN	Description
0.836	98	Paved parking, HSG B
0.178	69	50-75% Grass cover, Fair, HSG B
1.014	93	Weighted Average
0.178		17.55% Pervious Area
0.836		82.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, 10**

Subcatchment EX: DR-3 PRE



Summary for Subcatchment EX: DR-3 PRE

[49] Hint: Tc<2dt may require smaller dt

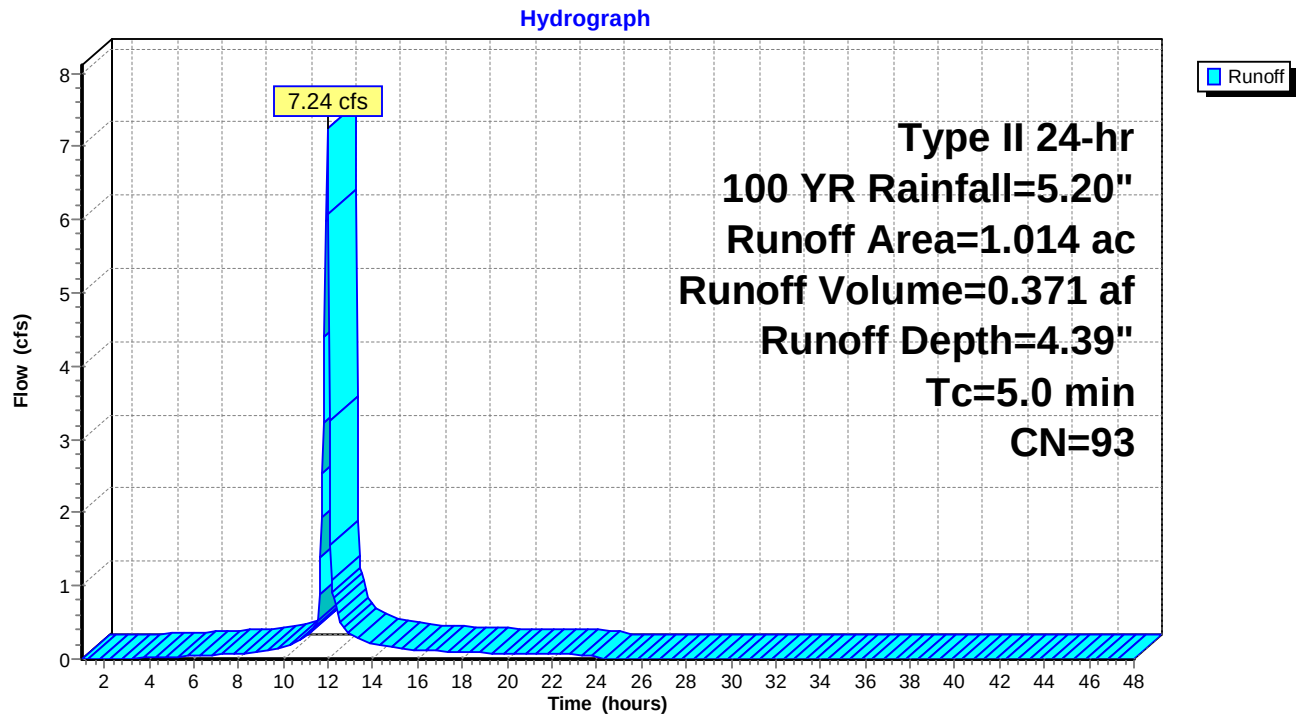
Runoff = 7.24 cfs @ 11.95 hrs, Volume= 0.371 af, Depth= 4.39"

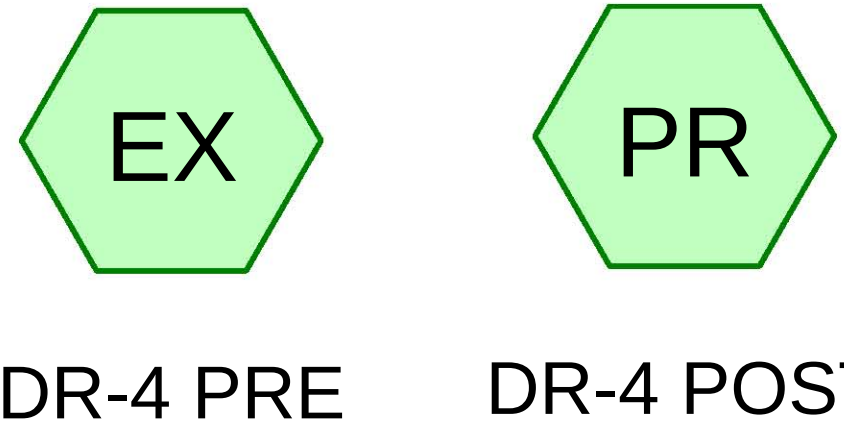
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100 YR Rainfall=5.20"

Area (ac)	CN	Description
0.836	98	Paved parking, HSG B
0.178	69	50-75% Grass cover, Fair, HSG B
1.014	93	Weighted Average
0.178		17.55% Pervious Area
0.836		82.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, 10**

Subcatchment EX: DR-3 PRE





Subcat Reach Pond Link

Routing Diagram for Pre&Post-DR4
Prepared by Bergmann Associates, Printed 7/13/2016

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.694	69	50-75% Grass cover, Fair, HSG B (EX)
0.491	61	>75% Grass cover, Good, HSG B (PR)
2.104	98	Paved parking, HSG B (EX, PR)
3.289	**86**	**TOTAL AREA**

Summary for Subcatchment EX: DR-4 PRE

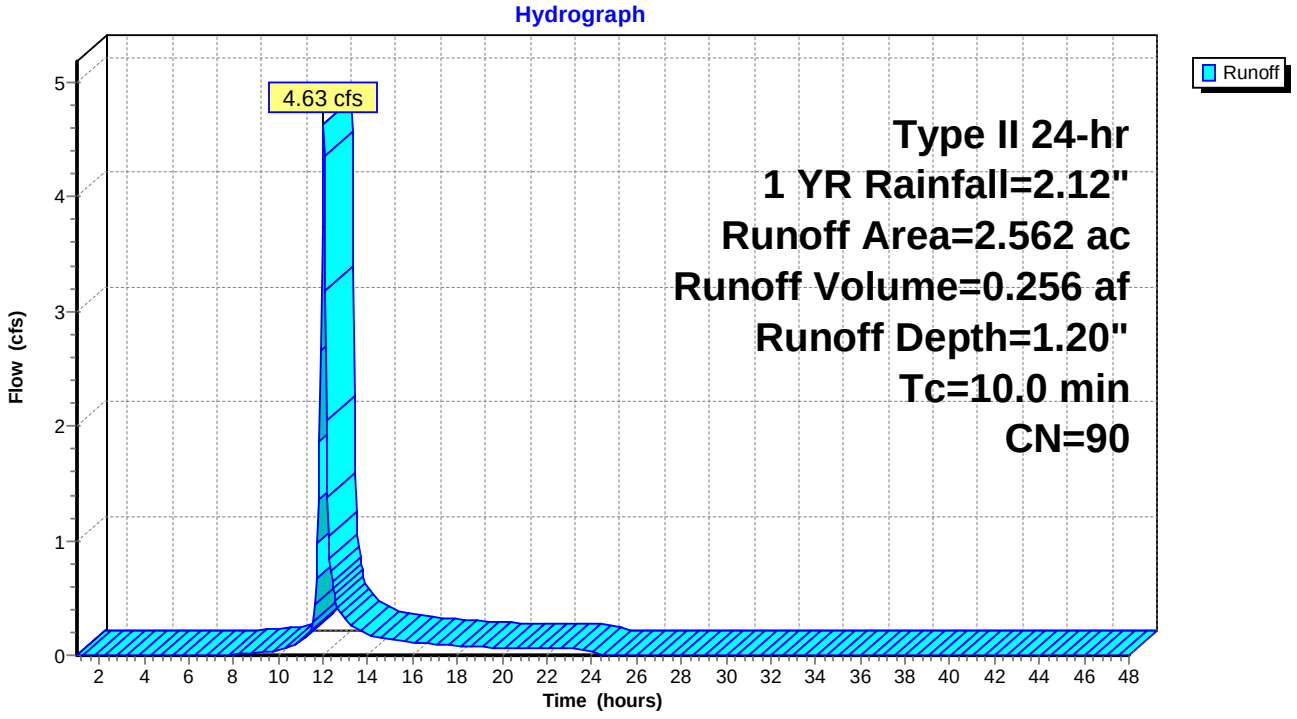
Runoff = 4.63 cfs @ 12.01 hrs, Volume= 0.256 af, Depth= 1.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1 YR Rainfall=2.12"

Area (ac)	CN	Description
1.868	98	Paved parking, HSG B
0.694	69	50-75% Grass cover, Fair, HSG B
2.562	90	Weighted Average
0.694		27.09% Pervious Area
1.868		72.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry,**

Subcatchment EX: DR-4 PRE



Summary for Subcatchment PR: DR-4 POST

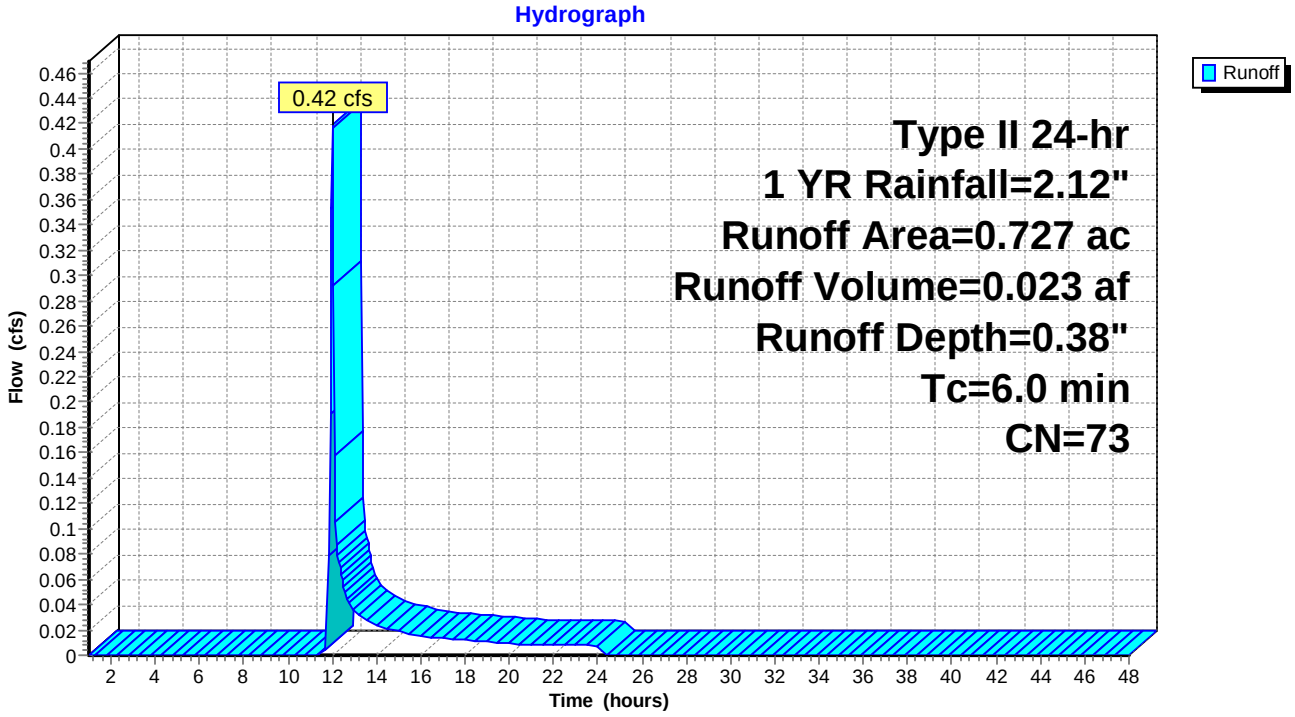
Runoff = 0.42 cfs @ 11.99 hrs, Volume= 0.023 af, Depth= 0.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 1 YR Rainfall=2.12"

Area (ac)	CN	Description
0.236	98	Paved parking, HSG B
0.491	61	>75% Grass cover, Good, HSG B
0.727	73	Weighted Average
0.491		67.54% Pervious Area
0.236		32.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PR: DR-4 POST



Summary for Subcatchment EX: DR-4 PRE

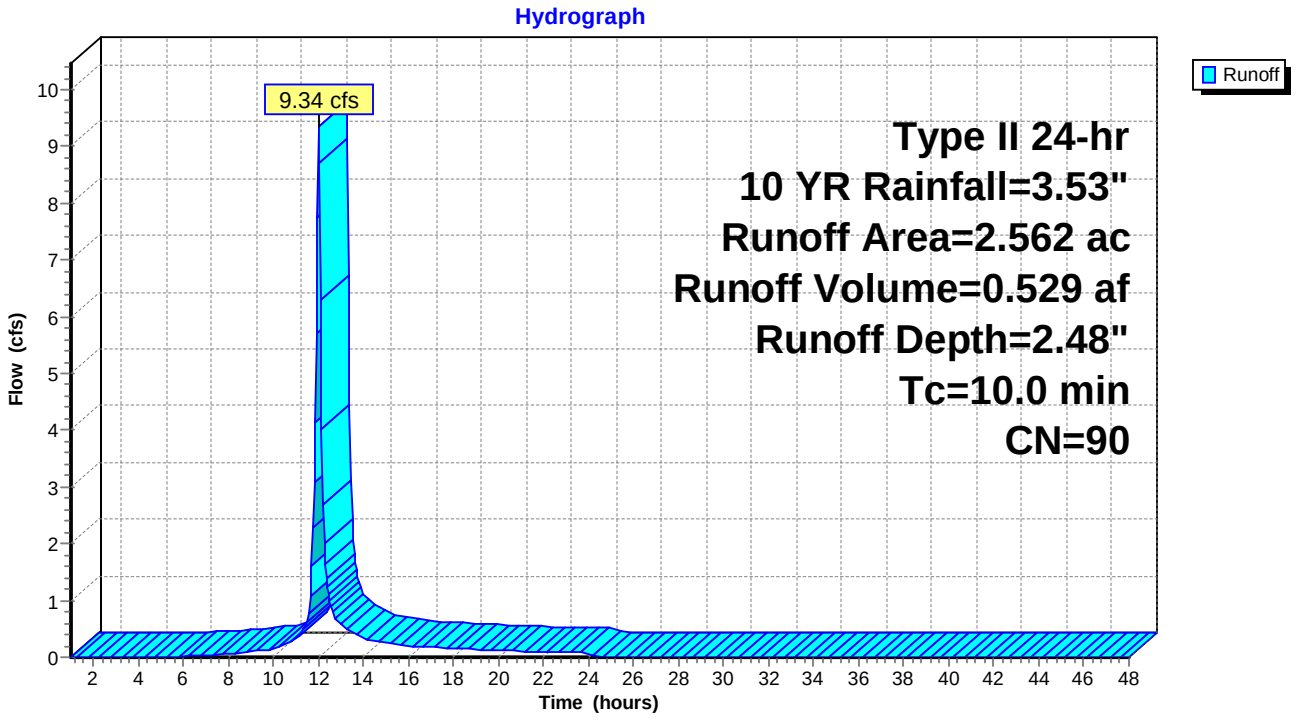
Runoff = 9.34 cfs @ 12.01 hrs, Volume= 0.529 af, Depth= 2.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10 YR Rainfall=3.53"

Area (ac)	CN	Description
1.868	98	Paved parking, HSG B
0.694	69	50-75% Grass cover, Fair, HSG B
2.562	90	Weighted Average
0.694		27.09% Pervious Area
1.868		72.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry,**

Subcatchment EX: DR-4 PRE



Summary for Subcatchment PR: DR-4 POST

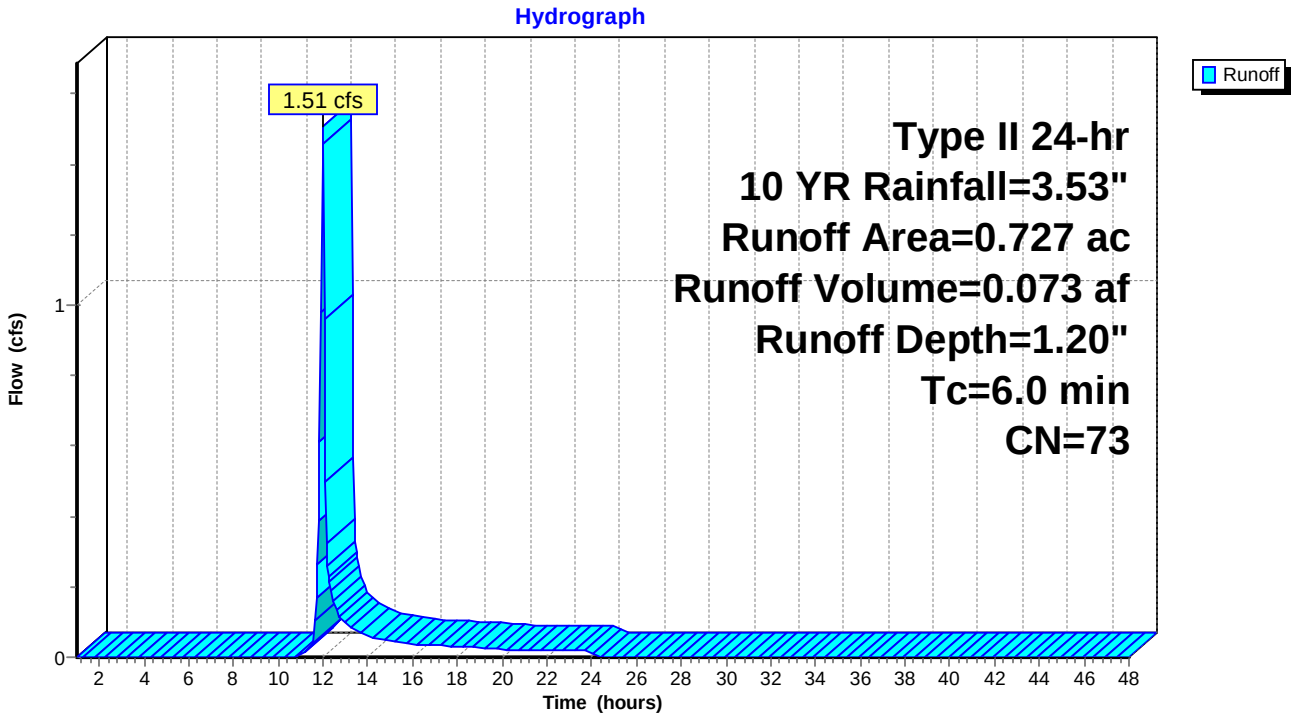
Runoff = 1.51 cfs @ 11.98 hrs, Volume= 0.073 af, Depth= 1.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10 YR Rainfall=3.53"

Area (ac)	CN	Description
0.236	98	Paved parking, HSG B
0.491	61	>75% Grass cover, Good, HSG B
0.727	73	Weighted Average
0.491		67.54% Pervious Area
0.236		32.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PR: DR-4 POST



Summary for Subcatchment EX: DR-4 PRE

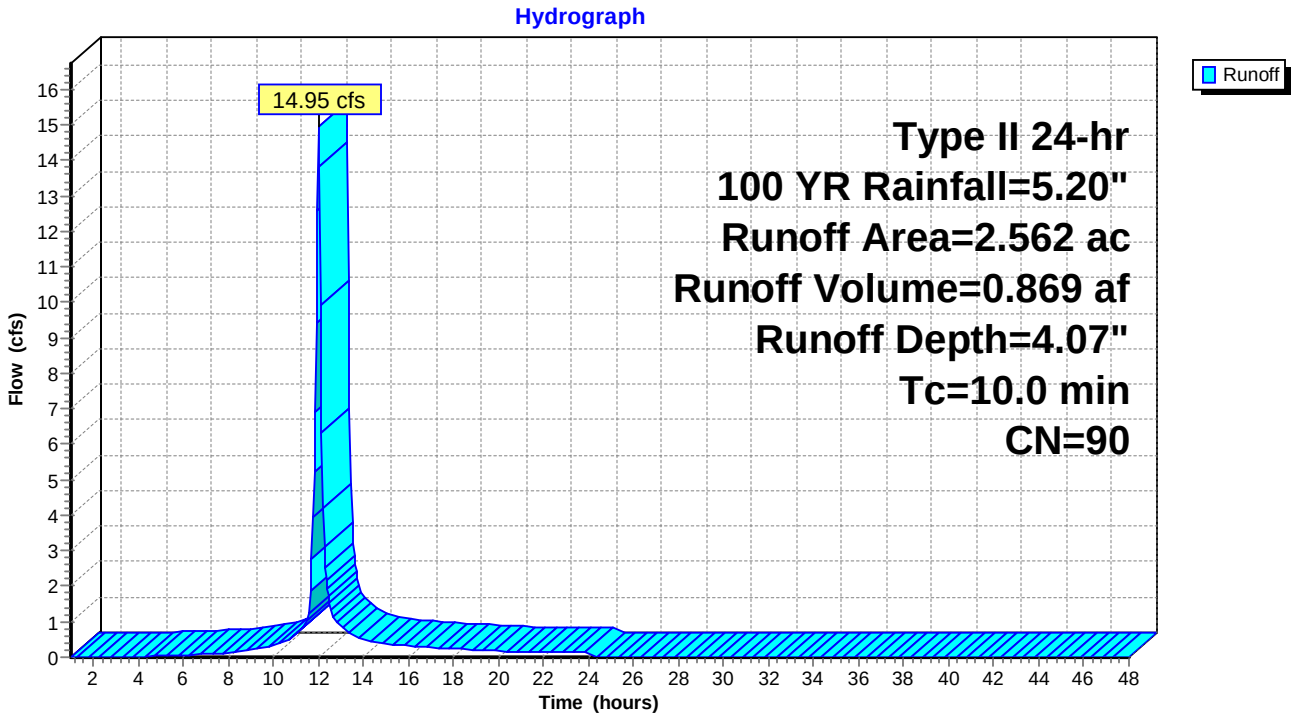
Runoff = 14.95 cfs @ 12.01 hrs, Volume= 0.869 af, Depth= 4.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100 YR Rainfall=5.20"

Area (ac)	CN	Description
1.868	98	Paved parking, HSG B
0.694	69	50-75% Grass cover, Fair, HSG B
2.562	90	Weighted Average
0.694		27.09% Pervious Area
1.868		72.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry,**

Subcatchment EX: DR-4 PRE



Summary for Subcatchment PR: DR-4 POST

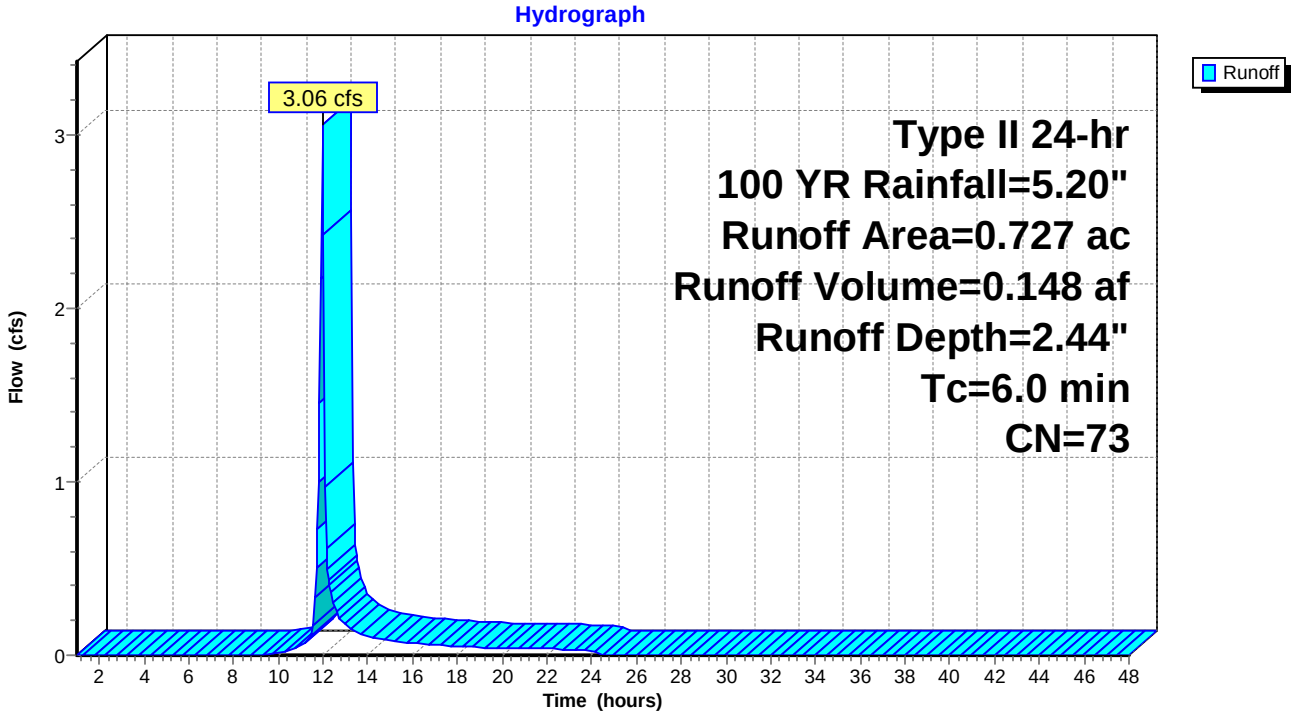
Runoff = 3.06 cfs @ 11.97 hrs, Volume= 0.148 af, Depth= 2.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100 YR Rainfall=5.20"

Area (ac)	CN	Description
0.236	98	Paved parking, HSG B
0.491	61	>75% Grass cover, Good, HSG B
0.727	73	Weighted Average
0.491		67.54% Pervious Area
0.236		32.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PR: DR-4 POST

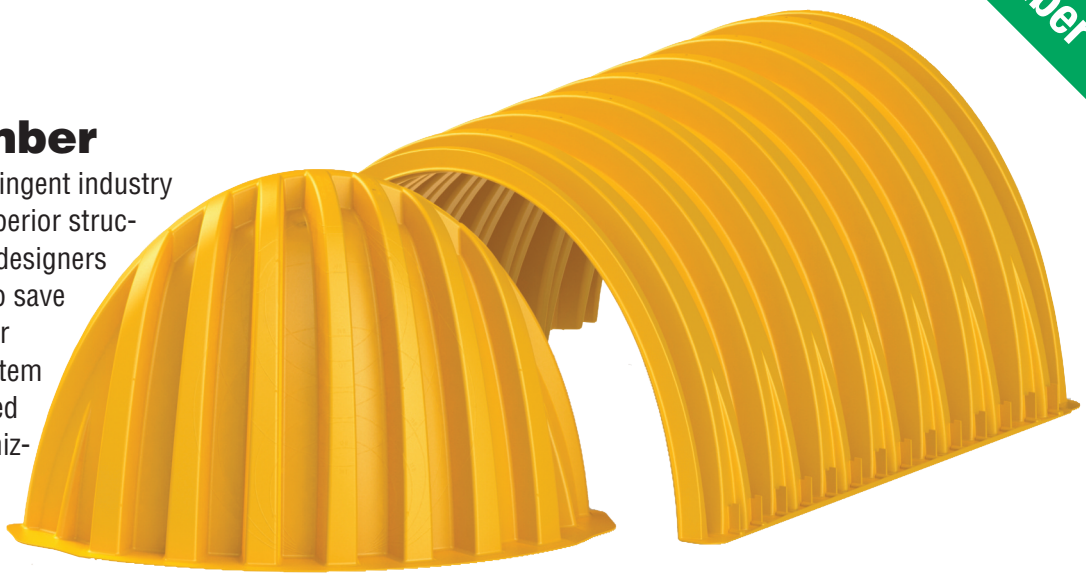


StormTech®
Detention • Retention • Water Quality

MC-3500 Chamber

StormTech MC-3500 Chamber

Designed to meet the most stringent industry performance standards for superior structural integrity while providing designers with a cost-effective method to save valuable land and protect water resources. The StormTech system is designed primarily to be used under parking lots thus maximizing land usage for commercial and municipal applications.



StormTech MC-3500 Chamber (not to scale)

Nominal Chamber Specifications

Size (L x W x H)	90" (2286 mm) x 77" (1956 mm) x 45" (1143 mm)
Chamber Storage	109.9 ft³ (3.11 m³)
Min. Installed Storage*	178.9 ft³ (5.06 m³)
Weight	134 lbs (60.8 kg)

* This assumes a minimum of 12" (305 mm) of stone above, 9" (229 mm) of stone below chambers, 9" (229 mm) of row spacing, and 40% stone porosity.

StormTech MC-3500 End Cap (not to scale)

Nominal End Cap Specifications

Size (L x W x H)	25.7" (653 mm) x 75" (1905 mm) x 45" (1143 mm)
End Cap Storage	14.9 ft³ (0.42 m³)
Min. Installed Storage*	46.0 ft³ (1.30 m³)
Weight	49 lbs (22.2 kg)

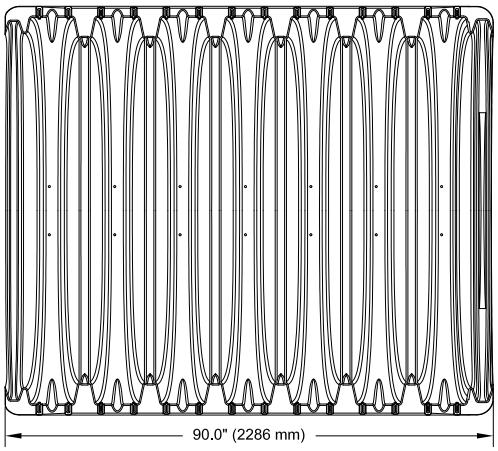
* This assumes a minimum of 12" (305mm) of stone above, 9" (229 mm) of stone below, 9" (229 mm) row spacing, 6" (152 mm) of stone perimeter, and 40% stone porosity.

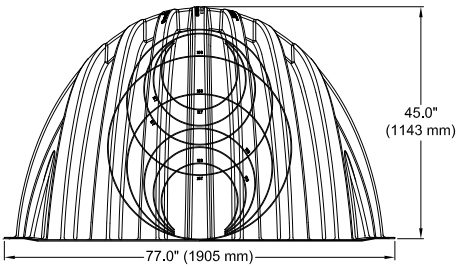
Shipping

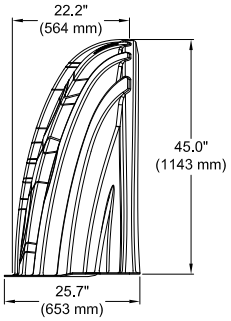
15 chambers/pallet

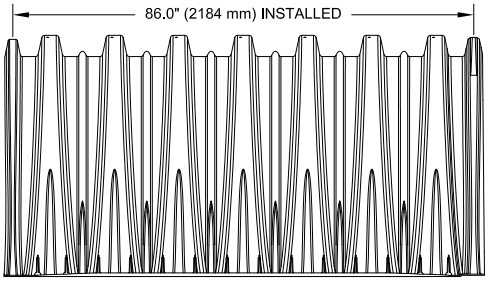
7 end caps/pallet

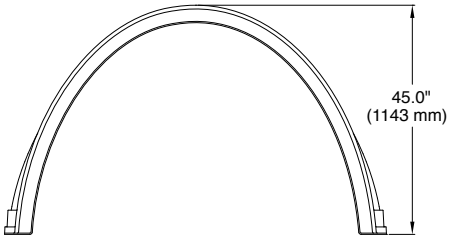
7 pallets/truck











Storage Volume Per Chamber/End Cap ft³ (m³)

	Bare Unit Storage	Chamber/End Cap and Stone Volume — Stone Foundation Depth in. (mm)			
	ft³ (m³)	9 (229)	12 (305)	15 (381)	18 (457)
MC-3500 Chamber	109.9 (3.11)	178.9 (5.06)	184.0 (5.21)	189.2 (5.36)	194.3 (5.5)
MC-3500 End Cap	14.9 (0.42)	46.0 (1.33)	47.7 (1.35)	49.4 (1.40)	51.1 (1.45)

NOTE: Assumes 40% porosity for the stone plus the chamber/end cap volume. End Cap volume assumes 6" (152mm) stone perimeter.

Volume of Excavation Per Chamber/End Cap in yd³ (m³)

	Stone Foundation Depth in. (mm)			
	9 (229)	12 (305)	15 (381)	18 (457)
MC-3500	12.4 (9.5)	12.8 (9.8)	13.3 (10.2)	13.8 (10.5)
End Cap	4.1 (3.1)	4.2 (3.2)	4.4 (3.3)	4.5 (3.5)

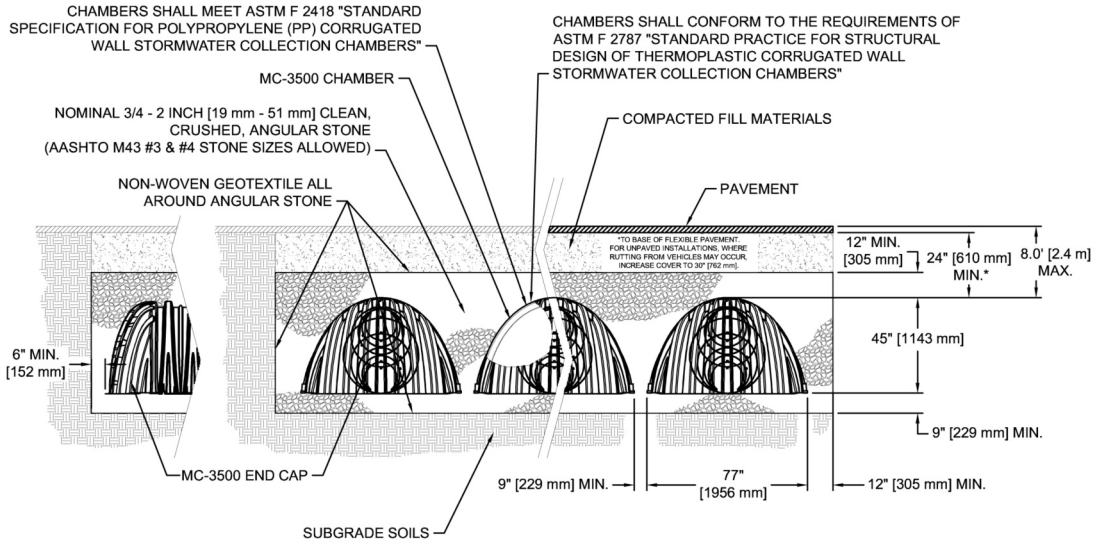
NOTE: Assumes 9" (229 mm) of separation between chamber rows, 6" (152 mm) of perimeter in front of end caps, and 24" (610 mm) of cover. The volume of excavation will vary as depth of cover increases.

Amount of Stone Per Chamber

ENGLISH tons (yd³)	Stone Foundation Depth			
	9 in.	12 in.	15 in.	18 in.
MC-3500	9.1 (6.4)	9.7 (6.9)	10.4 (7.3)	11.1 (7.8)
End Cap	4.1 (2.9)	4.3 (3.0)	4.5 (3.2)	4.7 (3.3)
METRIC kg (m³)	**229 mm**	**305 mm**	**381 mm**	**457 mm**
MC-3500	8220 (4.9)	8831 (5.3)	9443 (5.6)	10054 (6.0)
End Cap	3699 (2.2)	3900 (2.3)	4100 (2.4)	4301 (2.6)

NOTE: Assumes 12" (305 mm) of stone above, and 9" (229 mm) row spacing, and 6" (152mm) of perimeter stone in front of end caps.

General Cross Section



NOTES:
1. THIS CROSS SECTION PROVIDES GENERAL INFORMATION FOR THE MC-3500 CHAMBER. STORMTECH MC-3500 CHAMBERS MUST BE DESIGNED AND INSTALLED IN ACCORDANCE WITH THE MC-3500 DESIGN MANUAL AND MC-3500 CONSTRUCTION GUIDE.
2. PROPERLY INSTALLED MC-3500 CHAMBERS PROVIDE THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR EARTH AND LIVE LOADS WITH CONSIDERATION FOR IMPACT AND MULTIPLE PRESENCES.
3. PERIMETER STONE MUST ALWAYS BE BROUGHT UP EVENLY WITH BACKFILL OF BED. PERIMETER STONE MUST EXTEND HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH STRAIGHT OR SLOPED SIDEWALLS.

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BERGMANN associates

Project: COR Mercy Redevelopment
Drainage Area DR-1 & DR-2

Project No. 10487.00
Date: 7/13/2016
By: TCB
Checked: JWL
Sheet: 1 of 1

TITLE: **WATER QUALITY STORAGE VOLUME**

Vortechs Unit - TBD

Water Quality Volume

DESCRIPTION:

Total Water Quality Volume Required

Formula for calculating the Water Quality storage volume (WQv) = $\frac{(P)\ (Rv)\ (A)}{12}$

P = 90% Rainfall Event =	1.00
I = percent Impervious Cover =	86
Rv = 0.05 + 0.009(I) =	0.82
A = Acres =	6.784
Water Quality Storage Volume (acre-feet) =	**0.47**
	20,292 Cubic-Feet
Alternative Practice:	**15,219 Cubic-Feet** 75% of WQv

Note:

Water Quality Volume is based on the formual in Section 9.2 of the New York State Stormwater Management Design Manual page 9-5. See Below for Calulation of the formula.

Existing impervious = - ac Proposed Impervious = - ac IC Reduction =0% (25 - (% IC reduction + % WQv treatment by Standard practice + %RRV)) * 3 = %WQv by Alt Practice
(25-(0+0+0))*3=0 ----------> 0% IC reduction, 0% Standard Practice, 75% Alternative practice

PEAK WATER QUALITY DISCHARGE

Area contributing =		6.78	acres
WQv =		15,219	cf
P =		0.85	inch
I=		86.0	%
Rv =		0.82	

Peak Water Quality Discharge

CN= 1000/ [10+5P+10Qa-10(Qa^2+1.25*Qa*P)^2]

Qa= 0.62 inches
Cn= 97.7

From TR-55

Ia = 0.151
Ia/P = 0.178
qu = 750.00
Tc = 0.10 hrs

Peak Qwq =	4.91	cfs
(qu*A*Qa)		

3. A hydrodynamic separator, such as the Vortechs Stormwater Treatment System, cannot be used in series with another hydrodynamic separator to achieve an enhanced removal rate for total suspended solids (TSS) removal under N.J.A.C. 7:8-5.5.

4. The maintenance plan for the sites using this device shall incorporate at a minimum, the maintenance requirements for the Vortechs Stormwater Treatment System, attached.

Table 1

Vortechs System Model	Grit Chamber Radius (ft)	Grit Chamber Area (ft^2)	Design Flow Rate (cfs)
1000	1.5	7.1	0.63
2000	2.0	12.6	1.12
3000	2.5	19.6	1.75
4000	3.0	28.3	2.5
5000	3.5	38.5	3.4
7000	4.0	50.3	4.5
9000	4.5	63.6	5.7
11000	5.0	78.5	7.0
16000	6.0	113.1	10.1

In addition to the attached, any project with a Stormwater BMP subject to the Stormwater Management Rules, N.J.A.C. 7:8, must include a detailed maintenance plan. The detailed maintenance plan must include all of the items identified in Stormwater Management Rules, N.J.A.C. 7:8-5.8. Such items include, but are not limited to, the list of inspection and maintenance equipment and tools, specific corrective and preventative maintenance tasks, indication of problems in the system, and training of maintenance personnel. Additional information can be found in Chapter 8: Maintenance of the New Jersey Stormwater Best Management Manual.

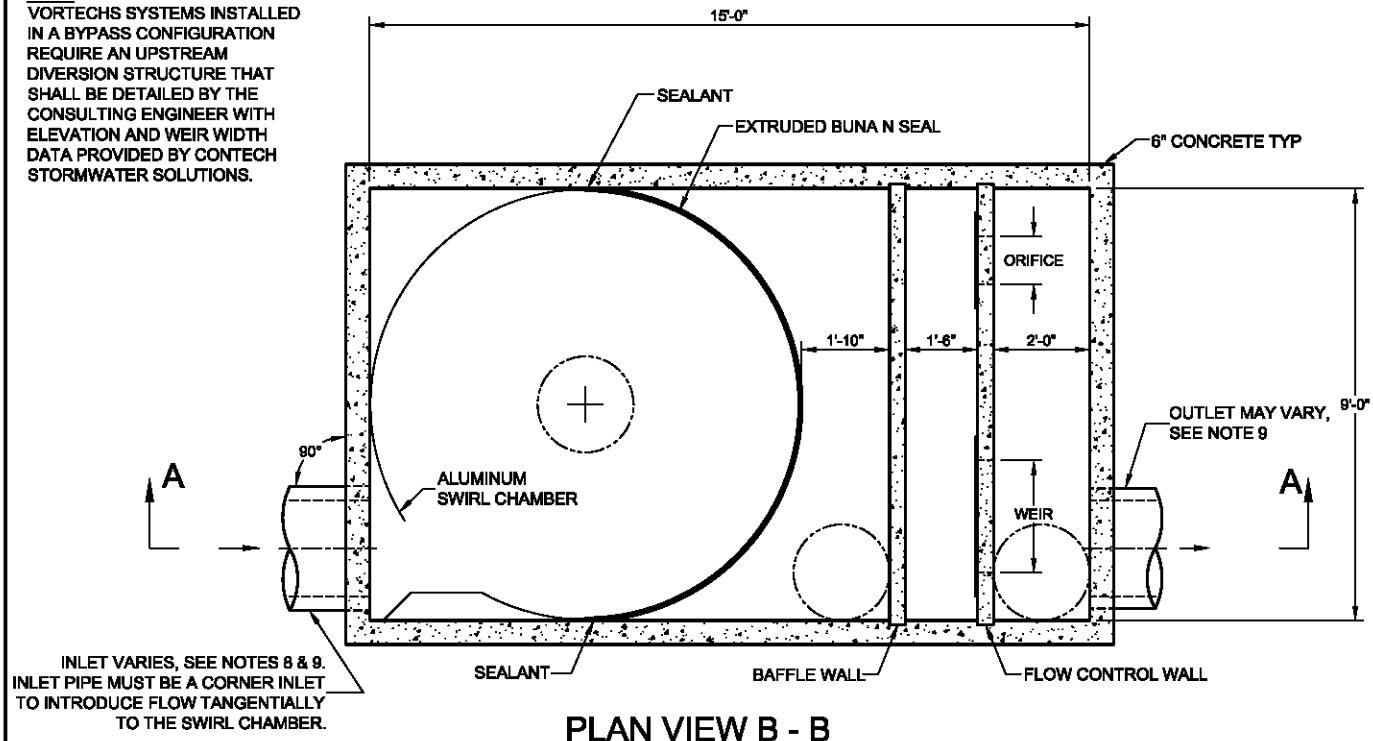
NJDEP anticipates proposing further adjustments to this process through the readoption of the Stormwater Management Rules. Additional information regarding the implementation of the Stormwater Management Rules N.J.A.C. 7:8 are available at www.njstormwater.org. If you have any questions regarding the above information, please contact Ms. Sandra Blick of my office at (609) 633-7021.

Sincerely,

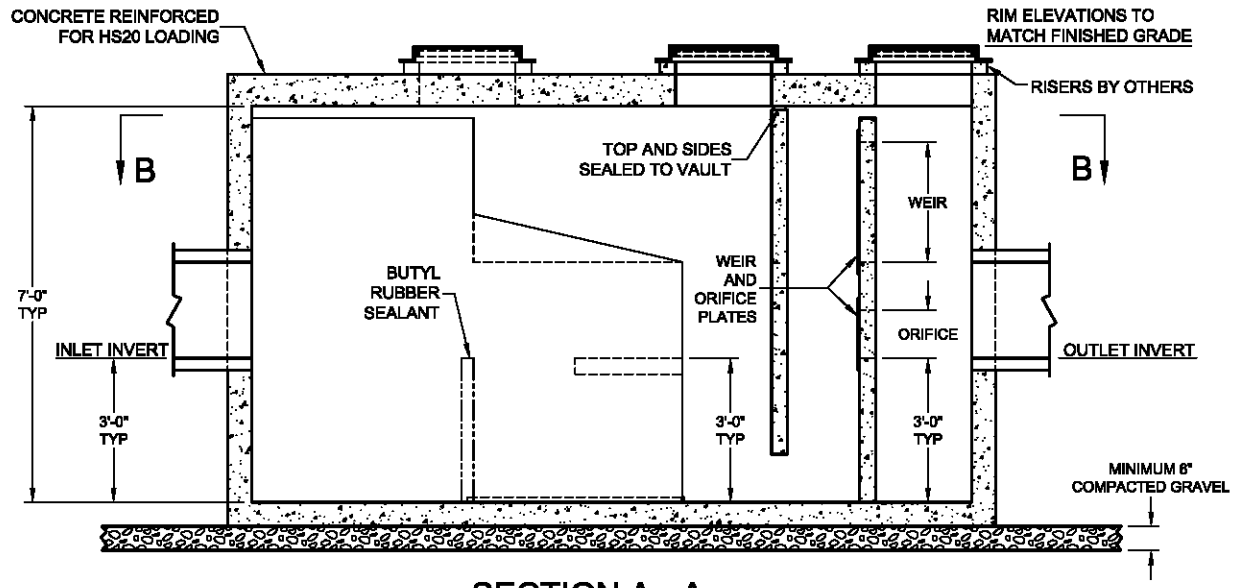
Ed Frankel, P.P., Acting Bureau Chief
Bureau of Nonpoint Pollution Control

C: Richard S. Magee, NJCAT
Chron file

NOTE:
VORTECHS SYSTEMS INSTALLED IN A BYPASS CONFIGURATION REQUIRE AN UPSTREAM DIVERSION STRUCTURE THAT SHALL BE DETAILED BY THE CONSULTING ENGINEER WITH ELEVATION AND WEIR WIDTH DATA PROVIDED BY CONTECH STORMWATER SOLUTIONS.



PLAN VIEW B - B



SECTION A - A

NOTES:
1. STORMWATER TREATMENT SYSTEM (SWTS) SHALL HAVE:
   PEAK TREATMENT CAPACITY: 14 CFS
   SEDIMENT STORAGE: 4.8 CU YD
   SEDIMENT CHAMBER DIA: 9' MIN
2. SWTS SHALL BE CONTAINED IN ONE RECTANGULAR STRUCTURE
3. SWTS REMOVAL EFFICIENCY SHALL BE DOCUMENTED BASED ON PARTICLE SIZE
4. SWTS SHALL RETAIN FLOATABLES AND TRAPPED SEDIMENT UP TO AND INCLUDING PEAK TREATMENT CAPACITY
5. SWTS INVERTS IN AND OUT ARE TYPICALLY AT THE SAME ELEVATION
6. SWTS SHALL NOT BE COMPROMISED BY EFFECTS OF DOWNSTREAM TAILWATER
7. SWTS SHALL HAVE NO INTERNAL COMPONENTS THAT OBSTRUCT MAINTENANCE ACCESS
8. INLET PIPE MUST BE PERPENDICULAR TO THE STRUCTURE
9. PIPE ORIENTATION MAY VARY; SEE SITE PLAN FOR SIZE AND LOCATION
10. PURCHASER SHALL NOT BE RESPONSIBLE FOR ASSEMBLY OF UNIT
11. MANHOLE FRAMES AND PERFORATED COVERS SUPPLIED WITH SYSTEM, NOT INSTALLED
12. PURCHASER TO PREPARE EXCAVATION AND PROVIDE CRANE FOR OFF-LOADING AND SETTING AT TIME OF DELIVERY
13. VORTECHS SYSTEMS BY CONTECH STORMWATER SOLUTIONS; PORTLAND, OR (800)548-4667; SCARBOROUGH, ME (877) 907-8676; ELKRIDGE, MD (866) 740-3318.

PROPRIETARY INFORMATION - NOT TO BE USED FOR CONSTRUCTION PURPOSES

CONTECH® STORMWATER SOLUTIONS™
contechstormwater.com

STANDARD DETAIL
STORMWATER TREATMENT SYSTEM
VORTECHS® MODEL 9000

U.S. PATENT No. 5,759,415

DATE: 4/5/06	SCALE: NONE	FILE NAME: STD9k	DRAWN: GMC	CHECKED: NDG

APPENDIX B – Mercy Heights Traffic Impact Study

Traffic Impact Study

for the proposed

Mercy Heights Redevelopment

City of Watertown,
Jefferson County, New York

Project No. 36031

July 2016
Revised August 2016

Prepared For:

COR Arsenal Street Company, LLC
540 Towne Drive
Fayetteville, NY 13066

Prepared By:

SRF ASSOCIATES
WWW.SRFA.NET
Transportation Engineering & Planning Consultants

3495 Winton Place
Building E, Suite 110
Rochester, New York 14623

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1. Highway Capacity Manual, Fifth Edition. Transportation Research Board. National Research Council, Washington, DC. 2010.
2. New York State Department of Transportation (NYSDOT) Traffic Data Viewer. 2014. Retrieved from https://www.dot.ny.gov/tdv.
3. Trip Generation, Ninth Edition. Institute of Transportation Engineers. Washington, DC. 2012.

EXECUTIVE SUMMARY

OVERVIEW

The purpose of this report is to identify the potential traffic impacts associated with the proposed Mercy Heights Redevelopment in the City of Watertown, Jefferson County, New York. The operating characteristics of the proposed access points and impacts to the adjacent roadway network are identified and mitigating measures, if any, are provided to minimize capacity or safety concerns.

In an effort to define traffic impact, this analysis establishes existing traffic conditions, projects background traffic flow including area growth and/or additional traffic resulting from new development in the area, and determines the traffic operations that would result from the proposed development.

The proposed development is located at the former Mercy Hospital site bordered by Arsenal Street to the north, Stone street to the south, Sherman Street to the east, and South Massey Street to the west, in the City of Watertown, Jefferson County, New York. The site is currently shared with St. Patrick's Parish, which will remain in operation. Land uses in the vicinity of the project site include gas stations, residential, and commercial uses. The study area consists of the following intersections:

- Arsenal Street/Massey Street
- Arsenal Street/Proposed-Existing Entrance
- Arsenal Street/Sherman Street
- Sherman Street/Proposed Entrance
- Sherman Street/Stone Street
- Stone Street/Proposed Entrance
- South Massey Street/Stone Street
- South Massey Street/Proposed South Entrance
- South Massey Street/Proposed North Entrance

The proposed project includes three (3) three-story, 36,402 square-foot residential apartment buildings, two (2) two-story, 18,000 square-foot office buildings, a 5,588 square-foot community center for the residential portion of the development, and an interior parking lot at the site of the demolished Mercy Hospital. Under full development conditions, the three proposed residential buildings will front on Stone Street and South Massey Street, respectively. The two proposed office buildings will front on Arsenal Street. The proposed community center will front on Sherman Street. Access to the site is proposed through the interior parking lot with five vehicular access points, one from each of the surrounding streets, except for South Massey Street, where two access points are proposed. The parking lot would essentially function as one large, collective parking lot for all of the uses on both the project site and St. Patrick's church parcel, although different clusters of parking spaces would be on different parcels.

City of Watertown officials were contacted to discuss projects within the study area that are under construction and/or approved. Additional traffic specifically generated by job growth at Convergys, as well any unanticipated background growth in the area aside from this specific development, has been added to the existing traffic volumes at the study area intersections using a 0.25% per year growth rate for the two-year build-out period based upon a review of historical traffic data along North Massey, Arsenal and Sherman Streets collected by the NYSDOT.

CONCLUSIONS & RECOMMENDATIONS

This study evaluates the potential traffic impacts resulting from the proposed Mercy Heights Development in Watertown, NY. Based upon the collective analyses and field observations, the results indicate that the proposed development will not have significant adverse traffic impacts on the existing roadway network. The following sets forth conclusions and recommendations based upon the results of the analyses:

1. The proposed development is expected to generate approximately 86 entering/56 exiting vehicle trips during the weekday AM peak hour and 70 entering/126 exiting vehicle trips during the PM peak hour.

2. It is noted that the southbound left turn movement is currently 409(266) vph during the AM(PM) peak hours. NYSDOT typically considers a dual left turn lane when left turn volumes reach 300 vph. Providing dual left turn lanes would allow for a reduction in green time for this movement thereby improving the northbound levels of service. The signal currently operates in a split phased mode with separate northbound and southbound phases. Levels of service would improve to "C" or better on all approaches. This improvement is not required as mitigation for this development, however it should be considered as an improvement whether or not the proposed Mercy Heights development moves forward.

3. The Gap Analysis shows that there will be sufficient gaps for all movements entering and exiting both the Arsenal Street and South Massey Street driveways. No turn restrictions are warranted to recommended at this time.

4. The proposed development will not result in any potentially significant adverse traffic impacts to the study area intersections with the recommended mitigation in place.

I. INTRODUCTION

The purpose of this report is to identify the potential traffic impacts associated with the proposed Mercy Heights Re-Development in the City of Watertown, Jefferson County, New York. The operating characteristics of the proposed access points and impacts to the adjacent roadway network are identified and mitigating measures, if any, are provided to minimize capacity or safety concerns.

In an effort to define traffic impact, this analysis establishes existing traffic conditions, projects background traffic flow including area growth and/or additional traffic resulting from new development in the area, and determines the traffic operations that would result from the proposed development.

II. LOCATION

The proposed development is located at the former Mercy Hospital site bordered by Arsenal Street to the north, Stone street to the south, Sherman Street to the east, and South Massey Street to the west, in the City of Watertown, Jefferson County, New York. The site is currently shared with St. Patrick's Parish, which will remain in operation. Land uses in the vicinity of the project site include gas stations, residential, and commercial uses. The study area consists of the intersections of:

- Arsenal Street/Massey Street
- Arsenal Street/Proposed-Existing Entrance
- Arsenal Street/Sherman Street
- Sherman Street/Proposed Entrance
- Sherman Street/Stone Street
- Stone Street/Proposed Entrance
- South Massey Street/Stone Street
- South Massey Street/Proposed South Entrance
- South Massey Street/Proposed North Entrance

The site location and study area are shown in **Figure 1** (all figures are included at the end of the report).

III. EXISTING HIGHWAY SYSTEM

Arsenal Street (also known as NYS Route 3) is generally an east/west urban principal arterial roadway. NYS Route 3 provides service from the Fulton NY area to the west and terminates in Plattsburgh to the northeast. The segment on NYS Route 3/Arsenal Street within the study area is labeled NYS Route 3 and is under the jurisdiction and maintained by the City of Watertown. In the vicinity of the site, Arsenal Street consists of three travel lanes; one in the westbound direction and two in the eastbound direction. The posted speed limit in the vicinity of the site is 30 mph. According to the most recent traffic volume data collected by the New York State Department of Transportation (NYSDOT) in 2009, the annual average daily traffic (AADT) along Arsenal Street, east of Sherman Street is 11,682 vehicles per day (vpd).

South Massey Street (US Route 11) is owned and maintained by the City of Watertown within the vicinity of the project. The highway is functionally classified as a north/south urban principal arterial highway with two travel lanes in each direction with a posted speed limit of 30 mph in the

vicinity of the site. South Massey Street, at its intersection with Arsenal Street, also includes separate northbound and southbound left-turn lanes. According to the most recent traffic volume data collected by NYSDOT in 2014, the AADT along South Massey Street north of Arsenal Street is approximately 16,102 vpd.

Sherman Street is a City street that generally consists of one travel lane in each direction with an additional a northbound right turn lane at Arsenal Street, and a southbound right turn lane and northbound left turn lane at Stone Street. According to the most recent traffic volume data collected by NYSDOT in 2013, the AADT along Sherman Street south of Stone Street is approximately 3,763 vpd.

Stone Street is a City street that is one-way in the westbound direction between Washington Street and South Massey Street. In front of the site, Stone Street provides two westbound travel lanes. Based on recent turning movement counts at Stone Street and South Massey Street, the westbound ADT on Stone Street is approximately 2,400 vpd.

Figure 2 illustrates the lane geometry at each of the study intersections and the AADT/ADT volumes on the study roadways.

IV. EXISTING TRAFFIC CONDITIONS

A. Peak Intervals for Analysis

Given the functional characteristics of the land uses proposed for the site (residential and offices), the peak hours selected for analysis are the weekday commuter AM and PM peaks. The combination of site traffic and adjacent through traffic produces the greatest demand during these time periods.

B. Existing Traffic Volume Data

Weekday commuter AM (7:00-9:00AM) and PM (4:00-6:00PM) peak hour volumes were collected at the study area intersections, as noted in *Section II*, on Tuesday, June 14, and Wednesday June 15, 2016. The peak hour traffic periods generally occurred between 7:30-8:30 AM and 4:30-5:30 PM at the study intersections.

All turning movement count data was collected on a typical weekday while local schools were in session. The traffic volumes were reviewed to confirm the accuracy and relative balance of the collective traffic counts. The actual differences in traffic volumes can be attributed to temporal variations in traffic volumes as well as activity related to driveways located in the segments between the study intersections. The weekday AM and PM peak hour volumes are reflected in **Figure 3**.

C. Field Observations

The study intersections were observed during both peak intervals to assess current traffic operations. Signal timing information for intersections within the study area was utilized to determine peak hour phasing plans and phase durations during each interval. This information was used to support and/or calibrate capacity analysis models described in detail later in this report.

V. FUTURE AREA DEVELOPMENT AND LOCAL GROWTH

Construction of the proposed Mercy Heights Development is anticipated to be completed within five years. City of Watertown officials were contacted to discuss projects within the study area that are under construction and/or approved. Several developments were identified including: Samaritan Medical Center expansion, 300 new jobs at Convergys, Northern New York Community Foundation office relocation to 131 Washington Street, Roth Industries building addition at 268 Bellew Avenue South, Washington Street Properties building rehabilitation at 505 Washington Street, and the Clueless Bar re-opening as Club #9 at 545 Arsenal Street.

Given the proximity potential impact of the additional Convergys jobs, additional traffic related to this development, has been added to the existing traffic volumes at the study area intersections. The other developments noted will add minimally to traffic volumes in the study area during the peak hours studied. Therefore, an additional growth rate of 0.25% per year has been added to the study area intersections for the five-year build-out period. This growth rate was determined based upon a review of historical traffic data along North Massey, Arsenal and Sherman Streets collected by the NYSDOT and in consideration of the noted area developments. The background traffic volumes are depicted in **Figure 4**.

VI. PROPOSED DEVELOPMENT

A. Description

The proposed project includes three (3) three-story, 36,402 square-foot residential apartment buildings, two (2) two-story, 18,000 square-foot office buildings, a 5,588 square-foot community center for the residential portion of the development, and an interior parking lot at the site of the demolished Mercy Hospital. Under full development conditions, the three proposed residential buildings will front on Stone Street and South Massey Street, respectively. The two proposed office buildings will front on Arsenal Street. The proposed community center will front on Sherman Street. Access to the site is proposed through the interior parking lot with five vehicular access points, one from each of the surrounding streets, except for South Massey Street, where two access points are proposed. The parking lot would essentially function as one large, collective parking lot for all of the uses on both the project site and St. Patrick's church parcel, although different clusters of parking spaces would be on different parcels. **Figure 5** illustrates the proposed concept plan.

B. Site Traffic Generation

The volume of traffic generated by a site is dependent on the intended land use and size of the development. Trip generation is an estimate of the number of trips generated by a specific building or land use. These trips represent the volume of traffic entering and exiting the development. Trip Generation, 9th Edition is used as a reference for this information. The trip rate for the peak hour of the generator may or may not coincide in time or volume with the trip rate for the peak hour of adjacent street traffic. Volumes generated during the peak hour of adjacent street traffic, in this case, the weekday AM and PM peaks, represent a more critical volume when analyzing the capacity of the system; those intervals will provide the basis of this analysis. All trip generation information has been included in the appendix.

Table I shows the total site generated trips for the weekday AM and PM peak hours for full build out of the proposed project.

TABLE I
SITE GENERATED TRIPS

DESCRIPTION	SIZE/ UNITS	AM PEAK		PM PEAK	
		ENTER	EXIT	ENTER	EXIT
Apartments	108 Units	11	46	50	27
Office	36,000 SF	75	10	20	99
Total Site Generated Trips		**86**	**56**	**70**	**126**

C. *Site Traffic Distribution*

The cumulative effect of site traffic on the transportation network is dependent on the origins and destinations of that traffic and the location of the access drive serving the site.

The proposed arrival/departure distribution of traffic to be generated at this site is considered a function of several parameters, including the following:

- Employment centers in the local area and region;
- Population centers in the local area and region;
- Proximity and access to I-81;
- Site access drive locations and internal roadway circulation;
- Existing highway network;
- Existing traffic patterns; and
- Existing traffic conditions and controls

Figures 6A and 6B show the anticipated trip distribution pattern percentages for the proposed office and residential components of the development respectively. **Figure 7** shows the resulting total site generated traffic as assigned to the study area intersections for the weekday commuter AM and PM peak hour periods for Full Development of the proposed project.

VII. FULL DEVELOPMENT VOLUMES

The projected design hour traffic volumes were developed for the weekday AM and PM peak hours by combining the future background traffic conditions (Figure 4), and projected site generated volumes for full build out of the proposed development (Figure 7). **Figure 8** illustrates the total weekday AM and PM hour volumes anticipated for the proposed development under full development conditions.

VIII. CAPACITY ANALYSIS

Capacity analysis is a technique used for determining a measure of effectiveness for a section of roadway and/or intersection based on the number of vehicles during a specific time period. The measure of effectiveness used for the capacity analysis is referred to as a Level of Service (LOS). Levels of Service are calculated to provide an indication of the amount of delay that a motorist experiences while traveling along a roadway or through an intersection. Since the most amount of delay to motorists usually occurs at intersections, capacity analysis typically focuses on intersections, as opposed to highway segments.

Six Levels of Service are defined for analysis purposes. They are assigned letter designations, from "A" to "F", with LOS "A" representing the best conditions and LOS "F" the worst. Suggested ranges of service capacity and an explanation of Levels of Service are included in the Appendix.

The standard procedure for capacity analysis of signalized and un-signalized intersections is outlined in the Highway Capacity Manual (HCM 2010) published by the Transportation Research Board. Traffic analysis software, Synchro 9, which is based on procedures and methodologies contained in the HCM, was used to analyze operating conditions at study area intersections. The procedure yields a Level of Service (LOS) based on the HCM 2010 as an indicator of how well intersections operate.

Existing and background operating conditions during the peak study periods are evaluated to determine a basis for comparison with the projected future conditions. The future traffic conditions generated by the proposed development under full build out were analyzed to assess the operations of the intersections in the study area. Capacity results for existing, background, and full development conditions are listed in **Table II**. The discussion following the table summarizes capacity conditions. All capacity analysis calculations are included in the Appendices.

TABLE II: CAPACITY ANALYSIS RESULTS

INTERSECTION	*2016 EXISTING CONDITIONS*		*2021 BACKGROUND CONDITIONS*		*FULL ACCESS DEVELOPMENT CONDITIONS*	
	AM	*PM*	*AM*	*PM*	*AM*	*PM*
Arsenal Street/Massey Street (S)						
Eastbound Left/Thru – Arsenal St	C(31.5)	C(32.2)	C(33.3)	C(32.4)	C(33.8)	C(33.8)
Eastbound Right – Arsenal St	B(12.3)	A(6.3)	B(12.3)	A(6.1)	B(12.3)	A(5.9)
Westbound Thru/Right – Arsenal St	D(35.4)	C(30.0)	D(36.4)	C(30.5)	D(36.6)	C(31.9)
Northbound Left – South Massey St	D(36.9)	D(40.0)	D(37.4)	D(41.7)	D(38.3)	D(42.6)
Northbound Thru/Right – South Massey St	C(33.7)	D(37.1)	C(34.4)	D(38.6)	C(34.7)	D(39.3)
Southbound Left – North Massey Street	C(24.8)	D(47.3)	C(25.5)	D(51.6)	C(26.9)	E(56.6)
Southbound Thru/Right – North Massey Street	B(18.4)	D(41.5)	B(18.4)	D(44.7)	B(18.8)	D(48.4)
Overall LOS	***C(26.6)***	***D(35.0)***	***C(27.3)***	***D(36.6)***	***C(27.9)***	***D(38.5)***
Arsenal Street/ Parking Lot & Gas station (Proposed Entrance) (U)						
Eastbound Left – Arsenal Street	A(7.9)	A(8.3)	A(7.9)	A(8.4)	A(7.9)	A(8.4)
Westbound Left – Arsenal Street	A(9.4)	A(8.9)	A(9.6)	A(9.0)	A(9.7)	A(9.0)
Northbound Left/Thru/Right - Entrance	B(11.1)	B(12.2)	B(11.3)	B(12.4)	C(17.6)	D(28.4)
Southbound Left/Thru/Right – Gas Station etc	C(15.3)	C(17.9)	C(15.7)	C(18.8)	C(16.1)	C(19.5)
Sherman Street/ Commercial Lots Driveway/ Arsenal Street (S)						
Eastbound Left/Thru/Right – Arsenal Street	B(12.0)	B(13.2)	B(12.2)	B(13.4)	B(12.3)	B(13.5)
Westbound Thru – Arsenal Street	B(10.2)	B(12.8)	A(9.8)	B(12.6)	A(9.9)	B(12.6)
Westbound Right – Arsenal Street	A(3.1)	A(0.1)	A(2.8)	A(0.7)	A(2.7)	A(0.7)
Northbound Left/Thru – Sherman Street	B(13.0)	B(14.5)	B(14.1)	B(16.1)	B(14.4)	B(16.6)
Northbound Right – Sherman Street	A(5.9)	A(4.9)	A(6.3)	A(5.1)	A(5.7)	A(5.2)
Southbound L/T/R – Commercial Driveway	A(10.0	A(9.1)	A(9.2)	B(11.5)	A(9.4)	B(11.7)
Overall LOS	***B(11.2)***	***B(12.6)***	***B(11.4)***	***B(13.2)***	***B(11.4)***	***B(13.3)***
Sherman Street/ Proposed Entrance (U)						
Eastbound Left/Right – Proposed Entrance	NA		NA		B(10.6)	B(11.3)
Northbound Left – Sherman Street					A(7.5)	A(7.7)

INTERSECTION	2016 EXISTING CONDITIONS		2021 BACKGROUND CONDITIONS		FULL ACCESS DEVELOPMENT CONDITIONS	
	AM	PM	AM	PM	AM	PM
Sherman Street/ Stone Street						
Westbound Left/Thru – Stone Street	A(4.6)	B(10.5)	A(6.3)	B(10.8)	A(6.4)	B(10.8)
Westbound Right – Stone Street	A(2.3)	A(3.8)	A(2.9)	A(3.9)	A(3.2)	A(4.0)
Northbound Left – Sherman Street	A(3.3)	A(9.6)	A(4.7)	A(9.5)	A(4.8)	A(9.6)
Northbound Thru – Sherman Street	A(3.3)	A(8.9)	A(4.6)	A(9.2)	A(4.9)	A(9.2)
Southbound Thru – Sherman Street	A(3.3)	A(9.0)	A(4.8)	A(9.1)	A(4.8)	A(9.2)
Southbound Right – Sherman Street	A(0.0)	A(1.3)	A(0.0)	A(1.4)	A(0.0)	A(1.4)
Overall LOS	***A(3.4)***	***A(8.7)***	***A(4.7)***	***A(8.8)***	***A(4.8)***	***A(8.8)***
Stone Street/ Rexford Place/ Proposed Entrance						
Southbound Right – Proposed Entrance	NA		NA		A(8.7)	A(9.5)
South Massey Street/ Stone Street (S)						
Eastbound L/T/R – Stone Street	A(5.7)	A(5.9)	A(5.7)	A(5.9)	A(6.8)	A(6.2)
Westbound Left – Stone Street	B(13.0)	B(19.2)	B(13.0)	B(19.3)	B(14.2)	B(19.9)
Westbound Thru/Right – Stone Street	A(9.7)	C(20.5)	A(9.8)	C(21.0)	B(10.2)	C(21.4)
Northbound Left/Thru – S Massey Street	A(6.8)	B(11.7)	A(6.9)	B(11.9)	A(8.7)	B(12.7)
Southbound Thru/Right – S Massey Street	A(5.6)	A(7.4)	A(5.6)	A(7.4)	A(6.6)	A(7.6)
Overall LOS	***A(6.3)***	***B(11.1)***	***A(6.3)***	***B(11.2)***	***A(7.6)***	***B(11.7)***
South Massey Street/ Proposed South Driveway						
Westbound – Proposed South Driveway	NA		NA		B(12.6)	C(24.7)
Southbound Left – South Massey Street					A(8.3)	A(9.3)
South Massey Street/ Proposed North Driveway						
Westbound – Proposed South Driveway	NA		NA		B(12.0)	B(11.9)
Southbound Left – South Massey Street					B(10.2)	B(14.8)

Notes:
C(15.6) = Level of Service(Delay in seconds per vehicle)
(S) = Signalized; (U) = Un-signalized
NA = Approach does not exist and/or was not analyzed during this condition

Table II summarizes the capacity analysis results of the existing, 2021 background, and full development conditions. The results indicate that no significant changes in levels of service are anticipated as a result of the proposed of development at any of the study area intersections during the three peak hours studied.

It is noted that the southbound left turn movement is currently 409(266) vph during the AM(PM) peak hours. NYSDOT typically considers a dual left turn lane when left turn volumes reach 300 vph. Providing dual left turn lanes would allow for a reduction in green time for this movement thereby improving the northbound levels of service. The signal already operates in a split phased mode with separate northbound and southbound phases and the roadway geometry can accommodate the dual left turn movement. Levels of service would improve to "C" or better on all approaches. This improvement is not required as mitigation for this development and is not included in any of the following analyses, however it should be considered as an improvement whether or not the proposed Mercy Heights development moves forward.

Minor changes in levels of service will occur at the Arsenal Street/South Massey Street intersection and at South Massey Street/Stone Street. The southbound left turn movement from North Massey

Street to Arsenal Street changes from LOS "D" to "E" with a corresponding change in delay of 5 seconds per vehicle. This is the result of a borderline condition as the threshold between LOS "D" and "E" is 55 seconds per vehicle. A change to the signal timing by 1 second would result in LOS "D" instead of "E"; this type of signal timing change is typically programmed into the actuated controller which would adjust the signal timings automatically based upon the traffic demand. No mitigation is warranted or recommended as a result of the proposed development.

At the South Massey Street/Stone Street intersection the westbound thru/right turn lane is projected to change from LOS "A" to "B" with a corresponding increase in delay of 0.4 seconds during the AM peak hour between background and full development conditions. Again this is the result of a borderline condition. All levels of service remain at acceptable levels and no mitigation is warranted or recommended.

IX. GAP ANALYSIS

A Gap Analysis was performed along both Arsenal Street and South Massey Street at the proposed driveway locations to determine the availability of gaps for traffic to enter (left-turns) and exit (left and right turns) the proposed driveways. For un-signalized intersections such as these, gap availability can be used as a surrogate methodology for evaluating the ability of side road traffic to enter and exit the fronting traffic stream.

The availability of gaps within the traffic stream primarily determines the side road driver behavior and delay for both entering and exiting motorists. A gap study counts the actual gaps in existing traffic available for a vehicle to enter or exit the side road. The difference between the actual number of gaps and the projected demand for a particular traffic movement can then be calculated as a reserve or deficit capacity.

The 2010 Highway Capacity Manual provides data relative to gap sizes that motorists find acceptable to execute the required maneuver. SRF & Associates performed a gap analysis at the proposed driveway location along Arsenal Street as well as the proposed north driveway along South Massey Street on Tuesday, June 14th, Wednesday June 15th and Tuesday, June 21st, 2016 during the AM and PM peak hours to evaluate potential future operating conditions. **Table III** indicates the acceptable gap duration, the number of existing gaps based on the duration, the projected traffic volume for the movement, and the resulting reserve (or deficit) capacity during the AM and PM peak hours.

TABLE III

PEAK HOUR GAP ANALYSIS RESULTS

INTERSECTION	*MOVEMENT*	*ACCEPTABLE GAP DURATION*	*EXISTING GAPS BASED ON COLLECTED DATA (VPH)*	*PROJECTED VOLUME (VPH)*	*RESERVE CAPACITY (VPH)*
Arsenal St/Proposed Driveway	Right turns exiting site	6.9 sec	228(365)	2(18)	226(347)
	Left turns exiting site	7.5 sec	155(36)	1(14)	154(22)
	Left turns entering site	4.1 sec	260(218)	8(4)	252(214)

South Massey St/Proposed Driveway	Right turns exiting site	6.9 sec	359(92)	3(31)	356(61)
	Left turns exiting site	7.5 sec	210(88)	1(9)	209(79)
	Left turns entering site	4.1 sec	570(139)	16(7)	554(132)

Note:
00(00) = AM(PM) Peak Hour

Based on the field observations, gap study, the operation and phasing of the traffic signal at Arsenal St/South Massey Street, and the projected site generated traffic volumes, it is anticipated that there will be sufficient gaps to accommodate all of the turns in and out of the site at both the Arsenal Street and South Massey Street driveways. No turn restrictions are warranted to recommended at this time.

X. CONCLUSIONS & RECOMMENDATIONS

This study evaluates the potential traffic impacts resulting from the proposed Mercy Heights Development in Watertown, NY. Based upon the collective analyses and field observations, the results indicate that the proposed development will not have significant adverse traffic impacts on the existing roadway network. The following sets forth conclusions and recommendations based upon the results of the analyses:

1. The proposed development is expected to generate approximately 86 entering/56 exiting vehicle trips during the weekday AM peak hour and 70 entering/126 exiting vehicle trips during the PM peak hour.

2. It is noted that the southbound left turn movement is currently 409(266) vph during the AM(PM) peak hours. NYSDOT typically considers a dual left turn lane when left turn volumes reach 300 vph. Providing dual left turn lanes would allow for a reduction in green time for this movement thereby improving the northbound levels of service. The signal currently operates in a split phased mode with separate northbound and southbound phases. Levels of service would improve to "C" or better on all approaches. This improvement is not required as mitigation for this development, however it should be considered as an improvement whether or not the proposed Mercy Heights development moves forward.

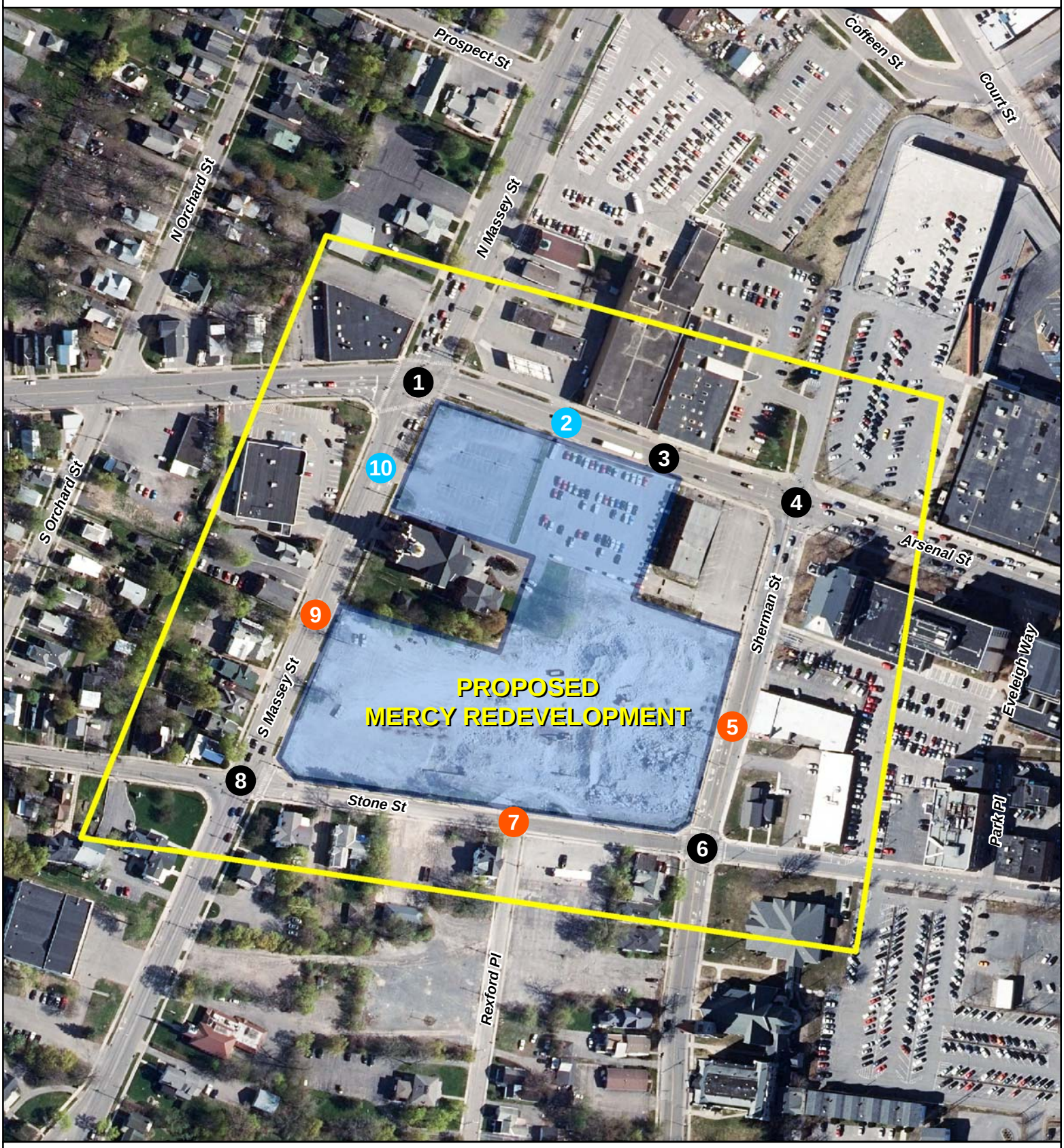
3. The Gap Analysis shows that there will be sufficient gaps for all movements entering and exiting both the Arsenal Street and South Massey Street driveways. No turn restrictions are warranted to recommended at this time.

4. The proposed development will not result in any potentially significant adverse traffic impacts to the study area intersections with the recommended mitigation in place.

XI. FIGURES

Figures 1 through 8 are included on the following pages.

FIGURE 1 - SITE LOCATION AND STUDY AREA



Legend

Intersection Type

- Study
- Study/Proposed
- Proposed

Site Location

Study Area

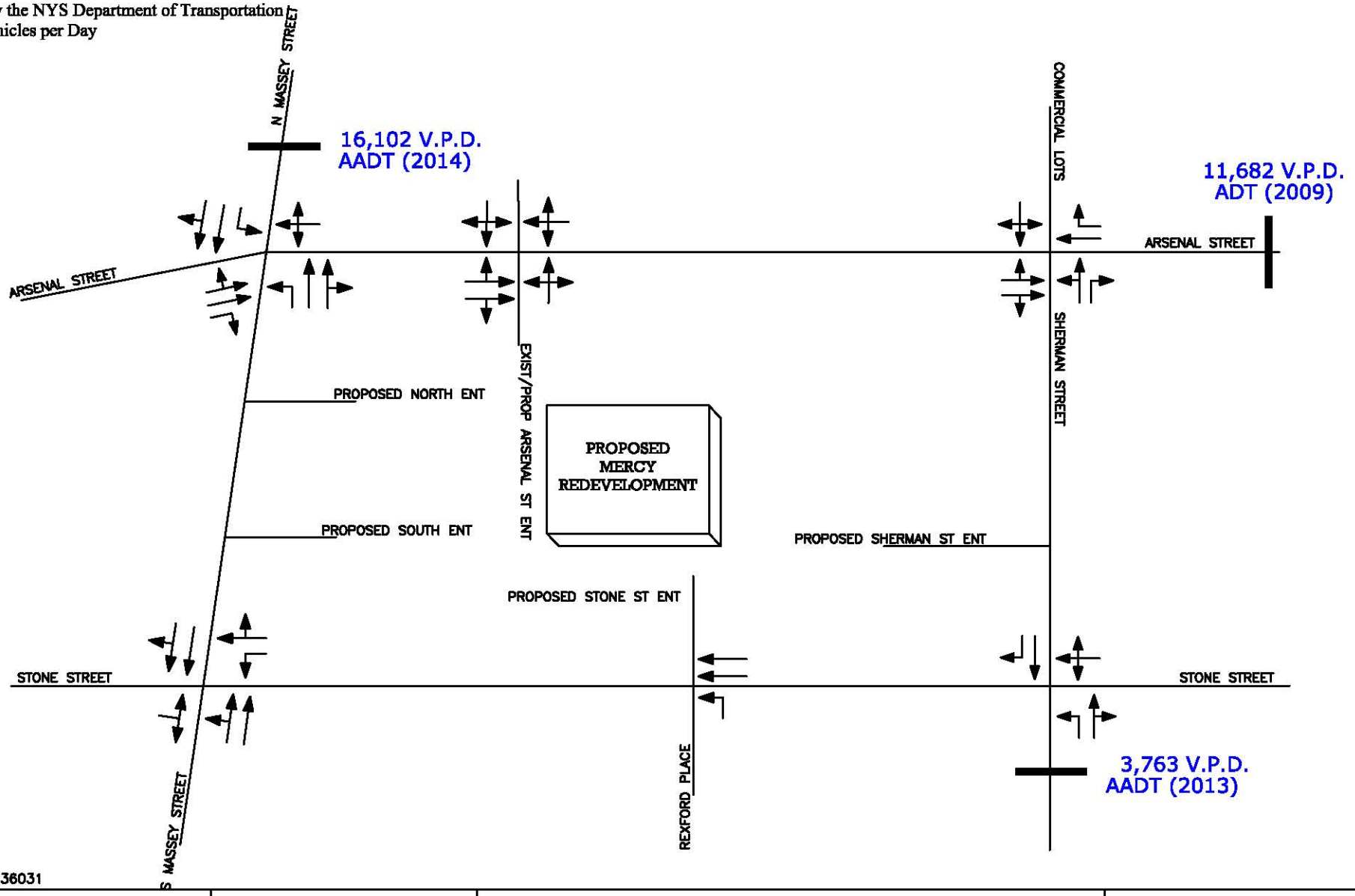
PROPOSED
MERCY REDEVELOPMENT
CITY OF WATERTOWN, NY

Feet
0 125 250 500

N

SRF ASSOCIATES
WWW.SRFA.NET
Transportation Engineering & Planning Consultants

NOTES:
All counts by the NYS Department of Transportation
V.P.D. = Vehicles per Day



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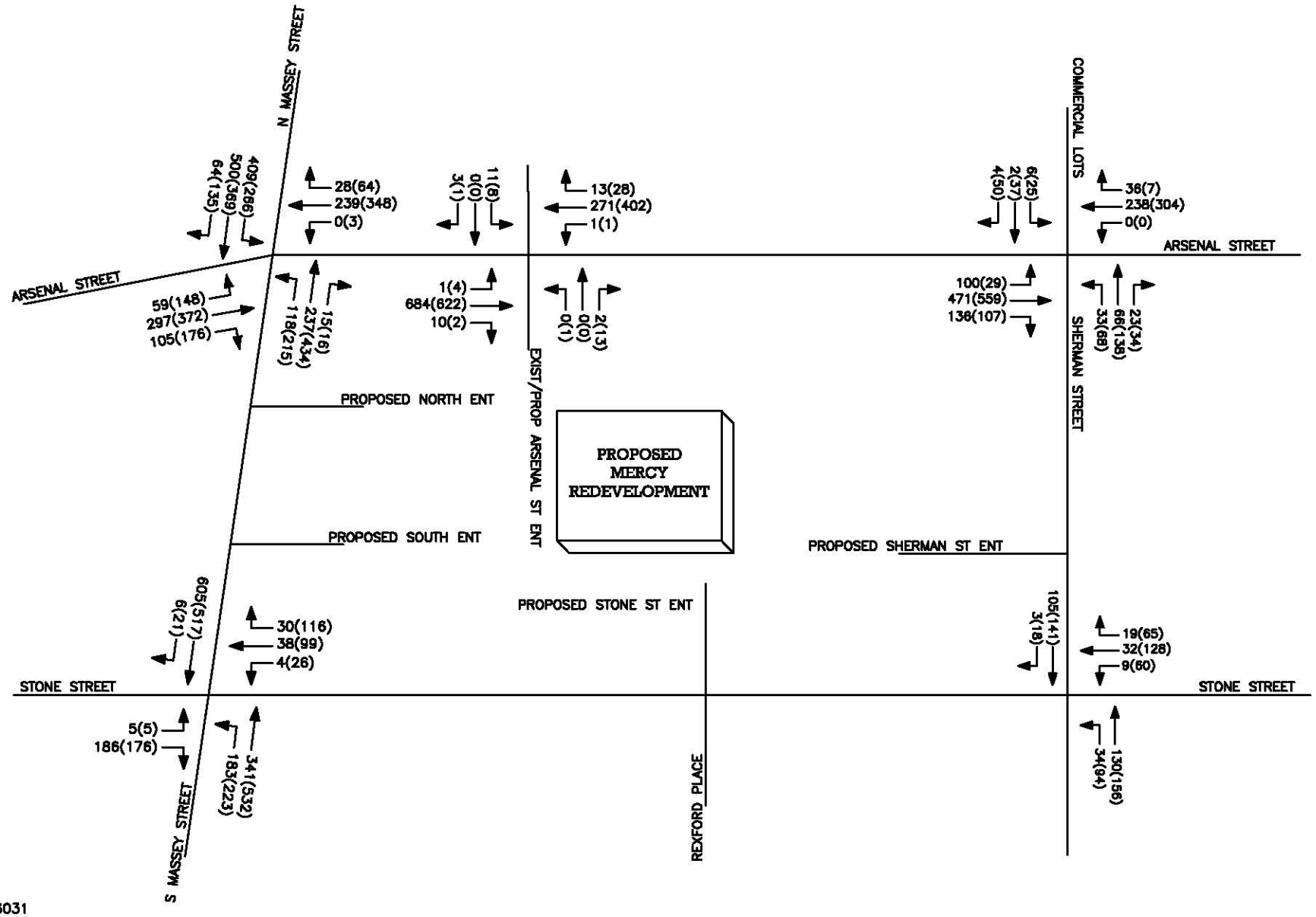
N
NOT TO SCALE

FIGURE 2

LANE GEOMETRY &
AVERAGE DAILY TRAFFIC

MERCY HEIGHTS,
CITY OF WATERTOWN, NY

KEY



PROJECT NO: 36031

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NOT TO SCALE

FIGURE 3

PEAK HOUR VOLUMES
2016 EXISTING CONDITIONS

MERCY HEIGHTS,
CITY OF WATERTOWN, NY

KEY

00(00) = AM(PM)

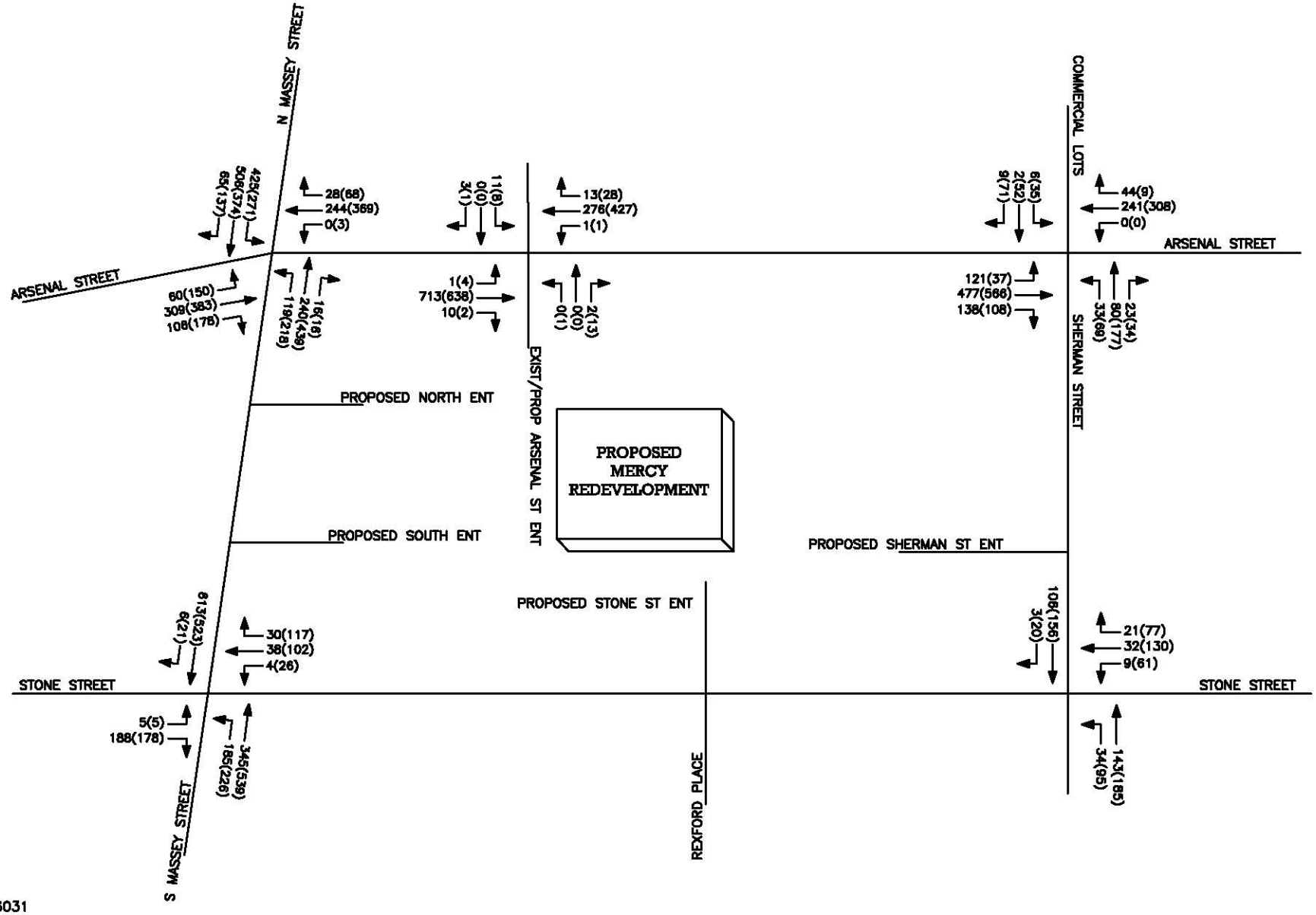

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FIGURE 4

PEAK HOUR VOLUMES
2021 BACKGROUND CONDITIONS

MERCY HEIGHTS,
CITY OF WATERTOWN, NY

KEY

00(00) = AM(PM)

PROJECT DATA:

APPLICANT:

1. COR ARSENAL STREET COMPANY, LLC
   540 TOWNE DRIVE
   FAYETTEVILLE, NEW YORK 13066

2. TAX MAP No.: 10-02-101, 10-02-116 & 10-02-113

3. EXISTING ZONING: COMMERCIAL

4. TOTAL LOT AREA: 5.71± ACRES
   ST. PATRICK'S LOT AREA 1.79 ± ACRES

ZONING REQUIREMENTS:	REQUIRED	PROVIDED
MIN. LOT AREA:	1,000 SF	5.71± ACRES
FRONT SETBACK:	20'	--- **
SIDE SETBACK:	5'	8.9'
REAR SETBACK:	25'	N/A
PARKING STALL SIZE:	9'x18'	9'x18'

** NOTE: FRONT YARD EXCEPTIONS

IN CASES OTHER THAN CORNER LOTS, OTHER PROVISIONS OF THIS CHAPTER NOTWITHSTANDING, NO BUILDING IN ANY DISTRICT NEED HAVE A FRONT YARD GREATER IN DEPTH THAN THE AVERAGE DEPTH OF THE FRONT YARDS OF THE LOTS NEXT THERETO ON EITHER SIDE, A VACANT LOT OR LOT WITH A FRONT YARD GREATER THAN THE MINIMUM DEPTH BEING COUNTED AS IF IT WERE THE MINIMUM FRONT YARD FOR THE DISTRICT IN WHICH IT IS LOCATED, BUT IN NO CASE SHALL THE FRONT YARD IN ANY RESIDENCE DISTRICT BE LESS THAN 10 FEET IN DEPTH.

PARKING RATIO (RESIDENTIAL) – COMMERCIAL ZONE						
BUILDING	SQUARE FEET	TOTAL NO. OF UNITS	PARKING SPACES REQUIRED	PARKING RATIO	PARKING SPACES PROVIDED	PARKING RATIO PROVIDED
C1	36,402	36	40	1.0/UNIT+10%	40	1.0/UNIT+10%
C2	36,402	36	40	1.0/UNIT+10%	40	1.0/UNIT+10%
C3	36,402	36	40	1.0/UNIT+10%	40	1.0/UNIT+10%
CLUB HOUSE	5,588	N/A	28	5.0/1,000	43	7.7/1,000
TOTAL			148		163	

PARKING RATIO (OFFICE) – COMMERCIAL ZONE						
BUILDING	SQUARE FEET	TOTAL NO. OF UNITS	PARKING SPACES REQUIRED	PARKING RATIO	PARKING SPACES PROVIDED	PARKING RATIO PROVIDED
OFFICE 1	17,000	N/A	85	5.0/1,000	85	5.0/1,000
OFFICE 2	17,000	N/A	85	5.0/1,000	85	5.0/1,000
TOTAL	34,000		170		170	

PARKING RATIO (ASSEMBLY) – COMMERCIAL ZONE				
BUILDING	TOTAL # OF OCCUPANTS	PARKING SPACES REQUIRED	EXISTING PARKING ON CHURCH PROPERTY	PARKING SPACES PROVIDED
ST. PATRICK'S CHURCH	399	67	81	86

* NOTE:

1. TOTAL PARKING REQUIRED: 395 SPACES
   TOTAL PARKING PROVIDED: 419 SPACES

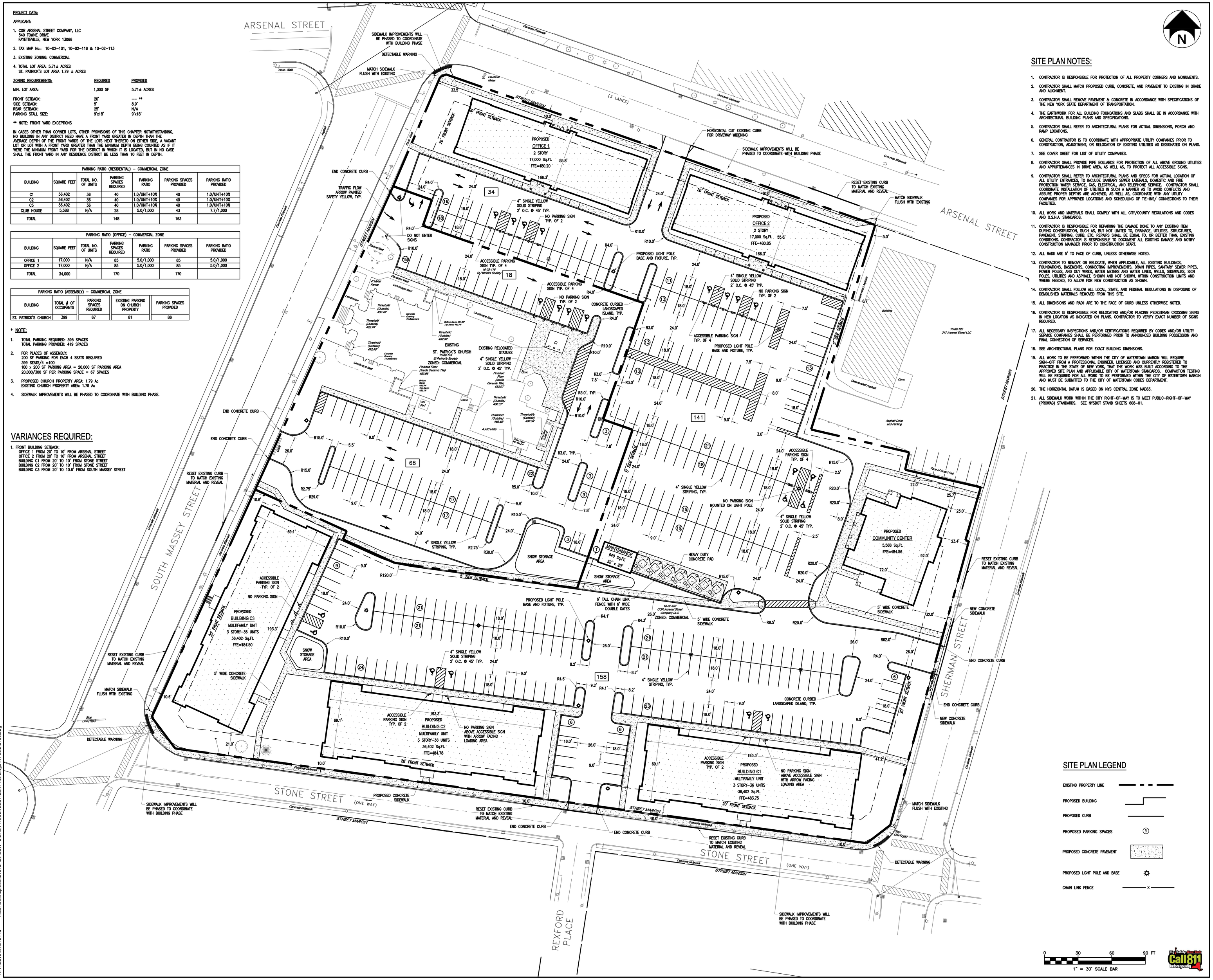
2. FOR PLACES OF ASSEMBLY:
   200 SF PARKING FOR EACH 4 SEATS REQUIRED
   399 SEATS/4 =100
   100 x 200 SF PARKING AREA = 20,000 SF PARKING AREA
   20,000/300 SF PER PARKING SPACE = 67 SPACES

3. PROPOSED CHURCH PROPERTY AREA: 1.79 Ac
   EXISTING CHURCH PROPERTY AREA: 1.79 Ac

4. SIDEWALK IMPROVEMENTS WILL BE PHASED TO COORDINATE WITH BUILDING PHASE.

VARIANCES REQUIRED:

1. FRONT BUILDING SETBACK:
   OFFICE 1 FROM 20' TO 10' FROM ARSENAL STREET
   OFFICE 2 FROM 20' TO 10' FROM ARSENAL STREET
   BUILDING C1 FROM 20' TO 10' FROM STONE STREET
   BUILDING C2 FROM 20' TO 10' FROM STONE STREET
   BUILDING C3 FROM 20' TO 10.6' FROM SOUTH MASSEY STREET



SITE PLAN NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL PROPERTY CORNERS AND MONUMENTS.
2. CONTRACTOR SHALL MATCH PROPOSED CURB, CONCRETE, AND PAVEMENT TO EXISTING IN GRADE AND ALIGNMENT.
3. CONTRACTOR SHALL REMOVE PAVEMENT & CONCRETE IN ACCORDANCE WITH SPECIFICATIONS OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION.
4. THE EARTHWORK FOR ALL BUILDING FOUNDATIONS AND SLABS SHALL BE IN ACCORDANCE WITH ARCHITECTURAL BUILDING PLANS AND SPECIFICATIONS.
5. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR ACTUAL DIMENSIONS, PORCH AND RAMP LOCATIONS.
6. GENERAL CONTRACTOR IS TO COORDINATE WITH APPROPRIATE UTILITY COMPANIES PRIOR TO CONSTRUCTION, ADJUSTMENT, OR RELOCATION OF EXISTING UTILITIES AS DESIGNATED ON PLANS.
7. SEE COVER SHEET FOR LIST OF UTILITY COMPANIES.
8. CONTRACTOR SHALL PROVIDE PIPE BOLLARDS FOR PROTECTION OF ALL ABOVE GROUND UTILITIES AND APPURTENANCES IN DRIVE AREA, AS WELL AS, TO PROTECT ALL ACCESSIBLE SIGNS.
9. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECS FOR ACTUAL LOCATION OF ALL UTILITY ENTRANCES, TO INCLUDE SANITARY SEWER LATERALS, DOMESTIC AND FIRE PROTECTION WATER SERVICE, GAS, ELECTRICAL, AND TELEPHONE SERVICE. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND ASSURE PROPER DEPTHS ARE ACHIEVED, AS WELL AS, COORDINATE WITH ANY UTILITY COMPANIES FOR APPROVED LOCATIONS AND SCHEDULING OF TIE–INS/ CONNECTIONS TO THEIR FACILITIES.
10. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL CITY/COUNTY REGULATIONS AND CODES AND O.S.H.A. STANDARDS.
11. CONTRACTOR IS RESPONSIBLE FOR REPAIRING THE DAMAGE DONE TO ANY EXISTING ITEM DURING CONSTRUCTION, SUCH AS, BUT NOT LIMITED TO, DRAINAGE, UTILITIES, STRUCTURES, PAVEMENT, STRIPING, CURB, ETC. REPAIRS SHALL BE EQUAL TO, OR BETTER THAN, EXISTING CONDITIONS. CONTRACTOR IS RESPONSIBLE TO DOCUMENT ALL EXISTING DAMAGE AND NOTIFY CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION START.
12. ALL RADII ARE 5' TO FACE OF CURB, UNLESS OTHERWISE NOTED.
13. CONTRACTOR TO REMOVE OR RELOCATE, WHEN APPLICABLE, ALL EXISTING BUILDINGS, FOUNDATIONS, BASEMENTS, CONNECTING IMPROVEMENTS, DRAIN PIPES, SANITARY SEWER PIPES, POWER POLES, AND GUY WIRES, WATER METERS AND WATER LINES, WELLS, SIDEWALKS, SIGN POLES, UTILITIES AND ASPHALT, SHOWN AND NOT SHOWN, WITHIN CONSTRUCTION LIMITS AND WHERE NEEDED, TO ALLOW FOR NEW CONSTRUCTION AS SHOWN.
14. CONTRACTOR SHALL FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS IN DISPOSING OF DEMOLISHED MATERIALS REMOVED FROM THIS SITE.
15. ALL DIMENSIONS AND RADII ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
16. CONTRACTOR IS RESPONSIBLE FOR RELOCATING AND/OR PLACING PEDESTRIAN CROSSING SIGNS IN NEW LOCATION AS INDICATED ON PLANS. CONTRACTOR TO VERIFY EXACT NUMBER OF SIGNS REQUIRED.
17. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND FINAL CONNECTION OF SERVICES.
18. SEE ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS.
19. ALL WORK TO BE PERFORMED WITHIN THE CITY OF WATERTOWN MARGIN WILL REQUIRE SIGN–OFF FROM A PROFESSIONAL ENGINEER, LICENSED AND CURRENTLY REGISTERED TO PRACTICE IN THE STATE OF NEW YORK, THAT THE WORK WAS BUILT ACCORDING TO THE APPROVED SITE PLAN AND APPLICABLE CITY OF WATERTOWN STANDARDS. COMPACTION TESTING WILL BE REQUIRED FOR ALL WORK TO BE PERFORMED WITHIN THE CITY OF WATERTOWN MARGIN AND MUST BE SUBMITTED TO THE CITY OF WATERTOWN CODES DEPARTMENT.
20. THE HORIZONTAL DATUM IS BASED ON NYS CENTRAL ZONE NAD83.
21. ALL SIDEWALK WORK WITHIN THE CITY RIGHT–OF–WAY IS TO MEET PUBLIC–RIGHT–OF–WAY (PROWAG) STANDARDS. SEE NYSDOT STAND SHEETS 608–01.

SITE PLAN LEGEND

EXISTING PROPERTY LINE
PROPOSED BUILDING
PROPOSED CURB
PROPOSED PARKING SPACES (5)
PROPOSED CONCRETE PAVEMENT
PROPOSED LIGHT POLE AND BASE
CHAIN LINK FENCE x

MERCY HEIGHTS

City of Watertown
Jefferson County
State of New York

COR Arsenal Street Company, LLC

540 Towne Drive
Fayetteville, NY 13066

Bergmann associates
architects // engineers // planners

Bergmann Associates, Architects, Engineers,
Landscape Architects & Surveyors, D.P.C.
28 East Main Street
200 First Federal Plaza
Rochester, NY 14614

office: 585.232.5135
fax: 585.232.4652

www.bergmannpc.com

REVISIONS

NO.	DATE	DESCRIPTION	REV. CK'D

PRELIMINARY
NOT FOR
CONSTRUCTION

PROFESSIONAL CERTIFICATION: I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NEW YORK.
LICENSE NO. 80472
EXPIRATION DATE: 05/2017

TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT, THE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE 2015 ENERGY CONSTRUCTION CONSERVATION CODE OF THE STATE OF NEW YORK.

Project Manager: A. HART, RLA	Checked By: J. BASILE, PE
Designed By: J. BUSH	Drawn By: J. BUSH
Date Issued: MAY 23, 2016	Scale: 1" = 30'
Project Number: 010487.00	

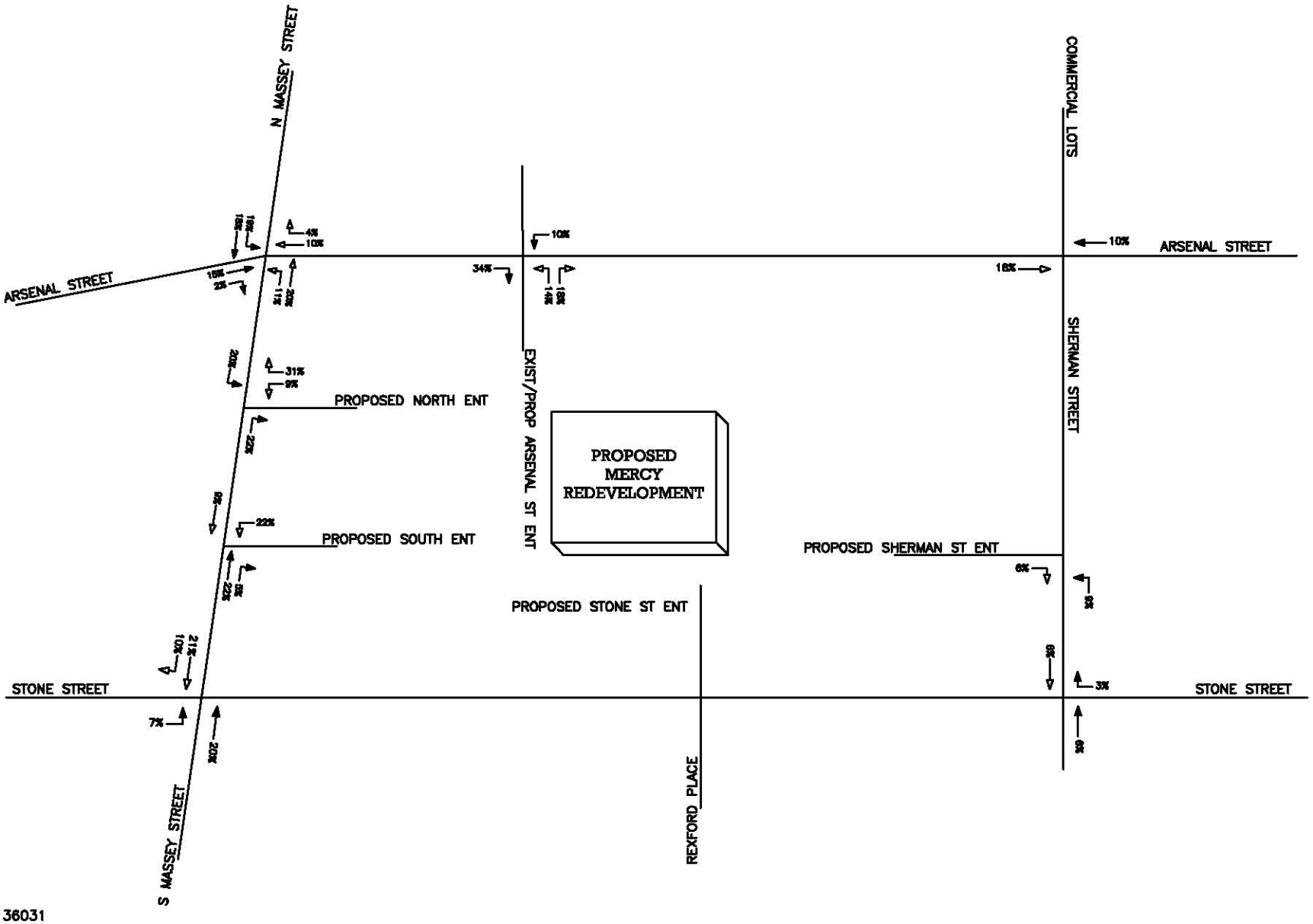
SITE PLAN

Drawing Number:

C100

4 of 12

Dig Safely. New York Call 811 Before You Dig



PROJECT NO: 36031

SRF ASSOCIATES
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N
NOT TO SCALE

FIGURE 6-A

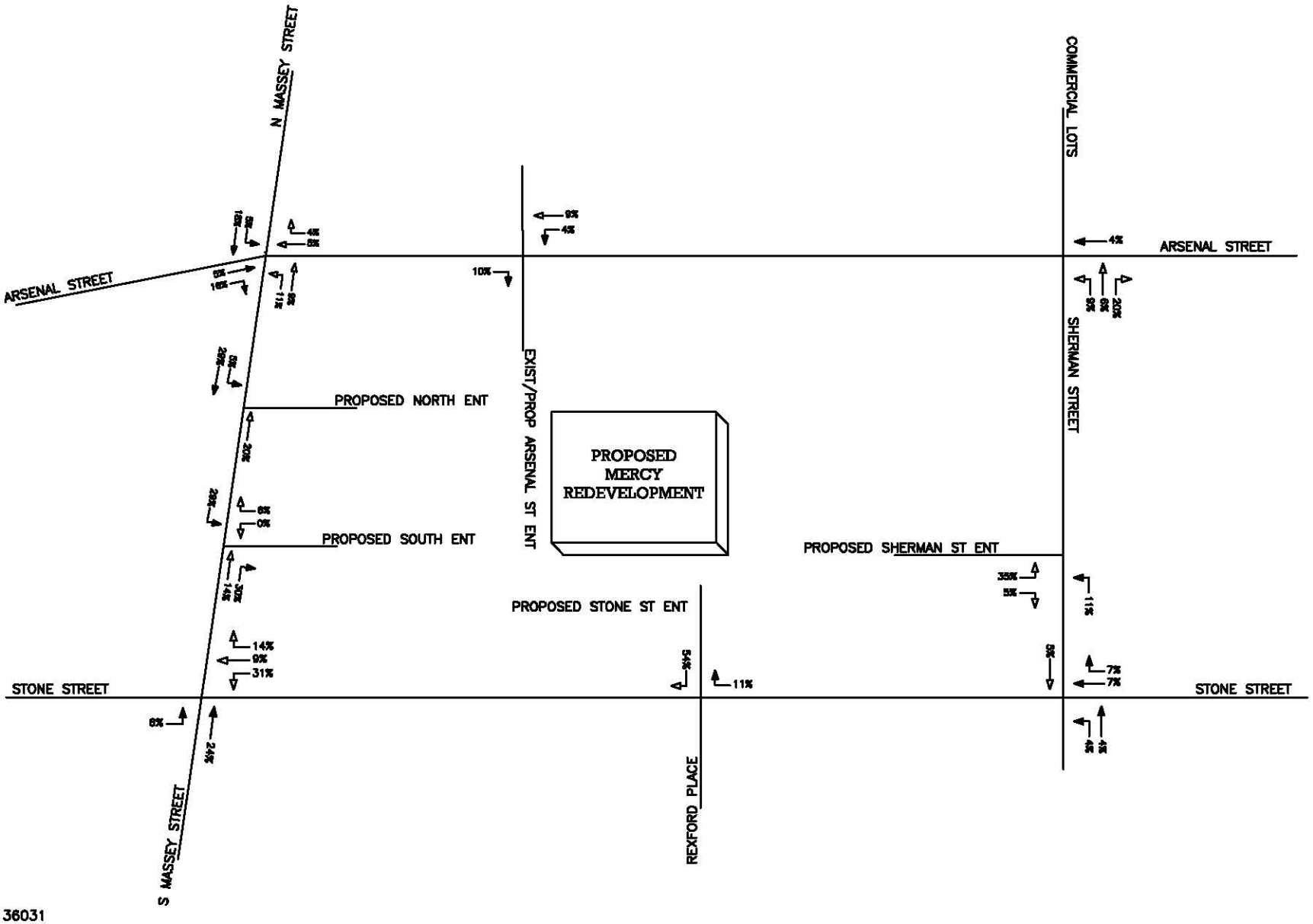
TRIP DISTRIBUTION
OFFICE FULL ACCESS

MERCY HEIGHTS,
CITY OF WATERTOWN, NY

KEY

00(00) = AM(PM)

→ = ENTERING TRIPS
→ = EXITING TRIPS



PROJECT NO: 36031

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NOT TO SCALE

FIGURE 6-B

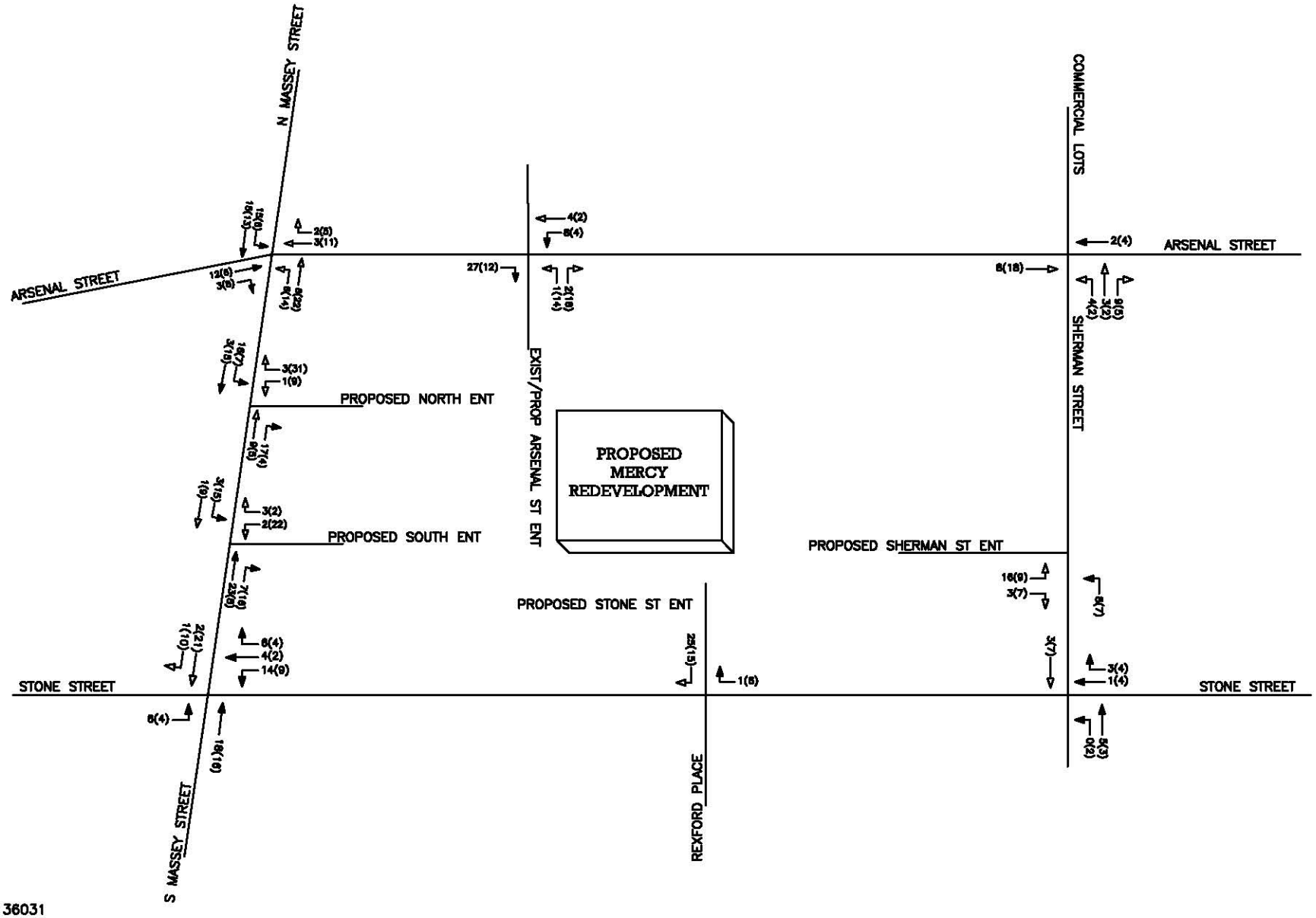
TRIP DISTRIBUTION
RESIDENTIAL FULL ACCESS

MERCY HEIGHTS,
CITY OF WATERTOWN, NY

KEY

00(00) = AM(PM)

→ = ENTERING TRIPS
→ = EXITING TRIPS



PROJECT NO: 36031

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NOT TO SCALE

FIGURE 7

SITE GENERATED TRIPS

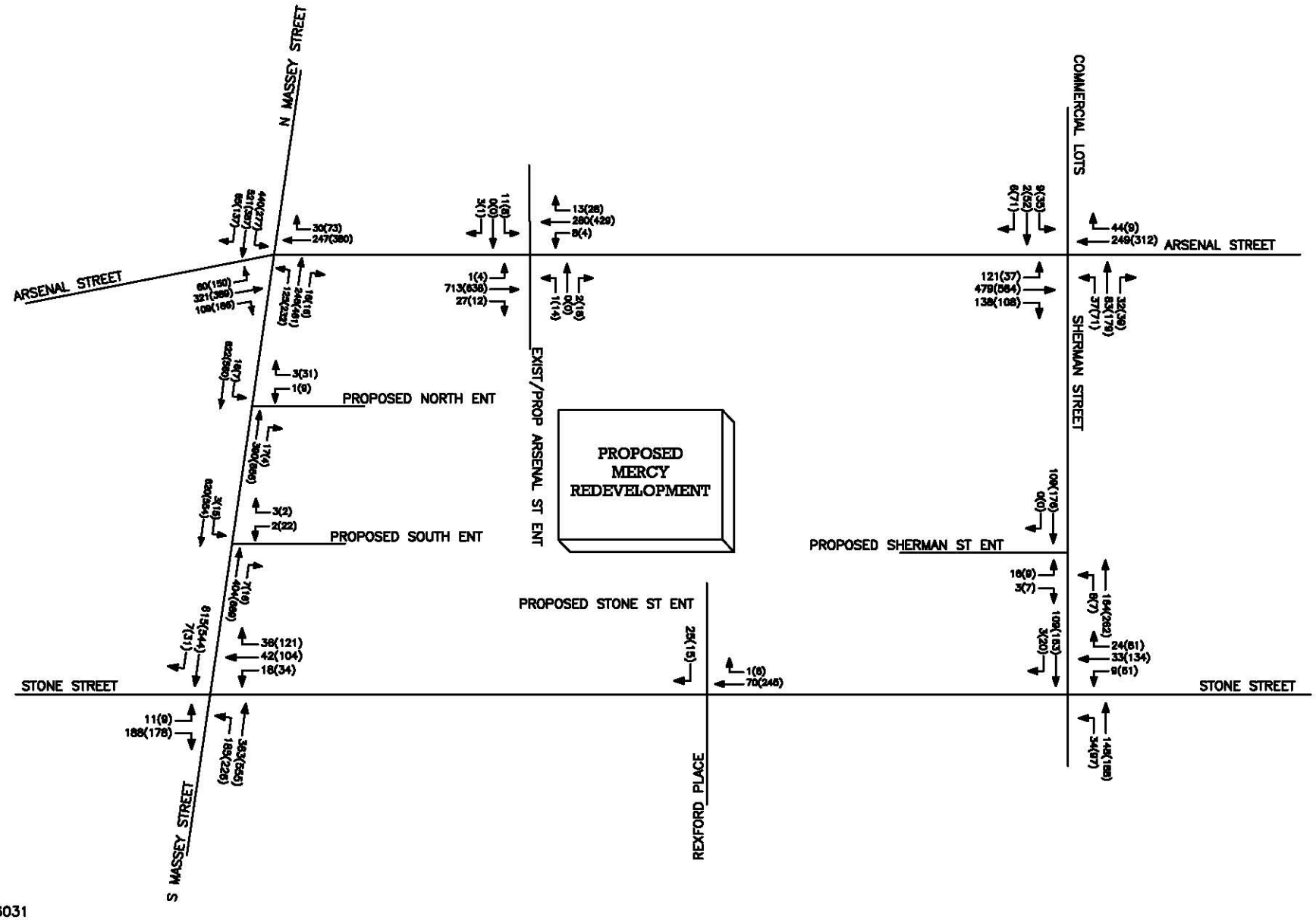
MERCY HEIGHTS,
CITY OF WATERTOWN, NY

KEY

00(00) = AM(PM)

→ = ENTERING TRIPS

→ = EXITING TRIPS



PROJECT NO: 36031

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NOT TO SCALE

FIGURE 8

PEAK HOUR VOLUMES
FULL DEVELOPMENT CONDITIONS

MERCY HEIGHTS,
CITY OF WATERTOWN, NY

KEY

00(00) = AM(PM)

APPENDICES

A1

Collected Traffic Volume Data

SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, NY 14623

File Name : Arsenal.Massey.AM
Site Code : 00036031
Start Date : 6/15/2016
Page No : 1

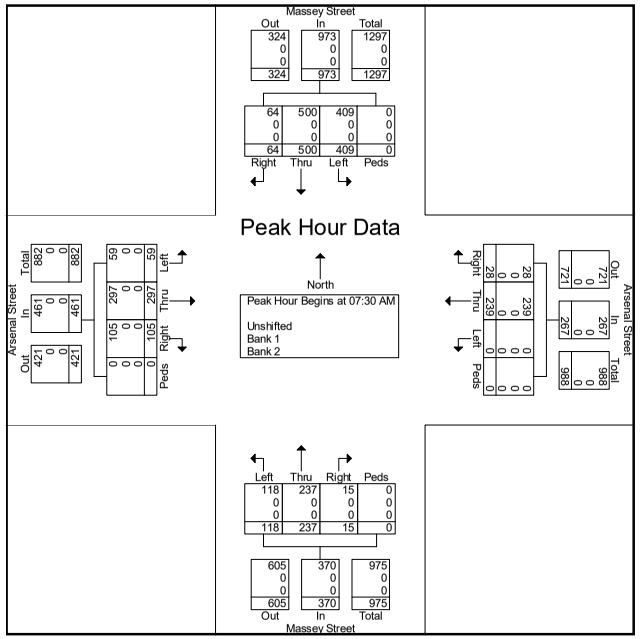
Groups Printed- Unshifted - Bank 1 - Bank 2

	Massey Street Southbound				Arsenal Street Westbound				Massey Street Northbound				Arsenal Street Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	7	90	56	0	3	15	0	0	2	28	10	0	19	49	14	0	293
07:15 AM	11	112	91	0	2	39	0	0	3	59	15	0	27	44	11	0	414
07:30 AM	17	130	108	0	4	59	0	0	4	61	28	0	20	70	17	0	518
07:45 AM	13	152	120	0	5	59	0	0	6	60	40	0	30	79	17	0	581
Total	48	484	375	0	14	172	0	0	15	208	93	0	96	242	59	0	1806
08:00 AM	20	112	79	0	5	61	0	0	1	55	26	0	32	70	15	0	476
08:15 AM	14	106	102	0	14	60	0	0	4	61	24	0	23	78	10	0	496
08:30 AM	22	100	84	0	6	66	0	0	1	68	27	0	37	74	21	0	506
08:45 AM	24	96	91	0	9	71	0	0	1	56	29	0	23	88	25	0	513
Total	80	414	356	0	34	258	0	0	7	240	106	0	115	310	71	0	1991
Grand Total	128	898	731	0	48	430	0	0	22	448	199	0	211	552	130	0	3797
Apprch %	7.3	51.1	41.6	0	10	90	0	0	3.3	67	29.7	0	23.6	61.8	14.6	0	
Total %	3.4	23.7	19.3	0	1.3	11.3	0	0	0.6	11.8	5.2	0	5.6	14.5	3.4	0	
Unshifted	128	898	731	0	48	430	0	0	22	448	199	0	211	552	130	0	3797
% Unshifted	100	100	100	0	100	100	0	0	100	100	100	0	100	100	100	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, NY 14623

File Name : Arsenal.Massey.AM
Site Code : 00036031
Start Date : 6/15/2016
Page No : 2

	Massey Street Southbound					Arsenal Street Westbound					Massey Street Northbound					Arsenal Street Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	17	130	108	0	255	4	59	0	0	63	4	**61**	28	0	93	20	70	**17**	0	107	518
07:45 AM	13	**152**	**120**	0	**285**	5	59	0	0	64	**6**	60	**40**	0	**106**	30	**79**	17	0	**126**	**581**
08:00 AM	**20**	112	79	0	211	5	**61**	0	0	66	1	55	26	0	82	**32**	70	15	0	117	476
08:15 AM	14	106	102	0	222	**14**	60	0	0	**74**	4	61	24	0	89	23	78	10	0	111	496
Total Volume	64	500	409	0	973	28	239	0	0	267	15	237	118	0	370	105	297	59	0	461	2071
% App. Total	6.6	51.4	42	0		10.5	89.5	0	0		4.1	64.1	31.9	0		22.8	64.4	12.8	0		
PHF	.800	.822	.852	.000	.854	.500	.980	.000	.000	.902	.625	.971	.738	.000	.873	.820	.940	.868	.000	.915	.891
Unshifted	64	500	409	0	973	28	239	0	0	267	15	237	118	0	370	105	297	59	0	461	2071
% Unshifted																					
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, NY 14623

File Name : Arsenal.Massey.PM
Site Code : 00036031
Start Date : 6/14/2016
Page No : 1

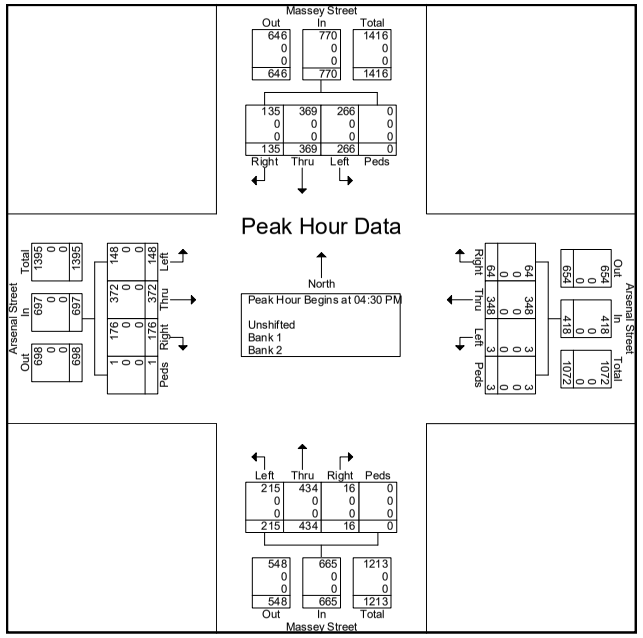
Groups Printed- Unshifted - Bank 1 - Bank 2

	Massey Street Southbound				Arsenal Street Westbound				Massey Street Northbound				Arsenal Street Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	32	83	61	0	15	98	0	0	5	101	47	0	55	93	40	0	630
04:15 PM	29	75	58	0	16	91	0	0	1	82	36	0	44	81	46	0	559
04:30 PM	28	113	72	0	23	77	0	3	1	124	47	0	36	91	33	1	649
04:45 PM	25	80	61	0	13	96	0	0	0	93	61	0	32	88	50	0	599
Total	114	351	252	0	67	362	0	3	7	400	191	0	167	353	169	1	2437
05:00 PM	49	90	64	0	12	98	1	0	1	106	57	0	54	102	35	0	669
05:15 PM	33	86	69	0	16	77	2	0	14	111	50	0	54	91	30	0	633
05:30 PM	31	69	42	0	17	83	0	0	5	61	32	0	32	95	29	0	496
05:45 PM	31	63	39	0	15	75	0	0	1	73	35	0	38	82	30	0	482
Total	144	308	214	0	60	333	3	0	21	351	174	0	178	370	124	0	2280
Grand Total	258	659	466	0	127	695	3	3	28	751	365	0	345	723	293	1	4717
Apprch %	18.7	47.7	33.7	0	15.3	83.9	0.4	0.4	2.4	65.6	31.9	0	25.3	53.1	21.5	0.1	
Total %	5.5	14	9.9	0	2.7	14.7	0.1	0.1	0.6	15.9	7.7	0	7.3	15.3	6.2	0	
Unshifted	258	659	466	0	127	695	3	3	28	751	365	0	345	723	293	1	4717
% Unshifted	100	100	100	0	100	100	100	100	100	100	100	0	100	100	100	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, NY 14623

File Name : Arsenal.Massey.PM
Site Code : 00036031
Start Date : 6/14/2016
Page No : 2

	Massey Street Southbound					Arsenal Street Westbound					Massey Street Northbound					Arsenal Street Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	28	**113**	**72**		**213**	**23**	77	0	**3**	103	1	**124**							**1**		
04:45 PM	**25**	**80**	**61**	**0**	**166**	**13**	**96**	**0**	**0**	**109**	**0**	**93**	**61**	0	154	32	88	**50**	**0**	**170**	**599**
05:00 PM	**49**	**90**	**64**	**0**	**203**	**12**	**98**	**1**	**0**	**111**	1	106	57	0	164	**54**	**102**	35	0	**191**	**669**
05:15 PM	33	86	69	0	188	16	77	**2**			**14**				**175**	54	91	30	0	175	633
Total Volume	135	369	266	0	770	64	348	3	3	418	16	434	215	0	665	176	372	148	1	697	2550
% App. Total	17.5	47.9	34.5	0		15.3	83.3	0.7	0.7		2.4	65.3	32.3	0		25.3	53.4	21.2	0.1		
PHF	.689	.816	.924	.000	.904	.696	.888	.375	.250	.941	.286	.875	.881	.000	.950	.815	.912	.740	.250	.912	.953
Unshifted	135	369	266	0	770	64	348	3	3	418	16	434	215	0	665	176	372	148	1	697	2550
% Unshifted	100	100	100	0	100	100	100	100	100	100	100	100	100	0	100	100	100	100	100	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, NY 14623

File Name : Arsenal.ParkingLot.AM
Site Code : 00360311
Start Date : 6/15/2016
Page No : 1

Groups Printed- Unshifted - Bank 1 - Bank 2

	Gas Station Southbound				Arsenal Street Westbound				Parking Lot Northbound				Arsenal Street Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	0	5	0	3	23	0	0	0	0	0	0	0	98	2	0	131
07:15 AM	1	0	6	0	5	37	0	0	0	0	0	0	0	127	1	0	177
07:30 AM	1	0	3	0	3	65	0	0	0	0	0	0	1	172	0	0	245
07:45 AM	0	0	3	0	2	61	1	0	2	0	0	0	1	202	0	0	272
Total	2	0	17	0	13	186	1	0	2	0	0	0	2	599	3	0	825
08:00 AM	0	0	2	0	3	70	0	0	0	0	0	0	0	144	1	0	220
08:15 AM	2	0	3	0	5	75	0	0	0	0	0	0	8	166	0	0	259
08:30 AM	0	0	1	0	2	66	0	0	0	0	0	0	10	134	0	0	213
08:45 AM	1	0	1	0	2	63	0	0	3	0	1	0	16	143	0	0	230
Total	3	0	7	0	12	274	0	0	3	0	1	0	34	587	1	0	922
Grand Total	5	0	24	0	25	460	1	0	5	0	1	0	36	1186	4	0	1747
Apprch %	17.2	0	82.8	0	5.1	94.7	0.2	0	83.3	0	16.7	0	2.9	96.7	0.3	0	
Total %	0.3	0	1.4	0	1.4	26.3	0.1	0	0.3	0	0.1	0	2.1	67.9	0.2	0	
Unshifted	5	0	24	0	25	460	1	0	5	0	1	0	36	1186	4	0	1747
% Unshifted	100	0	100	0	100	100	100	0	100	0	100	0	100	100	100	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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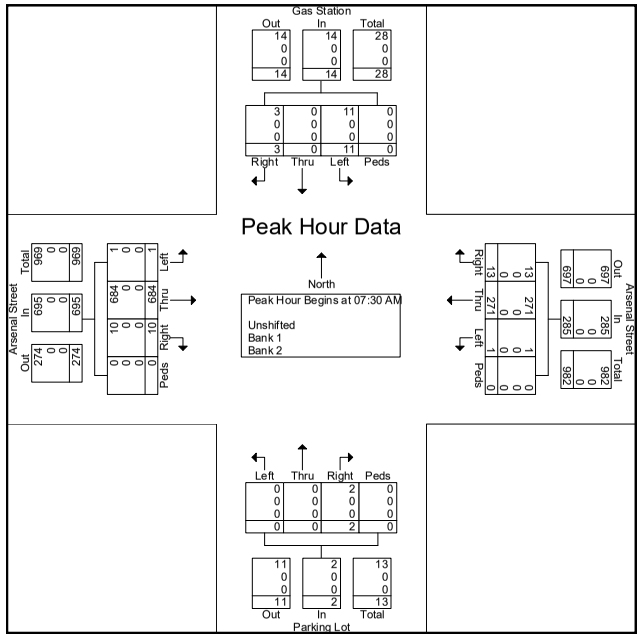
3495 Winton Place, Building E, Suite 110
Rochester, NY 14623

File Name : Arsenal.ParkingLot.AM
Site Code : 00360311
Start Date : 6/15/2016
Page No : 2

	Gas Station Southbound					Arsenal Street Westbound					Parking Lot Northbound					Arsenal Street Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	1	0	**3**																		
07:45 AM	**0**	**0**	**3**	**0**	**3**	**2**	**61**	**1**	**0**	**64**	**2**	**0**	**0**	**0**	**2**	1	**202**	0	0	**203**	**272**
08:00 AM	0	0	2	0	2	3	70	0	0	73	0	0	0	0	0	0	144	**1**			
08:15 AM	**2**	**0**	**3**	**0**	**5**	**5**	**75**	**0**	**0**	**80**	0	0	0	0	0	**8**	**166**	**0**	**0**	**174**	**259**
Total Volume	3	0	11	0	14	13	271	1	0	285	2	0	0	0	2	10	684	1	0	695	996
% App. Total	21.4	0	78.6	0		4.6	95.1	0.4	0		100	0	0	0		1.4	98.4	0.1	0		
PHF	.375	.000	.917	.000	.700	.650	.903	.250	.000	.891	.250	.000	.000	.000	.250	.313	.847	.250	.000	.856	.915
Unshifted	3	0	11	0	14	13	271	1	0	285	2	0	0	0	2	10	684	1	0	695	996
% Unshifted	100	0	100	0	100	100	100	100	0	100	100	0	0	0	100	100	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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File Name : Arsenal.ParkingLot.PM
Site Code : 00360311
Start Date : 6/14/2016
Page No : 1

Groups Printed- Unshifted - Bank 1 - Bank 2

	Gas Station Southbound				Arsenal Street Westbound				Parking Lot Northbound				Arsenal Street Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	1	0	4	0	6	108	0	0	1	0	0	0	1	162	0	0	283
04:15 PM	1	0	3	0	8	106	0	0	0	0	0	0	1	138	0	0	257
04:30 PM	0	0	3	0	9	102	1	0	0	0	0	0	1	165	1	0	282
04:45 PM	0	0	1	0	10	106	0	0	0	0	1	0	1	142	0	0	261
Total	2	0	11	0	33	422	1	0	1	0	1	0	4	607	1	0	1083
05:00 PM	1	0	1	0	4	99	0	0	13	0	0	0	0	158	0	0	276
05:15 PM	0	0	3	0	5	95	0	0	0	0	0	0	0	157	3	0	263
05:30 PM	0	0	5	0	2	106	0	0	0	0	0	0	0	143	4	0	260
05:45 PM	0	0	0	0	5	91	0	0	0	1	0	0	0	127	0	0	224
Total	1	0	9	0	16	391	0	0	13	1	0	0	0	585	7	0	1023
Grand Total	3	0	20	0	49	813	1	0	14	1	1	0	4	1192	8	0	2106
Apprch %	13	0	87	0	5.7	94.2	0.1	0	87.5	6.2	6.2	0	0.3	99	0.7	0	
Total %	0.1	0	0.9	0	2.3	38.6	0	0	0.7	0	0	0	0.2	56.6	0.4	0	
Unshifted	3	0	20	0	49	813	1	0	14	1	1	0	4	1192	8	0	2106
% Unshifted	100	0	100	0	100	100	100	0	100	100	100	0	100	100	100	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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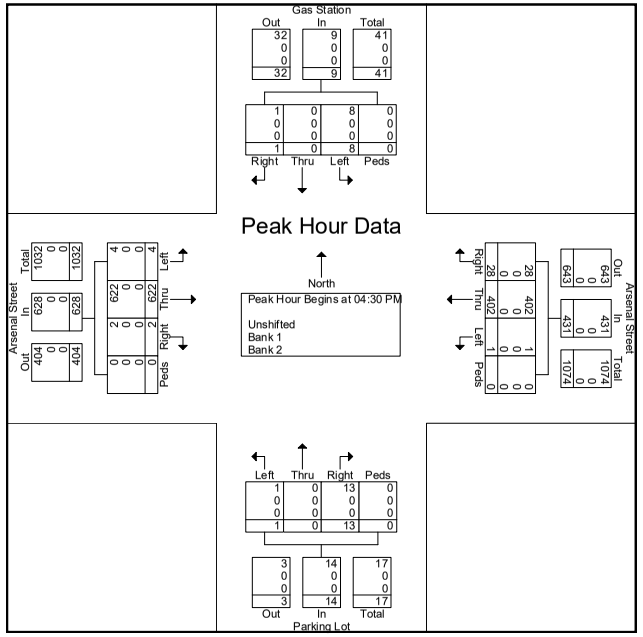
File Name : Arsenal.ParkingLot.PM
Site Code : 00360311
Start Date : 6/14/2016
Page No : 2

	Gas Station Southbound					Arsenal Street Westbound					Parking Lot Northbound					Arsenal Street Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	**3**		**3**	9	102	**1**								**1**	**165**	1	0	**167**	**282**
04:45 PM	0	0	1	0	1	**10**	**106**			**116**	0	0	**1**	0	1	1	142	0	0	143	261
05:00 PM	**1**										**13**					0	158	0	0	158	276
05:15 PM	0	0	3	0	3	5	95	0	0	100	0	0	0	0	0	0	157	**3**			
Total Volume	1	0	8	0	9	28	402	1	0	431	13	0	1	0	14	2	622	4	0	628	1082
% App. Total	11.1	0	88.9	0		6.5	93.3	0.2	0		92.9	0	7.1	0		0.3	99	0.6	0		
PHF	.250	.000	.667	.000	.750	.700	.948	.250	.000	.929	.250	.000	.250	.000	.269	.500	.942	.333	.000	.940	.959
Unshifted	1	0	8	0	9	28	402	1	0	431	13	0	1	0	14	2	622	4	0	628	1082
% Unshifted	100	0	100	0	100	100	100	100	0	100	100	0	100	0	100	100	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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Groups Printed- Unshifted - Bank 1 - Bank 2

	Sherman Street Southbound				Arsenal Street Westbound				Sherman Street Northbound				Arsenal Street Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	1	2	0	0	0	19	0	0	5	10	4	0	19	71	9	0	140
07:15 AM	0	1	0	0	4	36	0	0	1	7	6	0	32	89	22	0	198
07:30 AM	2	1	0	0	13	52	0	0	3	16	5	0	27	122	28	0	269
07:45 AM	1	0	4	0	15	68	0	0	6	21	3	0	39	121	49	0	327
Total	4	4	4	0	32	175	0	0	15	54	18	0	117	403	108	0	934
08:00 AM	1	1	1	0	3	62	0	0	7	11	9	0	30	112	11	0	248
08:15 AM	0	0	1	0	5	56	0	0	7	18	16	0	40	116	12	0	271
08:30 AM	1	0	1	0	11	57	0	0	6	11	17	0	26	95	18	0	243
08:45 AM	1	1	4	0	14	79	1	0	13	22	14	0	26	108	28	0	311
Total	3	2	7	0	33	254	1	0	33	62	56	0	122	431	69	0	1073
Grand Total	7	6	11	0	65	429	1	0	48	116	74	0	239	834	177	0	2007
Apprch %	29.2	25	45.8	0	13.1	86.7	0.2	0	20.2	48.7	31.1	0	19.1	66.7	14.2	0	
Total %	0.3	0.3	0.5	0	3.2	21.4	0	0	2.4	5.8	3.7	0	11.9	41.6	8.8	0	
Unshifted	7	6	11	0	65	429	1	0	48	116	74	0	239	834	177	0	2007
% Unshifted	100	100	100	0	100	100	100	0	100	100	100	0	100	100	100	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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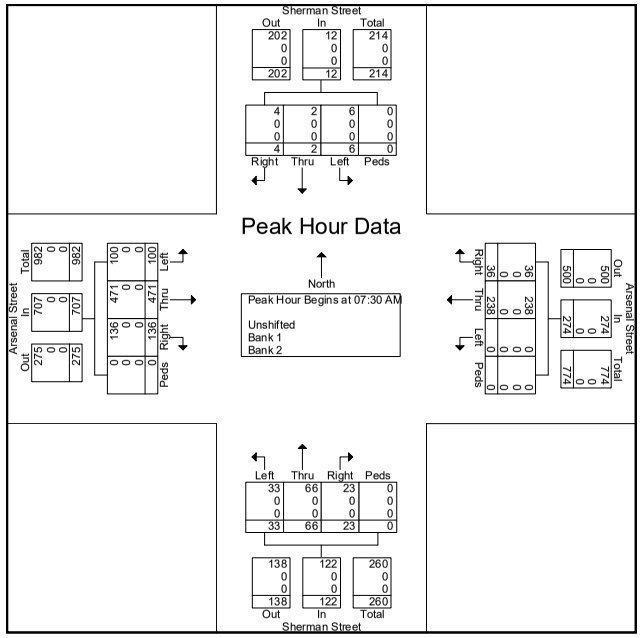
	Sherman Street Southbound					Arsenal Street Westbound					Sherman Street Northbound					Arsenal Street Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	**2**	**1**	0	0	3	13	52	0	0	65	3	16	5	0	24	27	**122**	28	0	177	269
07:45 AM	1	0	**4**		**5**	**15**	**68**			**83**	6	**21**						**49**		**209**	**327**
08:00 AM	1	1	1	0	3	3	62	0	0	65	**7**										
08:15 AM	**0**	**0**	**1**	**0**	**1**	**5**	**56**	**0**	**0**	**61**	**7**	**18**	**16**	0	**41**	**40**	**116**	**12**	**0**	**168**	**271**
Total Volume	4	2	6	0	12	36	238	0	0	274	23	66	33	0	122	136	471	100	0	707	1115
% App. Total	33.3	16.7	50	0		13.1	86.9	0	0		18.9	54.1	27	0		19.2	66.6	14.1	0		
PHF	.500	.500	.375	.000	.600	.600	.875	.000	.000	.825	.821	.786	.516	.000	.744	.850	.965	.510	.000	.846	.852
Unshifted	4	2	6	0	12	36	238	0	0	274	23	66	33	0	122	136	471	100	0	707	1115
% Unshifted	100	100	100	0	100	100	100	0	0	100	100	100	100	0	100	100	100	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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Groups Printed- Unshifted - Bank 1 - Bank 2

	Sherman Street Southbound				Arsenal Street Westbound				Sherman Street Northbound				Arsenal Street Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	6	2	8	0	5	84	0	0	12	32	17	0	21	146	11	0	344
04:15 PM	7	3	1	0	5	89	0	0	2	32	22	0	19	113	13	0	306
04:30 PM	22	15	11	0	1	75	0	0	11	48	13	0	22	138	9	0	365
04:45 PM	8	5	4	0	0	85	0	0	5	21	16	0	22	124	9	0	299
Total	43	25	24	0	11	333	0	0	30	133	68	0	84	521	42	0	1314
05:00 PM	10	10	7	0	3	76	0	0	10	47	20	0	40	153	9	0	385
05:15 PM	10	7	3	0	3	68	0	0	8	21	19	0	23	144	2	1	309
05:30 PM	7	3	7	0	2	73	0	0	7	19	18	0	14	128	3	0	281
05:45 PM	2	3	1	0	4	74	1	0	4	14	12	0	11	111	0	0	237
Total	29	23	18	0	12	291	1	0	29	101	69	0	88	536	14	1	1212
Grand Total	72	48	42	0	23	624	1	0	59	234	137	0	172	1057	56	1	2526
Apprch %	44.4	29.6	25.9	0	3.5	96.3	0.2	0	13.7	54.4	31.9	0	13.4	82.2	4.4	0.1	
Total %	2.9	1.9	1.7	0	0.9	24.7	0	0	2.3	9.3	5.4	0	6.8	41.8	2.2	0	
Unshifted	72	48	42	0	23	624	1	0	59	234	137	0	172	1057	56	1	2526
% Unshifted	100	100	100	0	100	100	100	0	100	100	100	0	100	100	100	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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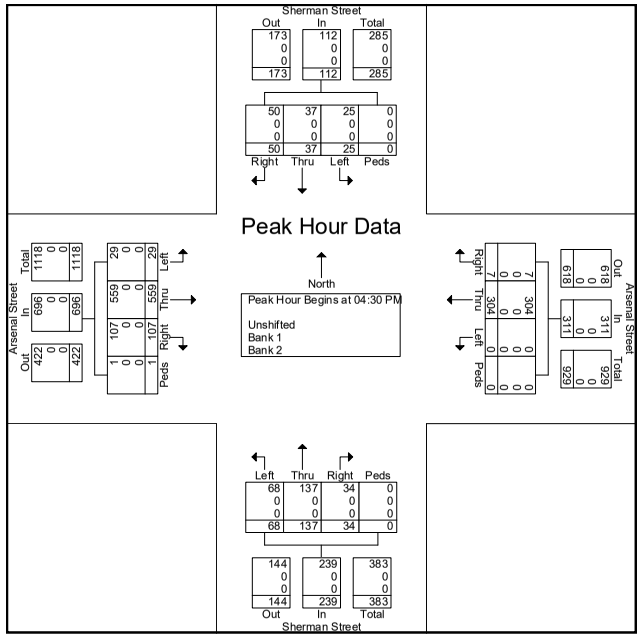
	Sherman Street Southbound					Arsenal Street Westbound					Sherman Street Northbound					Arsenal Street Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	**22**	**15**	**11**		**48**	1	75	0	0	76	**11**	**48**						**9**			
04:45 PM	**8**	**5**	**4**	**0**	**17**	**0**	**85**	**0**	**0**	**85**	5	21	16	0	42	22	124	9	0	155	299
05:00 PM	10	10	7	0	27	**3**	76	0	0	79	10	47	**20**	0	**77**	**40**	**153**	9	0	**202**	**385**
05:15 PM	10	7	3	0	20	3	68	0	0	71	8	21	19	0	48	23	144	2	**1**		
Total Volume	50	37	25	0	112	7	304	0	0	311	34	137	68	0	239	107	559	29	1	696	1358
% App. Total	44.6	33	22.3	0		2.3	97.7	0	0		14.2	57.3	28.5	0		15.4	80.3	4.2	0.1		
PHF	.568	.617	.568	.000	.583	.583	.894	.000	.000	.915	.773	.714	.850	.000	.776	.669	.913	.806	.250	.861	.882
Unshifted	50	37	25	0	112	7	304	0	0	311	34	137	68	0	239	107	559	29	1	696	1358
% Unshifted	100	100	100	0	100	100	100	0	0	100	100	100	100	0	100	100	100	100	100	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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Groups Printed- Unshifted - Bank 1 - Bank 2

	Massey Street Southbound				Stone Street Westbound				Massey Street Northbound				Stone Street Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	0	109	0	0	6	3	2	0	0	33	30	0	24	0	0	0	207
07:15 AM	0	133	0	0	4	3	1	0	0	69	29	0	32	0	2	0	273
07:30 AM	2	148	0	0	9	7	0	0	0	87	29	0	40	0	0	0	322
07:45 AM	1	184	0	0	6	10	1	0	0	98	47	0	61	0	3	0	411
Total	3	574	0	0	25	23	4	0	0	287	135	0	157	0	5	0	1213
08:00 AM	2	148	0	0	7	11	1	0	0	71	48	0	39	0	1	0	328
08:15 AM	1	125	0	0	8	10	2	0	0	85	59	0	46	0	1	0	337
08:30 AM	3	129	0	0	12	10	0	0	0	88	40	0	27	0	0	0	309
08:45 AM	0	127	0	0	12	11	0	0	0	83	35	0	35	0	0	0	303
Total	6	529	0	0	39	42	3	0	0	327	182	0	147	0	2	0	1277
Grand Total	9	1103	0	0	64	65	7	0	0	614	317	0	304	0	7	0	2490
Apprch %	0.8	99.2	0	0	47.1	47.8	5.1	0	0	66	34	0	97.7	0	2.3	0	
Total %	0.4	44.3	0	0	2.6	2.6	0.3	0	0	24.7	12.7	0	12.2	0	0.3	0	
Unshifted	9	1103	0	0	64	65	7	0	0	614	317	0	304	0	7	0	2490
% Unshifted	100	100	0	0	100	100	100	0	0	100	100	0	100	0	100	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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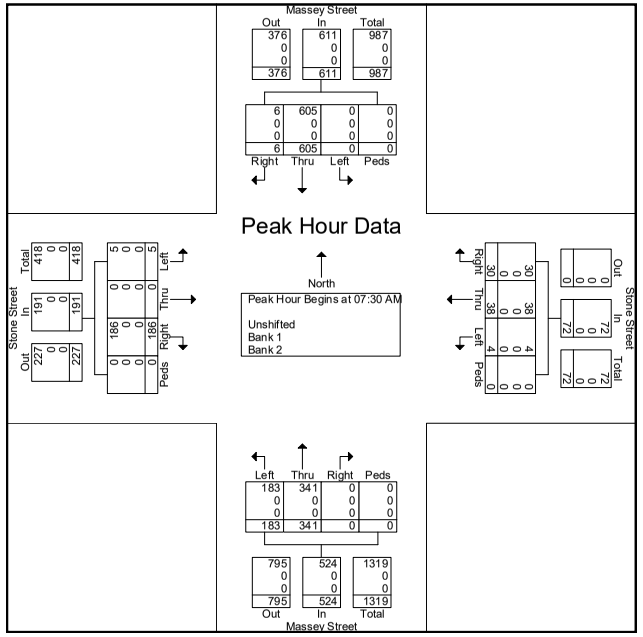
	Massey Street Southbound					Stone Street Westbound					Massey Street Northbound					Stone Street Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	**2**					**9**	7	0	0	16	0	87	29	0	116	40	0	0	0	40	322
07:45 AM	1	**184**	0	0	**185**	6	10	1	0	17	0	**98**			**145**	**61**		**3**		**64**	**411**
08:00 AM	2	148	0	0	150	7	**11**														
08:15 AM	**1**	**125**	**0**	**0**	**126**	**8**	**10**	**2**	**0**	**20**	0	85	**59**	0	144	46	0	1	0	47	337
Total Volume	6	605	0	0	611	30	38	4	0	72	0	341	183	0	524	186	0	5	0	191	1398
% App. Total	1	99	0	0		41.7	52.8	5.6	0		0	65.1	34.9	0		97.4	0	2.6	0		
PHF	.750	.822	.000	.000	.826	.833	.864	.500	.000	.900	.000	.870	.775	.000	.903	.762	.000	.417	.000	.746	.850
Unshifted	6	605	0	0	611	30	38	4	0	72	0	341	183	0	524	186	0	5	0	191	1398
% Unshifted	100	100	0	0	100	100	100	100	0	100	0	100	100	0	100	100	0	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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Groups Printed- Unshifted - Bank 1 - Bank 2

	Massey Street Southbound				Stone Street Westbound				Massey Street Northbound				Stone Street Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	3	137	0	0	31	30	3	2	0	114	70	0	64	0	2	0	456
04:15 PM	1	128	0	0	21	33	2	0	0	91	49	0	61	0	2	0	388
04:30 PM	9	144	0	0	41	27	10	0	0	135	53	0	57	0	2	0	478
04:45 PM	2	124	0	0	24	19	6	0	0	117	47	0	35	0	1	0	375
Total	15	533	0	0	117	109	21	2	0	457	219	0	217	0	7	0	1697
05:00 PM	6	123	0	0	32	30	6	0	0	138	59	0	44	0	1	0	439
05:15 PM	4	126	0	0	19	23	4	0	0	142	64	0	40	0	1	0	423
05:30 PM	1	109	0	0	14	12	1	0	0	82	60	0	34	0	3	0	316
05:45 PM	0	95	0	0	14	11	4	0	0	99	40	0	46	0	0	0	309
Total	11	453	0	0	79	76	15	0	0	461	223	0	164	0	5	0	1487
Grand Total	26	986	0	0	196	185	36	2	0	918	442	0	381	0	12	0	3184
Apprch %	2.6	97.4	0	0	46.8	44.2	8.6	0.5	0	67.5	32.5	0	96.9	0	3.1	0	
Total %	0.8	31	0	0	6.2	5.8	1.1	0.1	0	28.8	13.9	0	12	0	0.4	0	
Unshifted	26	986	0	0	196	185	36	2	0	918	442	0	381	0	12	0	3184
% Unshifted	100	100	0	0	100	100	100	100	0	100	100	0	100	0	100	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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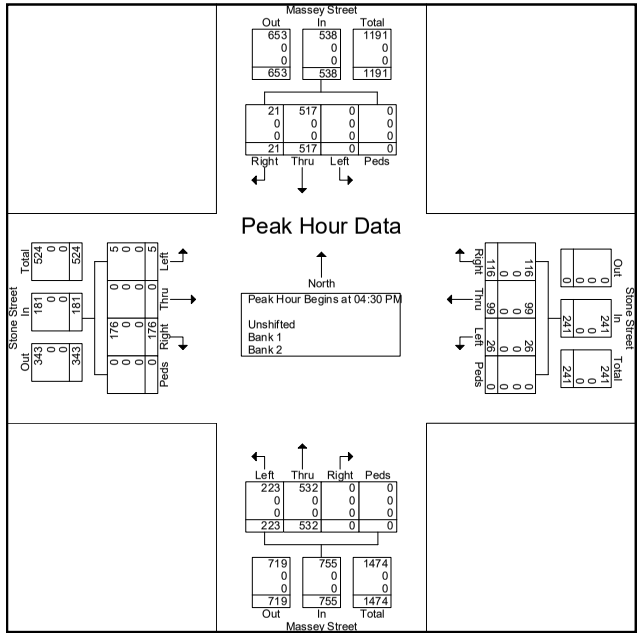
	Massey Street Southbound					Stone Street Westbound					Massey Street Northbound					Stone Street Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	**9**	**144**	0	0	**153**	**41**	27	**10**		**78**	0	135	53	0	188	**57**		**2**		**59**	**478**
04:45 PM	2	124	0	0	126	24	19	6	0	49	0	117	47	0	164	35	0	1	0	36	375
05:00 PM	6	123	0	0	129	32	**30**														
05:15 PM	**4**	**126**	**0**	**0**	**130**	**19**	**23**	**4**	**0**	**46**	**0**	**142**	**64**	0	**206**	40	0	1	0	41	423
Total Volume	21	517	0	0	538	116	99	26	0	241	0	532	223	0	755	176	0	5	0	181	1715
% App. Total	3.9	96.1	0	0		48.1	41.1	10.8	0		0	70.5	29.5	0		97.2	0	2.8	0		
PHF	.583	.898	.000	.000	.879	.707	.825	.650	.000	.772	.000	.937	.871	.000	.916	.772	.000	.625	.000	.767	.897
Unshifted	21	517	0	0	538	116	99	26	0	241	0	532	223	0	755	176	0	5	0	181	1715
% Unshifted	100	100	0	0	100	100	100	100	0	100	0	100	100	0	100	100	0	100	0	100	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, NY 14623

File Name : Sherman.Stone.AM
Site Code : 00036031
Start Date : 6/15/2016
Page No : 1

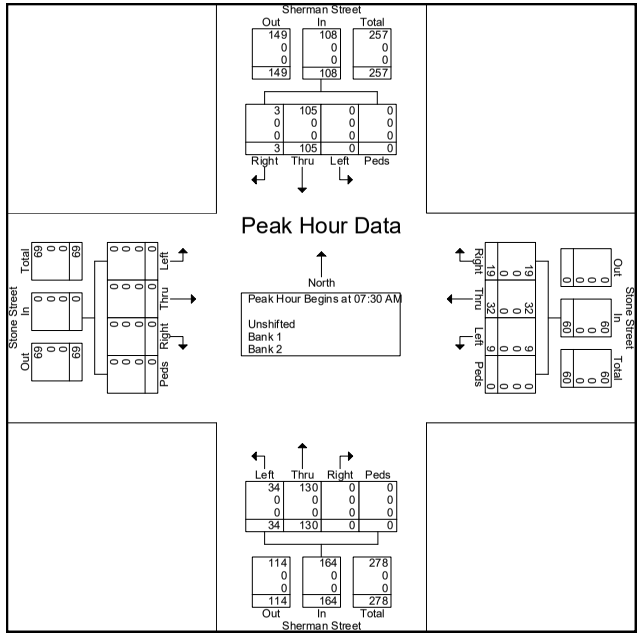
Groups Printed- Unshifted - Bank 1 - Bank 2

	Sherman Street Southbound				Stone Street Westbound				Sherman Street Northbound				Stone Street Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
07:00 AM	1	19	0	0	1	6	0	0	0	15	2	0	0	0	0	0	44
07:15 AM	1	26	0	0	3	2	1	0	0	13	4	0	0	0	0	0	50
07:30 AM	0	31	0	0	5	7	0	0	0	28	9	0	0	0	0	0	80
07:45 AM	1	34	0	0	3	10	2	0	0	34	6	0	0	0	0	0	90
Total	3	110	0	0	12	25	3	0	0	90	21	0	0	0	0	0	264
08:00 AM	1	22	0	0	5	8	3	0	0	28	12	0	0	0	0	0	79
08:15 AM	1	18	0	0	6	7	4	0	0	40	7	0	0	0	0	0	83
08:30 AM	1	17	0	0	10	12	4	0	0	40	11	0	0	0	0	0	95
08:45 AM	0	17	0	0	7	10	5	0	0	44	13	0	0	0	0	0	96
Total	3	74	0	0	28	37	16	0	0	152	43	0	0	0	0	0	353
Grand Total	6	184	0	0	40	62	19	0	0	242	64	0	0	0	0	0	617
Apprch %	3.2	96.8	0	0	33.1	51.2	15.7	0	0	79.1	20.9	0	0	0	0	0	
Total %	1	29.8	0	0	6.5	10	3.1	0	0	39.2	10.4	0	0	0	0	0	
Unshifted	6	184	0	0	40	62	19	0	0	242	64	0	0	0	0	0	617
% Unshifted	100	100	0	0	100	100	100	0	0	100	100	0	0	0	0	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, NY 14623

File Name : Sherman.Stone.AM
Site Code : 00036031
Start Date : 6/15/2016
Page No : 2

	Sherman Street Southbound					Stone Street Westbound					Sherman Street Northbound					Stone Street Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	31	0	0	31	5	7	0	0	12	0	28	9	0	37	0	0	0	0	0	80
07:45 AM	**1**	**34**	0	0	**35**	3	**10**														**90**
08:00 AM	1	22	0	0	23	5	8	3	0	16	0	28	**12**	0	40	0	0	0	0	0	79
08:15 AM	1	18	0	0	19	**6**	7	**4**		**17**	0	**40**			**47**	0	0	0	0	0	83
Total Volume	3	105	0	0	108	19	32	9	0	60	0	130	34	0	164	0	0	0	0	0	332
% App. Total	2.8	97.2	0	0		31.7	53.3	15	0		0	79.3	20.7	0		0	0	0	0		
PHF	.750	.772	.000	.000	.771	.792	.800	.563	.000	.882	.000	.813	.708	.000	.872	.000	.000	.000	.000	.000	.922
Unshifted	3	105	0	0	108	19	32	9	0	60	0	130	34	0	164	0	0	0	0	0	332
% Unshifted	100	100	0	0	100	100	100	100	0	100	0	100	100	0	100	0	0	0	0	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, NY 14623

File Name : Sherman.Stone.PM
Site Code : 00036031
Start Date : 6/14/2016
Page No : 1

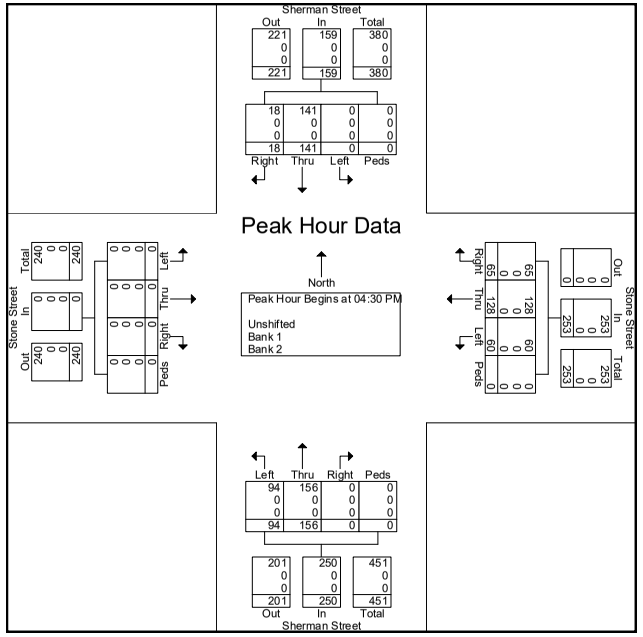
Groups Printed- Unshifted - Bank 1 - Bank 2

	Sherman Street Southbound				Stone Street Westbound				Sherman Street Northbound				Stone Street Eastbound				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:00 PM	4	27	0	0	14	39	15	0	0	50	23	0	0	0	0	0	172
04:15 PM	2	17	0	0	15	28	9	0	0	34	20	0	0	0	0	0	125
04:30 PM	3	36	0	0	24	50	21	0	0	41	22	0	0	0	0	0	197
04:45 PM	2	32	0	0	13	29	5	0	0	27	21	0	0	0	0	0	129
Total	11	112	0	0	66	146	50	0	0	152	86	0	0	0	0	0	623
05:00 PM	9	43	0	0	22	33	28	0	0	44	27	0	0	0	0	0	206
05:15 PM	4	30	0	0	6	16	6	0	0	44	24	0	0	0	0	0	130
05:30 PM	3	18	0	0	7	15	2	0	0	33	9	0	0	0	0	0	87
05:45 PM	0	13	0	0	3	18	2	0	0	27	11	0	0	0	0	0	74
Total	16	104	0	0	38	82	38	0	0	148	71	0	0	0	0	0	497
Grand Total	27	216	0	0	104	228	88	0	0	300	157	0	0	0	0	0	1120
Apprch %	11.1	88.9	0	0	24.8	54.3	21	0	0	65.6	34.4	0	0	0	0	0	
Total %	2.4	19.3	0	0	9.3	20.4	7.9	0	0	26.8	14	0	0	0	0	0	
Unshifted	27	216	0	0	104	228	88	0	0	300	157	0	0	0	0	0	1120
% Unshifted	100	100	0	0	100	100	100	0	0	100	100	0	0	0	0	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, NY 14623

File Name : Sherman.Stone.PM
Site Code : 00036031
Start Date : 6/14/2016
Page No : 2

	Sherman Street Southbound					Stone Street Westbound					Sherman Street Northbound					Stone Street Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	3	36	0	0	39	**24**	**50**			**95**	0	41	22	0	63	0	0	0	0	0	197
04:45 PM	2	32	0	0	34	13	29	5	0	47	0	27	21	0	48	0	0	0	0	0	129
05:00 PM	**9**	**43**	0	0	**52**	22	33	**28**				**44**	**27**	0	**71**	0	0	0	0	0	**206**
05:15 PM	4	30	0	0	34	6	16	6	0	28	0	44	24	0	68	0	0	0	0	0	130
Total Volume	18	141	0	0	159	65	128	60	0	253	0	156	94	0	250	0	0	0	0	0	662
% App. Total	11.3	88.7	0	0		25.7	50.6	23.7	0		0	62.4	37.6	0		0	0	0	0		
PHF	.500	.820	.000	.000	.764	.677	.640	.536	.000	.666	.000	.886	.870	.000	.880	.000	.000	.000	.000	.000	.803
Unshifted	18	141	0	0	159	65	128	60	0	253	0	156	94	0	250	0	0	0	0	0	662
% Unshifted	100	100	0	0	100	100	100	100	0	100	0	100	100	0	100	0	0	0	0	0	100
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, NY 14623

File Name : Arsenal.Driveway5.AM
Site Code : 00036031
Start Date : 6/15/2016

Directions Printed: Combined

Start Time	Volume	2 - 3	4 - 5	6 - 7	8 - 9	10 - 11	12 - 13	14 - 15	16 - 17	18 - 19	20 - 21	22 - 23	24 - 25	26 - 27	28 - 29	>29	Int. Total	Average
7:30:00 AM	0	9	5	1	5	2	0	3	0	1	0	1	1	2	0	2	32	8 - 9
7:45:00 AM	0	24	7	6	8	1	2	2	3	1	1	0	0	0	0	0	55	4 - 5
8:00:00 AM	1	13	10	1	5	2	2	2	3	2	0	2	0	1	1	2	46	6 - 7
8:15:00 AM	0	2	0	1	1	2	0	0	1	0	0	0	0	0	0	0	7	8 - 9
Grand Total	1	48	22	9	19	7	4	7	7	4	1	3	1	3	1	4	140	6 - 7
Total %		34.3	15.7	6.4	13.6	5.0	2.9	5.0	5.0	2.9	0.7	2.1	0.7	2.1	0.7	2.9		

SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, NY 14623

File Name : Arsenal.Driveway5.PM
Site Code : 00036031
Start Date : 6/14/2016
Page No : 1

Directions Printed: Combined

Start Time	Volume	2 - 3	4 - 5	6 - 7	8 - 9	10 - 11	12 - 13	14 - 15	16 - 17	18 - 19	20 - 21	22 - 23	24 - 25	26 - 27	28 - 29	>29	Int. Total	Average
04:30 PM	0	43	7	5	0	2	1	0	1	0	0	1	0	0	0	0	60	2 - 3
04:45 PM	0	44	8	2	2	0	0	0	0	0	0	0	0	0	0	1	57	2 - 3
Total	0	87	15	7	2	2	1	0	1	0	0	1	0	0	0	1	117	2 - 3
05:00 PM	0	22	11	1	0	1	0	0	0	0	0	0	0	0	0	0	35	2 - 3
05:15 PM	0	13	3	0	2	1	0	0	1	1	0	0	0	0	0	0	21	2 - 3
Grand Total	0	122	29	8	4	4	1	0	2	1	0	1	0	0	0	1	173	2 - 3
Total %		70.5	16.8	4.6	2.3	2.3	0.6	0.0	1.2	0.6	0.0	0.6	0.0	0.0	0.0	0.6		

SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, NY 14623

File Name : Arsenal.Driveway5.AM
Site Code : 00036031
Start Date : 6/15/2016

Directions Printed: Direction 1 - Eastbound

Start Time	Volume	2 - 3	4 - 5	6 - 7	8 - 9	10 - 11	12 - 13	14 - 15	16 - 17	18 - 19	20 - 21	22 - 23	24 - 25	26 - 27	28 - 29	>29	Int. Total	Average
7:30:00 AM	0	5	4	1	4	3	2	2	2	2	1	2	0	1	0	2	31	10 - 11
7:45:00 AM	0	5	1	5	4	2	4	1	2	2	3	1	0	0	0	2	32	10 - 11
8:00:00 AM	1	1	4	2	1	2	4	1	1	3	2	0	0	3	0	3	27	12 - 13
8:15:00 AM	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	1	4	20 - 21
Grand Total	1	12	9	8	9	8	10	4	5	7	7	3	0	4	0	8	94	12 - 13
Total %		12.8	9.6	8.5	9.6	8.5	10.6	4.3	5.3	7.4	7.4	3.2	0.0	4.3	0.0	8.5		

SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, NY 14623

File Name : Arsenal.Driveway5.PM
Site Code : 00036031
Start Date : 6/14/2016
Page No : 1

Directions Printed: Direction 1 - Eastbound

Start Time	Volume	2 - 3	4 - 5	6 - 7	8 - 9	10 - 11	12 - 13	14 - 15	16 - 17	18 - 19	20 - 21	22 - 23	24 - 25	26 - 27	28 - 29	>29	Int. Total	Average
04:30 PM	0	45	10	4	6	1	0	2	0	1	2	0	1	1	1	7	81	2 - 3
04:45 PM	0	27	10	3	1	1	0	0	1	0	0	1	0	2	0	10	56	4 - 5
Total	0	72	20	7	7	2	0	2	1	1	2	1	1	3	1	17	137	2 - 3
05:00 PM	0	16	10	5	2	0	0	0	0	2	1	1	1	1	1	7	47	4 - 5
05:15 PM	0	17	5	2	6	4	3	2	1	1	2	2	1	0	0	4	50	8 - 9
Grand Total	0	105	35	14	15	6	3	4	2	4	5	4	3	4	2	28	234	4 - 5
Total %		44.9	15.0	6.0	6.4	2.6	1.3	1.7	0.9	1.7	2.1	1.7	1.3	1.7	0.9	12.0		

SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, NY 14623

File Name : Massey.Driveway6.AM
Site Code : 11111111
Start Date : 6/15/2016

Directions Printed: Combined

Start Time	Volume	2 - 3	4 - 5	6 - 7	8 - 9	10 - 11	12 - 13	14 - 15	16 - 17	18 - 19	20 - 21	22 - 23	24 - 25	26 - 27	28 - 29	>29	Int. Total	Average
7:30:00 AM	0	9	15	5	10	2	3	3	2	1	0	1	0	0	1	1	53	6 - 7
7:45:00 AM	0	8	8	8	5	1	1	1	0	1	1	0	0	0	1	2	37	6 - 7
8:00:00 AM	0	16	9	8	2	4	3	2	0	3	2	0	1	1	2	0	53	6 - 7
8:15:00 AM	0	18	14	6	3	3	6	1	2	1	1	0	0	0	1	2	58	4 - 5
Grand Total	0	51	46	27	20	10	13	7	4	6	4	1	1	1	5	5	201	6 - 7
Total %		25.4	22.9	13.4	10.0	5.0	6.5	3.5	2.0	3.0	2.0	0.5	0.5	0.5	2.5	2.5		

SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, NY 14623

File Name : Massey.Driveway6.PM
Site Code : 00360311
Start Date : 6/21/2016

Directions Printed: Combined

Start Time	Volume	2 - 3	4 - 5	6 - 7	8 - 9	10 - 11	12 - 13	14 - 15	16 - 17	18 - 19	20 - 21	22 - 23	24 - 25	26 - 27	28 - 29	>29	Int. Total	Average
4:29:00 PM	0	11	6	4	3	1	0	0	0	0	1	0	1	0	0	0	27	4 - 5
4:44:00 PM	0	20	7	5	2	2	3	0	0	0	1	0	1	0	1	1	43	4 - 5
4:59:00 PM	0	15	12	2	1	1	1	0	1	1	0	0	0	1	0	0	35	4 - 5
Total	0	46	25	11	6	4	4	0	1	1	2	0	2	1	1	1	105	4 - 5
5:14:00 PM	0	18	12	6	3	2	2	1	1	0	1	1	0	0	0	1	48	4 - 5
Grand Total	0	64	37	17	9	6	6	1	2	1	3	1	2	1	1	2	153	4 - 5
Total %		41.8	24.2	11.1	5.9	3.9	3.9	0.7	1.3	0.7	2.0	0.7	1.3	0.7	0.7	1.3		

SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, NY 14623

File Name : Massey.Driveway6.AM
Site Code : 11111111
Start Date : 6/15/2016

Directions Printed: Direction 1 - Northbound

Start Time	Volume	2 - 3	4 - 5	6 - 7	8 - 9	10 - 11	12 - 13	14 - 15	16 - 17	18 - 19	20 - 21	22 - 23	24 - 25	26 - 27	28 - 29	>29	Int. Total	Average
7:30:00 AM	0	5	9	4	7	1	4	5	2	1	1	2	1	0	1	3	46	8 - 9
7:45:00 AM	0	5	5	7	3	1	1	1	1	0	1	2	1	0	0	5	33	6 - 7
8:00:00 AM	0	11	6	8	3	3	2	0	2	1	1	0	2	2	3	3	47	6 - 7
8:15:00 AM	0	10	12	1	3	0	5	2	3	4	1	0	0	0	2	4	47	8 - 9
Grand Total	0	31	32	20	16	5	12	8	8	6	4	4	4	2	6	15	173	8 - 9
Total %		17.9	18.5	11.6	9.2	2.9	6.9	4.6	4.6	3.5	2.3	2.3	2.3	1.2	3.5	8.7		

SRF & Associates
3495 Winton Place, Building E, Suite 110
Rochester, NY 14623

File Name : Massey.Driveway6.PM
Site Code : 00360311
Start Date : 6/21/2016

Directions Printed: Direction 1 - Northbound

Start Time	Volume	2 - 3	4 - 5	6 - 7	8 - 9	10 - 11	12 - 13	14 - 15	16 - 17	18 - 19	20 - 21	22 - 23	24 - 25	26 - 27	28 - 29	>29	Int. Total	Average
4:29:00 PM	0	10	6	3	1	1	1	0	0	0	0	1	1	0	0	1	25	4 - 5
4:44:00 PM	0	24	6	2	1	3	2	0	2	0	1	0	1	0	0	1	43	2 - 3
4:59:00 PM	0	12	9	2	1	2	2	0	2	0	0	0	0	1	0	0	31	4 - 5
Total	0	46	21	7	3	6	5	0	4	0	1	1	2	1	0	2	99	4 - 5
5:14:00 PM	0	8	16	3	1	2	1	1	3	0	1	1	0	0	0	0	37	4 - 5
Grand Total	0	54	37	10	4	8	6	1	7	0	2	2	2	1	0	2	136	4 - 5
Total %		39.7	27.2	7.4	2.9	5.9	4.4	0.7	5.1	0.0	1.5	1.5	1.5	0.7	0.0	1.5		

A2

Miscellaneous Traffic Data and Calculations

SRF ASSOCIATES
WWW.SRFA.NET
Traffic Engineering & Planning Consultants

Proposed Mercy Re-development, City of Watertown, NY

Documentation of Ambient Traffic Volume Growth

Roadway	Segment	Placement	2009	2014	2016	Annual Growth
North Massey Street	Arsenal to Coffeen	30' south of Prospect		16,102	14,160	-6.22%
Arsenal Street	Massey to Rt 11 Junction	.2 E of N Massey St	11,682		9,340	-3.15%

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Traffic Engineering & Planning Consultants

Proposed Site Access - Left In (Arsenal St)

Proposed Mercy Heights Re-development, City of Watertown, NY

AM Peak Hour # of *one-way* gaps (in seconds) between:

4.1	**6.3**	**8.5**	**10.7**	**12.9**	**15.1**	**17.3**	**19.5 or greater**	**Left Turn Capacity**
9								9
	9							18
		9						27
			9					36
				7				35
					5			30
						7		49
							7	56
								260

PM Peak Hour # of *one-way* gaps (in seconds) between:

4.1	**6.3**	**8.5**	**10.7**	**12.9**	**15.1**	**17.3**	**19.5 or greater**	**Left Turn Capacity**
35								35
	15							30
		13						39
			5					20
				3				15
					3			18
						3		21
							5	40
								218

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Proposed Site Access - Left Out (Arsenal St)

Proposed Mercy Heights Re-development, City of Watertown, NY

AM Peak Hour # of *two-way* gaps (in seconds) between:

7.5	**11**	**14.5**	**18**	**21.5**	**25**	**28.5**	**or greater**	**Left Turn Capacity**
24								24
	9							18
		12						36
			4					16
				3				15
					3			18
						4		28
								155

PM Peak Hour # of *two-way* gaps (in seconds) between:

7.5	**11**	**14.5**	**18**	**21.5**	**25**	**28.5**	**or greater**	**Left Turn Capacity**
8								8
	3							6
		2						6
			1					4
				1				5
					0			0
						1		7
								36

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Proposed Site Access - Right Out (Arsenal St)

Proposed Mercy Heights Re-development, City of Watertown, NY

AM Peak Hour # of *one-way* gaps (in seconds) between:

6.9	**10.2**	**13.5**	**16.8**	**20.1**	**23.4**	**27**	**or greater**	**Right Turn Capacity**
14								14
	14							28
		8						24
			10					40
				8				40
					2			12
						10		70
								228

PM Peak Hour # of *one-way* gaps (in seconds) between:

6.9	**10.2**	**13.5**	**16.8**	**20.1**	**23.4**	**27**	**or greater**	**Right Turn Capacity**
21								21
	7							14
		5						15
			5					20
				7				35
					6			36
						32		224
								365

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Proposed Site Access - Left In (Massey St)

Proposed Mercy Heights Re-development, City of Watertown, NY

AM Peak Hour # of *one-way* gaps (in seconds) between:

4.1	**6.3**	**8.5**	**10.7**	**12.9**	**15.1**	**17.3**	**19.5 or greater**	**Left Turn Capacity**
33								33
	21							42
		13						39
			8					32
				11				55
					8			48
						7		49
							34	272
								570

PM Peak Hour # of *one-way* gaps (in seconds) between:

4.1	**6.3**	**8.5**	**10.7**	**12.9**	**15.1**	**17.3**	**19.5 or greater**	**Left Turn Capacity**
36								36
	9							18
		5						15
			7					28
				3				15
					2			12
						1		7
							1	8
								139

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Proposed Site Access - Left Out (Massey St)

Proposed Maguire Break in Access, Town of Ithaca, NY

AM Peak Hour # of *two-way* gaps (in seconds) between:

7.5	11	14.5	18	21.5	25	29	or greater	Left Turn Capacity
31								31
	19							38
		9						27
			9					36
				2				10
					2			12
						8		56
								210

PM Peak Hour # of *two-way* gaps (in seconds) between:

7.5	11	14.5	18	21.5	25	29	or greater	Left Turn Capacity
16								16
	9							18
		2						6
			3					12
				2				10
					2			12
						2		14
								88

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Proposed Site Access - Right Out (Massey St)

Proposed Mercy Heights Re-development, City of Watertown, NY

AM Peak Hour # of *one-way* gaps (in seconds) between:

6.9	**10.2**	**13.5**	**16.8**	**20.1**	**23.4**	**26.7**	**or greater**	**Right Turn Capacity**
27								27
	13							26
		14						42
			11					44
				6				30
					6			36
						22		154
								359

PM Peak Hour # of *one-way* gaps (in seconds) between:

6.9	**10.2**	**13.5**	**16.8**	**20.1**	**23.4**	**26.7**	**or greater**	**Right Turn Capacity**
2								2
	6							12
		5						15
			4					16
				3				15
					3			18
						2		14
								92

Project Information	
Project Name:	Mercy Re-Development
No:	36031
Date:	5/16/2016
City:	
State/Province:	NY
Zip/Postal Code:	
Country:	
Client Name:	
Analyst's Name:	ACD
Edition:	ITE-TGM 9th Edition

Land Use	Size	Weekday		Weekday, A.M. Peak Hour		Weekday, P.M. Peak Hour	
		Entry	Exit	Entry	Exit	Entry	Exit
220 - Apartment	108 Dwelling Units	389	389	11	46	50	27
710 - General Office Building	36 1000 Sq. Feet Gross Floor Area	302	302	75	10	20	99
Total		691	691	86	56	70	126
610 - Hospital	117.09 1000 Sq. Feet Gross Floor Area	774	774	70	41	41	68
Difference in Trips Former Hospital vs proposed Site		-83	-83	16	15	29	58

PROPOSED MERCY HEIGHTS DEVELOPMENT of FORMER MERCY HOSPITAL
CITY OF WATERTOWN, NEW YORK
AM PEAK

				Num of yrs 5		Office				Residential					
LOCATION NUMBER	INTERSECTION DESCRIPTION	2016 Existing Volume	Convergys New Traffic	2021 Bkgd Vol 0.25%	Adj Vol for Parking Redistr	Enter Dist. %	Exit Dist. %	Trips IN 75	Trips OUT 10	Enter Dist. %	Exit Dist. %	Trips IN 11	Trips OUT 46	Total Site Trips	Full Build Volumes
1	**Arsenal Street/Massey Street**														
	SR	64		65				0	0			0	0	0	65
	ST	500		506		18%		14	0	18%		2	0	15	521
	SL	409	11	425		19%		14	0	5%		1	0	15	440
	WR	28		28			4%	0	0		4%	0	2	2	30
	WT	239	2	244			10%	0	1		5%	0	2	3	247
	WL	0		0				0	0			0	0	0	0
	NR	15	1	16				0	0			0	0	0	16
	NT	237		240			20%	0	2		9%	0	4	6	246
	NL	118		119			11%	0	1		11%	0	5	6	125
	ER	105		106		2%		2	0	16%		2	0	3	109
	ET	297	8	309		15%		11	0	5%		1	0	12	321
	EL	59		60				0	0			0	0	0	60
2/3	**Arsenal Street/ Parking Lot & Gas station (Proposed Entrance)**														
	SR	3		3				0	0			0	0	0	3
	ST	0		0				0	0			0	0	0	0
	SL	11		11				0	0			0	0	0	11
	WR	13		13				0	0			0	0	0	13
	WT	271	2	276				0	0		9%	0	4	4	280
	WL	1		1	-1	10%		8	0	4%		0	0	8	8
	NR	2		2	-2		18%	0	2			0	0	2	2
	NT	0		0				0	0			0	0	0	0
	NL	0		0			14%	0	1			0	0	1	1
	ER	10		10	-10	34%		26	0	10%		1	0	27	27
	ET	684	20	713				0	0			0	0	0	713
	EL	1		1				0	0			0	0	0	1
4	**Sherman Street/ Commercial Lots Driveway/ Arsenal Street**														
	SR	4	2	6				0	0			0	0	0	6
	ST	2		2				0	0			0	0	0	2
	SL	6	3	9				0	0			0	0	0	9
	WR	36	8	44				0	0			0	0	0	44
	WT	238		241		10%		8	0	4%		0	0	8	249
	WL	0		0				0	0			0	0	0	0
	NR	23		23				0	0		20%	0	9	9	32
	NT	66	13	80				0	0		6%	0	3	3	83
	NL	33		33				0	0		9%	0	4	4	37
	ER	136		138				0	0			0	0	0	138
	ET	471		477			18%	0	2			0	0	2	479
	EL	100	20	121				0	0			0	0	0	121
5	**Sherman Street/ Proposed Entrance**														
	SR	0		0				0	0			0	0	0	0
	ST	108		109				0	0			0	0	0	109
	SL	0		0				0	0			0	0	0	0
	WR	0		0				0	0			0	0	0	0
	WT	0		0				0	0			0	0	0	0
	WL	0		0				0	0			0	0	0	0
	NR	0		0				0	0			0	0	0	0
	NT	149	13	164				0	0			0	0	0	164
	NL	0		0		9%		7	0	11%		1	0	8	8
	ER	0		0			6%	0	1		5%	0	2	3	3
	ET	0		0				0	0			0	0	0	0
	EL	0		0				0	0		35%	0	16	16	16

PROPOSED MERCY HEIGHTS DEVELOPMENT of FORMER MERCY HOSPITAL
CITY OF WATERTOWN, NEW YORK
AM PEAK

				Num of yrs 5												
						Office				Residential						Full
LOCATION NUMBER	INTERSECTION DESCRIPTION	2016 Existing Volume	Convergys New Traffic	2021 Bkgd Vol 0.25%	Adj Vol for Parking Redistr	Enter Dist. %	Exit Dist. %	Trips IN 75	Trips OUT 10	Enter Dist. %	Exit Dist. %	Trips IN 11	Trips OUT 46	Total Site Trips	Build Volumes
6	**Sherman Street/ Stone Street**														
	SR	3		3				0	0			0	0	0	3
	ST	105		106			6%	0	1		5%	0	2	3	109
	SL	0		0				0	0			0	0	0	0
	WR	19	2	21		3%		2	0	7%		1	0	3	24
	WT	32		32				0	0	7%		1	0	1	33
	WL	9		9				0	0			0	0	0	9
	NR	0		0				0	0			0	0	0	0
	NT	130	11	143		6%		5	0	4%		0	0	5	148
	NL	34		34				0	0	4%		0	0	0	34
	ER	0		0				0	0			0	0	0	0
	ET	0		0				0	0			0	0	0	0
	EL	0		0				0	0			0	0	0	0
7	**Stone Street Proposed Entrance**														
	SR	0		0				0	0		54%	0	25	25	25
	ST	0		0				0	0			0	0	0	0
	SL	0		0				0	0			0	0	0	0
	WR	0		0				0	0	11%		1	0	1	1
	WT	69		70				0	0			0	0	0	70
	WL	0		0				0	0			0	0	0	0
	NR	0		0				0	0			0	0	0	0
	NT	0		0				0	0			0	0	0	0
	NL	0		0				0	0			0	0	0	0
	ER	0		0				0	0			0	0	0	0
	ET	0		0				0	0			0	0	0	0
	EL	0		0				0	0			0	0	0	0
8	**South Massey Street/ Stone Street**														
	SR	6		6			10%	0	1			0	0	1	7
	ST	605		613			21%	0	2			0	0	2	615
	SL	0		0				0	0			0	0	0	0
	WR	30		30				0	0		14%	0	6	6	36
	WT	38		38				0	0		9%	0	4	4	42
	WL	4		4				0	0		31%	0	14	14	18
	NR	0		0				0	0			0	0	0	0
	NT	341		345		20%		15	0	24%		3	0	18	363
	NL	183		185				0	0			0	0	0	185
	ER	186		188				0	0			0	0	0	188
	ET	0		0				0	0			0	0	0	0
	EL	5		5		7%		5	0	6%		1	0	6	11
9	**South Massey Street/ Proposed South Entrance**														
	SR	0		0				0	0			0	0	0	0
	ST	611		619			9%	0	1			0	0	1	620
	SL	0		0				0	0	29%		3	0	3	3
	WR	0		0				0	0		6%	0	3	3	3
	WT	0		0				0	0			0	0	0	0
	WL	0		0			22%	0	2			0	0	2	2
	NR	0		0		5%		4	0	30%		3	0	7	7
	NT	376		381		22%		17	0		14%	0	6	23	404
	NL	0		0				0	0			0	0	0	0
	ER	0		0				0	0			0	0	0	0
	ET	0		0				0	0			0	0	0	0
	EL	0		0				0	0			0	0	0	0
10	**South Massey Street/ Proposed North Entrance**														
	SR	0		0				0	0			0	0	0	0
	ST	611		619				0	0	29%		3	0	3	622
	SL	0		0		20%		15	0	5%		1	0	16	16
	WR	0		0			31%	0	3			0	0	3	3
	WT	0		0				0	0			0	0	0	0
	WL	0		0			9%	0	1			0	0	1	1
	NR	0		0		22%		17	0			0	0	17	17
	NT	376		381				0	0		20%	0	9	9	390
	NL	0		0				0	0			0	0	0	0
	ER	0		0				0	0			0	0	0	0
	ET	0		0				0	0			0	0	0	0
	EL	0		0				0	0			0	0	0	0

PROPOSED MERCY HEIGHTS DEVELOPMENT of FORMER MERCY HOSPITAL
CITY OF WATERTOWN, NEW YORK
PM PEAK

				Num of yrs 5												
						Office				Residential						Full
LOCATION NUMBER	INTERSECTION DESCRIPTION	2016 Existing Volume	Convergys New Traffic	2021 Bkgd Vol 0.25%	Adj Vol for Parking Redistr	Enter Dist. %	Exit Dist. %	Trips IN 20	Trips OUT 99	Enter Dist. %	Exit Dist. %	Trips IN 50	Trips OUT 27	Total Site Trips	Build Volumes
1	**Arsenal Street/Massey Street**														
	SR	135		137				0	0			0	0	0	137
	ST	369		374		18%		4	0	18%		9	0	13	387
	SL	266	2	271		19%		4	0	5%		3	0	6	277
	WR	64	3	68			4%	0	4		4%	0	1	5	73
	WT	348	17	369			10%	0	10		5%	0	1	11	380
	WL	3		3				0	0			0	0	0	3
	NR	16		16				0	0			0	0	0	16
	NT	434		439			20%	0	20		9%	0	2	22	461
	NL	215		218			11%	0	11		11%	0	3	14	232
	ER	176		178		2%		0	0	16%		8	0	8	186
	ET	372	6	383		15%		3	0	5%		3	0	6	389
	EL	148		150				0	0			0	0	0	150
2/3	**Arsenal Street/ Parking Lot & Gas station (Proposed Entrance)**														
	SR	1		1				0	0			0	0	0	1
	ST	0		0				0	0			0	0	0	0
	SL	8		8				0	0			0	0	0	8
	WR	28		28				0	0			0	0	0	28
	WT	402	20	427				0	0		9%	0	2	2	429
	WL	1		1	-1	10%		2	0	4%		2	0	4	4
	NR	13		13	-13		18%	0	18			0	0	18	18
	NT	0		0				0	0			0	0	0	0
	NL	1		1	-1		14%	0	14			0	0	14	14
	ER	2		2	-2	34%		7	0	10%		5	0	12	12
	ET	622	8	638				0	0			0	0	0	638
	EL	4		4				0	0			0	0	0	4
4	**Sherman Street/ Commercial Lots Driveway/ Arsenal Street**														
	SR	50	20	71				0	0			0	0	0	71
	ST	37	15	52				0	0			0	0	0	52
	SL	25	10	35				0	0			0	0	0	35
	WR	7	2	9				0	0			0	0	0	9
	WT	304		308		10%		2	0	4%		2	0	4	312
	WL	0		0				0	0			0	0	0	0
	NR	34		34				0	0		20%	0	5	5	39
	NT	137	38	177				0	0		6%	0	2	2	179
	NL	68		69				0	0		9%	0	2	2	71
	ER	107		108				0	0			0	0	0	108
	ET	559		566			18%	0	18			0	0	18	584
	EL	29	8	37				0	0			0	0	0	37
5	**Sherman Street/ Proposed Entrance**														
	SR	0		0				0	0			0	0	0	0
	ST	159	15	176				0	0			0	0	0	176
	SL	0		0				0	0			0	0	0	0
	WR	0		0				0	0			0	0	0	0
	WT	0		0				0	0			0	0	0	0
	WL	0		0				0	0			0	0	0	0
	NR	0		0				0	0			0	0	0	0
	NT	221	38	262				0	0			0	0	0	262
	NL	0		0		9%		2	0	11%		6	0	7	7
	ER	0		0			6%	0	6		5%	0	1	7	7
	ET	0		0				0	0			0	0	0	0
	EL	0		0				0	0		35%	0	9	9	9

PROPOSED MERCY HEIGHTS DEVELOPMENT of FORMER MERCY HOSPITAL
CITY OF WATERTOWN, NEW YORK
PM PEAK

Num of yrs: 5

LOCATION NUMBER	INTERSECTION DESCRIPTION	2016 Existing Volume	Convergys New Traffic	2021 Bkgd Vol 0.25%	Adj Vol for Parking Redistr	Office Enter Dist. %	Office Exit Dist. %	Office Trips IN 20	Office Trips OUT 99	Residential Enter Dist. %	Residential Exit Dist. %	Residential Trips IN 50	Residential Trips OUT 27	Total Site Trips	Full Build Volumes
6	**Sherman Street/ Stone Street**														
	SR	18	2	20				0	0			0	0	0	20
	ST	141	13	156			6%	0	6		5%	0	1	7	163
	SL	0		0				0	0			0	0	0	0
	WR	65	11	77		3%		1	0	7%		4	0	4	81
	WT	128		130				0	0	7%		4	0	4	134
	WL	60		61				0	0			0	0	0	61
	NR	0		0				0	0			0	0	0	0
	NT	156	27	185		6%		1	0	4%		2	0	3	188
	NL	94		95				0	0	4%		2	0	2	97
	ER	0		0				0	0			0	0	0	0
	ET	0		0				0	0			0	0	0	0
	EL	0		0				0	0			0	0	0	0
7	**Stone Street Proposed Entrance**														
	SR	0		0				0	0		54%	0	15	15	15
	ST	0		0				0	0			0	0	0	0
	SL	0		0				0	0			0	0	0	0
	WR	0		0				0	0	11%		6	0	6	6
	WT	240	2	245				0	0			0	0	0	245
	WL	0		0				0	0			0	0	0	0
	NR	0		0				0	0			0	0	0	0
	NT	0		0				0	0			0	0	0	0
	NL	0		0				0	0			0	0	0	0
	ER	0		0				0	0			0	0	0	0
	ET	0		0				0	0			0	0	0	0
	EL	0		0				0	0			0	0	0	0
8	**South Massey Street/ Stone Street**														
	SR	21		21			10%	0	10			0	0	10	31
	ST	517		523			21%	0	21			0	0	21	544
	SL			#VALUE!				0	0			0	0	0	#VALUE!
	WR	116		117				0	0		14%	0	4	4	121
	WT	99	2	102				0	0		9%	0	2	2	104
	WL	26		26				0	0		31%	0	8	8	34
	NR			#VALUE!				0	0			0	0	0	#VALUE!
	NT	532		539		20%		4	0	24%		12	0	16	555
	NL	223		226				0	0			0	0	0	226
	ER	176		178				0	0			0	0	0	178
	ET			#VALUE!				0	0			0	0	0	#VALUE!
	EL	5		5		7%		1	0	6%		3	0	4	9
9	**South Massey Street/ Proposed South Entrance**														
	SR	0		0				0	0			0	0	0	0
	ST	538		545			9%	0	9			0	0	9	554
	SL	0		0				0	0	29%		15	0	15	15
	WR	0		0				0	0		6%	0	2	2	2
	WT	0		0				0	0			0	0	0	0
	WL	0		0			22%	0	22			0	0	22	22
	NR	0		0		5%		1	0	30%		15	0	16	16
	NT	653		661		22%		4	0		14%	0	4	8	669
	NL	0		0				0	0			0	0	0	0
	ER	0		0				0	0			0	0	0	0
	ET	0		0				0	0			0	0	0	0
	EL	0		0				0	0			0	0	0	0
10	**South Massey Street/ Proposed North Entrance**														
	SR	0		0				0	0			0	0	0	0
	ST	538		545				0	0	29%		15	0	15	560
	SL	0		0		20%		4	0	5%		3	0	7	7
	WR	0		0			31%	0	31			0	0	31	31
	WT	0		0				0	0			0	0	0	0
	WL	0		0			9%	0	9			0	0	9	9
	NR	0		0		22%		4	0			0	0	4	4
	NT	653		661				0	0		20%	0	5	5	666
	NL	0		0				0	0			0	0	0	0
	ER	0		0				0	0			0	0	0	0
	ET	0		0				0	0			0	0	0	0
	EL	0		0				0	0			0	0	0	0

A3

Level of Service:
Criteria and Definitions

Level of Service Criteria

Highway Capacity Manual 2010

SIGNALIZED INTERSECTIONS

Level of Service is a qualitative measure describing operational conditions within a traffic stream, based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort, and convenience. Level of Service for signalized intersections is defined in terms of delay specifically, average total delay per vehicle for a 15 minute analysis period. The ranges are as follows:

Level of Service	Control Delay per vehicle (seconds)
A	< 10
B	10 – 20
C	20 – 35
D	35 – 55
E	55 – 80
F	>80

UNSIGNALIZED INTERSECTIONS

Level of Service for unsignalized intersections is also defined in terms of delay. However, the delay criteria are different from a signalized intersection. The primary reason for this is driver expectation that a signalized intersection is designed to carry higher volumes than an unsignalized intersection. The total delay threshold for any given Level of Service is less for an unsignalized intersection than for a signalized intersection. The ranges are as follows:

Level of Service	Control Delay per vehicle (seconds)
A	< 10
B	10 – 15
C	15 – 25
D	25 – 35
E	35 - 50
F	>50

A4

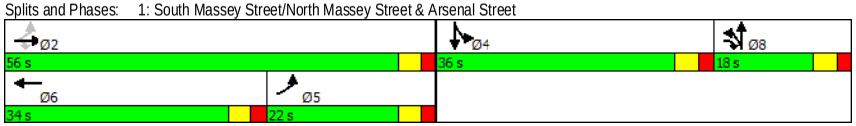
Level of Service Calculations: Existing Conditions

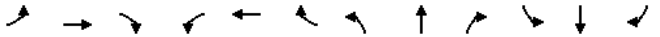
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	297	105	0	239	28	118	237	15	409	500	64
Future Volume (vph)	59	297	105	0	239	28	118	237	15	409	500	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	170		0	0		0	250		0	515		0
Storage Lanes	1		1	0		0	1		0	1		0
Taper Length (ft)	60			25			100			130		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.986			0.991			0.983	
Flt Protected		0.992					0.950			0.950		
Satd. Flow (prot)	0	3511	1583	0	1837	0	1770	3507	0	1770	3479	0
Flt Permitted		0.717					0.950			0.950		
Satd. Flow (perm)	0	2538	1583	0	1837	0	1770	3507	0	1770	3479	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		403			250			720			474	
Travel Time (s)		9.2			5.7			16.4			10.8	
Peak Hour Factor	0.92	0.92	0.92	0.90	0.90	0.90	0.87	0.87	0.87	0.85	0.85	0.85
Adj. Flow (vph)	64	323	114	0	266	31	136	272	17	481	588	75
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	387	114	0	297	0	136	289	0	481	663	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1		2		1	2		1	2	
Detector Template	Left	Thru	Right		Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20		100		20	100		20	100	
Trailing Detector (ft)	0	0	0		0		0	0		0	0	
Detector 1 Position(ft)	0	0	0		0		0	0		0	0	
Detector 1 Size(ft)	20	6	20		6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	pm+ov		NA		Split	NA		Split	NA	
Protected Phases	5	2	8		6		8	8		4	4	
Permitted Phases	2		2									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	8		6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.0	21.0	21.0		21.0		21.0	21.0		21.0	21.0	
Total Split (s)	22.0	56.0	18.0		34.0		18.0	18.0		36.0	36.0	
Total Split (%)	20.0%	50.9%	16.4%		30.9%		16.4%	16.4%		32.7%	32.7%	
Maximum Green (s)	17.0	51.0	13.0		29.0		13.0	13.0		31.0	31.0	
Yellow Time (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0		2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lag				Lead							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None		None		None	None		None	None	
Walk Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0	11.0		11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)		17.2	33.7		17.2		11.4	11.4		29.8	29.8	
Actuated g/C Ratio		0.23	0.46		0.23		0.15	0.15		0.40	0.40	
v/c Ratio		0.65	0.16		0.69		0.50	0.53		0.67	0.47	
Control Delay		31.5	12.3		35.4		36.9	33.7		24.8	18.4	
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay		31.5	12.3		35.4		36.9	33.7		24.8	18.4	
LOS		C	B		D		D	C		C	B	
Approach Delay		27.1			35.4			34.7			21.1	
Approach LOS		C			D			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 73.7			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 26.6		Intersection LOS: C	
Intersection Capacity Utilization 70.6%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 1: South Massey Street/North Massey Street & Arsenal Street





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	684	10	1	271	13	0	0	2	11	0	3
Future Volume (vph)	1	684	10	1	271	13	0	0	2	11	0	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.994			0.865			0.973	
Flt Protected											0.962	
Satd. Flow (prot)	0	3532	0	0	1852	0	0	1611	0	0	1744	0
Flt Permitted											0.962	
Satd. Flow (perm)	0	3532	0	0	1852	0	0	1611	0	0	1744	0
Link Speed (mph)		30			30			10			10	
Link Distance (ft)		250			378			125			123	
Travel Time (s)		5.7			8.6			8.5			8.4	
Peak Hour Factor	0.86	0.86	0.86	0.89	0.89	0.89	0.25	0.25	0.25	0.70	0.70	0.70
Adj. Flow (vph)	1	795	12	1	304	15	0	0	8	16	0	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	808	0	0	320	0	0	8	0	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	1	684	10	1	271	13	0	0	2	11	0	3
Future Vol, veh/h	1	684	10	1	271	13	0	0	2	11	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	89	89	89	25	25	25	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	795	12	1	304	15	0	0	8	16	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	319	0	0	807	0	0	1119	1124	403	714	1123	312
Stage 1	-	-	-	-	-	-	803	803	-	314	314	-
Stage 2	-	-	-	-	-	-	316	321	-	400	809	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.93	7.33	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	1239	-	-	816	-	-	172	205	598	332	205	727
Stage 1	-	-	-	-	-	-	344	395	-	696	656	-
Stage 2	-	-	-	-	-	-	694	651	-	598	393	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1239	-	-	816	-	-	171	205	598	327	205	727
Mov Cap-2 Maneuver	-	-	-	-	-	-	171	205	-	327	205	-
Stage 1	-	-	-	-	-	-	344	395	-	695	655	-
Stage 2	-	-	-	-	-	-	689	650	-	589	393	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	11.1	15.3
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	598	1239	-	-	816	-	-	371
HCM Lane V/C Ratio	0.013	0.001	-	-	0.001	-	-	0.054
HCM Control Delay (s)	11.1	7.9	0	-	9.4	0	-	15.3
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	471	136	0	238	36	33	66	23	6	2	4
Future Volume (vph)	100	471	136	0	238	36	33	66	23	6	2	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	0		120	0		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.971				0.850			0.850		0.953	
Flt Protected		0.993						0.983			0.976	
Satd. Flow (prot)	0	3413	0	0	1863	1583	0	1831	1583	0	1733	0
Flt Permitted		0.852						0.909			0.883	
Satd. Flow (perm)	0	2928	0	0	1863	1583	0	1693	1583	0	1567	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		80				43			31		7	
Link Speed (mph)		30			30			30			10	
Link Distance (ft)		378			397			580			249	
Travel Time (s)		8.6			9.0			13.2			17.0	
Peak Hour Factor	0.85	0.85	0.85	0.83	0.83	0.83	0.74	0.74	0.74	0.60	0.60	0.60
Adj. Flow (vph)	118	554	160	0	287	43	45	89	31	10	3	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	832	0	0	287	43	0	134	31	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1	2	1	1	2	
Detector Template	Left	Thru			Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100			100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0			0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0			0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6			6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA			NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4					8	2		2	6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4			8	8	2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	21.0	21.0			21.0	21.0	21.0	21.0	21.0	21.0	21.0	
Total Split (s)	64.0	64.0			64.0	64.0	21.0	21.0	21.0	21.0	21.0	
Total Split (%)	75.3%	75.3%			75.3%	75.3%	24.7%	24.7%	24.7%	24.7%	24.7%	
Maximum Green (s)	59.0	59.0			59.0	59.0	16.0	16.0	16.0	16.0	16.0	
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0	0.0		0.0	
Total Lost Time (s)		5.0			5.0	5.0		5.0	5.0		5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None			None	None	Max	Max	Max	Max	Max	
Walk Time (s)	5.0	5.0			5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	11.0	11.0			11.0	11.0	11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0			0	0	0	0	0	0	0	
Act Effct Green (s)		18.7			18.7	18.7		16.2	16.2		16.2	
Actuated g/C Ratio		0.42			0.42	0.42		0.36	0.36		0.36	
v/c Ratio		0.66			0.37	0.06		0.22	0.05		0.04	
Control Delay		12.0			10.2	3.1		13.0	5.9		10.0	
Queue Delay		0.0			0.0	0.0		0.0	0.0		0.0	
Total Delay		12.0			10.2	3.1		13.0	5.9		10.0	
LOS		B			B	A		B	A		A	
Approach Delay		12.0			9.3			11.7			10.0	
Approach LOS		B			A			B			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 85			
Actuated Cycle Length: 45			
Natural Cycle: 45			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 11.2		Intersection LOS: B	
Intersection Capacity Utilization 51.3%		ICU Level of Service A	
Analysis Period (min) 15			

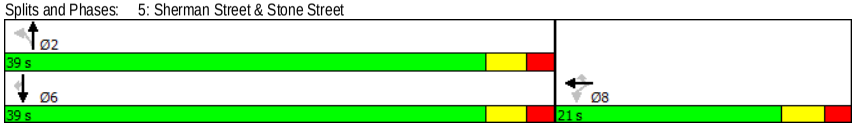
Splits and Phases: 3: Sherman Street/Commercial Lots Driveway & Arsenal Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	9	32	19	34	130	0	0	105	3
Future Volume (vph)	0	0	0	9	32	19	34	130	0	0	105	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		25	200		0	0		150
Storage Lanes	0		0	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850						0.850
Flt Protected					0.989		0.950					
Satd. Flow (prot)	0	0	0	0	1842	1583	1770	1863	0	0	1863	1583
Flt Permitted					0.989		0.800					
Satd. Flow (perm)	0	0	0	0	1842	1583	1490	1863	0	0	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						36						36
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		740			406			301			580	
Travel Time (s)		16.8			9.2			6.8			13.2	
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.88	0.87	0.87	0.87	0.77	0.77	0.77
Adj. Flow (vph)	0	0	0	10	36	22	39	149	0	0	136	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	46	22	39	149	0	0	136	4
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2	1	1	2			2	1
Detector Template				Left	Thru	Right	Left	Thru			Thru	Right
Leading Detector (ft)				20	100	20	20	100			100	20
Trailing Detector (ft)				0	0	0	0	0			0	0
Detector 1 Position(ft)				0	0	0	0	0			0	0
Detector 1 Size(ft)				20	6	20	20	6			6	20
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 2 Position(ft)					94			94			94	
Detector 2 Size(ft)					6			6			6	
Detector 2 Type					Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0			0.0	
Turn Type				Perm	NA	Perm	Perm	NA			NA	Perm
Protected Phases					8			2			6	
Permitted Phases				8		8	2					6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase				8	8	8	2	2			6	6
Switch Phase												
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Minimum Split (s)				21.0	21.0	21.0	21.0	21.0			21.0	21.0
Total Split (s)				21.0	21.0	21.0	39.0	39.0			39.0	39.0
Total Split (%)				35.0%	35.0%	35.0%	65.0%	65.0%			65.0%	65.0%
Maximum Green (s)				16.0	16.0	16.0	34.0	34.0			34.0	34.0
Yellow Time (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Lost Time Adjust (s)					0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)					5.0	5.0	5.0	5.0			5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Recall Mode				None	None	None	None	None			None	None
Walk Time (s)				5.0	5.0	5.0	5.0	5.0			5.0	5.0
Flash Dont Walk (s)				11.0	11.0	11.0	11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)				0	0	0	0	0			0	0
Act Effct Green (s)					6.6	6.6	8.9	8.9			8.9	8.9
Actuated g/C Ratio					0.41	0.41	0.55	0.55			0.55	0.55
v/c Ratio					0.06	0.03	0.05	0.15			0.13	0.00
Control Delay					4.6	2.3	3.3	3.3			3.3	0.0
Queue Delay					0.0	0.0	0.0	0.0			0.0	0.0
Total Delay					4.6	2.3	3.3	3.3			3.3	0.0
LOS					A	A	A	A			A	A
Approach Delay					3.9			3.3			3.2	
Approach LOS					A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 16.2			
Natural Cycle: 45			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.15			
Intersection Signal Delay: 3.4		Intersection LOS: A	
Intersection Capacity Utilization 22.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 5: Sherman Street & Stone Street

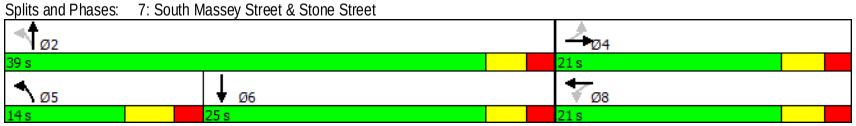


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	0	186	4	38	30	183	341	0	0	605	6
Future Volume (vph)	5	0	186	4	38	30	183	341	0	0	605	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	300		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Frt		0.869			0.934						0.999	
Flt Protected		0.999		0.950				0.983				
Satd. Flow (prot)	0	1617	0	1770	1740	0	0	3479	0	0	3536	0
Flt Permitted		0.987		0.755				0.628				
Satd. Flow (perm)	0	1598	0	1406	1740	0	0	2223	0	0	3536	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		248			33						2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		316			740			422			720	
Travel Time (s)		7.2			16.8			9.6			16.4	
Peak Hour Factor	0.75	0.75	0.75	0.90	0.90	0.90	0.90	0.90	0.90	0.83	0.83	0.83
Adj. Flow (vph)	7	0	248	4	42	33	203	379	0	0	729	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	255	0	4	75	0	0	582	0	0	736	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			12			12			12	
Link Offset(ft)		-10			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2			2	
Detector Template	Left	Thru		Left	Thru		Left	Thru			Thru	
Leading Detector (ft)	20	100		20	100		20	100			100	
Trailing Detector (ft)	0	0		0	0		0	0			0	
Detector 1 Position(ft)	0	0		0	0		0	0			0	
Detector 1 Size(ft)	20	6		20	6		20	6			6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA			NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		5	2			6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		9.5	21.0			21.0	
Total Split (s)	21.0	21.0		21.0	21.0		14.0	39.0			25.0	
Total Split (%)	35.0%	35.0%		35.0%	35.0%		23.3%	65.0%			41.7%	
Maximum Green (s)	16.0	16.0		16.0	16.0		8.5	34.0			20.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.5	3.0			3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0			2.0	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)		5.0		5.0	5.0			5.0			5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Recall Mode	None	None		None	None		None	None			None	
Walk Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)	0	0		0	0			0			0	
Act Effct Green (s)		7.7		7.7	7.7			18.8			18.8	
Actuated g/C Ratio		0.25		0.25	0.25			0.60			0.60	
v/c Ratio		0.44		0.01	0.17			0.44			0.35	
Control Delay		5.7		13.0	9.7			6.8			5.6	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		5.7		13.0	9.7			6.8			5.6	
LOS		A		B	A			A			A	
Approach Delay		5.7			9.9			6.8			5.6	
Approach LOS		A			A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 31.4			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.44			
Intersection Signal Delay: 6.3		Intersection LOS: A	
Intersection Capacity Utilization 60.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 7: South Massey Street & Stone Street

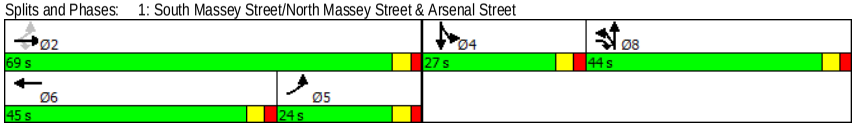


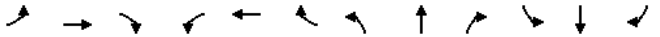
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	148	372	176	0	348	64	215	434	16	266	369	135
Future Volume (vph)	148	372	176	0	348	64	215	434	16	266	369	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	170		0	0		0	250		0	515		0
Storage Lanes	1		1	0		0	1		0	1		0
Taper Length (ft)	60			25			100			130		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.979			0.995			0.960	
Flt Protected		0.986					0.950			0.950		
Satd. Flow (prot)	0	3490	1583	0	1824	0	1770	3522	0	1770	3398	0
Flt Permitted		0.594					0.950			0.950		
Satd. Flow (perm)	0	2102	1583	0	1824	0	1770	3522	0	1770	3398	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		403			250			720			474	
Travel Time (s)		9.2			5.7			16.4			10.8	
Peak Hour Factor	0.91	0.91	0.91	0.94	0.94	0.94	0.95	0.95	0.95	0.90	0.90	0.90
Adj. Flow (vph)	163	409	193	0	370	68	226	457	17	296	410	150
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	572	193	0	438	0	226	474	0	296	560	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1		2		1	2		1	2	
Detector Template	Left	Thru	Right		Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20		100		20	100		20	100	
Trailing Detector (ft)	0	0	0		0		0	0		0	0	
Detector 1 Position(ft)	0	0	0		0		0	0		0	0	
Detector 1 Size(ft)	20	6	20		6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	pm+ov		NA		Split	NA		Split	NA	
Protected Phases	5	2	8		6		8	8		4	4	
Permitted Phases	2		2									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	8		6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.0	21.0	21.0		21.0		21.0	21.0		21.0	21.0	
Total Split (s)	24.0	69.0	44.0		45.0		44.0	44.0		27.0	27.0	
Total Split (%)	17.1%	49.3%	31.4%		32.1%		31.4%	31.4%		19.3%	19.3%	
Maximum Green (s)	19.0	64.0	39.0		40.0		39.0	39.0		22.0	22.0	
Yellow Time (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0		2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lag				Lead							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None		None		None	None		None	None	
Walk Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0	11.0		11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)		35.3	62.1		35.3		21.6	21.6		22.8	22.8	
Actuated g/C Ratio		0.37	0.65		0.37		0.23	0.23		0.24	0.24	
v/c Ratio		0.73	0.19		0.65		0.56	0.59		0.70	0.69	
Control Delay		32.2	6.3		29.9		40.0	37.1		47.3	41.5	
Queue Delay		0.0	0.0		0.1		0.0	0.0		0.0	0.0	
Total Delay		32.2	6.3		30.0		40.0	37.1		47.3	41.5	
LOS		C	A		C		D	D		D	D	
Approach Delay		25.7			30.0			38.0			43.5	
Approach LOS		C			C			D			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 95.3			
Natural Cycle: 75			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 35.0		Intersection LOS: D	
Intersection Capacity Utilization 80.7%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 1: South Massey Street/North Massey Street & Arsenal Street





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	622	2	1	402	28	1	0	13	8	0	1
Future Volume (vph)	4	622	2	1	402	28	1	0	13	8	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.991			0.875			0.989	
Flt Protected								0.996			0.956	
Satd. Flow (prot)	0	3539	0	0	1846	0	0	1623	0	0	1761	0
Flt Permitted								0.996			0.956	
Satd. Flow (perm)	0	3539	0	0	1846	0	0	1623	0	0	1761	0
Link Speed (mph)		30			30			10			10	
Link Distance (ft)		250			378			125			123	
Travel Time (s)		5.7			8.6			8.5			8.4	
Peak Hour Factor	0.94	0.94	0.94	0.93	0.93	0.93	0.27	0.27	0.27	0.75	0.75	0.75
Adj. Flow (vph)	4	662	2	1	432	30	4	0	48	11	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	668	0	0	463	0	0	52	0	0	12	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 33.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	4	622	2	1	402	28	1	0	13	8	0	1
Future Vol, veh/h	4	622	2	1	402	28	1	0	13	8	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	93	93	93	27	27	27	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	662	2	1	432	30	4	0	48	11	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	462	0	0	664	0	0	1121	1136	332	788	1121	447
Stage 1	-	-	-	-	-	-	671	671	-	449	449	-
Stage 2	-	-	-	-	-	-	450	465	-	339	672	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.93	7.33	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	1097	-	-	923	-	-	172	201	665	295	206	611
Stage 1	-	-	-	-	-	-	413	454	-	588	571	-
Stage 2	-	-	-	-	-	-	588	562	-	650	454	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1097	-	-	923	-	-	171	200	665	272	205	611
Mov Cap-2 Maneuver	-	-	-	-	-	-	171	200	-	272	205	-
Stage 1	-	-	-	-	-	-	411	451	-	584	570	-
Stage 2	-	-	-	-	-	-	586	561	-	599	451	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	12.2	17.9
HCM LOS			B	C

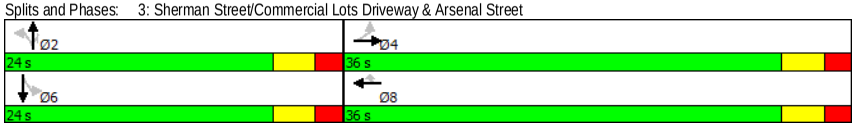
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	551	1097	-	-	923	-	-	290
HCM Lane V/C Ratio	0.094	0.004	-	-	0.001	-	-	0.041
HCM Control Delay (s)	12.2	8.3	0	-	8.9	0	-	17.9
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	559	107	0	304	7	68	137	34	25	37	50
Future Volume (vph)	29	559	107	0	304	7	68	137	34	25	37	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	0		120	0		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.977				0.850			0.850		0.940	
Flt Protected		0.998						0.984			0.989	
Satd. Flow (prot)	0	3451	0	0	1863	1583	0	1833	1583	0	1732	0
Flt Permitted		0.930						0.839			0.891	
Satd. Flow (perm)	0	3216	0	0	1863	1583	0	1563	1583	0	1560	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		51				36			44		71	
Link Speed (mph)		30			30			30			10	
Link Distance (ft)		378			397			580			249	
Travel Time (s)		8.6			9.0			13.2			17.0	
Peak Hour Factor	0.86	0.86	0.86	0.92	0.92	0.92	0.78	0.78	0.78	0.58	0.58	0.58
Adj. Flow (vph)	34	650	124	0	330	8	87	176	44	43	64	86
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	808	0	0	330	8	0	263	44	0	193	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1	2	1	1	2	
Detector Template	Left	Thru			Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100			100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0			0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0			0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6			6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA			NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4					8	2		2	6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4			8	8	2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	21.0	21.0			21.0	21.0	21.0	21.0	21.0	21.0	21.0	
Total Split (s)	36.0	36.0			36.0	36.0	24.0	24.0	24.0	24.0	24.0	
Total Split (%)	60.0%	60.0%			60.0%	60.0%	40.0%	40.0%	40.0%	40.0%	40.0%	
Maximum Green (s)	31.0	31.0			31.0	31.0	19.0	19.0	19.0	19.0	19.0	
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0	0.0		0.0	
Total Lost Time (s)		5.0			5.0	5.0		5.0	5.0		5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None			None	None	Max	Max	Max	Max	Max	
Walk Time (s)	5.0	5.0			5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	11.0	11.0			11.0	11.0	11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0			0	0	0	0	0	0	0	
Act Effct Green (s)		18.5			18.5	18.5		19.2	19.2		19.2	
Actuated g/C Ratio		0.39			0.39	0.39		0.40	0.40		0.40	
v/c Ratio		0.63			0.46	0.01		0.42	0.07		0.29	
Control Delay		13.2			12.8	0.1		14.5	4.9		9.1	
Queue Delay		0.0			0.0	0.0		0.0	0.0		0.0	
Total Delay		13.2			12.8	0.1		14.5	4.9		9.1	
LOS		B			B	A		B	A		A	
Approach Delay		13.2			12.5			13.1			9.1	
Approach LOS		B			B			B			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 47.8			
Natural Cycle: 45			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 12.6		Intersection LOS: B	
Intersection Capacity Utilization 69.7%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: Sherman Street/Commercial Lots Driveway & Arsenal Street

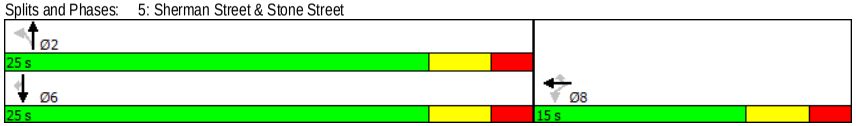


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	60	128	65	94	156	0	0	141	18
Future Volume (vph)	0	0	0	60	128	65	94	156	0	0	141	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		25	200		0	0		150
Storage Lanes	0		0	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850						0.850
Flt Protected					0.984		0.950					
Satd. Flow (prot)	0	0	0	0	1833	1583	1770	1863	0	0	1863	1583
Flt Permitted					0.984		0.640					
Satd. Flow (perm)	0	0	0	0	1833	1583	1192	1863	0	0	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						83						55
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		740			406			301			580	
Travel Time (s)		16.8			9.2			6.8			13.2	
Peak Hour Factor	0.92	0.92	0.92	0.66	0.66	0.66	0.88	0.88	0.88	0.76	0.76	0.76
Adj. Flow (vph)	0	0	0	91	194	98	107	177	0	0	186	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	285	98	107	177	0	0	186	24
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2	1	1	2			2	1
Detector Template				Left	Thru	Right	Left	Thru			Thru	Right
Leading Detector (ft)				20	100	20	20	100			100	20
Trailing Detector (ft)				0	0	0	0	0			0	0
Detector 1 Position(ft)				0	0	0	0	0			0	0
Detector 1 Size(ft)				20	6	20	20	6			6	20
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 2 Position(ft)					94			94			94	
Detector 2 Size(ft)					6			6			6	
Detector 2 Type					Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0			0.0	
Turn Type				Perm	NA	Perm	Perm	NA			NA	Perm
Protected Phases					8			2			6	
Permitted Phases				8		8	2					6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase				8	8	8	2	2			6	6
Switch Phase												
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Minimum Split (s)				21.0	21.0	21.0	21.0	21.0			21.0	21.0
Total Split (s)				15.0	15.0	15.0	25.0	25.0			25.0	25.0
Total Split (%)				37.5%	37.5%	37.5%	62.5%	62.5%			62.5%	62.5%
Maximum Green (s)				10.0	10.0	10.0	20.0	20.0			20.0	20.0
Yellow Time (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Lost Time Adjust (s)					0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)					5.0	5.0	5.0	5.0			5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Recall Mode				None	None	None	None	None			None	None
Walk Time (s)				5.0	5.0	5.0	5.0	5.0			5.0	5.0
Flash Dont Walk (s)				11.0	11.0	11.0	11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)				0	0	0	0	0			0	0
Act Effct Green (s)					8.9	8.9	8.2	8.2			8.2	8.2
Actuated g/C Ratio					0.34	0.34	0.31	0.31			0.31	0.31
v/c Ratio					0.46	0.17	0.29	0.30			0.32	0.05
Control Delay					10.5	3.8	9.6	8.9			9.0	1.3
Queue Delay					0.0	0.0	0.0	0.0			0.0	0.0
Total Delay					10.5	3.8	9.6	8.9			9.0	1.3
LOS					B	A	A	A			A	A
Approach Delay					8.7			9.2			8.2	
Approach LOS					A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 40			
Actuated Cycle Length: 26.2			
Natural Cycle: 45			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.46			
Intersection Signal Delay: 8.7		Intersection LOS: A	
Intersection Capacity Utilization 35.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 5: Sherman Street & Stone Street

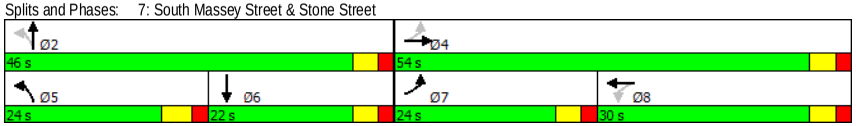


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	0	176	26	99	116	223	532	0	0	517	21
Future Volume (vph)	5	0	176	26	99	116	223	532	0	0	517	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	300		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Frt		0.868			0.919						0.994	
Flt Protected		0.999		0.950				0.985				
Satd. Flow (prot)	0	1615	0	1770	1712	0	0	3486	0	0	3518	0
Flt Permitted		0.989		0.575				0.660				
Satd. Flow (perm)	0	1599	0	1071	1712	0	0	2336	0	0	3518	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		229			56						3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		316			740			422			720	
Travel Time (s)		7.2			16.8			9.6			16.4	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.92	0.92	0.92	0.88	0.88	0.88
Adj. Flow (vph)	6	0	229	34	129	151	242	578	0	0	588	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	235	0	34	280	0	0	820	0	0	612	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			12			12			12	
Link Offset(ft)		-10			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2			2	
Detector Template	Left	Thru		Left	Thru		Left	Thru			Thru	
Leading Detector (ft)	20	100		20	100		20	100			100	
Trailing Detector (ft)	0	0		0	0		0	0			0	
Detector 1 Position(ft)	0	0		0	0		0	0			0	
Detector 1 Size(ft)	20	6		20	6		20	6			6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA			NA	
Protected Phases	7	4			8		5	2			6	
Permitted Phases	4			8			2					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4		8	8		5	2			6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)	9.0	21.0		21.0	21.0		9.5	21.0			21.0	
Total Split (s)	24.0	54.0		30.0	30.0		24.0	46.0			22.0	
Total Split (%)	24.0%	54.0%		30.0%	30.0%		24.0%	46.0%			22.0%	
Maximum Green (s)	19.0	49.0		25.0	25.0		18.5	41.0			17.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.5	3.0			3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0			2.0	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)		5.0		5.0	5.0			5.0			5.0	
Lead/Lag	Lead			Lag	Lag		Lead				Lag	
Lead-Lag Optimize?	Yes			Yes	Yes		Yes				Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Recall Mode	None	None		None	None		None	None			None	
Walk Time (s)		5.0		5.0	5.0			5.0			5.0	
Flash Dont Walk (s)		11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0		0	0			0			0	
Act Effct Green (s)		14.0		14.0	14.0			28.9			28.9	
Actuated g/C Ratio		0.26		0.26	0.26			0.54			0.54	
v/c Ratio		0.40		0.12	0.57			0.65			0.32	
Control Delay		5.9		19.2	20.5			11.7			7.4	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		5.9		19.2	20.5			11.7			7.4	
LOS		A		B	C			B			A	
Approach Delay		5.9			20.4			11.7			7.4	
Approach LOS		A			C			B			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 53.6			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 11.1		Intersection LOS: B	
Intersection Capacity Utilization 64.2%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 7: South Massey Street & Stone Street



A5

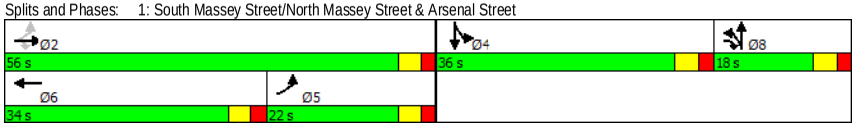
Level of Service Calculations: Background Conditions

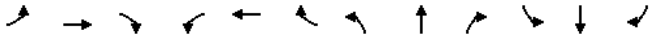
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	309	106	0	244	28	119	240	16	425	506	65
Future Volume (vph)	60	309	106	0	244	28	119	240	16	425	506	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	170		0	0		0	250		0	515		0
Storage Lanes	1		1	0		0	1		0	1		0
Taper Length (ft)	60			25			100			130		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.986			0.991			0.983	
Flt Protected		0.992					0.950			0.950		
Satd. Flow (prot)	0	3511	1583	0	1837	0	1770	3507	0	1770	3479	0
Flt Permitted		0.704					0.950			0.950		
Satd. Flow (perm)	0	2492	1583	0	1837	0	1770	3507	0	1770	3479	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		403			250			720			474	
Travel Time (s)		9.2			5.7			16.4			10.8	
Peak Hour Factor	0.92	0.92	0.92	0.90	0.90	0.90	0.87	0.87	0.87	0.85	0.85	0.85
Adj. Flow (vph)	65	336	115	0	271	31	137	276	18	500	595	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	401	115	0	302	0	137	294	0	500	671	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1		2		1	2		1	2	
Detector Template	Left	Thru	Right		Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20		100		20	100		20	100	
Trailing Detector (ft)	0	0	0		0		0	0		0	0	
Detector 1 Position(ft)	0	0	0		0		0	0		0	0	
Detector 1 Size(ft)	20	6	20		6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	pm+ov		NA		Split	NA		Split	NA	
Protected Phases	5	2	8		6		8	8		4	4	
Permitted Phases	2		2									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	8		6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.0	21.0	21.0		21.0		21.0	21.0		21.0	21.0	
Total Split (s)	22.0	56.0	18.0		34.0		18.0	18.0		36.0	36.0	
Total Split (%)	20.0%	50.9%	16.4%		30.9%		16.4%	16.4%		32.7%	32.7%	
Maximum Green (s)	17.0	51.0	13.0		29.0		13.0	13.0		31.0	31.0	
Yellow Time (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0		2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lag				Lead							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None		None		None	None		None	None	
Walk Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0	11.0		11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)		17.5	34.1		17.5		11.6	11.6		31.2	31.2	
Actuated g/C Ratio		0.23	0.45		0.23		0.15	0.15		0.41	0.41	
v/c Ratio		0.69	0.16		0.71		0.51	0.55		0.68	0.47	
Control Delay		33.3	12.3		36.4		37.4	34.4		25.5	18.4	
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay		33.3	12.3		36.4		37.4	34.4		25.5	18.4	
LOS		C	B		D		D	C		C	B	
Approach Delay		28.6			36.4			35.3			21.4	
Approach LOS		C			D			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 75.3			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 27.3		Intersection LOS: C	
Intersection Capacity Utilization 72.2%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 1: South Massey Street/North Massey Street & Arsenal Street





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	713	10	1	276	13	0	0	2	11	0	3
Future Volume (vph)	1	713	10	1	276	13	0	0	2	11	0	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.994			0.865			0.973	
Flt Protected											0.962	
Satd. Flow (prot)	0	3532	0	0	1852	0	0	1611	0	0	1744	0
Flt Permitted											0.962	
Satd. Flow (perm)	0	3532	0	0	1852	0	0	1611	0	0	1744	0
Link Speed (mph)		30			30			10			10	
Link Distance (ft)		250			378			125			123	
Travel Time (s)		5.7			8.6			8.5			8.4	
Peak Hour Factor	0.86	0.86	0.86	0.89	0.89	0.89	0.25	0.25	0.25	0.70	0.70	0.70
Adj. Flow (vph)	1	829	12	1	310	15	0	0	8	16	0	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	842	0	0	326	0	0	8	0	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	713	10	1	276	13	0	0	2	11	0	3
Future Vol, veh/h	1	713	10	1	276	13	0	0	2	11	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	89	89	89	25	25	25	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	829	12	1	310	15	0	0	8	16	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	325	0	0	841	0	0	1159	1164	420	737	1163	317
Stage 1	-	-	-	-	-	-	837	837	-	320	320	-
Stage 2	-	-	-	-	-	-	322	327	-	417	843	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.93	7.33	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	1233	-	-	792	-	-	161	194	583	320	194	723
Stage 1	-	-	-	-	-	-	328	381	-	691	652	-
Stage 2	-	-	-	-	-	-	689	647	-	585	379	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1233	-	-	792	-	-	160	193	583	315	193	723
Mov Cap-2 Maneuver	-	-	-	-	-	-	160	193	-	315	193	-
Stage 1	-	-	-	-	-	-	327	380	-	690	651	-
Stage 2	-	-	-	-	-	-	684	646	-	576	378	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	11.3	15.7
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	583	1233	-	-	792	-	-	358
HCM Lane V/C Ratio	0.014	0.001	-	-	0.001	-	-	0.056
HCM Control Delay (s)	11.3	7.9	0	-	9.6	0	-	15.7
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	121	477	138	0	241	44	33	80	23	6	2	9
Future Volume (vph)	121	477	138	0	241	44	33	80	23	6	2	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	0		120	0		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.972				0.850			0.850		0.928	
Flt Protected		0.992						0.986			0.982	
Satd. Flow (prot)	0	3413	0	0	1863	1583	0	1837	1583	0	1698	0
Flt Permitted		0.832						0.916			0.906	
Satd. Flow (perm)	0	2862	0	0	1863	1583	0	1706	1583	0	1566	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		77				53			31		15	
Link Speed (mph)		30			30			30			10	
Link Distance (ft)		378			397			580			249	
Travel Time (s)		8.6			9.0			13.2			17.0	
Peak Hour Factor	0.85	0.85	0.85	0.83	0.83	0.83	0.74	0.74	0.74	0.60	0.60	0.60
Adj. Flow (vph)	142	561	162	0	290	53	45	108	31	10	3	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	865	0	0	290	53	0	153	31	0	28	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1	2	1	1	2	
Detector Template	Left	Thru			Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100			100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0			0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0			0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6			6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA			NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4					8	2		2	6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4			8	8	2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	21.0	21.0			21.0	21.0	21.0	21.0	21.0	21.0	21.0	
Total Split (s)	64.0	64.0			64.0	64.0	21.0	21.0	21.0	21.0	21.0	
Total Split (%)	75.3%	75.3%			75.3%	75.3%	24.7%	24.7%	24.7%	24.7%	24.7%	
Maximum Green (s)	59.0	59.0			59.0	59.0	16.0	16.0	16.0	16.0	16.0	
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0	0.0		0.0	
Total Lost Time (s)		5.0			5.0	5.0		5.0	5.0		5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None			None	None	Max	Max	Max	Max	Max	
Walk Time (s)	5.0	5.0			5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	11.0	11.0			11.0	11.0	11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0			0	0	0	0	0	0	0	
Act Effct Green (s)		20.0			20.0	20.0		16.2	16.2		16.2	
Actuated g/C Ratio		0.43			0.43	0.43		0.35	0.35		0.35	
v/c Ratio		0.68			0.36	0.07		0.26	0.05		0.05	
Control Delay		12.2			9.8	2.8		14.1	6.3		9.2	
Queue Delay		0.0			0.0	0.0		0.0	0.0		0.0	
Total Delay		12.2			9.8	2.8		14.1	6.3		9.2	
LOS		B			A	A		B	A		A	
Approach Delay		12.2			8.7			12.8			9.2	
Approach LOS		B			A			B			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 85			
Actuated Cycle Length: 46.3			
Natural Cycle: 45			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 11.4		Intersection LOS: B	
Intersection Capacity Utilization 53.7%		ICU Level of Service A	
Analysis Period (min) 15			

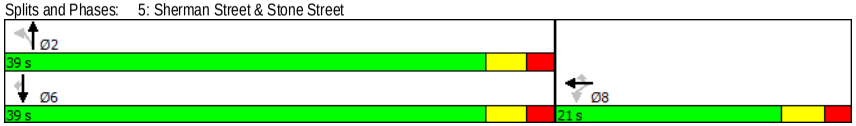
Splits and Phases: 3: Sherman Street/Commercial Lots Driveway & Arsenal Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	9	32	21	34	143	0	0	106	3
Future Volume (vph)	0	0	0	9	32	21	34	143	0	0	106	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		25	200		0	0		150
Storage Lanes	0		0	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850						0.850
Flt Protected					0.989		0.950					
Satd. Flow (prot)	0	0	0	0	1842	1583	1770	1863	0	0	1863	1583
Flt Permitted					0.989		0.851					
Satd. Flow (perm)	0	0	0	0	1842	1583	1585	1863	0	0	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						36						36
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		740			406			301			580	
Travel Time (s)		16.8			9.2			6.8			13.2	
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.88	0.87	0.87	0.87	0.77	0.77	0.77
Adj. Flow (vph)	0	0	0	10	36	24	39	164	0	0	138	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	46	24	39	164	0	0	138	4
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2	1	1	2			2	1
Detector Template				Left	Thru	Right	Left	Thru			Thru	Right
Leading Detector (ft)				20	100	20	20	100			100	20
Trailing Detector (ft)				0	0	0	0	0			0	0
Detector 1 Position(ft)				0	0	0	0	0			0	0
Detector 1 Size(ft)				20	6	20	20	6			6	20
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 2 Position(ft)					94			94			94	
Detector 2 Size(ft)					6			6			6	
Detector 2 Type					Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0			0.0	
Turn Type				Perm	NA	Perm	Perm	NA			NA	Perm
Protected Phases					8			2			6	
Permitted Phases				8		8	2					6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase				8	8	8	2	2			6	6
Switch Phase												
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Minimum Split (s)				21.0	21.0	21.0	21.0	21.0			21.0	21.0
Total Split (s)				21.0	21.0	21.0	39.0	39.0			39.0	39.0
Total Split (%)				35.0%	35.0%	35.0%	65.0%	65.0%			65.0%	65.0%
Maximum Green (s)				16.0	16.0	16.0	34.0	34.0			34.0	34.0
Yellow Time (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Lost Time Adjust (s)					0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)					5.0	5.0	5.0	5.0			5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Recall Mode				None	None	None	None	None			None	None
Walk Time (s)				5.0	5.0	5.0	5.0	5.0			5.0	5.0
Flash Dont Walk (s)				11.0	11.0	11.0	11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)				0	0	0	0	0			0	0
Act Effct Green (s)					6.7	6.7	11.1	11.1			9.4	9.4
Actuated g/C Ratio					0.36	0.36	0.60	0.60			0.51	0.51
v/c Ratio					0.07	0.04	0.04	0.15			0.15	0.00
Control Delay					6.3	2.9	4.7	4.6			4.8	0.0
Queue Delay					0.0	0.0	0.0	0.0			0.0	0.0
Total Delay					6.3	2.9	4.7	4.6			4.8	0.0
LOS					A	A	A	A			A	A
Approach Delay					5.1			4.7			4.7	
Approach LOS					A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 18.5			
Natural Cycle: 45			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.15			
Intersection Signal Delay: 4.7		Intersection LOS: A	
Intersection Capacity Utilization 22.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 5: Sherman Street & Stone Street

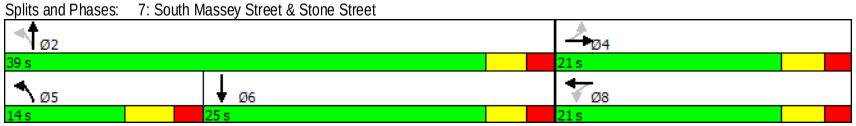


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	0	188	4	38	30	185	345	0	0	613	6
Future Volume (vph)	5	0	188	4	38	30	185	345	0	0	613	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	300		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Frt		0.869			0.934						0.999	
Flt Protected		0.999		0.950				0.983				
Satd. Flow (prot)	0	1617	0	1770	1740	0	0	3479	0	0	3536	0
Flt Permitted		0.987		0.755				0.625				
Satd. Flow (perm)	0	1598	0	1406	1740	0	0	2212	0	0	3536	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		251			33						2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		316			740			422			720	
Travel Time (s)		7.2			16.8			9.6			16.4	
Peak Hour Factor	0.75	0.75	0.75	0.90	0.90	0.90	0.90	0.90	0.90	0.83	0.83	0.83
Adj. Flow (vph)	7	0	251	4	42	33	206	383	0	0	739	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	258	0	4	75	0	0	589	0	0	746	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			12			12			12	
Link Offset(ft)		-10			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2			2	
Detector Template	Left	Thru		Left	Thru		Left	Thru			Thru	
Leading Detector (ft)	20	100		20	100		20	100			100	
Trailing Detector (ft)	0	0		0	0		0	0			0	
Detector 1 Position(ft)	0	0		0	0		0	0			0	
Detector 1 Size(ft)	20	6		20	6		20	6			6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA			NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		5	2			6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		9.5	21.0			21.0	
Total Split (s)	21.0	21.0		21.0	21.0		14.0	39.0			25.0	
Total Split (%)	35.0%	35.0%		35.0%	35.0%		23.3%	65.0%			41.7%	
Maximum Green (s)	16.0	16.0		16.0	16.0		8.5	34.0			20.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.5	3.0			3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0			2.0	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)		5.0		5.0	5.0			5.0			5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Recall Mode	None	None		None	None		None	None			None	
Walk Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)	0	0		0	0			0			0	
Act Effct Green (s)		7.7		7.7	7.7			19.0			19.0	
Actuated g/C Ratio		0.24		0.24	0.24			0.60			0.60	
v/c Ratio		0.44		0.01	0.17			0.44			0.35	
Control Delay		5.7		13.0	9.8			6.9			5.6	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		5.7		13.0	9.8			6.9			5.6	
LOS		A		B	A			A			A	
Approach Delay		5.7			10.0			6.9			5.6	
Approach LOS		A			A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 31.6			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.44			
Intersection Signal Delay: 6.3		Intersection LOS: A	
Intersection Capacity Utilization 60.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 7: South Massey Street & Stone Street

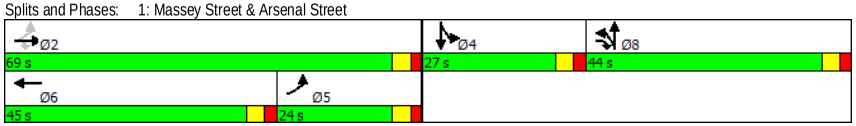


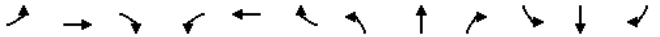
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	383	178	0	369	68	218	439	16	271	374	137
Future Volume (vph)	150	383	178	0	369	68	218	439	16	271	374	137
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	170		0	0		0	250		0	515		0
Storage Lanes	1		1	0		0	1		0	1		0
Taper Length (ft)	60			25			100			130		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.979			0.995			0.960	
Flt Protected		0.986					0.950			0.950		
Satd. Flow (prot)	0	3490	1583	0	1824	0	1770	3522	0	1770	3398	0
Flt Permitted		0.583					0.950			0.950		
Satd. Flow (perm)	0	2063	1583	0	1824	0	1770	3522	0	1770	3398	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		403			250			720			474	
Travel Time (s)		9.2			5.7			16.4			10.8	
Peak Hour Factor	0.91	0.91	0.91	0.94	0.94	0.94	0.95	0.95	0.95	0.90	0.90	0.90
Adj. Flow (vph)	165	421	196	0	393	72	229	462	17	301	416	152
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	586	196	0	465	0	229	479	0	301	568	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1		2		1	2		1	2	
Detector Template	Left	Thru	Right		Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20		100		20	100		20	100	
Trailing Detector (ft)	0	0	0		0		0	0		0	0	
Detector 1 Position(ft)	0	0	0		0		0	0		0	0	
Detector 1 Size(ft)	20	6	20		6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	pm+ov		NA		Split	NA		Split	NA	
Protected Phases	5	2	8		6		8	8		4	4	
Permitted Phases	2		2									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	8		6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.0	21.0	21.0		21.0		21.0	21.0		21.0	21.0	
Total Split (s)	24.0	69.0	44.0		45.0		44.0	44.0		27.0	27.0	
Total Split (%)	17.1%	49.3%	31.4%		32.1%		31.4%	31.4%		19.3%	19.3%	
Maximum Green (s)	19.0	64.0	39.0		40.0		39.0	39.0		22.0	22.0	
Yellow Time (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0		2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lag				Lead							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None		None		None	None		None	None	
Walk Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0	11.0		11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)		38.2	65.9		38.2		22.5	22.5		22.9	22.9	
Actuated g/C Ratio		0.39	0.66		0.39		0.23	0.23		0.23	0.23	
v/c Ratio		0.74	0.19		0.66		0.57	0.60		0.74	0.73	
Control Delay		32.4	6.1		30.3		41.7	38.6		51.6	44.7	
Queue Delay		0.0	0.0		0.2		0.0	0.0		0.0	0.0	
Total Delay		32.4	6.1		30.5		41.7	38.6		51.6	44.7	
LOS		C	A		C		D	D		D	D	
Approach Delay		25.8			30.5			39.6			47.1	
Approach LOS		C			C			D			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 99.2			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 36.6		Intersection LOS: D	
Intersection Capacity Utilization 82.8%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 1: Massey Street & Arsenal Street





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	638	2	1	427	28	1	0	13	8	0	1
Future Volume (vph)	4	638	2	1	427	28	1	0	13	8	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.992			0.875			0.989	
Flt Protected								0.996			0.956	
Satd. Flow (prot)	0	3539	0	0	1848	0	0	1623	0	0	1761	0
Flt Permitted								0.996			0.956	
Satd. Flow (perm)	0	3539	0	0	1848	0	0	1623	0	0	1761	0
Link Speed (mph)		30			30			10			10	
Link Distance (ft)		250			378			125			123	
Travel Time (s)		5.7			8.6			8.5			8.4	
Peak Hour Factor	0.94	0.94	0.94	0.93	0.93	0.93	0.27	0.27	0.27	0.75	0.75	0.75
Adj. Flow (vph)	4	679	2	1	459	30	4	0	48	11	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	685	0	0	490	0	0	52	0	0	12	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 35.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	638	2	1	427	28	1	0	13	8	0	1
Future Vol, veh/h	4	638	2	1	427	28	1	0	13	8	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	93	93	93	27	27	27	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	679	2	1	459	30	4	0	48	11	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	489	0	0	681	0	0	1165	1179	340	824	1165	474
Stage 1	-	-	-	-	-	-	688	688	-	476	476	-
Stage 2	-	-	-	-	-	-	477	491	-	348	689	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.93	7.33	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	1072	-	-	910	-	-	160	190	657	278	193	590
Stage 1	-	-	-	-	-	-	403	446	-	569	556	-
Stage 2	-	-	-	-	-	-	568	547	-	642	446	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1072	-	-	910	-	-	159	188	657	256	191	590
Mov Cap-2 Maneuver	-	-	-	-	-	-	159	188	-	256	191	-
Stage 1	-	-	-	-	-	-	401	443	-	566	555	-
Stage 2	-	-	-	-	-	-	566	546	-	591	443	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	12.4	18.8
HCM LOS			B	C

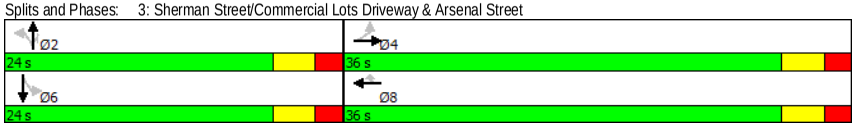
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	537	1072	-	-	910	-	-	273
HCM Lane V/C Ratio	0.097	0.004	-	-	0.001	-	-	0.044
HCM Control Delay (s)	12.4	8.4	0	-	9	0	-	18.8
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	566	108	0	308	9	69	177	34	35	52	71
Future Volume (vph)	37	566	108	0	308	9	69	177	34	35	52	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	0		120	0		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.977				0.850			0.850		0.939	
Flt Protected		0.997						0.986			0.989	
Satd. Flow (prot)	0	3447	0	0	1863	1583	0	1837	1583	0	1730	0
Flt Permitted		0.921						0.844			0.868	
Satd. Flow (perm)	0	3185	0	0	1863	1583	0	1572	1583	0	1518	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		51				36			44		71	
Link Speed (mph)		30			30			30			10	
Link Distance (ft)		378			397			580			249	
Travel Time (s)		8.6			9.0			13.2			17.0	
Peak Hour Factor	0.86	0.86	0.86	0.92	0.92	0.92	0.78	0.78	0.78	0.58	0.58	0.58
Adj. Flow (vph)	43	658	126	0	335	10	88	227	44	60	90	122
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	827	0	0	335	10	0	315	44	0	272	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1	2	1	1	2	
Detector Template	Left	Thru			Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100			100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0			0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0			0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6			6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA			NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4					8	2		2	6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4			8	8	2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	21.0	21.0			21.0	21.0	21.0	21.0	21.0	21.0	21.0	
Total Split (s)	36.0	36.0			36.0	36.0	24.0	24.0	24.0	24.0	24.0	
Total Split (%)	60.0%	60.0%			60.0%	60.0%	40.0%	40.0%	40.0%	40.0%	40.0%	
Maximum Green (s)	31.0	31.0			31.0	31.0	19.0	19.0	19.0	19.0	19.0	
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0	0.0		0.0	
Total Lost Time (s)		5.0			5.0	5.0		5.0	5.0		5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None			None	None	Max	Max	Max	Max	Max	
Walk Time (s)	5.0	5.0			5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	11.0	11.0			11.0	11.0	11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0			0	0	0	0	0	0	0	
Act Effct Green (s)		19.0			19.0	19.0		19.2	19.2		19.2	
Actuated g/C Ratio		0.39			0.39	0.39		0.40	0.40		0.40	
v/c Ratio		0.65			0.46	0.02		0.50	0.07		0.42	
Control Delay		13.4			12.6	0.7		16.1	5.1		11.5	
Queue Delay		0.0			0.0	0.0		0.0	0.0		0.0	
Total Delay		13.4			12.6	0.7		16.1	5.1		11.5	
LOS		B			B	A		B	A		B	
Approach Delay		13.4			12.3			14.8			11.5	
Approach LOS		B			B			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 48.3			
Natural Cycle: 45			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 13.2		Intersection LOS: B	
Intersection Capacity Utilization 75.2%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: Sherman Street/Commercial Lots Driveway & Arsenal Street

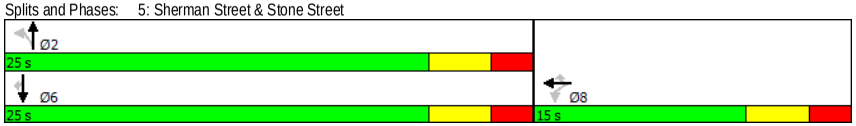


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	61	130	77	95	185	0	0	156	20
Future Volume (vph)	0	0	0	61	130	77	95	185	0	0	156	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		25	200		0	0		150
Storage Lanes	0		0	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850						0.850
Flt Protected					0.984		0.950					
Satd. Flow (prot)	0	0	0	0	1833	1583	1770	1863	0	0	1863	1583
Flt Permitted					0.984		0.629					
Satd. Flow (perm)	0	0	0	0	1833	1583	1172	1863	0	0	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						97						55
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		740			406			301			580	
Travel Time (s)		16.8			9.2			6.8			13.2	
Peak Hour Factor	0.92	0.92	0.92	0.66	0.66	0.66	0.88	0.88	0.88	0.76	0.76	0.76
Adj. Flow (vph)	0	0	0	92	197	117	108	210	0	0	205	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	289	117	108	210	0	0	205	26
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2	1	1	2			2	1
Detector Template				Left	Thru	Right	Left	Thru			Thru	Right
Leading Detector (ft)				20	100	20	20	100			100	20
Trailing Detector (ft)				0	0	0	0	0			0	0
Detector 1 Position(ft)				0	0	0	0	0			0	0
Detector 1 Size(ft)				20	6	20	20	6			6	20
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 2 Position(ft)					94			94			94	
Detector 2 Size(ft)					6			6			6	
Detector 2 Type					Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0			0.0	
Turn Type				Perm	NA	Perm	Perm	NA			NA	Perm
Protected Phases					8			2			6	
Permitted Phases				8		8	2					6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase				8	8	8	2	2			6	6
Switch Phase												
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Minimum Split (s)				21.0	21.0	21.0	21.0	21.0			21.0	21.0
Total Split (s)				15.0	15.0	15.0	25.0	25.0			25.0	25.0
Total Split (%)				37.5%	37.5%	37.5%	62.5%	62.5%			62.5%	62.5%
Maximum Green (s)				10.0	10.0	10.0	20.0	20.0			20.0	20.0
Yellow Time (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Lost Time Adjust (s)					0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)					5.0	5.0	5.0	5.0			5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Recall Mode				None	None	None	None	None			None	None
Walk Time (s)				5.0	5.0	5.0	5.0	5.0			5.0	5.0
Flash Dont Walk (s)				11.0	11.0	11.0	11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)				0	0	0	0	0			0	0
Act Effct Green (s)					9.0	9.0	8.6	8.6			8.6	8.6
Actuated g/C Ratio					0.34	0.34	0.32	0.32			0.32	0.32
v/c Ratio					0.47	0.20	0.29	0.35			0.34	0.05
Control Delay					10.8	3.9	9.5	9.2			9.1	1.4
Queue Delay					0.0	0.0	0.0	0.0			0.0	0.0
Total Delay					10.8	3.9	9.5	9.2			9.1	1.4
LOS					B	A	A	A			A	A
Approach Delay					8.8			9.3			8.3	
Approach LOS					A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 40			
Actuated Cycle Length: 26.5			
Natural Cycle: 45			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.47			
Intersection Signal Delay: 8.8		Intersection LOS: A	
Intersection Capacity Utilization 36.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 5: Sherman Street & Stone Street

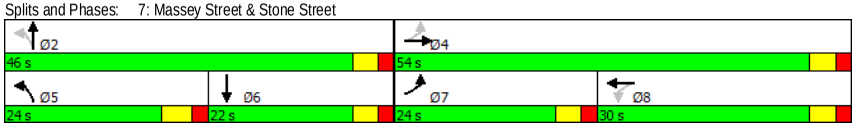


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	0	178	26	102	117	226	539	0	0	523	21
Future Volume (vph)	5	0	178	26	102	117	226	539	0	0	523	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	300		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Frt		0.868			0.920						0.994	
Flt Protected		0.999		0.950				0.985				
Satd. Flow (prot)	0	1615	0	1770	1714	0	0	3486	0	0	3518	0
Flt Permitted		0.989		0.567				0.657				
Satd. Flow (perm)	0	1599	0	1056	1714	0	0	2325	0	0	3518	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		231			55						3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		316			740			422			720	
Travel Time (s)		7.2			16.8			9.6			16.4	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.92	0.92	0.92	0.88	0.88	0.88
Adj. Flow (vph)	6	0	231	34	132	152	246	586	0	0	594	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	237	0	34	284	0	0	832	0	0	618	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			12			12			12	
Link Offset(ft)		-10			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2			2	
Detector Template	Left	Thru		Left	Thru		Left	Thru			Thru	
Leading Detector (ft)	20	100		20	100		20	100			100	
Trailing Detector (ft)	0	0		0	0		0	0			0	
Detector 1 Position(ft)	0	0		0	0		0	0			0	
Detector 1 Size(ft)	20	6		20	6		20	6			6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA			NA	
Protected Phases	7	4			8		5	2			6	
Permitted Phases	4			8			2					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4		8	8		5	2			6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)	9.0	21.0		21.0	21.0		9.5	21.0			21.0	
Total Split (s)	24.0	54.0		30.0	30.0		24.0	46.0			22.0	
Total Split (%)	24.0%	54.0%		30.0%	30.0%		24.0%	46.0%			22.0%	
Maximum Green (s)	19.0	49.0		25.0	25.0		18.5	41.0			17.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.5	3.0			3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0			2.0	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)		5.0		5.0	5.0			5.0			5.0	
Lead/Lag	Lead			Lag	Lag		Lead				Lag	
Lead-Lag Optimize?	Yes			Yes	Yes		Yes				Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Recall Mode	None	None		None	None		None	None			None	
Walk Time (s)		5.0		5.0	5.0			5.0			5.0	
Flash Dont Walk (s)		11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0		0	0			0			0	
Act Effct Green (s)		14.2		14.2	14.2			29.5			29.5	
Actuated g/C Ratio		0.26		0.26	0.26			0.54			0.54	
v/c Ratio		0.40		0.12	0.58			0.66			0.32	
Control Delay		5.8		19.3	21.0			12.0			7.4	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		5.8		19.3	21.0			12.0			7.4	
LOS		A		B	C			B			A	
Approach Delay		5.8			20.8			12.0			7.4	
Approach LOS		A			C			B			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 54.3			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 11.2		Intersection LOS: B	
Intersection Capacity Utilization 64.8%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 7: Massey Street & Stone Street



A6

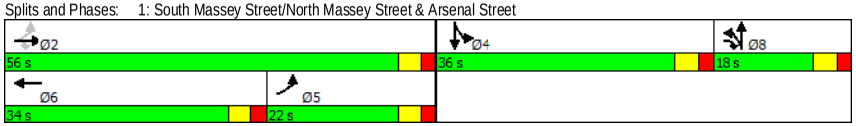
Level of Service Calculations: Full Development Conditions

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	321	109	0	247	30	125	246	16	440	521	65
Future Volume (vph)	60	321	109	0	247	30	125	246	16	440	521	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	170		0	0		0	250		0	515		0
Storage Lanes	1		1	0		0	1		0	1		0
Taper Length (ft)	60			25			100			130		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.985			0.991			0.983	
Flt Protected		0.992					0.950			0.950		
Satd. Flow (prot)	0	3511	1583	0	1835	0	1770	3507	0	1770	3479	0
Flt Permitted		0.704					0.950			0.950		
Satd. Flow (perm)	0	2492	1583	0	1835	0	1770	3507	0	1770	3479	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		403			250			152			474	
Travel Time (s)		9.2			5.7			3.5			10.8	
Peak Hour Factor	0.92	0.92	0.92	0.90	0.90	0.90	0.87	0.87	0.87	0.85	0.85	0.85
Adj. Flow (vph)	65	349	118	0	274	33	144	283	18	518	613	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	414	118	0	307	0	144	301	0	518	689	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1		2		1	2		1	2	
Detector Template	Left	Thru	Right		Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20		100		20	100		20	100	
Trailing Detector (ft)	0	0	0		0		0	0		0	0	
Detector 1 Position(ft)	0	0	0		0		0	0		0	0	
Detector 1 Size(ft)	20	6	20		6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	pm+ov		NA		Split	NA		Split	NA	
Protected Phases	5	2	8		6		8	8		4	4	
Permitted Phases	2		2									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	8		6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.0	21.0	21.0		21.0		21.0	21.0		21.0	21.0	
Total Split (s)	22.0	56.0	18.0		34.0		18.0	18.0		36.0	36.0	
Total Split (%)	20.0%	50.9%	16.4%		30.9%		16.4%	16.4%		32.7%	32.7%	
Maximum Green (s)	17.0	51.0	13.0		29.0		13.0	13.0		31.0	31.0	
Yellow Time (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0		2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lag				Lead							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None		None		None	None		None	None	
Walk Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0	11.0		11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)		17.8	34.4		17.8		11.6	11.6		31.2	31.2	
Actuated g/C Ratio		0.24	0.45		0.24		0.15	0.15		0.41	0.41	
v/c Ratio		0.71	0.16		0.71		0.53	0.56		0.71	0.48	
Control Delay		33.8	12.3		36.6		38.3	34.7		26.9	18.8	
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay		33.8	12.3		36.6		38.3	34.7		26.9	18.8	
LOS		C	B		D		D	C		C	B	
Approach Delay		29.0			36.6			35.9			22.2	
Approach LOS		C			D			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 75.7			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 27.9		Intersection LOS: C	
Intersection Capacity Utilization 73.8%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 1: South Massey Street/North Massey Street & Arsenal Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	713	27	8	280	13	1	0	2	11	0	3
Future Volume (vph)	1	713	27	8	280	13	1	0	2	11	0	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.994			0.910			0.973	
Flt Protected					0.999			0.984			0.962	
Satd. Flow (prot)	0	3522	0	0	1850	0	0	1668	0	0	1744	0
Flt Permitted					0.999			0.984			0.962	
Satd. Flow (perm)	0	3522	0	0	1850	0	0	1668	0	0	1744	0
Link Speed (mph)		30			30			10			10	
Link Distance (ft)		250			378			125			123	
Travel Time (s)		5.7			8.6			8.5			8.4	
Peak Hour Factor	0.86	0.86	0.86	0.89	0.89	0.89	0.25	0.25	0.25	0.70	0.70	0.70
Adj. Flow (vph)	1	829	31	9	315	15	4	0	8	16	0	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	861	0	0	339	0	0	12	0	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	32.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	713	27	8	280	13	1	0	2	11	0	3
Future Vol, veh/h	1	713	27	8	280	13	1	0	2	11	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	89	89	89	25	25	25	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	829	31	9	315	15	4	0	8	16	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	329	0	0	860	0	0	1189	1194	430	757	1203	322
Stage 1	-	-	-	-	-	-	847	847	-	340	340	-
Stage 2	-	-	-	-	-	-	342	347	-	417	863	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.93	7.33	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	1229	-	-	779	-	-	154	186	574	310	184	718
Stage 1	-	-	-	-	-	-	324	377	-	674	639	-
Stage 2	-	-	-	-	-	-	672	634	-	585	371	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1229	-	-	779	-	-	151	183	574	302	181	718
Mov Cap-2 Maneuver	-	-	-	-	-	-	151	183	-	302	181	-
Stage 1	-	-	-	-	-	-	323	376	-	673	630	-
Stage 2	-	-	-	-	-	-	659	625	-	576	370	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.3	17.6	16.1
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	297	1229	-	-	779	-	-	345
HCM Lane V/C Ratio	0.04	0.001	-	-	0.012	-	-	0.058
HCM Control Delay (s)	17.6	7.9	0	-	9.7	0	-	16.1
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	121	479	138	0	249	44	37	83	32	6	2	9
Future Volume (vph)	121	479	138	0	249	44	37	83	32	6	2	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	0		120	0		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.972				0.850			0.850		0.928	
Flt Protected		0.992						0.985			0.982	
Satd. Flow (prot)	0	3413	0	0	1863	1583	0	1835	1583	0	1698	0
Flt Permitted		0.828						0.910			0.904	
Satd. Flow (perm)	0	2848	0	0	1863	1583	0	1695	1583	0	1563	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		76				53			43		15	
Link Speed (mph)		30			30			30			10	
Link Distance (ft)		378			397			368			249	
Travel Time (s)		8.6			9.0			8.4			17.0	
Peak Hour Factor	0.85	0.85	0.85	0.83	0.83	0.83	0.74	0.74	0.74	0.60	0.60	0.60
Adj. Flow (vph)	142	564	162	0	300	53	50	112	43	10	3	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	868	0	0	300	53	0	162	43	0	28	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1	2	1	1	2	
Detector Template	Left	Thru			Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100			100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0			0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0			0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6			6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA			NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4					8	2		2	6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4			8	8	2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	21.0	21.0			21.0	21.0	21.0	21.0	21.0	21.0	21.0	
Total Split (s)	64.0	64.0			64.0	64.0	21.0	21.0	21.0	21.0	21.0	
Total Split (%)	75.3%	75.3%			75.3%	75.3%	24.7%	24.7%	24.7%	24.7%	24.7%	
Maximum Green (s)	59.0	59.0			59.0	59.0	16.0	16.0	16.0	16.0	16.0	
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0	0.0		0.0	
Total Lost Time (s)		5.0			5.0	5.0		5.0	5.0		5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None			None	None	Max	Max	Max	Max	Max	
Walk Time (s)	5.0	5.0			5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	11.0	11.0			11.0	11.0	11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0			0	0	0	0	0	0	0	
Act Effct Green (s)		20.1			20.1	20.1		16.2	16.2		16.2	
Actuated g/C Ratio		0.43			0.43	0.43		0.35	0.35		0.35	
v/c Ratio		0.68			0.37	0.07		0.27	0.07		0.05	
Control Delay		12.3			9.9	2.7		14.4	5.7		9.4	
Queue Delay		0.0			0.0	0.0		0.0	0.0		0.0	
Total Delay		12.3			9.9	2.7		14.4	5.7		9.4	
LOS		B			A	A		B	A		A	
Approach Delay		12.3			8.8			12.6			9.4	
Approach LOS		B			A			B			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 85			
Actuated Cycle Length: 46.4			
Natural Cycle: 45			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 11.4		Intersection LOS: B	
Intersection Capacity Utilization 54.8%		ICU Level of Service A	
Analysis Period (min) 15			

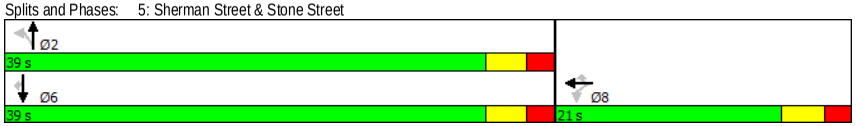
Splits and Phases: 3: Sherman Street/Commercial Lots Driveway & Arsenal Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	9	33	24	34	148	0	0	109	3
Future Volume (vph)	0	0	0	9	33	24	34	148	0	0	109	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		25	200		0	0		150
Storage Lanes	0		0	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850						0.850
Flt Protected					0.990		0.950					
Satd. Flow (prot)	0	0	0	0	1844	1583	1770	1863	0	0	1863	1583
Flt Permitted					0.990		0.833					
Satd. Flow (perm)	0	0	0	0	1844	1583	1552	1863	0	0	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						36						36
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		305			406			301			212	
Travel Time (s)		6.9			9.2			6.8			4.8	
Peak Hour Factor	0.92	0.92	0.92	0.88	0.88	0.88	0.87	0.87	0.87	0.77	0.77	0.77
Adj. Flow (vph)	0	0	0	10	38	27	39	170	0	0	142	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	48	27	39	170	0	0	142	4
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2	1	1	2			2	1
Detector Template				Left	Thru	Right	Left	Thru			Thru	Right
Leading Detector (ft)				20	100	20	20	100			100	20
Trailing Detector (ft)				0	0	0	0	0			0	0
Detector 1 Position(ft)				0	0	0	0	0			0	0
Detector 1 Size(ft)				20	6	20	20	6			6	20
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 2 Position(ft)					94			94			94	
Detector 2 Size(ft)					6			6			6	
Detector 2 Type					Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0			0.0	
Turn Type				Perm	NA	Perm	Perm	NA			NA	Perm
Protected Phases					8			2			6	
Permitted Phases				8		8	2					6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase				8	8	8	2	2			6	6
Switch Phase												
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Minimum Split (s)				21.0	21.0	21.0	21.0	21.0			21.0	21.0
Total Split (s)				21.0	21.0	21.0	39.0	39.0			39.0	39.0
Total Split (%)				35.0%	35.0%	35.0%	65.0%	65.0%			65.0%	65.0%
Maximum Green (s)				16.0	16.0	16.0	34.0	34.0			34.0	34.0
Yellow Time (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Lost Time Adjust (s)					0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)					5.0	5.0	5.0	5.0			5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Recall Mode				None	None	None	None	None			None	None
Walk Time (s)				5.0	5.0	5.0	5.0	5.0			5.0	5.0
Flash Dont Walk (s)				11.0	11.0	11.0	11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)				0	0	0	0	0			0	0
Act Effct Green (s)					6.8	6.8	9.5	9.5			9.4	9.4
Actuated g/C Ratio					0.37	0.37	0.52	0.52			0.51	0.51
v/c Ratio					0.07	0.04	0.05	0.18			0.15	0.00
Control Delay					6.4	3.2	4.8	4.9			4.8	0.0
Queue Delay					0.0	0.0	0.0	0.0			0.0	0.0
Total Delay					6.4	3.2	4.8	4.9			4.8	0.0
LOS					A	A	A	A			A	A
Approach Delay					5.2			4.8			4.6	
Approach LOS					A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 18.4			
Natural Cycle: 45			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.18			
Intersection Signal Delay: 4.8		Intersection LOS: A	
Intersection Capacity Utilization 22.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 5: Sherman Street & Stone Street

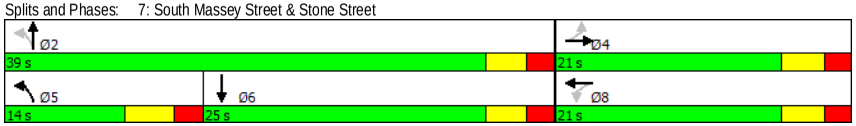


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	0	188	18	42	36	185	363	0	0	615	7
Future Volume (vph)	11	0	188	18	42	36	185	363	0	0	615	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	300		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Frt		0.873			0.931						0.998	
Flt Protected		0.997		0.950				0.983				
Satd. Flow (prot)	0	1621	0	1770	1734	0	0	3479	0	0	3532	0
Flt Permitted		0.975		0.650				0.629				
Satd. Flow (perm)	0	1586	0	1211	1734	0	0	2226	0	0	3532	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		251			40						2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		316			435			422			304	
Travel Time (s)		7.2			9.9			9.6			6.9	
Peak Hour Factor	0.75	0.75	0.75	0.90	0.90	0.90	0.90	0.90	0.90	0.83	0.83	0.83
Adj. Flow (vph)	15	0	251	20	47	40	206	403	0	0	741	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	266	0	20	87	0	0	609	0	0	749	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			12			0			0	
Link Offset(ft)		-10			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2			2	
Detector Template	Left	Thru		Left	Thru		Left	Thru			Thru	
Leading Detector (ft)	20	100		20	100		20	100			100	
Trailing Detector (ft)	0	0		0	0		0	0			0	
Detector 1 Position(ft)	0	0		0	0		0	0			0	
Detector 1 Size(ft)	20	6		20	6		20	6			6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA			NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		5	2			6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		9.5	21.0			21.0	
Total Split (s)	21.0	21.0		21.0	21.0		14.0	39.0			25.0	
Total Split (%)	35.0%	35.0%		35.0%	35.0%		23.3%	65.0%			41.7%	
Maximum Green (s)	16.0	16.0		16.0	16.0		8.5	34.0			20.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.5	3.0			3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0			2.0	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)		5.0		5.0	5.0			5.0			5.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Recall Mode	None	None		None	None		None	None			None	
Walk Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)	0	0		0	0			0			0	
Act Effct Green (s)		7.4		7.4	7.4			16.7			16.7	
Actuated g/C Ratio		0.21		0.21	0.21			0.48			0.48	
v/c Ratio		0.50		0.08	0.22			0.57			0.44	
Control Delay		6.8		14.2	10.2			8.7			6.6	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		6.8		14.2	10.2			8.7			6.6	
LOS		A		B	B			A			A	
Approach Delay		6.8			10.9			8.7			6.6	
Approach LOS		A			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 34.6			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay: 7.6		Intersection LOS: A	
Intersection Capacity Utilization 64.0%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 7: South Massey Street & Stone Street



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	2	3	404	7	3	620
Future Volume (vph)	2	3	404	7	3	620
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.923		0.997			
Flt Protected	0.979					
Satd. Flow (prot)	1683	0	3529	0	0	3539
Flt Permitted	0.979					
Satd. Flow (perm)	1683	0	3529	0	0	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	187		304			264
Travel Time (s)	4.3		6.9			6.0
Peak Hour Factor	0.75	0.75	0.90	0.90	0.83	0.83
Adj. Flow (vph)	3	4	449	8	4	747
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	0	457	0	0	751
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 29.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	3	404	7	3	620
Future Vol, veh/h	2	3	404	7	3	620
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	90	90	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	4	449	8	4	747

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	834	228	0	0	457	0
Stage 1	453	-	-	-	-	-
Stage 2	381	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	307	775	-	-	1100	-
Stage 1	607	-	-	-	-	-
Stage 2	660	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	305	775	-	-	1100	-
Mov Cap-2 Maneuver	305	-	-	-	-	-
Stage 1	607	-	-	-	-	-
Stage 2	656	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	479	1100	-
HCM Lane V/C Ratio	-	-	0.014	0.003	-
HCM Control Delay (s)	-	-	12.6	8.3	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1	3	390	17	16	622
Future Volume (vph)	1	3	390	17	16	622
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.91	0.91	0.95	0.95
Frt	0.892		0.994			
Flt Protected	0.990					0.999
Satd. Flow (prot)	1645	0	5055	0	0	3536
Flt Permitted	0.990					0.999
Satd. Flow (perm)	1645	0	5055	0	0	3536
Link Speed (mph)	30		30			30
Link Distance (ft)	182		264			152
Travel Time (s)	4.1		6.0			3.5
Peak Hour Factor	0.75	0.75	0.90	0.90	0.83	0.83
Adj. Flow (vph)	1	4	433	19	19	749
Shared Lane Traffic (%)						
Lane Group Flow (vph)	5	0	452	0	0	768
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 38.7%		ICU Level of Service A	
Analysis Period (min) 15			

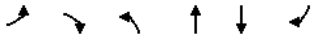
Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	3	390	17	16	622
Future Vol, veh/h	1	3	390	17	16	622
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	90	90	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	4	433	19	19	749

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	856	226	0	0	452	0
Stage 1	443	-	-	-	-	-
Stage 2	413	-	-	-	-	-
Critical Hdwy	6.29	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.67	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	330	662	-	-	713	-
Stage 1	538	-	-	-	-	-
Stage 2	615	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	315	662	-	-	713	-
Mov Cap-2 Maneuver	315	-	-	-	-	-
Stage 1	538	-	-	-	-	-
Stage 2	587	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	519	713	-
HCM Lane V/C Ratio	-	-	0.01	0.027	-
HCM Control Delay (s)	-	-	12	10.2	0.2
HCM Lane LOS	-	-	B	B	A
HCM 95th %tile Q(veh)	-	-	0	0.1	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	16	3	8	164	109	0
Future Volume (vph)	16	3	8	164	109	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.980					
Flt Protected	0.959			0.998		
Satd. Flow (prot)	1751	0	0	1859	1863	0
Flt Permitted	0.959			0.998		
Satd. Flow (perm)	1751	0	0	1859	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	158			212	368	
Travel Time (s)	3.6			4.8	8.4	
Peak Hour Factor	0.70	0.70	0.87	0.87	0.77	0.77
Adj. Flow (vph)	23	4	9	189	142	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	27	0	0	198	142	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	25.1%	ICU Level of Service	A
Analysis Period (min)	15		

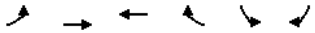
Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	16	3	8	164	109	0
Future Vol, veh/h	16	3	8	164	109	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	70	70	87	87	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	4	9	189	142	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	349	142	142	0	-	0
Stage 1	142	-	-	-	-	-
Stage 2	207	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	648	906	1441	-	-	-
Stage 1	885	-	-	-	-	-
Stage 2	828	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	643	906	1441	-	-	-
Mov Cap-2 Maneuver	643	-	-	-	-	-
Stage 1	885	-	-	-	-	-
Stage 2	822	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1441	-	674	-	-
HCM Lane V/C Ratio	0.006	-	0.04	-	-
HCM Control Delay (s)	7.5	0	10.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	70	1	0	25
Future Volume (vph)	0	0	70	1	0	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt			0.998			0.865
Flt Protected						
Satd. Flow (prot)	0	0	3532	0	0	1611
Flt Permitted						
Satd. Flow (perm)	0	0	3532	0	0	1611
Link Speed (mph)		30	30		30	
Link Distance (ft)		435	305		141	
Travel Time (s)		9.9	6.9		3.2	
Peak Hour Factor	0.92	0.92	0.88	0.88	0.70	0.70
Adj. Flow (vph)	0	0	80	1	0	36
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	81	0	0	36
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 13.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	70	1	0	25
Future Vol, veh/h	0	0	70	1	0	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	88	88	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	80	1	0	36

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	40
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	1022
Stage 1	-	-	0	-
Stage 2	-	-	0	-
Platoon blocked, %	-	-		
Mov Cap-1 Maneuver	-	-	-	1022
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	8.7
HCM LOS		A

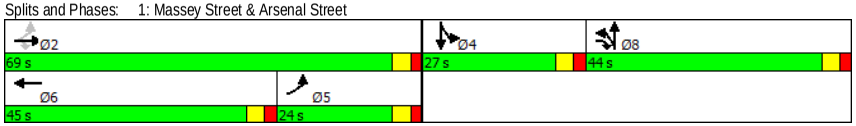
Minor Lane/Major Mvmt	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	1022
HCM Lane V/C Ratio	-	-	0.035
HCM Control Delay (s)	-	-	8.7
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0.1

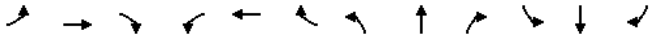
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	389	186	0	380	73	232	461	16	277	387	137
Future Volume (vph)	150	389	186	0	380	73	232	461	16	277	387	137
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	170		0	0		0	250		0	515		0
Storage Lanes	1		1	0		0	1		0	1		0
Taper Length (ft)	60			25			100			130		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.978			0.995			0.961	
Flt Protected		0.986					0.950			0.950		
Satd. Flow (prot)	0	3490	1583	0	1822	0	1770	3522	0	1770	3401	0
Flt Permitted		0.573					0.950			0.950		
Satd. Flow (perm)	0	2028	1583	0	1822	0	1770	3522	0	1770	3401	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		403			250			166			474	
Travel Time (s)		9.2			5.7			3.8			10.8	
Peak Hour Factor	0.91	0.91	0.91	0.94	0.94	0.94	0.95	0.95	0.95	0.90	0.90	0.90
Adj. Flow (vph)	165	427	204	0	404	78	244	485	17	308	430	152
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	592	204	0	482	0	244	502	0	308	582	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1		2		1	2		1	2	
Detector Template	Left	Thru	Right		Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20		100		20	100		20	100	
Trailing Detector (ft)	0	0	0		0		0	0		0	0	
Detector 1 Position(ft)	0	0	0		0		0	0		0	0	
Detector 1 Size(ft)	20	6	20		6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	pm+ov		NA		Split	NA		Split	NA	
Protected Phases	5	2	8		6		8	8		4	4	
Permitted Phases	2		2									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	8		6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.0	21.0	21.0		21.0		21.0	21.0		21.0	21.0	
Total Split (s)	24.0	69.0	44.0		45.0		44.0	44.0		27.0	27.0	
Total Split (%)	17.1%	49.3%	31.4%		32.1%		31.4%	31.4%		19.3%	19.3%	
Maximum Green (s)	19.0	64.0	39.0		40.0		39.0	39.0		22.0	22.0	
Yellow Time (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0		2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lag				Lead							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None		None		None	None		None	None	
Walk Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0	11.0		11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0	0		0		0	0		0	0	
Act Effct Green (s)		40.1	69.6		40.1		24.3	24.3		23.0	23.0	
Actuated g/C Ratio		0.39	0.68		0.39		0.24	0.24		0.22	0.22	
v/c Ratio		0.75	0.19		0.68		0.58	0.60		0.78	0.77	
Control Delay		33.8	5.9		31.6		42.6	39.3		56.6	48.4	
Queue Delay		0.0	0.0		0.3		0.0	0.0		0.0	0.0	
Total Delay		33.8	5.9		31.9		42.6	39.3		56.6	48.4	
LOS		C	A		C		D	D		E	D	
Approach Delay		26.7			31.9			40.4			51.2	
Approach LOS		C			C			D			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 103			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 38.5		Intersection LOS: D	
Intersection Capacity Utilization 84.8%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 1: Massey Street & Arsenal Street





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	638	12	4	429	28	14	0	18	8	0	1
Future Volume (vph)	4	638	12	4	429	28	14	0	18	8	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997			0.992			0.924			0.989	
Flt Protected								0.979			0.956	
Satd. Flow (prot)	0	3529	0	0	1848	0	0	1685	0	0	1761	0
Flt Permitted								0.979			0.956	
Satd. Flow (perm)	0	3529	0	0	1848	0	0	1685	0	0	1761	0
Link Speed (mph)		30			30			10			10	
Link Distance (ft)		250			378			125			123	
Travel Time (s)		5.7			8.6			8.5			8.4	
Peak Hour Factor	0.94	0.94	0.94	0.93	0.93	0.93	0.27	0.27	0.27	0.75	0.75	0.75
Adj. Flow (vph)	4	679	13	4	461	30	52	0	67	11	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	696	0	0	495	0	0	119	0	0	12	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 37.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	638	12	4	429	28	14	0	18	8	0	1
Future Vol, veh/h	4	638	12	4	429	28	14	0	18	8	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	93	93	93	27	27	27	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	679	13	4	461	30	52	0	67	11	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	491	0	0	691	0	0	1180	1194	346	833	1185	476
Stage 1	-	-	-	-	-	-	694	694	-	485	485	-
Stage 2	-	-	-	-	-	-	486	500	-	348	700	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.33	6.53	6.93	7.33	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	1070	-	-	902	-	-	156	186	651	274	188	588
Stage 1	-	-	-	-	-	-	400	443	-	562	551	-
Stage 2	-	-	-	-	-	-	562	542	-	642	440	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1070	-	-	902	-	-	154	184	651	244	186	588
Mov Cap-2 Maneuver	-	-	-	-	-	-	154	184	-	244	186	-
Stage 1	-	-	-	-	-	-	398	440	-	559	548	-
Stage 2	-	-	-	-	-	-	557	539	-	573	437	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	28.4	19.5
HCM LOS			D	C

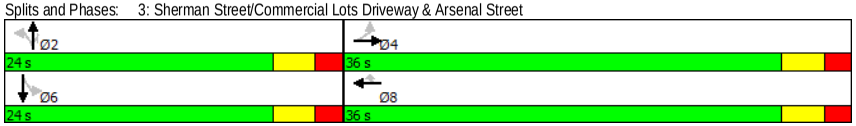
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	270	1070	-	-	902	-	-	261
HCM Lane V/C Ratio	0.439	0.004	-	-	0.005	-	-	0.046
HCM Control Delay (s)	28.4	8.4	0	-	9	0	-	19.5
HCM Lane LOS	D	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	2.1	0	-	-	0	-	-	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	584	108	0	312	9	71	179	34	35	52	71
Future Volume (vph)	37	584	108	0	312	9	71	179	34	35	52	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	0		120	0		0
Storage Lanes	0		0	0		1	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.978				0.850			0.850		0.939	
Flt Protected		0.997						0.986			0.989	
Satd. Flow (prot)	0	3451	0	0	1863	1583	0	1837	1583	0	1730	0
Flt Permitted		0.922						0.844			0.867	
Satd. Flow (perm)	0	3191	0	0	1863	1583	0	1572	1583	0	1516	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		49				36			44		71	
Link Speed (mph)		30			30			30			10	
Link Distance (ft)		378			397			380			249	
Travel Time (s)		8.6			9.0			8.6			17.0	
Peak Hour Factor	0.86	0.86	0.86	0.92	0.92	0.92	0.78	0.78	0.78	0.58	0.58	0.58
Adj. Flow (vph)	43	679	126	0	339	10	91	229	44	60	90	122
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	848	0	0	339	10	0	320	44	0	272	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1	2	1	1	2	
Detector Template	Left	Thru			Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100			100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0			0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0			0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6			6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA			NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4					8	2		2	6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4			8	8	2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	21.0	21.0			21.0	21.0	21.0	21.0	21.0	21.0	21.0	
Total Split (s)	36.0	36.0			36.0	36.0	24.0	24.0	24.0	24.0	24.0	
Total Split (%)	60.0%	60.0%			60.0%	60.0%	40.0%	40.0%	40.0%	40.0%	40.0%	
Maximum Green (s)	31.0	31.0			31.0	31.0	19.0	19.0	19.0	19.0	19.0	
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0	0.0		0.0	
Total Lost Time (s)		5.0			5.0	5.0		5.0	5.0		5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None			None	None	Max	Max	Max	Max	Max	
Walk Time (s)	5.0	5.0			5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	11.0	11.0			11.0	11.0	11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0			0	0	0	0	0	0	0	
Act Effct Green (s)		19.3			19.3	19.3		19.2	19.2		19.2	
Actuated g/C Ratio		0.40			0.40	0.40		0.39	0.39		0.39	
v/c Ratio		0.65			0.46	0.02		0.52	0.07		0.42	
Control Delay		13.5			12.6	0.7		16.6	5.2		11.7	
Queue Delay		0.0			0.0	0.0		0.0	0.0		0.0	
Total Delay		13.5			12.6	0.7		16.6	5.2		11.7	
LOS		B			B	A		B	A		B	
Approach Delay		13.5			12.2			15.2			11.7	
Approach LOS		B			B			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 48.7			
Natural Cycle: 45			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 13.3		Intersection LOS: B	
Intersection Capacity Utilization 76.1%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: Sherman Street/Commercial Lots Driveway & Arsenal Street

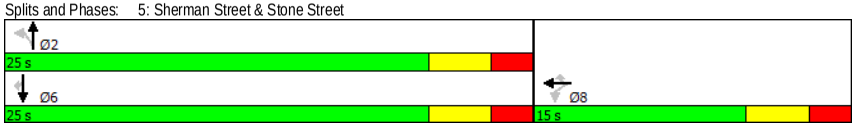


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	61	134	81	97	188	0	0	163	20
Future Volume (vph)	0	0	0	61	134	81	97	188	0	0	163	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		25	200		0	0		150
Storage Lanes	0		0	0		1	1		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850						0.850
Flt Protected					0.985		0.950					
Satd. Flow (prot)	0	0	0	0	1835	1583	1770	1863	0	0	1863	1583
Flt Permitted					0.985		0.624					
Satd. Flow (perm)	0	0	0	0	1835	1583	1162	1863	0	0	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						100						55
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		305			406			301			200	
Travel Time (s)		6.9			9.2			6.8			4.5	
Peak Hour Factor	0.92	0.92	0.92	0.66	0.66	0.66	0.88	0.88	0.88	0.76	0.76	0.76
Adj. Flow (vph)	0	0	0	92	203	123	110	214	0	0	214	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	295	123	110	214	0	0	214	26
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2	1	1	2			2	1
Detector Template				Left	Thru	Right	Left	Thru			Thru	Right
Leading Detector (ft)				20	100	20	20	100			100	20
Trailing Detector (ft)				0	0	0	0	0			0	0
Detector 1 Position(ft)				0	0	0	0	0			0	0
Detector 1 Size(ft)				20	6	20	20	6			6	20
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Detector 2 Position(ft)					94			94			94	
Detector 2 Size(ft)					6			6			6	
Detector 2 Type					Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0			0.0	
Turn Type				Perm	NA	Perm	Perm	NA			NA	Perm
Protected Phases					8			2			6	
Permitted Phases				8		8	2					6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase				8	8	8	2	2			6	6
Switch Phase												
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Minimum Split (s)				21.0	21.0	21.0	21.0	21.0			21.0	21.0
Total Split (s)				15.0	15.0	15.0	25.0	25.0			25.0	25.0
Total Split (%)				37.5%	37.5%	37.5%	62.5%	62.5%			62.5%	62.5%
Maximum Green (s)				10.0	10.0	10.0	20.0	20.0			20.0	20.0
Yellow Time (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	2.0
Lost Time Adjust (s)					0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)					5.0	5.0	5.0	5.0			5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Recall Mode				None	None	None	None	None			None	None
Walk Time (s)				5.0	5.0	5.0	5.0	5.0			5.0	5.0
Flash Dont Walk (s)				11.0	11.0	11.0	11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)				0	0	0	0	0			0	0
Act Effct Green (s)					9.1	9.1	8.7	8.7			8.7	8.7
Actuated g/C Ratio					0.34	0.34	0.33	0.33			0.33	0.33
v/c Ratio					0.47	0.20	0.29	0.35			0.35	0.05
Control Delay					10.8	4.0	9.6	9.2			9.2	1.4
Queue Delay					0.0	0.0	0.0	0.0			0.0	0.0
Total Delay					10.8	4.0	9.6	9.2			9.2	1.4
LOS					B	A	A	A			A	A
Approach Delay					8.8			9.3			8.4	
Approach LOS					A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 40			
Actuated Cycle Length: 26.4			
Natural Cycle: 45			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.47			
Intersection Signal Delay: 8.8		Intersection LOS: A	
Intersection Capacity Utilization 36.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 5: Sherman Street & Stone Street

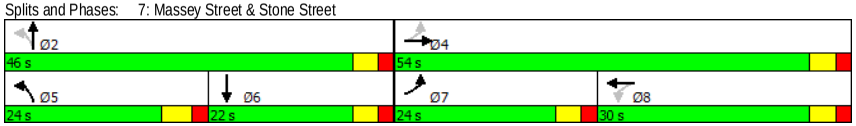


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	0	178	34	104	121	226	555	0	0	544	31
Future Volume (vph)	9	0	178	34	104	121	226	555	0	0	544	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	300		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Frt		0.872			0.919						0.992	
Flt Protected		0.998		0.950				0.986				
Satd. Flow (prot)	0	1621	0	1770	1712	0	0	3490	0	0	3511	0
Flt Permitted		0.975		0.557				0.646				
Satd. Flow (perm)	0	1584	0	1038	1712	0	0	2286	0	0	3511	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		231			56						5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		316			435			422			304	
Travel Time (s)		7.2			9.9			9.6			6.9	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.92	0.92	0.92	0.88	0.88	0.88
Adj. Flow (vph)	12	0	231	44	135	157	246	603	0	0	618	35
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	243	0	44	292	0	0	849	0	0	653	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			12			0			0	
Link Offset(ft)		-10			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2			2	
Detector Template	Left	Thru		Left	Thru		Left	Thru			Thru	
Leading Detector (ft)	20	100		20	100		20	100			100	
Trailing Detector (ft)	0	0		0	0		0	0			0	
Detector 1 Position(ft)	0	0		0	0		0	0			0	
Detector 1 Size(ft)	20	6		20	6		20	6			6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA			NA	
Protected Phases	7	4			8		5	2			6	
Permitted Phases	4			8			2					

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4		8	8		5	2			6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	
Minimum Split (s)	9.0	21.0		21.0	21.0		9.5	21.0			21.0	
Total Split (s)	24.0	54.0		30.0	30.0		24.0	46.0			22.0	
Total Split (%)	24.0%	54.0%		30.0%	30.0%		24.0%	46.0%			22.0%	
Maximum Green (s)	19.0	49.0		25.0	25.0		18.5	41.0			17.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.5	3.0			3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0			2.0	
Lost Time Adjust (s)		0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)		5.0		5.0	5.0			5.0			5.0	
Lead/Lag	Lead			Lag	Lag		Lead				Lag	
Lead-Lag Optimize?	Yes			Yes	Yes		Yes				Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Recall Mode	None	None		None	None		None	None			None	
Walk Time (s)		5.0		5.0	5.0			5.0			5.0	
Flash Dont Walk (s)		11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0		0	0			0			0	
Act Effct Green (s)		14.5		14.5	14.5			30.0			30.0	
Actuated g/C Ratio		0.26		0.26	0.26			0.54			0.54	
v/c Ratio		0.41		0.16	0.59			0.68			0.34	
Control Delay		6.2		19.9	21.4			12.7			7.6	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		6.2		19.9	21.4			12.7			7.6	
LOS		A		B	C			B			A	
Approach Delay		6.2			21.2			12.7			7.6	
Approach LOS		A			C			B			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 55.2			
Natural Cycle: 65			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 11.7		Intersection LOS: B	
Intersection Capacity Utilization 69.9%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 7: Massey Street & Stone Street



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	9	7	7	262	176	0
Future Volume (vph)	9	7	7	262	176	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.941					
Flt Protected	0.973			0.999		
Satd. Flow (prot)	1706	0	0	1861	1863	0
Flt Permitted	0.973			0.999		
Satd. Flow (perm)	1706	0	0	1861	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	154			200	380	
Travel Time (s)	3.5			4.5	8.6	
Peak Hour Factor	0.70	0.70	0.88	0.88	0.76	0.76
Adj. Flow (vph)	13	10	8	298	232	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	23	0	0	306	232	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 29.4%		ICU Level of Service A	
Analysis Period (min) 15			

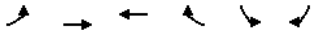
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	9	7	7	262	176	0
Future Vol, veh/h	9	7	7	262	176	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	70	70	88	88	76	76
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	10	8	298	232	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	546	232	232	0	-	0
Stage 1	232	-	-	-	-	-
Stage 2	314	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	499	807	1336	-	-	-
Stage 1	807	-	-	-	-	-
Stage 2	741	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	496	807	1336	-	-	-
Mov Cap-2 Maneuver	496	-	-	-	-	-
Stage 1	807	-	-	-	-	-
Stage 2	736	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1336	-	597	-	-
HCM Lane V/C Ratio	0.006	-	0.038	-	-
HCM Control Delay (s)	7.7	0	11.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	245	6	0	15
Future Volume (vph)	0	0	245	6	0	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt			0.996			0.865
Flt Protected						
Satd. Flow (prot)	0	0	3525	0	0	1611
Flt Permitted						
Satd. Flow (perm)	0	0	3525	0	0	1611
Link Speed (mph)		30	30		30	
Link Distance (ft)		435	305		178	
Travel Time (s)		9.9	6.9		4.0	
Peak Hour Factor	0.92	0.92	0.66	0.66	0.70	0.70
Adj. Flow (vph)	0	0	371	9	0	21
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	380	0	0	21
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 17.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	245	6	0	15
Future Vol, veh/h	0	0	245	6	0	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	66	66	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	371	9	0	21

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	190
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	820
Stage 1	-	-	0	-
Stage 2	-	-	0	-
Platoon blocked, %	-	-		
Mov Cap-1 Maneuver	-	-	-	820
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	9.5
HCM LOS		A

Minor Lane/Major Mvmt	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	820
HCM Lane V/C Ratio	-	-	0.026
HCM Control Delay (s)	-	-	9.5
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0.1

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	22	2	669	16	15	554
Future Volume (vph)	22	2	669	16	15	554
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.988		0.997			
Flt Protected	0.956					0.999
Satd. Flow (prot)	1759	0	3529	0	0	3536
Flt Permitted	0.956					0.999
Satd. Flow (perm)	1759	0	3529	0	0	3536
Link Speed (mph)	30		30			30
Link Distance (ft)	195		304			250
Travel Time (s)	4.4		6.9			5.7
Peak Hour Factor	0.70	0.70	0.92	0.92	0.88	0.88
Adj. Flow (vph)	31	3	727	17	17	630
Shared Lane Traffic (%)						
Lane Group Flow (vph)	34	0	744	0	0	647
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 36.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	22	2	669	16	15	554
Future Vol, veh/h	22	2	669	16	15	554
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	70	70	92	92	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	31	3	727	17	17	630

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1085	372	0	0	745	0
Stage 1	736	-	-	-	-	-
Stage 2	349	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	211	625	-	-	859	-
Stage 1	435	-	-	-	-	-
Stage 2	685	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	205	625	-	-	859	-
Mov Cap-2 Maneuver	205	-	-	-	-	-
Stage 1	435	-	-	-	-	-
Stage 2	664	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	24.7	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	217	859	-
HCM Lane V/C Ratio	-	-	0.158	0.02	-
HCM Control Delay (s)	-	-	24.7	9.3	0.1
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	9	31	666	4	7	560
Future Volume (vph)	9	31	666	4	7	560
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.91	0.91	0.95	0.95
Frt	0.896		0.999			
Flt Protected	0.989					0.999
Satd. Flow (prot)	1651	0	5080	0	0	3536
Flt Permitted	0.989					0.999
Satd. Flow (perm)	1651	0	5080	0	0	3536
Link Speed (mph)	30		30			30
Link Distance (ft)	129		250			166
Travel Time (s)	2.9		5.7			3.8
Peak Hour Factor	0.70	0.70	0.92	0.92	0.88	0.88
Adj. Flow (vph)	13	44	724	4	8	636
Shared Lane Traffic (%)						
Lane Group Flow (vph)	57	0	728	0	0	644
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 30.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	31	666	4	7	560
Future Vol, veh/h	9	31	666	4	7	560
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	70	70	92	92	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	44	724	4	8	636

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1060	364	0	0	728	0
Stage 1	726	-	-	-	-	-
Stage 2	334	-	-	-	-	-
Critical Hdwy	6.29	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.67	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	252	540	-	-	528	-
Stage 1	364	-	-	-	-	-
Stage 2	673	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	246	540	-	-	528	-
Mov Cap-2 Maneuver	246	-	-	-	-	-
Stage 1	364	-	-	-	-	-
Stage 2	658	-	-	-	-	-

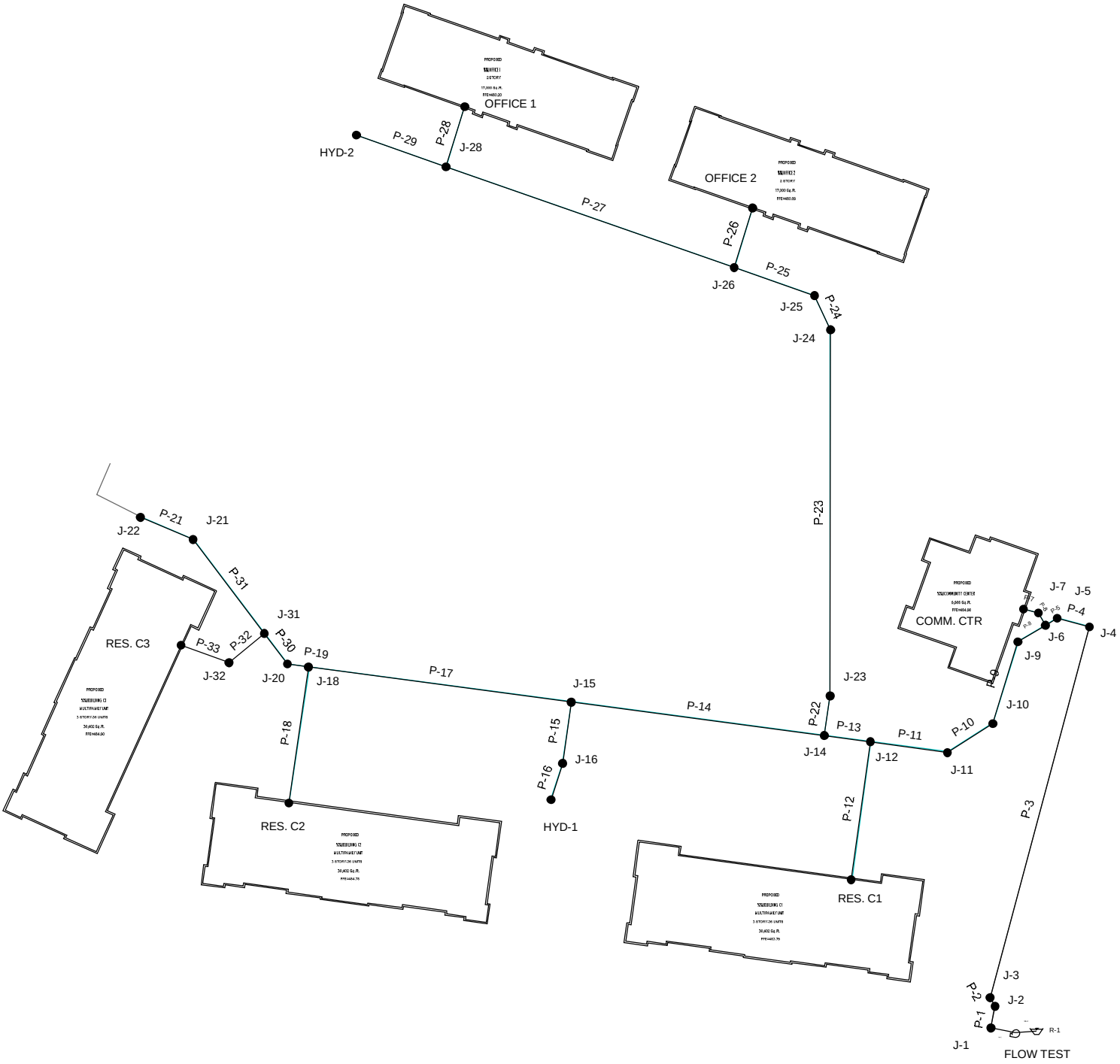
Approach	WB	NB	SB
HCM Control Delay, s	14.8	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	426	528	-
HCM Lane V/C Ratio	-	-	0.134	0.015	-
HCM Control Delay (s)	-	-	14.8	11.9	0.1
HCM Lane LOS	-	-	B	B	A
HCM 95th %tile Q(veh)	-	-	0.5	0	-

APPENDIX C – WaterCAD Calculations

Active Scenario: Base

Scenario: Base



Active Scenario: DOMESTIC - ALL BLDGS

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-4	480.33	0	626.33	63
J-5	480.70	0	626.08	63
J-6	480.91	0	625.98	63
J-3	481.45	0	626.44	63
J-7	481.05	0	625.98	63
J-9	480.89	0	625.82	63
J-10	480.46	0	625.37	63
J-2	481.60	0	626.44	63
COMM. CTR	481.16	50	625.98	63
J-1	481.94	0	626.45	63
J-11	480.85	0	625.09	62
J-22	480.26	0	624.02	62
HYD-2	480.44	0	623.95	62
OFFICE 1	480.90	50	623.93	62
J-28	480.99	0	623.95	62
J-21	481.27	0	624.02	62
RES. C1	482.01	50	624.65	62
J-12	482.28	0	624.69	62
J-14	482.97	0	624.53	61
J-23	483.02	0	624.49	61
OFFICE 2	482.74	50	624.01	61
RES. C3	482.74	50	623.99	61
HYD-1	483.09	0	624.29	61
J-25	482.98	0	624.11	61
J-16	483.28	0	624.29	61
J-31	483.09	0	624.02	61
J-32	483.16	0	624.01	61
J-24	483.39	0	624.14	61
J-18	483.37	0	624.04	61
J-20	483.39	0	624.03	61
J-26	483.44	0	624.03	61
J-15	483.72	0	624.29	61
RES. C2	483.97	50	624.00	61

Active Scenario: DOMESTIC - ALL BLDGS

FlexTable: Pipe Table

Label	Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Headloss (ft)	Flow (gpm)	Velocity (ft/s)
P-9	57	J-9	J-10	6.0	Ductile Iron	110.0	0.44	250	2.84
P-11	52	J-11	J-12	6.0	Ductile Iron	110.0	0.40	250	2.84
P-23	245	J-23	J-24	6.0	Ductile Iron	110.0	0.35	100	1.13
P-10	36	J-10	J-11	6.0	Ductile Iron	110.0	0.28	250	2.84
P-17	177	J-15	J-18	6.0	Ductile Iron	110.0	0.25	100	1.13
P-4	22	J-4	J-5	6.0	Ductile Iron	110.0	0.24	300	3.40
P-14	171	J-14	J-15	6.0	Ductile Iron	110.0	0.24	100	1.13
P-8	22	J-6	J-9	6.0	Ductile Iron	110.0	0.17	250	2.84
P-13	31	J-12	J-14	6.0	Ductile Iron	110.0	0.16	200	2.27
P-3	257	J-3	J-4	12.0	Ductile Iron	100.0	0.11	300	0.85
P-5	9	J-5	J-6	6.0	Ductile Iron	110.0	0.10	300	3.40
P-25	57	J-25	J-26	6.0	Ductile Iron	110.0	0.08	100	1.13
P-27	204	J-26	J-28	6.0	Ductile Iron	110.0	0.08	50	0.57
P-22	27	J-14	J-23	6.0	Ductile Iron	110.0	0.04	100	1.13
P-12	93	J-12	RES. C1	6.0	Ductile Iron	110.0	0.04	50	0.57
P-18	92	J-18	RES. C2	6.0	Ductile Iron	110.0	0.04	50	0.57
P-24	25	J-24	J-25	6.0	Ductile Iron	110.0	0.04	100	1.13
P-28	42	J-28	OFFICE 1	6.0	Ductile Iron	110.0	0.02	50	0.57
P-26	42	J-26	OFFICE 2	6.0	Ductile Iron	110.0	0.02	50	0.57
P-33	34	J-32	RES. C3	6.0	Ductile Iron	110.0	0.01	50	0.57
P-32	31	J-31	J-32	6.0	Ductile Iron	110.0	0.01	50	0.57
P-30	26	J-20	J-31	6.0	Ductile Iron	110.0	0.01	50	0.57
P-1	15	J-1	J-2	12.0	Ductile Iron	100.0	0.01	300	0.85
P-19	14	J-18	J-20	6.0	Ductile Iron	110.0	0.01	50	0.57
P-7	10	J-7	COMM. CTR	6.0	Ductile Iron	110.0	0.00	50	0.57
P-6	10	J-6	J-7	6.0	Ductile Iron	110.0	0.00	50	0.57
P-2	7	J-2	J-3	12.0	Ductile Iron	100.0	0.00	300	0.85
NA-2	14	R-1	FLOW TEST	12.0	Ductile Iron	130.0	0.00	300	0.85
NA-1	17	FLOW TEST	J-1	12.0	Ductile Iron	130.0	0.00	300	0.85
P-15	41	J-15	J-16	6.0	Ductile Iron	110.0	0.00	0	0.00
P-16	26	J-16	HYD-1	6.0	Ductile Iron	110.0	0.00	0	0.00
P-21	38	J-21	J-22	6.0	Ductile Iron	110.0	0.00	0	0.00
P-29	64	J-28	HYD-2	6.0	Ductile Iron	110.0	0.00	0	0.00
P-31	79	J-31	J-21	6.0	Ductile Iron	110.0	0.00	0	0.00

Active Scenario: FIRE FLOW

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-3	481.45	0	616.89	59
J-4	480.33	0	615.73	59
J-2	481.60	0	616.92	59
J-1	481.94	0	616.99	58
J-5	480.70	0	613.23	57
J-6	480.91	0	612.21	57
J-7	481.05	0	612.21	57
COMM. CTR	481.16	11	612.21	57
J-9	480.89	0	609.85	56
J-10	480.46	0	603.60	53
J-11	480.85	0	599.64	51
RES. C1	482.01	11	593.95	48
J-12	482.28	0	593.95	48
HYD-2	480.44	0	590.57	48
OFFICE 1	480.90	11	590.57	47
J-28	480.99	0	590.57	47
OFFICE 2	482.74	11	590.58	47
J-14	482.97	0	590.61	47
J-25	482.98	0	590.58	47
J-23	483.02	0	590.60	47
J-24	483.39	0	590.58	46
J-26	483.44	0	590.58	46
HYD-1	483.09	0	573.00	39
J-16	483.28	0	573.00	39
J-15	483.72	0	573.00	39
J-18	483.37	0	554.70	31
RES. C2	483.97	11	554.70	31
J-22	480.26	0	550.68	30
J-20	483.39	0	553.27	30
J-21	481.27	0	550.68	30
J-31	483.09	0	550.68	29
J-32	483.16	0	547.59	28
RES. C3	482.74	1,000	544.14	27

Active Scenario: FIRE FLOW

FlexTable: Pipe Table

Label	Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Headloss (ft)	Flow (gpm)	Velocity (ft/s)
P-17	177	J-15	J-18	6.0	Ductile Iron	110.0	18.29	1,011	11.47
P-14	171	J-14	J-15	6.0	Ductile Iron	110.0	17.61	1,011	11.47
P-9	57	J-9	J-10	6.0	Ductile Iron	110.0	6.26	1,044	11.85
P-11	52	J-11	J-12	6.0	Ductile Iron	110.0	5.69	1,044	11.85
P-10	36	J-10	J-11	6.0	Ductile Iron	110.0	3.95	1,044	11.85
P-33	34	J-32	RES. C3	6.0	Ductile Iron	110.0	3.45	1,000	11.35
P-13	31	J-12	J-14	6.0	Ductile Iron	110.0	3.34	1,033	11.72
P-32	31	J-31	J-32	6.0	Ductile Iron	110.0	3.09	1,000	11.35
P-30	26	J-20	J-31	6.0	Ductile Iron	110.0	2.59	1,000	11.35
P-4	22	J-4	J-5	6.0	Ductile Iron	110.0	2.49	1,055	11.97
P-8	22	J-6	J-9	6.0	Ductile Iron	110.0	2.36	1,044	11.85
P-19	14	J-18	J-20	6.0	Ductile Iron	110.0	1.43	1,000	11.35
P-3	257	J-3	J-4	12.0	Ductile Iron	100.0	1.17	1,055	2.99
P-5	9	J-5	J-6	6.0	Ductile Iron	110.0	1.02	1,055	11.97
P-1	15	J-1	J-2	12.0	Ductile Iron	100.0	0.07	1,055	2.99
P-2	7	J-2	J-3	12.0	Ductile Iron	100.0	0.03	1,055	2.99
P-23	245	J-23	J-24	6.0	Ductile Iron	110.0	0.02	22	0.25
P-27	204	J-26	J-28	6.0	Ductile Iron	110.0	0.00	11	0.12
P-25	57	J-25	J-26	6.0	Ductile Iron	110.0	0.00	22	0.25
NA-2	14	R-1	FLOW TEST	12.0	Ductile Iron	130.0	0.00	1,055	2.99
NA-1	17	FLOW TEST	J-1	12.0	Ductile Iron	130.0	0.00	1,055	2.99
P-22	27	J-14	J-23	6.0	Ductile Iron	110.0	0.00	22	0.25
P-12	93	J-12	RES. C1	6.0	Ductile Iron	110.0	0.00	11	0.12
P-18	92	J-18	RES. C2	6.0	Ductile Iron	110.0	0.00	11	0.12
P-24	25	J-24	J-25	6.0	Ductile Iron	110.0	0.00	22	0.25
P-26	42	J-26	OFFICE 2	6.0	Ductile Iron	110.0	0.00	11	0.12
P-28	42	J-28	OFFICE 1	6.0	Ductile Iron	110.0	0.00	11	0.12
P-7	10	J-7	COMM. CTR	6.0	Ductile Iron	110.0	0.00	11	0.12
P-6	10	J-6	J-7	6.0	Ductile Iron	110.0	0.00	11	0.12
P-15	41	J-15	J-16	6.0	Ductile Iron	110.0	0.00	0	0.00
P-16	26	J-16	HYD-1	6.0	Ductile Iron	110.0	0.00	0	0.00
P-21	38	J-21	J-22	6.0	Ductile Iron	110.0	0.00	0	0.00
P-29	64	J-28	HYD-2	6.0	Ductile Iron	110.0	0.00	0	0.00
P-31	79	J-31	J-21	6.0	Ductile Iron	110.0	0.00	0	0.00

Active Scenario: HYDRANT 1

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-4	480.33	0	621.23	61
J-3	481.45	0	621.85	61
J-2	481.60	0	621.86	61
J-1	481.94	0	621.90	61
J-5	480.70	0	619.90	60
J-6	480.91	0	619.36	60
J-7	481.05	0	619.36	60
COMM. CTR	481.16	0	619.36	60
J-9	480.89	0	618.08	59
J-10	480.46	0	614.69	58
J-11	480.85	0	612.55	57
RES. C1	482.01	0	609.46	55
J-12	482.28	0	609.46	55
HYD-2	480.44	0	607.61	55
OFFICE 1	480.90	0	607.61	55
J-28	480.99	0	607.61	55
OFFICE 2	482.74	0	607.61	54
J-14	482.97	0	607.61	54
J-25	482.98	0	607.61	54
J-23	483.02	0	607.61	54
J-24	483.39	0	607.61	54
J-26	483.44	0	607.61	54
J-22	480.26	0	597.48	51
J-21	481.27	0	597.48	50
RES. C3	482.74	0	597.48	50
J-31	483.09	0	597.48	49
J-32	483.16	0	597.48	49
J-18	483.37	0	597.48	49
J-20	483.39	0	597.48	49
J-15	483.72	0	597.48	49
RES. C2	483.97	0	597.48	49
J-16	483.28	0	595.03	48
HYD-1	483.09	750	593.52	48

Active Scenario: HYDRANT 1

FlexTable: Pipe Table

Label	Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Headloss (ft)	Flow (gpm)	Velocity (ft/s)
P-14	171	J-14	J-15	6.0	Ductile Iron	110.0	10.13	750	8.51
P-9	57	J-9	J-10	6.0	Ductile Iron	110.0	3.39	750	8.51
P-11	52	J-11	J-12	6.0	Ductile Iron	110.0	3.08	750	8.51
P-15	41	J-15	J-16	6.0	Ductile Iron	110.0	2.45	750	8.51
P-10	36	J-10	J-11	6.0	Ductile Iron	110.0	2.14	750	8.51
P-13	31	J-12	J-14	6.0	Ductile Iron	110.0	1.85	750	8.51
P-16	26	J-16	HYD-1	6.0	Ductile Iron	110.0	1.51	750	8.51
P-4	22	J-4	J-5	6.0	Ductile Iron	110.0	1.33	750	8.51
P-8	22	J-6	J-9	6.0	Ductile Iron	110.0	1.28	750	8.51
P-3	257	J-3	J-4	12.0	Ductile Iron	100.0	0.62	750	2.13
P-5	9	J-5	J-6	6.0	Ductile Iron	110.0	0.54	750	8.51
P-1	15	J-1	J-2	12.0	Ductile Iron	100.0	0.04	750	2.13
P-2	7	J-2	J-3	12.0	Ductile Iron	100.0	0.02	750	2.13
NA-2	14	R-1	FLOW TEST	12.0	Ductile Iron	130.0	0.00	750	2.13
NA-1	17	FLOW TEST	J-1	12.0	Ductile Iron	130.0	0.00	750	2.13
P-6	10	J-6	J-7	6.0	Ductile Iron	110.0	0.00	0	0.00
P-7	10	J-7	COMM. CTR	6.0	Ductile Iron	110.0	0.00	0	0.00
P-12	93	J-12	RES. C1	6.0	Ductile Iron	110.0	0.00	0	0.00
P-17	177	J-15	J-18	6.0	Ductile Iron	110.0	0.00	0	0.00
P-18	92	J-18	RES. C2	6.0	Ductile Iron	110.0	0.00	0	0.00
P-19	14	J-18	J-20	6.0	Ductile Iron	110.0	0.00	0	0.00
P-21	38	J-21	J-22	6.0	Ductile Iron	110.0	0.00	0	0.00
P-22	27	J-14	J-23	6.0	Ductile Iron	110.0	0.00	0	0.00
P-23	245	J-23	J-24	6.0	Ductile Iron	110.0	0.00	0	0.00
P-24	25	J-24	J-25	6.0	Ductile Iron	110.0	0.00	0	0.00
P-25	57	J-25	J-26	6.0	Ductile Iron	110.0	0.00	0	0.00
P-26	42	J-26	OFFICE 2	6.0	Ductile Iron	110.0	0.00	0	0.00
P-27	204	J-26	J-28	6.0	Ductile Iron	110.0	0.00	0	0.00
P-28	42	J-28	OFFICE 1	6.0	Ductile Iron	110.0	0.00	0	0.00
P-29	64	J-28	HYD-2	6.0	Ductile Iron	110.0	0.00	0	0.00
P-30	26	J-20	J-31	6.0	Ductile Iron	110.0	0.00	0	0.00
P-31	79	J-31	J-21	6.0	Ductile Iron	110.0	0.00	0	0.00
P-32	31	J-31	J-32	6.0	Ductile Iron	110.0	0.00	0	0.00
P-33	34	J-32	RES. C3	6.0	Ductile Iron	110.0	0.00	0	0.00

Active Scenario: HYDRANT 2

FlexTable: Junction Table

Label	Elevation (ft)	Demand (gpm)	Hydraulic Grade (ft)	Pressure (psi)
J-4	480.33	0	621.23	61
J-3	481.45	0	621.85	61
J-2	481.60	0	621.86	61
J-1	481.94	0	621.90	61
J-5	480.70	0	619.90	60
J-6	480.91	0	619.36	60
J-7	481.05	0	619.36	60
COMM. CTR	481.16	0	619.36	60
J-9	480.89	0	618.08	59
J-10	480.46	0	614.69	58
J-11	480.85	0	612.55	57
RES. C1	482.01	0	609.46	55
J-22	480.26	0	607.61	55
J-12	482.28	0	609.46	55
J-21	481.27	0	607.61	55
RES. C3	482.74	0	607.61	54
J-14	482.97	0	607.61	54
J-31	483.09	0	607.61	54
HYD-1	483.09	0	607.61	54
J-32	483.16	0	607.61	54
J-16	483.28	0	607.61	54
J-18	483.37	0	607.61	54
J-20	483.39	0	607.61	54
J-15	483.72	0	607.61	54
RES. C2	483.97	0	607.61	53
J-23	483.02	0	606.03	53
J-24	483.39	0	591.51	47
J-25	482.98	0	590.01	46
OFFICE 2	482.74	0	586.63	45
J-26	483.44	0	586.63	45
OFFICE 1	480.90	0	574.51	41
J-28	480.99	0	574.51	40
HYD-2	480.44	750	570.74	39

Active Scenario: HYDRANT 2

FlexTable: Pipe Table

Label	Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Headloss (ft)	Flow (gpm)	Velocity (ft/s)
P-23	245	J-23	J-24	6.0	Ductile Iron	110.0	14.52	750	8.51
P-27	204	J-26	J-28	6.0	Ductile Iron	110.0	12.11	750	8.51
P-29	64	J-28	HYD-2	6.0	Ductile Iron	110.0	3.77	750	8.51
P-9	57	J-9	J-10	6.0	Ductile Iron	110.0	3.39	750	8.51
P-25	57	J-25	J-26	6.0	Ductile Iron	110.0	3.38	750	8.51
P-11	52	J-11	J-12	6.0	Ductile Iron	110.0	3.08	750	8.51
P-10	36	J-10	J-11	6.0	Ductile Iron	110.0	2.14	750	8.51
P-13	31	J-12	J-14	6.0	Ductile Iron	110.0	1.85	750	8.51
P-22	27	J-14	J-23	6.0	Ductile Iron	110.0	1.59	750	8.51
P-24	25	J-24	J-25	6.0	Ductile Iron	110.0	1.50	750	8.51
P-4	22	J-4	J-5	6.0	Ductile Iron	110.0	1.33	750	8.51
P-8	22	J-6	J-9	6.0	Ductile Iron	110.0	1.28	750	8.51
P-3	257	J-3	J-4	12.0	Ductile Iron	100.0	0.62	750	2.13
P-5	9	J-5	J-6	6.0	Ductile Iron	110.0	0.54	750	8.51
P-1	15	J-1	J-2	12.0	Ductile Iron	100.0	0.04	750	2.13
P-2	7	J-2	J-3	12.0	Ductile Iron	100.0	0.02	750	2.13
NA-1	17	FLOW TEST	J-1	12.0	Ductile Iron	130.0	0.00	750	2.13
NA-2	14	R-1	FLOW TEST	12.0	Ductile Iron	130.0	0.00	750	2.13
P-6	10	J-6	J-7	6.0	Ductile Iron	110.0	0.00	0	0.00
P-7	10	J-7	COMM. CTR	6.0	Ductile Iron	110.0	0.00	0	0.00
P-12	93	J-12	RES. C1	6.0	Ductile Iron	110.0	0.00	0	0.00
P-14	171	J-14	J-15	6.0	Ductile Iron	110.0	0.00	0	0.00
P-15	41	J-15	J-16	6.0	Ductile Iron	110.0	0.00	0	0.00
P-16	26	J-16	HYD-1	6.0	Ductile Iron	110.0	0.00	0	0.00
P-17	177	J-15	J-18	6.0	Ductile Iron	110.0	0.00	0	0.00
P-18	92	J-18	RES. C2	6.0	Ductile Iron	110.0	0.00	0	0.00
P-19	14	J-18	J-20	6.0	Ductile Iron	110.0	0.00	0	0.00
P-21	38	J-21	J-22	6.0	Ductile Iron	110.0	0.00	0	0.00
P-26	42	J-26	OFFICE 2	6.0	Ductile Iron	110.0	0.00	0	0.00
P-28	42	J-28	OFFICE 1	6.0	Ductile Iron	110.0	0.00	0	0.00
P-30	26	J-20	J-31	6.0	Ductile Iron	110.0	0.00	0	0.00
P-31	79	J-31	J-21	6.0	Ductile Iron	110.0	0.00	0	0.00
P-32	31	J-31	J-32	6.0	Ductile Iron	110.0	0.00	0	0.00
P-33	34	J-32	RES. C3	6.0	Ductile Iron	110.0	0.00	0	0.00

Active Scenario: Base

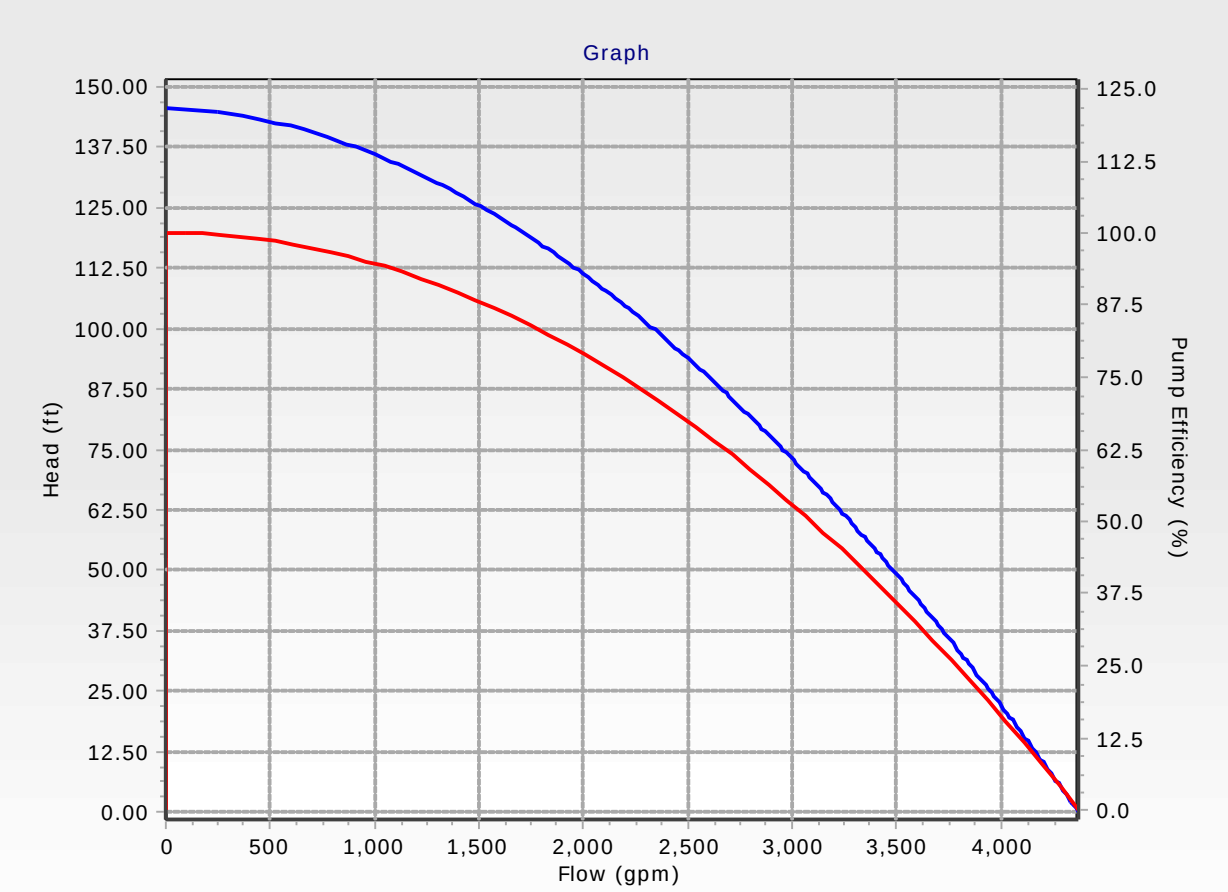
Pump Definition Detailed Report: Flow Test Data - Sherman St

Element Details			
ID	99	Notes	
Label	Flow Test Data - Sherman St		

Pump Definition Type			
Pump Definition Type	Standard (3 Point)	Design Head	136.29 ft
Shutoff Flow	0 gpm	Maximum Operating Flow	3,555 gpm
Shutoff Head	145.53 ft	Maximum Operating Head	46.20 ft
Design Flow	986 gpm		

Pump Efficiency Type			
Pump Efficiency Type	Best Efficiency Point	Motor Efficiency	100.0 %
BEP Efficiency	100.0 %	Is Variable Speed Drive?	False
BEP Flow	0 gpm		

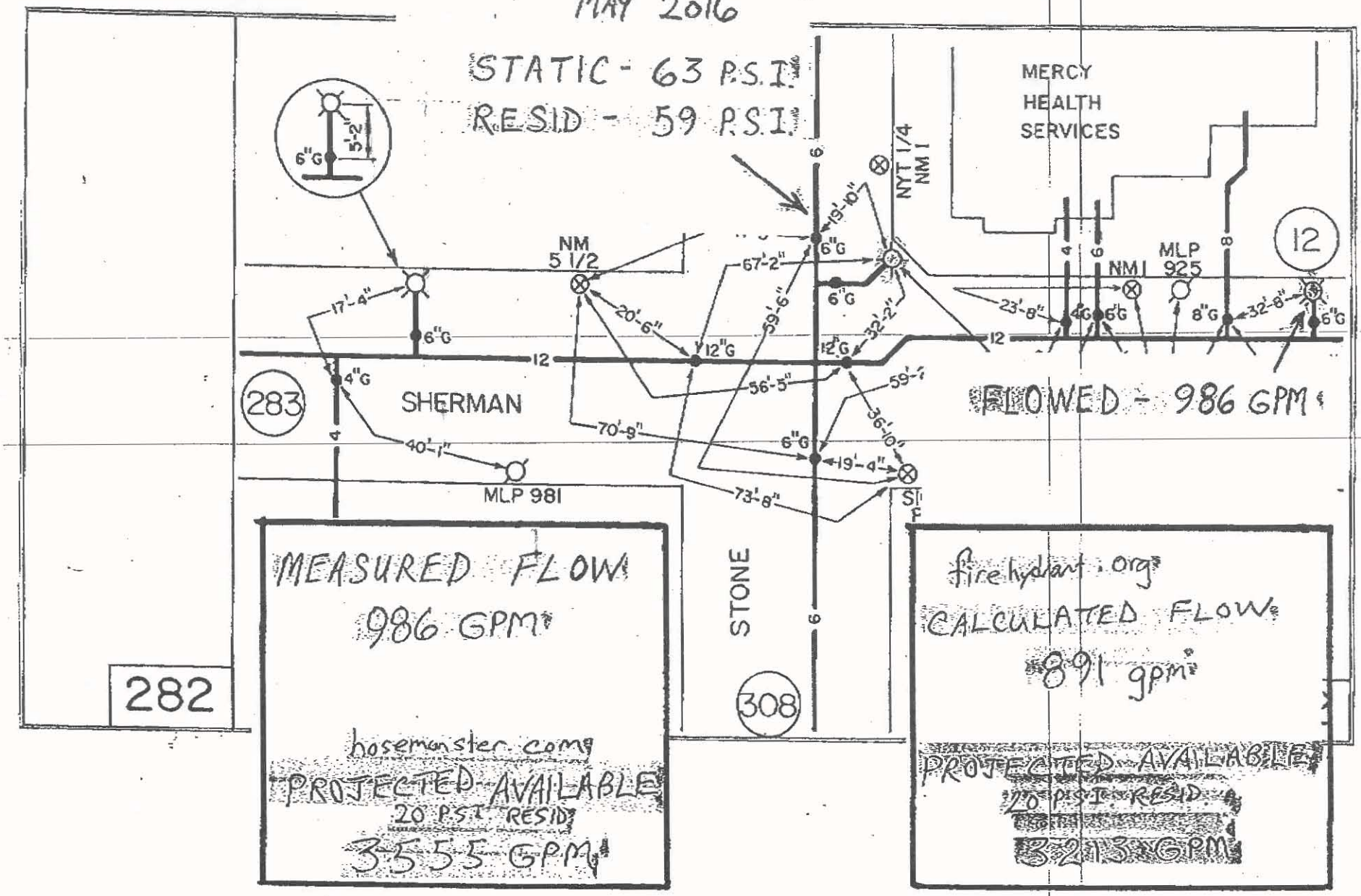
Transient (Physical)			
Inertia (Pump and Motor)	0.000 lb·ft²	Specific Speed	SI=25, US=1280
Speed (Full)	0 rpm	Reverse Spin Allowed?	True



MAY 2016

STATIC - 63 P.S.I.

RESID - 59 P.S.I.



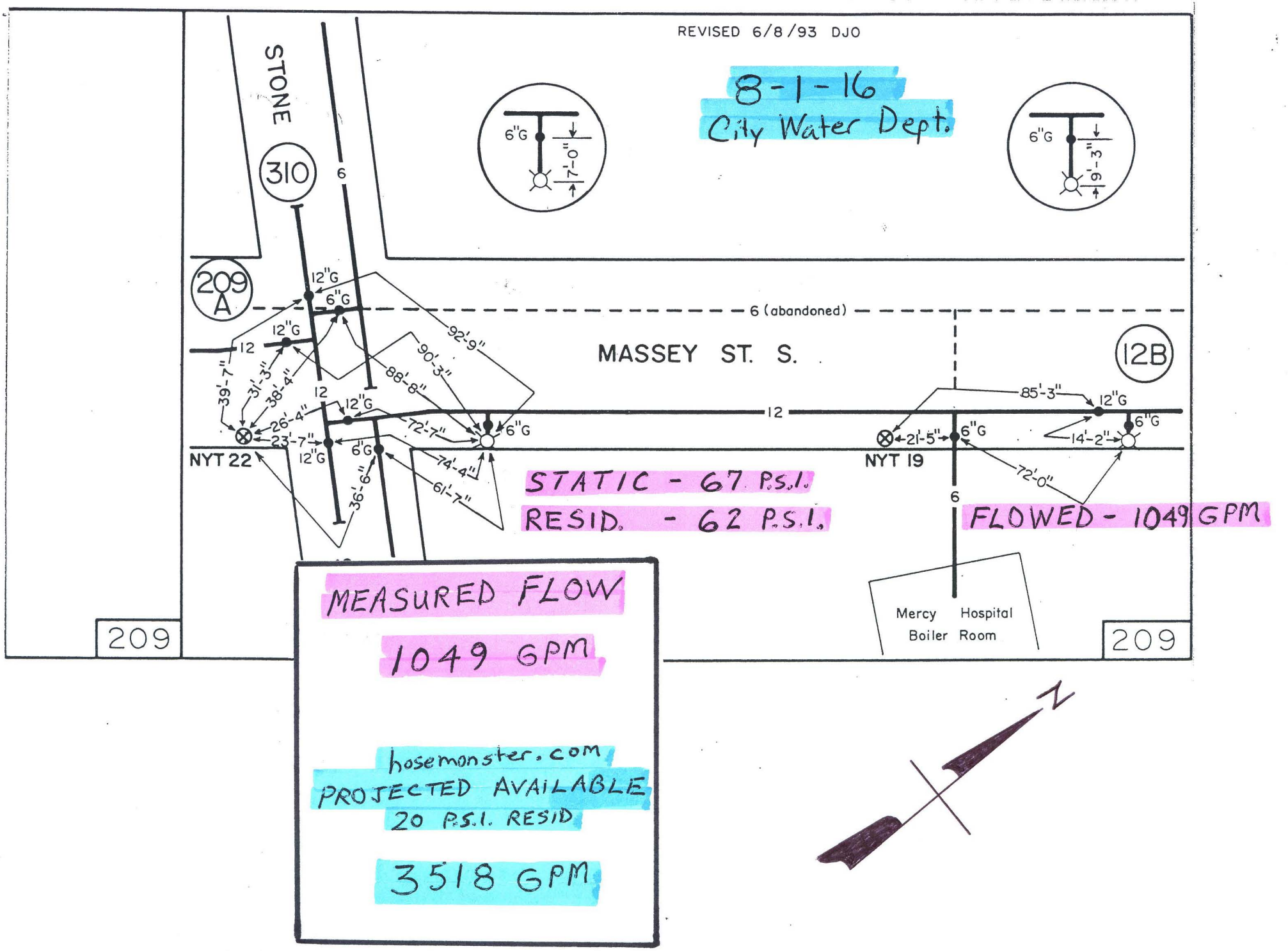
FLOWED - 986 GPM

MEASURED FLOW
986 GPM

hosemaster.com
PROJECTED AVAILABLE
20 PSI RESID
3353 GPM

firehydrant.org
CALCULATED FLOW
891 gpm

PROJECTED AVAILABLE
20 PSI RESID
3213 GPM


REVISED 6/8/93 DJO
8-1-16
City Water Dept.
STONE
310
209 A
6
6"G
7'-0"
6"G
9'-3"
12"G
6"G
6 (abandoned)
MASSEY ST. S.
12B
12
12"G
92'-9"
90'-3"
88'-8"
39'-7"
31'-3"
38'-4"
26'-4"
23'-7"
12"G
72'-7"
6"G
74'-4"
61'-7"
6'G
36'-6"
12"G
NYT 22
STATIC - 67 P.S.I.
RESID. - 62 P.S.I.
85'-3"
12"G
6"G
21'-5"
6"G
14'-2"
NYT 19
72'-0"
FLOWED - 1049 GPM
Mercy Hospital
Boiler Room
209
209
MEASURED FLOW
1049 GPM
hosemonster.com
PROJECTED AVAILABLE
20 P.S.I. RESID
3518 GPM
N

APPENDIX D – Site Lighting Specification Sheets

Invue

DESCRIPTION

The Invue Arbor post top brings architectural style to area/site and pedestrian scale applications. Its dayform appearance brings a desired organic look into the urban environment. WaveStream™ LED Optics provide a uniform pixelation free image, managing glare while providing high levels of visibility.

Catalog #		**Type**
Project		
Comments		**Date**
Prepared by		

SPECIFICATION FEATURES

Construction
Two-piece IP66 rated housing is cast from low copper content corrosion resistant aluminum, maintaining strength and precision to sustain long term dayform appearance. ANSI C136.31 testing compliance prevents damage from installation generated vibration. External hardware and casting seams are minimized to enhance appearance.

Optics
Specifically designed for pedestrian applications, WaveStream LED optical waveguide technology produces both symmetric NEMA type V and asymmetric NEMA II, III, IV distributions. The waveguide is manufactured from precision injection molded acrylic resulting in a pixelation free optical image for improved glare control and visual comfort. Luminaire efficacy's measure up to 100 lm/w for 4000K (+/- 275K) CCT at 70 CRI (min), optional 3000K CCT at 80 CRI is also available.

Electrical
LED driver(s) are directly mounted to upper housing thermal pad for optimal thermal performance. Standard 0-10V dimming drivers and Eaton's proprietary surge protection module are designed to withstand 10kV of transient line surge. Drivers operate at 120-277V 50/60Hz with 347V/60Hz or 480V/60Hz operation optional. Suitable for ambient temperature applications from -30°C (-22°F) to 40°C (104°F). Limited high ambient options allow for 50°C operation.

Controls
The Arbor LED luminaire control options are designed to be simple and cost-effective ASHRAE and California Title 24 compliant solutions. The ANSI C136.41 compliant NEMA 7-PIN receptacle enables wireless dimming when used with compatible photocontrol. An integrated dimming and occupancy sensor is a standalone control option available in on/off (MS) and bi-level dimming (MS/DIM) operation. The optional LumaWatt™ system is best described as a peer-to-peer wireless network of luminaire-integral sensors that operate in accordance with programmable profiles. Each sensor is capable of motion and photo sensing, metering power consumption and wireless communication.

Mounting
Fitter assembly mounts over 2-3/8" O.D. tenon and is secured via six concealed stainless steel set screws. Design of fitter provides seamless transition to 3" O.D. round pole top. Additional mounting accessories include a single fixture arm mount, twin fixture arm mount and wall mount arm. Additional pole mount accessories mount to a 3" x 4" long tenon for 4" - 5" O.D. poles tops. For existing 2-3/8" tenons an adapter is shipped standard.

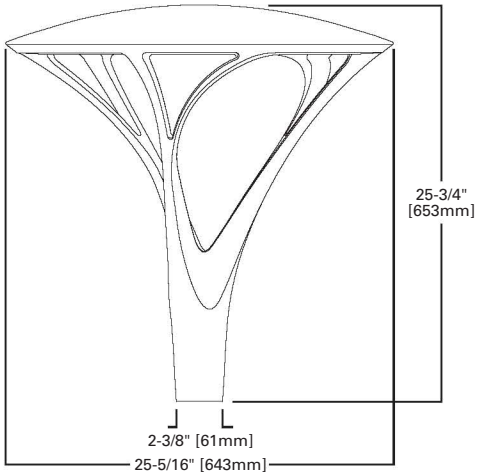
Finish
Eaton utilizes premium ultra-weatherable TGIC based polyester powder coatings that are specifically formulated to withstand extended outdoor exposure. The powders are formulated exclusively for Eaton to serve functionally as well as decorative. Good film appearance combinded with excellent mechanical an exterior exposure qualities display greater than twice as much gloss retention. RAL and custom color matches available. Finish is compliant with ASTM B117 3000hr salt spray standard.

Warranty
Five-year warranty.

ARB ARBOR POST TOP

DECORATIVE LUMINAIRE

DIMENSIONS



CERTIFICATION DATA
UL/cUL Listed
IP66 Housing
ANSI C136.31
1.5G Vibration Tested
RoHS
ISO 9001
DesignLights Consortium™ Qualified*

ENERGY DATA
Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120-277V 50/60Hz, 347V/60Hz, 480V/60Hz
-30°C Minimum Temperature
40°C Ambient Temperature Rating

EPA
Effective Projected Area: (Sq. Ft.) 0.9

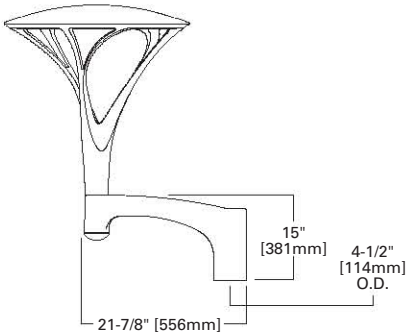
Approximate Net Weight:
37 lbs. [16.8 kgs.]

Powering Business Worldwide

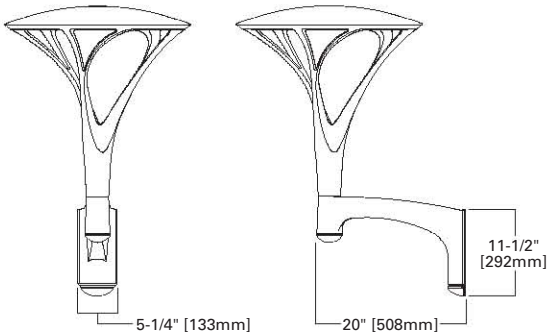
*www.designlights.org

MOUNTING CONFIGURATIONS (WEIGHT AND EPAS INCLUDES FIXTURE)

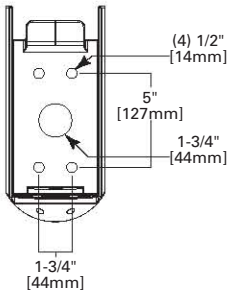
Single Arm Mount
Weight: 56 lbs. [25.45 kgs.]
EPA: 1.7 sq/ft



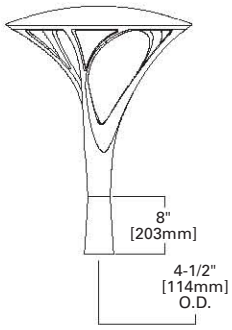
Wall Mount Arm
Weight: 57 lbs. [25.91 kgs.]
EPA: 1.8 sq/ft



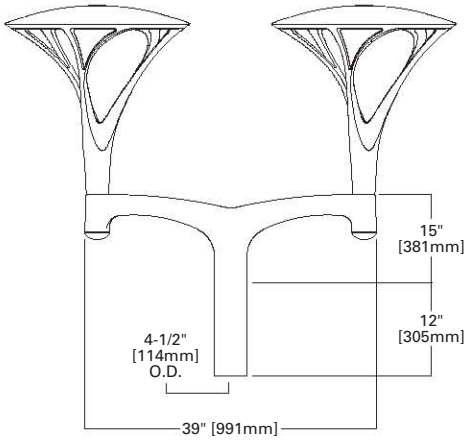
Wall Mount Arm Drill Pattern



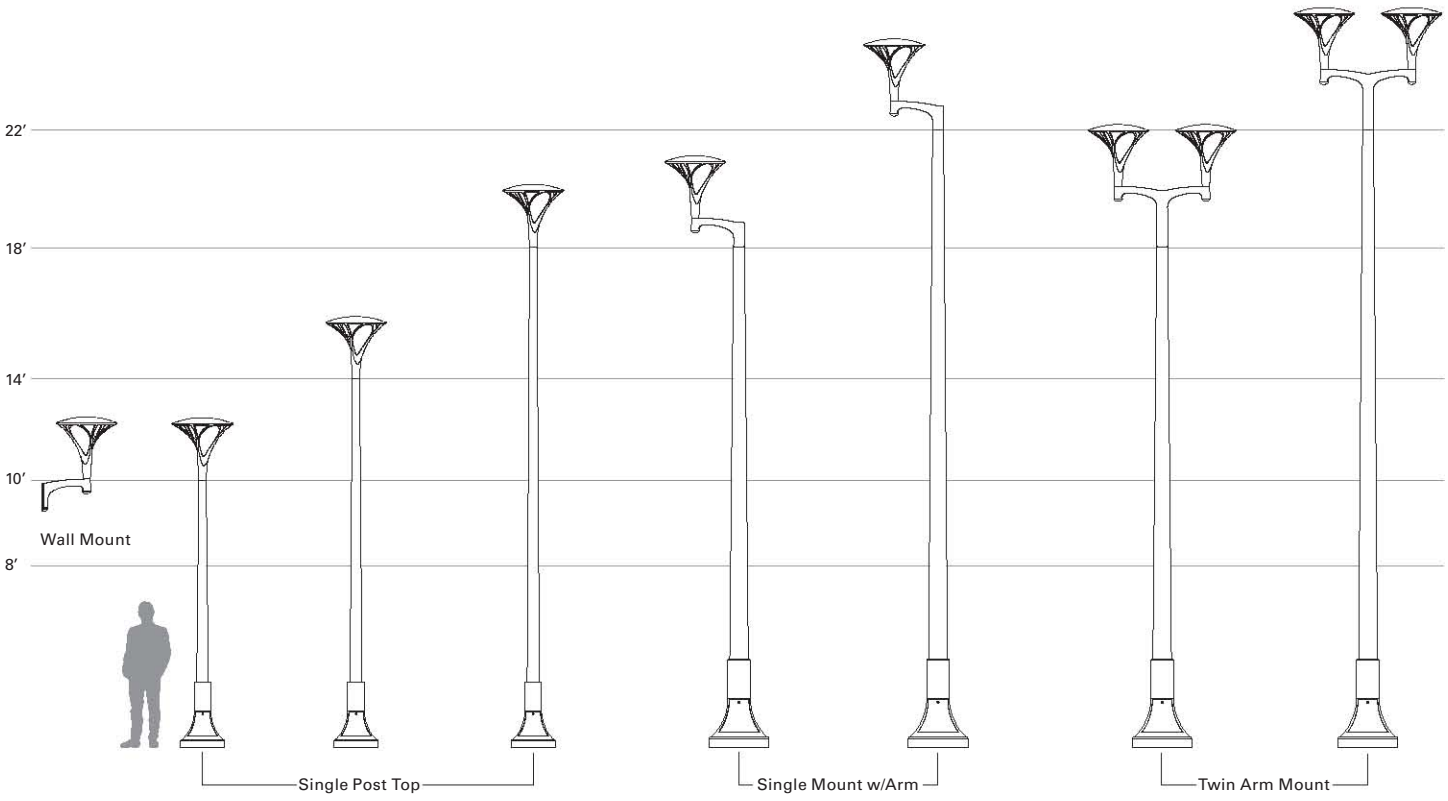
Post Top Adapter
Weight: 41 lbs. [18.63 kgs.]
EPA: 1.2 sq/ft



Twin Arm Mount - 1.5G
Weight: 114 lbs. [51.81 kgs.]
EPA: 3.45 sq/ft



POLE CONFIGURATIONS



Eaton
1121 Highway 74 South
Peachtree City, GA 30269
P: 770-486-4800
www.eaton.com/lighting

POWER AND LUMENS

Lumen Package		B1	B2	B3	B4
Drive Current					
Power Wattage (Watts)		24W	48W	96W	99W
Input Current (mA) @ 120V		200	400	800	830
Input Current (mA) @ 208V		120	240	470	480
Input Current (mA) @ 240V		100	200	400	420
Input Current (mA) @ 277V		90	180	350	360
Power Wattage (Watts)		26W	53W	107W	108W
Input Current (mA) @ 347V		79	161	325	328
Input Current (mA) @ 480V		58	117	235	237
Optics					
Type II	Lumens	2,045	3,994	7,362	--
	BUG Rating	B1-U1-G1	B1-U2-G2	B3-U2-G3	--
Type III	Lumens	2,324	4,534	8,451	-
	BUG Rating	B1-U1-G1	B1-U2-G2	B2-U2-G3	--
Type IV	Lumens	2,408	4,691	8,740	--
	BUG Rating	B1-U1-G1	B1-U2-G2	B2-U2-G3	-
Type V	Lumens	2,311	4,529	8,511	9,464
	BUG Rating	B2-U1-G1	B3-U2-G2	B3-U2-G3	B3-U2-G3

COLOR TEMPERATURE

Color Temperature (CCT)	CRI (Nominal)	Multiplier (Hours)
4000	70	1.00
3000	80	0.91

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Calculated L70 (Hours)
25ºC	>91%	>230,000
40ºC	>88%	>172,000
50ºC	>86%	>142,000

NOTE: Maintenance data applies to the highest drive current and represents the worst case at the highest wattage.

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
0ºC	1.02
10ºC	1.01
25ºC	1.00
40ºC	0.99
50ºC	0.97

ORDERING INFORMATION

Sample Number: ARB-B2-LED-D1-T2-GM

Product Family [1, 2, 3]	**Lumens** [4]	**Lamp Type** [6]	**Voltage**	**Distribution**	**Color**
ARB=Arbor Post Top	**B1**=Nominal 2,300 Lumens **B2**=Nominal 4,500 Lumens **B3**=Nominal 8,500 Lumens **B4**=Nominal 9,500 Lumens [5]	**LED**=Solid State Light Emitting Diodes	**D1**=Dimming Driver (120-277V) **347**=347V [7] **480**=480V [7, 8]	**T2**=Type II **T3**=Type III **T4**=Type IV **T5**=Type V	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White **CC**=Custom Color [9]

Options (Add as Suffix)	**Accessories** (Order Separately) [19]
7030=70 CRI / 3000K CCT [10] **8030**=80 CRI / 3000K CCT [10] **PC**=Button Type Photocontrol [11] **PER**=Standard 3-PIN Photocontrol Receptacle [11] **PER7**=NEMA 7-PIN Twistlock Photocontrol Receptacle [11, 12] **HA**=50°C High Ambient [13] **MS-LXX**=Photo/Motion Sensor for On/Off Operation [14, 15] **MS/DIM-LXX**=Programmable Photo/Motion Sensor [14, 15, 16] **DIMRF-LX**=LumaWatt Wireless Sensor [7, 14] **5LTD**=Fifth Light Dali Driver [17] **DIM**=0-10V External Dimming Leads [18] **VS**=Tempered Glass Vandal Shield	**ARSA-XX**=Single Pole Mount Arm **ARWM-XX**=Wall Mount Arm **ARTA15-XX**=Twin Mount Bracket - 1.5G [20, 21] **ARPA4-XX**=Pole Adapter 4" **FSIR-100**=Wireless Configuration Tool for Occupancy Sensor [16]

NOTES:
1. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional information.
2. DesignLights Consortium™ Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
3. Fixture slipfits over standard 2-3/8" or 3" O.D. tenon.
4. Lumens are nominal. See lumen table for more information.
5. B4 only available with Type V distribution.
6. Standard 4000K CCT, nominal 70 CRI.
7. Requires the use of a step down transformer.
8. Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
9. Cutsom and RAL color matching available upon request. Consult your lighting representative at Eaton for more information.
10. Extended lead times apply. Use dedicated IES files when performing layouts. These files are published on the Arbor luminaire product page on the website.
11. Not available with MS, MSDIM or DIMRF options.
12. Compatible with standard 3-PIN photocontrols and 5-PIN or 7-PIN ANSI controls.
13. Not available with Type II, III and IV B3 optics.
14. Not available with HA option.
15. Replace XX with mounting height in feet for proper lens selection, L8, L20 and L40 are available options.
16. This tool enables adjustment of parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Eaton for more information.
17. Only available with B1 and B2 lumen packages.
18. Low voltage control leads brought out 18" outside fixture. Not available with control options.
19. Replace XX with color designation.
20. Fits on 3" O.D. x 4" long tenon only.

McGraw-Edison

DESCRIPTION

The Galleon™ LED luminaire delivers exceptional performance in a highly scalable, low-profile design. Patented, high-efficiency AccuLED Optics™ system provides uniform and energy conscious illumination to walkways, parking lots, roadways, building areas and security lighting applications. IP66 rated and UL/cUL Listed for wet locations.

Catalog #		**Type**
Project		
Comments		**Date**
Prepared by		

SPECIFICATION FEATURES

Construction
Extruded aluminum driver enclosure thermally isolated from Light Squares for optimal thermal performance. Heavy-wall, die-cast aluminum end caps enclose housing and die-cast aluminum heat sinks. A unique, patent pending interlocking housing and heat sink provides scalability with superior structural rigidity. 3G vibration tested. Optional tool-less hardware available for ease of entry into electrical chamber. Housing is IP66 rated.

Optics
Patented, high-efficiency injection-molded AccuLED Optics technology. Optics are precisely designed to shape the distribution maximizing efficiency and application spacing. AccuLED Optics create consistent distributions with the scalability to meet customized application requirements. Offered standard in 4000K (+/- 275K) CCT 70 CRI. Optional 6000K CCT and 3000K CCT.

Electrical
LED drivers are mounted to removable tray assembly for ease of maintenance. 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. 480V is compatible for use with 480V Wye systems only. Standard with 0-10V dimming. Shipped standard with Eaton proprietary circuit module designed to withstand 10kV of transient line surge. The Galleon LED luminaire is suitable for operation in -40°C to 40°C ambient environments. For applications with ambient temperatures exceeding 40°C, specify the HA (High Ambient) option. Light Squares are IP66 rated. Greater than 90% lumen maintenance expected at 60,000 hours. Available in standard 1A drive current and optional 530mA and 700mA drive currents.

Mounting
STANDARD ARM MOUNT: Extruded aluminum arm includes internal bolt guides allowing for easy positioning of fixture during assembly. When mounting two or more luminaires at 90° and 120° apart, the EA extended arm may be required. Refer to the arm mounting requirement table. Round pole adapter included. For wall mounting, specify wall mount bracket option. 3G vibration rated. QUICK MOUNT ARM: Arm is bolted directly to the pole and the fixture slides onto the quick mount arm and is secured via a single fastener, facilitating quick and easy installation. The versatile, patent pending, quick mount arm accommodates multiple drill patterns ranging from 1-1/2" to 4-7/8". Removal of the door on the quick mount arm enables wiring of the fixture without having to access the driver compartment. A knock-out enables round pole mounting.

Finish
Housing finished in super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Heat sink is powder coated black. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available.

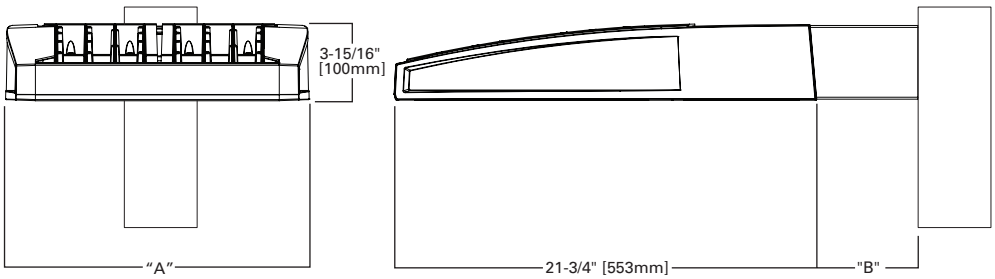
Warranty
Five-year warranty.

GLEON
GALLEON LED

1-10 Light Squares
Solid State LED

AREA/SITE LUMINAIRE

DIMENSIONS



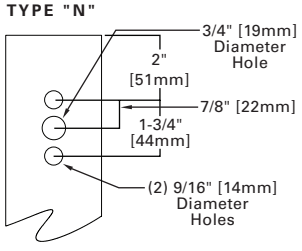
DIMENSION DATA

Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Optional Arm Length [1]	Weight with Arm (lbs.)	EPA with Arm [2] (Sq. Ft.)
1-4	15-1/2" (394mm)	7" (178mm)	10" (254mm)	33 (15.0 kgs.)	0.96
5-6	21-5/8" (549mm)	7" (178mm)	10" (254mm)	44 (20.0 kgs.)	1.00
7-8	27-5/8" (702mm)	7" (178mm)	13" (330mm)	54 (24.5 kgs.)	1.07
9-10	33-3/4" (857mm)	7" (178mm)	16" (406mm)	63 (28.6 kgs.)	1.12

NOTES: 1. Optional arm length to be used when mounting two fixtures at 90° on a single pole. **2.** EPA calculated with optional arm length.

DRILLING PATTERN

TYPE "N"



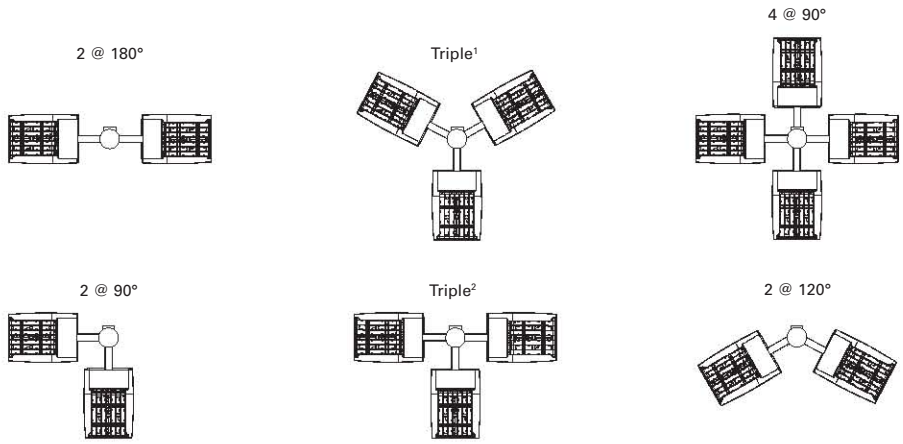
CERTIFICATION DATA
UL/cUL Wet Location Listed
ISO 9001
LM79 / LM80 Compliant
3G Vibration Rated
IP66 Rated
DesignLights Consortium™ Qualified*

ENERGY DATA
Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120V-277V 50/60Hz
347V & 480V 60Hz
-40°C Min. Temperature
40°C Max. Temperature
50°C Max. Temperature (HA Option)

*www.designlights.org

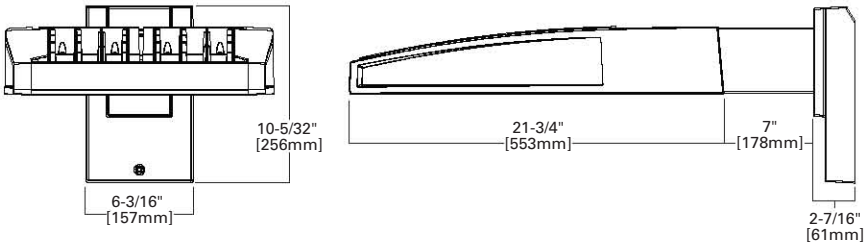
ARM MOUNTING REQUIREMENTS

Configuration	90° Apart	120° Apart
GLEON-AE-01	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-02	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-03	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-04	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-05	10" Extended Arm (Required)	7" Arm (Standard)
GLEON-AE-06	10" Extended Arm (Required)	7" Arm (Standard)
GLEON-AE-07	13" Extended Arm (Required)	13" Extended Arm (Required)
GLEON-AE-08	13" Extended Arm (Required)	13" Extended Arm (Required)
GLEON-AE-09	16" Extended Arm (Required)	16" Extended Arm (Required)
GLEON-AE-10	16" Extended Arm (Required)	16" Extended Arm (Required)

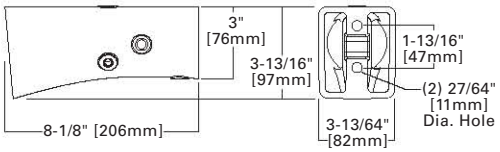


NOTES: 1 Round poles are 3 @ 120°. Square poles are 3 @ 90°. **2** Round poles are 3 @ 90°.

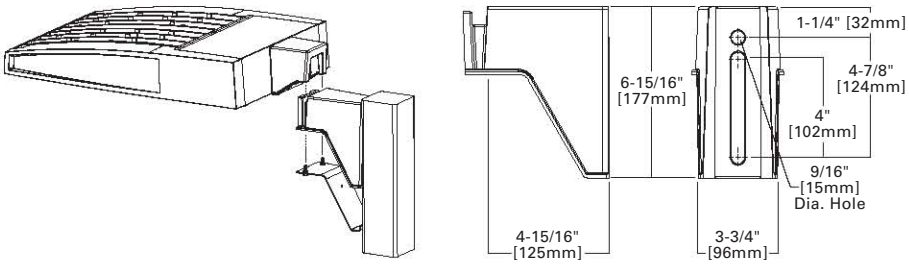
STANDARD WALL MOUNT



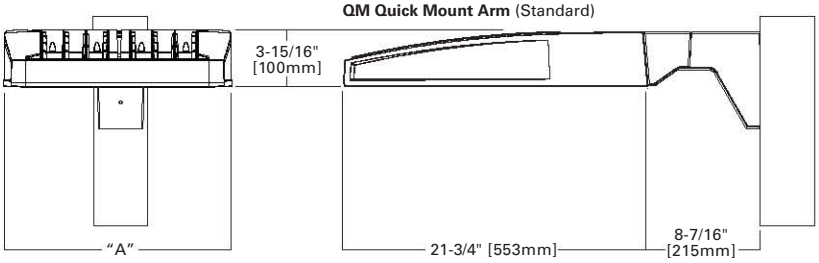
MAST ARM MOUNT



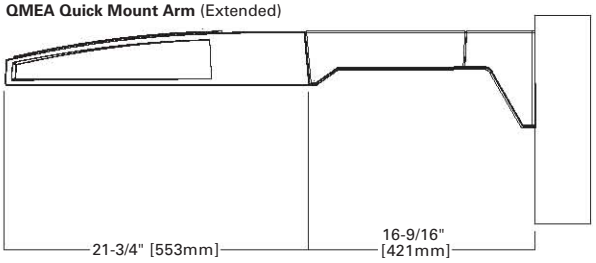
QUICK MOUNT ARM (INCLUDES FIXTURE ADAPTER)



QM Quick Mount Arm (Standard)



QMEA Quick Mount Arm (Extended)



QUICK MOUNT ARM DATA

Number of Light Squares [1,2]	"A" Width	Weight with QM Arm (lbs.)	Weight with QMEA Arm (lbs.)	EPA (Sq. Ft.)
1-4	15-1/2" (394mm)	35 (15.91 kgs.)	38 (17.27 kgs.)	1.11
5-6 [3]	21-5/8" (549mm)	46 (20.91 kgs.)	49 (22.27 kgs.)	
7-8	27-5/8" (702mm)	56 (25.45 kgs.)	59 (26.82 kgs.)	

NOTES: 1 QM option available with 1-8 light square configurations. **2** QMEA option available with 1-6 light square configurations. **3** QMEA arm to be used when mounting two fixtures at 90° on a single pole.

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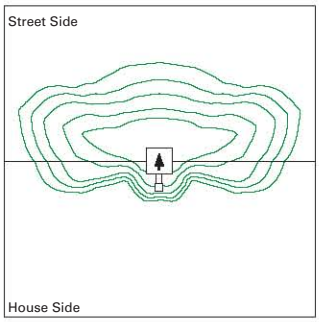
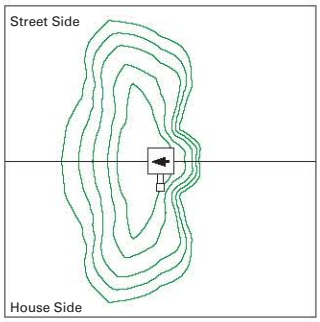
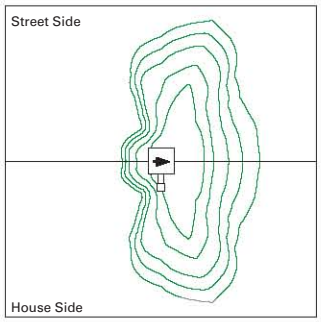
OPTIC ORIENTATION



Standard



Optics Rotated Left @ 90° [L90]

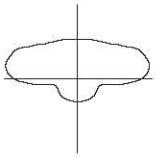


Optics Rotated Right @ 90° [R90]

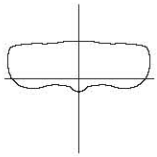
OPTICAL DISTRIBUTIONS

Asymmetric Area Distributions

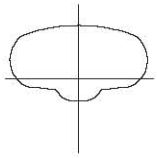
T2
(Type II)



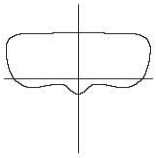
SL2
(Type II with Spill Control)



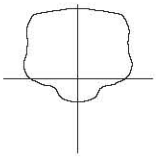
T3
(Type III)



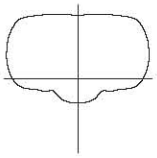
SL3
(Type III with Spill Control)



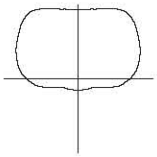
T4FT
(Type IV Forward Throw)



T4W
(Type IV Wide)

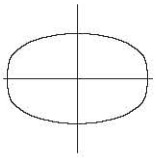


SL4
(Type IV with Spill Control)

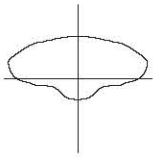


Asymmetric Roadway Distributions

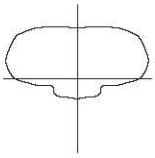
RW
(Rectangular Wide Type I)



T2R
(Type II Roadway)

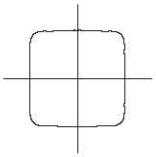


T3R
(Type III Roadway)

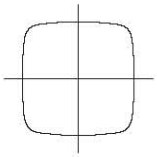


Symmertric Distributions

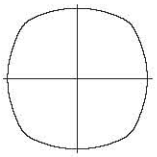
5NQ
(Type V Square Narrow)



5MQ
(Type V Square Medium)

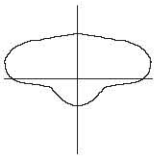


5WQ
(Type V Square Wide)

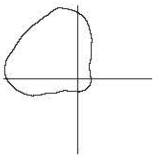


Specialized Distributions

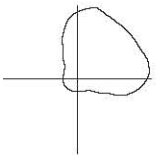
AFL
(Automotive Frontline)



SLL
(90° Spill Light Eliminator Left)



SLR
(90° Spill Light Eliminator Right)



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NOMINAL POWER AND LUMENS (1A)

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Drive Current		1A	1A	1A	1A	1A	1A	1A	1A	1A	1A
Nominal Power (Watts)		56	107	157	213	264	315	370	421	475	528
Input Current @ 120V (A)		0.47	0.90	1.31	1.79	2.21	2.64	3.09	3.51	3.96	4.41
Input Current @ 208V (A)		0.28	0.51	0.74	1.02	1.25	1.48	1.76	1.99	2.22	2.50
Input Current @ 240V (A)		0.25	0.45	0.65	0.90	1.10	1.30	1.55	1.75	1.95	2.20
Input Current @ 277V (A)		0.23	0.41	0.59	0.82	1.00	1.18	1.41	1.59	1.77	2.00
Optics											
T2	Lumens	5,272	10,303	15,373	20,313	25,168	30,118	35,618	40,357	45,018	49,842
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5
T2R	Lumens	5,597	10,938	16,321	21,565	26,719	31,974	37,813	42,844	47,792	52,914
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B4-U0-G4	B4-U0-G5
T3	Lumens	5,374	10,501	15,669	20,704	25,652	30,697	36,303	41,134	45,884	50,802
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
T3R	Lumens	5,493	10,735	16,017	21,164	26,222	31,379	37,110	42,048	46,904	51,930
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
T4FT	Lumens	5,405	10,562	15,760	20,824	25,801	30,875	36,514	41,372	46,150	51,096
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
T4W	Lumens	5,335	10,426	15,556	20,555	25,468	30,476	36,042	40,838	45,554	50,436
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
SL2	Lumens	5,263	10,285	15,347	20,278	25,124	30,066	35,556	40,288	44,940	49,756
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
SL3	Lumens	5,373	10,500	15,667	20,701	25,649	30,693	36,298	41,128	45,878	50,794
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
SL4	Lumens	5,105	9,976	14,886	19,669	24,370	29,163	34,488	39,078	43,591	48,262
	BUG Rating	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G4	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
5NQ	Lumens	5,542	10,830	16,160	21,352	26,455	31,658	37,439	42,421	47,320	52,392
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4
5MQ	Lumens	5,644	11,029	16,457	21,745	26,942	32,241	38,128	43,202	48,191	53,356
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5
5WQ	Lumens	5,659	11,059	16,501	21,803	27,014	32,327	38,230	43,317	48,320	53,498
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5
SLL/SLR	Lumens	4,722	9,227	13,767	18,191	22,539	26,971	31,897	36,141	40,315	44,635
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
RW	Lumens	5,492	10,732	16,014	21,159	26,216	31,372	37,101	42,038	46,893	51,918
	BUG Rating	B2-U0-G1	B3-U0-G1	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
AFL	Lumens	5,512	10,771	16,072	21,236	26,311	31,486	37,236	42,191	47,063	52,107
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4

* Nominal data for 4000K CCT.

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 350,000
40°C	> 93%	> 250,000
50°C*	> 90%	> 170,000

* 50°C lumen maintenance data applies to 530mA and 700mA drive currents.

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NOMINAL POWER AND LUMENS (700MA)

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Drive Current		700mA	700mA	700mA	700mA	700mA	700mA	700mA	700mA	700mA	700mA
Nominal Power (Watts)		38	72	105	138	176	210	243	276	314	348
Input Current @ 120V (A)		0.32	0.59	0.86	1.14	1.45	1.72	2	2.28	2.58	2.86
Input Current @ 208V (A)		0.21	0.36	0.51	0.67	0.87	1.02	1.18	1.34	1.53	1.69
Input Current @ 240V (A)		0.19	0.32	0.45	0.59	0.77	0.90	1.04	1.18	1.35	1.49
Input Current @ 277V (A)		0.20	0.29	0.40	0.51	0.69	0.80	0.91	1.02	1.20	1.31
Optics											
T2	Lumens	3,854	7,531	11,237	14,847	18,395	22,013	26,033	29,497	32,904	36,430
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
T2R	Lumens	4,091	7,995	11,929	15,762	19,529	23,370	27,638	31,316	34,932	38,676
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4
T3	Lumens	3,928	7,676	11,453	15,133	18,750	22,437	26,534	30,065	33,537	37,132
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
T3R	Lumens	4,015	7,846	11,707	15,469	19,166	22,936	27,124	30,733	34,283	37,957
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
T4FT	Lumens	3,951	7,720	11,519	15,221	18,858	22,567	26,688	30,240	33,732	37,347
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5
T4W	Lumens	3,900	7,620	11,370	15,024	18,615	22,276	26,343	29,849	33,296	36,864
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5
SL2	Lumens	3,847	7,518	11,217	14,821	18,364	21,975	25,988	29,447	32,847	36,368
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
SL3	Lumens	3,927	7,675	11,451	15,131	18,747	22,434	26,531	30,061	33,533	37,126
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
SL4	Lumens	3,731	7,292	10,880	14,376	17,812	21,315	25,208	28,562	31,861	35,275
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G4	B2-U0-G4	B2-U0-G4	B2-U0-G5	B2-U0-G5	B3-U0-G5
5NQ	Lumens	4,051	7,916	11,811	15,606	19,336	23,139	27,365	31,006	34,587	38,294
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3
5MQ	Lumens	4,125	8,062	12,029	15,894	19,692	23,565	27,869	31,577	35,224	38,999
	BUG Rating	B2-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
5WQ	Lumens	4,136	8,083	12,061	15,936	19,745	23,628	27,943	31,661	35,318	39,103
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
SLL/SLR	Lumens	3,451	6,744	10,063	13,296	16,474	19,714	23,314	26,416	29,467	32,625
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
RW	Lumens	4,014	7,844	11,704	15,465	19,162	22,930	27,118	30,726	34,274	37,948
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3
AFL	Lumens	4,029	7,873	11,747	15,522	19,231	23,014	27,216	30,838	34,399	38,086
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3

* Nominal data for 4000K CCT.

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 350,000
40°C	> 93%	> 250,000
50°C*	> 90%	> 170,000

* 50°C lumen maintenance data applies to 530mA and 700mA drive currents.

Powering Business Worldwide

Eaton
1121 Highway 74 South
Peachtree City, GA 30269
P: 770-486-4800
www.eaton.com/lighting

NOMINAL POWER AND LUMENS (530MA)

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Drive Current		530mA	530mA	530mA	530mA	530mA	530mA	530mA	530mA	530mA	530mA
Nominal Power (Watts)		30	54	80	105	130	159	184	209	234	259
Input Current @ 120V (A)		0.25	0.45	0.66	0.86	1.07	1.32	1.52	1.72	1.93	2.14
Input Current @ 208V (A)		0.17	0.28	0.39	0.51	0.63	0.78	0.9	1.02	1.14	1.26
Input Current @ 240V (A)		0.17	0.25	0.35	0.45	0.55	0.70	0.80	0.90	1.00	1.10
Input Current @ 277V (A)		0.19	0.24	0.32	0.40	0.49	0.64	0.72	0.80	0.89	0.98
Optics											
T2	Lumens	3,079	6,017	8,978	11,862	14,697	17,588	20,800	23,567	26,289	29,106
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4
T2R	Lumens	3,269	6,388	9,531	12,593	15,603	18,672	22,082	25,020	27,909	30,900
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4
T3	Lumens	3,138	6,133	9,150	12,091	14,980	17,926	21,200	24,021	26,795	29,667
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4
T3R	Lumens	3,208	6,269	9,354	12,359	15,313	18,325	21,671	24,555	27,390	30,326
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
T4FT	Lumens	3,156	6,168	9,203	12,161	15,067	18,030	21,323	24,160	26,950	29,839
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
T4W	Lumens	3,116	6,088	9,084	12,004	14,872	17,797	21,047	23,848	26,602	29,453
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
SL2	Lumens	3,074	6,006	8,962	11,842	14,672	17,558	20,764	23,527	26,244	29,056
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4
SL3	Lumens	3,138	6,132	9,149	12,089	14,978	17,924	21,197	24,018	26,791	29,662
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
SL4	Lumens	2,981	5,826	8,693	11,486	14,231	17,030	20,140	22,820	25,456	28,184
	BUG Rating	B0-U0-G1	B1-U0-G2	B1-U0-G3	B1-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G4	B2-U0-G4	B2-U0-G4	B2-U0-G5
5NQ	Lumens	3,236	6,324	9,437	12,469	15,449	18,487	21,863	24,773	27,634	30,595
	BUG Rating	B1-U0-G0	B2-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2
5MQ	Lumens	3,296	6,441	9,610	12,698	15,733	18,828	22,266	25,229	28,142	31,158
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G3
5WQ	Lumens	3,305	6,458	9,636	12,732	15,775	18,878	22,325	25,296	28,217	31,241
	BUG Rating	B2-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
SLL/SLR	Lumens	2,757	5,388	8,040	10,623	13,162	15,751	18,627	21,105	23,543	26,066
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4
RW	Lumens	3,207	6,267	9,351	12,356	15,309	18,320	21,666	24,549	27,384	30,319
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3
AFL	Lumens	3,219	6,290	9,385	12,401	15,365	18,387	21,745	24,638	27,484	30,429
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3

* Nominal data for 4000K CCT.

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 350,000
40°C	> 93%	> 250,000
50°C*	> 90%	> 170,000

* 50°C lumen maintenance data applies to 530mA and 700mA drive currents.

Eaton
1121 Highway 74 South
Peachtree City, GA 30269
P: 770-486-4800
www.eaton.com/lighting

ORDERING INFORMATION

Sample Number: GLEON-AE-04-LED-E1-T3-GM-700

Product Family [1, 2]	Light Engine	Number of Light Squares [3]	Lamp Type	Voltage	Distribution	Color	Mounting
GLEON=Galleon	**AE**=1A Drive Current	**01**=1 **02**=2 **03**=3 **04**=4 **05**=5 **06**=6 **07**=7 [4] **08**=8 [4] **09**=9 [5] **10**=10 [5]	**LED**=Solid State Light Emitting Diodes	**E1**=(120-277V) **347**=347V [6] **480**=480V [6, 7]	**T2**=Type II **T2R**=Type II Roadway **T3**=Type III **T3R**=Type III Roadway **T4FT**=Type IV Forward Throw **T4W**=Type IV Wide **5NQ**=Type V Narrow **5MQ**=Type V Square Medium **5WQ**=Type V Square Wide **SL2**=Type II w/Spill Control **SL3**=Type III w/Spill Control **SL4**=Type IV w/Spill Control **SLL**=90° Spill Light Eliminator Left **SLR**=90° Spill Light Eliminator Right **RW**=Rectangular Wide Type I **AFL**=Automotive Frontline	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White	**[Blank]**=Arm for Round or Square Pole **EA**=Extended Arm [8] **MA**=Mast Arm Adapter [9] **WM**=Wall Mount **QM**=Quick Mount Arm (Standard Length) [10] **QMEA**=Quick Mount Arm (Extended Length) [11]

Options (Add as Suffix)

2L=Two Circuits [12, 13]
7030=70 CRI / 3000K [14]
8030=80 CRI / 3000K [15]
7050=70 CRI / 5000K [15]
7060=70 CRI / 6000K [14]
530=Drive Current Factory Set to 530mA [16]
700=Drive Current Factory Set to 700mA [16]
P=Button Type Photocontrol (120, 208, 240 or 277V)
PER7=NEMA 7-PIN Twistlock Photocontrol Receptacle
R=NEMA Twistlock Photocontrol Receptacle
HA=50°C High Ambient [13, 17]
MS/DIM-L08=Motion Sensor for Dimming Operation, Maximum 8' Mounting Height [18, 19, 20, 21, 22]
MS/DIM-L20=Motion Sensor for Dimming Operation, 9' - 20' Mounting Height [18, 19, 20, 21, 22]
MS/DIM-L40=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height [18, 19, 20, 21]
MS/DIM-L40W=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height (Wide Range) [18, 19, 20, 21, 25]
MS/X-L08=Bi-Level Motion Sensor, Maximum 8' Mounting Height [18, 19, 20, 21, 22, 26]
MS/X-L20=Bi-Level Motion Sensor, 9' - 20' Mounting Height [18, 19, 20, 21, 23, 26]
MS/X-L40=Bi-Level Motion Sensor, 21' - 40' Mounting Height [18, 19, 20, 21, 24, 26]
MS/X-L40W=Bi-Level Motion Sensor, 21' - 40' Mounting Height (Wide Range) [18, 19, 20, 21, 25, 26]
MS-L08=Motion Sensor for ON/OFF Operation, Maximum 8' Mounting Height [18, 19, 20, 21, 22]
MS-L20=Motion Sensor for ON/OFF Operation, 9' - 20' Mounting Height [18, 19, 20, 21, 23]
MS-L40=Motion Sensor for ON/OFF Operation, 21' - 40' Mounting Height [18, 19, 20, 21, 24]
MS-L40W=Motion Sensor for ON/OFF Operation, 21' - 40' Mounting Height (Wide Range) [18, 19, 20, 25]
DIMRF-LW=LumaWatt Wireless Sensor, Wide Lens for 8' - 16' Mounting Height [27]
DIMRF-LN=LumaWatt Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height [27]
L90=Optics Rotated 90° Left
R90=Optics Rotated 90° Right
MT=Factory Installed Mesh Top
TH=Tool-less Door Hardware
LCF=Light Square Trim Plate Painted to Match Housing [28]
HSS=Factory Installed House Side Shield [29]
CE=CE Marking [30]

Accessories (Order Separately)

OA/RA1016=NEMA Photocontrol Multi-Tap - 105-285V
OA/RA1027=NEMA Photocontrol - 480V
OA/RA1201=NEMA Photocontrol - 347V
OA/RA1013=Photocontrol Shorting Cap
OA/RA1014=120V Photocontrol
MA1252=10kV Surge Module Replacement
MA1036-XX=Single Tenon Adapter for 2-3/8" O.D. Tenon
MA1037-XX=2 @ 180° Tenon Adapter for 2-3/8" O.D. Tenon
MA1197-XX=3 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon
MA1188-XX=4 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon
MA1189-XX=2 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon
MA1190-XX=3 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon
MA1191-XX=2 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon
MA1038-XX=Single Tenon Adapter for 3-1/2" O.D. Tenon
MA1039-XX=2 @ 180° Tenon Adapter for 3-1/2" O.D. Tenon
MA1192-XX=3 @ 120° Tenon Adapter for 3-1/2" O.D. Tenon
MA1193-XX=4 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon
MA1194-XX=2 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon
MA1195-XX=3 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon
FSIR-100=Wireless Configuration Tool for Occupancy Sensor [31]
GLEON-MT1=Field Installed Mesh Top for 1-4 Light Squares
GLEON-MT2=Field Installed Mesh Top for 5-6 Light Squares
GLEON-MT3=Field Installed Mesh Top for 7-8 Light Squares
GLEON-MT4=Field Installed Mesh Top for 9-10 Light Squares
GLEON-QM=Quick Mount Arm Kit [10]
GLEON-QM-EA=Quick Mount Extended Length Arm Kit [11]
LS/HSS=Field Installed House Side Shield [29, 32]

NOTES:
1. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional support information.
2. DesignLights Consortium™ Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
3. Standard 4000K CCT and minimum 70 CRI.
4. Not compatible with extended quick mount arm (QMEA).
5. Not compatible with standard quick mount arm (QM) or extended quick mount arm (QMEA).
6. Requires the use of a step down transformer when combined with MS/DIM, MS/X or DIMRF.
7. Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
8. May be required when two or more luminaires are oriented on a 90° or 120° drilling pattern. Refer to arm mounting requirement table.
9. Factory installed.
10. Maximum 8 light squares.
11. Maximum 6 light squares.
12. 2L is not available with MS/X or MS/DIM at 347V or 480V. 2L in AE-02 through AE-04 requires a larger housing, normally used for AE-05 or AE-06. Extended arm option may be required when mounting two or more fixtures per pole at 90° or 120°. Refer to arm mounting requirement table.
13. Not available with LumaWatt wireless sensors.
14. Extended lead times apply. Use dedicated IES files for 3000K and 6000K when performing layouts. These files are published on the Galleon luminaire product page on the website.
15. Extended lead times apply. For 8030, factor 7030 IES files x .92 (8% lumen loss). For 7050, use 7060 IES files.
16. 1 Amp standard. Use dedicated IES files for 530mA and 700mA when performing layouts. These files are published on the Galleon luminaire product page on the website.
17. 50°C lumen maintenance data applies to 530mA and 700mA drive currents.
18. Consult factory for more information.
19. Utilizes internal step-down transformer when 347V or 480V is selected.
20. The FSIR-100 accessory is required to adjust parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Eaton for more information.
21. Not available with HA option.
22. Approximately 22' detection diameter at 8' mounting height.
23. Approximately 40' detection diameter at 20' mounting height.
24. Approximately 60' detection diameter at 40' mounting height.
25. Approximately 100' detection diameter at 40' mounting height.
26. Replace X with number of light squares operating in low output mode.
27. LumaWatt wireless sensors are factory installed only requiring network components RF-EM-1, RF-GW-1 and RF-ROUT-1 in appropriate quantities. See www.eaton.com/lighting for LumaWatt application information.
28. Not available with house side shield (HSS).
29. Only for use with SL2, SL3, SL4 and AFL distributions. The Light Square trim plate is painted black when the HSS option is selected.
30. CE is not available with the DIMRF, MS, MS/X, MS/DIM, P, R or PER7 options. Available in 120-277V only.
31. This tool enables adjustment of parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Eaton for more information.
32. One required for each Light Square.

MEMORANDUM

CITY OF WATERTOWN, NEW YORK
OFFICE OF PLANNING AND COMMUNITY DEVELOPMENT
245 WASHINGTON STREET, ROOM 304, WATERTOWN, NY 13601
PHONE: 315-785-7740 – FAX: 315-785-7829

TO: Planning Board Members

FROM: Michael A. Lumbis, Planning and Community Development Director

SUBJECT: Site Plan Approval – 218 Stone Street, 123 Massey Street S, 253 and 271 Arsenal Street

DATE: July 28, 2016

Request: Site Plan Approval for the construction of three 3-story, 36,402 square-foot residential buildings, two 2-story, 17,000 square-foot office buildings, a 5,588 square-foot community center, an interior parking lot and associated site improvements at 218 Stone Street, Parcel Number 7-16-114.000; 123 Massey Street South, Parcel Number 10-02-113.000; 253 Arsenal Street, Parcel Number 10-02-118.000 and 271 Arsenal Street, Parcel Number 10-02-116.000.

Applicant: Andrew M. Hart, RLA, ASLA, of Bergmann Associates, Inc. on behalf of COR Arsenal Street Company, LLC

Proposed Use: Mixed-Use (Residential and Office) and parking

Property Owner: COR Arsenal Street Company, LLC and St. Patrick's Parish

Submitted:	
Property Survey: Yes	Preliminary Architectural Drawings: Yes
Site Plan: Yes	Preliminary Site Engineering Plans: Yes
Vehicle and Pedestrian Circulation Plan: Yes	Construction Time Schedule: 18-24 months
Landscaping and Grading Plan: Yes	Description of Uses, Hours & Traffic Volume: Yes

SEQRA: Type I

County Review: Yes

Zoning Information:	
District: Commercial	Maximum Lot Coverage: N/A
Setback Requirements: F: 20', S: 5', R: 25'	Buffer Zones Required: Yes

Project Overview: The applicant proposes to construct three (3) three-story, 36,402 square-foot residential buildings, two (2) two-story, 17,000 square-foot office buildings, a 5,588 square-foot community center, and an interior parking lot at the site of the demolished Mercy Hospital. The three proposed residential buildings would

front on Stone Street and Massey Street S, respectively. The two proposed office buildings would front on Arsenal Street. The proposed community center would front on Sherman Street.

The proposed parking lot would be in the interior of the block, and the majority of the parking spaces would be shielded from view from the surrounding streets. The applicant also proposes to reconfigure and expand the parking lot at St. Patrick's Parish, providing the church with a net increase of five spaces.

Subdivision and Assemblage: The applicant is proposing a series of subdivisions and assemblages that would involve COR acquiring some segments of land from St. Patrick's as well as St. Patrick's acquiring some segments of land from COR. The applicant depicts the proposed parcel boundaries that would result on the submitted site plan. These resultant boundaries form the basis for all of the parking and setback calculations on the proposed site plan. The applicant has provided documentation from St. Patrick's Parish communicating the Parish's intent to commit to these changes.

The applicant has submitted a separate application for Subdivision Approval for the above land swaps. These appear as a separate item on today's Planning Board Agenda, and the Planning Board will consider them prior to considering this site plan.

Further references to "the site" all refer to the resultant parcels after the proposed subdivisions and assemblages.

Parking and Vehicle Circulation: The applicant proposes an interior parking lot with five vehicular access points, one from each of the surrounding streets, except for Massey Street S, where the applicant proposes two access points. Three of the five access points would be on the resultant COR-owned parcel after the proposed subdivision and the other two would be on the resultant St. Patrick's-owned parcel. The lot would essentially function as one large, collective parking lot for all of the uses on both properties, although different clusters of parking spaces would be on different parcels.

The applicant provides proposed hours of operation for the proposed office buildings as 7:30 am to 5 pm on Monday-Friday. This is logical, as an office use will primarily be a weekday trip generator, which is opposite from St. Patrick's Parish, which is primarily a weekend trip generator.

The site plan as proposed, which depicts these two uses sharing an internal parking lot that is divided by a parcel boundary, still meets the individual parking requirements for both the office buildings and the church on their resultant parcels. However, the trip generation for the two uses would likely only ever overlap on Catholic Holy Days of Obligation that happen to fall on business days, such as Ascension Thursday or All Saints Day. Since such dates are rare (at most five in any given calendar year), it is likely that the site will actually exceed its realistic parking needs.

The site plan, as proposed, exceeds the parking requirement by 24 spaces. However, in order to provide all the interior parking as depicted, the applicant is proposing shorter setbacks than the Commercial District allows for the two office buildings and three residential buildings. The applicant sought and obtained two setback variances from the Zoning Board of Appeals (ZBA) for these shorter setbacks. The ZBA varied the setback requirement on Arsenal Street and Stone Street from 20 feet to 10 feet and varied the setback requirement on Massey Street S from 20 feet to 10.5 feet.

The Fire Truck Access Plan, which depicts the movements of a City fire truck, as submitted, shows the fire truck jumping curbs at various locations. The City Code Enforcement Bureau will not permit this if these are standard curbs. The applicant must either adjust the interior islands to move them out of a fire truck's path or install curbs with lower heights to allow for unobstructed fire truck movements.

Setbacks, Buffers and Landscaping: The Zoning Ordinance requires a 20-foot front yard setback and a five-foot side yard setback in the Commercial District. Since the site encompasses almost an entire block, except for a small parcel at the corner of Arsenal Street and Sherman Street, there are no rear parcel boundaries on the site. Any

parcel boundary with one of the four adjacent streets is considered a front yard, and any interior parcel boundary is considered a side yard.

As discussed in the Parking and Vehicle Circulation section above, five of the proposed buildings do not meet the 20-foot setback requirement for a Commercial District, and the applicant has obtained variances for these requirements.

Section 310-59 of the Zoning Ordinance states that in an Industrial or Commercial District, each use shall have a strip of land at least 15 feet in width in any required front yard and at least five feet in width in any required rear and side yards, which shall be maintained as a landscaped area. Since the ZBA varied the setback requirement to 10 feet on Arsenal Street Stone Street and 10.5 feet on Massey Street S, the required front yards for the site are all less than 15 feet. Therefore, while the applicant must still provide some landscaping, the full 15-foot buffer requirement no longer applies. The applicant is proposing a series of shrubs and shade trees for the Stone Street and Massey Street S frontages.

The applicant is also proposing shrubs for the Arsenal Street frontage at the suggestion of the ZBA. The applicant proposes to place these shrubs between the sidewalk and the proposed office buildings. This represents a departure from the previously submitted site plan where the proposed office buildings fronted on the sidewalk.

The applicant should reverse the placement of the sidewalk and the landscaping, pushing the sidewalk further south to restore the building frontage on the sidewalk as originally proposed, and placing the landscaping between the sidewalk and the street. In this scenario, shrubs may no longer be the most appropriate form of landscaping, and the applicant should instead consider street trees for the grassed margin between the sidewalk and the street.

The overall landscaping plan for the site indicates a large variety and quantity of trees, shrubs and grass areas. The landscape plan is therefore in general conformance with the Planning Board's Landscaping and Buffer Zone Guidelines.

Architecture and Urban Design: The short setbacks are intended to maximize the urban, downtown ambiance of the development, and create a more pedestrian-friendly environment around the site. In the applicant's previous submission, the applicant's proposal to front the office buildings on the sidewalk was intended to create an active building frontage on Arsenal Street that is oriented towards pedestrians.

Reversing the placement of the sidewalks and the landscaping as described above, and restoring the building frontage on the sidewalk as originally proposed, would enhance the urban feel that the applicant is attempting to create. Placed here, street trees would also create a physical barrier between traffic on Arsenal Street and the pedestrian zone in front of the proposed office building.

While the applicant proposes uniform frontages for the 175-foot long office buildings on Arsenal Street, the applicant does propose design features, such as large windows and waist-high decorative masonry, which would avoid presenting a plain, harsh exterior to the street and would create a more pleasant visual feel.

The proposed residential buildings are 192 feet in length; however the applicant is proposing to design their exteriors to give the appearance of separate row houses, as depicted in the elevation drawings. From an urban design perspective, this will alleviate the visual feel of a superblock, and preserve a more neighborhood-scale aesthetic. The applicant upholds this aesthetic quality on all four sides of the block by locating the proposed parking in the interior of the site, shielding it almost entirely from the view of passing motorists and pedestrians.

In addition, the site plan depicts nine places where proposed interior sidewalks would connect to City sidewalks. This emphasis on pedestrian connectivity is laudable and is clearly in line with the downtown focus of the development as a whole.

Impacts on Traffic Flow: City Engineering Staff previously recommended that the applicant perform a traffic impact analysis and submit that analysis to the City and to the New York State Department of Transportation

(NYSDOT) for review. The applicant has submitted a traffic study performed by an independent transportation engineering and planning consulting firm. A copy of the traffic study has been enclosed with each member's agenda packet. The Engineering Department has reviewed the traffic study and has the following comments:

The gap analysis in the traffic study concludes that sufficient gaps exist for all turning movements entering and exiting both the Arsenal Street driveway and the northerly Massey Street S driveway, and projects that conditions will not warrant any turn restrictions. However, City Engineering Staff recommends that left turns not be permitted when entering or leaving the site at either driveway.

Although the submitted traffic study concludes that a sufficient number of gaps exist in traffic for vehicles to make a left in or left out of the site at the northerly Massey Street S driveway, its proximity to Arsenal Street supports restricting it to a Right-in/Right-out only. Use of the existing driveway will change from a Sunday church use to a weekday business/residential use. These are inherently different things and different impacts. Additionally, the site plan already includes an unrestricted driveway to Massey Street S that is only 200 feet away. It is best practice for developments to utilize one driveway per street. However, the unique situation involving St. Patrick's church and the fact that it is an existing driveway merits consideration to allowing full access as part of this project, as opposed to restricted access.

Left turns into the site from the proposed Arsenal Street driveway are also problematic. During peak times, when vehicles queue up past the proposed entrance, the only time that westbound traffic on Arsenal Street can advance up to the proposed driveway to make a left turn is when eastbound traffic has a green light. If no gap exists during the remaining green time cycle (typically only 20 seconds), a left turn into the site will back up cars and affect the Sherman Street intersection as well. It is already common for heavy peak-hour westbound traffic to back up past the Jefferson County Buildings toward Arcade Street. Therefore, allowing left turns into the Arsenal Street entrance to this site will have a negative impact on traffic and should be restricted.

While a corrected gap analysis may still show, and traffic observations support, that a left-in may be feasible a majority of the time, there are peak times where they are not feasible and will have a negative impact on traffic. Access management is based on peak times, and it is for that reason why a restricted right-in/right-out driveway for Arsenal Street is recommended as a condition of Site Plan approval.

The applicant must provide the City Engineering Department with NYSDOT's response to the traffic study that either approves of the proposed project, or indicates that NYSDOT determined that a review was not necessary. The applicant shall copy the City on all correspondence with NYSDOT.

SEQR: The applicant indicates in his response to Question E.3.f. that the project site, or a portion of it, is located in or adjacent to an area designated as sensitive for archeological sites on the New York State Historic Preservation Office (SHPO) archeological site inventory. The applicant should provide a letter from the New York State Historic Preservation Office (SHPO) that determines whether the proposed project has the potential to affect any archeological resources.

Utilities and Hydrology: The applicant should provide an updated hydrant flow test and hydraulic calculations to the City. Plans indicate two water services crossing Arsenal Street. This will be problematic for traffic flow. There is a six-inch main on the south side of Arsenal Street. The applicant must run a test to determine if the six-inch main can provide sufficient capacity to the proposed development. The City's preference would be to connect the two office buildings to the water mains along either Stone Street or Sherman Street and not to open cut across Arsenal Street.

The applicant shall provide the City Engineering Department with correspondence from the DEC that either approves the proposed sanitary sewer design or indicates that the DEC determined that a review was not necessary. The applicant shall also submit a Notice of Intent (NOI) to the DEC and forward the acknowledgement letter to the City upon receipt. The applicant shall copy the City on all correspondence with the DEC.

The applicant shall also provide the City Engineering Department with correspondence from the DOH that either approves the proposed water system design or indicates that DOH determined that a review was not necessary. The applicant shall copy the City on all correspondence with the DOH.

Other Engineering Comments: The applicant should use a regular sanitary manhole in lieu of a doghouse manhole for SAN MH #1 at Sherman Street. The existing sewer line is capped and inactive, therefore a doghouse manhole is not necessary.

The applicant should confirm if the existing manhole on Sherman Street is precast concrete and, if so, the applicant should core the manhole and install a rubber boot for the proposed storm sewer connection in lieu of a non-shrink grout.

The applicant should design site-specific ADA-accessible curb ramps to be installed at each corner intersection, and provide details for the contractor to install them.

The applicant should add a note to the site plan identifying where the curb infill of the existing driveway to Arsenal Street from the St. Patrick's parking lot will take place.

Permits: The applicant must obtain the following permits, minimally, prior to demolition and construction: Building Permit, Fence Permit, General City Permit and Sanitary/Storm Sewer Connection Permit.

County Planning Board Comments: The Jefferson County Planning Board reviewed this application at its June 28, 2016 meeting. At that meeting, the board adopted a motion stating that the project does not have any significant County-wide or inter-municipal issues and is of local concern only. The County Planning Board made a number of advisory comments, which are not conditions of the board's action, and are only intended to assist the local board in its review of the project.

The County Planning Board recommended that the local board verify fire truck access and emergency vehicle circulation through the site, as well as utilize the traffic study to minimize impact on adjacent intersections. The board encouraged adding a tot lot, small playground, or some other type of formal open space to the site, and expressed concern over a lack of space for snow storage. The applicant has indicated that they will remove snow from the site when snow accumulation exceeds the storage capacity of the designated areas.

Summary:

1. The applicant must allow for unobstructed fire truck movement into and throughout the site, either by removing all curbs from a fire truck's path or by installing curbs with low enough heights as to be unobstructive.

2. The applicant shall change the location of the sidewalk along Arsenal Street by relocating it so that it is adjacent to the building frontage and shall add grass and street trees between the sidewalk and the street to meet the landscaping requirement in this area.

3. The applicant shall revise the entrance into the site from Arsenal Street to a Right-in/Right-out only.

4. The applicant shall provide the City Engineering Department with a copy of NYSDOT's response to the traffic impact analysis, indicating NYSDOT's approval of the proposed project or their conclusion that a review was not necessary.

5. The applicant shall provide a letter from the New York State Historic Preservation Office (SHPO) that determines whether the proposed project has the potential to affect any archeological resources.

6. The applicant shall perform a hydrant flow test and submit hydraulic calculations to the City Engineering Department.

7. The applicant shall provide the City Engineering Department with correspondence from the New York State Department of Environmental Conservation (NYS DEC) that either approves the proposed sanitary sewer design or indicates that the NYS DEC determined that a review was not necessary.

8. The applicant shall submit a Notice of Intent (NOI) to the NYS DEC and forward the acknowledgement letter to the City upon receipt.

9. The applicant shall provide the City Engineering Department with correspondence from the New York State Department of Health (NYS DOH) that either approves the proposed water system design or indicates that the NYS DOH determined that a review was not necessary.

10. The applicant must address all concerns listed in the "Other Engineering Comments" section of the July 28, 2016 Planning Office memorandum to the satisfaction of the City Engineering Department prior to the issuance of any permits.

11. The applicant must obtain the following permits, minimally, prior to demolition and construction: Building Permit, Fence Permit and General City Permit and a Sanitary/Storm Sewer Connection Permit.

cc: City Council Members
Justin Wood, City Engineer
Andrew M. Hart, RLA, ASLA, Bergmann Associates, 28 East Main Street, 200 First Federal Plaza, Rochester, NY 14614-1909
Catherine K. Johnson, COR Development Company, LLC, 540 Towne Drive, Fayetteville, NY 13066

SITE PLAN APPROVAL
218 STONE STREET, 123 MASSEY STREET SOUTH, 253 and 271 ARSENAL STREET – PARCELS 7-16-114.000, 10-02-113.000, 10-02-118.000 and 10-02-116.000

The Planning Board then considered a tabled request for Site Plan Approval submitted by Andrew M. Hart, RLA, ASLA, of Bergmann Associates Inc. on behalf of COR Arsenal Street Company, LLC for the construction of three 3-story, 36,402 square-foot residential buildings, two 2-story, 17,000 square-foot office buildings, a 5,588 square-foot community center, an interior parking lot and associated site improvements at 218 Stone Street, Parcel Number 7-16-114.000; 123 Massey Street South, Parcel Number 10-02-113.000; 253 Arsenal Street, Parcel Number 10-02-118.000 and 271 Arsenal Street, Parcel Number 10-02-116.000.

Mr. Hart and Ms. Johnson were in attendance to represent the project, as was Amy Dake of SRF & Associates.

Ms. Johnson began by saying that she was just going to give the Planning Board an update from the June meeting, and that Mr. Hart and Ms. Dake would handle any technical questions.

Ms. Johnson said that her team had applied for and obtained setback variances from the Zoning Board of Appeals. She then drew the Planning Board's attention to the site plan and pointed out that the proposed office buildings on Arsenal Street were 10 feet off the property line instead of 20 feet, that the two proposed residential buildings on Stone Street were also 10 feet off the property line instead of 20 feet, and that the proposed residential building on Massey Street S was 10.5 feet off the property line instead of 20 feet.

Ms. Johnson said that her team had compromised with the City to arrive at these setbacks, and that they had reduced the size of the office buildings slightly because they needed to reduce parking.

Ms. Johnson then said that SRF & Associates had completed a traffic study since their previous appearance before the Planning Board. She added that they submitted a revised version of the study on the previous day that corrected an error regarding traffic signal timing, and submitted a revised site plan on the previous day as well as a result. She then said that the State Historic Preservation Office (SHPO) had sent COR a letter stating that the proposed project would have no adverse impact on historic resources.

Ms. Johnson then drew the Planning Board's attention back to the site plan, and pointed out that as a result of the traffic study, the proposed driveway connecting to Arsenal Street was now a right-in/right-out only, and was no longer full access. She noted that the other four driveways would still provide full access.

Ms. Johnson then said that the site plan, as proposed, still met the parking requirement for both individual properties. She said that the church had enough parking on its own, as did the proposed offices and residential buildings, and added that there would be reciprocal parking easements executed so the all three uses could share the interior parking lot.

Ms. Johnson then said that the proposed site plan had gone before the County Planning Board and they determined that the project was of local concern only. She then asked if any members of the Planning Board wanted to talk about engineering issues and said that Mr. Hart could answer their questions.

Mr. Coburn asked what the issues were with traffic light timing. Ms. Johnson deferred the question to Ms. Dake, who replied that when SRF performed the traffic study, one of their technicians was observing the light at the intersection of Arsenal and Massey Streets. She said that on Massey Street, only northbound or southbound traffic can go through the intersection at any given time. She said that the observation team had mistakenly assumed that both directions went at the same time, because that is how it works in other places, and then said that Mr. Wood pointed out to SRF that they had that wrong. She added that in the initial analysis, the traffic study rated the level of service as an F for northbound left turns, and now rated it as a D.

Mr. Coburn then asked about the potential for converting Stone Street from one-way westbound traffic to a two-way street. Mr. Wood replied that there had been passing remarks from various City Council members over the years, most recently from previous Councilwoman Roxanne Burns. Mr. Wood added that he does not anticipate a one-way to two-way conversion any time soon, but the possibility remains open.

Mr. Coburn asked if the City had jurisdiction over such decisions. Mr. Wood answered in the affirmative. Ms. Fields then noted that the Planning Board brought it up at the previous meeting. Mr. Wood said that Stone Street being a one-way street might help it serve its function of providing a route for westbound traffic to use to access the Mercy site. Mr. Wood added that he thought that two-way traffic on Stone Street was an independent discussion for another time.

Mr. Rowell then asked if both driveways on Massey Street S remained in and out. Ms. Dake replied in the affirmative.

Mr. Coburn then asked Mr. Herman if he could speak to the Fire Department's concerns. Mr. Herman replied that his primary concern was the configuration of internal curb islands. He said that Mr. Wood had forwarded him an email from Mr. Hart, which said that the movements depicted on the site plan were not where a fire truck's tires would go over a curb, but where the edge of the vehicle would go over the curb. Mr. Herman then said that this was still a concern, because of potential snow accumulation on the curb islands during the winter.

Mr. Herman then said that the other issue he needed to raise was that the bucket on a City fire truck is eight feet in front of the cab, and that because of this, the site plan should be conscious of poles or trees in the bucket's swing radius.

Mr. Neddo then said that this segued into Summary Item 1, which dealt with fire truck movements. Mr. Coburn asked Ms. Johnson if she would like to go through the summary items, noting that items 2, 3 and 5 need no longer apply, and she replied in the affirmative.

Ms. Johnson then addressed the first summary item, which required unobstructed fire truck access into and throughout the site. Ms. Johnson said that she thought her team had fixed this concern, since they did make some changes. She asked if the Planning Board could recommend Site Plan Approval with conditions, as long as COR worked out those concerns with Staff. Mr. Coburn replied in the affirmative.

Ms. Johnson then addressed the fourth summary item, which required New York State Department of Transportation (NYSDOT) approval of the traffic study, and said that Mr. Wood told her that he anticipated receiving such communication from NYSDOT in the near future. Mr. Wood then said that he had spoken with someone at NYSDOT, and that he expected NYSDOT would provide the City with a letter of No Concern. Mr. Wood then added that the Planning Board could eliminate the fourth summary item.

Mr. Hart then addressed the sixth summary item, which required the applicant to perform a hydrant flow test and submit hydraulic calculations to the City Engineering Department. Mr. Hart said that he had been working with the City Water Department, that his team had hydrant flow data at two locations on the site, and that the Water Department told him that two existing taps provide a loop through the site. Mr. Hart then said that COR would provide a water system through the middle of the site and that they just received updated flow test data earlier in the day. Mr. Hart said that there was plenty of water for the site.

Mr. Hart then addressed the seventh summary item, which required the applicant to provide correspondence from the New York State Department of Environmental Conservation (DEC) approving of the proposed sanitary sewer design. Mr. Hart said that he had submitted the design to the DEC, but had not received a response yet.

Mr. Hart then addressed the ninth summary item, which required the applicant to provide correspondence from the New York State Department of Health (DOH) approving the proposed water system design. Mr. Hart said that the DOH asked him for a sanitary sewer profile and that he had sent them one, but he had not received a response yet.

Mr. Hart then addressed the eighth summary item, which required the applicant to submit a Notice of Intent (NOI) to the DEC and forward the acknowledgement letter to the City upon receipt. Mr. Hart said that he did not intend to submit the NOI until the City no longer had any comments on the Stormwater Pollution Prevention Plan.

Mr. Hart then addressed the tenth summary item, which required the applicant to address all concerns listed in the "Other Engineering Comments" section of Staff's memorandum. Mr. Hart then addressed these concerns one-by-one. He said that his team would use a regular sanitary manhole in lieu of a doghouse manhole on Sherman Street. He said that they would also work to confirm the existing manhole construction materials, verify conformance to Public Right-of-Way Accessibility Guidelines and depict new curbing all along the Arsenal Street side on the site plan.

Mr. Hart then addressed the eleventh and final summary item, which listed the permits that the applicant would need to obtain, and said that COR and Bergmann understand the permitting process and would obtain all necessary permits.

Mr. Coburn then asked if any Planning Board members had further questions. Hearing none, he asked if there was a motion.

Mr. Neddo then moved to recommend that City Council approve the request for Site Plan Approval submitted by Andrew M. Hart, RLA, ASLA, of Bergmann Associates Inc. on behalf of COR Arsenal Street Company, LLC for the construction of three 3-story, 36,402 square-foot residential buildings, two 2-story, 17,000 square-foot office buildings, a 5,588 square-foot community center, an interior parking lot and associated site improvements at 218 Stone Street, Parcel Number 7-16-114.000; 123 Massey Street South, Parcel Number 10-02-113.000; 253 Arsenal Street, Parcel Number 10-02-118.000 and 271 Arsenal Street, Parcel Number 10-02-116.000, as shown on plans submitted to the City Engineering Department on August 1, 2016 contingent upon the following:

1. The applicant must allow for unobstructed fire truck movement into and throughout the site, either by removing all curbs from a fire truck's path or by installing curbs with low enough heights as to be unobstructive.

2. The applicant shall perform a hydrant flow test and submit hydraulic calculations to the City Engineering Department.

3. The applicant shall provide the City Engineering Department with correspondence from the New York State Department of Environmental Conservation (DEC) that either approves the proposed sanitary sewer design or indicates that the DEC determined that a review was not necessary.

4. The applicant shall submit a Notice of Intent (NOI) to the DEC and forward the acknowledgement letter to the City upon receipt.

5. The applicant shall provide the City Engineering Department with correspondence from the New York State Department of Health (DOH) that either approves the proposed water system design or indicates that the DOH determined that a review was not necessary.

6. The applicant must address all concerns listed in the "Other Engineering Comments" section of the July 28, 2016 Planning Office memorandum to the satisfaction of the City Engineering Department prior to the issuance of any permits.

7. The applicant must obtain the following permits, minimally, prior to demolition and construction: Building Permit, Fence Permit and General City Permit and a Sanitary/Storm Sewer Connection Permit.

Ms. Fields seconded the motion and all voted in favor.

NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

August 01, 2016

Mr. Michael A. Lumbis
Planning and Community Development Director
City of Watertown
245 Washington Street
Watertown, NY 13601

Re: DEC
Mercy Heights Project
Arsenal St, City of Watertown, Jefferson County, NY
16PR03907

Dear Mr. Lumbis:

Thank you for requesting the comments of the Division for Historic Preservation of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the submitted materials in accordance with the New York State Historic Preservation Act of 1980 (section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the Division for Historic Preservation and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6NYCRR Part 617).

We note that the proposed Mercy Heights project site includes portions of the St. Patrick's Catholic Church complex, which is eligible for listing in the State and National Registers of Historic Places. Two additional eligible buildings are located on the west side of South Massey Street, numbers 136 and 150. Additionally, two listed buildings, the Jefferson County Courthouse Complex and Trinity Episcopal Church and Parish House, are located on the east side of Sherman Street.

We have reviewed the project submission received on 6/7/2016 and the response to our questions received 8/19/2016, which included the revised site plan. Based upon this review, it is the OPRHP's opinion that the proposed project will have No Adverse Impact upon historic resources.

If there are substantive changes to the project, consultation with our office should resume. If you have any questions, I can be reached at (518) 268-2217.

Sincerely,

Christina Vagvolgyi
Historic Preservation Technical Specialist
e-mail: christina.vagvolgyi@parks.ny.gov via e-mail only

Res No. 7

August 10, 2016

To: The Honorable Mayor and City Council

From: Michael A. Lumbis, Planning and Community Development Director

Subject: Approving the Site Plan for the construction of an 11-space, 4,000 square-foot parking lot and associated site improvements located at 1340 Washington Street and 115 Brook Drive, Parcel Number 14-21-102.100 and 14-21-131.000.

A request has been submitted by Michael Altieri of BCA Engineers & Architects, on behalf of Sundus and Sarah, LLC for the above subject site plan approval.

The City Planning Board reviewed the request at its August 2, 2016 meeting and adopted a motion recommending that the City Council approve the site plan subject to the six conditions listed in the resolution. Attached is an excerpt from the Planning Board meeting minutes.

The Staff Report prepared for the Planning Board and the Site Plan application and drawings have all been previously sent to the City Council as part of the Planning Board agenda package. The complete application package can also be found in the online version of the City Council agenda.

The City Council must respond to the questions in Part 2 of the Short Environmental Assessment Form before it may vote on the resolution. The resolution prepared for City Council consideration states that the project will not have a significant negative impact on the environment and approves the site plan submitted to the City Engineering Department on July 19, 2016, subject to the conditions recommended by the Planning Board.

Resolution No. 7

August 15, 2016

RESOLUTION

Approving the Site Plan for the construction of an 11-space, 4,000 square-foot parking lot and associated site improvements located at 1340 Washington Street and 115 Brook Drive, Parcel Number 14-21-102.100 and 14-21-131.000

	YEA	NAY
Council Member HORBACZ, Cody J.		
Council Member JENNINGS, Stephen A.		
Council Member MACALUSO, Teresa R.		
Council Member WALCZYK, Mark C.		
Mayor BUTLER, Jr., Joseph M.		
Total		

Introduced by

_____

WHEREAS Michael Altieri, P.E. of BCA Engineers & Architects, PC, on behalf of Sundus and Sarah, LLC, have submitted an application for site plan approval for the construction of a an 11-space, 4,000 square-foot parking lot and associated site improvements located at 1340 Washington Street and 115 Brook Drive, Parcel Number 14-21-102.100 and 14-21-131.000, and

WHEREAS the Planning Board of the City of Watertown reviewed the site plan at its meeting held on August 2, 2016, and voted to recommend that the City Council of the City of Watertown approve the site plan with the following conditions:

1. The applicant must provide drainage calculations and maps and the catch basin located west of the entrance to the existing parking shall be cleaned of all debris.

2. The applicant shall investigate and verify the true location and sizes of the sanitary and storm sewer utilities on the 1340 Washington Street property as they are displayed differently than on the submitted expansion plans from 2012.

3. The applicant shall assemble parcels 14-21-102.100 and 14-21-131.000 by way of a new metes and bounds description that is filed with the County Clerk, and that describes the entire property as a single parcel.

4. The applicant must provide at least one original stamped and signed boundary and topographic survey of both parcels that includes all utilities within the street and project area.

5. The site plan shall be modified to show the zoning districts of neighboring properties.

RESOLUTION

Approving the Site Plan for the construction of an 11-space, 4,000 square-foot parking lot and associated site improvements located at 1340 Washington Street and 115 Brook Drive, Parcel Number 14-21-102.100 and 14-21-131.000

	YEA	NAY
Council Member HORBACZ, Cody J.		
Council Member JENNINGS, Stephen A.		
Council Member MACALUSO, Teresa R.		
Council Member WALCZYK, Mark C.		
Mayor BUTLER, Jr., Joseph M.		
Total		

6. The applicant must obtain the following permits prior to construction: Storm Sewer Permit, General City Permit, and a Fence Permit.

And,

WHEREAS the City Council has reviewed the Short Environmental Assessment Form, responding to each of the questions contained in Part 2, and has determined that the project, as submitted, is an Unlisted Action and will not have a significant impact on the environment,

NOW THEREFORE BE IT RESOLVED that the City Council of the City of Watertown declares that the proposed construction and site plan constitute an Unlisted Action for the purposes of SEQRA and hereby determines that the project, as proposed, will not have a significant impact on the environment, and

BE IT FURTHER RESOLVED that it is an express condition of this site plan approval that the applicant provide the City Engineer with a copy of any change in stamped plans forming the basis for this approval at the same time such plans are provided to the contractor. If plans are not provided as required by this condition of site plan approval, the City Code Enforcement Officer shall direct that work on the project site shall immediately cease until such time as the City Engineer is provided with the revised stamped plans. Additionally, any change in the approved plan, which, in the opinion of the City Engineer, would require Amended Site Plan approval, will result in immediate cessation of the affected portion of the project work until such time as the amended site plan is approved. The City Code Enforcement Officer is requested to periodically review on-site plans to determine whether the City Engineer has been provided with plans as required by this approval, and

BE IT FURTHER RESOLVED by the City Council of the City of Watertown that site plan approval is hereby granted to Michael Altieri of BCA Engineers & Architects, PC and Sundus and Sarah, LLC for the construction of a an 11-space, 4,000 square-foot parking lot and associated site improvements located at 1340 Washington Street and 115 Brook Drive, Parcel Number 14-21-102.100 and 14-21-131.000 as depicted on the site plan submitted to the City Engineer on July 19, 2016, contingent upon the applicant meeting the conditions listed above.

Seconded by:

Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

Part 1 - Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 - Project and Sponsor Information

Name of Action or Project:
North Country Neurology Employee Parking Facility

Project Location (describe, and attach a location map):
115 Brook Drive, City of Watertown

Brief Description of Proposed Action:
The proposed project is a 4000 sq. ft. +/-, 11 space employee parking facility at 115 Brook Drive, adjacent to the North Country Neurology building site. The lot is owned by Sundus and Sarah, LLC, who also owns North Country Neurology, and the proposed parking expansion will reduce the burden on the existing parking facilities. The 11 space addition will eliminate 2 of the spaces in the current facility, resulting in a net gain of 9 parking spaces.

Name of Applicant or Sponsor:	Telephone: 315-782-9003
Sundus and Sarah, LLC	E-Mail: maltieri@thebcgroup.com

Address:
1340 Washington Street

City/PO:	State:	Zip Code:
Watertown	NY	13601

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other governmental Agency? If Yes, list agency(s) name and permit or approval:	☑	☐

3.a. Total acreage of the site of the proposed action? 0.22 acres
b. Total acreage to be physically disturbed? 0.22 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 0.72 acres

4. Check all land uses that occur on, adjoining and near the proposed action.
☑ Urban ☐ Rural (non-agriculture) ☐ Industrial ☑ Commercial ☑ Residential (suburban)
☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____
☐ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☐	☑	☐
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑	
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area? If Yes, identify: _____	☑	☐	
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☑	☐	
b. Are public transportation service(s) available at or near the site of the proposed action?	☑	☐	
c. Are any pedestrian accommodations or bicycle routes available on or near site of the proposed action?	☐	☑	
9. Does the proposed action meet or exceed the state energy code requirements? If the proposed action will exceed requirements, describe design features and technologies: This design features solar powered lighting fixtures.	☐	☑	
10. Will the proposed action connect to an existing public/private water supply? If No, describe method for providing potable water: _____	☑	☐	
11. Will the proposed action connect to existing wastewater utilities? If No, describe method for providing wastewater treatment: _____	☑	☐	
12. a. Does the site contain a structure that is listed on either the State or National Register of Historic Places?	☑	☐	
b. Is the proposed action located in an archeological sensitive area?	☐	☑	
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☑	☐	
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody? If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____	☑	☐	

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional
☐ Wetland ☑ Urban ☑ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☑	☐
16. Is the project site located in the 100 year flood plain?	☑	☐
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes,		
a. Will storm water discharges flow to adjacent properties? ☐ NO ☑ YES	☐	☑
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? If Yes, briefly describe: ☐ NO ☑ YES		

Site drainage is achieved on this site through sheet flow, a grass swale and a closed drainage culvert. The culvert will be installed near the front of the property, connecting to the existing catch basin on the Sundus and Sarah, LLC owned lot which houses North Country Neurology. This catch basin is connected to the City's storm water collection system on Brook Drive.

	NO	YES
18. Does the proposed action include construction or other activities that result in the impoundment of water or other liquids (e.g. retention pond, waste lagoon, dam)? If Yes, explain purpose and size: _____	☑	☐
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe: _____	☑	☐
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe: _____	☑	☐

I AFFIRM THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor name: Michael Altieri Date: July 19, 2016

Signature: _____

Agency Use Only [If applicable]

Project:

Date:

Short Environmental Assessment Form
Part 2 - Impact Assessment

Part 2 is to be completed by the Lead Agency.
Answer all of the following questions in Part 2 using the information contained in Part 1 and other materials submitted by the project sponsor or otherwise available to the reviewer. When answering the questions the reviewer should be guided by the concept "Have my responses been reasonable considering the scale and context of the proposed action?"

	No, or small impact may occur	Moderate to large impact may occur
1. Will the proposed action create a material conflict with an adopted land use plan or zoning regulations?	☐	☐
2. Will the proposed action result in a change in the use or intensity of use of land?	☐	☐
3. Will the proposed action impair the character or quality of the existing community?	☐	☐
4. Will the proposed action have an impact on the environmental characteristics that caused the establishment of a Critical Environmental Area (CEA)?	☐	☐
5. Will the proposed action result in an adverse change in the existing level of traffic or affect existing infrastructure for mass transit, biking or walkway?	☐	☐
6. Will the proposed action cause an increase in the use of energy and it fails to incorporate reasonably available energy conservation or renewable energy opportunities?	☐	☐
7. Will the proposed action impact existing: a. public / private water supplies?	☐	☐
b. public / private wastewater treatment utilities?	☐	☐
8. Will the proposed action impair the character or quality of important historic, archaeological, architectural or aesthetic resources?	☐	☐
9. Will the proposed action result in an adverse change to natural resources (e.g., wetlands, waterbodies, groundwater, air quality, flora and fauna)?	☐	☐
10. Will the proposed action result in an increase in the potential for erosion, flooding or drainage problems?	☐	☐
11. Will the proposed action create a hazard to environmental resources or human health?	☐	☐

PRINT FORM

Project:	
Date:	

Short Environmental Assessment Form
Part 3 Determination of Significance

For every question in Part 2 that was answered "moderate to large impact may occur", or if there is a need to explain why a particular element of the proposed action may or will not result in a significant adverse environmental impact, please complete Part 3. Part 3 should, in sufficient detail, identify the impact, including any measures or design elements that have been included by the project sponsor to avoid or reduce impacts. Part 3 should also explain how the lead agency determined that the impact may or will not be significant. Each potential impact should be assessed considering its setting, probability of occurring, duration, irreversibility, geographic scope and magnitude. Also consider the potential for short-term, long-term and cumulative impacts.

☐ Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action may result in one or more potentially large or significant adverse impacts and an environmental impact statement is required.

☐ Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action will not result in any significant adverse environmental impacts.

Name of Lead Agency	Date
Print or Type Name of Responsible Officer in Lead Agency	Title of Responsible Officer
Signature of Responsible Officer in Lead Agency	Signature of Preparer (if different from Responsible Officer)

SITE PLAN APPROVAL
1340 WASHINGTON STREET and 115 BROOK DRIVE –
PARCELS 14-21-102.100 and 14-21-131.000

The Planning Board then considered a request for Site Plan Approval submitted by Michael Altieri, P.E. of Bernier, Carr & Associates on behalf of Dr. Abdul Latif of Sundus and Sarah, LLC for the construction of an 11-space, 4,000 square-foot parking lot and associated site improvements located at 1340 Washington Street and 115 Brook Drive, Parcel Number 14-21-102.100 and 14-21-131.000.

Mr. Coburn stated for the record that he worked for Bernier, Carr & Associates, but had no professional or personal interest in this matter.

Mr. Altieri and Brett McBoy of Bernier, Carr & Associates were in attendance to represent the project.

Mr. Altieri began by saying that this project was at the corner of Washington Street and Brook Drive, adjacent to the existing North Country Neurology building, with the Tops grocery store across Brook Drive and the Watertown High School campus across Washington Street.

Mr. Altieri said that the property at 115 Brook Drive had recently undergone a zone change from Residence A to Limited Business, and the previous residential structure on the property has been torn down. He then described the existing conditions on the site.

Mr. Altieri then drew the Planning Board's attention to the site plan and pointed out the proposed parking lot, the majority of which was on a the pie-shaped parcel that he identified as 115 Brook Drive. He said that the property owner intended this proposed parking lot to be for employee use. Mr. Altieri then pointed out where the proposed parking lot would connect to the existing parking area. He added that the proposed parking lot was shaped very carefully to meet zoning and setback requirements while still providing a workable parking space layout.

Mr. Altieri then drew the Planning Board's attention to the side of the parcel that bordered a residential zoning district, where proposed landscaping would run along the existing stockade fence. He said that proposed additional trees would supplement existing trees and that another landscaped strip would separate employee parking from patient parking.

Mr. Altieri then said that to provide suitable drainage, they proposed to grade the site to collect stormwater in a swale and pipe it out to an existing catch basin. Mr. Altieri then identified a stretch of sidewalk on the Brook Drive side that was in poor condition and subsequently targeted for replacement as part of the project. He then asked if there were any questions.

Mr. Katzman then asked if the storm drain could handle additional stormwater. Mr. Altieri replied that drainage capacity was the subject of one of the summary items on Staff's memorandum, and added that his team had not done any hard engineering modeling yet.

Mr. Katzman then said that he recalled a concern related to a catch basin and drainage the last time that the property owners improved their lot. Mr. Wood replied that the applicant needed a swale because the site directs drainage poorly due to a lack of elevation. Mr. Wood added that there were no concerns about capacity stemming from this proposed site plan. Mr. Altieri then referred to the site plan and described how they intended to direct stormwater into the proposed swale.

Mr. Coburn then asked Mr. Altieri if he would like to go through the summary items, and Mr. Altieri replied in the affirmative.

Mr. Altieri then addressed the first summary item, which required the applicant to clarify plans for site lighting and ensure adequate light levels. Mr. Altieri said that the proposed solar light fixture depicted on the site plan would illuminate the new parking lot on its own. He added that all the other existing lights would remain as they are and this new fixture would only serve the new employee lot.

Mr. Altieri then addressed the second summary item, which required the applicant to provide drainage calculations to the City, which Mr. Altieri said he would do.

Mr. Altieri then addressed the third summary item, which required the applicant to verify sizes and locations of sanitary and storm sewers. Mr. Altieri acknowledged the discrepancy between the utilities depicted on the 2012 site plan for the property and their depiction on this submission. He then said that his team would investigate and clarify the discrepancy.

Mr. Altieri then addressed the fourth summary item, which required the applicant to assemble the two parcels across which the site plan occurs. Mr. Altieri said that he would assemble them and file a new deed with the county.

Mr. Altieri then addressed the fifth summary item, which required that the applicant provide a stamped and signed boundary and topographic survey. Mr. Altieri said that his team would provide one.

Mr. Altieri then addressed the sixth summary item, which required the applicant to identify the zoning districts of neighboring parcels on the site plan. Mr. Altieri said he would make this modification to the site plan.

Mr. Alteri then addressed the seventh and final summary item, which listed the permits that the applicant would need to obtain. Mr. Altieri said that he would obtain all necessary permits.

Mr. Polkowski then said that the second condition also required the applicant to clean out the catch basin adjacent to the existing driveway from Brook Drive, as it is currently full of debris. Mr. Altieri said that Bernier, Carr & Associates would oversee removal of all debris from the catch basin.

Mr. Lumbis then said that the Planning Board could eliminate the first summary item prior to voting, and explained that the concern was over what would happen to light levels if the applicant removed the light pole, but since it would remain, then it was fine.

Ms. Fields then moved to recommend that City Council approve the request for Site Plan Approval submitted by Michael Altieri, P.E. of Bernier, Carr & Associates on behalf of Dr. Abdul Latif of Sundus and Sarah, LLC for the construction of an 11-space, 4,000 square-foot parking lot and associated site improvements located at 1340 Washington Street and 115 Brook Drive, Parcel Number 14-21-102.100 and 14-21-131.000, contingent upon the following:

1. The applicant must provide drainage calculations and maps and the catch basin located west of the entrance to the existing parking shall be cleaned of all debris.

2. The applicant shall investigate and verify the true location and sizes of the sanitary and storm sewer utilities on the 1340 Washington Street property as they are displayed differently than on the submitted expansion plans from 2012.

3. The applicant shall assemble parcels 14-21-102.100 and 14-21-131.000 by way of a new metes and bounds description that is filed with the County Clerk, and that describes the entire property as a single parcel.

4. The applicant must provide at least one original stamped and signed boundary and topographic survey of both parcels that includes all utilities within the street and project area.

5. The site plan shall be modified to show the zoning districts of neighboring properties.

6. The applicant must obtain the following permits prior to construction: Storm Sewer Permit, General City Permit, and a Fence Permit.

Mr. Katzman seconded the motion and all voted in favor.

BCA ENGINEERS & ARCHITECTS

July 19, 2016

Justin Wood, P.E.
City Engineer
Room 305, City Hall
245 Washington St.
Watertown, NY 13601

Re: Sundus and Sarah, LLC
Employee Parking Facility
BCA Project No. 2016-115

Dear Mr. Wood:

Enclosed herewith please find the submittal package for the above referenced project for consideration for the August 2, 2016 Planning Board meeting. The proposed project involves the construction of an employee parking facility. The parking area will be 4000 sq. ft. with 11 parking spaces. An entrance to the proposed facility is to be located at the adjacent North Country Neurology Parking Lot with no direct street access. Other site features include exterior site lighting, sidewalks, a grassed swale, a stormwater collection culvert, and site landscaping.

We trust that the application and associated documents are in order, and look forward to working with the City moving forward. Should you have any questions, please do not hesitate to contact me directly.

Respectfully submitted,

Michael Altieri, P.E.
Civil Engineer

Enclosures

Cc: Dr. Sarah Latif – Sundus and Sarah, LLC
File

I:\Projects\2016-000\2016-115.NC Neurology\City Site Plan Review\NCN - City Site Plan Review\Cover Letter.doc

CITY OF WATERTOWN
SITE PLAN APPLICATION PROCESS

The applicant is responsible for submitting a fully complete application and including all the required information.

****INCOMPLETE APPLICATIONS WILL NOT BE PROCESSED****

In order to expedite the Site Plan review process, all applicants are strongly encouraged to schedule a pre-application meeting with Planning & Engineering staff. Staff can be reached at (315) 785-7740.

In the interest of expediting site plan approvals, the City of Watertown wishes to advise you of the following procedures in applying for these referrals:

A. Fill out the Site Plan / Site Plan Waiver - Determination Flow Chart below:

1. Is the use a one, two, or three family dwelling?
   - ☐ YES (Site Plan Review is **not** required. You may apply directly for Building Permit.)
   - ☒ NO (Go to question 2)

2. Is your building or parking lot construction or expansion less than or equal to 400 sq. ft.?
   - ☐ YES (Site Plan Review is not required. You may apply directly for Building Permit.)
   - ☒ NO (Go to question 3)

3. Does your building or parking lot construction or expansion exceed 2500 sq. ft.?
   - ☒ YES (Site Plan Review required. Submit the Site Plan Application Form.)
   - ☐ NO (Go to question 4)

4. Is your proposed building the first on the lot?
   - ☐ YES (Site Plan Review required. Submit the Site Plan Application Form.)
   - ☒ NO (Go to question 5)

5. Does your project involve a change in the property boundaries?
   - ☒ YES (Site Plan Review required. Submit the Site Plan Application Form.)
   - ☐ NO (Go to question 6)

6. Does your building or parking lot construction or expansion change or impair the overall grading, circulation, drainage, utility services, and appearance and visual effect of the property?
   - ☒ YES (Site Plan Review required. Submit the Site Plan Application Form.)
   - ☐ NO (*Site Plan Waiver allowed. Submit the Site Plan Waiver Form.)

   * The City of Watertown Planning Board reserves the right to require Site Plan Review at its sole discretion.

B. WAIVER OF SITE PLAN APPROVAL SUBMITTAL REQUIREMENTS**

1. **3 complete, collated sets of the site plan waiver application package** that includes the following documents:
   a. Cover letter that explains the proposal and includes a project description.
   b. Completed Site Plan Waiver Application Form.
   c. Full size copies of all required plans (24"x36"), including 1 signed original.
2. **8 complete, collated sets of the site plan waiver application package** that includes the following documents:
   a. Cover letter that explains the proposal and includes a project description.
   b. Completed Site Plan Waiver Application Form.
   c. Reduced size copies of all required plans (11"x17") if they are legible. (otherwise submit full size sets)
3. **An electronic (pdf) copy** of the entire site plan waiver application package to include the following:
   a. A single, combined **pdf** containing the cover letter and the site plan waiver application form.
   b. A single, combined **pdf** containing all of the plan sheets and drawings.
   c. The **pdf** may be submitted via email to planning@watertown-ny.gov or on a CD.

** Site Plan Approval of City Council may be waived by the City Planning Board at its sole discretion.

C. Address submittals to:

Justin Wood, P.E.
City Engineer
Room 305, City Hall
245 Washington Street
Watertown, NY 13601

D. A **$50.00** application fee must accompany the submittal.
A **$50.00** application fee must accompany each resubmittal. You will be notified by the Engineering Department if an application requires a resubmittal. Make checks payable to the City of Watertown.

E. All Site Plan Waiver submittals must be received by the City Engineer at least 14 calendar days prior to the next Planning Board Meeting. Failure to meet the submittal deadline will result in **not** making the agenda for the upcoming Planning Board Meeting. **THERE ARE NO EXCEPTIONS.** The City Planning Board meets on the first Tuesday of each month at 3:00 P.M. in the City Council Chambers on the 3rd Floor of City Hall.

F. 2016 Meeting Schedules:

CITY OF WATERTOWN PLANNING BOARD 2016 (1ST TUES. MONTH @ 3:00 PM)		CITY OF WATERTOWN CITY COUNCIL 2016 (1ST & 3RD MONDAY @ 7 PM)	JEFFERSON COUNTY PLANNING BOARD 2016 (LAST TUES. MONTH)	
MEETING DATE	DEADLINE	MEETING DATE	MEETING DATE	DEADLINE
Jan. 5	Dec. 22	Jan. 4, 19*	Jan. 26	Jan. 12
Feb. 2	Jan. 19	Feb. 1, 16*	Feb. 23	Feb. 9
March 1	Feb. 16	March 7, 21	March 29	March 15
April 5	March 22	Apr. 4, 18	April 26	April 12
May 3	April 19	May 2, 16	May 31	May 17
June 7	May 24	Jun. 6, 20	June 28	June 14
July 5	June 21	July 5*, 18	July 26	July 12
Aug. 2	July 19	Aug. 1, 15	Aug. 30	Aug. 16
Sept. 6	Aug. 23	Sept. 6*, 19	Sept. 27	Sept. 13
Oct. 4	Sept. 20	Oct. 3, 17	Oct. 25	Oct. 11
Nov. 1	Oct. 18	Nov. 7, 21	Nov. 29	Nov. 15
Dec. 6	Nov. 22	Dec. 5, 19	Dec. 27	Dec. 13

* = Meeting Date changed due to Holiday

CITY OF WATERTOWN
SITE PLAN WAIVER

1869

** Provide responses for all sections. INCOMPLETE APPLICATIONS WILL NOT BE PROCESSED. Failure to submit required information by the submittal deadline will result in **not** making the agenda for the upcoming Planning Board meeting.

PROPERTY LOCATION

Proposed Project Name: _____

Tax Parcel Number: _____

Property Address: _____

Existing Zoning Classification: _____

OWNER OF PROPERTY

Name: _____

Address: _____

_____

Telephone Number: _____

Fax Number: _____

APPLICANT

Name: _____

Address: _____

_____

Telephone Number: _____

Fax Number: _____

Email Address: _____

ENGINEER / ARCHITECT / LAND SURVEYOR

Name: _____

Address: _____

_____

Telephone Number: _____

Fax Number: _____

Email Address: _____

REQUIRED DRAWINGS:

** The following drawings with the listed information **ARE REQUIRED, NOT OPTIONAL**. If the required information is not included and/or addressed, the Site Plan Application will **not** be processed.

☐ **ELECTRONIC COPY OF ENTIRE SUBMISSION** (PDF preferred)

☐ **SITE PLAN SKETCH**

- ☐ Pertinent existing above ground features are shown and labeled including, but not limited to, buildings, parking spaces, driveways, sidewalks, streets, landscaping, etc.
- ☐ All proposed above ground features are shown and clearly labeled "proposed".
- ☐ Land use, zoning, & tax parcel number are shown.
- ☐ The Plan is adequately dimensioned including radii.
- ☐ All vehicular & pedestrian traffic circulation is shown.
- ☐ Proposed parking & loading spaces including ADA accessible spaces are shown and labeled.
- ☐ Sidewalks within the City Right-of-Way meet Public-Right-of-Way (PROWAG) standards.
- ☐ Refuse Enclosure Area (Dumpster), if applicable, is shown. Section 161-19.1 of the Zoning Ordinance states, "No refuse vehicle or refuse container shall be parked or placed within 15 feet of a party line without the written consent of the adjoining owner, if the owner occupies any part of the adjoining property".
- ☐ Snow storage area(s) are shown.
- ☐ The north arrow & graphic scale are shown.

☐ **GENERAL INFORMATION**

- ☐ Signage will not be approved as part of this submission. It requires a sign permit from the City Code Enforcement Bureau. See Section 310-52.2 of the Zoning Ordinance.
- ☐ Plans have been **collated** and properly folded.
- ☐ Signature Authorization form or letter signed by the owner is submitted allowing the applicant to apply on behalf of the owner if the applicant is not the property owner.
- ☐ Explanation for any item not checked in the Site Plan Waiver Checklist. (Attach separate sheet with explanation and comments)

SIGNATURE

I certify that the information provided above is true to the best of my knowledge.

Applicant's name (please print)_____

Applicant's Signature _____ Date: _____

CITY OF WATERTOWN
SITE PLAN APPLICATION PROCESS

A. SITE PLAN APPROVAL SUBMITTAL REQUIREMENTS*

1. **3 complete, collated sets of the site plan application package** that includes the following documents:
   a. Cover letter that explains the proposal and includes a project description.
   b. Completed Site Plan Application Form.
   c. Full size copies of all required plans (24"x36"), including 1 stamped & signed original.
   d. Engineering Report.

2. **13 complete, collated sets of the site plan application package** that includes the following documents:
   a. Cover letter that explains the proposal and includes a project description.
   b. Completed Site Plan Application Form.
   c. Reduced size copies of all required plans (11"x17") if they are legible. (otherwise submit full size sets)

3. **An electronic (pdf) copy** of the entire site plan application package to include the following:
   a. A single, combined **pdf** containing the cover letter, the site plan application form and the Engineering Report.
   b. A single, combined **pdf** containing all of the plan sheets and drawings.
   c. The **pdf** may be submitted via email to planning@watertown-ny.gov or on a CD.

Note: When Jefferson County Planning Board (239-M) Review is necessary, one additional full size set as described in # 1 above is required.

*Planning Board Recommendation and City Council Approval are required for Site Plans.

B. Address submittals to:
   Justin Wood, P.E.
   City Engineer
   Room 305, City Hall
   245 Washington Street
   Watertown, NY 13601

C. A **$50.00** application fee must accompany the submittal.
   A **$50.00** application fee must accompany each resubmittal. You will be notified by the Engineering Department if an application requires a resubmittal.
   Make checks payable to the City of Watertown.

Date: 12-1-2015

D. All Site Plan submittals must be received by the City Engineer at least 14 calendar days prior to the next Planning Board Meeting; 21 calendar days if Jefferson County Planning Board action is necessary. Failure to meet the submittal deadline will result in **not** making the agenda for the upcoming Planning Board Meeting. **THERE ARE NO EXCEPTIONS.** The City Planning Board meets on the first Tuesday of each month at 3:00 P.M. in the City Council Chambers on the 3rd Floor of City Hall.

E. 2016 Meeting Schedules:

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Sept. 6	Aug. 23	Sept. 6*, 19	Sept. 27	Sept. 13
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Dec. 6	Nov. 22	Dec. 5, 19	Dec. 27	Dec. 13

* = Meeting Date changed due to Holiday

CITY OF WATERTOWN
SITE PLAN APPLICATION

1869

** Provide responses for all sections. INCOMPLETE APPLICATIONS WILL NOT BE PROCESSED. Failure to submit required information by the submittal deadline will result in **not** making the agenda for the upcoming Planning Board meeting.

PROPERTY LOCATION Sundus and Sarah, LLC

Proposed Project Name: Employee Parking Facility

Tax Parcel Number: 4-21-131

Property Address: 1340 Washington Street, Watertown, NY 13601

Existing Zoning Classification: Limited Business

OWNER OF PROPERTY

Name: Sundus and Sarah, LLC

Address: 1340 Washington Street
Watertown, NY 13601

Telephone Number: (315)782-9003

Fax Number: (315) 782-9010

APPLICANT

Name: Dr. Abdul Latif

Address: 1340 Washington Street
Watertown, NY 13601

Telephone Number: (315)782-9003

Fax Number: (315) 782-9010

Email Address: sarahlatif@hotmail.com

ENGINEER/ARCHITECT/SURVEYOR

Name: Bernier, Carr and Associates

Address: 327 Mullin Street
Watertown, NY 13601

Telephone Number: (315) 782-8130

Fax Number: (315) 782-7192

Email Address: maltieri@thebcgroup.com

OPTIONAL MATERIALS:

☐ **PROVIDE AN ELECTRONIC (.DWG) COPY OF THE SITE PLAN WITH AS-BUILT REVISIONS. This will assist the City in keeping our GIS mapping up-to-date.**

REQUIRED MATERIALS:

** The following drawings with the listed information **ARE REQUIRED, NOT OPTIONAL**. If the required information is not included and/or addressed, the Site Plan Application will **not** be processed.

☒ **COMPLETED ENVIRONMENTAL ASSESSMENT FORM** (Contact us if you need help choosing between the Short EAF and the Full EAF). The Complete EAF is available online at: http://www.dec.ny.gov/permits/6191.html

☒ **ELECTRONIC COPY OF ENTIRE SUBMISSION** (PDF) A single, combined PDF of the entire application, including cover letter, plans, reports, and all submitted material.

☒ **BOUNDARY and TOPOGRAPHIC SURVEY**
(Depict existing features as of the date of the Site Plan Application. This Survey and Map must be performed and created by a Professional Land Surveyor licensed and currently registered to practice in the State of New York. This Survey and Map must be stamped and signed with an original seal and signature on at least one copy, the rest may be copies thereof.

☒ All elevations are National Geodetic Vertical Datum of 1929 (NGVD29).

☒ 1' contours are shown and labeled with appropriate spot elevations.

☒ All existing features on and within 50 feet of the subject property are shown and labeled.

☒ All existing utilities on and within 50 feet of the subject property are shown and labeled.

☒ All existing easements and/or right-of-ways are shown and labeled.

☒ Existing property lines (bearings and distances), margins, acreage, zoning, existing land use, reputed owner, adjacent reputed owners and tax parcel numbers are shown and labeled.

☒ The north arrow and graphic scale are shown.

☒ **DEMOLITION PLAN** (If Applicable)

☒ All existing features on and within 50 feet of the subject property are shown and labeled.

☒ All items to be removed are labeled in darker text.

☒ **SITE PLAN**

☒ Include a reference to the coordinate system used(NYS NAD83-CF preferred).

☒ All proposed above ground features are depicted and clearly labeled.

☒ All proposed features are clearly labeled "proposed".

☒ All proposed easements and right-of-ways are shown and labeled.

☒ Land use, zoning, and tax parcel number are shown.

☒ The Plan is adequately dimensioned including radii.

☒ The line work and text for all proposed features is shown darker than existing features.

☒ All vehicular and pedestrian traffic circulation is shown including a delivery or refuse vehicle entering and exiting the property.

☒ Proposed parking and loading spaces including ADA accessible spaces are shown and labeled.

☒ Sidewalks within the City Right-of-Way meet Public-Right-of-Way (PROWAG) standards.

N/A Refuse Enclosure Area (Dumpster), if applicable, is shown. Section 161-19.1 of the Zoning Ordinance states, "No refuse vehicle or refuse container shall be parked or placed within 15 feet of a party line without the written consent of the adjoining owner, if the owner occupies any part of the adjoining property".

☒ Proposed snow storage areas are shown on the plans.

☒ The north arrow and graphic scale are shown.

☒ **GRADING PLAN**

☒ All proposed below ground features including elevations and inverts are shown and labeled.

☒ All proposed above ground features are shown and labeled.

☒ The line work and text for all proposed features is shown darker than existing features.

☒ All proposed easements and right-of-ways are shown and labeled.

☒ 1' existing contours are shown dashed and labeled with appropriate spot elevations.

☒ 1' proposed contours are shown and labeled with appropriate spot elevations.

☒ All elevations are North American Vertical Datum of 1988 (NAVD88).

☒ Sediment and Erosion control are shown and labeled on the grading plan unless separate drawings have been provided as part of a Stormwater Pollution Prevention Plan (SWPPP).

☒ **UTILITY PLAN**

☒ All proposed above and below ground features are shown and labeled.

☒ All existing above and below ground utilities including sanitary, storm water, water, electric, gas, telephone, cable, fiber optic, etc. are shown and labeled.

☒ All proposed easements and right-of-ways are shown and labeled.

☒ The Plan is adequately dimensioned including radii.

☒ The line work and text for all proposed features is shown darker than existing features.

N/A ☒ The following note has been added to the drawings stating, "All water main and service work must be coordinated with the City of Watertown Water Department. The Water Department requirements supersede all other plans and specifications provided."

☒ **LANDSCAPING PLAN**

☒ All proposed above ground features are shown and labeled.

☒ All proposed trees, shrubs, and other plantings are shown and labeled.

☒ All proposed landscaping and text are shown darker than existing features.

☒ All proposed landscaping is clearly depicted, labeled and keyed to a plant schedule that includes the scientific name, common name, size, quantity, etc.

☒ For additional landscaping requirements where nonresidential districts and land uses abut land in any residential district, please refer to Section 310-59, Landscaping of the City's Zoning Ordinance.

☒ **Site Plan complies with and meets acceptable guidelines set forth in Appendix A - Landscaping and Buffer Zone Guidelines (August 7, 2007).**

☒ **PHOTOMETRIC PLAN** (If Applicable)

☒ All proposed above ground features are shown.

☒ Photometric spot elevations or labeled photometric contours of the property are clearly depicted. Light spillage across all property lines shall not exceed 0.5 foot-candles.

☒ **CONSTRUCTION DETAILS and NOTES**

☒ All details and notes necessary to adequately complete the project including, but not limited to, landscaping, curbing, catch basins, manholes, water line, pavement, sidewalks, trench, lighting, trash enclosure, etc. are provided.

☒ Maintenance and protection and traffic plans and notes for all required work within City streets including driveways, water laterals, sanitary laterals, storm connections, etc. are provided.

☒ The following note must be added to the drawings stating:
"All work to be performed within the City of Watertown margin will require sign-off from a Professional Engineer, licensed and currently registered to practice in the State of New York, that the work was built according to the approved site plan and applicable City of Watertown standards. Compaction testing will be required for all work to be performed within the City of Watertown margin and must be submitted to the City of Watertown Codes Department."

N/A **PRELIMINARY ARCHITECTUAL PLANS** (If Applicable)

N/A Floor plan drawings, including finished floor elevations, for all buildings to be constructed are provided.

N/A Exterior elevations including exterior materials and colors for all buildings to be constructed are provided.

N/A Roof outline depicting shape, slope and direction is provided.

☒ **ENGINEERING REPORT**

**** The engineering report at a minimum includes the following:**

☒ Project location

☒ Project description

N/A Existing and proposed sanitary sewer flows and summary

N/A Water flows and pressure

N/A Storm Water Pre and Post Construction calculations and summary

☒ Traffic impacts

☒ Lighting summary

☒ Landscaping summary

☒ **GENERAL INFORMATION**

☒ ALL ITEMS ARE STAMPED AND SIGNED WITH AN ORIGINAL SIGNATURE BY A PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR SURVEYOR LICENSED AND CURRENTLY REGISTERED TO PRACTICE IN THE STATE OF NEW YORK.

☐ If required, a copy of the Stormwater Pollution Prevention Plan (SWPPP) submitted to the NYSDEC will also be sent to the City of Watertown Engineering Department.

☐ ** If required, a copy of all submittals sent to the New York State Department of Environmental Conservation (NYSDEC) for the sanitary sewer extension permit will also be sent to the City of Watertown Engineering Department.

☐ ** If required, a copy of all submittals sent to the New York State Department of Health (NYSDOH) will also be sent to the City of Watertown Engineering Department.

** When NYSDEC or NYSDOH permitting is required, the property owner/applicant shall retain a licensed Professional Engineer to perform inspections of the proposed utility work and to certify the completed works were constructed in substantial conformance with the approved plans and specifications.

☒ Signage will not be approved as part of this submission. It requires a sign permit from the City Code Enforcement Bureau. See Section 310-52.2 of the Zoning Ordinance.

☒ Plans have been collated and properly folded.

☐ If an applicant proposes a site plan with multiple buildings and any of those buildings front on a private drive, the City Council will name the private drive by resolution and the building(s) will be given an address number on that private drive by City staff. The applicant may propose a name for the private drive for the City Council's consideration.

Proposed Street Name: _____

☒ For non-residential uses, the proposed Hours of Operation shall be indicated.

☒ Signature Authorization form or letter signed by the owner is submitted allowing the applicant to apply on behalf of the owner if the applicant is not the property owner.

☐ Explanation for any item not checked in the Site Plan Checklist.

_____

_____

_____

_____

_____

Appendix A
Landscaping and Buffer Zone Guidelines

Adopted by the City of Watertown Planning Board
August 7, 2007

Introduction

A landscape plan is required as part of every site plan review application. These guidelines are the minimum plantings that the Planning Board expects to see on the landscape plan regarding number, type, size, and arrangement of trees and shrubs.

Landscaping is required to minimize negative impacts from development by creating visual and noise buffers between adjoining property uses and promoting harmonious streetscapes. The intent of these guidelines is also to replace trees lost due to development and to establish incentives for the preservation of existing trees.

These guidelines will also provide direction to the applicants where buffer zones are required under Section 310-59 of the City of Watertown Zoning Ordinance.

General Provisions

A tree schedule shall be included on each landscape plan. No one (1) species of tree may take up more than fifteen (15) percent of the total amount of the landscape plantings.

Where the location of existing overhead or underground utility lines conflicts with the required landscaping strip and tree planting, the Planning Board may approve an alternative plan to meet the intent of these guidelines.

It is recommended that trees from the list provided below be considered. Tree diameter shall be measured four feet from the base of the tree. The developer/owner should make every effort to preserve and protect existing significant trees over twelve (12) inches in diameter.

Tree removal or planting in the city right-of-way shall be in accordance with Chapter 287 of the Code of the City of Watertown.

Landscaping must be permanently maintained in a healthy growing condition at all times. The property owner is responsible for regular weeding, mowing of grass, irrigating, fertilizing, pruning, and other permanent maintenance of all plantings as needed.

Landscaped Strips Along Street Rights-of-Way

A landscaped strip should be provided adjacent to all public and private rights-of-ways and streets. It should be a minimum of fifteen (15) feet wide, exclusive of street right-of-way. Within the landscaped strip, one (1) large deciduous tree (2" caliper minimum) should be provided every forty (40) linear feet or one (1) small to medium deciduous tree (1.5" caliper minimum) should be provided every twenty (20) linear feet. Planting beds with shrubs, perennials, and/or annuals or grass areas are recommended in between the trees.

Where parking lots and driveways abut the landscaped strip along the street right-of-way, shrubs should be considered for screening in addition to the shade trees. The screening should be a plant species that grows to a minimum of three (3) feet high and extends along the entire street frontage of the parking lot, exclusive of driveways and visibility setbacks. A landscaped berm may also be utilized to screen the parking lots and driveways. The berm should be a minimum of 30 inches above the average grade of the street and parking lot curbs with a slope not to exceed 3:1. If a parking lot is located fifty (50) feet or more from the street right-of-way, no screening shrubs or berm will be required.

Street level landscaping shall not interfere with visibility of drivers entering or exiting, or driving by the property. All landscaping (trees, shrubs, and planted beds) shall be a distance of ten (10) feet from any driveway or street intersections.

Interior Parking Lot Landscaping

Interior parking lot trees and landscaping are recommended in addition to the required landscaped strip. Trees should be provided in each parking lot at a minimum average density of one (1) shade tree (two-inch diameter) for each fifteen (15) parking spaces, or any fraction thereof.

The interior parking lot trees and landscaping should be evenly distributed throughout the parking lot, although adjustments may be approved by the Planning Board where the shape or size of the parking lot, the location of existing trees, snow removal requirements, or other natural constraints prevent such distribution.

Landscaped islands within parking lot areas should be a minimum of nine (9') feet x eighteen (18') feet in dimension. Large planters are an acceptable alternative that can be utilized in conjunction within landscaped islands where the parking lot configuration, snow removal requirements, or other constraints prevent the installation of the permanent landscaped islands.

Exterior Parking Lot Landscaping

A landscaped strip should be provided around the perimeter of any parking lot exclusive of driveways. The landscaped strip should be a minimum of eight (8) wide, except where other provisions apply. Within the perimeter landscaped strip, one (1) large deciduous tree (2" caliper minimum) should be provided every forty (40) linear feet or one (1) small to medium deciduous tree (1.5" caliper minimum) should be provided every twenty (20) linear feet or one (1) large coniferous tree (6' minimum) should be provided every twenty (20) linear feet.

Buffer Zone Requirements Between Non-Residential and Residential Zoning Districts

Section 310-59 of the City of Watertown Zoning Ordinance requires buffer zones where non-residential land uses abut land in a residential district. The purpose of the buffer zones is to separate land uses and offer visual screening between uses that may not be compatible.

The required buffer areas within each listed zoning district shall contain, at a minimum, the following landscaping:

Limited Business and Health Services Districts. A landscaped strip shall be provided to separate the Limited Business or Health Service District from the Residential District. The landscaped strip shall be a minimum of fifteen (15') wide. Within the landscaped strip, one (1) large deciduous tree (2" caliper minimum) shall be provided every forty (40) linear feet, along with planting beds in between the trees containing assorted shrubs or one (1) small to medium deciduous tree (1.5" caliper minimum) shall be provided every twenty (20) linear feet, along with planting beds in between the trees containing assorted shrubs or one (1) large coniferous tree (6' minimum), stagger planted shall be provided every fifteen (15) linear feet.

Neighborhood Business and Commercial Districts. A landscaped strip shall be provided to separate the Neighborhood Business or Commercial Districts from the Residential District. The landscaped strip shall be a minimum of fifteen (15') wide. Within the landscaped strip, one (1) large deciduous tree (2" caliper minimum) shall be provided every thirty five (35) linear feet, along with planting beds in between the trees containing assorted shrubs or one (1) small to medium deciduous tree (1.5" caliper minimum) shall be provided every twenty (20) linear feet, along with planting beds in between the trees containing assorted shrubs or one (1) large coniferous tree (6' minimum), stagger planted shall be provided every fifteen (15) linear feet. In addition to the required trees and shrubs, a six (6) foot high opaque fence (stockade or equal) should be provided. All fencing shall be in conformance with Section 310-26.1, Fences, of the Zoning Ordinance.

Light and Heavy Industrial Districts. A landscaped strip shall be provided to separate the Light or Heavy Industrial District from the Residential District. The landscaped strip shall be a minimum of fifteen (15') wide. Within the landscaped strip, one (1) large deciduous shade tree (2" caliper minimum) shall be provided every thirty (35) linear feet, along with planting beds in between the trees containing assorted shrubs or one (1) small to medium deciduous tree shall be provided every twenty (20) linear feet, along with planting beds in between the trees containing assorted shrubs or one (1) large coniferous tree (6' minimum), stagger planted shall be provided every twelve (12) linear feet. In addition to the required trees and shrubs, an eight (8) foot high opaque fence (stockade or equal) should be provided. All fencing shall be in conformance with Section 310-26.1, Fences, of the Zoning Ordinance.

Front, Side and Rear Yard Buffer Zone Requirements in Commercial Districts

Section 310-59, Paragraph C of the City of Watertown Zoning Ordinance requires for Commercial Districts that a strip of land at least 15' in width be provided in any required front yard and a strip of land at least 5' in width be provided in any required side or rear yard to be maintained as landscaped areas.

The front yard landscaped strip shall be at least fifteen (15') wide. Within the landscaped strip, a minimum of one (1) large deciduous tree (2" caliper minimum) should be provided every forty (40) linear feet or one (1) small to medium deciduous tree (1.5" caliper minimum) should be provided every twenty (20) linear feet. Planting beds with shrubs, perennials, and/or annuals or grass areas are recommended in between the trees. Where parking lots and driveways abut the landscaped strip, shrubs shall be considered for screening in addition to the shade trees. The screening should be a plant species that grows to a minimum of three (3) feet high and extends along the entire street frontage of the parking lot, exclusive of driveways and visibility setbacks. A landscaped berm may also be utilized to screen the parking lots and driveways. The berm

should be a minimum of 30 inches above the average grade of the street and parking lot curbs with a slope not to exceed 3:1. If a parking lot is located fifty (50) feet or more from the street right-of-way, no screening shrubs or berm will be required.

The side and rear yard landscaped strip shall be a minimum of 5' wide and should consist of one (1) large deciduous shade tree (2" caliper minimum) provided every forty (40) linear feet or one (1) small to medium deciduous tree (1.5" caliper minimum) provided every twenty (20) linear feet or one (1) large coniferous tree (6' minimum) provided every fifteen (15) linear feet. Grass areas and/or planting beds shall also be included in between the trees.

Special Provisions for Existing Sites

When an existing site is undergoing any external alteration or expansion, the objective of these standards is to gradually bring the existing site into compliance with minimum standards of this section in relation to the extent of expansion or change on a site. The applicant should make every effort to include new landscaping and buffering as a part of any alteration or expansion.

If space is limited by other site elements required by the Zoning Ordinance, landscaping along the street and buffer zones between adjacent land uses will take priority over interior and exterior parking lot landscaping.

Incentives to Preserve Existing Trees

The Planning Board encourages the preservation of quality and mature trees by providing credits toward the required landscaping. Trees intended to be preserved shall be indicated with a special symbol on the landscape plan and shall be protected during the construction through use of a fence around the drip line. To obtain credit, the preserved trees shall be of a high quality and at least two and one half (2-½) inches diameter. Trees to be preserved shall be counted for credit only if they are located on the developed portion of the site as determined by the Planning Board. The credit for preserved trees shall be as follows:

Diameter of Preserved Tree (in inches)	Number of Trees Credited
Over 12"	5
8" – 11.9"	4
2.5" – 7.9"	2

Credit for preserving existing trees may not be utilized in lieu of trees in the landscaped strip along street rights-of way or the required buffer zone. Credit may be applied only to required interior or exterior parking lot tree planting. Any preserved trees receiving credit which are lost within three (3) years after construction completion shall be replaced by the landowner with trees otherwise required.

Recommended Tree Species

The following list of trees is recommended for use in fulfilling the requirements of these guidelines. The list is not meant to be exclusive but rather a guideline to indicate types of trees that have been found to grow well in the Watertown area in urban soils.

Small to Medium Deciduous Trees

Acer ginnala (varieties)	Amur Maple
Acer tataricum	Tatarian Maple
Amelanchier species (varieties)	Serviceberry Varieties
Carpinus caroliniana	American Hornbeam
Crataegus crus-galli inermis	Thornless Cockspur Hawthorn
Crateagus phaenopyrum	Washington Hawthorn
Maackia amurensis	Amur Maackia
Malus species	Flowering Crabapples
Syringa reticulata (varieties)	Japanese Tree Lilac

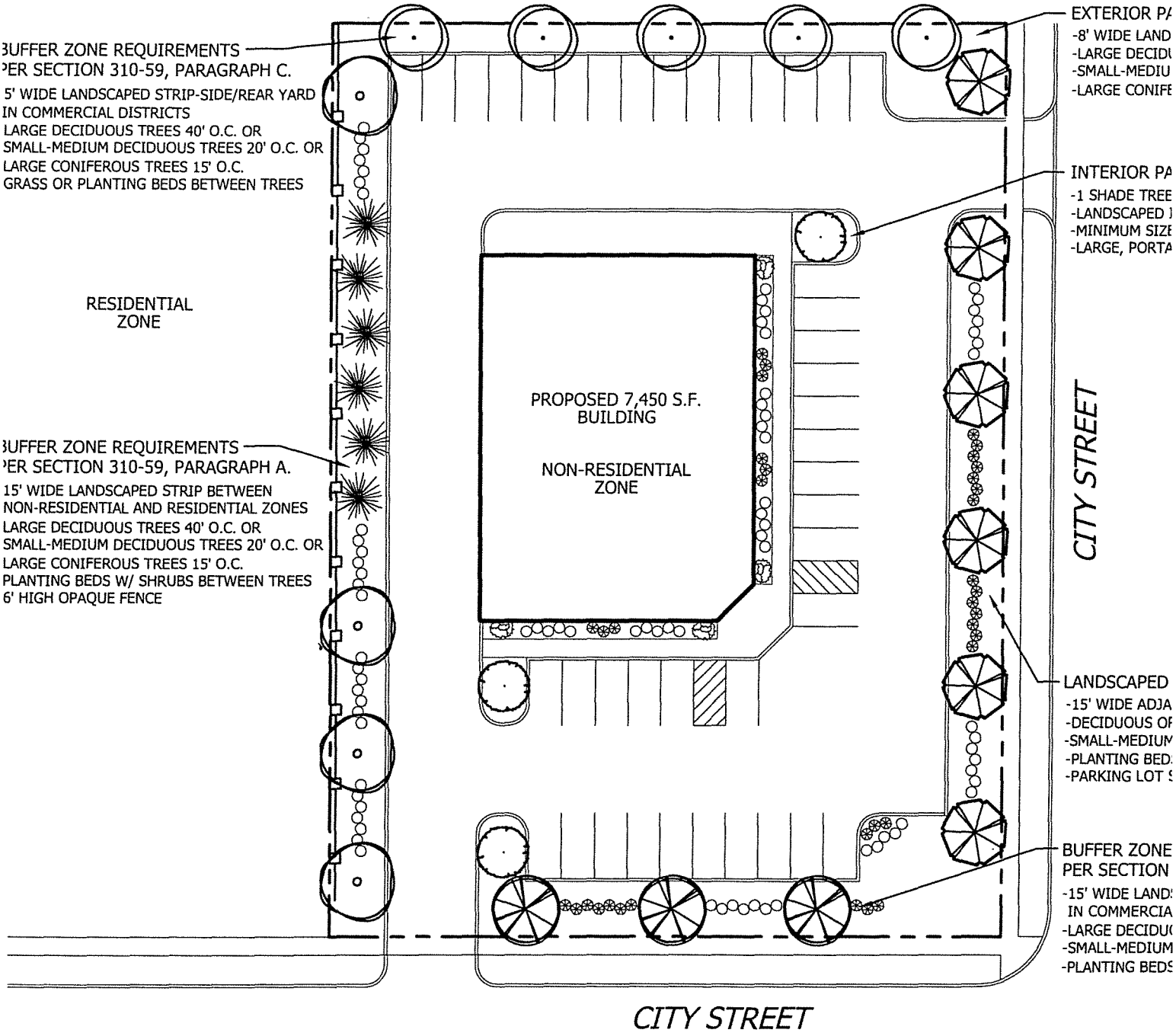
Large Deciduous Trees

Acer x fremanii (varieties)	Freeman Maple
Acer platanoides (varieties)	Norway Maple
Acer rubrum (varieties)	Red Maple
Aesculus hippocastanum (varieties)	Horsechestnut
Aesculus x carnea (varieties)	Horsechestnut
Alnus glutinosa	Black Alder
Betula papyrifera	Paper Birch
Catalpa speciosa	Northern Catalpa
Celtis occidentalis	Hackberry
Corylus colurna	Turkish Filbert
Gingko biloba	Gingko
Gleditsia triacanthos inermis (varieties)	Thornless Honeylocust
Gymnocladus dioicus	Kentucky Coffeetree
Liriodendron tulipifera	Tulip Tree
Ostrya virginiana	American Hophornbeam (Ironwood)
Phellodendron amurense 'Macho'	Macho Amur Corktree
Platanus x acerfolia	London Planetree
Prunus sargentii	Sargent Cherry
Pyrus calleryana (varieties)	Callery Pear
Quercus alba	White Oak
Quercus bicolor	Swamp White Oak
Quercus macrocarpa	Bur Oak
Quercus muehleenbergii	Chinkapin Oak
Quercus robur (varieties)	English Oak
Quercus rubra	Northern Red Oak
Robinia pseudoacacia	Black Locust
Tilia americana (varieties)	American Linden
Tilia x flavescens 'Glenleven'	Glenleven Linden
Tilia cordata (varieties)	Littleleaf Linden

Large Coniferous Trees

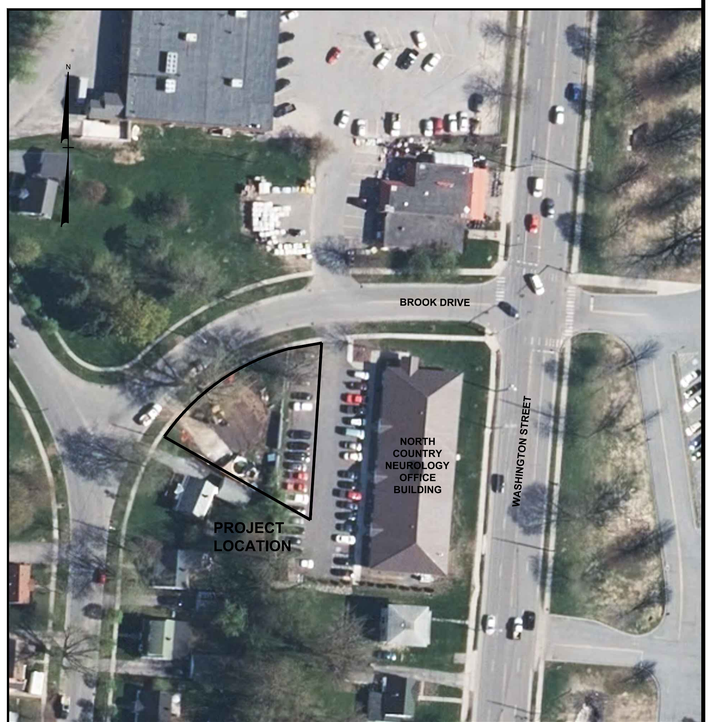
Abies balsamea	Balsam Fir
Abies concolor	White Fir
Picea abies	Norway Spruce
Picea glauca	White Spruce
Picea pungens glauca	Colorado Blue Spruce
Picea omorika	Serbian Spruce
Pinus nigra	Austrian Pine
Pinus strobus	White Pine
Pseudotsuga menziesii	Douglas Fir
Tsuga Canadensis	Canadian Hemlock

CITY OF WATERTOWN LANDSCAPING
REQUIREMENTS AND BUFFER ZONE GUIDELINES



SUNDUS & SARAH, LLC
EMPLOYEE PARKING FACILITY
115 BROOK DRIVE, WATERTOWN, NY 13601
CITY OF WATERTOWN - COUNTY OF JEFFERSON - STATE OF NEW YORK
PROJECT NO. 2016-115

INDEX OF DRAWINGS

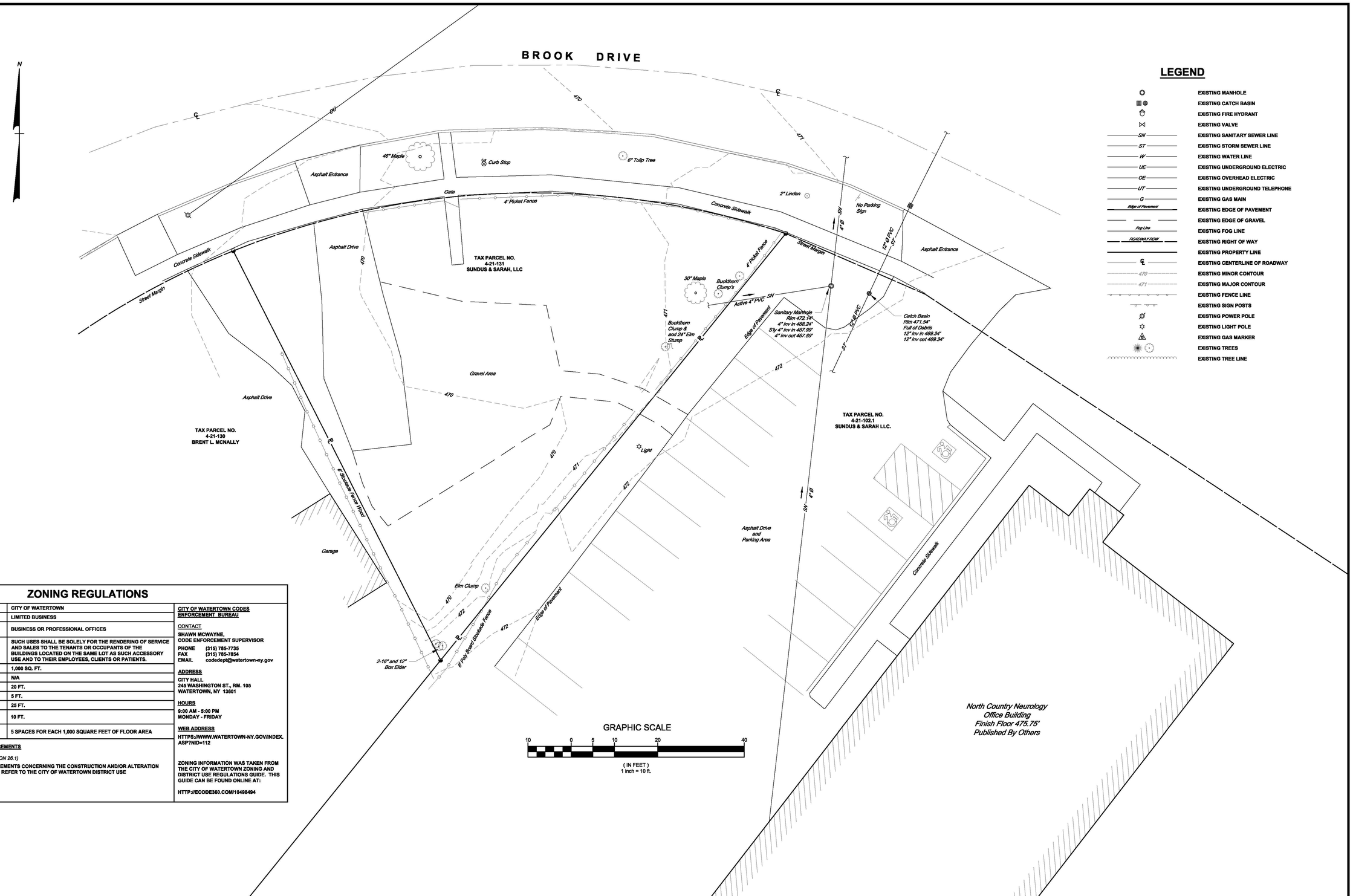


CITY OF WATERTOWN
SITE PLAN SUBMISSION SET
7/19/2016

BCA ENGINEERS ARCHITECTS

Bernier, Carr & Associates,
Engineers, Architects
and Land Surveyors, P.C.
327 Mullin Street, Watertown, NY 13601
(315) 782-8130 - WWW.THEBCGROUP.COM

SHEET NO.
COVER
PROJECT NO.
2016-115



LEGEND

- EXISTING MANHOLE
- EXISTING CATCH BASIN
- EXISTING FIRE HYDRANT
- EXISTING VALVE
- SN — EXISTING SANITARY SEWER LINE
- ST — EXISTING STORM SEWER LINE
- W — EXISTING WATER LINE
- UE — EXISTING UNDERGROUND ELECTRIC
- OE — EXISTING OVERHEAD ELECTRIC
- UT — EXISTING UNDERGROUND TELEPHONE
- G — EXISTING GAS MAIN
- Edge of Pavement — EXISTING EDGE OF PAVEMENT
- EXISTING EDGE OF GRAVEL
- Fog Line — EXISTING FOG LINE
- ROADWAY ROW — EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- EXISTING CENTERLINE OF ROADWAY
- 470 — EXISTING MINOR CONTOUR
- 471 — EXISTING MAJOR CONTOUR
- EXISTING FENCE LINE
- EXISTING SIGN POSTS
- EXISTING POWER POLE
- EXISTING LIGHT POLE
- EXISTING GAS MARKER
- EXISTING TREES
- EXISTING TREE LINE

ZONING REGULATIONS

MUNICIPALITY	CITY OF WATERTOWN
ZONED	LIMITED BUSINESS
PERMITTED PRINCIPAL USES	BUSINESS OR PROFESSIONAL OFFICES
PERMITTED ACCESSORY USES	SUCH USES SHALL BE SOLELY FOR THE RENDERING OF SERVICE AND SALES TO THE TENANTS OR OCCUPANTS OF THE BUILDINGS LOCATED ON THE SAME LOT AS SUCH ACCESSORY USE AND TO THEIR EMPLOYEES, CLIENTS OR PATIENTS.
MINIMUM LOT SIZE	1,000 SQ. FT.
MAXIMUM LOT COVERAGE	N/A
MINIMUM FRONT SETBACK	20 FT.
MINIMUM SIDE SETBACK	5 FT.
MINIMUM REAR SETBACK	25 FT.
MINIMUM SIDE SETBACK CORNER LOT	10 FT.
PARKING SPACE REQUIREMENTS	5 SPACES FOR EACH 1,000 SQUARE FEET OF FLOOR AREA

SPECIAL REGULATIONS AND REQUIREMENTS

FENCES *(CHAPTER 310, SECTION 28.1)*

1. FOR ALL ZONING REQUIREMENTS CONCERNING THE CONSTRUCTION AND/OR ALTERATION OF ANY FENCE / FENCES, REFER TO THE CITY OF WATERTOWN DISTRICT USE REGULATIONS GUIDE.

CITY OF WATERTOWN CODES ENFORCEMENT BUREAU

CONTACT

SHAWN MCWAYNE,
CODE ENFORCEMENT SUPERVISOR

PHONE (315) 785-7735
FAX (315) 785-7854
EMAIL codedept@watertown-ny.gov

ADDRESS

CITY HALL
245 WASHINGTON ST., RM. 105
WATERTOWN, NY 13601

HOURS

9:00 AM - 5:00 PM
MONDAY - FRIDAY

WEB ADDRESS

HTTPS://WWW.WATERTOWN-NY.GOV/INDEX.ASP?NID=112

ZONING INFORMATION WAS TAKEN FROM THE CITY OF WATERTOWN ZONING AND DISTRICT USE REGULATIONS GUIDE. THIS GUIDE CAN BE FOUND ONLINE AT:

HTTP://ECODE360.COM/10498494

EXISTING SITE PLAN

SUNDUS & SARAH, LLC
EMPLOYEE PARKING FACILITY
115 BROOK DRIVE, WATERTOWN, NY 13601

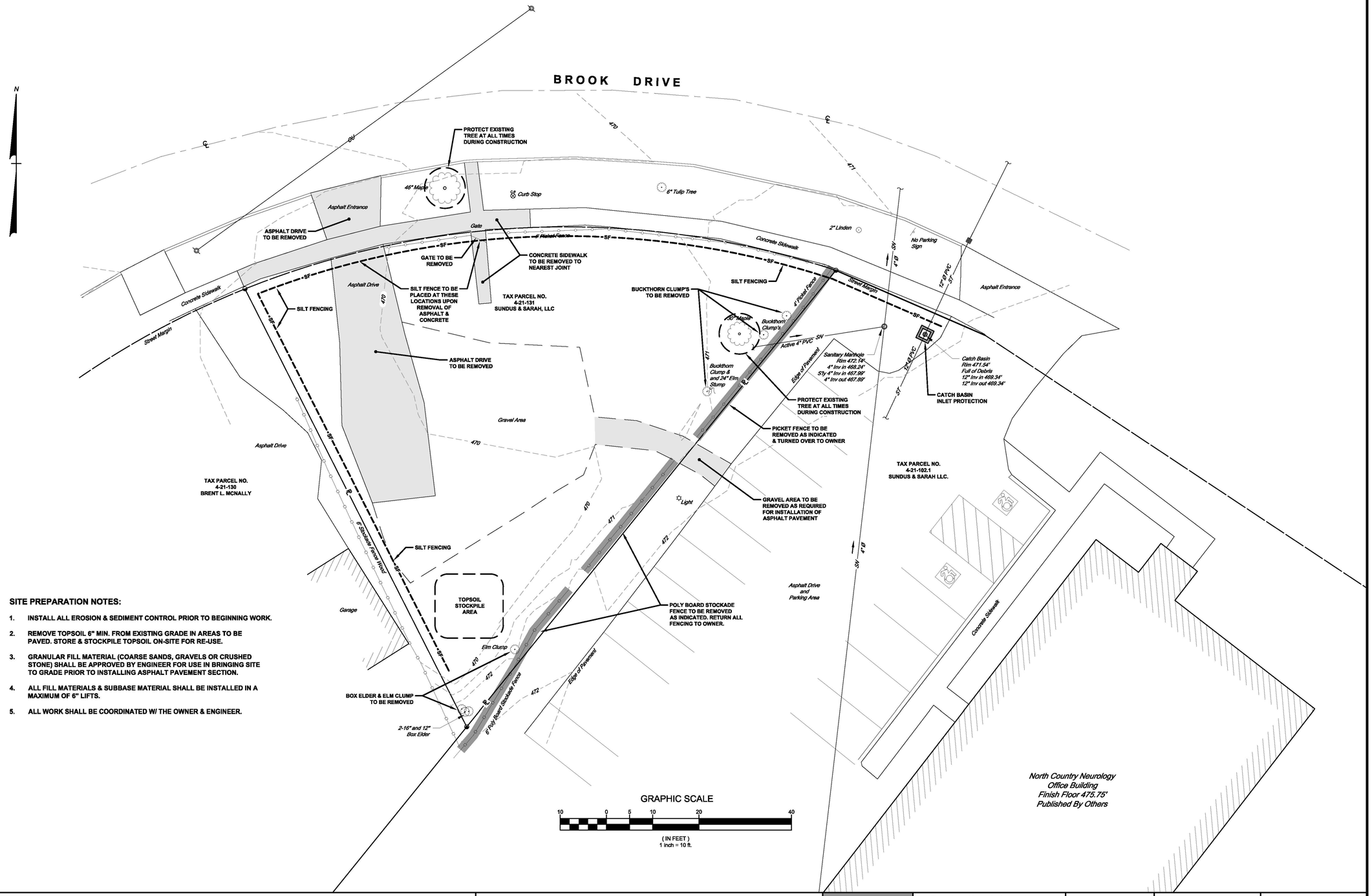
CITY OF WATERTOWN - COUNTY OF JEFFERSON - STATE OF NEW YORK

BCA ENGINEERS ARCHITECTS

Bernier, Carr & Associates,
Engineers, Architects
and Land Surveyors, P.C.
327 Mullin Street, Watertown, NY 13601
(315) 782-8130 - WWW.THEBCGROUP.COM

CHECKED BY:	MDA
DRAWN BY:	JBE
DATE:	7/19/2016
LAST REVISION:	-
SCALE:	AS NOTED
PRINTED FOR:	REVIEW

SHEET NO.
S-1
PROJECT NO.
2016-115



SITE PREPARATION NOTES:

1. INSTALL ALL EROSION & SEDIMENT CONTROL PRIOR TO BEGINNING WORK.
2. REMOVE TOPSOIL 6" MIN. FROM EXISTING GRADE IN AREAS TO BE PAVED. STORE & STOCKPILE TOPSOIL ON-SITE FOR RE-USE.
3. GRANULAR FILL MATERIAL (COARSE SANDS, GRAVELS OR CRUSHED STONE) SHALL BE APPROVED BY ENGINEER FOR USE IN BRINGING SITE TO GRADE PRIOR TO INSTALLING ASPHALT PAVEMENT SECTION.
4. ALL FILL MATERIALS & SUBBASE MATERIAL SHALL BE INSTALLED IN A MAXIMUM OF 6" LIFTS.
5. ALL WORK SHALL BE COORDINATED W/ THE OWNER & ENGINEER.

DEMOLITION SITE PLAN

SUNDUS & SARAH, LLC
EMPLOYEE PARKING FACILITY
115 BROOK DRIVE, WATERTOWN, NY 13601
CITY OF WATERTOWN - COUNTY OF JEFFERSON - STATE OF NEW YORK

BCA ENGINEERS ARCHITECTS
Bernier, Carr & Associates, Engineers, Architects and Land Surveyors, P.C.
327 Mullin Street, Watertown, NY 13601
(315) 782-8130 - WWW.THEBCGROUP.COM

CHECKED BY:	MDA
DRAWN BY:	JBE
DATE:	7/19/2016
LAST REVISION:	-
SCALE:	AS NOTED
PRINTED FOR:	REVIEW

SHEET NO.
S-2
PROJECT NO.
2016-115

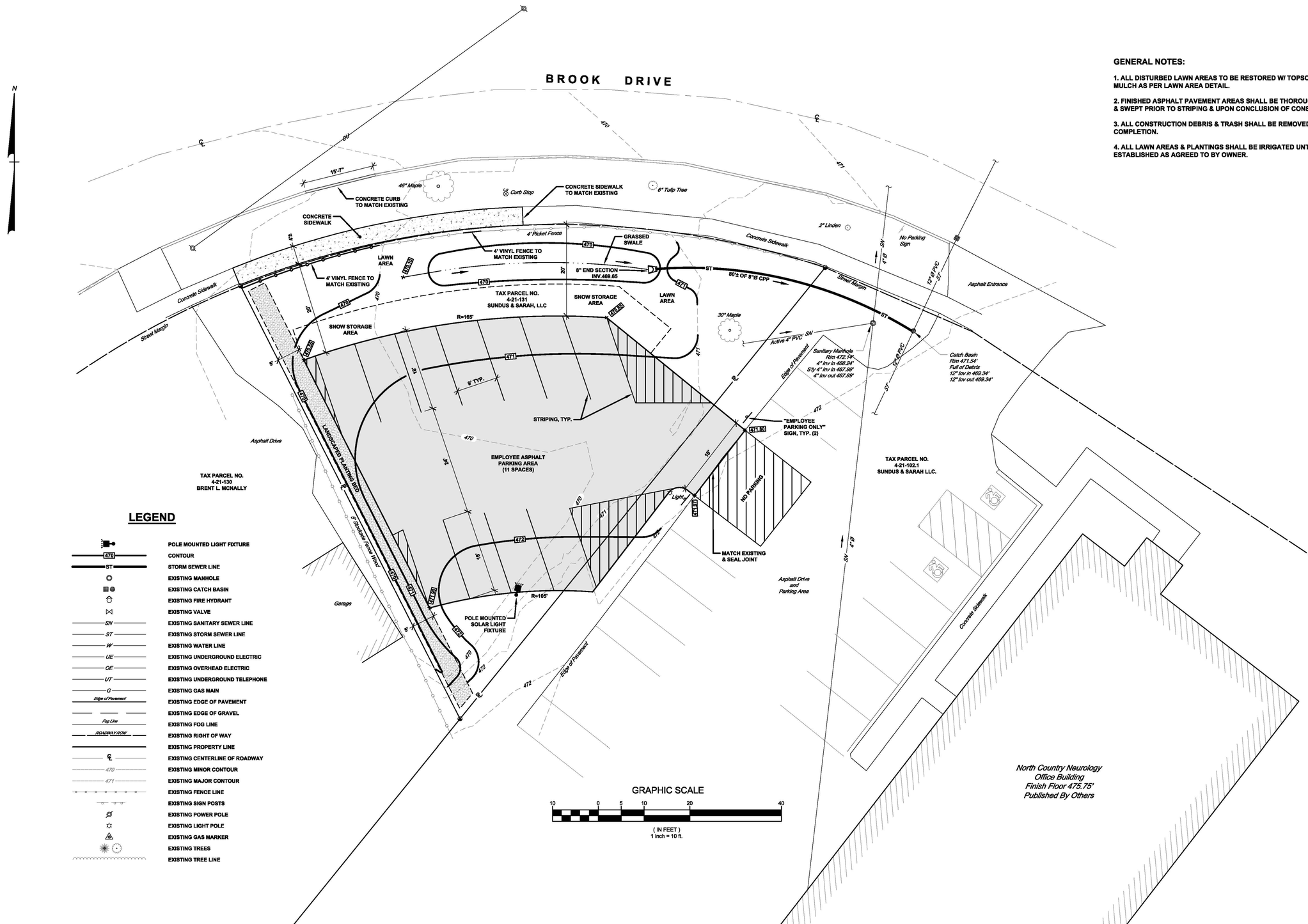
GENERAL NOTES:

1. ALL DISTURBED LAWN AREAS TO BE RESTORED W/ TOPSOIL, SEED & MULCH AS PER LAWN AREA DETAIL.

2. FINISHED ASPHALT PAVEMENT AREAS SHALL BE THOROUGHLY CLEANED & SWEPT PRIOR TO STRIPING & UPON CONCLUSION OF CONSTRUCTION.

3. ALL CONSTRUCTION DEBRIS & TRASH SHALL BE REMOVED UPON FINAL COMPLETION.

4. ALL LAWN AREAS & PLANTINGS SHALL BE IRRIGATED UNTIL GROWTH IS ESTABLISHED AS AGREED TO BY OWNER.



LEGEND

- POLE MOUNTED LIGHT FIXTURE
- CONTOUR
- STORM SEWER LINE
- EXISTING MANHOLE
- EXISTING CATCH BASIN
- EXISTING FIRE HYDRANT
- EXISTING VALVE
- EXISTING SANITARY SEWER LINE
- EXISTING STORM SEWER LINE
- EXISTING WATER LINE
- EXISTING UNDERGROUND ELECTRIC
- EXISTING OVERHEAD ELECTRIC
- EXISTING UNDERGROUND TELEPHONE
- EXISTING GAS MAIN
- EXISTING EDGE OF PAVEMENT
- EXISTING EDGE OF GRAVEL
- EXISTING FOG LINE
- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- EXISTING CENTERLINE OF ROADWAY
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING FENCE LINE
- EXISTING SIGN POSTS
- EXISTING POWER POLE
- EXISTING LIGHT POLE
- EXISTING GAS MARKER
- EXISTING TREES
- EXISTING TREE LINE

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

SITE, GRADING AND UTILITY PLAN

SUNDUS & SARAH, LLC
EMPLOYEE PARKING FACILITY
115 BROOK DRIVE, WATERTOWN, NY 13601
CITY OF WATERTOWN - COUNTY OF JEFFERSON - STATE OF NEW YORK

BCA ENGINEERS ARCHITECTS

Bernier, Carr & Associates,
Engineers, Architects
and Land Surveyors, P.C.
327 Mullin Street, Watertown, NY 13601
(315) 782-8130 - WWW.THEBCGROUP.COM

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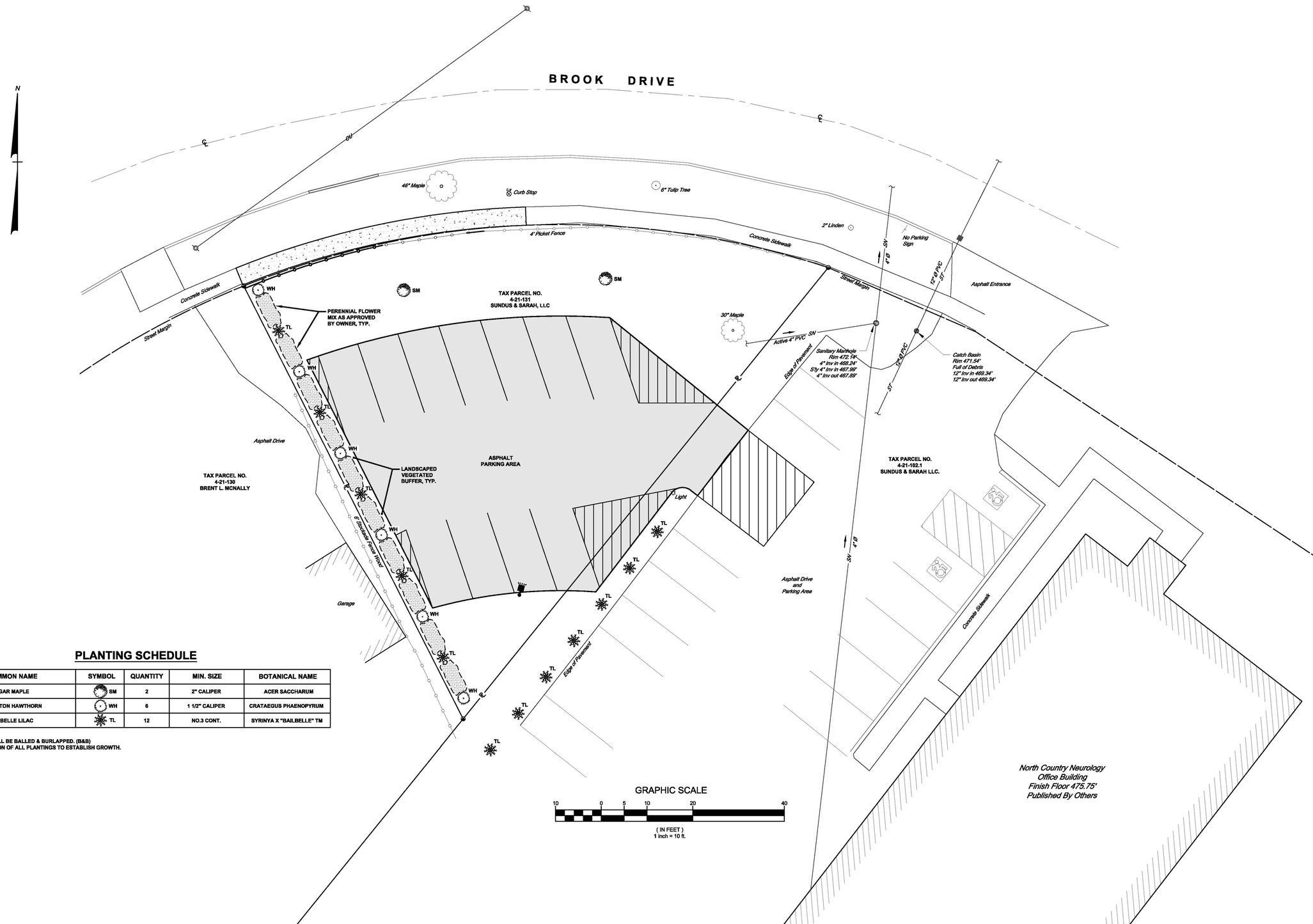
SHEET NO.
S-3
PROJECT NO.
2016-115



PLANTING SCHEDULE

COMMON NAME	SYMBOL	QUANTITY	MIN. SIZE	BOTANICAL NAME
SUGAR MAPLE	SM	2	2" CALIPER	ACER SACCHARUM
WASHINGTON HAWTHORN	WH	6	1 1/2" CALIPER	CRATAEGUS PHAENOPYRUM
TINKERBELLE LILAC	TL	12	NO.3 CONT.	SYRINYA X "BAILBELLE" TM

NOTES
1. TREE PLANTS SHALL BE BALLED & BURLAPPED. (B&B)
2. PROVIDE IRRIGATION OF ALL PLANTINGS TO ESTABLISH GROWTH.

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

LANDSCAPING PLAN

SUNDUS & SARAH, LLC
EMPLOYEE PARKING FACILITY
115 BROOK DRIVE, WATERTOWN, NY 13601
CITY OF WATERTOWN - COUNTY OF JEFFERSON - STATE OF NEW YORK

BCA ENGINEERS ARCHITECTS
Bernier, Carr & Associates, Engineers, Architects and Land Surveyors, P.C.
327 Mullin Street, Watertown, NY 13601
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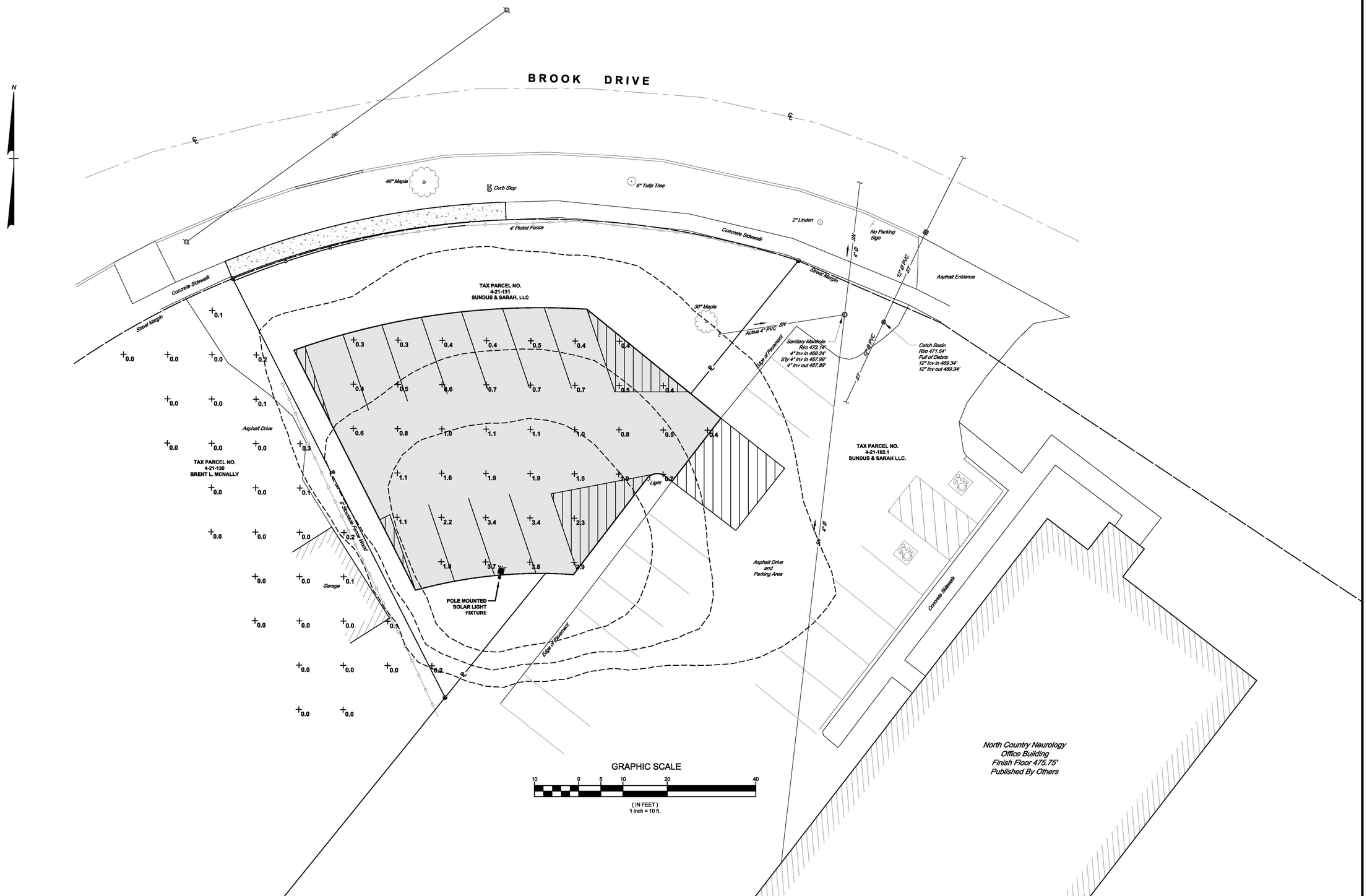
SHEET NO.
S-4
PROJECT NO.
2016-115



PHOTOMETRIC PLAN

SUNDUS & SARAH, LLC
EMPLOYEE PARKING FACILITY
115 BROOK DRIVE, WATERTOWN, NY 13601
CITY OF WATERTOWN - COUNTY OF JEFFERSON - STATE OF NEW YORK

BCA ENGINEERS ARCHITECTS

Bernier, Carr & Associates,
Engineers, Architects
and Land Surveyors, P.C.
327 Mullin Street, Watertown, NY 13601
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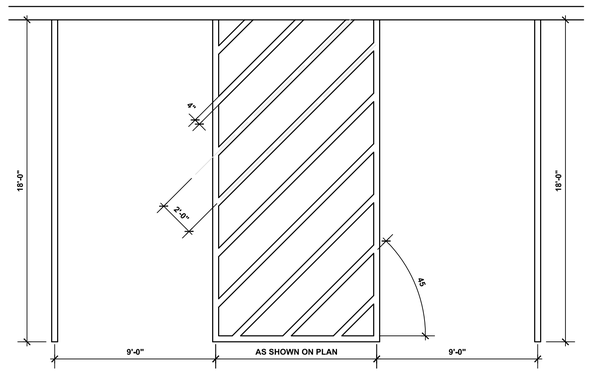
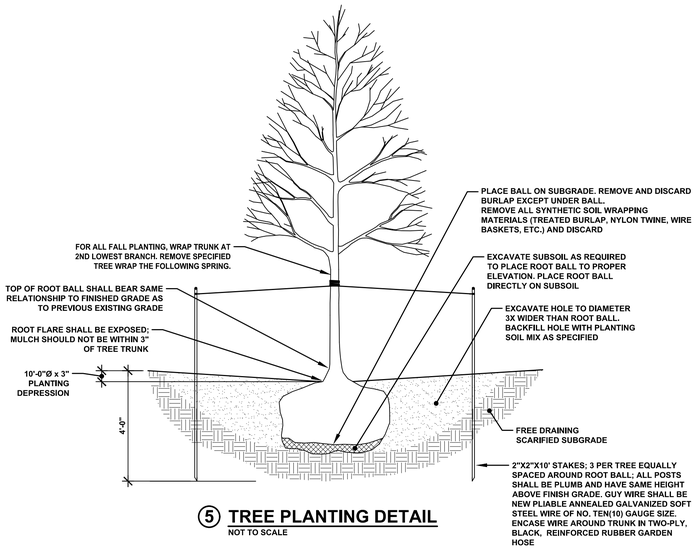
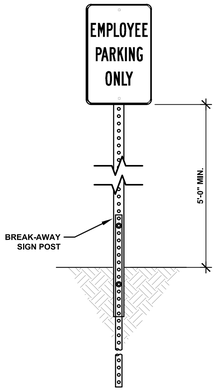
SHEET NO.
S-5
PROJECT NO.
2016-115



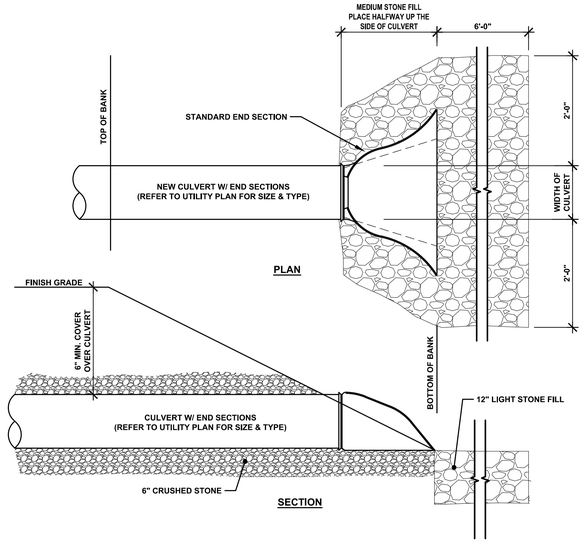
① PARKING STRIPING LAYOUT DETAIL
NOT TO SCALE



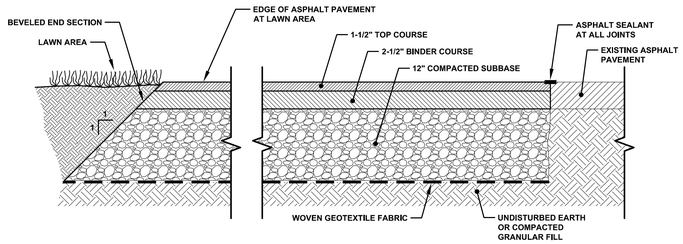
⑤ TREE PLANTING DETAIL
NOT TO SCALE



⑧ "EMPLOYEE PARKING ONLY" SIGN DETAIL
NOT TO SCALE

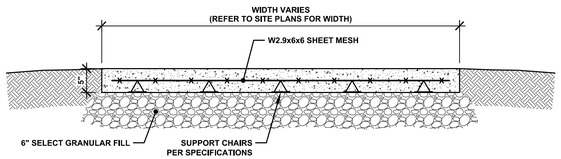


⑨ CULVERT AND END SECTION DETAIL
NOT TO SCALE

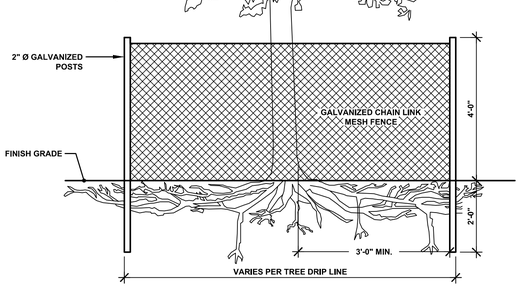


② ASPHALT PAVEMENT DETAIL
NOT TO SCALE

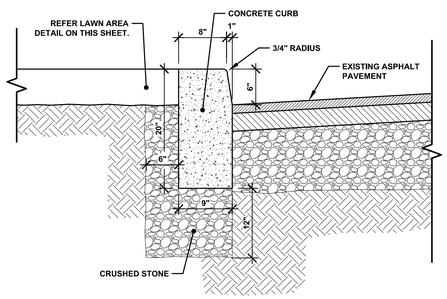
NOTE:
1. ALL SIDEWALK CONSTRUCTION WITHIN THE CITY MARGIN SHALL BE IN CONFORMANCE WITH CITY OF WATERTOWN SIDEWALK CONSTRUCTION SPECIFICATIONS.
2. PROVIDE 1/2" BITUMINOUS EXPANSION JOINT AT 25' MAXIMUM SPACING, AGAINST ALL CURB AND AT ALL BUILDING AND STAIR INTERFACES.



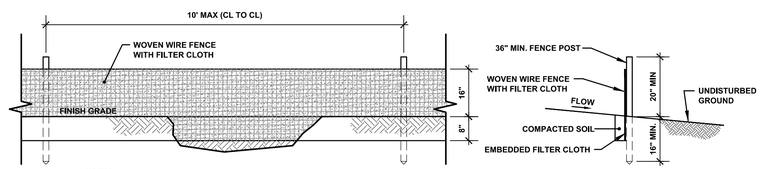
③ CONCRETE SIDEWALK DETAIL
NOT TO SCALE



⑥ EXISTING TREE PROTECTION
NOT TO SCALE



④ CONCRETE CURB DETAIL
NOT TO SCALE



NOTES
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN BULGES DEVELOP IN THE SILT FENCE.

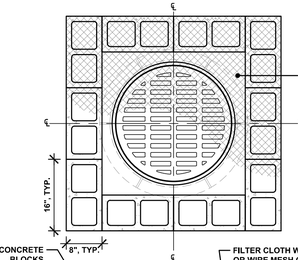
⑦ SILT FENCE DETAIL
NOT TO SCALE

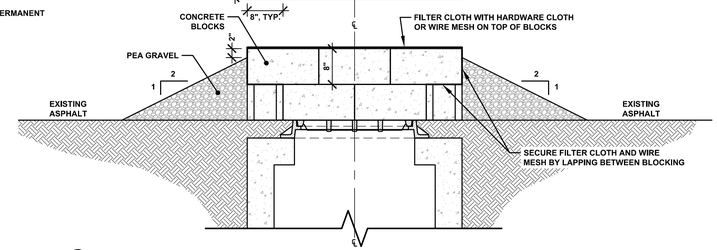
CONSTRUCTION NOTE

ALL WORK TO BE PERFORMED WITHIN CITY OF WATERTOWN MARGIN WILL REQUIRE SIGN-OFF FROM A PROFESSIONAL ENGINEER, LICENSED & CURRENTLY REGISTERED TO PRACTICE IN THE STATE OF NEW YORK, THAT THE WORK WAS BUILT ACCORDING TO THE APPROVED SITE PLAN & APPLICABLE CITY OF WATERTOWN STANDARDS. COMPACTION TESTING WILL BE REQUIRED FOR ALL WORK TO BE PERFORMED WITHIN THE CITY OF WATERTOWN MARGIN & MUST BE SUBMITTED TO THE CITY OF WATERTOWN CODES DEPARTMENT.

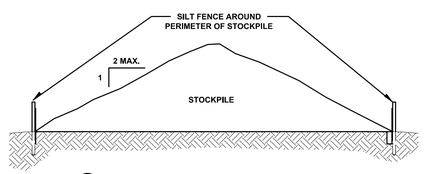
ADDITIONAL STORMWATER POLLUTION PREVENTION NOTES:

- THERE SHALL NOT BE MORE THAN FIVE (5) ACRES OF DISTURBED SOIL AT ANY ONE TIME.
- DISTURBED AREAS WITHIN THE NYSDOT HIGHWAY RIGHT-OF-WAY SHALL BE PROTECTED FROM EROSION WITHIN 7 DAYS, ALL OTHER AREAS SHALL BE PROTECTED WITHIN 14 DAYS.
- EROSION CONTROL BLANKET SHALL BE INSTALLED ON DISTURBED AREAS WITH 3:1 OR GREATER SLOPE OR IN CONCENTRATED FLOW PATHS.
- CONTRACTOR SHALL PREPARE AND CONTINUOUSLY UPDATE A CONSTRUCTION PHASING PLAN.
- CONTRACTOR SHALL PROVIDE LOCATIONS OF OFF-SITE MATERIAL, WASTE, BORROW OR EQUIPMENT.
- SOIL AND STONE STOCKPILES SHALL BE PROTECTED FROM EROSION. WHEN STOCKPILES ARE IN USE, THE PROTECTION SHALL BE REPLACED AT THE END OF EACH WORK DAY.
- A STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT STAGING AREAS TO PREVENT TRACKING SEDIMENT ONTO PUBLIC RIGHT-OF-WAY OR STREETS.
- CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL PRACTICES WEEKLY, AND AFTER ALL RAINFALL EVENTS.
- CONTRACTOR SHALL MAINTAIN EROSION AND SEDIMENT CONTROL PRACTICES UNTIL PERMANENT RESTORATION IS ESTABLISHED.

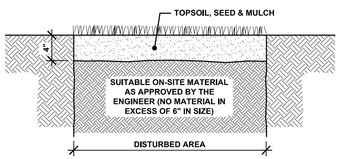




⑩ TEMPORARY CATCH BASIN INLET PROTECTION DETAIL - TYPE 'B'
NOT TO SCALE



⑪ SOIL STOCKPILING DETAIL
NOT TO SCALE



⑫ LAWN AREA DETAIL
NOT TO SCALE

SITE DETAILS

SUNDUS & SARAH, LLC
EMPLOYEE PARKING FACILITY
115 BROOK DRIVE, WATERTOWN, NY 13601
CITY OF WATERTOWN - COUNTY OF JEFFERSON - STATE OF NEW YORK

BCA ENGINEERS ARCHITECTS

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SHEET NO.
D-1
PROJECT NO.
2016-115

Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

Part 1 - Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 - Project and Sponsor Information

Name of Action or Project:
North Country Neurology Employee Parking Facility

Project Location (describe, and attach a location map):
115 Brook Drive, City of Watertown

Brief Description of Proposed Action:
The proposed project is a 4000 sq. ft. +/-, 11 space employee parking facility at 115 Brook Drive, adjacent to the North Country Neurology building site. The lot is owned by Sundus and Sarah, LLC, who also owns North Country Neurology, and the proposed parking expansion will reduce the burden on the existing parking facilities. The 11 space addition will eliminate 2 of the spaces in the current facility, resulting in a net gain of 9 parking spaces.

Name of Applicant or Sponsor:	Telephone: 315-782-9003
Sundus and Sarah, LLC	E-Mail: maltieri@thebcgroup.com

Address:
1340 Washington Street

City/PO:	State:	Zip Code:
Watertown	NY	13601

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other governmental Agency? If Yes, list agency(s) name and permit or approval:	☑	☐

3.a. Total acreage of the site of the proposed action? 0.22 acres
b. Total acreage to be physically disturbed? 0.22 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 0.72 acres

4. Check all land uses that occur on, adjoining and near the proposed action.
☑ Urban ☐ Rural (non-agriculture) ☐ Industrial ☑ Commercial ☑ Residential (suburban)
☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____
☐ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☐	☑	☐
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	NO ☐	YES ☑	
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area? If Yes, identify: _____	NO ☑	YES ☐	
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	NO ☑	YES ☐	
b. Are public transportation service(s) available at or near the site of the proposed action?	☑	☐	
c. Are any pedestrian accommodations or bicycle routes available on or near site of the proposed action?	☐	☑	
9. Does the proposed action meet or exceed the state energy code requirements? If the proposed action will exceed requirements, describe design features and technologies: This design features solar powered lighting fixtures.	NO ☐	YES ☑	
10. Will the proposed action connect to an existing public/private water supply? If No, describe method for providing potable water: _____	NO ☑	YES ☐	
11. Will the proposed action connect to existing wastewater utilities? If No, describe method for providing wastewater treatment: _____	NO ☑	YES ☐	
12. a. Does the site contain a structure that is listed on either the State or National Register of Historic Places?	NO ☑	YES ☐	
b. Is the proposed action located in an archeological sensitive area?	☐	☑	
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	NO ☑	YES ☐	
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody? If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____	☑	☐	

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:
☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional
☐ Wetland ☑ Urban ☑ Suburban

15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	NO ☑	YES ☐
16. Is the project site located in the 100 year flood plain?	NO ☑	YES ☐
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes, a. Will storm water discharges flow to adjacent properties? ☐ NO ☑ YES	NO ☐	YES ☑
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? If Yes, briefly describe: ☐ NO ☑ YES		

Site drainage is achieved on this site through sheet flow, a grass swale and a closed drainage culvert. The culvert will be installed near the front of the property, connecting to the existing catch basin on the Sundus and Sarah, LLC owned lot which houses North Country Neurology. This catch basin is connected to the City's storm water collection system on Brook Drive.

	NO	YES
18. Does the proposed action include construction or other activities that result in the impoundment of water or other liquids (e.g. retention pond, waste lagoon, dam)? If Yes, explain purpose and size: _____	☑	☐
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe: _____	☑	☐
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe: _____	☑	☐

I AFFIRM THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor name: Michael Altieri Date: July 19, 2016

Signature: _____

Agency Use Only [If applicable]

Project:

Date:

Short Environmental Assessment Form
Part 2 - Impact Assessment

Part 2 is to be completed by the Lead Agency.
Answer all of the following questions in Part 2 using the information contained in Part 1 and other materials submitted by the project sponsor or otherwise available to the reviewer. When answering the questions the reviewer should be guided by the concept "Have my responses been reasonable considering the scale and context of the proposed action?"

	No, or small impact may occur	Moderate to large impact may occur
1. Will the proposed action create a material conflict with an adopted land use plan or zoning regulations?	☐	☐
2. Will the proposed action result in a change in the use or intensity of use of land?	☐	☐
3. Will the proposed action impair the character or quality of the existing community?	☐	☐
4. Will the proposed action have an impact on the environmental characteristics that caused the establishment of a Critical Environmental Area (CEA)?	☐	☐
5. Will the proposed action result in an adverse change in the existing level of traffic or affect existing infrastructure for mass transit, biking or walkway?	☐	☐
6. Will the proposed action cause an increase in the use of energy and it fails to incorporate reasonably available energy conservation or renewable energy opportunities?	☐	☐
7. Will the proposed action impact existing: a. public / private water supplies?	☐	☐
b. public / private wastewater treatment utilities?	☐	☐
8. Will the proposed action impair the character or quality of important historic, archaeological, architectural or aesthetic resources?	☐	☐
9. Will the proposed action result in an adverse change to natural resources (e.g., wetlands, waterbodies, groundwater, air quality, flora and fauna)?	☐	☐
10. Will the proposed action result in an increase in the potential for erosion, flooding or drainage problems?	☐	☐
11. Will the proposed action create a hazard to environmental resources or human health?	☐	☐

PRINT FORM

Project:

Date:

Short Environmental Assessment Form
Part 3 Determination of Significance

For every question in Part 2 that was answered "moderate to large impact may occur", or if there is a need to explain why a particular element of the proposed action may or will not result in a significant adverse environmental impact, please complete Part 3. Part 3 should, in sufficient detail, identify the impact, including any measures or design elements that have been included by the project sponsor to avoid or reduce impacts. Part 3 should also explain how the lead agency determined that the impact may or will not be significant. Each potential impact should be assessed considering its setting, probability of occurring, duration, irreversibility, geographic scope and magnitude. Also consider the potential for short-term, long-term and cumulative impacts.

☐ Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action may result in one or more potentially large or significant adverse impacts and an environmental impact statement is required.

☐ Check this box if you have determined, based on the information and analysis above, and any supporting documentation, that the proposed action will not result in any significant adverse environmental impacts.

Name of Lead Agency	Date
Print or Type Name of Responsible Officer in Lead Agency	Title of Responsible Officer
Signature of Responsible Officer in Lead Agency	Signature of Preparer (if different from Responsible Officer)

Engineering Report

Sundus and Sarah, LLC

Employee Parking Facility

Prepared for:

Sundus and Sarah, LLC
1340 Washington Street
Watertown, NY 13601

Phone No. (315) 782-9003

July 2016

Engineering Report

Sundus and Sarah, LLC

Employee Parking Facility

July 2016

Table of Contents

SECTION 1.0
EXECUTIVE SUMMARY

1.1 Purpose of Report

This Engineering Report was prepared on behalf of Sundus and Sarah, LLC by Bernier, Carr and Associates (BCA) to detail and discuss the site plan for the proposed Employee Parking Facility. This addition will provide extra parking spaces for employees of the medical practices located in the North Country Neurology Offices. A USGS map depicting the project location has been included in Appendix A.

1.2 Existing Conditions

The project site currently consists of a vacant lot, where a residence was recently demolished. There is an asphalt driveway that connects the lot to Brook Drive, as well as a concrete walkway that extends into the lot and connects to the sidewalk along Brook Drive. To the East is the North Country Neurology office building and to the West is a residential property.

1.3 Proposed Project

The proposed project is a 4000 sq. ft. +/-, 11 space employee parking facility adjacent to North Country Neurology. The lot is owned by Sundus and Sarah, LLC, who also owns North Country Neurology, and the proposed parking expansion will reduce the burden on the existing parking facilities. The 11 space parking addition will eliminate 2 of the spaces in the current facility, resulting in a net gain of 9 parking spaces.

SECTION 2.0
EXISTING CONDITIONS

2.1 Proposed Project Location

The proposed project location is Tax Parcel 4-21-131 which is adjacent to North Country Neurology at 115 Brook Drive. A USGS project location map is attached in Appendix A depicting the project location.

2.2 Utilities

There are currently water and sewer access, overhead electrical, and overhead communication lines on the property from the residence that is no longer on the project site.

2.3 Soil Conditions

The United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) soils maps and soils data indicate that soils within the project site consist chiefly of Urban Land and Niagara silt loam soils. Niagara silt loam soils are classified as somewhat poorly drained. Ground water typically lies at a depth of 6 to 18 inches below the ground surface. Depth to any restrictive feature is greater than 80 inches. Soils information is included in Appendix B.

2.4 Topography and Drainage

The project site typically consists of gentle to moderate slopes ranging from 1% to 10%. Elevations on site range from 470 feet to 472 feet above mean sea level. There is a portion of the project site that runs along the eastern property line where there is steep slope of nearly 1:3. Site drainage is conveyed offsite via sheet flow.

2.5 Archaeology

Previous environmental determinations have revealed the project site to be in an archeologically sensitive area. A Letter of No Impact has been provided from the State Historic Preservation Office (SHPO) in Appendix C.

SECTION 3.0
PROPOSED PROJECT

3.1 Project Summary

As discussed in Section 1.3 of this report, the proposed project is a 4000 sq. ft. +/-, 11 space employee parking facility adjacent to the North Country Neurology building site. The lot is owned by Sundus and Sarah, LLC, who also owns North Country Neurology. The proposed parking expansion will reduce the burden on the existing parking facilities. The 11 space addition will eliminate 2 of the spaces in the current facility, resulting in a net gain of 9 parking spaces.

3.2 Site Layout Description

The proposed project will be an employee parking facility consisting of 11 parking spaces. There will be an asphalt drive connecting the existing North Country Neurology parking lot to the new parking facility, and this will eliminate 2 existing parking spots. This project will result in a net gain of 9 parking spaces. Landscaping features will be added within a 5-foot buffer between the residence to the west and the proposed parking facility. Site lighting will be added to increase visibility during evening and night time hours. Existing concrete sidewalk that is in disrepair onsite will be replaced.

3.3 Site Drainage and Stormwater Management

Site drainage is achieved on this site through sheet flow, a grass swale and a closed drainage culvert. The culvert will be installed near the front of the property, connecting to the existing catch basin on the Sundus and Sarah, LLC owned lot which houses North Country Neurology. This catch basin is connected to the City's storm water collection system on Brook Drive. This culvert will collect the majority of storm water runoff from this parking facility.

3.4 Traffic Patterns, Vehicle and Pedestrian Impacts

A traffic study has not been conducted for this proposed parking facility. The proposed facility will be for employees only, and there will be no direct street access to and from the facility. An asphalt drive will be constructed connecting the existing lot and the proposed facility, and the current driveway into the lot that houses North Country Neurology will be the only means of accessing the additional proposed parking area. The extra parking will not have an impact on patient counts in the medical practices housed on the adjacent property, so traffic flows in and out of the property should remain the same.

Due to the proposed facility being employee only, there will be minimal traffic in and out of the new facility. Employees will enter at the beginning of their shift, and leave at the end of their shift, so there will be minimal turnover of the parking available.

3.5 Site Lighting

Site lighting for this proposed parking facility will consist of a solar powered lighting fixture. This fixture will be located in the Southeast corner of the lot. This will provide all necessary lighting to the facility with an average intensity of 1.25 foot candle. There will be a maximum of 0.5 foot candle at the property line to the West, in accordance to City code.

3.6 Landscaping Summary

Landscape features for this proposed parking facility will generally be selected such that adequate buffering and aesthetic value is achieved in accordance with City of Watertown guidelines. Individual street-scape trees, lawn areas and landscaped beds will be the primary landscaping features of the project site.

SECTION 4.0
PROJECT IMPLEMENTATION

4.1 Implementation Schedule

The following schedule denotes suggested key dates for implementation of various project actions. This time frame is based upon estimated dates for final planning, funding procurement, design, regulatory review, and construction, and as such, is subject to modification.

Implementation Schedule

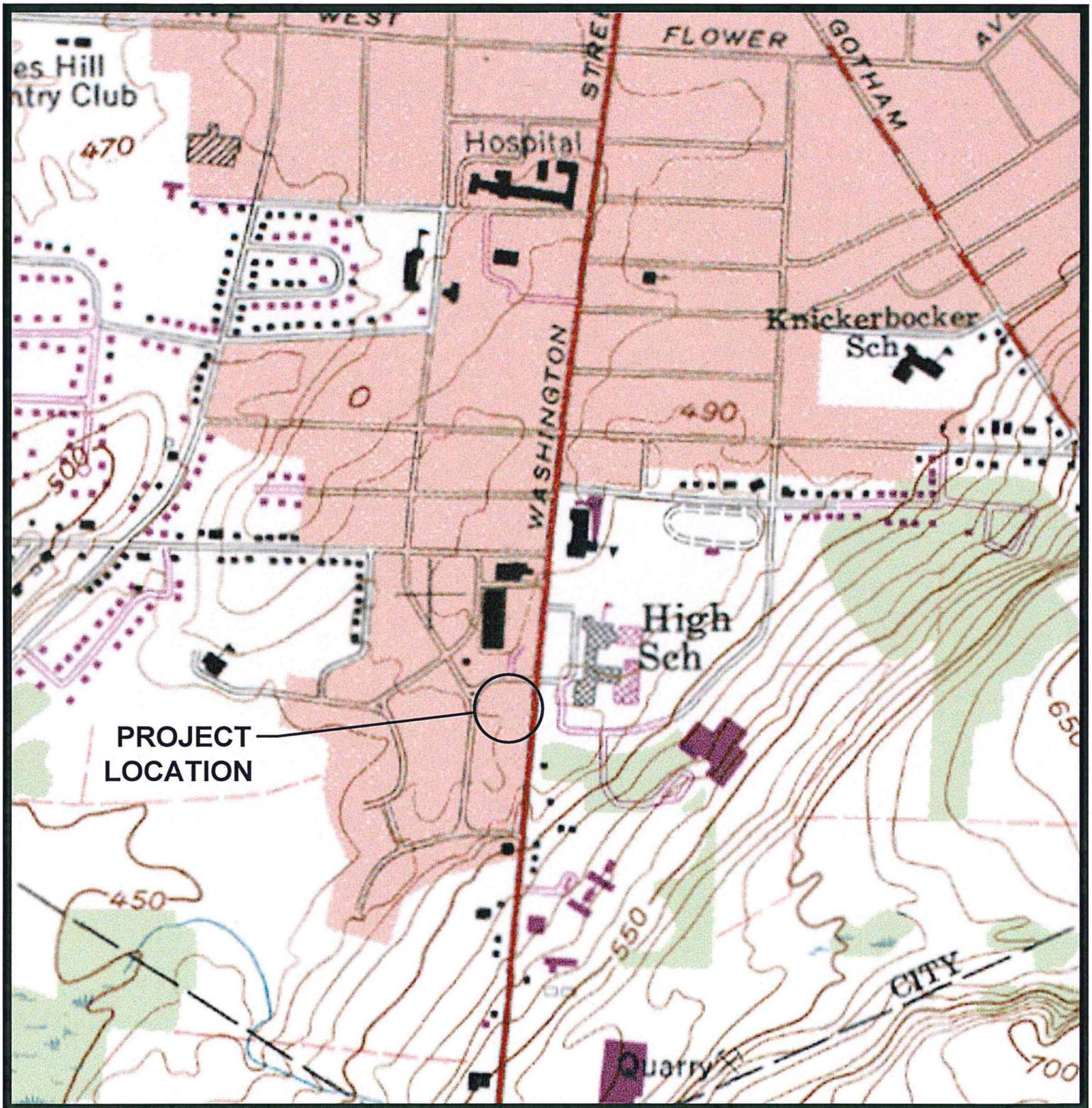
Activity	Date
Submit Site Plan Application to City of Watertown Planning	July 2016
Begin Parcel Assembly Process with Jefferson County	July 2016
Receive Site Plan/Zoning Board Approval	September 2016
Complete Parcel Assembly Process	September 2016
Begin Construction	September 2016
Open Parking Facility	October 2016

4.2 Conclusion

The existing project site currently consists of a vacant lot, where a residence was recently demolished. There is an asphalt driveway that connects the lot to Brook Drive, as well as a concrete walkway that extends into the lot and connects to the sidewalk along Brook Drive. To the East is the North Country Neurology office building and to the West is a residential property.

The proposed project is a 4000 sq. ft. +/-, 11 space employee parking facility adjacent to North Country Neurology. The lot is owned by Sundus and Sarah, LLC, who also owns North Country Neurology, and the proposed parking expansion will reduce the burden on the existing parking facilities which currently are insufficient. The 11 space addition will eliminate 2 of the spaces in the current facility, resulting in a net gain of 9 parking spaces.

APPENDIX A
USGS PROJECT LOCATION MAP



Contract Drawing Reference No.

Drawn By	Checked By	Revisions:
JBE	MDA	1.)
Scale	Date	
NOT TO SCALE	7/18/2016	
Project No.		
2016-115		

LOCATION MAP

Sheet No.

1

BCA
ARCHITECTS
ENGINEERS

SUNDUS & SARAH LLC,
EMPLOYEE PARKING FACILITY

City of Watertown - County of Jefferson - State of New York

Bernier, Carr & Associates,
Engineers, Architects and Land Surveyors, P.C.
327 Mullin Street, Watertown, NY 13601
(315) 782-8130 - WWW.THEBCGROUP.COM

THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AT THE SITE & NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES.

APPENDIX B
SOILS INFORMATION

Map Unit Description

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. All the soils of a series have major horizons that are similar in composition, thickness, and arrangement. Soils of a given series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Additional information about the map units described in this report is available in other soil reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the soil reports define some of the properties included in the map unit descriptions.

Report—Map Unit Description

Jefferson County, New York

NoA—Niagara silt loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 9sqx
Mean annual precipitation: 33 to 50 inches
Mean annual air temperature: 45 to 46 degrees F
Frost-free period: 110 to 170 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Niagara and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Niagara

Setting

Landform: Lake plains
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Silty and clayey glaciolacustrine deposits

Typical profile

H1 - 0 to 13 inches: silt loam
H2 - 13 to 35 inches: silt loam
H3 - 35 to 75 inches: silt loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 15 percent
Available water storage in profile: High (about 10.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D

Minor Components

Collamer

Percent of map unit: 5 percent

Canandaigua

Percent of map unit: 5 percent
Landform: Depressions

Guffin

Percent of map unit: 5 percent
Landform: Depressions

Ur—Urban land

Map Unit Setting

National map unit symbol: 9srz
Mean annual precipitation: 33 to 50 inches
Mean annual air temperature: 45 to 46 degrees F
Frost-free period: 110 to 170 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Minor Components

Udorthents, smoothed

Percent of map unit: 10 percent
Landform: Depressions

Data Source Information

Soil Survey Area: Jefferson County, New York
Survey Area Data: Version 12, Sep 21, 2015

Soil Map—Jefferson County, New York
(NCN Parking Expansion)

Map Scale: 1:801 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 10 20 40 60

Feet: 0 35 70 140 210

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Jefferson County, New York
Survey Area Data: Version 12, Sep 21, 2015

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 11, 2011—Jul 2, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Jefferson County, New York (NY045)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
NoA	Niagara silt loam, 0 to 3 percent slopes	2.6	97.6%
Ur	Urban land	0.1	2.4%
Totals for Area of Interest		**2.7**	**100.0%**

APPENDIX C
OPRHP NO IMPACT LETTER

NEW YORK STATE OF OPPORTUNITY.

Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

July 14, 2016

Mr. Brett McVoy
327 Mullin Street
Watertown, NY 13601

Re: SEQRA
North Country Neurology Employee Parking Facility Project
16PR04745

Dear Mr. McVoy:

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the project in accordance with the New York State Historic Preservation Act of 1980 (Section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the OPRHP and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6 NYCRR Part 617).

Based upon this review, it is the New York State Office of Parks, Recreation and Historic Preservation's opinion that your project will have no impact on archaeological and/or historic resources listed in or eligible for the New York State and National Registers of Historic Places.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

Ruth L. Pierpont

Ruth L. Pierpont

Deputy Commissioner for Historic Preservation

BCA ENGINEERS & ARCHITECTS

June 23, 2016

Dr. Abdul Latif
North Country Neurology
1340 Washington Street
Watertown, New York 13601

Re: North Country Neurology
Authorization for Professional Services Agreement
Parking Lot Expansion Project

Dear Dr. Latif:

As requested, we are pleased to submit the following proposal to North Country Neurology for Engineering Services for the Parking Lot Expansion project.

We propose to provide the following engineering services for a lump sum amount of [redacted]:

- Site Visit & Existing Conditions Documentation
- Project Meetings
- Site Topographic Survey (Property Survey to be Provided by Owner)
- Concept Plan Development
- Preparation of Site Plans and Details
- Preparation of Engineering Report and City Site Plan Application
- City Site Plan Meetings and Approvals
- Revisions and Comments with Reviewing Agencies
- Closeout / Permitting
- Direct Expenses

If this proposal meets with your satisfaction, please execute both copies of the attached *Authorization for Professional Services* form, retain one (1) copy for your files, and return one (1) copy to our office.

Very truly yours,

BERNIER, CARR & ASSOCIATES, ENGINEERS, ARCHITECTS & LAND SURVEYORS, P.C.

Matthew J. Cooper, P.E.
Principal / Engineer
U:\Altieri\North Country Neurology Site Plan\Cover Letter.North Country Neurology.062316.doc

MJC:dih

Encl. Authorization for Professional Services

Cc: File

WATERTOWN
327 MULLIN STREET
WATERTOWN, NEW YORK 13601
TEL 315.782.8130

SYRACUSE
1020 7TH NORTH STREET
LIVERPOOL, NEW YORK 13088
TEL 315.760.3766

ITHACA
401 EAST STATE STREET, SUITE 200
ITHACA, NEW YORK 14850
TEL 607.319.4053

BERNIER, CARR & ASSOCIATES, P.C., ENGINEERS ARCHITECTS & LAND SURVEYORS, P.C.
327 Mullin Street
Watertown, New York 13601
Phone (315) 782-8130
Fax (315) 782-7192

AUTHORIZATION FOR PROFESSIONAL SERVICES
Short Form Agreement

DATE: June 23, 2016

PROJECT NAME: Parking Lot Expansion

OWNER: North Country Neurology

ADDRESS: North Country Neurology
1340 Washington Street
Watertown, NY 13601

I hereby request and authorize Bernier, Carr & Associates, Engineers, Architects & Land Surveyors, P.C. (FIRM) to perform the following services:

SCOPE: • Site Visit & Existing Conditions Documentation • Project Meetings • Site Topographic Survey • Concept Plan Development • Preparation of Site Plans and Details • Preparation of Engineering Report and Site Plan Application • City Site Plan Meetings and Approvals • Revisions and Comments with Reviewing Agencies • Closeout / Permitting • Direct Expenses

COMPENSATION: [redacted] per the attached correspondence to Dr. Abdul Latif dated June 23, 2016.

PROVISIONS

1. **Authorization to Proceed**
Signing this form shall be construed as authorization by the OWNER for the FIRM to proceed with the work.

2. **Salary Costs**
The FIRM'S Salary Costs shall be the amount of salaries paid the FIRM's employees for work performed on the OWNER'S project plus a stipulated percentage of such salaries to cover all payroll-related taxes, payments, premiums and benefits.

3. **Per Diem Rates**
The FIRM'S Per Diem Rates are those published in the FIRM'S office, which are charged for work performed on the OWNER'S project by the FIRM'S employees of the indicated classifications.

4. **Direct Expenses**
The FIRM'S Direct Expenses shall be those costs incurred on or directly for the OWNER'S project, including but not limited to: necessary transportation costs including mileage at the FIRM'S current rate, meals and lodging, laboratory tests & analyzes, computer services, printing and binding charges. Reimbursement for these expenses shall be on the basis of actual charges when furnished by commercial sources and on the basis of standard commercial charges when furnished by the FIRM.

5. **Professional Standards**
The FIRM shall be responsible, to the level of competency presently maintained by other practicing Professional Engineers, Architects & Surveyors in the same type of work in the OWNER'S community, for the professional and technical soundness, accuracy and adequacy of all designs, drawings and specifications and other work and materials furnished under this Authorization. The FIRM makes no other warranty, express or implied.

6. **Termination**
Either the OWNER or the FIRM may terminate this Authorization by giving 30 days written notice to the other party. In such event, the OWNER shall pay the FIRM in full for all work previously authorized and performed prior to effective date of termination. If no notice of termination is given, relationships and obligations created by this Authorization shall be terminated upon completion of all applicable requirements of this Authorization.

7. **Arbitration**
All claims, disputes and other matters in question arising out of, or relating to this Authorization or the breach thereof may be decided by Arbitration in accordance with the rules of the American Arbitration Association then applying.

Either the OWNER or the FIRM may initiate a request for such arbitration, but consent of the other party to such procedure shall be mandatory. No arbitration arising out of, or relating to this Authorization may include, by consolidation, joinder, or in any other manner, any additional party not a party to this Authorization.

8. **Legal Expense**
In the event legal action is brought by the OWNER or the FIRM against the other to enforce any of the obligations hereunder or arising out of any dispute concerning the terms and conditions hereby created, the losing party shall pay the prevailing party such reasonable amounts for fees, costs and expenses as may be set by the Court.

9. **Payment to the FIRM**
Monthly invoices will be issued by the FIRM for all work performed under the terms of this agreement. Invoices are due and payable within 30 days upon receipt. Finance charges, computed by a "Periodic Rate" of 1½% per month, which is an annual percentage rate of 18%, will be charged on all past-due amounts unless otherwise provided by law or by contract.

10. Limitation of Liability

The FIRM'S liability to the OWNER for any cause or combination of causes is, in the aggregate, limited to an amount no greater than the fee earned under this agreement.

11. Indemnification

A. Asbestos - For services involving or relating to asbestos as part of this agreement, it is further agreed that the OWNER shall indemnify and hold harmless the FIRM and their consultants, agents and employees from and against all claims, damages, losses and expenses, direct and Indirect, or consequential damages, including but not limited to fees and charges of attorneys and court arbitration costs, arising out of or resulting from the performance of the work by the FIRM, or claims against the FIRM arising from the work of others, related to asbestos activities.

B. Hazardous Waste - For services involving or related to hazardous waste elements of this agreement, it is further agreed that the OWNER shall indemnify and hold harmless the FIRM and their consultants, agents, and employees from and against all claims, damages, losses and expenses, direct and indirect, or consequential damages, included but not limited to fees and charges of attorneys and court and arbitration costs, arising out of or resulting from the performance of the work by the FIRM, or claims against the FIRM arising from the work of others, related to hazardous waste.

C. The above indemnification provision extends to claims against the FIRM which arise out of, are related to, or are based upon, the dispersal, discharge, escape, release or saturation of smoke, vapors, soot, fumes, acids, alkalis, toxic chemicals, liquids, gases or any other material, irritant, contaminant or pollutant in or into the atmosphere, or on, onto, upon, in or into the surface or sub-surface (a) soil, (b) water or water-courses, (c) objects, or (d) any tangible or intangible matter.

D. Design professional shall use his/her best efforts to conform the construction document to the requirements of any legislation protecting the disabled, including the Americans With Disabilities Act and regulations thereunder (collectively "disabled legislation"). However, the standards for design practice under disabled legislation are still evolving. Therefore, the design professionals shall not be responsible if any aspect of the design does not conform to disabled legislation and such interpretation was not generally known to similarly situated professionals when the plans were prepared.

Standard Rate Schedule:

Senior Principal	[redacted] per hour
Principal	[redacted] per hour
Associate	[redacted] per hour
Expert Witness Testimony	[redacted] per hour
Senior Structural Engineer	[redacted] per hour
Senior Architect/Engineer	[redacted] per hour
Intern Engineer (I.E.)	[redacted] per hour
Architectural/Engineering Designer	[redacted] per hour
Architect/Engineer Technologist	[redacted] per hour
Architect/Engineer – Summer Intern	[redacted] per hour
Project Development Specialist	[redacted] per hour
Senior Project Representative	[redacted] per hour
Project Representative	[redacted] per hour
Senior C.A.D. Draftsperson	[redacted] per hour
C.A.D. Draftsperson	[redacted] per hour
Field Survey Crew (2-man, NYS prevailing rate)	[redacted] per hour
Field Survey Crew (2-man, regular rate)	[redacted] per hour
Survey Technician (office)	[redacted] per hour
Environmental Analyst	[redacted] per hour
Code Compliance Specialist	[redacted] per hour
GPS Equipment	[redacted] per hour
Support Services	[redacted] per hour

In addition to the fees stipulated above, we shall be reimbursed for travel and incidental expenses as follows:

Travel by Air	actual cost
Travel by Auto (per mile)	as per IRS Standard Rate
Travel by Field Truck/Survey Vehicle (per mile)	as per IRS Standard Rate x 1.25
Other Expenses	Direct Cost + [redacted]

Additional and non-customary services provided beyond the Scope shall be invoiced for payment in accordance with the above schedule.

Approved for OWNER

By: [signature]

Dr. Abdul Latif

Title:

Date: 7/08/16

Accepted for Bernier, Carr & Associates, Engineers, Architects, & Land Surveyors, P.C.

By: [signature]

Matthew J. Cooper

Title: Principal / Engineer

Date: June 23, 2016

Res No. 8

August 9, 2016

To: The Honorable Mayor and City Council

From: Sharon Addison, City Manager

Subject: Approving 2016-2019 Collective Bargaining Agreement Between the City of Watertown and the International Brotherhood of Electrical Workers, Local 1249

Attached for City Council's consideration is a successor Collective Bargaining Agreement between the City of Watertown and the International Brotherhood of Electrical Workers, Local 1249. As Council is aware, negotiations have recently concluded and both sides have agreed to the provisions contained in the attached contract. The principal changes to the Agreement are:

1. The term of the Agreement is July 1, 2016 through June 30, 2019;

2. A salary increase of 2.0% is reflected in the wages effective July 1 of 2016, and a salary increase of 1.75% for years 2017 and 2018;

3. Effective July 1, 2016, July 1, 2017 and July 1, 2018, the Health Insurance premium shall be $1,245.00, $1,275.00 and $1,305.00, respectively per month per employee.

A resolution approving this Agreement has been prepared for City Council consideration.

Approving 2016-2019 Contract Between the City of Watertown and the International Brotherhood of Electrical Workers, Local 1249

	YEA	NAY
Council Member HORBACZ, Cody J.		
Council Member JENNINGS, Stephen A.		
Council Member MACALUSO, Teresa R.		
Council Member WALCZYK, Mark C.		
Mayor BUTLER, Jr., Joseph M.		
Total		

Introduced by

_____

WHEREAS the 2013-2016 Employment Contract between the City of Watertown and the International Brotherhood of Electrical Workers, Local 1249, expired on June 30, 2016, and

WHEREAS negotiations have concluded on a successor Agreement;

NOW THEREFORE BE IT RESOLVED by the City Council of the City of Watertown that it hereby approves the 2016-2019 Employment Contract between the City of Watertown and the International Brotherhood of Electrical Workers, Local 1249, a copy of which is attached and made a part of this resolution, and

BE IT FURTHER RESOLVED that the Mayor, Joseph M. Butler, Jr., is hereby authorized and directed to execute the Agreement on behalf of the City.

Seconded by

CONTRACT

BETWEEN THE CITY OF WATERTOWN,

NEW YORK

AND

I.B.E.W. LOCAL UNION 1249

JULY 1, 2016 THROUGH JUNE 30, 2019

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ARTICLE 1

AGREEMENT

This Agreement is made and entered into this ***day of August 2016***, by and between:

CITY OF WATERTOWN, WATERTOWN, NEW YORK (hereinafter referred to as the "Employer")

and

LOCAL UNION 1249 of the **INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS** (hereinafter referred to as the "Union").

ARTICLE 2

RECOGNITION

The employer recognizes the Union as the sole and exclusive Collective Bargaining Agent for all employees employed by the City of Watertown performing electrical and traffic signal work, with the exception of those employed in classifications and titles of professional, administrative or supervisory nature, and with the exception of those employees employed by the Watertown Electric Department who are assigned to the Electric Power Plant as long as they remain members of the Civil Service Employees Association, Jefferson Local 823.

ARTICLE 3

PURPOSE AND INTENT

Section 1 It is the purpose of this Agreement to promote and maintain good relations and cooperation among the Employer, Union, and the employees represented by the Union. This Agreement is intended to set forth the terms and conditions of employment agreed to in collective bargaining and to set forth a procedure for adjusting grievances arising from the interpretation and application of the provisions of this Agreement.

Section 2 It is the desire of the Employer, the Union and the employees in the bargaining unit to cooperate in providing effective service to the customers of the Employer.

ARTICLE 4

STATUTORY PROVISIONS

Section 1 It is agreed by and between the parties that any provisions of this Agreement requiring legislative action to permit its implementation by amendment of law or by providing the additional funds therefore shall not become effective until the appropriate legislative body has given approval.

ARTICLE 5

NO DISCRIMINATION

Section 1 The Employer and Union affirm that it is their policy to conform with applicable and binding federal and state laws prohibiting discrimination against an employee.

Section 2 There shall be no discrimination by the Employer against any employee or prospective employee according to NYS Human Rights law.

Section 3 The Employer will not discriminate against employees on account of their membership in the Union and will not interfere with the right of employees to become members of the Union.

Section 4 Any reference in the Agreement to the masculine gender shall also be deemed to include the feminine gender.

ARTICLE 6

STRIKES - LOCKOUTS

Section 1 During the term of this Agreement, there shall be no stoppage of work either by strike or lockout because of any proposed changes in this Agreement or dispute over matters related to this Agreement. All such matters must be handled as stated herein.

ARTICLE 7

PRODUCTIVITY

Section 1 The Union recognizes the importance of continued productivity improvements and agrees that, consistent with the terms of this Agreement, it will cooperate with Employer efforts to improve the efficiency, quality and productivity of work performed by members of this bargaining unit; however, it is agreed that Supervisors will not perform work customarily performed by bargaining unit employees.

Section 2 The City and the Union both understand the importance of continued productivity improvements. The City recognizes training as an integral part of improving an employees efficiency, quality and productivity. In support of the members of this bargaining unit, the City requires the members of this unit to obtain training from the International Municipal Signal Association, Inc. toward Technician Certification. Active participation within the program or completion of the program will be required of all members of the bargaining unit. The City will pay for all expenses associated with this training.

Section 3 The Local Union 1249 of The International Brotherhood of Electrical Workers agrees to annual performance reviews for all employees covered by this contract. The City and the Union will collectively prepare an evaluation form by December 30, 2013. Upon completion and implementation, the following shall occur: the employee shall have the right to discuss evaluations with his/her immediate supervisor or department head. Written evaluations shall be placed in the employee's official personnel file located in the City Manager's office. The employee being evaluated shall sign a copy of the written report and will receive a copy. It is expressly understood that signing of the evaluation does not necessarily mean that the employee agrees with the evaluation. The employee is entitled to submit a written response, within 10 business days, to be signed by the department head and supervisor and placed in the employee's official personnel file.

ARTICLE 8

JOB CLASSIFICATIONS

Section 1 Jobs will be classified as per Rule XXIII of the "Rules and Regulations of Civil Service of the City of Watertown", by the administration of Civil Service in the City of Watertown, New York, as provided in the Civil Service Law of the State of New York.

Section 2 The City and the Union will work together to keep job descriptions and classifications current and develop appropriate training.

ARTICLE 9

ACCESS TO PREMISES

Section 1 The Employer agrees to permit representatives of the International Brotherhood of Electrical Workers and/or Local Union 1249 to enter the premises at such time for individual discussion of working conditions with employees provided care is exercised by such representatives that they do not unduly interfere with the performance of duties assigned to employees.

ARTICLE 10

GRIEVANCE AND ARBITRATION

Section 1 A grievance is hereby defined as an alleged violation of the law governing the employer-employee relationship, or alleged violation of the terms of this agreement or any alleged type of supervisory conduct which allegedly unjustly and unlawfully causes an employee to lose his job or any benefits arising out of his job.

Section 2 If any dispute arises between the Union and the Employer as to any unadjusted grievance or as to the rights of either party under this agreement, both parties shall endeavor to settle such matters in the simplest and most direct manner, the procedure, unless changed, or any step thereof waived, by mutual consent, shall be as follows:

First: The Union Unit Chairman or his designee, with or without the employee, shall file in writing and take up the grievance or dispute with the Department Head or his designee, within ten (10) working days of its occurrence. If at that time the Unit Chairman or his designee is unaware of the grievance, he shall take it up within ten (10) working days of his knowledge of its occurrence. The Department Head shall then attempt to address the matter and shall respond in writing to the Unit Chairman within (10) working days.

Second: If the grievance has not been settled, it shall be presented by the Union Business Manager or his designee to the City Manager or his designee with a copy to the Department Head in writing within ten (10) working days after the response of the Department Head is due. The City Manager or his designee shall respond in writing to the Union Business Manager within ten (10) working days.

Third: If the grievance is still unsettled, either party may, within fifteen (15) working days after the reply of the City Manager or his designee is due, by written notice to the other, submit the grievance to a mutually agreed upon arbitrator or, if one is not agreed on, to the New York State Public Employment Relations Board in accordance with its rules and regulations.

Section 3 No arbitrator functioning under this step of the grievance procedure shall have any power to amend, modify, or delete any provisions of this Agreement.

Section 4 Expenses for the arbitrator's services and the proceedings shall be borne equally by the Employer and the Union. If either party desires a stenographic record of the

proceedings, it may cause such a record to be made and that party shall pay for the record. If both desire a stenographic record, they shall bear the cost equally.

Section 5 The time limits in the grievance procedure may be extended by mutual agreement in writing.

Section 6 Any grievance not processed within the time provision of this article or within the time limits as may be mutually agreed to be extended, shall be deemed to have been satisfactorily resolved and thereby waived.

Section 7 Any step of the grievance procedure may be bypassed by mutual agreement in writing.

ARTICLE 11

DISCIPLINE AND DISCHARGE

Section 1 The Employer shall not discharge or suspend an employee without just cause covered by this Agreement.

Section 2 The first warning for an infraction shall be an oral warning, with the Unit Chairman or grievance committee chairman present. Written notification, with circumstances surrounding the event, will be forwarded to the Union secretary at once.

A second warning will be in writing, with a copy given immediately to the Unit Chairman and the local union secretary. Details of the alleged violation shall be included.

A third warning will be in writing and noted as "Final warning before disciplinary action will be taken". Details of the alleged violation shall be included.

Should an alleged violation occur again, the employee may be suspended up to three (3) days without pay. This action will be subject to the grievance procedure.

Section 3 Discharge shall be subject to the grievance procedure as per Article 10.

Section 4 All letters of warning shall be removed from an employees' record after eighteen months and shall not be used in any future disciplinary action. A log shall be retained in the personnel file indicating the dates of issue and removal for all letters of warning. Such log shall not be used in any future disciplinary action.

Section 5 When an employee within the bargaining unit is disciplined, suspended, or discharged for cause, the Employer will, when possible in advance, notify the Union representative. It is understood and agreed that no employee shall be disciplined or released until he has been given reasonable opportunity to meet the Employer's standards. Employees who are found under investigation to have been suspended or released in violation of this Agreement, shall be restored to their former position with full back pay.

Section 6 Nothing within this article shall preclude the Employer from either immediately suspending or discharging an employee for offenses or infractions so repugnant to the workplace that such disciplinary action may be appropriate. Such disciplinary action may be appropriate for, but not limited to, the use of alcohol or other drugs on the job, intoxication on

the job, or theft of the employer's property. Any suspension or dismissal is subject to the grievance procedure and/or recourses available under the law.

ARTICLE 12

PROBATIONARY PERIOD

Section 1 Each employee, whether in a permanent appointment, training position, or other position requiring probation, shall serve a probationary term in accordance with the "Rules for Classified Civil Service of the City of Watertown".

Section 2 When a vacancy is filled from within, the promoted employee shall serve a probationary term in accordance with the "Rules for Classified Civil Service of the City of Watertown" during which time the employee may elect to be removed from the position and return to his or her previous classification.

Section 3 The Union shall represent probationary employees under the terms and conditions of this contract.

ARTICLE 13

SENIORITY

Section 1 Bargaining unit seniority shall be the length of an employee's continuous service as measured from the employee's first date of hire.

Section 2 When two employees have the same bargaining unit seniority date, the older employee from the stand point of age shall be considered the senior man in all matters relating to seniority.

Section 3 Temporary employees shall not accumulate seniority, but if and when such employee is hired as a permanent employee, he shall be immediately credited with seniority for uninterrupted past employment.

Section 4 Bargaining unit seniority shall apply in determining the accumulation of benefits where length of service is a factor as specified in this agreement.

Section 5 In July of each year or when the list is altered or adjusted, the Employer shall, upon the union's request, provide to the union a list of bargaining unit employees with their date of hire.

Section 6 To the extent permitted by Civil Service law and rules, the bargaining unit Chairperson and the other elected unit officers, in the event of a layoff, shall be continued at work at all times provided they can perform any of the work available.

ARTICLE 14

AGENCY SHOP

Employees are free to join or not join the Union. All present employees who are not union members and who do not in the future become and remain members shall, immediately following a thirty day period from the date of the signing of this Agreement, as a condition of employment, pay to the Union each month a service charge as a contribution toward the administration of this Agreement in any amount equal to the regular monthly flat rate and percentage dues (not including initiation fees, fines, assessments, or any other charges uniformly required as a condition of acquiring or retaining membership) of the Union.

All new employees who do not become Union members after thirty (30) calendar days employment shall, as a condition of employment, pay the Union each month commencing after said date, a service charge as a contribution toward the administration of this Agreement in an amount equal to the regular monthly flat rate and percentage dues (not including initiation fees, fines, assessments, or any other charges uniformly required as a condition of acquiring or retaining membership) of the Union.

ARTICLE 15

CHECK-OFF

Section 1 During the life of this Agreement, the Employer agrees to deduct from the wages of each employee, in accordance with the express terms of a signed, voluntary authorization to do so, on forms which are customarily used by the Union, the appropriate dues and initiation fees or service charge, said deduction to be made as follows: from the first paycheck of each month, the flat rate dues and percentage dues and from each remaining bi-weekly paycheck, the percentage dues. Dues collected shall be remitted by the fifteenth (15) day of the month, together with a list of employees on whose behalf the deduction was made.

Section 2 The financial secretary of the Union shall certify in writing to the Employer the amount of monthly flat rate and percentage dues, and initiation fees, or service charge, to be checked off under this Article and the Employer may rely completely on this Certification.

Section 3 The Union shall indemnify and save the Employer harmless against any and all claims, suits, or other forms of liability that may arise out of, or by reason of, action taken by the Employer for the purpose of complying with any of the provisions of this Article, or in reliance on any list, notice or assignment furnished under any of such provisions.

ARTICLE 16

MANAGEMENT RIGHTS

Section 1 The Employer reserves the exclusive right to manage the business of the City of Watertown and to direct the employees in the discharge of their duties. In the exercise of these rights, the Employer shall observe and be bound by all the provisions of this agreement.

ARTICLE 17

VACANCIES AND PROMOTIONS

Section 1 When a non-competitive permanent job vacancy occurs, the employer will make every effort to fill the vacancy from within his present work force should there exist interested candidates.

Section 2 When a competitive job vacancy occurs, the employer will give first consideration to fill the vacancy from his interested employees providing he/she qualifies under the "Rules for the Classified Civil Service of the City of Watertown".

Section 3 When a new job within the bargaining unit is created by the employer which cannot be properly placed in an existing classification, the City Manager will develop a job classification in conjunction with the City of Watertown Civil Service Commission.

Section 4 When a job vacancy occurs in the bargaining unit for other than Line Crew Chief, the employer will post a notice of such vacancy for a period of fifteen (15) working days on the union bulletin boards. The notice of vacancy shall state the job classification, rate of pay, and nature of the job requirements. An employee who applies for a posted position shall be notified in writing of his or her application.

Section 5 Employees may submit an application for the posted position prior to the end of the posting period. When two or more employees seek the promotion, where skill, ability, qualifications, and experience are equal, bargaining unit seniority shall prevail.

ARTICLE 18

BEREAVEMENT LEAVE

Section 1 The City agrees to amend its leave rules to provide up to three (3) days for bereavement leave per incident in the immediate family. The City agrees to provide bereavement leave to the employees for actual loss of time from their scheduled work on any of the three (3) consecutive calendar days beginning on the day following the date of death; provided in all cases if the employee attends the funeral. The City is entitled to reasonable verification of the death and the employee's attendance at the funeral. Days off need not be granted in the event of a City-wide emergency. In the event of unusual circumstances, the Department Head has discretion to designate a different day or days as bereavement leave.

Section 2 The immediate family includes spouse, mother, father, son, daughter, brother, sister, grandfather, grandmother, grandson, granddaughter, grandfather or grandmother of spouse, son-in-law, daughter-in-law, mother or father-in-law, brother-in-law, and sister-in-law.

Section 3 An employee entitled to funeral leave while on vacation shall not lose vacation time.

ARTICLE 19

JURY DUTY

Section 1 Employees shall be granted leave with regular pay and benefits when they are required to report to jury duty during their regularly scheduled duty time. The City will not reimburse employees when they are required to report to jury duty during their regular days off.

Section 2 An employee must notify his/her immediate supervisor no later than his/her first scheduled shift following the receipt of a notice of selection for jury duty or examination and must provide proof of service to the department head.

Section 3 The City shall have the right to seek a waiver from jury duty on behalf of the employee.

Section 4 Employee must request telephone alert to the extent allowed by the Commissioner of Jurors or the Court.

Section 5 Employees are required to work all available reasonable hours outside those actually required for jury duty or jury duty examination in accordance with the employee's regular work schedule.

Section 6 If the department head or his/her designee determines, in the best interest of the City, that the employee is unable to perform his/her duties as a result of jury duty, he/she may, in his/her sole discretion, excuse the employee from their scheduled shift without loss of benefits.

ARTICLE 20

BULLETIN BOARDS

Section 1 The Employer shall provide a bulletin board located on a wall in a conspicuous area, for the posting of information of interest to the employees. The board shall be made of appropriate material and shall measure no less than two feet in length by two feet in width. Examples of publications are, notice of union meetings; union elections; appointments; and results of union elections; notices of union recreational and social affairs; union safety bulletins; and news releases relating to employee's jobs or union.

Section 2 Outdated notices shall be removed from the bulletin board. Notices having no effective date shall be removed after thirty days.

ARTICLE 21

TOOLS

Section 1 The Employer shall provide all tools that it deems necessary to the performance of work including but not limited to: hand tools, line belts, safety straps, tool bags, rubber gloves, rubber glove protectors, and leather work gloves. Such tools shall be owned by the Employer and used exclusively on the Employer's behalf. It shall be the Employee's responsibility to ensure for the proper use and maintenance of such tools, ordinary wear and tear and loss excepted. Improper use, resulting in damage or loss, as determined by the Department Head and Line Crew Chief may result in the Employee replacing such tools at his own expense.

Section 2 The City shall reimburse employees for the cost of one pair of Lineman's boots, to include a safety toe and an electrical hazard rating per year.

ARTICLE 22

REST PERIODS

Section 1 Each Employee will be allowed a fifteen (15) minute rest period during each half of the daily shift.

Section 2 Breaks will be observed at a time and place that will minimize disruption to continuing operations.

ARTICLE 23

LEAVES OF ABSENCE

Section 1 A leave of absence without pay, not to exceed one year, may be granted to an employee by an appointing officer. Notice of such leave of absence shall be given to the Watertown Civil Service Commission. Where a leave of absence without pay has been granted for a period which aggregates one year, a further leave of absence without pay shall not be granted unless the employee returns to his position and serves continuously therein for three months, immediately preceding the subsequent leave of absence. Notice of such subsequent leave of absence shall also be given to the Watertown Civil Service Commission. Absence on leave for more than one year shall be deemed the equivalent of a resignation from the service upon the date of commencement of such absence, except as provided in subdivision 2 of this rule.

Section 2 In an exceptional case, the Watertown Civil Service Commission may for good cause shown waive the provisions of this rule to permit an extension of the leave of absence for an additional one year period. In no case may such leave of absence exceed in aggregate two years from the date of commencement of the leave.

Section 3 A leave of absence without pay, not to exceed four years, shall be granted by an appointing officer to an employee who is a veteran of the Armed Forces of the United States, providing such a leave of absence is for the purpose of taking courses under the educational benefits provided for in Title 38, United States Code or under New York State Board of Regents War Service Scholarship, Education Law, Section 614. An employee taking such a leave shall be reinstated to his position, provided he makes application for such reinstatement within sixty days after the termination of his course of study.

ARTICLE 24

SICK LEAVE

Section 1 An Employee shall be entitled to start to earn sick leave from his date of hire. He shall accumulate sick leave as long as he is in the service of the Employer at the rate of one (1) day per month to a maximum of one hundred and eighty (180) days.

Section 2 An Employee shall be permitted two (2) consecutive days bona fide sick leave before a doctor's certificate may be required.

Section 3 Sick time may be used for physical examinations by a doctor, and for dental and eye examinations and/or treatment, if such examinations or treatments cannot be scheduled during non-working hours, in increments of not less than 1 hour.

Section 4 Any Employee on an approved leave of absence will retain accumulated sick leave.

Section 5 Upon retirement or death of an employee who has five (5) or more years of service, all accumulated sick leave will be paid in an amount equal to 20% of the employee's rate of pay in effect the pay period immediately preceding the employee's retirement or death; or upon retirement, an employee may choose the option under Article 38 of this Agreement. Any employee hired on or after July 1, 2013 who has five (5) or more years of service and who dies while employed by the City, will be paid in an amount equal to 20% of the employee's rate of pay in effect the pay period immediately preceding the employee's death.

Section 6 An employee who becomes ill or injured while on a vacation may upon request be placed on sick leave instead of vacation time. A physician's statement will be required.

Section 7 Sick leave is defined to mean absence from duty of an employee because of illness, injury, and/or exposure to contagious disease. Sick leave pay is not allowed for absence from duty on account of illness, or injury purposely inflicted or caused by willful misconduct. Sick leave shall be allowed for illness or disability caused by pregnancy.

Section 8 If absence for illness or injury extends beyond a period of one (1) week, the employee's salary is to be paid only after a certificate of disability, signed by a physician, has

been filed with the Department Head. Additional certificates may be required in cases of prolonged illness. The City Manager may require a certificate of disability for absence of less than a week.

Section 9 Pursuant to the Family Medical Leave Act of 1993, eligible employees who request an unpaid, job protected family leave of absence must first exhaust all accrued vacation leave. An eligible employee who requests an unpaid, job protected medical leave of absence must first exhaust all accrued sick leave.

Section 10 Employees shall be able to sell back up to three days of sick leave to deferred compensation on an annual basis. Employee must have a minimum of 165 days of accruals.

ARTICLE 25

PERSONAL LEAVE

Section 1 Employee shall be granted two (2) days per year, paid personal leave, which he/she may use in one-half (1/2) day intervals. Employee need not submit a reason for personal leave to his/her supervisor. An employee hired on or after July 1, 2013 is not eligible for personal leave.

ARTICLE 26

DISABLED EMPLOYEES

Section 1 The Employer shall make every effort to place Employees who, through physical disability or otherwise become disabled on their present job, on work which they are able to perform.

ARTICLE 27

DISABILITY INSURANCE

Section 1 The City will obtain and bear the premium cost of disability insurance coverage for its Employees covered by this Agreement that is comparable in coverage and benefits to the disability coverage required of private sector employers by the State of New York.

Section 2 Employees absent due to disability shall be required to comply with notice and filing requirements imposed by the Employer's disability insurance carrier. Employees may be required to provide medical verification of the existence or continuation of a disability.

ARTICLE 28

DISABILITY SUPPLEMENT

Section 1 During the time in which an employee is disabled due to a workplace injury, the employee will have the option to use his sick accruals to receive full pay during the period in which he is disabled. Upon receipt of a notice of decision from the Workers' Comp Board outlining the indemnity payments for which the City is liable, the employee will be refunded his sick leave in an amount equal to the indemnity payments for which the City is liable.

ARTICLE 29

CONTRACT WORK

Section 1 Should the Employer contract out work that is covered under this Agreement, there shall be no reduction in the work force or reduction below forty (40) hours a week worked during the time the contract is in force.

Section 2 When employing a contractor, the Employer shall, within the limits of the law, make every effort to employ a contractor in harmonious relations with I.B.E.W. Local 1249.

ARTICLE 30

MILITARY SERVICE TRAINING

Section 1 Employees shall be granted all employment and re-employment rights to which they are entitled under applicable State and Federal statutes.

ARTICLE 31

INCLEMENT WEATHER

Section 1 Employees shall not be required to perform line work during inclement or stormy weather except in the case of emergency.

Section 2 The Department Head or his designee, in consultation with the Line Crew Chief shall be the judge as to what constitutes inclement weather.

Section 3 It is understood that the Employees will bring all work to a point where it will be reasonably safe.

Section 4 When work in inclement weather is required, all foul weather gear will be furnished by the Employer. This will include rain coats with hoods, rain pants, boots, and work gloves.

ARTICLE 32

CALL-OUTS

Section 1 When an employee is called out or ordered out to work in emergency other than normal work hours, said Employee shall be paid two (2) hours at one and one-half their regular straight time rate as a minimum. The maximum shall be governed by the applicable straight time, overtime, Sunday or holiday rate, as the case may be. Call-outs during lunch periods shall not be included in this Section as long as the Employee is given time to eat his/her lunch after the emergency.

The provisions of this section shall not be construed as requiring the City to pay call-in pay in the event that an Employee is called in to work during a two (2) hour period for which an entitlement to call-in pay has already been earned.

Section 2 Overtime meals shall be eaten on the Employer's time not to exceed one-half hour.

Section 3 An Employee who works sixteen (16) consecutive hours in a twenty-four (24) hour period shall be allowed a rest period of eight (8) consecutive hours before returning to work. Any part of such rest period which falls during the Employee's regularly scheduled shift shall be compensated at straight time provided the Employee works the balance of the scheduled shift, if any.

ARTICLE 33

VACATION

Section 1 An Employee's annual vacation entitlement shall be determined by his/her seniority in accordance with the following schedule:

0 to 3 years continuous service	***- 10 working days***
4 to 7 years continuous service	***- 15 working days***
8 to 15 years continuous service	***- 20 working days***
16 or more years continuous service	***- 25 working days***

Any employee hired after October 19, 1993 shall accrue annual vacation entitlement in accordance with the following schedule:

0 to 5 years continuous service	***- 10 working days***
6 to 15 years continuous service	***- 15 working days***
16 or more years continuous service	***- 25 working days***

Section 2 Upon separation from service with the Employer, an Employee shall be paid in cash payment of the monetary value of properly accumulated and unused vacation standing to the credit of the Employee.

Section 3 Employees may carry over ten (10) days maximum annually. The City Manager may approve requests for vacation carryover in excess of ten (10) days.

Section 4 Vacation time of forty (40) or more hours will be scheduled and approved fourteen (14) calendar days in advance. Any vacation leave of less than forty (40) hours will be scheduled and approved two (2) calendar days in advance. Vacation time must be taken in increments of at least four (4) hours.

Section 5 When a holiday falls in an Employee's vacation, he/she shall not be charged with a day's vacation for that holiday.

Section 6 An employee hired on or after July 1, 2013 may use up to three (3) days of annual leave per year in one-half (1/2) day intervals without prior two (2) days notice as long as the request does not impede the department's ability to fulfill its mission.

ARTICLE 34

HOLIDAYS

Section 1 The following days shall be recognized as paid holidays:

New Years Day	***Columbus Day***
Martin Luther King's Birthday	***Veterans' Day***
Presidents' Day	***Thanksgiving Day***
Memorial Day	***Day After Thanksgiving***
Independence Day	***Christmas Day***
Labor Day	

Section 2 When any of the above holidays fall on a Sunday, the following day will be observed, and holidays falling on Saturday will be observed on the preceding Friday.

Section 3 To be entitled to holiday pay, the employee must actually work his or her scheduled work day immediately preceding the holiday or subsequent to the holiday.

Section 4 Floating Holidays

A. Unit members will be allowed to take the following holidays as floating holidays:

Martin Luther King Jr. Day	Presidents' Day
Memorial Day	Columbus Day
Veterans' Day	

A request to work any of the aforementioned holidays must be submitted to the employee's immediate supervisor three (3) working days in advance.

Floating holidays must be used within ninety (90) calendar days of the actual holiday. Failure, on the part of the employee, to use the floating holiday within the ninety (90) calendar days will result in loss of the floating holiday.

Use of the floating holiday will require three (3) working days notice to the immediate supervisor. Use of the time will be at the discretion of the immediate supervisor.

Employees who work the holiday will receive eight (8) hours of pay at his regular hourly rate. The employee will not receive eight (8) hours holiday pay for the day.

B. If the employee on stand-by exercises his right to work the holiday, they will not be additionally compensated for holiday stand-by pay. This means that they will receive ten (10) hours of stand-by pay rather than twelve (12) hours.

C. If the employee on stand-by exercises his right to work the holiday, they will be compensated at the holiday rate for call-in.

Section 5 Vacation days shall be considered as days worked.

Section 6 Paid sick leave shall be considered as days worked.

ARTICLE 35

WORK HOURS AND OVERTIME

Section 1 There shall be maintained a basic work day of eight (8) hours and basic work week of forty (40) hours between Monday and Friday, for all classes of employees, with the understanding if any of them be required to work in excess of eight (8) hours per day or forty (40) hours per week, such work will be paid at the prevailing rate of overtime.

Section 2 All overtime work will be paid for at the rate of time and one-half the regular straight time rate, except for work performed on Sunday and Holidays, which will be twice the regular straight time rate.

Section 3 Pay for working a holiday shall not preclude receipt of regular holiday pay.

Section 4 As far as practical, overtime shall be distributed equally among employees in each work group of job classification, taking into account the qualification required and availability of employees.

Section 5 No employee shall be laid off on a regular scheduled work day to equalize overtime.

Section 6 When possible, employees shall be notified twenty-four (24) hours in advance of any scheduled overtime.

Section 7 For the purpose of computing overtime pay on any given work day or in any given work week, paid time off for personal leave, vacation time, sick time, or holiday falling within any such period shall be considered as hours worked.

Section 8 All employees understand the critical nature of the work performed by the City of Watertown to maintain the health, safety and welfare of the citizens of the community, and therefore understand that when they are ordered to report to work overtime, they shall respond as soon as reasonably practicable.

ARTICLE 36

SAFETY

Section 1 The Employer and the Union shall form a Labor-Management Safety Committee which shall meet quarterly or when specifically called and shall make rules and requirements governing all matters pertaining to safety, training, education, and testing of equipment. Each party shall designate two (2) representatives to the Committee.

Section 2 Employees shall work under the New York State Lineworker's Safety Training Fund "Accident Prevention Rules" or greater standards where required. The safety laws shall be in compliance with State and Federal safety laws.

Section 3 It is the Employer's exclusive responsibility to ensure the safety of its employees and their compliance with safety rules and standards.

Section 4 It is the Employer's responsibility to comply with safety and health standards, rules, regulations, and orders issued under the provisions of this contract, and applicable to his/her employment conduct.

Section 5 No employee shall engage in outside employment that adversely affects his/her ability to work under the provisions of this contract.

ARTICLE 37

LAYOFF AND RECALL

Section 1 It is acknowledged that Civil Service Rules that govern layoff and recall, to the extent applicable, supersede the provisions of this Article.

Section 2 Layoffs shall be made in accordance with the classification seniority.

Section 3 The Employee with the least job classification seniority in the affected classification shall be laid off first.

Section 4 Such laid off employee shall have an opportunity to displace the least senior bargaining unit employee who occupies a job for which the laid off employee is qualified.

Section 5 When a recall occurs, the employee laid off last shall be rehired first.

ARTICLE 38

RETIREMENT BENEFITS

Section 1 The Employer will maintain for all Tier I and Tier II employees the Career Retirement Plan as provided under Section 75-i of the New York State Retirement and Social Security Law; Tier III employees shall be covered by the benefits of Article 14 or Article 15, whichever provides the greater benefit; Tier IV employees shall be covered under Article 15 of the Retirement and Social Security Law. All employees who join the NYS Retirement System on or after April 1, 2012 will be covered by tier VI benefits, until such time as a new Tier is established by the NYS Retirement System.

Section 2 Upon retirement, employees hired prior to July 1, 2013, may at his option apply unused sick leave days toward his retirement under Section 41j of the New York State Retirement Law or be compensated under Article 24 of this Agreement. Upon retirement, employees hired on or after July 1, 2013, may apply unused sick leave days towards his retirement under Section 41j of the New York State Retirement Law.

ARTICLE 39

HEALTH INSURANCE

Section 1 Effective July 1, 2016 through June 30, 2017 the Employer will contribute to the Local Union 1249 Insurance Fund $1,245.00 per employee per month. Effective July 1, 2017, through June 30, 2018, the Employer will contribute to the Local Union 1249 Insurance Fund $1,275.00 per employee per month. Effective July 1, 2018, through June 30, 2019, the Employer will contribute to the Local Union 1249 Insurance Fund $1,305.00 per employee per month.

Section 2 Effective July 1, 2016, for all employees, the employer will contribute to the Local 1249 Insurance Fund eighty percent (85%) of health insurance premium of $1245.00. The employee shall be responsible for paying fifteen percent (15%) of health insurance premium of $1245.00.

Effective July 1, 2017, for all employees, the employer will contribute to the Local 1249 Insurance Fund eighty percent (85%) of health insurance premium of $1275.00. The employee shall be responsible for paying fifteen percent (15%) of health insurance premium of $1275.00.

Effective July 1, 2018, for all employees, the employer will contribute to the Local 1249 Insurance Fund eighty percent (85%) of health insurance premium of $1305.00. The employee shall be responsible for paying fifteen percent (15%) of health insurance premium of $1305.00.

For employees hired on or after July 1, 2013, the employer will contribute to the Local 1249 Insurance Fund seventy five percent (75%) of the health insurance premium. The employee shall be responsible for paying twenty five percent (25%) of the health insurance premium.

Section 3 Monthly premiums will be paid in advance and shall be received at the Fund Office by the first (1^{st}) of the month for which they are intended.

Section 4 All rules and regulations for the operation and maintenance of the Insurance Fund shall be prescribed by the trustees thereof and shall be subject to all state and governmental regulations pertaining thereto.

Section 5 The City shall have no responsibility for the operation and maintenance of the Insurance Fund other than complying with Section 1.

Section 6 For employees hired after July 23, 2003, the City's obligation to pay the employees' share of health insurance premium shall cease when the employee attains the age of 65 or dies, whichever comes first.

Section 7 Upon retirement, health insurance coverage will be provided under the City's CSEA insurance plan. For retired employees hired before July 1, 2013, the retiree shall be responsible for fifteen percent (15%) of the health insurance premium. For retired employees hired on or after July 1, 2013, the retiree shall be responsible for twenty-five percent (25%) of the health insurance premium.

Section 8 For employees hired after July 23, 2003, retirement medical insurance paid by the City from the point in time an employee retires until he/she attains the age of 65, shall not be available if the retired employee or his/her spouse has comparable paid medical insurance available from any other source (excepting Medicaid). The retired employee shall have the burden of proof that comparable coverage is not available. Any dispute as to what constitutes comparable coverage shall be referred to a mutually acceptable arbitrator for determination or adjustment.

Section 9 A Section 125 Plan shall be offered to employees to provide for employee health care expenses and childcare expenses.

Section 10 Deferred Compensation. Individuals covered by this contract shall be entitled to sell up to three (3) vacation days and convert them into the City's 457 plan.

Section 11 If at any time during the term of this Collective Bargaining Agreement the terms of the Federal Health Care Reform Act and/or any regulations implementing the same would impose any increases or decreases in the City's obligations to contribute to the bargaining unit member's health insurance plan, ARTICLE 39 shall immediately be reopened.

ARTICLE 40

WAGES

Section 1 The following hourly wage rates shall be paid effective the dates indicated.

Grade	*Title*	*Effective Date - 7/1/2016 (2.0% inc)*
E 28	Line Crew Chief	$33.28
E 24	Lineworker I	$31.44
E 23	Lineworker II	$26.91

Grade	*Title*	*Effective Date- 7/1/2017(1.75% inc)*
E 28	Line Crew Chief	$33.86
E 24	Lineworker I	$31.99
E 23	Lineworker II	$27.38

Grade	*Title*	*Effective Date-7/1/2018 (1.75% inc)*
E 28	Line Crew Chief	$34.45
E 24	Lineworker I	$32.55
E 23	Lineworker II	$27.86

Section 2 Lineworker II Trainee Position

New appointments shall be made at the Year 1 step. However, under special conditions and subject to the approval of the City Manager, new appointments may be made in the Year 1, 2 or 3 step when such action is determined to be in the best interest of the City.

The pay rates for Lineworker II Trainee will be determined as a percentage of Lineworker II wages and will be as follows:

Year 1	60%
Year 2	68%
Year 3	76%
Year 4	84%
Year 5	92%

ARTICLE 41

SAVINGS AND SEPARABILITY

Section 1 If any provision of this Agreement is held to be invalid by operation of law or by any tribunal of competent jurisdiction, or if compliance with or enforcement of any article or section should be restrained by such tribunal pending final determination as to its validity, the remainder of this Agreement, or those applications of such article or section to persons or circumstances other than those as to which it has been held invalid or as to which compliance with or enforcement of, has been restrained, shall not be affected thereby.

Section 2 When any provision of this Agreement is invalidated, as described in Section 1 of this Article, the parties shall negotiate a substitute for the invalidated provision.

ARTICLE 42

TERM AND SCOPE OF AGREEMENT

Section 1 The term and scope of this Agreement shall be for the period **July 1, 2016 through June 30, 2019.**

ARTICLE 43

STAND-BY PAY

Section 1 An employee who is assigned stand-by duty on a weekly basis shall receive ten (10) hours pay for his stand-by pay per week at his regular straight time rate. In the event that stand-by duty is assigned for less than weekly periods, pay for stand-by duty shall be pro-rated.

Section 2 An employee assigned to stand-by duty on a paid holiday will receive an additional two (2) hours stand-by pay.

Section 3 The wages earned by the employee while on stand-by duty will be debited against their stand-by account for that week. If the employee works more call-out hours than the ten (10) hours pay per week as stated in Section 1 or more than the twelve (12) hours of pay per week as stated in Section 2, he will be paid for this time worked.

Section 4 Stand By Pay will be worked and calculated on a Tuesday at the end of scheduled work day through to the beginning of a scheduled work day the following Tuesday basis.

SIGNATURE PAGE

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on

This ***day of August 2016.***

City of Watertown, New York

_____

Signed- Mayor

_____

Date

I.B.E.W. Local Union 1249

_____

Signed - Business Manager

_____

Signed - Negotiator

_____

Date

Ord No. 1

August 10, 2016

To: The Honorable Mayor and City Council

From: James E. Mills, City Comptroller

Subject: Bond Ordinance – Western Boulevard

Earlier tonight, City Council was presented with a resolution to accept the Federal Aid Local Project Agreement for the preliminary design phase of the Western Boulevard project. City Council should also consider approving a bond ordinance to fund the project. No actual funds are anticipated to be borrowed until the actual construction phase of the project.

ORDINANCE

An Ordinance Authorizing the Issuance of $6,500,000 Bonds of the City of Watertown, Jefferson County, New York, to Pay the Costs of the Design and Construction of and Right-of-Way Acquisitions for the Western Boulevard Extension Project, in and for Said City

	YEA	NAY
Council Member HORBACZ, Cody J.		
Council Member JENNINGS, Stephen A.		
Council Member MACALUSO, Teresa R.		
Council Member WALCZYK, Mark. C.		
Mayor BUTLER, Jr., Joseph M.		
Total		

Introduced by

_____

At a regular meeting of the Council of the City of Watertown, Jefferson County, New York, held at the Municipal Building, in Watertown, New York, in said City, August 15, 2016, at 7:00 o'clock P.M., Prevailing Time.

The meeting was called to order by _____, and upon roll being called, the following were

PRESENT:

ABSENT:

The following ordinance was offered by Council Member _____, who moved its adoption, seconded by Council Member _____, to wit:

BOND ORDINANCE DATED AUGUST 15, 2016.

WHEREAS, all conditions precedent to the financing of the class of objects or purposes hereinafter described, including compliance with the provisions of the State Environmental Quality Review Act to the extent required, have been performed; and

WHEREAS, it is now desired to authorize the issuance of bonds of said City to finance costs of said class of objects or purposes; NOW, THEREFORE,

ORDINANCE

An Ordinance Authorizing the Issuance of $6,500,000 Bonds of the City of Watertown, Jefferson County, New York, to Pay the Costs of the Design and Construction of and Right-of-Way Acquisitions for the Western Boulevard Extension Project, in and for Said City

	YEA	NAY
Council Member HORBACZ, Cody J.		
Council Member JENNINGS, Stephen A.		
Council Member MACALUSO, Teresa R.		
Council Member WALCZYK, Mark. C.		
Mayor BUTLER, Jr., Joseph M.		
Total		

BE IT ORDAINED, by the Council of the City of Watertown, Jefferson County, New York, as follows:

Section 1. For the class of objects or purposes of paying costs of the design and construction of and right-of-way acquisitions for the Western Boulevard Extension project, in and for the City of Watertown, Jefferson County, New York, including incidental expenses in connection therewith, there are hereby authorized to be issued $6,500,000 bonds of said City pursuant to the provisions of the Local Finance Law.

Section 2. It is hereby determined that the estimated maximum cost of the aforesaid class of objects or purposes is $6,500,000 and that the plan for the financing thereof is by the issuance of the $6,500,000 bonds of said City authorized to be issued pursuant to this bond ordinance; provided, however, that the amount of bonds ultimately to be issued will be reduced by the amount of any State or Federal aid or any other revenue received by the City from other sources for such class of objects or purposes.

Section 3. It is hereby determined that the period of probable usefulness of the aforesaid class of objects or purposes is fifteen years under subdivision ninety-one of paragraph a of Section 11.00 of the Local Finance Law as each item in said class of objects or purposes has period of probable usefulness of at least fifteen years, pursuant to subdivisions twenty or twenty-one of paragraph a of Section 11.00 of the Local Finance Law.

Section 4. Subject to the provisions of the Local Finance Law, the power to authorize the issuance of and to sell bond anticipation notes in anticipation of the issuance and sale of the bonds herein authorized, including renewals of such notes, is hereby delegated to the City Comptroller, the chief fiscal officer. Such notes shall be of such terms, form and contents, and shall be sold in such manner, as may be prescribed by said City Comptroller, consistent with the provisions of the Local Finance Law.

ORDINANCE

An Ordinance Authorizing the Issuance of $6,500,000 Bonds of the City of Watertown, Jefferson County, New York, to Pay the Costs of the Design and Construction of and Right-of-Way Acquisitions for the Western Boulevard Extension Project, in and for Said City

	YEA	NAY
Council Member HORBACZ, Cody J.		
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Council Member MACALUSO, Teresa R.		
Council Member WALCZYK, Mark. C.		
Mayor BUTLER, Jr., Joseph M.		
Total		

Section 5. The faith and credit of said City of Watertown, Jefferson County, New York, are hereby irrevocably pledged for the payment of the principal of and interest on such obligations as the same respectively become due and payable. An annual appropriation shall be made in each year sufficient to pay the principal of and interest on such obligations becoming due and payable in such year. There shall annually be levied on all the taxable real property of said City, a tax sufficient to pay the principal of and interest on such obligations as the same become due and payable.

Section 6. Such bonds shall be in fully registered form and shall be signed in the name of the City of Watertown, Jefferson County, New York, by the manual or facsimile signature of the City Comptroller and a facsimile of its corporate seal shall be imprinted thereon and may be attested by the manual or facsimile signature of the City Clerk.

Section 7. The powers and duties of advertising such bonds for sale, conducting the sale and awarding the bonds, are hereby delegated to the City Comptroller, who shall advertise such bonds for sale, conduct the sale, and award the bonds in such manner as he shall deem best for the interests of the City, provided, however, that in the exercise of these delegated powers, he shall comply fully with the provisions of the Local Finance Law and any order or rule of the State Comptroller applicable to the sale of municipal bonds. The receipt of the City Comptroller shall be a full acquittance to the purchaser of such bonds, who shall not be obliged to see to the application of the purchase money.

Section 8. All other matters, except as provided herein relating to such bonds, including determining whether to issue such bonds having substantially level or declining annual debt service and all matters related thereto, prescribing whether manual or facsimile signatures shall appear on said bonds, prescribing the method for the recording of ownership of said bonds, appointing the fiscal agent or agents for said bonds, providing for the printing and delivery of said bonds (and if said bonds are to be executed in the name of the City by the facsimile signature of the City Comptroller, providing for the manual countersignature of a fiscal agent or of a designated official of the City), the date, denominations, maturities and interest payment dates, place or places of payment, and also including the consolidation with other issues, shall be determined by the City Comptroller. It is hereby determined that it is to the financial advantage

ORDINANCE

An Ordinance Authorizing the Issuance of $6,500,000 Bonds of the City of Watertown, Jefferson County, New York, to Pay the Costs of the Design and Construction of and Right-of-Way Acquisitions for the Western Boulevard Extension Project, in and for Said City

	YEA	NAY
Council Member HORBACZ, Cody J.		
Council Member JENNINGS, Stephen A.		
Council Member MACALUSO, Teresa R.		
Council Member WALCZYK, Mark. C.		
Mayor BUTLER, Jr., Joseph M.		
Total		

of the City not to impose and collect from registered owners of such bonds any charges for mailing, shipping and insuring bonds transferred or exchanged by the fiscal agent, and, accordingly, pursuant to paragraph c of Section 70.00 of the Local Finance Law, no such charges shall be so collected by the fiscal agent. Such bonds shall contain substantially the recital of validity clause provided for in Section 52.00 of the Local Finance Law and shall otherwise be in such form and contain such recitals in addition to those required by Section 52.00 of the Local Finance Law, as the City Comptroller shall determine.

Section 9. This ordinance shall constitute a statement of official intent for purposes of Treasury Regulations Section 1.150-2. Other than as specified in this ordinance, no monies are, or are reasonably expected to be, reserved, allocated on a long term basis, or otherwise set aside with respect to the permanent funding of the object or purpose described herein.

Section 10. The validity of such bonds and bond anticipation notes may be contested only if:

1) Such obligations are authorized for an object or purpose for which said City is not authorized to expend money, or

2) The provisions of law which should be complied with at the date of publication of this ordinance are not substantially complied with,

and an action, suit or proceeding contesting such validity is commenced within twenty days after the date of such publication, or

3) Such obligations are authorized in violation of the provisions of the Constitution.

Section 11. This ordinance, which takes effect immediately, shall be published in full in the Watertown Daily Times, the official newspaper, together with a notice of the City Clerk in substantially the form provided in Section 81.00 of the Local Finance Law.

Unanimous consent moved by Council Member _____, seconded by Council Member _____, with all voting "AYE".

ORDINANCE

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	YEA	NAY
Council Member HORBACZ, Cody J.		
Council Member JENNINGS, Stephen A.		
Council Member MACALUSO, Teresa R.		
Council Member WALCZYK, Mark. C.		
Mayor BUTLER, Jr., Joseph M.		
Total		

The question of the adoption of the foregoing ordinance was duly put to a vote on roll call, which resulted as follows:

_____ VOTING _____
_____ VOTING _____
_____ VOTING _____
_____ VOTING _____
_____ VOTING _____

The ordinance was thereupon declared duly adopted.

* * *

APPROVED BY THE MAYOR

_____ _____, 2016.
Mayor

STATE OF NEW YORK)
) ss.:
COUNTY OF JEFFERSON)

I, the undersigned Clerk of the City of Watertown, Jefferson County, New York, DO HEREBY CERTIFY:

That I have compared the annexed extract of the minutes of the meeting of the Council of said City, including the ordinance contained therein, held on August 15, 2016, with the original thereof on file in my office, and that the same is a true and correct transcript therefrom and of the whole of said original so far as the same relates to the subject matters therein referred to.

I FURTHER CERTIFY that all members of said Council had due notice of said meeting.

ORDINANCE

An Ordinance Authorizing the Issuance of $6,500,000 Bonds of the City of Watertown, Jefferson County, New York, to Pay the Costs of the Design and Construction of and Right-of-Way Acquisitions for the Western Boulevard Extension Project, in and for Said City

	YEA	NAY
Council Member HORBACZ, Cody J.		
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Council Member MACALUSO, Teresa R.		
Council Member WALCZYK, Mark. C.		
Mayor BUTLER, Jr., Joseph M.		
Total		

I FURTHER CERTIFY that, pursuant to Section 103 of the Public Officers Law (Open Meetings Law), said meeting was open to the general public.

I FURTHER CERTIFY that, PRIOR to the time of said meeting, I duly caused a public notice of the time and place of said meeting to be given to the following newspapers and/or other news media as follows:

Newspaper and/or Other News Media Date Given

Regular meeting of the City Council held in accordance with Section 14-1 of the Municipal Code

I FURTHER CERTIFY that PRIOR to the time of said meeting, I duly caused public notice of the time and place of said meeting to be conspicuously posted in the following designated public location(s) on the following dates:

Designated Location(s) of Posted Notices Date of Posting

Regular meeting of the City Council held in accordance with Section 14-1 of the Municipal Code

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said City on August _____, 2016.

_____
City Clerk
(CORPORATE SEAL)

Seconded by

Local Law 3 of 2016

August 9, 2016

TO: The Honorable Mayor Butler and City Council Members

FROM: Stephen A. Jennings, Councilman

SUBJECT: A Local Law Adopting Chapter 177 of the Code of the City of Watertown Entitled Rental Properties.

Since March 14, 2016 when I presented to City Council information regarding proactive rental registration and inspection, as well as a comparison of other municipalities in New York State that have successful rental registration and/or inspection programs, and aspects about how these programs are operated, I have been working with the City Manager, City Attorney, and the City departments of Codes, Assessor, and Planning to write and refine drafts of a local law addressing rental properties in the City. The document before you is the culmination of these efforts between myself, counsel and staff. It is a law that will most definitely work for the betterment of the City of Watertown.

Housing in the City of Watertown is predominantly renter-occupied. Significantly more people rent their dwellings than own, and since my presentation to you in March, U.S. Census data has adjusted to estimate that renter-occupied units in the City have increased 3.2%, from 58.4% to a current 60.3%. Compounding the predominance of rental units in the City is the age of housing stock; 57% of housing structures were built in 1939 or earlier. These and other associated factors have led to increases in unsafe housing, the potential for greater numbers of abandoned properties, and a visible decline in neighborhoods throughout the City.

The law you have before you accomplishes several key components. It requires registration of all rental properties. It requires designation of a managing agent for properties where the owners neither reside nor do business in Jefferson County. It delineates responsibilities and liability of tenants. It requires triennial inspections. It ladders implementation to a) allow for property owners and City staff to prepare; b) complete registration first, over a 6-month period; and c) complete commencement of proactive inspections over a 25-month period. Most importantly, this law increases productive communication between the City and property owners to increase public health, safety, and welfare, which will positively impact community character, property values, and overall quality of life.

Before considering this Local Law, a public hearing must be held. It is recommended that the City Council schedule the public hearing for Tuesday, September 6, 2016 at 7:30 p.m. in Council Chambers.

August 15, 2016

LOCAL LAW

A Local Law adopting Chapter 177 of the Code of the City of Watertown Entitled Rental Properties

	YEA	NAY
Council Member HORBACZ, Cody J.		
Council Member JENNINGS, Stephen A.		
Council Member MACALUSO, Teresa R.		
Council Member WALCZYK, Mark C.		
Mayor BUTLER, Jr., Joseph M.		
Total		

Introduced by

A Local Law adopting Chapter 177 of the Code of the City of Watertown providing for the registration and inspection of residential rental properties.

WHEREAS the New York Municipal Home Rule Law permits the adoption of Local Laws by a City in furtherance of the health, safety and welfare of the residents of the City, and

WHEREAS residential properties are significant assets and represent a critical investment in the City of Watertown because of their impact on community character, property values and overall quality of life, and

WHEREAS the U.S. Census Bureau estimates that 60% of City of Watertown residents rent their dwellings, and

WHEREAS to maintain the quality of City neighborhoods and facilitate proactive code enforcement, the City must be able to efficiently communicate with property owners regarding maintenance and property conditions, and

WHEREAS in instances when residential properties are rented to others, rather than owner-occupied, the City Council has determined that accurate and current contact information is needed to facilitate timely communication with property owners regarding potential issues related to property conditions and/or violations of the City Code and/or the laws of the State of New York, and

WHEREAS the City Council has also determined that an inability to make timely contact with the owners of such residential rental properties may result in extended physical deterioration of housing stock and/or substandard living conditions for City residents, and

WHEREAS the City Council finds that establishing registration and inspection requirements for rental properties is in the best interest of public health, safety, and welfare and that the good order and governance of the City will be promoted and enhanced by the enactment of registration and inspection requirements for such rental properties and their owners through the adoption of these provisions, and

August 15, 2016

LOCAL LAW

A Local Law adopting Chapter 177 of the Code of the City of Watertown Entitled Rental Properties

	YEA	NAY
Council Member HORBACZ, Cody J.		
Council Member JENNINGS, Stephen A.		
Council Member MACALUSO, Teresa R.		
Council Member WALCZYK, Mark C.		
Mayor BUTLER, Jr., Joseph M.		
Total		

BE IT ENACTED by the City Council of the City of Watertown, New York as follows:

Chapter 177 of the Code of the City of Watertown, entitled "Rental Properties" shall be adopted as attached to this Local Law, and

BE IT FURTHER ENACTED that this Local Law shall take effect immediately upon filing with the New York Secretary of State.

Seconded by

CITY OF WATERTOWN, NY

RENTAL PROPERTIES

CHAPTER 177

ARTICLE I

CERTIFICATE OF INSPECTION AND MAINTENANCE COMPLIANCE OF RESIDENTIAL RENTAL PROPERTIES

ARTICLE II

ARTICLE III

ARTICLE I

CERTIFICATE OF INSPECTION AND MAINTENANCE COMPLIANCE

§ 177-1. Legislative intent.

A. Residential properties are significant assets and represent a critical investment in the City of Watertown because of their impact on community character, property values and overall quality of life. To maintain the quality of City neighborhoods and facilitate effective code enforcement, the City must be able to efficiently communicate with property owners regarding maintenance and property conditions.

B. In instances when residential properties are rented to others, rather than owner-occupied, the City Council has determined that accurate and current contact information is needed to facilitate timely communication with property owners regarding potential issues related to property conditions and/or violations of the City Code and/or the laws of the State of New York. The City Council has also determined that an inability to make timely contact with the owners of such residential rental properties may result in extended physical deterioration of housing stock and/or substandard living conditions for City residents. The City Council finds that establishing registration and inspection requirements for rental properties is in the best interest of public health, safety, and welfare and that the good order and governance of the City will be promoted and enhanced by the enactment of registration and inspection requirements for such rental properties and their owners through the adoption of the provisions set forth in this chapter.

§ 177-2. Definitions.

As used in this chapter, the following terms shall have the meanings indicated:

CODE ENFORCEMENT OFFICIAL

The Code Enforcement Official shall be the City's Code Enforcement Supervisor as described at Article II of Chapter 120 of the Code of the City of Watertown as the same may, from time to time, be amended. Such Official shall have additional duties of registration and inspection, and issuance of Certificates of Inspection and Maintenance Compliance pursuant to this Chapter, and is hereby authorized and directed to enforce the provisions of this Chapter.

The Code Enforcement Official shall have the authority to render interpretations of this code and to adopt policies and procedures in order to clarify the application of its provisions. Such interpretations, policies, and procedures shall be in compliance with the intent and purpose of this Chapter, but shall not have the effect of waiving requirements specifically provided for in this Chapter.

DEPARTMENT

Bureau of Code Enforcement.

DWELLING UNIT

A structure or building, or any part thereof, equipped with bathing room(s), and areas or rooms for cooking, dining, livingand sleeping, occupied or to be occupied by one or more persons as a home or residence.

OWNER

The person, persons, or entity that has fee simple title or comparable rights to a dwelling unit or of a property including one or more dwelling units.

RENT

A return, in money, property or other valuable consideration (including payment in kind or services or other thing of value), for use and occupancy or the right to the use and occupancy of a dwelling unit, whether or not a legal relationship of landlord and tenant exists between the owner and the occupant or occupants thereof.

RENTAL DWELLING UNIT

A dwelling unit established, occupied, used or maintained for rental occupancy in a one, two, or multi-family home, equipped with bathing room(s), and areas or rooms for cooking, dining, living and sleeping, occupied or to be occupied by one or more persons as a home or residence.

RENTAL OCCUPANCY

The occupancy or use of a dwelling unit by one or more persons other than the owner as a home or residence under an arrangement whereby the occupant or occupants thereof pay rent for such occupancy and use. There is a rebuttable presumption that any occupancy or use of a dwelling unit is to be deemed a rental occupancy if the owner of the structure or building containing the dwelling unit does not reside in the same structure or building.

RENTAL PROPERTY

A property upon which is located a building or buildings or structure or structures which include one or more rental dwelling units.

§ 177-3. Exceptions.

A. Rental Registration and Inspection Exceptions. The rental registration and inspection requirements of this chapter shall not apply to owner-occupied one-family dwellings, hotels and motels, nursing homes, hospitals, adult homes, assisted living facilities, hospice residences, and other licensed residential health care facilities. Otherwise, all other dwelling units rented that are equipped with bathing room(s), and areas or rooms for cooking, dining, living and sleeping, occupied or to be occupied by one or more persons as a home or residence must be registered with the City.

B. Inspection Exceptions. The inspection requirements of this chapter shall not apply to owner-occupied dwellings; multi-family dwellings owned by a duly established public housing authority or leased directly to the U.S. Government; any federal, state,

or locality-owned or managed buildings, Section Eight, and other subsidized housing subject to other inspection requirements; and any newly built and renovated housing receiving a Certificate of Occupancy within the preceding five years that has been approved for occupancy by the Code Enforcement Official.

§ 177-4. Applicability; more restrictive provisions to prevail.

A. Scope. This chapter shall apply to all rental dwelling units located within the City, with the exception of those delineated in § 177-3B.

B. Applicability. The provisions of this chapter shall be deemed to supplement applicable state and local laws, ordinances, codes, rules and regulations, and nothing in this chapter shall be deemed to abolish, modify, limit, impair, supersede or replace any existing requirements of, or remedies under, any other applicable federal, state or local statute, laws, ordinances, codes, rules or regulations. In case of conflict between any provision of this chapter and any applicable federal, state or local statute, law, ordinance, code, rule or regulation, the more restrictive or stringent provision or requirement shall prevail. The acceptance of any registration, the filing of any application under this chapter or other compliance with the requirements of this chapter shall not cause, or be deemed to cause, any circumstance, condition, status, action, or statement of facts that is otherwise illegal, unlawful or noncompliant under any federal, state or local statute, law, ordinance, code, rule or regulation, including, but not limited to, the City Code, to become or be deemed to be lawful, legal or in compliance.

§ 177-5. Rental occupancy registration required.

It shall be unlawful and a violation of this chapter for any owner of any rental property or rental dwelling unit in the City to establish, maintain, use, let, lease, rent or suffer or permit the occupancy and use thereof as a rental occupancy without first obtaining and thereafter maintaining in full force and effect a Certificate of Inspection and Maintenance Compliance from the City, as herein provided.

§ 177-6. Application for rental occupancy registration.

A. Application for a Certificate of Inspection and Maintenance Compliance of a rental occupancy and/or for a rental dwelling unit shall be made in writing on a required form provided by and to be filed with the Department for that purpose. A separate application shall be made for each building or structure containing one or more rental dwelling units. In the event that any rental dwelling unit or rental property is owned by more than one person, the application shall be executed by each such owner. In those instances in which it is owned by a business entity, the application shall be executed by the chief executive officer of such entity (e.g., president, general partner, managing member). Such application shall contain the following information:

(1) The name, address (both street address and any post office address), telephone and facsimile numbers, and e-mail address, if any, of each owner.

(2) The street address of the rental property, including the apartment or unit number of the rental dwelling unit(s), if any.
(3) If the rental dwelling unit is occupied as of the date the application is filed with the Department.

(4) A description of the building or structure, including the number of rental dwelling units in the building or structure.

B. Designation of a Managing Agent. If the owner of the rental dwelling unit does not live within and/or maintain an office or a place of business within Jefferson County, a managing agent must be designated. The name, address (street address and any post office address), telephone and facsimile numbers and e-mail address of the local managing agent or agents or operator of each such intended rental property shall be provided. The agent shall be a person eighteen (18) years of age or older, who resides within the County of Jefferson, New York, or conducts a business, the main office or branch of which is located in the County of Jefferson. The agent shall be designated by such owner as in control of and responsible for the maintenance and operation of such dwelling and who shall be designated as the person upon whom process and other notice may be served on behalf of the owner.

C. Conditions to be met; acknowledgement.

(1) Such application shall include an acknowledgement by the owner affirming that rental dwelling unit(s) meet the following conditions:

(a) Rental properties and all rental dwelling units thereon shall comply with all applicable federal, state or local statutes, laws, ordinances, codes, rules or regulations, including the applicable provisions of the New York State - adopted rules of the International Code Council (ICC), as the same may, from time to time be amended.

(b) Operational smoke and carbon monoxide detectors as required by the ICC.

(c) Exterior walls, including foundations, shall be maintained. All exterior walls and foundations must be free of holes and crevices.

(d) Exterior doors, windows, skylights and similar openings shall be maintained secured and weathertight.

(e) Exterior stairs, porches, entrance platforms, fire escapes and the railings thereon shall be maintained in a safe and sound condition.

(f) Roofs shall be maintained in a weathertight condition, secured by normal means.

(g) Roof drains, gutters and downspouts shall be maintained in good repair and free from obstructions.
(h) Exterior surfaces shall be maintained in good condition.

(i) Interior living spaces, including kitchen(s), bathroom(s) and bedroom(s), are in compliance with the ICC.

(j) Operable heating system.

(2) The acknowledgement will also affirm that the owner has received and read the following portions of the City Code and understands the obligation and responsibility to comply with all applicable state and local laws, including but not limited to:

(a) Chapter **98**, Brush, Grass and Weeds.

(b) Chapter **161**, Garbage, Rubbish and Refuse.

D. Such application shall be signed by the owner(s).

§ 177-7. Responsibilities and protection of tenants.

In addition to any other responsibilities of occupants referred to in this chapter, the occupants shall be required to comply with these provisions:

A. Maintenance of property in sanitary condition.
(1) Every occupant of a dwelling or a dwelling unit shall keep in a clean and sanitary condition that part of the dwelling, dwelling unit or premises which he or she occupies and controls.
(2) None of the responsibilities of occupants specified in this section shall relieve the owner of his or her responsibility to maintain those parts of a rental unit which are part of the permanent or semi-permanent construction of the unit or dwelling in whole or in part in a clean, orderly and sanitary condition.

B. Liability for violations.
(1) Every occupant of a dwelling unit shall be liable for a code violation as well as for any damage caused by his or her own willful act, omission, assistance, or negligence or that of any member of his or her family, or household guests if such damage results in, or contributes to, a violation of the regulations of the ICC or provisions of the Code of the City of Watertown.
(2) In addition to any other penalty provided by law, a judge may, at the time of sentencing upon plea or conviction, order restitution pursuant to Subsection B(1) of this section as a condition of any sentence imposed. If such restitution is ordered, except for good cause shown, it shall be paid within 30 days of the date of the sentence.
(3) Nothing in this section shall be interpreted so as to diminish any other lawful remedy to recover for damages.

C. Every occupant of a dwelling unit shall keep all plumbing, cooking, electric, and all other fixtures and facilities required by this Chapter in a clean and sanitary fashion and shall

also be responsible for the exercise of reasonable care in the proper use and operation of such facilities.

D. Every occupant shall keep exits from his or her dwelling unit clear and unencumbered.

E. Retaliation against occupants.

(1) No owner, occupant, contractee, mortgagee, designated manager, or any other person, firm or corporation directly or indirectly in control of a building governed by this chapter shall threaten or otherwise retaliate against any occupant who has not committed a breach of the lease of contract of rental, for reporting in good faith of the existence of any violation of the provisions of this chapter or any other applicable laws, statutes, ordinances or regulations, or for, in good faith, availing himself or herself of any legal remedy to secure or enforce rights under his or her lease or agreement, or provided by law.

(2) No owner, occupant, contractee, mortgagee, designated manager, or any other person, firm or corporation directly or indirectly in control of a building or a part thereof shall threaten or otherwise retaliate against any occupant who lives in a dwelling or dwelling unit where the Department has initiated action by giving notice to the owner or persons responsible for the dwelling because the Department believes there has been a violation of any provision of this chapter.

(3) No owner, occupant, mortgagee, designated manager, or any other person, firm or corporation directly or indirectly in control of a building or a part shall threaten or otherwise retaliate against any occupant who has exercised any of his or her rights as described in this chapter.

(4) The defense of retaliatory action may be raised by the occupant in an eviction action, summary proceeding or other action relating to the right of the occupant to remain in possession of premises.

ARTICLE II

§ 177-8. Registration application fees.

A. Registration application fee. A nonrefundable registration application fee shall be paid to the City upon filing each application for a certificate of registration of a rental occupancy and/or for a rental dwelling, in an amount to be set from time to time by the City Council by resolution. The City Council resolution may, in its discretion, but subject to applicable law, establish a schedule or schedules setting different application fees for different categories of applicants or properties.

B. The fees required by this section shall be waived for any applicant that demonstrates to the satisfaction of the Code Enforcement Official that it is a not-for-profit housing development corporation organized under the laws of the State of New York and that it is providing housing for senior citizens or other designated special populations subject to income guidelines established by either federal or state regulation.

§ 177-9. Review of application.

The Code Enforcement Official shall review each application for completeness and accuracy. The Code Enforcement Official shall also review all available information to confirm that the rental property and all rental dwelling units thereon are in compliance with the ICC or provisions of the Code of the City of Watertown at the time the application is made. The application shall be accepted and a certificate of registration shall be issued if, based on all such available information, such application is found to be complete and accurate. Notice to the owner of acceptance or rejection of the application shall be made in writing.

§ 177-10. Term of certificate of registration.

A certificate of registration pursuant to this chapter shall be valid for as long as the information in the application remains complete and accurate, but in no case for more than a period of three (3) years from the date on which the certificate is issued. The owner shall file with the Department a new application in accordance with the requirements of this chapter a) no less than 60 days prior to 1) the expiration of the then current certificate or 2) if sooner, the date set forth in any contract of sale for the closing of transfer of title to the rental dwelling unit or rental property; or b) except for any change in the information provided in the application pursuant to § **177-6A(3)**, in the event that the prior application is no longer complete or accurate, within 30 days following the occurrence of the event or change in circumstances requiring the updating of such information. In the event a new application is not filed if and when required pursuant to Item a)2) or b) of this § **177-10**, the existing certificate of registration shall be null and void.

§ 177-11. Record of registrations.

It shall be the duty of the Code Enforcement Official to maintain a record of registrations pursuant to this chapter. Such register shall be kept by owner name and by street address, showing the name and address of the owner, the number of rental dwelling units at such street address, and the date of expiration of registration for such property. Each application shall be maintained in accordance with all record retention requirements applicable to the City and shall be subject to public disclosure, inspection and copying in accordance with the requirements of the applicable law of the State of New York.

§ 177-12. Presumptions applicable to rental registration enforcement and prosecutions.

A. Within the context of this chapter, the presence or existence of any one of the following shall create a rebuttable presumption that a premises is being used as a rental property or a rental dwelling unit:

(1) There exists a written or oral lease or rental arrangement, payment or agreement for all or any portion of any building or structure located on the property by and between the owner and any tenants, occupants and/or other persons or entities in possession thereof.

(2) The property is occupied by someone other than the owner, and the owner represents in writing or otherwise, to any person or establishment, business, institution or government agency, that the owner resides at an address other than the rental property.

(3) Utilities, cable, phone or other services are in place or requested to be installed or used at the premises or any portion thereof in the name of someone other than the owner.

(4) There are separate entrances for segregated parts of any building or structure located on the property.

(5) There are partitions or internal doors which may serve to bar access between segregated portions of any building or structure located on the property, including but not limited to bedrooms.

(6) Any occupant or person in possession thereof does not have unimpeded and/or lawful access to all dwelling units in a building or structure.

(7) Two or more complete dwelling units, as defined herein or in the Residential Code of New York State, exist in any building or structure located on the property.

(8) A premises has been advertised in any newspaper, magazine, local advertising publication, or posted or billed as being available for rent.

B. The presumptions set forth above, subject to the limitations contained therein, shall also be applicable to enforcement and prosecution of illegal residential use and occupancy violations under other articles of the City Code.

C. Nothing herein shall be construed to prevent persons living together with any owner as a two-family unit as defined by the City Code.

ARTICLE III

§ 177-13. Registration effective date and deadline.

The rental registration portions of this Chapter shall be effective beginning January 1, 2018 for all owners in the City of Watertown, Jefferson County, New York. All owners in the City of Watertown must register their property/rental dwelling unit(s) as required by this section on or before June 30, 2018.

§ 177-14. Certificate of Inspection and Maintenance Compliance required.

A. The inspection portions of this Chapter shall be effective beginning July 1, 2018. The Code Enforcement Official shall have authority to prioritize for inspection subject rental

property/rental dwelling unit(s). The Certificate of Inspection and Maintenance Compliance will be valid for three (3) years from the last day of the month it is issued and must be renewed by§ **177-10** above.

B. Scope of Inspection. After July 31, 2020, no person, firm, partnership, association, corporation, limited liability company, limited liability partnership, or other person or entity shall rent, lease or suffer or allow any person or persons to live in or occupy, as a tenant, any dwelling in the City not otherwise excepted by the provisions of§ **177-3B**, unless a Certificate of Inspection and Maintenance Compliance is first obtained from the Code Enforcement Official indicating that said dwelling was inspected and found to be fit for human habitation and is in compliance with the ICC or provisions of the Code of the City of Watertown as they pertain to building and fire safety, zoning, and property maintenance, and such other laws and regulations which may, from time to time, be adopted and amended.

§ 177-15. Inspection Procedures.

A. Inspection Procedures. A Certificate of Inspection and Maintenance Compliance may only be obtained after an inspection of the dwelling, including all dwelling units, by the Code Enforcement Official or his or her deputies. Either a Certificate of Inspection and Maintenance Compliance or a Notice of Violation shall be issued within fifteen (15) days after the date of such inspection.

If violations are found during the inspection, such violations shall be corrected, or the dwelling unit vacated, within a period of time ranging from ten (10) days to six (6) months, depending on the severity of the violation and the physical requirements necessary to remedy such violations, as determined by the Code Enforcement Official.

A reinspection may be conducted at any time during the period of the Certificate of Inspection and Maintenance Compliance, with a minimum of ten (10) days notice to the owner or his agent, if a signed complaint of non-compliance is received from a person or persons renting a dwelling unit, or upon less notice if deemed necessary by the Code Enforcement Official in case of emergency. Such reinspection shall have the same force as the original inspection.

An owner's refusal to permit inspection or reinspection shall be deemed a surrender of any previously issued Certificates, and shall preclude the issuance of an original Certificate.

B. Posting of Certificate of Inspection and Maintenance Compliance. The Certificate of Inspection and Maintenance Compliance issued pursuant to this Chapter shall be posted in a conspicuous place in the dwelling upon its issuance. The Certificate shall be valid for a period of three (3) years from the date of issuance unless a reinspection discloses violations. Upon correction of the violations, the Certificate shall then be valid for the remainder of the original period of issuance.

§ 177-16. Penalties for offenses.

A. Any rental structure which fails to obtain or maintain the Certificate of Inspection and Maintenance Compliance required by this chapter shall be deemed a public nuisance, which nuisance shall be abated by the revocation of the structure's Certificate of Occupancy and the maintenance of such legal action by the City as shall either compel compliance with this chapter or enjoin the occupancy of the structure until compliance with this chapter shall be achieved.

B. Any owner whose failure to comply with the provisions of this chapter results in legal action by the City to either compel compliance or to enjoin occupancy shall be liable to the City, as part of any judgment obtained by the City, for the City's costs, including reasonable attorney's fees, in obtaining such judgment.

ARTICLE IV

§ 177-17. Severability.

If any clause, sentence, paragraph, section or part of this chapter shall be adjudged by any court of competent jurisdiction to be invalid, such judgment shall not affect, impair or invalidate the remainder thereof but shall be confined in its operation to the clause, sentence, paragraph, section or part thereof directly involved in said judgment.

SAJ:Proactive RRI Legislation2.docx:8:8:16. MS E:/

Public Hearing – 7:30 p.m.

August 10, 2016

To: The Honorable Mayor and City Council

From: Sharon Addison, City Manager

Subject: Local Law No. 2 of 2016 – A Local Law Amending Various Provisions of the Code of the City of Watertown Pertaining to the Establishment of Fees

The City Council has scheduled a public hearing on the above subject for 7:30 p.m. on Monday, August 15, 2016.

As stated in Attorney Robert Slye's cover report at the July 18, 2016 City Council Meeting, the City Clerk has reported that the City's expense in amending various provisions of the Code of the City of Watertown for purposes of simply changing fees has become quite costly. In September 2015, this expense was ameliorated by amending Chapter 48 of the Code to allow fees and charges related to the City's Parks and Recreation Department to be established annually by Resolution of the Council. Because Resolutions of the City Council are not reproduced in the Watertown City Code, the City's expense in publishing changes in fees was eliminated.

During the recent budget deliberations, Council approved fees for the upcoming fiscal year, which were then incorporated by staff into the City budget. In furtherance of a process designed to further reduce costs of publication, the City Clerk has identified provisions of the City Code which, if amended in a manner similar to that done in connection with Parks and Recreation fees, would result in further cost savings.

The procedure to accomplish the removal of specifically identified fees from the body of the City Code and to allow a review of fees without changes to the Code itself, is a bit cumbersome. For example, provisions of the Code involving fees which were established by Local Law, must be amended by Local Law. Those provisions of the Code dealing with fees which were established by Ordinance must be amended by Ordinance. Finally, the City Council needs to approve a resolution establishing fees for the 2016-2017 fiscal year which is designed to become effective only upon the effective dates of the new Local Law and new Ordinance.

It is recommended that after the Public Hearing, Council table this Local Law until the next meeting when we expect to also introduce an Ordinance and Resolution on this subject.

Local Law No. 2 of 2016

July 18, 2016

LOCAL LAW

A Local Law Amending Various Provisions of the Code of the City of Watertown to Allow for the Establishment of a Schedule of Fees to be Approved Annually by the Watertown City Council

	YEA	NAY
Council Member HORBACZ, Cody J.		
Council Member JENNINGS, Stephen A.		
Council Member MACALUSO, Teresa R.		
Council Member WALCZYK, Mark C.		
Mayor BUTLER, Jr., Joseph M.		
Total		

Introduced by

Council Member Stephen A. Jennings

A Local Law to amend various provisions of the Code of the City of Watertown to allow certain fees and charges of the City, currently dispersed throughout the City Code, to be established at least annually by the City Council of the City of Watertown through a budget resolution that adopts a "City Fees and Charges Schedule." Said fees and charges schedule shall be available to the public at the Office of the Watertown City Clerk.

BE IT ENACTED by the City Council of the City of Watertown that Section 81.1 (D) of the Code of the City of Watertown shall be amended to read as follows:

§ 81.1. Licensing.

D. Fees for licensing dogs. Fees and charges for spayed or neutered dogs and for unsprayed or unneutered dogs shall be as established at least annually by the Watertown City Council through a budget resolution that adopts a City Fees and Charges Schedule. Said schedule shall be available to the public at the Office of the Watertown City Clerk.

BE IT FURTHER ENACTED by the City Council of the City of Watertown that Section 45-11.3 of the Code of the City of Watertown shall be amended to read as follows:

§ 45-11.3. City Marriage Officers.

Pursuant to § 11-c, Subdivision (1), of the New York State Domestic Relations Law, the City Council may appoint one or more marriage officers who shall have the authority to solemnize a marriage, which marriage shall be valid if performed in accordance with other provisions of law. Such marriage officers shall be appointed by resolution of the City Council to a term not to exceed four years, pursuant to § 11-c, Subdivision (4), of New York State Domestic Relations Law. Such marriage officer will not receive a salary or wage for his or her services. However, for each marriage at which he or she officiates, the City shall be paid, by or on behalf of the persons married, a marriage solemnization fee shall be as established at least annually by the Watertown City Council through a budget resolution that adopts a City Fees and Charges Schedule. Said schedule shall be available to the public at the Office of the Watertown City Clerk.

LOCAL LAW

A Local Law Amending Various Provisions of the Code of the City of Watertown to Allow for the Establishment of a Schedule of Fees to be Approved Annually by the Watertown City Council

	YEA	NAY
Council Member HORBACZ, Cody J.		
Council Member JENNINGS, Stephen A.		
Council Member MACALUSO, Teresa R.		
Council Member WALCZYK, Mark C.		
Mayor BUTLER, Jr., Joseph M.		
Total		

BE IT FURTHER ENACTED by the City Council of the City of Watertown that Section 101.27 A. (1) of the Code of the City of Watertown shall be amended to read as follows:

§ 101.27. Examination for Certificate of Competency; Form; Lost Certificate.

A. Examination.

(1) Every person desiring to engage in the business of plumbing in the City of Watertown shall first apply to the Watertown Examining Board of Plumbers giving such information as is required by said Board and shall pay the fees that shall be as established at least annually by the Watertown City Council through a budget resolution that adopts a City Fees and Charges Schedule. Said schedule shall be available to the public at the Office of the Watertown City Clerk.

BE IT FURTHER ENACTED by the City Council of the City of Watertown that Section 101-28 of the Code of the City of Watertown shall be amended to read as follows:

§ 101-28. Annual License.

Each plumber having a certificate of competency and conducting a legitimate plumbing business in the City of Watertown shall be issued a yearly license, said license to expire June 30. An annual be will be paid as established at least annually by the Watertown City Council through a budget resolution that adopts a City Fees and Charges Schedule. Said schedule shall be available to the public at the Office of the Watertown City Clerk.

BE IT FURTHER ENACTED by the City Council of the City of Watertown that Section 112-2 of the Code of the City of Watertown shall be amended to read as follows:

§ 112-2. General Licensing Requirements.

Whenever a license or permit for any business or trade is required by this chapter, application therefore shall be made as provided in §112-3, and such license or permit shall be issued in the manner and upon the conditions set forth in this chapter. The fee therefor shall be as established at least annually by the City Council through a budget resolution that adopts a City Fees and Charges Schedule. Said schedule shall be available to the public at the Office of the Watertown City Clerk.

LOCAL LAW

A Local Law Amending Various Provisions of the Code of the City of Watertown to Allow for the Establishment of a Schedule of Fees to be Approved Annually by the Watertown City Council

	YEA	NAY
Council Member HORBACZ, Cody J.		
Council Member JENNINGS, Stephen A.		
Council Member MACALUSO, Teresa R.		
Council Member WALCZYK, Mark C.		
Mayor BUTLER, Jr., Joseph M.		
Total		

BE IT FURTHER ENACTED by the City Council of the City of Watertown that Section 112-5 of the Code of the City of Watertown shall be amended to read as follows:

§ 112-5. Fees; Refunds.

License or permit fees shall be paid in full at or before the issuance of the license or permit to the City Clerk and shall be deposited daily with the City Comptroller. For all annual licenses or permits granted between May 1 and October 31, inclusive, the full annual fee shall be paid; for all annual licenses or permits granted between November 1 and April 30, inclusive, ½ of the annual fee shall be paid. The fees for the respective licenses and permits required under this chapter for the establishment of at least annually by the City Council through a budget resolution that adopts a City Fees and Charges Schedule. Said schedule shall be available to the public at the Office of the Watertown City Clerk. A listing of said businesses requiring such licenses and permits is as follows:

Liquidation sales/going-out-of business sales

Vending on public streets

BE IT FURTHER ENACTED by the City Council of the City of Watertown that Section 120-13.1 (G) of the Code of the City of Watertown shall be amended to read as follows:

§ 120-13.1. Operating Permit.

G. Fee. The fee specified in, or determined in accordance with, the provisions set forth at §120-14 of this chapter must be paid at the time of submission of an application for an operating permit, for an amended operating permit, or for reissue or renewal of an operating permit.

BE IT FURTHER ENACTED by the City Council of the City of Watertown that Section 120-14 of the Code of the City of Watertown shall be amended to read as follows:

LOCAL LAW

A Local Law Amending Various Provisions of the Code of the City of Watertown to Allow for the Establishment of a Schedule of Fees to be Approved Annually by the Watertown City Council

	YEA	NAY
Council Member HORBACZ, Cody J.		
Council Member JENNINGS, Stephen A.		
Council Member MACALUSO, Teresa R.		
Council Member WALCZYK, Mark C.		
Mayor BUTLER, Jr., Joseph M.		
Total		

§ 120.14. Fees.

Upon the filing of an application for a building permit and a maintenance or repair permit, the fees and charges as established by the Watertown City Council shall be payable. No application shall be accepted or processed nor any permit issued for which the prescribed fee has not been paid. Owners of one- and two-family dwellings shall not be required to pay any fee for a permit for maintenance or repair work to any such dwelling.

Fee and charges shall be as established at least annually by the Watertown City Council through a budget resolution that adopts a City Fees and Charges Schedule. Said schedule shall be available to the public at the Office of the Watertown City Clerk.

BE IT FURTHER ENACTED by the City Council of the City of Watertown that Section 120-22 (B) of the Code of the City of Watertown shall be amended to read as follows:

§120-22. Provisional Certificate of Occupancy.

B. Fees.

The fees for certificates of occupancy and provisional certificates of occupancy shall be as established at least annually by the Watertown City Council through a budget resolution that adopts a City Fees and Charges Schedule. Said schedule shall be available to the public at the Office of the Watertown City Clerk.

BE IT FURTHER ENACTED by the City Council of the City of Watertown that Section 161.12 (H) of the Code of the City of Watertown shall be amended to read as follows:

§ 161-12. License Required for Private Transportation or Collection of Refuse.

H. Each application for a permit, if required, shall be accompanied by a check, or other form of payment acceptable to the City of Watertown in the amount established at least annually by the Watertown City Council through a budget resolution that adopts a City Fees and Charges Schedule. Said schedule shall be available to the public at the Office of the Watertown City Clerk.

July 18, 2016

LOCAL LAW

A Local Law Amending Various Provisions of the Code of the City of Watertown to Allow for the Establishment of a Schedule of Fees to be Approved Annually by the Watertown City Council

	YEA	NAY
Council Member HORBACZ, Cody J.		
Council Member JENNINGS, Stephen A.		
Council Member MACALUSO, Teresa R.		
Council Member WALCZYK, Mark C.		
Mayor BUTLER, Jr., Joseph M.		
Total		

BE IT FURTHER ENACTED by the City Council of the City of Watertown that Section 161.15 of the Code of the City of Watertown shall be amended to read as follows:

§161-15. Annual Fees.

The annual fee for licensing under § 161-12, together with the fee to be collected for registration/inspection for each vehicle proposed to be utilized, prior to each annual inspection, shall be as established at least annually by the Watertown City Council through a budget resolution that adopts a City Fees and Charges Schedule. Said schedule shall be available to the public at the Office of the Watertown City Clerk.

BE IT FURTHER ENACTED by the City Council of the City of Watertown that Section 161-22 (B) of the Code of the City of Watertown shall be amended to read as follows:

§ 161-22 City Disposal Bags; Definitions; Requirements; Fees; Penalties for Offenses

B. Established rates.

The City will purchase stickers meeting specifications set by the City Council. The price of the sticker to the City users shall be as established at least annually by the Watertown City Council through a budget resolution that adopts a City Fees and Charges Schedule. Said schedule shall be available to the public at the Office of the Watertown City Clerk.

BE IT FURTHER ENACTED by the City Council of the City of Watertown that Section 161-22 (C)(3) (a) and (b) of the Code of the City of Watertown shall be amended to read as follows:

C. Preparation and Collection of Garbage and Rubbish.

LOCAL LAW

A Local Law Amending Various Provisions of the Code of the City of Watertown to Allow for the Establishment of a Schedule of Fees to be Approved Annually by the Watertown City Council

	YEA	NAY
Council Member HORBACZ, Cody J.		
Council Member JENNINGS, Stephen A.		
Council Member MACALUSO, Teresa R.		
Council Member WALCZYK, Mark C.		
Mayor BUTLER, Jr., Joseph M.		
Total		

(3) (a) and (b). The City's charge for reinspection by the City's Department of Public Works and its per-bag charge for each bag removed shall be as established at least annually by the Watertown City Council through a budget resolution that adopts a City Fees and Charges Schedule. Said schedule shall be available to the public at the Office of the Watertown City Clerk.

BE IT FURTHER ENACTED by the City Council of the City of Watertown that Section 253-7 of the Code of the City of Watertown shall be amended to read as follows:

§253-7. Permit Fees.

Each application for a permit shall be accompanied by a check or other form of payment acceptable to the City of Watertown, in the amount as established at least annually by the Watertown City Council through a budget resolution that adopts a City Fees and Charges Schedule. Said schedule shall be available to the public at the Office of the Watertown City Clerk.

BE IT FURTHER ENACTED that this Local Law shall take effect immediately upon being filed with the New York Secretary of State.

Seconded by Council Member Teresa R. Macaluso

Local Law No. 2 of 2016

SLYE LAW OFFICES, P.C.

MEMORANDUM

TO: The Honorable Mayor and City Council

FROM: Robert J. Slye, City Attorney

DATE: July 14, 2016

RE: Local Law No. 2 of 2016 – A Local Law Amending Various Provisions of the Code of the City of Watertown Pertaining to the Establishment of Fees

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The City Clerk has reported that the City's expense in amending various provisions of the Code of the City of Watertown for purposes of simply changing fees has become quite costly. In September 2015, this expense was ameliorated by amending Chapter 48 of the Code to allow fees and charges related to the City's Parks and Recreation Department to be established annually by Resolution of the Council. Because Resolutions of the City Council are not reproduced in the Watertown City Code, the City's expense in publishing changes in fees was eliminated.

During the recent budget deliberations, Council approved fees for the upcoming fiscal year, which were then incorporated by staff into the City budget. In furtherance of aprocess designed to further reduce costs of publication, the City Clerk has identified provisions of the City Codewhich, if amended in a manner similar to that done in connection with Parks and Recreation fees, would result in further cost savings.

The procedure to accomplish the removal of specifically identified fees from the body of the City Code and to allow a review of fees without changes to the Code itself, is a bit cumbersome. For example, provisions of the Code involving fees which were established by Local Law, must be amended by Local Law. Those provisions of the Code dealing with fees which were established by Ordinance must be amended by Ordinance. Finally, the City Council needs to approve a resolution establishing fees for the 2016-2017 fiscal year which is designed to become effective only upon the effective dates of the new Local Law and new Ordinance.

The City's "roadmap" for accomplishing this is to first introduce a Local Law and schedule a public hearing. That is the purpose of the Local Law presented to you on July 18, 2016.

Before considering this Local Law, a public hearing must be held. Staff is recommending that the City Council schedule the public hearing for Monday, August 15, 2016.

An Ordinance designed to amend those provisions of the Code which can be accomplished by Ordinance, will be introduced on August 15th. However, the Resolution which actually adopts a new schedule of fees will likely not be introduced until the first meeting in September. That Resolution will specifically recite that it is not effective until the Local Law is filed with the New York Secretary of State. The Ordinance will also contain that same language. Accordingly, the Council should wait to adopt the Local Law, Ordinance and Resolution at the first meeting in September.

CITY OF WATERTOWN
ENGINEERING DEPARTMENT
MEMORANDUM

DATE: 29 July 2016

TO: Sharon Addison, City Manager

FROM: Justin Wood, City Engineer

SUBJECT: Clinton Street Lightpole Relocations

At the July 18th, 2016 City Council discussed the remaining lightpoles located in the sidewalks of the 100 and 200 Blocks of Clinton Street. (11) poles currently remain in the sidewalk along Clinton St, (3) lightpoles on the 100 Block; (4) lightpoles and (3) utility poles on the 200 Block. This memorandum highlights some options to assist Council's decision on what, if anything should be done with the remaining poles and sidewalk.

Earlier this year, National Grid (NG) relocated (13) lightpoles and (1) utility pole from the middle of the sidewalk to just beyond the back of walk. These poles obstructed the sidewalk such that the minimum ADA required clearance of 36 inches was not met. NG secured easements and relocated the poles behind the sidewalk on private property. NG projected the cost to move (14) poles at $85,000, or about $6,000 per pole. The remaining poles in the sidewalk provide a minimum of 36 inches of clearance.

If Council wishes to provide more than 36 inches of sidewalk clearance, there are some ways to accomplish it. These options, some of which were discussed at the previous meeting, along with approximate costs are provided below.

Option 1 – Pay NG to Relocate Poles Before ADA Transition Plan $70,000
If City Council wishes to have the (11) remaining poles relocated outside of the sidewalk, NG would have to obtain easements, schedule the work and bill the City once completed. Based on the costs of the recent pole relocation NG completed, this project would cost atleast $66,000. (4) of the poles are utility poles with electric, phone, and cable on them which will likely increase the cost and require involvement from multiple utility companies.

Option 2 – Widen Sidewalk on 200 Block and at (3) Poles on 100 Block $50,000
Widen the sidewalk by two feet on both sides of the 200 Block (approx. 2' wide x 1,900 long), plus at (3) locations on the 100 Block. This option requires repairs to (12) driveways, removal of a mature tree, a fence relocation, and impacts to landscaped areas. The (14) relocated poles were placed at the back of sidewalk, so any widening will have to be built around the poles. *This option is not recommended as it is costly, invasive, and most importantly will create conflicts with the newly relocated poles.*

Alternatively, we could widen the sidewalk for two mini blocks in the 200 Block to provide a uniform look and 5' clearance at the (4) lightpoles, and leave the (3) utility poles. This is explained as Option 3.

Option 3 – Widen Sidewalk between 253-271 Clinton St and Rexford to Sherman (NS) $15,000
Widen the sidewalk by two feet on the southside of Clinton St between houses 253-271 and on the northside of Clinton St between Rexford Pl. and Sherman St. (approx 2' wide x 575' long), plus at (3) locations on the 100 Block. In the 200 Block, this would provide a uniform look of 7' wide sidewalk at the (4) lightpole locations, but not address the (3) utility poles in the sidewalk. It would also address the 36" clearance in the 100 Block at (3) lightpoles. Cost is for contractor pricing.

Option 4 – Widen Sidewalk at (11) Pole Locations Only $5,000

Widen the sidewalk by two feet at (11) locations and repair (3) driveways. This option will provide 5' clearance at the existing pole locations. This is the least expensive and least invasive option which can be completed in a minimal amount of time. Cost is for contractor pricing.

Option 5 – Establish ADA Transition Plan Unknown

If the City's ADA Transition Plan identifies the poles on Clinton Street as a high priority deficiency, they will be programmed into the ADA Capital Improvement Plan. The City is in the very early stages of developing the plan, so this option puts any action on lightpole relocations out of question for 2016.

Due to Clinton Street's proximity to downtown and presence of high pedestrian generators (i.e. banks, hotels, businesses), it is a foregone conclusion these deficiencies identified for correction will rank high on the future project list generated in the ADA Transition Plan. It is unclear, however, if NG will agree to pay the costs of pole relocations which are identified as deficiencies in the City's plan.

It should be noted, NG did fulfill their responsibility and agreement with the City to moving the (14) poles which did not provide 36 inches of clearance, at their own cost. In order to address the remaining (11) poles, the City may have to pay NG to relocate them now, or temporarily widen the sidewalk at each pole, or delay action until the ADA Transition Plan is developed, and work on an agreement with NG to define the cost responsibility and/or cost sharing associated with pole relocations.

Option 1 – Pay NG to Relocate Poles Before ADA Transition Plan	$70,000 *
Option 2 – Widen Sidewalk on 200 Block and at (3) Poles on 100 Block	$50,000 *
Option 3 – Widen Sidewalk between 253-271 Clinton St and Rexford to Sherman (NS)	$15,000 *
Option 4 – Widen Sidewalk at (11) Pole Locations Only	$5,000 *
Option 5 – Establish ADA Transition Plan, then order NG to Relocate Poles	Unknown

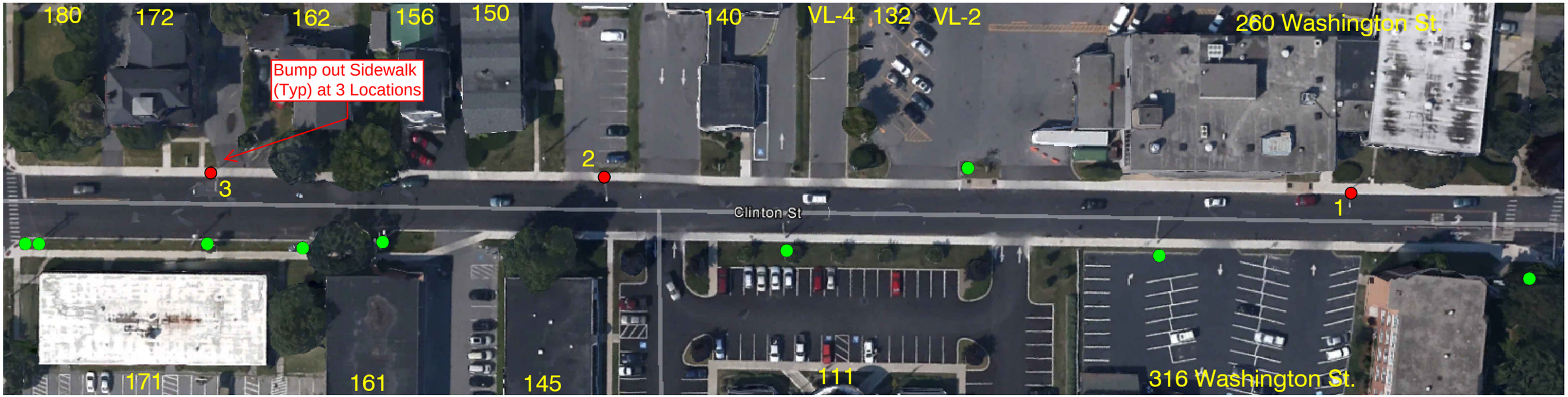
* Estimates do not include costs for acquiring easements

cc: Eugene Hayes, Superintendent of Public Works
Jim Mills, City Comptroller

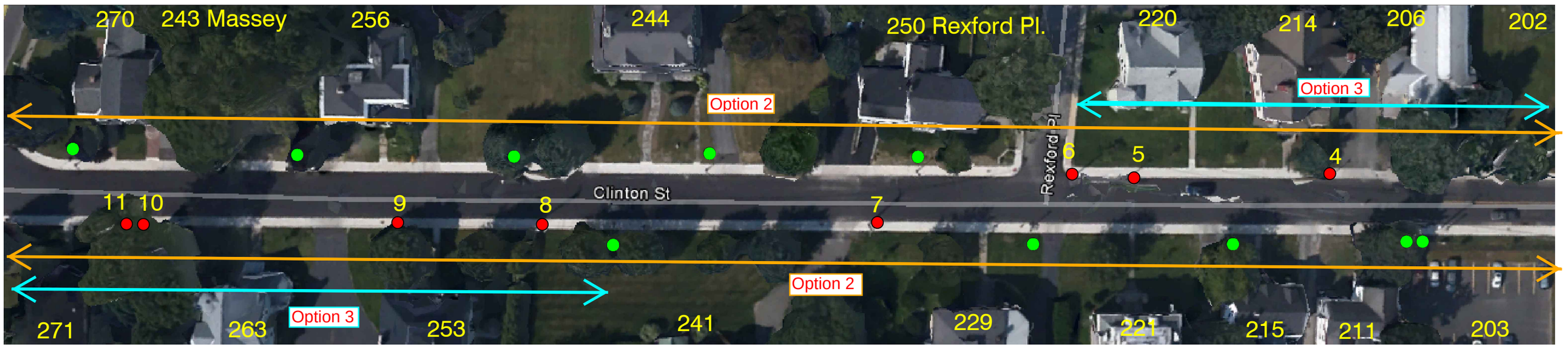
CURRENT POLE LOCATION NOT IN SIDEWALK

CURRENT POLE LOCATION IN SIDEWALK

100 BLOCK CLINTON STREET



200 BLOCK CLINTON STREET



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CITY OF WATERTOWN
ENGINEERING DEPARTMENT
CITY HALL, ROOM 305
245 WASHINGTON STREET
WATERTOWN, NEW YORK 13601
PHONE: 315-785-7740
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CURRENT POLE LOCATION

CLINTON STREET LIGHT AND UTILITY POLE RELOCATION PROJECT

SHEET. NO. 1

SHEET 1 OF 6

100 BLOCK POLE No. 1

100 BLOCK POLE No. 2

100 BLOCK POLE No. 3

100 BLOCK POLE No. 2

100 BLOCK POLE No. 3

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POLE PHOTOS

CLINTON STREET LIGHT AND UTILITY POLE RELOCATION PROJECT

SHEET. NO. 2

200 BLOCK POLE No. 4

200 BLOCK POLE No. 5

200 BLOCK POLE No. 6

200 BLOCK POLE No. 4

200 BLOCK POLE No. 6

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200 BLOCK POLE No. 7

200 BLOCK POLE No. 8

200 BLOCK POLE No. 9

200 BLOCK POLE No. 7

200 BLOCK POLE No. 8

200 BLOCK POLE No. 9

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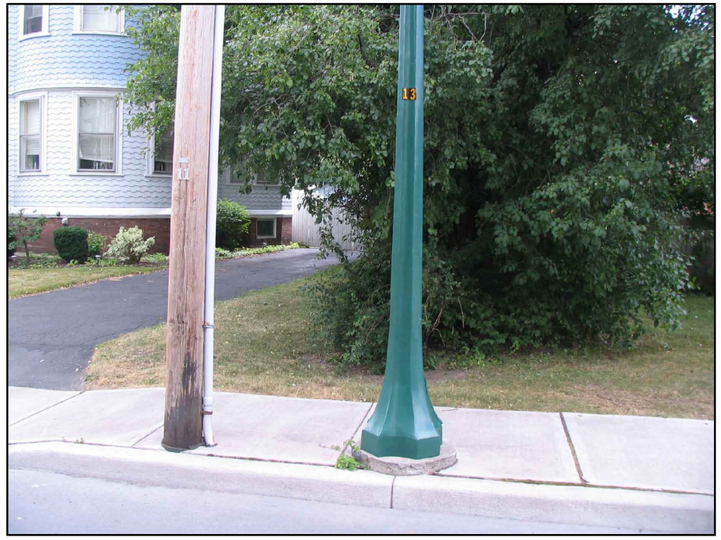
POLE PHOTOS

CLINTON STREET LIGHT AND UTILITY POLE RELOCATION PROJECT

SHEET. NO. 4



200 BLOCK POLES No. 10 & 11

200 BLOCK POLES No. 10 & 11

200 BLOCK POLES No. 10 & 11

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POLE PHOTOS

CLINTON STREET LIGHT AND UTILITY POLE RELOCATION PROJECT

SHEET. NO. 5

100 BLOCK MOVED POLES

200 BLOCK COMBINATION OF POLES

200 BLOCK MOVED POLES

200 BLOCK MOVED POLES

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POLE PHOTOS

CLINTON STREET LIGHT AND UTILITY POLE RELOCATION PROJECT

SHEET. NO. 6

August 10, 2016

To: The Honorable Mayor and City Council

From: Michael A. Lumbis, Planning and Community Development Director

Subject: Creating a Cross-City Trail Connection Plan

At previous work sessions this year, several City Council Members expressed interest in pursuing a plan to connect the various individual trail segments within the City of Watertown. During two separate CDBG public meetings that Staff facilitated over the last year, members of the public have also identified connecting the City's trails as a project that was a priority to them.

In response to this current level of interest and support, Planning Staff is now preparing to research and write a Cross-City Trial Connection Plan for the City of Watertown.

Staff proposes to create a detailed plan for linking current trail segments and building new ones with the vision of creating a cohesive trail network that traverses the City. This will be a complete plan. It will include an introduction, existing conditions report, recommendations as well as a strategy and a timeline for implementation.

Staff anticipates completing a draft of the plan this winter, and will look to the City Council at that time for feedback and then formal adoption. Adopting this plan will formalize the City's intent to create a fully connected trail network and it will make the City considerably more competitive for grant opportunities to fund future trail projects that help implement the plan.

CITY OF WATERTOWN
ENGINEERING DEPARTMENT
MEMORANDUM

1869

DATE: August 10, 2016

TO: Sharon Addison, City Manager

FROM: Justin Wood, City Engineer

SUBJECT: 250 Rexford Place – Dr. Jason White Property

As part of the 2012-2013 Clinton Street Reconstruction Project, new drainage systems, pavement, curbs and sidewalks were installed. Dr. Jason White, who's property at 250 Rexford Place was affected by the Clinton St. Reconstruction Project, has requested the City address three concerns with work done adjacent to and/or on his property;

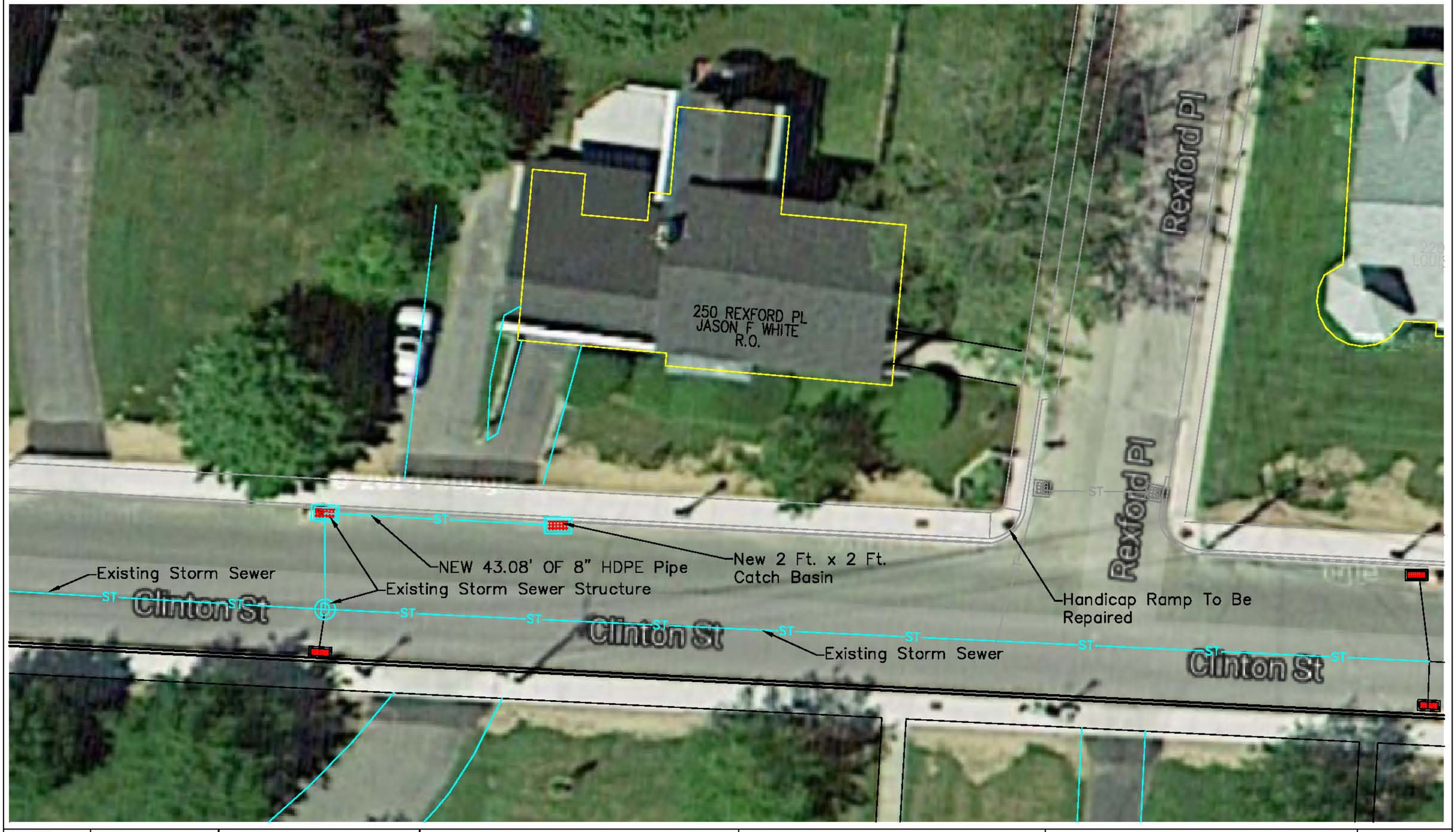
1. Fix a low point in the road near his driveway, which ponds water.
2. Fix the handicap ramp at the NW corner of Rexford Pl. and Clinton St.
3. Improve an area of his lawn that was disturbed during the project, contains weeds, and has only partial grass coverage.

The contractor for Clinton St. Reconstruction has no obligation for addressing these issues, as their two year maintenance bond expired in 2015, therefore the City would be responsible to address them, if so desired. The below scope of work is relatively simple, and estimated at a value of $15,000, assuming it is contracted out;

1. Installation of 43 linear feet of 8" storm pipe, a 2' x 2' catch basin, and asphalt paving to capture runoff at the low point along the Clinton St. curbline.
2. Reconstruction of a handicap ramp, which holds water where the monument frame sits, and adjust the pavement grade around the curb ramp radius.
3. Upon completion of the project, the lawn areas were reseeded along the project limits. Once the lawns are seeded, it is the responsibility of the homeowner to water and maintain the lawn areas. Barring negligence on the contractor's part, and/or seeding with a product not meeting the project specifications, or if large areas of lawn did not germinate properly, no further reseeding would be performed. In this case, the City did have the contractor return a second time and even a third time to reseed Mr. White's property and a few others as requested. The lawn areas must be taken care of to ensure successful germination, especially on the east-west running streets like Clinton St. where shade is limited and diligent care and watering is important. The City has taken extra steps to address this concern, but no further action is necessarily warranted.

If City Council wishes to hire a contractor to perform this work, the Engineering Dept can secure quotes and execute the plan. If, however, City forces are available, they could also perform the work and thus reduce these associated costs.

cc: Eugene Hayes, Superintendent of Public Works
Erin Gardner, Superintendent of Parks and Recreation
Jim Mills, City Comptroller



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CLINTON STREET AND REXFORD PLACE INTERSECTION

STORM SEWER AND HANDICAP RAMP MODIFICATIONS

SHEET NO.
1
SHEET 1 OF 1


PRE-CON 2010


POST-CON 2016

GUTTER FLO
TOWARD HO
REPLACE HANDICAP RAMP
CLINTON ST.
MONUMENT
RAISE LOW
POINT TO DRAIN
REXFORD PL

INSTALL CB AT
LOW POINT AND
CONNECT TO
EXISTING CB
INSTALL CATCH BASIN
250
REXFORD PL
GUTTER
FLOW

August 10, 2016

To: The Honorable Mayor and City Council

From: James E. Mills, City Comptroller

Subject: Thompson Park Pool and Bathhouse Projected Debt Service

The following chart illustrates the projected debt service costs related to the proposed Thompson Park pool and bathhouse projects at both a full City-funded scenario and a 75% City-funded scenario with 25% of the project costs being funded from non-City sources.

Per New York State Local Finance Law, a pool reconstruction can be financed over a maximum of 15 years, while a newly constructed pool can be financed over a maximum of 20 years. Building renovations to the bathhouse can be financed over a range of 10 to 20 years, depending on the materials used and the resulting fire rating of the structure (fireproof, fire-resistant or neither).

	THOMPSON PARK POOL		THOMPSON PARK POOL BATHHOUSE	
Fiscal Year	Annual Debt Service on $900,000 Resurfacing and Fiberglass Liner Option	Annual Debt Service on $2,000,000 Total Replacement Option	Annual Debt Service on $200,000 Minimal Maintenance Option	Annual Debt Service on $750,000 Full Scale Renovation Option
1	$ 81,875	$ 158,333	$ 18,861	$ 68,229
2	$ 81,000	$ 157,000	$ 18,650	$ 67,500
3	$ 79,500	$ 154,000	$ 18,300	$ 66,250
4	$ 78,000	$ 151,000	$ 17,950	$ 65,000
5	$ 76,500	$ 148,000	$ 17,600	$ 63,750
6	$ 75,000	$ 145,000	$ 16,250	$ 62,500
7	$ 73,500	$ 142,000	$ 15,925	$ 61,250
8	$ 72,000	$ 139,000	$ 15,600	$ 60,000
9	$ 70,500	$ 136,000	$ 15,275	$ 58,750
10	$ 69,000	$ 133,000	$ 14,950	$ 57,500
11	$ 67,500	$ 130,000	$ 14,625	$ 56,250
12	$ 66,000	$ 127,000	$ 14,300	$ 55,000
13	$ 64,500	$ 124,000	$ 13,975	$ 53,750
14	$ 63,000	$ 121,000	$ 13,650	$ 52,500
15	$ 61,500	$ 118,000	$ 13,325	$ 51,250
16	$ -	$ 115,000	$ -	$ -
17	$ -	$ 112,000	$ -	$ -
18	$ -	$ 109,000	$ -	$ -
19	$ -	$ 106,000	$ -	$ -
20	$ -	$ 103,000	$ -	$ -
	$ 1,079,375	$ 2,628,333	$ 239,236	$ 899,479

Projected Debt Service if 25% of the costs are non-City funded:

Fiscal Year	Annual Debt Service on $675,000 Resurfacing and Fiberglass Liner Option	Annual Debt Service on $1,500,000 Total Replacement Option	Annual Debt Service on $150,000 Minimal Maintenance Option	Annual Debt Service on $562,500 Full Scale Renovation Option
1	$ 61,406	$ 118,750	$ 14,146	$ 51,172
2	$ 60,750	$ 117,750	$ 13,988	$ 50,625
3	$ 59,625	$ 115,500	$ 13,725	$ 49,688
4	$ 58,500	$ 113,250	$ 13,463	$ 48,750
5	$ 57,375	$ 111,000	$ 13,200	$ 47,813
6	$ 56,250	$ 108,750	$ 12,188	$ 46,875
7	$ 55,125	$ 106,500	$ 11,944	$ 45,938
8	$ 54,000	$ 104,250	$ 11,700	$ 45,000
9	$ 52,875	$ 102,000	$ 11,456	$ 44,063
10	$ 51,750	$ 99,750	$ 11,213	$ 43,125
11	$ 50,625	$ 97,500	$ 10,969	$ 42,188
12	$ 49,500	$ 95,250	$ 10,725	$ 41,250
13	$ 48,375	$ 93,000	$ 10,481	$ 40,313
14	$ 47,250	$ 90,750	$ 10,238	$ 39,375
15	$ 46,125	$ 88,500	$ 9,994	$ 38,438
16	$ -	$ 86,250	$ -	$ -
17	$ -	$ 84,000	$ -	$ -
18	$ -	$ 81,750	$ -	$ -
19	$ -	$ 79,500	$ -	$ -
20	$ 809,531	$ 1,894,000	$ 179,430	$ 674,613

August 10, 2016

To: The Honorable Mayor and City Council

From: Michael A. Lumbis, Planning and Community Development Director

Subject: Local Initiatives Support Corporation Zombie and Vacant Properties Remediation and Prevention Initiative Grant

As the City Council is aware, the City has been invited to apply for grant funding through the Local Initiatives Support Corporation's (LISC) Zombie and Vacant Properties Remediation and Prevention Initiative. LISC is administering settlement funds on behalf of financial institutions that entered into settlement agreements with the New York State Attorney General's office as a result of the foreclosure crisis.

The City has been invited to apply for a grant between $100,000 and $150,000. Potential uses of the grant funding include: creating a local zombie and/or vacant property database; increasing capacity within Code Enforcement, Corporation Counsel or other municipal offices to assist with enforcement issues related to vacant and/or blighted properties; researching and developing local policies for addressing housing vacancy and abandonment and providing outreach to homeowners at risk of foreclosure.

Staff has attended several conference calls on the program and has discussed the grant opportunity in several meetings. After review of the grant criteria, eligible activities and needs of the City, Staff is proposing to apply for funding to increase capacity in our Code Enforcement Bureau by hiring a temporary Housing Inspector and purchasing code software and tablets. The software and tablets would allow the inspector to maintain and update the database of vacant and abandoned homes developed by the City Assessor, closely track the properties and do field inspections that would be downloadable and would allow Staff to efficiently process complaints.

The grant application must also include a plan to connect homeowners at risk of foreclosure to services, such as the Attorney General's Homeowner Protection Program and the Mortgage Assistance Program. The City plans to meet this requirement through an advertising campaign and by working with local banks and housing agencies to identify persons at risk of foreclosure and to refer them to the various State programs and connect them with mortgage counseling services.

The application is due August 19, 2016. Staff will be finalizing the details and submitting the application prior to the deadline.