

1. Zoom Meeting Instructions

Documents:

[ZOOM PLANNING BOARD MEETING INSTRUCTIONS APRIL 26, 2021.PDF](#)

2. Pledge Of Allegiance

3. Approval Of Minutes - April 12, 2021

4. Brolex Properties - 5912 North Burdick Street, East Syracuse, NY 13057 - Determination - 12-Lot Site Plan- Freeman Estates - 7430 Highbridge Road, Fayetteville, NY 13066 Tax Map #101.-02-02.1

5. KAJED Enterprises - 900 Old Liverpool Road - Building Permit Extension - 8428 Brae Leure Road, Manlius, NY 13104 Tax Map # 099.-02-30.0

Documents:

[8428 BRAE LEURE - BUILDING PERMIT EXTENSION - KAJED.PDF](#)

6. Route 5 Development Company - 540 Towne Drive, Fayetteville, NY 13066 - Initial Presentation - Site Plan - Lot 15 Restaurant Building - 406 Towne Drive, Fayetteville, NY 13066 - Tax Map # 087.-01-15.2

Documents:

- [1 - PLANNING BOARD APPLICATION LETTER 03.30.21.PDF](#)
- [2 - PLANNING BOARD APPLICATION LOT 15-SIGNED JA.PDF](#)
- [3 - SEQRA LONG FORM.PDF](#)
- [4 - CIVIL DWGS COR-FAYETTEVILLE-RESTAURANTS_PB SUBMITTAL_2021-03-30.PDF](#)
- [5 - A1-PLAN LOT15_03.29.21.PDF](#)
- [6 - A2-ELEV LOT15_03.29.21.PDF](#)
- [7 - A2-ELEV LOT15_03.29.21_COLORED R.PDF](#)
- [8 - 2021-0330 LOT 15 STORM WATER MANAGEMENT REPORT.PDF](#)
- [9 - PROPOSED TOWNE CENTER EXPANSION TIS WITH APPENDICIES 03-30-21.PDF](#)
- [10 - EXTERIOR BUILDING MOUNTED LIGHTS.PDF](#)

7. Alexander Hebert - 7119 North Manlius Road, Kirkville, NY 13082 - Initial Presentation - 2-Lot Subdivision - Schepps Corners Road & North Manlius Road. - Tax Map # 040.00-02-021.1

Documents:

[APPLICATION.PDF](#)
[SUBDIVISION MAP.PDF](#)

8. Other Business

9. Adjournment



April 26, 2021

Virtual Planning Board Meeting

Instructions to attend the April 26, 2021 virtual Planning Board meeting:

The easiest way to join is to go to our website www.TownOfManlius.org and click on the link that is located on the homepage. You can also watch on our Facebook page by searching for "Town of Manlius"

Enter the meeting url web address as listed below:

<https://us02web.zoom.us/j/81566320030?>

Password to join when prompted:

Password: 447242

Enter your email address and name and join the meeting!

Join by telephone by dialing the number below:

1-929- 436-2866

When prompted to enter the Webinar ID, use the number below followed by #

Webinar ID: 815 6632 0030

Press # again to skip the personal id and enter the password below followed by #

Password: 447242

Expected
Fee: _____

TOWN OF MANLIUS
PLANNING DEPARTMENT
INITIAL APPEARANCE APPLICATION

DATE: 04/08/21 _____

Name of Project: Holland Residence

Applicant must submit 12 copies of all site plans, surveys, and supporting data with the final application before a planning board meeting can be scheduled.

Location of Project: 8428 Brae Leure Rd. Manlius, NY 13104

Type of Project:

☐ Division of Land ☐ Subdivision ☐ Accessory Use ☐ Zone Change ☐ Site Review ☒ Other Permit Extension

Developer: KAJED Enterprises Phone: 704-998-1829

Address: 900 Old Liverpool Rd Zip: 13090

Tax Map Number(#)/s: 099 -02-30 0

Present Zoning: Residential Desired Zoning: No Change

Total Acreage: 5.02 Total Number of Lots: 1

Property Owner/s: Wendy Holland Phone: 315-729-0299

Address: 8428 Brae Leure Rd. Manlius, NY Zip: 13104

Tax Map#(s): 099 -02-30 0 Owner's Signature: 

Printed Name: Wendy Holland

Property Owner/s: _____ Phone: _____

Address: _____ Zip: _____

Tax Map#(s): _____ Owner's Signature: _____

Printed Name: _____

Use next page for additional known property owners' information

Planning Board Meeting Date Assignment: _____

Fee: _____ Paid: _____ Per: ☐ Credit/Debit Card ☐ Check ☐ Cash

Planning Board - Initial

Chapter 59. Building Construction and Fire Prevention

§ 59-14. Performance of work under building permit.

- A. A building permit shall be effective to authorize the commencing of work in accordance with the application, plans and specifications on which it is based for a period of six months after the date of its issuance. For good cause, the Codes Enforcement Officer may allow a maximum of two extensions for periods not exceeding three months each. Any additional extension can only be granted by the Planning Board.
- B. The issuance of a building permit shall constitute authority to the applicant to proceed with the work in accordance with the approved construction documents, plans and specifications which were submitted with the building permit application and in accordance with the applicable building laws, ordinances or regulations. The building permit shall contain such a directive. The permit holder shall immediately notify the Code Enforcement Officer of any change occurring during the course of the work. The building permit shall contain such a directive. If the Code Enforcement Officer determines that such a change warrants a new or amended building permit, such change shall not be made until and unless a new or amended building permit reflecting such change is issued.

[Amended 5-9-2007 by L.L. No. 1-2007]

THIS PERMIT MUST BE POSTED IN A CONSPICUOUS PLACE AND VISIBLE FROM THE STREET

THIS IS TO CERTIFY THAT
Kaled Enterprises, LLC
HAS BEEN GRANTED A

BUILDING PERMIT

TOWN OF MANLIUS

Number: 0042-19

For: Single Fam Residence

At 8428 Brae Leure Road Tax Map Number 099.-02-30.0

The inspections listed below are required

Do not proceed beyond these points until signed by the Code Enforcement Officer.

Pre-permit	
Footing Forms before pouring	
Wall Forms before pouring	Call on your way 704-998-1829
Foundation before backfill	- Not ready yet, will call when finished. Same with framing.
Framing before insulation	
Preparation for concrete slab	
Insulation	
Framing/Final	
Final Electric	
Plumbing Final	
Final	
Septic System Final	
Bonding/mesh	
Airseal	

This Building Permit constitutes authority to the applicant to proceed with the work in accordance with the approved construction documents, plans and specifications which were submitted with the Building Permit Application, and in accordance with the applicable building laws, ordinances or regulations. The permit holder shall immediately notify the Code Enforcement officer of any change occurring during the course of the work. Such change may require a new or amended Building Permit.

24 hour notice must be given to the code enforcement office when work is ready for inspection.

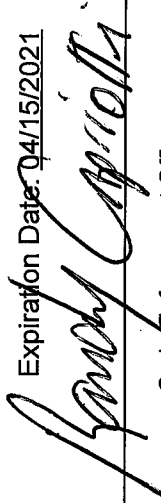
Phone: 315-637-8619

Office Hours: 8:30am to 4:30pm

Issue Date: 04/15/2019

Expiration Date: 04/15/2021

Signed



Code Enforcement Officer

THIS PERMIT MUST BE POSTED IN A CONSPICUOUS PLACE AND VISIBLE FROM THE STREET

THIS IS TO CERTIFY THAT
Kajed Enterprises, LLC
HAS BEEN GRANTED A

BUILDING PERMIT

TOWN OF MANLIUS

Number: 0042-19

For: Single Fam Residence

At 8428 Brae Leure Rd Tax Map Number 099.-02-30.0

The inspections listed below are required

Do not proceed beyond these points until signed by the Code Enforcement Officer.

Footing Forms before pouring
Wall Forms before pouring <u>if poured</u>
Foundation before backfill
Preparation for concrete slab
Framing before insulation
Bonding and <u>GAS Line if GAS</u>
Airseal
Insulation
Framing/Final
Septic System Final <u>of septic</u>
Final Electric
Plumbing Final
Final

This Building Permit constitutes authority to the applicant to proceed with the work in accordance with the approved construction documents, plans and specifications which were submitted with the Building Permit Application, and in accordance with the applicable building laws, ordinances or regulations. The permit holder shall immediately notify the Code Enforcement officer of any change occurring during the course of the work. Such change may require a new or amended Building Permit.

24 hour notice must be given to the code enforcement office when work is ready for inspection.

Phone: 315-637-8619

Office Hours: 8:30am to 4:30pm

Issue Date: 04/15/2019

Expiration Date: 04/15/2020

Signed



Code Enforcement Officer

Application for Building Permit

Town of Manlius

Department of Planning and Development

301 Brooklea Drive, Fayetteville, NY 13066

(315)637-8619 Fax: (315) 637-0713

Application is hereby made for the issuance of a Building Permit pursuant to the New York State Uniform Fire Prevention and Building Code for work herein described. The applicant agrees to comply with all laws, ordinances, regulations and revisions of the municipality in which the Permit is requested.

Owner/Applicant - Name: WENDY HOLLAND

Address of Proposed Work: 8428 BRAE LEURE RD

Contractor Name & Address & Phone Number: KAJED ENTERPRISES, LLC
900 OLD LIVERPOOL RD. STE 2-10 LIVERPOOL, NY
13088

Proposed Work: NEW HOUSE CONSTRUCTION

1. Addition _____ 2. Alteration _____ 3. Demolition _____ 4. Garage _____
5. Shed _____ 6. Deck _____ 7. Pool _____ 8. Sign _____
9. New Construction X 10. Fireplace/Woodstove _____ 11. Solar _____
12. Renewal _____ 13. Other _____

Construction Cost: \$ 230,000

Size of Project: 2,794 SF

Description of Project:

NEW CONSTRUCTION RANCH HOUSE w/
BASEMENT

Residential - New Structure X Existing Structure _____

of Bedrooms 3 # of Bathrooms 3.5 # of Fireplaces 1

Total Square Feet w/o Garage GROSS 2794 Garage Square Foot 1125
dated 2578

Other _____

Description RANCH w/ 3 CAR GARAGE

Commercial - New Structure _____ Existing Structure _____

N/A

KAJED ENTERPRISES, LLC

704-998-1829

KAJED@KAJED.NET

Name of Business: _____ Total Square Feet: _____

Description of Property: _____

All Plumbing and Sanitary systems to be inspected by Onondaga County Department of Health.
All Electrical systems will be inspected by a Third Party Electrical Inspector approved by the Town of Manlius.

I hereby agree that no building is to be occupied or used in whole or in part for any purpose what so ever until a Certificate of Occupancy or Compliance has been issued by the Code Enforcement Officer.

I hereby certify that the above information is true to the best of my knowledge. Permission is hereby granted to the Code Enforcement Officer or Authorized representative upon showing proper credentials to enter that above premises or buildings during reasonable working hours to discharge their duties.

Signature: [Signature] Date: 4/9/19

CODE ENFORCEMENT USE ONLY

Zoning: R1 (F) 40 (R) 40 (S) 20 Flood Plain _____ Wetlands _____

Received By: DW Receipt No.: 2931 Fee: \$ 1200 Date: 4-10-19

Check #: _____ Cash: _____ Credit Card: X

Tax Map # 099-02-30.0

Building Permit Number: 42-2019

Approved: X Disapproved: _____ Date: 4.15.19

Remarks: _____

[Signature]

Signature of Code Enforcement Officer



March 30, 2021

Town of Manlius Town Hall
Town Clerk's Office
301 Brooklea Drive
Fayetteville, NY 13066

Dear Members of the Planning Board;

Bergmann on behalf of the applicant, Route 5 Development Company, LLC. submits the attached materials for a site plan application for Lot 15 located at 406 Towne Drive Fayetteville, NY within the Towne Center at Fayetteville plaza, tax parcel number 87.-01-15.2. The project will include the construction of a 7,240 sf, one story building to house two proposed restaurant tenants, one with a typical drive thru and one with mobile order pick-up. The project will include the construction of the proposed building, the parking lot for 48 vehicles, site lighting, landscaping, utility services, and storm water mitigation.

Submitted materials:

(12) Collated full-scale copies of the following are included:

1. Planning Department Initial Appearance Application for Site Plan;
2. Long Form EAF; and
3. Check for \$300.00 representing the site plan application fee.

Site Plans

1. C000 – Cover Sheet;
2. C010 – Existing Conditions Plan;
3. C080 – Demolition Plan;
4. C100 – Site Plan;
5. C110 – Utility Plan;
6. C120 – Grading Plan;
7. C130 – Landscape Plan;
8. C140 – Erosion & Sediment Control Plan;
9. C141 – Erosion & Sediment Control Plan;
10. C150 – Photometric Plan;
11. C151 Photometric Details;
12. C500 – C504 – Miscellaneous Details; and
13. C505 – Landscape Details.

Architectural Plans

1. A1 –Plan;
2. A2 – Elevations; and
3. A2 – Color Rendering of Elevations.

Reports (3 Copies)

1. Storm Water Management Report; and
2. Traffic Study



We would like to present the submitted material to the Planning Board at the April 12th regularly scheduled meeting. If you have any questions or require additional information, please contact me at 585-498-7831 or Kate Johnson at COR 315-663-2100.

Sincerely,

Andrew M. Hart, RLA, ASLA
Commercial Practice Leader – NE Region

Cc: Kate Johnson, Route 5 Development Company, LLC

I:\Cor Development\015105.00 COR-Panera Chipotle Site Dsgn Fayettevil\3.0 Design\3.11 Approvals and Permits\Planning Board Submission\Planning Board Application Letter 03.30.21.docx

Expected

Fee: _____

TOWN OF MANLIUS
PLANNING DEPARTMENT
INITIAL APPEARANCE APPLICATION

DATE: March 23, 2021

Name of Project: Lot 15 Restaurant Building

Applicant must submit 12 copies of all site plans, surveys, and supporting data with the final application before a planning board meeting can be scheduled.

Location of Project: 406 Towne Drive Fayetteville, NY 13066

Type of Project:

☐ Division of Land ☐ Subdivision ☐ Accessory Use ☐ Zone Change ☒ Site Review ☐ Other _____

Developer: Route 5 Development Company, LLC Phone: 315-663-2100

Address: 540 Towne Drive Fayetteville, NY Zip: 13066

Tax Map Number(#)/s: 087.-1-15.2

Present Zoning: RSD

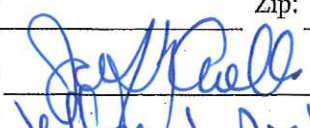
Desired Zoning: RSD

Total Acreage: 1.577 Acres

Total Number of Lots: 1

Property Owner/s: Route 5 Development Company, LLC Phone: 315-663-2100

Address: 540 Towne Drive Fayetteville, NY Zip: 13066

Tax Map#(s): _____ Owner's Signature: 

Printed Name: Jeffrey L. Aiello

Property Owner/s: _____ Phone: _____

Address: _____ Zip: _____

Tax Map#(s): _____ Owner's Signature: _____

Printed Name: _____

Use next page for additional known property owners' information

Planning Board Meeting Date Assignment: _____

Fee: _____

Paid: _____

Per: ☐ Credit/Debit Card ☐ Check ☐ Cash

DISCLOSURE AFFIDAVIT

STATE OF NEW YORK)
) SS:
COUNTY OF ONONDAGA)

I. _____, being duly sworn, deposes and says that (s) he is:

(applicant, petitioner, corporation officer, property owner, *etc.*)

A. Every application, petition or request submitted for a site plan, variance, amendment, change of zoning, approval of a plat, exemption from a plat or official map, license or permit, pursuant to the provisions or any ordinance, local law, rule or regulation constituting the zoning and planning regulations of a municipality shall state the name, residence and the nature and extent of the interest of any state officer or any officer or employee of such municipality is a part, in the person, partnership or association making such application, petition or request (hereinafter called the applicant) to the extent known to such applicant.

- 1) is the applicant, or
- 2) is an officer, director, partner or employee of the applicant, or
- 3) legally or beneficially owns or controls stock of a corporate applicant or is a member of a partnership or association applicant, or
- 4) is a party to an agreement with such an applicant, express or implied, whereby (s) he may receive any payment or other benefit, whether or not for services rendered, or contingent upon the favorable approval of such application, petition or request.

D. A person who knowingly and intentionally violates this section shall be guilty of a misdemeanor.

III. That no Town of Manlius officer, employee or a relative of either, as defined in Section 809 General Municipal Law has any interest in this application.

-OR-

If a Town of Manlius officer, employee or relative of either as defined in Section 809 General Municipal law has any interest in this application, the full particulars are provided on an attached sheet.

Date: _____, 20____.

Jeffery L. Aiello

(Print Name)

(Signature)

Route 5 Development Company, LLC

(Entity Name)

General Manager

By (Officer) (Title)

540 Towne Dr. Fayetteville, NY 13066

(Mailing Address of Applicant)

315-663-2100

(Telephone Number)

Date: _____, 20____.

(Print Name)

(Signature)

(Entity Name)

By (Officer) (Title)

(Mailing Address of Applicant)

(Telephone Number)

ACKNOWLEDGEMENTS

STATE OF NEW YORK)
) SS:
COUNTY OF ONONDAGA)

On this _____ day of _____ in the year 20____, before me, the undersigned, a notary public in and for said state, personally appeared _____, and _____ personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within Petition and acknowledged to me the he/she/they executed the same in his/her/their capacity, and that by his/her/their signature(s) on the Petition, the individual or the persons upon behalf of which the individual acted executed the instrument.

Notary Public

CORPORATE ACKNOWLEDGEMENT

STATE OF NEW YORK)
) SS:
COUNTY OF ONONDAGA)

Jeffrey L. Aiello, being duly sworn, deposes and says the
s(he) is the General manager of Route 5 Development Company LLC
corporation named in the within Application/Petition, that s(he) has read the foregoing affidavit and
knows the contents thereof; that the same is true of s(he) own knowledge, except as to those matters
therein stated to be alleged upon information and belief, and as to those matters s(he) believes it to be
true.



Applicant Signature

Subscribed to me before this day 23rd
Of March, 20 21



Notary Public

BARBARA SESSLER
Notary Public, State of New York
Qualified in Onon. Co. No. 01SE6038278
My Commission Expires March 06, 20 22

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 applicant or project sponsor to verify that the information contained in Part 1 is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: Lot 15 Restaurant Building		
Project Location (describe, and attach a general location map): 406 Towne Drive Fayetteville, NY 13066		
Brief Description of Proposed Action (include purpose or need): To construct a 7,240 sf multi-tenant single story building to house two proposed restaurant tenants. The proposed project will be located on the 1.577 acre Lot 15, within the Towne Center at Fayetteville Plaza. The existing parcel of land is used as a parking lot with 120 spaces. The site improvements include construction of the building on the south end of the site including a drive up mobile order pick up lane for Restaurant A and a traditional drive thru lane for Restaurant B. Parking will be constructed for 48 vehicles, new utility services for water, sanitary, storm sewer, gas and electric. New site LED site lighting will be included, which are dark sky complaint. The building lot is located within the flood plain therefore the finished floor of the building will be placed two feet higher than the 100 year flood.		
Name of Applicant/Sponsor: Route 5 Development 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):	Telephone:	
	E-Mail:	
Address:		
City/PO:	State:	Zip Code:

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 Counsel, Town Board, ☐ Yes ☒ No or Village Board of Trustees		
b. City, Town or Village Planning Board or Commission ☒ Yes ☐ No	Town of Manlius Planning Board	
c. City, Town or Village Zoning Board of Appeals ☐ Yes ☒ No		
d. Other local agencies ☐ Yes ☒ No		
e. County agencies ☒ Yes ☐ No	OC Planning, OCHD, OC Stormwater, OCWA	
f. Regional agencies ☐ Yes ☒ No		
g. State agencies ☒ Yes ☐ No	NYSDEC	
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?

RSD

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? Fayetteville Manlius Schools

b. What police or other public protection forces serve the project site?

Town of Manlius Police Department

c. Which fire protection and emergency medical services serve the project site?

Town of Manlius Fire Department and CNY EMS

d. What parks serve the project site?

Old Erie Canal State Park, Town of Manlius Park & Recreation

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)?

Commercial

b. a. Total acreage of the site of the proposed action? 1.577 acres

b. Total acreage to be physically disturbed? 1.8 acres

c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 64.913 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)? % 1.04% 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)

ii. Is a cluster/conservation layout proposed? ☐ Yes ☒ No

iii. Number of lots proposed? 0

iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will the proposed action be constructed in multiple phases? ☐ Yes ☒ No

i. If No, anticipated period of construction: 8 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.				
	<u>One Family</u>	<u>Two Family</u>	<u>Three Family</u>	<u>Multiple Family (four or more)</u>
Initial Phase	_____	_____	_____	_____
At completion	_____	_____	_____	_____
of all phases	_____	_____	_____	_____

g. Does the proposed action include new non-residential construction (including expansions)? ☒ Yes ☐ No If Yes,	
i. Total number of structures <u>1</u>	
ii. Dimensions (in feet) of largest proposed structure: <u>21'-0"</u> height; <u>53'</u> width; and <u>152'-8"</u> length	
iii. Approximate extent of building space to be heated or cooled: <u>7,240</u> 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? ☐ Yes ☒ No (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) 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 the proposed action cause or result in disturbance to bottom sediments? ☐ Yes ☒ No
If Yes, describe: _____

iv. Will the 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: _____ 9,500 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: OCWA - Towne Center at Fayetteville
- 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: _____

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), what is the 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: _____ 9,500 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 Waste Water

iii. Will the proposed action use any existing public wastewater treatment facilities? ☒ Yes ☐ No
If Yes:

- Name of wastewater treatment plant to be used: Meadowbrook-Limestone Wastewater Treatment Plant
- Name of district: Onondaga County
- 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? • Will a line extension within an existing district be necessary to serve the project? If Yes: • Describe extensions or capacity expansions proposed to serve this project: _____	☒ Yes ☐ No ☐ Yes ☒ No
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? If Yes: i. How much impervious surface will the project create in relation to total size of project parcel? _____ Square feet or <u>1.352</u> acres (impervious surface) _____ Square feet or <u>1.577</u> acres (parcel size) ii. Describe types of new point sources. <u>Stormwater runoff will sheet flow across the site to curbs and storm inlets and then conveyed via closed conduit storm sewer.</u> 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)? <u>Stormwater runoff will be directed to on-site stormwater management facilities which discharge to an existing storm sewer within the Towne Center at Fayetteville plaza. The existing storm sewer ultimately discharges to Limestone Creek.</u> • If to surface waters, identify receiving water bodies or wetlands: _____ <u>Stormwater ultimately discharges to Limestone Creek via the existing private storm sewer system.</u> • Will stormwater runoff flow to adjacent properties? ☐ Yes ☒ No	☒ Yes ☐ No ☒ Yes ☐ No
iv. Does the 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? If Yes, identify: i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles) _____ ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers) _____ iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation) _____	☐ Yes ☒ No
--	---

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? 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) ii. In addition to emissions as calculated in the application, the project will generate: • _____ Tons/year (short tons) of Carbon Dioxide (CO₂) • _____ Tons/year (short tons) of Nitrous Oxide (N₂O) • _____ Tons/year (short tons) of Perfluorocarbons (PFCs) • _____ Tons/year (short tons) of Sulfur Hexafluoride (SF₆) • _____ Tons/year (short tons) of Carbon Dioxide equivalent of Hydrofluorocarbons (HFCs) • _____ Tons/year (short tons) of Hazardous Air Pollutants (HAPs)	☐ Yes ☒ No ☐ Yes ☒ No
--	--

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 truck trips/day and type (e.g., semi trailers and dump trucks): <u>0</u> iii. Parking spaces: Existing <u>120</u> Proposed <u>48</u> Net increase/decrease <u>60% Decrease</u> 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: _____ <u>TBD</u> ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other): <u>Local Utility National Grid</u> 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. <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> i. During Construction: • Monday - Friday: <u>7:00 am - 3:00 pm</u> • Saturday: <u>None</u> • Sunday: <u>None</u> • Holidays: <u>None</u> </td> <td style="width: 50%; vertical-align: top;"> ii. During Operations: • Monday - Friday: <u>7:00 am - 9:00 pm</u> • Saturday: <u>7:00 am - 9:00 pm</u> • Sunday: <u>8:00 am - 7:00 pm</u> • Holidays: <u>8:00 am - 7:00 pm</u> </td> </tr> </table>		i. During Construction: • Monday - Friday: <u>7:00 am - 3:00 pm</u> • Saturday: <u>None</u> • Sunday: <u>None</u> • Holidays: <u>None</u>	ii. During Operations: • Monday - Friday: <u>7:00 am - 9:00 pm</u> • Saturday: <u>7:00 am - 9:00 pm</u> • Sunday: <u>8:00 am - 7:00 pm</u> • Holidays: <u>8:00 am - 7:00 pm</u>
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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: _____ _____	
ii. Will the 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: <u>LED Fixtures, mounted 22' above grade, and aimed downward. Dark Sky Compliant</u> _____	
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 the 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: _____ 1 tons per _____ Month (unit of time) • Operation : _____ 2 tons per _____ Week (unit of time) ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste: • Construction: <u>Recyclable material will be sorted during construction when applicable</u> _____ • Operation: <u>Facility will comply with Onondaga County recycling program</u> _____ iii. Proposed disposal methods/facilities for solid waste generated on-site: • Construction: <u>Dumpsters</u> _____ • Operation: <u>Combination of Dumpsters and Bins hidden behind a fenced enclosure for both tenants.</u> _____	

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 the 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:

Commercial - Retail, Restaurant, Banking, Grocery. Residential to the west of the Towne Center at Fayetteville Plaza

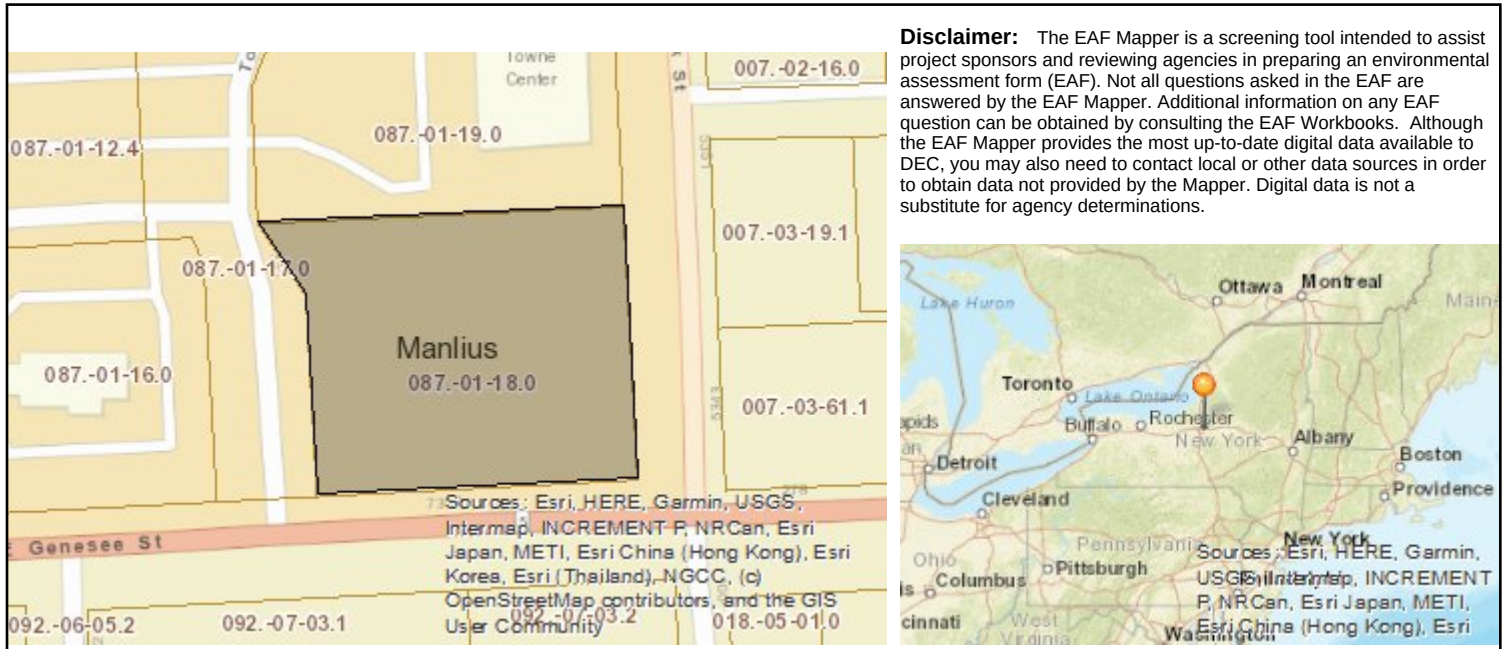
b. Land uses and covertypes on the project site.

Land use or Covertypes	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	1.364	1.352	-0.012
• Forested	0	0	0
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0.462	0.474	0.012
• Agricultural (includes active orchards, field, greenhouse etc.)	0	0	0
• Surface water features (lakes, ponds, streams, rivers, etc.)	0	0	0
• Wetlands (freshwater or tidal)	0	0	0
• Non-vegetated (bare rock, earth or fill)	0	0	0
• Other Describe: _____			

c. Is the project site presently used by members of the community for public recreation? i. If Yes: explain: _____	☐ Yes ☒ No
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? If Yes, i. Identify Facilities: _____ _____	☐ Yes ☒ No
e. Does the project site contain an existing dam? 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: _____ _____	☐ Yes ☒ No
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? If Yes: i. Has the facility been formally closed? • If yes, cite sources/documentation: _____ ii. Describe the location of the project site relative to the boundaries of the solid waste management facility: _____ _____	☐ Yes ☒ No ☐ Yes ☐ No
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? If Yes: i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred: _____ _____	☐ Yes ☒ No
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? 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 – Spills Incidents database ☐ Yes – Environmental Site Remediation database ☐ Neither database Provide DEC ID number(s): _____ Provide DEC ID number(s): _____ ii. If site has been subject of RCRA corrective activities, describe control measures: _____ _____	☐ Yes ☒ No ☐ Yes ☐ No
iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? If yes, provide DEC ID number(s): _____ iv. If yes to (i), (ii) or (iii) above, describe current status of site(s): _____ _____	☐ Yes ☒ No

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? _____ 6 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: <table style="width: 100%; border: none;"> <tr> <td style="width: 60%; border-bottom: 1px solid black;">Hamlin Silt Loan</td> <td style="width: 40%; text-align: right; border-bottom: 1px solid black;">100 %</td> </tr> <tr> <td style="border-bottom: 1px solid black;"> </td> <td style="text-align: right; border-bottom: 1px solid black;"> %</td> </tr> <tr> <td style="border-bottom: 1px solid black;"> </td> <td style="text-align: right; border-bottom: 1px solid black;"> %</td> </tr> </table>		Hamlin Silt Loan	100 %		%		%						
Hamlin Silt Loan	100 %												
	%												
	%												
d. What is the average depth to the water table on the project site? Average: _____ feet													
e. Drainage status of project site soils: <table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">☐ Well Drained:</td> <td style="width: 70%; text-align: right;">_____ % of site</td> </tr> <tr> <td>☒ Moderately Well Drained:</td> <td style="text-align: right;">100 % of site</td> </tr> <tr> <td>☐ Poorly Drained</td> <td style="text-align: right;">_____ % of site</td> </tr> </table>		☐ Well Drained:	_____ % of site	☒ Moderately Well Drained:	100 % of site	☐ Poorly Drained	_____ % of site						
☐ Well Drained:	_____ % of site												
☒ Moderately Well Drained:	100 % of site												
☐ Poorly Drained	_____ % of site												
f. Approximate proportion of proposed action site with slopes: <table style="width: 100%; border: none;"> <tr> <td style="width: 40%;">☐ 0-10%:</td> <td style="width: 60%; text-align: right;">100 % of site</td> </tr> <tr> <td>☐ 10-15%:</td> <td style="text-align: right;">_____ % of site</td> </tr> <tr> <td>☐ 15% or greater:</td> <td style="text-align: right;">_____ % of site</td> </tr> </table>		☐ 0-10%:	100 % of site	☐ 10-15%:	_____ % of site	☐ 15% or greater:	_____ % of site						
☐ 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>i</i> or <i>ii</i> , 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: <table style="width: 100%; border: none;"> <tr> <td style="width: 10%;">• Streams:</td> <td style="width: 40%;">Name <u>Limestone Creek</u></td> <td style="width: 50%;">Classification _____</td> </tr> <tr> <td>• Lakes or Ponds:</td> <td>Name _____</td> <td>Classification _____</td> </tr> <tr> <td>• Wetlands:</td> <td>Name _____</td> <td>Approximate Size _____</td> </tr> <tr> <td>• Wetland No. (if regulated by DEC)</td> <td colspan="2">_____</td> </tr> </table>		• Streams:	Name <u>Limestone Creek</u>	Classification _____	• Lakes or Ponds:	Name _____	Classification _____	• Wetlands:	Name _____	Approximate Size _____	• Wetland No. (if regulated by DEC)	_____	
• Streams:	Name <u>Limestone Creek</u>	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: _____ None Site is mostly impervious _____ _____	
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 If Yes: i. Species and listing (endangered or threatened): _____ Indiana Bat, Northern Long-eared Bat The majority of the project site is paved, with little vegetated cover.	
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 If Yes: i. Species and listing: _____ _____	
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: _____	



B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	No
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	No
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	Yes
E.2.j. [100 Year Floodplain]	Yes
E.2.k. [500 Year Floodplain]	No
E.2.l. [Aquifers]	No
E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	Yes
E.2.o. [Endangered or Threatened Species - Name]	Indiana Bat, Northern Long-eared Bat

E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Yes - Digital mapping data for archaeological site boundaries are not available. Refer to EAF Workbook.
E.3.e.ii [National or State Register of Historic Places or State Eligible Sites - Name]	Eligible property:217 Genesee Street West, Fayetteville, Eligible property:224 Genesee Street West, Eligible property:215 Genesee Street West, Eligible property:204 Genesee Street West, Eligible property:210 Genesee Street West, Eligible property:206 Genesee Street West, Eligible property:122 North Burdick Street, Eligible property:126 North Burdick Street, Eligible property:100 North Burdick Street, Eligible property:124 North Burdick Street, Eligible property:132 North Burdick Street, Eligible property:128 North Burdick Street, Eligible property:130 North Burdick Street, Estabrook, Charles, Mansion
E.3.f. [Archeological Sites]	No
E.3.i. [Designated River Corridor]	No

DEVELOPMENT PLANS FOR
PROPOSED
RESTAURANT A / RESTAURANT B
TOWNE CENTER AT FAYETTEVILLE
406 TOWNE DRIVE
FAYETTEVILLE, NEW YORK

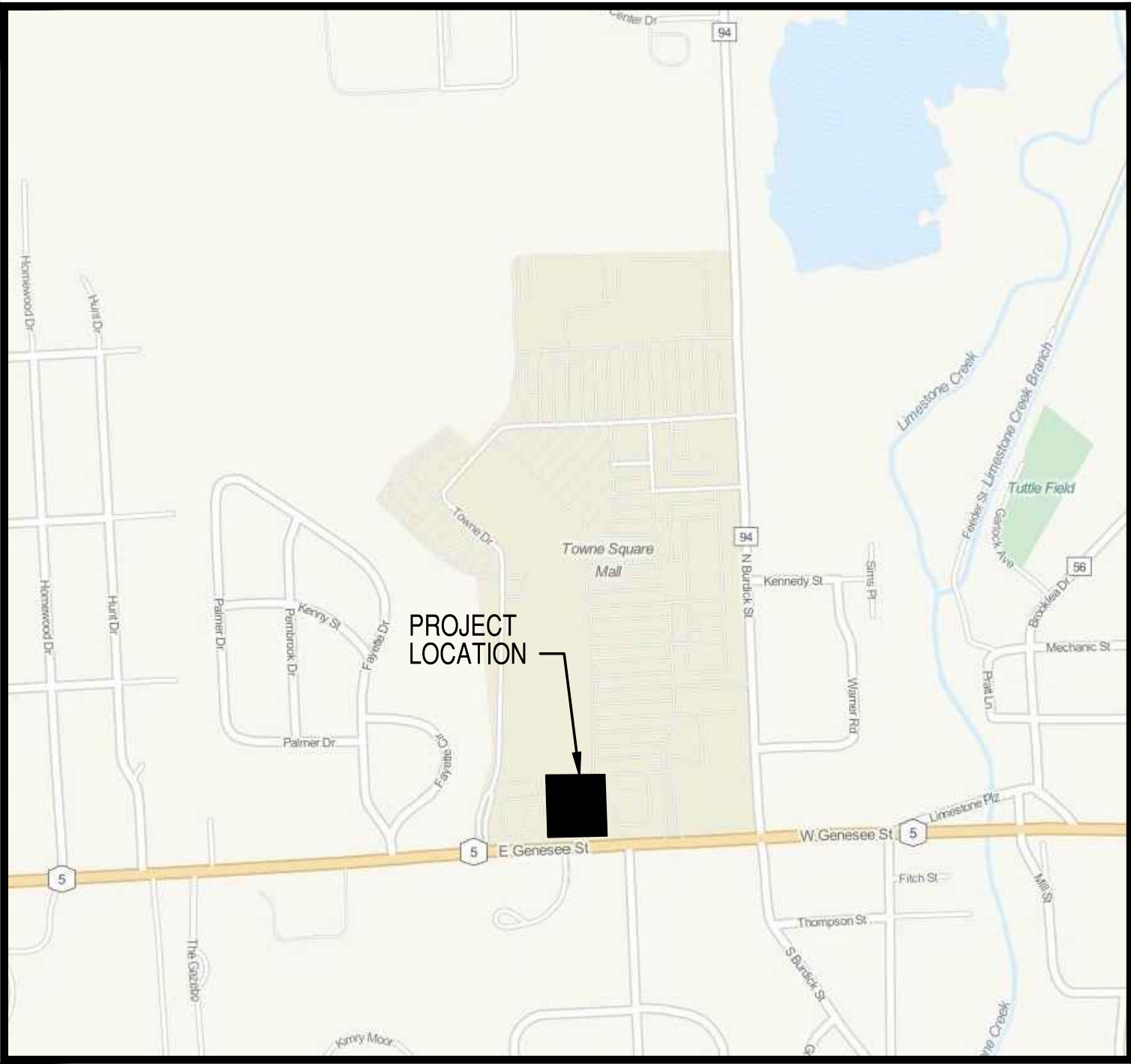
PROJECT CONTACTS

CIVIL ENGINEER
BERGMANN
280 EAST BROAD STREET, SUITE 200
ROCHESTER, NY 14604
KEN HURLEY, PE
(585) 498-7896

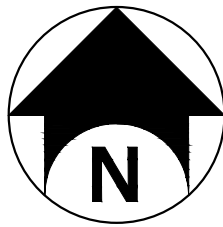
DEVELOPER
COR ROUTE 5 COMPANY, LLC
540 TOWNE DRIVE
FAYETTEVILLE, NY 13066
CATHERINE JOHNSON
(315) 663-2114

GOVERNMENTAL APPROVAL AGENCIES
TOWN OF MANLIUS PLANNING DEPARTMENT
TOWN OF MANLIUS
301 BROOKLEA DRIVE
FAYETTEVILLE, NY 13066
JOSEPH LUPA, CHAIRMAN
(315) 637-8619; FAX (315) 637-0713

TOWN ENGINEER
301 BROOKLEA DRIVE
FAYETTEVILLE, NY 13066
DOUG MILLER
(315) 637-8619; FAX (315) 637-0713



SITE LOCATION MAP
NOT TO SCALE



Sheet List Table		
Sheet Number	Sheet Description	Sheet Title
1	COVER SHEET	C000
2	EXISTING CONDITIONS PLAN	C010
3	DEMOLITION PLAN	C080
4	SITE PLAN	C100
5	UTILITY PLAN	C110
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RESTAURANT B

LOT 15 -TOWNE CENTER
AT FAYETTEVILLE
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FAYETTEVILLE, NY 13066

Date Revised	Description
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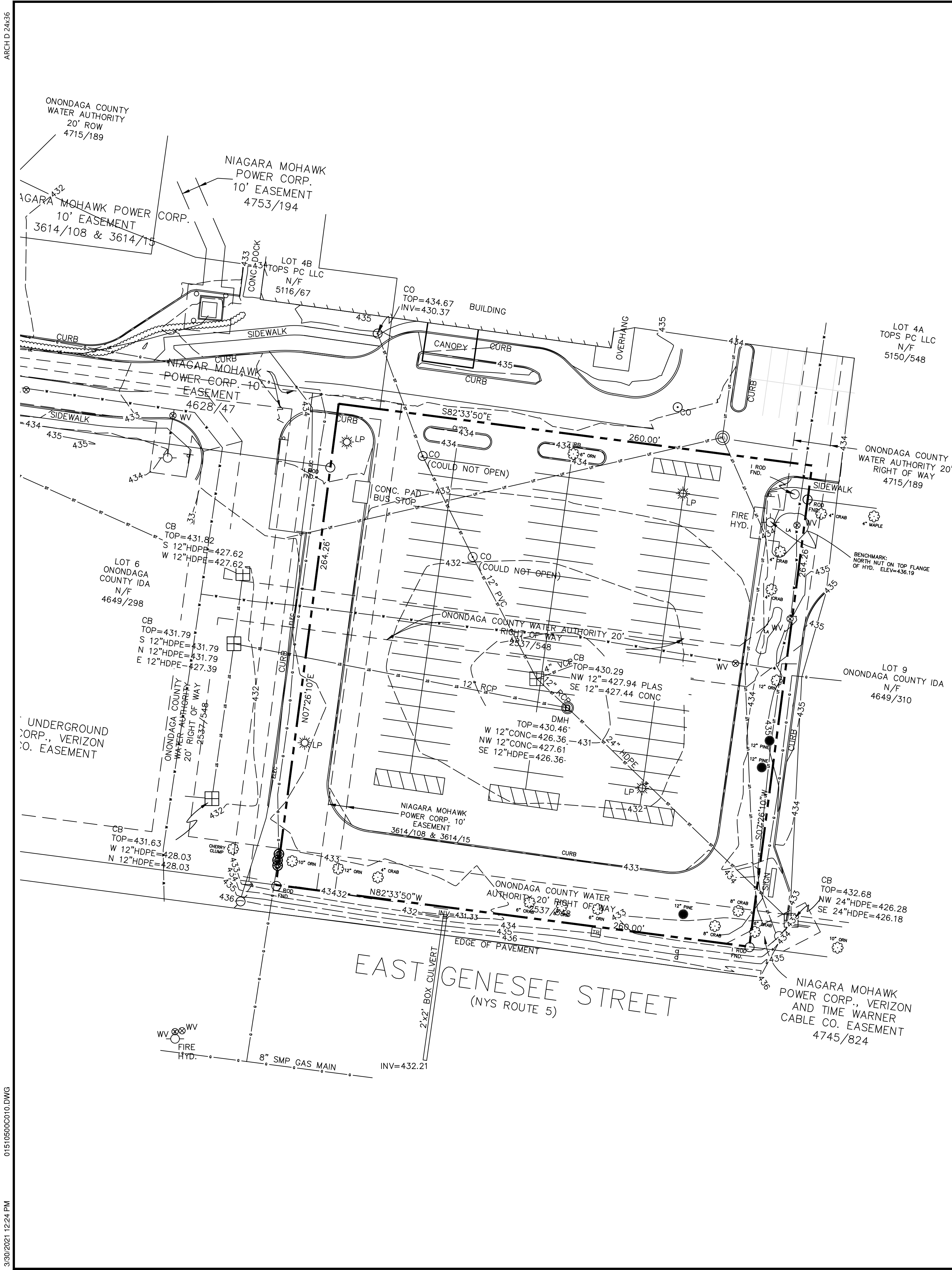
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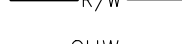
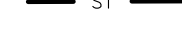
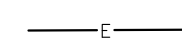
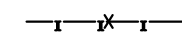
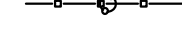
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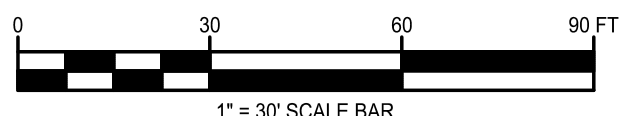
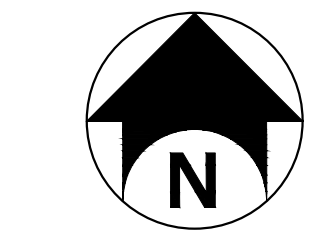
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LEGEND					
 IPF	IRON PIPE FOUND	 SM	SANITARY MANHOLE	 MW	MONITORING WELL
 IRF	IRON ROD FOUND	 WM	WATER MANHOLE	 CB	CATCH BASIN
 IRS	IRON ROD SET W/ CNY CAP	 EM	ELECTRIC MANHOLE	 GP	GASOLINE FUEL PORT
 INV.	INVERT ELEVATION	 TM	TELEPHONE MANHOLE	 TR	TRAFFIC CONTROL BOX
 UP	UTILITY POLE	 DM	DRAIN MAHOLE		
 WV	WATER VALVE	 GV	GAS VALVE		
 SVV	SERVICE WATER VALVE	 CB	STORM CATCH BASIN		
 YL	YARD LIGHT	 ST	STUMP AND DIAMETER		
 LP	LIGHT POLE	 UT	SURVEY CONTROL POINT		
 FP	FLAG POLE	 E	CENTERLINE		
 GUY	POLE GUY	 R/W	ROADWAY BOUNDARY		
 CO	SANITARY CLEAN OUT	 OHW	OVERHEAD WIRES		
 BOLLARD	BOLLARD	 W	WATER LINE		
 FIRE HYD.	FIRE HYDRANT	 SAN	SANITARY LINE		
 TELEPHONE PEDESTAL	TELEPHONE PEDESTAL	 ST	STORM LINE		
 TRAFFIC SIGN	TRAFFIC SIGN	 G	GAS LINE		
 2 POLE TRAFFIC SIGN	2 POLE TRAFFIC SIGN	 UT	BURIED TELEPHONE LINE		
 DECIDUOUS TREE, DIAMETER AT BREST HEIGHT	DECIDUOUS TREE, DIAMETER AT BREST HEIGHT	 E	BURIED ELECTRIC LINE		
 HANDICAP PARKING	HANDICAP PARKING	 WF	WIRE FENCE		
 CONIFEROUS TREE, DIAMETER AT BREST HEIGHT	CONIFEROUS TREE, DIAMETER AT BREST HEIGHT	 CLF	CHAIN LINK FENCE		
		 STOCKADE FENCE	STOCKADE FENCE		

ABBREVIATIONS	
CC	CURB CUT
Conc.	CONCRETE
FF	FIRST FLOOR ELEVATION
N/F	NOW OR FORMERLY
ELEV.	ELEVATION
ASPH.	ASPHALT
STY.	STORY
W/F	WOOD FRAME
CI	CAST IRON
CMP	CORRIGATED METAL PIPE
PL	PLASTIC
CPL	CORRIGATED PLASTIC PIPE



CNY LAND SURVEYING
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BALDWINVILLE, NEW YORK 13027
(315) 635-4614

TOPOGRAPHIC SURVEY
PROPOSED LOT 15
TOWNE CENTER AT FAYETTEVILLE
TOWN OF MANLIUS
COUNTY OF ONONDAGA
STATE OF NEW YORK

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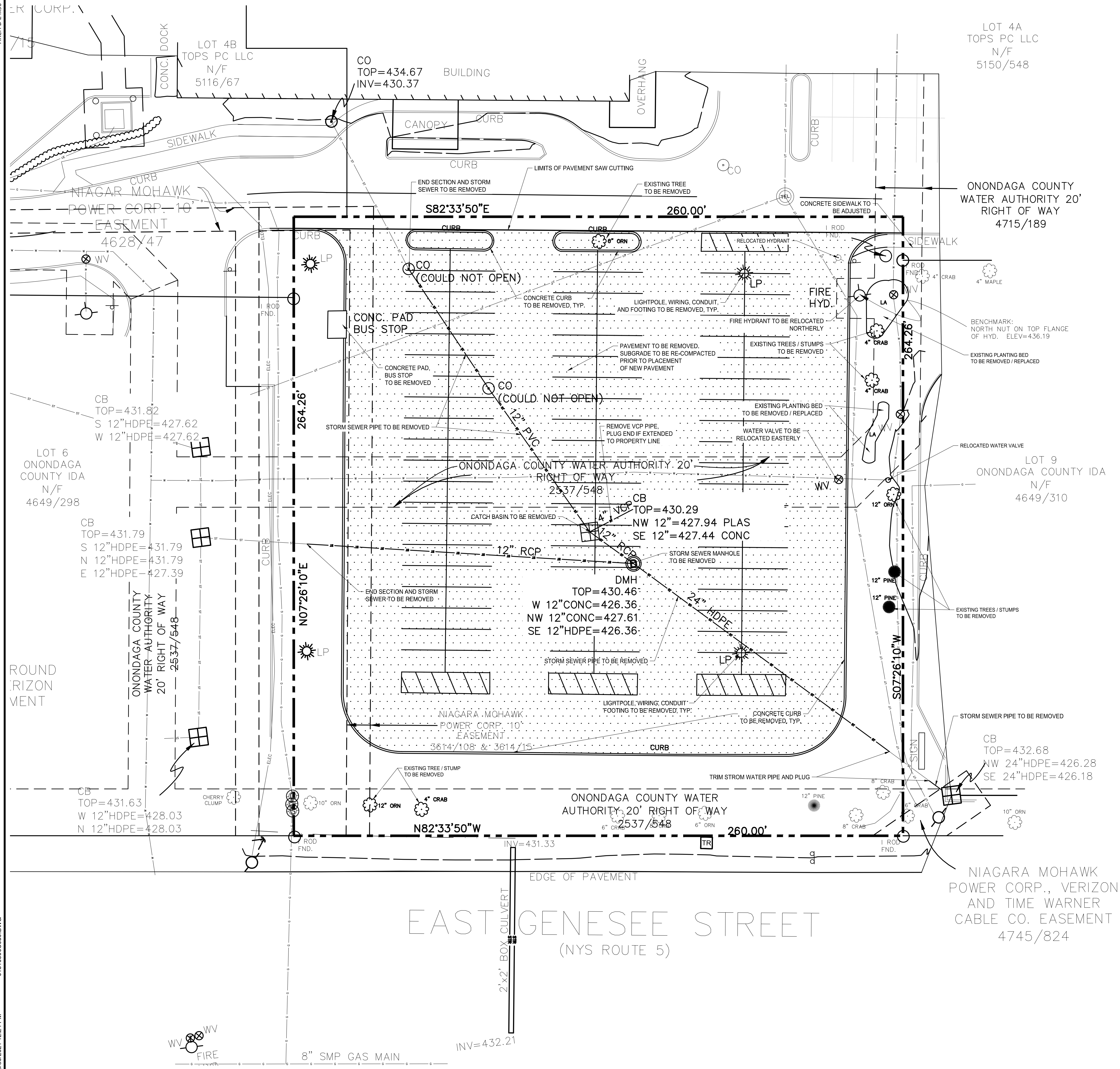
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EXISTING CONDITIONS PLAN

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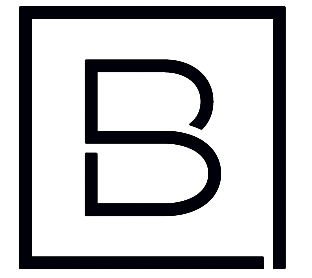
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DEMOLITION NOTES:

1. ALL REQUIRED DEMOLITION PERMITS MUST BE OBTAINED FROM ALL REQUIRED AGENCIES PRIOR TO COMMENCEMENT OF WORK.
2. ANY ASBESTOS REMOVAL MUST BE DONE BY A CERTIFIED ASBESTOS REMOVAL CONTRACTOR.
3. ALL UTILITY COMPANIES MUST BE NOTIFIED A MINIMUM OF 48 HOURS IN ADVANCE OF DEMOLITION.
4. PROPER FENCING OR PUBLIC PROTECTION DEVICES MUST BE CONSTRUCTED AND MAINTAINED AROUND THE PERIMETER OF THE SITE AT ALL TIMES DURING DEMOLITION PHASE.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTROL DUST, DIRT AND DEBRIS DURING DEMOLITION AND CONSTRUCTION PHASES.
6. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEBRIS FROM THE SITE AND DISPOSING THE DEBRIS IN A LAWFUL MANNER. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL, INCLUDING ASBESTOS ABATEMENT.



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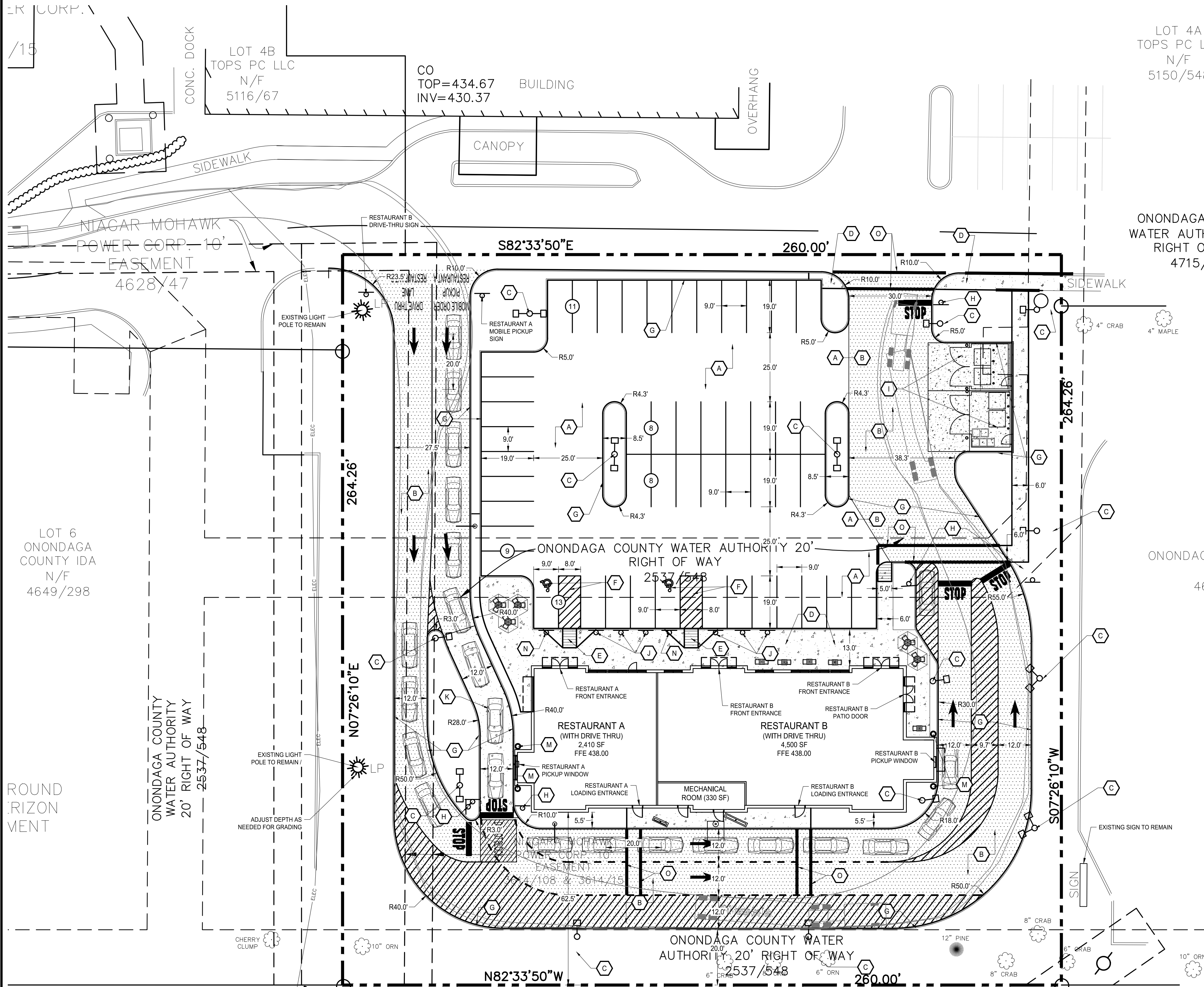
Project Manager A HART, RLA	Discipline Lead E SHAW, RLA
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Date Issued 04/01/2021	Project Number 15105.00

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DEMOLITION PLAN

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C080



SITE DATA CHART

ZONING DISTRICT: RSD - REGIONAL SHOPPING DISTRICT			
	REQUIRED	PROPOSED	
MINIMUM LOT SIZE, AREA	N/A	68,708+/- SF	
MINIMUM LOT SIZE, WIDTH	N/A	260.0 FT	
MAXIMUM HEIGHT OF BUILDING	N/A	26.0+/- FT	
BUILDING SETBACKS			
FRONT	0 FT	148.8 FT	
SIDE	WEST	0 FT	62.3 FT
	EAST	0 FT	45.1 FT
REAR	0 FT	62.5 FT	

PROJECT DATA

- APPLICANT:
ROUTE 5 DEVELOPMENT COMPANY, LLC
540 TOWNE DRIVE
FAYETTEVILLE, NEW YORK 13066
- EXISTING ZONING: RSD - REGIONAL SHOPPING DISTRICT
PROPOSED ZONING: RSD - REGIONAL SHOPPING DISTRICT
- FLOOD PLAIN INFORMATION OBTAINED FROM THE FEMA WEBSITE, DOWNLOADED ON 3/23/21. THE PROJECT IS LOCATED WITHIN A SPECIAL FLOOD HAZARD AREA, WITH A BASE FLOOD ELEVATION OF 435.9+/-.
- A VARIANCE TO ALLOW THE REDUCTION OF PARKING SPACE SIZE OF 10'X20' TO 9'X19' WAS GRANTED TO FAYETTEVILLE TOWNE CENTER ON JULY 19, 2001.

OFF-STREET PARKING SECTION 165-31

PROPOSED DEVELOPMENT:

RESTAURANTS:
REQUIRED: 42 SPACES
RATIO: (1) SPACE PER (5) SEATS
RESTAURANT A - 58 SEATS
RESTAURANT B - 150 SEATS

PROPOSED : 48 SPACES

LOT 4A
TOPS PC LLC
N/F
5150/548

ONONDAGA COUNTY
WATER AUTHORITY 20'
RIGHT OF WAY
4715/189

LOT 9
ONONDAGA COUNTY IDA
N/F
4649/310

NIAGARA MOHAWK
POWER CORP., VERIZON
AND TIME WARNER
CABLE CO. EASEMENT
4745/824

GENERAL NOTES:

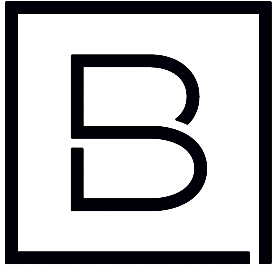
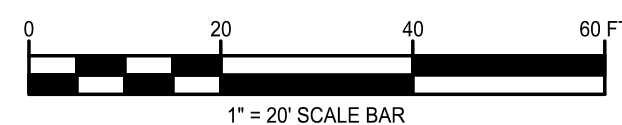
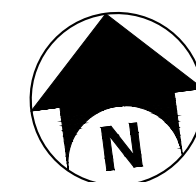
- THE UNDERGROUND STRUCTURES AND UTILITIES SHOWN ON THESE PLANS HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORD MAPS. THEY ARE NOT CERTIFIED TO THE ACCURACY OF THEIR LOCATION AND/OR COMPLETENESS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION AND EXTENT OF ALL UNDERGROUND STRUCTURES AND UTILITIES PRIOR TO ANY DIGGING OR CONSTRUCTION ACTIVITIES IN THEIR VICINITY.
- THE CONTRACTOR SHALL PERFORM ALL WORK IN COMPLIANCE WITH TITLE 29 OF FEDERAL REGULATIONS, PART 1926, SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION (OSHA).
- ALL ROADS AND PRIVATE DRIVES SHALL BE KEPT CLEAN OF MUD, DEBRIS ETC. AT ALL TIMES.
- REFER TO ARCHITECTURAL DRAWINGS FOR PRECISE BUILDING DIMENSIONS.
- THE CONTRACTOR SHALL CONSULT THE CONSTRUCTION MANAGER BEFORE DEVIATING FROM THESE PLANS.
- 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.
- ALL EXISTING SURFACE APPURTENANCES (I.E. WATER VALVES, CATCH BASIN FRAMES AND GRATES, MANHOLE COVERS) WITHIN THE PROJECT LIMITS SHALL BE ADJUSTED TO FINISHED GRADE.
- AREAS DISTURBED OR DAMAGED AS PART OF THIS PROJECT'S CONSTRUCTION THAT ARE OUTSIDE OF THE PRIMARY WORK AREA SHALL BE RESTORED, AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL CALL "DIG SAFELY NEW YORK" AT 1-800-962-7962 OR 811, AT LEAST (3) WORKING DAYS (EXCLUDING WEEKENDS AND HOLIDAYS) PRIOR TO CONSTRUCTION.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE CODES, ORDINANCES, DESIGN STANDARDS AND STANDARD SPECIFICATIONS OF THE AGENCIES WHICH HAVE THE RESPONSIBILITY OF REVIEWING PLANS AND SPECIFICATIONS FOR CONSTRUCTION OF ALL ITEMS INCLUDED IN THESE PLANS.
- UNLESS SPECIFICALLY STATED, THE CONTRACTOR SHALL APPLY FOR AND OBTAIN ALL NECESSARY PERMITS AS REQUIRED FOR CONSTRUCTION OF THIS PROJECT PRIOR TO THE BEGINNING OF WORK FROM THE PREVIOUSLY MENTIONED AGENCIES.
- THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
- WHEN ANY EXISTING UTILITY REQUIRES ADJUSTMENT OR RELOCATION, THE CONTRACTOR SHALL NOTIFY THE PROPER UTILITY COMPANY AND COORDINATE THE WORK ACCORDINGLY. THERE SHALL BE NO CLAIM MADE BY THE CONTRACTOR FOR ANY COSTS CAUSED BY DELAYS IN CONSTRUCTION DUE TO THE ADJUSTMENT OR RELOCATION OF UTILITIES.
- THE CONTRACTOR IS TO VERIFY THAT THE PLANS AND SPECIFICATIONS THAT HE/SHE IS BUILDING FROM ARE THE VERY LATEST PLANS AND SPECIFICATIONS THAT HAVE BEEN APPROVED BY ALL APPLICABLE PERMIT-ISSUING AGENCIES AND THE OWNER. ALL ITEMS CONSTRUCTED BY THE CONTRACTOR PRIOR TO RECEIVING THE FINAL APPROVAL AND PERMITS HAVING TO BE ADJUSTED OR RE-DONE, SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.
- SHOULD THE CONTRACTOR ENCOUNTER CONFLICT BETWEEN THESE PLANS AND SPECIFICATIONS, EITHER AMONG THEMSELVES OR WITH THE REQUIREMENTS OF ANY AND ALL REVIEWING AND PERMIT-ISSUING AGENCIES, HE/SHE SHALL SEEK CLARIFICATION IN WRITING FROM THE CONSTRUCTION MANAGER BEFORE COMMENCEMENT OF CONSTRUCTION. FAILURE TO DO SO SHALL BE AT THE SOLE EXPENSE TO THE CONTRACTOR.
- THE CONTRACTOR SHALL FURNISH AS-BUILT DRAWINGS INDICATING ALL CHANGES AND DEVIATIONS FROM APPROVED DRAWINGS.
- ALL SIGNS AND TRAFFIC CONTROL MEASURES DURING CONSTRUCTION AND MAINTENANCE SHALL BE CONSTRUCTED AND INSTALLED PER THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) WITH NEW YORK STATE SUPPLEMENT.
- ALL WORK WITHIN THE PUBLIC RIGHT OF WAY SHALL CONFORM TO THE STANDARDS OF THE NEW YORK STATE / ONONDAGA COUNTY DEPARTMENT OF TRANSPORTATION.

SITE LEGEND:

- YELLOW STRIPES (4" STRIPE, 2' O.C. AT 45°)
- PROPERTY SETBACK LINE
- PROPERTY LINE
- STANDARD DUTY CONCRETE SECTION
- HEAVY DUTY CONCRETE SECTION
- STANDARD ASPHALT PAVEMENT SECTION
- HEAVY DUTY ASPHALT PAVEMENT SECTION
- RIPRAP
- NUMBER OF PARKING SPACES

KEY NOTES:

- STANDARD PAVEMENT SECTION
- HEAVY DUTY PAVEMENT SECTION
- LIGHT POLE AND CONCRETE BASE
- CONCRETE SIDEWALK
- CURB RAMP
- ADA STRIPPING AND SIGNAGE (TYP.)
- CONCRETE CURB (TYP.)
- 'STOP' SIGN
- DUMPSTER ENCLOSURE
- PICKUP PARKING SIGN
- STANDARD DUTY CONCRETE SECTION
- CURB CUT (TYP.)
- BOLLARD
- ACCESSIBLE PARKING SIGN / 'NO PARKING ANY TIME' SIGN MOUNTED SIDE BY SIDE
- 12" WIDE WHITE CROSSWALK STRIPING



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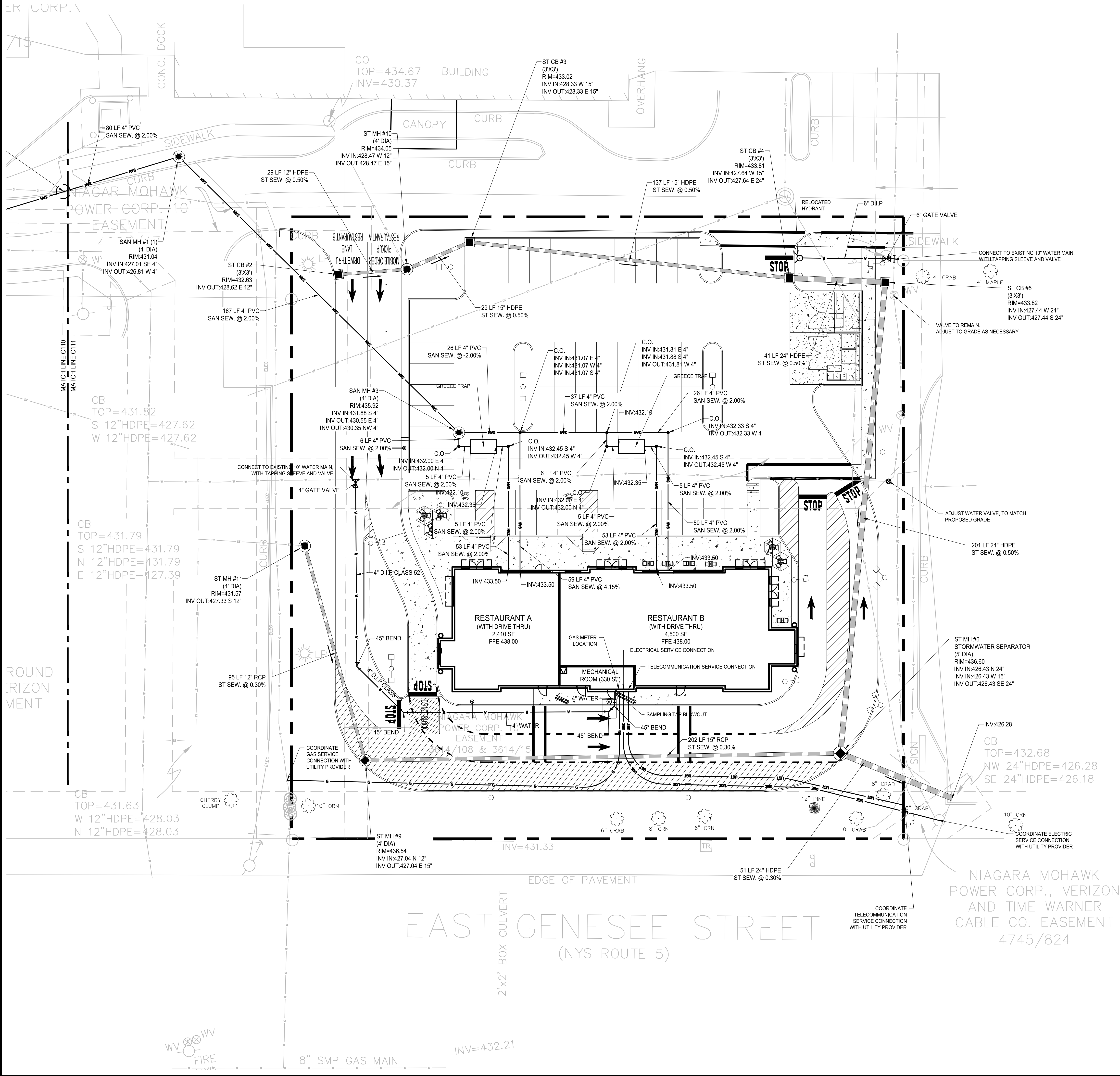
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SITE PLAN

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UTILITY NOTES:

- ALL WORKMANSHIP, MATERIALS, AND CONSTRUCTION PRACTICES SHALL CONFORM TO THE REQUIREMENTS OF CITY/TOWN/VILLAGE OR THE AGENCY HAVING JURISDICTION OVER THE APPLICABLE UTILITY.
- CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING UTILITY DURING CONSTRUCTION AT NO COST TO THE OWNER.
- ALL FILL MATERIAL IS TO BE IN PLACE, AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
- CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES 72 HOURS BEFORE CONNECTING TO ANY EXISTING LINE.
- IN THE EVENT OF A VERTICAL CONFLICT BETWEEN WATERLINES, SANITARY LINES, STORM LINES AND GAS LINES (EXISTING AND PROPOSED), THE CONTRACTOR SHALL NOTIFY THE ENGINEER AS SOON AS THE CONFLICT IS DISCOVERED.
- TOPS OF EXISTING UTILITY STRUCTURES SHALL BE ADJUSTED TO FINISHED GRADE.
- EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.
- CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE CONSTRUCTION REQUIREMENTS OF THE UTILITY OWNERS.
- 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 ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
- CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR INSTALLATION REQUIREMENTS AND SPECIFICATIONS.
- CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATION AND ELEVATIONS OF ALL UTILITY ENTRANCES TO INCLUDE SANITARY SEWER LATERALS, DOMESTIC AND FIRE PROTECTION WATER SERVICE, ELECTRICAL, TELEPHONE, AND GAS SERVICE. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES, IN SUCH A MANNER AS TO AVOID CONFLICTS, AND ASSURE PROPER DEPTHS ARE ACHIEVED AS WELL, AS COORDINATING WITH UTILITY REQUIREMENTS AS TO LOCATION AND SCHEDULING FOR TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO EXISTING UTILITIES.
- THE CONTRACTOR SHALL CONDUCT ALL REQUIRED TESTS TO THE SATISFACTION OF THE RESPECTIVE UTILITY COMPANIES AND THE OWNER'S INSPECTING AUTHORITIES.
- CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST STANDARDS OF OSHA DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING, AND OTHER MEANS OF PROTECTION. THIS TO INCLUDE BUT NOT LIMITED FOR ACCESS AND EGRESS FROM ALL EXCAVATION AND TRENCHING. CONTRACTOR IS RESPONSIBLE TO COMPLY WITH PERFORMANCE CRITERIA FOR OSHA.
- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING PIPE SIZES AND INVERTS ELEVATIONS BEFORE ORDERING MANHOLE AND CATCH BASIN STRUCTURES.
- ALL UTILITIES BELOW PAVED AREAS SHALL BE BACKFILLED WITH 100% GRANULAR MATERIAL (OR APPROVED OTHER) AND COMPACTED TO 95% OF ITS MAXIMUM UNIT WEIGHT.
- ALL RIM ELEVATIONS IN OUTLAIN AREAS ARE APPROXIMATE ONLY AND SHALL BE ADJUSTED BY THE CONTRACTOR AFTER FINAL GRADES ARE ESTABLISHED.

UTILITY LEGEND:

	RIPRAP
	STORM SEWER
	YARD BASIN
	CATCH BASIN
	STORM MANHOLE
	HYDRANT
	VALVE/CURB BOX
	P.I.V.
	WATER MAIN
	SANITARY SEWER
	SANITARY SEWER MANHOLE
	CLEANOUT
	ELECTRIC
	GAS
	UTILITY CROSSING



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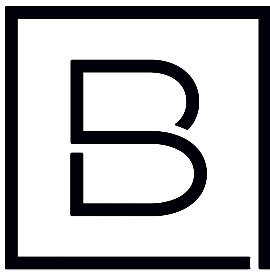
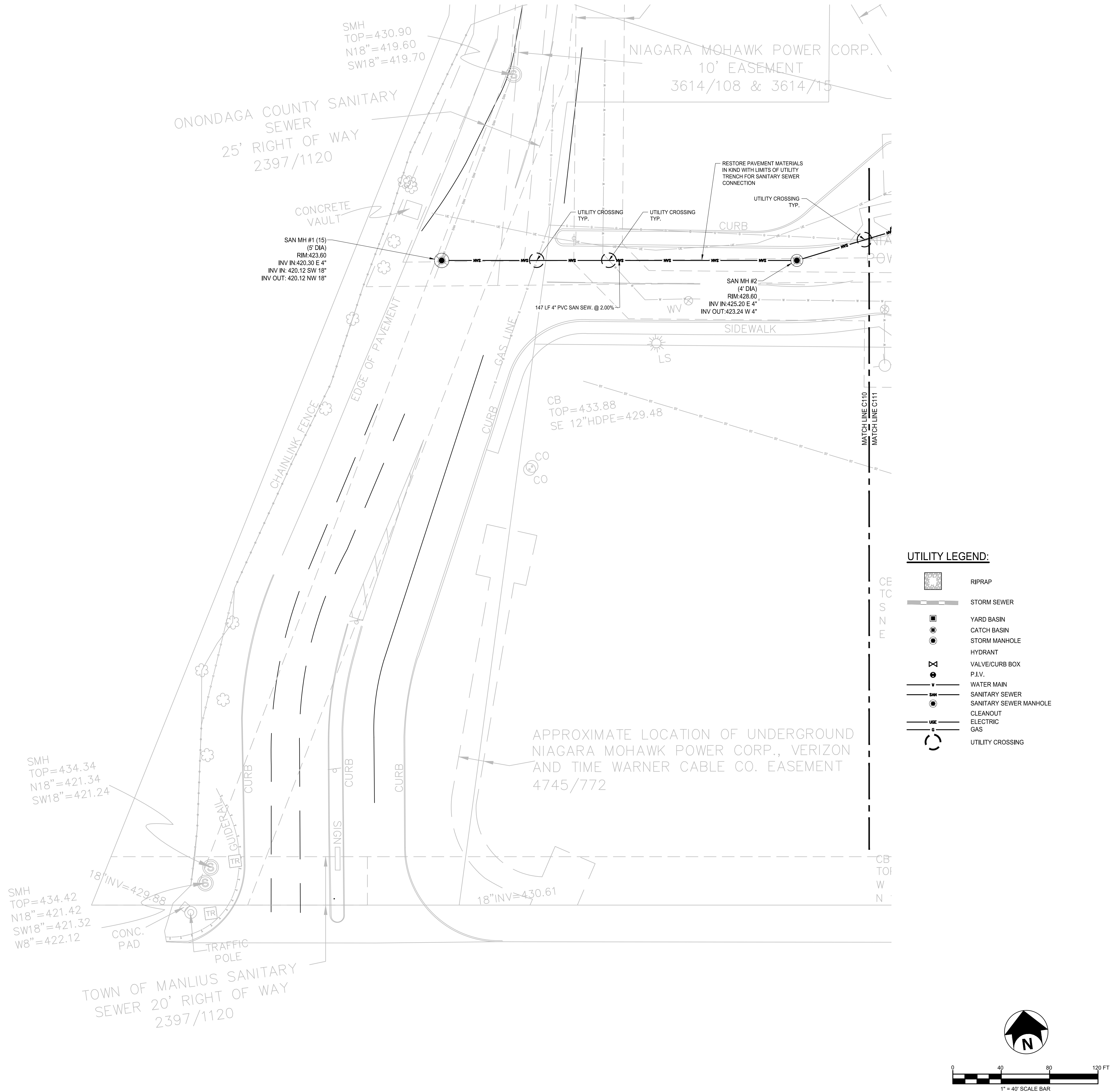
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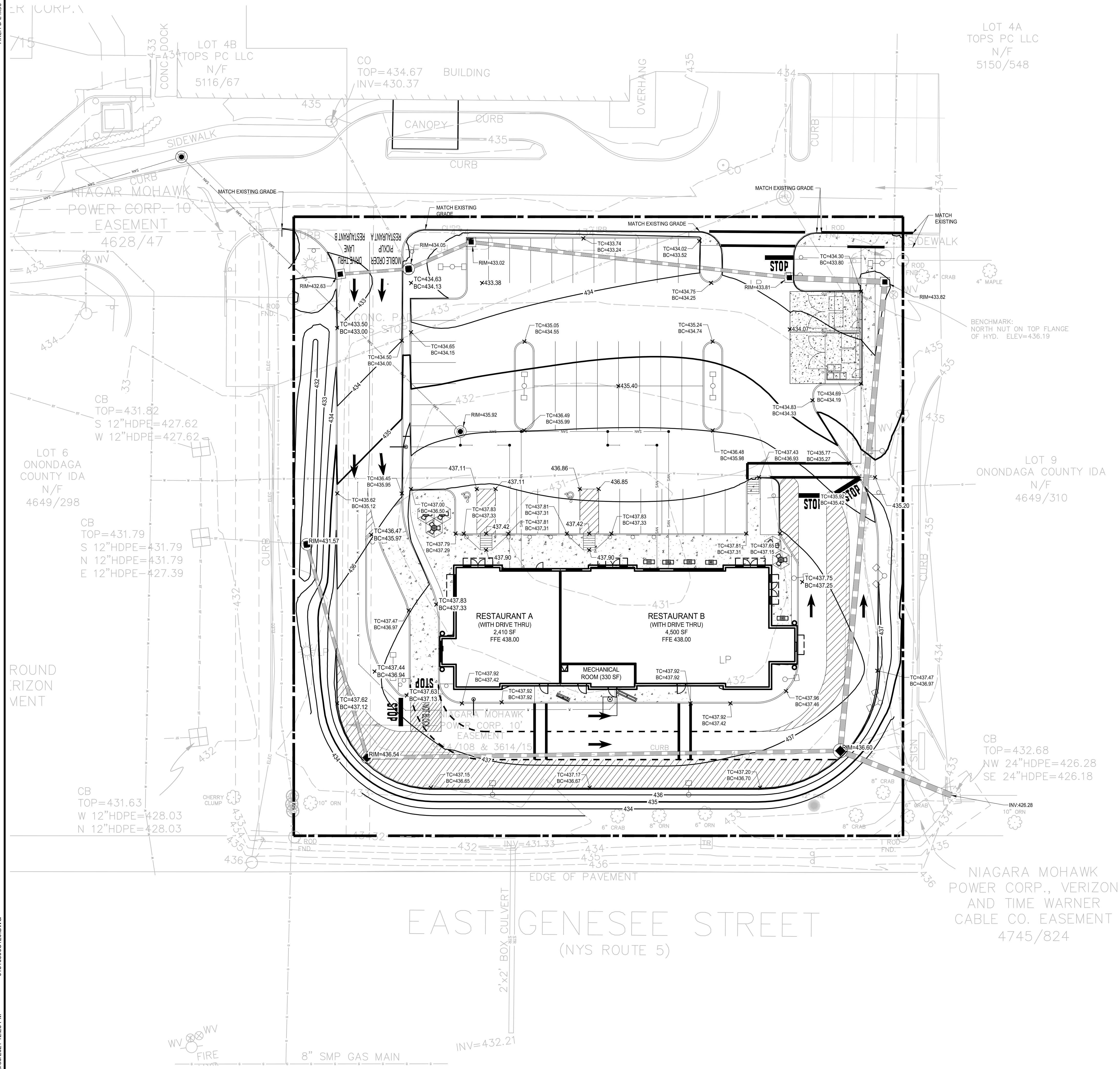
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UTILITY PLAN

Drawing Number

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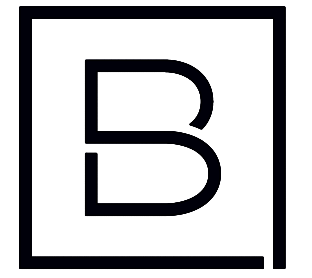


GRADING NOTES

1. REFER TO EROSION AND SEDIMENT CONTROL PLAN FOR REQUIRED EROSION AND SEDIMENT CONTROL MEASURES.
2. ALL SITE GRADING MUST BE PERFORMED TO INSURE POSITIVE DRAINAGE ACROSS THE ENTIRE SITE, THROUGHOUT THE PERIOD OF CONSTRUCTION AND AFTER PROJECT COMPLETION.
3. IN GENERAL, EARTHWORK AND PAVEMENT CONSTRUCTION SHOULD BE PERFORMED IN ACCORDANCE WITH THE LATEST NEW YORK STATE DOT STANDARD SPECIFICATIONS FOR CONSTRUCTION UNLESS OTHERWISE NOTED.
4. REMOVE ANY EXISTING TOPSOIL, ORGANIC SOILS, UNSUITABLE FILL, VEGETATION, TREES AN OTHER DELETERIOUS MATERIALS TO EXPOSE THE SUBGRADE SOIL, TREE ROOTS SHOULD BE COMPLETELY REMOVED.
5. EXCAVATE TO THE DEPTH OF THE FINAL SUBGRADE ELEVATION TO ALLOW FOR GRADE CHANGES AND THE PLACEMENT OF THE RECOMMENDED PAVEMENT SYSTEM.
6. ON SITE FILL MATERIAL CAN BE USED IF THE SPECIFIED COMPACTION REQUIREMENTS CAN BE ACHIEVED. IF ON SITE MATERIAL IS USED, IT SHOULD BE CLEAN AND FREE OF FROZEN SOIL, ORGANICS, OR OTHER DELETERIOUS MATERIALS.
7. THE FINAL SUBGRADE SHOULD BE THOROUGHLY PROOFROLLED USING A LOADED TANDEM AXLE TRUCK UNDER THE OBSERVATION OF GEOTECHNICAL/PAVEMENT ENGINEER. LOOSE OR YIELDING AREAS THAT CANNOT BE MECHANICALLY STABILIZED SHOULD BE REMOVED AND REPLACED WITH ENGINEERED FILL OR AS DICTATED BY FIELD CONDITIONS.
8. THE AGGREGATE BASE SHOULD BE COMPACTED TO ACHIEVE A MINIMUM OF 95 PERCENT OF THE MAXIMUM MODIFIED PROCTOR DRY DENSITY. THE BASE AND SUBGRADE COMPACTION SHOULD EXTEND A MINIMUM OF 12 INCHES BEYOND THE PAVED EDGE OR BACK OF CURB.

GRADING LEGEND:

— 75 —	PROPOSED MAJOR CONTOUR
— 76 —	PROPOSED MINOR CONTOUR
× TC=78.01 BC=77.51	PROPOSED TOP OF CURB / BOTTOM OF CURB ELEVATION
× TBWB=152.50	PROPOSED TOP OF WALL / BOTTOM OF WALL
× 77.73	PROPOSED SPOT ELEVATION
× EG=77.73	EXISTING ELEVATION
× HP=77.73	PROPOSED HIGH POINT ELEVATION
× TG=77.73	PROPOSED TOP OF GRATE ELEVATION
— 2.5% —	PROPOSED SLOPE
— 72 —	EXISTING CONTOUR



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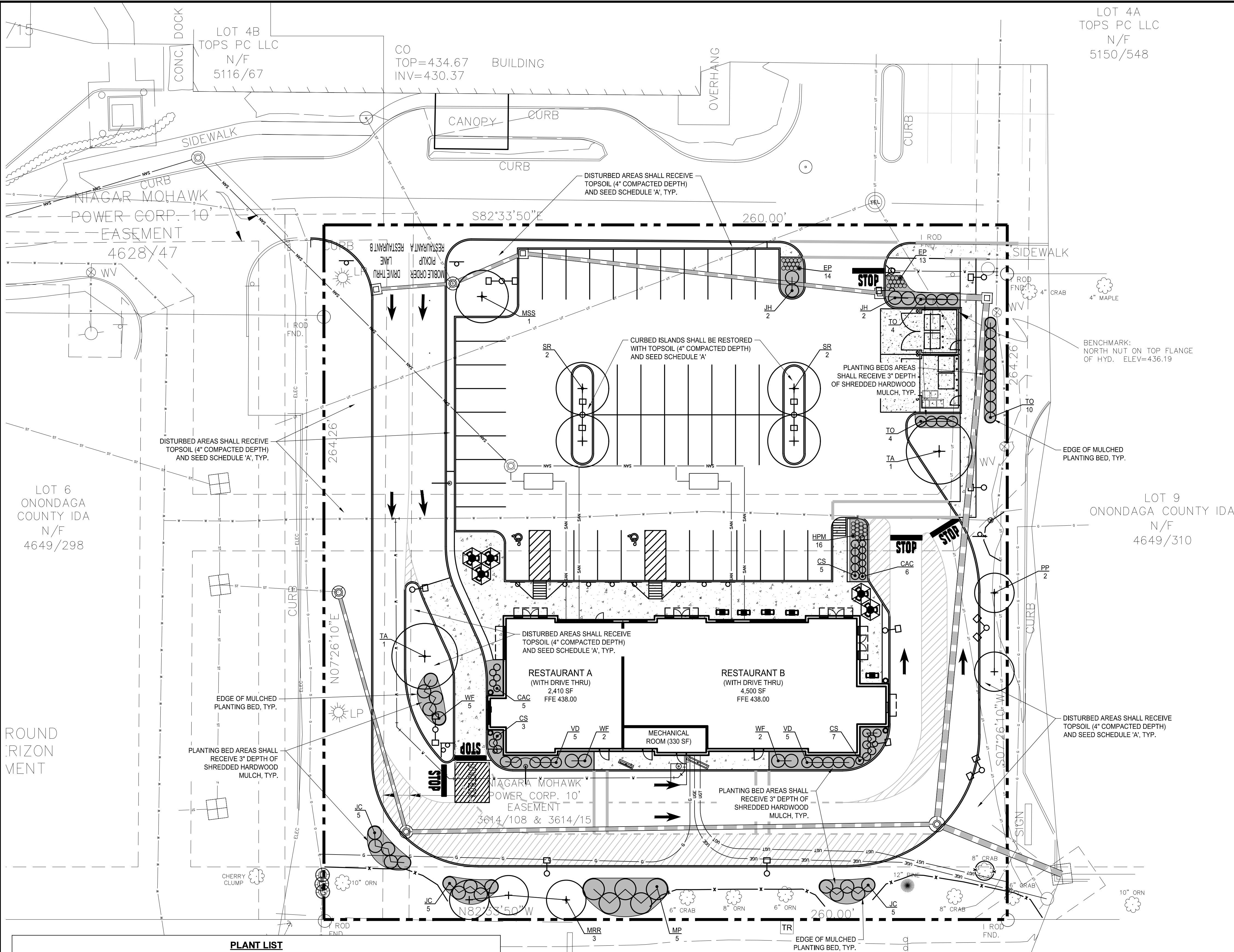
Project Manager A HART, RLA	Discipline Lead E SHAW, RLA
Designer V MICKEL	Reviewer K HURLEY, PE
Date Issued 04/01/2021	Project Number 15105.00

Sheet Name

GRADING PLAN

Drawing Number

C120



PLANT LIST							
Key	Qty.	Botanical Name	Common Name	Mature Size Height Spread	Installed Size	Condition	Notes
Shade Trees							
TA	2	Tilia americana 'American Sentry'	American Sentry Linden	40-45' Ht. 25-30' Sprd.	2.5' Cal.	B&B	
Ornamental Trees							
MSS	4	Malus 'Spring Snow'	Spring Snow Crab	20-25' Ht. 15-20' Sprd.	2.5' Cal.	B&B	
SR	4	Syringa reticulata 'Ivory Silk'	Ivory Silk Tree Lilac	20-25' Ht. 15-20' Sprd.	2.5' Cal.	B&B	
Evergreen Trees							
PP	2	Picea pungens	Colorado Spruce	30-60' Ht. 10-20' Sprd.	7-8' Ht.	B&B	
Deciduous / Evergreen Shrubs							
CS	15	Comus sericea 'Farrow'	Arctic Fire Dogwood	3-4' Ht. 3-4' Sprd.	No. 5 (30" Ht.)	Cont.	
JC	15	Juniperus ch. 'Sea Green'	Sea Green Juniper	4-6' Ht. 6-8' Sprd.	36" Sprd.	B&B	
JH	4	Juniperus h. 'Plumosa Compacta Youngstown'	Youngstown Andorra Juniper	12-18" Ht. 5-6' Sprd.	No. 3	Cont.	
MP	5	Myrica Pensylvanica	Northern Bayberry	5-10' Ht. 5-10' Sprd.	3' Ht.	B&B	
TO	18	Thuja occidentalis 'Emerald Green'	Emerald Green Arborvitae	7-15' Ht. 3-4' Sprd.	6' Ht.	B&B	
VD	10	Viburnum dentatum 'Blue Muffin'	Blue Muffin Arrowwood Viburnum	3-5' Ht. 3-4' Sprd.	No. 5 (24-30" Ht.)	Cont.	
WF	9	Weigela florida 'Alexandra'	Wine & Roses Weigela	4-5' Ht. 4-5' Sprd.	No. 5 (24-30" Ht.)	Cont.	
Perennials / Groundcovers							
EP	27	Echinacea purpurea 'Magnus'	Magnus Purple Coneflower	2.5-3' Ht. 1-1.5' Sprd.	No. 2	Cont.	plant 18" o.c.
HPM	16	Hemerocallis 'Pardon Me'	Pardon Me Daylily	15-18" Ht. 18-24" Sprd.	No. 2	Cont.	plant 18" o.c.
Ornamental Grasses							
CAC	11	Calamagrostis x acutiflora 'Karl Foerster'	Karl Foerster Feather Reed Grass	3-5' Ht. 1.5-2.5' Sprd.	No. 3	Cont.	

LANDSCAPE NOTES:

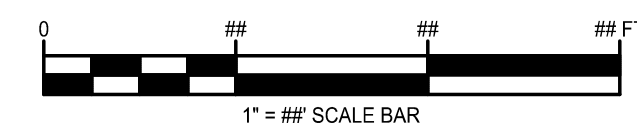
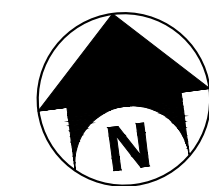
- ALL PLANTS MUST BE HEALTHY, VIGOROUS, AND FREE OF PESTS AND DISEASE.
- STANDARDS SET FORTH IN "AMERICAN STANDARD FOR NURSERY STOCK", ANSI, Z60.1 (LATEST EDITION), REPRESENT GUIDELINE SPECIFICATIONS ONLY AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIAL.
- ALL PLANTS MUST BE HARDY UNDER CLIMATE CONDITIONS THAT EXIST AT THE PROJECT SITE AND GROWN AT A NURSERY AT THE SAME HARDINESS ZONE AS THE PROJECT LOCATION.
- NO SUBSTITUTIONS SHALL BE PERMITTED WITHOUT PRIOR WRITTEN APPROVAL OF OWNER'S REPRESENTATIVE.
- ALL TREES MUST BE STRAIGHT TRUNKED, INJURY FREE, AND FULL HEADED.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON THESE PLANS BEFORE PRICING THE WORK.
- ANY DISCREPANCY WITH QUANTITIES, LOCATIONS AND / OR FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- MULCH ALL ISLANDS AND PLANTINGS IN LAWN AREAS WITH DOUBLE GROUND HARDWOOD BARK MULCH. MULCH SHALL BE AGED A MIN. OF ONE (1) YEAR FOR PARTIAL DECOMPOSITION. IT SHALL BE SCREENED TO EXCLUDE PARTICLES LARGER THAN ONE (1) INCH IN DIAMETER. MATERIAL SHALL BE COMPOSED OF BARK AND HAVE A LOW WOOD CONTENT WITH NO HIDDEN WOODS FROM CONSTRUCTION DEBRIS, PALLETS OR PRESSURE TREATED LUMBER AND BE FREE OF WEEDS, SEEDS, AND GREEN LEAF MATTER. IT SHALL BE NATURALLY DARK BROWN IN COLOR. NO DYED MULCH WILL BE ACCEPTED. MULCH DEPTH SHALL BE THREE (3) INCHES UNLESS OTHERWISE DIRECTED.
- ANY PLANT WHICH DIES, TURNS BROWN, OR DEFOOLIATES (PRIOR TO FINAL 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.
- 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 FINAL ACCEPTANCE BY THE OWNER.
- THE CONTRACTOR SHALL COMPLETELY GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE (1) YEAR, BEGINNING ON THE DATE OF FINAL ACCEPTANCE. THE CONTRACTOR SHALL PROMPTLY MAKE ALL REPLACEMENTS BEFORE THE END OF THE GUARANTEE PERIOD.
- 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.
- ALL TOPSOIL SHALL BE SCREENED LOAM SURFACE SOIL, FREE OF STONES AND SHALL HAVE THE FOLLOWING MINIMUM REQUIREMENTS:
 - AN ORGANIC CONTENT OF 6-12%
 - SOIL ACIDITY RANGE OF pH 6.0 TO pH 6.8
 - SOLUBLE SALTS OF 1000 PPM OR LESS
 - MAXIMUM CLAY CONTENT OF 15-20%
- 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:
 - pH FACTOR.
 - MECHANICAL ANALYSIS, INCLUDING SIEVE ANALYSIS PROVIDING SEPARATE SAND, SILT AND CLAY PERCENTAGES.
 - PERCENTAGE OF ORGANIC CONTENT BY WEIGHT
 - NUTRIENT LEVELS INCLUDING NITROGEN, PHOSPHOROUS AND POTASSIUM.
- 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.
- COMPOST SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS:
 - ORGANIC CONTENT OF 35-60% (DRY WEIGHT BASIS)
 - LOOSE AND FRIABLE WITH MOISTURE CONTENT OF 35-60% (WET WEIGHT BASIS)
 - PARTICLE SIZE SHALL BE <1/2 INCH (100% PASSING)
 - SOLUBLE SALTS CONCENTRATION SHALL BE <4.0 MMHOS/CM (DS/M), MAXIMUM
 - pH RANGE OF 6.0-8.5
- PLANTING MIX FOR PLANT PITS SHALL BE COMPOSED OF (2) PARTS APPROVED IMPORTED OR ON-SITE SCREENED TOPSOIL AND (1) PART COMPOST.
- 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.
- 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.
- SEE SHEET C505 FOR LANDSCAPE DETAILS.
- UPON FINAL ACCEPTANCE OF THE LANDSCAPE INSTALLATION, THE OWNER WILL ASSUME MAINTENANCE OF THE LANDSCAPED AREAS.
- EXISTING TREES TO REMAIN SHALL BE PROTECTED BY INSTALLING A TEMPORARY FENCE AT THE OUTER LIMITS OF THE TREE CANOPY.

LANDSCAPE LEGEND:

- SHADE / ORNAMENTAL / EVERGREEN TREE
- SHRUB / PERENNIAL / ORNAMENTAL GRASS
- MULCHED PLANTING BED AREA

SEED SCHEDULE 'A' (GENERAL LAWN AREAS)

5 lbs./1,000 s.f.
30% CREEPING RED FESCUE (MIN. 3 VARIETIES)
50% PERENNIAL RYEGRASS (MIN. 3 VARIETIES)
20% KENTUCKY BLUEGRASS (MIN. 3 VARIETIES)



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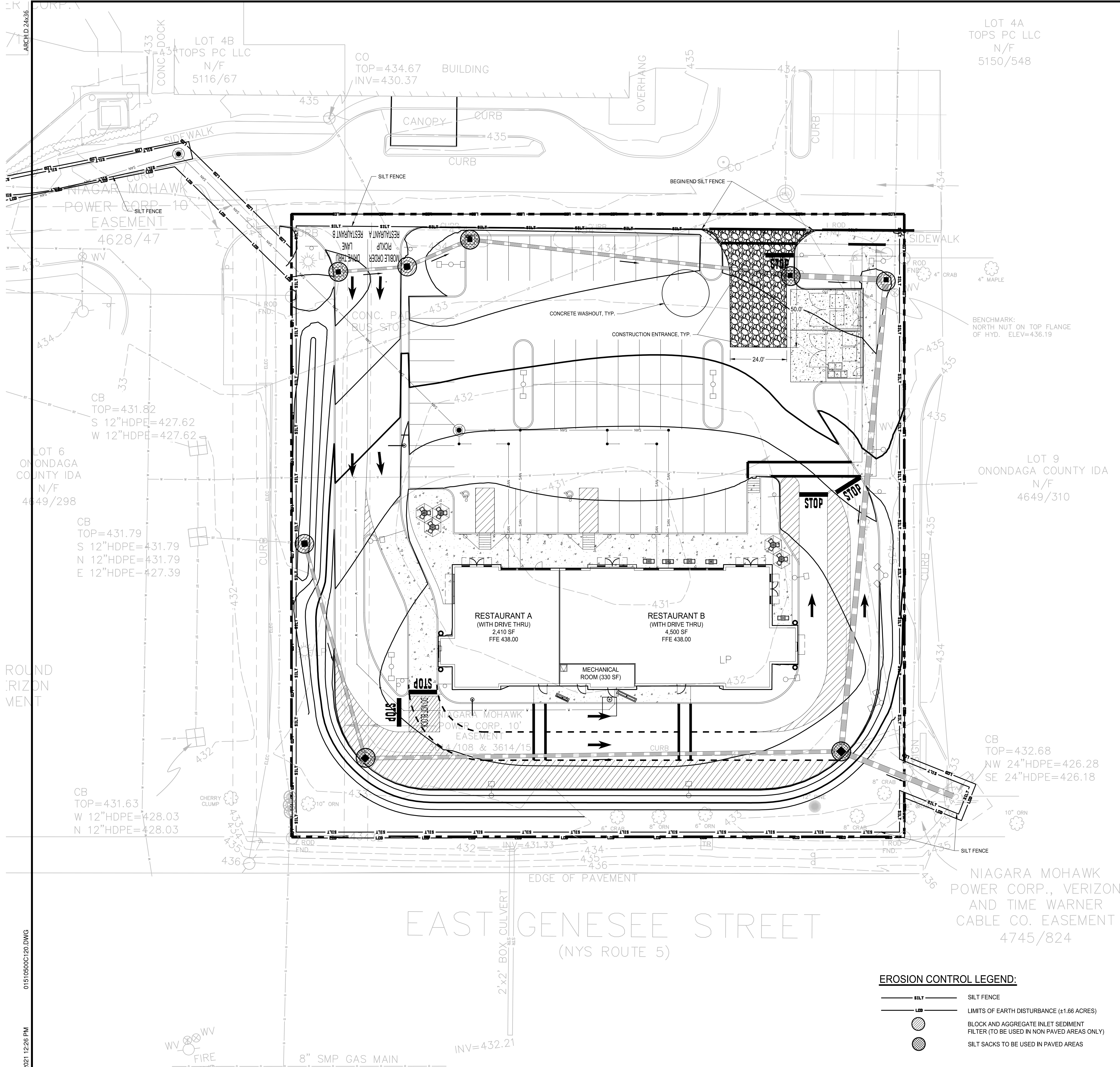
Project Manager A HART, RLA	Discipline Lead E SHAW, RLA
Designer V MICKEL	Reviewer K HURLEY, PE
Date Issued 04/01/2021	Project Number 15105.00

Sheet Name

LANDSCAPE PLAN

Drawing Number

C130



EROSION CONTROL NOTES:

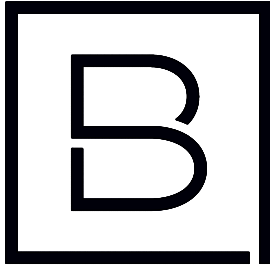
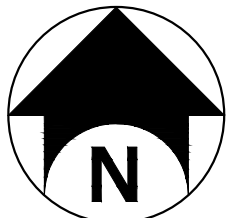
1. THE DEVELOPER/OWNER/OPERATOR SHALL PROVIDE A QUALIFIED INSPECTOR TO INSPECT THE PROJECT AT THE END OF EACH WORK WEEK AND PROVIDE A REPORT AT LEAST ONCE PER WEEK.
2. INSTALL SILT FENCE, DIVERSION SWALES/BERMS, CHECK DAMS AND ALL OTHER EROSION CONTROL MEASURES AS INDICATED ON THE PLAN PRIOR TO THE START OF ANY EXCAVATION WORK. EROSION CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH THE NEW YORK STATE GUIDELINES FOR URBAN EROSION SEDIMENT CONTROL MANUAL, NEW YORK STATE HEALTH DEPARTMENT, AND THE GOVERNING TOWN REQUIREMENTS.
3. CONSTRUCT INTERCEPTOR/DIVERSION SWALES/BERMS & TEMPORARY SEDIMENT BASIN'S TO INTERCEPT SURFACE WATER AND DIRECT IT AWAY FROM WORK AREA AS INDICATED ON PLAN. SEDIMENT SHALL BE REMOVED FROM BASINS BEFORE THEY REACH 25% CAPACITY.
4. REMOVE AND STOCKPILE TOPSOIL AS DIRECTED BY THE CONSTRUCTION MANAGER REPLACE TOPSOIL TO A MINIMUM 4" DEPTH. ALL DISTURBED AREAS TO BE HYDROSEED AS DIRECTED BY THE CONSTRUCTION MANAGER TO PROMOTE VEGETATION AS SOON AS PRACTICABLE.
5. IF THE SEASONS PROHIBITS TEMPORARY SEEDING, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW HAY OR EQUIVALENT AND ANCHORED IN ACCORDANCE WITH THE "STANDARDS", NETTING OR LIQUID MULCH BINDER.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND REMOVAL OF TEMPORARY SEDIMENTATION CONTROLS. EROSION CONTROL MEASURES SHALL NOT BE REMOVED BEFORE 80% UNIFORM VEGETATION HAS BEEN ACHIEVED.
7. INSTALL INLET PROTECTION, AND RIP RAP APRONS PROGRESSIVELY AS STORM SEWER, AND DISCHARGE POINTS ARE INSTALLED.
8. ALL EROSION CONTROL MEASURES ARE TO BE REPLACED WHENEVER THEY BECOME CLOGGED OR INOPERABLE AND SHALL BE REPLACED WHEN THEY HAVE REACHED THE DESIGN LIFE INDICATED IN THE NYS GUIDELINES FOR URBAN EROSION SEDIMENT CONTROL DESIGN MANUAL.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION OF TOPSOIL TO ALL DISTURBED AREAS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN EROSION CONTROL MEASURES AT ALL TIMES.
10. THE CONTRACTOR SHALL DESIGNATE A MEMBER OF HIS/HER FIRM TO BE RESPONSIBLE TO MONITOR EROSION CONTROL, EROSION CONTROL STRUCTURES, TREE PROTECTION AND PRESERVATION THROUGHOUT CONSTRUCTION.
11. ALL DISTURBED AREAS SHALL BE FINISH GRADED TO PROMOTE VEGETATION ON ALL EXPOSED AREAS AS SOON AS PRACTICABLE. STABILIZATION PRACTICES (TEMPORARY/PERMANENT SEEDING, MULCHING, GEOTEXTILES, ETC.) MUST BE IMPLEMENTED WITHIN SEVEN (7) DAYS WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, AND NOT EXPECTED TO RESUME WITHIN FOURTEEN (14) DAYS.
12. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES. ALL CONSTRUCTION DEBRIS AND SEDIMENT SPOILS, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAYS MUST BE REMOVED IMMEDIATELY.
13. DUST SHALL BE CONTROLLED BY WATERING.
14. ADJOINING PROPERTY SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS ON THE PROPOSED SITE.
15. DIVERSION SWALES/BERMS, AND SEDIMENT TRAPS SHOULD BE RELOCATED INWARD AS PERIMETER SLOPE CONSTRUCTION PROGRESSES AND RECONSTRUCTED TO THE NYS STANDARDS & SPECIFICATIONS AT THE END OF EACH DAY TO DIVERT RUNOFF FROM SLOPED AREAS AND DIRECT TO APPROPRIATE BASINS.
16. PERIMETER AREAS SHALL BE TEMPORARILY STABILIZED WITH SEED AND MULCH PROGRESSIVELY A MINIMUM AT THE END OF EACH WEEK WITH 100% PERENNIAL RYEGRASS MIX AT A RATE OF 2-4 LBS PER 1000 SF AND MULCH 90-100 lbs/1000 SF OF WEED FREE STRAW.
17. SLOPE TRACKING SHALL BE IMPLIMENTED ON ALL SLOPE 1 ON 3 OR GREATER AT THE END OF EACH WORK DAY AND PRIOR TO FINAL SLOPE GRADING AND STABILIZATION.
18. SILT FENCE, JUTE MESH, AND/OR EROSION CONTROL BLANKETS WILL BE USED ON STEEP SLOPES AND WHEREVER NECESSARY TO CONTROL EROSION AND SILTATION OF EXISTING DRAINAGE SYSTEMS AS ORDERED BY THE ENGINEER OR SPECIFIED ON PLANS.
19. THE CONTRACTOR SHALL DESIGNATE A MEMBER OF HIS/HER FIRM TO BE RESPONSIBLE TO MONITOR EROSION CONTROL, EROSION CONTROL STRUCTURES, TREE PROTECTION AND PRESERVATION THROUGHOUT CONSTRUCTION.
20. ALL DISTURBED AREAS SHALL BE PROTECTED FROM EROSION EITHER BY MULCH OR TEMPORARY SEEDING WITHIN 2 WEEKS OF DISTURBANCE.
21. EROSION CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH THE NEW YORK STATE GUIDELINES FOR URBAN EROSION SEDIMENT CONTROL MANUAL, COUNTY HEALTH DEPARTMENT, AND THE TOWN OF REQUIREMENTS.

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 AS REQUIRED BY PART IV 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 THE PLANS.
4. INSTALL PERIMETER SILT FENCES AND TEMPORARY SEDIMENT SEDIMENT BASIN IN THE LOCATIONS SHOWN ON THE PLANS.
5. INSTALL INTERCEPTOR SWALES AT LOCATIONS SHOWN ON THE PLANS.
6. 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.
7. COMMENCE SITE GRADING.
8. INSTALL EROSION CONTROL BLANKETS ON ALL SLOPES GREATER THAN 3:1.
9. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS CEASED FOR MORE THAN 14 DAYS SHALL BE TEMPORARILY SEEDED AND WATERED.
10. INSTALL INLET/OUTLET PROTECTION AT THE LOCATIONS OF ALL GRATE INLETS, CURB INLETS, AND AT THE ENDS OF ALL EXPOSED STORM SEWER PIPES.
11. 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. PLACE REQUIRED RIP RAP AT LOCATIONS SHOWN ON THE PLANS.
12. REMOVE INLET PROTECTION AROUND INLETS AND MANHOLES NO MORE THAN 48 HOURS PRIOR TO PLACING STABILIZED BASE COURSE.
13. INSTALL BASE MATERIAL AS REQUIRED FOR PAVEMENT.
14. CARRY OUT FINAL GRADING AND SEEDING AND PLANTING.
15. REMOVE SILT FENCING ONLY AFTER ALL PAVING IS COMPLETE AND EXPOSED SURFACES ARE STABILIZED.
16. REMOVE TEMPORARY CONSTRUCTION EXITS ONLY PRIOR TO PAVEMENT CONSTRUCTION IN THESE AREAS (THESE AREAS ARE TO BE PAVED LAST).

EROSION CONTROL LEGEND:

- SILT FENCE
- LIMITS OF EARTH DISTURBANCE (±1.66 ACRES)
- BLOCK AND AGGREGATE INLET SEDIMENT FILTER (TO BE USED IN NON PAVED AREAS ONLY)
- SILT SACKS TO BE USED IN PAVED AREAS



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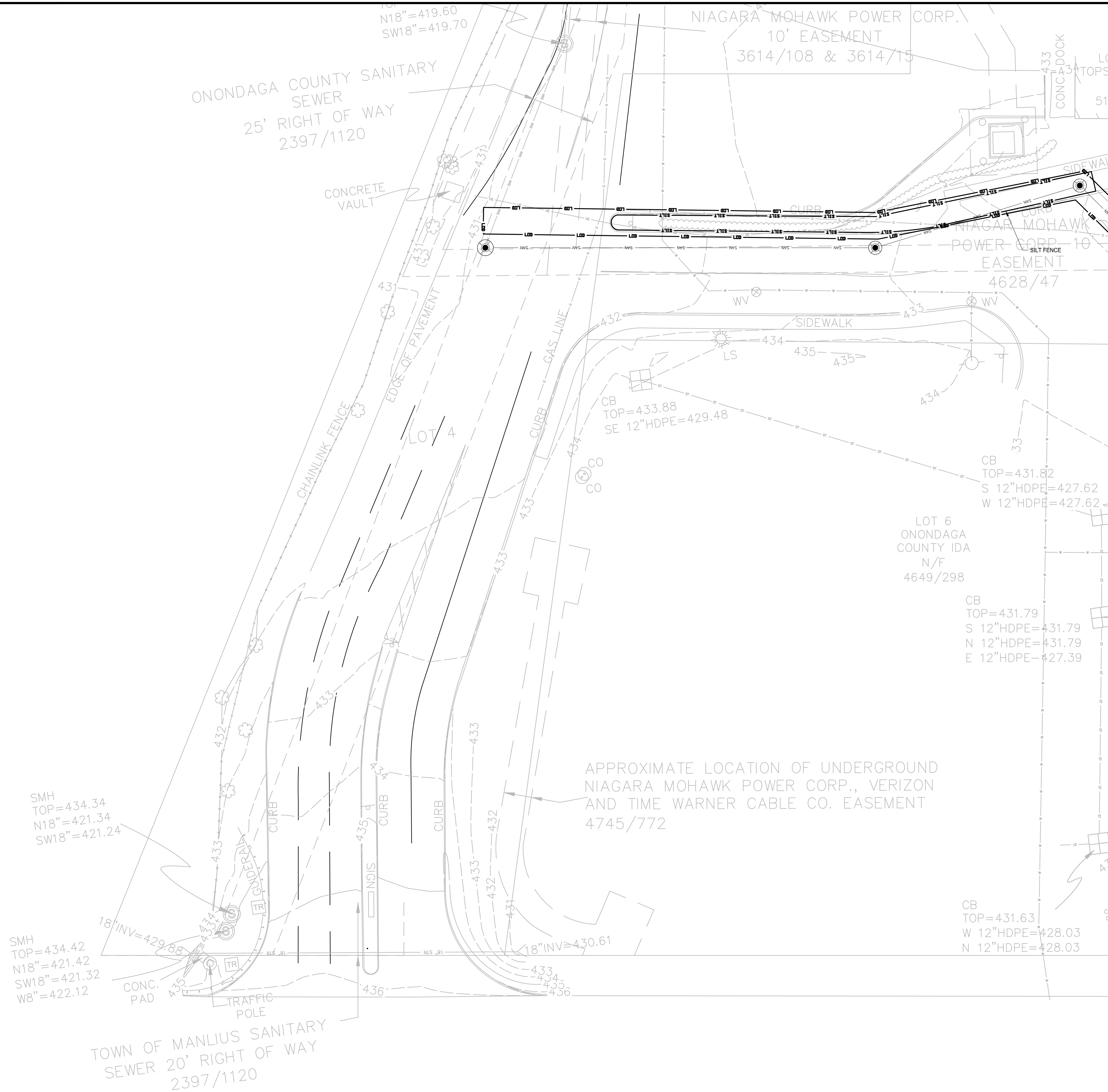
Project Manager A HART, RLA	Discipline Lead E SHAW, RLA
Designer V MICKEL	Reviewer K HURLEY, PE
Date Issued 04/01/2021	Project Number 15105.00

Sheet Name

EROSION & SEDIMENT
CONTROL PLAN

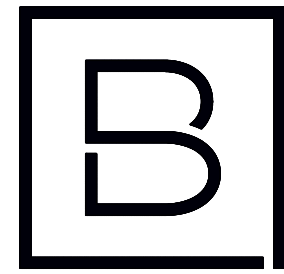
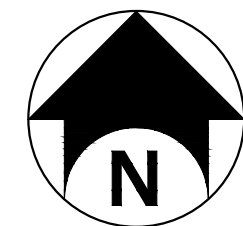
Drawing Number

C140



EROSION CONTROL LEGEND:

-  SILT FENCE
-  LIMITS OF EARTH DISTURBANCE (±1.66 ACRES)
-  BLOCK AND AGGREGATE INLET SEDIMENT FILTER (TO BE USED IN NON PAVED AREAS ONLY)
-  SILT SACKS TO BE USED IN PAVED AREAS



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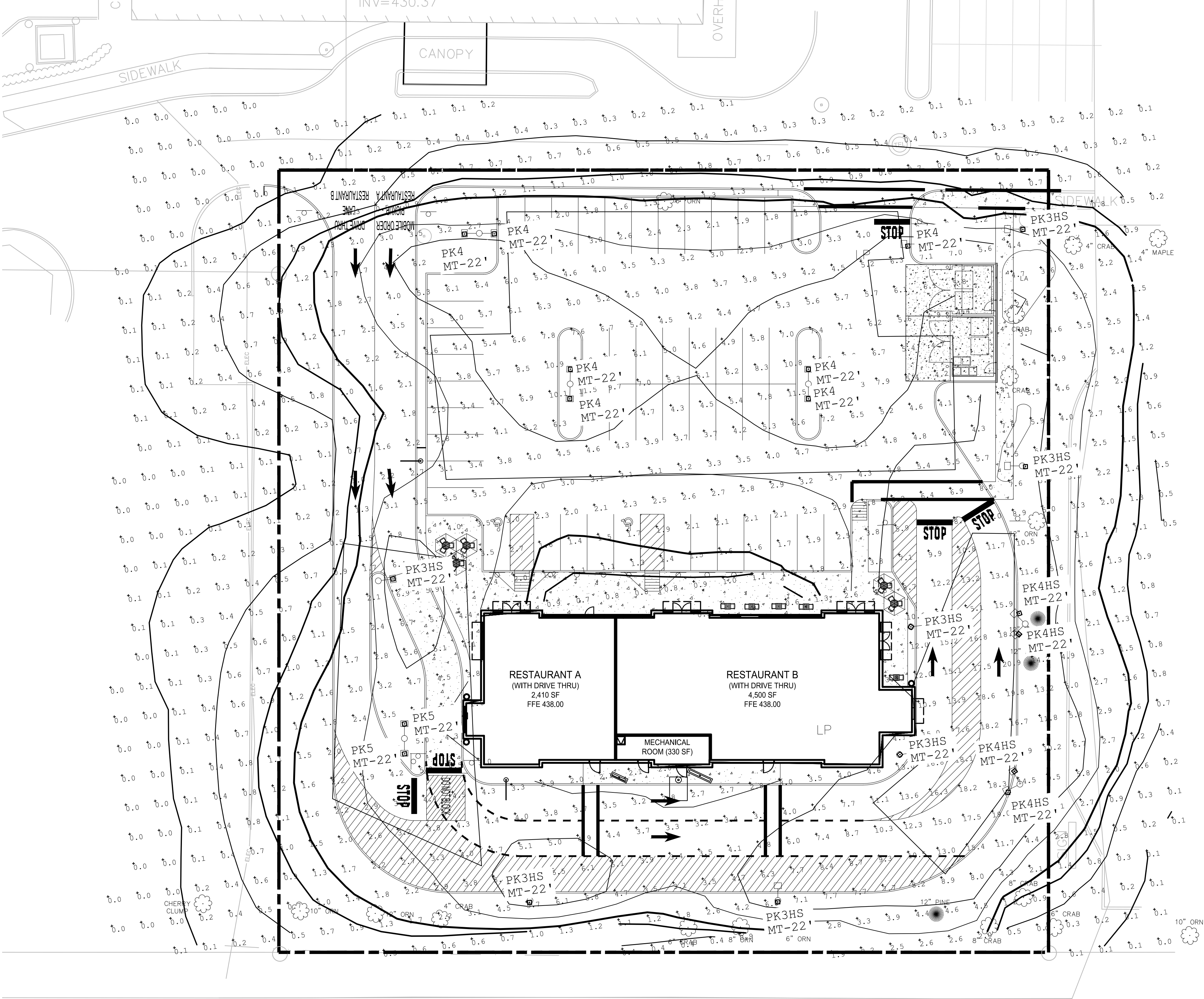
Sheet Name

**EROSION & SEDIMENT
CONTROL PLAN**

Drawing Number

C141

Luminaire Schedule							
Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description	Tag
	7	ECF-S-64L-1A-NW-G2-4	SINGLE	N.A.	0.900	ECF-S-64L-1A-NW-G2-4	PK4
	7	ECF-S-64L-1A-NW-G2-3-HIS	SINGLE	N.A.	0.900	ECF-S-64L-1A-NW-G2-3-HIS	PK3HS
	1	ecf-s-64l-1a-nw-g2-5	SINGLE	N.A.	0.900	ECF-S-64L-1A-NW-G2-5	PK5
	4	ecf-s-64l-1a-nw-g2-4-his	SINGLE	N.A.	0.900	ECF-S-64L-1A-NW-G2-4-HIS	PK4HS



Parking lot

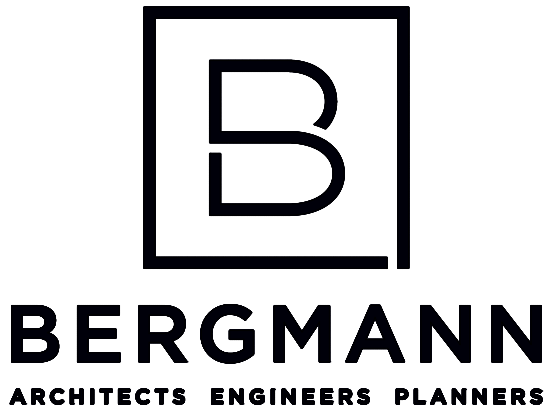
Illuminance (Fc)
Average = 5.15
Maximum = 9.7
Minimum = 2.9
Avg/Min Ratio = 1.78
Max/Min Ratio = 3.34
Max/Avg Ratio = 1.88

Drive Thru A

Illuminance (Fc)
Average = 4.75
Maximum = 8.5
Minimum = 1.3
Avg/Min Ratio = 3.65
Max/Min Ratio = 6.54
Max/Avg Ratio = 1.79

Drive Thru B

Illuminance (Fc)
Average = 15.27
Maximum = 19.2
Minimum = 11.3
Avg/Min Ratio = 1.35
Max/Min Ratio = 1.70
Max/Avg Ratio = 1.26



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PHOTOMETRIC PLAN

Drawing Number

C150



- CONCRETE WASHOUT AREA

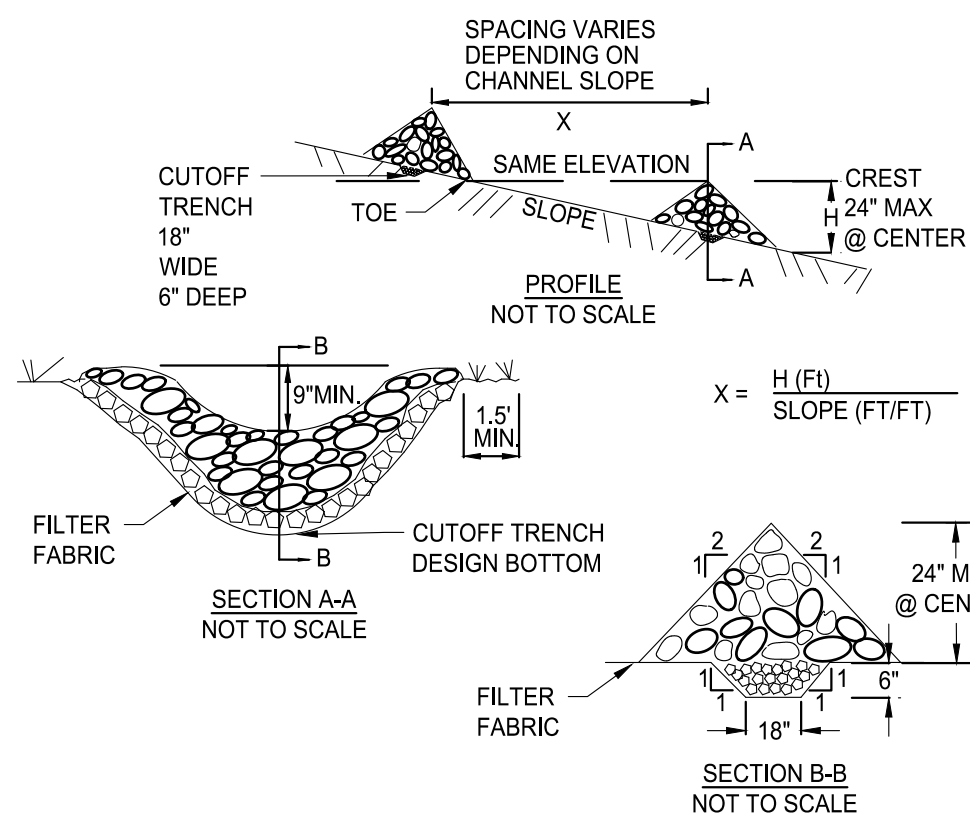
N.T.S.



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

N.T.S.

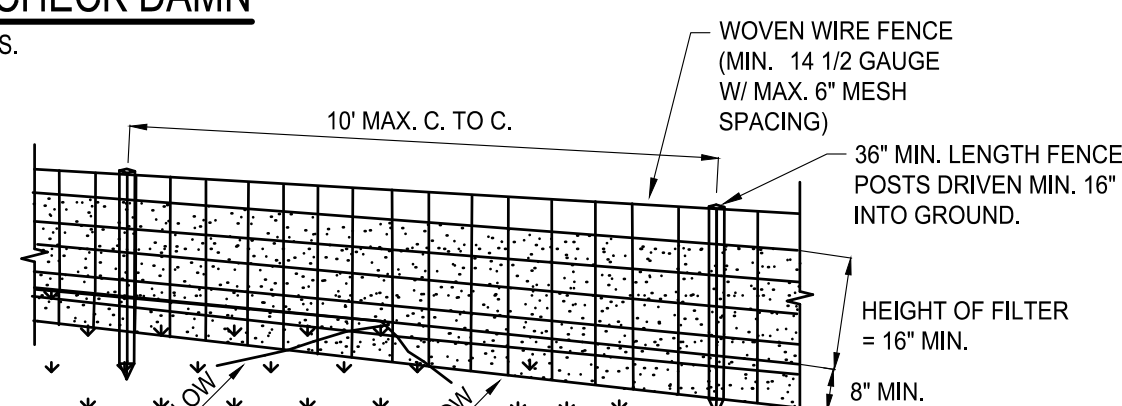


CONSTRUCTION SPECIFICATIONS

1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATIONS SHOWN IN THE PLAN.
2. SET SPACING OF CHECK DAMS TO ASSUME THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.
6. MAXIMUM DRAINAGE AREA 2 ACRES.

LIGHT STONE CHECK DAMN

N.T.S.



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 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, STABILINKA 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.

SILT FENCE INSTALLATION DETAIL

N.T.S.

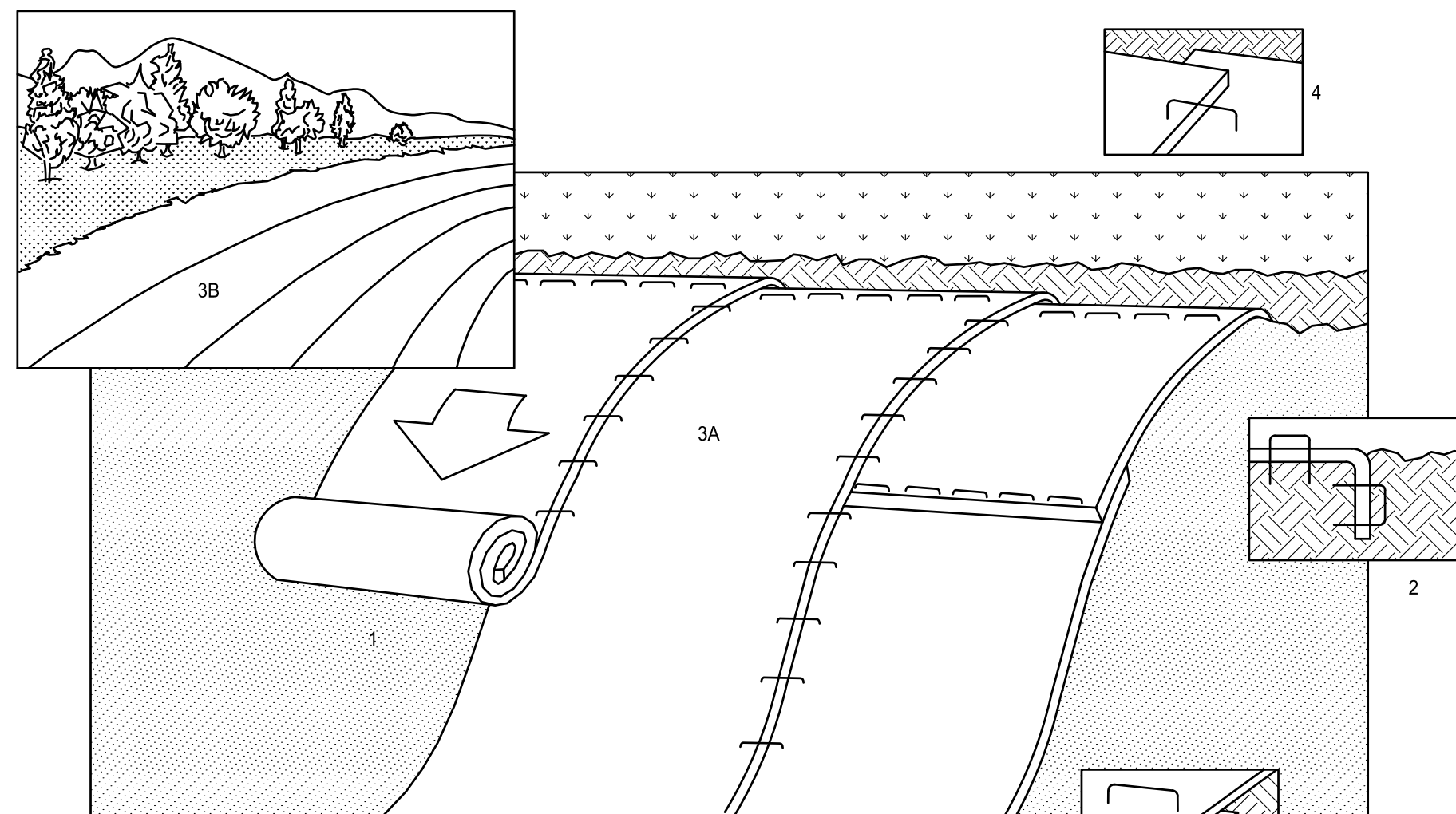


1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES 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. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH

TEMPORARY STABILIZED CONSTRUCTION

ENTRANCE DETAIL

NTS



NOTE: REFER TO GENERAL STAPLE PATTERN GUIDE FOR CORRECT STAPLE PATTERN RECOMMENDATIONS FOR SLOPE INSTALLATIONS.

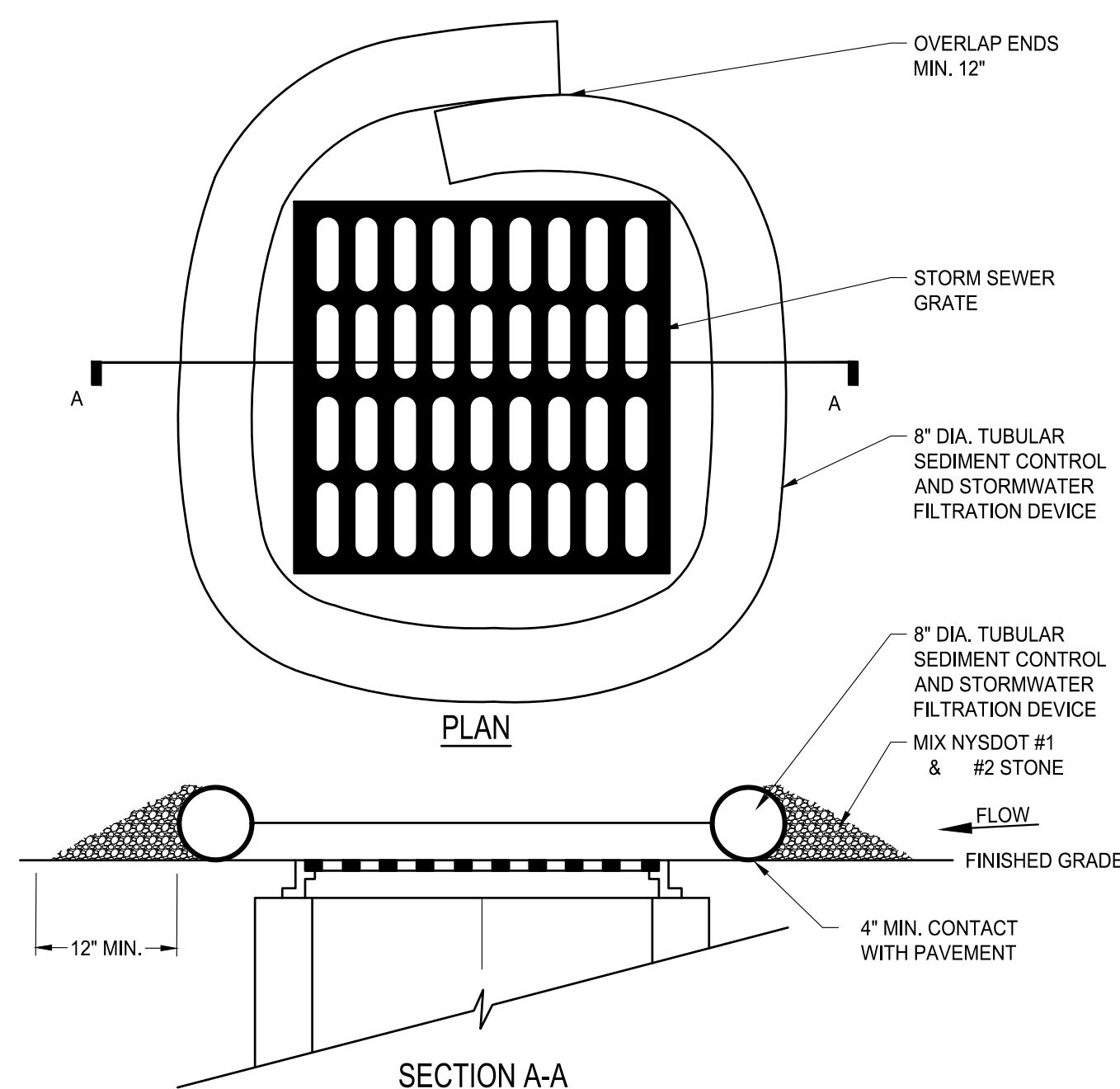
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP X 6" WIDE TRENCH. BACKFILL 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 SPICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 4" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.

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

N.T.S.



NOTES:

1. TUBULAR SEDIMENT CONTROL AND STORMWATER FILTRATION DEVICES SHALL BE FILTREXX FILTERSOXX, OR EQUIVALENT.
2. REPLACE AND DISPOSE OF PER MANUFACTURERS SPECIFICATIONS.
3. THIS PRACTICE INCLUDES SANDBAGS, COMPOST FILTER SOCKS, GEO-TUBES FILLED WITH BALLAST, AND MANUFACTURED SURFACE BARRIERS. PEA GRAVEL CAN ALSO BE USED IN CONJUNCTION WITH THESE PRACTICES TO IMPROVE PERFORMACE. WHEN INLETS ARE NOT AT A LOW POINT, AND IS OFF-SET FROM THE PAVEMENT OR GUTTER LINE, PROTECTION SHOULD BE SELECTED AND INSTALLED SO THAT FLOWS ARE NOT DIVERTED AROUND INLET.
4. THE DRAINAGE AREA SHOULD BE LIMITED TO 1 ACRE AT THE DRAINAGE INLET. ALL PRACTICES WILL BE PLACED AT THE INLET PERIMETER OR BEYOND TO MAXIMIZE THE FLOW CAPACITY OF THE INLET. PRACTICES SHALL BE WEIGHTED, BRACED, TIED, OR OTHERWISE ANCHORED TO PREVENT MOVEMENT OR SHIFTING OF LOCATION ON PAVED SURFACES. TRAFFIC SAFETY SHALL BE INTEGRATED WITH THE USE OF THIS PRACTICE. ALL PRACTICES SHOULD BE MARKED WITH TRAFFIC SAFETY CONES AS APPROPRIATE. STRUCTURE HEIGHT SHALL NOT CAUSE FLOODING OR BACKS WASH FLOW THAT WOULD CAUSE ADDITIONAL EROSION. THE STRUCTURE SHOULD BE INSPECTED AFTER EVERY STORM EVENT, ANY SEDIMENT SHOULD BE REMOVED AND DISPOSED OF ON THE SITE, ANY BROKEN OR DAMAGED COMPONENTS SHOULD BE REPLACED. CHECK ALL MATERIALS FOR PROPER ANCHORING AND SECURE AS NECESSARY.
5. IF USING THE COMPOST FILTER SOCK, THE COMPOST INFILL SHALL BE WELL DECOMPOSED MATURED (AT LEAST 3 MONTHS), WEED-FREE, ORGANIC MATERIAL. IT SHOULD BE SPECIFICALLY COMPOSTED AND FREE OF OBSTACULAR ODORS, AND CONTAIN LESS THAN 1% BY DRY WEIGHT OF MANMADE FOREIGN MATTER. WHEN USING COMPOST FILTER SOCKS ADJACENT TO SURFACE WATER, THE COMPOST SHOULD HAVE LOW NUTRIENT VALUE.

PAVED SURFACE INLET PROTECTION DETAIL

N.T.S.



**PROPOSED
RESTAURANT A /
RESTAURANT B**

LOT 15 -TOWNE CENTER
AT FAYETTEVILLE
406 TOWNE DRIVE
FAYETTEVILLE, NY 13066

Date Revised	Description
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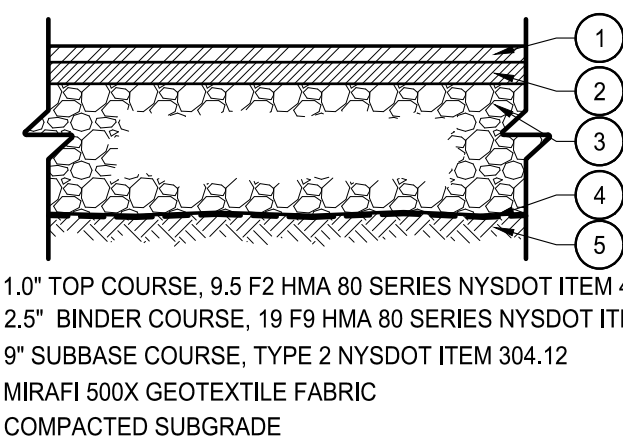
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Project Manager A HART, RLA	Discipline Lead E SHAW, RLA
Designer V MICKEL	Reviewer K HURLEY, PE
Date Issued 04/01/2021	Project Number 15105.00

Sheet Name

C500



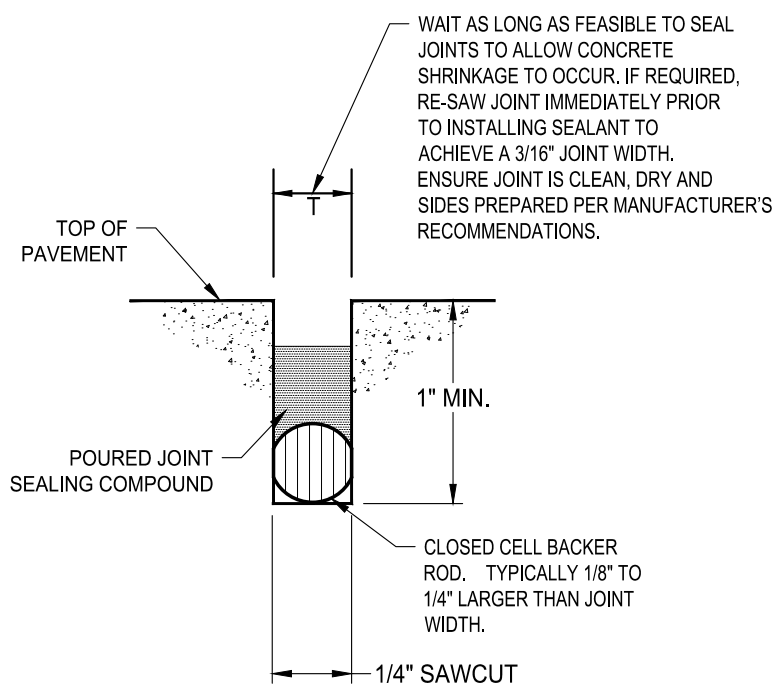
- ① 1.0" TOP COURSE, 9.5 F2 HMA 80 SERIES NYSDOT ITEM 402.098203
- ② 2.5" BINDER COURSE, 19 F9 HMA 80 SERIES NYSDOT ITEM 402.198903
- ③ 9" SUBBASE COURSE, TYPE 2 NYSDOT ITEM 304.12
- ④ MIRAFI 500X GEOTEXTILE FABRIC
- ⑤ COMPACTED SUBGRADE

NOTES:

1. COMPACT SUBGRADE TO A MODIFIED PROCTOR DENSITY OF 95%.
2. SUBBASE COURSE SHALL HAVE NO MORE THAN TEN (10) PERCENT BY WEIGHT FINER THAN NO. 200 SIEVE.

STANDARD DUTY ASPHALT PAVEMENT SECTION

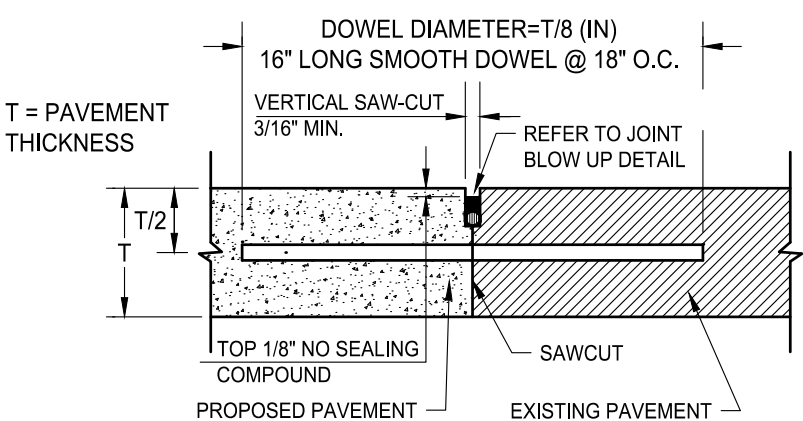
N.T.S.



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 ROD AT CONSISTENT AND UNIFORM DEPTH.
4. JOINT SEALANT APPLICATION SHALL BE IN STRICT COMPLIANCE WITH SEALANT MANUFACTURER'S REQUIREMENTS.

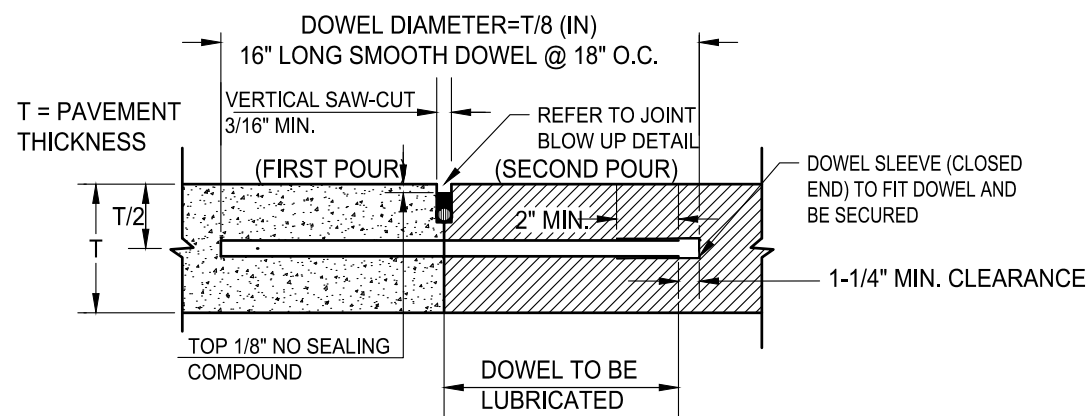
JOINT BLOW-UP DETAIL



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.

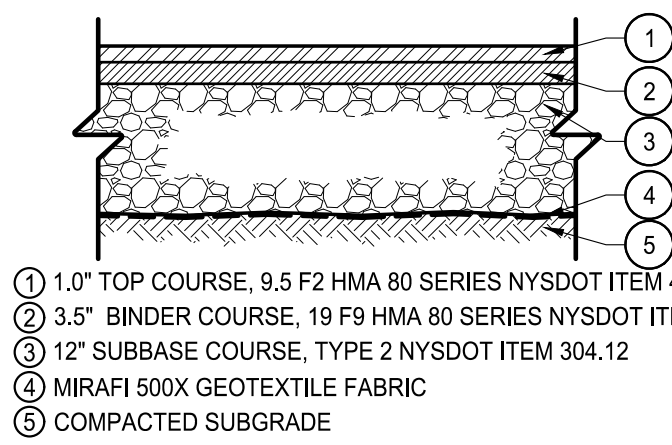
BUTT JOINT



NOTE:

1. DOWELS SHALL BE SUPPORTED BY AN APPROVED DEVICE.

CONSTRUCTION JOINT



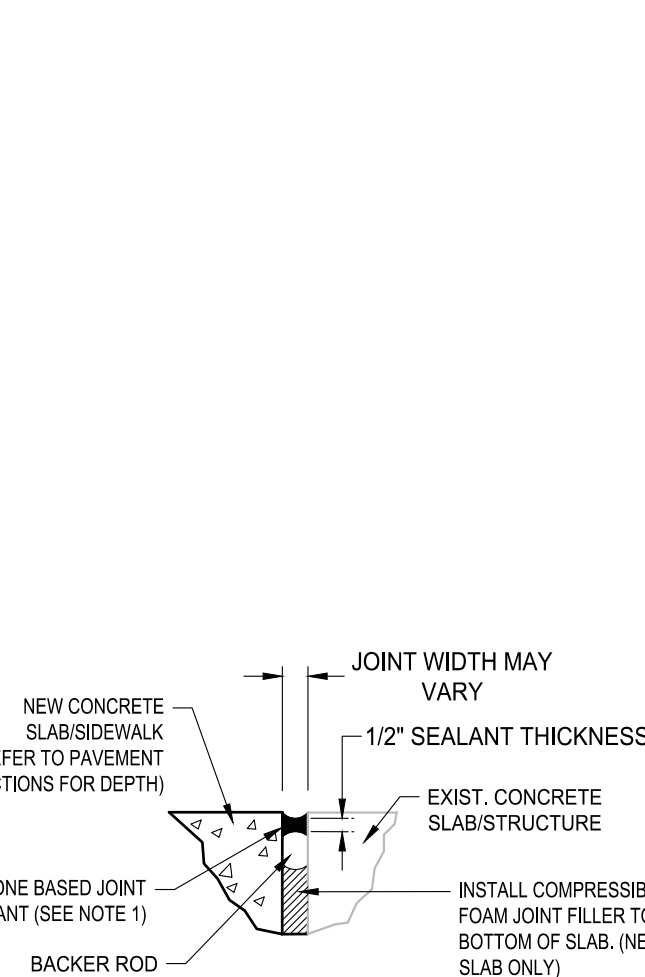
- ① 1.0" TOP COURSE, 9.5 F2 HMA 80 SERIES NYSDOT ITEM 402.098203
- ② 3.5" BINDER COURSE, 19 F9 HMA 80 SERIES NYSDOT ITEM 402.198903
- ③ 12" SUBBASE COURSE, TYPE 2 NYSDOT ITEM 304.12
- ④ MIRAFI 500X GEOTEXTILE FABRIC
- ⑤ COMPACTED SUBGRADE

NOTES:

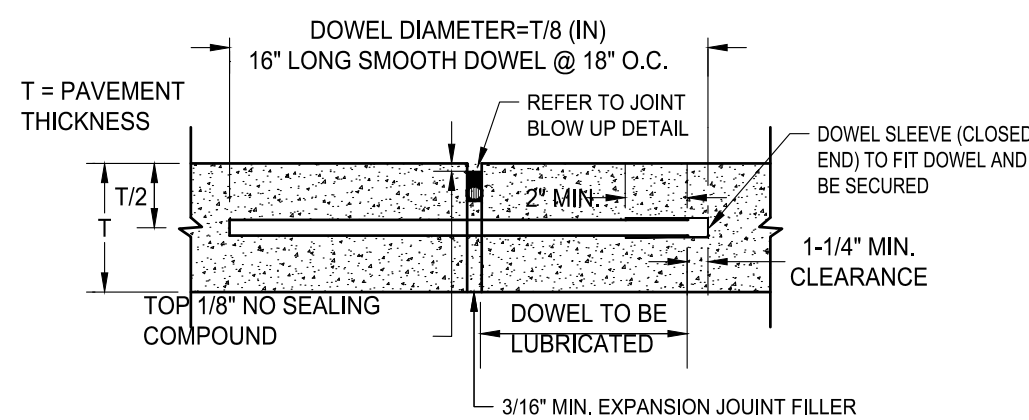
1. COMPACT SUBGRADE TO A MODIFIED PROCTOR DENSITY OF 95%.
2. SUBBASE COURSE SHALL HAVE NO MORE THAN TEN (10) PERCENT BY WEIGHT FINER THAN NO. 200 SIEVE.

HEAVY DUTY ASPHALT PAVEMENT SECTION

N.T.S.



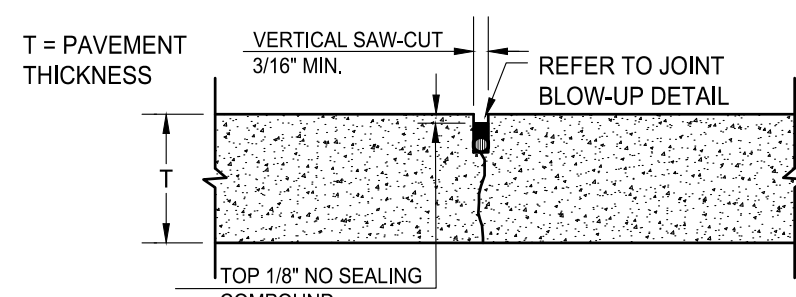
ISOLATION JOINT



NOTE:

1. DOWELS SHALL BE SUPPORTED BY AN APPROVED DEVICE.

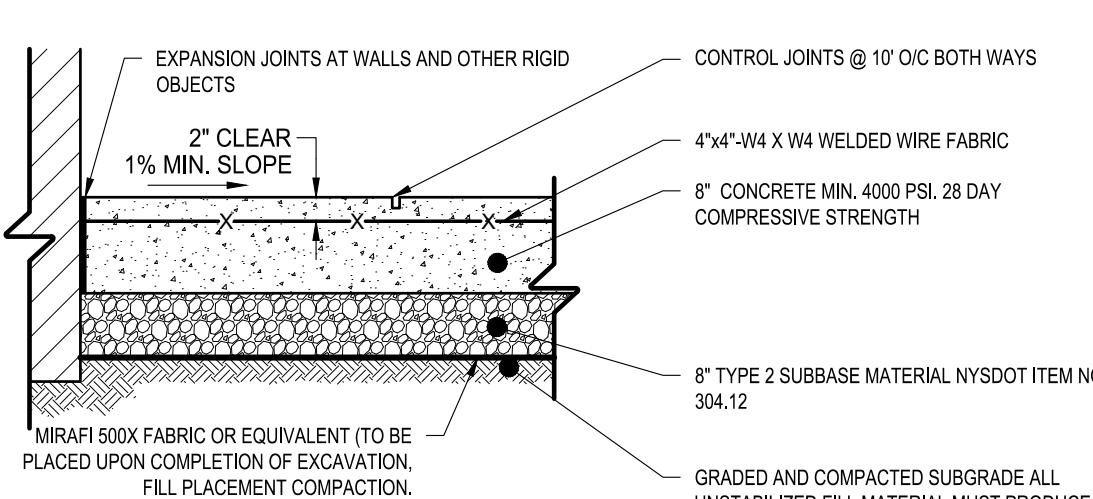
TRANSVERSE EXPANSION JOINT



NOTES:

1. COLOR OF JOINT SEALANT SHALL MATCH COLOR OF ADJACENT PAVEMENT.

CONTRACTION JOINT

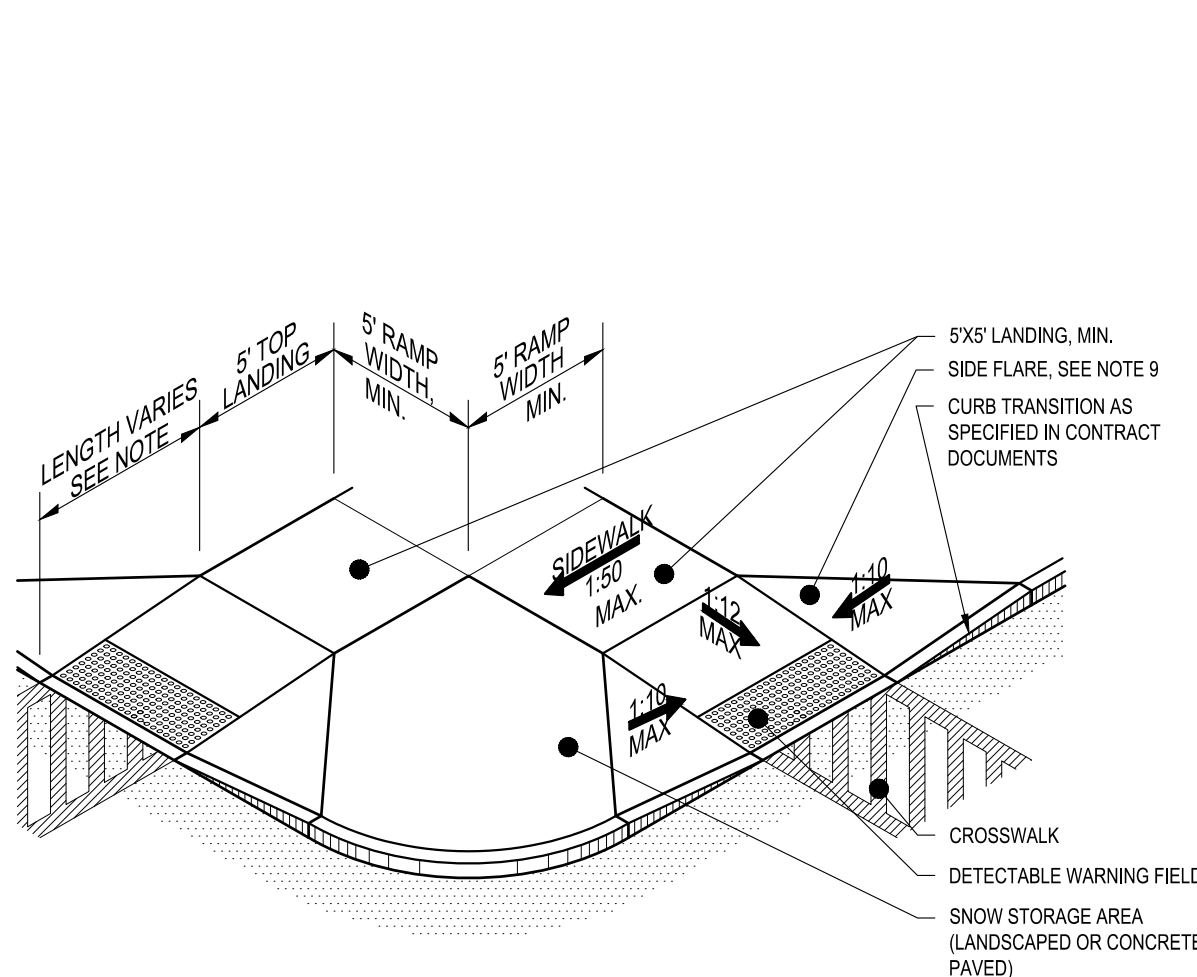


NOTES:

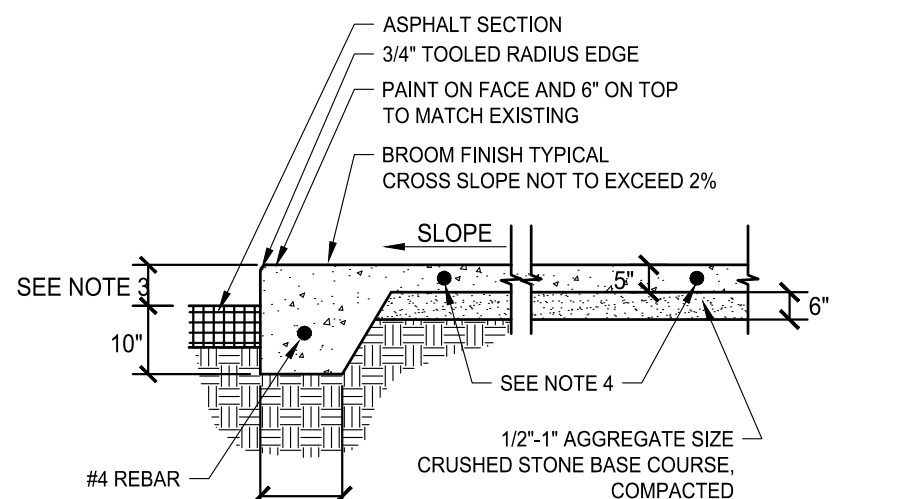
1. ITEM 304.12 SHALL HAVE NO MORE THAN TEN (10) PERCENT BY WEIGHT, FINER THAN NO. 200 SIEVE.
2. USE THIS DETAIL FOR CONCRETE PAVEMENT AND FOR EXTERIOR CONCRETE SLABS.

HEAVY DUTY CONCRETE PAVING/SLAB SECTION

N.T.S.



PERPENDICULAR SIDEWALK CURB RAMP WITH SIDE FLARES (TYPE 7)



NOTES:

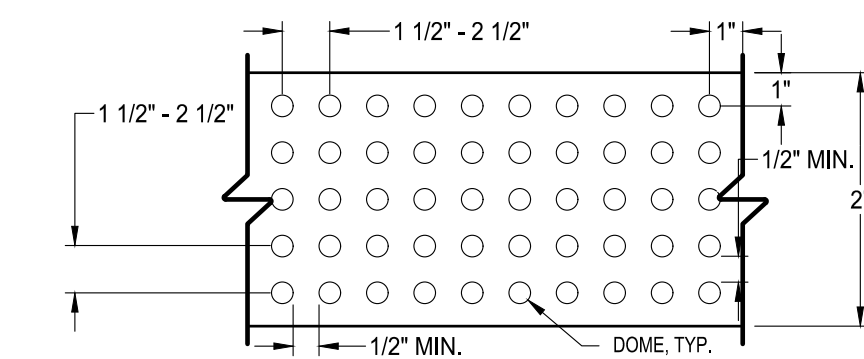
1. PROVIDE 6X6 #5 WWF, MINIMUM 2" COVER, NOT SHOWN.
2. USE MINIMUM 4000 PSI CONCRETE.
3. CURB REVEAL VARIES, 6" MAXIMUM.
4. TO BOND NEW SECTION TO EXISTING, PROVIDE #3 REBAR (2 EACH SIDE), 24" LONG, DRILL AND INSERT AND GROUT ONE END 12" INTO EXISTING SIDEWALK; THE REMAINING 12" LENGTH SHALL PROTRUDE INTO NEW SECTION. PLACE REBARS 5 FEET APART.

SIDEWALK SECTION WITH CURB

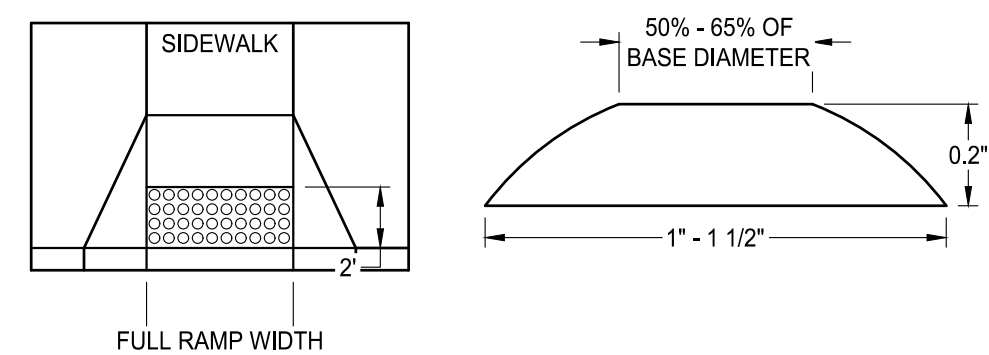
N.T.S.

NOTES:

1. THE DETECTABLE WARNING DETAILS PROVIDED ARE NOT DRAWN TO SCALE. THE QUANTITY OF DOMES DEPICTED ON THE DETECTABLE WARNING FIELD (THE DOMES AND THE ENTIRE 2' LEVEL SURFACE) IS FOR ILLUSTRATION ONLY.
2. LOCATION OF DETECTABLE WARNINGS. DETECTABLE WARNINGS SHALL BE LOCATED SO THAT THE EDGE OF THE WARNING FIELD NEAREST TO THE ROADWAY OR STREET SURFACE IS 6" TO 9" (1' WHERE TRANSVERSABLE CURB IS USED) FROM THE EDGE OF THE ROADWAY/STREET, OR FROM THE FACE OF THE DROPPED CURB, WHERE A DROPPED CURB CONTINUES ACROSS THE BOTTOM OF THE SIDEWALK CURB RAMP. THE DETECTABLE WARNINGS SHALL EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE.
3. DOME ALIGNMENT. DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL.
4. PAYMENT LINES ARE THE 2' DIMENSION SHOWN IN THE DETAILS EXTENDING THE FULL WIDTH OF THE CURB RAMP AND/OR APPLICABLE SURFACES. LANDINGS SHALL HAVE A MINIMUM CLEAR DIMENSION OF A 5' BY 5' SQUARE.
5. LANDINGS MAY OVERLAP WITH ADJACENT LANDINGS OR A SINGLE LANDING MAY SERVE MULTIPLE CURB RAMPS OR PARALLEL OR PARALLEL/PERPENDICULAR RAMPS. LANDINGS MAY OVERLAP WITH THE CLEAR GROUND SPACE REQUIRED AT PEDESTRIAN SIGNAL PUSH BUTTONS.
6. CROSS SLOPES: THE MAXIMUM CROSS SLOPE OF CURB RAMPS SHALL BE 2 PERCENT. THE MAXIMUM CROSS SLOPE AT LANDINGS IS 2 PERCENT IN ANY DIRECTION. SURFACES SHALL GENERALLY LIE IN CONTINUOUS PLANES WITH A MINIMUM OF SURFACE WARP.
7. THE RUNNING GRADE OF CURB RAMPS SHOULD BE AS FLAT AS PRACTICABLE. THE MAXIMUM RUNNING GRADE OF ANY PORTION OF ANY CURB RAMP SHALL BE 1:12 (8.3%). CURB RAMPS ARE NOT REQUIRED TO BE LONGER THAN 15'.
8. THE SURFACE OF ALL CURB RAMPS SHALL BE STABLE, FIRM AND SLIP RESISTANT. A COARSE BROOM FINISH RUNNING PERPENDICULAR TO THE SLOPE IS RECOMMENDED ON CONCRETE RAMP SURFACES, EXCLUSIVE OF THE DETECTABLE WARNING FIELDS.
9. CURB RAMPS LOCATED WHERE PEDESTRIANS MAY WALK ACROSS THE CURB RAMP SHALL HAVE FLARED SIDES. THE LENGTH OF THE FLARES SHALL BE AT LEAST TEN (10) TIMES THE CURB HEIGHT, MEASURED ALONG THE CURB LINE. WHEN INFEASIBLE OR IMPRACTICABLE TO PROVIDE A LANDING THAT IS AT LEAST 4' WIDE (MEASURED FROM THE TOP OF THE RAMP TO THE BACK OF THE SIDEWALK), THE LENGTH OF THE FLARES SHALL BE TWELVE (12) TIMES THE CURB HEIGHT MEASURED ALONG THE CURB LINE.
10. COORDINATE ALL TRAFFIC CONTROL DEVICES, UTILITY LOCATIONS, SIGNS, STREET FURNITURE AND DRAINAGE TO ENSURE A CONTINUOUS PEDESTRIAN ACCESS ROUTE AT ALL CURB RAMP LOCATIONS. GUIDANCE FOR CROSSWALK MARKINGS AND TRAFFIC CONTROL DEVICES IS PROVIDED IN THE MUTCD. DRAINAGE GRATES AND UTILITY ACCESS COVERS ARE NOT ALLOWED IN RAMP WALKING SURFACES OR LANDINGS.
11. AT MARKED CROSSINGS, THE FULL WIDTH OF THE RAMP SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS. THE SIDES OF THE RAMPS (THE FLARES) NEED NOT BE WITHIN THE WIDTH OF THE MARKINGS.
12. RAMP TRANSITIONS BETWEEN WALKS, GUTTERS, OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT VERTICAL CHANGES (1/4" MAX).
13. DETECTABLE WARNING FIELD SHALL BE COMPRISED OF EMBEDDED DETECTABLE WARNING UNITS PER NYSDOT MATERIAL SPECIFICATION 726-02.



DOME SPACING



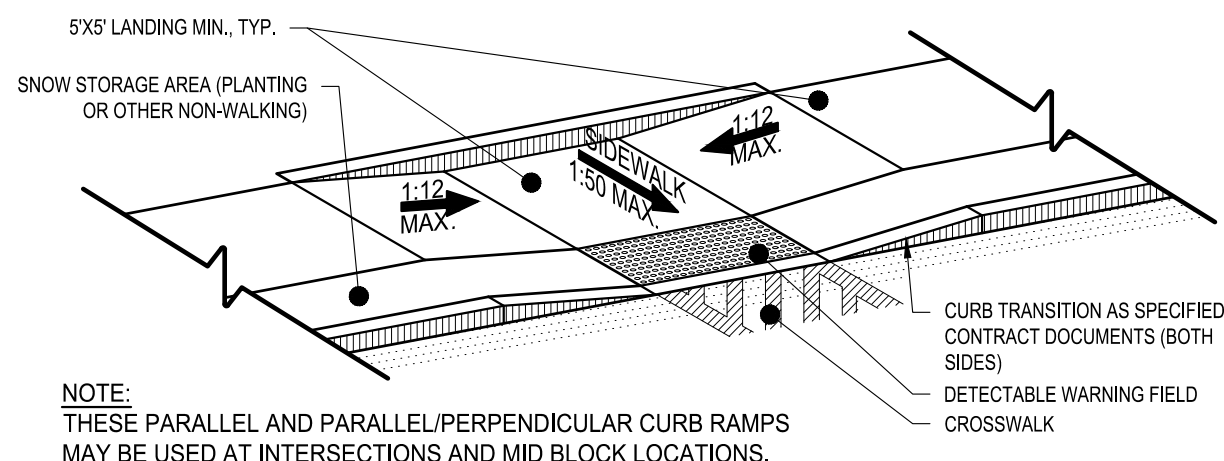
DETECTABLE WARNING AT CURB RAMP

DOME SECTION

COMBINED PARALLEL/PERPENDICULAR CURB RAMP (TYPE 10)

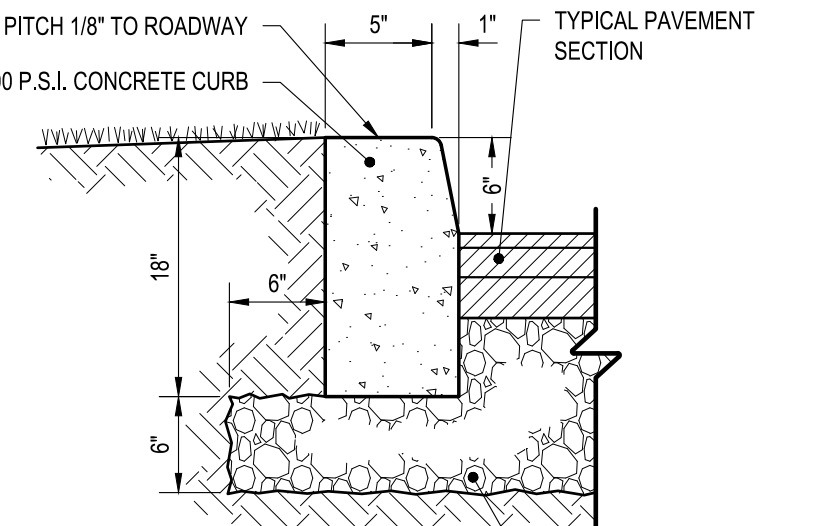
ACCESSIBLE RAMPS WITH DETECTABLE WARNING STRIP DETAILS

N.T.S.



NOTE:

THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

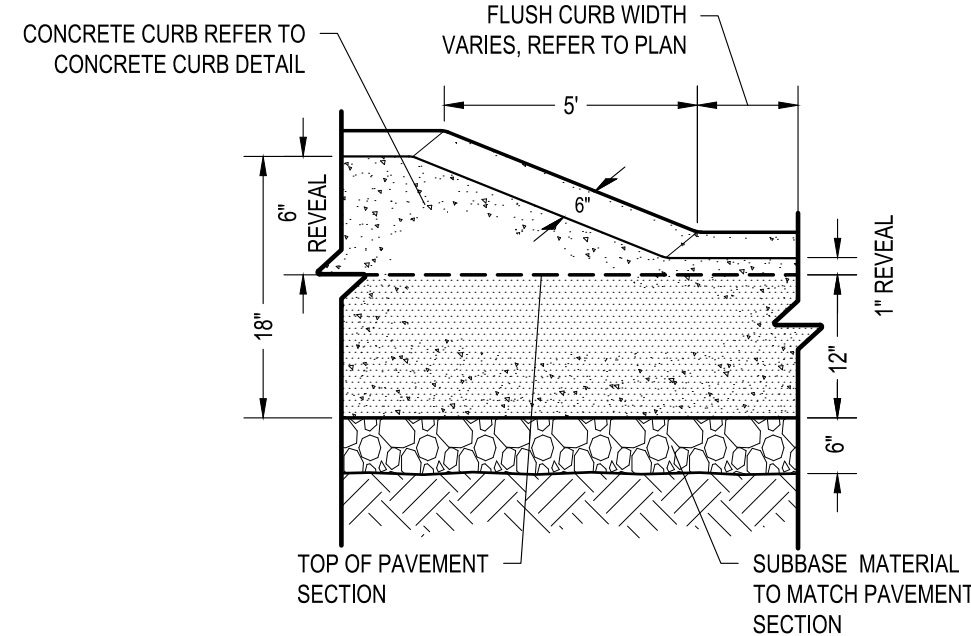


NOTES:

1. CONTRACTION JOINT 10' O.C. MAX.
2. EXPANSION JOINTS 100' O.C. MAX.

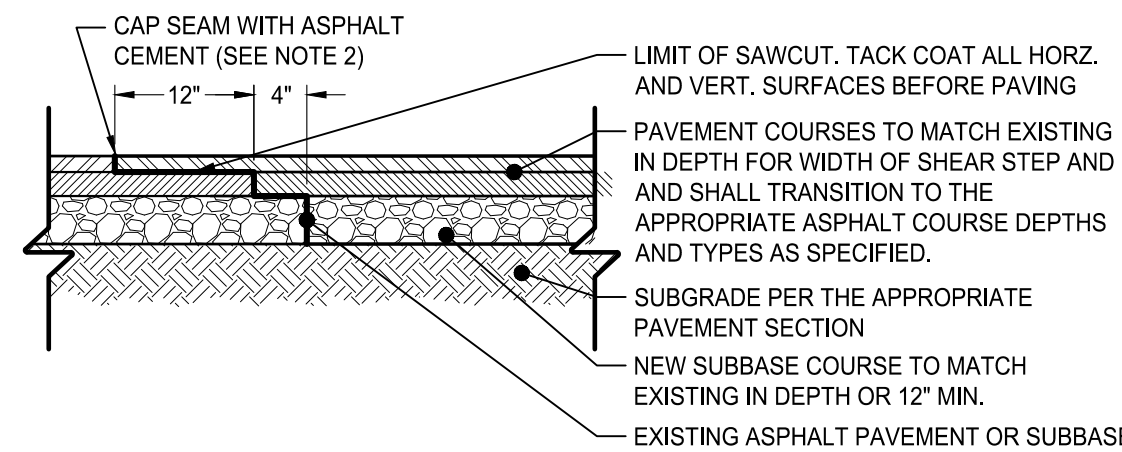
CONCRETE CURB DETAIL

N.T.S.



DEPRESSED CURB DETAIL

N.T.S.

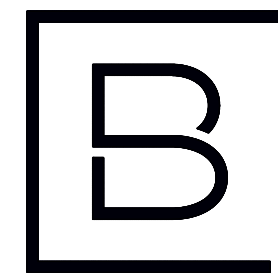


NOTES:

1. EXISTING PAVEMENT SHALL BE SAW CUT TO OBTAIN A STRAIGHT AND NEAT EDGE FOR PAVING. FINAL SAW CUT SHALL BE MADE PRIOR TO PAVING AND AFTER SUBBASE STONE IS PLACED.
2. ALONG SEAMS BETWEEN EXISTING AND NEW ASPHALT PAVEMENT, JOINTS SHALL BE SEALED WITH ASPHALT CEMENT MEETING REQUIREMENTS OF NYSDOT 702-0700.
3. DEPTH OF SAWCUT SHALL BE DETERMINED ONCE THE PAVEMENT CROSS SECTION HAS BEEN EXPOSED.

SHEAR STEP DETAIL

N.T.S.



BERGMANN
ARCHITECTS ENGINEERS PLANNERS

280 East Broad Street
Suite 200
Rochester, NY 14604

www.bergmannpc.com

Route 5 Development Company, LLC.

PROPOSED RESTAURANT A / RESTAURANT B

LOT 15 -TOWNE CENTER
AT FAYETTEVILLE
406 TOWNE DRIVE
FAYETTEVILLE, NY 13066

Date Revised	Description
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CONSTRUCTION
-- % SUBMISSION

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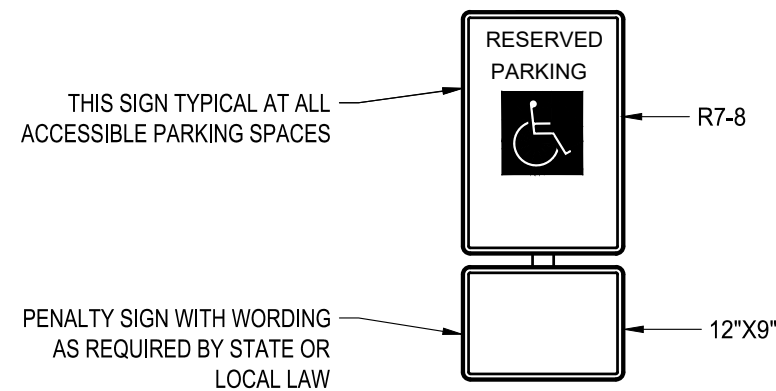
Project Manager A HART, RLA	Discipline Lead E SHAW, RLA
Designer V MICKEL	Reviewer K HURLEY, PE
Date Issued 04/01/2021	Project Number 15105.00

Sheet Name

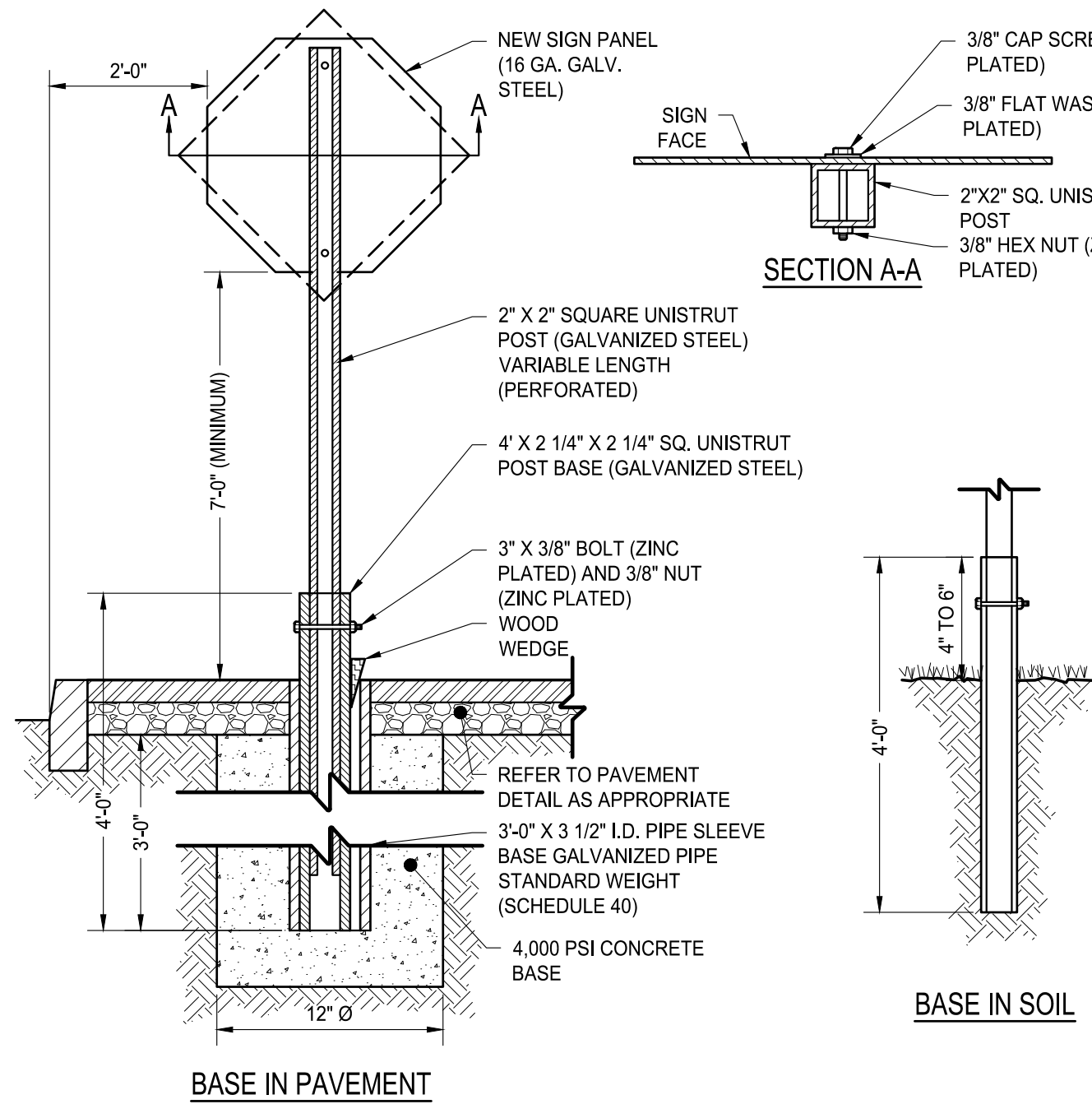
MISCELLANEOUS DETAILS

Drawing Number

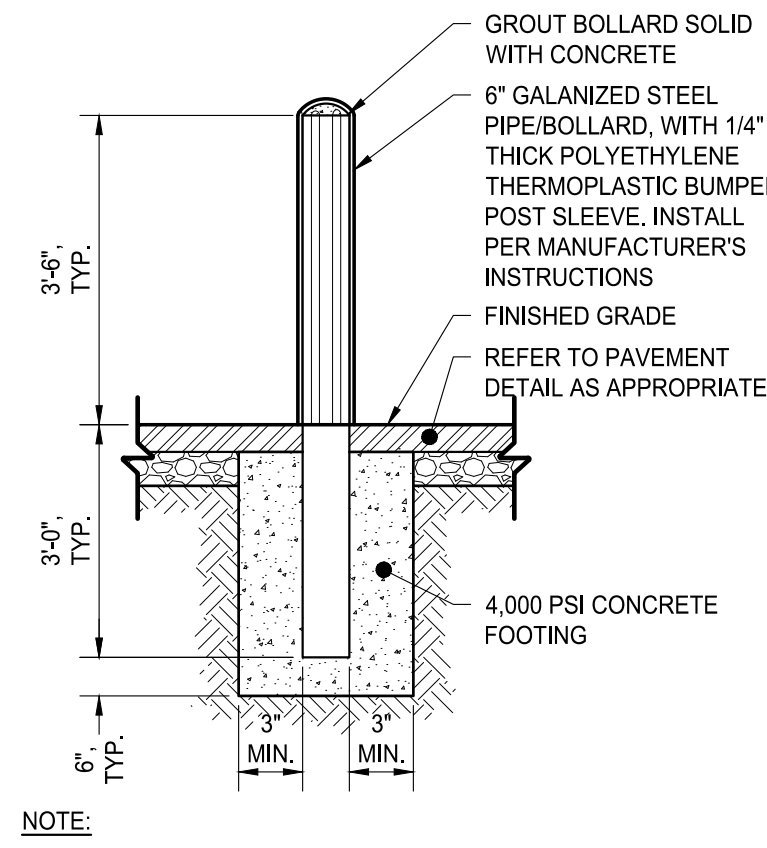
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ACCESSIBLE
SIGN

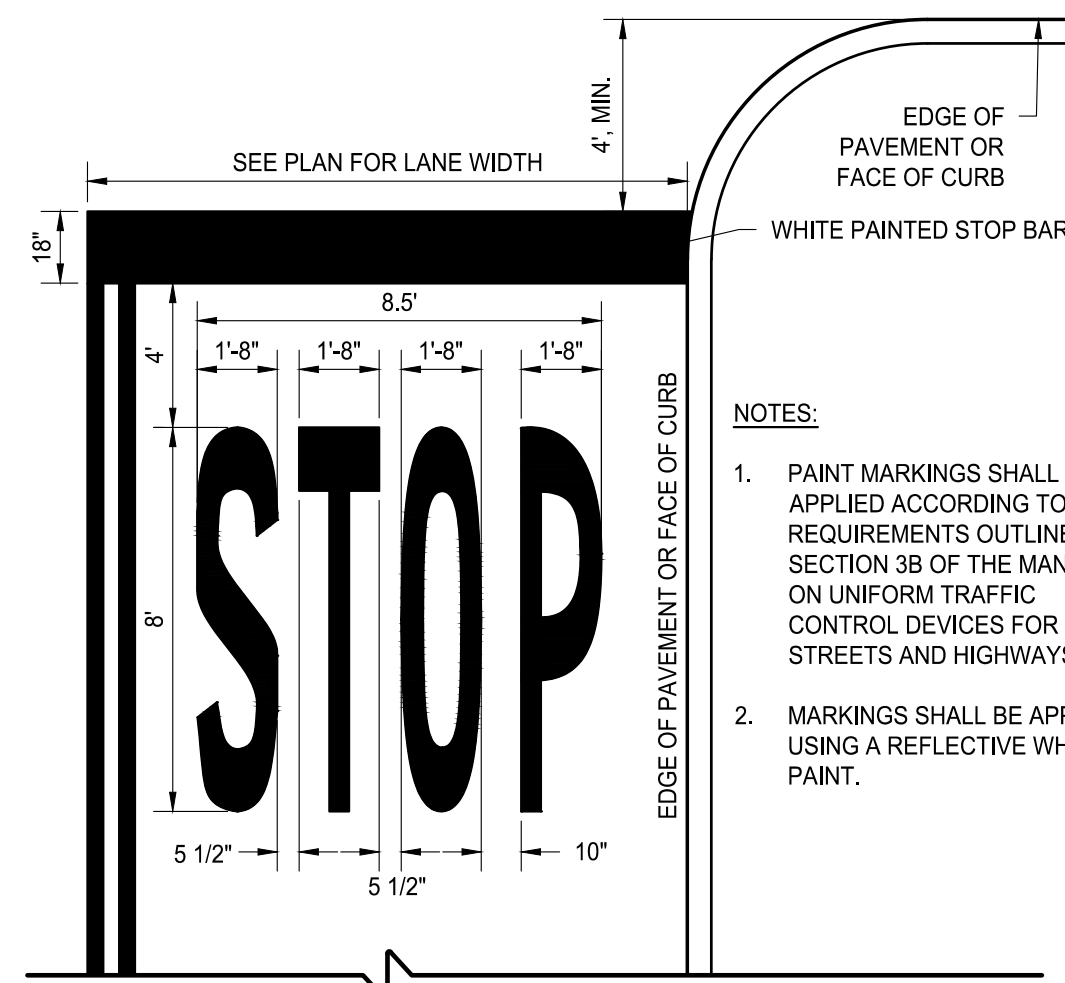


TYPICAL POST MOUNT SIGN INSTALLATION
N.T.S.

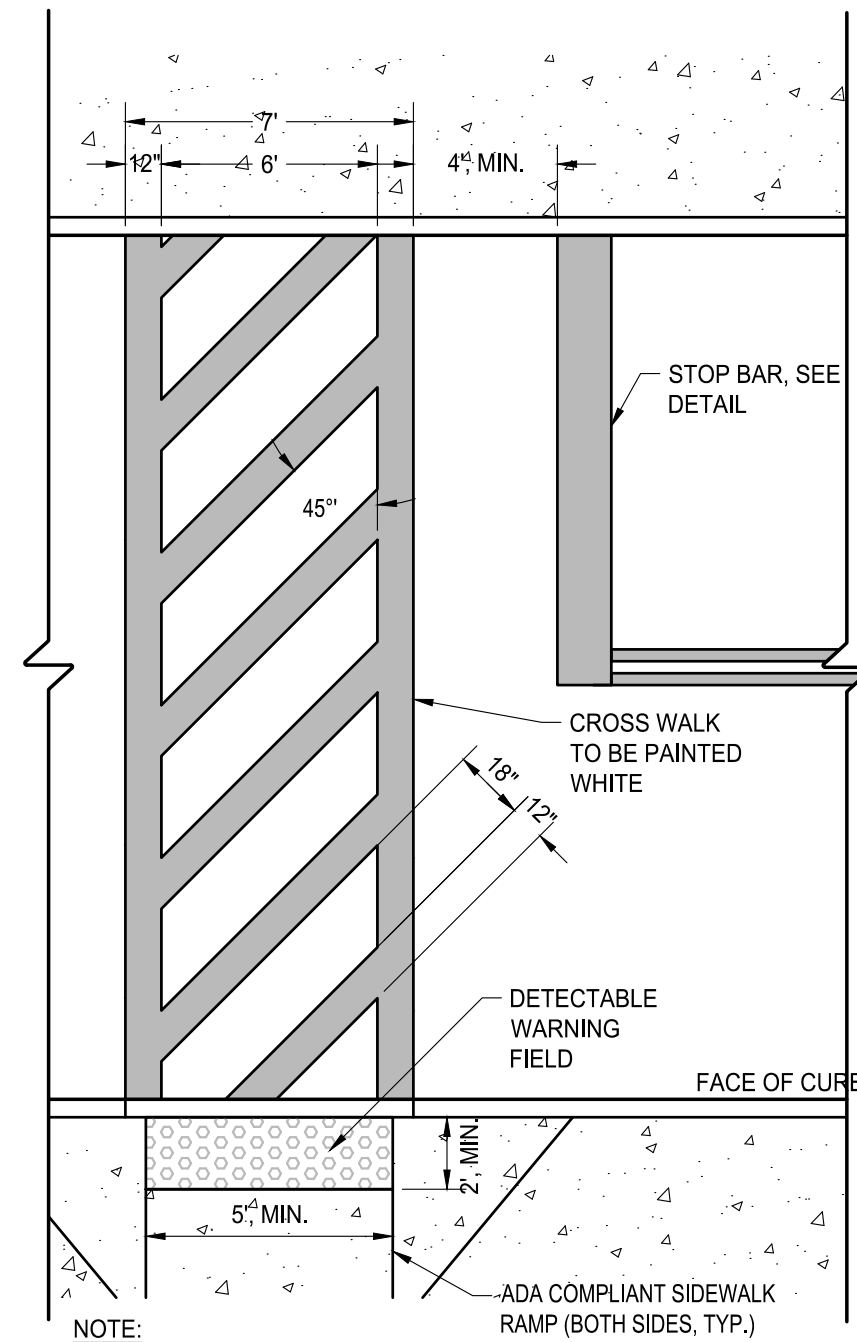


- NOTE:
1. WHEN BOLLARD IS TO BE INSTALLED IN GRASS, FOOTING SHALL BE EXTENDED TO FINISHED GRADE AND DOMED TO PROMOTE DRAINAGE AWAY FROM BOLLARD.

6\"/>

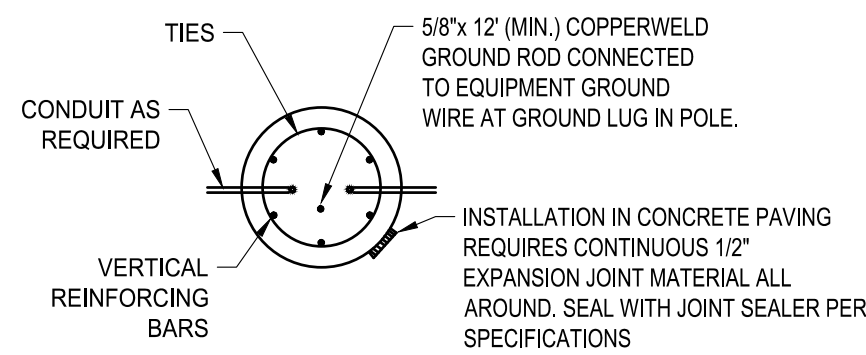


STOP BAR DETAIL
N.T.S.

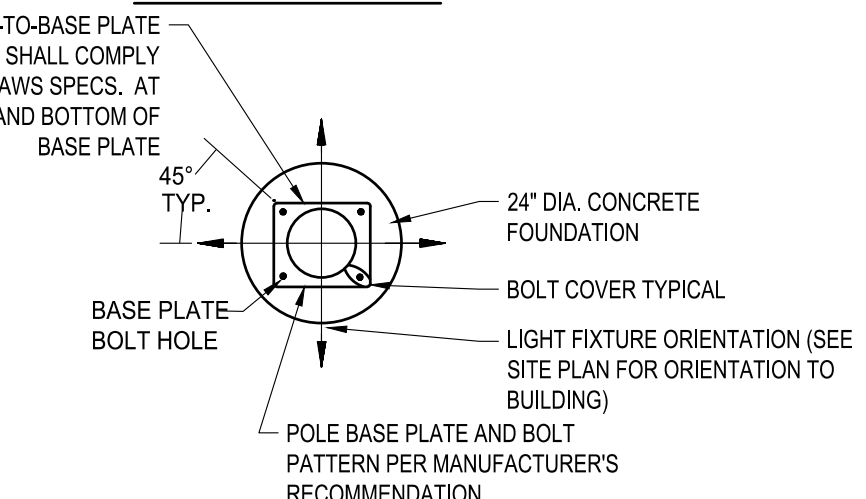


- NOTE:
1. PAINT MARKINGS SHALL BE APPLIED ACCORDING TO THE REQUIREMENTS OUTLINED IN SECTION 3B OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.
 2. MARKINGS SHALL BE APPLIED USING A REFLECTIVE WHITE PAINT ON ASPHALT AND REFLECTIVE YELLOW PAINT ON CONCRETE.

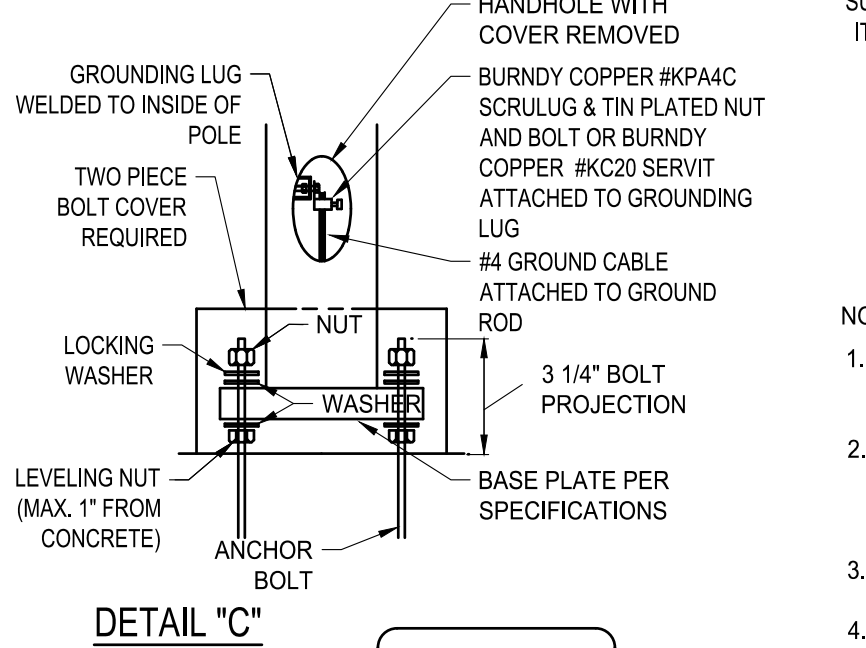
PAINTED CROSSWALK
N.T.S.



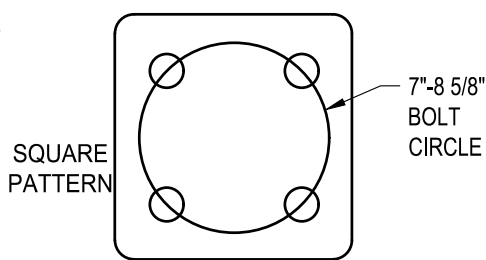
SECTION "A-A"



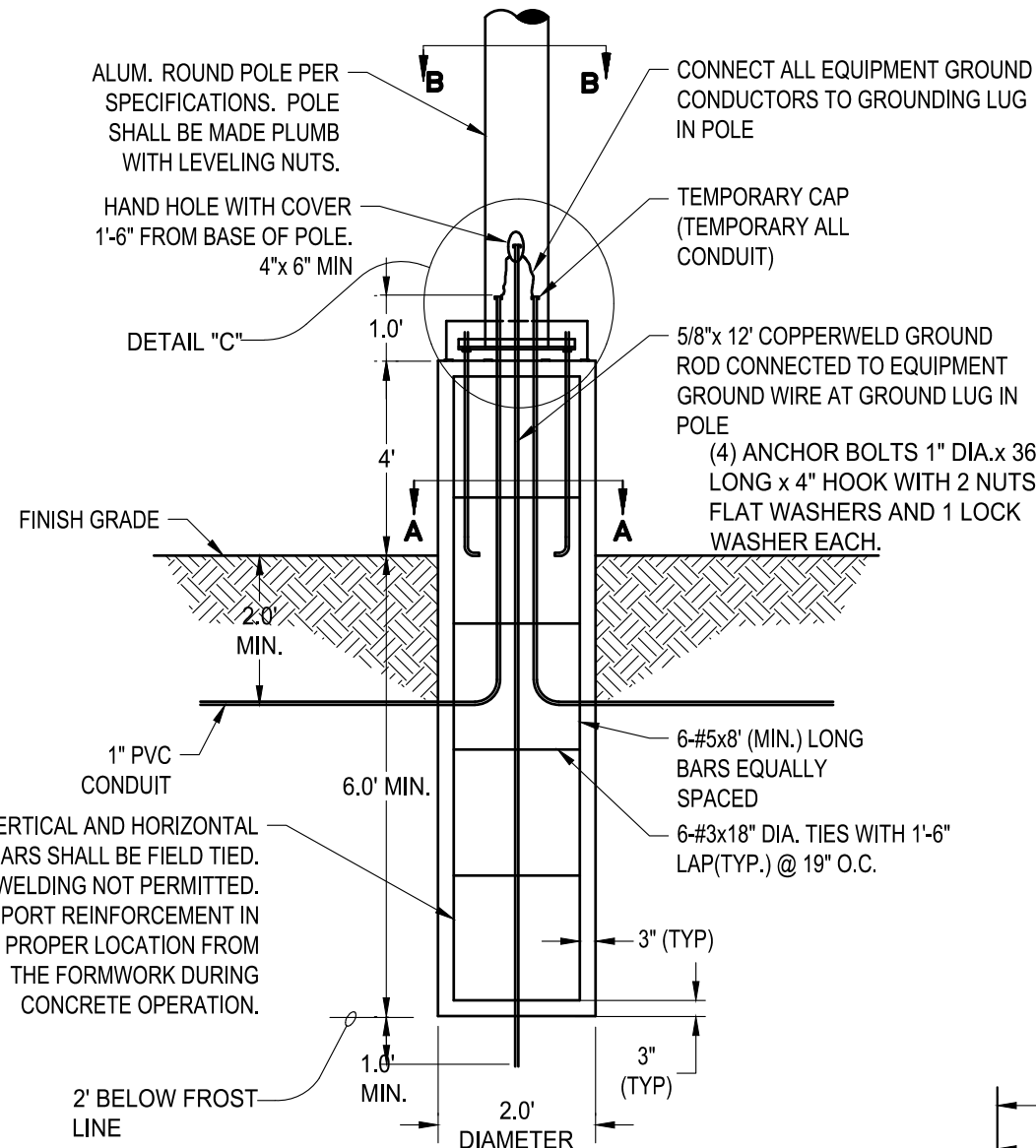
SECTION "B-B"



DETAIL "C"



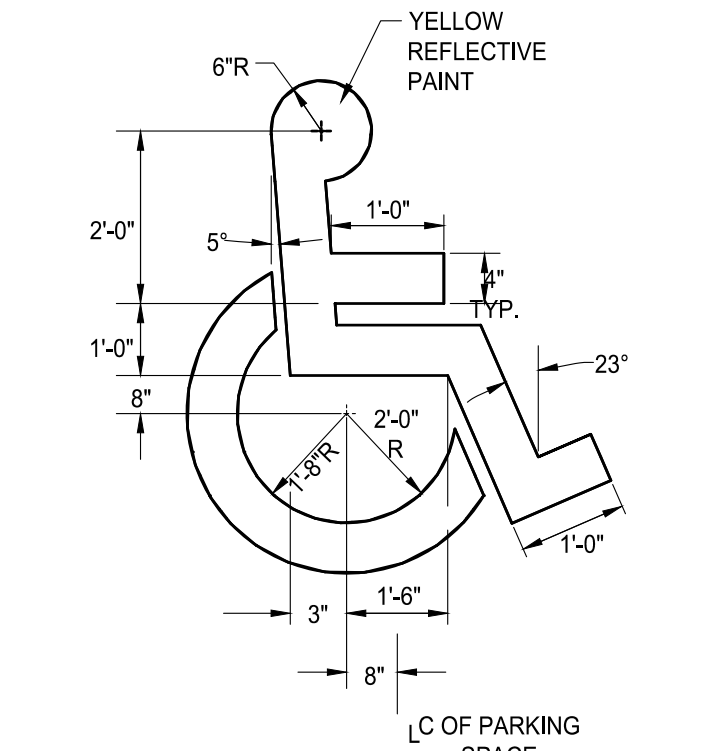
TYPICAL ANCHOR BOLT SPACING



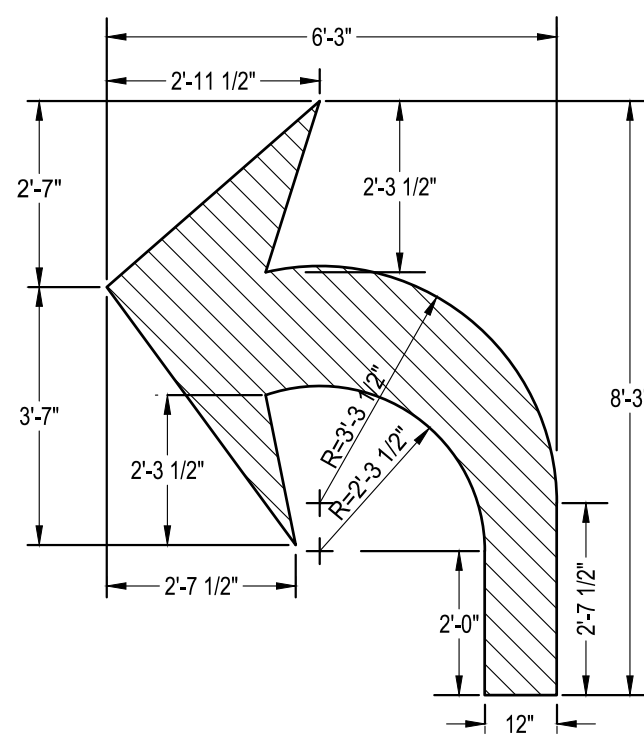
- NOTES:
1. 3500 PSI MIN. 28 DAY COMPRESSIVE STRENGTH CONCRETE WITH GRADE 60 REINFORCING STEEL
 2. IF WATER IS PRESENT IN HOLE, REMOVE BEFORE POURING CONCRETE. FOUNDATION EXCAVATION SHALL BE BY 24\"/>
 3. FILL PER SPECIFICATIONS.
 4. FOUNDATION SHALL HAVE A MINIMUM ALLOWABLE END BEARING OF 2000 PSF.
 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\".

N.T.S.

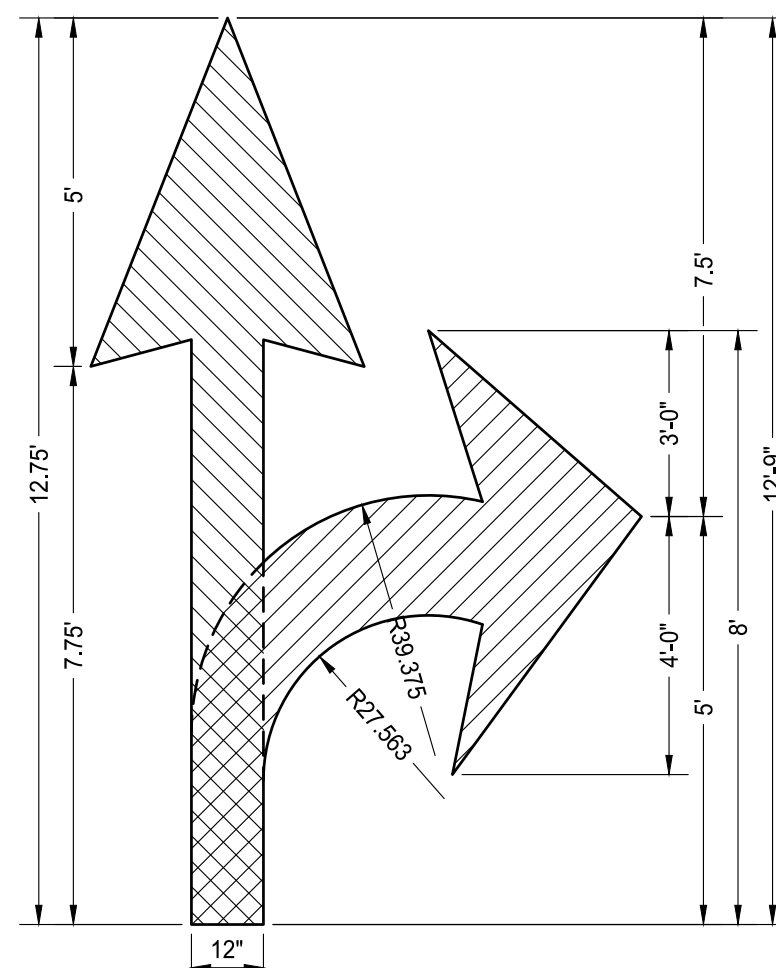
SITE LUMINAIRE FOUNDATION DETAIL (ROUND BASE)



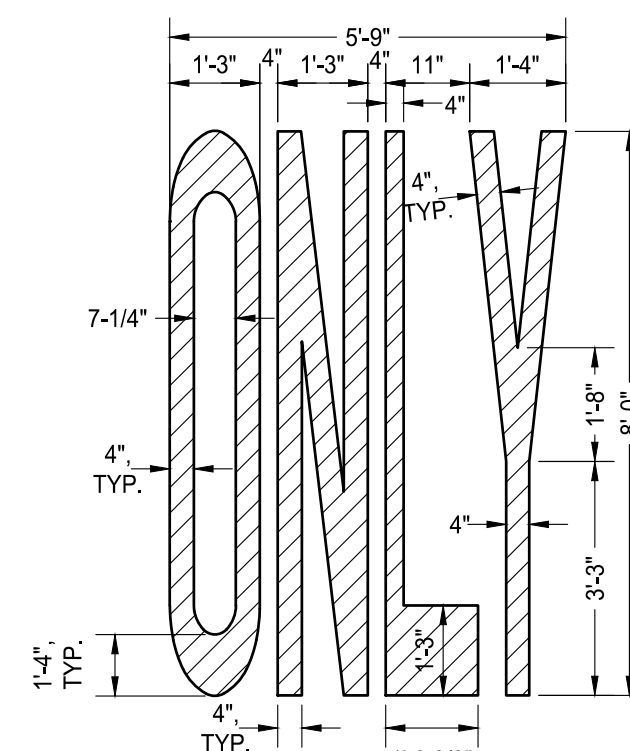
INTERNATIONAL SYMBOL OF ACCESS
N.T.S.



RIGHT & LEFT TURNS



STRAIGHT AND TURNS
TRAFFIC FLOW PAVEMENT MARKINGS
N.T.S.



- NOTES:
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.
 3. THE 'STRAIGHT AND TURNS' PORTION OF THIS DETAIL DEPICTS THE GEOMETRY FOR A STRAIGHT DIRECTIONAL ARROW, A TURNING DIRECTIONAL ARROW AND THE COMBINATION OF BOTH.

Route 5 Development Company, LLC.

PROPOSED RESTAURANT A / RESTAURANT B

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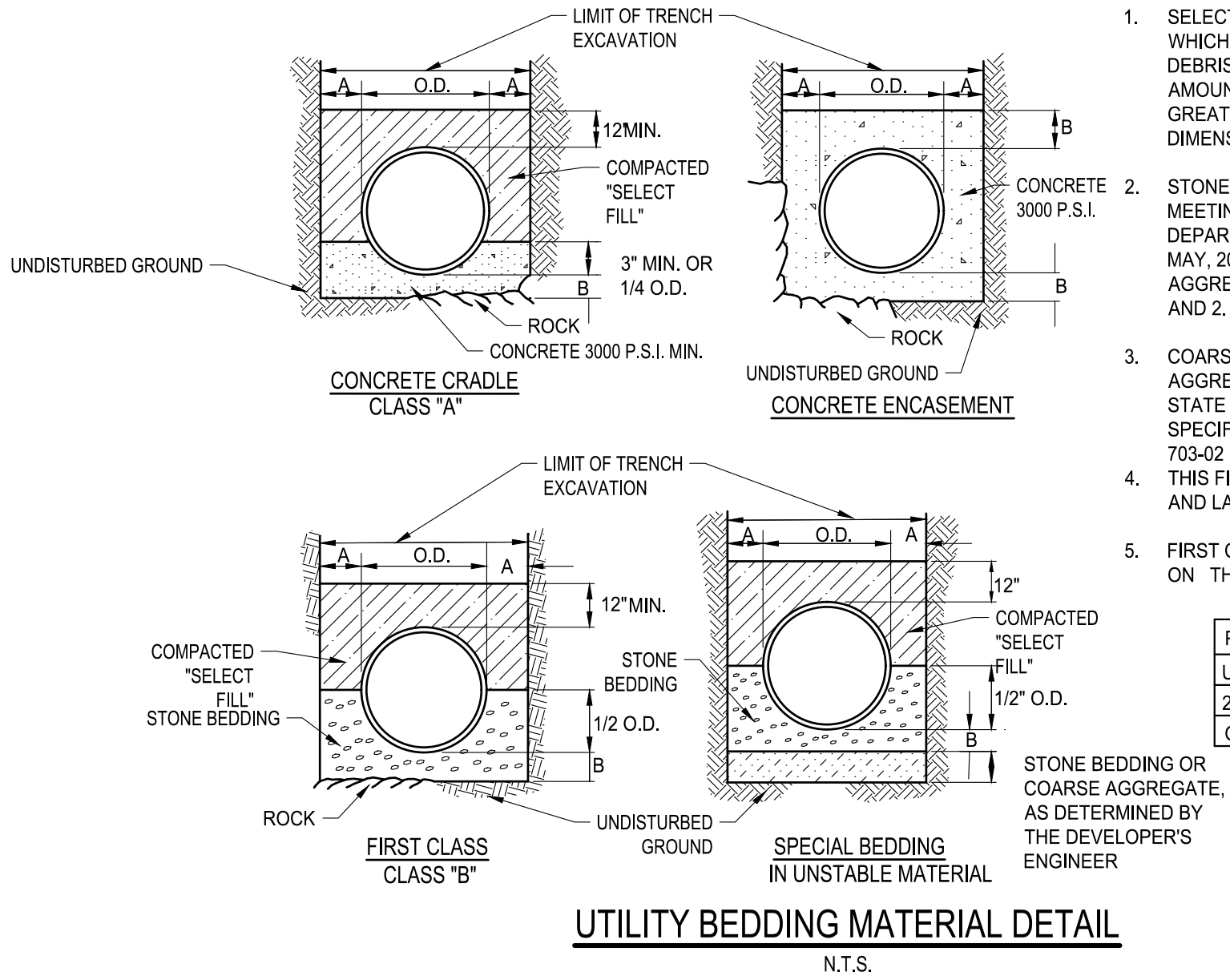
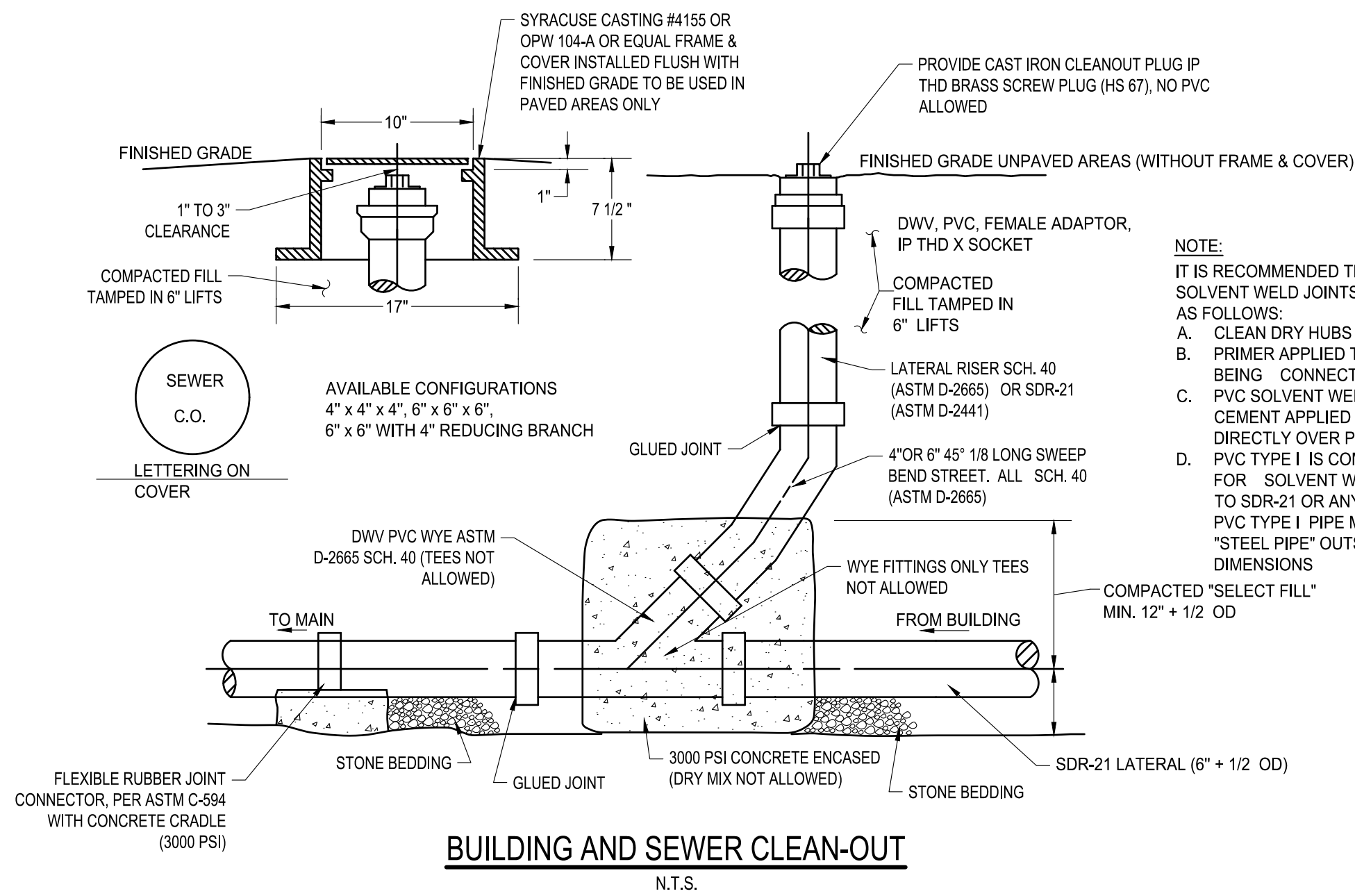
Project Manager A HART, RLA	Discipline Lead E SHAW, RLA
Designer V MICKEL	Reviewer K HURLEY, PE
Date Issued 04/01/2021	Project Number 15105.00

Sheet Name

MISCELLANEOUS DETAILS

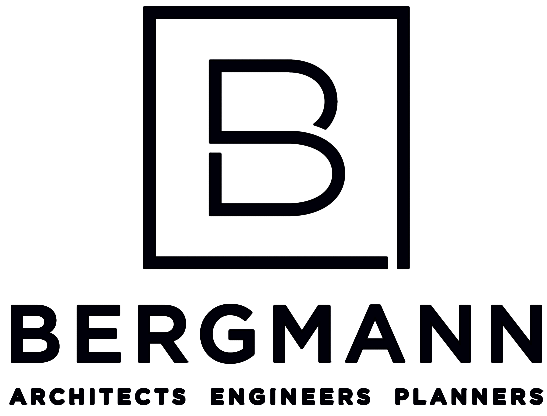
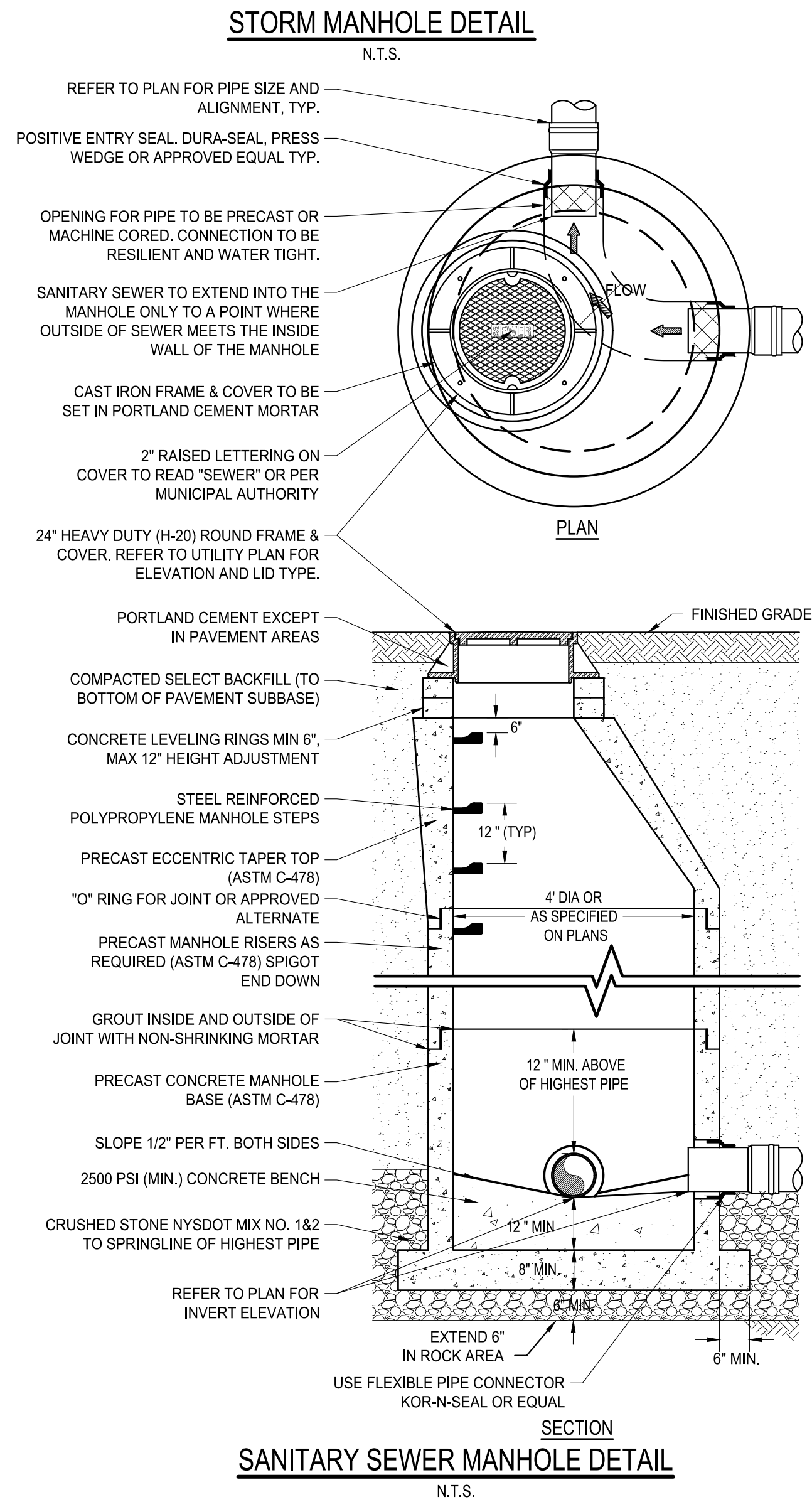
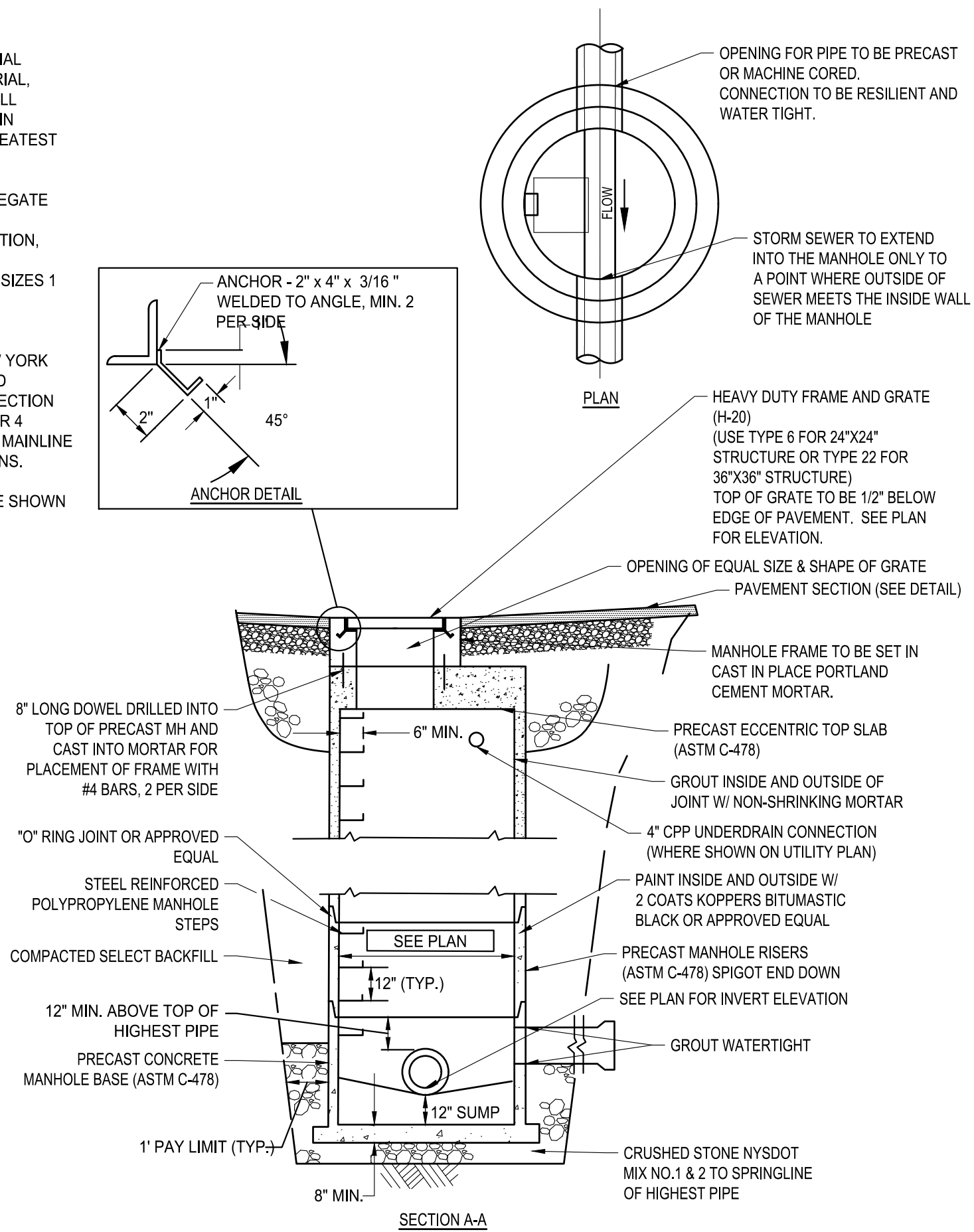
Drawing Number

C502



- NOTES:
1. 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, MEETING ASTM IA,IB,OR II.
 2. STONE BEDDING SHALL MEAN APPROVED IMPORTED AGGREGATE MEETING THE REQUIREMENTS OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATION, MAY, 2008 EDITION, AS REVISED, SUBSECTION 703-01 "FINE AGGREGATE". PRIMARY SIZE 1 OR A MIXTURE OF PRIMARY SIZES 1 AND 2, OR ASTM CLASS IA.
 3. COARSE AGGREGATE SHALL MEAN APPROVED IMPORTED AGGREGATE MEETING THE REQUIREMENTS OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATION, MAY 2008 EDITION, AS REVISED, SUBSECTION 703-02 "COARSE AGGREGATE", PRIMARY SIZE 3 AND/OR 4. THIS FIGURE APPLIES TO SANITARY, STORM AND COMBINED MAINLINE AND LATERAL PIPE INSTALLATIONS AS WELL AS FORCEMAINS.
 5. FIRST CLASS BEDDING SHALL BE USED UNLESS OTHERWISE SHOWN ON THE DRAWINGS OR DIRECTED BY THE ENGINEER.

PIPE DIA.	DIM. A	DIM. B
UP TO 18"	1.0'	6"
21" TO 36"	1.5'	9"
OVER 36"	1.5'	12"



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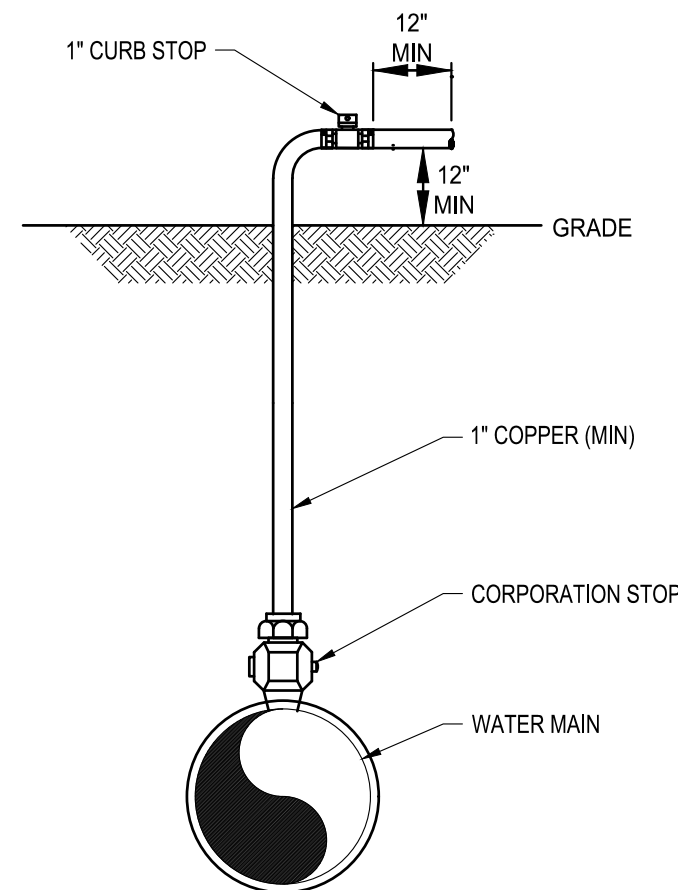
Project Manager A HART, RLA	Discipline Lead E SHAW, RLA
Designer V MICKEL	Reviewer K HURLEY, PE
Date Issued 04/01/2021	Project Number 15105.00

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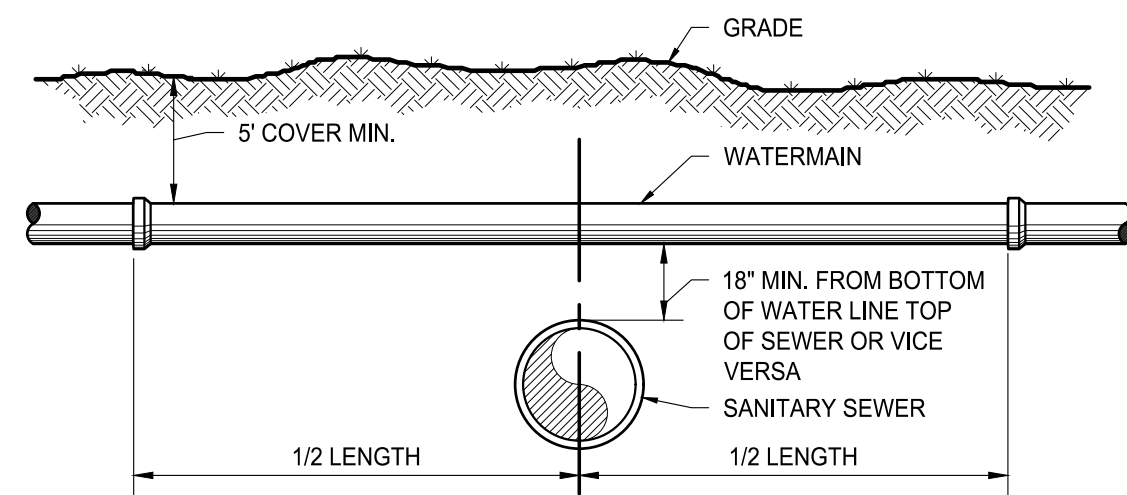
MISCELLANEOUS DETAILS

Drawing Number

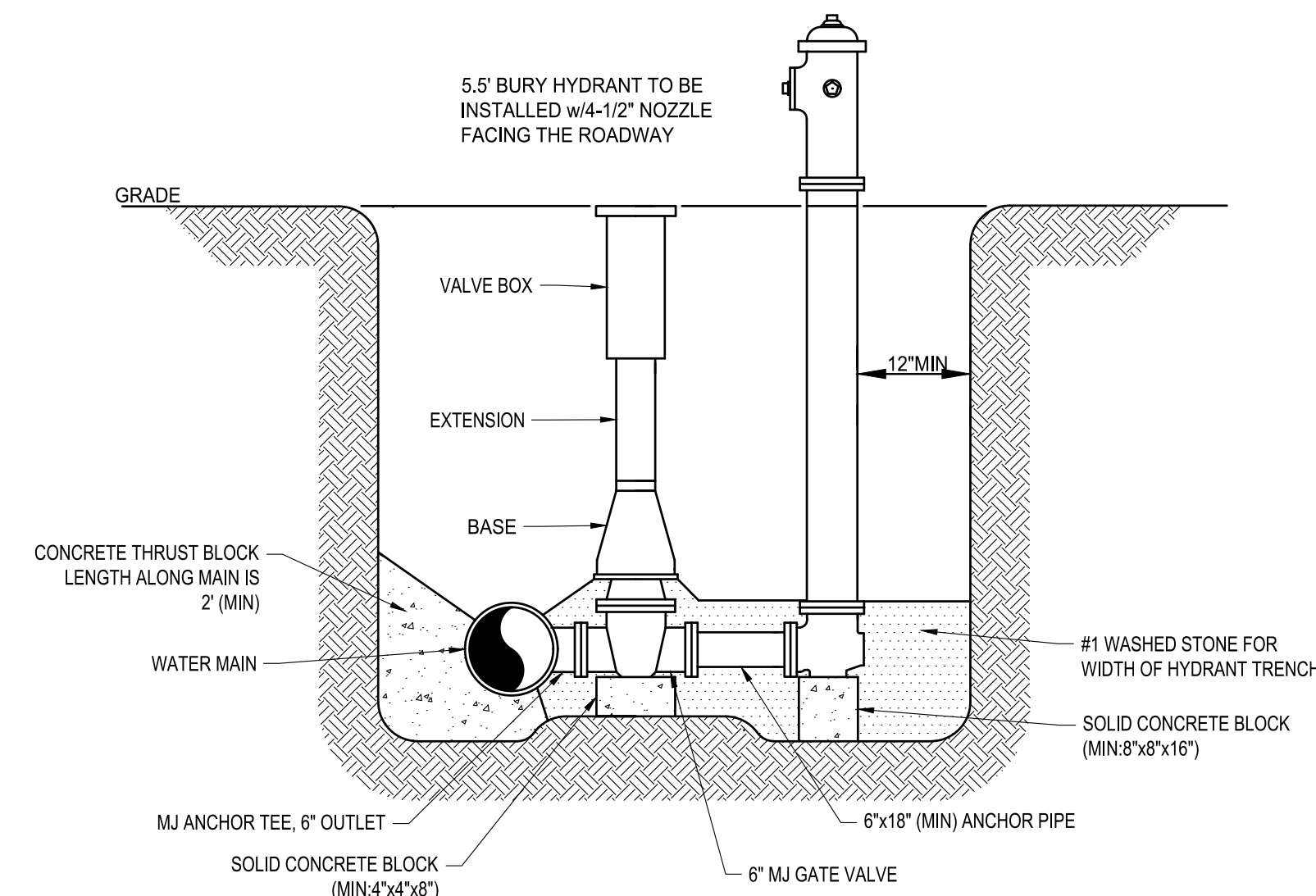
C503



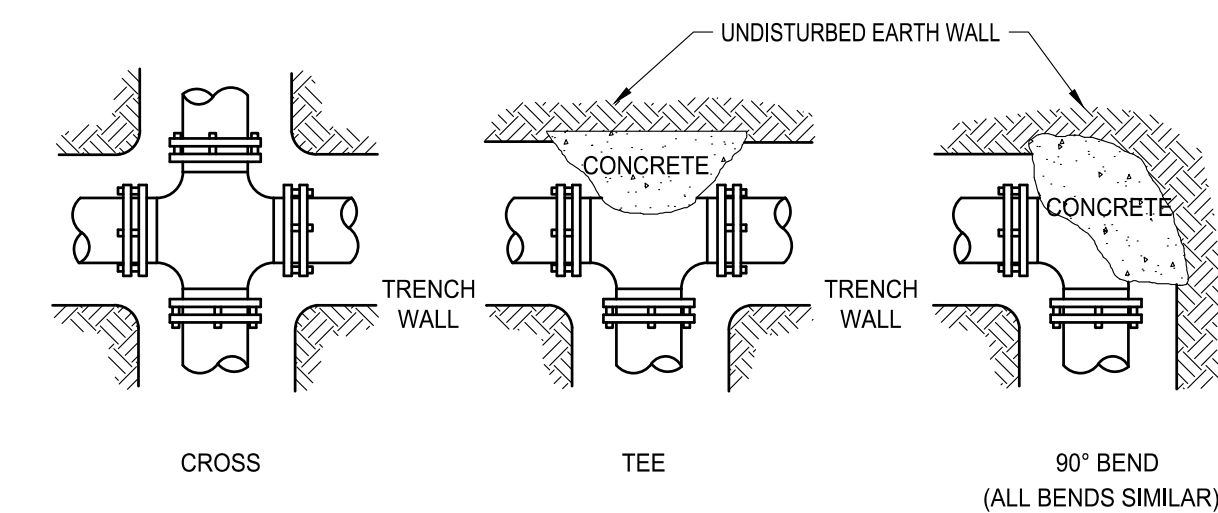
DISINFECTION/BLOW-OFF/SAMPLING TAP
N.T.S.



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
N.T.S.

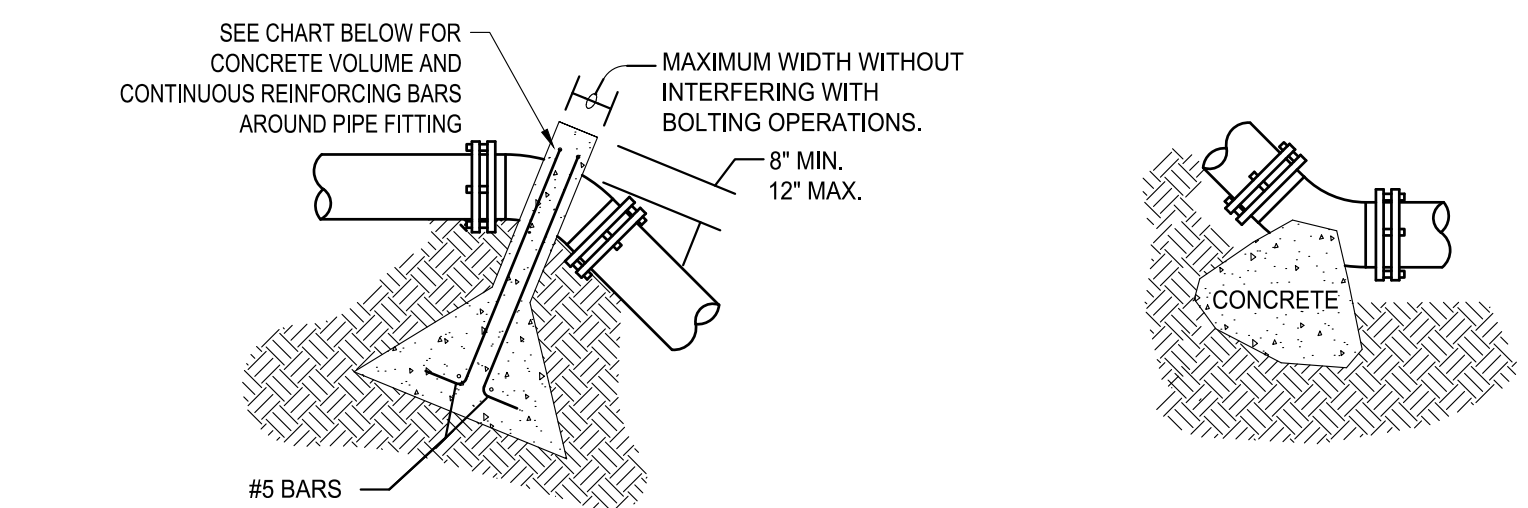


PERPENDICULAR HYDRANT ASSEMBLY
N.T.S.



PIPE SIZE		TEE & PLUG		BENDS			
				90°	45°	22 1/2°	11 1/2°
4-6"	3.2	3.2	4.5	2.5	1.3	0.7	
8"	3.2	5.6	2.5	1.3	0.7		
12"	3.2	12.75	3.7	1.3	0.7		

HORIZONTAL THRUST BLOCKING



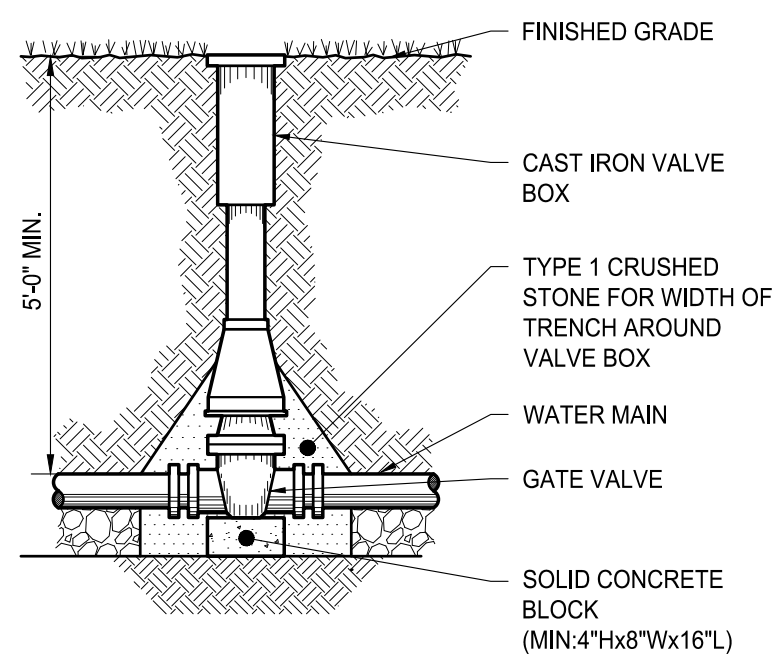
UPWARD THRUST BLOCKING
DOWNWARD THRUST BLOCKING
(SEE HORIZONTAL BLOCKING DETAIL)
(ALL BENDS SIMILAR)

UPWARD THRUST BLOCKING (REQUIRED REINFORCING BARS & CUBIC YARDS OF P.C. CONCRETE)									
PIPE SIZE	90° BEND			45° BEND			22 1/2° BEND		
	CONC. C.Y.	REINF. QTY.	SIZE	CONC. C.Y.	REINF. QTY.	SIZE	CONC. C.Y.	REINF. QTY.	SIZE
4-6"	2.6	4	#5	2.1	4	#5	1.1	4	#5
8"	2.9	4	#5	2.1	4	#5	1.1	4	#5
12"	6.6	4	#5	4.7	4	#5	2.5	4	#5

VERTICAL THRUST BLOCKING

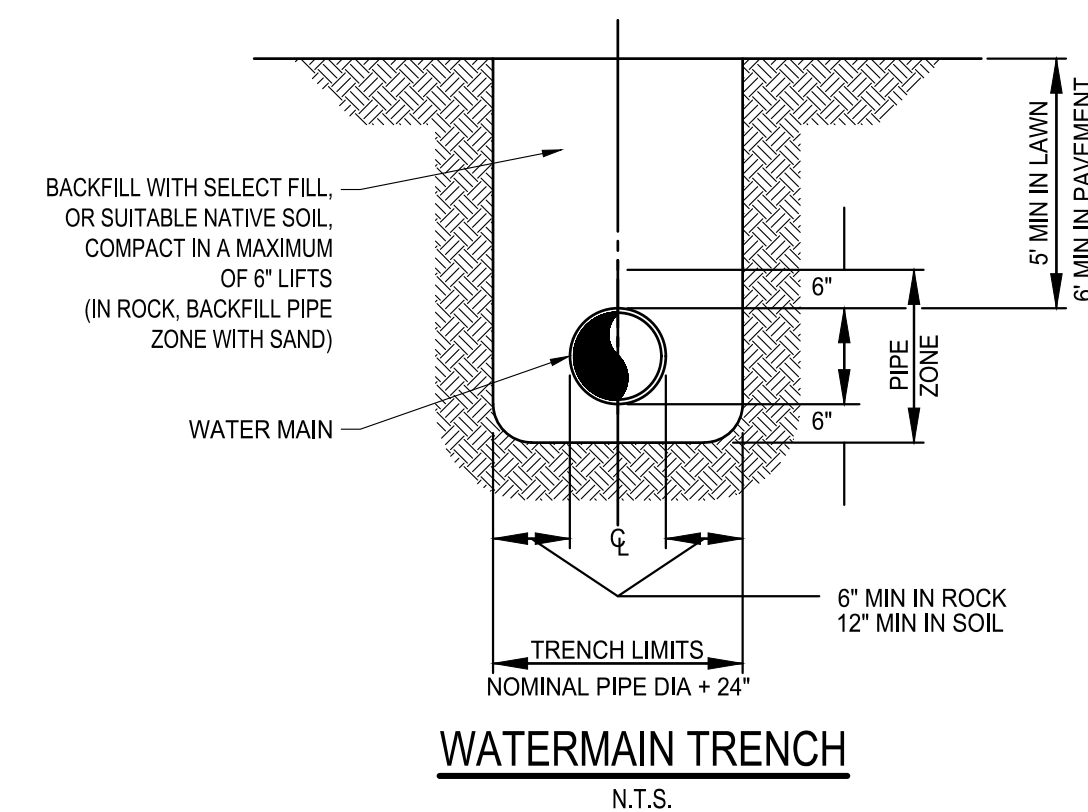
- NOTES:
- DO NOT COVER BELLS OR FLANGES WITH CONCRETE
 - WRAP ALL FITTINGS WITH VISQUEEN.
 - BACK ALL TEES ACCORDING TO SIZE OF BRANCH.
 - BACKING FUTURE LINE EXTENSIONS SHALL BE SUCH THAT LATER REMOVAL IS POSSIBLE.
 - ALL BENDS WHERE FITTINGS ARE USED, BOTH HORIZONTAL OR VERTICAL SHALL BE BACKED.
 - REACTION BACKING TABLE IS BASED ON 150 P.S.I. AND SOIL BEARING PRESSURE OF 2,000 lb./sq.ft. ADDITIONAL BACKING MAY BE REQUIRED IN SOME AREAS AS DIRECTED BY ENGINEERS.
 - ALL CONCRETE SHALL BE 2500 P.S.I. MIN. .

THRUST BLOCKING DETAIL
N.T.S.

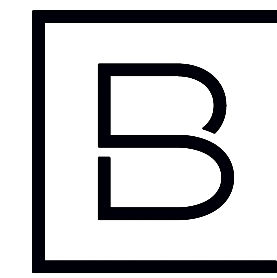


- NOTES:
- VALVE BOX SHALL BE CENTERED ON VALVE AND SET ON COMPACTED BACKFILL.
 - VALVE SHALL NOT SUPPORT VALVE BOX.
 - ALL BODY AND BONNET BOLTS SHALL BE STAINLESS STEEL.
 - ALL VALVES SHALL BE OPEN LEFT.

GATE VALVE DETAIL
(WATER MAIN)
N.T.S.



WATERMAIN TRENCH
N.T.S.



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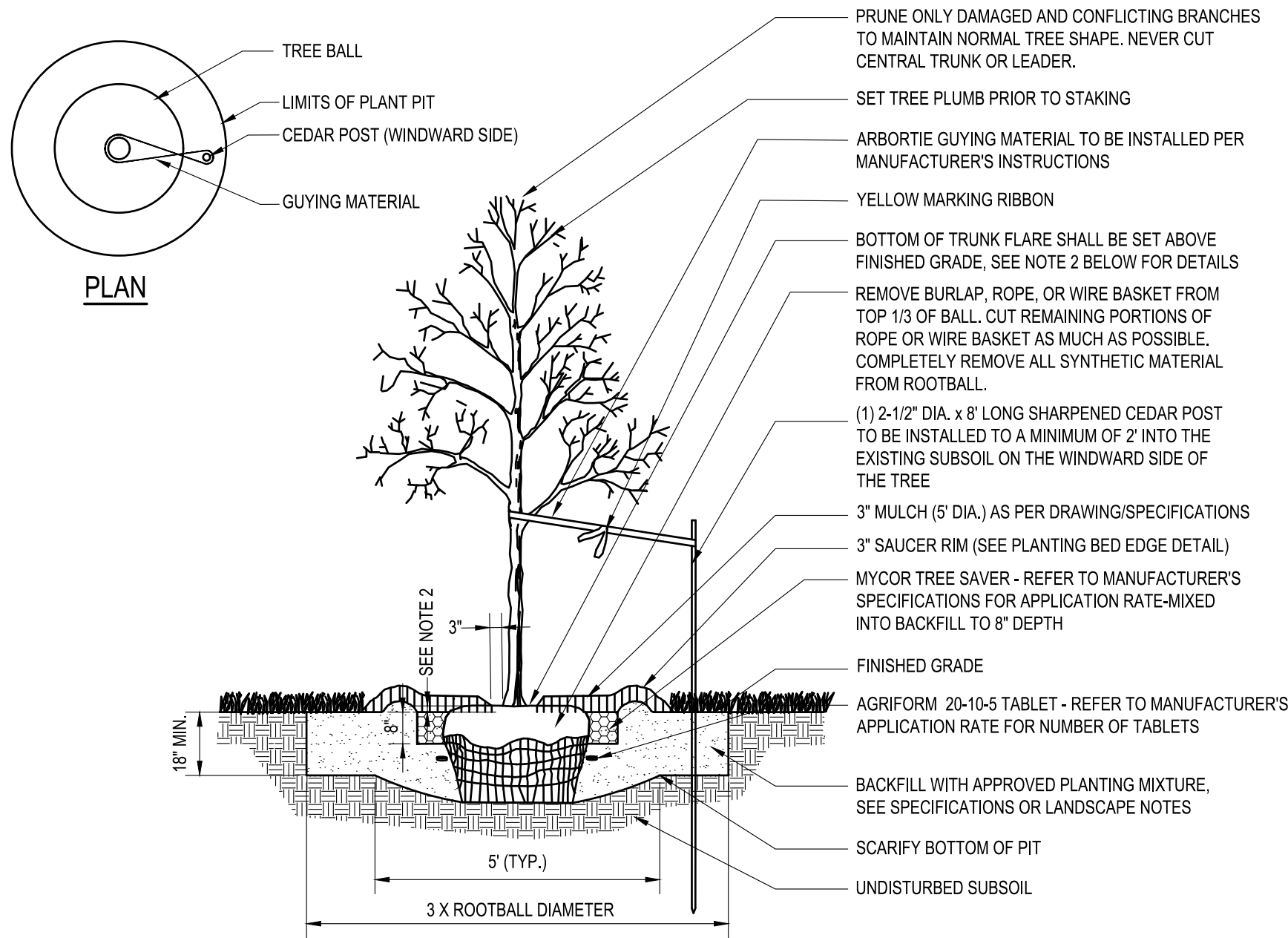
Project Manager A HART, RLA	Discipline Lead E SHAW, RLA
Designer V MICKEL	Reviewer K HURLEY, PE
Date Issued 04/01/2021	Project Number 15105.00

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MISCELLANEOUS DETAILS

Drawing Number

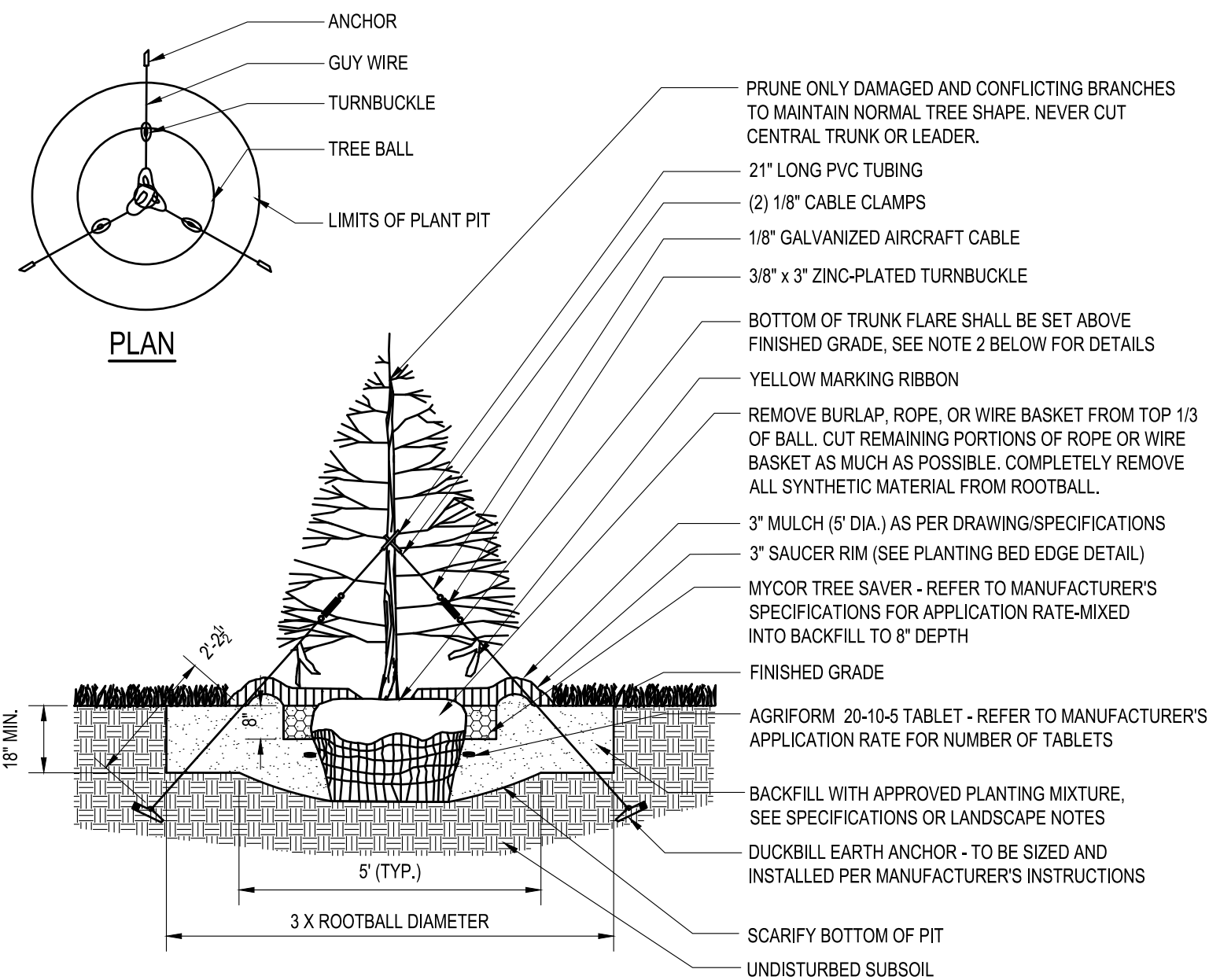
C504



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.

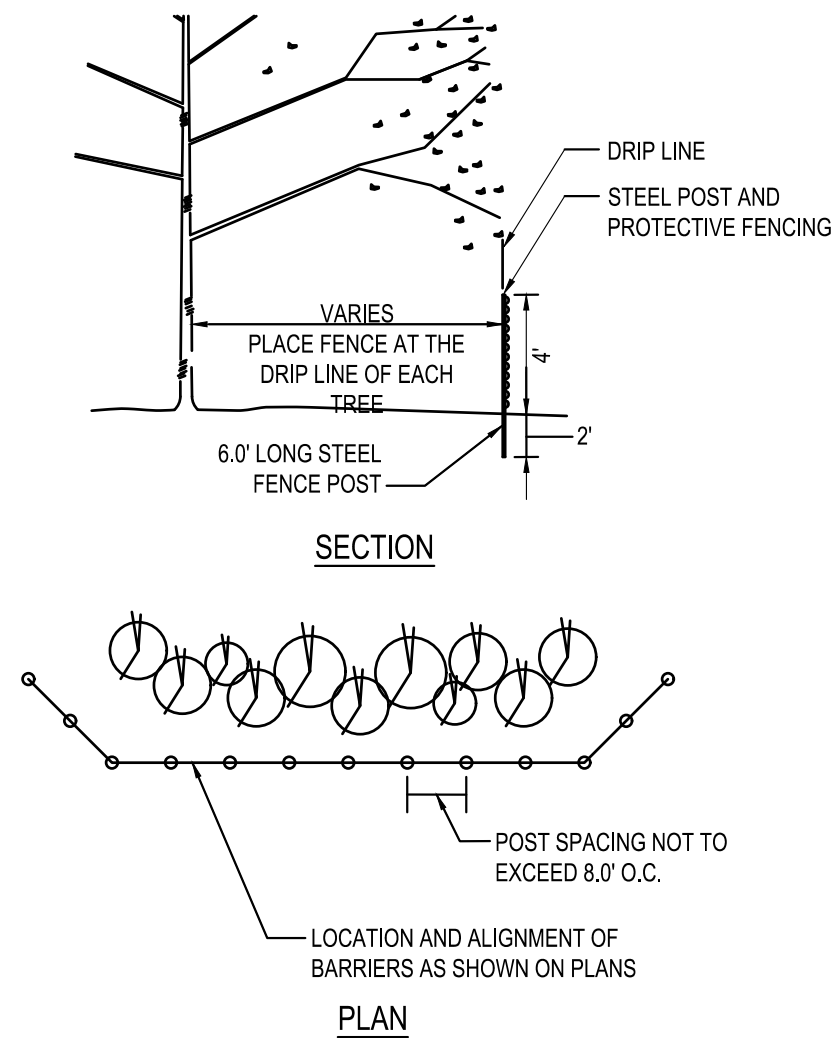
DECIDUOUS TREE PLANTING LESS THAN 4" CAL.
N.T.S.



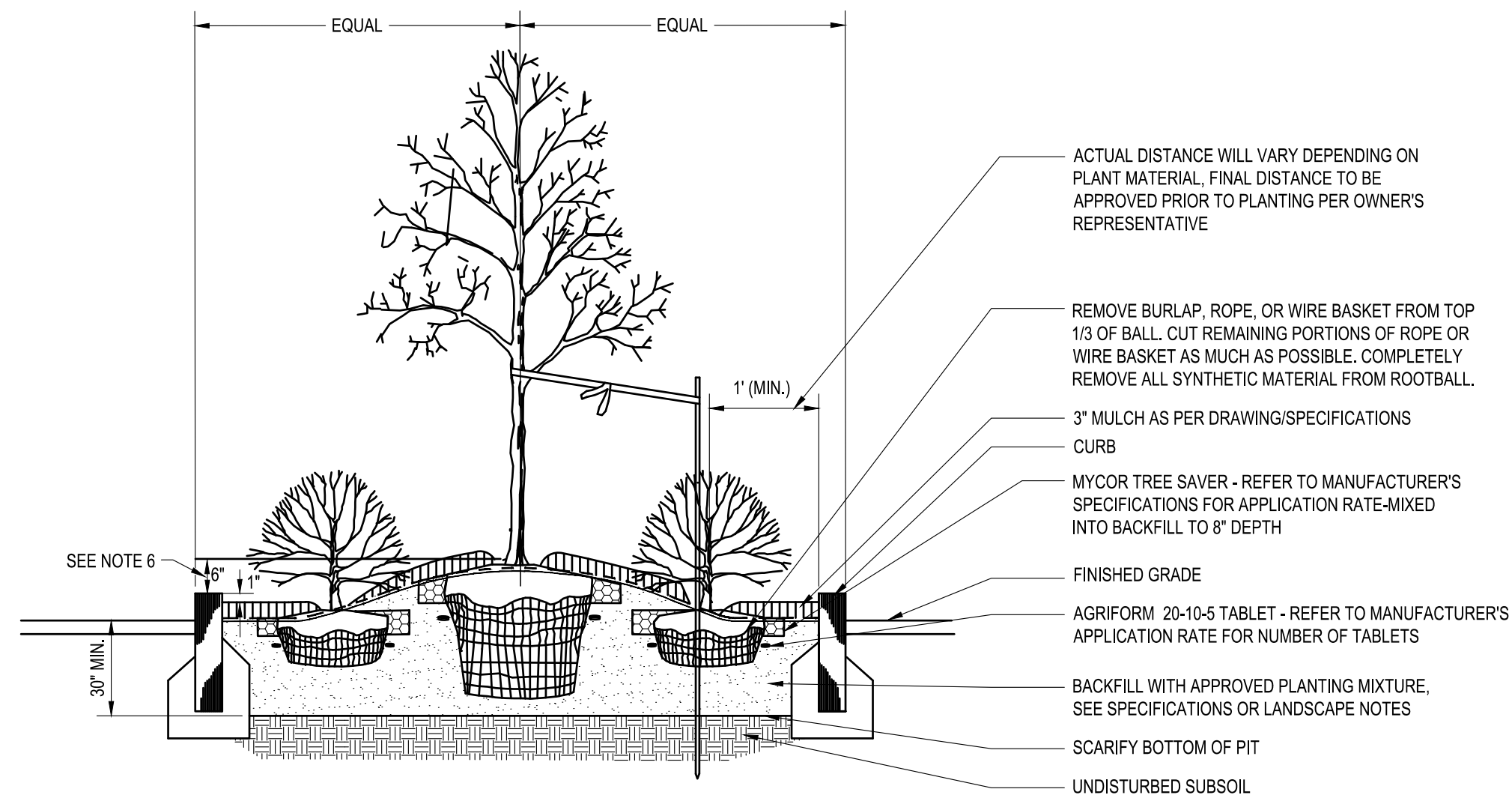
NOTES:

1. MAINTAIN A 2" 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.

EVERGREEN TREE PLANTING
N.T.S.



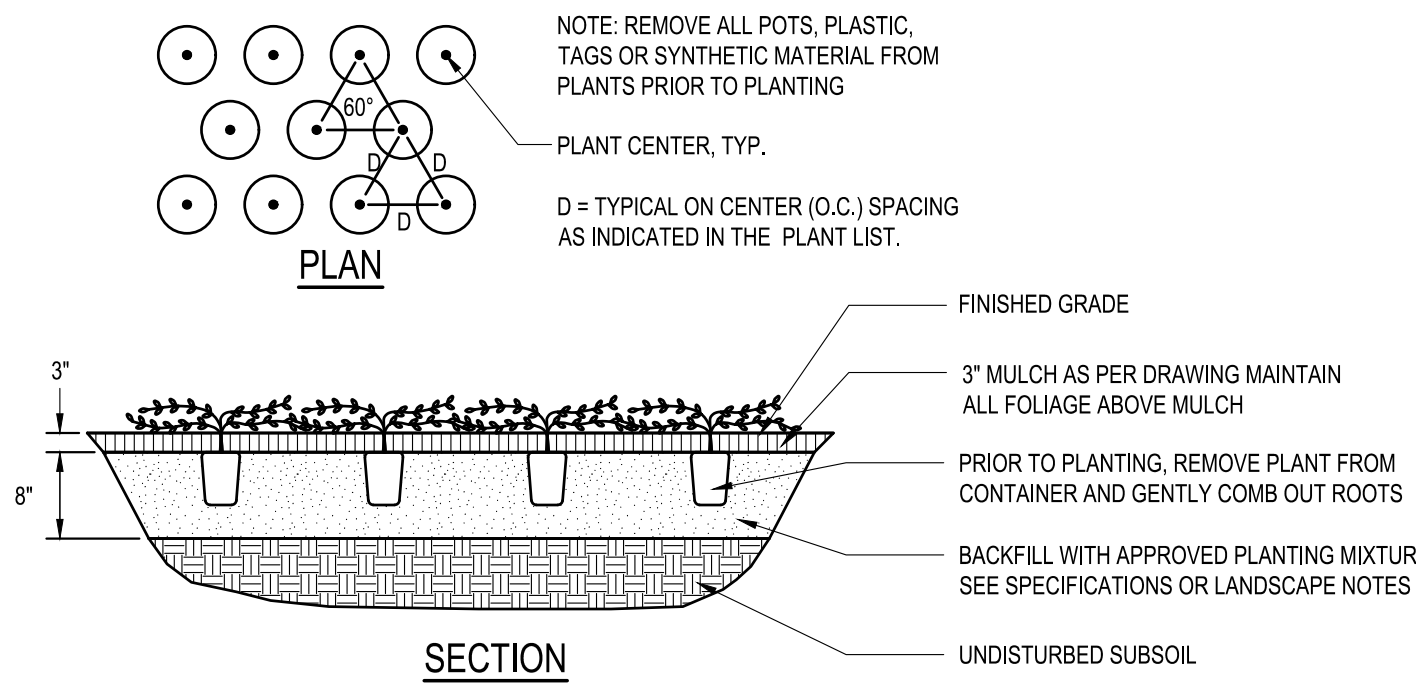
VEGETATION PROTECTION BARRIER DETAIL
N.T.S.



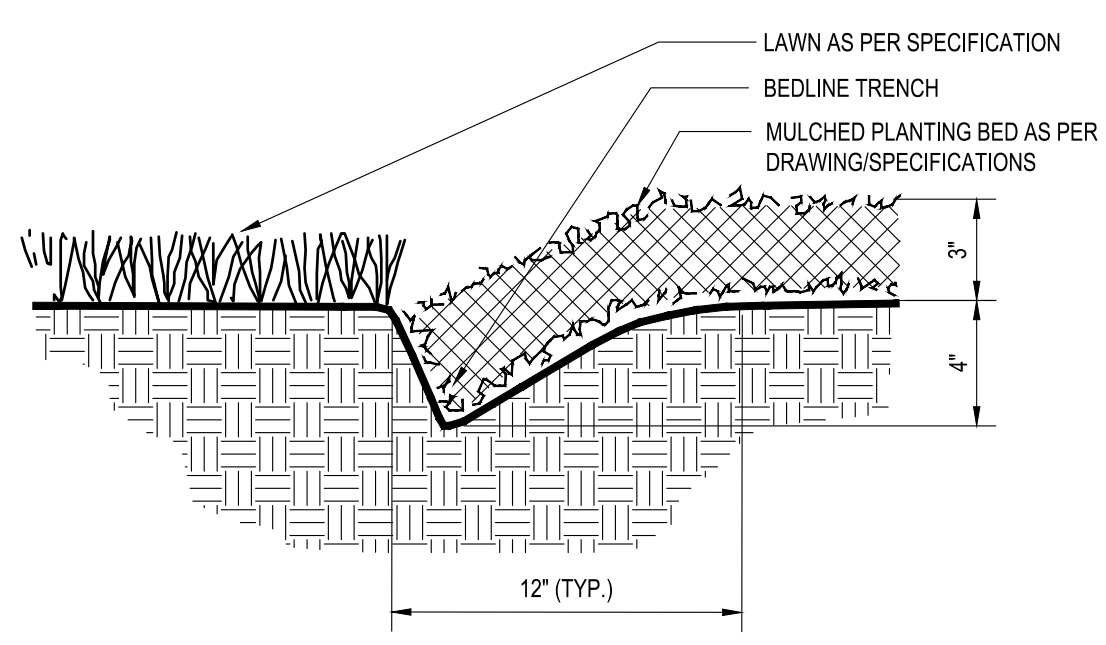
NOTES:

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" CAL. DETAIL.
6. BERM HEIGHT SHALL BE 6" MIN. UNLESS OTHERWISE NOTED ON GRADING PLAN.

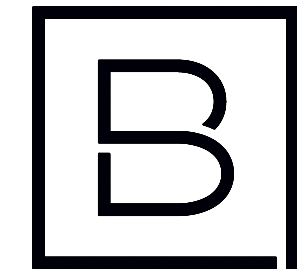
TYPICAL PARKING LOT ISLAND SECTION
N.T.S.



GROUNDCOVER/PERENNIAL/BULB PLANTING
N.T.S.



PLANTING BED EDGE TREATMENT
N.T.S.



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**PROPOSED
RESTAURANT A /
RESTAURANT B**
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AT FAYETTEVILLE
406 TOWNE DRIVE
FAYETTEVILLE, NY 13066

Date Revised	Description
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Designer V MICKEL	Reviewer K HURLEY, PE
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Sheet Name

LANDSCAPE DETAILS

Drawing Number

C505



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COMPANIES

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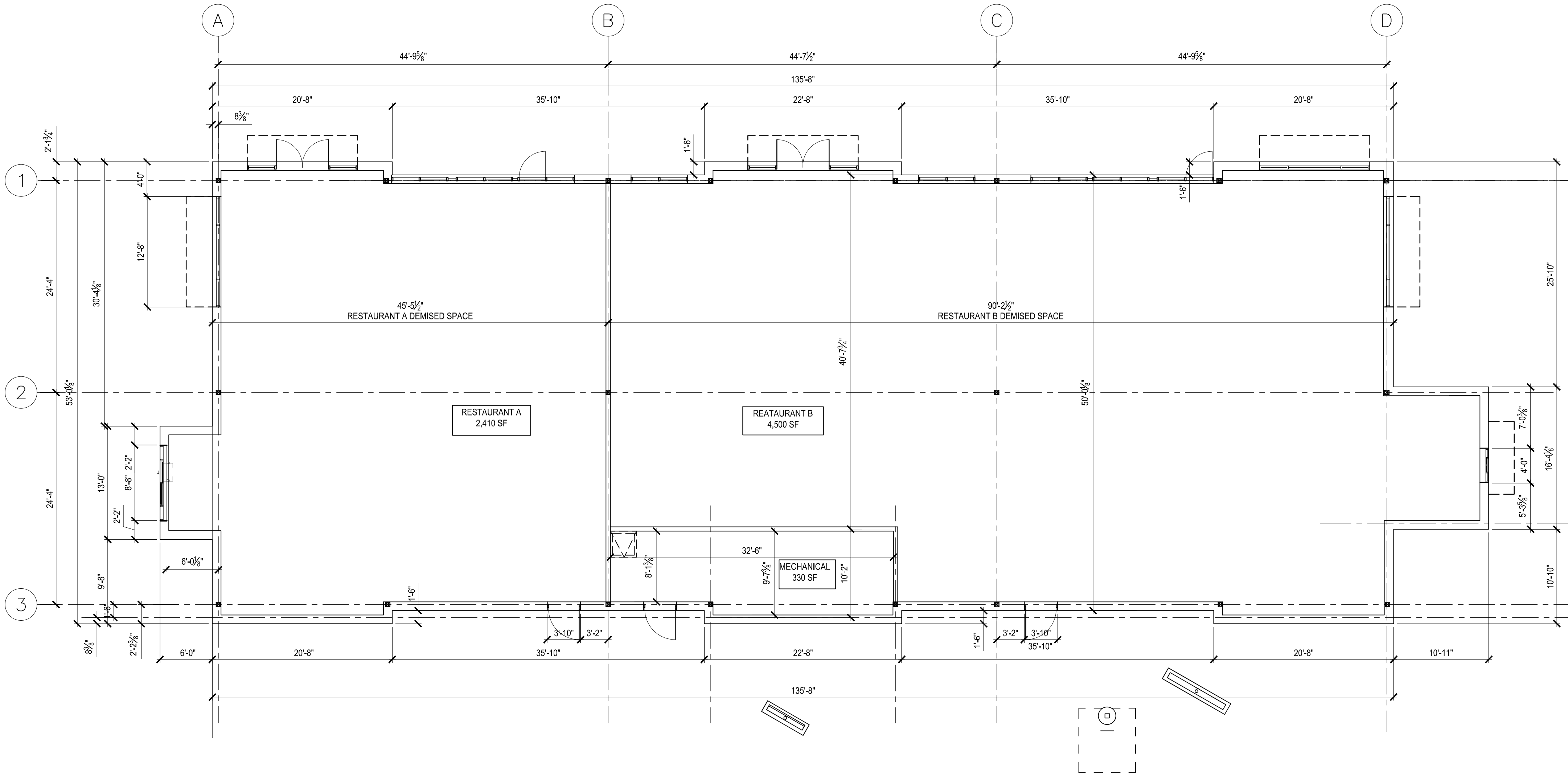
No.	Revision/Issue	Date

Tenant/Owner Logo

Project Name and Address
LOT 15
RETAIL - RESTAURANT
TOWNE CENTER AT
FAYETTEVILLE
MANLIUS, NY

Date
03.29.2021

Sheet
A-1
PLAN



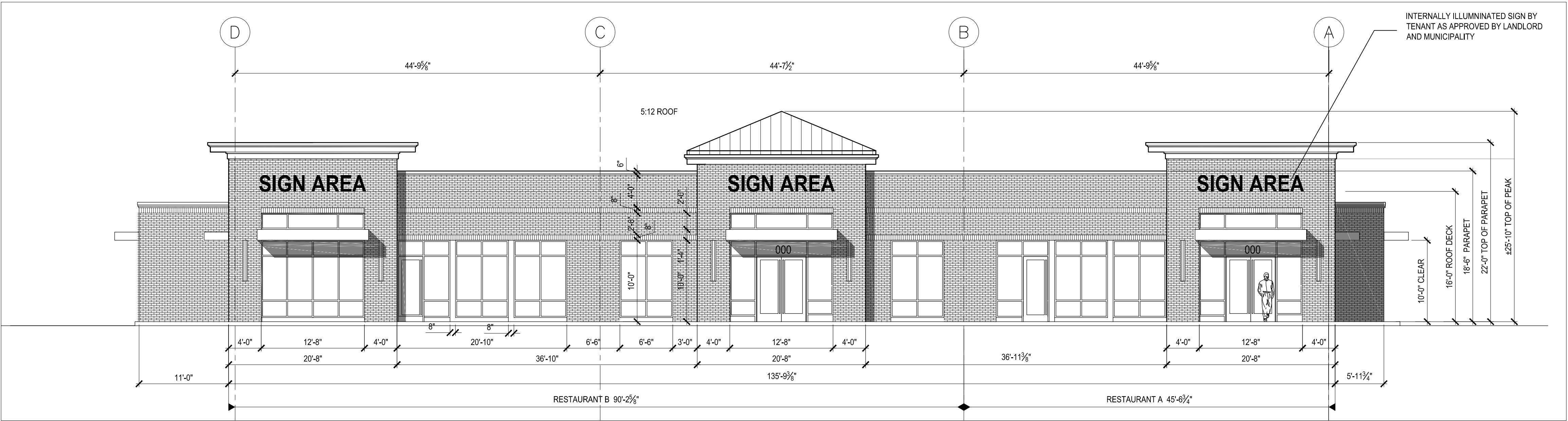
FLOOR PLAN

SCALE: $\frac{1}{8}"=1'-0"$

EXTERIOR NOTES:
BRICK:
MATCH CENTER STANDARD MODULAR BRICK;
INTERSTATE BRICK MANHATTAN ROSE

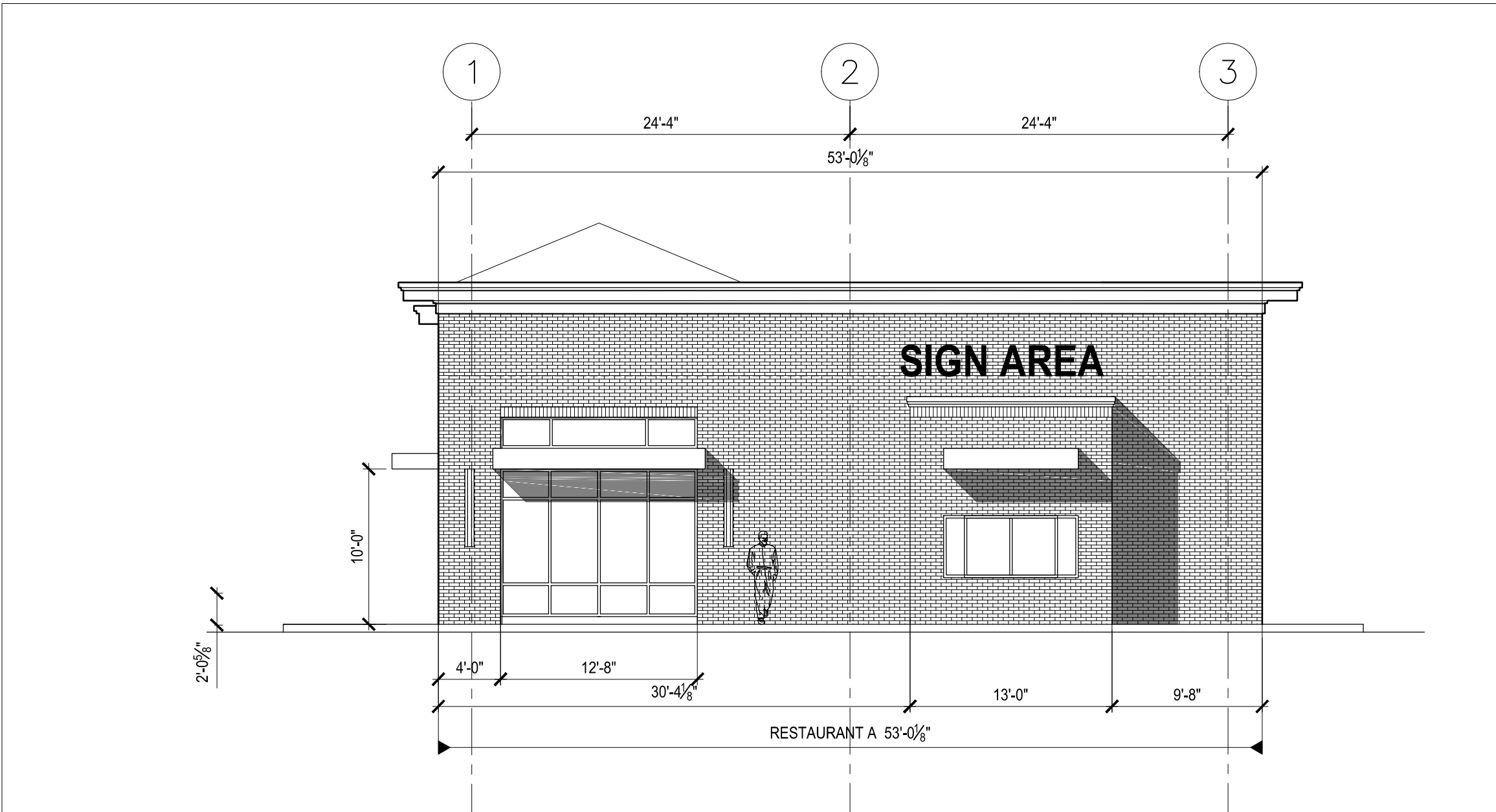
STANDING SEAM METAL ROOF
COLOR: FACTORY FINISH HARTFORD GREEN

STOREFRONT:
FACTORY FINISH BLACK



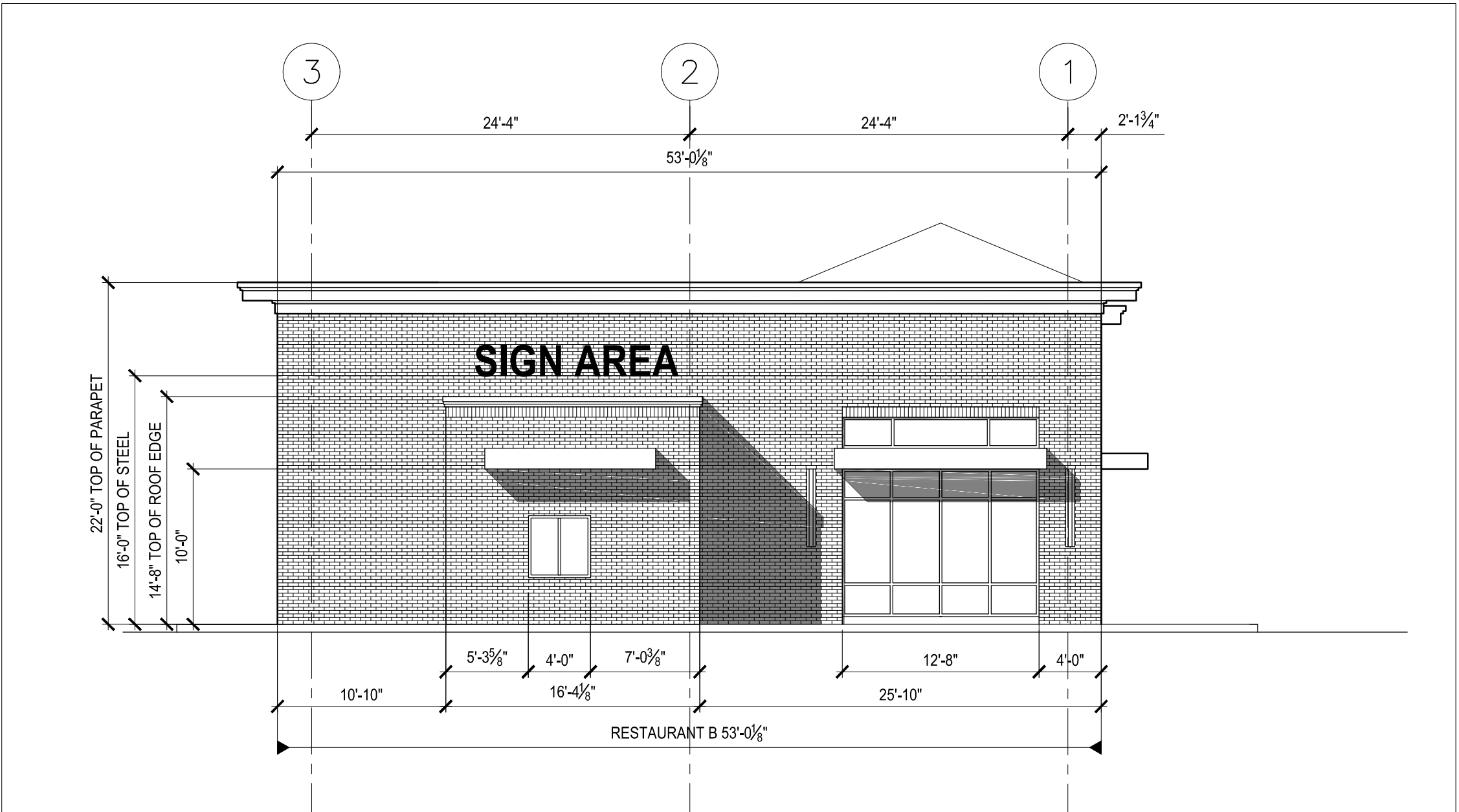
NORTH ELEVATION

$\frac{1}{8}''=1'-0''$



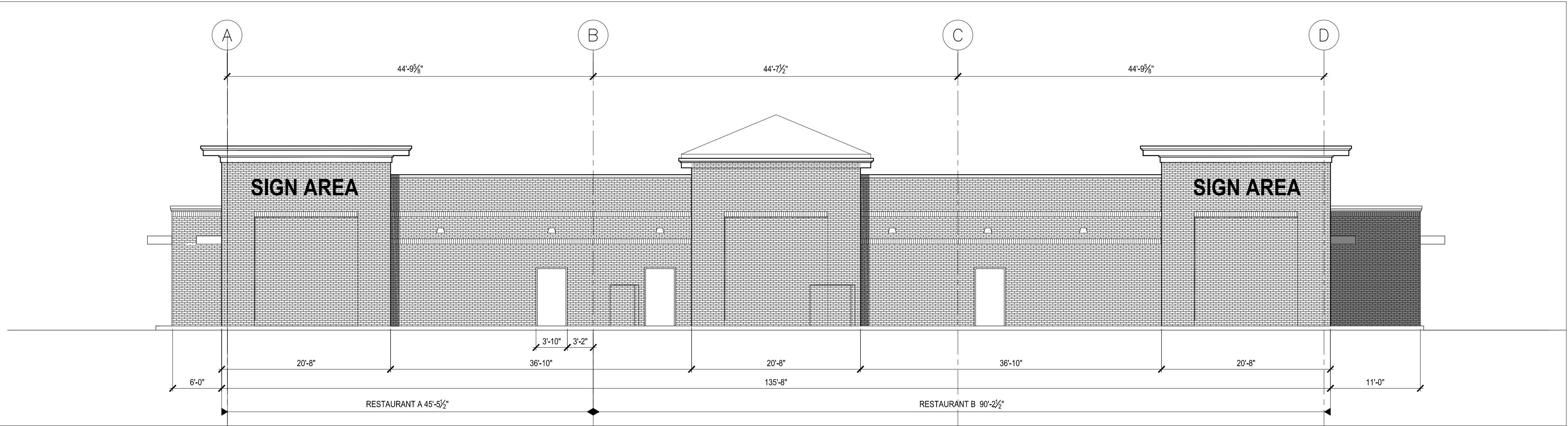
WEST ELEVATION

$\frac{1}{8}''=1'-0''$



EAST ELEVATION

$\frac{1}{8}''=1'-0''$



SOUTH ELEVATION

$\frac{1}{8}''=1'-0''$



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Project Name and Address
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MANLIUS, NY

Date
03.29.2021

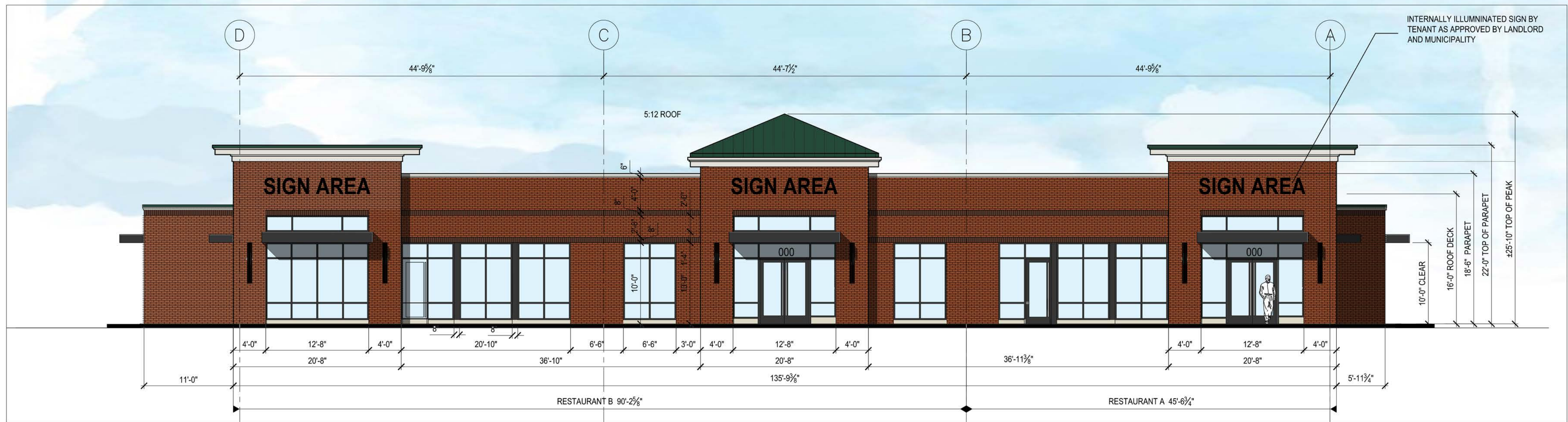
Sheet
A-2
ELEVATION

EXTERIOR NOTES:

BRICK:
MATCH CENTER STANDARD MODULAR BRICK;
INTERSTATE BRICK MANHATTAN ROSE

STANDING SEAM METAL ROOF
COLOR: FACTORY FINISH HARTFORD GREEN

STOREFRONT:
FACTORY FINISH BLACK



NORTH ELEVATION

$\frac{1}{8}''=1'-0''$



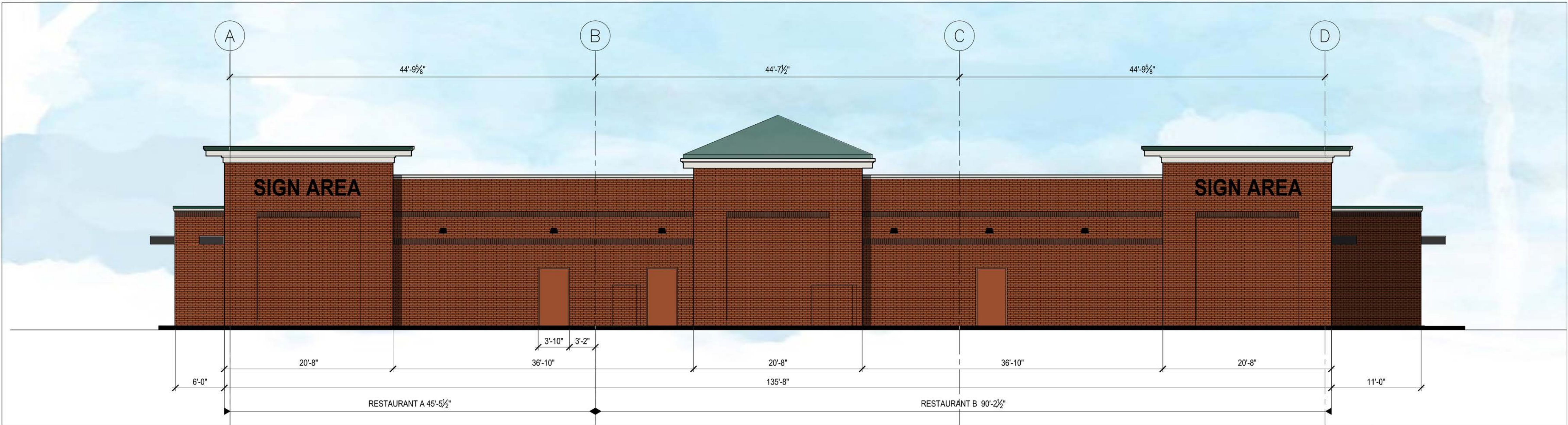
WEST ELEVATION

$\frac{1}{8}''=1'-0''$



EAST ELEVATION

$\frac{1}{8}''=1'-0''$



SOUTH ELEVATION

$\frac{1}{8}''=1'-0''$



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MANLIUS, NY

Date
03.29.2021

Sheet
A-2
ELEVATION



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Proposed Lot 15 Restaurant A / Restaurant B Stormwater Management Report

Town of Manlius, NY

PREPARED FOR: ROUTE 5 DEVELOPMENT COMPANY, LLC



Bergmann

Office:

280 East Broad Street, Suite 200
Rochester, NY 14604

Phone: 585.498.7831

Contact: Andrew Hart, RLA, ASLA

Email: ahart@bergmannpc.com

March 30, 2021



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4.2	CONCLUSION.....	9



1.0 GENERAL INFORMATION

1.1 PROJECT DESCRIPTION

This Stormwater Management Report is for the proposed 68,700 sf proposed retail development at Towne Center at Fayetteville off NYS Route 5, in the Town of Manlius, NY 13066. The project site is bounded by NYS Route 5 to the south and developed land to the north, west and east.

This proposed site design results in no increase in impervious area and makes no significant changes to existing drainage patterns. As a result of this there will be no increase in peak flow created by the proposed development. This will prevent increased impacts to existing downstream structures and properties from the proposed site improvements. Water quality controls will be provided for the site, proposed stormwater management facility meets the SPDES Phase II requirements.

1.2 SOIL CLASSIFICATION

According to the Natural Resources Conservation Service website (NRCS), there are five (5) mapped soil units identified on the project property (see Appendix D). Teel silt loam is the dominant soil type and is located on approximately 75 percent of the project area. This soil type slopes at approximately 0 to 3 percent. These soils have a high infiltration rate (low runoff potential). These consist mainly of deep, moderately well drained drainage class. These soils have a moderately high to high rate of water transmission.

The complete list of soils found on the project site is identified in the table below (see Appendix D for soils map).

Table I- Onondaga County Soils Summary

Symbol	Soil Name	Hydrologic Soil Group
CfB	Cazenovia silt loam, 2 to 8 percent slopes	B
FL	Fluvaquents, frequently flooded	-
Hb	Hamlin silt loam	B
Te	Teel silt loam	B
Wn	Wayland soils complex, 0 to 3 percent slopes, frequently flooded	D



2.0 HYDROLOGY

2.1 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 points are delineated using topographic survey maps, grading plans and utility plans. HydroCAD 10.00-24 by HydroCAD Software Solutions LLC was used to model the existing and proposed condition. This program simulates the USDA Soil Conservation 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 (T_c) 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.

2.2 EXISTING CONDITIONS

The existing drainage area comprises a total of 1.826 acres. This includes the entire disturbed portion of the site. This area consists of pavement and grass. This area drains via sheet flow and a closed conduit storm sewer system to the existing Towne Center drainage system.

Table II summarizes the hydrologic characteristics of the drainage area described above. See Appendix A for computations for the existing drainage conditions.



Table II
Existing Conditions Summary

Drainage Area	Size (ac)	Composite Cn	Tc (min)
Area DR-EX	1.826	89	6.1

2.3 PROPOSED CONDITIONS

The proposed drainage area comprises a total of 1.826 acres. This includes the entire disturbed portion of the site. This area consists of pavement and buildings. This area drains via sheet flow and a closed conduit storm sewer system to the existing Towne Center drainage system.

Table III summarizes the hydrologic characteristics of the drainage area described above. See Appendix B for computations for the proposed drainage conditions.

Table III
Proposed Conditions Summary

Drainage Area	Size (ac)	Composite Cn	Tc (min)
Area DR-PR	1.826	85	16.2

3.0 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 for the most part modeled on the New York State DEC Guidelines and will meet the following criteria as the principal objectives contained in an approved SWPPP.

- 1) Reduction or elimination of erosion and sediment loading to waterbodies 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 accomplished by incorporating several of the design criterias outlined within the Technical Guidelines provided by New York State Department of Environmental Conservation, Stormwater Management Design Manual and summarized below.

3.1 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. The following equation is given within the design manual for calculating the water quality storage volume and was used to size subject practices.

Per Chapter 9 of the Stormwater Management Design Manual this project would be considered a redevelopment project since there is no increase in impervious area or in stormwater discharge from the site. Under Section 9.3.2 the proposed alternative SMP, being an alternative practice will provide the required 75% of the water quality volume from the site drainage area.

The proposed water quality structure for the site will be sized to accommodate the disturbed area for this project. In order to provide the most beneficial treatment for the site, the water quality structure will be placed downstream of the proposed development at the southeastern corner of the project site.

$$WQ_v = \frac{(P)(R_v)(A)}{12}$$

where:

- WQ_v = water quality volume (acre-ft)
- P = 90% Rainfall Event Number (1" was used per ICW Guidelines)
- R_v = $0.05 + 0.009 (I)$, where I is percent of impervious cover

$$WQ_v = \frac{(0.85)(0.284)(1.826)}{12}$$

$$WQ_v = 0.04 \text{ AC-FT}$$

$$\text{Alternate SMP usage} = 75\% WQ_v$$

$$75\% WQ_v = 0.03 \text{ AC-FT}$$



3.2 CHANNEL PROTECTION VOLUME

The New York State Department of Environmental Conservation, Stormwater Management Design Manual was used to determine the water quantity criteria. Specifically, mitigating the 10-year and 100-year post-development runoff rates to the predevelopment runoff rates and providing the 24-hour extended detention for the 1-year storm event is required.

The Channel Protection Volume is met by providing the 24-hour extended detention of the post developed 1-year, 24-hour storm event. Channel protection volume is not required for a redevelopment project if there is no increase in the impervious area or changes to the hydrology that increases the discharge rate. The HydroCAD report contained in Appendix A and B of this report as well as Table IV below show that there is no increase in discharge from this site for the 1-year storm.

3.3 RUNOFF REDUCTION VOLUME

The Runoff Reduction Volume (RRv) for the site shall be equal to 100% of the water quality volume per section 4.3 of the Stormwater Management Design Manual. Runoff Reduction Volume (RRv) is not required for redevelopment sites.

3.4 OVERBANK FLOOD

Overbank flood protection is provided by controlling the peak discharge from the 10-year storm to 10-year predevelopment rates. Overbank flood protection is not required for a redevelopment project if there is no increase in the impervious area or changes to the hydrology that increases the discharge rate. The HydroCAD report contained in Appendix A and B of this report as well as Table IV below show that there is no increase in discharge from this site for the 10-year storm.

3.5 EXTREME STORM

Extreme storm protection is provided by controlling the peak discharge from the 100-year storm to 100-year predevelopment rates. Extreme storm protection is not required for a redevelopment project if there is no increase in the impervious area or changes to the hydrology that increases the discharge rate. The HydroCAD report contained in Appendix A and B of this report as well as Table V below shows that there is no increase in discharge from this site for the 100-year storm.



4.0 SUMMARY OF FINDINGS

4.1 SUMMARY OF RESULTS

Tables IV and V depict the peak discharges from the site for each of the design storms for the existing and proposed conditions.

Table IV-Existing and Proposed Peak Discharge for the 1-Year Storm (cfs)

Drainage Area	1 yr Design Storm Discharge	
	Existing	Proposed
Existing DR-EX	3.32	2.42
Proposed DR-PR		

Table V-Existing and Proposed Peak Discharge for the 10-Year Storm (cfs)

Drainage Area	10 yr Design Storm Discharge	
	Existing	Proposed
Existing DR-EX	6.98	5.14
Proposed DR-PR		

Table VI-Existing and Proposed Peak Discharge for the 100-Year Storm (cfs)

Drainage Area	100 yr Design Storm Discharge	
	Existing	Proposed
Existing DR-EX	13.22	9.87
Proposed DR-PR		

As depicted in the tables above, 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.



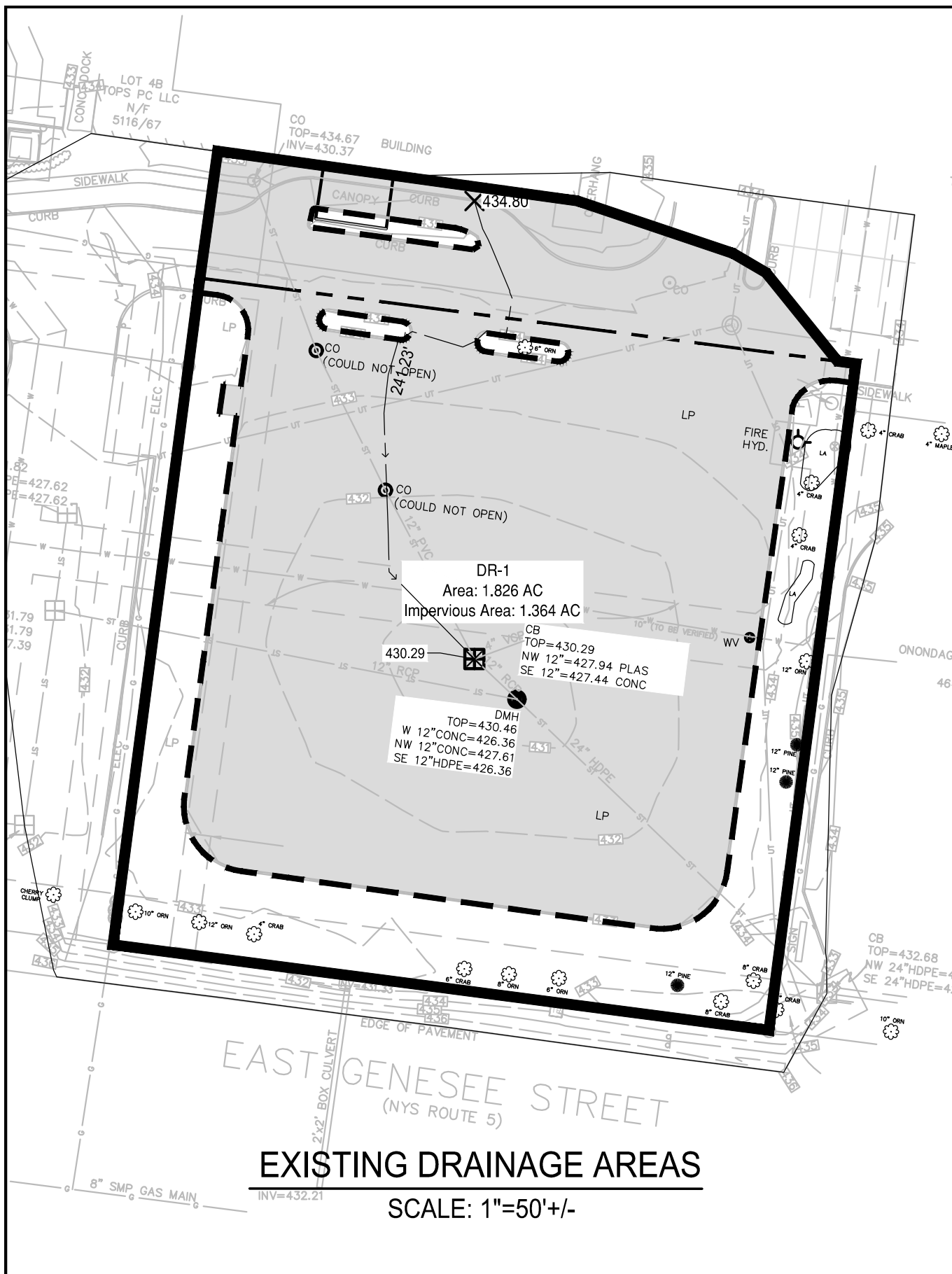
4.2 CONCLUSION

Based on the calculations attached in the Appendices of this report, the proposed site design by not increasing the impervious area on site will not increase peak discharge rates from the site for all of the design storms under proposed conditions. The proposed facility will also include an alternate stormwater management practice for water quality treatment. Therefore, this project has provided sufficient mitigation to minimize effect to stream systems and properties.



Appendix A

*Existing Conditions Drainage Map
And Hydrograph Reports*



015105 Existing

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Type II 24-hr 1-yr Rainfall=2.04"

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Page 1

Summary for Subcatchment DR-1: Existing Drainage

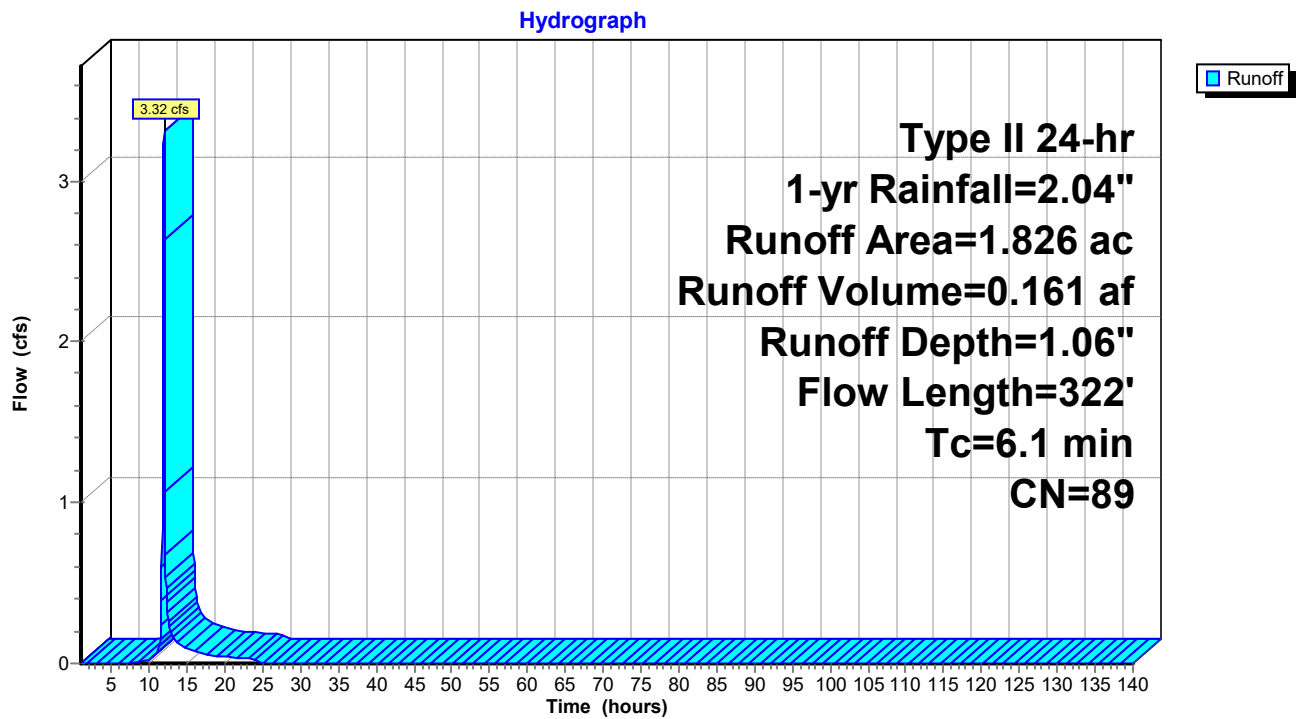
Runoff = 3.32 cfs @ 11.97 hrs, Volume= 0.161 af, Depth= 1.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-140.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-yr Rainfall=2.04"

Area (ac)	CN	Description
1.364	98	Unconnected pavement, HSG B
0.462	61	>75% Grass cover, Good, HSG B
1.826	89	Weighted Average
0.462		25.30% Pervious Area
1.364		74.70% Impervious Area
1.364		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	35	0.0286	0.14		Sheet Flow, AB Grass: Short n= 0.150 P2= 2.38"
0.9	65	0.0250	1.19		Sheet Flow, BC Smooth surfaces n= 0.011 P2= 2.38"
0.3	55	0.0250	3.21		Shallow Concentrated Flow, CD Paved Kv= 20.3 fps
0.6	167	0.0040	4.55	14.31	Pipe Channel, DE 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Corrugated PE, smooth interior
6.1	322	Total			

Subcatchment DR-1: Existing Drainage



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Type II 24-hr 2-yr Rainfall=2.38"

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Summary for Subcatchment DR-1: Existing Drainage

Runoff = 4.20 cfs @ 11.97 hrs, Volume= 0.205 af, Depth= 1.35"

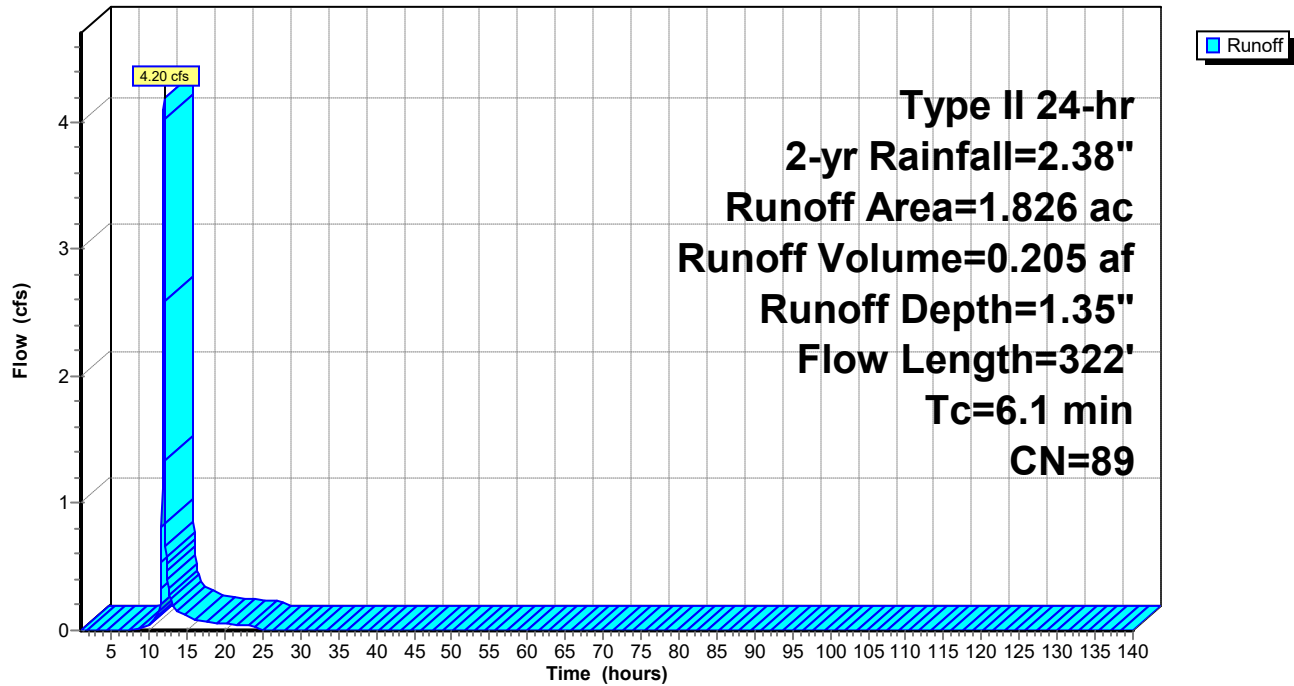
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-140.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-yr Rainfall=2.38"

Area (ac)	CN	Description
1.364	98	Unconnected pavement, HSG B
0.462	61	>75% Grass cover, Good, HSG B
1.826	89	Weighted Average
0.462		25.30% Pervious Area
1.364		74.70% Impervious Area
1.364		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	35	0.0286	0.14		Sheet Flow, AB Grass: Short n= 0.150 P2= 2.38"
0.9	65	0.0250	1.19		Sheet Flow, BC Smooth surfaces n= 0.011 P2= 2.38"
0.3	55	0.0250	3.21		Shallow Concentrated Flow, CD Paved Kv= 20.3 fps
0.6	167	0.0040	4.55	14.31	Pipe Channel, DE 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Corrugated PE, smooth interior
6.1	322	Total			

Subcatchment DR-1: Existing Drainage

Hydrograph



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Type II 24-hr 10-yr Rainfall=3.43"

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Summary for Subcatchment DR-1: Existing Drainage

Runoff = 6.98 cfs @ 11.97 hrs, Volume= 0.349 af, Depth= 2.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-140.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-yr Rainfall=3.43"

Area (ac)	CN	Description
1.364	98	Unconnected pavement, HSG B
0.462	61	>75% Grass cover, Good, HSG B
1.826	89	Weighted Average
0.462		25.30% Pervious Area
1.364		74.70% Impervious Area
1.364		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	35	0.0286	0.14		Sheet Flow, AB Grass: Short n= 0.150 P2= 2.38"
0.9	65	0.0250	1.19		Sheet Flow, BC Smooth surfaces n= 0.011 P2= 2.38"
0.3	55	0.0250	3.21		Shallow Concentrated Flow, CD Paved Kv= 20.3 fps
0.6	167	0.0040	4.55	14.31	Pipe Channel, DE 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Corrugated PE, smooth interior
6.1	322	Total			

015105 Existing

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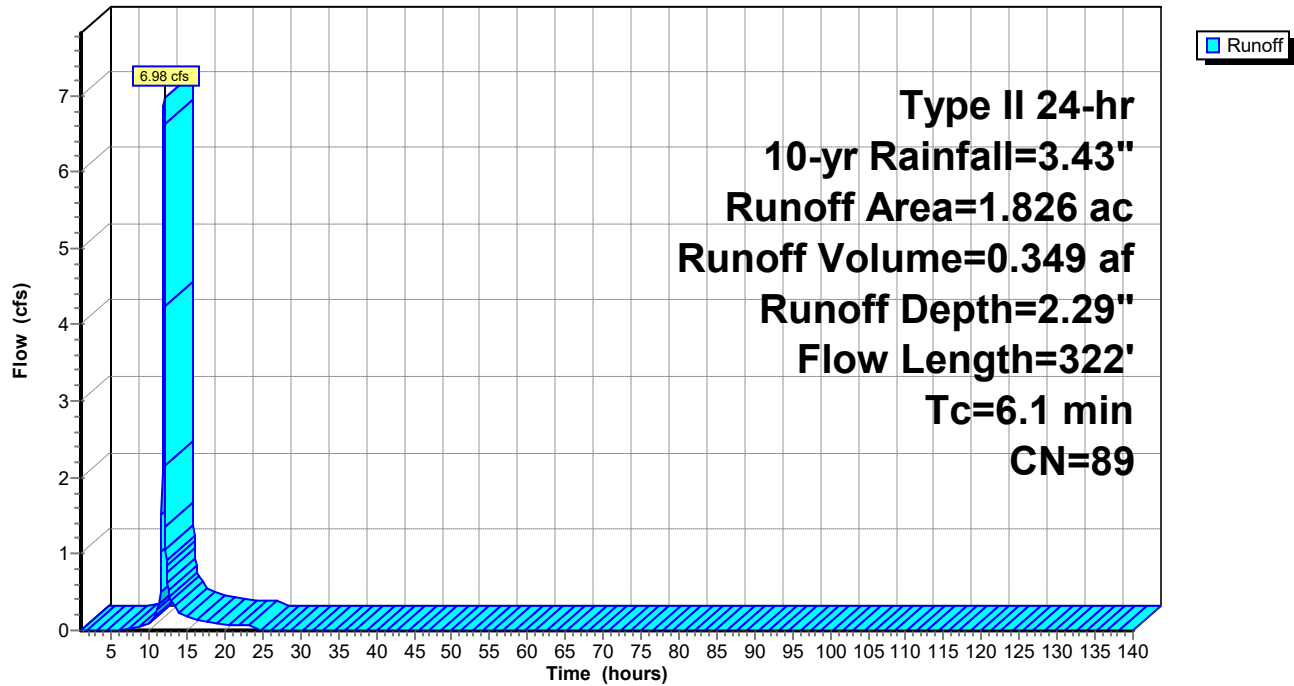
Type II 24-hr 10-yr Rainfall=3.43"

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Subcatchment DR-1: Existing Drainage

Hydrograph



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Type II 24-hr 100-yr Rainfall=5.77"

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Summary for Subcatchment DR-1: Existing Drainage

Runoff = 13.22 cfs @ 11.97 hrs, Volume= 0.687 af, Depth= 4.51"

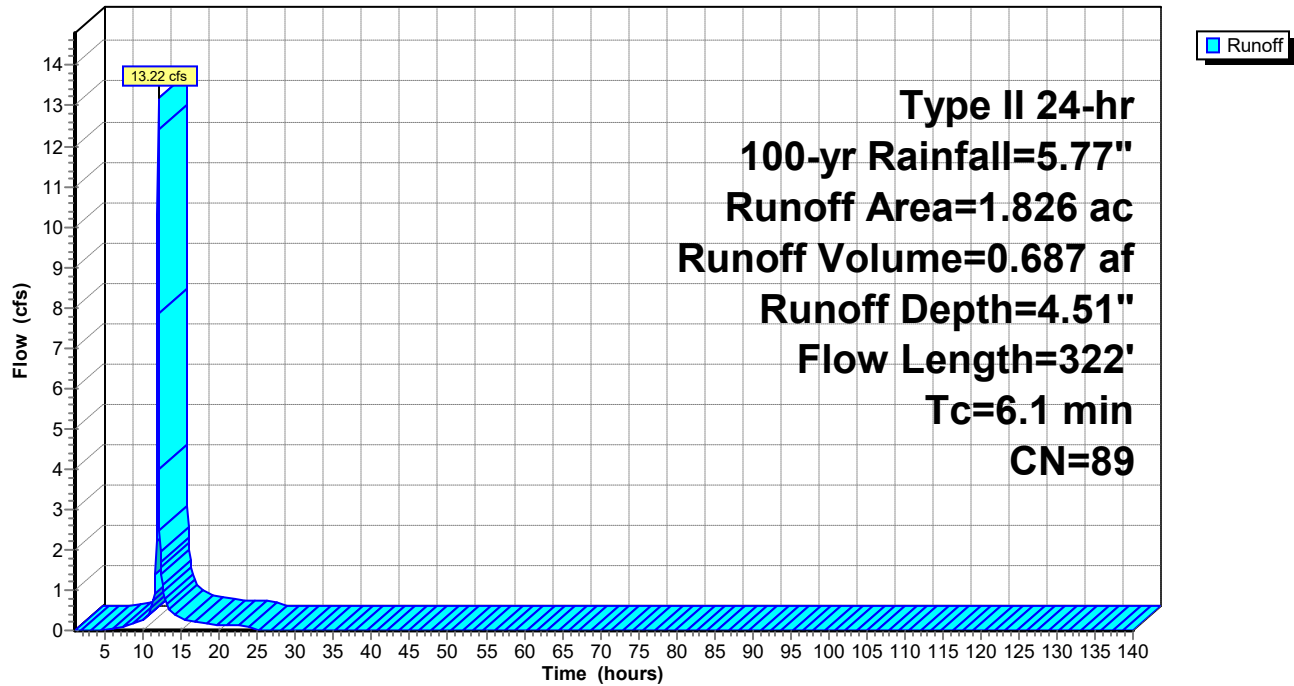
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-140.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-yr Rainfall=5.77"

Area (ac)	CN	Description
1.364	98	Unconnected pavement, HSG B
0.462	61	>75% Grass cover, Good, HSG B
1.826	89	Weighted Average
0.462		25.30% Pervious Area
1.364		74.70% Impervious Area
1.364		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	35	0.0286	0.14		Sheet Flow, AB Grass: Short n= 0.150 P2= 2.38"
0.9	65	0.0250	1.19		Sheet Flow, BC Smooth surfaces n= 0.011 P2= 2.38"
0.3	55	0.0250	3.21		Shallow Concentrated Flow, CD Paved Kv= 20.3 fps
0.6	167	0.0040	4.55	14.31	Pipe Channel, DE 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Corrugated PE, smooth interior
6.1	322	Total			

Subcatchment DR-1: Existing Drainage

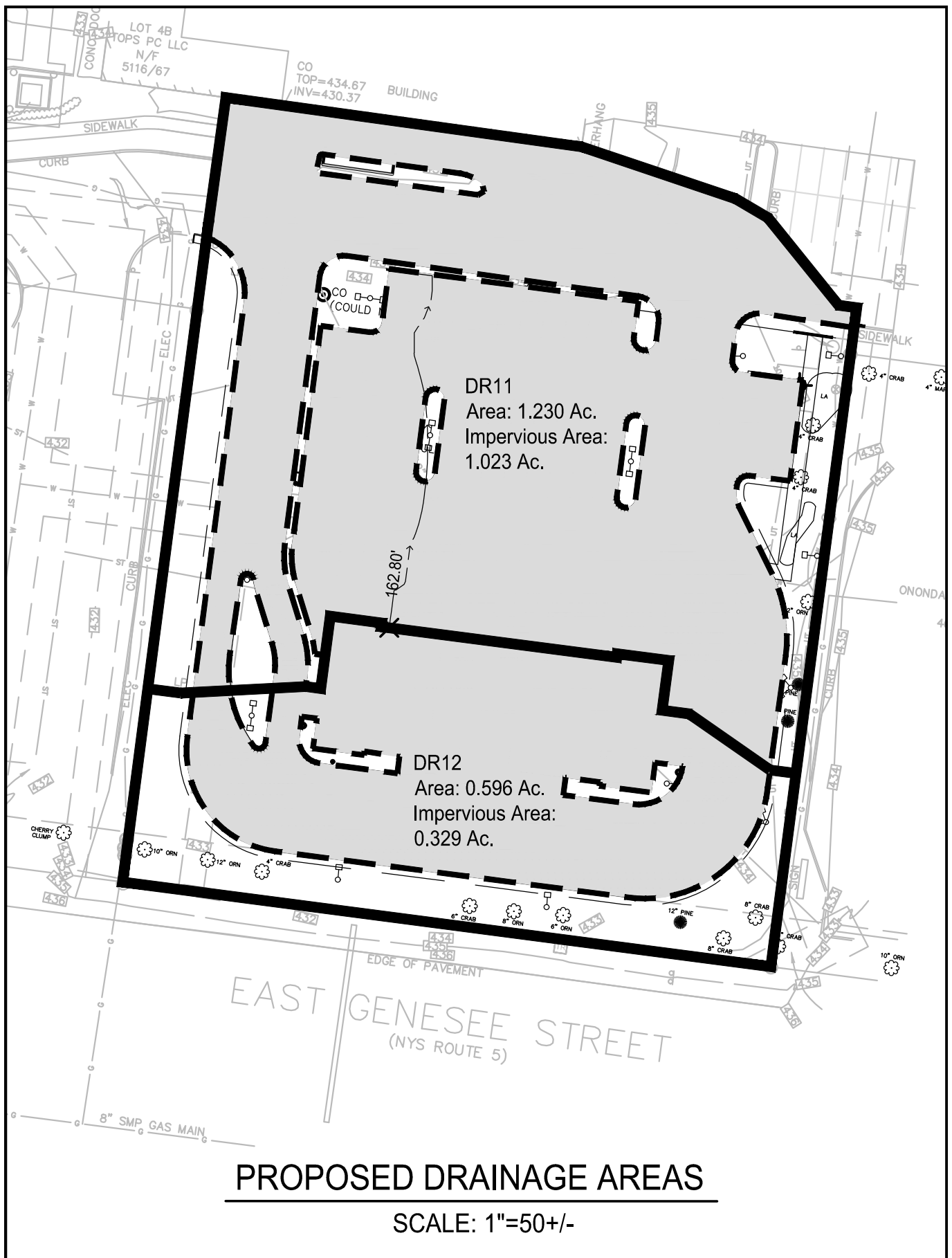
Hydrograph





Appendix B

*Proposed Conditions Drainage Map
And Hydrograph Reports*



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Type II 24-hr 1-yr Rainfall=2.04"

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Summary for Subcatchment DR-11: Proposed N Parking

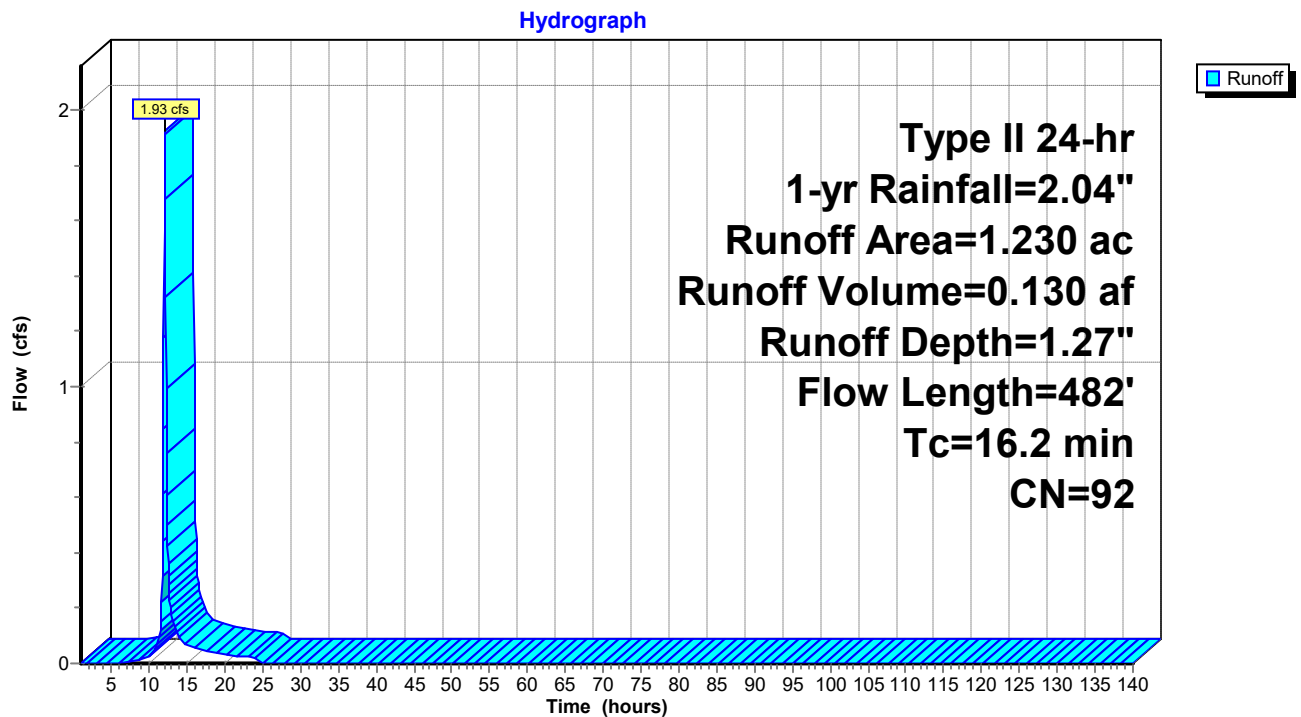
Runoff = 1.93 cfs @ 12.08 hrs, Volume= 0.130 af, Depth= 1.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-140.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-yr Rainfall=2.04"

Area (ac)	CN	Description
1.023	98	Unconnected pavement, HSG B
0.207	61	>75% Grass cover, Good, HSG B
1.230	92	Weighted Average
0.207		16.83% Pervious Area
1.023		83.17% Impervious Area
1.023		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.7	100	0.0125	0.12		Sheet Flow, AB Grass: Short n= 0.150 P2= 2.38"
0.5	34	0.0053	1.09		Shallow Concentrated Flow, BC Grassed Waterway Kv= 15.0 fps
0.6	95	0.0030	2.48	1.95	Pipe Channel, CD 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
1.2	202	0.0030	2.88	3.54	Pipe Channel, DE 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
0.2	51	0.0030	3.94	12.39	Pipe Channel, EF 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Corrugated PE, smooth interior
16.2	482	Total			

Subcatchment DR-11: Proposed N Parking



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Type II 24-hr 1-yr Rainfall=2.04"

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Summary for Subcatchment DR-12: Prop Buidling and Drive Thru

Runoff = 0.54 cfs @ 12.04 hrs, Volume= 0.031 af, Depth= 0.63"

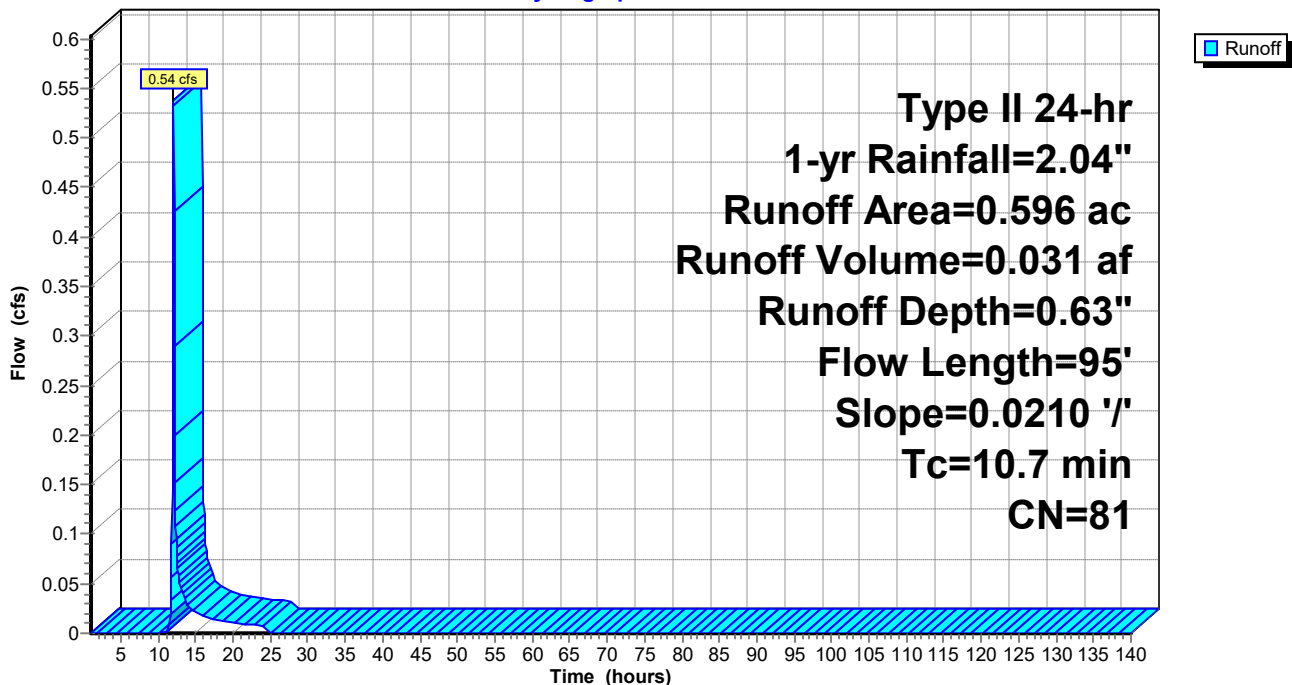
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-140.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-yr Rainfall=2.04"

Area (ac)	CN	Description
0.329	98	Paved parking, HSG B
0.267	61	>75% Grass cover, Good, HSG B
0.596	81	Weighted Average
0.267		44.80% Pervious Area
0.329		55.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	95	0.0210	0.15		Sheet Flow, AB Grass: Short n= 0.150 P2= 2.38"

Subcatchment DR-12: Prop Buidling and Drive Thru

Hydrograph



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Type II 24-hr 1-yr Rainfall=2.04"

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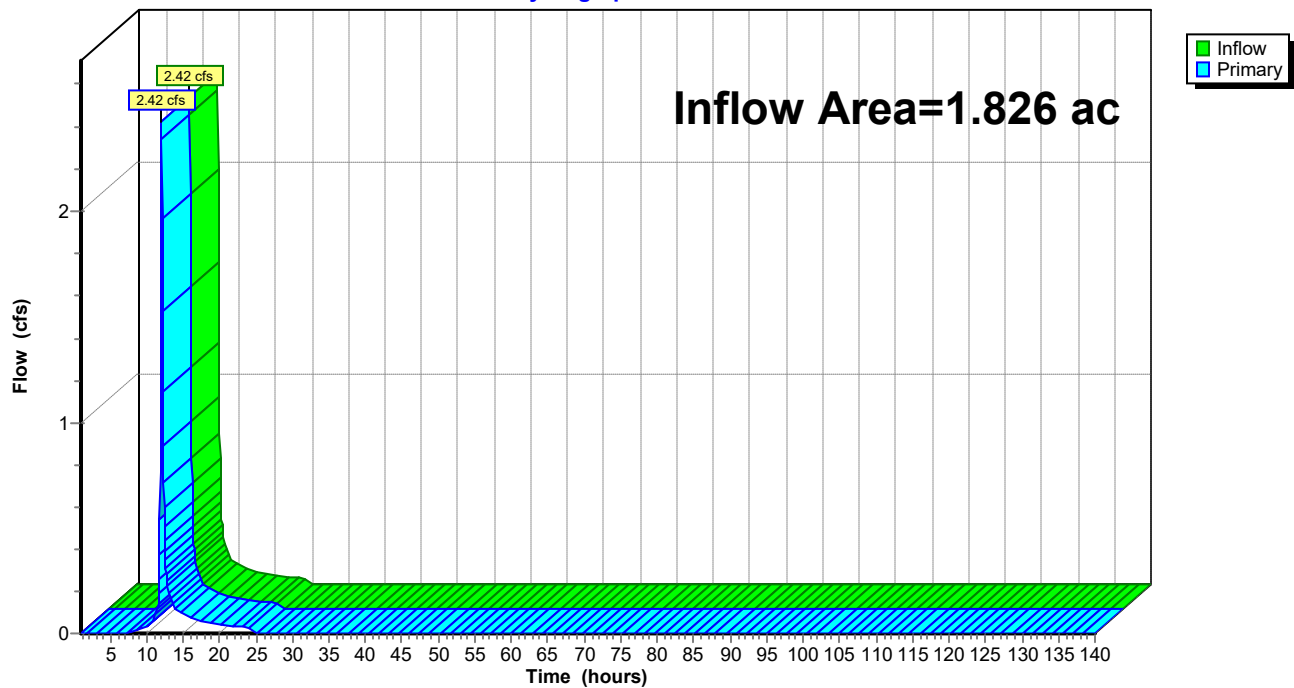
Summary for Link PT: Prop Total

Inflow Area = 1.826 ac, 74.04% Impervious, Inflow Depth = 1.06" for 1-yr event
Inflow = 2.42 cfs @ 12.07 hrs, Volume= 0.162 af
Primary = 2.42 cfs @ 12.07 hrs, Volume= 0.162 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-140.00 hrs, dt= 0.05 hrs

Link PT: Prop Total

Hydrograph



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Type II 24-hr 2-yr Rainfall=2.38"

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Summary for Subcatchment DR-11: Proposed N Parking

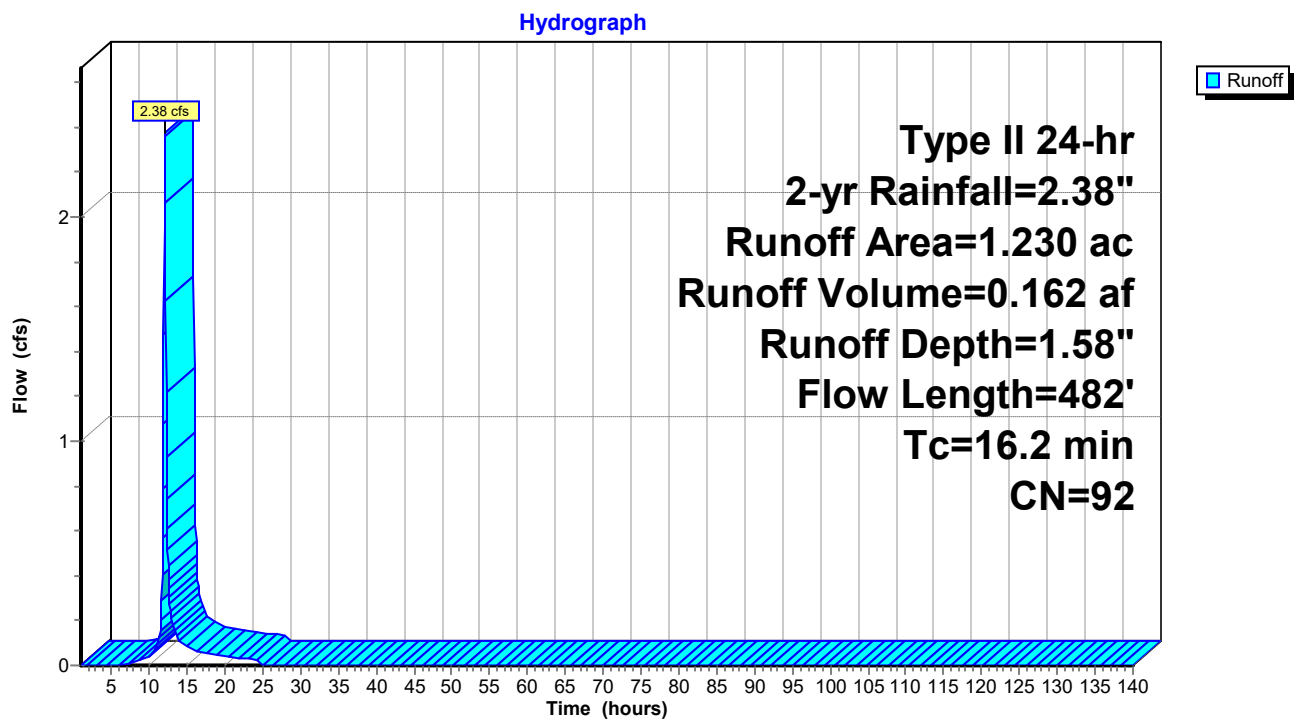
Runoff = 2.38 cfs @ 12.08 hrs, Volume= 0.162 af, Depth= 1.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-140.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-yr Rainfall=2.38"

Area (ac)	CN	Description
1.023	98	Unconnected pavement, HSG B
0.207	61	>75% Grass cover, Good, HSG B
1.230	92	Weighted Average
0.207		16.83% Pervious Area
1.023		83.17% Impervious Area
1.023		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.7	100	0.0125	0.12		Sheet Flow, AB Grass: Short n= 0.150 P2= 2.38"
0.5	34	0.0053	1.09		Shallow Concentrated Flow, BC Grassed Waterway Kv= 15.0 fps
0.6	95	0.0030	2.48	1.95	Pipe Channel, CD 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
1.2	202	0.0030	2.88	3.54	Pipe Channel, DE 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
0.2	51	0.0030	3.94	12.39	Pipe Channel, EF 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Corrugated PE, smooth interior
16.2	482	Total			

Subcatchment DR-11: Proposed N Parking



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Type II 24-hr 2-yr Rainfall=2.38"

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Summary for Subcatchment DR-12: Prop Buidling and Drive Thru

Runoff = 0.75 cfs @ 12.03 hrs, Volume= 0.043 af, Depth= 0.86"

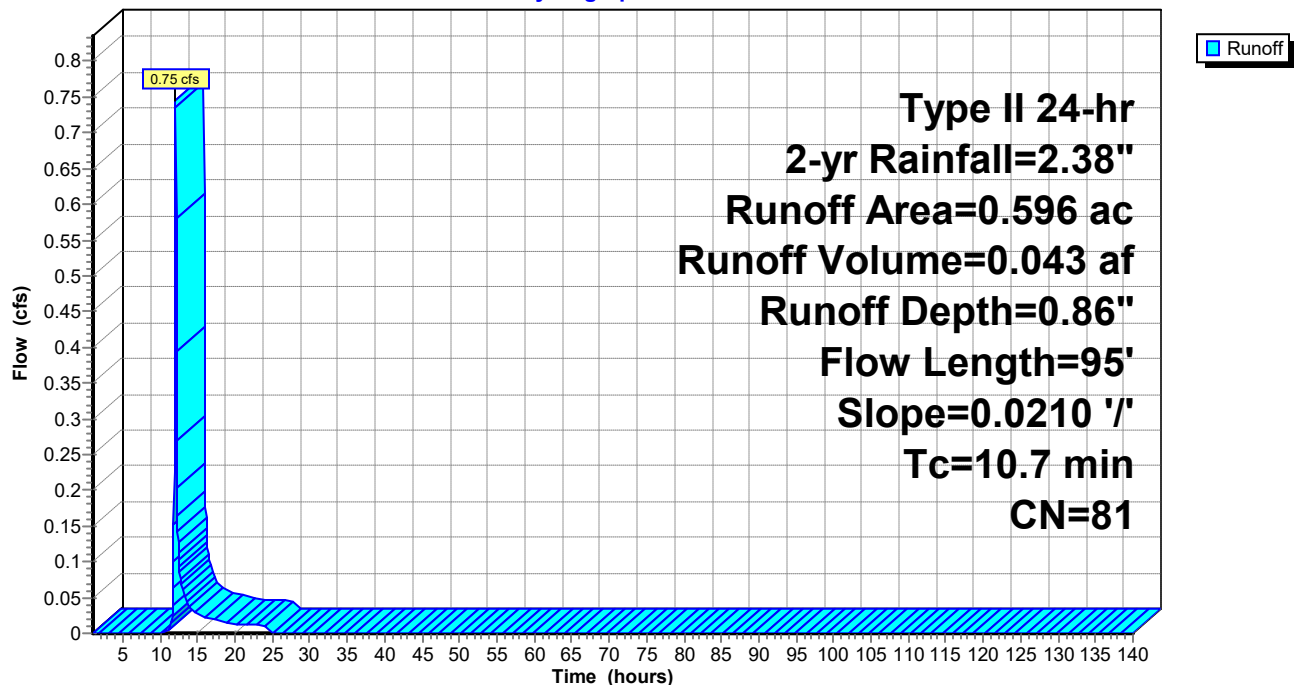
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-140.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-yr Rainfall=2.38"

Area (ac)	CN	Description
0.329	98	Paved parking, HSG B
0.267	61	>75% Grass cover, Good, HSG B
0.596	81	Weighted Average
0.267		44.80% Pervious Area
0.329		55.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	95	0.0210	0.15		Sheet Flow, AB
					Grass: Short n= 0.150 P2= 2.38"

Subcatchment DR-12: Prop Buidling and Drive Thru

Hydrograph



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Type II 24-hr 2-yr Rainfall=2.38"

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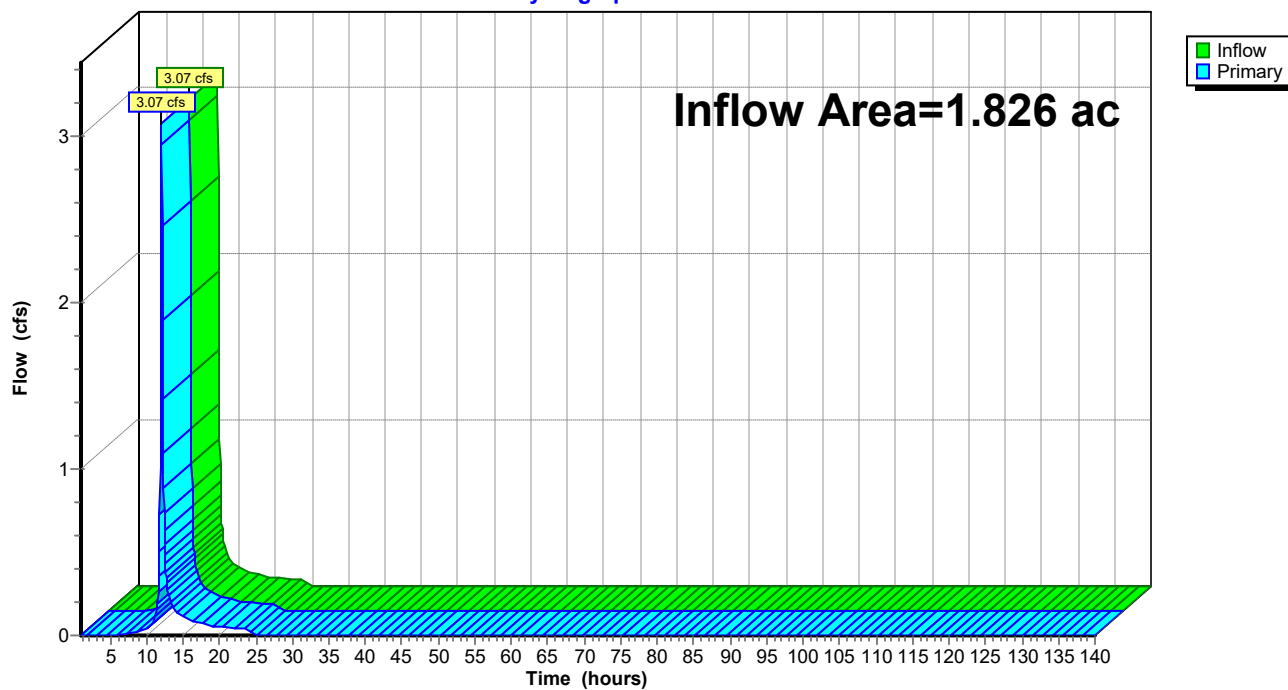
Summary for Link PT: Prop Total

Inflow Area = 1.826 ac, 74.04% Impervious, Inflow Depth = 1.35" for 2-yr event
Inflow = 3.07 cfs @ 12.06 hrs, Volume= 0.205 af
Primary = 3.07 cfs @ 12.06 hrs, Volume= 0.205 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-140.00 hrs, dt= 0.05 hrs

Link PT: Prop Total

Hydrograph



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Type II 24-hr 10-yr Rainfall=3.43"

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Summary for Subcatchment DR-11: Proposed N Parking

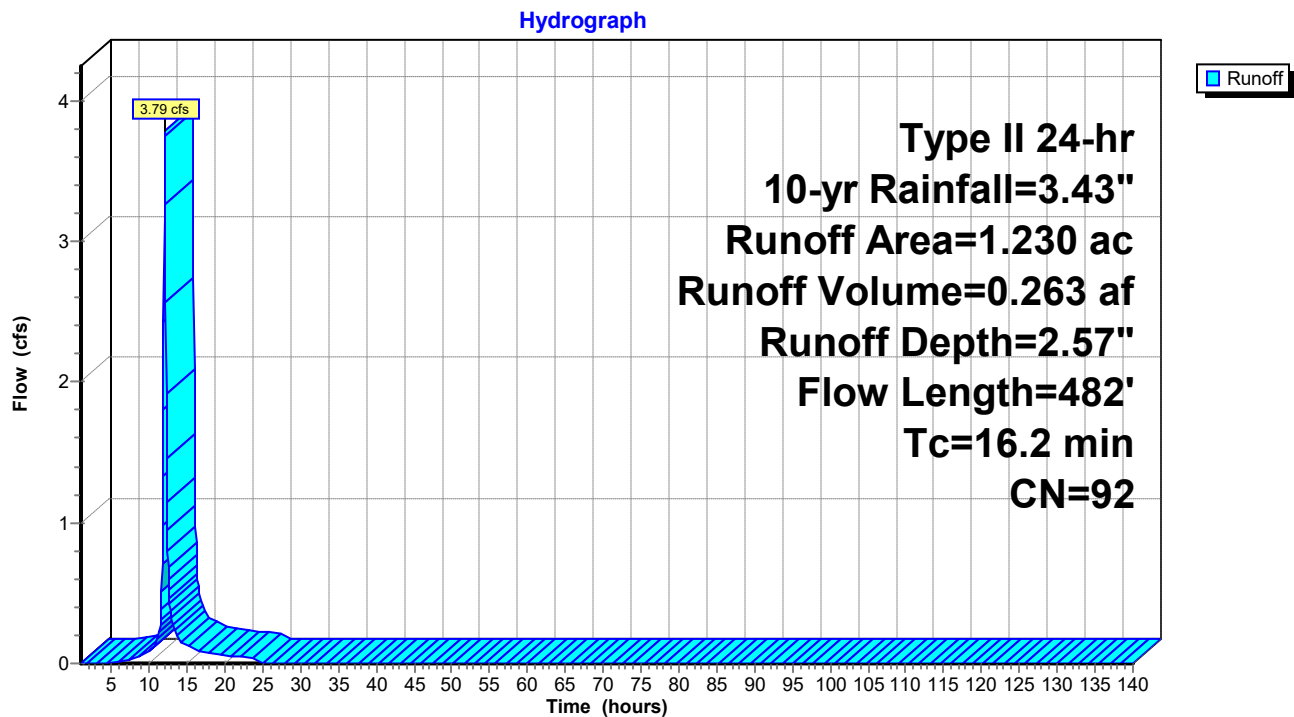
Runoff = 3.79 cfs @ 12.08 hrs, Volume= 0.263 af, Depth= 2.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-140.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-yr Rainfall=3.43"

Area (ac)	CN	Description
1.023	98	Unconnected pavement, HSG B
0.207	61	>75% Grass cover, Good, HSG B
1.230	92	Weighted Average
0.207		16.83% Pervious Area
1.023		83.17% Impervious Area
1.023		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.7	100	0.0125	0.12		Sheet Flow, AB Grass: Short n= 0.150 P2= 2.38"
0.5	34	0.0053	1.09		Shallow Concentrated Flow, BC Grassed Waterway Kv= 15.0 fps
0.6	95	0.0030	2.48	1.95	Pipe Channel, CD 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
1.2	202	0.0030	2.88	3.54	Pipe Channel, DE 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
0.2	51	0.0030	3.94	12.39	Pipe Channel, EF 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Corrugated PE, smooth interior
16.2	482	Total			

Subcatchment DR-11: Proposed N Parking



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Type II 24-hr 10-yr Rainfall=3.43"

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Summary for Subcatchment DR-12: Prop Buidling and Drive Thru

Runoff = 1.46 cfs @ 12.03 hrs, Volume= 0.082 af, Depth= 1.65"

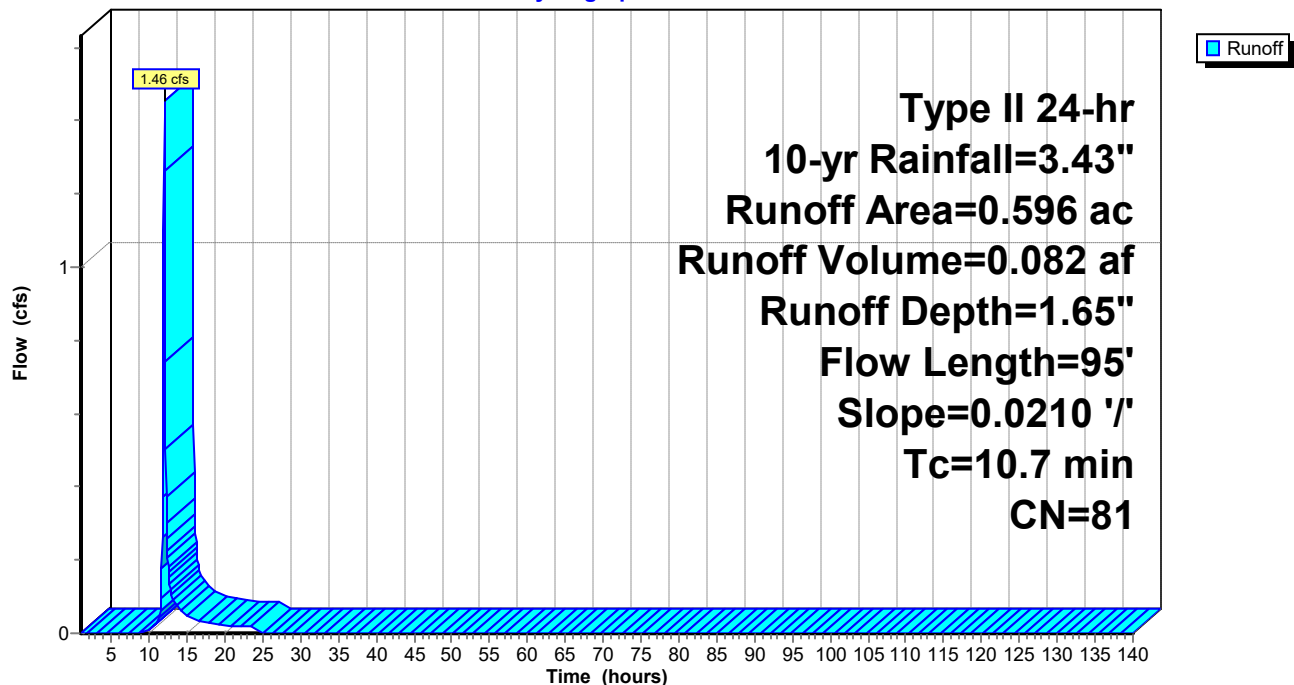
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-140.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-yr Rainfall=3.43"

Area (ac)	CN	Description
0.329	98	Paved parking, HSG B
0.267	61	>75% Grass cover, Good, HSG B
0.596	81	Weighted Average
0.267		44.80% Pervious Area
0.329		55.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	95	0.0210	0.15		Sheet Flow, AB Grass: Short n= 0.150 P2= 2.38"

Subcatchment DR-12: Prop Buidling and Drive Thru

Hydrograph



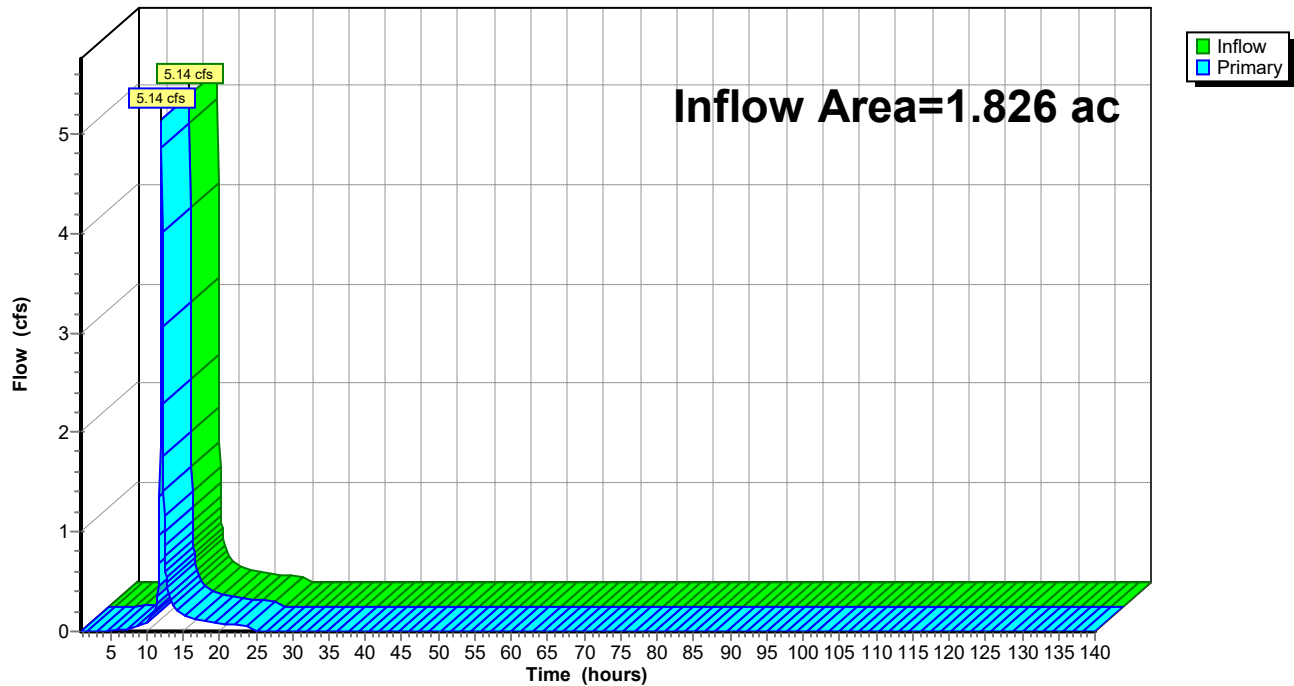
Summary for Link PT: Prop Total

Inflow Area = 1.826 ac, 74.04% Impervious, Inflow Depth = 2.27" for 10-yr event
Inflow = 5.14 cfs @ 12.06 hrs, Volume= 0.345 af
Primary = 5.14 cfs @ 12.06 hrs, Volume= 0.345 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-140.00 hrs, dt= 0.05 hrs

Link PT: Prop Total

Hydrograph



015105 Proposed

Prepared by BERGMANN

HydroCAD® 10.00-24 s/n 03498 © 2018 HydroCAD Software Solutions LLC

Type II 24-hr 100-yr Rainfall=5.77"

Printed 3/29/2021

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Summary for Subcatchment DR-11: Proposed N Parking

Runoff = 6.91 cfs @ 12.08 hrs, Volume= 0.496 af, Depth= 4.84"

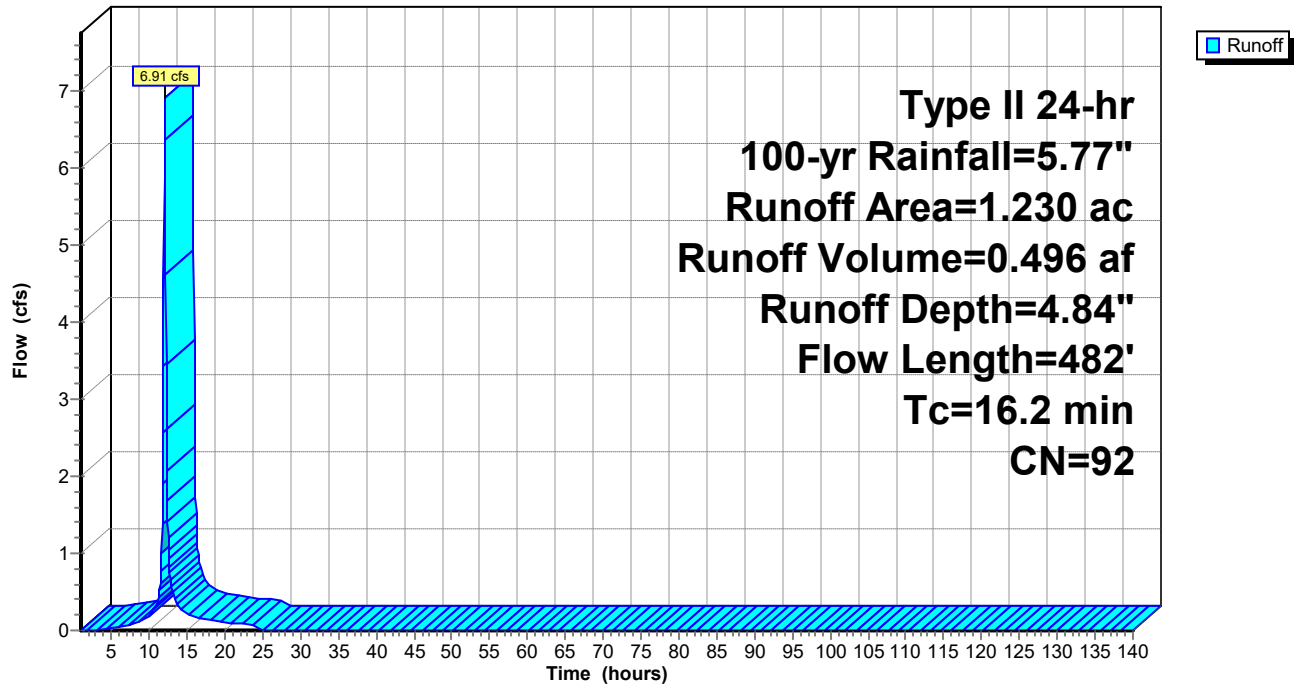
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-140.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-yr Rainfall=5.77"

Area (ac)	CN	Description
1.023	98	Unconnected pavement, HSG B
0.207	61	>75% Grass cover, Good, HSG B
1.230	92	Weighted Average
0.207		16.83% Pervious Area
1.023		83.17% Impervious Area
1.023		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.7	100	0.0125	0.12		Sheet Flow, AB Grass: Short n= 0.150 P2= 2.38"
0.5	34	0.0053	1.09		Shallow Concentrated Flow, BC Grassed Waterway Kv= 15.0 fps
0.6	95	0.0030	2.48	1.95	Pipe Channel, CD 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
1.2	202	0.0030	2.88	3.54	Pipe Channel, DE 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
0.2	51	0.0030	3.94	12.39	Pipe Channel, EF 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Corrugated PE, smooth interior
16.2	482	Total			

Subcatchment DR-11: Proposed N Parking

Hydrograph



015105 Proposed

Prepared by BERGMANN

HydroCAD® 10.00-24 s/n 03498 © 2018 HydroCAD Software Solutions LLC

Type II 24-hr 100-yr Rainfall=5.77"

Printed 3/29/2021

Page 15

Summary for Subcatchment DR-12: Prop Buidling and Drive Thru

Runoff = 3.19 cfs @ 12.02 hrs, Volume= 0.183 af, Depth= 3.67"

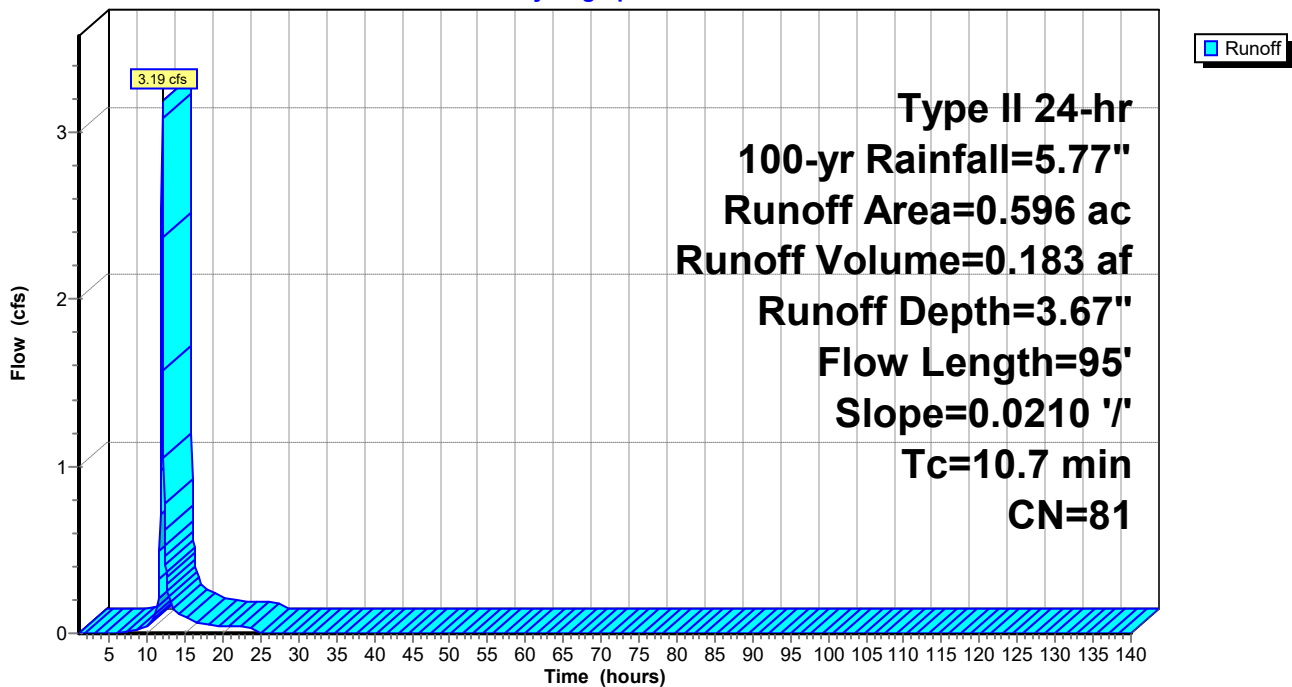
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-140.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-yr Rainfall=5.77"

Area (ac)	CN	Description
0.329	98	Paved parking, HSG B
0.267	61	>75% Grass cover, Good, HSG B
0.596	81	Weighted Average
0.267		44.80% Pervious Area
0.329		55.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	95	0.0210	0.15		Sheet Flow, AB Grass: Short n= 0.150 P2= 2.38"

Subcatchment DR-12: Prop Buidling and Drive Thru

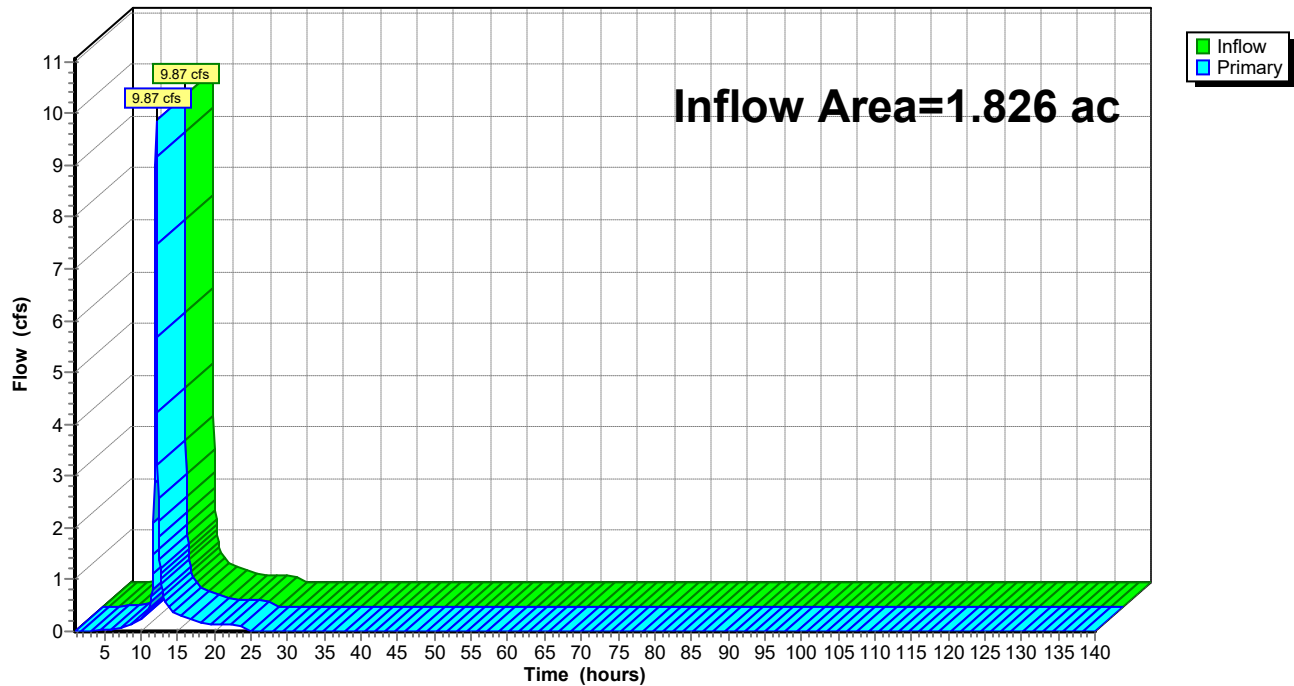
Hydrograph



Summary for Link PT: Prop Total

Inflow Area = 1.826 ac, 74.04% Impervious, Inflow Depth = 4.46" for 100-yr event
Inflow = 9.87 cfs @ 12.05 hrs, Volume= 0.679 af
Primary = 9.87 cfs @ 12.05 hrs, Volume= 0.679 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-140.00 hrs, dt= 0.05 hrs

Link PT: Prop Total**Hydrograph**



Appendix C

Water Quality Volume/Channel Protection Volume

STORMWATER MANAGEMENT CALCULATIONS

Project Name:

Route 5 Development Company, LLC

Date:

2021-0329

By:

KH

Design Storms

1-YEAR (in)	<table border="1"><tr><td>2.04</td></tr></table>	2.04
2.04		
2-YEAR (in)	<table border="1"><tr><td>2.38</td></tr></table>	2.38
2.38		
10-YEAR (in)	<table border="1"><tr><td>3.43</td></tr></table>	3.43
3.43		
100-YEAR (in)	<table border="1"><tr><td>5.77</td></tr></table>	5.77
5.77		

WATER QUALITY DESIGN - OUTLET #1 REDEVELOPMENT

1. COMPUTE WATER QUALITY VOLUME (WQv) REQUIRED

RUNOFF COEFFICIENT (Rv) = $0.05 + (I)(0.009)$
I VALUE =

26

 (% IMPERVIOUS COVER)

Rv =

0.284

 (Calculated)

0.2 (use a min Rv=0.2)

WQv = ((P)(Rv)(A))/12 P VALUE =

0.85

 (90TH PERCENTILE RAINFALL)

Rv VALUE

0.284

 (FROM CALCULATION ABOVE)

A VALUE =

1.8

 (AREA IN AREAS)

WQv =

0.04

 ACRE-FEET REQUIRED (New Development)

75% WQv

0.03

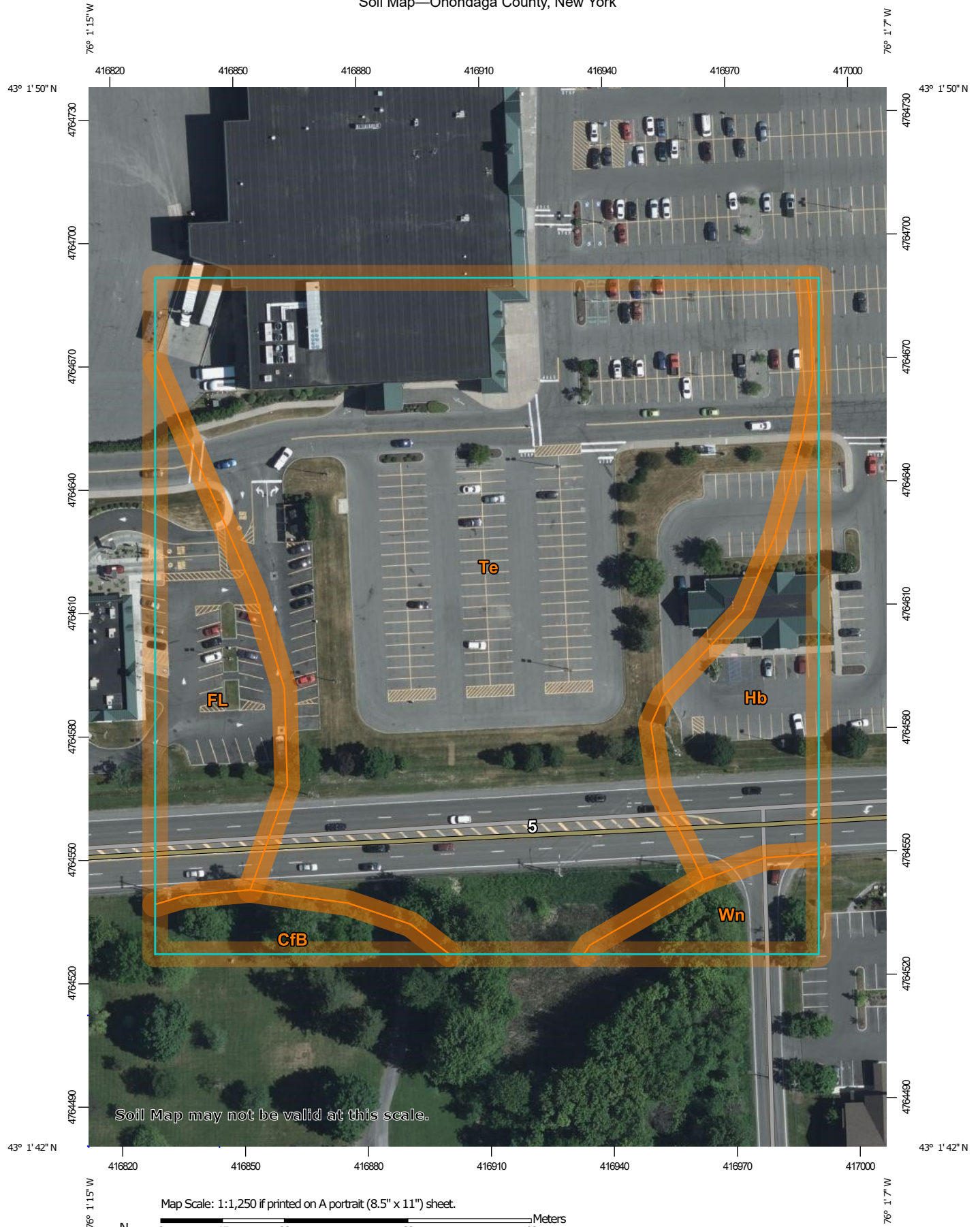
 AC-FT REQUIRED (Redevelopment)
Alternative SMP

CHANNEL PROTECTION VOLUME

In accordance with the New York State Stormwater Management Design Manual, Chapter 9, 9.2.1 II, Channel Protection is not required in there are no changes to the discharge rate and velocity.

There is no increase in the proposed site's discharge rate or velocity.

Soil Map—Onondaga County, New York



**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

3/4/2021
Page 1 of 3

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

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

Spoil Area

Stony Spot

Very Stony Spot

Wet Spot

Other

Special Line Features

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

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:
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: Onondaga County, New York
Survey Area Data: Version 15, Jun 11, 2020

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

Date(s) aerial images were photographed: May 21, 2020—Jun 17, 2020

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

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CfB	Cazenovia silt loam, 2 to 8 percent slopes	0.2	3.2%
FL	Fluvaquents, frequently flooded	0.7	10.6%
Hb	Hamlin silt loam	0.7	9.9%
Te	Teel silt loam	4.8	72.9%
Wn	Wayland soils complex, 0 to 3 percent slopes, frequently flooded	0.2	3.4%
Totals for Area of Interest		6.6	100.0%

HSG

B

—

B

B

D

Onondaga County, New York

Te—Teel silt loam

Map Unit Setting

National map unit symbol: 9vkv

Elevation: 600 to 1,800 feet

Mean annual precipitation: 38 to 42 inches

Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 110 to 190 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Teel and similar soils: 80 percent

Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Teel

Setting

Landform: Flood plains

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Talf

Down-slope shape: Concave

Across-slope shape: Convex

Parent material: Silty alluvium

Typical profile

H1 - 0 to 10 inches: silt loam

H2 - 10 to 28 inches: silt loam

H3 - 28 to 60 inches: silt loam

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)

Depth to water table: About 18 to 24 inches

Frequency of flooding: OccasionalNone

Frequency of ponding: None

Calcium carbonate, maximum content: 1 percent

Available water capacity: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: B/D

Hydric soil rating: No

Minor Components

Howard

Percent of map unit: 5 percent

Hydric soil rating: No

Hamlin

Percent of map unit: 5 percent

Hydric soil rating: No

Wayland

Percent of map unit: 5 percent

Landform: Flood plains

Hydric soil rating: Yes

Herkimer

Percent of map unit: 5 percent

Hydric soil rating: No

Data Source Information

Soil Survey Area: Onondaga County, New York

Survey Area Data: Version 15, Jun 11, 2020

Onondaga County, New York

Hb—Hamlin silt loam

Map Unit Setting

National map unit symbol: 9vgz

Elevation: 360 to 1,260 feet

Mean annual precipitation: 38 to 42 inches

Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 110 to 190 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Hamlin and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hamlin

Setting

Landform: Flood plains

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Rise

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Silty alluvium mainly from areas of siltstone, shale, and limestone

Typical profile

H1 - 0 to 9 inches: silt loam

H2 - 9 to 16 inches: silt loam

H3 - 16 to 41 inches: silt loam

H4 - 41 to 60 inches: silt loam

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water

(Ksat): Moderately high to high (0.57 to 1.98 in/hr)

Depth to water table: About 36 to 72 inches

Frequency of flooding: OccasionalNone

Frequency of ponding: None

Calcium carbonate, maximum content: 1 percent

Available water capacity: High (about 11.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 1

Hydrologic Soil Group: B

Hydric soil rating: No

Minor Components

Herkimer

Percent of map unit: 5 percent

Hydric soil rating: No

Teel

Percent of map unit: 5 percent

Hydric soil rating: No

Howard

Percent of map unit: 5 percent

Hydric soil rating: No

Data Source Information

Soil Survey Area: Onondaga County, New York

Survey Area Data: Version 15, Jun 11, 2020

Onondaga County, New York

FL—Fluvaquents, frequently flooded

Map Unit Setting

National map unit symbol: 9vgn

Elevation: 300 to 1,800 feet

Mean annual precipitation: 38 to 42 inches

Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 110 to 190 days

Farmland classification: Not prime farmland

Map Unit Composition

Fluvaquents and similar soils: 75 percent

Minor components: 25 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Fluvaquents

Setting

Landform: Flood plains

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Parent material: Alluvium with highly variable texture

Typical profile

H1 - 0 to 5 inches: mucky silt loam

H2 - 5 to 70 inches: very gravelly silt loam

Properties and qualities

Slope: 0 to 5 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Capacity of the most limiting layer to transmit water

(Ksat): Moderately low to high (0.06 to 5.95 in/hr)

Depth to water table: About 0 inches

Frequency of flooding: FrequentNone

Frequency of ponding: Frequent

Calcium carbonate, maximum content: 15 percent

Available water capacity: Moderate (about 6.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 5w

Hydrologic Soil Group: A/D

Hydric soil rating: Yes

Minor Components

Teel

Percent of map unit: 5 percent

Hydric soil rating: No

Saprists

Percent of map unit: 5 percent

Landform: Marshes, swamps

Hydric soil rating: Yes

Warners

Percent of map unit: 5 percent

Landform: Flood plains

Hydric soil rating: Yes

Wayland

Percent of map unit: 5 percent

Landform: Flood plains

Hydric soil rating: Yes

Hamlin

Percent of map unit: 5 percent

Hydric soil rating: No

Data Source Information

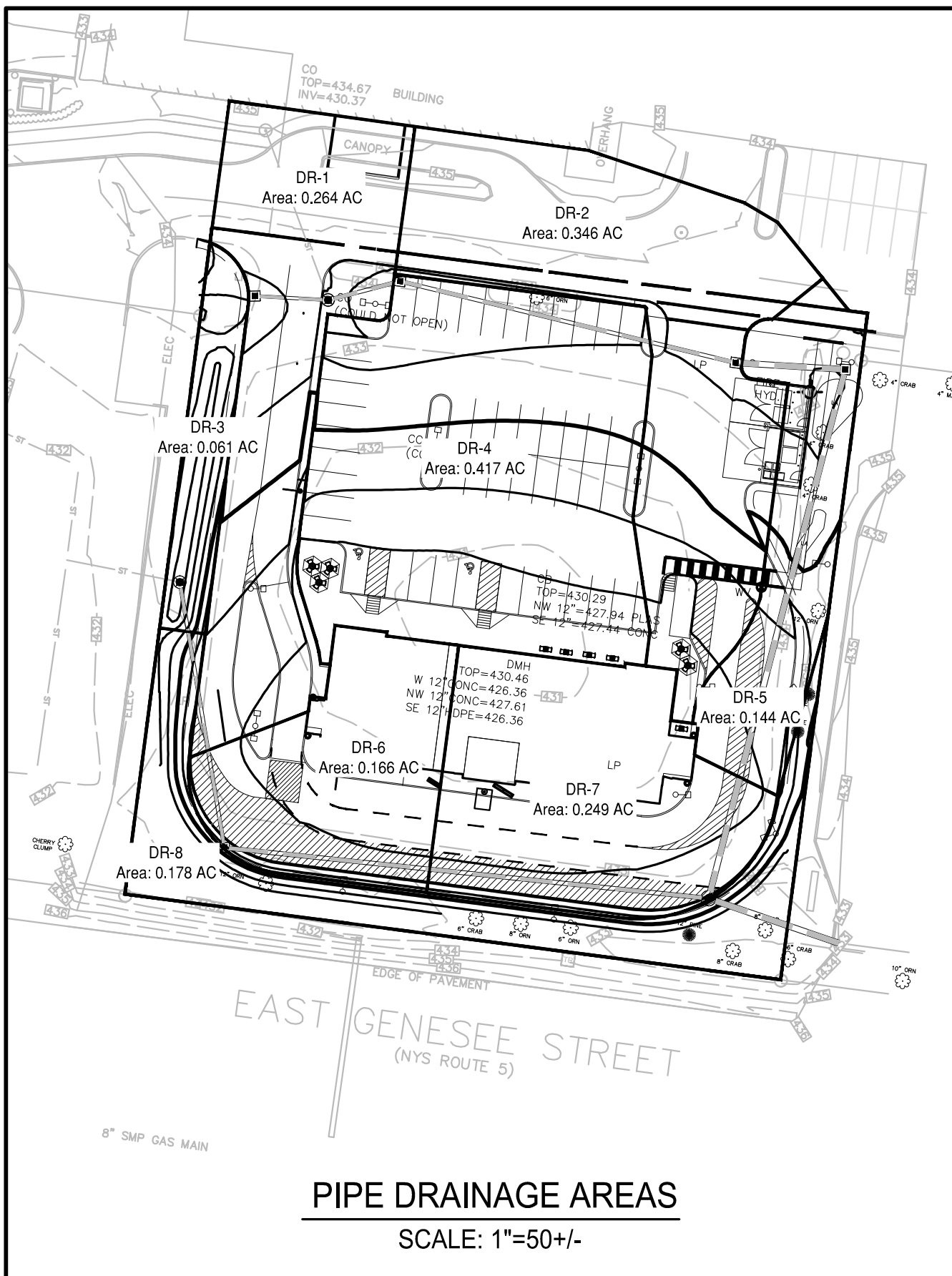
Soil Survey Area: Onondaga County, New York

Survey Area Data: Version 15, Jun 11, 2020



Appendix E

Storm Sizing Calculations



Project Description

File Name	StormXML.SPF
Description	I:\Cor Development\015105.00 COR-Restaurant A/B Site Dsgn Fayettevil\3.0 Design\3.4 Calcs\Stormwater\Pipe Sizing.dwg

Project Options

Flow Units	CFS
Elevation Type	Elevation
Hydrology Method	SCS TR-20
Time of Concentration (TOC) Method	User-Defined
Link Routing Method	Kinematic Wave
Enable Overflow Ponding at Nodes	YES
Skip Steady State Analysis Time Periods	NO

Analysis Options

Start Analysis On	Mar 26, 2021	00:00:00
End Analysis On	Mar 27, 2021	00:00:00
Start Reporting On	Mar 26, 2021	00:00:00
Antecedent Dry Days	0	days
Runoff (Dry Weather) Time Step	0 01:00:00	days hh:mm:ss
Runoff (Wet Weather) Time Step	0 00:05:00	days hh:mm:ss
Reporting Time Step	0 00:05:00	days hh:mm:ss
Routing Time Step	30	seconds

Number of Elements

	Qty
Rain Gages	1
Subbasins.....	7
Nodes.....	9
<i>Junctions</i>	9
<i>Outfalls</i>	0
<i>Flow Diversions</i>	0
<i>Inlets</i>	0
<i>Storage Nodes</i>	0
Links.....	8
<i>Channels</i>	0
<i>Pipes</i>	8
<i>Pumps</i>	0
<i>Orifices</i>	0
<i>Weirs</i>	0
<i>Outlets</i>	0
Pollutants	0
Land Uses	0

Rainfall Details

SN	Rain Gage ID	Data Source	Data Source ID	Rainfall Type	Rain Units	State	County	Return Period (years)	Rainfall Depth (inches)	Rainfall Distribution
1	Rain Gage-01	Time Series	TS-01	Cumulative	inches	New York	Onondaga	10	3.80	SCS Type II 24-hr

Subbasin Summary

SN	Subbasin ID	Area	Weighted Curve ing.dwg	Total	Total	Total	Peak	Time of Concentration
				Runoff	Runoff	Runoff		
		Number (ac)		(in)	(in)	Volume (ac-in)	(cfs)	(days hh:mm:ss)
1	{Site 1}.Drainage Area : 1	0.26	98.00	3.80	3.57	0.94	1.27	0 00:06:00
2	{Site 1}.Drainage Area : 2	0.35	98.00	3.80	3.57	1.23	1.67	0 00:06:00
3	{Site 1}.Drainage Area : 3	0.06	98.00	3.80	3.56	0.22	0.31	0 00:06:00
4	{Site 1}.Drainage Area : 4	0.42	98.00	3.80	3.57	1.48	2.01	0 00:06:00
5	{Site 1}.Drainage Area : 5	0.14	98.00	3.80	3.56	0.51	0.71	0 00:06:00
6	{Site 1}.Drainage Area : 6	0.17	98.00	3.80	3.56	0.59	0.80	0 00:06:00
7	{Site 1}.Drainage Area : 7	0.25	98.00	3.80	3.57	0.88	1.21	0 00:06:00

Node Summary

SN	Element ID	Element Type	Invert Elevation	Ground/Rim e Sizing.dwg	Initial Water	Surcharge Elevation	Ponded Area	Peak Inflow	Max HGL Elevation	Max Surcharge	Min Freeboard	Time of Peak	Total Flooded	Total Time Flooded
			Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	(ft²)	(cfs)	Attained (ft)	Depth Attained (ft)	Attained (ft)	Flooding Occurrence (days hh:mm)	Volume (ac-in)	(min)
1	10 (STORM)	Junction	429.05	434.14	429.05	434.14	0.00	1.25	429.78	0.00	4.36	0 00:00	0.00	0.00
2	11 (STORM)	Junction	428.50	431.57	428.50	431.57	0.00	0.31	428.75	0.00	2.82	0 00:00	0.00	0.00
3	2 (STORM)	Junction	429.37	432.64	429.37	432.64	0.00	1.26	429.90	0.00	2.74	0 00:00	0.00	0.00
4	3 (STORM)	Junction	428.93	433.07	428.93	433.07	0.00	3.24	429.95	0.00	3.12	0 00:00	0.00	0.00
5	4 (STORM)	Junction	427.99	433.57	427.99	433.57	0.00	4.85	429.40	0.00	4.16	0 00:00	0.00	0.00
6	5 (STORM)	Junction	427.77	432.50	427.77	432.50	0.00	5.54	428.64	0.00	3.86	0 00:00	0.00	0.00
7	6 (STORM)	Junction	426.55	436.55	426.55	436.55	0.00	7.73	427.56	0.00	8.99	0 00:00	0.00	0.00
8	7 (STORM)	Junction	0.00	428.55	0.00	428.55	0.00	7.71	428.55	0.00	0.00	0 00:00	0.00	0.00
9	9 (STORM)	Junction	427.76	436.50	427.76	436.50	0.00	1.09	428.32	0.00	8.17	0 00:00	0.00	0.00

Link Summary

SN Element ID	Element Type	From (Inlet)	To (Outlet)	Length ft\Cor Development\0	Inlet Invert	Outlet Invert	Average Slope	Diameter or Height	Manning's Roughness	Peak Flow Capacity	Design Flow	Peak Flow/Design Flow	Peak Flow Velocity	Peak Flow Depth	Peak Flow Depth/	Total Time Surcharged	Reported Condition
Elevation																	
Ratio																	
Total Depth Ratio																	
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Subbasin Hydrology

Subbasin : {Site 1}.Drainage Area : 1

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Input Data

Area (ac) 0.26
Weighted Curve Number 98.00
Rain Gage ID Rain Gage-01

Composite Curve Number

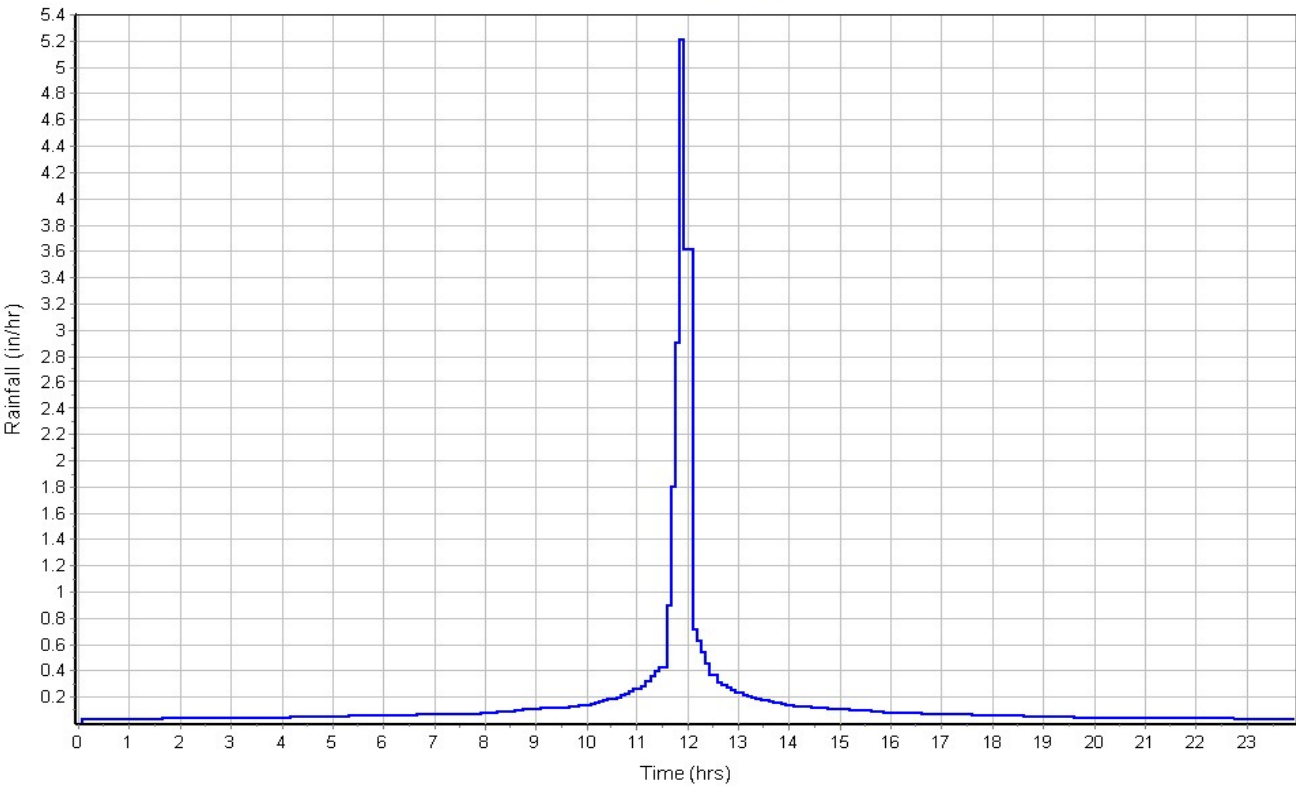
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.26	-	98.00
Composite Area & Weighted CN	0.26		98.00

Subbasin Runoff Results

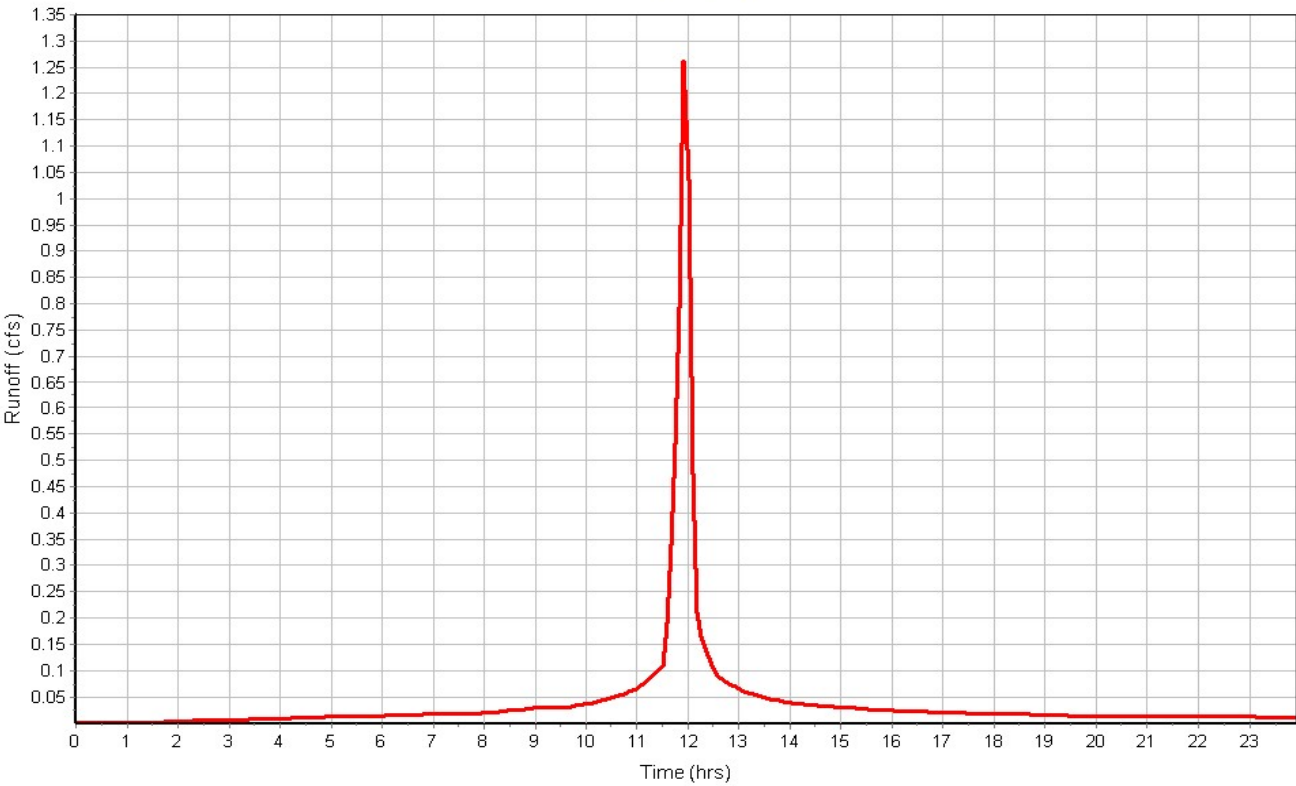
Total Rainfall (in) 3.80
Total Runoff (in) 3.57
Peak Runoff (cfs) 1.27
Weighted Curve Number 98.00
Time of Concentration (days hh:mm:ss) 0 00:06:00

Subbasin : {Site 1}.Drainage Area : 1

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : {Site 1}.Drainage Area : 2

Input Data

Area (ac) 0.35
Weighted Curve Number 98.00
Rain Gage ID Rain Gage-01

Composite Curve Number

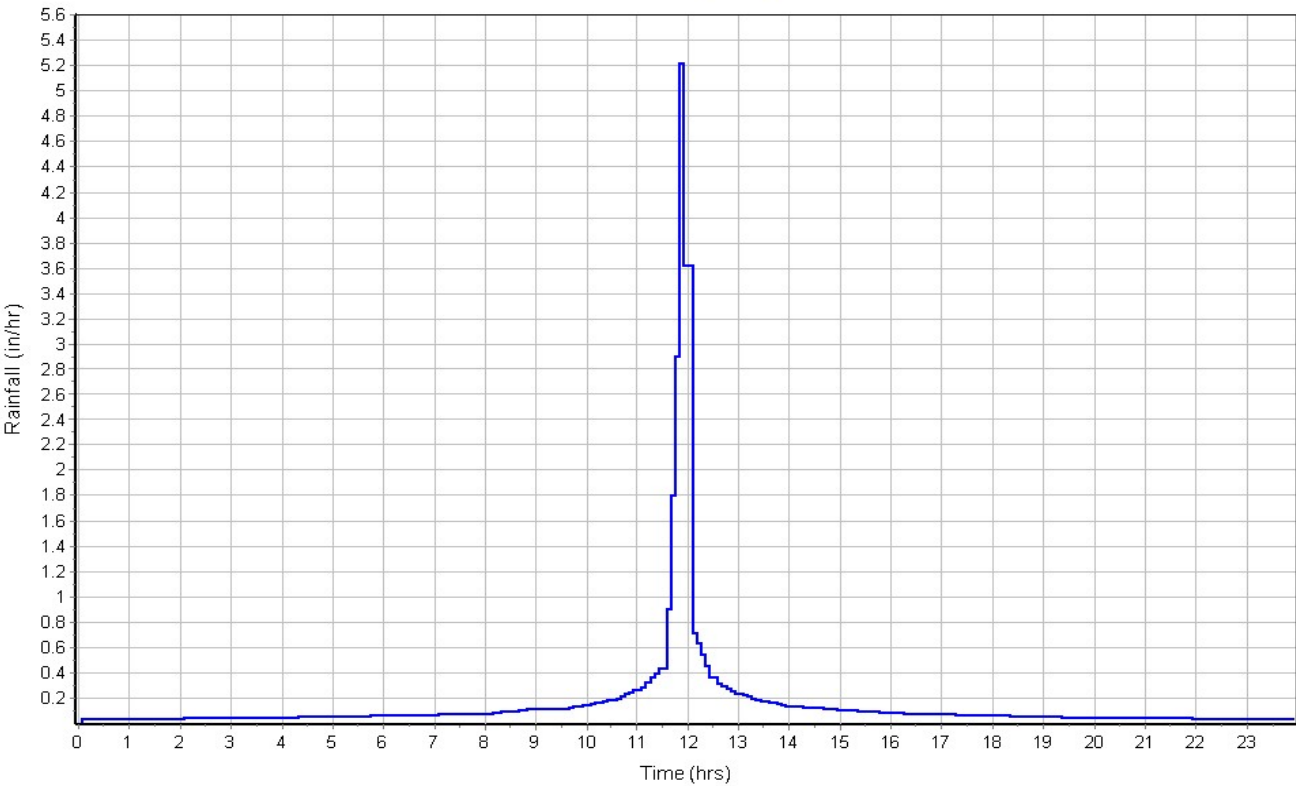
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.35	-	98.00
Composite Area & Weighted CN	0.35		98.00

Subbasin Runoff Results

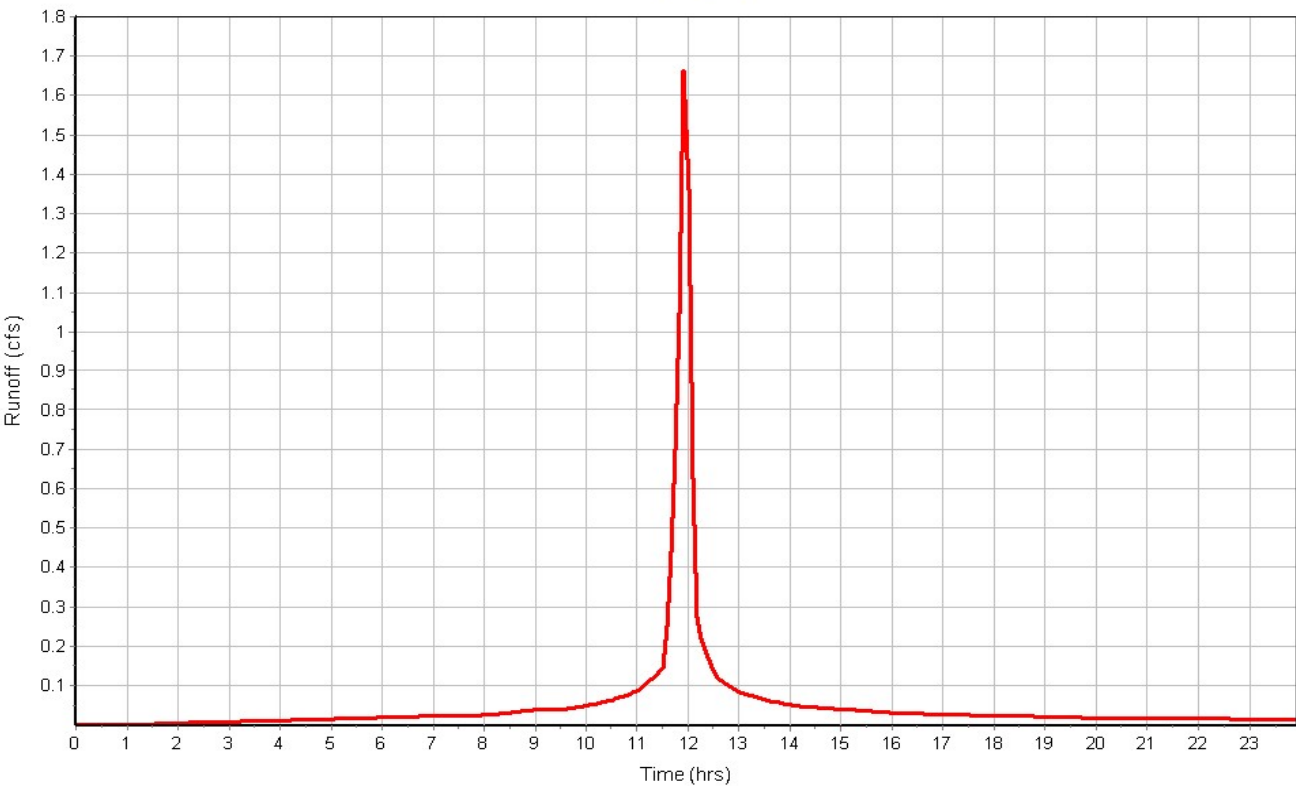
Total Rainfall (in) 3.80
Total Runoff (in) 3.57
Peak Runoff (cfs) 1.67
Weighted Curve Number 98.00
Time of Concentration (days hh:mm:ss) 0 00:06:00

Subbasin : {Site 1}.Drainage Area : 2

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : {Site 1}.Drainage Area : 3

Input Data

Area (ac) 0.06
Weighted Curve Number 98.00
Rain Gage ID Rain Gage-01

Composite Curve Number

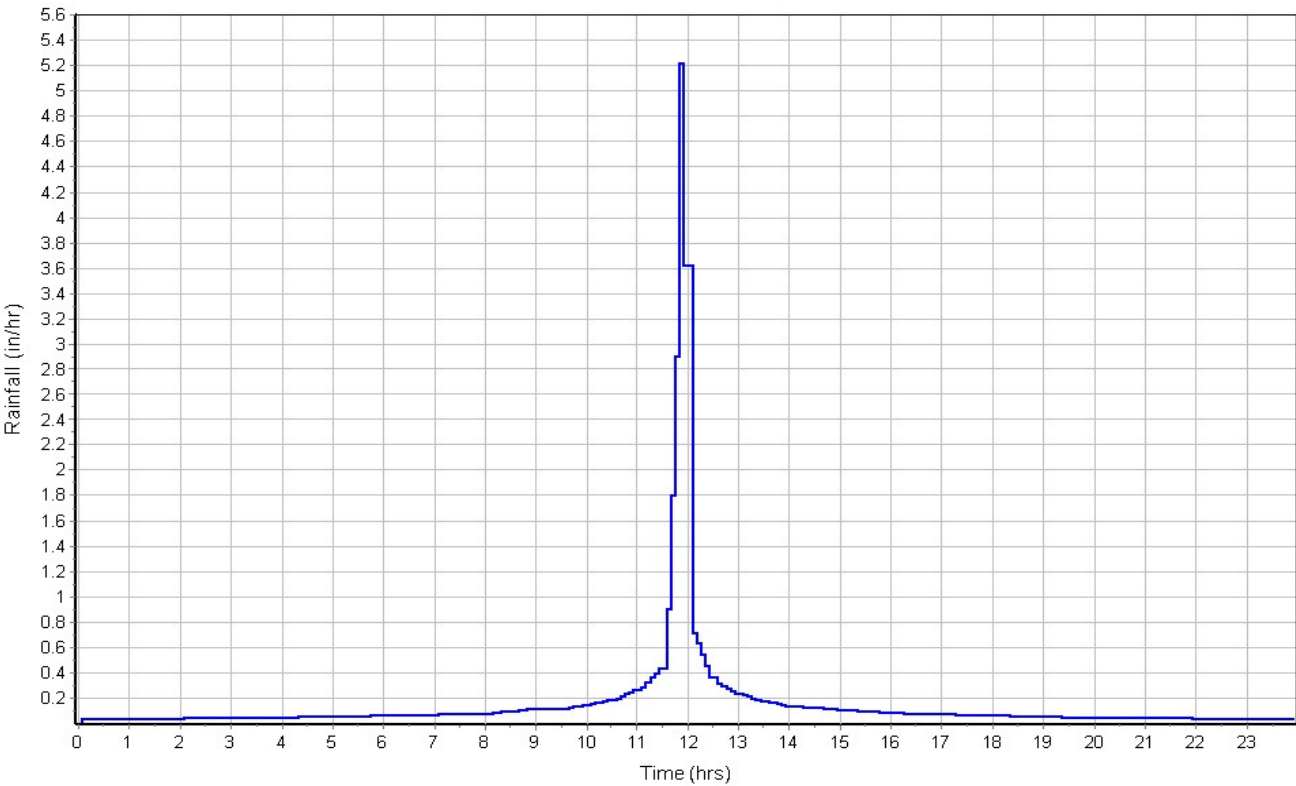
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.06	-	98.00
Composite Area & Weighted CN	0.06		98.00

Subbasin Runoff Results

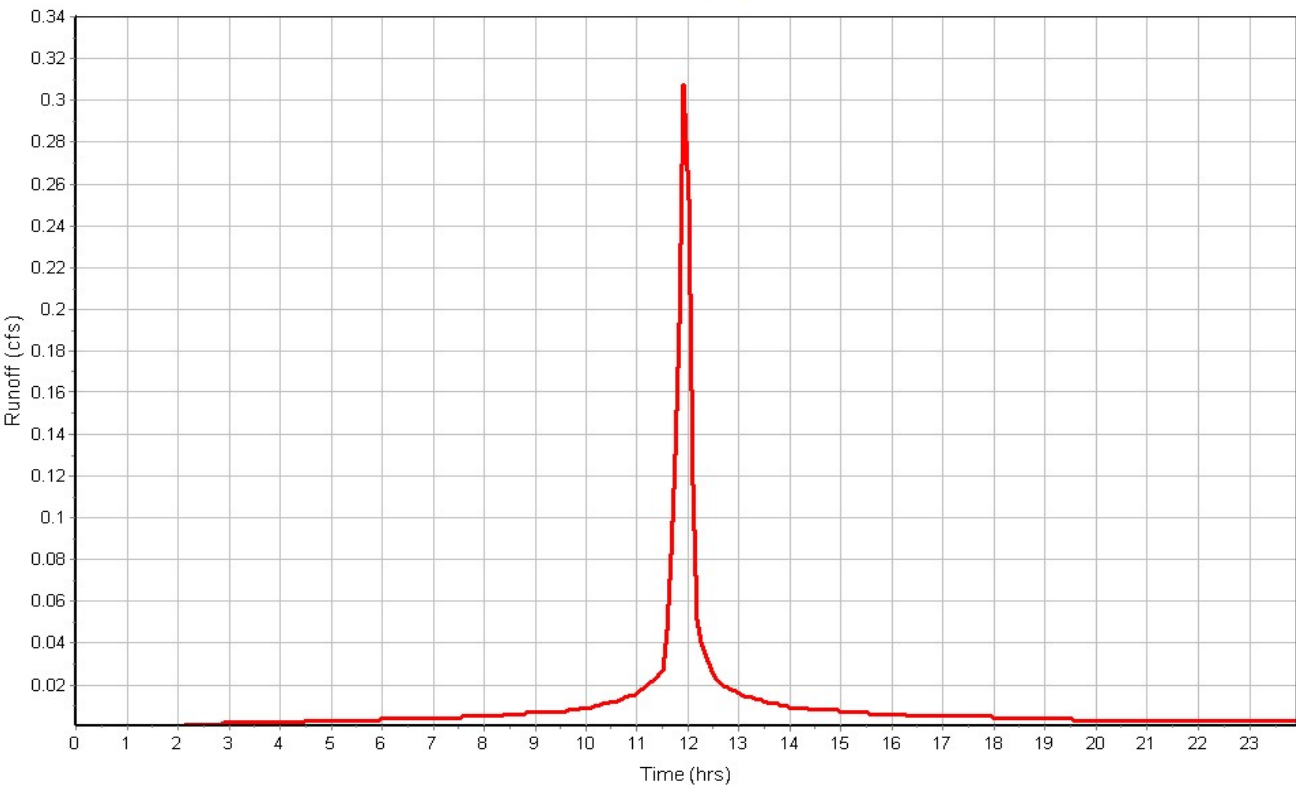
Total Rainfall (in) 3.80
Total Runoff (in) 3.56
Peak Runoff (cfs) 0.31
Weighted Curve Number 98.00
Time of Concentration (days hh:mm:ss) 0 00:06:00

Subbasin : {Site 1}.Drainage Area : 3

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : {Site 1}.Drainage Area : 4

Input Data

Area (ac) 0.42
Weighted Curve Number 98.00
Rain Gage ID Rain Gage-01

Composite Curve Number

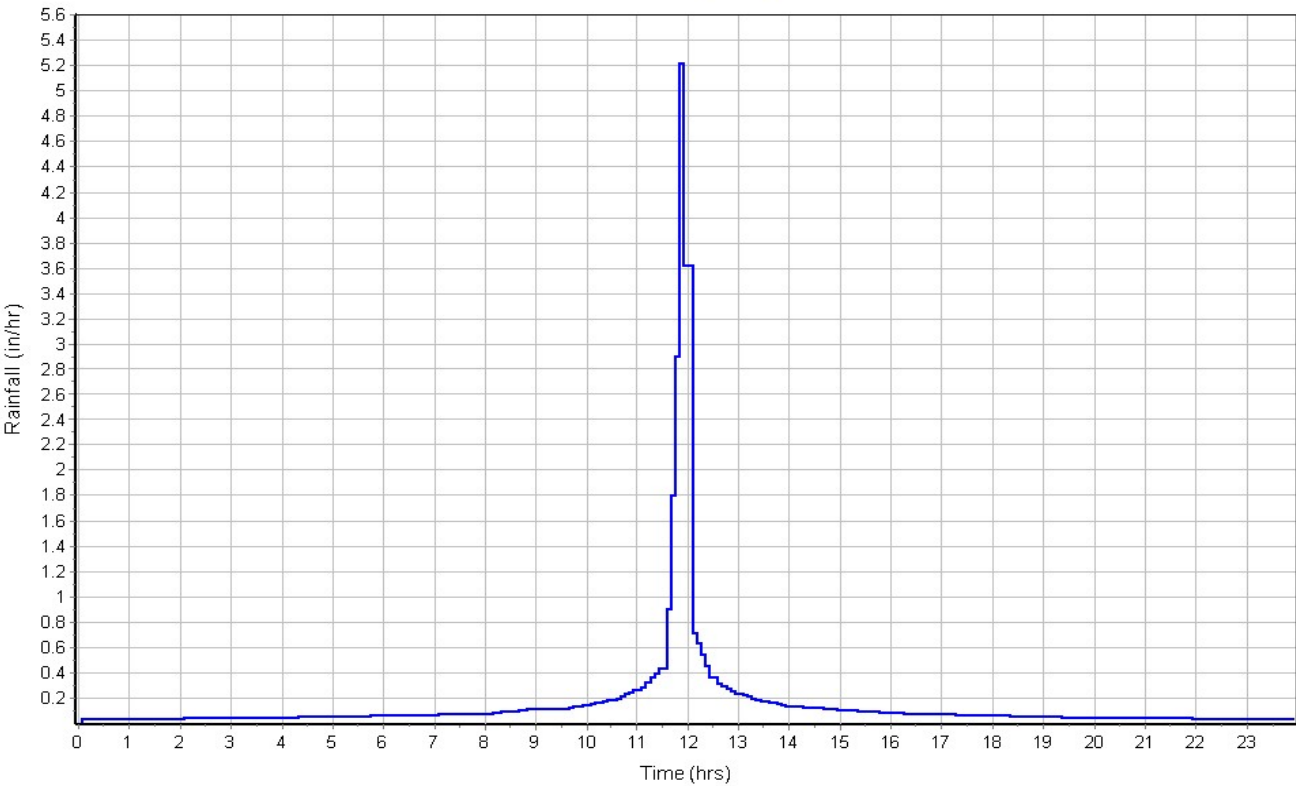
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.42	-	98.00
Composite Area & Weighted CN	0.42		98.00

Subbasin Runoff Results

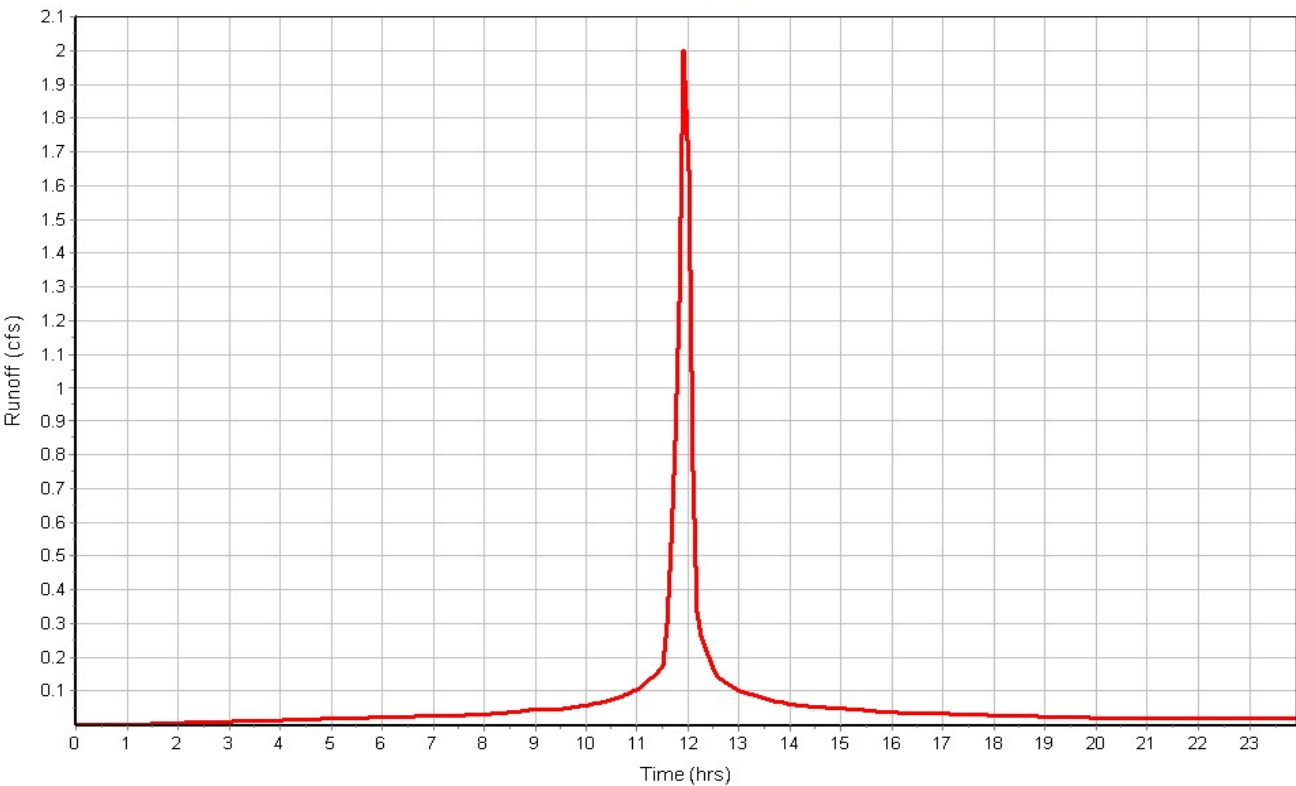
Total Rainfall (in) 3.80
Total Runoff (in) 3.57
Peak Runoff (cfs) 2.01
Weighted Curve Number 98.00
Time of Concentration (days hh:mm:ss) 0 00:06:00

Subbasin : {Site 1}.Drainage Area : 4

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : {Site 1}.Drainage Area : 5

Input Data

Area (ac) 0.14
Weighted Curve Number 98.00
Rain Gage ID Rain Gage-01

Composite Curve Number

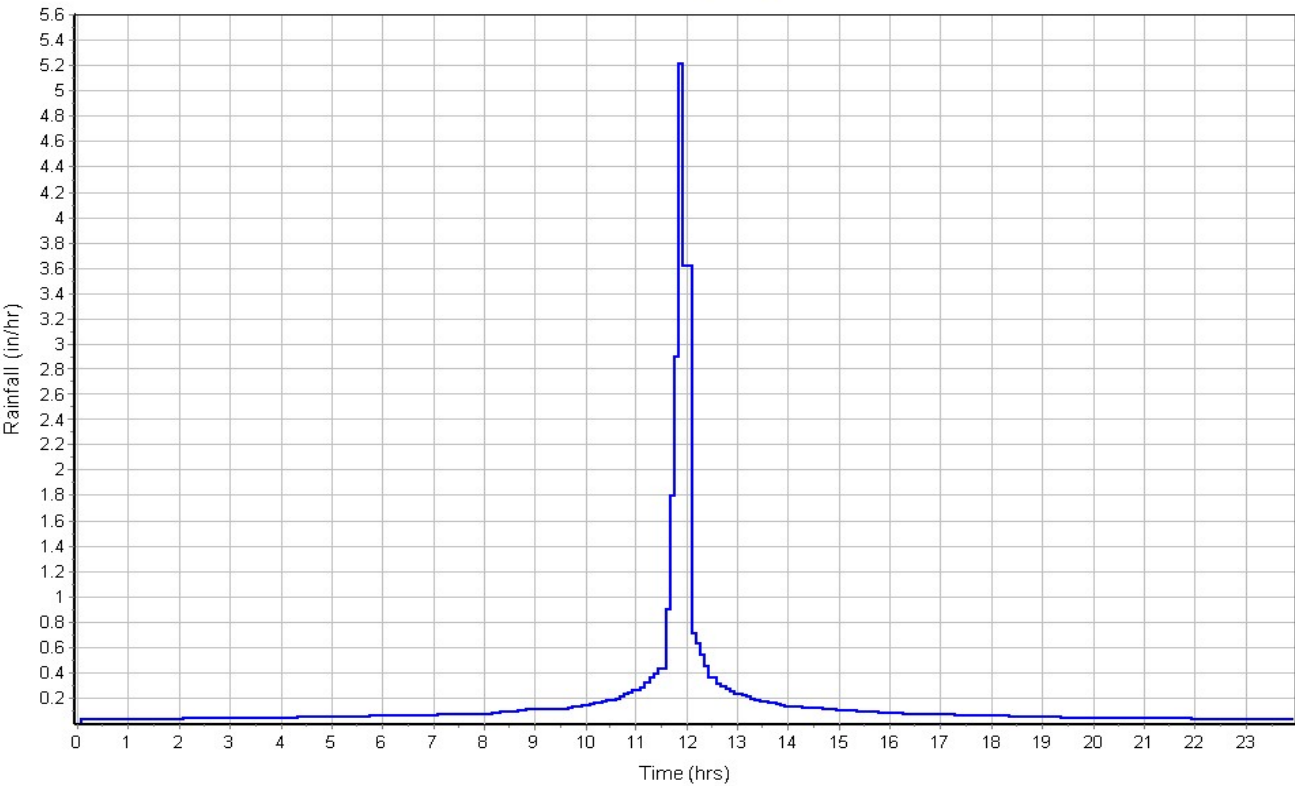
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.14	-	98.00
Composite Area & Weighted CN	0.14		98.00

Subbasin Runoff Results

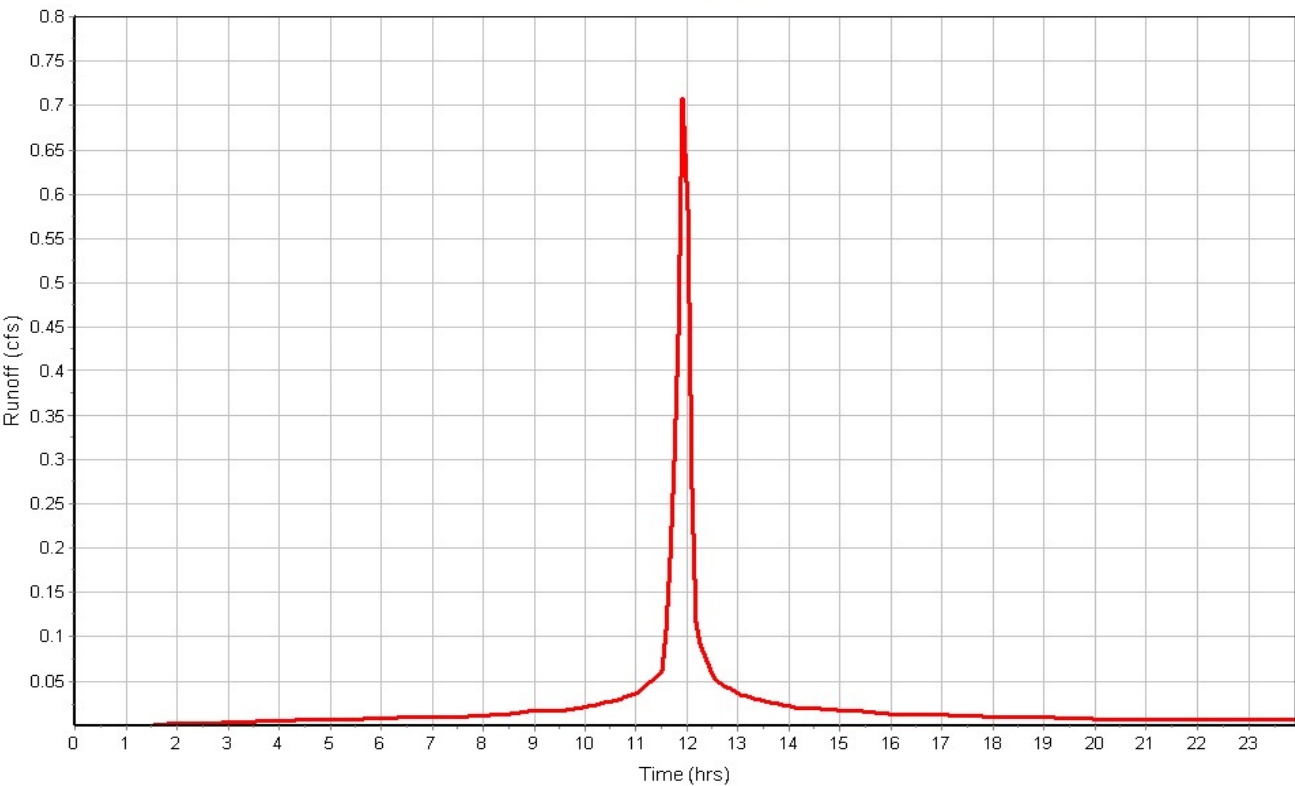
Total Rainfall (in) 3.80
Total Runoff (in) 3.56
Peak Runoff (cfs) 0.71
Weighted Curve Number 98.00
Time of Concentration (days hh:mm:ss) 0 00:06:00

Subbasin : {Site 1}.Drainage Area : 5

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : {Site 1}.Drainage Area : 6

Input Data

Area (ac) 0.17
Weighted Curve Number 98.00
Rain Gage ID Rain Gage-01

Composite Curve Number

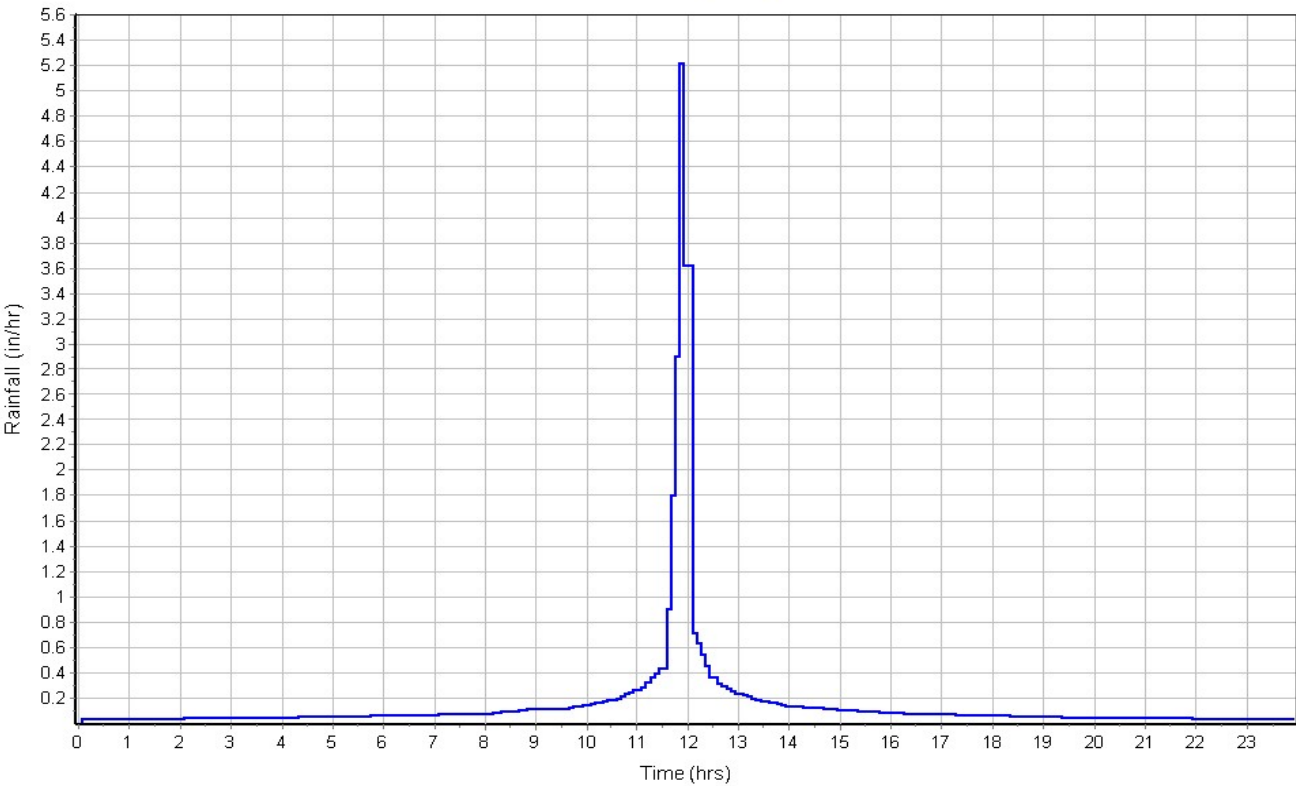
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.17	-	98.00
Composite Area & Weighted CN	0.17		98.00

Subbasin Runoff Results

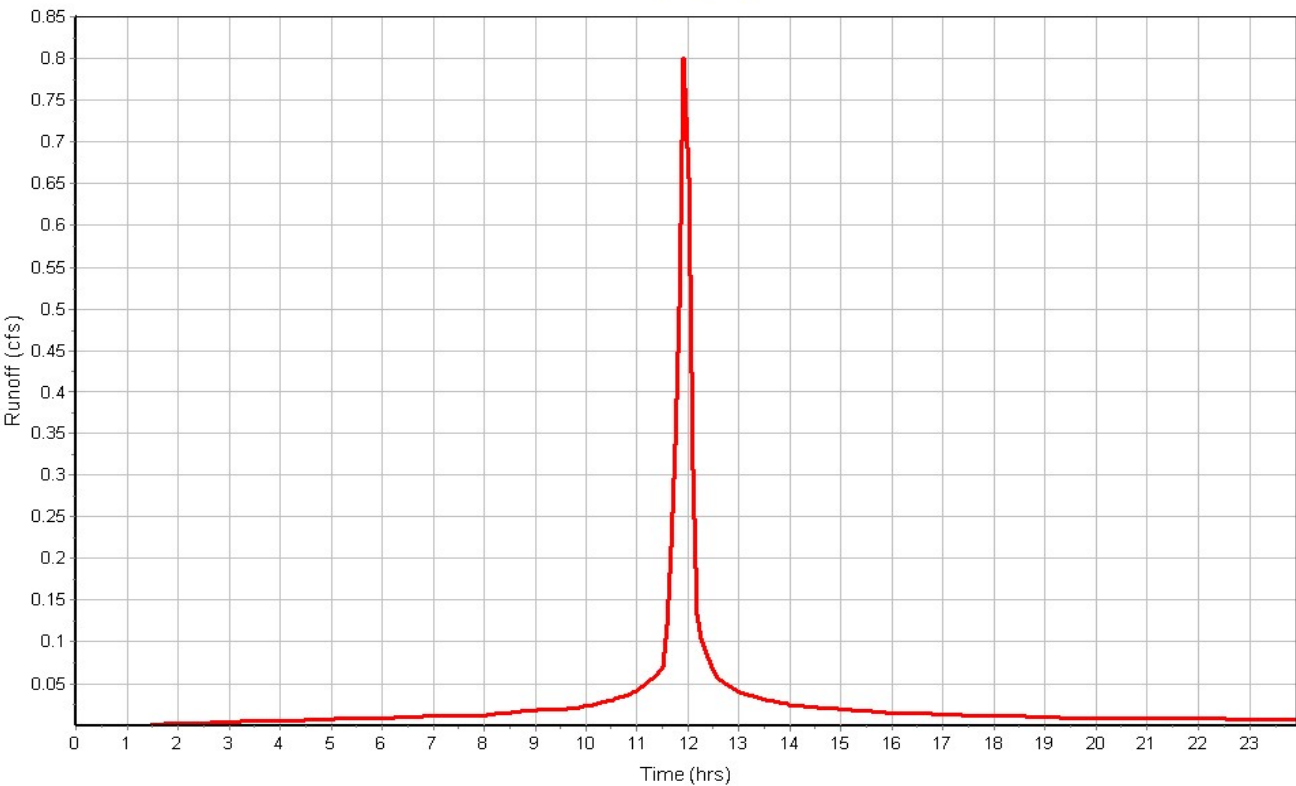
Total Rainfall (in) 3.80
Total Runoff (in) 3.56
Peak Runoff (cfs) 0.80
Weighted Curve Number 98.00
Time of Concentration (days hh:mm:ss) 0 00:06:00

Subbasin : {Site 1}.Drainage Area : 6

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : {Site 1}.Drainage Area : 7

Input Data

Area (ac) 0.25
Weighted Curve Number 98.00
Rain Gage ID Rain Gage-01

Composite Curve Number

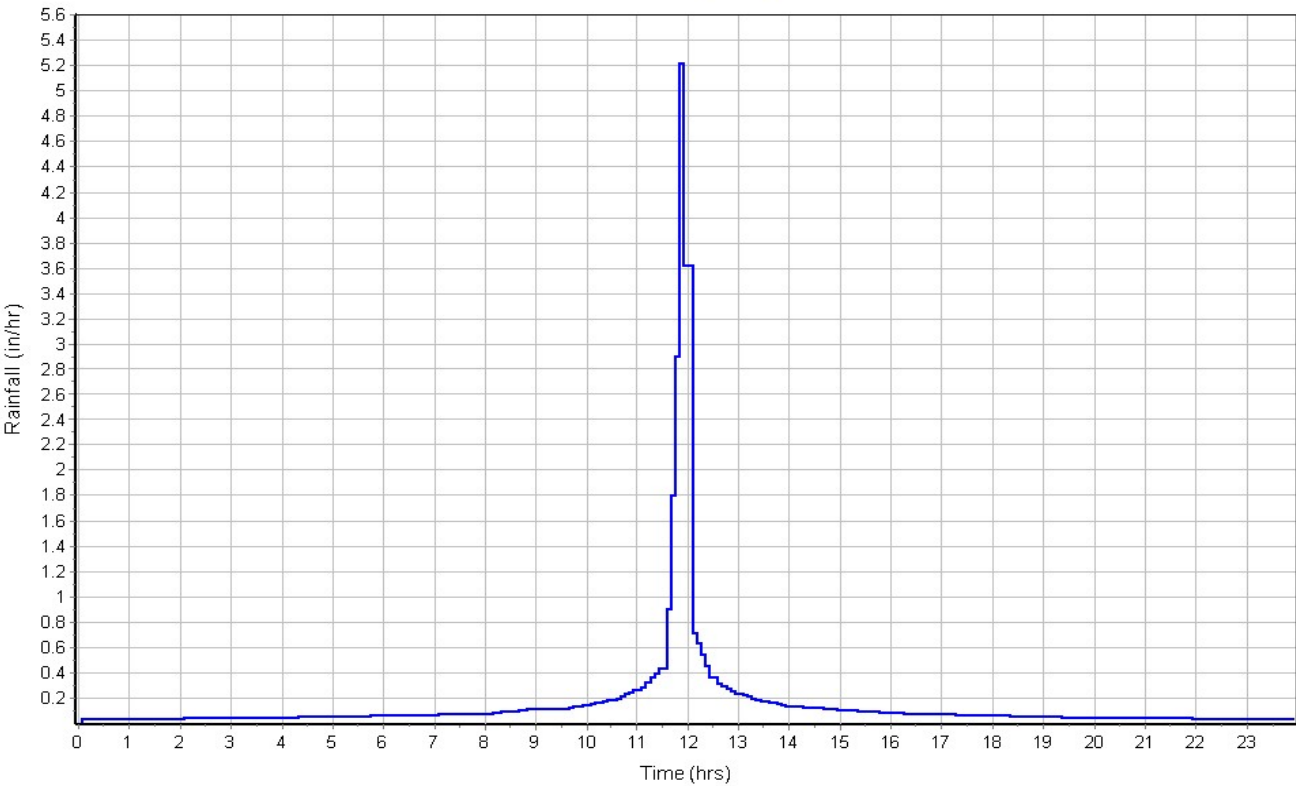
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.25	-	98.00
Composite Area & Weighted CN	0.25		98.00

Subbasin Runoff Results

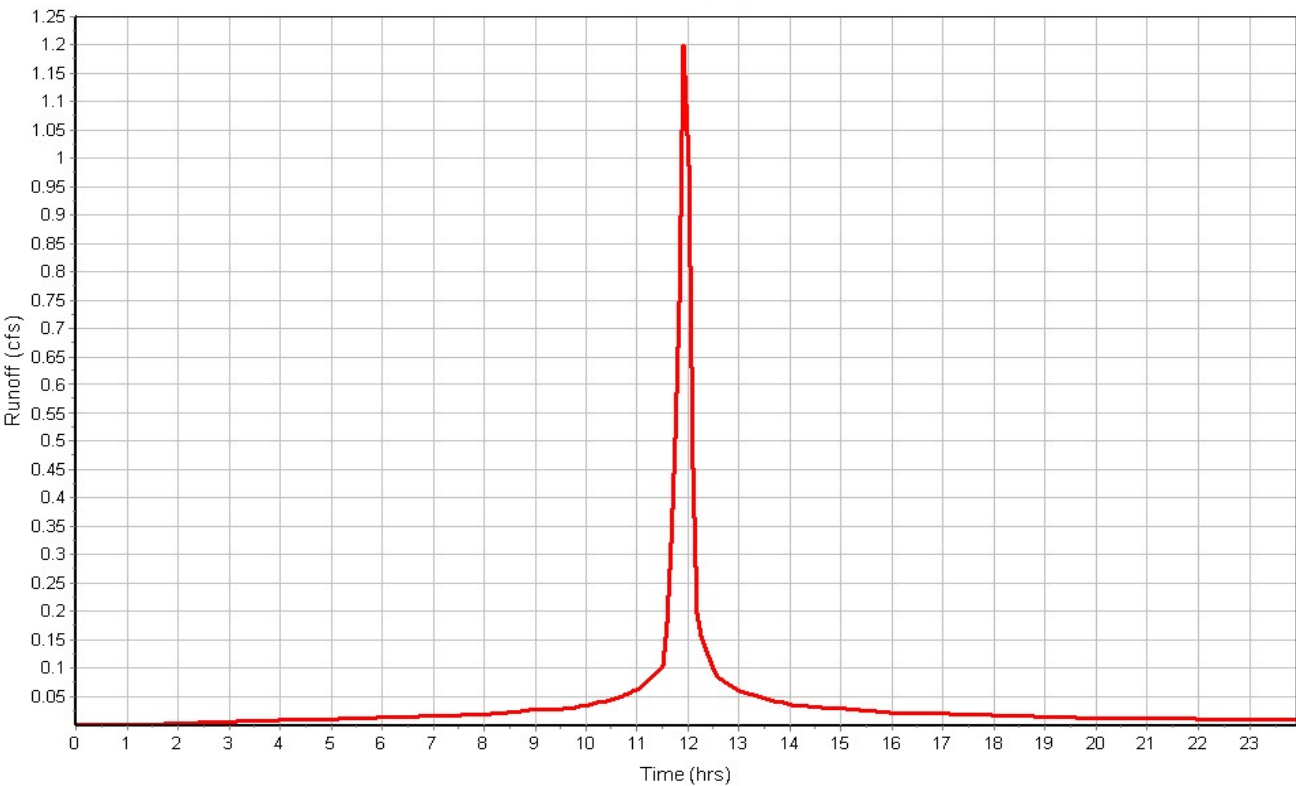
Total Rainfall (in) 3.80
Total Runoff (in) 3.57
Peak Runoff (cfs) 1.21
Weighted Curve Number 98.00
Time of Concentration (days hh:mm:ss) 0 00:06:00

Subbasin : {Site 1}.Drainage Area : 7

Rainfall Intensity Graph



Runoff Hydrograph



Junction Input

SN	Element	Invert	Ground/Rim	Ground/Rim	Initial	Initial	Surcharge	Surcharge	Ponded	Minimum
ID		Elevation	(Max)	e Sizing.dwg	Water	Water	Elevation	Depth	Area	Pipe
		Elevation	Offset	Elevation	Depth				Cover	
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft²)	(in)	
1	10 (STORM)	429.05	434.14	5.09	429.05	0.00	434.14	0.00	0.00	
2	11 (STORM)	428.50	431.57	3.07	428.50	0.00	431.57	0.00	0.00	
3	2 (STORM)	429.37	432.64	3.27	429.37	0.00	432.64	0.00	0.00	
4	3 (STORM)	428.93	433.07	4.14	428.93	0.00	433.07	0.00	0.00	
5	4 (STORM)	427.99	433.57	5.58	427.99	0.00	433.57	0.00	0.00	
6	5 (STORM)	427.77	432.50	4.73	427.77	0.00	432.50	0.00	0.00	
7	6 (STORM)	426.55	436.55	10.00	426.55	0.00	436.55	0.00	0.00	
8	7 (STORM)	0.00	428.55	428.55	0.00	0.00	428.55	0.00	0.00	
9	9 (STORM)	427.76	436.50	8.74	427.76	0.00	436.50	0.00	0.00	

Junction Results

SN	Element ID	Peak Inflow	Peak Lateral	Max HGL Sizing.dwg	Max HGL Depth	Max Surcharge	Min Freeboard	Average HGL Elevation	Average HGL Depth	Time of Max HGL	Time of Peak	Total Flooded	Total Time Flooded
		Inflow	Attained	Attained	Depth Attained	Attained	Attained	Attained	Attained	Occurrence	Flooding Occurrence	Volume	
		(cfs)	(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(days hh:mm)	(days hh:mm)	(ac-in)	(min)
1	10 (STORM)	1.25	0.00	429.78	0.73	0.00	4.36	429.32	0.27	0 12:00	0 00:00	0.00	0.00
2	11 (STORM)	0.31	0.31	428.75	0.25	0.00	2.82	428.54	0.04	0 12:00	0 00:00	0.00	0.00
3	2 (STORM)	1.26	1.26	429.90	0.53	0.00	2.74	429.44	0.07	0 12:00	0 00:00	0.00	0.00
4	3 (STORM)	3.24	2.00	429.95	1.02	0.00	3.12	429.21	0.28	0 12:00	0 00:00	0.00	0.00
5	4 (STORM)	4.85	1.66	429.40	1.41	0.00	4.16	428.67	0.68	0 12:00	0 00:00	0.00	0.00
6	5 (STORM)	5.54	0.71	428.64	0.87	0.00	3.86	427.94	0.17	0 12:00	0 00:00	0.00	0.00
7	6 (STORM)	7.73	1.20	427.56	1.01	0.00	8.99	426.87	0.32	0 12:01	0 00:00	0.00	0.00
8	7 (STORM)	7.71	0.00	428.55	428.55	0.00	0.00	428.41	428.41	0 01:28	0 00:00	0.00	0.00
9	9 (STORM)	1.09	0.80	428.32	0.56	0.00	8.17	428.11	0.35	0 12:00	0 00:00	0.00	0.00

Pipe Input

SN	Element ID	Length	Inlet Invert	Inlet Invert g.dwg	Outlet Invert	Outlet Invert	Total Drop	Average Slope	Pipe Shape	Pipe Diameter or Width	Pipe Width	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow
			Elevation (ft)	Offset (ft)	Elevation (ft)	Offset (ft)	(ft)	(%)		Height (in)	(in)					(cfs)
1	{STORM}.1 (10) (STORM)	105.79	428.50	0.00	428.08	0.32	0.42	0.4000	CIRCULAR							
2	{STORM}.1 (2) (1) (STORM)	29.28	429.05	0.00	428.93	0.00	0.12	0.4000	CIRCULAR							
3	{STORM}.1 (2) (STORM)	28.81	429.37	0.00	429.25	0.20	0.12	0.4000	CIRCULAR							
4	{STORM}.1 (3) (STORM)	135.75	429.11	0.18	428.57	0.58	0.54	0.4000	CIRCULAR							
5	{STORM}.1 (4) (STORM)	43.20	427.99	0.00	427.77	0.00	0.22	0.5000	CIRCULAR							
6	{STORM}.1 (5) (STORM)	214.82	427.82	0.05	426.75	0.20	1.07	0.5000	CIRCULAR							
7	{STORM}.1 (7) (STORM)	53.99	426.55	0.00	426.28	426.28	0.27	0.5000	CIRCULAR							
8	{STORM}.1 (9) (STORM)	191.45	427.76	0.00	426.80	0.25	0.96	0.5000	CIRCULAR							

Flap No. of
Gate Barrels

Pipe Results

SN Element ID	Peak Flow	Time of Peak Flow	Design Flow e Sizing.dwg	Peak Flow/ Design Flow	Peak Flow Velocity	Travel Time	Peak Flow Depth	Peak Flow Depth/ Surcharged	Total Time	Froude Number	Reported Condition
	Occurrence			Ratio			Total Depth Ratio				
	(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)	(ft)		(min)		
1 {STORM}.1 (10) (STORM)	0.30	0 12:00	2.25	0.13	2.01	0.88	0.25	0.25	0.00		Calculated
2 {STORM}.1 (2) (1) (STORM)	1.25	0 12:00	4.08	0.31	2.92	0.17	0.47	0.38	0.00		Calculated
3 {STORM}.1 (2) (STORM)	1.25	0 12:00	2.25	0.56	2.95	0.16	0.53	0.53	0.00		Calculated
4 {STORM}.1 (3) (STORM)	3.21	0 12:00	4.09	0.79	3.71	0.61	0.83	0.67	0.00		Calculated
5 {STORM}.1 (4) (STORM)	4.84	0 12:00	16.00	0.30	4.46	0.16	0.75	0.38	0.00		Calculated
6 {STORM}.1 (5) (STORM)	5.49	0 12:01	16.00	0.34	4.64	0.77	0.79	0.40	0.00		Calculated
7 {STORM}.1 (7) (STORM)	7.71	0 12:01	16.00	0.48	5.05	0.18	0.95	0.49	0.00		Calculated
8 {STORM}.1 (9) (STORM)	1.08	0 12:01	4.57	0.24	3.06	1.04	0.41	0.33	0.00		Calculated

Subbasin Summary

SN	Subbasin ID	Area	Weighted Curve Number	Total Rainfall	Total Runoff	Total Runoff Volume	Peak Runoff	Time of Concentration
		(ac)		(in)	(in)	(ac-in)	(cfs)	(days hh:mm:ss)
1	{Site 1}.Drainage Area : 1	0.26	98.00	3.80	3.57	0.94	1.27	0 00:06:00
2	{Site 1}.Drainage Area : 2	0.35	98.00	3.80	3.57	1.23	1.67	0 00:06:00
3	{Site 1}.Drainage Area : 3	0.06	98.00	3.80	3.56	0.22	0.31	0 00:06:00
4	{Site 1}.Drainage Area : 4	0.42	98.00	3.80	3.57	1.48	2.01	0 00:06:00
5	{Site 1}.Drainage Area : 5	0.14	98.00	3.80	3.56	0.51	0.71	0 00:06:00
6	{Site 1}.Drainage Area : 6	0.17	98.00	3.80	3.56	0.59	0.80	0 00:06:00
7	{Site 1}.Drainage Area : 7	0.25	98.00	3.80	3.57	0.88	1.21	0 00:06:00

Node Summary

SN	Element ID	Element Type	Invert Elevation	Ground/Rim (Max) Elevation	Initial Water Elevation	Surcharge Elevation	Ponded Area	Peak Inflow	Max HGL Elevation Attained	Max Surcharge Depth Attained	Min Freeboard Attained	Time of Peak Flooding Occurrence	Total Flooded Volume	Total Time Flooded
			(ft)	(ft)	(ft)	(ft)	(ft²)	(cfs)	(ft)	(ft)	(ft)	(days hh:mm)	(ac-in)	(min)
1	10 (STORM)	Junction	429.05	434.14	429.05	434.14	0.00	1.25	429.78	0.00	4.36	0 00:00	0.00	0.00
2	11 (STORM)	Junction	428.50	431.57	428.50	431.57	0.00	0.31	428.75	0.00	2.82	0 00:00	0.00	0.00
3	2 (STORM)	Junction	429.37	432.64	429.37	432.64	0.00	1.26	429.90	0.00	2.74	0 00:00	0.00	0.00
4	3 (STORM)	Junction	428.93	433.07	428.93	433.07	0.00	3.24	429.95	0.00	3.12	0 00:00	0.00	0.00
5	4 (STORM)	Junction	427.99	433.57	427.99	433.57	0.00	4.85	429.40	0.00	4.16	0 00:00	0.00	0.00
6	5 (STORM)	Junction	427.77	432.50	427.77	432.50	0.00	5.54	428.64	0.00	3.86	0 00:00	0.00	0.00
7	6 (STORM)	Junction	426.55	436.55	426.55	436.55	0.00	7.73	427.56	0.00	8.99	0 00:00	0.00	0.00
8	7 (STORM)	Junction	0.00	428.55	0.00	428.55	0.00	7.71	428.55	0.00	0.00	0 00:00	0.00	0.00
9	9 (STORM)	Junction	427.76	436.50	427.76	436.50	0.00	1.09	428.32	0.00	8.17	0 00:00	0.00	0.00

Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length	Inlet Invert Elevation	Outlet Invert Elevation	Average Slope	Diameter or Height	Manning's Roughness	Peak Flow	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Peak Flow Depth	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Reported Condition
					(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(cfs)		(ft/sec)	(ft)		(min)	
1	{STORM}.1 (10) (STORM)	Pipe	11 (STORM)	9 (STORM)	105.79	428.50	428.08	0.4000			0.30	2.25	0.13	2.01	0.25	0.25	0.00	Calculated
2	{STORM}.1 (2) (1) (STORM)	Pipe	10 (STORM)	3 (STORM)	29.28	429.05	428.93	0.4000			1.25	4.08	0.31	2.92	0.47	0.38	0.00	Calculated
3	{STORM}.1 (2) (STORM)	Pipe	2 (STORM)	10 (STORM)	28.81	429.37	429.25	0.4000			1.25	2.25	0.56	2.95	0.53	0.53	0.00	Calculated
4	{STORM}.1 (3) (STORM)	Pipe	3 (STORM)	4 (STORM)	135.75	429.11	428.57	0.4000			3.21	4.09	0.79	3.71	0.83	0.67	0.00	Calculated
5	{STORM}.1 (4) (STORM)	Pipe	4 (STORM)	5 (STORM)	43.20	427.99	427.77	0.5000			4.84	16.00	0.30	4.46	0.75	0.38	0.00	Calculated
6	{STORM}.1 (5) (STORM)	Pipe	5 (STORM)	6 (STORM)	214.82	427.82	426.75	0.5000			5.49	16.00	0.34	4.64	0.79	0.40	0.00	Calculated
7	{STORM}.1 (7) (STORM)	Pipe	6 (STORM)	7 (STORM)	53.99	426.55	426.28	0.5000			7.71	16.00	0.48	5.05	0.95	0.49	0.00	Calculated
8	{STORM}.1 (9) (STORM)	Pipe	9 (STORM)	6 (STORM)	191.45	427.76	426.80	0.5000			1.08	4.57	0.24	3.06	0.41	0.33	0.00	Calculated

Subbasin Hydrology

Subbasin : {Site 1}.Drainage Area : 1

Input Data

Area (ac) 0.26
Weighted Curve Number 98.00
Rain Gage ID Rain Gage-01

Composite Curve Number

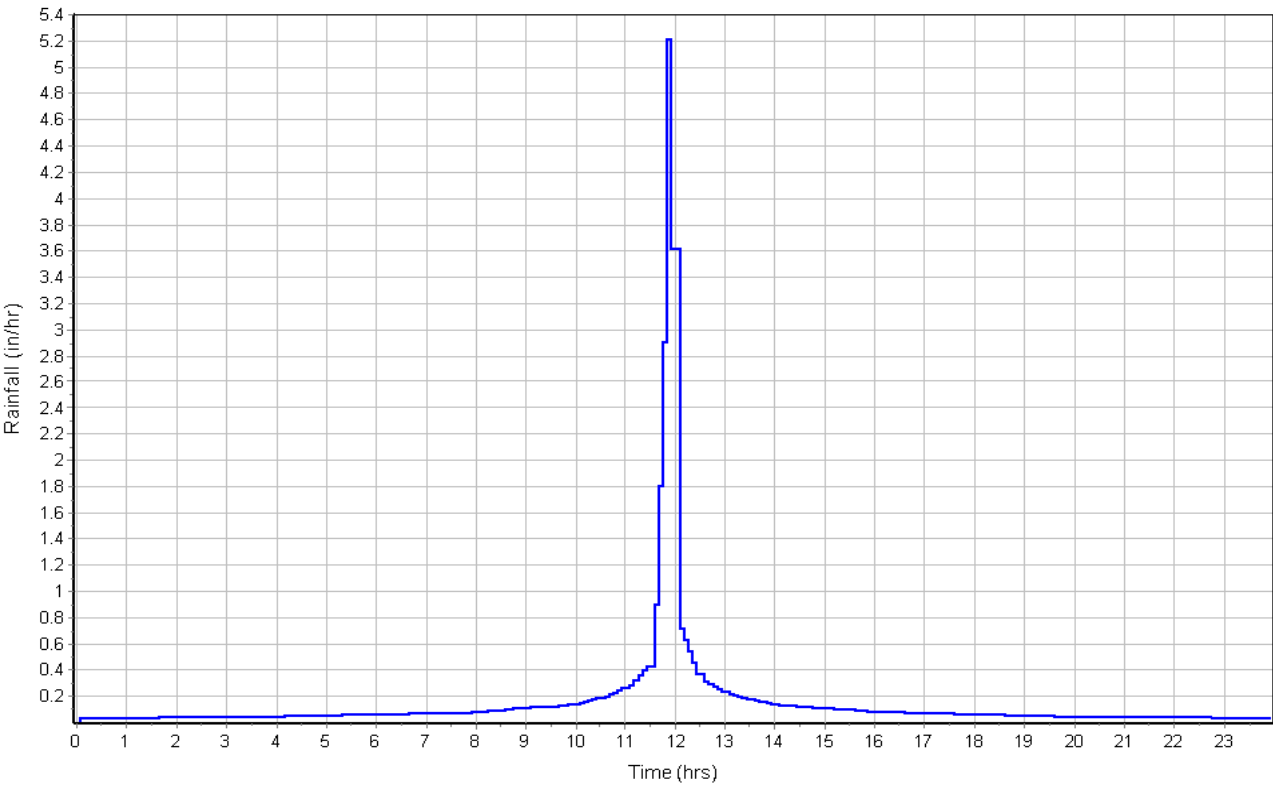
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.26	-	98.00
Composite Area & Weighted CN	0.26		98.00

Subbasin Runoff Results

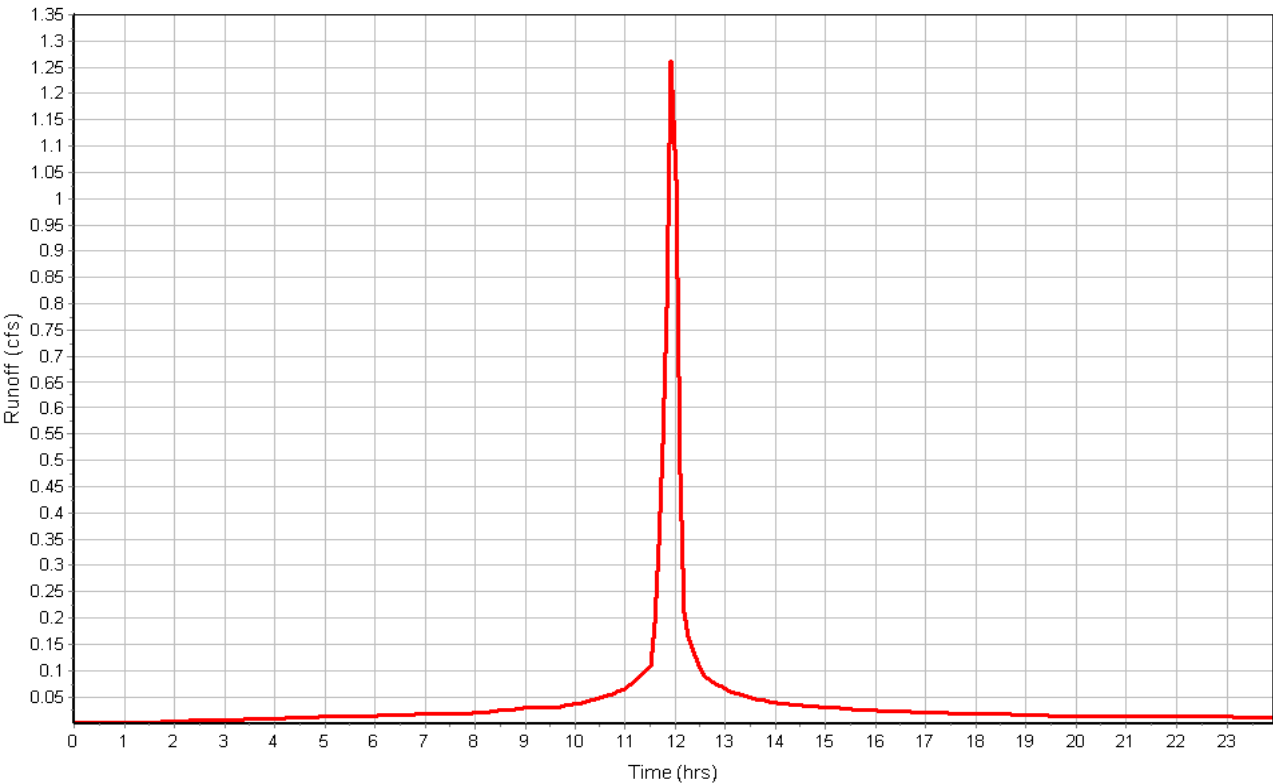
Total Rainfall (in) 3.80
Total Runoff (in) 3.57
Peak Runoff (cfs) 1.27
Weighted Curve Number 98.00
Time of Concentration (days hh:mm:ss) 0 00:06:00

Subbasin : {Site 1}.Drainage Area : 1

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : {Site 1}.Drainage Area : 2

Input Data

Area (ac) 0.35
Weighted Curve Number 98.00
Rain Gage ID Rain Gage-01

Composite Curve Number

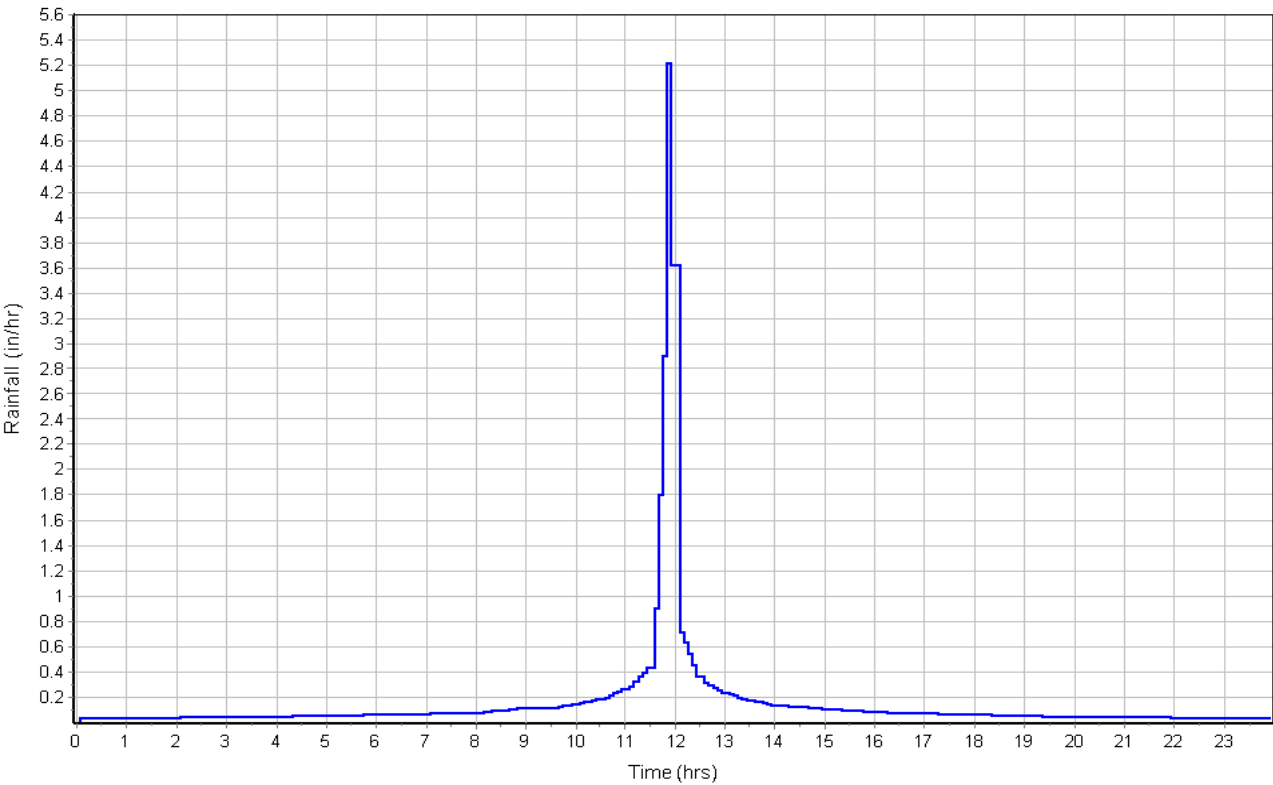
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.35	-	98.00
Composite Area & Weighted CN	0.35		98.00

Subbasin Runoff Results

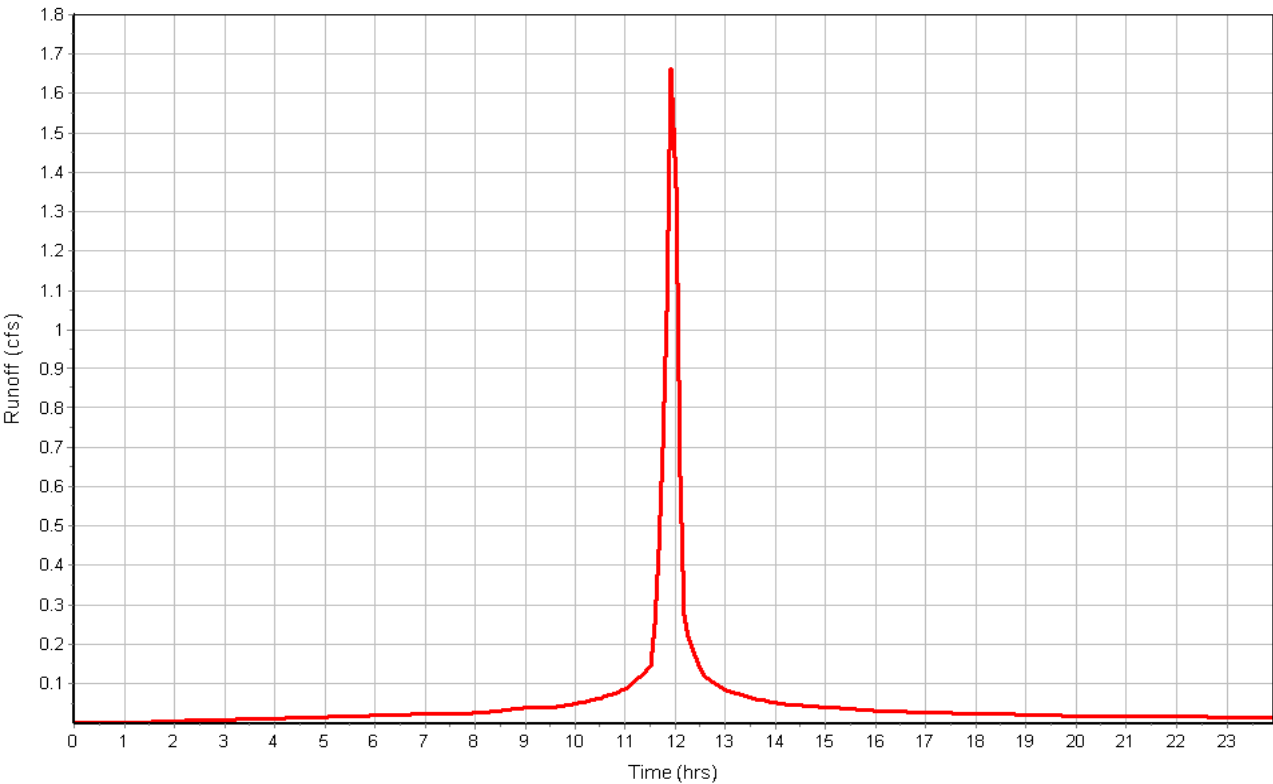
Total Rainfall (in) 3.80
Total Runoff (in) 3.57
Peak Runoff (cfs) 1.67
Weighted Curve Number 98.00
Time of Concentration (days hh:mm:ss) 0 00:06:00

Subbasin : {Site 1}.Drainage Area : 2

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : {Site 1}.Drainage Area : 3

Input Data

Area (ac) 0.06
Weighted Curve Number 98.00
Rain Gage ID Rain Gage-01

Composite Curve Number

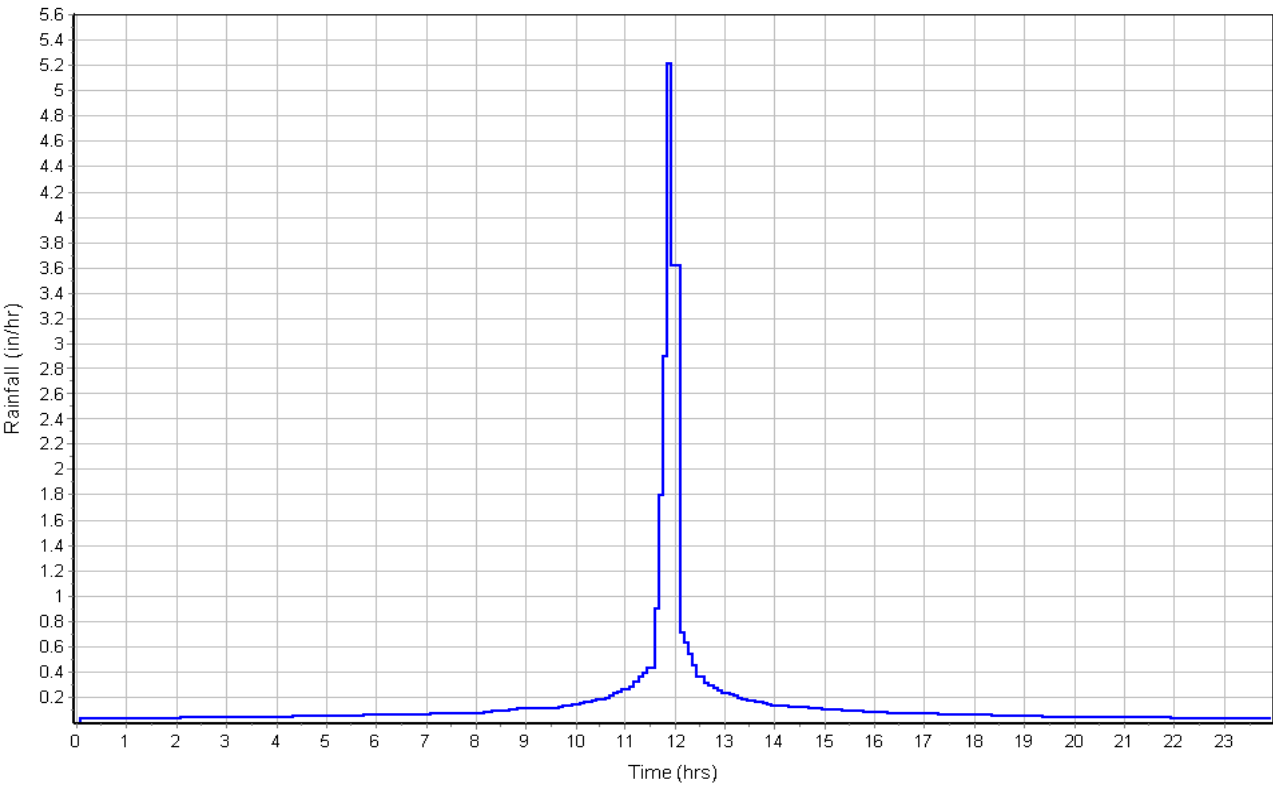
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.06	-	98.00
Composite Area & Weighted CN	0.06		98.00

Subbasin Runoff Results

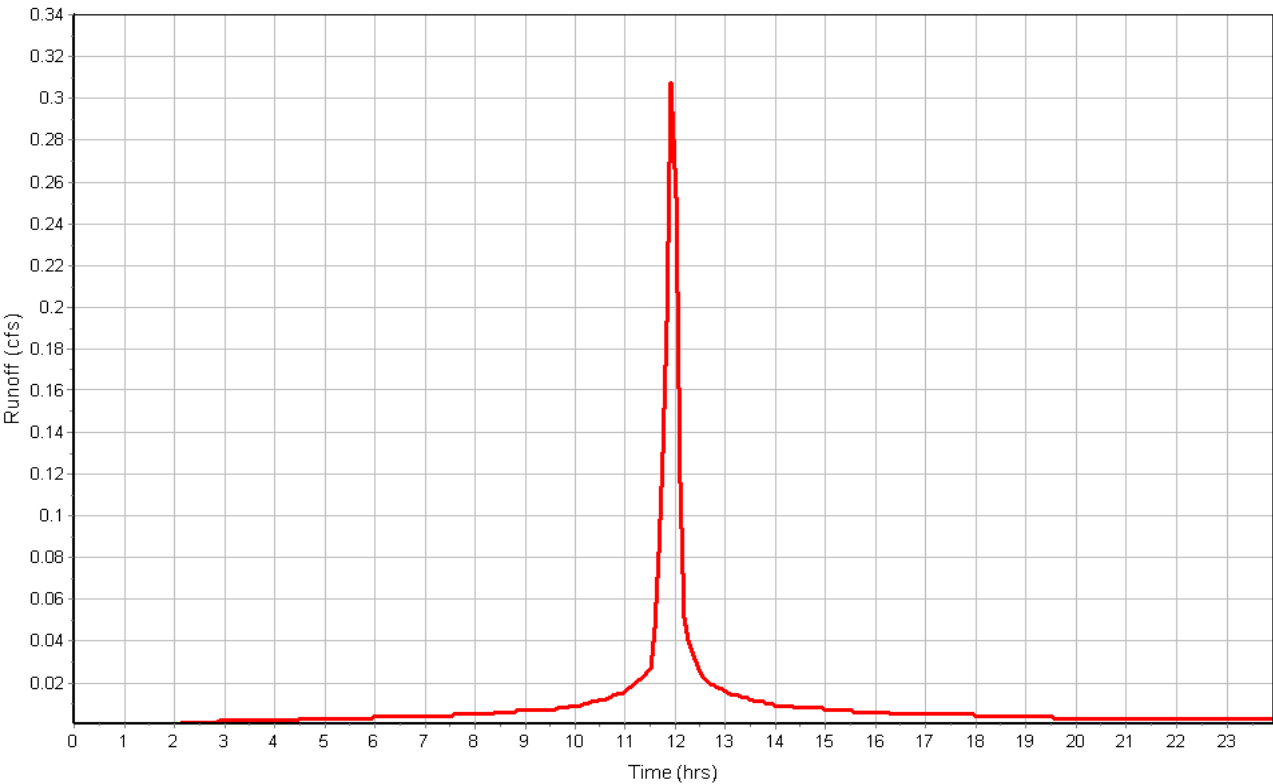
Total Rainfall (in) 3.80
Total Runoff (in) 3.56
Peak Runoff (cfs) 0.31
Weighted Curve Number 98.00
Time of Concentration (days hh:mm:ss) 0 00:06:00

Subbasin : {Site 1}.Drainage Area : 3

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : {Site 1}.Drainage Area : 4

Input Data

Area (ac) 0.42
Weighted Curve Number 98.00
Rain Gage ID Rain Gage-01

Composite Curve Number

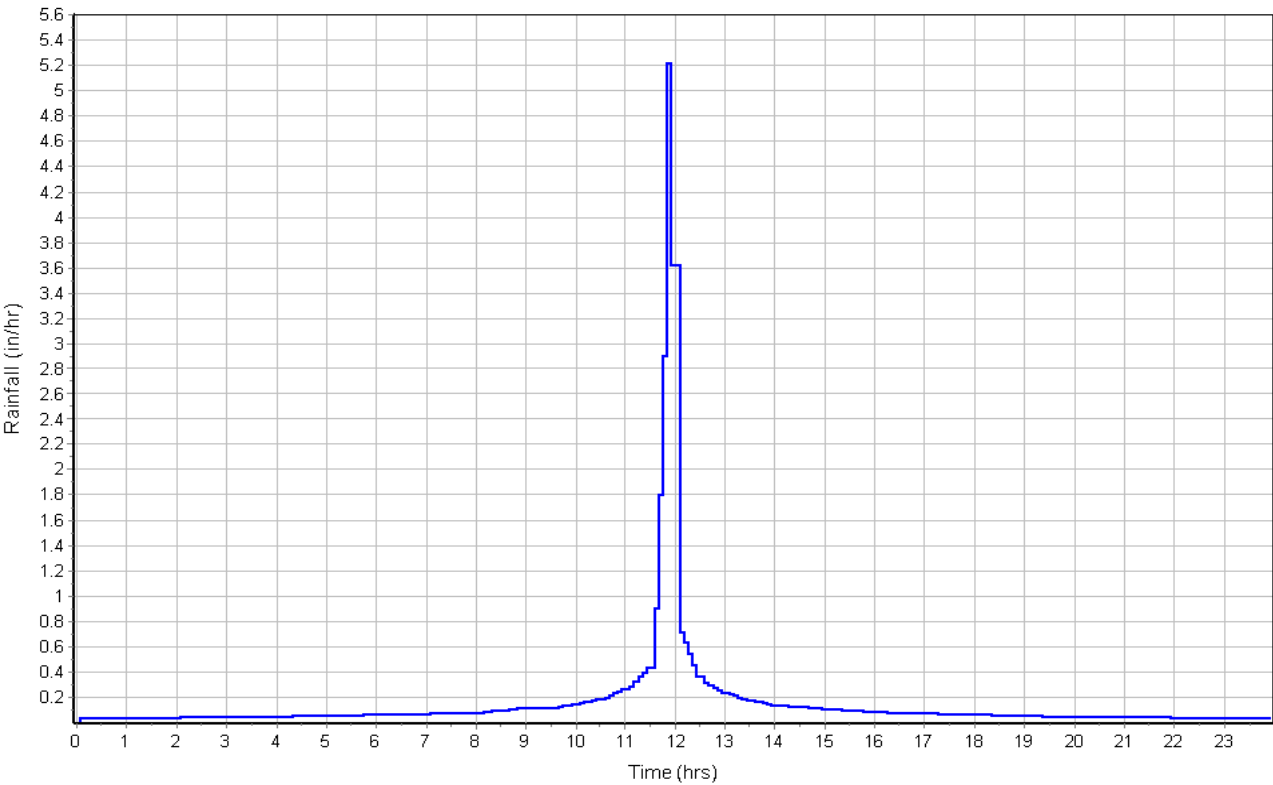
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.42	-	98.00
Composite Area & Weighted CN	0.42		98.00

Subbasin Runoff Results

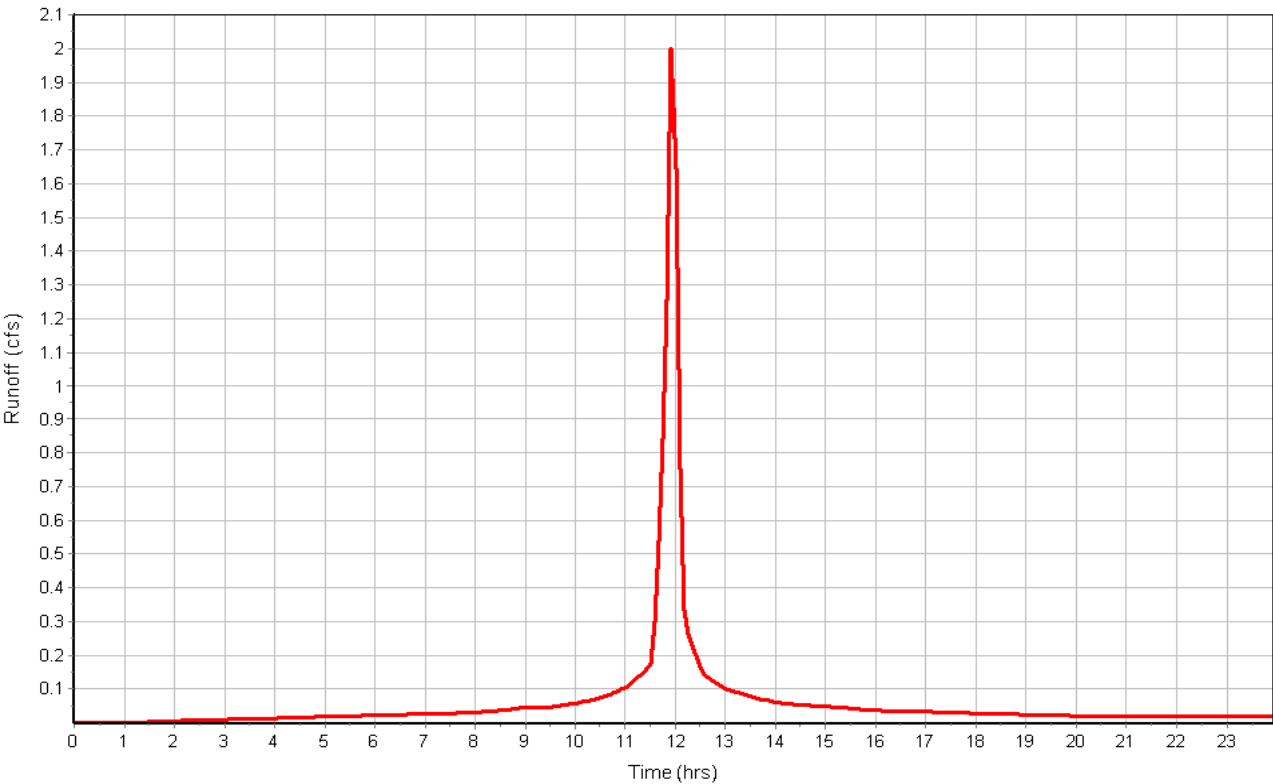
Total Rainfall (in) 3.80
Total Runoff (in) 3.57
Peak Runoff (cfs) 2.01
Weighted Curve Number 98.00
Time of Concentration (days hh:mm:ss) 0 00:06:00

Subbasin : {Site 1}.Drainage Area : 4

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : {Site 1}.Drainage Area : 5

Input Data

Area (ac) 0.14
Weighted Curve Number 98.00
Rain Gage ID Rain Gage-01

Composite Curve Number

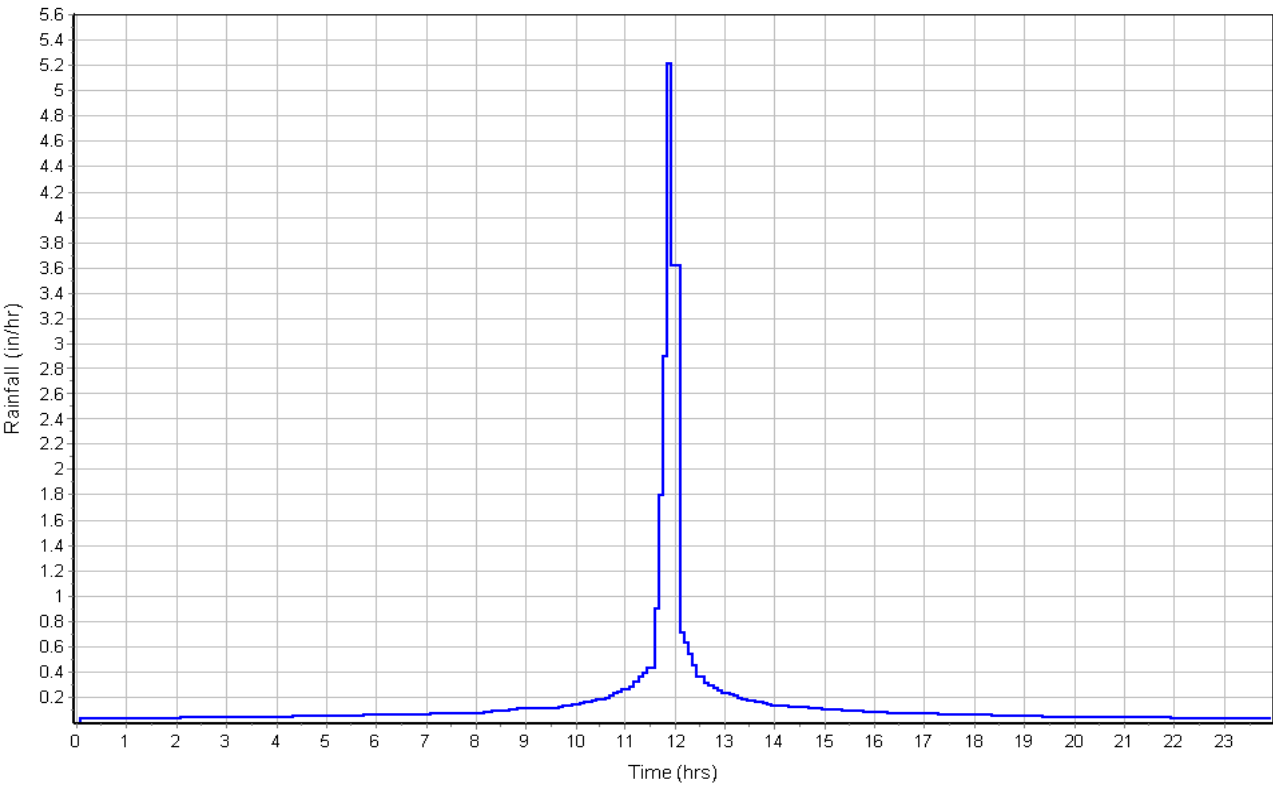
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.14	-	98.00
Composite Area & Weighted CN	0.14		98.00

Subbasin Runoff Results

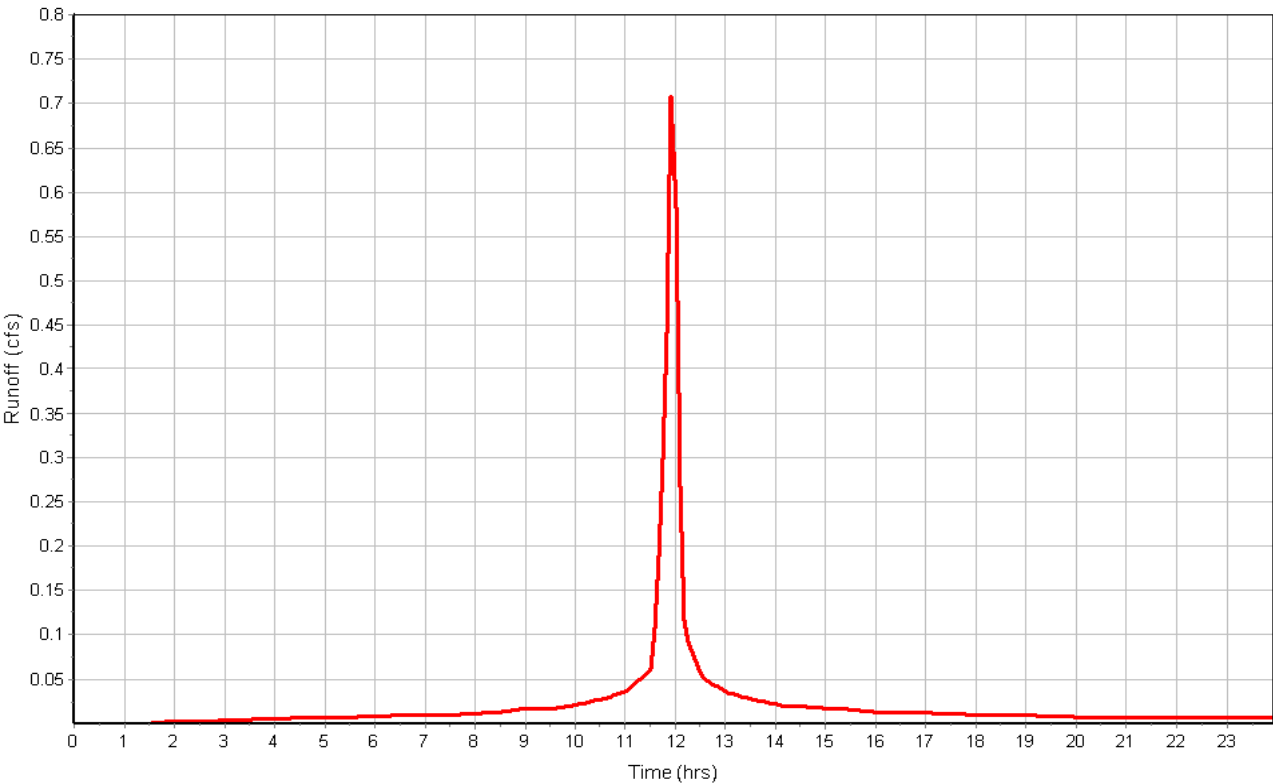
Total Rainfall (in) 3.80
Total Runoff (in) 3.56
Peak Runoff (cfs) 0.71
Weighted Curve Number 98.00
Time of Concentration (days hh:mm:ss) 0 00:06:00

Subbasin : {Site 1}.Drainage Area : 5

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : {Site 1}.Drainage Area : 6

Input Data

Area (ac) 0.17
Weighted Curve Number 98.00
Rain Gage ID Rain Gage-01

Composite Curve Number

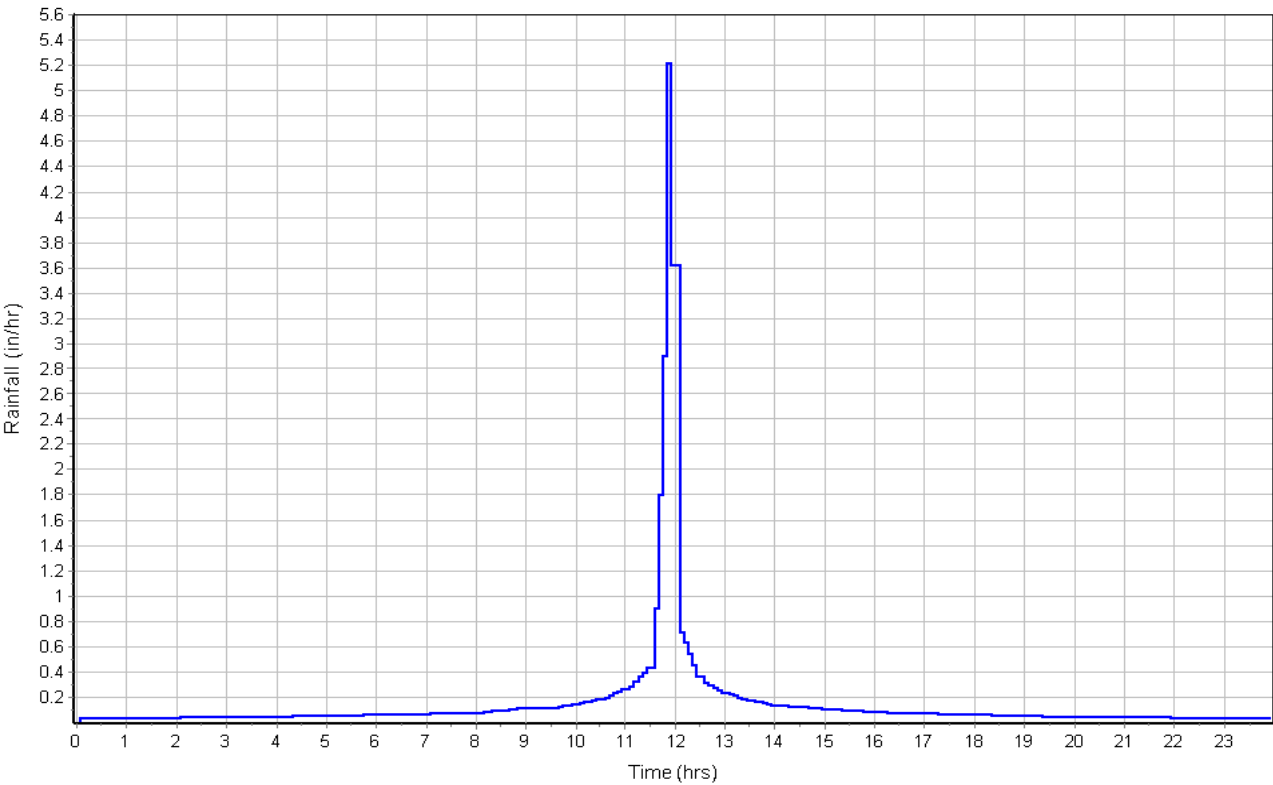
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.17	-	98.00
Composite Area & Weighted CN	0.17		98.00

Subbasin Runoff Results

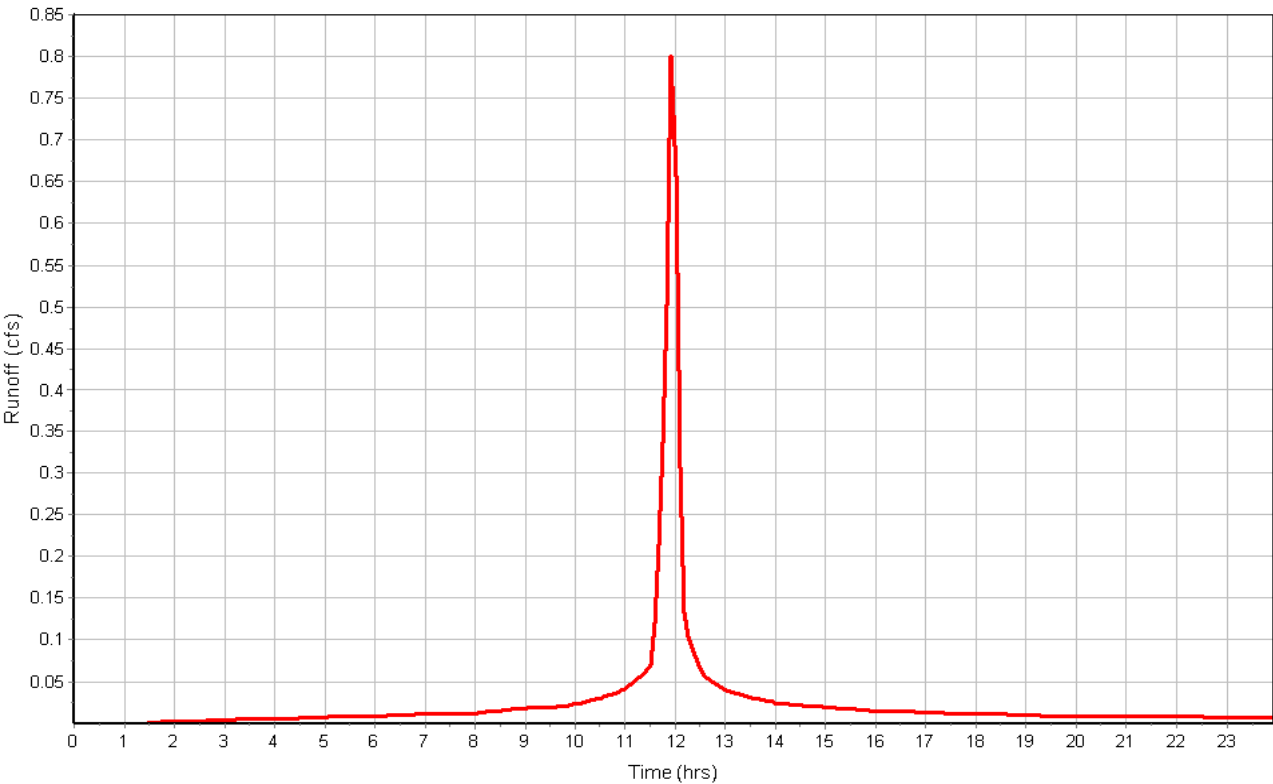
Total Rainfall (in) 3.80
Total Runoff (in) 3.56
Peak Runoff (cfs) 0.80
Weighted Curve Number 98.00
Time of Concentration (days hh:mm:ss) 0 00:06:00

Subbasin : {Site 1}.Drainage Area : 6

Rainfall Intensity Graph



Runoff Hydrograph



Subbasin : {Site 1}.Drainage Area : 7

Input Data

Area (ac) 0.25
Weighted Curve Number 98.00
Rain Gage ID Rain Gage-01

Composite Curve Number

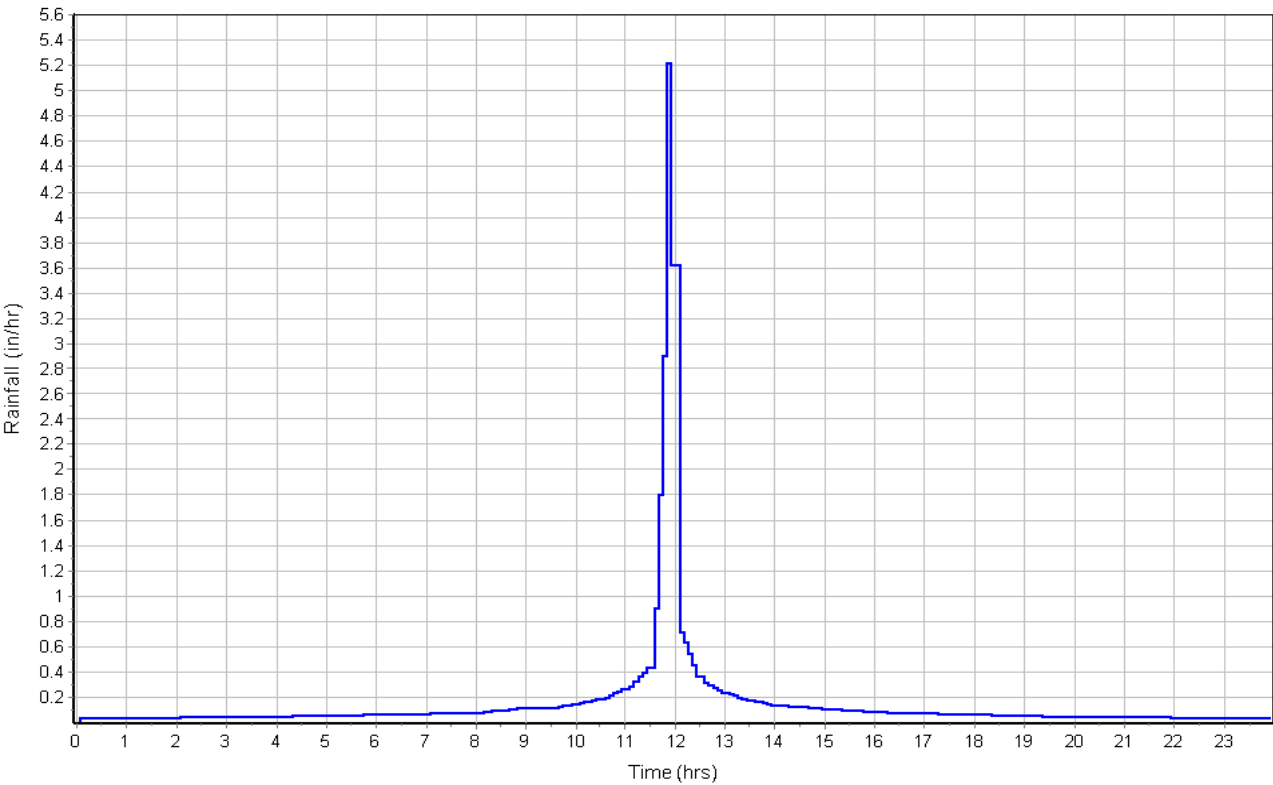
Soil/Surface Description	Area (acres)	Soil Group	Curve Number
-	0.25	-	98.00
Composite Area & Weighted CN	0.25		98.00

Subbasin Runoff Results

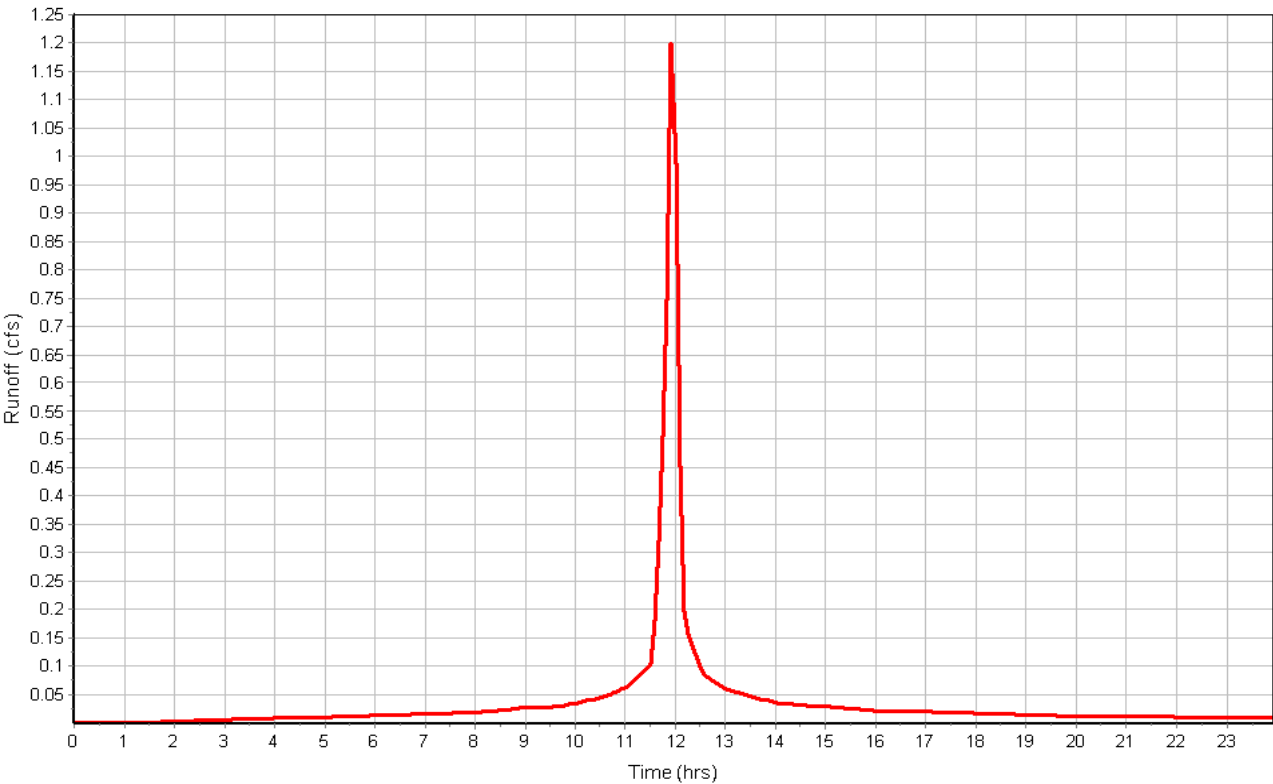
Total Rainfall (in) 3.80
Total Runoff (in) 3.57
Peak Runoff (cfs) 1.21
Weighted Curve Number 98.00
Time of Concentration (days hh:mm:ss) 0 00:06:00

Subbasin : {Site 1}.Drainage Area : 7

Rainfall Intensity Graph



Runoff Hydrograph



Junction Input

SN	Element ID	Invert Elevation	Ground/Rim (Max) Elevation (ft)	Ground/Rim (Max) Offset (ft)	Initial Water Elevation (ft)	Initial Water Depth (ft)	Surcharge Elevation (ft)	Surcharge Depth (ft)	Ponded Area (ft²)	Minimum Pipe Cover (in)
1	10 (STORM)	429.05	434.14	5.09	429.05	0.00	434.14	0.00	0.00	
2	11 (STORM)	428.50	431.57	3.07	428.50	0.00	431.57	0.00	0.00	
3	2 (STORM)	429.37	432.64	3.27	429.37	0.00	432.64	0.00	0.00	
4	3 (STORM)	428.93	433.07	4.14	428.93	0.00	433.07	0.00	0.00	
5	4 (STORM)	427.99	433.57	5.58	427.99	0.00	433.57	0.00	0.00	
6	5 (STORM)	427.77	432.50	4.73	427.77	0.00	432.50	0.00	0.00	
7	6 (STORM)	426.55	436.55	10.00	426.55	0.00	436.55	0.00	0.00	
8	7 (STORM)	0.00	428.55	428.55	0.00	0.00	428.55	0.00	0.00	
9	9 (STORM)	427.76	436.50	8.74	427.76	0.00	436.50	0.00	0.00	

Junction Results

SN	Element ID	Peak Inflow	Peak Lateral Inflow	Max HGL Elevation Attained	Max HGL Depth Attained	Max Surcharge Depth Attained	Min Freeboard Attained	Average HGL Elevation Attained	Average HGL Depth Attained	Time of Max HGL Occurrence	Time of Peak Flooding Occurrence	Total Flooded Volume	Total Time Flooded
		(cfs)	(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(days hh:mm)	(days hh:mm)	(ac-in)	(min)
1	10 (STORM)	1.25	0.00	429.78	0.73	0.00	4.36	429.32	0.27	0 12:00	0 00:00	0.00	0.00
2	11 (STORM)	0.31	0.31	428.75	0.25	0.00	2.82	428.54	0.04	0 12:00	0 00:00	0.00	0.00
3	2 (STORM)	1.26	1.26	429.90	0.53	0.00	2.74	429.44	0.07	0 12:00	0 00:00	0.00	0.00
4	3 (STORM)	3.24	2.00	429.95	1.02	0.00	3.12	429.21	0.28	0 12:00	0 00:00	0.00	0.00
5	4 (STORM)	4.85	1.66	429.40	1.41	0.00	4.16	428.67	0.68	0 12:00	0 00:00	0.00	0.00
6	5 (STORM)	5.54	0.71	428.64	0.87	0.00	3.86	427.94	0.17	0 12:00	0 00:00	0.00	0.00
7	6 (STORM)	7.73	1.20	427.56	1.01	0.00	8.99	426.87	0.32	0 12:01	0 00:00	0.00	0.00
8	7 (STORM)	7.71	0.00	428.55	428.55	0.00	0.00	428.41	428.41	0 01:28	0 00:00	0.00	0.00
9	9 (STORM)	1.09	0.80	428.32	0.56	0.00	8.17	428.11	0.35	0 12:00	0 00:00	0.00	0.00

Pipe Input

SN	Element ID	Length	Inlet Invert	Inlet Invert	Outlet Invert	Outlet Invert	Total Drop	Average Pipe Slope	Pipe Shape	Pipe Diameter or Height	Pipe Width	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow
		(ft)	Elevation (ft)	Offset (ft)	Elevation (ft)	Offset (ft)	(ft)	(%)		(in)	(in)					(cfs)
1	{STORM}.1 (10) (STORM)	105.79	428.50	0.00	428.08	0.32	0.42	0.4000	CIRCULAR							
2	{STORM}.1 (2) (1) (STORM)	29.28	429.05	0.00	428.93	0.00	0.12	0.4000	CIRCULAR							
3	{STORM}.1 (2) (STORM)	28.81	429.37	0.00	429.25	0.20	0.12	0.4000	CIRCULAR							
4	{STORM}.1 (3) (STORM)	135.75	429.11	0.18	428.57	0.58	0.54	0.4000	CIRCULAR							
5	{STORM}.1 (4) (STORM)	43.20	427.99	0.00	427.77	0.00	0.22	0.5000	CIRCULAR							
6	{STORM}.1 (5) (STORM)	214.82	427.82	0.05	426.75	0.20	1.07	0.5000	CIRCULAR							
7	{STORM}.1 (7) (STORM)	53.99	426.55	0.00	426.28	426.28	0.27	0.5000	CIRCULAR							
8	{STORM}.1 (9) (STORM)	191.45	427.76	0.00	426.80	0.25	0.96	0.5000	CIRCULAR							

Flap No. of
Gate Barrels

Pipe Results

SN Element ID	Peak Flow	Time of Peak Flow Occurrence	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Travel Time	Peak Flow Depth	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Froude Number	Reported Condition
	(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)	(ft)		(min)		
1 {STORM}.1 (10) (STORM)	0.30	0 12:00	2.25	0.13	2.01	0.88	0.25	0.25	0.00		Calculated
2 {STORM}.1 (2) (1) (STORM)	1.25	0 12:00	4.08	0.31	2.92	0.17	0.47	0.38	0.00		Calculated
3 {STORM}.1 (2) (STORM)	1.25	0 12:00	2.25	0.56	2.95	0.16	0.53	0.53	0.00		Calculated
4 {STORM}.1 (3) (STORM)	3.21	0 12:00	4.09	0.79	3.71	0.61	0.83	0.67	0.00		Calculated
5 {STORM}.1 (4) (STORM)	4.84	0 12:00	16.00	0.30	4.46	0.16	0.75	0.38	0.00		Calculated
6 {STORM}.1 (5) (STORM)	5.49	0 12:01	16.00	0.34	4.64	0.77	0.79	0.40	0.00		Calculated
7 {STORM}.1 (7) (STORM)	7.71	0 12:01	16.00	0.48	5.05	0.18	0.95	0.49	0.00		Calculated
8 {STORM}.1 (9) (STORM)	1.08	0 12:01	4.57	0.24	3.06	1.04	0.41	0.33	0.00		Calculated

Traffic Impact Study

for the proposed

Towne Center Expansion

**Town of Manlius
Onondaga County, New York**

March 2021

Project No. 40094

Prepared For:



Prepared By:



3495 Winton Place
Building E, Suite 110
Rochester, New York 14623

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LIST OF REFERENCES

1. Highway Capacity Manual, Sixth Edition. Transportation Research Board. National Research Council, Washington, DC. 2016.
2. New York State Department of Transportation (NYSDOT) Traffic Data Viewer. 2020. Retrieved from <https://www.dot.ny.gov/tdv>.
3. Trip Generation, Tenth Edition. Institute of Transportation Engineers. Washington, DC. 2017.
4. Trip Generation Handbook, 3rd Edition. Institute of Transportation Engineers. Washington, DC. 2017.

EXECUTIVE SUMMARY

OVERVIEW

The purpose of this report is to identify the potential traffic impacts associated the proposed Towne Center Expansion in the Town of Manlius, Onondaga County, New York. The operating characteristics of the future access intersections and impacts to the adjacent roadway network are identified and mitigating measures 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 phased as well as full development of the proposed Towne Center Expansion.

The proposed development is located on the along the north side Genesee St in the Town of Manlius, Onondaga County, New York. The site is bounded by Tops Friendly Market to the north; Key Bank to the east; Genesee St to the south; and McDonald's to the west. Land uses in the vicinity of the project site include commercial, residential, and medical uses. The study area consists of the following intersections:

1. North Burdick Street/NYS 5
2. North Burdick Street/Towne Center Driveway #1
3. North Burdick Street/Towne Center Driveway #2
4. North Burdick Street/Towne Center Driveway #3
5. North Burdick Street/Towne Center Driveway #4
6. NYS 5/Towne Center Easterly Driveway (right-in/right-out, RIRO)
7. NYS 5/Towne Center Westerly Driveway

The proposed development consists of an approximately $\pm 2,410$ square foot (SF) fast-food restaurant (Restaurant A), another $\pm 4,500$ SF fast-food restaurant (Restaurant B), and related site improvements. Access will be provided by existing driveways on N Burdick St and Genesee St.

Construction of the proposed development is anticipated to reach full build-out in approximately one year. The Town of Manlius was contacted to discuss any other specific projects that are currently approved or under construction that would generate additional traffic in the study. No such projects were identified.

In addition, to account for normal increases in background traffic growth, including any unforeseen developments in the project study area, and given the length of time (one year) associated with full build-out of the proposed project, a growth rate of 1.0% has been applied to the existing traffic volumes in the study area.

CONCLUSIONS & RECOMMENDATIONS

This study evaluates the potential traffic impacts resulting from the proposed Towne Center Expansion. The proposed project will result in traffic impacts to the study area intersections that can be appropriately accommodated, as identified in this study. The following sets forth the conclusions and recommendations based on the results of the analyses:

1. The proposed project is expected to generate approximately 72 entering/87 exiting vehicle trips during the PM peak hour and 156 entering/139 exiting vehicle trips during the SAT peak hour at full build out. Not all these driveway volumes are new, but instead a portion of the proposed volume is reduced considering pass-by adjustments. Thus, the proposed project is expected to generate approximately 40 entering/48 exiting new vehicle trips during the PM peak hour and 86 entering/76 exiting new vehicle trips during the SAT peak hour at full build out.
2. The projected traffic impacts resulting from full development of the proposed project during both peak hours can be accommodated by the existing transportation network with no highway improvements.
3. For purposes of the environmental review of the proposed project pursuant to the State Environmental Quality Review Act (SEQRA), it is our firm's professional opinion that the proposed project will not result in any potentially significant adverse traffic impacts to the study area intersections.

I. INTRODUCTION

The purpose of this report is to identify the potential traffic impacts associated with the proposed Fayetteville Towne Center Expansion in the Town of Manlius, Onondaga County, New York. The operating characteristics and impacts to the adjacent roadway network are identified, evaluated, and discussed and mitigating measures, if needed, are provided to minimize capacity or safety concerns.

In an effort to define traffic impact, this analysis establishes 2021 base 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 development of the proposed Fayetteville Towne Center Expansion.

II. LOCATION

The proposed development is located on the along the north side of East Genesee St (NYS Routes 5 & 20) within the existing Towne Center at Fayetteville in the Town of Manlius, Onondaga County, New York. The site is bounded by Tops Friendly Market to the north; Key Bank to the east; Genesee St to the south; and McDonald's to the west. Land uses in the vicinity of the project site include commercial, residential, and medical uses. The study area consists of the following existing intersections along North Burdick Street (listed from south to north along North Burdick Street):

1. North Burdick Street/NYS 5
2. North Burdick Street/Towne Center Driveway #1
3. North Burdick Street/Towne Center Driveway #2
4. North Burdick Street/Towne Center Driveway #3
5. North Burdick Street/Towne Center Driveway #4
6. NYS 5/Towne Center Easterly Driveway (right-in/right-out, RIRO)
7. NYS 5/Towne Center Westerly Driveway

The [site location](#) and study area are shown in **Figure 1 – Site Location & Study Area** (all Figures are included at the end of the report).

III. EXISTING HIGHWAY SYSTEM

The following information outlined in **Table I** provides a description of the existing roadway network within the project study area. **Figure 2** illustrates the lane geometry at each of the study intersections and the Average Daily Traffic (ADT) volumes on the study roadways.

TABLE I: EXISTING HIGHWAY SYSTEM

ROADWAY ¹	CLASS ²	AGENCY ³	SPEED LIMIT ⁴	# OF TRAVEL LANES ⁵	TRAVEL PATTERN/DIRECTION	EST. AADT ⁶ & SOURCE
East Genesee St (NY 5 & 20)	16	NYSDOT	40	4	Two-way/ East-West	23,207 NYSDOT (2015)
North Burdick St (CR 94)	16	OCDOT	30	3	Two-way/ North-South	13,565 NYSDOT (2016)

Notes:

1. Route Name/Number: "NY" = New York; "US" = United States; "CR" = County Road.
2. State Functional Classification of Roadway (All are Urban): 16 = Minor Arterial
3. Jurisdictional Agency of Roadway. "NYSDOT" = New York State Department of Transportation; "OCDOT" = Onondaga County Department of Transportation
4. Posted or Statewide Limit in Miles per Hour (mph).
5. Excludes turning/auxiliary lanes developed at intersections.
6. Estimated AADT in Vehicles per Day (vpd).

PEDESTRIAN FACILITIES

There is sidewalk along the east side of N Burdick St and S Burdick St. as well as along both sides of Genesee St to the east of the N Burdick St/Genesee St intersection. Signalized pedestrian crossings exist at the N Burdick St/Genesee St intersection.

BICYCLE FACILITIES

Currently, no dedicated bicycle facilities exist within the study area. Bicyclists are permitted to share the road on all roadways within the study area.

IV. EXISTING TRAFFIC CONDITIONS**A. Peak Intervals for Analysis**

Given the functional characteristics of the existing and proposed land use (restaurant), the peak hours selected for analysis are the weekday PM (4:00-6:00 PM) and Saturday (SAT) midday (11:30 AM-1:30 PM) peaks. The combination of site traffic and adjacent through traffic produces the greatest demand during these time periods.

B. Existing Traffic Volume Data

Turning movement traffic counts were collected on Friday, April 5th, Friday April 12th, Saturday April 6th and Saturday, April 13th, 2019 by Tri-State Traffic Data at the study intersections described in Section II. Traffic counts were conducted between 4:00-6:00 PM for the weekday peak hours and 11:30-1:30 PM for the Saturday peak hours. The peak hour traffic periods generally occurred between 4:30-5:30 PM and 11:30-12:30 PM.

This data was used to complete the Traffic Impact Study for the Chase Bank that is now located at Towne Center at Fayetteville. The full build volumes for this study were inflated using a 1.0% per year growth rate to establish 2021 existing volumes.

The weekday PM and midday SAT peak hour 2021 base conditions traffic 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 was obtained by the NYSDOT through a Freedom of Information Request at the Genesee St signalized study intersections to determine peak hour phasing plans and phase durations during each interval.

V. FUTURE AREA DEVELOPMENT AND LOCAL GROWTH

Construction of the proposed development is anticipated to reach full build-out in approximately one year. The Town of Manlius was contacted to discuss any other specific projects that are currently approved or under construction that would generate additional traffic in the study area. No such projects were identified.

To account for normal increases in background traffic growth, including any unforeseen developments in the project study area, and given the length of time (2021 to 2022) associated with full build-out of the proposed project, a growth rate of 1.0% per year has been applied to the existing traffic volumes in the study area. The background traffic volumes are depicted in **Figure 4**.

VI. PROPOSED DEVELOPMENT

A. Description

The proposed development consists of an approximately $\pm 2,410$ square foot (SF) fast-casual restaurant with pick-up window (Restaurant A), a $\pm 4,500$ SF fast-casual restaurant with a drive-thru order and pick-up window (Restaurant B), and related site improvements. Access will be provided by existing driveways on N Burdick St and Genesee St. **Figure 5** depicts the proposed site 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 (10th Edition) published by the Institute of Transportation Engineers (ITE) 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 the adjacent street traffic and proposed land use, in this case, the weekday commuter PM and Saturday midday peaks, represent a more critical volume when analyzing the capacity of the system. Those intervals will provide the basis of this analysis.

According to the ITE, the following steps are recommended when determining trip generation for proposed land uses:

- i. Check for the availability of local trip generation rates for comparable uses.
- ii. If local trip data for similar developments are not available and time and funding permit, conduct trip generation studies at sites with characteristics similar to those of the proposed development.

Trip generation data for the proposed restaurants were based on traffic counts collected at existing similar restaurants located in Cicero, New York and Victor, New York situated on high volume roadways (Route 11, Cicero and Route 96, Victor) similar to Genesee St.

Because ITE does not have data for the type of restaurants proposed, local rates were used for both peaks. 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, 10th Edition (2017) published by the Institute of Transportation Engineers (ITE) 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 the adjacent street traffic and proposed land uses, in this case, the weekday commuter PM and Saturday midday peaks, represent a more critical volume when analyzing the capacity of the system; those intervals will provide the basis of this analysis.

Additionally, for certain types of developments, the total number of trips generated is different from the amount of new traffic added to the adjacent highway network by the generator. Service-oriented developments (i.e., shopping centers, restaurants, and car washes) often locate adjacent to busy streets in order to attract the motorists already passing the site on the adjacent street(s), in this case Genesee St and N Burdick St. These sites attract a portion of their trips from traffic passing the site. The “pass-by” traffic refers to the amount of existing traffic already on the roadway adjacent to the site that, as it “passes by” the site, will enter the site driveways to patronize the project site. The quantifying of “pass-by” trips has the net result of reducing the volume of new traffic that is added to the site driveways and/or adjacent roadways.

For fast-food restaurants with drive-thru windows, the ITE data reports a range of rates during the PM peak period, the data reports a range from 25% to 71% with an average pass-by rate of 50%. This study used a 45% pass-by rate during the PM and SAT peak hours.

Table II shows the total site generated trips for the weekday commuter PM and Saturday midday peak hours for the proposed project. All trip generation information has been included in the Appendices.

TABLE II: SITE GENERATED TRIPS

DESCRIPTION	ITE LUC ¹	SIZE	PM PEAK HOUR		SAT PEAK HOUR	
			ENTER	EXIT	ENTER	EXIT
Restaurant #1	Local Rates	2,410± SF	42	40	50	43
Restaurant #2	Local Rates	4,500± SF	30	47	106	96
Pass-by Rates (45%)			-32	-39	-70	-63
Total Site Generated Trips			72	87	156	139

Notes:

1. LUC = Land Use Code.

C. Site Traffic Distribution

The cumulative effect of site-generated 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 generated at this site is considered a function of several parameters, including:

- Residential centers;
- Employment centers;
- Existing traffic patterns on both NYS Route 5 and North Burdick Street, and entering and exiting the Towne Center at Fayetteville; and
- Existing traffic conditions and controls

Figure 6 shows the anticipated trip distribution pattern percentages for the proposed project. Similarly, **Figure 7** shows the resulting site generated traffic as assigned to the study area intersections for the weekday commuter PM and Saturday midday peak hour periods.

VII. FULL DEVELOPMENT VOLUMES

The projected design hour traffic volumes were developed for the weekday commuter PM and Saturday midday peak hour periods by combining the future background traffic conditions (Figure 4), the projected site generated volumes for the proposed development (Figure 7) to yield the total traffic conditions expected Full Development conditions. **Figure 8** illustrates the total weekday PM and SAT peak hour volumes anticipated for Full Development conditions.

VIII. CAPACITY ANALYSIS

A. Description of 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 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 conditions with little to no delay, and LOS "F" conditions with very long delays. 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 2016) published by the Transportation Research Board. Traffic analysis software, Synchro 10, 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 based on the HCM as an indicator of how well intersections operate.

B. Capacity Analysis Results

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 project were analyzed to assess the operation of the study area intersections. Capacity results for existing, background and full development conditions are listed in **Table III**. The discussion following the table summarizes capacity conditions.

TABLE III: CAPACITY ANALYSIS RESULTS

INTERSECTION	2021				2022				2022			
	EXISTING BASE CONDITIONS				BACKGROUND CONDITIONS				FULL BUILD CONDITIONS			
		PM		SAT		PM		SAT		PM		SAT
1. S Burdick St/N Burdick St/Genesee St (S)												
EB Left - Genesee St	E	69.2	E	72.4	E	68.7	E	72.3	E	70.0	E	73.7
EB Thru/Right - Genesee St	B	17.7	B	15.6	B	17.8	B	15.7	B	17.4	B	14.8
WB Left - Genesee St	C	34.3	D	42.9	C	34.5	D	43.7	D	35.3	D	47.2
WB Thru/Right - Genesee St	A	2.3	A	6.5	A	2.4	A	6.7	A	2.4	A	6.3
NB Left - S Burdick St	F	95.3	F	103.8	F	96.2	F	109.2	F	97.2	F	116.3
NB Thru/Right - S Burdick St	E	61.4	E	55.7	E	62.2	E	56.0	E	62.1	E	56.3
SB Left - N Burdick St	E	62.3	E	56.1	E	62.8	E	56.5	E	63.4	E	56.8
SB Right - N Burdick St	A	3.3	A	4.3	A	3.4	A	4.5	A	3.7	A	5.1
Overall LOS	C	33.7	D	35.7	C	33.9	D	36.4	C	34.1	D	37.8
Volume-to-Capacity (v/c) Ratio		0.82		0.77		0.83		0.77		0.84		0.76
2. N Burdick St/Driveway #1 (U)												
NB Left - N Burdick St	B	10.7	B	10.4	B	10.7	B	10.4	B	10.8	B	10.6
EB Left - Driveway #1	D	26.2	D	30.1	D	26.6	D	30.6	D	29.4	E	37.2
EB Right - Driveway #1	C	17.6	B	13.4	C	17.8	B	13.5	C	18.8	B	14.2
3. N Burdick St/Driveway #2 (U)												
NB Left - N Burdick St	A	9.8	A	9.1	A	9.8	A	9.2	A	9.9	A	9.3
EB Left - Driveway #2	D	27.2	C	24.2	D	27.9	C	24.7	D	28.7	D	25.7
EB Right - Driveway #2	B	11.7	B	10.7	B	11.8	B	10.8	B	11.8	B	10.9
4. N Burdick St/Driveway #3 (U)												
NB Left - N Burdick St	A	9.9	A	8.9	A	9.9	A	9.0	A	8.7	A	9.1
EB - Driveway #3	C	17.3	C	17.2	C	17.5	C	17.6	C	17.8	C	18.1
5. N Burdick St/Driveway #4 (U)												
NB Left - N Burdick St	B	10.3	A	8.8	B	10.3	A	8.9	B	10.4	A	8.9
EB Left - Driveway #4	C	24.3	C	18.1	C	24.7	C	18.3	D	25.2	C	18.8
EB Right - Driveway #4	B	11.9	B	10.3	B	12.0	B	10.3	B	12.1	B	10.4
6. Genesee St/Easterly TC Dwy (U)												
SB Left - Easterly TC Dwy	B	12.5	B	13.8	B	12.6	B	13.9	B	13.0	C	15.0
7. Genesee St/Westerly TC Dwy (S)												
EB Left - Genesee St	A	8.4	B	16.3	A	8.7	B	17.3	B	10.0	C	26.7
EB Thru/Right - Genesee St	A	3.7	A	3.2	A	3.7	A	3.2	A	3.9	A	4.0
WB Thru/Right - Genesee St	A	4.1	A	8.8	A	4.1	A	9.1	A	4.7	B	15.0
SB Left - Westerly TC Dwy	D	51.6	E	66.5	D	51.7	E	66.5	E	56.1	E	66.6
SB Right - Westerly TC Dwy	C	34.5	B	12.8	C	34.4	B	13.1	C	33.0	B	11.6
Overall LOS	A	8.9	B	11.4	A	8.9	B	11.7	B	10.2	B	16.7
Volume-to-Capacity (v/c) Ratio		0.57		0.66		0.58		0.67		0.61		0.72

Notes:

1. A(2.8) = Level of Service (Delay in seconds per vehicle)
2. (S) = Signalized; (U) = Unsignalized
3. N/A = Approach does not exist and/or was not analyzed during this condition
4. Green shaded cells indicate low delays, yellow shaded cells indicate moderate delays, red shaded cells indicate long delays.
5. The v/c ratio, also referred to as degree of saturation, represents the sufficiency of an intersection to accommodate the vehicular demand. A v/c ratio less than 0.85 generally indicates that adequate capacity is available and vehicles are not expected to experience significant queues and delays. A v/c ratio between 0.85 and 0.95 generally indicates an intersection is nearing capacity. Intersections with a v/c ratio of 1.0 or greater generally indicate conditions at or above capacity.

Genesee St/North Burdick Street

The signalized intersections along Genesee St at Westerly Towne Center Driveway, North Burdick Street, and Highbridge Street, which are coordinated, were recently reviewed and optimized by the NYSDOT. All approaches at the North Burdick St intersection operate at LOS "E" or better during both peak hours under all conditions, with the exception of the northbound approach which operates at LOS "F" under all conditions. However, relative to the other intersection approaches, the northbound approach consists of approximately 4% of total entering traffic during the PM peak hour; 5% during the SAT peak hour.

Between background and full build conditions, no changes in LOS are anticipated during either peak. No improvements are warranted or recommended at this intersection as a result of the proposed development.

North Burdick Street/Driveway #1

All approaches operate at LOS "C" or better except for the EB left turn movement which operates at LOS "D" during both peaks during background conditions. From background to full development conditions, the EB left movement changes from LOS "D" to "E" during the Saturday peak hour. The presence of the center turn lane allows drivers exiting the driveways to cross the approaching travel lane and wait in the TWLTL before making their movement to enter the through traffic stream, when adequate gaps occur. Additionally, there are multiple driveways to exit the site, thus providing drivers the ability to use driveways with lesser delay. For these reasons, no improvements are warranted or recommended as a result of the proposed project.

North Burdick Street/Driveway #2

All approaches operate at LOS "D" or better during both peak hours under all conditions. The EB left turn movement which changes from LOS "C" to "D" during the SAT peak hour between background and full development conditions. This is a borderline condition with a threshold of 25.0 seconds of delay per vehicle, the actual difference in delay is 1.0 second per vehicle. Therefore, no improvements are warranted or recommended.

North Burdick Street/Driveway #3

All approaches operate at LOS "C" or better during both peak hours under all conditions. No changes in LOS as a result of the proposed project, therefore, no improvements are warranted or recommended.

North Burdick Street/Driveway #4

All approaches operate at LOS "C" or better during both peak hours under all conditions except for the EB left turn movement which changes from LOS "C" to "D" during the PM peak hour between background and full development conditions. This is a borderline condition with a threshold of 25.0 seconds of delay per vehicle, the actual difference in delay is 0.5 seconds per vehicle. Therefore, no improvements are warranted or recommended.

NYS 5/Easterly Towne Center Driveway

The southbound right turn only approach is projected to operate at LOS "B" during both peak hours under all conditions except for full build conditions during the SAT peak hour. The level of service on this approach changes from LOS "B" to "C" during the SAT peak hour between background and full development. Given that the threshold for LOS "C" is 15 seconds and the anticipated delay is 15.0 seconds, no improvements are warranted or recommended.

NYS 5/Westerly Towne Center Driveway

The southbound left approach operates at LOS “E” during the Saturday peak hour under all conditions. Between background and full development conditions the southbound left movement changes from LOS “D” to “E” during the PM peak hour. All other approaches operate at LOS “C” or better during both peak hours under all conditions. Between background and full development conditions the eastbound left approach is projected to change in LOS from “B” to “C” and the WB thru/right approach is projected to change from LOS “A” to “B” during the SAT peak hour. The overall LOS changes from “A” to an acceptable “B” during the PM peak hour between background and full development conditions. Although the eastbound left turn movement decreases in level of service, the queue lengths do not change and there is more than sufficient storage in the left turn lane to accommodate the additional traffic entering the site. No improvements are warranted or recommended at this intersection.

Given the nature of the existing and proposed land uses at Towne Center, it is recognized that a portion of site patrons likely exhibit repeat, commuter-based trips. These drivers are more sensitive to traffic operations in the immediate area and site driveways. Users may adjust their travel behavior to better suit their travel demands, thereby visiting the site at times when traffic is not at peak operation or utilize the site’s other access driveways to reduce their delay. For these reasons, no improvements are warranted or recommended as a result of the proposed project.

IX. CONCLUSIONS & RECOMMENDATIONS

This study evaluates the potential traffic impacts resulting from the proposed Towne Center Expansion. The proposed project will result in traffic impacts to the study area intersections that can be appropriately accommodated, as identified in this study. The following sets forth the conclusions and recommendations based on the results of the analyses:

1. The proposed project is expected to generate approximately 72 entering/87 exiting vehicle trips during the PM peak hour and 156 entering/139 exiting vehicle trips during the SAT peak hour at full build out. Not all these driveway volumes are new, but instead a portion of the proposed volume is reduced considering pass-by adjustments. Thus, the proposed project is expected to generate approximately 40 entering/48 exiting new vehicle trips during the PM peak hour and 86 entering/76 exiting new vehicle trips during the SAT peak hour at full build out.
2. The projected traffic impacts resulting from full development of the proposed project during both peak hours can be accommodated by the existing transportation network with no highway improvements.
3. For purposes of the environmental review of the proposed project pursuant to the State Environmental Quality Review Act (SEQRA), it is our firm’s professional opinion that the proposed project will not result in any potentially significant adverse traffic impacts to the study area intersections.

X. FIGURES

Figures 1 through 8 are included on the following pages.

FIGURE 1 - SITE LOCATION AND STUDY AREA



- Legend**
- Study Intersection
 - Study Area
 - Site Location

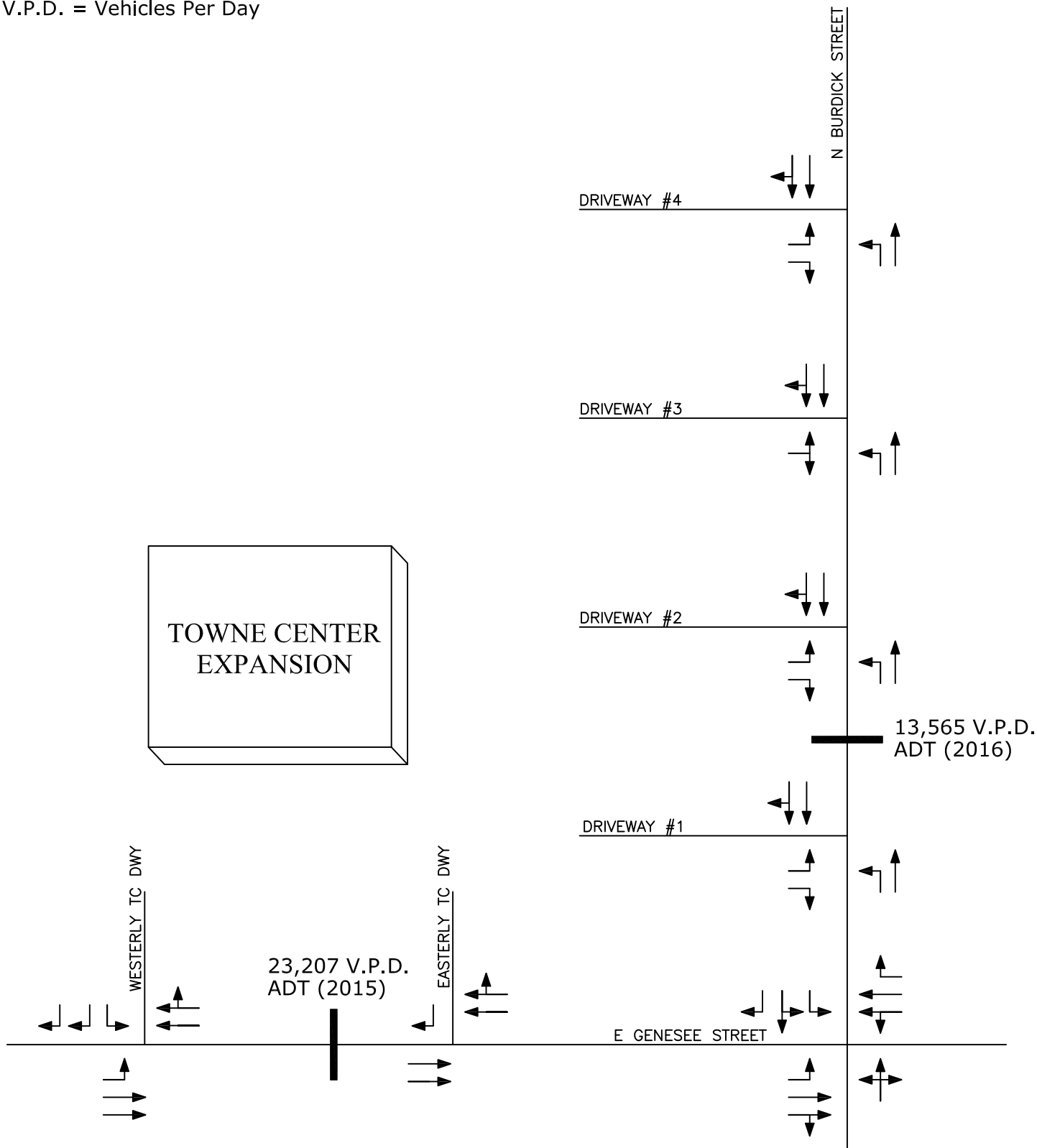
**PROPOSED
TOWNE CENTER EXPANSION
TOWN OF MAILUS, NY**

Feet

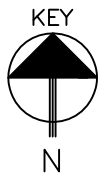
0 250 500 1,000



Note: All counts by New York State Dept of Transportation
V.P.D. = Vehicles Per Day



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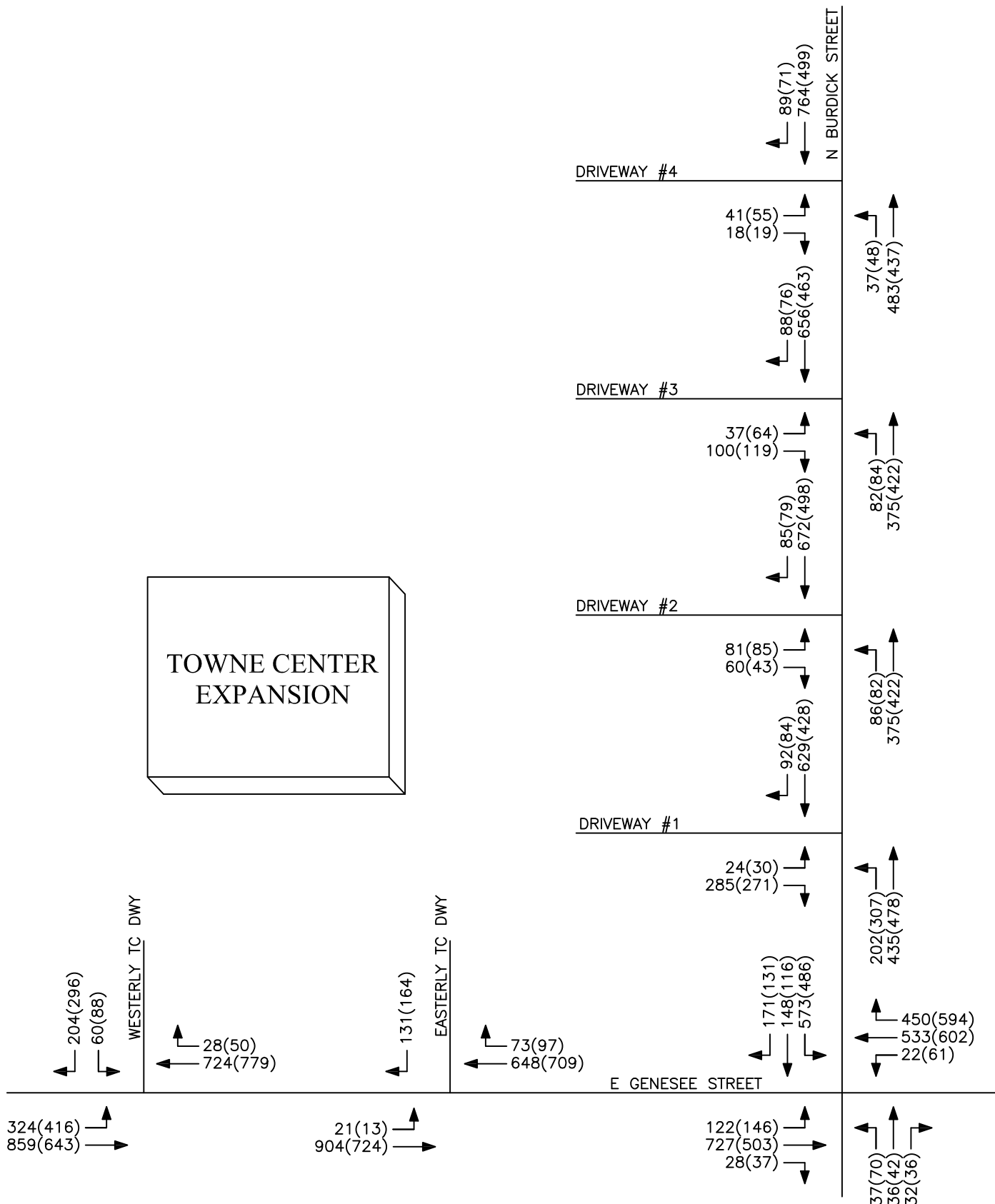
FIGURE 2

LANE GEOMETRY &
AVERAGE DAILY TRAFFIC

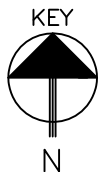
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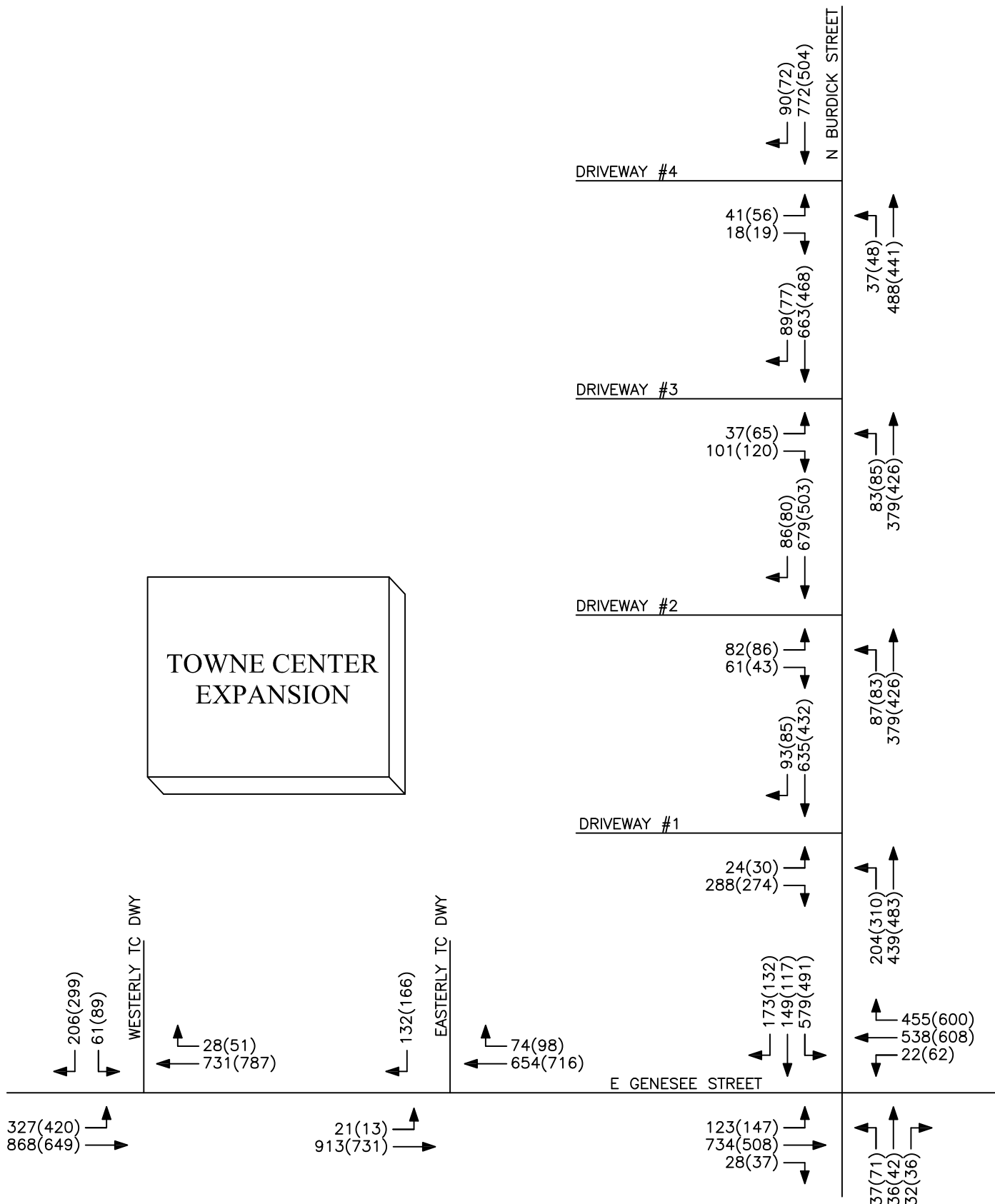
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FIGURE 3

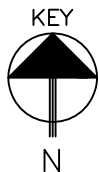
CHASE BANK FULL BUILD
2021 EXISTING BASE CONDITIONS

PROPOSED FAYETTEVILLE TOWNE CENTER
EXPANSION, TOWN OF MANLIUS, NY





PROJECT NO: 40094



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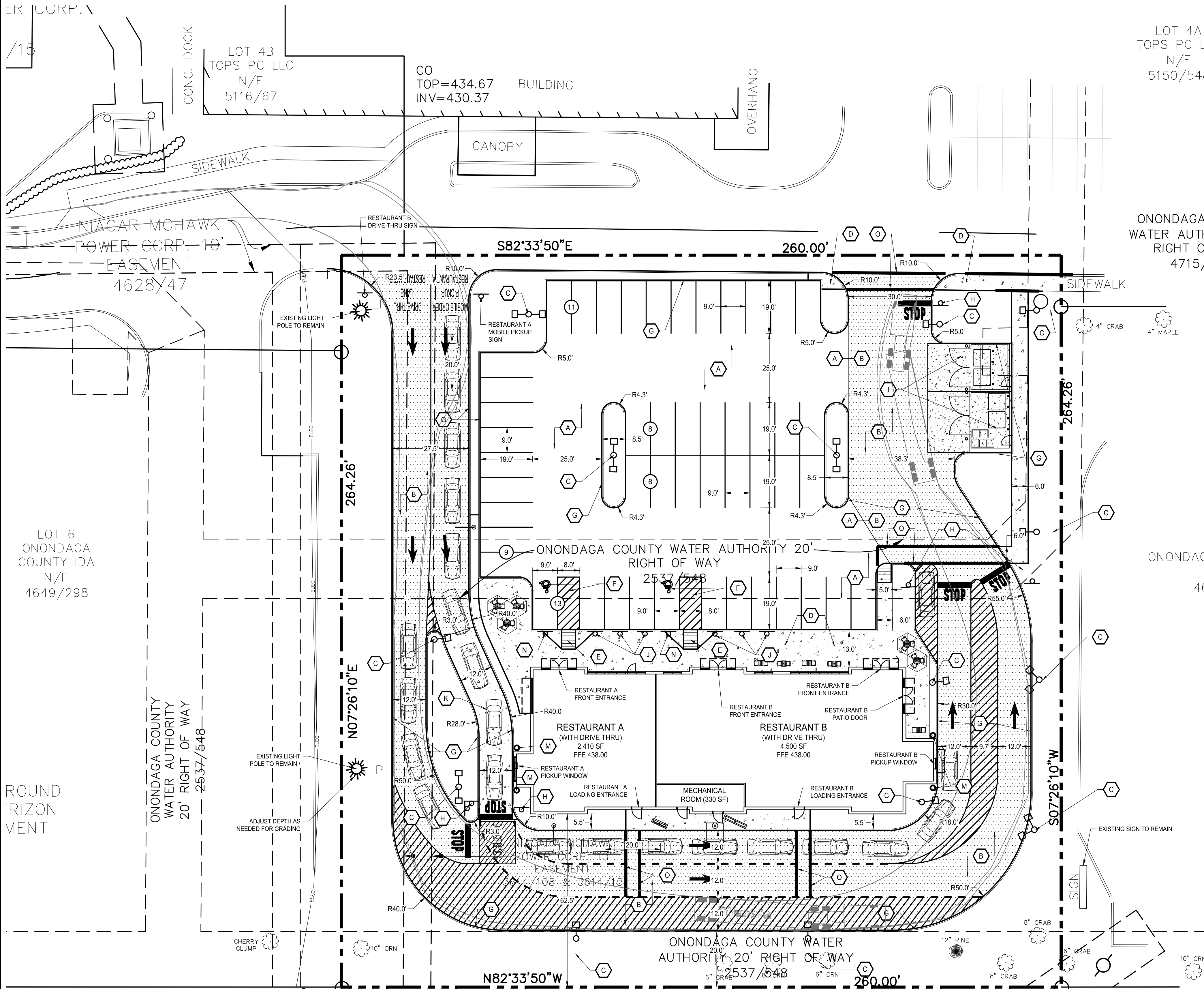
FIGURE 4

PEAK HOUR VOLUMES
2022 BACKGROUND CONDITIONS

PROPOSED FAYETTEVILLE TOWNE CENTER
EXPANSION, TOWN OF MANLIUS, NY



ARCH D 2436
01510500C100.DWG
3/20/2021 2:17 PM



<u>SITE DATA CHART</u>			
ZONING DISTRICT: RSD - REGIONAL SHOPPING DISTRICT			
		REQUIRED	PROPOSED
MINIMUM LOT SIZE, AREA		N/A	68,708+/- SF
MINIMUM LOT SIZE, WIDTH		N/A	260.0 FT
MAXIMUM HEIGHT OF BUILDING		N/A	26.0+/- FT
<u>BUILDING SETBACKS</u>			
FRONT		0 FT	148.8 FT
SIDE	WEST	0 FT	62.3 FT
	EAST	0 FT	45.1 FT
REAR		0 FT	62.5 FT

PROJECT DATA

- APPLICANT:
ROUTE 5 DEVELOPMENT COMPANY, LLC
540 TOWNE DRIVE
FAYETTEVILLE, NEW YORK 13066
- EXISTING ZONING: RSD - REGIONAL SHOPPING DISTRICT
PROPOSED ZONING: RSD - REGIONAL SHOPPING DISTRICT
- FLOOD PLAIN INFORMATION OBTAINED FROM THE FEMA WEBSITE, DOWNLOADED ON 3/23/21. THE PROJECT IS LOCATED WITHIN A SPECIAL FLOOD HAZARD AREA, WITH A BASE FLOOD ELEVATION OF 435.9+/-.
- A VARIANCE TO ALLOW THE REDUCTION OF PARKING SPACE SIZE OF 10'X20' TO 9'X19' WAS GRANTED TO FAYETTEVILLE TOWNE CENTER ON JULY 19, 2021.

OFF-STREET PARKING SECTION 155-31

PROPOSED DEVELOPMENT:

RESTAURANTS:
REQUIRED: 42 SPACES
RATIO: (1) SPACE PER (5) SEATS
RESTAURANT A - 58 SEATS
RESTAURANT B - 150 SEATS

PROPOSED : 48 SPACES

LOT 4A
TOPS PC LLC
N/F
5150/548

ONONDAGA COUNTY
WATER AUTHORITY 20'
RIGHT OF WAY
4715/189

LOT 9
ONONDAGA COUNTY IDA
N/F
4649/310

NIAGARA MOHAWK
POWER CORP., VERIZON
AND TIME WARNER
CABLE CO. EASEMENT
4745/824

GENERAL NOTES:

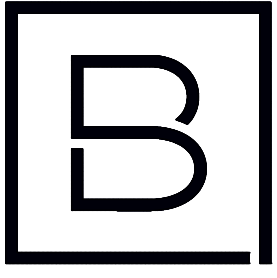
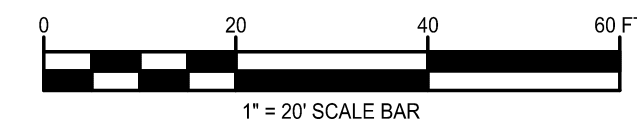
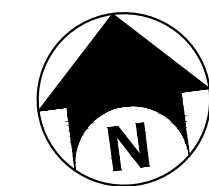
- THE UNDERGROUND STRUCTURES AND UTILITIES SHOWN ON THESE PLANS HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORD MAPS. THEY ARE NOT CERTIFIED TO THE ACCURACY OF THEIR LOCATION AND/OR COMPLETENESS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION AND EXTENT OF ALL UNDERGROUND STRUCTURES AND UTILITIES PRIOR TO ANY DIGGING OR CONSTRUCTION ACTIVITIES IN THEIR VICINITY.
- THE CONTRACTOR SHALL PERFORM ALL WORK IN COMPLIANCE WITH TITLE 29 OF FEDERAL REGULATIONS, PART 1926, SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION (OSHA).
- ALL ROADS AND PRIVATE DRIVES SHALL BE KEPT CLEAN OF MUD, DEBRIS ETC. AT ALL TIMES.
- REFER TO ARCHITECTURAL DRAWINGS FOR PRECISE BUILDING DIMENSIONS.
- THE CONTRACTOR SHALL CONSULT THE CONSTRUCTION MANAGER BEFORE DEVIATING FROM THESE PLANS.
- 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.
- ALL EXISTING SURFACE APPURTENANCES (I.E. WATER VALVES, CATCH BASIN FRAMES AND GRATES, MANHOLE COVERS) WITHIN THE PROJECT LIMITS SHALL BE ADJUSTED TO FINISHED GRADE.
- AREAS DISTURBED OR DAMAGED AS PART OF THIS PROJECT'S CONSTRUCTION THAT ARE OUTSIDE OF THE PRIMARY WORK AREA SHALL BE RESTORED, AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL CALL "DIG SAFELY NEW YORK" AT 1-800-962-7962 OR 811, AT LEAST (3) WORKING DAYS (EXCLUDING WEEKENDS AND HOLIDAYS) PRIOR TO CONSTRUCTION.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE CODES, ORDINANCES, DESIGN STANDARDS AND STANDARD SPECIFICATIONS OF THE AGENCIES WHICH HAVE THE RESPONSIBILITY OF REVIEWING PLANS AND SPECIFICATIONS FOR CONSTRUCTION OF ALL ITEMS INCLUDED IN THESE PLANS.
- UNLESS SPECIFICALLY STATED, THE CONTRACTOR SHALL APPLY FOR AND OBTAIN ALL NECESSARY PERMITS AS REQUIRED FOR CONSTRUCTION OF THIS PROJECT PRIOR TO THE BEGINNING OF WORK FROM THE PREVIOUSLY MENTIONED AGENCIES.
- THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
- WHEN ANY EXISTING UTILITY REQUIRES ADJUSTMENT OR RELOCATION, THE CONTRACTOR SHALL NOTIFY THE PROPER UTILITY COMPANY AND COORDINATE THE WORK ACCORDINGLY. THERE SHALL BE NO CLAIM MADE BY THE CONTRACTOR FOR ANY COSTS CAUSED BY DELAYS IN CONSTRUCTION DUE TO THE ADJUSTMENT OR RELOCATION OF UTILITIES.
- THE CONTRACTOR IS TO VERIFY THAT THE PLANS AND SPECIFICATIONS THAT HE/SHE IS BUILDING FROM ARE THE VERY LATEST PLANS AND SPECIFICATIONS THAT HAVE BEEN APPROVED BY ALL APPLICABLE PERMIT-ISSUING AGENCIES AND THE OWNER. ALL ITEMS CONSTRUCTED BY THE CONTRACTOR PRIOR TO RECEIVING THE FINAL APPROVAL AND PERMITS HAVING TO BE ADJUSTED OR RE-DONE, SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.
- SHOULD THE CONTRACTOR ENCOUNTER CONFLICT BETWEEN THESE PLANS AND SPECIFICATIONS, EITHER AMONG THEMSELVES OR WITH THE REQUIREMENTS OF ANY AND ALL REVIEWING AND PERMIT-ISSUING AGENCIES, HE/SHE SHALL SEEK CLARIFICATION IN WRITING FROM THE CONSTRUCTION MANAGER BEFORE COMMENCEMENT OF CONSTRUCTION. FAILURE TO DO SO SHALL BE AT THE SOLE EXPENSE TO THE CONTRACTOR.
- THE CONTRACTOR SHALL FURNISH AS-BUILT DRAWINGS INDICATING ALL CHANGES AND DEVIATIONS FROM APPROVED DRAWINGS.
- ALL SIGNS AND TRAFFIC CONTROL MEASURES DURING CONSTRUCTION AND MAINTENANCE SHALL BE CONSTRUCTED AND INSTALLED PER THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) WITH NEW YORK STATE SUPPLEMENT.
- ALL WORK WITHIN THE PUBLIC RIGHT OF WAY SHALL CONFORM TO THE STANDARDS OF THE NEW YORK STATE / ONONDAGA COUNTY DEPARTMENT OF TRANSPORTATION.

SITE LEGEND:

- YELLOW STRIPES (4" STRIPE, 2' O.C. AT 45°)
- PROPERTY SETBACK LINE
- PROPERTY LINE
- STANDARD DUTY CONCRETE SECTION
- HEAVY DUTY CONCRETE SECTION
- STANDARD ASPHALT PAVEMENT SECTION
- HEAVY DUTY ASPHALT PAVEMENT SECTION
- RIPRAP
- NUMBER OF PARKING SPACES

KEY NOTES:

- STANDARD PAVEMENT SECTION
- HEAVY DUTY PAVEMENT SECTION
- LIGHT POLE AND CONCRETE BASE
- CONCRETE SIDEWALK
- CURB RAMP
- ADA STRIPPING AND SIGNAGE (TYP.)
- CONCRETE CURB (TYP.)
- 'STOP' SIGN
- DUMPSTER ENCLOSURE
- PICKUP PARKING SIGN
- STANDARD DUTY CONCRETE SECTION
- CURB CUT (TYP.)
- BOLLARD
- ACCESSIBLE PARKING SIGN / 'NO PARKING ANY TIME' SIGN MOUNTED SIDE BY SIDE
- 12" WIDE WHITE CROSSWALK STRIPING



BERGMANN
ARCHITECTS ENGINEERS PLANNERS

280 East Broad Street
Suite 200
Rochester, NY 14604
www.bergmannpc.com

**Route 5 Development
Company, LLC.**

**PROPOSED
RESTAURANT A /
RESTAURANT B**

LOT 15 -TOWNE CENTER
AT FAYETTEVILLE
406 TOWNE DRIVE
FAYETTEVILLE, NY 13066

Date Revised	Description
--------------	-------------

NOT FOR
CONSTRUCTION
— % SUBMISSION

Copyright © Bergmann Associates, Architects, Engineers,
Landscape Architects & Surveyors, D.P.C.

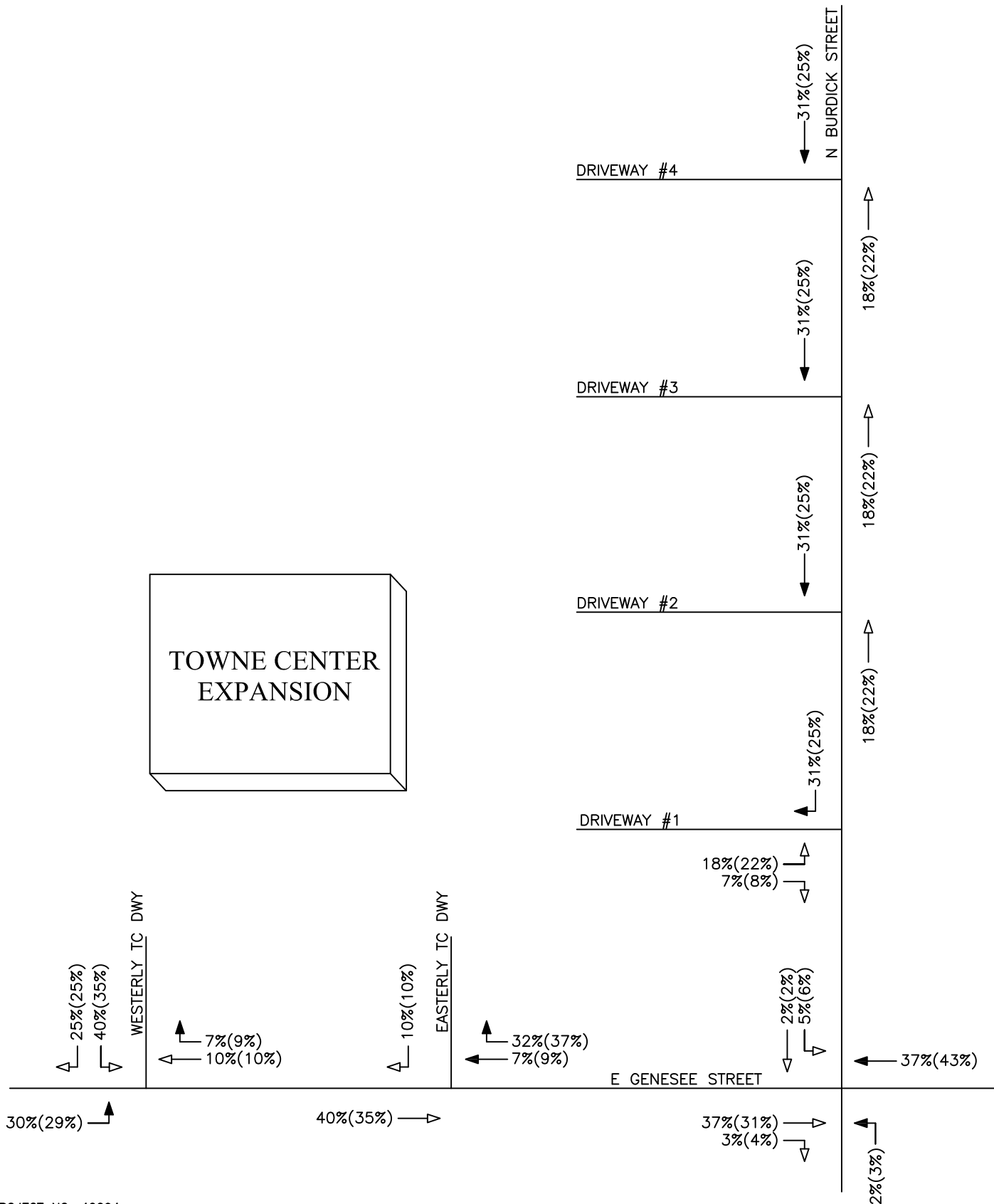
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Designer V MICKEL	Reviewer K HURLEY, PE
Date Issued 04/01/2021	Project Number 15105.00

Sheet Name

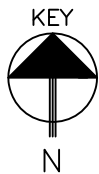
SITE PLAN

Drawing Number

C100



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NOT TO SCALE

00(00) = PM(SAT)

→ = ENTERING TRIPS

→ = EXITING TRIPS

FIGURE 6

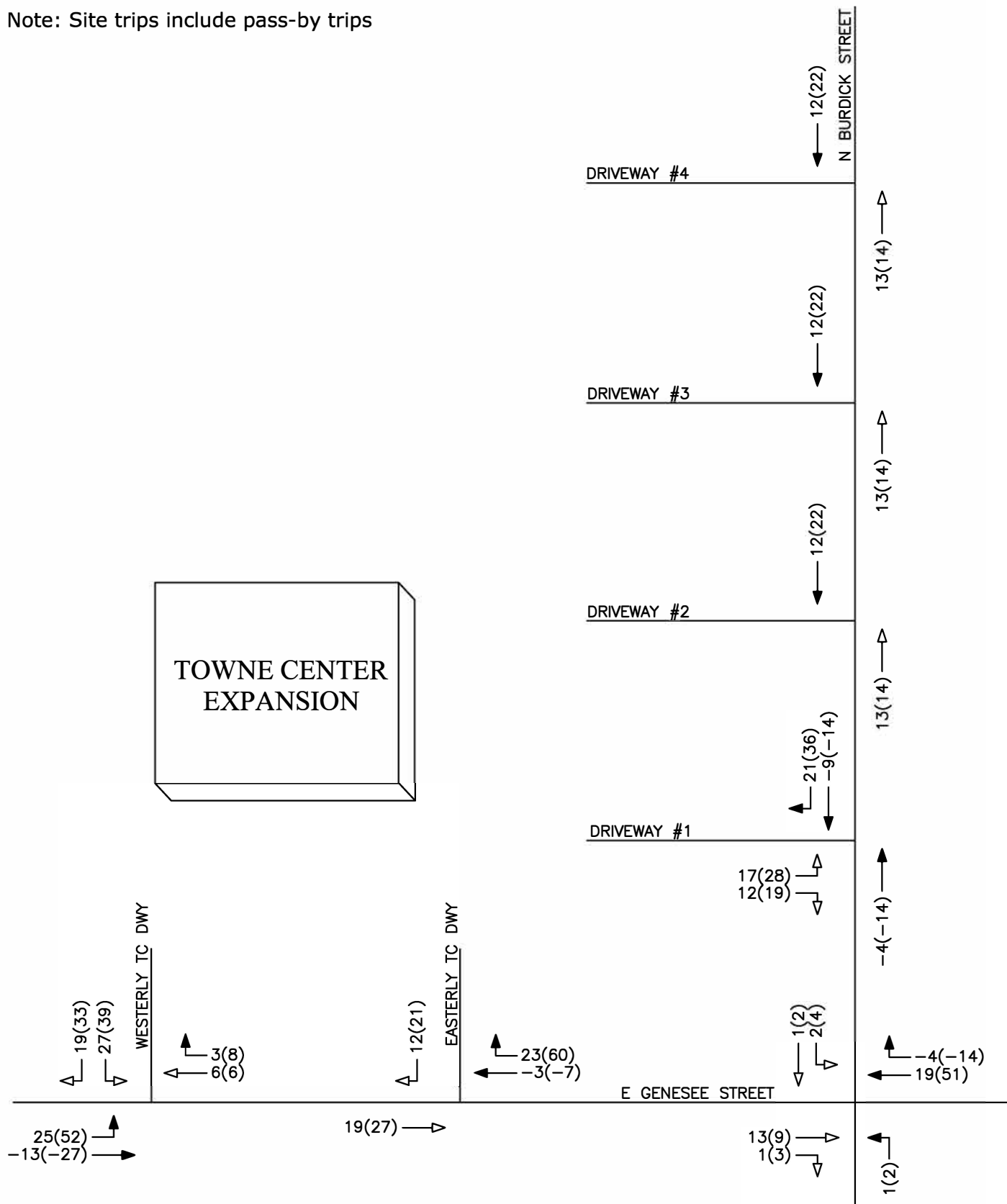
TRIP DISTRIBUTION

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Note: Site trips include pass-by trips



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KEY

NOT TO SCALE

00(00) = PM(SAT)

N

→ = ENTERING TRIPS

→ = EXITING TRIPS

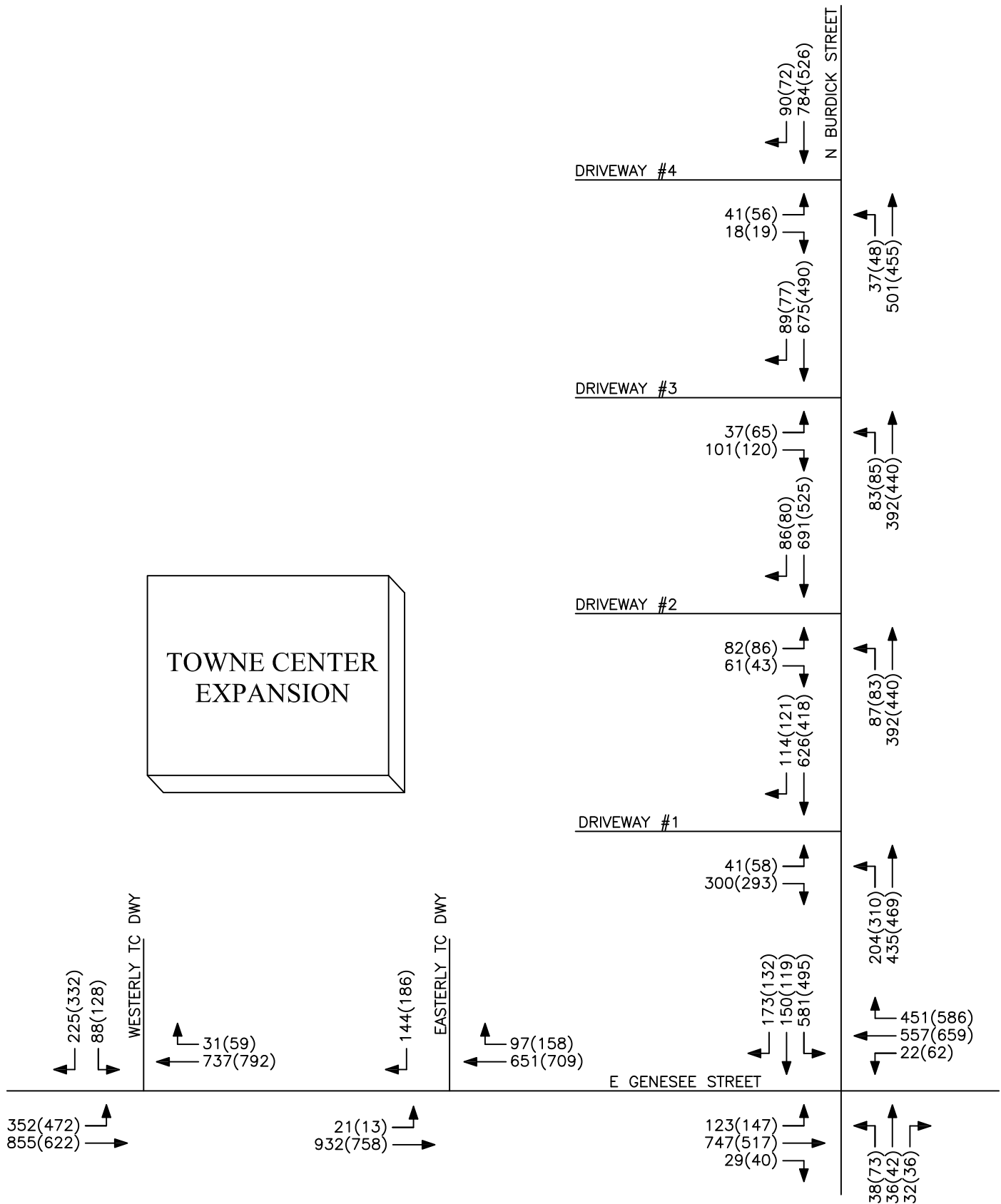
FIGURE 7

SITE GENERATED TRIPS

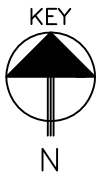
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ASSOCIATES

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PROJECT NO: 40094



NOT TO SCALE
00(00) = PM(SAT)

FIGURE 8

PEAK HOUR VOLUMES
FULL BUILD CONDITIONS

PROPOSED FAYETTEVILLE TOWNE CENTER
EXPANSION, TOWN OF MANLIUS, NY



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APPENDICES

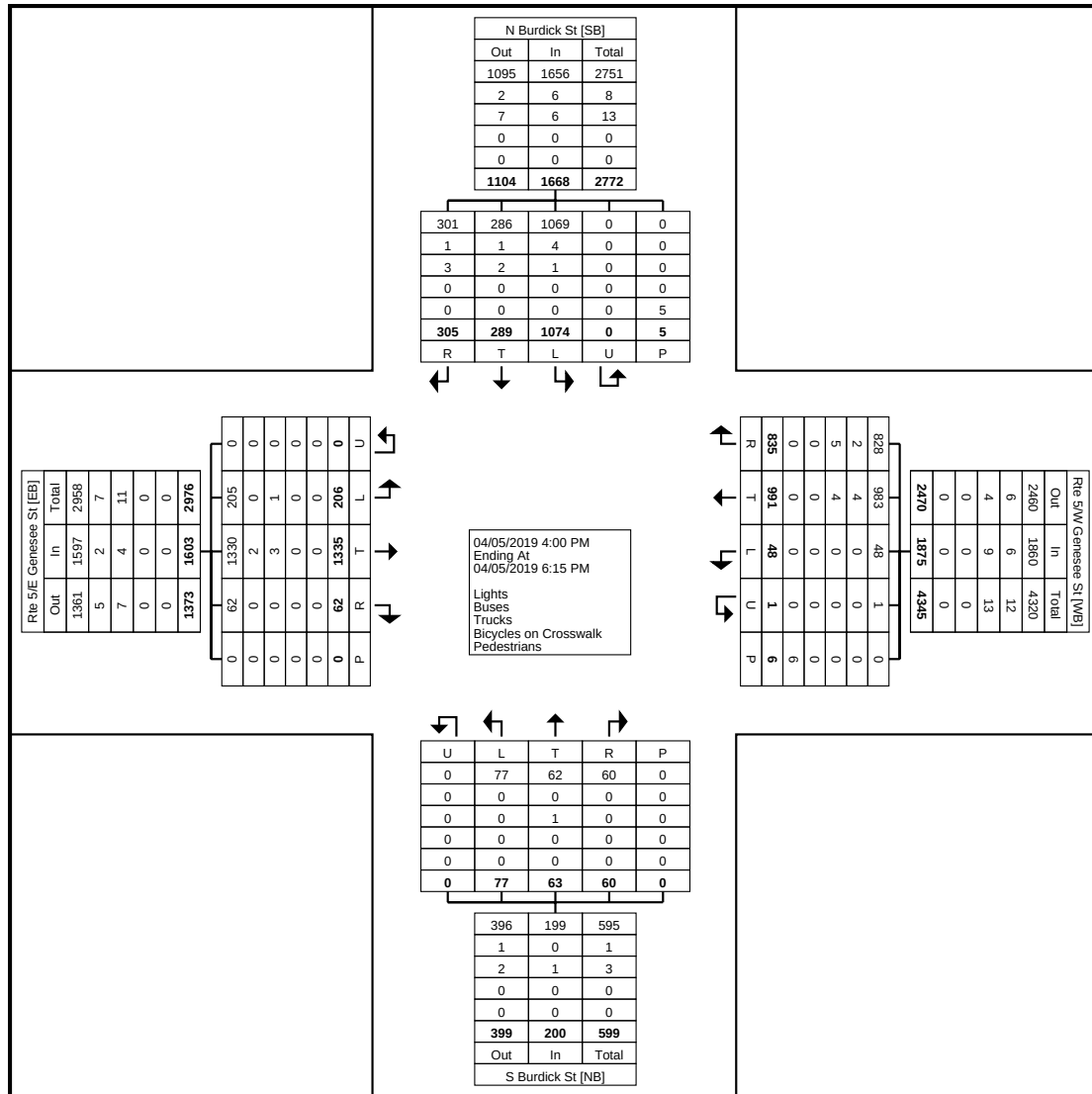
A1

Collected Traffic Volume Data

Turning Movement Data

Start Time	Rte 5/E Genesee St Eastbound							Rte 5/W Genesee St Westbound							S Burdick St Northbound							N Burdick St Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Ped	App. Total	Left	Thru	Right	Right on Red	U-Turn	Ped	App. Total	Left	Thru	Right	Right on Red	U-Turn	Ped	App. Total	Left	Thru	Right	Right on Red	U-Turn	Ped	App. Total	
4:00 PM	24	163	7	2	0	0	196	10	127	56	32	0	0	225	7	8	10	1	0	0	26	100	33	32	14	0	0	179	626
4:15 PM	26	157	7	0	0	0	190	6	119	72	23	0	1	220	12	10	5	2	0	0	29	133	45	21	9	0	1	208	647
4:30 PM	32	151	7	1	0	0	191	9	112	75	41	0	0	237	14	13	3	1	0	0	31	135	38	29	16	0	1	218	677
4:45 PM	37	169	5	3	0	0	214	2	134	76	39	0	0	251	9	11	8	1	0	0	29	141	38	29	10	0	0	218	712
Hourly Total	119	640	26	6	0	0	791	27	492	279	135	0	1	933	42	42	26	5	0	0	115	509	154	111	49	0	2	823	2662
5:00 PM	19	195	8	0	0	0	222	8	144	91	33	0	0	276	8	5	5	4	0	0	22	140	32	18	16	0	0	206	726
5:15 PM	32	188	3	0	0	0	223	3	124	55	32	0	3	214	5	7	8	2	0	0	22	144	37	26	23	0	1	230	689
5:30 PM	17	159	9	0	0	0	185	3	122	60	39	1	1	225	10	3	1	1	0	0	15	144	33	27	8	0	1	212	637
5:45 PM	19	153	9	1	0	0	182	7	109	62	48	0	1	226	12	6	4	4	0	0	26	136	33	16	11	0	1	196	630
Hourly Total	87	695	29	1	0	0	812	21	499	268	152	1	5	941	35	21	18	11	0	0	85	564	135	87	58	0	3	844	2682
6:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2
Grand Total	206	1335	55	7	0	0	1603	48	991	547	288	1	6	1875	77	63	44	16	0	0	200	1074	289	198	107	0	5	1668	5346
Approach %	12.9	83.3	3.4	0.4	0.0	-	-	2.6	52.9	29.2	15.4	0.1	-	-	38.5	31.5	22.0	8.0	0.0	-	-	64.4	17.3	11.9	6.4	0.0	-	-	-
Total %	3.9	25.0	1.0	0.1	0.0	-	30.0	0.9	18.5	10.2	5.4	0.0	-	35.1	1.4	1.2	0.8	0.3	0.0	-	3.7	20.1	5.4	3.7	2.0	0.0	-	31.2	-
Lights	205	1330	55	7	0	-	1597	48	983	544	284	1	-	1860	77	62	44	16	0	-	199	1069	286	194	107	0	-	1656	5312
% Lights	99.5	99.6	100.0	100.0	-	-	99.6	100.0	99.2	99.5	98.6	100.0	-	99.2	100.0	98.4	100.0	100.0	-	-	99.5	99.5	99.0	98.0	100.0	-	-	99.3	99.4
Buses	0	2	0	0	0	-	2	0	4	0	2	0	-	6	0	0	0	0	0	-	0	4	1	1	0	0	-	6	14
% Buses	0.0	0.1	0.0	0.0	-	-	0.1	0.0	0.4	0.0	0.7	0.0	-	0.3	0.0	0.0	0.0	0.0	-	-	0.0	0.4	0.3	0.5	0.0	-	-	0.4	0.3
Trucks	1	3	0	0	0	-	4	0	4	3	2	0	-	9	0	1	0	0	0	-	1	1	2	3	0	0	-	6	20
% Trucks	0.5	0.2	0.0	0.0	-	-	0.2	0.0	0.4	0.5	0.7	0.0	-	0.5	0.0	1.6	0.0	0.0	-	-	0.5	0.1	0.7	1.5	0.0	-	-	0.4	0.4
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	6	-	-	-	-	-	-	0	-	-	-	-	-	-	5	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Fayetteville, NY
Rte 5/Burdick St
Friday, April 5, 2019
Location: 43.02927, -76.016828



Turning Movement Data Plot

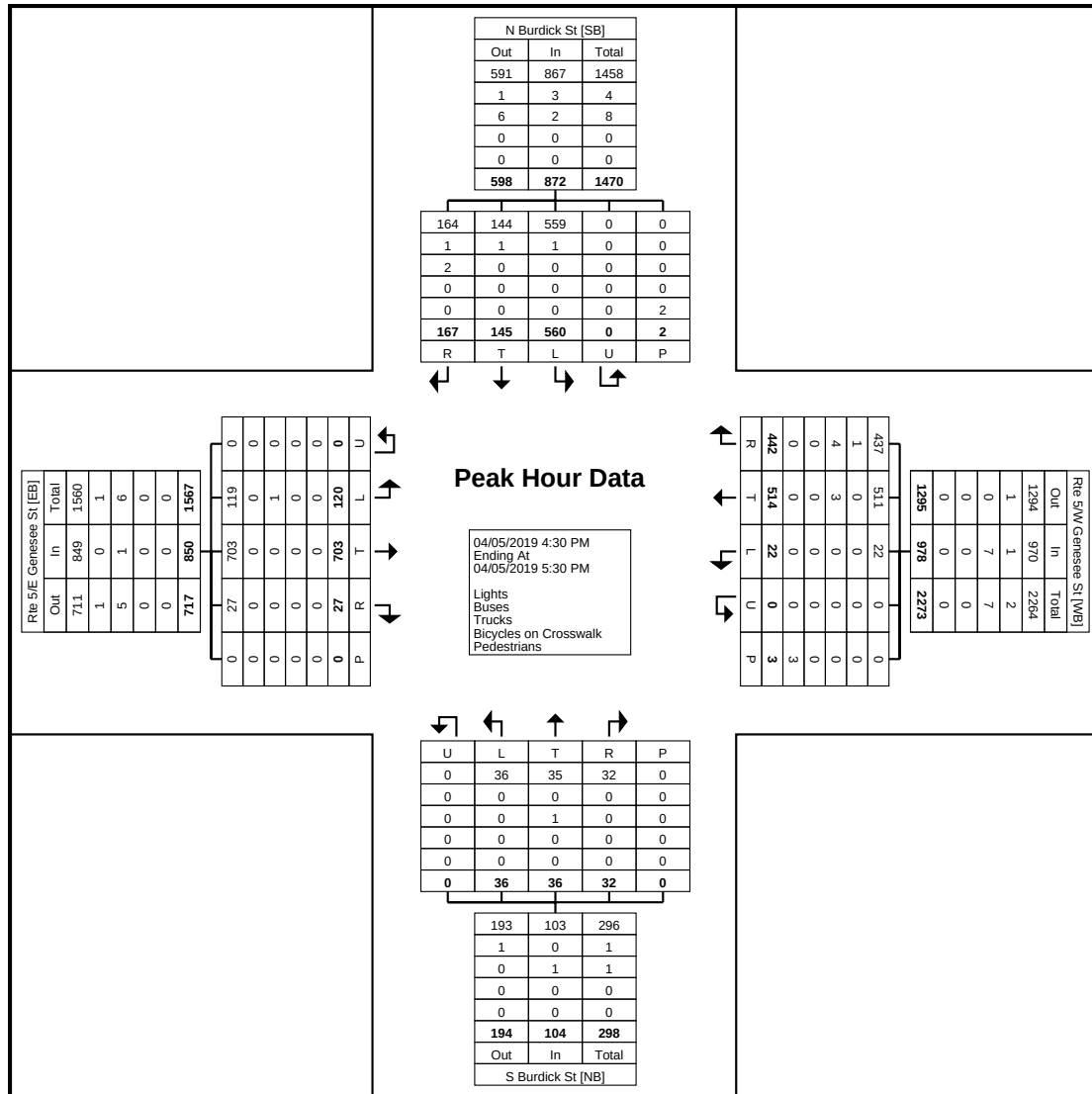
Turning Movement Peak Hour Data (4:30 PM)

Start Time	Rte 5/E Genesee St Eastbound							Rte 5/W Genesee St Westbound							S Burdick St Northbound							N Burdick St Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Ped	App. Total	Left	Thru	Right	Right on Red	U-Turn	Ped	App. Total	Left	Thru	Right	Right on Red	U-Turn	Ped	App. Total	Left	Thru	Right	Right on Red	U-Turn	Ped	App. Total	
4:30 PM	32	151	7	1	0	0	191	9	112	75	41	0	0	237	14	13	3	1	0	0	31	135	38	29	16	0	1	218	677
4:45 PM	37	169	5	3	0	0	214	2	134	76	39	0	0	251	9	11	8	1	0	0	29	141	38	29	10	0	0	218	712
5:00 PM	19	195	8	0	0	0	222	8	144	91	33	0	0	276	8	5	5	4	0	0	22	140	32	18	16	0	0	206	726
5:15 PM	32	188	3	0	0	0	223	3	124	55	32	0	3	214	5	7	8	2	0	0	22	144	37	26	23	0	1	230	689
Total	120	703	23	4	0	0	850	22	514	297	145	0	3	978	36	36	24	8	0	0	104	560	145	102	65	0	2	872	2804
Approach %	14.1	82.7	2.7	0.5	0.0	-	-	2.2	52.6	30.4	14.8	0.0	-	-	34.6	34.6	23.1	7.7	0.0	-	-	64.2	16.6	11.7	7.5	0.0	-	-	-
Total %	4.3	25.1	0.8	0.1	0.0	-	30.3	0.8	18.3	10.6	5.2	0.0	-	34.9	1.3	1.3	0.9	0.3	0.0	-	3.7	20.0	5.2	3.6	2.3	0.0	-	31.1	-
PHF	0.811	0.901	0.719	0.333	0.000	-	0.953	0.611	0.892	0.816	0.884	0.000	-	0.886	0.643	0.692	0.750	0.500	0.000	-	0.839	0.972	0.954	0.879	0.707	0.000	-	0.948	0.966
Lights	119	703	23	4	0	-	849	22	511	294	143	0	-	970	36	35	24	8	0	-	103	559	144	99	65	0	-	867	2789
% Lights	99.2	100.0	100.0	100.0	-	-	99.9	100.0	99.4	99.0	98.6	-	-	99.2	100.0	97.2	100.0	100.0	-	-	99.0	99.8	99.3	97.1	100.0	-	-	99.4	99.5
Buses	0	0	0	0	0	-	0	0	0	0	1	0	-	1	0	0	0	0	0	-	0	1	1	1	0	0	-	3	4
% Buses	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.7	-	-	0.1	0.0	0.0	0.0	0.0	-	-	0.0	0.2	0.7	1.0	0.0	-	-	0.3	0.1
Trucks	1	0	0	0	0	-	1	0	3	3	1	0	-	7	0	1	0	0	0	-	1	0	0	2	0	0	-	2	11
% Trucks	0.8	0.0	0.0	0.0	-	-	0.1	0.0	0.6	1.0	0.7	-	-	0.7	0.0	2.8	0.0	0.0	-	-	1.0	0.0	0.0	2.0	0.0	-	-	0.2	0.4
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	3	-	-	-	-	-	-	0	-	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Fayetteville, NY
Rte 5/Burdick St
Friday, April 5, 2019
Location: 43.02927, -76.016828

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: 1. Rte 5 & Burdick
St 4/5/19
Site Code: SCU5JW
Start Date: 04/05/2019
Page No: 4



Turning Movement Peak Hour Data Plot (4:30 PM)



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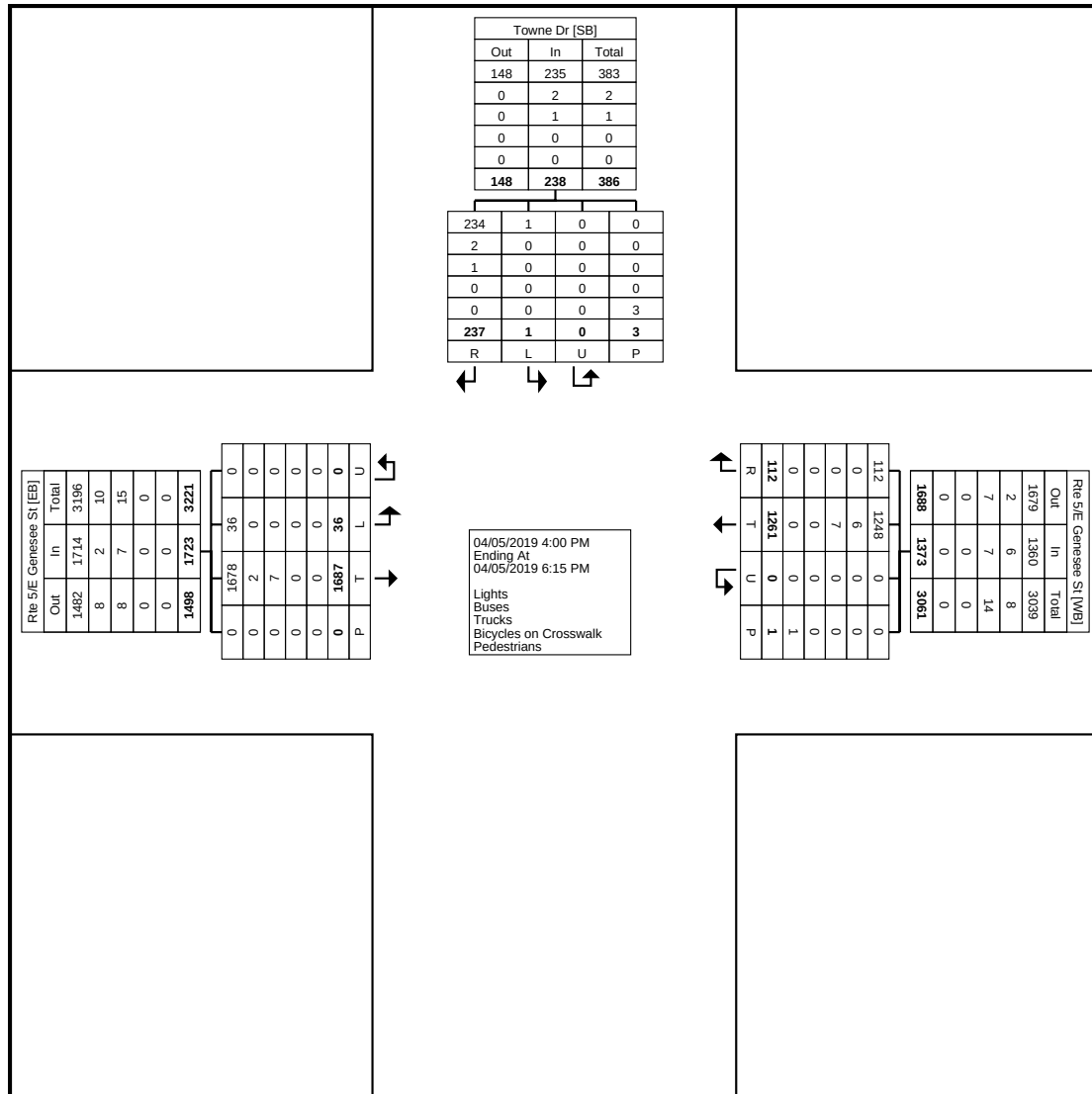
Fayetteville, NY
Rte 5/Burdick St
Friday, April 5, 2019
Location: 43.02927, -76.016828

Count Name: 1. Rte 5 & Burdick
St 4/5/19
Site Code: SCU5JW
Start Date: 04/05/2019
Page No: 5

Turning Movement Data

Start Time	Rte 5/E Genesee St Eastbound					Rte 5/E Genesee St Westbound					Towne Dr Southbound					Int. Total
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
4:00 PM	8	211	0	0	219	176	11	0	0	187	0	31	0	0	31	437
4:15 PM	2	203	0	0	205	154	11	0	0	165	0	29	0	0	29	399
4:30 PM	6	205	0	0	211	154	18	0	0	172	0	34	0	0	34	417
4:45 PM	7	214	0	0	221	162	19	0	0	181	0	29	0	1	29	431
Hourly Total	23	833	0	0	856	646	59	0	0	705	0	123	0	1	123	1684
5:00 PM	4	228	0	0	232	163	14	0	0	177	0	35	0	0	35	444
5:15 PM	4	229	0	0	233	155	13	0	1	168	0	28	0	0	28	429
5:30 PM	3	196	0	0	199	166	11	0	0	177	1	21	0	1	22	398
5:45 PM	2	201	0	0	203	131	15	0	0	146	0	30	0	1	30	379
Hourly Total	13	854	0	0	867	615	53	0	1	668	1	114	0	2	115	1650
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	36	1687	0	0	1723	1261	112	0	1	1373	1	237	0	3	238	3334
Approach %	2.1	97.9	0.0	-	-	91.8	8.2	0.0	-	-	0.4	99.6	0.0	-	-	-
Total %	1.1	50.6	0.0	-	51.7	37.8	3.4	0.0	-	41.2	0.0	7.1	0.0	-	7.1	-
Lights	36	1678	0	-	1714	1248	112	0	-	1360	1	234	0	-	235	3309
% Lights	100.0	99.5	-	-	99.5	99.0	100.0	-	-	99.1	100.0	98.7	-	-	98.7	99.3
Buses	0	2	0	-	2	6	0	0	-	6	0	2	0	-	2	10
% Buses	0.0	0.1	-	-	0.1	0.5	0.0	-	-	0.4	0.0	0.8	-	-	0.8	0.3
Trucks	0	7	0	-	7	7	0	0	-	7	0	1	0	-	1	15
% Trucks	0.0	0.4	-	-	0.4	0.6	0.0	-	-	0.5	0.0	0.4	-	-	0.4	0.4
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	0.0	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	1	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-

Fayetteville, NY
Rte 5 & Towne Dr/Access 6
Friday, April 5, 2019
Location: 43.029221, -
76.018299

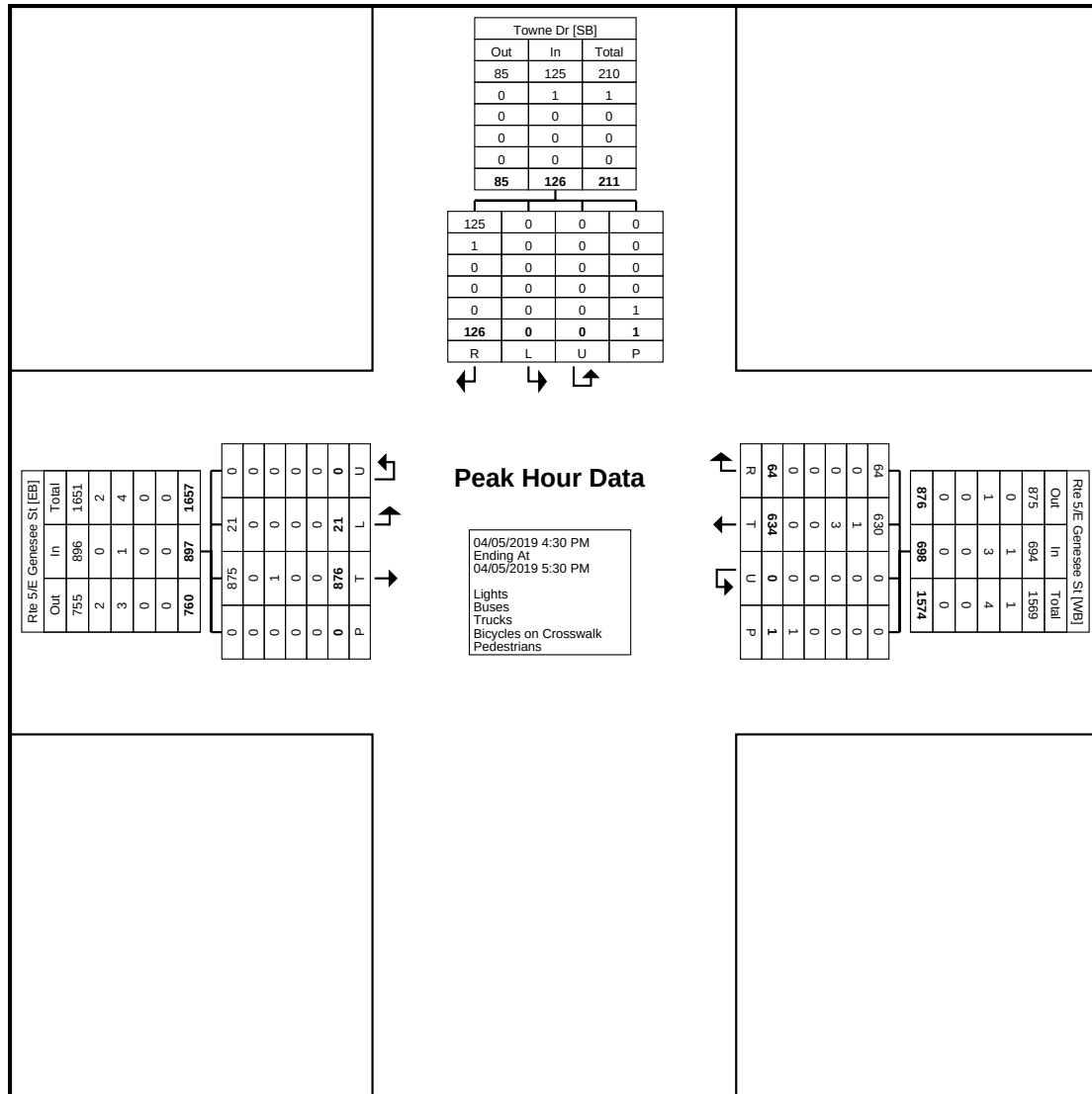


Turning Movement Data Plot

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Rte 5/E Genesee St Eastbound					Rte 5/E Genesee St Westbound					Towne Dr Southbound					Int. Total
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
4:30 PM	6	205	0	0	211	154	18	0	0	172	0	34	0	0	34	417
4:45 PM	7	214	0	0	221	162	19	0	0	181	0	29	0	1	29	431
5:00 PM	4	228	0	0	232	163	14	0	0	177	0	35	0	0	35	444
5:15 PM	4	229	0	0	233	155	13	0	1	168	0	28	0	0	28	429
Total	21	876	0	0	897	634	64	0	1	698	0	126	0	1	126	1721
Approach %	2.3	97.7	0.0	-	-	90.8	9.2	0.0	-	-	0.0	100.0	0.0	-	-	-
Total %	1.2	50.9	0.0	-	52.1	36.8	3.7	0.0	-	40.6	0.0	7.3	0.0	-	7.3	-
PHF	0.750	0.956	0.000	-	0.962	0.972	0.842	0.000	-	0.964	0.000	0.900	0.000	-	0.900	0.969
Lights	21	875	0	-	896	630	64	0	-	694	0	125	0	-	125	1715
% Lights	100.0	99.9	-	-	99.9	99.4	100.0	-	-	99.4	-	99.2	-	-	99.2	99.7
Buses	0	0	0	-	0	1	0	0	-	1	0	1	0	-	1	2
% Buses	0.0	0.0	-	-	0.0	0.2	0.0	-	-	0.1	-	0.8	-	-	0.8	0.1
Trucks	0	1	0	-	1	3	0	0	-	3	0	0	0	-	0	4
% Trucks	0.0	0.1	-	-	0.1	0.5	0.0	-	-	0.4	-	0.0	-	-	0.0	0.2
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	0.0	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	1	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-

Fayetteville, NY
Rte 5 & Towne Dr/Access 6
Friday, April 5, 2019
Location: 43.029221, -
76.018299



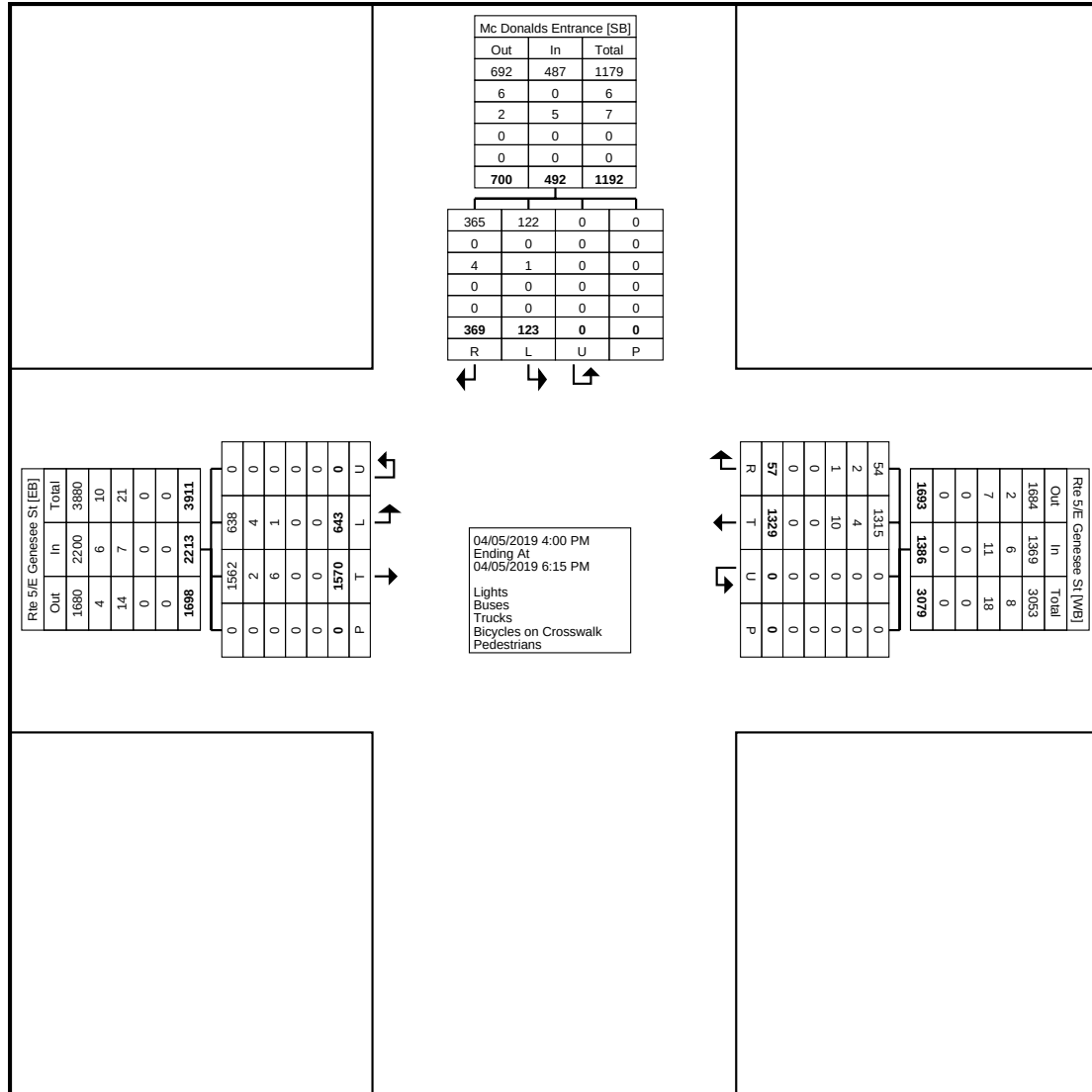
Turning Movement Peak Hour Data Plot (4:30 PM)



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Turning Movement Data

[illegible]



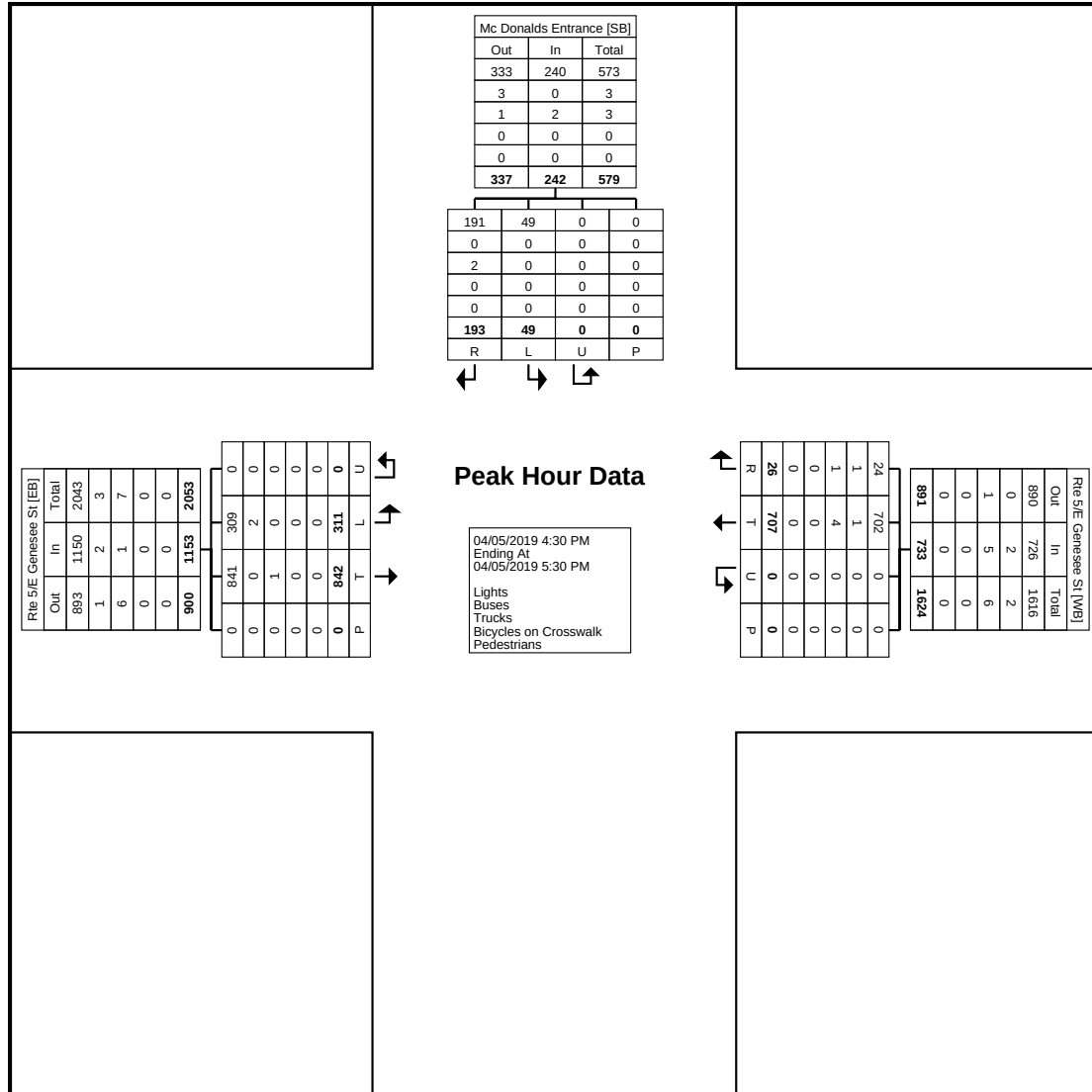
Turning Movement Data Plot



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Count Name: 7. Rte 5 & Mc
Donalds Entrance 4/5/19
Site Code: SCU53Q
Start Date: 04/05/2019
Page No: 3

[illegible]



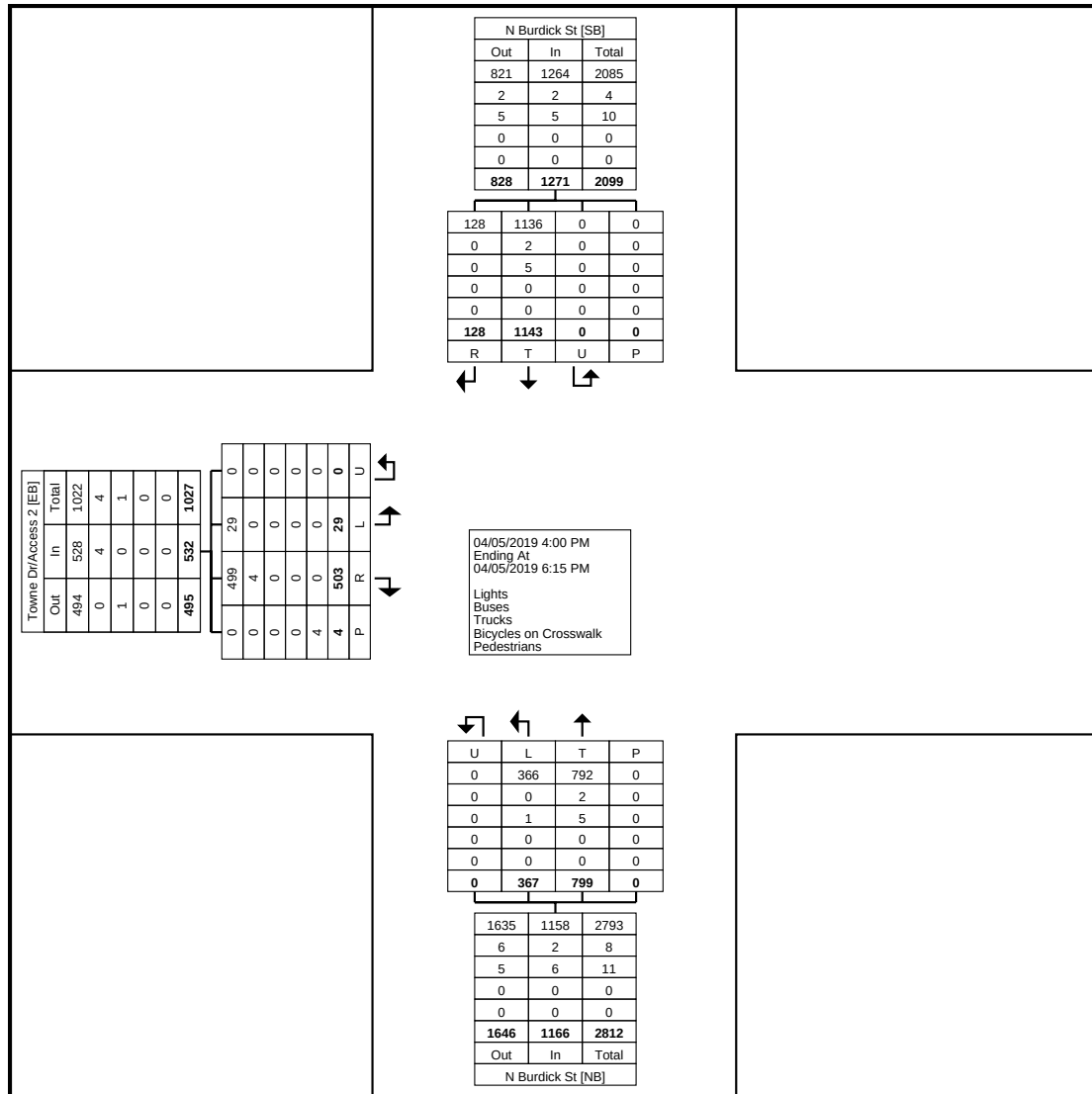
Turning Movement Peak Hour Data Plot (4:30 PM)



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Count Name: 2. N Burdick St &
Towne Dr 4/5/19
Site Code: SCU6ZT
Start Date: 04/05/2019
Page No: 1

[illegible]



Turning Movement Data Plot

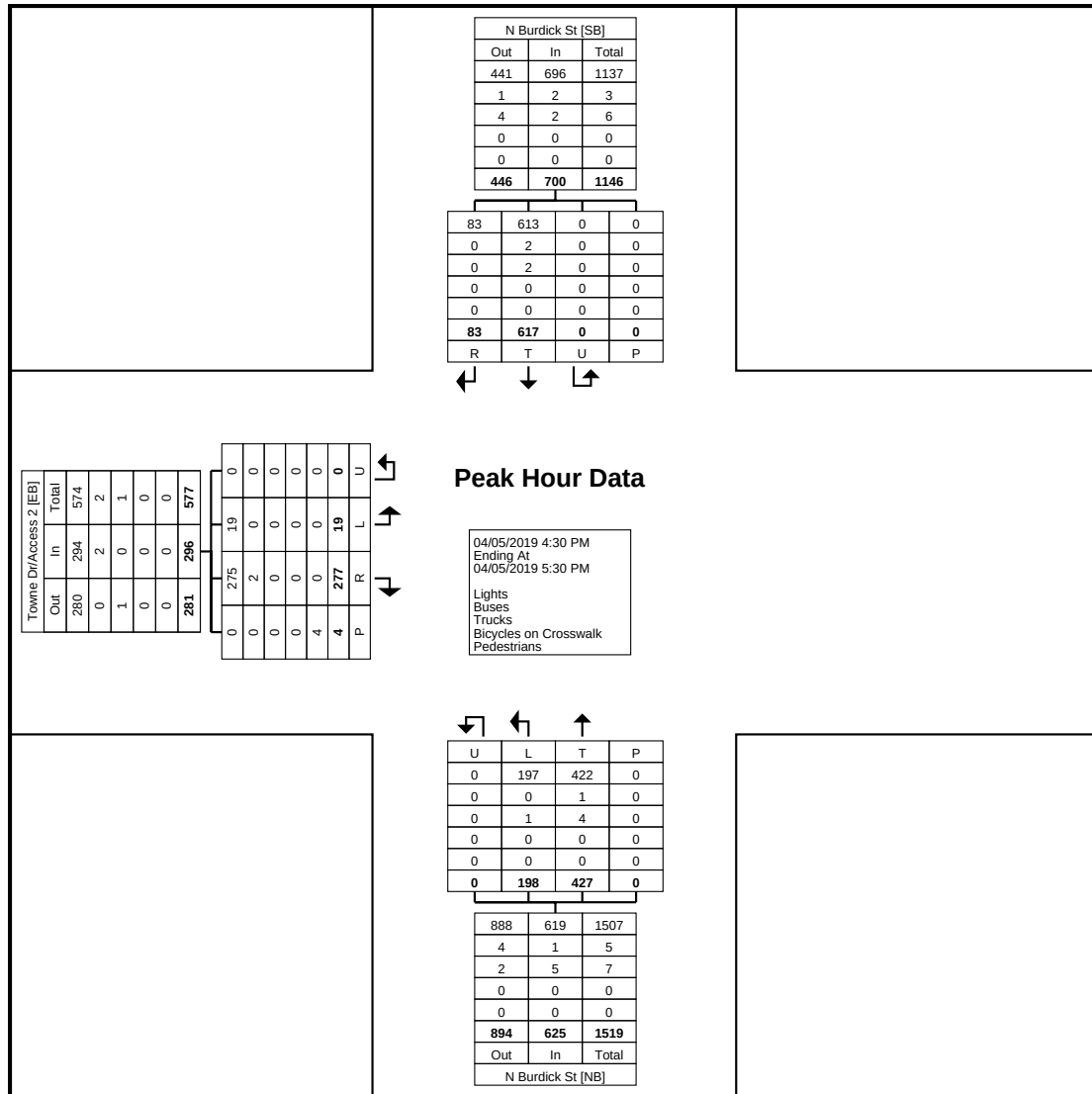


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Count Name: 2. N Burdick St &
Towne Dr 4/5/19
Site Code: SCU6ZT
Start Date: 04/05/2019
Page No: 3

[illegible]

Fayetteville, NY
N.Burdick St & Towne Dr
Access 2
Friday, April 5, 2019
Location: 43.031163, -
76.016943



Turning Movement Peak Hour Data Plot (4:30 PM)

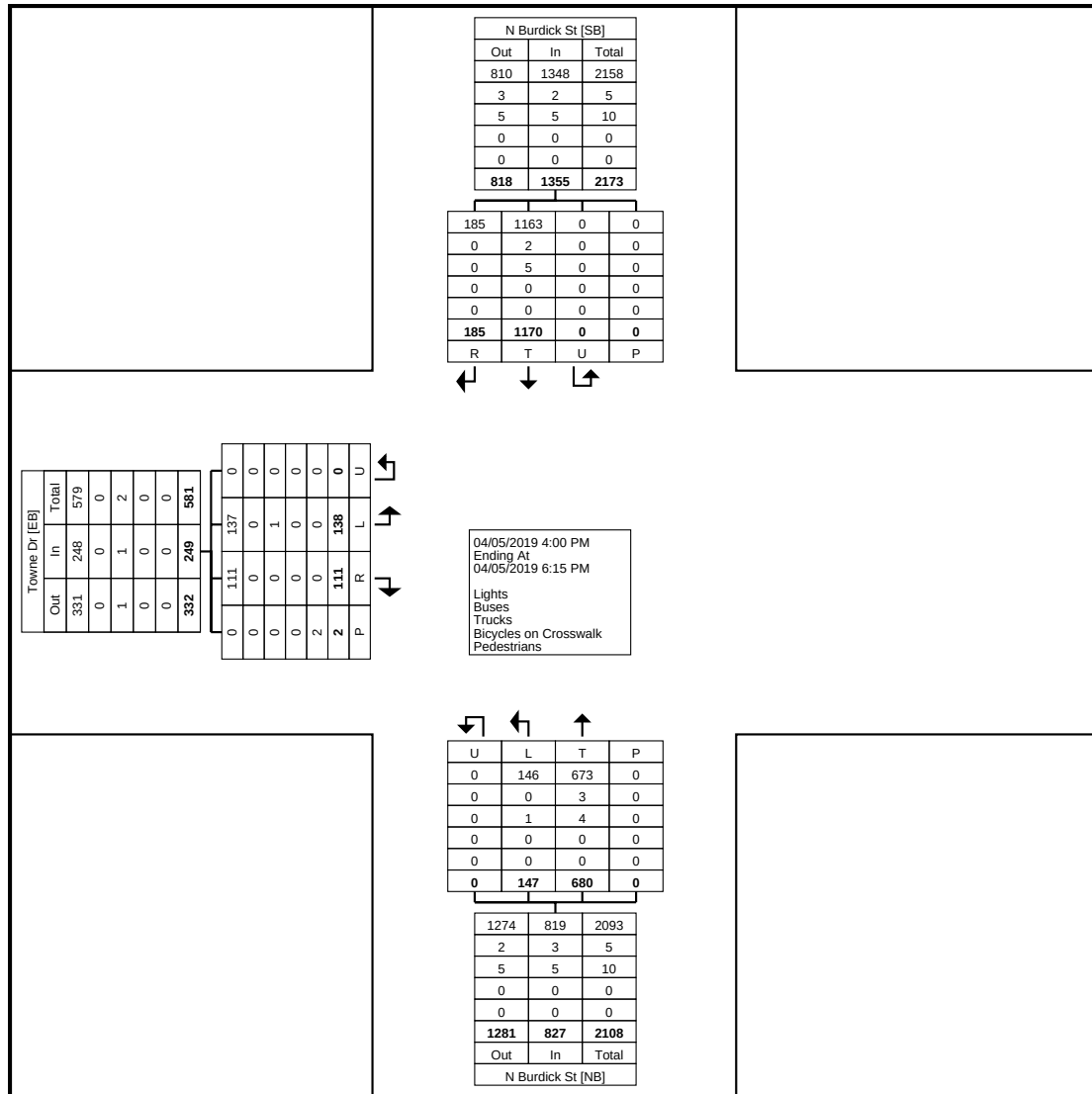


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Turning Movement Data

[illegible]

Fayetteville, NY
N.Burdick St & Towne
Dr/Access 3
Friday, April 5, 2019
Location: 43.033602, -
76.017089



Turning Movement Data Plot



Fayetteville, NY
N.Burdick St & Towne
Dr/Access 3
Friday, April 5, 2019
Location: 43.033602, -
76.017089

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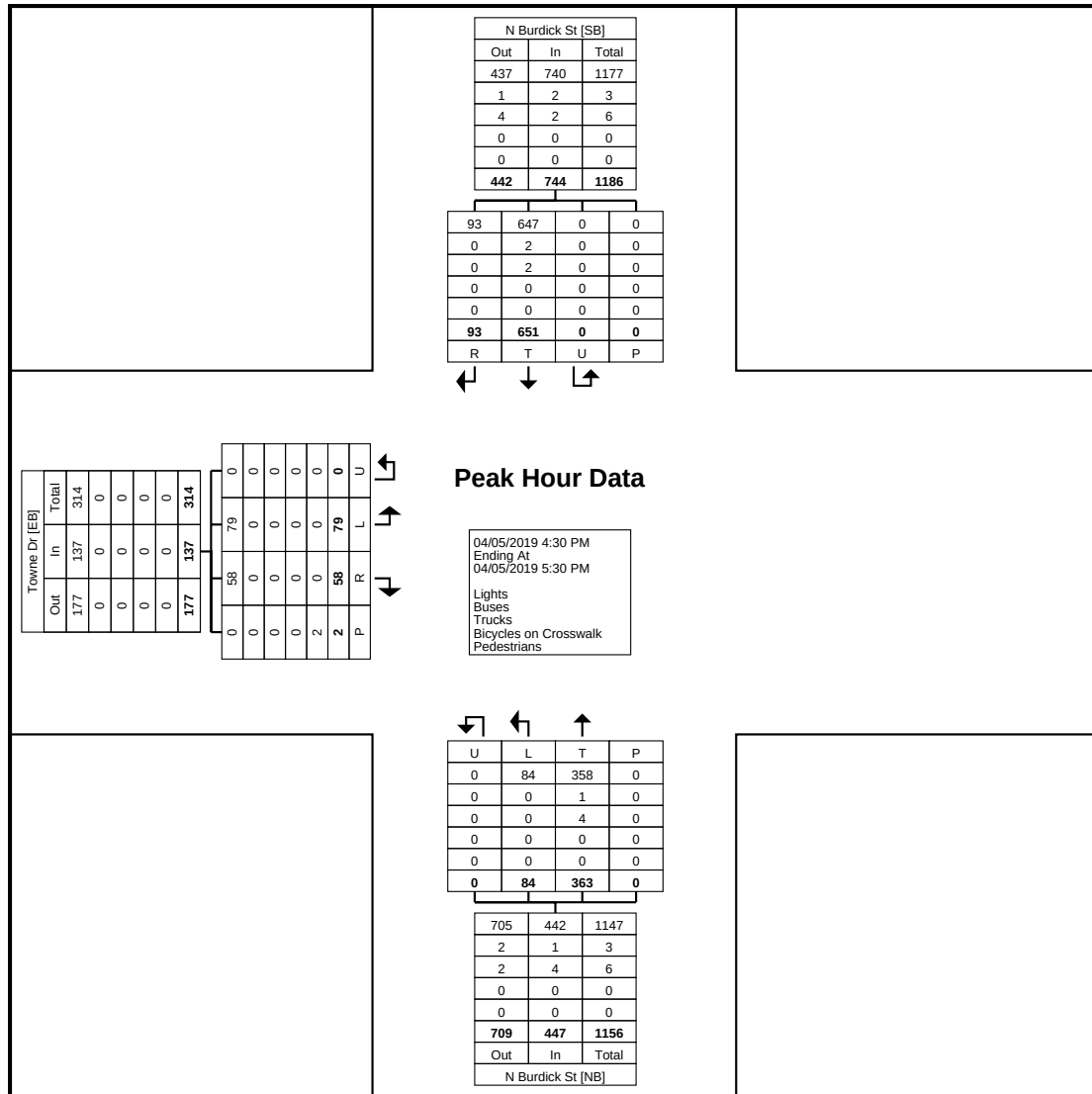
Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: 3. N Burdick St &
Towne Dr 4/5/19
Site Code: SCU6VU
Start Date: 04/05/2019
Page No: 3

Turning Movement Peak Hour Data (4:30 PM)

[illegible]

Fayetteville, NY
N.Burdick St & Towne
Dr/Access 3
Friday, April 5, 2019
Location: 43.033602, -
76.017089

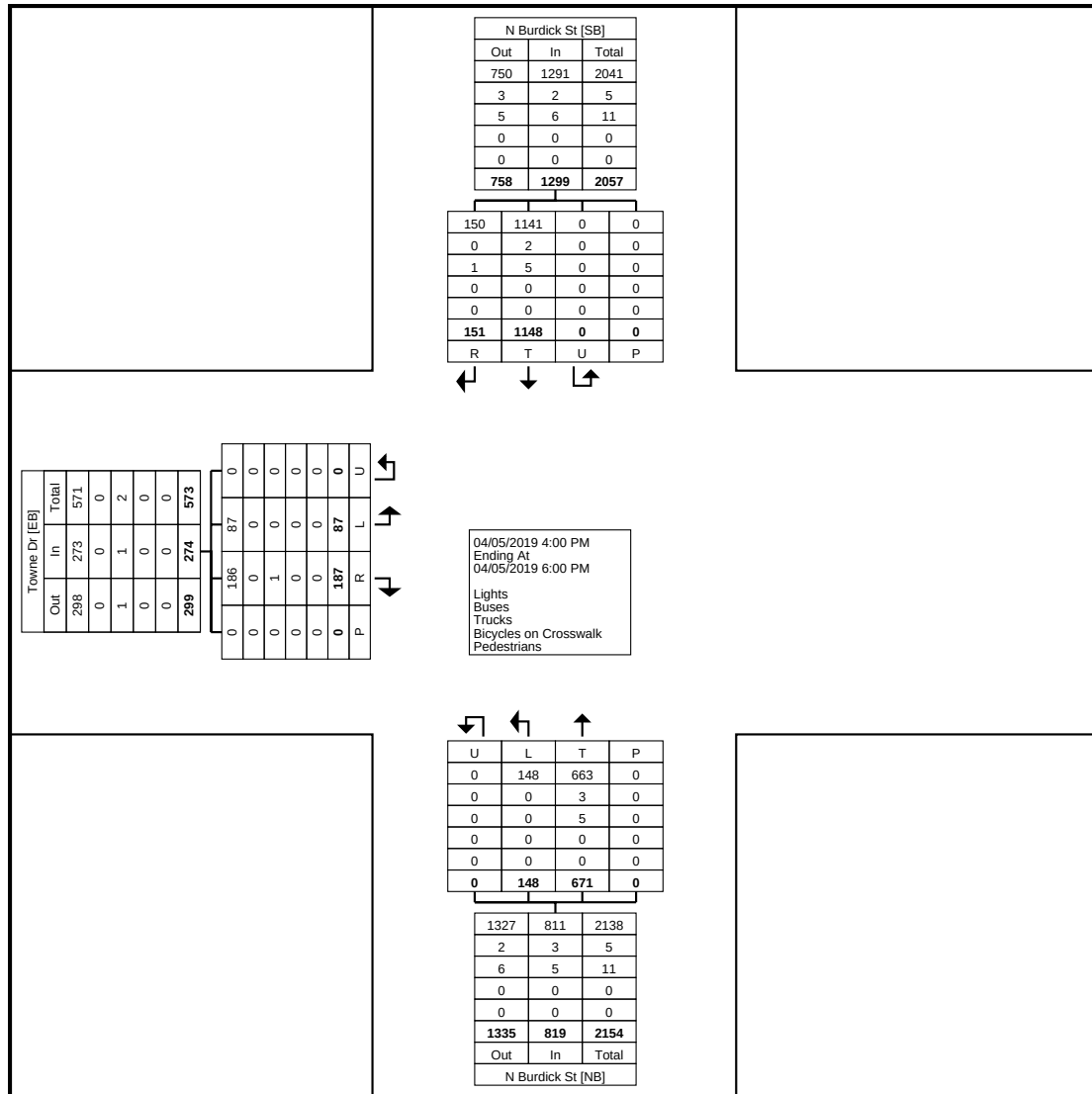




Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: 4. N Burdick St &
Towne Dr 4/5/19
Site Code: SCU146
Start Date: 04/05/2019
Page No: 1

Start Time	Towne Dr Eastbound					N Burdick St Northbound					N Burdick St Southbound					Int. Total
	Left	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	
4:00 PM	12	20	0	0	32	18	79	0	0	97	141	17	0	0	158	287
4:15 PM	9	20	0	0	29	15	84	0	0	99	138	15	0	0	153	281
4:30 PM	9	29	0	0	38	16	95	0	0	111	166	16	0	0	182	331
4:45 PM	6	27	0	0	33	17	112	0	0	129	145	22	0	0	167	329
Hourly Total	36	96	0	0	132	66	370	0	0	436	590	70	0	0	660	1228
5:00 PM	8	23	0	0	31	31	92	0	0	123	168	26	0	0	194	348
5:15 PM	14	19	0	0	33	16	64	0	0	80	157	22	0	0	179	292
5:30 PM	12	26	0	0	38	16	67	0	0	83	116	18	0	0	134	255
5:45 PM	17	23	0	0	40	19	78	0	0	97	117	15	0	0	132	269
Hourly Total	51	91	0	0	142	82	301	0	0	383	558	81	0	0	639	1164
Grand Total	87	187	0	0	274	148	671	0	0	819	1148	151	0	0	1299	2392
Approach %	31.8	68.2	0.0	-	-	18.1	81.9	0.0	-	-	88.4	11.6	0.0	-	-	-
Total %	3.6	7.8	0.0	-	11.5	6.2	28.1	0.0	-	34.2	48.0	6.3	0.0	-	54.3	-
Lights	87	186	0	-	273	148	663	0	-	811	1141	150	0	-	1291	2375
% Lights	100.0	99.5	-	-	99.6	100.0	98.8	-	-	99.0	99.4	99.3	-	-	99.4	99.3
Buses	0	0	0	-	0	0	3	0	-	3	2	0	0	-	2	5
% Buses	0.0	0.0	-	-	0.0	0.0	0.4	-	-	0.4	0.2	0.0	-	-	0.2	0.2
Trucks	0	1	0	-	1	0	5	0	-	5	5	1	0	-	6	12
% Trucks	0.0	0.5	-	-	0.4	0.0	0.7	-	-	0.6	0.4	0.7	-	-	0.5	0.5
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Turning Movement Data Plot



Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

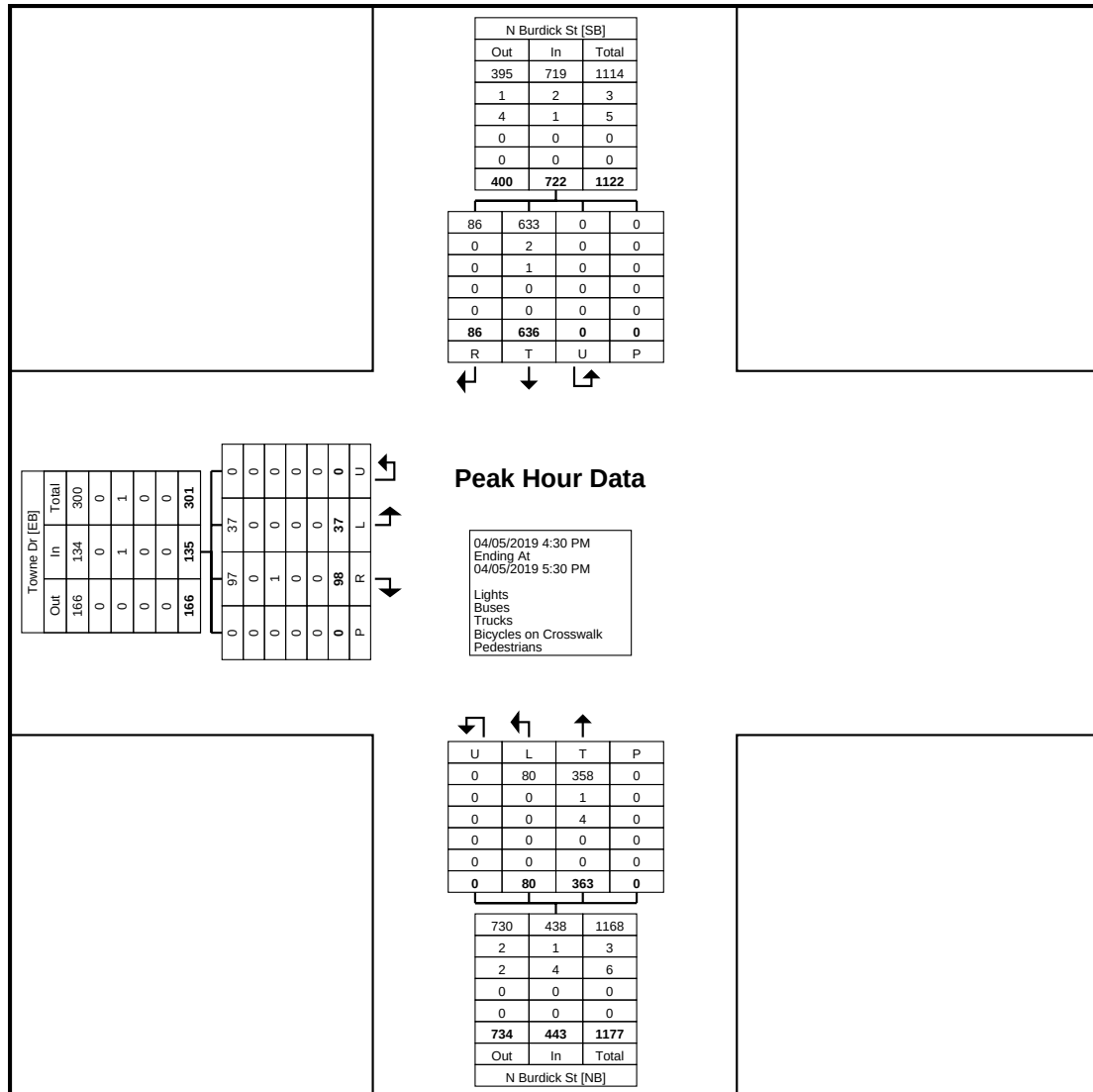
Count Name: 4. N Burdick St &
Towne Dr 4/5/19
Site Code: SCU146
Start Date: 04/05/2019
Page No: 3

[illegible]

Fayetteville, NY
N.Burdick St & Towne
Dr/Access 4
Friday, April 5, 2019
Location: 43.034481, -
76.017147

Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Count Name: 4. N Burdick St &
Towne Dr 4/5/19
Site Code: SCU146
Start Date: 04/05/2019
Page No: 4



Turning Movement Peak Hour Data Plot (4:30 PM)

5. N Burdick St & Towne Dr - TMC

Fri Apr 12, 2019

Full Length (4 PM-6 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 641899, Location: 43.035464, -76.017211, Site Code: SCU3MC



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	Towne Dr Eastbound					N Burdick St Northbound					N Burdick St Southbound					
Time	R	L	U	App	Ped*	T	L	U	App	Ped*	R	T	U	App	Ped*	Int
2019-04-12 4:00PM	3	15	0	18	1	128	7	0	135	0	14	156	0	170	0	323
4:15PM	2	9	0	11	0	115	7	0	122	0	21	166	0	187	0	320
4:30PM	6	14	0	20	0	130	10	0	140	0	23	189	0	212	0	372
4:45PM	3	7	0	10	0	106	9	0	115	0	32	197	0	229	0	354
Hourly Total	14	45	0	59	1	479	33	0	512	0	90	708	0	798	0	1369
5:00PM	6	12	0	18	0	112	12	0	124	0	15	196	0	211	0	353
5:15PM	3	8	0	11	0	121	6	0	127	0	17	160	0	177	0	315
5:30PM	6	9	0	15	0	79	6	0	85	0	16	152	0	168	0	268
5:45PM	6	9	0	15	0	86	14	0	100	0	21	142	0	163	0	278
Hourly Total	21	38	0	59	0	398	38	0	436	0	69	650	0	719	0	1214
Total	35	83	0	118	1	877	71	0	948	0	159	1358	0	1517	0	2583
% Approach	29.7%	70.3%	0%	-	-	92.5%	7.5%	0%	-	-	10.5%	89.5%	0%	-	-	-
% Total	1.4%	3.2%	0%	4.6%	-	34.0%	2.7%	0%	36.7%	-	6.2%	52.6%	0%	58.7%	-	-
Lights	35	82	0	117	-	864	70	0	934	-	159	1349	0	1508	-	2559
% Lights	100%	98.8%	0%	99.2%	-	98.5%	98.6%	0%	98.5%	-	100%	99.3%	0%	99.4%	-	99.1%
Articulated Trucks and Single-Unit Trucks	0	1	0	1	-	10	1	0	11	-	0	7	0	7	-	19
% Articulated Trucks and Single-Unit Trucks	0%	1.2%	0%	0.8%	-	1.1%	1.4%	0%	1.2%	-	0%	0.5%	0%	0.5%	-	0.7%
Buses	0	0	0	0	-	3	0	0	3	-	0	2	0	2	-	5
% Buses	0%	0%	0%	0%	-	0.3%	0%	0%	0.3%	-	0%	0.1%	0%	0.1%	-	0.2%
Pedestrians	-	-	-	-	1	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

5. N Burdick St & Towne Dr - TMC

Fri Apr 12, 2019

Full Length (4 PM-6 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

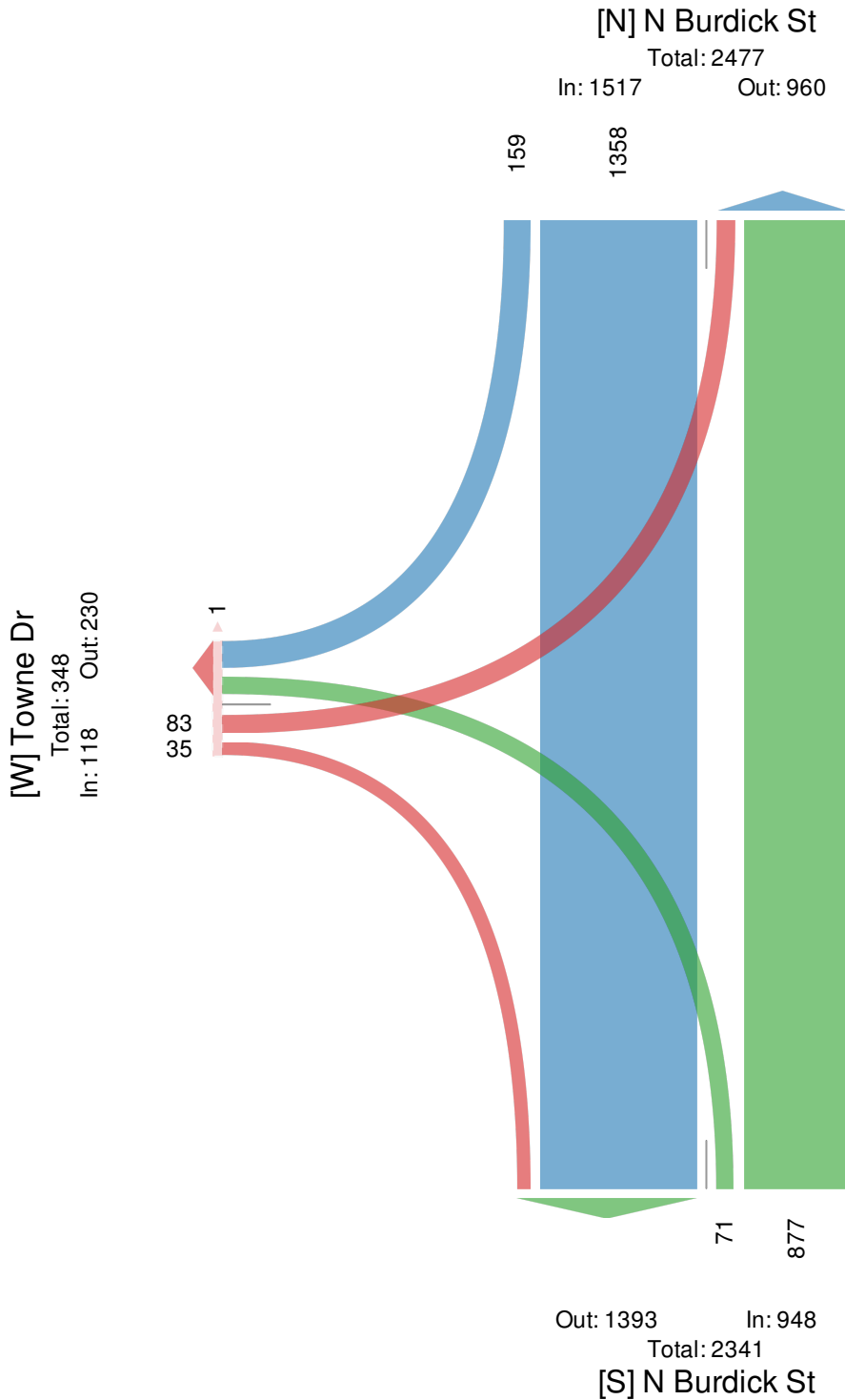
All Movements

ID: 641899, Location: 43.035464, -76.017211, Site Code: SCU3MC



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US



5. N Burdick St & Towne Dr - TMC

Fri Apr 12, 2019

PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 641899, Location: 43.035464, -76.017211, Site Code: SCU3MC



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	Towne Dr Eastbound					N Burdick St Northbound					N Burdick St Southbound					
Time	R	L	U	App	Ped*	T	L	U	App	Ped*	R	T	U	App	Ped*	Int
2019-04-12 4:15PM	2	9	0	11	0	115	7	0	122	0	21	166	0	187	0	320
4:30PM	6	14	0	20	0	130	10	0	140	0	23	189	0	212	0	372
4:45PM	3	7	0	10	0	106	9	0	115	0	32	197	0	229	0	354
5:00PM	6	12	0	18	0	112	12	0	124	0	15	196	0	211	0	353
Total	17	42	0	59	0	463	38	0	501	0	91	748	0	839	0	1399
% Approach	28.8%	71.2%	0%	-	-	92.4%	7.6%	0%	-	-	10.8%	89.2%	0%	-	-	-
% Total	1.2%	3.0%	0%	4.2%	-	33.1%	2.7%	0%	35.8%	-	6.5%	53.5%	0%	60.0%	-	-
PHF	0.708	0.750	-	0.738	-	0.890	0.792	-	0.895	-	0.711	0.949	-	0.916	-	0.940
Lights	17	42	0	59	-	456	37	0	493	-	91	744	0	835	-	1387
% Lights	100%	100%	0%	100%	-	98.5%	97.4%	0%	98.4%	-	100%	99.5%	0%	99.5%	-	99.1%
Articulated Trucks and Single-Unit Trucks	0	0	0	0	-	6	1	0	7	-	0	2	0	2	-	9
% Articulated Trucks and Single-Unit Trucks	0%	0%	0%	0%	-	1.3%	2.6%	0%	1.4%	-	0%	0.3%	0%	0.2%	-	0.6%
Buses	0	0	0	0	-	1	0	0	1	-	0	2	0	2	-	3
% Buses	0%	0%	0%	0%	-	0.2%	0%	0%	0.2%	-	0%	0.3%	0%	0.2%	-	0.2%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

5. N Burdick St & Towne Dr - TMC

Fri Apr 12, 2019

PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

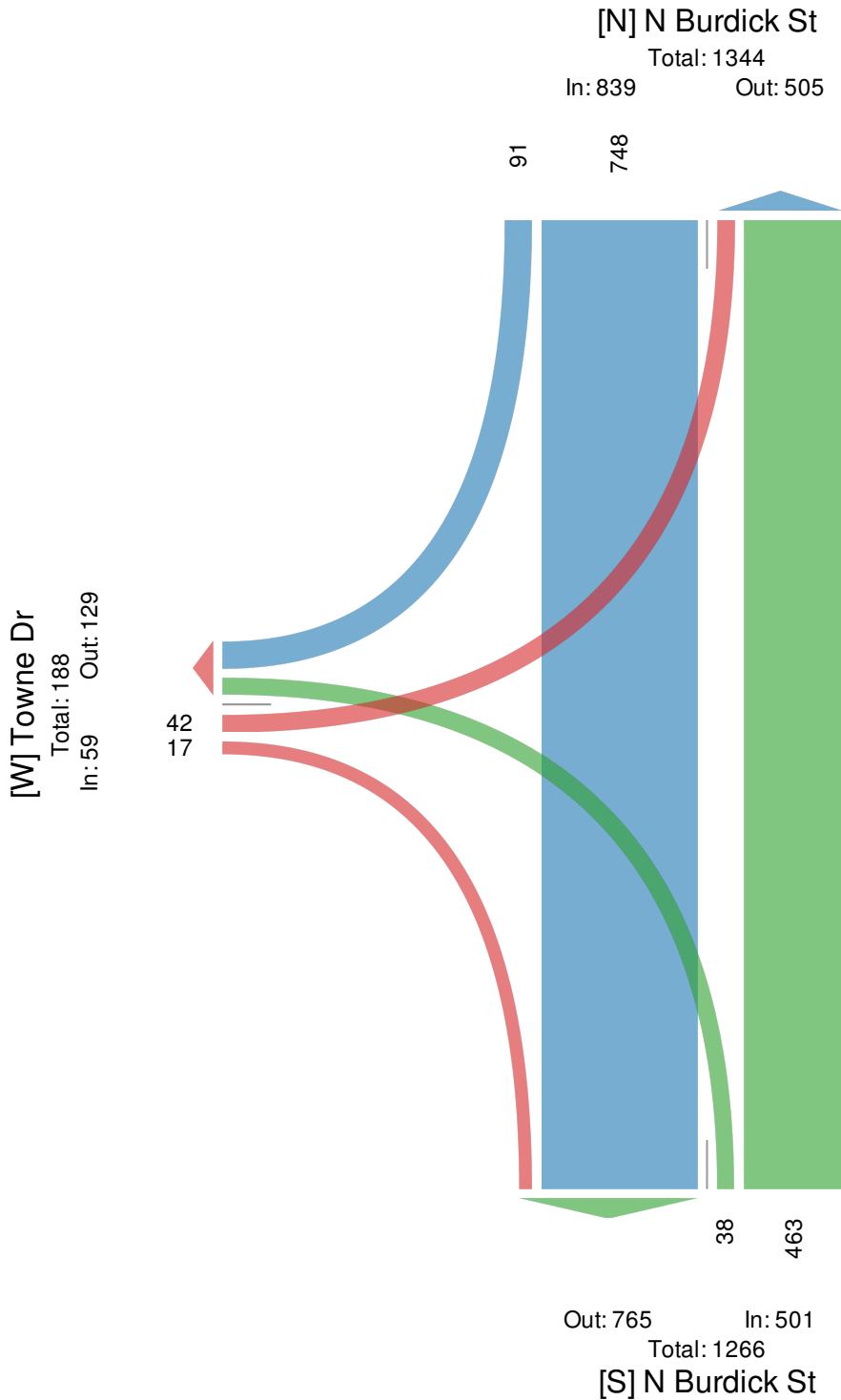
All Movements

ID: 641899, Location: 43.035464, -76.017211, Site Code: SCU3MC



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US



5. N Burdick St & Towne Dr - TMC

Fri Apr 12, 2019

Forced Peak (4:30 PM - 5:30 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 641899, Location: 43.035464, -76.017211, Site Code: SCU3MC



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	Towne Dr Eastbound					N Burdick St Northbound					N Burdick St Southbound					
Time	R	L	U	App	Ped*	T	L	U	App	Ped*	R	T	U	App	Ped*	Int
2019-04-12 4:30PM	6	14	0	20	0	130	10	0	140	0	23	189	0	212	0	372
4:45PM	3	7	0	10	0	106	9	0	115	0	32	197	0	229	0	354
5:00PM	6	12	0	18	0	112	12	0	124	0	15	196	0	211	0	353
5:15PM	3	8	0	11	0	121	6	0	127	0	17	160	0	177	0	315
Total	18	41	0	59	0	469	37	0	506	0	87	742	0	829	0	1394
% Approach	30.5%	69.5%	0%	-	-	92.7%	7.3%	0%	-	-	10.5%	89.5%	0%	-	-	-
% Total	1.3%	2.9%	0%	4.2%	-	33.6%	2.7%	0%	36.3%	-	6.2%	53.2%	0%	59.5%	-	-
PHF	0.750	0.732	-	0.738	-	0.902	0.771	-	0.904	-	0.680	0.942	-	0.905	-	0.937
Lights	18	41	0	59	-	461	36	0	497	-	87	737	0	824	-	1380
% Lights	100%	100%	0%	100%	-	98.3%	97.3%	0%	98.2%	-	100%	99.3%	0%	99.4%	-	99.0%
Articulated Trucks and Single-Unit Trucks	0	0	0	0	-	7	1	0	8	-	0	4	0	4	-	12
% Articulated Trucks and Single-Unit Trucks	0%	0%	0%	0%	-	1.5%	2.7%	0%	1.6%	-	0%	0.5%	0%	0.5%	-	0.9%
Buses	0	0	0	0	-	1	0	0	1	-	0	1	0	1	-	2
% Buses	0%	0%	0%	0%	-	0.2%	0%	0%	0.2%	-	0%	0.1%	0%	0.1%	-	0.1%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

5. N Burdick St & Towne Dr - TMC

Fri Apr 12, 2019

Forced Peak (4:30 PM - 5:30 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

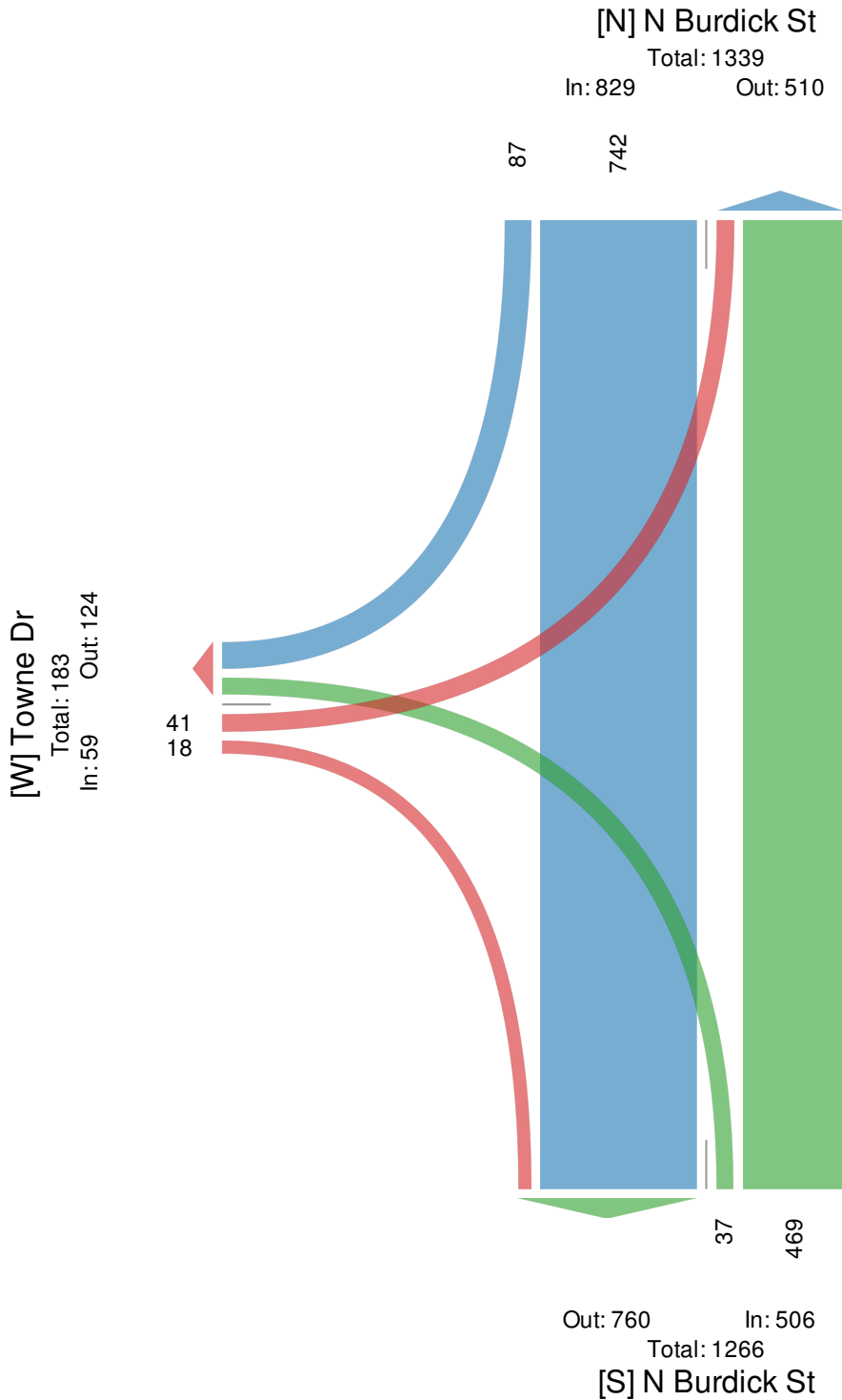
All Movements

ID: 641899, Location: 43.035464, -76.017211, Site Code: SCU3MC



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US



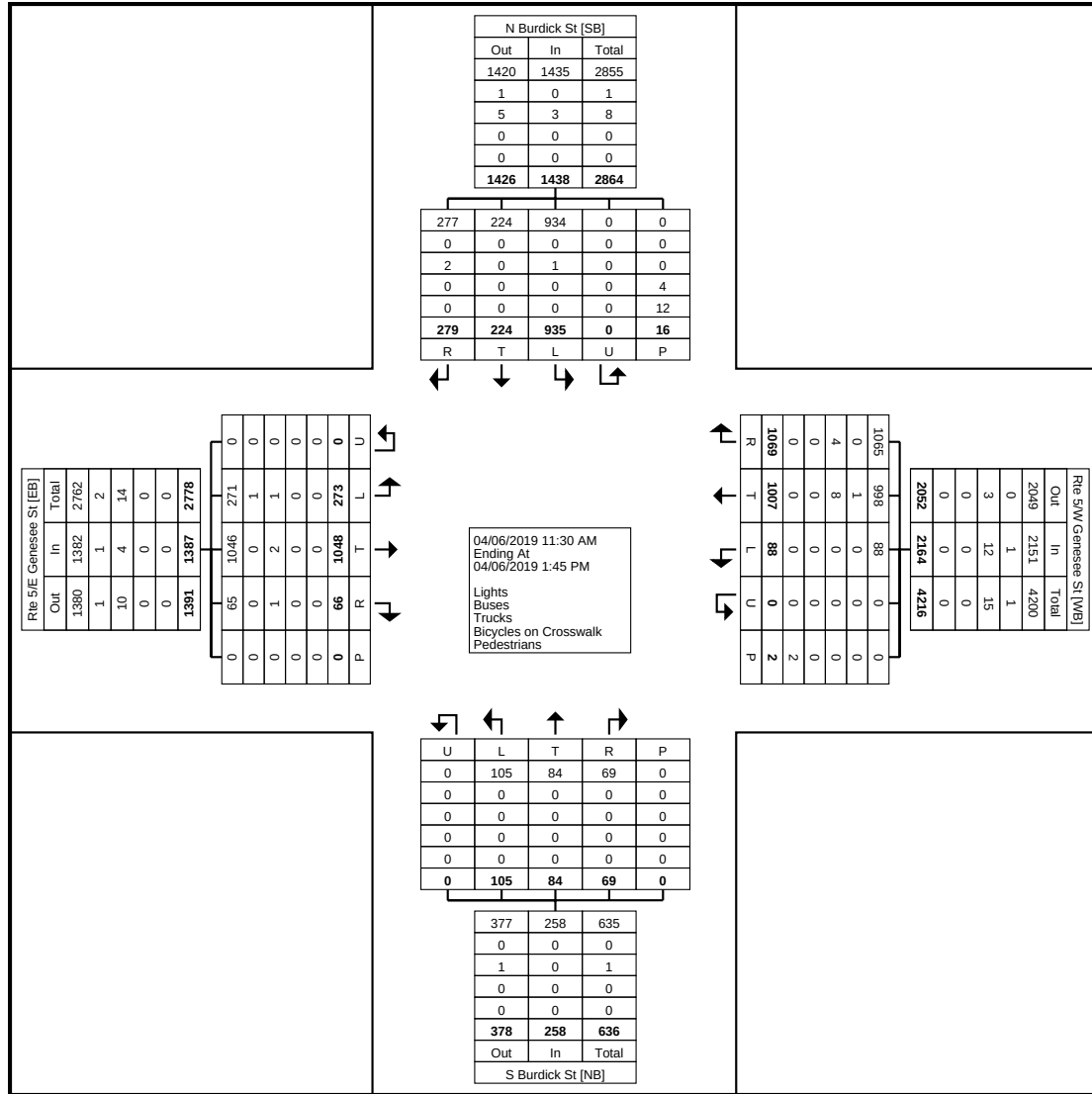


Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Turning Movement Data

Start Time	Rte 5/E Genesee St Eastbound							Rte 5/W Genesee St Westbound							S Burdick St Northbound							N Burdick St Southbound							Int. Total	
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total		
11:30 AM	30	115	5	1	0	0	151	19	146	91	47	0	0	303	20	9	9	0	0	0	0	38	124	28	15	20	0	3	187	679
11:45 AM	38	137	6	0	0	0	181	14	152	106	46	0	0	318	19	12	8	0	0	0	0	39	104	27	22	7	0	0	160	698
Hourly Total	68	252	11	1	0	0	332	33	298	197	93	0	0	621	39	21	17	0	0	0	0	77	228	55	37	27	0	3	347	1377
12:00 PM	40	98	11	0	0	0	149	16	147	109	51	0	1	323	12	9	6	1	0	0	0	28	118	28	22	12	0	1	180	680
12:15 PM	36	127	11	1	0	0	175	10	125	78	54	0	1	267	16	12	9	3	0	0	0	40	127	30	16	15	0	1	188	670
12:30 PM	32	137	10	1	0	0	180	9	102	77	29	0	0	217	10	10	12	0	0	0	0	32	115	26	21	14	0	5	176	605
12:45 PM	35	152	4	0	0	0	191	8	122	78	51	0	0	259	7	13	4	0	0	0	0	24	132	39	27	15	0	5	213	687
Hourly Total	143	514	36	2	0	0	695	43	496	342	185	0	2	1066	45	44	31	4	0	0	124	492	123	86	56	0	12	757	2642	
1:00 PM	27	156	7	0	0	0	190	7	108	96	37	0	0	248	10	10	9	3	0	0	0	32	106	20	27	15	0	1	168	638
1:15 PM	35	126	9	0	0	0	170	5	105	87	32	0	0	229	11	9	4	1	0	0	0	25	109	25	15	16	0	0	165	589
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1
Grand Total	273	1048	63	3	0	0	1387	88	1007	722	347	0	2	2164	105	84	61	8	0	0	258	935	224	165	114	0	16	1438	5247	
Approach %	19.7	75.6	4.5	0.2	0.0	-	-	4.1	46.5	33.4	16.0	0.0	-	-	40.7	32.6	23.6	3.1	0.0	-	-	65.0	15.6	11.5	7.9	0.0	-	-	-	-
Total %	5.2	20.0	1.2	0.1	0.0	-	26.4	1.7	19.2	13.8	6.6	0.0	-	41.2	2.0	1.6	1.2	0.2	0.0	-	4.9	17.8	4.3	3.1	2.2	0.0	-	27.4	-	-
Lights	271	1046	62	3	0	-	1382	88	998	718	347	0	-	2151	105	84	61	8	0	-	258	934	224	164	113	0	-	1435	5226	
% Lights	99.3	99.8	98.4	100.0	-	-	99.6	100.0	99.1	99.4	100.0	-	-	99.4	100.0	100.0	100.0	100.0	-	-	100.0	99.9	100.0	99.4	99.1	-	-	99.8	99.6	
Buses	1	0	0	0	0	-	1	0	1	0	0	0	-	1	0	0	0	0	0	-	0	0	0	0	0	0	-	0	2	
% Buses	0.4	0.0	0.0	0.0	-	-	0.1	0.0	0.1	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	-	0.0	0.0	
Trucks	1	2	1	0	0	-	4	0	8	4	0	0	-	12	0	0	0	0	0	-	0	1	0	1	1	0	-	3	19	
% Trucks	0.4	0.2	1.6	0.0	-	-	0.3	0.0	0.8	0.6	0.0	-	-	0.6	0.0	0.0	0.0	0.0	-	-	0.0	0.1	0.0	0.6	0.9	-	-	0.2	0.4	
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	4	-	-	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	25.0	-	-	
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	2	-	-	-	-	-	-	0	-	-	-	-	-	-	12	-	-	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	75.0	-	-	

Fayetteville, NY
Rte 5/Burdick St
Saturday, April 6, 2019
Location: 43.02927, -76.016828

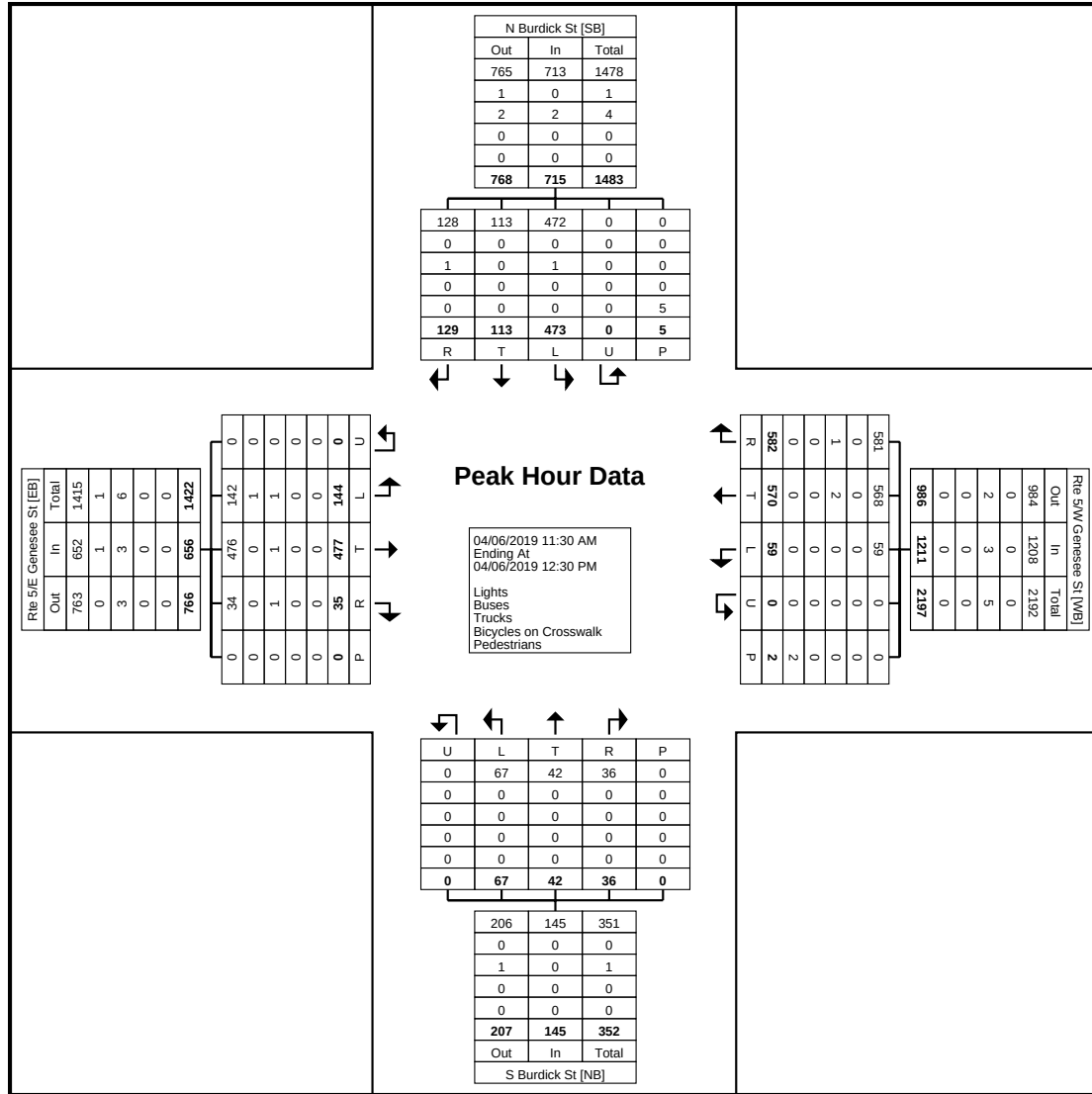


Turning Movement Data Plot

Turning Movement Peak Hour Data (11:30 AM)

Start Time	Rte 5/E Genesee St Eastbound							Rte 5/W Genesee St Westbound							S Burdick St Northbound							N Burdick St Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
11:30 AM	30	115	5	1	0	0	151	19	146	91	47	0	0	303	20	9	9	0	0	0	38	124	28	15	20	0	3	187	679
11:45 AM	38	137	6	0	0	0	181	14	152	106	46	0	0	318	19	12	8	0	0	0	39	104	27	22	7	0	0	160	698
12:00 PM	40	98	11	0	0	0	149	16	147	109	51	0	1	323	12	9	6	1	0	0	28	118	28	22	12	0	1	180	680
12:15 PM	36	127	11	1	0	0	175	10	125	78	54	0	1	267	16	12	9	3	0	0	40	127	30	16	15	0	1	188	670
Total	144	477	33	2	0	0	656	59	570	384	198	0	2	1211	67	42	32	4	0	0	145	473	113	75	54	0	5	715	2727
Approach %	22.0	72.7	5.0	0.3	0.0	-	-	4.9	47.1	31.7	16.4	0.0	-	-	46.2	29.0	22.1	2.8	0.0	-	-	66.2	15.8	10.5	7.6	0.0	-	-	-
Total %	5.3	17.5	1.2	0.1	0.0	-	24.1	2.2	20.9	14.1	7.3	0.0	-	44.4	2.5	1.5	1.2	0.1	0.0	-	5.3	17.3	4.1	2.8	2.0	0.0	-	26.2	-
PHF	0.900	0.870	0.750	0.500	0.000	-	0.906	0.776	0.938	0.881	0.917	0.000	-	0.937	0.838	0.875	0.889	0.333	0.000	-	0.906	0.931	0.942	0.852	0.675	0.000	-	0.951	0.977
Lights	142	476	32	2	0	-	652	59	568	383	198	0	-	1208	67	42	32	4	0	-	145	472	113	74	54	0	-	713	2718
% Lights	98.6	99.8	97.0	100.0	-	-	99.4	100.0	99.6	99.7	100.0	-	-	99.8	100.0	100.0	100.0	100.0	-	-	100.0	99.8	100.0	98.7	100.0	-	-	99.7	99.7
Buses	1	0	0	0	0	-	1	0	0	0	0	0	-	0	0	0	0	0	0	-	0	0	0	0	0	0	-	0	1
% Buses	0.7	0.0	0.0	0.0	-	-	0.2	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Trucks	1	1	1	0	0	-	3	0	2	1	0	0	-	3	0	0	0	0	0	-	0	1	0	1	0	0	-	2	8
% Trucks	0.7	0.2	3.0	0.0	-	-	0.5	0.0	0.4	0.3	0.0	-	-	0.2	0.0	0.0	0.0	0.0	-	-	0.0	0.2	0.0	1.3	0.0	-	-	0.3	0.3
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	2	-	-	-	-	-	-	0	-	-	-	-	-	-	5	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Fayetteville, NY
Rte 5/Burdick St
Saturday, April 6, 2019
Location: 43.02927, -76.016828

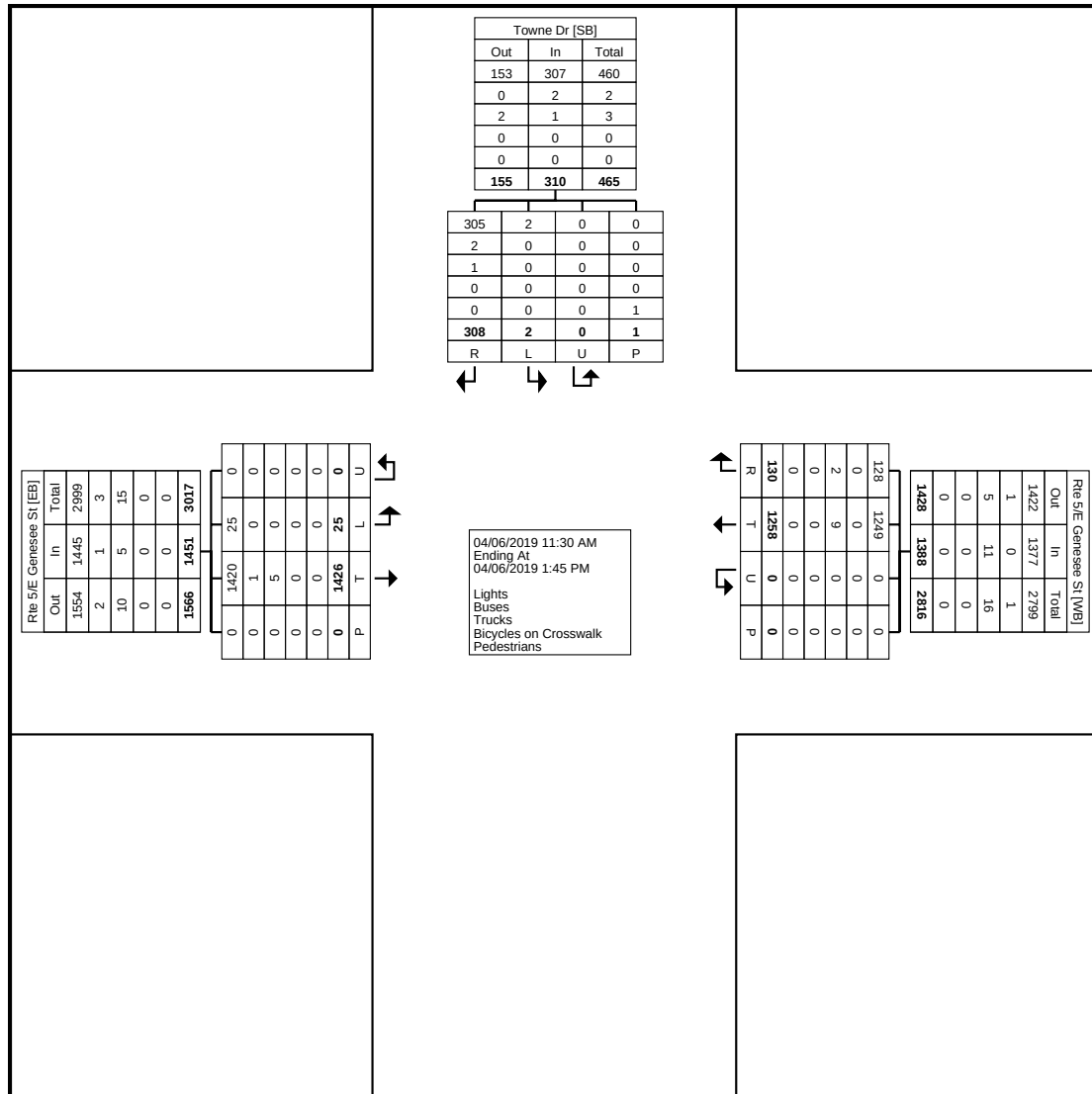


Turning Movement Peak Hour Data Plot (11:30 AM)

Turning Movement Data

Start Time	Rte 5/E Genesee St Eastbound					Rte 5/E Genesee St Westbound					Towne Dr Southbound					Int. Total
	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Right	U-Turn	Peds	App. Total	
11:30 AM	5	156	0	0	161	177	19	0	0	196	0	43	0	0	43	400
11:45 AM	3	197	0	0	200	180	19	0	0	199	0	43	0	0	43	442
Hourly Total	8	353	0	0	361	357	38	0	0	395	0	86	0	0	86	842
12:00 PM	4	161	0	0	165	177	20	0	0	197	1	34	0	0	35	397
12:15 PM	1	178	0	0	179	157	20	0	0	177	0	35	0	0	35	391
12:30 PM	3	177	0	0	180	129	10	0	0	139	0	45	0	0	45	364
12:45 PM	2	197	0	0	199	160	10	0	0	170	1	33	0	1	34	403
Hourly Total	10	713	0	0	723	623	60	0	0	683	2	147	0	1	149	1555
1:00 PM	4	184	0	0	188	143	18	0	0	161	0	28	0	0	28	377
1:15 PM	3	175	0	0	178	135	14	0	0	149	0	47	0	0	47	374
1:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Grand Total	25	1426	0	0	1451	1258	130	0	0	1388	2	308	0	1	310	3149
Approach %	1.7	98.3	0.0	-	-	90.6	9.4	0.0	-	-	0.6	99.4	0.0	-	-	-
Total %	0.8	45.3	0.0	-	46.1	39.9	4.1	0.0	-	44.1	0.1	9.8	0.0	-	9.8	-
Lights	25	1420	0	-	1445	1249	128	0	-	1377	2	305	0	-	307	3129
% Lights	100.0	99.6	-	-	99.6	99.3	98.5	-	-	99.2	100.0	99.0	-	-	99.0	99.4
Buses	0	1	0	-	1	0	0	0	-	0	0	2	0	-	2	3
% Buses	0.0	0.1	-	-	0.1	0.0	0.0	-	-	0.0	0.0	0.6	-	-	0.6	0.1
Trucks	0	5	0	-	5	9	2	0	-	11	0	1	0	-	1	17
% Trucks	0.0	0.4	-	-	0.3	0.7	1.5	-	-	0.8	0.0	0.3	-	-	0.3	0.5
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Fayetteville, NY
Rte 5 & Towne Dr/Access 6
Saturday, April 6, 2019
Location: 43.029221, -
76.018299



Turning Movement Data Plot

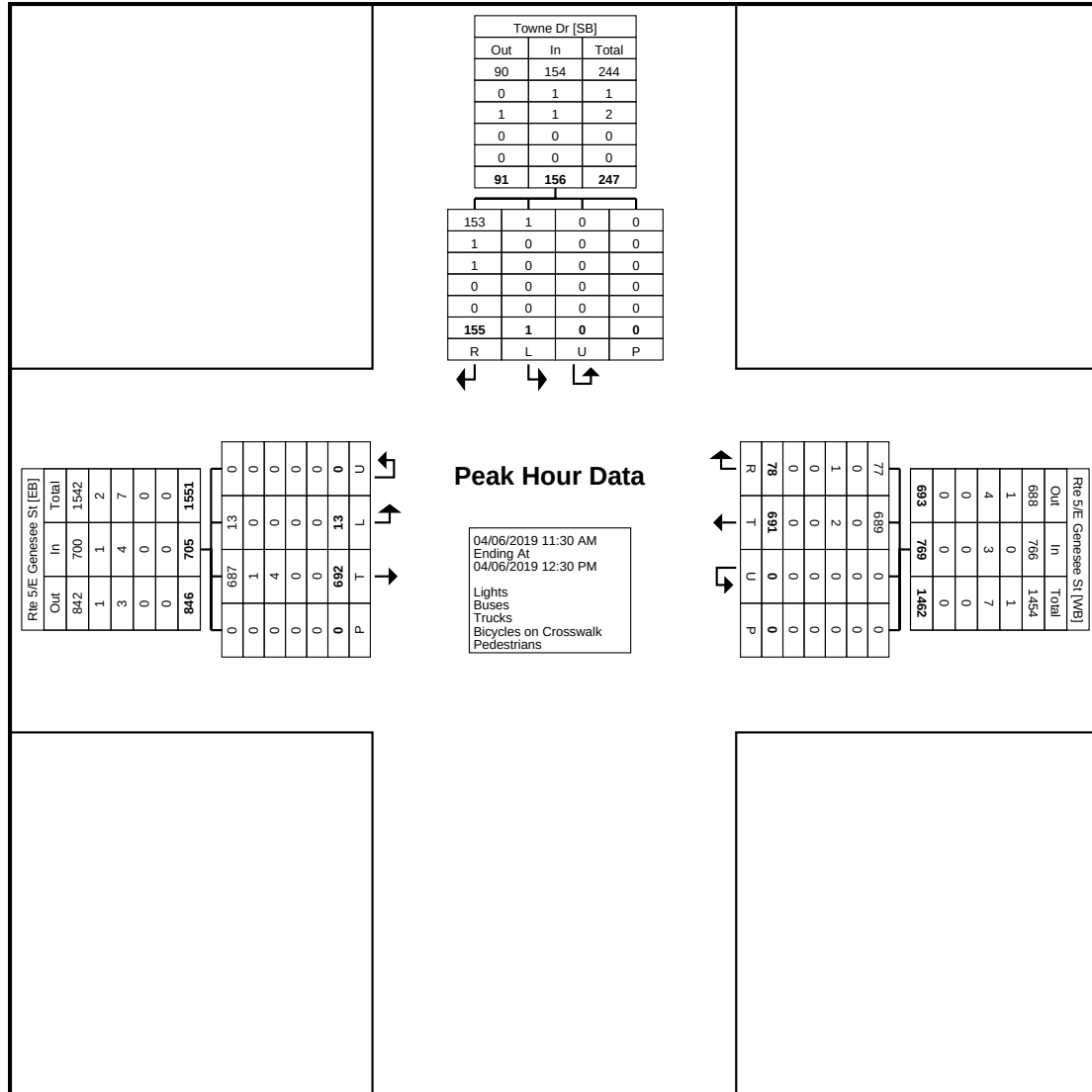


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Page No: 3

[illegible]

Fayetteville, NY
Rte 5 & Towne Dr/Access 6
Saturday, April 6, 2019
Location: 43.029221, -
76.018299



Turning Movement Peak Hour Data Plot (11:30 AM)

7. Rte 5 & Mc Donalds Entrance 4/6/19 Sat - TMC

Sat Apr 6, 2019

Full Length (11:30 AM-1:30 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 639142, Location: 43.029091, -76.021519, Site Code: SCU53Q



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	Rte 5/E Genesee St Eastbound					Rte 5/E Genesee St Westbound					Mc Donalds Entrance Southbound							
Time	T	L	U	App	Ped*	R	T	U	RR	App	Ped*	R	L	U	RR	App	Ped*	Int
2019-04-06 11:30AM	146	91	0	237	0	7	187	0	2	196	0	51	16	0	8	75	0	508
11:45AM	190	112	0	302	0	13	193	0	0	206	0	35	18	0	24	77	0	585
Hourly Total	336	203	0	539	0	20	380	0	2	402	0	86	34	0	32	152	0	1093
12:00PM	147	101	0	248	0	7	199	0	1	207	0	56	13	0	26	95	0	550
12:15PM	148	90	0	238	0	13	179	0	2	194	0	53	21	0	24	98	0	530
12:30PM	142	77	0	219	0	7	167	0	0	174	0	56	30	0	18	104	0	497
12:45PM	167	80	0	247	0	6	165	0	2	173	0	46	13	0	12	71	0	491
Hourly Total	604	348	0	952	0	33	710	0	5	748	0	211	77	0	80	368	0	2068
1:00PM	157	92	0	249	0	6	152	0	0	158	0	45	26	0	18	89	0	496
1:15PM	127	71	0	198	0	6	163	0	0	169	0	54	15	0	4	73	0	440
1:30PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1
Hourly Total	284	163	0	447	0	12	316	0	0	328	0	99	41	0	22	162	0	937
Total	1224	714	0	1938	0	65	1406	0	7	1478	0	396	152	0	134	682	0	4098
% Approach	63.2%	36.8%	0%	-	-	4.4%	95.1%	0%	0.5%	-	-	58.1%	22.3%	0%	19.6%	-	-	-
% Total	29.9%	17.4%	0%	47.3%	-	1.6%	34.3%	0%	0.2%	36.1%	-	9.7%	3.7%	0%	3.3%	16.6%	-	-
Lights	1218	712	0	1930	-	65	1392	0	7	1464	-	396	151	0	134	681	-	4075
% Lights	99.5%	99.7%	0%	99.6%	-	100%	99.0%	0%	100%	99.1%	-	100%	99.3%	0%	100%	99.9%	-	99.4%
Articulated Trucks and Single-Unit Trucks	6	1	0	7	-	0	10	0	0	10	-	0	1	0	0	1	-	18
% Articulated Trucks and Single-Unit Trucks	0.5%	0.1%	0%	0.4%	-	0%	0.7%	0%	0%	0.7%	-	0%	0.7%	0%	0%	0.1%	-	0.4%
Buses	0	1	0	1	-	0	4	0	0	4	-	0	0	0	0	0	-	5
% Buses	0%	0.1%	0%	0.1%	-	0%	0.3%	0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0.1%
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

7. Rte 5 & Mc Donalds Entrance 4/6/19 Sat - TMC

Sat Apr 6, 2019

Full Length (11:30 AM-1:30 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 639142, Location: 43.029091, -76.021519, Site Code: SCU53Q



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

[N] Mc Donalds Entrance

Total: 1468

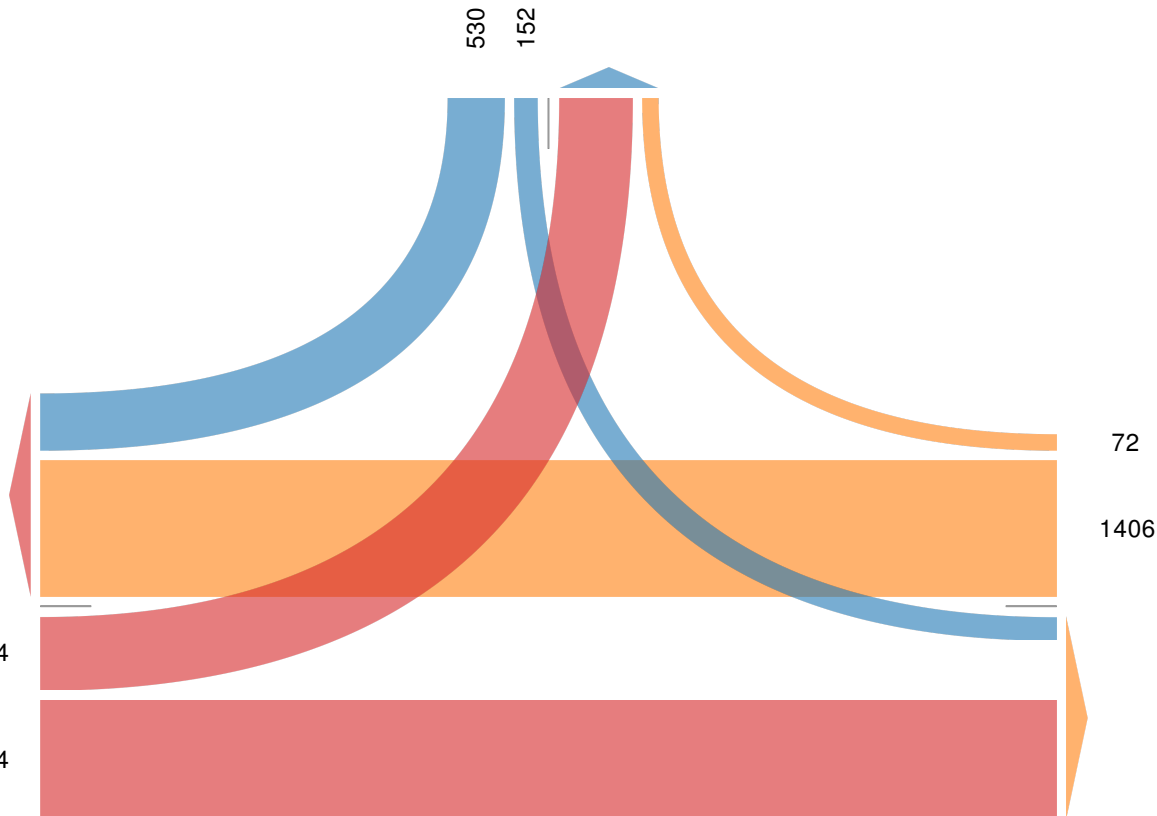
In: 682 Out: 786

530

152

[W] Rte 5/E Genesee St
Total: 3874
In: 1938 Out: 1936

714
1224



Out: 1376 In: 1478
Total: 2854

[E] Rte 5/E Genesee St

7. Rte 5 & Mc Donalds Entrance 4/6/19 Sat - TMC

Sat Apr 6, 2019

Midday Peak (WKND), Forced Peak (11:30 AM - 12:30 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 639142, Location: 43.029091, -76.021519, Site Code: SCU53Q



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	Rte 5/E Genesee St Eastbound					Rte 5/E Genesee St Westbound					Mc Donalds Entrance Southbound							
Time	T	L	U	App	Ped*	R	T	U	RR	App	Ped*	R	L	U	RR	App	Ped*	Int
2019-04-06 11:30AM	146	91	0	237	0	7	187	0	2	196	0	51	16	0	8	75	0	508
11:45AM	190	112	0	302	0	13	193	0	0	206	0	35	18	0	24	77	0	585
12:00PM	147	101	0	248	0	7	199	0	1	207	0	56	13	0	26	95	0	550
12:15PM	148	90	0	238	0	13	179	0	2	194	0	53	21	0	24	98	0	530
Total	631	394	0	1025	0	40	758	0	5	803	0	195	68	0	82	345	0	2173
% Approach	61.6%	38.4%	0%	-	-	5.0%	94.4%	0%	0.6%	-	-	56.5%	19.7%	0%	23.8%	-	-	-
% Total	29.0%	18.1%	0%	47.2%	-	1.8%	34.9%	0%	0.2%	37.0%	-	9.0%	3.1%	0%	3.8%	15.9%	-	-
PHF	0.830	0.879	-	0.849	-	0.769	0.952	-	0.625	0.970	-	0.871	0.810	-	0.788	0.880	-	0.929
Lights	627	392	0	1019	-	40	753	0	5	798	-	195	67	0	82	344	-	2161
% Lights	99.4%	99.5%	0%	99.4%	-	100%	99.3%	0%	100%	99.4%	-	100%	98.5%	0%	100%	99.7%	-	99.4%
Articulated Trucks and Single-Unit Trucks	4	1	0	5	-	0	3	0	0	3	-	0	1	0	0	1	-	9
% Articulated Trucks and Single-Unit Trucks	0.6%	0.3%	0%	0.5%	-	0%	0.4%	0%	0%	0.4%	-	0%	1.5%	0%	0%	0.3%	-	0.4%
Buses	0	1	0	1	-	0	2	0	0	2	-	0	0	0	0	0	-	3
% Buses	0%	0.3%	0%	0.1%	-	0%	0.3%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0.1%
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

7. Rte 5 & Mc Donalds Entrance 4/6/19 Sat - TMC

Sat Apr 6, 2019

Midday Peak (WKND), Forced Peak (11:30 AM - 12:30 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 639142, Location: 43.029091, -76.021519, Site Code: SCU53Q



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

[N] Mc Donalds Entrance

Total: 784

In: 345 Out: 439

277 68

[W] Rte 5/E Genesee St

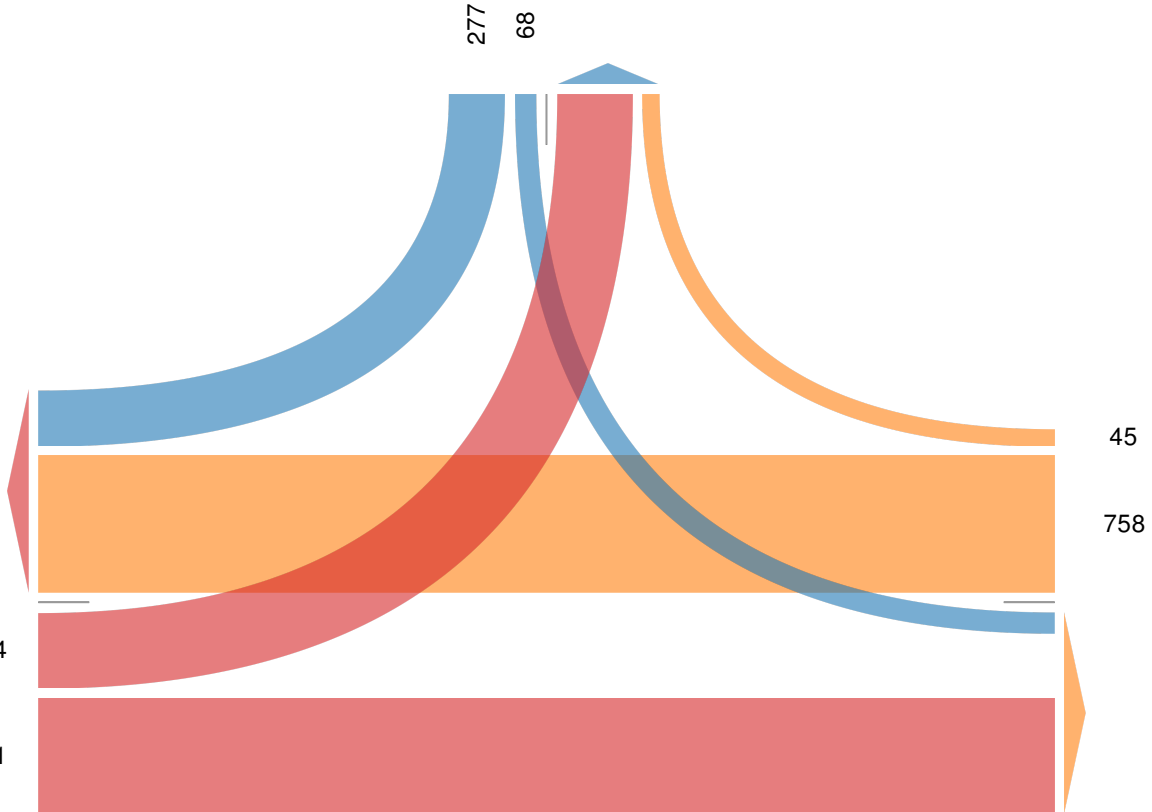
Total: 2060

Out: 1035

In: 1025

394

631



45

758

In: 803

Out: 699

Total: 1502

[E] Rte 5/E Genesee St

7. Rte 5 & Mc Donalds Entrance 4/6/19 Sat - TMC

Sat Apr 6, 2019

PM Peak (WKND) (1 PM - 2 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 639142, Location: 43.029091, -76.021519, Site Code: SCU53Q



Provided by: Tri-State Traffic Data, Inc.
184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	Rte 5/E Genesee St Eastbound					Rte 5/E Genesee St Westbound					Mc Donalds Entrance Southbound							
Time	T	L	U	App	Ped*	R	T	U	RR	App	Ped*	R	L	U	RR	App	Ped*	Int
2019-04-06 1:00PM	157	92	0	249	0	6	152	0	0	158	0	45	26	0	18	89	0	496
1:15PM	127	71	0	198	0	6	163	0	0	169	0	54	15	0	4	73	0	440
1:30PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1
Total	284	163	0	447	0	12	316	0	0	328	0	99	41	0	22	162	0	937
% Approach	63.5%	36.5%	0%	-	-	3.7%	96.3%	0%	0%	-	-	61.1%	25.3%	0%	13.6%	-	-	-
% Total	30.3%	17.4%	0%	47.7%	-	1.3%	33.7%	0%	0%	35.0%	-	10.6%	4.4%	0%	2.3%	17.3%	-	-
PHF	0.452	0.443	-	0.449	-	0.500	0.485	-	-	0.485	-	0.458	0.394	-	0.306	0.455	-	0.472
Lights	282	163	0	445	-	12	311	0	0	323	-	99	41	0	22	162	-	930
% Lights	99.3%	100%	0%	99.6%	-	100%	98.4%	0%	0%	98.5%	-	100%	100%	0%	100%	100%	-	99.3%
Articulated Trucks and Single-Unit Trucks	2	0	0	2	-	0	4	0	0	4	-	0	0	0	0	0	-	6
% Articulated Trucks and Single-Unit Trucks	0.7%	0%	0%	0.4%	-	0%	1.3%	0%	0%	1.2%	-	0%	0%	0%	0%	0%	-	0.6%
Buses	0	0	0	0	-	0	1	0	0	1	-	0	0	0	0	0	-	1
% Buses	0%	0%	0%	0%	-	0%	0.3%	0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0.1%
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

7. Rte 5 & Mc Donalds Entrance 4/6/19 Sat - TMC

Sat Apr 6, 2019

PM Peak (WKND) (1 PM - 2 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 639142, Location: 43.029091, -76.021519, Site Code: SCU53Q



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

[N] Mc Donalds Entrance

Total: 337

In: 162 Out: 175

121 41

[W] Rte 5/E Genesee St

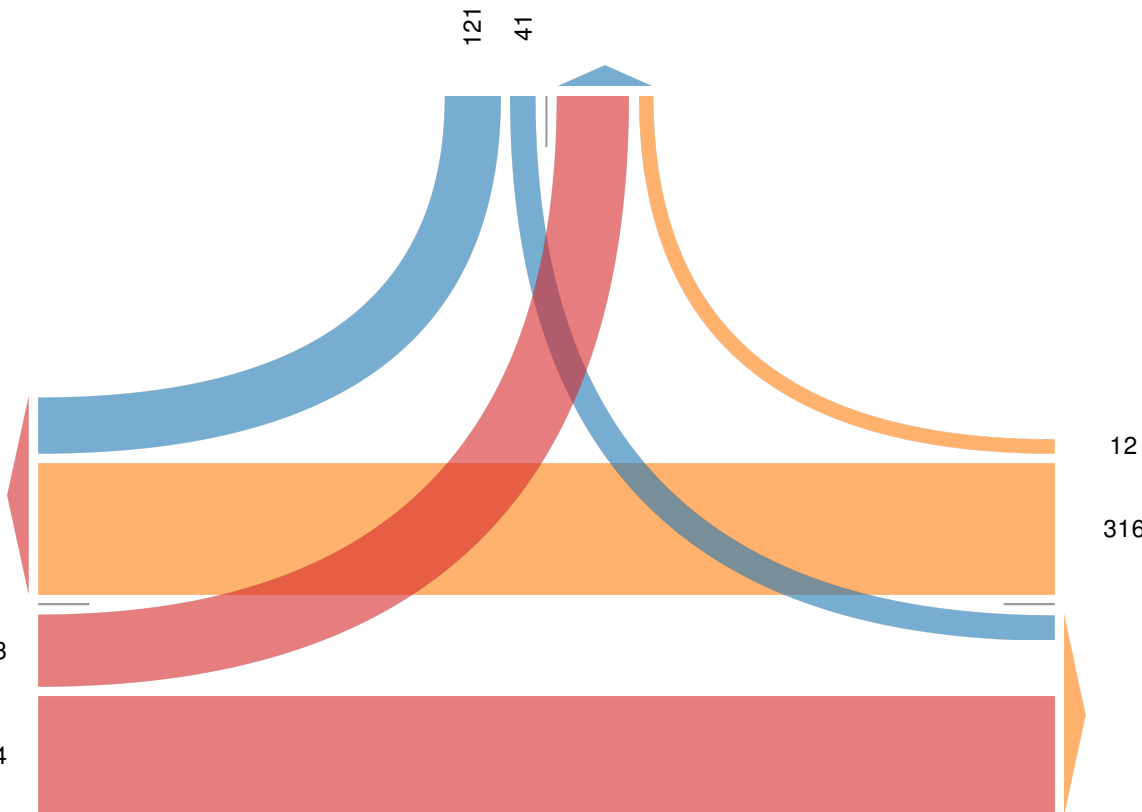
Total: 884

Out: 437

In: 447

163

284



Out: 325 In: 328

Total: 653

[E] Rte 5/E Genesee St

2. N Burdick St & Towne Dr 4/6/19 Sat - TMC

Sat Apr 6, 2019

Full Length (11:30 AM-1:30 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 639129, Location: 43.031163, -76.016943, Site Code: SCU6ZT



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	N Burdick St Southbound					N Burdick St Northbound					Towne Dr Eastbound					
Time	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	Int
2019-04-06 11:30AM	20	118	0	138	0	109	66	0	175	0	72	2	0	74	0	387
11:45AM	10	92	0	102	0	120	84	0	204	0	55	7	0	62	0	368
Hourly Total	30	210	0	240	0	229	150	0	379	0	127	9	0	136	0	755
12:00PM	16	103	0	119	0	127	85	0	212	0	67	6	0	73	0	404
12:15PM	26	107	0	133	0	112	66	0	178	0	67	3	0	70	0	381
12:30PM	20	116	0	136	0	94	60	0	154	0	74	10	0	84	0	374
12:45PM	16	115	0	131	0	94	79	0	173	0	78	5	1	84	0	388
Hourly Total	78	441	0	519	0	427	290	0	717	0	286	24	1	311	0	1547
1:00PM	13	101	0	114	0	109	62	0	171	0	66	4	0	70	0	355
1:15PM	11	105	0	116	0	101	69	0	170	0	63	4	0	67	0	353
1:30PM	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	2
Hourly Total	24	206	0	230	0	211	131	0	342	0	130	8	0	138	0	710
Total	132	857	0	989	0	867	571	0	1438	0	543	41	1	585	0	3012
% Approach	13.3%	86.7%	0%	-	-	60.3%	39.7%	0%	-	-	92.8%	7.0%	0.2%	-	-	-
% Total	4.4%	28.5%	0%	32.8%	-	28.8%	19.0%	0%	47.7%	-	18.0%	1.4%	0%	19.4%	-	-
Lights	132	855	0	987	-	864	568	0	1432	-	543	40	1	584	-	3003
% Lights	100%	99.8%	0%	99.8%	-	99.7%	99.5%	0%	99.6%	-	100%	97.6%	100%	99.8%	-	99.7%
Articulated Trucks and Single-Unit Trucks	0	2	0	2	-	3	2	0	5	-	0	1	0	1	-	8
% Articulated Trucks and Single-Unit Trucks	0%	0.2%	0%	0.2%	-	0.3%	0.4%	0%	0.3%	-	0%	2.4%	0%	0.2%	-	0.3%
Buses	0	0	0	0	-	0	1	0	1	-	0	0	0	0	-	1
% Buses	0%	0%	0%	0%	-	0%	0.2%	0%	0.1%	-	0%	0%	0%	0%	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

2. N Burdick St & Towne Dr 4/6/19 Sat - TMC

Sat Apr 6, 2019

Full Length (11:30 AM-1:30 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

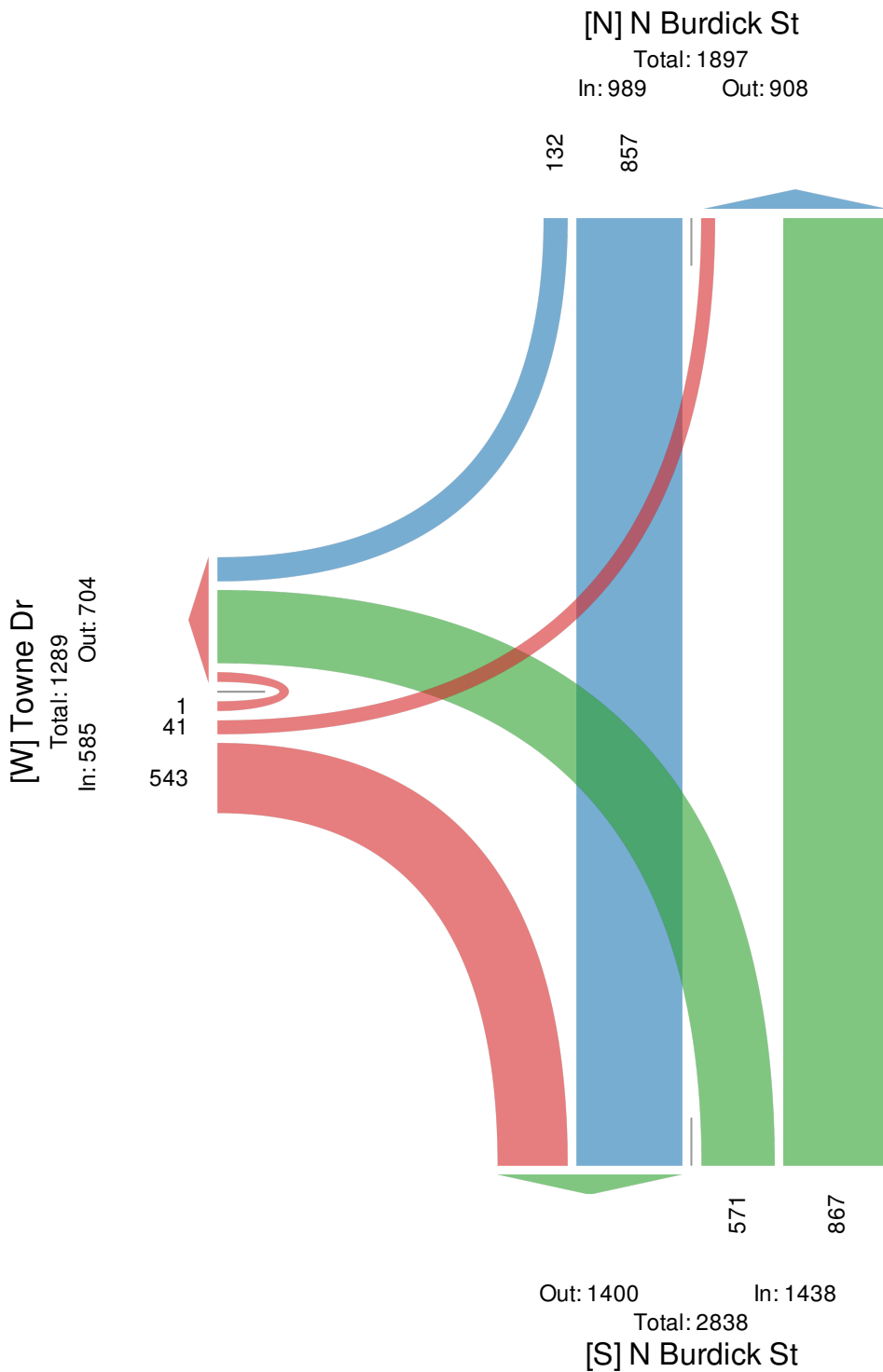
All Movements

ID: 639129, Location: 43.031163, -76.016943, Site Code: SCU6ZT



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US



2. N Burdick St & Towne Dr 4/6/19 Sat - TMC

Sat Apr 6, 2019

Forced Peak (11:30 AM - 12:30 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 639129, Location: 43.031163, -76.016943, Site Code: SCU6ZT



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	N Burdick St Southbound					N Burdick St Northbound					Towne Dr Eastbound					
Time	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	Int
2019-04-06 11:30AM	20	118	0	138	0	109	66	0	175	0	72	2	0	74	0	387
11:45AM	10	92	0	102	0	120	84	0	204	0	55	7	0	62	0	368
12:00PM	16	103	0	119	0	127	85	0	212	0	67	6	0	73	0	404
12:15PM	26	107	0	133	0	112	66	0	178	0	67	3	0	70	0	381
Total	72	420	0	492	0	468	301	0	769	0	261	18	0	279	0	1540
% Approach	14.6%	85.4%	0%	-	-	60.9%	39.1%	0%	-	-	93.5%	6.5%	0%	-	-	-
% Total	4.7%	27.3%	0%	31.9%	-	30.4%	19.5%	0%	49.9%	-	16.9%	1.2%	0%	18.1%	-	-
PHF	0.692	0.890	-	0.891	-	0.921	0.885	-	0.907	-	0.906	0.643	-	0.943	-	0.953
Lights	72	419	0	491	-	466	300	0	766	-	261	18	0	279	-	1536
% Lights	100%	99.8%	0%	99.8%	-	99.6%	99.7%	0%	99.6%	-	100%	100%	0%	100%	-	99.7%
Articulated Trucks and Single-Unit Trucks	0	1	0	1	-	2	0	0	2	-	0	0	0	0	-	3
% Articulated Trucks and Single-Unit Trucks	0%	0.2%	0%	0.2%	-	0.4%	0%	0%	0.3%	-	0%	0%	0%	0%	-	0.2%
Buses	0	0	0	0	-	0	1	0	1	-	0	0	0	0	-	1
% Buses	0%	0%	0%	0%	-	0%	0.3%	0%	0.1%	-	0%	0%	0%	0%	-	0.1%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

2. N Burdick St & Towne Dr 4/6/19 Sat - TMC

Sat Apr 6, 2019

Forced Peak (11:30 AM - 12:30 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

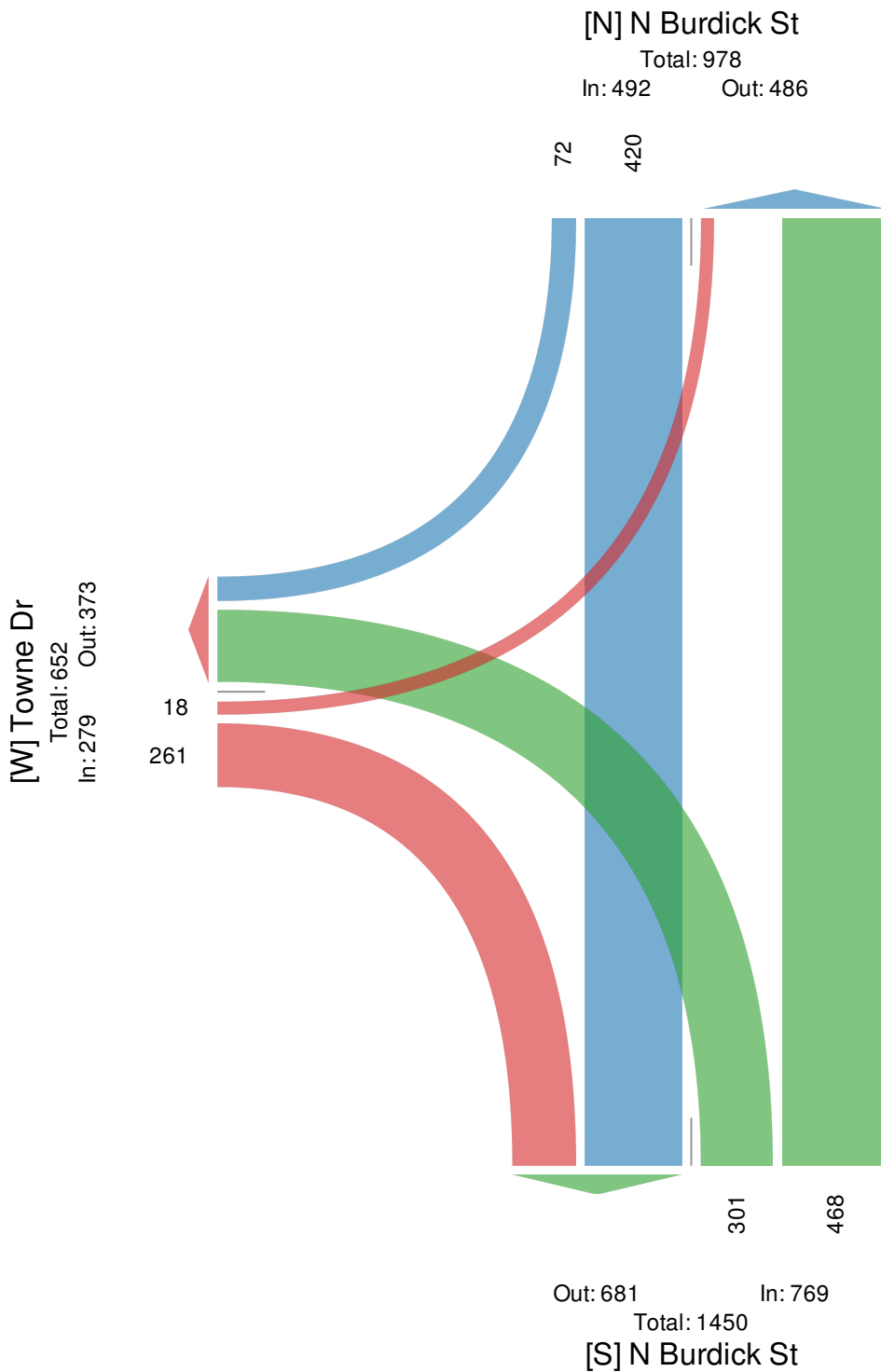
All Movements

ID: 639129, Location: 43.031163, -76.016943, Site Code: SCU6ZT



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US



2. N Burdick St & Towne Dr 4/6/19 Sat - TMC

Sat Apr 6, 2019

Midday Peak (WKND) (12 PM - 1 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 639129, Location: 43.031163, -76.016943, Site Code: SCU6ZT



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	N Burdick St Southbound					N Burdick St Northbound					Towne Dr Eastbound					
Time	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	Int
2019-04-06 12:00PM	16	103	0	119	0	127	85	0	212	0	67	6	0	73	0	404
12:15PM	26	107	0	133	0	112	66	0	178	0	67	3	0	70	0	381
12:30PM	20	116	0	136	0	94	60	0	154	0	74	10	0	84	0	374
12:45PM	16	115	0	131	0	94	79	0	173	0	78	5	1	84	0	388
Total	78	441	0	519	0	427	290	0	717	0	286	24	1	311	0	1547
% Approach	15.0%	85.0%	0%	-	-	59.6%	40.4%	0%	-	-	92.0%	7.7%	0.3%	-	-	-
% Total	5.0%	28.5%	0%	33.5%	-	27.6%	18.7%	0%	46.3%	-	18.5%	1.6%	0.1%	20.1%	-	-
PHF	0.750	0.950	-	0.954	-	0.841	0.853	-	0.846	-	0.917	0.600	0.250	0.926	-	0.957
Lights	78	440	0	518	-	424	289	0	713	-	286	23	1	310	-	1541
% Lights	100%	99.8%	0%	99.8%	-	99.3%	99.7%	0%	99.4%	-	100%	95.8%	100%	99.7%	-	99.6%
Articulated Trucks and Single-Unit Trucks	0	1	0	1	-	3	1	0	4	-	0	1	0	1	-	6
% Articulated Trucks and Single-Unit Trucks	0%	0.2%	0%	0.2%	-	0.7%	0.3%	0%	0.6%	-	0%	4.2%	0%	0.3%	-	0.4%
Buses	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Buses	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

2. N Burdick St & Towne Dr 4/6/19 Sat - TMC

Sat Apr 6, 2019

Midday Peak (WKND) (12 PM - 1 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

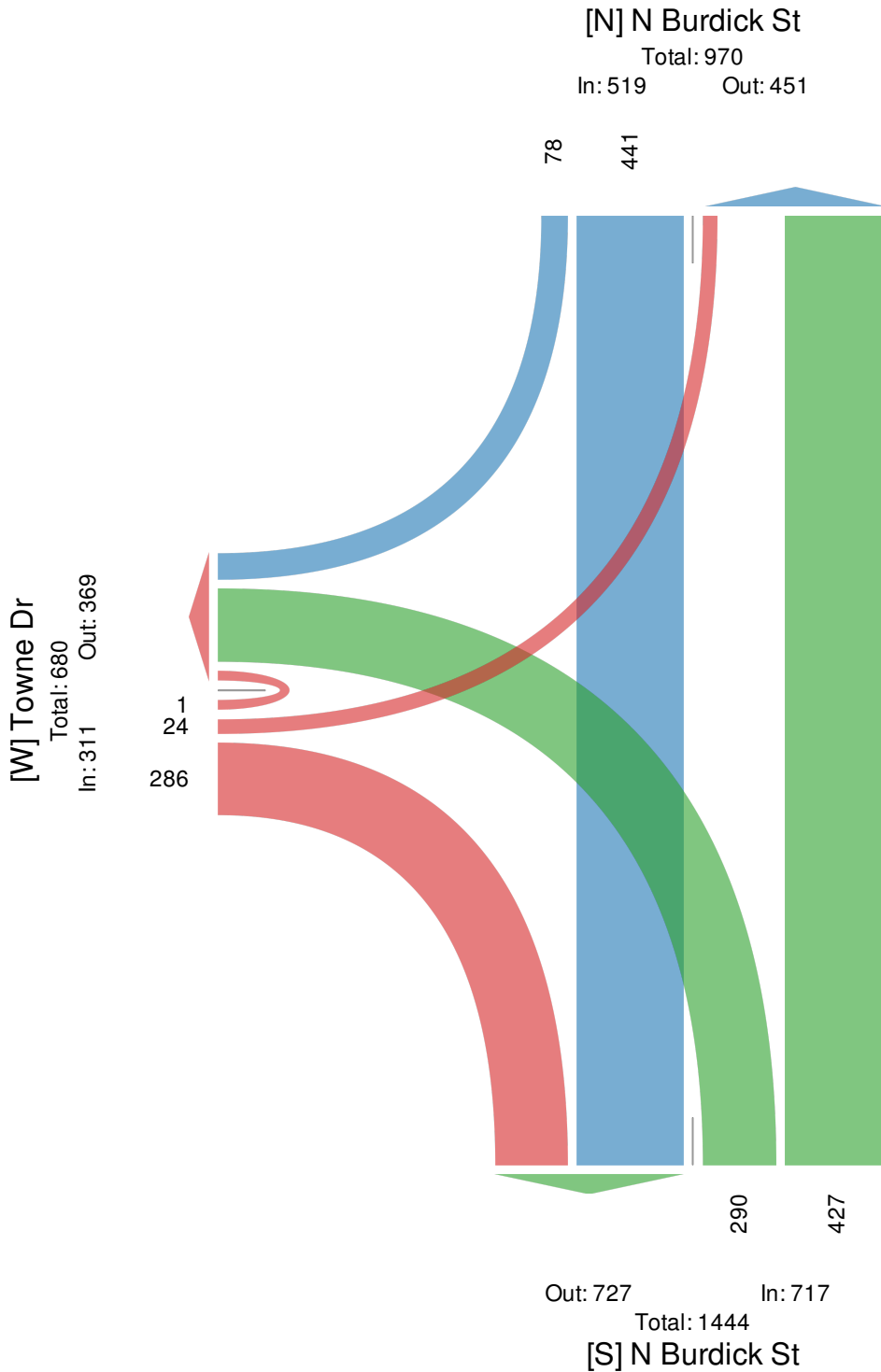
All Movements

ID: 639129, Location: 43.031163, -76.016943, Site Code: SCU6ZT



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US



2. N Burdick St & Towne Dr 4/6/19 Sat - TMC

Sat Apr 6, 2019

PM Peak (WKND) (1 PM - 2 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 639129, Location: 43.031163, -76.016943, Site Code: SCU6ZT



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	N Burdick St Southbound					N Burdick St Northbound					Towne Dr Eastbound					
Time	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	Int
2019-04-06 1:00PM	13	101	0	114	0	109	62	0	171	0	66	4	0	70	0	355
1:15PM	11	105	0	116	0	101	69	0	170	0	63	4	0	67	0	353
1:30PM	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	2
Total	24	206	0	230	0	211	131	0	342	0	130	8	0	138	0	710
% Approach	10.4%	89.6%	0%	-	-	61.7%	38.3%	0%	-	-	94.2%	5.8%	0%	-	-	-
% Total	3.4%	29.0%	0%	32.4%	-	29.7%	18.5%	0%	48.2%	-	18.3%	1.1%	0%	19.4%	-	-
PHF	0.462	0.490	-	0.496	-	0.484	0.475	-	0.500	-	0.492	0.500	-	0.493	-	0.500
Lights	24	206	0	230	-	211	130	0	341	-	130	8	0	138	-	709
% Lights	100%	100%	0%	100%	-	100%	99.2%	0%	99.7%	-	100%	100%	0%	100%	-	99.9%
Articulated Trucks and Single-Unit Trucks	0	0	0	0	-	0	1	0	1	-	0	0	0	0	-	1
% Articulated Trucks and Single-Unit Trucks	0%	0%	0%	0%	-	0%	0.8%	0%	0.3%	-	0%	0%	0%	0%	-	0.1%
Buses	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Buses	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

2. N Burdick St & Towne Dr 4/6/19 Sat - TMC

Sat Apr 6, 2019

PM Peak (WKND) (1 PM - 2 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

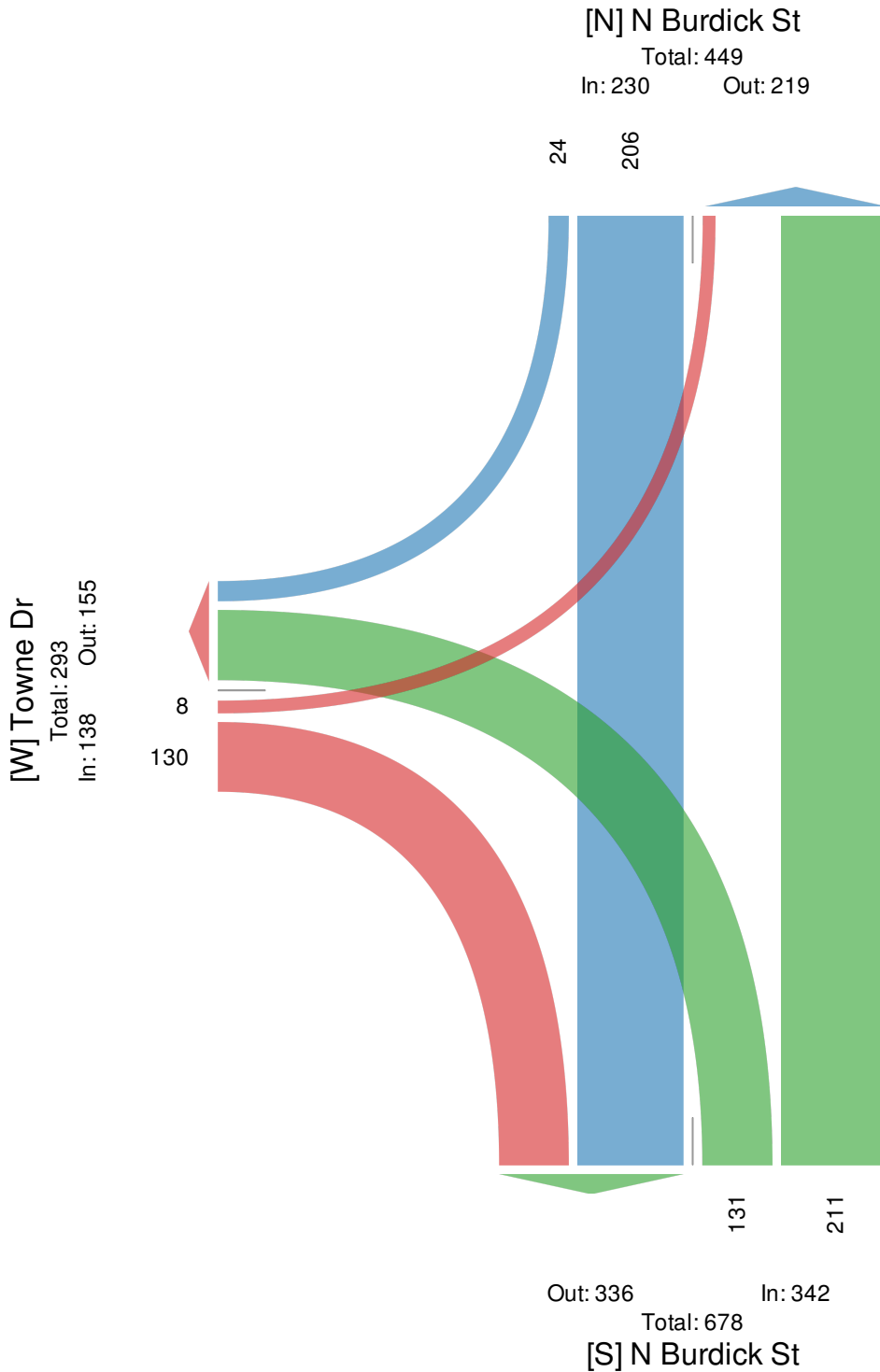
All Movements

ID: 639129, Location: 43.031163, -76.016943, Site Code: SCU6ZT



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US



3. N Burdick St & Towne Dr 4/6/19 Sat - TMC

Sat Apr 6, 2019

Full Length (11:30 AM-1:30 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 639136, Location: 43.033602, -76.017089, Site Code: SCU6VU



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	N Burdick St Southbound					N Burdick St Northbound					Towne Dr Eastbound					
Time	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	Int
2019-04-06 11:30AM	16	131	0	147	0	98	14	0	112	0	12	16	0	28	0	287
11:45AM	25	103	0	128	0	105	22	0	127	0	9	17	0	26	0	281
Hourly Total	41	234	0	275	0	203	36	0	239	0	21	33	0	54	0	568
12:00PM	11	117	0	128	0	105	25	0	130	0	10	31	0	41	0	299
12:15PM	25	127	0	152	0	95	19	0	114	0	12	19	0	31	0	297
12:30PM	29	116	0	145	0	93	10	0	103	0	15	26	0	41	0	289
12:45PM	27	112	0	139	0	82	19	0	101	0	19	27	0	46	0	286
Hourly Total	92	472	0	564	0	375	73	0	448	0	56	103	0	159	0	1171
1:00PM	27	104	0	131	0	94	18	0	112	0	14	23	0	37	0	280
1:15PM	19	94	0	113	0	89	15	0	104	0	15	27	0	42	0	259
1:30PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	46	198	0	244	0	183	33	0	216	0	29	50	0	79	0	539
Total	179	904	0	1083	0	761	142	0	903	0	106	186	0	292	0	2278
% Approach	16.5%	83.5%	0%	-	-	84.3%	15.7%	0%	-	-	36.3%	63.7%	0%	-	-	-
% Total	7.9%	39.7%	0%	47.5%	-	33.4%	6.2%	0%	39.6%	-	4.7%	8.2%	0%	12.8%	-	-
Lights	179	900	0	1079	-	757	142	0	899	-	106	186	0	292	-	2270
% Lights	100%	99.6%	0%	99.6%	-	99.5%	100%	0%	99.6%	-	100%	100%	0%	100%	-	99.6%
Articulated Trucks and Single-Unit Trucks	0	4	0	4	-	4	0	0	4	-	0	0	0	0	-	8
% Articulated Trucks and Single-Unit Trucks	0%	0.4%	0%	0.4%	-	0.5%	0%	0%	0.4%	-	0%	0%	0%	0%	-	0.4%
Buses	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Buses	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

3. N Burdick St & Towne Dr 4/6/19 Sat - TMC

Sat Apr 6, 2019

Full Length (11:30 AM-1:30 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

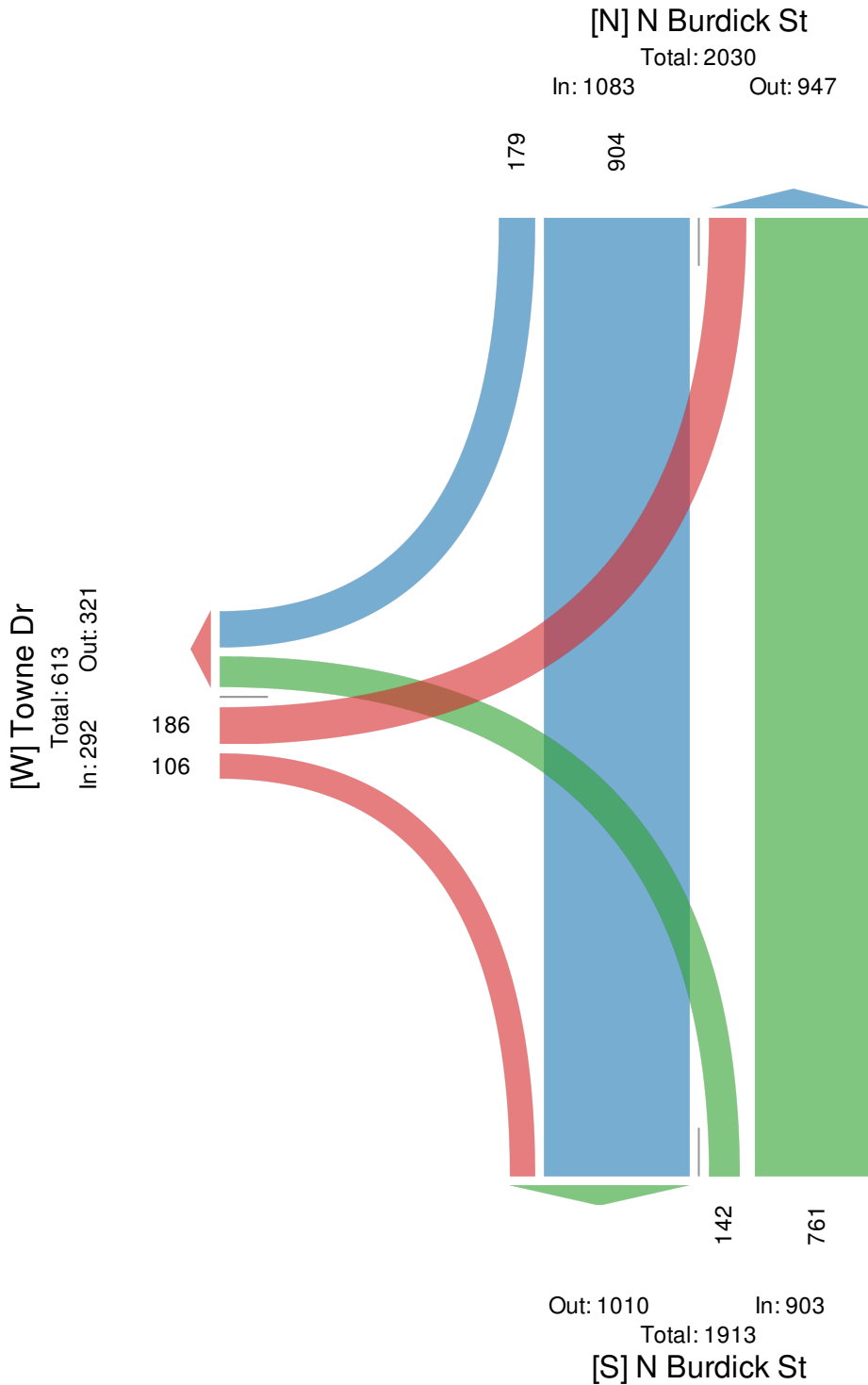
All Movements

ID: 639136, Location: 43.033602, -76.017089, Site Code: SCU6VU



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US



3. N Burdick St & Towne Dr 4/6/19 Sat - TMC

Sat Apr 6, 2019

Forced Peak (11:30 AM - 12:30 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 639136, Location: 43.033602, -76.017089, Site Code: SCU6VU



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	N Burdick St Southbound					N Burdick St Northbound					Towne Dr Eastbound					
Time	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	Int
2019-04-06 11:30AM	16	131	0	147	0	98	14	0	112	0	12	16	0	28	0	287
11:45AM	25	103	0	128	0	105	22	0	127	0	9	17	0	26	0	281
12:00PM	11	117	0	128	0	105	25	0	130	0	10	31	0	41	0	299
12:15PM	25	127	0	152	0	95	19	0	114	0	12	19	0	31	0	297
Total	77	478	0	555	0	403	80	0	483	0	43	83	0	126	0	1164
% Approach	13.9%	86.1%	0%	-	-	83.4%	16.6%	0%	-	-	34.1%	65.9%	0%	-	-	-
% Total	6.6%	41.1%	0%	47.7%	-	34.6%	6.9%	0%	41.5%	-	3.7%	7.1%	0%	10.8%	-	-
PHF	0.770	0.912	-	0.913	-	0.960	0.800	-	0.929	-	0.896	0.669	-	0.768	-	0.973
Lights	77	475	0	552	-	401	80	0	481	-	43	83	0	126	-	1159
% Lights	100%	99.4%	0%	99.5%	-	99.5%	100%	0%	99.6%	-	100%	100%	0%	100%	-	99.6%
Articulated Trucks and Single-Unit Trucks	0	3	0	3	-	2	0	0	2	-	0	0	0	0	-	5
% Articulated Trucks and Single-Unit Trucks	0%	0.6%	0%	0.5%	-	0.5%	0%	0%	0.4%	-	0%	0%	0%	0%	-	0.4%
Buses	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Buses	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

3. N Burdick St & Towne Dr 4/6/19 Sat - TMC

Sat Apr 6, 2019

Forced Peak (11:30 AM - 12:30 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

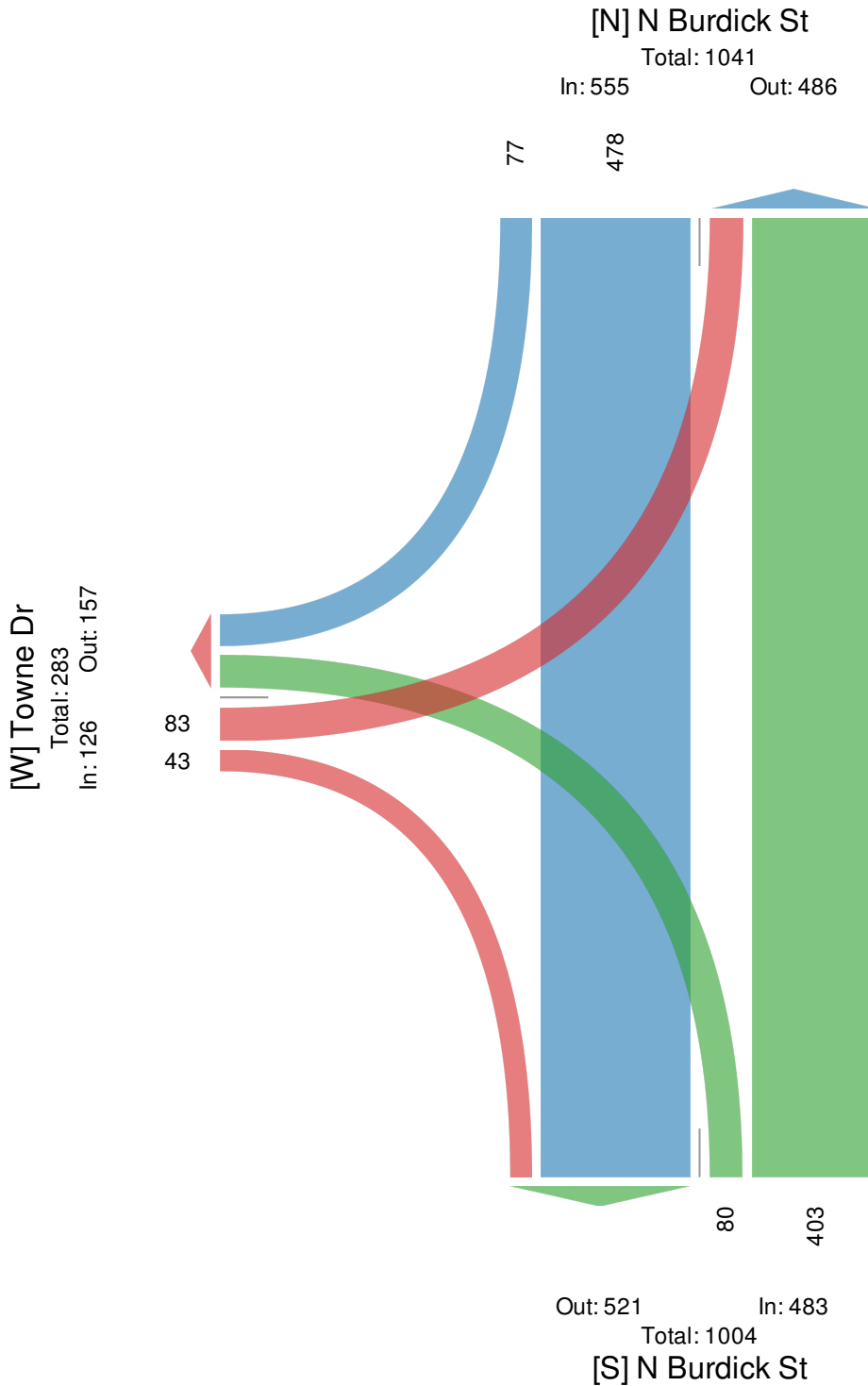
All Movements

ID: 639136, Location: 43.033602, -76.017089, Site Code: SCU6VU



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US



3. N Burdick St & Towne Dr 4/6/19 Sat - TMC

Sat Apr 6, 2019

Midday Peak (WKND) (12 PM - 1 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 639136, Location: 43.033602, -76.017089, Site Code: SCU6VU



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	N Burdick St Southbound					N Burdick St Northbound					Towne Dr Eastbound					
Time	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	Int
2019-04-06 12:00PM	11	117	0	128	0	105	25	0	130	0	10	31	0	41	0	299
12:15PM	25	127	0	152	0	95	19	0	114	0	12	19	0	31	0	297
12:30PM	29	116	0	145	0	93	10	0	103	0	15	26	0	41	0	289
12:45PM	27	112	0	139	0	82	19	0	101	0	19	27	0	46	0	286
Total	92	472	0	564	0	375	73	0	448	0	56	103	0	159	0	1171
% Approach	16.3%	83.7%	0%	-	-	83.7%	16.3%	0%	-	-	35.2%	64.8%	0%	-	-	-
% Total	7.9%	40.3%	0%	48.2%	-	32.0%	6.2%	0%	38.3%	-	4.8%	8.8%	0%	13.6%	-	-
PHF	0.793	0.929	-	0.928	-	0.893	0.730	-	0.862	-	0.737	0.831	-	0.864	-	0.979
Lights	92	470	0	562	-	371	73	0	444	-	56	103	0	159	-	1165
% Lights	100%	99.6%	0%	99.6%	-	98.9%	100%	0%	99.1%	-	100%	100%	0%	100%	-	99.5%
Articulated Trucks and Single-Unit Trucks	0	2	0	2	-	4	0	0	4	-	0	0	0	0	-	6
% Articulated Trucks and Single-Unit Trucks	0%	0.4%	0%	0.4%	-	1.1%	0%	0%	0.9%	-	0%	0%	0%	0%	-	0.5%
Buses	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Buses	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

3. N Burdick St & Towne Dr 4/6/19 Sat - TMC

Sat Apr 6, 2019

Midday Peak (WKND) (12 PM - 1 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

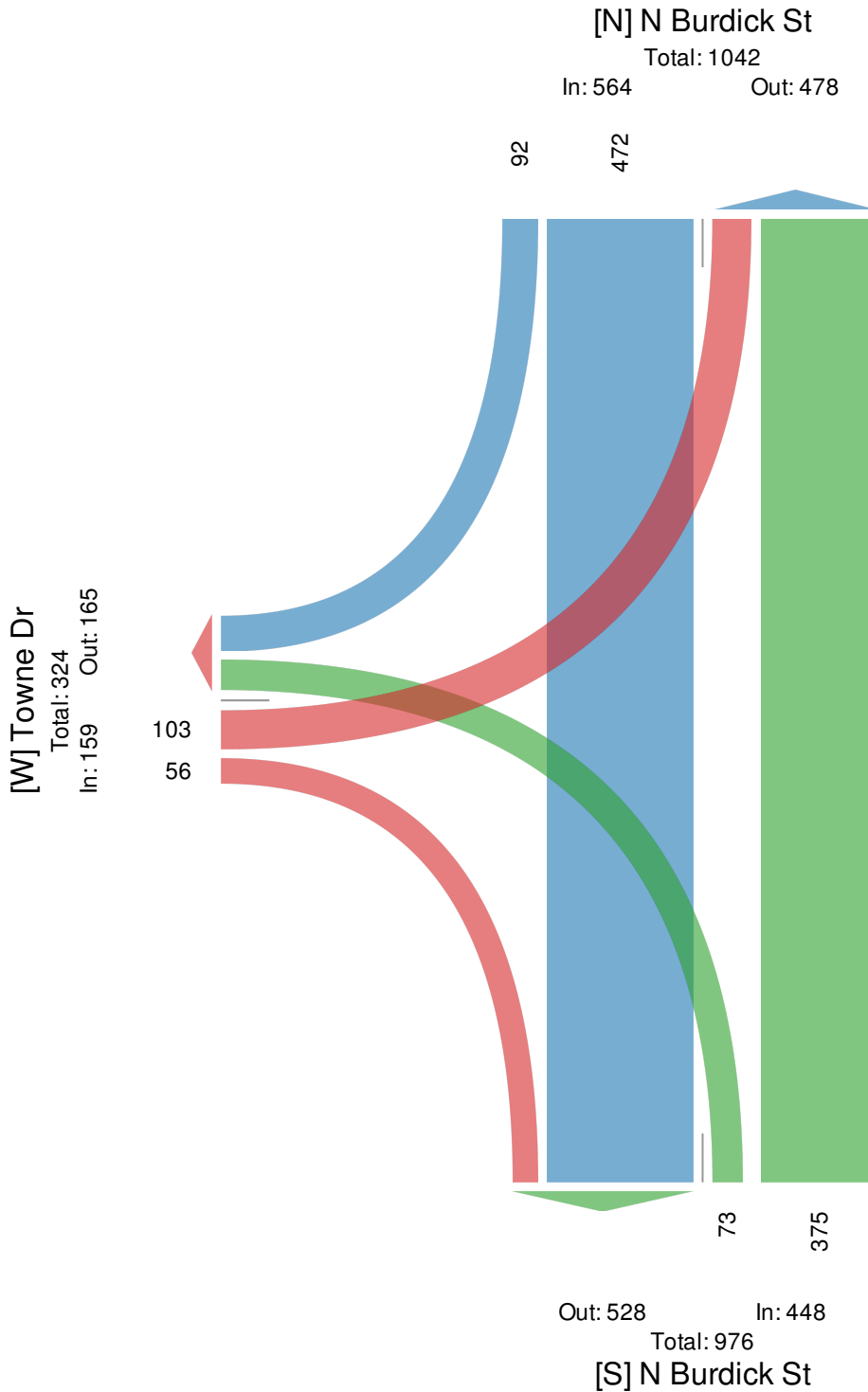
All Movements

ID: 639136, Location: 43.033602, -76.017089, Site Code: SCU6VU



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US



3. N Burdick St & Towne Dr 4/6/19 Sat - TMC

Sat Apr 6, 2019

PM Peak (WKND) (1 PM - 2 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 639136, Location: 43.033602, -76.017089, Site Code: SCU6VU



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	N Burdick St Southbound					N Burdick St Northbound					Towne Dr Eastbound					
Time	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	Int
2019-04-06 1:00PM	27	104	0	131	0	94	18	0	112	0	14	23	0	37	0	280
1:15PM	19	94	0	113	0	89	15	0	104	0	15	27	0	42	0	259
1:30PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	46	198	0	244	0	183	33	0	216	0	29	50	0	79	0	539
% Approach	18.9%	81.1%	0%	-	-	84.7%	15.3%	0%	-	-	36.7%	63.3%	0%	-	-	-
% Total	8.5%	36.7%	0%	45.3%	-	34.0%	6.1%	0%	40.1%	-	5.4%	9.3%	0%	14.7%	-	-
PHF	0.426	0.476	-	0.466	-	0.487	0.458	-	0.482	-	0.483	0.463	-	0.470	-	0.481
Lights	46	198	0	244	-	183	33	0	216	-	29	50	0	79	-	539
% Lights	100%	100%	0%	100%	-	100%	100%	0%	100%	-	100%	100%	0%	100%	-	100%
Articulated Trucks and Single-Unit Trucks	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Articulated Trucks and Single-Unit Trucks	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Buses	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Buses	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

3. N Burdick St & Towne Dr 4/6/19 Sat - TMC

Sat Apr 6, 2019

PM Peak (WKND) (1 PM - 2 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

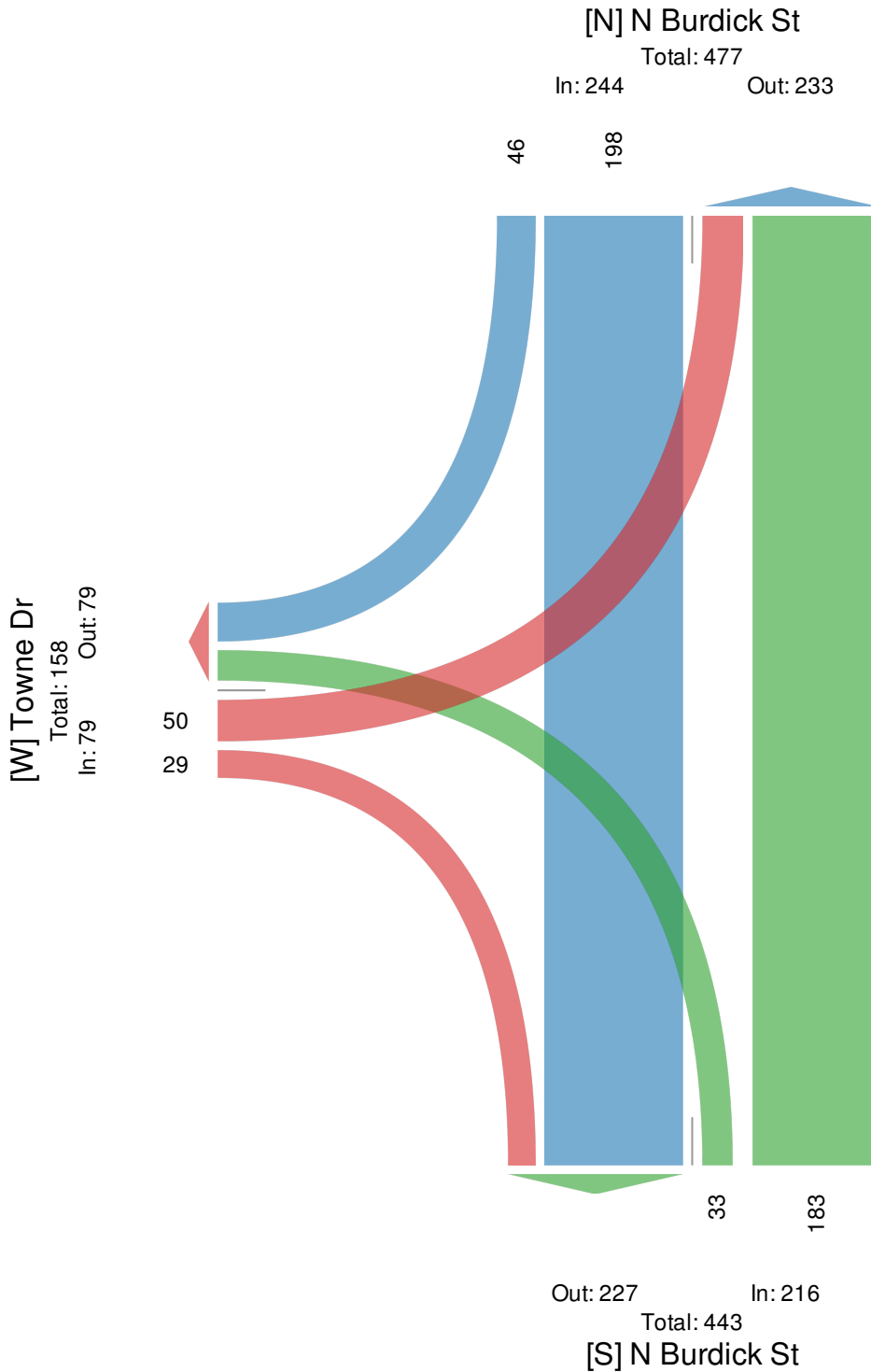
All Movements

ID: 639136, Location: 43.033602, -76.017089, Site Code: SCU6VU



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US



4. N Burdick St & Towne Dr 4/6/19 Sat - TMC

Sat Apr 6, 2019

Full Length (11:30 AM-1:30 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 639138, Location: 43.034481, -76.017147, Site Code: SCU146



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	N Burdick St Southbound					N Burdick St Northbound					Towne Dr Eastbound					
Time	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	Int
2019-04-06 11:30AM	16	119	0	135	0	98	16	0	114	0	32	16	0	48	0	297
11:45AM	20	112	0	132	0	103	17	0	120	0	17	14	0	31	0	283
Hourly Total	36	231	0	267	0	201	33	0	234	0	49	30	0	79	0	580
12:00PM	19	94	0	113	0	111	25	0	136	0	37	13	0	50	0	299
12:15PM	19	119	0	138	0	91	24	0	115	0	31	19	0	50	0	303
12:30PM	22	115	0	137	0	108	14	0	122	0	30	23	0	53	0	312
12:45PM	11	107	0	118	0	98	12	0	110	0	38	15	0	53	0	281
Hourly Total	71	435	0	506	0	408	75	0	483	0	136	70	0	206	0	1195
1:00PM	17	88	0	105	0	94	21	0	115	0	38	18	0	56	0	276
1:15PM	20	86	0	106	0	103	15	0	118	0	27	20	0	47	0	271
Hourly Total	37	174	0	211	0	197	36	0	233	0	65	38	0	103	0	547
Total	144	840	0	984	0	806	144	0	950	0	250	138	0	388	0	2322
% Approach	14.6%	85.4%	0%	-	-	84.8%	15.2%	0%	-	-	64.4%	35.6%	0%	-	-	-
% Total	6.2%	36.2%	0%	42.4%	-	34.7%	6.2%	0%	40.9%	-	10.8%	5.9%	0%	16.7%	-	-
Lights	144	838	0	982	-	802	144	0	946	-	250	138	0	388	-	2316
% Lights	100%	99.8%	0%	99.8%	-	99.5%	100%	0%	99.6%	-	100%	100%	0%	100%	-	99.7%
Articulated Trucks and Single-Unit Trucks	0	1	0	1	-	4	0	0	4	-	0	0	0	0	-	5
% Articulated Trucks and Single-Unit Trucks	0%	0.1%	0%	0.1%	-	0.5%	0%	0%	0.4%	-	0%	0%	0%	0%	-	0.2%
Buses	0	1	0	1	-	0	0	0	0	-	0	0	0	0	-	1
% Buses	0%	0.1%	0%	0.1%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

4. N Burdick St & Towne Dr 4/6/19 Sat - TMC

Sat Apr 6, 2019

Full Length (11:30 AM-1:30 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 639138, Location: 43.034481, -76.017147, Site Code: SCU146



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

[N] N Burdick St

Total: 1928

In: 984

Out: 944

144

840

[W] Towne Dr

Total: 676

In: 388 Out: 288

138

250

144

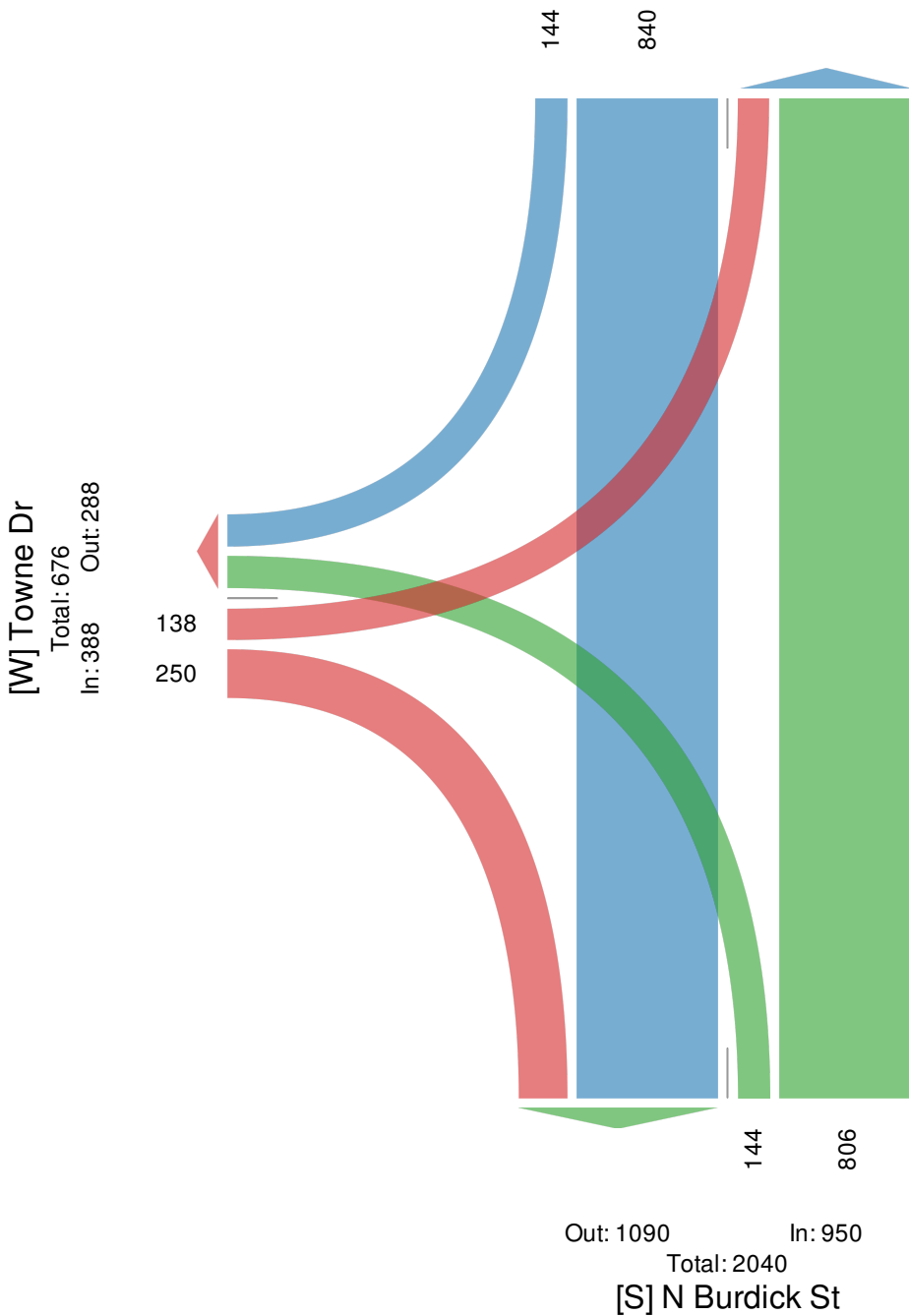
806

Out: 1090

In: 950

Total: 2040

[S] N Burdick St



4. N Burdick St & Towne Dr 4/6/19 Sat - TMC

Sat Apr 6, 2019

Forced Peak (11:30 AM - 12:30 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 639138, Location: 43.034481, -76.017147, Site Code: SCU146



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	N Burdick St Southbound					N Burdick St Northbound					Towne Dr Eastbound					
Time	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	Int
2019-04-06 11:30AM	16	119	0	135	0	98	16	0	114	0	32	16	0	48	0	297
11:45AM	20	112	0	132	0	103	17	0	120	0	17	14	0	31	0	283
12:00PM	19	94	0	113	0	111	25	0	136	0	37	13	0	50	0	299
12:15PM	19	119	0	138	0	91	24	0	115	0	31	19	0	50	0	303
Total	74	444	0	518	0	403	82	0	485	0	117	62	0	179	0	1182
% Approach	14.3%	85.7%	0%	-	-	83.1%	16.9%	0%	-	-	65.4%	34.6%	0%	-	-	-
% Total	6.3%	37.6%	0%	43.8%	-	34.1%	6.9%	0%	41.0%	-	9.9%	5.2%	0%	15.1%	-	-
PHF	0.925	0.933	-	0.938	-	0.908	0.820	-	0.892	-	0.791	0.816	-	0.895	-	0.975
Lights	74	443	0	517	-	401	82	0	483	-	117	62	0	179	-	1179
% Lights	100%	99.8%	0%	99.8%	-	99.5%	100%	0%	99.6%	-	100%	100%	0%	100%	-	99.7%
Articulated Trucks and Single-Unit Trucks	0	0	0	0	-	2	0	0	2	-	0	0	0	0	-	2
% Articulated Trucks and Single-Unit Trucks	0%	0%	0%	0%	-	0.5%	0%	0%	0.4%	-	0%	0%	0%	0%	-	0.2%
Buses	0	1	0	1	-	0	0	0	0	-	0	0	0	0	-	1
% Buses	0%	0.2%	0%	0.2%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0.1%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

4. N Burdick St & Towne Dr 4/6/19 Sat - TMC

Sat Apr 6, 2019

Forced Peak (11:30 AM - 12:30 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

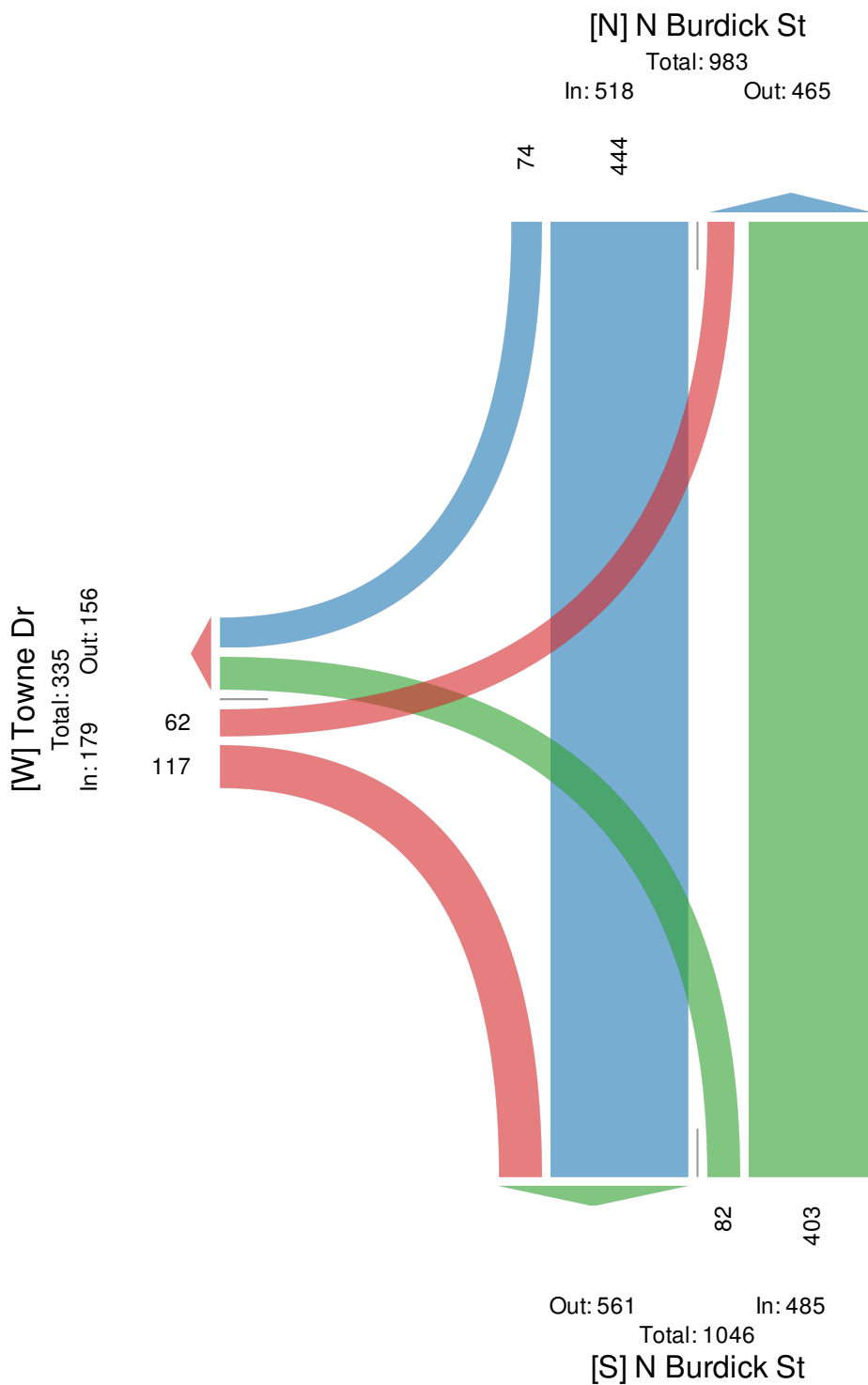
All Movements

ID: 639138, Location: 43.034481, -76.017147, Site Code: SCU146



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US



4. N Burdick St & Towne Dr 4/6/19 Sat - TMC

Sat Apr 6, 2019

Midday Peak (WKND) (11:45 AM - 12:45 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 639138, Location: 43.034481, -76.017147, Site Code: SCU146



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	N Burdick St Southbound					N Burdick St Northbound					Towne Dr Eastbound					
Time	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	Int
2019-04-06 11:45AM	20	112	0	132	0	103	17	0	120	0	17	14	0	31	0	283
12:00PM	19	94	0	113	0	111	25	0	136	0	37	13	0	50	0	299
12:15PM	19	119	0	138	0	91	24	0	115	0	31	19	0	50	0	303
12:30PM	22	115	0	137	0	108	14	0	122	0	30	23	0	53	0	312
Total	80	440	0	520	0	413	80	0	493	0	115	69	0	184	0	1197
% Approach	15.4%	84.6%	0%	-	-	83.8%	16.2%	0%	-	-	62.5%	37.5%	0%	-	-	-
% Total	6.7%	36.8%	0%	43.4%	-	34.5%	6.7%	0%	41.2%	-	9.6%	5.8%	0%	15.4%	-	-
PHF	0.909	0.924	-	0.942	-	0.930	0.800	-	0.906	-	0.777	0.750	-	0.868	-	0.959
Lights	80	440	0	520	-	409	80	0	489	-	115	69	0	184	-	1193
% Lights	100%	100%	0%	100%	-	99.0%	100%	0%	99.2%	-	100%	100%	0%	100%	-	99.7%
Articulated Trucks and Single-Unit Trucks	0	0	0	0	-	4	0	0	4	-	0	0	0	0	-	4
% Articulated Trucks and Single-Unit Trucks	0%	0%	0%	0%	-	1.0%	0%	0%	0.8%	-	0%	0%	0%	0%	-	0.3%
Buses	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Buses	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

4. N Burdick St & Towne Dr 4/6/19 Sat - TMC

Sat Apr 6, 2019

Midday Peak (WKND) (11:45 AM - 12:45 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

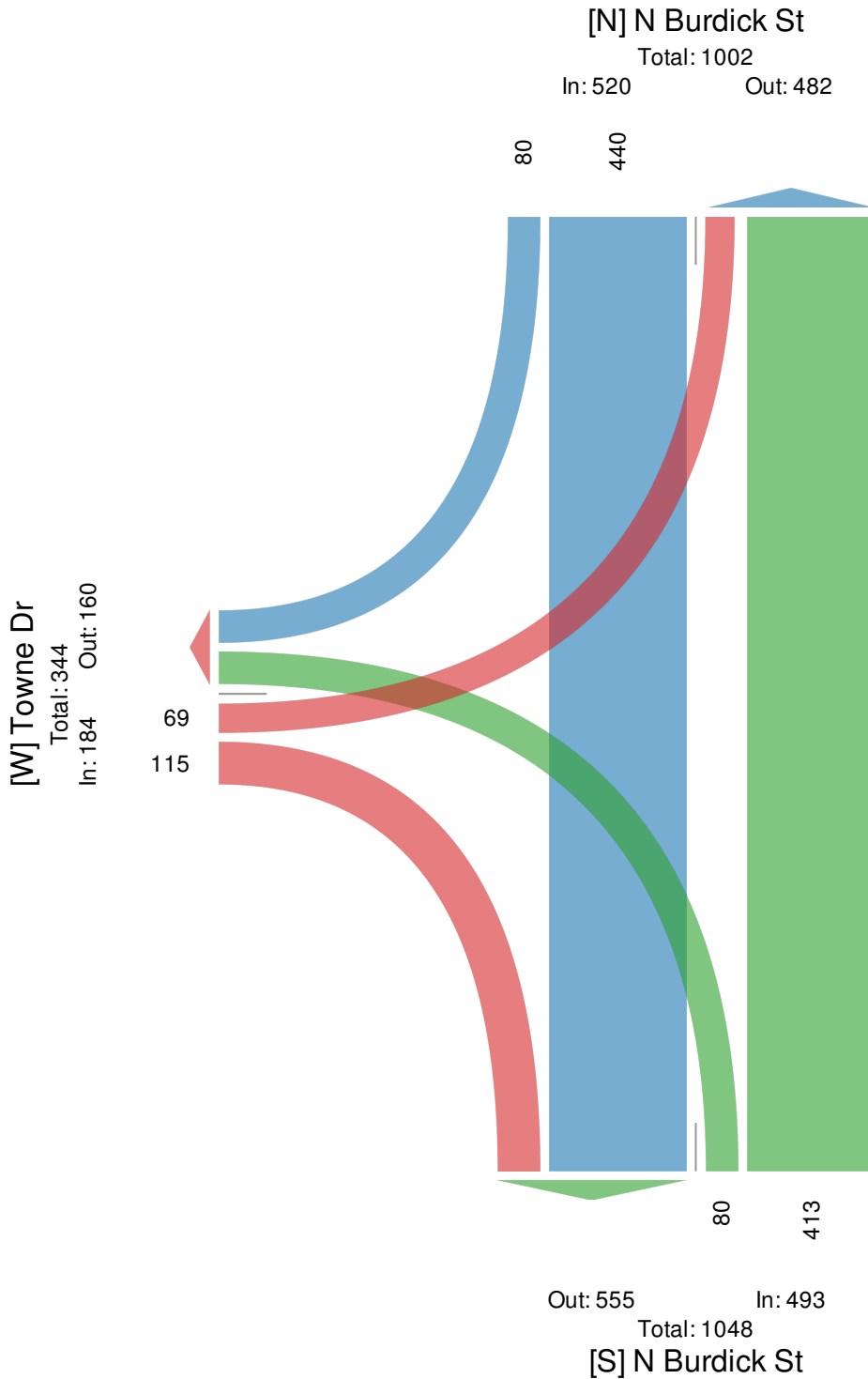
All Movements

ID: 639138, Location: 43.034481, -76.017147, Site Code: SCU146



Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US



4. N Burdick St & Towne Dr 4/6/19 Sat - TMC

Sat Apr 6, 2019

PM Peak (WKND) (1 PM - 2 PM)

All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 639138, Location: 43.034481, -76.017147, Site Code: SCU146



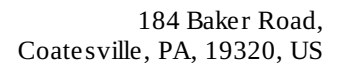
Provided by: Tri-State Traffic Data, Inc.

184 Baker Road,
Coatesville, PA, 19320, US

Leg Direction	N Burdick St Southbound					N Burdick St Northbound					Towne Dr Eastbound					
Time	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	Int
2019-04-06 1:00PM	17	88	0	105	0	94	21	0	115	0	38	18	0	56	0	276
1:15PM	20	86	0	106	0	103	15	0	118	0	27	20	0	47	0	271
Total	37	174	0	211	0	197	36	0	233	0	65	38	0	103	0	547
% Approach	17.5%	82.5%	0%	-	-	84.5%	15.5%	0%	-	-	63.1%	36.9%	0%	-	-	-
% Total	6.8%	31.8%	0%	38.6%	-	36.0%	6.6%	0%	42.6%	-	11.9%	6.9%	0%	18.8%	-	-
PHF	0.463	0.494	-	0.498	-	0.478	0.429	-	0.494	-	0.428	0.475	-	0.460	-	0.495
Lights	37	174	0	211	-	197	36	0	233	-	65	38	0	103	-	547
% Lights	100%	100%	0%	100%	-	100%	100%	0%	100%	-	100%	100%	0%	100%	-	100%
Articulated Trucks and Single-Unit Trucks	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Articulated Trucks and Single-Unit Trucks	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Buses	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
% Buses	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

ID: 639138, Location: 43.034481, -76.017147, Site Code: SCU146

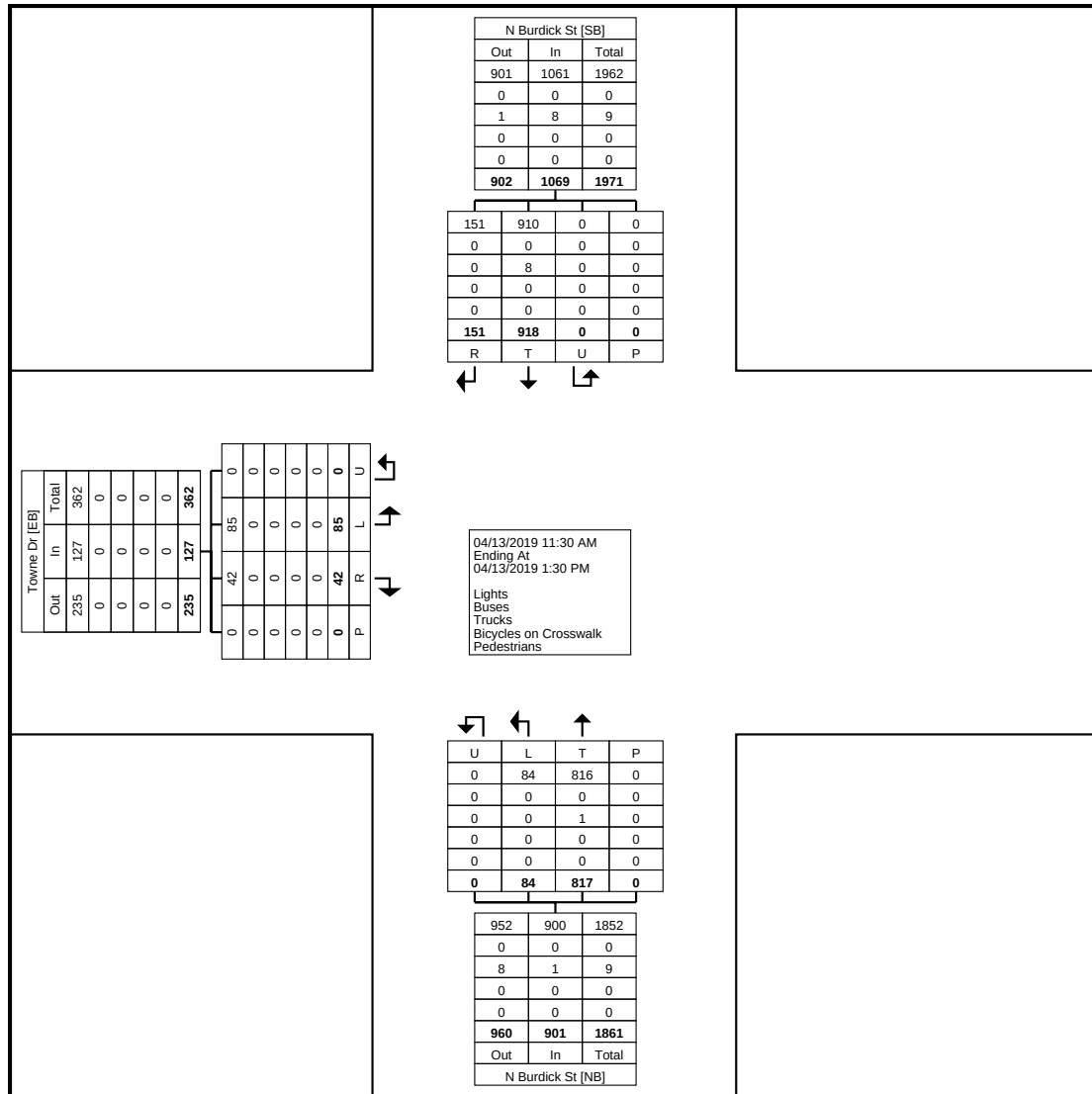




Coatesville, Pennsylvania, United States 19320
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Turning Movement Data

Start Time	Towne Dr Eastbound					N Burdick St Northbound					N Burdick St Southbound					Int. Total
	Left	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	
11:30 AM	11	3	0	0	14	11	112	0	0	123	118	17	0	0	135	272
11:45 AM	16	3	0	0	19	19	98	0	0	117	125	18	0	0	143	279
Hourly Total	27	6	0	0	33	30	210	0	0	240	243	35	0	0	278	551
12:00 PM	14	7	0	0	21	12	103	0	0	115	123	17	0	0	140	276
12:15 PM	12	6	0	0	18	6	104	0	0	110	113	17	0	0	130	258
12:30 PM	4	4	0	0	8	8	92	0	0	100	128	17	0	0	145	253
12:45 PM	13	6	0	0	19	9	115	0	0	124	102	27	0	0	129	272
Hourly Total	43	23	0	0	66	35	414	0	0	449	466	78	0	0	544	1059
1:00 PM	8	5	0	0	13	9	106	0	0	115	98	15	0	0	113	241
1:15 PM	7	8	0	0	15	10	87	0	0	97	111	23	0	0	134	246
Grand Total	85	42	0	0	127	84	817	0	0	901	918	151	0	0	1069	2097
Approach %	66.9	33.1	0.0	-	-	9.3	90.7	0.0	-	-	85.9	14.1	0.0	-	-	-
Total %	4.1	2.0	0.0	-	6.1	4.0	39.0	0.0	-	43.0	43.8	7.2	0.0	-	51.0	-
Lights	85	42	0	-	127	84	816	0	-	900	910	151	0	-	1061	2088
% Lights	100.0	100.0	-	-	100.0	100.0	99.9	-	-	99.9	99.1	100.0	-	-	99.3	99.6
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Trucks	0	0	0	-	0	0	1	0	-	1	8	0	0	-	8	9
% Trucks	0.0	0.0	-	-	0.0	0.0	0.1	-	-	0.1	0.9	0.0	-	-	0.7	0.4
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Turning Movement Data Plot

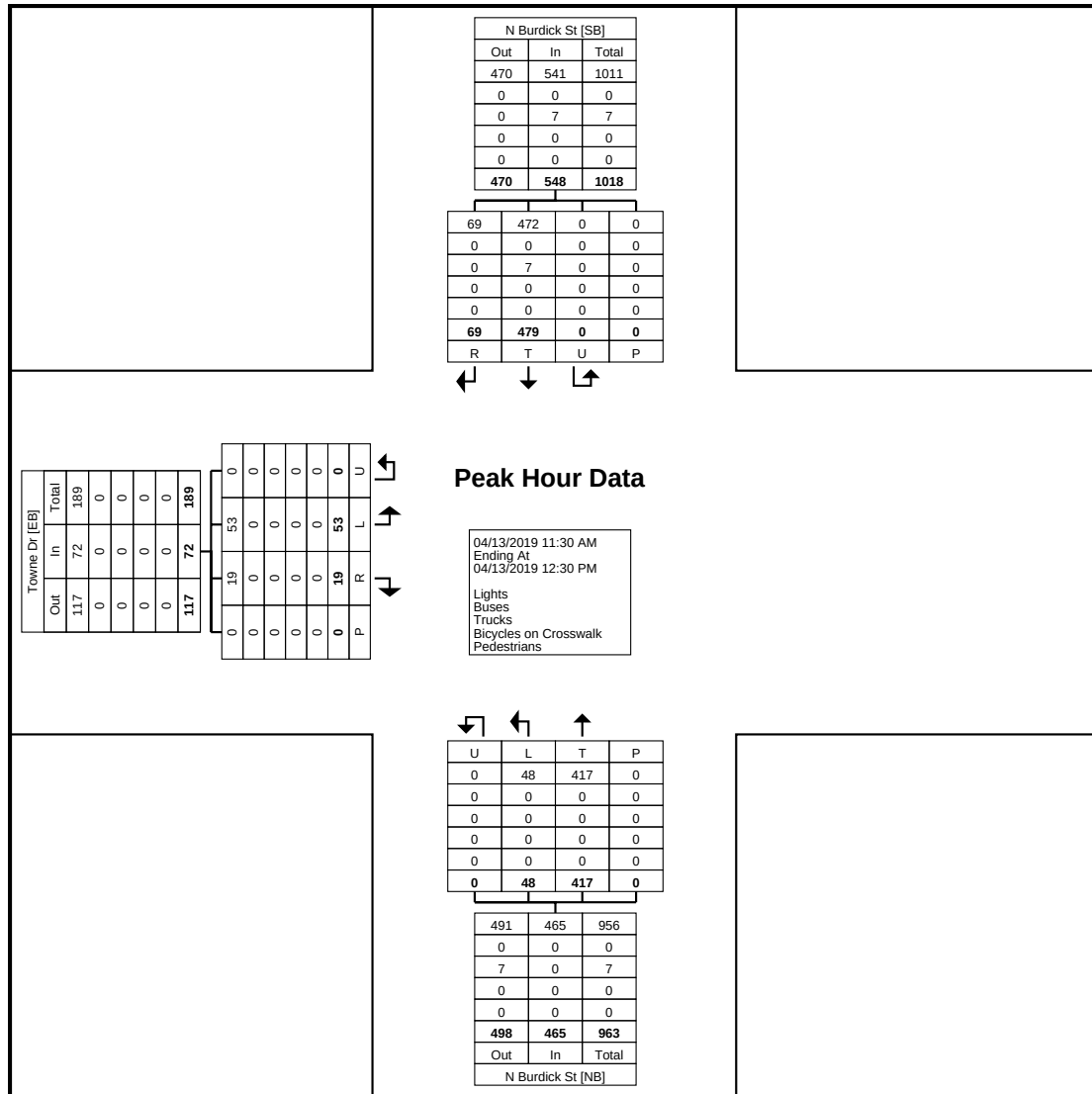


Coatesville, Pennsylvania, United States 19320
610-466-1469
Serving Transportation Professionals Since 1995

Turning Movement Peak Hour Data (11:30 AM)

[illegible]

Fayetteville, NY
N.Burdick St & Towne Dr
Access 5
Saturday, April 13, 2019
Location: 43.035464, -
76.017211



Turning Movement Peak Hour Data Plot (11:30 AM)

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Rochester, New York 14623

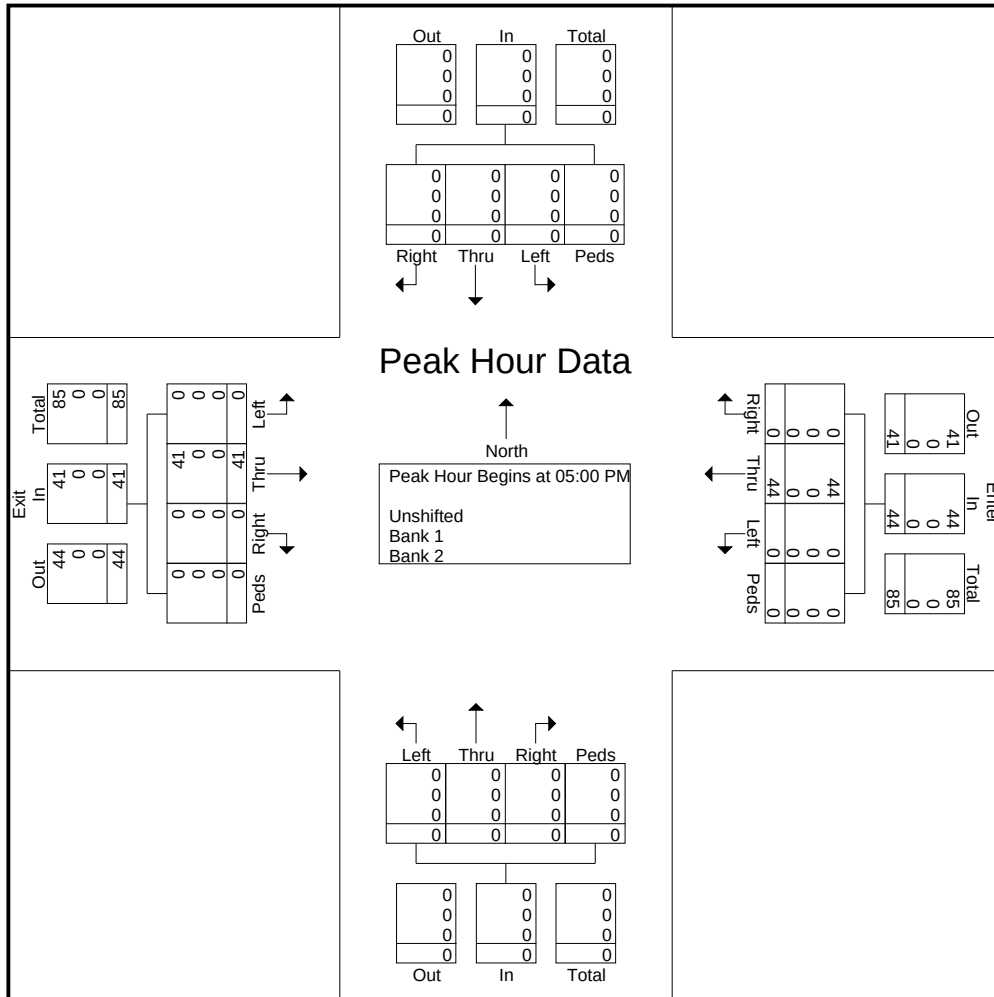
File Name : Cicero Restaurant A Site Trips PM

Site Code : 11111111

Start Date : 3/17/2021

Page No : 2

	Southbound					Enter Westbound					Northbound					Exit 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 05:00 PM																					
05:00 PM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	3	0	0	3	9
05:15 PM	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	10	0	0	10	19
05:30 PM	0	0	0	0	0	0	14	0	0	14	0	0	0	0	0	0	7	0	0	7	21
05:45 PM	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	0	21	0	0	21	36
Total Volume	0	0	0	0	0	0	44	0	0	44	0	0	0	0	0	0	41	0	0	41	85
% App. Total	0	0	0	0	0	0	100	0	0	100	0	0	0	0	0	0	100	0	0	100	100
PHF	.000	.000	.000	.000	.000	.000	.733	.000	.000	.733	.000	.000	.000	.000	.000	.000	.488	.000	.000	.488	.590
Unshifted	0	0	0	0	0	0	44	0	0	44	0	0	0	0	0	0	41	0	0	41	85
% Unshifted	0	0	0	0	0	0	100	0	0	100	0	0	0	0	0	0	100	0	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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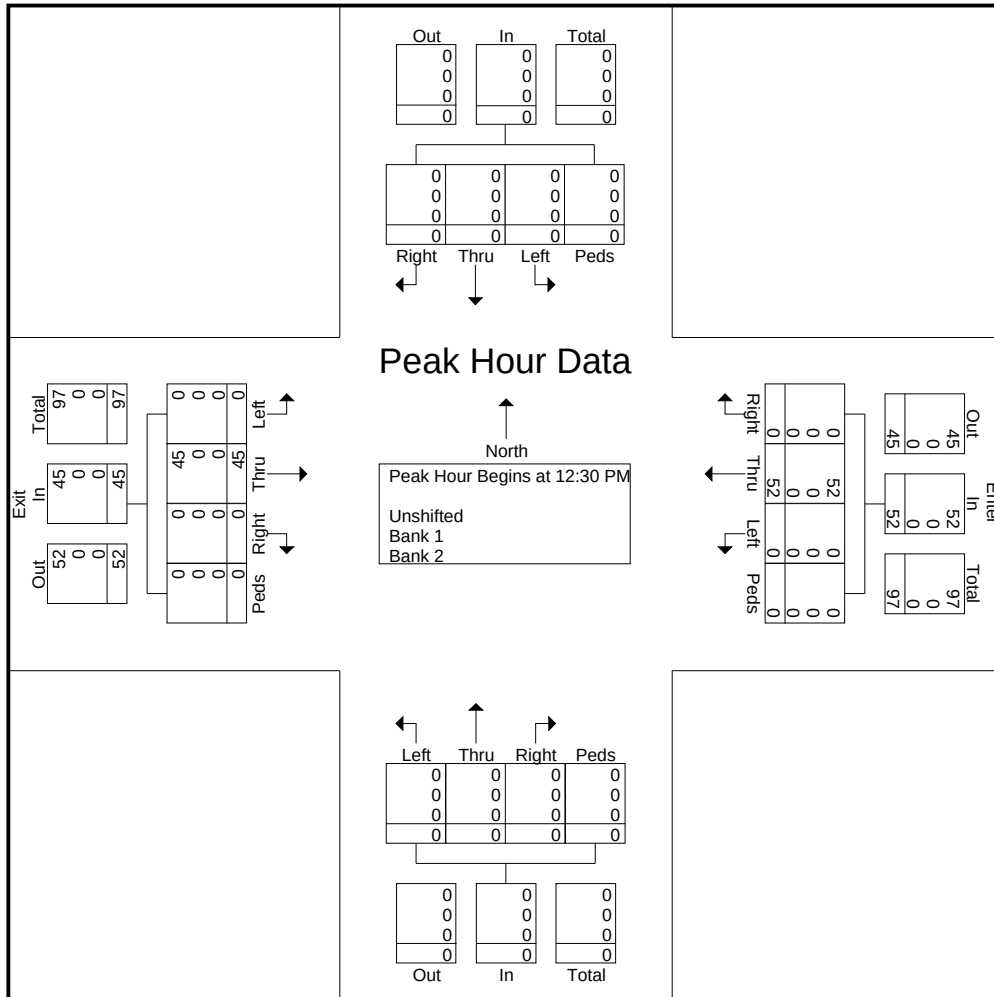
File Name : Cicero Restaurant A Site Trips SAT

Site Code : 11111111

Start Date : 3/20/2021

Page No : 2

	Southbound					Enter Westbound					Northbound					Exit 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 11:30 AM to 01:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30 PM																					
12:30 PM	0	0	0	0	0	0	13	0	0	13	0	0	0	0	0	0	12	0	0	12	25
12:45 PM	0	0	0	0	0	0	14	0	0	14	0	0	0	0	0	0	12	0	0	12	26
01:00 PM	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	5	0	0	5	15
01:15 PM	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	0	16	0	0	16	31
Total Volume	0	0	0	0	0	0	52	0	0	52	0	0	0	0	0	0	45	0	0	45	97
% App. Total	0	0	0	0	0	0	100	0	0	100	0	0	0	0	0	0	100	0	0	100	100
PHF	.000	.000	.000	.000	.000	.000	.867	.000	.000	.867	.000	.000	.000	.000	.000	.000	.703	.000	.000	.703	.782
Unshifted	0	0	0	0	0	0	52	0	0	52	0	0	0	0	0	0	45	0	0	45	97
% Unshifted	0	0	0	0	0	0	100	0	0	100	0	0	0	0	0	0	100	0	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



File Name : Victor Restaurant B - Monday PM
Site Code : 11111111
Start Date : 3/22/2021
Page No : 1

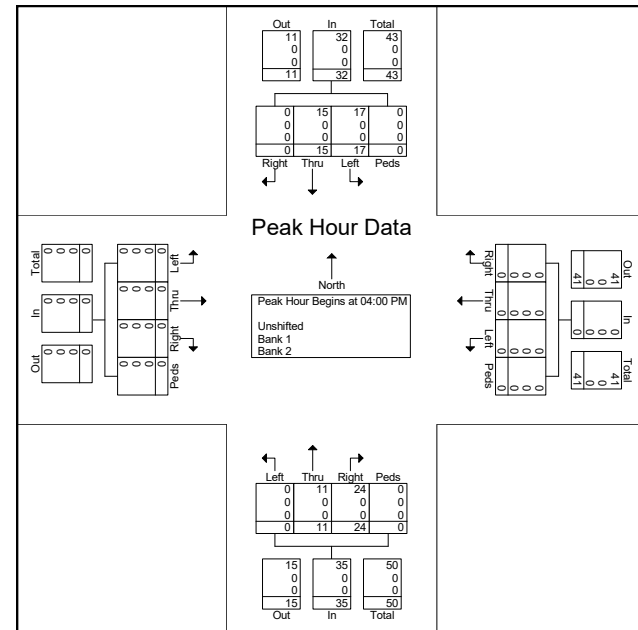
Groups Printed- Unshifted - Bank 1 - Bank 2																	
	Southbound				Westbound				Northbound				Eastbound				
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
03:00 PM	0	4	8	0	0	0	0	0	3	9	0	0	0	0	0	0	24
03:15 PM	0	2	6	0	0	0	0	0	2	4	0	0	0	0	0	0	14
03:30 PM	0	2	2	0	0	0	0	0	5	2	0	0	0	0	0	0	11
03:45 PM	0	2	4	0	0	0	0	0	3	5	0	0	0	0	0	0	14
Total	0	10	20	0	0	0	0	0	13	20	0	0	0	0	0	0	63
04:00 PM	0	2	4	0	0	0	0	0	6	2	0	0	0	0	0	0	14
04:15 PM	0	5	5	0	0	0	0	0	5	3	0	0	0	0	0	0	18
04:30 PM	0	4	2	0	0	0	0	0	8	3	0	0	0	0	0	0	17
04:45 PM	0	4	6	0	0	0	0	0	5	3	0	0	0	0	0	0	18
Total	0	15	17	0	0	0	0	0	24	11	0	0	0	0	0	0	67
Grand Total	0	25	37	0	0	0	0	0	37	31	0	0	0	0	0	0	130
Apprch %	0	40.3	59.7	0	0	0	0	0	54.4	45.6	0	0	0	0	0	0	
Total %	0	19.2	28.5	0	0	0	0	0	28.5	23.8	0	0	0	0	0	0	
Unshifted	0	25	37	0	0	0	0	0	37	31	0	0	0	0	0	0	130
% Unshifted	0	100	100	0	0	0	0	0	100	100	0	0	0	0	0	0	100
Bank 1	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	
Bank 2	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	

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File Name : Victor Restaurant B - Monday PM
Site Code : 11111111
Start Date : 3/22/2021
Page No : 2

	Southbound					Westbound					Northbound					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 03:00 PM to 04:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	2	4	0	6	0	0	0	0	0	6	2	0	0	8	0	0	0	0	0	14
04:15 PM	0	5	5	0	10	0	0	0	0	0	5	3	0	0	8	0	0	0	0	0	18
04:30 PM	0	4	2	0	6	0	0	0	0	0	8	3	0	0	11	0	0	0	0	0	17
04:45 PM	0	4	6	0	10	0	0	0	0	0	5	3	0	0	8	0	0	0	0	0	18
Total Volume	0	15	17	0	32	0	0	0	0	0	24	11	0	0	35	0	0	0	0	0	67
% App. Total	0	46.9	53.1	0		0	0	0	0		68.6	31.4	0	0		0	0	0	0	0	
PHF	.000	.750	.708	.000	.800	.000	.000	.000	.000	.000	.750	.917	.000	.000	.795	.000	.000	.000	.000	.000	.931
Unshifted	0	15	17	0	32	0	0	0	0	0	24	11	0	0	35	0	0	0	0	0	67
% Unshifted	0	100	100	0	100	0	0	0	0	0	100	100	0	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



3495 Winton Place, Building E, Suite 110
Rochester, New York 14623

File Name : Victor Restaurant B - SAT

Site Code : 11111111

Start Date : 3/27/2021

Page No : 1

Groups Printed- Unshifted - Bank 1 - Bank 2

[illegible]

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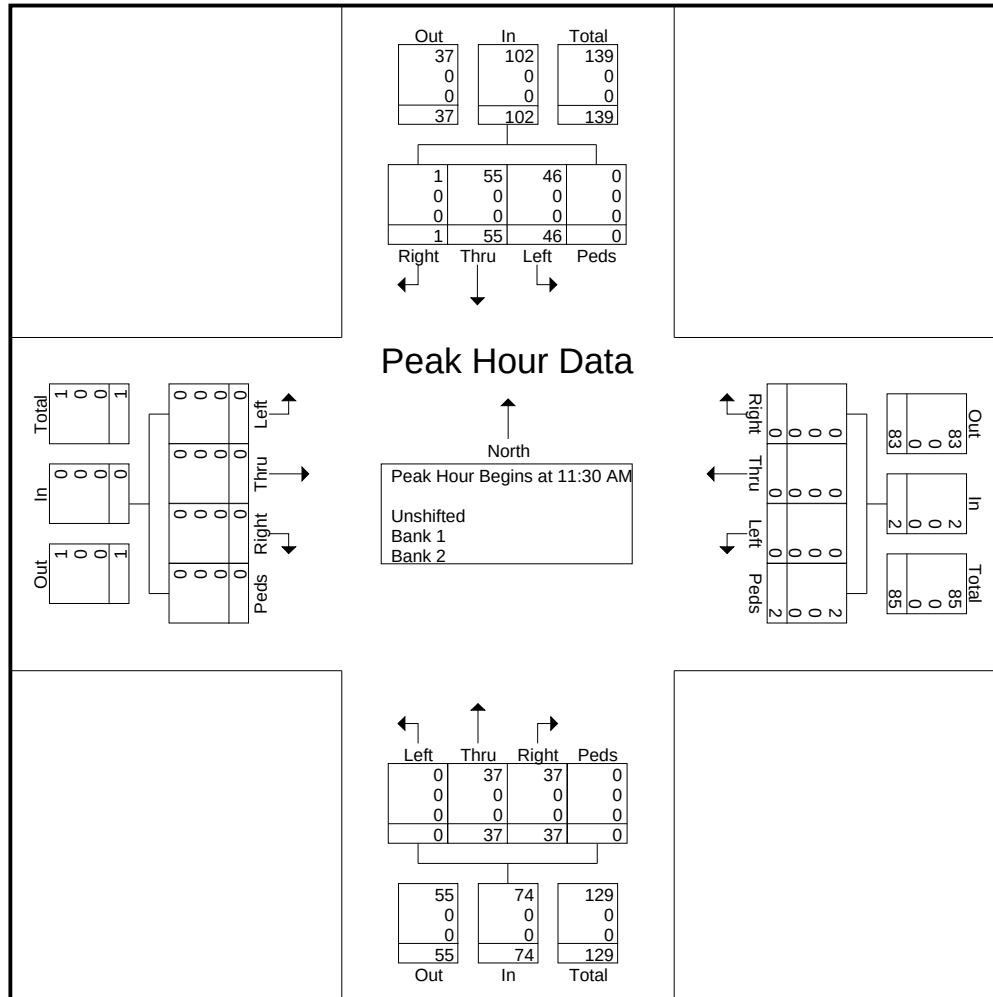
File Name : Victor Restaurant B - SAT

Site Code : 11111111

Start Date : 3/27/2021

Page No : 2

	Southbound					Westbound					Northbound					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 11:30 AM to 12:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:30 AM																					
11:30 AM	1	14	8	0	23	0	0	0	2	2	9	6	0	0	15	0	0	0	0	0	40
11:45 AM	0	12	11	0	23	0	0	0	0	0	7	10	0	0	17	0	0	0	0	0	40
12:00 PM	0	19	13	0	32	0	0	0	0	0	10	9	0	0	19	0	0	0	0	0	51
12:15 PM	0	10	14	0	24	0	0	0	0	0	11	12	0	0	23	0	0	0	0	0	47
Total Volume	1	55	46	0	102	0	0	0	2	2	37	37	0	0	74	0	0	0	0	0	178
% App. Total	1	53.9	45.1	0		0	0	0	100		50	50	0	0		0	0	0	0		
PHF	.250	.724	.821	.000	.797	.000	.000	.000	.250	.250	.841	.771	.000	.000	.804	.000	.000	.000	.000	.000	.873
Unshifted	1	55	46	0	102	0	0	0	2	2	37	37	0	0	74	0	0	0	0	0	178
% Unshifted	100	100	100	0	100	0	0	0	100	100	100	100	0	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



A2

Miscellaneous Traffic Data and Calculations



Proposed Towne Center, Town of Manlius, Onondaga County, NY

Documentation of Ambient Traffic Volume Growth

Roadway	Segment starts at	Segment end at	Location	2004	2006	2008	2010	2015	Annual Growth
E Genesee Street	End of 92 OLAP	Burdick St	Fayetteville, NY	20,300	34,550	23,394	23,300	23,207	1.22%
W Genesee Street	Burdick St	Highbridge St	Fayetteville, NY	28,800	29,440	28,920	28,950	22,665	-2.15%
W Genesee Street	Highbridge St	Salt Springs Rd	Fayetteville, NY	22,100	22,610	21,230	21,238	21,239	-0.36%

Location	Size (SF)	Exist Data				Rate per SF			
		PM		SAT		PM		SAT	
		Entry	Exit	Entry	Exit	Entry	Exit	Entry	Exit
Cicero Restaurant A	2500	44	41	52	45	0.0176	0.0164	0.0208	0.018
		Site Trips							
		PM		SAT					
		Entry	Exit	Entry	Exit				
Fayetteville	2410	42	40	50	43				

Location	Size (SF)	Exist Data				Rate per SF			
		PM		SAT		PM		SAT	
		Entry	Exit	Entry	Exit	Entry	Exit	Entry	Exit
Victor Restaurant B	3910	26	41	92	83	0.00665	0.010486	0.023529	0.021228
		Site Trips							
		PM		SAT					
		Entry	Exit	Entry	Exit				
Fayetteville	4500	30	47	106	96				

**PROPOSED RESTAURANTS
TOWN OF MANLIUS, NY
PM PEAK**



FIG 3

FIG 4

FIG 6

FIG 7

FIG 8

Num of yrs

1

LOCATION NUMBER	INTERSECTION DESCRIPTION	Chase Bank Build Volumes	2021 Existing Volume	Bkgd Volume 1.0%	Proposed Restaurants				Pass-by Trips	Total Site Trips	Full Build Volumes
					Enter Dist. %	Exit Dist. %	Trips IN 40	Trips OUT 48			
1	N Burdick Street/ E/W Genesee St.										
	SR	169	171	173							173
	ST	147	148	149		2%		1		1	150
	SL	567	573	579		5%		2		2	581
	WR	446	450	455					-4	-4	451
	WT	528	533	538	37%		15		4	19	557
	WL	22	22	22							22
	NR	32	32	32							32
	NT	36	36	36							36
	NL	36	37	37	2%		1			1	38
2	N Burdick Street/ Driveway 1										
	SR	91	92	93	31%		12		9	21	114
	ST	623	629	635					-9	-9	626
	SL										
	WR										
	WT										
	WL										
	NR										
	NT	431	435	439					-4	-4	435
	NL	200	202	204							204
3	N Burdick Street/ Driveway 2										
	SR	84	85	86							86
	ST	665	672	679	31%		12			12	691
	SL										
	WR										
	WT										
	WL										
	NR										
	NT	372	375	379		18%		9	4	13	392
	NL	85	86	87							87
4	N Burdick Street/ Driveway 3										
	SR	87	88	89							89
	ST	649	656	663	31%		12			12	675
	SL										
	WR										
	WT										
	WL										
	NR										
	NT	372	375	379		18%		9	4	13	392
	NL	81	82	83							83
	ER	99	100	101							101
	ET										
	EL	37	37	37							37

**PROPOSED RESTAURANTS
TOWN OF MANLIUS, NY
PM PEAK**



FIG 3

FIG 4

FIG 6

FIG 7

FIG 8

Num of yrs

1

LOCATION NUMBER	INTERSECTION DESCRIPTION	Chase Bank Build Volumes	2021 Existing Volume	Bkgd Volume 1.0%	Proposed Restaurants				Pass-by Trips	Total Site Trips	Full Build Volumes
					Enter Dist. %	Exit Dist. %	Trips IN 40	Trips OUT 48			
5	N Burdick Street/ Driveway 4										
	SR ST SL	88 756	89 764	90 772	31%		12			12	90 784
	WR WT WL										
	NR NT NL	479 37	483 37	488 37		18%		9	4	13	501 37
	ER ET EL	18 41	18 41	18 41							18 41
6	W Genesee St./ Easterly TC Dwy										
	SR ST SL	130	131	132		10%		5	7	12	144
	WR WT WL	72 642	73 648	74 654	32% 7%		13 3		10 -6	23 -3	97 651
	NR NT NL										
	ER ET EL	895 21	904 21	913 21		40%		19		19	932 21
7	W Genesee St./ Westerly TC Dwy										
	SR ST SL	202 59	204 60	206 61		25% 40%		12 19	7 8	19 27	225 88
	WR WT WL	28 717	28 724	28 731	7% 10%		3 5		1	3 6	31 737
	NR NT NL										
	ER ET EL	850 321	859 324	868 327		30%		12	-13 13	-13 25	855 352

**PROPOSED RESTAURANTS
TOWN OF MANLIUS, NY
SATURDAY PEAK**



FIG 3

FIG 4

FIG 6

FIG 7

FIG 8

Num of yrs
1

LOCATION NUMBER	INTERSECTION DESCRIPTION	Chase Bank Build Volumes	2021 Existing Volume	Bkgd Volume 1.0%	Proposed Restaurants				Pass-by Trips	Total Site Trips	Full Build Volumes
					Enter Dist. %	Exit Dist. %	Trips IN 86	Trips OUT 76			
1	N Burdick Street/ E/W Genesee St.										
	SR	130	131	132							132
	ST	115	116	117		2%		2		2	119
	SL	481	486	491		6%		5	-1	4	495
	WR	588	594	600	43%		37		-14	-14	586
	WT	596	602	608					14	51	659
	WL	60	61	62							62
	NR	36	36	36							36
	NT	42	42	42							42
	NL	69	70	71	3%		2			2	73
2	ER	37	37	37		4%		3		3	40
	ET	498	503	508		31%		24	-15	9	517
	EL	145	146	147							147
	N Burdick Street/ Driveway 1										
	SR	83	84	85	25%		22		14	36	121
	ST	424	428	432					-14	-14	418
	SL										
	WR										
	WT										
	WL										
3	NR										
	NT	473	478	483					-14	-14	469
	NL	304	307	310							310
	ER	268	271	274		8%		6	13	19	293
	ET										
	EL	29	30	30		22%		17	11	28	58
	N Burdick Street/ Driveway 2										
	SR	78	79	80							80
	ST	493	498	503	25%		22			22	525
	SL										
4	WR										
	WT										
	WL										
	NR										
	NT	418	422	426		22%		17	-3	14	440
	NL	81	82	83							83
	ER	43	43	43							43
	ET										
	EL	84	85	86							86
	N Burdick Street/ Driveway 3										
5	SR	75	76	77							77
	ST	458	463	468	25%		22			22	490
	SL										
	WR										
	WT										
	WL										
	NR										
	NT	418	422	426		22%		17	-3	14	440
	NL	83	84	85							85
	ER	118	119	120							120
6	ET										
	EL	63	64	65							65

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FIG 8

LOCATION NUMBER	INTERSECTION DESCRIPTION	Chase Bank Build Volumes	2021 Existing Volume	Bkgd Volume 1.0%	Proposed Restaurants				Pass-by Trips	Total Site Trips	Full Build Volumes
					Enter Dist. %	Exit Dist. %	Trips IN 86	Trips OUT 76			
5	N Burdick Street/ Driveway 4										
	SR ST SL	70 494	71 499	72 504	25%		22			22	72 526
	WR WT WL										
	NR NT NL	432 48	437 48	441 48		22%		17	-3	14	455 48
	ER ET EL	19 54	19 55	19 56							19 56
6	W Genesee St./ Easterly TC Dwy										
	SR ST SL	162	164	166		10%		7	13	20	186
	WR WT WL	96 702	97 709	98 716	37% 9%		31 8		29 -15	60 -7	158 709
	NR NT NL										
	ER ET EL	717 13	724 13	731 13		35%		27		27	758 13
7	W Genesee St/ Westerly TC Dwy										
	SR ST SL	293 87	296 88	299 89		25% 35%		19 27	14 12	33 39	332 128
	WR WT WL	49 771	50 779	51 787	9% 10%		8 7		-2	8 5	59 792
	NR NT NL										
	ER ET EL	637 412	643 416	649 420	29%		25		-27 27	-27 52	622 472

A3

Level of Service: Criteria and Definitions

Level of Service Criteria

Highway Capacity Manual 2016

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

Lanes, Volumes, Timings
1: S Burdick St/N Burdick St & Genesee Street/Genesee St
2021 Base Conditions - PM Peak Hour

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰			↰	↰		↰		↰	↰	↰
Traffic Volume (vph)	122	727	28	22	533	450	37	36	32	573	148	171
Future Volume (vph)	122	727	28	22	533	450	37	36	32	573	148	171
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		0	0		140	0		0	0		400
Storage Lanes	1		0	0		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.995				0.850		0.959				0.850
Flt Protected	0.950				0.998		0.983		0.950	0.971		
Satd. Flow (prot)	1787	3592	0	0	3569	1599	0	1773	0	1715	1746	1568
Flt Permitted	0.950				0.893		0.722		0.950	0.971		
Satd. Flow (perm)	1787	3592	0	0	3193	1599	0	1302	0	1715	1746	1568
Right Turn on Red		Yes			Yes		Yes		Yes		Yes	
Satd. Flow (RTOR)		5			475		16				167	
Link Speed (mph)	40				30		30			30		
Link Distance (ft)	371				476		308			670		
Travel Time (s)	6.3				10.8		7.0			15.2		
Peak Hour Factor	0.95	0.95	0.95	0.89	0.89	0.89	0.84	0.84	0.84	0.95	0.95	0.95
Heavy Vehicles (%)	1%	0%	0%	0%	1%	0%	3%	0%	0%	1%	3%	
Adj. Flow (vph)	128	765	29	25	599	506	44	43	38	603	156	180
Shared Lane Traffic (%)										38%		
Lane Group Flow (vph)	128	794	0	0	624	506	0	125	0	374	385	180
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)	12				12			24			24	
Link Offset(ft)	0				0			0			0	
Crosswalk Width(ft)	16				16			16			16	
Two way Left Turn Lane	Yes									Yes		
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	1	2		1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100		20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6		20	6	20
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+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	0.0
Detector 1 Queue (s)	0.0	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	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Perm	NA	pt+ov	Perm	NA		Split	NA	pt+ov
Protected Phases	1	6			2	2 3		4		3	3	3 1

Lanes, Volumes, Timings
1: S Burdick St/N Burdick St & Genesee Street/Genesee St
2021 Base Conditions - PM Peak Hour

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases				2			4					
Detector Phase	1	6		2	2	2 3	4	4		3	3	3 1
Switch Phase												
Minimum Initial (s)	4.0	20.0		10.0	10.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	12.0	26.0		33.0	33.0		10.0	10.0		12.0	12.0	
Total Split (s)	26.0	59.0		33.0	33.0		15.0	15.0		36.0	36.0	
Total Split (%)	23.6%	53.6%		30.0%	30.0%		13.6%	13.6%		32.7%	32.7%	
Maximum Green (s)	20.0	53.0		27.0	27.0		9.0	9.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
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	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	1.0	4.0		4.0	4.0		1.0	1.0		1.0	1.0	
Recall Mode	None	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)				7.0	7.0		7.0	7.0				
Flash Dont Walk (s)				20.0	20.0		20.0	20.0				
Pedestrian Calls (#/hr)				0	0		0	0				
Act Effct Green (s)	11.3	53.9		36.6	70.0		10.7			27.4	27.4	38.7
Actuated g/C Ratio	0.10	0.49		0.33	0.64		0.10			0.25	0.25	0.35
v/c Ratio	0.70	0.45		0.59	0.43		0.89			0.88	0.89	0.27
Control Delay	69.2	17.7		34.3	2.3		95.3			61.4	62.3	3.3
Queue Delay	0.0	0.0		0.0	0.0		0.0			0.0	0.0	0.0
Total Delay	69.2	17.7		34.3	2.3		95.3			61.4	62.3	3.3
LOS	E	B		C	A		F			E	E	A
Approach Delay		24.9			20.0			95.3			50.6	
Approach LOS		C			B			F			D	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 64 (58%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 33.7

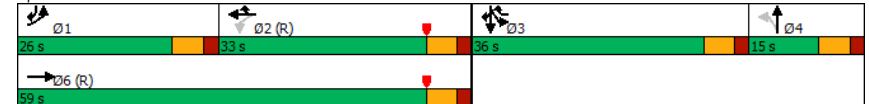
Intersection LOS: C

Intersection Capacity Utilization 82.0%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 1: S Burdick St/N Burdick St & Genesee Street/Genesee St



Lanes, Volumes, Timings
2: N Burdick St & Driveway #1

Fayetteville Towne Center Expansion
2021 Base Conditions - PM Peak Hour

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	24	285	202	435	629	92
Future Volume (vph)	24	285	202	435	629	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	120			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor						
Frt		0.850			0.981	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1805	1599	1805	1881	3511	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1805	1599	1805	1881	3511	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	342			670	878	
Travel Time (s)	7.8			15.2	20.0	
Confl. Peds. (#/hr)	3					
Peak Hour Factor	0.85	0.85	0.91	0.91	0.94	0.94
Heavy Vehicles (%)	0%	1%	0%	1%	1%	0%
Adj. Flow (vph)	28	335	222	478	669	98
Shared Lane Traffic (%)						
Lane Group Flow (vph)	28	335	222	478	767	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
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 44.8%	ICU Level of Service A					
Analysis Period (min) 15						

HCM 6th TWSC
2: N Burdick St & Driveway #1

Fayetteville Towne Center Expansion
2021 Base Conditions - PM Peak Hour

Intersection						
Int Delay, s/veh	4.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	24	285	202	435	629	92
Future Vol, veh/h	24	285	202	435	629	92
Conflicting Peds, #/hr	3	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	91	91	94	94
Heavy Vehicles, %	0	1	0	1	1	0
Mvmt Flow	28	335	222	478	669	98

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1643	384	767	0	-	0
Stage 1	718	-	-	-	-	-
Stage 2	925	-	-	-	-	-
Critical Hdwy	6.6	6.915	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.53.3095	2.2	-	-	-	-
Pot Cap-1 Maneuver	101	617	856	-	-	-
Stage 1	449	-	-	-	-	-
Stage 2	389	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	75	617	856	-	-	-
Mov Cap-2 Maneuver	198	-	-	-	-	-
Stage 1	333	-	-	-	-	-
Stage 2	389	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.3	3.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	856	-	198	617	-	-
HCM Lane V/C Ratio	0.259	-	0.143	0.543	-	-
HCM Control Delay (s)	10.7	-	26.2	17.6	-	-
HCM Lane LOS	B	-	D	C	-	-
HCM 95th %tile Q(veh)	1	-	0.5	3.3	-	-

Lanes, Volumes, Timings
3: N Burdick St & Driveway #2

Fayetteville Towne Center Expansion
2021 Base Conditions - PM Peak Hour

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	81	60	86	375	672	85
Future Volume (vph)	81	60	86	375	672	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	160			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor						
Frt		0.850			0.983	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1805	1615	1805	1881	3517	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1805	1615	1805	1881	3517	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	411			878	327	
Travel Time (s)	9.3			20.0	7.4	
Confl. Peds. (#/hr)	48					
Peak Hour Factor	0.78	0.78	0.92	0.92	0.97	0.97
Heavy Vehicles (%)	0%	0%	0%	1%	1%	0%
Adj. Flow (vph)	104	77	93	408	693	88
Shared Lane Traffic (%)						
Lane Group Flow (vph)	104	77	93	408	781	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
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 40.5%	ICU Level of Service A					
Analysis Period (min) 15						

HCM 6th TWSC
3: N Burdick St & Driveway #2

Fayetteville Towne Center Expansion
2021 Base Conditions - PM Peak Hour

Intersection						
Int Delay, s/veh	3.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	81	60	86	375	672	85
Future Vol, veh/h	81	60	86	375	672	85
Conflicting Peds, #/hr	48	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	160	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	78	78	92	92	97	97
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	104	77	93	408	693	88

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1379	391	781	0	-	0
Stage 1	737	-	-	-	-	-
Stage 2	642	-	-	-	-	-
Critical Hdwy	6.6	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	149	614	845	-	-	-
Stage 1	439	-	-	-	-	-
Stage 2	528	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	133	614	845	-	-	-
Mov Cap-2 Maneuver	264	-	-	-	-	-
Stage 1	391	-	-	-	-	-
Stage 2	528	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.6	1.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	845	-	264	614	-	-
HCM Lane V/C Ratio	0.111	-	0.393	0.125	-	-
HCM Control Delay (s)	9.8	-	27.2	11.7	-	-
HCM Lane LOS	A	-	D	B	-	-
HCM 95th %tile Q(veh)	0.4	-	1.8	0.4	-	-

Lanes, Volumes, Timings
4: N Burdick St & Driveway #3

Fayetteville Towne Center Expansion
2021 Base Conditions - PM Peak Hour

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	37	100	82	375	656	88
Future Volume (vph)	37	100	82	375	656	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	170			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Frt	0.902				0.982	
Flt Protected	0.987		0.950			
Satd. Flow (prot)	1679	0	1805	1881	3545	0
Flt Permitted	0.987		0.950			
Satd. Flow (perm)	1679	0	1805	1881	3545	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	336			327	381	
Travel Time (s)	7.6			7.4	8.7	
Peak Hour Factor	0.89	0.89	0.86	0.86	0.93	0.93
Heavy Vehicles (%)	0%	1%	0%	1%	0%	0%
Adj. Flow (vph)	42	112	95	436	705	95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	154	0	95	436	800	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
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	43.7%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
4: N Burdick St & Driveway #3

Fayetteville Towne Center Expansion
2021 Base Conditions - PM Peak Hour

Intersection						
Int Delay, s/veh	2.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	37	100	82	375	656	88
Future Vol, veh/h	37	100	82	375	656	88
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	-	170	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	86	86	93	93
Heavy Vehicles, %	0	1	0	1	0	0
Mvmt Flow	42	112	95	436	705	95

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1379	400	800	0	-	0
Stage 1	753	-	-	-	-	-
Stage 2	626	-	-	-	-	-
Critical Hdwy	6.6	6.915	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.53.3095	2.2	-	-	-	-
Pot Cap-1 Maneuver	149	603	832	-	-	-
Stage 1	431	-	-	-	-	-
Stage 2	537	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	132	603	832	-	-	-
Mov Cap-2 Maneuver	262	-	-	-	-	-
Stage 1	382	-	-	-	-	-
Stage 2	537	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.3	1.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT EBLn1	SBT	SBR
Capacity (veh/h)	832	-	446	-
HCM Lane V/C Ratio	0.115	-	0.345	-
HCM Control Delay (s)	9.9	-	17.3	-
HCM Lane LOS	A	-	C	-
HCM 95th %tile Q(veh)	0.4	-	1.5	-

Lanes, Volumes, Timings
5: N Burdick St & Driveway #4

Fayetteville Towne Center Expansion
2021 Base Conditions - PM Peak Hour

	↖	↗	↖	↗	↖	↗
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↖	↗
Traffic Volume (vph)	41	18	37	483	764	89
Future Volume (vph)	41	18	37	483	764	89
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	160			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor						
Frt		0.850			0.984	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1805	1615	1752	1863	3521	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1805	1615	1752	1863	3521	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	367			381	550	
Travel Time (s)	8.3			8.7	12.5	
Confl. Peds. (#/hr)			3			
Peak Hour Factor	0.74	0.74	0.90	0.90	0.91	0.91
Heavy Vehicles (%)	0%	0%	3%	2%	1%	0%
Adj. Flow (vph)	55	24	41	537	840	98
Shared Lane Traffic (%)						
Lane Group Flow (vph)	55	24	41	537	938	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
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 40.6%	ICU Level of Service A					
Analysis Period (min) 15						

HCM 6th TWSC
5: N Burdick St & Driveway #4

Fayetteville Towne Center Expansion
2021 Base Conditions - PM Peak Hour

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↖	↗
Traffic Vol, veh/h	41	18	37	483	764	89
Future Vol, veh/h	41	18	37	483	764	89
Conflicting Peds, #/hr	0	0	3	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	160			-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	90	90	91	91
Heavy Vehicles, %	0	0	3	2	1	0
Mvmt Flow	55	24	41	537	840	98

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1511	472	941	0	-	0
Stage 1	892	-	-	-	-	-
Stage 2	619	-	-	-	-	-
Critical Hdwy	6.6	6.9	4.145	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2285	-	-	-
Pot Cap-1 Maneuver	123	544	721	-	-	-
Stage 1	366	-	-	-	-	-
Stage 2	541	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	115	543	719	-	-	-
Mov Cap-2 Maneuver	241	-	-	-	-	-
Stage 1	344	-	-	-	-	-
Stage 2	540	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.5	0.7	0
HCM LOS	C		

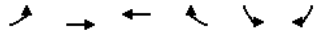
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	719	-	241	543	-	-
HCM Lane V/C Ratio	0.057	-	0.23	0.045	-	-
HCM Control Delay (s)	10.3	-	24.3	11.9	-	-
HCM Lane LOS	B	-	C	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.9	0.1	-	-

Lanes, Volumes, Timings

6: Genesee Street & Easterly TC Dwy

Fayetteville Towne Center Expansion

2021 Base Conditions - PM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Volume (vph)	0	904	648	73	0	131
Future Volume (vph)	0	904	648	73	0	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.985			0.865
Flt Protected						
Satd. Flow (prot)	0	3610	3524	0	0	1627
Flt Permitted						
Satd. Flow (perm)	0	3610	3524	0	0	1627
Link Speed (mph)		40	40		30	
Link Distance (ft)		867	371		330	
Travel Time (s)		14.8	6.3		7.5	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.90	0.90
Heavy Vehicles (%)	0%	0%	1%	0%	0%	1%
Adj. Flow (vph)	0	942	675	76	0	146
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	942	751	0	0	146
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane		Yes	Yes			
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 35.0%

ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC

6: Genesee Street & Easterly TC Dwy

Fayetteville Towne Center Expansion

2021 Base Conditions - PM Peak Hour

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	904	648	73	0	131
Future Vol, veh/h	0	904	648	73	0	131
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	96	96	96	96	90	90
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	0	942	675	76	0	146

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	376
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	6.92
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.31
Pot Cap-1 Maneuver	0	-	-	0	624
Stage 1	0	-	-	0	-
Stage 2	0	-	-	0	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	624
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	624
HCM Lane V/C Ratio	-	-	-	0.233
HCM Control Delay (s)	-	-	-	12.5
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.9

Lanes, Volumes, Timings

7: Genesee Street & Westerly TC Dwy

Fayetteville Towne Center Expansion

2021 Base Conditions - PM Peak Hour

	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↩	↩↩	↩↩		↩	↩↩
Traffic Volume (vph)	324	859	724	28	60	204
Future Volume (vph)	324	859	724	28	60	204
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	195			0	0	0
Storage Lanes	1			0	1	2
Taper Length (ft)	105				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	0.88
Frt			0.995			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1787	3610	3547	0	1805	2814
Flt Permitted	0.300				0.950	
Satd. Flow (perm)	564	3610	3547	0	1805	2814
Right Turn on Red				Yes		No
Satd. Flow (RTOR)			4			
Link Speed (mph)		40	40		30	
Link Distance (ft)		399	867		623	
Travel Time (s)		6.8	14.8		14.2	
Peak Hour Factor	0.94	0.94	0.95	0.95	0.90	0.90
Heavy Vehicles (%)	1%	0%	1%	8%	0%	1%
Adj. Flow (vph)	345	914	762	29	67	227
Shared Lane Traffic (%)						
Lane Group Flow (vph)	345	914	791	0	67	227
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane			Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Number of Detectors	1	2	2		1	1
Detector Template	Left	Thru	Thru		Left	Right
Leading Detector (ft)	20	100	100		20	20
Trailing Detector (ft)	0	0	0		0	0
Detector 1 Position(ft)	0	0	0		0	0
Detector 1 Size(ft)	20	6	6		20	20
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		CI+Ex	CI+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	pm+pt	NA	NA		Prot	pt+ov
Protected Phases	1	6	2		4	4 1

Lanes, Volumes, Timings

7: Genesee Street & Westerly TC Dwy

Fayetteville Towne Center Expansion

2021 Base Conditions - PM Peak Hour

	EBL	EBT	WBT	WBR	SBL	SBR
Permitted Phases	6					
Detector Phase	1	6	2		4	4 1
Switch Phase						
Minimum Initial (s)	4.0	15.0	15.0		4.0	
Minimum Split (s)	10.0	21.0	21.0		20.0	
Total Split (s)	28.0	82.0	54.0		28.0	
Total Split (%)	25.5%	74.5%	49.1%		25.5%	
Maximum Green (s)	22.0	76.0	48.0		22.0	
Yellow Time (s)	4.0	4.0	4.0		4.0	
All-Red Time (s)	2.0	2.0	2.0		2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	
Total Lost Time (s)	6.0	6.0	6.0		6.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	1.0	4.0	4.0		1.0	
Recall Mode	None	C-Max	C-Max		None	
Act Effct Green (s)	87.1	87.1	71.3		10.9	26.7
Actuated g/C Ratio	0.79	0.79	0.65		0.10	0.24
v/c Ratio	0.62	0.32	0.34		0.37	0.33
Control Delay	8.4	3.7	4.1		51.6	34.5
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	8.4	3.7	4.1		51.6	34.5
LOS	A	A	A		D	C
Approach Delay		5.0	4.1		38.4	
Approach LOS		A	A		D	

Intersection Summary	
Area Type:	Other
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 8.9	Intersection LOS: A
Intersection Capacity Utilization 57.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 7: Genesee Street & Westerly TC Dwy



Lanes, Volumes, Timings

Proposed Fayetteville Towne Center Expansion

1: S Burdick St/N Burdick St & Genesee Street/Genesee St 2021 Base Conditions - SAT Peak Hour

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰			↰	↰		↰		↰	↰	↰
Traffic Volume (vph)	146	503	37	61	602	594	70	42	36	486	116	131
Future Volume (vph)	146	503	37	61	602	594	70	42	36	486	116	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		0	0		140	0		0	0		400
Storage Lanes	1		0	0		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.990				0.850			0.967			0.850
Flt Protected	0.950				0.995			0.977		0.950	0.970	
Satd. Flow (prot)	1787	3567	0	0	3592	1615	0	1795	0	1715	1751	1599
Flt Permitted	0.950				0.816			0.689		0.950	0.970	
Satd. Flow (perm)	1787	3567	0	0	2946	1615	0	1266	0	1715	1751	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10				404		12				104
Link Speed (mph)	40				30			30			30	
Link Distance (ft)	398				380			412			686	
Travel Time (s)	6.8				8.6			9.4			15.6	
Peak Hour Factor	0.91	0.91	0.91	0.94	0.94	0.94	0.91	0.91	0.91	0.95	0.95	0.95
Heavy Vehicles (%)	1%	0%	3%	0%	0%	0%	0%	0%	0%	0%	0%	1%
Adj. Flow (vph)	160	553	41	65	640	632	77	46	40	512	122	138
Shared Lane Traffic (%)										39%		
Lane Group Flow (vph)	160	594	0	0	705	632	0	163	0	312	322	138
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)	12				12			24			24	
Link Offset(ft)	0				0			0			0	
Crosswalk Width(ft)	16				16			16			16	
Two way Left Turn Lane											Yes	
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	1	2		1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100		20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6		20	6	20
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+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	0.0
Detector 1 Queue (s)	0.0	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	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Perm	NA	pt+ov	Perm	NA		Split	NA	pt+ov
Protected Phases	1	6			2	2 3		4		3	3	3 1

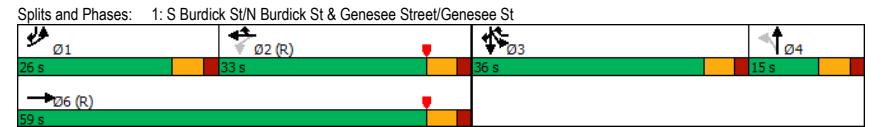
Lanes, Volumes, Timings

Proposed Fayetteville Towne Center Expansion

1: S Burdick St/N Burdick St & Genesee Street/Genesee St 2021 Base Conditions - SAT Peak Hour

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases				2			4					
Detector Phase	1	6		2	2	2 3	4	4		3	3	3 1
Switch Phase												
Minimum Initial (s)	4.0	20.0		10.0	10.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	12.0	26.0		33.0	33.0		10.0	10.0		12.0	12.0	
Total Split (s)	26.0	59.0		33.0	33.0		15.0	15.0		36.0	36.0	
Total Split (%)	23.6%	53.6%		30.0%	30.0%		13.6%	13.6%		32.7%	32.7%	
Maximum Green (s)	20.0	53.0		27.0	27.0		9.0	9.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
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	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	1.0	4.0		4.0	4.0		1.0	1.0		1.0	1.0	
Recall Mode	None	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)		7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)				20.0	20.0		20.0	20.0				
Pedestrian Calls (#/hr)				0	0		0	0				
Act Effect Green (s)	13.3	53.0		33.7	64.7		14.1			24.9	24.9	38.2
Actuated g/C Ratio	0.12	0.48		0.31	0.59		0.13			0.23	0.23	0.35
v/c Ratio	0.74	0.34		0.78	0.57		0.95			0.80	0.81	0.22
Control Delay	72.4	15.6		42.9	6.5		103.8			55.7	56.1	4.3
Queue Delay	0.0	0.0		0.0	0.0		0.0			0.0	0.0	0.0
Total Delay	72.4	15.6		42.9	6.5		103.8			55.7	56.1	4.3
LOS	E	B		D	A		F			E	E	A
Approach Delay		27.7			25.7		103.8				46.7	
Approach LOS		C			C		F				D	

Intersection Summary	
Area Type:	Other
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 64 (58%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 35.7	Intersection LOS: D
Intersection Capacity Utilization 76.7%	ICU Level of Service D
Analysis Period (min) 15	



Lanes, Volumes, Timings
2: N Burdick St & Driveway #1

Proposed Fayetteville Towne Center Expansion
2021 Base Conditions - SAT Peak Hour

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Traffic Volume (vph)	30	271	307	478	428	84
Future Volume (vph)	30	271	307	478	428	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	120			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Frt		0.850			0.975	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1805	1615	1805	1900	3520	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1805	1615	1805	1900	3520	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	344			686	888	
Travel Time (s)	7.8			15.6	20.2	
Peak Hour Factor	0.94	0.94	0.91	0.91	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	32	288	337	525	481	94
Shared Lane Traffic (%)						
Lane Group Flow (vph)	32	288	337	525	575	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
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	44.9%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
2: N Burdick St & Driveway #1

Proposed Fayetteville Towne Center Expansion
2021 Base Conditions - SAT Peak Hour

Intersection						
Int Delay, s/veh	4.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↱	↱	↱
Traffic Vol, veh/h	30	271	307	478	428	84
Future Vol, veh/h	30	271	307	478	428	84
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	91	91	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	32	288	337	525	481	94

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1727	288	575	0	-	0
Stage 1	528	-	-	-	-	-
Stage 2	1199	-	-	-	-	-
Critical Hdwy	6.6	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	90	715	1008	-	-	-
Stage 1	562	-	-	-	-	-
Stage 2	288	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	60	715	1008	-	-	-
Mov Cap-2 Maneuver	175	-	-	-	-	-
Stage 1	374	-	-	-	-	-
Stage 2	288	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.1	4.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1008	-	175	715	-	-
HCM Lane V/C Ratio	0.335	-	0.182	0.403	-	-
HCM Control Delay (s)	10.4	-	30.1	13.4	-	-
HCM Lane LOS	B	-	D	B	-	-
HCM 95th %tile Q(veh)	1.5	-	0.6	2	-	-

Lanes, Volumes, Timings
3: N Burdick St & Driveway #2

Proposed Fayetteville Towne Center Expansion
2021 Base Conditions - SAT Peak Hour

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	85	43	82	422	498	79
Future Volume (vph)	85	43	82	422	498	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	160			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor						
Frt		0.850			0.979	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1805	1615	1805	1900	3504	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1805	1615	1805	1900	3504	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	427			888	335	
Travel Time (s)	9.7			20.2	7.6	
Confl. Peds. (#/hr)	48					
Peak Hour Factor	0.77	0.77	0.93	0.93	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	110	56	88	454	547	87
Shared Lane Traffic (%)						
Lane Group Flow (vph)	110	56	88	454	634	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
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 35.5%	ICU Level of Service A					
Analysis Period (min) 15						

HCM 6th TWSC
3: N Burdick St & Driveway #2

Proposed Fayetteville Towne Center Expansion
2021 Base Conditions - SAT Peak Hour

Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	85	43	82	422	498	79
Future Vol, veh/h	85	43	82	422	498	79
Conflicting Peds, #/hr	48	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	160	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	93	93	91	91
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	110	56	88	454	547	87

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1269	317	634	0	-	0
Stage 1	591	-	-	-	-	-
Stage 2	678	-	-	-	-	-
Critical Hdwy	6.6	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	175	685	959	-	-	-
Stage 1	522	-	-	-	-	-
Stage 2	508	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	159	685	959	-	-	-
Mov Cap-2 Maneuver	296	-	-	-	-	-
Stage 1	474	-	-	-	-	-
Stage 2	508	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.7	1.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	959	-	296	685	-	-
HCM Lane V/C Ratio	0.092	-	0.373	0.082	-	-
HCM Control Delay (s)	9.1	-	24.2	10.7	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.3	-	1.7	0.3	-	-

Lanes, Volumes, Timings
4: N Burdick St & Driveway #3

Proposed Fayetteville Towne Center Expansion
2021 Base Conditions - SAT Peak Hour

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	64	119	84	422	463	76
Future Volume (vph)	64	119	84	422	463	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	170			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Frt	0.912				0.979	
Flt Protected	0.983		0.950			
Satd. Flow (prot)	1703	0	1805	1900	3534	0
Flt Permitted	0.983		0.950			
Satd. Flow (perm)	1703	0	1805	1900	3534	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	325			335	359	
Travel Time (s)	7.4			7.6	8.2	
Peak Hour Factor	0.90	0.90	0.89	0.89	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	71	132	94	474	493	81
Shared Lane Traffic (%)						
Lane Group Flow (vph)	203	0	94	474	574	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
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	40.7%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
4: N Burdick St & Driveway #3

Proposed Fayetteville Towne Center Expansion
2021 Base Conditions - SAT Peak Hour

Intersection						
Int Delay, s/veh	3.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔
Traffic Vol, veh/h	64	119	84	422	463	76
Future Vol, veh/h	64	119	84	422	463	76
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	-	170	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	89	89	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	71	132	94	474	493	81

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1196	287	574	0	-	0
Stage 1	534	-	-	-	-	-
Stage 2	662	-	-	-	-	-
Critical Hdwy	6.6	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	194	716	1009	-	-	-
Stage 1	558	-	-	-	-	-
Stage 2	517	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	176	716	1009	-	-	-
Mov Cap-2 Maneuver	314	-	-	-	-	-
Stage 1	506	-	-	-	-	-
Stage 2	517	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.2	1.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT EBLn1	SBT	SBR
Capacity (veh/h)	1009	-	495	-
HCM Lane V/C Ratio	0.094	-	0.411	-
HCM Control Delay (s)	8.9	-	17.2	-
HCM Lane LOS	A	-	C	-
HCM 95th %tile Q(veh)	0.3	-	2	-

Lanes, Volumes, Timings
5: N Burdick St & Driveway #4

Proposed Fayetteville Towne Center Expansion
2021 Base Conditions - SAT Peak Hour

	↖	↗	↖	↗	↖	↗
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↖	↗
Traffic Volume (vph)	55	19	48	437	499	71
Future Volume (vph)	55	19	48	437	499	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	160			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor						
Frt		0.850			0.981	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1805	1615	1805	1900	3480	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1805	1615	1805	1900	3480	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	306			359	446	
Travel Time (s)	7.0			8.2	10.1	
Confl. Peds. (#/hr)			3			
Peak Hour Factor	0.86	0.86	0.94	0.94	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	0%	2%	0%
Adj. Flow (vph)	64	22	51	465	520	74
Shared Lane Traffic (%)						
Lane Group Flow (vph)	64	22	51	465	594	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
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 33.0%	ICU Level of Service A					
Analysis Period (min) 15						

HCM 6th TWSC
5: N Burdick St & Driveway #4

Proposed Fayetteville Towne Center Expansion
2021 Base Conditions - SAT Peak Hour

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↖	↗
Traffic Vol, veh/h	55	19	48	437	499	71
Future Vol, veh/h	55	19	48	437	499	71
Conflicting Peds, #/hr	0	0	3	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	160	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	94	94	96	96
Heavy Vehicles, %	0	0	0	0	2	0
Mvmt Flow	64	22	51	465	520	74

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1127	300	597	0	-	0
Stage 1	560	-	-	-	-	-
Stage 2	567	-	-	-	-	-
Critical Hdwy	6.6	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	214	702	989	-	-	-
Stage 1	541	-	-	-	-	-
Stage 2	572	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	202	700	987	-	-	-
Mov Cap-2 Maneuver	338	-	-	-	-	-
Stage 1	512	-	-	-	-	-
Stage 2	571	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.1	0.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	987	-	338	700	-	-
HCM Lane V/C Ratio	0.052	-	0.189	0.032	-	-
HCM Control Delay (s)	8.8	-	18.1	10.3	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.7	0.1	-	-

6: Genesee Street & Easterly TC Dwy

2021 Base Conditions - SAT Peak Hour

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	39.5%
Analysis Period (min)	15
	ICU Level of Service A

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6: Genesee Street & Easterly TC Dwy

2021 Base Conditions - SAT Peak Hour

Major/Minor	Major1	Major2	Minor2	
Conflicting Flow All	-	0	-	0 416
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	- 6.92
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	- 3.31
Pot Cap-1 Maneuver	0	-	-	0 588
Stage 1	0	-	-	0 -
Stage 2	0	-	-	0 -
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	- 588
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Minor Lane/Major Mvmt	EBT	WBT	WBR SBLn1
Capacity (veh/h)	-	-	588
HCM Lane V/C Ratio	-	-	0.306
HCM Control Delay (s)	-	-	13.8
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	1.3

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Lanes, Volumes, Timings

7: Genesee Street & Westerly TC Dwy

Proposed Fayetteville Towne Center Expansion

2021 Base Conditions - SAT Peak Hour

	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↩	↩↩	↩↩		↩	↩↩
Traffic Volume (vph)	416	643	779	50	88	296
Future Volume (vph)	416	643	779	50	88	296
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	195			0	0	0
Storage Lanes	1			0	1	2
Taper Length (ft)	105				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	0.88
Frt			0.991			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1805	3574	3544	0	1770	2842
Flt Permitted	0.254				0.950	
Satd. Flow (perm)	483	3574	3544	0	1770	2842
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			8			167
Link Speed (mph)		40	40		30	
Link Distance (ft)		505	861		601	
Travel Time (s)		8.6	14.7		13.7	
Peak Hour Factor	0.85	0.85	0.97	0.97	0.88	0.88
Heavy Vehicles (%)	0%	1%	1%	0%	2%	0%
Adj. Flow (vph)	489	756	803	52	100	336
Shared Lane Traffic (%)						
Lane Group Flow (vph)	489	756	855	0	100	336
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
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	15	9
Number of Detectors	1	2	2		1	1
Detector Template	Left	Thru	Thru		Left	Right
Leading Detector (ft)	20	100	100		20	20
Trailing Detector (ft)	0	0	0		0	0
Detector 1 Position(ft)	0	0	0		0	0
Detector 1 Size(ft)	20	6	6		20	20
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		CI+Ex	CI+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	pm+pt	NA	NA		Prot	pt+ov
Protected Phases	1	6	2		4	4 1

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Lanes, Volumes, Timings

7: Genesee Street & Westerly TC Dwy

Proposed Fayetteville Towne Center Expansion

2021 Base Conditions - SAT Peak Hour

	EBL	EBT	WBT	WBR	SBL	SBR
Permitted Phases	6					
Detector Phase	1	6	2		4	4 1
Switch Phase						
Minimum Initial (s)	4.0	15.0	15.0		4.0	
Minimum Split (s)	10.0	22.0	22.0		22.0	
Total Split (s)	28.0	82.0	54.0		28.0	
Total Split (%)	25.5%	74.5%	49.1%		25.5%	
Maximum Green (s)	22.0	76.0	48.0		22.0	
Yellow Time (s)	4.0	4.0	4.0		4.0	
All-Red Time (s)	2.0	2.0	2.0		2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	
Total Lost Time (s)	6.0	6.0	6.0		6.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	1.0	4.0	4.0		1.0	
Recall Mode	None	C-Max	C-Max		None	
Act Effct Green (s)	88.3	88.3	62.5		9.7	35.5
Actuated g/C Ratio	0.80	0.80	0.57		0.09	0.32
v/c Ratio	0.78	0.26	0.42		0.65	0.33
Control Delay	16.3	3.2	8.8		66.5	12.8
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	16.3	3.2	8.8		66.5	12.8
LOS	B	A	A		E	B
Approach Delay		8.3	8.8		25.1	
Approach LOS		A	A		C	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 11.4

Intersection LOS: B

Intersection Capacity Utilization 66.0%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 7: Genesee Street & Westerly TC Dwy



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Level of Service Calculations: Background Conditions

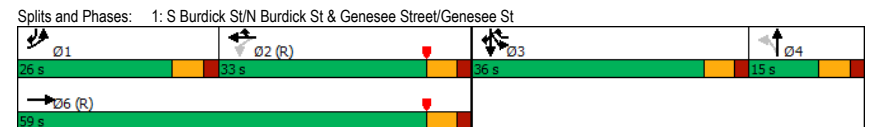
Lanes, Volumes, Timings Proposed Fayetteville Towne Center Expansion
1: S Burdick St/N Burdick St & Genesee Street/Genesee St 2022 Background Conditions - PM Peak Hour

	↖	→	↗	↖	←	↖	↖	↖	↖	↖	↖	↖
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖			↖	↖		↖	↖	↖	↖	↖
Traffic Volume (vph)	123	734	28	22	538	455	37	36	32	579	149	173
Future Volume (vph)	123	734	28	22	538	455	37	36	32	579	149	173
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		0	0		140	0		0	0		400
Storage Lanes	1		0	0		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.995				0.850			0.959			0.850
Flt Protected	0.950				0.998			0.983		0.950	0.971	
Satd. Flow (prot)	1787	3592	0	0	3569	1599	0	1773	0	1715	1746	1568
Flt Permitted	0.950				0.893			0.721		0.950	0.971	
Satd. Flow (perm)	1787	3592	0	0	3193	1599	0	1300	0	1715	1746	1568
Right Turn on Red		Yes			Yes			Yes		Yes		Yes
Satd. Flow (RTOR)		5				473		16				166
Link Speed (mph)	40				30			30			30	
Link Distance (ft)	371				476			308			670	
Travel Time (s)	6.3				10.8			7.0			15.2	
Peak Hour Factor	0.95	0.95	0.95	0.89	0.89	0.89	0.84	0.84	0.84	0.95	0.95	0.95
Heavy Vehicles (%)	1%	0%	0%	0%	1%	1%	0%	3%	0%	0%	1%	3%
Adj. Flow (vph)	129	773	29	25	604	511	44	43	38	609	157	182
Shared Lane Traffic (%)										38%		
Lane Group Flow (vph)	129	802	0	0	629	511	0	125	0	378	388	182
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)	12				12			24			24	
Link Offset(ft)	0				0			0			0	
Crosswalk Width(ft)	16				16			16			16	
Two way Left Turn Lane	Yes									Yes		
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	1	2		1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100		20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6		20	6	20
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+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	0.0
Detector 1 Queue (s)	0.0	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	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Perm	NA	pt+ov	Perm	NA		Split	NA	pt+ov
Protected Phases	1	6			2	2 3		4		3	3	3 1

Lanes, Volumes, Timings Proposed Fayetteville Towne Center Expansion
1: S Burdick St/N Burdick St & Genesee Street/Genesee St 2022 Background Conditions - PM Peak Hour

	↖	→	↗	↖	←	↖	↖	↖	↖	↖	↖	↖
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases				2			4					
Detector Phase	1	6		2	2	2 3	4	4		3	3	3 1
Switch Phase												
Minimum Initial (s)	4.0	20.0		10.0	10.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	12.0	26.0		33.0	33.0		10.0	10.0		12.0	12.0	
Total Split (s)	26.0	59.0		33.0	33.0		15.0	15.0		36.0	36.0	
Total Split (%)	23.6%	53.6%		30.0%	30.0%		13.6%	13.6%		32.7%	32.7%	
Maximum Green (s)	20.0	53.0		27.0	27.0		9.0	9.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
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	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	1.0	4.0		4.0	4.0		1.0	1.0		1.0	1.0	
Recall Mode	None	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)				7.0	7.0		7.0	7.0				
Flash Dont Walk (s)				20.0	20.0		20.0	20.0				
Pedestrian Calls (#/hr)				0	0		0	0				
Act Effect Green (s)	11.4	53.8		36.4	69.9		10.7			27.5	27.5	38.9
Actuated g/C Ratio	0.10	0.49		0.33	0.64		0.10			0.25	0.25	0.35
v/c Ratio	0.70	0.46		0.60	0.43		0.89			0.88	0.89	0.28
Control Delay	68.7	17.8		34.5	2.4		96.2			62.2	62.8	3.4
Queue Delay	0.0	0.0		0.0	0.0		0.0			0.0	0.0	0.0
Total Delay	68.7	17.8		34.5	2.4		96.2			62.2	62.8	3.4
LOS	E	B		C	A		F			E	E	A
Approach Delay		24.9			20.1			96.2			51.2	
Approach LOS		C			C			F			D	

Intersection Summary	
Area Type:	Other
Cycle Length:	110
Actuated Cycle Length:	110
Offset:	64 (58%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.89
Intersection Signal Delay:	33.9
Intersection Capacity Utilization	82.5%
Analysis Period (min)	15
Intersection LOS:	C
ICU Level of Service	E



Lanes, Volumes, Timings
2: N Burdick St & Driveway #1

Proposed Fayetteville Towne Center Expansion
2022 Background Conditions - PM Peak Hour

	↖	↗	↖	↗	↖	↗
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↖	↗
Traffic Volume (vph)	24	288	204	439	635	93
Future Volume (vph)	24	288	204	439	635	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	120			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor						
Frt		0.850			0.981	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1805	1599	1805	1881	3511	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1805	1599	1805	1881	3511	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	342			670	878	
Travel Time (s)	7.8			15.2	20.0	
Confl. Peds. (#/hr)	3					
Peak Hour Factor	0.85	0.85	0.91	0.91	0.94	0.94
Heavy Vehicles (%)	0%	1%	0%	1%	1%	0%
Adj. Flow (vph)	28	339	224	482	676	99
Shared Lane Traffic (%)						
Lane Group Flow (vph)	28	339	224	482	775	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
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 45.2%	ICU Level of Service A					
Analysis Period (min) 15						

HCM 6th TWSC
2: N Burdick St & Driveway #1

Proposed Fayetteville Towne Center Expansion
2022 Background Conditions - PM Peak Hour

Intersection						
Int Delay, s/veh	5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↖	↗
Traffic Vol, veh/h	24	288	204	439	635	93
Future Vol, veh/h	24	288	204	439	635	93
Conflicting Peds, #/hr	3	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	120			-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	91	91	94	94
Heavy Vehicles, %	0	1	0	1	1	0
Mvmt Flow	28	339	224	482	676	99

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1659	388	775	0	-	0
Stage 1	726	-	-	-	-	-
Stage 2	933	-	-	-	-	-
Critical Hdwy	6.6	6.915	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.53.3095	2.2	-	-	-	-
Pot Cap-1 Maneuver	99	614	850	-	-	-
Stage 1	445	-	-	-	-	-
Stage 2	386	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	73	614	850	-	-	-
Mov Cap-2 Maneuver	195	-	-	-	-	-
Stage 1	328	-	-	-	-	-
Stage 2	386	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.5	3.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	850	-	195	614	-	-
HCM Lane V/C Ratio	0.264	-	0.145	0.552	-	-
HCM Control Delay (s)	10.7	-	26.6	17.8	-	-
HCM Lane LOS	B	-	D	C	-	-
HCM 95th %tile Q(veh)	1.1	-	0.5	3.4	-	-

Lanes, Volumes, Timings
3: N Burdick St & Driveway #2

Proposed Fayetteville Towne Center Expansion
2022 Background Conditions - PM Peak Hour

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	82	61	87	379	679	86
Future Volume (vph)	82	61	87	379	679	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	160			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor						
Frt		0.850			0.983	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1805	1615	1805	1881	3517	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1805	1615	1805	1881	3517	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	411			878	327	
Travel Time (s)	9.3			20.0	7.4	
Confl. Peds. (#/hr)	48					
Peak Hour Factor	0.78	0.78	0.92	0.92	0.97	0.97
Heavy Vehicles (%)	0%	0%	0%	1%	1%	0%
Adj. Flow (vph)	105	78	95	412	700	89
Shared Lane Traffic (%)						
Lane Group Flow (vph)	105	78	95	412	789	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
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 40.9%	ICU Level of Service A					
Analysis Period (min) 15						

HCM 6th TWSC
3: N Burdick St & Driveway #2

Proposed Fayetteville Towne Center Expansion
2022 Background Conditions - PM Peak Hour

Intersection						
Int Delay, s/veh	3.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	82	61	87	379	679	86
Future Vol, veh/h	82	61	87	379	679	86
Conflicting Peds, #/hr	48	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	160			-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	78	78	92	92	97	97
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	105	78	95	412	700	89

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1395	395	789	0	-	0
Stage 1	745	-	-	-	-	-
Stage 2	650	-	-	-	-	-
Critical Hdwy	6.6	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	146	610	840	-	-	-
Stage 1	435	-	-	-	-	-
Stage 2	523	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	130	610	840	-	-	-
Mov Cap-2 Maneuver	260	-	-	-	-	-
Stage 1	386	-	-	-	-	-
Stage 2	523	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	21	1.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	840	-	260	610	-	-
HCM Lane V/C Ratio	0.113	-	0.404	0.128	-	-
HCM Control Delay (s)	9.8	-	27.9	11.8	-	-
HCM Lane LOS	A	-	D	B	-	-
HCM 95th %tile Q(veh)	0.4	-	1.9	0.4	-	-

Lanes, Volumes, Timings
4: N Burdick St & Driveway #3

Proposed Fayetteville Towne Center Expansion
2022 Background Conditions - PM Peak Hour

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	37	101	83	379	663	89
Future Volume (vph)	37	101	83	379	663	89
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	170			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Frt	0.902				0.982	
Flt Protected	0.987		0.950			
Satd. Flow (prot)	1679	0	1805	1881	3545	0
Flt Permitted	0.987		0.950			
Satd. Flow (perm)	1679	0	1805	1881	3545	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	336			327	381	
Travel Time (s)	7.6			7.4	8.7	
Peak Hour Factor	0.89	0.89	0.86	0.86	0.93	0.93
Heavy Vehicles (%)	0%	1%	0%	1%	0%	0%
Adj. Flow (vph)	42	113	97	441	713	96
Shared Lane Traffic (%)						
Lane Group Flow (vph)	155	0	97	441	809	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
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	44.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
4: N Burdick St & Driveway #3

Proposed Fayetteville Towne Center Expansion
2022 Background Conditions - PM Peak Hour

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	37	101	83	379	663	89
Future Vol, veh/h	37	101	83	379	663	89
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	170	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	86	86	93	93
Heavy Vehicles, %	0	1	0	1	0	0
Mvmt Flow	42	113	97	441	713	96

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1396	405	809	0	-	0
Stage 1	761	-	-	-	-	-
Stage 2	635	-	-	-	-	-
Critical Hdwy	6.6	6.915	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.53.3095	2.2	-	-	-	-
Pot Cap-1 Maneuver	145	598	825	-	-	-
Stage 1	427	-	-	-	-	-
Stage 2	532	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	128	598	825	-	-	-
Mov Cap-2 Maneuver	257	-	-	-	-	-
Stage 1	377	-	-	-	-	-
Stage 2	532	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.5	1.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT EBLn1	SBT	SBR
Capacity (veh/h)	825	-	441	-
HCM Lane V/C Ratio	0.117	-	0.352	-
HCM Control Delay (s)	9.9	-	17.5	-
HCM Lane LOS	A	-	C	-
HCM 95th %tile Q(veh)	0.4	-	1.6	-

Lanes, Volumes, Timings
5: N Burdick St & Driveway #4

Proposed Fayetteville Towne Center Expansion
2022 Background Conditions - PM Peak Hour

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	41	18	37	488	772	90
Future Volume (vph)	41	18	37	488	772	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	160			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor						
Frt		0.850			0.984	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1805	1615	1752	1863	3521	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1805	1615	1752	1863	3521	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	367			381	550	
Travel Time (s)	8.3			8.7	12.5	
Confl. Peds. (#/hr)			3			
Peak Hour Factor	0.74	0.74	0.90	0.90	0.91	0.91
Heavy Vehicles (%)	0%	0%	3%	2%	1%	0%
Adj. Flow (vph)	55	24	41	542	848	99
Shared Lane Traffic (%)						
Lane Group Flow (vph)	55	24	41	542	947	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
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 40.7%	ICU Level of Service A					
Analysis Period (min) 15						

HCM 6th TWSC
5: N Burdick St & Driveway #4

Proposed Fayetteville Towne Center Expansion
2022 Background Conditions - PM Peak Hour

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	41	18	37	488	772	90
Future Vol, veh/h	41	18	37	488	772	90
Conflicting Peds, #/hr	0	0	3	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	160	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	90	90	91	91
Heavy Vehicles, %	0	0	3	2	1	0
Mvmt Flow	55	24	41	542	848	99

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1525	477	950	0	-	0
Stage 1	901	-	-	-	-	-
Stage 2	624	-	-	-	-	-
Critical Hdwy	6.6	6.9	4.145	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2285	-	-	-
Pot Cap-1 Maneuver	120	540	716	-	-	-
Stage 1	362	-	-	-	-	-
Stage 2	538	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	113	539	714	-	-	-
Mov Cap-2 Maneuver	238	-	-	-	-	-
Stage 1	341	-	-	-	-	-
Stage 2	537	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.8	0.7	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	714	-	238	539	-	-
HCM Lane V/C Ratio	0.058	-	0.233	0.045	-	-
HCM Control Delay (s)	10.3	-	24.7	12	-	-
HCM Lane LOS	B	-	C	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.9	0.1	-	-

Lanes, Volumes, Timings

6: Genesee Street & Easterly TC Dwy

Proposed Fayetteville Towne Center Expansion

2022 Background Conditions - PM Peak Hour

	↗	→	←	↖	↘	↙
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↕			↗
Traffic Volume (vph)	0	913	654	74	0	132
Future Volume (vph)	0	913	654	74	0	132
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.985			0.865
Flt Protected						
Satd. Flow (prot)	0	3610	3524	0	0	1627
Flt Permitted						
Satd. Flow (perm)	0	3610	3524	0	0	1627
Link Speed (mph)		40	40		30	
Link Distance (ft)		867	371		330	
Travel Time (s)		14.8	6.3		7.5	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.90	0.90
Heavy Vehicles (%)	0%	0%	1%	0%	0%	1%
Adj. Flow (vph)	0	951	681	77	0	147
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	951	758	0	0	147
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane		Yes	Yes			
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 35.3%

ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC

6: Genesee Street & Easterly TC Dwy

Proposed Fayetteville Towne Center Expansion

2022 Background Conditions - PM Peak Hour

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↕			↗
Traffic Vol, veh/h	0	913	654	74	0	132
Future Vol, veh/h	0	913	654	74	0	132
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	96	96	96	96	90	90
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	0	951	681	77	0	147

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.6
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	622
HCM Lane V/C Ratio	-	-	-	0.236
HCM Control Delay (s)	-	-	-	12.6
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.9

Lanes, Volumes, Timings

7: Genesee Street & Westerly TC Dwy

Proposed Fayetteville Towne Center Expansion

2022 Background Conditions - PM Peak Hour

	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↰↰	↰↰		↰	↰↰
Traffic Volume (vph)	327	868	731	28	61	206
Future Volume (vph)	327	868	731	28	61	206
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	195			0	0	0
Storage Lanes	1			0	1	2
Taper Length (ft)	105				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	0.88
Frt			0.995			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1787	3610	3547	0	1805	2814
Flt Permitted	0.296				0.950	
Satd. Flow (perm)	557	3610	3547	0	1805	2814
Right Turn on Red				Yes		No
Satd. Flow (RTOR)			4			
Link Speed (mph)		40	40		30	
Link Distance (ft)		399	867		623	
Travel Time (s)		6.8	14.8		14.2	
Peak Hour Factor	0.94	0.94	0.95	0.95	0.90	0.90
Heavy Vehicles (%)	1%	0%	1%	8%	0%	1%
Adj. Flow (vph)	348	923	769	29	68	229
Shared Lane Traffic (%)						
Lane Group Flow (vph)	348	923	798	0	68	229
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane			Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Number of Detectors	1	2	2		1	1
Detector Template	Left	Thru	Thru		Left	Right
Leading Detector (ft)	20	100	100		20	20
Trailing Detector (ft)	0	0	0		0	0
Detector 1 Position(ft)	0	0	0		0	0
Detector 1 Size(ft)	20	6	6		20	20
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		CI+Ex	CI+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	pm+pt	NA	NA		Prot	pt+ov
Protected Phases	1	6	2		4	4 1

Lanes, Volumes, Timings

7: Genesee Street & Westerly TC Dwy

Proposed Fayetteville Towne Center Expansion

2022 Background Conditions - PM Peak Hour

	EBL	EBT	WBT	WBR	SBL	SBR
Permitted Phases	6					
Detector Phase	1	6	2		4	4 1
Switch Phase						
Minimum Initial (s)	4.0	15.0	15.0		4.0	
Minimum Split (s)	10.0	21.0	21.0		20.0	
Total Split (s)	28.0	82.0	54.0		28.0	
Total Split (%)	25.5%	74.5%	49.1%		25.5%	
Maximum Green (s)	22.0	76.0	48.0		22.0	
Yellow Time (s)	4.0	4.0	4.0		4.0	
All-Red Time (s)	2.0	2.0	2.0		2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	
Total Lost Time (s)	6.0	6.0	6.0		6.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	1.0	4.0	4.0		1.0	
Recall Mode	None	C-Max	C-Max		None	
Act Effct Green (s)	87.0	87.0	71.1		11.0	26.9
Actuated g/C Ratio	0.79	0.79	0.65		0.10	0.24
v/c Ratio	0.63	0.32	0.35		0.38	0.33
Control Delay	8.7	3.7	4.1		51.7	34.4
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	8.7	3.7	4.1		51.7	34.4
LOS	A	A	A		D	C
Approach Delay		5.1	4.1		38.3	
Approach LOS		A	A		D	

Intersection Summary	
Area Type:	Other
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 8.9	Intersection LOS: A
Intersection Capacity Utilization 57.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 7: Genesee Street & Westerly TC Dwy



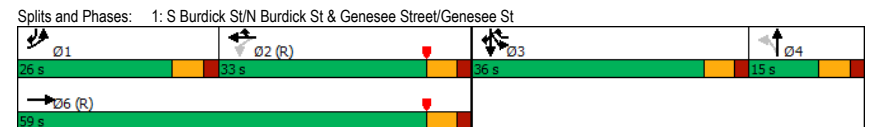
Lanes, Volumes, Timings Proposed Fayetteville Towne Center Expansion
1: S Burdick St/N Burdick St & Genesee Street/Genesee St 2022 Background Conditions - SAT Peak Hour

	↖	→	↗	↘	↙	↘	↙	↘	↙	↘	↙	↘
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖			↖	↖		↖		↖	↖	↖
Traffic Volume (vph)	147	508	37	62	608	600	71	42	36	491	117	132
Future Volume (vph)	147	508	37	62	608	600	71	42	36	491	117	132
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		0	0		140	0		0	0		400
Storage Lanes	1		0	0		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.990				0.850			0.967			0.850
Flt Protected	0.950				0.995			0.977		0.950	0.970	
Satd. Flow (prot)	1787	3567	0	0	3592	1615	0	1795	0	1715	1751	1599
Flt Permitted	0.950				0.814			0.686		0.950	0.970	
Satd. Flow (perm)	1787	3567	0	0	2939	1615	0	1260	0	1715	1751	1599
Right Turn on Red		Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)		9				401		11			102	
Link Speed (mph)	40				30			30			30	
Link Distance (ft)	398				380			412			686	
Travel Time (s)	6.8				8.6			9.4			15.6	
Peak Hour Factor	0.91	0.91	0.91	0.94	0.94	0.94	0.91	0.91	0.91	0.95	0.95	0.95
Heavy Vehicles (%)	1%	0%	3%	0%	0%	0%	0%	0%	0%	0%	0%	1%
Adj. Flow (vph)	162	558	41	66	647	638	78	46	40	517	123	139
Shared Lane Traffic (%)										39%		
Lane Group Flow (vph)	162	599	0	0	713	638	0	164	0	315	325	139
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)	12				12			24			24	
Link Offset(ft)	0				0			0			0	
Crosswalk Width(ft)	16				16			16			16	
Two way Left Turn Lane										Yes		
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	1	2		1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100		20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6		20	6	20
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+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	0.0
Detector 1 Queue (s)	0.0	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	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Perm	NA	pt+ov	Perm	NA		Split	NA	pt+ov
Protected Phases	1	6			2	2 3		4		3	3	3 1

Lanes, Volumes, Timings Proposed Fayetteville Towne Center Expansion
1: S Burdick St/N Burdick St & Genesee Street/Genesee St 2022 Background Conditions - SAT Peak Hour

	↖	→	↗	↘	↙	↘	↙	↘	↙	↘	↙	↘
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases				2			4					
Detector Phase	1	6		2	2	2 3	4	4		3	3	3 1
Switch Phase												
Minimum Initial (s)	4.0	20.0		10.0	10.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	12.0	26.0		33.0	33.0		10.0	10.0		12.0	12.0	
Total Split (s)	26.0	59.0		33.0	33.0		15.0	15.0		36.0	36.0	
Total Split (%)	23.6%	53.6%		30.0%	30.0%		13.6%	13.6%		32.7%	32.7%	
Maximum Green (s)	20.0	53.0		27.0	27.0		9.0	9.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
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	
Total Lost Time (s)	6.0	6.0			6.0			6.0		6.0	6.0	
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	1.0	4.0		4.0	4.0		1.0	1.0		1.0	1.0	
Recall Mode	None	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)				7.0	7.0		7.0	7.0				
Flash Dont Walk (s)				20.0	20.0		20.0	20.0				
Pedestrian Calls (#/hr)				0	0		0	0				
Act Effect Green (s)	13.4	53.0		33.6	64.7		14.0			25.0	25.0	38.4
Actuated g/C Ratio	0.12	0.48		0.31	0.59		0.13			0.23	0.23	0.35
v/c Ratio	0.75	0.35		0.79	0.57		0.97			0.81	0.82	0.22
Control Delay	72.3	15.7		43.7	6.7		109.2			56.0	56.5	4.5
Queue Delay	0.0	0.0		0.0	0.0		0.0			0.0	0.0	0.0
Total Delay	72.3	15.7		43.7	6.7		109.2			56.0	56.5	4.5
LOS	E	B		D	A		F			E	E	A
Approach Delay		27.8			26.2			109.2			47.0	
Approach LOS		C			C			F			D	

Intersection Summary	
Area Type:	Other
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 64 (58%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 36.4	Intersection LOS: D
Intersection Capacity Utilization 77.2%	ICU Level of Service D
Analysis Period (min) 15	



Lanes, Volumes, Timings
2: N Burdick St & Driveway #1

Proposed Fayetteville Towne Center Expansion
2022 Background Conditions - SAT Peak Hour

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Traffic Volume (vph)	30	274	310	483	432	85
Future Volume (vph)	30	274	310	483	432	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	120			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Frt		0.850			0.975	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1805	1615	1805	1900	3520	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1805	1615	1805	1900	3520	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	344			686	888	
Travel Time (s)	7.8			15.6	20.2	
Peak Hour Factor	0.94	0.94	0.91	0.91	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	32	291	341	531	485	96
Shared Lane Traffic (%)						
Lane Group Flow (vph)	32	291	341	531	581	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
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	45.2%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
2: N Burdick St & Driveway #1

Proposed Fayetteville Towne Center Expansion
2022 Background Conditions - SAT Peak Hour

Intersection						
Int Delay, s/veh	4.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔
Traffic Vol, veh/h	30	274	310	483	432	85
Future Vol, veh/h	30	274	310	483	432	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	120		-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	91	91	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	32	291	341	531	485	96

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1746	291	581	0	-	0
Stage 1	533	-	-	-	-	-
Stage 2	1213	-	-	-	-	-
Critical Hdwy	6.6	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	87	712	1003	-	-	-
Stage 1	558	-	-	-	-	-
Stage 2	284	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	57	712	1003	-	-	-
Mov Cap-2 Maneuver	172	-	-	-	-	-
Stage 1	368	-	-	-	-	-
Stage 2	284	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.2	4.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1003	-	172	712	-	-
HCM Lane V/C Ratio	0.34	-	0.186	0.409	-	-
HCM Control Delay (s)	10.4	-	30.6	13.5	-	-
HCM Lane LOS	B	-	D	B	-	-
HCM 95th %tile Q(veh)	1.5	-	0.7	2	-	-

Lanes, Volumes, Timings
3: N Burdick St & Driveway #2

Proposed Fayetteville Towne Center Expansion
2022 Background Conditions - SAT Peak Hour

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	86	43	83	426	503	80
Future Volume (vph)	86	43	83	426	503	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	160			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor						
Frt		0.850			0.979	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1805	1615	1805	1900	3504	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1805	1615	1805	1900	3504	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	427			888	335	
Travel Time (s)	9.7			20.2	7.6	
Confl. Peds. (#/hr)	48					
Peak Hour Factor	0.77	0.77	0.93	0.93	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	112	56	89	458	553	88
Shared Lane Traffic (%)						
Lane Group Flow (vph)	112	56	89	458	641	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
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 35.8%	ICU Level of Service A					
Analysis Period (min) 15						

HCM 6th TWSC
3: N Burdick St & Driveway #2

Proposed Fayetteville Towne Center Expansion
2022 Background Conditions - SAT Peak Hour

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	86	43	83	426	503	80
Future Vol, veh/h	86	43	83	426	503	80
Conflicting Peds, #/hr	48	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	160	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	93	93	91	91
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	112	56	89	458	553	88

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1281	321	641	0	-	0
Stage 1	597	-	-	-	-	-
Stage 2	684	-	-	-	-	-
Critical Hdwy	6.6	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	172	681	953	-	-	-
Stage 1	518	-	-	-	-	-
Stage 2	505	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	156	681	953	-	-	-
Mov Cap-2 Maneuver	293	-	-	-	-	-
Stage 1	470	-	-	-	-	-
Stage 2	505	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.1	1.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	953	-	293	681	-	-
HCM Lane V/C Ratio	0.094	-	0.381	0.082	-	-
HCM Control Delay (s)	9.2	-	24.7	10.8	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.3	-	1.7	0.3	-	-

Lanes, Volumes, Timings
4: N Burdick St & Driveway #3

Proposed Fayetteville Towne Center Expansion
2022 Background Conditions - SAT Peak Hour

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	65	120	85	426	468	77
Future Volume (vph)	65	120	85	426	468	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	170			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Frt	0.912				0.979	
Flt Protected	0.983		0.950			
Satd. Flow (prot)	1703	0	1805	1900	3534	0
Flt Permitted	0.983		0.950			
Satd. Flow (perm)	1703	0	1805	1900	3534	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	325			335	359	
Travel Time (s)	7.4			7.6	8.2	
Peak Hour Factor	0.90	0.90	0.89	0.89	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	72	133	96	479	498	82
Shared Lane Traffic (%)						
Lane Group Flow (vph)	205	0	96	479	580	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
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	41.1%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
4: N Burdick St & Driveway #3

Proposed Fayetteville Towne Center Expansion
2022 Background Conditions - SAT Peak Hour

Intersection						
Int Delay, s/veh	3.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	65	120	85	426	468	77
Future Vol, veh/h	65	120	85	426	468	77
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	-	170	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	89	89	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	72	133	96	479	498	82

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1210	290	580
Stage 1	539	-	-
Stage 2	671	-	-
Critical Hdwy	6.6	6.9	4.1
Critical Hdwy Stg 1	5.8	-	-
Critical Hdwy Stg 2	5.4	-	-
Follow-up Hdwy	3.5	3.3	2.2
Pot Cap-1 Maneuver	190	713	1004
Stage 1	555	-	-
Stage 2	512	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	172	713	1004
Mov Cap-2 Maneuver	310	-	-
Stage 1	502	-	-
Stage 2	512	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.6	1.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT EBLn1	SBT	SBR
Capacity (veh/h)	1004	-	489	-
HCM Lane V/C Ratio	0.095	-	0.42	-
HCM Control Delay (s)	9	-	17.6	-
HCM Lane LOS	A	-	C	-
HCM 95th %tile Q(veh)	0.3	-	2.1	-

Lanes, Volumes, Timings
5: N Burdick St & Driveway #4

Proposed Fayetteville Towne Center Expansion
2022 Background Conditions - SAT Peak Hour

	↖	↗	↖	↗	↘	↙
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↘	↙
Traffic Volume (vph)	56	19	48	441	504	72
Future Volume (vph)	56	19	48	441	504	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	160			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor						
Frt		0.850			0.981	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1805	1615	1805	1900	3481	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1805	1615	1805	1900	3481	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	306			359	446	
Travel Time (s)	7.0			8.2	10.1	
Confl. Peds. (#/hr)			3			
Peak Hour Factor	0.86	0.86	0.94	0.94	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	0%	2%	0%
Adj. Flow (vph)	65	22	51	469	525	75
Shared Lane Traffic (%)						
Lane Group Flow (vph)	65	22	51	469	600	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
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 33.2%	ICU Level of Service A					
Analysis Period (min) 15						

HCM 6th TWSC
5: N Burdick St & Driveway #4

Proposed Fayetteville Towne Center Expansion
2022 Background Conditions - SAT Peak Hour

Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↘	↙
Traffic Vol, veh/h	56	19	48	441	504	72
Future Vol, veh/h	56	19	48	441	504	72
Conflicting Peds, #/hr	0	0	3	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	160			-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	94	94	96	96
Heavy Vehicles, %	0	0	0	0	2	0
Mvmt Flow	65	22	51	469	525	75

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1137	303	603	0	-	0
Stage 1	566	-	-	-	-	-
Stage 2	571	-	-	-	-	-
Critical Hdwy	6.6	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	211	699	984	-	-	-
Stage 1	537	-	-	-	-	-
Stage 2	569	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	199	697	982	-	-	-
Mov Cap-2 Maneuver	335	-	-	-	-	-
Stage 1	508	-	-	-	-	-
Stage 2	568	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.3	0.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	982	-	335	697	-	-
HCM Lane V/C Ratio	0.052	-	0.194	0.032	-	-
HCM Control Delay (s)	8.9	-	18.3	10.3	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.7	0.1	-	-

Proposed Fayetteville Towne Center Expansion

6: Genesee Street & Easterly TC Dwy

2022 Background Conditions - SAT Peak Hour

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	731	716	98	0	166
Future Volume (vph)	0	731	716	98	0	166
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.982			0.865
Flt Protected						
Satd. Flow (prot)	0	3574	3541	0	0	1627
Flt Permitted						
Satd. Flow (perm)	0	3574	3541	0	0	1627
Link Speed (mph)		40	40		30	
Link Distance (ft)		861	398		418	
Travel Time (s)		14.7	6.8		9.5	
Peak Hour Factor	0.88	0.88	0.97	0.97	0.91	0.91
Heavy Vehicles (%)	0%	1%	0%	1%	0%	1%
Adj. Flow (vph)	0	831	738	101	0	182
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	831	839	0	0	182
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		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 39.9%	ICU Level of Service A
---	------------------------

Analysis Period (min) 15

HCM 6th TWSC

Proposed Fayetteville Towne Center Expansion

6: Genesee Street & Easterly TC Dwy

2022 Background Conditions - SAT Peak Hour

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	731	716	98	0	166
Future Vol, veh/h	0	731	716	98	0	166
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	88	88	97	97	91	91
Heavy Vehicles, %	0	1	0	1	0	1
Mvmt Flow	0	831	738	101	0	182

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	- 0 - 420
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - 6.92
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - 3.31
Pot Cap-1 Maneuver	0	-	- - 0 585
Stage 1	0	-	- - 0 -
Stage 2	0	-	- - 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - 585
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.9
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR SBLn1
Capacity (veh/h)	-	-	585
HCM Lane V/C Ratio	-	-	0.312
HCM Control Delay (s)	-	-	13.9
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	1.3

Lanes, Volumes, Timings

7: Genesee Street & Westerly TC Dwy

Proposed Fayetteville Towne Center Expansion

2022 Background Conditions - SAT Peak Hour

	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↩	↩↩	↩↩		↩	↩↩
Traffic Volume (vph)	420	649	787	51	89	299
Future Volume (vph)	420	649	787	51	89	299
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	195			0	0	0
Storage Lanes	1			0	1	2
Taper Length (ft)	105				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	0.88
Frt			0.991			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1805	3574	3544	0	1770	2842
Flt Permitted	0.249				0.950	
Satd. Flow (perm)	473	3574	3544	0	1770	2842
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			8			163
Link Speed (mph)		40	40		30	
Link Distance (ft)		505	861		601	
Travel Time (s)		8.6	14.7		13.7	
Peak Hour Factor	0.85	0.85	0.97	0.97	0.88	0.88
Heavy Vehicles (%)	0%	1%	1%	0%	2%	0%
Adj. Flow (vph)	494	764	811	53	101	340
Shared Lane Traffic (%)						
Lane Group Flow (vph)	494	764	864	0	101	340
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
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	15	9
Number of Detectors	1	2	2		1	1
Detector Template	Left	Thru	Thru		Left	Right
Leading Detector (ft)	20	100	100		20	20
Trailing Detector (ft)	0	0	0		0	0
Detector 1 Position(ft)	0	0	0		0	0
Detector 1 Size(ft)	20	6	6		20	20
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		CI+Ex	CI+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	pm+pt	NA	NA		Prot	pt+ov
Protected Phases	1	6	2		4	4 1

Lanes, Volumes, Timings

7: Genesee Street & Westerly TC Dwy

Proposed Fayetteville Towne Center Expansion

2022 Background Conditions - SAT Peak Hour

	EBL	EBT	WBT	WBR	SBL	SBR
Permitted Phases	6					
Detector Phase	1	6	2		4	4 1
Switch Phase						
Minimum Initial (s)	4.0	15.0	15.0		4.0	
Minimum Split (s)	10.0	22.0	22.0		22.0	
Total Split (s)	28.0	82.0	54.0		28.0	
Total Split (%)	25.5%	74.5%	49.1%		25.5%	
Maximum Green (s)	22.0	76.0	48.0		22.0	
Yellow Time (s)	4.0	4.0	4.0		4.0	
All-Red Time (s)	2.0	2.0	2.0		2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	
Total Lost Time (s)	6.0	6.0	6.0		6.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	1.0	4.0	4.0		1.0	
Recall Mode	None	C-Max	C-Max		None	
Act Effect Green (s)	88.3	88.3	61.8		9.7	36.2
Actuated g/C Ratio	0.80	0.80	0.56		0.09	0.33
v/c Ratio	0.79	0.27	0.43		0.65	0.33
Control Delay	17.3	3.2	9.1		66.5	13.1
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	17.3	3.2	9.1		66.5	13.1
LOS	B	A	A		E	B
Approach Delay		8.8	9.1		25.3	
Approach LOS		A	A		C	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 11.7

Intersection LOS: B

Intersection Capacity Utilization 66.6%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 7: Genesee Street & Westerly TC Dwy



A6

Level of Service Calculations: Full Development Conditions

Lanes, Volumes, Timings

Proposed Towne Center Expansion Fayetteville

1: S Burdick St/N Burdick St & Genesee Street/Genesee St 2022 Full Build Conditions - PM Peak Hour

	↖	→	↗	↖	←	↖	↖	↖	↖	↖	↖	↖
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖			↖	↖		↖	↖	↖	↖	↖
Traffic Volume (vph)	123	747	29	22	557	451	38	36	32	581	150	173
Future Volume (vph)	123	747	29	22	557	451	38	36	32	581	150	173
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		0	0		140	0		0	0		400
Storage Lanes	1		0	0		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.994				0.850		0.959				0.850
Flt Protected	0.950				0.998		0.982		0.950	0.971		
Satd. Flow (prot)	1787	3588	0	0	3568	1599	0	1771	0	1715	1746	1568
Flt Permitted	0.950				0.893		0.717		0.950	0.971		
Satd. Flow (perm)	1787	3588	0	0	3193	1599	0	1293	0	1715	1746	1568
Right Turn on Red		Yes			Yes		Yes		Yes		Yes	
Satd. Flow (RTOR)		5			473		15				160	
Link Speed (mph)	40				30		30			30		
Link Distance (ft)	371				476		308			670		
Travel Time (s)	6.3				10.8		7.0			15.2		
Peak Hour Factor	0.95	0.95	0.95	0.89	0.89	0.89	0.84	0.84	0.84	0.95	0.95	0.95
Heavy Vehicles (%)	1%	0%	0%	0%	1%	0%	3%	0%	0%	1%	3%	3%
Adj. Flow (vph)	129	786	31	25	626	507	45	43	38	612	158	182
Shared Lane Traffic (%)										38%		
Lane Group Flow (vph)	129	817	0	0	651	507	0	126	0	379	391	182
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)	12				12			24			24	
Link Offset(ft)	0				0			0			0	
Crosswalk Width(ft)	16				16			16			16	
Two way Left Turn Lane	Yes									Yes		
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	1	2		1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100		20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6		20	6	20
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+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	0.0
Detector 1 Queue (s)	0.0	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	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Perm	NA	pt+ov	Perm	NA		Split	NA	pt+ov
Protected Phases	1	6			2	2 3		4		3	3	3 1

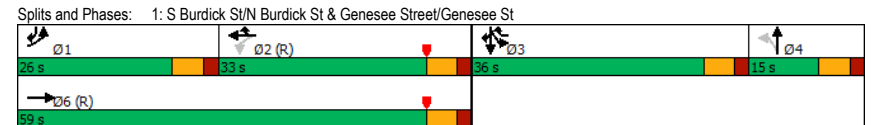
Lanes, Volumes, Timings

Proposed Towne Center Expansion Fayetteville

1: S Burdick St/N Burdick St & Genesee Street/Genesee St 2022 Full Build Conditions - PM Peak Hour

	↖	→	↗	↖	←	↖	↖	↖	↖	↖	↖	↖
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases				2			4					
Detector Phase	1	6		2	2	2 3	4	4		3	3	3 1
Switch Phase												
Minimum Initial (s)	4.0	20.0		10.0	10.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	12.0	26.0		33.0	33.0		10.0	10.0		12.0	12.0	
Total Split (s)	26.0	59.0		33.0	33.0		15.0	15.0		36.0	36.0	
Total Split (%)	23.6%	53.6%		30.0%	30.0%		13.6%	13.6%		32.7%	32.7%	
Maximum Green (s)	20.0	53.0		27.0	27.0		9.0	9.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
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	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	1.0	4.0		4.0	4.0		1.0	1.0		1.0	1.0	
Recall Mode	None	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)				7.0	7.0		7.0	7.0				
Flash Dont Walk (s)				20.0	20.0		20.0	20.0				
Pedestrian Calls (#/hr)				0	0		0	0				
Act Effect Green (s)	11.4	53.5		36.1	69.7		10.9			27.6	27.6	39.0
Actuated g/C Ratio	0.10	0.49		0.33	0.63		0.10			0.25	0.25	0.35
v/c Ratio	0.70	0.47		0.62	0.43		0.89			0.88	0.89	0.28
Control Delay	70.0	17.4		35.3	2.4		97.2			62.1	63.4	3.7
Queue Delay	0.0	0.0		0.0	0.0		0.0			0.0	0.0	0.0
Total Delay	70.0	17.4		35.3	2.4		97.2			62.1	63.4	3.7
LOS	E	B		D	A		F			E	E	A
Approach Delay		24.6			20.9			97.2			51.5	
Approach LOS		C			C			F			D	

Intersection Summary	
Area Type:	Other
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 64 (58%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 34.1	Intersection LOS: C
Intersection Capacity Utilization 83.6%	ICU Level of Service E
Analysis Period (min) 15	



Lanes, Volumes, Timings
2: N Burdick St & Driveway #1

Proposed Towne Center Expansion Fayetteville
2022 Full Build Conditions - PM Peak Hour

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	41	300	204	435	626	114
Future Volume (vph)	41	300	204	435	626	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	120			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Frt		0.850			0.977	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1805	1599	1805	1881	3497	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1805	1599	1805	1881	3497	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	342			670	878	
Travel Time (s)	7.8			15.2	20.0	
Peak Hour Factor	0.85	0.85	0.91	0.91	0.94	0.94
Heavy Vehicles (%)	0%	1%	0%	1%	1%	0%
Adj. Flow (vph)	48	353	224	478	666	121
Shared Lane Traffic (%)						
Lane Group Flow (vph)	48	353	224	478	787	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
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	46.2%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
2: N Burdick St & Driveway #1

Proposed Towne Center Expansion Fayetteville
2022 Full Build Conditions - PM Peak Hour

Intersection						
Int Delay, s/veh	5.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	41	300	204	435	626	114
Future Vol, veh/h	41	300	204	435	626	114
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	120			-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	91	91	94	94
Heavy Vehicles, %	0	1	0	1	1	0
Mvmt Flow	48	353	224	478	666	121

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1653	394	787
Stage 1	727	-	-
Stage 2	926	-	-
Critical Hdwy	6.6	6.915	4.1
Critical Hdwy Stg 1	5.8	-	-
Critical Hdwy Stg 2	5.4	-	-
Follow-up Hdwy	3.53.3095	2.2	-
Pot Cap-1 Maneuver	100	608	841
Stage 1	445	-	-
Stage 2	389	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	73	608	841
Mov Cap-2 Maneuver	195	-	-
Stage 1	327	-	-
Stage 2	389	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.1	3.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	841	-	195	608	-	-
HCM Lane V/C Ratio	0.267	-	0.247	0.58	-	-
HCM Control Delay (s)	10.8	-	29.4	18.8	-	-
HCM Lane LOS	B	-	D	C	-	-
HCM 95th %tile Q(veh)	1.1	-	0.9	3.7	-	-

Lanes, Volumes, Timings
3: N Burdick St & Driveway #2

Proposed Towne Center Expansion Fayetteville
2022 Full Build Conditions - PM Peak Hour

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	82	61	87	392	691	86
Future Volume (vph)	82	61	87	392	691	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	160			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor						
Frt		0.850			0.983	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1805	1615	1805	1881	3517	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1805	1615	1805	1881	3517	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	411			878	327	
Travel Time (s)	9.3			20.0	7.4	
Confl. Peds. (#/hr)	48					
Peak Hour Factor	0.78	0.78	0.92	0.92	0.97	0.97
Heavy Vehicles (%)	0%	0%	0%	1%	1%	0%
Adj. Flow (vph)	105	78	95	426	712	89
Shared Lane Traffic (%)						
Lane Group Flow (vph)	105	78	95	426	801	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
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 41.2%	ICU Level of Service A					
Analysis Period (min) 15						

HCM 6th TWSC
3: N Burdick St & Driveway #2

Proposed Towne Center Expansion Fayetteville
2022 Full Build Conditions - PM Peak Hour

Intersection						
Int Delay, s/veh	3.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	82	61	87	392	691	86
Future Vol, veh/h	82	61	87	392	691	86
Conflicting Peds, #/hr	48	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	160		-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	78	78	92	92	97	97
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	105	78	95	426	712	89

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1421	401	801	0	-	0
Stage 1	757	-	-	-	-	-
Stage 2	664	-	-	-	-	-
Critical Hdwy	6.6	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	140	604	831	-	-	-
Stage 1	429	-	-	-	-	-
Stage 2	516	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	124	604	831	-	-	-
Mov Cap-2 Maneuver	255	-	-	-	-	-
Stage 1	380	-	-	-	-	-
Stage 2	516	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	21.5	1.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	831	-	255	604	-	-
HCM Lane V/C Ratio	0.114	-	0.412	0.129	-	-
HCM Control Delay (s)	9.9	-	28.7	11.8	-	-
HCM Lane LOS	A	-	D	B	-	-
HCM 95th %tile Q(veh)	0.4	-	1.9	0.4	-	-

Lanes, Volumes, Timings
4: N Burdick St & Driveway #3

Proposed Towne Center Expansion Fayetteville
2022 Full Build Conditions - PM Peak Hour

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	37	101	83	392	675	89
Future Volume (vph)	37	101	83	392	675	89
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	170			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Frt	0.902				0.982	
Flt Protected	0.987		0.950			
Satd. Flow (prot)	1679	0	1805	1881	3545	0
Flt Permitted	0.987		0.950			
Satd. Flow (perm)	1679	0	1805	1881	3545	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	336			327	381	
Travel Time (s)	7.6			7.4	8.7	
Peak Hour Factor	0.89	0.89	0.86	0.86	0.93	0.93
Heavy Vehicles (%)	0%	1%	0%	1%	0%	0%
Adj. Flow (vph)	42	113	97	456	726	96
Shared Lane Traffic (%)						
Lane Group Flow (vph)	155	0	97	456	822	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
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 44.4%	ICU Level of Service A					
Analysis Period (min) 15						

HCM 6th TWSC
4: N Burdick St & Driveway #3

Proposed Towne Center Expansion Fayetteville
2022 Full Build Conditions - PM Peak Hour

Intersection						
Int Delay, s/veh	2.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	37	101	83	392	675	89
Future Vol, veh/h	37	101	83	392	675	89
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	170	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	86	86	93	93
Heavy Vehicles, %	0	1	0	1	0	0
Mvmt Flow	42	113	97	456	726	96

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1424	411	822
Stage 1	774	-	-
Stage 2	650	-	-
Critical Hdwy	6.6	6.915	4.1
Critical Hdwy Stg 1	5.8	-	-
Critical Hdwy Stg 2	5.4	-	-
Follow-up Hdwy	3.53.3095	2.2	-
Pot Cap-1 Maneuver	140	593	816
Stage 1	421	-	-
Stage 2	523	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	123	593	816
Mov Cap-2 Maneuver	252	-	-
Stage 1	371	-	-
Stage 2	523	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.8	1.7	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT EBLn1	SBT	SBR
Capacity (veh/h)	816	-	435	-
HCM Lane V/C Ratio	0.118	-	0.356	-
HCM Control Delay (s)	10	-	17.8	-
HCM Lane LOS	B	-	C	-
HCM 95th %tile Q(veh)	0.4	-	1.6	-

Lanes, Volumes, Timings
5: N Burdick St & Driveway #4

Proposed Towne Center Expansion Fayetteville
2022 Full Build Conditions - PM Peak Hour

	↖	↗	↖	↗	↘	↙
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↘	↙
Traffic Volume (vph)	41	18	37	501	784	90
Future Volume (vph)	41	18	37	501	784	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	160			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor						
Frt		0.850			0.985	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1805	1615	1752	1863	3524	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1805	1615	1752	1863	3524	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	367			381	550	
Travel Time (s)	8.3			8.7	12.5	
Confl. Peds. (#/hr)			3			
Peak Hour Factor	0.74	0.74	0.90	0.90	0.91	0.91
Heavy Vehicles (%)	0%	0%	3%	2%	1%	0%
Adj. Flow (vph)	55	24	41	557	862	99
Shared Lane Traffic (%)						
Lane Group Flow (vph)	55	24	41	557	961	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
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 40.7%	ICU Level of Service A					
Analysis Period (min) 15						

HCM 6th TWSC
5: N Burdick St & Driveway #4

Proposed Towne Center Expansion Fayetteville
2022 Full Build Conditions - PM Peak Hour

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↘	↙
Traffic Vol, veh/h	41	18	37	501	784	90
Future Vol, veh/h	41	18	37	501	784	90
Conflicting Peds, #/hr	0	0	3	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	160			-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	74	74	90	90	91	91
Heavy Vehicles, %	0	0	3	2	1	0
Mvmt Flow	55	24	41	557	862	99

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1554	484	964	0	-	0
Stage 1	915	-	-	-	-	-
Stage 2	639	-	-	-	-	-
Critical Hdwy	6.6	6.9	4.145	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2285	-	-	-
Pot Cap-1 Maneuver	115	534	707	-	-	-
Stage 1	356	-	-	-	-	-
Stage 2	530	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	108	533	705	-	-	-
Mov Cap-2 Maneuver	233	-	-	-	-	-
Stage 1	335	-	-	-	-	-
Stage 2	529	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	21.2	0.7	0
HCM LOS	C		

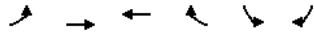
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	705	-	233	533	-	-
HCM Lane V/C Ratio	0.058	-	0.238	0.046	-	-
HCM Control Delay (s)	10.4	-	25.2	12.1	-	-
HCM Lane LOS	B	-	D	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.9	0.1	-	-

Lanes, Volumes, Timings

6: Genesee Street & Easterly TC Dwy

Proposed Towne Center Expansion Fayetteville

2022 Full Build Conditions - PM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Volume (vph)	0	932	651	97	0	144
Future Volume (vph)	0	932	651	97	0	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.981			0.865
Flt Protected						
Satd. Flow (prot)	0	3610	3511	0	0	1627
Flt Permitted						
Satd. Flow (perm)	0	3610	3511	0	0	1627
Link Speed (mph)		40	40		30	
Link Distance (ft)		867	371		330	
Travel Time (s)		14.8	6.3		7.5	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.90	0.90
Heavy Vehicles (%)	0%	0%	1%	0%	0%	1%
Adj. Flow (vph)	0	971	678	101	0	160
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	971	779	0	0	160
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane		Yes	Yes			
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 36.7%

ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC

6: Genesee Street & Easterly TC Dwy

Proposed Towne Center Expansion Fayetteville

2022 Full Build Conditions - PM Peak Hour

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	932	651	97	0	144
Future Vol, veh/h	0	932	651	97	0	144
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	96	96	96	96	90	90
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	0	971	678	101	0	160

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	612
HCM Lane V/C Ratio	-	-	-	0.261
HCM Control Delay (s)	-	-	-	13
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	1

Lanes, Volumes, Timings

7: Genesee Street & Westerly TC Dwy

Proposed Towne Center Expansion Fayetteville

2022 Full Build Conditions - PM Peak Hour

	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↩	↩↩	↩↩		↩	↩↩
Traffic Volume (vph)	352	855	737	31	88	225
Future Volume (vph)	352	855	737	31	88	225
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	195			0	0	0
Storage Lanes	1			0	1	2
Taper Length (ft)	105				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	0.88
Frt			0.994			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1787	3610	3543	0	1805	2814
Flt Permitted	0.289				0.950	
Satd. Flow (perm)	544	3610	3543	0	1805	2814
Right Turn on Red				Yes		No
Satd. Flow (RTOR)			5			
Link Speed (mph)		40	40		30	
Link Distance (ft)		399	867		623	
Travel Time (s)		6.8	14.8		14.2	
Peak Hour Factor	0.94	0.94	0.95	0.95	0.90	0.90
Heavy Vehicles (%)	1%	0%	1%	8%	0%	1%
Adj. Flow (vph)	374	910	776	33	98	250
Shared Lane Traffic (%)						
Lane Group Flow (vph)	374	910	809	0	98	250
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane			Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Number of Detectors	1	2	2		1	1
Detector Template	Left	Thru	Thru		Left	Right
Leading Detector (ft)	20	100	100		20	20
Trailing Detector (ft)	0	0	0		0	0
Detector 1 Position(ft)	0	0	0		0	0
Detector 1 Size(ft)	20	6	6		20	20
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		CI+Ex	CI+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	pm+pt	NA	NA		Prot	pt+ov
Protected Phases	1	6	2		4	4 1

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SRF Associates, D.P.C.

Synchro 10 Report

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Lanes, Volumes, Timings

7: Genesee Street & Westerly TC Dwy

Proposed Towne Center Expansion Fayetteville

2022 Full Build Conditions - PM Peak Hour

	EBL	EBT	WBT	WBR	SBL	SBR
Permitted Phases	6					
Detector Phase	1	6	2		4	4 1
Switch Phase						
Minimum Initial (s)	4.0	15.0	15.0		4.0	
Minimum Split (s)	10.0	21.0	21.0		20.0	
Total Split (s)	28.0	82.0	54.0		28.0	
Total Split (%)	25.5%	74.5%	49.1%		25.5%	
Maximum Green (s)	22.0	76.0	48.0		22.0	
Yellow Time (s)	4.0	4.0	4.0		4.0	
All-Red Time (s)	2.0	2.0	2.0		2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	
Total Lost Time (s)	6.0	6.0	6.0		6.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	1.0	4.0	4.0		1.0	
Recall Mode	None	C-Max	C-Max		None	
Act Effect Green (s)	86.5	86.5	69.3		11.5	28.7
Actuated g/C Ratio	0.79	0.79	0.63		0.10	0.26
v/c Ratio	0.68	0.32	0.36		0.52	0.34
Control Delay	10.0	3.9	4.7		56.1	33.0
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	10.0	3.9	4.7		56.1	33.0
LOS	A	A	A		E	C
Approach Delay		5.6	4.7		39.5	
Approach LOS		A	A		D	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.68

Intersection Signal Delay: 10.2

Intersection LOS: B

Intersection Capacity Utilization 60.7%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 7: Genesee Street & Westerly TC Dwy



03/30/2021

SRF Associates, D.P.C.

Synchro 10 Report

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Lanes, Volumes, Timings
1: S Burdick St/N Burdick St & Genesee Street/Genesee St
2022 Full Build - SAT Peak Hour

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰		↰	↰	↰	↰	↰	↰	↰	↰	↰
Traffic Volume (vph)	147	517	40	62	659	586	73	42	36	495	119	132
Future Volume (vph)	147	517	40	62	659	586	73	42	36	495	119	132
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140		0	0		140	0		0	0		400
Storage Lanes	1		0	0		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.989				0.850		0.967				0.850
Flt Protected	0.950				0.996			0.976		0.950	0.970	
Satd. Flow (prot)	1787	3563	0	0	3596	1615	0	1793	0	1715	1751	1599
Flt Permitted	0.950				0.818			0.681		0.950	0.970	
Satd. Flow (perm)	1787	3563	0	0	2953	1615	0	1251	0	1715	1751	1599
Right Turn on Red		Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)		10				401		11				93
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		398			380			412			686	
Travel Time (s)		6.8			8.6			9.4			15.6	
Peak Hour Factor	0.91	0.91	0.91	0.94	0.94	0.94	0.91	0.91	0.91	0.95	0.95	0.95
Heavy Vehicles (%)	1%	0%	3%	0%	0%	0%	0%	0%	0%	0%	0%	1%
Adj. Flow (vph)	162	568	44	66	701	623	80	46	40	521	125	139
Shared Lane Traffic (%)										39%		
Lane Group Flow (vph)	162	612	0	0	767	623	0	166	0	318	328	139
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)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
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	1	2		1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100		20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6		20	6	20
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+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	0.0
Detector 1 Queue (s)	0.0	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	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Perm	NA	pt+ov	Perm	NA		Split	NA	pt+ov
Protected Phases	1	6			2	2 3		4		3	3	3 1

Lanes, Volumes, Timings
1: S Burdick St/N Burdick St & Genesee Street/Genesee St
2022 Full Build - SAT Peak Hour

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases				2			4					
Detector Phase	1	6		2	2	2 3	4	4		3	3	3 1
Switch Phase												
Minimum Initial (s)	4.0	20.0		10.0	10.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	12.0	26.0		33.0	33.0		10.0	10.0		12.0	12.0	
Total Split (s)	26.0	59.0		33.0	33.0		15.0	15.0		36.0	36.0	
Total Split (%)	23.6%	53.6%		30.0%	30.0%		13.6%	13.6%		32.7%	32.7%	
Maximum Green (s)	20.0	53.0		27.0	27.0		9.0	9.0		30.0	30.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
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	
Total Lost Time (s)	6.0	6.0			6.0			6.0		6.0	6.0	
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	1.0	4.0		4.0	4.0		1.0	1.0		1.0	1.0	
Recall Mode	None	C-Max		C-Max	C-Max		None	None		None	None	
Walk Time (s)		7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)				20.0	20.0		20.0	20.0				
Pedestrian Calls (#/hr)				0	0		0	0				
Act Effect Green (s)	13.4	53.0		33.6	64.8		13.9			25.1	25.1	38.5
Actuated g/C Ratio	0.12	0.48		0.31	0.59		0.13			0.23	0.23	0.35
v/c Ratio	0.75	0.36		0.85	0.56		0.99			0.81	0.82	0.22
Control Delay	73.7	14.8		47.2	6.3		116.3			56.3	56.8	5.1
Queue Delay	0.0	0.0		0.0	0.0		0.0			0.0	0.0	0.0
Total Delay	73.7	14.8		47.2	6.3		116.3			56.3	56.8	5.1
LOS	E	B		D	A		F			E	E	A
Approach Delay		27.1			28.9		116.3				47.4	
Approach LOS		C			C		F				D	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 64 (58%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

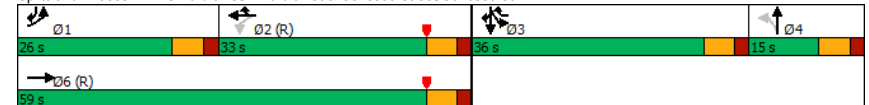
Maximum v/c Ratio: 0.99

Intersection Signal Delay: 37.8 Intersection LOS: D

Intersection Capacity Utilization 76.4% ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 1: S Burdick St/N Burdick St & Genesee Street/Genesee St



Lanes, Volumes, Timings
2: N Burdick St & Driveway #1

Proposed Fayetteville Towne Center Expansion
2022 Full Build - SAT Peak Hour

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	58	293	310	469	418	121
Future Volume (vph)	58	293	310	469	418	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	120			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Frt		0.850			0.966	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1805	1615	1805	1900	3487	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1805	1615	1805	1900	3487	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	344			686	888	
Travel Time (s)	7.8			15.6	20.2	
Peak Hour Factor	0.94	0.94	0.91	0.91	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	62	312	341	515	470	136
Shared Lane Traffic (%)						
Lane Group Flow (vph)	62	312	341	515	606	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
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 45.9%	ICU Level of Service A					
Analysis Period (min) 15						

HCM 6th TWSC
2: N Burdick St & Driveway #1

Proposed Fayetteville Towne Center Expansion
2022 Full Build - SAT Peak Hour

Intersection						
Int Delay, s/veh	5.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	58	293	310	469	418	121
Future Vol, veh/h	58	293	310	469	418	121
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	120		-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	91	91	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	62	312	341	515	470	136

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1735	303	606
Stage 1	538	-	-
Stage 2	1197	-	-
Critical Hdwy	6.6	6.9	4.1
Critical Hdwy Stg 1	5.8	-	-
Critical Hdwy Stg 2	5.4	-	-
Follow-up Hdwy	3.5	3.3	2.2
Pot Cap-1 Maneuver	88	699	982
Stage 1	555	-	-
Stage 2	289	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	~ 57	699	982
Mov Cap-2 Maneuver	172	-	-
Stage 1	362	-	-
Stage 2	289	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18	4.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	982	-	172	699	-	-
HCM Lane V/C Ratio	0.347	-	0.359	0.446	-	-
HCM Control Delay (s)	10.6	-	37.2	14.2	-	-
HCM Lane LOS	B	-	E	B	-	-
HCM 95th %tile Q(veh)	1.6	-	1.5	2.3	-	-

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

Lanes, Volumes, Timings
3: N Burdick St & Driveway #2

Proposed Fayetteville Towne Center Expansion
2022 Full Build - SAT Peak Hour

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	86	43	83	440	525	80
Future Volume (vph)	86	43	83	440	525	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	160			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor						
Frt		0.850			0.980	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1805	1615	1805	1900	3507	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1805	1615	1805	1900	3507	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	427			888	335	
Travel Time (s)	9.7			20.2	7.6	
Confl. Peds. (#/hr)	48					
Peak Hour Factor	0.77	0.77	0.93	0.93	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	112	56	89	473	577	88
Shared Lane Traffic (%)						
Lane Group Flow (vph)	112	56	89	473	665	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
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 36.4%	ICU Level of Service A					
Analysis Period (min) 15						

HCM 6th TWSC
3: N Burdick St & Driveway #2

Proposed Fayetteville Towne Center Expansion
2022 Full Build - SAT Peak Hour

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	86	43	83	440	525	80
Future Vol, veh/h	86	43	83	440	525	80
Conflicting Peds, #/hr	48	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	160			
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	93	93	91	91
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	112	56	89	473	577	88

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1320	333	665	0	-	0
Stage 1	621	-	-	-	-	-
Stage 2	699	-	-	-	-	-
Critical Hdwy	6.6	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	162	669	934	-	-	-
Stage 1	504	-	-	-	-	-
Stage 2	497	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	147	669	934	-	-	-
Mov Cap-2 Maneuver	284	-	-	-	-	-
Stage 1	456	-	-	-	-	-
Stage 2	497	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.8	1.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	934	-	284	669	-	-
HCM Lane V/C Ratio	0.096	-	0.393	0.083	-	-
HCM Control Delay (s)	9.3	-	25.7	10.9	-	-
HCM Lane LOS	A	-	D	B	-	-
HCM 95th %tile Q(veh)	0.3	-	1.8	0.3	-	-

Lanes, Volumes, Timings
4: N Burdick St & Driveway #3

Proposed Fayetteville Towne Center Expansion
2022 Full Build - SAT Peak Hour

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	65	120	85	440	490	77
Future Volume (vph)	65	120	85	440	490	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	170			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Frt	0.912				0.980	
Flt Protected	0.983		0.950			
Satd. Flow (prot)	1703	0	1805	1900	3538	0
Flt Permitted	0.983		0.950			
Satd. Flow (perm)	1703	0	1805	1900	3538	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	325			335	359	
Travel Time (s)	7.4			7.6	8.2	
Peak Hour Factor	0.90	0.90	0.89	0.89	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	72	133	96	494	521	82
Shared Lane Traffic (%)						
Lane Group Flow (vph)	205	0	96	494	603	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
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	41.7%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
4: N Burdick St & Driveway #3

Proposed Fayetteville Towne Center Expansion
2022 Full Build - SAT Peak Hour

Intersection						
Int Delay, s/veh	3.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	65	120	85	440	490	77
Future Vol, veh/h	65	120	85	440	490	77
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	-	170	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	89	89	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	72	133	96	494	521	82

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1248	302	603	0	-	0
Stage 1	562	-	-	-	-	-
Stage 2	686	-	-	-	-	-
Critical Hdwy	6.6	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	180	700	984	-	-	-
Stage 1	540	-	-	-	-	-
Stage 2	504	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	162	700	984	-	-	-
Mov Cap-2 Maneuver	300	-	-	-	-	-
Stage 1	487	-	-	-	-	-
Stage 2	504	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.1	1.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT EBLn1	SBT	SBR
Capacity (veh/h)	984	-	477	-
HCM Lane V/C Ratio	0.097	-	0.431	-
HCM Control Delay (s)	9.1	-	18.1	-
HCM Lane LOS	A	-	C	-
HCM 95th %tile Q(veh)	0.3	-	2.1	-

Lanes, Volumes, Timings
5: N Burdick St & Driveway #4

Proposed Fayetteville Towne Center Expansion
2022 Full Build - SAT Peak Hour

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	56	19	48	455	526	72
Future Volume (vph)	56	19	48	455	526	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	160			0
Storage Lanes	1	1	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor						
Frt		0.850			0.982	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1805	1615	1805	1900	3484	0
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1805	1615	1805	1900	3484	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	306			359	446	
Travel Time (s)	7.0			8.2	10.1	
Confl. Peds. (#/hr)			3			
Peak Hour Factor	0.86	0.86	0.94	0.94	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	0%	2%	0%
Adj. Flow (vph)	65	22	51	484	548	75
Shared Lane Traffic (%)						
Lane Group Flow (vph)	65	22	51	484	623	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
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 33.9%	ICU Level of Service A					
Analysis Period (min) 15						

HCM 6th TWSC
5: N Burdick St & Driveway #4

Proposed Fayetteville Towne Center Expansion
2022 Full Build - SAT Peak Hour

Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	56	19	48	455	526	72
Future Vol, veh/h	56	19	48	455	526	72
Conflicting Peds, #/hr	0	0	3	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	160			-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	94	94	96	96
Heavy Vehicles, %	0	0	0	0	2	0
Mvmt Flow	65	22	51	484	548	75

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1175	315	626	0	-	0
Stage 1	589	-	-	-	-	-
Stage 2	586	-	-	-	-	-
Critical Hdwy	6.6	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	200	687	965	-	-	-
Stage 1	523	-	-	-	-	-
Stage 2	560	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	189	685	963	-	-	-
Mov Cap-2 Maneuver	325	-	-	-	-	-
Stage 1	494	-	-	-	-	-
Stage 2	559	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.7	0.9	0
HCM LOS	C		

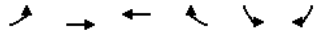
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	963	-	325	685	-	-
HCM Lane V/C Ratio	0.053	-	0.2	0.032	-	-
HCM Control Delay (s)	8.9	-	18.8	10.4	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.7	0.1	-	-

Lanes, Volumes, Timings

6: Genesee Street & Easterly TC Dwy

Proposed Fayetteville Towne Center Expansion

2022 Full Build - SAT Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Volume (vph)	0	758	709	158	0	186
Future Volume (vph)	0	758	709	158	0	186
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt			0.973			0.865
Flt Protected						
Satd. Flow (prot)	0	3574	3506	0	0	1627
Flt Permitted						
Satd. Flow (perm)	0	3574	3506	0	0	1627
Link Speed (mph)		40	40		30	
Link Distance (ft)		861	398		418	
Travel Time (s)		14.7	6.8		9.5	
Peak Hour Factor	0.88	0.88	0.97	0.97	0.91	0.91
Heavy Vehicles (%)	0%	1%	0%	1%	0%	1%
Adj. Flow (vph)	0	861	731	163	0	204
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	861	894	0	0	204
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		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 42.8%

ICU Level of Service A

Analysis Period (min) 15

HCM 6th TWSC

6: Genesee Street & Easterly TC Dwy

Proposed Fayetteville Towne Center Expansion

2022 Full Build - SAT Peak Hour

Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	758	709	158	0	186
Future Vol, veh/h	0	758	709	158	0	186
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	88	88	97	97	91	91
Heavy Vehicles, %	0	1	0	1	0	1
Mvmt Flow	0	861	731	163	0	204

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	562
HCM Lane V/C Ratio	-	-	-	0.364
HCM Control Delay (s)	-	-	-	15
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	1.7

Lanes, Volumes, Timings

7: Genesee Street & Westerly TC Dwy

Proposed Fayetteville Towne Center Expansion

2022 Full Build - SAT Peak Hour

	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↔	↔	↔		↔	↔
Traffic Volume (vph)	472	622	792	59	128	332
Future Volume (vph)	472	622	792	59	128	332
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	195			0	0	0
Storage Lanes	1			0	1	2
Taper Length (ft)	105				25	
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	0.88
Frt			0.990			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1805	3574	3541	0	1770	2842
Flt Permitted	0.210				0.950	
Satd. Flow (perm)	399	3574	3541	0	1770	2842
Right Turn on Red			Yes		Yes	
Satd. Flow (RTOR)			9		160	
Link Speed (mph)		40	40		30	
Link Distance (ft)		505	861		601	
Travel Time (s)		8.6	14.7		13.7	
Peak Hour Factor	0.85	0.85	0.97	0.97	0.88	0.88
Heavy Vehicles (%)	0%	1%	1%	0%	2%	0%
Adj. Flow (vph)	555	732	816	61	145	377
Shared Lane Traffic (%)						
Lane Group Flow (vph)	555	732	877	0	145	377
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
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	15	9
Number of Detectors	1	2	2		1	1
Detector Template	Left	Thru	Thru		Left	Right
Leading Detector (ft)	20	100	100		20	20
Trailing Detector (ft)	0	0	0		0	0
Detector 1 Position(ft)	0	0	0		0	0
Detector 1 Size(ft)	20	6	6		20	20
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		CI+Ex	CI+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	pm+pt	NA	NA		Prot	pt+ov
Protected Phases	1	6	2		4	4 1

03/29/2021

SRF Associates, D.P.C.

Synchro 10 Report

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Lanes, Volumes, Timings

7: Genesee Street & Westerly TC Dwy

Proposed Fayetteville Towne Center Expansion

2022 Full Build - SAT Peak Hour

	EBL	EBT	WBT	WBR	SBL	SBR
Permitted Phases	6					
Detector Phase	1	6	2		4	4 1
Switch Phase						
Minimum Initial (s)	4.0	15.0	15.0		4.0	
Minimum Split (s)	10.0	22.0	22.0		22.0	
Total Split (s)	28.0	82.0	54.0		28.0	
Total Split (%)	25.5%	74.5%	49.1%		25.5%	
Maximum Green (s)	22.0	76.0	48.0		22.0	
Yellow Time (s)	4.0	4.0	4.0		4.0	
All-Red Time (s)	2.0	2.0	2.0		2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	
Total Lost Time (s)	6.0	6.0	6.0		6.0	
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	1.0	4.0	4.0		1.0	
Recall Mode	None	C-Max	C-Max		None	
Act Effct Green (s)	85.5	85.5	51.5		12.5	46.5
Actuated g/C Ratio	0.78	0.78	0.47		0.11	0.42
v/c Ratio	0.83	0.26	0.53		0.72	0.29
Control Delay	26.7	4.0	15.0		66.6	11.6
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	26.7	4.0	15.0		66.6	11.6
LOS	C	A	B		E	B
Approach Delay		13.8	15.0		26.9	
Approach LOS		B	B		C	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 16.7

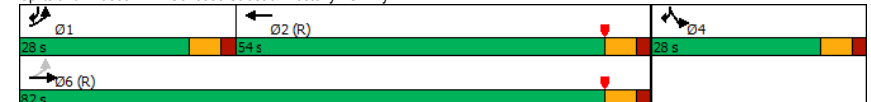
Intersection LOS: B

Intersection Capacity Utilization 72.0%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 7: Genesee Street & Westerly TC Dwy



03/29/2021

SRF Associates, D.P.C.

Synchro 10 Report

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TESSIE

ARCHITECTURAL SCALE, WET-LISTED EXTERIOR WALL SCONCE

alva

FAYETTEVILLE LOT 15 BUILDING ENTRANCE LIGHTS



Tessie-60 in Enviro Satin Nickel (ESN)



Tessie-30 in Graphite (GR)

APPLICATIONS

Direct/Indirect grazing luminaire for exterior/interior use: flanking doors, on columns, on building facades, between windows, and elevator lobbies

SIZES

- 30" H x 7" W x 4"D, 18 lbs
- 60" H x 7" W x 4"D, 36 lbs

MOUNTING

- J-Box 3.0 or 4.0 at center or end of fixture
- Steel mounting system with mounting plate and cover with rubber gaskets between the junction box and mounting plate
- Can be mounted vertically or horizontally

SPECIFICATIONS

- High efficiency, fully integrated proprietary LED module
- IP66 Rated
- 120-277V input
- 100,000+ hours rated life time
- 10 Year Limited Warranty (excludes shade)
- Title 24 Compliant
- ADA Compliant

LAMPING

- 3000K, 3500K
- (23W) 2300 LM for 30" light module
- (37W) 3700 LM for 60" light module
- 0-10V Dimming (100-10%)

CONSTRUCTION

Fixture shell (shade): Heavy gauge aluminum with industrial powder coat finish and high impact acrylic

SPECIFICATIONS SUBJECT TO CHANGE



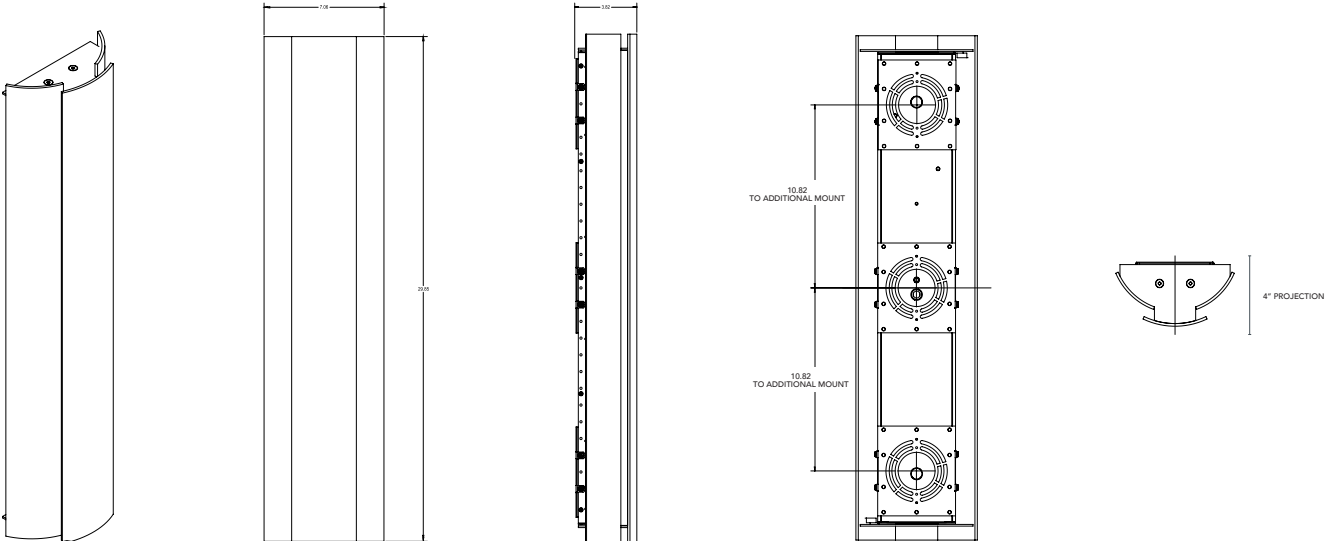
TESSIE

ARCHITECTURAL SCALE, WET-LISTED EXTERIOR WALL SCONCE

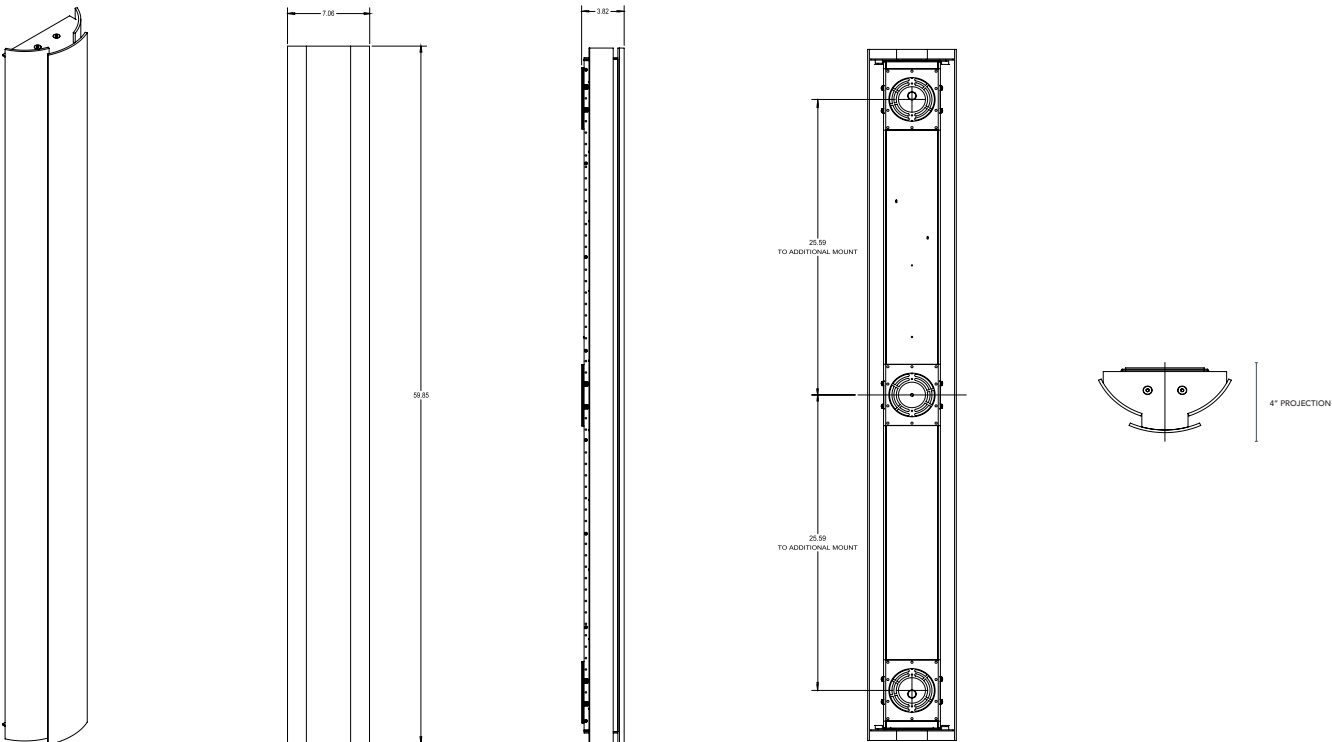
alva

DIMENSIONS

TESSIE-30



TESSIE-60



TESSIE

ARCHITECTURAL SCALE, WET-LISTED EXTERIOR WALL SCONCE

alva

METAL POWDER COAT FINISH OPTIONS



ESN - Enviro Satin Nickel



EOB - Enviro Oil-Rubbed Bronze



WHT - White



BLK - Black



GR - Graphite

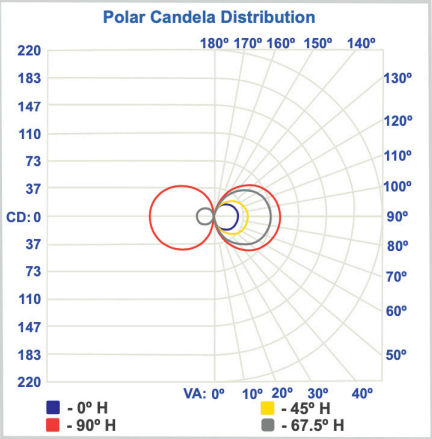


DBT - Dark Bronze Textured



Tessie-30 in Enviro Satin Nickel (ESN)

Polar Candela Distribution



ORDER CODE:

TESSIE	60"		3500
MODEL	LENGTH	METAL TRIM	CCT
	30 30"	POWDER COAT FINISH OPTIONS	3000 3000K
	60 60"	ESN Enviro Satin Nickel	3500 3500K
		EOB Enviro Oil-Rubbed Bronze	
		GR Dark Bronze Textured	
		DBT Graphite	
		WHT White	
		BLK Black	

DESCRIPTION

The patented Lumark Crosstour™ LED Wall Pack Series of luminaires provides an architectural style with super bright, energy efficient LEDs. The low-profile, rugged die-cast aluminum construction, universal back box, stainless steel hardware along with a sealed and gasketed optical compartment make the Crosstour impervious to contaminants. The Crosstour wall luminaire is ideal for wall/surface, inverted mount for façade/canopy illumination, post/bollard, site lighting, floodlight and low level pathway illumination including stairs. Typical applications include building entrances, multi-use facilities, apartment buildings, institutions, schools, stairways and loading docks test.

SPECIFICATION FEATURES

Construction

Slim, low-profile LED design with rugged one-piece, die-cast aluminum hinged removable door and back box. Matching housing styles incorporate both a small and medium design. The small housing is available in 12W, 18W and 26W. The medium housing is available in the 38W model. Patented secure lock hinge feature allows for safe and easy tool-less electrical connections with the supplied push-in connectors. Back box includes three half-inch, NPT threaded conduit entry points. The universal back box supports both the small and medium forms and mounts to standard 3-1/2" to 4" round and octagonal, 4" square, single gang and masonry junction boxes. Key hole gasket allows for adaptation to junction box or wall. External fin design extracts heat from the fixture surface. One-piece silicone gasket seals door and back box. Minimum 5" wide pole for site lighting application. Not recommended for car wash applications.

Optical

Silicone sealed optical LED chamber incorporates a custom engineered mirrored anodized reflector providing high-efficiency illumination. Optical assembly includes impact-resistant tempered glass and meets IESNA requirements for full cutoff compliance. Available in seven lumen packages; 5000K, 4000K and 3000K CCT.

Electrical

LED driver is mounted to the die-cast housing for optimal heat sinking. LED thermal management system incorporates both conduction and natural convection to transfer heat rapidly away from the LED source. 12W, 18W, 26W and 38W series operate in -40°C to 40°C [-40°F to 104°F]. High ambient 50°C models available. Crosstour luminaires maintain greater than 89% of initial light output after 72,000 hours of operation. Three half-inch NPT threaded conduit entry points allow for thru-branch wiring. Back box is an authorized

Catalog #		Type
Project	LOT 15	
Comments		Date
Prepared by		

electrical wiring compartment.

Integral LED electronic driver incorporates surge protection. 120-277V 50/60Hz or 347V 60Hz models.

Finish

Crosstour is protected with a Super durable TGIC carbon bronze or summit white polyester powder coat paint. Super durable TGIC powder coat paint finishes withstand extreme climate conditions while providing optimal color and gloss retention of the installed life.

Warranty

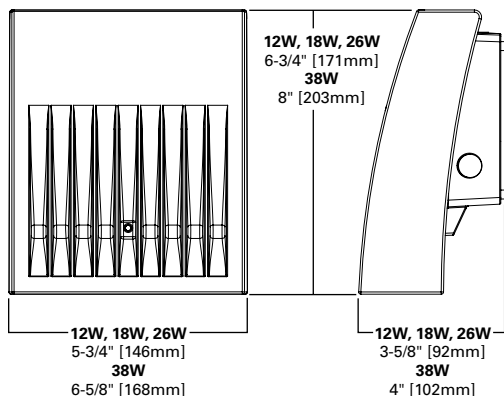
Five-year warranty.



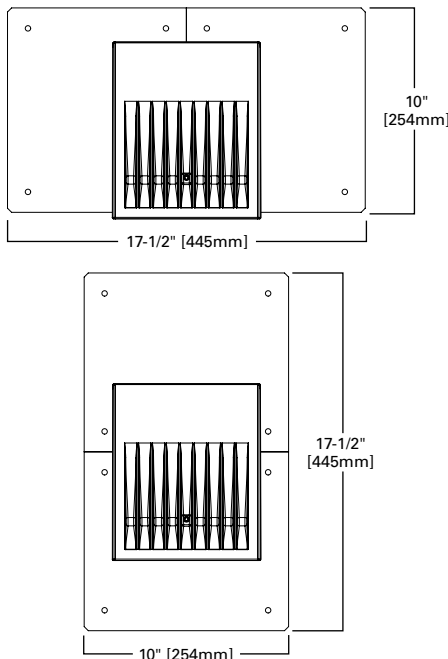
XTOR CROSSTOUR LED

APPLICATIONS:
WALL / SURFACE
POST / BOLLARD
LOW LEVEL
FLOODLIGHT
INVERTED
SITE LIGHTING

DIMENSIONS



ESCUTCHEON PLATES



CERTIFICATION DATA

Dark Sky Approved (Fixed mount, Full cutoff, and 3000K CCT only)
UL/cUL Wet Location Listed
LM79 / LM80 Compliant
ROHS Compliant
ADA Compliant
NOM Compliant Models
IP66 Ingress Protection Rated
Title 24 Compliant
DesignLights Consortium® Qualified*

TECHNICAL DATA

40°C Maximum Ambient Temperature
External Supply Wiring 90°C Minimum

EPA

Effective Projected Area (Sq. Ft.):
XTOR1B, XTOR2B, XTOR3B=0.34
XTOR4B=0.45

SHIPPING DATA:

Approximate Net Weight:
3.7 – 5.25 lbs. [1.7 – 2.4 kgs.]

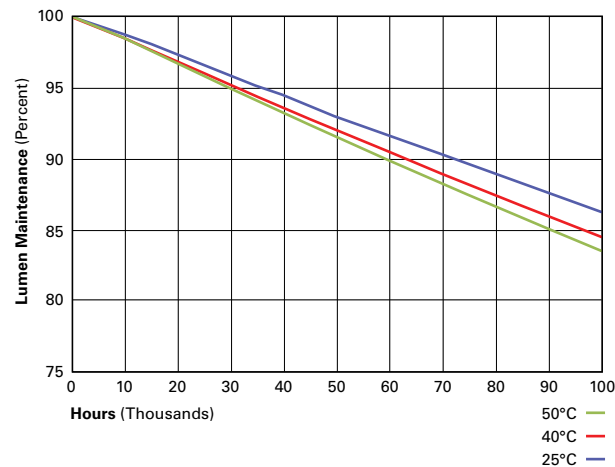
POWER AND LUMENS BY FIXTURE MODEL

LED Information	XTOR1B	XTOR1B-W	XTOR1B-Y	XTOR2B	XTOR2B-W	XTOR2B-Y	XTOR3B	XTOR3B-W	XTOR3B-Y	XTOR4B	XTOR4B-W	XTOR4B-Y
Delivered Lumens (Wall Mount)	1,418	1,396	1,327	2,135	2,103	1,997	2,751	2,710	2,575	4,269	4,205	3,995
Delivered Lumens (With Flood Accessory Kit) ¹	1,005	990	940	1,495	1,472	1,399	2,099	2,068	1,965	3,168	3,121	2,965
B.U.G. Rating ²	B1-U0-G0	B1-U0-G0	B1-U0-G0	B1-U0-G0	B1-U0-G0	B1-U0-G0	B1-U0-G0	B1-U0-G0	B1-U0-G0	B2-U0-G0	B2-U0-G0	B2-U0-G0
CCT (Kelvin)	5,000	4,000	3,000	5,000	4,000	3,000	5,000	4,000	3,000	5,000	4,000	3,000
CRI (Color Rendering Index)	70	70	70	70	70	70	70	70	70	70	70	70
Power Consumption (Watts)	12W	12W	12W	18W	18W	18W	26W	26W	26W	38W	38W	38W

NOTES: 1 Includes shield and visor. 2 B.U.G. Rating does not apply to floodlighting.

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (72,000 Hours)	Theoretical L70 (Hours)
XTOR1B Model		
25°C	> 90%	255,000
40°C	> 89%	234,000
50°C	> 88%	215,000
XTOR2B Model		
25°C	> 89%	240,000
40°C	> 88%	212,000
50°C	> 87%	196,000
XTOR3B Model		
25°C	> 89%	240,000
40°C	> 88%	212,000
50°C	> 87%	196,000
XTOR4B Model		
25°C	> 89%	222,000
40°C	> 87%	198,000
50°C	> 87%	184,000



CURRENT DRAW

Voltage	Model Series			
	XTOR1B	XTOR2B	XTOR3B	XTOR4B
120V	0.103A	0.15A	0.22A	0.34A
208V	0.060A	0.09A	0.13A	0.17A
240V	0.053A	0.08A	0.11A	0.17A
277V	0.048A	0.07A	0.10A	0.15A
347V	0.039A	0.06A	0.082A	0.12A

ORDERING INFORMATION

Sample Number: XTOR2B-W-WT-PC1

Series ¹	LED Kelvin Color	Housing Color	Options (Add as Suffix)	Accessories (Order Separately)
XTOR1B =Small Door, 12W XTOR2B =Small Door, 18W XTOR3B =Small Door, 26W XTOR4B =Medium Door, 38W	[Blank] =Bright White (Standard), 5000K W =Neutral White, 4000K Y =Warm White, 3000K	[Blank] =Carbon Bronze (Standard) WT =Summit White BK =Black BZ =Bronze AP =Grey GM =Graphite Metallic DP =Dark Platinum	PC1 =Photocontrol 120V ² PC2 =Photocontrol 208-277V ^{2,3} 347V =347V ⁴ HA =50°C High Ambient ⁴	WG/XTOR =Wire Guard ⁵ XTORFLD-KNC =Knuckle Floodlight Kit ⁶ XTORFLD-TRN =Trunnion Floodlight Kit ⁶ XTORFLD-KNC-WT =Knuckle Floodlight Kit, Summit White ⁶ XTORFLD-TRN-WT =Trunnion Floodlight Kit, Summit White ⁶ EWP/XTOR =Escutcheon Wall Plate, Carbon Bronze EWP/XTOR-WT =Escutcheon Wall Plate, Summit White

NOTES:

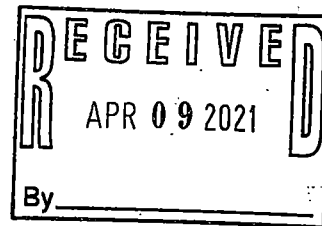
- DesignLights Consortium® Qualified and classified for both DLC Standard and DLC Premium, refer to www.designlights.org for details.
- Photocontrols are factory installed.
- Order PC2 for 347V models.
- Thru-branch wiring not available with HA option or with 347V. XTOR3B not available with HA and 347V or 120V combination.
- Wire guard for wall/surface mount. Not for use with floodlight kit accessory.
- Floodlight kit accessory supplied with knuckle (KNC) or trunnion (TRN) base, small and large top visors and small and large impact shields.

STOCK ORDERING INFORMATION

12W Series	18W Series	26W Series	38W Series
XTOR1B =12W, 5000K, Carbon Bronze	XTOR2B =18W, 5000K, Carbon Bronze	XTOR3B =26W, 5000K, Carbon Bronze	XTOR4B =38W, 5000K, Carbon Bronze
XTOR1B-WT =12W, 5000K, Summit White	XTOR2B-W =18W, 4000K, Carbon Bronze	XTOR3B-W =26W, 4000K, Carbon Bronze	XTOR4B-W =38W, 4000K, Carbon Bronze
XTOR1B-PC1 =12W, 5000K, 120V PC, Carbon Bronze	XTOR2B-WT =18W, 5000K, Summit White	XTOR3B-WT =26W, 5000K, Summit White	XTOR4B-WT =38W, 5000K, Summit White
XTOR1B-W =12W, 4000K, Carbon Bronze	XTOR2B-PC1 =18W, 5000K, 120V PC, Carbon Bronze	XTOR3B-PC1 =26W, 5000K, 120V PC, Carbon Bronze	XTOR4B-PC1 =38W, 5000K, 120V PC, Carbon Bronze
	XTOR2B-W-PC1 =18W, 4000K, 120V PC, Carbon Bronze	XTOR3B-W-PC1 =26W, 4000K, 120V PC, Carbon Bronze	XTOR4B-W-PC1 =38W, 4000K, 120V PC, Carbon Bronze
	XTOR2B-347V =18W, 5000K, Carbon Bronze, 347V	XTOR3B-347V =26W, 5000K, Carbon Bronze, 347V	XTOR4B-347V =38W, 5000K, Carbon Bronze, 347V
	XTOR2B-WT-PC1 =18W, 5000K, 120V PC, Summit White	XTOR3B-PC2 =26W, 5000K, 208-277V PC, Carbon Bronze	

Expected
Fee: _____

TOWN OF MANLIUS
PLANNING DEPARTMENT
INITIAL APPEARANCE APPLICATION



DATE: 03/29/2021

Name of Project: Subdivision of Lands of Christine P. Hebert, Paul G. Zion and Jason P. Zion

Applicant must submit 12 copies of all site plans, surveys, and supporting data with the final application before a planning board meeting can be scheduled.

Location of Project: Schepps Corners Road and North Manlius Road

Type of Project:

☐ Division of Land ☒ Subdivision ☐ Accessory Use ☐ Zone Change ☐ Site Review ☐ Other _____

Developer: Alexander Hebert Phone: 315-450-5508

Address: 7119 N. Manlius Road Zip: 13082

Tax Map Number(#)/s: 040.00-02-021.1

Present Zoning: R-A (Restricted Agriculture) Desired Zoning: _____

Total Acreage: 48.85 acres Total Number of Lots: 2

Property Owner/s: Jason P. Zion Phone: 315-382-4370

Address: 7115 N. Manlius Road Zip: 13082

Tax Map#(s): 040.00-02-021.1 Owner's Signature: *Jason Zion*

Printed Name: Jason Zion

Property Owner/s: Christine P. Hebert Phone: 315-656-7478

Address: 7812 Peck Road Zip: 13082

Tax Map#(s): 040.00-02-021.1 Owner's Signature: *Christine P. Hebert*

Printed Name: Christine P. Hebert

Use next page for additional known property owners' information

Planning Board Meeting Date Assignment: _____

Fee: _____ Paid: _____ Per: ☐ Credit/Debit Card ☐ Check ☐ Cash

Planning Board - Initial

Short Environmental Assessment Form

Part 1 - Project Information

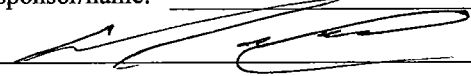
Instructions for Completing

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: Subdivision of Lands of Christine P. Hebert, Paul G. Zion and Jason P. Zion			
Project Location (describe, and attach a location map): Schepp's Corners Road and North Manlius Road			
Brief Description of Proposed Action: Subdivision of 48.85+/- acres (Lot#1 Christine P. Herbert Subdivision (Map #11986) into two lots. Lot #1A being the remaining 45.608+/- acres. Lot#2A being 3.246+/- acres.			
Name of Applicant or Sponsor: Alexander Hebert		Telephone: (315)450-5508 E-Mail: ahebert1987@yahoo.com	
Address: 7119 7499 N. Manlius Road			
City/PO: Kirkville		State: NY	Zip Code: 13082
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.			NO ☒
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval: Town of Manlius Planning Board			YES ☒
3. a. Total acreage of the site of the proposed action? b. Total acreage to be physically disturbed? c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor?			48.85+/- acres 0 acres 48.85+/- acres
4. Check all land uses that occur on, are adjoining or near the proposed action: ☐ Urban ☐ Rural (non-agriculture) ☐ Industrial ☐ Commercial ☒ Residential (suburban) ☐ Forest ☒ Agriculture ☐ Aquatic ☐ Other(Specify): ☐ Parkland			

5. Is the proposed action, a. A permitted use under the zoning regulations? b. Consistent with the adopted comprehensive plan?	NO ☐ ☐	YES ☒ ☒	N/A ☐ ☐
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? b. Are public transportation services available at or near the site of the proposed action? c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	NO ☒ ☒ ☒	YES ☐ ☐ ☐	
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: _____ _____	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: <u>On site sanitary disposal system</u> _____	NO ☒	YES ☐	
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? b. 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?	NO ☐ ☐	YES ☒ ☒	
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: _____ _____ _____	NO ☐ ☒	YES ☒ ☐	

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 plan?	NO	YES
	☐	☒
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes,	NO	YES
	☒	☐
a. Will storm water discharges flow to adjacent properties?	☒	☐
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?	☒	☐
If Yes, briefly describe: _____ _____		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)? If Yes, explain the purpose and size of the impoundment:	NO	YES
	☒	☐
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:	NO	YES
	☒	☐
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:	NO	YES
	☒	☐
I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE		
Applicant/sponsor/name: <u>Alexander Hebert</u> Date: <u>4/9/21</u>		
Signature: <u></u> Title: _____		

TOWN OF MANLIUS

DISCLOSURE AFFIDAVIT

This affidavit is a part of and must be completed and attached to every application, petition, request submitted for a *site plan, variance, amendment, change of zoning, approval of a plat, exemption from a plat or official map, license or permit.*

STATE OF NEW YORK)
) SS:
COUNTY OF ONONDAGA)

I. Alexander Hebert, being duly sworn, deposes and says that (s) he is:

Applicant

(applicant, petitioner, corporation officer, property owner, etc.)

II. That deponent has read and is familiar with the provisions of the General Municipal Law, Section 809 which states:

- A. Every application, petition or request submitted for a site plan, variance, amendment, change of zoning, approval of a plat, exemption from a plat or official map, license or permit, pursuant to the provisions or any ordinance, local law, rule or regulation constituting the zoning and planning regulations of a municipality shall state the name, residence and the nature and extent of the interest of any state officer or any officer or employee of such municipality is a part, in the person, partnership or association making such application, petition or request (hereinafter called the applicant) to the extent known to such applicant.
- B. For the purpose of this action an officer or employee shall be deemed to have an interest in the applicant when (s)he, his/her spouse, or their brothers, sisters, parents, children, grandchildren, or the spouse of any of them:
 - 1) is the applicant, or
 - 2) is an officer, director, partner or employee of the applicant, or
 - 3) legally or beneficially owns or controls stock of a corporate applicant or is a member of a partnership or association applicant, or
 - 4) is a party to an agreement with such an applicant, express or implied, whereby (s) he may receive any payment or other benefit, whether or not for services rendered, or contingent upon the favorable approval of such application, petition or request.
- C. Ownership of less than five percent (5%) of the stock of a corporation whose stock is listed on the New York or American Stock Exchanges shall not constitute an interest for the purposes of this section.
- D. A person who knowingly and intentionally violates this section shall be guilty of a misdemeanor.

III. That no Town of Manlius officer, employee or a relative of either, as defined in Section 809 General Municipal Law has any interest in this application.

-OR-

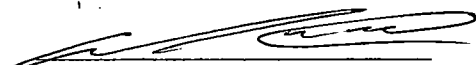
If a Town of Manlius officer, employee or relative of either as defined in Section 809 General Municipal law has any interest in this application, the full particulars are provided on an attached sheet.

Date: April 9, 20 21.

Date: _____, 20____.

Alexander Hebert
(Print Name)

(Print Name)


(Signature)

(Signature)

(Entity Name)

(Entity Name)

By (Officer) (Title)

By (Officer) (Title)

7119 N. Manlius RD Kirkville NY 13082
(Mailing Address of Applicant)

(Mailing Address of Applicant)

315-450-5508
(Telephone Number)

(Telephone Number)

ACKNOWLEDGEMENTS

STATE OF NEW YORK)
) SS:
COUNTY OF ONONDAGA)

On this 9th day of April in the year 20 21, before me, the undersigned, a notary public in and for said state, personally appeared Alexander Hebert, and _____ personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within Petition and acknowledged to me the he/she/they executed the same in his/her/their capacity, and that by his/her/their signature(s) on the Petition, the individual or the persons upon behalf of which the individual acted executed the instrument.

Maureen E. Dicosimo
Notary Public

MAUREEN E. DICOSIMO
Notary Public-State of New York
No. 01DI6396701
Qualified in Onondaga County
Commission Expires 08/26/2023



Flood Zone Note:

Limit of 100 year Flood Zone interpolated from Flood Insurance Rate Map, Town of Manlius – Onondaga County, New York. Community Panel Number 36067C 0251F and should be considered approximate only.

Wetlands Note:

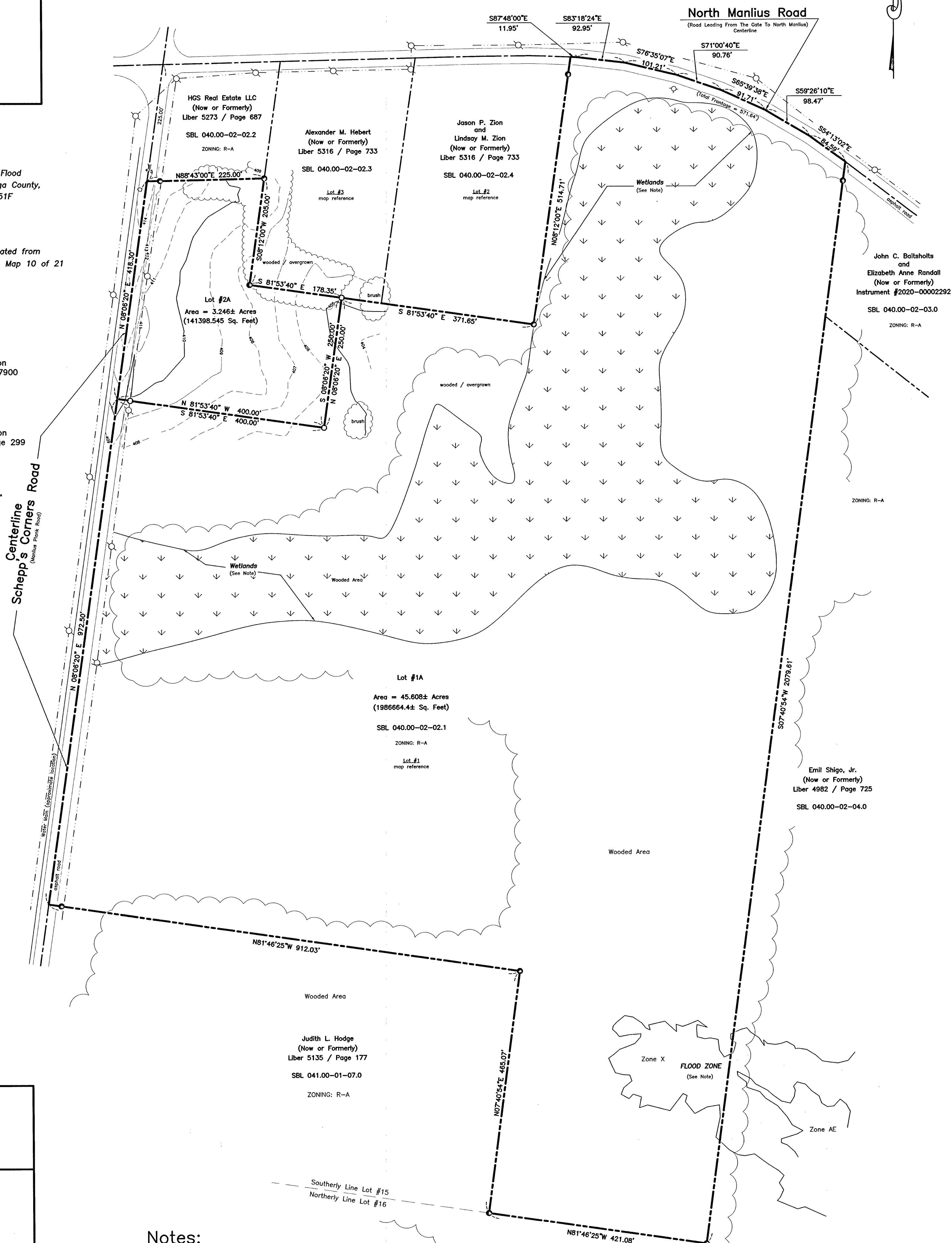
Limit of NYS Freshwater Wetlands SYE 5 interpolated from NYS Freshwater Wetlands Map, Onondaga County, Map 10 of 21 and should be considered approximate only.

Deed Reference:

- 1) Arthur G. Zion and George H. Zion
To
Jason P. Zion
by Deed dated November 26, 2019
Filed in the Onondaga County Clerk's Office on
December 18, 2019 as Instrument #2019-00047900
- 2) Paul G. Zion
To
Christine P. Hebert
by Deed dated November 25, 2006
Filed in the Onondaga County Clerk's Office on
January 11, 2007 in Liber 4977 of Deeds at Page 299

Map Reference:

"Subdivision of Lands of Christine P. Hebert"
prepared by Myers and Associates, P.C.
dated November 14, 2014 and filed in
the Onondaga County Clerk's Office on
February 17, 2015 as Map #11986



Notes:

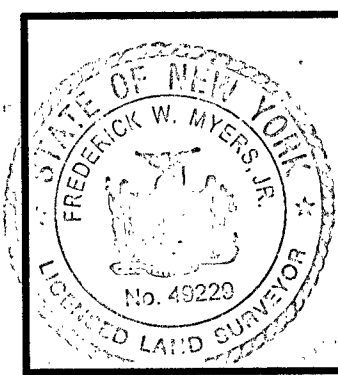
- 1) Total Area Surveyed = 48.85± Acres
- 2) Area is zoned R-A (Restricted Agriculture)
- 3) Minimum Lot Size = 100,000 Sq. Ft.
- 4) Minimum Road Frontage = 200'
- 5) Minimum Yard dimensions:
 - Front = 40'
 - Side = 20'
 - Rear = 40'
- 6) Number of Proposed Lots: 2
- 7) Water Supply: Municipal (OCWA)
- 8) Area does not lie within an Agricultural District per Agricultural District Properties District 3 Onondaga County, Map Certified April 9, 2015
- 9) This property is located in a New York State DEC regulated wetland as Delineated on maps on file with the Town of Manlius Clerk.
- 10) Area does lie within a Flood Hazard Map per N.F.I.P. Flood Insurance Rate Maps, Community Panel Number 36067C 0232F, Effective Date 11/04/2016 and Number 36067C 0251F, Effective Date 11/04/2016
- 11) Vertical datum based on NAVD 1988, 1' contour Intervals
- 12) Sanitary Sewage Disposal: Individual on-site sanitary sewage disposal system meeting Onondaga County Health Department Standards

Legend:

- iron pin set
 ● existing iron pin
 ○ utility pole
 ○ fire hydrant
 --- existing ground contour

Scale 1"=100 Feet

FILE NO. 14-106-4



DATE OF DRAWING
03/29/2021

Subdivision of Lands of
Christine P. Hebert, Paul G. Zion
and
Jason P. Zion
Schepps Corners Road and North Manlius Road
Town of Manlius — Onondaga County
State of New York

Myers and Associates, P.C.
127 South Peterboro Street
Canastota, New York 13032
Telephone (315) 697-2281 Fax (315) 697-5232

1000

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.

THE ALTERATION OF SURVEY MAPS BY ANYONE OTHER THAN THE ORIGINAL PREPARER IS MISLEADING, CONFUSING, AND NOT IN THE GENERAL WELFARE AND BENEFIT OF THE PUBLIC. LICENSED LAND SURVEYORS SHALL NOT ALTER SURVEY MAPS, SURVEY PLANS, OR SURVEY PLATS PREPARED BY OTHERS.

MAP BY: DRS
CHECKED BY: RM

It is hereby certified that this map was made from an actual field survey dated March 29, 2021 and that both map and survey are correct.

Frederick W. Myers Jr., L.S.#049229