STORMWATER MANAGEMENT REPORT

Croft Mill

Jefferson Street
Block 497, Lot 20
City of Camden
Camden County
New Jersey

PREPARED FOR
Croft Mill Housing Association
P.O. Box 90708
Camden, NJ 08101

PREPARED BY

Taylor Wiseman & Taylor
ENGINEERS | SURVEYORS | SCIENTISTS

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STATE OF NEW JERSEY
VLADISLAV KOLDOMASOV
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LICENSED
PROFESSIONAL ENGINEER

Vladislav A Koldomasov

Project No.: 07755.1000.00
May 11, 2026

Vladislav A. Koldomasov, PE
NJ Professional Engineer No.24GE05529600
Certificate of Authorization No. 24GA28032900

Assisted By: Matthew Young

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I. Introduction

The purpose of this report is to demonstrate compliance with New Jersey stormwater management regulations through hydrologic and hydraulic analyses. The proposed development is located at Block 497, Lot 20 in the City of Camden, Camden County, New Jersey. The property is currently zoned R2 residential district.

The development proposes the construction of townhouses, multifamily residences, and offices. The townhouses will consist of nine (9) two bedroom units and twenty-five (25) three bedroom units. The multifamily units will consist of nine (9) one bedroom units, eighteen (18) two bedroom units, and three (3) three bedroom units. Additional on-site improvements include sidewalks, parking, and driving aisles. Stormwater on the site will be managed by inlets and manufactured treatment devices that discharge to the city's storm sewer system.

Historically, the site was first developed with three main structures prior to 1891 and was operated as a worsted mill and clothing manufacturer throughout the 20th century. The earlier records identify the site as the Linden Worsted Mills. Later operations included Howland Croft and Sons & Company, Broadlow Corporation Lofts, and the Tiny Women's Clothing Factory. All operations at the facility ceased in the early 2000s and buildings were destroyed by a fire in 2011 and subsequently demolished. Unknown fill material was imported to the site as backfill demolition, raising the site approximately four feet above the surrounding grade. The site currently remains vacant with open space coverage.

The site is also situated within New Jersey's Metropolitan Planning Area 1 (PA-1) zone. According to the New Jersey Department of Environmental Protection (NJDEP) stormwater management rules (N.J.A.C. 7:8), properties with previous disturbance activities located in PA-1 zones are exempt from groundwater recharge requirements. This exemption is designed to facilitate urban redevelopment and support the state's planning goals for densely populated areas. By adhering to the exemption outlined in N.J.A.C. 7:8-5.4-2, the project can proceed without the need for groundwater recharge measures due to the condition of the site's soils, aligning with the state's objectives for sustainable urban development and efficient land use in Metropolitan Planning Area 1. A copy of the New Jersey Development and Redevelopment Plan is provided in Figure 3 of Appendix A.

The proposed project is located within a tidal flood hazard area. According to New Jersey's stormwater management rules (N.J.A.C. 7:8-5.6(b)4.), stormwater quantity control analysis is not required if the stormwater is discharged directly into any ocean, bay, inlet, or the reach of any watercourse between its confluence with an ocean, bay, or inlet and downstream of the first water control structure.

Stormwater runoff quantity control is not required for this site because it is located in a flood hazard area based on FEMA Coastal flood zone. As such, the flooding source is the Atlantic Ocean/Delaware Bay, where quantity control serves no practical purpose.

II. Hydrology and Hydraulics

A. Methodology

The hydrographs for this project were generated using "HydroCAD", a stormwater hydrograph routing software based on the USDA Natural Resources Conservation Service (NRCS) TR-55 computer modeling techniques. The runoff volumes for the cover and soil types have been calculated separately. The Standard Unit Hydrograph was used to produce peak flows for the Water Quality Design Storm. Figure 1 in Appendix A shows a map of the New Jersey Rainfall Distribution Regions.

B. Soils

The soil is not classified on Web Soil Survey for the proposed development.
Soil test pits were performed by Underwood Engineering on November 21st, 2025. Six test pits were performed. Findings from the test pits determined that the soil consisted of a layer of construction debris with native soils below. As a result, hydrologic soil group "D" was used for the design.

Soil test findings and results are found in an engineering report by Underwood Engineering Company, dated 11/30/25.

C. Rainfall Data

The rainfall intensities were obtained from NOAA's NWS Precipitation Frequency Data Server Website. For rainfall depths, the New Jersey Water Quality Design Storm was used. Stormwater runoff quality control, N.J.A.C. 7:8-5.5 requires using 1.25 inches of rain falling nonuniformly in a 2-hour storm event, which is also known as the Water Quality Design Storm (WQDS). See Appendix A for rainfall data.

III. Stormwater Management

The project will result in more than one (1) acre of disturbance and therefore is classified as a "Major Development" subject to compliance with the January 2026 NJDEP Stormwater Management (SWM) Rules (NJAC 7.8).

Pursuant to N.J.A.C. 7:8-5.2, stormwater management measures addressing erosion control, groundwater recharge, stormwater runoff quality, and stormwater runoff quantity standards of N.J.A.C. 7:8-5.4, 5.5, and 5.6 are required for major developments.

As stated in the introduction, stormwater quantity and recharge are not applicable to this project. Stormwater quality control will be addressed by FocalPoint HC Modular Biofiltration System.

A. Groundwater Recharge

As previously mentioned, and per N.J.A.C. 7:8-5.4(b)2. the proposed project is located within a PA-1 "urban redevelopment area" zone and is not required to provide groundwater recharge.

B. Runoff Quality

Per N.J.A.C 7:8-5.5(b)2. - the stormwater runoff quality standards require water quality management measures to reduce the post-construction load of runoff laden total suspended solids (TSS) generated from the water quality design storm by 80 percent, expressed as an annual runoff average from the net increase of motor vehicle surface. Stormwater runoff quality standards are applicable when there is an increase of 1/4 acre or more of regulated impervious surface.

The motor vehicle impervious runoff that is part of the proposed development is treated through six (6) FocalPoint HC biofiltration systems. FocalPoint systems are an NJDEP approved manufactured treatment device that provide 80% TSS removal rate. FocalPoint design specifications are provided in Appendix C of this report.

Each system has been properly sized to treat the water quality flow rate from the contributing drainage area. The calculations were performed using the peak flow from the design storm for each of the drainage areas of the NJ Water Quality Design Storm in HydroCAD. Below is a table summarizing the design of each system as well as calculations of the FocalPoint media bed size and maximum allowable inflow drainage area.

FOCALPOINT SIZING CALCULATION				
FP ID Number	Calculated WQ Flow Rate (cfs)	Selected FP Model	Maximum Inflow Drainage Area (acres)	Design Drainage Area (acres)
FP-1	0.34	FP-HCMBS-39	0.3816	0.147
FP-2	0.35	FP-HCMBS-40	0.3913	0.146
FP-5	0.48	FP-HCMBS-54	0.5283	0.212
FP-6	0.24	FP-HCMBS-27	0.2642	0.098
FP-7	0.25	FP-HCMBS-29	0.2837	0.102
FP-8	0.28	FP-HCMBS-32	0.3131	0.098

1. FocalPoint HC model sizes are not fixed to a width or length dimension and are expressed as a filter bed area that can be dimensioned based on site-specific conditions. To facilitate ease of layout recommended WXL dimensions are included herein, please see manufacturer's details and design guidelines for custom layouts.
2. Based on 4 gpm/ft^2 of effective treatment area.
3. Drainage Area is based on mass capture capacity of 5.87 lbs/ft^2 of filtration area and the equation in the NJDEP Filter Protocol wherein drainage area is calculated by dividing the pounds of mass captures by 600 lbs/acre.

Example Calculation - FocalPoint FP-1 Media Bed and Maximum Allowable DA

FocalPoint Bed Area Calculation
Water Quality Design Flow = 0.34 cfs (152.60 gallons per minute) (Appendix C)
FP Area = 152.60 gpm / 4 gpm/ft^2 = 38.15 ≈ 39 SF

Maximum Allowable Inflow Drainage Area
Sediment Load Capacity = 39 sf x 5.87 lbs/ft^2 = 228.93 lbs
Max. Inflow Drainage Area for System = 228.93 lbs / 600 lbs/acres = 0.3816 acres

C. Runoff Quantity

As previously mentioned, the proposed project is located within a tidal flood hazard area and discharges directly into tidal waters. According to New Jersey's stormwater management rules (N.J.A.C. 7:8-5.6(b)4.), stormwater quantity control analysis is not required if the stormwater is discharged directly into any ocean, bay, inlet, or the reach of any watercourse between its confluence with an ocean, bay, or inlet and downstream of the first water control structure.

Stormwater runoff quantity control is not required for this site because it is located in a flood hazard area based on FEMA Coastal flood zone. As such, the flooding source is the Atlantic Ocean/Delaware Bay, where quantity control serves no practical purpose.

IV. Soil Erosion and Sediment Control

The project includes design features to prevent the transport of soil into downstream waterways during and after construction. Implementation such as stabilized soil stockpiles, construction entrance pads and silt fence are included in the site plan design. Since the project disturbs more than 5,000 square feet, the plans will be submitted to the DelAtlantic Soil Conservation District for review and certification.

V. Conclusion

The information provided within this report demonstrates that the stormwater management requirements for a major development in N.J.A.C. 7:8 have been met.

APPENDIX A: FIGURES

FIGURE 1 – NOAA RAINFALL DATA

NOAA Atlas 14, Volume 2, Version 3
Location name: Camden, New Jersey, USA*
Latitude: 39.92°, Longitude: -75.1207°
Elevation: 14 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

G.M. Bonnin, D. Martin, B. Lin, T. Parzybok, M.Yekta, and D. Riley

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	4.18 (3.83-4.55)	4.98 (4.56-5.42)	5.87 (5.36-6.40)	6.50 (5.94-7.09)	7.27 (6.61-7.93)	7.81 (7.06-8.54)	8.34 (7.51-9.16)	8.82 (7.88-9.72)	9.40 (8.30-10.4)	9.83 (8.60-11.0)
10-min	3.34 (3.06-3.64)	3.98 (3.65-4.34)	4.70 (4.30-5.12)	5.20 (4.75-5.67)	5.80 (5.27-6.32)	6.22 (5.62-6.80)	6.63 (5.96-7.27)	6.99 (6.25-7.70)	7.43 (6.56-8.24)	7.74 (6.78-8.63)
15-min	2.78 (2.55-3.03)	3.34 (3.06-3.64)	3.96 (3.62-4.32)	4.38 (4.00-4.78)	4.90 (4.45-5.34)	5.25 (4.74-5.74)	5.59 (5.03-6.12)	5.88 (5.25-6.48)	6.24 (5.51-6.91)	6.48 (5.67-7.22)
30-min	1.90 (1.75-2.08)	2.30 (2.11-2.51)	2.81 (2.57-3.07)	3.17 (2.90-3.47)	3.63 (3.30-3.96)	3.95 (3.57-4.32)	4.28 (3.85-4.69)	4.58 (4.09-5.04)	4.96 (4.38-5.50)	5.25 (4.59-5.85)
60-min	1.19 (1.09-1.30)	1.44 (1.32-1.58)	1.80 (1.65-1.97)	2.07 (1.89-2.26)	2.42 (2.19-2.64)	2.68 (2.42-2.93)	2.95 (2.65-3.23)	3.21 (2.87-3.54)	3.56 (3.14-3.94)	3.83 (3.35-4.27)
2-hr	0.715 (0.651-0.784)	0.869 (0.794-0.953)	1.09 (0.993-1.20)	1.26 (1.14-1.38)	1.48 (1.34-1.62)	1.66 (1.49-1.82)	1.84 (1.64-2.02)	2.02 (1.78-2.23)	2.26 (1.98-2.52)	2.45 (2.12-2.74)
3-hr	0.521 (0.475-0.572)	0.632 (0.578-0.694)	0.795 (0.724-0.872)	0.921 (0.836-1.01)	1.09 (0.983-1.20)	1.23 (1.10-1.35)	1.37 (1.22-1.51)	1.51 (1.33-1.67)	1.71 (1.48-1.90)	1.86 (1.60-2.08)
6-hr	0.325 (0.297-0.358)	0.393 (0.360-0.434)	0.492 (0.449-0.542)	0.573 (0.520-0.630)	0.686 (0.617-0.755)	0.779 (0.696-0.859)	0.879 (0.776-0.970)	0.983 (0.858-1.09)	1.13 (0.969-1.26)	1.25 (1.06-1.41)
12-hr	0.196 (0.179-0.216)	0.237 (0.216-0.261)	0.298 (0.272-0.329)	0.350 (0.317-0.386)	0.426 (0.382-0.469)	0.491 (0.436-0.542)	0.561 (0.492-0.622)	0.639 (0.551-0.711)	0.752 (0.633-0.843)	0.849 (0.700-0.957)
24-hr	0.112 (0.103-0.122)	0.136 (0.125-0.147)	0.172 (0.159-0.187)	0.203 (0.187-0.220)	0.249 (0.228-0.269)	0.289 (0.262-0.311)	0.331 (0.300-0.357)	0.379 (0.339-0.407)	0.449 (0.397-0.483)	0.509 (0.445-0.547)
2-day	0.064 (0.059-0.070)	0.078 (0.072-0.085)	0.099 (0.091-0.108)	0.117 (0.107-0.127)	0.143 (0.130-0.155)	0.164 (0.149-0.178)	0.188 (0.169-0.203)	0.214 (0.191-0.231)	0.252 (0.222-0.272)	0.283 (0.248-0.307)
3-day	0.045 (0.041-0.049)	0.055 (0.050-0.059)	0.069 (0.064-0.075)	0.082 (0.075-0.088)	0.099 (0.091-0.107)	0.114 (0.104-0.123)	0.130 (0.118-0.141)	0.148 (0.132-0.160)	0.173 (0.153-0.187)	0.194 (0.171-0.210)
4-day	0.036 (0.033-0.039)	0.043 (0.040-0.047)	0.054 (0.050-0.059)	0.064 (0.059-0.069)	0.077 (0.071-0.084)	0.089 (0.081-0.096)	0.101 (0.092-0.109)	0.114 (0.103-0.124)	0.134 (0.119-0.145)	0.150 (0.132-0.162)
7-day	0.023 (0.022-0.025)	0.028 (0.026-0.031)	0.035 (0.033-0.038)	0.041 (0.038-0.045)	0.050 (0.046-0.054)	0.057 (0.052-0.061)	0.065 (0.059-0.070)	0.073 (0.066-0.078)	0.085 (0.076-0.091)	0.095 (0.084-0.102)
10-day	0.018 (0.017-0.020)	0.022 (0.021-0.024)	0.027 (0.025-0.029)	0.032 (0.029-0.034)	0.038 (0.035-0.040)	0.042 (0.039-0.046)	0.047 (0.044-0.051)	0.053 (0.048-0.057)	0.061 (0.055-0.065)	0.067 (0.060-0.072)
20-day	0.012 (0.012-0.013)	0.015 (0.014-0.016)	0.018 (0.017-0.019)	0.020 (0.019-0.021)	0.023 (0.022-0.025)	0.026 (0.024-0.028)	0.029 (0.027-0.030)	0.031 (0.029-0.033)	0.035 (0.032-0.037)	0.038 (0.035-0.040)
30-day	0.010 (0.010-0.011)	0.012 (0.011-0.013)	0.014 (0.013-0.015)	0.016 (0.015-0.017)	0.018 (0.017-0.019)	0.020 (0.019-0.021)	0.022 (0.020-0.023)	0.023 (0.022-0.025)	0.026 (0.024-0.027)	0.027 (0.025-0.029)
45-day	0.009 (0.008-0.009)	0.010 (0.010-0.011)	0.012 (0.011-0.012)	0.013 (0.012-0.014)	0.015 (0.014-0.015)	0.016 (0.015-0.017)	0.017 (0.016-0.018)	0.018 (0.017-0.019)	0.019 (0.018-0.021)	0.020 (0.019-0.022)
60-day	0.008 (0.007-0.008)	0.009 (0.009-0.009)	0.010 (0.010-0.011)	0.011 (0.011-0.012)	0.013 (0.012-0.013)	0.014 (0.013-0.014)	0.015 (0.014-0.015)	0.015 (0.014-0.016)	0.016 (0.015-0.017)	0.017 (0.016-0.018)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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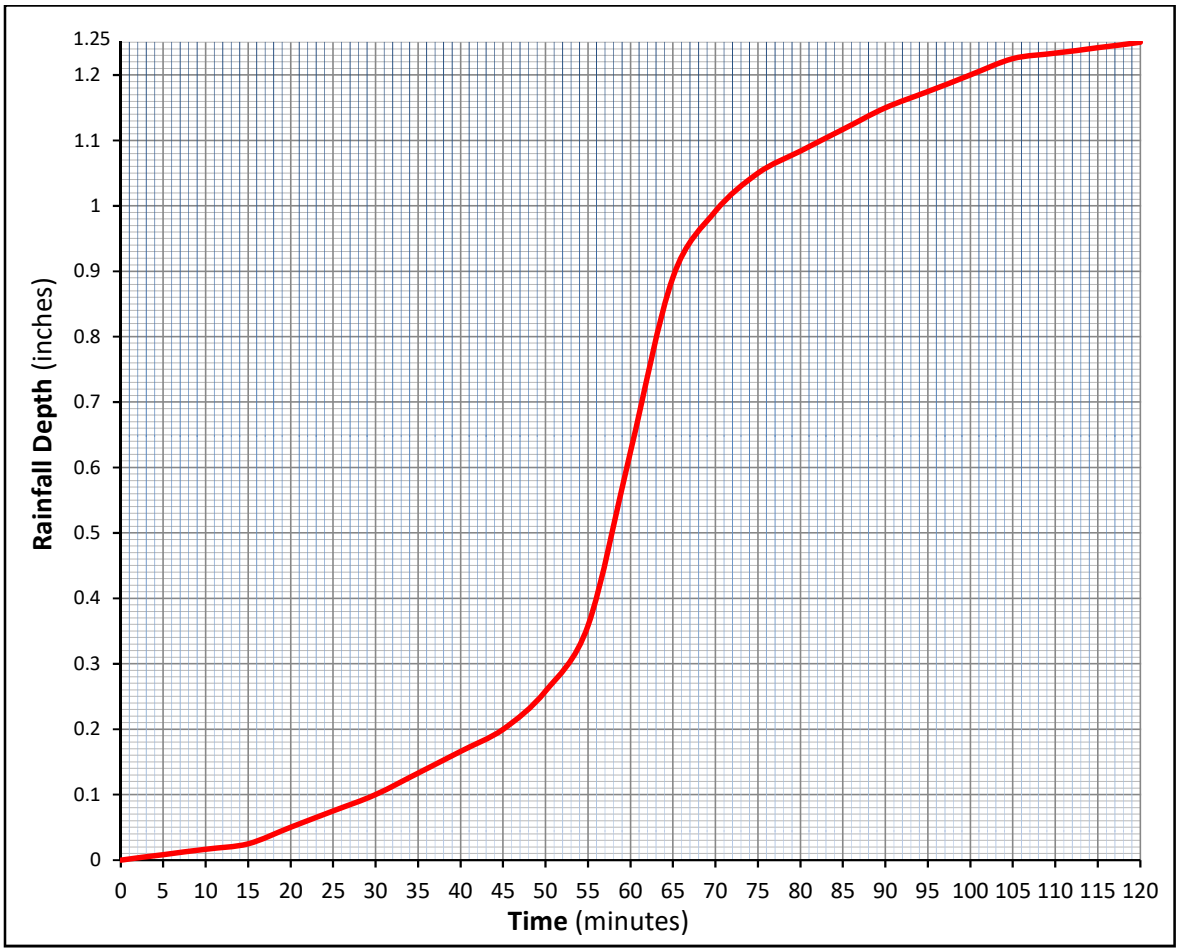
PF graphical

FIGURE 2: WATER QUALITY DESIGN STORM

whether they are based on total runoff volume or peak runoff rate, will provide the same level of stormwater pollution control.

The accumulative distribution curve for rainfall depth, shown in Figure 5-10, is a graphical representation of 1.25 inches of rainfall falling in the 2-hour NJDEP WQDS.

Figure 5-10: Stormwater Runoff Water Quality Design Storm Rainfall Cumulative Distribution Curve

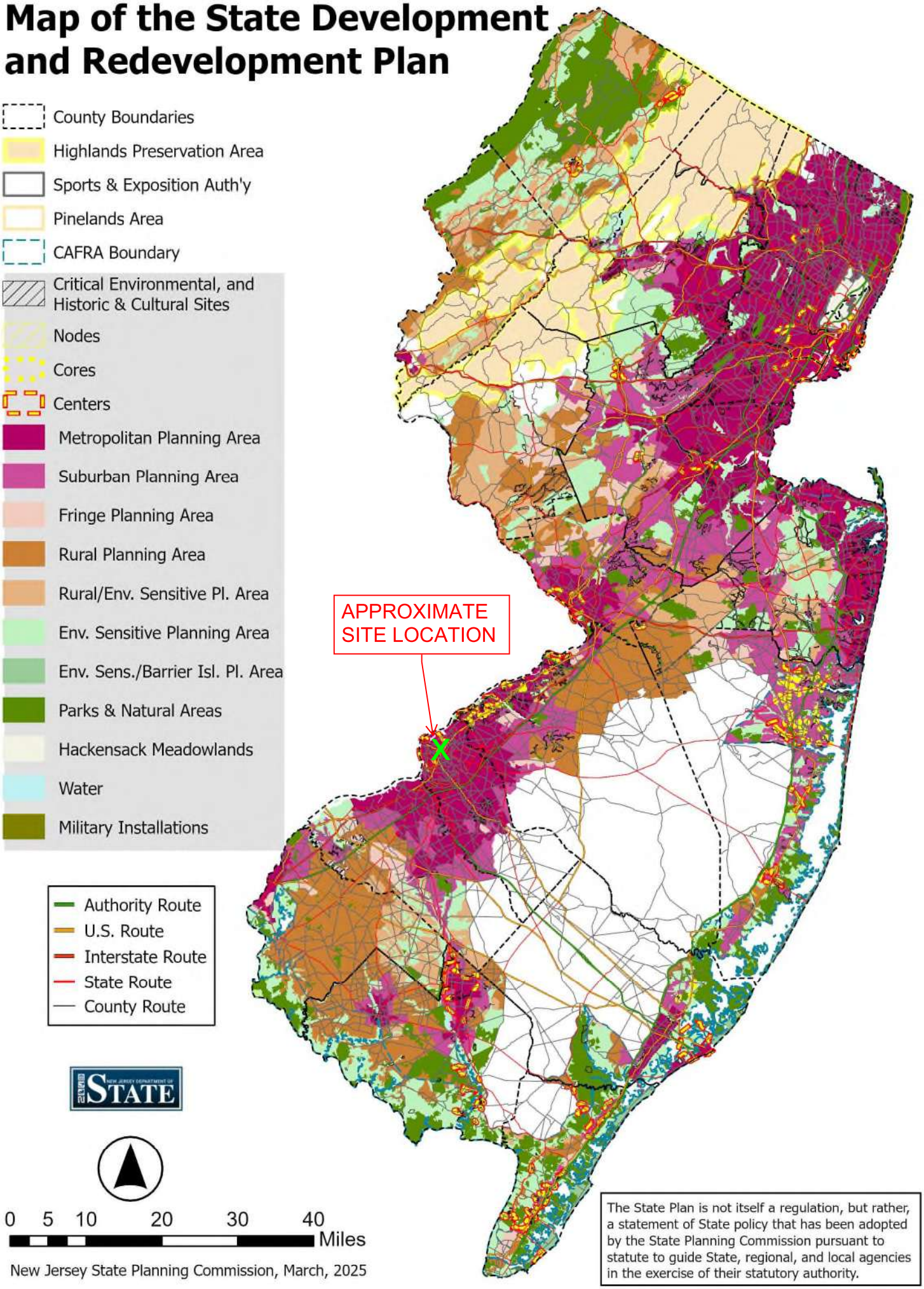


An Excel file providing the rainfall distribution and rainfall intensity of the WQDS, in 1 minute intervals, is also available on the Department's website, under the heading for *Chapter 5*, via the following link:

https://dep.nj.gov/stormwater/bmp-manual/

FIGURE 3: NJ REDEVELOPMENT PLAN

Map of the State Development and Redevelopment Plan



New Jersey State Planning Commission, March, 2025

The State Plan is not itself a regulation, but rather, a statement of State policy that has been adopted by the State Planning Commission pursuant to statute to guide State, regional, and local agencies in the exercise of their statutory authority.

APPENDIX B: STORMWATER CONVEYANCE DESIGN

Conduit FlexTable: Combined Pipe/Node Report

Label	Start Node	Stop Node	Length (Unified) (ft)	Diameter (in)	Manning's n	Slope (Calculated) (ft/ft)	Upstream Inlet Area (acres)	System CA (acres)	System Intensity (in/h)	Flow (cfs)	Capacity (Design) (cfs)	Velocity (ft/s)	Invert (Start) (ft)	Invert (Stop) (ft)	Elevation Ground (Start) (ft)	Elevation Ground (Stop) (ft)	Cover (Start) (ft)	Cover (Stop) (ft)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
1-3	I-1	I-3	110.0	15.0	0.015	0.005	0.195	0.190	5.800	1.11	3.96	2.77	5.12	4.57	8.52	7.59	2.15	1.77	5.57	4.98
2-3	I-2	I-3	15.0	15.0	0.015	0.010	0.214	0.208	5.800	1.22	5.60	3.65	4.21	4.06	7.63	7.59	2.17	2.28	4.65	4.46
3-4	I-3	MH-4	24.0	18.0	0.015	0.010	(N/A)	0.398	5.681	2.28	9.10	4.28	3.81	3.57	7.59	6.71	2.28	1.64	4.38	4.08
5-9	I-5	I-9	110.0	15.0	0.015	0.006	0.240	0.233	5.800	1.36	4.34	3.13	5.01	4.35	8.80	8.08	2.54	2.48	5.49	4.83
6-7	I-6	I-7	162.0	15.0	0.015	0.005	0.097	0.094	7.270	0.69	3.96	2.42	6.71	5.90	8.87	8.88	0.91	1.73	7.06	6.22
7-8	I-7	I-8	55.0	18.0	0.015	0.006	0.102	0.192	6.942	1.35	7.05	3.07	4.65	4.32	8.88	7.75	2.73	1.93	5.09	4.89
8-9	I-8	I-9	37.0	18.0	0.015	0.006	0.118	0.307	6.854	2.12	7.02	3.48	4.32	4.10	7.75	8.08	1.93	2.48	4.89	4.83
9-10	I-9	MH-10	25.0	18.0	0.015	0.010	0.091	0.629	5.694	3.61	9.10	4.85	4.10	3.85	8.08	7.59	2.48	2.24	4.83	4.51

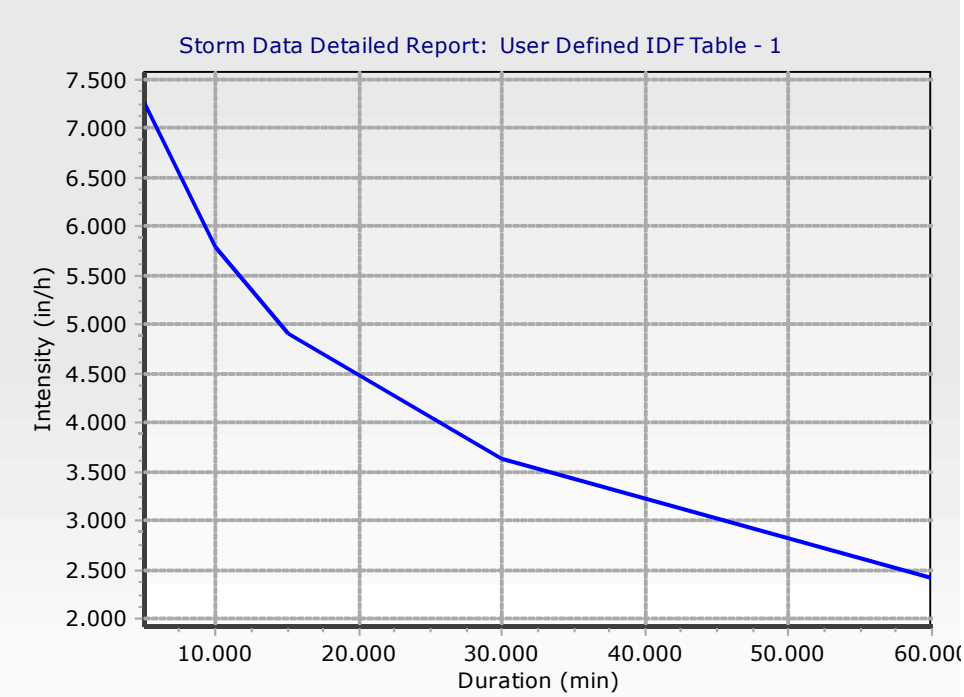
Storm Data Detailed Report: User Defined IDF Table - 1

Element Details		
ID	55	Notes
Label	User Defined IDF Table - 1	

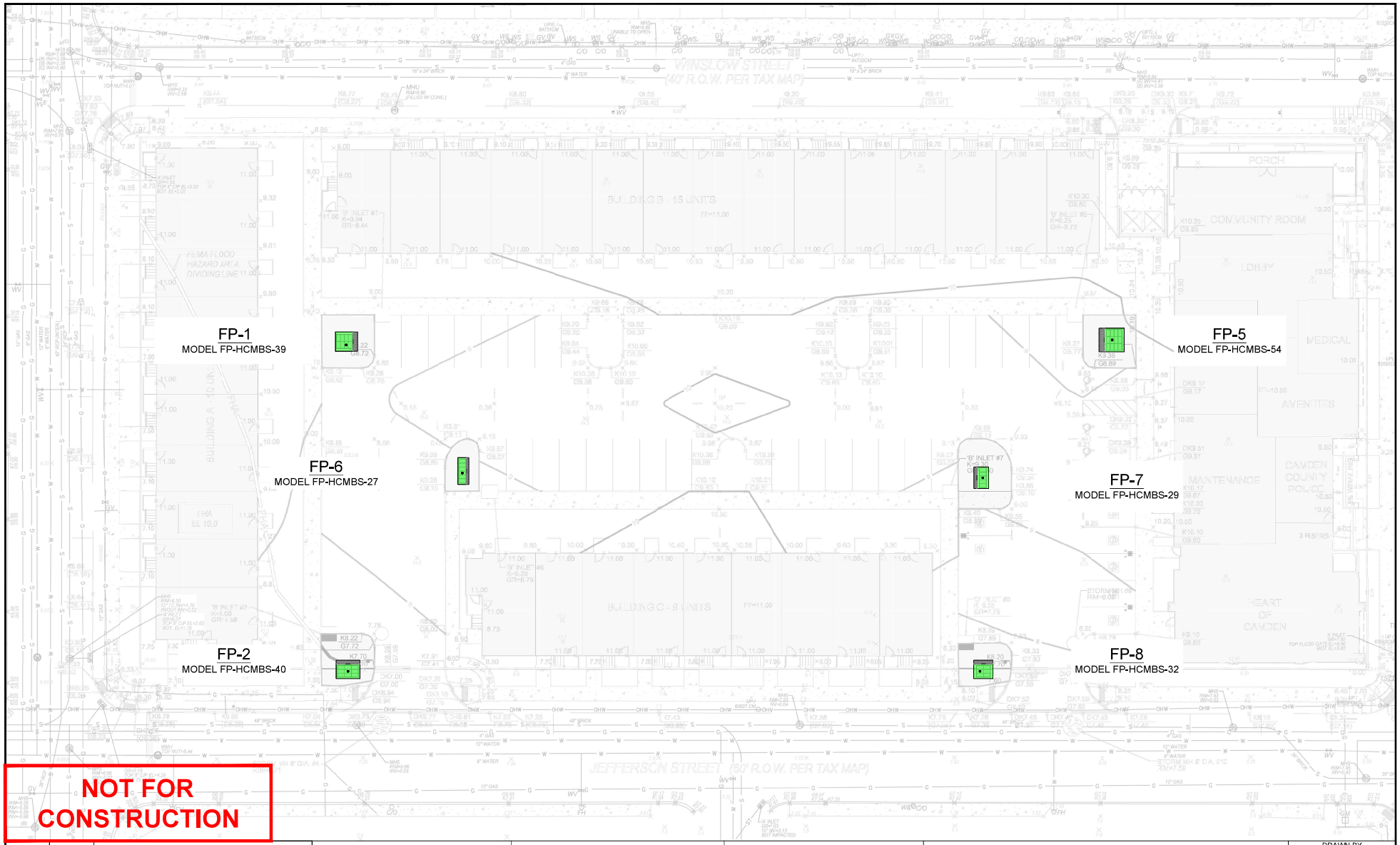
Duration (min)	25 Year (in/h)
5.000	7.270
10.000	5.800
15.000	4.900
30.000	3.630
60.000	2.420

Library Status Summary

	Synchronization Details
ID	55
Label	User Defined IDF Table - 1
Modified Date	5/8/2026 10:39:52 AM
Library Source	Orphan (local)
Library Modified Date	Orphan (local)
Synchronization Status	Orphan (local)
Engineering Reference Guid	Orphan (local)



APPENDIX C: FOCALPOINT SYSTEM DESIGN AND SPECIFICATIONS



NOT FOR CONSTRUCTION

DATE	INITIALS	DESCRIPTIONS

FocalPoint BIOFILTRATION SYSTEMS

DISTRIBUTED BY: FERGUSON WATERWORKS

FOCALPOINT
HIGH PERFORMANCE BIOFILTRATION MEDIA
0 30' 60'

SYSTEM OVERLAY
CROFT MILL JEFFERSON STREET
CAMDEN, NJ

DRAWN BY: CGB
DATE: 05/01/2026
SHEET NO.: 1 of 7

THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO FERGUSON WATERWORKS BY THE DESIGN ENGINEER, CONTRACTOR, OR OTHER PROJECT REPRESENTATIVE. THE ENGINEER OF RECORD SHALL REVIEW AND APPROVED THAT THE DEPICTED LAYOUT AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE REGULATIONS AND PROJECT SPECIFIC REQUIREMENTS.

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATERSHED PROTECTION AND RESTORATION
BUREAU OF NJPDES STORMWATER PERMITTING
P.O. Box 420 Mail Code 501-02A
Trenton, New Jersey 08625-0420
609-633-7021 / Fax: 609-777-0432
https://dep.nj.gov/stormwater/

MIKIE SHERILL
Governor

DALE G. CALDWELL
Lt. Governor

ED POTOSNAK
Acting Commissioner

February 18, 2026

W. Scott Gorneau, P.E.
Senior Vice President
Convergent Water Technologies
13110 Wortham Center Dr.
Third Floor, Suite 3134
Houston, TX 77065

Re: MTD Lab Certification
FocalPoint HC Modular Biofiltration System
Offline Installation

TSS Removal Rate 80%

Dear Mr. Gorneau:

The Stormwater Management rules under N.J.A.C. 7:8-5.2(f) and 5.2(j) allow the use of manufactured treatment devices (MTDs) for compliance with the design and performance standards at N.J.A.C. 7:8-5 if the pollutant removal rates have been verified by the New Jersey Corporation for Advanced Technology (NJCAT) and have been certified by the New Jersey Department of Environmental Protection (NJDEP). Convergent Water Technologies has requested a Laboratory Certification for the FocalPoint High Capacity Modular Biofiltration System (FocalPoint HC).

The project falls under the "Procedure for Obtaining Verification of a Stormwater Manufactured Treatment Device from New Jersey Corporation for Advanced Technology" dated August 4, 2021. The applicable protocol is the "New Jersey Laboratory Testing Protocol to Assess Total Suspended Solids Removal by a Filtration Manufactured Treatment Device" dated January 14, 2022, updated April 25, 2023.

NJCAT verification documents submitted to the NJDEP indicate that the requirements of the aforementioned protocol have been met or exceeded. The NJCAT letter also included a recommended certification TSS removal rate and the required maintenance plan. The NJCAT Verification Report with the Verification Appendix (dated January 2026) for this device is published online at http://www.njcat.org/verification-process/technology-verification-database.html.

The NJDEP certifies the use of the FocalPoint HC by Convergent Water Technologies at a TSS removal rate of 80% when designed, operated and maintained in accordance with the information provided in the Verification Appendix and the following conditions:

1. The maximum treatment flow rate (MTFR) for the manufactured treatment device (MTD) is calculated using the New Jersey Water Quality Design Storm (1.25 inches in 2 hrs) in N.J.A.C. 7:8-5.5.

2. The FocalPoint HC shall be installed using the same configuration reviewed by NJCAT and shall be sized in accordance with the criteria specified in item 6 below.

3. This FocalPoint HC cannot be used in series with another MTD or a media filter (such as a sand filter) to achieve an enhanced removal rate for total suspended solids (TSS) removal under N.J.A.C. 7:8-5.5.

4. Additional design criteria for MTDs can be found in Chapter 9.5 of the New Jersey Stormwater Best Management Practices (NJ Stormwater BMP) Manual which can be found on-line at https://dep.nj.gov/stormwater/.

5. The maintenance plan for a site using this device shall incorporate, at a minimum, the maintenance requirements for the FocalPoint HC. A copy of the maintenance plan is attached to this certification. However, it is recommended to review the maintenance website at: https://convergentwater.com/wp-content/uploads/2026/02/FocalPoint_HCMBS-OM-Guide-NJ2.pdf any changes to the maintenance requirements.

6. For an MTD to be considered "green infrastructure" in accordance with the March 2, 2020 amendments to the Stormwater Management rules at N.J.A.C. 7:8, the MTD must meet the GI definition noted at amended N.J.A.C. 7:8-1.2. Specifically, the MTD shall (1) infiltrate into the subsoil; and/or (2) treat stormwater runoff through filtration by vegetation or soil. Any configuration that uses a bio-filtration media and can be configured "above ground" and incorporate a tree box, planter box, or shrubs, etc., would meet the GI definition. Any MTD with bio-filtration media that would be placed "below ground" as a vault without any vegetation can be considered GI (for NJ purposes) only if the device infiltrates the entire Water Quality Design Storm into the subsoil. Further, the below ground device (vault) would need to meet the NJDEP Stormwater BMP Manual conditions of having the soil below the MTD meet the minimum tested infiltration rate of one inch per hour, have at least two feet of separation from the seasonal high water table, and infiltrate into the subsoil.

7. Sizing Requirements:

   The example below demonstrates the sizing procedure for the FocalPoint HC:

   Example: A 0.25-acre impervious site with a slope of 5% is to be treated to 80% TSS removal using a FocalPoint HC. The hydraulically most distant point to the inlet of the FocalPoint HC is 110 feet. The site is located in an area for which the projected 2-year storm rainfall depth was calculated to be 3.84 inches.

   The selection of the appropriate model of a FocalPoint HC is based upon both the maximum inflow drainage area and the MTFR. It is necessary to calculate the required model using both methods and to use the largest model determined by the two methods.

Inflow Drainage Area Evaluation:

The drainage area to the FocalPoint HC in this example is 0.25 acres. Based upon the information in Table 1 below, one FocalPoint HC model FPHC-30 would be able to treat the runoff without exceeding the maximum allowable drainage area.

Maximum Treatment Flow Rate (MTFR) Evaluation:

The site runoff (Q) was based on the following:

CN = 98 (Curve Number for impervious)
Dimensionless Unit Hydrograph (DUH) = SCS Standard DUH (peak rate factor of 484)
Time of concentration = 0.8 minutes
Q = 0.77 cfs

Given the site runoff is 0.77 cfs and based on Table 1 below, one FPHC-90-5W, FPHC-90-6W or FPHC-90-9W with an MTFR of 0.8 cfs would be required to remove 80% of the TSS from the impervious area without exceeding the MTFR.

The MTFR evaluation results will be used since that method results in the highest minimum configuration determined by the two methods.

The sizing table corresponding to the available system model is noted below and on the following page. Additional specifications regarding the FocalPoint HC can be found in the Verification Appendix.

Table 1: FocalPoint HC Models and Associated MTFRs

FocalPoint HC Biofilter Model Designation	Filter Bed Area (ft x ft)	Effective Filtration Treatment Area (sf)	Maximum Treatment Flow Rate (cfs)	Maximum Inflow Drainage Area (acres)
FPHC-16	4X4	16	0.14	0.16
FPHC-20	4X5	20	0.18	0.20
FPHC-24	4X6	24	0.21	0.23
FPHC-25	5X5	25	0.22	0.24
FPHC-30	5X6	30	0.27	0.29
FPHC-32	4X8	32	0.29	0.31
FPHC-35	5X7	35	0.31	0.34
FPHC-36	6X6	36	0.32	0.35
FPHC-40	4X10	40	0.36	0.39
FPHC-48-4W	4X12	48	0.43	0.47
FPHC-48-6W	6X8	48	0.43	0.47
FPHC-60	6X10	60	0.53	0.59
FPHC-64-4W	4X16	64	0.57	0.63
FPHC-64-8W	8X8	64	0.57	0.63

FocalPoint HC Biofilter Model Designation	Filter Bed Area (ft x ft)	Effective Filtration Treatment Area (sf)	Maximum Treatment Flow Rate (cfs)	Maximum Inflow Drainage Area (acres)
FPHC-72	6X12	72	0.64	0.70
FPHC-80-8W	8X10	80	0.71	0.78
FPHC-80-4W	4X20	80	0.71	0.78
FPHC-90-5W	5X18	90	0.80	0.88
FPHC-90-6W	6X15	90	0.80	0.88
FPHC-90-9W	9X10	90	0.80	0.88
FPHC-100	10X10	100	0.89	0.98
FPHC-120	10X12	120	1.07	1.17
FPHC-128	8X16	128	1.14	1.25
FPHC-160	8X20	160	1.43	1.57

Be advised a detailed maintenance plan is mandatory for any project with a Stormwater BMP subject to the Stormwater Management Rules, N.J.A.C. 7:8. The plan must include all the items identified in the Stormwater Management Rules, N.J.A.C. 7:8-5.8. Such items include, but are not limited to, the list of inspection and maintenance equipment and tools, specific corrective and preventative maintenance tasks, indication of problems in the system, and training of maintenance personnel. Additional information can be found in Chapter 8: Maintenance and Retrofit of Stormwater Management Measures.

If you have any questions regarding the above information, please contact Lisa Schaefer of my office at lisa.schaefer@dep.nj.gov.

Sincerely,



Gabriel Mahon, Chief
Bureau of NJPDES Stormwater Permitting
Division of Watershed Protection and Restoration
New Jersey Department of Environmental Protection

Attachment: Maintenance Plan

c: Richard Magee, NJCAT

FOCALPOINT DESIGN TOOL

Project Name	**CROFT MILL JEFFERSON STREET**			**Date**	**5/4/2026**
City/County	**CAMDEN**	**State**	**NJ**	**Designed By**	**CGB**

FocalPoint Inputs

Underdrain Units

Primary Unit	SD Single

Expanded Units (Duel Height System)

Secondary Unit	

Treatment Row Units

Treatment Row Unit	

Total R-Unit Footprint and Perimeter

R-Unit Footprint	24.63 sf
R-Unit Units	8.00
R-Unit Perimeter	19.88 ft.

Secondary R-Unit Footprint

R-Unit Footprint	00.00 sf
R-Unit Units	0.00

Treatment R-Unit Footprint

R-Unit Footprint	00.00 sf
R-Unit Units	0.00
R-Unit Perimeter	00.00 ft.

FocalPoint Media Footprint

Media Area	39.00 sf

Excavation Footprint and Perimeter

Excavation Footprint	39.00 sf
Excavation Perimeter	25.00 ft.

Geogrid Footprint

Geogrid Footprint	
Geogrid Material	ACF BX12

Geotextile Unit Wrap

Material	SR-18 Microgrid
Optional Bottom	Yes

Geotextile Excavation Wrap

Material	N031 Non-Woven Geotextile
Top	Yes
Bottom	Yes
Sides	Yes

FocalPoint Material Information

Base Thickness	3 in
Base Stone Material	#57
Side Stone Material	Pea Gravel
Bridging Stone Thickness	6 in
Bridging Stone Material	Pea Gravel
Top Backfill Stone Thickness	12 in
Top Backfill Stone Material	#57
Top of Mulch Elevation	8.44

Stone Storage

Use Stone Storage	Yes
Use Stone Base for Storage	Yes
Use Stone Cover for Storage	Yes
Stone Void Ratio	40%

Port Quantities

FocalPoint Inspection Ports	1
R-Tank Inspection Ports	0

Liner Location

Liner Material	
Location	
Top	
Bottom	
Sides	

Pipe Boots

8" Pipe Boot	1
12" Pipe Boot	
15" Pipe Boot	
18" Pipe Boot	
24" Pipe Boot	
Custom Pipe Boot	

FERGUSON WATERWORKS

FOCALPOINT DESIGN TOOL

Project Name CROFT MILL JEFFERSON STREET
Location CAMDEN, NJ

Date 5/4/2026
Designed By CGB

System Elevations

Base Invert	RTank Invert	RTank Top	Stone Top	Media Top	Mulch Top
5.15	5.40	6.19	6.69	8.19	8.44

R-Tank Elevations

	Base Inv.	Unit Inv.	Unit Top	Top Stone	HS-20 Cover	Max. Cover
Underdrain Units	5.15	5.40	6.19	6.69	7.69	16.18
Expanded Units						
Treatment Units						

System Storage Capacities

Desired Storage Volume 1,500 cf

Full Storage Capacity

Total Volume Provided in R-Unit:	18.43 cf
Total Volume Provided in Stone:	16.23 cf
Provided Storage Volume:	**34.65 cf**

Additional Units Req. 339

System Quantities

Number of Underdrain Units:	8	
Number of Expanded Units:	0	
Number of Access Units:	0	
# of R-Tank Inspection Ports:	0	
# of FocalPoint Inspection Ports:	1	
Required Mulch Qty:	10 cf	(0 cy)
Required FocalPoint Media Qty:	59 cf	(2 cy)
Required Pea Gravel Qty:	31 cf	(1 cy)
Required Backfill Material:	10 cf	(0 cy)
SR-18 Separation Fabric:	45 sf	(5 sy)
Estimated Geotextile Unit Wrap:	75 sf	(8 sy)
Estimated Geotextile Excavation Wrap:	159 sf	(18 sy)
Estimated Liner:	0 sf	(0 sy)
Estimated Geogrid:	0 sf	(0 sy)
Estimated Treatment Row Liner:	0 sf	(0 sy)
Estimated Treatment Row Geotextile:	0 sf	(0 sy)
Estimated Treatment Row Base Fabric:	0 sf	(0 sy)

FERGUSON WATERWORKS

FOCALPOINT DESIGN TOOL

Project Name	**CROFT MILL JEFFERSON STREET**			**Date**	**5/4/2026**
City/County	**CAMDEN**	**State**	**NJ**	**Designed By**	**CGB**

FocalPoint Inputs

Underdrain Units

Primary Unit	SD Single

Expanded Units (Duel Height System)

Secondary Unit	

Treatment Row Units

Treatment Row Unit	

Total R-Unit Footprint and Perimeter

R-Unit Footprint	27.71 sf
R-Unit Units	9.00
R-Unit Perimeter	21.95 ft.

Secondary R-Unit Footprint

R-Unit Footprint	00.00 sf
R-Unit Units	0.00

Treatment R-Unit Footprint

R-Unit Footprint	00.00 sf
R-Unit Units	0.00
R-Unit Perimeter	00.00 ft.

FocalPoint Media Footprint

Media Area	40.00 sf

Excavation Footprint and Perimeter

Excavation Footprint	40.00 sf
Excavation Perimeter	26.00 ft.

Geogrid Footprint

Geogrid Footprint	
Geogrid Material	ACF BX12

Geotextile Unit Wrap

Material	SR-18 Microgrid
Optional Bottom	Yes

Geotextile Excavation Wrap

Material	N031 Non-Woven Geotextile
Top	Yes
Bottom	Yes
Sides	Yes

FocalPoint Material Information

Base Thickness	3 in
Base Stone Material	#57
Side Stone Material	Pea Gravel
Bridging Stone Thickness	6 in
Bridging Stone Material	Pea Gravel
Top Backfill Stone Thickness	12 in
Top Backfill Stone Material	#57
Top of Mulch Elevation	7.58

Stone Storage

Use Stone Storage	Yes
Use Stone Base for Storage	Yes
Use Stone Cover for Storage	Yes
Stone Void Ratio	40%

Port Quantities

FocalPoint Inspection Ports	1
R-Tank Inspection Ports	0

Liner Location

Liner Material	
Location	
Top	
Bottom	
Sides	

Pipe Boots

8" Pipe Boot	1
12" Pipe Boot	
15" Pipe Boot	
18" Pipe Boot	
24" Pipe Boot	
Custom Pipe Boot	

FERGUSON WATERWORKS

FOCALPOINT DESIGN TOOL

Project Name CROFT MILL JEFFERSON STREET
Location CAMDEN, NJ

Date 5/4/2026
Designed By CGB

System Elevations

Base Invert	RTank Invert	RTank Top	Stone Top	Media Top	Mulch Top
4.29	4.54	5.33	5.83	7.33	7.58

R-Tank Elevations

	Base Inv.	Unit Inv.	Unit Top	Top Stone	HS-20 Cover	Max. Cover
Underdrain Units	4.29	4.54	5.33	5.83	6.83	15.32
Expanded Units						
Treatment Units						

System Storage Capacities

Desired Storage Volume	1,500 cf

Full Storage Capacity

Total Volume Provided in R-Unit:	20.73 cf
Total Volume Provided in Stone:	15.87 cf
Provided Storage Volume:	**36.60 cf**

Additional Units Req.	360

System Quantities

Number of Underdrain Units:	9	
Number of Expanded Units:	0	
Number of Access Units:	0	
# of R-Tank Inspection Ports:	0	
# of FocalPoint Inspection Ports:	1	
Required Mulch Qty:	10 cf	(0 cy)
Required FocalPoint Media Qty:	60 cf	(2 cy)
Required Pea Gravel Qty:	30 cf	(1 cy)
Required Backfill Material:	10 cf	(0 cy)
SR-18 Separation Fabric:	46 sf	(5 sy)
Estimated Geotextile Unit Wrap:	84 sf	(9 sy)
Estimated Geotextile Excavation Wrap:	164 sf	(18 sy)
Estimated Liner:	0 sf	(0 sy)
Estimated Geogrid:	0 sf	(0 sy)
Estimated Treatment Row Liner:	0 sf	(0 sy)
Estimated Treatment Row Geotextile:	0 sf	(0 sy)
Estimated Treatment Row Base Fabric:	0 sf	(0 sy)

FERGUSON WATERWORKS

FOCALPOINT DESIGN TOOL

Project Name	**CROFT MILL JEFFERSON STREET**			**Date**	**5/4/2026**
City/County	**CAMDEN**	**State**	**NJ**	**Designed By**	**CGB**

FocalPoint Inputs

Underdrain Units

Primary Unit	SD Single

Expanded Units (Duel Height System)

Secondary Unit	

Treatment Row Units

Treatment Row Unit	

Total R-Unit Footprint and Perimeter

R-Unit Footprint	36.95 sf
R-Unit Units	12.00
R-Unit Perimeter	24.58 ft.

Secondary R-Unit Footprint

R-Unit Footprint	00.00 sf
R-Unit Units	0.00

Treatment R-Unit Footprint

R-Unit Footprint	00.00 sf
R-Unit Units	0.00
R-Unit Perimeter	00.00 ft.

FocalPoint Media Footprint

Media Area	54.00 sf

Excavation Footprint and Perimeter

Excavation Footprint	54.00 sf
Excavation Perimeter	29.50 ft.

Geogrid Footprint

Geogrid Footprint	
Geogrid Material	ACF BX12

Geotextile Unit Wrap

Material	SR-18 Microgrid
Optional Bottom	Yes

Geotextile Excavation Wrap

Material	N031 Non-Woven Geotextile
Top	Yes
Bottom	Yes
Sides	Yes

FocalPoint Material Information

Base Thickness	3 in
Base Stone Material	#57
Side Stone Material	Pea Gravel
Bridging Stone Thickness	6 in
Bridging Stone Material	Pea Gravel
Top Backfill Stone Thickness	12 in
Top Backfill Stone Material	#57
Top of Mulch Elevation	8.75

Stone Storage

Use Stone Storage	Yes
Use Stone Base for Storage	Yes
Use Stone Cover for Storage	Yes
Stone Void Ratio	40%

Port Quantities

FocalPoint Inspection Ports	1
R-Tank Inspection Ports	0

Liner Location

Liner Material	
Location	
Top	
Bottom	
Sides	

Pipe Boots

8" Pipe Boot	1
12" Pipe Boot	
15" Pipe Boot	
18" Pipe Boot	
24" Pipe Boot	
Custom Pipe Boot	

FERGUSON WATERWORKS

FOCALPOINT DESIGN TOOL

Project Name CROFT MILL JEFFERSON STREET
Location CAMDEN, NJ

Date 5/4/2026
Designed By CGB

System Elevations

Base Invert	RTank Invert	RTank Top	Stone Top	Media Top	Mulch Top
5.46	5.71	6.50	7.00	8.50	8.75

R-Tank Elevations

	Base Inv.	Unit Inv.	Unit Top	Top Stone	HS-20 Cover	Max. Cover
Underdrain Units	5.46	5.71	6.50	7.00	8.00	16.49
Expanded Units						
Treatment Units						

System Storage Capacities

Desired Storage Volume 1,500 cf

Full Storage Capacity

Total Volume Provided in R-Unit:	27.64 cf
Total Volume Provided in Stone:	21.57 cf
Provided Storage Volume:	**49.21 cf**

Additional Units Req. 354

System Quantities

Number of Underdrain Units:	12	
Number of Expanded Units:	0	
Number of Access Units:	0	
# of R-Tank Inspection Ports:	0	
# of FocalPoint Inspection Ports:	1	
Required Mulch Qty:	14 cf	(1 cy)
Required FocalPoint Media Qty:	81 cf	(3 cy)
Required Pea Gravel Qty:	40 cf	(1 cy)
Required Backfill Material:	14 cf	(1 cy)
SR-18 Separation Fabric:	62 sf	(7 sy)
Estimated Geotextile Unit Wrap:	107 sf	(12 sy)
Estimated Geotextile Excavation Wrap:	206 sf	(23 sy)
Estimated Liner:	0 sf	(0 sy)
Estimated Geogrid:	0 sf	(0 sy)
Estimated Treatment Row Liner:	0 sf	(0 sy)
Estimated Treatment Row Geotextile:	0 sf	(0 sy)
Estimated Treatment Row Base Fabric:	0 sf	(0 sy)

FERGUSON WATERWORKS

FOCALPOINT DESIGN TOOL

Project Name	**CROFT MILL JEFFERSON STREET**			**Date**	**5/4/2026**
City/County	**CAMDEN**	**State**	**NJ**	**Designed By**	**CGB**

FocalPoint Inputs

Underdrain Units

Primary Unit	SD Single

Expanded Units (Duel Height System)

Secondary Unit	

Treatment Row Units

Treatment Row Unit	

Total R-Unit Footprint and Perimeter

R-Unit Footprint	18.47 sf
R-Unit Units	6.00
R-Unit Perimeter	20.44 ft.

Secondary R-Unit Footprint

R-Unit Footprint	00.00 sf
R-Unit Units	0.00

Treatment R-Unit Footprint

R-Unit Footprint	00.00 sf
R-Unit Units	0.00
R-Unit Perimeter	00.00 ft.

FocalPoint Media Footprint

Media Area	27.00 sf

Excavation Footprint and Perimeter

Excavation Footprint	27.00 sf
Excavation Perimeter	24.00 ft.

Geogrid Footprint

Geogrid Footprint	
Geogrid Material	ACF BX12

Geotextile Unit Wrap

Material	SR-18 Microgrid
Optional Bottom	Yes

Geotextile Excavation Wrap

Material	N031 Non-Woven Geotextile
Top	Yes
Bottom	Yes
Sides	Yes

FocalPoint Material Information

Base Thickness	3 in
Base Stone Material	#57
Side Stone Material	Pea Gravel
Bridging Stone Thickness	6 in
Bridging Stone Material	Pea Gravel
Top Backfill Stone Thickness	12 in
Top Backfill Stone Material	#57
Top of Mulch Elevation	8.79

Stone Storage

Use Stone Storage	Yes
Use Stone Base for Storage	Yes
Use Stone Cover for Storage	Yes
Stone Void Ratio	40%

Port Quantities

FocalPoint Inspection Ports	1
R-Tank Inspection Ports	0

Liner Location

Liner Material	
Location	
Top	
Bottom	
Sides	

Pipe Boots

8" Pipe Boot	1
12" Pipe Boot	
15" Pipe Boot	
18" Pipe Boot	
24" Pipe Boot	
Custom Pipe Boot	

FERGUSON WATERWORKS

FOCALPOINT DESIGN TOOL

Project Name CROFT MILL JEFFERSON STREET
Location CAMDEN, NJ

Date 5/4/2026
Designed By CGB

System Elevations

Base Invert	RTank Invert	RTank Top	Stone Top	Media Top	Mulch Top
5.50	5.75	6.54	7.04	8.54	8.79

R-Tank Elevations

	Base Inv.	Unit Inv.	Unit Top	Top Stone	HS-20 Cover	Max. Cover
Underdrain Units	5.50	5.75	6.54	7.04	8.04	16.53
Expanded Units						
Treatment Units						

System Storage Capacities

Desired Storage Volume 1,500 cf

Full Storage Capacity

Total Volume Provided in R-Unit:	13.82 cf
Total Volume Provided in Stone:	10.79 cf
Provided Storage Volume:	**24.60 cf**

Additional Units Req. 360

System Quantities

Number of Underdrain Units:	6	
Number of Expanded Units:	0	
Number of Access Units:	0	
# of R-Tank Inspection Ports:	0	
# of FocalPoint Inspection Ports:	1	
Required Mulch Qty:	7 cf	(0 cy)
Required FocalPoint Media Qty:	41 cf	(2 cy)
Required Pea Gravel Qty:	20 cf	(1 cy)
Required Backfill Material:	7 cf	(0 cy)
SR-18 Separation Fabric:	31 sf	(3 sy)
Estimated Geotextile Unit Wrap:	61 sf	(7 sy)
Estimated Geotextile Excavation Wrap:	129 sf	(14 sy)
Estimated Liner:	0 sf	(0 sy)
Estimated Geogrid:	0 sf	(0 sy)
Estimated Treatment Row Liner:	0 sf	(0 sy)
Estimated Treatment Row Geotextile:	0 sf	(0 sy)
Estimated Treatment Row Base Fabric:	0 sf	(0 sy)

FERGUSON WATERWORKS

FOCALPOINT DESIGN TOOL

Project Name	**CROFT MILL JEFFERSON STREET**			**Date**	**5/4/2026**
City/County	**CAMDEN**	**State**	**NJ**	**Designed By**	**CGB**

FocalPoint Inputs

Underdrain Units

Primary Unit	SD Single

Expanded Units (Duel Height System)

Secondary Unit	

Treatment Row Units

Treatment Row Unit	

Total R-Unit Footprint and Perimeter

R-Unit Footprint	15.39 sf
R-Unit Units	5.00
R-Unit Perimeter	17.82 ft.

Secondary R-Unit Footprint

R-Unit Footprint	00.00 sf
R-Unit Units	0.00

Treatment R-Unit Footprint

R-Unit Footprint	00.00 sf
R-Unit Units	0.00
R-Unit Perimeter	00.00 ft.

FocalPoint Media Footprint

Media Area	29.00 sf

Excavation Footprint and Perimeter

Excavation Footprint	29.00 sf
Excavation Perimeter	22.50 ft.

Geogrid Footprint

Geogrid Footprint	
Geogrid Material	ACF BX12

Geotextile Unit Wrap

Material	SR-18 Microgrid
Optional Bottom	Yes

Geotextile Excavation Wrap

Material	N031 Non-Woven Geotextile
Top	Yes
Bottom	Yes
Sides	Yes

FocalPoint Material Information

Base Thickness	3 in
Base Stone Material	#57
Side Stone Material	Pea Gravel
Bridging Stone Thickness	6 in
Bridging Stone Material	Pea Gravel
Top Backfill Stone Thickness	12 in
Top Backfill Stone Material	#57
Top of Mulch Elevation	8.80

Stone Storage

Use Stone Storage	Yes
Use Stone Base for Storage	Yes
Use Stone Cover for Storage	Yes
Stone Void Ratio	40%

Port Quantities

FocalPoint Inspection Ports	1
R-Tank Inspection Ports	0

Liner Location

Liner Material	
Location	
Top	
Bottom	
Sides	

Pipe Boots

8" Pipe Boot	1
12" Pipe Boot	
15" Pipe Boot	
18" Pipe Boot	
24" Pipe Boot	
Custom Pipe Boot	

FERGUSON WATERWORKS

FOCALPOINT DESIGN TOOL

Project Name CROFT MILL JEFFERSON STREET
Location CAMDEN, NJ

Date 5/4/2026
Designed By CGB

System Elevations

Base Invert	RTank Invert	RTank Top	Stone Top	Media Top	Mulch Top
5.51	5.76	6.55	7.05	8.55	8.80

R-Tank Elevations

	Base Inv.	Unit Inv.	Unit Top	Top Stone	HS-20 Cover	Max. Cover
Underdrain Units	5.51	5.76	6.55	7.05	8.05	16.54
Expanded Units						
Treatment Units						

System Storage Capacities

Desired Storage Volume 1,500 cf

Full Storage Capacity

Total Volume Provided in R-Unit:	11.51 cf
Total Volume Provided in Stone:	12.99 cf
Provided Storage Volume:	**24.50 cf**

Additional Units Req. 302

System Quantities

Number of Underdrain Units:	5	
Number of Expanded Units:	0	
Number of Access Units:	0	
# of R-Tank Inspection Ports:	0	
# of FocalPoint Inspection Ports:	1	
Required Mulch Qty:	7 cf	(0 cy)
Required FocalPoint Media Qty:	44 cf	(2 cy)
Required Pea Gravel Qty:	25 cf	(1 cy)
Required Backfill Material:	7 cf	(0 cy)
SR-18 Separation Fabric:	33 sf	(4 sy)
Estimated Geotextile Unit Wrap:	52 sf	(6 sy)
Estimated Geotextile Excavation Wrap:	129 sf	(14 sy)
Estimated Liner:	0 sf	(0 sy)
Estimated Geogrid:	0 sf	(0 sy)
Estimated Treatment Row Liner:	0 sf	(0 sy)
Estimated Treatment Row Geotextile:	0 sf	(0 sy)
Estimated Treatment Row Base Fabric:	0 sf	(0 sy)

FERGUSON WATERWORKS

FOCALPOINT DESIGN TOOL

Project Name	**CROFT MILL JEFFERSON STREET**			**Date**	**5/4/2026**
City/County	**CAMDEN**	**State**	**NJ**	**Designed By**	**CGB**

FocalPoint Inputs

Underdrain Units

Primary Unit	SD Single

Expanded Units (Duel Height System)

Secondary Unit	

Treatment Row Units

Treatment Row Unit	

Total R-Unit Footprint and Perimeter

R-Unit Footprint	18.47 sf
R-Unit Units	6.00
R-Unit Perimeter	17.26 ft.

Secondary R-Unit Footprint

R-Unit Footprint	00.00 sf
R-Unit Units	0.00

Treatment R-Unit Footprint

R-Unit Footprint	00.00 sf
R-Unit Units	0.00
R-Unit Perimeter	00.00 ft.

FocalPoint Media Footprint

Media Area	32.50 sf

Excavation Footprint and Perimeter

Excavation Footprint	32.50 sf
Excavation Perimeter	23.00 ft.

Geogrid Footprint

Geogrid Footprint	
Geogrid Material	ACF BX12

Geotextile Unit Wrap

Material	SR-18 Microgrid
Optional Bottom	Yes

Geotextile Excavation Wrap

Material	N031 Non-Woven Geotextile
Top	Yes
Bottom	Yes
Sides	Yes

FocalPoint Material Information

Base Thickness	3 in
Base Stone Material	#57
Side Stone Material	Pea Gravel
Bridging Stone Thickness	6 in
Bridging Stone Material	Pea Gravel
Top Backfill Stone Thickness	12 in
Top Backfill Stone Material	#57
Top of Mulch Elevation	7.75

Stone Storage

Use Stone Storage	Yes
Use Stone Base for Storage	Yes
Use Stone Cover for Storage	Yes
Stone Void Ratio	40%

Port Quantities

FocalPoint Inspection Ports	1
R-Tank Inspection Ports	0

Liner Location

Liner Material	
Location	
Top	
Bottom	
Sides	

Pipe Boots

8" Pipe Boot	1
12" Pipe Boot	
15" Pipe Boot	
18" Pipe Boot	
24" Pipe Boot	
Custom Pipe Boot	

FERGUSON WATERWORKS

FOCALPOINT DESIGN TOOL

Project Name CROFT MILL JEFFERSON STREET
Location CAMDEN, NJ

Date 5/4/2026
Designed By CGB

System Elevations

Base Invert	RTank Invert	RTank Top	Stone Top	Media Top	Mulch Top
4.46	4.71	5.50	6.00	7.50	7.75

R-Tank Elevations

	Base Inv.	Unit Inv.	Unit Top	Top Stone	HS-20 Cover	Max. Cover
Underdrain Units	4.46	4.71	5.50	6.00	7.00	15.49
Expanded Units						
Treatment Units						

System Storage Capacities

Desired Storage Volume	1,500 cf

Full Storage Capacity

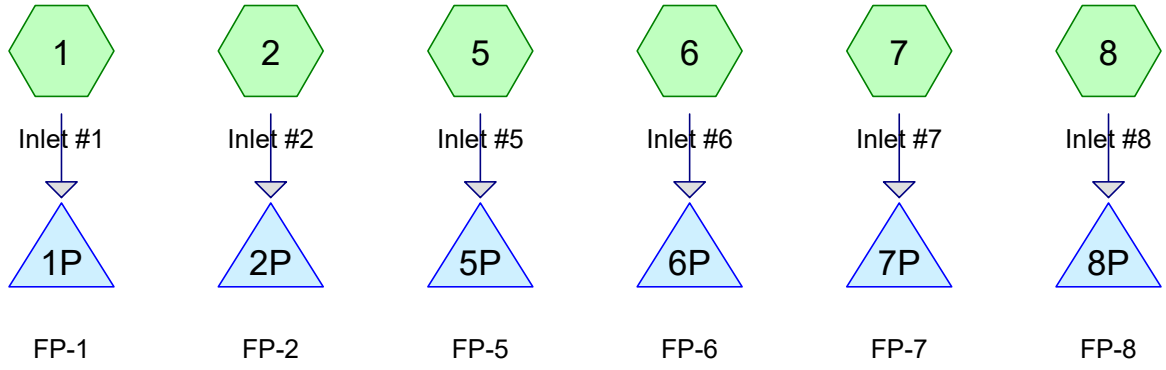
Total Volume Provided in R-Unit:	13.82 cf
Total Volume Provided in Stone:	14.17 cf
Provided Storage Volume:	**27.99 cf**

Additional Units Req.	316

System Quantities

Number of Underdrain Units:	6	
Number of Expanded Units:	0	
Number of Access Units:	0	
# of R-Tank Inspection Ports:	0	
# of FocalPoint Inspection Ports:	1	
Required Mulch Qty:	8 cf	(0 cy)
Required FocalPoint Media Qty:	49 cf	(2 cy)
Required Pea Gravel Qty:	27 cf	(1 cy)
Required Backfill Material:	8 cf	(0 cy)
SR-18 Separation Fabric:	37 sf	(4 sy)
Estimated Geotextile Unit Wrap:	58 sf	(6 sy)
Estimated Geotextile Excavation Wrap:	139 sf	(15 sy)
Estimated Liner:	0 sf	(0 sy)
Estimated Geogrid:	0 sf	(0 sy)
Estimated Treatment Row Liner:	0 sf	(0 sy)
Estimated Treatment Row Geotextile:	0 sf	(0 sy)
Estimated Treatment Row Base Fabric:	0 sf	(0 sy)

FERGUSON WATERWORKS



Subcat Reach Pond Link

Routing Diagram for Croft Mill-Inlet Area
Prepared by Taylor, Wiseman, Taylor, Printed 5/8/2026
HydroCAD® 10.20-7a s/n 04583 © 2025 HydroCAD Software Solutions LLC

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	WQDS	NJ DEP 2-hr		Default	2.00	1	1.25	2

Summary for Subcatchment 1: Inlet #1

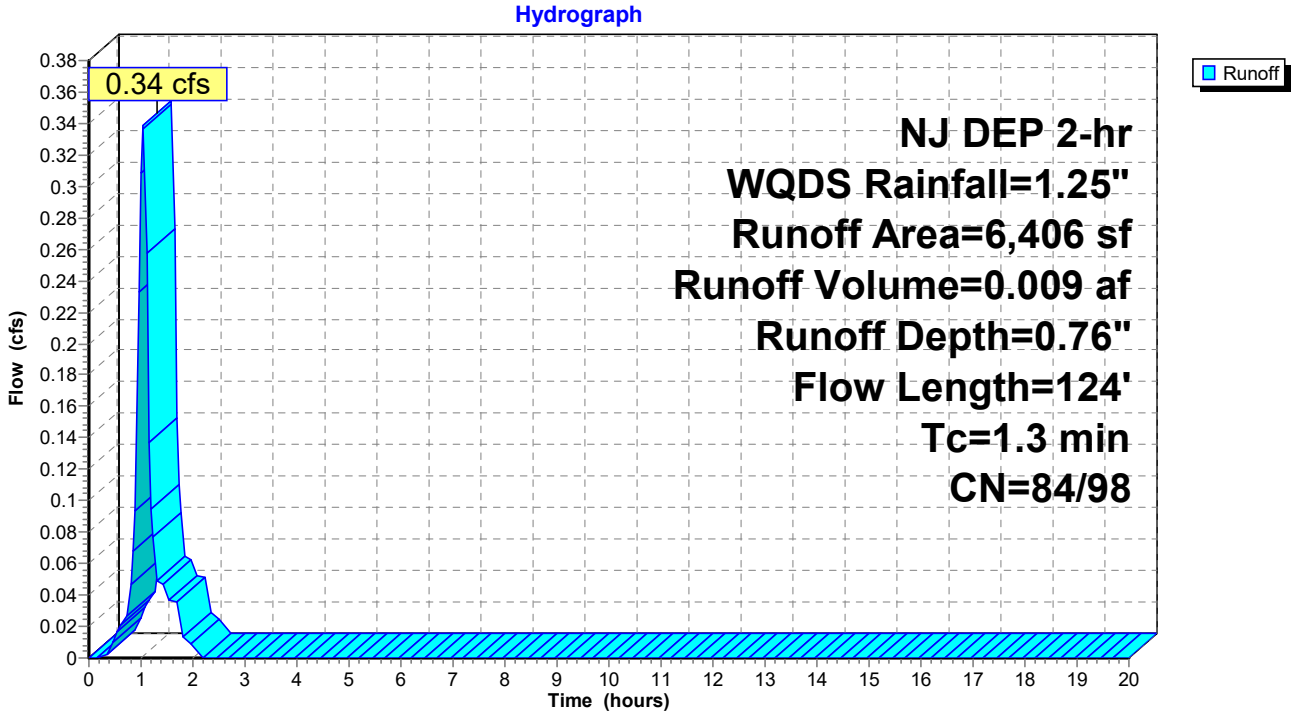
Runoff = 0.34 cfs @ 1.04 hrs, Volume= 0.009 af, Depth= 0.76"
Routed to Pond 1P : FP-1

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
NJ DEP 2-hr WQDS Rainfall=1.25"

	Area (sf)	CN	Description
*	3,480	98	Motor Vehicle
*	647	98	Sidewalk
	2,279	84	50-75% Grass cover, Fair, HSG D
	6,406	93	Weighted Average
	2,279	84	35.58% Pervious Area
	4,127	98	64.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	42	0.0230	1.24		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.27"
0.7	82	0.0100	2.03		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.3	124	Total			

Subcatchment 1: Inlet #1



Summary for Subcatchment 2: Inlet #2

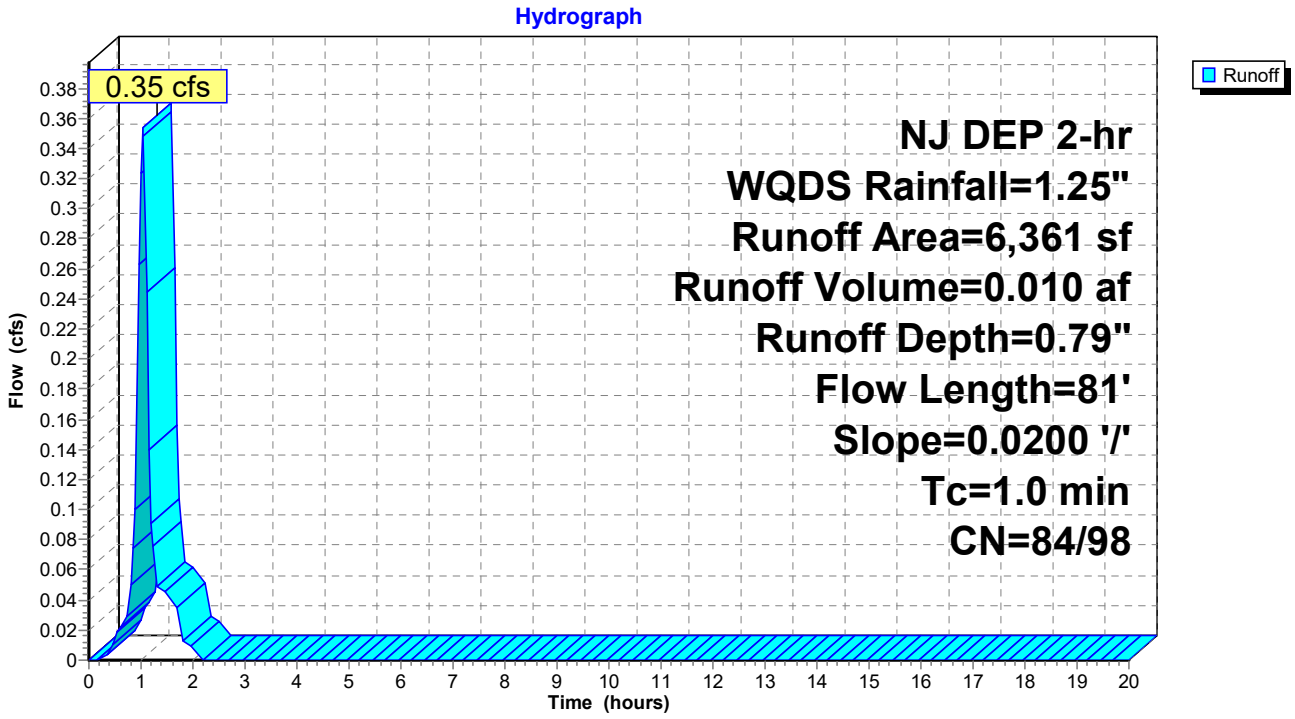
Runoff = 0.35 cfs @ 1.03 hrs, Volume= 0.010 af, Depth= 0.79"
Routed to Pond 2P : FP-2

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
NJ DEP 2-hr WQDS Rainfall=1.25"

	Area (sf)	CN	Description
*	3,480	98	Motor Vehicle
*	869	98	Sidewalk
	2,012	84	50-75% Grass cover, Fair, HSG D
	6,361	94	Weighted Average
	2,012	84	31.63% Pervious Area
	4,349	98	68.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	81	0.0200	1.33		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.27"

Subcatchment 2: Inlet #2



Summary for Subcatchment 5: Inlet #5

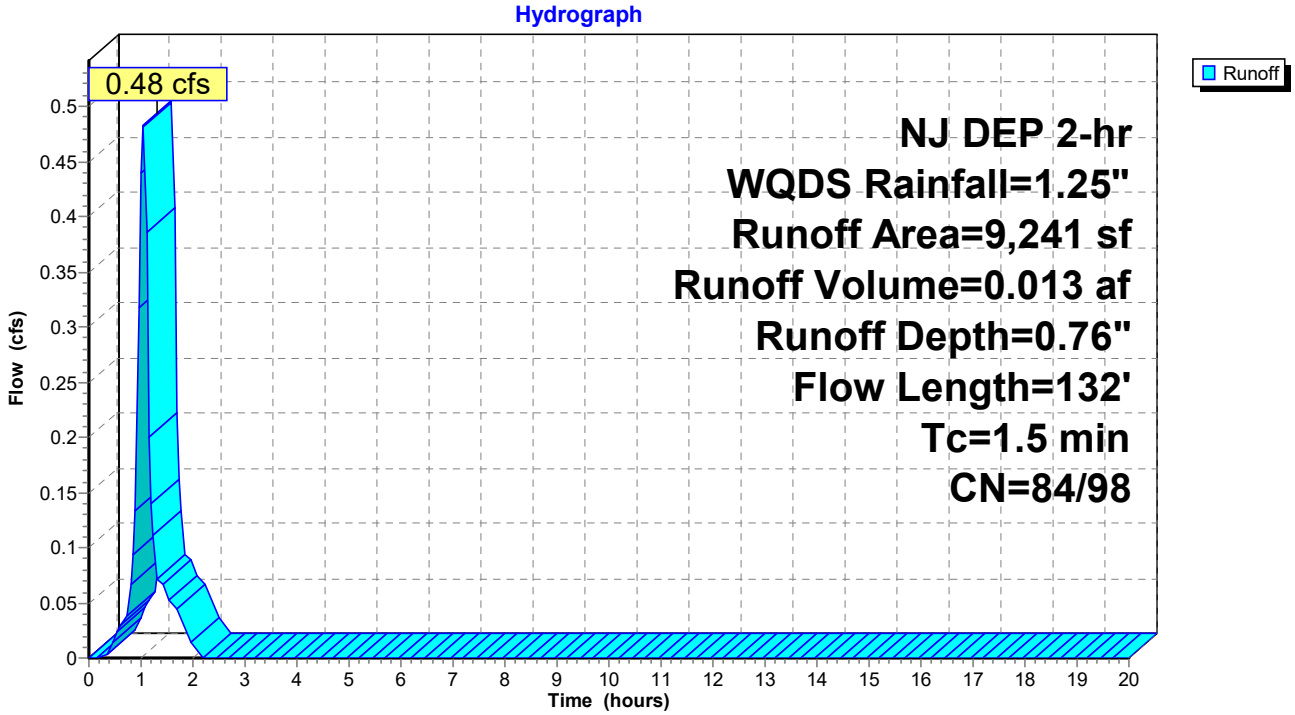
Runoff = 0.48 cfs @ 1.04 hrs, Volume= 0.013 af, Depth= 0.76"
Routed to Pond 5P : FP-5

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
NJ DEP 2-hr WQDS Rainfall=1.25"

	Area (sf)	CN	Description
*	4,634	98	Motor Vehicle
*	1,287	98	Sidewalk
	3,320	84	50-75% Grass cover, Fair, HSG D
	9,241	93	Weighted Average
	3,320	84	35.93% Pervious Area
	5,921	98	64.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	50	0.0170	1.13		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.27"
0.8	82	0.0080	1.82		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.5	132	Total			

Subcatchment 5: Inlet #5



Summary for Subcatchment 6: Inlet #6

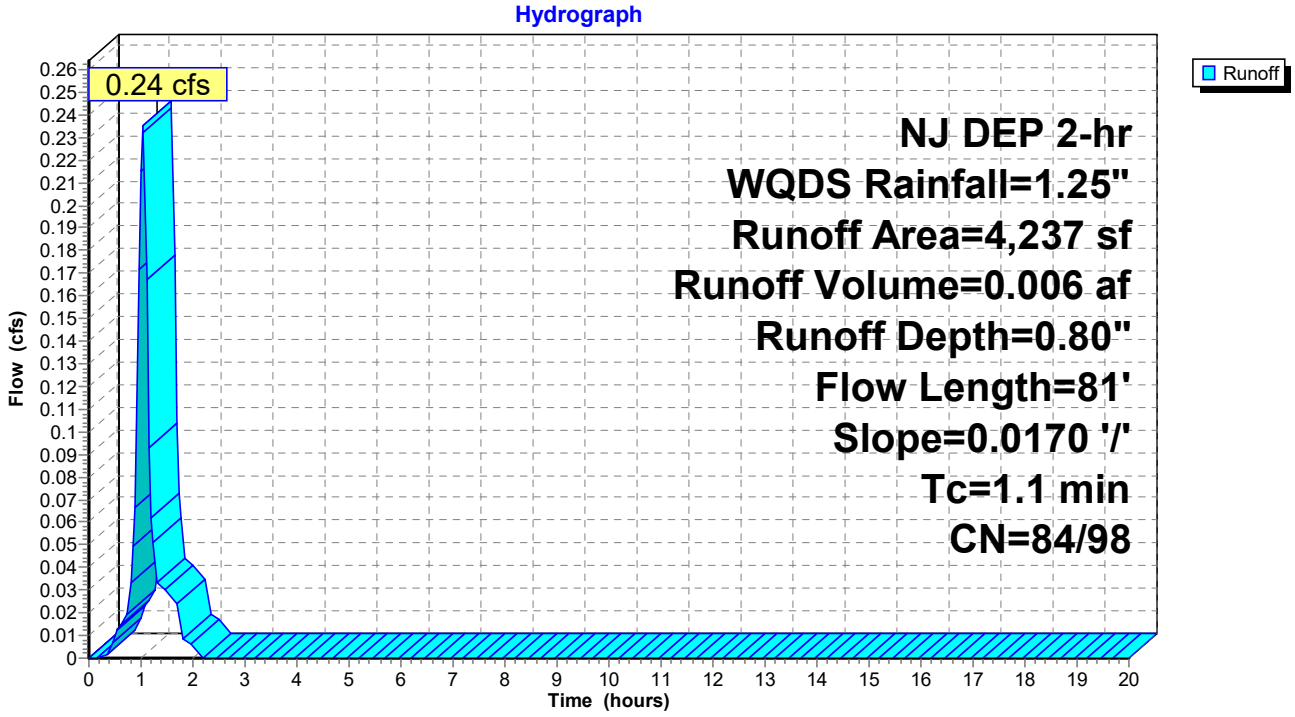
Runoff = 0.24 cfs @ 1.04 hrs, Volume= 0.006 af, Depth= 0.80"
Routed to Pond 6P : FP-6

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
NJ DEP 2-hr WQDS Rainfall=1.25"

	Area (sf)	CN	Description
*	2,398	98	Motor Vehicle
*	509	98	Sidewalk
	1,330	84	50-75% Grass cover, Fair, HSG D
	4,237	94	Weighted Average
	1,330	84	31.39% Pervious Area
	2,907	98	68.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	81	0.0170	1.25		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.27"

Subcatchment 6: Inlet #6



Summary for Subcatchment 7: Inlet #7

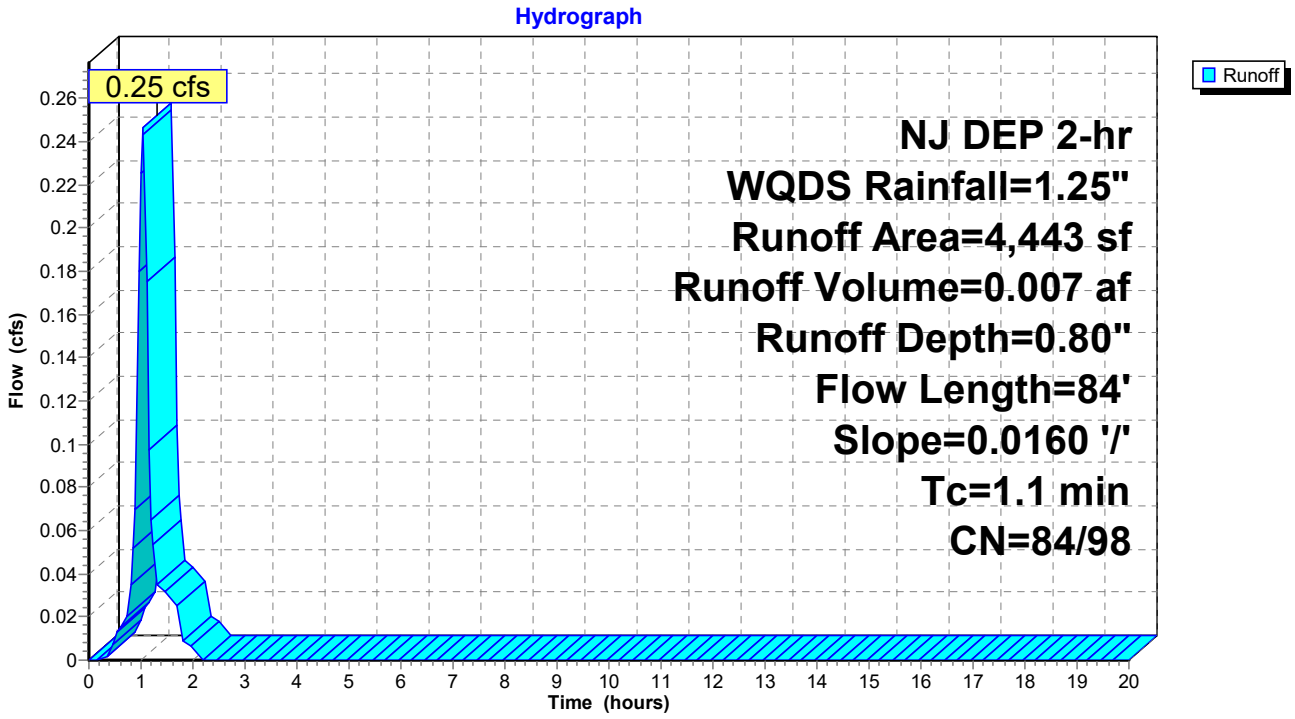
Runoff = 0.25 cfs @ 1.04 hrs, Volume= 0.007 af, Depth= 0.80"
Routed to Pond 7P : FP-7

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
NJ DEP 2-hr WQDS Rainfall=1.25"

	Area (sf)	CN	Description
*	2,550	98	Motor Vehicle
*	497	98	Sidewalk
	1,396	84	50-75% Grass cover, Fair, HSG D
	4,443	94	Weighted Average
	1,396	84	31.42% Pervious Area
	3,047	98	68.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	84	0.0160	1.23		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.27"

Subcatchment 7: Inlet #7



Summary for Subcatchment 8: Inlet #8

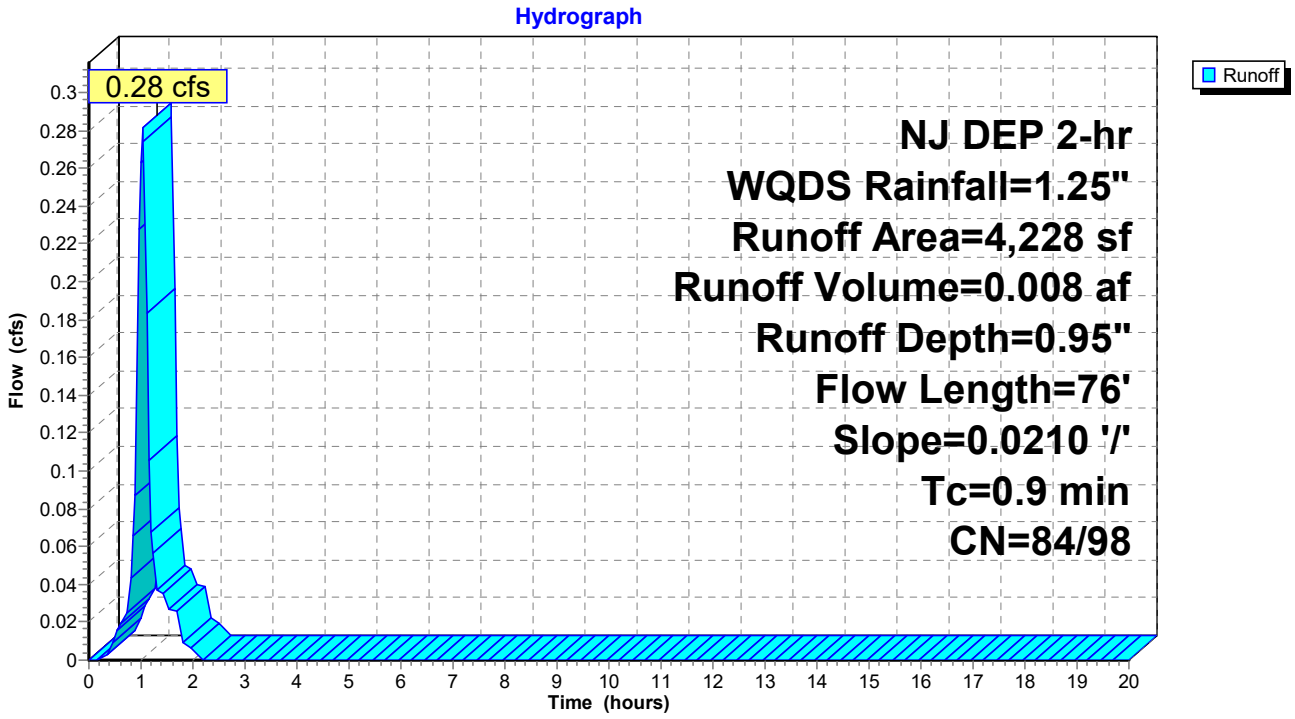
Runoff = 0.28 cfs @ 1.03 hrs, Volume= 0.008 af, Depth= 0.95"
Routed to Pond 8P : FP-8

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv., Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
NJ DEP 2-hr WQDS Rainfall=1.25"

	Area (sf)	CN	Description
*	2,986	98	Motor Vehicle
*	770	98	Sidewalk
	472	84	50-75% Grass cover, Fair, HSG D
	4,228	96	Weighted Average
	472	84	11.16% Pervious Area
	3,756	98	88.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	76	0.0210	1.34		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.27"

Subcatchment 8: Inlet #8



Summary for Pond 1P: FP-1

Inflow Area = 0.147 ac, 64.42% Impervious, Inflow Depth = 0.76" for WQDS event
Inflow = 0.34 cfs @ 1.04 hrs, Volume= 0.009 af
Outflow = 0.34 cfs @ 1.04 hrs, Volume= 0.009 af, Atten= 1%, Lag= 0.0 min
Primary = 0.34 cfs @ 1.04 hrs, Volume= 0.009 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 6.04' @ 1.04 hrs Surf.Area= 39 sf Storage= 1 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 0.0 min (67.2 - 67.2)

Volume	Invert	Avail.Storage	Storage Description
#1	5.94'	18 cf	**3.90'W x 10.00'L x 2.25'H FocalPoint** 88 cf Overall x 20.0% Voids
#2	8.19'	20 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) -Impervious
		37 cf	Total Available Storage

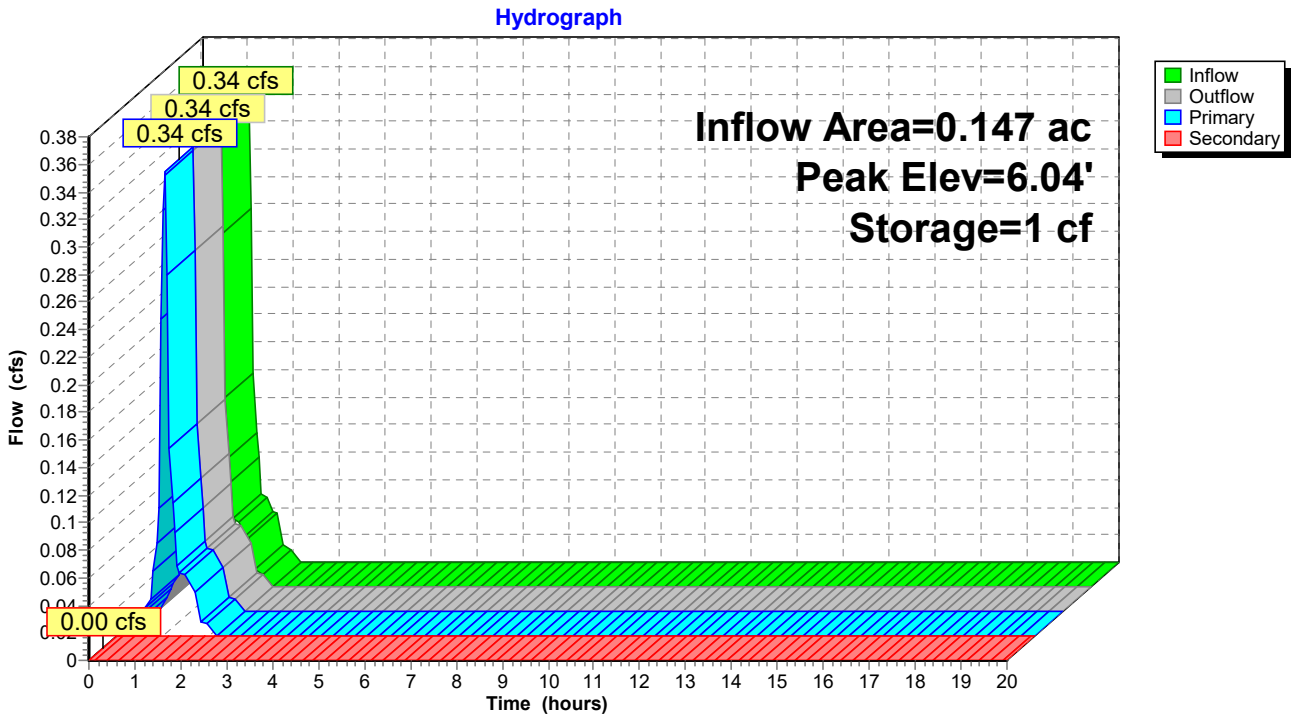
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
8.19	39	0	0
8.69	39	20	20

Device	Routing	Invert	Outlet Devices	
#1	Primary	5.94'	**400.000 in/hr Exfiltration over Surface area**	Phase-In= 0.10'
#2	Secondary	8.52'	**24.0" Horiz. Overflow Inlet** C= 0.600 Limited to weir flow at low heads	

Primary OutFlow Max=0.35 cfs @ 1.04 hrs HW=6.04' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.35 cfs @ 0.01 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=5.94' (Free Discharge)
↑—**2=Overflow Inlet** (Controls 0.00 cfs)

Pond 1P: FP-1


Hydrograph
0.34 cfs
0.34 cfs
0.34 cfs
0.00 cfs
Inflow Area=0.147 ac
Peak Elev=6.04'
Storage=1 cf
Inflow
Outflow
Primary
Secondary
Flow (cfs)
Time (hours)

Summary for Pond 2P: FP-2

Inflow Area = 0.146 ac, 68.37% Impervious, Inflow Depth = 0.79" for WQDS event
Inflow = 0.35 cfs @ 1.03 hrs, Volume= 0.010 af
Outflow = 0.35 cfs @ 1.03 hrs, Volume= 0.010 af, Atten= 1%, Lag= 0.0 min
Primary = 0.35 cfs @ 1.03 hrs, Volume= 0.010 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 5.18' @ 1.04 hrs Surf.Area= 40 sf Storage= 1 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 0.1 min (66.8 - 66.7)

Volume	Invert	Avail.Storage	Storage Description
#1	5.08'	18 cf	**4.00'W x 10.00'L x 2.25'H FocalPoint** 90 cf Overall x 20.0% Voids
#2	7.33'	20 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) -Impervious
		38 cf	Total Available Storage

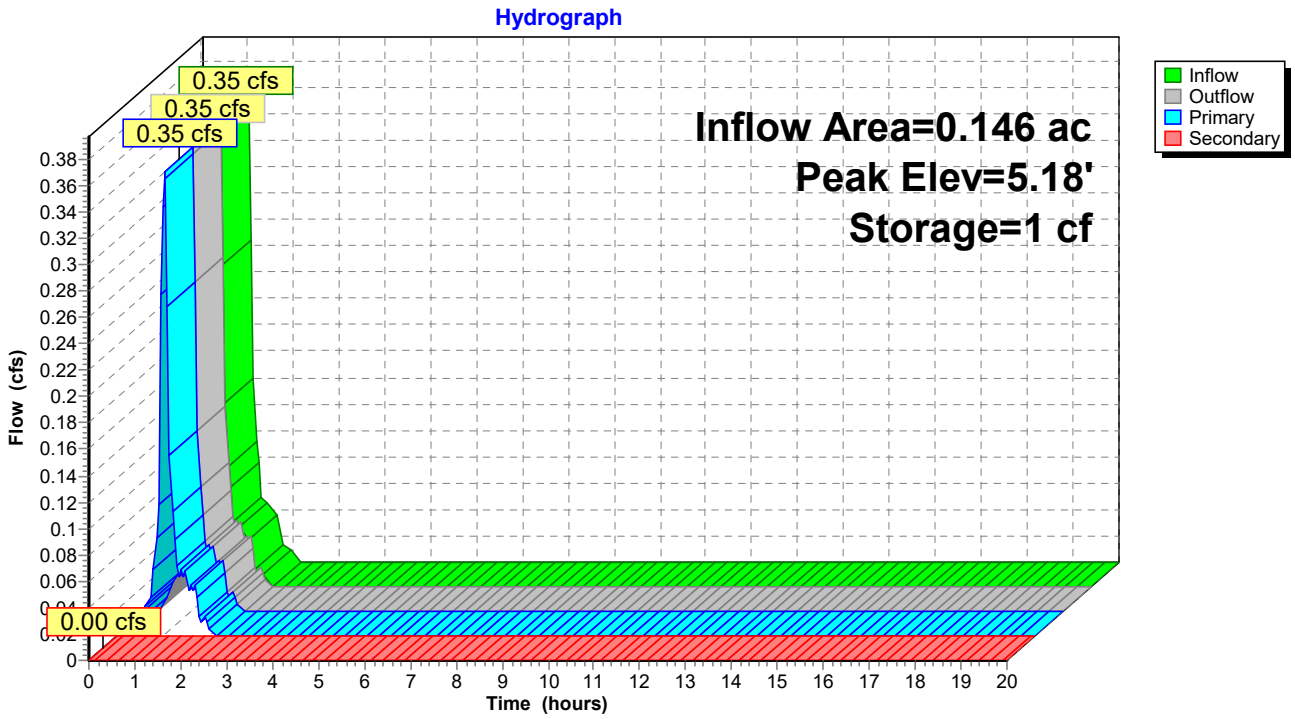
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
7.33	40	0	0
7.83	40	20	20

Device	Routing	Invert	Outlet Devices	
#1	Primary	5.08'	**400.000 in/hr Exfiltration over Surface area**	Phase-In= 0.10'
#2	Secondary	7.63'	**24.0" Horiz. Overflow Inlet** C= 0.600 Limited to weir flow at low heads	

Primary OutFlow Max=0.36 cfs @ 1.03 hrs HW=5.18' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.36 cfs @ 0.01 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=5.08' (Free Discharge)
↑—**2=Overflow Inlet** (Controls 0.00 cfs)

Pond 2P: FP-2


Hydrograph
Inflow Area=0.146 ac
Peak Elev=5.18'
Storage=1 cf
0.35 cfs
0.35 cfs
0.35 cfs
0.00 cfs
Inflow
Outflow
Primary
Secondary
Flow (cfs)
Time (hours)

Summary for Pond 5P: FP-5

Inflow Area = 0.212 ac, 64.07% Impervious, Inflow Depth = 0.76" for WQDS event
Inflow = 0.48 cfs @ 1.04 hrs, Volume= 0.013 af
Outflow = 0.48 cfs @ 1.04 hrs, Volume= 0.013 af, Atten= 1%, Lag= 0.0 min
Primary = 0.48 cfs @ 1.04 hrs, Volume= 0.013 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 6.11' @ 1.04 hrs Surf.Area= 54 sf Storage= 1 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 0.0 min (67.4 - 67.4)

Volume	Invert	Avail.Storage	Storage Description
#1	6.00'	24 cf	**5.40'W x 10.00'L x 2.25'H FocalPoint** 122 cf Overall x 20.0% Voids
#2	8.25'	41 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) -Impervious
		65 cf	Total Available Storage

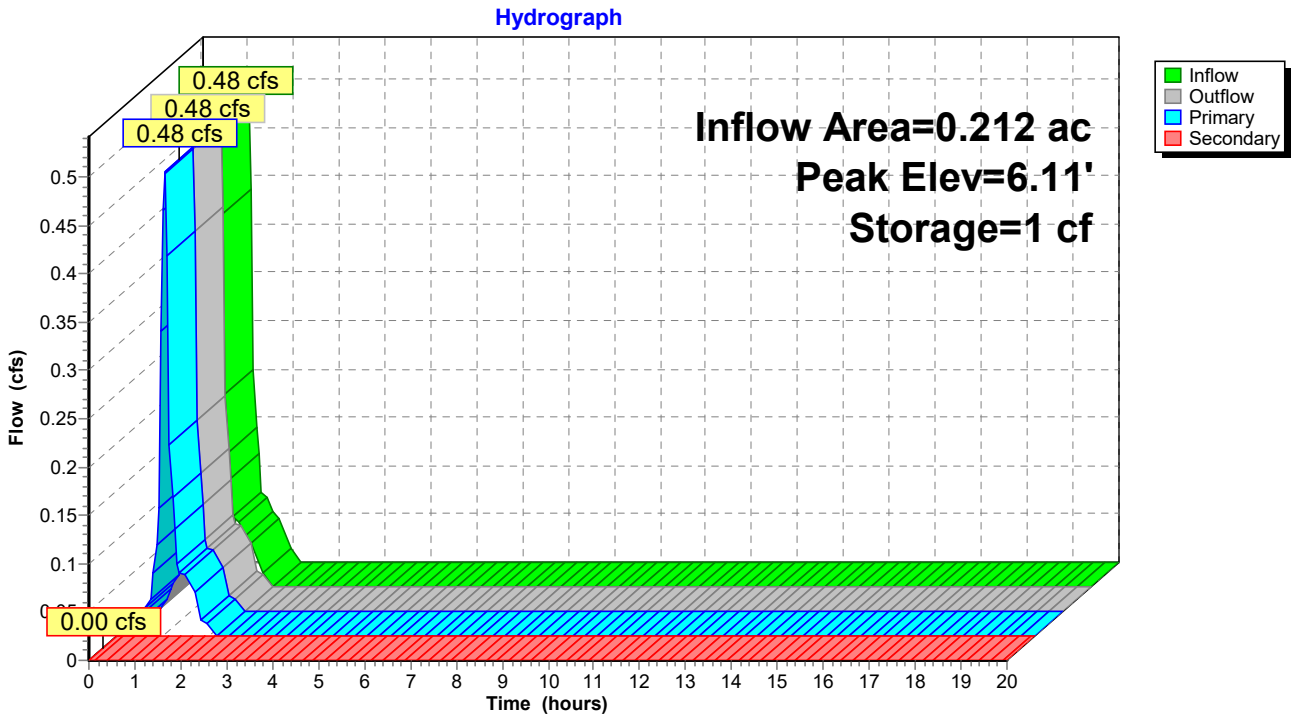
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
8.25	54	0	0
9.00	54	41	41

Device	Routing	Invert	Outlet Devices	
#1	Primary	6.00'	**400.000 in/hr Exfiltration over Surface area**	Phase-In= 0.10'
#2	Secondary	8.80'	**24.0" Horiz. Overflow Inlet** C= 0.600 Limited to weir flow at low heads	

Primary OutFlow Max=0.50 cfs @ 1.04 hrs HW=6.10' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.50 cfs @ 0.01 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=6.00' (Free Discharge)
↑—**2=Overflow Inlet** (Controls 0.00 cfs)

Pond 5P: FP-5


Hydrograph
Inflow Area=0.212 ac
Peak Elev=6.11'
Storage=1 cf
0.48 cfs
0.48 cfs
0.48 cfs
0.00 cfs
Inflow
Outflow
Primary
Secondary
Flow (cfs)
Time (hours)
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
0.45
0.5
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Summary for Pond 6P: FP-6

Inflow Area = 0.097 ac, 68.61% Impervious, Inflow Depth = 0.80" for WQDS event
Inflow = 0.24 cfs @ 1.04 hrs, Volume= 0.006 af
Outflow = 0.23 cfs @ 1.03 hrs, Volume= 0.006 af, Atten= 1%, Lag= 0.0 min
Primary = 0.23 cfs @ 1.03 hrs, Volume= 0.006 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 6.39' @ 1.04 hrs Surf.Area= 27 sf Storage= 1 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 0.1 min (66.9 - 66.8)

Volume	Invert	Avail.Storage	Storage Description
#1	6.29'	12 cf	**2.70'W x 10.00'L x 2.25'H FocalPoint** 61 cf Overall x 20.0% Voids
#2	8.54'	14 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) -Impervious
		26 cf	Total Available Storage

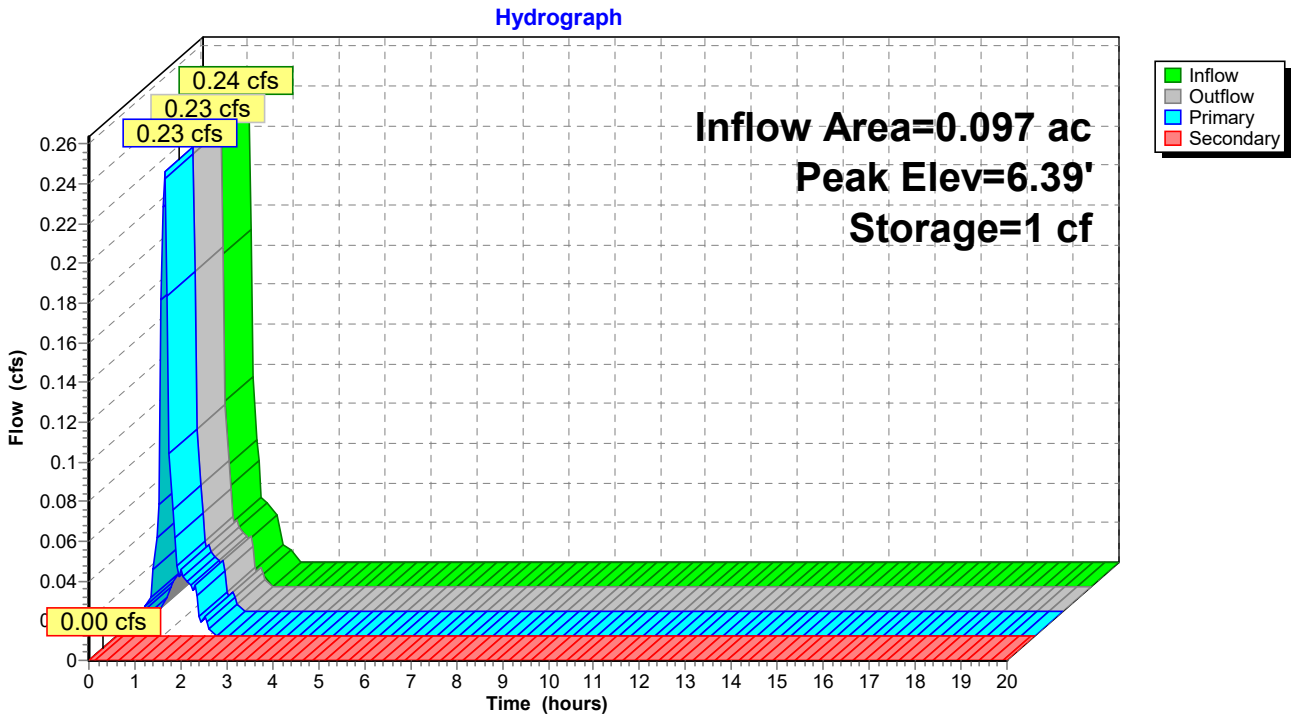
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
8.54	27	0	0
9.04	27	14	14

Device	Routing	Invert	Outlet Devices	
#1	Primary	6.29'	**400.000 in/hr Exfiltration over Surface area**	Phase-In= 0.10'
#2	Secondary	8.87'	**24.0" Horiz. Overflow Inlet** C= 0.600 Limited to weir flow at low heads	

Primary OutFlow Max=0.24 cfs @ 1.03 hrs HW=6.39' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.24 cfs @ 0.01 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=6.29' (Free Discharge)
↑—**2=Overflow Inlet** (Controls 0.00 cfs)

Pond 6P: FP-6


Hydrograph
0.24 cfs
0.23 cfs
0.23 cfs
0.00 cfs
Inflow Area=0.097 ac
Peak Elev=6.39'
Storage=1 cf
Inflow
Outflow
Primary
Secondary
Flow (cfs)
Time (hours)
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
0.18
0.2
0.22
0.24
0.26
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Summary for Pond 7P: FP-7

Inflow Area = 0.102 ac, 68.58% Impervious, Inflow Depth = 0.80" for WQDS event
Inflow = 0.25 cfs @ 1.04 hrs, Volume= 0.007 af
Outflow = 0.25 cfs @ 1.03 hrs, Volume= 0.007 af, Atten= 1%, Lag= 0.0 min
Primary = 0.25 cfs @ 1.03 hrs, Volume= 0.007 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 6.40' @ 1.04 hrs Surf.Area= 29 sf Storage= 1 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 0.1 min (66.9 - 66.8)

Volume	Invert	Avail.Storage	Storage Description
#1	6.30'	13 cf	**2.90'W x 10.00'L x 2.25'H FocalPoint** 65 cf Overall x 20.0% Voids
#2	8.55'	15 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) -Impervious
		28 cf	Total Available Storage

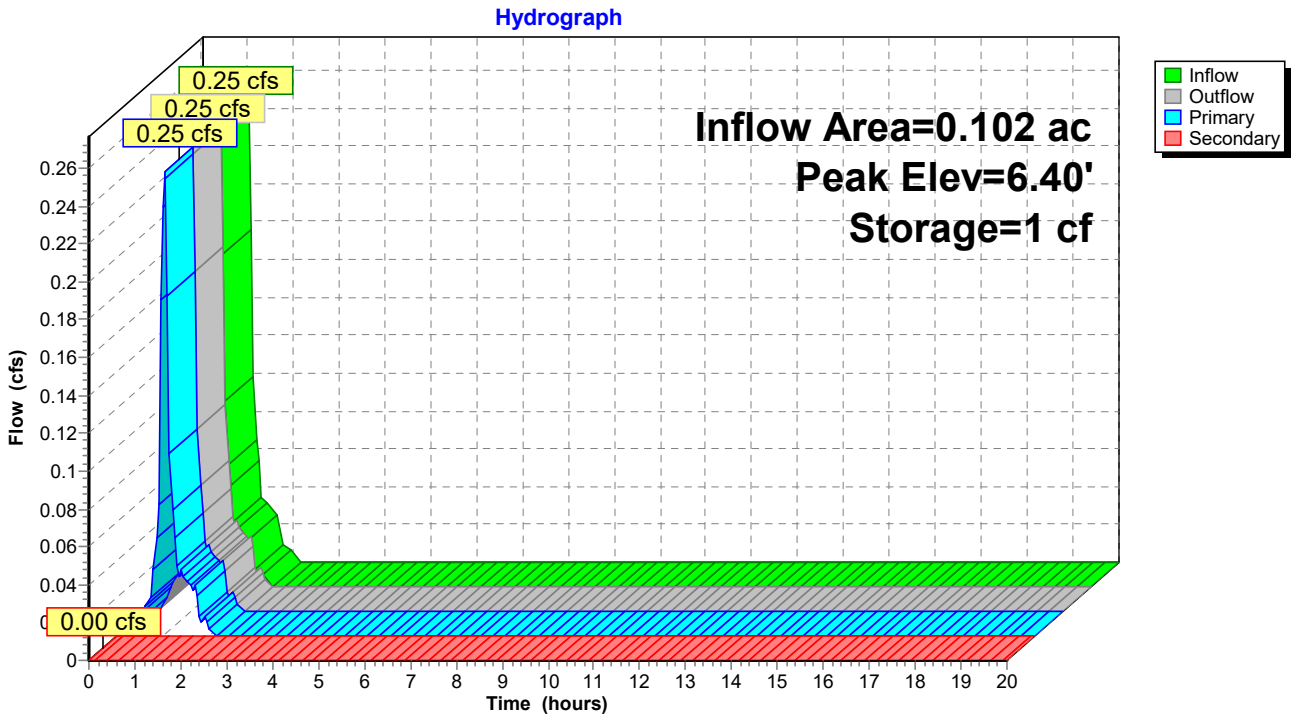
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
8.55	29	0	0
9.05	29	15	15

Device	Routing	Invert	Outlet Devices	
#1	Primary	6.30'	**400.000 in/hr Exfiltration over Surface area**	Phase-In= 0.10'
#2	Secondary	8.88'	**24.0" Horiz. Overflow Inlet** C= 0.600 Limited to weir flow at low heads	

Primary OutFlow Max=0.25 cfs @ 1.03 hrs HW=6.39' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.25 cfs @ 0.01 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=6.30' (Free Discharge)
↑—**2=Overflow Inlet** (Controls 0.00 cfs)

Pond 7P: FP-7


Hydrograph
0.25 cfs
0.25 cfs
0.25 cfs
0.00 cfs
Inflow Area=0.102 ac
Peak Elev=6.40'
Storage=1 cf
Inflow
Outflow
Primary
Secondary
Flow (cfs)
0
0.04
0.06
0.08
0.1
0.12
0.14
0.16
0.18
0.2
0.22
0.24
0.26
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Time (hours)

Summary for Pond 8P: FP-8

Inflow Area = 0.097 ac, 88.84% Impervious, Inflow Depth = 0.95" for WQDS event
Inflow = 0.28 cfs @ 1.03 hrs, Volume= 0.008 af
Outflow = 0.28 cfs @ 1.03 hrs, Volume= 0.008 af, Atten= 1%, Lag= 0.0 min
Primary = 0.28 cfs @ 1.03 hrs, Volume= 0.008 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 5.35' @ 1.03 hrs Surf.Area= 32 sf Storage= 1 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 0.1 min (65.9 - 65.9)

Volume	Invert	Avail.Storage	Storage Description
#1	5.25'	14 cf	**3.20'W x 10.00'L x 2.25'H FocalPoint** 72 cf Overall x 20.0% Voids
#2	7.50'	16 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) -Impervious
		30 cf	Total Available Storage

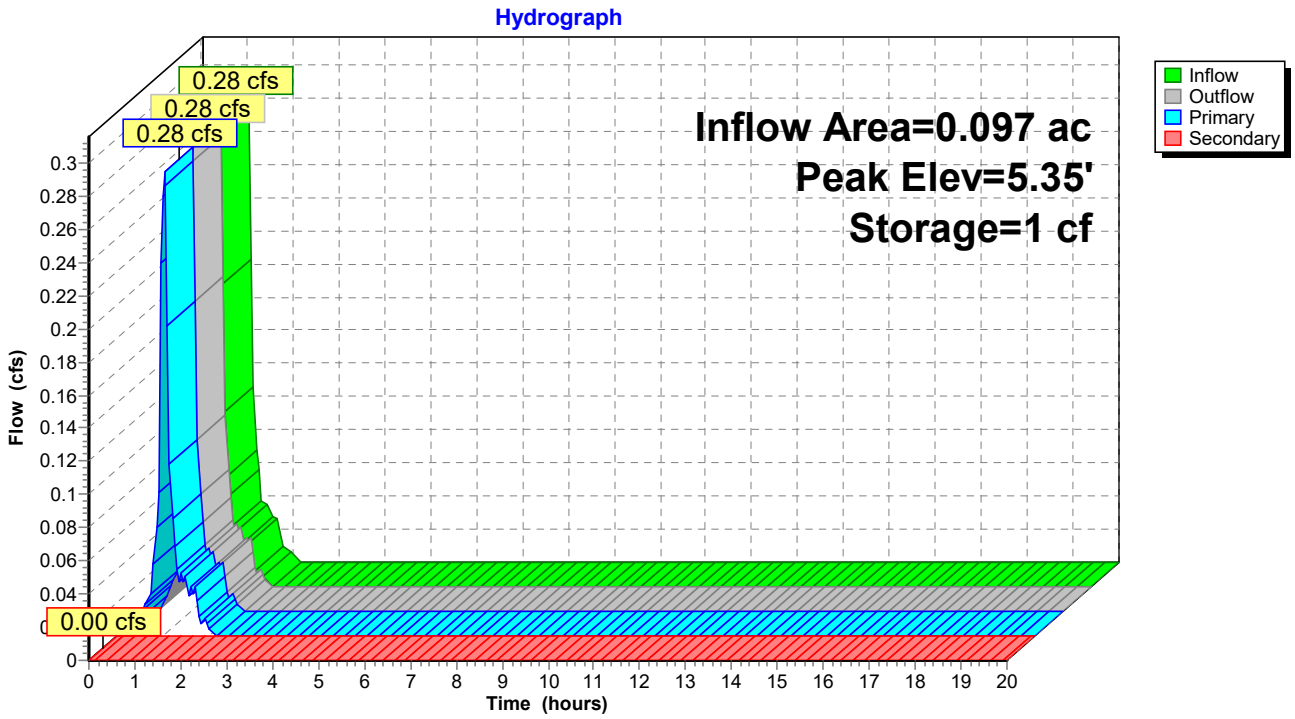
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
7.50	32	0	0
8.00	32	16	16

Device	Routing	Invert	Outlet Devices	
#1	Primary	5.25'	**400.000 in/hr Exfiltration over Surface area**	Phase-In= 0.10'
#2	Secondary	7.75'	**24.0" Horiz. Overflow Inlet** C= 0.600 Limited to weir flow at low heads	

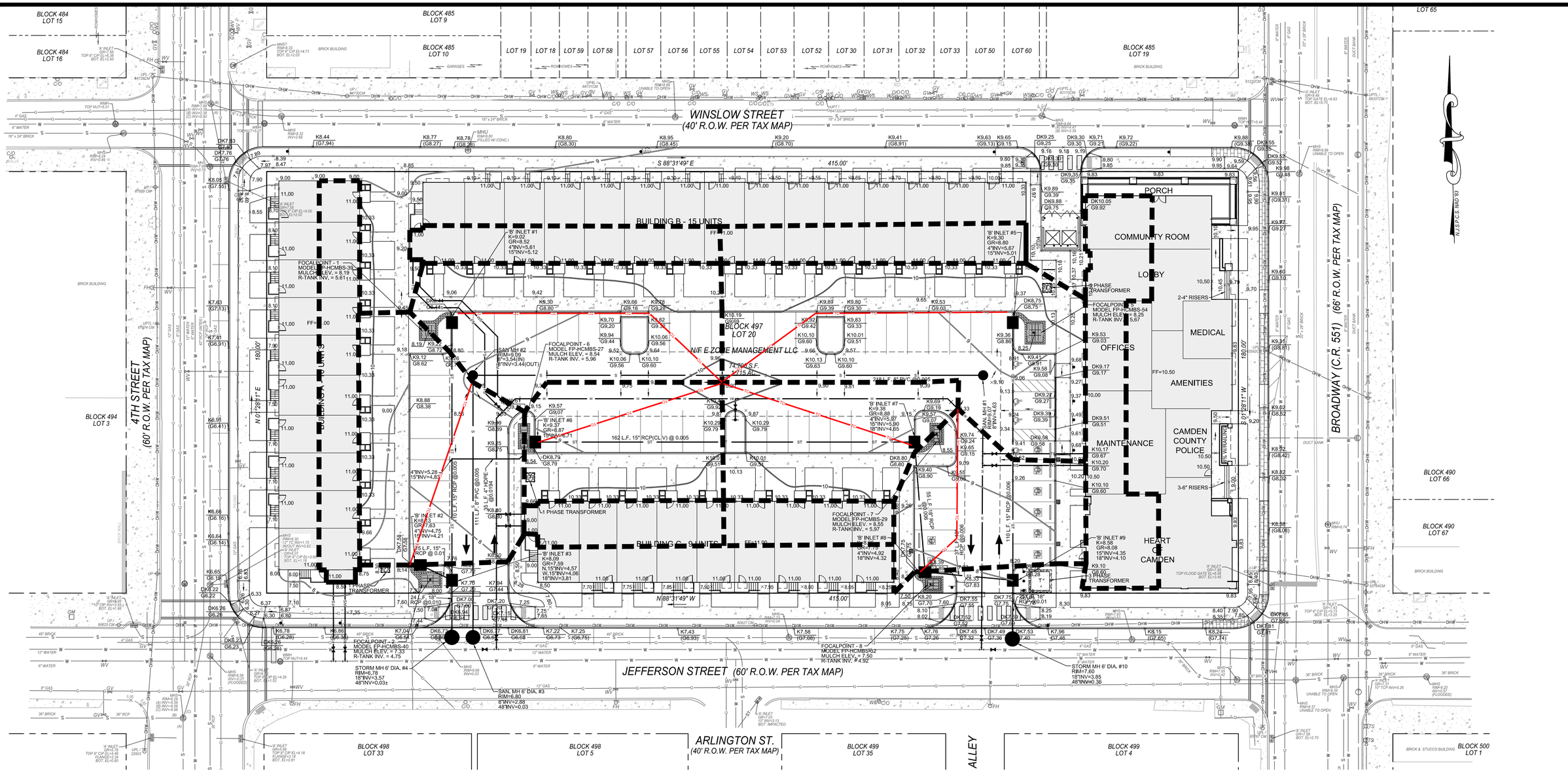
Primary OutFlow Max=0.28 cfs @ 1.03 hrs HW=5.35' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.28 cfs @ 0.01 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=5.25' (Free Discharge)
↑—**2=Overflow Inlet** (Controls 0.00 cfs)

Pond 8P: FP-8


Hydrograph
Inflow Area=0.097 ac
Peak Elev=5.35'
Storage=1 cf
0.28 cfs
0.28 cfs
0.28 cfs
0.00 cfs
Inflow
Outflow
Primary
Secondary
Flow (cfs)
Time (hours)
0
0.04
0.06
0.08
0.1
0.12
0.14
0.16
0.18
0.2
0.22
0.24
0.26
0.28
0.3
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

APPENDIX D: DRAINAGE AREA MAP



THIS PLAN IS FOR DRAINAGE AREA PURPOSES ONLY

PROPOSED INLET DRAINAGE AREA MAP

CROFT MILL
JEFFERSON STREET
BLOCK 497, LOT 20, TAX MAP SHEET 8.04
CITY OF CAMDEN
CAMDEN COUNTY, NEW JERSEY

REVISIONS	
NO.	DATE

Taylor Wiseman & Taylor
ENGINEERS / SURVEYORS / SCIENTISTS
SUBSURFACE UTILITY ENGINEERING
804 EAST GATE DRIVE, SUITE 100, MOUNT LAUREL, NJ 08054
TELEPHONE: (856) 235-7200 FAX: (856) 722-9250 www.taylorwiseman.com
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28032900

SCALE:	DATE:	DRAWING NO.	SHEET:
1"=20'	MAY 11, 2026	026-07755-DA	1 OF 1

Date: May 20, 2026, 10:14am

User ID: Koldomasov File: Q:\CAD\07755 Croft Mill\Engineering\Drainage Maps\Proposed Drainage.dwg UTILITY PLAN

Shropshire Associates LLC

Traffic Engineering, Transportation Planning & Design

277 White Horse Pike, Suite 203, Atco, NJ 08004
P: 609-714-0400 F: 609-714-9944 www.sallc.org

SBE Certified

David R. Shropshire, PE, PP
A Andrew Feranda, PE, PTOE, CME
Randal C. Barranger, PE
Nathan B. Mosley, PE, CME

May 20, 2026

Mr. Dan Scannapieco (via email: dscannapieco@tmo.com)
The Michaels Organization
2 Cooper Street, 14th Floor
Camden, NJ 08101

Re: **Traffic Engineering Assessment**
Croft Mill Townhomes – Camden
Block 497, Lot 20
Jefferson Street
City of Camden, Camden County, NJ
SA Project No. 25256

Dear Dan:

At your request, Shropshire Associates, LLC has prepared a Traffic Engineering Assessment report for the above-referenced residential development to be located along westbound Jefferson Street in the City of Camden, Camden County, New Jersey. The existing site is currently vacant.

The proposal is to construct 30 multifamily and 34 townhouses residential dwelling units. Access is proposed via two (2) driveways along Jefferson Street, between its intersections with 4th Street and Broadway. Final approval for the driveways are required from the City of Camden with regards to location, design, and operations.

Existing Conditions

A field reconnaissance was conducted to determine the features of the adjacent roadways in the study area. A brief description of the roads and intersections within the study area is provided below.

Along the site's frontage, **Jefferson Street** is a two-lane undivided local roadway that is under the jurisdiction of the City of Camden. Jefferson Street has an approximate cartway width of 30 feet (ft), consisting of one (1) 15 ft travel lane in both the eastbound and westbound directions. The assumed speed limit along Jefferson Street is 25 MPH. For the purpose of this report, Jefferson Street is assumed to extend in a general east-west direction.

In the vicinity of the site, **Broadway (CR 551)** is a two-lane undivided roadway that is under the jurisdiction of Camden County and is classified as an Urban Principal Arterial. Broadway has an approximate cartway width of 40 ft, consisting of one (1) 20 ft travel lane in both the northbound and southbound directions. The posted speed limit along Broadway is 25 MPH. For the purpose of this assessment, Broadway is assumed to extend in a general north-south direction.

In the vicinity of the site, **4th Street** is a two-lane undivided roadway that is under the jurisdiction of the City of Camden and is classified as an Urban Major Collector. 4th Street has an approximate cartway width of 28 ft, consisting of one (1) 14 ft travel lane in both the northbound and southbound directions. The posted speed limit along 4th Street is 25 MPH. For the purpose of this assessment, 4th Street is assumed to extend in a general north-south direction.

The four-legged intersection of **Jefferson Street and Broadway (CR 551)** is controlled by two-phase pretimed traffic signal operating on 70-second background cycle length. All approaches consist of a single lane providing for all permitted movements.

The four-legged intersection of **Jefferson Street and 4th Street** is stop-controlled along both the eastbound and westbound Jefferson Street approaches. All approaches consist of a single lane providing for all permitted movements.

Traffic Counts

To determine the amount of traffic on the adjacent roadway network, manual turning movement counts (MTMC) were conducted at the study intersections on Thursday, September 18, 2025. The counts were conducted during the weekday morning (7:00 AM to 9:00 AM), weekday afternoon (2:00 PM to 6:00 PM) peak periods. A summary of the traffic counts can be found in the appendix to this assessment, and the existing weekday AM and weekday PM peak hour volumes are illustrated on Figure 1.

Future Conditions

As indicated above, the proposal is to construct 30 multifamily and 34 townhouses residential dwelling units. The traffic resulting from the proposed development will not affect the adjacent roadway network until the development is fully built-out, which is anticipated to be by the year 2027. It can be expected that the traffic volumes along the adjacent roadways will increase as a result of general area traffic growth.

Based on the *Annual Background Growth Table* prepared by the New Jersey Department of Transportation, a 2.25% annual traffic growth will occur along Urban Principal Arterial and Urban Minor Collector roadways and a 1.00% annual traffic growth along local roadways in the vicinity of the site. Therefore, in order to estimate the future No-Build volumes, the annual growth rates of 2.25% and 1.00% were applied to the existing peak hour traffic volumes respectively and are illustrated in Figure 2.

Trip Generation

The amount of traffic to be generated by the proposed residential development can best be estimated by using data published by the Institute of Transportation Engineers (ITE). ITE has compiled data from thousands of studies for various land uses, independent variables, and study periods and published the results in *Trip Generation, 12th Edition.* The development is most similar to ITE Land Use ITE Land Use 215: Single-Family Attached Housing and 220: Multifamily Housing (Low-Rise). The total amount of traffic generated by the proposed residential development is summarized below in Table 1.

Table 1 ITE Trip Generation – Newark Senior						
Development	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Multifamily Housing (Low-Rise) (30 units)	6	17	23	13	9	22
Single-Family Attached Housing (34 units)	4	12	16	10	7	17
Total	**10**	**29**	**39**	**23**	**16**	**39**

Trip Distribution

The traffic to be generated by the proposed residential development must then be distributed to the adjacent roadway network in a manner in which we can reasonably expect the residents to travel. The site traffic was assigned to the roadway network based on the existing distribution of traffic along the adjacent roadway network (Figure 3). The site traffic assignment is illustrated on Figure 4. The site traffic was then added to the No-Build volumes to project the Build traffic volumes, which are illustrated on Figure 5.

Operational Analysis

In order to measure the quality of the traffic flow for the adjacent roadways and intersections, capacity analyses for the study intersections have been completed based upon the methods outlined in the *Highway Capacity Manual*. Capacity analysis is a procedure used to estimate the ability of the roadway network to carry traffic. Capacity analyses are performed based on a Level of Service methodology. Level of Service (LOS) is a qualitative measure that characterizes the operational conditions of a roadway or intersection based on the perceptions by motorists and passengers. Levels of Service are defined for each type of facility (i.e. freeways, highways, signalized intersections, unsignalized intersections). These Levels of Service range from LOS A to LOS F, with a LOS A representing the best operating conditions and a LOS F representing the worst operating conditions.

The levels of service for a signalized intersection are classified in terms of delay, which is based on the extent of driver discomfort and frustration, fuel consumption and lost travel time. The delay experienced by a motorist consists of many factors that relate to control, geometrics and traffic. Some of these factors include the quality of progression, traffic signal cycle length, the green time ratio and the volume to capacity ratio. The level of service for an unsignalized intersection is determined based on the average control delay associated with each minor movement (i.e. yielding left-turn movements from the major roads and stop-controlled movements from the minor approaches). The Level of Service criteria for unsignalized and signalized intersections are provided in Table 2.

Table 2 Level of Service Criteria		
Level of Service	Unsignalized Delay (sec)	Signalized Delay (sec)
A	≤ 10	≤ 10
B	> 10 and ≤ 15	> 10 and ≤ 20
C	> 15 and ≤ 25	> 20 and ≤ 35
D	> 25 and ≤ 35	> 35 and ≤ 55
E	> 35 and ≤ 50	> 55 and ≤ 80
F	> 50	> 80

In order to assess the traffic impact of the proposed development, the roadway network was evaluated under the Existing, No-Build and Build conditions using the above-described methodology and the latest Synchro software. A detailed description of the study intersections' operations under the three scenarios is provided below, with the resulting Existing, No-Build and Build Levels of Service illustrated on Figures 6, 7, and 8; respectively. The capacity analysis worksheets are attached for reference.

Jefferson Street and Broadway Intersection

Overall, the existing Jefferson Street and Broadway signalized intersection currently operates at an overall LOS A during both the weekday AM and the weekday PM peak hours. The eastbound Jefferson Road approach operates at a LOS B during both the weekday AM and the weekday PM peak hours. The westbound Jefferson Road approach operates at a LOS B during the weekday AM peak hour and a LOS C during the weekday PM peak hour. Both the northbound and southbound Broadway approaches operate at a LOS A during both peak hours.

Under the future No-Build and Build conditions, the Jefferson Street and Broadway signalized intersection will operate at an overall LOS A during both the weekday AM and the weekday PM peak hours. All individual approaches will operate at existing levels of service.

Jefferson Street and 4th Street Intersection

Under the existing conditions, the eastbound Jefferson Street stop-controlled approach operates at LOS A during both the weekday AM and the weekday PM peak hours. The westbound Jefferson Street stop-controlled approach operates at LOS B during the weekday AM peak hour and a LOS A during the weekday PM peak hour. Both the northbound and southbound 4th Street conflicting left-turn movements operate at LOS A during both peak hours.

Under the future No-Build scenario, all movements will continue to operate at existing levels of service with the exception of the eastbound Jefferson Road stop-controlled approach which will operate at a LOS B during the weekday PM peak hour.

In the future Build scenario, all stop-controlled and conflicting left-turn movements will operate at No-Build levels of service.

Jefferson Street and Site Driveway Intersections

In the future Build conditions, access is proposed via two (2) driveways along westbound Jefferson Street, between its intersections with 4th Street and Broadway. The site driveway stop-controlled approaches will consist of a single lane for all permitted movements.

Based upon this configuration, the southbound site driveway stop-controlled approaches will operate at LOS A during both the weekday AM and the weekday PM peak hours for both driveways. The eastbound Jefferson Street conflicting left-turn movements will operate at LOS A during both peak hours for both driveways.

Conclusion

Based on the results presented in this traffic engineering assessment report, the traffic resulting from the proposed development will have a minimal impact on the adjacent roadways based upon the following conclusions:

- Based upon the current ITE trip generation rates, the proposed development will generate a total of 39 trips during the AM peak hour and 39 trips during the weekday PM peak hour.

- Under the future Build conditions, the Jefferson Street and Broadway signalized intersection will operate at an overall LOS A during both the weekday AM and the weekday PM peak hours. All individual approaches will operate at existing levels of service.

- The traffic resulting from the proposed development will cause no changes in the future levels of service at Jefferson Street and 4th Street stop-controlled intersection. All stop-controlled and conflicting left-turn movements will operate at No-Build levels of service.

- In the future Build conditions, access is proposed via two (2) driveways along westbound Jefferson Street, between its intersections with 4th Street and Broadway. The site driveway stop-controlled approaches will consist of a single lane for all permitted movements.

  Based upon this configuration, the southbound site driveway stop-controlled approaches will operate at LOS A during both the weekday AM and the weekday PM peak hours for both driveways. The eastbound Jefferson Street conflicting left-turn movements will operate at LOS A during both peak hours for both driveways.

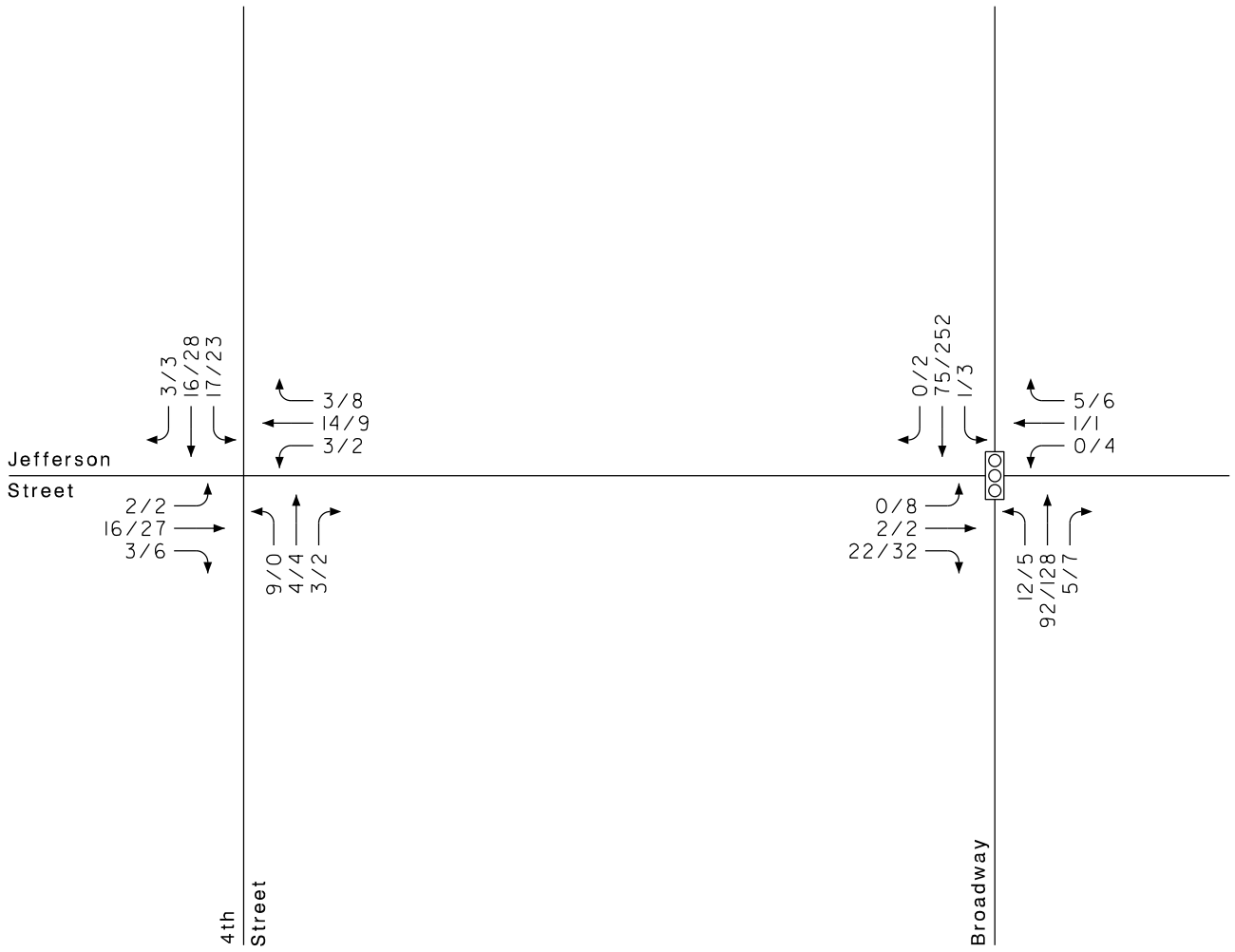
Should you have any questions or require additional information, please feel free to contact us.

Sincerely,
Shropshire Associates LLC

Nathan B. Mosley, P.E., C.M.E.
Professional Engineer
N.J. License No. 48698
NBM/jab
Attachments

Shropshire Associates LLC
277 White Horse Pike - Suite 203, Atco, NJ 08004
P: 609.714.0400 F: 609.714.9944 www.sallc.org

FIGURE 1
EXISTING VOLUMES



Croft Mill Townshomes – Camden

City of Camden, Camden County, NJ
May 2026

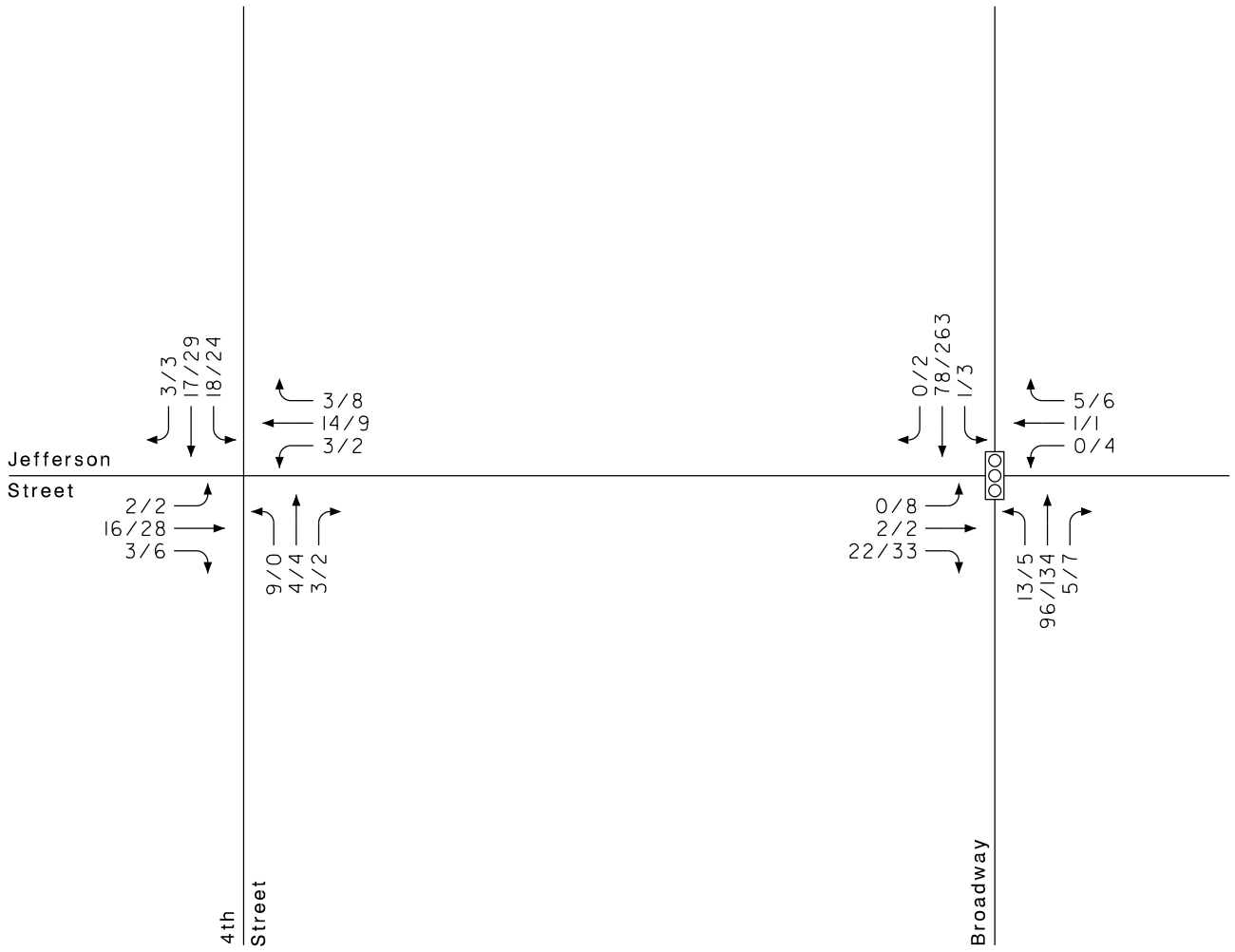
TRAFFIC SIGNAL
AM/PM PEAK HOUR

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FIGURE 2
NO-BUILD VOLUMES



Croft Mill Townshomes – Camden

City of Camden, Camden County, NJ
May 2026

TRAFFIC SIGNAL
AM/PM PEAK HOUR

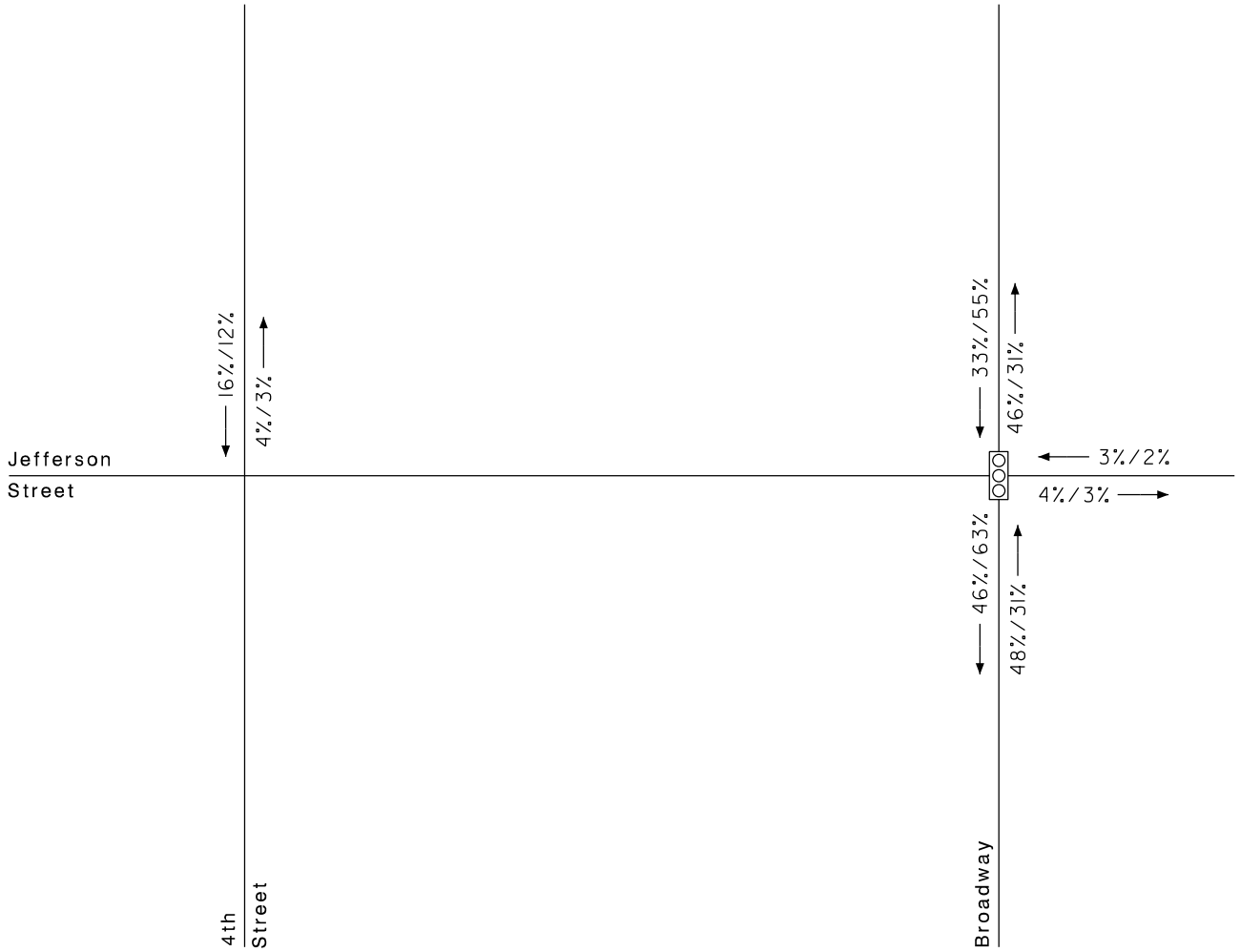
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FIGURE 3
TRIP DISTRIBUTION

N



Croft Mill Townshomes – Camden

City of Camden, Camden County, NJ
May 2026

TRAFFIC SIGNAL
AM/PM PEAK HOUR

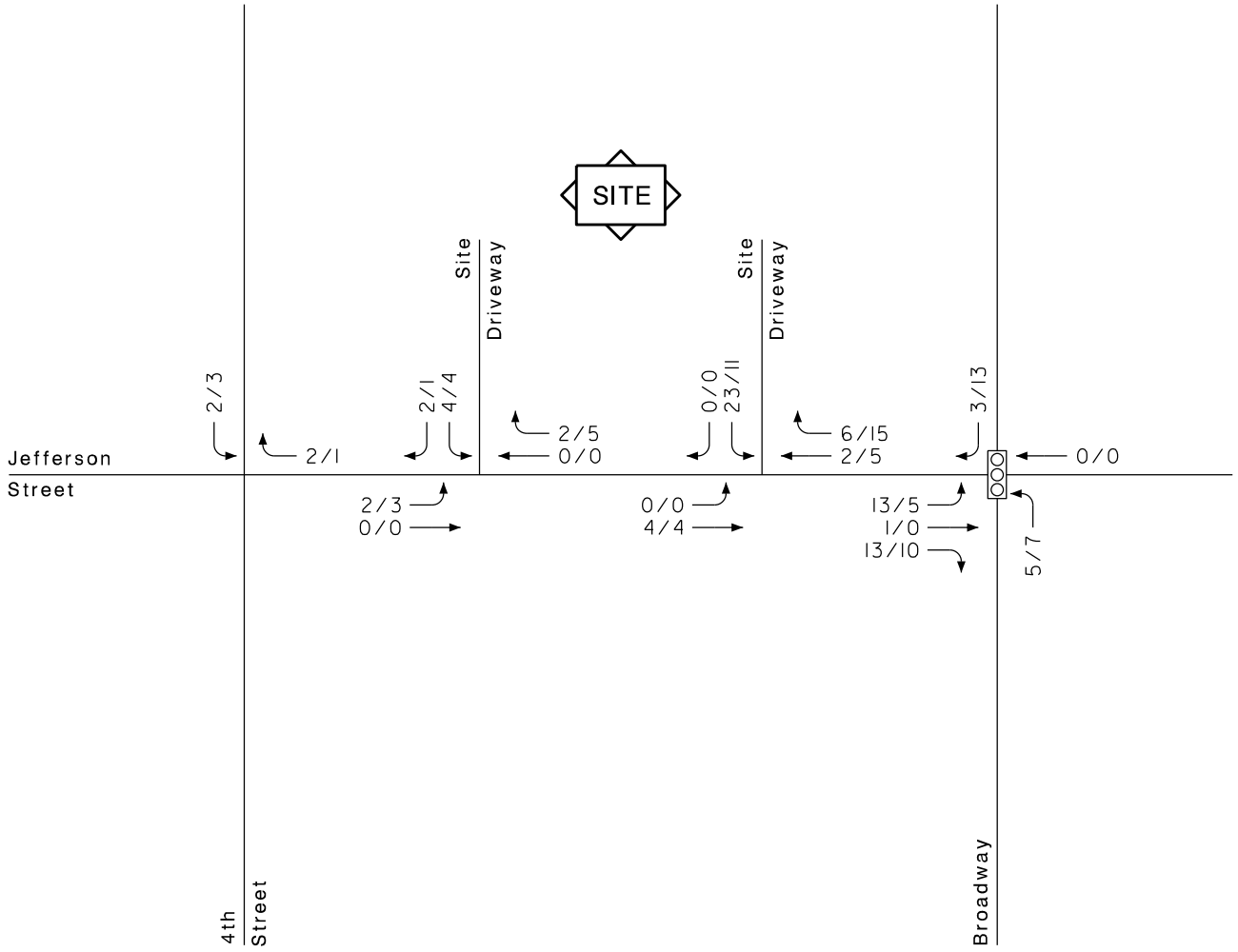
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FIGURE 4
SITE TRAFFIC

N



Croft Mill Townshomes – Camden

City of Camden, Camden County, NJ
May 2026

TRAFFIC SIGNAL
AM/PM PEAK HOUR

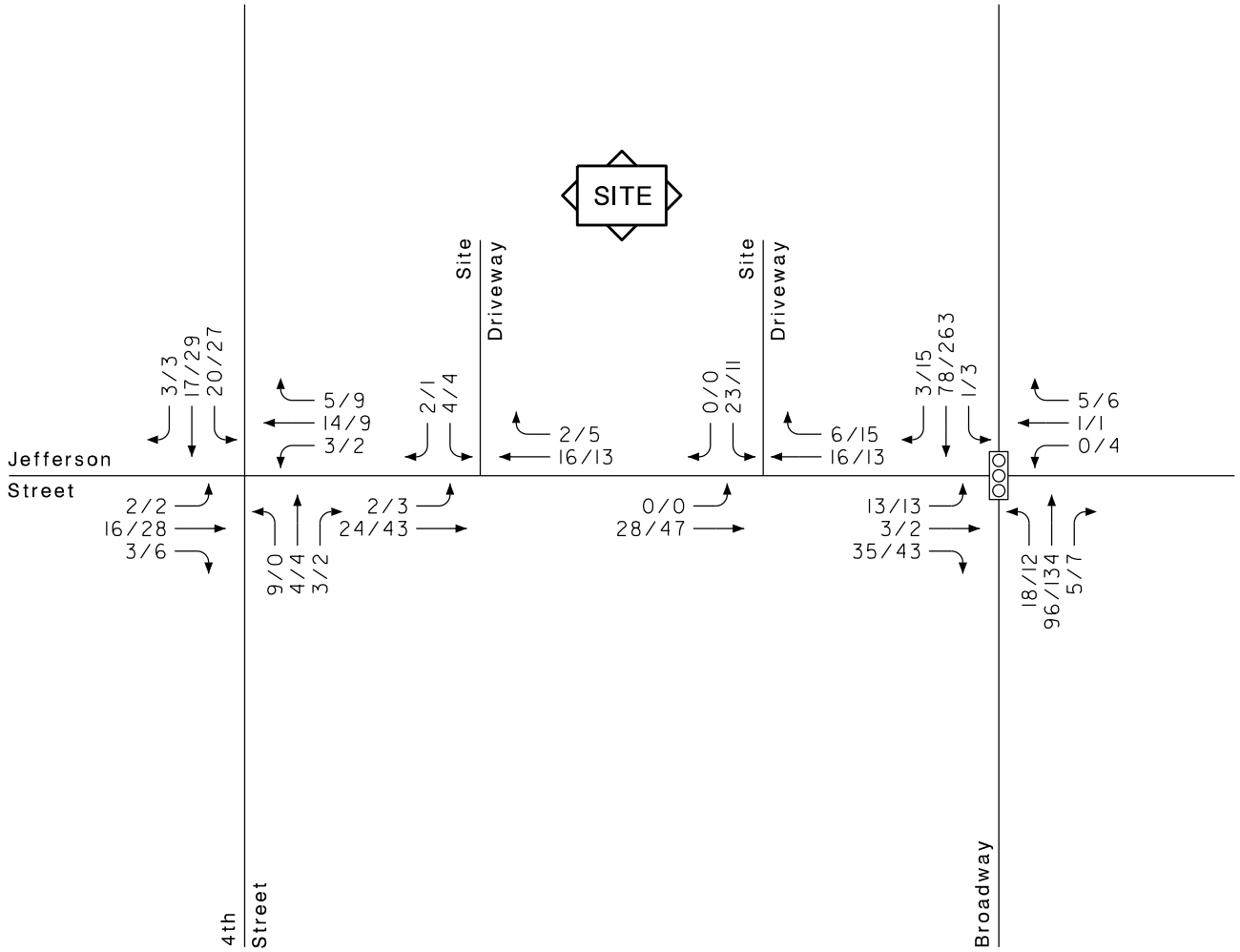
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FIGURE 5
BUILD VOLUMES

N



Croft Mill Townshomes – Camden

City of Camden, Camden County, NJ
May 2026

TRAFFIC SIGNAL
AM/PM PEAK HOUR

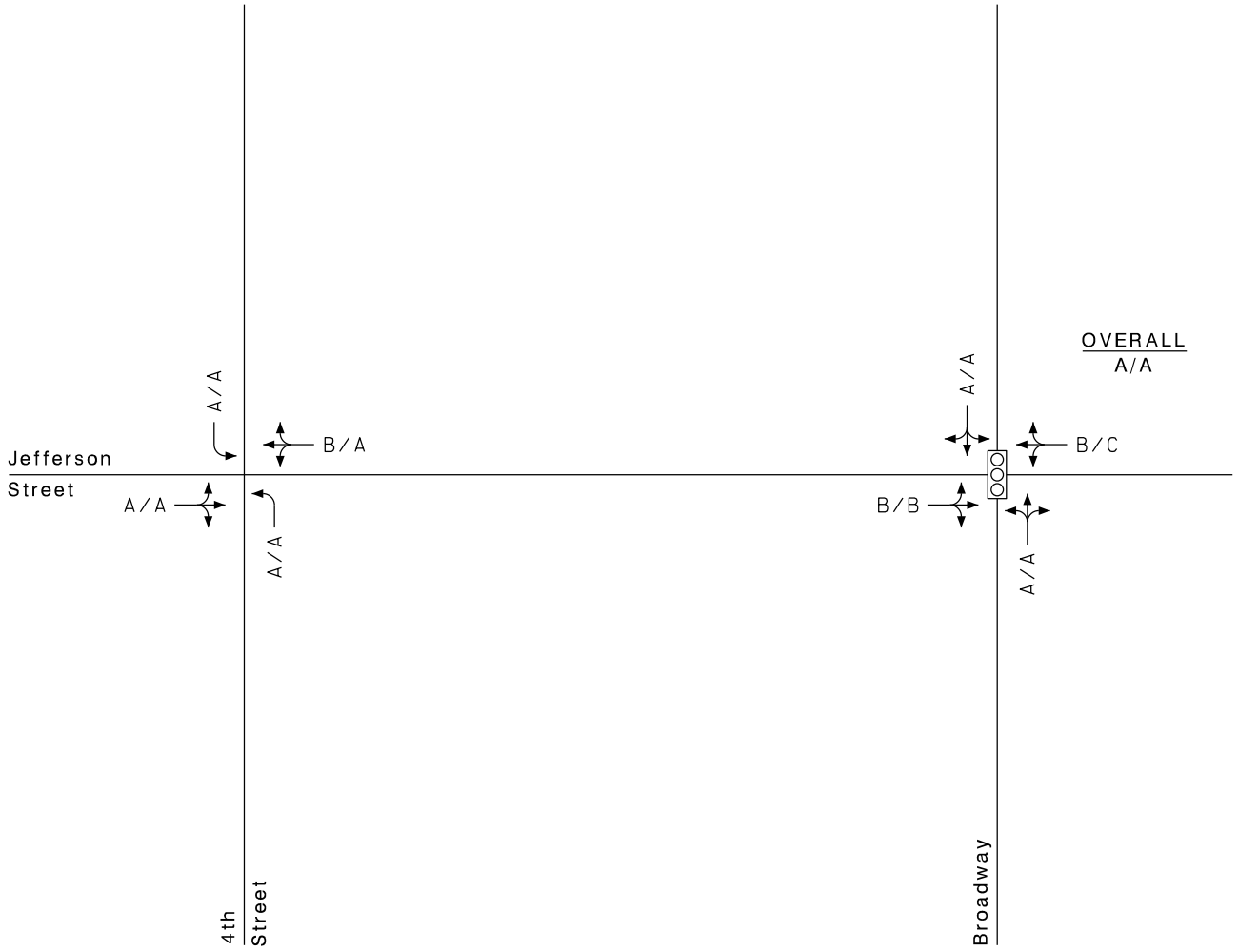
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FIGURE 6
EXISTING LEVELS OF SERVICE

N



Croft Mill Townshomes – Camden

City of Camden, Camden County, NJ
May 2026

TRAFFIC SIGNAL
AM/PM PEAK HOUR

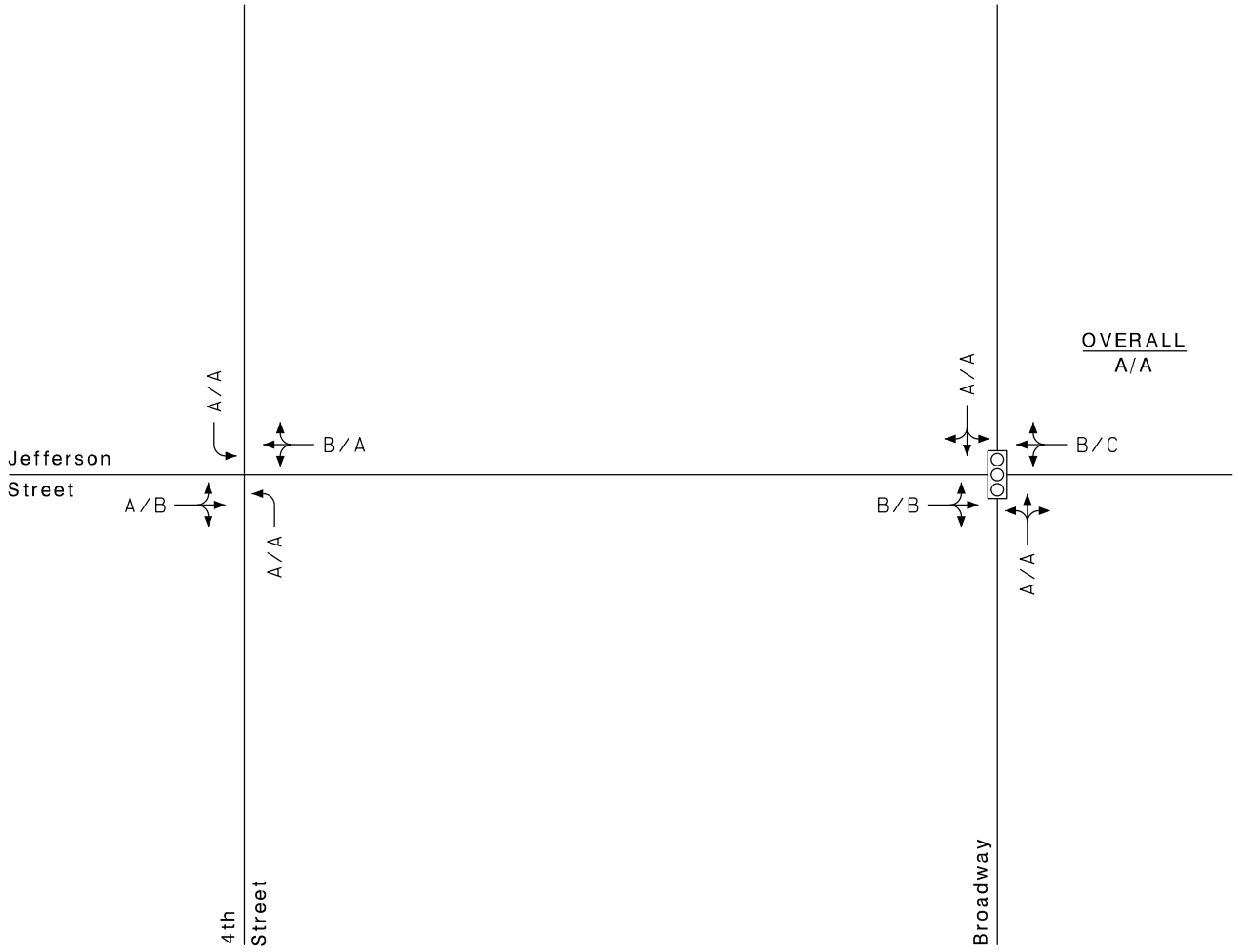
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FIGURE 7
NO-BUILD LEVELS OF SERVICE

N



Croft Mill Townshomes – Camden

City of Camden, Camden County, NJ
May 2026

TRAFFIC SIGNAL
AM/PM PEAK HOUR

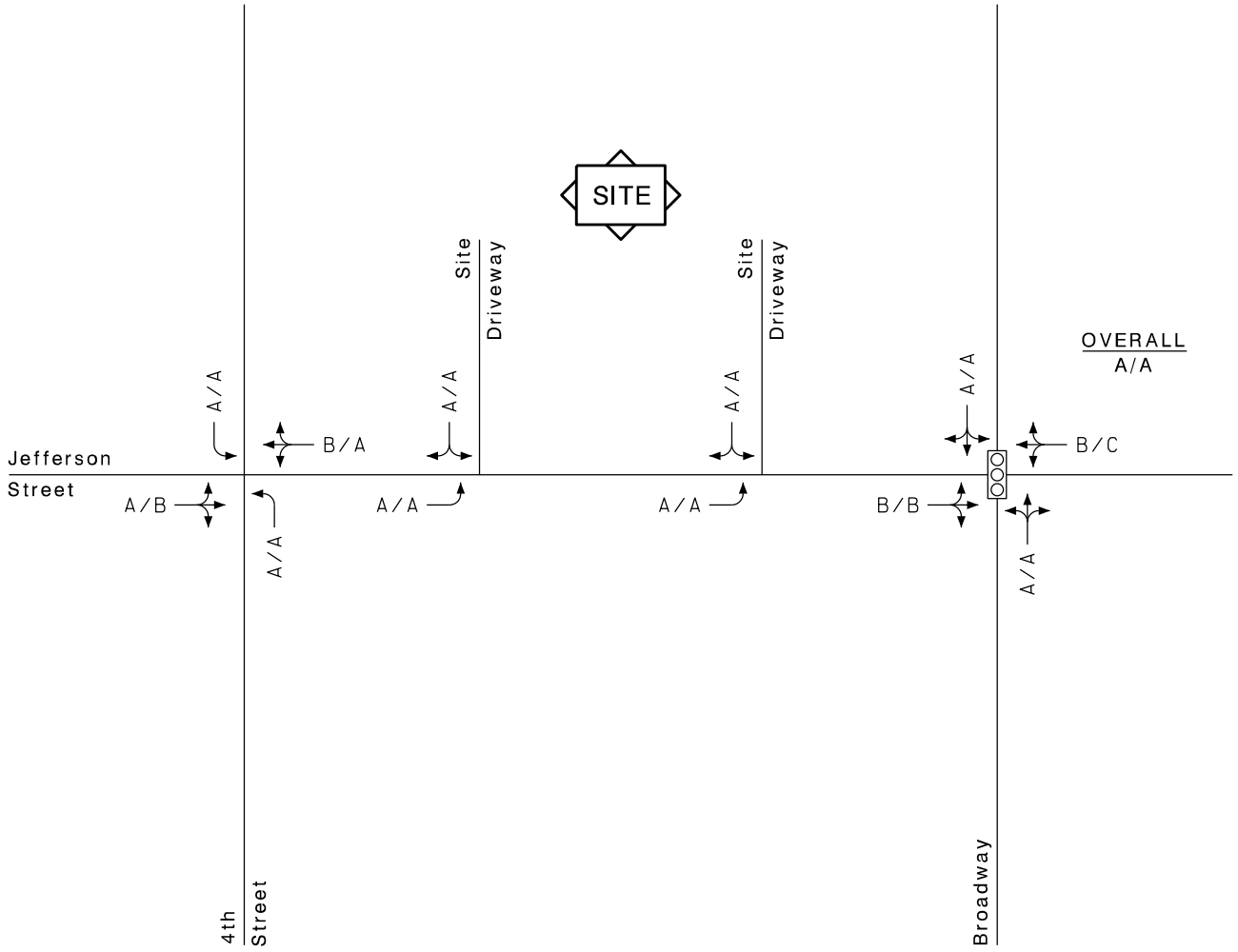
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FIGURE 8
BUILD LEVELS OF SERVICE

N



Croft Mill Townshomes – Camden

City of Camden, Camden County, NJ
May 2026

TRAFFIC SIGNAL
AM/PM PEAK HOUR

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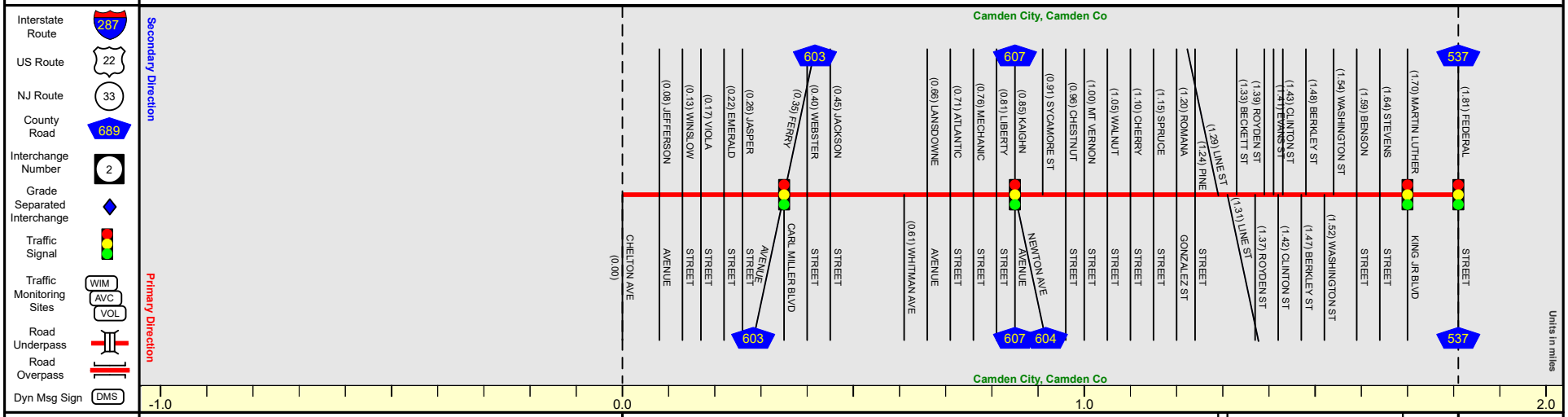
SA Project No. 25256

S 4TH ST (South to North)

Mile Posts: 0.000 - 1.810



Pavement	
Shoulder	
Number of Lanes	
Speed Limit	
Street Name	



Street Name	South 4th Street / Line Street / West Street / South 5th Street
Jurisdiction	Municipal
Functional Class	Urban Major Collector
Federal Aid - NHS Sy	STP
Control Section	
Speed Limit	25
Number of Lanes	2
Med. Type	None
Med. Width	
Pavement	34 / 30 / 40 / 34
Shoulder	
Traffic Volume	988 (2024) 1,019 (2021) / 1,894 (2024) 1,731 (2021) / 1,417 (2022) / 2,186 (2024)
Traffic Sta. ID	120454 120454 / 7-4-747 7-4-747 / 7-9-361 / 120455
Structure No.	
Enlarged Views	

Begin S 4Th St MP=0.00

End S 4Th St MP=1.81

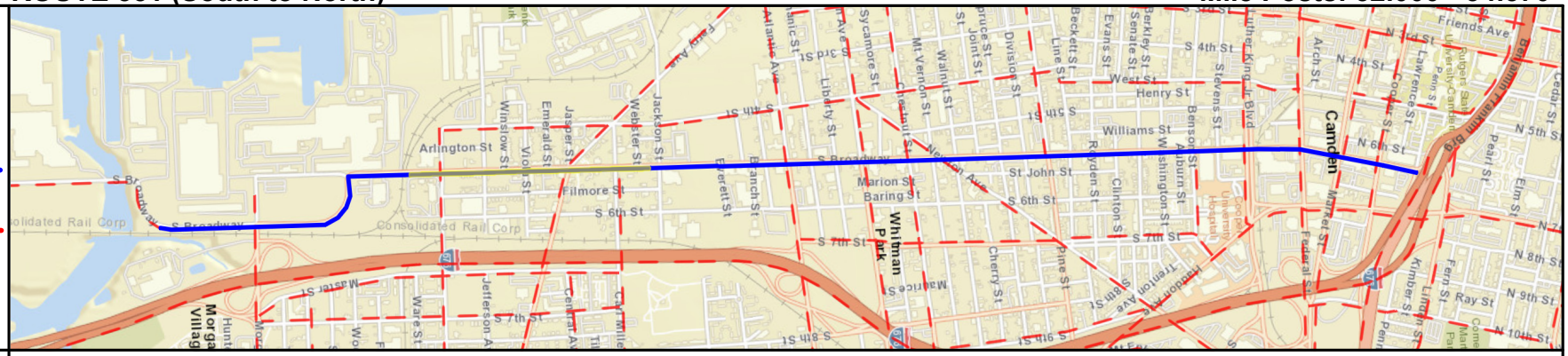
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Date last inventoried: May 2014

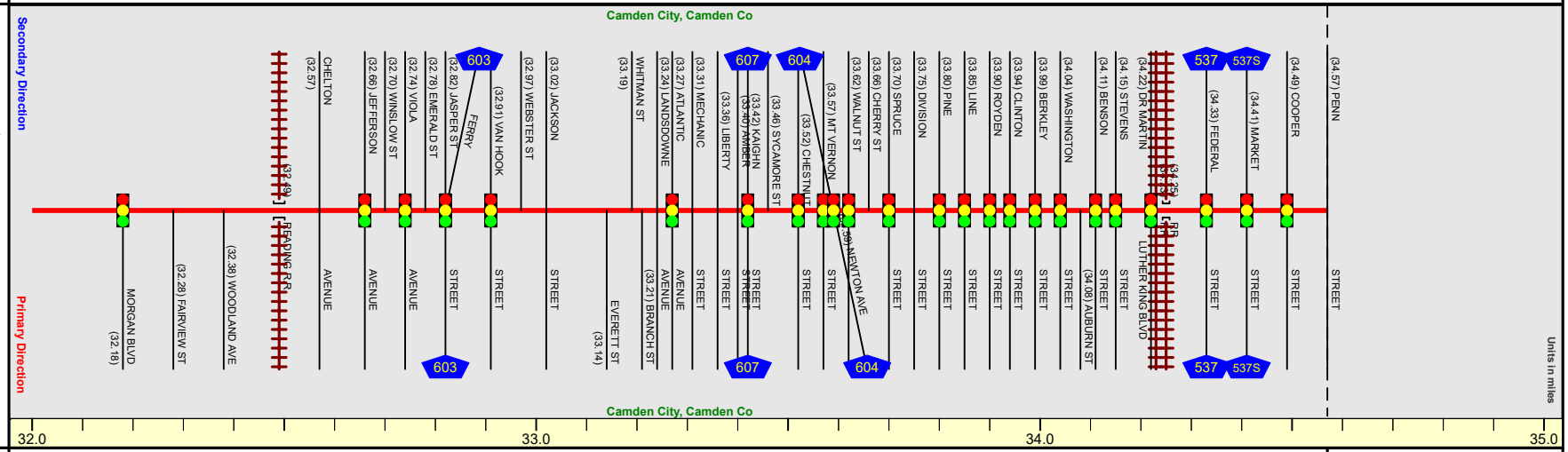
ROUTE 551 (South to North)

Mile Posts: 32.000 - 34.570



Pavement	
Shoulder	
Number of Lanes	
Speed Limit	
Street Name	

Interstate Route 287 | US Route 22 | NJ Route 33 | County Road 689 | Interchange Number 2 | Grade Separated Interchange | Traffic Signal | Traffic Monitoring Sites WIM AVC VOL | Road Underpass | Road Overpass | Dyn Msg Sign DMS



Street Name	Broadway
Jurisdiction	County
Functional Class	Urban Minor Arterial / Urban Principal Arterial
Federal Aid - NHS Sy	NHS / IM - Transit Term.
Control Section	
Speed Limit	25
Number of Lanes	2
Med. Type	None
Med. Width	
Pavement	36
Shoulder	
Traffic Volume	3,308 (2022) 3,163 (2022) / 5,138 (2024) / 7,564 (2022) / 5,306 (2022)
Traffic Sta. ID	7-4-660 C20102 / 7-4-453 / 090419 / 7N5H720
Structure No.	0455160
Enlarged Views	See Enlarged View #14

End Rt. 551 MP=34.57

SRI = 00000551__

Date last inventoried: June 2012

Page Created: June, 2020

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203
Atco, NJ 08004

N/S Route: Broadway
E/W Route: Jefferson St.
City of Cemden/Camden County/NJ
Thursday/Clear/RB LE/D4-2585

File Name : 25256001
Site Code : 25256001
Start Date : 9/18/2025
Page No : 1

Groups Printed- Unshifted - Tractor Trailers

	Broadway Southbound					Jefferson St. Westbound					Broadway Northbound					Jefferson St. Eastbound					
Start Time	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Int. Total
07:00 AM	1	7	1	0	9	0	0	1	0	1	0	19	2	0	21	3	0	0	0	3	34
07:15 AM	0	17	0	0	17	0	1	0	0	1	1	21	3	0	25	9	0	0	1	10	53
07:30 AM	0	17	1	0	18	1	0	0	1	2	0	24	2	0	26	6	0	1	2	9	55
07:45 AM	0	11	1	0	12	0	0	0	1	1	0	20	3	0	23	2	0	1	2	5	41
Total	1	52	3	0	56	1	1	1	2	5	1	84	10	0	95	20	0	2	5	27	183
08:00 AM	0	17	0	0	17	0	0	0	0	0	0	31	2	0	33	6	1	0	0	7	57
08:15 AM	0	18	0	0	18	0	0	0	1	1	1	29	4	0	34	2	1	0	4	7	60
08:30 AM	0	14	1	0	15	1	1	0	1	3	2	14	1	0	17	5	0	0	1	6	41
08:45 AM	0	26	0	0	26	1	0	0	1	2	2	18	5	0	25	3	0	0	1	4	57
Total	0	75	1	0	76	2	1	0	3	6	5	92	12	0	109	16	2	0	6	24	215
*** BREAK ***																					
02:00 PM	0	27	1	0	28	1	0	1	0	2	0	18	4	0	22	0	1	1	3	5	57
02:15 PM	0	34	0	0	34	1	0	2	0	3	0	29	4	0	33	1	0	1	2	4	74
02:30 PM	0	36	0	0	36	0	0	0	0	0	0	29	4	0	33	3	0	2	5	10	79
02:45 PM	0	26	1	0	27	1	0	0	0	1	0	24	2	0	26	1	0	2	4	7	61
Total	0	123	2	0	125	3	0	3	0	6	0	100	14	0	114	5	1	6	14	26	271
03:00 PM	1	32	1	0	34	1	1	2	2	6	4	26	4	0	34	5	2	3	5	15	89
03:15 PM	2	43	1	0	46	1	0	0	1	2	0	27	2	0	29	2	1	2	3	8	85
03:30 PM	0	52	1	0	53	1	1	1	0	3	0	39	2	0	41	9	1	1	7	18	115
03:45 PM	2	74	0	0	76	1	0	1	0	2	2	30	2	0	34	2	0	2	5	9	121
Total	5	201	3	0	209	4	2	4	3	13	6	122	10	0	138	18	4	8	20	50	410
04:00 PM	0	60	0	0	60	1	0	1	0	2	2	31	0	0	33	2	0	3	4	9	104
04:15 PM	0	66	2	0	68	2	0	1	1	4	3	28	1	0	32	2	1	2	1	6	110
04:30 PM	1	76	0	0	77	0	0	0	0	0	0	22	0	0	22	0	0	1	5	6	105
04:45 PM	1	54	0	0	55	0	0	1	1	2	0	21	3	0	24	1	0	2	9	12	93
Total	2	256	2	0	260	3	0	3	2	8	5	102	4	0	111	5	1	8	19	33	412
05:00 PM	0	56	1	0	57	0	0	1	0	1	1	30	1	0	32	1	1	2	1	5	95
05:15 PM	0	60	0	0	60	1	0	0	0	1	0	20	1	0	21	0	0	3	2	5	87
05:30 PM	1	50	0	0	51	0	0	0	0	0	1	27	2	0	30	1	0	1	2	4	85
05:45 PM	2	31	0	0	33	0	0	2	2	4	0	29	4	0	33	1	0	0	1	2	72
Total	3	197	1	0	201	1	0	3	2	6	2	106	8	0	116	3	1	6	6	16	339
Grand Total	11	904	12	0	927	14	4	14	12	44	19	606	58	0	683	67	9	30	70	176	1830
Apprch %	1.2	97.5	1.3	0		31.8	9.1	31.8	27.3		2.8	88.7	8.5	0		38.1	5.1	17	39.8		
Total %	0.6	49.4	0.7	0	50.7	0.8	0.2	0.8	0.7	2.4	1	33.1	3.2	0	37.3	3.7	0.5	1.6	3.8	9.6	
Unshifted	10	893	11	0	914	14	4	12	12	42	18	599	44	0	661	52	9	29	70	160	1777
% Unshifted																					
Tractor Trailers	1	11	1	0	13	0	0	2	0	2	1	7	14	0	22	15	0	1	0	16	53
% Tractor Trailers	9.1	1.2	8.3	0	1.4	0	0	14.3	0	4.5	5.3	1.2	24.1	0	3.2	22.4	0	3.3	0	9.1	2.9

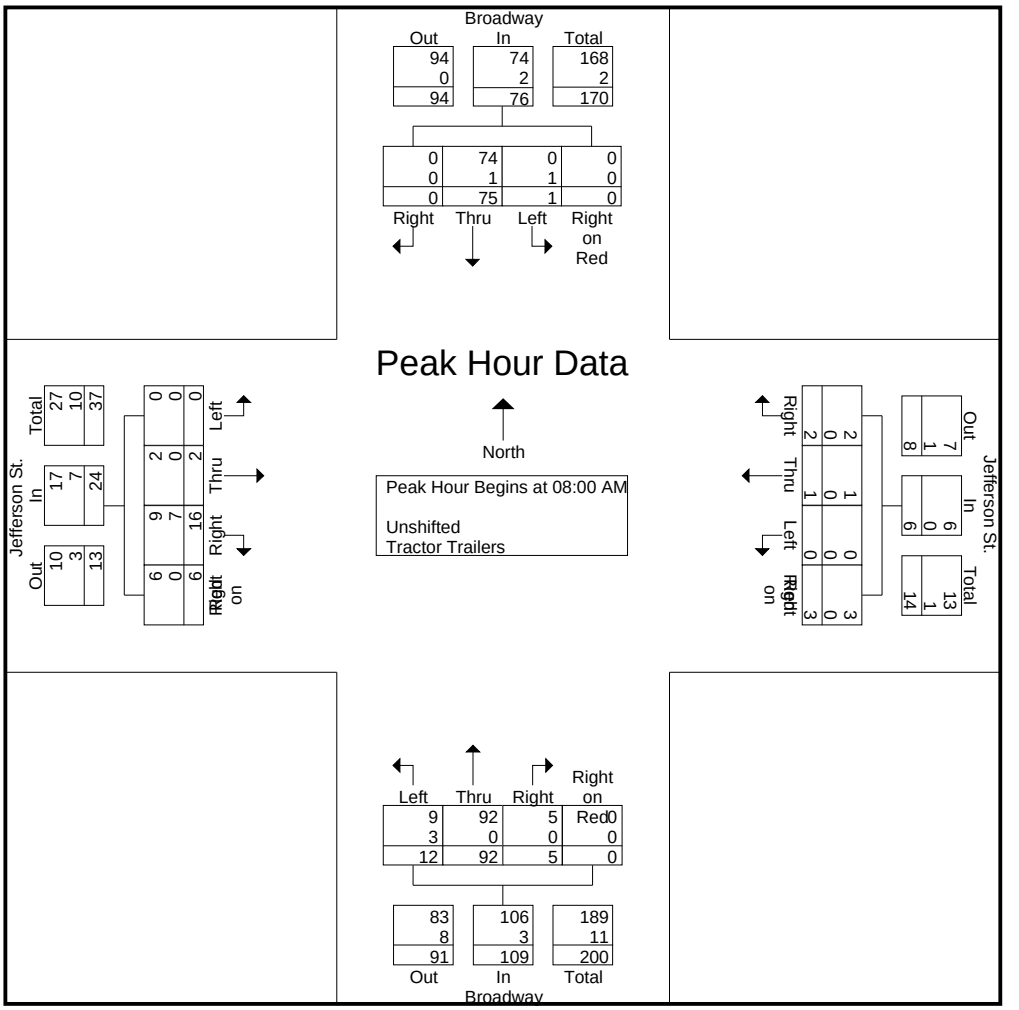
Shropshire Associates LLC

277 Whitehorse Pike, Suite 203
Atco, NJ 08004

N/S Route: Broadway
E/W Route: Jefferson St.
City of Cemden/Camden County/NJ
Thursday/Clear/RB LE/D4-2585

File Name : 25256001
Site Code : 25256001
Start Date : 9/18/2025
Page No : 2

	Broadway Southbound					Jefferson St. Westbound					Broadway Northbound					Jefferson St. Eastbound					
Start Time	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	17	0	0	17	0	0	0	0	0	0	**31**	2	0	33	**6**	**1**	0	0	**7**	57
08:15 AM	0	18	0	0	18	0	0	0	**1**	1	1	29	4	0	**34**	2	1	0	**4**	7	**60**
08:30 AM	0	14	**1**	0	15	**1**	**1**	0	1	**3**	**2**	14	1	0	17	5	0	0	1	6	41
08:45 AM	0	**26**	0	0	**26**	1	0	0	1	2	2	18	**5**	0	25	3	0	0	1	4	57
Total Volume	0	75	1	0	76	2	1	0	3	6	5	92	12	0	109	16	2	0	6	24	215
% App. Total	0	98.7	1.3	0		33.3	16.7	0	50		4.6	84.4	11	0		66.7	8.3	0	25		
PHF	.000	.721	.250	.000	.731	.500	.250	.000	.750	.500	.625	.742	.600	.000	.801	.667	.500	.000	.375	.857	.896
Unshifted	0	74	0	0	74	2	1	0	3	6	5	92	9	0	106	9	2	0	6	17	203
% Unshifted		98.7	0	0	97.4	100	100	0	100	100	100	100	75.0	0	97.2	56.3	100	0	100	70.8	94.4
Tractor Trailers																					
% Tractor Trailers	0	1.3	100	0	2.6	0	0	0	0	0	0	0	25.0	0	2.8	43.8	0	0	0	29.2	5.6



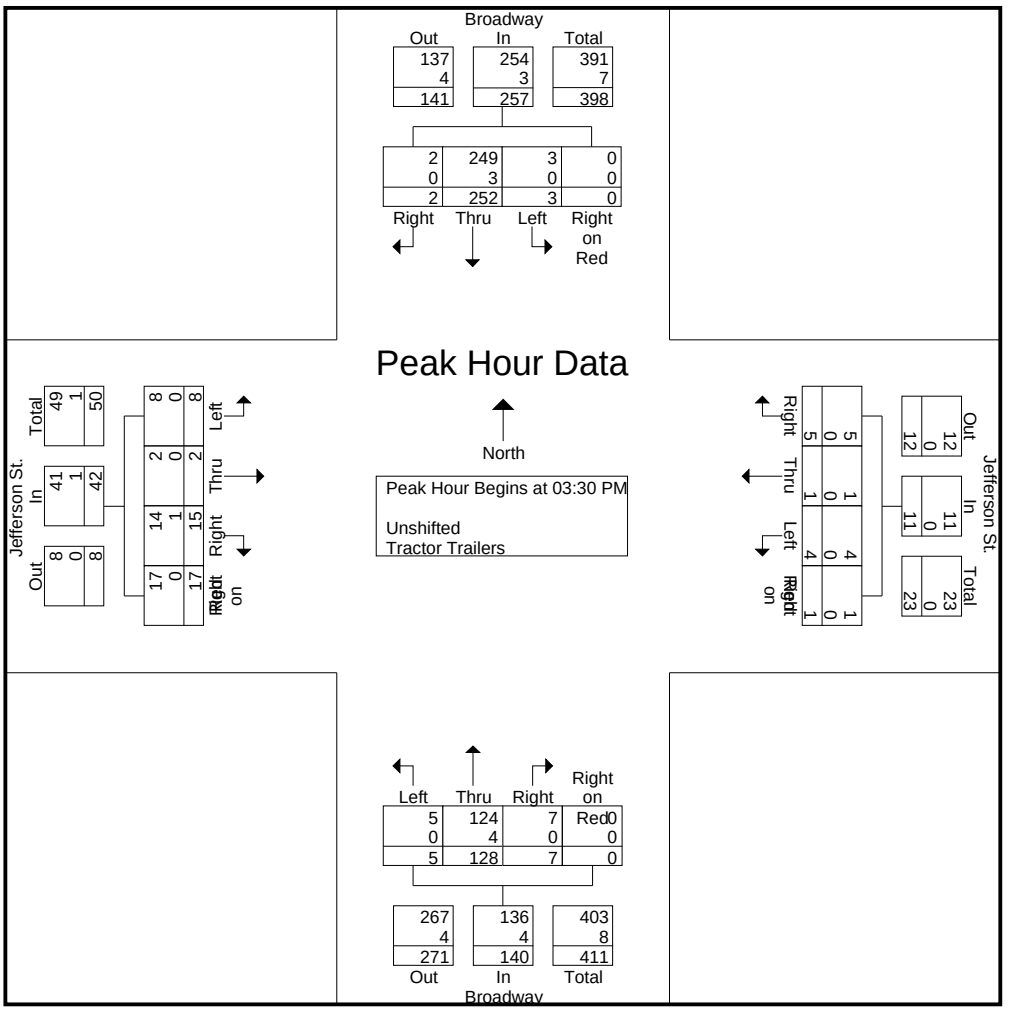
Shropshire Associates LLC

277 Whitehorse Pike, Suite 203
Atco, NJ 08004

N/S Route: Broadway
E/W Route: Jefferson St.
City of Cemden/Camden County/NJ
Thursday/Clear/RB LE/D4-2585

File Name : 25256001
Site Code : 25256001
Start Date : 9/18/2025
Page No : 3

	Broadway Southbound					Jefferson St. Westbound					Broadway Northbound					Jefferson St. Eastbound					
Start Time	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:30 PM																					
03:30 PM	0	52	1	0	53	1	**1**	**1**	0	3	0	**39**	**2**	0	**41**	**9**	**1**	1	**7**	**18**	115
03:45 PM	**2**	**74**	0	0	**76**	1	0	1	0	2	2	30	2	0	34	2	0	2	5	9	**121**
04:00 PM	0	60	0	0	60	1	0	1	0	2	2	31	0	0	33	2	0	**3**	4	9	104
04:15 PM	0	66	**2**	0	68	**2**	0	1	**1**	**4**	**3**	28	1	0	32	2	1	2	1	6	110
Total Volume	2	252	3	0	257	5	1	4	1	11	7	128	5	0	140	15	2	8	17	42	450
% App. Total	0.8	98.1	1.2	0		45.5	9.1	36.4	9.1		5	91.4	3.6	0		35.7	4.8	19	40.5		
PHF	.250	.851	.375	.000	.845	.625	.250	1.00	.250	.688	.583	.821	.625	.000	.854	.417	.500	.667	.607	.583	.930
Unshifted	2	249	3	0	254	5	1	4	1	11	7	124	5	0	136	14	2	8	17	41	442
% Unshifted		98.8	100	0	98.8	100	100	100	100	100	100	96.9	100	0	97.1	93.3	100	100	100	97.6	98.2
Tractor Trailers																					
% Tractor Trailers	0	1.2	0	0	1.2	0	0	0	0	0	0	3.1	0	0	2.9	6.7	0	0	0	2.4	1.8



Shropshire Associates LLC

277 Whitehorse Pike, Suite 203
Atco, NJ 08004

N/S Route: 4th St.
E/W Route: Jefferson St.
City of Camden/Camden County/NJ
Thursday/Overcast to Clear/RS/T-3101

File Name : 25256002
Site Code : 25256002
Start Date : 9/18/2025
Page No : 1

Groups Printed- Unshifted - Tractor Trailers

	4th St. Southbound				Jefferson St. Westbound				4th St. Northbound				Jefferson St. Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:00 AM	0	1	2	3	0	2	1	3	1	2	2	5	2	5	0	7	18
07:15 AM	1	2	6	9	1	6	1	8	0	0	1	1	1	2	0	3	21
07:30 AM	1	4	2	7	0	2	1	3	2	2	1	5	0	7	1	8	23
07:45 AM	1	9	7	17	2	4	0	6	0	0	5	5	0	2	1	3	31
Total	3	16	17	36	3	14	3	20	3	4	9	16	3	16	2	21	93
08:00 AM	0	2	1	3	2	1	0	3	1	2	1	4	2	3	0	5	15
08:15 AM	0	4	4	8	2	2	0	4	0	1	1	2	1	3	0	4	18
08:30 AM	0	4	3	7	0	2	2	4	0	1	0	1	1	4	0	5	17
08:45 AM	0	3	1	4	0	4	0	4	1	1	1	3	0	2	0	2	13
Total	0	13	9	22	4	9	2	15	2	5	3	10	4	12	0	16	63
*** BREAK ***																	
02:00 PM	0	2	4	6	1	2	0	3	0	3	0	3	0	1	0	1	13
02:15 PM	1	2	2	5	2	3	0	5	0	2	3	5	1	2	0	3	18
02:30 PM	0	4	6	10	1	3	0	4	0	1	2	3	2	3	0	5	22
02:45 PM	0	3	5	8	0	1	0	1	1	2	0	3	1	1	0	2	14
Total	1	11	17	29	4	9	0	13	1	8	5	14	4	7	0	11	67
03:00 PM	1	9	8	18	3	5	0	8	1	2	0	3	1	6	0	7	36
03:15 PM	1	4	6	11	1	2	1	4	1	0	0	1	0	2	1	3	19
03:30 PM	1	13	6	20	2	1	0	3	0	1	0	1	2	12	1	15	39
03:45 PM	0	2	3	5	2	1	1	4	0	1	0	1	3	7	0	10	20
Total	3	28	23	54	8	9	2	19	2	4	0	6	6	27	2	35	114
04:00 PM	0	4	8	12	0	1	0	1	0	3	0	3	0	4	0	4	20
04:15 PM	1	3	3	7	1	0	0	1	1	1	0	2	0	1	0	1	11
04:30 PM	0	11	6	17	1	0	0	1	0	2	1	3	1	1	0	2	23
04:45 PM	0	7	10	17	3	0	0	3	1	2	0	3	0	1	0	1	24
Total	1	25	27	53	5	1	0	6	2	8	1	11	1	7	0	8	78
05:00 PM	0	8	3	11	1	0	0	1	0	5	1	6	0	3	0	3	21
05:15 PM	1	6	3	10	1	0	0	1	2	1	0	3	0	0	1	1	15
05:30 PM	0	4	2	6	2	0	1	3	0	2	0	2	0	1	0	1	12
05:45 PM	0	2	2	4	2	2	1	5	0	1	0	1	0	1	0	1	11
Total	1	20	10	31	6	2	2	10	2	9	1	12	0	5	1	6	59
Grand Total	9	113	103	225	30	44	9	83	12	38	19	69	18	74	5	97	474
Apprch %	4	50.2	45.8		36.1	53	10.8		17.4	55.1	27.5		18.6	76.3	5.2		
Total %	1.9	23.8	21.7	47.5	6.3	9.3	1.9	17.5	2.5	8	4	14.6	3.8	15.6	1.1	20.5	
Unshifted	8	113	103	224	30	29	9	68	10	38	15	63	13	59	4	76	431
% Unshifted	88.9	100	100	99.6	100	65.9	100	81.9	83.3	100	78.9	91.3	72.2	79.7	80	78.4	90.9
Tractor Trailers	1	0	0	1	0	15	0	15	2	0	4	6	5	15	1	21	43
% Tractor Trailers	11.1	0	0	0.4	0	34.1	0	18.1	16.7	0	21.1	8.7	27.8	20.3	20	21.6	9.1

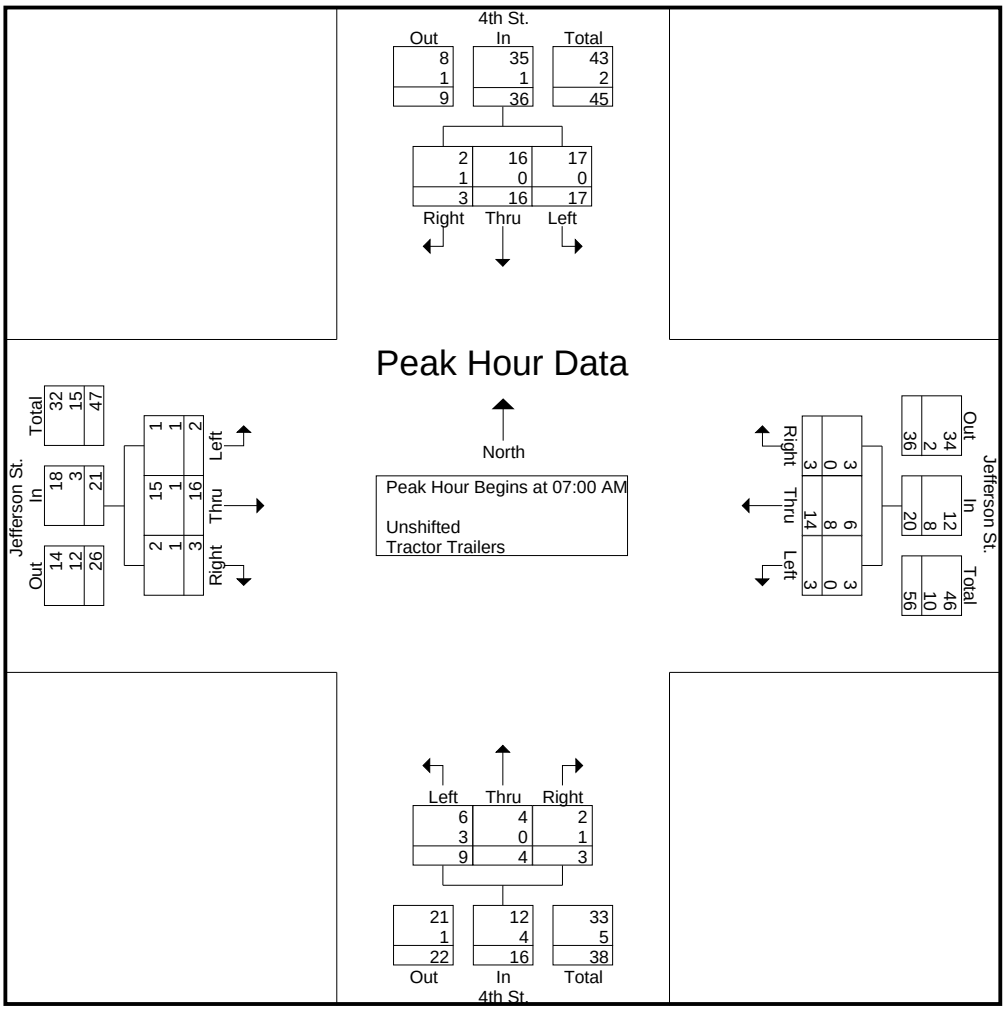
Shropshire Associates LLC

277 Whitehorse Pike, Suite 203
Atco, NJ 08004

N/S Route: 4th St.
E/W Route: Jefferson St.
City of Camden/Camden County/NJ
Thursday/Overcast to Clear/RS/T-3101

File Name : 25256002
Site Code : 25256002
Start Date : 9/18/2025
Page No : 2

	4th St. Southbound				Jefferson St. Westbound				4th St. Northbound				Jefferson St. Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	1	2	3	0	2	**1**	3	1	**2**	2	**5**	**2**	5	0	7	18
07:15 AM	**1**	2	6	9	1	**6**	1	**8**	0	0	1	1	1	2	0	3	21
07:30 AM	1	4	2	7	0	2	1	3	**2**	2	1	5	0	**7**	**1**	**8**	23
07:45 AM	1	**9**	**7**	**17**	**2**	4	0	6	0	0	**5**	5	0	2	1	3	**31**
Total Volume	3	16	17	36	3	14	3	20	3	4	9	16	3	16	2	21	93
% App. Total	8.3	44.4	47.2		15	70	15		18.8	25	56.2		14.3	76.2	9.5		
PHF	.750	.444	.607	.529	.375	.583	.750	.625	.375	.500	.450	.800	.375	.571	.500	.656	.750
Unshifted	2	16	17	35	3	6	3	12	2	4	6	12	2	15	1	18	77
% Unshifted	66.7	100	100	97.2	100	42.9	100	60.0	66.7	100	66.7	75.0	66.7	93.8	50.0	85.7	82.8
Tractor Trailers	1	0	0	1	0	8	0	8	1	0	3	4	1	1	1	3	16
% Tractor Trailers	33.3	0	0	2.8	0	57.1	0	40.0	33.3	0	33.3	25.0	33.3	6.3	50.0	14.3	17.2



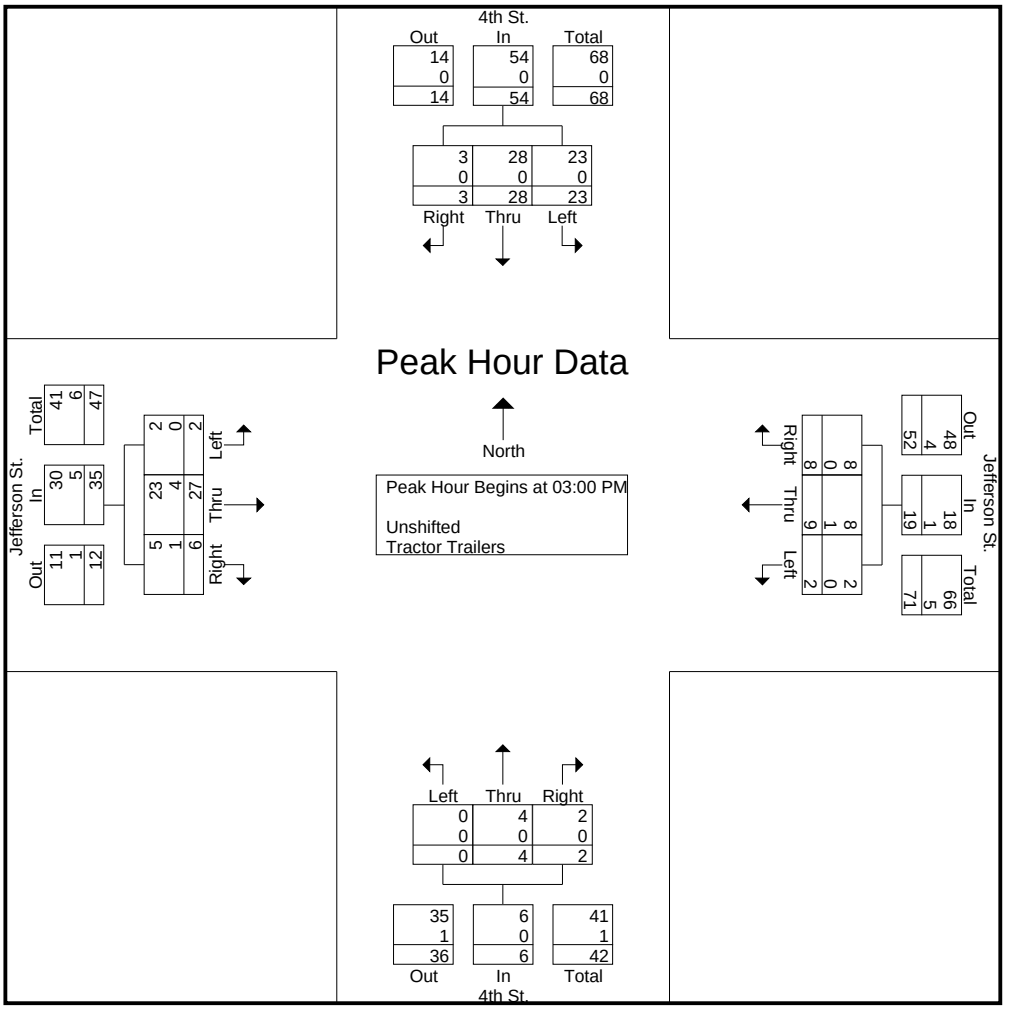
Shropshire Associates LLC

277 Whitehorse Pike, Suite 203
Atco, NJ 08004

N/S Route: 4th St.
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City of Camden/Camden County/NJ
Thursday/Overcast to Clear/RS/T-3101

File Name : 25256002
Site Code : 25256002
Start Date : 9/18/2025
Page No : 3

	4th St. Southbound				Jefferson St. Westbound				4th St. Northbound				Jefferson St. Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:00 PM																	
03:00 PM	**1**	9	**8**	18	**3**	**5**	0	**8**	**1**	**2**	0	**3**	1	6	0	7	36
03:15 PM	1	4	6	11	1	2	**1**	4	1	0	0	1	0	2	**1**	3	19
03:30 PM	1	**13**	6	**20**	2	1	0	3	0	1	0	1	2	**12**	1	**15**	**39**
03:45 PM	0	2	3	5	2	1	1	4	0	1	0	1	**3**	7	0	10	20
Total Volume	3	28	23	54	8	9	2	19	2	4	0	6	6	27	2	35	114
% App. Total	5.6	51.9	42.6		42.1	47.4	10.5		33.3	66.7	0		17.1	77.1	5.7		
PHF	.750	.538	.719	.675	.667	.450	.500	.594	.500	.500	.000	.500	.500	.563	.500	.583	.731
Unshifted	3	28	23	54	8	8	2	18	2	4	0	6	5	23	2	30	108
% Unshifted	100	100	100	100	100	88.9	100	94.7	100	100	0	100	83.3	85.2	100	85.7	94.7
Tractor Trailers	0	0	0	0	0	1	0	1	0	0	0	0	1	4	0	5	6
% Tractor Trailers	0	0	0	0	0	11.1	0	5.3	0	0	0	0	16.7	14.8	0	14.3	5.3



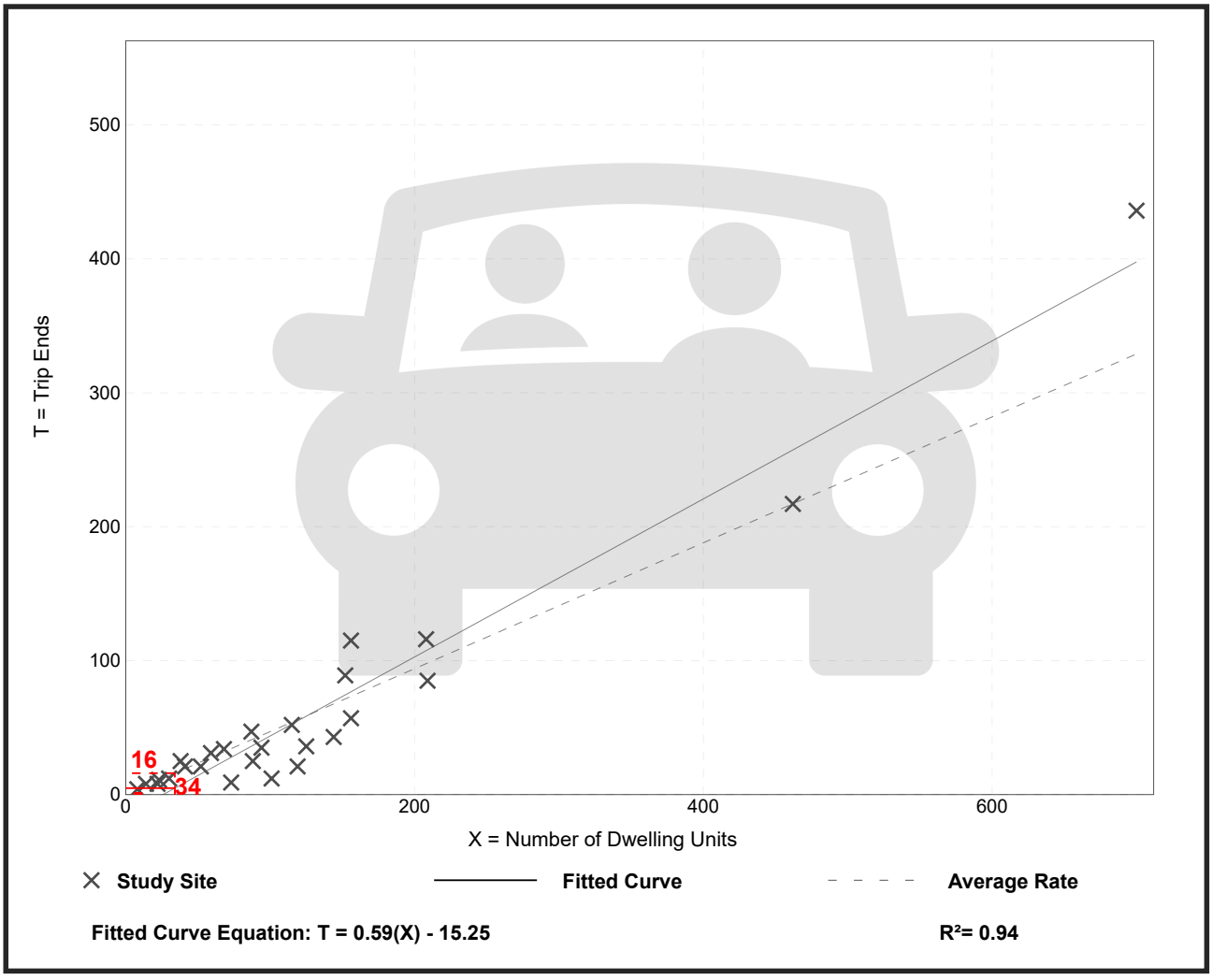
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	26
Avg. Num. of Dwelling Units:	129
Directional Distribution:	25% entering, 75% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.47	0.12 - 0.74	0.16

Data Plot and Equation



Trip Gen Manual, 12th Edition ● Institute of Transportation Engineers

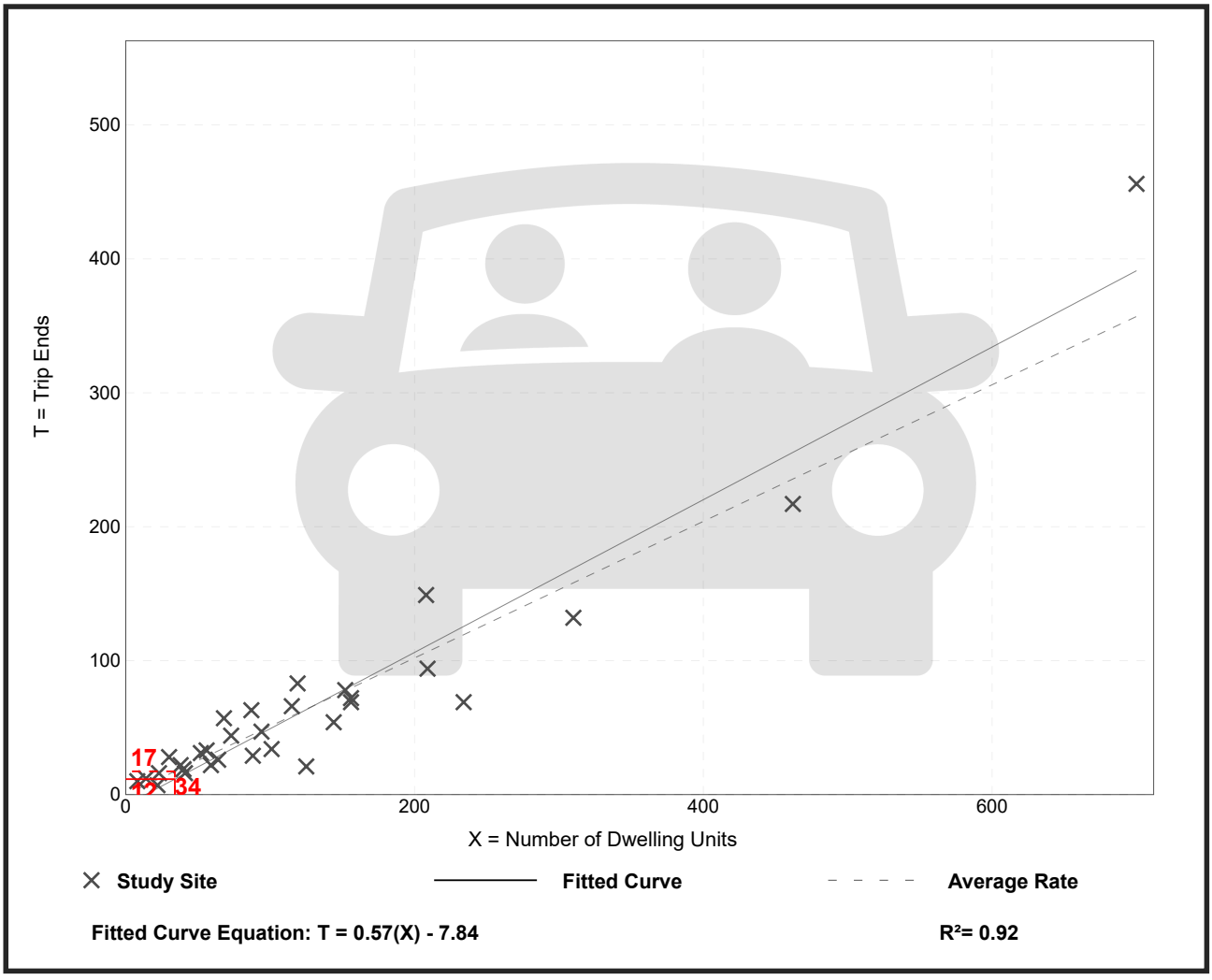
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 31
Avg. Num. of Dwelling Units: 131
Directional Distribution: 57% entering, 43% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.51	0.17 - 1.25	0.16

Data Plot and Equation



Trip Gen Manual, 12th Edition ● Institute of Transportation Engineers

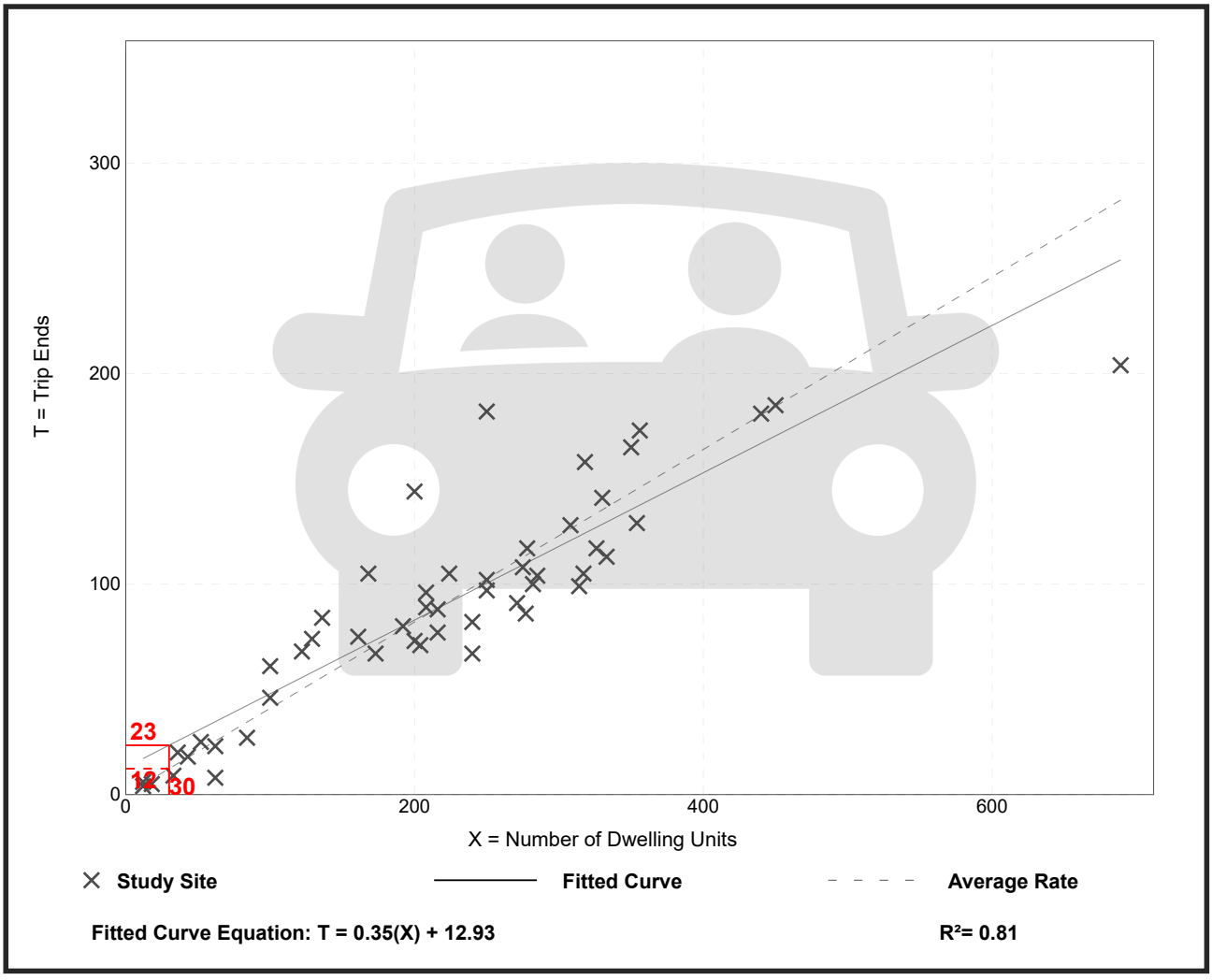
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 51
Avg. Num. of Dwelling Units: 219
Directional Distribution: 24% entering, 76% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.41	0.13 - 0.73	0.10

Data Plot and Equation



Trip Gen Manual, 12th Edition ● Institute of Transportation Engineers

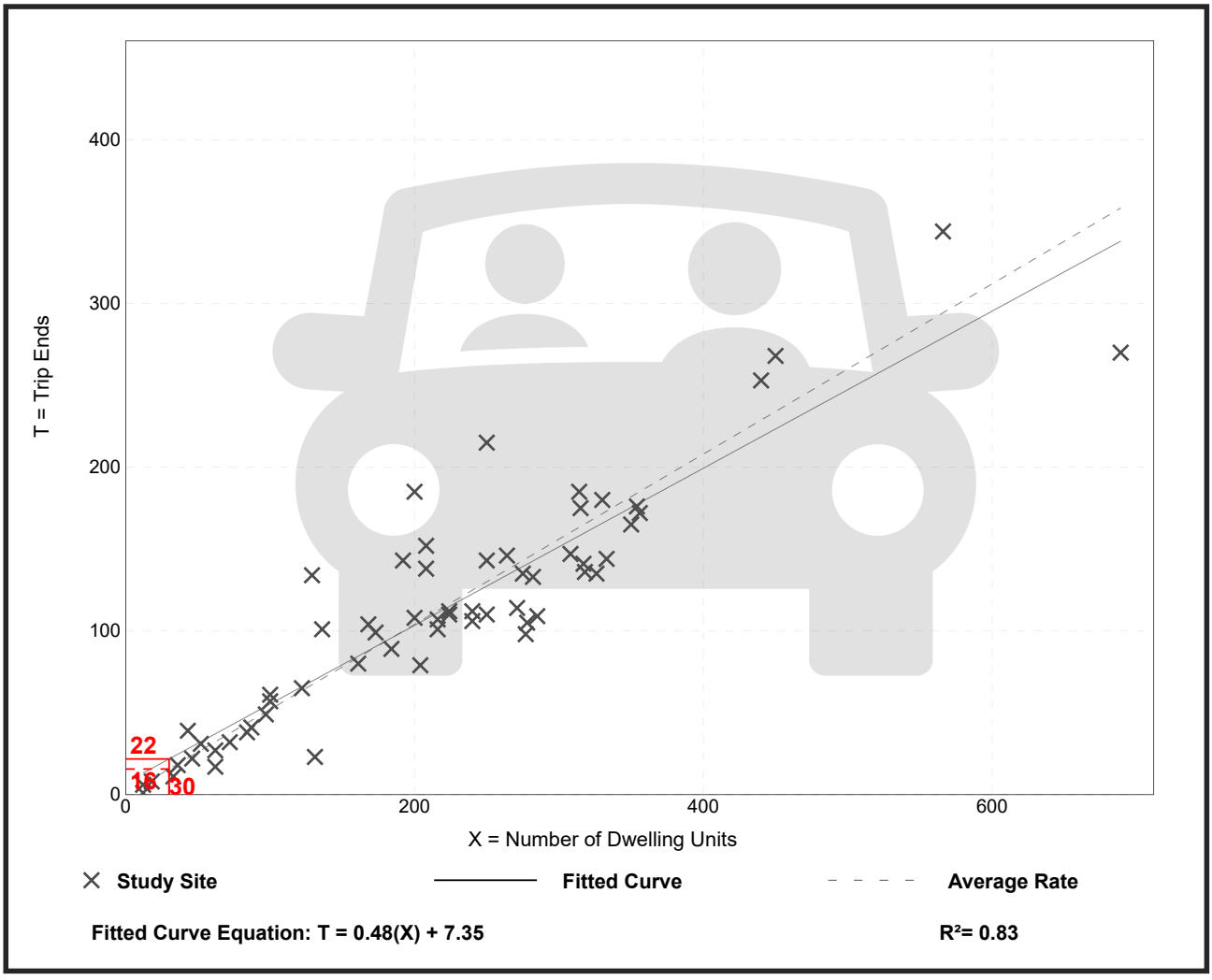
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 61
Avg. Num. of Dwelling Units: 215
Directional Distribution: 62% entering, 38% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.52	0.08 - 1.04	0.13

Data Plot and Equation



Trip Gen Manual, 12th Edition ● Institute of Transportation Engineers

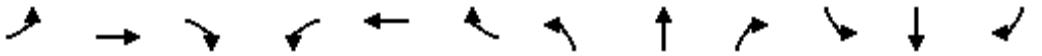
Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	2	16	3	3	14	3	9	4	3	17	16	3
Future Vol, veh/h	2	16	3	3	14	3	9	4	3	17	16	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	50	6	33	0	57	0	33	0	33	0	0	33
Mvmt Flow	3	21	4	4	19	4	12	5	4	23	21	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	112	102	23	113	102	7	25	0	0	9	0	0
Stage 1	69	69	-	31	31	-	-	-	-	-	-	-
Stage 2	43	33	-	82	71	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.56	6.53	7.1	7.07	6.2	4.43	-	-	4.1	-	-
Critical Hdwy Stg 1	6.6	5.56	-	6.1	6.07	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.56	-	6.1	6.07	-	-	-	-	-	-	-
Follow-up Hdwy	3.95	4.054	3.597	3.5	4.513	3.3	2.497	-	-	2.2	-	-
Pot Cap-1 Maneuver	765	781	971	869	696	1081	1410	-	-	1624	-	-
Stage 1	834	830	-	991	772	-	-	-	-	-	-	-
Stage 2	862	860	-	931	740	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	733	763	971	833	680	1081	1410	-	-	1624	-	-
Mov Cap-2 Maneuver	733	763	-	833	680	-	-	-	-	-	-	-
Stage 1	826	818	-	982	765	-	-	-	-	-	-	-
Stage 2	830	852	-	890	730	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.8	10	4.3	3.4
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1410	-	-	784	742	1624	-	-
HCM Lane V/C Ratio	0.009	-	-	0.036	0.036	0.014	-	-
HCM Control Delay (s)	7.6	0	-	9.8	10	7.2	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2	22	0	1	5	12	92	5	1	75	0
Future Volume (vph)	0	2	22	0	1	5	12	92	5	1	75	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.875			0.884			0.993				
Flt Protected								0.995			0.999	
Satd. Flow (prot)	0	1283	0	0	1680	0	0	1828	0	0	1858	0
Flt Permitted								0.979			0.999	
Satd. Flow (perm)	0	1283	0	0	1680	0	0	1799	0	0	1858	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			6			6				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		492			711			517			704	
Travel Time (s)		13.4			19.4			14.1			19.2	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	32%	0%	0%	0%	25%	0%	0%	100%	1%	0%
Adj. Flow (vph)	0	2	24	0	1	6	13	102	6	1	83	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	26	0	0	7	0	0	121	0	0	84	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Total Split (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Total Split (%)	21.4%	21.4%		21.4%	21.4%		78.6%	78.6%		78.6%	78.6%	
Maximum Green (s)	10.0	10.0		10.0	10.0		50.0	50.0		50.0	50.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		10.0			10.0			50.0			50.0	
Actuated g/C Ratio		0.14			0.14			0.71			0.71	
v/c Ratio		0.13			0.03			0.09			0.06	
Control Delay		14.0			17.7			3.1			3.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.0			17.7			3.1			3.1	
LOS		B			B			A			A	
Approach Delay		14.0			17.7			3.1			3.1	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 70			
Control Type: Pretimed			
Maximum v/c Ratio: 0.13			
Intersection Signal Delay: 4.7		Intersection LOS: A	
Intersection Capacity Utilization 58.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 6: Broadway & Jefferson Street



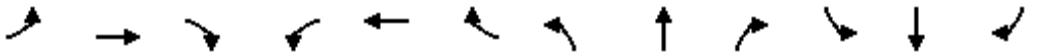
Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	27	6	2	9	8	0	4	2	23	28	3
Future Vol, veh/h	2	27	6	2	9	8	0	4	2	23	28	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	0	15	16	0	11	0	0	0	0	0	0	0
Mvmt Flow	3	37	8	3	12	11	0	5	3	32	38	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	122	112	40	134	113	7	42	0	0	8	0	0
Stage 1	104	104	-	7	7	-	-	-	-	-	-	-
Stage 2	18	8	-	127	106	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.65	6.36	7.1	6.61	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.65	-	6.1	5.61	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.65	-	6.1	5.61	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.135	3.444	3.5	4.099	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	858	754	993	842	761	1081	1580	-	-	1625	-	-
Stage 1	907	785	-	1020	872	-	-	-	-	-	-	-
Stage 2	1006	864	-	882	790	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	826	739	993	791	746	1081	1580	-	-	1625	-	-
Mov Cap-2 Maneuver	826	739	-	791	746	-	-	-	-	-	-	-
Stage 1	907	769	-	1020	872	-	-	-	-	-	-	-
Stage 2	982	864	-	816	774	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.9	9.3	0	3.1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1580	-	-	778	864	1625	-	-
HCM Lane V/C Ratio	-	-	-	0.062	0.03	0.019	-	-
HCM Control Delay (s)	0	-	-	9.9	9.3	7.3	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0.1	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	2	32	4	1	6	5	128	7	3	252	2
Future Volume (vph)	8	2	32	4	1	6	5	128	7	3	252	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.898			0.926			0.993			0.999	
Flt Protected		0.990			0.982			0.998			0.999	
Satd. Flow (prot)	0	1652	0	0	1728	0	0	1833	0	0	1878	0
Flt Permitted		0.946			0.909			0.992			0.998	
Satd. Flow (perm)	0	1578	0	0	1599	0	0	1822	0	0	1876	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		34			6			8			1	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		492			711			517			704	
Travel Time (s)		13.4			19.4			14.1			19.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	3%	0%	0%	0%	0%	3%	0%	0%	1%	0%
Adj. Flow (vph)	9	2	34	4	1	6	5	138	8	3	271	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	45	0	0	11	0	0	151	0	0	276	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Total Split (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Total Split (%)	21.4%	21.4%		21.4%	21.4%		78.6%	78.6%		78.6%	78.6%	
Maximum Green (s)	10.0	10.0		10.0	10.0		50.0	50.0		50.0	50.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		10.0			10.0			50.0			50.0	
Actuated g/C Ratio		0.14			0.14			0.71			0.71	
v/c Ratio		0.18			0.05			0.12			0.21	
Control Delay		14.7			20.3			3.2			3.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.7			20.3			3.2			3.8	
LOS		B			C			A			A	
Approach Delay		14.7			20.3			3.2			3.8	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 70			
Control Type: Pretimed			
Maximum v/c Ratio: 0.21			
Intersection Signal Delay: 5.0		Intersection LOS: A	
Intersection Capacity Utilization 58.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 6: Broadway & Jefferson Street



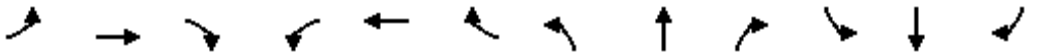
Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	16	3	3	14	3	9	4	3	18	17	3
Future Vol, veh/h	2	16	3	3	14	3	9	4	3	18	17	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	50	6	33	0	57	0	33	0	33	0	0	33
Mvmt Flow	3	21	4	4	19	4	12	5	4	24	23	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	116	106	25	117	106	7	27	0	0	9	0	0
Stage 1	73	73	-	31	31	-	-	-	-	-	-	-
Stage 2	43	33	-	86	75	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.56	6.53	7.1	7.07	6.2	4.43	-	-	4.1	-	-
Critical Hdwy Stg 1	6.6	5.56	-	6.1	6.07	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.56	-	6.1	6.07	-	-	-	-	-	-	-
Follow-up Hdwy	3.95	4.054	3.597	3.5	4.513	3.3	2.497	-	-	2.2	-	-
Pot Cap-1 Maneuver	760	777	968	864	692	1081	1408	-	-	1624	-	-
Stage 1	830	826	-	991	772	-	-	-	-	-	-	-
Stage 2	862	860	-	927	737	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	728	758	968	827	675	1081	1408	-	-	1624	-	-
Mov Cap-2 Maneuver	728	758	-	827	675	-	-	-	-	-	-	-
Stage 1	823	814	-	982	765	-	-	-	-	-	-	-
Stage 2	830	852	-	885	726	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.8	10.1	4.3	3.4
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1408	-	-	779	737	1624	-	-
HCM Lane V/C Ratio	0.009	-	-	0.036	0.036	0.015	-	-
HCM Control Delay (s)	7.6	0	-	9.8	10.1	7.2	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2	22	0	1	5	13	96	5	1	78	0
Future Volume (vph)	0	2	22	0	1	5	13	96	5	1	78	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.875			0.884			0.994				
Flt Protected								0.995			0.999	
Satd. Flow (prot)	0	1283	0	0	1680	0	0	1829	0	0	1859	0
Flt Permitted								0.978			0.999	
Satd. Flow (perm)	0	1283	0	0	1680	0	0	1798	0	0	1859	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			6			6				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		492			711			517			704	
Travel Time (s)		13.4			19.4			14.1			19.2	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	32%	0%	0%	0%	25%	0%	0%	100%	1%	0%
Adj. Flow (vph)	0	2	24	0	1	6	14	107	6	1	87	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	26	0	0	7	0	0	127	0	0	88	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Total Split (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Total Split (%)	21.4%	21.4%		21.4%	21.4%		78.6%	78.6%		78.6%	78.6%	
Maximum Green (s)	10.0	10.0		10.0	10.0		50.0	50.0		50.0	50.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		10.0			10.0			50.0			50.0	
Actuated g/C Ratio		0.14			0.14			0.71			0.71	
v/c Ratio		0.13			0.03			0.10			0.07	
Control Delay		14.0			17.7			3.1			3.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.0			17.7			3.1			3.2	
LOS		B			B			A			A	
Approach Delay		14.0			17.7			3.1			3.2	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 70			
Control Type: Pretimed			
Maximum v/c Ratio: 0.13			
Intersection Signal Delay: 4.7		Intersection LOS: A	
Intersection Capacity Utilization 58.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 6: Broadway & Jefferson Street



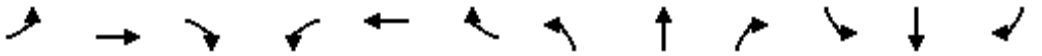
Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	28	6	2	9	8	0	4	2	24	29	3
Future Vol, veh/h	2	28	6	2	9	8	0	4	2	24	29	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	0	15	16	0	11	0	0	0	0	0	0	0
Mvmt Flow	3	38	8	3	12	11	0	5	3	33	40	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	126	116	42	138	117	7	44	0	0	8	0	0
Stage 1	108	108	-	7	7	-	-	-	-	-	-	-
Stage 2	18	8	-	131	110	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.65	6.36	7.1	6.61	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.65	-	6.1	5.61	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.65	-	6.1	5.61	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.135	3.444	3.5	4.099	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	852	751	990	837	757	1081	1577	-	-	1625	-	-
Stage 1	902	781	-	1020	872	-	-	-	-	-	-	-
Stage 2	1006	864	-	877	787	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	820	735	990	784	741	1081	1577	-	-	1625	-	-
Mov Cap-2 Maneuver	820	735	-	784	741	-	-	-	-	-	-	-
Stage 1	902	765	-	1020	872	-	-	-	-	-	-	-
Stage 2	982	864	-	809	770	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	9.3	0	3.1
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1577	-	-	773	860	1625	-	-
HCM Lane V/C Ratio	-	-	-	0.064	0.03	0.02	-	-
HCM Control Delay (s)	0	-	-	10	9.3	7.3	0	-
HCM Lane LOS	A	-	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0.1	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	2	33	4	1	6	5	134	7	3	263	2
Future Volume (vph)	8	2	33	4	1	6	5	134	7	3	263	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.897			0.926			0.993			0.999	
Flt Protected		0.990			0.982			0.998			0.999	
Satd. Flow (prot)	0	1650	0	0	1728	0	0	1833	0	0	1878	0
Flt Permitted		0.947			0.908			0.993			0.998	
Satd. Flow (perm)	0	1578	0	0	1598	0	0	1823	0	0	1876	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		35			6			8			1	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		492			711			517			704	
Travel Time (s)		13.4			19.4			14.1			19.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	3%	0%	0%	0%	0%	3%	0%	0%	1%	0%
Adj. Flow (vph)	9	2	35	4	1	6	5	144	8	3	283	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	46	0	0	11	0	0	157	0	0	288	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Total Split (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Total Split (%)	21.4%	21.4%		21.4%	21.4%		78.6%	78.6%		78.6%	78.6%	
Maximum Green (s)	10.0	10.0		10.0	10.0		50.0	50.0		50.0	50.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		10.0			10.0			50.0			50.0	
Actuated g/C Ratio		0.14			0.14			0.71			0.71	
v/c Ratio		0.18			0.05			0.12			0.21	
Control Delay		14.7			20.3			3.2			3.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.7			20.3			3.2			3.8	
LOS		B			C			A			A	
Approach Delay		14.7			20.3			3.2			3.8	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 70			
Control Type: Pretimed			
Maximum v/c Ratio: 0.21			
Intersection Signal Delay: 5.0		Intersection LOS: A	
Intersection Capacity Utilization 58.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 6: Broadway & Jefferson Street



Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	16	3	3	14	5	9	4	3	20	17	3
Future Vol, veh/h	2	16	3	3	14	5	9	4	3	20	17	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	50	6	33	0	57	0	33	0	33	0	0	33
Mvmt Flow	3	21	4	4	19	7	12	5	4	27	23	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	123	112	25	123	112	7	27	0	0	9	0	0
Stage 1	79	79	-	31	31	-	-	-	-	-	-	-
Stage 2	44	33	-	92	81	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.56	6.53	7.1	7.07	6.2	4.43	-	-	4.1	-	-
Critical Hdwy Stg 1	6.6	5.56	-	6.1	6.07	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.56	-	6.1	6.07	-	-	-	-	-	-	-
Follow-up Hdwy	3.95	4.054	3.597	3.5	4.513	3.3	2.497	-	-	2.2	-	-
Pot Cap-1 Maneuver	751	771	968	856	686	1081	1408	-	-	1624	-	-
Stage 1	823	821	-	991	772	-	-	-	-	-	-	-
Stage 2	861	860	-	920	732	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	716	751	968	817	668	1081	1408	-	-	1624	-	-
Mov Cap-2 Maneuver	716	751	-	817	668	-	-	-	-	-	-	-
Stage 1	816	807	-	982	765	-	-	-	-	-	-	-
Stage 2	827	852	-	877	720	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.8	10	4.3	3.6
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1408	-	-	772	752	1624	-	-
HCM Lane V/C Ratio	0.009	-	-	0.036	0.039	0.016	-	-
HCM Control Delay (s)	7.6	0	-	9.8	10	7.3	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	3	35	0	1	5	18	96	5	1	78	3
Future Volume (vph)	13	3	35	0	1	5	18	96	5	1	78	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.906			0.884			0.994			0.996	
Flt Protected		0.988						0.993			0.999	
Satd. Flow (prot)	0	1391	0	0	1680	0	0	1807	0	0	1852	0
Flt Permitted		0.928						0.966			0.999	
Satd. Flow (perm)	0	1306	0	0	1680	0	0	1758	0	0	1852	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		39			6			6			3	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		161			711			517			704	
Travel Time (s)		4.4			19.4			14.1			19.2	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	32%	0%	0%	0%	25%	0%	0%	100%	1%	0%
Adj. Flow (vph)	14	3	39	0	1	6	20	107	6	1	87	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	56	0	0	7	0	0	133	0	0	91	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Total Split (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Total Split (%)	21.4%	21.4%		21.4%	21.4%		78.6%	78.6%		78.6%	78.6%	
Maximum Green (s)	10.0	10.0		10.0	10.0		50.0	50.0		50.0	50.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		10.0			10.0			50.0			50.0	
Actuated g/C Ratio		0.14			0.14			0.71			0.71	
v/c Ratio		0.25			0.03			0.11			0.07	
Control Delay		16.5			17.7			3.2			3.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		16.5			17.7			3.2			3.1	
LOS		B			B			A			A	
Approach Delay		16.5			17.7			3.2			3.1	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 70			
Control Type: Pretimed			
Maximum v/c Ratio: 0.25			
Intersection Signal Delay: 6.1		Intersection LOS: A	
Intersection Capacity Utilization 59.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 6: Broadway & Jefferson Street



Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	28	16	6	23	0
Future Vol, veh/h	0	28	16	6	23	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	30	17	7	25	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	24	0	-	0	51	21
Stage 1	-	-	-	-	21	-
Stage 2	-	-	-	-	30	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1591	-	-	-	958	1056
Stage 1	-	-	-	-	1002	-
Stage 2	-	-	-	-	993	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1591	-	-	-	958	1056
Mov Cap-2 Maneuver	-	-	-	-	958	-
Stage 1	-	-	-	-	1002	-
Stage 2	-	-	-	-	993	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1591	-	-	-	958
HCM Lane V/C Ratio	-	-	-	-	0.026
HCM Control Delay (s)	0	-	-	-	8.9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	24	16	2	4	2
Future Vol, veh/h	2	24	16	2	4	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	26	17	2	4	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	19	0	-	0	48	18
Stage 1	-	-	-	-	18	-
Stage 2	-	-	-	-	30	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1597	-	-	-	962	1061
Stage 1	-	-	-	-	1005	-
Stage 2	-	-	-	-	993	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1597	-	-	-	961	1061
Mov Cap-2 Maneuver	-	-	-	-	961	-
Stage 1	-	-	-	-	1004	-
Stage 2	-	-	-	-	993	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1597	-	-	-	992
HCM Lane V/C Ratio	0.001	-	-	-	0.007
HCM Control Delay (s)	7.3	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	28	6	2	9	9	0	4	2	27	29	3
Future Vol, veh/h	2	28	6	2	9	9	0	4	2	27	29	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	0	15	16	0	11	0	0	0	0	0	0	0
Mvmt Flow	3	38	8	3	12	12	0	5	3	37	40	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	135	124	42	146	125	7	44	0	0	8	0	0
Stage 1	116	116	-	7	7	-	-	-	-	-	-	-
Stage 2	19	8	-	139	118	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.65	6.36	7.1	6.61	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.65	-	6.1	5.61	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.65	-	6.1	5.61	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.135	3.444	3.5	4.099	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	841	743	990	827	749	1081	1577	-	-	1625	-	-
Stage 1	894	775	-	1020	872	-	-	-	-	-	-	-
Stage 2	1005	864	-	869	781	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	807	726	990	773	732	1081	1577	-	-	1625	-	-
Mov Cap-2 Maneuver	807	726	-	773	732	-	-	-	-	-	-	-
Stage 1	894	757	-	1020	872	-	-	-	-	-	-	-
Stage 2	979	864	-	799	763	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	9.3	0	3.3
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1577	-	-	764	862	1625	-	-
HCM Lane V/C Ratio	-	-	-	0.065	0.032	0.023	-	-
HCM Control Delay (s)	0	-	-	10	9.3	7.3	0	-
HCM Lane LOS	A	-	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	2	43	4	1	6	12	134	7	3	263	15
Future Volume (vph)	13	2	43	4	1	6	12	134	7	3	263	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.900			0.926			0.993			0.993	
Flt Protected		0.989			0.982			0.996				
Satd. Flow (prot)	0	1654	0	0	1728	0	0	1831	0	0	1869	0
Flt Permitted		0.934			0.904			0.974			0.999	
Satd. Flow (perm)	0	1562	0	0	1590	0	0	1791	0	0	1867	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		46			6			8			10	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		161			711			517			704	
Travel Time (s)		4.4			19.4			14.1			19.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	3%	0%	0%	0%	0%	3%	0%	0%	1%	0%
Adj. Flow (vph)	14	2	46	4	1	6	13	144	8	3	283	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	62	0	0	11	0	0	165	0	0	302	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Total Split (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Total Split (%)	21.4%	21.4%		21.4%	21.4%		78.6%	78.6%		78.6%	78.6%	
Maximum Green (s)	10.0	10.0		10.0	10.0		50.0	50.0		50.0	50.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		10.0			10.0			50.0			50.0	
Actuated g/C Ratio		0.14			0.14			0.71			0.71	
v/c Ratio		0.24			0.05			0.13			0.23	
Control Delay		14.7			20.3			3.3			3.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.7			20.3			3.3			3.8	
LOS		B			C			A			A	
Approach Delay		14.7			20.3			3.3			3.8	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 70			
Control Type: Pretimed			
Maximum v/c Ratio: 0.24			
Intersection Signal Delay: 5.2		Intersection LOS: A	
Intersection Capacity Utilization 58.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 6: Broadway & Jefferson Street



Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	47	13	15	11	0
Future Vol, veh/h	0	47	13	15	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	51	14	16	12	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	30	0	-	0	73	22
Stage 1	-	-	-	-	22	-
Stage 2	-	-	-	-	51	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1583	-	-	-	931	1055
Stage 1	-	-	-	-	1001	-
Stage 2	-	-	-	-	971	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1583	-	-	-	931	1055
Mov Cap-2 Maneuver	-	-	-	-	931	-
Stage 1	-	-	-	-	1001	-
Stage 2	-	-	-	-	971	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1583	-	-	-	931
HCM Lane V/C Ratio	-	-	-	-	0.013
HCM Control Delay (s)	0	-	-	-	8.9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	43	5	13	4	1
Future Vol, veh/h	3	43	5	13	4	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	47	5	14	4	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	19	0	-	0	65	12
Stage 1	-	-	-	-	12	-
Stage 2	-	-	-	-	53	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1597	-	-	-	941	1069
Stage 1	-	-	-	-	1011	-
Stage 2	-	-	-	-	970	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1597	-	-	-	939	1069
Mov Cap-2 Maneuver	-	-	-	-	939	-
Stage 1	-	-	-	-	1009	-
Stage 2	-	-	-	-	970	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1597	-	-	-	962
HCM Lane V/C Ratio	0.002	-	-	-	0.006
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Shropshire Associates LLC

Traffic Engineering, Transportation Planning & Design

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May 20, 2026

Mr. Dan Scannapieco (via email: dscannapieco@tmo.com)
The Michaels Organization
2 Cooper Street, 14th Floor
Camden, NJ 08101

Re: **Traffic Engineering Assessment**
Croft Mill Townhomes – Camden
Block 497, Lot 20
Jefferson Street
City of Camden, Camden County, NJ
SA Project No. 25256

Dear Dan:

At your request, Shropshire Associates, LLC has prepared a Traffic Engineering Assessment report for the above-referenced residential development to be located along westbound Jefferson Street in the City of Camden, Camden County, New Jersey. The existing site is currently vacant.

The proposal is to construct 30 multifamily and 34 townhouses residential dwelling units. Access is proposed via two (2) driveways along Jefferson Street, between its intersections with 4th Street and Broadway. Final approval for the driveways are required from the City of Camden with regards to location, design, and operations.

Existing Conditions

A field reconnaissance was conducted to determine the features of the adjacent roadways in the study area. A brief description of the roads and intersections within the study area is provided below.

Along the site's frontage, **Jefferson Street** is a two-lane undivided local roadway that is under the jurisdiction of the City of Camden. Jefferson Street has an approximate cartway width of 30 feet (ft), consisting of one (1) 15 ft travel lane in both the eastbound and westbound directions. The assumed speed limit along Jefferson Street is 25 MPH. For the purpose of this report, Jefferson Street is assumed to extend in a general east-west direction.

In the vicinity of the site, **Broadway (CR 551)** is a two-lane undivided roadway that is under the jurisdiction of Camden County and is classified as an Urban Principal Arterial. Broadway has an approximate cartway width of 40 ft, consisting of one (1) 20 ft travel lane in both the northbound and southbound directions. The posted speed limit along Broadway is 25 MPH. For the purpose of this assessment, Broadway is assumed to extend in a general north-south direction.

In the vicinity of the site, **4th Street** is a two-lane undivided roadway that is under the jurisdiction of the City of Camden and is classified as an Urban Major Collector. 4th Street has an approximate cartway width of 28 ft, consisting of one (1) 14 ft travel lane in both the northbound and southbound directions. The posted speed limit along 4th Street is 25 MPH. For the purpose of this assessment, 4th Street is assumed to extend in a general north-south direction.

The four-legged intersection of **Jefferson Street and Broadway (CR 551)** is controlled by two-phase pretimed traffic signal operating on 70-second background cycle length. All approaches consist of a single lane providing for all permitted movements.

The four-legged intersection of **Jefferson Street and 4th Street** is stop-controlled along both the eastbound and westbound Jefferson Street approaches. All approaches consist of a single lane providing for all permitted movements.

Traffic Counts

To determine the amount of traffic on the adjacent roadway network, manual turning movement counts (MTMC) were conducted at the study intersections on Thursday, September 18, 2025. The counts were conducted during the weekday morning (7:00 AM to 9:00 AM), weekday afternoon (2:00 PM to 6:00 PM) peak periods. A summary of the traffic counts can be found in the appendix to this assessment, and the existing weekday AM and weekday PM peak hour volumes are illustrated on Figure 1.

Future Conditions

As indicated above, the proposal is to construct 30 multifamily and 34 townhouses residential dwelling units. The traffic resulting from the proposed development will not affect the adjacent roadway network until the development is fully built-out, which is anticipated to be by the year 2027. It can be expected that the traffic volumes along the adjacent roadways will increase as a result of general area traffic growth.

Based on the *Annual Background Growth Table* prepared by the New Jersey Department of Transportation, a 2.25% annual traffic growth will occur along Urban Principal Arterial and Urban Minor Collector roadways and a 1.00% annual traffic growth along local roadways in the vicinity of the site. Therefore, in order to estimate the future No-Build volumes, the annual growth rates of 2.25% and 1.00% were applied to the existing peak hour traffic volumes respectively and are illustrated in Figure 2.

Trip Generation

The amount of traffic to be generated by the proposed residential development can best be estimated by using data published by the Institute of Transportation Engineers (ITE). ITE has compiled data from thousands of studies for various land uses, independent variables, and study periods and published the results in *Trip Generation, 12th Edition.* The development is most similar to ITE Land Use ITE Land Use 215: Single-Family Attached Housing and 220: Multifamily Housing (Low-Rise). The total amount of traffic generated by the proposed residential development is summarized below in Table 1.

Table 1 ITE Trip Generation – Newark Senior						
Development	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Multifamily Housing (Low-Rise) (30 units)	6	17	23	13	9	22
Single-Family Attached Housing (34 units)	4	12	16	10	7	17
Total	**10**	**29**	**39**	**23**	**16**	**39**

Trip Distribution

The traffic to be generated by the proposed residential development must then be distributed to the adjacent roadway network in a manner in which we can reasonably expect the residents to travel. The site traffic was assigned to the roadway network based on the existing distribution of traffic along the adjacent roadway network (Figure 3). The site traffic assignment is illustrated on Figure 4. The site traffic was then added to the No-Build volumes to project the Build traffic volumes, which are illustrated on Figure 5.

Operational Analysis

In order to measure the quality of the traffic flow for the adjacent roadways and intersections, capacity analyses for the study intersections have been completed based upon the methods outlined in the *Highway Capacity Manual*. Capacity analysis is a procedure used to estimate the ability of the roadway network to carry traffic. Capacity analyses are performed based on a Level of Service methodology. Level of Service (LOS) is a qualitative measure that characterizes the operational conditions of a roadway or intersection based on the perceptions by motorists and passengers. Levels of Service are defined for each type of facility (i.e. freeways, highways, signalized intersections, unsignalized intersections). These Levels of Service range from LOS A to LOS F, with a LOS A representing the best operating conditions and a LOS F representing the worst operating conditions.

The levels of service for a signalized intersection are classified in terms of delay, which is based on the extent of driver discomfort and frustration, fuel consumption and lost travel time. The delay experienced by a motorist consists of many factors that relate to control, geometrics and traffic. Some of these factors include the quality of progression, traffic signal cycle length, the green time ratio and the volume to capacity ratio. The level of service for an unsignalized intersection is determined based on the average control delay associated with each minor movement (i.e. yielding left-turn movements from the major roads and stop-controlled movements from the minor approaches). The Level of Service criteria for unsignalized and signalized intersections are provided in Table 2.

Table 2 Level of Service Criteria		
Level of Service	Unsignalized Delay (sec)	Signalized Delay (sec)
A	≤ 10	≤ 10
B	> 10 and ≤ 15	> 10 and ≤ 20
C	> 15 and ≤ 25	> 20 and ≤ 35
D	> 25 and ≤ 35	> 35 and ≤ 55
E	> 35 and ≤ 50	> 55 and ≤ 80
F	> 50	> 80

In order to assess the traffic impact of the proposed development, the roadway network was evaluated under the Existing, No-Build and Build conditions using the above-described methodology and the latest Synchro software. A detailed description of the study intersections' operations under the three scenarios is provided below, with the resulting Existing, No-Build and Build Levels of Service illustrated on Figures 6, 7, and 8; respectively. The capacity analysis worksheets are attached for reference.

Jefferson Street and Broadway Intersection

Overall, the existing Jefferson Street and Broadway signalized intersection currently operates at an overall LOS A during both the weekday AM and the weekday PM peak hours. The eastbound Jefferson Road approach operates at a LOS B during both the weekday AM and the weekday PM peak hours. The westbound Jefferson Road approach operates at a LOS B during the weekday AM peak hour and a LOS C during the weekday PM peak hour. Both the northbound and southbound Broadway approaches operate at a LOS A during both peak hours.

Under the future No-Build and Build conditions, the Jefferson Street and Broadway signalized intersection will operate at an overall LOS A during both the weekday AM and the weekday PM peak hours. All individual approaches will operate at existing levels of service.

Jefferson Street and 4th Street Intersection

Under the existing conditions, the eastbound Jefferson Street stop-controlled approach operates at LOS A during both the weekday AM and the weekday PM peak hours. The westbound Jefferson Street stop-controlled approach operates at LOS B during the weekday AM peak hour and a LOS A during the weekday PM peak hour. Both the northbound and southbound 4th Street conflicting left-turn movements operate at LOS A during both peak hours.

Under the future No-Build scenario, all movements will continue to operate at existing levels of service with the exception of the eastbound Jefferson Road stop-controlled approach which will operate at a LOS B during the weekday PM peak hour.

In the future Build scenario, all stop-controlled and conflicting left-turn movements will operate at No-Build levels of service.

Jefferson Street and Site Driveway Intersections

In the future Build conditions, access is proposed via two (2) driveways along westbound Jefferson Street, between its intersections with 4th Street and Broadway. The site driveway stop-controlled approaches will consist of a single lane for all permitted movements.

Based upon this configuration, the southbound site driveway stop-controlled approaches will operate at LOS A during both the weekday AM and the weekday PM peak hours for both driveways. The eastbound Jefferson Street conflicting left-turn movements will operate at LOS A during both peak hours for both driveways.

Conclusion

Based on the results presented in this traffic engineering assessment report, the traffic resulting from the proposed development will have a minimal impact on the adjacent roadways based upon the following conclusions:

- Based upon the current ITE trip generation rates, the proposed development will generate a total of 39 trips during the AM peak hour and 39 trips during the weekday PM peak hour.

- Under the future Build conditions, the Jefferson Street and Broadway signalized intersection will operate at an overall LOS A during both the weekday AM and the weekday PM peak hours. All individual approaches will operate at existing levels of service.

- The traffic resulting from the proposed development will cause no changes in the future levels of service at Jefferson Street and 4th Street stop-controlled intersection. All stop-controlled and conflicting left-turn movements will operate at No-Build levels of service.

- In the future Build conditions, access is proposed via two (2) driveways along westbound Jefferson Street, between its intersections with 4th Street and Broadway. The site driveway stop-controlled approaches will consist of a single lane for all permitted movements.

  Based upon this configuration, the southbound site driveway stop-controlled approaches will operate at LOS A during both the weekday AM and the weekday PM peak hours for both driveways. The eastbound Jefferson Street conflicting left-turn movements will operate at LOS A during both peak hours for both driveways.

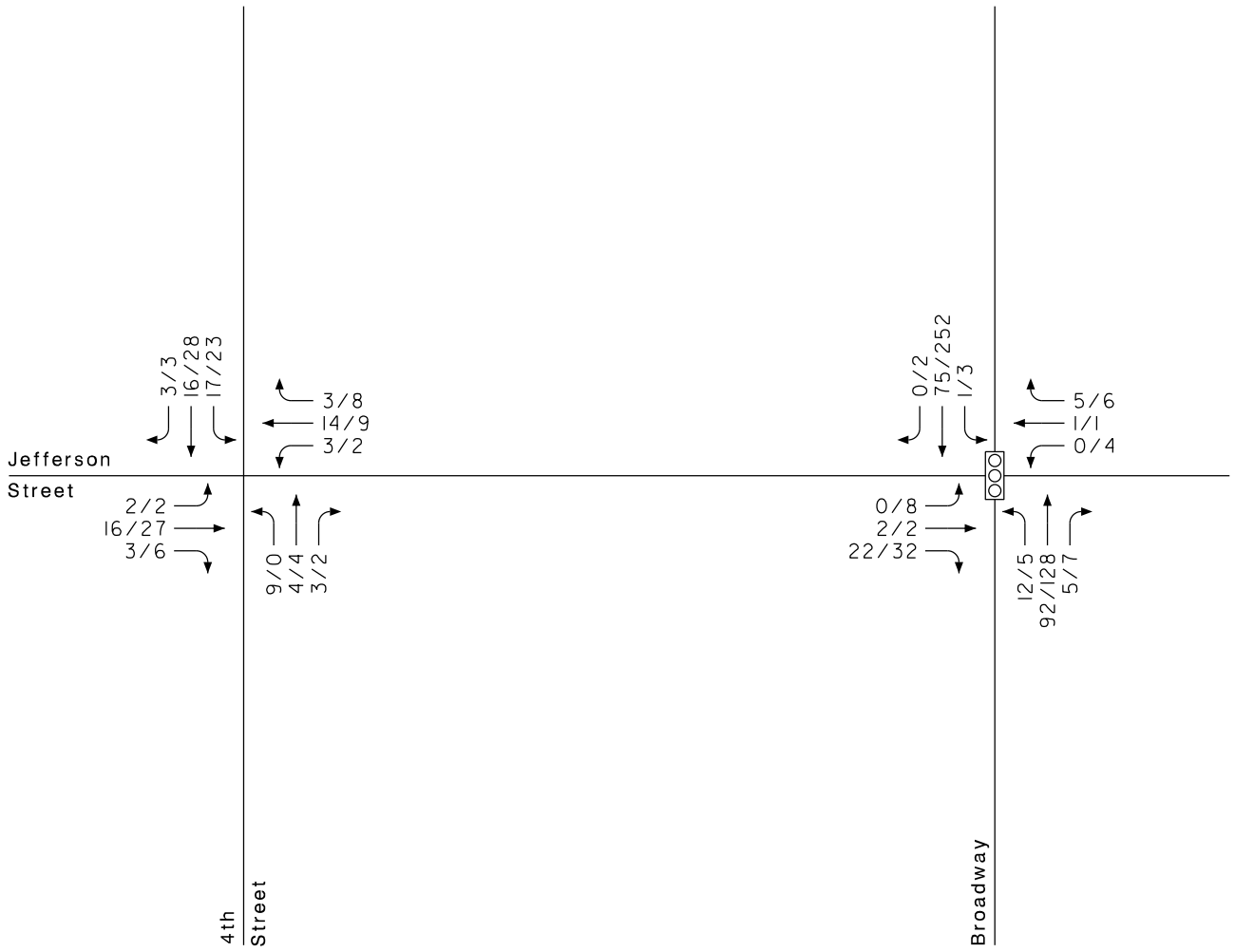
Should you have any questions or require additional information, please feel free to contact us.

Sincerely,
Shropshire Associates LLC

Nathan B. Mosley, P.E., C.M.E.
Professional Engineer
N.J. License No. 48698
NBM/jab
Attachments

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FIGURE 1
EXISTING VOLUMES



Croft Mill Townshomes – Camden

City of Camden, Camden County, NJ
May 2026

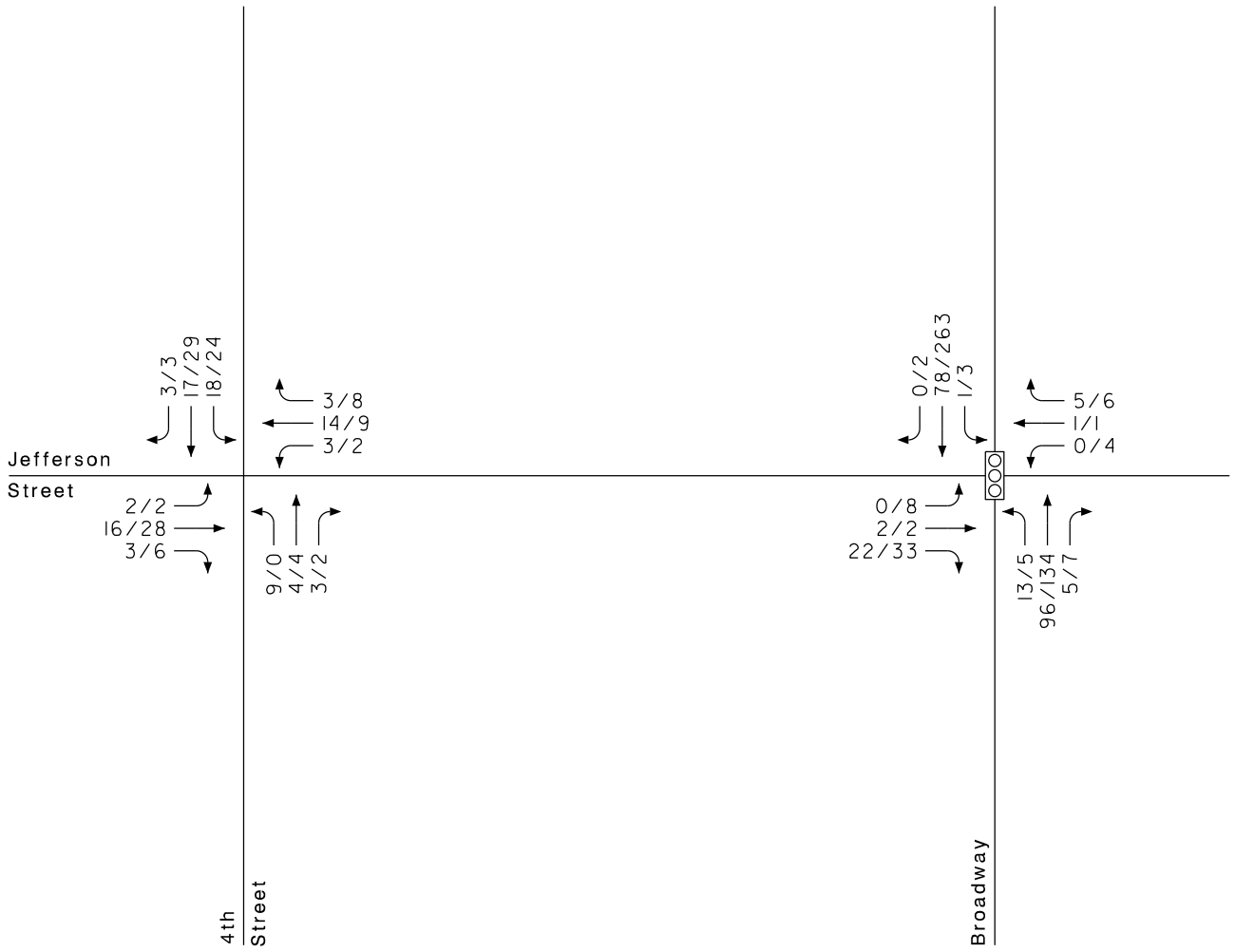
TRAFFIC SIGNAL
AM/PM PEAK HOUR

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SA Project No. 25256

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P: 609.714.0400 F: 609.714.9944 www.sallc.org

FIGURE 2
NO-BUILD VOLUMES



Croft Mill Townshomes – Camden

City of Camden, Camden County, NJ
May 2026

TRAFFIC SIGNAL
AM/PM PEAK HOUR

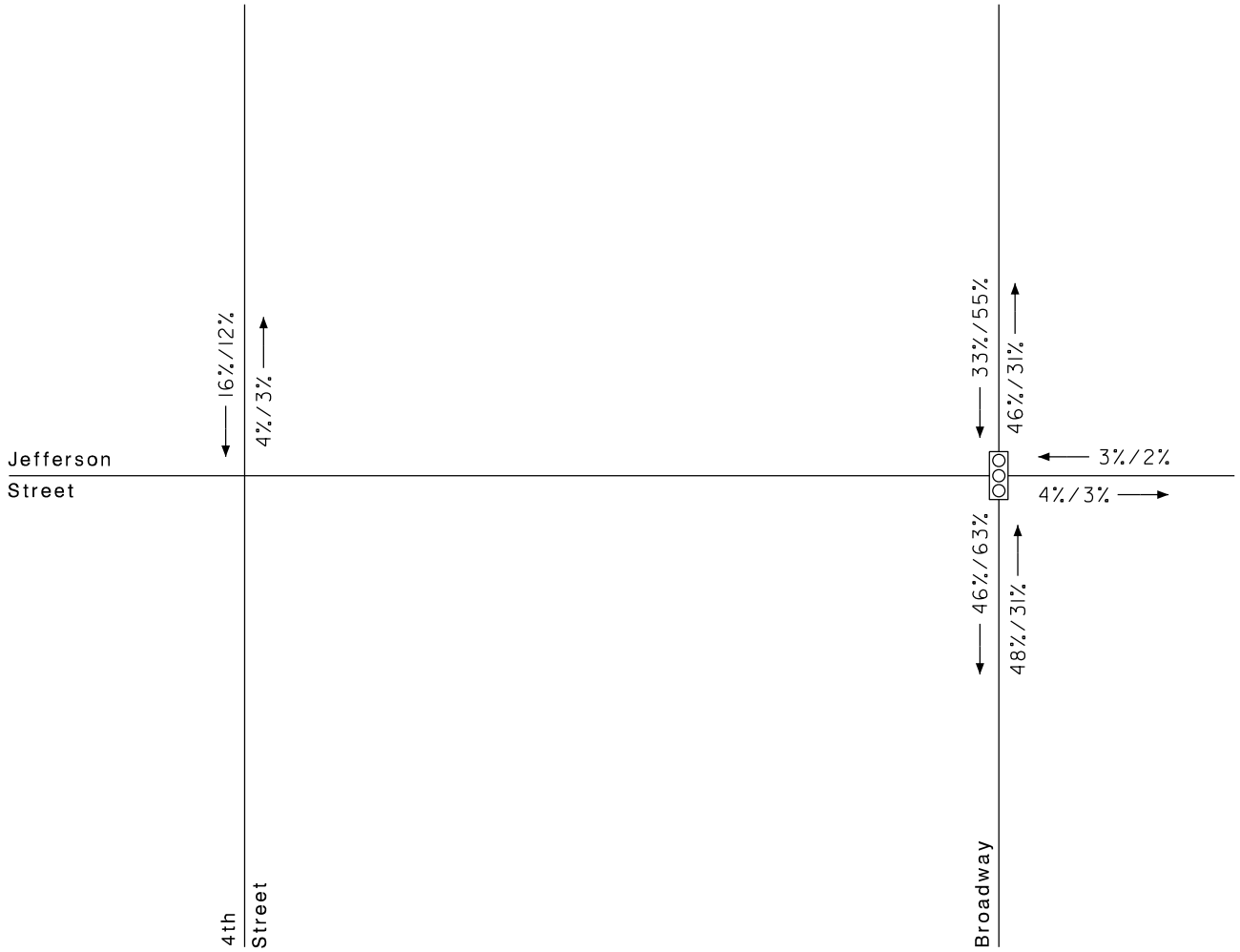
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FIGURE 3
TRIP DISTRIBUTION

N



Croft Mill Townshomes – Camden

City of Camden, Camden County, NJ
May 2026

TRAFFIC SIGNAL
AM/PM PEAK HOUR

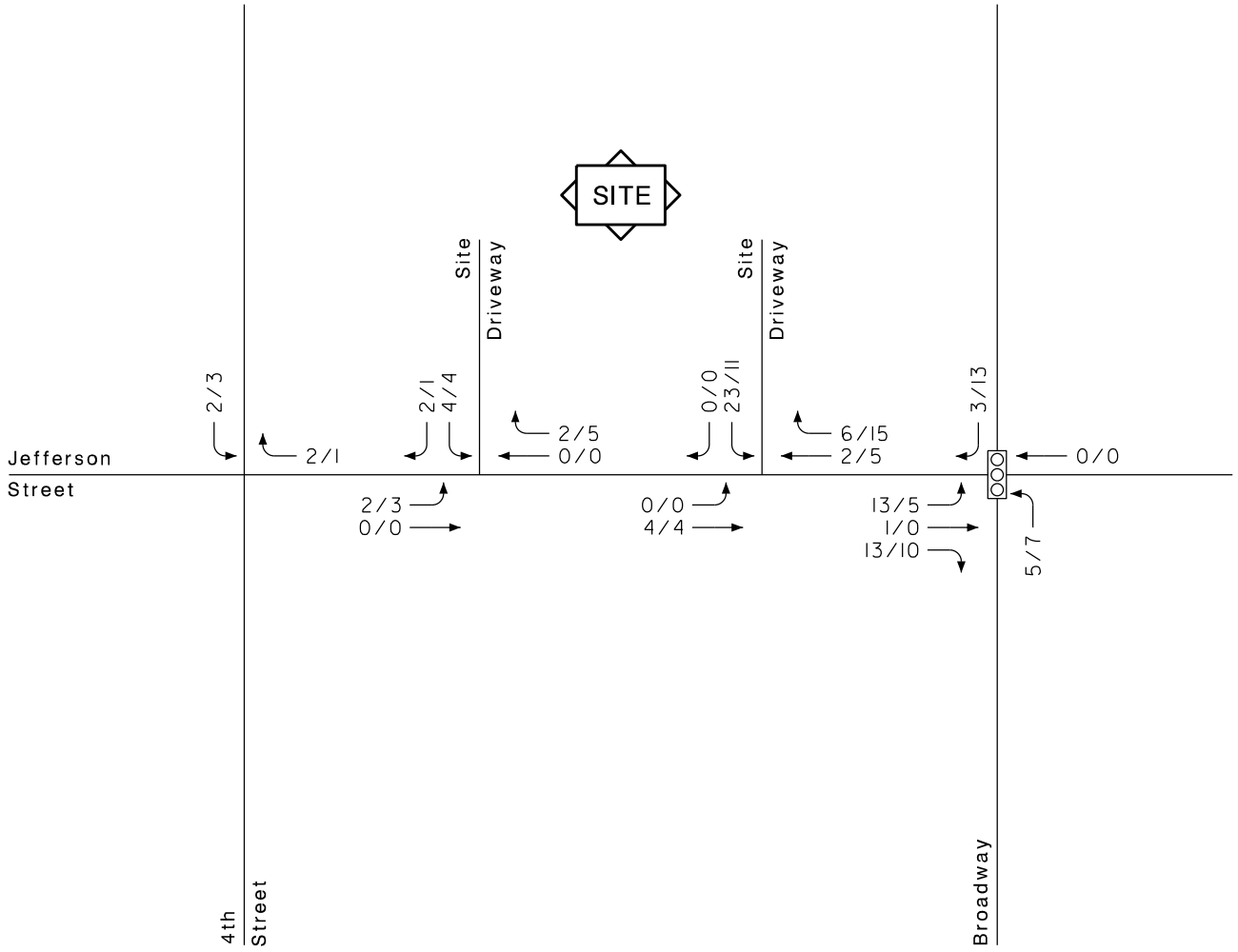
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FIGURE 4
SITE TRAFFIC

N



Croft Mill Townshomes – Camden

City of Camden, Camden County, NJ
May 2026

TRAFFIC SIGNAL
AM/PM PEAK HOUR

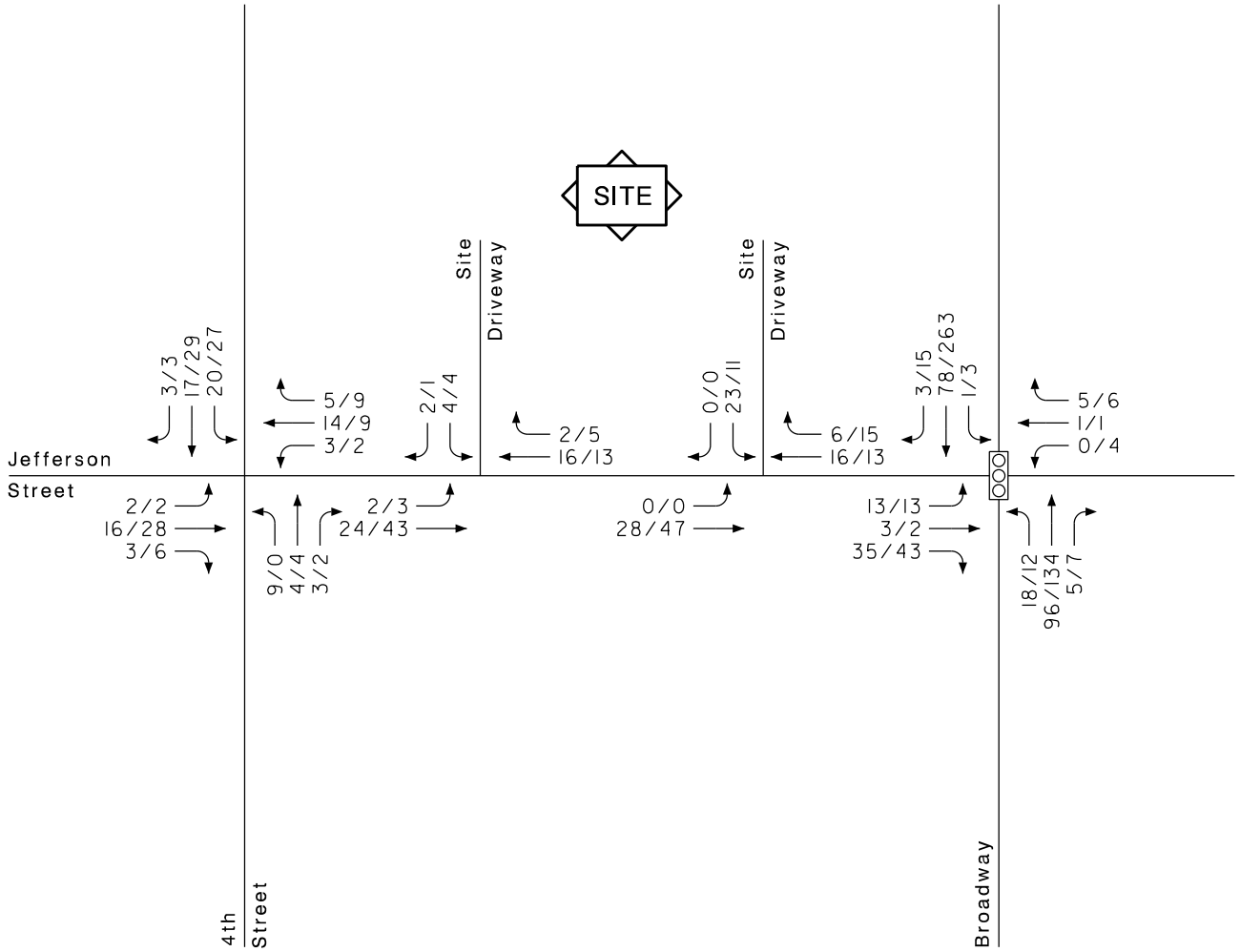
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FIGURE 5
BUILD VOLUMES

N



Croft Mill Townshomes – Camden

City of Camden, Camden County, NJ
May 2026

TRAFFIC SIGNAL
AM/PM PEAK HOUR

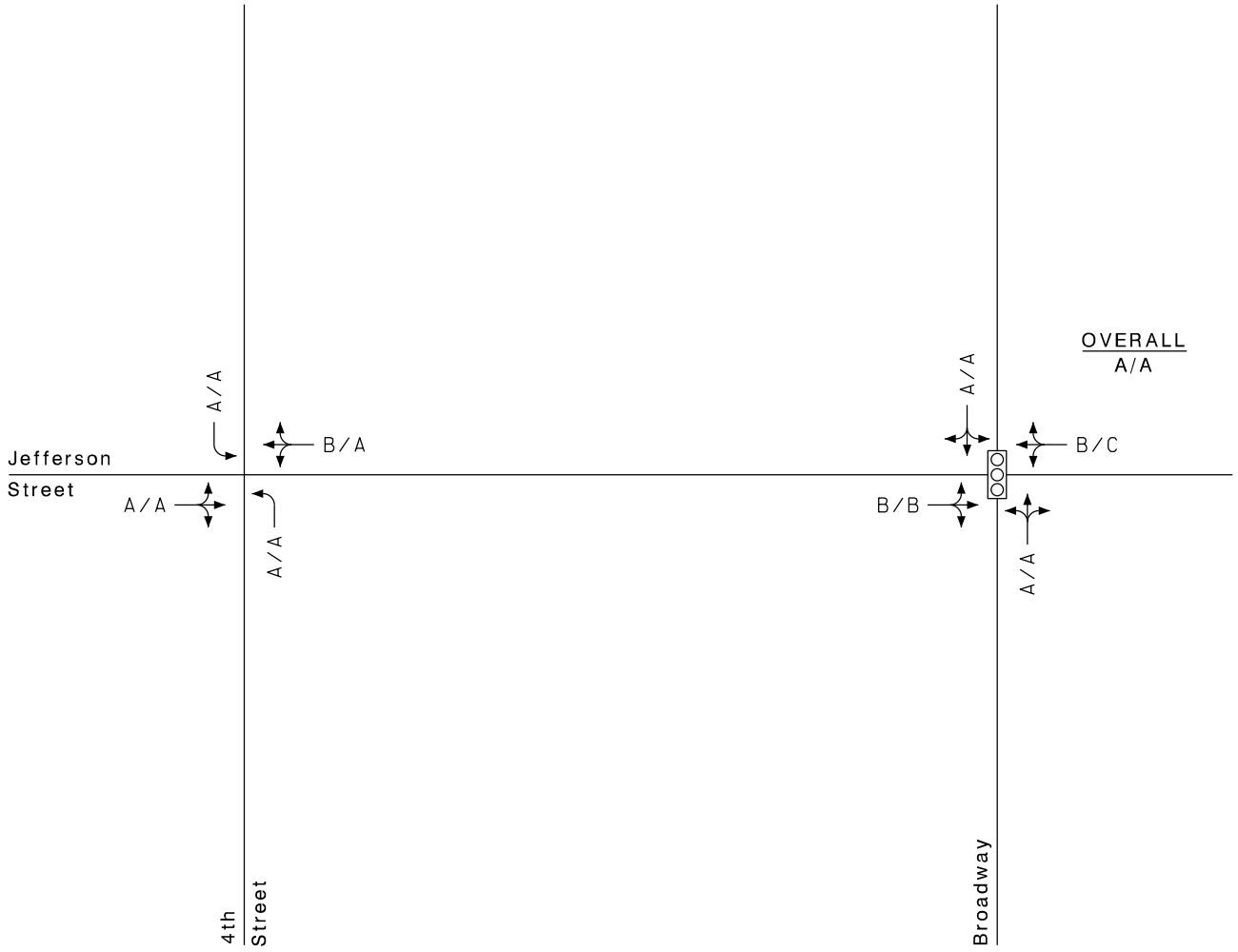
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FIGURE 6
EXISTING LEVELS OF SERVICE

N



Croft Mill Townshomes – Camden

City of Camden, Camden County, NJ
May 2026

TRAFFIC SIGNAL
AM/PM PEAK HOUR

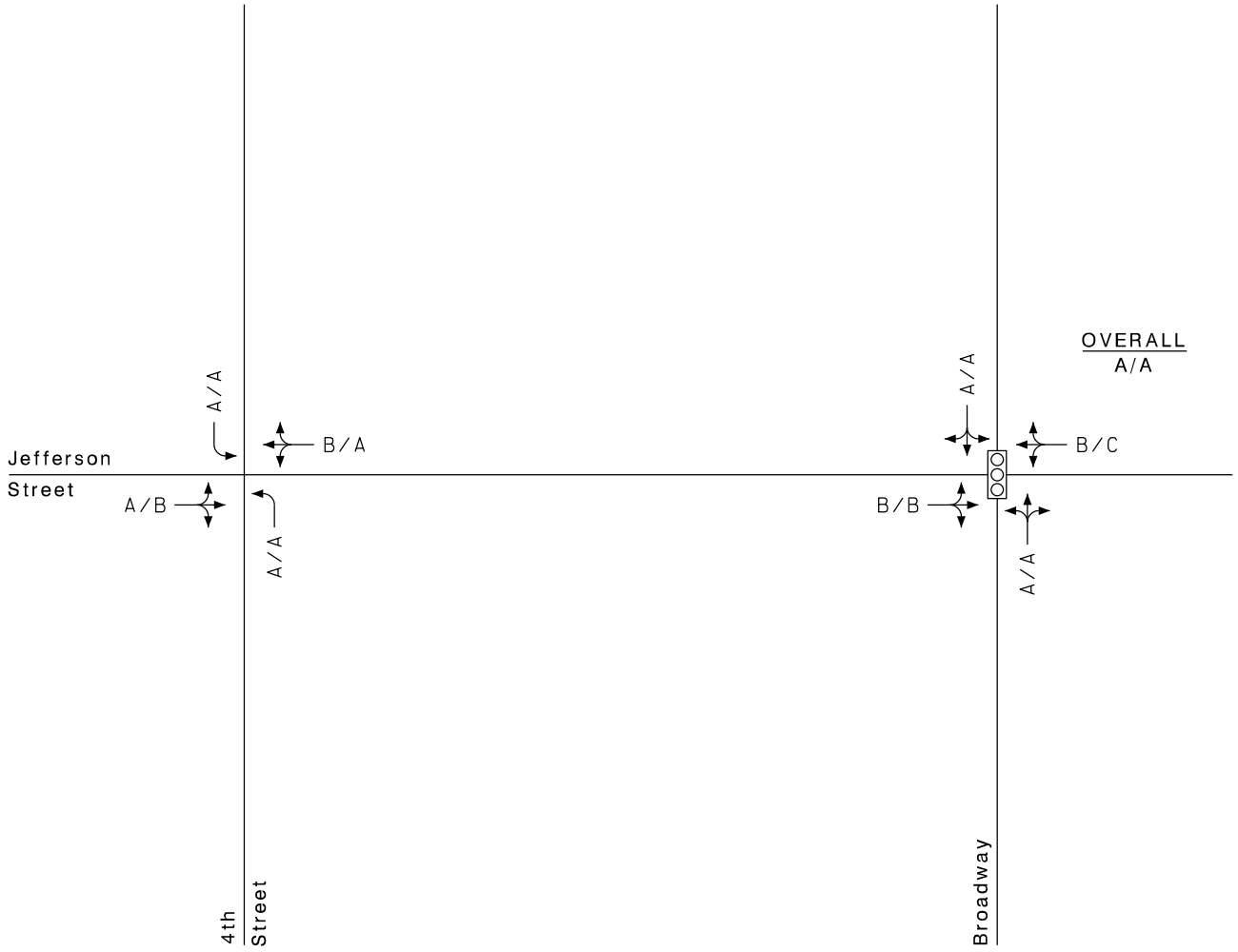
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FIGURE 7
NO-BUILD LEVELS OF SERVICE

N



Croft Mill Townshomes – Camden

City of Camden, Camden County, NJ
May 2026

TRAFFIC SIGNAL
AM/PM PEAK HOUR

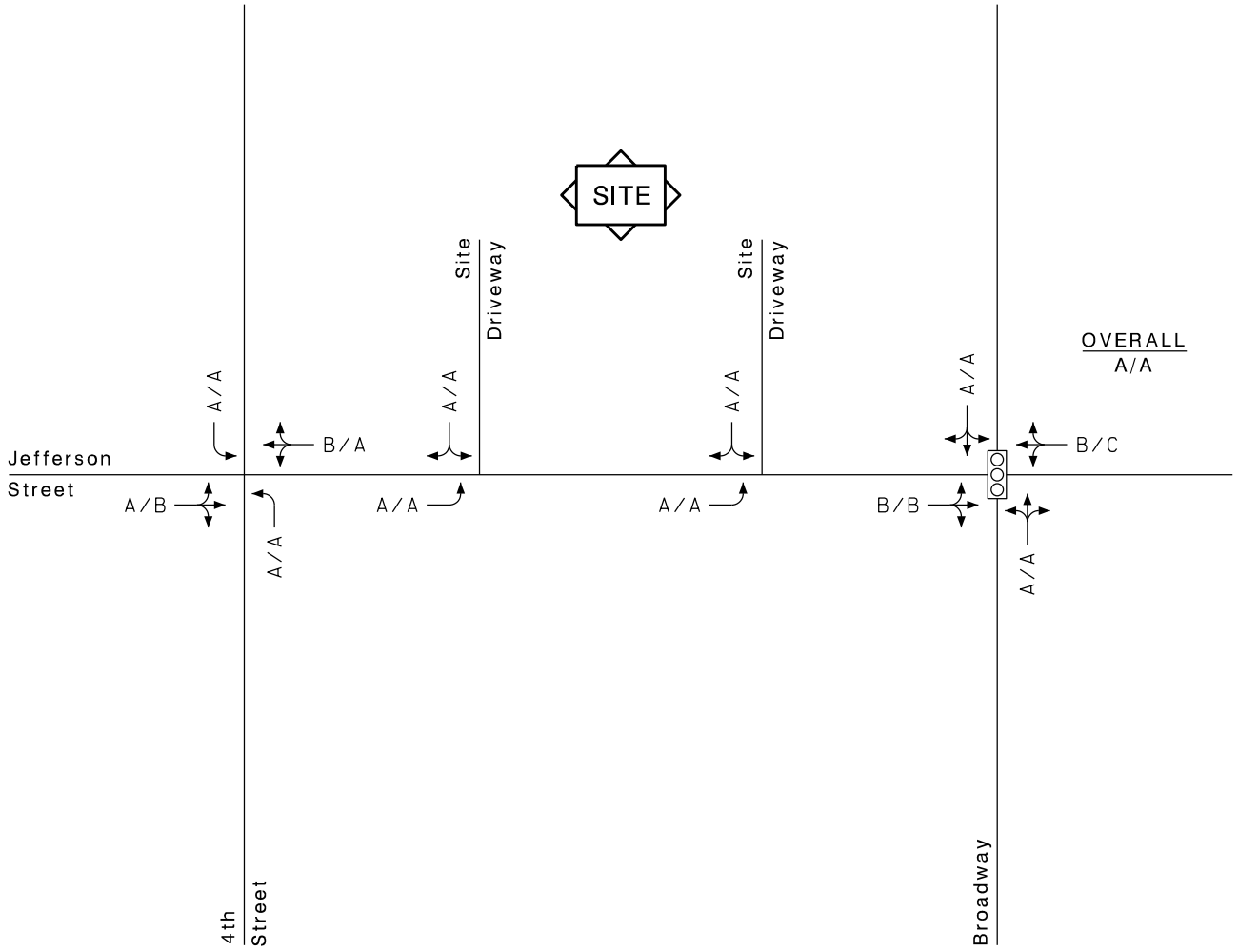
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FIGURE 8
BUILD LEVELS OF SERVICE

N



Croft Mill Townshomes – Camden

City of Camden, Camden County, NJ
May 2026

TRAFFIC SIGNAL
AM/PM PEAK HOUR

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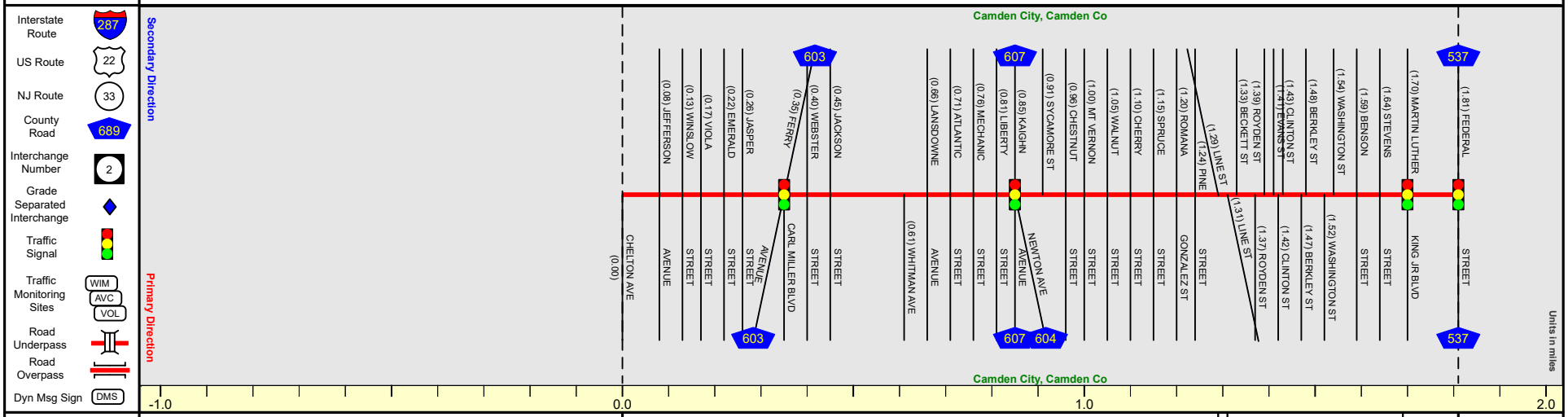
SA Project No. 25256

S 4TH ST (South to North)

Mile Posts: 0.000 - 1.810



Pavement	
Shoulder	
Number of Lanes	
Speed Limit	
Street Name	



Street Name	South 4th Street / Line Street / West Street / South 5th Street
Jurisdiction	Municipal
Functional Class	Urban Major Collector
Federal Aid - NHS Sy	STP
Control Section	
Speed Limit	25
Number of Lanes	2
Med. Type	None
Med. Width	
Pavement	34 / 30 / 40 / 34
Shoulder	
Traffic Volume	988 (2024) 1,019 (2021) / 1,894 (2024) 1,731 (2021) / 1,417 (2022) / 2,186 (2024)
Traffic Sta. ID	120454 120454 / 7-4-747 7-4-747 / 7-9-361 / 120455
Structure No.	
Enlarged Views	

Begin S 4Th St MP=0.00

End S 4Th St MP=1.81

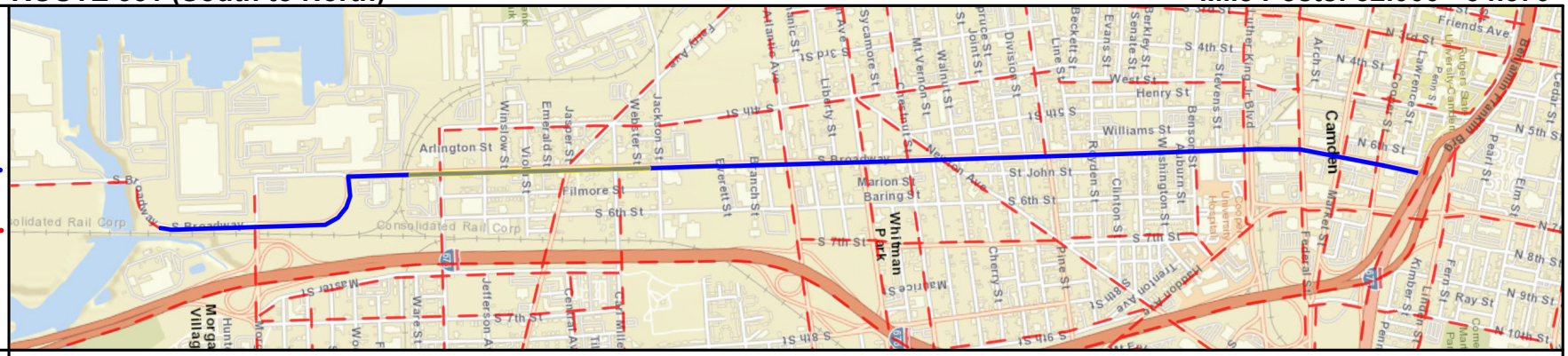
Page Created: June, 2020

SRI = 04081604__

Date last inventoried: May 2014

ROUTE 551 (South to North)

Mile Posts: 32.000 - 34.570



Pavement	
Shoulder	
Number of Lanes	
Speed Limit	
Street Name	

Interstate Route 287 | US Route 22 | NJ Route 33 | County Road 689 | Interchange Number 2 | Grade Separated Interchange | Traffic Signal | Traffic Monitoring Sites WIM AVC VOL | Road Underpass | Road Overpass | Dyn Msg Sign DMS

Secondary Direction

Primary Direction

Camden City, Camden Co

MORGAN BLVD (32.18) | (32.28) FAIRVIEW ST | (32.38) WOODLAND AVE | (32.49) READING RR | CHELTON AVENUE (32.57) | (32.66) JEFFERSON AVENUE | (32.70) WINSLOW ST | (32.74) VIOLA AVENUE | (32.78) EMERALD ST | 603 (32.82) JASPER ST | FERRY STREET | (32.91) VAN HOOK STREET | (32.97) WEBSTER ST STREET | (33.02) JACKSON STREET | EVERETT ST (33.14) | WHITMAN ST (33.19) | (33.21) BRANCH ST | (33.24) LANDSDOWNE AVENUE | (33.27) ATLANTIC AVENUE | (33.31) MECHANIC STREET | (33.36) LIBERTY STREET | 607 (33.40) AMBER STREET | (33.42) KAIGHN STREET | (33.46) SYCAMORE ST STREET | 604 (33.52) CHESTNUT STREET | (33.57) MT VERNON STREET | (33.59) NEWTON AVE | (33.62) WALNUT ST STREET | (33.66) CHERRY ST STREET | (33.70) SPRUCE STREET | (33.75) DIVISION STREET | (33.80) PINE STREET | (33.85) LINE STREET | (33.90) ROYDEN STREET | (33.94) CLINTON STREET | (33.99) BERKLEY STREET | (34.04) WASHINGTON STREET | (34.11) BENSON STREET | (34.15) STEVENS STREET | (34.22) DR MARTIN LUTHER KING BLVD | (34.29) RR | 537 (34.33) FEDERAL STREET | 537S (34.41) MARKET STREET | (34.49) COOPER STREET | (34.57) PENN STREET

Units in miles

Camden City, Camden Co

32.0 | 33.0 | 34.0 | 35.0

Street Name	Broadway
Jurisdiction	County
Functional Class	Urban Minor Arterial / Urban Principal Arterial
Federal Aid - NHS Sy	NHS / IM - Transit Term.
Control Section	
Speed Limit	25
Number of Lanes	2
Med. Type	None
Med. Width	
Pavement	36
Shoulder	
Traffic Volume	3,308 (2022) 3,163 (2022) / 5,138 (2024) / 7,564 (2022) / 5,306 (2022)
Traffic Sta. ID	7-4-660 C20102 / 7-4-453 / 090419 / 7N5H720
Structure No.	0455160
Enlarged Views	See Enlarged View #14

End Rt. 551 MP=34.57

Page Created: June, 2020

SRI = 00000551__

Date last inventoried: June 2012

Shropshire Associates LLC

277 Whitehorse Pike, Suite 203
Atco, NJ 08004

N/S Route: Broadway
E/W Route: Jefferson St.
City of Cemden/Camden County/NJ
Thursday/Clear/RB LE/D4-2585

File Name : 25256001
Site Code : 25256001
Start Date : 9/18/2025
Page No : 1

Groups Printed- Unshifted - Tractor Trailers

	Broadway Southbound					Jefferson St. Westbound					Broadway Northbound					Jefferson St. Eastbound					
Start Time	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Int. Total
07:00 AM	1	7	1	0	9	0	0	1	0	1	0	19	2	0	21	3	0	0	0	3	34
07:15 AM	0	17	0	0	17	0	1	0	0	1	1	21	3	0	25	9	0	0	1	10	53
07:30 AM	0	17	1	0	18	1	0	0	1	2	0	24	2	0	26	6	0	1	2	9	55
07:45 AM	0	11	1	0	12	0	0	0	1	1	0	20	3	0	23	2	0	1	2	5	41
Total	1	52	3	0	56	1	1	1	2	5	1	84	10	0	95	20	0	2	5	27	183
08:00 AM	0	17	0	0	17	0	0	0	0	0	0	31	2	0	33	6	1	0	0	7	57
08:15 AM	0	18	0	0	18	0	0	0	1	1	1	29	4	0	34	2	1	0	4	7	60
08:30 AM	0	14	1	0	15	1	1	0	1	3	2	14	1	0	17	5	0	0	1	6	41
08:45 AM	0	26	0	0	26	1	0	0	1	2	2	18	5	0	25	3	0	0	1	4	57
Total	0	75	1	0	76	2	1	0	3	6	5	92	12	0	109	16	2	0	6	24	215
*** BREAK ***																					
02:00 PM	0	27	1	0	28	1	0	1	0	2	0	18	4	0	22	0	1	1	3	5	57
02:15 PM	0	34	0	0	34	1	0	2	0	3	0	29	4	0	33	1	0	1	2	4	74
02:30 PM	0	36	0	0	36	0	0	0	0	0	0	29	4	0	33	3	0	2	5	10	79
02:45 PM	0	26	1	0	27	1	0	0	0	1	0	24	2	0	26	1	0	2	4	7	61
Total	0	123	2	0	125	3	0	3	0	6	0	100	14	0	114	5	1	6	14	26	271
03:00 PM	1	32	1	0	34	1	1	2	2	6	4	26	4	0	34	5	2	3	5	15	89
03:15 PM	2	43	1	0	46	1	0	0	1	2	0	27	2	0	29	2	1	2	3	8	85
03:30 PM	0	52	1	0	53	1	1	1	0	3	0	39	2	0	41	9	1	1	7	18	115
03:45 PM	2	74	0	0	76	1	0	1	0	2	2	30	2	0	34	2	0	2	5	9	121
Total	5	201	3	0	209	4	2	4	3	13	6	122	10	0	138	18	4	8	20	50	410
04:00 PM	0	60	0	0	60	1	0	1	0	2	2	31	0	0	33	2	0	3	4	9	104
04:15 PM	0	66	2	0	68	2	0	1	1	4	3	28	1	0	32	2	1	2	1	6	110
04:30 PM	1	76	0	0	77	0	0	0	0	0	0	22	0	0	22	0	0	1	5	6	105
04:45 PM	1	54	0	0	55	0	0	1	1	2	0	21	3	0	24	1	0	2	9	12	93
Total	2	256	2	0	260	3	0	3	2	8	5	102	4	0	111	5	1	8	19	33	412
05:00 PM	0	56	1	0	57	0	0	1	0	1	1	30	1	0	32	1	1	2	1	5	95
05:15 PM	0	60	0	0	60	1	0	0	0	1	0	20	1	0	21	0	0	3	2	5	87
05:30 PM	1	50	0	0	51	0	0	0	0	0	1	27	2	0	30	1	0	1	2	4	85
05:45 PM	2	31	0	0	33	0	0	2	2	4	0	29	4	0	33	1	0	0	1	2	72
Total	3	197	1	0	201	1	0	3	2	6	2	106	8	0	116	3	1	6	6	16	339
Grand Total	11	904	12	0	927	14	4	14	12	44	19	606	58	0	683	67	9	30	70	176	1830
Apprch %	1.2	97.5	1.3	0		31.8	9.1	31.8	27.3		2.8	88.7	8.5	0		38.1	5.1	17	39.8		
Total %	0.6	49.4	0.7	0	50.7	0.8	0.2	0.8	0.7	2.4	1	33.1	3.2	0	37.3	3.7	0.5	1.6	3.8	9.6	
Unshifted	10	893	11	0	914	14	4	12	12	42	18	599	44	0	661	52	9	29	70	160	1777
% Unshifted																					
Tractor Trailers	1	11	1	0	13	0	0	2	0	2	1	7	14	0	22	15	0	1	0	16	53
% Tractor Trailers	9.1	1.2	8.3	0	1.4	0	0	14.3	0	4.5	5.3	1.2	24.1	0	3.2	22.4	0	3.3	0	9.1	2.9

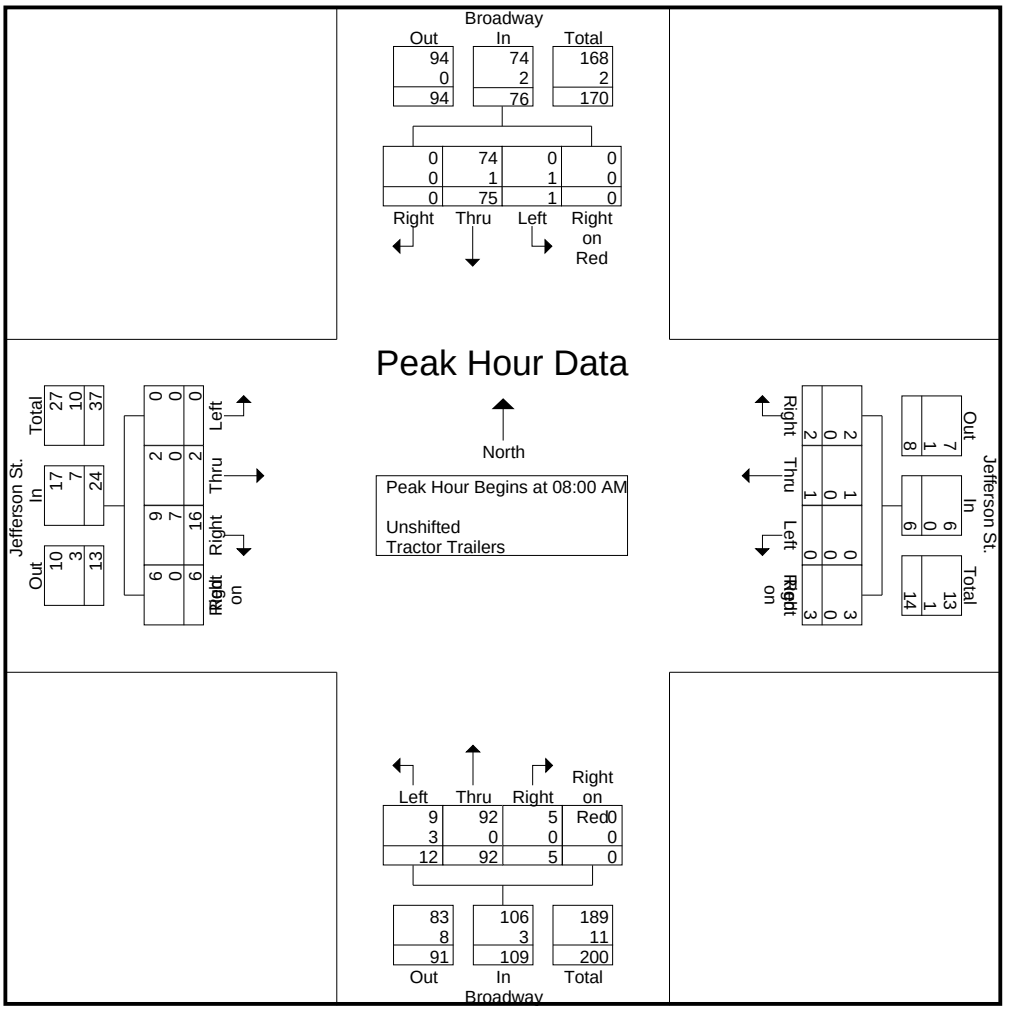
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277 Whitehorse Pike, Suite 203
Atco, NJ 08004

N/S Route: Broadway
E/W Route: Jefferson St.
City of Cemden/Camden County/NJ
Thursday/Clear/RB LE/D4-2585

File Name : 25256001
Site Code : 25256001
Start Date : 9/18/2025
Page No : 2

	Broadway Southbound					Jefferson St. Westbound					Broadway Northbound					Jefferson St. Eastbound					
Start Time	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	17	0	0	17	0	0	0	0	0	0	**31**	2	0	33	**6**	**1**	0	0	**7**	57
08:15 AM	0	18	0	0	18	0	0	0	**1**	1	1	29	4	0	**34**	2	1	0	**4**	7	**60**
08:30 AM	0	14	**1**	0	15	**1**	**1**	0	1	**3**	**2**	14	1	0	17	5	0	0	1	6	41
08:45 AM	0	**26**	0	0	**26**	1	0	0	1	2	2	18	**5**	0	25	3	0	0	1	4	57
Total Volume	0	75	1	0	76	2	1	0	3	6	5	92	12	0	109	16	2	0	6	24	215
% App. Total	0	98.7	1.3	0		33.3	16.7	0	50		4.6	84.4	11	0		66.7	8.3	0	25		
PHF	.000	.721	.250	.000	.731	.500	.250	.000	.750	.500	.625	.742	.600	.000	.801	.667	.500	.000	.375	.857	.896
Unshifted	0	74	0	0	74	2	1	0	3	6	5	92	9	0	106	9	2	0	6	17	203
% Unshifted		98.7	0	0	97.4	100	100	0	100	100	100	100	75.0	0	97.2	56.3	100	0	100	70.8	94.4
Tractor Trailers																					
% Tractor Trailers	0	1.3	100	0	2.6	0	0	0	0	0	0	0	25.0	0	2.8	43.8	0	0	0	29.2	5.6



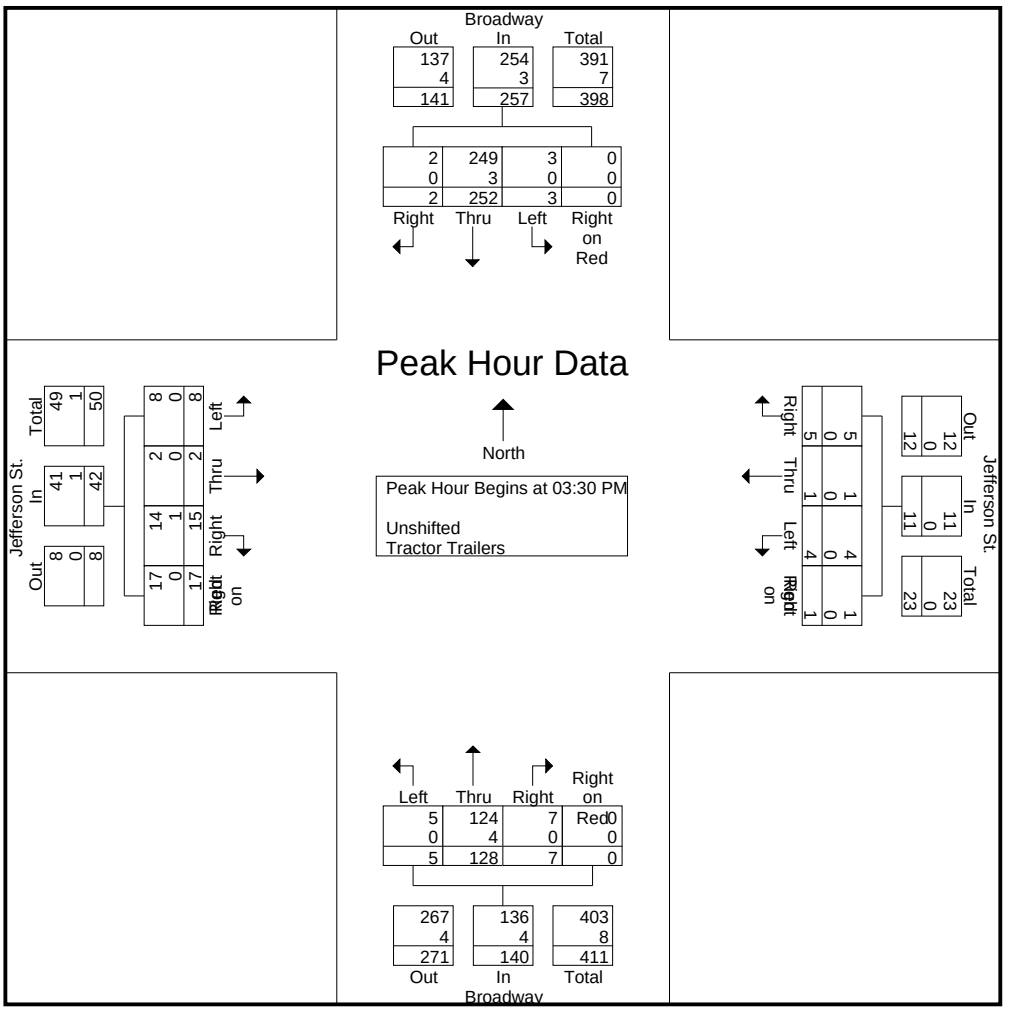
Shropshire Associates LLC

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Atco, NJ 08004

N/S Route: Broadway
E/W Route: Jefferson St.
City of Cemden/Camden County/NJ
Thursday/Clear/RB LE/D4-2585

File Name : 25256001
Site Code : 25256001
Start Date : 9/18/2025
Page No : 3

	Broadway Southbound					Jefferson St. Westbound					Broadway Northbound					Jefferson St. Eastbound					
Start Time	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Right	Thru	Left	Right on Red	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:30 PM																					
03:30 PM	0	52	1	0	53	1	**1**	**1**	0	3	0	**39**	**2**	0	**41**	**9**	**1**	1	**7**	**18**	115
03:45 PM	**2**	**74**	0	0	**76**	1	0	1	0	2	2	30	2	0	34	2	0	2	5	9	**121**
04:00 PM	0	60	0	0	60	1	0	1	0	2	2	31	0	0	33	2	0	**3**	4	9	104
04:15 PM	0	66	**2**	0	68	**2**	0	1	**1**	**4**	**3**	28	1	0	32	2	1	2	1	6	110
Total Volume	2	252	3	0	257	5	1	4	1	11	7	128	5	0	140	15	2	8	17	42	450
% App. Total	0.8	98.1	1.2	0		45.5	9.1	36.4	9.1		5	91.4	3.6	0		35.7	4.8	19	40.5		
PHF	.250	.851	.375	.000	.845	.625	.250	1.00	.250	.688	.583	.821	.625	.000	.854	.417	.500	.667	.607	.583	.930
Unshifted	2	249	3	0	254	5	1	4	1	11	7	124	5	0	136	14	2	8	17	41	442
% Unshifted		98.8	100	0	98.8	100	100	100	100	100	100	96.9	100	0	97.1	93.3	100	100	100	97.6	98.2
Tractor Trailers																					
% Tractor Trailers	0	1.2	0	0	1.2	0	0	0	0	0	0	3.1	0	0	2.9	6.7	0	0	0	2.4	1.8



Shropshire Associates LLC

277 Whitehorse Pike, Suite 203
Atco, NJ 08004

N/S Route: 4th St.
E/W Route: Jefferson St.
City of Camden/Camden County/NJ
Thursday/Overcast to Clear/RS/T-3101

File Name : 25256002
Site Code : 25256002
Start Date : 9/18/2025
Page No : 1

Groups Printed- Unshifted - Tractor Trailers

	4th St. Southbound				Jefferson St. Westbound				4th St. Northbound				Jefferson St. Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
07:00 AM	0	1	2	3	0	2	1	3	1	2	2	5	2	5	0	7	18
07:15 AM	1	2	6	9	1	6	1	8	0	0	1	1	1	2	0	3	21
07:30 AM	1	4	2	7	0	2	1	3	2	2	1	5	0	7	1	8	23
07:45 AM	1	9	7	17	2	4	0	6	0	0	5	5	0	2	1	3	31
Total	3	16	17	36	3	14	3	20	3	4	9	16	3	16	2	21	93
08:00 AM	0	2	1	3	2	1	0	3	1	2	1	4	2	3	0	5	15
08:15 AM	0	4	4	8	2	2	0	4	0	1	1	2	1	3	0	4	18
08:30 AM	0	4	3	7	0	2	2	4	0	1	0	1	1	4	0	5	17
08:45 AM	0	3	1	4	0	4	0	4	1	1	1	3	0	2	0	2	13
Total	0	13	9	22	4	9	2	15	2	5	3	10	4	12	0	16	63
*** BREAK ***																	
02:00 PM	0	2	4	6	1	2	0	3	0	3	0	3	0	1	0	1	13
02:15 PM	1	2	2	5	2	3	0	5	0	2	3	5	1	2	0	3	18
02:30 PM	0	4	6	10	1	3	0	4	0	1	2	3	2	3	0	5	22
02:45 PM	0	3	5	8	0	1	0	1	1	2	0	3	1	1	0	2	14
Total	1	11	17	29	4	9	0	13	1	8	5	14	4	7	0	11	67
03:00 PM	1	9	8	18	3	5	0	8	1	2	0	3	1	6	0	7	36
03:15 PM	1	4	6	11	1	2	1	4	1	0	0	1	0	2	1	3	19
03:30 PM	1	13	6	20	2	1	0	3	0	1	0	1	2	12	1	15	39
03:45 PM	0	2	3	5	2	1	1	4	0	1	0	1	3	7	0	10	20
Total	3	28	23	54	8	9	2	19	2	4	0	6	6	27	2	35	114
04:00 PM	0	4	8	12	0	1	0	1	0	3	0	3	0	4	0	4	20
04:15 PM	1	3	3	7	1	0	0	1	1	1	0	2	0	1	0	1	11
04:30 PM	0	11	6	17	1	0	0	1	0	2	1	3	1	1	0	2	23
04:45 PM	0	7	10	17	3	0	0	3	1	2	0	3	0	1	0	1	24
Total	1	25	27	53	5	1	0	6	2	8	1	11	1	7	0	8	78
05:00 PM	0	8	3	11	1	0	0	1	0	5	1	6	0	3	0	3	21
05:15 PM	1	6	3	10	1	0	0	1	2	1	0	3	0	0	1	1	15
05:30 PM	0	4	2	6	2	0	1	3	0	2	0	2	0	1	0	1	12
05:45 PM	0	2	2	4	2	2	1	5	0	1	0	1	0	1	0	1	11
Total	1	20	10	31	6	2	2	10	2	9	1	12	0	5	1	6	59
Grand Total	9	113	103	225	30	44	9	83	12	38	19	69	18	74	5	97	474
Apprch %	4	50.2	45.8		36.1	53	10.8		17.4	55.1	27.5		18.6	76.3	5.2		
Total %	1.9	23.8	21.7	47.5	6.3	9.3	1.9	17.5	2.5	8	4	14.6	3.8	15.6	1.1	20.5	
Unshifted	8	113	103	224	30	29	9	68	10	38	15	63	13	59	4	76	431
% Unshifted	88.9	100	100	99.6	100	65.9	100	81.9	83.3	100	78.9	91.3	72.2	79.7	80	78.4	90.9
Tractor Trailers	1	0	0	1	0	15	0	15	2	0	4	6	5	15	1	21	43
% Tractor Trailers	11.1	0	0	0.4	0	34.1	0	18.1	16.7	0	21.1	8.7	27.8	20.3	20	21.6	9.1

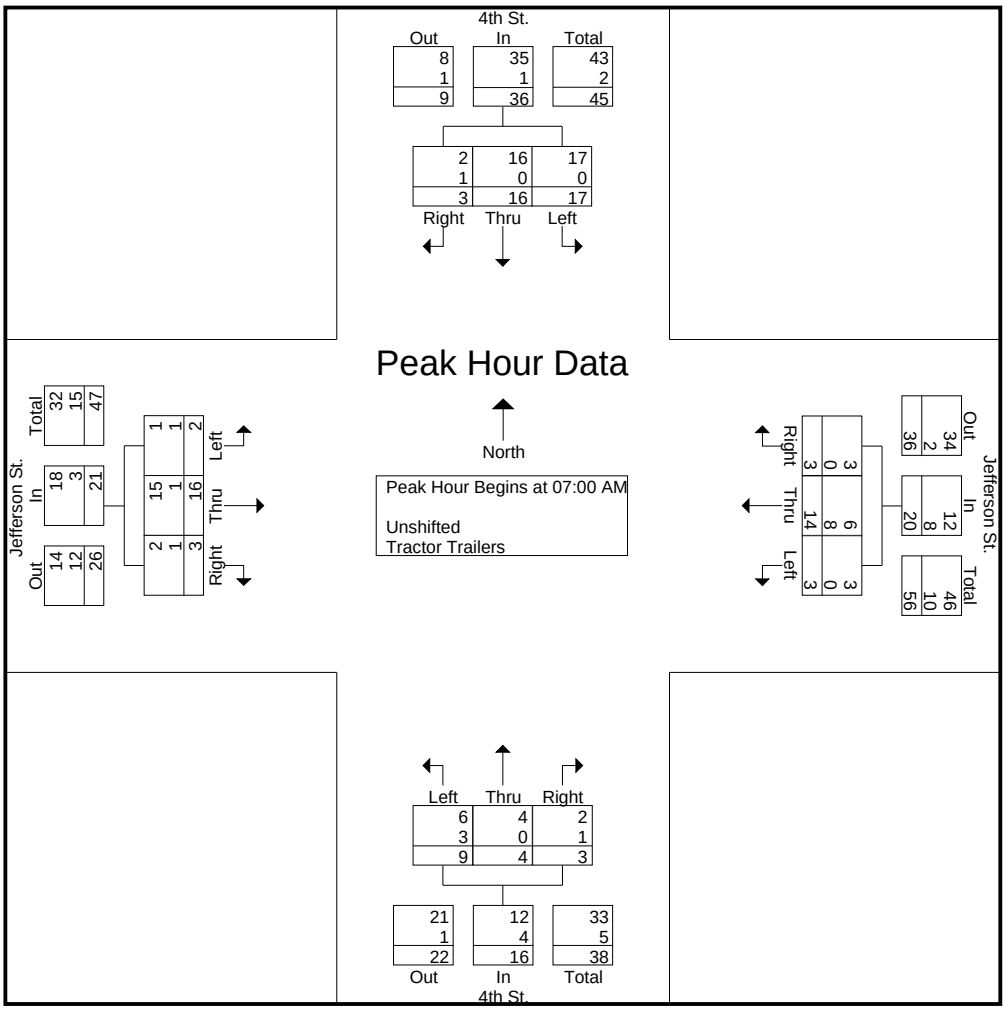
Shropshire Associates LLC

277 Whitehorse Pike, Suite 203
Atco, NJ 08004

N/S Route: 4th St.
E/W Route: Jefferson St.
City of Camden/Camden County/NJ
Thursday/Overcast to Clear/RS/T-3101

File Name : 25256002
Site Code : 25256002
Start Date : 9/18/2025
Page No : 2

	4th St. Southbound				Jefferson St. Westbound				4th St. Northbound				Jefferson St. Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	1	2	3	0	2	**1**	3	1	**2**	2	**5**	**2**	5	0	7	18
07:15 AM	**1**	2	6	9	1	**6**	1	**8**	0	0	1	1	1	2	0	3	21
07:30 AM	1	4	2	7	0	2	1	3	**2**	2	1	5	0	**7**	**1**	**8**	23
07:45 AM	1	**9**	**7**	**17**	**2**	4	0	6	0	0	**5**	5	0	2	1	3	**31**
Total Volume	3	16	17	36	3	14	3	20	3	4	9	16	3	16	2	21	93
% App. Total	8.3	44.4	47.2		15	70	15		18.8	25	56.2		14.3	76.2	9.5		
PHF	.750	.444	.607	.529	.375	.583	.750	.625	.375	.500	.450	.800	.375	.571	.500	.656	.750
Unshifted	2	16	17	35	3	6	3	12	2	4	6	12	2	15	1	18	77
% Unshifted	66.7	100	100	97.2	100	42.9	100	60.0	66.7	100	66.7	75.0	66.7	93.8	50.0	85.7	82.8
Tractor Trailers	1	0	0	1	0	8	0	8	1	0	3	4	1	1	1	3	16
% Tractor Trailers	33.3	0	0	2.8	0	57.1	0	40.0	33.3	0	33.3	25.0	33.3	6.3	50.0	14.3	17.2



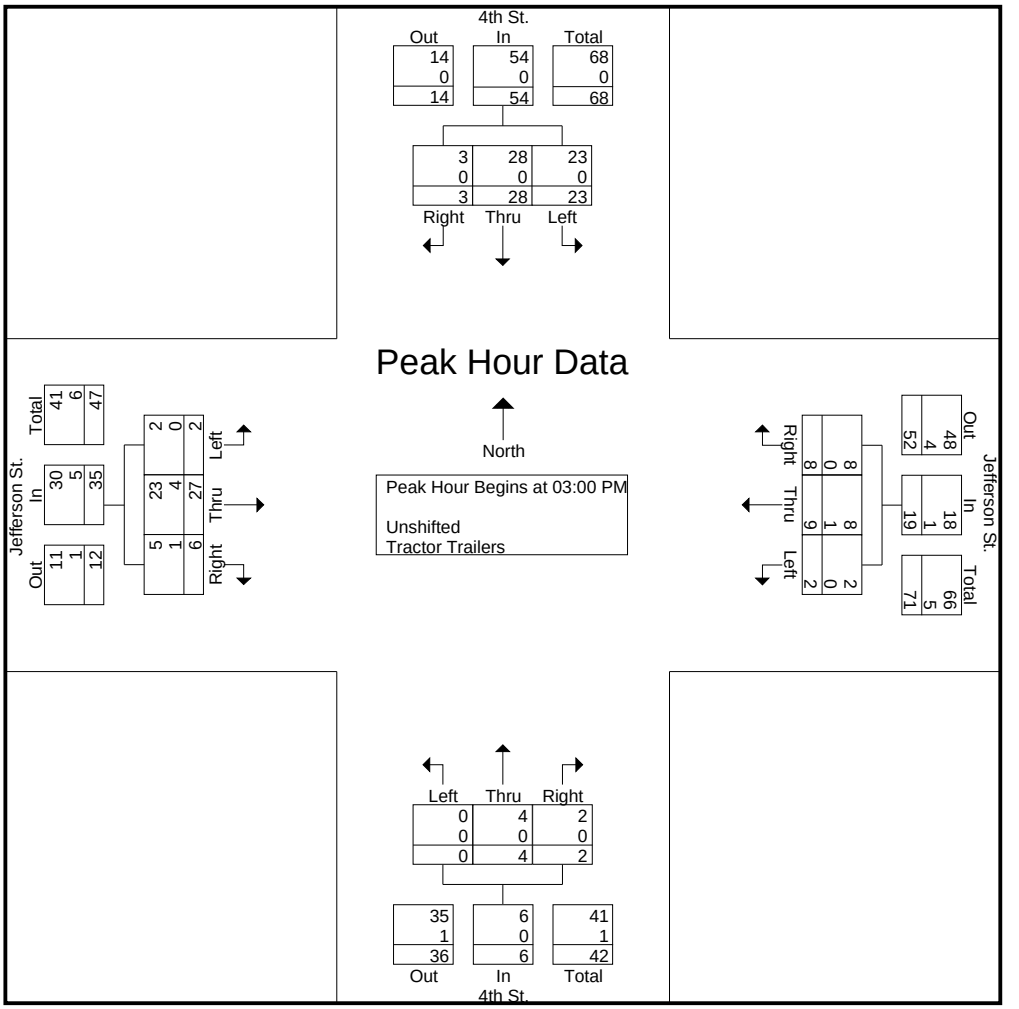
Shropshire Associates LLC

277 Whitehorse Pike, Suite 203
Atco, NJ 08004

N/S Route: 4th St.
E/W Route: Jefferson St.
City of Camden/Camden County/NJ
Thursday/Overcast to Clear/RS/T-3101

File Name : 25256002
Site Code : 25256002
Start Date : 9/18/2025
Page No : 3

	4th St. Southbound				Jefferson St. Westbound				4th St. Northbound				Jefferson St. Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:00 PM																	
03:00 PM	**1**	9	**8**	18	**3**	**5**	0	**8**	**1**	**2**	0	**3**	1	6	0	7	36
03:15 PM	1	4	6	11	1	2	**1**	4	1	0	0	1	0	2	**1**	3	19
03:30 PM	1	**13**	6	**20**	2	1	0	3	0	1	0	1	2	**12**	1	**15**	**39**
03:45 PM	0	2	3	5	2	1	1	4	0	1	0	1	**3**	7	0	10	20
Total Volume	3	28	23	54	8	9	2	19	2	4	0	6	6	27	2	35	114
% App. Total	5.6	51.9	42.6		42.1	47.4	10.5		33.3	66.7	0		17.1	77.1	5.7		
PHF	.750	.538	.719	.675	.667	.450	.500	.594	.500	.500	.000	.500	.500	.563	.500	.583	.731
Unshifted	3	28	23	54	8	8	2	18	2	4	0	6	5	23	2	30	108
% Unshifted	100	100	100	100	100	88.9	100	94.7	100	100	0	100	83.3	85.2	100	85.7	94.7
Tractor Trailers	0	0	0	0	0	1	0	1	0	0	0	0	1	4	0	5	6
% Tractor Trailers	0	0	0	0	0	11.1	0	5.3	0	0	0	0	16.7	14.8	0	14.3	5.3



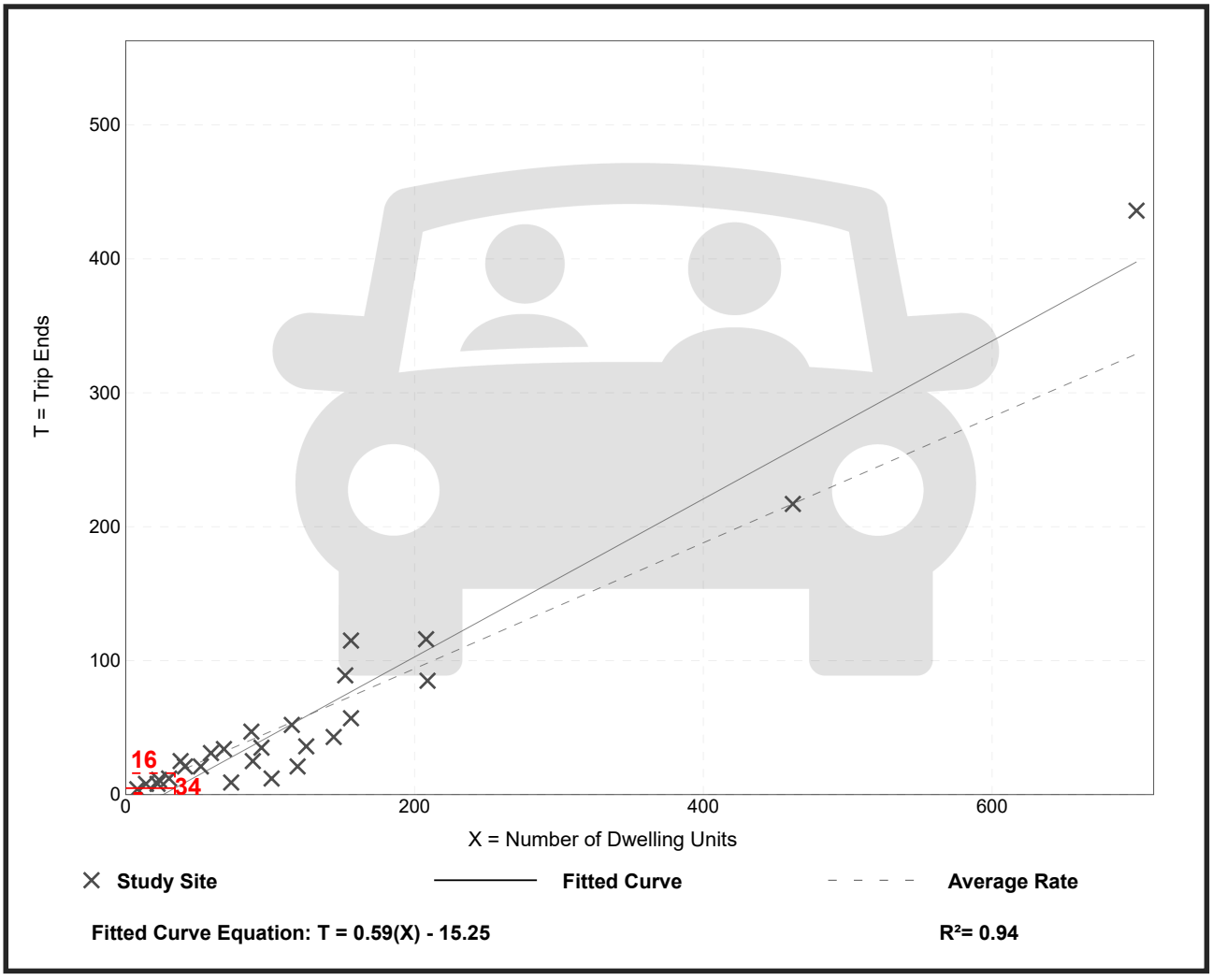
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	26
Avg. Num. of Dwelling Units:	129
Directional Distribution:	25% entering, 75% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.47	0.12 - 0.74	0.16

Data Plot and Equation



Trip Gen Manual, 12th Edition ● Institute of Transportation Engineers

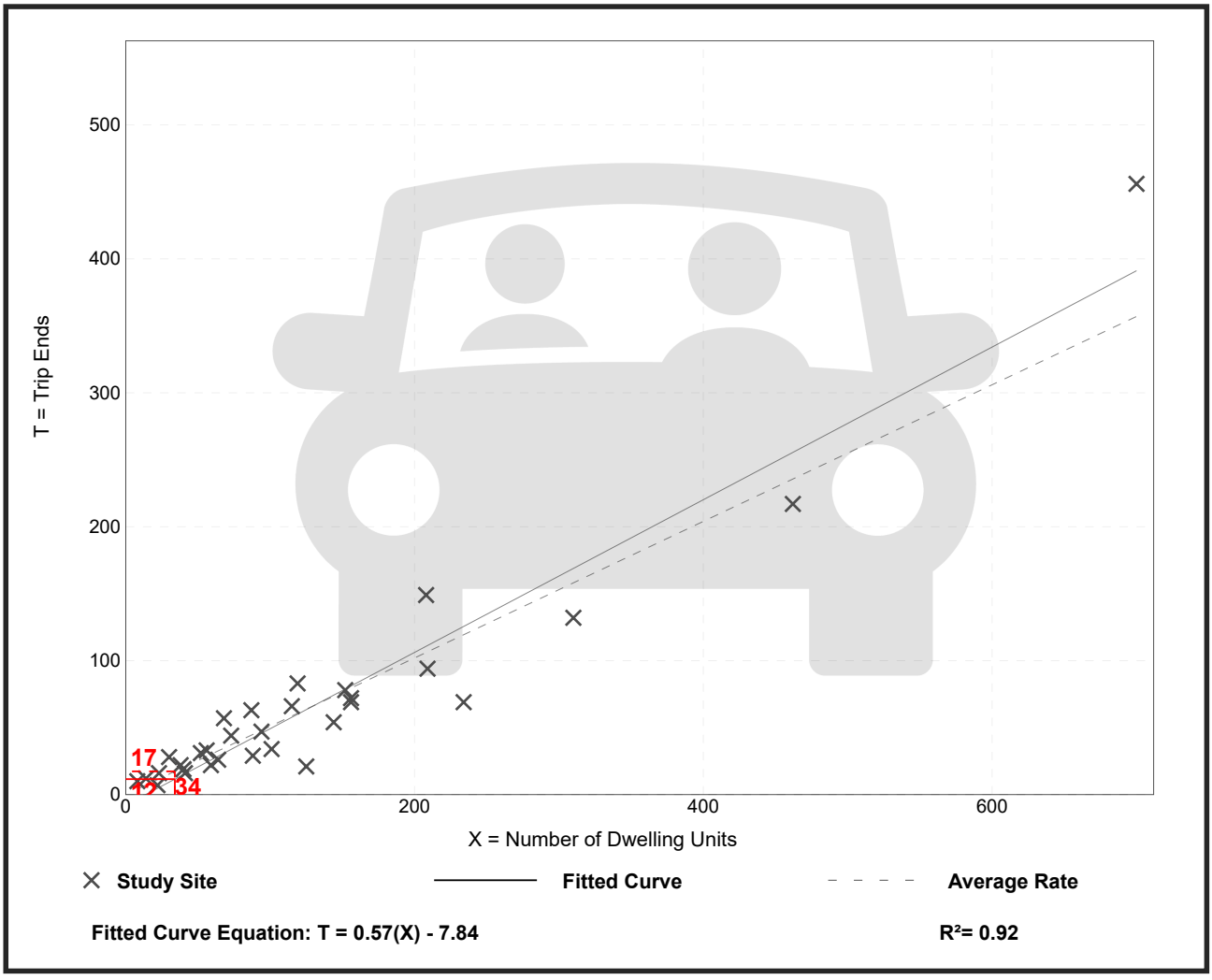
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 31
Avg. Num. of Dwelling Units: 131
Directional Distribution: 57% entering, 43% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.51	0.17 - 1.25	0.16

Data Plot and Equation



Trip Gen Manual, 12th Edition ● Institute of Transportation Engineers

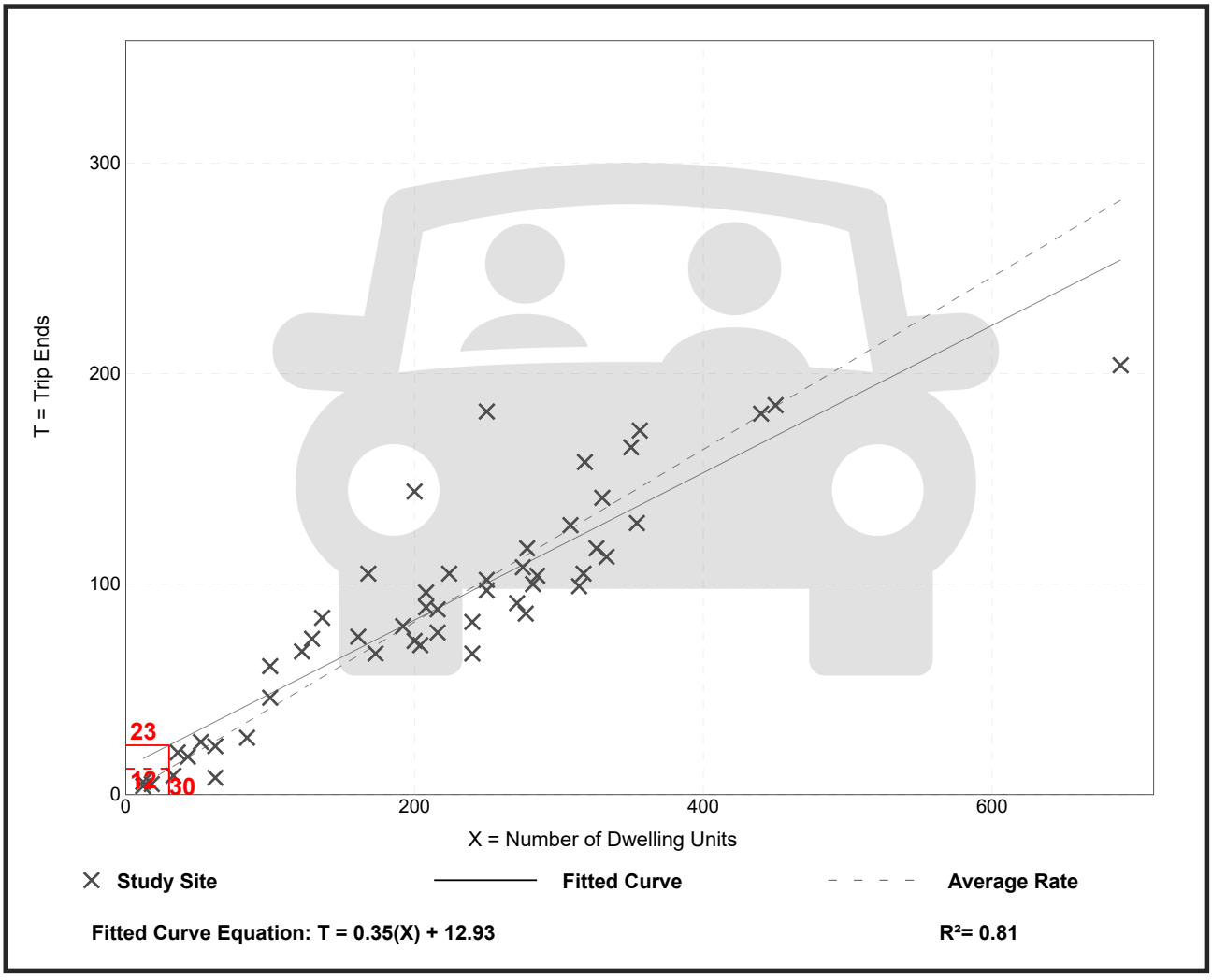
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 51
Avg. Num. of Dwelling Units: 219
Directional Distribution: 24% entering, 76% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.41	0.13 - 0.73	0.10

Data Plot and Equation



Trip Gen Manual, 12th Edition ● Institute of Transportation Engineers

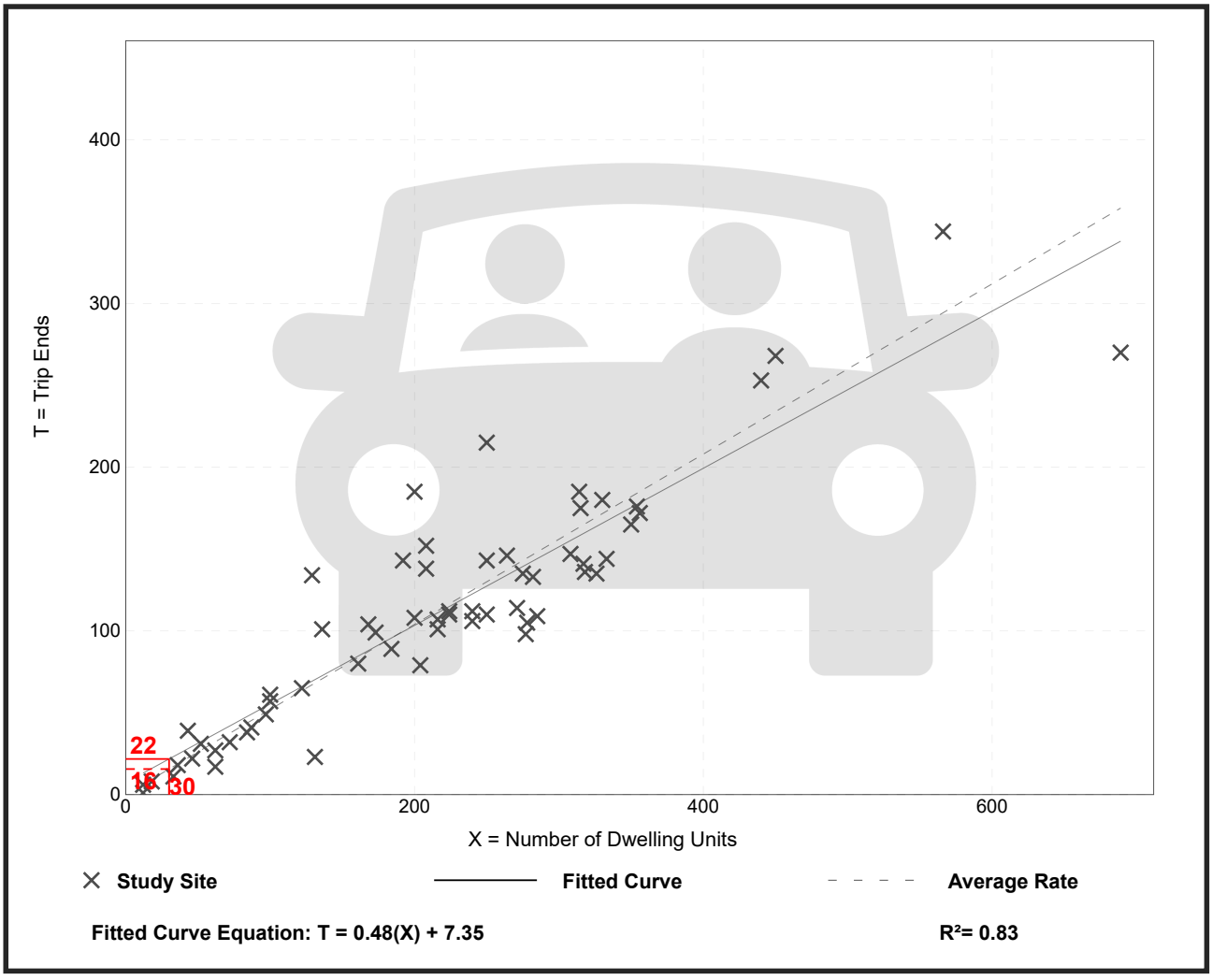
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 61
Avg. Num. of Dwelling Units: 215
Directional Distribution: 62% entering, 38% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.52	0.08 - 1.04	0.13

Data Plot and Equation



Trip Gen Manual, 12th Edition ● Institute of Transportation Engineers

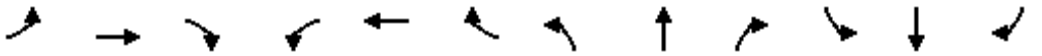
Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	2	16	3	3	14	3	9	4	3	17	16	3
Future Vol, veh/h	2	16	3	3	14	3	9	4	3	17	16	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	50	6	33	0	57	0	33	0	33	0	0	33
Mvmt Flow	3	21	4	4	19	4	12	5	4	23	21	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	112	102	23	113	102	7	25	0	0	9	0	0
Stage 1	69	69	-	31	31	-	-	-	-	-	-	-
Stage 2	43	33	-	82	71	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.56	6.53	7.1	7.07	6.2	4.43	-	-	4.1	-	-
Critical Hdwy Stg 1	6.6	5.56	-	6.1	6.07	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.56	-	6.1	6.07	-	-	-	-	-	-	-
Follow-up Hdwy	3.95	4.054	3.597	3.5	4.513	3.3	2.497	-	-	2.2	-	-
Pot Cap-1 Maneuver	765	781	971	869	696	1081	1410	-	-	1624	-	-
Stage 1	834	830	-	991	772	-	-	-	-	-	-	-
Stage 2	862	860	-	931	740	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	733	763	971	833	680	1081	1410	-	-	1624	-	-
Mov Cap-2 Maneuver	733	763	-	833	680	-	-	-	-	-	-	-
Stage 1	826	818	-	982	765	-	-	-	-	-	-	-
Stage 2	830	852	-	890	730	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.8	10	4.3	3.4
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1410	-	-	784	742	1624	-	-
HCM Lane V/C Ratio	0.009	-	-	0.036	0.036	0.014	-	-
HCM Control Delay (s)	7.6	0	-	9.8	10	7.2	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2	22	0	1	5	12	92	5	1	75	0
Future Volume (vph)	0	2	22	0	1	5	12	92	5	1	75	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.875			0.884			0.993				
Flt Protected								0.995			0.999	
Satd. Flow (prot)	0	1283	0	0	1680	0	0	1828	0	0	1858	0
Flt Permitted								0.979			0.999	
Satd. Flow (perm)	0	1283	0	0	1680	0	0	1799	0	0	1858	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			6			6				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		492			711			517			704	
Travel Time (s)		13.4			19.4			14.1			19.2	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	32%	0%	0%	0%	25%	0%	0%	100%	1%	0%
Adj. Flow (vph)	0	2	24	0	1	6	13	102	6	1	83	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	26	0	0	7	0	0	121	0	0	84	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Total Split (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Total Split (%)	21.4%	21.4%		21.4%	21.4%		78.6%	78.6%		78.6%	78.6%	
Maximum Green (s)	10.0	10.0		10.0	10.0		50.0	50.0		50.0	50.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		10.0			10.0			50.0			50.0	
Actuated g/C Ratio		0.14			0.14			0.71			0.71	
v/c Ratio		0.13			0.03			0.09			0.06	
Control Delay		14.0			17.7			3.1			3.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.0			17.7			3.1			3.1	
LOS		B			B			A			A	
Approach Delay		14.0			17.7			3.1			3.1	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 70			
Control Type: Pretimed			
Maximum v/c Ratio: 0.13			
Intersection Signal Delay: 4.7		Intersection LOS: A	
Intersection Capacity Utilization 58.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 6: Broadway & Jefferson Street



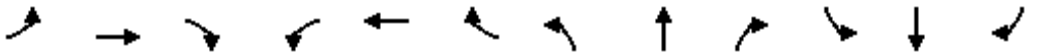
Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	27	6	2	9	8	0	4	2	23	28	3
Future Vol, veh/h	2	27	6	2	9	8	0	4	2	23	28	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	0	15	16	0	11	0	0	0	0	0	0	0
Mvmt Flow	3	37	8	3	12	11	0	5	3	32	38	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	122	112	40	134	113	7	42	0	0	8	0	0
Stage 1	104	104	-	7	7	-	-	-	-	-	-	-
Stage 2	18	8	-	127	106	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.65	6.36	7.1	6.61	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.65	-	6.1	5.61	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.65	-	6.1	5.61	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.135	3.444	3.5	4.099	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	858	754	993	842	761	1081	1580	-	-	1625	-	-
Stage 1	907	785	-	1020	872	-	-	-	-	-	-	-
Stage 2	1006	864	-	882	790	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	826	739	993	791	746	1081	1580	-	-	1625	-	-
Mov Cap-2 Maneuver	826	739	-	791	746	-	-	-	-	-	-	-
Stage 1	907	769	-	1020	872	-	-	-	-	-	-	-
Stage 2	982	864	-	816	774	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.9	9.3	0	3.1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1580	-	-	778	864	1625	-	-
HCM Lane V/C Ratio	-	-	-	0.062	0.03	0.019	-	-
HCM Control Delay (s)	0	-	-	9.9	9.3	7.3	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0.1	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	2	32	4	1	6	5	128	7	3	252	2
Future Volume (vph)	8	2	32	4	1	6	5	128	7	3	252	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.898			0.926			0.993			0.999	
Flt Protected		0.990			0.982			0.998			0.999	
Satd. Flow (prot)	0	1652	0	0	1728	0	0	1833	0	0	1878	0
Flt Permitted		0.946			0.909			0.992			0.998	
Satd. Flow (perm)	0	1578	0	0	1599	0	0	1822	0	0	1876	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		34			6			8			1	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		492			711			517			704	
Travel Time (s)		13.4			19.4			14.1			19.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	3%	0%	0%	0%	0%	3%	0%	0%	1%	0%
Adj. Flow (vph)	9	2	34	4	1	6	5	138	8	3	271	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	45	0	0	11	0	0	151	0	0	276	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Total Split (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Total Split (%)	21.4%	21.4%		21.4%	21.4%		78.6%	78.6%		78.6%	78.6%	
Maximum Green (s)	10.0	10.0		10.0	10.0		50.0	50.0		50.0	50.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		10.0			10.0			50.0			50.0	
Actuated g/C Ratio		0.14			0.14			0.71			0.71	
v/c Ratio		0.18			0.05			0.12			0.21	
Control Delay		14.7			20.3			3.2			3.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.7			20.3			3.2			3.8	
LOS		B			C			A			A	
Approach Delay		14.7			20.3			3.2			3.8	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 70			
Control Type: Pretimed			
Maximum v/c Ratio: 0.21			
Intersection Signal Delay: 5.0		Intersection LOS: A	
Intersection Capacity Utilization 58.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 6: Broadway & Jefferson Street



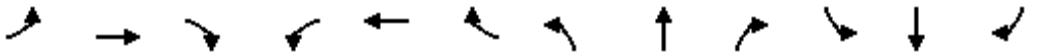
Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	16	3	3	14	3	9	4	3	18	17	3
Future Vol, veh/h	2	16	3	3	14	3	9	4	3	18	17	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	50	6	33	0	57	0	33	0	33	0	0	33
Mvmt Flow	3	21	4	4	19	4	12	5	4	24	23	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	116	106	25	117	106	7	27	0	0	9	0	0
Stage 1	73	73	-	31	31	-	-	-	-	-	-	-
Stage 2	43	33	-	86	75	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.56	6.53	7.1	7.07	6.2	4.43	-	-	4.1	-	-
Critical Hdwy Stg 1	6.6	5.56	-	6.1	6.07	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.56	-	6.1	6.07	-	-	-	-	-	-	-
Follow-up Hdwy	3.95	4.054	3.597	3.5	4.513	3.3	2.497	-	-	2.2	-	-
Pot Cap-1 Maneuver	760	777	968	864	692	1081	1408	-	-	1624	-	-
Stage 1	830	826	-	991	772	-	-	-	-	-	-	-
Stage 2	862	860	-	927	737	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	728	758	968	827	675	1081	1408	-	-	1624	-	-
Mov Cap-2 Maneuver	728	758	-	827	675	-	-	-	-	-	-	-
Stage 1	823	814	-	982	765	-	-	-	-	-	-	-
Stage 2	830	852	-	885	726	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.8	10.1	4.3	3.4
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1408	-	-	779	737	1624	-	-
HCM Lane V/C Ratio	0.009	-	-	0.036	0.036	0.015	-	-
HCM Control Delay (s)	7.6	0	-	9.8	10.1	7.2	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2	22	0	1	5	13	96	5	1	78	0
Future Volume (vph)	0	2	22	0	1	5	13	96	5	1	78	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.875			0.884			0.994				
Flt Protected								0.995			0.999	
Satd. Flow (prot)	0	1283	0	0	1680	0	0	1829	0	0	1859	0
Flt Permitted								0.978			0.999	
Satd. Flow (perm)	0	1283	0	0	1680	0	0	1798	0	0	1859	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			6			6				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		492			711			517			704	
Travel Time (s)		13.4			19.4			14.1			19.2	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	32%	0%	0%	0%	25%	0%	0%	100%	1%	0%
Adj. Flow (vph)	0	2	24	0	1	6	14	107	6	1	87	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	26	0	0	7	0	0	127	0	0	88	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Total Split (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Total Split (%)	21.4%	21.4%		21.4%	21.4%		78.6%	78.6%		78.6%	78.6%	
Maximum Green (s)	10.0	10.0		10.0	10.0		50.0	50.0		50.0	50.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		10.0			10.0			50.0			50.0	
Actuated g/C Ratio		0.14			0.14			0.71			0.71	
v/c Ratio		0.13			0.03			0.10			0.07	
Control Delay		14.0			17.7			3.1			3.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.0			17.7			3.1			3.2	
LOS		B			B			A			A	
Approach Delay		14.0			17.7			3.1			3.2	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 70			
Control Type: Pretimed			
Maximum v/c Ratio: 0.13			
Intersection Signal Delay: 4.7		Intersection LOS: A	
Intersection Capacity Utilization 58.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 6: Broadway & Jefferson Street



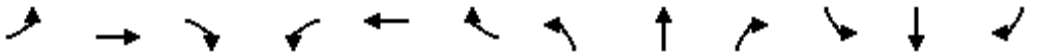
Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	28	6	2	9	8	0	4	2	24	29	3
Future Vol, veh/h	2	28	6	2	9	8	0	4	2	24	29	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	0	15	16	0	11	0	0	0	0	0	0	0
Mvmt Flow	3	38	8	3	12	11	0	5	3	33	40	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	126	116	42	138	117	7	44	0	0	8	0	0
Stage 1	108	108	-	7	7	-	-	-	-	-	-	-
Stage 2	18	8	-	131	110	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.65	6.36	7.1	6.61	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.65	-	6.1	5.61	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.65	-	6.1	5.61	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.135	3.444	3.5	4.099	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	852	751	990	837	757	1081	1577	-	-	1625	-	-
Stage 1	902	781	-	1020	872	-	-	-	-	-	-	-
Stage 2	1006	864	-	877	787	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	820	735	990	784	741	1081	1577	-	-	1625	-	-
Mov Cap-2 Maneuver	820	735	-	784	741	-	-	-	-	-	-	-
Stage 1	902	765	-	1020	872	-	-	-	-	-	-	-
Stage 2	982	864	-	809	770	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	9.3	0	3.1
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1577	-	-	773	860	1625	-	-
HCM Lane V/C Ratio	-	-	-	0.064	0.03	0.02	-	-
HCM Control Delay (s)	0	-	-	10	9.3	7.3	0	-
HCM Lane LOS	A	-	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0.1	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	2	33	4	1	6	5	134	7	3	263	2
Future Volume (vph)	8	2	33	4	1	6	5	134	7	3	263	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.897			0.926			0.993			0.999	
Flt Protected		0.990			0.982			0.998			0.999	
Satd. Flow (prot)	0	1650	0	0	1728	0	0	1833	0	0	1878	0
Flt Permitted		0.947			0.908			0.993			0.998	
Satd. Flow (perm)	0	1578	0	0	1598	0	0	1823	0	0	1876	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		35			6			8			1	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		492			711			517			704	
Travel Time (s)		13.4			19.4			14.1			19.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	3%	0%	0%	0%	0%	3%	0%	0%	1%	0%
Adj. Flow (vph)	9	2	35	4	1	6	5	144	8	3	283	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	46	0	0	11	0	0	157	0	0	288	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Total Split (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Total Split (%)	21.4%	21.4%		21.4%	21.4%		78.6%	78.6%		78.6%	78.6%	
Maximum Green (s)	10.0	10.0		10.0	10.0		50.0	50.0		50.0	50.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		10.0			10.0			50.0			50.0	
Actuated g/C Ratio		0.14			0.14			0.71			0.71	
v/c Ratio		0.18			0.05			0.12			0.21	
Control Delay		14.7			20.3			3.2			3.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.7			20.3			3.2			3.8	
LOS		B			C			A			A	
Approach Delay		14.7			20.3			3.2			3.8	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 70			
Control Type: Pretimed			
Maximum v/c Ratio: 0.21			
Intersection Signal Delay: 5.0		Intersection LOS: A	
Intersection Capacity Utilization 58.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 6: Broadway & Jefferson Street



Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	16	3	3	14	5	9	4	3	20	17	3
Future Vol, veh/h	2	16	3	3	14	5	9	4	3	20	17	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	50	6	33	0	57	0	33	0	33	0	0	33
Mvmt Flow	3	21	4	4	19	7	12	5	4	27	23	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	123	112	25	123	112	7	27	0	0	9	0	0
Stage 1	79	79	-	31	31	-	-	-	-	-	-	-
Stage 2	44	33	-	92	81	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.56	6.53	7.1	7.07	6.2	4.43	-	-	4.1	-	-
Critical Hdwy Stg 1	6.6	5.56	-	6.1	6.07	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.56	-	6.1	6.07	-	-	-	-	-	-	-
Follow-up Hdwy	3.95	4.054	3.597	3.5	4.513	3.3	2.497	-	-	2.2	-	-
Pot Cap-1 Maneuver	751	771	968	856	686	1081	1408	-	-	1624	-	-
Stage 1	823	821	-	991	772	-	-	-	-	-	-	-
Stage 2	861	860	-	920	732	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	716	751	968	817	668	1081	1408	-	-	1624	-	-
Mov Cap-2 Maneuver	716	751	-	817	668	-	-	-	-	-	-	-
Stage 1	816	807	-	982	765	-	-	-	-	-	-	-
Stage 2	827	852	-	877	720	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.8	10	4.3	3.6
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1408	-	-	772	752	1624	-	-
HCM Lane V/C Ratio	0.009	-	-	0.036	0.039	0.016	-	-
HCM Control Delay (s)	7.6	0	-	9.8	10	7.3	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	3	35	0	1	5	18	96	5	1	78	3
Future Volume (vph)	13	3	35	0	1	5	18	96	5	1	78	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.906			0.884			0.994			0.996	
Flt Protected		0.988						0.993			0.999	
Satd. Flow (prot)	0	1391	0	0	1680	0	0	1807	0	0	1852	0
Flt Permitted		0.928						0.966			0.999	
Satd. Flow (perm)	0	1306	0	0	1680	0	0	1758	0	0	1852	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		39			6			6			3	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		161			711			517			704	
Travel Time (s)		4.4			19.4			14.1			19.2	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	32%	0%	0%	0%	25%	0%	0%	100%	1%	0%
Adj. Flow (vph)	14	3	39	0	1	6	20	107	6	1	87	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	56	0	0	7	0	0	133	0	0	91	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Total Split (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Total Split (%)	21.4%	21.4%		21.4%	21.4%		78.6%	78.6%		78.6%	78.6%	
Maximum Green (s)	10.0	10.0		10.0	10.0		50.0	50.0		50.0	50.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		10.0			10.0			50.0			50.0	
Actuated g/C Ratio		0.14			0.14			0.71			0.71	
v/c Ratio		0.25			0.03			0.11			0.07	
Control Delay		16.5			17.7			3.2			3.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		16.5			17.7			3.2			3.1	
LOS		B			B			A			A	
Approach Delay		16.5			17.7			3.2			3.1	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 70			
Control Type: Pretimed			
Maximum v/c Ratio: 0.25			
Intersection Signal Delay: 6.1		Intersection LOS: A	
Intersection Capacity Utilization 59.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 6: Broadway & Jefferson Street



Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	28	16	6	23	0
Future Vol, veh/h	0	28	16	6	23	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	30	17	7	25	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	24	0	-	0	51	21
Stage 1	-	-	-	-	21	-
Stage 2	-	-	-	-	30	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1591	-	-	-	958	1056
Stage 1	-	-	-	-	1002	-
Stage 2	-	-	-	-	993	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1591	-	-	-	958	1056
Mov Cap-2 Maneuver	-	-	-	-	958	-
Stage 1	-	-	-	-	1002	-
Stage 2	-	-	-	-	993	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1591	-	-	-	958
HCM Lane V/C Ratio	-	-	-	-	0.026
HCM Control Delay (s)	0	-	-	-	8.9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	24	16	2	4	2
Future Vol, veh/h	2	24	16	2	4	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	26	17	2	4	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	19	0	-	0	48	18
Stage 1	-	-	-	-	18	-
Stage 2	-	-	-	-	30	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1597	-	-	-	962	1061
Stage 1	-	-	-	-	1005	-
Stage 2	-	-	-	-	993	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1597	-	-	-	961	1061
Mov Cap-2 Maneuver	-	-	-	-	961	-
Stage 1	-	-	-	-	1004	-
Stage 2	-	-	-	-	993	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1597	-	-	-	992
HCM Lane V/C Ratio	0.001	-	-	-	0.007
HCM Control Delay (s)	7.3	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	28	6	2	9	9	0	4	2	27	29	3
Future Vol, veh/h	2	28	6	2	9	9	0	4	2	27	29	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	73	73	73	73	73	73	73	73	73
Heavy Vehicles, %	0	15	16	0	11	0	0	0	0	0	0	0
Mvmt Flow	3	38	8	3	12	12	0	5	3	37	40	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	135	124	42	146	125	7	44	0	0	8	0	0
Stage 1	116	116	-	7	7	-	-	-	-	-	-	-
Stage 2	19	8	-	139	118	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.65	6.36	7.1	6.61	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.65	-	6.1	5.61	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.65	-	6.1	5.61	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.135	3.444	3.5	4.099	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	841	743	990	827	749	1081	1577	-	-	1625	-	-
Stage 1	894	775	-	1020	872	-	-	-	-	-	-	-
Stage 2	1005	864	-	869	781	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	807	726	990	773	732	1081	1577	-	-	1625	-	-
Mov Cap-2 Maneuver	807	726	-	773	732	-	-	-	-	-	-	-
Stage 1	894	757	-	1020	872	-	-	-	-	-	-	-
Stage 2	979	864	-	799	763	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	9.3	0	3.3
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1577	-	-	764	862	1625	-	-
HCM Lane V/C Ratio	-	-	-	0.065	0.032	0.023	-	-
HCM Control Delay (s)	0	-	-	10	9.3	7.3	0	-
HCM Lane LOS	A	-	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	2	43	4	1	6	12	134	7	3	263	15
Future Volume (vph)	13	2	43	4	1	6	12	134	7	3	263	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.900			0.926			0.993			0.993	
Flt Protected		0.989			0.982			0.996				
Satd. Flow (prot)	0	1654	0	0	1728	0	0	1831	0	0	1869	0
Flt Permitted		0.934			0.904			0.974			0.999	
Satd. Flow (perm)	0	1562	0	0	1590	0	0	1791	0	0	1867	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		46			6			8			10	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		161			711			517			704	
Travel Time (s)		4.4			19.4			14.1			19.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	3%	0%	0%	0%	0%	3%	0%	0%	1%	0%
Adj. Flow (vph)	14	2	46	4	1	6	13	144	8	3	283	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	62	0	0	11	0	0	165	0	0	302	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Total Split (s)	15.0	15.0		15.0	15.0		55.0	55.0		55.0	55.0	
Total Split (%)	21.4%	21.4%		21.4%	21.4%		78.6%	78.6%		78.6%	78.6%	
Maximum Green (s)	10.0	10.0		10.0	10.0		50.0	50.0		50.0	50.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		10.0			10.0			50.0			50.0	
Actuated g/C Ratio		0.14			0.14			0.71			0.71	
v/c Ratio		0.24			0.05			0.13			0.23	
Control Delay		14.7			20.3			3.3			3.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.7			20.3			3.3			3.8	
LOS		B			C			A			A	
Approach Delay		14.7			20.3			3.3			3.8	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 70			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 70			
Control Type: Pretimed			
Maximum v/c Ratio: 0.24			
Intersection Signal Delay: 5.2		Intersection LOS: A	
Intersection Capacity Utilization 58.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 6: Broadway & Jefferson Street



Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	47	13	15	11	0
Future Vol, veh/h	0	47	13	15	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	51	14	16	12	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	30	0	-	0	73	22
Stage 1	-	-	-	-	22	-
Stage 2	-	-	-	-	51	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1583	-	-	-	931	1055
Stage 1	-	-	-	-	1001	-
Stage 2	-	-	-	-	971	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1583	-	-	-	931	1055
Mov Cap-2 Maneuver	-	-	-	-	931	-
Stage 1	-	-	-	-	1001	-
Stage 2	-	-	-	-	971	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1583	-	-	-	931
HCM Lane V/C Ratio	-	-	-	-	0.013
HCM Control Delay (s)	0	-	-	-	8.9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	43	5	13	4	1
Future Vol, veh/h	3	43	5	13	4	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	47	5	14	4	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	19	0	-	0	65	12
Stage 1	-	-	-	-	12	-
Stage 2	-	-	-	-	53	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1597	-	-	-	941	1069
Stage 1	-	-	-	-	1011	-
Stage 2	-	-	-	-	970	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1597	-	-	-	939	1069
Mov Cap-2 Maneuver	-	-	-	-	939	-
Stage 1	-	-	-	-	1009	-
Stage 2	-	-	-	-	970	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1597	-	-	-	962
HCM Lane V/C Ratio	0.002	-	-	-	0.006
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

CROFT MILL

BLOCK 497, LOT 20
JEFFERSON STREET
CITY OF CAMDEN, CAMDEN COUNTY, NEW JERSEY 08104

PROJECT DESCRIPTION

THIS PROJECT IS A MIXED-USE, AFFORDABLE MULTI-FAMILY APARTMENT DEVELOPMENT LOCATED AT BROADWAY & JEFFERSON STREETS IN CAMDEN, NJ. THE DEVELOPMENT INCLUDES THREE 3-STORY TOWNHOME STYLE APARTMENT BUILDINGS AND A 4-STORY MIXED USE APARTMENT BUILDING WITH GROUND FLOOR COMMUNITY ROOM, MANAGEMENT OFFICE AND TENANT SPACE FOR NON-PROFIT AND POLICE SATELLITE STATION. THERE ARE A TOTAL OF 64 APARTMENTS IN ONE-, TWO-, AND THREE-BEDROOM CONFIGURATIONS. SITE DEVELOPMENT INCLUDES SURFACE PARKING AND SIDEWALKS.

PROJECT TEAM

OWNER/DEVELOPER:
CROFT MILL
2 COOPER STREET 15TH FLOOR CAMDEN NJ 08102

ATTN: NICK CANGELOSI
PHONE: (856) 355-1573, ext 1573
EMAIL: ncangelosi@tmo.com

CIVIL ENGINEER:
TAYLOR WISEMAN & TAYLOR
804 EAST GATE DRIVE, SUITE 100
MT. LAUREL, NJ 08054

ATTN: VLADISLAV A. KOLOMASOV, P.E.
PHONE: (856) 235-7200, ext 1119
EMAIL: www.taylorwiseman.com

ARCHITECT / INTERIOR DESIGNER:
URBAN PRACTICE, LLC
2 COOPER STREET, 15TH FLR
CAMDEN, NJ 08102

ATTN: CHRISTINA DAVIS, AIA, PRINCIPAL
PHONE: (856) 644-7291
EMAIL: cdavis@urbanpractice.com

PROJECT TOTALS

PROJECT GRAND TOTALS (BUILDINGS "A"+"B"+"C"+"D")

UNIT TYPES	MULTIFAMILY BUILDING					TOWNHOUSES				TOTALS
	1 BR	2 BR (TYPE II)	2 BR (TYPE III)	2 BR (TYPE IV)	3 BR IV	2 BR TH	3 BR TH (TYPE I)	3 BR TH (TYPE II)	3 BR TH (TYPE III)	
	677 NSF	892 NSF	881 NSF	946 NSF	1,216 NSF	1,006 NSF	1,403 NSF	1,405 NSF	1,405 NSF	
	715 GSF	943 GSF	927 GSF	993 GSF	1,270 GSF	1,097 GSF	1,538 GSF	1,532 GSF	1,532 GSF	
PATIOS	-	-	-	-	-	54	54	54	54	
RESIDENTIAL										
Fourth Floor	3	4	1	1	1	-	-	-	-	10
Third Floor	3	4	1	1	1	-	-	-	-	10
Second Floor	3	4	1	1	1	-	-	-	-	10
First Floor	-	-	-	-	-	9	6	10	9	34
UNIT SUBTOTALS	9	12	3	3	3	9	6	10	9	**64 UNITS**
BED SUBTOTALS	9	24	6	6	9	18	18	30	27	**147 BEDS**
% SUBTOTALS (by unit type)	0.140625	0.1875	0.046875	0.046875	0.046875	0.140625	0.09375	0.15625	0.140625	
% SUBTOTALS	14.06%	28.13%			4.69%	14.06%		39.06%		100%
TOTAL NSF	6093	10704	2643	2838	3648	9054	8418	14050	12,645	**70,093 NSF**
TOTAL GSF	6,435	11,316	2,781	2,979	3,810	9,873	9,228	15,330	13,788	**75,530 GSF**
TOTAL PATIOS	-	-	-	-	-	486	324	540	486	1,836
NOTES:										

AMENITY & OTHER USES	LOBBY/LEASING/AMENITIES/COMMUNITY ROOM	HEART OF CAMDEN & CAMDEN COUNTY POLICE	CIRCULATION	BUILDING SERVICES / UTILITY	
AMENITY TOTAL (RESIDENTIAL BUILDINGS)	**3573**	**2,811**	**6,409**	**2,491**	**15,284**

BUILDING TOTAL	(GSF TO OUTSIDE FACE OF STUD)	**90,814 GSF**

*TOTAL SF DOES NOT INCLUDE UNIT PORCHES/PATIOS

BUILDING TOTALS - TOWNHOUSES

BUILDING "A"

UNIT TYPES	2 BR TH	3 BR TH (TYPE I)	3 BR TH (TYPE II)	TOTALS		
	1,006 NSF	1,403 NSF	1,405 NSF			
	1,097 GSF	1,538 GSF	1,532 GSF			
PORCHES/PATIOS/BALCONIES	54	54	54			
RESIDENTIAL					NSF	GSF
TOTALS	6	2	2	10	11,652	12,722
UNIT SUBTOTALS	6	2	2	**10 TOTAL UNITS**		
BED SUBTOTALS	12	6	6	**24 TOTAL BEDS**		
% SUBTOTALS (by unit type)	0.6	0.20	0.20			
% SUBTOTALS	60.00%	40.00%		100%		
TOTAL NSF	6036	2806	2810	**11,652 NSF**		
TOTAL GSF	6,582	3,076	3,064	**12,722 GSF**		
TOTAL PORCHES/PATIOS/BALCONIES	324	108	108	540		
NOTES:						

AMENITY & OTHER USES	BUILDING SERVICES / UTILITY	
Fourth Floor	-	-
Third Floor	-	-
Second Floor	-	-
First Floor	61	61
TOTAL	**61**	**61**

BUILDING TOTAL	(GSF TO OUTSIDE FACE OF STUD)	**12,783 GSF**
BUILDING EFFICIENCY RATIO	(NRSF/GROSS SF BLDG)	**91%**

*TOTAL SF DOES NOT INCLUDE EXTERIOR AMENITY COURTYARDS, UNIT PATIOS/BALCONIES

BUILDING "B"

UNIT TYPES	3 BR TH (TYPE I)	3 BR TH (TYPE II)	3 BR TH (TYPE III)	TOTALS		
	1,403 NSF	1,405 NSF	1,405 NSF			
	1,538 GSF	1,532 GSF	1,532 GSF			
PORCHES/PATIOS/BALCONIES	54	54	54			
RESIDENTIAL					NSF	GSF
TOTALS	2	6	7	15	21,071	22,992
UNIT SUBTOTALS	2	6	7	**15 TOTAL UNITS**		
BED SUBTOTALS	6	18	21	**45 TOTAL BEDS**		
% SUBTOTALS (by unit type)	0.1333	0.4	0.46667			
% SUBTOTALS	100.00%			100%		
TOTAL NSF	2806	8430	9835	**21,071 NSF**		
TOTAL GSF	3,076	9,192	10,724	**22,992 GSF**		
TOTAL PORCHES/PATIOS/BALCONIES	108	324	378	810		
NOTES:						

AMENITY & OTHER USES	BUILDING SERVICES / UTILITY	
Fourth Floor	-	-
Third Floor	-	-
Second Floor	-	-
First Floor	61	61
TOTAL	**61**	**61**

BUILDING TOTAL	(GSF TO OUTSIDE FACE OF STUD)	**23,053 GSF**
BUILDING EFFICIENCY RATIO	(NRSF/GROSS SF BLDG)	**91%**

*TOTAL SF DOES NOT INCLUDE EXTERIOR AMENITY COURTYARDS, UNIT PATIOS/BALCONIES.

BUILDING "C"

UNIT TYPES	2 BR TH	3 BR TH (TYPE I)	3 BR TH (TYPE II)	3 BR TH (TYPE III)	TOTALS		
	1,006 NSF	1,403 NSF	1,405 NSF	1,405 NSF			
	1,097 GSF	1,538 GSF	1,532 GSF	1,532 GSF			
PATIOS/BALCONIES	54	54	54	54			
RESIDENTIAL						NSF	GSF
TOTALS	3	2	2	2	9	11,444	12,495
UNIT SUBTOTALS	3	2	2	2	**9 TOTAL UNITS**		
BED SUBTOTALS	6	6	6	6	**24 TOTAL BEDS**		
% SUBTOTALS (by unit type)	0.3333	0.2222	0.2222	0.2222			
% SUBTOTALS	33.33%	66.67%			100%		
TOTAL NSF	3018	2806	2810	2810	**11,444 NSF**		
TOTAL GSF	3,291	3,076	3,064	3,064	**12,495 GSF**		
TOTAL PATIOS/BALCONIES	162	108	108	108	486		
NOTES:							

AMENITY & OTHER USES	BUILDING SERVICES / UTILITY	
Fourth Floor	-	-
Third Floor	-	-
Second Floor	-	-
First Floor	61	61
TOTAL	**61**	**61**

BUILDING TOTAL	(GSF TO OUTSIDE FACE OF STUD)	**12,556 GSF**
BUILDING EFFICIENCY RATIO	(NRSF/GROSS SF BLDG)	**91%**

*TOTAL SF DOES NOT INCLUDE EXTERIOR AMENITY COURTYARDS, UNIT PATIOS/BALCONIES, OR ROOFTOP AMI

BUILDING TOTALS - CORRIDOR BUILDING

BUILDING "D"

UNIT TYPES	1 BR	2 BR (TYPE II)	2 BR (TYPE III)	2 BR (TYPE IV)	3 BR IV	TOTALS		
	677 NSF	892 NSF	881 NSF	946 NSF	1,216 NSF			
	715 GSF	943 GSF	927 GSF	993 GSF	1,270 GSF			
RESIDENTIAL							NSF	GSF
Fourth Floor	3	4	1	1	1	10	8,642	9,107
Third Floor	3	4	1	1	1	10	8,642	9,107
Second Floor	3	4	1	1	1	10	8,642	9,107
First Floor	-	-	-	-	-	-	-	-
UNIT SUBTOTALS	9	12	3	3	3	**30 TOTAL UNITS**		
BED SUBTOTALS	9	24	6	6	6	**51 TOTAL BEDS**		
% SUBTOTALS (by unit type)	0.3	0.4	0.1	0.1	0.1			
% SUBTOTALS	30.00%	70.00%				100%		
TOTAL NSF	6093	10704	2643	2838	3648	**25,926 NSF**		
TOTAL GSF	6,435	11,316	2,781	2,979	3,810	**27,321 GSF**		
NOTES:								

AMENITY & OTHER USES - BUILDING D	LOBBY/LEASING/AMENITIES/COMMUNITY ROOM	HEART OF CAMDEN & CAMDEN COUNTY POLICE	CIRCULATION	BUILDING SERVICES / UTILITY	
Fourth Floor	0	-	1,672	228	1,900
Third Floor	0	-	1,672	228	1,900
Second Floor	0	-	1,672	228	1,900
First Floor	3573	2,811	1,393	1,624	9,401
AMENITY TOTAL	**3573**	**2,811**	**6,409**	**2,308**	**15,101**

BUILDING TOTAL	(GSF TO OUTSIDE FACE OF STUD)	**42,422 GSF**
BUILDING EFFICIENCY RATIO	(NRSF/GROSS SF BLDG)	**61%**

*TOTAL SF DOES NOT INCLUDE EXTERIOR AMENITY COURTYARDS, UNIT PATIOS/BALCONIES, OR ROOFTOP AMENITY

DRAWING LIST

CS	COVER SHEET
A1.1A	BLDG. A - FLOOR PLANS
A1.1B	BLDG. B - FLOOR PLANS
A1.1C	BLDG. C - FLOOR PLANS
A1.1D	BLDG. D - FIRST AND SECOND FLOOR PLANS
A1.2D	BLDG. D - THIRD AND FOURTH FLOOR PLANS
A2.1A	BLDG. A - EXTERIOR ELEVATIONS
A2.1B	BLDG. B - EXTERIOR ELEVATIONS
A2.1C	BLDG. C - EXTERIOR ELEVATIONS
A2.1D	BLDG. D - EXTERIOR ELEVATIONS
A3.1	ENLARGED UNIT PLANS - BUILDING A, B, & C
A3.2	ENLARGED UNIT PLANS - BUILDING D

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STATE OF NEW JERSEY
CHRISTINA D DAVIS
REGISTERED ARCHITECT
CHRISTINA DAVIS
#20758

Michaels
COMMUNITIES THAT *lift* LIVES

05/26/2026: PLANNING BOARD SUBMISSION

CROFT MILL

JEFFERSON STREET
CITY OF CAMDEN, CAMDEN COUNTY,NEW JERSEY 08104
BLOCK 497, LOT 20

ID	REVISION NAME	DATE

Title: **COVER SHEET**

Project No.: **25078** Date: //

Drawing No.

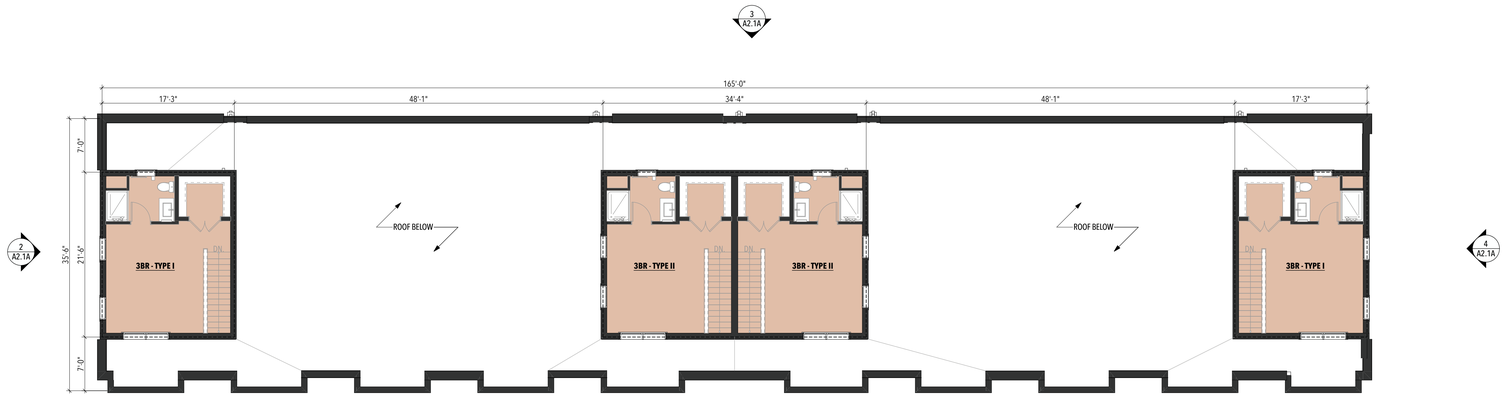
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N 3 **BLDG. A - THIRD FLOOR**

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



N 2 **BLDG. A - SECOND FLOOR**

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



N 1 **BLDG. A - FIRST FLOOR**

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

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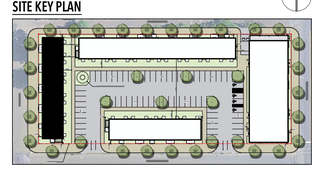
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CITY OF CAMDEN, CAMDEN COUNTY, NEW JERSEY 08104
BLOCK 497, LOT 20

N

SITE KEY PLAN



ID	REVISION NAME	DATE

Title: **BLDG. A - FLOOR PLANS**

Project No.: 25078 Date: #

Drawing No.

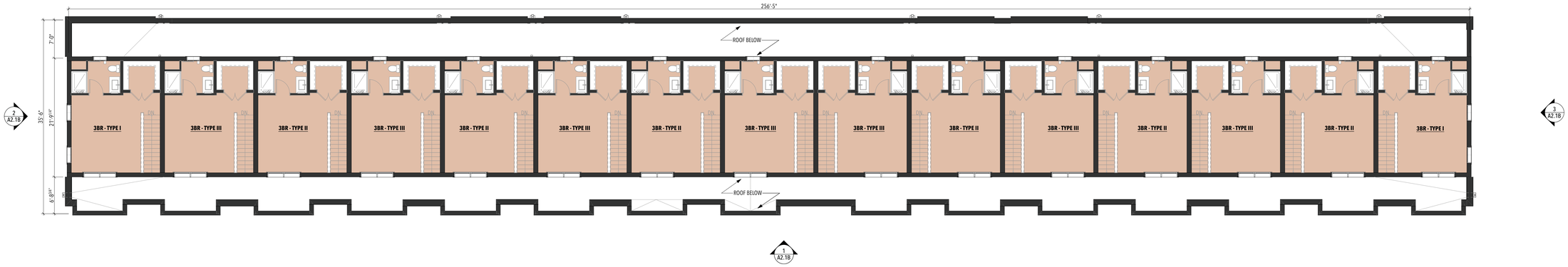
A1.1A

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PLOT DATE: 5/26/26

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BLDG. B - THIRD FLOOR

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



BLDG. B - SECOND FLOOR

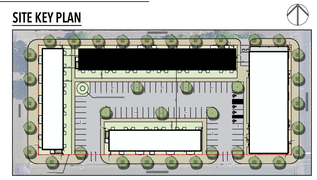
SCALE: 1/8" = 1'-0"



BLDG. B - FIRST FLOOR

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

SITE KEY PLAN



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CITY OF CAMDEN, CAMDEN COUNTY, NEW JERSEY 08104
BLOCK 497 , LOT 20

ID	REVISION NAME	DATE

Title: BLDG. B - FLOOR PLANS

Project No.: 25078 Date: /

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N

3

BLDG. C- THIRD FLOOR

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

N

2

BLDG. C - SECOND FLOOR

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



N

1

BLDG. C - FIRST FLOOR

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

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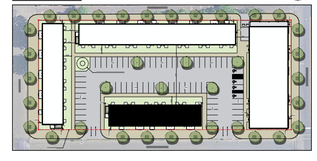
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CROFT MILL

JEFFERSON STREET
CITY OF CAMDEN, CAMDEN COUNTY, NEW JERSEY 08104
BLOCK 497 , LOT 20

SITE KEY PLAN



ID	REVISION NAME	DATE

Title: BLDG. C - FLOOR PLANS

Project No.: 25078 Date: /

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A1.1C

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N 2 **SECOND FLOOR**

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



N 1 **FIRST FLOOR**

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

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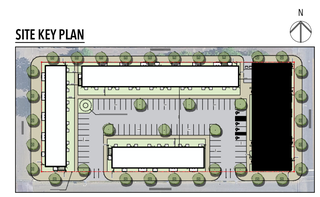
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CITY OF CAMDEN, CAMDEN COUNTY, NEW JERSEY 08104
BLOCK 497, LOT 20

SITE KEY PLAN



ID	REVISION NAME	DATE

Title: BLDG. D - FIRST AND SECOND FLOOR PLAN

Project No.: 25078 Date: #

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N 2 **FOURTH FLOOR**

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



N 1 **THIRD FLOOR**

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

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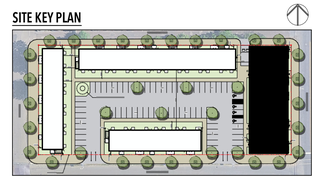
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05/26/2026: PLANNING BOARD SUBMISSION

CROFT MILL

JEFFERSON STREET
CITY OF CAMDEN, CAMDEN COUNTY, NEW JERSEY 08104
BLOCK 497, LOT 20

SITE KEY PLAN



ID	REVISION NAME	DATE

Title: BLDG. D - THIRD AND FOURTH FLOOR PLAN

Project No.: 25078 Date: //

Drawing No.

A1.2D

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PLOT DATE: 5/26/26

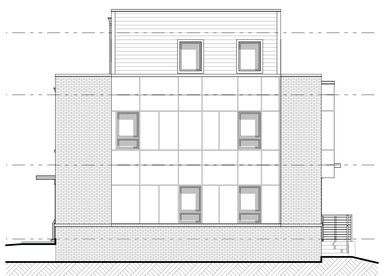
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AS PER THE CITY OF CAMDEN ZONING AND LAND USE ARTICLE II, CHAPTER 970-17, THE DEFINITION OF BUILDING HEIGHT:

THE VERTICAL DISTANCE MEASURED FROM THE MEAN ELEVATIONS OF THE FINISHED GRADE ALONG THE FRONT OF THE BUILDING TO THE HIGHEST POINT OF THE ROOF FOR FLAT ROOFS, TO THE MEAN HEIGHT LEVEL (BETWEEN THE EAVES AND RIDGE) FOR GABLE AND HIP ROOFS AND TO THE DECK LINE OF MANSARD ROOFS. IN ALL CASES, THE BUILDING HEIGHT SHALL NOT INCLUDE CHIMNEYS, SPIRES, TOWERS, ELEVATOR PENTHOUSES, TANKS, ANTENNA, AIR-CONDITIONING EQUIPMENT, AND SIMILAR PROJECTIONS; PROVIDED, HOWEVER, THAT SUCH PROJECTIONS SHALL BE ATTRACTIVELY DESIGNED AND/OR SHIELDED.



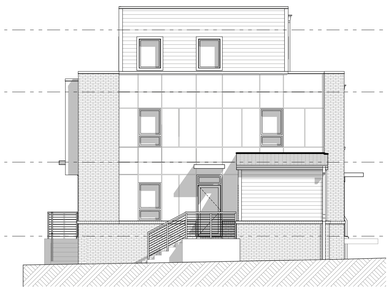
1 **BLDG. A - FRONT ELEVATION**
SCALE: 1/8" = 1'-0"



2 **BLDG. A - LEFT ELEVATION**
SCALE: 1/8" = 1'-0"

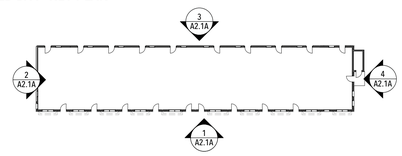


3 **BLDG. A - REAR ELEVATION**
SCALE: 1/8" = 1'-0"



4 **BLDG. A - RIGHT ELEVATION**
SCALE: 1/8" = 1'-0"

BLDG. A - KEY PLAN



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CROFT MILL

JEFFERSON STREET
CITY OF CAMDEN, CAMDEN COUNTY, NEW JERSEY 08104
BLOCK 497 , LOT 20

ID	REVISION NAME	DATE

Title: **BLDG A - EXTERIOR ELEVATIONS**

Project No.: 25078 Date: #

Drawing No.

A2.1A

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PA : XX

BIMcloud: urbanpractice - BIMcloud Software as a Service\25078_CamdenNJ_CroftMill\25078_ProjectFiles\25078_Corridor-Building_Camden-NJ_CroftMill

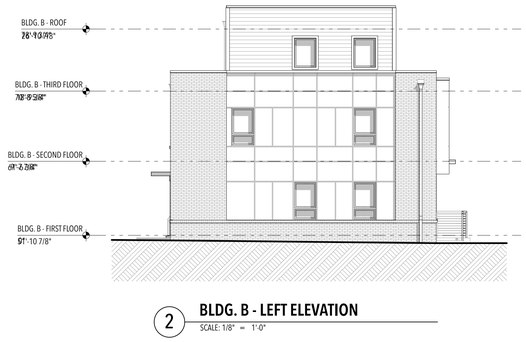
AS PER THE CITY OF CAMDEN ZONING AND LAND USE ARTICLE II, CHAPTER 970-17, THE DEFINITION OF BUILDING HEIGHT:

THE VERTICAL DISTANCE MEASURED FROM THE MEAN ELEVATIONS OF THE FINISHED GRADE ALONG THE FRONT OF THE BUILDING TO THE HIGHEST POINT OF THE ROOF FOR FLAT ROOFS, TO THE MEAN HEIGHT LEVEL (BETWEEN THE EAVES AND RIDGE) FOR GABLE AND HIP ROOFS AND TO THE DECK LINE OF MANSARD ROOFS. IN ALL CASES, THE BUILDING HEIGHT SHALL NOT INCLUDE CHIMNEYS, SPIRES, TOWERS, ELEVATOR PENTHOUSES, TANKS, ANTENNA, AIR-CONDITIONING EQUIPMENT, AND SIMILAR PROJECTIONS; PROVIDED, HOWEVER, THAT SUCH PROJECTIONS SHALL BE ATTRACTIVELY DESIGNED AND/OR SHIELDED.



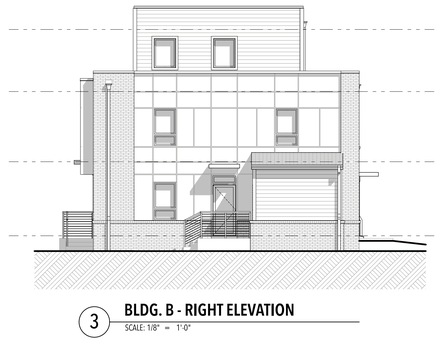
1 BLDG. B - FRONT ELEVATION

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



2 BLDG. B - LEFT ELEVATION

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



3 BLDG. B - RIGHT ELEVATION

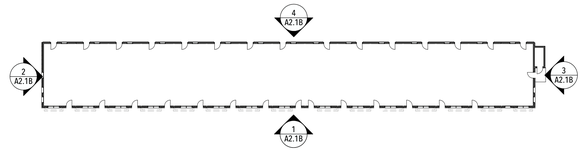
SCALE: 1/8" = 1'-0"



4 BLDG. B - REAR ELEVATION

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

BLDG. B - KEY PLAN



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STATE OF NEW JERSEY
CHRISTINA D DAVIS
21758
REGISTERED ARCHITECT
CHRISTINA DAVIS
#20758

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05/26/2026: PLANNING BOARD SUBMISSION

CROFT MILL

JEFFERSON STREET
CITY OF CAMDEN, CAMDEN COUNTY, NEW JERSEY 08104
BLOCK 497 , LOT 20

ID	REVISION NAME	DATE

Title: **BLDG B - EXTERIOR ELEVATIONS**

Project No.: 25078 Date: #

Drawing No.

A2.1B

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PM : CD
PA : XX

PLOT DATE: 5/26/26

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1 BLDG. C - FRONT ELEVATION

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



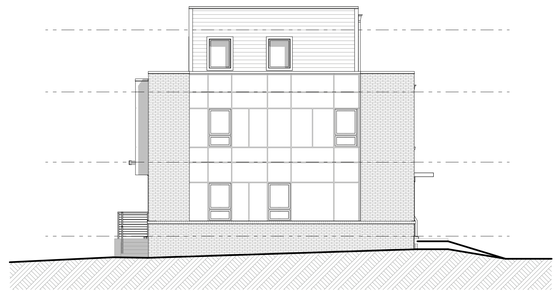
3 BLDG. C - REAR ELEVATION

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



2 BLDG. C - LEFT ELEVATION

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



4 BLDG. C - RIGHT ELEVATION

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

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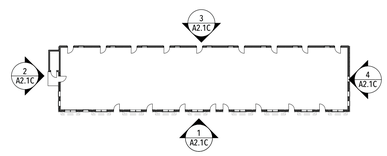
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BLDG. C - KEY PLAN



05/26/2026: PLANNING BOARD SUBMISSION

CROFT MILL

JEFFERSON STREET
CITY OF CAMDEN, CAMDEN COUNTY, NEW JERSEY 08104
BLOCK 497 , LOT 20

ID	REVISION NAME	DATE

Title: BLDG C - EXTERIOR ELEVATIONS

Project No.: 25078 Date: #

Drawing No.

A2.1C

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PM : CD
PLOT DATE: 5/26/26 PA : XX

BIMcloud: urbanpractice - BIMcloud Software as a Service\25078_CamdenNJ_CroftMill\25078_ProjectFiles\25078_Corridor-Building_Camden-NJ_CroftMill

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1 **BLDG. D - FRONT ELEVATION**
SCALE: 1/8" = 1'-0"



2 **BLDG. D - RIGHT ELEVATION**
SCALE: 1/8" = 1'-0"

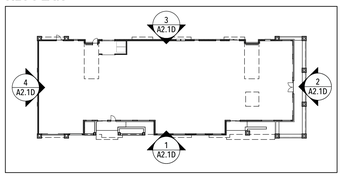


3 **BLDG. D - REAR ELEVATION**
SCALE: 1/8" = 1'-0"

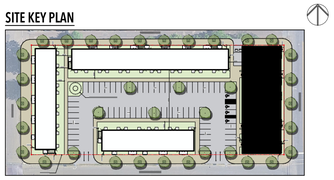


4 **BLDG. D - LEFT ELEVATION**
SCALE: 1/8" = 1'-0"

KEY PLAN



SITE KEY PLAN



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21GI
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05/26/2026: PLANNING BOARD SUBMISSION

CROFT MILL

JEFFERSON STREET
CITY OF CAMDEN, CAMDEN COUNTY, NEW JERSEY 08104
BLOCK 497 , LOT 20

ID	REVISION NAME	DATE

Title: **BLDG. D - EXTERIOR ELEVATIONS**

Project No.: 25078 Date: #

Drawing No.

A2.1D

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PM : CD
PA : XX

PLOT DATE: 5/26/26

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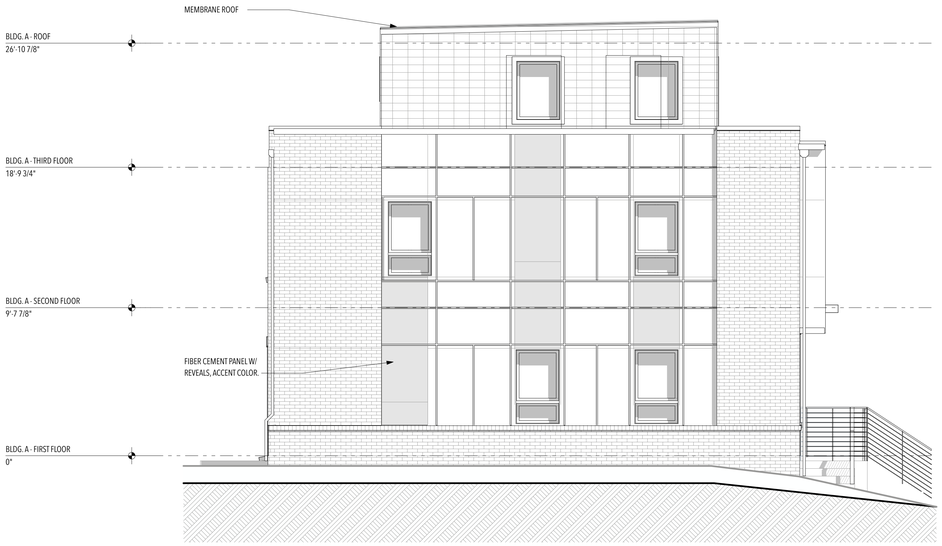
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1 **TYPICAL TOWNHOUSE SIDE ELEVATION**
SCALE: 1/4" = 1'-0"



2 **ENLARGED TOWNHOUSE ELEVATION**
SCALE: 1/4" = 1'-0"

05/26/2026: PLANNING BOARD SUBMISSION

CROFT MILL

JEFFERSON STREET
CITY OF CAMDEN, CAMDEN COUNTY, NEW JERSEY 08104
BLOCK 497 , LOT 20

ID	REVISION NAME	DATE

Title: **TYPICAL TOWNHOUSE - ENLARGED EXTERIOR ELEVATIONS (1)**

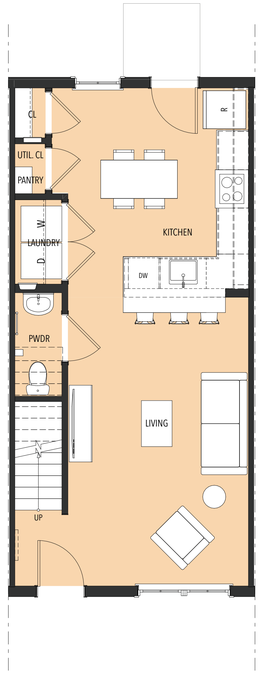
Project No.: 25078 Date:

Drawing No.

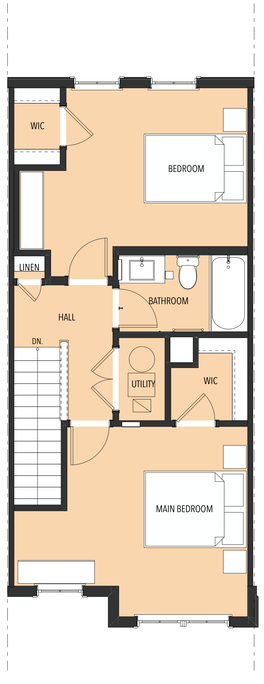
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PA : XX
PLOT DATE: 5/26/26

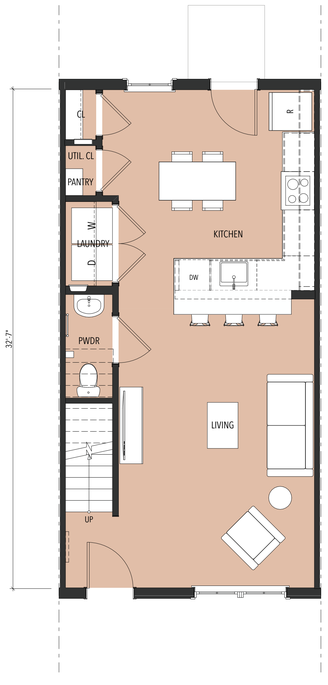
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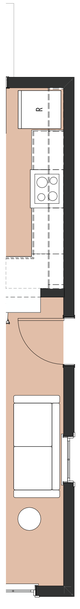
1 **2BR - TYPE I - FIRST FLOOR**
SCALE: 1/4" = 1'-0"



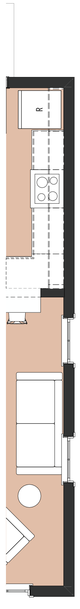
2 **2BR - TYPE I - SECOND FLOOR**
SCALE: 1/4" = 1'-0"



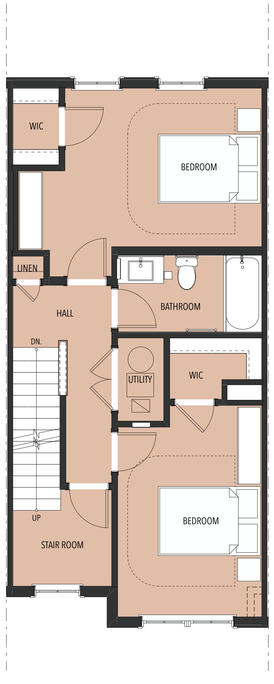
3 **3BR (TYPICAL) - FIRST FLOOR**
SCALE: 1/4" = 1'-0"



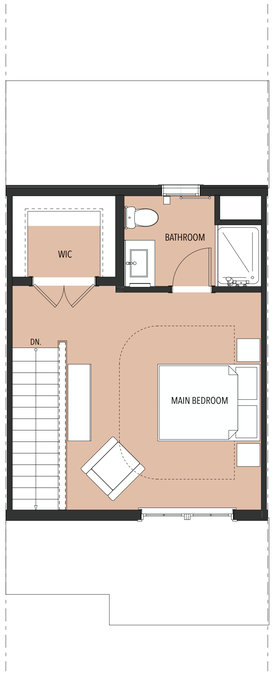
4 **3BR (END W/ SIDE ENTRY) PARTIAL FIRST FLOOR**
SCALE: 1/4" = 1'-0"



5 **3BR (END W/ FRONT ENTRY) PARTIAL FIRST FLOOR**
SCALE: 1/4" = 1'-0"



6 **3BR (TYPICAL) - SECOND FLOOR**
SCALE: 1/4" = 1'-0"



7 **3BR (TYPICAL) - THIRD FLOOR**
SCALE: 1/4" = 1'-0"

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05/26/2026: PLANNING BOARD SUBMISSION

CROFT MILL

JEFFERSON STREET
CITY OF CAMDEN, CAMDEN COUNTY,NEW JERSEY 08104
BLOCK 497 , LOT 20

ID	REVISION NAME	DATE

Title: **ENLARGED UNIT PLANS - BLDG. A, B, C**

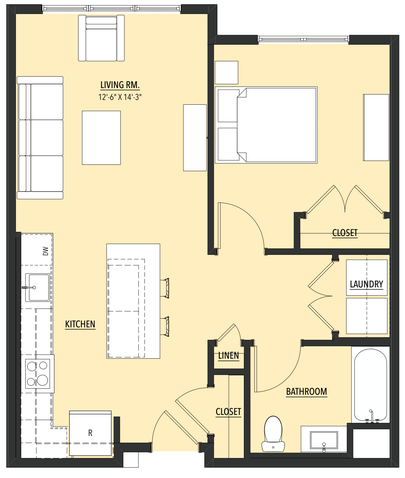
Project No.: **25078** Date: #

Drawing No.

A3.1

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PM : CD
PLOT DATE: 5/26/26 PA : XX

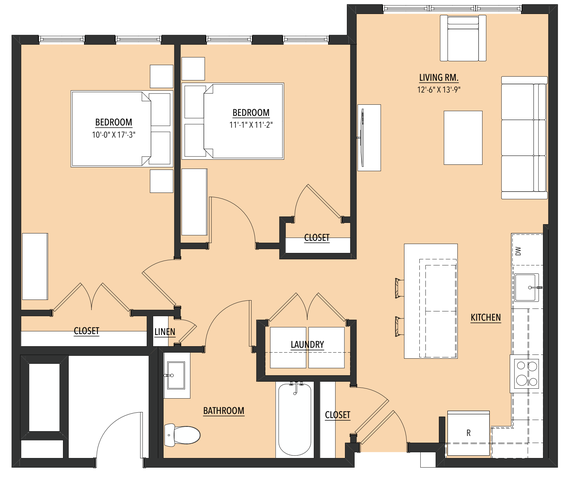
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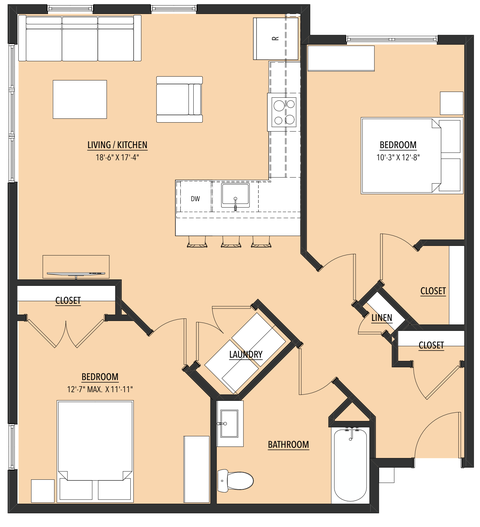
1 **1BR**
SCALE: 1/4" = 1'-0"



2 **2BR - TYPE IV**
SCALE: 1/4" = 1'-0"



3 **2BR - III (INTERNAL @ TRASH - ALT)**
SCALE: 1/4" = 1'-0"



4 **2BR - TYPE II**
SCALE: 1/4" = 1'-0"



5 **3BR - TYPE IV**
SCALE: 1/4" = 1'-0"

BIMcloud: urbanpractice - BIMcloud Software as a Service/25078_CamdenNJ_CroftMill/25078_ProjectFiles/25078_CorridorBuilding_CamdenNJ_CroftMill

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CHRISTINA DAVIS
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05/26/2026: PLANNING BOARD SUBMISSION

CROFT MILL

JEFFERSON STREET
CITY OF CAMDEN, CAMDEN COUNTY,NEW JERSEY 08104
BLOCK 497 , LOT 20

ID	REVISION NAME	DATE

Title: **ENLARGED UNIT PLANS - BLDG. D**

Project No.: **25078** Date: #

Drawing No.

A3.2

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PLOT DATE: 5/26/26

PM : CD
PA : XX

State of New Jersey

MIKIE SHERRILL
Governor

DR. DALE G. CALDWELL
Lt. Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Division of Land Resource Protection
Mail Code 501-02A
P.O. Box 420
Trenton, New Jersey 08625-0420
dep.nj.gov/wlm/

ED POTOSNAK
Acting Commissioner

May 11, 2026

Croft Mill Housing Associates
c/o Nick Cangelosi
2 Cooper Street, 14th Floor
Camden, NJ 08102

Re: Flood Hazard Area Verification Approval
File No.: 0408-25-0004.1 LUP250001
Applicant: Croft Mill Housing Associates
Block(s) and Lot(s): [497, 20]
Municipality: Camden City; County: Camden

Dear Mr. Cangelosi:

This letter is in response to your request for a flood hazard area verification along the Delaware River at the above-referenced site. The Department has reviewed your application and hereby verifies the flood hazard area elevation and limits, on this site, as depicted on the approved plan described below. The onsite flood hazard area elevation is 10 feet NAVD, and the entire site is located within the regulatory Flood Hazard Area. The site is located outside of the floodway. Since the site is located further than 300 feet away from the Delaware River's top of bank, the site is also located outside of the riparian zone.

The flood hazard area and floodway were established using Method 2 (FEMA tidal method) as described at N.J.A.C. 7:13-3.4(d), which is based on existing FEMA flood mapping in a tidal flood hazard area.

Please note that altering land cover or topography in a flood hazard area, as well as clearing, cutting and/or removing vegetation within a riparian zone, is regulated by the Flood Hazard Area Control Act rules, and may be prohibited or restricted in some cases. A flood hazard area permit is required prior to undertaking any regulated activity within a flood hazard area or riparian zone described at N.J.A.C. 7:13-2.4. Projects situated entirely outside both the flood hazard area and riparian zone do not require a flood hazard area approval.

In accordance with section N.J.A.C. 7:13-5.3 (e), a person who is issued a verification pursuant to this subchapter shall be entitled to rely on the determination of the Department, concerning the presence, absence, or extent of flood hazard areas, riparian zones, or floodways for the term specified in this approval, unless the Department determines that the verification is based on inaccurate or incomplete information, in which case the Department may void the original verification and issue a new verification reflecting the actual conditions on the site. For example, the verification may be revised to reflect additional flood hazard areas or riparian zones identified after verification issuance; or if a threatened or endangered species habitat is disclosed or discovered after the verification was issued, the Department may correct the width of the riparian

zone.

The drawing hereby approved is one sheet prepared by Taylor Wiseman & Taylor, dated October 14, 2025, unrevised, and entitled:

"JEFFERSON STREET, BLOCK 497, LOT 20, TAX MAP SHEET, CAMDEN TOWNSHIP, CAMDEN COUNTY, NEW JERSEY, FHA VERIFICATION PLAN," sheet 1 of 1.

Within 90 calendar days of the date of this letter, the applicant shall submit the following information to the clerk of each county in which the site is located, and shall send proof to the Department that this information is recorded on the deed of each lot referenced in the verification:

1. The Department file number for the verification;
2. The approval and expiration dates of the verification;
3. A metes and bounds description of any flood hazard area limit and/or floodway limit approved under the verification;
4. The flood hazard area design flood elevation, or range of elevations if variable, approved under the verification;
5. The following statement: "The State of New Jersey has determined that all or a portion of this lot lies in a flood hazard area. Certain activities in flood hazard areas are regulated by the New Jersey Department of Environmental Protection and some activities may be prohibited on this site or may first require a permit. Contact Watershed & Land Management at (609) 777-0454 for more information prior to any construction onsite."

Failure to have this information recorded in the deed of each lot and/or to submit proof of recording to the Department constitutes a violation of the Flood Hazard Area Control Act rules and may result in suspension or termination of the verification and/or subject the applicant to enforcement action pursuant to N.J.A.C. 7:13-24.

A copy of this plan, together with the information upon which this boundary determination is based, has been made part of the Programs public records. Please note that this letter in no way legalizes any fill that may have been previously placed onsite, or any other regulated activities that may have previously occurred. Also this determination does not affect the applicant's responsibility to obtain any local, State or Federal permits that may be required, such as local building permits or freshwater wetlands approvals.

This verification is valid for five years from its issuance date and it can be transferred at the time of sale of a property to which the verification applies to a new owner pursuant to N.J.A.C. 7:13-22.4. Pursuant to N.J.A.C. 7:13-5.4(a), if the Department issues a verification for a site, and within five years issues a general permit authorization or an individual permit for a regulated activity that references or relies upon the verification at that site, the Department shall automatically reissue the verification upon approval of the permit or authorization so that the verification and permit or authorization have the same expiration date. This automatic reissuance shall occur only once per verification and there is no fee for this reissuance. The reissued verification shall reflect any alterations to the flood hazard area design flood elevation, flood hazard area limit and/or floodway limit that will result from the regulated activities authorized under the individual permit or general permit authorization. All pre-construction and post-construction elevations and limits shall be demarcated on drawings approved under the reissued verification.

In accordance with N.J.A.C. 7:13-23.1, any person who is aggrieved by this decision may request a hearing within 30 days after notice of the decision is published in the DEP Bulletin by writing to: New Jersey Department of Environmental Protection, Office of Legal Affairs, Attention: Adjudicatory Hearing Requests, Mail Code 401-04L, PO Box 402, 401 East State Street, 7th Floor, Trenton, NJ 08625-0402. This request shall include a completed copy of the Administrative Hearing Request Checklist. The DEP

Bulletin is available through the Department's website at https://dep.njww/ and the Checklist is available through the Program's website at https://dep.nj.gov/wlm/forms/.

Please contact Dominick Cardella at Dominick.Cardella@dep.nj.gov should you have any questions regarding this letter. Be sure to indicate the Program's file number in all communication.

Sincerely,

Digitally signed by Chingwah Liang
Date: 2026.05.11 12:07:24 -04'00'

Chingwah Liang, Environmental Engineer IV
Bureau of Flood Hazard and Stormwater Engineering
Watershed & Land Management

c. Agent: Kristin Wildman
Municipal Clerk
Municipal Construction Official
Municipal Engineer

State of New Jersey

MIKIE SHERRILL
Governor

DR. DALE G. CALDWELL
Lt. Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Division of Land Resource Protection
Mail Code 501-02A
P.O. Box 420
Trenton, New Jersey 08625-0420
dep.nj.gov/wlm/

ED POTOSNAK
Acting Commissioner

May 11, 2026

Croft Mill Housing Associates
c/o Nick Cangelosi
2 Cooper Street, 14th Floor
Camden, NJ 08102

Re: Flood Hazard Area Verification Approval
File No.: 0408-25-0004.1 LUP250001
Applicant: Croft Mill Housing Associates
Block(s) and Lot(s): [497, 20]
Municipality: Camden City; County: Camden

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The flood hazard area and floodway were established using Method 2 (FEMA tidal method) as described at N.J.A.C. 7:13-3.4(d), which is based on existing FEMA flood mapping in a tidal flood hazard area.

Please note that altering land cover or topography in a flood hazard area, as well as clearing, cutting and/or removing vegetation within a riparian zone, is regulated by the Flood Hazard Area Control Act rules, and may be prohibited or restricted in some cases. A flood hazard area permit is required prior to undertaking any regulated activity within a flood hazard area or riparian zone described at N.J.A.C. 7:13-2.4. Projects situated entirely outside both the flood hazard area and riparian zone do not require a flood hazard area approval.

In accordance with section N.J.A.C. 7:13-5.3 (e), a person who is issued a verification pursuant to this subchapter shall be entitled to rely on the determination of the Department, concerning the presence, absence, or extent of flood hazard areas, riparian zones, or floodways for the term specified in this approval, unless the Department determines that the verification is based on inaccurate or incomplete information, in which case the Department may void the original verification and issue a new verification reflecting the actual conditions on the site. For example, the verification may be revised to reflect additional flood hazard areas or riparian zones identified after verification issuance; or if a threatened or endangered species habitat is disclosed or discovered after the verification was issued, the Department may correct the width of the riparian

zone.

The drawing hereby approved is one sheet prepared by Taylor Wiseman & Taylor, dated October 14, 2025, unrevised, and entitled:

"JEFFERSON STREET, BLOCK 497, LOT 20, TAX MAP SHEET, CAMDEN TOWNSHIP, CAMDEN COUNTY, NEW JERSEY, FHA VERIFICATION PLAN," sheet 1 of 1.

Within 90 calendar days of the date of this letter, the applicant shall submit the following information to the clerk of each county in which the site is located, and shall send proof to the Department that this information is recorded on the deed of each lot referenced in the verification:

1. The Department file number for the verification;
2. The approval and expiration dates of the verification;
3. A metes and bounds description of any flood hazard area limit and/or floodway limit approved under the verification;
4. The flood hazard area design flood elevation, or range of elevations if variable, approved under the verification;
5. The following statement: "The State of New Jersey has determined that all or a portion of this lot lies in a flood hazard area. Certain activities in flood hazard areas are regulated by the New Jersey Department of Environmental Protection and some activities may be prohibited on this site or may first require a permit. Contact Watershed & Land Management at (609) 777-0454 for more information prior to any construction onsite."

Failure to have this information recorded in the deed of each lot and/or to submit proof of recording to the Department constitutes a violation of the Flood Hazard Area Control Act rules and may result in suspension or termination of the verification and/or subject the applicant to enforcement action pursuant to N.J.A.C. 7:13-24.

A copy of this plan, together with the information upon which this boundary determination is based, has been made part of the Programs public records. Please note that this letter in no way legalizes any fill that may have been previously placed onsite, or any other regulated activities that may have previously occurred. Also this determination does not affect the applicant's responsibility to obtain any local, State or Federal permits that may be required, such as local building permits or freshwater wetlands approvals.

This verification is valid for five years from its issuance date and it can be transferred at the time of sale of a property to which the verification applies to a new owner pursuant to N.J.A.C. 7:13-22.4. Pursuant to N.J.A.C. 7:13-5.4(a), if the Department issues a verification for a site, and within five years issues a general permit authorization or an individual permit for a regulated activity that references or relies upon the verification at that site, the Department shall automatically reissue the verification upon approval of the permit or authorization so that the verification and permit or authorization have the same expiration date. This automatic reissuance shall occur only once per verification and there is no fee for this reissuance. The reissued verification shall reflect any alterations to the flood hazard area design flood elevation, flood hazard area limit and/or floodway limit that will result from the regulated activities authorized under the individual permit or general permit authorization. All pre-construction and post-construction elevations and limits shall be demarcated on drawings approved under the reissued verification.

In accordance with N.J.A.C. 7:13-23.1, any person who is aggrieved by this decision may request a hearing within 30 days after notice of the decision is published in the DEP Bulletin by writing to: New Jersey Department of Environmental Protection, Office of Legal Affairs, Attention: Adjudicatory Hearing Requests, Mail Code 401-04L, PO Box 402, 401 East State Street, 7th Floor, Trenton, NJ 08625-0402. This request shall include a completed copy of the Administrative Hearing Request Checklist. The DEP

Bulletin is available through the Department's website at https://dep.njww/ and the Checklist is available through the Program's website at https://dep.nj.gov/wlm/forms/.

Please contact Dominick Cardella at Dominick.Cardella@dep.nj.gov should you have any questions regarding this letter. Be sure to indicate the Program's file number in all communication.

Sincerely,

Digitally signed by Chingwah Liang
Date: 2026.05.11 12:07:24 -04'00'

Chingwah Liang, Environmental Engineer IV
Bureau of Flood Hazard and Stormwater Engineering
Watershed & Land Management

c. Agent: Kristin Wildman
Municipal Clerk
Municipal Construction Official
Municipal Engineer