



NIAGARA DIGITAL CAMPUS

Harnessing the Power of the Falls for the Data Revolution

NFRLLC.COM

THE DATA CENTER AT NIAGARA DIGITAL CAMPUS PLANNED UNIT DISTRICT PETITION





Harter Secrest & Emery LLP

ATTORNEYS AND COUNSELORS

WWW.HSELAW.COM

May 14, 2025

City of Niagara Falls Planning Board
745 Main St.
Niagara Falls, NY 14301

Re: Data Center at Niagara Digital Campus
PUD Petition

Dear Planning Board Members:

We represent Niagara Falls Redevelopment, LLC, Eleventh Street Properties, LLC, and NFR Gateway LLC (collectively, “Petitioners” or “NFR”) and are pleased to present the City of Niagara Falls (“City”) with the enclosed Data Center at Niagara Digital Campus (“Data Center”) Planned Unit District (“PUD”) petition (“PUD Petition”), pursuant to Section 1318 of the City’s Zoning Ordinance (“Zoning Code”). NFR seeks to petition this Board to amend the Zoning Code to develop a PUD on approximately 53 acres of property generally bounded by John B. Daly Boulevard, Falls St., 15th Street, and Buffalo Avenue in the City of Niagara Falls (the “Property”). In accordance with Section 1318, NFR encloses numerous Attachments to the PUD Petition, as detailed on the enclosed Table of Contents, as well as a check for the requisite fee of \$500.00.

NFR has partnered with Urbacon Data Centre Solutions Inc. (“Urbacon”), who is a preeminent developer, constructor, and operator of hyperscale and build-to-suit data centers in North America, to bring the innovative \$1.48 billion Data Center to Niagara Falls. It cannot be overstated just how important the data center and technology industries are to national, state, and regional economic development. With the proliferation of artificial intelligence-driven technology, the need for data centers has soared in the United States. Data centers are essential for the United States’ growth and economy because they underpin the digital infrastructure, drive innovation, create jobs, generate tax revenue, and enhance overall energy connectivity and resilience. Their strategic importance will continue to grow as our society becomes increasingly dependent on digital technologies. Secure, abundant, and reliable data storage is critical for everything from high-speed streaming for flexible remote work environments and classroom excellence, to emerging technologies like AI, to enabling digital equity for underserved communities. New York State has signaled its commitment to sustainable technology growth by securing the NY SMART I-Corridor Tech Hub, of which the Niagara Digital Campus promises to be an integral part. As described throughout this submission, Niagara Falls is uniquely positioned to be an innovative and influential leader in the burgeoning high-energy economy by prioritizing the kind of economic development Petitioners are proposing.

May 14, 2025
Page 2

As you may be aware, NFR and Urbacon began having discussions with City representatives about locating a data center on the Property in the spring of 2021. Unfortunately, after voicing early enthusiasm for the project through 2021, some City leaders decided that the Property should instead be the site of what has become known as Centennial Park. The dispute over these competing visions has impeded Data Center planning for the past three years. Nevertheless, on July 22, 2024, NFR's representatives met with the City's Planning Department to discuss the PUD, which had been suggested by the City and its outside counsel, Hodgson Russ, to be the most sensible zoning path for NFR's Data Center. During that meeting, Planning Department representatives agreed to provide an outline of the procedure for NFR to follow in its pursuit of the PUD, since there is no such procedure set forth in the Zoning Code. Also during that meeting, NFR submitted a voluminous PUD Pre-Application packet, which provided both broad plans and significant detail on the proposed Data Center.

On August 21, 2024, NFR received a letter from Hodgson Russ, withdrawing the City's offer to outline the appropriate PUD procedure, and instead directing that a "complete application" be filed with the Office of the Mayor, with copies to the Planning Department, Corporation Counsel, and Building Department. On October 18, 2024, NFR filed a formal PUD submission with those entities ("October PUD Submission"). On December 18, 2024, NFR received another letter from Hodgson Russ ("Notice of Incomplete Application"), notifying NFR that the October PUD Submission was incomplete for various reasons (*see* **Exhibit A**- Responses to the Notice of Incomplete Application), and indicating for the very first time that the City would be considering NFR's PUD application by way of the procedure outlined in Section 1302.4.

We do not regard the completeness review performed by Hodgson Russ last fall to be compliant with Section 1302.4.2 of the Zoning Code because the Code makes clear that this Board is the only authority authorized to perform such review. However, for the convenience of the Board and to facilitate the Board's prompt consideration of this PUD Petition, this submission addresses each item raised in the Notice of Incomplete Application. As detailed below, many if not all of the items of "incompleteness" do not actually relate to the *completeness* of the submission. In fact, many of the comments in the Notice constitute an abuse of the Code's completeness review process, which requires that a petitioner furnish only "a preliminary proposal, along with a rezoning application and requisite fee." *See* Zoning Code, § 1302.4.2(A)(1). The October PUD Submission amply satisfied the Code's criteria. Be that as it may, hereby supplies the Board with more than enough information in this PUD Petition to render the Petition complete and warrant scheduling of the required public hearing.

In sum, the enclosed PUD Petition complies in all respects with the City Zoning Code Section 1302.4 and should be deemed complete by this Board. By the same token, this PUD Petition fully empowers this Board to make the required findings pursuant to Section 1302.4.2(c). Thus, we request that this matter be put on the schedule for the **June 11, 2025** Planning Board meeting for the required public hearing.

May 14, 2025
Page 3

Thank you for your consideration.

Respectfully submitted,

Harter Secrest & Emery LLP

A handwritten signature in dark ink, appearing to read 'M Valle', is positioned above the printed name.

Melissa M. Valle

Partner

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cc: Niagara Falls Redevelopment, LLC
TRM Architecture, Design & Planning, P.C.
C&S Companies
City of Niagara Falls City Council
Mayor Robert Restaino
Thomas DeBoy, Deputy Corporation Counsel
James Fittante, Acting Director of Code Enforcement

EXHIBIT A

RESPONSE TO DECEMBER 18, 2024
NOTICE OF INCOMPLETE APPLICATION

Zoning

Form. Per Section 1302.4.1(B), an “application” to amend the Zoning Ordinance is made “by an individual property owner.” In contrast, a “verified petition” to amend is made by the “owners of fifty per centum or more of the frontage in any district or part thereof...” In terms of nomenclature, the City therefore believes the zoning portion of the submission should be labeled a petition. Although there is a general allegation of sufficient ownership interest to move the petition forward, there is no schedule demonstrating compliance with the requirements of the zoning ordinance. The revised submission should list each property by SBL # for which a rezoning is sought, the owner of that property, the size of that property in acres, and a calculation of how the requirements of the ordinance were met.

RESPONSE: Enclosed as **Attachments B** and **B.1** are a Verified Petition and Property Ownership Chart, which together comply with Section 1302.4.1 by including a list of each property by SBL#, the owner of each property, the frontage of the property in linear feet, and the calculation of the frontage.

Signatures. Exhibit A presents a “Zoning Amendment Application” signed by Roger Trevino on behalf of the “Owner” - Niagara Falls Redevelopment, LLC. However, per Exhibit O, NFR has attached an “Exhibit A” list of the 180 tax parcels that it wishes to have rezoned, and of those, NFR itself currently owns just one: 907 Falls St., or a portion thereof. NFR acknowledges its apparent non-ownership of the other 179 parcels by asserting that “NFR and various related entities, including Eleventh Street Properties LLC, NFR Gateway LLC, and Blue Apple Properties Inc., share common ownership and control.” [para 6 of the Verified Petition]. Each of these so-called ‘related entities’ is a legal owner of only those parcels specified in “Exhibit A.” Exact ownership and authorization to submit the petition should be documented and clarified as part of the schedule discussed above.

RESPONSE: Enclosed as **Attachments B** and **B.1** are a Verified Petition and Property Ownership Chart, which provides the requested information.

Uses. The NPD District rules state that the uses are to be listed. The application is for a campus, which by dictionary definition is the grounds and buildings of a use but is not by itself a use found in the Zoning Ordinance. If the sole proposed use is a series of data centers, and nothing else, it should so state, if the proposed digital campus will include multiple uses, list the proposed uses. Except as noted below related to a new text amendment, the uses should align with uses currently defined in the Ordinance. If the application is proposing Digital Campus as a new use, not defined within the City’s zoning code, rather than looking at the allowed existing uses already defined, then a Zoning Text Amendment and a Map Amendment would both be required. The Application is unclear and incomplete on this point. If the Campus is to include any open space open to the public, the application should so state (see Site Plan discussion below).

RESPONSE: On page 4 of the Narrative included in the October PUD Submission, NFR stated that “the future allowable uses of the property will be Data Center, High Energy, and Utility,

all of which are allowable uses elsewhere in the City.” Nevertheless, enclosed as **Attachment D** is a list of the proposed uses in the PUD. The proposed allowable uses in the PUD include (1) Data Center, (2) High Energy, and (3) Utility. Notably absent is a “cryptocurrency” use, which is a use established at nearby facilities, which refer to themselves as “data centers,” even though their operations are qualitatively different from the Data Center at Niagara Digital Campus.

Missing Information. The Application/Petition fails to include all of the (a-i) background information specified by 1302.4.2(A)(1). The wrong form was used. The correct form is attached, and the application is fundamentally incomplete until the correct form is submitted.

RESPONSE: See **Attachment C** (Narrative), Part One, Section B, which details compliance with the applicable sections contained in Section 1302.4.2(A)(1)(a-i). Also, enclosed as **Attachment A** is an updated application form recently provided to Petitioners.

Type of Zone. The submitted proposal is for creation of a Negotiated PUD. At the time that NFR first approached the City with consideration of the data center, the City had no regulations in place regarding data centers nor were they allowed in any zone. Therefore the City suggested the PUD approach. Since that time the City has adopted specific zoning authority for data centers as an allowable use within a designated overlay district which can be created within the Industrial zone. It is anticipated that those regulations will guide the respective City bodies in determining appropriate setbacks and other parameters, and the narrative recognizes this. Accordingly, the applicant may wish to consider whether there is a necessity for a Negotiated PUD, and if so, clearly state the benefits of that route, especially as this is not currently a mixed-use proposal, which is the intended purpose of the Negotiated PUD.

RESPONSE: Enclosed as **Attachment X** is an Alternatives Analysis which compares and contrasts the benefits of creating a PUD to those of rezoning the Property to Industrial. This PUD Petition seeks for the City to approve the PUD, but if the City determines that the PUD is an inappropriate zoning mechanism, Petitioners have provided, in **Attachment X.1-X.4**, the information necessary to convert this PUD Petition to a Rezoning Petition, without delay.

The properties lie in whole or in part in the Design Overlay District but the application does not address compliance with that District. The Design District prescribes that any project over 10,000 square feet of gross floor area must provide “pedestrian amenities” (§1319.2.4(A)). The application states that Phases 1 and 2 will each include a 141,200-square-foot building, however there is nothing in this submission that indicates any pedestrian amenities, therefore the application is incomplete. The Design District prohibits bulky, box-like structures, Section 1319.2.1, therefore the application is insufficient to determine completeness, but given the typical data center, appears to be prohibited at this location. No Streetscape elements are included, Section 1319.2.3, therefore the application is incomplete.

RESPONSE: Enclosed as **Attachment E** are the updated Concept Site Plans, which include pedestrian amenities. The planned Data Center is not a “typical data center.” Enclosed as **Attachment F** are perspective renderings of the Data Center. Urbacon has expertise in developing

Data Centers in urban settings such as downtown Niagara Falls. *See Attachment H* (Urbacon's Data Centers). "Box-like structures" are not the status quo for data centers, or at least not the ones designed by Urbacon, and not what is intended at the Data Center at the Niagara Digital Campus. *See id.*

This PUD Petition is submitted pursuant to Section 1318 of the Zoning Code, also referred to as the *Negotiated* Planned Development District. Thus, interpreting the Zoning Code to "prohibit" a data center at the Property in response to a PUD application is patently arbitrary, particularly given that the Design District Overlay (Section 1319.2) applies to "applications for site plan approval." This Petition is not an application for site plan approval. After the enactment of the PUD, a site plan application will be submitted, and these specific design criteria will be addressed at that time.¹ It is also important to note that Section 1319.2 clearly states that "[i]n cases where adherence to specific standards is not feasible or warranted, the Planning Board may authorize alternative designs." Finally, the "box-like structure" language is included in Section 1319.2.1, which does not apply to downtown areas, and per the terms of the section, is "not generally mandated."

Comprehensive Plan. Although the Narrative references the Comprehensive Plan, the Comprehensive Plan does not include data centers for this area. Contrary to the statement in the Narrative (p. 12) the Data Center at Niagara Digital Campus does not match all the current neighboring land use patterns. The narrative does not explain how it matches any of the current uses. The Comprehensive Plan does not include industrial uses for this area and the City Council has decided that data centers generally should be located in industrial zones. The application needs to better state how a data center campus fits within the goals of the City and particularly why this is the appropriate location for a data center in conflict with the Comprehensive Plan. The resubmission can request a revision of the Comprehensive Plan, if appropriate.

RESPONSE: As acknowledged above, Data Centers are a fast-emerging necessary technology for our modern world, and while the 2009 Comprehensive Plan failed to specifically identify this particular emerging technology, the Data Center is manifestly consistent with the Comprehensive Plan. *See Attachment C* (Narrative), Part Three, Section K.

Phasing. The submittal suggests that the project will be built in phases, but provides no information on timing, construction impacts, or other information one would expect to find in an application proposing to be built in phases. The application is incomplete until the applicant provides such information, unless the applicant agrees to a generic environmental Impact statement which would provide potential buildout variations and evaluate their impacts.

¹ In fact, any discrepancies that may exist in the Zoning Code on this point must be resolved in the favor of the property owner. *Matter of Bonded Concrete Inc. v. Zoning Bd. of Appeals of Town of Saugerties*, 268 A.D.2d 771 (3d Dep't 2000); *In re Rizzo*, 31 Misc. 3d 1206(A), 929 N.Y.S.2d 202, 2011 N.Y. Slip Op. 50505(U), 2011 WL 1238823, at *21 (Sup. Ct. Niagara Co. 2011) (approving a data center PUD).

RESPONSE: The October PUD Submission included the requested information in the EAF and Narrative, pg. 5. For the City's convenience, we have combined this information into Part Two of the . *See Attachment C.*

Narrative and Attachment Comments

p. 7 Job numbers have no basis and are exponentially larger than public figures for similar facilities. The applicant should provide a third-party economic benefit report verifying the employment.

RESPONSE: Incorrect. Enclosed as **Attachment T** is the Niagara Digital Campus Economic and Fiscal Impact analysis, prepared by the MRB Group. The MRB analysis sets forth in detail the economic benefit the Data Center at the Niagara Digital Campus will provide to the City once it is approved and constructed. The PUD is the first step in ensuring that can happen. The estimated 550 full-time equivalent (FTE) jobs anticipated to be created by the Data Center is fully supported. As set forth on page 11 of the MRB analysis, using industry-based metrics of approximately 4 FTE jobs per megawatt of power consumption, and multiplying that figure by the 140 megawatts to be consumed by the Data Center, results in an estimated 560 FTE jobs. And, looking at other data centers nearby like the 15-megawatt Yahoo data center in the Town of Lockport, which opened in 2010, NFR's job estimates are actually quite conservative. Yahoo's data center employs 125 FTE or 8.3 FTE per megawatt. Applying the Yahoo employment calculation to the Data Center at the Niagara Digital Campus would yield an estimated 1,162 FTE per megawatt. *See Attachment T* (MRB Study), page 11, fn. 1.

p. 8 "NFR continued its investment in the City and the PUD by recently engaging with the New York Independent System Operator and making a \$150,000 investment towards improving the electrical infrastructure in the vicinity of the Niagara Digital Campus PUD and, as mentioned below, reducing energy costs to ratepayers." Please clarify, as this sounds like a deposit on the CESIR study, not an actual investment in physical infrastructure.

RESPONSE: Incorrect. First, this comment is based on a misunderstanding of the applicable NYISO process. The Coordinated Electric System Interconnection Review (CESIR) is not applicable to the Data Center at Niagara Digital Campus because this is a load interconnection, and not a small generation project. Instead, the Project is subject to the NYISO load interconnection process because it exceeds 10 MW; as such, it requires a system impact study ("SIS") before further investment in physical infrastructure can be accomplished. Thus, NFR invested \$150,000 in the study to determine what improvements would be necessary in the electrical infrastructure in the vicinity of the Niagara Digital Campus PUD. As of the date of this submission, the draft SIS is in process at NYISO.

p. 12 "It is not anticipated that the Data Center will be visible from any officially designated federal, state, or local scenic or aesthetic resources." It is noted that this is contradicted by the very next sentence. To clarify, a visual impact study is needed, which can be done as part of an EIS, and would also address the lighting compliance.

RESPONSE: The October PUD Submission stated that the Data Center will not visible from any officially designated federal, state, or local scenic or aesthetic resources. This has been

clarified in **Attachment C** (Narrative). Niagara Falls is within five miles of the Property, but the Data Center at Niagara Digital Campus will not be visible from the Falls, and thus, has no adverse impact on Niagara Falls. A visual impact study is not required by the City's Zoning Code and thus cannot be required to deem this Petition "complete."

P. 21 references Figure 20, it was not provided, therefore the application is incomplete.

RESPONSE: Enclosed as **Attachment C** is a revised Narrative.

Attachment C of the application does not contain enough dimensions or details to determine if the project conforms with the requirements of Section 1319.2, therefore the application is insufficient and incomplete.

RESPONSE: The majority of Section 1319.2 is inapplicable to the PUD Petition and Data Center. As more fully detailed above, the Data Center at Niagara Digital Campus is consistent with the Design District to the extent applicable, as fully detailed in **Attachment E** (Concept Site Plans).

Attachment D does not contain dimensioned elevations making it impossible to determine if bulk and density standards are being met, or what is being proposed, therefore the application is insufficient and incomplete.

RESPONSE: Enclosed as **Attachment G** (Data Center Elevations) includes the information requested.

Applicant mentions noise screens of 26 feet, these are not denoted on any plans or specifications. This appears to be inconsistent with the applicant assertion that noise is not an issue. Applicant should submit plans showing details of the aforementioned walls so the City can evaluate. Therefore, the application is incomplete.

RESPONSE: Enclosed as **Attachment G** (Data Center Elevations) includes the information requested.

East Falls Redevelopment area was repealed and is therefore irrelevant to the application, it also requires the applicant to provide a market study for redevelopment in the area, which was not provided. No waiver, or deferral to an EIS, was requested.

RESPONSE: The East Falls Redevelopment area was not repealed and is highly relevant. See **Attachment C** (Narrative), Part Three, Section K. Further, refer to **Attachment T** (MRB Study), which fully details the economic benefit the Data Center at Niagara Digital Campus will provide to the City and community.

Section 1318.3 considers setbacks related to adjacent Residential Districts, the provided plans do not include adequate dimensions to determine if the proposed development within the PUD is sufficient, particularly as it relates to SBL 159.48-1-11, therefore the application is incomplete.

RESPONSE: Enclosed as **Attachment E** are the Concept Site Plans, which includes the information requested.

Subdivision

The submitted Narrative acknowledges that a Subdivision application has not been submitted but is required because of the proposal to split some of the lots proposed to be included in the campus. Accordingly, the subdivision application must be submitted for this application to be complete.

RESPONSE: The Zoning Code does not support this purported requirement to “subdivide first.” Rather, the logical process would be for the subdivision to take place after the PUD is enacted. Regardless, enclosed as **Attachment S** is an application for a subdivision to subdivide three tax parcels so that only whole tax parcels are included in the PUD. This application will be submitted after the PUD is approved.

Site Plan

The City Zoning Code does not specifically require submittal of the site plan at the time of submitting a rezoning application. However, because the site plan would dictate the boundaries of the proposed campus, delineate proposed setbacks, quantify open space, support the traffic study in terms of as well as mitigating measures such as landscaping, and also identify specifically potential public rights-of-way to be abandoned, this City believes that a site plan meeting the requirements of its Code should be submitted to allow full and proper evaluation of the campus proposal. In this regard we note that the site plan, like the rezoning and the subdivision, are actions subject to SEQRA and submittal of the site plan would ensure there is no segmentation of potential impacts.

The requirement of a Site Plan is especially important for a campus, to understand open space, traffic patterns, pedestrian areas, infrastructure requirements, etcetera. The City will recommend that the Planning Board require that the resubmitted application includes a Site Plan in full accordance with the requirements of the City Ordinance. Under§ 1302.4.2(1)(h) the Planning Board may require submission of “further and other documentation as the Planning Board may deem necessary or appropriate.”

RESPONSE: As acknowledged by the City, the Zoning Code does not support the mandate to include a site plan at this stage. Such a requirement would be arbitrary, unnecessary, and inappropriate. The enclosed **Attachment E** (Data Center Concept Plans) provide all of the details noted above.

Pursuant to Section 1302.4.2, this Board is charged with conducting a “completeness” review and then issuing “a recommendation following a public hearing as specified herein prior to submission of said petition to the City Council.” Pursuant to Section 1302.4.1(B), the City Council, after receiving the recommendation of the Planning Board, may amend any part of the Zoning Code. In doing so, however, the City Council’s responsibility to “comply with all applicable New York State General Municipal Law referral requirements and SEQRA requirements and render its own independent conclusions under SEQRA.” *See* Section 1302.4.2(E). Therefore, it is for the City Council to decide whether it has sufficient information to complete SEQRA, not Hodgson Russ or even the Planning Board. If the City Council, after receiving the Planning Board’s

recommendation, were to decide that additional information is required for its SEQRA, it can “reques[t] further information from the Planning Board.” *See id.* But this almost certainly will be unnecessary because this PUD Petition contains sufficient information for the City Council to take the requisite “hard look” and complete the required SEQRA review.

It is also important to note that the City acknowledged that site plan approvals necessarily follow zoning approvals. Specifically, in an October 4, 2021 letter to NFR (**Exhibit B** to this Cover Letter) the City’s Director of Planning advised that, “[o]nce you have any necessary zoning approvals to undertake the proposed Use, the next approvals will relate to site development.” Petitioners have relied on this. Following the logic and process set forth in Director Cooper’s letter and in the Zoning Code, Petitioners seek to confirm that the Data Center is a permitted use on the Property via this PUD Petition. With zoning approvals in hand, the site development phase will begin and site plan application will be submitted at that time. Indeed, the future PUD law enacted by the City Council can mandate as much. As such, it is unnecessary, inappropriate, and inconsistent with prior positions of the City to require a site plan application at this stage.

SEQRA - FEAF

B. Government Approvals:

- **The Niagara County IDA is not listed. Please confirm whether you will be seeking their assistance.**
- **DEC is not listed, data centers will have diesel backup generators requiring air permits. At bare minimum registration is required. Usually for a SPDES too.**
- **Water Board not listed. Data center cooling methods vary but water consumption**
- **can be significant. Street abandonment would involve Water Board assets.**
- **SHPO not listed. We would expect an MOA to document the Register-eligible properties discussed in detail in the submittal.**
- **Subdivision and abandonment are not other agencies, they are the Council and PB.**

C.3.c Data Center at Niagara Digital Campus is not a zone, negotiated Planned Development District is the zone.

D.2.C.i. Water volume should not be TBD, it can be a reasonable estimate based on use of water for cooling or not.

D.2.f Narrative says air registration may be required so answer should not be “no”. And TBD is not acceptable, need a reasonable estimate.

RESPONSE: Enclosed as **Attachment Y** is an updated Full Environmental Assessment Form, which addresses the comments above.

D.2.m Noise study contradicts answers.

RESPONSE: Incorrect. Refer to Part Three, Section I of **Attachment C** (Narrative) for a full discussion of noise impacts.

Human Health. Given the industrial and transportation uses in the past of the subject properties, the Planning Board may require submittal of a Phase I report, and if appropriate, a Phase II report.

RESPONSE: *See* response above to the “Site Plan” comments.

General comment: The term “TBD” appears throughout the form, even where studies have been submitted. Is the applicant requesting a Generic Environmental Impact Study?

RESPONSE: Enclosed as **Attachment Y** is an updated Full Environmental Assessment Form, which addresses the comments above.

EXHIBIT B



City of Niagara Falls, New York

P.O. Box 69, Niagara Falls, NY 14302-0069

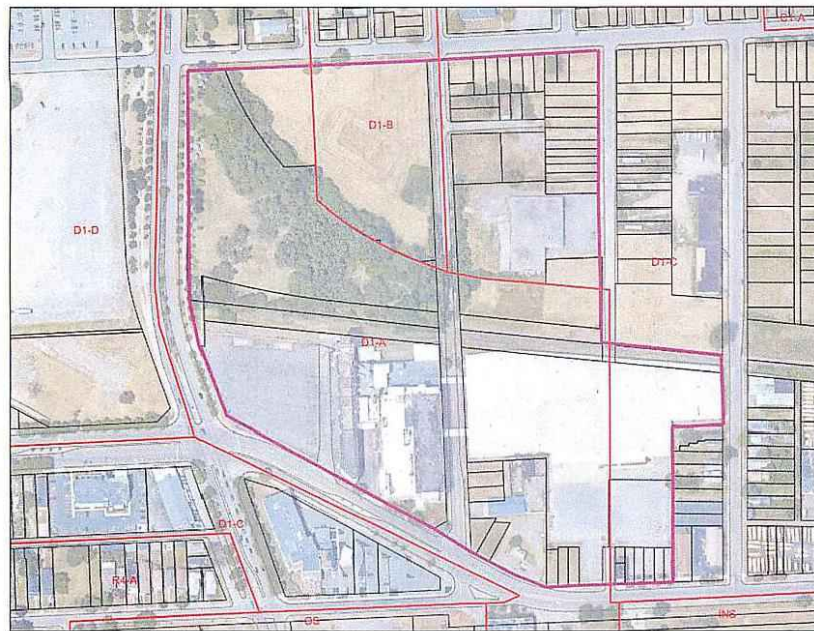
October 4, 2021

Roger Trevino
Niagara Falls Redevelopment
1625 Buffalo Ave, Ste 2B
Niagara Falls, NY 14303

RE: URBACON Data Center at John B. Daly Blvd.

Dear Roger,

Regarding the prospective development of a Data Center within the City of Niagara Fall at the corner of Falls Street and John B. Daly and south to Rainbow Blvd, we have compiled this letter containing the potential process for review of this development. The image below shows a rough outline of the area we discussed at our meeting last week. Note that timelines below are estimated and could be shorter or longer based on the specific circumstances; SEQR may present significant alterations to timeline. This is not an official determination, may not be exhaustive, and may change based on new information.



1) THE ABILITY TO APPLY.

The first item that we need before any application can proceed is consent from the landowner. For all of these parcels shown, we will need consent from an authorized representative of the landowner to proceed.

2) IS IT AN ALLOWABLE USE?

After we receive an application, we must initially determine that you can operate such use within the zoning district. As you can see within the image above, the area of the proposed development lies within the D1-A, D1-B and D1-C zoning districts. While we cannot make an official zoning determination without an application for development, we believe that a Data Center would be classified as a “Warehouse” use. If that is our official determination of the proposed use, warehouses are not a permitted use within the applicable zoning district. To undertake this use in the area, the following processes are a potential avenue:

I. Zoning Interpretation

- a) Simply, if the applicant believes the zoning ordinance has been misinterpreted and it should be classified as a different, permitted use, they can request the Zoning Board of Appeals overturn the determination of the Zoning Officer.
- b) Estimated Timeline: Between 30 and 60 days.

II. Use Variance (1302.1.1)

- a) Applicant needs to prove unnecessary hardship. In order to prove such unnecessary hardship the applicant shall demonstrate to the Board of Appeals that for each and every permitted use under the zoning regulations for the particular district where the property is located:
 - i) the applicant cannot realize a reasonable return, provided that lack of return is substantial as demonstrated by competent financial evidence;
 - ii) alleged hardship relating to the property in question is unique, and does not apply to a substantial portion of the district or neighborhood;
 - iii) the requested use variance, if granted, will not alter the essential character of the neighborhood; and
 - iv) the alleged hardship has not been self-created.
- b) Board of Appeal shall conduct a public hearing within sixty-two days from the day a complete application is received. The Zoning Board of Appeals shall decide upon appeals and applications within sixty-two days after the public hearing.
- c) Use Variances are generally a Type 1 SEQRA action.
- d) Estimated Timeline: Between 30 and 90 days excluding SEQR considerations.

III. Re-Zoning – Amendment Procedure (1302.3.1)

- a) The City Council may, after receiving recommendation of the Planning Board and after due public notice and hearing, **amend any part of the zoning text, schedules or zoning map**. An application to amend this Zoning Ordinance may be initiated by:
 - i) A verified petition of owners of fifty per centum or more of the frontage in any district or part thereof, which shall be accompanied by the requisite fee, no part of which shall be returnable;
 - ii) An application by an individual property owner which shall be accompanied by the requisite fee, no part of which shall be returnable.
- b) Petitions and applications shall be filed with the Planning Board and shall include a preliminary proposal, along with a rezoning application and requisite fee. Zoning amendment petitions shall include, but not be limited to, the following background information:
 - i) Proposed land uses, including number of dwelling units, gross floor area and land area for each such land use.
 - ii) Proposed road system and all existing and proposed rights-of-way and easements, whether public or private.
 - iii) The interior common open space system and a statement as to how it is to be owned and maintained.
 - iv) The interior drainage system and how it is proposed to be connected to the drainage systems of adjoining areas.
 - v) If the development is to be staged, clear indication of how the staging is to proceed.
 - vi) Evidence of how the proposal would meet the planning objectives of the Comprehensive Plan and/or the proposed District.
 - vii) Evidence to demonstrate applicant's competence to carry out the plan and his awareness of the financial and organizational scope of such a project.
 - viii) Such further and other documentation as the Planning Board may deem necessary or appropriate.
 - ix) Part 1 of a completed Full Environmental Assessment Form or, if appropriate, a draft Environmental Impact Statement.
- c) The Planning Board shall determine the completeness of petitions and applications and issue a recommendation following a public hearing as specified herein prior to submission of said petition to the City Council. A public hearing on a rezoning petition shall be held within 40 days of the Planning Board's receipt of a completed zoning amendment petition. Subsequent to the public hearing by the Planning Board, the Planning Board shall, at a public meeting, adopt a resolution setting forth its recommendations to the City Council with respect to the proposed amendment.
- d) The City Council shall either approve a proposed amendment by ordinance duly enacted, or adopt the proposed amendment, with or without conditions, or deny the proposed amendment. A final decision by the City Council on a petition shall be made within 40 days of the filing of the Planning Board's recommendation
- e) Rezoning is likely a Type 1 SEQRA action.
- f) Estimated Timeline: Between 120 and 150 Days

3) APPROVALS TO CONSTRUCT:

Once you have any necessary zoning approvals to undertake the proposed Use, the next approvals will relate to site development:

- I. *Level 2 Site Plan Review (1324.4.2)*
 - a) Site Plan review is required as this project exceeds the gross floor area threshold specified within the Zoning Ordinance. Process and requirements are generally spelled out within Zoning Ordinance.
 - b) Type 1 SEQRA action.
 - c) Estimated Timeline: Between 90 and 120 days
- II. *Area Variances, if required, from the Zoning Board.*
 - a) Pending based on design and potential approval of the use. Process for area variances is spelled out within Zoning Ordinance.
 - b) Estimated Timeline: Between 30 and 60 days
- III. *All required building permits and engineering approvals*
 - a) Estimated Timeline: Unknown

4) ADDITIONAL APPROVALS NEEDED:

- I. *NY State Environmental Quality Review (SEQR)*
 - a) This will need to be done in conjunction with all other necessary approvals and must include consideration of the entire action. As such, before any approval is granted on rezoning, use variance, site plan, etc., all provisions of SEQR must have been complied with.
 - b) There must be a coordinated review between all involved agencies which may be at least the City Council, Planning Board and Zoning Board. Other involved agencies may be those noted below or yet to be discovered.
 - c) Timelines and process are generally spelled out within the State regulations but may not be easily predictable. If an EIS is required, the process will be significantly longer.
- II. *Niagara Falls Water Board*
- III. *Niagara County Planning Board*
 - a) Required if project requires any change in zoning ordinances or zoning map changes having a city-wide affect or other triggering factors.
- IV. *Department of Environmental Conservation (DEC)?*
- V. *NYS State Historic Preservation Office (SHPO)*
 - a) Four properties within the site are noted as eligible for National Register Listing. This does not offer any demolition protections. Rather, they may be opportunities for the use of historic tax credits through National Register listing. You can find more information at: <https://parks.ny.gov/shpo/tax-credit-programs/>
 - i) The following properties have been determined edible for National Register listing:
 - (1) 816 Rainbow Blvd Shredded Wheat/Nabisco Grain Elevator
 - (2) 211 Tenth St, James Mullane Garage
 - (3) 1008 Buffalo Ave

(4) 247 Tenth St, Niagara Falls Metal Stamping Work's/Kuhns Storage

VI. *Department of Transportation*

a) If access off of State Highway is requested.

As you are aware, there are also development agreements relating to this land including one dated 6/25/2003. I am not aware of any determination of conformance for this proposed development being consistent with the 2003 agreement, and this letter should not be construed as providing that determination.

I hope that this is helpful to you for your planning purposes. While we will try to provide guidance where we are able, timelines and process expressed here are subject to change based on circumstances if/when the project proceeds.

Our Zoning Ordinance, Comprehensive Plan, and other relevant documents are available at the City's website: <https://niagarafallsusa.org/government/city-departments/planning-and-environmental/>

If we can provide any further information or clarification, I hope you will not hesitate to let us know.

Best,



Eric Cooper, Director of Planning

716-286-4477

Eric.Cooper@NiagaraFallsNY.gov

Cc: Mayor Robert Restaino
Grace Celik, Planner II / HPS
Project File

TABLE OF CONTENTS

- A. Chapter 1302.4 Zoning Amendment Form
- B. Ownership Verified Petition
 - Attachment B.1: Property Ownership Chart
- C. Narrative
- D. Data Center at Niagara Digital Campus PUD Use Table
- E. Data Center Concept Plans
- F. Data Center Perspective Renderings
- G. Data Center Elevations
- H. Urbacon's Data Centers
- I. Tax Boundaries Map
- J. Aerial Map
- K. Zoning Maps
- L. Proposed Road System Map
- M. Tax Map Overlay w/ Data Center Map
- N. Area Criteria Chart
- O. Signage Chart
- P. Environmental and Energy Impact Plan
- Q. Survey Map
- R. Legal Description
- S. PUD Subdivision Application
- T. Niagara Digital Campus Economic and Fiscal Impact Plan
- U. Noise Impact Evaluation
- V. Traffic Impact Study
- W. SHPO Documents
- X. Alternative Analysis
 - Attachment X.1: Chapter 1302.4 Zoning Amendment Form
 - Attachment X.2: Ownership Verified Petition with ownership chart
 - Attachment X.3: Rezoning Use Table
 - Attachment X.4: Rezoning Petition Area Criteria Chart
- Y. Full Environmental Assessment Form
 - Attachment Y.1: USGS Map
 - Attachment Y.2: Geologic Feature Map
 - Attachment Y.3: Wetland Map
 - Attachment Y.4: IPaC Report
 - Attachment Y.5: Critical Environmental Area Map
 - Attachment Y.6: Rare Plants/Animals Map
 - Attachment Y.7: March 27, 2023 Letter from National Grid to NFR

ATTACHMENT

A



THE CITY OF NIAGARA FALLS
APPLICATION PACKET
ZONING AMENDMENT

This Application Packet includes the following

1. Application for Certificate of Appropriateness
2. Zoning Ordinance – Zoning Amendment Chapter
3. SEQR Environmental Review Instructions

Dear Applicant,

Welcome to the Zoning Amendment Process for properties in the City of Niagara Falls.

The amendment process is intended to provide a means for making changes in the text of this Zoning Ordinance and the Official Zoning Map. It is not intended to relieve particular hardships nor to confer special privileges or rights of a particular property owner but is intended as a tool to adjust the provisions of this Zoning Ordinance and the Official Zoning Map in light of changing, newly discovered or newly identified conditions, situations or knowledge and maintain consistency between the zoning and the goals, objectives and policies contained in the Comprehensive Plan.

It is important that you speak with a staff member in the Planning Office to determine if your project requires a Zoning Amendment prior to beginning the application process.

Please feel free to call or email the Planning Office if you have any questions about the application process.

Code Enforcement Contact:

Clifford Scott

Director, Code Enforcement

City of Niagara Falls

clifford.scott@NiagaraFallsNY.gov (716) 286-4492

745 Main St, PO Box 69, Niagara Falls, NY 14302

Planning Office Contact:

Mike Pesarchick

Planner II & Historic Preservation Specialist

City of Niagara Falls

michael.pesarchick@NiagaraFallsNY.gov (716) 286-4467

745 Main St, PO Box 69, Niagara Falls, NY 14302

Sincerely,

Kevin Forma

Director of Planning

City of Niagara Falls



AMENDMENTS (CHAPTER 1302.4)

APPLICATION FOR ZONING AMENDMENT

PROPERTY INFORMATION:

Property Address: See attached cover letter. SBL Number: See attached cover letter.

Existing Land Use: Vacant, commercial, industrial Proposed Land Use: See attached cover letter.
Existing Zoning District: D1-A, D1-B, D1-C, R3-C Proposed Zoning District: See attached cover letter.
Existing Number of Dwelling Units: See attached. Proposed Number of Dwelling Units: See attached.
Existing Gross Floor Area: See attached. Proposed Gross Floor Area: See attached.

APPLICANT INFORMATION:

Applicant Name Niagara Falls Redevelopment, LLC, Eleventh Street Properties LLC, NFR Gateway LLC

Applicant Address 800 Main Street, Suite 3D Phone Number 716-282-0001 Email rogercci@icloud.com

OWNER INFORMATION: If Applicant is also the Owner check box ☒

Owner Name _____

Owner Address _____ Phone Number _____ Email _____

REQUIRED MATERIALS:

Application requirements vary based on individual amendment petitions. Please refer to the following chart for required application materials. Attach the following application materials as they relate to your application. Items indicated by an asterisks (*) are *required* for every application. The Planning Department or Planning Board may request any additional information or materials as they deem necessary.

Zoning Amendment Procedure – Chapter 1302.4.2	Submitted to Planning Office	Received by Planning Office
<i>Zoning Amendment Application Completed Form*</i>	See attached.	
<i>SEQR*</i> - Part 1 of Full Environmental Assessment Form	See attached.	
<i>Payment*</i> – Application fee of \$250.00 (residential) or \$500.00 (commercial) check made out to the City Comptroller	See attached.	
<i>Comprehensive Plan*</i> - Evidence of how the proposal would meet the planning objectives of the Comprehensive Plan and/or the proposed District.	See attached.	

Financial Ability* - Evidence that demonstrates applicant's competence to carry out the plan and his awareness of the financial and organizational scope of such a project.	See attached.	
Rights of Way – Proposed road system and all existing and proposed rights-of-way and easements, whether public or private.	See attached.	
Common Space - The interior common open space system and a statement as to how it is to be owned and maintained.	See attached.	
Drainage - The interior drainage system and how it is proposed to be connected to the drainage systems of adjoining areas.	See attached.	
Staging - If the development is to be staged, clear indication of how the staging is to proceed.	See attached.	

The undersigned certifies that the information submitted for review and decision by the Planning Board is true and accurate.


Owner Signature and Date

5.14.25

Applicant Signature and Date

5.14.25

BASIC SEQR APPLICANT INSTRUCTIONS:

1. Using your internet browser, navigate to: gisservices.dec.ny.gov/eafmapper/ As per the text box on the left hand side of the welcome page, **make sure popup blockers are turned off** and press enter.
Example – Popup Blocker Modification:
 - a. Google Chrome - instructions for turning off the popup blocker: On your computer, open Chrome.
 - b. Go to gisservices.dec.ny.gov/eafmapper/ where pop-ups are blocked.
 - c. In the address bar, click the Pop-up blocked symbol 
 - d. Click the link for the DEC pop-up
 - e. To always see pop-ups for the DEC site, select “Always allow pop-ups and redirects from gisservices.dec.ny.gov/eafmapper/” click Done.
 - f. Reload the website.
2. Click the tab marked "Locate Address" on the right hand side of the page under "Navigate To Area (Step 1)".
3. Type the site's address into the box, including city and zip code and press the "Locate" button.
 - a. The map will zoom to the general area of your address - but not all the way.
4. Zoom in to your identified address point so that parcel ID numbers are visible and you can identify your exact property.
5. Click "Select Tax Parcel" under the section labeled "Define Project Site (Step 2)".
6. Select your property with the left button of the mouse.
7. Click "Short Form" in the last box on the bottom, unless instructed otherwise by Niagara Falls' Planning / Environmental Office.
 - a. There will be a popup box informing you that it might take awhile. Click OK.
 - i. Note that it might take a number of minutes for the process to complete.
8. Once the EAFMapper's process is complete, it will download a PDF file labeled "download.pdf"
9. Navigate to the downloaded file, probably in your download folder, and open it using Adobe Acrobat or equivalent.
10. Fill out ALL of the lines contained within part 1 (pages 1, 2, and 3).
 - a. Note that some of the questions will already have check marks (questions 7, 12a, 12b, 13a, 15, 16, and 20). These answers came from the DEC and cannot be changed.
 - i. The Planning & Environmental Office will make any determination of applicability to the project site.
11. As you fill out the form, if you have ANY questions on how or what to put in the fields, click on the question and it will take you to DEC's website (you may have to give permission to access the internet) to get detailed instructions for that question.
 - a. If you cannot find the answer, please contact us! Do not make any "assumptions".
12. Once Part 1 is complete, save, print and sign.
 - a. Note: Use the print command in Acrobat - not the print button on the form.
13. Submit the completed SEQR Part 1, including the page labeled “EAF Mapper Summary Report” with your site plan application.

ATTACHMENT

B

CITY OF NIAGARA FALLS

DATA CENTER AT NIAGARA DIGITAL
CAMPUS

VERIFIED PETITION

The Verified Petition of Roger Trevino respectfully shows that:

1. This Verified Petition is submitted in support of the Data Center at Niagara Digital Campus Planned Unit District ("PUD") petition ("PUD Petition") by the undersigned owners of more than fifty per centum of the frontage of property ("Property") to be included in the PUD, as required by the City's Zoning Ordinance.
2. This Verified Petition is submitted by the owners of the Property: Niagara Falls Redevelopment, LLC, Eleventh Street Properties LLC, NFR Gateway LLC (together, "Petitioners").
3. Roger Trevino is the Executive Vice President of all Petitioners.
4. Petitioners own the Property as indicated on the enclosed **Attachment B.1**, the property ownership chart.
5. Petitioners submit and join in this verified petition in support of the inclusion of their respective properties within the boundaries of the PUD, and together prepared **Attachment B.1**. Each Petitioner authorizes the submission of the PUD Petition.
6. Together, Petitioners hold title to parcels within the Data Center at Niagara Digital Campus PUD boundary comprising **71.13%** of the frontage of the Property to be included in the PUD as further shown on **Attachment B.1**.

DATED: May 14, 2025

Niagara Falls Redevelopment LLC

By: 

Roger Trevino, Executive Vice President

Eleventh Street Properties LLC

By: 

Roger Trevino, Executive Vice President

NFR Gateway LLC

By: 

Roger Trevino, Executive Vice President

STATE OF NEW YORK)
)
COUNTY OF NIAGARA)

ss.:

INDIVIDUAL VERIFICATION

THIS IS TO CERTIFY that I, Roger Trevino, being duly sworn deposes and says: I am the Executive Vice President of Niagara Falls Redevelopment, LLC, and have read the foregoing Verified Petition and knows the contents thereof, and verify them to be true to my knowledge, except as to matters alleged on information and belief, and that as to those matters I believe to be true.

Sworn to before me this

Date: 5-14-2025



Notary Public

GREGORY M GISMONDI
Notary Public, State of New York
Reg. No. 01GI5052305
Qualified in NIAGARA County
Commission Expires November 20, 2025



Petitioner

STATE OF NEW YORK)
)
COUNTY OF NIAGARA)


ss.:

INDIVIDUAL VERIFICATION

THIS IS TO CERTIFY that I, Roger Trevino, being duly sworn deposes and says: I am the Executive Vice President of Eleventh Street Properties LLC, and have read the foregoing Verified Petition and knows the contents thereof, and verify them to be true to my knowledge, except as to matters alleged on information and belief, and that as to those matters I believe to be true.

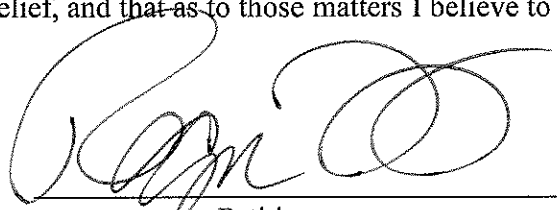
Sworn to before me this

Date: 5-14-2025



Notary Public

GREGORY M GISMONDI
Notary Public, State of New York
Reg. No. 01GI5052305
Qualified in NIAGARA County
Commission Expires November 20, 2025



Petitioner

STATE OF NEW YORK)
)
COUNTY OF NIAGARA)


ss.:

INDIVIDUAL VERIFICATION

THIS IS TO CERTIFY that I, Roger Trevino, being duly sworn deposes and says: I am the Executive Vice President of NFR Gateway LLC, and have read the foregoing Verified Petition and knows the contents thereof, and verify them to be true to my knowledge, except as to matters alleged on information and belief, and that as to those matters I believe to be true.

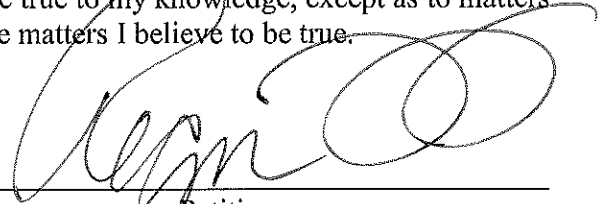
Sworn to before me this

Date: 5-14-2025



Notary Public

GREGORY M GISMONDI
Notary Public, State of New York
Reg. No. 01GI5052305
Qualified in NIAGARA County
Commission Expires November 20, 2025



Petitioner

ATTACHMENT

B.1

Attachment B.1

Street	Property Address No.	SBL	Owner	Status	Linear Frontage (LF)	Linear Frontage Calcs
10th St.	247	159.47-1-52	Eleventh Street Properties LLC	Owned by Petitioner	265.25	(265.25) = 132 + 133.25
10th St.	263	159.47-1-53	Eleventh Street Properties LLC	Owned by Petitioner	165	(165) = 33 + 132
10th St.	209	159.55-1-45	Eleventh Street Properties LLC	Owned by Petitioner	100.93	(100.93) = 86.01 + 14.92
10th St.	215	159.55-1-47	NFR Gateway LLC	Owned by Petitioner	40	40
10th St.	219	159.55-1-48	NFR Gateway LLC	Owned by Petitioner	39	39
10th St.	225	159.55-1-49	NFR Gateway LLC	Owned by Petitioner	27	27
10th St.	265	159.47-1-54	Donato Mary Ann		33	33
12th St.	254	159.47-1-20	Eleventh Street Properties LLC	Owned by Petitioner	33	33
12th St.	250	159.47-1-21	Eleventh Street Properties LLC	Owned by Petitioner	66	66
12th St.	244	159.47-1-22	Eleventh Street Properties LLC	Owned by Petitioner	33	33
12th St.	217	159.47-2-30	Eleventh Street Properties LLC	Owned by Petitioner	31	31
12th St.	219	159.47-2-31	Eleventh Street Properties LLC	Owned by Petitioner	35	35
12th St.	227	159.47-2-32	Eleventh Street Properties LLC	Owned by Petitioner	66	66
12th St.	231	159.47-2-33	Eleventh Street Properties LLC	Owned by Petitioner	66	66
12th St.	237	159.47-2-34	Eleventh Street Properties LLC	Owned by Petitioner	33	33
12th St.	241	159.47-2-35	Eleventh Street Properties LLC	Owned by Petitioner	33	33
12th St.	243	159.47-2-36	Eleventh Street Properties LLC	Owned by Petitioner	33	33
12th St.	247	159.47-2-37	Eleventh Street Properties LLC	Owned by Petitioner	33	33
12th St.	259	159.47-2-38	Eleventh Street Properties LLC	Owned by Petitioner	153	153
12th St.	261	159.47-2-39	Eleventh Street Properties LLC	Owned by Petitioner		
12th St.	132	159.55-1-22	NFR Gateway LLC	Owned by Petitioner	34.75	34.75
12th St.	130	159.55-1-23	Eleventh Street Properties LLC	Owned by Petitioner	31.25	31.25
12th St.	128	159.55-1-24	Eleventh Street Properties LLC	Owned by Petitioner	33	33
12th St.	126	159.55-1-25	Eleventh Street Properties LLC	Owned by Petitioner	33	33
12th St.	124	159.55-1-26	Eleventh Street Properties LLC	Owned by Petitioner	33	33
12th St.	122	159.55-1-27	Eleventh Street Properties LLC	Owned by Petitioner	33	33
12th St.	226	159.47-1-23	Estate of John Gross	Contract vendee with Niagara Falls Redevelopment, LLC's related entity.	438.3	438.3
12th St.	203	159.47-2-27	Estate of John Gross	Contract vendee with Niagara Falls Redevelopment, LLC's related entity.	29.62	29.62
12th St.	207	159.47-2-28	Estate of John Gross	Contract vendee with Niagara Falls Redevelopment, LLC's related entity.	66	66

Attachment B.1

Street	Property Address No.	SBL	Owner	Status	Linear Frontage (LF)	Linear Frontage Calcs
12th St.	213	159.47-2-29	Estate of John Gross	Contract vendee with Niagara Falls Redevelopment, LLC's related entity.	66	66
13th St.	NA	159.10-1-2	Blue Apple Properties Inc.		214.82	(214.82) = 42.25 + 40 + 39.15 + 28.85 + 39.57 + 25
13th St.	189	159.10-2-14	Blue Apple Properties Inc.		40.94	40.94
13th St.	264	159.47-2-10	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	258	159.47-2-11	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	254	159.47-2-12	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	252	159.47-2-13	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	250	159.47-2-14	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	248	159.47-2-15	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	244	159.47-2-16	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	240	159.47-2-17	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	238	159.47-2-18	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	226	159.47-2-19	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	224	159.47-2-20	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	222	159.47-2-21	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	218	159.47-2-22	Eleventh Street Properties LLC	Owned by Petitioner	34	34
13th St.	216	159.47-2-23	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	214	159.47-2-24	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	212	159.47-2-25	Eleventh Street Properties LLC	Owned by Petitioner	32	32
13th St.	268	159.47-2-9	Eleventh Street Properties LLC	Owned by Petitioner	27	27
13th St.	209	159.48-1-58	Eleventh Street Properties LLC	Owned by Petitioner	66	66
13th St.	211	159.48-1-59	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	215	159.48-1-60	Eleventh Street Properties LLC	Owned by Petitioner	36	36
13th St.	217	159.48-1-61	Eleventh Street Properties LLC	Owned by Petitioner	31.5	31.5
13th St.	221	159.48-1-62	Eleventh Street Properties LLC	Owned by Petitioner	31.5	31.5
13th St.	225	159.48-1-63.1	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	229	159.48-1-63.2	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	233	159.48-1-64	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	237	159.48-1-65	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	241	159.48-1-66	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	243	159.48-1-67	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	249	159.48-1-68	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	251	159.48-1-69	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	257	159.48-1-70	Eleventh Street Properties LLC	Owned by Petitioner	66	66
13th St.	261	159.48-1-71	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	263	159.48-1-72	Eleventh Street Properties LLC	Owned by Petitioner	33	33

Attachment B.1

Street	Property Address No.	SBL	Owner	Status	Linear Frontage (LF)	Linear Frontage Calcs
13th St.	202	159.47-2-26	Estate of John Gross	Contract vendee with Niagara Falls Redevelopment, LLC's related entity.	122.02	122.02
13th St.	201	159.48-1-57	Estate of John Gross	Contract vendee with Niagara Falls Redevelopment, LLC's related entity.	62.62	62.62
14th St.	266	159.48-1-10	Eleventh Street Properties LLC	Owned by Petitioner	33	33
14th St.	203	159.48-1-29	Eleventh Street Properties LLC	Owned by Petitioner	70.15	70.15
14th St.	207	159.48-1-30	Eleventh Street Properties LLC	Owned by Petitioner	30.77	30.77
14th St.	209	159.48-1-31	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	211	159.48-1-32	Eleventh Street Properties LLC	Owned by Petitioner	33	33
14th St.	213	159.48-1-33	Eleventh Street Properties LLC	Owned by Petitioner	33	33
14th St.	215	159.48-1-34	Eleventh Street Properties LLC	Owned by Petitioner	33	33
14th St.	217	159.48-1-35	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	219	159.48-1-36	Eleventh Street Properties LLC	Owned by Petitioner	33	33
14th St.	221	159.48-1-37	Eleventh Street Properties LLC	Owned by Petitioner	33	33
14th St.	223	159.48-1-38	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	225	159.48-1-39	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	243	159.48-1-40	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	245	159.48-1-41	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	249	159.48-1-42	Eleventh Street Properties LLC	Owned by Petitioner	33	33
14th St.	251	159.48-1-43	Eleventh Street Properties LLC	Owned by Petitioner	30	30
14th St.	253	159.48-1-44	Eleventh Street Properties LLC	Owned by Petitioner	31	31
14th St.	264	159.48-1-45	Eleventh Street Properties LLC	Owned by Petitioner	66.06	66.06
14th St.	250	159.48-1-46	Eleventh Street Properties LLC	Owned by Petitioner	33	33
14th St.	248	159.48-1-47	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	242	159.48-1-48.1	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	244	159.48-1-48.2	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	228	159.48-1-49	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	226	159.48-1-50	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	224	159.48-1-51	Eleventh Street Properties LLC	Owned by Petitioner	33	33
14th St.	222	159.48-1-52	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	220	159.48-1-53	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	218	159.48-1-54	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	216	159.48-1-55	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	214	159.48-1-56	Eleventh Street Properties LLC	Owned by Petitioner	64	64
14th St.	270	159.48-1-8	Eleventh Street Properties LLC	Owned by Petitioner	37.75	37.75
14th St.	268	159.48-1-9	Eleventh Street Properties LLC	Owned by Petitioner	34.96	34.96
15th St.	262	159.48-1-12	Eleventh Street Properties LLC	Owned by Petitioner	30	30

Attachment B.1

Street	Property Address No.	SBL	Owner	Status	Linear Frontage (LF)	Linear Frontage Calcs
15th St.	258	159.48-1-13	Eleventh Street Properties LLC	Owned by Petitioner	30	30
15th St.	256	159.48-1-14	Eleventh Street Properties LLC	Owned by Petitioner	30	30
15th St.	254	159.48-1-15	Eleventh Street Properties LLC	Owned by Petitioner	30	30
15th St.	250	159.48-1-16	Eleventh Street Properties LLC	Owned by Petitioner	30	30
15th St.	248	159.48-1-17	Eleventh Street Properties LLC	Owned by Petitioner	60	60
15th St.	240	159.48-1-18	Eleventh Street Properties LLC	Owned by Petitioner	30	30
15th St.	238	159.48-1-19	Eleventh Street Properties LLC	Owned by Petitioner	30	30
15th St.	234	159.48-1-20	Eleventh Street Properties LLC	Owned by Petitioner	30	30
15th St.	228	159.48-1-22	Eleventh Street Properties LLC	Owned by Petitioner	30	30
15th St.	226	159.48-1-23	Eleventh Street Properties LLC	Owned by Petitioner	30	30
15th St.	224	159.48-1-24	Eleventh Street Properties LLC	Owned by Petitioner	30	30
15th St.	222	159.48-1-25	Eleventh Street Properties LLC	Owned by Petitioner	30	30
15th St.	216	159.48-1-26	Eleventh Street Properties LLC	Owned by Petitioner	30	30
15th St.	232	159.48-1-21	Snizek Leszek		30	30
15th St.	210	159.48-1-27	Mansibal LLC		60	60
15th St.	208	159.48-1-28	Mansibal LLC		81.5	81.5
Angelo Ct.	1023	159.47-1-51	Eleventh Street Properties LLC	Owned by Petitioner	126.13	126.13
Angelo Ct.	1032	159.47-1-57	Eleventh Street Properties LLC	Owned by Petitioner	66.37	66.37
Angelo Ct.	1018	159.47-1-55	Larratta Betty J		30	30
Angelo Ct.	1022	159.47-1-56	Larratta Anthony J & Betty J		30	30
Buffalo Ave.	1114	159.55-1-32	NFR Gateway LLC	Owned by Petitioner	24.12	24.12
Buffalo Ave.	1112	159.55-1-33	NFR Gateway LLC	Owned by Petitioner	25	25
Buffalo Ave.	1108	159.55-1-34	NFR Gateway LLC	Owned by Petitioner	25	25
Buffalo Ave.	1106	159.55-1-35	NFR Gateway LLC	Owned by Petitioner	25	25
Buffalo Ave.	1104	159.55-1-36	NFR Gateway LLC	Owned by Petitioner	25	25
Buffalo Ave.	1102	159.55-1-37	Eleventh Street Properties LLC	Owned by Petitioner	81	(81) = 25 + 56
Buffalo Ave.	1028	159.55-1-40	Eleventh Street Properties LLC	Owned by Petitioner	28.37	28.37
Buffalo Ave.	1026	159.55-1-41	Eleventh Street Properties LLC	Owned by Petitioner	27.01	27.01
Buffalo Ave.	1014	159.55-1-42	Eleventh Street Properties LLC	Owned by Petitioner	31	31
Buffalo Ave.	1008	159.55-1-43	Parry K L Inc.	Contract vendee with Niagara Falls Redevelopment, LLC's related entity.	216.82	(216.82) = 46 + 170.82
Falls St.	1201	159.47-2-1	Eleventh Street Properties LLC	Owned by Petitioner	103.8	(103.8) = 24 + 79.81
Falls St.	1205	159.47-2-2	Eleventh Street Properties LLC	Owned by Petitioner	54.3	54.3
Falls St.	1209	159.47-2-3	Eleventh Street Properties LLC	Owned by Petitioner	27.15	27.15
Falls St.	1211	159.47-2-4	Eleventh Street Properties LLC	Owned by Petitioner	26.83	26.83
Falls St.	1215	159.47-2-5	Eleventh Street Properties LLC	Owned by Petitioner	27	27
Falls St.	1219	159.47-2-6	Eleventh Street Properties LLC	Owned by Petitioner	52.58	52.58
Falls St.	1223	159.47-2-7	Eleventh Street Properties LLC	Owned by Petitioner	28.82	28.82

Attachment B.1

Street	Property Address No.	SBL	Owner	Status	Linear Frontage (LF)	Linear Frontage Calcs
Falls St.	1225	159.47-2-8	Eleventh Street Properties LLC	Owned by Petitioner	111.7	(111.7) = 87.67 + 24.03
Falls St.	1303	159.48-1-1	Eleventh Street Properties LLC	Owned by Petitioner	151.76	(151.76) = 33.09 + 118.67
Falls St.	1307	159.48-1-2	Eleventh Street Properties LLC	Owned by Petitioner	33	33
Falls St.	1309	159.48-1-3	Eleventh Street Properties LLC	Owned by Petitioner	33.04	33.04
Falls St.	1317	159.48-1-5	Eleventh Street Properties LLC	Owned by Petitioner	34	34
Falls St.	1319	159.48-1-6	Eleventh Street Properties LLC	Owned by Petitioner	33	33
Falls St.	1321	159.48-1-7	Eleventh Street Properties LLC	Owned by Petitioner	125	(125) = 33 + 92
Falls St.	1313	159.48.1-4	Eleventh Street Properties LLC	Owned by Petitioner	33.02	33.02
Falls St. (portion of)	907	159.09-3-3	Niagara Falls Redevelopment	Owned by Petitioner	462	462
John Daly Memorial Pkwy (portion of)	n/a	159.09-3-2	Blue Apple Properties Inc.		725.16	(725.16) = 545.62 + 142.32 + 37.22
Lasalle Arterial	n/a	160.15-1-72	Blue Apple Properties Inc.		978.09	(978.09) = 42.4 + 42.46 + 223.81 + 174.78 + 157.75 + 109.15 + 109.39 + 68.12 + 50.23
Memorial Pkwy	220	159.10-1-3	Eleventh Street Properties LLC	Owned by Petitioner	414.25	(414.25) = 236.31 + 177.94
Memorial Pkwy	207	159.47-1-24	Eleventh Street Properties LLC	Owned by Petitioner	66	66
Memorial Pkwy	221	159.47-1-25	Eleventh Street Properties LLC	Owned by Petitioner	66	66
Memorial Pkwy	223	159.47-1-26	Eleventh Street Properties LLC	Owned by Petitioner	33	33
Memorial Pkwy	225	159.47-1-27	Eleventh Street Properties LLC	Owned by Petitioner	33	33
Memorial Pkwy	227	159.47-1-28	Eleventh Street Properties LLC	Owned by Petitioner	44	44
Memorial Pkwy	229	159.47-1-29	Eleventh Street Properties LLC	Owned by Petitioner	20	20
Memorial Pkwy	231	159.47-1-30	Eleventh Street Properties LLC	Owned by Petitioner	24	24
Memorial Pkwy	235	159.47-1-31	Eleventh Street Properties LLC	Owned by Petitioner	20	20
Memorial Pkwy	239	159.47-1-33	Eleventh Street Properties LLC	Owned by Petitioner	20	20
Memorial Pkwy	241	159.47-1-34	Eleventh Street Properties LLC	Owned by Petitioner	44	44
Memorial Pkwy	247	159.47-1-35	Eleventh Street Properties LLC	Owned by Petitioner	32	32
Memorial Pkwy	249	159.47-1-36	Eleventh Street Properties LLC	Owned by Petitioner	27	27
Memorial Pkwy	253	159.47-1-37	Eleventh Street Properties LLC	Owned by Petitioner	47	47
Memorial Pkwy	257	159.47-1-38	Eleventh Street Properties LLC	Owned by Petitioner	28	28
Memorial Pkwy	258	159.47-1-39	Eleventh Street Properties LLC	Owned by Petitioner	33	33
Memorial Pkwy	254	159.47-1-40	Eleventh Street Properties LLC	Owned by Petitioner	33	33
Memorial Pkwy	248	159.47-1-41	Eleventh Street Properties LLC	Owned by Petitioner	25	25
Memorial Pkwy	246	159.47-1-42	Eleventh Street Properties LLC	Owned by Petitioner	55.3	(55.3) = 28 + 27.3
Memorial Pkwy	244	159.47-1-43	Eleventh Street Properties LLC	Owned by Petitioner	38.66	(38.66) = 33.02 + 5.64
Memorial Pkwy	242	159.47-1-44	Eleventh Street Properties LLC	Owned by Petitioner	23.89	23.89
Memorial Pkwy	240	159.47-1-45	Eleventh Street Properties LLC	Owned by Petitioner	20	20

Attachment B.1

Street	Property Address No.	SBL	Owner	Status	Linear Frontage (LF)	Linear Frontage Calcs
Memorial Pkwy	236	159.47-1-46	Eleventh Street Properties LLC	Owned by Petitioner	20	20
Memorial Pkwy	234	159.47-1-47	Eleventh Street Properties LLC	Owned by Petitioner	24	24
Memorial Pkwy	232	159.47-1-48	Eleventh Street Properties LLC	Owned by Petitioner	24	24
Memorial Pkwy	230	159.47-1-49	Eleventh Street Properties LLC	Owned by Petitioner	33	33
						(629.02) = 302.66 + 63.37 + 145.81 +100.66 = + 16.52
Memorial Pkwy	126	159.55-1-1	NFR Gateway LLC	Owned by Petitioner	629.02	
Memorial Pkwy	107	159.55-1-38	Eleventh Street Properties LLC	Owned by Petitioner	43.72	43.72
Memorial Pkwy	111	159.55-1-39	NFR Gateway LLC	Owned by Petitioner	16.16	16.16
Memorial Pkwy	237	159.47-1-32	Green Robert & Esther		24	24
n/a	n/a	?-159.47-2	n/a			
Rainbow Blvd.	1004-00	159.55-1-44	Eleventh Street Properties LLC	Owned by Petitioner	40.08	40.08
	TOTAL FRONTAGE IN PUD- ALL PROPERTIES=					11253.29 (LF)
	TOTAL FRONTAGE OWNED BY PETITIONERS=					8004.40 (LF)
	% FRONTAGE OWNED BY PETITIONERS=					71.13%

ATTACHMENT

C

NARRATIVE

FOR

THE DATA CENTER AT NIAGARA

DIGITAL CAMPUS

PLANNED UNIT DISTRICT

PETITION

TABLE OF CONTENTS

	<u>PAGE</u>
PART ONE: PUD Petition Details	3
A. Petition Overview	3
B. Petition Description	4
C. Zoning Code Section 1302.4 Compliance	5
PART TWO: Data Center at Niagara Digital Campus Description	9
A. The Data Center at Niagara Digital Campus Details	9
B. Subdivision and Amalgamation:	11
C. Benefit to the Community	12
D. NFR's Commitment to the City	12
PART THREE: SEQRA Overview	14
A. Land/Geologic Features.....	14
B. Surface Water/Groundwater/Flooding	15
C. Air	15
D. Plants and Animals/ Agricultural Resources.....	15
E. Aesthetic/Historical and Archeological Resources	16
F. Open Space/ Recreation/ Critical Environmental Areas	16
G. Transportation.....	16
H. Energy.....	17
I. Noise, Odor, and Light	18
J. Human Health	20
K. Consistency with Community Plans and Character.....	22

1. Comprehensive Plan 2009	22
2. Niagara Falls Core City Urban Renewal Plan 2009	28
3. Zoning Code.....	29
4. Regional/Statewide Plans	29

PART ONE:

PUD PETITION DETAILS

A. PETITION OVERVIEW

PUD Project Name: The Data Center at Niagara Digital Campus PUD (“PUD Project”)

PUD Project Petitioners: Niagara Falls Redevelopment, LLC, Eleventh Street Properties, LLC, NFR Gateway LLC (collectively, “Petitioners” or “NFR”)

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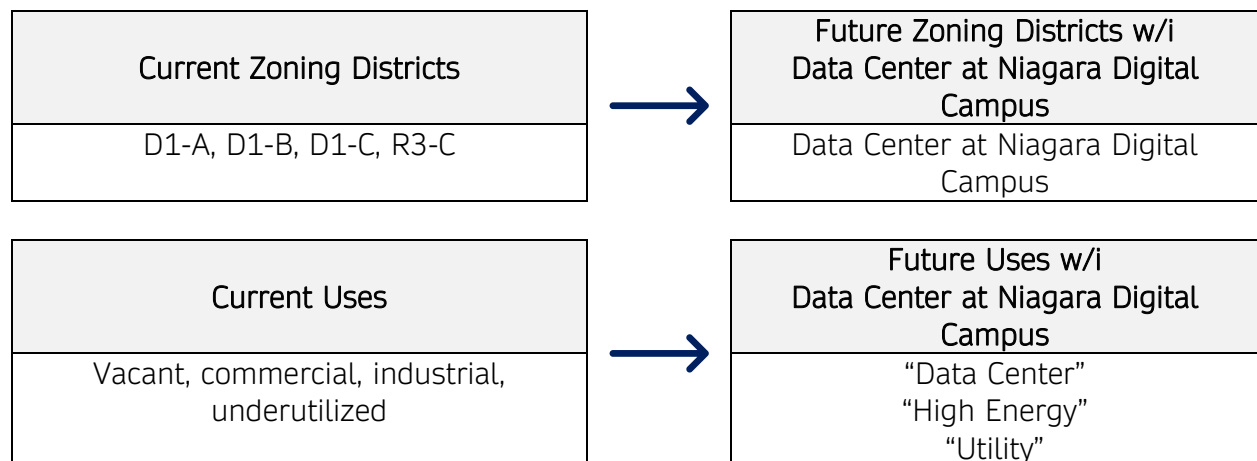
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B. PETITION DESCRIPTION

In accordance with Section 1318 of the City's Zoning Ordinance (the "Zoning Code"), Petitioners seek to petition the Planning Board to amend the Zoning Code to develop a Negotiated Planned Development District, more commonly referred to as a Planned Unit District ("PUD") to be known as the "Data Center at Niagara Digital Campus PUD," on approximately 53-acres of property generally bounded by John B. Daly Boulevard, Falls St., 15th Street, and Buffalo Avenue in the City of Niagara Falls (the "Property"). Refer to **Attachment E** for the Concept Plans, pages 1-10 (together, "Concept Plans"). The PUD contains approximately 180 individual tax parcels. See **Attachment I** (Tax Boundaries Map), **Attachment B.1** (Property Chart) and **Attachment Q** (Survey). The Petitioners own approximately 71.13% of the parcels within the PUD. See **Attachment B** (Verified Petition).

The Property is currently underutilized. The current uses at the Property are vacant, commercial, and industrial, and the Property is currently zoned as Downtown (D1) in the following subdistricts A (near casino), B (transition), C (near park), and Residential, multi-family, high density (R3-C). See Chart below and **Attachment D** (PUD Use Table); **Attachment K** (Zoning Maps). All current zoning districts allow commercial uses, so the Data Center at Niagara Digital Campus will be consistent with all of them.



As detailed in **Attachment N** (Area Criteria Chart), the PUD Project will largely maintain existing area criteria, with the exception of increasing maximum front-yard setbacks, which will be utilized sparingly and in accordance with **Attachment E** (Concept Plans). Further, regarding signage, the Data Center Niagara Digital Campus PUD seeks to align with the currently allowable downtown signage criteria. See **Attachment O** (Signage Chart).

C. ZONING CODE SECTION 1302.4 COMPLIANCE

1. Compliance with Zoning Code Section 1302.4.1(A)

Zoning Code Section 1302.4.1(A) states that the amendment process is the appropriate “tool to adjust the provisions of this Zoning Code and the Official Zoning Map in light of changing, newly discovered or newly identified conditions, situations or knowledge and maintain consistency between the zoning and the goals, objectives and policies contained in the Comprehensive Plan.” Although the Zoning Code does not definitively state that Section 1302.4 applies to PUD petitions, the Notice of Incomplete Application directs that this is the proper procedure to follow.

The Data Center at Niagara Digital Campus reflects the fast-growing and sophisticated data-intensive technology at the heart of modern economic development. While the 2009 Comprehensive Plan does not specifically identify this specific emerging technology, the Data Center aligns perfectly with the Comprehensive Plan and positions the City to be an innovative and influential leader in the burgeoning high-energy economy. See Part 3, Section K, below.

2. Compliance with Zoning Code Section 1302.4.1(B)

Petitioners submit the required Verified Petition as **Attachment B** and required Property Ownership Chart as **Attachment B.1**. Petitioners own 71.13% of the frontage to be included in the PUD. Petitioners also enclose as **Attachment A** the required Chapter 1302.4 Zoning Amendment Form.

3. Compliance with Zoning Code Section 1302.4.2(A)(1)

The Zoning Code Section states that a Petition is to include “a preliminary proposal, along with a rezoning application and requisite fee.” This Narrative and the numerous Attachments amply satisfy the “preliminary proposal” requirement. **Attachment A** contains the required “application,” and Petitioners have submitted the requisite fee. Thus, the Planning Board should determine this PUD Petition to be complete.

4. Compliance with Zoning Code Section 1302.4.2(A)(1)(a)

This Zoning Code Section requests “[p]roposed land uses, including number of dwelling units, gross floor area and land area for each such land use.” The Data Center at Niagara Digital Campus PUD proposes three uses: “Data Center,” “High Energy,” and “Utility.” Enclosed as **Attachment D** is the Data Center at Niagara Digital Campus PUD Use Table.

Data Center, per the Code, is defined to be:

A physical facility used for the storage, management, processing, and/or transmission of digital data, which houses business computer systems, networking equipment, power supplies including generators, subsystems, and other associated components related to digital data operations. Data Centers

do not include the generation or mining of cryptocurrency. They may also include other associated infrastructure used to support digital data operations such as ventilation/cooling systems, offices, conference rooms, and other administrative space for the purposes of supporting digital data operations.

High Energy Use, per the Code, is defined to be:

Business activities that require high energy consumption compared to other businesses in the applicable district(s) of the City of Niagara Falls. Cryptocurrency mining and data center are high energy use activities, as defined in this Article.

The Code has two definitions for Utility, one for public and one for private. Petitioners seek to allow both types of uses, defined together to be:

publicly or privately owned and operated utilities such as water distribution, electricity transmission, utility substations, wastewater collection infrastructure, ground-wired and cable telecommunication infrastructure, overhead or underground electric and gas transmission and distribution lines, but shall not include energy producing facilities including wind turbines and similar alternative energy technologies.

5. Compliance with Zoning Code Section 1302.4.2(A)(1)(b)

This Zoning Code Section requests “[p]roposed road system and all existing and proposed rights-of-way and easements, whether public or private.” The Data Center at Niagara Digital Campus PUD will require abandonment of the following streets/alleyways: Memorial Parkway; alleyway between 12th Street and 13th Street; Angelo Court; and a portion of 13th Street. See **Attachment L** (Proposed Road System Map), which illustrates the streets and alleyways to be abandoned. Petitioners will follow the abandonment process outlined in the Code and directed by the City, after the enactment of the PUD and approval of Petitioners’ site plan.

The Data Center at Niagara Digital Campus will not have a negative impact on traffic. See **Attachment V** for Traffic Impact Study, and Part 3, Section G below for SEQRA analysis of traffic.

6. Compliance with Zoning Code Section 1302.4.2(A)(1)(c)

This Zoning Code Section requests “[t]he interior common open space system and a statement as to how it is to be owned and maintained.” The Data Center at Niagara Digital Campus does not include interior common open space, so this Section is inapplicable.

7. Compliance with Zoning Code Section 1302.4.2(A)(1)(d)

This Zoning Code Section requests “[t]he interior drainage system and how it is proposed to be connected to the drainage systems of adjoining areas.” Petitioners anticipate that Data Center stormwater runoff for the individual phases/parcels will be managed on-site in accordance with the requirements of the Niagara Falls Water Board and the New York State Department of Environmental Conservation (“NYSDEC”) Stormwater Management Design Manual. Typically, surface runoff will be collected using precast catch basins and drains and conveyed within an enclosed pipe drainage system to a subsurface stormwater detention system consisting of ADS Storm Chambers or similar mechanisms. The detention system will be designed to release runoff at the discharge rates required by the Water Board, with a piped connection to the existing municipal combined sewer system within the adjacent public rights-of-way.

8. Compliance with Zoning Code Section 1302.4.2(A)(1)(e)

This Zoning Code Section requests “[i]f the development is to be staged, clear indication of how the staging is to proceed.” Refer to Part 2 of this Narrative for phase/staging information related to the Data Center at Niagara Digital Campus.

9. Compliance with Zoning Code Section 1302.4.2(A)(1)(f)

This Zoning Code Section requests “[e]vidence of how the proposal would meet the planning objectives of the Comprehensive Plan and/or the proposed District.” Refer to Part 3, Section K for complete analysis on the Data Center at Niagara Digital Campus PUD’s consistency with the applicable community plans and Comprehensive Plan.

10. Compliance with Zoning Code Section 1302.4.2(A)(1)(g)

This Zoning Code Section requests “[e]vidence to demonstrate applicant’s competence to carry out the plan and his awareness of the financial and organizational scope of such a project.” Refer to **Attachment T** (MRB Study) for evidence of Petitioners’ competence to carry out this PUD Petition and their awareness of the financial and organizational scope of such a PUD Project. Additional evidence of Petitioners’ track record of achievement with similar projects maybe be found in Section D in Part II of the Narrative. The Data Center at Niagara Digital Campus will offer significant levels of new employment and an increased tax base, which also furthers the goals of the Comprehensive Plan.

The positive economic impact of this PUD project is significant. The MRB Study (**Attachment T**) highlights tax revenue, job creation, and economic spin-off benefits that will be generated by the \$1.5 billion Data Center at Niagara Digital Campus, including substantial new property and sales tax revenues. New property, gross receipts and sales tax revenues include property taxes to be paid on improvements to the Property, as well as sales and gross receipt taxes associated with the Data Center’s energy use. Over 20 years, the total additional taxes generated by the project is estimated to be more than \$414 million. The MRB study breaks down these tax revenues as follows:

- Over a 20-year period, the project will generate approximately \$298 million in new property, sales and gross tax receipts to the City of Niagara Falls and the Niagara Falls School District.
- Niagara County will receive an estimated \$54 million in new property and sales tax revenue.
- New York State will also receive approximately \$63 million in sales tax revenues from the project's energy usage.

To help illustrate what the overall impact of the Data Center at Niagara Digital Campus means to local residents, MRB translated property tax savings to a “typical” owner of an average-priced single-family home in the City. The typical homeowner will save approximately \$14,603 over 20 years, which equates to an average of approximately \$730 per year. “Savings” are defined as revenues that the City and the School District otherwise—i.e., without the benefit of the Data Center—would have to collect via their respective tax levies.

As to employment, MRB concluded that over the course of 20 years, the Data Center at Niagara Digital Campus will support 19,238 job-years (which is inclusive of construction jobs, permanent jobs, and indirect jobs), which, in turn, will generate \$1.66 billion in earnings. This equates to an average of 962 jobs with \$83 million in earnings each year for the first two decades of the Data Center's operations.

11. Compliance with Zoning Code Section 1302.4.2(A)(1)(h)

This Zoning Code Section requests “[s]uch further and other documentation as the Planning Board may deem necessary or appropriate.” No such documentation has been requested, so this Section is inapplicable to the PUD Petition. Further, this PUD Petition satisfies Zoning Code Section 1302.4.2(A)(1) and should be deemed complete.

12. Compliance with Zoning Code Section 1302.4.2(A)(1)(i)

This Zoning Code Section requests “[p]art 1 of a completed Full Environmental Assessment Form or, if appropriate, a draft Environmental Impact Statement.” Enclosed as **Attachment Y** is a Full Environmental Assessment Form with attachments (**Attachments Y.1-Y.7**). Part 3 of this Narrative is broken down in order of the sections of the FEAF Part 2, for the convenience of this Planning Board.

PART TWO: **DATA CENTER AT NIAGARA DIGITAL CAMPUS** **DESCRIPTION**

A. THE DATA CENTER AT NIAGARA DIGITAL CAMPUS DETAILS

The Data Center at Niagara Digital Campus entails the development of a 140-megawatt (“MW”) data center, comprising five phases on approximately 53 acres. See **Attachment E** (Concept Plans). NFR has partnered with Urbacon Data Centre Solutions Inc. (“Urbacon”), which is a preeminent developer, constructor, and operator of hyperscale and build-to-suit data centers in North America, to bring the innovative Data Center to downtown Niagara Falls.

The Data Center at Niagara Digital Campus will include eight two-story buildings and one one-story building, for a total of 1,232,715 square feet of new space. See **Attachment E** (Concept Plans). In total, the Data Center will consist of nine structures. The maximum height of the buildings is anticipated to be approximately 30-35 feet, the height of noise screens will be approximately 26 feet, and the height of the mechanical equipment will be approximately 20 feet. See **Attachment G** (Elevations).

The PUD Project will also include significant improvements to the pedestrian environment and experiences. See **Attachment E** (Concept Plans). Improvements like trees, shrubs, landscaping beds, trash receptacles, benches, tree pits, bike racks, improved sidewalks, way-finding kiosks, plants, and tables with chairs and umbrellas have been included in the Concept Plans.

As detailed in the Concept Plans, see **Attachment E**, the Data Center will be comprised of five phases. Assuming timely action on this PUD Petition by the City and no unreasonable delays in approvals, abandonments, and similar pre-construction activities, construction of Phase 1 is anticipated to begin in May 2026 with construction of each subsequent Phase beginning approximately every 18 months thereafter. Each subsequent Phase is expected to begin upon the completion of the prior Phase. The anticipated completion date of the final 5th Phase is May 2032.

Additional details about each Phase is provided below:

Phase 1	
Attachment E reference page(s)	Page 1 of 10; Page 2 of 10; Page 3 of 10; Page 9 of 10
Description	<p>Phase 1 will be split into two subphases: A and B.</p> <p>Subphase 1A will include a two-story building comprising 141,200 square feet ("SF") of office space, digital infrastructure space, loading dock, and associated screened mechanical yard.</p> <p>Subphase 1B will include a two-story building comprising 141,200 SF of office space, digital infrastructure space, loading dock, and associated screened mechanical yard.</p> <p>Phase 1 will also include the construction of an electrical substation and requisite transmission lines to feed energy to the Data Center.</p>
Parking	Phase 1 will include 132 parking spaces.

Phase 2	
Attachment E reference page(s)	Page 1 of 10; Page 4 of 10; Page 5 of 10
Description	<p>Phase 2 will be split into two subphases: A and B.</p> <p>Subphase 2A will include a two-story building comprising 141,200 SF of office space, digital infrastructure space, loading dock, and associated screened mechanical yard.</p> <p>Subphase 2B will include a one-story building comprising 130,785 SF of office space, digital infrastructure space, loading dock, and associated screened mechanical yard.</p>
Parking	Phase 2 will include 141 parking spaces.

Phase 3	
Attachment E reference page(s)	Page 1 of 10; Page 6 of 10
Description	<p>Phase 3 will be split into two subphases: A and B.</p> <p>Subphase 3A will include a two-story building comprising 141,200 SF of office space, digital infrastructure space, loading dock, and associated screened mechanical yard.</p> <p>Subphase 3B will include a two-story building comprising 141,200 SF of office space, digital infrastructure space, loading dock, and associated screened mechanical yard.</p>
Parking	Phase 3 will include 134 parking spaces.

Phase 4	
Attachment E reference page(s)	Page 1 of 10; Page 7 of 10
Description	Phase 4 will be split into two subphases: A and B. Subphase 4A will include a two-story building comprising 137,560 SF of office space, digital infrastructure space, loading dock, and associated screened mechanical yard. Subphase 4B will include a two-story building comprising 117,170 SF of office space, digital infrastructure space, loading dock, and associated screened mechanical yard.
Parking	Phase 4 will include 143 parking spaces.

Phase 5	
Attachment E reference page(s)	Page 1 of 10; Page 8 of 10
Description	Phase 5 will include a single two-story building comprising 141,200 SF of office space, digital infrastructure space, loading dock, and associated screened mechanical yard.
Parking	Phase 5 will include 66 parking spaces.

B. SUBDIVISION AND AMALGAMATION:

After the enactment of the PUD, the proposed boundaries of the Data Center at Niagara Digital Campus will require three properties to be subdivided: (i) 907 Falls St. (tax id. 159.09-3-3), (ii) N/A John Daly Memorial Pkwy¹ (tax id. 159.09-3-2) and (iii) LaSalle Expressway (tax id. 160.15-1-72). See **Attachment M** (Tax Map Overlay); and **Attachment L** (Proposed Road System Map). Included as **Attachment S** is an application to subdivide the three tax parcels so that only whole tax parcels are included in the PUD (“Subdivision Application”). After the PUD is enacted, the Subdivision Application will be filed with the City.

Pursuant to Code Section 1323.1.1, Petitioners will seek to amalgamate the 180 tax parcels contained within the Property into a single tax lot owned by a single owner, prior to seeking a building permit, which would occur after the PUD is enacted and the site plan is approved.

¹ As referred to on the City's tax parcel database.

C. BENEFIT TO THE COMMUNITY

The Data Center at Niagara Digital Campus PUD and construction of the Data Center will be of immense benefit to the City and the entire region. See **Attachment T** (MRB Study). Based on current design plans and energy-consumption projections, it is anticipated that there will be more than 6,000 construction jobs and 771 permanent jobs created by the 140 MW Data Center at Niagara Digital Campus. The Niagara Digital Campus will be among the largest private development projects in the City's history. It is projected to create \$1.6 billion in wages in the first 20 years, with additional economic sales benefits that are expected to be over \$5.5 billion in the first 20 years. The annual wages of the 550 permanent jobs the Data Center will create directly are projected to be over \$45 million. The total economic benefit from the Data Center at Niagara Digital Campus is expected to exceed \$276 million annually. The ancillary businesses that will arise as outgrowths of the Data Center at Niagara Digital Campus are anticipated to create more than 200 local permanent jobs.

The City will also realize significant tax revenue from the Data Center at Niagara Digital Campus. In New York, the supply and commodity components of electric bills are taxed at the State, County, and City levels. The Niagara Falls Digital Campus has a high-demand, 24/7 operational characteristic, which results in high electric bills and high tax revenues. It is projected that the fully built-out 140 MW Data Center will generate an estimated tax revenue of \$2.2 million per month and \$26.4 million annually in State, County, and the City's tax revenues. See Schedule B - Non-Residential Tax Law. Isolating the impact on the City, tax revenue estimated at \$1.6 million per month or \$19.2 million annually is possible, assuming 4% pre-emptive plus 1% Gross Receipts Tax ("GRT") based on applicable utility tariff and tax law as of 2024.

Globally, there is tremendous and growing market demand for data centers, and this Data Center at Niagara Digital Campus will position Niagara Falls to be a leader in a rapidly growing global field. Artificial Intelligence, video streaming, and cloud storage are all fast-growing markets, which have combined to create an unprecedented demand for state-of-the-art data centers, such as the one NFR intends to bring to Niagara Falls. Illustrative of the market demand, Amazon has announced plans to spend \$150 billion on data centers in the next 15 years.² The United States data center market saw the largest pricing increase of all commercial real estate assets last year, further evidencing the growing importance of this field.³

D. NFR'S COMMITMENT TO THE CITY

NFR is committed to the City of Niagara Falls. Over the past 25 years, NFR has spent more than \$116 million in the Niagara Falls area in its pursuit of redevelopment—including more than \$5 million on the preliminary work required to advance the Data Center at Niagara Digital Campus project to its current state—and remains committed to the successful and

² <https://www.bloomberg.com/news/articles/2024-03-28/amazon-bets-150-billion-on-data-centers-required-for-ai-boom>

³ <https://www.cbre.com/press-releases/north-american-data-center-pricing-nears-record-highs-driven-by-demand-limited-availability#:~:text=%E2%80%9CThe%20U.S.%20data%20center%20market,for%20CBRE's%20Data%20Centers%20Solutions>

continued revitalization of the City of Niagara Falls. Petitioners have been proud to contribute to the community through property and school taxes totaling nearly \$11.6 million a year, making Petitioners among the largest taxpayers in Niagara Falls. NFR has made more than \$1.4 million in charitable donations to local schools, community groups, and nonprofit organizations. NFR has continued its investment in the City and the PUD by engaging with the New York Independent System Operator and making a \$150,000 investment towards improving the electrical infrastructure in the vicinity of the Property and, as mentioned below, reducing energy costs to ratepayers. Further, NFR also remains committed to its offer of \$3.5 million and 10.2 acres of NFR-owned property near the PUD to help drive economic development.

NFR's founders and owners, the Milstein family, have a long and distinguished track record of entrepreneurship, philanthropy, and development, particularly in the technology sector. For example, in 2017, the Milsteins donated \$20 million to launch the Milstein Program at Cornell University⁴, an interdisciplinary program focused on the intersection of technology and the humanities. The Milstein Program leverages Cornell Tech's permanent campus⁵ on Roosevelt Island to prepare future leaders for the digital age. Reflecting a similar Milstein family commitment to investment in tomorrow's technologies today is Company Ventures⁶, a NYC-based venture capital firm that invests in new technology-driven businesses. One of Company Ventures' flagship programs is the Grand Central Tech Residency Program⁷, a zero-rent, zero-equity residency program built to attract and support NYC's premier entrepreneurs and their founding teams. As of late 2024, 95 program companies had raised \$1.3 billion from leading venture capital firms. This program is made possible by the Milstein family; top corporate partners including Google, Amazon, Microsoft, IBM, JP Morgan, Mastercard, GE, Lowe's, and MRM/McCann; and more than 100 hand-selected experts and advisors. It is the Milstein family's same visionary leadership and commitment to excellence that is driving NFR's plans for the Data Center at Niagara Digital Campus PUD in collaboration with Urbacon's Mission Critical Data Centres Group⁸, which has constructed over 2.5 million square feet of data center space across Canada since Urbacon's founding in 1984 and is eager to construct its first U.S.-based facility in Niagara Falls.⁹

⁴ <https://milstein-program.as.cornell.edu/about-milstein-program>

⁵ <https://tech.cornell.edu/campus/>

⁶ <https://www.companyventures.com/>

⁷ <https://www.companyventures.com/?portfolio=true>

⁸ https://www.urbacon.net/projects_tag/mission/

⁹ <https://www.datacentermap.com/c/urbacon-data-centre-solutions/>

PART THREE:

SEQRA OVERVIEW

As required by the State Environmental Quality Review Act (“SEQRA”) and the Zoning Code, included as part of this PUD Petition is a Full Environmental Assessment Form (“EAF”) with various attachments and studies.

While Petitioners currently seek the enactment of the “Data Center at Niagara Digital Campus PUD” pursuant to this PUD Petition—which is a necessary prerequisite for approval of any future Data Center site plan submissions—Petitioners have provided available, specific, and non-speculative Data Center information as part of its PUD Petition, in order to enable the City Council to properly consider the potential environmental impacts related to the enactment of the Data Center at Niagara Digital Campus PUD (the “Action”).

As detailed below, the Action will not result in a significant environmental impact. For the City Council's convenience in considering potential environmental impacts of this Action, the summary below tracks the information required by the EAF Part 2 form.

A. LAND/GEOLOGIC FEATURES

Sections 1 and 2 of Part 2 of the EAF ask whether the Action may involve construction on, or physical alteration of, the land surface of the Property, or whether the Action may result in the modification or destruction of, or inhibit access to, any unique or unusual landforms on the Property. **Attachment Y.1**, contains a USGS Map.

Although the Action will involve construction and alteration of land, it will not result in a significant impact on land. The current state of the Property is largely vacant and underutilized. The Property was developed for decades and most previously-developed structures have been demolished. The Property has been the subject of anticipated redevelopment for many years, and, as reflected in the City's Comprehensive Plan, has long been intended by the City and NFR to be redeveloped.

In preparing this PUD Petition, the New York State Environmental Resource Mapper was utilized to determine and confirm that there are no Unique Land or Geologic Features on the Property. See **Attachment Y.2- Geologic Feature Mapper**. The Property is not located within a Coastal Erosion hazard area. There are currently 18.3 acres of roads, buildings, and other paved or impervious surfaces on the Property. After project completion, there will be 50 acres. Currently, there are 4.9 forested acres. After project completion, there will be 1.3 forested acres. There is currently no landscaping on the Property. After project completion, there will be 7.2 acres of landscaped area. The average depth to bedrock on the site is 25 feet and there are no bedrock outcroppings at the Property. The predominant soil on the site is silty loam/urban fill. The soil is poorly drained and there are slopes on only 0-10% of the site.

As detailed in [Section J](#) below, all laws and regulations will be adhered to if contamination is encountered during the redevelopment.

B. SURFACE WATER/GROUNDWATER/FLOODING

Sections 3, 4, and 5 of Part 2 of the EAF Form ask whether the Action will affect one or more wetlands or other surface waterbodies, whether it may result in new or additional use of groundwater, or may have the potential to introduce contaminants to groundwater or an aquifer, and whether it may result in development on lands subject to flooding. As demonstrated by **Attachment Y.3**, the Action will not impact any state or federal mapped wetlands or other surface waterbodies. The Property is not located in a designated floodway, but is located in the 500-year floodplain. Stormwater runoff for the individual phases/parcels will be managed on-site in accordance with the requirements of the Niagara Falls Water Board and the NYSDEC Stormwater Management Design Manual.

The Data Center will use municipal water as a source and not groundwater. The Property is not located over or adjacent to a primary, principal, or sole-source aquifer. It is anticipated that the Data Center will generate sanitary wastewater liquid waste, but any liquid wastes generated will be handled in accordance with all applicable laws and regulations, and will not impact groundwater. The Data Center may require a NYS Bulk Storage Certification for its on-site generators. The Data Center will use the existing public wastewater treatment facilities in the City of Niagara Falls for wastewater purposes. The City of Niagara Falls wastewater district has the capacity to serve the Data Center and the Property is located in the district. No expansion of the wastewater district will be needed.

C. AIR

Section 6 of Part 2 of the EAF asks whether the Action may include a state-regulated air emission source and, if so, whether it will comply with all applicable laws and regulations. The Action will not create a significant impact on air. The Data Center will likely have stationary sources of back-up power, and may require a NY State Air Registration, which will be reviewed, approved, and issued by NYSDEC.

D. PLANTS AND ANIMALS/ AGRICULTURAL RESOURCES

Sections 7 and 8 of Part 2 of the EAF ask whether the Action results in a loss of flora or fauna, and whether the Action may impact agricultural resources. As set forth in **Attachment Y.6**, no rare plants or animals have been identified within the Property. Nearby rare plants/animals have been identified to be the Blacknose Shiner and rare Freshwater Mussels, both of which are aquatic species and unimpacted by the PUD Project. Further, the US Fish and Wildlife Service Information, Planning and Conservation ("IPaC") Trust Resource Report did not identify any species confirmed to be present at the Property. See **Attachment Y.4** (IPaC Report). The IPaC Report also confirmed that there are no critical habitats, wildlife refuges, or fish hatcheries implicated by the proposed PUD Project. While some migratory birds were identified as potentially being present near the Property, the lack of vegetation

currently on the Property and suitable habitat makes their presence unlikely. Regardless, the Property does contain some existing vegetation that is intended to remain. See **Attachment E** (Concept Plans). Thus, the Action will not result in any impact to rare plants or animals.

The Property is not located within an agricultural area or area suitable for agricultural use, and thus the Action will not result in an impact regarding agricultural resources.

E. AESTHETIC/HISTORICAL AND ARCHEOLOGICAL RESOURCES

Sections 9 and 10 of Part 2 of the EAF ask whether the land uses of the Action are obviously different from the current land use patterns between the Action and a scenic or aesthetic resource, and whether the Action may occur in or adjacent to a historic or archeological resource. The Data Center at Niagara Digital Campus matches the current neighboring land use patterns, which include uses like industrial, commercial, vacant, or underutilized. The area surrounding the Property is well-developed and is located in downtown Niagara Falls. Accordingly, additional development will not disturb the aesthetics of the area. In fact, the current condition of largely vacant or underutilized lands will be aesthetically improved by the Data Center at Niagara Digital Campus. While Niagara Falls is a designated aesthetic resource, the Data Center will not be visible from Niagara Falls, and thus, would not result in a significant impact to that aesthetic resource.

Finally, the Action will not result in a significant impact to historical or archeological resources. While the Part 1 of the NYSDEC EAF Mapper website auto-populated the answer to this question, noting numerous aesthetic or historical/archeological resources, many of these properties are not actually within the Property. Please refer to **Attachment W** (SHPO Documents) for correct listings. Consultation with SHPO has been initiated (25PR01183) and is currently on-going.

F. OPEN SPACE/ RECREATION/ CRITICAL ENVIRONMENTAL AREAS

Sections 11 and 12 of Part 2 of the EAF ask whether the Action will result in a loss of recreational opportunities or a reduction of an open-space resource, and whether the Action is near a critical environmental area. The Action will not have any of these results. The Property is not within or near a critical environmental area. See **Attachment Y.5**. The Action is not reducing recreational opportunities; indeed, it will enhance them through improvements to sidewalks and streetscapes, increasing the walkability of the area. See **Attachment E** (Concept Plans).

G. TRANSPORTATION

Section 13 of Part 2 of the EAF asks whether the Action may result in a change to existing transportation systems. The Action will not result in impacts to transportation. NFR commissioned C&S Companies to perform a Traffic Impact Study ("TIS"). As detailed in **Attachment V**, the Data Center at Niagara Digital Campus minimally impacts the Level of Service ("LOS") at the study intersections, with no changes anticipated to the LOS for any

intersection within the Study Area of the TIS. The estimated amount of vehicle traffic for the peak morning time (7:45 AM to 8:45 AM) on a typical weekday is projected to be 136, with 75 vehicles entering and 61 exiting the site. For the peak evening time (4:00 PM to 5:00 PM) on a typical weekday, the projected generated traffic is 111 vehicles, with 33 vehicles entering and 78 vehicles exiting the site. As such, mitigation measures are not warranted at the Data Center at Niagara Digital Campus or the surrounding area.

Further, while the Action will require an abandonment of certain streets/alleyways (namely, Memorial Parkway; alleyways between 12th Street and 13th Street; Angelo Court; and a portion of 13th Street, see **Attachment L** (Proposed Road System Map), those changes will not result in an impact on transportation.

H. ENERGY

Section 14 of Part 2 of the EAF Form asks whether the Action may cause an increase in any form of energy. As set forth in the accompanying Environmental and Energy Impact Plan (see **Attachment P**), the annual energy consumption for the Data Center at Niagara Digital Campus is estimated to be 630,000,000 kWh upon completion of all five phases. The Property will be served by power from a new dedicated substation fed by a pair of 115 kV transmission lines extended to the Property by way of an existing easement, which National Grid has confirmed will not cause overload. See **Attachment Y.7** (March 27, 2023 Letter from National Grid to NFR).

In New York, all development projects anticipated to create a new load on the electrical grid of 10 MW or more must seek approval from the New York Independent System Operator ("NYISO"). The first step in this approval process is for the project developer to submit a load interconnection request to NYISO in order to gain a position on the utility interconnection queue (the order of load and generation projects that are being considered for approval and connection to the grid), which allows investigation of the project's impact on the grid and ultimate approval for interconnection. NYISO, along with the local utility provider (here, National Grid, through Niagara Mohawk) and the developer then assess the impact the proposed project is likely to have on safety, reliability, infrastructure, and grid resilience, as well as with respect to what public utility infrastructure buildout is necessary to connect the proposed project to the grid, through a formal System Impact Study (SIS). Once the study is complete, the developer is given an estimate of the costs necessary to connect the project without negatively impacting the grid and its customers, with those costs to be borne by the developer through reimbursement of the local utility in building out the infrastructure consistent with the study and estimate. The developer then proceeds with construction along the timeline of meeting the projected interconnection date used in the study, though opportunity exists for timeline extensions.

In the case of the Data Center at Niagara Digital Campus, NFR made its initial interconnection request for a 140 MW load connection with a projected interconnection date of June 2027 on April 9, 2024, and a deposit payment on June 5, 2024. It signed the required SIS Agreement with NYISO and National Grid on June 17, 2024, and it completed its interconnection request submission on July 31, 2024. The scope of the SIS scope received

final internal approval at NYISO on September 12, 2024, and it is anticipated that NYISO will deliver a draft of the study report to NFR in June of 2025. The process for finalizing that report and getting final approval is likely to extend into August of 2025.

In sum, it is anticipated that, once all upgrades (to be paid for by NFR) are made to the local utility infrastructure are complete prior to completion of the first phase of the Data Center, there will be no impact on local National Grid medium voltage distribution systems or the availability of electricity within the Property. In fact, because existing electrical services on the Property are expected to be retired, the Data Center at Niagara Digital Campus may indeed free up additional capacity on the local area utility systems. In any event, the Action will not create a significant impact with respect to energy.

I. NOISE, ODOR, AND LIGHT

Section 15 of Part 2 of the EAF asks whether the Action may result in an increase in noise, odors, or outdoor lighting. There will not be any significant adverse environmental impacts with respect to noise, odors, or outdoor lighting resulting from the Action. The Action will have outdoor lighting. It will feature Code-compliant, pole-mounted light fixtures. The light fixtures will be dark-sky compliant LED with house shields. Some existing natural barriers will be removed but there will be landscaping incorporated into the Data Center design to minimize the increased light. In no event will the Action negatively change the aesthetics of the Property and surrounding area; rather, it will be uniform to or enhance the surrounding area. The Action will not produce odors.

As for noise, NFR commissioned Arcadis Canada Inc. to perform a Noise Impact Evaluation, see **Attachment U** ("Noise Evaluation"). This Noise Evaluation evaluated the ambient sound level and compared to applicable local noise restrictions contained in the Zoning Code, as well as those embodied in the High Energy Use Law. Accordingly, with the use of site-applicable limits based on the existing ambient conditions, noise compliance has been achieved with the Data Center at Niagara Digital Campus design (see **Attachment E**-Concept Plans). Furthermore, based on the preliminary mechanical and acoustical information, the operation of the Data Center is not expected to increase the ambient sound levels by an audible amount.

To characterize the existing acoustic environment surrounding the site, ambient sound level measurements were conducted from April 8, 2025, to April 10, 2025, at four (4) different locations along the perimeter of the PUD Property across from the adjacent land uses. Measurements were completed using two (2) sound level meters (SLMs) Larson Davis SoundExpert 821. Initial SLM deployment was on April 8, 2025, between 10:00 AM and 10:30 AM. The first SLM was deployed near the intersection of Falls Street and 12th street (Location 1), and another SLM was deployed near the intersection of Falls Street and Portage Road (Location 2). To conduct measurements on the opposite side of the site, one (1) SLM was moved at the Buffalo Ave and Memorial Pkwy intersection (Location 3) and another SLM was moved near the intersection of John B. Daly Blvd and Rainbow Blvd (Location 4), on April 9, 2025, between 10:30 AM and 11:00 AM.

Measured sound level data was then processed at an LAeq (15-hr) and LAeq (9-hr) to reflect the ambient sound levels during daytime (7:00 AM to 10:00 PM) and nighttime (10:00 PM to 7:00 AM), as per the High Energy Use Law's time period, and is referred to below as the "Measured Ambient Sound Level." Transient events, such as air traffic, were noted to have an effect on short-term sound levels (~1 minute in length), but have no significant effect on longer time averaging periods, such as the 15-hr and 9-hr time periods. Because a noise can only intrude if it differs in character or sound pressure level from the normal ambient sound, the most objective attempts to assess nuisance noise adopt the technique of comparing the noise with actual ambient sound levels or with some derived criterion.

Notably, the Measured Ambient Sound Levels at nearly each location is higher than the sound level limits of High Energy Use Law. The goal for any permitted operation should be to minimize increases in sound pressure level above ambient levels at the chosen point of sound reception. Since it is not feasible to achieve a lower dBA for a project than the ambient sound levels, the Measured Ambient Sound Levels are properly considered the applicable "Sound Level Limit."

As detailed below, the Data Center at Niagara Digital Campus is in compliance with applicable Sound Level Limit at all POR locations.

Receiver ID	Niagara Falls Zoning District	Sound Level Contour (dBA)	Sound Level Limit (dBA)		In Compliance? (Y/N)
			Daytime (7:00 am – 10:00 pm)	Nighttime (10:00 pm – 7:00 am)	
POR01	Commercial	47	58	50 ³	Y
POR02	Residential ⁴	47	57	55	Y
POR03	Downtown	46	58	55	Y
POR04	Downtown	51	58	55	Y
POR05	Downtown	47	58	55	Y
POR06	Institutional	51	58		Y
POR07	Downtown	53	58	55	Y
POR08	Downtown	55	58	55	Y
POR09	Downtown	49	58	50 ³	Y

Table 4: Summary of Results

The predicted operation of the Data Center at Niagara Digital Campus will not result in any perceptible increase in noise near the PUD Property, as it does not exceed ambient noise levels at the nearest zoning districts, including the Residential district¹⁰. Based on these results, no additional mitigation measures are recommended apart from those mitigation measures already included in the current design of the Data Center at Niagara Digital Campus as reflected in **Attachment E** (Concept Plans).

¹⁰ While POR02 is located in an area currently zoned as Residential, the area does not appear to be "used" for residential purposes, as required by the High Energy Law, so the 40 dBA is likely inapplicable.

J. HUMAN HEALTH

Section 16 of Part 2 of the EAF asks whether the Action may have an impact on human health from exposure to new or existing sources of contaminants. The Action will comply with all applicable laws and regulations, and thus, there will be no significant impact to human health and the environment.

There are no schools within 1500 feet of the site. The Property is not currently used by members of the community for public recreation. There are facilities serving children, the elderly, and people with disabilities within 1500 feet of the Property. These facilities include Community Missions and Niagara County Social Services, but the Action is not anticipated to impact those facilities. If anything, the PUD Project will provide a more positive aesthetic for the Property and surrounding areas when community members visit those facilities.

If, through the redevelopment of the Property, it is discovered that hazardous wastes have been generated, treated, and/or disposed at the Property; that the Property was used as an industrial solid waste facility; or at one time was a solid waste management facility, Petitioners will comply with all applicable laws and regulations to minimize any potential human health impacts. Petitioners have commissioned C&S Companies to prepare a Phase I Environmental Site Assessment for the Property and will follow necessary recommendations made by C&S, in accordance with all applicable laws and regulations.

It is not anticipated that the Action will involve the commercial generation, treatment, storage, or disposal of hazardous waste. NFR will not use pesticides during construction or operation of the Data Center at Niagara Digital Campus.

At this time, it is understood that the following NYSDEC spill files may have occurred on or near the Property but have been designated as “closed” or to require no further action by NYSDEC: 8904306, 0550025, 0751178, 9800966, 0005254, 8600349, 9010402, 9411831, 9707820, 9703663, and 9211019. They do not impact the Data Center at Niagara Digital Campus or human health. Further, the EAF Mapper automatically flagged sites within 2,000 feet of the Property that are contained on the NYSDEC Environmental Site Remediation database. These sites, summarized below, will not impact human health, as related to the Action.

Site No. & Program	Status	Overview
C932164-Brownfield Cleanup Program	Completed-subject to Site Management Plan	[OFF-SITE] Former operations included a biscuit factory, manufacturing, research facility, community college, park and former hotel. Certification of Completion was issued in 2015 and the site is under a site management plan. This site is located southwest of the Property and does not impact it.
C932182-Brownfield	Enrolled in Brownfield	[OFF-SITE] Former operations included the International Paper Company's Niagara Falls Plant, log pond, printing

Cleanup Program	Cleanup Program	operations, packing, manufacturing and commercial, etc. This site recently sought admittance into and is in the process of complying with the Brownfield Cleanup Program. This site is located south of the Property and does not impact it.
932166-State Superfund Program	Completed-subject to numerous control elements	[OFF-SITE] Former pond that was filled. Remediation at this site is complete, and the site is subject to numerous control elements, including an environmental easement, site management plan, cover system, monitoring plan, etc. This site is located southwest of the Property and does not impact it.
932093-State Superfund Program	Class N	Silbergeld Junkyard – former metal scrapyard. No further action is required at this time and since no Hazardous Waste was documented to have been disposed at this site the site does not meet the regulatory requirements for inclusion on the Registry.
C932159-NYSDEC Spill Program	Closed	[OFF-SITE] Former gas station and vehicle-repair facility. Site was admitted into the Brownfield Cleanup Program but then terminated and referred to NYSDEC's Spill Program. The Spill was closed by DEC on June 25, 2018. This site is northwest of the Property and does not impact it.
C932180-Brownfield Cleanup Program	Enrolled in Brownfield Cleanup Program	[OFF-SITE] Former operations include residential, hospital, and automobile garage. This site recently sought admittance into and is in the process of complying with the Brownfield Cleanup Program. This site is northwest of the Property and does not impact it.
932048A-State Superfund Program	Completed	[OFF-SITE] The site consists of an area where approximately 5,200 gallons per year of a coolant were disposed on the ground south of Bldg. 89 and 330 feet north of the Niagara River. This Site is south of the Property and has no impact on it.
932051A,-State Superfund Program	No Further Action	[OFF-SITE] This site has historically been used as a parking lot, but the primary contaminant of concern was mercury in soils and groundwater. Remedial actions have successfully achieved soil cleanup objectives for commercial use. Residual contamination in the soil and groundwater is being managed under a Site Management Plan and Deed Restriction. This site is southeast of the Property and does not impact it.
932051B-State Superfund Program	Closed with site management	[OFF-SITE]. This site has been a major producer of chlorine bleaches and caustic soda by Olin and its predecessors since 1897, which resulted in releases on-site. Residual contamination is being addressed through active treatment. Remedial actions have successfully achieved soil clean-up objectives for commercial use. Residual contaminant in

		groundwater and soil is being managed under a Site Management Plan. This site is southeast of the Property and does not impact it.
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K. CONSISTENCY WITH COMMUNITY PLANS AND CHARACTER

Section 17 of Part 2 of the EAF asks whether the Action is consistent with the adopted land use plans. The Action is consistent with the community plans and will not result in any significant adverse impacts in this regard.

1. Comprehensive Plan 2009

The City adopted its current Comprehensive Plan in 2009, with the stated purpose of providing a “comprehensive foundation for revitalizing the City of Niagara Falls, and the long-term renewal of the regional economy.” Comprehensive Plan, p. 2. “The Comprehensive Plan creates a framework capable of directing positive change over the long term.” *Id.* The Comprehensive Plan is broken down into three sections, and the Data Center at Niagara Digital Campus is consistent with all three.

Part 1 of the Comprehensive Plan identifies the challenges faced by the City, and identifies the following priorities, all of which are furthered by the Data Center at Niagara Digital Campus PUD.

Comprehensive Plan: Part 1 Setting the Stage for Renewal	Data Center at Niagara Digital Campus Consistency
“Public and private sector initiatives aimed at generating and strengthening new employment ‘growth sectors’ must be supported and encouraged by the municipality to stabilize and ultimately expand the economic and residential bases of Niagara Falls.”	The Data Center at Niagara Digital Campus will expand the economic bases of the City. See Attachment T (MRB Study).
“Promote employment opportunities within key industry growth sectors.”	Data centers are a “key industry” and essential for the United States’ growth and economy because they underpin the digital infrastructure, drive innovation, create jobs, generate tax revenue, and enhance overall energy connectivity and resilience.
“The core neighborhoods, the city’s commercial nodes and corridors, primary institutions, key educational and cultural resources, Casino Precinct, and East Falls Street Redevelopment Area each have	The Data Center at Niagara Digital Campus is contained within a portion of the East Falls Street Redevelopment Area. The Data Center will be a major economic driver for the

particular opportunities and drivers which must be carefully timed and leveraged to bring about the renewal of the city.	development of the remainder of the area owned by Petitioners.
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Part 2 of the Comprehensive Plan includes the actions necessary to guide the revitalization of the City. Part 2 is broken down into: Principles for City Renewal, Core City Strategies, Priority Initiatives, and Citywide Policies. The Data Center at Niagara Digital Campus PUD is consistent with all of these, as detailed below.

Comprehensive Plan: Part 2 Comprehensive Plan Strategies	Data Center at Niagara Digital Campus Consistency
<u>Principles for City Renewal</u> No. 7: Carefully target “catalyst projects” to ignite renewal efforts and encourage private sector interest and reinvestment.	As evidenced by Attachment T (MRB Study), the Data Center at Niagara Digital Campus will have a “dramatic chang[e]” and “signal an area’s rejuvenation, furthering interest by the private sector.”
<u>Principles for City Renewal</u> No. 8: Build strategic partnerships and promote a common agenda to undertake “catalyst” projects.	The City’s partnership with NFR and Urbacon for the development of the Data Center at Niagara Digital Campus “represent[s] a new way to plan, achieve, prioritize and implement city building initiatives while strengthening support for renewal within the community and helping to overcome the history of isolated decision-making and self-contained, standalone projects,” as required by Principle No. 8.
<u>Core City Strategy No. 4.2.9</u> : “The City of Niagara Falls should work very closely with prospective developers to ensure that East Falls Redevelopment Area ultimately develop as an extension and expansion of the downtown with a similar mix of employment, residential, office, commercial and tourism uses to strengthen the overall economic position of the city.”	The PUD Project fits exactly within this goal and requires the close collaboration between the City and Petitioners. The Data Center at Niagara Digital Campus will strengthen the overall economic position of the City. See Attachment T (MRB Study).
<u>Core City Strategy No. 4.2.9</u> : “It will be important to ensure that development propositions in the East Falls Redevelopment Area do not weaken, detract or compete with redevelopment initiatives planned within the western portion of the	The Data Center at Niagara Digital Campus will not detract or compete with redevelopment initiatives planned within the Core City, rather, it will enhance them. Urbacon’s Data Centers are well-suited to

Core City, and do not have adverse impacts on the overall market by exceeding demand and thereby precluding redevelopment and reinvestment elsewhere in the Core City.”	be complementary uses in downtown centers. See Attachment H .
<u>Core City Strategy No. 4.2.9:</u> “The East Falls Redevelopment Area will need to find its development niche in relation to the Casino Precinct that lies between it and the Falls.”	The Data Center at Niagara Digital Campus is that niche, complementing all surrounding uses.
<u>Core City Strategy No. 4.2.9:</u> “[D]evelopment in East Falls Redevelopment Area must be clearly justified by a market study fully assessing economic impacts associated with the proposed development.”	See Attachment T (MRB Study), which justifies developing the Property with the Data Center at Niagara Digital Campus and illustrates the extraordinary economic impacts it will have.
<u>Core City Strategy No. 4.2.9:</u> “There should be a flexible development framework that is well connected to existing urban fabric and that can accommodate a mix of uses similar to those found elsewhere within the downtown commercial districts.”	The PUD (referred to as the <i>Negotiated</i> Planned Development Section 1318 in the Zoning Code) is a flexible development framework that can ensure that the Data Center at Niagara Digital Campus will connect well to the existing urban fabric accommodate allowable uses permitted elsewhere in the City. Further, the Data Center at Niagara Digital Campus comprises only a portion of the East Falls Redevelopment Area, and will enable future mixed-use development in the remainder.
<u>Core City Strategy No. 4.2.9:</u> “The City should require the preparation and implementation of urban design guidelines for all developments within the East Falls Redevelopment Area as well as a full market study for each development phase. Guidelines would be a useful mechanism for ensuring that urban and not suburban building typologies are pursued and for promoting a higher standard of construction engineering, architecture and public realm design.”	NFR has partnered with Urbacon, a preeminent developer, constructor, and operator of hyperscale and build-to-suit data centers in North America. See Attachment H (Urbacon’s Data Centers). Urbacon has developed numerous data centers in urban settings. The Data Center at Niagara Digital Campus will be developed to fit seamlessly into the City’s downtown setting. Refer to Attachment T (MRB Study) for the significant economic and fiscal impacts of the Data Center at Niagara Digital Campus.
<u>Priority Initiative 6.2:</u> The Property is identified as one of the “Long-term Projects	The PUD Project is “an exciting and aggressive” project for the City that will

for Implementation,” and is a “Priority Initiatives within the Core City.” The purpose of these initiatives is to “se[t] out an exciting and aggressive vision for the Core City.” The Comprehensive Plan further notes that “[s]ignificant commitment and diligence over many years will be required to achieve this vision.”	significantly benefit the City. NFR has demonstrated decades-long commitment to the City, and has already invested more than \$5 million in the Data Center at Niagara Digital Campus.
<u>Citywide Policy 7.1.2</u> : “Encourage a pattern for new development that incorporates a mix of uses at a variety of densities.”	The PUD Project will encourage new development that incorporates a mix of uses in the City Core and downtown area.
<u>Citywide Policy 7.1.8</u> : “Encourage and support alternative or interim land uses and creative site planning solutions in vacant and/or underutilized industrial areas that support the City’s overall renewal vision and strategy.”	The Property is current vacant and underutilized. The PUD Project will support the City’s overall renewal vision and strategy by contributing significantly to economic growth as well as revitalizing the Core City.
<u>Citywide Policy 7.1.12</u> : “Undertake and adopt future area – and/or issue-specific plans as needed.”	The enactment of the PUD fulfills this policy as data centers are new and emerging necessary uses, not specifically mentioned in the Comprehensive Plan. In short, the PUD is “needed.” Data centers are an appropriate downtown use, see Attachment H , and the PUD Project will contribute significantly to the goals of the Comprehensive Plan, both aesthetically and economically.
<u>Citywide Policy 7.3.3</u> : “Enhance the pedestrian environment and experience through design and amenities that support pedestrian movements, for both the able and disabled population.”	The PUD Project will enhance the pedestrian environment. Attachment E contains the Concept Plans for the Data Center at Niagara Digital Campus, which illustrate significant improvement of the pedestrian environment and experience.
<u>Citywide Policy 7.3.5</u> : “Mitigate the negative impacts of vacant and abandoned properties.”	The Property is vacant and underutilized. The PUD Project mitigates the negative impacts of that reality. The Data Center at Niagara Digital Campus will have a hugely

	positive impact on the City and neighboring areas. See Attachment T (MRB Study).
<u>Citywide Policy 7.4:</u> Environmental and Open Space Resources. “It is the City’s policy to preserve, conserve, and recognize the environmental and natural resources of the City in a manner that contributes to the City’s overall quality of life, enhances public health, and fosters appropriate development.”	The PUD Project will contribute to the City’s overall quality of life, will enhance public health, and will foster appropriate development of underutilized lands within the City.
<u>Citywide Policy 7.4.1:</u> “Limit the potential for cumulative and secondary impact of development and other activities on water, air, and land quality and quantity.”	The PUD Project will not negatively impact water, air, or land quality nor quantity.
<u>Citywide Policy 7.5.2:</u> “Coordinate land use and transportation policies.”	The PUD (referred to as the <i>Negotiated</i> Planned Development Section 1318 in the Zoning Code) is a flexible development framework that can ensure that the Data Center at Niagara Digital Campus is a well-coordinated effort between Petitioners and the City.
<u>Citywide Policy 7.6.3:</u> “Coordinate the City’s land use and zoning policies with the City’s economic development vision.”	The PUD (referred to as the <i>Negotiated</i> Planned Development Section 1318 in the Zoning Code) is a flexible development framework that can ensure that the Data Center at Niagara Digital Campus is a well-coordinated effort between Petitioners and the City.
<u>Citywide Policy 7.6:</u> “Economic Development and Tourism. It is the City’s policy to ensure that the City’s economy is comprised of and supported by a diverse mixture of businesses and that the City’s land use, zoning and development policies are supportive of economic growth, including the development and expansion of the tourism industry, cultural resources and the health care sector. In order to achieve this, the City sets the following policies [7.5.1-7.5.10]”	The PUD Project will support the economic growth of the City. See Attachment T (MRB Study). The PUD Project will allow a diverse mixture of uses in the Core City.

<p><u>Citywide Policy 7.6.1</u>: “Work actively to retain existing businesses and jobs and to promote and strengthen a mixed economy.”</p>	<p>The PUD Project will provide to numerous jobs in the Core City and strengthen a mixed economy while providing enormous benefits to the City. See Attachment T (MRB Study).</p>
<p><u>Citywide Policy 7.6.3</u>: “Coordinate the City’s land use and zoning policies with the City’s economic development vision.”</p>	<p>The PUD (referred to as the <i>Negotiated</i> Planned Development Section 1318 in the Zoning Code) is a flexible development framework that can ensure that the Data Center at Niagara Digital Campus is a well-coordinated effort between Petitioners and the City that will contribute significantly to the economic health of the City.</p>

Part 3 of the Comprehensive Plan includes key policy changes to achieve the vision contained in the Comprehensive Plan. The Data Center at Niagara Digital Campus PUD is consistent with all of these, as detailed below.

<p>Comprehensive Plan: Part 3 The Implementation Framework</p>	<p>Data Center at Niagara Digital Campus Consistency</p>
<p><u>1.3 Strong Leadership is Required</u>. “The vision outlined in the Comprehensive Plan is an aggressive one; however, this end goal must first be defined in order to initiate the appropriate steps by which it can be achieved. To this end ... leadership is required at all levels, beginning with the City Council and the City administration, to stay the course, despite obstacles, and realize the vision. Responsibility for championing and leading change rests with City’s leaders who need to not only communicate the objectives and goals of the Comprehensive Plan, but also ensure it is implemented as envisioned. The City must be proactive about directing its own future and it must communicate its interests and maximize opportunities for partnerships when they are appropriate. And, while some tough decisions must be made along the way, there is much to gain over the long-term.”</p>	<p>Petitioners ask that the Planning Board and City Council process this Petition fairly and take the strong leadership position the Comprehensive Plan demands.</p>
<p><u>2.1 Policy Changes</u>: “Existing City policies regarding land use, property maintenance and parking will need to be reviewed, changed, as necessary, and complemented</p>	<p>The PUD (referred to as the <i>Negotiated</i> Planned Development Section 1318 in the</p>

with new policies to support the implementation of the Comprehensive Plan.”	Zoning Code) provides the flexibility the Comprehensive Plan contemplated.
<u>2.1 Policy Changes:</u> “Strengthen existing land use policies in the City of Niagara Falls Comprehensive Plan to focus new development in the Core City and along existing nodes and corridors. The City should actively encourage other levels of government to adjust their policies to achieve the same goals and support Niagara Falls in its efforts.”	The PUD (referred to as the <i>Negotiated</i> Planned Development Section 1318 in the Zoning Code) provides the flexibility the Comprehensive Plan contemplated. The enactment of the PUD will allow a new data center development in the Core City.
<u>2.1 Policy Changes:</u> “Revise current zoning policies to allow for a mix of residential and commercial uses in the Core City, particularly along its commercial nodes and corridors, and within the downtown area and East Falls Street Redevelopment Area.”	The PUD (referred to as the <i>Negotiated</i> Planned Development Section 1318 in the Zoning Code) provides the flexibility the Comprehensive Plan contemplated. The Property is included in the East Falls Street Redevelopment Area, and the PUD Project will further the goals of that area.

2. Niagara Falls Core City Urban Renewal Plan 2009

The City adopted the Niagara Falls Core City Urban Renewal Plan (the “Urban Renewal Plan”) in 2009, in concert with the Comprehensive Plan, to “... facilitate and direct future development” in the Renewal Area, which is made up of lands north of Robert Moses State Parkway (Niagara Scenic Parkway), west of Portage Road, north of Ashland Avenue, west of 18th Street, north of Niagara Avenue, west of 21st Street, north of Seneca Avenue, west of Hyde Park Boulevard, south of Massachusetts Avenue, east of the rail line and Robert Moses State Highway (Niagara Scenic Parkway), north of Willow Avenue, east of (and including properties on both sides) of Main Street. See Urban Renewal Plan, p. 3. The Urban Renewal Plan is meant to “foster sound and orderly development through the use and maintenance of the lands and buildings” within the Renewal Area. *Id.*

The Property is located squarely within the Renewal Area (see **Attachment K-Zoning Maps**). The PUD Project will achieve the following “key goals,” among others, set forth within the Urban Renewal Plan:

- “Promote private development and intensification to increase the City’s economic and tax base.”
- “Facilitate green-manufacturing, technology and research and re-development where appropriate.”
- “Improve the built environment by replacing run-down, non-performing, or under-utilized structures with new developments which are properly planned.”
- “Stabilize and revitalize neighborhood commercial districts.”

- “Target ‘catalyst projects’ to ignite renewal efforts and encourage private sector interest and reinvestment.”

Id. at pp. 3-4. In short, the PUD Project is precisely the sort of development the drafters of the Urban Renewal Plan envisioned for the Renewal Area.

3. Zoning Code

The PUD Project will meet the purposes of the City's Zoning Code. The future allowable uses of the Property will be Data Center, High Energy, and Utility, all of which are allowable uses within the City. The Property is currently zoned as Downtown (D1) in the following subdistricts A (near casino), B (transition), C (near park), and Residential, multi-family, high density (R3-C). See **Attachment K** (Zoning Maps). It is well understood that data centers are at most a “commercial use” and are appropriate in downtown settings. See **Attachment F** (Urbacon's Data Centers). The current zoning of the Property as primarily “downtown” supports this use. Zoning Code Section 1314.1(A) states that “[t]he purpose of these sub-districts is to provide for a diverse combination of **commercial**, residential, and mixed-use building types within the city's core tourist areas ... Development is intended to be very intense with high lot coverage and pedestrian-oriented with a strong emphasis on creating safe, active, and inviting streetscapes. Parking, where provided, shall be concealed or structured.” [emphasis added]. Further, Zoning Code Section 1321.1(C) states that R3-C districts are intended to be “high density” and that “[l]imited **commercial** uses may be permitted.” Thus, the Data Center at Niagara Digital Campus PUD as a commercial use does not disturb, and actually accords with, the purposes of the current zoning.

The Property also is within the Urban Renewal and Design overlay districts which encourage the development of high-quality buildings, parks, parking structures, and streets, with the goal of revitalizing the Downtown Core. The Urban Renewal Plan highlights that there are barriers to development and private investment, and a lack of economic opportunities in the Downtown Core. The PUD Project aligns with the Urban Renewal Plan's goals of rebranding the area and generating economic development.

4. Regional/Statewide Plans

It cannot be overstated just how important the data center and technology industries are on the national, state, and regional levels. With the proliferation of artificial intelligence-driven technology, the need for data centers has soared in the United States, and data centers are essential for the United States' growth and economy because they underpin the digital infrastructure, drive innovation, create jobs, generate tax revenue, and enhance overall connectivity and resilience. Their strategic importance will continue to grow as our society becomes increasingly dependent on digital technologies, like the growing need for high-speed streaming and flexible remote work environments, as well as the need for development of emerging technologies like AI, and the need to create digital equity for underserved communities. New York State has demonstrated its commitment to being a leader in emerging technologies by securing the NY SMART I-Corridor Tech Hub, of which the PUD Project will be an integral part.

Niagara Falls is uniquely positioned to be an innovative and influential leader in the burgeoning high energy economy by prioritizing economic development that is aligned with climate objectives. The Data Center at Niagara Digital Campus is precisely that sort of economic development.

The State's Climate Leadership & Community Protection Act ("CLCPA") objective is to move New York from a fossil-based to electric-based economy, by requiring 70% renewable energy mix by 2030 and 100% zero emission by 2040. While these are noble and important goals, there is currently a serious inability to meet the goals due to the investment required to rehabilitate inadequate transmission systems and distribution systems. More serious are the costs that will be incurred by the ratepayers in the form of their electric bills due to the necessary transmission and distribution system upgrades, if high energy demand facilities, like the Data Center, are not approved and constructed. The Data Center will contribute to the CLCPA's goals because it entails construction of its own substation and will privately fund the interconnection to existing transmission lines. The Data Center will be a high load factor (24/7) electric consumer and will be a major contributor to energy fixed costs, thereby lessening the financial impact on the mainstream ratepayers.

ATTACHMENT

D

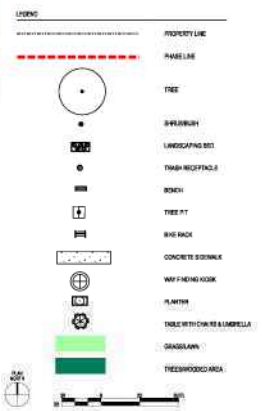
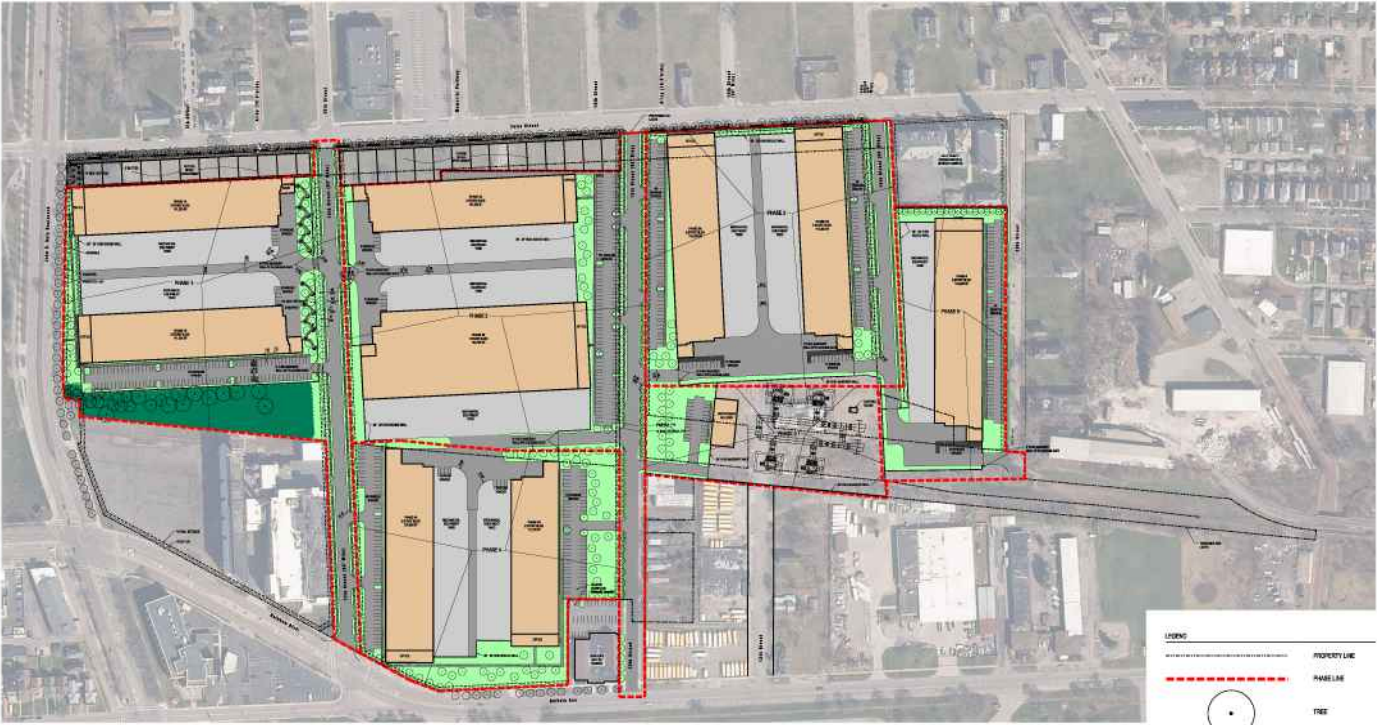
CURRENT SCHEDULE 1

Allowed Uses	Residential Districts				Commercial Districts			Downtown Districts				Industrial Districts		Open Space	Institutional	NPD
	Detached Single R1 A, B, C, D	Doubles R2 A, B	Multi-Family R3 A, B, C	Heritage R4	Neighborhood C1 A, B, C	Traditional C2 A, B	General C3	Downtown D1 A, B, C, D	Gorge View D2 A	Transition D2 B	North Main D3 A	Business Park I1	Industrial I2	OS	Institutional INS	Data Center at Niagara Digital Campus PUD
Residential Categories																
Accessory Dwelling Unit	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Duplex/Semi Detached	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Multi-dwelling structure (3+ units)	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Single Detached Dwelling	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Townhouse	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Group Living																
Bed and Breakfast 1	S 1	S 1	/ 1	/ 1	/ 1	/ 1	/ 1	/ 1	/ 1	/ 1	/ 1	/ 1	/ 1	/ 1	/ 1	/ 1
Boarding/Rooming House			S 1			S	S									
Day Care, Adult Home			S			S	S									
Group Home	/	/	/	/	/	S	S	S	/						/	
Fraternity or Sorority House			S			S	S	S			S	S	S		/	
Halfway House						S	S	S				S	S		/	
Homeless Residential Facilities						S	S	S				S	S		/	
Hotel			S	S		S	S	S				S	S		/	
Reclay	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Industrial Categories																
Junkyard						S	/					/	/			
Manufacturing, Light							/					/	/			
Manufacturing, Heavy							/					/	/			
Recycling Operation							/					/	/			
Warehouse							/					/	/			
Waste-related							/					/	/			
Wholesale Establishment							/					/	/			
Institutional Categories																
Community Center and Services	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
College			/	/	/	/	/	/	/	/	/	/	/	/	/	/
Hospital			/	/	/	/	/	/	/	/	/	/	/	/	/	/
Parks, Public Use & Recreation Areas	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Parks, Open Space & Natural Areas	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Religious Facilities	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
School, Public and Private	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Commercial Categories																
Adult Uses														S		
Bar			/ (C only)	/	/	/	/	/	/	/	/	/	/			
Campers Parks			S (A only)				S									
Child & Small Day Care Centers			/	/	/	/	/	/	/	/	/	/	/		/	
Contractor's Yard						/	/	/	/	/	/	/	/			
Cultural Facilities, Private			/	/	/	/	/	/	/	/	/	/	/	/	/	/
Funeral Home			/	/	/	S	/	/	/	/	/	/	/		/	
Hotel/Motel			/	/	/	/	/	/	/	/	/	/	/		/	
Kennel or Cattery						S	S					S				
Motor Vehicle Service and Repair, Minor					/ (C only)	/	/					/	/			
Motor Vehicle Service and Repair, Major							S					/	/			
Motor Vehicle Sales and Leasing						/	/	/	/	/	/	/	/			
Office			/ (C only)	/	/	/	/	/	/	/	/	/	/		/	/
Parking, Commercial						/	/	/	/	/	/	/	/			
Rail Transit Facility						/	/	/	/	/	/	/	/			
Recreation, Commercial Outdoor						/	/	/	/	/	/	/	/	S		
Restaurant			/ (C only)	/	/	/	/	/	/	/	/	/	/		/	
Retail Sales and Service			/ (C only)	/	/	/	/	/	/	/	/	/	/		/2	
Shopping Center			/	/	/	/	/	/	/	/	/	/	/			
Storage, Self-Serve			/	/	/	/	/	/	/	/	/	/	/			
Telecommunication Facility	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Tourism and Sightseeing Oriented						S	S	S			S	S	S			
Veterinary Clinic						/	/	/	/	/	/	/	/		/	
Non-categorized uses																
Data Center																/
High Energy Use																/
Proposed New Use																/

/ = Permitted Use
 Empty Box = Not Permitted
 1 Owner Occupied
 2 Accessory Only
 S = Permitted only with Special Permit (Chapter 132B)
 OO= High Energy Usage Overlay District
 *Adapted from current definitions of Private-Utility and Public-Utility
 Green= current zoning for the Property

ATTACHMENT

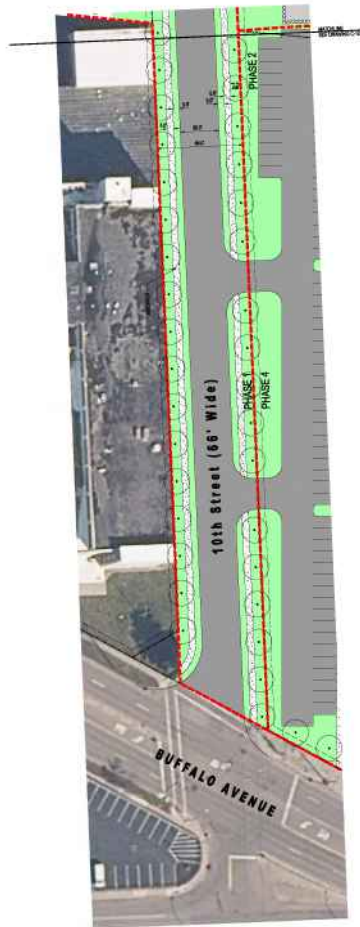
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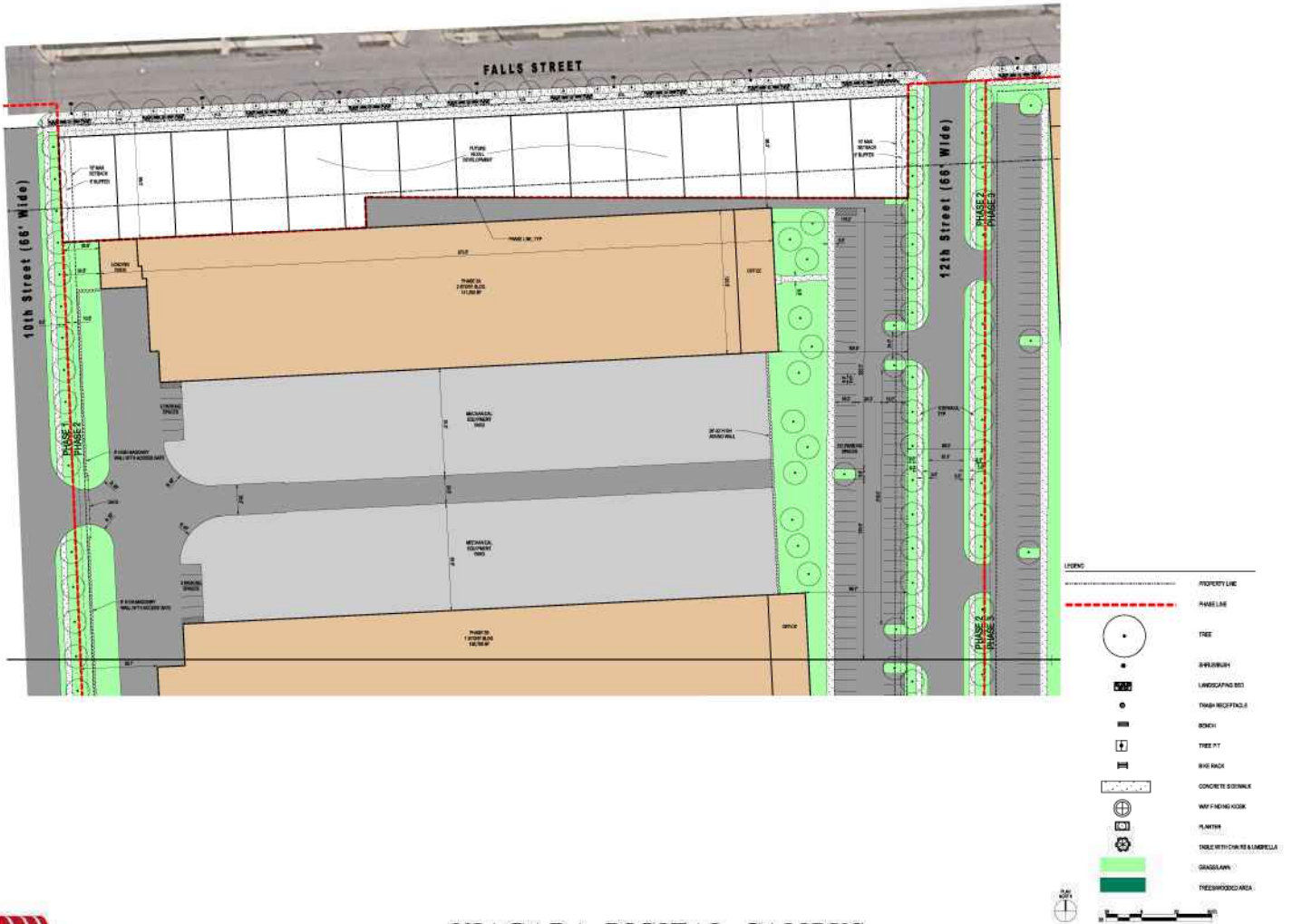


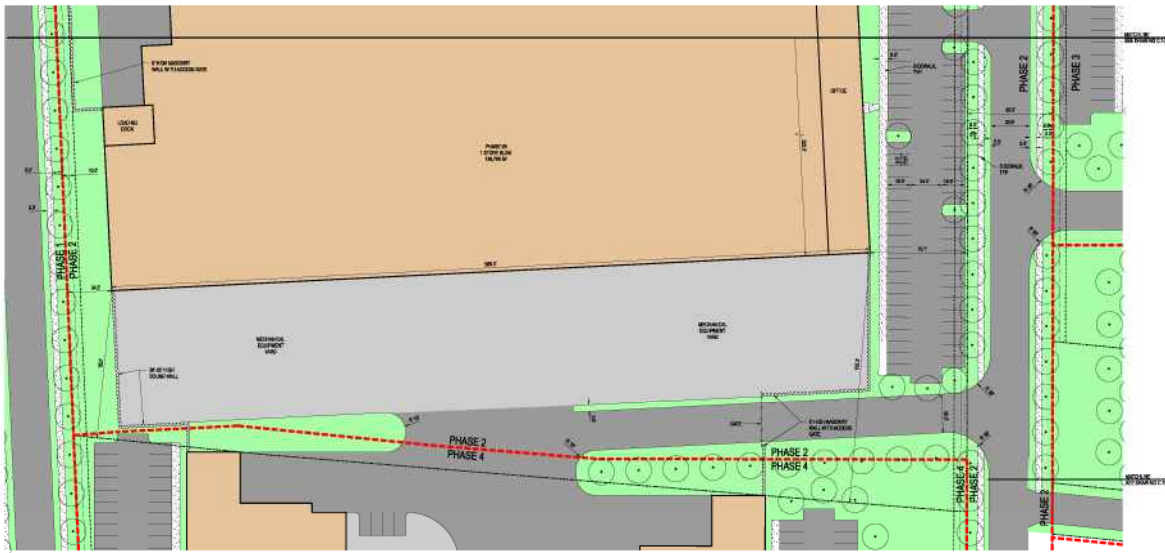
NIAGARA DIGITAL CAMPUS
NIAGARA FALLS, NEW YORK





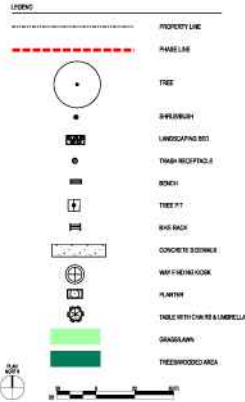
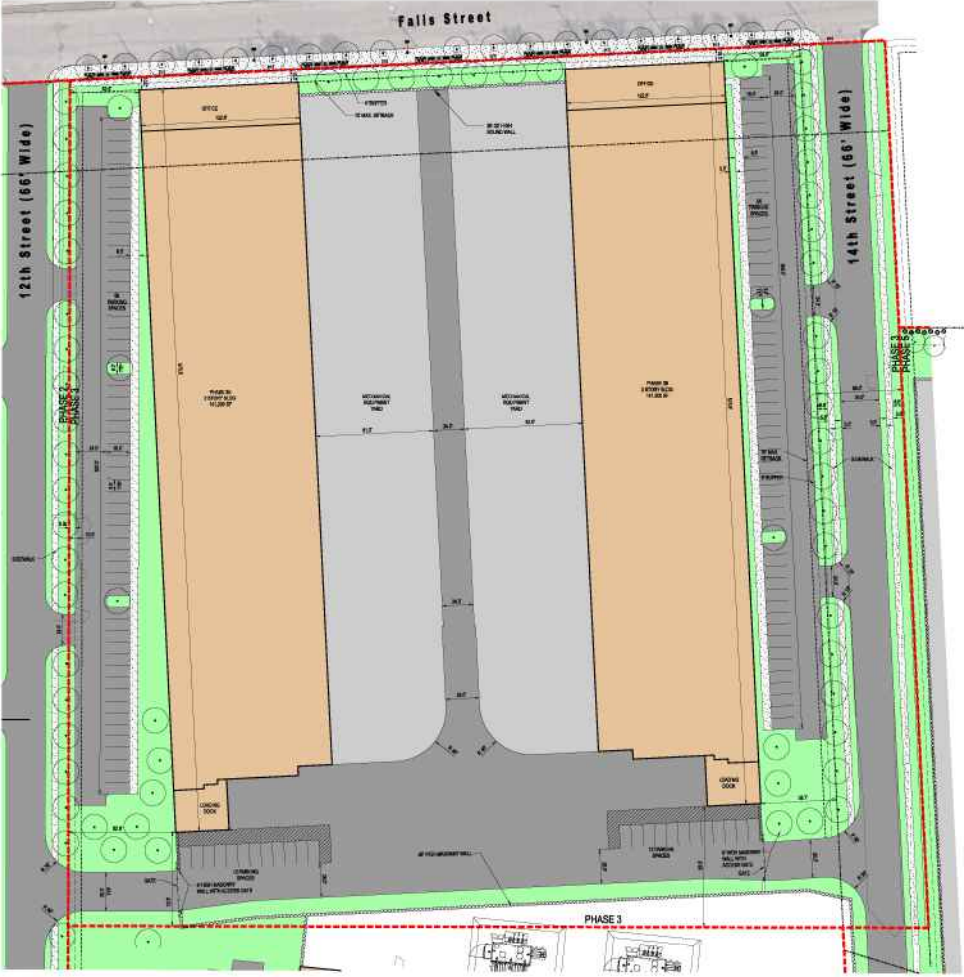






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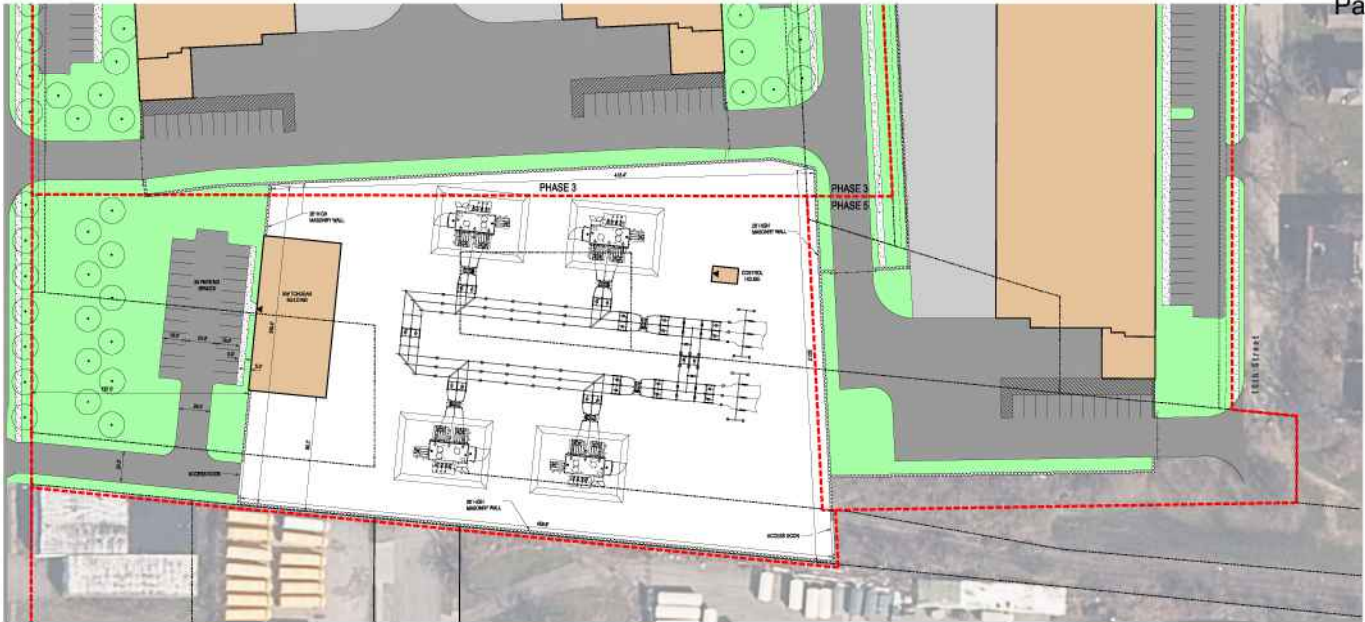


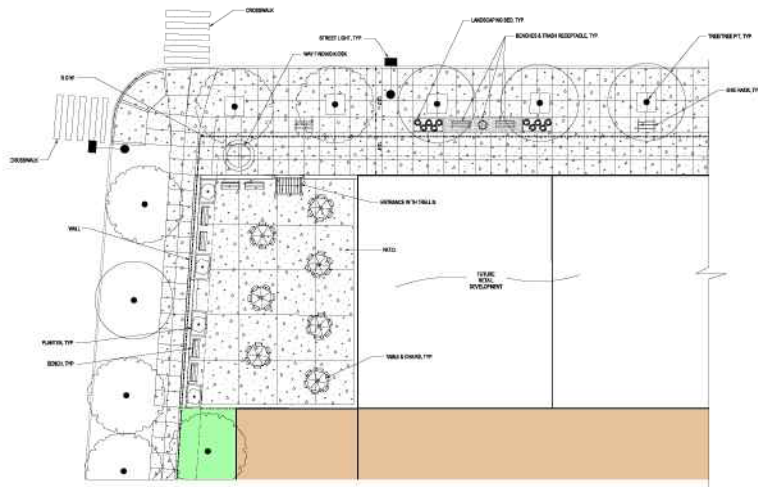
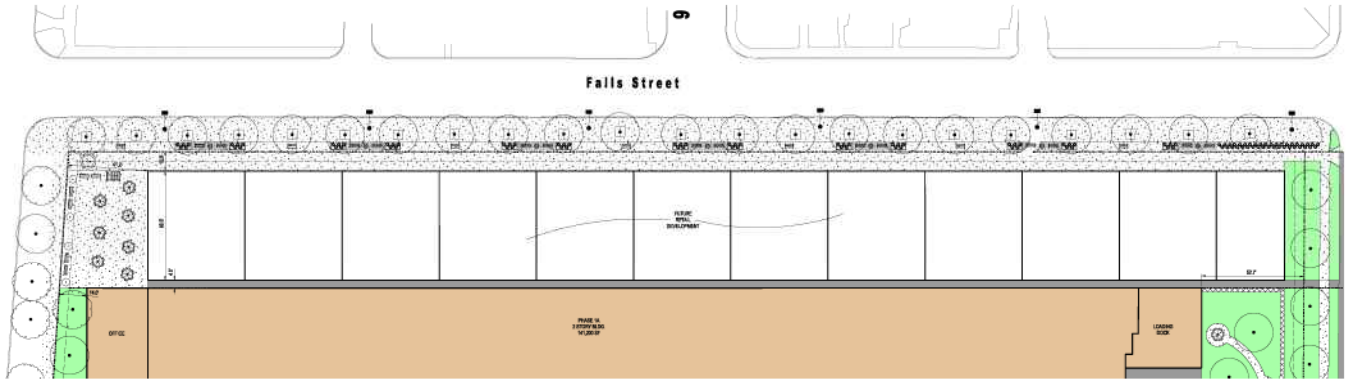




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NIAGARA FALLS, NEW YORK







ENLARGED PLAN
SCALE: 1"=10'



ATTACHMENT

F



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NIAGARA FALLS, NEW YORK





ATTACHMENT

G

WALL CAP: BREAKMETAL OVER 2X
WOOD BLOCKING -SLOPE TOP (SPAN
OVER METAL PANEL, STUD & CONC.
PANEL); MATCH PANEL COLOR-TYP.

PROVIDE VENTING AT TOP AND
BOTTOM ALONG STUD CAVITY

6" METAL STUDS @HORZ. EACH PANEL
JOINT FOR REVEAL BACKING-TYP.

METAL PANEL SYSTEM:
W/ VERTICAL & HORZ. 1" REVEALS ;
(SIZE & COLOR VARIES) SIM. TO
ALUCOBOND

BREAKMETAL REVEAL
(BLACK-TYP.)

PROVIDE VENTING AT TOP AND
BOTTOM ALONG STUD CAVITY

GRADE (VARIES)

T.O. WALL
ELEV. = +30'-7 1/2"±
ELEV. = +28'-7 1/2"±
ELEV. = +26'-7 1/2"±

T.O. STEEL
ELEV. = +30'-6"±
ELEV. = +28'-6"±
ELEV. = +26'-6"±

10" GALV. STEEL COLUMN (@15' O.C. TYP.)
-BEYOND

EXG. 2ND FLOOR
ELEV. = +20'-0"±

CONCRETE PANEL HORZ. JOINT
-TYP@ 48" O.C.

6" METAL STUDS @24" O.C.;
SECURELY ATTACH TO CONCRETE
PANELS (OPEN VERTICAL AIR
BARRIER INSIDE BETWEEN STUDS-TYP.)
; (VARIES- USE 3 5/8" METAL STUDS
INSTEAD OF 6" - SEE ELEVATIONS)

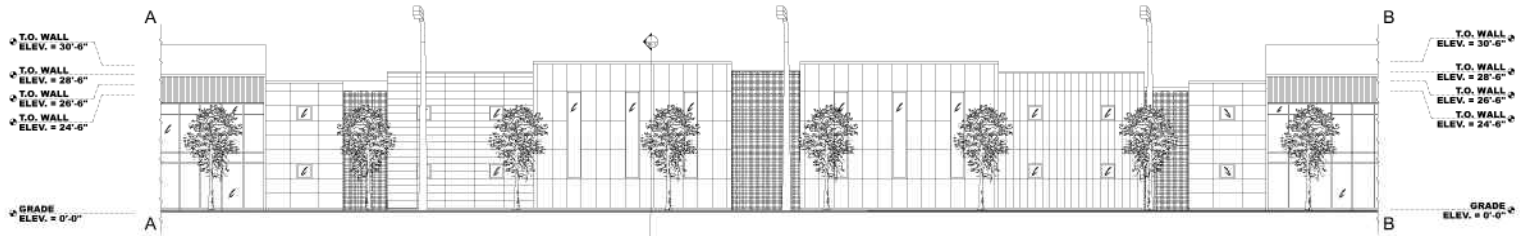
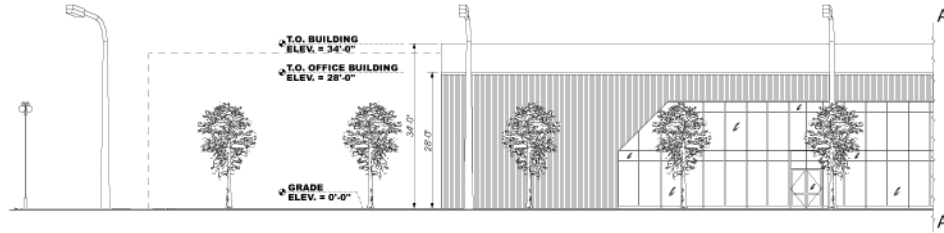
CONCRETE NOISE PANELS (EACH
PANEL: 15' L. x 4' H. TYP.) ; SIM. TO
'NB15 SYSTEM' AS MANUF. BY DURISOL

1ST FLOOR
ELEV. = +10'-0"±

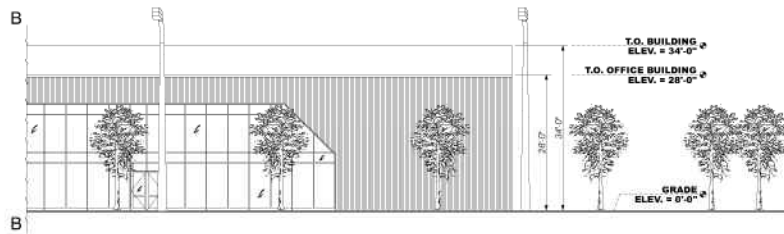
EQUIPMENT COURTYARD SURFACE

CONCRETE REINF. FOUNDATION

NEW GROUND FLOOR
ELEV. = 0'-0"±



WEST ELEVATION
SCALE = 1"=20'





WEST ELEVATION



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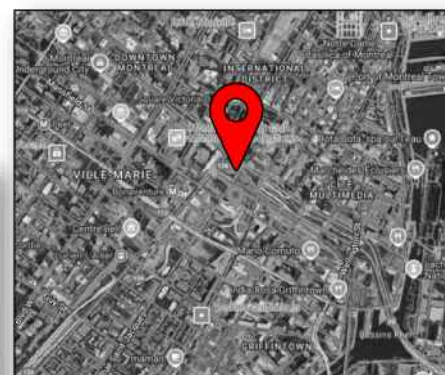
NORTH ELEVATION

ATTACHMENT

H

Downtown Montréal Data Centre

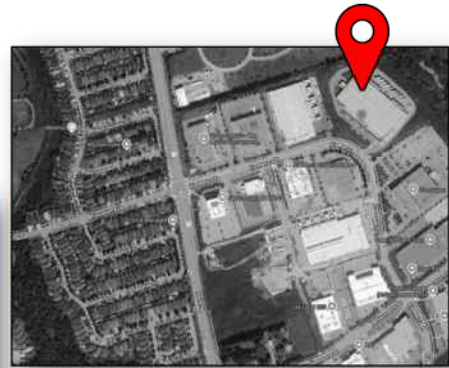
Located in downtown Montreal only a half mile from the city's financial core.



Address: 544 rue de l'Inspecteur,
Montreal, Quebec, Canada
Size: 253,000 SF

DC1 Richmond Hill Data Centre

Located in an multi-use commercial park adjoining residential areas. Built using a phased approach.



Address: 80 Via Renzo Drive,
L4S 0B8 Richmond Hill,
Ontario, Canada
Size: 225,000 SF

Equinix Downtown Toronto Data Centre

Built using a phased approach in the heart of downtown Toronto, with a focus on preserving neighboring historic sites requiring multi-jurisdictional design review.



Address: 45 Parliament St.
Toronto, Ontario, Canada
Size: 225,000 SF

ATTACHMENT

I

SITE LEGEND

DIGITAL CAMPUS PUD BOUNDARY



NIAGARA DIGITAL CAMPUS

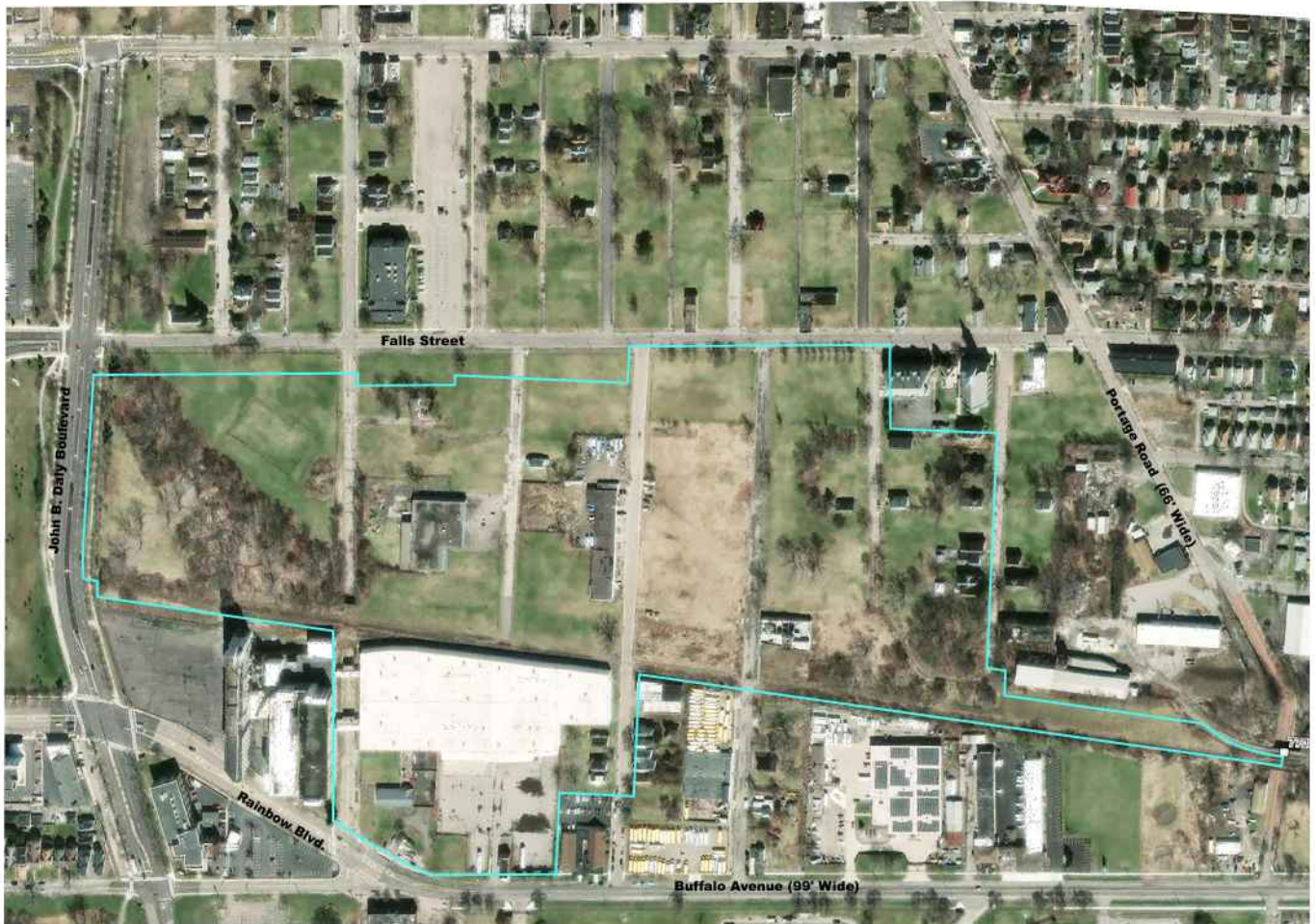
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ATTACHMENT

J

SITE LEGEND

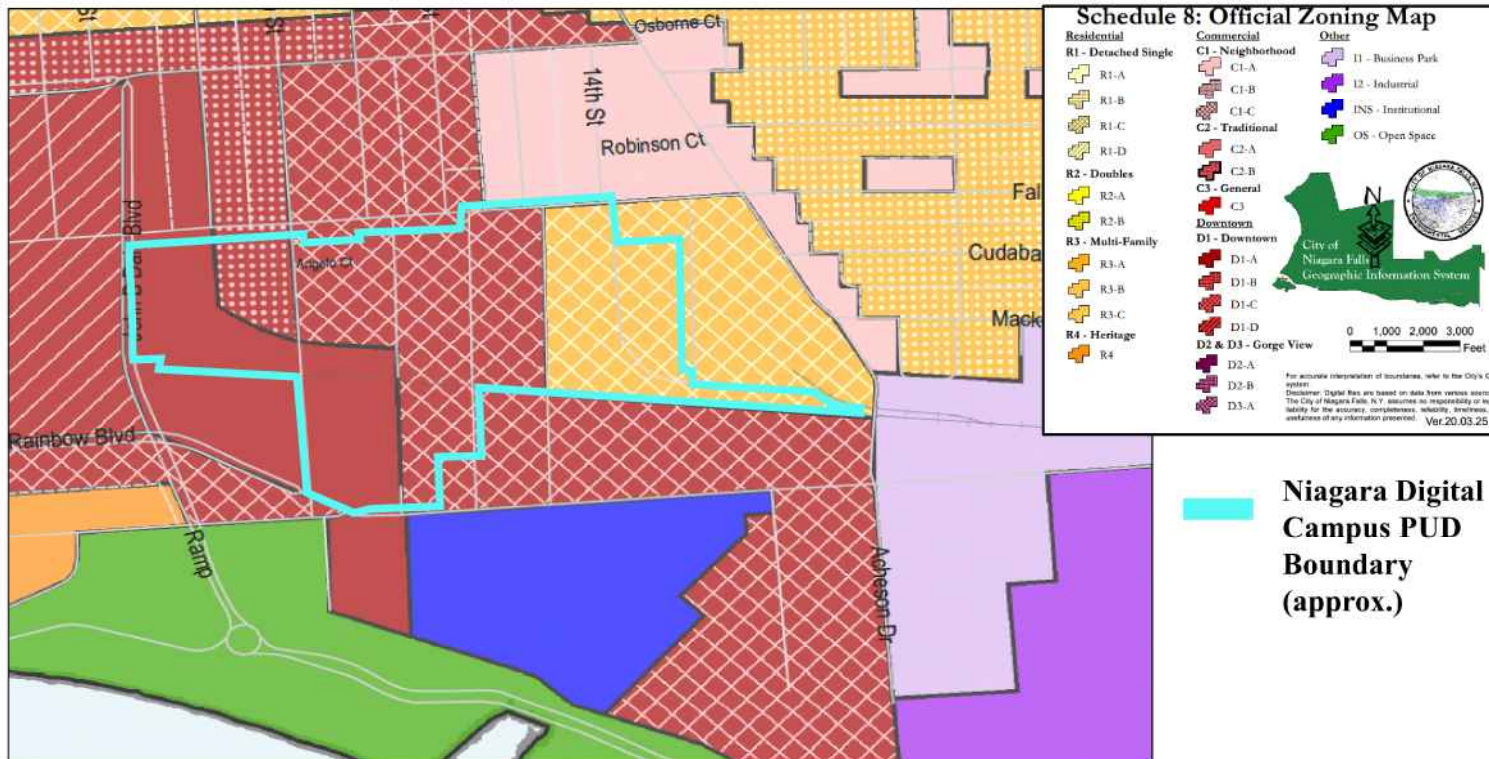
DIGITAL CAMPUS PUD BOUNDARY



NIAGARA DIGITAL CAMPUS
NIAGARA FALLS, NEW YORK

ATTACHMENT

K



**Schedule 2:
Design District**


 **Design Overlay**
(Incl. Zone C1, C2, D1, D2, R4)

1 inch = 3,200 feet
0 1,600 3,200 4,800 Feet

For accurate interpretation of boundaries, refer to the City's GIS system.
Disclaimer: Digital files are based on data from various sources. The City of Niagara Falls, N.Y., assumes no responsibility or legal liability for the accuracy, completeness, reliability, timeliness, or usefulness of any information presented.

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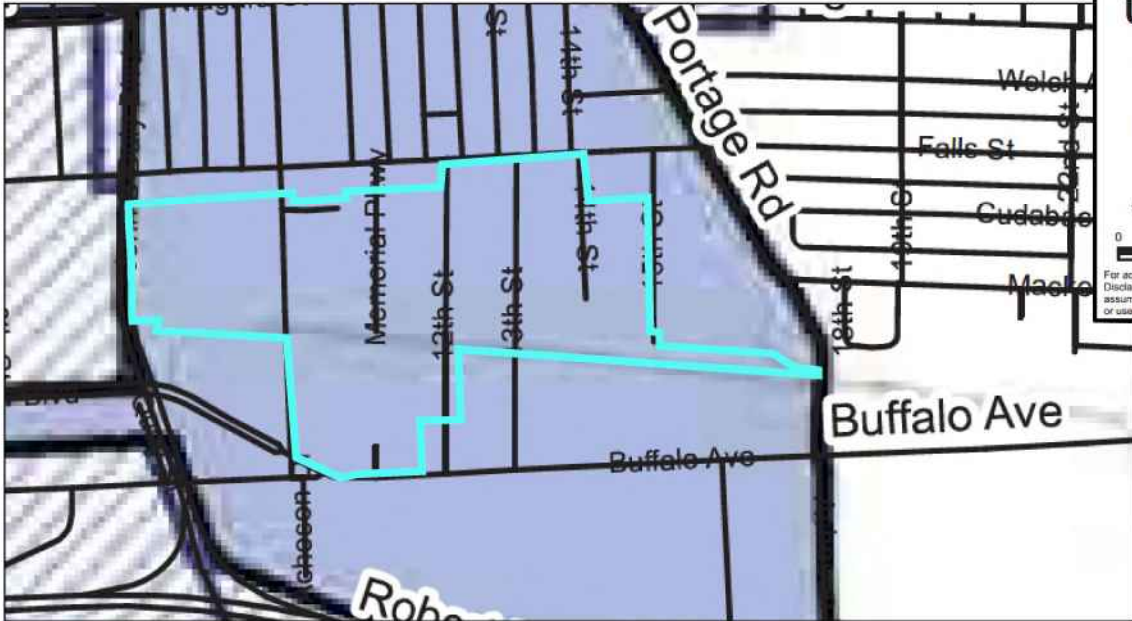


 **Niagara Digital
Campus PUD
Boundary
(approx.)**





NIAGARA DIGITAL CAMPUS
NIAGARA FALLS, NEW YORK





**Schedule 3:
Urban Renewal Areas**


 Urban Renewal Area

 Urban Renewal Eligible Area

1 inch equals 2,000 feet

0 1,000 2,000 3,000 Feet

For accurate interpretation of boundaries, refer to the City's GIS system.
Disclaimer: Digital files are based on data from various sources. The City of Niagara Falls, N.Y. assumes no responsibility or legal liability for the accuracy, completeness, reliability, timeliness, or usefulness of any information presented.
ver.08.07.31

 **Niagara Digital
Campus PUD
Boundary
(approx.)**

ATTACHMENT

L

DIGITAL CAMPUS PUD BOUNDARY



ATTACHMENT

M

DIGITAL CAMPUS PUD BOUNDARY



ATTACHMENT

N

PUD Petition					
Zoning Criteria	D1 District	D1 District	D1 District	R3 District	Data Center at Niagara Digital Campus
	A Sub-District	B Sub-District	C Sub-District	C Sub-District	
Maximum Setbacks					
Maximum Front Yard Setbacks	10'	10'	10'	15'	125'
Percent of Primary Building Façade Within Maximum Setback	100%	90%	80%	75%	50%
Base Building Height Allowance	320'	160'	80'	-	320'
Max. Height	-	-	-	60'	N/A
Min. Height	-	-	-	N/A	N/A
Minimum Setbacks					
Min. Lot Size	-	-	-	N/A	N/A
Min. Lot Width	-	-	-	25'	N/A
Front Yard	-	-	-	N/A	N/A
Rear Yard	-	-	-	20'	N/A
Side Yards	-	-	-	-	N/A
Total Side Yards (w/1 side)	-	-	-	N/A	N/A
Max. FAR	-	-	-	N/A	N/A

ATTACHMENT

O

N.F.R. P.U.D.						
Signage Criteria	SIGNS	D1 District	D1 District	D1 District	R3 District	PUD Recommendation
	TYPE REQ. 1309.16	A Sub-District	B Sub-District	C Sub-District	C Sub-District	
SIGNAGE REGULATIONS BY DISTRICT						
MAX. # OF SIGNS PER USE		2	2	2	2	2
GROUND	A	X+	X+	X+	X+	X+
POLE	B	X+	X+	X+		X+
WALL	C	X+	X+	X+	X+	X+
PROJECTING	D	X+	X+	X+	X+	X+
SUSPENDED	E	X+	X+	X+	X+	X+
AWNING	F	X	X	X	X	X
WINDOW ¹	G	X	X	X	X	X
TEMPORARY ¹	H	X	X	X	X	X
MARQUEE	I	X	X	X		X
1: (1) Window and temporary signs shall not count towards the allotted signage for any given use.						
NOTES: -A "X+" indicates that the sign type is permitted and may be illuminated. -A "X" indicates that the sign type is permitted but may not be illuminated. -Where there is a blank cell, the sign type is prohibited.						
Signage Criteria	SIGNS	D1-A	D1-B	D1-C	R3-C	PUD Recommendation
SIGNAGE REGULATIONS BY TYPE						
A- GROUND SIGNS						
MAX. NUMBER		1 PER LOT	1 PER LOT	1 PER LOT	1 PER LOT	1 PER LOT
MAX. AREA		24 S.F.	24 S.F.	24 S.F.	20 S.F.	24 S.F.
MAX. HEIGHT		5 FT.	5 FT.	5 FT.	4 FT.	5 FT.
ILLUMINATION		INTERNAL OR EXTERNAL	INTERNAL OR EXTERNAL	INTERNAL OR EXTERNAL	INTERNAL OR EXTERNAL	INTERNAL OR EXTERNAL
B- POLE SIGNS						
MAX. NUMBER		1 PER LOT	1 PER LOT	1 PER LOT	1 PER LOT	1 PER LOT
MAX. AREA		16 S.F.	16 S.F.	16 S.F.		16 S.F.
MAX. HEIGHT		15 FT.	15 FT.	15 FT.		15 FT.
ILLUMINATION		INTERNAL OR EXTERNAL	INTERNAL OR EXTERNAL	INTERNAL OR EXTERNAL		INTERNAL OR EXTERNAL

G- WINDOW SIGNS						
Signage Criteria	SIGNS	D1-A	D1-B	D1-C	R3-C	PUD Recommendation
MAX. NUMBER		N/A	N/A	N/A	N/A	N/A
MAX. AREA		50% OF WINDOW	50% OF WINDOW	50% OF WINDOW	25% OF WINDOW	50% OF WINDOW
ILLUMINATION		NOT PERMITTED	NOT PERMITTED	NOT PERMITTED	NOT PERMITTED	NOT PERMITTED
H- TEMPORARY SIGNS						
MAX. NUMBER		1 PER USE	1 PER USE	1 PER USE	1 PER USE	1 PER USE
MAX. AREA		44 S.F.	44 S.F.	44 S.F.	12 S.F.	44 S.F.
MAX. HEIGHT		10 FT.	10 FT.	10 FT.	3 FT.	10 FT.
I – MARQUEE / CANOPY SIGNS						
MAX. NUMBER		1 PER BUILDING	1 PER BUILDING	1 PER BUILDING		1 PER BUILDING
MAX. AREA		16 S.F.	16 S.F.	16 S.F.		16 S.F.
MAX. HEIGHT		4 FT.	4 FT.	4 FT.		4 FT.
MIN. CLEARANCE		9 FT.	9 FT.	9 FT.		9 FT.
ILLUMINATION		INTERNAL OR EXTERNAL	INTERNAL OR EXTERNAL	INTERNAL OR EXTERNAL		INTERNAL OR EXTERNAL

ATTACHMENT

P



NIAGARA FALLS REDEVELOPMENT, LLC

**DATA CENTER AT THE
NIAGARA DIGITAL CAMPUS
PLANNED UNIT DEVELOPMENT**

ENVIRONMENTAL AND ENERGY IMPACT PLAN

OCTOBER 15, 2024



Prepared by:
Jeffrey L. Robbins, P.E.
C&S Engineers, Inc.
141 Elm Street, Suite 100
Buffalo, NY 14203



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TABLE OF CONTENTS

Section 1	Executive Summary
Section 2	Source of Energy
Section 3	Energy Impact
Section 4	Energy Efficiency and Consumption Mitigation
Section 5	Energy Consumption
Section 6	Capacity to Serve Other Needs
Section 7	E-Waste Verification

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SECTION 1 – EXECUTIVE SUMMARY

Niagara Falls Redevelopment, LLC (the “Applicant”) seeks to redevelop roughly 53 acres in downtown Niagara Falls into a 140 MW Data Center, comprised of five phases and nine buildings, as part of its planned Niagara Digital Campus. The Applicant has submitted an application for a Negotiated Planned Development District, commonly known as a Planned Unit District (“PUD”) which seeks to rezone the 53 acres to allow the following uses: Data Center, High-Energy, and Substation, as defined in the City’s Code. The City recently enacted a High Energy Overlay District Zoning Ordinance Amendment which requires the preparation of this Environmental and Energy Impact Plan for certain projects in Industrial zoned districts. This Project does not seek to rezone the project area to Industrial, but for the convenience of the City the Applicant has commissioned the preparation of this Plan.

A summary of this Plan includes:

- Electrical energy will be supplied by National Grid via 115 kV transmission lines
- New 140 MW substation to feed Campus
- Urbacon Data Centre Solutions (tenant and operator) is a leader in energy efficient data center designs
- Project will have no impact on local electrical distribution
- E-waste from facility will be properly disposed of.

SECTION 2 – SOURCE OF ENERGY

Power for the facility will be provided by National Grid through their 115 kV transmission system. Taps from Lines 187/188 Adams to Packard will be fed to the site via new 115 kV transmission lines (approximately 0.5 miles) utilizing an existing railroad easement. At the site, a new 115 kV – 25 kV substation will be constructed to feed the Niagara Digital Campus. The substation will have four 50 MVA transformers, providing nominal power of 150 MVA (when considering an N+1 configuration, if one transformer is down, will still have full required capacity). From the substation, 25 kV underground distribution will be fed to each of the buildings on the Campus.

SECTION 3 – ENERGY IMPACT

Niagara Falls Redevelopment requested that National Grid perform a capacity study on the Niagara Mohawk Corporation, d/b/a/ National Grid, 115 kV transmission lines 187 and 188 proposed to serve the Niagara Digital Campus. National Grid’s response was that they are able to supply 140 MW at this time without causing any overload conditions. See appendices for March 27, 2023 letter from National Grid.

The 115 kV load interconnect request is currently under review by the New York Independent System Operator (NYISO) through conducting a System Impact Study (SIS). [The SIS is an overall study on the transmission system that includes other system off takers and new generation additions to determine the overall impact on the transmission systems in the NYISO system.] Results can be reviewed once the SIS is completed.

SECTION 4 – ENERGY EFFICIENCY AND CONSUMPTION MITIGATION

Urbacon has made sustainability an integral part of its corporate culture as it affects every facet of their business. Through collaborative integrated design processes, they offer creative design solutions and practices which address construction environmental impact reduction, ongoing operation energy/cost savings and occupant well-being enhancement.

Urbacon's commitment to the environment is pervasive throughout the company, indicated by the many individuals in different roles that have earned the LEED® Accredited Professional designation or are working on their accreditation.

Their dedicated data centers focus on delivering, at the very minimum, sustainable design features which achieve efficient cooling, reduced copper cabling, waterless cooling, and green energy.

Urbacon has published details of 10 data center projects (all of which are in Canada) of sizes ranging from less than one megawatt to multi-phase projects totaling a projected 130 MW. Generally speaking, these projects have similar characteristics which are also consistent with the general descriptions and initial design documents that have been provided to the NFR team. They include:

- Development in 20-30 MW phases (Barker Business Park Digital Campus)
- High-efficiency cooling systems using “KyotoCooling System” technology for reductions in cooling system energy requirements of up to 80% (Bell Canada Gatineau Data Centre; Rogers Kyoto Cable Hubs)
- Direct evaporative water-to-air cooling (Barker Business Park Digital Campus; Downtown Montreal Data Centre)
- Certain projects have also obtained LEED Gold certification (Bell Canada Gatineau Data Centre) or ISO27001 certification (Downtown Montreal Data Centre)
- The Bell Canada Gatineau Data Centre includes a rainwater collection system “saving” 18 million gallons per year

The standard efficiency metric for power consumption for data centers is Power Usage Effectiveness (PUE). This is the ratio of total facility energy to IT equipment energy; which the lower the ratio, the more efficient the facility. Urbacon's latest data centers are achieving a PUE rating of <1.25 as compared to an industry average PUE of 1.89.

NFR intends to develop the campus consistent with Urbacon's prior projects, thus ensuring that the campus has reduced energy consumption far below industry averages.

SECTION 5 – ENERGY CONSUMPTION

The estimated load for the full buildout of the Niagara Digital Campus is estimated at 140 MWA. While Urbacon is still in development of the final plans, estimated annual consumption for the campus is 630,000,000 kWh. Below is the estimated breakdown by proposed building on the Campus:

Phase No.	SF	MVA	MW	kWh
1	282,400	30	24	136,000,000
2	282,400	30	24	136,000,000
3	282,400	30	24	136,000,000
4	254,730	30	24	136,000,000
5	141,200	20	15	86,000,000
Totals	520,700	140	111	630,000,000

SECTION 6 – CAPACITY TO SERVE OTHER NEEDS

The Niagara Digital Campus will be served power from a new dedicated substation from National Grid's 115 kV transmission lines. As such, there will be no impact on local National Grid medium voltage distribution systems within the area of the Niagara Digital Campus. Any existing electrical services on the site will be retired and may free up some additional capacity on the local area utility systems.

SECTION 7 – E-WASTE VERIFICATION

Niagara Falls Redevelopment, as the current applicant and property owner, certifies that all E-waste from the development will properly be disposed of through a New York State certified E-waste disposal company. See letter in the appendices.

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APPENDICES

National Grid NFD Load Inquiry Letter

E-Waste Verification Letter

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March 27, 2023

Mr. Roger Trevino
Executive Vice President
Niagara Fall Redevelopment, LLC
800 Main St., Suite 3D
Niagara Falls, NY 14303

Re: Requested capacity to supply 150MW load from National Grid's Transmission lines 187/188 to customer site near 220 Memorial Park, Niagara Falls NY 14304

Dear Mr. Trevino,

This letter is in response to your request for available capacity on Niagara Mohawk Power Corporations d/b/a National Grid's ("National Grid" or the "Company's") lines 187 & 188. In response to this request, National Grid's Transmission Planning group performed a preliminary localized load analysis and assessed the following.

National Grid observed that under current loading conditions with existing customer demand: addition of 150MW on lines 187/188 resulted in overloading conditions that would require system modifications, substantially in the form of conductor upgrades to approximately five (5) miles of line.

When similar analysis was performed using a slightly lower (140MW) load increase, it was observed the model did not result in overload conditions. It is therefore feasible that a load of 140MW could be supported by lines 187/188 at the location referenced above once existing 115kV infrastructure is extended to your site.

Lines 187/188 may be upgraded to a larger conductor size/material to provide sufficient additional capacity to support the original request for a total load of 150 MW. If the customer wishes to proceed with such upgrade, all costs associated with this work is fully billable to the customer.

As per your inquiry to an 'order-of-magnitude' cost for re-conductoring 115kV Transmission Lines; similar projects to reconductor/rebuild double circuit structures have cost roughly eight million dollars per mile to complete. This does not represent an actual estimate of your project. Additional engineering design is required to determine if existing facilities are sufficient to support larger conductors & provide an actual cost estimate. The preliminary cost estimate previously provided from our 4.2 scoping document as well as the associated CRA phase 1 sent on 3/23/23 assumes a maximum load increase of 140MW and remains dependent on approval of NYISO load study.

Please note 115kV system loading is dynamic. This information is based on current system load and does not include any load which may be added to or removed from referenced lines prior to energization of customer's facility. This preliminary load analysis does not substitute or replace the requirement to enter the NYISO Interconnection queue for study. The NYISO requires a NYISO study for addition of any load greater than 10MW on the 115kV Transmission System as previously referenced.

Sincerely,



Marc Gschwend

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October 15, 2024

City of Niagara Falls
City Council
City Hall
745 Main Street, Room 202
Niagara Falls, New York 14301

RE: Niagara Digital Campus (the "Facility") E-Waste Verification

Dear City Council Members:

Niagara Falls Redevelopment LLC hereby verifies that any "electronic waste", as defined in the New York State Electronic Equipment Recycling and Reuse Act (the "Act"), generated by it at the Facility will be recycled at an "electronic waste recycling facility" (as defined in the Act) licensed under the Act.

Sincerely,

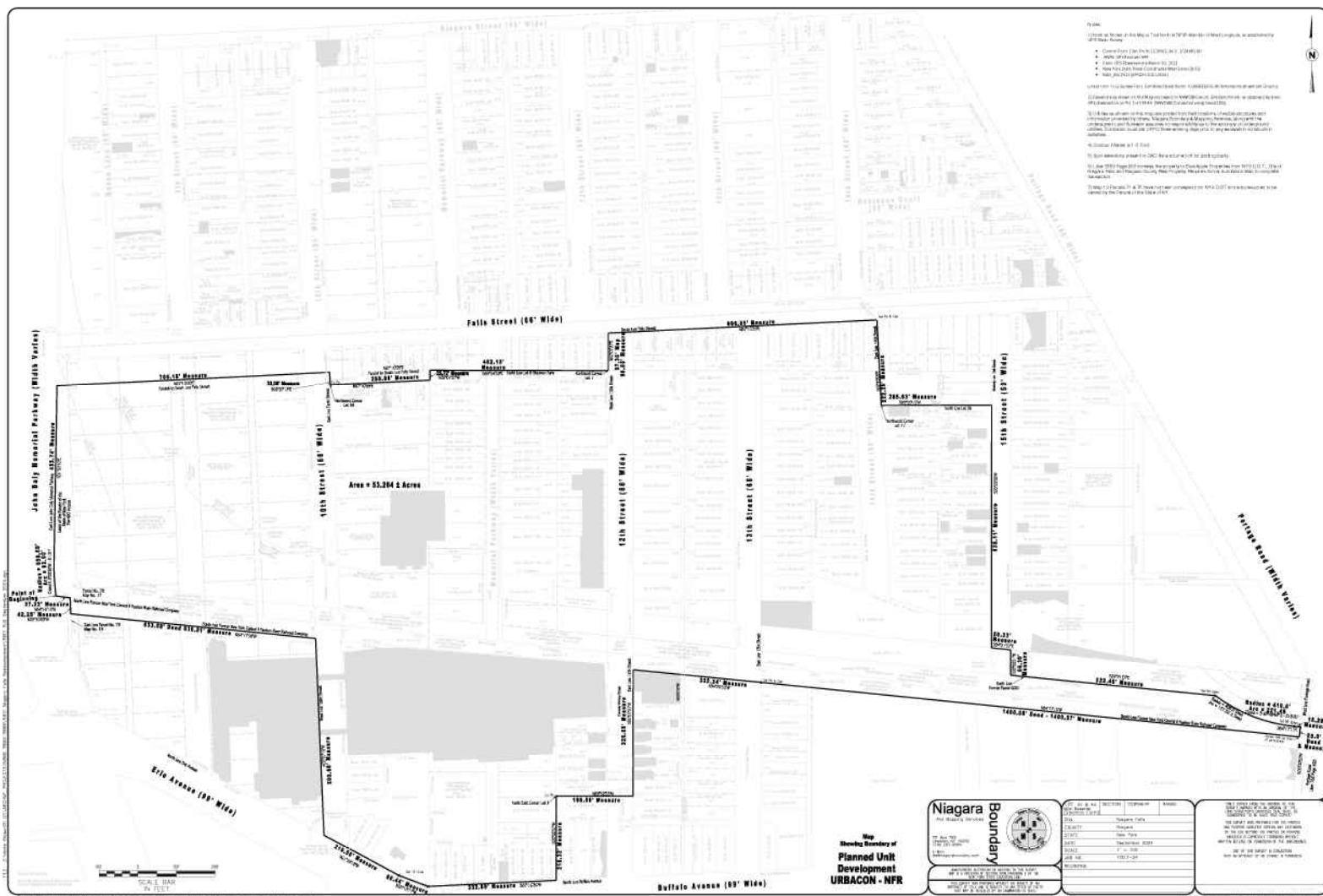
Niagara Falls Redevelopment LLC

A large, stylized handwritten signature in blue ink, appearing to read 'Roger Trevino', is written over the printed name and title.

Roger Trevino
Executive Vice President
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ATTACHMENT

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ATTACHMENT

R

Legal Description
Planned Unit Development
Niagara Falls Redevelopment

All that tract or parcel of land situate in the City of Niagara Falls, County of Niagara, and State of New York, being part of Lots 41 and 44 of Mile Reserve also being part of Stedman Farm, bounded and described as follows:

Beginning at a point on east Line of John Daly Memorial Parkway and the northerly line of lands formerly owned by the New York Central and Hudson River Railroad Company as delineated on Parcel No. 78 of Map No. 17 and acquired by the People of the State of New York for the construction of LaSalle Arterial Highway, Section III;

Thence through the property of the People of the State of New York and along the easterly line of John Daly Memorial Parkway the following courses and distances:

- 1) Thence along an arc 92.00 feet to the right, having a radius of 650.00 feet, the chord of which is N 3°00'32" W for a distance of 91.91 feet to a point;
- 2) Thence N 1°02'43" E a distance of 453.74 feet to a point;

Thence N 87°10'39" E and parallel to the south line of Falls Street a distance of 706.18 feet to a point on the East Line of Tenth Street;

Thence S 2°27'13" E along the east line of Tenth Street distance of 33.00 feet to the northwest corner of Lot 34 as shown on Map by J.P. Haines filed in Niagara County Clerk's Office December 20, 1861 under Cover No. 390;

Thence N 87°10'39" E and parallel to the south line of Falls Street a distance of 258.88 feet to a point;

Thence N 2°01'57" W a distance of 25.72 feet to a point on the north line of Lot 8 of the Stedman Farm;

Thence S 89°54'59" E along the north line of Lot 8 of the Stedman Farm a distance of 462.13 feet to the West Line of 12th Street and the northeast Corner of Lot 1 as shown on Map filed in Niagara County Clerk's Office in Map Book 1 at Page 42;

Thence N 0070'37" E along the West line of 12th Street a distance of 96.85 feet to the South Line of Falls Street;

Thence N 87°10'39" E along the south line of Falls Street a distance of 696.05 feet to a point on the East Line of 14th Street;

Thence S 2°49'09" E along the East Line of 14th Street a distance of 222.29 feet to the northwest corner of Lot 17 as shown on map filed in Niagara County Clerk's Office in Map Book 6 at Page 506;

Thence N 89°59'15" E along the north line of Lot 17 and Lot 26 of Said map a distance of 285.63 feet to the west line of 15th Street;

Thence S 0°03'38" W along the west line of Fifteenth Street a distance of 628.11 feet to the southwest corner of Fifteenth Street;

Thence S 84°21'07" E along the south line of Fifteenth Street a distance of 50.23 feet to the southeast corner thereof;

Thence S 0°05'31" W a distance of 66.30 feet to a point on the north line of Former Parcel 6001;

Thence S 84°21'07" E along the north line of Former parcel 6001 a distance of 532.46 feet to a point of curvature;

Thence along an arc 221.49 feet to the left, having a radius of 410.00 feet, the chord of which is S 68°48'42" E for a distance of 218.81 feet, to a point of tangency;

Thence S 84°17'15" E a distance of 16.29 feet to a point on the west line of Portage Road;

Thence S 6°00'53" W along the west line of Portage Road a distance of 25.00 feet to a point on the south line of the former New York Central & Hudson River Railroad Company;

Thence N 84°17'15" W along the south line of the former New York Central & Hudson River Railroad Company a distance of 1400.57 feet to a point on the east line of 13th Street;

Thence Continuing along the south line of the former New York Central & Hudson River Railroad Company; N 84°20'50" W a distance of 332.34 feet to the east line of 12th Street;

Thence S 0°07'37" W along the east line of 12th Street a distance of 326.65 feet to a point on the extension of the northerly line of Lot 3 as shown on Map by J.V. Rose, Engineer, April 12, 1915 and recorded in Niagara County Clerk's Office April 16, 1915 in Book 3 of Niagara Falls Maps at Page 8, and under Cover No. 8;

Thence N 89°52'23" W along the north line of Lot 3 and its extension a distance of 198.59 feet to the northwest corner thereof;

Thence S 0°00'37" W a distance of 218.32 feet to the north Line of Buffalo Avenue;

Thence S 87°16'36" W along the north line of Buffalo Avenue a distance of 332.69 feet to its intersection with the north line of Erie Avenue;

Thence along the north line of Erie Avenue N 69°18'17" W a distance of 80.44 feet to an angle point therein;

Thence Continuing along the north line of Erie Avenue N 61°39'18" W a distance of 219.55 feet to the west line of Tenth Street;

Thence N 2°27'13" W along the west line of Tenth Street a distance of 509.96 feet to the south line of the Former New York Central & Hudson River Railroad Company;

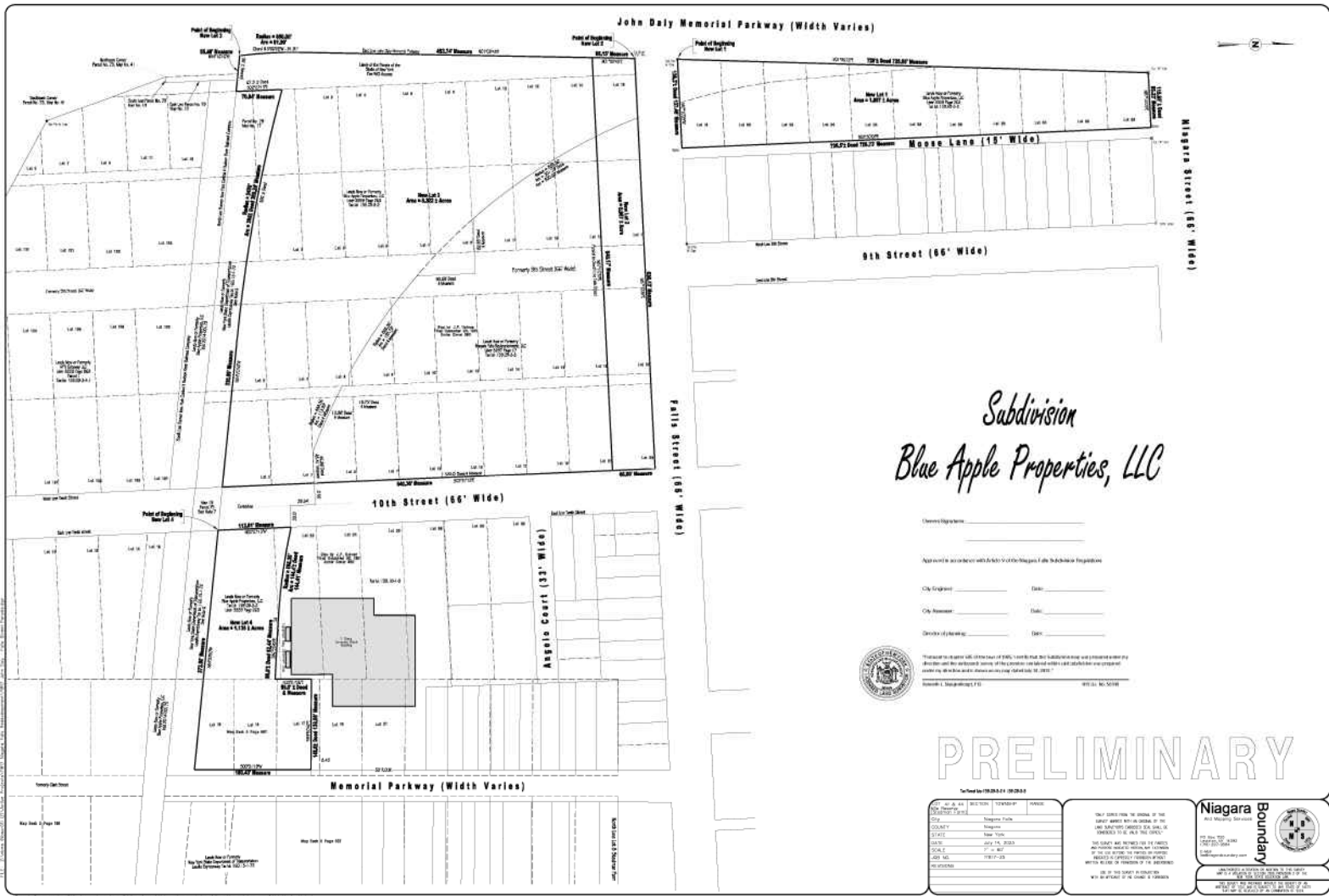
Thence N 84°17'58" W along the south line of said Former New York Central & Hudson River Railroad Company a distance of 636.51 feet to the east line of John Daly Memorial Parkway said point being on the east line of Parcel No. 79 as shown on Map No 19 of lands acquired by the People of the State of New York for LaSalle Arterial Highway, Section III;

Thence N 2°30'08" W along the east line of said Parcel No. 79 and the east line of John Daly Memorial Parkway a distance of 42.25 feet to a point on the northerly line of lands formerly owned by the New York Central and Hudson River Railroad Company as delineated on Parcel No. 78 of Map No. 17 and acquired by the People of the State of New York for the construction of LaSalle Arterial Highway, Section III;

Thence N 84°16'16" W along the extension of the last mentioned northerly railroad boundary to a point a distance of 37.22 feet to the POINT OR PLACE OF BEGINNING

ATTACHMENT

S



Subdivision
Blue Apple Properties, LLC

Owner Signature: _____
Approved by association with Authority of the Niagara Falls Subdivision Regulations
City Engineer: _____ Date: _____
City Planner: _____ Date: _____
Director of Planning: _____ Date: _____



This map is prepared by the City of Niagara Falls, New York, and is subject to the approval of the City Council. The City Council may, at its discretion, approve or disapprove this map. The City Council's decision is final and binding. The City of Niagara Falls, New York, is not responsible for any errors or omissions on this map. The City of Niagara Falls, New York, is not responsible for any damages or losses resulting from the use of this map. The City of Niagara Falls, New York, is not responsible for any claims or liabilities resulting from the use of this map. The City of Niagara Falls, New York, is not responsible for any claims or liabilities resulting from the use of this map.

PRELIMINARY

City of Niagara Falls	10/15/2024	10/15/2024
County	Niagara	
City	Niagara Falls	
State	NY	
Scale	1" = 40'	
Drawn By	10/15/2024	
Reviewed By		

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Niagara County
Office of Planning and Development
10/15/2024

ATTACHMENT

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NIAGARA DIGITAL CAMPUS: ECONOMIC AND FISCAL IMPACT

PREPARED ON MARCH 24, 2025

PREPARED FOR NIAGARA FALLS REDEVELOPMENT, LLC





Elevating Communities

EXECUTIVE SUMMARY

Niagara Falls Redevelopment, LLC (“NFR”) in partnership with Urbacon Data Centre Solutions Inc. (“Urbacon”) (collectively referred to as the “Developer”) is proposing the development of a multi-phase, high-capacity data center campus on approximately 53 acres of privately owned land (the “Site”) in the downtown area of the City of Niagara Falls, New York. The proposed development, the Data Center at the Niagara Digital Campus, includes 5 phases that, when fully built, will result in eight 2-story buildings and one 1-story building, totaling over 1.2 million square feet of data center space (the “Project”). Each building will be comprised of server halls, network infrastructure, office space, and mechanical/electrical support areas. The Developer expects that the Project will include a capital investment of approximately \$1.5 billion over 10 years. MRB Group was commissioned to conduct an economic and fiscal impact analysis of the Project on the local economy and on revenues for the State of New York (the “State”), the City of Niagara Falls (the “City”), the Niagara Falls City School District (the “School District”), and Niagara County (the “County”), and to demonstrate NFR’s full awareness of the financial and organizational magnitude of the Project. Below are the results of our analysis.

Economic Impacts

As shown in the table to the right, there would be new jobs, wages, and sales associated with both the construction and operations of the Project. Over the course of twenty years, the Project will support 19,238 job-years (inclusive of construction jobs, permanent jobs, and indirect jobs), \$1.66 billion in earnings and \$5.52 billion in sales. This equates to an annual average of 962 jobs earning \$83.1 million in wages each year.

Economic Impacts Summary, 20 Years			
Year	Total Jobs	Total Earnings	Total Sales
1	943	\$68,804,305	\$186,770,229
2	943	\$70,180,391	\$190,505,634
3	1,114	\$84,437,470	\$241,842,760
4	1,114	\$86,126,220	\$246,679,615
5	1,286	\$101,221,496	\$301,060,311
6	1,286	\$103,245,926	\$307,081,518
7	1,457	\$119,223,855	\$364,667,915
8	1,457	\$121,608,332	\$371,961,274
9	1,157	\$98,207,991	\$323,508,090
10	771	\$66,440,694	\$245,671,194
11	771	\$67,769,508	\$250,584,618
12	771	\$69,124,898	\$255,596,310
13	771	\$70,507,396	\$260,708,237
14	771	\$71,917,544	\$265,922,401
15	771	\$73,355,895	\$271,240,849
16	771	\$74,823,013	\$276,665,666
17	771	\$76,319,473	\$282,198,980
18	771	\$77,845,862	\$287,842,959
19	771	\$79,402,779	\$293,599,819
20	771	\$80,990,835	\$299,471,815
Total	19,238	\$1,661,553,882	\$5,523,580,194
Annual	962	\$83,077,694	\$276,179,010

Fiscal Impacts

The Project will have a number of fiscal impacts on the City, School District, and County, primarily through new property, gross receipts and sales tax revenue. The Project's local benefit to the City and School District includes the property taxes to be paid on the improvements of the Site, sales tax associated with the Project's energy use, and Gross Receipts tax also paid on the Project's energy use. Over a 20-year period, the Project will generate \$298 million in property, sales and gross receipts tax for the City and School District.

The County will receive property tax revenue associated with improvements to the Site, and sales tax revenue associated with new construction and operational employees spending a portion of their wages locally. Over 20 years, the County will receive an estimated \$54 million in property and sales tax revenue.

New York State will also receive approximately \$62.7 million in sales tax revenue associated with the Project's energy usage. Note that the State will also receive substantial other revenues not included here, such as State corporate and personal income tax, excise taxes, etc.

In total, the Project will generate \$414.9 million in tax revenue for the affected taxing jurisdictions (the City, the County and the School District, collectively, the "ATJs".)

Fiscal Impact Summary Table				
Year	New Tax Revenue to City and School Subtotal	New Tax Revenue to County Subtotal	New Tax Revenue to State*	Grand Total
1	-	\$963,260	-	\$963,260
2	-	\$982,525	-	\$982,525
3	\$3,717,623	\$1,385,001	\$781,736	\$5,884,359
4	\$3,791,975	\$1,412,701	\$797,370	\$6,002,047
5	\$7,735,629	\$1,839,247	\$1,626,635	\$11,201,511
6	\$7,890,342	\$1,876,032	\$1,659,168	\$11,425,542
7	\$12,072,223	\$2,327,935	\$2,538,527	\$16,938,685
8	\$12,313,667	\$2,374,494	\$2,589,298	\$17,277,458
9	\$16,746,587	\$2,853,107	\$3,521,445	\$23,121,139
10	\$19,216,709	\$3,130,043	\$4,040,858	\$26,387,609
11	\$19,601,043	\$3,192,643	\$4,121,675	\$26,915,361
12	\$19,993,064	\$3,256,496	\$4,204,109	\$27,453,669
13	\$20,392,925	\$3,321,626	\$4,288,191	\$28,002,742
14	\$20,800,783	\$3,388,059	\$4,373,954	\$28,562,797
15	\$21,216,799	\$3,455,820	\$4,461,434	\$29,134,053
16	\$21,641,135	\$3,524,936	\$4,550,662	\$29,716,734
17	\$22,073,958	\$3,595,435	\$4,641,676	\$30,311,068
18	\$22,515,437	\$3,667,344	\$4,734,509	\$30,917,290
19	\$22,965,746	\$3,740,691	\$4,829,199	\$31,535,636
20	\$23,425,061	\$3,815,504	\$4,925,783	\$32,166,348
Total	\$298,110,704	\$54,102,902	\$62,686,228	\$414,899,833

*State revenue figures include only sales tax revenue from energy use. See note in text.

Impact on Typical Homeowner

To help illustrate what this overall impact means to City residents, we translate the fiscal benefit of the Project to the “typical” City resident, defined as the owner of an average-priced, single-family home. As shown in the preceding table, the Project will create substantial new tax revenue for the City and School District. This new revenue will displace funds that the City and School District would otherwise have to collect via their respective real property tax levies in future years. As set forth in detail on the last pages of our analysis, the results of these new revenues mean that the “typical” homeowner would save \$14,603 over 20 years, for an average of \$730 per year.

Summary of Tax Savings for the Average Homeowner			
	Savings on City Tax Bill	Savings on School Tax Bill	Total
Total, Year 1 - 20	\$8,653	\$5,950	\$14,603
Average Annual	\$433	\$298	\$730

CONTENTS

INTRODUCTION	7
ECONOMIC IMPACT ANALYSIS	9
FISCAL IMPACT ANALYSIS	13

INTRODUCTION

The Developer is proposing the development of a multi-phase, high-capacity data center campus on approximately 53 acres of privately owned land in the downtown area of the City of Niagara Falls, New York. The proposed development, the Data Center at the Niagara Digital Campus, includes 5 phases that, when fully built, will result in eight 2-story buildings and one 1-story building, totaling over 1.2 million square feet of data center space. Each building will be comprised of server halls, network infrastructure, office space, and mechanical/electrical support areas. The Developer expects that the Project will include a capital investment of approximately \$1.5 billion over 10 years. MRB Group was commissioned to conduct an economic and fiscal impact analysis of the Project on the local economy and on revenues for the State of New York, the City of Niagara Falls, the Niagara Falls City School District, and Niagara County, as well as to demonstrate NFR's full awareness of the financial and organizational magnitude of the Project. Below are the results of our analysis.

Data Note

In addition to data provided by the Developer, MRB Group utilized other data sources including the New York State Department of Taxation and Finance, the City of Niagara Falls PROPS, and Zillow. The economic impact models are calculated using Lightcast, an industry-leading economic impact modelling software package.

The Niagara Digital Campus

Shown to the right is the conceptual layout of the Data Center at the Niagara Digital Campus. As shown, the Project includes nine data center buildings that will be constructed over five phases. In total, the Project will create over 1.2 million square feet of data center space.



ECONOMIC IMPACT ANALYSIS

The Project produces economic impacts for the City and County in several ways. Economic impacts include the effects on jobs, earnings and sales associated with the construction of the Project. Economic impacts also include the annual impacts associated with onsite employment of both the facility operator and the tenants.

Methodology

Both the construction and employment-based economic impacts have “Direct” and “Indirect” components. For the construction, this includes:

- Direct: Jobs, wages, and sales that occur as a result of the local spending on construction materials and labor.
- Indirect: Jobs, wages, and sales caused by the Direct impacts, and result from business-to-business purchases (e.g. a contractor buying a piece of equipment from a vendor) and from construction employees spending a portion of their wages locally.

For the operational impacts:

- Direct: Jobs, wages, and sales created from the operations of the Site.
- Indirect: Jobs, wages, and sales caused by the Direct impact, such as business-to-business purchases and employees of such businesses spending a portion of their wages locally.

To estimate the Direct and Indirect impacts, MRB Group employs the Lightcast economic modeling system. We use data from Developer and publicly available sources as inputs to the Lightcast modeling system.

Economic Impact of Construction

The table to the right shows the estimated spending on construction labor and materials that will be sourced from Niagara County. In total, the Developer estimates approximately \$141.5 million of materials and labor will be sourced from Niagara County for each of the Project's nine buildings. Therefore, the total local construction spending in the County will be approximately \$1.3 billion over the Project's ten-year construction phase.

Total Local Construction Spending	
	Local Spend
Labor	\$757,350,000
Materials	\$516,375,000
Total Local Spend	\$1,273,725,000

Source: Developer, MRB

We use \$1.3 billion as the input to our economic impact modelling software (see "Direct Sales" in table) to assess the economic impacts of the Project's construction. That level of investment in local materials and labor will generate an estimated 6,084 direct jobs earning \$489.0 million in wages. Coupled with the indirect impacts, the total economic impact of the Project's construction will be 8,487 jobs, \$619.2 million in wages, and \$1.7 billion in sales.

Economic Impact of Construction Total, One-Time			
	Direct	Indirect	Total
Jobs	6,084	2,403	8,487
Earnings	\$488,982,215	\$130,256,528	\$619,238,742
Sales	\$1,273,725,000	\$407,207,063	\$1,680,932,063

Source: Lightcast, MRB

Economic Impact of Operations

The table below shows the annual economic impact of the Project once it is fully constructed. The Project will create permanent jobs for both the operator and tenants of the data centers. We conservatively estimate 550 permanent jobs (see “Direct Jobs”) will be created once the Project is fully constructed. This estimate was derived using industry-based metric of approximately 4 full-time equivalent (FTE) jobs per megawatt of power consumption and the Project’s estimated power consumption of 140 megawatts (MW).¹

550 direct jobs will generate \$45.1 million in wages and \$177.4 million in sales. Coupled with the indirect impacts, the Project will generate a total annual economic impact of 771 jobs, \$55.6 million in earnings, and \$205.6 million in sales once the data campus is fully constructed.

Total Economic Impact of Onsite Employment, Annual			
	Direct	Indirect	Total
Jobs	550	221	771
Earnings	\$45,098,405	\$10,496,196	\$55,594,600
Sales	\$177,379,222	\$28,187,444	\$205,566,665

Source: Lightcast, MRB

¹ For purposes of comparison, when the 15 MW Yahoo data center in the Town of Lockport opened in 2010, it employed 125 FTE or 8.3 FTE/MW. Had we used that ratio for the Data Center at the Niagara Digital Campus, the direct job estimate would have been 1,162, not 550.

Economic Impact Summary by Year

The table to the right displays the total annual economic impact of the Project by year. As mentioned, the Project consists of 5 phases. We assume each phase will take approximately 2 years to complete, for a total of ten years. As such, the economic impact of the Project will be staggered over the construction period as additional data center space becomes activated until the Project is fully built in Year 10. Over 20 years, we estimate the Project will generate \$1.7 billion in earnings and \$5.5 billion in sales.

Economic Impacts Summary, 20 Years								
Year	Phase	Escalation	Buildings in Constr.	Buildings in Operation	Total Jobs	Total Job Years	Total Earnings	Total Sales
1	1	1.0000	2	0	943	943	\$68,804,305	\$186,770,229
2	1	1.0200	2	0	943	1,886	\$70,180,391	\$190,505,634
3	2	1.0404	2	2	1,114	3,000	\$84,437,470	\$241,842,760
4	2	1.0612	2	2	1,114	4,115	\$86,126,220	\$246,679,615
5	3	1.0824	2	4	1,286	5,400	\$101,221,496	\$301,060,311
6	3	1.1041	2	4	1,286	6,686	\$103,245,926	\$307,081,518
7	4	1.1262	2	6	1,457	8,143	\$119,223,855	\$364,667,915
8	4	1.1487	2	6	1,457	9,600	\$121,608,332	\$371,961,274
9	5	1.1717	1	8	1,157	10,757	\$98,207,991	\$323,508,090
10	5	1.1951	0	9	771	11,528	\$66,440,694	\$245,671,194
11	5	1.2190	0	9	771	12,299	\$67,769,508	\$250,584,618
12	5	1.2434	0	9	771	13,070	\$69,124,898	\$255,596,310
13	5	1.2682	0	9	771	13,841	\$70,507,396	\$260,708,237
14	5	1.2936	0	9	771	14,612	\$71,917,544	\$265,922,401
15	5	1.3195	0	9	771	15,383	\$73,355,895	\$271,240,849
16	5	1.3459	0	9	771	16,154	\$74,823,013	\$276,665,666
17	5	1.3728	0	9	771	16,925	\$76,319,473	\$282,198,980
18	5	1.4002	0	9	771	17,696	\$77,845,862	\$287,842,959
19	5	1.4282	0	9	771	18,467	\$79,402,779	\$293,599,819
20	5	1.4568	0	9	771	19,238	\$80,990,835	\$299,471,815
Total						19,238	\$1,661,553,882	\$5,523,580,194

FISCAL IMPACT ANALYSIS

The Project will also have fiscal benefits to local municipalities, including the City, County and School District, as well as the State of New York. The fiscal benefits of the Project include the property tax payments on the improved Site, sales tax revenue associated with construction and onsite employment, and sales and gross receipts tax associated with the Project's power consumption.

To estimate the property taxes generated from the Project, we use the associated tax rates as shown in the table to the right which were obtained from the City's Online Property Tax Lookup Search.

The local property valuation expert provided a range of the estimated future assessed values of the Project once it is fully constructed. The estimated future assessed value ranges from \$155.0 million to \$165.0.² For purposes of this analysis, we use the midpoint of \$160.0 million. Given the Project's nine buildings, the estimated assessed value of each building to be \$17.8 million.

Tax Rates	
	Rate
City	38.717
County	10.267
RD291 County Refuse	0.081
School	19.516
Total	68.582

Source: City of Niagara Falls PROS Property Search

Estimated Future Assessed Value	
Low	\$155,000,000
High	\$165,000,000
Midpoint	\$160,000,000
Midpoint Per Building AV	\$17,777,778

Source: Valuation Expert; MRB

² This range accounts for the City's Equalization Rate of 50%.

Property Taxes

The table to the right shows the estimated property taxes generated by the Project based on the assessed value of the improvements. The Project will not generate any additional property taxes above the current taxes in Years 1 and 2, as the first two buildings are being constructed. Over 20 years, applying a 2% escalator per year to the tax rate, the Project will generate \$203.4 million in property taxes.

Estimated Future Property Taxes on Improvements					
	Escalator	Tax Rate	Buildings	Assessed Value	Property Taxes
Year 1	1.000	68.582	-	-	-
Year 2	1.020	69.953	-	-	-
Year 3	1.040	71.352	2	\$35,555,556	\$2,536,977
Year 4	1.061	72.780	2	\$35,555,556	\$2,587,716
Year 5	1.082	74.235	4	\$71,111,111	\$5,278,941
Year 6	1.104	75.720	4	\$71,111,111	\$5,384,520
Year 7	1.126	77.234	6	\$106,666,667	\$8,238,316
Year 8	1.149	78.779	6	\$106,666,667	\$8,403,082
Year 9	1.172	80.354	8	\$142,222,222	\$11,428,192
Year 10	1.195	81.962	9	\$160,000,000	\$13,113,850
Year 11	1.219	83.601	9	\$160,000,000	\$13,376,127
Year 12	1.243	85.273	9	\$160,000,000	\$13,643,650
Year 13	1.268	86.978	9	\$160,000,000	\$13,916,523
Year 14	1.294	88.718	9	\$160,000,000	\$14,194,853
Year 15	1.319	90.492	9	\$160,000,000	\$14,478,750
Year 16	1.346	92.302	9	\$160,000,000	\$14,768,325
Year 17	1.373	94.148	9	\$160,000,000	\$15,063,692
Year 18	1.400	96.031	9	\$160,000,000	\$15,364,966
Year 19	1.428	97.952	9	\$160,000,000	\$15,672,265
Year 20	1.457	99.911	9	\$160,000,000	\$15,985,710
Total					\$203,436,459

Source: City: MRB

Property Taxes by ATJ

The table to the right breaks down the estimated property taxes generated by the Project by affected taxing jurisdiction (ATJ).

Of the \$203.4 million in property tax revenue, \$114.8 million will go to the City, \$30.7 million to the County, and \$57.9 million to the School District.

Property Tax Revenue on Improvements by ATJ					
Year	Escalator	Tax Rate	City	County	School District
Year 1	1.000	38.717	-	-	-
Year 2	1.020	39.492	-	-	-
Year 3	1.040	40.281	\$1,432,227	\$382,825	\$721,925
Year 4	1.061	41.087	\$1,460,871	\$390,482	\$736,363
Year 5	1.082	41.909	\$2,980,177	\$796,583	\$1,502,181
Year 6	1.104	42.747	\$3,039,781	\$812,515	\$1,532,225
Year 7	1.126	43.602	\$4,650,865	\$1,243,148	\$2,344,304
Year 8	1.149	44.474	\$4,743,882	\$1,268,011	\$2,391,190
Year 9	1.172	45.363	\$6,451,679	\$1,724,494	\$3,252,018
Year 10	1.195	46.271	\$7,403,302	\$1,978,857	\$3,731,691
Year 11	1.219	47.196	\$7,551,368	\$2,018,435	\$3,806,325
Year 12	1.243	48.140	\$7,702,395	\$2,058,803	\$3,882,451
Year 13	1.268	49.103	\$7,856,443	\$2,099,979	\$3,960,100
Year 14	1.294	50.085	\$8,013,572	\$2,141,979	\$4,039,302
Year 15	1.319	51.087	\$8,173,844	\$2,184,818	\$4,120,088
Year 16	1.346	52.108	\$8,337,321	\$2,228,515	\$4,202,490
Year 17	1.373	53.150	\$8,504,067	\$2,273,085	\$4,286,540
Year 18	1.400	54.213	\$8,674,148	\$2,318,547	\$4,372,271
Year 19	1.428	55.298	\$8,847,631	\$2,364,918	\$4,459,716
Year 20	1.457	56.404	\$9,024,584	\$2,412,216	\$4,548,910
Total			\$114,848,158	\$30,698,211	\$57,890,090

Source: City: MRB

Sales Tax Revenue to County

The County will receive sales tax revenue during both the construction and operation phases of the Project that is associated with new employees spending a portion of their wages locally. The tables to the right estimate the amount of sales tax that will be generated on a per-building basis. We assume 70% of wages will be spent in the County, and then we assume 25% of that in-County spending on goods and services that are subject to the sales tax. After applying the County's sales tax rate of 4%, we estimate the County will receive \$481,630 in sales tax revenue per building from the construction employees and \$43,240 annually from the onsite employees per building.

County Sales Tax Revenue, Construction Phase, Per Building	
Line	Value
New Earnings Per Building	\$68,804,305
% Spent in County	70%
\$ Amount Spent in County	\$48,163,013
% Spent on Taxable Sales	25%
\$ Amount Spent on Taxable Sales	\$12,040,753
County Sales Tax Rate	4%
County Sales Tax Revenue, Construction	\$481,630

Source: MRB

County Sales Tax Revenue, Onsite Employment, Per Building	
	Value
New Earnings Per Building	\$6,177,178
% Spent in County	70%
\$ Amount Spent in County	\$4,324,024
% Spent on Taxable Sales	25%
\$ Amount Spent on Taxable Sales	\$1,081,006
County Sales Tax Rate	4%
County Sales Tax Revenue, Onsite Employment	\$43,240

Source: MRB

We calculate the estimated sales tax revenue for the County on a per building basis so that we can show the sales tax impact over time as the buildings are being constructed. The table to the right shows that the County will receive \$16.0 million in sales tax revenue from local spending over 20 years.

Sales Tax Impact to County from Employment				
Year	Escalation	Buildings in Construction	Buildings in Operation	Sales Tax Revenue From Employment
Year 1	1.000	2	0	\$963,260
Year 2	1.020	2	0	\$982,525
Year 3	1.040	2	2	\$1,092,150
Year 4	1.061	2	2	\$1,113,993
Year 5	1.082	2	4	\$1,229,882
Year 6	1.104	2	4	\$1,254,480
Year 7	1.126	2	6	\$1,376,961
Year 8	1.149	2	6	\$1,404,500
Year 9	1.172	1	8	\$969,609
Year 10	1.195	0	9	\$465,085
Year 11	1.219	0	9	\$474,387
Year 12	1.243	0	9	\$483,874
Year 13	1.268	0	9	\$493,552
Year 14	1.294	0	9	\$503,423
Year 15	1.319	0	9	\$513,491
Year 16	1.346	0	9	\$523,761
Year 17	1.373	0	9	\$534,236
Year 18	1.400	0	9	\$544,921
Year 19	1.428	0	9	\$555,819
Year 20	1.457	0	9	\$566,936
Total				\$16,046,847

Source: MRB

Sales Tax From Energy Use

The other significant source of sales tax revenue for the Project will be the sales taxes generated from the Project's energy use. MRB Group was provided an estimate prepared by a third-party energy consultant of the annual energy consumption of the Project, which we show on a per building basis. Each building will consume an estimated 120,960 MWh of electricity that will result in an energy bill of \$9.4 million per building per year.

Applying the State sales tax of 4%, the State will receive approximately \$375,690 in sales tax for each building. Locally, the City receives an additional 4% in sales tax on utilities and 1% on gross receipts tax. The dollar amounts of these revenues are \$375,690 and \$93,922 respectively. The School District also imposes an additional 3% sales tax on utilities which totals \$281,767. In total, each building will generate \$1.1 million in sales and gross receipts tax revenue for the ATJs due to energy consumption.

Sales Tax From Energy Use Per Building	
	Value
Estimated Annual Energy Consumption (MWh)	120,960
Estimated Annual Energy Bill	\$9,392,247
State Sales Tax Rate	4%
State Sales Tax Revenue	\$375,690
City Sales Tax %	4%
City Sales Tax Revenue	\$375,690
School District Sales Tax %	3%
School District Sales Tax Revenue	\$281,767
Gross Receipts Tax %	1%
Gross Receipts Tax Revenue	\$93,922
Total Tax From Energy Use	\$1,127,070

Source: Developer; NYS Tax & Finance; MRB

Local and State Sales Tax Impact Over 20 Years

Given the per building sales tax estimate calculated above, the table to the right shows the impact over 20 years. The State and City will each receive \$62.7 million in sales tax revenue over 20 years. The City will also receive an additional \$15.7 million in gross receipts tax revenue. The School District will receive \$47.0 million in sales tax revenue associated with the Project's energy use over 20 years.

Local and State Sales Tax and Gross Receipts Tax Impact from Energy Consumption							
Year	Escal.	Buildings in Operation	Energy Use - State Sales Tax	Energy Use - City Sales Tax	Energy Use - School District Sales Tax	Gross Receipts Tax - City	Total Tax from Energy Use
1	1.000	0	\$0	\$0	\$0	\$0	\$0
2	1.020	0	\$0	\$0	\$0	\$0	\$0
3	1.040	2	\$781,736	\$781,736	\$586,302	\$195,434	\$2,345,207
4	1.061	2	\$797,370	\$797,370	\$598,028	\$199,343	\$2,392,111
5	1.082	4	\$1,626,635	\$1,626,635	\$1,219,976	\$406,659	\$4,879,906
6	1.104	4	\$1,659,168	\$1,659,168	\$1,244,376	\$414,792	\$4,977,504
7	1.126	6	\$2,538,527	\$2,538,527	\$1,903,895	\$634,632	\$7,615,581
8	1.149	6	\$2,589,298	\$2,589,298	\$1,941,973	\$647,324	\$7,767,893
9	1.172	8	\$3,521,445	\$3,521,445	\$2,641,084	\$880,361	\$10,564,334
10	1.195	9	\$4,040,858	\$4,040,858	\$3,030,643	\$1,010,214	\$12,122,574
11	1.219	9	\$4,121,675	\$4,121,675	\$3,091,256	\$1,030,419	\$12,365,025
12	1.243	9	\$4,204,109	\$4,204,109	\$3,153,081	\$1,051,027	\$12,612,326
13	1.268	9	\$4,288,191	\$4,288,191	\$3,216,143	\$1,072,048	\$12,864,572
14	1.294	9	\$4,373,954	\$4,373,954	\$3,280,466	\$1,093,489	\$13,121,863
15	1.319	9	\$4,461,434	\$4,461,434	\$3,346,075	\$1,115,358	\$13,384,301
16	1.346	9	\$4,550,662	\$4,550,662	\$3,412,997	\$1,137,666	\$13,651,987
17	1.373	9	\$4,641,676	\$4,641,676	\$3,481,257	\$1,160,419	\$13,925,027
18	1.400	9	\$4,734,509	\$4,734,509	\$3,550,882	\$1,183,627	\$14,203,527
19	1.428	9	\$4,829,199	\$4,829,199	\$3,621,899	\$1,207,300	\$14,487,598
20	1.457	9	\$4,925,783	\$4,925,783	\$3,694,337	\$1,231,446	\$14,777,350
Total			\$62,686,228	\$62,686,228	\$47,014,671	\$15,671,557	\$188,058,684

Source: MRB

Fiscal Impact Summary

The table on the following page summarizes the fiscal impact of the Project by year, over 20 years. The local fiscal impact, including property, gross receipts and sales tax revenue apportioned to the City and School District, totals \$298.1 million over 20 years. The impact to the County and State over the same time is \$54.1 million and \$62.7 million respectively. In total the Project will generate \$414.9 million in property, gross receipts and sales tax revenue over 20 years. Note that other State revenues are not accounted for here (corporate and personal income tax, excise taxes, etc.).

Fiscal Impact Summary Table - Property, Gross Receipts and Sales Tax Revenue											
Year	City Property Tax on Improvements	Energy Use - City Sales Tax	Gross Receipts Tax	School Property Tax on Improvements	Energy Use - School Sales Tax	City and School Subtotal	County Property Tax on Improvements	County New Sales Tax (Operations)	County Subtotal	Energy Use - State Sales Tax	Grand Total
Year 1	-	-	-	-	-	-	-	\$963,260	\$963,260	-	\$963,260
Year 2	-	-	-	-	-	-	-	\$982,525	\$982,525	-	\$982,525
Year 3	\$1,432,227	\$781,736	\$195,434	\$721,925	\$586,302	\$3,717,623	\$382,825	\$1,002,176	\$1,385,001	\$781,736	\$5,884,359
Year 4	\$1,460,871	\$797,370	\$199,343	\$736,363	\$598,028	\$3,791,975	\$390,482	\$1,022,220	\$1,412,701	\$797,370	\$6,002,047
Year 5	\$2,980,177	\$1,626,635	\$406,659	\$1,502,181	\$1,219,976	\$7,735,629	\$796,583	\$1,042,664	\$1,839,247	\$1,626,635	\$11,201,511
Year 6	\$3,039,781	\$1,659,168	\$414,792	\$1,532,225	\$1,244,376	\$7,890,342	\$812,515	\$1,063,517	\$1,876,032	\$1,659,168	\$11,425,542
Year 7	\$4,650,865	\$2,538,527	\$634,632	\$2,344,304	\$1,903,895	\$12,072,223	\$1,243,148	\$1,084,788	\$2,327,935	\$2,538,527	\$16,938,685
Year 8	\$4,743,882	\$2,589,298	\$647,324	\$2,391,190	\$1,941,973	\$12,313,667	\$1,268,011	\$1,106,483	\$2,374,494	\$2,589,298	\$17,277,458
Year 9	\$6,451,679	\$3,521,445	\$880,361	\$3,252,018	\$2,641,084	\$16,746,587	\$1,724,494	\$1,128,613	\$2,853,107	\$3,521,445	\$23,121,139
Year 10	\$7,403,302	\$4,040,858	\$1,010,214	\$3,731,691	\$3,030,643	\$19,216,709	\$1,978,857	\$1,151,185	\$3,130,043	\$4,040,858	\$26,387,609
Year 11	\$7,551,368	\$4,121,675	\$1,030,419	\$3,806,325	\$3,091,256	\$19,601,043	\$2,018,435	\$1,174,209	\$3,192,643	\$4,121,675	\$26,915,361
Year 12	\$7,702,395	\$4,204,109	\$1,051,027	\$3,882,451	\$3,153,081	\$19,993,064	\$2,058,803	\$1,197,693	\$3,256,496	\$4,204,109	\$27,453,669
Year 13	\$7,856,443	\$4,288,191	\$1,072,048	\$3,960,100	\$3,216,143	\$20,392,925	\$2,099,979	\$1,221,647	\$3,321,626	\$4,288,191	\$28,002,742
Year 14	\$8,013,572	\$4,373,954	\$1,093,489	\$4,039,302	\$3,280,466	\$20,800,783	\$2,141,979	\$1,246,080	\$3,388,059	\$4,373,954	\$28,562,797
Year 15	\$8,173,844	\$4,461,434	\$1,115,358	\$4,120,088	\$3,346,075	\$21,216,799	\$2,184,818	\$1,271,001	\$3,455,820	\$4,461,434	\$29,134,053
Year 16	\$8,337,321	\$4,550,662	\$1,137,666	\$4,202,490	\$3,412,997	\$21,641,135	\$2,228,515	\$1,296,421	\$3,524,936	\$4,550,662	\$29,716,734
Year 17	\$8,504,067	\$4,641,676	\$1,160,419	\$4,286,540	\$3,481,257	\$22,073,958	\$2,273,085	\$1,322,350	\$3,595,435	\$4,641,676	\$30,311,068
Year 18	\$8,674,148	\$4,734,509	\$1,183,627	\$4,372,271	\$3,550,882	\$22,515,437	\$2,318,547	\$1,348,797	\$3,667,344	\$4,734,509	\$30,917,290
Year 19	\$8,847,631	\$4,829,199	\$1,207,300	\$4,459,716	\$3,621,899	\$22,965,746	\$2,364,918	\$1,375,773	\$3,740,691	\$4,829,199	\$31,535,636
Year 20	\$9,024,584	\$4,925,783	\$1,231,446	\$4,548,910	\$3,694,337	\$23,425,061	\$2,412,216	\$1,403,288	\$3,815,504	\$4,925,783	\$32,166,348
Total	\$114,848,158	\$62,686,228	\$15,671,557	\$57,890,090	\$47,014,671	\$298,110,704	\$30,698,211	\$23,404,691	\$54,102,902	\$62,686,228	\$414,899,833

Impact on Typical Household

To put the overall fiscal impacts into perspective for the people of Niagara Falls, we translate those community-wide impacts into the impact on a typical household in the City. To represent a typical household, we are using the current average home value of a single-family home in the City as reported by Zillow, a major online realty website. According to Zillow, the average single-family home value is \$150,140, which translates to an assessed value of \$75,070 when applying the current assessment ratio of 50%. We compare what the owner of an average-value home would pay in property tax with and without the new revenue streams that result from the Project. To do so, we first need to calculate the ratio between the new revenues from the Project and the total property tax levy of the City and School District.

Assessed Value of Average Home	
Average Market Value	\$150,140
Assessment Ratio	50%
Assessed Value	\$75,070

Source: City; Zillow

As shown in the table to the right, the City's most recent property tax levy is approximately \$33.4 million and the School's is \$25.8 million. As with all other time-series factors in this analysis, we have inflated those levies by 2% per year. Using values from the fiscal impact summary table above, we compare each year's fiscal benefit to the City/School to its respective estimated tax levy. For example, in Year 3 the new revenues coming into the City represent 6.9% of the City's levy and 4.9% of the School District's levy.

Over 20 years, we show the Project's revenues would represent a total of 23.8% of the City's property tax levy and 16.7% of the School District's. In effect, these figures represent the portion of the City's and School District's property tax levies that could be offset by these new revenues.

New Revenues as % of City and School Tax Levies						
Year	Project Benefit to the City	City Tax Levy	% of TAV	Project Benefit to School	School Levy	% of TAV
Year 1	\$0	\$33,391,317	0.0%	\$0	\$25,828,989	0.0%
Year 2	\$0	\$34,059,143	0.0%	\$0	\$26,345,569	0.0%
Year 3	\$2,409,396	\$34,740,326	6.9%	\$1,308,226	\$26,872,480	4.9%
Year 4	\$2,457,584	\$35,435,133	6.9%	\$1,334,391	\$27,409,930	4.9%
Year 5	\$5,013,471	\$36,143,835	13.9%	\$2,722,158	\$27,958,128	9.7%
Year 6	\$5,113,741	\$36,866,712	13.9%	\$2,776,601	\$28,517,291	9.7%
Year 7	\$7,824,023	\$37,604,046	20.8%	\$4,248,199	\$29,087,637	14.6%
Year 8	\$7,980,504	\$38,356,127	20.8%	\$4,333,163	\$29,669,389	14.6%
Year 9	\$10,853,485	\$39,123,250	27.7%	\$5,893,102	\$30,262,777	19.5%
Year 10	\$12,454,374	\$39,905,715	31.2%	\$6,762,334	\$30,868,033	21.9%
Year 11	\$12,703,462	\$40,703,829	31.2%	\$6,897,581	\$31,485,393	21.9%
Year 12	\$12,957,531	\$41,517,906	31.2%	\$7,035,533	\$32,115,101	21.9%
Year 13	\$13,216,682	\$42,348,264	31.2%	\$7,176,243	\$32,757,403	21.9%
Year 14	\$13,481,015	\$43,195,229	31.2%	\$7,319,768	\$33,412,551	21.9%
Year 15	\$13,750,636	\$44,059,133	31.2%	\$7,466,163	\$34,080,802	21.9%
Year 16	\$14,025,648	\$44,940,316	31.2%	\$7,615,487	\$34,762,419	21.9%
Year 17	\$14,306,161	\$45,839,122	31.2%	\$7,767,796	\$35,457,667	21.9%
Year 18	\$14,592,285	\$46,755,905	31.2%	\$7,923,152	\$36,166,820	21.9%
Year 19	\$14,884,130	\$47,691,023	31.2%	\$8,081,615	\$36,890,157	21.9%
Year 20	\$15,181,813	\$48,644,843	31.2%	\$8,243,248	\$37,627,960	21.9%
Total	\$193,205,943	\$811,321,174	23.8%	\$104,904,761	\$627,576,497	16.7%

Source: Niagara County Real Property Tax Statistics Report

Finally, we compare the amount an average-valued homeowner would pay in tax with or without the Project. As noted above, the average single-family home is valued at \$75,070 for tax purposes. Such a home currently pays \$1,495 to the City and \$1,465 to the School District. By escalating tax rates by 2% per year, we estimate the future property tax obligations of a property owner without the projected revenues from the Project. We then apply the percentages calculated previously, the ratio of new Project revenues to the existing tax levies, to show the theoretical tax savings to the typical homeowner in the City. As shown, the typical homeowner would save a total of \$14,603 in taxes over 20 years. On average, the typical homeowner would save \$730 per year in property taxes.

Estimated Property Tax Savings to Average Home Owner										
Year	Average Assessed Value	City Tax Rate*	City Tax W/O Project	Project % of TAV	Savings on City Tax Bill	School Tax Rate	School Tax W/O Project	Project % of TAV	Savings on Tax Bill	Combined Tax Savings
Year 1	\$75,070	19.921	\$1,495	0.0%	\$0	19.516	\$1,465	0.0%	\$0	\$0
Year 2	\$75,070	20.320	\$1,525	0.0%	\$0	19.906	\$1,494	0.0%	\$0	\$0
Year 3	\$75,070	20.726	\$1,556	6.9%	\$108	20.304	\$1,524	4.9%	\$74	\$182
Year 4	\$75,070	21.140	\$1,587	6.9%	\$110	20.710	\$1,555	4.9%	\$76	\$186
Year 5	\$75,070	21.563	\$1,619	13.9%	\$225	21.124	\$1,586	9.7%	\$154	\$379
Year 6	\$75,070	21.995	\$1,651	13.9%	\$229	21.547	\$1,618	9.7%	\$157	\$387
Year 7	\$75,070	22.434	\$1,684	20.8%	\$350	21.978	\$1,650	14.6%	\$241	\$591
Year 8	\$75,070	22.883	\$1,718	20.8%	\$357	22.417	\$1,683	14.6%	\$246	\$603
Year 9	\$75,070	23.341	\$1,752	27.7%	\$486	22.866	\$1,717	19.5%	\$334	\$820
Year 10	\$75,070	23.808	\$1,787	31.2%	\$558	23.323	\$1,751	21.9%	\$384	\$941
Year 11	\$75,070	24.284	\$1,823	31.2%	\$569	23.790	\$1,786	21.9%	\$391	\$960
Year 12	\$75,070	24.769	\$1,859	31.2%	\$580	24.265	\$1,822	21.9%	\$399	\$979
Year 13	\$75,070	25.265	\$1,897	31.2%	\$592	24.751	\$1,858	21.9%	\$407	\$999
Year 14	\$75,070	25.770	\$1,935	31.2%	\$604	25.246	\$1,895	21.9%	\$415	\$1,019
Year 15	\$75,070	26.286	\$1,973	31.2%	\$616	25.751	\$1,933	21.9%	\$423	\$1,039
Year 16	\$75,070	26.811	\$2,013	31.2%	\$628	26.266	\$1,972	21.9%	\$432	\$1,060
Year 17	\$75,070	27.347	\$2,053	31.2%	\$641	26.791	\$2,011	21.9%	\$441	\$1,081
Year 18	\$75,070	27.894	\$2,094	31.2%	\$654	27.327	\$2,051	21.9%	\$449	\$1,103
Year 19	\$75,070	28.452	\$2,136	31.2%	\$667	27.873	\$2,092	21.9%	\$458	\$1,125
Year 20	\$75,070	29.021	\$2,179	31.2%	\$680	28.431	\$2,134	21.9%	\$468	\$1,148
Total			\$36,336	23.8%	\$8,653		\$35,597		\$5,950	\$14,603
Average Annual			\$1,817		\$433		\$1,780		\$298	\$730

Source: City; MRB *Tax rate shown above is the City's homestead tax rate.



Elevating Communities

ATTACHMENT

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Data Center at Niagara Digital Campus

Noise Impact Evaluation

April 2025

Data Center at Niagara Digital Campus

Noise Impact Evaluation

April 2025

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Contents

1 Introduction 1

2 Applicable Requirements..... 1

3 Methodology and Assumptions 5

4 Analysis 6

5 Results 6

6 Recommendations..... 8

7 Conclusions 8

Tables

Table 1: High Energy Law Sound Levels.2

Table 2: Measured ambient sound levels at each location.4

Table 3: Measured Ambient Sound Levels and Sound Level Limits at each POR.5

Table 4: Summary of Results7

Figures

Figure 1: Ambient Noise Monitoring Locations

Figure 2: Noise Sources

Figure 3: Sound Level Contours

Appendices

- Appendix A Site Plan
- Appendix B Current Zoning Maps
- Appendix C Sound Level Meter Calibration Certificates

1 Introduction

Arcadis Canada Inc. (Arcadis) was retained by TRM Architect (TRM), on behalf of Petitioners of the Data Center at Niagara Digital Campus Planned Unit Development (PUD) (also referred to as NFR), to prepare a noise impact evaluation (Study) in support of their PUD Petition to the City of Niagara Falls. The proposed PUD is bounded by Falls Street to the north, John B. Daly Boulevard to the west, 14th Street to the east and Buffalo Avenue to the south (the “PUD Property”). A concept site plan is provided in **Appendix A**. The primary use of the PUD will be a state-of-the-art data center (Data Center). In this connection, NFR has partnered with Urbacon Data Centre Solutions Inc. (Urbacon), which is a preeminent developer, constructor, and operator of hyperscale and build-to-suit data centers in North America, to bring the innovative Data Center to Niagara Falls. Because Urbacon will drive the Data Center’s design, Arcadis studied other currently operating Urbacon facilities to assess potential noise impacts of the Data Center at the Niagara Digital Campus.

Since the current municipal approval sought currently solely relates to the development of a PUD or re-zoning, and not site plan approval, the future Data Center’s mechanical and acoustical information are considered preliminary at this time, and conservative assumptions were made, as detailed below.

This Study evaluated the ambient sound level and compared to applicable local noise restrictions. Accordingly, with the use of site-applicable limits based on the existing ambient conditions, noise compliance has been achieved with the Data Center at Niagara Digital Campus design, reflected in **Appendix A**. Furthermore, based on the preliminary mechanical and acoustical information, the operation of the Data Center is not expected to increase the ambient sound levels by an audible amount.

2 Applicable Requirements

The following documents, policies and ordinance were used to assess anticipated noise levels at the PUD Property:

- New York State Department of Environmental Conservation – Assessing and Mitigating Noise Impacts;
- City of Niagara Falls, New York – Zoning Ordinance (“Zoning Ordinance”); and
- City of Niagara Falls, New York – High Energy Usage Overlay District Law (“High Energy Law”)

The Zoning Ordinance provides sound level criteria of 65 dBA only for light manufacturing facilities, but no other types of facilities or uses. However, the High Energy Law includes additional criteria that may be determined to be applicable to the PUD. **Table 1** provides a summary of the criteria listed in the General Requirements in Section 1319.5.4 of the High Energy Law. The criteria are applied at the nearest property line of the listed City of Niagara Falls Zoning District.

Data Center at Niagara Digital Campus
Noise Impact Evaluation

City of Niagara Falls Zoning District	Between 10:00 pm and 7:00 am, daily and any time on weekends (dBA)	Between 7:00 am and 10:00 pm (dBA)
Residential	40	50
Industrial	65	
Others (excluding Industrial)	50	

Table 1: High Energy Law Sound Levels.

To characterize the existing acoustic environment surrounding the site, ambient sound level measurements were conducted from April 8, 2025, to April 10, 2025, at four (4) different locations along the perimeter of the PUD Property across from the adjacent land uses. Measurements were completed using two (2) sound level meters (SLMs) Larson Davis SoundExpert 821. Initial SLM deployment was on April 8, 2025, between 10:00 AM and 10:30 AM. The first SLM was deployed near the intersection of Falls Street and 12th street (Location 1), and another SLM was deployed near the intersection of Falls Street and Portage Road (Location 2). To conduct measurements on the opposite side of the site, one (1) SLM was moved at the Buffalo Ave and Memorial Pkwy intersection (Location 3) and another SLM was moved near the intersection of John B. Daly Blvd and Rainbow Blvd (Location 4), on April 9, 2025, between 10:30 AM and 11:00 AM. See **Figure 1** for locations of the SLM installations.

Sound levels in the area were noted to be primarily influenced by local road traffic and industrial activities. Local residential and commercial activities were noted to affect sound levels at times. As the site is in the flight path of local helicopter tours, some short-term, transient contribution was observed. Temperatures during the ambient measurements were low and there was no observed cooling demand of nearby residential, commercial and industrial buildings. As temperatures increase, cooling demand is expected to increase, thus an increase in the ambient sound levels is expected. Furthermore, increased road and air traffic is expected as the weather warms up and the tourist season picks up. Therefore, conducting ambient sound level measurements at this time of the year is considered to yield conservative results.

Data Center at Niagara Digital Campus
Noise Impact Evaluation

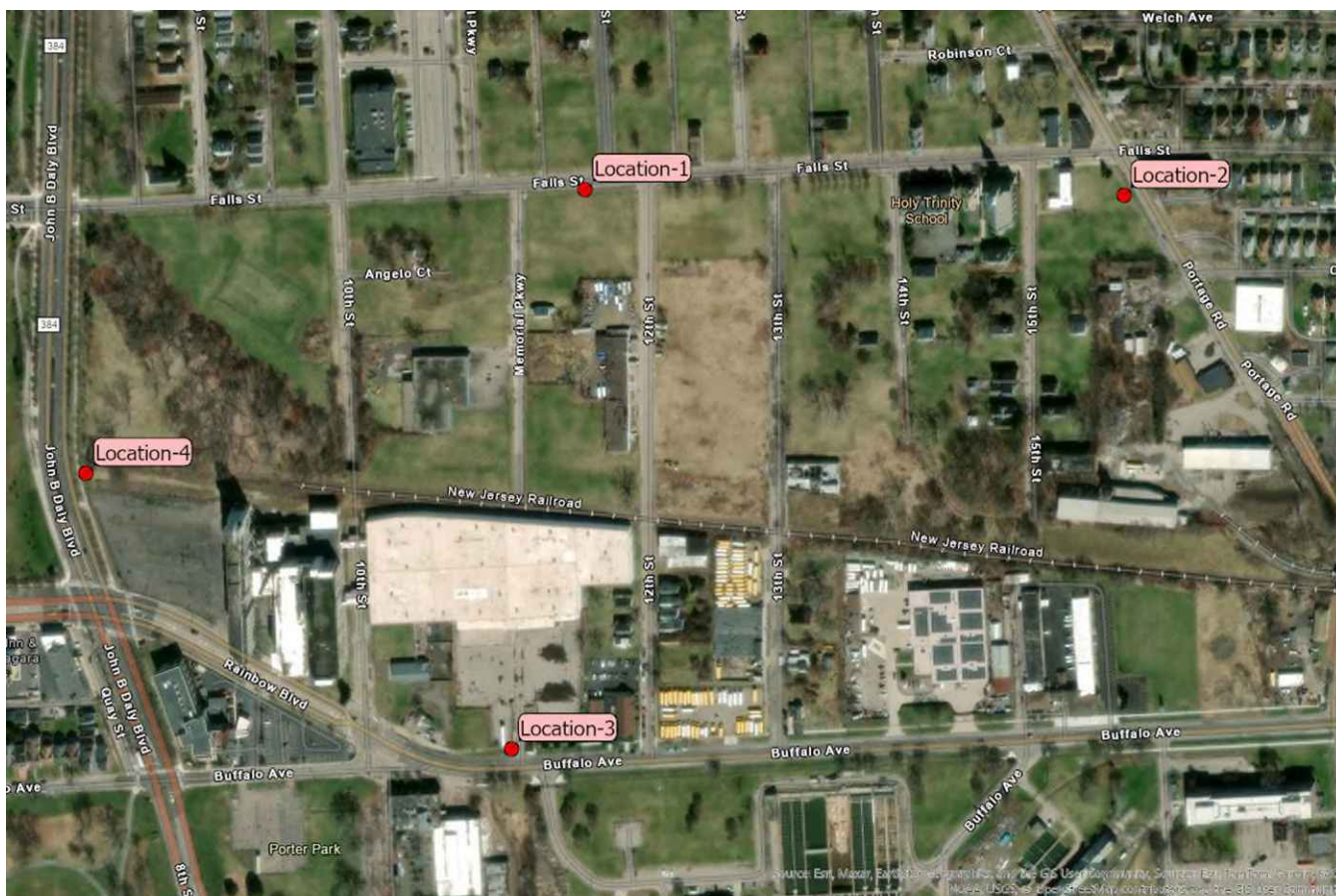


Figure 1: Ambient Noise Monitoring Locations

Measured sound level data was then processed to establish an LAeq (15-hr) and LAeq (9-hr) to represent the ambient sound levels during daytime (7:00 AM to 10:00 PM) and nighttime (10:00 PM to 7:00 AM), as per the High Energy Law's time period, and is referred to below as the "Measured Ambient Sound Level." Transient events, such as air traffic, were noted to have an effect on short-term sound levels (~1 minute in length), but have no significant effect on longer time averaging periods, such as the 15-hr and 9-hr time periods. Since, a noise can only intrude if it differs in character or sound pressure level from the normal ambient sound, the most objective attempts to assess nuisance noise adopt the technique of comparing the noise with actual ambient sound levels or with some derived criterion.

The measured sound level at each location has been presented in the **Table 2** below.

Location	Measured Ambient Sound level – Daytime (7:00 AM – 10:00 PM) (LAeq-15hr)	Measured Ambient Sound level – Nighttime (10:00 PM – 7:00 AM) (LAeq-9hr)
Location-1	58	49
Location-2	57	50
Location-3	58	55

Data Center at Niagara Digital Campus
Noise Impact Evaluation

Location	Measured Ambient Sound level – Daytime (7:00 AM – 10:00 PM) (LAeq-15hr)	Measured Ambient Sound level – Nighttime (10:00 PM – 7:00 AM) (LAeq-9hr)
Location-4	58	55

Table 2: Measured ambient sound levels at each location.

The Measured Ambient Sound Levels at nearly each location is higher than the sound level limits of High Energy Law. The goal for any permitted operation should be to minimize increases in sound pressure level above ambient levels at the chosen point of sound reception. Since it is not feasible to achieve a lower dBA for a project than the ambient sound levels, the Measured Ambient Sound Levels are properly considered the applicable “Sound Level Limit.” The applicable High Energy Law sound levels are reflected below. **Table 3** compares the sound levels contained in the High Energy Law to the Measured Ambient Sound Levels and establishes the applicable Sound Level Limit.

Receptor	Time Period	High Energy Law Sound Levels (dBA)	Measured Ambient Sound Level (dBA)	Sound Level Limit (dBA)
POR01	Daytime (7:00 AM to 10:00 PM)	50	58	58
	Nighttime (10:00 PM to 7:00 AM)	50	49	50²
POR02	Daytime (7:00 AM to 10:00 PM)	50	57	57
	Nighttime (10:00 PM to 7:00 AM)	40 ¹	55	55
POR03	Daytime (7:00 AM to 10:00 PM)	50	58	58
	Nighttime (10:00 PM to 7:00 AM)	50	55	55
POR04	Daytime (7:00 AM to 10:00 PM)	50	58	58
	Nighttime (10:00 PM to 7:00 AM)	50	55	55
POR05	Daytime (7:00 AM to 10:00 PM)	50	58	58
	Nighttime (10:00 PM to 7:00 AM)	50	55	55
POR06	Daytime (7:00 AM to 10:00 PM)	50	58	58

¹ While POR02 is located in area currently zoned as Residential, the PUD Petition will seek to rezone to that area to the Data Center at Niagara Digital Campus PUD, so that 40 dBA is possibly inapplicable. Also, while POR02 is located in an area currently zoned as Residential, the area does not appear to be “used” for residential purposes, as required by the High Energy Law, so the 40 dBA is possibly inapplicable.

Receptor	Time Period	High Energy Law Sound Levels (dBA)	Measured Ambient Sound Level (dBA)	Sound Level Limit (dBA)
POR07	Daytime (7:00 AM to 10:00 PM)	50	58	58
	Nighttime (10:00 PM to 7:00 AM)	50	55	55
POR08	Daytime (7:00 AM to 10:00 PM)	50	58	58
	Nighttime (10:00 PM to 7:00 AM)	50	55	55
POR09	Daytime (7:00 AM to 10:00 PM)	50	58	58
	Nighttime (10:00 PM to 7:00 AM)	50	49	50²

Table 3: Measured Ambient Sound Levels and Sound Level Limits at each POR.

3 Methodology and Assumptions

Urbacore operates facilities similar to the operations planned for the Data Center at Niagara Digital Campus in the Canadian provinces of Ontario and Quebec. Sound level measurements of the equipment at these existing sites were conducted using a Casella CEL-63X Type 1 Sound Level Meter. This sound level meter meets the General Requirements for sound level meters outlined in Section 1319.5.4 of the High Energy Use Law. Equipment calibration certificates are provided in **Appendix B**.

Measurements of the Quebec facility were conducted on September 24, 2024, while measurements of the Ontario facility were conducted on September 26 and 27, 2024. It was noted that some of the outdoor mechanical equipment was not operational as the sites' cooling demands were not at their peak. To obtain worst-case sound levels, i.e. the highest possible sound levels, sound level measurements were conducted only of the equipment that was operational. A sound power level per unit area of 66 dBA was calculated from the equipment that was operational.

It was observed that there is a potential for tonal sound in the 5,000 Hz frequency under some operating conditions. The measurements indicated that the 5,000 Hz frequency meets the definition of tonal sounds per ISO 1996-2:2017. As such, a 5 dB penalty was added to the equipment sound power level.

To represent the worst-case operating scenario for the proposed new Data Center, the calculated sound power level per area was applied to the entire mechanical equipment yard. This approach is conservative as it is assumed that mechanical equipment will be placed end-to-end to completely cover each mechanical yard. In reality, some spacing will be required between each unit for cooling, maintenance, and access purposes.

As a conservative approach, the sound level impacts of a fully phased-in development, with all mechanical yards operating simultaneously at their maximum operating condition, were assessed, i.e. the cumulative effects of all five (5) building phases were assessed on the neighboring properties. As observed at the Canadian sites,

² While the Measured Ambient Sound Level at this location was 49 dBA, the High Energy Law has a threshold of 50 dBA and so this Sound Level Limit has been adjusted accordingly.

Urbacón's equipment sound levels fluctuate with cooling demand. This means that actual operating sound levels are likely lower than predicted, especially in the evenings when the cooling demands will be lessened.

4 Analysis

Noise modelling was completed using DataKustik's CadnaA software. CadnaA can predict sound levels surrounding a facility according to the ISO Standard 9613-2, "Acoustics – Attenuation of Sound during Propagation Outdoors". This ISO calculation method, considered conservative, accounts for reduction in sound level with distance due to geometrical spreading, air absorption, ground attenuation and acoustical shielding. The following parameters were used in the acoustic model:

- Overall Ground Absorption G was set to 0.40
- Temperature at 10 degrees and humidity at 70%
- All the buildings have been considered reflective
- Order of reflections set to two.

In addition, all proposed noise screens as detailed in Appendix A were considered to be absorptive in accordance with Section 1319.5.4 of the High Energy Law.

The following assumptions were made regarding the approximate heights of the sources, buildings and noise screens:

- Height of buildings (except for Phase 2B) – 30 feet
- Height of Phase 2B building – 15 feet
- Height of noise screens – 26 feet (minimum height)
- Height of mechanical equipment – 20 feet
- Height of perimeter masonry walls – 6 feet

Note that the height of the equipment is based on the approximate highest point on the equipment that was measured. This is a conservative modelling input as the mechanical equipment emits noise from various heights. Detailed measurements of each part of the mechanical equipment could not be undertaken. As design progresses, it is recommended that detailed sound level measurements are taken of the mechanical equipment.

The future Data Center's mechanical yards were modelled as area sources. It was assumed that any heating or ventilation equipment that will be used for office purposes will be insignificant in comparison to the mechanical yards. As design progresses, this assumption should be confirmed. **Figure 2** (following the report) shows the locations of the buildings, area sources and noise screens.

The sound level contours generated as a result of this analysis are reflected on **Figure 3** (following the report text), and are referred to as Sound Level Contours.

5 Results

Figure 3 (following the report text) provides Sound Level Contours when all mechanical equipment is operating at the same time. The Sound Level Contours are representative of the Data Center at Niagara Digital Campus in accordance with **Appendix A**, and reflect the most potentially impacted property lines, represented by black and white "receiver" points, summarized in **Table 4**. **Figure 3** includes the applicable Zoning District location for each POR, and the Sound Level Contour. The Sound Level Contour is compared to the established and applicable Sound Level Limit. **Figure 3** analyzes whether the Sound Level Contour is above or below the Sound Level Limit,

Data Center at Niagara Digital Campus
Noise Impact Evaluation

and therefore, whether the Data Center at Niagara Digital Campus would be in compliance with applicable noise limits.

As detailed below, the Data Center at Niagara Digital Campus is in compliance with applicable noise restrictions at all POR locations.

Receiver ID	Niagara Falls Zoning District	Sound Level Contour (dBA)	Sound Level Limit (dBA)		In Compliance? (Y/N)
			Daytime (7:00 am – 10:00 pm)	Nighttime (10:00 pm – 7:00 am)	
POR01	Commercial	47	58	50 ³	Y
POR02	Residential ⁴	47	57	55	Y
POR03	Downtown	46	58	55	Y
POR04	Downtown	51	58	55	Y
POR05	Downtown	47	58	55	Y
POR06	Institutional	51	58		Y
POR07	Downtown	53	58	55	Y
POR08	Downtown	55	58	55	Y
POR09	Downtown	49	58	50 ³	Y

Table 4: Summary of Results

Again, comparing the noise with actual ambient sound levels, resulting in a Measured Ambient Noise Level and thus the applicable Sound Level Limit, is the most objective method to assess nuisance noise. The applicable Sound Level Limit is met at all POR locations. The Zoning Ordinance's noise limit of 65 dBA is also met at all POR locations.

The ambient acoustic environment around the PUD Property is mostly influenced by industrial and road traffic noise. The actual operating sound levels of the Data Center at Niagara Digital Campus are likely to be lower than predicted, especially in the evenings and nighttime when the demand for mechanical equipment required for cooling will be lessened.

Further, note that only the lands east of Phase 5 are zoned Residential, multi-family, high density (R3-C), but do not appear to be "used" for residential purposes as required by the High Energy Law. None of the existing homes adjacent to the PUD Property appear to be presently occupied. The majority of parcels appear to be used for commercial purposes. Other adjacent lands are currently zoned for downtown, commercial, and institutional uses. Thus, the 40 dBA limit in the High Energy Law may not be applicable.

³ Refer to footnote No. 2 above.

⁴ Refer to footnote No. 1 above.

Figures





Appendix A

Site Plan



Appendix B

Zoning

Appendix C

Calibration Certificates

INSTRUMENT CALIBRATION REPORT



Pine Environmental Services, Inc

Instrument ID R146364
Description Quest QC-10 Acoustic Calibrator
Calibrated 10/23/2023

Manufacturer Quest
Model Number QC-10
Serial Number QIE010140
Location New Jersey
Temp 74

Classification
Status pass
Frequency Yearly
Department Lab
Humidity 28

Calibration Specifications

Group # 1
Group Name Acoustic Tests Performed
Test Performed: Yes As Found Result: Pass As Left Result: Pass

Test Instruments Used During the Calibration

Test Instrument ID	Description	Manufacturer	Serial Number	(As Of Cal Entry Date)	
				Last Cal Date	Next Cal Date
B&K 4226	Brüel & Kjær 4226	Brüel & Kjær	2590968	8/24/2023	8/24/2024
B&K 4228	Brüel & Kjær 4228	Brüel & Kjær	2667476	8/24/2023	8/24/2024
SOUNDPRO DL-1-1/3	3M SoundPro DL-1-1/3	Quest Technologies	BLL070002	9/6/2023	9/6/2024

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated David Galego

Advanced Labs, Inc. hereby certifies that this instrument is calibrated and functions to meet the manufacture's specifications using NIST traceable standards, or is derived from accepted values of physical constants.

INSTRUMENT CALIBRATION REPORT



Advanced Labs, Inc.

Pine Environmental Services, Inc

Instrument ID 50250
Description CEL-63X Sound Level Meter
Calibrated 11/10/2023

Manufacturer Casella
Model Number CEL-63X
Serial Number 2382988
Location New Jersey
Temp 70

Classification
Status pass
Frequency Yearly
Department Lab
Humidity 28

Calibration Specifications

Group # 1
Group Name Acoustic Tests Performed
Test Performed: Yes As Found Result: Pass As Left Result: Pass

Test Instruments Used During the Calibration

<u>Test Instrument ID</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Serial Number</u>	<u>(As Of Cal Entry Date)</u>	
				<u>Last Cal Date</u>	<u>Next Cal Date</u>
B&K 4226	Brüel & Kjær 4226	Brüel & Kjær	2590968	8/24/2023	8/24/2024
B&K 4228	Brüel & Kjær 4228	Brüel & Kjær	2667476	8/24/2023	8/24/2024

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated David Galego

Advanced Labs, Inc. hereby certifies that this instrument is calibrated and functions to meet the manufacture's specifications using NIST traceable standards, or is derived from accepted values of physical constants.

~ *Certificate of Calibration and Compliance* ~

Model : 377B02 Manufacturer : PCB
Serial : 363455 Description : 1/2" Free-Field Microphone

Calibration Environmental Conditions

Environmental test conditions as printed on microphone calibration chart.

Reference Equipment

Manufacturer	Model #	Serial #	Control #	Cal Date	Duc Date
National Instruments	PCIe-6351	01896F08	CA1918	10/17/2024	04/17/2026
Larson Davis	PRM915	0146	CA2115	07/11/2024	07/11/2025
Larson Davis	PRM902	4701	CA1450	07/11/2024	07/11/2025
Larson Davis	PRM916	0129	CA1084	08/16/2024	08/15/2025
Larson Davis	CAL250	4147	LD018	07/08/2024	07/08/2025
Larson Davis	2201	151	CA2073	09/05/2024	09/05/2025
Larson Davis	GPRM902	5337	CA2153	10/25/2024	10/24/2025
Larson Davis	PRM915	132	CA1552	09/11/2024	09/11/2025
Larson Davis	PRA951-4	0241	CA1449	08/17/2024	08/15/2025
Bruel & Kjaer	4192	3259548	CA3533	10/11/2024	10/10/2025
Newport	iTHX-SD/N	1080002	CA1511	02/07/2025	02/07/2026
PCB	68510-02	N/A	CA2672	02/06/2025	02/06/2026

Frequency sweep performed with B&K UA0033 electrostatic actuator.

Condition of Unit

As Found : n/a

As Left : New Unit, In Tolerance

Notes

1. Calibration of reference equipment is traceable to one or more of the following National Labs; NIST, PTB or DFM.
2. This certificate shall not be reproduced, except in full, without written approval from PCB Piezotronics, Inc.
3. Calibration is performed in compliance with ISO 10012-1, ANSI/NCSL Z540.3 and ISO 17025.
4. Measurement results relate only to the items tested. Refer to Manufacturer's Specification Sheet for performance details.
5. Open Circuit Sensitivity is measured using the voltage insertion method following procedure AT603-5.
6. Measurement uncertainty (95% confidence level with coverage factor of 2) for sensitivity is +/-0.20 dB.
7. Unit calibrated per ACS-20.
8. Where provided, statements of conformity are made in accordance with Simple Acceptance decision rule as defined in ILAC G8 with TUR of 4:1 or greater.

Technician: Leonard Lukasik  Date: 02/27/2025



PCB PIEZOTRONICS
AN AMPHENOL COMPANY
3425 WALDEN AVENUE - DEPEW, NY 14043
TEL: +1 (888) 684-0013 - FAX: +1 (716) 685-3886 - www.pcb.com



~ Calibration Report ~

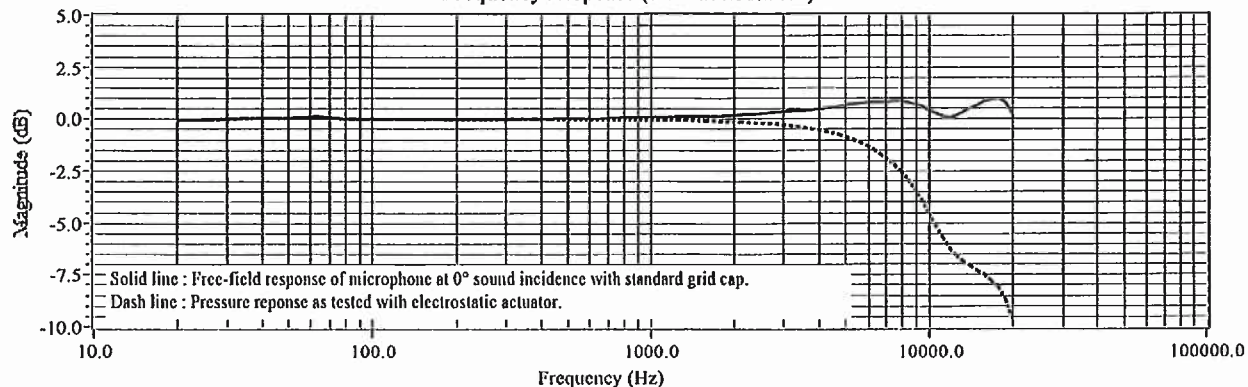
Model : 377B02 Manufacturer : PCB
 Serial : 363455 Description : 1/2" Free-Field Microphone

Calibration Data

Open Circuit Sensitivity at 251.2 Hz : 48.97 mV/Pa Polarization Voltage, External : 0 V
 -26.20 dB re 1 V/Pa Capacitance : 13.31 pF

Temperature: 68 °F (20 °C) Ambient Pressure: 978 mbar Relative Humidity: 38 %

Frequency Response (0 dB at 251.2 Hz)



Frequency (Hz)	Pressure (dB)	Free-Field (dB)	Frequency (Hz)	Pressure (dB)	Free-Field (dB)	Frequency (Hz)	Pressure (dB)	Free-Field (dB)
20.00	-0.05	-0.05	1584.90	-0.08	0.13	6683.40	-1.70	0.82
25.10	-0.02	-0.02	1678.80	-0.08	0.15	7079.50	-1.96	0.82
31.60	0.04	0.04	1778.30	-0.10	0.15	7498.90	-2.22	0.85
39.80	0.05	0.05	1883.60	-0.11	0.17	7943.30	-2.54	0.85
50.10	0.06	0.06	1995.30	-0.12	0.19	8414.00	-2.92	0.81
63.10	0.14	0.14	2113.50	-0.13	0.21	8912.50	-3.39	0.72
79.40	0.01	0.01	2238.70	-0.15	0.22	9440.60	-3.88	0.64
100.00	0.02	0.02	2371.40	-0.17	0.24	10000.00	-4.56	0.39
125.90	0.01	0.01	2511.90	-0.19	0.27	10592.50	-5.11	0.29
158.50	0.01	0.01	2660.70	-0.21	0.30	11220.20	-5.72	0.14
199.50	0.01	0.01	2818.40	-0.24	0.32	11885.00	-6.25	0.07
251.20	0.00	0.00	2985.40	-0.26	0.36	12589.30	-6.59	0.18
316.20	0.01	0.02	3162.30	-0.31	0.37	13335.20	-6.85	0.34
398.10	0.01	0.01	3349.70	-0.34	0.40	14125.40	-7.08	0.51
501.20	-0.01	0.03	3548.10	-0.41	0.41	14962.40	-7.31	0.66
631.00	-0.02	0.02	3758.40	-0.46	0.44	15848.90	-7.49	0.86
794.30	-0.02	0.07	3981.10	-0.51	0.49	16788.00	-7.80	0.92
1000.00	-0.04	0.08	4217.00	-0.58	0.53	17782.80	-8.12	0.99
1059.30	-0.04	0.09	4466.80	-0.66	0.57	18836.50	-8.71	0.80
1122.00	-0.05	0.09	4731.50	-0.75	0.62	19952.60	-9.63	0.30
1188.50	-0.05	0.10	5011.90	-0.86	0.67			
1258.90	-0.05	0.11	5308.80	-0.98	0.72			
1333.50	-0.05	0.13	5623.40	-1.13	0.75			
1412.50	-0.06	0.13	5956.60	-1.30	0.77			
1496.20	-0.07	0.13	6309.60	-1.48	0.81			

Technician: Leonard Lukasik Date: 02/27/2025



PCB PIEZOTRONICS
 AN AMPHENOL COMPANY

3425 WALDEN AVENUE - DEPEW, NY 14043
 TEL: +1 (888) 684-0013 - FAX: +1 (716) 685-3886 - www.pcb.com

Calibration Certificate

Certificate Number 2024014540

Customer:

The Modal Shop
10310 AeroHub Boulevard
Cincinnati, OH 45215 United States

Model Number CAL200
Serial Number 22953
Test Results Pass
Initial Condition As Manufactured
Description Larson Davis CAL200 Acoustic Calibrator

Procedure Number D0001.8386
Technician Scott Montgomery
Calibration Date 2024-10-02
Calibration Due
Temperature 24 °C ± 0.3 °C
Humidity 31 %RH ± 3 %RH
Static Pressure 101.3 kPa ± 1 kPa

Evaluation Method The data is acquired by the insert voltage calibration method using the reference microphone's open circuit sensitivity. Data reported in dB re 20 µPa.

Compliance Standards Compliant to Manufacturer Specifications per D0001.8190 and the following standards:
IEC 60942:2017 ANSI S1.40-2006

Issuing lab certifies that the instrument described above meets or exceeds all specifications as stated in the referenced procedure (unless otherwise noted). The results documented in this certificate relate only to the item(s) calibrated or tested. It has been calibrated using measurement standards traceable to the SI through the National Institute of Standards and Technology (NIST), or other national measurement institutes, and meets the requirements of ISO/IEC 17025:2017.

Test points marked with a ‡ in the uncertainties column do not fall within this laboratory's scope of accreditation.

The quality system is registered to ISO 9001:2015.

This calibration is a direct comparison of the unit under test to the listed reference standards and did not involve any sampling plans to complete. No allowance has been made for the instability of the test device due to use, time, etc. Such allowances would be made by the customer as needed.

The uncertainties were computed in accordance with the ISO Guide to the Expression of Uncertainty in Measurement (GUM). A coverage factor of approximately 2 sigma (k=2) has been applied to the standard uncertainty to express the expanded uncertainty at approximately 95% confidence level.

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Standards Used

Description	Cal Date	Cal Due	Cal Standard
Agilent 34401A DMM	2024-06-20	2025-06-20	001021
Larson Davis Model 2900 Real Time Analyzer	2024-04-01	2025-04-01	001051
Microphone Calibration System	2024-02-22	2025-02-22	005446
1/2" Preamplifier	2024-08-15	2025-08-15	006506
Larson Davis 1/2" Preamplifier 7-pin LEMO	2024-07-26	2025-07-26	006507
1/2 inch Microphone - Random Incidence - 200V	2024-02-12	2025-02-12	006510
Pressure Sensor	2024-02-28	2025-02-28	007825

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Provo, UT 84601 United States
716-684-0001



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Output Level

Nominal Level [dB]	Pressure [kPa]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
94	101.3	94.01	93.80	94.20	0.15	Pass
114	101.1	114.01	113.80	114.20	0.14	Pass

-- End of measurement results--

Frequency

Nominal Level [dB]	Pressure [kPa]	Test Result [Hz]	Lower limit [Hz]	Upper limit [Hz]	Expanded Uncertainty [Hz]	Result
94	101.3	1,000.01	993.00	1,007.00	0.20	Pass
114	101.1	999.99	993.00	1,007.00	0.20	Pass

-- End of measurement results--

Total Harmonic Distortion + Noise (THD+N)

Nominal Level [dB]	Pressure [kPa]	Test Result [%]	Lower limit [%]	Upper limit [%]	Expanded Uncertainty [%]	Result
94	101.3	0.75	0.00	2.00	0.25 ‡	Pass
114	101.1	0.31	0.00	2.00	0.25 ‡	Pass

-- End of measurement results--

Level Change Over Pressure

Tested at: 114 dB, 22 °C, 36 %RH

Nominal Pressure [kPa]	Pressure [kPa]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
108.0	108.0	-0.04	-0.25	0.25	0.04 ‡	Pass
101.3	101.3	0.00	-0.25	0.25	0.04 ‡	Pass
92.0	92.0	0.04	-0.25	0.25	0.04 ‡	Pass
83.0	83.0	0.04	-0.25	0.25	0.04 ‡	Pass
74.0	73.9	-0.01	-0.25	0.25	0.04 ‡	Pass
65.0	65.1	-0.13	-0.25	0.25	0.04 ‡	Pass

-- End of measurement results--

Frequency Change Over Pressure

Tested at: 114 dB, 22 °C, 36 %RH

Nominal Pressure [kPa]	Pressure [kPa]	Test Result [Hz]	Lower limit [Hz]	Upper limit [Hz]	Expanded Uncertainty [Hz]	Result
108.0	108.0	0.01	-7.00	7.00	0.20 ‡	Pass
101.3	101.3	0.00	-7.00	7.00	0.20 ‡	Pass
92.0	92.0	0.00	-7.00	7.00	0.20 ‡	Pass
83.0	83.0	-0.01	-7.00	7.00	0.20 ‡	Pass
74.0	73.9	0.00	-7.00	7.00	0.20 ‡	Pass
65.0	65.1	-0.01	-7.00	7.00	0.20 ‡	Pass

-- End of measurement results--

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Total Harmonic Distortion + Noise (THD+N) Over Pressure

Tested at: 114 dB, 22 °C, 36 %RH

Nominal Pressure [kPa]	Pressure [kPa]	Test Result [%]	Lower limit [%]	Upper limit [%]	Expanded Uncertainty [%]	Result
108.0	108.0	0.31	0.00	2.00	0.25 ‡	Pass
101.3	101.3	0.31	0.00	2.00	0.25 ‡	Pass
92.0	92.0	0.29	0.00	2.00	0.25 ‡	Pass
83.0	83.0	0.28	0.00	2.00	0.25 ‡	Pass
74.0	73.9	0.28	0.00	2.00	0.25 ‡	Pass
65.0	65.1	0.27	0.00	2.00	0.25 ‡	Pass

-- End of measurement results--

Signatory: Scott Montgomery

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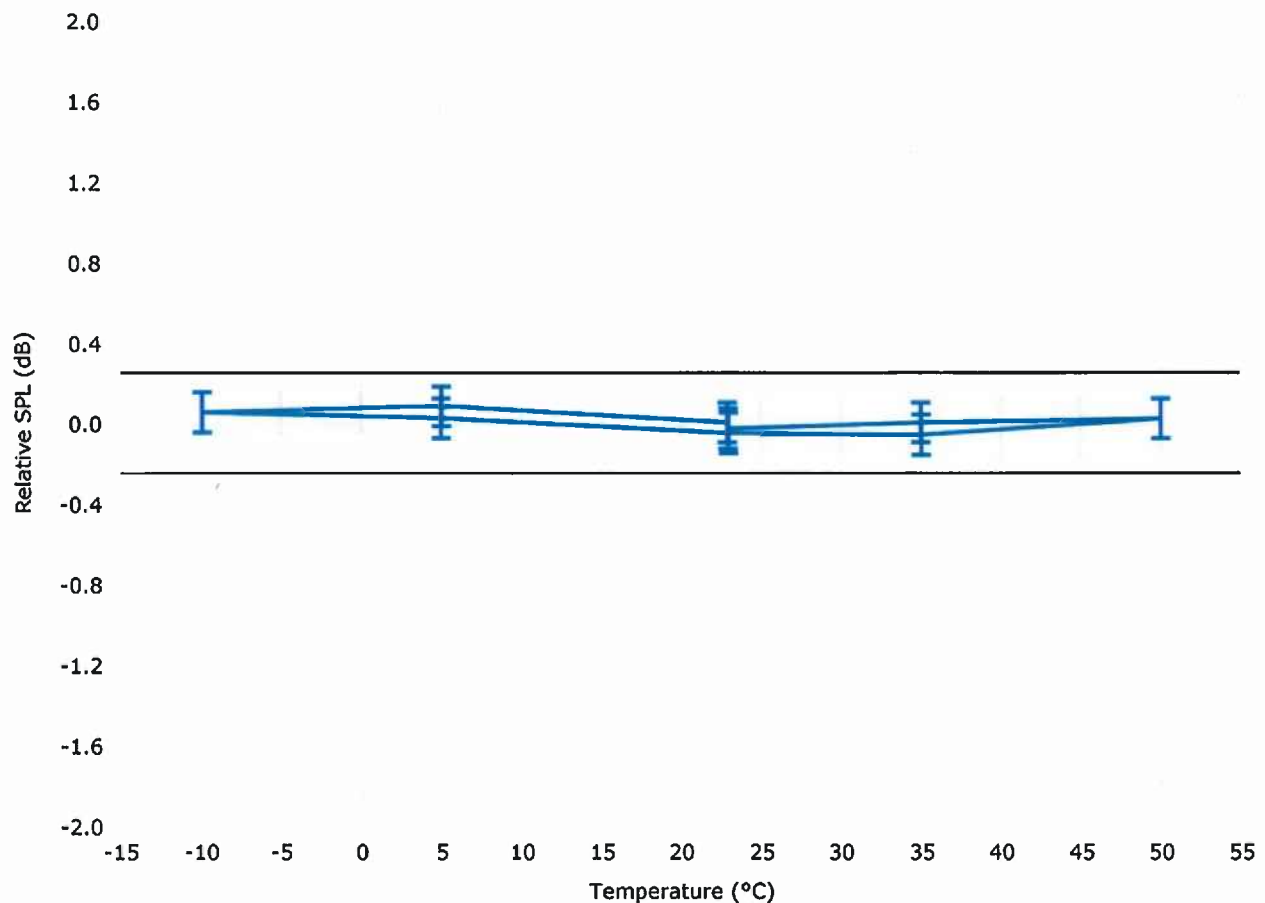


Model CAL200 Relative SPL vs. Temperature

Larson Davis Model CAL200 Serial Number: 22953

Model CAL200 Relative SPL vs. Temperature at 50% RH.
A 2559 Mic (SN: 2893) with a PRM901 Preamp (SN: 0160), station 5 was used to check the levels.

Test Date: 24 Jul 2024 1:57:05 PM



0.1dB expanded uncertainty at ~95% confidence level (k=2)

Sequence File: CAL200.SEQ

Test Location: Larson Davis – A PCB Division
1681 West 820 North, Provo, Utah 84601
Tel: 716 684-0001 www.LarsonDavis.com

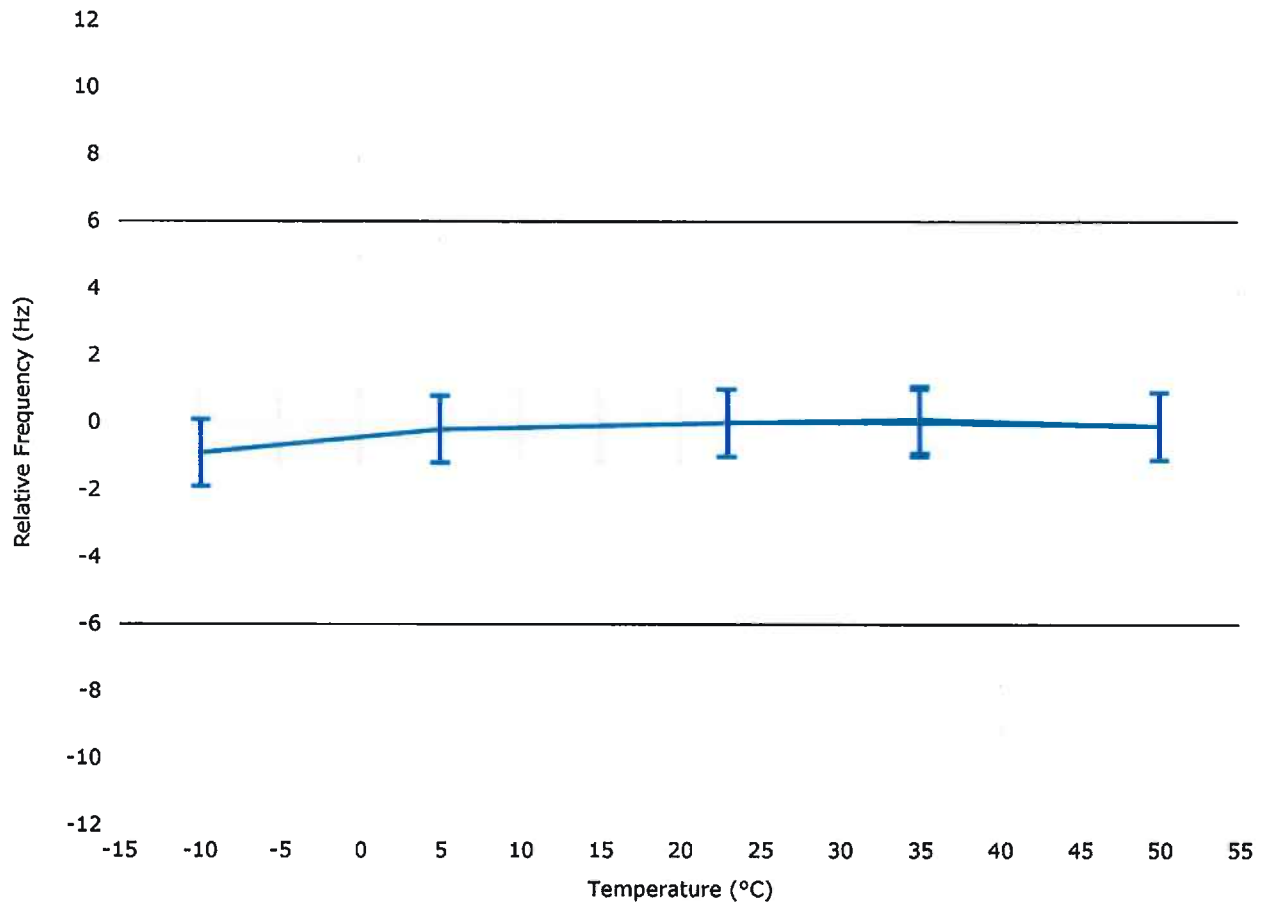


Model CAL200 Relative Frequency vs. Temperature

Larson Davis Model CAL200 Serial Number: 22953

Model CAL200 Relative Frequency vs. Temperature at 50% RH.
A 2559 Mic (SN: 2893) with a PRM901 Preamp (SN: 0160), station 5 was used to check the levels.

Test Date: 24 Jul 2024 1:57:05 PM



1.0 Hz expanded uncertainty at ~95% confidence level (k=2)

Sequence File: CAL200.SEQ

Test Location: Larson Davis – A PCB Division
1681 West 820 North, Provo, Utah 84601
Tel: 716 684-0001 www.LarsonDavis.com

Calibration Certificate

Certificate Number 2024011114

Customer:

The Modal Shop
10310 AeroHub Boulevard
Cincinnati, OH 45215 United States

Model Number SoundExpert 821

Serial Number 40352

Test Results Pass

Initial Condition As Manufactured

Description SoundExpert 821
Class 1 Sound Level Meter
Firmware Revision: 1.300R17

Procedure Number D0001.8465

Technician Jacob Cannon

Calibration Date 2024-07-31

Calibration Due

Temperature 23.83 °C ± 0.25 °C

Humidity 53.3 %RH ± 2.0 %RH

Static Pressure 86.48 kPa ± 0.13 kPa

Evaluation Method Tested electrically using Larson Davis PRM821 S/N 001754 and a 12.0 pF capacitor to simulate microphone capacitance. Data reported in dB re 20 µPa assuming a microphone sensitivity of 50.0 mV/Pa.

Compliance Standards Compliant to Manufacturer Specifications and the following standards when combined with Calibration Certificate from procedure D0001.8468:

IEC 60651:2001 Type 1

IEC 60804:2000 Type 1

IEC 61252:2002

IEC 61672:2013 Class 1

ANSI S1.4-2014 Class 1

ANSI S1.4 (R2006) Type 1

ANSI S1.25 (R2007)

ANSI S1.43 (R2007) Type 1

Issuing lab certifies that the instrument described above meets or exceeds all specifications as stated in the referenced procedure (unless otherwise noted). The results documented in this certificate relate only to the item(s) calibrated or tested. It has been calibrated using measurement standards traceable to the International System of Units (SI) through the National Institute of Standards and Technology (NIST), or other national measurement institutes, and meets the requirements of ISO/IEC 17025:2017. Test points marked with a ‡ in the uncertainties column do not fall within this laboratory's scope of accreditation.

The quality system is registered to ISO 9001:2015.

This calibration is a direct comparison of the unit under test to the listed reference standards and did not involve any sampling plans to complete. No allowance has been made for the instability of the test device due to use, time, etc. Such allowances would be made by the customer as needed.

The uncertainties were computed in accordance with the ISO Guide to the Expression of Uncertainty in Measurement (GUM). A coverage factor of approximately 2 sigma (k=2) has been applied to the standard uncertainty to express the expanded uncertainty at approximately 95% confidence level.

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Correction data from Larson Davis SoundExpert 721/821 Manual, I821.01 Rev B

Calibration Check Frequency: 1000 Hz; Reference Sound Pressure Level: 114 dB re 20 µPa

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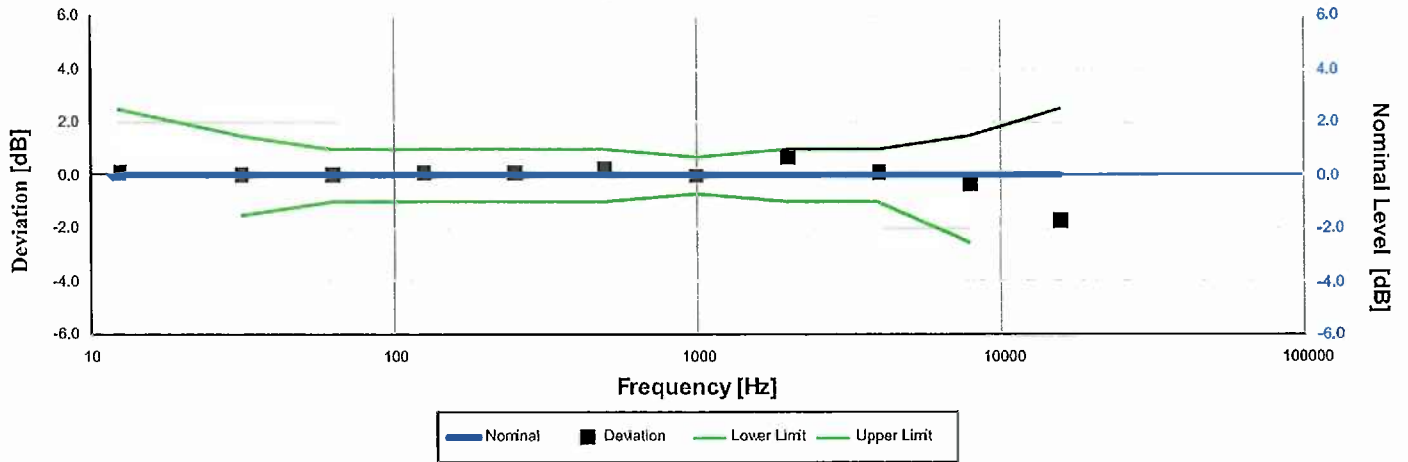
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Description	Standards Used		
	Cal Date	Cal Due	Cal Standard
Hart Scientific 2626-S Humidity/Temperature Sensor	2023-02-20	2024-08-20	006946
SRS DS360 Ultra Low Distortion Generator	2024-03-26	2025-03-26	007635



Z-weight Filter Response

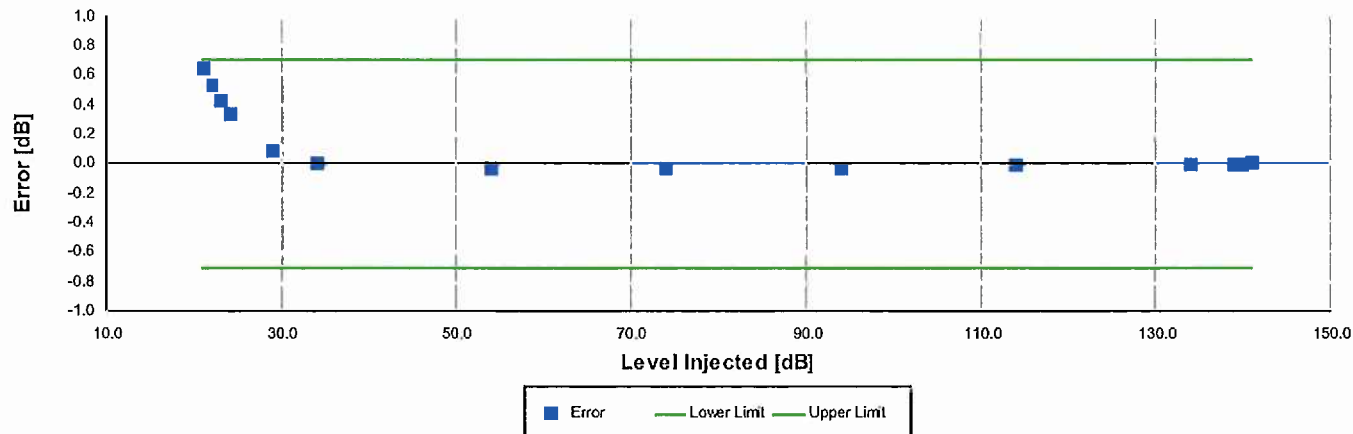


Test performed with FF:FF microphone correction filter enabled. Electrical signal test of frequency weighting performed according to IEC 61672-3:2013 13 and ANSI S1.4-2014 Part 3: 13 for compliance to IEC 61672-1:2013 5.5; IEC 60651:2001 6.1 and 9.2.2; IEC 60804:2000 5; ANSI S1.4:1983 (R2006) 5.1 and 8.2.1; ANSI S1.4-2014 Part 1: 5.5

Frequency [Hz]	Test Result [dB]	Deviation [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
12.59	0.13	0.13	-inf	2.50	0.15	Pass
31.62	0.04	0.04	-1.50	1.50	0.15	Pass
63.10	0.05	0.05	-1.00	1.00	0.15	Pass
125.89	0.09	0.09	-1.00	1.00	0.15	Pass
251.19	0.10	0.10	-1.00	1.00	0.15	Pass
501.19	0.29	0.29	-1.00	1.00	0.15	Pass
1,000.00	0.00	0.00	-0.70	0.70	0.15	Pass
1,995.26	0.66	0.66	-1.00	1.00	0.15	Pass
3,981.07	0.08	0.08	-1.00	1.00	0.15	Pass
7,943.28	-0.32	-0.32	-2.50	1.50	0.15	Pass
15,848.93	-1.71	-1.71	-16.00	2.50	0.15	Pass

-- End of measurement results--

A-weighted Broadband Log Linearity: 8,000.00 Hz



Broadband level linearity performed according to IEC 61672-3:2013 16 and ANSI S1.4-2014 Part 3: 16 for compliance to IEC 61672-1:2013 5.6, IEC 60804:2000 6.2, IEC 61252:2002 8, ANSI S1.4 (R2006) 6.9, ANSI S1.4-2014 Part 1: 5.6, ANSI S1.43 (R2007) 6.2

Level [dB]	Error [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
21.00	0.65	-0.70	0.70	0.16	Pass
22.00	0.53	-0.70	0.70	0.16	Pass
23.00	0.43	-0.70	0.70	0.16	Pass
24.00	0.34	-0.70	0.70	0.16	Pass
29.00	0.09	-0.70	0.70	0.16	Pass
34.00	0.01	-0.70	0.70	0.16	Pass
54.00	-0.02	-0.70	0.70	0.16	Pass
74.00	-0.02	-0.70	0.70	0.16	Pass
94.00	-0.03	-0.70	0.70	0.16	Pass
114.00	0.00	-0.70	0.70	0.15	Pass
134.00	0.00	-0.70	0.70	0.15	Pass
139.00	0.00	-0.70	0.70	0.15	Pass
140.00	-0.01	-0.70	0.70	0.15	Pass
141.00	0.02	-0.70	0.70	0.15	Pass

-- End of measurement results--

Overload Detector

Overload indication performed according to IEC 61672-3:2013 20 and ANSI S1.4-2014 Part 3: 20 for compliance to IEC 61672-1:2013 5.11, IEC 60804:2000 9.3.5, IEC 61252:2002 11, ANSI S1.4 (R2006) 5.8, and ANSI S1.4-2014 Part 1: 5.11, ANSI S1.25 (R2007) 7.6, ANSI S1.43 (R2007) 7

Measurement	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
Positive	142.01	140.50	142.50	0.15	Pass
Negative	141.91	140.50	142.50	0.15	Pass
Comparison	0.10	-1.50	1.50	0.15	Pass

-- End of measurement results--

Range

Measured in A-weight at 8000 Hz for compliance to IEC 61672-1:2013 5.6.4, IEC 60804:2000 6.2, IEC 61252:2002 8, ANSI S1.4 (R2006) 6.9, ANSI S1.4-2014 Part 1: 5.6.4, ANSI S1.43 (R2007) 6.2

Measurement	Measured Level [dB]	Lower limit [dB]	Expanded Uncertainty [dB]	Result
Primary Indicator Range	123.00	106.00	0.15	Pass
Dynamic Range	129.95	118.00	0.15	Pass

-- End of measurement results--

Gain

Gain measured according to IEC 61672-3:2013 17.3 and 17.4 and ANSI S1.4-2014 Part 3: 17.3 and 17.4

Measurement	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
0 dB Gain	93.90	93.20	94.80	0.15	Pass
0 dB Gain, Linearity	27.07	26.20	27.60	0.16	Pass

-- End of measurement results--

Broadband Noise Floor

Self-generated noise measured according to IEC 61672-3:2013 11.2 and ANSI S1.4-2014 Part 3: 11.2

Measurement	Test Result [dB]	Upper limit [dB]	Result
A-weight Noise Floor	12.05	14.50	Pass
Z-weight Noise Floor	23.29	25.00	Pass

-- End of measurement results--

Total Harmonic Distortion

Measured using 1/3-Octave filters

Measurement	Test Result [dB]	Lower Limit [dB]	Upper Limit [dB]	Expanded Uncertainty [dB]	Result
20 Hz Signal	137.92	137.20	138.80	0.15	Pass
THD	-75.29		-60.00	0.01 ‡	Pass
THD+N	-64.79		-60.00	0.01 ‡	Pass

-- End of measurement results--

-- End of Report--

Signatory: Jacob Cannon

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Provo, UT 84601 United States
716-684-0001



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Calibration Certificate

Certificate Number 2025004616

Customer:

The Modal Shop
10310 AeroHub Boulevard
Cincinnati, OH 45215 United States

Model Number SoundExpert 821
Serial Number 40348
Test Results **Pass**
Initial Condition Found / Left
Description SoundExpert 821
Class 1 Sound Level Meter
Firmware Revision: 1.400R52

Procedure Number D0001.8465
Technician Tina Brezinski
Calibration Date 2025-03-27
Calibration Due
Temperature 21.7 °C ± 0.25 °C
Humidity 24.7 %RH ± 2.0 %RH
Static Pressure 100.49 kPa ± 0.13 kPa

Evaluation Method Tested electrically using Larson Davis PRM821 S/N 001077 and a 12.0 pF capacitor to simulate microphone capacitance. Data reported in dB re 20 µPa assuming a microphone sensitivity of 50.0 mV/Pa.

Compliance Standards Compliant to Manufacturer Specifications and the following standards when combined with Calibration Certificate from procedure D0001.8468:

IEC 60651:2001 Type 1	ANSI S1.4-2014 Class 1
IEC 60804:2000 Type 1	ANSI S1.4 (R2006) Type 1
IEC 61252:2002	ANSI S1.25 (R2007)
IEC 61672:2013 Class 1	ANSI S1.43 (R2007) Type 1

The Modal Shop certifies that the instrument described above meets or exceeds all specifications as stated in the referenced procedure (unless otherwise noted). The results documented in this certificate relate only to the item(s) calibrated or tested. It has been calibrated using measurement standards traceable to the International System of Units (SI) through the National Institute of Standards and Technology (NIST), or other national measurement institutes.

This calibration is a direct comparison of the unit under test to the listed reference standards and did not involve any sampling plans to complete. No allowance has been made for the instability of the test device due to use, time, etc. Such allowances will be made by the customer as needed.

The uncertainties were computed in accordance with the ISO Guide to the Expression of Uncertainty in Measurement (GUM). A coverage factor of approximately 2 sigma (k=2) has been applied to the standard uncertainty to express the expanded uncertainty at approximately 95% confidence level.

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Correction data from Larson Davis SoundExpert 721/821 Manual, I821.01 Rev B

Calibration Check Frequency: 1000 Hz; Reference Sound Pressure Level: 114 dB re 20 µPa

Periodic tests were performed in accordance with procedures from IEC 61672-3:2013 / ANSI/ASA S1.4-2014/Part3.

No Pattern approval for IEC 61672-1:2013 / ANSI/ASA S1.4-2014/Part 1 available.

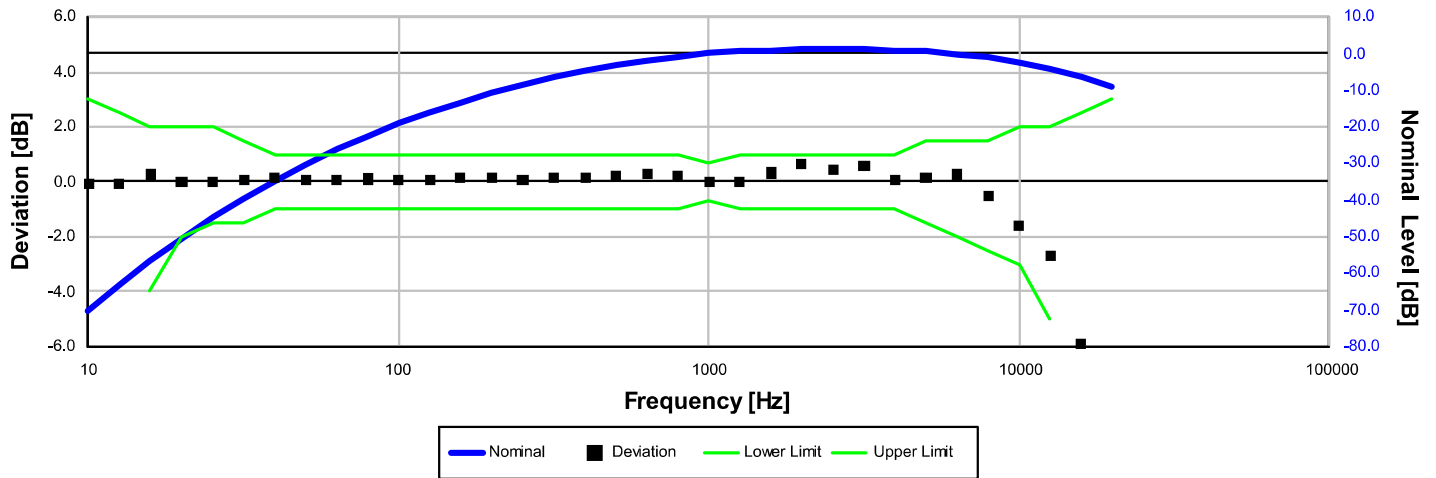
The Modal Shop
10310 AeroHub Boulevard
Cincinnati, OH 45215 United States



The sound level meter submitted for testing successfully completed the periodic tests of IEC 61672-3:2013 / ANSI/ASA S1.4-2014/Part 3, for the environmental conditions under which the tests were performed. However, no general statement or conclusion can be made about conformance of the sound level meter to the full specifications of IEC 61672-1:2013 / ANSI/ASA S1.4-2014/Part 1 because (a) evidence was not publicly available, from an independent testing organization responsible for pattern approvals, to demonstrate that the model of sound level meter fully conformed to the class 1 specifications in IEC 61672-1:2013 / ANSI/ASA S1.4-2014/Part 1 or correction data for acoustical test of frequency weighting were not provided in the Instruction Manual and (b) because the periodic tests of IEC 61672-3:2013 / ANSI/ASA S1.4-2014/Part 3 cover only a limited subset of the specifications in IEC 61672-1:2013 / ANSI/ASA S1.4-2014/Part 1.

Standards Used			
Description	Cal Date	Cal Due	Cal Standard
SRS DS360 Ultra Low Distortion Generator	2024-04-25	2025-04-25	TMS123270

A-weight Filter Response

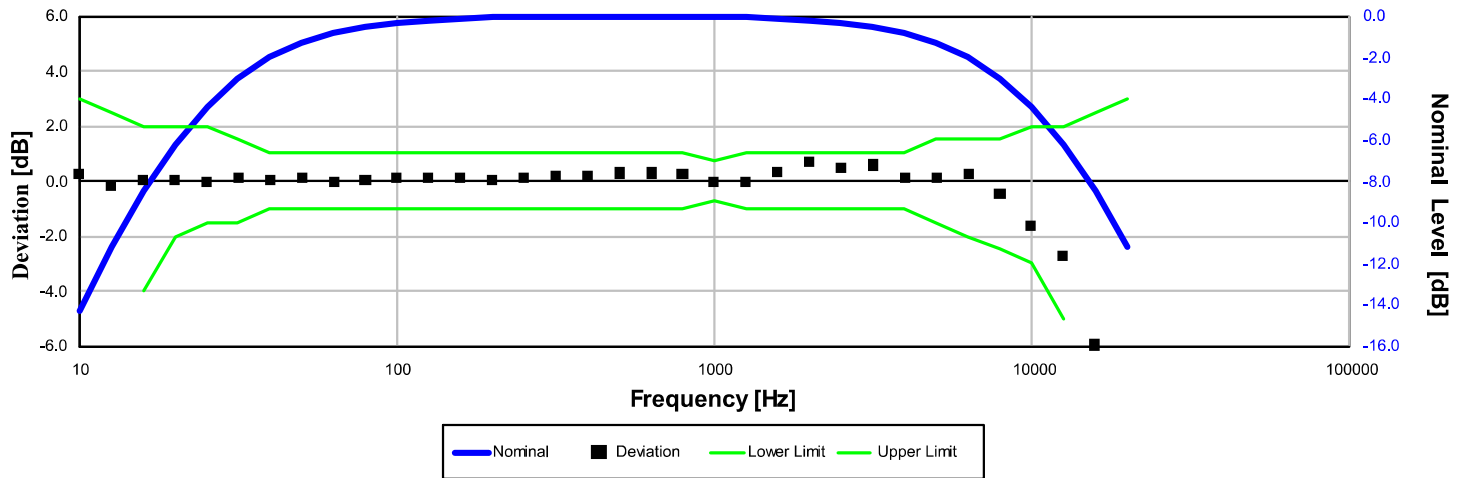


Test performed with FF:FF microphone correction filter enabled. Electrical signal test of frequency weighting performed according to IEC 61672-3:2013 13 and ANSI S1.4-2014 Part 3: 13 for compliance to IEC 61672-1:2013 5.5; IEC 60651:2001 6.1 and 9.2.2; IEC 60804:2000 5; ANSI S1.4:1983 (R2006) 5.1 and 8.2.1; ANSI S1.4-2014 Part 1: 5.5

Frequency [Hz]	Test Result [dB]	Deviation [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
10.00	-70.46	-0.06	-inf	3.00	0.15	Pass
12.59	-63.47	-0.07	-inf	2.50	0.15	Pass
15.85	-56.45	0.25	-4.00	2.00	0.15	Pass
19.95	-50.51	-0.01	-2.00	2.00	0.15	Pass
25.12	-44.72	-0.02	-1.50	2.00	0.15	Pass
31.62	-39.31	0.09	-1.50	1.50	0.15	Pass
39.81	-34.46	0.14	-1.00	1.00	0.15	Pass
50.12	-30.13	0.07	-1.00	1.00	0.15	Pass
63.10	-26.10	0.10	-1.00	1.00	0.29	Pass
79.43	-22.39	0.11	-1.00	1.00	0.29	Pass
100.00	-19.05	0.05	-1.00	1.00	0.29	Pass
125.89	-16.02	0.08	-1.00	1.00	0.29	Pass
158.49	-13.24	0.16	-1.00	1.00	0.29	Pass
199.53	-10.78	0.12	-1.00	1.00	0.29	Pass
251.19	-8.54	0.06	-1.00	1.00	0.29	Pass
316.23	-6.47	0.13	-1.00	1.00	0.29	Pass
398.11	-4.66	0.14	-1.00	1.00	0.29	Pass
501.19	-2.96	0.24	-1.00	1.00	0.29	Pass
630.96	-1.63	0.27	-1.00	1.00	0.29	Pass
794.33	-0.59	0.21	-1.00	1.00	0.29	Pass
1,000.00	0.00	0.00	-0.70	0.70	0.29	Pass
1,258.93	0.62	0.02	-1.00	1.00	0.29	Pass
1,584.89	1.33	0.33	-1.00	1.00	0.29	Pass
1,995.26	1.88	0.68	-1.00	1.00	0.29	Pass
2,511.89	1.74	0.44	-1.00	1.00	0.38	Pass
3,162.28	1.80	0.60	-1.00	1.00	0.38	Pass
3,981.07	1.08	0.08	-1.00	1.00	0.38	Pass
5,011.87	0.65	0.15	-1.50	1.50	0.47	Pass
6,309.57	0.15	0.25	-2.00	1.50	0.47	Pass
7,943.28	-1.59	-0.49	-2.50	1.50	0.47	Pass
10,000.00	-4.11	-1.61	-3.00	2.00	0.57	Pass
12,589.25	-7.01	-2.71	-5.00	2.00	0.57	Pass
15,848.93	-12.53	-5.93	-16.00	2.50	1.00	Pass
19,952.62	-24.13	-14.83	-inf	3.00	1.00	Pass

-- End of measurement results--

C-weight Filter Response



Test performed with FF:FF microphone correction filter enabled. Electrical signal test of frequency weighting performed according to IEC 61672-3:2013 13 and ANSI S1.4-2014 Part 3: 13 for compliance to IEC 61672-1:2013 5.5; IEC 60651:2001 6.1 and 9.2.2; IEC 60804:2000 5; ANSI S1.4:1983 (R2006) 5.1 and 8.2.1; ANSI S1.4-2014 Part 1: 5.5

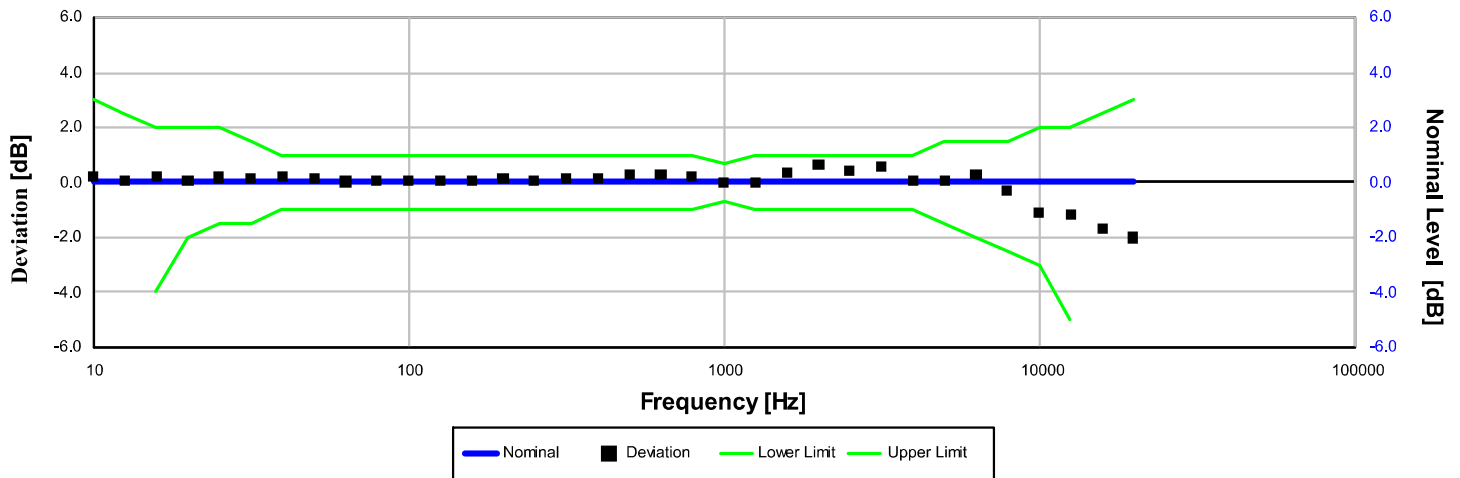
Frequency [Hz]	Test Result [dB]	Deviation [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
10.00	-14.06	0.24	-inf	3.00	0.15	Pass
12.59	-11.35	-0.15	-inf	2.50	0.15	Pass
15.85	-8.43	0.07	-4.00	2.00	0.15	Pass
19.95	-6.14	0.06	-2.00	2.00	0.15	Pass
25.12	-4.42	-0.02	-1.50	2.00	0.15	Pass
31.62	-2.86	0.14	-1.50	1.50	0.15	Pass
39.81	-1.93	0.07	-1.00	1.00	0.15	Pass
50.12	-1.18	0.12	-1.00	1.00	0.15	Pass
63.10	-0.80	0.00	-1.00	1.00	0.29	Pass
79.43	-0.44	0.06	-1.00	1.00	0.29	Pass
100.00	-0.21	0.09	-1.00	1.00	0.29	Pass
125.89	-0.08	0.12	-1.00	1.00	0.29	Pass
158.49	0.00	0.10	-1.00	1.00	0.29	Pass
199.53	0.06	0.06	-1.00	1.00	0.29	Pass
251.19	0.09	0.09	-1.00	1.00	0.29	Pass
316.23	0.17	0.17	-1.00	1.00	0.29	Pass
398.11	0.17	0.17	-1.00	1.00	0.29	Pass
501.19	0.30	0.30	-1.00	1.00	0.29	Pass
630.96	0.30	0.30	-1.00	1.00	0.29	Pass
794.33	0.25	0.25	-1.00	1.00	0.29	Pass
1,000.00	0.00	0.00	-0.70	0.70	0.29	Pass
1,258.93	-0.01	-0.01	-1.00	1.00	0.29	Pass
1,584.89	0.26	0.36	-1.00	1.00	0.29	Pass
1,995.26	0.52	0.72	-1.00	1.00	0.29	Pass
2,511.89	0.17	0.47	-1.00	1.00	0.38	Pass
3,162.28	0.09	0.59	-1.00	1.00	0.38	Pass
3,981.07	-0.71	0.09	-1.00	1.00	0.38	Pass
5,011.87	-1.18	0.12	-1.50	1.50	0.47	Pass
6,309.57	-1.72	0.28	-2.00	1.50	0.47	Pass
7,943.28	-3.48	-0.48	-2.50	1.50	0.47	Pass
10,000.00	-6.02	-1.62	-3.00	2.00	0.57	Pass
12,589.25	-8.93	-2.73	-5.00	2.00	0.57	Pass
15,848.93	-14.46	-5.96	-16.00	2.50	1.00	Pass
19,952.62	-26.06	-14.86	-inf	3.00	1.00	Pass

-- End of measurement results--

The Modal Shop
10310 AeroHub Boulevard
Cincinnati, OH 45215 United States



Z-weight Filter Response



Test performed with FF:FF microphone correction filter enabled. Electrical signal test of frequency weighting performed according to IEC 61672-3:2013 13 and ANSI S1.4-2014 Part 3: 13 for compliance to IEC 61672-1:2013 5.5; IEC 60651:2001 6.1 and 9.2.2; IEC 60804:2000 5; ANSI S1.4:1983 (R2006) 5.1 and 8.2.1; ANSI S1.4-2014 Part 1: 5.5

Frequency [Hz]	Test Result [dB]	Deviation [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
10.00	0.21	0.21	-inf	3.00	0.15	Pass
12.59	0.08	0.08	-inf	2.50	0.15	Pass
15.85	0.22	0.22	-4.00	2.00	0.15	Pass
19.95	0.05	0.05	-2.00	2.00	0.15	Pass
25.12	0.18	0.18	-1.50	2.00	0.15	Pass
31.62	0.15	0.15	-1.50	1.50	0.15	Pass
39.81	0.20	0.20	-1.00	1.00	0.15	Pass
50.12	0.13	0.13	-1.00	1.00	0.15	Pass
63.10	0.04	0.04	-1.00	1.00	0.29	Pass
79.43	0.07	0.07	-1.00	1.00	0.29	Pass
100.00	0.10	0.10	-1.00	1.00	0.29	Pass
125.89	0.05	0.05	-1.00	1.00	0.29	Pass
158.49	0.08	0.08	-1.00	1.00	0.29	Pass
199.53	0.11	0.11	-1.00	1.00	0.29	Pass
251.19	0.09	0.09	-1.00	1.00	0.29	Pass
316.23	0.15	0.15	-1.00	1.00	0.29	Pass
398.11	0.15	0.15	-1.00	1.00	0.29	Pass
501.19	0.27	0.27	-1.00	1.00	0.29	Pass
630.96	0.26	0.26	-1.00	1.00	0.29	Pass
794.33	0.23	0.23	-1.00	1.00	0.29	Pass
1,000.00	0.00	0.00	-0.70	0.70	0.29	Pass
1,258.93	0.02	0.02	-1.00	1.00	0.29	Pass
1,584.89	0.34	0.34	-1.00	1.00	0.29	Pass
1,995.26	0.68	0.68	-1.00	1.00	0.29	Pass
2,511.89	0.46	0.46	-1.00	1.00	0.38	Pass
3,162.28	0.58	0.58	-1.00	1.00	0.38	Pass
3,981.07	0.08	0.08	-1.00	1.00	0.38	Pass
5,011.87	0.10	0.10	-1.50	1.50	0.47	Pass
6,309.57	0.30	0.30	-2.00	1.50	0.47	Pass
7,943.28	-0.31	-0.31	-2.50	1.50	0.47	Pass
10,000.00	-1.07	-1.07	-3.00	2.00	0.57	Pass
12,589.25	-1.14	-1.14	-5.00	2.00	0.57	Pass
15,848.93	-1.69	-1.69	-16.00	2.50	1.00	Pass
19,952.62	-2.01	-2.01	-inf	3.00	1.00	Pass

-- End of measurement results--

High Level Stability

Electrical signal test of high level stability performed according to IEC 61672-3:2013 21 and ANSI S1.4-2014 Part 3: 21 for compliance to IEC 61672-1:2013 5.15 and ANSI S1.4-2014 Part 1: 5.15

Measurement	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
High Level Stability	0.01	-0.10	0.10	0.01	Pass
-- End of measurement results--					

Long-Term Stability

Electrical signal test of long term stability performed according to IEC 61672-3:2013 15 and ANSI S1.4-2014 Part 3: 15 for compliance to IEC 61672-1:2013 5.14 and ANSI S1.4-2014 Part 1: 5.14

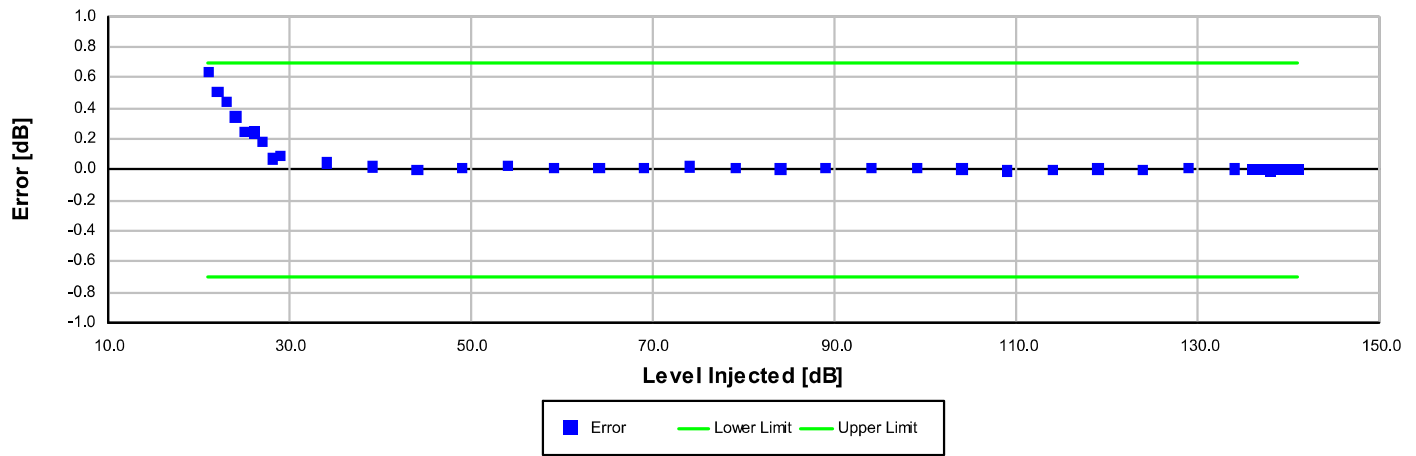
Test Duration [min]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
26	0.00	-0.10	0.10	0.01	Pass
-- End of measurement results--					

1 kHz Reference Levels

Frequency weightings and time weightings at 1 kHz (reference is A weighted Fast) performed according to IEC 61672-3:2013 14 and ANSI S1.4-2014 Part 3: 14 for compliance to IEC 61672-1:2013 5.5.9 and 5.8.3 and ANSI S1.4-2014 Part 1: 5.5.9 and 5.8.3

Measurement	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
peak C weight	0.01	-0.20	0.20	0.15	Pass
peak Z weight	0.01	-0.20	0.20	0.15	Pass
C weight	0.01	-0.20	0.20	0.15	Pass
Z weight	0.01	-0.20	0.20	0.15	Pass
Slow	0.01	-0.10	0.10	0.15	Pass
Impulse	0.01	-0.10	0.10	0.15	Pass
-- End of measurement results--					

A-weighted Broadband Log Linearity: 8,000.00 Hz



Broadband level linearity performed according to IEC 61672-3:2013 16 and ANSI S1.4-2014 Part 3: 16 for compliance to IEC 61672-1:2013 5.6, IEC 60804:2000 6.2, IEC 61252:2002 8, ANSI S1.4 (R2006) 6.9, ANSI S1.4-2014 Part 1: 5.6, ANSI S1.43 (R2007) 6.2

Level [dB]	Error [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
21.00	0.64	-0.70	0.70	0.16	Pass
22.00	0.51	-0.70	0.70	0.16	Pass
23.00	0.44	-0.70	0.70	0.16	Pass
24.00	0.34	-0.70	0.70	0.16	Pass
25.00	0.25	-0.70	0.70	0.16	Pass
26.00	0.24	-0.70	0.70	0.16	Pass
27.00	0.18	-0.70	0.70	0.16	Pass
28.00	0.07	-0.70	0.70	0.16	Pass
29.00	0.09	-0.70	0.70	0.16	Pass
34.00	0.04	-0.70	0.70	0.16	Pass
39.00	0.02	-0.70	0.70	0.16	Pass
44.00	0.00	-0.70	0.70	0.16	Pass
49.00	0.01	-0.70	0.70	0.16	Pass
54.00	0.02	-0.70	0.70	0.16	Pass
59.00	0.01	-0.70	0.70	0.16	Pass
64.00	0.01	-0.70	0.70	0.16	Pass
69.00	0.01	-0.70	0.70	0.16	Pass
74.00	0.02	-0.70	0.70	0.16	Pass
79.00	0.02	-0.70	0.70	0.16	Pass
84.00	0.01	-0.70	0.70	0.16	Pass
89.00	0.02	-0.70	0.70	0.16	Pass
94.00	0.01	-0.70	0.70	0.16	Pass
99.00	0.01	-0.70	0.70	0.16	Pass
104.00	0.01	-0.70	0.70	0.15	Pass
109.00	-0.01	-0.70	0.70	0.15	Pass
114.00	0.00	-0.70	0.70	0.15	Pass
119.00	0.01	-0.70	0.70	0.15	Pass
124.00	0.00	-0.70	0.70	0.15	Pass
129.00	0.01	-0.70	0.70	0.15	Pass
134.00	0.01	-0.70	0.70	0.15	Pass
136.00	0.00	-0.70	0.70	0.15	Pass
137.00	0.00	-0.70	0.70	0.15	Pass
138.00	-0.01	-0.70	0.70	0.15	Pass
139.00	0.00	-0.70	0.70	0.15	Pass
140.00	0.00	-0.70	0.70	0.15	Pass
141.00	0.00	-0.70	0.70	0.15	Pass

-- End of measurement results--

Slow Detector

Toneburst response performed according to IEC 61672-3:2013 18 and ANSI S1.4-2014 Part 3: 18 for compliance to IEC 61672-1:2013 5.9, IEC 60651:2001 9.4.2, ANSI S1.4:1983 (R2006) 8.4.2 and ANSI S1.4-2014 Part 1: 5.9

Amplitude [dB]	Duration [ms]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
137.00	200	-7.43	-7.92	-6.92	0.15	Pass
	2	-27.02	-29.99	-25.99	0.15	Pass

-- End of measurement results--

Fast Detector

Toneburst response performed according to IEC 61672-3:2013 18 and ANSI S1.4-2014 Part 3: 18 for compliance to IEC 61672-1:2013 5.9, IEC 60651:2001 9.4.2, ANSI S1.4:1983 (R2006) 8.4.2 and ANSI S1.4-2014 Part 1: 5.9

Amplitude [dB]	Duration [ms]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
137.00	200.00	-1.00	-1.48	-0.48	0.15	Pass
	2.00	-18.10	-19.49	-16.99	0.15	Pass
	0.25	-27.04	-29.99	-25.99	0.15	Pass

-- End of measurement results--

Sound Exposure Level

Toneburst response performed according to IEC 61672-3:2013 18 and ANSI S1.4-2014 Part 3: 18 for compliance to IEC 61672-1:2013 5.9, IEC 60651:2001 9.4.2, ANSI S1.4:1983 (R2006) 8.4.2 and ANSI S1.4-2014 Part 1: 5.9

Amplitude [dB]	Duration [ms]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
137.00	200.00	-6.98	-7.49	-6.49	0.15	Pass
	2.00	-27.00	-28.49	-25.99	0.15	Pass
	0.25	-36.11	-39.02	-35.02	0.15	Pass

-- End of measurement results--

Peak C-weight

C-weighted peak sound level performed according to IEC 61672-3:2013 19 and ANSI S1.4-2014 Part 3: 19 for compliance to IEC 61672-1:2013 5.13 and ANSI S1.4-2014 Part 1: 5.13

Level [dB]	Frequency [Hz]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
135.00	31.50	137.93	135.50	139.50	0.15	Pass
135.00	500.00	138.53	137.50	139.50	0.15	Pass
135.00	8,000.00	137.62	136.40	140.40	0.15	Pass
135.00, Negative	500.00	137.24	136.40	138.40	0.15	Pass
135.00, Positive	500.00	137.26	136.40	138.40	0.15	Pass

-- End of measurement results--

Overload Detector

Overload indication performed according to IEC 61672-3:2013 20 and ANSI S1.4-2014 Part 3: 20 for compliance to IEC 61672-1:2013 5.11, IEC 60804:2000 9.3.5, IEC 61252:2002 11, ANSI S1.4 (R2006) 5.8, and ANSI S1.4-2014 Part 1: 5.11, ANSI S1.25 (R2007) 7.6, ANSI S1.43 (R2007) 7

Measurement	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
Positive	141.81	140.50	142.50	0.15	Pass
Negative	141.71	140.50	142.50	0.15	Pass
Comparison	0.10	-1.50	1.50	0.15	Pass
-- End of measurement results--					

Range

Measured in A-weight at 8000 Hz for compliance to IEC 61672-1:2013 5.6.4, IEC 60804:2000 6.2, IEC 61252:2002 8, ANSI S1.4 (R2006) 6.9, ANSI S1.4-2014 Part 1: 5.6.4, ANSI S1.43 (R2007) 6.2

Measurement	Measured Level [dB]	Lower limit [dB]	Expanded Uncertainty [dB]	Result
Primary Indicator Range	122.80	106.00	0.15	Pass
Dynamic Range	129.95	118.00	0.15	Pass
-- End of measurement results--				

Gain

Gain measured according to IEC 61672-3:2013 17.3 and 17.4 and ANSI S1.4-2014 Part 3: 17.3 and 17.4

Measurement	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
0 dB Gain	93.90	93.20	94.80	0.15	Pass
0 dB Gain, Linearity	27.10	26.20	27.60	0.16	Pass
-- End of measurement results--					

Broadband Noise Floor

Self-generated noise measured according to IEC 61672-3:2013 11.2 and ANSI S1.4-2014 Part 3: 11.2

Measurement	Test Result [dB]	Upper limit [dB]	Result
A-weight Noise Floor	11.85	14.50	Pass
C-weight Noise Floor	14.31	16.70	Pass
Z-weight Noise Floor	22.64	25.00	Pass
-- End of measurement results--			

-- End of Report--

Signatory: Tina Brezinski

The Modal Shop
10310 AeroHub Boulevard
Cincinnati, OH 45215 United States



~Certificate of Calibration~

10310 Aerohub Boulevard
Cincinnati, OH 45215
Ph: 513.351.9919
Fax: 513.458.2172
www.modalshop.com

Manufacturer: PCB
Model Number: 377B02
Serial Number: 344542
Asset ID: 93557
Description: Free-Field Microphone

Customer: TMS Rental
Address:
Cal Date / Cal ID: Mar 06, 2025 16:03:44
Due Date:

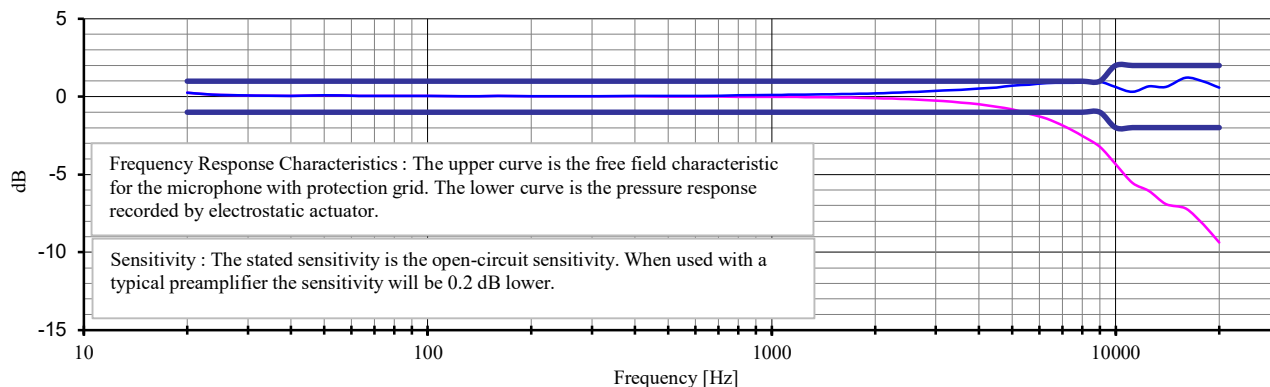
Sensitivity: **251.31 Hz 1000 Hz**
-26.26 -26.27 dB re. 1V/Pa
48.65 48.56 mV/Pa

Temperature: 72 (22) °F (°C)
Humidity: 23 %
Ambient Pressure: 991.7 mbar

Reference Sens: In Tolerance

Freq. Response: In Tolerance

Polarization Voltage: 0 VDC



Traceability: The calibration is traceable through NIST Project A2416.

Notes: Calibration results relate only to the items calibrated.

This certificate may not be reproduced, except in full, without written permission.

This calibration is accredited per ISO17025:2017 and ANSI Z540.1.1994.

Decision Rule: Simple Acceptance with a TUR of 4:1 or greater at reference frequency.

Measurement uncertainty (251.31 Hz sensitivity calibration) at 95% confidence level: 0.30 dB

Calibrated per procedure PRD-P204.

User Note: As Found / As Left: In Tolerance

Frequency Response with reference to level at 251.31 Hz

Frequency (Hz)	Upper (dB)	Frequency (Hz)	Upper (dB)	Frequency (Hz)	Upper (dB)	Frequency (Hz)	Upper (dB)
20	0.24	630	0.04	4500	0.59		
25	0.11	800	0.08	5000	0.70		
31.5	0.07	1000	0.11	5600	0.77		
40	0.05	1120	0.12	6300	0.87		
50	0.09	1250	0.13	7100	0.89		
63	0.05	1400	0.15	8000	0.90		
80	0.04	1600	0.16	9000	0.95		
100	0.05	1800	0.19	10000	0.61		
125	0.02	2000	0.20	11200	0.30		
160	0.04	2240	0.24	12500	0.66		
200	0.03	2500	0.29	14000	0.63		
250	0.03	2800	0.33	16000	1.21		
315	0.03	3150	0.39	18000	0.96		
400	0.04	3550	0.44	20000	0.58		
500	0.05	4000	0.52				

Technician: Michael Wardlow

Reference Equipment Used:

Manuf.	Model	Serial	Cal. Date	Due Date
GRAS	40AG	58093	6/17/2024	6/17/2025

Approval:



Arcadis Canada Inc.
8133 Warden Avenue, Unit 300
Markham, Ontario L6G 1B3
Canada
Phone: 905 763 2322
Fax:
www.arcadis.com

ATTACHMENT

V



C&S Engineers, Inc.
141 Elm Street, Suite 100
Buffalo, NY, 14203

Traffic Impact Study

Niagara Falls Redevelopment (NFR)
Niagara Digital Campus
Niagara Falls, New York

Prepared for:
TRM Architecture, Design & Planning, P.C.
448 Delaware Avenue
Buffalo, NY, 14202

Prepared by:
C&S Engineers, Inc.

October 2024

Table of Contents

Executive Summary	1
1.0 Introduction.....	2
Study Purpose	2
Study Area	2
Methodology	4
2.0 Existing Conditions	4
Roadway Network	4
Capacity Analysis	5
Collision Analysis.....	8
3.0 No Build Condition	11
4.0 Build Condition	11
Trip Generation	11
Trip Distribution	11
Capacity Analysis	13
5.0 Mitigation	17
6.0 Conclusion	17

Appendices:

Appendix A – Figures

Appendix B – Collision Data

Appendix C – Traffic Data

Appendix D – Synchro Reports

Executive Summary

The purpose of this study is to analyze potential impacts to the surrounding street network by the construction of a data center located within an area generally bounded by John Daly Boulevard, Falls St., 15th Street, and Buffalo Ave. in the City of Niagara Falls ("Study Area"). It is requested that the Study Area be rezoned to create a Negotiated Planned Development District, more commonly referred to as a Planned Unit District ("PUD"), entitled Niagara Digital Campus PUD. This study is being conducted as a part of the City's approval process of the proposed PUD.

The proposed Niagara Digital Campus is located on an estimated 53 acres of land. The project is anticipated to be built in five phases and will include eight 2-story building, one 1-story building for a total of 1,232,715 square feet of space, mechanical equipment yards and space dedicated for vehicle parking for each building. This Traffic Impact Study (TIS) includes all five phases to be analyzed.

Through an existing conditions inventory, collision analysis, and level of services analysis, the Study Area intersections were evaluated for potential improvements and mitigation. The analysis considered existing and build conditions during the morning weekday peak and the afternoon weekday peak. The selected peak hours were chosen for analysis based on the expected use of the site. The site generated trips were calculated using the Data Center (160) category as the assumed land use from the ITE Trip Generation Manual. Generated traffic volumes were distributed using existing traffic patterns and anticipated routes to the proposed site.

Traffic analysis evaluates intersections using Level of Service (LOS) ranked from A (no congestion) to F (congested). The existing LOS at the study intersections is acceptable for a roadway network with the worst level of service at a LOS B (acceptable is considered a LOS D or better). The Niagara Digital Campus minimally impacts the LOS at the study intersections with no changes anticipated to the LOS for any intersection within the Study Area. The estimated amount of vehicle traffic for the peak morning time (7:45 AM to 8:45 AM) on a typical weekday is projected to be 136 with 75 vehicles entering and 61 exiting the site. For the peak evening time (4:00 PM to 5:00 PM) on a typical weekday, the projected generated traffic is 111 vehicles with 33 vehicles entering and 78 vehicles exiting the site. As such, mitigation measures are not warranted at the proposed site or the surrounding area.

1.0 Introduction

Study Purpose

The purpose of this TIS is to analyze the effects for the development of a data center within the Niagara Digital Campus generally bounded by John Daly Boulevard, Falls St., 15th Street, and Buffalo Ave. in the City of Niagara Falls, referred to herein as the Study Area. This TIS was completed as part of the City's approval process for the Niagara Digital Campus PUD. This TIS determines the impacts to the local road network, focusing on the signalized intersections and the potential number of vehicles that may use the Study Area streets.

The Niagara Digital Campus data center will include eight 2-story building and one 1-story building for a total of 1,232,715 square feet of space. The Campus will also include mechanical equipment yards and space dedicated for vehicle parking for each building. Parking spaces are located throughout the Campus, with separate parking areas near each building.

Study Area

As set forth above, the Niagara Digital Campus is proposed on approximately 53 acres of land, generally bounded by John Daly Boulevard, Falls St., 15th Street, and Buffalo Ave. in the City of Niagara Falls. See **Figure 1** in **Appendix A** for the site plan. The Study Area consists of 5 signalized intersections and 7 unsignalized intersections listed below. **Figure 2** in **Appendix B** or on the following page is a Study Area map.

Study Area Intersections

1. John Daly Boulevard at Buffalo Avenue
2. John Daly Boulevard at Rainbow Boulevard
3. John Daly Boulevard at Falls Street
4. John Daly Boulevard at Niagara Street
5. Rainbow Boulevard at 10th Street at Buffalo Avenue
6. Buffalo Avenue at Portage Road
7. Falls Street at 10th Street
8. Falls Street at 9th Street
9. Portage Road at Falls Street
10. Niagara Street at 9th Street
11. Niagara Street at 10th Street
12. Ferry Avenue at 10th Street

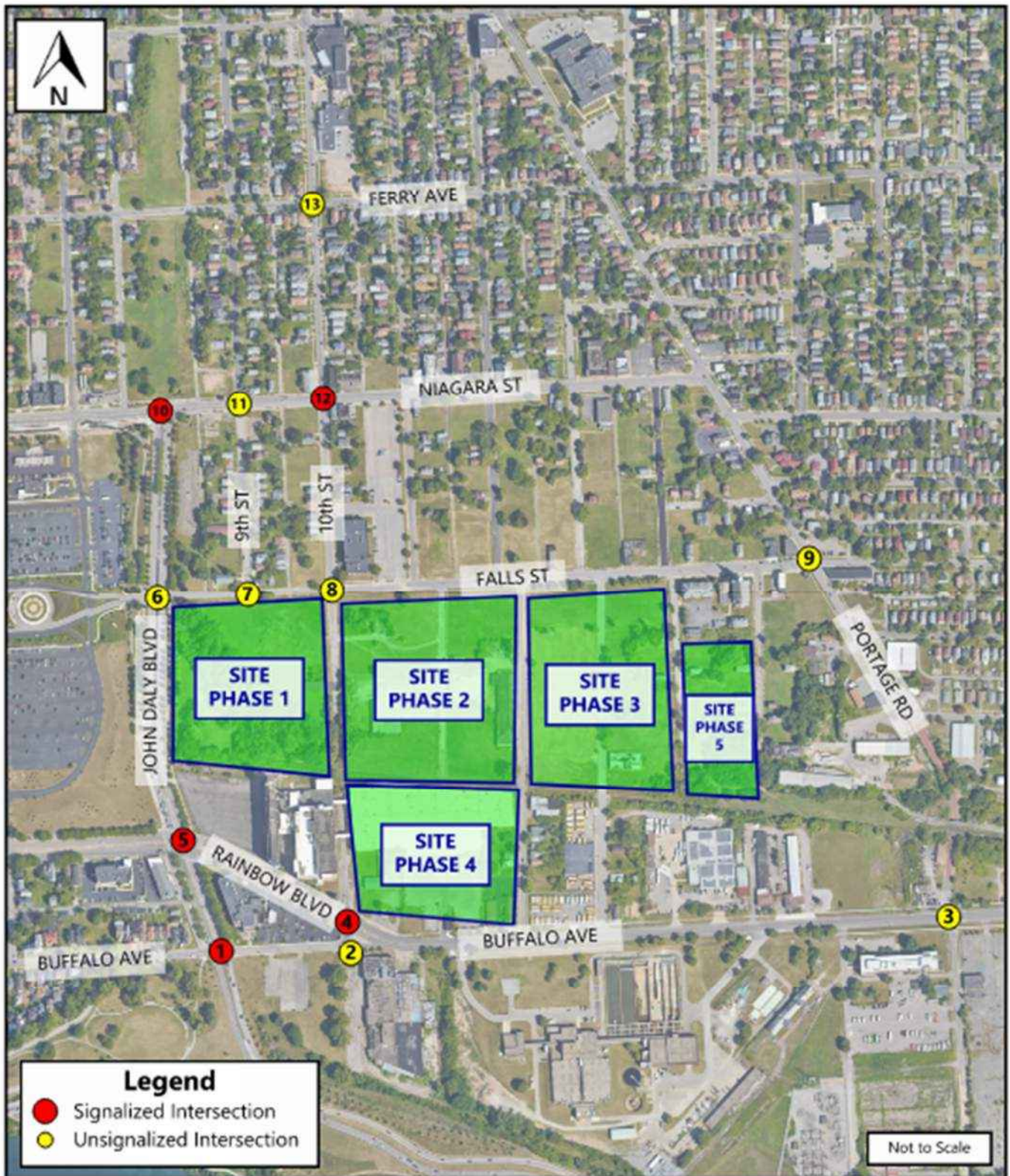


Figure 2: Study Area Map

Methodology

Intersections

The study intersections were analyzed using SYNCHRO 12¹, which is a computer program that implements the methods presented in the 6th Edition Highway Capacity Manual². SYNCHRO determines the **Level of Service (LOS)**, which is defined in terms of **Delay**.

Delay is a measure of driver discomfort, frustration, fuel consumption and lost travel time.

Level of Service criteria are stated in terms of the control delay per vehicle for a 15-minute analysis period and range from "A" to "F". Level of Service A is representative of a movement that is free flowing with minimal delay, while LOS F generally represents long delays. LOS D is generally considered acceptable in urban environments.

The ranges of delay for each level of service, as contained in the 6th Edition Highway Capacity Manual, are shown in **Table 1**.

Table 1: Intersection Level of Service Criteria

Level of Service (LOS)	Unsignalized Intersections	Signalized Intersections	
	Delay (sec)	Delay (sec)	v/c ratio*
A	0-10	0-10	<1.0
B	> 10-15	> 10-20	<1.0
C	> 15-25	> 20-35	<1.0
D	> 25-35	> 35-55	<1.0
E	> 35-50	> 55-80	<1.0
F	over 50	over 80	≥1.0

* If the volume to capacity ratio is 1.0 or greater, the LOS is an F

2.0 Existing Conditions

Roadway Network

The Study Area is bounded by Ferry Avenue (US Route 62 EB) to the north, Niagara Scenic Parkway to the south, Portage Road to the east, and John Daly Boulevard (NYS Route 384) to the west. **Table 3** shows the Study Area street network. There are values for the jurisdiction, functional classification, average annual daily traffic (AADT) and the speed limit.

¹ Synchro Studio 12, Traffic Signal Optimization and Simulation Modeling Software, Version 12, Trafficware Corporation, Albany, California, 2023.

² Highway Capacity Manual, Transportation Research Board, National Research Council, Washington D.C., 2016.

Table 3: Study Area Street Network Information

Street	Jurisdiction	Functional Classification	AADT (vehicles/day)	Posted Speed Limit
Buffalo Avenue (NYS Route 384)	City of Niagara Falls	Urban Principal Arterial	3,431	30 mph
Rainbow Boulevard (NYS Route 384)	NYSDOT	Urban Principal Arterial	5,489	30 mph
John Daly Boulevard (NYS Route 384)	NYSDOT	Urban Major Collector	11,712	30 mph
Falls Street	City of Niagara Falls	Urban Local	711	30 mph
Portage Road	City of Niagara Falls	Urban Minor Arterial	1,444	30 mph
Ferry Avenue (US Route 62 EB)	NYSDOT	Urban Principal Arterial	2,430	30 mph
9 th Street	City of Niagara Falls	Urban Local	-	30 mph
10 th Street	City of Niagara Falls	Urban Local	521	30 mph
Niagara Street (NYS Route 384)	City of Niagara Falls	Urban Minor Arterial	8,416	30 mph

Source: NYSDOT Traffic Data Viewer, <http://www.dot.ny.gov/tdv>

Capacity Analysis

Intersection Analysis

Turning movement counts (TMCs) were collected at the Study Area intersections by Tri-State Traffic Data. TMCs were collected on Tuesday the 12th and Thursday the 14th of July 2022 for three periods of time; morning (7 AM to 9 AM), afternoon (11 AM to 1 PM) and evening (4 PM to 6 PM). The morning and evening peaks were analyzed as the peak hours due to the use of the site having peaks that coincide with the morning and evening adjacent street peaks. The Study Area network's peak traffic for a typical weekday morning occurs from 7:45 AM to 8:45 AM, and for a weekday evening peak from 4:00 PM and 5:00 PM. Refer to **Figure 3** in **Appendix C** for the turning movement diagram. **Table 4** below highlights the results of the level of service analysis for existing conditions.

Table 4: Intersection LOS Analysis - Existing Conditions

Approach		Weekday AM			Weekday PM		
		LOS ^a (Delay) ^b	V/C ^c	Queue ^d	LOS (Delay)	V/C	Queue
John Daly Boulevard at Buffalo Avenue (Signalized)							
Eastbound	Left/Thru/Right	A (4.9)	0.09	14	A (6.9)	0.40	46
Westbound	Left/Thru/Right	A (7.4)	0.07	16	B (12.3)	0.21	39
Northbound	Left/Thru/Right	A (2.3)	0.22	53	A (7.8)	0.45	57
Southbound	Left	A (3.5)	0.00	2	A (5.0)	0.01	3
	Thru/Right	A (2.1)	0.11	27	A (8.1)	0.53	82
Intersection		A (2.6)	-	-	A (8.1)	-	-

Table 4 Continued: Intersection LOS Analysis - Existing Conditions

Approach		Weekday AM			Weekday PM		
		LOS ^a (Delay) ^b	V/C ^c	Queue ^d	LOS (Delay)	V/C	Queue
Rainbow Boulevard at 10 th Street (Signalized)							
Eastbound	Left	A (3.3)	0.01	3	A (4.0)	0.00	1
	Thru/Right	A (2.6)	0.02	5	A (2.3)	0.06	11
Westbound	Left	A (3.1)	0.02	7	A (3.2)	0.04	9
	Thru/Right	A (2.3)	0.04	9	A (2.4)	0.05	10
Northbound	Left/Thru/Right	A (7.3)	0.03	7	A (5.7)	0.02	4
Southbound	Left/Thru/Right	A (6.9)	0.05	9	A (5.8)	0.11	12
Intersection		A (3.3)	-	-	A (3.1)	-	-
Buffalo Avenue at Portage Road (Unsignalized)							
Eastbound	Left	a (7.7)	0.01	0	a (7.7)	0.01	0
Westbound	Left	a (7.6)	0.02	0	a (7.6)	0.01	0
Northbound	Left/Thru/Right	a (9.9)	0.01	0	a (9.7)	0.05	0.2
Southbound	Left/Thru/Right	b (10.2)	0.05	0.2	b (12.7)	0.17	0.6
Intersection		n/a			n/a		
Rainbow Boulevard at 10 th Street (Signalized)							
Eastbound	Left	A (3.3)	0.01	3	A (4.0)	0.00	1
	Thru/Right	A (2.6)	0.02	5	A (2.3)	0.06	11
Westbound	Left	A (3.1)	0.02	7	A (3.2)	0.04	9
	Thru/Right	A (2.3)	0.04	9	A (2.4)	0.05	10
Northbound	Left/Thru/Right	A (7.3)	0.03	7	A (5.7)	0.02	4
Southbound	Left/Thru/Right	A (6.9)	0.05	9	A (5.8)	0.11	12
Intersection		A (3.3)	-	-	A (3.1)	-	-
John Daly Boulevard at Rainbow Boulevard (Signalized)							
Eastbound	Left	C (29.5)	0.15	29	B (19.6)	0.16	36
	Thru	C (27.4)	0.09	20	B (18.0)	0.13	31
	Right	A (9.9)	0.45	37	A (7.1)	0.59	51
Westbound	Left	C (27.9)	0.07	17	B (18.2)	0.03	12
	Thru/Right	C (20.8)	0.13	19	B (13.8)	0.10	19
Northbound	Left	A (3.5)	0.15	23	A (96.5)	0.31	49
	Thru/Right	A (4.7)	0.17	55	A (8.7)	0.18	58
Southbound	Left	A (3.4)	0.02	5	A (6.1)	0.06	12
	Thru/Right	A (7.6)	0.10	28	B (18.5)	0.56	120
Intersection		A (9.0)	-	-	B (12.3)	-	-

Table 4 Continued: Intersection LOS Analysis - Existing Conditions

Approach		Weekday AM			Weekday PM		
		LOS ^a (Delay) ^b	V/C ^c	Queue ^d	LOS (Delay)	V/C	Queue
John Daly Boulevard at Falls Street (Unsignalized)							
Eastbound	Left/Thru/Right	b (11.2)	0.07	0.2	d (26.5)	0.41	1.9
Westbound	Left/Thru/Right	b (13.0)	0.05	0.2	c (23.0)	0.19	0.7
Northbound	Left	a (7.6)	0.01	0	a (8.8)	0.07	0.3
Southbound	Left	a (8.3)	0.00	0	a (7.9)	0.01	0
Intersection		n/a			n/a		
Falls Street at 9 th Street (Unsignalized)							
Eastbound	Left	a (0.0)	0.00	0	a (0.3)	0.00	0
Intersection		n/a			n/a		
Falls Street at 10 th Street (Unsignalized)							
Eastbound	Left/Thru/Right	a (7.5)	0.08	0.2	a (7.8)	0.10	0.3
Westbound	Left/Thru/Right	a (7.3)	0.05	0.2	a (8.0)	0.14	0.5
Northbound	Left/Thru/Right	a (7.3)	0.03	0.1	a (7.5)	0.06	0.2
Southbound	Left/Thru/Right	a (7.3)	0.03	0.1	a (7.8)	0.08	0.3
Intersection		n/a			n/a		
Falls Street at Portage Road (Unsignalized)							
Eastbound	Left/Thru/Right	a (7.8)	0.04	0.1	a (7.8)	0.09	0.3
Westbound	Left/Thru/Right	a (7.7)	0.08	0.2	a (7.9)	0.09	0.3
Northbound	Left/Thru/Right	a (7.9)	0.11	0.4	a (7.8)	0.08	0.3
Southbound	Left/Thru/Right	a (7.6)	0.07	0.2	a (8.0)	0.14	0.5
Intersection		n/a			n/a		
John Daly Boulevard at Niagara Street (Signalized)							
Eastbound	Thru	A (7.5)	0.09	18	A (8.6)	0.22	42
	Right	A (3.0)	0.20	16	A (3.6)	0.49	28
Westbound	Left/Thru	A (7.4)	0.12	15	A (8.5)	0.27	35
Northbound	Left	B (10.5)	0.39	46	B (12.3)	0.47	72
	Right	A (3.3)	0.28	17	A (3.6)	0.18	16
Intersection		A (6.5)	-	-	A (7.2)	-	-
Niagara Street at 9 th Street (Unsignalized)							
Eastbound	Left	a (7.6)	0.04	0.1	a (8.1)	0.04	0.1
Northbound	Left/Thru/Right	b (11.2)	0.01	0	b (13.3)	0.03	0.1
Intersection		n/a			n/a		

Table 4 Continued: Intersection LOS Analysis - Existing Conditions

Approach		Weekday AM			Weekday PM		
		LOS ^a (Delay) ^b	V/C ^c	Queue ^d	LOS (Delay)	V/C	Queue
Niagara Street at 10th Street (Signalized)							
Eastbound	<i>Left/Thru/Right</i>	A (5.4)	0.19	38	A (5.3)	0.18	41
Westbound	<i>Left/Thru/Right</i>	A (4.8)	0.07	20	A (4.8)	0.14	33
Northbound	<i>Left/Thru/Right</i>	B (15.3)	0.09	24	B (15.2)	0.06	18
Southbound	<i>Left/Thru/Right</i>	B (11.5)	0.19	34	A (8.6)	0.38	50
<i>Intersection</i>		A (7.5)	-	-	A (6.7)	-	-
Ferry Avenue at 10th Street (Unsignalized)							
Eastbound	<i>Left/Thru</i>	a (8.4)	0.09	0.3	a (9.7)	0.23	0.9
	<i>Thru/Right</i>	a (8.0)	0.08	0.3	a (9.5)	0.23	0.9
Northbound	<i>Left/Thru/Right</i>	a (8.0)	0.15	0.5	a (8.4)	0.10	0.3
Southbound	<i>Left/Thru/Right</i>	a (8.1)	0.11	0.4	b (10.4)	0.35	1.6
<i>Intersection</i>		n/a			n/a		

*lowercase letters signify the HCM 7th edition Stop Control methodology was used

a: level-of-service

b: delay is measured in seconds

c: volume to capacity ratio

d: 95th queue length, measured in feet (queue length of stop-controlled intersections measured in number of vehicles)

Based on the level of service analysis, all intersections within the Study Area and movements are operating at an acceptable level of service (D or better). Most intersections and movements are operating at level of service A with minimal delay.

Collision Analysis

A collision analysis was completed for the Study Area intersections. There was a total of 80 collisions and 34 injuries over a five-year period from May 2019 through May 2024 excluding collisions with fixed objects. The most common type of collision was right angle, representing roughly 38% of all collisions. Detailed collision analyses are provided in **Appendix B. Table 5** contains a summary of the predominant collision types at each intersection.

Table 5: Collision Analysis

Type of Collision	Number	Percentage
Ferry Avenue at 10th Street (13 collisions)		
Total Injuries: 2		
Rear End	2	15%
Sideswipe	1	8%
Right Angle	7	54%
Other	3 (1 Head On, 2 Bicyclist Collisions)	23%
John Daly Boulevard at Niagara Street (3 collisions)		
Total Injuries: 1		
Rear End	1	33%
Other	2 (1 Overtaking, 1 Pedestrian Collision)	67%
Niagara Street at 9th Street (2 collisions)		
Total Injuries: 2		
Right Turn	1	50%
Other	1 (1 Bicyclist Collision)	50%
Niagara Street at 10th Street (9 collisions)		
Total Injuries: 7		
Rear End	3	33%
Right Angle	2	22%
Left Turn	1	11%
Other	3 (1 Overtaking, 1 Other, 1 Pedestrian)	33%
John Daly Boulevard at Falls Street (12 collisions)		
Total Injuries: 7		
Rear End	1	8%
Left Turn	3	25%
Right Angle	8	67%
Portage Road at Falls Street (4 collisions)		
Total Injuries: 4		
Right Angle	3	75%
Other	1 (1 other)	25%
Portage Road at Mackenna Avenue (1 collision)		
Total Injuries: 0		
Right Angle	1	100%
Buffalo Avenue at Portage Road (5 collisions)		
Total Injuries: 2		
Sideswipe	1	20%
Left Turn	1	20%
Right Turn	1	20%
Right Angle	1	20%
Other	1 (1 Other)	20%

Table 5 Continued: Collision Analysis

Type of Collision	Number	Percentage
Buffalo Avenue at 13th Street (2 collisions)		
Total Injuries: 2		
Rear End	1	50%
Right Turn	1	50%
Buffalo Avenue at Memorial Parkway (1 collision)		
Total Injuries: 1		
Left Turn	1	100%
John Daly Boulevard at Rainbow Boulevard (14 collisions)		
Total Injuries: 1		
Rear End	3	21%
Left Turn	3	21%
Right Turn	1	7%
Right Angle	3	21%
Other	4 (3 Overt., 1 Head On)	29%
John Daly Boulevard at Buffalo Avenue (7 collisions)		
Total Injuries: 1		
Rear End	1	14%
Left Turn	1	14%
Right Angle	2	29%
Other	3 (1 Head On, 1 Overtaking, 1 Other)	43%
Niagara Scenic Parkway at John Daly Boulevard (3 collisions)		
Total Injuries: 0		
Right Turn	1	33%
Right Angle	1	33%
Other	1 (1 Overtaking)	33%

The collisions at the intersections of John Daly Boulevard at Niagara Street and Niagara Street at 10th Street resulted in injuries to pedestrians. Both intersections are signalized with the latter lacking pedestrian signals.

Bicyclist collisions occurred at two intersections in the Study Area, Ferry Avenue at 10th Street and Niagara Street at 9th Street. At the first intersection, Ferry Avenue is a one-way street with two travel lanes and a parking lane.

A few intersections in particular had a high number of collisions (>10 for the time period): John Daly Boulevard at Rainbow Boulevard, Ferry Avenue at 10th Street, and John Daly Boulevard at Falls Street. A significant portion of these were right angle collisions. Common causes of these types of collisions are properly failing to yield the right of way or disregard for traffic signs or signals. Contributing factors could also be excessive speeds, inadequate signal timings, and a large number of crossing lanes.

3.0 No Build Condition

Historical traffic data was reviewed at two roadway segments within the Study Area, a segment of John Daly Blvd and Niagara Street. There was an approximate 2% overall decrease in traffic volumes from 2012 to 2019. Given the decreasing trend in traffic in the Study Area, no background growth rate is proposed to analyze the future no build condition. Therefore, it is assumed that the no build future condition is the same as existing conditions.

4.0 Build Condition

The proposed development is a data center. The full build out of this data center will include eight 2-story building and one 1-story building for to a total of 1,232,715 square feet of space. The development will also include mechanical equipment yards and space dedicated for vehicle parking for each building. Parking spaces are located throughout the site with separate parking areas near each building. See **Appendix A, Figure 1** for the concept site plan.

Trip Generation

The data center will be approximately 1,232,715 SF. The number of new trips generated for the proposed development were determined using the ITE Trip Generation Manual 11th Edition³. The Data Center (160) land use code was used for the trip generation. Trip generation for the weekday AM and PM peaks were calculated, and the results are outlined in **Table 6**. Trip generation calculations are in **Appendix C**. More detailed trip generation calculations for each intersection are included in **Appendix A, Figure 6**.

Table 6: Peak Hour Trip Generation Estimates

ITE Land Use Code	AM Peak Trips			PM Peak Trips		
	Entering	Exiting	Total	Entering	Exiting	Total
160 Data Center	75	61	136	33	78	111

Trip Distribution

Existing travel patterns were used for the trip distribution. The major Study Area entrances and exit locations for the Study Area are outlined in **Table 7**. The table provides a breakdown for the full build trip generation at each major entrance. There are 5 major entrances into the Study Area network, from Niagara Street and Rainbow Boulevard for traffic originating from the north and west, Niagara Scenic Parkway for traffic originating from the south, and Falls Street, Portage Road, and Buffalo Avenue from the south and east. The streets connecting to the proposed site are assumed to mostly serve Niagara Digital Campus, since there are minimal developments adjacent to the site. Therefore, for simplicity, it was assumed that each street would

³ **Trip Generation Manual, 11th Edition**. Institute of Transportation Engineers (ITE). September 2021.

be served with one site driveway for the purposes of the trip distribution. **Appendix A, Figures 4 and 5** contains more detailed information on the trip distribution through the Study Area network.

Table 7: Trip Distribution

Location		AM Peak Trips				PM Peak Trips			
		Distribution		Number of vehicles		Distribution		Number of vehicles	
		Entering	Exiting	Entering	Exiting	Entering	Exiting	Entering	Exiting
John Daly Boulevard	Niagara Street	15%	35%	11	18	30%	20%	10	15
John Daly Boulevard	Rainbow Boulevard	15%	20%	11	12	25%	15%	8	12
John Daly Boulevard	Riverway/Niagara Scenic Parkway	50%	35%	38	22	30%	50%	10	39
Portage Rd	Falls Street	5%	5%	4	3	5%	5%	2	4
Portage Rd	Buffalo Avenue	15%	10%	11	6	10%	10%	3	8

Capacity Analysis

Intersection Analysis

Refer to **Figure 7** in **Appendix A** for the turning movement diagram. Based on the trip distribution, **Table 8** summarizes the results of the intersection LOS analysis for the build condition.

Table 8: Intersection LOS Analysis Existing vs. Build Condition

Approach		Existing Condition						Build Condition					
		Weekday AM			Weekday PM			Weekday AM			Weekday PM		
		LOS ^a (Delay) ^b	V/C ^c	Queue ^d	LOS (Delay)	V/C	Queue	LOS ^a (Delay) ^b	V/C ^c	Queue ^d	LOS (Delay)	V/C	Queue
John Daly Boulevard at Buffalo Avenue (Signalized)													
Eastbound	<i>Left/Thru/Right</i>	A (4.9)	0.09	14	A (6.9)	0.40	46	A (5.7)	0.09	14	A (7.4)	0.40	50
Westbound	<i>Left/Thru/Right</i>	A (7.4)	0.07	16	B (12.3)	0.21	39	A (9.1)	0.12	21	B (13.7)	0.28	50
Northbound	<i>Left/Thru/Right</i>	A (2.3)	0.22	53	A (7.8)	0.45	57	A (4.0)	0.27	56	A (7.9)	0.45	65
Southbound	<i>Left</i>	A (3.5)	0.00	2	A (5.0)	0.01	3	A (5.0)	0.00	2	A (5.3)	0.01	3
	<i>Thru/Right</i>	A (2.1)	0.11	27	A (8.1)	0.53	82	A (3.5)	0.12	28	A (8.3)	0.53	95
<i>Intersection</i>		A (2.6)	-	-	A (8.1)	-	-	A (4.2)	-	-	A (8.4)	-	-
Rainbow Boulevard at 10 th Street (Signalized)													
Eastbound	<i>Left</i>	A (3.3)	0.01	3	A (4.0)	0.00	1	A (3.4)	0.01	5	A (5.6)	0.00	2
	<i>Thru/Right</i>	A (2.6)	0.02	5	A (2.3)	0.06	11	A (2.7)	0.01	6	A (4.6)	0.07	11
Westbound	<i>Left</i>	A (3.1)	0.02	7	A (3.2)	0.04	9	A (3.2)	0.03	9	A (5.9)	0.08	12
	<i>Thru/Right</i>	A (2.3)	0.04	9	A (2.4)	0.05	10	A (2.3)	0.04	10	A (4.7)	0.06	10
Northbound	<i>Left/Thru/Right</i>	A (7.3)	0.03	7	A (5.7)	0.02	4	A (6.2)	0.04	8	A (6.8)	0.02	4
Southbound	<i>Left/Thru/Right</i>	A (6.9)	0.05	9	A (5.8)	0.11	12	A (5.5)	0.06	9	A (7.5)	0.16	14
<i>Intersection</i>		A (3.3)	-	-	A (3.1)	-	-	A (3.3)	-	-	A (5.4)	-	-

Table 8 Continued: Intersection LOS Analysis Existing vs. Build Condition

Approach		Existing Condition						Build Condition					
		Weekday AM			Weekday PM			Weekday AM			Weekday PM		
		LOS ^a (Delay) ^b	V/C ^c	Queue ^d	LOS (Delay)	V/C	Queue	LOS ^a (Delay) ^b	V/C ^c	Queue ^d	LOS (Delay)	V/C	Queue
Buffalo Avenue at Portage Road (Unsignalized)													
Eastbound	Left	a (7.7)	0.01	0	a (7.7)	0.01	0	a (7.6)	0.01	0	a (7.7)	0.01	0
Westbound	Left	a (7.6)	0.02	0	a (7.6)	0.01	0	a (7.4)	0.01	0	a (7.6)	0.00	0
Northbound	Left/Thru/Right	a (9.9)	0.01	0	a (9.7)	0.05	0.2	b (10.0)	0.01	0	a (9.7)	0.05	0.2
Southbound	Left/Thru/Right	b (10.2)	0.05	0.2	b (12.7)	0.17	0.6	b (10.4)	0.06	0.2	b (12.8)	0.17	0.6
Intersection		n/a			n/a			n/a			n/a		
John Daly Boulevard at Rainbow Boulevard (Signalized)													
Eastbound	Left	C (29.5)	0.15	29	B (19.6)	0.16	36	C (29.9)	0.17	32	C (20.1)	0.17	39
	Thru	C (27.4)	0.09	20	B (18.0)	0.13	31	C (27.5)	0.10	23	B (18.3)	0.13	33
	Right	A (9.9)	0.45	37	A (7.1)	0.59	51	A (9.9)	0.45	37	A (7.1)	0.58	51
Westbound	Left	C (27.9)	0.07	17	B (18.2)	0.03	12	C (27.7)	0.05	15	B (18.6)	0.03	13
	Thru/Right	C (20.8)	0.13	19	B (13.8)	0.10	19	C (21.3)	0.14	21	B (14.3)	0.10	21
Northbound	Left	A (3.5)	0.15	23	A (9.5)	0.31	49	A (3.4)	0.15	23	A (6.5)	0.31	51
	Thru/Right	A (4.7)	0.17	55	A (8.7)	0.18	58	A (4.7)	0.17	59	A (8.7)	0.17	61
Southbound	Left	A (3.4)	0.02	5	A (6.1)	0.06	12	A (3.3)	0.02	5	A (6.2)	0.06	13
	Thru/Right	A (7.6)	0.10	28	B (18.5)	0.56	120	A (7.5)	0.10	30	B (18.7)	0.57	131
Intersection		A (9.0)	-	-	B (12.3)	-	-	A (9.3)	-	-	B (12.6)	-	-
John Daly Boulevard at Falls Street (Unsignalized)													
Eastbound	Left/Thru/Right	b (11.2)	0.07	0.2	d (26.5)	0.41	1.9	b (11.5)	0.08	0.2	d (28.1)	0.43	2.1
Westbound	Left/Thru/Right	b (13.0)	0.05	0.2	c (23.0)	0.19	0.7	b (13.7)	0.12	0.4	c (20.2)	0.19	0.7
Northbound	Left	a (7.6)	0.01	0	a (8.8)	0.07	0.3	a (7.6)	0.01	0	a (8.8)	0.08	0.3
Southbound	Left	a (8.3)	0.00	0	a (7.9)	0.01	0	a (8.4)	0.01	0	a (7.9)	0.02	0.1
Intersection		n/a			n/a			n/a			n/a		

Table 8 Continued: Intersection LOS Analysis Existing vs. Build Condition

Approach		Existing Condition						Build Condition					
		Weekday AM			Weekday PM			Weekday AM			Weekday PM		
		LOS ^a (Delay) ^b	V/C ^c	Queue ^d	LOS (Delay)	V/C	Queue	LOS ^a (Delay) ^b	V/C ^c	Queue ^d	LOS (Delay)	V/C	Queue
Falls Street at 9 th Street (Unsignalized)													
Eastbound	Left	a (0.0)	0.00	0	a (0.3)	0.00	0	a (0.0)	0.04	0	a (0.1)	0.07	0
Intersection		n/a			n/a			n/a			n/a		
Falls Street at 10 th Street (Unsignalized)													
Eastbound	Left/Thru/Right	a (7.5)	0.08	0.2	a (7.8)	0.10	0.3	a (7.8)	0.13	0.4	a (8.0)	0.13	0.4
Westbound	Left/Thru/Right	a (7.3)	0.05	0.2	a (8.0)	0.14	0.5	a (7.6)	0.10	0.3	a (8.4)	0.20	0.8
Northbound	Left/Thru/Right	a (7.3)	0.03	0.1	a (7.5)	0.06	0.2	a (7.6)	0.04	0.1	a (7.9)	0.05	0.2
Southbound	Left/Thru/Right	a (7.3)	0.03	0.1	a (7.8)	0.08	0.3	a (7.5)	0.03	0.1	a (8.1)	0.09	0.3
Intersection		n/a			n/a			n/a			n/a		
Falls Street at Portage Road (Unsignalized)													
Eastbound	Left/Thru/Right	a (7.8)	0.04	0.1	a (7.8)	0.09	0.3	a (7.9)	0.05	0.2	a (7.9)	0.10	0.3
Westbound	Left/Thru/Right	a (7.7)	0.08	0.2	a (7.9)	0.09	0.3	a (7.8)	0.08	0.2	a (7.9)	0.09	0.3
Northbound	Left/Thru/Right	a (7.9)	0.11	0.4	a (7.8)	0.08	0.3	a (8.0)	0.12	0.4	a (7.8)	0.08	0.3
Southbound	Left/Thru/Right	a (7.6)	0.07	0.2	a (8.0)	0.14	0.5	a (7.6)	0.08	0.2	a (8.0)	0.15	0.5
Intersection		n/a			n/a			n/a			n/a		
John Daly Boulevard at Niagara Street (Signalized)													
Eastbound	Thru	A (7.5)	0.09	18	A (8.6)	0.22	42	A (7.6)	0.09	19	A (8.8)	0.22	44
	Right	A (3.0)	0.20	16	A (3.6)	0.49	28	A (3.0)	0.21	17	A (3.6)	0.50	29
Westbound	Left/Thru	A (7.4)	0.12	15	A (8.5)	0.27	35	A (7.5)	0.12	16	A (8.6)	0.28	36
Northbound	Left	B (10.5)	0.39	46	B (12.3)	0.47	72	B (10.5)	0.41	48	B (12.4)	0.48	76
	Right	A (3.3)	0.28	17	A (3.6)	0.18	16	A (3.2)	0.27	17	A (3.5)	0.17	16
Intersection		A (6.5)	-	-	A (7.2)	-	-	A (6.6)	-	-	A (7.4)	-	-

Table 8 Continued: Intersection LOS Analysis Existing vs. Build Condition

Approach		Existing Condition						Build Condition					
		Weekday AM			Weekday PM			Weekday AM			Weekday PM		
		LOS ^a (Delay) ^b	V/C ^c	Queue ^d	LOS (Delay)	V/C	Queue	LOS ^a (Delay) ^b	V/C ^c	Queue ^d	LOS (Delay)	V/C	Queue
Niagara Street at 9 th Street (Unsignalized)													
Eastbound	Left	a (7.6)	0.04	0.1	a (8.1)	0.04	0.1	a (7.6)	0.04	0.1	a (8.1)	0.04	0.1
Northbound	Left/Thru/Right	b (11.2)	0.01	0	b (13.3)	0.03	0.1	b (11.3)	0.01	0	b (13.4)	0.03	0.1
Intersection		n/a			n/a			n/a			n/a		
Niagara Street at 10 th Street (Signalized)													
Eastbound	Left/Thru/Right	A (5.4)	0.19	38	A (5.3)	0.18	41	A (5.3)	0.19	38	A (5.2)	0.18	42
Westbound	Left/Thru/Right	A (4.8)	0.07	20	A (4.8)	0.14	33	A (4.8)	0.07	20	A (4.8)	0.13	33
Northbound	Left/Thru/Right	B (15.3)	0.09	24	B (15.2)	0.06	18	B (15.8)	0.11	27	B (15.4)	0.07	21
Southbound	Left/Thru/Right	B (11.5)	0.19	34	A (8.6)	0.38	50	B (11.5)	0.19	34	A (8.6)	0.38	50
Intersection		A (7.5)	-	-	A (6.7)	-	-	A (7.7)	-	-	A (6.7)	-	-
Ferry Avenue at 10 th Street (Unsignalized)													
Eastbound	Left/Thru	a (8.4)	0.09	0.3	a (9.7)	0.23	0.9	a (8.4)	0.09	0.3	a (9.7)	0.23	0.9
	Thru/Right	a (8.0)	0.08	0.3	a (9.5)	0.23	0.9	a (8.0)	0.08	0.3	a (9.5)	0.23	0.9
Northbound	Left/Thru/Right	a (8.0)	0.15	0.5	a (8.4)	0.10	0.3	a (8.0)	0.15	0.5	a (8.4)	0.10	0.3
Southbound	Left/Thru/Right	a (8.1)	0.11	0.4	b (10.4)	0.35	1.6	a (8.1)	0.11	0.4	b (10.4)	0.35	1.6
Intersection		n/a			n/a			n/a			n/a		

*lowercase letters signify the HCM 7th edition Stop Control methodology was used

a: level-of-service

b: delay is measured in seconds

c: volume to capacity ratio

d: 95th queue length

Based on the capacity analysis for the build condition, there are no anticipated changes to the LOS for any intersection or movement within the Study Area as a part of the proposed project. The Niagara Digital Campus has minimal impact on the surrounding roadway network and does not negatively affect the anticipated LOS. All intersections within the Study Area are expected to remain operating at an acceptable level of service (D or better).

5.0 Mitigation

The existing level of service at all intersections is currently operating a LOS D or better. Most intersections are operating at a LOS A. No mitigation measures are recommended for this Niagara Digital Campus as there are no anticipated adverse impacts to traffic.

6.0 Conclusion

The following items are findings from this traffic impact study:

1. Existing Conditions: Study Area intersections are operating with acceptable levels of service (D or better) for all movements and approaches.
2. Trip Generation: Based on the ITE Trip Generation Manual, the data center is expected to generate 75 trips inbound and 61 trips outbound during the morning peak and 33 trips inbound and 78 trips outbound during the evening peak.
3. Proposed Conditions: The proposed data center is expected to have a minimal impact at all of the intersections in the Study Area.
4. Mitigation: No mitigation is recommended to the Study Area since the data center does not have adverse impacts.

APPENDIX A – FIGURES

SITE LEGEND

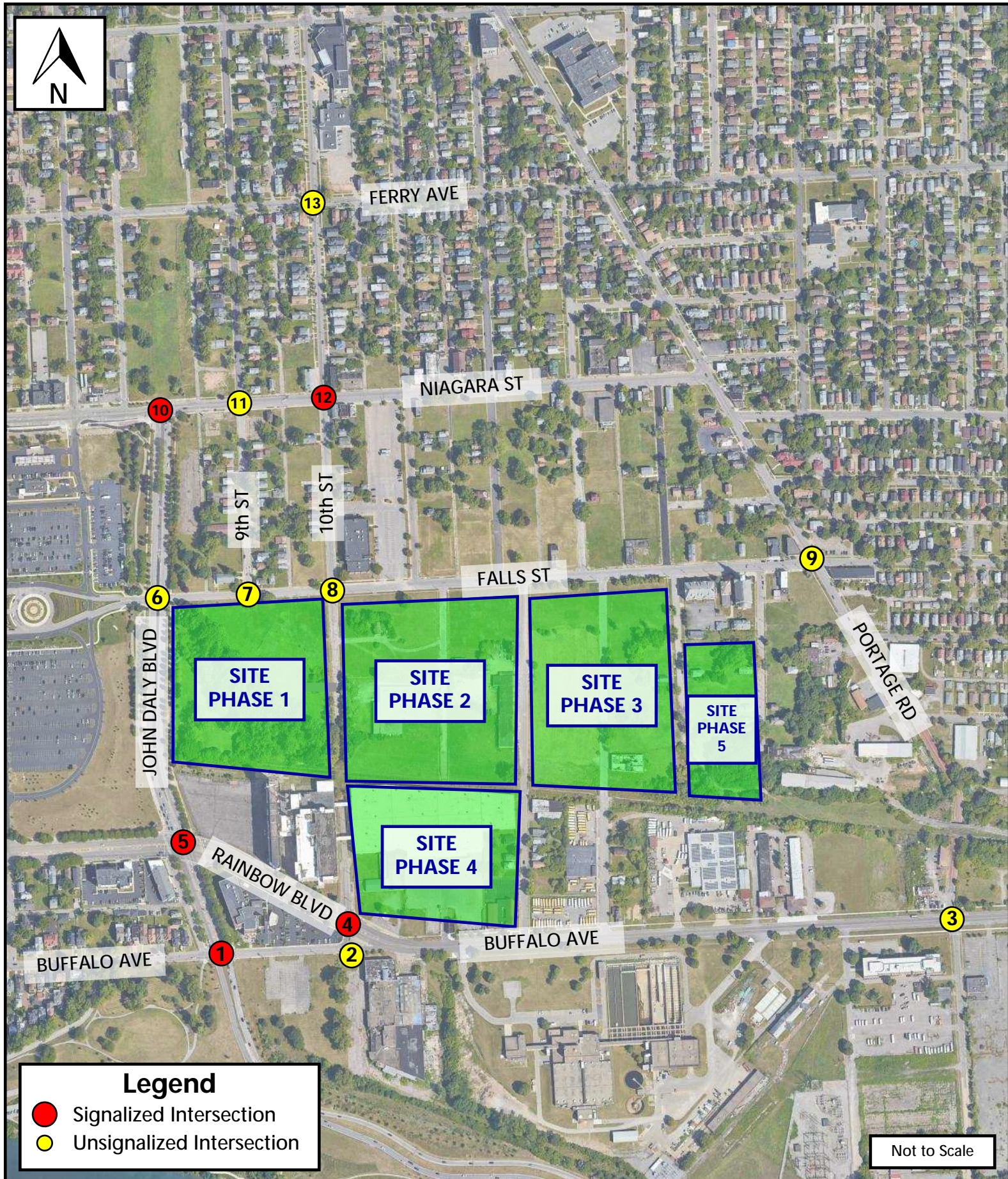
DIGITAL CAMPUS PUD BOUNDARY



NIAGARA DIGITAL CAMPUS

NIAGARA FALLS, NEW YORK

Figure 1 - Site Plan

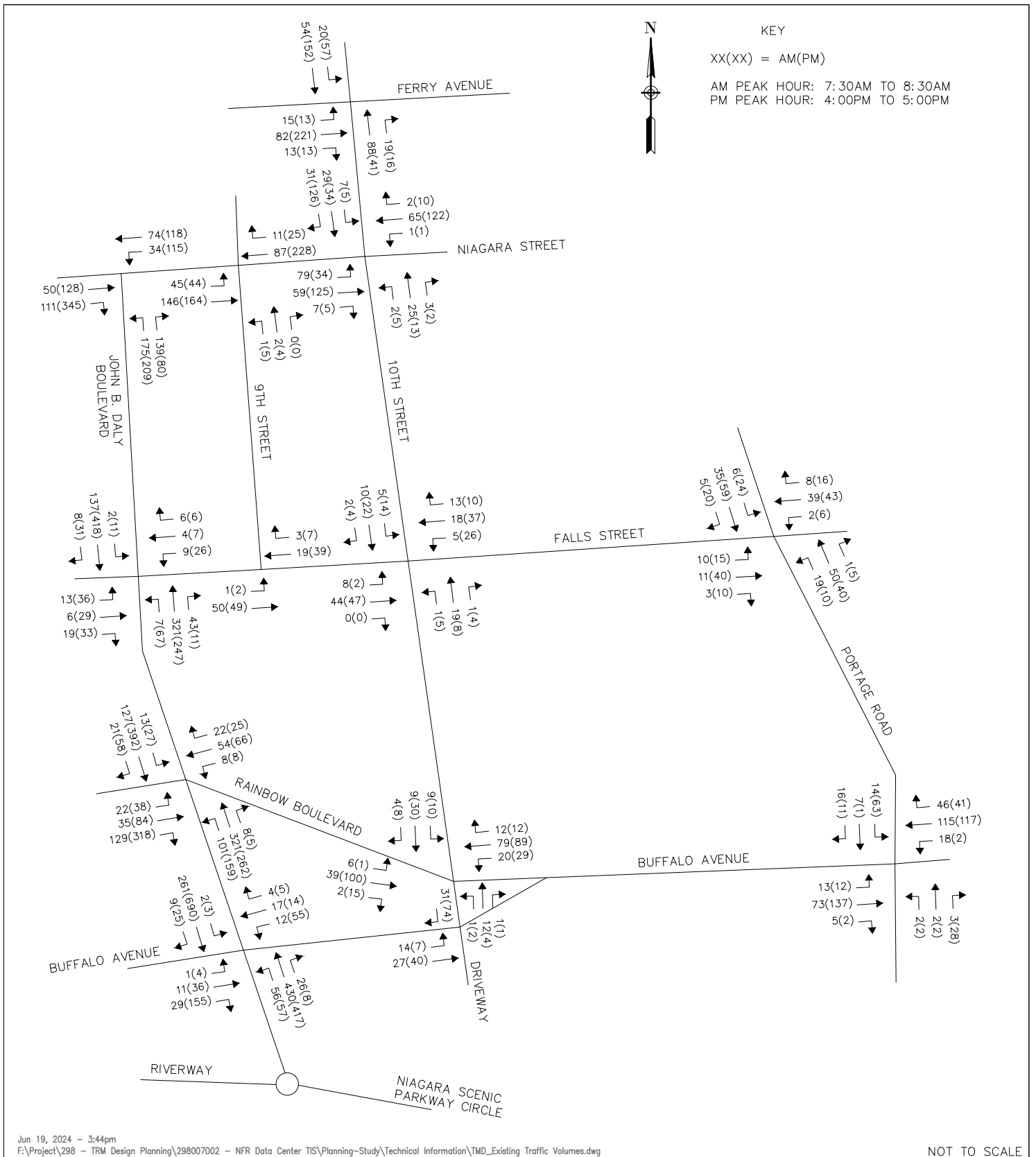


Study Location Map

Niagara Falls Redevelopment (NFR) Data Center


Traffic Impact Study
Niagara Falls, New York

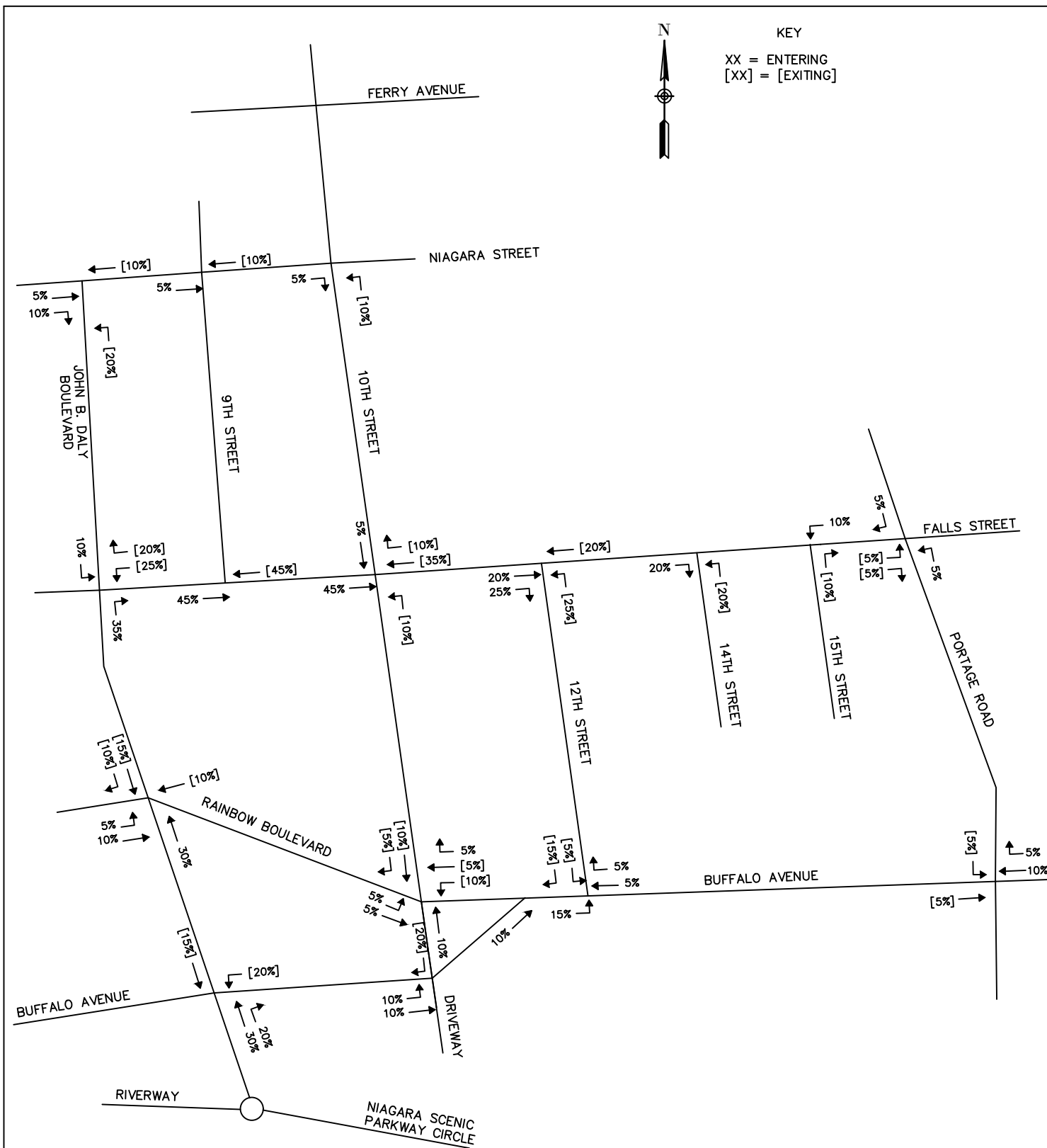
Figure 2



Jun 19, 2024 - 3:44pm
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NOT TO SCALE

 <p>C&S Engineers, Inc. 499 Col. Eileen Collins Blvd. Syracuse, New York 13212 Phone: 315-455-2000 Fax: 315-455-9667 www.cscos.com</p>		PROJECT NO: 298007002	<p>2022 EXISTING TRAFFIC VOLUMES WEEKDAY AM (PM) PEAK HOUR TURNING MOVEMENT DIAGRAM</p>	<p>DATA CENTER TRAFFIC IMPACT STUDY</p>
		DATE: MAY 2024		<p>NIAGARA FALLS, NIAGARA COUNTY</p>
		DRAWN BY: S. LUSHER		<p>FIGURE 3</p>
		DESIGNED BY: K. WESSEL		
		CHECKED BY: K. WESSEL		
		<p>NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK EDUCATION LAW</p>		



Sep 23, 2024 - 1:47pm

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C&S Engineers, Inc.

141 Elm Street Suite 100
 Buffalo, NY, 13403
 Phone: 315-455-2000
 Fax: 315-455-9667
 www.cscos.com

PROJECT NO: 298007002
 DATE: SEPTEMBER 2024
 DRAWN BY: J. ANASTASIA
 DESIGNED BY: J. ANASTASIA
 CHECKED BY: K. WESSEL

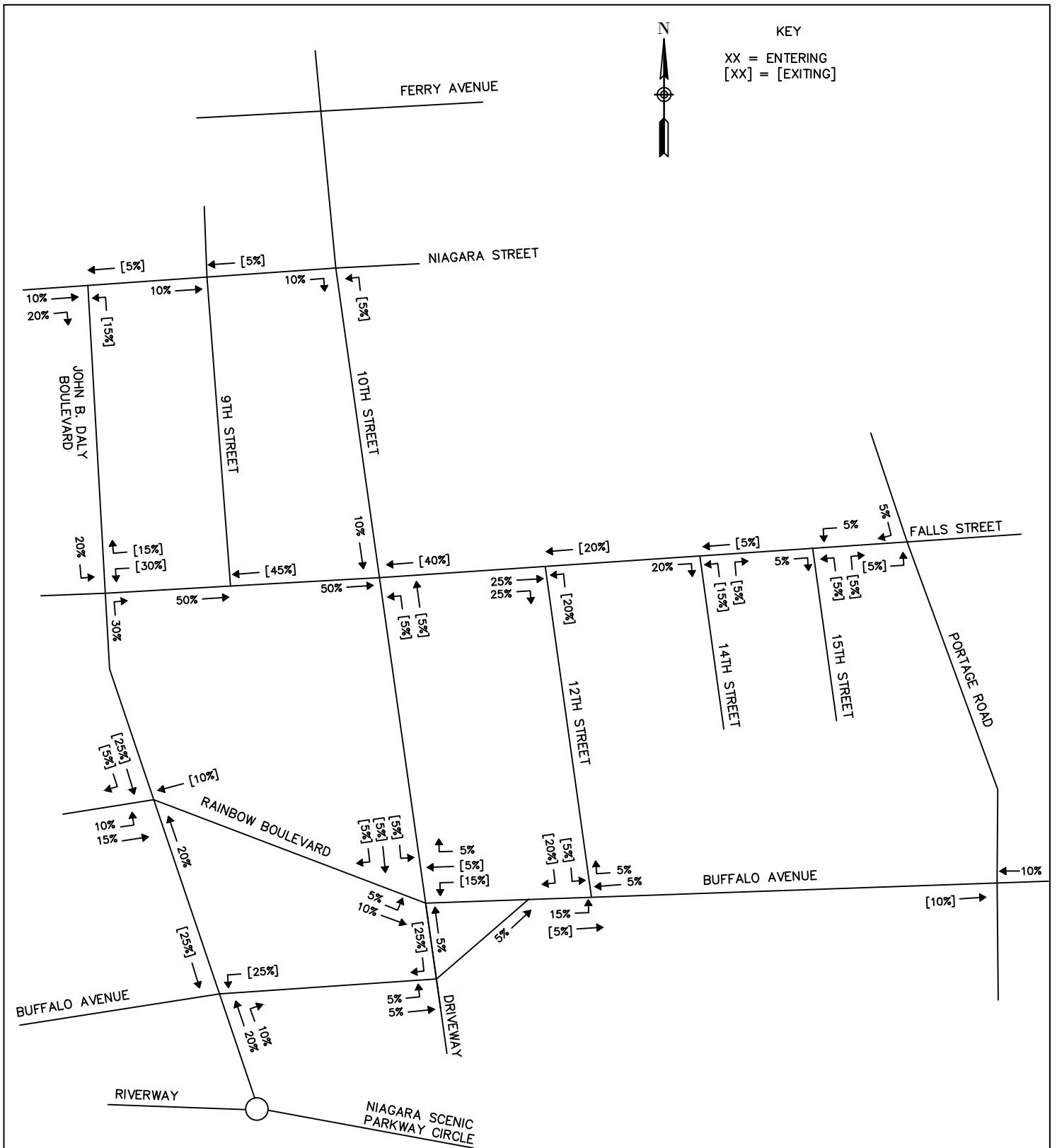
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PROPOSED TRIP DISTRIBUTION
 WEEKDAY AM PEAK HOUR
 TURNING MOVEMENT DIAGRAM

DATA CENTER
 TRAFFIC IMPACT STUDY

NIAGARA FALLS,
 NIAGARA COUNTY

FIGURE 4



Sep 23, 2024 - 1:53pm

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PROJECT NO: 298007002
 DATE: SEPTEMBER 2024
 DRAWN BY: J. ANASTASIA
 DESIGNED BY: J. ANASTASIA
 CHECKED BY: K. WESSEL

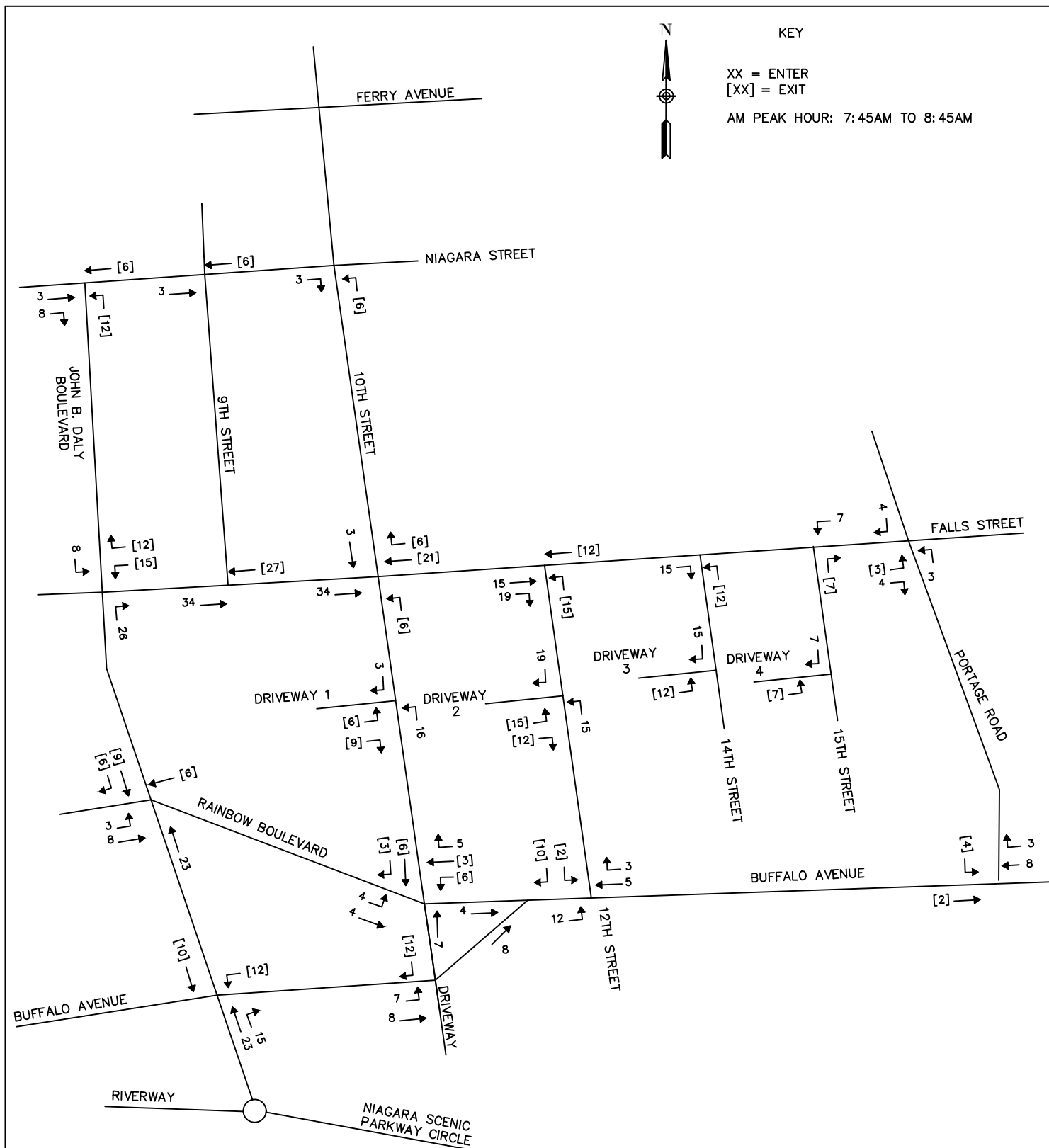
NO ALTERATION PERMITTED
 HEREON EXCEPT AS PROVIDED
 UNDER SECTION 7209
 SUBDIVISION 2 OF THE NEW
 YORK EDUCATION LAW

PROPOSED TRIP DISTRIBUTION
 WEEKDAY PM PEAK HOUR
 TURNING MOVEMENT DIAGRAM

DATA CENTER
 TRAFFIC IMPACT STUDY


NIAGARA FALLS,
 NIAGARA COUNTY

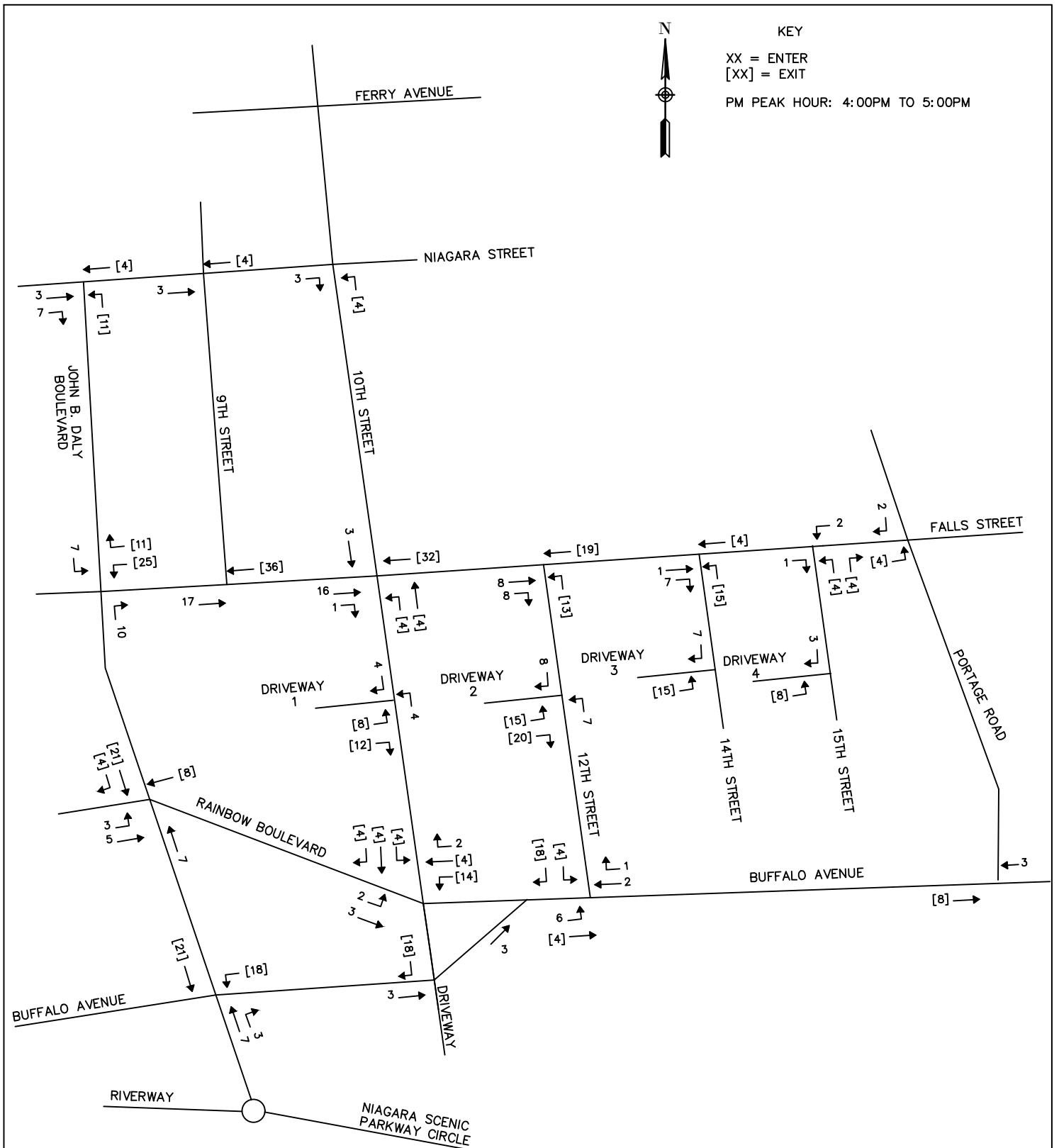
FIGURE 5



Sep 24, 2024 - 10:42am
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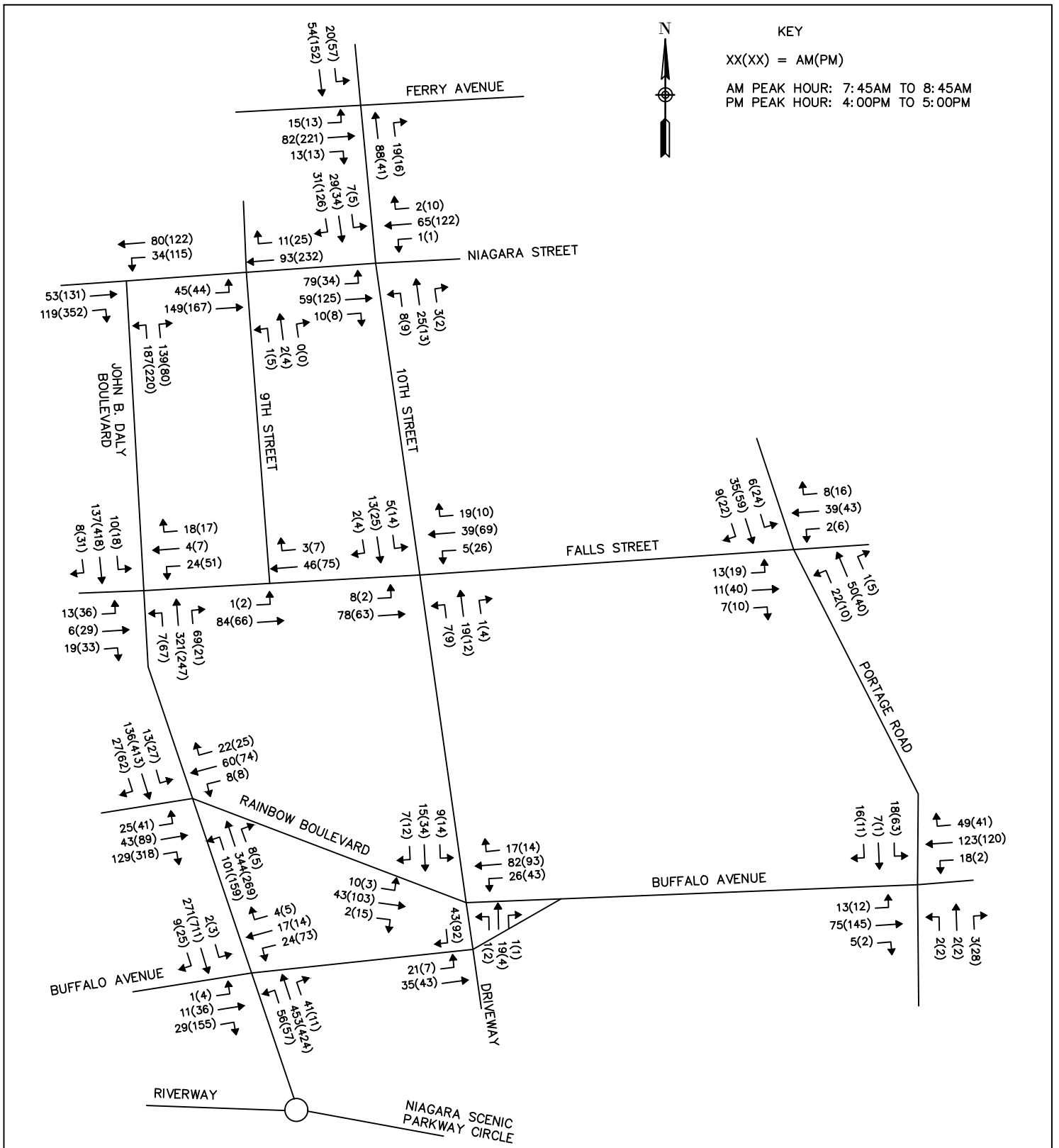
 <p>C&S Companies</p> <p>C&S Engineers, Inc. 141 Elm Street Suite 100 Buffalo, NY, 13403 Phone: 315-455-2000 Fax: 315-455-9667 www.cscos.com</p>	<p>PROJECT NO: 298007002</p> <p>DATE: SEPTEMBER 2024</p> <p>DRAWN BY: J. ANASTASIA</p> <p>DESIGNED BY: J. ANASTASIA</p> <p>CHECKED BY: K. WESSEL</p>	<p>PROPOSED TRIP GENERATION WEEKDAY AM PEAK HOUR TURNING MOVEMENT DIAGRAM</p>	<p>DATA CENTER TRAFFIC IMPACT STUDY</p>
			<p>NIAGARA FALLS, NIAGARA COUNTY</p>
			<p>FIGURE 6</p>
			<p>NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK EDUCATION LAW</p>



Sep 24, 2024 - 10:14am
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Sep 24, 2024 - 1:44pm

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 www.cscos.com

PROJECT NO: 298007002
 DATE: SEPTEMBER 2024
 DRAWN BY: J. ANASTASIA
 DESIGNED BY: J. ANASTASIA
 CHECKED BY: K. WESSEL

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PROPOSED TRAFFIC VOLUMES
 WEEKDAY AM (PM) PEAK HOUR
 TURNING MOVEMENT DIAGRAM

DATA CENTER
 TRAFFIC IMPACT STUDY

NIAGARA FALLS,
 NIAGARA COUNTY

FIGURE 8

APPENDIX B – COLLISION DATA

	Case Number	Crash Severity	Collision Type	Crash Date	Crash Time	Crash Type	Traffic Control	# of Injuries	# of Vehicles	Max Injury in Crash	IGNORE BECAUSE
FERRY & 10TH	38592190	INJURY	RIGHT ANGLE	14-10-20	6:05 PM	COLLISION WITH MOTOR VEHICLE	STOP SIGN	1	2	B - INJURY	"FOOT SLIPPED OFF BREAK PEDAL"
	38792647	PROPERTY DAMAGE	REAR END	20-03-21	1:00 PM	COLLISION WITH MOTOR VEHICLE	STOP SIGN	0	2		
	38849723	PROPERTY DAMAGE	HEAD ON	11-05-21	10:30 AM	COLLISION WITH MOTOR VEHICLE	STOP SIGN	0	2		
	38870267	INJURY	REAR END	27-05-21	1:15 PM	COLLISION WITH MOTOR VEHICLE	NONE	1	2	C - POSSIBLE INJURY	
	38954257	PROPERTY DAMAGE	RIGHT ANGLE	24-07-21	10:15 PM	COLLISION WITH MOTOR VEHICLE	STOP SIGN	0	2		
	39039147	INJURY	RIGHT ANGLE	30-09-21	8:25 AM	COLLISION WITH MOTOR VEHICLE	STOP SIGN	1	2	B - INJURY	
	39116308	INJURY	RIGHT ANGLE	18-11-21	4:35 PM	COLLISION WITH MOTOR VEHICLE	STOP SIGN	2	2	C - POSSIBLE INJURY	
	39318801	INJURY	SIDESWIPE	20-04-22	7:35 AM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	1	2	A - SERIOUS INJURY	
	39689250	PROPERTY DAMAGE	RIGHT ANGLE	20-01-23	8:26 AM	COLLISION WITH MOTOR VEHICLE	STOP SIGN	0	2	U - UNKNOWN	
	39772942	INJURY	OTHER	27-03-23	4:30 PM	COLLISION WITH BICYCLIST	STOP SIGN	0	1	U - UNKNOWN	
	39911802	PROPERTY DAMAGE	OTHER	10-07-23	5:10 PM	COLLISION WITH BICYCLIST	STOP SIGN	0	1	U - UNKNOWN	
	40168171	PROPERTY DAMAGE	RIGHT ANGLE	18-01-24	5:18 PM	COLLISION WITH MOTOR VEHICLE	STOP SIGN	0	2	U - UNKNOWN	
	40210259	PROPERTY DAMAGE	RIGHT ANGLE	16-02-24	4:04 PM	COLLISION WITH MOTOR VEHICLE	STOP SIGN	0	2	U - UNKNOWN	
	38165552	PROPERTY DAMAGE	REAR END	06-11-19	10:45 AM	COLLISION WITH MOTOR VEHICLE	NONE	0	2		NO TRAFFIC CONTROL
	38280330	PROPERTY DAMAGE	OTHER	10-01-20	6:00 PM	COLLISION WITH CURBING	NONE	0	1		NO TRAFFIC CONTROL & COLLISION WITH OBJECT
	38347460	PROPERTY DAMAGE	OVERTAKING	24-02-20	12:00 AM	COLLISION WITH MOTOR VEHICLE	NONE	0	2		NO TRAFFIC CONTROL - PARKED VEHICLE
	38359768	PROPERTY DAMAGE	OTHER	04-03-20	2:13 PM	COLLISION WITH FENCE	NONE	0	1		NO TRAFFIC CONTROL & COLLISION WITH OBJECT
	38367579	PROPERTY DAMAGE	REAR END	10-03-20	4:16 PM	COLLISION WITH MOTOR VEHICLE	NONE	0	2		NO TRAFFIC CONTROL (WHILE BACKING UP)
	38719502	PROPERTY DAMAGE	OTHER	07-02-21	11:55 AM	COLLISION WITH FENCE	NONE	0	1		NO TRAFFIC CONTROL & COLLISION WITH OBJECT
	39210331	PROPERTY DAMAGE	LEFT TURN (AGAINST OTHER CAR)	26-01-22	1:00 PM	COLLISION WITH MOTOR VEHICLE	NONE	0	2		NO TRAFFIC CONTROL - PARKED VEHICLE
	40044141	INJURY	OTHER	23-10-23	2:28 PM	COLLISION WITH BUILDING/WALL	NONE	1	1	B - INJURY	NO TRAFFIC CONTROL & COLLISION WITH OBJECT
	40165873	PROPERTY DAMAGE	OTHER	13-01-24	12:34 AM	COLLISION WITH SIGN POST	STOP SIGN	0	1	U - UNKNOWN	COLLISION WITH OBJECT & DWI

TOTAL INJURIES	6
SERIOUS INJURIES	1
SUMMARY OF COLLISIONS	
REAR END	2
RIGHT ANGLE	7
SIDESWIPE	1
HEAD ON	1
OTHER	2
TOTAL COLLISIONS	13

PERCENTAGES	
	15%
	54%
	8%
	8%
(2 BICYCLIST)	15%

	Case Number	Crash Severity	Collision Type	Crash Date	Crash Time	Crash Type	Traffic Control	# of Injuries	# of Vehicles	Max Injury in Crash	IGNORE BECAUSE
NIAGARA & JOHN B DALY	38628903	PROPERTY DAMAGE	REAR END	10-11-20	9:50 PM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	2		APPROACHING
	39661393	PROPERTY DAMAGE	OVERTAKING	29-12-22	3:42 PM	COLLISION WITH MOTOR VEHICLE	NONE	0	2	U - UNKNOWN	
	39889886	INJURY	OTHER	28-06-23	4:15 PM	COLLISION WITH PEDESTRIAN	TRAFFIC SIGNAL	1	1	B - INJURY	
	38784126	PROPERTY DAMAGE	OTHER	14-03-21	1:54 AM	RAN OFF ROAD ONLY	TRAFFIC SIGNAL	0	1		"RAN OFF ROAD ONLY"
	39737389	INJURY	OTHER	09-02-23	3:18 PM	COLLISION WITH SIGN POST	TRAFFIC SIGNAL	2	1	A - SERIOUS INJURY	COLLISION WITH OBJECT
	39726250	PROPERTY DAMAGE	RIGHT ANGLE	17-02-23	5:50 PM	COLLISION WITH MOTOR VEHICLE	NONE	0	2	U - UNKNOWN	NO TRAFFIC CONTROL

TOTAL INJURIES	1
SUMMARY OF COLLISIONS	
REAR END	1
OVERTAKING	1
OTHER	1
TOTAL COLLISIONS	3

(1 PED)

PERCENTAGES	
	33%
	33%
	33%

	Case Number	Crash Severity	Collision Type	Crash Date	Crash Time	Crash Type	Traffic Control	# of Injuries	# of Vehicles	Max Injury in Crash	IGNORE BECAUSE
NIAGARA & 9TH	38072202	INJURY	OTHER	09-09-19	3:30 PM	COLLISION WITH BICYCLIST	NONE	1	1	B - INJURY	
	38337854	INJURY	RIGHT TURN (WITH OTHER CAR)	16-02-20	10:35 PM	COLLISION WITH MOTOR VEHICLE	NONE	1	2	C - POSSIBLE INJURY	
	39297763	PROPERTY DAMAGE	OTHER	01-04-22	7:30 AM	COLLISION WITH MOTOR VEHICLE	NONE	0	3		NO TRAFFIC CONTROL - PARKED VEHICLES
	39454691	PROPERTY DAMAGE	OTHER	30-07-22	2:36 AM	COLL. W/LIGHT SUPPORT/UTILITY POLE	NONE	0	1	U - UNKNOWN	NO TRAFFIC CONTROL & COLLISION WITH OBJECT

TOTAL INJURIES	2
SUMMARY OF COLLISIONS	
RIGHT TURN (WITH OTHER CAR)	1
OTHER	1
TOTAL COLLISIONS	2

(1 BICYCLIST)

PERCENTAGES	
	50%
	50%

	Case Number	Crash Severity	Collision Type	Crash Date	Crash Time	Crash Type	Traffic Control	# of Injuries	# of Vehicles	Max Injury in Crash	IGNORE BECAUSE
NIAGARA & 10TH	37927579	INJURY	OTHER	11-06-19	4:52 PM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	3	3	C - POSSIBLE INJURY	
	38161366	PROPERTY DAMAGE	REAR END	07-11-19	9:00 PM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	2		
	39349630	PROPERTY DAMAGE	LEFT TURN (AGAINST OTHER CAR)	13-05-22	8:11 AM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	2		
	39351006	PROPERTY DAMAGE	OVERTAKING	16-05-22	11:56 AM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	2		
	39410455	PROPERTY DAMAGE	RIGHT ANGLE	30-06-22	6:00 PM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	2	U - UNKNOWN	
	39945811	PROPERTY DAMAGE	REAR END	22-11-22	3:39 PM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	2	U - UNKNOWN	
	39661386	INJURY	REAR END	15-12-22	8:30 AM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	1	2	B - INJURY	
	39673221	INJURY	RIGHT ANGLE	21-12-22	8:55 AM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	2	2	A - SERIOUS INJURY	
	39948382	INJURY	OTHER	11-08-23	7:27 PM	COLLISION WITH PEDESTRIAN	TRAFFIC SIGNAL	1	1	B - INJURY	"UNKNOWN" - NO INFORMATION FOUND
	37950228	PROPERTY DAMAGE	UNKNOWN	11-06-19	5:00 PM	COLLISION WITH MOTOR VEHICLE	UNKNOWN	0	2		
	38378414	PROPERTY DAMAGE	OTHER	18-03-20	1:46 PM	COLLISION WITH OTHER FIXED OBJECT	NONE	0	1		
	38598932	INJURY	OTHER	18-10-20	12:40 AM	COLL. W/LIGHT SUPPORT/UTILITY POLE	NONE	1	1	C - POSSIBLE INJURY	

TOTAL INJURIES	7
SERIOUS INJURIES	1
SUMMARY OF COLLISIONS	
REAR END	3
OVERTAKING	1
RIGHT ANGLE	2
LEFT TURN (AGAINST OTHER CAR)	1
OTHER	2
TOTAL COLLISIONS	9

(1 PED, 3 VEH)

PERCENTAGES	
	33%
	11%
	22%
	11%
	22%

	Case Number	Crash Severity	Collision Type	Crash Date	Crash Time	Crash Type	Traffic Control	# of Injuries	# of Vehicles	Max Injury in Crash	IGNORE BECAUSE
FALLS & JOHN B DALY	37920207	PROPERTY DAMAGE	RIGHT ANGLE	08-06-19	5:45 AM	COLLISION WITH MOTOR VEHICLE	STOP SIGN	0	2		
	38122662	PROPERTY DAMAGE	REAR END	16-10-19	6:36 AM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	2		
	38130513	PROPERTY DAMAGE	RIGHT ANGLE	18-10-19	10:41 AM	COLLISION WITH MOTOR VEHICLE	STOP SIGN	0	2		
	38492894	PROPERTY DAMAGE	LEFT TURN (AGAINST OTHER CAR)	17-07-20	1:00 PM	COLLISION WITH MOTOR VEHICLE	NONE	0	2		
	38500137	INJURY	RIGHT ANGLE	31-07-20	2:00 PM	COLLISION WITH MOTOR VEHICLE	NONE	1	2	C - POSSIBLE INJURY	
	38499628	PROPERTY DAMAGE	RIGHT ANGLE	01-08-20	12:10 PM	COLLISION WITH MOTOR VEHICLE	NONE	0	2		
	38784122	INJURY	RIGHT ANGLE	13-03-21	3:01 AM	COLLISION WITH MOTOR VEHICLE	STOP SIGN	2	2	B - INJURY	
	39278915	PROPERTY DAMAGE	RIGHT ANGLE	17-03-22	4:50 PM	COLLISION WITH MOTOR VEHICLE	STOP SIGN	0	2		
	39452181	PROPERTY DAMAGE	RIGHT ANGLE	29-07-22	2:10 PM	COLLISION WITH MOTOR VEHICLE	STOP SIGN	0	2	U - UNKNOWN	
	39487652	INJURY	LEFT TURN (AGAINST OTHER CAR)	26-08-22	10:51 AM	COLLISION WITH MOTOR VEHICLE	STOP SIGN	3	2	B - INJURY	
	39583592	PROPERTY DAMAGE	RIGHT ANGLE	03-11-22	11:47 AM	COLLISION WITH MOTOR VEHICLE	NONE	0	2	U - UNKNOWN	
	39969756	INJURY	LEFT TURN (AGAINST OTHER CAR)	19-05-23	2:00 PM	COLLISION WITH MOTOR VEHICLE	STOP SIGN	1	2	B - INJURY	
	38593065	PROPERTY DAMAGE	OTHER	16-10-20	1:55 AM	COLLISION WITH SIGN POST	STOP SIGN	0	1		COLLISION WITH OBJECT

TOTAL INJURIES	7
SUMMARY OF COLLISIONS	
REAR END	1
RIGHT ANGLE	8
LEFT TURN (AGAINST OTHER CAR)	3
TOTAL COLLISIONS	12

PERCENTAGES
8%
67%
25%

	Case Number	Crash Severity	Collision Type	Crash Date	Crash Time	Crash Type	Traffic Control	# of Injuries	# of Vehicles	Max Injury in Crash	IGNORE BECAUSE
FALLS & PORTAGE (& CUDABACK)	37887593	INJURY	RIGHT ANGLE	15-05-19	5:00 PM	COLLISION WITH MOTOR VEHICLE	STOP SIGN	3	2	A - SERIOUS INJURY	
	38820199	PROPERTY DAMAGE	OTHER	14-04-21	8:30 PM	COLLISION WITH MOTOR VEHICLE	STOP SIGN	0	3		
	39192023	PROPERTY DAMAGE	RIGHT ANGLE	17-06-21	7:00 PM	COLLISION WITH MOTOR VEHICLE	STOP SIGN	0	2		
	39982432	INJURY	RIGHT ANGLE	11-09-23	7:07 AM	COLLISION WITH MOTOR VEHICLE	STOP SIGN	1	2	B - INJURY	
	38442577	PROPERTY DAMAGE	OTHER	15-06-20	12:00 AM	COLLISION WITH MOTOR VEHICLE	NONE	0	2		NO TRAFFIC CONTROL - PARKED VEHICLE (CUDABACK)

TOTAL INJURIES	4
SERIOUS INJURIES	1
SUMMARY OF COLLISIONS	
RIGHT ANGLE	3
OTHER	1
TOTAL COLLISIONS	4

(3 VEH)

PERCENTAGES
75%
25%

	Case Number	Crash Severity	Collision Type	Crash Date	Crash Time	Crash Type	Traffic Control	# of Injuries	# of Vehicles	Max Injury in Crash	IGNORE BECAUSE
MACKENNA & PORTAGE	39748567	PROPERTY DAMAGE	RIGHT ANGLE	04-03-23	2:10 AM	COLLISION WITH MOTOR VEHICLE	NONE	0	2	U - UNKNOWN	NO TRAFFIC CONTROL
	37913536	PROPERTY DAMAGE	OTHER	05-06-19	7:18 AM	COLL. W/LIGHT SUPPORT/UTILITY POLE	NONE	0	1		NO TRAFFIC CONTROL & COLLISION WITH OBJECT

TOTAL INJURIES	0
SUMMARY OF COLLISIONS	
RIGHT ANGLE	1
TOTAL COLLISIONS	1

PERCENTAGES
100%

	Case Number	Crash Severity	Collision Type	Crash Date	Crash Time	Crash Type	Traffic Control	# of Injuries	# of Vehicles	Max Injury in Crash	IGNORE BECAUSE
BUFFALO & PORTAGE/ACHESON	37993185	PROPERTY DAMAGE	LEFT TURN (AGAINST OTHER CAR)	24-07-19	7:32 AM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	2		
	39554743	INJURY	RIGHT ANGLE	13-10-22	6:27 PM	COLLISION WITH MOTOR VEHICLE	STOP SIGN	2	2	B - INJURY	
	39761746	PROPERTY DAMAGE	RIGHT TURN (AGAINST OTHER CAR)	11-03-23	10:00 PM	COLLISION WITH MOTOR VEHICLE	STOP SIGN	0	2	U - UNKNOWN	
	39813324	PROPERTY DAMAGE	OTHER	27-04-23	10:48 PM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	3	U - UNKNOWN	
	40210250	PROPERTY DAMAGE	SIDESWIPE	16-02-24	7:00 AM	COLLISION WITH MOTOR VEHICLE	OTHER	0	2	U - UNKNOWN	
	38025967	PROPERTY DAMAGE	OTHER	15-08-19	12:05 PM	COLLISION WITH BRIDGE STRUCTURE	OTHER	0	1		COLLISION WITH OBJECT
	39505609	INJURY	OTHER	10-09-22	5:51 AM	COLLISION WITH BICYCLIST	NONE	1	1	B - INJURY	NO TRAFFIC CONTROL & CROSSED W OUT LOOKING
	39861515	INJURY	RIGHT ANGLE	06-06-23	11:47 AM	COLLISION WITH MOTOR VEHICLE	NONE	2	2	B - INJURY	NO TRAFFIC CONTROL

TOTAL INJURIES	2
SUMMARY OF COLLISIONS	
RIGHT ANGLE	1
LEFT TURN (AGAINST OTHER CAR)	1
RIGHT TURN (AGAINST OTHER CAR)	1
SIDESWIPE	1
OTHER	1
TOTAL COLLISIONS	5

(3 VEH)

PERCENTAGES
20%
20%
20%
20%
20%

	Case Number	Crash Severity	Collision Type	Crash Date	Crash Time	Crash Type	Traffic Control	# of Injuries	# of Vehicles	Max Injury in Crash	IGNORE BECAUSE
BUFFALO & 13TH	38025971	INJURY	REAR END	16-08-19	6:23 PM	COLLISION WITH MOTOR VEHICLE	NONE	2	2	C - POSSIBLE INJURY	
	38382301	PROPERTY DAMAGE	RIGHT TURN (AGAINST OTHER CAR)	29-03-20	12:07 PM	COLLISION WITH MOTOR VEHICLE	NONE	0	2		
	38865060	PROPERTY DAMAGE	LEFT TURN (AGAINST OTHER CAR)	24-05-21	6:10 AM	COLLISION WITH MOTOR VEHICLE	NONE	0	2		NO TRAFFIC CONTROL

TOTAL INJURIES	2
SUMMARY OF COLLISIONS	
REAR END	1
RIGHT TURN (WITH OTHER CAR)	1
TOTAL COLLISIONS	2

PERCENTAGES
50%
50%

	Case Number	Crash Severity	Collision Type	Crash Date	Crash Time	Crash Type	Traffic Control	# of Injuries	# of Vehicles	Max Injury in Crash	IGNORE BECAUSE
BUFFALO & MEMORIAL	38143710	PROPERTY DAMAGE	RIGHT ANGLE	28-10-19	4:15 PM	COLLISION WITH MOTOR VEHICLE	NONE	0	2		NOTE: TRUCK HIT VEHICLE WHEN TURNING INTO, NO TWO LANES
	38185014	PROPERTY DAMAGE	RIGHT TURN (WITH OTHER CAR)	20-11-19	12:07 PM	COLLISION WITH MOTOR VEHICLE	NONE	0	2		NOTE: TRUCK HIT VEHICLE WHEN TURNING INTO, NO TWO LANES
	38835458	INJURY	RIGHT TURN (WITH OTHER CAR)	29-04-21	2:30 PM	COLLISION WITH MOTOR VEHICLE	NONE	1	2	C - POSSIBLE INJURY	NOTE: TRUCK HIT VEHICLE WHEN TURNING INTO, NO TWO LANES
	40237419	INJURY	OTHER	08-03-24	7:00 AM	COLLISION WITH MOTOR VEHICLE	NONE	1	2	B - INJURY	NOTE: TRUCK BACKED INTO INTERSECTION INTO VEH
	38234236	PROPERTY DAMAGE	OTHER	17-12-19	1:00 PM	COLLISION WITH MOTOR VEHICLE	NONE	0	2		
	39051290	PROPERTY DAMAGE	REAR END	02-10-21	2:08 PM	COLLISION WITH MOTOR VEHICLE	NONE	0	2		IN PARKING LOT

TOTAL INJURIES	2
SUMMARY OF COLLISIONS	
RIGHT TURN (WITH OTHER CAR)	2
RIGHT ANGLE	1
OTHER	1
TOTAL COLLISIONS	4

(TRUCK INTO I

PERCENTAGES
50%
25%
25%

	Case Number	Crash Severity	Collision Type	Crash Date	Crash Time	Crash Type	Traffic Control	# of Injuries	# of Vehicles	Max Injury in Crash	IGNORE BECAUSE
RAINBOW & 10TH	39563963	PROPERTY DAMAGE	RIGHT ANGLE	21-10-22	7:58 AM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	2	U - UNKNOWN	

TOTAL INJURIES	0
SUMMARY OF COLLISIONS	
RIGHT ANGLE	1
TOTAL COLLISIONS	1

PERCENTAGES
100%

BUFFALO & 10TH	Case Number	Crash Severity	Collision Type	Crash Date	Crash Time	Crash Type	Traffic Control	# of Injuries	# of Vehicles	Max Injury in Crash	IGNORE BECAUSE
	39696194	PROPERTY DAMAGE	LEFT TURN (AGAINST OTHER CAR)	26-01-23	4:26 PM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	2	U - UNKNOWN	
	38584093	PROPERTY DAMAGE	OTHER	07-10-20	7:24 PM	COLLISION WITH SIGN POST	NONE	0	1		NO TRAFFIC CONTROL & COLLISION WITH OBJECT
	40290353	PROPERTY DAMAGE	REAR END	12-04-24	2:37 PM	COLLISION WITH MOTOR VEHICLE	NONE	0	2	U - UNKNOWN	NO TRAFFIC CONTROL

TOTAL INJURIES	0
SUMMARY OF COLLISIONS	
LEFT TURN (AGAINST OTHER CAR)	1
TOTAL COLLISIONS	1

PERCENTAGES
100%

RAINBOW & JOHN B DALY	Case Number	Crash Severity	Collision Type	Crash Date	Crash Time	Crash Type	Traffic Control	# of Injuries	# of Vehicles	Max Injury in Crash	IGNORE BECAUSE
	37932377	PROPERTY DAMAGE	LEFT TURN (AGAINST OTHER CAR)	17-06-19	12:00 AM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	2		
	37945211	PROPERTY DAMAGE	OVERTAKING	23-06-19	9:11 AM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	2		
	37970515	PROPERTY DAMAGE	RIGHT ANGLE	06-07-19	9:18 PM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	2		
	38138324	PROPERTY DAMAGE	REAR END	21-10-19	5:00 PM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	2		
	38823853	PROPERTY DAMAGE	RIGHT ANGLE	10-04-21	7:45 PM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	2		
	38958873	INJURY	LEFT TURN (AGAINST OTHER CAR)	30-07-21	11:54 AM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	1	2	C - POSSIBLE INJURY	
	39359746	PROPERTY DAMAGE	OVERTAKING	21-05-22	5:00 PM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	2		
	39397237	PROPERTY DAMAGE	LEFT TURN (AGAINST OTHER CAR)	01-06-22	4:00 PM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	2	U - UNKNOWN	
	39531699	PROPERTY DAMAGE	HEAD ON	26-09-22	2:00 PM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	2	U - UNKNOWN	
	39911810	PROPERTY DAMAGE	REAR END	08-07-23	4:00 PM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	2	U - UNKNOWN	
	39964850	PROPERTY DAMAGE	REAR END	28-08-23	7:55 AM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	2	U - UNKNOWN	
	40057017	PROPERTY DAMAGE	RIGHT TURN (AGAINST OTHER CAR)	02-11-23	9:15 PM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	2	U - UNKNOWN	
	40145638	PROPERTY DAMAGE	OVERTAKING	31-12-23	11:53 PM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	2	U - UNKNOWN	
	40162384	PROPERTY DAMAGE	RIGHT ANGLE	13-01-24	6:00 PM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	2	U - UNKNOWN	
	37956488	PROPERTY DAMAGE	REAR END	01-07-19	9:58 AM	COLLISION WITH MOTOR VEHICLE	NONE	0	2		
	40138273	PROPERTY DAMAGE	OTHER	19-12-23	6:30 AM	COLLISION WITH CURBING	TRAFFIC SIGNAL	0	1	U - UNKNOWN	COLLISION WITH OBJECT
	40154503	PROPERTY DAMAGE	OTHER	29-12-23	1:45 AM	COLLISION WITH CURBING	TRAFFIC SIGNAL	0	1	U - UNKNOWN	COLLISION WITH OBJECT

TOTAL INJURIES	1
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SUMMARY OF COLLISIONS	
REAR END	3
OVERTAKING	3
RIGHT ANGLE	3
LEFT TURN (AGAINST OTHER CAR)	3
RIGHT TURN (AGAINST OTHER CAR)	1
HEAD ON	1
TOTAL COLLISIONS	14

PERCENTAGES
21%
21%
21%
21%
7%
7%

BUFFALO & JOHN B DALY	Case Number	Crash Severity	Collision Type	Crash Date	Crash Time	Crash Type	Traffic Control	# of Injuries	# of Vehicles	Max Injury in Crash	IGNORE BECAUSE
	38058988	INJURY	REAR END	04-09-19	8:27 AM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	1	2	C - POSSIBLE INJURY	
	38954022	PROPERTY DAMAGE	HEAD ON	26-07-21	4:14 PM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	2		
	38990278	PROPERTY DAMAGE	OVERTAKING	14-08-21	2:44 PM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	2		
	39107024	PROPERTY DAMAGE	OTHER	16-11-21	8:00 AM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	3		
	39252685	PROPERTY DAMAGE	RIGHT ANGLE	01-03-22	7:37 AM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	2		
	39399027	PROPERTY DAMAGE	LEFT TURN (WITH OTHER CAR)	06-06-22	8:42 AM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	2		
	40125412	PROPERTY DAMAGE	RIGHT ANGLE	13-12-23	6:33 PM	COLLISION WITH MOTOR VEHICLE	TRAFFIC SIGNAL	0	2	U - UNKNOWN	
	39535208	PROPERTY DAMAGE	OTHER	29-09-22	5:26 PM	COLLISION WITH BRIDGE STRUCTURE	OTHER	0	1	U - UNKNOWN	COLLISION WITH OBJECT
	40085744	PROPERTY DAMAGE	SIDESWIPE	18-11-23	2:00 PM	COLLISION WITH MOTOR VEHICLE	NONE	0	2	U - UNKNOWN	NONE - TRAFFIC CONTROL

TOTAL INJURIES	1
SUMMARY OF COLLISIONS	
REAR END	1
OVERTAKING	1
RIGHT ANGLE	2
LEFT TURN (WITH OTHER CAR)	1
HEAD ON	1
OTHER	1
TOTAL COLLISIONS	7

(3 VEH)

PERCENTAGES
14%
14%
29%
14%
14%
14%

ROBERT MOSES, JOHN B DALY, PARK ENTRANCE	Case Number	Crash Severity	Collision Type	Crash Date	Crash Time	Crash Type	Traffic Control	# of Injuries	# of Vehicles	Max Injury in Crash	IGNORE BECAUSE
	38568209	PROPERTY DAMAGE	RIGHT TURN (WITH OTHER CAR)	25-09-20	8:20 PM	COLLISION WITH MOTOR VEHICLE	YIELD SIGN	0	2		
	38819692	PROPERTY DAMAGE	RIGHT ANGLE	17-04-21	12:03 AM	COLLISION WITH MOTOR VEHICLE	YIELD SIGN	0	2		
	39410138	PROPERTY DAMAGE	OVERTAKING	30-06-22	9:36 AM	COLLISION WITH MOTOR VEHICLE	YIELD SIGN	0	2	U - UNKNOWN	
	38212829	PROPERTY DAMAGE	OVERTAKING	04-12-19	12:10 PM	COLLISION WITH MOTOR VEHICLE	NONE	0	2		NO TRAFFIC CONTROL
	38242104	PROPERTY DAMAGE	OVERTAKING	20-12-19	9:58 AM	COLLISION WITH MOTOR VEHICLE	NONE	0	2		NO TRAFFIC CONTROL
	38457290	PROPERTY DAMAGE	OTHER	10-06-20	11:30 AM	COLLISION WITH MOTOR VEHICLE	NONE	0	2		NO TRAFFIC CONTROL
	38788527	INJURY	OVERTAKING	20-03-21	10:17 PM	COLLISION WITH MOTOR VEHICLE	NO PASSING ZONE	1	2	C - POSSIBLE INJURY	NO TRAFFIC CONTROL
	39027491	PROPERTY DAMAGE	RIGHT TURN (AGAINST OTHER CAR)	19-09-21	11:08 PM	COLLISION WITH MOTOR VEHICLE	NONE	0	2		NO TRAFFIC CONTROL
	39758153	PROPERTY DAMAGE	RIGHT TURN (AGAINST OTHER CAR)	27-02-23	8:19 AM	COLLISION WITH MOTOR VEHICLE	NONE	0	2	U - UNKNOWN	NO TRAFFIC CONTROL
	39935801	PROPERTY DAMAGE	OTHER	03-08-23	2:32 PM	COLLISION WITH SIGN POST	NONE	0	1	U - UNKNOWN	NO TRAFFIC CONTROL & COLLISION WITH OBJECT
	39941468	PROPERTY DAMAGE	OVERTAKING	05-08-23	3:03 PM	COLLISION WITH MOTOR VEHICLE	NONE	0	2	U - UNKNOWN	NO TRAFFIC CONTROL

TOTAL INJURIES	0
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SUMMARY OF COLLISIONS	
OVERTAKING	1
RIGHT ANGLE	1
RIGHT TURN (WITH OTHER CAR)	1
TOTAL COLLISIONS	3

PERCENTAGES
33%
33%
33%

	Case Number	Crash Severity	Collision Type	Crash Date	Crash Time	Crash Type	Traffic Control	# of Injuries	# of Vehicles	Max Injury in Crash	IGNORE BECAUSE
FALLS & 10TH	37938523	PROPERTY DAMAGE	OTHER	17-06-19	2:30 AM	COLLISION WITH SIGN POST	STOP SIGN	0	1		COLLISION WITH OBJECT
	38038460	INJURY	OTHER	21-08-19	2:44 PM	COLLISION WITH MOTOR VEHICLE	NONE	1	2	C - POSSIBLE INJURY	NO TRAFFIC CONTROL
	38050688	PROPERTY DAMAGE	OTHER	26-08-19	3:20 PM	COLLISION WITH MOTOR VEHICLE	NONE	0	2		NO TRAFFIC CONTROL
	39077023	PROPERTY DAMAGE	REAR END	25-10-21	10:15 AM	COLLISION WITH MOTOR VEHICLE	NONE	0	2		NO TRAFFIC CONTROL
	39807526	PROPERTY DAMAGE	RIGHT ANGLE	26-04-23	3:36 PM	COLLISION WITH MOTOR VEHICLE	NONE	0	2	U - UNKNOWN	NO TRAFFIC CONTROL

	Case Number	Crash Severity	Collision Type	Crash Date	Crash Time	Crash Type	Traffic Control	# of Injuries	# of Vehicles	Max Injury in Crash	IGNORE BECAUSE
FALLS & 12TH & 14TH	39278903	PROPERTY DAMAGE	SIDESWIPE	27-02-22	4:10 PM	COLLISION WITH MOTOR VEHICLE	NONE	0	2		NO TRAFFIC CONTROL (12TH)
	38833704	INJURY	OTHER	26-04-21	5:22 PM	COLL. W/LIGHT SUPPORT/UTILITY POLE	NONE	1	1	B - INJURY	NO TRAFFIC CONTROL & COLLIS. WITH OBJECT (14TH)

	Case Number	Crash Severity	Collision Type	Crash Date	Crash Time	Crash Type	Traffic Control	# of Injuries	# of Vehicles	Max Injury in Crash	IGNORE BECAUSE
BUFFALO & 12TH	38904503	INJURY	HEAD ON	23-06-21	8:26 AM	COLLISION WITH MOTOR VEHICLE	NONE	2	2	C - POSSIBLE INJURY	NONE - TRAFFIC CONTROL
	40206860	PROPERTY DAMAGE	REAR END	13-11-23	12:00 PM	COLLISION WITH MOTOR VEHICLE	NONE	0	2	U - UNKNOWN	NONE - TRAFFIC CONTROL

APPENDIX C – TRAFFIC DATA



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Falls St
Site Code:
Start Date: 07/16/2022
Page No: 1

Niagara, New York
July 16, 2022

Turning Movement Data

Start Time	John Daly Blvd Southbound						Falls St Westbound						John Daly Blvd Northbound						Falls St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
11:00 AM	1	43	0	0	0	44	2	6	8	0	0	16	0	89	20	0	0	109	13	3	3	0	0	19	188
11:15 AM	3	53	0	0	1	56	3	3	6	0	2	12	1	68	15	0	2	84	14	4	7	0	0	25	177
11:30 AM	6	72	0	0	2	78	2	4	3	0	0	9	1	83	29	1	0	114	20	1	2	0	1	23	224
11:45 AM	3	59	0	0	1	62	1	6	0	0	0	7	2	94	30	0	0	126	8	1	2	0	0	11	206
Hourly Total	13	227	0	0	4	240	8	19	17	0	2	44	4	334	94	1	2	433	55	9	14	0	1	78	795
12:00 PM	1	79	0	0	0	80	2	6	2	0	0	10	3	53	26	0	0	82	16	4	4	0	2	24	196
12:15 PM	4	70	3	0	0	77	2	2	1	0	0	5	0	77	29	0	0	106	17	3	3	0	0	23	211
12:30 PM	3	78	1	0	0	82	2	2	6	0	0	10	0	60	22	0	0	82	19	2	3	0	1	24	198
12:45 PM	4	76	3	0	0	83	0	4	3	0	0	7	1	79	28	1	1	109	26	1	3	0	0	30	229
Hourly Total	12	303	7	0	0	322	6	14	12	0	0	32	4	269	105	1	1	379	78	10	13	0	3	101	834
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	25	530	7	0	4	562	14	33	29	0	2	76	8	603	199	2	3	812	133	19	27	0	4	179	1629
Approach %	4.4	94.3	1.2	0.0	-	-	18.4	43.4	38.2	0.0	-	-	1.0	74.3	24.5	0.2	-	-	74.3	10.6	15.1	0.0	-	-	-
Total %	1.5	32.5	0.4	0.0	-	34.5	0.9	2.0	1.8	0.0	-	4.7	0.5	37.0	12.2	0.1	-	49.8	8.2	1.2	1.7	0.0	-	11.0	-
Motorcycles	0	1	0	0	-	1	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	2
% Motorcycles	0.0	0.2	0.0	-	-	0.2	0.0	0.0	0.0	-	-	0.0	0.0	0.2	0.0	0.0	-	0.1	0.0	0.0	0.0	-	-	0.0	0.1
Cars & Light Goods	25	526	7	0	-	558	14	33	29	0	-	76	8	595	199	2	-	804	132	19	26	0	-	177	1615
% Cars & Light Goods	100.0	99.2	100.0	-	-	99.3	100.0	100.0	100.0	-	-	100.0	100.0	98.7	100.0	100.0	-	99.0	99.2	100.0	96.3	-	-	98.9	99.1
Other Vehicles	0	3	0	0	-	3	0	0	0	0	-	0	0	7	0	0	-	7	1	0	1	0	-	2	12
% Other Vehicles	0.0	0.6	0.0	-	-	0.5	0.0	0.0	0.0	-	-	0.0	0.0	1.2	0.0	0.0	-	0.9	0.8	0.0	3.7	-	-	1.1	0.7
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	4	-	-	-	-	-	2	-	-	-	-	-	3	-	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

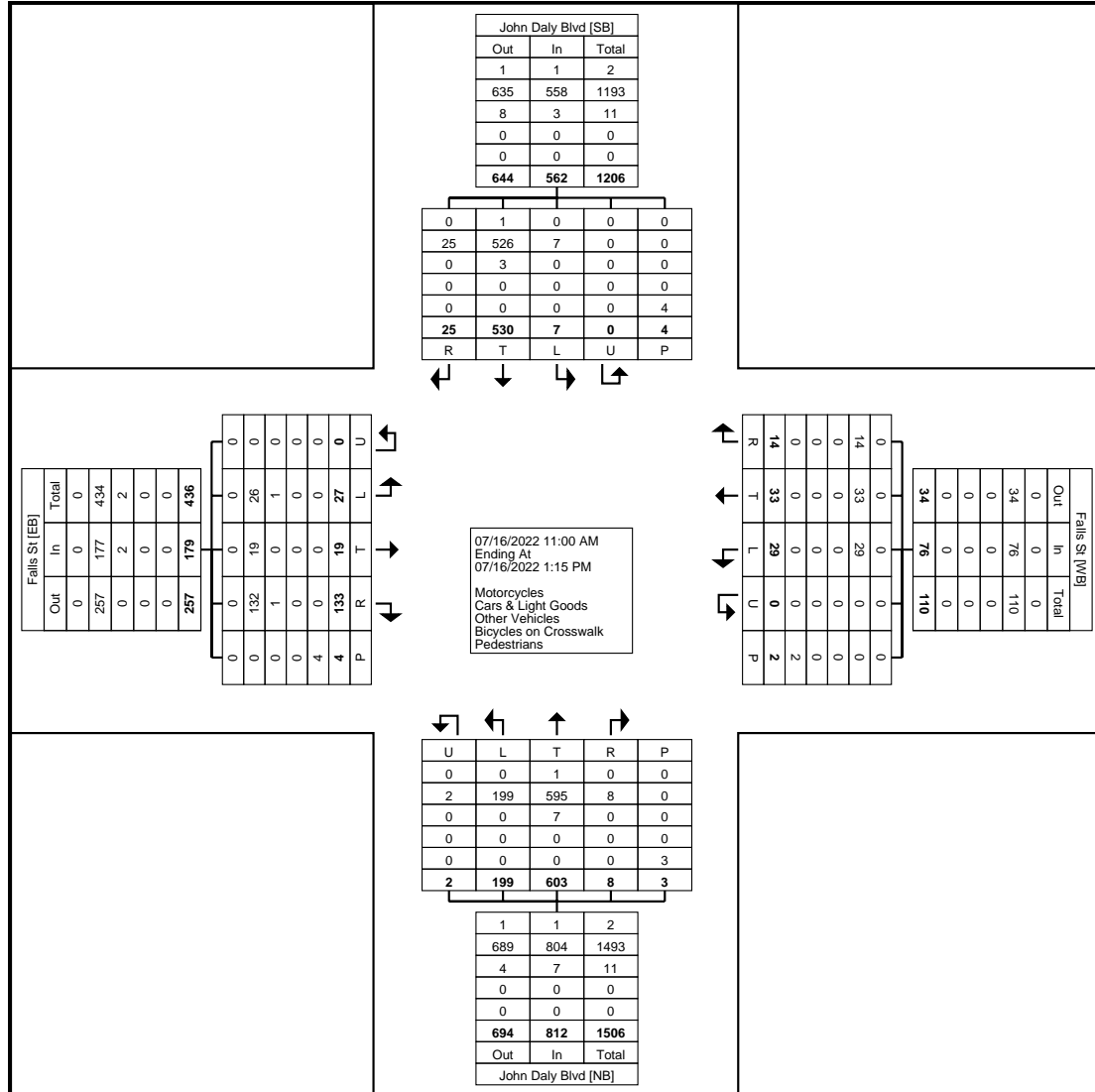


Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Falls St
Site Code:
Start Date: 07/16/2022
Page No: 2

Niagara, New York
July 16, 2022



Turning Movement Data Plot



Tri-State Traffic Data: New York Division
184 Baker Rd

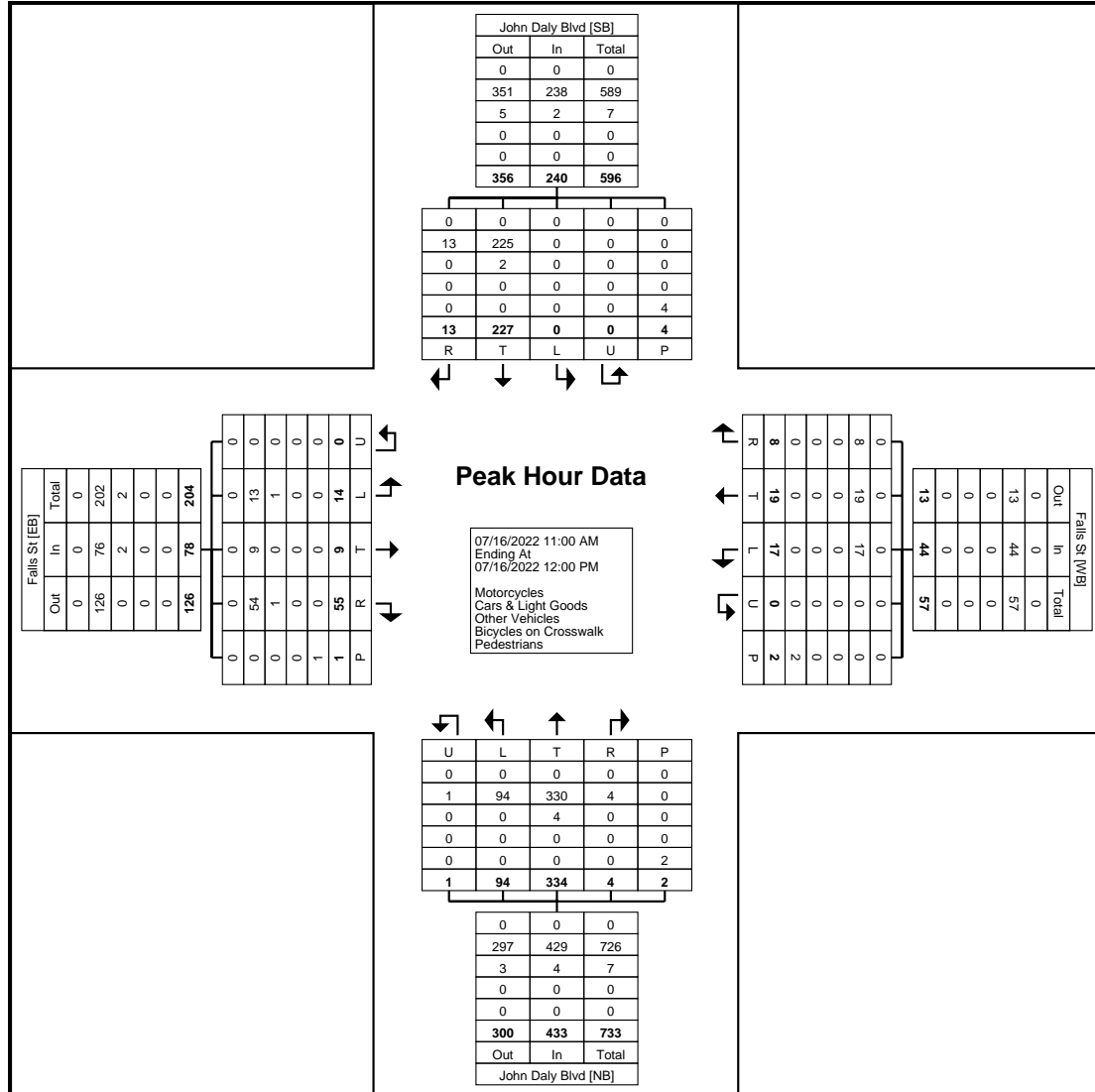
Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Falls St
Site Code:
Start Date: 07/16/2022
Page No: 3

Niagara, New York
July 16, 2022

Turning Movement Peak Hour Data (11:00 AM)

Start Time	John Daly Blvd Southbound						Falls St Westbound						John Daly Blvd Northbound						Falls St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
11:00 AM	1	43	0	0	0	44	2	6	8	0	0	16	0	89	20	0	0	109	13	3	3	0	0	19	188
11:15 AM	3	53	0	0	1	56	3	3	6	0	2	12	1	68	15	0	2	84	14	4	7	0	0	25	177
11:30 AM	6	72	0	0	2	78	2	4	3	0	0	9	1	83	29	1	0	114	20	1	2	0	1	23	224
11:45 AM	3	59	0	0	1	62	1	6	0	0	0	7	2	94	30	0	0	126	8	1	2	0	0	11	206
Total	13	227	0	0	4	240	8	19	17	0	2	44	4	334	94	1	2	433	55	9	14	0	1	78	795
Approach %	5.4	94.6	0.0	0.0	-	-	18.2	43.2	38.6	0.0	-	-	0.9	77.1	21.7	0.2	-	-	70.5	11.5	17.9	0.0	-	-	-
Total %	1.6	28.6	0.0	0.0	-	30.2	1.0	2.4	2.1	0.0	-	5.5	0.5	42.0	11.8	0.1	-	54.5	6.9	1.1	1.8	0.0	-	9.8	-
PHF	0.542	0.788	0.000	0.000	-	0.769	0.667	0.792	0.531	0.000	-	0.688	0.500	0.888	0.783	0.250	-	0.859	0.688	0.563	0.500	0.000	-	0.780	0.887
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	-	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	13	225	0	0	-	238	8	19	17	0	-	44	4	330	94	1	-	429	54	9	13	0	-	76	787
% Cars & Light Goods	100.0	99.1	-	-	-	99.2	100.0	100.0	100.0	-	-	100.0	100.0	98.8	100.0	100.0	-	99.1	98.2	100.0	92.9	-	-	97.4	99.0
Other Vehicles	0	2	0	0	-	2	0	0	0	0	-	0	0	4	0	0	-	4	1	0	1	0	-	2	8
% Other Vehicles	0.0	0.9	-	-	-	0.8	0.0	0.0	0.0	-	-	0.0	0.0	1.2	0.0	0.0	-	0.9	1.8	0.0	7.1	-	-	2.6	1.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	4	-	-	-	-	-	2	-	-	-	-	-	2	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



Turning Movement Peak Hour Data Plot (11:00 AM)



Tri-State Traffic Data: New York Division
184 Baker Rd

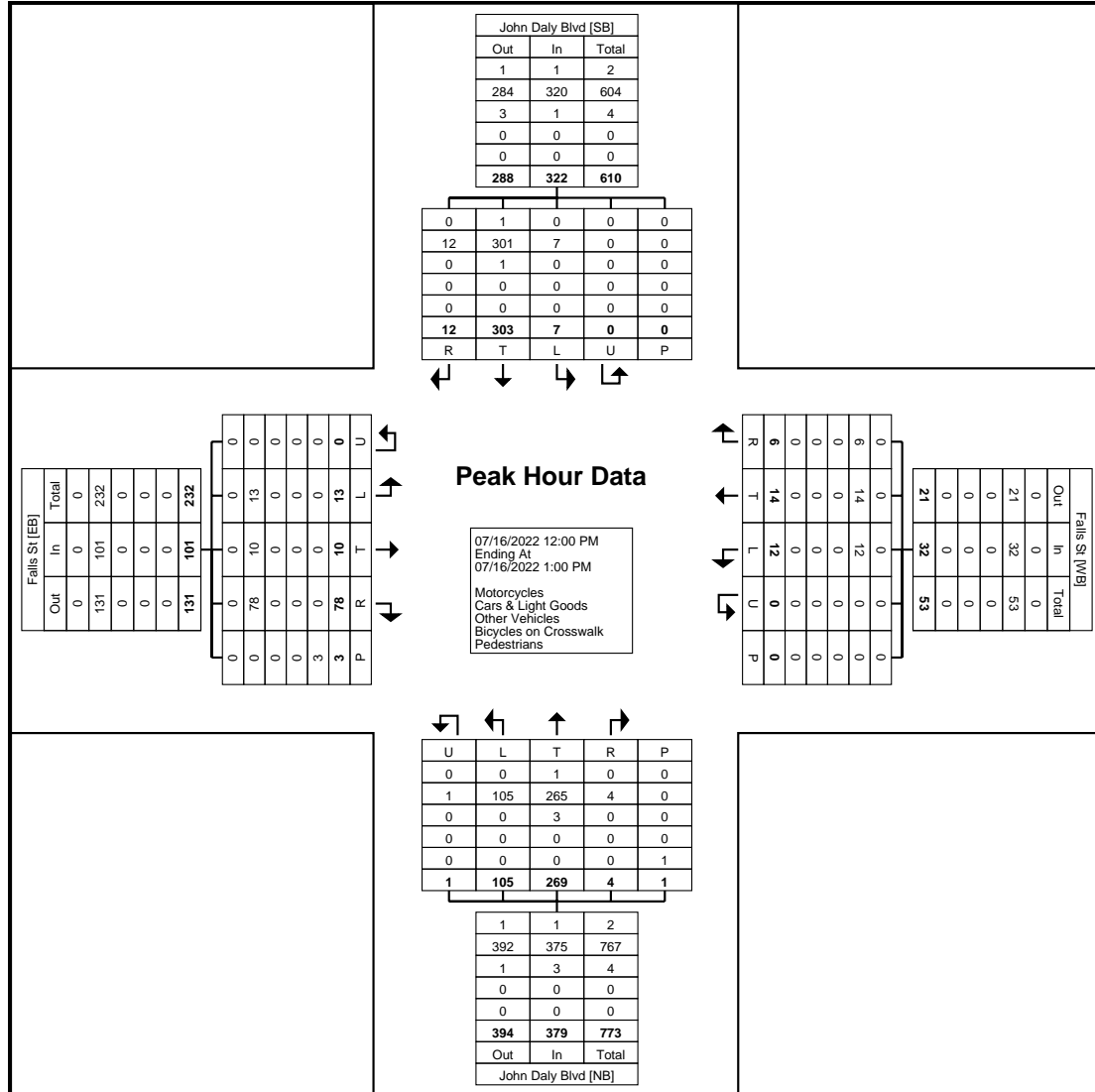
Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Falls St
Site Code:
Start Date: 07/16/2022
Page No: 5

Niagara, New York
July 16, 2022

Turning Movement Peak Hour Data (12:00 PM)

Start Time	John Daly Blvd Southbound						Falls St Westbound						John Daly Blvd Northbound						Falls St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
12:00 PM	1	79	0	0	0	80	2	6	2	0	0	10	3	53	26	0	0	82	16	4	4	0	2	24	196
12:15 PM	4	70	3	0	0	77	2	2	1	0	0	5	0	77	29	0	0	106	17	3	3	0	0	23	211
12:30 PM	3	78	1	0	0	82	2	2	6	0	0	10	0	60	22	0	0	82	19	2	3	0	1	24	198
12:45 PM	4	76	3	0	0	83	0	4	3	0	0	7	1	79	28	1	1	109	26	1	3	0	0	30	229
Total	12	303	7	0	0	322	6	14	12	0	0	32	4	269	105	1	1	379	78	10	13	0	3	101	834
Approach %	3.7	94.1	2.2	0.0	-	-	18.8	43.8	37.5	0.0	-	-	1.1	71.0	27.7	0.3	-	-	77.2	9.9	12.9	0.0	-	-	-
Total %	1.4	36.3	0.8	0.0	-	38.6	0.7	1.7	1.4	0.0	-	3.8	0.5	32.3	12.6	0.1	-	45.4	9.4	1.2	1.6	0.0	-	12.1	-
PHF	0.750	0.959	0.583	0.000	-	0.970	0.750	0.583	0.500	0.000	-	0.800	0.333	0.851	0.905	0.250	-	0.869	0.750	0.625	0.813	0.000	-	0.842	0.910
Motorcycles	0	1	0	0	-	1	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	2
% Motorcycles	0.0	0.3	0.0	-	-	0.3	0.0	0.0	0.0	-	-	0.0	0.0	0.4	0.0	0.0	-	0.3	0.0	0.0	0.0	-	-	0.0	0.2
Cars & Light Goods	12	301	7	0	-	320	6	14	12	0	-	32	4	265	105	1	-	375	78	10	13	0	-	101	828
% Cars & Light Goods	100.0	99.3	100.0	-	-	99.4	100.0	100.0	100.0	-	-	100.0	100.0	98.5	100.0	100.0	-	98.9	100.0	100.0	100.0	-	-	100.0	99.3
Other Vehicles	0	1	0	0	-	1	0	0	0	0	-	0	0	3	0	0	-	3	0	0	0	0	-	0	4
% Other Vehicles	0.0	0.3	0.0	-	-	0.3	0.0	0.0	0.0	-	-	0.0	0.0	1.1	0.0	0.0	-	0.8	0.0	0.0	0.0	-	-	0.0	0.5
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



Turning Movement Peak Hour Data Plot (12:00 PM)

Tri-State Traffic Data: New York Division
184 Baker Rd

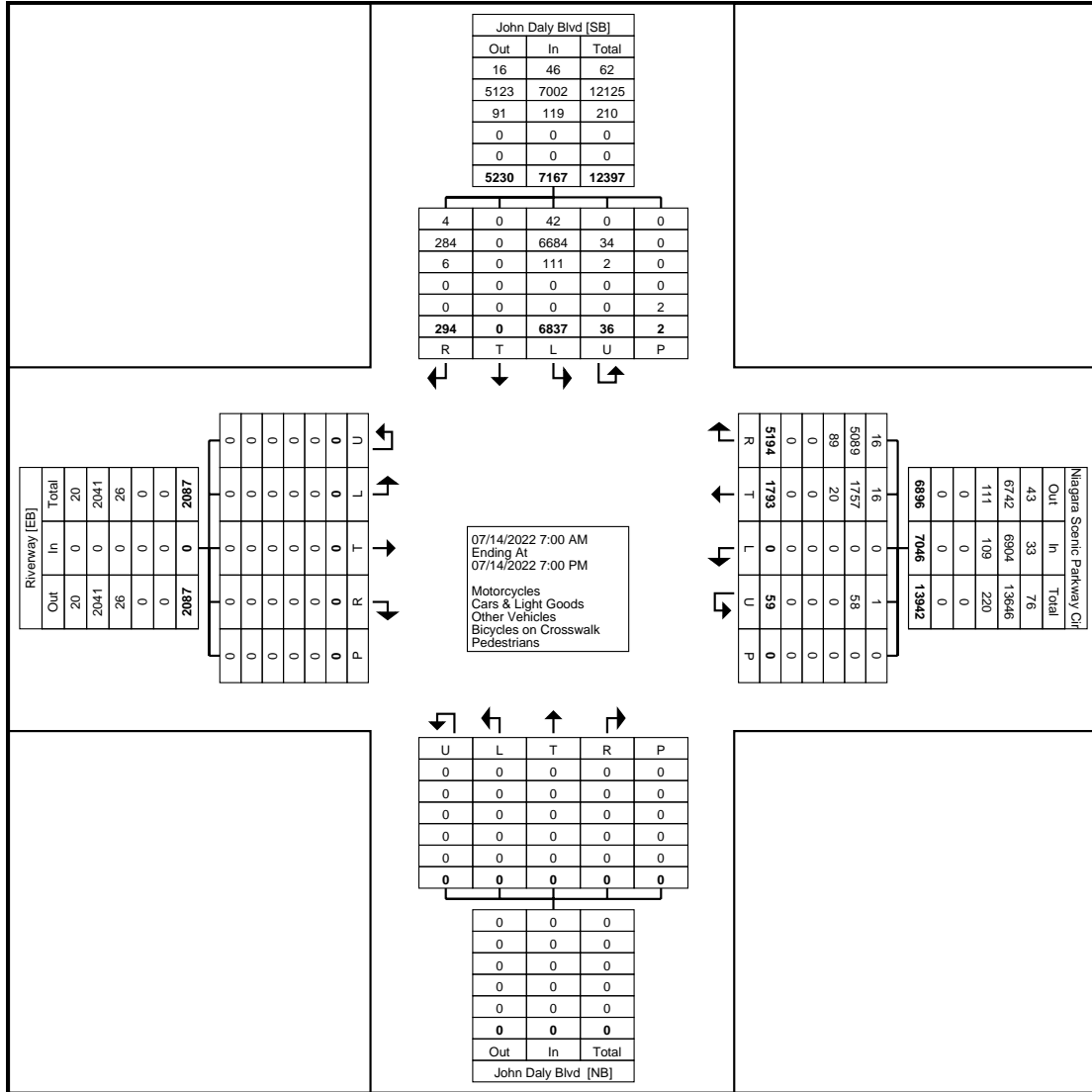
[illegible]



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville , Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Niagara Scenic Parkway Circle
Site Code:
Start Date: 07/14/2022
Page No: 3



Turning Movement Data Plot



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Niagara Scenic Parkway Circle
Site Code:
Start Date: 07/14/2022
Page No: 4

Niagara, New York
July 14, 2022

Approach Data

Start Time	Sb Street Southbound						Wb Street Westbound						Nb Street Northbound						Eb Street Eastbound					
	Peds CCW	Peds CW	Circul ating	Out	In	Next	Peds CCW	Peds CW	Circul ating	Out	In	Next	Peds CCW	Peds CW	Circul ating	Out	In	Next	Peds CCW	Peds CW	Circul ating	Out	In	Next
7:00 AM	0	0	10	45	54	3	0	0	0	48	55	0	0	0	48	0	0	0	0	0	51	12	0	0
7:15 AM	0	0	12	81	55	1	0	0	1	58	92	0	0	0	59	0	0	0	0	0	54	12	0	0
7:30 AM	0	0	16	123	85	3	0	0	0	75	139	0	0	0	75	0	0	0	0	0	82	20	0	0
7:45 AM	0	0	19	185	64	1	0	0	0	69	204	0	0	0	70	0	0	0	0	0	64	20	0	0
Hourly Total	0	0	57	434	258	8	0	0	1	250	490	0	0	0	252	0	0	0	0	0	251	64	0	0
8:00 AM	0	0	19	112	94	1	0	0	0	89	131	0	0	0	89	0	0	0	0	0	94	19	0	0
8:15 AM	0	0	23	107	65	4	0	0	1	69	129	0	0	0	70	0	0	0	0	0	61	27	0	0
8:30 AM	0	0	22	110	80	6	0	0	0	68	132	0	0	0	68	0	0	0	0	0	74	28	0	0
8:45 AM	0	0	29	131	90	1	0	0	0	92	160	0	0	0	92	0	0	0	0	0	89	30	0	0
Hourly Total	0	0	93	460	329	12	0	0	1	318	552	0	0	0	319	0	0	0	0	0	318	104	0	0
9:00 AM	0	0	27	83	108	8	0	0	2	95	107	0	0	0	97	0	0	0	0	0	101	34	0	0
9:15 AM	0	0	21	73	104	3	0	0	1	105	93	0	0	0	104	0	0	0	0	0	101	25	0	0
9:30 AM	0	0	35	69	115	7	0	0	0	101	104	0	0	0	101	0	0	0	0	0	108	41	0	0
9:45 AM	0	0	42	96	89	4	0	0	0	94	138	0	0	0	94	0	0	0	0	0	85	45	0	0
Hourly Total	0	0	125	321	416	22	0	0	3	395	442	0	0	0	396	0	0	0	0	0	395	145	0	0
10:00 AM	0	0	50	83	139	3	0	0	1	123	132	0	0	0	125	0	0	0	0	0	138	50	0	0
10:15 AM	0	0	44	83	133	7	0	0	1	133	125	0	0	0	134	0	0	0	0	0	126	50	0	0
10:30 AM	0	0	61	102	121	11	0	0	0	102	163	0	0	0	102	0	0	0	0	0	110	72	0	0
10:45 AM	0	0	71	97	137	10	0	0	1	127	167	0	0	0	131	0	0	0	0	0	130	77	0	0
Hourly Total	0	0	226	365	530	31	0	0	3	485	587	0	0	0	492	0	0	0	0	0	504	249	0	0
11:00 AM	0	0	57	101	151	8	0	0	1	139	157	0	0	0	144	0	0	0	0	0	144	64	0	0
11:15 AM	0	0	63	117	125	14	0	0	0	122	180	0	0	0	119	0	0	0	0	0	111	77	0	0
11:30 AM	0	0	65	114	147	13	0	0	0	124	179	0	0	0	124	0	0	0	0	0	134	77	0	0
11:45 AM	0	0	37	132	134	4	0	0	1	137	168	0	0	0	140	0	0	0	0	0	130	42	0	0
Hourly Total	0	0	222	464	557	39	0	0	2	522	684	0	0	0	527	0	0	0	0	0	519	260	0	0
12:00 PM	0	0	59	125	184	9	0	0	0	163	184	0	0	0	163	0	0	0	0	0	177	66	0	0
12:15 PM	0	0	59	117	119	10	0	0	3	120	173	0	0	0	121	0	0	0	0	0	114	63	0	0
12:30 PM	0	0	59	130	151	9	0	0	1	128	188	0	0	0	130	0	0	0	0	0	143	64	0	0
12:45 PM	0	0	51	111	146	6	0	0	0	151	162	0	0	0	153	0	0	0	0	0	141	58	0	0
Hourly Total	0	0	228	483	600	34	0	0	4	562	707	0	0	0	567	0	0	0	0	0	575	251	0	0
1:00 PM	0	0	39	104	134	2	0	0	3	124	141	0	0	0	127	0	0	0	0	0	134	38	0	0
1:15 PM	0	0	52	120	141	8	0	0	2	138	171	0	0	0	144	0	0	0	0	0	136	57	0	0
1:30 PM	0	0	39	115	170	7	0	0	0	165	154	0	0	0	162	0	0	0	0	0	164	45	0	0
1:45 PM	0	0	42	104	186	7	0	0	0	183	146	0	0	0	188	0	0	0	0	0	179	49	0	0
Hourly Total	0	0	172	443	631	24	0	0	5	610	612	0	0	0	621	0	0	0	0	0	613	189	0	0
2:00 PM	0	0	44	117	171	10	0	0	0	155	161	0	0	0	151	0	0	0	0	0	162	54	0	0
2:15 PM	0	0	38	117	175	8	0	0	0	166	155	0	0	0	164	0	0	0	0	0	167	46	0	0
2:30 PM	0	0	37	114	189	6	0	0	0	180	151	0	0	0	170	0	0	0	0	0	183	43	0	0
2:45 PM	0	0	40	120	168	4	0	0	0	168	159	0	0	0	170	0	0	0	0	0	164	44	0	0
Hourly Total	0	0	159	468	703	28	0	0	0	669	626	0	0	0	655	0	0	0	0	0	676	187	0	0
3:00 PM	0	0	53	100	254	7	0	0	0	238	153	0	0	0	244	0	0	0	0	0	247	59	0	0
3:15 PM	0	0	38	125	215	11	0	0	1	215	162	0	0	0	215	0	0	0	0	0	205	49	0	0
3:30 PM	0	0	30	117	228	10	0	0	0	208	147	0	0	0	207	0	0	0	0	0	218	40	0	0
3:45 PM	0	0	38	150	251	5	0	0	0	259	188	0	0	0	257	0	0	0	0	0	248	41	0	0
Hourly Total	0	0	159	492	948	33	0	0	1	920	650	0	0	0	923	0	0	0	0	0	918	189	0	0
4:00 PM	0	0	43	132	282	8	0	0	1	253	175	0	0	0	254	0	0	0	0	0	274	51	0	0
4:15 PM	0	0	31	114	205	6	0	0	2	212	145	0	0	0	219	0	0	0	0	0	200	35	0	0
4:30 PM	0	0	37	107	198	10	0	0	0	175	144	0	0	0	177	0	0	0	0	0	189	47	0	0
4:45 PM	2	0	48	122	194	6	0	0	2	184	170	0	0	0	194	0	0	0	0	0	190	51	0	0
Hourly Total	2	0	159	475	879	30	0	0	5	824	634	0	0	0	844	0	0	0	0	0	853	184	0	0
5:00 PM	0	0	21	105	228	4	0	0	0	218	126	0	0	0	217	0	0	0	0	0	224	26	0	0
5:15 PM	0	0	29	84	181	8	0	0	0	185	113	0	0	0	185	0	0	0	0	0	173	37	0	0
5:30 PM	0	0	33	86	187	4	0	0	0	178	119	0	0	0	178	0	0	0	0	0	183	37	0	0
5:45 PM	0	0	37	106	163	4	0	0	0	163	143	0	0	0	165	0	0	0	0	0	159	41	0	0
Hourly Total	0	0	120	381	759	20	0	0	0	744	501	0	0	0	745	0	0	0	0	0	739	141	0	0
6:00 PM	0	0	35	94	163	2	0	0	1	160	128	0	0	0	162	0	0	0	0	0	161	38	0	0
6:15 PM	0	0	32	99	140	3	0	0	0	134	131	0	0	0	134	0	0	0	0	0	137	35	0	0
6:30 PM	0	0	38	120	153	1	0	0	0	157	158	0	0	0	154	0	0	0	0	0	153	38	0	0
6:45 PM	0	0	26	109	134	7	0	0	0	132	135	0	0	0	132	0	0	0	0	0	127	33	0	0
Hourly Total	0	0	131	422	590	13	0	0	1	583	552	0	0	0	582	0	0	0	0	0	578	144	0	0

[illegible]

Tri-State Traffic Data: New York Division
184 Baker Rd

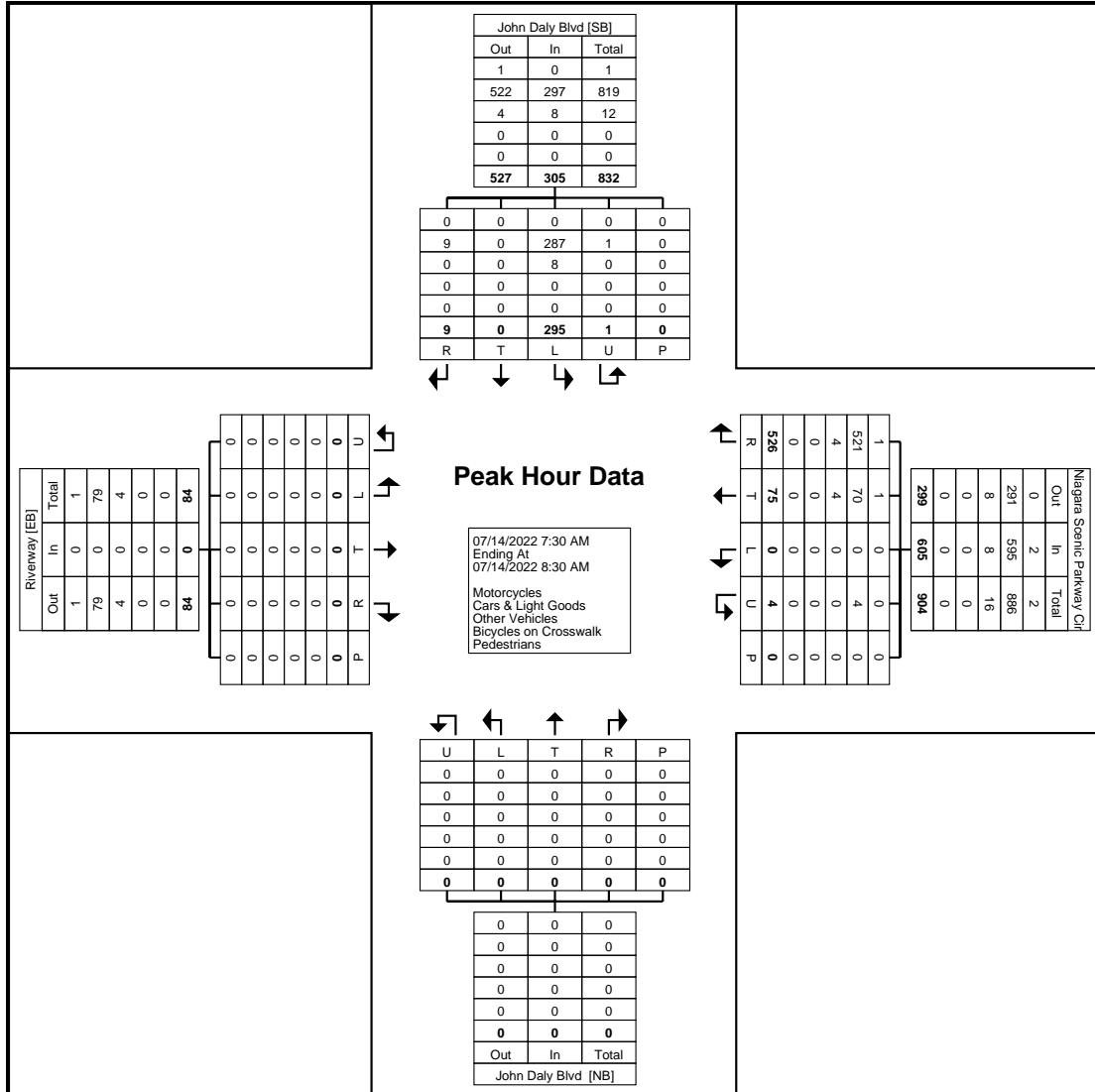


Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville , Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Niagara Scenic Parkway Circle
Site Code:
Start Date: 07/14/2022
Page No: 7

Niagara, New York
July 14, 2022



Turning Movement Peak Hour Data Plot (7:30 AM)

Tri-State Traffic Data: New York Division
184 Baker Rd

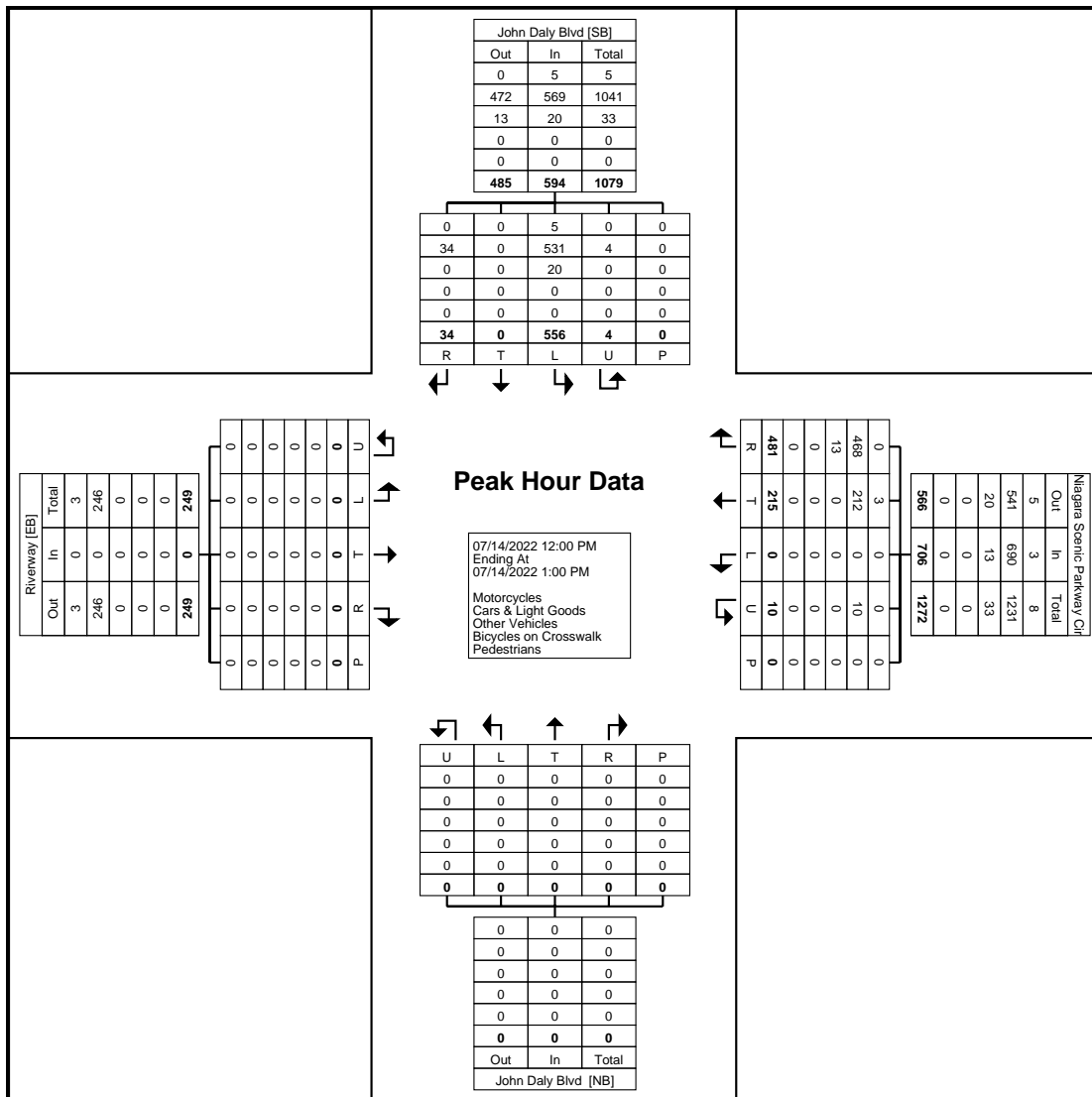


Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville , Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

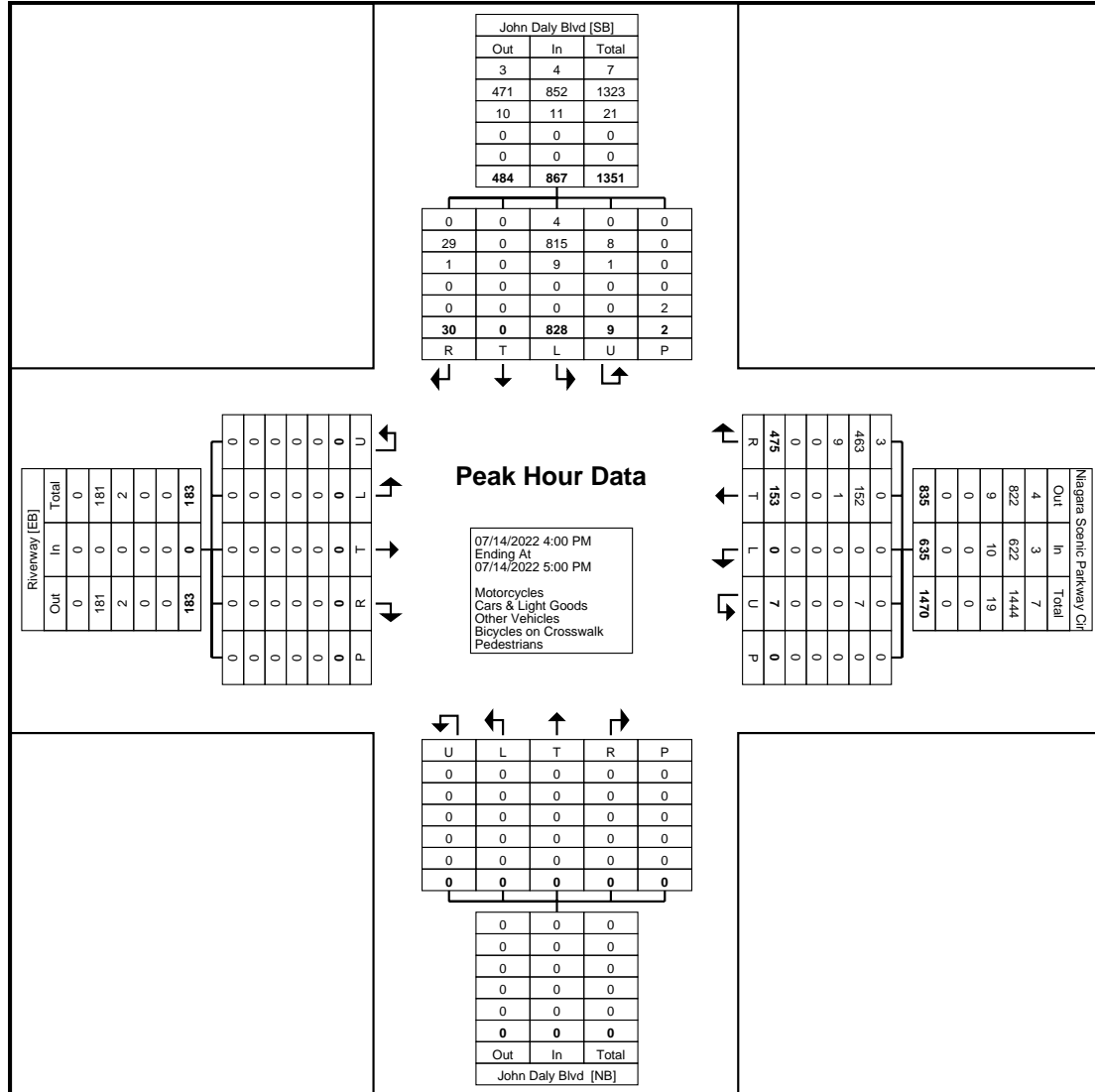
Count Name: John Daly Blvd &
Niagara Scenic Parkway Circle
Site Code:
Start Date: 07/14/2022
Page No: 9

Niagara, New York
July 14, 2022



Turning Movement Peak Hour Data Plot (12:00 PM)

Tri-State Traffic Data: New York Division
184 Baker Rd



Turning Movement Peak Hour Data Plot (4:00 PM)



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Niagara Scenic Parkway Circle
Site Code:
Start Date: 07/16/2022
Page No: 1

Niagara, New York
July 16, 2022

Turning Movement Data

Start Time	John Daly Blvd Southbound						Niagara Scenic Parkway Circle Westbound						Niagara Scenic Parkway Circle Northbound						Riverway Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
11:00 AM	7	0	132	0	0	139	155	89	0	0	0	244	0	0	0	0	0	0	0	0	0	0	0	0	383
11:15 AM	19	0	141	2	0	162	155	110	0	2	0	267	0	0	0	0	0	0	0	0	0	0	0	0	429
11:30 AM	16	0	167	2	0	185	182	102	0	2	0	286	0	0	0	0	0	0	0	0	0	0	0	0	471
11:45 AM	13	0	148	1	0	162	173	98	0	0	0	271	0	0	0	0	0	0	0	0	0	0	0	0	433
Hourly Total	55	0	588	5	0	648	665	399	0	4	0	1068	0	0	0	0	0	0	0	0	0	0	0	0	1716
12:00 PM	14	0	205	0	0	219	142	76	0	3	0	221	0	0	0	0	0	0	0	0	0	0	0	0	440
12:15 PM	16	0	153	1	0	170	144	82	0	0	0	226	0	0	0	0	1	0	0	0	0	0	1	0	396
12:30 PM	20	0	162	0	0	182	133	96	0	4	0	233	0	0	0	0	0	0	0	0	0	0	0	0	415
12:45 PM	15	0	183	2	0	200	148	78	0	2	0	228	0	0	0	0	0	0	0	0	0	0	0	0	428
Hourly Total	65	0	703	3	0	771	567	332	0	9	0	908	0	0	0	0	1	0	0	0	0	0	1	0	1679
Grand Total	120	0	1291	8	0	1419	1232	731	0	13	0	1976	0	0	0	0	1	0	0	0	0	0	1	0	3395
Approach %	8.5	0.0	91.0	0.6	-	-	62.3	37.0	0.0	0.7	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	-
Total %	3.5	0.0	38.0	0.2	-	41.8	36.3	21.5	0.0	0.4	-	58.2	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-
Motorcycles	1	0	9	0	-	10	4	3	0	0	-	7	0	0	0	0	-	0	0	0	0	0	-	0	17
% Motorcycles	0.8	-	0.7	0.0	-	0.7	0.3	0.4	-	0.0	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	0.5
Cars & Light Goods	118	0	1268	8	-	1394	1214	720	0	13	-	1947	0	0	0	0	-	0	0	0	0	0	-	0	3341
% Cars & Light Goods	98.3	-	98.2	100.0	-	98.2	98.5	98.5	-	100.0	-	98.5	-	-	-	-	-	-	-	-	-	-	-	-	98.4
Other Vehicles	1	0	14	0	-	15	14	8	0	0	-	22	0	0	0	0	-	0	0	0	0	0	-	0	37
% Other Vehicles	0.8	-	1.1	0.0	-	1.1	1.1	1.1	-	0.0	-	1.1	-	-	-	-	-	-	-	-	-	-	-	-	1.1
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

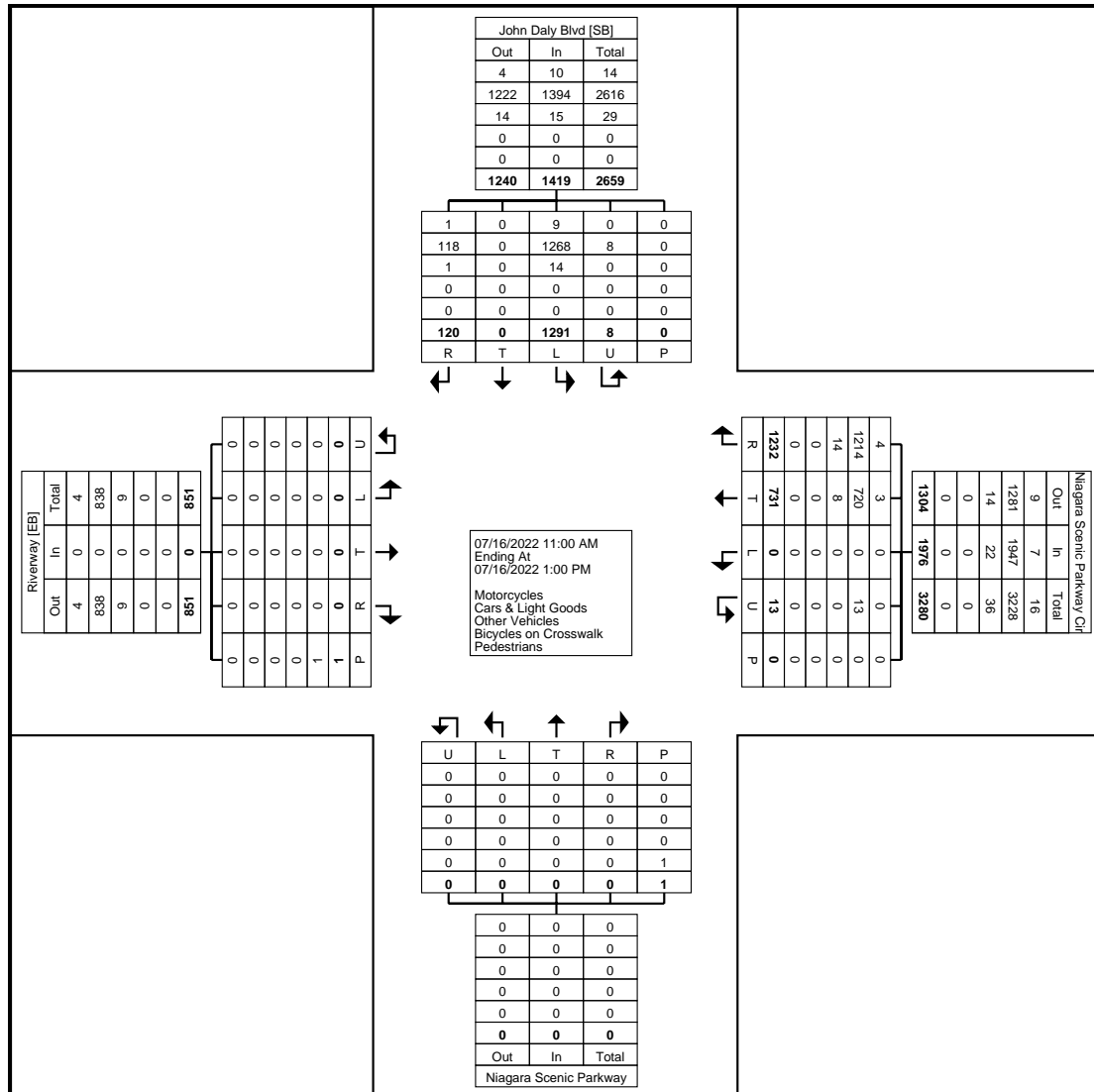


Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville , Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Niagara Scenic Parkway Circle
Site Code:
Start Date: 07/16/2022
Page No: 2

Niagara, New York
July 16, 2022



Turning Movement Data Plot



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Niagara Scenic Parkway Circle
Site Code:
Start Date: 07/16/2022
Page No: 3

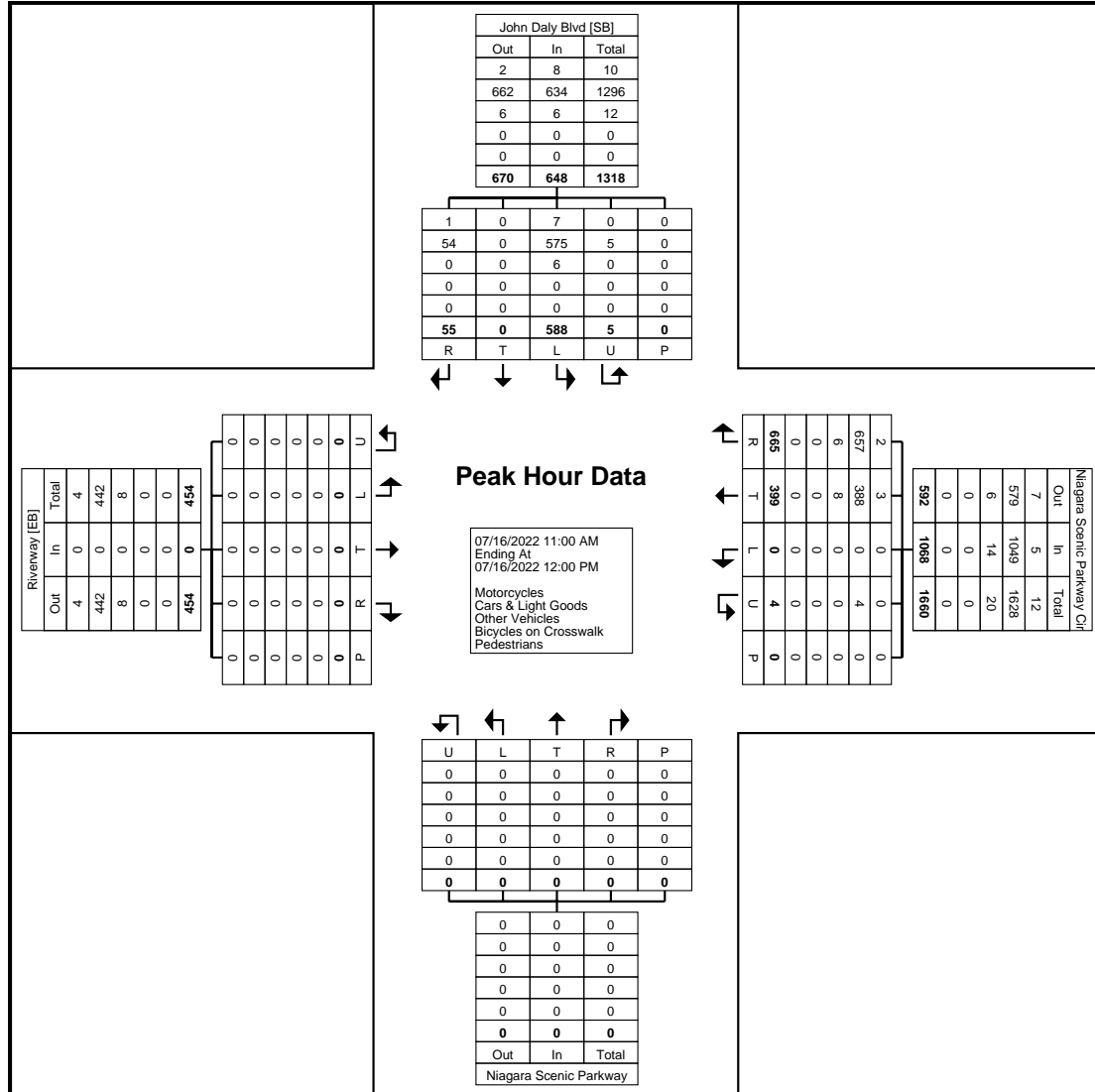
Niagara, New York
July 16, 2022

Approach Data

Start Time	Sb Street Southbound						Wb Street Westbound						Nb Street Northbound						Eb Street Eastbound					
	Peds CCW	Peds CW	Circul ating	Out	In	Next	Peds CCW	Peds CW	Circul ating	Out	In	Next	Peds CCW	Peds CW	Circul ating	Out	In	Next	Peds CCW	Peds CW	Circul ating	Out	In	Next
11:00 AM	0	0	89	155	140	132	0	0	0	132	244	89	0	0	133	0	0	0	0	0	133	96	0	0
11:15 AM	0	0	112	157	162	141	0	0	2	144	267	110	0	0	144	0	0	0	0	0	146	128	0	0
11:30 AM	0	0	104	184	185	167	0	0	2	169	286	102	0	0	173	0	0	0	0	0	172	118	0	0
11:45 AM	0	0	98	174	163	148	0	0	1	148	271	98	0	0	149	0	0	0	0	0	150	110	0	0
Hourly Total	0	0	403	670	650	588	0	0	5	593	1068	399	0	0	599	0	0	0	0	0	601	452	0	0
12:00 PM	0	0	78	142	217	205	0	0	0	208	220	76	0	0	209	0	0	0	0	0	205	91	0	0
12:15 PM	0	0	84	144	178	153	0	0	0	150	228	82	1	0	149	0	0	0	1	0	163	97	0	0
12:30 PM	0	0	98	134	177	162	0	0	1	168	231	96	0	0	170	0	0	0	0	0	158	118	0	0
12:45 PM	0	0	79	150	198	183	0	0	2	185	227	78	0	0	189	0	0	0	0	0	184	94	0	0
Hourly Total	0	0	339	570	770	703	0	0	3	711	906	332	1	0	717	0	0	0	1	0	710	400	0	0
Grand Total	0	0	742	1240	1420	1291	0	0	8	1304	1974	731	1	0	1316	0	0	0	1	0	1311	852	0	0
Approach %	-	-	15.8	26.4	30.3	27.5	-	-	0.2	32.5	49.1	18.2	-	-	100.0	0.0	0.0	0.0	-	-	60.6	39.4	0.0	0.0
Total %	-	-	6.1	10.2	11.6	10.6	-	-	0.1	10.7	16.2	6.0	-	-	10.8	0.0	0.0	0.0	-	-	10.8	7.0	0.0	0.0
Motorcycles	-	-	3	4	10	9	-	-	0	9	7	3	-	-	9	0	0	0	-	-	9	4	0	0
% Motorcycles	-	-	0.4	0.3	0.7	0.7	-	-	0.0	0.7	0.4	0.4	-	-	0.7	-	-	-	-	-	0.7	0.5	-	-
Cars & Light Goods	-	-	731	1222	1395	1268	-	-	8	1280	1945	720	-	-	1292	0	0	0	-	-	1288	839	0	0
% Cars & Light Goods	-	-	98.5	98.5	98.2	98.2	-	-	100.0	98.2	98.5	98.5	-	-	98.2	-	-	-	-	-	98.2	98.5	-	-
Other Vehicles	-	-	8	14	15	14	-	-	0	15	22	8	-	-	15	0	0	0	-	-	14	9	0	0
% Other Vehicles	-	-	1.1	1.1	1.1	1.1	-	-	0.0	1.2	1.1	1.1	-	-	1.1	-	-	-	-	-	1.1	1.1	-	-
Bicycles on Crosswalk	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-	0	0	-	-	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-
Pedestrians	0	0	-	-	-	-	0	0	-	-	-	-	1	0	-	-	-	-	1	0	-	-	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-

Tri-State Traffic Data: New York Division
184 Baker Rd

Niagara, New York
July 16, 2022



Turning Movement Peak Hour Data Plot (11:00 AM)



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Niagara Scenic Parkway Circle
Site Code:
Start Date: 07/16/2022
Page No: 6

Niagara, New York
July 16, 2022

Turning Movement Peak Hour Data (12:00 PM)

Start Time	John Daly Blvd Southbound						Niagara Scenic Parkway Circle Westbound						Niagara Scenic Parkway Circle Northbound						Riverway Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
12:00 PM	14	0	205	0	0	219	142	76	0	3	0	221	0	0	0	0	0	0	0	0	0	0	0	0	440
12:15 PM	16	0	153	1	0	170	144	82	0	0	0	226	0	0	0	0	1	0	0	0	0	0	1	0	396
12:30 PM	20	0	162	0	0	182	133	96	0	4	0	233	0	0	0	0	0	0	0	0	0	0	0	0	415
12:45 PM	15	0	183	2	0	200	148	78	0	2	0	228	0	0	0	0	0	0	0	0	0	0	0	0	428
Total	65	0	703	3	0	771	567	332	0	9	0	908	0	0	0	0	1	0	0	0	0	0	1	0	1679
Approach %	8.4	0.0	91.2	0.4	-	-	62.4	36.6	0.0	1.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	-
Total %	3.9	0.0	41.9	0.2	-	45.9	33.8	19.8	0.0	0.5	-	54.1	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	-
PHF	0.813	0.000	0.857	0.375	-	0.880	0.958	0.865	0.000	0.563	-	0.974	0.000	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	0.000	0.954	0.954
Motorcycles	0	0	2	0	-	2	2	0	0	0	-	2	0	0	0	0	-	0	0	0	0	-	0	-	4
% Motorcycles	0.0	-	0.3	0.0	-	0.3	0.4	0.0	-	0.0	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	0.2
Cars & Light Goods	64	0	693	3	-	760	557	332	0	9	-	898	0	0	0	0	-	0	0	0	0	-	0	-	1658
% Cars & Light Goods	98.5	-	98.6	100.0	-	98.6	98.2	100.0	-	100.0	-	98.9	-	-	-	-	-	-	-	-	-	-	-	-	98.7
Other Vehicles	1	0	8	0	-	9	8	0	0	0	-	8	0	0	0	0	-	0	0	0	0	-	0	-	17
% Other Vehicles	1.5	-	1.1	0.0	-	1.2	1.4	0.0	-	0.0	-	0.9	-	-	-	-	-	-	-	-	-	-	-	-	1.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

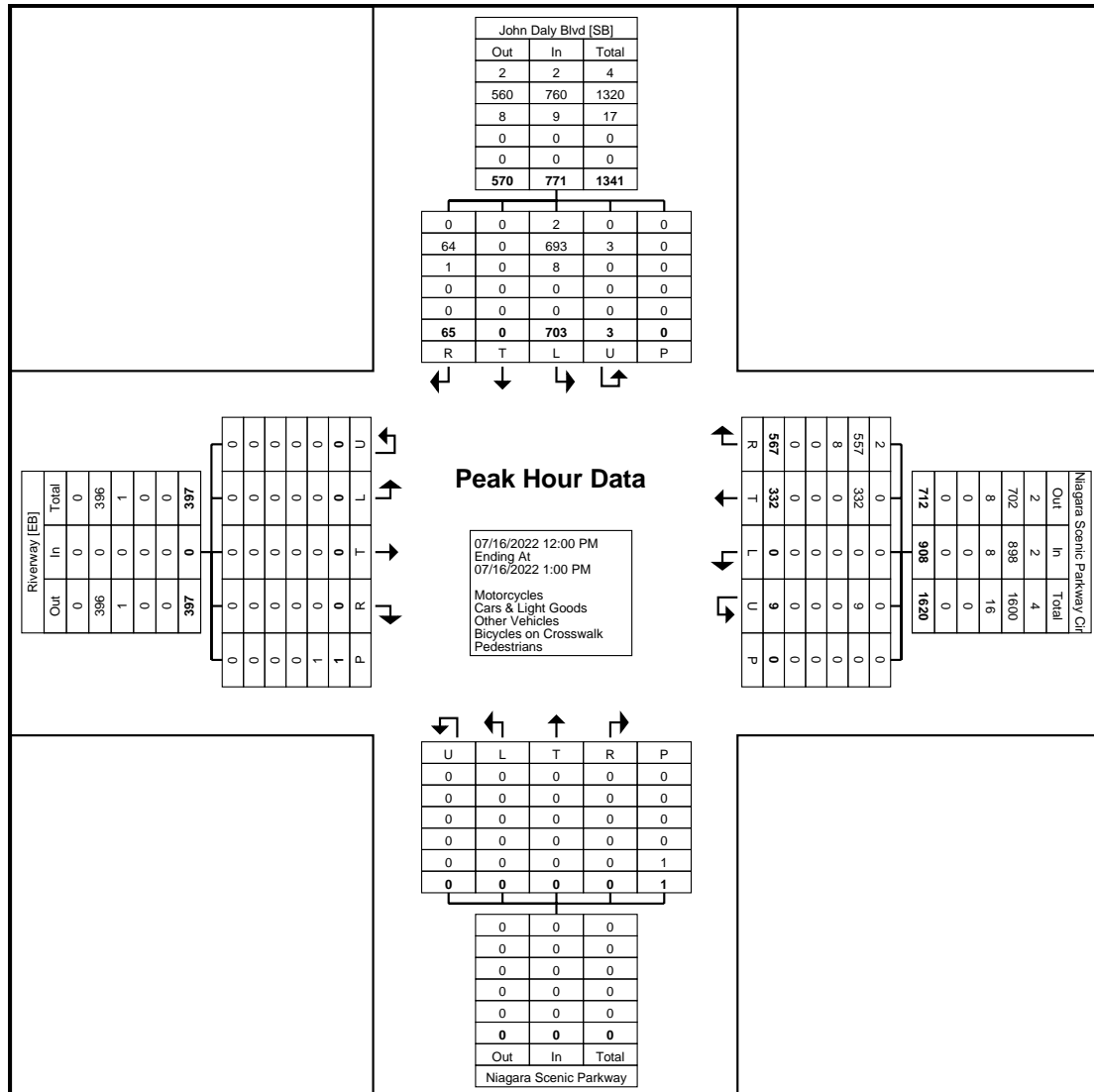


Tri-State Traffic Data: New York Division
184 Baker Rd

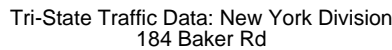
Coatesville , Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Niagara Scenic Parkway Circle
Site Code:
Start Date: 07/16/2022
Page No: 7

Niagara, New York
July 16, 2022



Turning Movement Peak Hour Data Plot (12:00 PM)



Coatesville , Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Niagara St
Site Code:
Start Date: 07/12/2022
Page No: 1

Start Time	John Daly Blvd Southbound						Niagara St Westbound						John Daly Blvd Northbound						Niagara St Eastbound						Int. Total		
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn		Peds	App. Total
7:00 AM	0	0	0	0	0	0	0	9	9	0	0	18	13	13	0	16	0	1	42	25	7	10	0	0	0	42	102
7:15 AM	0	0	0	0	3	0	0	8	13	0	0	21	7	8	0	34	1	0	50	23	3	11	0	0	0	37	108
7:30 AM	0	0	0	0	3	0	0	13	5	0	0	18	21	13	0	52	0	4	86	23	6	8	0	0	0	37	141
7:45 AM	0	0	0	0	2	0	0	16	6	0	0	22	28	23	0	53	0	0	104	17	11	13	0	0	0	41	167
Hourly Total	0	0	0	0	8	0	0	46	33	0	0	79	69	57	0	155	1	5	282	88	27	42	0	0	0	157	518
8:00 AM	0	0	0	0	4	0	0	24	7	0	1	31	23	12	0	38	1	0	74	19	3	11	0	0	1	33	138
8:15 AM	0	0	0	0	0	0	0	14	10	0	0	24	11	14	0	40	3	1	68	27	8	17	0	0	0	52	144
8:30 AM	0	0	0	0	3	0	0	20	11	0	0	31	14	14	0	44	2	0	74	17	9	9	0	0	0	35	140
8:45 AM	0	0	0	0	12	0	0	28	11	0	0	39	12	14	0	73	2	0	101	29	11	24	0	0	0	64	204
Hourly Total	0	0	0	0	19	0	0	86	39	0	1	125	60	54	0	195	8	1	317	92	31	61	0	0	1	184	626
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	1	0	0	0	1	1	1	16	9	0	0	26	19	7	0	39	0	1	65	44	6	21	0	0	0	71	163
11:15 AM	0	0	0	0	3	0	0	19	13	0	0	32	7	2	0	51	0	4	60	36	6	18	0	0	0	60	152
11:30 AM	0	0	0	0	4	0	0	28	6	0	2	34	19	4	0	46	1	2	70	47	14	23	0	0	0	84	188
11:45 AM	0	0	0	0	2	0	0	10	11	0	1	21	9	8	0	59	0	1	76	30	15	21	0	0	0	66	163
Hourly Total	1	0	0	0	10	1	1	73	39	0	3	113	54	21	0	195	1	8	271	157	41	83	0	0	0	281	666
12:00 PM	0	0	0	0	0	0	0	15	12	0	1	27	8	6	0	57	0	4	71	43	26	35	0	0	0	104	202
12:15 PM	0	0	0	0	0	0	0	19	19	0	2	38	8	11	0	44	0	3	63	40	17	29	0	0	0	86	187
12:30 PM	0	0	0	0	0	0	0	28	12	0	1	40	12	8	0	61	0	2	81	41	19	18	0	0	0	78	199
12:45 PM	0	0	0	0	2	0	0	27	16	0	0	43	17	10	0	66	2	2	95	35	17	19	0	0	0	71	209
Hourly Total	0	0	0	0	2	0	0	89	59	0	4	148	45	35	0	228	2	11	310	159	79	101	0	0	0	339	797
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	23	28	0	0	51	8	7	0	47	0	2	62	74	38	27	0	0	0	139	252
4:15 PM	0	0	0	0	1	0	0	30	21	0	0	51	8	10	0	45	0	2	63	52	13	23	0	0	0	88	202
4:30 PM	0	0	0	0	0	0	0	27	38	0	1	65	7	16	0	53	0	0	76	69	16	53	0	0	0	138	279
4:45 PM	0	0	0	0	1	0	0	24	20	0	0	44	8	12	0	54	0	2	74	44	19	25	0	0	0	88	206
Hourly Total	0	0	0	0	2	0	0	104	107	0	1	211	31	45	0	199	0	6	275	239	86	128	0	0	0	453	939
5:00 PM	0	0	0	0	0	0	0	18	20	0	0	38	4	11	0	40	0	0	55	56	26	28	0	0	0	110	203
5:15 PM	0	0	0	0	3	0	0	22	13	0	0	35	8	11	0	30	0	0	49	55	11	19	0	0	0	85	169
5:30 PM	0	0	0	0	3	0	0	25	15	0	0	40	3	13	0	49	0	0	65	53	19	25	0	0	0	97	202
5:45 PM	0	0	0	0	1	0	0	19	14	0	0	33	9	9	0	41	0	0	59	41	12	25	0	0	0	78	170
Hourly Total	0	0	0	0	7	0	0	84	62	0	0	146	24	44	0	160	0	0	228	205	68	97	0	0	0	370	744
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	1	0	0	0	48	1	1	482	339	0	9	822	283	256	0	1132	12	31	1683	940	332	512	0	0	1	1784	4290
Approach %	100.0	0.0	0.0	0.0	-	-	0.1	58.6	41.2	0.0	-	-	16.8	15.2	0.0	67.3	0.7	-	-	52.7	18.6	28.7	0.0	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.0	11.2	7.9	0.0	-	19.2	6.6	6.0	0.0	26.4	0.3	-	39.2	21.9	7.7	11.9	0.0	0.0	-	41.6	-
Motorcycles	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	3	1	-	4	4	0	4	0	0	-	8	13
% Motorcycles	0.0	-	-	-	-	0.0	0.0	0.2	0.0	-	-	0.1	0.0	0.0	-	0.3	8.3	-	0.2	0.4	0.0	0.8	-	-	-	0.4	0.3
Cars & Light Goods	1	0	0	0	-	1	1	463	330	0	-	794	277	252	0	1102	8	-	1639	914	322	494	0	0	-	1730	4164
% Cars & Light Goods	100.0	-	-	-	-	100.0	100.0	96.1	97.3	-	-	96.6	97.9	98.4	-	97.3	66.7	-	97.4	97.2	97.0	96.5	-	-	-	97.0	97.1
Other Vehicles	0	0	0	0	-	0	0	18	9	0	-	27	6	4	0	27	3	-	40	22	10	14	0	0	-	46	113
% Other Vehicles	0.0	-	-	-	-	0.0	0.0	3.7	2.7	-	-	3.3	2.1	1.6	-	2.4	25.0	-	2.4	2.3	3.0	2.7	-	-	-	2.6	2.6
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	-	4	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	2.1	-	-	-	-	-	0.0	-	-	-	-	-	-	12.9	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	47	-	-	-	-	-	9	-	-	-	-	-	-	27	-	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	97.9	-	-	-	-	-	100.0	-	-	-	-	-	-	87.1	-	-	-	-	-	-	100.0	-	-



Tri-State Traffic Data: New York Division
184 Baker Rd

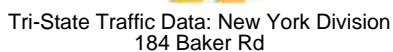
Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Niagara St
Site Code:
Start Date: 07/12/2022
Page No: 3

Niagara, New York
July 12, 2022

Turning Movement Peak Hour Data (8:00 AM)

Start Time	John Daly Blvd Southbound						Niagara St Westbound						John Daly Blvd Northbound						Niagara St Eastbound						Int. Total		
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn		Peds	App. Total
8:00 AM	0	0	0	0	4	0	0	24	7	0	1	31	23	12	0	38	1	0	74	19	3	11	0	0	1	33	138
8:15 AM	0	0	0	0	0	0	0	14	10	0	0	24	11	14	0	40	3	1	68	27	8	17	0	0	0	52	144
8:30 AM	0	0	0	0	3	0	0	20	11	0	0	31	14	14	0	44	2	0	74	17	9	9	0	0	0	35	140
8:45 AM	0	0	0	0	12	0	0	28	11	0	0	39	12	14	0	73	2	0	101	29	11	24	0	0	0	64	204
Total	0	0	0	0	19	0	0	86	39	0	1	125	60	54	0	195	8	1	317	92	31	61	0	0	1	184	626
Approach %	0.0	0.0	0.0	0.0	-	-	0.0	68.8	31.2	0.0	-	-	18.9	17.0	0.0	61.5	2.5	-	-	50.0	16.8	33.2	0.0	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.0	13.7	6.2	0.0	-	20.0	9.6	8.6	0.0	31.2	1.3	-	50.6	14.7	5.0	9.7	0.0	0.0	-	29.4	-
PHF	0.000	0.000	0.000	0.000	-	0.000	0.000	0.768	0.886	0.000	-	0.801	0.652	0.964	0.000	0.668	0.667	-	0.785	0.793	0.705	0.635	0.000	0.000	-	0.719	0.767
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	1	-	1	0	0	1	0	0	-	1	2
% Motorcycles	-	-	-	-	-	-	-	0.0	0.0	-	-	0.0	0.0	0.0	-	0.0	12.5	-	0.3	0.0	0.0	1.6	-	-	-	0.5	0.3
Cars & Light Goods	0	0	0	0	-	0	0	82	37	0	-	119	60	54	0	193	4	-	311	88	31	58	0	0	-	177	607
% Cars & Light Goods	-	-	-	-	-	-	-	95.3	94.9	-	-	95.2	100.0	100.0	-	99.0	50.0	-	98.1	95.7	100.0	95.1	-	-	-	96.2	97.0
Other Vehicles	0	0	0	0	-	0	0	4	2	0	-	6	0	0	0	2	3	-	5	4	0	2	0	0	-	6	17
% Other Vehicles	-	-	-	-	-	-	-	4.7	5.1	-	-	4.8	0.0	0.0	-	1.0	37.5	-	1.6	4.3	0.0	3.3	-	-	-	3.3	2.7
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	5.3	-	-	-	-	-	0.0	-	-	-	-	-	-	0.0	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	18	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	94.7	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-



Coatesville , Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Niagara St
Site Code:
Start Date: 07/12/2022
Page No: 4



Tri-State Traffic Data: New York Division
184 Baker Rd

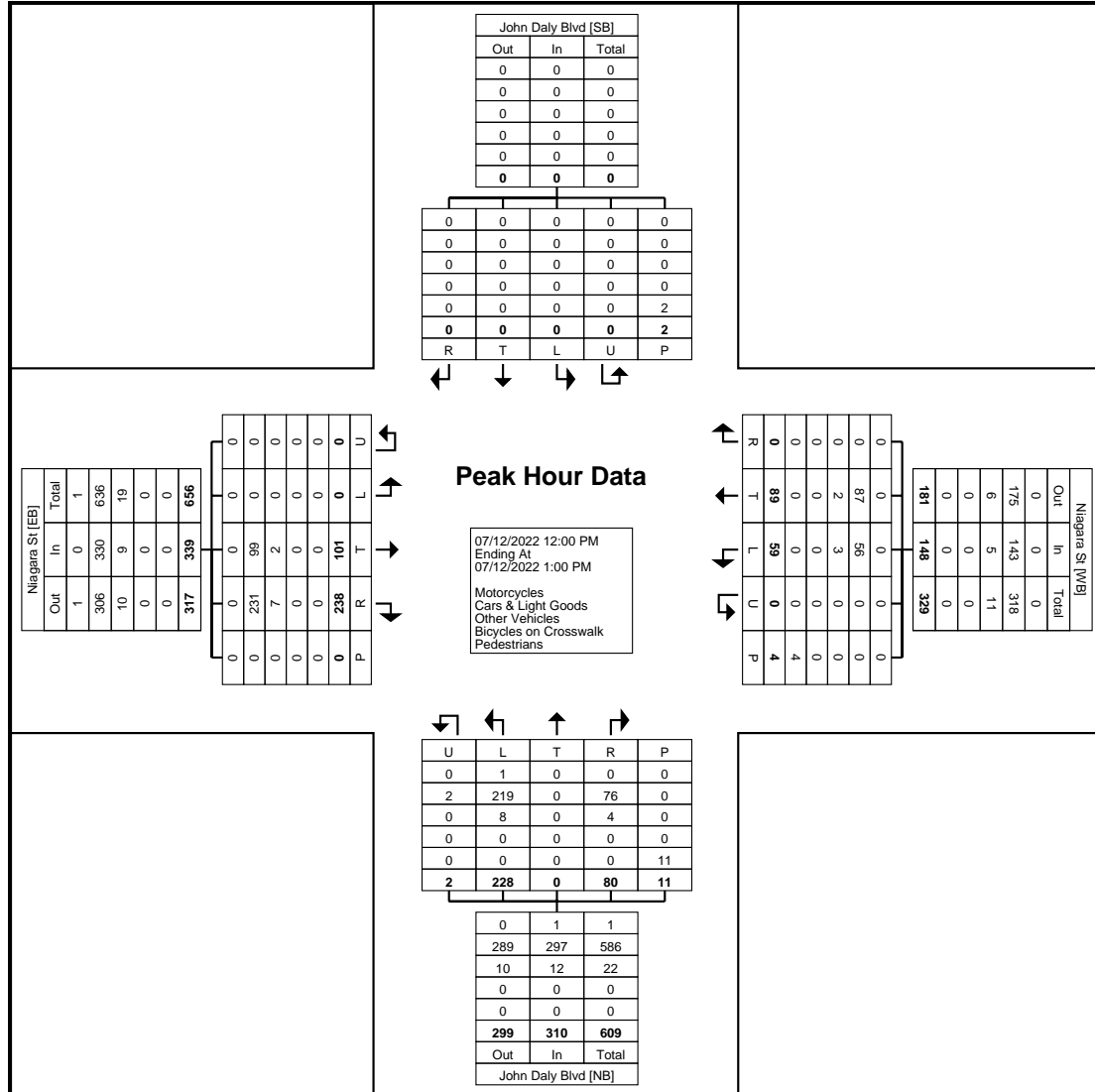


Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Niagara St
Site Code:
Start Date: 07/12/2022
Page No: 6

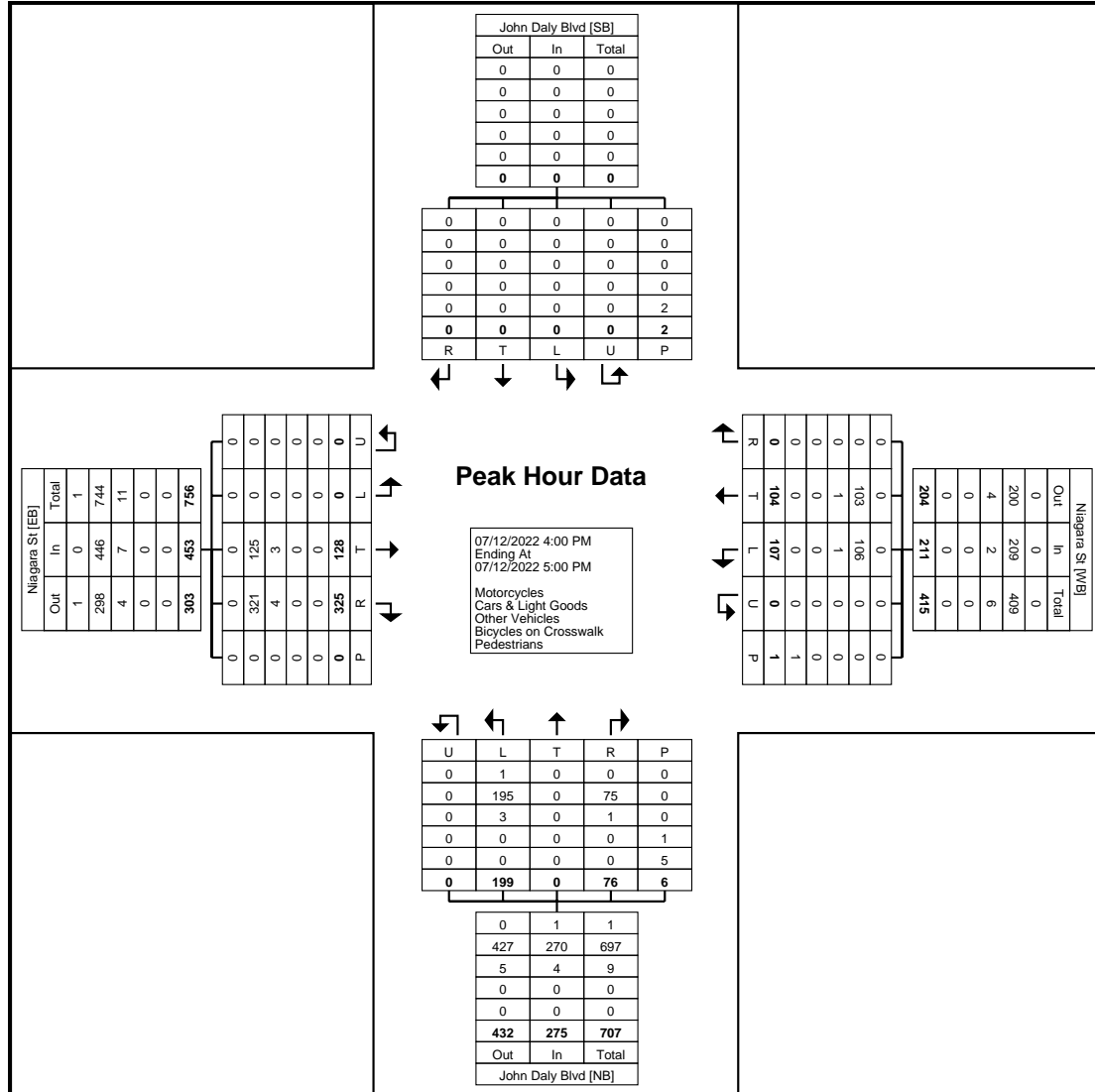
Niagara, New York
July 12, 2022



Turning Movement Peak Hour Data Plot (12:00 PM)

Tri-State Traffic Data: New York Division
184 Baker Rd

Niagara, New York
July 12, 2022



Turning Movement Peak Hour Data Plot (4:00 PM)



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

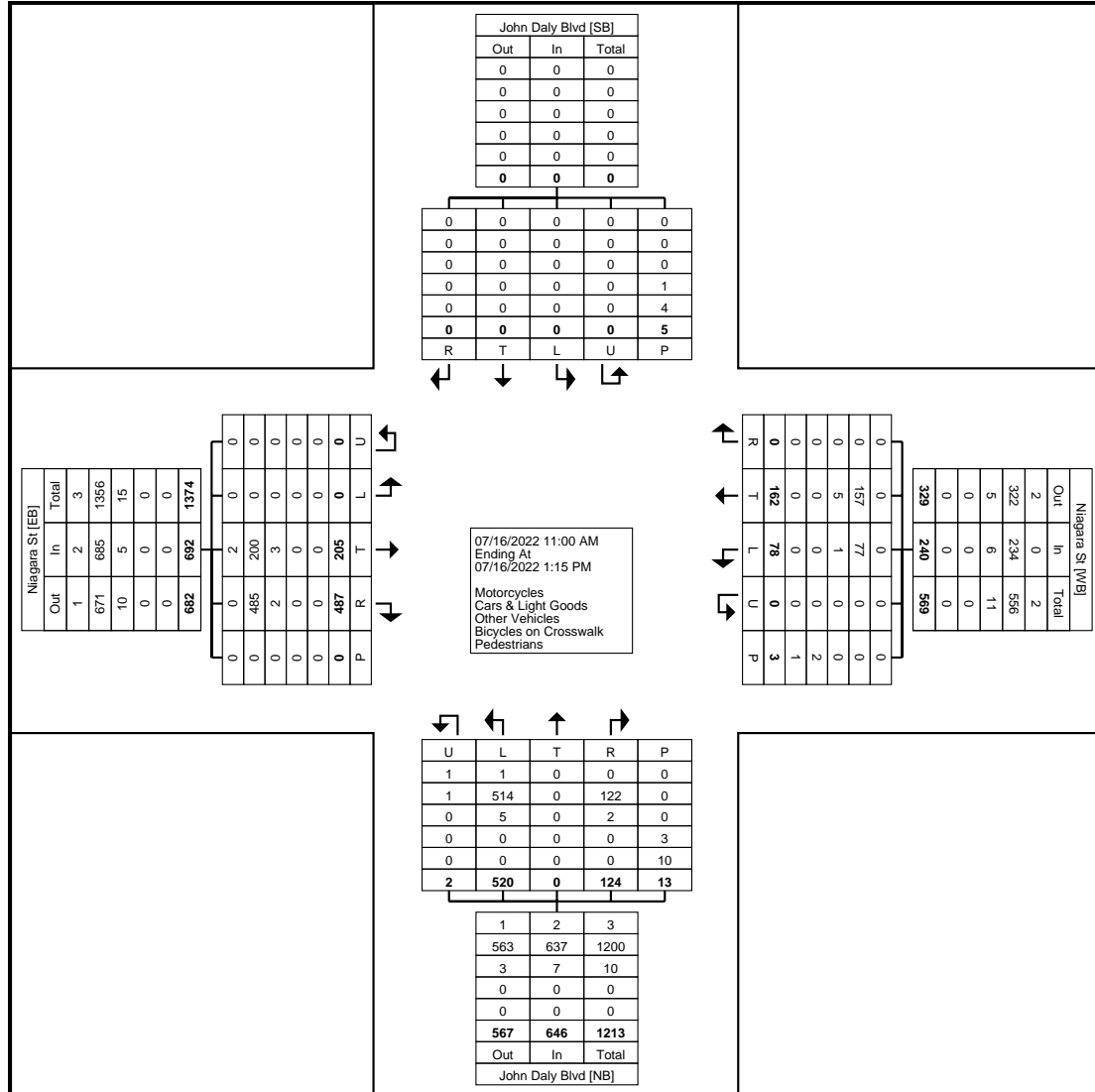
Count Name: John Daly Blvd &
Niagara St
Site Code:
Start Date: 07/16/2022
Page No: 1

Niagara, New York
July 16, 2022

Turning Movement Data

Start Time	John Daly Blvd Southbound						Niagara St Westbound						John Daly Blvd Northbound						Niagara St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
11:00 AM	0	0	0	0	2	0	0	18	10	0	0	28	14	0	77	0	0	91	33	26	0	0	0	59	178
11:15 AM	0	0	0	0	1	0	0	18	8	0	1	26	13	0	72	0	1	85	48	24	0	0	0	72	183
11:30 AM	0	0	0	0	2	0	0	15	12	0	1	27	13	0	72	0	1	85	65	21	0	0	0	86	198
11:45 AM	0	0	0	0	0	0	0	21	7	0	0	28	20	0	77	1	0	98	56	20	0	0	0	76	202
Hourly Total	0	0	0	0	5	0	0	72	37	0	2	109	60	0	298	1	2	359	202	91	0	0	0	293	761
12:00 PM	0	0	0	0	0	0	0	21	9	0	0	30	17	0	40	0	5	57	73	22	0	0	0	95	182
12:15 PM	0	0	0	0	0	0	0	21	8	0	0	29	16	0	64	0	3	80	67	31	0	0	0	98	207
12:30 PM	0	0	0	0	0	0	0	17	15	0	0	32	10	0	52	0	0	62	67	27	0	0	0	94	188
12:45 PM	0	0	0	0	0	0	0	31	9	0	1	40	21	0	66	1	3	88	78	34	0	0	0	112	240
Hourly Total	0	0	0	0	0	0	0	90	41	0	1	131	64	0	222	1	11	287	285	114	0	0	0	399	817
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	5	0	0	162	78	0	3	240	124	0	520	2	13	646	487	205	0	0	0	692	1578
Approach %	0.0	0.0	0.0	0.0	-	-	0.0	67.5	32.5	0.0	-	-	19.2	0.0	80.5	0.3	-	-	70.4	29.6	0.0	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.0	10.3	4.9	0.0	-	15.2	7.9	0.0	33.0	0.1	-	40.9	30.9	13.0	0.0	0.0	-	43.9	-
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	1	-	2	0	2	0	0	-	2	4
% Motorcycles	-	-	-	-	-	-	-	0.0	0.0	-	-	0.0	0.0	-	0.2	50.0	-	0.3	0.0	1.0	-	-	-	0.3	0.3
Cars & Light Goods	0	0	0	0	-	0	0	157	77	0	-	234	122	0	514	1	-	637	485	200	0	0	-	685	1556
% Cars & Light Goods	-	-	-	-	-	-	-	96.9	98.7	-	-	97.5	98.4	-	98.8	50.0	-	98.6	99.6	97.6	-	-	-	99.0	98.6
Other Vehicles	0	0	0	0	-	0	0	5	1	0	-	6	2	0	5	0	-	7	2	3	0	0	-	5	18
% Other Vehicles	-	-	-	-	-	-	-	3.1	1.3	-	-	2.5	1.6	-	1.0	0.0	-	1.1	0.4	1.5	-	-	-	0.7	1.1
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	3	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	20.0	-	-	-	-	-	66.7	-	-	-	-	-	23.1	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	4	-	-	-	-	-	1	-	-	-	-	-	10	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	80.0	-	-	-	-	-	33.3	-	-	-	-	-	76.9	-	-	-	-	-	-	-	-

Niagara, New York
July 16, 2022



Turning Movement Data Plot



Tri-State Traffic Data: New York Division
184 Baker Rd

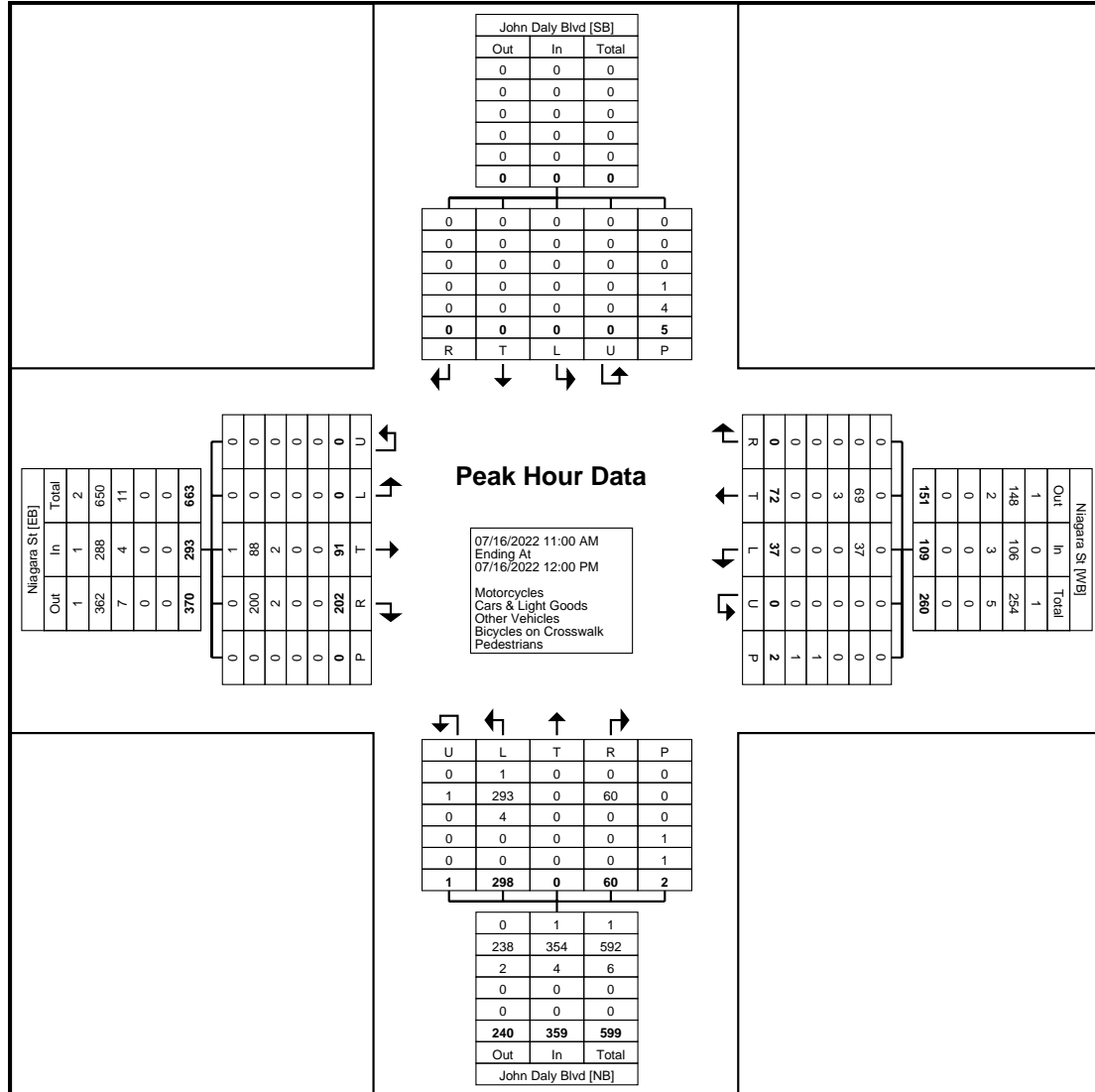
Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Niagara St
Site Code:
Start Date: 07/16/2022
Page No: 3

Niagara, New York
July 16, 2022

Turning Movement Peak Hour Data (11:00 AM)

Start Time	John Daly Blvd Southbound						Niagara St Westbound						John Daly Blvd Northbound						Niagara St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
11:00 AM	0	0	0	0	2	0	0	18	10	0	0	28	14	0	77	0	0	91	33	26	0	0	0	59	178
11:15 AM	0	0	0	0	1	0	0	18	8	0	1	26	13	0	72	0	1	85	48	24	0	0	0	72	183
11:30 AM	0	0	0	0	2	0	0	15	12	0	1	27	13	0	72	0	1	85	65	21	0	0	0	86	198
11:45 AM	0	0	0	0	0	0	0	21	7	0	0	28	20	0	77	1	0	98	56	20	0	0	0	76	202
Total	0	0	0	0	5	0	0	72	37	0	2	109	60	0	298	1	2	359	202	91	0	0	0	293	761
Approach %	0.0	0.0	0.0	0.0	-	-	0.0	66.1	33.9	0.0	-	-	16.7	0.0	83.0	0.3	-	-	68.9	31.1	0.0	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.0	9.5	4.9	0.0	-	14.3	7.9	0.0	39.2	0.1	-	47.2	26.5	12.0	0.0	0.0	-	38.5	-
PHF	0.000	0.000	0.000	0.000	-	0.000	0.000	0.857	0.771	0.000	-	0.973	0.750	0.000	0.968	0.250	-	0.916	0.777	0.875	0.000	0.000	-	0.852	0.942
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	1	0	0	-	1	2
% Motorcycles	-	-	-	-	-	-	-	0.0	0.0	-	-	0.0	0.0	-	0.3	0.0	-	0.3	0.0	1.1	-	-	-	0.3	0.3
Cars & Light Goods	0	0	0	0	-	0	0	69	37	0	-	106	60	0	293	1	-	354	200	88	0	0	-	288	748
% Cars & Light Goods	-	-	-	-	-	-	-	95.8	100.0	-	-	97.2	100.0	-	98.3	100.0	-	98.6	99.0	96.7	-	-	-	98.3	98.3
Other Vehicles	0	0	0	0	-	0	0	3	0	0	-	3	0	0	4	0	-	4	2	2	0	0	-	4	11
% Other Vehicles	-	-	-	-	-	-	-	4.2	0.0	-	-	2.8	0.0	-	1.3	0.0	-	1.1	1.0	2.2	-	-	-	1.4	1.4
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	20.0	-	-	-	-	-	50.0	-	-	-	-	-	50.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	4	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	80.0	-	-	-	-	-	50.0	-	-	-	-	-	50.0	-	-	-	-	-	-	-	-



Turning Movement Peak Hour Data Plot (11:00 AM)



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Niagara St
Site Code:
Start Date: 07/16/2022
Page No: 5

Niagara, New York
July 16, 2022

Turning Movement Peak Hour Data (12:00 PM)

Start Time	John Daly Blvd Southbound						Niagara St Westbound						John Daly Blvd Northbound						Niagara St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
12:00 PM	0	0	0	0	0	0	0	21	9	0	0	30	17	0	40	0	5	57	73	22	0	0	0	95	182
12:15 PM	0	0	0	0	0	0	0	21	8	0	0	29	16	0	64	0	3	80	67	31	0	0	0	98	207
12:30 PM	0	0	0	0	0	0	0	17	15	0	0	32	10	0	52	0	0	62	67	27	0	0	0	94	188
12:45 PM	0	0	0	0	0	0	0	31	9	0	1	40	21	0	66	1	3	88	78	34	0	0	0	112	240
Total	0	0	0	0	0	0	0	90	41	0	1	131	64	0	222	1	11	287	285	114	0	0	0	399	817
Approach %	0.0	0.0	0.0	0.0	-	-	0.0	68.7	31.3	0.0	-	-	22.3	0.0	77.4	0.3	-	-	71.4	28.6	0.0	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.0	11.0	5.0	0.0	-	16.0	7.8	0.0	27.2	0.1	-	35.1	34.9	14.0	0.0	0.0	-	48.8	-
PHF	0.000	0.000	0.000	0.000	-	0.000	0.000	0.726	0.683	0.000	-	0.819	0.762	0.000	0.841	0.250	-	0.815	0.913	0.838	0.000	0.000	-	0.891	0.851
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	1	-	1	0	1	0	0	-	1	2
% Motorcycles	-	-	-	-	-	-	-	0.0	0.0	-	-	0.0	0.0	-	0.0	100.0	-	0.3	0.0	0.9	-	-	-	0.3	0.2
Cars & Light Goods	0	0	0	0	-	0	0	88	40	0	-	128	62	0	221	0	-	283	285	112	0	0	-	397	808
% Cars & Light Goods	-	-	-	-	-	-	-	97.8	97.6	-	-	97.7	96.9	-	99.5	0.0	-	98.6	100.0	98.2	-	-	-	99.5	98.9
Other Vehicles	0	0	0	0	-	0	0	2	1	0	-	3	2	0	1	0	-	3	0	1	0	0	-	1	7
% Other Vehicles	-	-	-	-	-	-	-	2.2	2.4	-	-	2.3	3.1	-	0.5	0.0	-	1.0	0.0	0.9	-	-	-	0.3	0.9
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	18.2	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	9	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	81.8	-	-	-	-	-	-	-	-

Tri-State Traffic Data: New York Division
184 Baker Rd



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Rainbow Blvd
Site Code:
Start Date: 07/14/2022
Page No: 1

Niagara, New York
July 14, 2022

Turning Movement Data

Start Time	John Daly Blvd Southbound						Rainbow Blvd Westbound						John Daly Blvd Northbound						Rainbow Blvd Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
7:00 AM	3	23	2	0	0	28	2	4	0	0	0	6	0	31	14	0	0	45	22	8	6	0	0	36	115
7:15 AM	3	29	3	1	0	36	1	8	0	0	0	9	0	54	17	0	0	71	24	10	3	0	0	37	153
7:30 AM	4	32	2	0	1	38	5	12	1	0	0	18	0	83	33	0	1	116	30	6	5	0	0	41	213
7:45 AM	7	30	2	0	0	39	8	15	3	0	0	26	5	112	41	1	0	159	31	9	3	0	0	43	267
Hourly Total	17	114	9	1	1	141	16	39	4	0	0	59	5	280	105	1	1	391	107	33	17	0	0	157	748
8:00 AM	3	36	0	0	0	39	1	14	2	0	0	17	0	72	15	0	0	87	36	8	3	0	0	47	190
8:15 AM	9	23	5	0	0	37	8	13	2	0	0	23	2	71	17	1	0	91	33	8	9	1	0	51	202
8:30 AM	2	38	6	0	2	46	5	9	3	0	0	17	1	66	28	0	1	95	29	10	7	1	1	47	205
8:45 AM	5	43	2	0	0	50	6	16	1	0	0	23	0	60	42	0	0	102	45	9	5	1	0	60	235
Hourly Total	19	140	13	0	2	172	20	52	8	0	0	80	3	269	102	1	1	375	143	35	24	3	1	205	832
9:00 AM	5	34	2	0	0	41	7	9	4	0	0	20	1	58	18	0	0	77	40	12	7	0	0	59	197
9:15 AM	6	56	5	0	0	67	4	16	1	0	0	21	0	47	16	0	0	63	40	7	9	0	0	56	207
9:30 AM	9	47	2	1	0	59	4	21	3	0	0	28	0	43	14	0	0	57	32	12	5	1	0	50	194
9:45 AM	6	49	6	0	0	61	5	13	2	0	0	20	1	61	22	0	0	84	38	13	12	2	0	65	230
Hourly Total	26	186	15	1	0	228	20	59	10	0	0	89	2	209	70	0	0	281	150	44	33	3	0	230	828
10:00 AM	8	52	3	0	0	63	9	16	0	0	0	25	0	43	20	0	0	63	66	7	4	1	0	78	229
10:15 AM	5	39	7	1	0	52	8	12	0	0	0	20	0	56	21	1	0	78	53	10	7	0	0	70	220
10:30 AM	5	45	4	0	0	54	6	19	1	0	0	26	0	64	24	0	0	88	59	16	4	1	1	80	248
10:45 AM	8	50	3	1	0	62	3	20	2	0	0	25	0	56	24	0	1	80	62	29	5	1	0	97	264
Hourly Total	26	186	17	2	0	231	26	67	3	0	0	96	0	219	89	1	1	309	240	62	20	3	1	325	961
11:00 AM	8	48	7	0	0	63	9	20	0	0	0	29	0	55	32	0	0	87	66	19	11	2	0	98	277
11:15 AM	4	55	4	0	0	63	10	17	3	0	0	30	0	60	33	0	0	93	46	14	12	1	0	73	259
11:30 AM	8	56	5	0	0	69	11	22	1	0	0	34	1	54	53	0	0	108	65	16	10	0	0	91	302
11:45 AM	12	53	3	0	1	68	9	18	2	0	0	29	0	75	44	0	0	119	56	12	9	0	0	77	293
Hourly Total	32	212	19	0	1	263	39	77	6	0	0	122	1	244	162	0	0	407	233	61	42	3	0	339	1131
12:00 PM	7	64	7	0	1	78	8	13	6	1	0	28	0	59	51	1	0	111	72	19	8	0	0	99	316
12:15 PM	7	59	5	0	0	71	12	11	3	0	0	26	1	75	30	1	0	107	50	17	10	0	0	77	281
12:30 PM	9	71	5	0	0	85	9	15	6	0	0	30	1	75	33	0	0	109	55	21	14	2	2	92	316
12:45 PM	8	57	7	0	0	72	6	15	5	0	0	26	1	63	32	0	0	96	70	17	10	1	0	98	292
Hourly Total	31	251	24	0	1	306	35	54	20	1	0	110	3	272	146	2	0	423	247	74	42	3	2	366	1205
1:00 PM	5	52	4	0	1	61	11	20	1	0	0	32	1	42	36	0	0	79	64	13	5	0	0	82	254
1:15 PM	8	53	6	0	0	67	14	23	4	0	0	41	1	59	37	0	0	97	60	14	3	1	1	78	283
1:30 PM	5	67	3	0	0	75	16	22	1	0	0	39	3	57	36	0	0	96	81	19	12	1	0	113	323
1:45 PM	8	77	1	0	0	86	11	19	1	0	0	31	0	55	30	0	0	85	64	23	9	1	0	97	299
Hourly Total	26	249	14	0	1	289	52	84	7	0	0	143	5	213	139	0	0	357	269	69	29	3	1	370	1159
2:00 PM	5	75	7	0	1	87	5	17	3	0	0	25	1	75	24	0	0	100	68	27	14	1	1	110	322
2:15 PM	8	67	6	0	1	81	11	17	2	0	1	30	0	65	24	0	1	89	76	12	12	0	1	100	300
2:30 PM	4	75	8	0	1	87	10	25	3	1	1	39	0	51	39	0	0	90	48	20	7	0	2	75	291
2:45 PM	12	69	4	0	0	85	8	22	0	0	0	30	1	59	50	0	0	110	64	21	16	0	0	101	326
Hourly Total	29	286	25	0	3	340	34	81	8	1	2	124	2	250	137	0	1	389	256	80	49	1	4	386	1239
3:00 PM	6	111	9	0	0	126	16	15	0	0	0	31	1	53	28	0	0	82	85	23	9	1	3	118	357
3:15 PM	9	79	4	0	0	92	10	11	4	0	0	25	0	79	31	0	0	110	103	13	10	0	0	126	353
3:30 PM	6	86	5	0	1	97	6	10	5	0	0	21	1	69	33	0	2	103	91	21	11	0	0	123	344
3:45 PM	12	91	5	0	1	108	11	15	2	0	0	28	2	83	53	0	0	138	101	21	6	0	0	128	402
Hourly Total	33	367	23	0	2	423	43	51	11	0	0	105	4	284	145	0	2	433	380	78	36	1	3	495	1456
4:00 PM	10	124	7	0	1	141	7	19	1	0	0	27	1	72	41	0	0	114	79	37	5	1	0	122	404
4:15 PM	6	75	4	0	0	85	4	20	3	0	0	27	3	61	32	0	2	96	93	12	12	0	0	117	325
4:30 PM	8	84	6	0	0	98	7	16	2	0	0	25	1	62	41	0	2	104	69	16	11	0	2	96	323
4:45 PM	8	89	7	0	0	104	7	11	2	0	0	20	0	63	42	0	0	105	77	19	10	0	2	106	335
Hourly Total	32	372	24	0	1	428	25	66	8	0	0	99	5	258	156	0	4	419	318	84	38	1	4	441	1387
5:00 PM	6	85	7	0	0	98	5	17	2	0	0	24	0	69	29	0	0	98	95	11	11	0	2	117	337
5:15 PM	1	75	4	0	0	80	11	17	2	1	0	31	0	58	23	0	0	81	71	11	10	0	2	92	284
5:30 PM	11	80	5	0	2	96	3	17	0	0	0	20	1	45	28	0	0	74	84	21	4	1	2	110	300
5:45 PM	6	63	4	0	0	73	11	14	1	0	0	26	0	59	28	0	2	87	72	20	9	1	0	102	288
Hourly Total	24	303	20	0	2	347	30	65	5	1	0	101	1	231	108	0	2	340	322	63	34	2	6	421	1209
6:00 PM	5	59	7	0	0	71	8	15	0	0	0	23	0	58	26	0	0	84	59	15	14	2	8	90	268
6:15 PM	6	55	4	0	0	65	7	14	3	0	0	24	0	62	30	0	0	92	61	8	7	0	0	76	257
6:30 PM	8	63	3	0	0	74	3	17	3	0	0	23	1	68	40	0	0	109	70	16	9	1	0	96	302
6:45 PM	4	64	6	0	0	74	8	15	4	0	0	27	0	58	43	1	0	102	48	12	11	1	3	72	275
Hourly Total	23	241	20	0	0	284	26	61	10	0	0	97	1	246	139	1	0	387	238	51	41	4	11	334	1102

Grand Total	318	2907	223	4	14	3452	366	756	100	3	2	1225	32	2975	1498	6	12	4511	2903	734	405	27	33	4069	13257
Approach %	9.2	84.2	6.5	0.1	-	-	29.9	61.7	8.2	0.2	-	-	0.7	65.9	33.2	0.1	-	-	71.3	18.0	10.0	0.7	-	-	-
Total %	2.4	21.9	1.7	0.0	-	26.0	2.8	5.7	0.8	0.0	-	9.2	0.2	22.4	11.3	0.0	-	34.0	21.9	5.5	3.1	0.2	-	30.7	-
Motorcycles	0	12	1	0	-	13	0	4	0	0	-	4	0	6	6	0	-	12	18	3	1	0	-	22	51
% Motorcycles	0.0	0.4	0.4	0.0	-	0.4	0.0	0.5	0.0	0.0	-	0.3	0.0	0.2	0.4	0.0	-	0.3	0.6	0.4	0.2	0.0	-	0.5	0.4
Cars & Light Goods	305	2850	198	4	-	3357	345	706	93	3	-	1147	31	2927	1460	6	-	4424	2822	681	384	27	-	3914	12842
% Cars & Light Goods	95.9	98.0	88.8	100.0	-	97.2	94.3	93.4	93.0	100.0	-	93.6	96.9	98.4	97.5	100.0	-	98.1	97.2	92.8	94.8	100.0	-	96.2	96.9
Other Vehicles	13	45	24	0	-	82	21	46	7	0	-	74	1	42	32	0	-	75	63	50	20	0	-	133	364
% Other Vehicles	4.1	1.5	10.8	0.0	-	2.4	5.7	6.1	7.0	0.0	-	6.0	3.1	1.4	2.1	0.0	-	1.7	2.2	6.8	4.9	0.0	-	3.3	2.7
Bicycles on Crosswalk	-	-	-	-	7	-	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	6	-	-
% Bicycles on Crosswalk	-	-	-	-	50.0	-	-	-	-	-	50.0	-	-	-	-	-	16.7	-	-	-	-	-	18.2	-	-
Pedestrians	-	-	-	-	7	-	-	-	-	-	1	-	-	-	-	-	10	-	-	-	-	-	27	-	-
% Pedestrians	-	-	-	-	50.0	-	-	-	-	-	50.0	-	-	-	-	-	83.3	-	-	-	-	-	81.8	-	-

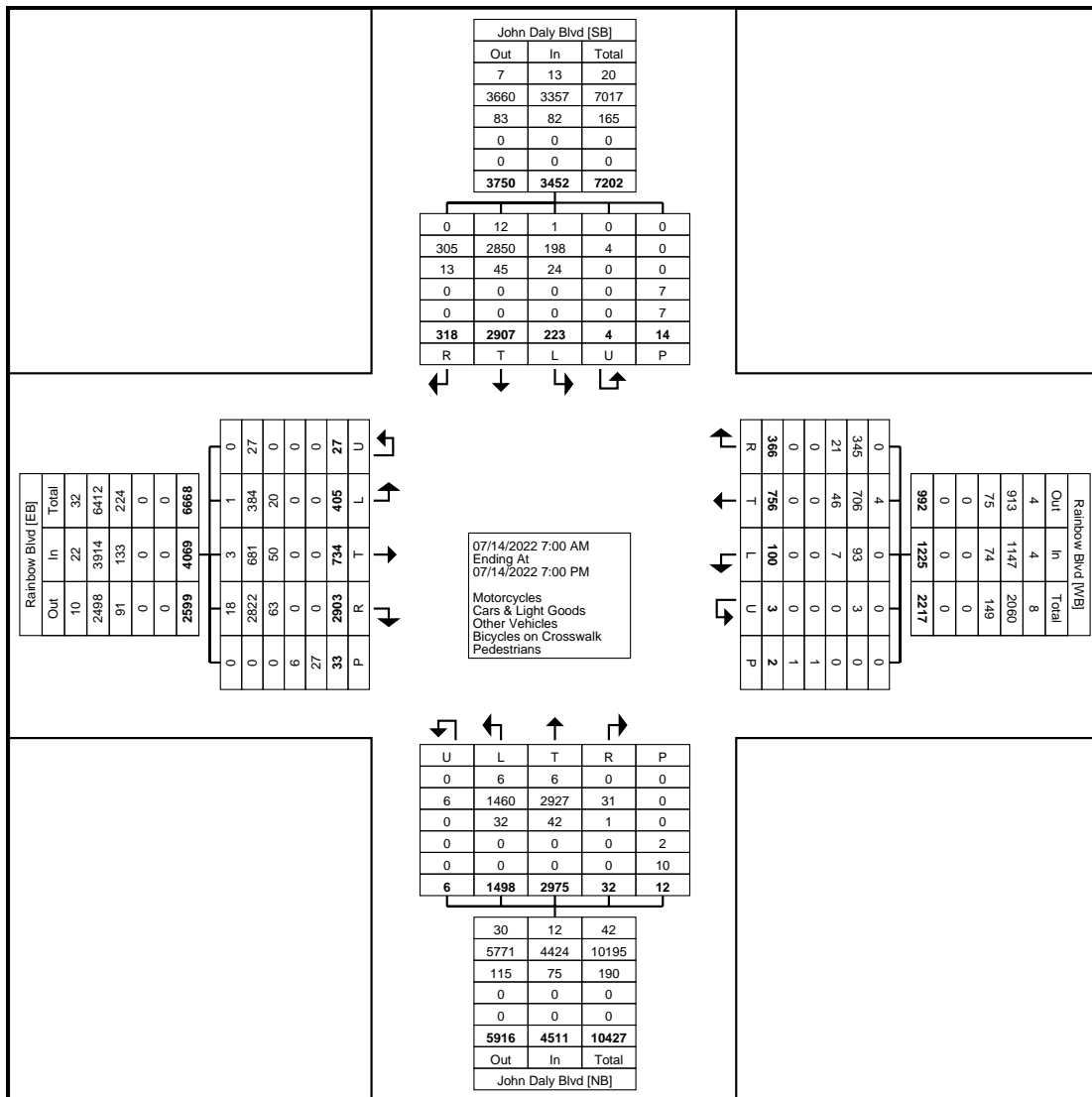


Tri-State Traffic Data: New York Division
184 Baker Rd

Niagara, New York
July 14, 2022

Coatesville , Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Rainbow Blvd
Site Code:
Start Date: 07/14/2022
Page No: 3



Turning Movement Data Plot



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Rainbow Blvd
Site Code:
Start Date: 07/14/2022
Page No: 4

Niagara, New York
July 14, 2022

Turning Movement Peak Hour Data (7:30 AM)

Start Time	John Daly Blvd Southbound						Rainbow Blvd Westbound						John Daly Blvd Northbound						Rainbow Blvd Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
7:30 AM	4	32	2	0	1	38	5	12	1	0	0	18	0	83	33	0	1	116	30	6	5	0	0	41	213
7:45 AM	7	30	2	0	0	39	8	15	3	0	0	26	5	112	41	1	0	159	31	9	3	0	0	43	267
8:00 AM	3	36	0	0	0	39	1	14	2	0	0	17	0	72	15	0	0	87	36	8	3	0	0	47	190
8:15 AM	9	23	5	0	0	37	8	13	2	0	0	23	2	71	17	1	0	91	33	8	9	1	0	51	202
Total	23	121	9	0	1	153	22	54	8	0	0	84	7	338	106	2	1	453	130	31	20	1	0	182	872
Approach %	15.0	79.1	5.9	0.0	-	-	26.2	64.3	9.5	0.0	-	-	1.5	74.6	23.4	0.4	-	-	71.4	17.0	11.0	0.5	-	-	-
Total %	2.6	13.9	1.0	0.0	-	17.5	2.5	6.2	0.9	0.0	-	9.6	0.8	38.8	12.2	0.2	-	51.9	14.9	3.6	2.3	0.1	-	20.9	-
PHF	0.639	0.840	0.450	0.000	-	0.981	0.688	0.900	0.667	0.000	-	0.808	0.350	0.754	0.646	0.500	-	0.712	0.903	0.861	0.556	0.250	-	0.892	0.816
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	1
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.9	0.0	-	0.2	0.0	0.0	0.0	0.0	-	0.0	0.1
Cars & Light Goods	21	119	8	0	-	148	19	51	8	0	-	78	7	336	103	2	-	448	125	31	18	1	-	175	849
% Cars & Light Goods	91.3	98.3	88.9	-	-	96.7	86.4	94.4	100.0	-	-	92.9	100.0	99.4	97.2	100.0	-	98.9	96.2	100.0	90.0	100.0	-	96.2	97.4
Other Vehicles	2	2	1	0	-	5	3	3	0	0	-	6	0	2	2	0	-	4	5	0	2	0	-	7	22
% Other Vehicles	8.7	1.7	11.1	-	-	3.3	13.6	5.6	0.0	-	-	7.1	0.0	0.6	1.9	0.0	-	0.9	3.8	0.0	10.0	0.0	-	3.8	2.5
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

Tri-State Traffic Data: New York Division
184 Baker Rd



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

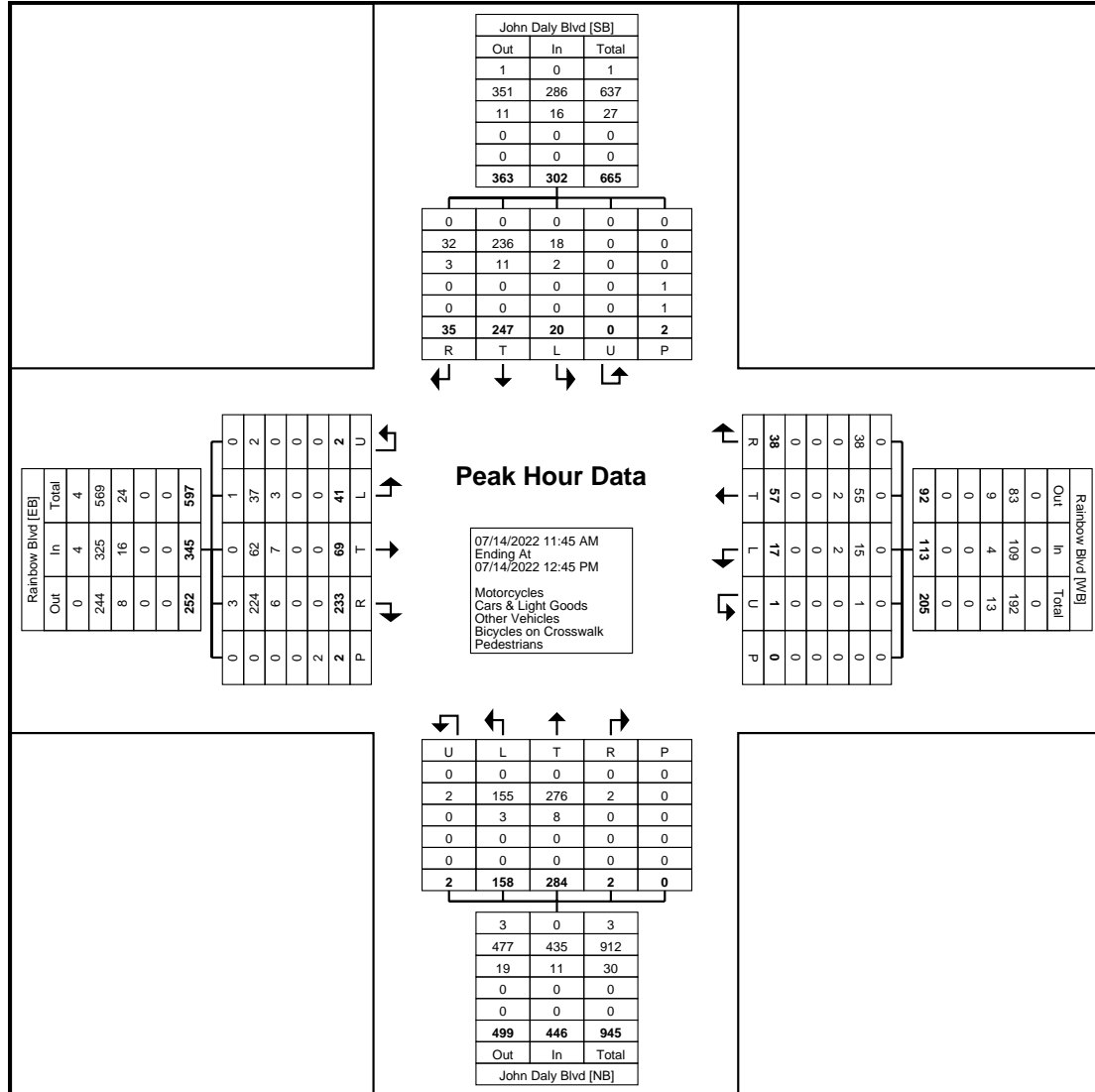
Count Name: John Daly Blvd &
Rainbow Blvd
Site Code:
Start Date: 07/14/2022
Page No: 6

Niagara, New York
July 14, 2022

Turning Movement Peak Hour Data (11:45 AM)

Start Time	John Daly Blvd Southbound						Rainbow Blvd Westbound						John Daly Blvd Northbound						Rainbow Blvd Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
11:45 AM	12	53	3	0	1	68	9	18	2	0	0	29	0	75	44	0	0	119	56	12	9	0	0	77	293
12:00 PM	7	64	7	0	1	78	8	13	6	1	0	28	0	59	51	1	0	111	72	19	8	0	0	99	316
12:15 PM	7	59	5	0	0	71	12	11	3	0	0	26	1	75	30	1	0	107	50	17	10	0	0	77	281
12:30 PM	9	71	5	0	0	85	9	15	6	0	0	30	1	75	33	0	0	109	55	21	14	2	2	92	316
Total	35	247	20	0	2	302	38	57	17	1	0	113	2	284	158	2	0	446	233	69	41	2	2	345	1206
Approach %	11.6	81.8	6.6	0.0	-	-	33.6	50.4	15.0	0.9	-	-	0.4	63.7	35.4	0.4	-	-	67.5	20.0	11.9	0.6	-	-	-
Total %	2.9	20.5	1.7	0.0	-	25.0	3.2	4.7	1.4	0.1	-	9.4	0.2	23.5	13.1	0.2	-	37.0	19.3	5.7	3.4	0.2	-	28.6	-
PHF	0.729	0.870	0.714	0.000	-	0.888	0.792	0.792	0.708	0.250	-	0.942	0.500	0.947	0.775	0.500	-	0.937	0.809	0.821	0.732	0.250	-	0.871	0.954
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	3	0	1	0	-	4	4
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	1.3	0.0	2.4	0.0	-	1.2	0.3
Cars & Light Goods	32	236	18	0	-	286	38	55	15	1	-	109	2	276	155	2	-	435	224	62	37	2	-	325	1155
% Cars & Light Goods	91.4	95.5	90.0	-	-	94.7	100.0	96.5	88.2	100.0	-	96.5	100.0	97.2	98.1	100.0	-	97.5	96.1	89.9	90.2	100.0	-	94.2	95.8
Other Vehicles	3	11	2	0	-	16	0	2	2	0	-	4	0	8	3	0	-	11	6	7	3	0	-	16	47
% Other Vehicles	8.6	4.5	10.0	-	-	5.3	0.0	3.5	11.8	0.0	-	3.5	0.0	2.8	1.9	0.0	-	2.5	2.6	10.1	7.3	0.0	-	4.6	3.9
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	50.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	50.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Niagara, New York
July 14, 2022



Turning Movement Peak Hour Data Plot (11:45 AM)



Tri-State Traffic Data: New York Division
184 Baker Rd

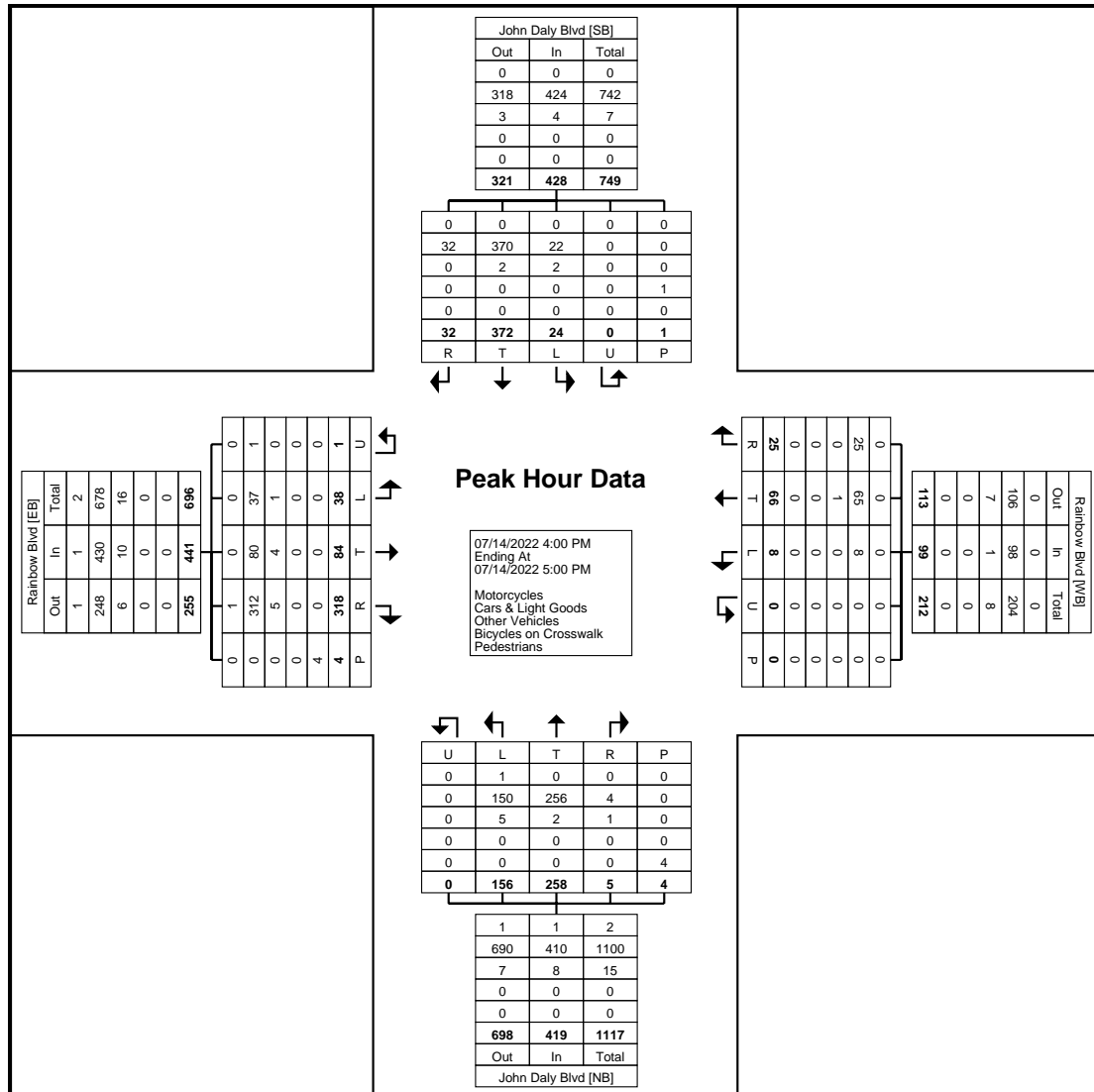
Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Rainbow Blvd
Site Code:
Start Date: 07/14/2022
Page No: 8

Niagara, New York
July 14, 2022

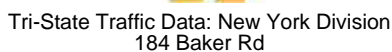
Turning Movement Peak Hour Data (4:00 PM)

Start Time	John Daly Blvd Southbound						Rainbow Blvd Westbound						John Daly Blvd Northbound						Rainbow Blvd Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
4:00 PM	10	124	7	0	1	141	7	19	1	0	0	27	1	72	41	0	0	114	79	37	5	1	0	122	404
4:15 PM	6	75	4	0	0	85	4	20	3	0	0	27	3	61	32	0	2	96	93	12	12	0	0	117	325
4:30 PM	8	84	6	0	0	98	7	16	2	0	0	25	1	62	41	0	2	104	69	16	11	0	2	96	323
4:45 PM	8	89	7	0	0	104	7	11	2	0	0	20	0	63	42	0	0	105	77	19	10	0	2	106	335
Total	32	372	24	0	1	428	25	66	8	0	0	99	5	258	156	0	4	419	318	84	38	1	4	441	1387
Approach %	7.5	86.9	5.6	0.0	-	-	25.3	66.7	8.1	0.0	-	-	1.2	61.6	37.2	0.0	-	-	72.1	19.0	8.6	0.2	-	-	-
Total %	2.3	26.8	1.7	0.0	-	30.9	1.8	4.8	0.6	0.0	-	7.1	0.4	18.6	11.2	0.0	-	30.2	22.9	6.1	2.7	0.1	-	31.8	-
PHF	0.800	0.750	0.857	0.000	-	0.759	0.893	0.825	0.667	0.000	-	0.917	0.417	0.896	0.929	0.000	-	0.919	0.855	0.568	0.792	0.250	-	0.904	0.858
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1	0	0	0	-	1	2
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.6	-	-	0.2	0.3	0.0	0.0	0.0	-	0.2	0.1
Cars & Light Goods	32	370	22	0	-	424	25	65	8	0	-	98	4	256	150	0	-	410	312	80	37	1	-	430	1362
% Cars & Light Goods	100.0	99.5	91.7	-	-	99.1	100.0	98.5	100.0	-	-	99.0	80.0	99.2	96.2	-	-	97.9	98.1	95.2	97.4	100.0	-	97.5	98.2
Other Vehicles	0	2	2	0	-	4	0	1	0	0	-	1	1	2	5	0	-	8	5	4	1	0	-	10	23
% Other Vehicles	0.0	0.5	8.3	-	-	0.9	0.0	1.5	0.0	-	-	1.0	20.0	0.8	3.2	-	-	1.9	1.6	4.8	2.6	0.0	-	2.3	1.7
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	-	4	-	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



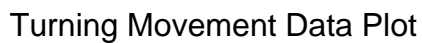
Turning Movement Peak Hour Data Plot (4:00 PM)

Tri-State Traffic Data: New York Division
184 Baker Rd



Coatesville , Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Rainbow Blvd
Site Code:
Start Date: 07/16/2022
Page No: 2



Turning Movement Data Plot



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

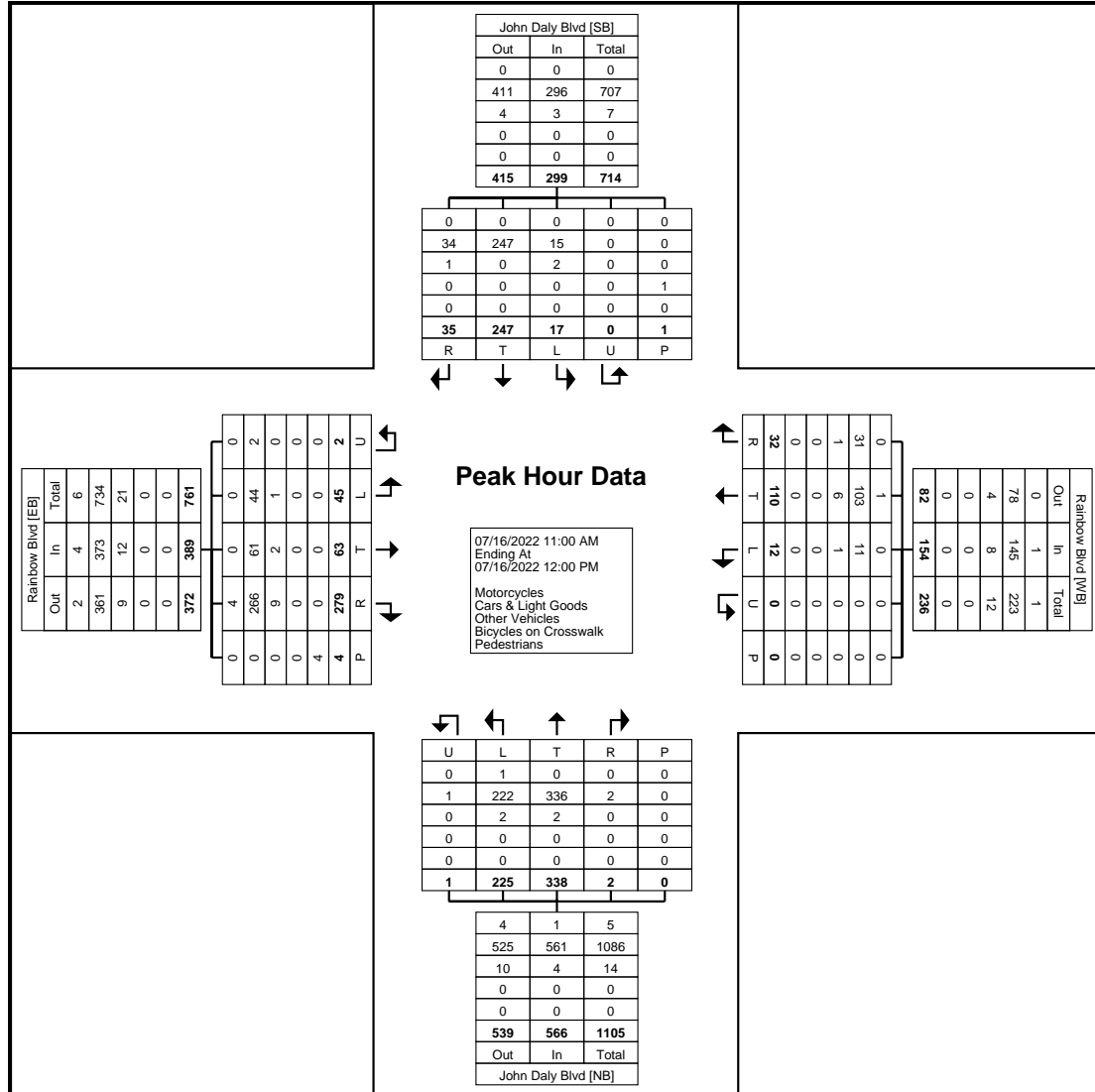
Count Name: John Daly Blvd &
Rainbow Blvd
Site Code:
Start Date: 07/16/2022
Page No: 3

Niagara, New York
July 16, 2022

Turning Movement Peak Hour Data (11:00 AM)

Start Time	John Daly Blvd Southbound							Rainbow Blvd Westbound							John Daly Blvd Northbound							Rainbow Blvd Eastbound							Int. Total
	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	
11:00 AM	10	5	43	5	0	0	63	3	2	27	2	0	0	34	0	0	89	36	0	0	125	39	23	12	9	0	0	83	305
11:15 AM	3	3	59	7	0	0	72	2	3	33	3	0	0	41	0	1	78	52	1	0	132	39	25	20	13	1	0	98	343
11:30 AM	3	8	83	2	0	0	96	8	3	33	4	0	0	48	0	1	84	66	0	0	151	61	17	18	9	0	4	105	400
11:45 AM	1	2	62	3	0	1	68	2	9	17	3	0	0	31	0	0	87	71	0	0	158	50	25	13	14	1	0	103	360
Total	17	18	247	17	0	1	299	15	17	110	12	0	0	154	0	2	338	225	1	0	566	189	90	63	45	2	4	389	1408
Approach %	5.7	6.0	82.6	5.7	0.0	-	-	9.7	11.0	71.4	7.8	0.0	-	-	0.0	0.4	59.7	39.8	0.2	-	-	48.6	23.1	16.2	11.6	0.5	-	-	-
Total %	1.2	1.3	17.5	1.2	0.0	-	21.2	1.1	1.2	7.8	0.9	0.0	-	10.9	0.0	0.1	24.0	16.0	0.1	-	40.2	13.4	6.4	4.5	3.2	0.1	-	27.6	-
PHF	0.425	0.563	0.744	0.607	0.000	-	0.779	0.469	0.472	0.833	0.750	0.000	-	0.802	0.000	0.500	0.949	0.792	0.250	-	0.896	0.775	0.900	0.788	0.804	0.500	-	0.926	0.880
Motorcycles	0	0	0	0	0	-	0	0	0	1	0	0	-	1	0	0	0	1	0	-	1	0	4	0	0	0	-	4	6
% Motorcycles	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.9	0.0	-	-	0.6	-	0.0	0.0	0.4	0.0	-	0.2	0.0	4.4	0.0	0.0	0.0	-	1.0	0.4
Cars & Light Goods	17	17	247	15	0	-	296	14	17	103	11	0	-	145	0	2	336	222	1	-	561	182	84	61	44	2	-	373	1375
% Cars & Light Goods	100.0	94.4	100.0	88.2	-	-	99.0	93.3	100.0	93.6	91.7	-	-	94.2	-	100.0	99.4	98.7	100.0	-	99.1	96.3	93.3	96.8	97.8	100.0	-	95.9	97.7
Other Vehicles	0	1	0	2	0	-	3	1	0	6	1	0	-	8	0	0	2	2	0	-	4	7	2	2	1	0	-	12	27
% Other Vehicles	0.0	5.6	0.0	11.8	-	-	1.0	6.7	0.0	5.5	8.3	-	-	5.2	-	0.0	0.6	0.9	0.0	-	0.7	3.7	2.2	3.2	2.2	0.0	-	3.1	1.9
Bicycles on Crosswalk	-	-	-	-	-	1	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

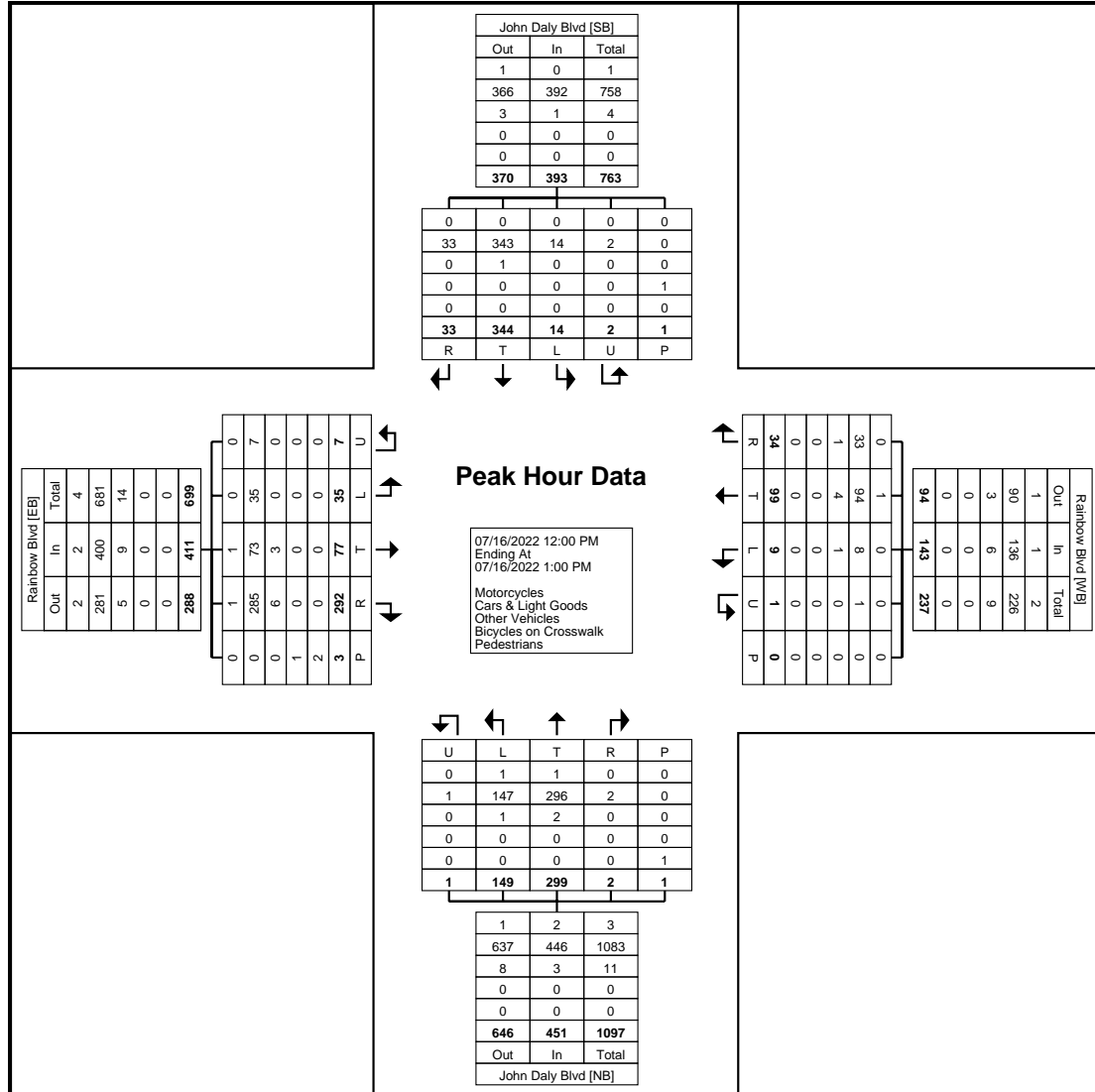
Niagara, New York
July 16, 2022



Turning Movement Peak Hour Data Plot (11:00 AM)

Tri-State Traffic Data: New York Division
184 Baker Rd

Niagara, New York
July 16, 2022



Turning Movement Peak Hour Data Plot (12:00 PM)



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

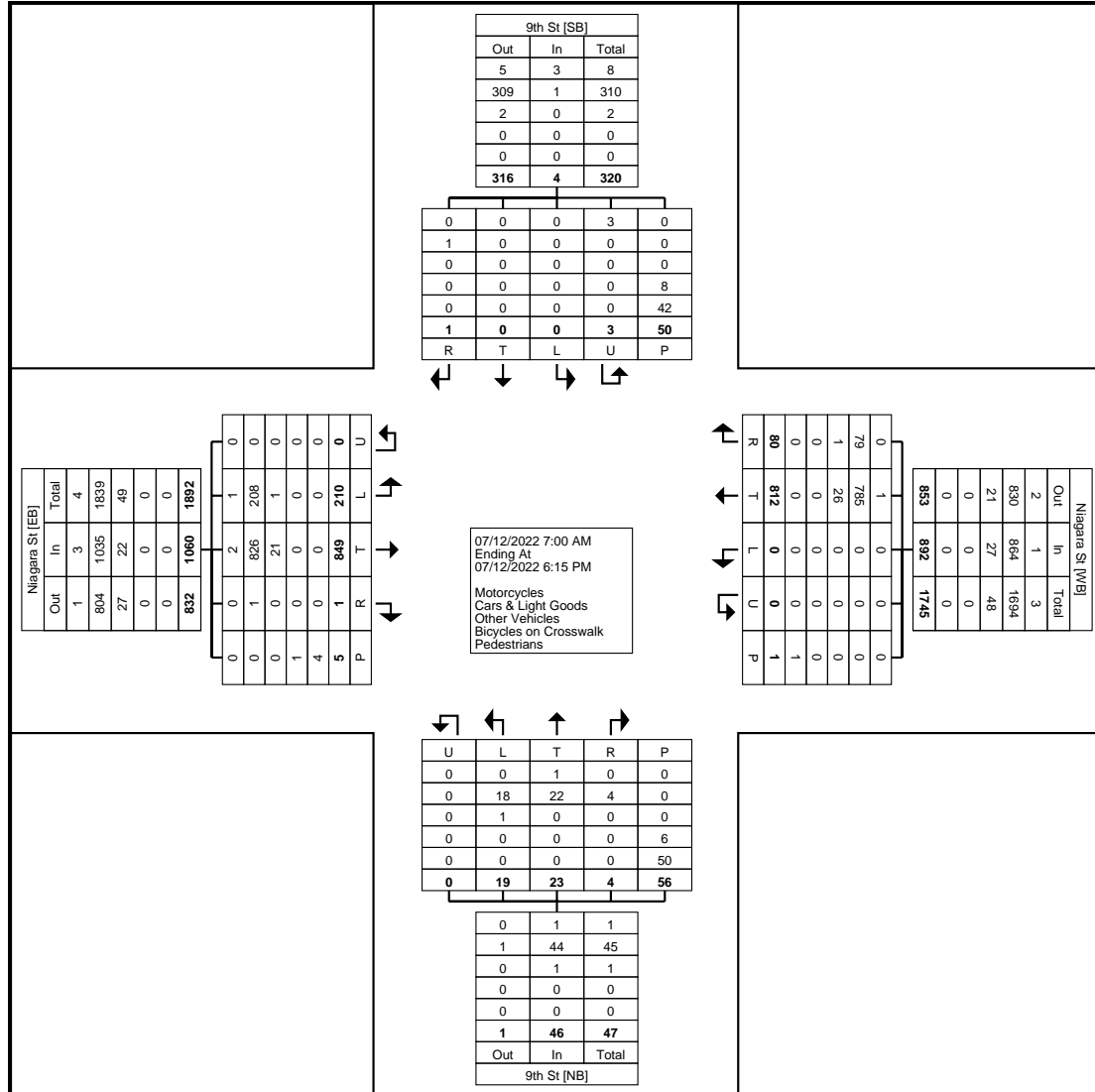
Count Name: Niagara St & 9th St
Site Code:
Start Date: 07/12/2022
Page No: 1

Niagara, New York
July 12, 2022

Turning Movement Data

Start Time	9th St Southbound						Niagara St Westbound						9th St Northbound						Niagara St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
7:00 AM	0	0	0	0	0	0	0	20	0	0	0	20	0	1	0	0	0	1	0	31	5	0	1	36	57
7:15 AM	0	0	0	0	2	0	2	19	0	0	0	21	0	0	0	0	0	0	0	24	3	0	0	27	48
7:30 AM	0	0	0	0	1	0	1	19	0	0	0	20	0	1	1	0	3	2	0	37	3	0	0	40	62
7:45 AM	0	0	0	0	1	0	2	22	0	0	0	24	0	0	1	0	2	1	0	51	14	0	0	65	90
Hourly Total	0	0	0	0	4	0	5	80	0	0	0	85	0	2	2	0	5	4	0	143	25	0	1	168	257
8:00 AM	0	0	0	0	1	0	3	18	0	0	0	21	0	2	0	0	2	2	0	39	9	0	1	48	71
8:15 AM	0	0	0	0	1	0	1	23	0	0	0	24	0	0	0	0	1	0	0	33	10	0	0	43	67
8:30 AM	0	0	0	0	3	0	5	24	0	0	0	29	0	0	0	0	0	0	0	23	12	0	0	35	64
8:45 AM	0	0	0	0	9	0	8	36	0	0	1	44	0	3	2	0	4	5	0	47	7	0	0	54	103
Hourly Total	0	0	0	0	14	0	17	101	0	0	1	118	0	5	2	0	7	7	0	142	38	0	1	180	305
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	2	0	3	22	0	0	0	25	0	1	2	0	1	3	0	41	5	0	0	46	74
11:15 AM	0	0	0	0	1	0	2	33	0	0	0	35	1	3	0	0	4	4	0	22	6	0	1	28	67
11:30 AM	0	0	0	0	1	0	2	34	0	0	0	36	2	2	1	0	5	5	0	40	8	0	0	48	89
11:45 AM	1	0	0	0	5	1	2	23	0	0	0	25	0	0	0	0	4	0	0	28	12	0	0	40	66
Hourly Total	1	0	0	0	9	1	9	112	0	0	0	121	3	6	3	0	14	12	0	131	31	0	1	162	296
12:00 PM	0	0	0	0	0	0	3	27	0	0	0	30	0	0	0	0	1	0	0	41	9	0	0	50	80
12:15 PM	0	0	0	0	4	0	2	35	0	0	0	37	0	1	2	0	4	3	0	40	7	0	0	47	87
12:30 PM	0	0	0	0	1	0	2	41	0	0	0	43	1	0	2	0	3	3	1	32	5	0	0	38	84
12:45 PM	0	0	0	0	1	0	0	40	0	0	0	40	0	0	2	0	7	2	0	33	12	0	2	45	87
Hourly Total	0	0	0	0	6	0	7	143	0	0	0	150	1	1	6	0	15	8	1	146	33	0	2	180	338
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	1	2	1	7	57	0	0	0	64	0	3	1	0	1	4	0	33	10	0	0	43	112
4:15 PM	0	0	0	1	4	1	4	55	0	0	0	59	0	0	3	0	3	3	0	33	9	0	0	42	105
4:30 PM	0	0	0	0	2	0	10	70	0	0	0	80	0	1	0	0	2	1	0	65	11	0	0	76	157
4:45 PM	0	0	0	0	1	0	4	43	0	0	0	47	0	0	1	0	2	1	0	33	14	0	0	47	95
Hourly Total	0	0	0	2	9	2	25	225	0	0	0	250	0	4	5	0	8	9	0	164	44	0	0	208	469
5:00 PM	0	0	0	0	2	0	7	37	0	0	0	44	0	0	0	0	5	0	0	33	7	0	0	40	84
5:15 PM	0	0	0	1	4	1	5	35	0	0	0	40	0	3	1	0	1	4	0	30	8	0	0	38	83
5:30 PM	0	0	0	0	1	0	3	41	0	0	0	44	0	1	0	0	1	1	0	30	12	0	0	42	87
5:45 PM	0	0	0	0	1	0	2	38	0	0	0	40	0	1	0	0	0	1	0	30	12	0	0	42	83
Hourly Total	0	0	0	1	8	1	17	151	0	0	0	168	0	5	1	0	7	6	0	123	39	0	0	162	337
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	1	0	0	3	50	4	80	812	0	0	1	892	4	23	19	0	56	46	1	849	210	0	5	1060	2002
Approach %	25.0	0.0	0.0	75.0	-	-	9.0	91.0	0.0	0.0	-	-	8.7	50.0	41.3	0.0	-	-	0.1	80.1	19.8	0.0	-	-	-
Total %	0.0	0.0	0.0	0.1	-	0.2	4.0	40.6	0.0	0.0	-	44.6	0.2	1.1	0.9	0.0	-	2.3	0.0	42.4	10.5	0.0	-	52.9	-
Motorcycles	0	0	0	3	-	3	0	1	0	0	-	1	0	1	0	0	-	1	0	2	1	0	-	3	8
% Motorcycles	0.0	-	-	100.0	-	75.0	0.0	0.1	-	-	-	0.1	0.0	4.3	0.0	-	-	2.2	0.0	0.2	0.5	-	-	0.3	0.4
Cars & Light Goods	1	0	0	0	-	1	79	785	0	0	-	864	4	22	18	0	-	44	1	826	208	0	-	1035	1944
% Cars & Light Goods	100.0	-	-	0.0	-	25.0	98.8	96.7	-	-	-	96.9	100.0	95.7	94.7	-	-	95.7	100.0	97.3	99.0	-	-	97.6	97.1
Other Vehicles	0	0	0	0	-	0	1	26	0	0	-	27	0	0	1	0	-	1	0	21	1	0	-	22	50
% Other Vehicles	0.0	-	-	0.0	-	0.0	1.3	3.2	-	-	-	3.0	0.0	0.0	5.3	-	-	2.2	0.0	2.5	0.5	-	-	2.1	2.5
Bicycles on Crosswalk	-	-	-	-	8	-	-	-	-	-	0	-	-	-	-	-	6	-	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	16.0	-	-	-	-	-	0.0	-	-	-	-	-	10.7	-	-	-	-	-	20.0	-	-
Pedestrians	-	-	-	-	42	-	-	-	-	-	1	-	-	-	-	-	50	-	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	84.0	-	-	-	-	-	100.0	-	-	-	-	-	89.3	-	-	-	-	-	80.0	-	-

Niagara, New York
July 12, 2022



Turning Movement Data Plot



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Niagara St & 9th St
Site Code:
Start Date: 07/12/2022
Page No: 3

Niagara, New York
July 12, 2022

Turning Movement Peak Hour Data (8:00 AM)

Start Time	9th St Southbound						Niagara St Westbound						9th St Northbound						Niagara St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
8:00 AM	0	0	0	0	1	0	3	18	0	0	0	21	0	2	0	0	2	2	0	39	9	0	1	48	71
8:15 AM	0	0	0	0	1	0	1	23	0	0	0	24	0	0	0	0	1	0	0	33	10	0	0	43	67
8:30 AM	0	0	0	0	3	0	5	24	0	0	0	29	0	0	0	0	0	0	0	23	12	0	0	35	64
8:45 AM	0	0	0	0	9	0	8	36	0	0	1	44	0	3	2	0	4	5	0	47	7	0	0	54	103
Total	0	0	0	0	14	0	17	101	0	0	1	118	0	5	2	0	7	7	0	142	38	0	1	180	305
Approach %	0.0	0.0	0.0	0.0	-	-	14.4	85.6	0.0	0.0	-	-	0.0	71.4	28.6	0.0	-	-	0.0	78.9	21.1	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	5.6	33.1	0.0	0.0	-	38.7	0.0	1.6	0.7	0.0	-	2.3	0.0	46.6	12.5	0.0	-	59.0	-
PHF	0.000	0.000	0.000	0.000	-	0.000	0.531	0.701	0.000	0.000	-	0.670	0.000	0.417	0.250	0.000	-	0.350	0.000	0.755	0.792	0.000	-	0.833	0.740
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	1
% Motorcycles	-	-	-	-	-	-	0.0	0.0	-	-	-	0.0	-	0.0	0.0	-	-	0.0	-	0.7	0.0	-	-	0.6	0.3
Cars & Light Goods	0	0	0	0	-	0	16	96	0	0	-	112	0	5	2	0	-	7	0	139	38	0	-	177	296
% Cars & Light Goods	-	-	-	-	-	-	94.1	95.0	-	-	-	94.9	-	100.0	100.0	-	-	100.0	-	97.9	100.0	-	-	98.3	97.0
Other Vehicles	0	0	0	0	-	0	1	5	0	0	-	6	0	0	0	0	-	0	0	2	0	0	-	2	8
% Other Vehicles	-	-	-	-	-	-	5.9	5.0	-	-	-	5.1	-	0.0	0.0	-	-	0.0	-	1.4	0.0	-	-	1.1	2.6
Bicycles on Crosswalk	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	14.3	-	-	-	-	-	0.0	-	-	-	-	-	14.3	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	12	-	-	-	-	-	1	-	-	-	-	-	6	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	85.7	-	-	-	-	-	100.0	-	-	-	-	-	85.7	-	-	-	-	-	100.0	-	-

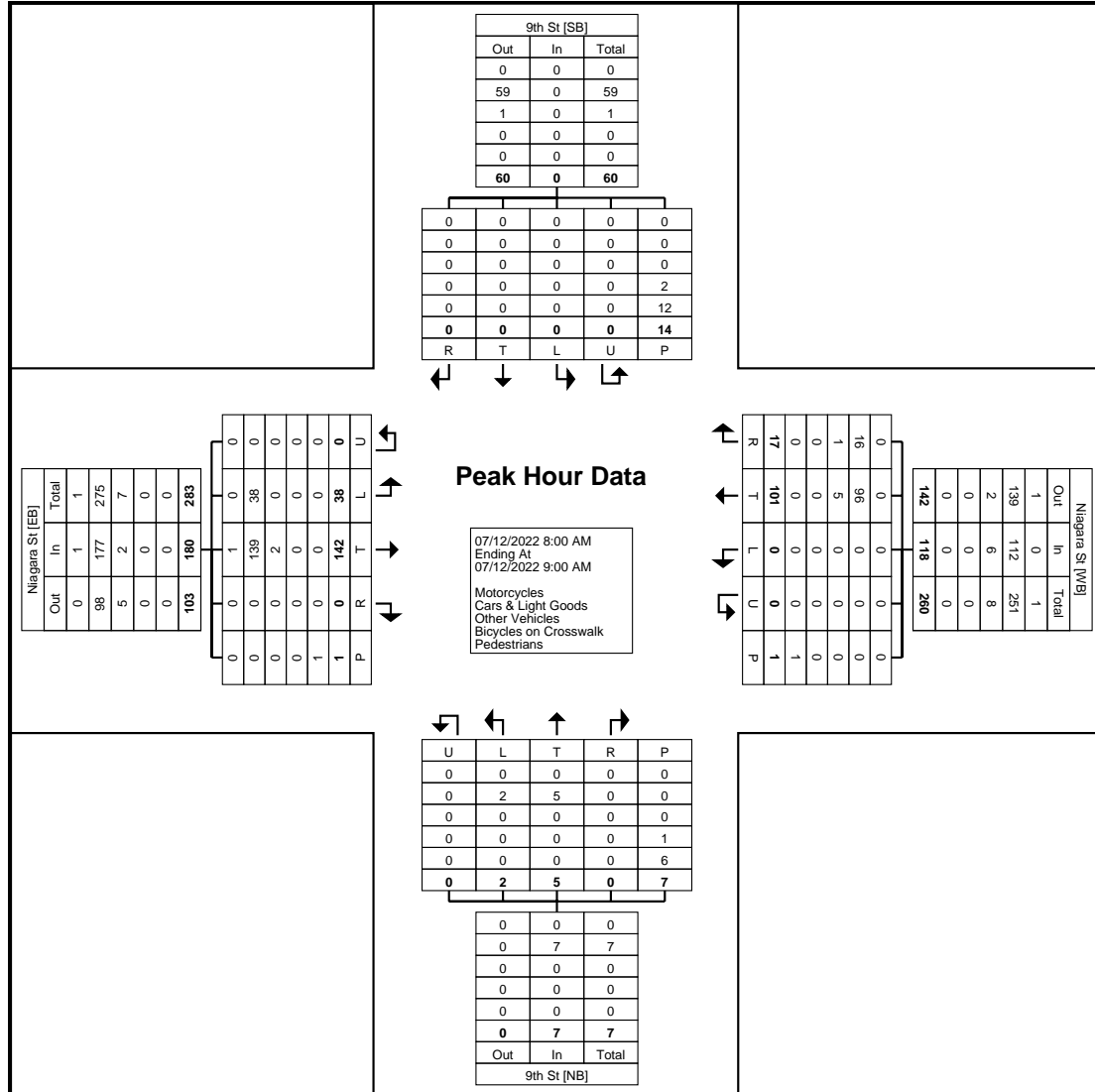


Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Niagara St & 9th St
Site Code:
Start Date: 07/12/2022
Page No: 4

Niagara, New York
July 12, 2022



Turning Movement Peak Hour Data Plot (8:00 AM)



Tri-State Traffic Data: New York Division
184 Baker Rd

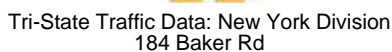
Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Niagara St & 9th St
Site Code:
Start Date: 07/12/2022
Page No: 5

Niagara, New York
July 12, 2022

Turning Movement Peak Hour Data (12:00 PM)

Start Time	9th St Southbound						Niagara St Westbound						9th St Northbound						Niagara St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
12:00 PM	0	0	0	0	0	0	3	27	0	0	0	30	0	0	0	0	1	0	0	41	9	0	0	50	80
12:15 PM	0	0	0	0	4	0	2	35	0	0	0	37	0	1	2	0	4	3	0	40	7	0	0	47	87
12:30 PM	0	0	0	0	1	0	2	41	0	0	0	43	1	0	2	0	3	3	1	32	5	0	0	38	84
12:45 PM	0	0	0	0	1	0	0	40	0	0	0	40	0	0	2	0	7	2	0	33	12	0	2	45	87
Total	0	0	0	0	6	0	7	143	0	0	0	150	1	1	6	0	15	8	1	146	33	0	2	180	338
Approach %	0.0	0.0	0.0	0.0	-	-	4.7	95.3	0.0	0.0	-	-	12.5	12.5	75.0	0.0	-	-	0.6	81.1	18.3	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	2.1	42.3	0.0	0.0	-	44.4	0.3	0.3	1.8	0.0	-	2.4	0.3	43.2	9.8	0.0	-	53.3	-
PHF	0.000	0.000	0.000	0.000	-	0.000	0.583	0.872	0.000	0.000	-	0.872	0.250	0.250	0.750	0.000	-	0.667	0.250	0.890	0.688	0.000	-	0.900	0.971
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	-	-	-	-	-	-	0.0	0.0	-	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	0	0	0	0	-	0	7	139	0	0	-	146	1	1	6	0	-	8	1	140	33	0	-	174	328
% Cars & Light Goods	-	-	-	-	-	-	100.0	97.2	-	-	-	97.3	100.0	100.0	100.0	-	-	100.0	100.0	95.9	100.0	-	-	96.7	97.0
Other Vehicles	0	0	0	0	-	0	0	4	0	0	-	4	0	0	0	0	-	0	0	6	0	0	-	6	10
% Other Vehicles	-	-	-	-	-	-	0.0	2.8	-	-	-	2.7	0.0	0.0	0.0	-	-	0.0	0.0	4.1	0.0	-	-	3.3	3.0
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	16.7	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	5	-	-	-	-	-	0	-	-	-	-	-	15	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	83.3	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



Coatesville , Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Niagara St & 9th St
Site Code:
Start Date: 07/12/2022
Page No: 6



Turning Movement Peak Hour Data Plot (12:00 PM)



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Niagara St & 9th St
Site Code:
Start Date: 07/12/2022
Page No: 7

Niagara, New York
July 12, 2022

Turning Movement Peak Hour Data (4:00 PM)

Start Time	9th St Southbound						Niagara St Westbound						9th St Northbound						Niagara St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
4:00 PM	0	0	0	1	2	1	7	57	0	0	0	64	0	3	1	0	1	4	0	33	10	0	0	43	112
4:15 PM	0	0	0	1	4	1	4	55	0	0	0	59	0	0	3	0	3	3	0	33	9	0	0	42	105
4:30 PM	0	0	0	0	2	0	10	70	0	0	0	80	0	1	0	0	2	1	0	65	11	0	0	76	157
4:45 PM	0	0	0	0	1	0	4	43	0	0	0	47	0	0	1	0	2	1	0	33	14	0	0	47	95
Total	0	0	0	2	9	2	25	225	0	0	0	250	0	4	5	0	8	9	0	164	44	0	0	208	469
Approach %	0.0	0.0	0.0	100.0	-	-	10.0	90.0	0.0	0.0	-	-	0.0	44.4	55.6	0.0	-	-	0.0	78.8	21.2	0.0	-	-	-
Total %	0.0	0.0	0.0	0.4	-	0.4	5.3	48.0	0.0	0.0	-	53.3	0.0	0.9	1.1	0.0	-	1.9	0.0	35.0	9.4	0.0	-	44.3	-
PHF	0.000	0.000	0.000	0.500	-	0.500	0.625	0.804	0.000	0.000	-	0.781	0.000	0.333	0.417	0.000	-	0.563	0.000	0.631	0.786	0.000	-	0.684	0.747
Motorcycles	0	0	0	2	-	2	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	2
% Motorcycles	-	-	-	100.0	-	100.0	0.0	0.0	-	-	-	0.0	-	0.0	0.0	-	-	0.0	-	0.0	0.0	-	-	0.0	0.4
Cars & Light Goods	0	0	0	0	-	0	25	223	0	0	-	248	0	4	5	0	-	9	0	161	44	0	-	205	462
% Cars & Light Goods	-	-	-	0.0	-	0.0	100.0	99.1	-	-	-	99.2	-	100.0	100.0	-	-	100.0	-	98.2	100.0	-	-	98.6	98.5
Other Vehicles	0	0	0	0	-	0	0	2	0	0	-	2	0	0	0	0	-	0	0	3	0	0	-	3	5
% Other Vehicles	-	-	-	0.0	-	0.0	0.0	0.9	-	-	-	0.8	-	0.0	0.0	-	-	0.0	-	1.8	0.0	-	-	1.4	1.1
Bicycles on Crosswalk	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	33.3	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	6	-	-	-	-	-	0	-	-	-	-	-	8	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	66.7	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

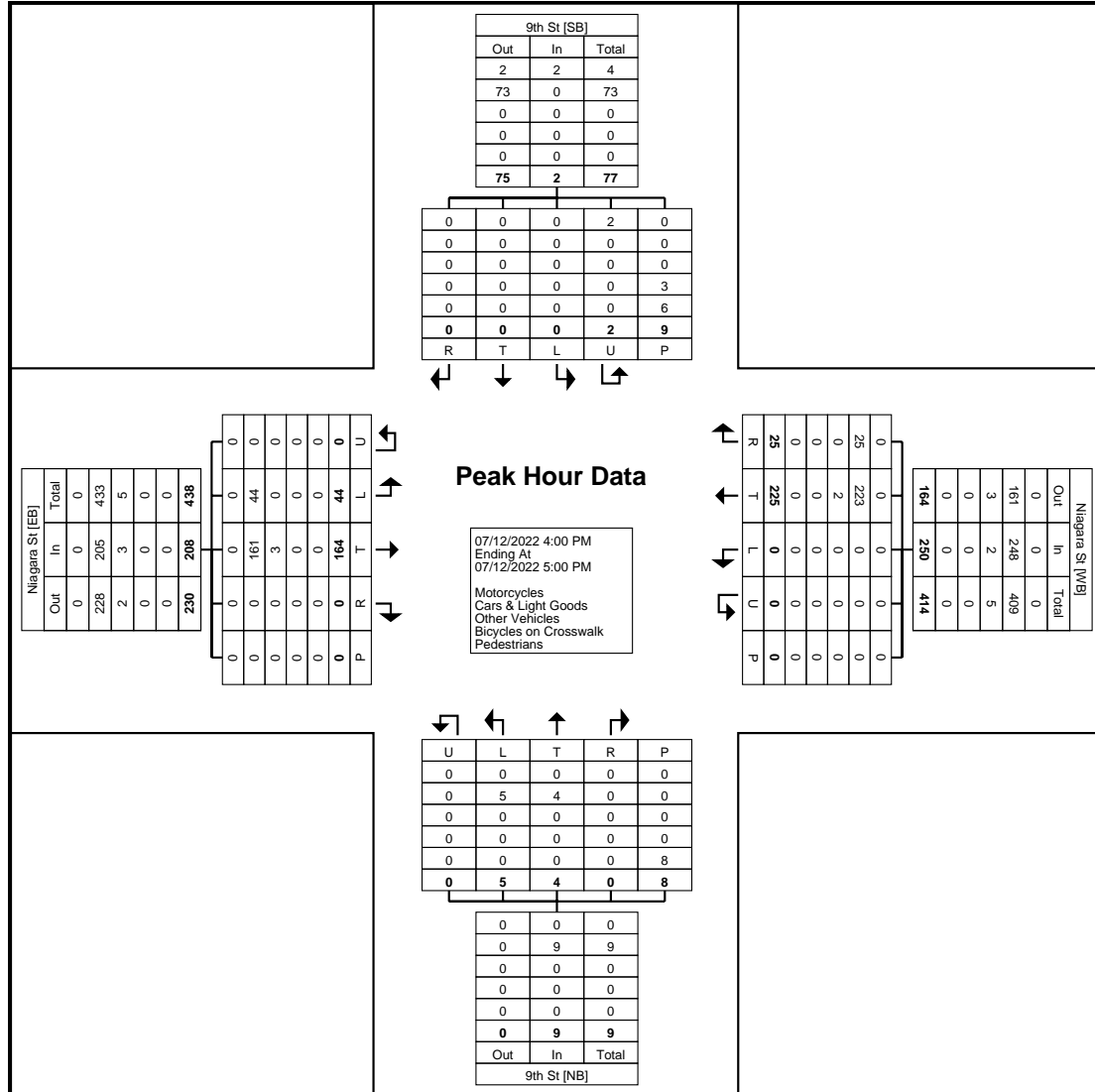


Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Niagara St & 9th St
Site Code:
Start Date: 07/12/2022
Page No: 8

Niagara, New York
July 12, 2022



Turning Movement Peak Hour Data Plot (4:00 PM)



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Niagara St & 9th St
Site Code:
Start Date: 07/30/2022
Page No: 1

Turning Movement Data

Start Time	9th St Southbound						Niagara St Westbound						9th St Northbound						Niagara St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
11:00 AM	0	0	0	0	1	0	4	22	0	0	0	26	0	0	0	0	2	0	0	23	13	0	0	36	62
11:15 AM	0	0	0	0	1	0	4	31	0	0	0	35	1	0	0	0	2	1	0	32	3	1	0	36	72
11:30 AM	0	0	0	0	0	0	4	24	0	0	0	28	0	0	0	0	0	0	0	18	9	0	0	27	55
11:45 AM	0	0	0	0	3	0	3	31	0	0	0	34	0	1	0	0	1	1	0	28	8	0	0	36	71
Hourly Total	0	0	0	0	5	0	15	108	0	0	0	123	1	1	0	0	5	2	0	101	33	1	0	135	260
12:00 PM	0	0	0	0	1	0	5	23	0	0	0	28	0	1	0	0	0	1	0	26	5	0	0	31	60
12:15 PM	0	0	0	0	0	0	8	28	0	0	0	36	0	1	0	0	2	1	0	30	9	0	0	39	76
12:30 PM	0	0	0	0	2	0	6	34	0	0	0	40	0	0	0	0	3	0	0	28	6	0	0	34	74
12:45 PM	0	0	0	0	0	0	4	28	0	0	0	32	0	1	0	0	3	1	0	31	2	0	0	33	66
Hourly Total	0	0	0	0	3	0	23	113	0	0	0	136	0	3	0	0	8	3	0	115	22	0	0	137	276
Grand Total	0	0	0	0	8	0	38	221	0	0	0	259	1	4	0	0	13	5	0	216	55	1	0	272	536
Approach %	0.0	0.0	0.0	0.0	-	-	14.7	85.3	0.0	0.0	-	-	20.0	80.0	0.0	0.0	-	-	0.0	79.4	20.2	0.4	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	7.1	41.2	0.0	0.0	-	48.3	0.2	0.7	0.0	0.0	-	0.9	0.0	40.3	10.3	0.2	-	50.7	-
Motorcycles	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	0	1	0	0	-	1	2
% Motorcycles	-	-	-	-	-	-	0.0	0.5	-	-	-	0.4	0.0	0.0	-	-	-	0.0	-	0.5	0.0	0.0	-	0.4	0.4
Cars & Light Goods	0	0	0	0	-	0	38	218	0	0	-	256	1	4	0	0	-	5	0	210	55	1	-	266	527
% Cars & Light Goods	-	-	-	-	-	-	100.0	98.6	-	-	-	98.8	100.0	100.0	-	-	-	100.0	-	97.2	100.0	100.0	-	97.8	98.3
Other Vehicles	0	0	0	0	-	0	0	2	0	0	-	2	0	0	0	0	-	0	0	5	0	0	-	5	7
% Other Vehicles	-	-	-	-	-	-	0.0	0.9	-	-	-	0.8	0.0	0.0	-	-	-	0.0	-	2.3	0.0	0.0	-	1.8	1.3
Bicycles on Crosswalk	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	25.0	-	-	-	-	-	-	-	-	-	-	-	30.8	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	6	-	-	-	-	-	0	-	-	-	-	-	9	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	75.0	-	-	-	-	-	-	-	-	-	-	-	69.2	-	-	-	-	-	-	-	-



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Niagara St & 9th St
Site Code:
Start Date: 07/30/2022
Page No: 3

Turning Movement Peak Hour Data (11:00 AM)

Start Time	9th St Southbound						Niagara St Westbound						9th St Northbound						Niagara St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
11:00 AM	0	0	0	0	1	0	4	22	0	0	0	26	0	0	0	0	2	0	0	23	13	0	0	36	62
11:15 AM	0	0	0	0	1	0	4	31	0	0	0	35	1	0	0	0	2	1	0	32	3	1	0	36	72
11:30 AM	0	0	0	0	0	0	4	24	0	0	0	28	0	0	0	0	0	0	0	18	9	0	0	27	55
11:45 AM	0	0	0	0	3	0	3	31	0	0	0	34	0	1	0	0	1	1	0	28	8	0	0	36	71
Total	0	0	0	0	5	0	15	108	0	0	0	123	1	1	0	0	5	2	0	101	33	1	0	135	260
Approach %	0.0	0.0	0.0	0.0	-	-	12.2	87.8	0.0	0.0	-	-	50.0	50.0	0.0	0.0	-	-	0.0	74.8	24.4	0.7	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	5.8	41.5	0.0	0.0	-	47.3	0.4	0.4	0.0	0.0	-	0.8	0.0	38.8	12.7	0.4	-	51.9	-
PHF	0.000	0.000	0.000	0.000	-	0.000	0.938	0.871	0.000	0.000	-	0.879	0.250	0.250	0.000	0.000	-	0.500	0.000	0.789	0.635	0.250	-	0.938	0.903
Motorcycles	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Motorcycles	-	-	-	-	-	-	0.0	0.9	-	-	-	0.8	0.0	0.0	-	-	-	0.0	-	0.0	0.0	0.0	-	0.0	0.4
Cars & Light Goods	0	0	0	0	-	0	15	106	0	0	-	121	1	1	0	0	-	2	0	98	33	1	-	132	255
% Cars & Light Goods	-	-	-	-	-	-	100.0	98.1	-	-	-	98.4	100.0	100.0	-	-	-	100.0	-	97.0	100.0	100.0	-	97.8	98.1
Other Vehicles	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	0	3	0	0	-	3	4
% Other Vehicles	-	-	-	-	-	-	0.0	0.9	-	-	-	0.8	0.0	0.0	-	-	-	0.0	-	3.0	0.0	0.0	-	2.2	1.5
Bicycles on Crosswalk	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	40.0	-	-	-	-	-	-	-	-	-	-	-	40.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	60.0	-	-	-	-	-	-	-	-	-	-	-	60.0	-	-	-	-	-	-	-	-



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Niagara St & 9th St
Site Code:
Start Date: 07/30/2022
Page No: 5

Turning Movement Peak Hour Data (12:00 PM)

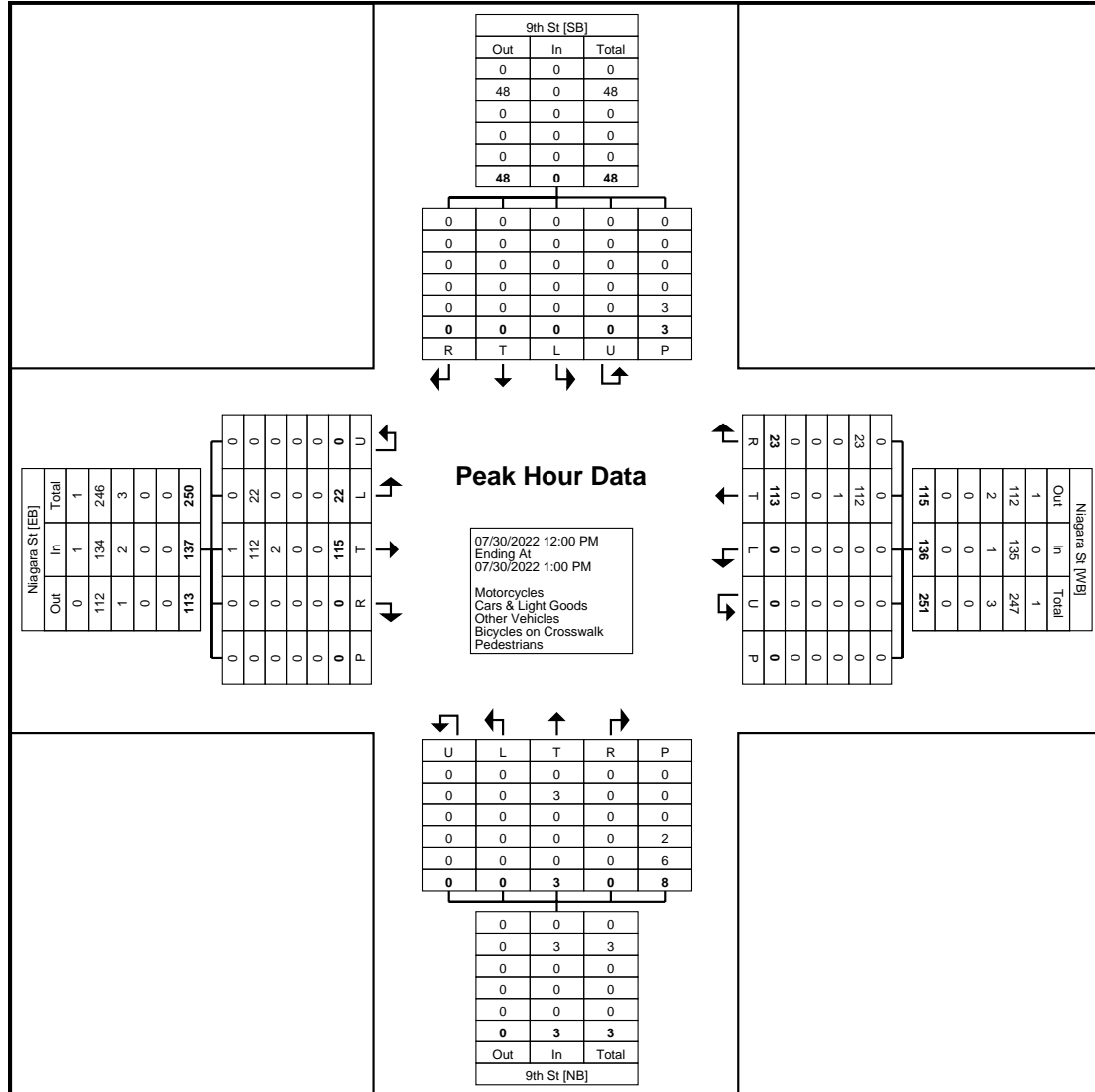
Start Time	9th St Southbound						Niagara St Westbound						9th St Northbound						Niagara St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
12:00 PM	0	0	0	0	1	0	5	23	0	0	0	28	0	1	0	0	0	1	0	26	5	0	0	31	60
12:15 PM	0	0	0	0	0	0	8	28	0	0	0	36	0	1	0	0	2	1	0	30	9	0	0	39	76
12:30 PM	0	0	0	0	2	0	6	34	0	0	0	40	0	0	0	0	3	0	0	28	6	0	0	34	74
12:45 PM	0	0	0	0	0	0	4	28	0	0	0	32	0	1	0	0	3	1	0	31	2	0	0	33	66
Total	0	0	0	0	3	0	23	113	0	0	0	136	0	3	0	0	8	3	0	115	22	0	0	137	276
Approach %	0.0	0.0	0.0	0.0	-	-	16.9	83.1	0.0	0.0	-	-	0.0	100.0	0.0	0.0	-	-	0.0	83.9	16.1	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	8.3	40.9	0.0	0.0	-	49.3	0.0	1.1	0.0	0.0	-	1.1	0.0	41.7	8.0	0.0	-	49.6	-
PHF	0.000	0.000	0.000	0.000	-	0.000	0.719	0.831	0.000	0.000	-	0.850	0.000	0.750	0.000	0.000	-	0.750	0.000	0.927	0.611	0.000	-	0.878	0.908
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	1
% Motorcycles	-	-	-	-	-	-	0.0	0.0	-	-	-	0.0	-	0.0	-	-	-	0.0	-	0.9	0.0	-	-	0.7	0.4
Cars & Light Goods	0	0	0	0	-	0	23	112	0	0	-	135	0	3	0	0	-	3	0	112	22	0	-	134	272
% Cars & Light Goods	-	-	-	-	-	-	100.0	99.1	-	-	-	99.3	-	100.0	-	-	-	100.0	-	97.4	100.0	-	-	97.8	98.6
Other Vehicles	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	0	2	0	0	-	2	3
% Other Vehicles	-	-	-	-	-	-	0.0	0.9	-	-	-	0.7	-	0.0	-	-	-	0.0	-	1.7	0.0	-	-	1.5	1.1
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	25.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	6	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	75.0	-	-	-	-	-	-	-	-



Tri-State Traffic Data: New York Division
184 Baker Rd

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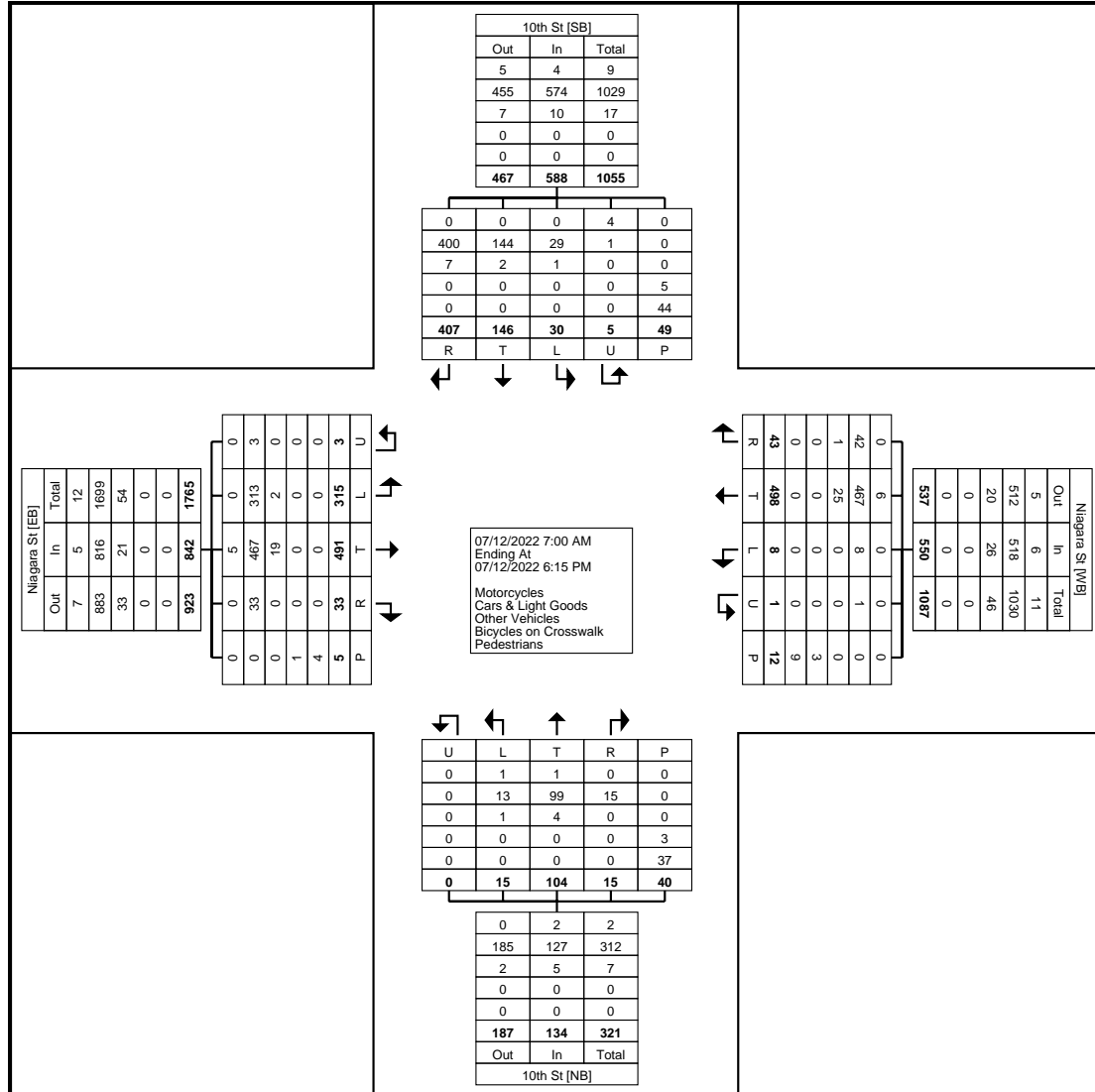
Count Name: Niagara St & 9th St
Site Code:
Start Date: 07/30/2022
Page No: 6



Turning Movement Peak Hour Data Plot (12:00 PM)

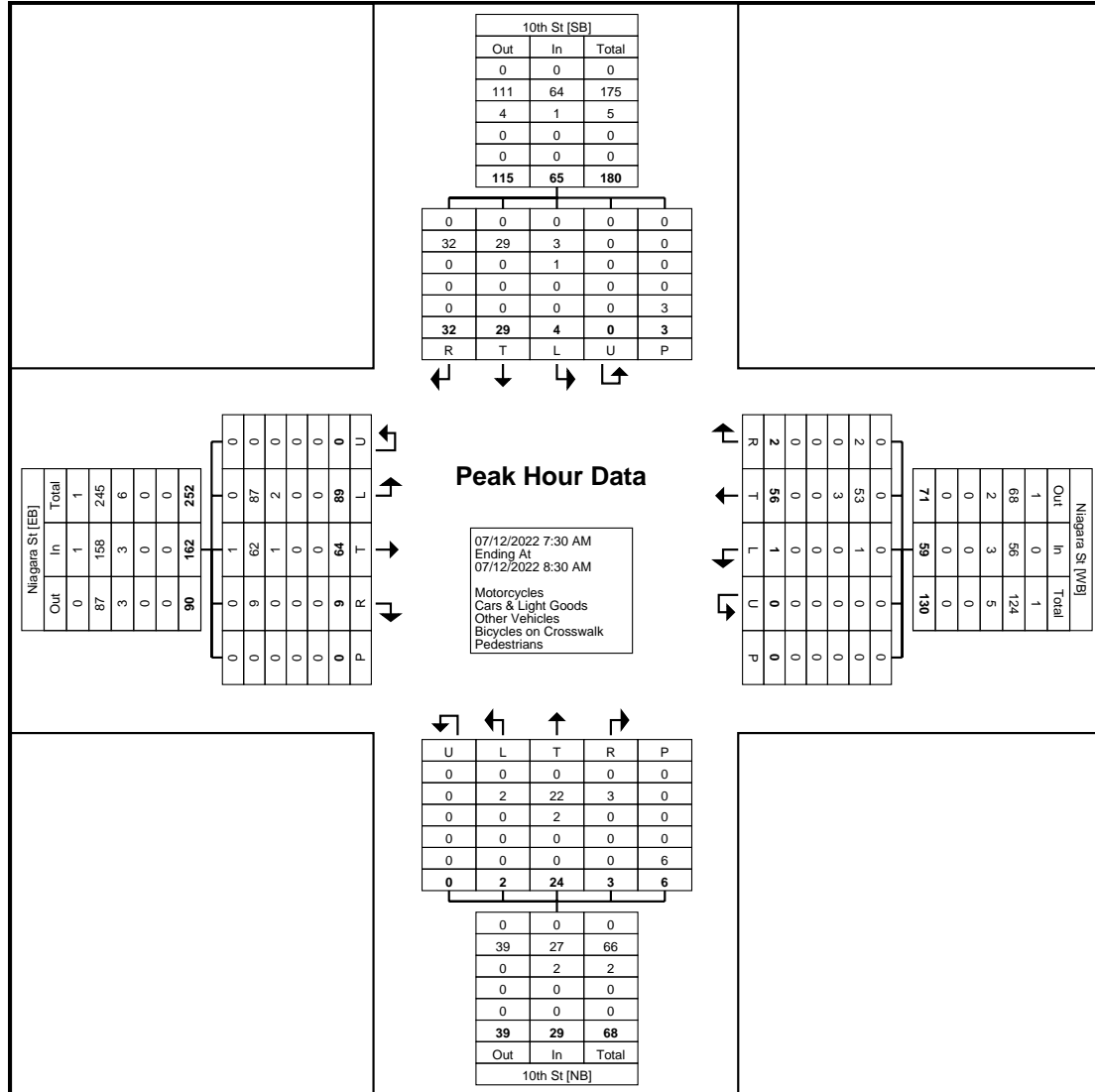
Tri-State Traffic Data: New York Division
184 Baker Rd

Niagara, New York
July 12, 2022



Turning Movement Data Plot

Tri-State Traffic Data: New York Division
184 Baker Rd



Turning Movement Peak Hour Data Plot (7:30 AM)



Tri-State Traffic Data: New York Division
184 Baker Rd

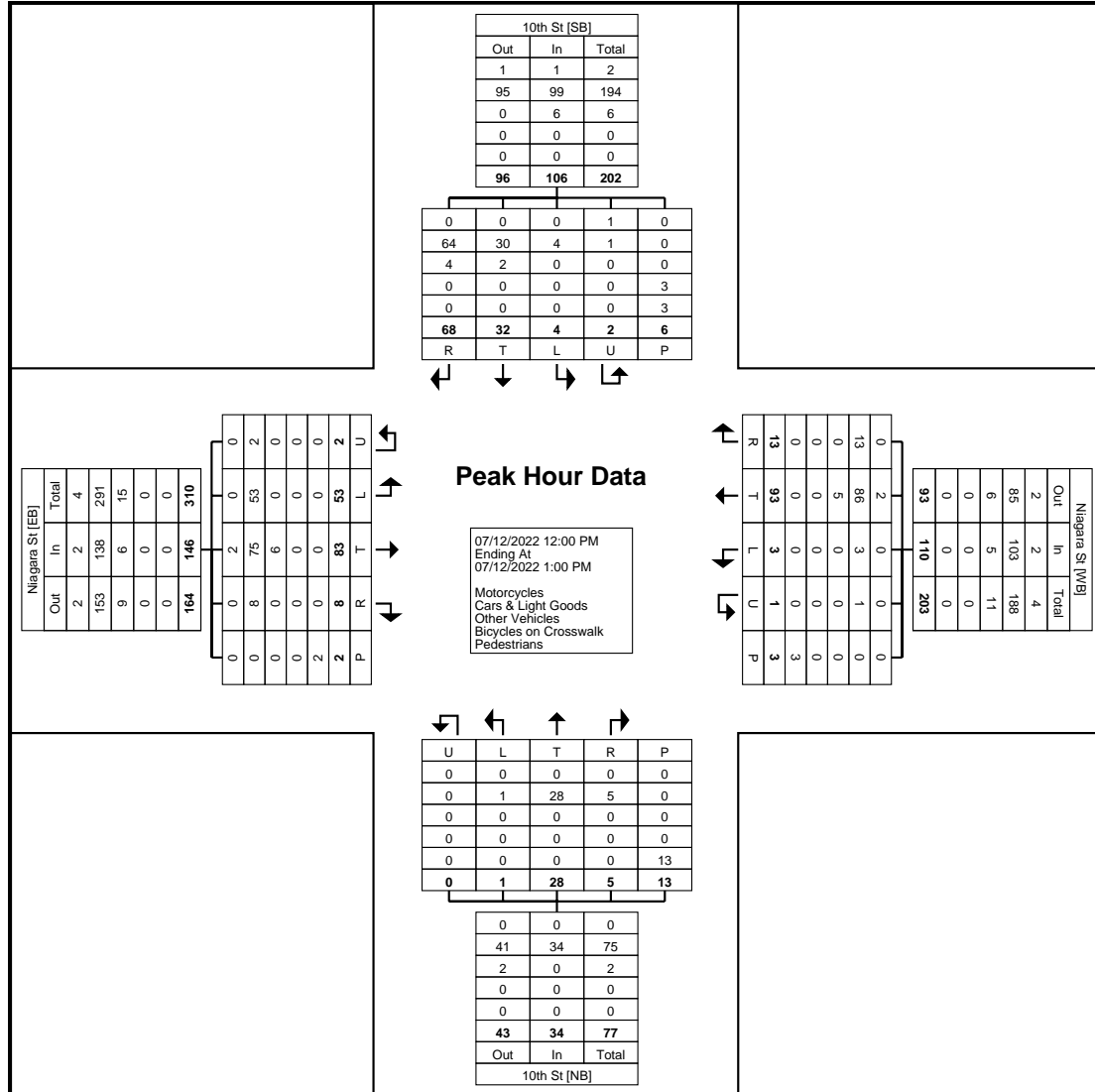
Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Niagara St & 10th St
Site Code:
Start Date: 07/12/2022
Page No: 5

Niagara, New York
July 12, 2022

Turning Movement Peak Hour Data (12:00 PM)

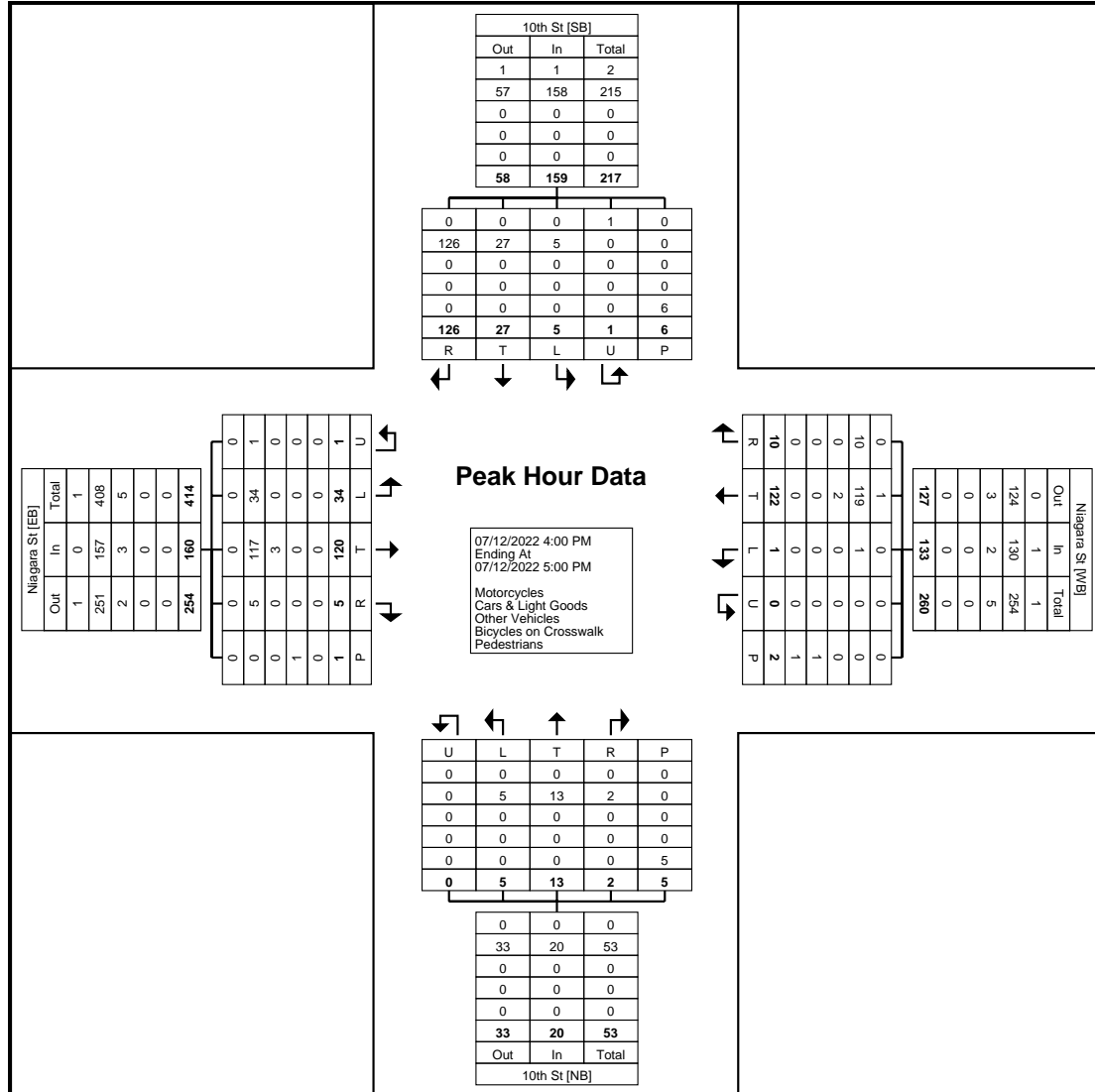
Start Time	10th St Southbound							Niagara St Westbound							10th St Northbound							Niagara St Eastbound							Int. Total
	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	
12:00 PM	12	6	2	0	0	2	20	4	0	12	1	1	1	18	1	1	6	0	0	0	8	2	0	21	11	1	0	35	81
12:15 PM	8	11	11	1	1	1	32	2	2	20	0	0	0	24	1	0	7	1	0	5	9	1	1	24	18	1	1	45	110
12:30 PM	8	8	8	2	1	2	27	1	0	30	1	0	2	32	0	0	5	0	0	1	5	2	1	21	10	0	1	34	98
12:45 PM	12	3	11	1	0	1	27	3	1	31	1	0	0	36	0	2	10	0	0	7	12	1	0	17	14	0	0	32	107
Total	40	28	32	4	2	6	106	10	3	93	3	1	3	110	2	3	28	1	0	13	34	6	2	83	53	2	2	146	396
Approach %	37.7	26.4	30.2	3.8	1.9	-	-	9.1	2.7	84.5	2.7	0.9	-	-	5.9	8.8	82.4	2.9	0.0	-	-	4.1	1.4	56.8	36.3	1.4	-	-	-
Total %	10.1	7.1	8.1	1.0	0.5	-	26.8	2.5	0.8	23.5	0.8	0.3	-	27.8	0.5	0.8	7.1	0.3	0.0	-	8.6	1.5	0.5	21.0	13.4	0.5	-	36.9	-
PHF	0.833	0.636	0.727	0.500	0.500	-	0.828	0.625	0.375	0.750	0.750	0.250	-	0.764	0.500	0.375	0.700	0.250	0.000	-	0.708	0.750	0.500	0.865	0.736	0.500	-	0.811	0.900
Motorcycles	0	0	0	0	1	-	1	0	0	2	0	0	-	2	0	0	0	0	0	-	0	0	0	2	0	0	-	2	5
% Motorcycles	0.0	0.0	0.0	0.0	50.0	-	0.9	0.0	0.0	2.2	0.0	0.0	-	1.8	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	2.4	0.0	0.0	-	1.4	1.3
Cars & Light Goods	38	26	30	4	1	-	99	10	3	86	3	1	-	103	2	3	28	1	0	-	34	6	2	75	53	2	-	138	374
% Cars & Light Goods	95.0	92.9	93.8	100.0	50.0	-	93.4	100.0	100.0	92.5	100.0	100.0	-	93.6	100.0	100.0	100.0	100.0	-	-	100.0	100.0	100.0	90.4	100.0	100.0	-	94.5	94.4
Other Vehicles	2	2	2	0	0	-	6	0	0	5	0	0	-	5	0	0	0	0	0	-	0	0	0	6	0	0	-	6	17
% Other Vehicles	5.0	7.1	6.3	0.0	0.0	-	5.7	0.0	0.0	5.4	0.0	0.0	-	4.5	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	7.2	0.0	0.0	-	4.1	4.3
Bicycles on Crosswalk	-	-	-	-	-	3	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	50.0	-	-	-	-	-	-	0.0	-	-	-	-	-	-	0.0	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	-	3	-	-	-	-	-	-	3	-	-	-	-	-	-	13	-	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	50.0	-	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-



Turning Movement Peak Hour Data Plot (12:00 PM)

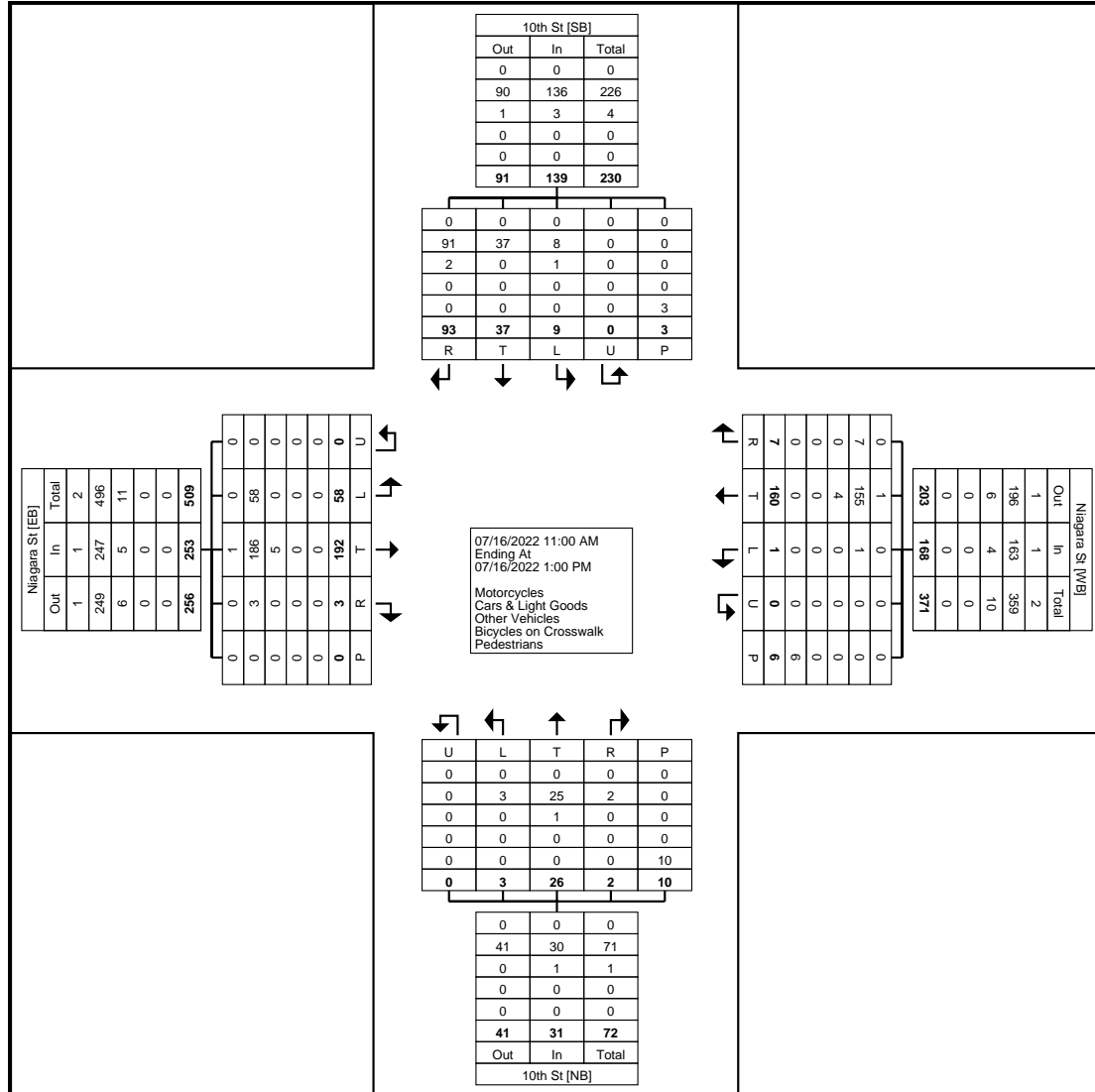
Tri-State Traffic Data: New York Division
184 Baker Rd

Niagara, New York
July 12, 2022



Turning Movement Peak Hour Data Plot (4:00 PM)

Tri-State Traffic Data: New York Division
184 Baker Rd



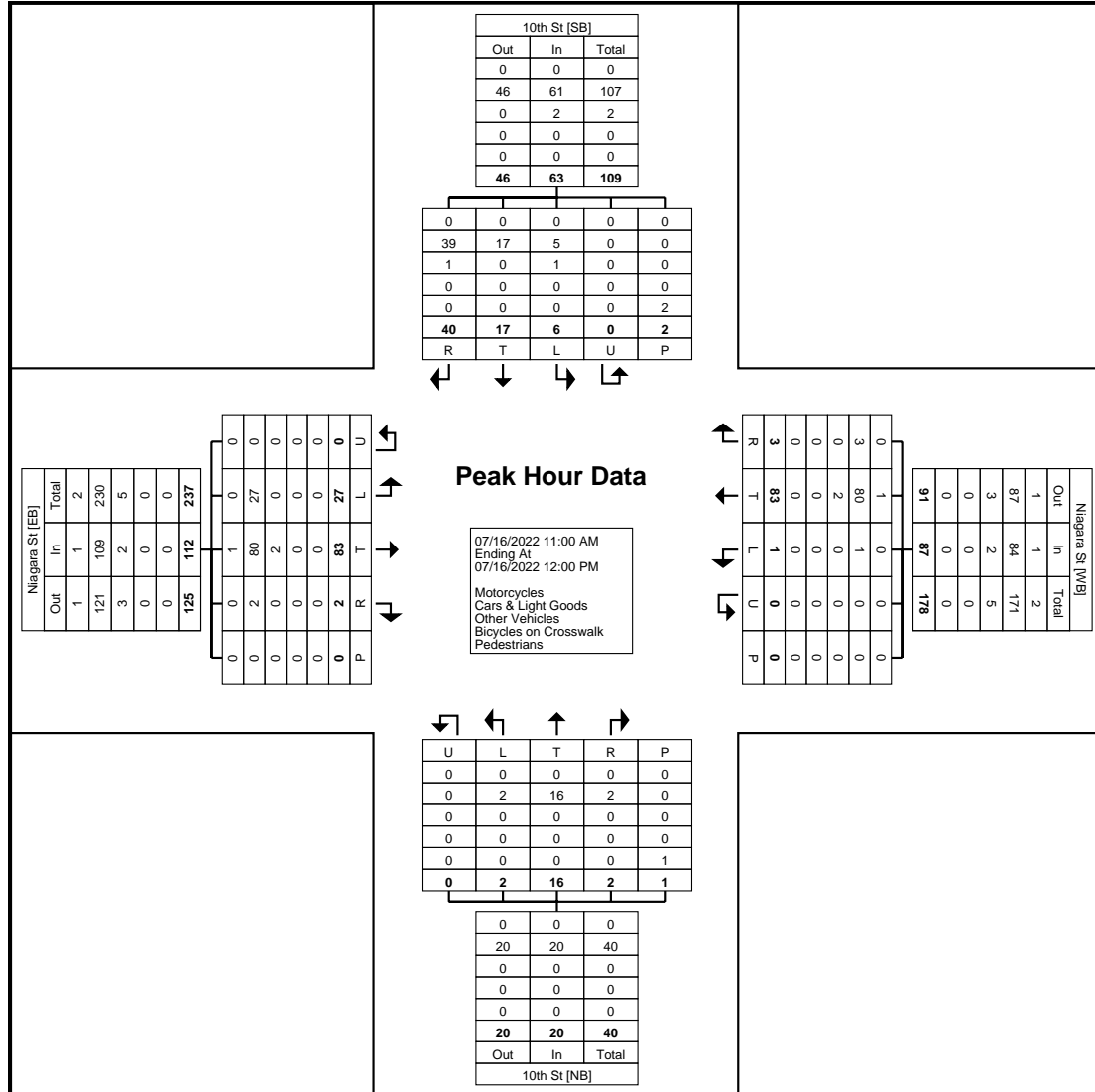


Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

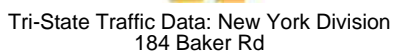
Count Name: Niagara St & 10th St
Site Code:
Start Date: 07/16/2022
Page No: 4

Niagara, New York
July 16, 2022



Turning Movement Peak Hour Data Plot (11:00 AM)

Tri-State Traffic Data: New York Division
184 Baker Rd

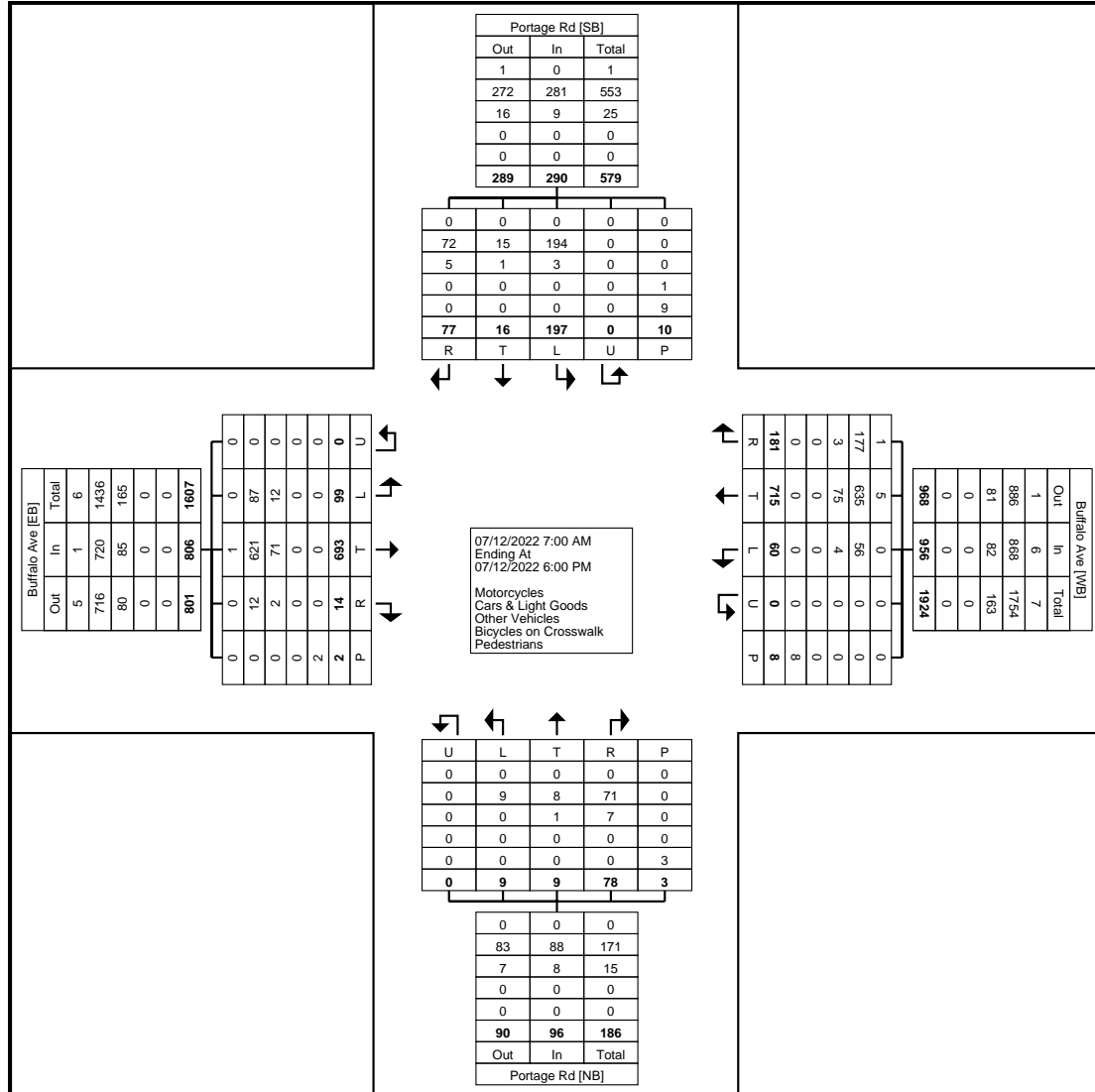


Coatesville , Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Niagara St & 10th St
Site Code:
Start Date: 07/16/2022
Page No: 6



Tri-State Traffic Data: New York Division
184 Baker Rd



Turning Movement Data Plot

Tri-State Traffic Data: New York Division
184 Baker Rd

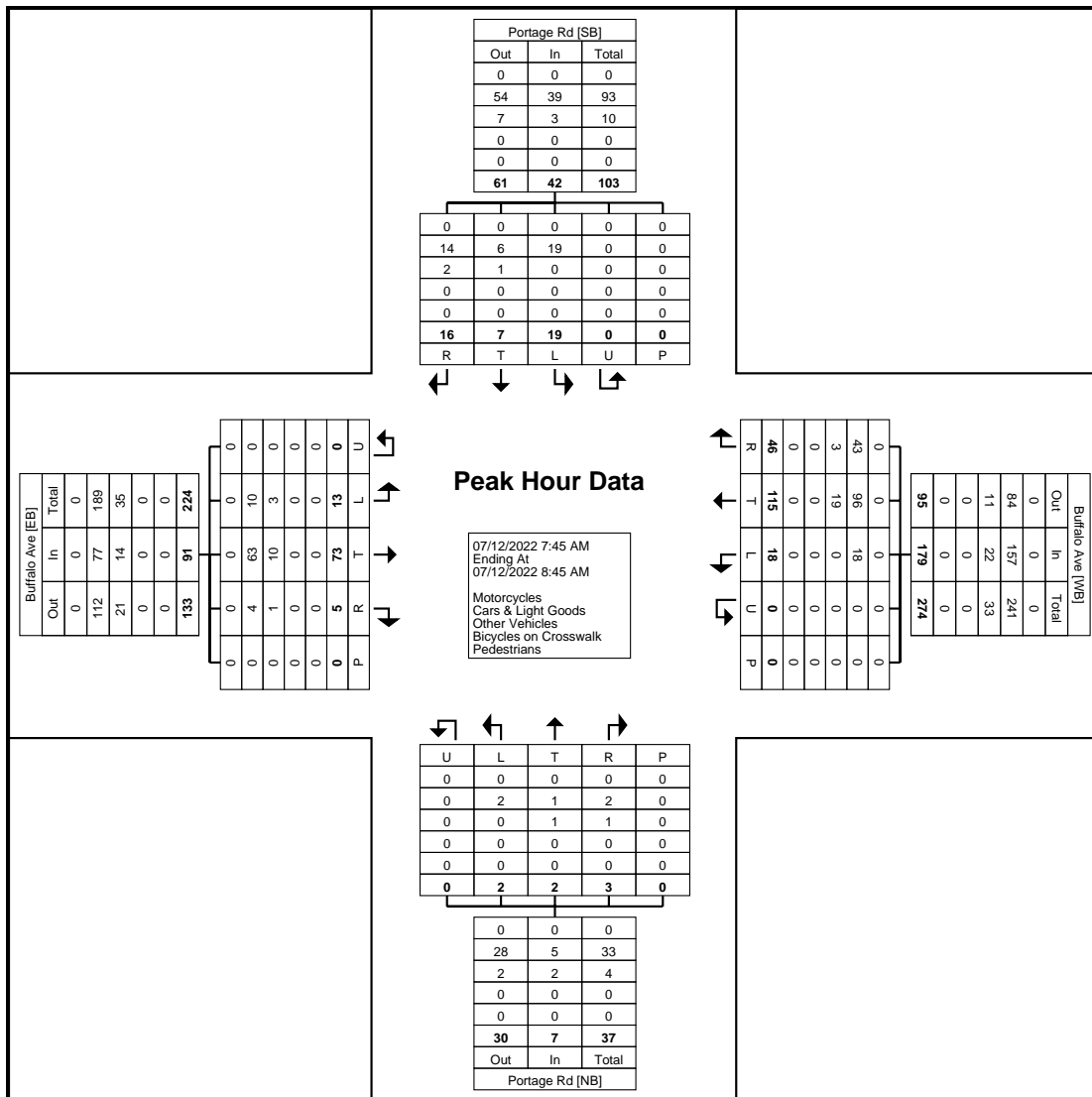


Niagara, New York
July 12, 2022

Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville , Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Portage Rd &
Buffalo Ave
Site Code:
Start Date: 07/12/2022
Page No: 4



Turning Movement Peak Hour Data Plot (7:45 AM)



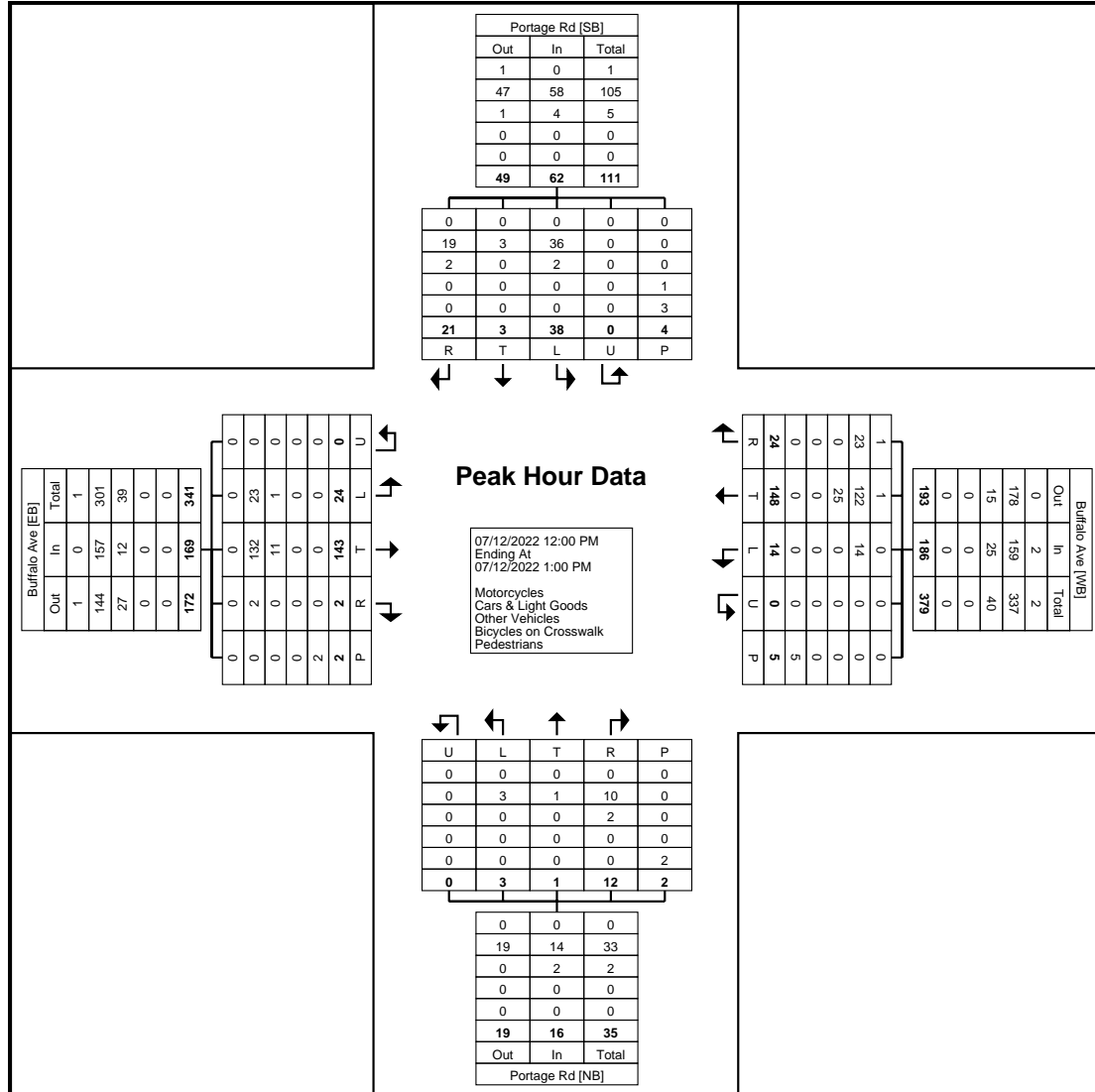
Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Portage Rd &
Buffalo Ave
Site Code:
Start Date: 07/12/2022
Page No: 5

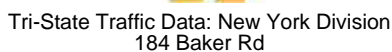
Turning Movement Peak Hour Data (12:00 PM)

Start Time	Portage Rd Southbound							Buffalo Ave Westbound							Portage Rd Northbound							Buffalo Ave Eastbound							Int. Total
	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	
12:00 PM	5	3	0	16	0	1	24	9	0	32	0	0	3	41	2	6	1	0	0	1	9	0	0	42	7	0	1	49	123
12:15 PM	0	3	3	8	0	0	14	4	0	33	4	0	0	41	0	3	0	3	0	1	6	0	0	33	4	0	0	37	98
12:30 PM	3	4	0	6	0	3	13	10	0	41	5	0	1	56	0	0	0	0	0	0	0	1	0	34	7	0	1	42	111
12:45 PM	1	2	0	8	0	0	11	1	0	42	5	0	1	48	0	1	0	0	0	0	1	1	0	34	6	0	0	41	101
Total	9	12	3	38	0	4	62	24	0	148	14	0	5	186	2	10	1	3	0	2	16	2	0	143	24	0	2	169	433
Approach %	14.5	19.4	4.8	61.3	0.0	-	-	12.9	0.0	79.6	7.5	0.0	-	-	12.5	62.5	6.3	18.8	0.0	-	-	1.2	0.0	84.6	14.2	0.0	-	-	-
Total %	2.1	2.8	0.7	8.8	0.0	-	14.3	5.5	0.0	34.2	3.2	0.0	-	43.0	0.5	2.3	0.2	0.7	0.0	-	3.7	0.5	0.0	33.0	5.5	0.0	-	39.0	-
PHF	0.450	0.750	0.250	0.594	0.000	-	0.646	0.600	0.000	0.881	0.700	0.000	-	0.830	0.250	0.417	0.250	0.250	0.000	-	0.444	0.500	0.000	0.851	0.857	0.000	-	0.862	0.880
Motorcycles	0	0	0	0	0	-	0	1	0	1	0	0	-	2	0	0	0	0	0	-	0	0	0	0	0	0	-	0	2
% Motorcycle	0.0	0.0	0.0	0.0	-	-	0.0	4.2	-	0.7	0.0	-	-	1.1	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0	0.0	-	-	0.0	0.5
Cars & Light Goods	9	10	3	36	0	-	58	23	0	122	14	0	-	159	1	9	1	3	0	-	14	2	0	132	23	0	-	157	388
% Cars & Light Goods	100.0	83.3	100.0	94.7	-	-	93.5	95.8	-	82.4	100.0	-	-	85.5	50.0	90.0	100.0	100.0	-	-	87.5	100.0	-	92.3	95.8	-	-	92.9	89.6
Other Vehicles	0	2	0	2	0	-	4	0	0	25	0	0	-	25	1	1	0	0	0	-	2	0	0	11	1	0	-	12	43
% Other Vehicles	0.0	16.7	0.0	5.3	-	-	6.5	0.0	-	16.9	0.0	-	-	13.4	50.0	10.0	0.0	0.0	-	-	12.5	0.0	-	7.7	4.2	-	-	7.1	9.9
Bicycles on Crosswalk	-	-	-	-	-	1	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	25.0	-	-	-	-	-	-	0.0	-	-	-	-	-	-	0.0	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	-	3	-	-	-	-	-	-	5	-	-	-	-	-	-	2	-	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	75.0	-	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-



Turning Movement Peak Hour Data Plot (12:00 PM)

Tri-State Traffic Data: New York Division
184 Baker Rd



Coatesville , Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Portage Rd &
Buffalo Ave
Site Code:
Start Date: 07/12/2022
Page No: 8





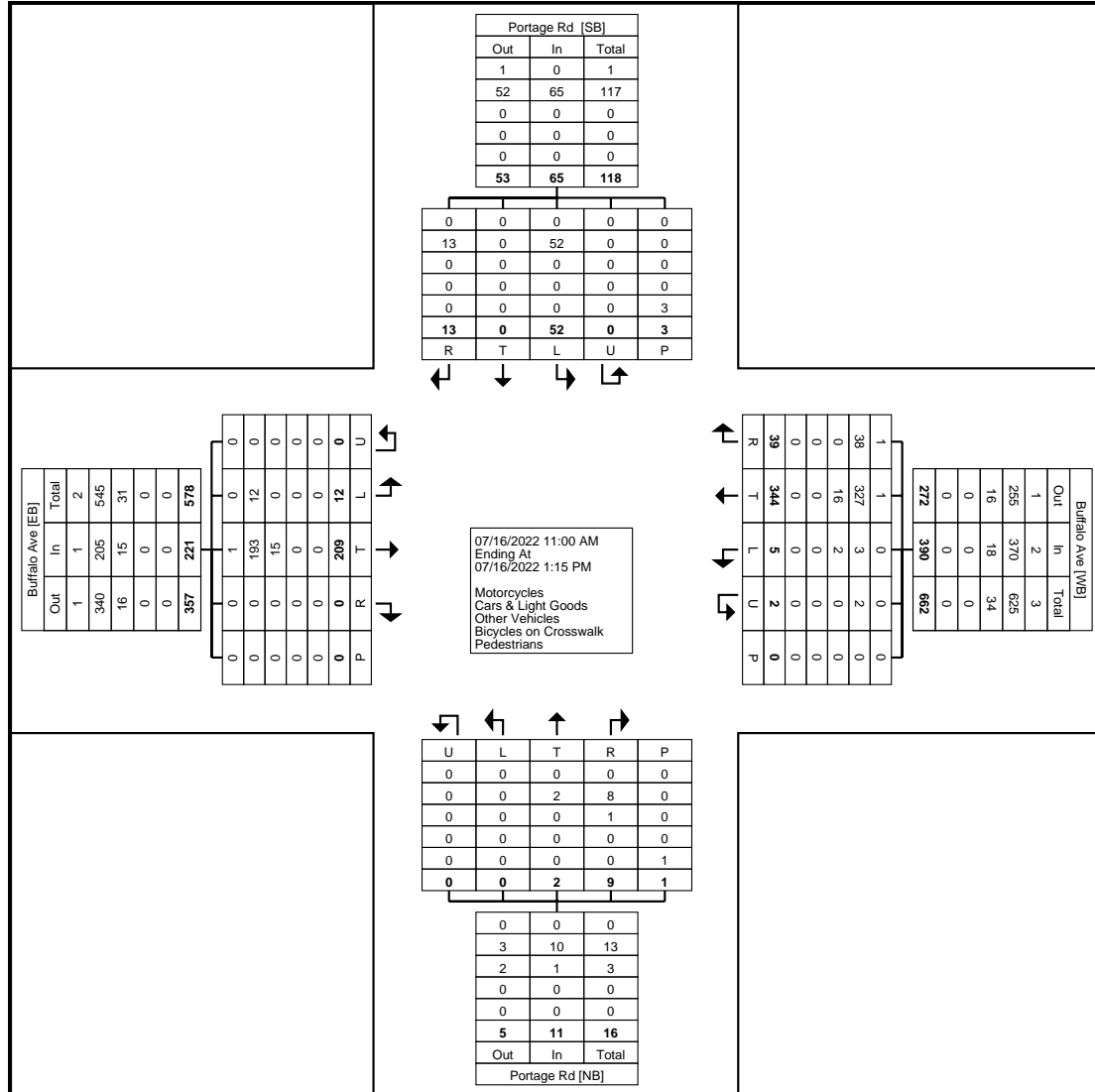
Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Portage Rd &
Buffalo Ave
Site Code:
Start Date: 07/16/2022
Page No: 1

Turning Movement Data

Start Time	Portage Rd Southbound						Buffalo Ave Westbound						Portage Rd Northbound						Buffalo Ave Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
11:00 AM	1	0	7	0	0	8	3	38	0	0	0	41	1	0	0	0	0	1	0	23	2	0	0	25	75
11:15 AM	0	0	7	0	0	7	4	51	0	0	0	55	0	0	0	0	0	0	0	35	1	0	0	36	98
11:30 AM	0	0	6	0	0	6	4	52	2	0	0	58	2	0	0	0	0	2	0	24	1	0	0	25	91
11:45 AM	3	0	5	0	2	8	5	35	0	0	0	40	0	0	0	0	0	0	0	21	1	0	0	22	70
Hourly Total	4	0	25	0	2	29	16	176	2	0	0	194	3	0	0	0	0	3	0	103	5	0	0	108	334
12:00 PM	5	0	8	0	0	13	5	43	1	0	0	49	4	2	0	0	0	6	0	34	2	0	0	36	104
12:15 PM	3	0	7	0	0	10	4	42	2	0	0	48	2	0	0	0	1	2	0	23	2	0	0	25	85
12:30 PM	0	0	1	0	0	1	6	38	0	0	0	44	0	0	0	0	0	0	0	23	2	0	0	25	70
12:45 PM	1	0	11	0	1	12	8	45	0	2	0	55	0	0	0	0	0	0	0	26	1	0	0	27	94
Hourly Total	9	0	27	0	1	36	23	168	3	2	0	196	6	2	0	0	1	8	0	106	7	0	0	113	353
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	13	0	52	0	3	65	39	344	5	2	0	390	9	2	0	0	1	11	0	209	12	0	0	221	687
Approach %	20.0	0.0	80.0	0.0	-	-	10.0	88.2	1.3	0.5	-	-	81.8	18.2	0.0	0.0	-	-	0.0	94.6	5.4	0.0	-	-	-
Total %	1.9	0.0	7.6	0.0	-	9.5	5.7	50.1	0.7	0.3	-	56.8	1.3	0.3	0.0	0.0	-	1.6	0.0	30.4	1.7	0.0	-	32.2	-
Motorcycles	0	0	0	0	-	0	1	1	0	0	-	2	0	0	0	0	-	0	0	1	0	0	-	1	3
% Motorcycles	0.0	-	0.0	-	-	0.0	2.6	0.3	0.0	0.0	-	0.5	0.0	0.0	-	-	-	0.0	-	0.5	0.0	-	-	0.5	0.4
Cars & Light Goods	13	0	52	0	-	65	38	327	3	2	-	370	8	2	0	0	-	10	0	193	12	0	-	205	650
% Cars & Light Goods	100.0	-	100.0	-	-	100.0	97.4	95.1	60.0	100.0	-	94.9	88.9	100.0	-	-	-	90.9	-	92.3	100.0	-	-	92.8	94.6
Other Vehicles	0	0	0	0	-	0	0	16	2	0	-	18	1	0	0	0	-	1	0	15	0	0	-	15	34
% Other Vehicles	0.0	-	0.0	-	-	0.0	0.0	4.7	40.0	0.0	-	4.6	11.1	0.0	-	-	-	9.1	-	7.2	0.0	-	-	6.8	4.9
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-



Turning Movement Data Plot

Tri-State Traffic Data: New York Division
184 Baker Rd

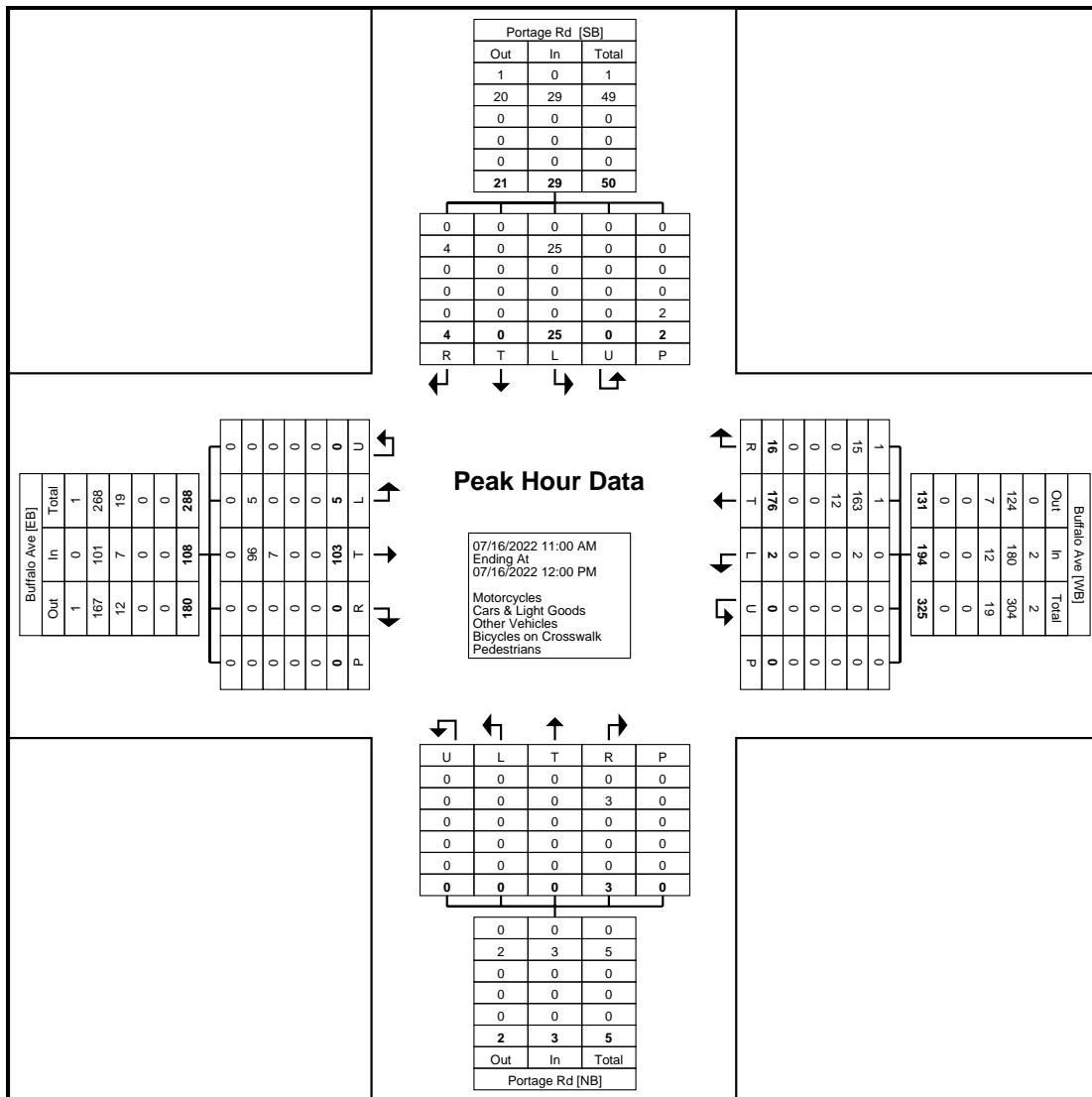


Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville , Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Portage Rd &
Buffalo Ave
Site Code:
Start Date: 07/16/2022
Page No: 4

Niagara, New York
July 16, 2022



Turning Movement Peak Hour Data Plot (11:00 AM)



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Portage Rd &
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Site Code:
Start Date: 07/16/2022
Page No: 5

Niagara, New York
July 16, 2022

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Portage Rd Southbound						Buffalo Ave Westbound						Portage Rd Northbound						Buffalo Ave Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
12:00 PM	5	0	8	0	0	13	5	43	1	0	0	49	4	2	0	0	0	6	0	34	2	0	0	36	104
12:15 PM	3	0	7	0	0	10	4	42	2	0	0	48	2	0	0	0	1	2	0	23	2	0	0	25	85
12:30 PM	0	0	1	0	0	1	6	38	0	0	0	44	0	0	0	0	0	0	0	23	2	0	0	25	70
12:45 PM	1	0	11	0	1	12	8	45	0	2	0	55	0	0	0	0	0	0	0	26	1	0	0	27	94
Total	9	0	27	0	1	36	23	168	3	2	0	196	6	2	0	0	1	8	0	106	7	0	0	113	353
Approach %	25.0	0.0	75.0	0.0	-	-	11.7	85.7	1.5	1.0	-	-	75.0	25.0	0.0	0.0	-	-	0.0	93.8	6.2	0.0	-	-	-
Total %	2.5	0.0	7.6	0.0	-	10.2	6.5	47.6	0.8	0.6	-	55.5	1.7	0.6	0.0	0.0	-	2.3	0.0	30.0	2.0	0.0	-	32.0	-
PHF	0.450	0.000	0.614	0.000	-	0.692	0.719	0.933	0.375	0.250	-	0.891	0.375	0.250	0.000	0.000	-	0.333	0.000	0.779	0.875	0.000	-	0.785	0.849
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	1
% Motorcycles	0.0	-	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-	0.0	-	-	0.9	0.0	-	-	0.9	0.3
Cars & Light Goods	9	0	27	0	-	36	23	164	1	2	-	190	5	2	0	0	-	7	0	97	7	0	-	104	337
% Cars & Light Goods	100.0	-	100.0	-	-	100.0	100.0	97.6	33.3	100.0	-	96.9	83.3	100.0	-	-	-	87.5	-	91.5	100.0	-	-	92.0	95.5
Other Vehicles	0	0	0	0	-	0	0	4	2	0	-	6	1	0	0	0	-	1	0	8	0	0	-	8	15
% Other Vehicles	0.0	-	0.0	-	-	0.0	0.0	2.4	66.7	0.0	-	3.1	16.7	0.0	-	-	-	12.5	-	7.5	0.0	-	-	7.1	4.2
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

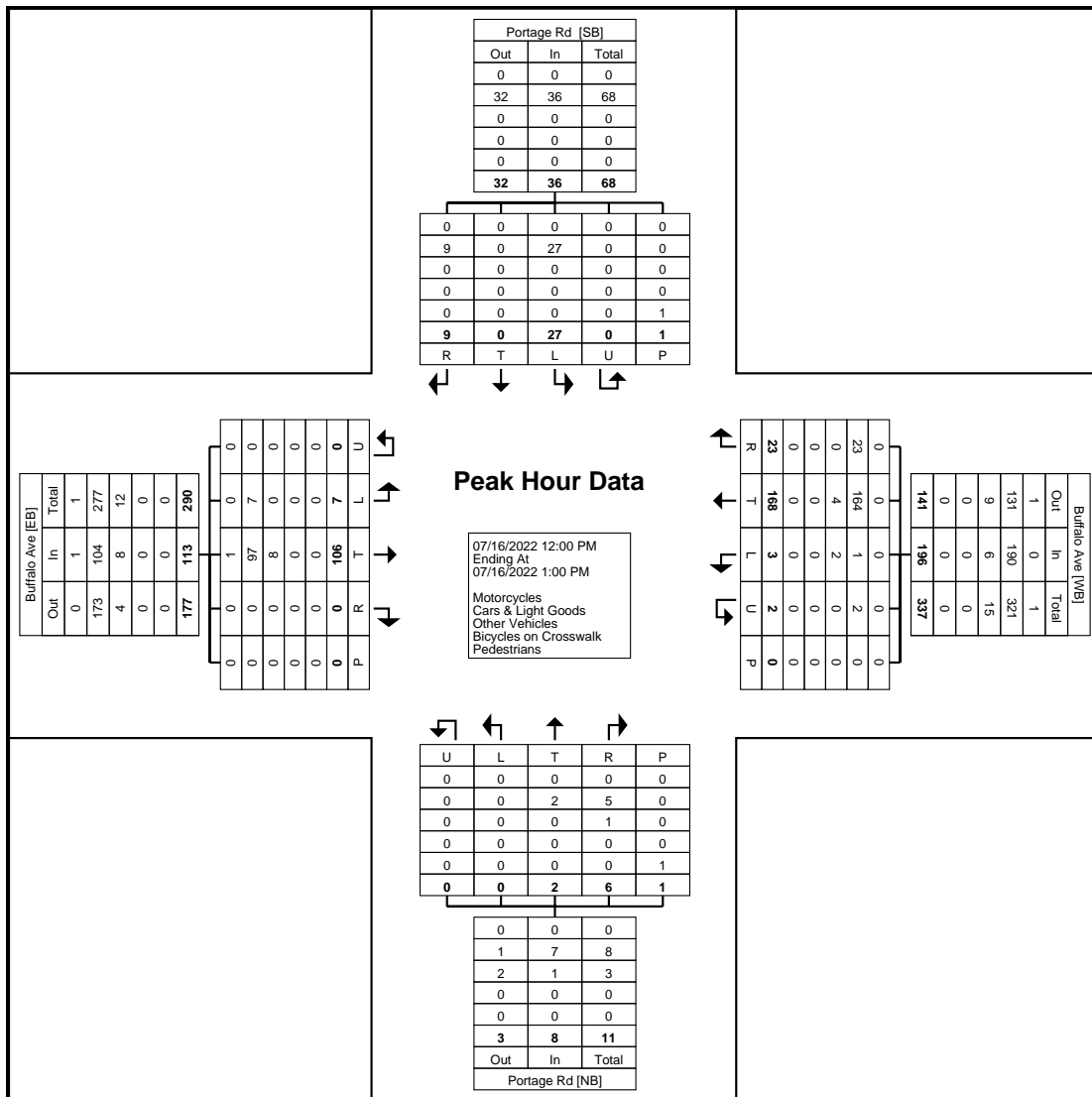


Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville , Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Portage Rd &
Buffalo Ave
Site Code:
Start Date: 07/16/2022
Page No: 6

Niagara, New York
July 16, 2022



Turning Movement Peak Hour Data Plot (12:00 PM)



Tri-State Traffic Data: New York Division
184 Baker Rd

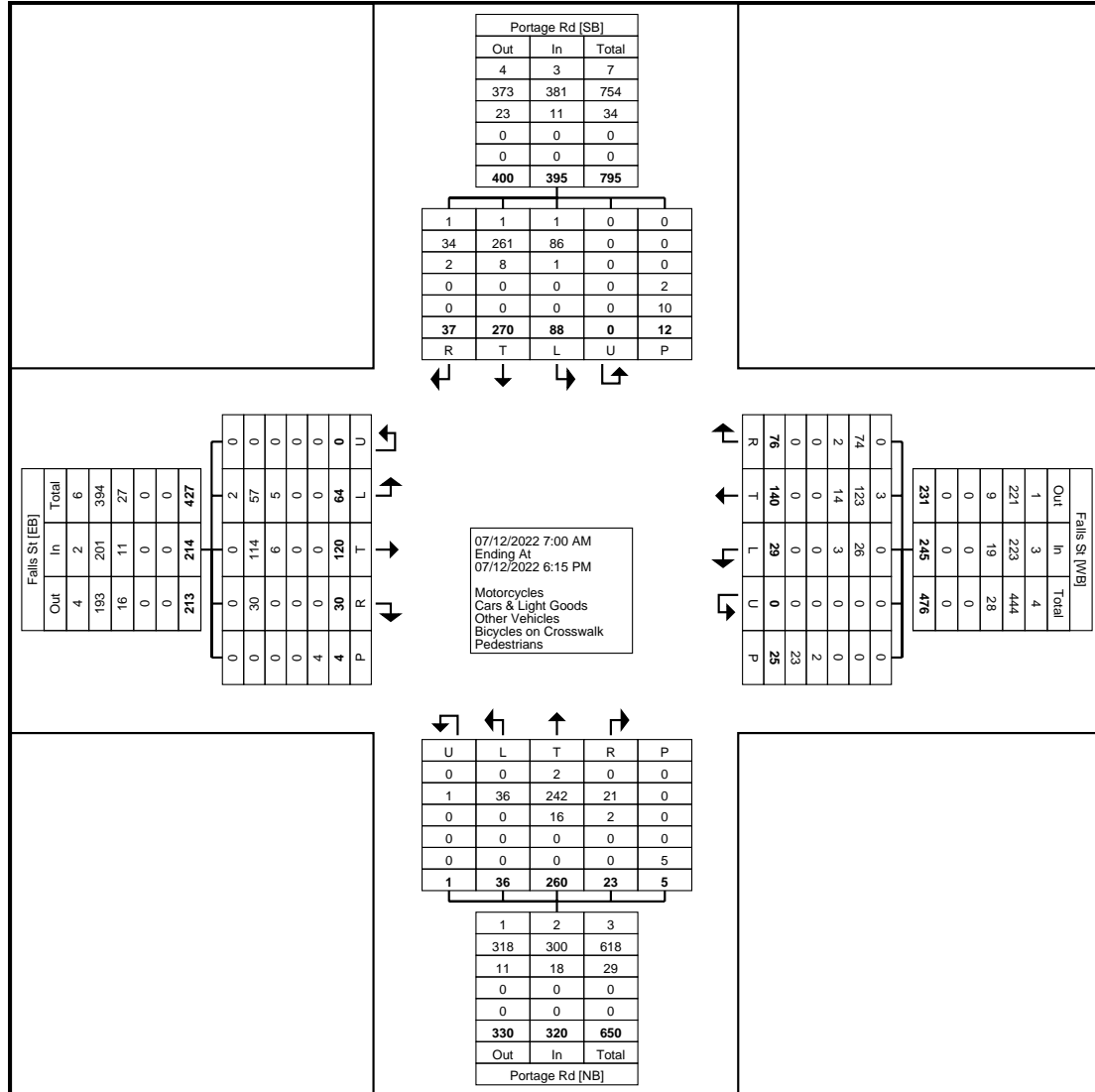
Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Portage Rd & Falls St
Site Code:
Start Date: 07/12/2022
Page No: 1

Niagara, New York
July 12, 2022

Turning Movement Data

Start Time	Portage Rd Southbound						Falls St Westbound						Portage Rd Northbound						Falls St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
7:00 AM	0	4	3	0	0	7	0	2	0	0	0	2	1	3	0	0	0	4	2	2	1	0	0	5	18
7:15 AM	3	6	0	0	0	9	1	4	0	0	0	5	1	15	0	0	1	16	0	1	1	0	0	2	32
7:30 AM	3	6	4	0	1	13	4	8	0	0	1	12	0	15	2	0	0	17	0	3	2	0	0	5	47
7:45 AM	2	8	2	0	0	12	3	13	1	0	3	17	0	17	3	0	1	20	1	5	3	0	0	9	58
Hourly Total	8	24	9	0	1	41	8	27	1	0	4	36	2	50	5	0	2	57	3	11	7	0	0	21	155
8:00 AM	0	9	2	0	1	11	1	6	1	0	0	8	0	7	1	0	0	8	1	2	2	0	1	5	32
8:15 AM	3	5	0	0	2	8	1	15	0	0	0	16	1	11	5	0	1	17	1	3	3	0	0	7	48
8:30 AM	0	13	2	0	0	15	3	5	1	0	0	9	0	15	1	0	0	16	0	1	2	0	0	3	43
8:45 AM	0	10	2	0	0	12	2	2	1	0	1	5	0	10	1	0	0	11	0	0	2	0	1	2	30
Hourly Total	3	37	6	0	3	46	7	28	3	0	1	38	1	43	8	0	1	52	2	6	9	0	2	17	153
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	1	12	3	0	1	16	3	3	2	0	1	8	1	12	2	0	0	15	3	7	4	0	1	14	53
11:15 AM	1	10	2	0	0	13	4	5	0	0	2	9	0	16	4	0	0	20	0	8	2	0	0	10	52
11:30 AM	0	13	4	0	0	17	4	5	2	0	2	11	2	13	0	0	0	15	1	3	3	0	0	7	50
11:45 AM	2	18	3	0	1	23	0	5	1	0	1	6	0	9	7	0	0	16	1	8	5	0	0	14	59
Hourly Total	4	53	12	0	2	69	11	18	5	0	6	34	3	50	13	0	0	66	5	26	14	0	1	45	214
12:00 PM	2	22	5	0	0	29	5	5	3	0	4	13	1	21	1	1	0	24	2	4	0	0	0	6	72
12:15 PM	2	18	6	0	0	26	3	4	3	0	2	10	2	9	1	0	0	12	0	8	4	0	1	12	60
12:30 PM	0	8	4	0	1	12	4	11	3	0	0	18	3	10	1	0	0	14	0	9	4	0	0	13	57
12:45 PM	0	9	3	0	0	12	5	8	1	0	1	14	0	7	1	0	0	8	2	5	2	0	0	9	43
Hourly Total	4	57	18	0	1	79	17	28	10	0	7	55	6	47	4	1	0	58	4	26	10	0	1	40	232
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	4	12	9	0	0	25	3	6	3	0	3	12	0	10	0	0	1	10	3	20	4	0	0	27	74
4:15 PM	2	15	3	0	0	20	5	5	0	0	1	10	2	7	1	0	1	10	2	7	4	0	0	13	53
4:30 PM	2	17	6	0	1	25	4	7	3	0	1	14	1	10	0	0	0	11	2	8	5	0	0	15	65
4:45 PM	2	15	6	0	0	23	4	5	0	0	2	9	2	13	1	0	0	16	3	5	2	0	0	10	58
Hourly Total	10	59	24	0	1	93	16	23	6	0	7	45	5	40	2	0	2	47	10	40	15	0	0	65	250
5:00 PM	0	13	4	0	2	17	8	4	1	0	0	13	4	10	1	0	0	15	2	2	2	0	0	6	51
5:15 PM	2	9	5	0	1	16	4	4	2	0	0	10	2	7	2	0	0	11	3	5	2	0	0	10	47
5:30 PM	3	11	8	0	0	22	4	3	1	0	0	8	0	7	0	0	0	7	0	2	3	0	0	5	42
5:45 PM	3	7	2	0	1	12	1	5	0	0	0	6	0	6	1	0	0	7	1	2	2	0	0	5	30
Hourly Total	8	40	19	0	4	67	17	16	4	0	0	37	6	30	4	0	0	40	6	11	9	0	0	26	170
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	37	270	88	0	12	395	76	140	29	0	25	245	23	260	36	1	5	320	30	120	64	0	4	214	1174
Approach %	9.4	68.4	22.3	0.0	-	-	31.0	57.1	11.8	0.0	-	-	7.2	81.3	11.3	0.3	-	-	14.0	56.1	29.9	0.0	-	-	-
Total %	3.2	23.0	7.5	0.0	-	33.6	6.5	11.9	2.5	0.0	-	20.9	2.0	22.1	3.1	0.1	-	27.3	2.6	10.2	5.5	0.0	-	18.2	-
Motorcycles	1	1	1	0	-	3	0	3	0	0	-	3	0	2	0	0	-	2	0	0	2	0	-	2	10
% Motorcycles	2.7	0.4	1.1	-	-	0.8	0.0	2.1	0.0	-	-	1.2	0.0	0.8	0.0	0.0	-	0.6	0.0	0.0	3.1	-	-	0.9	0.9
Cars & Light Goods	34	261	86	0	-	381	74	123	26	0	-	223	21	242	36	1	-	300	30	114	57	0	-	201	1105
% Cars & Light Goods	91.9	96.7	97.7	-	-	96.5	97.4	87.9	89.7	-	-	91.0	91.3	93.1	100.0	100.0	-	93.8	100.0	95.0	89.1	-	-	93.9	94.1
Other Vehicles	2	8	1	0	-	11	2	14	3	0	-	19	2	16	0	0	-	18	0	6	5	0	-	11	59
% Other Vehicles	5.4	3.0	1.1	-	-	2.8	2.6	10.0	10.3	-	-	7.8	8.7	6.2	0.0	0.0	-	5.6	0.0	5.0	7.8	-	-	5.1	5.0
Bicycles on Crosswalk	-	-	-	-	2	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	16.7	-	-	-	-	-	8.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	10	-	-	-	-	-	23	-	-	-	-	-	5	-	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	83.3	-	-	-	-	-	92.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-





Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Portage Rd & Falls St
Site Code:
Start Date: 07/12/2022
Page No: 3

Niagara, New York
July 12, 2022

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Portage Rd Southbound						Falls St Westbound						Portage Rd Northbound						Falls St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
7:30 AM	3	6	4	0	1	13	4	8	0	0	1	12	0	15	2	0	0	17	0	3	2	0	0	5	47
7:45 AM	2	8	2	0	0	12	3	13	1	0	3	17	0	17	3	0	1	20	1	5	3	0	0	9	58
8:00 AM	0	9	2	0	1	11	1	6	1	0	0	8	0	7	1	0	0	8	1	2	2	0	1	5	32
8:15 AM	3	5	0	0	2	8	1	15	0	0	0	16	1	11	5	0	1	17	1	3	3	0	0	7	48
Total	8	28	8	0	4	44	9	42	2	0	4	53	1	50	11	0	2	62	3	13	10	0	1	26	185
Approach %	18.2	63.6	18.2	0.0	-	-	17.0	79.2	3.8	0.0	-	-	1.6	80.6	17.7	0.0	-	-	11.5	50.0	38.5	0.0	-	-	-
Total %	4.3	15.1	4.3	0.0	-	23.8	4.9	22.7	1.1	0.0	-	28.6	0.5	27.0	5.9	0.0	-	33.5	1.6	7.0	5.4	0.0	-	14.1	-
PHF	0.667	0.778	0.500	0.000	-	0.846	0.563	0.700	0.500	0.000	-	0.779	0.250	0.735	0.550	0.000	-	0.775	0.750	0.650	0.833	0.000	-	0.722	0.797
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	8	27	7	0	-	42	9	36	2	0	-	47	1	45	11	0	-	57	3	11	7	0	-	21	167
% Cars & Light Goods	100.0	96.4	87.5	-	-	95.5	100.0	85.7	100.0	-	-	88.7	100.0	90.0	100.0	-	-	91.9	100.0	84.6	70.0	-	-	80.8	90.3
Other Vehicles	0	1	1	0	-	2	0	6	0	0	-	6	0	5	0	0	-	5	0	2	3	0	-	5	18
% Other Vehicles	0.0	3.6	12.5	-	-	4.5	0.0	14.3	0.0	-	-	11.3	0.0	10.0	0.0	-	-	8.1	0.0	15.4	30.0	-	-	19.2	9.7
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	4	-	-	-	-	-	4	-	-	-	-	-	2	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

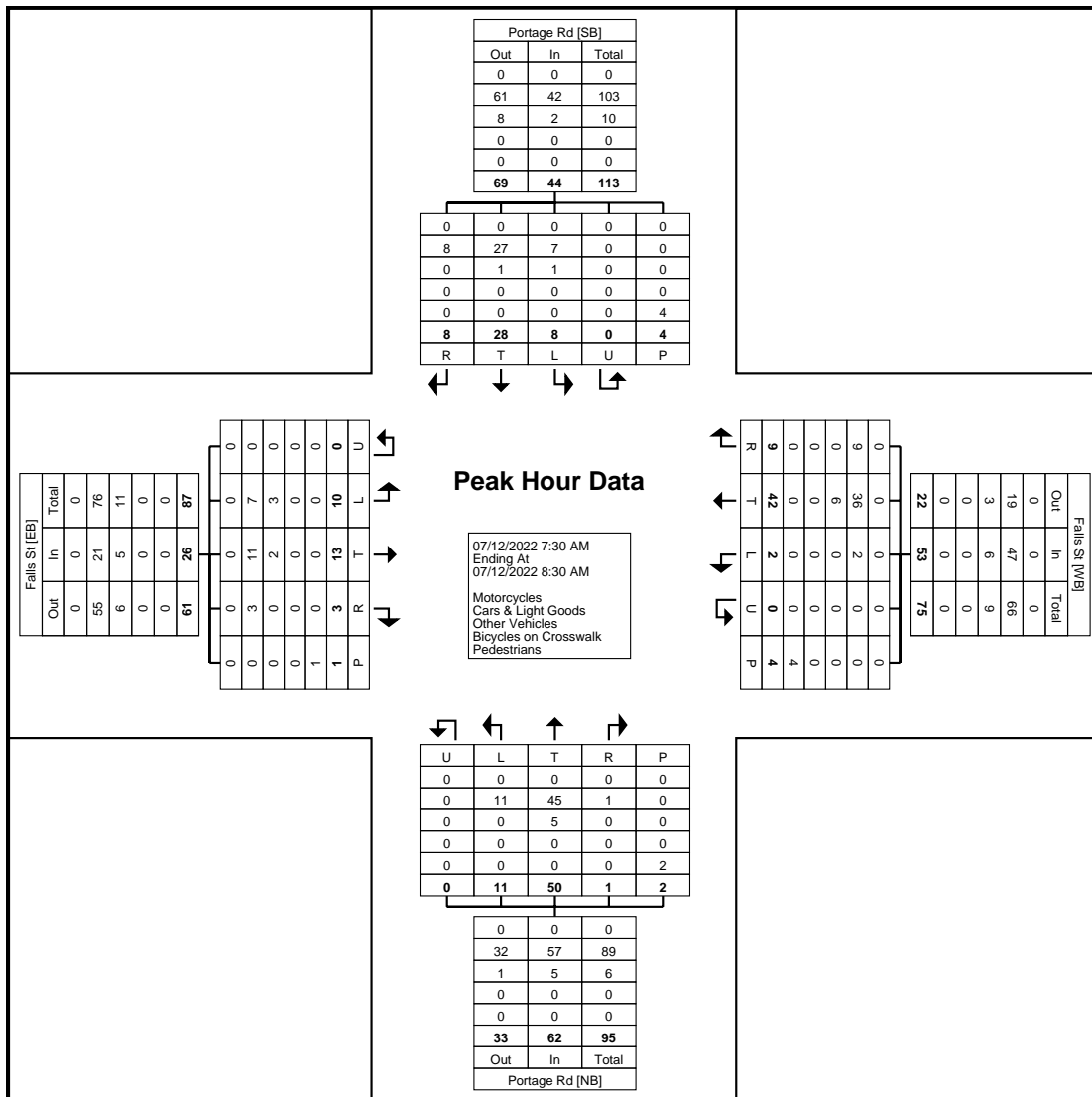


Niagara, New York
July 12, 2022

Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville , Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Portage Rd & Falls
St
Site Code:
Start Date: 07/12/2022
Page No: 4



Turning Movement Peak Hour Data Plot (7:30 AM)



Tri-State Traffic Data: New York Division
184 Baker Rd

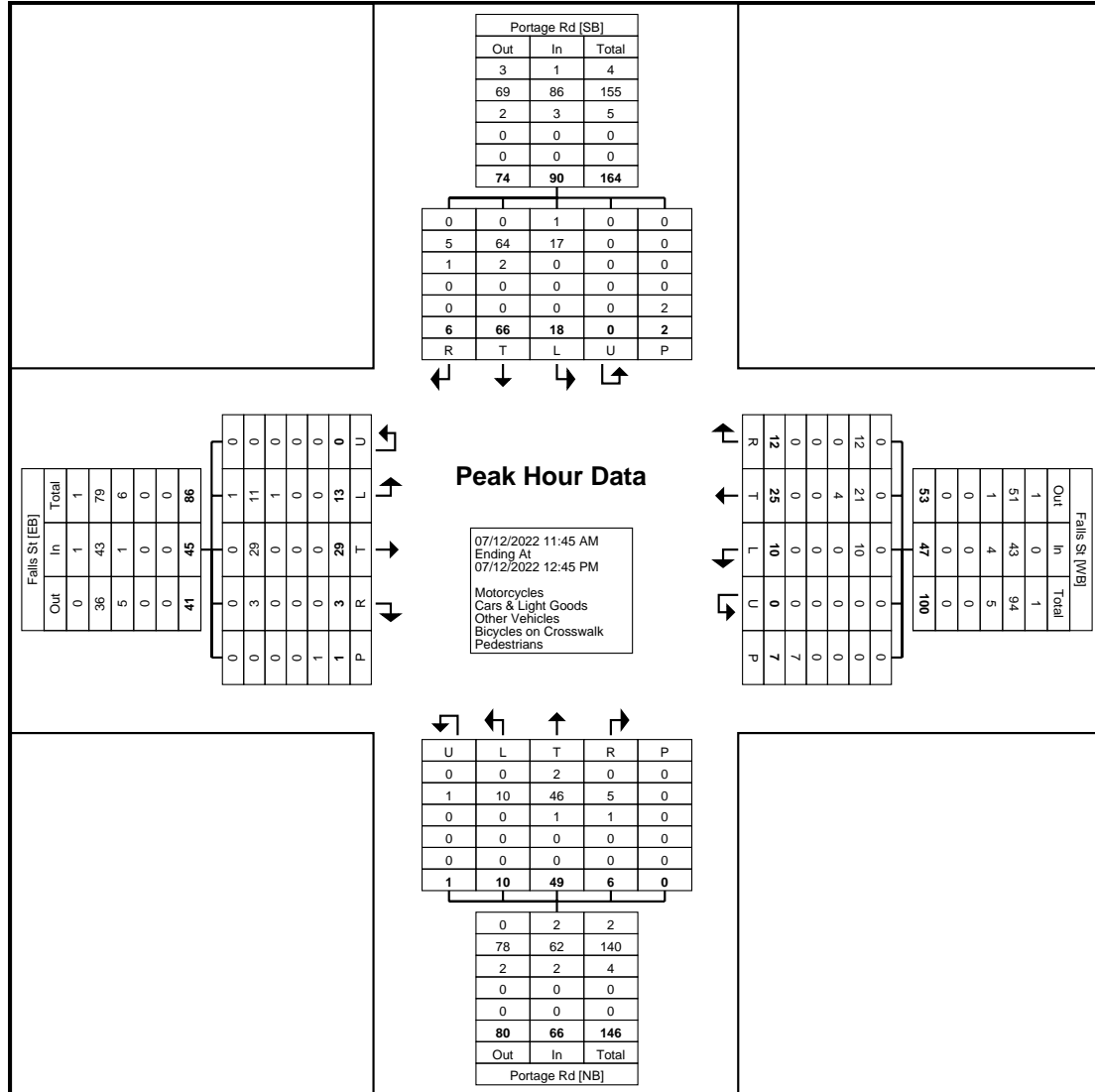
Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Portage Rd & Falls St
Site Code:
Start Date: 07/12/2022
Page No: 5

Niagara, New York
July 12, 2022

Turning Movement Peak Hour Data (11:45 AM)

Start Time	Portage Rd Southbound						Falls St Westbound						Portage Rd Northbound						Falls St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
11:45 AM	2	18	3	0	1	23	0	5	1	0	1	6	0	9	7	0	0	16	1	8	5	0	0	14	59
12:00 PM	2	22	5	0	0	29	5	5	3	0	4	13	1	21	1	1	0	24	2	4	0	0	0	6	72
12:15 PM	2	18	6	0	0	26	3	4	3	0	2	10	2	9	1	0	0	12	0	8	4	0	1	12	60
12:30 PM	0	8	4	0	1	12	4	11	3	0	0	18	3	10	1	0	0	14	0	9	4	0	0	13	57
Total	6	66	18	0	2	90	12	25	10	0	7	47	6	49	10	1	0	66	3	29	13	0	1	45	248
Approach %	6.7	73.3	20.0	0.0	-	-	25.5	53.2	21.3	0.0	-	-	9.1	74.2	15.2	1.5	-	-	6.7	64.4	28.9	0.0	-	-	-
Total %	2.4	26.6	7.3	0.0	-	36.3	4.8	10.1	4.0	0.0	-	19.0	2.4	19.8	4.0	0.4	-	26.6	1.2	11.7	5.2	0.0	-	18.1	-
PHF	0.750	0.750	0.750	0.000	-	0.776	0.600	0.568	0.833	0.000	-	0.653	0.500	0.583	0.357	0.250	-	0.688	0.375	0.806	0.650	0.000	-	0.804	0.861
Motorcycles	0	0	1	0	-	1	0	0	0	0	-	0	0	2	0	0	-	2	0	0	1	0	-	1	4
% Motorcycles	0.0	0.0	5.6	-	-	1.1	0.0	0.0	0.0	-	-	0.0	0.0	4.1	0.0	0.0	-	3.0	0.0	0.0	7.7	-	-	2.2	1.6
Cars & Light Goods	5	64	17	0	-	86	12	21	10	0	-	43	5	46	10	1	-	62	3	29	11	0	-	43	234
% Cars & Light Goods	83.3	97.0	94.4	-	-	95.6	100.0	84.0	100.0	-	-	91.5	83.3	93.9	100.0	100.0	-	93.9	100.0	100.0	84.6	-	-	95.6	94.4
Other Vehicles	1	2	0	0	-	3	0	4	0	0	-	4	1	1	0	0	-	2	0	0	1	0	-	1	10
% Other Vehicles	16.7	3.0	0.0	-	-	3.3	0.0	16.0	0.0	-	-	8.5	16.7	2.0	0.0	0.0	-	3.0	0.0	0.0	7.7	-	-	2.2	4.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	2	-	-	-	-	-	7	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



Turning Movement Peak Hour Data Plot (11:45 AM)



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Portage Rd & Falls St
Site Code:
Start Date: 07/12/2022
Page No: 7

Niagara, New York
July 12, 2022

Turning Movement Peak Hour Data (4:00 PM)

Start Time	Portage Rd Southbound						Falls St Westbound						Portage Rd Northbound						Falls St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
4:00 PM	4	12	9	0	0	25	3	6	3	0	3	12	0	10	0	0	1	10	3	20	4	0	0	27	74
4:15 PM	2	15	3	0	0	20	5	5	0	0	1	10	2	7	1	0	1	10	2	7	4	0	0	13	53
4:30 PM	2	17	6	0	1	25	4	7	3	0	1	14	1	10	0	0	0	11	2	8	5	0	0	15	65
4:45 PM	2	15	6	0	0	23	4	5	0	0	2	9	2	13	1	0	0	16	3	5	2	0	0	10	58
Total	10	59	24	0	1	93	16	23	6	0	7	45	5	40	2	0	2	47	10	40	15	0	0	65	250
Approach %	10.8	63.4	25.8	0.0	-	-	35.6	51.1	13.3	0.0	-	-	10.6	85.1	4.3	0.0	-	-	15.4	61.5	23.1	0.0	-	-	-
Total %	4.0	23.6	9.6	0.0	-	37.2	6.4	9.2	2.4	0.0	-	18.0	2.0	16.0	0.8	0.0	-	18.8	4.0	16.0	6.0	0.0	-	26.0	-
PHF	0.625	0.868	0.667	0.000	-	0.930	0.800	0.821	0.500	0.000	-	0.804	0.625	0.769	0.500	0.000	-	0.734	0.833	0.500	0.750	0.000	-	0.602	0.845
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	10	58	24	0	-	92	15	22	5	0	-	42	5	39	2	0	-	46	10	40	15	0	-	65	245
% Cars & Light Goods	100.0	98.3	100.0	-	-	98.9	93.8	95.7	83.3	-	-	93.3	100.0	97.5	100.0	-	-	97.9	100.0	100.0	100.0	-	-	100.0	98.0
Other Vehicles	0	1	0	0	-	1	1	1	1	0	-	3	0	1	0	0	-	1	0	0	0	0	-	0	5
% Other Vehicles	0.0	1.7	0.0	-	-	1.1	6.3	4.3	16.7	-	-	6.7	0.0	2.5	0.0	-	-	2.1	0.0	0.0	0.0	-	-	0.0	2.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	14.3	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	6	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	85.7	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

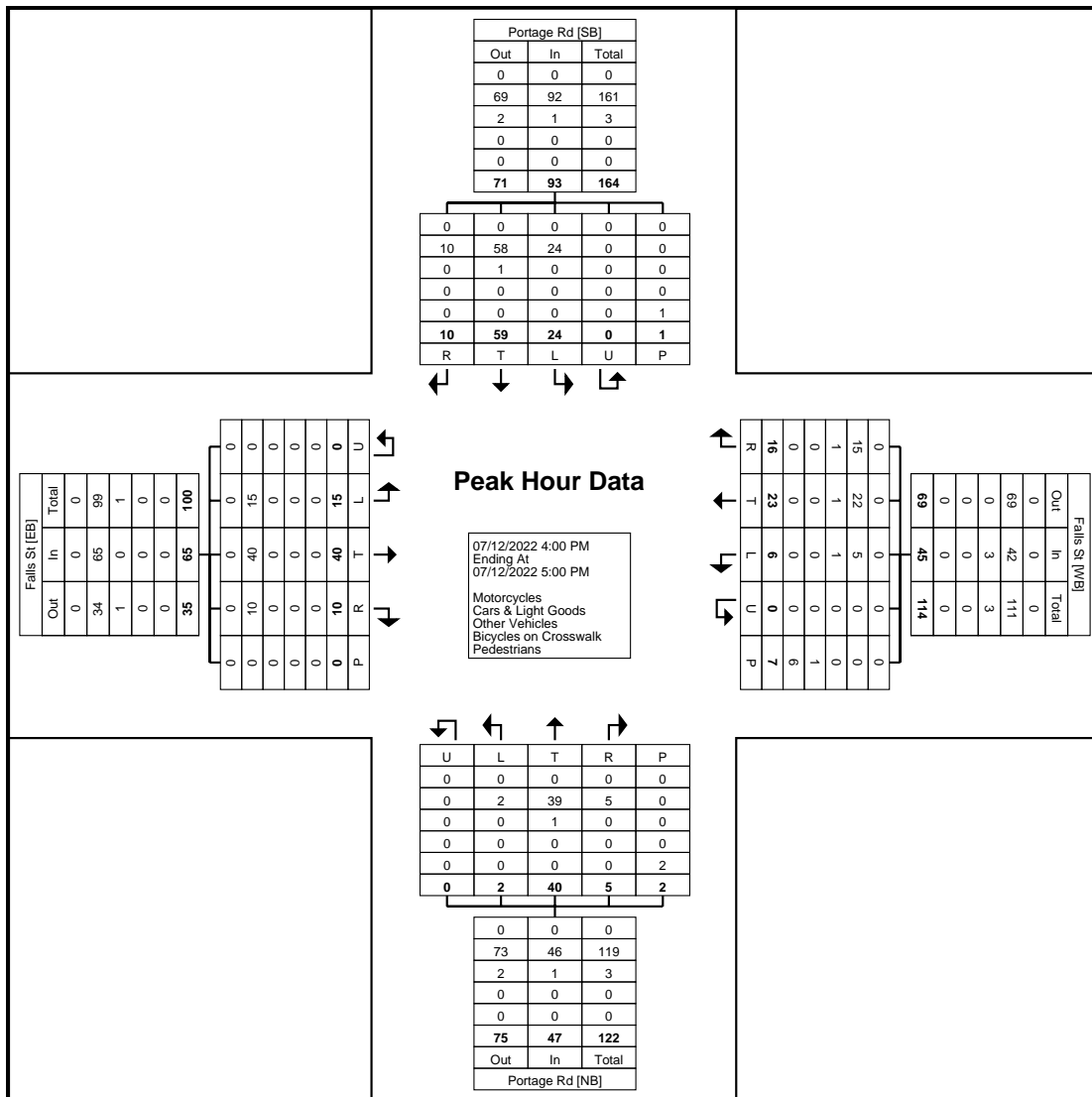


Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville , Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Portage Rd & Falls
St
Site Code:
Start Date: 07/12/2022
Page No: 8

Niagara, New York
July 12, 2022



Turning Movement Peak Hour Data Plot (4:00 PM)



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Portage Rd & Falls St
Site Code:
Start Date: 07/16/2022
Page No: 1

Turning Movement Data

Start Time	Portage Rd Southbound						Falls St Westbound						Portage Rd Northbound						Falls St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
11:00 AM	2	7	3	0	3	12	2	11	0	0	0	13	1	4	1	0	2	6	2	3	1	0	0	6	37
11:15 AM	1	7	0	0	3	8	1	10	0	0	0	11	1	5	1	0	0	7	0	4	2	0	0	6	32
11:30 AM	4	5	2	0	4	11	4	6	1	0	0	11	2	5	1	0	0	8	0	0	0	0	0	0	30
11:45 AM	0	6	1	0	4	7	4	6	0	0	0	10	1	8	5	0	1	14	0	2	0	0	0	2	33
Hourly Total	7	25	6	0	14	38	11	33	1	0	0	45	5	22	8	0	3	35	2	9	3	0	0	14	132
12:00 PM	0	7	1	0	1	8	3	7	2	1	0	13	0	7	1	0	0	8	1	7	3	0	0	11	40
12:15 PM	1	12	3	0	0	16	2	6	2	0	0	10	4	6	0	0	1	10	0	4	1	0	0	5	41
12:30 PM	2	4	12	0	7	18	2	2	0	0	0	4	1	8	2	0	0	11	0	2	0	0	0	2	35
12:45 PM	2	7	2	0	4	11	3	13	0	0	0	16	1	8	0	0	0	9	2	7	0	0	0	9	45
Hourly Total	5	30	18	0	12	53	10	28	4	1	0	43	6	29	3	0	1	38	3	20	4	0	0	27	161
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	12	55	24	0	26	91	21	61	5	1	0	88	11	51	11	0	4	73	5	29	7	0	0	41	293
Approach %	13.2	60.4	26.4	0.0	-	-	23.9	69.3	5.7	1.1	-	-	15.1	69.9	15.1	0.0	-	-	12.2	70.7	17.1	0.0	-	-	-
Total %	4.1	18.8	8.2	0.0	-	31.1	7.2	20.8	1.7	0.3	-	30.0	3.8	17.4	3.8	0.0	-	24.9	1.7	9.9	2.4	0.0	-	14.0	-
Motorcycles	0	0	0	0	-	0	1	0	0	0	-	1	2	0	0	0	-	2	0	0	0	0	-	0	3
% Motorcycles	0.0	0.0	0.0	-	-	0.0	4.8	0.0	0.0	0.0	-	1.1	18.2	0.0	0.0	-	-	2.7	0.0	0.0	0.0	-	-	0.0	1.0
Cars & Light Goods	12	55	24	0	-	91	19	61	5	1	-	86	9	51	11	0	-	71	5	29	7	0	-	41	289
% Cars & Light Goods	100.0	100.0	100.0	-	-	100.0	90.5	100.0	100.0	100.0	-	97.7	81.8	100.0	100.0	-	-	97.3	100.0	100.0	100.0	-	-	100.0	98.6
Other Vehicles	0	0	0	0	-	0	1	0	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Other Vehicles	0.0	0.0	0.0	-	-	0.0	4.8	0.0	0.0	0.0	-	1.1	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.3
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	26	-	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

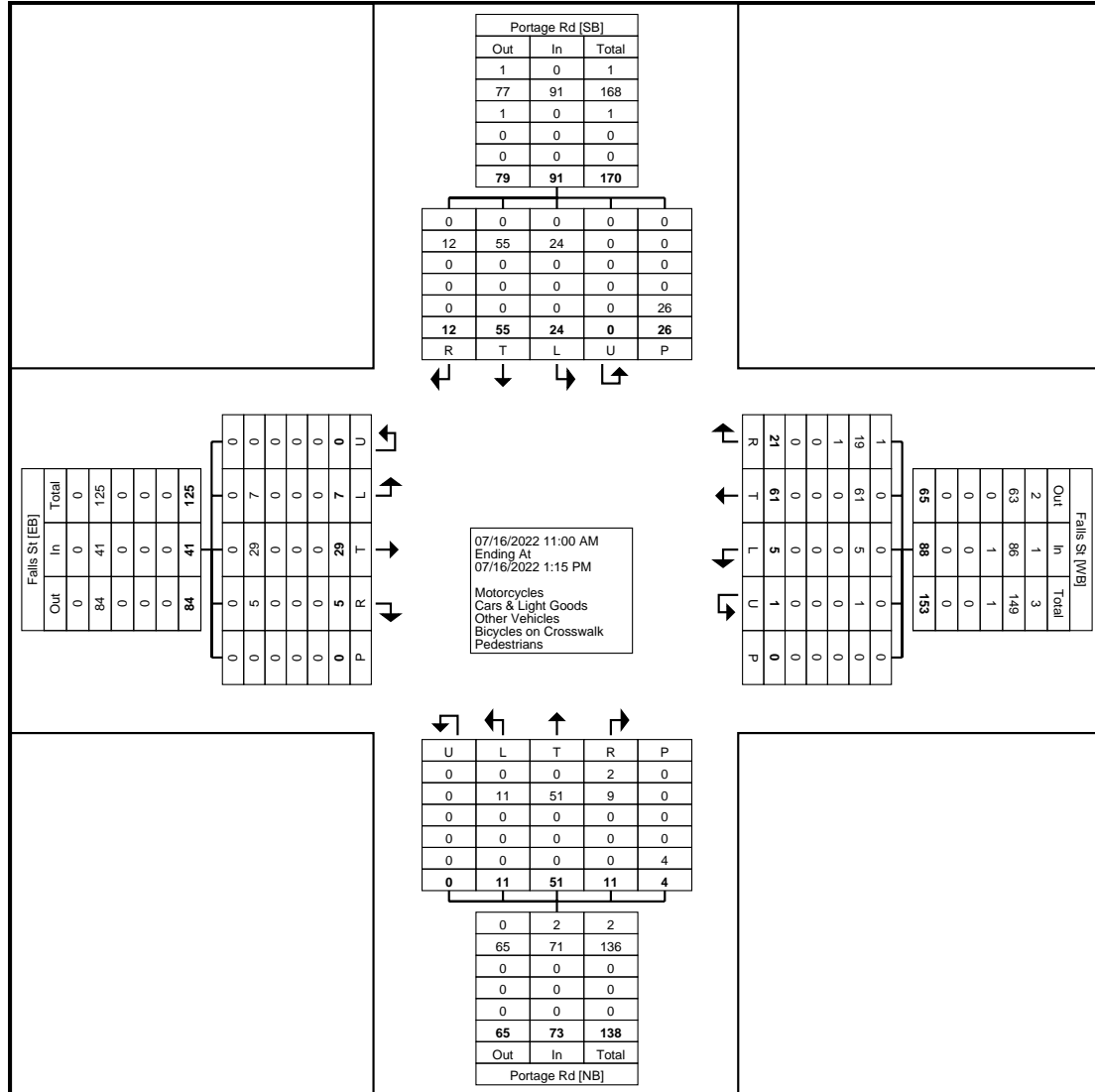


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Coatesville, Pennsylvania, United States 19320
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Count Name: Portage Rd & Falls
St
Site Code:
Start Date: 07/16/2022
Page No: 2

Niagara, New York
July 16, 2022



Turning Movement Data Plot



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184 Baker Rd

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Count Name: Portage Rd & Falls St
Site Code:
Start Date: 07/16/2022
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Niagara, New York
July 16, 2022

Turning Movement Peak Hour Data (11:00 AM)

Start Time	Portage Rd Southbound						Falls St Westbound						Portage Rd Northbound						Falls St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
11:00 AM	2	7	3	0	3	12	2	11	0	0	0	13	1	4	1	0	2	6	2	3	1	0	0	6	37
11:15 AM	1	7	0	0	3	8	1	10	0	0	0	11	1	5	1	0	0	7	0	4	2	0	0	6	32
11:30 AM	4	5	2	0	4	11	4	6	1	0	0	11	2	5	1	0	0	8	0	0	0	0	0	0	30
11:45 AM	0	6	1	0	4	7	4	6	0	0	0	10	1	8	5	0	1	14	0	2	0	0	0	2	33
Total	7	25	6	0	14	38	11	33	1	0	0	45	5	22	8	0	3	35	2	9	3	0	0	14	132
Approach %	18.4	65.8	15.8	0.0	-	-	24.4	73.3	2.2	0.0	-	-	14.3	62.9	22.9	0.0	-	-	14.3	64.3	21.4	0.0	-	-	-
Total %	5.3	18.9	4.5	0.0	-	28.8	8.3	25.0	0.8	0.0	-	34.1	3.8	16.7	6.1	0.0	-	26.5	1.5	6.8	2.3	0.0	-	10.6	-
PHF	0.438	0.893	0.500	0.000	-	0.792	0.688	0.750	0.250	0.000	-	0.865	0.625	0.688	0.400	0.000	-	0.625	0.250	0.563	0.375	0.000	-	0.583	0.892
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	1	0	0	0	-	1	0	0	0	0	-	0	1
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	20.0	0.0	0.0	-	-	2.9	0.0	0.0	0.0	-	-	0.0	0.8
Cars & Light Goods	7	25	6	0	-	38	11	33	1	0	-	45	4	22	8	0	-	34	2	9	3	0	-	14	131
% Cars & Light Goods	100.0	100.0	100.0	-	-	100.0	100.0	100.0	100.0	-	-	100.0	80.0	100.0	100.0	-	-	97.1	100.0	100.0	100.0	-	-	100.0	99.2
Other Vehicles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Other Vehicles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	14	-	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

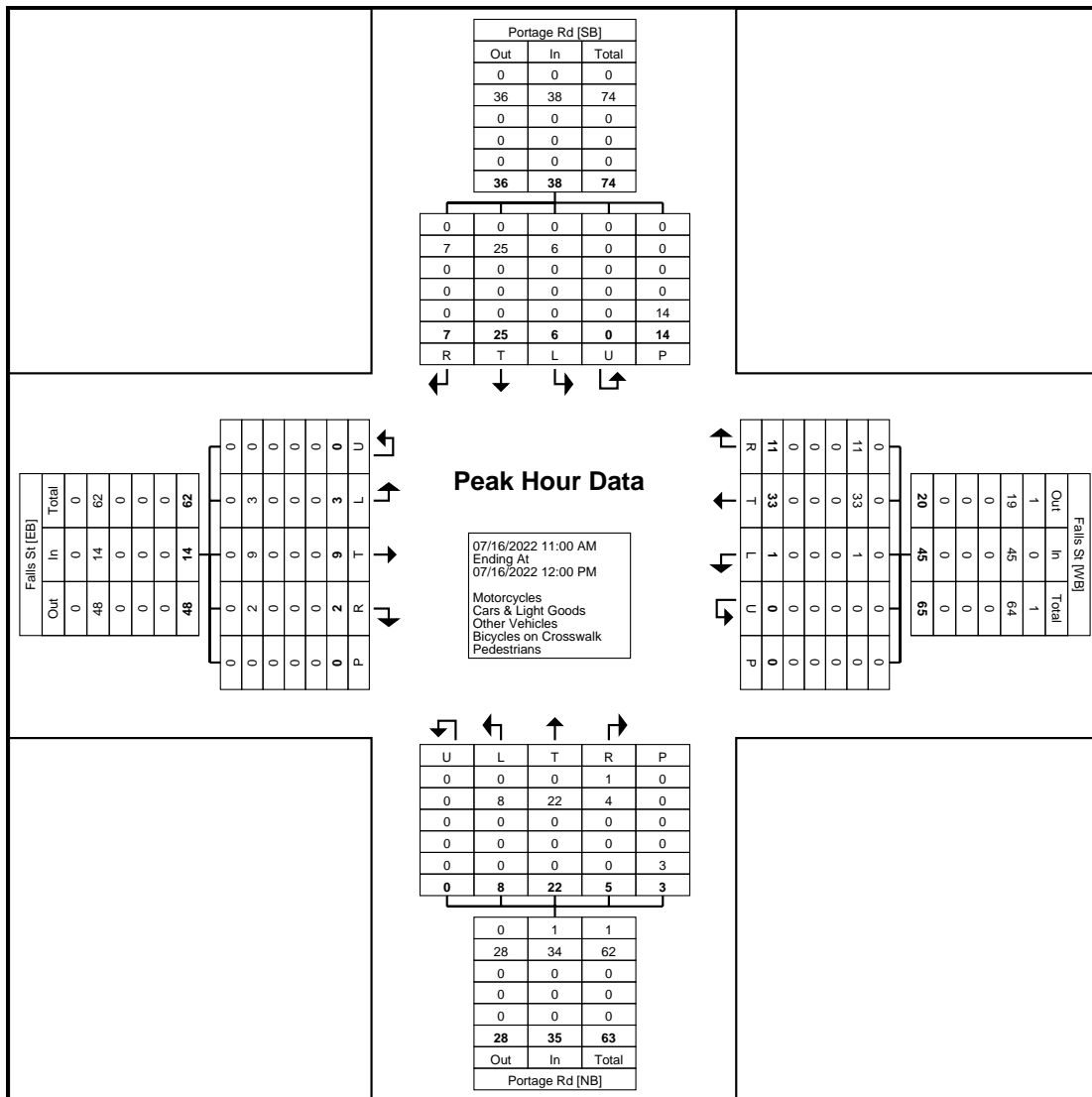


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Count Name: Portage Rd & Falls
St
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Niagara, New York
July 16, 2022



Turning Movement Peak Hour Data Plot (11:00 AM)



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
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Count Name: Portage Rd & Falls St
Site Code:
Start Date: 07/16/2022
Page No: 5

Niagara, New York
July 16, 2022

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Portage Rd Southbound						Falls St Westbound						Portage Rd Northbound						Falls St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
12:00 PM	0	7	1	0	1	8	3	7	2	1	0	13	0	7	1	0	0	8	1	7	3	0	0	11	40
12:15 PM	1	12	3	0	0	16	2	6	2	0	0	10	4	6	0	0	1	10	0	4	1	0	0	5	41
12:30 PM	2	4	12	0	7	18	2	2	0	0	0	4	1	8	2	0	0	11	0	2	0	0	0	2	35
12:45 PM	2	7	2	0	4	11	3	13	0	0	0	16	1	8	0	0	0	9	2	7	0	0	0	9	45
Total	5	30	18	0	12	53	10	28	4	1	0	43	6	29	3	0	1	38	3	20	4	0	0	27	161
Approach %	9.4	56.6	34.0	0.0	-	-	23.3	65.1	9.3	2.3	-	-	15.8	76.3	7.9	0.0	-	-	11.1	74.1	14.8	0.0	-	-	-
Total %	3.1	18.6	11.2	0.0	-	32.9	6.2	17.4	2.5	0.6	-	26.7	3.7	18.0	1.9	0.0	-	23.6	1.9	12.4	2.5	0.0	-	16.8	-
PHF	0.625	0.625	0.375	0.000	-	0.736	0.833	0.538	0.500	0.250	-	0.672	0.375	0.906	0.375	0.000	-	0.864	0.375	0.714	0.333	0.000	-	0.614	0.894
Motorcycles	0	0	0	0	-	0	1	0	0	0	-	1	1	0	0	0	-	1	0	0	0	0	-	0	2
% Motorcycles	0.0	0.0	0.0	-	-	0.0	10.0	0.0	0.0	0.0	-	2.3	16.7	0.0	0.0	-	-	2.6	0.0	0.0	0.0	-	-	0.0	1.2
Cars & Light Goods	5	30	18	0	-	53	8	28	4	1	-	41	5	29	3	0	-	37	3	20	4	0	-	27	158
% Cars & Light Goods	100.0	100.0	100.0	-	-	100.0	80.0	100.0	100.0	100.0	-	95.3	83.3	100.0	100.0	-	-	97.4	100.0	100.0	100.0	-	-	100.0	98.1
Other Vehicles	0	0	0	0	-	0	1	0	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Other Vehicles	0.0	0.0	0.0	-	-	0.0	10.0	0.0	0.0	0.0	-	2.3	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.6
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	12	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

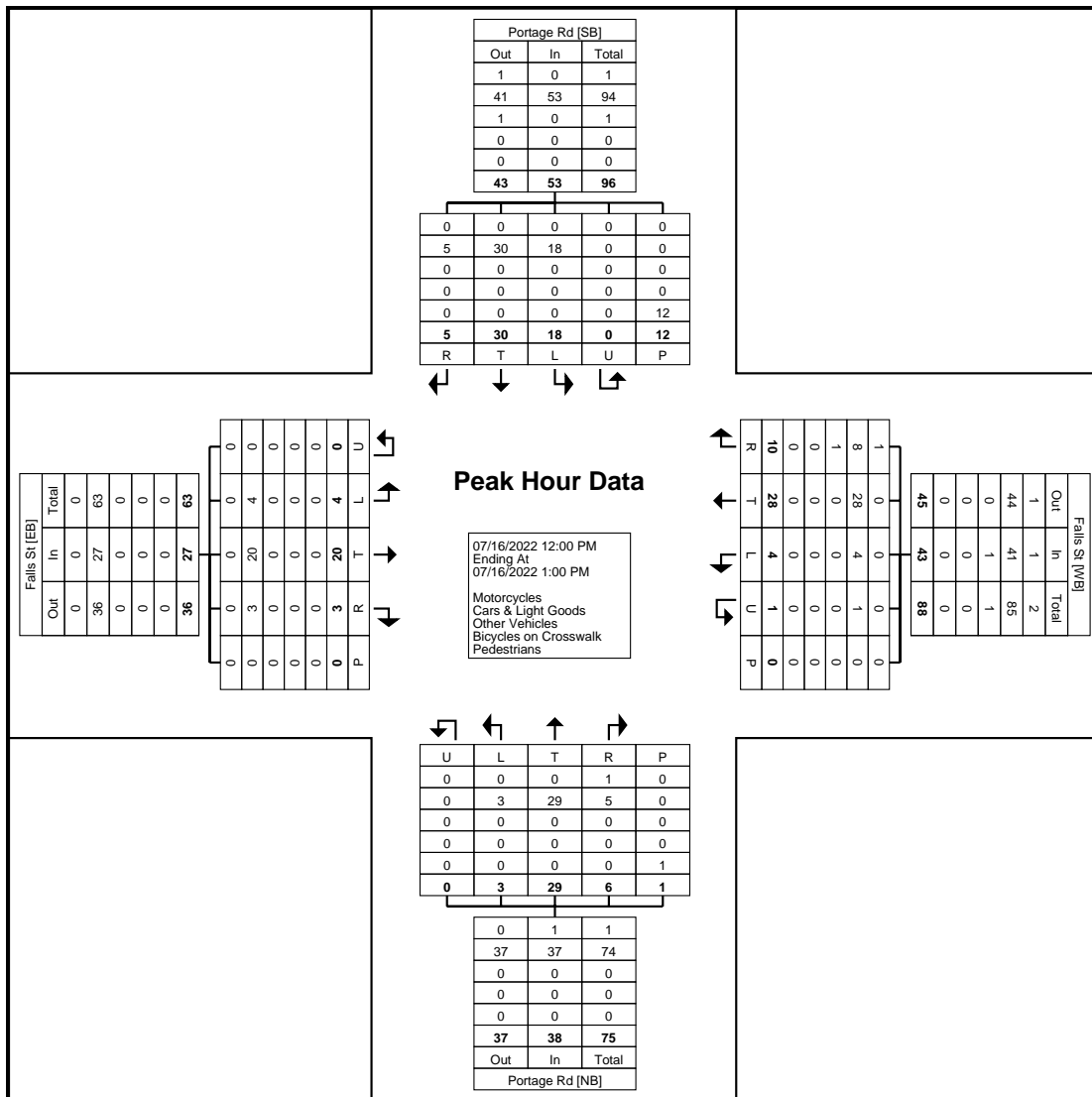


Niagara, New York
July 16, 2022

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184 Baker Rd

Coatesville , Pennsylvania, United States 19320
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Count Name: Portage Rd & Falls
St
Site Code:
Start Date: 07/16/2022
Page No: 6



Turning Movement Peak Hour Data Plot (12:00 PM)



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Rainbow Blvd &
Buffalo Ave
Site Code:
Start Date: 07/14/2022
Page No: 1

Niagara, New York
July 14, 2022

Turning Movement Data

Start Time	10th Street Southbound						Buffalo Ave Westbound						Buffalo Ave Northbound						Rainbow Blvd Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
7:00 AM	1	0	13	0	0	14	7	3	0	2	0	12	0	0	0	0	0	0	0	6	0	0	0	6	32
7:15 AM	1	0	10	0	0	11	11	3	0	0	0	14	0	0	0	0	0	0	0	5	0	0	0	5	30
7:30 AM	4	0	8	0	0	12	16	7	0	0	0	23	0	0	0	0	0	0	0	6	1	0	0	7	42
7:45 AM	1	0	10	0	0	11	32	4	0	0	0	36	0	0	0	0	0	0	0	12	8	0	0	20	67
Hourly Total	7	0	41	0	0	48	66	17	0	2	0	85	0	0	0	0	0	0	0	29	9	0	0	38	171
8:00 AM	1	0	8	0	0	9	16	5	0	2	0	23	0	0	0	0	0	0	0	9	3	0	0	12	44
8:15 AM	3	0	12	0	0	15	22	5	0	2	0	29	0	0	0	0	0	0	0	3	0	0	0	3	47
8:30 AM	1	0	15	0	0	16	13	8	0	0	0	21	0	0	0	0	0	0	0	6	0	0	0	6	43
8:45 AM	0	0	15	0	0	15	26	2	0	0	0	28	0	0	0	0	0	0	0	7	2	0	0	9	52
Hourly Total	5	0	50	0	0	55	77	20	0	4	0	101	0	0	0	0	0	0	0	25	5	0	0	30	186
9:00 AM	4	0	13	1	2	18	17	8	0	1	0	26	1	0	0	0	0	1	0	5	2	0	0	7	52
9:15 AM	3	0	13	0	0	16	23	7	0	1	0	31	0	0	0	0	0	0	0	10	0	0	0	10	57
9:30 AM	6	0	15	0	0	21	30	10	0	0	0	40	0	0	0	0	0	0	0	8	1	0	0	9	70
9:45 AM	4	0	21	0	0	25	22	9	0	0	0	31	0	0	0	0	0	0	0	12	2	0	0	14	70
Hourly Total	17	0	62	1	2	80	92	34	0	2	0	128	1	0	0	0	0	1	0	35	5	0	0	40	249
10:00 AM	5	1	9	1	0	16	22	5	0	0	1	27	0	0	0	0	1	0	0	7	2	0	0	9	52
10:15 AM	0	0	13	1	0	14	23	9	0	0	1	32	1	0	0	0	0	1	0	9	1	0	0	10	57
10:30 AM	5	0	19	1	0	25	26	9	0	0	0	35	0	0	0	0	0	0	0	8	0	0	0	8	68
10:45 AM	2	0	30	0	0	32	27	5	0	0	0	32	0	0	0	0	0	0	0	13	2	0	0	15	79
Hourly Total	12	1	71	3	0	87	98	28	0	0	2	126	1	0	0	0	1	1	0	37	5	0	0	42	256
11:00 AM	0	0	26	0	0	26	32	5	0	0	0	37	0	0	0	0	0	0	0	8	1	0	0	9	72
11:15 AM	3	0	21	1	0	25	27	6	0	0	0	33	0	0	0	0	0	0	0	12	2	0	0	14	72
11:30 AM	1	0	20	0	0	21	37	8	0	0	0	45	0	0	0	0	0	0	0	3	4	0	0	7	73
11:45 AM	2	0	15	0	0	17	30	6	0	0	0	36	0	0	0	0	0	0	0	9	1	0	0	10	63
Hourly Total	6	0	82	1	0	89	126	25	0	0	0	151	0	0	0	0	0	0	0	32	8	0	0	40	280
12:00 PM	7	0	26	0	0	33	27	14	0	1	0	42	0	0	0	0	4	0	0	5	1	0	0	6	81
12:15 PM	1	0	23	0	0	24	25	10	0	0	0	35	0	0	0	0	2	0	0	13	3	0	0	16	75
12:30 PM	4	0	32	0	0	36	30	4	0	0	0	34	0	0	0	0	0	0	0	12	0	0	0	12	82
12:45 PM	1	0	24	0	0	25	29	5	1	0	0	35	0	0	0	0	0	0	0	11	4	0	0	15	75
Hourly Total	13	0	105	0	0	118	111	33	1	1	0	146	0	0	0	0	6	0	0	41	8	0	0	49	313
1:00 PM	0	0	19	0	0	19	31	2	0	0	0	33	0	1	0	0	0	1	0	12	4	0	0	16	69
1:15 PM	4	0	23	0	0	27	44	9	0	0	1	53	0	0	0	0	1	0	0	13	2	0	0	15	95
1:30 PM	2	0	22	2	0	26	41	5	0	1	2	47	0	0	0	0	2	0	0	8	2	0	0	10	83
1:45 PM	5	0	22	0	0	27	33	7	0	0	0	40	1	0	0	0	1	1	1	5	3	0	0	9	77
Hourly Total	11	0	86	2	0	99	149	23	0	1	3	173	1	1	0	0	4	2	1	38	11	0	0	50	324
2:00 PM	6	0	33	0	0	39	26	7	0	0	0	33	0	0	0	0	0	0	0	10	2	0	0	12	84
2:15 PM	6	0	20	0	0	26	25	8	0	0	1	33	0	0	0	0	2	0	0	10	1	0	0	11	70
2:30 PM	8	0	22	0	0	30	47	5	0	0	0	52	0	0	0	0	0	0	0	13	2	0	0	15	97
2:45 PM	1	1	27	0	0	29	29	9	0	0	0	38	0	0	0	0	0	0	0	9	2	0	0	11	78
Hourly Total	21	1	102	0	0	124	127	29	0	0	1	156	0	0	0	0	2	0	0	42	7	0	0	49	329
3:00 PM	2	0	31	0	0	33	28	13	0	0	0	41	0	1	0	0	0	1	0	9	1	0	0	10	85
3:15 PM	1	0	18	0	0	19	24	9	0	0	0	33	0	0	0	0	0	0	0	8	2	0	0	10	62
3:30 PM	1	0	24	0	0	25	16	8	0	0	0	24	0	0	0	0	0	0	0	10	3	0	0	13	62
3:45 PM	2	0	20	0	0	22	29	13	0	0	0	42	1	0	0	0	0	1	1	14	1	0	0	16	81
Hourly Total	6	0	93	0	0	99	97	43	0	0	0	140	1	1	0	0	0	2	1	41	7	0	0	49	290
4:00 PM	28	0	39	0	0	67	26	7	0	0	0	33	0	0	0	0	1	0	0	10	2	0	0	12	112
4:15 PM	3	0	22	0	1	25	29	4	0	0	0	33	0	0	0	0	0	0	0	7	2	0	0	9	67
4:30 PM	6	0	18	0	0	24	24	6	0	0	0	30	0	0	0	0	0	0	0	11	1	0	0	12	66
4:45 PM	7	0	22	0	0	29	17	8	0	0	0	25	0	0	0	0	0	0	0	9	1	0	0	10	64
Hourly Total	44	0	101	0	1	145	96	25	0	0	0	121	0	0	0	0	1	0	0	37	6	0	0	43	309
5:00 PM	3	0	20	1	0	24	24	8	0	0	1	32	0	0	0	0	0	0	0	7	1	1	0	9	65
5:15 PM	3	0	13	0	0	16	28	9	0	0	0	37	0	0	0	0	0	0	0	5	1	0	0	6	59
5:30 PM	3	0	26	0	0	29	20	5	0	0	0	25	0	0	0	0	0	0	0	5	1	0	0	6	60
5:45 PM	5	0	28	0	0	33	29	3	0	0	1	32	0	0	0	0	0	0	0	8	0	0	0	8	73
Hourly Total	14	0	87	1	0	102	101	25	0	0	2	126	0	0	0	0	0	0	0	25	3	1	0	29	257
6:00 PM	3	0	21	0	0	24	23	6	0	0	0	29	0	0	0	0	0	0	0	11	2	0	0	13	66
6:15 PM	2	0	13	1	0	16	24	8	0	0	0	32	0	0	0	0	0	0	0	5	1	0	0	6	54
6:30 PM	4	0	19	0	0	23	25	8	0	0	0	33	0	0	0	0	1	0	1	5	0	0	0	6	62
6:45 PM	0	0	16	1	0	17	26	9	0	0	1	35	0	1	0	0	1	1	0	5	0	0	0	5	58
Hourly Total	9	0	69	2	0	80	98	31	0	0	1	129	0	1	0	0	2	1	1	26	3	0	0	30	240

Grand Total	165	2	949	10	3	1126	1238	333	1	10	9	1582	4	3	0	0	16	7	3	408	77	1	0	489	3204
Approach %	14.7	0.2	84.3	0.9	-	-	78.3	21.0	0.1	0.6	-	-	57.1	42.9	0.0	0.0	-	-	0.6	83.4	15.7	0.2	-	-	-
Total %	5.1	0.1	29.6	0.3	-	35.1	38.6	10.4	0.0	0.3	-	49.4	0.1	0.1	0.0	0.0	-	0.2	0.1	12.7	2.4	0.0	-	15.3	-
Motorcycles	0	0	6	0	-	6	4	3	0	0	-	7	0	0	0	0	-	0	0	2	1	0	-	3	16
% Motorcycles	0.0	0.0	0.6	0.0	-	0.5	0.3	0.9	0.0	0.0	-	0.4	0.0	0.0	-	-	-	0.0	0.0	0.5	1.3	0.0	-	0.6	0.5
Cars & Light Goods	160	2	869	10	-	1041	1152	310	1	2	-	1465	3	3	0	0	-	6	3	375	76	1	-	455	2967
% Cars & Light Goods	97.0	100.0	91.6	100.0	-	92.5	93.1	93.1	100.0	20.0	-	92.6	75.0	100.0	-	-	-	85.7	100.0	91.9	98.7	100.0	-	93.0	92.6
Other Vehicles	5	0	74	0	-	79	82	20	0	8	-	110	1	0	0	0	-	1	0	31	0	0	-	31	221
% Other Vehicles	3.0	0.0	7.8	0.0	-	7.0	6.6	6.0	0.0	80.0	-	7.0	25.0	0.0	-	-	-	14.3	0.0	7.6	0.0	0.0	-	6.3	6.9
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	3	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	33.3	-	-	-	-	-	33.3	-	-	-	-	-	12.5	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	2	-	-	-	-	-	6	-	-	-	-	-	14	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	66.7	-	-	-	-	-	66.7	-	-	-	-	-	87.5	-	-	-	-	-	-	-	-

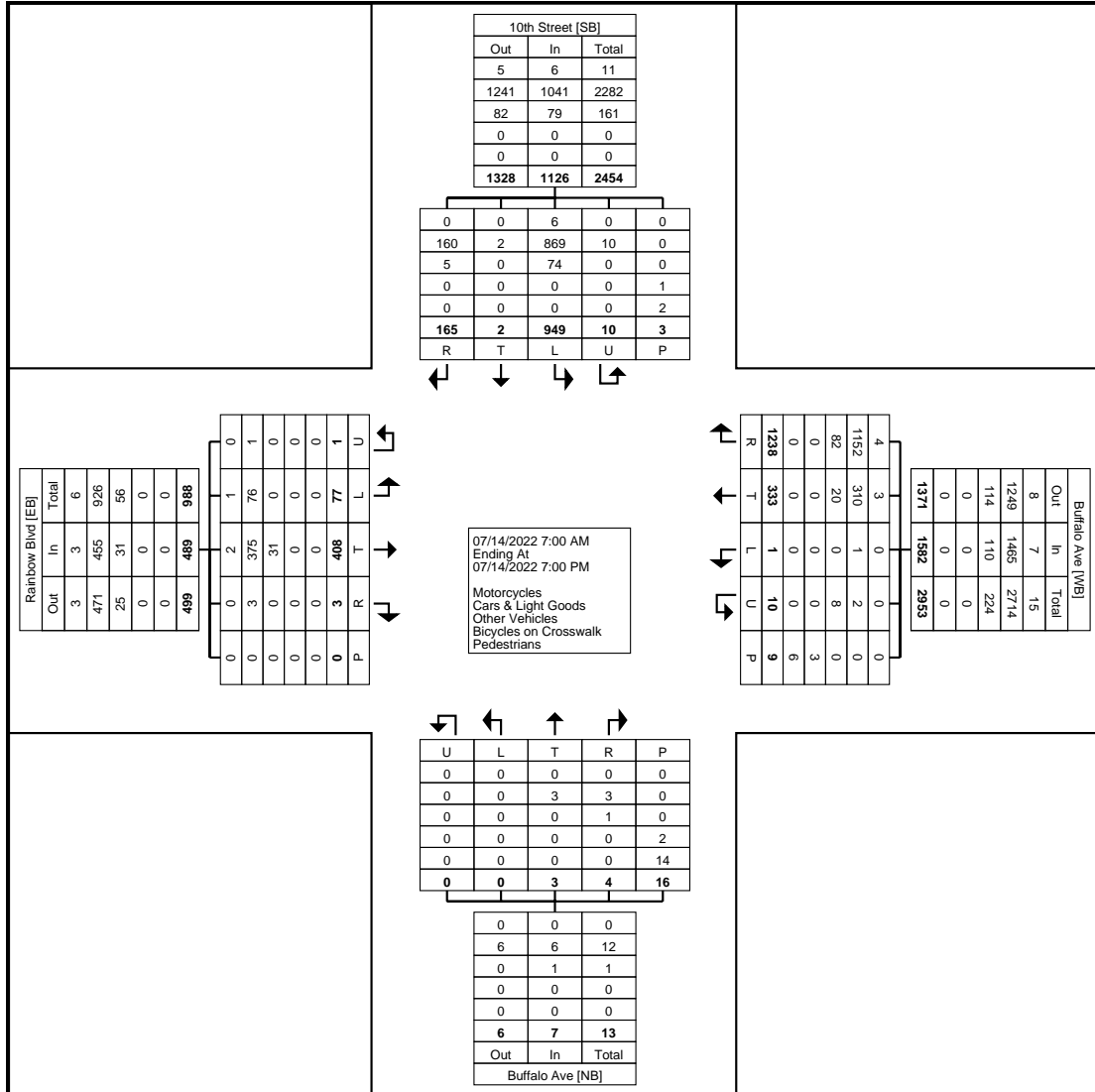


Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville , Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Rainbow Blvd &
Buffalo Ave
Site Code:
Start Date: 07/14/2022
Page No: 3

Niagara, New York
July 14, 2022



Turning Movement Data Plot

Tri-State Traffic Data: New York Division
184 Baker Rd

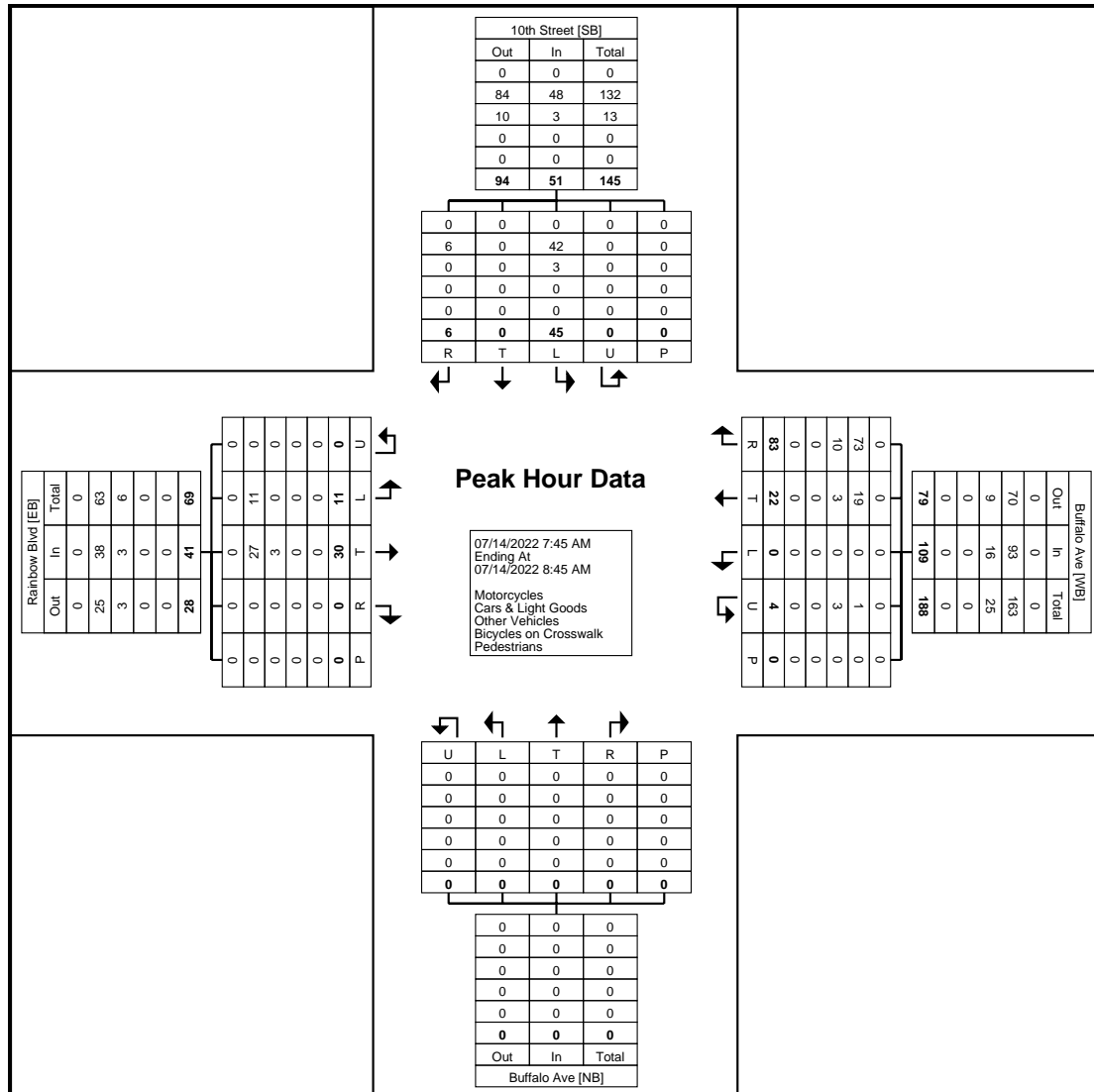


Tri-State Traffic Data: New York Division
184 Baker Rd

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Page No: 5

Niagara, New York
July 14, 2022



Turning Movement Peak Hour Data Plot (7:45 AM)



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Rainbow Blvd &
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Site Code:
Start Date: 07/14/2022
Page No: 6

Niagara, New York
July 14, 2022

Turning Movement Peak Hour Data (12:00 PM)

Start Time	10th Street Southbound						Buffalo Ave Westbound						Buffalo Ave Northbound						Rainbow Blvd Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
12:00 PM	7	0	26	0	0	33	27	14	0	1	0	42	0	0	0	0	4	0	0	5	1	0	0	6	81
12:15 PM	1	0	23	0	0	24	25	10	0	0	0	35	0	0	0	0	2	0	0	13	3	0	0	16	75
12:30 PM	4	0	32	0	0	36	30	4	0	0	0	34	0	0	0	0	0	0	0	12	0	0	0	12	82
12:45 PM	1	0	24	0	0	25	29	5	1	0	0	35	0	0	0	0	0	0	0	11	4	0	0	15	75
Total	13	0	105	0	0	118	111	33	1	1	0	146	0	0	0	0	6	0	0	41	8	0	0	49	313
Approach %	11.0	0.0	89.0	0.0	-	-	76.0	22.6	0.7	0.7	-	-	0.0	0.0	0.0	0.0	-	-	0.0	83.7	16.3	0.0	-	-	-
Total %	4.2	0.0	33.5	0.0	-	37.7	35.5	10.5	0.3	0.3	-	46.6	0.0	0.0	0.0	0.0	-	0.0	0.0	13.1	2.6	0.0	-	15.7	-
PHF	0.464	0.000	0.820	0.000	-	0.819	0.925	0.589	0.250	0.250	-	0.869	0.000	0.000	0.000	0.000	-	0.000	0.000	0.788	0.500	0.000	-	0.766	0.954
Motorcycles	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Motorcycles	0.0	-	1.0	-	-	0.8	0.0	0.0	0.0	0.0	-	0.0	-	-	-	-	-	-	-	0.0	0.0	-	-	0.0	0.3
Cars & Light Goods	12	0	96	0	-	108	105	32	1	0	-	138	0	0	0	0	-	0	0	38	8	0	-	46	292
% Cars & Light Goods	92.3	-	91.4	-	-	91.5	94.6	97.0	100.0	0.0	-	94.5	-	-	-	-	-	-	-	92.7	100.0	-	-	93.9	93.3
Other Vehicles	1	0	8	0	-	9	6	1	0	1	-	8	0	0	0	0	-	0	0	3	0	0	-	3	20
% Other Vehicles	7.7	-	7.6	-	-	7.6	5.4	3.0	0.0	100.0	-	5.5	-	-	-	-	-	-	-	7.3	0.0	-	-	6.1	6.4
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	6	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

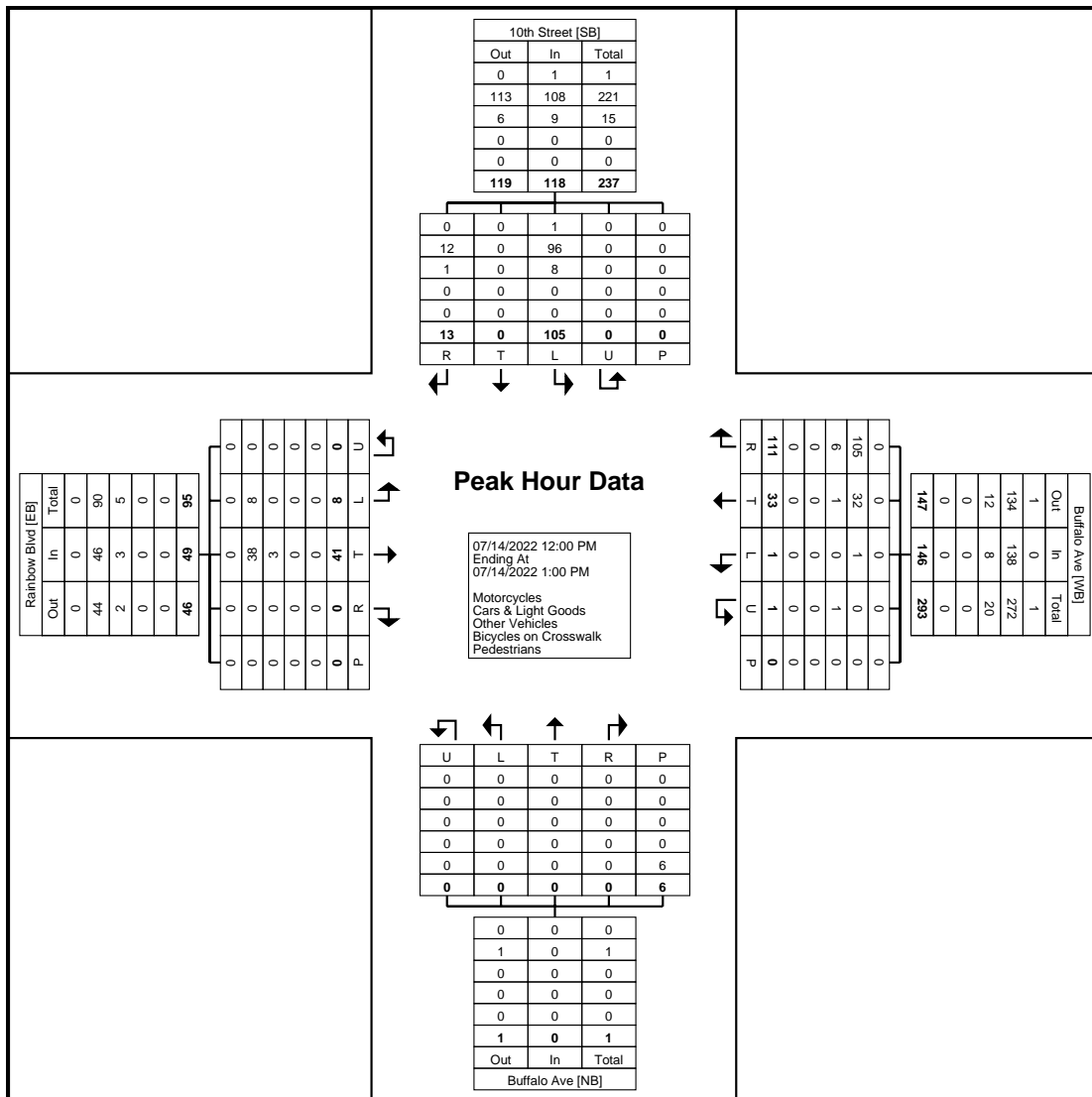


Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville , Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Rainbow Blvd &
Buffalo Ave
Site Code:
Start Date: 07/14/2022
Page No: 7

Niagara, New York
July 14, 2022



Turning Movement Peak Hour Data Plot (12:00 PM)



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Rainbow Blvd &
Buffalo Ave
Site Code:
Start Date: 07/14/2022
Page No: 8

Niagara, New York
July 14, 2022

Turning Movement Peak Hour Data (4:00 PM)

Start Time	10th Street Southbound						Buffalo Ave Westbound						Buffalo Ave Northbound						Rainbow Blvd Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
4:00 PM	28	0	39	0	0	67	26	7	0	0	0	33	0	0	0	0	1	0	0	10	2	0	0	12	112
4:15 PM	3	0	22	0	1	25	29	4	0	0	0	33	0	0	0	0	0	0	0	7	2	0	0	9	67
4:30 PM	6	0	18	0	0	24	24	6	0	0	0	30	0	0	0	0	0	0	0	11	1	0	0	12	66
4:45 PM	7	0	22	0	0	29	17	8	0	0	0	25	0	0	0	0	0	0	0	9	1	0	0	10	64
Total	44	0	101	0	1	145	96	25	0	0	0	121	0	0	0	0	1	0	0	37	6	0	0	43	309
Approach %	30.3	0.0	69.7	0.0	-	-	79.3	20.7	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	86.0	14.0	0.0	-	-	-
Total %	14.2	0.0	32.7	0.0	-	46.9	31.1	8.1	0.0	0.0	-	39.2	0.0	0.0	0.0	0.0	-	0.0	0.0	12.0	1.9	0.0	-	13.9	-
PHF	0.393	0.000	0.647	0.000	-	0.541	0.828	0.781	0.000	0.000	-	0.917	0.000	0.000	0.000	0.000	-	0.000	0.000	0.841	0.750	0.000	-	0.896	0.690
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	1
% Motorcycles	0.0	-	0.0	-	-	0.0	0.0	0.0	-	-	-	0.0	-	-	-	-	-	-	-	2.7	0.0	-	-	2.3	0.3
Cars & Light Goods	44	0	94	0	-	138	95	25	0	0	-	120	0	0	0	0	-	0	0	35	6	0	-	41	299
% Cars & Light Goods	100.0	-	93.1	-	-	95.2	99.0	100.0	-	-	-	99.2	-	-	-	-	-	-	-	94.6	100.0	-	-	95.3	96.8
Other Vehicles	0	0	7	0	-	7	1	0	0	0	-	1	0	0	0	0	-	0	0	1	0	0	-	1	9
% Other Vehicles	0.0	-	6.9	-	-	4.8	1.0	0.0	-	-	-	0.8	-	-	-	-	-	-	-	2.7	0.0	-	-	2.3	2.9
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-

Tri-State Traffic Data: New York Division
184 Baker Rd



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

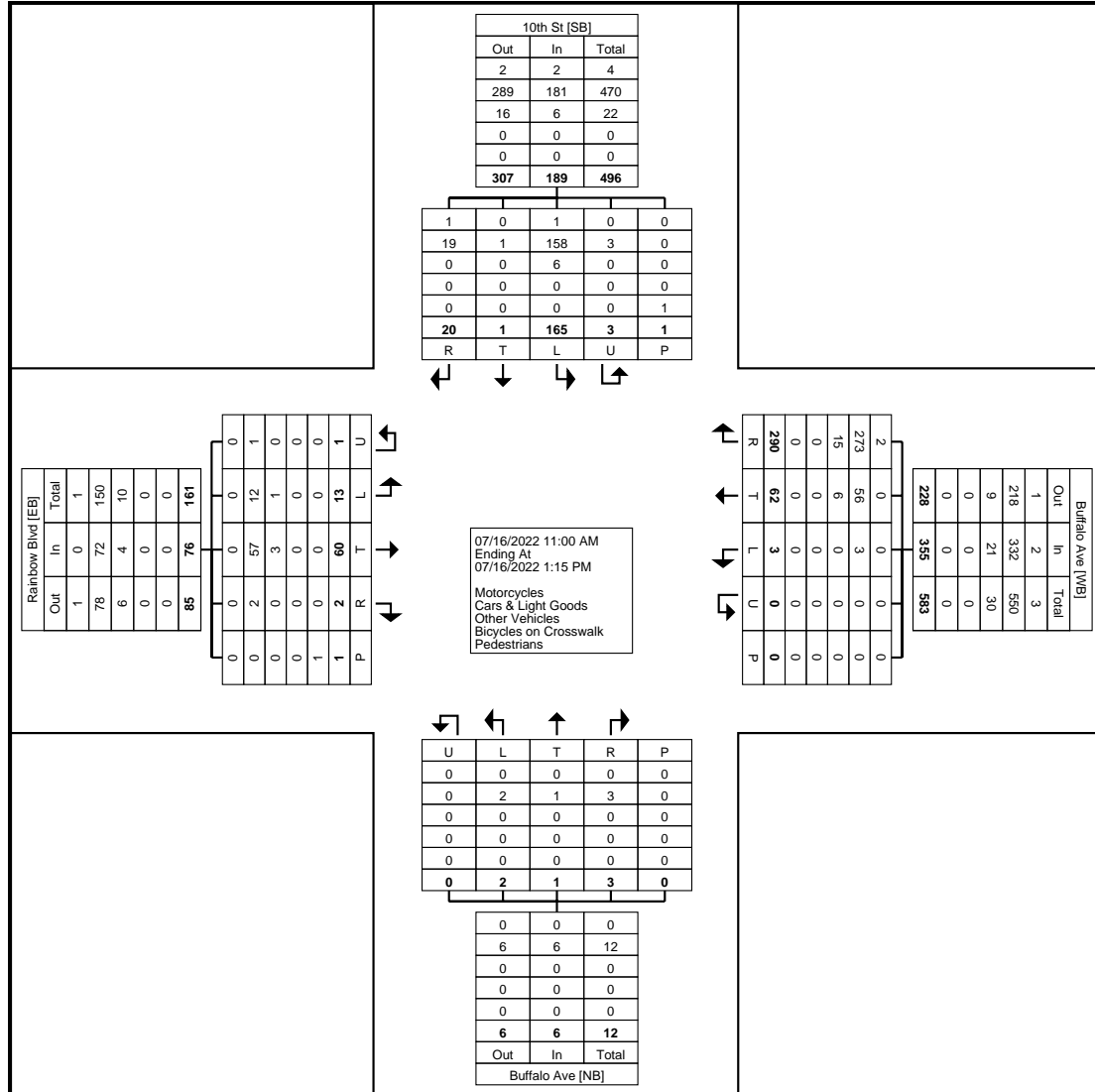
Count Name: Rainbow Blvd &
Buffalo Ave
Site Code:
Start Date: 07/16/2022
Page No: 1

Niagara, New York
July 16, 2022

Turning Movement Data

Start Time	10th St Southbound						Buffalo Ave Westbound						Buffalo Ave Northbound						Rainbow Blvd Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
11:00 AM	1	0	18	0	0	19	34	5	0	0	0	39	0	0	0	0	0	0	0	8	0	0	0	8	66
11:15 AM	2	0	30	1	0	33	38	13	0	0	0	51	0	0	1	0	0	1	1	8	4	0	0	13	98
11:30 AM	5	1	18	1	0	25	42	4	0	0	0	46	2	1	0	0	0	3	0	5	4	0	0	9	83
11:45 AM	1	0	18	1	0	20	32	7	0	0	0	39	0	0	1	0	0	1	1	5	0	0	0	6	66
Hourly Total	9	1	84	3	0	97	146	29	0	0	0	175	2	1	2	0	0	5	2	26	8	0	0	36	313
12:00 PM	4	0	26	0	0	30	30	9	1	0	0	40	1	0	0	0	0	1	0	9	3	1	0	13	84
12:15 PM	2	0	20	0	1	22	41	9	0	0	0	50	0	0	0	0	0	0	0	7	0	0	1	7	79
12:30 PM	3	0	17	0	0	20	36	5	1	0	0	42	0	0	0	0	0	0	0	8	0	0	0	8	70
12:45 PM	2	0	18	0	0	20	37	10	1	0	0	48	0	0	0	0	0	0	0	10	2	0	0	12	80
Hourly Total	11	0	81	0	1	92	144	33	3	0	0	180	1	0	0	0	0	1	0	34	5	1	1	40	313
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	20	1	165	3	1	189	290	62	3	0	0	355	3	1	2	0	0	6	2	60	13	1	1	76	626
Approach %	10.6	0.5	87.3	1.6	-	-	81.7	17.5	0.8	0.0	-	-	50.0	16.7	33.3	0.0	-	-	2.6	78.9	17.1	1.3	-	-	-
Total %	3.2	0.2	26.4	0.5	-	30.2	46.3	9.9	0.5	0.0	-	56.7	0.5	0.2	0.3	0.0	-	1.0	0.3	9.6	2.1	0.2	-	12.1	-
Motorcycles	1	0	1	0	-	2	2	0	0	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	4
% Motorcycles	5.0	0.0	0.6	0.0	-	1.1	0.7	0.0	0.0	-	-	0.6	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.6
Cars & Light Goods	19	1	158	3	-	181	273	56	3	0	-	332	3	1	2	0	-	6	2	57	12	1	-	72	591
% Cars & Light Goods	95.0	100.0	95.8	100.0	-	95.8	94.1	90.3	100.0	-	-	93.5	100.0	100.0	100.0	-	-	100.0	100.0	95.0	92.3	100.0	-	94.7	94.4
Other Vehicles	0	0	6	0	-	6	15	6	0	0	-	21	0	0	0	0	-	0	0	3	1	0	-	4	31
% Other Vehicles	0.0	0.0	3.6	0.0	-	3.2	5.2	9.7	0.0	-	-	5.9	0.0	0.0	0.0	-	-	0.0	0.0	5.0	7.7	0.0	-	5.3	5.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Niagara, New York
July 16, 2022



Turning Movement Data Plot

Tri-State Traffic Data: New York Division
184 Baker Rd

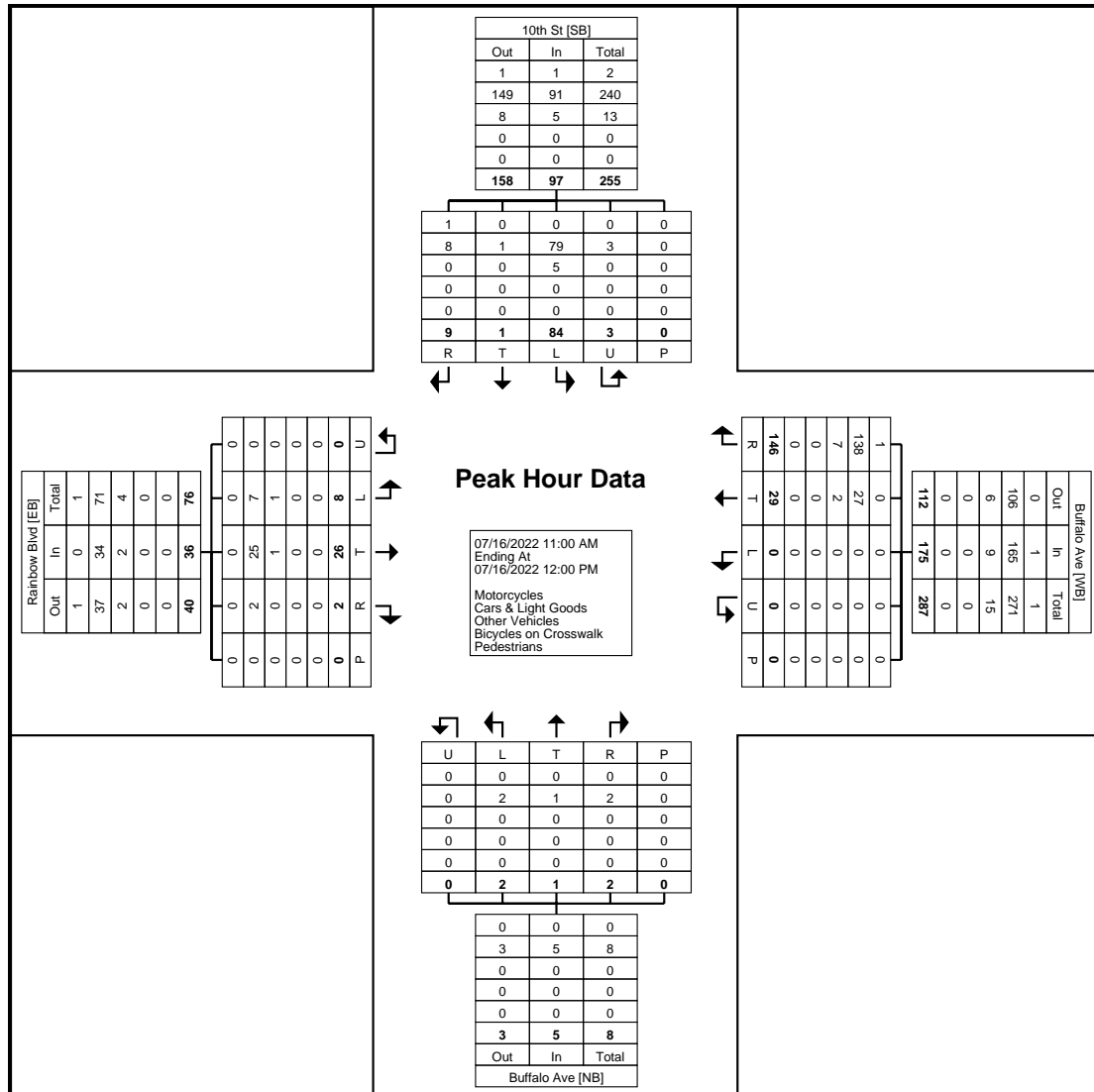


Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville , Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Rainbow Blvd &
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Site Code:
Start Date: 07/16/2022
Page No: 4

Niagara, New York
July 16, 2022



Turning Movement Peak Hour Data Plot (11:00 AM)



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
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Count Name: Rainbow Blvd &
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Site Code:
Start Date: 07/16/2022
Page No: 5

Niagara, New York
July 16, 2022

Turning Movement Peak Hour Data (12:00 PM)

Start Time	10th St Southbound						Buffalo Ave Westbound						Buffalo Ave Northbound						Rainbow Blvd Eastbound						Int. Total	
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total		
12:00 PM	4	0	26	0	0	30	30	9	1	0	0	40	1	0	0	0	0	1	0	9	3	1	0	13	84	
12:15 PM	2	0	20	0	1	22	41	9	0	0	0	50	0	0	0	0	0	0	0	7	0	0	1	7	79	
12:30 PM	3	0	17	0	0	20	36	5	1	0	0	42	0	0	0	0	0	0	0	8	0	0	0	8	70	
12:45 PM	2	0	18	0	0	20	37	10	1	0	0	48	0	0	0	0	0	0	0	10	2	0	0	12	80	
Total	11	0	81	0	1	92	144	33	3	0	0	180	1	0	0	0	0	1	0	34	5	1	1	40	313	
Approach %	12.0	0.0	88.0	0.0	-	-	80.0	18.3	1.7	0.0	-	-	100.0	0.0	0.0	0.0	0.0	-	-	0.0	85.0	12.5	2.5	-	-	-
Total %	3.5	0.0	25.9	0.0	-	29.4	46.0	10.5	1.0	0.0	-	57.5	0.3	0.0	0.0	0.0	0.0	-	0.3	0.0	10.9	1.6	0.3	-	12.8	-
PHF	0.688	0.000	0.779	0.000	-	0.767	0.878	0.825	0.750	0.000	-	0.900	0.250	0.000	0.000	0.000	-	0.250	0.000	0.850	0.417	0.250	-	0.769	0.932	
Motorcycles	0	0	1	0	-	1	1	0	0	0	-	1	0	0	0	0	-	0	0	0	0	0	0	-	0	2
% Motorcycles	0.0	-	1.2	-	-	1.1	0.7	0.0	0.0	-	-	0.6	0.0	-	-	-	-	0.0	-	0.0	0.0	0.0	-	0.0	0.6	
Cars & Light Goods	11	0	79	0	-	90	135	29	3	0	-	167	1	0	0	0	-	1	0	32	5	1	-	38	296	
% Cars & Light Goods	100.0	-	97.5	-	-	97.8	93.8	87.9	100.0	-	-	92.8	100.0	-	-	-	-	100.0	-	94.1	100.0	100.0	-	95.0	94.6	
Other Vehicles	0	0	1	0	-	1	8	4	0	0	-	12	0	0	0	0	-	0	0	2	0	0	-	2	15	
% Other Vehicles	0.0	-	1.2	-	-	1.1	5.6	12.1	0.0	-	-	6.7	0.0	-	-	-	-	0.0	-	5.9	0.0	0.0	-	5.0	4.8	
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville , Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Rainbow Blvd &
Buffalo Ave
Site Code:
Start Date: 07/16/2022
Page No: 6

Peak Hour Data

07/16/2022 12:00 PM
Ending At
07/16/2022 1:00 PM

Motorcycles
Cars & Light Goods
Other Vehicles
Bicycles on Crosswalk
Pedestrians

10th St (SB)

Out	In	Total
1	1	2
140	90	230
8	1	9
0	0	0
0	0	0
149	92	241

Buffalo Ave (WB)

Out	In	Total
1	1	2
135	167	279
8	12	15
0	0	0
0	0	0
144	33	0
116	180	296

Buffalo Ave (NB)

Out	In	Total
0	0	0
3	1	4
0	0	0
0	0	0
0	0	0
3	1	4
Out	In	Total

Rainbow Blvd (EB)

Out	In	Total
0	0	0
0	0	0
0	2	4
38	147	79
0	0	0
0	0	0
0	0	0
40	45	85

Turning Movement Peak Hour Data Plot (12:00 PM)



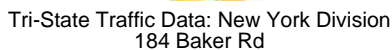
Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Falls St & 9th St
Site Code:
Start Date: 07/12/2022
Page No: 1

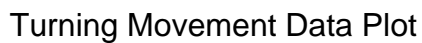
Turning Movement Data

Start Time	9th St Southbound						Falls St Westbound						9th St Northbound						Falls St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
7:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	4	0	0	0	4	4
7:15 AM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	3	0	0	0	3	5
7:30 AM	0	0	0	0	2	0	1	4	0	0	1	5	0	0	0	0	1	0	0	8	1	0	1	9	14
7:45 AM	0	0	0	0	0	0	1	7	0	0	0	8	0	0	0	0	0	0	0	19	0	0	0	19	27
Hourly Total	0	0	0	0	3	0	2	13	0	0	1	15	0	0	0	0	2	0	0	34	1	0	1	35	50
8:00 AM	0	0	0	0	1	0	2	2	0	0	0	4	0	0	0	0	0	0	0	8	0	0	0	8	12
8:15 AM	0	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	18	0	0	0	18	23
8:30 AM	0	0	0	0	1	0	0	5	0	0	0	5	0	0	0	0	2	0	0	5	0	0	1	5	10
8:45 AM	0	0	0	0	0	0	2	3	0	0	0	5	0	0	0	0	0	0	0	0	2	0	0	2	7
Hourly Total	0	0	0	0	2	0	4	15	0	0	0	19	0	0	0	0	2	0	0	31	2	0	1	33	52
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	2	5	0	0	0	7	0	0	0	0	0	0	0	5	1	0	0	6	13
11:15 AM	0	0	0	0	1	0	2	6	0	0	0	8	0	0	0	0	0	0	0	5	0	0	0	5	13
11:30 AM	0	0	0	0	2	0	2	11	0	0	0	13	0	0	0	0	0	0	0	3	1	0	0	4	17
11:45 AM	0	0	0	0	1	0	1	7	0	0	0	8	0	0	0	0	2	0	0	7	0	0	0	7	15
Hourly Total	0	0	0	0	4	0	7	29	0	0	0	36	0	0	0	0	2	0	0	20	2	0	0	22	58
12:00 PM	0	0	0	0	1	0	0	7	0	0	0	7	0	0	0	0	0	0	0	9	0	0	0	9	16
12:15 PM	0	0	0	0	1	0	1	6	0	0	0	7	0	0	0	0	0	0	0	5	2	0	0	7	14
12:30 PM	1	0	0	0	6	1	4	9	0	0	0	13	0	0	0	0	0	0	0	6	3	0	1	9	23
12:45 PM	0	0	1	0	2	1	0	10	0	0	0	10	0	0	0	0	1	0	0	3	3	0	0	6	17
Hourly Total	1	0	1	0	10	2	5	32	0	0	0	37	0	0	0	0	1	0	0	23	8	0	1	31	70
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	0	0	0	0	3	14	0	0	0	17	0	0	0	0	0	0	0	7	0	1	0	8	25
4:15 PM	0	0	0	0	0	0	2	5	0	0	0	7	0	0	0	0	0	0	0	5	1	0	0	6	13
4:30 PM	0	0	0	0	0	0	1	13	0	0	0	14	0	0	0	0	0	0	0	5	0	0	0	5	19
4:45 PM	0	0	0	0	1	0	1	7	0	0	0	8	0	0	0	0	1	0	0	6	0	0	0	6	14
Hourly Total	0	0	0	0	1	0	7	39	0	0	0	46	0	0	0	0	1	0	0	23	1	1	0	25	71
5:00 PM	0	0	0	0	1	0	0	9	0	0	0	9	0	0	0	0	1	0	0	5	0	0	0	5	14
5:15 PM	0	0	0	0	1	0	1	6	0	0	0	7	0	0	0	0	0	0	0	5	1	0	0	6	13
5:30 PM	1	0	0	0	1	1	0	5	0	0	0	5	0	0	0	0	0	0	0	5	1	0	0	6	12
5:45 PM	0	0	0	0	0	0	0	10	0	0	0	10	0	0	0	0	0	0	0	2	1	0	0	3	13
Hourly Total	1	0	0	0	3	1	1	30	0	0	0	31	0	0	0	0	1	0	0	17	3	0	0	20	52
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	2	0	1	0	23	3	26	158	0	0	1	184	0	0	0	0	9	0	0	148	17	1	3	166	353
Approach %	66.7	0.0	33.3	0.0	-	-	14.1	85.9	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	89.2	10.2	0.6	-	-	-
Total %	0.6	0.0	0.3	0.0	-	0.8	7.4	44.8	0.0	0.0	-	52.1	0.0	0.0	0.0	0.0	-	0.0	0.0	41.9	4.8	0.3	-	47.0	-
Motorcycles	2	0	0	0	-	2	0	4	0	0	-	4	0	0	0	0	-	0	0	2	0	0	-	2	8
% Motorcycles	100.0	-	0.0	-	-	66.7	0.0	2.5	-	-	-	2.2	-	-	-	-	-	-	-	1.4	0.0	0.0	-	1.2	2.3
Cars & Light Goods	0	0	1	0	-	1	25	148	0	0	-	173	0	0	0	0	-	0	0	144	17	1	-	162	336
% Cars & Light Goods	0.0	-	100.0	-	-	33.3	96.2	93.7	-	-	-	94.0	-	-	-	-	-	-	-	97.3	100.0	100.0	-	97.6	95.2
Other Vehicles	0	0	0	0	-	0	1	6	0	0	-	7	0	0	0	0	-	0	0	2	0	0	-	2	9
% Other Vehicles	0.0	-	0.0	-	-	0.0	3.8	3.8	-	-	-	3.8	-	-	-	-	-	-	-	1.4	0.0	0.0	-	1.2	2.5
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	23	-	-	-	-	-	1	-	-	-	-	-	9	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



Coatesville , Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Falls St & 9th St
Site Code:
Start Date: 07/12/2022
Page No: 2



Turning Movement Data Plot



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Falls St & 9th St
Site Code:
Start Date: 07/12/2022
Page No: 3

Turning Movement Peak Hour Data (7:30 AM)

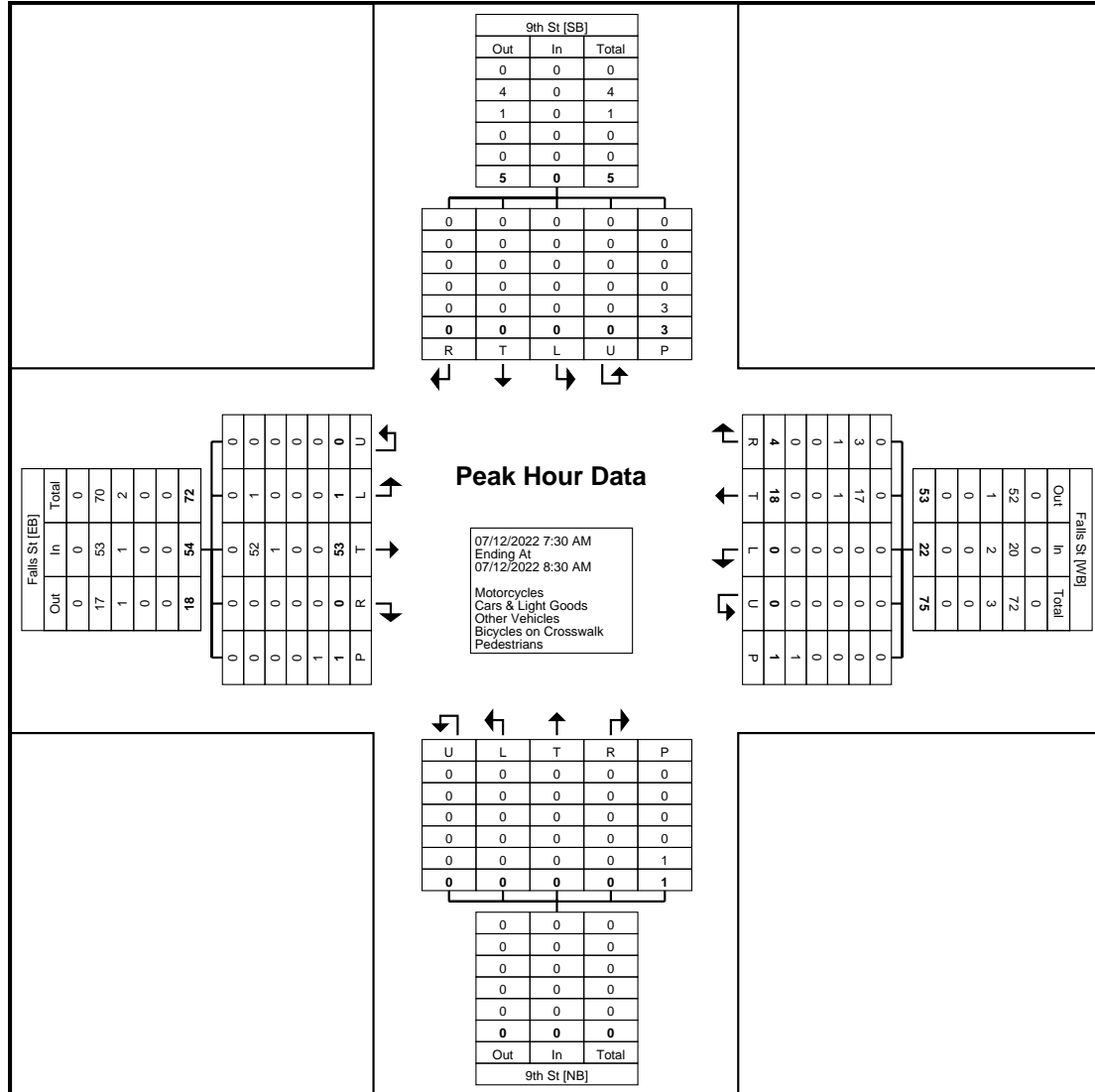
Start Time	9th St Southbound						Falls St Westbound						9th St Northbound						Falls St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
7:30 AM	0	0	0	0	2	0	1	4	0	0	1	5	0	0	0	0	1	0	0	8	1	0	1	9	14
7:45 AM	0	0	0	0	0	0	1	7	0	0	0	8	0	0	0	0	0	0	0	19	0	0	0	19	27
8:00 AM	0	0	0	0	1	0	2	2	0	0	0	4	0	0	0	0	0	0	0	8	0	0	0	8	12
8:15 AM	0	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	18	0	0	0	18	23
Total	0	0	0	0	3	0	4	18	0	0	1	22	0	0	0	0	1	0	0	53	1	0	1	54	76
Approach %	0.0	0.0	0.0	0.0	-	-	18.2	81.8	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	98.1	1.9	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	5.3	23.7	0.0	0.0	-	28.9	0.0	0.0	0.0	0.0	-	0.0	0.0	69.7	1.3	0.0	-	71.1	-
PHF	0.000	0.000	0.000	0.000	-	0.000	0.500	0.643	0.000	0.000	-	0.688	0.000	0.000	0.000	0.000	-	0.000	0.000	0.697	0.250	0.000	-	0.711	0.704
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	-	-	-	-	-	-	0.0	0.0	-	-	-	0.0	-	-	-	-	-	-	-	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	0	0	0	0	-	0	3	17	0	0	-	20	0	0	0	0	-	0	0	52	1	0	-	53	73
% Cars & Light Goods	-	-	-	-	-	-	75.0	94.4	-	-	-	90.9	-	-	-	-	-	-	-	98.1	100.0	-	-	98.1	96.1
Other Vehicles	0	0	0	0	-	0	1	1	0	0	-	2	0	0	0	0	-	0	0	1	0	0	-	1	3
% Other Vehicles	-	-	-	-	-	-	25.0	5.6	-	-	-	9.1	-	-	-	-	-	-	-	1.9	0.0	-	-	1.9	3.9
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	3	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Falls St & 9th St
Site Code:
Start Date: 07/12/2022
Page No: 4



Turning Movement Peak Hour Data Plot (7:30 AM)



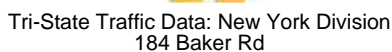
Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Falls St & 9th St
Site Code:
Start Date: 07/12/2022
Page No: 5

Turning Movement Peak Hour Data (12:00 PM)

Start Time	9th St Southbound						Falls St Westbound						9th St Northbound						Falls St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
12:00 PM	0	0	0	0	1	0	0	7	0	0	0	7	0	0	0	0	0	0	0	9	0	0	0	9	16
12:15 PM	0	0	0	0	1	0	1	6	0	0	0	7	0	0	0	0	0	0	0	5	2	0	0	7	14
12:30 PM	1	0	0	0	6	1	4	9	0	0	0	13	0	0	0	0	0	0	0	6	3	0	1	9	23
12:45 PM	0	0	1	0	2	1	0	10	0	0	0	10	0	0	0	0	1	0	0	3	3	0	0	6	17
Total	1	0	1	0	10	2	5	32	0	0	0	37	0	0	0	0	1	0	0	23	8	0	1	31	70
Approach %	50.0	0.0	50.0	0.0	-	-	13.5	86.5	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	74.2	25.8	0.0	-	-	-
Total %	1.4	0.0	1.4	0.0	-	2.9	7.1	45.7	0.0	0.0	-	52.9	0.0	0.0	0.0	0.0	-	0.0	0.0	32.9	11.4	0.0	-	44.3	-
PHF	0.250	0.000	0.250	0.000	-	0.500	0.313	0.800	0.000	0.000	-	0.712	0.000	0.000	0.000	0.000	-	0.000	0.000	0.639	0.667	0.000	-	0.861	0.761
Motorcycles	1	0	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	2
% Motorcycles	100.0	-	0.0	-	-	50.0	0.0	0.0	-	-	-	0.0	-	-	-	-	-	-	-	4.3	0.0	-	-	3.2	2.9
Cars & Light Goods	0	0	1	0	-	1	5	30	0	0	-	35	0	0	0	0	-	0	0	21	8	0	-	29	65
% Cars & Light Goods	0.0	-	100.0	-	-	50.0	100.0	93.8	-	-	-	94.6	-	-	-	-	-	-	-	91.3	100.0	-	-	93.5	92.9
Other Vehicles	0	0	0	0	-	0	0	2	0	0	-	2	0	0	0	0	-	0	0	1	0	0	-	1	3
% Other Vehicles	0.0	-	0.0	-	-	0.0	0.0	6.3	-	-	-	5.4	-	-	-	-	-	-	-	4.3	0.0	-	-	3.2	4.3
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	10	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



Coatesville , Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Falls St & 9th St
Site Code:
Start Date: 07/12/2022
Page No: 6





Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Falls St & 9th St
Site Code:
Start Date: 07/12/2022
Page No: 7

Turning Movement Peak Hour Data (4:00 PM)

Start Time	9th St Southbound						Falls St Westbound						9th St Northbound						Falls St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
4:00 PM	0	0	0	0	0	0	3	14	0	0	0	17	0	0	0	0	0	0	0	7	0	1	0	8	25
4:15 PM	0	0	0	0	0	0	2	5	0	0	0	7	0	0	0	0	0	0	0	5	1	0	0	6	13
4:30 PM	0	0	0	0	0	0	1	13	0	0	0	14	0	0	0	0	0	0	0	5	0	0	0	5	19
4:45 PM	0	0	0	0	1	0	1	7	0	0	0	8	0	0	0	0	1	0	0	6	0	0	0	6	14
Total	0	0	0	0	1	0	7	39	0	0	0	46	0	0	0	0	1	0	0	23	1	1	0	25	71
Approach %	0.0	0.0	0.0	0.0	-	-	15.2	84.8	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	92.0	4.0	4.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	9.9	54.9	0.0	0.0	-	64.8	0.0	0.0	0.0	0.0	-	0.0	0.0	32.4	1.4	1.4	-	35.2	-
PHF	0.000	0.000	0.000	0.000	-	0.000	0.583	0.696	0.000	0.000	-	0.676	0.000	0.000	0.000	0.000	-	0.000	0.000	0.821	0.250	0.250	-	0.781	0.710
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	0	-	0
% Motorcycles	-	-	-	-	-	-	0.0	0.0	-	-	-	0.0	-	-	-	-	-	-	-	0.0	0.0	0.0	-	0.0	0.0
Cars & Light Goods	0	0	0	0	-	0	7	39	0	0	-	46	0	0	0	0	-	0	0	23	1	1	-	25	71
% Cars & Light Goods	-	-	-	-	-	-	100.0	100.0	-	-	-	100.0	-	-	-	-	-	-	-	100.0	100.0	100.0	-	100.0	100.0
Other Vehicles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Other Vehicles	-	-	-	-	-	-	0.0	0.0	-	-	-	0.0	-	-	-	-	-	-	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

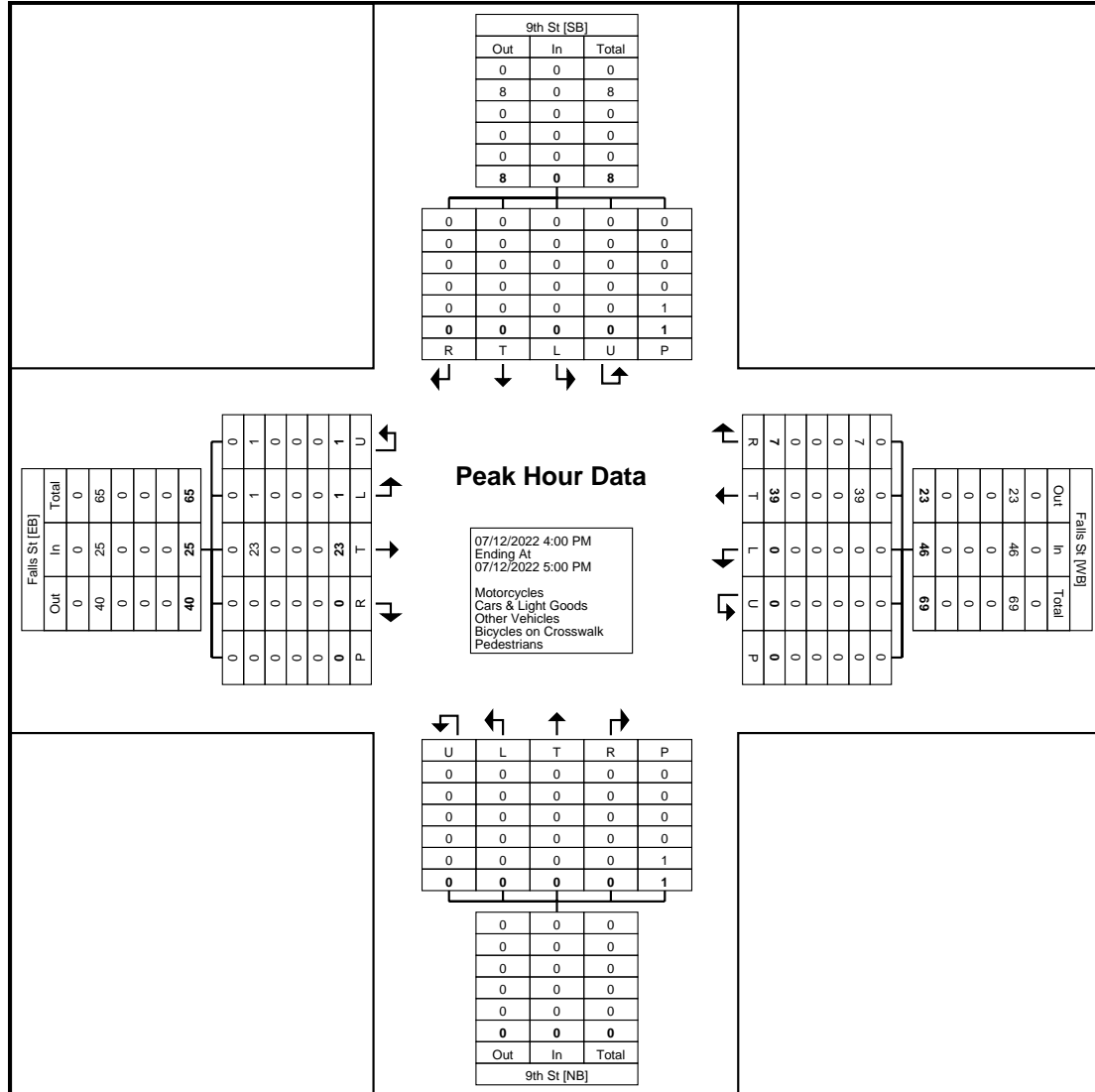


Tri-State Traffic Data: New York Division
184 Baker Rd

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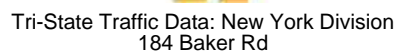
Count Name: Falls St & 9th St
Site Code:
Start Date: 07/12/2022
Page No: 8

Niagara, New York
July 12, 2022

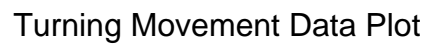


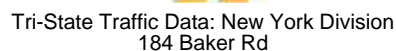
Turning Movement Peak Hour Data Plot (4:00 PM)

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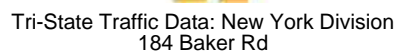


Count Name: Falls St & 9th St
Site Code:
Start Date: 08/06/2022
Page No: 2

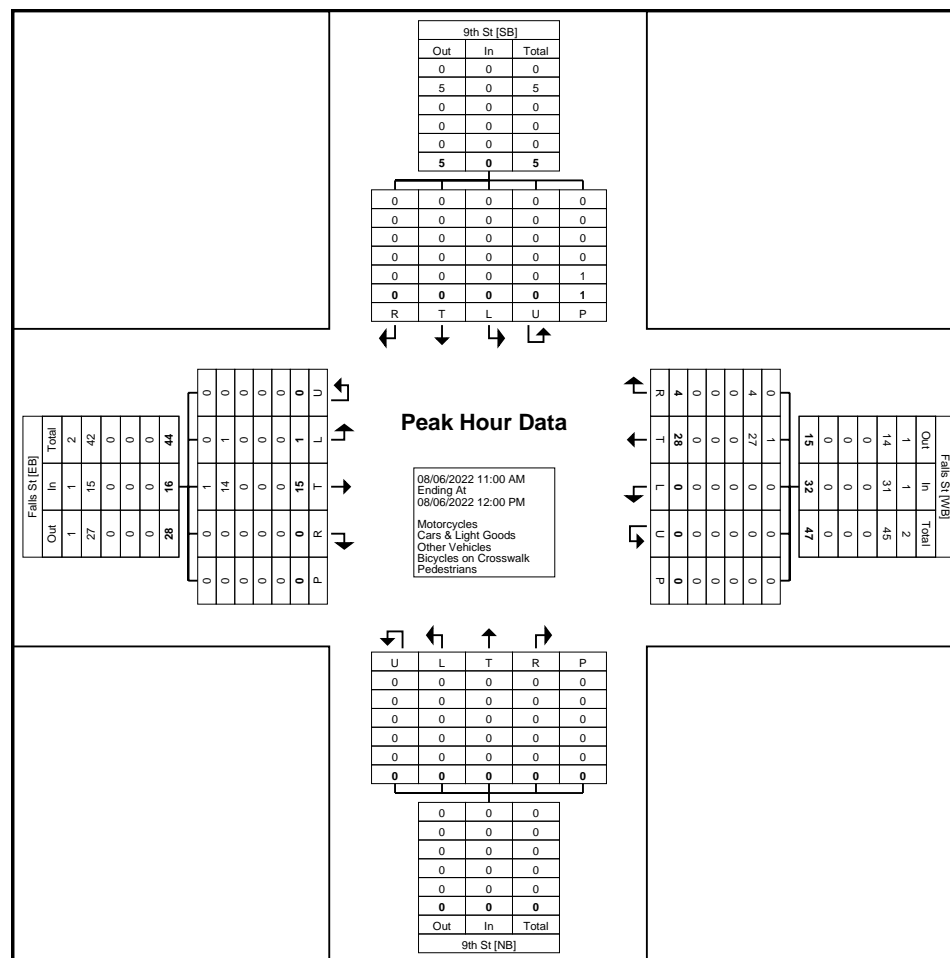




Count Name: Falls St & 9th St
Site Code:
Start Date: 08/06/2022
Page No: 3



Count Name: Falls St & 9th St
Site Code:
Start Date: 08/06/2022
Page No: 4



[illegible]

Count Name: Falls St & 9th St
Site Code:
Start Date: 08/06/2022
Page No: 6



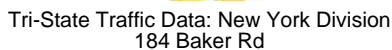
Tri-State Traffic Data: New York Division
184 Baker Rd

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610-517-2338 bkarz@tstdata.com

Count Name: Falls St & 10th St
Site Code:
Start Date: 07/12/2022
Page No: 1

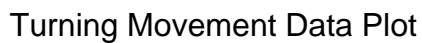
Turning Movement Data

Start Time	10th St Southbound						Falls St Westbound						10th St Northbound						Falls St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
7:00 AM	0	1	1	0	0	2	1	1	1	1	0	4	1	1	0	0	1	2	0	2	0	0	0	2	10
7:15 AM	0	1	0	0	0	1	1	1	0	0	0	2	3	2	0	0	0	5	0	4	0	0	0	4	12
7:30 AM	0	2	2	0	3	4	1	7	4	0	0	12	1	2	0	0	0	3	0	5	1	0	0	6	25
7:45 AM	0	3	0	0	0	3	2	6	1	0	0	9	7	4	1	0	0	12	0	20	1	0	0	21	45
Hourly Total	0	7	3	0	3	10	5	15	6	1	0	27	12	9	1	0	1	22	0	31	2	0	0	33	92
8:00 AM	1	3	3	0	1	7	3	4	0	0	2	7	4	7	0	0	0	11	0	5	1	0	0	6	31
8:15 AM	0	4	2	0	0	6	6	4	1	1	1	12	0	4	0	0	0	4	0	14	5	0	0	19	41
8:30 AM	1	0	0	0	2	1	2	4	3	0	1	9	1	4	0	1	1	6	0	5	1	0	0	6	22
8:45 AM	1	2	1	0	0	4	0	2	2	0	0	4	0	6	1	0	0	7	0	0	0	0	0	0	15
Hourly Total	3	9	6	0	3	18	11	14	6	1	4	32	5	21	1	1	1	28	0	24	7	0	0	31	109
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	2	6	2	0	0	10	0	7	1	0	1	8	2	2	0	0	0	4	0	5	0	0	0	5	27
11:15 AM	1	1	1	0	0	3	2	5	1	0	0	8	0	5	1	0	0	6	0	5	0	0	0	5	22
11:30 AM	5	3	1	0	2	9	2	10	2	0	0	14	2	5	0	0	1	7	0	3	0	0	0	3	33
11:45 AM	0	5	2	0	2	7	1	5	2	0	0	8	1	2	0	0	0	3	0	4	2	0	0	6	24
Hourly Total	8	15	6	0	4	29	5	27	6	0	1	38	5	14	1	0	1	20	0	17	2	0	0	19	106
12:00 PM	1	1	1	0	2	3	4	10	3	0	1	17	0	3	0	0	0	3	0	6	2	0	0	8	31
12:15 PM	2	6	2	0	0	10	1	5	0	0	0	6	0	4	0	0	0	4	1	4	1	0	0	6	26
12:30 PM	4	2	3	0	8	9	2	8	2	0	1	12	0	3	0	0	0	3	0	7	1	0	0	8	32
12:45 PM	4	5	1	0	2	10	3	7	0	0	1	10	1	9	0	0	1	10	2	2	2	0	0	6	36
Hourly Total	11	14	7	0	12	32	10	30	5	0	3	45	1	19	0	0	1	20	3	19	6	0	0	28	125
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	1	11	3	0	0	15	4	14	17	0	2	35	1	2	1	0	0	4	0	3	2	0	2	5	59
4:15 PM	0	2	0	0	0	2	0	6	3	0	0	9	1	1	2	0	0	4	0	7	0	0	0	7	22
4:30 PM	2	3	5	0	1	10	4	10	2	0	0	16	1	3	0	0	0	4	0	5	0	0	0	5	35
4:45 PM	1	6	2	0	2	9	2	7	4	0	0	13	1	2	0	0	1	3	0	5	0	0	0	5	30
Hourly Total	4	22	10	0	3	36	10	37	26	0	2	73	4	8	3	0	1	15	0	20	2	0	2	22	146
5:00 PM	3	3	4	0	0	10	2	7	0	0	0	9	0	4	0	0	1	4	0	1	1	0	0	2	25
5:15 PM	0	3	0	0	1	3	1	6	0	0	0	7	0	1	0	0	0	1	0	8	0	0	0	8	19
5:30 PM	0	1	0	0	0	1	0	4	0	0	0	4	0	2	0	0	0	2	0	4	0	0	0	4	11
5:45 PM	1	1	4	0	1	6	2	10	3	0	0	15	0	4	0	0	0	4	0	2	0	0	0	2	27
Hourly Total	4	8	8	0	2	20	5	27	3	0	0	35	0	11	0	0	1	11	0	15	1	0	0	16	82
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	30	75	40	0	27	145	46	150	52	2	10	250	27	82	6	1	6	116	3	126	20	0	2	149	660
Approach %	20.7	51.7	27.6	0.0	-	-	18.4	60.0	20.8	0.8	-	-	23.3	70.7	5.2	0.9	-	-	2.0	84.6	13.4	0.0	-	-	-
Total %	4.5	11.4	6.1	0.0	-	22.0	7.0	22.7	7.9	0.3	-	37.9	4.1	12.4	0.9	0.2	-	17.6	0.5	19.1	3.0	0.0	-	22.6	-
Motorcycles	0	0	0	0	-	0	1	5	0	0	-	6	0	0	0	0	-	0	2	2	1	0	-	5	11
% Motorcycles	0.0	0.0	0.0	-	-	0.0	2.2	3.3	0.0	0.0	-	2.4	0.0	0.0	0.0	0.0	-	0.0	66.7	1.6	5.0	-	-	3.4	1.7
Cars & Light Goods	30	74	39	0	-	143	43	138	49	2	-	232	27	79	6	1	-	113	1	122	19	0	-	142	630
% Cars & Light Goods	100.0	98.7	97.5	-	-	98.6	93.5	92.0	94.2	100.0	-	92.8	100.0	96.3	100.0	100.0	-	97.4	33.3	96.8	95.0	-	-	95.3	95.5
Other Vehicles	0	1	1	0	-	2	2	7	3	0	-	12	0	3	0	0	-	3	0	2	0	0	-	2	19
% Other Vehicles	0.0	1.3	2.5	-	-	1.4	4.3	4.7	5.8	0.0	-	4.8	0.0	3.7	0.0	0.0	-	2.6	0.0	1.6	0.0	-	-	1.3	2.9
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	50.0	-	-
Pedestrians	-	-	-	-	27	-	-	-	-	-	10	-	-	-	-	-	6	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	50.0	-	-



Coatesville , Pennsylvania, United States 19320
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Count Name: Falls St & 10th St
Site Code:
Start Date: 07/12/2022
Page No: 2



Turning Movement Data Plot

Tri-State Traffic Data: New York Division
184 Baker Rd

Tri-State Traffic Data: New York Division
184 Baker Rd



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
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Count Name: Falls St & 10th St
Site Code:
Start Date: 07/12/2022
Page No: 5

Turning Movement Peak Hour Data (12:00 PM)

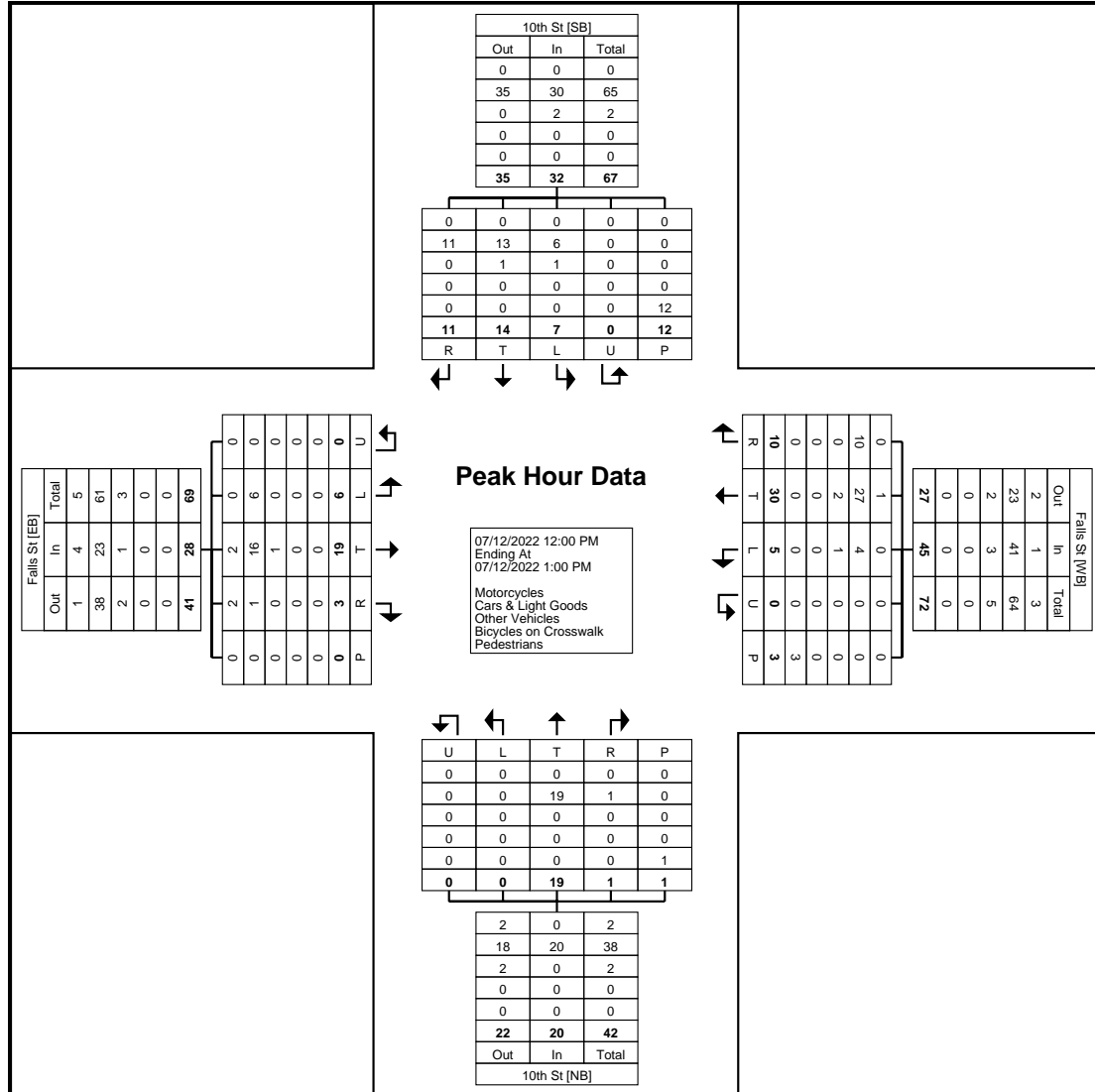
Start Time	10th St Southbound						Falls St Westbound						10th St Northbound						Falls St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
12:00 PM	1	1	1	0	2	3	4	10	3	0	1	17	0	3	0	0	0	3	0	6	2	0	0	8	31
12:15 PM	2	6	2	0	0	10	1	5	0	0	0	6	0	4	0	0	0	4	1	4	1	0	0	6	26
12:30 PM	4	2	3	0	8	9	2	8	2	0	1	12	0	3	0	0	0	3	0	7	1	0	0	8	32
12:45 PM	4	5	1	0	2	10	3	7	0	0	1	10	1	9	0	0	1	10	2	2	2	0	0	6	36
Total	11	14	7	0	12	32	10	30	5	0	3	45	1	19	0	0	1	20	3	19	6	0	0	28	125
Approach %	34.4	43.8	21.9	0.0	-	-	22.2	66.7	11.1	0.0	-	-	5.0	95.0	0.0	0.0	-	-	10.7	67.9	21.4	0.0	-	-	-
Total %	8.8	11.2	5.6	0.0	-	25.6	8.0	24.0	4.0	0.0	-	36.0	0.8	15.2	0.0	0.0	-	16.0	2.4	15.2	4.8	0.0	-	22.4	-
PHF	0.688	0.583	0.583	0.000	-	0.800	0.625	0.750	0.417	0.000	-	0.662	0.250	0.528	0.000	0.000	-	0.500	0.375	0.679	0.750	0.000	-	0.875	0.868
Motorcycles	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	2	2	0	0	-	4	5
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	3.3	0.0	-	-	2.2	0.0	0.0	-	-	-	0.0	66.7	10.5	0.0	-	-	14.3	4.0
Cars & Light Goods	11	13	6	0	-	30	10	27	4	0	-	41	1	19	0	0	-	20	1	16	6	0	-	23	114
% Cars & Light Goods	100.0	92.9	85.7	-	-	93.8	100.0	90.0	80.0	-	-	91.1	100.0	100.0	-	-	-	100.0	33.3	84.2	100.0	-	-	82.1	91.2
Other Vehicles	0	1	1	0	-	2	0	2	1	0	-	3	0	0	0	0	-	0	0	1	0	0	-	1	6
% Other Vehicles	0.0	7.1	14.3	-	-	6.3	0.0	6.7	20.0	-	-	6.7	0.0	0.0	-	-	-	0.0	0.0	5.3	0.0	-	-	3.6	4.8
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	12	-	-	-	-	-	3	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-



Tri-State Traffic Data: New York Division
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Count Name: Falls St & 10th St
Site Code:
Start Date: 07/12/2022
Page No: 6





Tri-State Traffic Data: New York Division
184 Baker Rd

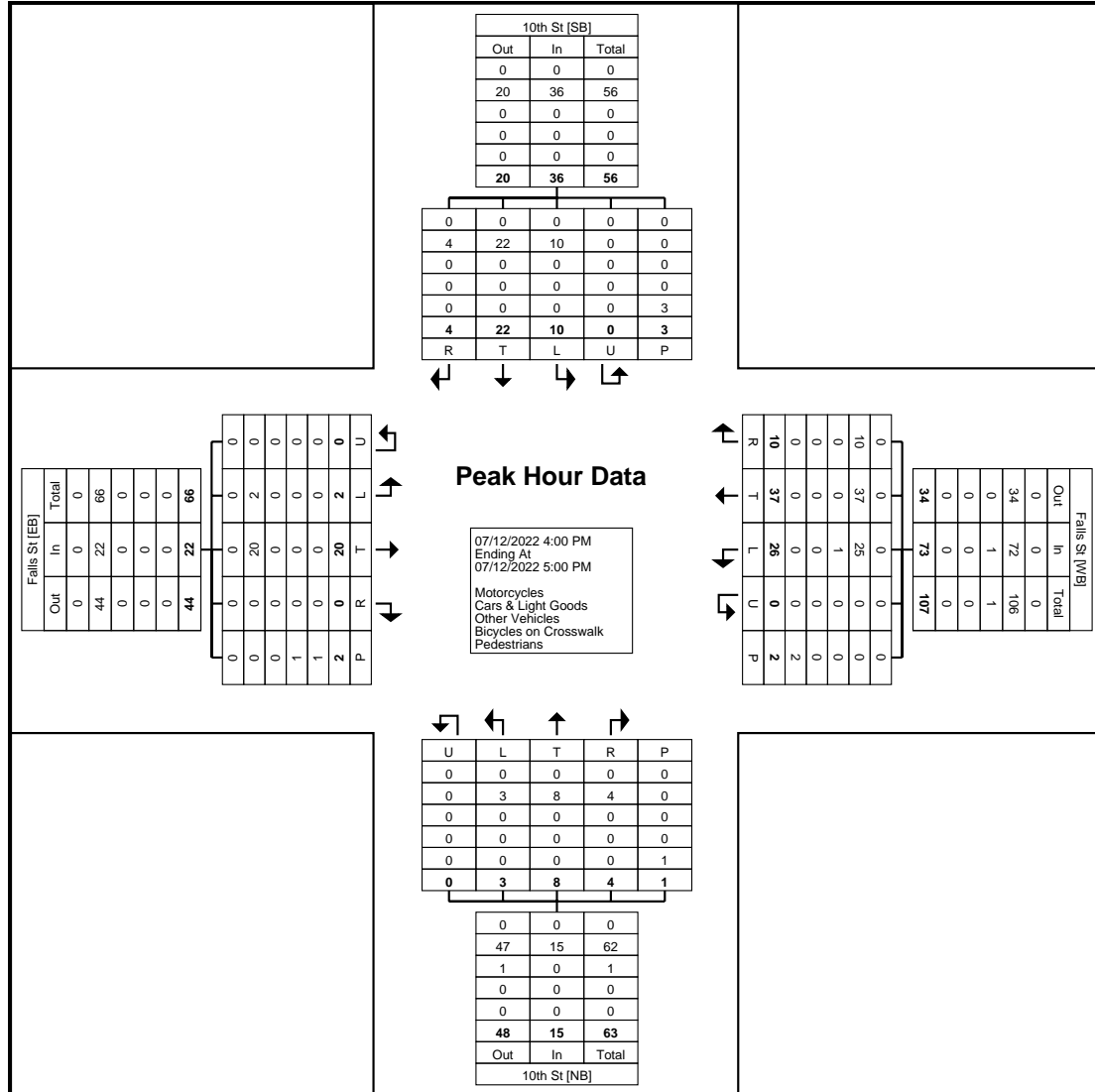
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610-517-2338 bkarz@tstdata.com

Count Name: Falls St & 10th St
Site Code:
Start Date: 07/12/2022
Page No: 7

Turning Movement Peak Hour Data (4:00 PM)

Start Time	10th St Southbound						Falls St Westbound						10th St Northbound						Falls St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
4:00 PM	1	11	3	0	0	15	4	14	17	0	2	35	1	2	1	0	0	4	0	3	2	0	2	5	59
4:15 PM	0	2	0	0	0	2	0	6	3	0	0	9	1	1	2	0	0	4	0	7	0	0	0	7	22
4:30 PM	2	3	5	0	1	10	4	10	2	0	0	16	1	3	0	0	0	4	0	5	0	0	0	5	35
4:45 PM	1	6	2	0	2	9	2	7	4	0	0	13	1	2	0	0	1	3	0	5	0	0	0	5	30
Total	4	22	10	0	3	36	10	37	26	0	2	73	4	8	3	0	1	15	0	20	2	0	2	22	146
Approach %	11.1	61.1	27.8	0.0	-	-	13.7	50.7	35.6	0.0	-	-	26.7	53.3	20.0	0.0	-	-	0.0	90.9	9.1	0.0	-	-	-
Total %	2.7	15.1	6.8	0.0	-	24.7	6.8	25.3	17.8	0.0	-	50.0	2.7	5.5	2.1	0.0	-	10.3	0.0	13.7	1.4	0.0	-	15.1	-
PHF	0.500	0.500	0.500	0.000	-	0.600	0.625	0.661	0.382	0.000	-	0.521	1.000	0.667	0.375	0.000	-	0.938	0.000	0.714	0.250	0.000	-	0.786	0.619
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	-	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	4	22	10	0	-	36	10	37	25	0	-	72	4	8	3	0	-	15	0	20	2	0	-	22	145
% Cars & Light Goods	100.0	100.0	100.0	-	-	100.0	100.0	100.0	96.2	-	-	98.6	100.0	100.0	100.0	-	-	100.0	-	100.0	100.0	-	-	100.0	99.3
Other Vehicles	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Other Vehicles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	3.8	-	-	1.4	0.0	0.0	0.0	-	-	0.0	-	0.0	0.0	-	-	0.0	0.7
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	50.0	-	-
Pedestrians	-	-	-	-	3	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	50.0	-	-

Niagara, New York
July 12, 2022



Turning Movement Peak Hour Data Plot (4:00 PM)



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
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Count Name: Falls St & 10th St
Site Code:
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Page No: 1

Turning Movement Data

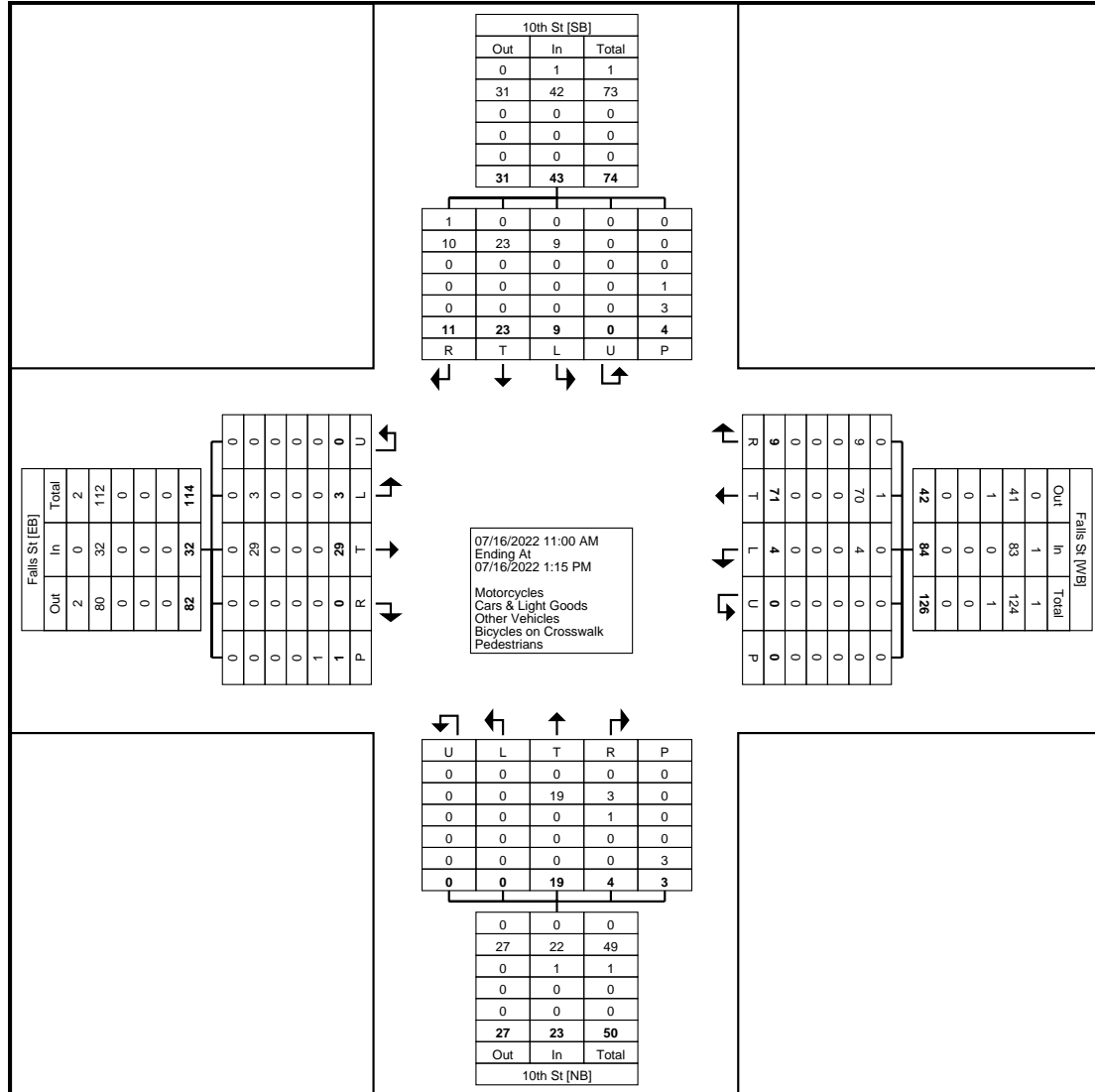
Start Time	10th St Southbound						Falls St Westbound						10th St Northbound						Falls St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
11:00 AM	1	1	1	0	0	3	1	15	0	0	0	16	1	1	0	0	0	2	0	2	1	0	0	3	24
11:15 AM	3	5	0	0	0	8	0	11	0	0	0	11	0	4	0	0	2	4	0	5	0	0	0	5	28
11:30 AM	0	6	0	0	0	6	0	9	1	0	0	10	0	6	0	0	0	6	0	2	0	0	0	2	24
11:45 AM	1	3	0	0	1	4	3	6	1	0	0	10	0	4	0	0	0	4	0	2	0	0	0	2	20
Hourly Total	5	15	1	0	1	21	4	41	2	0	0	47	1	15	0	0	2	16	0	11	1	0	0	12	96
12:00 PM	2	1	4	0	0	7	0	9	2	0	0	11	1	2	0	0	0	3	0	7	1	0	1	8	29
12:15 PM	1	3	0	0	3	4	2	5	0	0	0	7	1	1	0	0	0	2	0	5	1	0	0	6	19
12:30 PM	3	0	1	0	0	4	3	7	0	0	0	10	0	0	0	0	0	0	0	3	0	0	0	3	17
12:45 PM	0	4	3	0	0	7	0	9	0	0	0	9	1	1	0	0	1	2	0	3	0	0	0	3	21
Hourly Total	6	8	8	0	3	22	5	30	2	0	0	37	3	4	0	0	1	7	0	18	2	0	1	20	86
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	11	23	9	0	4	43	9	71	4	0	0	84	4	19	0	0	3	23	0	29	3	0	1	32	182
Approach %	25.6	53.5	20.9	0.0	-	-	10.7	84.5	4.8	0.0	-	-	17.4	82.6	0.0	0.0	-	-	0.0	90.6	9.4	0.0	-	-	-
Total %	6.0	12.6	4.9	0.0	-	23.6	4.9	39.0	2.2	0.0	-	46.2	2.2	10.4	0.0	0.0	-	12.6	0.0	15.9	1.6	0.0	-	17.6	-
Motorcycles	1	0	0	0	-	1	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	2
% Motorcycles	9.1	0.0	0.0	-	-	2.3	0.0	1.4	0.0	-	-	1.2	0.0	0.0	-	-	-	0.0	-	0.0	0.0	-	-	0.0	1.1
Cars & Light Goods	10	23	9	0	-	42	9	70	4	0	-	83	3	19	0	0	-	22	0	29	3	0	-	32	179
% Cars & Light Goods	90.9	100.0	100.0	-	-	97.7	100.0	98.6	100.0	-	-	98.8	75.0	100.0	-	-	-	95.7	-	100.0	100.0	-	-	100.0	98.4
Other Vehicles	0	0	0	0	-	0	0	0	0	0	-	0	1	0	0	0	-	1	0	0	0	0	-	0	1
% Other Vehicles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	25.0	0.0	-	-	-	4.3	-	0.0	0.0	-	-	0.0	0.5
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	25.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	3	-	-	-	-	0	-	-	-	-	-	-	3	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	75.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Falls St & 10th St
Site Code:
Start Date: 07/16/2022
Page No: 2



Turning Movement Data Plot



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Falls St & 10th St
Site Code:
Start Date: 07/16/2022
Page No: 3

Turning Movement Peak Hour Data (11:00 AM)

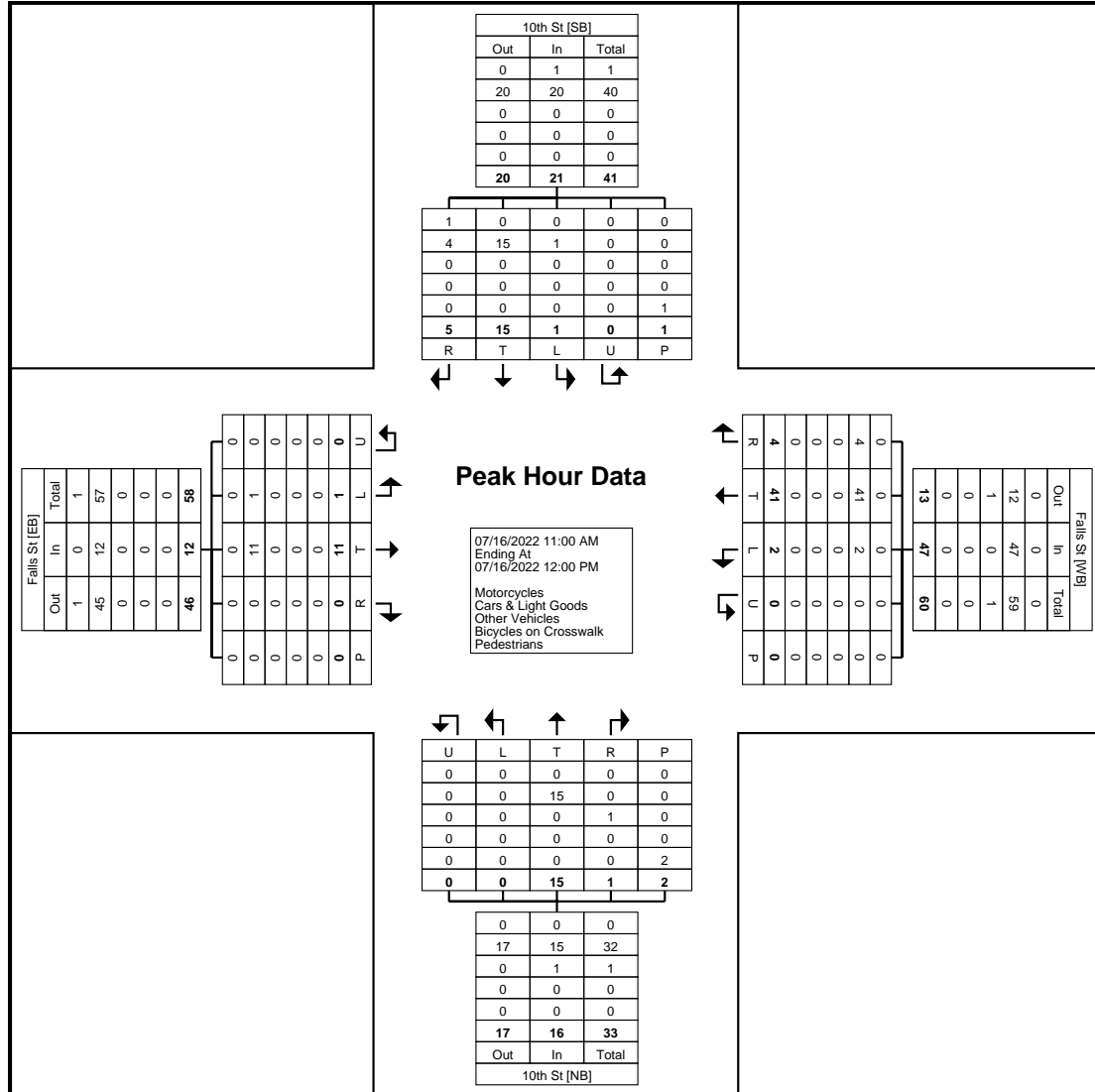
Start Time	10th St Southbound						Falls St Westbound						10th St Northbound						Falls St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
11:00 AM	1	1	1	0	0	3	1	15	0	0	0	16	1	1	0	0	0	2	0	2	1	0	0	3	24
11:15 AM	3	5	0	0	0	8	0	11	0	0	0	11	0	4	0	0	2	4	0	5	0	0	0	5	28
11:30 AM	0	6	0	0	0	6	0	9	1	0	0	10	0	6	0	0	0	6	0	2	0	0	0	2	24
11:45 AM	1	3	0	0	1	4	3	6	1	0	0	10	0	4	0	0	0	4	0	2	0	0	0	2	20
Total	5	15	1	0	1	21	4	41	2	0	0	47	1	15	0	0	2	16	0	11	1	0	0	12	96
Approach %	23.8	71.4	4.8	0.0	-	-	8.5	87.2	4.3	0.0	-	-	6.3	93.8	0.0	0.0	-	-	0.0	91.7	8.3	0.0	-	-	-
Total %	5.2	15.6	1.0	0.0	-	21.9	4.2	42.7	2.1	0.0	-	49.0	1.0	15.6	0.0	0.0	-	16.7	0.0	11.5	1.0	0.0	-	12.5	-
PHF	0.417	0.625	0.250	0.000	-	0.656	0.333	0.683	0.500	0.000	-	0.734	0.250	0.625	0.000	0.000	-	0.667	0.000	0.550	0.250	0.000	-	0.600	0.857
Motorcycles	1	0	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Motorcycles	20.0	0.0	0.0	-	-	4.8	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	-	0.0	-	0.0	0.0	-	-	0.0	1.0
Cars & Light Goods	4	15	1	0	-	20	4	41	2	0	-	47	0	15	0	0	-	15	0	11	1	0	-	12	94
% Cars & Light Goods	80.0	100.0	100.0	-	-	95.2	100.0	100.0	100.0	-	-	100.0	0.0	100.0	-	-	-	93.8	-	100.0	100.0	-	-	100.0	97.9
Other Vehicles	0	0	0	0	-	0	0	0	0	0	-	0	1	0	0	0	-	1	0	0	0	0	-	0	1
% Other Vehicles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	100.0	0.0	-	-	-	6.3	-	0.0	0.0	-	-	0.0	1.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	0	-	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Falls St & 10th St
Site Code:
Start Date: 07/16/2022
Page No: 4



Turning Movement Peak Hour Data Plot (11:00 AM)



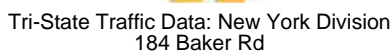
Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Falls St & 10th St
Site Code:
Start Date: 07/16/2022
Page No: 5

Turning Movement Peak Hour Data (12:00 PM)

Start Time	10th St Southbound						Falls St Westbound						10th St Northbound						Falls St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
12:00 PM	2	1	4	0	0	7	0	9	2	0	0	11	1	2	0	0	0	3	0	7	1	0	1	8	29
12:15 PM	1	3	0	0	3	4	2	5	0	0	0	7	1	1	0	0	0	2	0	5	1	0	0	6	19
12:30 PM	3	0	1	0	0	4	3	7	0	0	0	10	0	0	0	0	0	0	0	3	0	0	0	3	17
12:45 PM	0	4	3	0	0	7	0	9	0	0	0	9	1	1	0	0	1	2	0	3	0	0	0	3	21
Total	6	8	8	0	3	22	5	30	2	0	0	37	3	4	0	0	1	7	0	18	2	0	1	20	86
Approach %	27.3	36.4	36.4	0.0	-	-	13.5	81.1	5.4	0.0	-	-	42.9	57.1	0.0	0.0	-	-	0.0	90.0	10.0	0.0	-	-	-
Total %	7.0	9.3	9.3	0.0	-	25.6	5.8	34.9	2.3	0.0	-	43.0	3.5	4.7	0.0	0.0	-	8.1	0.0	20.9	2.3	0.0	-	23.3	-
PHF	0.500	0.500	0.500	0.000	-	0.786	0.417	0.833	0.250	0.000	-	0.841	0.750	0.500	0.000	0.000	-	0.583	0.000	0.643	0.500	0.000	-	0.625	0.741
Motorcycles	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	3.3	0.0	-	-	2.7	0.0	0.0	-	-	-	0.0	-	0.0	0.0	-	-	0.0	1.2
Cars & Light Goods	6	8	8	0	-	22	5	29	2	0	-	36	3	4	0	0	-	7	0	18	2	0	-	20	85
% Cars & Light Goods	100.0	100.0	100.0	-	-	100.0	100.0	96.7	100.0	-	-	97.3	100.0	100.0	-	-	-	100.0	-	100.0	100.0	-	-	100.0	98.8
Other Vehicles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Other Vehicles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	-	0.0	-	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	33.3	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	66.7	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



Coatesville , Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Falls St & 10th St
Site Code:
Start Date: 07/16/2022
Page No: 6



Turning Movement Peak Hour Data Plot (12:00 PM)



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Ferry Ave & 10th St
Site Code:
Start Date: 07/12/2022
Page No: 1

Niagara, New York
July 12, 2022

Turning Movement Data

Start Time	10th St Southbound						Ferry Ave Westbound						10th St Northbound						Ferry Ave Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
7:00 AM	0	8	4	0	0	12	0	0	0	0	0	0	2	18	0	0	0	20	5	17	3	0	0	25	57
7:15 AM	0	8	3	0	0	11	0	0	0	0	3	0	3	11	0	0	0	14	3	13	2	0	0	18	43
7:30 AM	0	13	2	0	0	15	0	0	0	0	3	0	2	21	0	0	1	23	0	7	3	0	0	10	48
7:45 AM	0	9	5	0	2	14	0	0	0	0	1	0	6	28	0	0	0	34	3	25	4	0	0	32	80
Hourly Total	0	38	14	0	2	52	0	0	0	0	7	0	13	78	0	0	1	91	11	62	12	0	0	85	228
8:00 AM	0	14	6	0	0	20	0	0	0	0	0	0	7	28	0	0	1	35	1	24	4	0	0	29	84
8:15 AM	0	19	3	0	0	22	0	0	0	0	0	0	5	19	0	0	2	24	6	15	4	0	1	25	71
8:30 AM	0	12	6	0	1	18	0	0	0	0	3	0	1	13	0	0	2	14	3	18	3	0	6	24	56
8:45 AM	0	21	9	0	0	30	0	0	0	0	1	0	4	25	0	0	1	29	2	21	7	0	5	30	89
Hourly Total	0	66	24	0	1	90	0	0	0	0	4	0	17	85	0	0	6	102	12	78	18	0	12	108	300
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	17	8	0	0	25	0	0	0	0	3	0	4	13	0	0	0	17	2	36	3	0	0	41	83
11:15 AM	0	16	6	0	0	22	0	0	0	0	1	0	1	12	0	0	1	13	5	39	3	0	3	47	82
11:30 AM	0	21	7	0	2	28	0	0	0	0	0	0	6	20	0	0	0	26	3	34	4	0	2	41	95
11:45 AM	0	19	10	0	0	29	0	0	0	0	3	0	2	12	0	0	1	14	2	36	1	0	0	39	82
Hourly Total	0	73	31	0	2	104	0	0	0	0	7	0	13	57	0	0	2	70	12	145	11	0	5	168	342
12:00 PM	0	18	14	0	0	32	0	0	0	0	1	0	3	19	0	0	0	22	3	35	8	0	1	46	100
12:15 PM	0	27	11	0	3	38	0	0	0	0	1	0	7	22	0	0	2	29	1	33	3	0	3	37	104
12:30 PM	0	21	8	0	0	29	0	0	0	0	2	0	2	14	0	0	1	16	5	37	5	0	1	47	92
12:45 PM	0	24	10	0	6	34	0	0	0	0	0	0	7	24	0	0	1	31	2	53	9	0	2	64	129
Hourly Total	0	90	43	0	9	133	0	0	0	0	4	0	19	79	0	0	4	98	11	158	25	0	7	194	425
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	267	112	0	14	379	0	0	0	0	22	0	62	299	0	0	13	361	46	443	66	0	24	555	1295
Approach %	0.0	70.4	29.6	0.0	-	-	0.0	0.0	0.0	0.0	-	-	17.2	82.8	0.0	0.0	-	-	8.3	79.8	11.9	0.0	-	-	-
Total %	0.0	20.6	8.6	0.0	-	29.3	0.0	0.0	0.0	0.0	-	0.0	4.8	23.1	0.0	0.0	-	27.9	3.6	34.2	5.1	0.0	-	42.9	-
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	1
% Motorcycles	-	0.0	0.0	-	-	0.0	-	-	-	-	-	-	0.0	0.0	-	-	-	0.0	0.0	0.2	0.0	-	-	0.2	0.1
Cars & Light Goods	0	255	110	0	-	365	0	0	0	0	-	0	61	293	0	0	-	354	45	421	66	0	-	532	1251
% Cars & Light Goods	-	95.5	98.2	-	-	96.3	-	-	-	-	-	-	98.4	98.0	-	-	-	98.1	97.8	95.0	100.0	-	-	95.9	96.6
Other Vehicles	0	12	2	0	-	14	0	0	0	0	-	0	1	6	0	0	-	7	1	21	0	0	-	22	43
% Other Vehicles	-	4.5	1.8	-	-	3.7	-	-	-	-	-	-	1.6	2.0	-	-	-	1.9	2.2	4.7	0.0	-	-	4.0	3.3
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	4	-	-
% Bicycles on Crosswalk	-	-	-	-	7.1	-	-	-	-	0.0	-	-	-	-	-	-	0.0	-	-	-	-	-	16.7	-	-
Pedestrians	-	-	-	-	13	-	-	-	-	22	-	-	-	-	-	-	13	-	-	-	-	-	20	-	-
% Pedestrians	-	-	-	-	92.9	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-	-	-	-	83.3	-	-

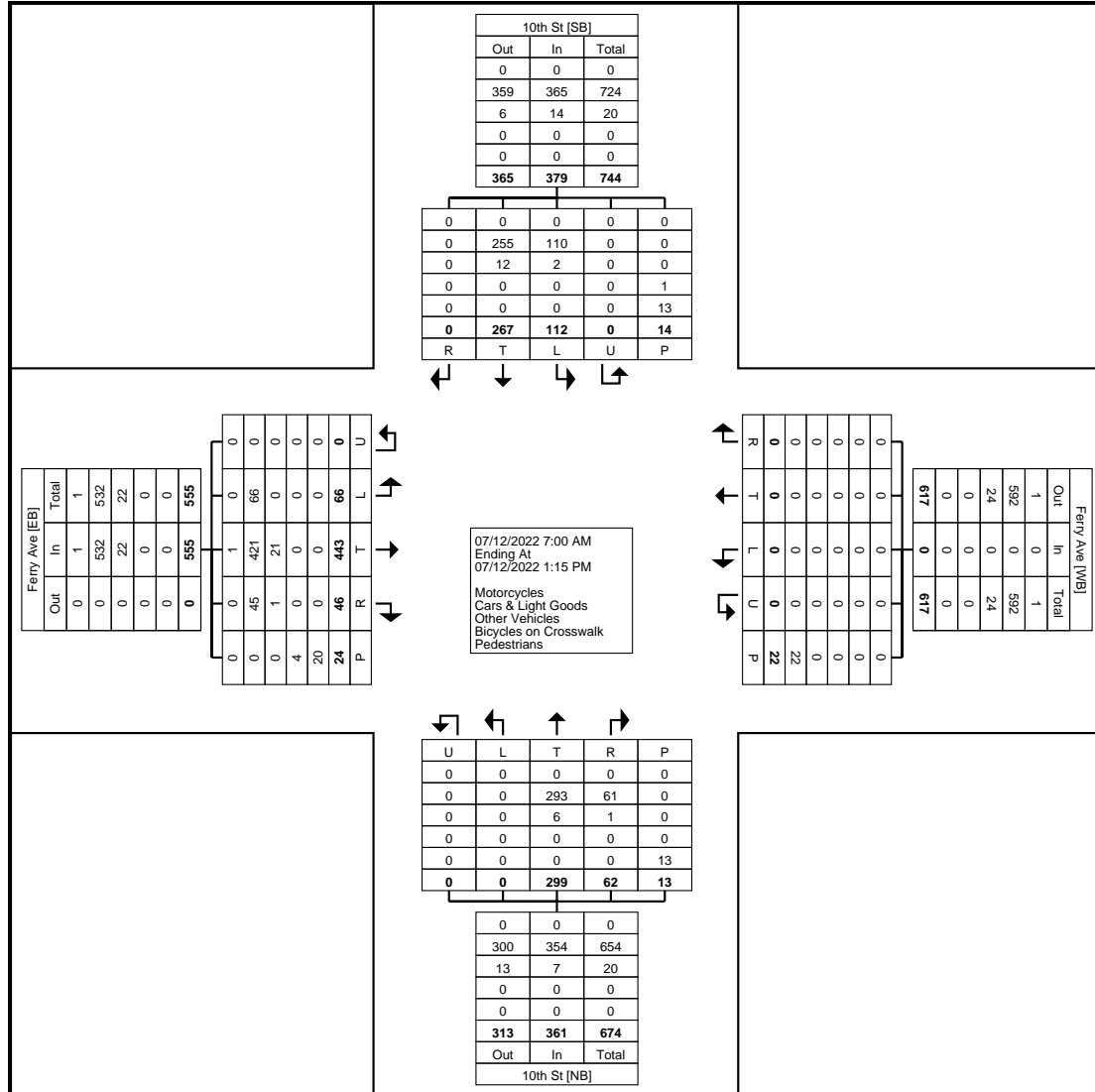


Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Ferry Ave & 10th St
Site Code:
Start Date: 07/12/2022
Page No: 2

Niagara, New York
July 12, 2022



Turning Movement Data Plot



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Ferry Ave & 10th St
Site Code:
Start Date: 07/12/2022
Page No: 3

Niagara, New York
July 12, 2022

Turning Movement Peak Hour Data (8:00 AM)

Start Time	10th St Southbound						Ferry Ave Westbound						10th St Northbound						Ferry Ave Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
8:00 AM	0	14	6	0	0	20	0	0	0	0	0	0	7	28	0	0	1	35	1	24	4	0	0	29	84
8:15 AM	0	19	3	0	0	22	0	0	0	0	0	0	5	19	0	0	2	24	6	15	4	0	1	25	71
8:30 AM	0	12	6	0	1	18	0	0	0	0	3	0	1	13	0	0	2	14	3	18	3	0	6	24	56
8:45 AM	0	21	9	0	0	30	0	0	0	0	1	0	4	25	0	0	1	29	2	21	7	0	5	30	89
Total	0	66	24	0	1	90	0	0	0	0	4	0	17	85	0	0	6	102	12	78	18	0	12	108	300
Approach %	0.0	73.3	26.7	0.0	-	-	0.0	0.0	0.0	0.0	-	-	16.7	83.3	0.0	0.0	-	-	11.1	72.2	16.7	0.0	-	-	-
Total %	0.0	22.0	8.0	0.0	-	30.0	0.0	0.0	0.0	0.0	-	0.0	5.7	28.3	0.0	0.0	-	34.0	4.0	26.0	6.0	0.0	-	36.0	-
PHF	0.000	0.786	0.667	0.000	-	0.750	0.000	0.000	0.000	0.000	-	0.000	0.607	0.759	0.000	0.000	-	0.729	0.500	0.813	0.643	0.000	-	0.900	0.843
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	-	0.0	0.0	-	-	0.0	-	-	-	-	-	-	0.0	0.0	-	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	0	62	23	0	-	85	0	0	0	0	-	0	17	83	0	0	-	100	12	74	18	0	-	104	289
% Cars & Light Goods	-	93.9	95.8	-	-	94.4	-	-	-	-	-	-	100.0	97.6	-	-	-	98.0	100.0	94.9	100.0	-	-	96.3	96.3
Other Vehicles	0	4	1	0	-	5	0	0	0	0	-	0	0	2	0	0	-	2	0	4	0	0	-	4	11
% Other Vehicles	-	6.1	4.2	-	-	5.6	-	-	-	-	-	-	0.0	2.4	-	-	-	2.0	0.0	5.1	0.0	-	-	3.7	3.7
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	16.7	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	4	-	-	-	-	-	6	-	-	-	-	-	10	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	83.3	-	-

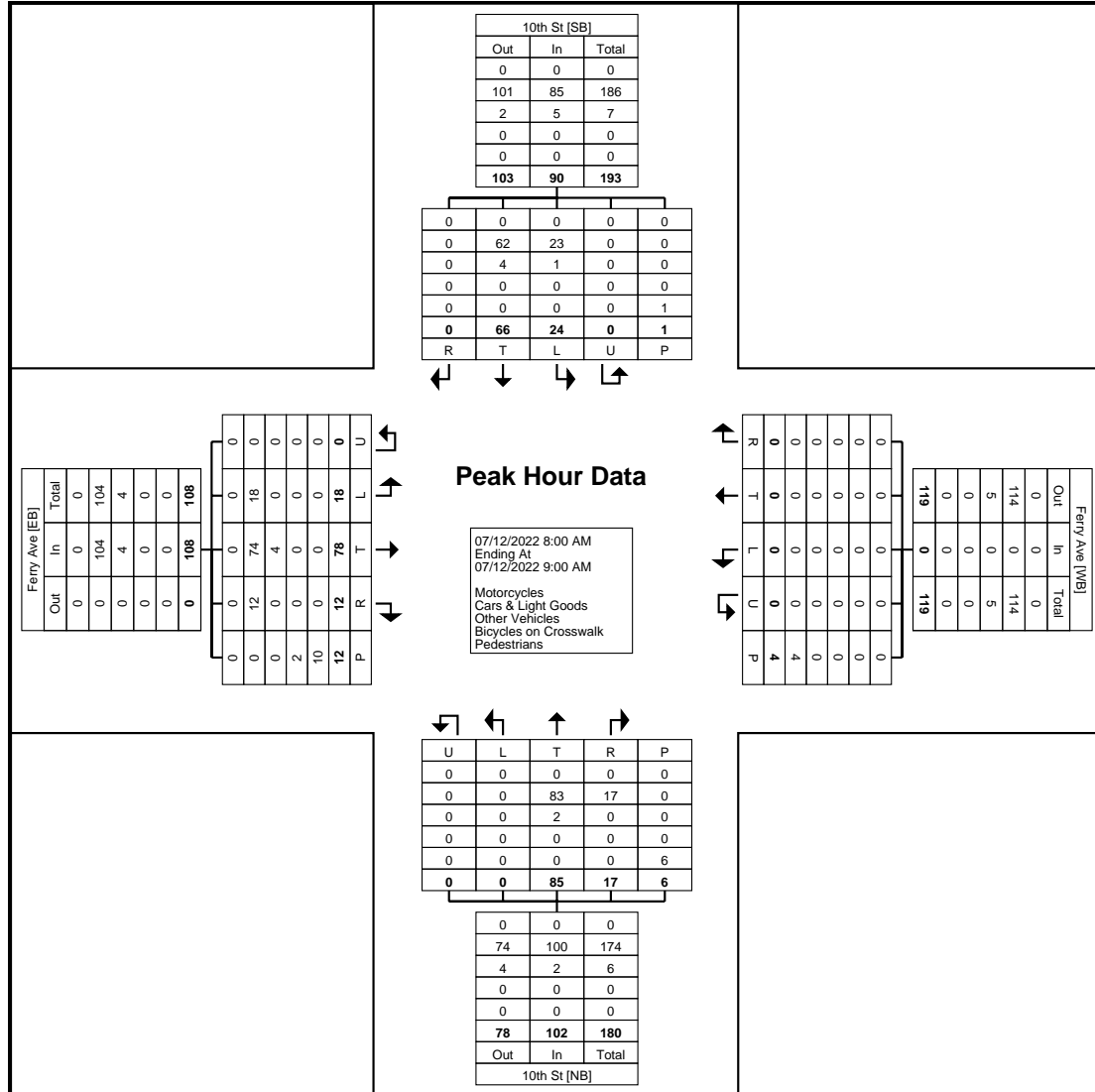


Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Ferry Ave & 10th St
Site Code:
Start Date: 07/12/2022
Page No: 4

Niagara, New York
July 12, 2022



Turning Movement Peak Hour Data Plot (8:00 AM)



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

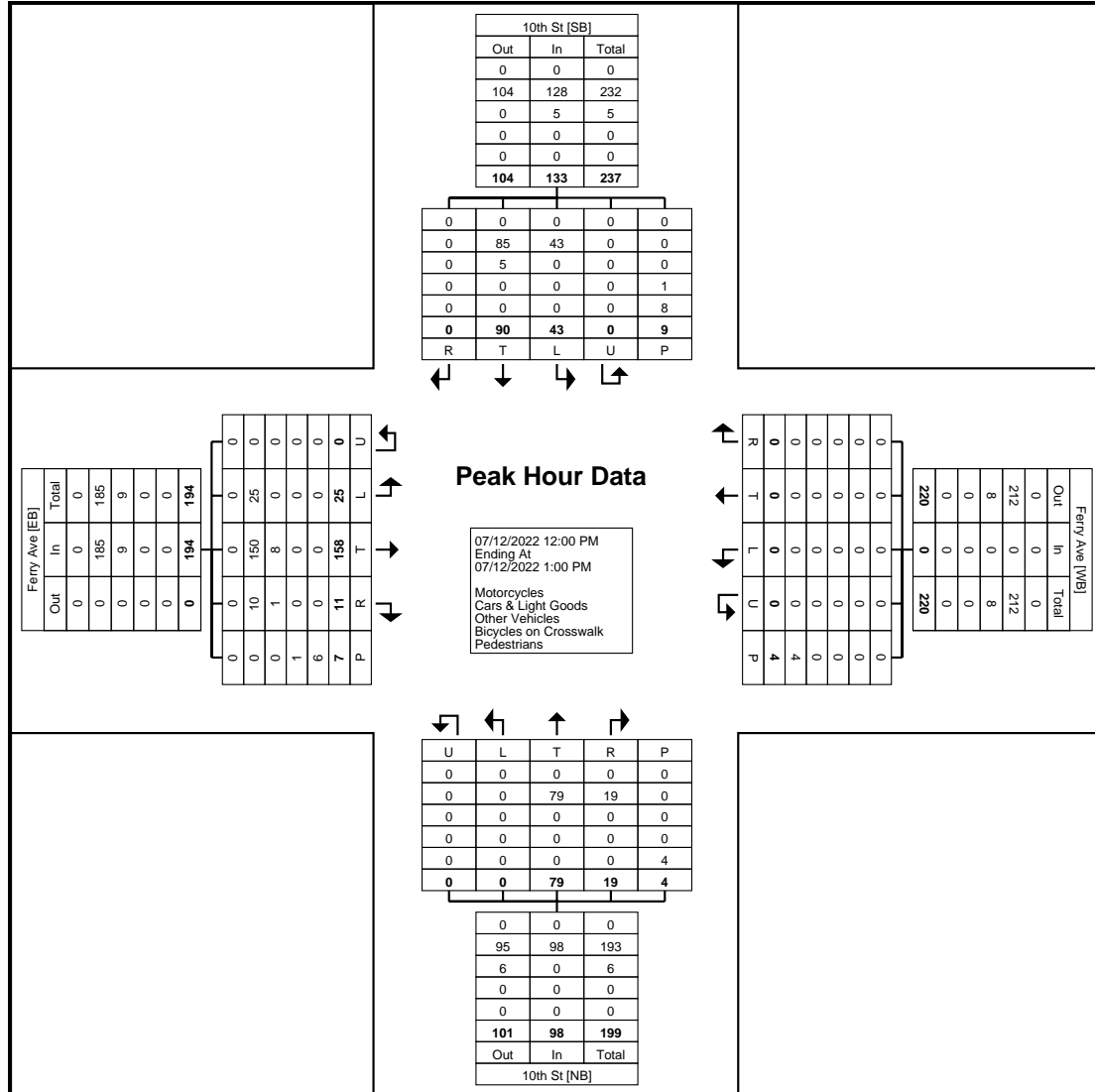
Count Name: Ferry Ave & 10th St
Site Code:
Start Date: 07/12/2022
Page No: 5

Niagara, New York
July 12, 2022

Turning Movement Peak Hour Data (12:00 PM)

Start Time	10th St Southbound						Ferry Ave Westbound						10th St Northbound						Ferry Ave Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
12:00 PM	0	18	14	0	0	32	0	0	0	0	1	0	3	19	0	0	0	22	3	35	8	0	1	46	100
12:15 PM	0	27	11	0	3	38	0	0	0	0	1	0	7	22	0	0	2	29	1	33	3	0	3	37	104
12:30 PM	0	21	8	0	0	29	0	0	0	0	2	0	2	14	0	0	1	16	5	37	5	0	1	47	92
12:45 PM	0	24	10	0	6	34	0	0	0	0	0	0	7	24	0	0	1	31	2	53	9	0	2	64	129
Total	0	90	43	0	9	133	0	0	0	0	4	0	19	79	0	0	4	98	11	158	25	0	7	194	425
Approach %	0.0	67.7	32.3	0.0	-	-	0.0	0.0	0.0	0.0	-	-	19.4	80.6	0.0	0.0	-	-	5.7	81.4	12.9	0.0	-	-	-
Total %	0.0	21.2	10.1	0.0	-	31.3	0.0	0.0	0.0	0.0	-	0.0	4.5	18.6	0.0	0.0	-	23.1	2.6	37.2	5.9	0.0	-	45.6	-
PHF	0.000	0.833	0.768	0.000	-	0.875	0.000	0.000	0.000	0.000	-	0.000	0.679	0.823	0.000	0.000	-	0.790	0.550	0.745	0.694	0.000	-	0.758	0.824
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	-	0.0	0.0	-	-	0.0	-	-	-	-	-	-	0.0	0.0	-	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	0	85	43	0	-	128	0	0	0	0	-	0	19	79	0	0	-	98	10	150	25	0	-	185	411
% Cars & Light Goods	-	94.4	100.0	-	-	96.2	-	-	-	-	-	-	100.0	100.0	-	-	-	100.0	90.9	94.9	100.0	-	-	95.4	96.7
Other Vehicles	0	5	0	0	-	5	0	0	0	0	-	0	0	0	0	0	-	0	1	8	0	0	-	9	14
% Other Vehicles	-	5.6	0.0	-	-	3.8	-	-	-	-	-	-	0.0	0.0	-	-	-	0.0	9.1	5.1	0.0	-	-	4.6	3.3
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	11.1	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	14.3	-	-
Pedestrians	-	-	-	-	8	-	-	-	-	-	4	-	-	-	-	-	4	-	-	-	-	-	6	-	-
% Pedestrians	-	-	-	-	88.9	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	85.7	-	-

Niagara, New York
July 12, 2022



Turning Movement Peak Hour Data Plot (12:00 PM)



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Ferry Ave & 10th St
Site Code:
Start Date: 07/14/2022
Page No: 1

Niagara, New York
July 14, 2022

Turning Movement Data

Start Time	10th St Southbound						Ferry Ave Westbound						10th St Northbound						Ferry Ave Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
4:00 PM	0	46	22	0	0	68	0	0	0	0	2	0	4	15	0	0	1	19	3	59	3	0	1	65	152
4:15 PM	0	25	10	0	0	35	0	0	0	0	0	0	5	5	0	0	0	10	4	58	2	0	0	64	109
4:30 PM	0	42	14	0	0	56	0	0	0	0	0	0	4	6	0	0	0	10	4	49	5	0	3	58	124
4:45 PM	0	20	11	0	0	31	0	0	0	0	0	0	1	11	0	0	2	12	2	55	3	0	0	60	103
Hourly Total	0	133	57	0	0	190	0	0	0	0	2	0	14	37	0	0	3	51	13	221	13	0	4	247	488
5:00 PM	0	30	4	0	0	34	0	0	0	0	0	0	5	8	0	0	0	13	2	58	4	0	0	64	111
5:15 PM	0	23	7	0	5	30	0	0	0	0	1	0	6	7	0	0	3	13	1	56	2	1	0	60	103
5:30 PM	0	19	3	0	0	22	0	0	0	0	1	0	3	6	0	0	0	9	4	40	2	0	0	46	77
5:45 PM	0	20	5	0	1	25	0	0	0	0	0	0	1	8	0	0	1	9	5	43	2	0	1	50	84
Hourly Total	0	92	19	0	6	111	0	0	0	0	2	0	15	29	0	0	4	44	12	197	10	1	1	220	375
Grand Total	0	225	76	0	6	301	0	0	0	0	4	0	29	66	0	0	7	95	25	418	23	1	5	467	863
Approach %	0.0	74.8	25.2	0.0	-	-	0.0	0.0	0.0	0.0	-	-	30.5	69.5	0.0	0.0	-	-	5.4	89.5	4.9	0.2	-	-	-
Total %	0.0	26.1	8.8	0.0	-	34.9	0.0	0.0	0.0	0.0	-	0.0	3.4	7.6	0.0	0.0	-	11.0	2.9	48.4	2.7	0.1	-	54.1	-
Motorcycles	0	2	0	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	2
% Motorcycles	-	0.9	0.0	-	-	0.7	-	-	-	-	-	-	0.0	0.0	-	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.2
Cars & Light Goods	0	223	76	0	-	299	0	0	0	0	-	0	29	65	0	0	-	94	25	409	23	1	-	458	851
% Cars & Light Goods	-	99.1	100.0	-	-	99.3	-	-	-	-	-	-	100.0	98.5	-	-	-	98.9	100.0	97.8	100.0	100.0	-	98.1	98.6
Other Vehicles	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	0	9	0	0	-	9	10
% Other Vehicles	-	0.0	0.0	-	-	0.0	-	-	-	-	-	-	0.0	1.5	-	-	-	1.1	0.0	2.2	0.0	0.0	-	1.9	1.2
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	25.0	-	-	-	-	-	14.3	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	6	-	-	-	-	-	3	-	-	-	-	-	6	-	-	-	-	-	5	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	75.0	-	-	-	-	-	85.7	-	-	-	-	-	100.0	-	-

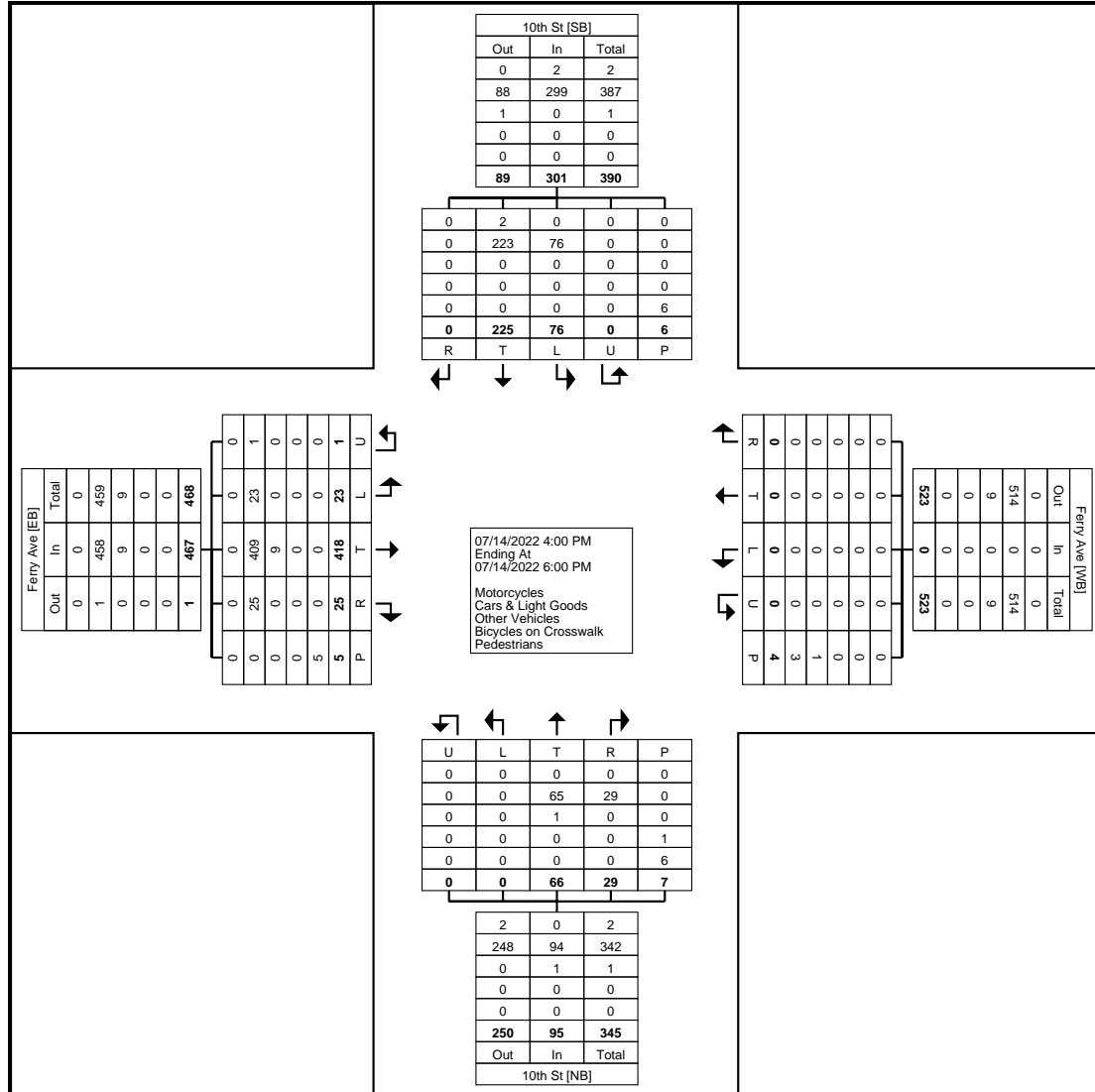


Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Ferry Ave & 10th St
Site Code:
Start Date: 07/14/2022
Page No: 2

Niagara, New York
July 14, 2022



Turning Movement Data Plot



Tri-State Traffic Data: New York Division
184 Baker Rd

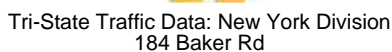
Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Ferry Ave & 10th St
Site Code:
Start Date: 07/14/2022
Page No: 3

Niagara, New York
July 14, 2022

Turning Movement Peak Hour Data (4:00 PM)

Start Time	10th St Southbound						Ferry Ave Westbound						10th St Northbound						Ferry Ave Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
4:00 PM	0	46	22	0	0	68	0	0	0	0	2	0	4	15	0	0	1	19	3	59	3	0	1	65	152
4:15 PM	0	25	10	0	0	35	0	0	0	0	0	0	5	5	0	0	0	10	4	58	2	0	0	64	109
4:30 PM	0	42	14	0	0	56	0	0	0	0	0	0	4	6	0	0	0	10	4	49	5	0	3	58	124
4:45 PM	0	20	11	0	0	31	0	0	0	0	0	0	1	11	0	0	2	12	2	55	3	0	0	60	103
Total	0	133	57	0	0	190	0	0	0	0	2	0	14	37	0	0	3	51	13	221	13	0	4	247	488
Approach %	0.0	70.0	30.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	27.5	72.5	0.0	0.0	-	-	5.3	89.5	5.3	0.0	-	-	-
Total %	0.0	27.3	11.7	0.0	-	38.9	0.0	0.0	0.0	0.0	-	0.0	2.9	7.6	0.0	0.0	-	10.5	2.7	45.3	2.7	0.0	-	50.6	-
PHF	0.000	0.723	0.648	0.000	-	0.699	0.000	0.000	0.000	0.000	-	0.000	0.700	0.617	0.000	0.000	-	0.671	0.813	0.936	0.650	0.000	-	0.950	0.803
Motorcycles	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Motorcycles	-	0.8	0.0	-	-	0.5	-	-	-	-	-	-	0.0	0.0	-	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.2
Cars & Light Goods	0	132	57	0	-	189	0	0	0	0	-	0	14	36	0	0	-	50	13	218	13	0	-	244	483
% Cars & Light Goods	-	99.2	100.0	-	-	99.5	-	-	-	-	-	-	100.0	97.3	-	-	-	98.0	100.0	98.6	100.0	-	-	98.8	99.0
Other Vehicles	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	0	3	0	0	-	3	4
% Other Vehicles	-	0.0	0.0	-	-	0.0	-	-	-	-	-	-	0.0	2.7	-	-	-	2.0	0.0	1.4	0.0	-	-	1.2	0.8
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	3	-	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



Coatesville , Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Ferry Ave & 10th St
Site Code:
Start Date: 07/14/2022
Page No: 4





Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Ferry Ave & 10th St
Site Code:
Start Date: 07/16/2022
Page No: 1

Turning Movement Data

Start Time	10th St Southbound						Ferry Ave Westbound						10th St Northbound						Ferry Ave Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
11:00 AM	0	11	2	0	0	13	0	0	0	0	1	0	2	6	0	0	2	8	5	43	1	0	1	49	70
11:15 AM	0	16	3	0	0	19	0	0	0	0	0	0	5	3	0	0	1	8	2	33	3	0	1	38	65
11:30 AM	0	17	4	0	0	21	0	0	0	0	0	0	2	10	0	0	3	12	2	56	3	0	0	61	94
11:45 AM	0	5	3	0	0	8	0	0	0	0	0	0	10	9	0	0	1	19	5	52	1	0	1	58	85
Hourly Total	0	49	12	0	0	61	0	0	0	0	1	0	19	28	0	0	7	47	14	184	8	0	3	206	314
12:00 PM	0	16	4	0	0	20	0	0	0	0	5	0	4	7	0	0	2	11	4	50	0	0	3	54	85
12:15 PM	0	17	6	0	3	23	0	0	0	0	0	0	2	7	0	0	1	9	0	52	0	0	0	52	84
12:30 PM	0	18	4	0	0	22	0	0	0	0	0	0	3	7	0	0	0	10	1	51	2	0	0	54	86
12:45 PM	0	17	8	0	3	25	0	0	0	0	0	0	4	12	0	0	2	16	2	45	0	0	0	47	88
Hourly Total	0	68	22	0	6	90	0	0	0	0	5	0	13	33	0	0	5	46	7	198	2	0	3	207	343
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	117	34	0	6	151	0	0	0	0	6	0	32	61	0	0	12	93	21	382	10	0	6	413	657
Approach %	0.0	77.5	22.5	0.0	-	-	0.0	0.0	0.0	0.0	-	-	34.4	65.6	0.0	0.0	-	-	5.1	92.5	2.4	0.0	-	-	-
Total %	0.0	17.8	5.2	0.0	-	23.0	0.0	0.0	0.0	0.0	-	0.0	4.9	9.3	0.0	0.0	-	14.2	3.2	58.1	1.5	0.0	-	62.9	-
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	-	0.0	0.0	-	-	0.0	-	-	-	-	-	-	0.0	0.0	-	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	0	115	34	0	-	149	0	0	0	0	-	0	32	61	0	0	-	93	20	374	10	0	-	404	646
% Cars & Light Goods	-	98.3	100.0	-	-	98.7	-	-	-	-	-	-	100.0	100.0	-	-	-	100.0	95.2	97.9	100.0	-	-	97.8	98.3
Other Vehicles	0	2	0	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	1	8	0	0	-	9	11
% Other Vehicles	-	1.7	0.0	-	-	1.3	-	-	-	-	-	-	0.0	0.0	-	-	-	0.0	4.8	2.1	0.0	-	-	2.2	1.7
Bicycles on Crosswalk	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	50.0	-	-	-	-	-	0.0	-	-	-	-	-	16.7	-	-	-	-	-	16.7	-	-
Pedestrians	-	-	-	-	3	-	-	-	-	-	6	-	-	-	-	-	10	-	-	-	-	-	5	-	-
% Pedestrians	-	-	-	-	50.0	-	-	-	-	-	100.0	-	-	-	-	-	83.3	-	-	-	-	-	83.3	-	-

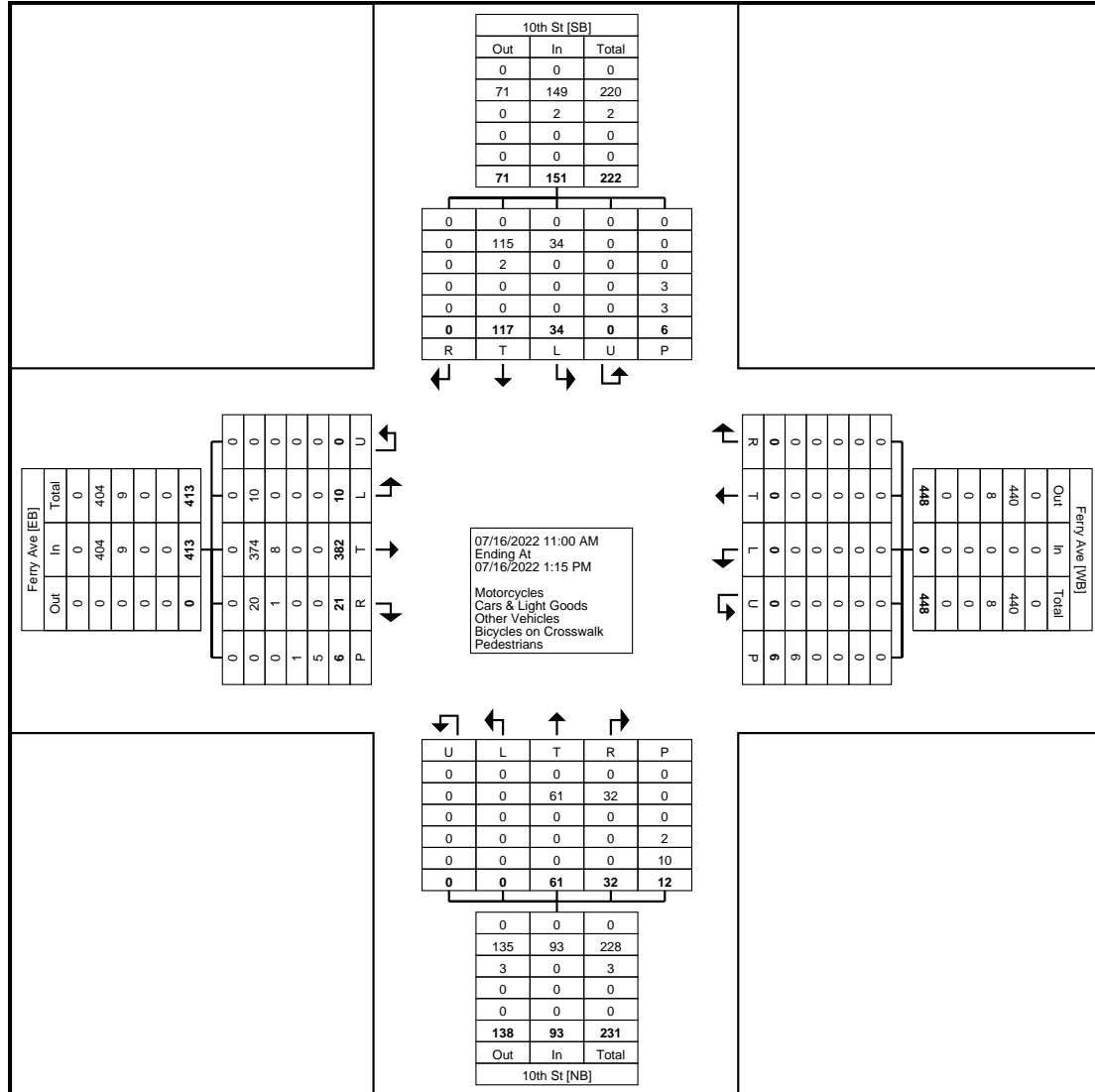


Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Ferry Ave & 10th St
Site Code:
Start Date: 07/16/2022
Page No: 2

Niagara, New York
July 16, 2022



Turning Movement Data Plot



Tri-State Traffic Data: New York Division
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Count Name: Ferry Ave & 10th St
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Page No: 3

Niagara, New York
July 16, 2022

Turning Movement Peak Hour Data (11:00 AM)

Start Time	10th St Southbound						Ferry Ave Westbound						10th St Northbound						Ferry Ave Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
11:00 AM	0	11	2	0	0	13	0	0	0	0	1	0	2	6	0	0	2	8	5	43	1	0	1	49	70
11:15 AM	0	16	3	0	0	19	0	0	0	0	0	0	5	3	0	0	1	8	2	33	3	0	1	38	65
11:30 AM	0	17	4	0	0	21	0	0	0	0	0	0	2	10	0	0	3	12	2	56	3	0	0	61	94
11:45 AM	0	5	3	0	0	8	0	0	0	0	0	0	10	9	0	0	1	19	5	52	1	0	1	58	85
Total	0	49	12	0	0	61	0	0	0	0	1	0	19	28	0	0	7	47	14	184	8	0	3	206	314
Approach %	0.0	80.3	19.7	0.0	-	-	0.0	0.0	0.0	0.0	-	-	40.4	59.6	0.0	0.0	-	-	6.8	89.3	3.9	0.0	-	-	-
Total %	0.0	15.6	3.8	0.0	-	19.4	0.0	0.0	0.0	0.0	-	0.0	6.1	8.9	0.0	0.0	-	15.0	4.5	58.6	2.5	0.0	-	65.6	-
PHF	0.000	0.721	0.750	0.000	-	0.726	0.000	0.000	0.000	0.000	-	0.000	0.475	0.700	0.000	0.000	-	0.618	0.700	0.821	0.667	0.000	-	0.844	0.835
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	-	0.0	0.0	-	-	0.0	-	-	-	-	-	-	0.0	0.0	-	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	0	48	12	0	-	60	0	0	0	0	-	0	19	28	0	0	-	47	13	181	8	0	-	202	309
% Cars & Light Goods	-	98.0	100.0	-	-	98.4	-	-	-	-	-	-	100.0	100.0	-	-	-	100.0	92.9	98.4	100.0	-	-	98.1	98.4
Other Vehicles	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1	3	0	0	-	4	5
% Other Vehicles	-	2.0	0.0	-	-	1.6	-	-	-	-	-	-	0.0	0.0	-	-	-	0.0	7.1	1.6	0.0	-	-	1.9	1.6
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	7	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

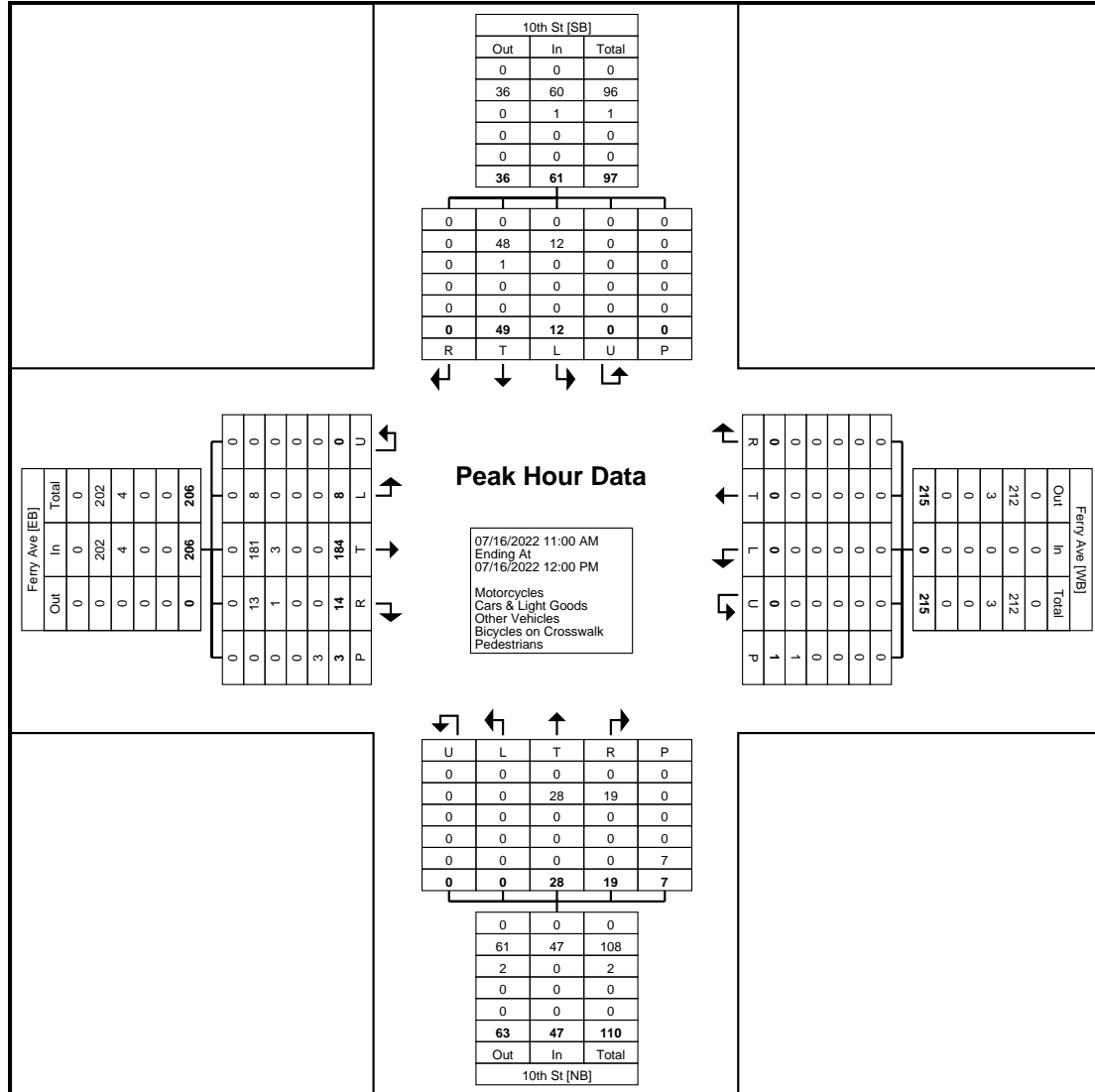


Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: Ferry Ave & 10th St
Site Code:
Start Date: 07/16/2022
Page No: 4

Niagara, New York
July 16, 2022



Turning Movement Peak Hour Data Plot (11:00 AM)



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

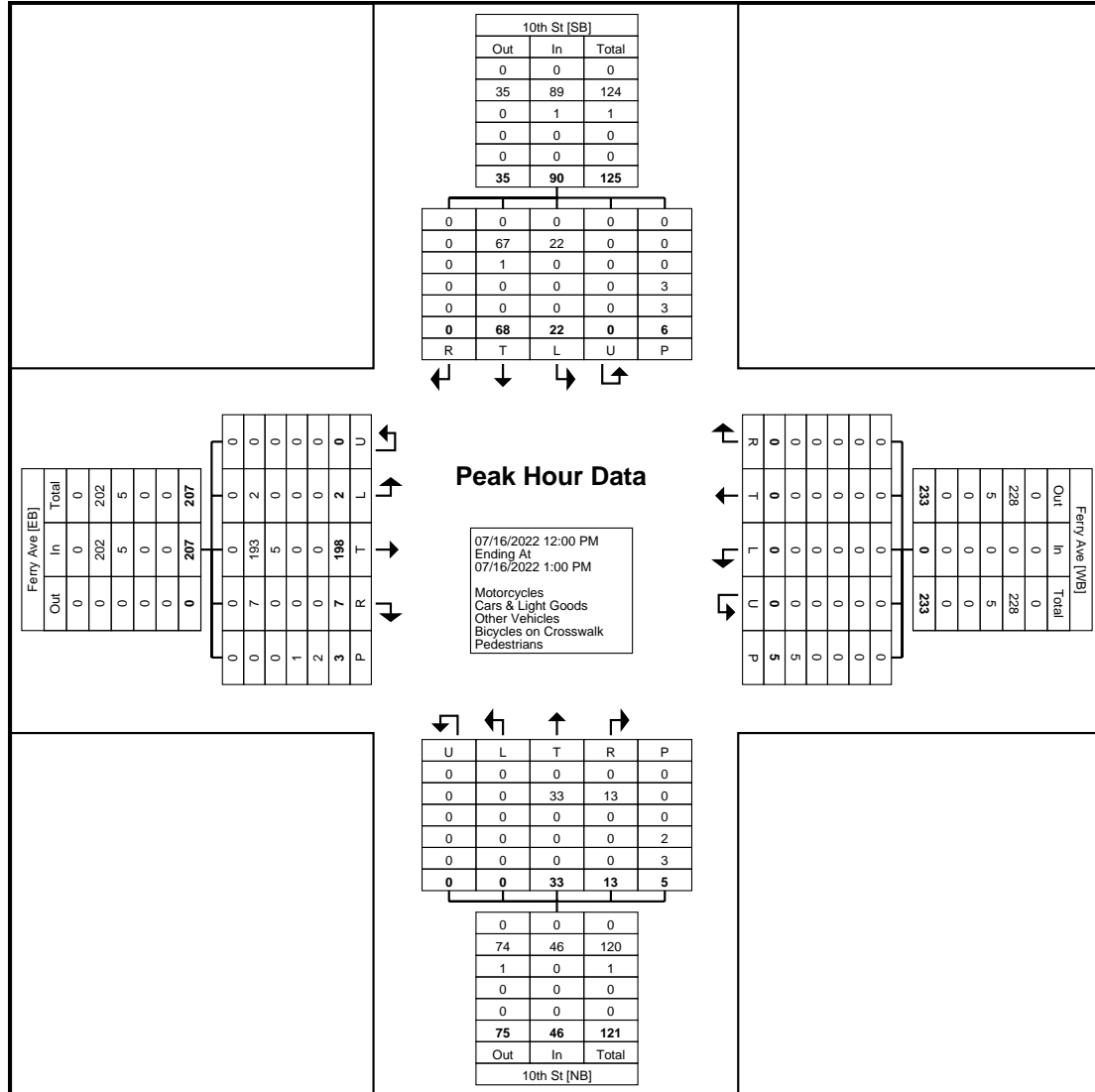
Count Name: Ferry Ave & 10th St
Site Code:
Start Date: 07/16/2022
Page No: 5

Niagara, New York
July 16, 2022

Turning Movement Peak Hour Data (12:00 PM)

Start Time	10th St Southbound						Ferry Ave Westbound						10th St Northbound						Ferry Ave Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
12:00 PM	0	16	4	0	0	20	0	0	0	0	5	0	4	7	0	0	2	11	4	50	0	0	3	54	85
12:15 PM	0	17	6	0	3	23	0	0	0	0	0	0	2	7	0	0	1	9	0	52	0	0	0	52	84
12:30 PM	0	18	4	0	0	22	0	0	0	0	0	0	3	7	0	0	0	10	1	51	2	0	0	54	86
12:45 PM	0	17	8	0	3	25	0	0	0	0	0	0	4	12	0	0	2	16	2	45	0	0	0	47	88
Total	0	68	22	0	6	90	0	0	0	0	5	0	13	33	0	0	5	46	7	198	2	0	3	207	343
Approach %	0.0	75.6	24.4	0.0	-	-	0.0	0.0	0.0	0.0	-	-	28.3	71.7	0.0	0.0	-	-	3.4	95.7	1.0	0.0	-	-	-
Total %	0.0	19.8	6.4	0.0	-	26.2	0.0	0.0	0.0	0.0	-	0.0	3.8	9.6	0.0	0.0	-	13.4	2.0	57.7	0.6	0.0	-	60.3	-
PHF	0.000	0.944	0.688	0.000	-	0.900	0.000	0.000	0.000	0.000	-	0.000	0.813	0.688	0.000	0.000	-	0.719	0.438	0.952	0.250	0.000	-	0.958	0.974
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	-	0.0	0.0	-	-	0.0	-	-	-	-	-	-	0.0	0.0	-	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	0	67	22	0	-	89	0	0	0	0	-	0	13	33	0	0	-	46	7	193	2	0	-	202	337
% Cars & Light Goods	-	98.5	100.0	-	-	98.9	-	-	-	-	-	-	100.0	100.0	-	-	-	100.0	100.0	97.5	100.0	-	-	97.6	98.3
Other Vehicles	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	5	0	0	-	5	6
% Other Vehicles	-	1.5	0.0	-	-	1.1	-	-	-	-	-	-	0.0	0.0	-	-	-	0.0	0.0	2.5	0.0	-	-	2.4	1.7
Bicycles on Crosswalk	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	50.0	-	-	-	-	-	0.0	-	-	-	-	-	40.0	-	-	-	-	-	33.3	-	-
Pedestrians	-	-	-	-	3	-	-	-	-	-	5	-	-	-	-	-	3	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	50.0	-	-	-	-	-	100.0	-	-	-	-	-	60.0	-	-	-	-	-	66.7	-	-

Niagara, New York
July 16, 2022



Turning Movement Peak Hour Data Plot (12:00 PM)



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Buffalo Ave
Site Code:
Start Date: 07/14/2022
Page No: 1

Niagara, New York
July 14, 2022

Turning Movement Data

Start Time	John Daly Blvd Southbound							Buffalo Ave Westbound							John Daly Blvd Northbound							Buffalo Ave Eastbound							Int. Total	
	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total		
7:00 AM	0	0	44	1	0	0	45	0	0	4	2	0	0	6	0	1	44	0	0	0	0	45	3	3	5	1	0	0	12	108
7:15 AM	0	0	48	0	0	0	48	0	0	2	3	0	0	5	3	0	70	8	0	0	0	81	4	2	1	0	0	0	7	141
7:30 AM	0	0	69	0	0	0	69	0	0	5	5	0	0	10	0	0	113	6	0	0	0	119	8	1	7	1	0	0	17	215
7:45 AM	2	0	55	0	0	0	57	1	0	3	3	0	0	7	13	2	154	17	0	0	0	186	6	3	2	1	0	0	12	262
Hourly Total	2	0	216	1	0	0	219	1	0	14	13	0	0	28	16	3	381	31	0	0	0	431	21	9	15	3	0	0	48	726
8:00 AM	0	0	79	1	0	0	80	0	0	5	1	0	0	6	8	2	92	7	0	0	0	109	8	2	3	0	0	0	13	208
8:15 AM	3	0	60	0	0	0	63	1	0	4	3	0	0	8	0	0	96	13	0	0	0	109	1	3	3	0	0	0	7	187
8:30 AM	3	1	67	1	0	0	72	2	0	5	5	0	0	12	1	0	88	19	0	0	0	108	5	1	3	0	0	0	9	201
8:45 AM	3	0	85	0	1	2	89	0	1	2	0	0	0	3	4	0	104	18	0	0	0	126	9	5	6	0	0	0	20	238
Hourly Total	9	1	291	2	1	2	304	3	1	16	9	0	0	29	13	2	380	57	0	0	0	452	23	11	15	0	0	0	49	834
9:00 AM	3	0	75	0	0	0	78	0	0	4	8	0	0	12	1	1	74	9	2	0	0	87	5	6	5	0	0	0	16	193
9:15 AM	1	0	96	1	0	4	98	0	0	5	7	0	0	12	3	4	52	11	0	0	0	70	2	4	6	1	0	0	13	193
9:30 AM	2	1	77	0	0	2	80	2	0	6	11	0	0	19	2	0	61	11	1	0	0	75	3	13	5	1	0	0	22	196
9:45 AM	5	1	80	1	1	0	88	0	0	7	6	0	0	13	1	0	77	13	1	0	0	92	5	4	12	2	0	0	23	216
Hourly Total	11	2	328	2	1	6	344	2	0	22	32	0	0	56	7	5	264	44	4	0	0	324	15	27	28	4	0	0	74	798
10:00 AM	3	0	108	0	1	0	112	1	1	7	7	0	0	16	3	2	60	14	2	1	0	81	12	7	4	2	0	0	25	234
10:15 AM	3	0	106	0	0	1	109	2	0	6	2	0	0	10	2	1	74	8	1	0	0	86	17	5	7	0	0	0	29	234
10:30 AM	7	0	90	0	0	0	97	2	0	9	8	0	0	19	2	1	85	15	0	0	0	103	17	4	8	0	0	0	29	248
10:45 AM	1	0	115	1	0	0	117	0	0	4	3	0	0	7	3	4	78	12	0	1	0	97	19	4	7	0	0	0	30	251
Hourly Total	14	0	419	1	1	1	435	5	1	26	20	0	0	52	10	8	297	49	3	2	0	367	65	20	26	2	0	0	113	967
11:00 AM	2	0	123	0	0	0	125	2	0	2	7	0	0	11	4	0	84	9	0	0	0	97	12	8	7	1	0	0	28	261
11:15 AM	2	1	103	1	0	0	107	0	0	2	6	0	0	8	4	4	93	13	0	0	0	114	16	8	7	1	0	0	32	261
11:30 AM	6	0	114	0	0	6	120	0	1	5	6	0	0	12	0	1	107	12	1	0	0	121	11	13	6	1	0	2	31	284
11:45 AM	1	0	117	0	0	0	118	0	0	3	7	0	0	10	4	0	121	9	0	0	0	134	17	2	7	1	0	0	27	289
Hourly Total	11	1	457	1	0	6	470	2	1	12	26	0	0	41	12	5	405	43	1	0	0	466	56	31	27	4	0	4	118	1095
12:00 PM	2	0	137	1	0	0	140	1	0	15	6	0	2	22	4	0	110	10	0	0	0	124	18	6	2	0	0	0	26	312
12:15 PM	2	0	106	0	0	0	108	1	0	6	4	0	0	11	1	1	94	13	2	0	0	111	9	2	12	2	0	0	25	255
12:30 PM	6	1	111	1	0	1	119	1	0	5	7	0	0	13	2	2	119	13	0	0	0	136	17	8	9	0	0	0	34	302
12:45 PM	1	0	120	1	0	0	122	0	0	4	3	0	0	7	3	2	88	15	0	0	0	108	23	1	8	0	0	0	32	269
Hourly Total	11	1	474	3	0	1	489	3	0	30	20	0	2	53	10	5	411	51	2	0	0	479	67	17	31	2	0	0	117	1138
1:00 PM	1	0	105	0	0	0	106	0	1	2	1	0	0	4	4	2	87	15	0	0	0	108	18	1	14	0	0	0	33	251
1:15 PM	2	0	121	0	0	0	123	1	0	6	3	0	0	10	2	2	91	13	1	1	0	109	18	5	9	0	0	0	32	274
1:30 PM	2	0	137	1	0	0	140	1	1	6	1	0	0	9	2	0	105	18	0	1	0	125	14	10	9	0	0	0	33	307
1:45 PM	3	0	145	1	0	0	149	0	0	6	6	0	0	12	3	0	85	14	0	1	0	102	26	9	3	1	0	0	39	302
Hourly Total	8	0	508	2	0	0	518	2	2	20	11	0	0	35	11	4	368	60	1	3	0	444	76	25	35	1	0	0	137	1134
2:00 PM	5	1	136	2	1	0	145	1	1	8	4	0	0	14	2	2	96	15	1	0	0	116	21	8	7	0	0	0	36	311
2:15 PM	1	1	142	1	0	2	145	0	0	8	4	0	0	12	2	0	88	13	0	2	0	103	20	12	9	1	0	0	42	302
2:30 PM	2	1	142	0	0	0	145	0	0	2	9	0	4	11	5	2	95	14	2	0	0	118	20	7	8	1	0	4	36	310
2:45 PM	0	0	138	1	0	2	139	1	0	5	3	0	0	9	3	0	101	10	0	0	0	114	26	8	7	2	0	2	43	305
Hourly Total	8	3	558	4	1	4	574	2	1	23	20	0	4	46	12	4	380	52	3	2	0	451	87	35	31	4	0	6	157	1228
3:00 PM	2	0	192	2	0	0	196	0	0	6	14	0	0	20	1	1	91	13	1	0	0	107	32	12	8	0	0	0	52	375
3:15 PM	1	0	179	2	0	0	182	1	0	6	5	0	0	12	5	0	99	15	0	0	0	119	29	7	6	0	0	0	42	355
3:30 PM	1	0	181	0	1	0	183	1	0	4	17	0	0	22	3	2	112	7	0	0	0	124	23	10	9	0	0	0	42	371
3:45 PM	6	0	193	1	0	0	200	0	1	6	13	0	0	20	6	0	123	14	0	0	0	143	32	14	10	0	0	0	56	419
Hourly Total	10	0	745	5	1	0	761	2	1	22	49	0	0	74	15	3	425	49	1	0	0	493	116	43	33	0	0	0	192	1520
4:00 PM	1	0	197	0	0	0	198	1	0	1	35	0	0	37	1	1	122	16	0	0	0	140	32	16	12	0	0	0	60	435
4:15 PM	3	0	167	0	0	5	170	1	0	3	5	0	0	9	1	1	91	16	1	0	0	110	28	9	7	1	0	0	45	334
4:30 PM	1	0	149	0	1	2	151	1	0	3	9	0	0	13	1	0	105	9	0	0	0	115	25	11	11	1	0	0	48	327
4:45 PM	6	0	162	3	1	0	172	0	2																					

Hourly Total	15	2	469	3	0	5	489		3	2	22	15	0	1	42		5	4	378	30	2	0	419		62	43	27	3	0	2	135	1085
Grand Total	123	11	5756	30	7	32	5927		32	11	236	285	0	7	564		122	47	4438	568	20	7	5195		788	349	325	32	0	12	1494	13180
Approach %	2.1	0.2	97.1	0.5	0.1	-	-		5.7	2.0	41.8	50.5	0.0	-	-		2.3	0.9	85.4	10.9	0.4	-	-		52.7	23.4	21.8	2.1	0.0	-	-	-
Total %	0.9	0.1	43.7	0.2	0.1	-	45.0		0.2	0.1	1.8	2.2	0.0	-	4.3		0.9	0.4	33.7	4.3	0.2	-	39.4		6.0	2.6	2.5	0.2	0.0	-	11.3	-
Motorcycle s	1	0	20	0	0	-	21		0	0	1	2	0	-	3		1	0	9	2	0	-	12		7	4	2	0	0	-	13	49
% Motorcycle s	0.8	0.0	0.3	0.0	0.0	-	0.4		0.0	0.0	0.4	0.7	-	-	0.5		0.8	0.0	0.2	0.4	0.0	-	0.2		0.9	1.1	0.6	0.0	-	-	0.9	0.4
Cars & Light Goods	111	10	5644	23	7	-	5795		31	10	220	270	0	-	531		116	47	4354	557	19	-	5093		762	340	301	32	0	-	1435	12854
% Cars & Light Goods	90.2	90.9	98.1	76.7	100.0	-	97.8		96.9	90.9	93.2	94.7	-	-	94.1		95.1	100.0	98.1	98.1	95.0	-	98.0		96.7	97.4	92.6	100.0	-	-	96.1	97.5
Other Vehicles	11	1	92	7	0	-	111		1	1	15	13	0	-	30		5	0	75	9	1	-	90		19	5	22	0	0	-	46	277
% Other Vehicles	8.9	9.1	1.6	23.3	0.0	-	1.9		3.1	9.1	6.4	4.6	-	-	5.3		4.1	0.0	1.7	1.6	5.0	-	1.7		2.4	1.4	6.8	0.0	-	-	3.1	2.1
Bicycles on Crosswalk	-	-	-	-	-	1	-		-	-	-	-	-	0	-		-	-	-	-	-	0	-		-	-	-	-	-	4	-	-
% Bicycles on Crosswalk	-	-	-	-	-	3.1	-		-	-	-	-	-	0.0	-		-	-	-	-	-	0.0	-		-	-	-	-	-	33.3	-	-
Pedestrian s	-	-	-	-	-	31	-		-	-	-	-	-	7	-		-	-	-	-	-	7	-		-	-	-	-	-	8	-	-
% Pedestrian s	-	-	-	-	-	96.9	-		-	-	-	-	-	100.0	-		-	-	-	-	-	100.0	-		-	-	-	-	-	66.7	-	-

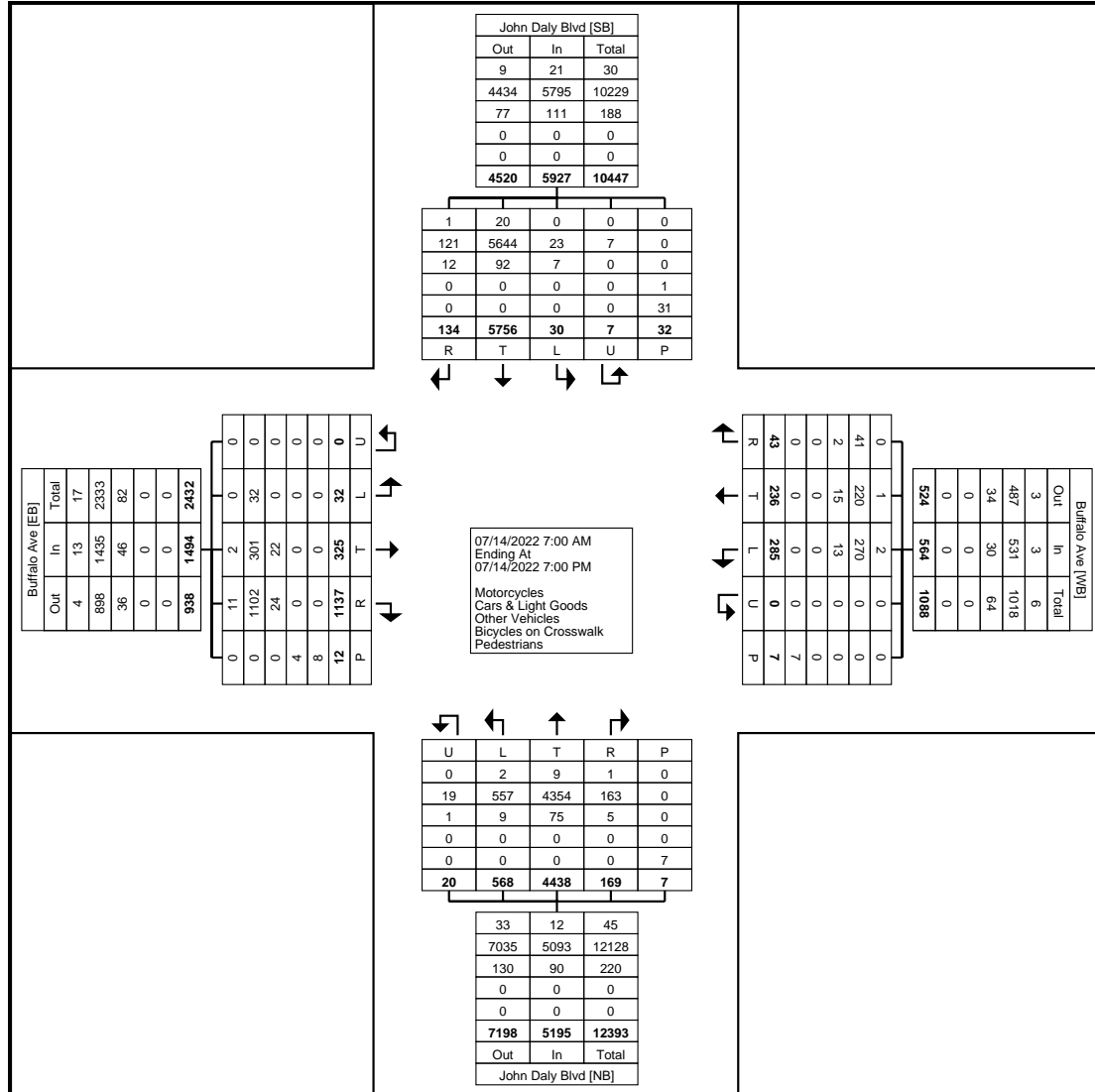


Niagara, New York
July 14, 2022

Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Buffalo Ave
Site Code:
Start Date: 07/14/2022
Page No: 3

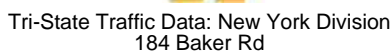


Turning Movement Data Plot

Tri-State Traffic Data: New York Division
184 Baker Rd

Tri-State Traffic Data: New York Division
184 Baker Rd

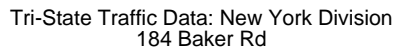
Tri-State Traffic Data: New York Division
184 Baker Rd



Coatesville , Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Buffalo Ave
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Page No: 7





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Count Name: John Daly Blvd &
Buffalo Ave
Site Code:
Start Date: 07/14/2022
Page No: 8

[illegible]

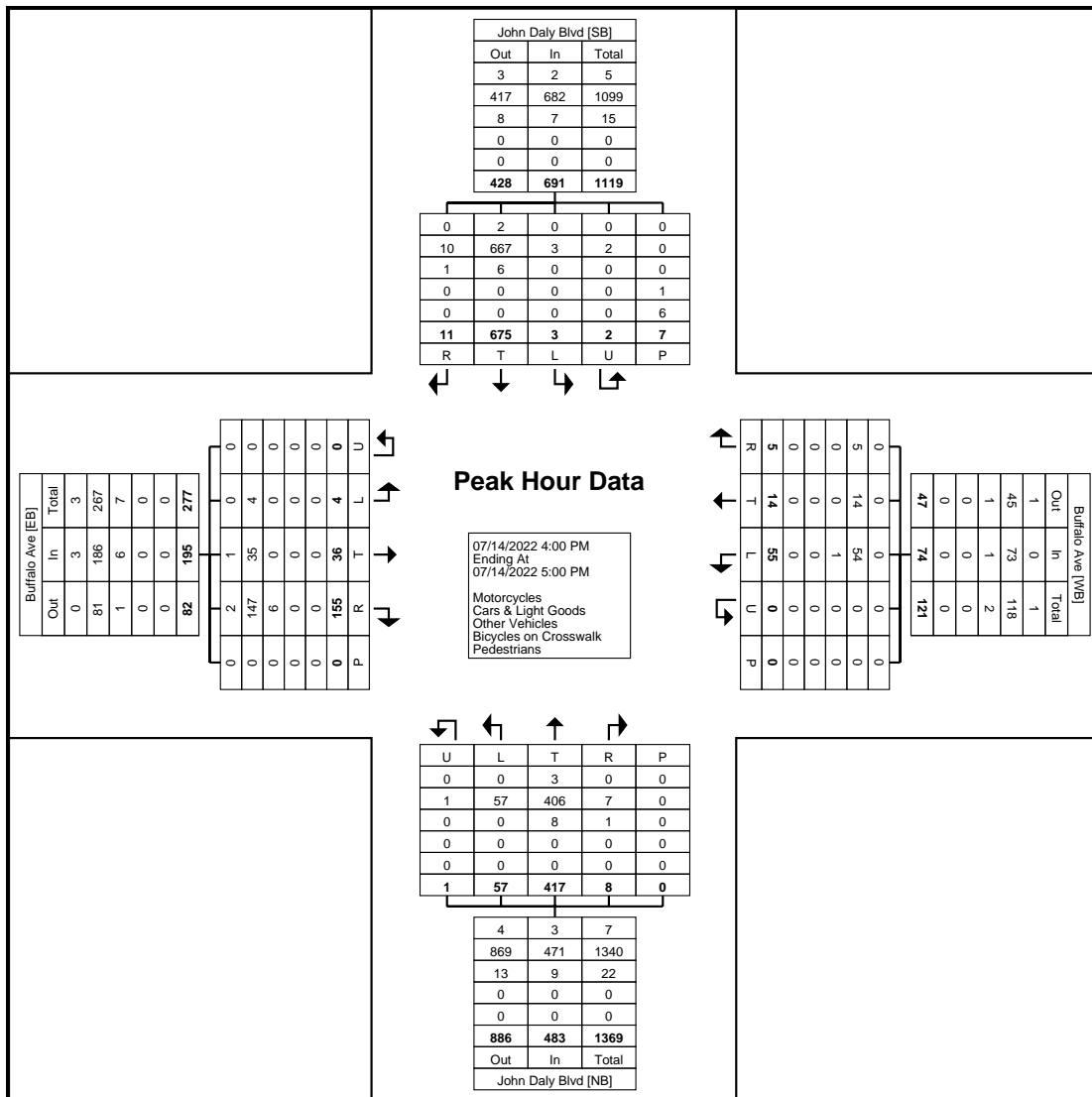


Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville , Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

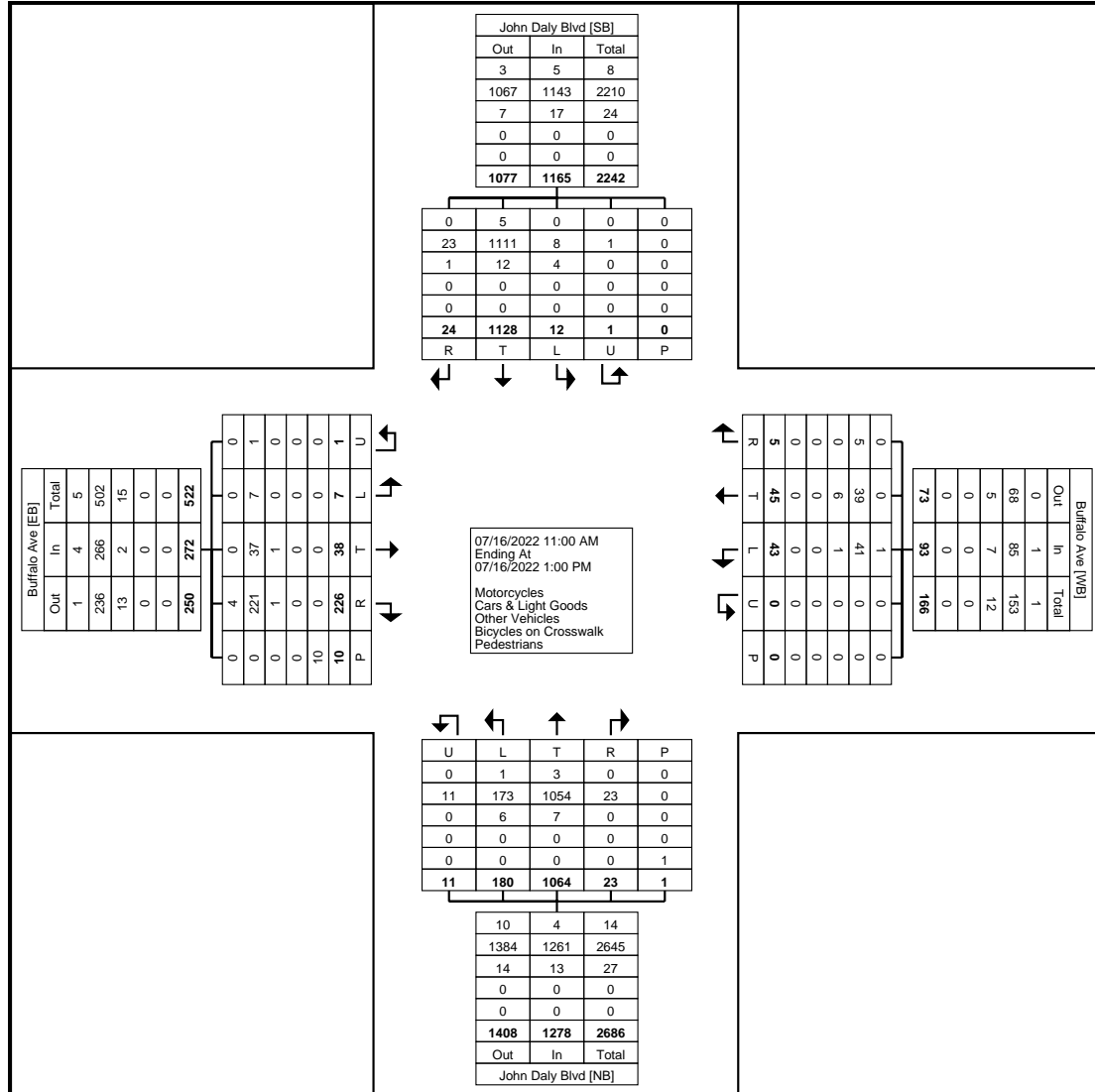
Count Name: John Daly Blvd &
Buffalo Ave
Site Code:
Start Date: 07/14/2022
Page No: 9

Niagara, New York
July 14, 2022



Turning Movement Peak Hour Data Plot (4:00 PM)

Tri-State Traffic Data: New York Division
184 Baker Rd



Turning Movement Data Plot



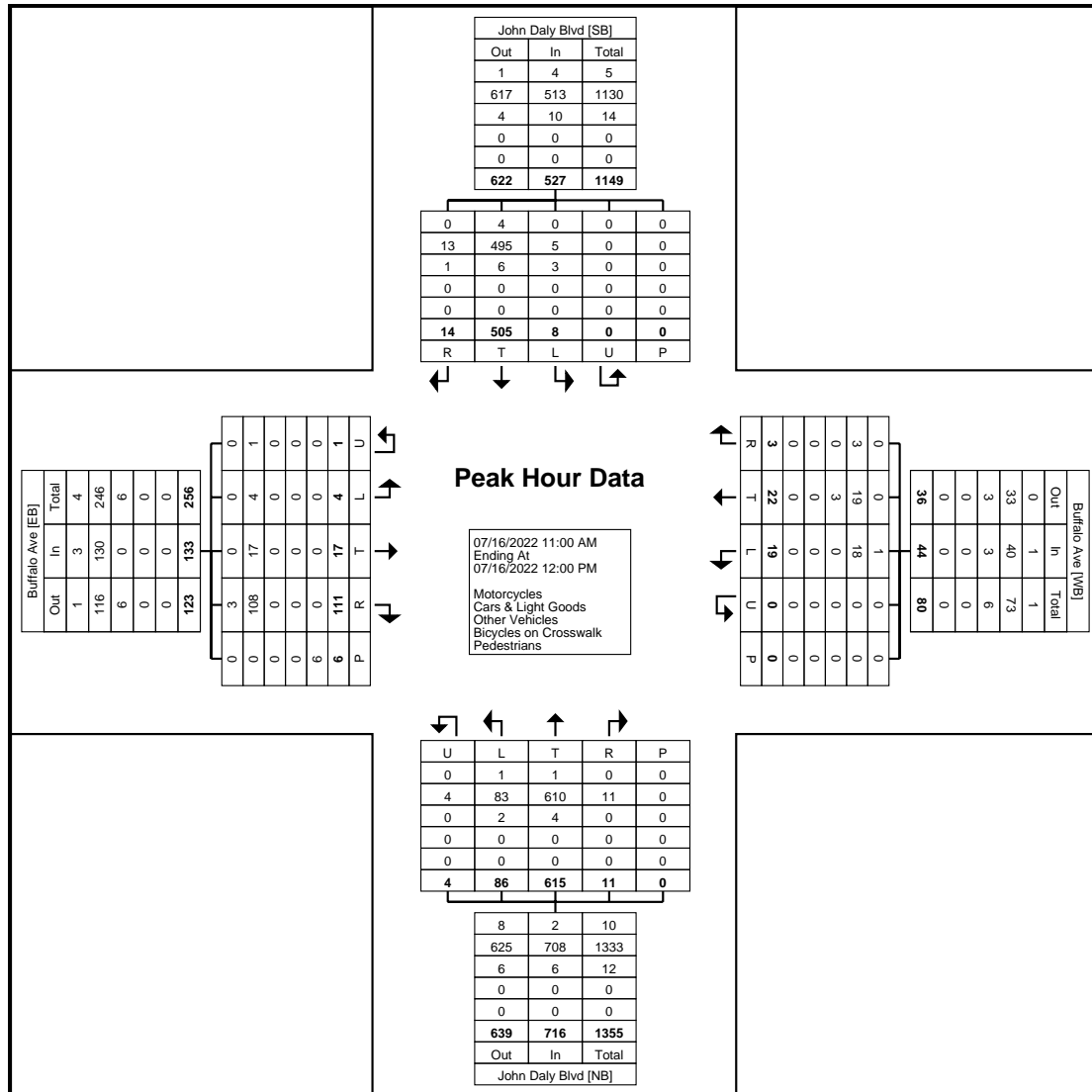
Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Buffalo Ave
Site Code:
Start Date: 07/16/2022
Page No: 3

Turning Movement Peak Hour Data (11:00 AM)

Start Time	John Daly Blvd Southbound							Buffalo Ave Westbound							John Daly Blvd Northbound							Buffalo Ave Eastbound							Int. Total
	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	
11:00 AM	2	0	110	0	0	0	112	2	0	2	4	0	0	8	0	0	147	28	1	0	176	16	13	5	0	0	0	34	330
11:15 AM	2	1	118	1	0	0	122	0	0	6	11	0	0	17	6	0	127	22	2	0	157	23	6	6	1	1	0	37	333
11:30 AM	6	0	145	4	0	0	155	0	0	5	2	0	0	7	2	0	172	20	1	0	195	21	11	4	1	0	0	37	394
11:45 AM	3	0	132	3	0	0	138	1	0	9	2	0	0	12	1	2	169	16	0	0	188	16	5	2	2	0	6	25	363
Total	13	1	505	8	0	0	527	3	0	22	19	0	0	44	9	2	615	86	4	0	716	76	35	17	4	1	6	133	1420
Approach %	2.5	0.2	95.8	1.5	0.0	-	-	6.8	0.0	50.0	43.2	0.0	-	-	1.3	0.3	85.9	12.0	0.6	-	-	57.1	26.3	12.8	3.0	0.8	-	-	-
Total %	0.9	0.1	35.6	0.6	0.0	-	37.1	0.2	0.0	1.5	1.3	0.0	-	3.1	0.6	0.1	43.3	6.1	0.3	-	50.4	5.4	2.5	1.2	0.3	0.1	-	9.4	-
PHF	0.54 2	0.250	0.871	0.500	0.000	-	0.850	0.375	0.000	0.611	0.432	0.000	-	0.647	0.375	0.250	0.894	0.768	0.500	-	0.918	0.826	0.673	0.708	0.500	0.250	-	0.899	0.901
Motorcycles	0	0	4	0	0	-	4	0	0	0	1	0	-	1	0	0	1	1	0	-	2	0	3	0	0	0	-	3	10
% Motorcycle	0.0	0.0	0.8	0.0	-	-	0.8	0.0	-	0.0	5.3	-	-	2.3	0.0	0.0	0.2	1.2	0.0	-	0.3	0.0	8.6	0.0	0.0	0.0	-	2.3	0.7
Cars & Light Goods	12	1	495	5	0	-	513	3	0	19	18	0	-	40	9	2	610	83	4	-	708	76	32	17	4	1	-	130	1391
% Cars & Light Goods	92.3	100.0	98.0	62.5	-	-	97.3	100.0	-	86.4	94.7	-	-	90.9	100.0	100.0	99.2	96.5	100.0	-	98.9	100.0	91.4	100.0	100.0	100.0	-	97.7	98.0
Other Vehicles	1	0	6	3	0	-	10	0	0	3	0	0	-	3	0	0	4	2	0	-	6	0	0	0	0	0	-	0	19
% Other Vehicles	7.7	0.0	1.2	37.5	-	-	1.9	0.0	-	13.6	0.0	-	-	6.8	0.0	0.0	0.7	2.3	0.0	-	0.8	0.0	0.0	0.0	0.0	0.0	-	0.0	1.3
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	6	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



Turning Movement Peak Hour Data Plot (11:00 AM)



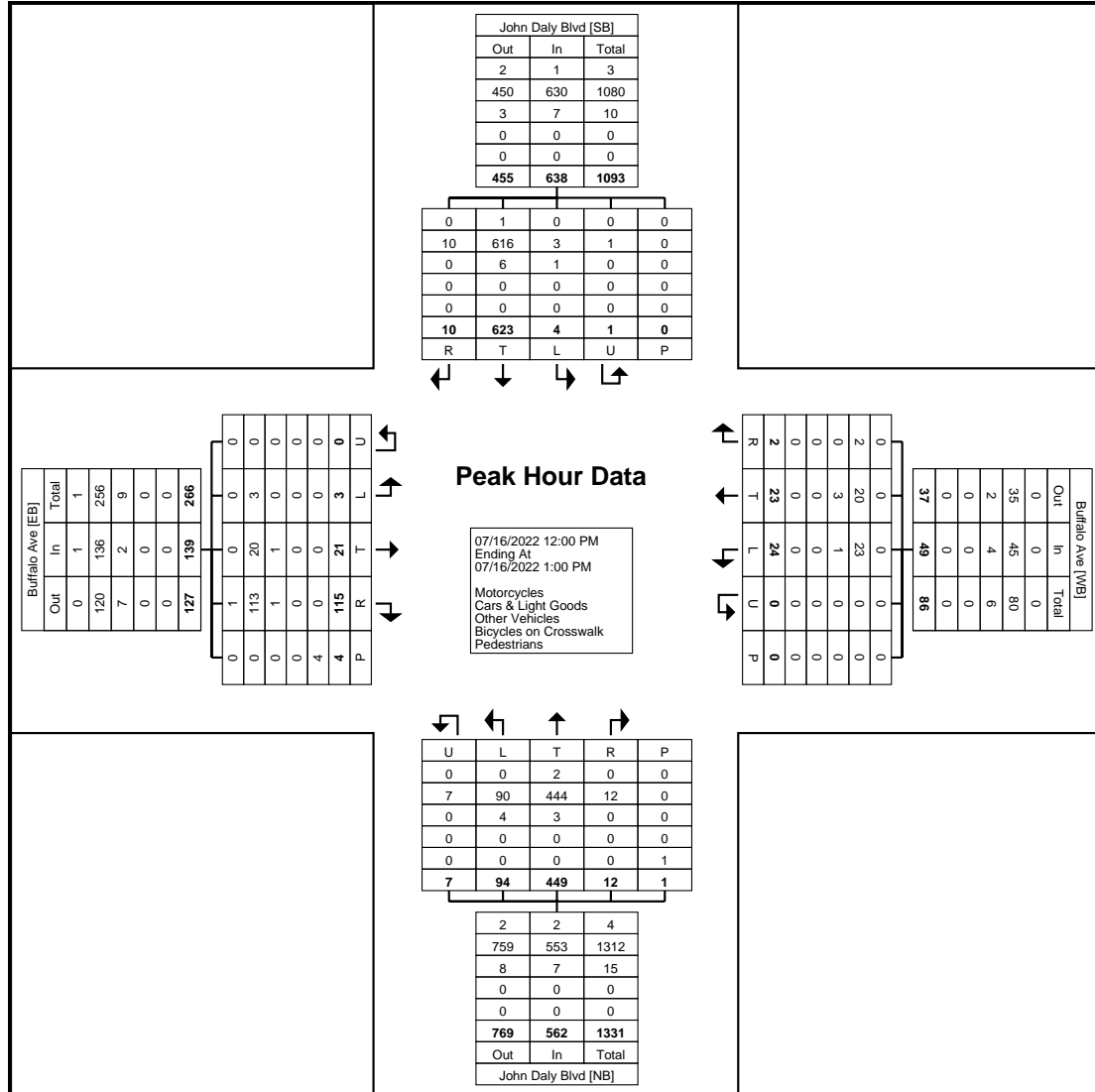
Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Buffalo Ave
Site Code:
Start Date: 07/16/2022
Page No: 5

Turning Movement Peak Hour Data (12:00 PM)

Start Time	John Daly Blvd Southbound							Buffalo Ave Westbound							John Daly Blvd Northbound							Buffalo Ave Eastbound							Int. Total
	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	Right	Right on Red	Thru	Left	U-Turn	Peds	App. Total	
12:00 PM	5	0	180	1	0	0	186	1	0	4	10	0	0	15	4	0	103	29	1	1	137	21	13	8	1	0	0	43	381
12:15 PM	2	0	141	0	0	0	143	1	0	6	6	0	0	13	0	2	114	26	2	0	144	12	9	2	0	0	4	23	323
12:30 PM	2	0	156	0	1	0	159	0	0	3	5	0	0	8	1	1	111	20	2	0	135	14	13	5	2	0	0	34	336
12:45 PM	1	0	146	3	0	0	150	0	0	10	3	0	0	13	3	1	121	19	2	0	146	27	6	6	0	0	0	39	348
Total	10	0	623	4	1	0	638	2	0	23	24	0	0	49	8	4	449	94	7	1	562	74	41	21	3	0	4	139	1388
Approach %	1.6	0.0	97.6	0.6	0.2	-	-	4.1	0.0	46.9	49.0	0.0	-	-	1.4	0.7	79.9	16.7	1.2	-	-	53.2	29.5	15.1	2.2	0.0	-	-	-
Total %	0.7	0.0	44.9	0.3	0.1	-	46.0	0.1	0.0	1.7	1.7	0.0	-	3.5	0.6	0.3	32.3	6.8	0.5	-	40.5	5.3	3.0	1.5	0.2	0.0	-	10.0	-
PHF	0.500	0.000	0.865	0.333	0.250	-	0.858	0.500	0.000	0.575	0.600	0.000	-	0.817	0.500	0.500	0.928	0.810	0.875	-	0.962	0.685	0.788	0.656	0.375	0.000	-	0.808	0.911
Motorcycles	0	0	1	0	0	-	1	0	0	0	0	0	-	0	0	0	2	0	0	-	2	1	0	0	0	0	-	1	4
% Motorcycle	0.0	-	0.2	0.0	0.0	-	0.2	0.0	-	0.0	0.0	-	-	0.0	0.0	0.0	0.4	0.0	0.0	-	0.4	1.4	0.0	0.0	0.0	-	-	0.7	0.3
Cars & Light Goods	10	0	616	3	1	-	630	2	0	20	23	0	-	45	8	4	444	90	7	-	553	72	41	20	3	0	-	136	1364
% Cars & Light Goods	100.0	-	98.9	75.0	100.0	-	98.7	100.0	-	87.0	95.8	-	-	91.8	100.0	100.0	98.9	95.7	100.0	-	98.4	97.3	100.0	95.2	100.0	-	-	97.8	98.3
Other Vehicles	0	0	6	1	0	-	7	0	0	3	1	0	-	4	0	0	3	4	0	-	7	1	0	1	0	0	-	2	20
% Other Vehicles	0.0	-	1.0	25.0	0.0	-	1.1	0.0	-	13.0	4.2	-	-	8.2	0.0	0.0	0.7	4.3	0.0	-	1.2	1.4	0.0	4.8	0.0	-	-	1.4	1.4
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	1	-	-	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-



Turning Movement Peak Hour Data Plot (12:00 PM)



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Falls St
Site Code:
Start Date: 07/12/2022
Page No: 1

Niagara, New York
July 12, 2022

Turning Movement Data

Start Time	John Daly Blvd Southbound						Falls St Westbound						John Daly Blvd Northbound						Falls St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
7:00 AM	0	39	0	0	0	39	1	0	0	0	0	1	3	41	4	0	0	48	1	0	2	0	3	3	91
7:15 AM	1	37	0	1	0	39	0	0	1	0	0	1	4	48	4	0	1	56	1	1	5	0	0	7	103
7:30 AM	0	32	1	0	2	33	1	1	3	0	1	5	7	76	2	0	0	85	2	1	1	0	1	4	127
7:45 AM	4	31	2	0	0	37	2	1	2	0	1	5	16	102	3	0	0	121	3	3	4	0	1	10	173
Hourly Total	5	139	3	1	2	148	4	2	6	0	2	12	30	267	13	0	1	310	7	5	12	0	5	24	494
8:00 AM	0	28	0	0	0	28	0	2	2	0	0	4	6	81	2	0	0	89	5	2	3	0	0	10	131
8:15 AM	1	41	0	0	0	42	1	0	3	0	0	4	16	64	2	0	1	82	4	1	2	0	0	7	135
8:30 AM	3	37	0	0	3	40	3	1	2	0	0	6	5	74	0	0	0	79	7	0	4	0	3	11	136
8:45 AM	5	43	0	0	0	48	1	0	1	0	0	2	0	97	2	0	0	99	4	3	6	0	4	13	162
Hourly Total	9	149	0	0	3	158	5	3	8	0	0	16	27	316	6	0	1	349	20	6	15	0	7	41	564
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	6	57	1	0	0	64	1	2	2	0	0	5	2	57	7	1	0	67	10	3	9	0	1	22	158
11:15 AM	6	47	0	0	0	53	4	2	1	0	0	7	1	45	7	0	0	53	12	4	8	0	1	24	137
11:30 AM	7	60	0	0	0	67	4	2	5	0	0	11	1	61	3	0	0	65	7	2	8	0	0	17	160
11:45 AM	4	54	1	0	0	59	1	3	0	0	0	4	3	69	6	0	0	78	7	3	6	0	2	16	157
Hourly Total	23	218	2	0	0	243	10	9	8	0	0	27	7	232	23	1	0	263	36	12	31	0	4	79	612
12:00 PM	9	65	3	0	0	77	4	3	3	0	0	10	2	59	15	0	0	76	5	4	6	0	1	15	178
12:15 PM	5	68	1	1	1	75	2	0	3	0	0	5	2	57	2	0	0	61	3	2	4	0	0	9	150
12:30 PM	3	67	2	0	3	72	3	1	4	0	0	8	4	70	7	0	0	81	9	1	11	0	2	21	182
12:45 PM	5	61	1	0	3	67	3	4	2	0	0	9	2	73	10	0	0	85	5	1	14	0	3	20	181
Hourly Total	22	261	7	1	7	291	12	8	12	0	0	32	10	259	34	0	0	303	22	8	35	0	6	65	691
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	7	140	0	0	0	147	1	2	13	0	0	16	3	54	14	0	0	71	11	4	9	0	1	24	258
4:15 PM	6	84	4	0	0	94	1	1	4	0	0	6	1	53	5	0	0	59	10	2	7	0	0	19	178
4:30 PM	12	114	0	0	0	126	1	3	6	0	0	10	2	69	12	0	0	83	6	3	9	0	0	18	237
4:45 PM	6	80	0	0	0	86	3	1	3	0	0	7	5	59	17	0	1	81	6	1	11	0	0	18	192
Hourly Total	31	418	4	0	0	453	6	7	26	0	0	39	11	235	48	0	1	294	33	10	36	0	1	79	865
5:00 PM	9	92	0	0	1	101	4	4	2	0	3	10	0	40	10	0	1	50	6	2	11	0	0	19	180
5:15 PM	3	77	1	0	2	81	2	2	1	0	0	5	4	46	8	0	1	58	9	4	2	0	0	15	159
5:30 PM	8	75	2	0	1	85	1	1	1	0	0	3	2	48	12	0	0	62	15	2	15	0	0	32	182
5:45 PM	5	68	1	0	0	74	1	2	8	0	1	11	2	47	13	0	0	62	7	0	8	0	0	15	162
Hourly Total	25	312	4	0	4	341	8	9	12	0	4	29	8	181	43	0	2	232	37	8	36	0	0	81	683
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	115	1497	20	2	16	1634	45	38	72	0	6	155	93	1490	167	1	5	1751	155	49	165	0	23	369	3909
Approach %	7.0	91.6	1.2	0.1	-	-	29.0	24.5	46.5	0.0	-	-	5.3	85.1	9.5	0.1	-	-	42.0	13.3	44.7	0.0	-	-	-
Total %	2.9	38.3	0.5	0.1	-	41.8	1.2	1.0	1.8	0.0	-	4.0	2.4	38.1	4.3	0.0	-	44.8	4.0	1.3	4.2	0.0	-	9.4	-
Motorcycles	0	4	0	0	-	4	0	1	0	0	-	1	0	3	0	0	-	3	0	1	0	0	-	1	9
% Motorcycles	0.0	0.3	0.0	0.0	-	0.2	0.0	2.6	0.0	-	-	0.6	0.0	0.2	0.0	0.0	-	0.2	0.0	2.0	0.0	-	-	0.3	0.2
Cars & Light Goods	112	1457	19	2	-	1590	41	37	70	0	-	148	92	1456	161	1	-	1710	149	47	160	0	-	356	3804
% Cars & Light Goods	97.4	97.3	95.0	100.0	-	97.3	91.1	97.4	97.2	-	-	95.5	98.9	97.7	96.4	100.0	-	97.7	96.1	95.9	97.0	-	-	96.5	97.3
Other Vehicles	3	36	1	0	-	40	4	0	2	0	-	6	1	31	6	0	-	38	6	1	5	0	-	12	96
% Other Vehicles	2.6	2.4	5.0	0.0	-	2.4	8.9	0.0	2.8	-	-	3.9	1.1	2.1	3.6	0.0	-	2.2	3.9	2.0	3.0	-	-	3.3	2.5
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	5	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	50.0	-	-	-	-	-	0.0	-	-	-	-	-	21.7	-	-
Pedestrians	-	-	-	-	16	-	-	-	-	-	3	-	-	-	-	-	5	-	-	-	-	-	18	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	50.0	-	-	-	-	-	100.0	-	-	-	-	-	78.3	-	-

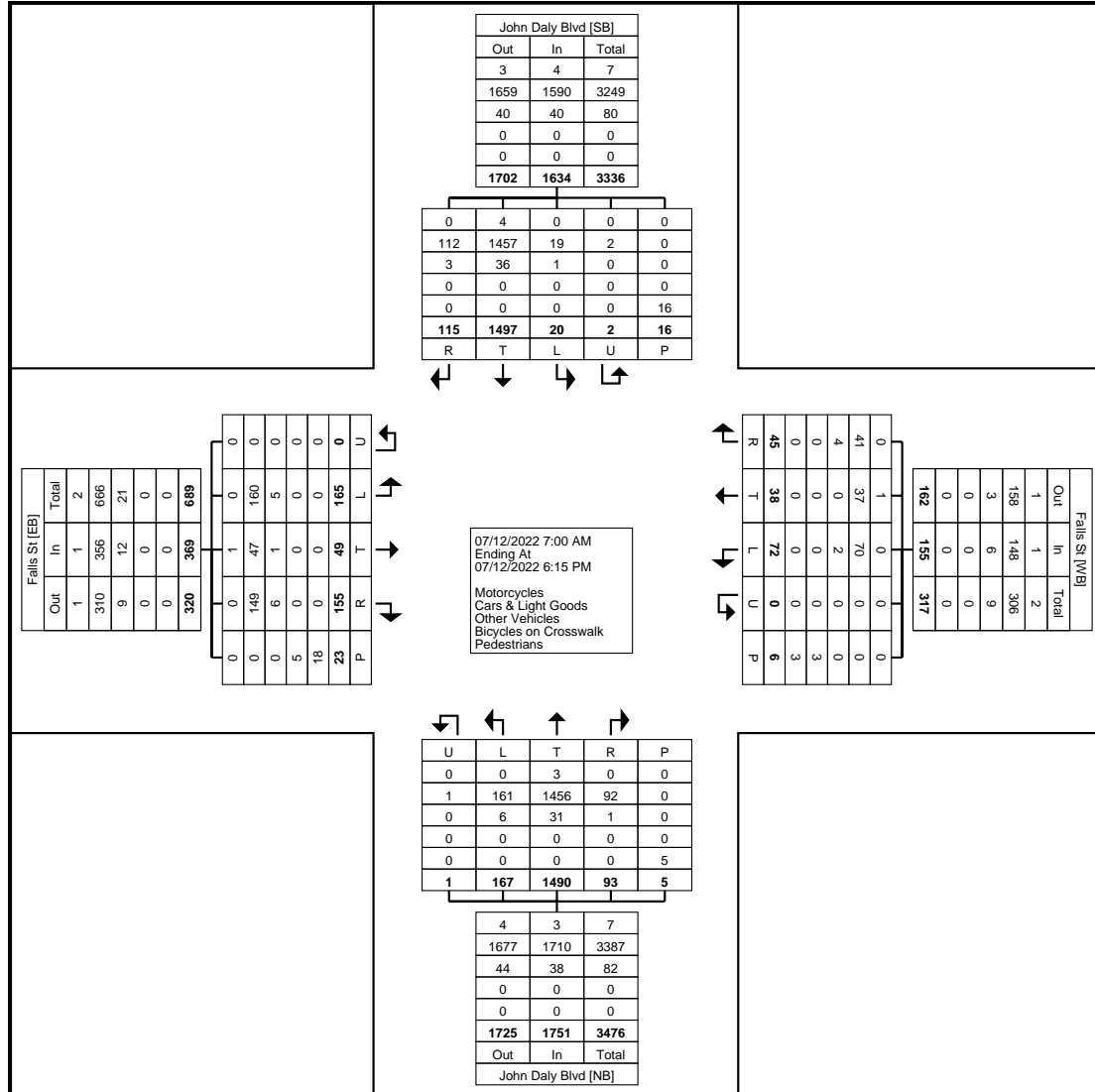


Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Falls St
Site Code:
Start Date: 07/12/2022
Page No: 2

Niagara, New York
July 12, 2022



Turning Movement Data Plot



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Falls St
Site Code:
Start Date: 07/12/2022
Page No: 3

Niagara, New York
July 12, 2022

Turning Movement Peak Hour Data (7:45 AM)

Start Time	John Daly Blvd Southbound						Falls St Westbound						John Daly Blvd Northbound						Falls St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
7:45 AM	4	31	2	0	0	37	2	1	2	0	1	5	16	102	3	0	0	121	3	3	4	0	1	10	173
8:00 AM	0	28	0	0	0	28	0	2	2	0	0	4	6	81	2	0	0	89	5	2	3	0	0	10	131
8:15 AM	1	41	0	0	0	42	1	0	3	0	0	4	16	64	2	0	1	82	4	1	2	0	0	7	135
8:30 AM	3	37	0	0	3	40	3	1	2	0	0	6	5	74	0	0	0	79	7	0	4	0	3	11	136
Total	8	137	2	0	3	147	6	4	9	0	1	19	43	321	7	0	1	371	19	6	13	0	4	38	575
Approach %	5.4	93.2	1.4	0.0	-	-	31.6	21.1	47.4	0.0	-	-	11.6	86.5	1.9	0.0	-	-	50.0	15.8	34.2	0.0	-	-	-
Total %	1.4	23.8	0.3	0.0	-	25.6	1.0	0.7	1.6	0.0	-	3.3	7.5	55.8	1.2	0.0	-	64.5	3.3	1.0	2.3	0.0	-	6.6	-
PHF	0.500	0.835	0.250	0.000	-	0.875	0.500	0.500	0.750	0.000	-	0.792	0.672	0.787	0.583	0.000	-	0.767	0.679	0.500	0.813	0.000	-	0.864	0.831
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	8	133	2	0	-	143	5	4	9	0	-	18	43	317	7	0	-	367	19	5	13	0	-	37	565
% Cars & Light Goods	100.0	97.1	100.0	-	-	97.3	83.3	100.0	100.0	-	-	94.7	100.0	98.8	100.0	-	-	98.9	100.0	83.3	100.0	-	-	97.4	98.3
Other Vehicles	0	4	0	0	-	4	1	0	0	0	-	1	0	4	0	0	-	4	0	1	0	0	-	1	10
% Other Vehicles	0.0	2.9	0.0	-	-	2.7	16.7	0.0	0.0	-	-	5.3	0.0	1.2	0.0	-	-	1.1	0.0	16.7	0.0	-	-	2.6	1.7
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	3	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

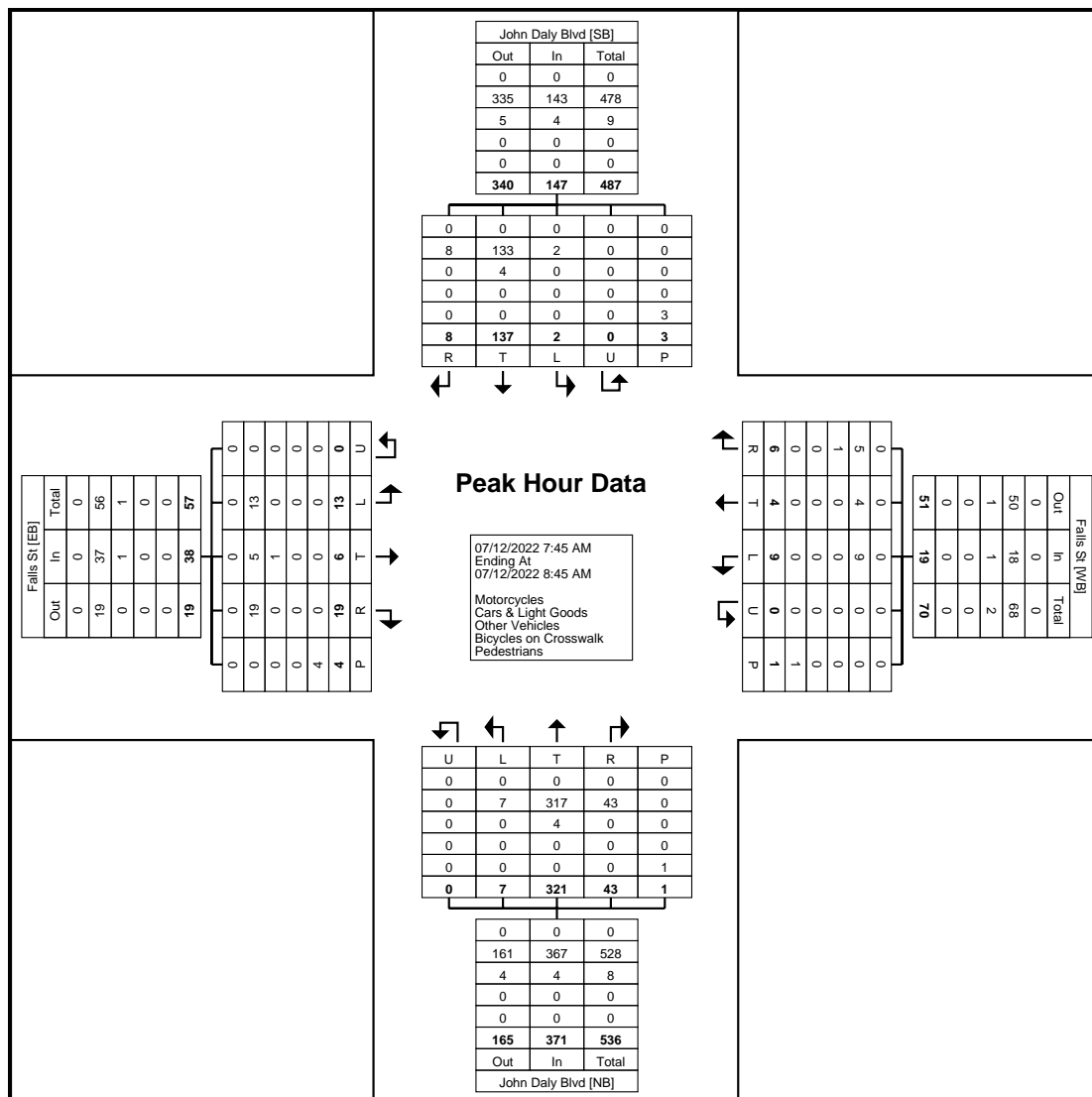


Tri-State Traffic Data: New York Division
184 Baker Rd

Niagara, New York
July 12, 2022

Coatesville , Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Falls St
Site Code:
Start Date: 07/12/2022
Page No: 4



Turning Movement Peak Hour Data Plot (7:45 AM)



Tri-State Traffic Data: New York Division
184 Baker Rd

Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

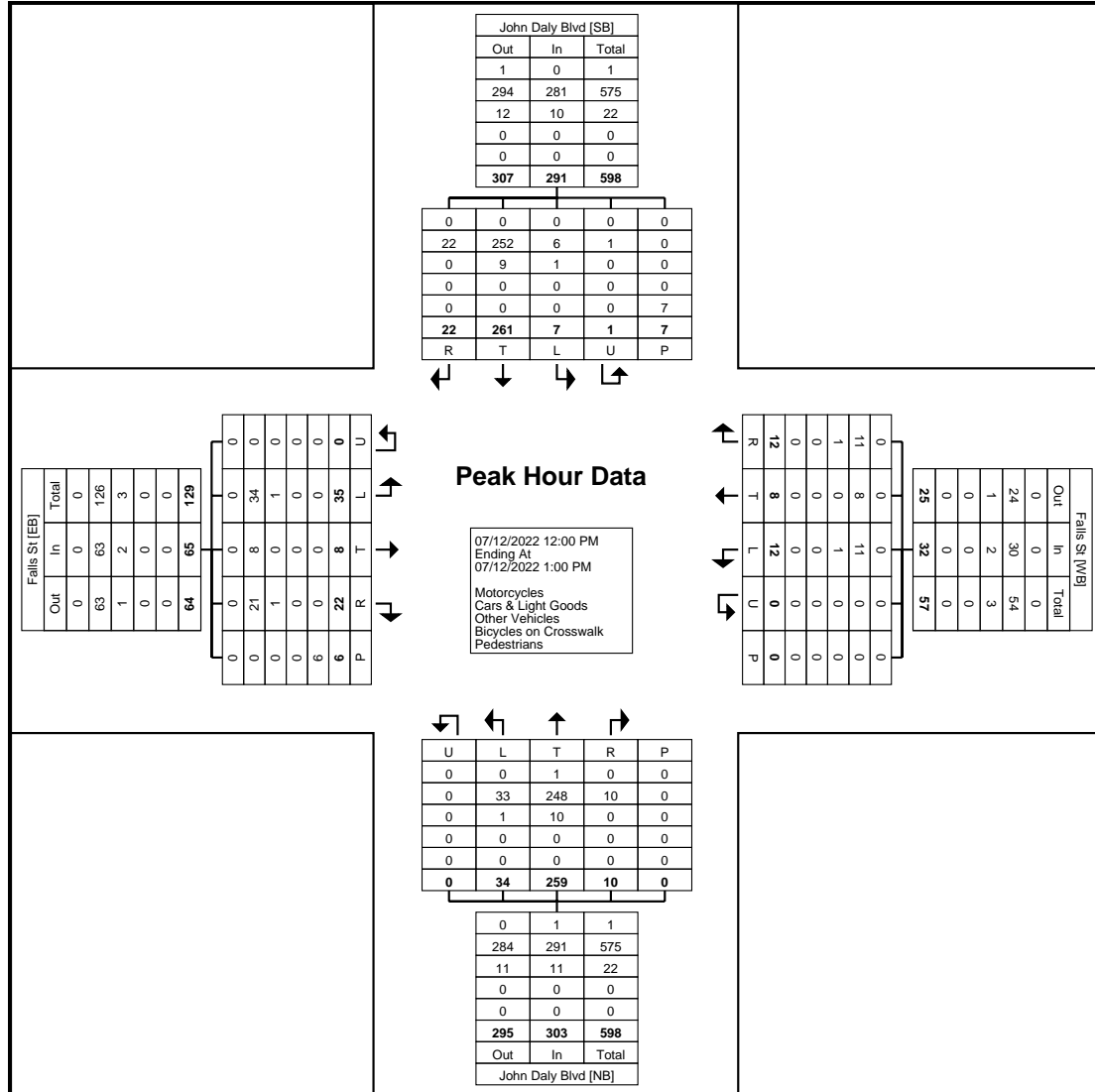
Count Name: John Daly Blvd &
Falls St
Site Code:
Start Date: 07/12/2022
Page No: 5

Niagara, New York
July 12, 2022

Turning Movement Peak Hour Data (12:00 PM)

Start Time	John Daly Blvd Southbound						Falls St Westbound						John Daly Blvd Northbound						Falls St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
12:00 PM	9	65	3	0	0	77	4	3	3	0	0	10	2	59	15	0	0	76	5	4	6	0	1	15	178
12:15 PM	5	68	1	1	1	75	2	0	3	0	0	5	2	57	2	0	0	61	3	2	4	0	0	9	150
12:30 PM	3	67	2	0	3	72	3	1	4	0	0	8	4	70	7	0	0	81	9	1	11	0	2	21	182
12:45 PM	5	61	1	0	3	67	3	4	2	0	0	9	2	73	10	0	0	85	5	1	14	0	3	20	181
Total	22	261	7	1	7	291	12	8	12	0	0	32	10	259	34	0	0	303	22	8	35	0	6	65	691
Approach %	7.6	89.7	2.4	0.3	-	-	37.5	25.0	37.5	0.0	-	-	3.3	85.5	11.2	0.0	-	-	33.8	12.3	53.8	0.0	-	-	-
Total %	3.2	37.8	1.0	0.1	-	42.1	1.7	1.2	1.7	0.0	-	4.6	1.4	37.5	4.9	0.0	-	43.8	3.2	1.2	5.1	0.0	-	9.4	-
PHF	0.611	0.960	0.583	0.250	-	0.945	0.750	0.500	0.750	0.000	-	0.800	0.625	0.887	0.567	0.000	-	0.891	0.611	0.500	0.625	0.000	-	0.774	0.949
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	1
% Motorcycles	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.4	0.0	-	-	0.3	0.0	0.0	0.0	-	-	0.0	0.1
Cars & Light Goods	22	252	6	1	-	281	11	8	11	0	-	30	10	248	33	0	-	291	21	8	34	0	-	63	665
% Cars & Light Goods	100.0	96.6	85.7	100.0	-	96.6	91.7	100.0	91.7	-	-	93.8	100.0	95.8	97.1	-	-	96.0	95.5	100.0	97.1	-	-	96.9	96.2
Other Vehicles	0	9	1	0	-	10	1	0	1	0	-	2	0	10	1	0	-	11	1	0	1	0	-	2	25
% Other Vehicles	0.0	3.4	14.3	0.0	-	3.4	8.3	0.0	8.3	-	-	6.3	0.0	3.9	2.9	-	-	3.6	4.5	0.0	2.9	-	-	3.1	3.6
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	7	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	6	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

Niagara, New York
July 12, 2022



Turning Movement Peak Hour Data Plot (12:00 PM)



Tri-State Traffic Data: New York Division
184 Baker Rd

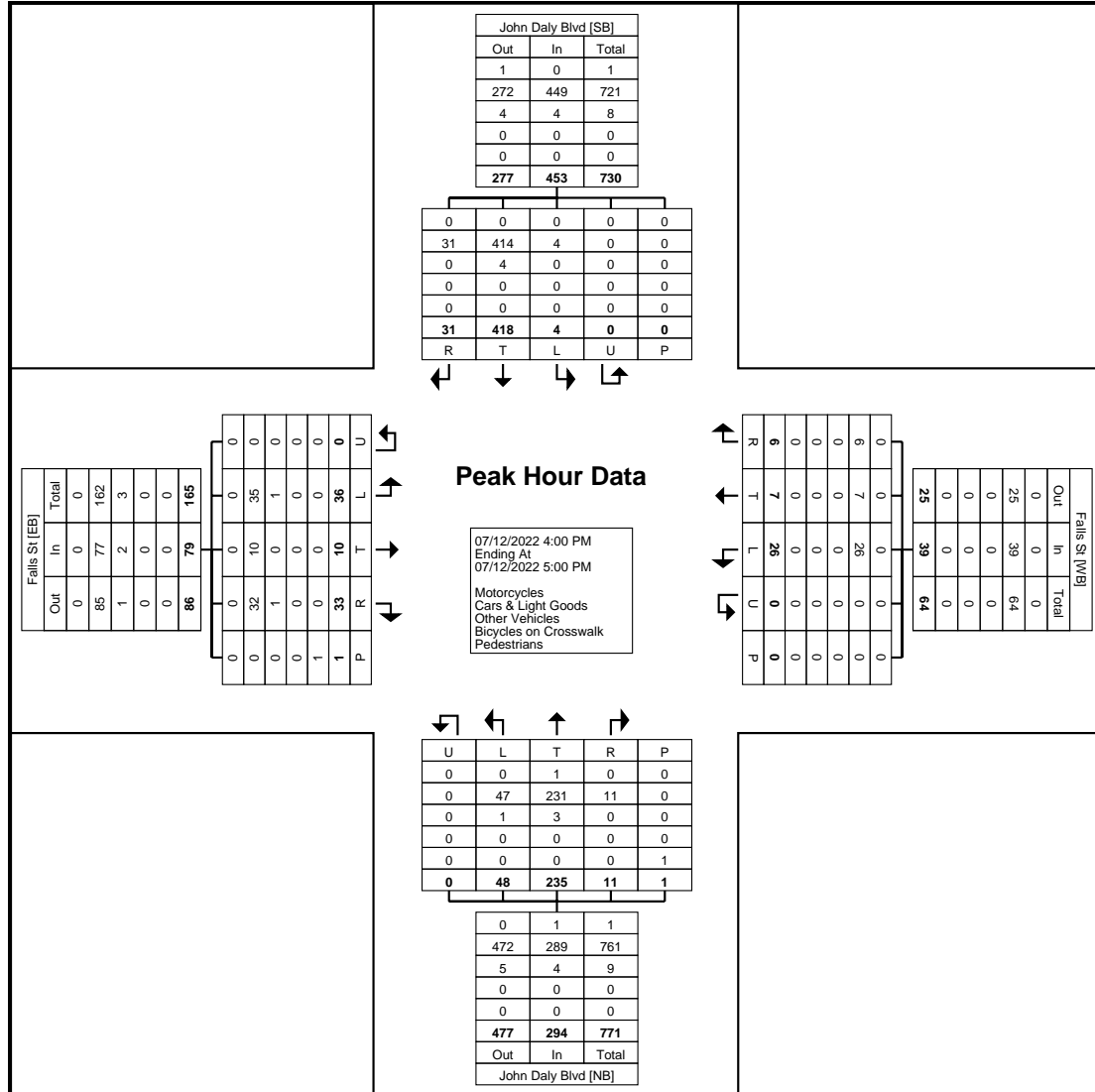
Coatesville, Pennsylvania, United States 19320
610-517-2338 bkarz@tstdata.com

Count Name: John Daly Blvd &
Falls St
Site Code:
Start Date: 07/12/2022
Page No: 7

Niagara, New York
July 12, 2022

Turning Movement Peak Hour Data (4:00 PM)

Start Time	John Daly Blvd Southbound						Falls St Westbound						John Daly Blvd Northbound						Falls St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
4:00 PM	7	140	0	0	0	147	1	2	13	0	0	16	3	54	14	0	0	71	11	4	9	0	1	24	258
4:15 PM	6	84	4	0	0	94	1	1	4	0	0	6	1	53	5	0	0	59	10	2	7	0	0	19	178
4:30 PM	12	114	0	0	0	126	1	3	6	0	0	10	2	69	12	0	0	83	6	3	9	0	0	18	237
4:45 PM	6	80	0	0	0	86	3	1	3	0	0	7	5	59	17	0	1	81	6	1	11	0	0	18	192
Total	31	418	4	0	0	453	6	7	26	0	0	39	11	235	48	0	1	294	33	10	36	0	1	79	865
Approach %	6.8	92.3	0.9	0.0	-	-	15.4	17.9	66.7	0.0	-	-	3.7	79.9	16.3	0.0	-	-	41.8	12.7	45.6	0.0	-	-	-
Total %	3.6	48.3	0.5	0.0	-	52.4	0.7	0.8	3.0	0.0	-	4.5	1.3	27.2	5.5	0.0	-	34.0	3.8	1.2	4.2	0.0	-	9.1	-
PHF	0.646	0.746	0.250	0.000	-	0.770	0.500	0.583	0.500	0.000	-	0.609	0.550	0.851	0.706	0.000	-	0.886	0.750	0.625	0.818	0.000	-	0.823	0.838
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	1
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.4	0.0	-	-	0.3	0.0	0.0	0.0	-	-	0.0	0.1
Cars & Light Goods	31	414	4	0	-	449	6	7	26	0	-	39	11	231	47	0	-	289	32	10	35	0	-	77	854
% Cars & Light Goods	100.0	99.0	100.0	-	-	99.1	100.0	100.0	100.0	-	-	100.0	100.0	98.3	97.9	-	-	98.3	97.0	100.0	97.2	-	-	97.5	98.7
Other Vehicles	0	4	0	0	-	4	0	0	0	0	-	0	0	3	1	0	-	4	1	0	1	0	-	2	10
% Other Vehicles	0.0	1.0	0.0	-	-	0.9	0.0	0.0	0.0	-	-	0.0	0.0	1.3	2.1	-	-	1.4	3.0	0.0	2.8	-	-	2.5	1.2
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



Turning Movement Peak Hour Data Plot (4:00 PM)

John Daly Blvd from Rainbow Rd to Niagara St

Year	Combined Volume	% Growth
2016	11820	
2018	12758	3.89%
2019	11219	-12.06%

John Daly Blvd from Rainbow Rd to Niagara St

2016		2018		2019
11820		12758		11219
	3.89%		-12.06%	
		-1.72%		

Niagara Street from John Daly Blvd to to Portage Rd

Year	Combined Volume	% Growth
2012	3985	
2019	3469	-1.96%

Niagara Street from John Daly Blvd to to Portage Rd

2012		2019
3985		3469
	-1.96%	

Intersection Traffic Movement Data Weekday AM									Network Peak Hour					
Intersections	7:00-7:15	7:15-7:30	7:30-7:45	7:45-8:00	8:00-8:15	8:15-8:30	8:30-8:45	8:45-9:00	7:00-8:00	7:15-8:15	7:30-8:30	7:45-8:45	8:00-9:00	PHF
John Daly Boulevard @ Falls Street	91	103	127	173	131	135	136	162	494	534	566	575	564	0.831
John Daly Boulevard @ Niagara Street	102	108	141	167	138	144	140	204	518	554	590	589	626	0.882
John Daly Boulevard @ Rainbow Boulevard	115	153	213	267	190	202	205	235	748	823	872	864	832	0.809
Niagara Street @ 9th Street	57	48	62	90	71	67	64	103	257	271	290	292	305	0.811
Niagara Street @ 10th Street	58	48	64	89	81	81	58	95	259	282	315	309	315	0.868
Buffalo Ave @ Portage Road	64	61	60	82	74	80	83	76	267	277	296	319	313	0.961
Falls Street @ Portage Road	18	32	47	58	32	48	43	30	155	169	185	181	153	0.780
Buffalo Ave @ Rainbow Boulevard	32	30	42	67	44	47	43	52	171	183	200	201	186	0.750
Falls Street @ 9th Street	4	5	14	27	12	23	10	7	50	58	76	72	52	0.667
Falls Street @ 10th Street	10	12	25	45	31	41	22	15	92	113	142	139	109	0.772
Ferry Ave @ 10th Street	57	43	48	80	84	71	56	89	228	255	283	291	300	0.866
John Daly Blvd @ Buffalo Ave	108	141	215	262	208	187	201	238	726	826	872	858	834	0.819
									3011	4345	4687	4690	4589	
Intersection Traffic Movement Data Weekday PM									Network Peak Hour					
Intersections	4:00-4:15	4:15-4:30	4:30-4:45	4:45-5:00	5:00-5:15	5:15-5:30	5:30-5:45	5:45-6:00	4:00-5:00	4:15-5:15	4:30-5:30	4:45-5:45	5:00-6:00	PHF
John Daly Boulevard @ Falls Street	258	178	237	192	180	159	182	162	865	787	768	713	683	0.830
John Daly Boulevard @ Niagara Street	252	202	279	206	203	169	202	170	939	890	857	780	744	0.797
John Daly Boulevard @ Rainbow Boulevard	404	325	323	335	337	284	300	288	1387	1320	1279	1256	1209	0.979
Niagara Street @ 9th Street	112	105	157	95	84	83	87	83	469	441	419	349	337	0.702
Niagara Street @ 10th Street	120	99	153	100	100	80	75	87	472	452	433	355	342	0.739
Buffalo Ave @ Portage Road	127	80	110	85	83	85	83	82	402	358	363	336	333	0.814
Falls Street @ Portage Road	74	53	65	58	51	47	42	30	250	227	221	198	170	0.873
Buffalo Ave @ Rainbow Boulevard	112	67	66	64	65	59	60	73	309	262	254	248	257	0.978
Falls Street @ 9th Street	25	13	19	14	14	13	12	13	71	60	60	53	52	0.789
Falls Street @ 10th Street	59	22	35	30	25	19	11	27	146	112	109	85	82	0.800
Ferry Ave @ 10th Street	152	109	124	103	111	103	77	84	488	447	441	394	375	0.901
John Daly Blvd @ Buffalo Ave	435	334	327	347	353	286	294	279	1443	1361	1313	1280	1212	0.964
									7241	6717	6517	6047	5796	

Trip Generation Manual (11th Edition)

Project: Niagara Falls Data Center TIS

Client: TRM Design Planning

Project Number: 298007002

Land Use Code: 160 Data Center

Description: A data center is a free-standing warehouse type facility that is primarily used for off-site storage of computer systems and associated components including applications and secure data. Some data centers may include maintenance areas and a small office. Data centers may be occupied by single or multiple tenants. Data centers typically have a small number of employees and visitors.

Peak Hour of Adjacent Street, Weekday AM – Average Rate

X = 1232.7 (X is 1000 Sq. Ft. Gross Floor Area)

AM: Average Rate = 0.11

55% Entering 45% Exiting

Calculation:

AM: T = 0.11 (X)

T = 0.11 (1232.7)

T = 136 trips

Distribution: 136 (55%) = 75 Trips Entering

136 (45%) = 61 Trips Exiting

Peak Hour of Adjacent Street, Weekday PM – Average Rate

X = 1232.7 (X is 1000 Sq. Ft. Gross Floor Area)

PM: Average Rate = 0.09

30% Entering 70% Exiting

Calculation:

Midday: T = 0.09 (X)

T = 0.09 (1232.7)

T = 111 trips


















Distribution: 111 (30%) = 33 Trips Entering

111 (70%) = 78 Trips Exiting

APPENDIX D – SYNCHRO REPORTS













16: John Daly Blvd & Buffalo Ave
Existing AM Peak

Lanes, Volumes, Timings
06/19/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	11	29	12	17	4	56	430	26	2	261	9
Future Volume (vph)	1	11	29	12	17	4	56	430	26	2	261	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	45		0
Storage Lanes	0		0	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	0.95
Frt		0.904			0.984			0.992			0.995	
Flt Protected		0.999			0.982			0.995		0.950		
Satd. Flow (prot)	0	1589	0	0	1669	0	0	3528	0	1752	3487	0
Flt Permitted								0.890		0.415		
Satd. Flow (perm)	0	1590	0	0	1700	0	0	3156	0	766	3487	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		35			5			10			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		893			547			632			407	
Travel Time (s)		20.3			12.4			14.4			9.3	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	8%	8%	8%	10%	10%	10%	1%	1%	1%	3%	3%	3%
Adj. Flow (vph)	1	13	35	15	21	5	68	524	32	2	318	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	49	0	0	41	0	0	624	0	2	329	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		15.0	15.0		15.0	15.0	
Total Split (s)	35.0	35.0		35.0	35.0		60.0	60.0		60.0	60.0	
Total Split (%)	36.8%	36.8%		36.8%	36.8%		63.2%	63.2%		63.2%	63.2%	
Maximum Green (s)	31.0	31.0		31.0	31.0		55.0	55.0		55.0	55.0	
Yellow Time (s)	2.0	2.0		2.0	2.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)		4.0			4.0			5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	

16: John Daly Blvd & Buffalo Ave
Existing AM Peak

Lanes, Volumes, Timings
06/19/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		10.1			10.1			27.1		27.1	27.1	
Actuated g/C Ratio		0.33			0.33			0.89		0.89	0.89	
v/c Ratio		0.08			0.07			0.22		0.00	0.10	
Control Delay (s/veh)		4.8			7.3			2.3		3.5	2.0	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay (s/veh)		4.8			7.3			2.3		3.5	2.0	
LOS		A			A			A		A	A	
Approach Delay (s/veh)		4.9			7.4			2.3			2.1	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)		2			4			0		0	0	
Queue Length 95th (ft)		14			16			53		2	27	
Internal Link Dist (ft)		813			467			552			327	
Turn Bay Length (ft)										45		
Base Capacity (vph)		1545			1651			3156		766	3487	
Starvation Cap Reductn		0			0			0		0	0	
Spillback Cap Reductn		0			0			0		0	0	
Storage Cap Reductn		0			0			0		0	0	
Reduced v/c Ratio		0.03			0.02			0.20		0.00	0.09	

Intersection Summary

Area Type: Other

Cycle Length: 95

Actuated Cycle Length: 30.4

Natural Cycle: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.22

Intersection Signal Delay (s/veh): 2.6

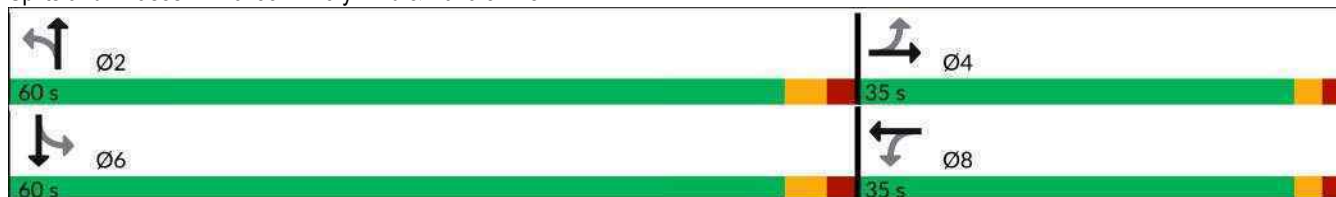
Intersection LOS: A

Intersection Capacity Utilization 42.7%

ICU Level of Service A

















Analysis Period (min) 15

Splits and Phases: 16: John Daly Blvd & Buffalo Ave















31: 10th St & Niagara St
Existing AM Peak

Lanes, Volumes, Timings
06/19/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	59	7	1	65	2	2	25	3	7	29	31
Future Volume (vph)	79	59	7	1	65	2	2	25	3	7	29	31
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
Ped Bike Factor		0.99			0.99							
Frt		0.994			0.997			0.988			0.937	
Flt Protected		0.973			0.999			0.997			0.995	
Satd. Flow (prot)	0	1799	0	0	1801	0	0	1749	0	0	1737	0
Flt Permitted		0.829			0.998			0.985			0.972	
Satd. Flow (perm)	0	1530	0	0	1799	0	0	1728	0	0	1697	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			2			3			36	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		366			929			787			828	
Travel Time (s)		8.3			21.1			17.9			18.8	
Confl. Peds. (#/hr)	3		6	6		3						
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	2%	2%	2%	5%	5%	5%	7%	7%	7%	2%	2%	2%
Adj. Flow (vph)	91	68	8	1	75	2	2	29	3	8	33	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	167	0	0	78	0	0	34	0	0	77	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)	34.0	34.0		34.0	34.0		16.0	16.0		16.0	16.0	
Total Split (s)	34.0	34.0		34.0	34.0		16.0	16.0		16.0	16.0	
Total Split (%)	68.0%	68.0%		68.0%	68.0%		32.0%	32.0%		32.0%	32.0%	
Maximum Green (s)	29.0	29.0		29.0	29.0		11.0	11.0		11.0	11.0	
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?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		29.0			29.0			11.0			11.0	
Actuated g/C Ratio		0.58			0.58			0.22			0.22	
v/c Ratio		0.18			0.07			0.08			0.19	

31: 10th St & Niagara St
Existing AM Peak

Lanes, Volumes, Timings
06/19/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay (s/veh)		5.3			4.7			15.3			11.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay (s/veh)		5.3			4.7			15.3			11.4	
LOS		A			A			B			B	
Approach Delay (s/veh)		5.4			4.8			15.3			11.5	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)		19			8			7			10	
Queue Length 95th (ft)		38			20			24			34	
Internal Link Dist (ft)		286			849			707			748	
Turn Bay Length (ft)												
Base Capacity (vph)		890			1044			382			401	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.19			0.07			0.09			0.19	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Pretimed

Maximum v/c Ratio: 0.19

Intersection Signal Delay (s/veh): 7.5

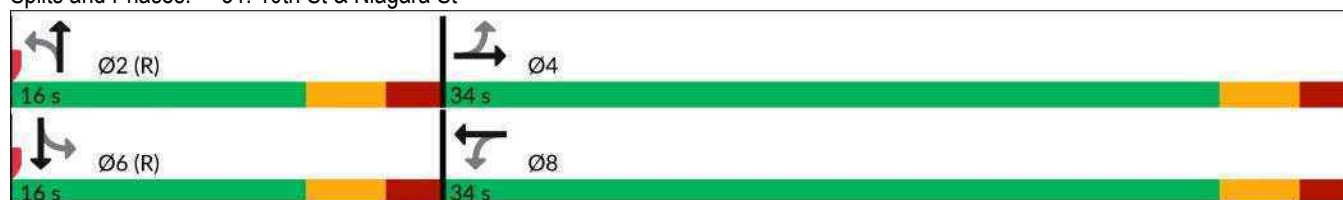
Intersection LOS: A

Intersection Capacity Utilization 29.0%

ICU Level of Service A












Analysis Period (min) 15

Splits and Phases: 31: 10th St & Niagara St



32: John Daly Bvd & Niagara St
Existing AM Peak

Lanes, Volumes, Timings
06/19/2024

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	50	111	34	74	175	139
Future Volume (vph)	50	111	34	74	175	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		175	0		0	0
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Ped Bike Factor		0.98		0.99	0.99	0.97
Frt		0.850				0.850
Flt Protected				0.984	0.950	
Satd. Flow (prot)	1845	1568	0	3383	1770	1583
Flt Permitted				0.864	0.950	
Satd. Flow (perm)	1845	1547	0	2969	1767	1549
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		126				158
Link Speed (mph)	30			30	30	
Link Distance (ft)	889			318	777	
Travel Time (s)	20.2			7.2	17.7	
Confl. Peds. (#/hr)		1	1		1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	3%	3%	5%	5%	2%	2%
Adj. Flow (vph)	57	126	39	84	199	158
Shared Lane Traffic (%)						
Lane Group Flow (vph)	57	126	0	123	199	158
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Detector Phase	4	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	9.5	9.5	9.5	9.5	6.0	6.0
Minimum Split (s)	15.0	15.0	15.0	15.0	11.0	11.0
Total Split (s)	49.5	49.5	49.5	49.5	23.5	23.5
Total Split (%)	67.8%	67.8%	67.8%	67.8%	32.2%	32.2%
Maximum Green (s)	44.0	44.0	44.0	44.0	18.5	18.5
Yellow Time (s)	2.5	2.5	2.5	2.5	2.5	2.5
All-Red Time (s)	3.0	3.0	3.0	3.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						

32: John Daly Bvd & Niagara St
Existing AM Peak

Lanes, Volumes, Timings
06/19/2024

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min	Min	Min	None	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effect Green (s)	10.7	10.7		10.7	8.5	8.5
Actuated g/C Ratio	0.36	0.36		0.36	0.29	0.29
v/c Ratio	0.08	0.19		0.11	0.39	0.28
Control Delay (s/veh)	7.4	3.0		7.3	10.4	3.2
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	7.4	3.0		7.3	10.4	3.2
LOS	A	A		A	B	A
Approach Delay (s/veh)	4.4			7.4	7.3	
Approach LOS	A			A	A	
Queue Length 50th (ft)	5	0		5	22	0
Queue Length 95th (ft)	18	16		15	46	17
Internal Link Dist (ft)	809			238	697	
Turn Bay Length (ft)		175				
Base Capacity (vph)	1845	1547		2969	1107	1028
Starvation Cap Reductn	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0
Reduced v/c Ratio	0.03	0.08		0.04	0.18	0.15

Intersection Summary

Area Type: Other

Cycle Length: 73

Actuated Cycle Length: 29.7

Natural Cycle: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.39

Intersection Signal Delay (s/veh): 6.5

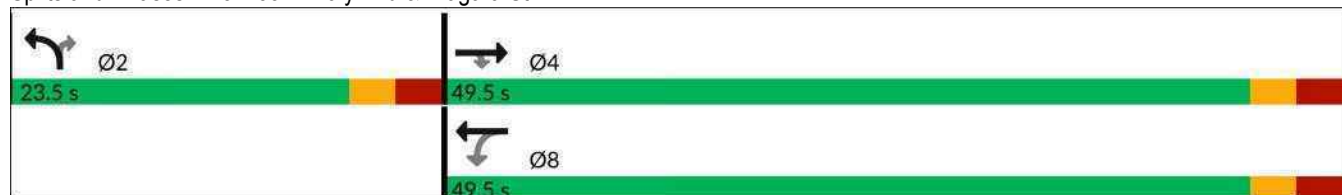
Intersection LOS: A

Intersection Capacity Utilization 27.2%

ICU Level of Service A




















Analysis Period (min) 15

Splits and Phases: 32: John Daly Bvd & Niagara St















78: Rainbow Blvd & 10th St
Existing AM Peak

Lanes, Volumes, Timings
06/19/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	39	2	20	79	12	1	12	1	9	9	4
Future Volume (vph)	6	39	2	20	79	12	1	12	1	9	9	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.980			0.992			0.977	
Flt Protected	0.950			0.950				0.997			0.980	
Satd. Flow (prot)	1770	3511	0	1770	3468	0	0	1842	0	0	1784	0
Flt Permitted	0.675			0.719								
Satd. Flow (perm)	1257	3511	0	1339	3468	0	0	1848	0	0	1820	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			16			1			5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		301			259			127			1360	
Travel Time (s)		6.8			5.9			2.9			30.9	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Adj. Flow (vph)	8	52	3	27	105	16	1	16	1	12	12	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	55	0	27	121	0	0	18	0	0	29	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)		12			12			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		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		9.0	9.0		9.0	9.0	
Minimum Split (s)	15.0	15.0		15.0	15.0		14.0	14.0		14.0	14.0	
Total Split (s)	60.0	60.0		60.0	60.0		20.0	20.0		20.0	20.0	
Total Split (%)	75.0%	75.0%		75.0%	75.0%		25.0%	25.0%		25.0%	25.0%	
Maximum Green (s)	56.0	56.0		56.0	56.0		15.0	15.0		15.0	15.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		2.5	2.5		2.5	2.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	

78: Rainbow Blvd & 10th St
Existing AM Peak

Lanes, Volumes, Timings
06/19/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)	25.7	25.7		25.7	25.7			9.0			9.0	
Actuated g/C Ratio	0.88	0.88		0.88	0.88			0.31			0.31	
v/c Ratio	0.00	0.01		0.02	0.03			0.03			0.05	
Control Delay (s/veh)	3.3	2.5		3.1	2.2			7.2			6.8	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	3.3	2.5		3.1	2.2			7.2			6.8	
LOS	A	A		A	A			A			A	
Approach Delay (s/veh)		2.7			2.4			7.3			6.9	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	0	0		0	0			2			2	
Queue Length 95th (ft)	3	5		7	9			7			9	
Internal Link Dist (ft)		221			179			47			1280	
Turn Bay Length (ft)	175			125								
Base Capacity (vph)	1257	3511		1339	3468			950			937	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.01	0.02		0.02	0.03			0.02			0.03	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 29.2

Natural Cycle: 40

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.05

Intersection Signal Delay (s/veh): 3.3

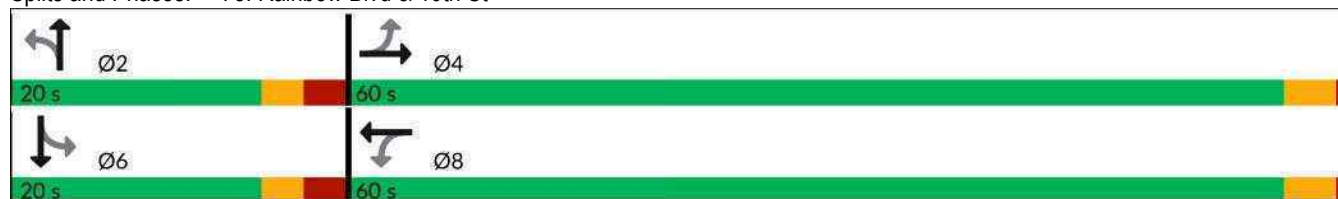
Intersection LOS: A

Intersection Capacity Utilization 23.3%

ICU Level of Service A






















Analysis Period (min) 15

Splits and Phases: 78: Rainbow Blvd & 10th St















79: Rainbow Blvd & John Daly Blvd
Existing AM Peak

Lanes, Volumes, Timings
06/19/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	35	129	10	51	22	101	321	8	13	127	21
Future Volume (vph)	22	35	129	10	51	22	101	321	8	13	127	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	255		140	240		200	235		0	200		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	0.99		0.98	0.99	0.99							
Frt			0.850		0.955			0.996			0.979	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	3471	1553	1687	4610	0	1787	3560	0	1752	3431	0
Flt Permitted	0.693			0.728			0.569			0.513		
Satd. Flow (perm)	1264	3471	1531	1290	4610	0	1070	3560	0	946	3431	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			159		27			2			18	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		271			371			407			1071	
Travel Time (s)		6.2			8.4			9.3			24.3	
Confl. Peds. (#/hr)	1		1	1		1						
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	4%	4%	4%	7%	7%	7%	1%	1%	1%	3%	3%	3%
Adj. Flow (vph)	27	43	159	12	63	27	125	396	10	16	157	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	27	43	159	12	90	0	125	406	0	16	183	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)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		3.0	6.0		3.0	6.0	
Minimum Split (s)	15.0	15.0	15.0	15.0	15.0		8.0	11.0		8.0	11.0	
Total Split (s)	45.0	45.0	45.0	45.0	45.0		25.0	43.0		25.0	43.0	
Total Split (%)	39.8%	39.8%	39.8%	39.8%	39.8%		22.1%	38.1%		22.1%	38.1%	
Maximum Green (s)	40.0	40.0	40.0	40.0	40.0		20.0	38.0		20.0	38.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		4.0	3.0		4.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		1.0	2.0		1.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	

79: Rainbow Blvd & John Daly Blvd
Existing AM Peak

Lanes, Volumes, Timings
06/19/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None		None	Max		None	Max	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0			7.0			7.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0			0			0	
Act Effect Green (s)	10.0	10.0	10.0	10.0	10.0		50.4	48.7		43.7	38.0	
Actuated g/C Ratio	0.14	0.14	0.14	0.14	0.14		0.71	0.69		0.62	0.54	
v/c Ratio	0.15	0.08	0.45	0.06	0.13		0.14	0.16		0.02	0.09	
Control Delay (s/veh)	29.4	27.3	9.9	27.9	20.8		3.4	4.7		3.3	7.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	29.4	27.3	9.9	27.9	20.8		3.4	4.7		3.3	7.6	
LOS	C	C	A	C	C		A	A		A	A	
Approach Delay (s/veh)		15.5			21.7			4.4			7.3	
Approach LOS		B			C			A			A	
Queue Length 50th (ft)	11	8	0	5	8		13	23		2	17	
Queue Length 95th (ft)	29	20	37	17	19		23	55		5	28	
Internal Link Dist (ft)		191			291			327			991	
Turn Bay Length (ft)	255		140	240			235			200		
Base Capacity (vph)	713	1958	932	727	2612		969	2445		906	1846	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.04	0.02	0.17	0.02	0.03		0.13	0.17		0.02	0.10	

Intersection Summary

Area Type: Other

Cycle Length: 113

Actuated Cycle Length: 70.9

Natural Cycle: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.45

Intersection Signal Delay (s/veh): 9.0

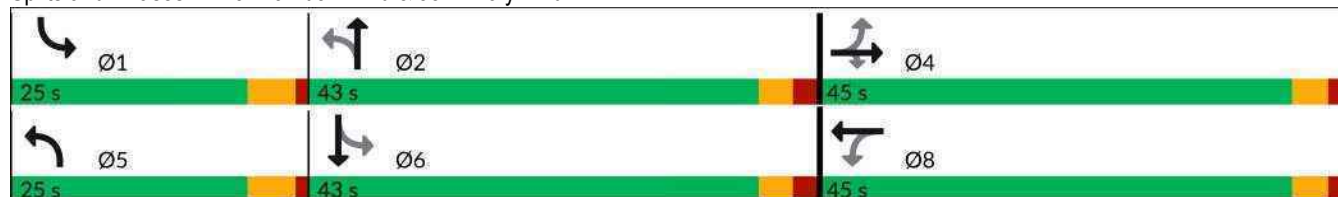
Intersection LOS: A

Intersection Capacity Utilization 34.4%

ICU Level of Service A





Analysis Period (min) 15

Splits and Phases: 79: Rainbow Blvd & John Daly Blvd



5: Buffalo Ave & Portage Rd
Existing AM Peak

HCM 7th TWSC
06/19/2024

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	73	5	18	115	46	2	2	3	14	7	16
Future Vol, veh/h	13	73	5	18	115	46	2	2	3	14	7	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	76	5	19	120	48	2	2	3	15	7	17
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	168	0	0	81	0	0	267	311	79	285	290	144
Stage 1	-	-	-	-	-	-	106	106	-	181	181	-
Stage 2	-	-	-	-	-	-	161	205	-	104	108	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1410	-	-	1516	-	-	686	604	982	667	621	904
Stage 1	-	-	-	-	-	-	900	808	-	821	750	-
Stage 2	-	-	-	-	-	-	841	732	-	902	806	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1410	-	-	1516	-	-	650	590	982	647	606	904
Mov Cap-2 Maneuver	-	-	-	-	-	-	650	590	-	647	606	-
Stage 1	-	-	-	-	-	-	891	800	-	809	739	-
Stage 2	-	-	-	-	-	-	806	722	-	887	798	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	1.08			0.74			9.95			10.23		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	735	254	-	-	171	-	-	727				
HCM Lane V/C Ratio	0.01	0.01	-	-	0.012	-	-	0.053				
HCM Control Delay (s/veh)	9.9	7.6	0	-	7.4	0	-	10.2				
HCM Lane LOS	A	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.2				

17: John Daly Blvd & Falls St
Existing AM Peak

HCM 7th TWSC
06/19/2024

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	13	6	19	9	4	6	7	321	43	2	137	8
Future Vol, veh/h	13	6	19	9	4	6	7	321	43	2	137	8
Conflicting Peds, #/hr	3	0	1	1	0	3	4	0	1	1	0	4
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	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	3	3	3	5	5	5	1	1	1	3	3	3
Mvmt Flow	16	7	23	11	5	7	8	387	52	2	165	10

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	394	635	92	522	614	223	179	0	0	440	0	0
Stage 1	179	179	-	431	431	-	-	-	-	-	-	-
Stage 2	216	456	-	92	184	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.6	6.6	7	4.12	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.6	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.6	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.55	4.05	3.35	2.21	-	-	2.23	-	-
Pot Cap-1 Maneuver	537	392	943	431	399	771	1402	-	-	1110	-	-
Stage 1	803	748	-	565	574	-	-	-	-	-	-	-
Stage 2	764	564	-	896	739	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	517	387	939	408	394	768	1396	-	-	1109	-	-
Mov Cap-2 Maneuver	517	387	-	408	394	-	-	-	-	-	-	-
Stage 1	798	743	-	561	570	-	-	-	-	-	-	-
Stage 2	743	559	-	863	735	-	-	-	-	-	-	-




Approach	EB	WB	NB	SB
HCM Control Delay, s/v11.22		12.97	0.19	0.13
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	58	-	-	624	475	45	-	-
HCM Lane V/C Ratio	0.006	-	-	0.073	0.048	0.002	-	-
HCM Control Delay (s/veh)	7.6	0.1	-	11.2	13	8.3	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.2	0	-	-

46: 9th St & Niagara St
Existing AM Peak

HCM 7th TWSC

06/19/2024

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	146	0	0	87	11	1	2	0	0	0	0
Future Vol, veh/h	45	146	0	0	87	11	1	2	0	0	0	0
Conflicting Peds, #/hr	14	0	7	7	0	14	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	1	1	1	5	5	5	1	1	1	2	2	2
Mvmt Flow	56	180	0	0	107	14	1	2	0	0	0	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	135	0	- - - 0 400 426 181
Stage 1	-	-	- - - 291 291 -
Stage 2	-	-	- - - 108 135 -
Critical Hdwy	4.11	-	- - - 6.41 6.51 6.21
Critical Hdwy Stg 1	-	-	- - - 5.41 5.51 -
Critical Hdwy Stg 2	-	-	- - - 5.41 5.51 -
Follow-up Hdwy	2.209	-	- - - 3.509 4.009 3.309
Pot Cap-1 Maneuver	1456	-	0 0 - - 608 522 864
Stage 1	-	-	0 0 - - 761 673 -
Stage 2	-	-	0 0 - - 919 787 -
Platoon blocked, %	-	-	- -
Mov Cap-1 Maneuver	1456	-	- - - 582 0 863
Mov Cap-2 Maneuver	-	-	- - - 582 0 -
Stage 1	-	-	- - - 728 0 -
Stage 2	-	-	- - - 918 0 -





Approach	EB	WB	NB
HCM Control Delay, s/v	1.78	0	11.23
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR
Capacity (veh/h)	582	424	-	-	-
HCM Lane V/C Ratio	0.006	0.038	-	-	-
HCM Control Delay (s/veh)	11.2	7.6	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0	0.1	-	-	-

11: Portage Rd & Falls St
Existing AM Peak

HCM 7th AWSC
06/19/2024

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	11	3	3	39	8	19	50	1	6	35	5
Future Vol, veh/h	10	11	3	3	39	8	19	50	1	6	35	5
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	19	19	19	11	11	11	8	8	8	5	5	5
Mvmt Flow	13	14	4	4	50	10	24	64	1	8	45	6
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.8	7.7	7.9	7.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	42%	6%	13%
Vol Thru, %	71%	46%	78%	76%
Vol Right, %	1%	13%	16%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	24	50	46
LT Vol	19	10	3	6
Through Vol	50	11	39	35
RT Vol	1	3	8	5
Lane Flow Rate	90	31	64	59
Geometry Grp	1	1	1	1
Degree of Util (X)	0.107	0.04	0.076	0.068
Departure Headway (Hd)	4.291	4.64	4.283	4.179
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	826	776	823	845
Service Time	2.368	2.64	2.378	2.266
HCM Lane V/C Ratio	0.109	0.04	0.078	0.07
HCM Control Delay, s/veh	7.9	7.8	7.7	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.1	0.2	0.2

Intersection

Intersection Delay, s/veh	7.4
Intersection LOS	A




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	44	0	5	18	13	1	19	1	5	10	2
Future Vol, veh/h	8	44	0	5	18	13	1	19	1	5	10	2
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	2	2	2	10	10	10	3	3	3	1	1	1
Mvmt Flow	10	57	0	6	23	17	1	25	1	6	13	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.5	7.3	7.3	7.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	15%	14%	29%
Vol Thru, %	90%	85%	50%	59%
Vol Right, %	5%	0%	36%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	21	52	36	17
LT Vol	1	8	5	5
Through Vol	19	44	18	10
RT Vol	1	0	13	2
Lane Flow Rate	27	68	47	22
Geometry Grp	1	1	1	1
Degree of Util (X)	0.031	0.077	0.052	0.025
Departure Headway (Hd)	4.148	4.087	4.018	4.125
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	857	875	888	861
Service Time	2.204	2.119	2.056	2.183
HCM Lane V/C Ratio	0.032	0.078	0.053	0.026
HCM Control Delay, s/veh	7.3	7.5	7.3	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.2	0.1

Intersection

Intersection Delay, s/veh	8.1
Intersection LOS	A


















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	82	13	0	0	0	0	88	19	20	54	0
Future Vol, veh/h	15	82	13	0	0	0	0	88	19	20	54	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	4	4	4	2	2	2	2	2	2	6	6	6
Mvmt Flow	17	94	15	0	0	0	0	101	22	23	62	0
Number of Lanes	0	2	0	0	0	0	0	1	0	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay, s/veh	8.2	8	8.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	SBLn1
Vol Left, %	0%	27%	0%	27%
Vol Thru, %	82%	73%	76%	73%
Vol Right, %	18%	0%	24%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	107	56	54	74
LT Vol	0	15	0	20
Through Vol	88	41	41	54
RT Vol	19	0	13	0
Lane Flow Rate	123	64	62	85
Geometry Grp	2	5	5	2
Degree of Util (X)	0.145	0.092	0.084	0.106
Departure Headway (Hd)	4.241	5.17	4.866	4.504
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	849	695	739	799
Service Time	2.251	2.885	2.581	2.516
HCM Lane V/C Ratio	0.145	0.092	0.084	0.106
HCM Control Delay, s/veh	8	8.4	8	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.3	0.3	0.4













16: John Daly Blvd & Buffalo Ave
Existing PM Peak

Lanes, Volumes, Timings
06/19/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	36	155	55	14	5	57	417	8	3	690	25
Future Volume (vph)	4	36	155	55	14	5	57	417	8	3	690	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	45		0
Storage Lanes	0		0	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99			0.99							
Frt		0.893			0.991			0.997			0.995	
Flt Protected		0.999			0.964			0.994		0.950		
Satd. Flow (prot)	0	1646	0	0	1794	0	0	3507	0	1787	3556	0
Flt Permitted		0.995			0.776			0.792		0.433		
Satd. Flow (perm)	0	1639	0	0	1444	0	0	2795	0	815	3556	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		165			4			3			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		893			547			632			407	
Travel Time (s)		20.3			12.4			14.4			9.3	
Confl. Peds. (#/hr)	7					7						
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	3%	3%	3%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Adj. Flow (vph)	5	43	187	66	17	6	69	502	10	4	831	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	235	0	0	89	0	0	581	0	4	861	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		15.0	15.0		15.0	15.0	
Total Split (s)	35.0	35.0		35.0	35.0		60.0	60.0		60.0	60.0	
Total Split (%)	36.8%	36.8%		36.8%	36.8%		63.2%	63.2%		63.2%	63.2%	
Maximum Green (s)	31.0	31.0		31.0	31.0		55.0	55.0		55.0	55.0	
Yellow Time (s)	2.0	2.0		2.0	2.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)		4.0			4.0			5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												

16: John Daly Blvd & Buffalo Ave
Existing PM Peak

Lanes, Volumes, Timings
06/19/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)				7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)				11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)				0	0		0	0		0	0	
Act Effect Green (s)		10.4			10.4			16.6		16.6	16.6	
Actuated g/C Ratio		0.29			0.29			0.46		0.46	0.46	
v/c Ratio		0.39			0.21			0.45		0.01	0.52	
Control Delay (s/veh)		6.9			12.2			7.7		5.0	8.1	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay (s/veh)		6.9			12.2			7.7		5.0	8.1	
LOS		A			B			A		A	A	
Approach Delay (s/veh)		6.9			12.3			7.8			8.1	
Approach LOS		A			B			A			A	
Queue Length 50th (ft)		9			12			34		1	53	
Queue Length 95th (ft)		46			39			57		3	82	
Internal Link Dist (ft)		813			467			552			327	
Turn Bay Length (ft)										45		
Base Capacity (vph)		1446			1256			2795		815	3556	
Starvation Cap Reductn		0			0			0		0	0	
Spillback Cap Reductn		0			0			0		0	0	
Storage Cap Reductn		0			0			0		0	0	
Reduced v/c Ratio		0.16			0.07			0.21		0.00	0.24	

Intersection Summary

Area Type: Other

Cycle Length: 95

Actuated Cycle Length: 36.1

Natural Cycle: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.53

Intersection Signal Delay (s/veh): 8.1

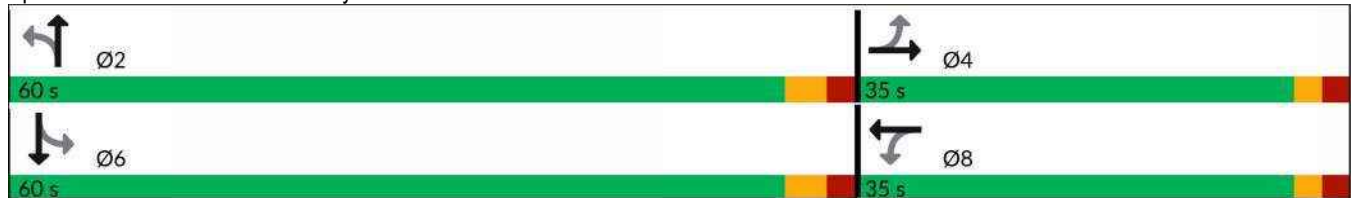
Intersection LOS: A

Intersection Capacity Utilization 69.7%

ICU Level of Service C

















Analysis Period (min) 15

Splits and Phases: 16: John Daly Blvd & Buffalo Ave















31: 10th St & Niagara St
Existing PM Peak

Lanes, Volumes, Timings
06/19/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	125	5	1	122	10	5	13	2	5	34	126
Future Volume (vph)	34	125	5	1	122	10	5	13	2	5	34	126
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		0.996			0.990			0.987			0.897	
Flt Protected		0.990						0.988			0.999	
Satd. Flow (prot)	0	1837	0	0	1844	0	0	1816	0	0	1669	0
Flt Permitted		0.933			0.999			0.918			0.993	
Satd. Flow (perm)	0	1731	0	0	1842	0	0	1688	0	0	1659	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			11			2			137	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		366			929			787			828	
Travel Time (s)		8.3			21.1			17.9			18.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	136	5	1	133	11	5	14	2	5	37	137
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	178	0	0	145	0	0	21	0	0	179	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)	34.0	34.0		34.0	34.0		16.0	16.0		16.0	16.0	
Total Split (s)	34.0	34.0		34.0	34.0		16.0	16.0		16.0	16.0	
Total Split (%)	68.0%	68.0%		68.0%	68.0%		32.0%	32.0%		32.0%	32.0%	
Maximum Green (s)	29.0	29.0		29.0	29.0		11.0	11.0		11.0	11.0	
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?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		29.0			29.0			11.0			11.0	
Actuated g/C Ratio		0.58			0.58			0.22			0.22	
v/c Ratio		0.17			0.13			0.05			0.38	
Control Delay (s/veh)		5.3			4.8			15.1			8.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay (s/veh)		5.3			4.8			15.1			8.5	

31: 10th St & Niagara St
Existing PM Peak

Lanes, Volumes, Timings
06/19/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			A			B			A	
Approach Delay (s/veh)		5.3			4.8			15.2			8.6	
Approach LOS		A			A			B			A	
Queue Length 50th (ft)		20			15			4			10	
Queue Length 95th (ft)		41			33			18			50	
Internal Link Dist (ft)		286			849			707			748	
Turn Bay Length (ft)												
Base Capacity (vph)		1006			1072			372			471	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.18			0.14			0.06			0.38	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Pretimed

Maximum v/c Ratio: 0.38

Intersection Signal Delay (s/veh): 6.7

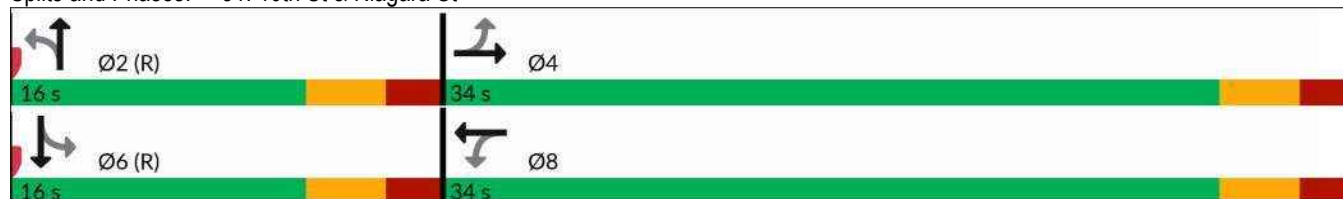
Intersection LOS: A

Intersection Capacity Utilization 38.4%

ICU Level of Service A


Analysis Period (min) 15

Splits and Phases: 31: 10th St & Niagara St



32: John Daly Blvd & Niagara St
Existing PM Peak

Lanes, Volumes, Timings
06/19/2024

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑		↑↑	↑	↑
Traffic Volume (vph)	128	345	115	118	209	80
Future Volume (vph)	128	345	115	118	209	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		175	0		0	0
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Ped Bike Factor		0.98		0.99		0.97
Frt		0.850				0.850
Flt Protected				0.976	0.950	
Satd. Flow (prot)	1863	1583	0	3488	1770	1583
Flt Permitted				0.764	0.950	
Satd. Flow (perm)	1863	1553	0	2723	1770	1549
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		411				95
Link Speed (mph)	30			30	30	
Link Distance (ft)	889			318	777	
Travel Time (s)	20.2			7.2	17.7	
Confl. Peds. (#/hr)		6	6			1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	2%	2%	1%	1%	2%	2%
Adj. Flow (vph)	152	411	137	140	249	95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	152	411	0	277	249	95
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Detector Phase	4	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	9.5	9.5	9.5	9.5	6.0	6.0
Minimum Split (s)	15.0	15.0	15.0	15.0	11.0	11.0
Total Split (s)	49.5	49.5	49.5	49.5	23.5	23.5
Total Split (%)	67.8%	67.8%	67.8%	67.8%	32.2%	32.2%
Maximum Green (s)	44.0	44.0	44.0	44.0	18.5	18.5
Yellow Time (s)	2.5	2.5	2.5	2.5	2.5	2.5
All-Red Time (s)	3.0	3.0	3.0	3.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						

32: John Daly Blvd & Niagara St
Existing PM Peak

Lanes, Volumes, Timings
06/19/2024

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min	Min	Min	None	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effect Green (s)	12.0	12.0		12.0	9.6	9.6
Actuated g/C Ratio	0.37	0.37		0.37	0.30	0.30
v/c Ratio	0.21	0.49		0.27	0.47	0.17
Control Delay (s/veh)	8.6	3.5		8.4	12.3	3.6
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	8.6	3.5		8.4	12.3	3.6
LOS	A	A		A	B	A
Approach Delay (s/veh)	4.9			8.5	9.9	
Approach LOS	A			A	A	
Queue Length 50th (ft)	16	0		15	28	0
Queue Length 95th (ft)	42	28		35	72	16
Internal Link Dist (ft)	809			238	697	
Turn Bay Length (ft)		175				
Base Capacity (vph)	1863	1553		2723	1026	937
Starvation Cap Reductn	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0
Reduced v/c Ratio	0.08	0.26		0.10	0.24	0.10

Intersection Summary

Area Type: Other

Cycle Length: 73

Actuated Cycle Length: 32.3

Natural Cycle: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.49

Intersection Signal Delay (s/veh): 7.2

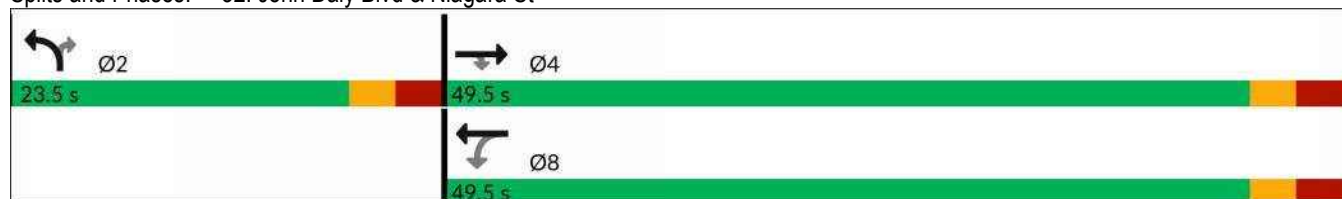
Intersection LOS: A

Intersection Capacity Utilization 42.1%

ICU Level of Service A




















Analysis Period (min) 15

Splits and Phases: 32: John Daly Blvd & Niagara St















78: Rainbow Blvd & 10th St
Existing PM Peak

Lanes, Volumes, Timings
06/19/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	100	15	29	89	12	2	4	1	10	30	8
Future Volume (vph)	1	100	15	29	89	12	2	4	1	10	30	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.983			0.986			0.977	
Flt Protected	0.950			0.950				0.985			0.990	
Satd. Flow (prot)	1770	3468	0	1770	3479	0	0	1809	0	0	1802	0
Flt Permitted	0.659			0.646								
Satd. Flow (perm)	1228	3468	0	1203	3479	0	0	1837	0	0	1820	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22			17			1			12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		301			259			127			1360	
Travel Time (s)		6.8			5.9			2.9			30.9	
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Adj. Flow (vph)	1	145	22	42	129	17	3	6	1	14	43	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1	167	0	42	146	0	0	10	0	0	69	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)		12			12			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		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		9.0	9.0		9.0	9.0	
Minimum Split (s)	15.0	15.0		15.0	15.0		14.0	14.0		14.0	14.0	
Total Split (s)	60.0	60.0		60.0	60.0		20.0	20.0		20.0	20.0	
Total Split (%)	75.0%	75.0%		75.0%	75.0%		25.0%	25.0%		25.0%	25.0%	
Maximum Green (s)	56.0	56.0		56.0	56.0		15.0	15.0		15.0	15.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		2.5	2.5		2.5	2.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)										7.0	7.0	

78: Rainbow Blvd & 10th St
Existing PM Peak

Lanes, Volumes, Timings
06/19/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)										11.0	11.0	
Pedestrian Calls (#/hr)										0	0	
Act Effect Green (s)	24.0	24.0		24.0	24.0			9.1			9.1	
Actuated g/C Ratio	0.87	0.87		0.87	0.87			0.33			0.33	
v/c Ratio	0.00	0.05		0.04	0.04			0.01			0.11	
Control Delay (s/veh)	4.0	2.3		3.2	2.3			5.7			5.8	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	4.0	2.3		3.2	2.3			5.7			5.8	
LOS	A	A		A	A			A			A	
Approach Delay (s/veh)		2.3			2.6			5.7			5.8	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	0	0		0	0			1			6	
Queue Length 95th (ft)	1	11		9	10			4			12	
Internal Link Dist (ft)		221			179			47			1280	
Turn Bay Length (ft)	175			125								
Base Capacity (vph)	1228	3468		1203	3479			1012			1008	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.00	0.05		0.03	0.04			0.01			0.07	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 27.5

Natural Cycle: 40

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.11

Intersection Signal Delay (s/veh): 3.1

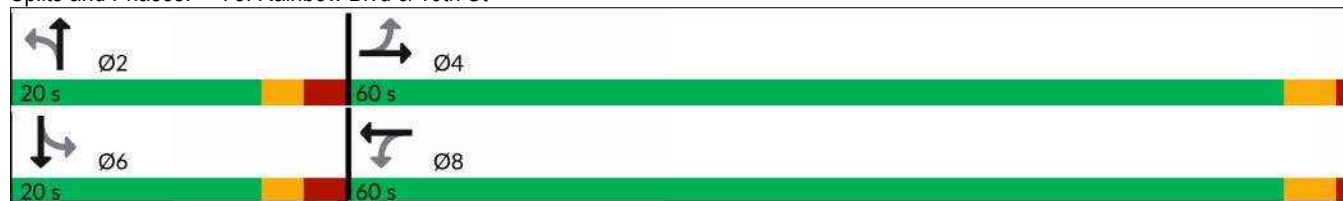
Intersection LOS: A

Intersection Capacity Utilization 23.3%

ICU Level of Service A






















Analysis Period (min) 15

Splits and Phases: 78: Rainbow Blvd & 10th St















79: Rainbow Blvd & John Daly Blvd
Existing PM Peak

Lanes, Volumes, Timings
06/19/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	84	318	8	66	25	159	262	5	27	392	58
Future Volume (vph)	38	84	318	8	66	25	159	262	5	27	392	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	255		140	240		200	235		0	200		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	0.99		0.98	0.99	0.99		0.99				0.99	
Frt			0.850		0.959			0.997			0.981	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1787	4906	0	1770	3529	0	1787	3498	0
Flt Permitted	0.682			0.690			0.318			0.563		
Satd. Flow (perm)	1268	3539	1553	1289	4906	0	591	3529	0	1059	3498	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			370		29			2			15	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		271			371			407			1071	
Travel Time (s)		6.2			8.4			9.3			24.3	
Confl. Peds. (#/hr)	1		4	4		1	4					4
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Adj. Flow (vph)	44	98	370	9	77	29	185	305	6	31	456	67
Shared Lane Traffic (%)												
Lane Group Flow (vph)	44	98	370	9	106	0	185	311	0	31	523	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)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		3.0	6.0		3.0	6.0	
Minimum Split (s)	15.0	15.0	15.0	15.0	15.0		8.0	11.0		8.0	11.0	
Total Split (s)	45.0	45.0	45.0	45.0	45.0		25.0	43.0		25.0	43.0	
Total Split (%)	39.8%	39.8%	39.8%	39.8%	39.8%		22.1%	38.1%		22.1%	38.1%	
Maximum Green (s)	40.0	40.0	40.0	40.0	40.0		20.0	38.0		20.0	38.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		4.0	3.0		4.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		1.0	2.0		1.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	

79: Rainbow Blvd & John Daly Blvd
Existing PM Peak

Lanes, Volumes, Timings
06/19/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None		None	Min		None	Min	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0			7.0			7.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0			0			0	
Act Effect Green (s)	11.0	11.0	11.0	11.0	11.0		29.1	25.1		19.2	13.2	
Actuated g/C Ratio	0.22	0.22	0.22	0.22	0.22		0.58	0.50		0.38	0.26	
v/c Ratio	0.15	0.12	0.58	0.03	0.09		0.31	0.17		0.06	0.56	
Control Delay (s/veh)	19.6	17.9	7.1	18.2	13.8		6.4	8.7		6.1	18.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	19.6	17.9	7.1	18.2	13.8		6.4	8.7		6.1	18.4	
LOS	B	B	A	B	B		A	A		A	B	
Approach Delay (s/veh)		10.3			14.2			7.9			17.8	
Approach LOS		B			B			A			B	
Queue Length 50th (ft)	10	12	0	2	6		20	17		3	65	
Queue Length 95th (ft)	36	31	51	12	19		49	58		12	120	
Internal Link Dist (ft)		191			291			327			991	
Turn Bay Length (ft)	255		140	240			235			200		
Base Capacity (vph)	1030	2875	1331	1047	3991		820	2724		907	2703	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.04	0.03	0.28	0.01	0.03		0.23	0.11		0.03	0.19	

Intersection Summary

Area Type: Other

Cycle Length: 113

Actuated Cycle Length: 50.3

Natural Cycle: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.59

Intersection Signal Delay (s/veh): 12.3

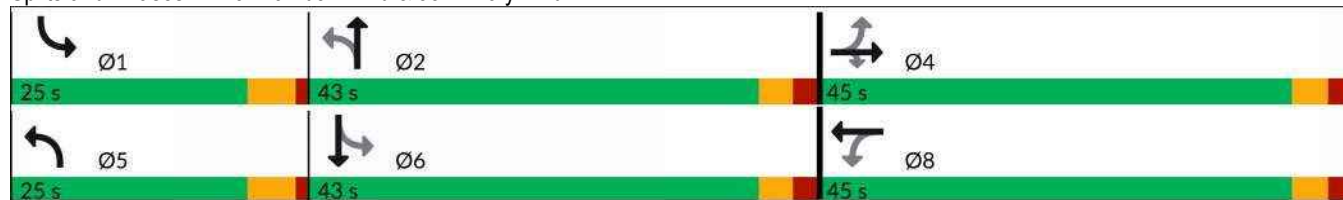
Intersection LOS: B

Intersection Capacity Utilization 54.0%

ICU Level of Service A





Analysis Period (min) 15

Splits and Phases: 79: Rainbow Blvd & John Daly Blvd



5: Buffalo Ave & Portage Rd
Existing PM Peak

HCM 7th TWSC
06/19/2024

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	137	2	2	117	41	2	2	28	63	1	11
Future Vol, veh/h	12	137	2	2	117	41	2	2	28	63	1	11
Conflicting Peds, #/hr	1	0	1	1	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	1	1	1	1	1	1	5	5	5
Mvmt Flow	15	173	3	3	148	52	3	3	35	80	1	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	201	0	0	177	0	0	360	412	176	385	387	175
Stage 1	-	-	-	-	-	-	206	206	-	180	180	-
Stage 2	-	-	-	-	-	-	154	206	-	205	207	-
Critical Hdwy	4.12	-	-	4.11	-	-	7.11	6.51	6.21	7.15	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.15	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.15	5.55	-
Follow-up Hdwy	2.218	-	-	2.209	-	-	3.509	4.009	3.309	3.545	4.045	3.345
Pot Cap-1 Maneuver	1371	-	-	1405	-	-	598	531	870	568	542	861
Stage 1	-	-	-	-	-	-	798	733	-	815	745	-
Stage 2	-	-	-	-	-	-	851	733	-	790	725	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1370	-	-	1404	-	-	578	523	869	534	534	860
Mov Cap-2 Maneuver	-	-	-	-	-	-	578	523	-	534	534	-
Stage 1	-	-	-	-	-	-	788	723	-	812	742	-
Stage 2	-	-	-	-	-	-	834	731	-	746	715	-





Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.61			0.09			9.68			12.65		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	810	143	-	-	21	-	-	565
HCM Lane V/C Ratio	0.05	0.011	-	-	0.002	-	-	0.168
HCM Control Delay (s/veh)	9.7	7.7	0	-	7.6	0	-	12.7
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.6

17: John Daly Blvd & Falls St
Existing PM Peak

HCM 7th TWSC

06/19/2024

Intersection												
Int Delay, s/veh	4.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	29	33	26	7	6	67	247	11	11	418	31
Future Vol, veh/h	36	29	33	26	7	6	67	247	11	11	418	31
Conflicting Peds, #/hr	0	0	1	1	0	0	1	0	0	0	0	1
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	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	3	3	3	1	1	1	1	1	1	1	1	1
Mvmt Flow	43	35	39	31	8	7	80	294	13	13	498	37

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	854	1010	269	753	1022	154	536	0	0	307	0	0
Stage 1	543	543	-	460	460	-	-	-	-	-	-	-
Stage 2	311	467	-	293	562	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.52	6.52	6.92	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.52	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.52	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.51	4.01	3.31	2.21	-	-	2.21	-	-
Pot Cap-1 Maneuver	251	237	726	300	236	868	1036	-	-	1258	-	-
Stage 1	489	515	-	553	567	-	-	-	-	-	-	-
Stage 2	672	558	-	693	510	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	217	214	724	218	213	868	1035	-	-	1258	-	-
Mov Cap-2 Maneuver	217	214	-	218	213	-	-	-	-	-	-	-
Stage 1	482	508	-	507	519	-	-	-	-	-	-	-
Stage 2	600	511	-	603	504	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v26.47		23.03	2.17	0.27
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	700	-	-	282 246	78	-	-
HCM Lane V/C Ratio	0.077	-	-	0.413 0.189	0.01	-	-
HCM Control Delay (s/veh)	8.8	0.5	-	26.5 23	7.9	0.1	-
HCM Lane LOS	A	A	-	D C	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	1.9 0.7	0	-	-

46: 9th St & Niagara St
Existing PM Peak

HCM 7th TWSC

06/19/2024

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔				
Traffic Vol, veh/h	44	164	0	0	228	25	5	4	0	0	0	0
Future Vol, veh/h	44	164	0	0	228	25	5	4	0	0	0	0
Conflicting Peds, #/hr	14	0	7	7	0	14	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	54	202	0	0	281	31	6	5	0	0	0	0

Major/Minor	Major1		Major2		Minor1					
Conflicting Flow All	326	0	-	-	-	0	594	637	203	
Stage 1	-	-	-	-	-	-	311	311	-	
Stage 2	-	-	-	-	-	-	282	326	-	
Critical Hdwy	4.12	-	-	-	-	-	6.42	6.52	6.22	
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-	
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-	
Follow-up Hdwy	2.218	-	-	-	-	-	3.518	4.018	3.318	
Pot Cap-1 Maneuver	1233	-	0	0	-	-	468	395	837	
Stage 1	-	-	0	0	-	-	743	658	-	
Stage 2	-	-	0	0	-	-	765	648	-	
Platoon blocked, %		-			-	-				
Mov Cap-1 Maneuver	1233	-	-	-	-	-	444	0	836	
Mov Cap-2 Maneuver	-	-	-	-	-	-	444	0	-	
Stage 1	-	-	-	-	-	-	706	0	-	
Stage 2	-	-	-	-	-	-	765	0	-	





Approach	EB	WB	NB
HCM Control Delay, s/v	1.7	0	13.31
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR
Capacity (veh/h)	444	381	-	-	-
HCM Lane V/C Ratio	0.025	0.044	-	-	-
HCM Control Delay (s/veh)	13.3	8.1	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	0.1	-	-	-

11: Portage Rd & Falls St
Existing PM Peak

HCM 7th AWSC
06/19/2024

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	40	10	6	43	16	10	40	5	24	59	20
Future Vol, veh/h	15	40	10	6	43	16	10	40	5	24	59	20
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	1	1	1	7	7	7	2	2	2	1	1	1
Mvmt Flow	18	47	12	7	51	19	12	47	6	28	69	24
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.8	7.9	7.8	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	23%	9%	23%
Vol Thru, %	73%	62%	66%	57%
Vol Right, %	9%	15%	25%	19%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	55	65	65	103
LT Vol	10	15	6	24
Through Vol	40	40	43	59
RT Vol	5	10	16	20
Lane Flow Rate	65	76	76	121
Geometry Grp	1	1	1	1
Degree of Util (X)	0.079	0.093	0.093	0.144
Departure Headway (Hd)	4.394	4.374	4.392	4.267
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	818	822	818	843
Service Time	2.407	2.387	2.406	2.278
HCM Lane V/C Ratio	0.079	0.092	0.093	0.144
HCM Control Delay, s/veh	7.8	7.8	7.9	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.3	0.3	0.5

Intersection




Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	47	0	26	37	10	1	17	12	14	22	4
Future Vol, veh/h	2	47	0	26	37	10	1	17	12	14	22	4
Peak Hour Factor	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	76	0	42	60	16	2	27	19	23	35	6
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.8	8	7.5	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	4%	36%	35%
Vol Thru, %	57%	96%	51%	55%
Vol Right, %	40%	0%	14%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	49	73	40
LT Vol	1	2	26	14
Through Vol	17	47	37	22
RT Vol	12	0	10	4
Lane Flow Rate	48	79	118	65
Geometry Grp	1	1	1	1
Degree of Util (X)	0.057	0.095	0.137	0.08
Departure Headway (Hd)	4.214	4.331	4.179	4.438
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	854	832	844	811
Service Time	2.221	2.331	2.274	2.444
HCM Lane V/C Ratio	0.056	0.095	0.14	0.08
HCM Control Delay, s/veh	7.5	7.8	8	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.3	0.5	0.3

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	221	13	0	0	0	0	41	16	57	152	0
Future Vol, veh/h	13	221	13	0	0	0	0	41	16	57	152	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles, %	1	1	1	1	1	1	2	2	2	1	1	1
Mvmt Flow	16	276	16	0	0	0	0	51	20	71	190	0
Number of Lanes	0	2	0	0	0	0	0	1	0	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay, s/veh	9.6	8.4	10.4
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	EBLn2	SBLn1
Vol Left, %	0%	11%	0%	27%
Vol Thru, %	72%	89%	89%	73%
Vol Right, %	28%	0%	11%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	57	124	124	209
LT Vol	0	13	0	57
Through Vol	41	111	111	152
RT Vol	16	0	13	0
Lane Flow Rate	71	154	154	261
Geometry Grp	2	5	5	2
Degree of Util (X)	0.096	0.23	0.225	0.35
Departure Headway (Hd)	4.851	5.37	5.243	4.817
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	735	667	682	745
Service Time	2.905	3.122	2.995	2.855
HCM Lane V/C Ratio	0.097	0.231	0.226	0.35
HCM Control Delay, s/veh	8.4	9.7	9.5	10.4
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	0.3	0.9	0.9	1.6

1: Buffalo Ave
Build AM Peak

















Lanes, Volumes, Timings
09/24/2024



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	21	35	0	0	0	43
Future Volume (vph)	21	35	0	0	0	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t						0.865
Fl _t Protected		0.981				
Satd. Flow (prot)	0	1827	0	0	0	1611
Fl _t Permitted		0.981				
Satd. Flow (perm)	0	1827	0	0	0	1611
Link Speed (mph)		30	30		30	
Link Distance (ft)		547	280		127	
Travel Time (s)		12.4	6.4		2.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	23	38	0	0	0	47
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	61	0	0	0	47
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Stop		Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization 6.7%	ICU Level of Service A					
Analysis Period (min) 15						

5: Buffalo Ave & Portage Rd
Build AM Peak

















Lanes, Volumes, Timings
09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	76	5	18	123	50	2	2	3	17	7	16
Future Volume (vph)	13	76	5	18	123	50	2	2	3	17	7	16
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		0.993			0.965			0.942			0.945	
Flt Protected		0.993			0.995			0.986			0.979	
Satd. Flow (prot)	0	1837	0	0	1789	0	0	1730	0	0	1723	0
Flt Permitted		0.993			0.995			0.986			0.979	
Satd. Flow (perm)	0	1837	0	0	1789	0	0	1730	0	0	1723	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1993			1271			305			1634	
Travel Time (s)		45.3			28.9			6.9			37.1	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	14	79	5	19	128	52	2	2	3	18	7	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	98	0	0	199	0	0	7	0	0	42	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 23.0%												
ICU Level of Service A												
Analysis Period (min) 15												

11: Portage Rd & Falls St
Build AM Peak

















Lanes, Volumes, Timings

09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	11	7	2	39	8	23	50	1	6	35	9
Future Volume (vph)	13	11	7	2	39	8	23	50	1	6	35	9
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		0.970			0.979			0.999			0.975	
Flt Protected		0.979			0.998			0.985			0.994	
Satd. Flow (prot)	0	1516	0	0	1672	0	0	1731	0	0	1754	0
Flt Permitted		0.979			0.998			0.985			0.994	
Satd. Flow (perm)	0	1516	0	0	1672	0	0	1731	0	0	1754	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1985			1374			1634			720	
Travel Time (s)		45.1			31.2			37.1			16.4	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles (%)	19%	19%	19%	11%	11%	11%	8%	8%	8%	5%	5%	5%
Adj. Flow (vph)	17	14	9	3	50	10	29	64	1	8	45	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	40	0	0	63	0	0	94	0	0	65	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	22.2%						ICU Level of Service A					
Analysis Period (min)	15											


















12: 10th St & Falls St
Build AM Peak

Lanes, Volumes, Timings
09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	78	0	5	39	19	7	19	1	5	13	2
Future Volume (vph)	8	78	0	5	39	19	7	19	1	5	13	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
Ped Bike Factor												
Frt					0.959				0.996		0.984	
Flt Protected	0.996				0.996				0.987		0.989	
Satd. Flow (prot)	0	1855	0	0	1650	0	0	1813	0	0	1831	0
Flt Permitted	0.996				0.996				0.987		0.989	
Satd. Flow (perm)	0	1855	0	0	1650	0	0	1813	0	0	1831	0
Link Speed (mph)	30				30				30		30	
Link Distance (ft)	372				1985				1360		787	
Travel Time (s)	8.5				45.1				30.9		17.9	
Confl. Peds. (#/hr)	4				4					3	3	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles (%)	2%	2%	2%	10%	10%	10%	3%	3%	3%	1%	1%	1%
Adj. Flow (vph)	10	101	0	6	51	25	9	25	1	6	17	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	111	0	0	82	0	0	35	0	0	26	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0				0				0		0	
Link Offset(ft)	0				0				0		0	
Crosswalk Width(ft)	16				16				16		16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		15	9		15	9		15	9	
Sign Control	Stop			Stop			Stop			Stop		
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 17.2%												
ICU Level of Service A												
Analysis Period (min) 15												













16: John Daly Blvd & Buffalo Ave
Build AM Peak

Lanes, Volumes, Timings
09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	11	29	24	17	4	56	453	41	2	271	9
Future Volume (vph)	1	11	29	24	17	4	56	453	41	2	271	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	45		0
Storage Lanes	0		0	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	0.95
Frt		0.904			0.988			0.989			0.995	
Flt Protected		0.999			0.974			0.995		0.950		
Satd. Flow (prot)	0	1589	0	0	1662	0	0	3517	0	1752	3487	0
Flt Permitted		0.991			0.826			0.891		0.397		
Satd. Flow (perm)	0	1576	0	0	1410	0	0	3150	0	732	3487	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		35			5			15			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		893			547			632			407	
Travel Time (s)		20.3			12.4			14.4			9.3	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	8%	8%	8%	10%	10%	10%	1%	1%	1%	3%	3%	3%
Adj. Flow (vph)	1	13	35	29	21	5	68	552	50	2	330	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	49	0	0	55	0	0	670	0	2	341	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		15.0	15.0		15.0	15.0	
Total Split (s)	35.0	35.0		35.0	35.0		60.0	60.0		60.0	60.0	
Total Split (%)	36.8%	36.8%		36.8%	36.8%		63.2%	63.2%		63.2%	63.2%	
Maximum Green (s)	31.0	31.0		31.0	31.0		55.0	55.0		55.0	55.0	
Yellow Time (s)	2.0	2.0		2.0	2.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)		4.0			4.0			5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	

16: John Daly Blvd & Buffalo Ave
Build AM Peak

Lanes, Volumes, Timings
09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		10.1			10.1			24.9		24.9	24.9	
Actuated g/C Ratio		0.32			0.32			0.78		0.78	0.78	
v/c Ratio		0.09			0.12			0.27		0.00	0.12	
Control Delay (s/veh)		5.7			9.1			4.0		5.0	3.5	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay (s/veh)		5.7			9.1			4.0		5.0	3.5	
LOS		A			A			A		A	A	
Approach Delay (s/veh)		5.7			9.1			4.1			3.6	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)		1			5			0		0	0	
Queue Length 95th (ft)		14			21			56		2	28	
Internal Link Dist (ft)		813			467			552			327	
Turn Bay Length (ft)										45		
Base Capacity (vph)		1510			1350			3150		732	3487	
Starvation Cap Reductn		0			0			0		0	0	
Spillback Cap Reductn		0			0			0		0	0	
Storage Cap Reductn		0			0			0		0	0	
Reduced v/c Ratio		0.03			0.04			0.21		0.00	0.10	

Intersection Summary

Area Type: Other

Cycle Length: 95

Actuated Cycle Length: 31.9

Natural Cycle: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.27

Intersection Signal Delay (s/veh): 4.2

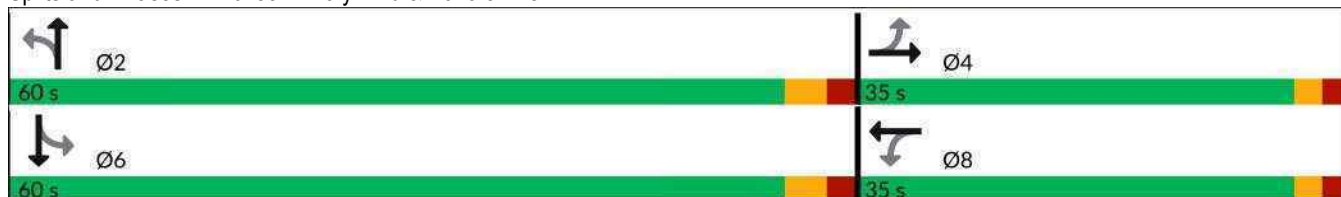
Intersection LOS: A

Intersection Capacity Utilization 44.6%

ICU Level of Service A

Analysis Period (min) 15

















Splits and Phases: 16: John Daly Blvd & Buffalo Ave



17: John Daly Blvd & Falls St
Build AM Peak

















Lanes, Volumes, Timings

09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	6	19	24	4	18	7	321	69	10	137	8
Future Volume (vph)	13	6	19	24	4	18	7	321	69	10	137	8
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	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.932			0.947			0.974			0.992	
Flt Protected		0.983			0.975			0.999			0.997	
Satd. Flow (prot)	0	1690	0	0	1671	0	0	3478	0	0	3466	0
Flt Permitted		0.983			0.975			0.999			0.997	
Satd. Flow (perm)	0	1690	0	0	1671	0	0	3478	0	0	3466	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		748			304			1071			777	
Travel Time (s)		17.0			6.9			24.3			17.7	
Confl. Peds. (#/hr)	3		1	1		3	4		1	1		4
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	3%	3%	3%	5%	5%	5%	1%	1%	1%	3%	3%	3%
Adj. Flow (vph)	16	7	23	29	5	22	8	387	83	12	165	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	46	0	0	56	0	0	478	0	0	187	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	28.0%						ICU Level of Service A					
Analysis Period (min)	15											













31: 10th St & Niagara St
Build AM Peak

Lanes, Volumes, Timings
09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	59	10	1	65	2	8	25	3	7	29	31
Future Volume (vph)	79	59	10	1	65	2	8	25	3	7	29	31
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
Ped Bike Factor		0.99			0.99							
Frt		0.991			0.997			0.990			0.937	
Flt Protected		0.974			0.999			0.989			0.995	
Satd. Flow (prot)	0	1795	0	0	1801	0	0	1739	0	0	1737	0
Flt Permitted		0.832			0.998			0.935			0.972	
Satd. Flow (perm)	0	1530	0	0	1799	0	0	1644	0	0	1697	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			2			3			36	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		366			929			787			828	
Travel Time (s)		8.3			21.1			17.9			18.8	
Confl. Peds. (#/hr)	3		6	6		3						
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	2%	2%	2%	5%	5%	5%	7%	7%	7%	2%	2%	2%
Adj. Flow (vph)	91	68	11	1	75	2	9	29	3	8	33	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	170	0	0	78	0	0	41	0	0	77	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)	34.0	34.0		34.0	34.0		16.0	16.0		16.0	16.0	
Total Split (s)	34.0	34.0		34.0	34.0		16.0	16.0		16.0	16.0	
Total Split (%)	68.0%	68.0%		68.0%	68.0%		32.0%	32.0%		32.0%	32.0%	
Maximum Green (s)	29.0	29.0		29.0	29.0		11.0	11.0		11.0	11.0	
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?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		29.0			29.0			11.0			11.0	
Actuated g/C Ratio		0.58			0.58			0.22			0.22	
v/c Ratio		0.19			0.07			0.11			0.19	

31: 10th St & Niagara St
Build AM Peak

Lanes, Volumes, Timings
09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay (s/veh)		5.2			4.7			15.7			11.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay (s/veh)		5.2			4.7			15.7			11.4	
LOS		A			A			B			B	
Approach Delay (s/veh)		5.3			4.8			15.8			11.5	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)		19			8			9			10	
Queue Length 95th (ft)		38			20			27			34	
Internal Link Dist (ft)		286			849			707			748	
Turn Bay Length (ft)												
Base Capacity (vph)		892			1044			364			401	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.19			0.07			0.11			0.19	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Pretimed

Maximum v/c Ratio: 0.19

Intersection Signal Delay (s/veh): 7.7

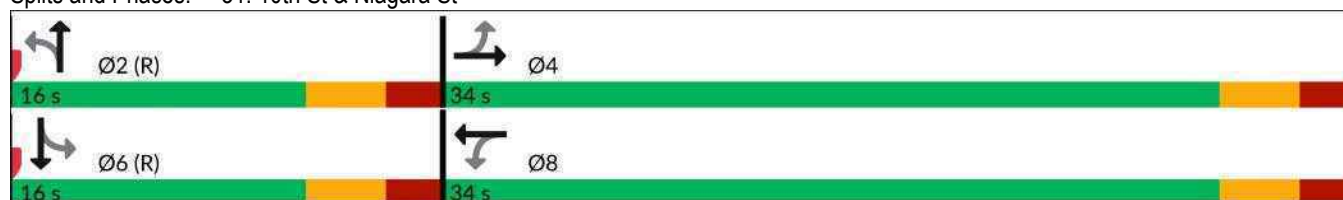
Intersection LOS: A

Intersection Capacity Utilization 27.6%

ICU Level of Service A












Analysis Period (min) 15

Splits and Phases: 31: 10th St & Niagara St



32: John Daly Blvd & Niagara St
Build AM Peak

Lanes, Volumes, Timings
09/24/2024

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	53	119	34	80	187	139
Future Volume (vph)	53	119	34	80	187	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		175	0		0	0
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Ped Bike Factor		0.98		0.99	0.99	0.97
Frt		0.850				0.850
Flt Protected				0.985	0.950	
Satd. Flow (prot)	1845	1568	0	3387	1770	1583
Flt Permitted				0.866	0.950	
Satd. Flow (perm)	1845	1547	0	2976	1767	1549
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		135				158
Link Speed (mph)	30			30	30	
Link Distance (ft)	889			318	777	
Travel Time (s)	20.2			7.2	17.7	
Confl. Peds. (#/hr)		1	1		1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	3%	3%	5%	5%	2%	2%
Adj. Flow (vph)	60	135	39	91	213	158
Shared Lane Traffic (%)						
Lane Group Flow (vph)	60	135	0	130	213	158
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Detector Phase	4	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	9.5	9.5	9.5	9.5	6.0	6.0
Minimum Split (s)	15.0	15.0	15.0	15.0	11.0	11.0
Total Split (s)	49.5	49.5	49.5	49.5	23.5	23.5
Total Split (%)	67.8%	67.8%	67.8%	67.8%	32.2%	32.2%
Maximum Green (s)	44.0	44.0	44.0	44.0	18.5	18.5
Yellow Time (s)	2.5	2.5	2.5	2.5	2.5	2.5
All-Red Time (s)	3.0	3.0	3.0	3.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						

32: John Daly Blvd & Niagara St Build AM Peak

Lanes, Volumes, Timings
09/24/2024

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min	Min	Min	None	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effect Green (s)	10.4	10.4		10.4	8.7	8.7
Actuated g/C Ratio	0.35	0.35		0.35	0.29	0.29
v/c Ratio	0.09	0.21		0.12	0.41	0.27
Control Delay (s/veh)	7.6	3.0		7.5	10.5	3.2
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	7.6	3.0		7.5	10.5	3.2
LOS	A	A		A	B	A
Approach Delay (s/veh)	4.5			7.6	7.4	
Approach LOS	A			A	A	
Queue Length 50th (ft)	6	0		6	24	0
Queue Length 95th (ft)	19	17		16	48	17
Internal Link Dist (ft)	809			238	697	
Turn Bay Length (ft)		175				
Base Capacity (vph)	1845	1547		2976	1110	1030
Starvation Cap Reductn	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0
Reduced v/c Ratio	0.03	0.09		0.04	0.19	0.15

Intersection Summary

Area Type: Other

Cycle Length: 73

Actuated Cycle Length: 29.6

Natural Cycle: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.41

Intersection Signal Delay (s/veh): 6.6

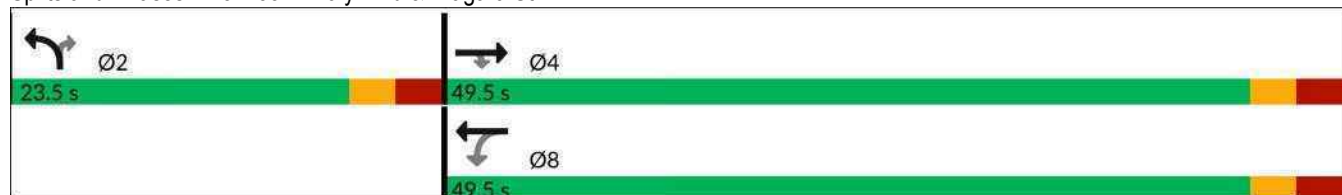
Intersection LOS: A

Intersection Capacity Utilization 27.8%

ICU Level of Service A
















Analysis Period (min) 15

Splits and Phases: 32: John Daly Blvd & Niagara St



38: 10th St & Ferry Ave
Build AM Peak



Lanes, Volumes, Timings
09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	82	13	0	0	0	0	88	19	20	54	0
Future Volume (vph)	15	82	13	0	0	0	0	88	19	20	54	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt	0.982			0.976								
Flt Protected	0.993			0.987								
Satd. Flow (prot)	0	3385	0	0	0	0	0	1818	0	0	1769	0
Flt Permitted	0.993			0.987								
Satd. Flow (perm)	0	3385	0	0	0	0	0	1818	0	0	1769	0
Link Speed (mph)	30			30			30			30		
Link Distance (ft)	999			1177			828			578		
Travel Time (s)	22.7			26.8			18.8			13.1		
Confl. Peds. (#/hr)	1		6	6			1	12		4	4	12
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	2%	2%	2%	6%	6%	6%
Adj. Flow (vph)	17	94	15	0	0	0	0	101	22	23	62	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	126	0	0	0	0	0	123	0	0	85	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0			0			0			0		
Link Offset(ft)	0			0			0			0		
Crosswalk Width(ft)	16			16			16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15			9	15		9	15	9
Sign Control	Stop			Stop			Stop			Stop		
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	26.7%						ICU Level of Service A					
Analysis Period (min)	15											

45: Falls St & 9th St
Build AM Peak
















Lanes, Volumes, Timings
09/24/2024



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	84	46	3	0	0
Future Volume (vph)	1	84	46	3	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.993			
Flt Protected						
Satd. Flow (prot)	0	1863	1850	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1863	1850	0	0	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		304	372		782	
Travel Time (s)		6.9	8.5		17.8	
Confl. Peds. (#/hr)	3			3		
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Adj. Flow (vph)	1	125	69	4	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	126	73	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization 8.6%				ICU Level of Service A		
Analysis Period (min) 15						










46: 9th St & Niagara St
Build AM Peak

Lanes, Volumes, Timings
09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	149	0	0	93	11	1	2	0	0	0	0
Future Volume (vph)	45	149	0	0	93	11	1	2	0	0	0	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
Ped Bike Factor												
Frt	0.985											
Flt Protected	0.988											
Satd. Flow (prot)	0	1859	0	0	1782	0	0	1851	0	0	0	0
Flt Permitted	0.988											
Satd. Flow (perm)	0	1859	0	0	1782	0	0	1851	0	0	0	0
Link Speed (mph)	30											
Link Distance (ft)	318											
Travel Time (s)	7.2											
Confl. Peds. (#/hr)	14		7	7		14	1		1	1		1
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	1%	1%	1%	5%	5%	5%	1%	1%	1%	2%	2%	2%
Adj. Flow (vph)	56	184	0	0	115	14	1	2	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	240	0	0	129	0	0	3	0	0	0	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											
Link Offset(ft)	0											
Crosswalk Width(ft)	16											
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Free											
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	27.3%											
Analysis Period (min)	15											
ICU Level of Service	A											




















77:
Build AM Peak

Lanes, Volumes, Timings
09/24/2024

						
Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Traffic Volume (vph)	0	28	0	111	48	0
Future Volume (vph)	0	28	0	111	48	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.88	0.97	1.00
Frt				0.850		
Flt Protected				0.950		
Satd. Flow (prot)	0	1863	0	2787	3433	0
Flt Permitted				0.950		
Satd. Flow (perm)	0	1863	0	2787	3433	0
Link Speed (mph)	30		30	30		
Link Distance (ft)	280		525	259		
Travel Time (s)	6.4		11.9	5.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	30	0	121	52	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	30	0	121	52	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)	0		0	36		
Link Offset(ft)	0		0	0		
Crosswalk Width(ft)	16		16	16		
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control	Yield		Free	Free		
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 13.3%				ICU Level of Service A		
Analysis Period (min) 15						













78: Rainbow Blvd & 10th St
Build AM Peak

Lanes, Volumes, Timings
09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	43	2	26	82	17	1	19	1	9	15	7
Future Volume (vph)	10	43	2	26	82	17	1	19	1	9	15	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.992			0.974			0.995			0.970	
Flt Protected	0.950			0.950				0.998			0.986	
Satd. Flow (prot)	1770	3511	0	1770	3447	0	0	1850	0	0	1782	0
Flt Permitted	0.668			0.716								
Satd. Flow (perm)	1244	3511	0	1334	3447	0	0	1853	0	0	1807	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			23			1			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		301			259			127			1360	
Travel Time (s)		6.8			5.9			2.9			30.9	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Adj. Flow (vph)	13	57	3	35	109	23	1	25	1	12	20	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	13	60	0	35	132	0	0	27	0	0	41	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)		12			12			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		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		9.0	9.0		9.0	9.0	
Minimum Split (s)	15.0	15.0		15.0	15.0		14.0	14.0		14.0	14.0	
Total Split (s)	60.0	60.0		60.0	60.0		20.0	20.0		20.0	20.0	
Total Split (%)	75.0%	75.0%		75.0%	75.0%		25.0%	25.0%		25.0%	25.0%	
Maximum Green (s)	56.0	56.0		56.0	56.0		15.0	15.0		15.0	15.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		2.5	2.5		2.5	2.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	

78: Rainbow Blvd & 10th St
Build AM Peak

Lanes, Volumes, Timings
09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)	24.3	24.3		24.3	24.3			9.0			9.0	
Actuated g/C Ratio	0.87	0.87		0.87	0.87			0.32			0.32	
v/c Ratio	0.01	0.01		0.03	0.04			0.04			0.06	
Control Delay (s/veh)	3.4	2.7		3.2	2.3			6.2			5.5	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	3.4	2.7		3.2	2.3			6.2			5.5	
LOS	A	A		A	A			A			A	
Approach Delay (s/veh)		2.9			2.5			6.3			5.6	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	0	0		0	0			3			3	
Queue Length 95th (ft)	5	6		9	10			8			9	
Internal Link Dist (ft)		221			179			47			1280	
Turn Bay Length (ft)	175			125								
Base Capacity (vph)	1244	3511		1334	3447			1001			981	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.01	0.02		0.03	0.04			0.03			0.04	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 27.9

Natural Cycle: 40

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.07

Intersection Signal Delay (s/veh): 3.3

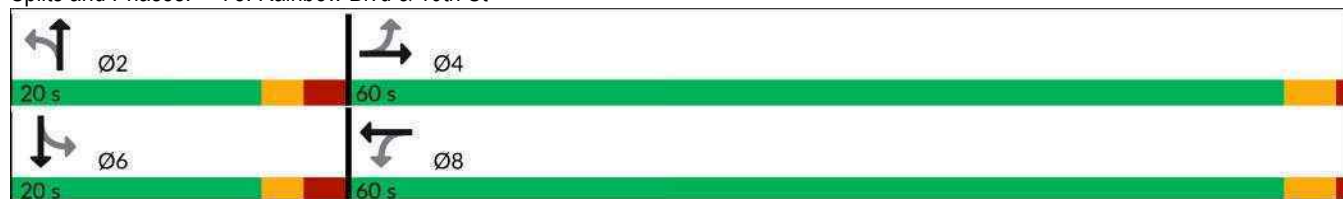
Intersection LOS: A

Intersection Capacity Utilization 23.3%

ICU Level of Service A






















Analysis Period (min) 15

Splits and Phases: 78: Rainbow Blvd & 10th St















79: Rainbow Blvd & John Daly Blvd
Build AM Peak

Lanes, Volumes, Timings
09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	43	129	8	60	22	101	344	8	13	136	27
Future Volume (vph)	25	43	129	8	60	22	101	344	8	13	136	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	255		140	240		200	235		0	200		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	0.99		0.98	0.99	0.99							
Frt			0.850		0.960			0.997			0.975	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	3471	1553	1687	4637	0	1787	3564	0	1752	3417	0
Flt Permitted	0.685			0.721			0.559			0.499		
Satd. Flow (perm)	1249	3471	1531	1278	4637	0	1052	3564	0	920	3417	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			159		27			2			22	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		271			371			407			1071	
Travel Time (s)		6.2			8.4			9.3			24.3	
Confl. Peds. (#/hr)	1		1	1		1						
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	4%	4%	4%	7%	7%	7%	1%	1%	1%	3%	3%	3%
Adj. Flow (vph)	31	53	159	10	74	27	125	425	10	16	168	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	31	53	159	10	101	0	125	435	0	16	201	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)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		3.0	6.0		3.0	6.0	
Minimum Split (s)	15.0	15.0	15.0	15.0	15.0		8.0	11.0		8.0	11.0	
Total Split (s)	45.0	45.0	45.0	45.0	45.0		25.0	43.0		25.0	43.0	
Total Split (%)	39.8%	39.8%	39.8%	39.8%	39.8%		22.1%	38.1%		22.1%	38.1%	
Maximum Green (s)	40.0	40.0	40.0	40.0	40.0		20.0	38.0		20.0	38.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		4.0	3.0		4.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		1.0	2.0		1.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	

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Lanes, Volumes, Timings
09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None		None	Max		None	Max	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0			7.0			7.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0			0			0	
Act Effect Green (s)	10.0	10.0	10.0	10.0	10.0		50.4	48.7		43.7	38.0	
Actuated g/C Ratio	0.14	0.14	0.14	0.14	0.14		0.71	0.69		0.62	0.54	
v/c Ratio	0.17	0.10	0.45	0.05	0.14		0.15	0.17		0.02	0.10	
Control Delay (s/veh)	29.9	27.5	9.9	27.7	21.3		3.4	4.7		3.3	7.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	29.9	27.5	9.9	27.7	21.3		3.4	4.7		3.3	7.5	
LOS	C	C	A	C	C		A	A		A	A	
Approach Delay (s/veh)		16.3			21.9			4.5			7.3	
Approach LOS		B			C			A			A	
Queue Length 50th (ft)	12	11	0	4	10		13	25		2	18	
Queue Length 95th (ft)	32	23	37	15	21		23	59		5	30	
Internal Link Dist (ft)		191			291			327			991	
Turn Bay Length (ft)	255		140	240			235			200		
Base Capacity (vph)	704	1958	932	721	2627		961	2448		894	1841	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.04	0.03	0.17	0.01	0.04		0.13	0.18		0.02	0.11	

Intersection Summary

Area Type: Other

Cycle Length: 113

Actuated Cycle Length: 70.9

Natural Cycle: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.45

Intersection Signal Delay (s/veh): 9.3

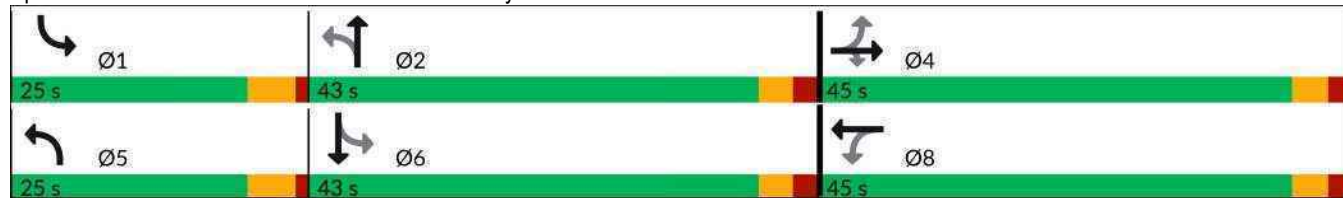
Intersection LOS: A

Intersection Capacity Utilization 34.4%

ICU Level of Service A





Analysis Period (min) 15

Splits and Phases: 79: Rainbow Blvd & John Daly Blvd



Intersection





Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	11	7	2	39	8	23	50	1	6	35	9
Future Vol, veh/h	13	11	7	2	39	8	23	50	1	6	35	9
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles, %	19	19	19	11	11	11	8	8	8	5	5	5
Mvmt Flow	17	14	9	3	50	10	29	64	1	8	45	12
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.9	7.8	8	7.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	31%	42%	4%	12%
Vol Thru, %	68%	35%	80%	70%
Vol Right, %	1%	23%	16%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	74	31	49	50
LT Vol	23	13	2	6
Through Vol	50	11	39	35
RT Vol	1	7	8	9
Lane Flow Rate	95	40	63	64
Geometry Grp	1	1	1	1
Degree of Util (X)	0.114	0.051	0.077	0.076
Departure Headway (Hd)	4.317	4.604	4.406	4.251
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	819	781	817	848
Service Time	2.407	2.61	2.411	2.251
HCM Lane V/C Ratio	0.116	0.051	0.077	0.075
HCM Control Delay, s/veh	8	7.9	7.8	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.2	0.2	0.2




Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	78	0	5	39	19	7	19	1	5	13	2
Future Vol, veh/h	8	78	0	5	39	19	7	19	1	5	13	2
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	2	2	2	10	10	10	3	3	3	1	1	1
Mvmt Flow	10	101	0	6	51	25	9	25	1	6	17	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.8	7.6	7.6	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	26%	9%	8%	25%
Vol Thru, %	70%	91%	62%	65%
Vol Right, %	4%	0%	30%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	86	63	20
LT Vol	7	8	5	5
Through Vol	19	78	39	13
RT Vol	1	0	19	2
Lane Flow Rate	35	112	82	26
Geometry Grp	1	1	1	1
Degree of Util (X)	0.043	0.128	0.093	0.032
Departure Headway (Hd)	4.435	4.121	4.095	4.371
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	812	863	866	824
Service Time	2.436	2.179	2.162	2.372
HCM Lane V/C Ratio	0.043	0.13	0.095	0.032
HCM Control Delay, s/veh	7.6	7.8	7.6	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.4	0.3	0.1

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	82	13	0	0	0	0	88	19	20	54	0
Future Vol, veh/h	15	82	13	0	0	0	0	88	19	20	54	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	4	4	4	2	2	2	2	2	2	6	6	6
Mvmt Flow	17	94	15	0	0	0	0	101	22	23	62	0
Number of Lanes	0	2	0	0	0	0	0	1	0	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay, s/veh	8.2	8	8.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	SBLn1
Vol Left, %	0%	27%	0%	27%
Vol Thru, %	82%	73%	76%	73%
Vol Right, %	18%	0%	24%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	107	56	54	74
LT Vol	0	15	0	20
Through Vol	88	41	41	54
RT Vol	19	0	13	0
Lane Flow Rate	123	64	62	85
Geometry Grp	2	5	5	2
Degree of Util (X)	0.145	0.092	0.084	0.106
Departure Headway (Hd)	4.241	5.17	4.866	4.504
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	849	695	739	799
Service Time	2.251	2.885	2.581	2.516
HCM Lane V/C Ratio	0.145	0.092	0.084	0.106
HCM Control Delay, s/veh	8	8.4	8	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.3	0.3	0.4

5: Buffalo Ave & Portage Rd
Build AM Peak

HCM 7th TWSC
09/24/2024

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	76	5	18	123	50	2	2	3	17	7	16
Future Vol, veh/h	13	76	5	18	123	50	2	2	3	17	7	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	79	5	19	128	52	2	2	3	18	7	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	180	0	0	84	0	0	278	327	82	299	303	154
Stage 1	-	-	-	-	-	-	109	109	-	192	192	-
Stage 2	-	-	-	-	-	-	169	218	-	107	111	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1395	-	-	1512	-	-	674	592	978	653	610	892
Stage 1	-	-	-	-	-	-	896	805	-	810	742	-
Stage 2	-	-	-	-	-	-	833	723	-	898	803	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1395	-	-	1512	-	-	638	578	978	633	595	892
Mov Cap-2 Maneuver	-	-	-	-	-	-	638	578	-	633	595	-
Stage 1	-	-	-	-	-	-	887	797	-	799	732	-
Stage 2	-	-	-	-	-	-	798	713	-	884	795	-





Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	1.05			0.7			10.02			10.41		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	724	246	-	-	160	-	-	707
HCM Lane V/C Ratio	0.01	0.01	-	-	0.012	-	-	0.059
HCM Control Delay (s/veh)	10	7.6	0	-	7.4	0	-	10.4
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.2

17: John Daly Blvd & Falls St
Build AM Peak




HCM 7th TWSC

09/24/2024

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	6	19	24	4	18	7	321	69	10	137	8
Future Vol, veh/h	13	6	19	24	4	18	7	321	69	10	137	8
Conflicting Peds, #/hr	3	0	1	1	0	3	4	0	1	1	0	4
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	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	3	3	3	5	5	5	1	1	1	3	3	3
Mvmt Flow	16	7	23	29	5	22	8	387	83	12	165	10
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	414	686	92	557	649	239	179	0	0	471	0	0
Stage 1	198	198	-	446	446	-	-	-	-	-	-	-
Stage 2	216	488	-	111	203	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.6	6.6	7	4.12	-	-	4.16	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.6	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.6	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.55	4.05	3.35	2.21	-	-	2.23	-	-
Pot Cap-1 Maneuver	520	367	943	406	381	753	1402	-	-	1080	-	-
Stage 1	782	734	-	553	565	-	-	-	-	-	-	-
Stage 2	764	546	-	873	725	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	486	358	939	381	372	750	1396	-	-	1079	-	-
Mov Cap-2 Maneuver	486	358	-	381	372	-	-	-	-	-	-	-
Stage 1	770	722	-	549	560	-	-	-	-	-	-	-
Stage 2	728	541	-	833	714	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v11.54			13.67		0.17		0.62					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	51	-	-	596	470	216	-	-				
HCM Lane V/C Ratio	0.006	-	-	0.077	0.118	0.011	-	-				
HCM Control Delay (s/veh)	7.6	0.1	-	11.5	13.7	8.4	0.1	-				
HCM Lane LOS	A	A	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.2	0.4	0	-	-				

46: 9th St & Niagara St
Build AM Peak

HCM 7th TWSC
09/24/2024

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	149	0	0	93	11	1	2	0	0	0	0
Future Vol, veh/h	45	149	0	0	93	11	1	2	0	0	0	0
Conflicting Peds, #/hr	14	0	7	7	0	14	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	1	1	1	5	5	5	1	1	1	2	2	2
Mvmt Flow	56	184	0	0	115	14	1	2	0	0	0	0

Major/Minor	Major1		Major2		Minor1		
Conflicting Flow All	142	0	-	-	-	0	411 437 185
Stage 1	-	-	-	-	-	-	295 295 -
Stage 2	-	-	-	-	-	-	116 142 -
Critical Hdwy	4.11	-	-	-	-	-	6.41 6.51 6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	5.41 5.51 -
Critical Hdwy Stg 2	-	-	-	-	-	-	5.41 5.51 -
Follow-up Hdwy	2.209	-	-	-	-	-	3.509 4.009 3.309
Pot Cap-1 Maneuver	1447	-	0	0	-	-	599 514 860
Stage 1	-	-	0	0	-	-	758 671 -
Stage 2	-	-	0	0	-	-	912 781 -
Platoon blocked, %	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1447	-	-	-	-	-	573 0 859
Mov Cap-2 Maneuver	-	-	-	-	-	-	573 0 -
Stage 1	-	-	-	-	-	-	725 0 -
Stage 2	-	-	-	-	-	-	911 0 -



Approach	EB	WB	NB
HCM Control Delay, s/v	1.76	0	11.32
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR
Capacity (veh/h)	573	418	-	-	-
HCM Lane V/C Ratio	0.006	0.038	-	-	-
HCM Control Delay (s/veh)	11.3	7.6	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0	0.1	-	-	-

1:
Build PM Peak

















Lanes, Volumes, Timings
09/24/2024



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	7	43	0	0	0	92
Future Volume (vph)	7	43	0	0	0	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t						0.865
Fl _t Protected	0.993					
Satd. Flow (prot)	0	1850	0	0	0	1611
Fl _t Permitted	0.993					
Satd. Flow (perm)	0	1850	0	0	0	1611
Link Speed (mph)	30		30	30		
Link Distance (ft)	547		280	127		
Travel Time (s)	12.4		6.4	2.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	47	0	0	0	100
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	55	0	0	0	100
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)	0		0	0		
Link Offset(ft)	0		0	0		
Crosswalk Width(ft)	16		16	16		
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control	Free		Stop	Free		
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 9.0%				ICU Level of Service A		
Analysis Period (min) 15						

















5: Buffalo Ave & Portage Rd
Build PM Peak

Lanes, Volumes, Timings
09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	145	2	2	120	41	2	2	28	63	1	11
Future Volume (vph)	12	145	2	2	120	41	2	2	28	63	1	11
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
Ped Bike Factor												
Frt		0.998			0.966			0.885			0.980	
Flt Protected		0.996			0.999			0.996			0.960	
Satd. Flow (prot)	0	1852	0	0	1815	0	0	1658	0	0	1702	0
Flt Permitted		0.996			0.999			0.996			0.960	
Satd. Flow (perm)	0	1852	0	0	1815	0	0	1658	0	0	1702	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1993			1271			305			1634	
Travel Time (s)		45.3			28.9			6.9			37.1	
Confl. Peds. (#/hr)	1		1	1		1						
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	1%	1%	1%	5%	5%	5%
Adj. Flow (vph)	15	184	3	3	152	52	3	3	35	80	1	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	202	0	0	207	0	0	41	0	0	95	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	32.7%				ICU Level of Service A							
Analysis Period (min)	15											

















11: Portage Rd & Falls St Build PM Peak

Lanes, Volumes, Timings
09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	40	10	6	43	16	10	40	5	24	59	22
Future Volume (vph)	19	40	10	6	43	16	10	40	5	24	59	22
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
Ped Bike Factor												
Frt		0.980			0.967			0.988			0.971	
Flt Protected		0.987			0.995			0.991			0.989	
Satd. Flow (prot)	0	1820	0	0	1709	0	0	1824	0	0	1807	0
Flt Permitted		0.987			0.995			0.991			0.989	
Satd. Flow (perm)	0	1820	0	0	1709	0	0	1824	0	0	1807	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1985			1374			1634			720	
Travel Time (s)		45.1			31.2			37.1			16.4	
Confl. Peds. (#/hr)	1		2	2		1	7		7			
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	1%	1%	1%	7%	7%	7%	2%	2%	2%	1%	1%	1%
Adj. Flow (vph)	22	47	12	7	51	19	12	47	6	28	69	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	81	0	0	77	0	0	65	0	0	123	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	23.5%						ICU Level of Service A					
Analysis Period (min)	15											


















12: 10th St & Falls St
Build PM Peak

Lanes, Volumes, Timings
09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	63	1	26	69	10	9	12	4	14	25	4
Future Volume (vph)	2	63	1	26	69	10	9	12	4	14	25	4
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		0.997			0.987			0.980			0.988	
Flt Protected		0.999			0.988			0.982			0.984	
Satd. Flow (prot)	0	1855	0	0	1816	0	0	1793	0	0	1811	0
Flt Permitted		0.999			0.988			0.982			0.984	
Satd. Flow (perm)	0	1855	0	0	1816	0	0	1793	0	0	1811	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		372			1985			1360			787	
Travel Time (s)		8.5			45.1			30.9			17.9	
Peak Hour Factor	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62
Adj. Flow (vph)	3	102	2	42	111	16	15	19	6	23	40	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	107	0	0	169	0	0	40	0	0	69	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 22.3%												
ICU Level of Service A												
Analysis Period (min) 15												













16: John Daly Blvd & Buffalo Ave
Build PM Peak

Lanes, Volumes, Timings
09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	36	155	73	14	5	57	424	11	3	711	25
Future Volume (vph)	4	36	155	73	14	5	57	424	11	3	711	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	45		0
Storage Lanes	0		0	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99			0.99							
Frt		0.893			0.993			0.997			0.995	
Flt Protected		0.999			0.962			0.994		0.950		
Satd. Flow (prot)	0	1646	0	0	1795	0	0	3507	0	1787	3556	0
Flt Permitted		0.994			0.723			0.791		0.428		
Satd. Flow (perm)	0	1637	0	0	1349	0	0	2791	0	805	3556	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		156			3			4			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		893			547			632			407	
Travel Time (s)		20.3			12.4			14.4			9.3	
Confl. Peds. (#/hr)	7					7						
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	3%	3%	3%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Adj. Flow (vph)	5	43	187	88	17	6	69	511	13	4	857	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	235	0	0	111	0	0	593	0	4	887	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	14.0	14.0		14.0	14.0		15.0	15.0		15.0	15.0	
Total Split (s)	35.0	35.0		35.0	35.0		60.0	60.0		60.0	60.0	
Total Split (%)	36.8%	36.8%		36.8%	36.8%		63.2%	63.2%		63.2%	63.2%	
Maximum Green (s)	31.0	31.0		31.0	31.0		55.0	55.0		55.0	55.0	
Yellow Time (s)	2.0	2.0		2.0	2.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)		4.0			4.0			5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												

16: John Daly Blvd & Buffalo Ave
Build PM Peak

Lanes, Volumes, Timings
09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)				7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)				11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)				0	0		0	0		0	0	
Act Effect Green (s)		10.9			10.9			17.6		17.6	17.6	
Actuated g/C Ratio		0.29			0.29			0.47		0.47	0.47	
v/c Ratio		0.40			0.28			0.45		0.01	0.53	
Control Delay (s/veh)		7.4			13.7			7.9		5.3	8.3	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay (s/veh)		7.4			13.7			7.9		5.3	8.3	
LOS		A			B			A		A	A	
Approach Delay (s/veh)		7.4			13.8			8.0			8.3	
Approach LOS		A			B			A			A	
Queue Length 50th (ft)		11			16			35		1	55	
Queue Length 95th (ft)		50			50			65		3	95	
Internal Link Dist (ft)		813			467			552			327	
Turn Bay Length (ft)										45		
Base Capacity (vph)		1400			1133			2791		805	3556	
Starvation Cap Reductn		0			0			0		0	0	
Spillback Cap Reductn		0			0			0		0	0	
Storage Cap Reductn		0			0			0		0	0	
Reduced v/c Ratio		0.17			0.10			0.21		0.00	0.25	

Intersection Summary

Area Type: Other

Cycle Length: 95

Actuated Cycle Length: 37.7

Natural Cycle: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.53

Intersection Signal Delay (s/veh): 8.4

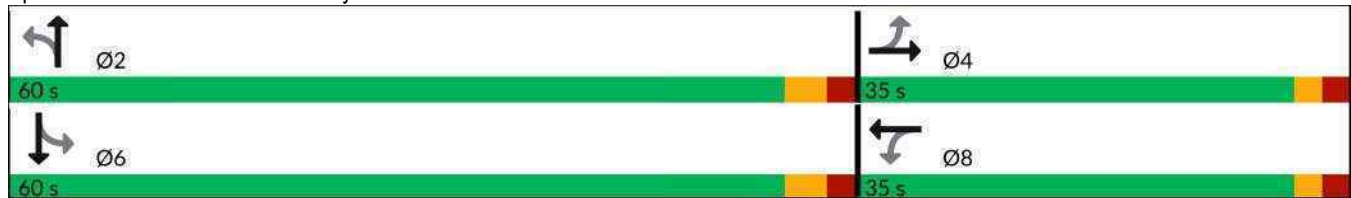
Intersection LOS: A

Intersection Capacity Utilization 70.6%

ICU Level of Service C

Analysis Period (min) 15

















Splits and Phases: 16: John Daly Blvd & Buffalo Ave



17: John Daly Blvd & Falls St
Build PM Peak

















Lanes, Volumes, Timings

09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	29	33	21	7	17	67	247	21	18	418	31
Future Volume (vph)	36	29	33	21	7	17	67	247	21	18	418	31
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	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor												
Frt		0.955			0.949			0.991			0.990	
Flt Protected		0.982			0.977			0.990			0.998	
Satd. Flow (prot)	0	1730	0	0	1744	0	0	3507	0	0	3531	0
Flt Permitted		0.982			0.977			0.990			0.998	
Satd. Flow (perm)	0	1730	0	0	1744	0	0	3507	0	0	3531	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		748			304			1071			777	
Travel Time (s)		17.0			6.9			24.3			17.7	
Confl. Peds. (#/hr)			1	1			1					1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	3%	3%	3%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	43	35	39	25	8	20	80	294	25	21	498	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	117	0	0	53	0	0	399	0	0	556	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	39.3%						ICU Level of Service A					
Analysis Period (min)	15											













31: 10th St & Niagara St
Build PM Peak

Lanes, Volumes, Timings
09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	125	8	1	122	10	9	13	2	5	34	126
Future Volume (vph)	34	125	8	1	122	10	9	13	2	5	34	126
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		0.993			0.990			0.990			0.897	
Flt Protected		0.990						0.981			0.999	
Satd. Flow (prot)	0	1831	0	0	1844	0	0	1809	0	0	1669	0
Flt Permitted		0.934			0.999			0.863			0.993	
Satd. Flow (perm)	0	1728	0	0	1842	0	0	1591	0	0	1659	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			11			2			137	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		366			929			787			828	
Travel Time (s)		8.3			21.1			17.9			18.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	136	9	1	133	11	10	14	2	5	37	137
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	182	0	0	145	0	0	26	0	0	179	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)	34.0	34.0		34.0	34.0		16.0	16.0		16.0	16.0	
Total Split (s)	34.0	34.0		34.0	34.0		16.0	16.0		16.0	16.0	
Total Split (%)	68.0%	68.0%		68.0%	68.0%		32.0%	32.0%		32.0%	32.0%	
Maximum Green (s)	29.0	29.0		29.0	29.0		11.0	11.0		11.0	11.0	
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?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		29.0			29.0			11.0			11.0	
Actuated g/C Ratio		0.58			0.58			0.22			0.22	
v/c Ratio		0.18			0.13			0.07			0.38	
Control Delay (s/veh)		5.2			4.8			15.4			8.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay (s/veh)		5.2			4.8			15.4			8.5	

31: 10th St & Niagara St
Build PM Peak

Lanes, Volumes, Timings
09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		A			A			B			A	
Approach Delay (s/veh)		5.2			4.8			15.4			8.6	
Approach LOS		A			A			B			A	
Queue Length 50th (ft)		20			15			6			10	
Queue Length 95th (ft)		42			33			21			50	
Internal Link Dist (ft)		286			849			707			748	
Turn Bay Length (ft)												
Base Capacity (vph)		1006			1072			351			471	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.18			0.14			0.07			0.38	

Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Pretimed

Maximum v/c Ratio: 0.38

Intersection Signal Delay (s/veh): 6.7

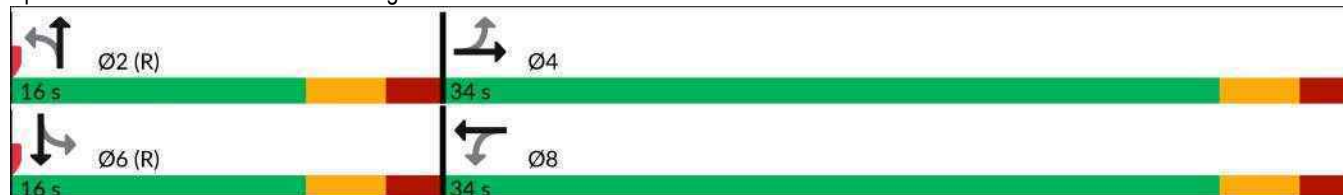
Intersection LOS: A

Intersection Capacity Utilization 38.4%

ICU Level of Service A












Analysis Period (min) 15

Splits and Phases: 31: 10th St & Niagara St



32: John Daly Blvd & Niagara St Build PM Peak

Lanes, Volumes, Timings
09/24/2024

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	131	352	115	122	220	80
Future Volume (vph)	131	352	115	122	220	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		175	0		0	0
Storage Lanes		1	0		1	1
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Ped Bike Factor		0.98		0.99		0.97
Frt		0.850				0.850
Flt Protected				0.976	0.950	
Satd. Flow (prot)	1863	1583	0	3488	1770	1583
Flt Permitted				0.765	0.950	
Satd. Flow (perm)	1863	1553	0	2726	1770	1549
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		419				95
Link Speed (mph)	30			30	30	
Link Distance (ft)	889			318	777	
Travel Time (s)	20.2			7.2	17.7	
Confl. Peds. (#/hr)		6	6			1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	2%	2%	1%	1%	2%	2%
Adj. Flow (vph)	156	419	137	145	262	95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	156	419	0	282	262	95
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Detector Phase	4	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	9.5	9.5	9.5	9.5	6.0	6.0
Minimum Split (s)	15.0	15.0	15.0	15.0	11.0	11.0
Total Split (s)	49.5	49.5	49.5	49.5	23.5	23.5
Total Split (%)	67.8%	67.8%	67.8%	67.8%	32.2%	32.2%
Maximum Green (s)	44.0	44.0	44.0	44.0	18.5	18.5
Yellow Time (s)	2.5	2.5	2.5	2.5	2.5	2.5
All-Red Time (s)	3.0	3.0	3.0	3.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						

32: John Daly Blvd & Niagara St Build PM Peak

Lanes, Volumes, Timings
09/24/2024

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Min	Min	Min	Min	None	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effect Green (s)	11.8	11.8		11.8	9.9	9.9
Actuated g/C Ratio	0.37	0.37		0.37	0.31	0.31
v/c Ratio	0.22	0.50		0.28	0.48	0.17
Control Delay (s/veh)	8.8	3.6		8.6	12.4	3.5
Queue Delay	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	8.8	3.6		8.6	12.4	3.5
LOS	A	A		A	B	A
Approach Delay (s/veh)	5.1			8.7	10.1	
Approach LOS	A			A	B	
Queue Length 50th (ft)	17	0		15	30	0
Queue Length 95th (ft)	44	29		36	76	16
Internal Link Dist (ft)	809			238	697	
Turn Bay Length (ft)		175				
Base Capacity (vph)	1863	1553		2726	1025	937
Starvation Cap Reductn	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0
Reduced v/c Ratio	0.08	0.27		0.10	0.26	0.10

Intersection Summary

Area Type: Other

Cycle Length: 73

Actuated Cycle Length: 32.3

Natural Cycle: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.50

Intersection Signal Delay (s/veh): 7.4

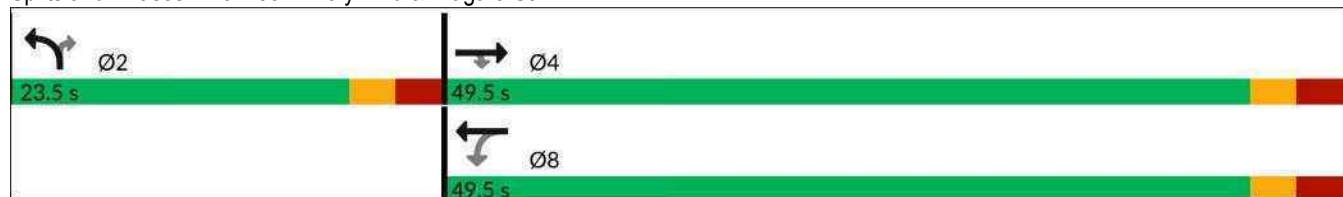
Intersection LOS: A

Intersection Capacity Utilization 42.7%

ICU Level of Service A
















Analysis Period (min) 15

Splits and Phases: 32: John Daly Blvd & Niagara St











38: 10th St & Ferry Ave
Build PM Peak

Lanes, Volumes, Timings
09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	221	13	0	0	0	0	41	16	57	152	0
Future Volume (vph)	13	221	13	0	0	0	0	41	16	57	152	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.992						0.962				
Flt Protected		0.997									0.987	
Satd. Flow (prot)	0	3535	0	0	0	0	0	1792	0	0	1857	0
Flt Permitted		0.997									0.987	
Satd. Flow (perm)	0	3535	0	0	0	0	0	1792	0	0	1857	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		999			1177			828			578	
Travel Time (s)		22.7			26.8			18.8			13.1	
Confl. Peds. (#/hr)			3	3			4		2	2		4
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Adj. Flow (vph)	16	276	16	0	0	0	0	51	20	71	190	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	308	0	0	0	0	0	71	0	0	261	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	32.0%						ICU Level of Service A					
Analysis Period (min)	15											
















45: Falls St & 9th St
Build PM Peak

Lanes, Volumes, Timings
09/24/2024

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	2	66	75	7	0	0
Future Volume (vph)	2	66	75	7	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.988					
Flt Protected	0.998					
Satd. Flow (prot)	0	1877	1859	0	0	0
Flt Permitted	0.998					
Satd. Flow (perm)	0	1877	1859	0	0	0
Link Speed (mph)	30		30	30		
Link Distance (ft)	304		372	782		
Travel Time (s)	6.9		8.5	17.8		
Confl. Peds. (#/hr)	1	1				
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	3	93	106	10	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	96	116	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)	0		0	0		
Link Offset(ft)	0		0	0		
Crosswalk Width(ft)	16		16	16		
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	8.4%			ICU Level of Service A		
Analysis Period (min)	15					












46: 9th St & Niagara St
Build PM Peak

Lanes, Volumes, Timings
09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	167	0	0	232	25	5	4	0	0	0	0
Future Volume (vph)	44	167	0	0	232	25	5	4	0	0	0	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
Ped Bike Factor												
Frt	0.987											
Flt Protected	0.990								0.973			
Satd. Flow (prot)	0	1844	0	0	1839	0	0	1812	0	0	0	0
Flt Permitted	0.990								0.973			
Satd. Flow (perm)	0	1844	0	0	1839	0	0	1812	0	0	0	0
Link Speed (mph)	30		30						30			
Link Distance (ft)	318		366						782			
Travel Time (s)	7.2		8.3						17.8			
Confl. Peds. (#/hr)	14		7	7		14	1		1	1		1
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Adj. Flow (vph)	54	206	0	0	286	31	6	5	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	260	0	0	317	0	0	11	0	0	0	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			
Link Offset(ft)	0		0						0			
Crosswalk Width(ft)	16		16						16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Free		Free						Stop			
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	40.5%						ICU Level of Service A					
Analysis Period (min)	15											




















77:
Build PM Peak

Lanes, Volumes, Timings
09/24/2024

						
Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations				 	 	
Traffic Volume (vph)	0	41	0	178	110	0
Future Volume (vph)	0	41	0	178	110	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.88	0.97	1.00
Frt	0.850					
Flt Protected	0.950					
Satd. Flow (prot)	0	1863	0	2787	3433	0
Flt Permitted	0.950					
Satd. Flow (perm)	0	1863	0	2787	3433	0
Link Speed (mph)	30		30	30		
Link Distance (ft)	280		525	259		
Travel Time (s)	6.4		11.9	5.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	45	0	193	120	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	45	0	193	120	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)	0		0	36		
Link Offset(ft)	0		0	0		
Crosswalk Width(ft)	16		16	16		
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control	Yield		Free	Free		
Intersection Summary						
Area Type:	Other					
Control Type: Unsignalized						
Intersection Capacity Utilization 13.3%						
ICU Level of Service A						
Analysis Period (min) 15						













78: Rainbow Blvd & 10th St
Build PM Peak

Lanes, Volumes, Timings
09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	103	15	43	93	14	2	4	1	14	34	12
Future Volume (vph)	3	103	15	43	93	14	2	4	1	14	34	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		0	125		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.981			0.981			0.986			0.973	
Flt Protected	0.950			0.950				0.985			0.989	
Satd. Flow (prot)	1770	3472	0	1770	3472	0	0	1809	0	0	1793	0
Flt Permitted	0.654			0.644				0.868			0.917	
Satd. Flow (perm)	1218	3472	0	1200	3472	0	0	1594	0	0	1662	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22			20			1			14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		301			259			127			1360	
Travel Time (s)		6.8			5.9			2.9			30.9	
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Adj. Flow (vph)	4	149	22	62	135	20	3	6	1	20	49	17
Shared Lane Traffic (%)												
Lane Group Flow (vph)	4	171	0	62	155	0	0	10	0	0	86	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)		12			12			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		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		9.0	9.0		9.0	9.0	
Minimum Split (s)	15.0	15.0		15.0	15.0		14.0	14.0		14.0	14.0	
Total Split (s)	60.0	60.0		60.0	60.0		20.0	20.0		20.0	20.0	
Total Split (%)	75.0%	75.0%		75.0%	75.0%		25.0%	25.0%		25.0%	25.0%	
Maximum Green (s)	56.0	56.0		56.0	56.0		15.0	15.0		15.0	15.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		2.5	2.5		2.5	2.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		2.5	2.5		2.5	2.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Min	Min		Min	Min		None	None		None	None	
Walk Time (s)										7.0	7.0	

78: Rainbow Blvd & 10th St
Build PM Peak

Lanes, Volumes, Timings
09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Flash Dont Walk (s)										11.0	11.0	
Pedestrian Calls (#/hr)										0	0	
Act Effect Green (s)	19.5	19.5		19.5	19.5			9.1			9.1	
Actuated g/C Ratio	0.65	0.65		0.65	0.65			0.30			0.30	
v/c Ratio	0.00	0.07		0.08	0.06			0.02			0.16	
Control Delay (s/veh)	5.6	4.6		5.9	4.7			6.8			7.5	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay (s/veh)	5.6	4.6		5.9	4.7			6.8			7.5	
LOS	A	A		A	A			A			A	
Approach Delay (s/veh)		4.7			5.1			6.9			7.6	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	0	6		5	6			1			11	
Queue Length 95th (ft)	2	11		12	10			4			14	
Internal Link Dist (ft)		221			179			47			1280	
Turn Bay Length (ft)	175			125								
Base Capacity (vph)	1218	3472		1200	3472			800			841	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.00	0.05		0.05	0.04			0.01			0.10	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 30.2

Natural Cycle: 40

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.17

Intersection Signal Delay (s/veh): 5.4

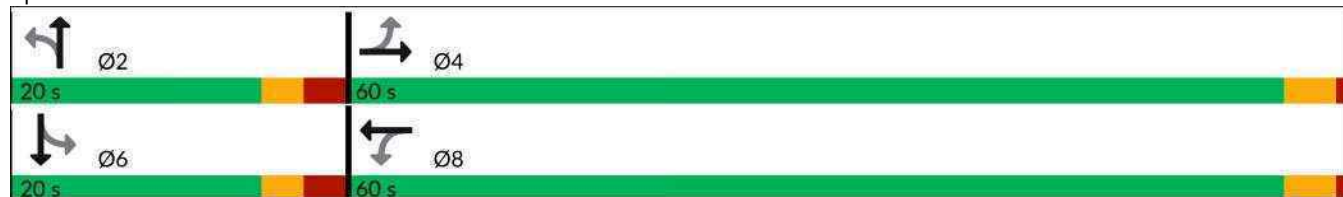
Intersection LOS: A

Intersection Capacity Utilization 24.0%

ICU Level of Service A






















Analysis Period (min) 15

Splits and Phases: 78: Rainbow Blvd & 10th St















79: Rainbow Blvd & John Daly Blvd
Build PM Peak

Lanes, Volumes, Timings
09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	89	318	8	74	25	159	269	5	27	413	62
Future Volume (vph)	41	89	318	8	74	25	159	269	5	27	413	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	255		140	240		200	235		0	200		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	0.99		0.98	0.99	0.99		0.99				0.99	
Frt			0.850		0.962			0.997			0.980	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1787	4923	0	1770	3529	0	1787	3494	0
Flt Permitted	0.676			0.687			0.303			0.558		
Satd. Flow (perm)	1257	3539	1553	1284	4923	0	563	3529	0	1050	3494	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			370		29			2			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		271			371			407			1071	
Travel Time (s)		6.2			8.4			9.3			24.3	
Confl. Peds. (#/hr)	1		4	4		1	4					4
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Adj. Flow (vph)	48	103	370	9	86	29	185	313	6	31	480	72
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	103	370	9	115	0	185	319	0	31	552	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)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		3.0	6.0		3.0	6.0	
Minimum Split (s)	15.0	15.0	15.0	15.0	15.0		8.0	11.0		8.0	11.0	
Total Split (s)	45.0	45.0	45.0	45.0	45.0		25.0	43.0		25.0	43.0	
Total Split (%)	39.8%	39.8%	39.8%	39.8%	39.8%		22.1%	38.1%		22.1%	38.1%	
Maximum Green (s)	40.0	40.0	40.0	40.0	40.0		20.0	38.0		20.0	38.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		4.0	3.0		4.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		1.0	2.0		1.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	

79: Rainbow Blvd & John Daly Blvd
Build PM Peak

Lanes, Volumes, Timings
09/24/2024

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None	None	None	None		None	Min		None	Min	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0			7.0			7.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0			0			0	
Act Effect Green (s)	11.2	11.2	11.2	11.2	11.2		29.9	26.0		19.9	14.0	
Actuated g/C Ratio	0.22	0.22	0.22	0.22	0.22		0.58	0.51		0.39	0.27	
v/c Ratio	0.17	0.13	0.58	0.03	0.10		0.31	0.17		0.06	0.57	
Control Delay (s/veh)	20.1	18.3	7.1	18.6	14.3		6.5	8.7		6.2	18.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay (s/veh)	20.1	18.3	7.1	18.6	14.3		6.5	8.7		6.2	18.7	
LOS	C	B	A	B	B		A	A		A	B	
Approach Delay (s/veh)		10.6			14.7			7.9			18.1	
Approach LOS		B			B			A			B	
Queue Length 50th (ft)	12	13	0	2	7		20	17		3	69	
Queue Length 95th (ft)	39	33	51	13	21		51	61		13	131	
Internal Link Dist (ft)		191			291			327			991	
Turn Bay Length (ft)	255		140	240			235			200		
Base Capacity (vph)	1001	2819	1312	1022	3927		808	2670		903	2647	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.05	0.04	0.28	0.01	0.03		0.23	0.12		0.03	0.21	

Intersection Summary

Area Type: Other

Cycle Length: 113

Actuated Cycle Length: 51.4

Natural Cycle: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.59

Intersection Signal Delay (s/veh): 12.6

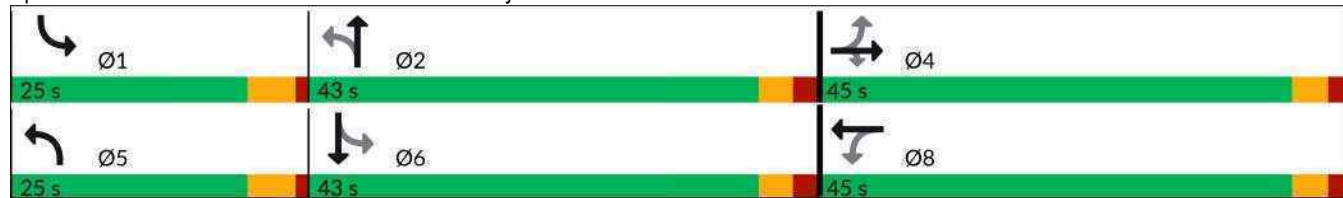
Intersection LOS: B

Intersection Capacity Utilization 54.6%

ICU Level of Service A





Analysis Period (min) 15

Splits and Phases: 79: Rainbow Blvd & John Daly Blvd



Intersection





Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	40	10	6	43	16	10	40	5	24	59	22
Future Vol, veh/h	19	40	10	6	43	16	10	40	5	24	59	22
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	1	1	1	7	7	7	2	2	2	1	1	1
Mvmt Flow	22	47	12	7	51	19	12	47	6	28	69	26
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.9	7.9	7.8	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	28%	9%	23%
Vol Thru, %	73%	58%	66%	56%
Vol Right, %	9%	14%	25%	21%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	55	69	65	105
LT Vol	10	19	6	24
Through Vol	40	40	43	59
RT Vol	5	10	16	22
Lane Flow Rate	65	81	76	124
Geometry Grp	1	1	1	1
Degree of Util (X)	0.079	0.099	0.094	0.146
Departure Headway (Hd)	4.408	4.394	4.403	4.268
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	815	818	817	842
Service Time	2.423	2.407	2.416	2.282
HCM Lane V/C Ratio	0.08	0.099	0.093	0.147
HCM Control Delay, s/veh	7.8	7.9	7.9	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.3	0.3	0.5




Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	63	1	26	69	10	9	12	4	14	25	4
Future Vol, veh/h	2	63	1	26	69	10	9	12	4	14	25	4
Peak Hour Factor	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	102	2	42	111	16	15	19	6	23	40	6
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8	8.4	7.9	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	36%	3%	25%	33%
Vol Thru, %	48%	95%	66%	58%
Vol Right, %	16%	2%	10%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	25	66	105	43
LT Vol	9	2	26	14
Through Vol	12	63	69	25
RT Vol	4	1	10	4
Lane Flow Rate	40	106	169	69
Geometry Grp	1	1	1	1
Degree of Util (X)	0.052	0.129	0.202	0.089
Departure Headway (Hd)	4.614	4.372	4.303	4.611
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	778	823	837	780
Service Time	2.63	2.386	2.316	2.626
HCM Lane V/C Ratio	0.051	0.129	0.202	0.088
HCM Control Delay, s/veh	7.9	8	8.4	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.4	0.8	0.3

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	221	13	0	0	0	0	41	16	57	152	0
Future Vol, veh/h	13	221	13	0	0	0	0	41	16	57	152	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles, %	1	1	1	1	1	1	2	2	2	1	1	1
Mvmt Flow	16	276	16	0	0	0	0	51	20	71	190	0
Number of Lanes	0	2	0	0	0	0	0	1	0	0	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay, s/veh	9.6	8.4	10.4
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	EBLn2	SBLn1
Vol Left, %	0%	11%	0%	27%
Vol Thru, %	72%	89%	89%	73%
Vol Right, %	28%	0%	11%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	57	124	124	209
LT Vol	0	13	0	57
Through Vol	41	111	111	152
RT Vol	16	0	13	0
Lane Flow Rate	71	154	154	261
Geometry Grp	2	5	5	2
Degree of Util (X)	0.096	0.23	0.225	0.35
Departure Headway (Hd)	4.851	5.37	5.243	4.817
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	735	667	682	745
Service Time	2.905	3.122	2.995	2.855
HCM Lane V/C Ratio	0.097	0.231	0.226	0.35
HCM Control Delay, s/veh	8.4	9.7	9.5	10.4
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	0.3	0.9	0.9	1.6

5: Buffalo Ave & Portage Rd
Build PM Peak

HCM 7th TWSC
09/24/2024

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	145	2	2	120	41	2	2	28	63	1	11
Future Vol, veh/h	12	145	2	2	120	41	2	2	28	63	1	11
Conflicting Peds, #/hr	1	0	1	1	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	1	1	1	1	1	1	5	5	5
Mvmt Flow	15	184	3	3	152	52	3	3	35	80	1	14





Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	205	0	0	187	0	0	374	426	186	399	401	179
Stage 1	-	-	-	-	-	-	216	216	-	184	184	-
Stage 2	-	-	-	-	-	-	158	210	-	215	217	-
Critical Hdwy	4.12	-	-	4.11	-	-	7.11	6.51	6.21	7.15	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.15	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.15	5.55	-
Follow-up Hdwy	2.218	-	-	2.209	-	-	3.509	4.009	3.309	3.545	4.045	3.345
Pot Cap-1 Maneuver	1367	-	-	1393	-	-	585	522	859	556	533	856
Stage 1	-	-	-	-	-	-	788	726	-	811	742	-
Stage 2	-	-	-	-	-	-	847	730	-	780	717	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1365	-	-	1392	-	-	565	513	858	522	524	856
Mov Cap-2 Maneuver	-	-	-	-	-	-	565	513	-	522	524	-
Stage 1	-	-	-	-	-	-	778	716	-	808	740	-
Stage 2	-	-	-	-	-	-	830	728	-	736	708	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.58			0.09			9.75			12.84		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	799	135	-	-	21	-	-	554
HCM Lane V/C Ratio	0.051	0.011	-	-	0.002	-	-	0.171
HCM Control Delay (s/veh)	9.7	7.7	0	-	7.6	0	-	12.8
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.6

17: John Daly Blvd & Falls St
Build PM Peak

HCM 7th TWSC
09/24/2024

Intersection												
Int Delay, s/veh	4.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	29	33	21	7	17	67	247	21	18	418	31
Future Vol, veh/h	36	29	33	21	7	17	67	247	21	18	418	31
Conflicting Peds, #/hr	0	0	1	1	0	0	1	0	0	0	0	1
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	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	3	3	3	1	1	1	1	1	1	1	1	1
Mvmt Flow	43	35	39	25	8	20	80	294	25	21	498	37

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	871	1039	269	776	1044	160	536	0	0	319	0	0
Stage 1	560	560	-	466	466	-	-	-	-	-	-	-
Stage 2	311	479	-	310	578	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.52	6.52	6.92	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.52	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.52	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.51	4.01	3.31	2.21	-	-	2.21	-	-
Pot Cap-1 Maneuver	244	228	726	289	229	861	1036	-	-	1245	-	-
Stage 1	478	506	-	549	563	-	-	-	-	-	-	-
Stage 2	672	551	-	678	502	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	205	204	724	207	205	861	1035	-	-	1245	-	-
Mov Cap-2 Maneuver	205	204	-	207	205	-	-	-	-	-	-	-
Stage 1	468	496	-	502	515	-	-	-	-	-	-	-
Stage 2	591	504	-	584	491	-	-	-	-	-	-	-




Approach	EB		WB		NB		SB	
HCM Control Delay, s/v28.11			20.22		2.11		0.44	
HCM LOS	D		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	649	-	-	270	290	127	-	-
HCM Lane V/C Ratio	0.077	-	-	0.432	0.185	0.017	-	-
HCM Control Delay (s/veh)	8.8	0.5	-	28.1	20.2	7.9	0.1	-
HCM Lane LOS	A	A	-	D	C	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	2.1	0.7	0.1	-	-

46: 9th St & Niagara St
Build PM Peak

HCM 7th TWSC

09/24/2024

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	44	167	0	0	232	25	5	4	0	0	0	0
Future Vol, veh/h	44	167	0	0	232	25	5	4	0	0	0	0
Conflicting Peds, #/hr	14	0	7	7	0	14	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	54	206	0	0	286	31	6	5	0	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	331	0	-	-	-	0	602	646	207
Stage 1	-	-	-	-	-	-	315	315	-
Stage 2	-	-	-	-	-	-	287	331	-
Critical Hdwy	4.12	-	-	-	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	-	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1228	-	0	0	-	-	463	390	833
Stage 1	-	-	0	0	-	-	740	656	-
Stage 2	-	-	0	0	-	-	761	645	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1228	-	-	-	-	-	439	0	832
Mov Cap-2 Maneuver	-	-	-	-	-	-	439	0	-
Stage 1	-	-	-	-	-	-	703	0	-
Stage 2	-	-	-	-	-	-	761	0	-

Approach	EB	WB	NB
HCM Control Delay, s/v	1.68	0	13.41
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR
Capacity (veh/h)	439	375	-	-	-
HCM Lane V/C Ratio	0.025	0.044	-	-	-
HCM Control Delay (s/veh)	13.4	8.1	0	-	-
HCM Lane LOS	B	A	A	-	-
HCM 95th %tile Q(veh)	0.1	0.1	-	-	-

ATTACHMENT

W

SHPO - CRIS BUILT RESOURCES

Niagara Falls Redevelopment



Niagara Falls, NY

10th St.	Buffalo Ave.
12th St.	Memorial Pkwy.
13th St.	Angelo Ct.
14th St.	15th St.



trm
architect

matthew p. moscati, aia
448 Delaware Avenue
Buffalo, New York 14202
716.883.3516 tel
716.883.4740 fax
www.trmarchitect.com

Consultation Project Overview

Project Information:

Project Number: 25PR01183
Project Name: Niagara Digital Campus
Project Completion Date:
Date Created: 02/10/2025
Project Status: Open
Created By: Chelsea Towers
Closed By:
Comment:

Consultation Information:

Archaeology Concerns: No
Building Concerns: Yes

Agency Reference Number:

Finding:

Finding Date:

Finding Comment:

Specific Address:

Address: City of Niagara Falls

City: Niagara County

ZIP: 14303

Has Buildings: Yes

Ground Disturbance: Yes

Previous Ground Disturbance:

Previous Ground Description:

Description: Development of a 140-megawatt data center comprising five phases on approximately 53 acres. Data center digital campus will include eight two-story buildings and one one-story building for a total of 1,232,715 square feet of new space. The ~53 acre PUD is roughly bounded by John B. Daly Blvd, Fall St., 15th St., and Buffalo Ave. in the City of Niagara Falls.

Location Description: The project area is located on about 53 acres in Niagara Falls, NY. The west and east boundaries of the project range from the east side of John Daly Blvd. to the west side of 15th. St. The north and south boundaries of the

project range from areas adjacent / or close to Falls St., south to the New Jersey Railroad stretching from John Daly Blvd. to Portage Rd. A portion of the project between 10th St. and 12th St. extends south to Buffalo Ave. Please see the drawn boundary or the attached file "3924 SLIDE 002 UPDATED - 24.11.06.pdf" for a detailed drawing of the project's boundary.

Submissions

View	Open
Status	
Submission #	25PR01183.001
Type	Initial
Date Recv.	02/10/2025
Date Due	03/12/2025
Description	Initial Consultation Submission
Review Summary	Chelsea Towers (Survey and Evaluation): Incomplete Sydney Snyder (Archaeology): Complete Derek Rohde (Technical Services): Incomplete

Agencies

DEC	Primary
SEQRA	

CRIS Submitted Built Resources

Existing Properties Within Niagara Digital Campus Boundaries

	Addresses	Property Name	Strategy Required	NFR Controlled	Vacant	HRIF	Under Negotiation	Condemned Letter
1	211 10th St.	James Mullane Garage	XX			X	X	
2	124 12th St.			X	X			
3	126 12th St.			X	X			
4	130 12th St.			X	X			
5	226 12th St.		X				X	
6	201 13th St.		X				X	
7	225 14th St.		X				X	
8	228 14th St.			X	X	X		
9	253 14th St.			X	X			
10	256 15th St.			X	X	X		
11	254 15th St.			X	X	X		
12	248 15th St.			X	X	X		
13	234 15th St.			X	X			
14	232 15th St.		X				X	
15	226 15th St.			X	X	X		
16	224 15th St.			X	X	X		
17	1008 Buffalo Ave.		XX			X	X	
18	1102 Buffalo Ave.			X	X			
19	1018 Angelo Ct.		X				X	
20	126 Memorial Pkwy.	Sonwill Distribution Center		X				
21	220 Memorial Pkwy.			X	X			
22	237 Memorial Pkwy.		X				X	

Strategies

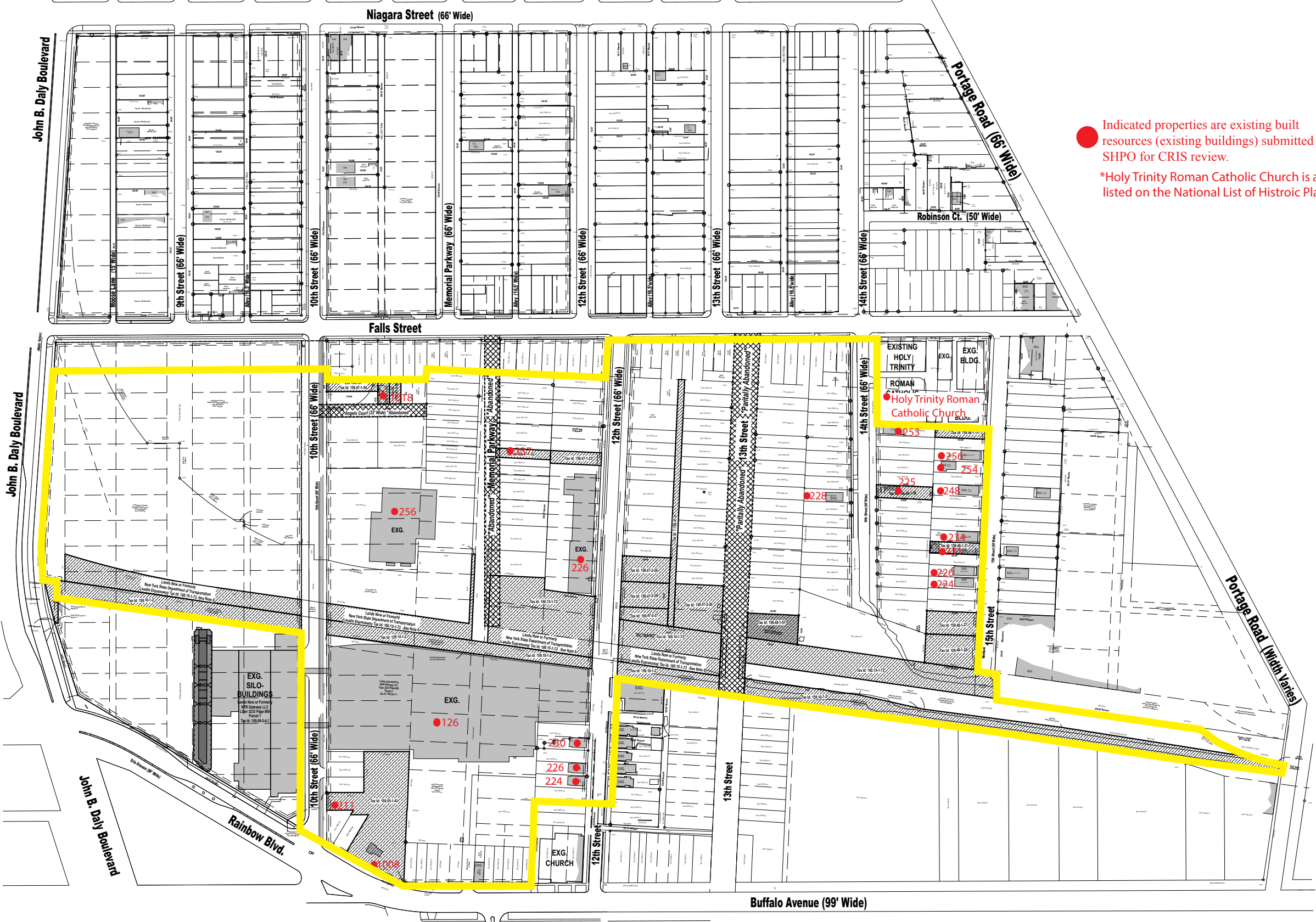
X

Privately held and occupied. Tenant or active owner negotiations could impede development.

XX

Privately held and occupied. Tenant or active owner could pursue landmarking as a means to impede development.

CRIS Built Resources Map



DIGITAL CAMPUS PUD BOUNDARY



SITE LEGEND

DIGITAL CAMPUS PUD BOUNDARY



211 10th Street Niagara Falls, NY 14303



West Façade



Northwest Façade



Southwest Façade

124 12th Street Niagara Falls, NY 14303



East Façade



Southeast Façade

126 12th Street Niagara Falls, NY 14303



East Façade

130 12th Street Niagara Falls, NY 14303



East Façade

226 12th Street Niagara Falls, NY 14303



East Façade



Northeast Façade



Southeast Façade

201 13th Street Niagara Falls, NY 14303



Southwest Façade



West Façade

225 14th Street Niagara Falls, NY 14303



West Façade



Southwest Façade

228 14th Street Niagara Falls, NY 14303



Northeast Façade



South Façade

253 14th Street Niagara Falls, NY 14303



West Façade



Southwest Façade

256 15th Street Niagara Falls, NY 14303



East Façade



Southeast Façade



Northeast Façade

254 15th Street Niagara Falls, NY 14303



East Façade



Southeast Façade

248 15th Street Niagara Falls, NY 14303



East Façade



Southeast Façade

234 15th Street Niagara Falls, NY 14303



East Façade



Northeast Façade

232 15th Street Niagara Falls, NY 14303



East Façade



Northeast Façade

226 15th Street Niagara Falls, NY 14303



East Façade



Northeast Façade

224 15th Street Niagara Falls, NY 14303



East Façade



Southeast Façade

1008 Buffalo Ave. Niagara Falls, NY 14303



Southeast Façade



Southwest Façade

1102 Buffalo Ave. Niagara Falls, NY 14303



South Façade



Southwest Façade

1018 Angelo Ct. Niagara Falls, NY 14303



South Façade



Southeast Façade

126 Memorial Pkwy. Niagara Falls, NY 14303



South Façade



South Façade

220 Memorial Pkwy. Niagara Falls, NY 14303



Aerial View



East Façade

237 Memorial Pkwy. Niagara Falls, NY 14303



Southwest Façade



Northwest Façade

Consultation Project Details

Consultation: 25PR01183

Status: Open

Close

Project: Niagara Digital Campus

Overview

Submissions (1)

USNs (23)

Surveys (0)

Agencies (2)

Contacts (4)

Photos (0)

Atts. (4)

Agmts. (2)

Q & A (0)

Corr. (1)

MCDs (1)

Attachments

Attachment	Type	Name	Description	Reference Number	Date Created
	Document	Niagara Digital Campus boundaries	Document upload	25PR01183.001	02/10/2025
	Document	Historic Property Assessment	Document upload	25PR01183.001	02/10/2025
	Document	Site Leged with existing buildings	Document upload	25PR01183.001	02/10/2025
	Document	Requesting information 3/10/2025			03/10/2025

Consultation: 25PR01183
Status: Open

Close

Project: Niagara Digital Campus

Overview Submissions (1) USNs (23) Surveys (0) Agencies (2) Contacts (4) Photos (0) Atts. (4) Agmts. (2) Q & A (0) Corr. (1) MCDs (1)

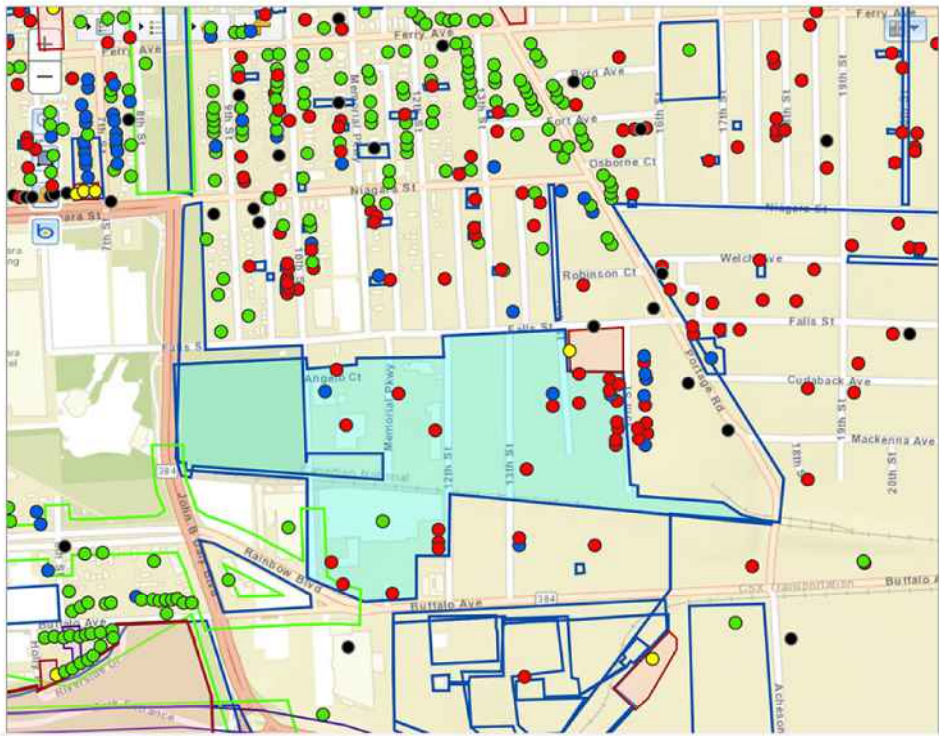
Consultation Project Overview

Project Information:

Project Number: 25PR01183
Project Name: Niagara Digital Campus
Project Completion Date:
Date Created: 02/10/2025
Project Status: Open
Created By: Chelsea Towers
Closed By:
Comment:

Consultation Information:

Archaeology Concerns: ☐
Building Concerns: ☒
Agency Reference Number:
Finding:
Finding Date:
Finding Comment:
Specific Address:
Address: City of Niagara Falls
City: Niagara County
ZIP:
Has Buildings: ☒
Ground Disturbance: ☒
Previous Ground Disturbance: ☐
Previous Ground Description:
Description: Development of a 140-megawatt data center comprising five phases on approximately 53 acres. Data center digital campus will include eight two-story buildings and one one-story building for a total of 1,232,715 square feet of new space. The ~53 acre PUD is roughly bounded by John B. Daly Blvd, Fall St., 15th St., and Buffalo Ave. in the City of Niagara Falls.
Location Description: The project area is located on about 53 acres in Niagara Falls, NY. The west and east boundaries of the project range from the east side of John Daly Blvd. to the west side of 15th St. The north and



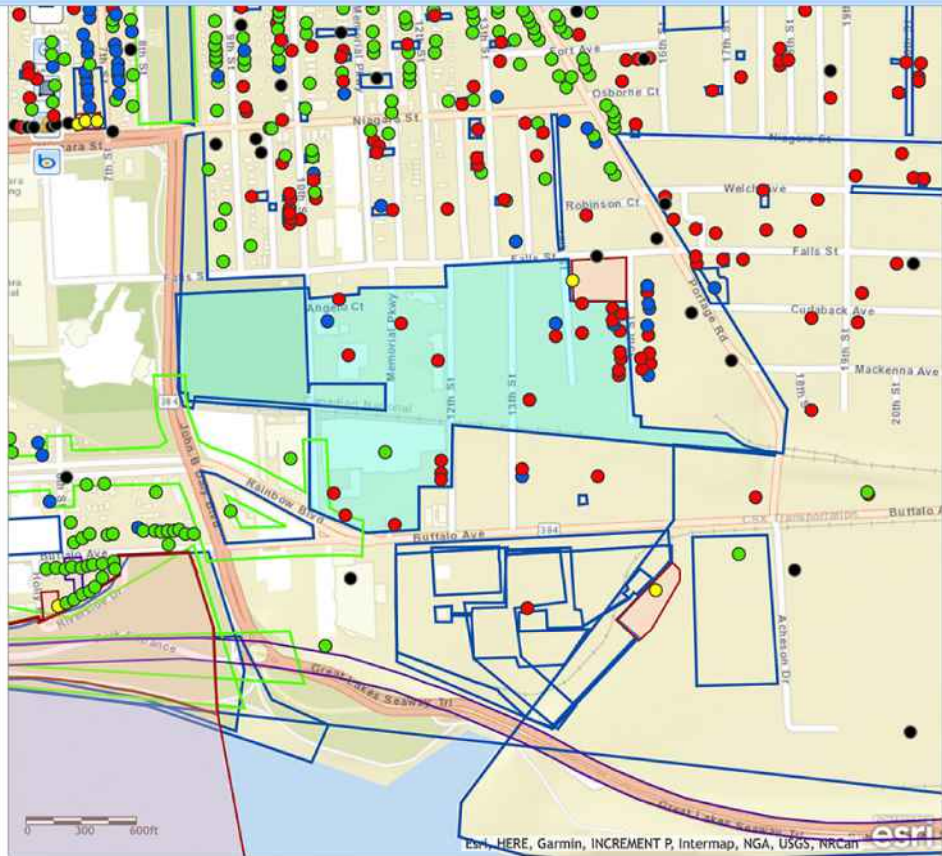
Consultation Project Details

Project information:

Project Number: 25PR01183
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Date Created: 02/10/2025
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Consultation Information:

Archaeology Concerns: ☐
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Agency Reference Number:
Finding:
Finding Date:
Finding Comment:
Specific Address:
Address: City of Niagara Falls
City: Niagara County
ZIP:
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Previous Ground Disturbance:
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Consultation: 25PR01183

Status: Open

Close

Project: Niagara Digital Campus

- Overview
- Submissions (1)
- USNs (23)
- Surveys (0)
- Agencies (2)
- Contacts (4)
- Photos (0)
- Atts. (4)
- Agmts. (2)
- Q & A (0)
- Corr. (1)
- MCDs (1)

Contacts

View	Active	Primary	Type	Name	Title	Address	Email
	true	Yes	Project	Chris Colantino		448 Delaware Avenue, Buffalo, NY 14202	c.colantino@trmarchitect.com
	true	No	Project	Matt McLean	Job Captain	448 Delaware Avenue, Buffalo, NY 14202	m.mclean@trmarchitect.com
	true	No	Project	Matt Moscati	Principal	448 Delaware Ave., Buffalo, NY 14202	m.moscati@trmarchitect.com
	true	No	Project	Raymond Jacobson		448 Delaware Ave., Buffalo, NY 14202	r.jacobson@trmarchitect.com

Consultation Project Details

Consultation: 25PR01183

Status: Open

Close

Project: Niagara Digital Campus

Overview

Submissions (1)

USNs (23)

Surveys (0)

Agencies (2)

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Atts. (4)

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

USNs (23)

Submitted Resources (22)

USNs

View	USN	Type	Name	Details	Status	Result	Origin	Parent
	06340.000...	Building		224 15th St, Niagara Falls NY 14303	Not Eligible	Linked	Submission	
	06340.000...	Building		226 15th St, Niagara Falls NY 14303	Not Eligible	Linked	Submission	
	06340.002...	Building	Single family residence	232 15th St, Niagara Falls NY 14303	Not Eligible	Created	Submission	
	06340.002...	Building	Vacant two family residence	234 15th St, Niagara Falls NY 14303	Not Eligible	Created	Submission	
	06340.000...	Building		248 15th St, Niagara Falls NY 14303	Not Eligible	Linked	Submission	
	06340.000...	Building		254 15th St, Niagara Falls NY 14303	Not Eligible	Linked	Submission	
	06340.000...	Building		256 15th St, Niagara Falls NY 14303	Not Eligible	Linked	Submission	
	06340.002...	Building	Vacant two family residence	253 14th St, Niagara Falls NY 14303	Not Eligible	Created	Submission	
	06340.002...	Building	Two family residence	225 14th St, Niagara Falls NY 14303	Not Eligible	Created	Submission	
	06340.000...	Building		228 14th St, Niagara Falls NY 14303	Not Eligible	Linked	Submission	
	06340.002...	Building	Vacant warehouse	201 13th St, Niagara Falls NY 14303	Not Eligible	Created	Submission	
	06340.002...	Building	Vacant two family residence	130 12th St, Niagara Falls NY 14303	Not Eligible	Created	Submission	
	06340.002...	Building	Vacant two family residence	126 12th St, Niagara Falls NY 14303	Not Eligible	Created	Submission	
	06340.002...	Building	Vacant two family residence	124 12th St, Niagara Falls NY 14303	Not Eligible	Created	Submission	
	06340.002...	Building	Old mixed use building - currently vacant	1102 Buffalo Ave, Niagara Falls NY 14303	Not Eligible	Created	Submission	
	06340.000...	Building	James Mullane Garage	211 10th St, Niagara Falls NY 14303	Not Eligible	Linked	Submission	
	06340.001...	Building	Auto repair shop	1008 Buffalo Ave, Niagara Falls NY 14303	Not Eligible	Linked	Submission	
	06340.002...	Building	Former Nabisco Warehouse - distribution center	126 Memorial Pkwy, Niagara Falls NY 14303	Eligible	Created	Submission	
	06340.002...	Building	Warehouse and distribution building	226 12th St, Niagara Falls NY 14303	Not Eligible	Created	Submission	

Consultation Project Details

View	UIN	Type	Name	Address	Status	Result	Urght	Pattern
	06340.000...	Building		224 15th St, Niagara Falls NY 14303	Not Eligible	Linked	Submission	
	06340.000...	Building		226 15th St, Niagara Falls NY 14303	Not Eligible	Linked	Submission	
	06340.002...	Building	Single family residence	232 15th St, Niagara Falls NY 14303	Not Eligible	Created	Submission	
	06340.002...	Building	Vacant two family residence	234 15th St, Niagara Falls NY 14303	Not Eligible	Created	Submission	
	06340.000...	Building		248 15th St, Niagara Falls NY 14303	Not Eligible	Linked	Submission	
	06340.000...	Building		254 15th St, Niagara Falls NY 14303	Not Eligible	Linked	Submission	
	06340.000...	Building		256 15th St, Niagara Falls NY 14303	Not Eligible	Linked	Submission	
	06340.002...	Building	Vacant two family residence	253 14th St, Niagara Falls NY 14303	Not Eligible	Created	Submission	
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	06340.000...	Building		228 14th St, Niagara Falls NY 14303	Not Eligible	Linked	Submission	
	06340.002...	Building	Vacant warehouse	201 13th St, Niagara Falls NY 14303	Not Eligible	Created	Submission	
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	06340.002...	Building	Two family residence	237 Memorial Pkwy, Niagara Falls NY 14303	Not Eligible	Created	Submission	
	06340.002...	Building	Two family residence	1018 Angelo Ct, Niagara Falls NY 14303	Not Eligible	Created	Submission	
	06340.002...	Building	Warehouse and Distribution	220 Memorial Parkway, Niagara Falls NY 14303	Not Eligible	Created	Submission	
	06340.000...	Building	HOLY TRINITY ROMAN CATHOLIC CHURCH COMPLEX	1419 FALLS ST, NIAGARA FALLS NY	Listed	Added	Manual	



March 10, 2025

Raymond Jacobson
TRM Architect
448 Delaware Ave.
Buffalo, NY 14202

Re: DEC
Niagara Digital Campus
City of Niagara Falls, Niagara County, NY
25PR01183

Dear Raymond Jacobson:

Thank you for requesting the comments of the Division for Historic Preservation of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the submitted materials in accordance with the New York State Historic Preservation Act of 1980 (Section 14.09 of the New York State Parks, Recreation and Historic Preservation Law). These comments are those of the Division for Historic Preservation and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project.

We note the proposed project area is located adjacent to Holy Trinity Roman Catholic Church Complex (1419 Falls Street), which is listed in the State and National Registers of Historic Places, as well as the Former Nabisco Warehouse – distribution center, which is eligible for listing. In order for our office to understand the potential of the proposed work to impact these resources, the OPRHP requests the following additional information:

- A detailed description of the proposed project scope of work, including site plans and drawings. Please be sure to describe any work that may impact the above-mentioned resources – both directly and indirectly.

We request the additional information be provided via our Cultural Resource Information System (CRIS) at <https://parks.ny.gov/shpo/online-tools/>. If you have any questions, I am best reached by email.

Sincerely,

Derek Rohde
Historic Site Restoration Coordinator
518-275-5745 | Derek.Rohde@parks.ny.gov

ATTACHMENT

X

Attachment X

Alternatives Analysis PUD vs. Rezoning

As requested in the Notice of Incomplete Application, prepared by Hodgson Russ LLP, dated December 18, 2024, Petitioners submit this Alternatives Analysis to document the “benefit[s]” of Negotiated Planned Development District, also known as a PUD. As acknowledged by Hodgson Russ, “the City suggested the PUD approach” after NFR presented the concept of a Data Center at the Property in 2021. Critical to this analysis is the fact that the enactment of the City’s High Energy Usage Overlay District Law (“High Energy Use Law”) does not disturb Section 1318 of the City’s Zoning Code, which expressly permits a PUD.

In New York, “[t]he planned unit development technique is a legislative response to changing patterns of land development and the demonstrated shortcomings of orthodox zoning regulations.” *See Todd Mart, Inc. v. Town Bd. of Town of Webster*, 49 A.D.2d 12, 16 (4th Dep’t 1975) [citing 1 Anderson, New York Zoning Law and Practice (2d ed.), s 8.28.]. “The ‘changing patterns’ are the relatively recent prevalence of large scale developments” in relation to the “shortcomings of orthodox zoning,” specifically “its inflexibility and inability to mix diverse land-uses with a localized district.” *Id.* “The planned unit development concept has evolved to meet these specific land-use control problems. It made available to communities a maximum choice in types of environment. It creates a flexible floating zone which, as in the instant case, hovers without definite boundaries until subsequent action by the zoning authority affixes it to an identified area. It multiplies the community’s options to provide for compatible and efficient uses of land.” *Id.*

In Niagara Falls, Zoning Code Section 1318 enables the City to negotiate the “appropriate development of large parcels of land which are currently vacant or under-utilized.” Section 1318 provides that “it is in the City’s best interest to permit the flexibility necessary” to allow “other uses as determined by market demand while assuring that such development shall in all respects further the purposes of this Zoning Ordinance and Comprehensive Plan.” General City Law § 81-f provides that the purpose of a Planned Unit Development zoning district is to “provide for residential, commercial, industrial or other land uses, or a mix thereof, in which economies of scale, creative architectural or planning concepts and open space preservation may be achieved by a developer in furtherance of the city comprehensive plan and zoning local law or ordinance.” To accomplish these goals, Zoning Code Section 1302.4.1(A) states that the “amendment process herein established is intended to provide a means for making changes in the text of this Zoning Ordinance ... [it] is intended as a tool to adjust the provisions of this Zoning Ordinance ... in light of ***changing, newly discovered or newly identified conditions, situations, or knowledge.***” [emphasis added].

Petitioners seek to develop vacant and underutilized lands (the Property) into the innovative Data Center at Niagara Digital Campus, in compliance will all of the above-stated authorities. The PUD is the appropriate zoning “tool” to simultaneously accomplish the City’s above-stated goals and allow for the development of the Data Center at Niagara Digital Campus. Data Centers are a relatively new and emerging technology. They are essential for

the United States' growth and modern economic development because they underpin the digital infrastructure, drive innovation, create jobs, generate tax revenue, and enhance overall connectivity and resilience. The City of Niagara Falls can be at the forefront of necessary market demand for a modernized world. As documented in **Attachment T** (MRB Study), the Data Center at Niagara Digital Campus is projected to add over 950 jobs to the community annually for the next 20 years.

To the extent that the Notice of Incomplete Application suggests that the High Energy Use Law supersedes Section 1318 and the ability for the City to enact a PUD, Petitioners disagree completely because the High Energy Use Law itself is devoid of any such express intent. More fundamentally, such a result would be procedurally improper. The logic put forth in the Notice of Incomplete Application—that because the City “adopted specific zoning authority for data centers as an allowable use within a designated overlay district,” and therefore the “necessity” of the PUD disappears—lacks merit because it implies that PUDs can only be used to permit non-allowable uses, which is clearly not the case, and is not the intent of Zoning Code Section 1318 or General City Law § 81-f. Rather, as the Notice of Incomplete Application acknowledges, the High Energy Use Law can “guide the respective City bodies in determining appropriate setbacks and other parameters” in Industrial (“I2”) zoning districts. But, that does not mean that the High Energy Use Law voids Section 1318, which allows PUDs to be established throughout the City. The City Council is fully empowered to enact a PUD that contains a Data Center use.

Additionally, to the extent that the Notice of Incomplete Application suggests that a data center must be considered an “industrial use” merely because the City enacted the High Energy Use Law, which permits data centers in certain overlay districts, Petitioners disagree. The City's Schedule 1 of its Zoning Code disproves this point completely, as numerous uses that are allowed in the I2 zoning district are also allowed in other zoning districts, e.g., religious facilities, schools, bars, etc. Underpinning Schedule 1 is the undeniable fact that just because these uses are allowable in an I2 zoning districts does not make them “industrial uses.”

Rather, it is commonly understood that data centers such as the one Petitioners are proposing to develop is a “commercial use” well-suited to a downtown setting. See **Attachment H** (Urbacon's Data Centers). The current zoning of the Property is primarily “Downtown,” which aligns perfectly with what Petitioners are proposing to build. Zoning Code Section 1314.1(A) states that “[t]he purpose of these sub-districts is to provide for a diverse combination of **commercial**, residential, and mixed-use building types within the city's core tourist areas Development is intended to be very intense with high lot coverage and pedestrian-oriented with a strong emphasis on creating safe, active, and inviting streetscapes. Parking, where provided, shall be concealed or structured.” [emphasis added]. Further, Zoning Code Section 1321.1(C) states that R3-C districts are intended to be “high density” and that “**commercial** uses may be permitted.” [emphasis added]. Thus, the Data Center at Niagara Digital Campus PUD, as a commercial use, does not disturb the purposes of the current zoning.

The PUD Petition fully supports the establishment of the Data Center at Niagara Digital Campus PUD. However, if the City determines that a PUD is not the appropriate vehicle for the PUD Project, it should permit the Property to be rezoned to a I2 zoning district, so that Petitioners can apply for a High Energy Use overlay district pursuant to the High Energy Use Law. In support of this rezoning alternative, Petitioners submit the following: **Attachment X.1** (Chapter 1302.4 Zoning Amendment Form); **Attachment X.2** (Verified Petition with Ex. A ownership chart); **Attachment X.3** (Rezoning Use Table), and **Attachment X.4** (Area Criteria Chart), so that this PUD Petition can be converted to a Rezoning Petition without further delay or additional submissions.

To be clear, rezoning the Property to I2 is a less desirable alternative. The PUD is the more appropriate mechanism to allow the desired uses for the Data Center at Niagara Digital Campus. See **Attachment D** (Use Table). Petitioners do not seek to pursue any of the other uses currently allowable in the City's I2 zoning district. The PUD is preferable because of the ability to select the specific allowable uses, which here only include "Data Center," "High Energy," and "Utility," as detailed in the PUD Petition. As shown on **Attachment X.4** (Area Criteria Chart), Petitioners would need to seek numerous area variances if the Property is rezoned to I2, which would not be necessary with the PUD. Further, as detailed in Section 1315.1(B) of the Zoning Code, the Data Center at Niagara Digital Campus does not align with the stated purposes of an I2 zoning district, which is to allow uses that "may generate environmental concerns (air and/or water emissions)." Examples include "chemical or manufacturing industries." The Data Center at Niagara Digital Campus will not result in air or water emissions, nor will it result in other commonly known industrial emissions like odors, noise, or light. Urbacon's Data Centers are well-suited for downtown settings like the Property. See **Attachment H** (Urbacon's Data Centers) and **Attachment F** (Data Center Perspective Renderings).

Thus, the conclusion of this Alternative Analysis is that the PUD is the more appropriate tool to establish the Data Center at Niagara Digital Campus.

ATTACHMENT

X.1



THE CITY OF NIAGARA FALLS
APPLICATION PACKET
ZONING AMENDMENT

This Application Packet includes the following

1. Application for Certificate of Appropriateness
2. Zoning Ordinance – Zoning Amendment Chapter
3. SEQR Environmental Review Instructions

Dear Applicant,

Welcome to the Zoning Amendment Process for properties in the City of Niagara Falls.

The amendment process is intended to provide a means for making changes in the text of this Zoning Ordinance and the Official Zoning Map. It is not intended to relieve particular hardships nor to confer special privileges or rights of a particular property owner but is intended as a tool to adjust the provisions of this Zoning Ordinance and the Official Zoning Map in light of changing, newly discovered or newly identified conditions, situations or knowledge and maintain consistency between the zoning and the goals, objectives and policies contained in the Comprehensive Plan.

It is important that you speak with a staff member in the Planning Office to determine if your project requires a Zoning Amendment prior to beginning the application process.

Please feel free to call or email the Planning Office if you have any questions about the application process.

Code Enforcement Contact:

Clifford Scott

Director, Code Enforcement

City of Niagara Falls

clifford.scott@NiagaraFallsNY.gov (716) 286-4492

745 Main St, PO Box 69, Niagara Falls, NY 14302

Planning Office Contact:

Mike Pesarchick

Planner II & Historic Preservation Specialist

City of Niagara Falls

michael.pesarchick@NiagaraFallsNY.gov (716) 286-4467

745 Main St, PO Box 69, Niagara Falls, NY 14302

Sincerely,

Kevin Forma

Director of Planning

City of Niagara Falls



AMENDMENTS (CHAPTER 1302.4)

APPLICATION FOR ZONING AMENDMENT

PROPERTY INFORMATION:

Property Address: See attached cover letter. SBL Number: See attached cover letter.

Existing Land Use: Vacant, commercial, industrial Proposed Land Use: See attached cover letter.
Existing Zoning District: D1-A, D1-B, D1-C, R3-C Proposed Zoning District: I2
Existing Number of Dwelling Units: See attached. Proposed Number of Dwelling Units: See attached.
Existing Gross Floor Area: See attached. Proposed Gross Floor Area: See attached.

APPLICANT INFORMATION:

Applicant Name Niagara Falls Redevelopment, LLC, Eleventh Street Properties LLC, NFR Gateway LLC

Applicant Address 800 Main Street, Suite 3D Phone Number 716-282-0001 Email rogercci@icloud.com

OWNER INFORMATION: If Applicant is also the Owner check box ☒

Owner Name _____

Owner Address _____ Phone Number _____ Email _____

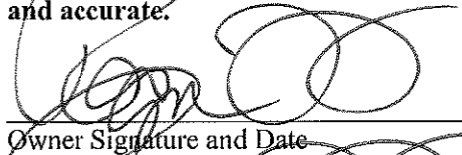
REQUIRED MATERIALS:

Application requirements vary based on individual amendment petitions. Please refer to the following chart for required application materials. Attach the following application materials as they relate to your application. Items indicated by an asterisks (*) are *required* for every application. The Planning Department or Planning Board may request any additional information or materials as they deem necessary.

Zoning Amendment Procedure – Chapter 1302.4.2	Submitted to Planning Office	Received by Planning Office
<i>Zoning Amendment Application Completed Form*</i>	See attached.	
<i>SEQR*</i> - Part 1 of Full Environmental Assessment Form	See attached.	
<i>Payment*</i> – Application fee of \$250.00 (residential) or \$500.00 (commercial) check made out to the City Comptroller		
<i>Comprehensive Plan*</i> - Evidence of how the proposal would meet the planning objectives of the Comprehensive Plan and/or the proposed District.	See attached.	

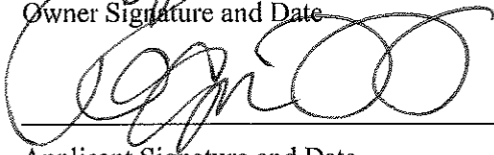
Financial Ability* - Evidence that demonstrates applicant's competence to carry out the plan and his awareness of the financial and organizational scope of such a project.	See attached.	
Rights of Way – Proposed road system and all existing and proposed rights-of-way and easements, whether public or private.	See attached.	
Common Space - The interior common open space system and a statement as to how it is to be owned and maintained.	See attached.	
Drainage - The interior drainage system and how it is proposed to be connected to the drainage systems of adjoining areas.	See attached.	
Staging - If the development is to be staged, clear indication of how the staging is to proceed.	See attached.	

The undersigned certifies that the information submitted for review and decision by the Planning Board is true and accurate.



5.14.25


Owner Signature and Date



5.14.25

Applicant Signature and Date

BASIC SEQR APPLICANT INSTRUCTIONS:

1. Using your internet browser, navigate to: gisservices.dec.ny.gov/eafmapper/ As per the text box on the left hand side of the welcome page, **make sure popup blockers are turned off** and press enter.
Example – Popup Blocker Modification:
 - a. Google Chrome - instructions for turning off the popup blocker: On your computer, open Chrome.
 - b. Go to gisservices.dec.ny.gov/eafmapper/ where pop-ups are blocked.
 - c. In the address bar, click the Pop-up blocked symbol 
 - d. Click the link for the DEC pop-up
 - e. To always see pop-ups for the DEC site, select “Always allow pop-ups and redirects from gisservices.dec.ny.gov/eafmapper/” click Done.
 - f. Reload the website.
2. Click the tab marked "Locate Address" on the right hand side of the page under "Navigate To Area (Step 1)".
3. Type the site's address into the box, including city and zip code and press the "Locate" button.
 - a. The map will zoom to the general area of your address - but not all the way.
4. Zoom in to your identified address point so that parcel ID numbers are visible and you can identify your exact property.
5. Click "Select Tax Parcel" under the section labeled "Define Project Site (Step 2)".
6. Select your property with the left button of the mouse.
7. Click "Short Form" in the last box on the bottom, unless instructed otherwise by Niagara Falls' Planning / Environmental Office.
 - a. There will be a popup box informing you that it might take awhile. Click OK.
 - i. Note that it might take a number of minutes for the process to complete.
8. Once the EAFMapper's process is complete, it will download a PDF file labeled "download.pdf"
9. Navigate to the downloaded file, probably in your download folder, and open it using Adobe Acrobat or equivalent.
10. Fill out ALL of the lines contained within part 1 (pages 1, 2, and 3).
 - a. Note that some of the questions will already have check marks (questions 7, 12a, 12b, 13a, 15, 16, and 20). These answers came from the DEC and cannot be changed.
 - i. The Planning & Environmental Office will make any determination of applicability to the project site.
11. As you fill out the form, if you have ANY questions on how or what to put in the fields, click on the question and it will take you to DEC's website (you may have to give permission to access the internet) to get detailed instructions for that question.
 - a. If you cannot find the answer, please contact us! Do not make any "assumptions".
12. Once Part 1 is complete, save, print and sign.
 - a. Note: Use the print command in Acrobat - not the print button on the form.
13. Submit the completed SEQR Part 1, including the page labeled “EAF Mapper Summary Report” with your site plan application.

ATTACHMENT

X.2

CITY OF NIAGARA FALLS

DATA CENTER AT NIAGARA DIGITAL
CAMPUS

VERIFIED PETITION

The Verified Petition of Roger Trevino respectfully shows that:

1. This Verified Petition is submitted in support of the alternative request to rezone certain parcels of property comprising the Data Center at Niagara Digital Campus ("Property") to Industrial, by the undersigned owners of more than fifty per centum of the frontage of the Property as required by the City's Zoning Ordinance.
2. This Verified Petition is submitted by the owners of the Property: Niagara Falls Redevelopment, LLC, Eleventh Street Properties LLC, and NFR Gateway LLC (together, "Petitioners").
3. Roger Trevino is the Executive Vice President of each of the Petitioners.
4. Petitioners own the Property as indicated on the enclosed **Exhibit A**, the property ownership chart.
5. Petitioners each submit and join in this verified petition in support of the rezoning of their respective properties within the boundaries of the Data Center at Niagara Digital Campus to an Industrial district, as an alternative zoning mechanism to the PUD Petition, and together prepared **Exhibit A**. Each Petitioner authorizes the submission of this Verified Petition.
6. Together, Petitioners hold title to parcels within the Data Center at Niagara Digital Campus boundary comprising **71.13%** of the frontage of the Property to be included in the Data Center at Niagara Digital Campus as further shown on **Exhibit A**.

DATED: May 14, 2025

Niagara Falls Redevelopment LLC

By: 

Roger Trevino, Executive Vice President

Eleventh Street Properties LLC

By:

A handwritten signature in black ink, appearing to read 'Roger Trevino', written over a horizontal line.

Roger Trevino, Executive Vice President

NFR Gateway LLC

By:

A handwritten signature in black ink, appearing to read 'Roger Trevino', written over a horizontal line.

Roger Trevino, Executive Vice President

STATE OF NEW YORK)
)
COUNTY OF NIAGARA)

ss.:

INDIVIDUAL VERIFICATION

THIS IS TO CERTIFY that I, Roger Trevino, being duly sworn deposes and says: I am the Executive Vice President of Niagara Falls Redevelopment, LLC, and have read the foregoing Verified Petition and knows the contents thereof, and verify them to be true to my knowledge, except as to matters alleged on information and belief, and that as to those matters I believe to be true.

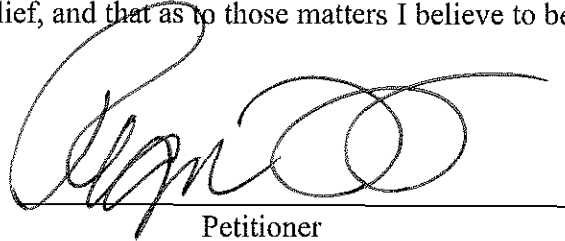
Sworn to before me this

Date: 5-14-2025



Notary Public

GREGORY M GISMONDI
Notary Public, State of New York
Reg. No. 01GI5052305
Qualified in NIAGARA County
Commission Expires November 20, 2025


Petitioner

STATE OF NEW YORK)
)
COUNTY OF NIAGARA)

ss.:

INDIVIDUAL VERIFICATION

THIS IS TO CERTIFY that I, Roger Trevino, being duly sworn deposes and says: I am the Executive Vice President of Eleventh Street Properties LLC, and have read the foregoing Verified Petition and knows the contents thereof, and verify them to be true to my knowledge, except as to matters alleged on information and belief, and that as to those matters I believe to be true.

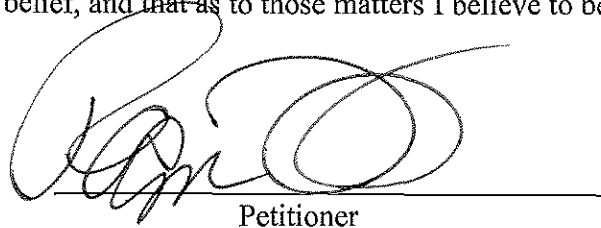
Sworn to before me this

Date: 5-14-2025



Notary Public

GREGORY M GISMONDI
Notary Public, State of New York
Reg. No. 01GI5052305
Qualified in NIAGARA County
Commission Expires November 20, 2025


Petitioner

STATE OF NEW YORK)
)
COUNTY OF NIAGARA)

ss.:

INDIVIDUAL VERIFICATION

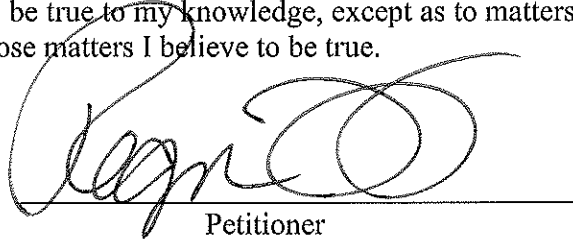
THIS IS TO CERTIFY that I, Roger Trevino, being duly sworn deposes and says: I am the Executive Vice President of NFR Gateway LLC, and have read the foregoing Verified Petition and knows the contents thereof, and verify them to be true to my knowledge, except as to matters alleged on information and belief, and that as to those matters I believe to be true.

Sworn to before me this

Date: 5-14-2025



Notary Public


Petitioner

GREGORY M GISMONDI
Notary Public, State of New York
Reg. No. 01GI5052305
Qualified in NIAGARA County
Commission Expires November 20, 2025

Exhibit A

Street	Property Address No.	SBL	Owner	Status	Linear Frontage (LF)	Linear Frontage Calcs
10th St.	247	159.47-1-52	Eleventh Street Properties LLC	Owned by Petitioner	265.25	(265.25) = 132 + 133.25
10th St.	263	159.47-1-53	Eleventh Street Properties LLC	Owned by Petitioner	165	(165) = 33 + 132
10th St.	209	159.55-1-45	Eleventh Street Properties LLC	Owned by Petitioner	100.93	(100.93) = 86.01 + 14.92
10th St.	215	159.55-1-47	NFR Gateway LLC	Owned by Petitioner	40	40
10th St.	219	159.55-1-48	NFR Gateway LLC	Owned by Petitioner	39	39
10th St.	225	159.55-1-49	NFR Gateway LLC	Owned by Petitioner	27	27
10th St.	265	159.47-1-54	Donato Mary Ann		33	33
12th St.	254	159.47-1-20	Eleventh Street Properties LLC	Owned by Petitioner	33	33
12th St.	250	159.47-1-21	Eleventh Street Properties LLC	Owned by Petitioner	66	66
12th St.	244	159.47-1-22	Eleventh Street Properties LLC	Owned by Petitioner	33	33
12th St.	217	159.47-2-30	Eleventh Street Properties LLC	Owned by Petitioner	31	31
12th St.	219	159.47-2-31	Eleventh Street Properties LLC	Owned by Petitioner	35	35
12th St.	227	159.47-2-32	Eleventh Street Properties LLC	Owned by Petitioner	66	66
12th St.	231	159.47-2-33	Eleventh Street Properties LLC	Owned by Petitioner	66	66
12th St.	237	159.47-2-34	Eleventh Street Properties LLC	Owned by Petitioner	33	33
12th St.	241	159.47-2-35	Eleventh Street Properties LLC	Owned by Petitioner	33	33
12th St.	243	159.47-2-36	Eleventh Street Properties LLC	Owned by Petitioner	33	33
12th St.	247	159.47-2-37	Eleventh Street Properties LLC	Owned by Petitioner	33	33
12th St.	259	159.47-2-38	Eleventh Street Properties LLC	Owned by Petitioner	153	153
12th St.	261	159.47-2-39	Eleventh Street Properties LLC	Owned by Petitioner		
12th St.	132	159.55-1-22	NFR Gateway LLC	Owned by Petitioner	34.75	34.75
12th St.	130	159.55-1-23	Eleventh Street Properties LLC	Owned by Petitioner	31.25	31.25
12th St.	128	159.55-1-24	Eleventh Street Properties LLC	Owned by Petitioner	33	33
12th St.	126	159.55-1-25	Eleventh Street Properties LLC	Owned by Petitioner	33	33
12th St.	124	159.55-1-26	Eleventh Street Properties LLC	Owned by Petitioner	33	33
12th St.	122	159.55-1-27	Eleventh Street Properties LLC	Owned by Petitioner	33	33
12th St.	226	159.47-1-23	Estate of John Gross	Contract vendee with Niagara Falls Redevelopment, LLC's related entity.	438.3	438.3
12th St.	203	159.47-2-27	Estate of John Gross	Contract vendee with Niagara Falls Redevelopment, LLC's related entity.	29.62	29.62
12th St.	207	159.47-2-28	Estate of John Gross	Contract vendee with Niagara Falls Redevelopment, LLC's related entity.	66	66

Exhibit A

Street	Property Address No.	SBL	Owner	Status	Linear Frontage (LF)	Linear Frontage Calcs
12th St.	213	159.47-2-29	Estate of John Gross	Contract vendee with Niagara Falls Redevelopment, LLC's related entity.	66	66
13th St.	NA	159.10-1-2	Blue Apple Properties Inc.		214.82	(214.82) = 42.25 + 40 + 39.15 + 28.85 + 39.57 + 25
13th St.	189	159.10-2-14	Blue Apple Properties Inc.		40.94	40.94
13th St.	264	159.47-2-10	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	258	159.47-2-11	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	254	159.47-2-12	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	252	159.47-2-13	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	250	159.47-2-14	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	248	159.47-2-15	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	244	159.47-2-16	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	240	159.47-2-17	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	238	159.47-2-18	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	226	159.47-2-19	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	224	159.47-2-20	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	222	159.47-2-21	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	218	159.47-2-22	Eleventh Street Properties LLC	Owned by Petitioner	34	34
13th St.	216	159.47-2-23	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	214	159.47-2-24	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	212	159.47-2-25	Eleventh Street Properties LLC	Owned by Petitioner	32	32
13th St.	268	159.47-2-9	Eleventh Street Properties LLC	Owned by Petitioner	27	27
13th St.	209	159.48-1-58	Eleventh Street Properties LLC	Owned by Petitioner	66	66
13th St.	211	159.48-1-59	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	215	159.48-1-60	Eleventh Street Properties LLC	Owned by Petitioner	36	36
13th St.	217	159.48-1-61	Eleventh Street Properties LLC	Owned by Petitioner	31.5	31.5
13th St.	221	159.48-1-62	Eleventh Street Properties LLC	Owned by Petitioner	31.5	31.5
13th St.	225	159.48-1-63.1	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	229	159.48-1-63.2	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	233	159.48-1-64	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	237	159.48-1-65	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	241	159.48-1-66	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	243	159.48-1-67	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	249	159.48-1-68	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	251	159.48-1-69	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	257	159.48-1-70	Eleventh Street Properties LLC	Owned by Petitioner	66	66
13th St.	261	159.48-1-71	Eleventh Street Properties LLC	Owned by Petitioner	33	33
13th St.	263	159.48-1-72	Eleventh Street Properties LLC	Owned by Petitioner	33	33

Exhibit A

Street	Property Address No.	SBL	Owner	Status	Linear Frontage (LF)	Linear Frontage Calcs
13th St.	202	159.47-2-26	Estate of John Gross	Contract vendee with Niagara Falls Redevelopment, LLC's related entity.	122.02	122.02
13th St.	201	159.48-1-57	Estate of John Gross	Contract vendee with Niagara Falls Redevelopment, LLC's related entity.	62.62	62.62
14th St.	266	159.48-1-10	Eleventh Street Properties LLC	Owned by Petitioner	33	33
14th St.	203	159.48-1-29	Eleventh Street Properties LLC	Owned by Petitioner	70.15	70.15
14th St.	207	159.48-1-30	Eleventh Street Properties LLC	Owned by Petitioner	30.77	30.77
14th St.	209	159.48-1-31	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	211	159.48-1-32	Eleventh Street Properties LLC	Owned by Petitioner	33	33
14th St.	213	159.48-1-33	Eleventh Street Properties LLC	Owned by Petitioner	33	33
14th St.	215	159.48-1-34	Eleventh Street Properties LLC	Owned by Petitioner	33	33
14th St.	217	159.48-1-35	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	219	159.48-1-36	Eleventh Street Properties LLC	Owned by Petitioner	33	33
14th St.	221	159.48-1-37	Eleventh Street Properties LLC	Owned by Petitioner	33	33
14th St.	223	159.48-1-38	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	225	159.48-1-39	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	243	159.48-1-40	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	245	159.48-1-41	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	249	159.48-1-42	Eleventh Street Properties LLC	Owned by Petitioner	33	33
14th St.	251	159.48-1-43	Eleventh Street Properties LLC	Owned by Petitioner	30	30
14th St.	253	159.48-1-44	Eleventh Street Properties LLC	Owned by Petitioner	31	31
14th St.	264	159.48-1-45	Eleventh Street Properties LLC	Owned by Petitioner	66.06	66.06
14th St.	250	159.48-1-46	Eleventh Street Properties LLC	Owned by Petitioner	33	33
14th St.	248	159.48-1-47	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	242	159.48-1-48.1	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	244	159.48-1-48.2	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	228	159.48-1-49	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	226	159.48-1-50	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	224	159.48-1-51	Eleventh Street Properties LLC	Owned by Petitioner	33	33
14th St.	222	159.48-1-52	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	220	159.48-1-53	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	218	159.48-1-54	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	216	159.48-1-55	Eleventh Street Properties LLC	Owned by Petitioner	33.03	33.03
14th St.	214	159.48-1-56	Eleventh Street Properties LLC	Owned by Petitioner	64	64
14th St.	270	159.48-1-8	Eleventh Street Properties LLC	Owned by Petitioner	37.75	37.75
14th St.	268	159.48-1-9	Eleventh Street Properties LLC	Owned by Petitioner	34.96	34.96
15th St.	262	159.48-1-12	Eleventh Street Properties LLC	Owned by Petitioner	30	30

Exhibit A

Street	Property Address No.	SBL	Owner	Status	Linear Frontage (LF)	Linear Frontage Calcs
15th St.	258	159.48-1-13	Eleventh Street Properties LLC	Owned by Petitioner	30	30
15th St.	256	159.48-1-14	Eleventh Street Properties LLC	Owned by Petitioner	30	30
15th St.	254	159.48-1-15	Eleventh Street Properties LLC	Owned by Petitioner	30	30
15th St.	250	159.48-1-16	Eleventh Street Properties LLC	Owned by Petitioner	30	30
15th St.	248	159.48-1-17	Eleventh Street Properties LLC	Owned by Petitioner	60	60
15th St.	240	159.48-1-18	Eleventh Street Properties LLC	Owned by Petitioner	30	30
15th St.	238	159.48-1-19	Eleventh Street Properties LLC	Owned by Petitioner	30	30
15th St.	234	159.48-1-20	Eleventh Street Properties LLC	Owned by Petitioner	30	30
15th St.	228	159.48-1-22	Eleventh Street Properties LLC	Owned by Petitioner	30	30
15th St.	226	159.48-1-23	Eleventh Street Properties LLC	Owned by Petitioner	30	30
15th St.	224	159.48-1-24	Eleventh Street Properties LLC	Owned by Petitioner	30	30
15th St.	222	159.48-1-25	Eleventh Street Properties LLC	Owned by Petitioner	30	30
15th St.	216	159.48-1-26	Eleventh Street Properties LLC	Owned by Petitioner	30	30
15th St.	232	159.48-1-21	Snizek Leszek		30	30
15th St.	210	159.48-1-27	Mansibal LLC		60	60
15th St.	208	159.48-1-28	Mansibal LLC		81.5	81.5
Angelo Ct.	1023	159.47-1-51	Eleventh Street Properties LLC	Owned by Petitioner	126.13	126.13
Angelo Ct.	1032	159.47-1-57	Eleventh Street Properties LLC	Owned by Petitioner	66.37	66.37
Angelo Ct.	1018	159.47-1-55	Larratta Betty J		30	30
Angelo Ct.	1022	159.47-1-56	Larratta Anthony J & Betty J		30	30
Buffalo Ave.	1114	159.55-1-32	NFR Gateway LLC	Owned by Petitioner	24.12	24.12
Buffalo Ave.	1112	159.55-1-33	NFR Gateway LLC	Owned by Petitioner	25	25
Buffalo Ave.	1108	159.55-1-34	NFR Gateway LLC	Owned by Petitioner	25	25
Buffalo Ave.	1106	159.55-1-35	NFR Gateway LLC	Owned by Petitioner	25	25
Buffalo Ave.	1104	159.55-1-36	NFR Gateway LLC	Owned by Petitioner	25	25
Buffalo Ave.	1102	159.55-1-37	Eleventh Street Properties LLC	Owned by Petitioner	81	(81) = 25 + 56
Buffalo Ave.	1028	159.55-1-40	Eleventh Street Properties LLC	Owned by Petitioner	28.37	28.37
Buffalo Ave.	1026	159.55-1-41	Eleventh Street Properties LLC	Owned by Petitioner	27.01	27.01
Buffalo Ave.	1014	159.55-1-42	Eleventh Street Properties LLC	Owned by Petitioner	31	31
Buffalo Ave.	1008	159.55-1-43	Parry K L Inc.	Contract vendee with Niagara Falls Redevelopment, LLC's related entity.	216.82	(216.82) = 46 + 170.82
Falls St.	1201	159.47-2-1	Eleventh Street Properties LLC	Owned by Petitioner	103.8	(103.8) = 24 + 79.81
Falls St.	1205	159.47-2-2	Eleventh Street Properties LLC	Owned by Petitioner	54.3	54.3
Falls St.	1209	159.47-2-3	Eleventh Street Properties LLC	Owned by Petitioner	27.15	27.15
Falls St.	1211	159.47-2-4	Eleventh Street Properties LLC	Owned by Petitioner	26.83	26.83
Falls St.	1215	159.47-2-5	Eleventh Street Properties LLC	Owned by Petitioner	27	27
Falls St.	1219	159.47-2-6	Eleventh Street Properties LLC	Owned by Petitioner	52.58	52.58
Falls St.	1223	159.47-2-7	Eleventh Street Properties LLC	Owned by Petitioner	28.82	28.82

Exhibit A

Street	Property Address No.	SBL	Owner	Status	Linear Frontage (LF)	Linear Frontage Calcs
Falls St.	1225	159.47-2-8	Eleventh Street Properties LLC	Owned by Petitioner	111.7	(111.7) = 87.67 + 24.03
Falls St.	1303	159.48-1-1	Eleventh Street Properties LLC	Owned by Petitioner	151.76	(151.76) = 33.09 + 118.67
Falls St.	1307	159.48-1-2	Eleventh Street Properties LLC	Owned by Petitioner	33	33
Falls St.	1309	159.48-1-3	Eleventh Street Properties LLC	Owned by Petitioner	33.04	33.04
Falls St.	1317	159.48-1-5	Eleventh Street Properties LLC	Owned by Petitioner	34	34
Falls St.	1319	159.48-1-6	Eleventh Street Properties LLC	Owned by Petitioner	33	33
Falls St.	1321	159.48-1-7	Eleventh Street Properties LLC	Owned by Petitioner	125	(125) = 33 + 92
Falls St.	1313	159.48.1-4	Eleventh Street Properties LLC	Owned by Petitioner	33.02	33.02
Falls St. (portion of)	907	159.09-3-3	Niagara Falls Redevelopment	Owned by Petitioner	462	462
John Daly Memorial Pkwy (portion of)	n/a	159.09-3-2	Blue Apple Properties Inc.		725.16	(725.16) = 545.62 + 142.32 + 37.22
Lasalle Arterial	n/a	160.15-1-72	Blue Apple Properties Inc.		978.09	(978.09) = 42.4 + 42.46 + 223.81 + 174.78 + 157.75 + 109.15 + 109.39 + 68.12 + 50.23
Memorial Pkwy	220	159.10-1-3	Eleventh Street Properties LLC	Owned by Petitioner	414.25	(414.25) = 236.31 + 177.94
Memorial Pkwy	207	159.47-1-24	Eleventh Street Properties LLC	Owned by Petitioner	66	66
Memorial Pkwy	221	159.47-1-25	Eleventh Street Properties LLC	Owned by Petitioner	66	66
Memorial Pkwy	223	159.47-1-26	Eleventh Street Properties LLC	Owned by Petitioner	33	33
Memorial Pkwy	225	159.47-1-27	Eleventh Street Properties LLC	Owned by Petitioner	33	33
Memorial Pkwy	227	159.47-1-28	Eleventh Street Properties LLC	Owned by Petitioner	44	44
Memorial Pkwy	229	159.47-1-29	Eleventh Street Properties LLC	Owned by Petitioner	20	20
Memorial Pkwy	231	159.47-1-30	Eleventh Street Properties LLC	Owned by Petitioner	24	24
Memorial Pkwy	235	159.47-1-31	Eleventh Street Properties LLC	Owned by Petitioner	20	20
Memorial Pkwy	239	159.47-1-33	Eleventh Street Properties LLC	Owned by Petitioner	20	20
Memorial Pkwy	241	159.47-1-34	Eleventh Street Properties LLC	Owned by Petitioner	44	44
Memorial Pkwy	247	159.47-1-35	Eleventh Street Properties LLC	Owned by Petitioner	32	32
Memorial Pkwy	249	159.47-1-36	Eleventh Street Properties LLC	Owned by Petitioner	27	27
Memorial Pkwy	253	159.47-1-37	Eleventh Street Properties LLC	Owned by Petitioner	47	47
Memorial Pkwy	257	159.47-1-38	Eleventh Street Properties LLC	Owned by Petitioner	28	28
Memorial Pkwy	258	159.47-1-39	Eleventh Street Properties LLC	Owned by Petitioner	33	33
Memorial Pkwy	254	159.47-1-40	Eleventh Street Properties LLC	Owned by Petitioner	33	33
Memorial Pkwy	248	159.47-1-41	Eleventh Street Properties LLC	Owned by Petitioner	25	25
Memorial Pkwy	246	159.47-1-42	Eleventh Street Properties LLC	Owned by Petitioner	55.3	(55.3) = 28 + 27.3
Memorial Pkwy	244	159.47-1-43	Eleventh Street Properties LLC	Owned by Petitioner	38.66	(38.66) = 33.02 + 5.64
Memorial Pkwy	242	159.47-1-44	Eleventh Street Properties LLC	Owned by Petitioner	23.89	23.89
Memorial Pkwy	240	159.47-1-45	Eleventh Street Properties LLC	Owned by Petitioner	20	20

Exhibit A

Street	Property Address No.	SBL	Owner	Status	Linear Frontage (LF)	Linear Frontage Calcs
Memorial Pkwy	236	159.47-1-46	Eleventh Street Properties LLC	Owned by Petitioner	20	20
Memorial Pkwy	234	159.47-1-47	Eleventh Street Properties LLC	Owned by Petitioner	24	24
Memorial Pkwy	232	159.47-1-48	Eleventh Street Properties LLC	Owned by Petitioner	24	24
Memorial Pkwy	230	159.47-1-49	Eleventh Street Properties LLC	Owned by Petitioner	33	33
						(629.02) = 302.66 + 63.37 + 145.81 +100.66 = + 16.52
Memorial Pkwy	126	159.55-1-1	NFR Gateway LLC	Owned by Petitioner	629.02	
Memorial Pkwy	107	159.55-1-38	Eleventh Street Properties LLC	Owned by Petitioner	43.72	43.72
Memorial Pkwy	111	159.55-1-39	NFR Gateway LLC	Owned by Petitioner	16.16	16.16
Memorial Pkwy	237	159.47-1-32	Green Robert & Esther		24	24
n/a	n/a	?-159.47-2	n/a			
Rainbow Blvd.	1004-00	159.55-1-44	Eleventh Street Properties LLC	Owned by Petitioner	40.08	40.08
	TOTAL FRONTAGE IN PUD- ALL PROPERTIES=					11253.29 (LF)
	TOTAL FRONTAGE OWNED BY PETITIONERS=					8004.40 (LF)
	% FRONTAGE OWNED BY PETITIONERS=					71.13%

ATTACHMENT

X.3

CURRENT SCHEDULE 1

Allowed Uses	Residential Districts				Commercial Districts			Downtown Districts				Industrial Districts		Open Space	Institutional	Rezoning
	Detached Single R1 A, B, C, D	Doubles R2 A, B	Multi-Family R3 A, B, C	Heritage R4	Neighborhood C1 A, B, C	Traditional C2 A, B	General C3	Downtown D1 A, B, C, D	Gorge View D2 A	Transition D2 B	North Main D3 A	Business Park I1	Industrial I2	OS	Institutional INS	Data Center at Niagara Digital Campus PUD
Residential Categories																
Accessory Dwelling Unit		/	/	/	/	/		/		/	/					
Duplex/Semi Detached		/	/	/	/	/				/						
Multi-dwelling structure (3+ units)			/	/	/	/	/	/		/	/					
Single Detached Dwelling	/	/	/	/	/					/						
Townhouse			/	/	/	/		/		/	/					
Group Living																
Bed and Breakfast 1 rooming/rooming	S 1	S 1	/ 1 S 1	/ 1	/ 1	/ 1		/ 1		/ 1	/ 1					
Day Care, Adult Home			S			S	S									
Group Home	/	/	/	/	/					/					/	
Fraternity or Sorority House			S			S	S	S			S					
Halfway House						S	S					S	S		/	S
Homeless Residential Facilities						S	S					S	S		/	S
Hostel			S	S		S	S					S	S			S
Rectory	/	/	/	/	/	/	/				/				/	
Industrial Categories																
Junkyard																
Manufacturing, Light						S	/					/	/			/
Manufacturing, Heavy													/			/
Recycling Operation													/			/
Warehouse							/					/	/			/
Waste-related													/			/
Wholesale												/	/			/
Institutional Categories																
Community Center and Services	/	/	/		/	/	/	/			/	/	/	/	/	/
College						/	/	/			/	/	/		/	/
Hospital						/	/	/				/	/		/	/
Parks, Public Use & Recreation Areas	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Parks, Open Space & Natural Areas	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Religious Facilities	/	/	/	/	/	/	/	/		/	/	/	/		/	/
School, Public and Private	/	/	/		/	/	/	/			/	/	/		/	/
Commercial Categories																
Adult Uses													S			S
Bar			/ (C only)	/	/	/	/	/			/	/	/			/
Camper Parks			S (A only)				S									
Child & Small Day Care Centers			/	/	/	/	/	/			/	/			/	
Contractor's Yard													/			/
Cultural Facilities, Districts			/	/	/	/	/	/	/	/	/	/	/	/	/	/
Funeral Home						S	/	/			/	/	/		/	/
Hotel/Motel				/		/	/	/		/	/	/	/			
Kennel or Cattery						S	S					S				
Motor Vehicle Service and Repair, Minor					/ (C only)		/					/	/			/
Motor Vehicle Service and Repair, Major							S					/	/			/
Motor Vehicle Sales and Leasing							/					/	/			/
Office			/ (C only)	/	/	/	/	/		/	/	/	/		/	/
Parking, Commercial													/			/
Rail Transit Facility						/	/				/	/	/			/
Recreation, Commercial Outdoor						/		/	/	/		/	/	S		/
Restaurant			/ (C only)	/	/	/	/	/			/	/	/		/	/
Retail Sales and Service			/ (C only)	/	/	/	/	/			/	/	/		/ 2	/
Shopping Center						/	/	/								
Storage, Self-Serve							/					/	/			/
Telecommunication Facility	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Tourism and Sightseeing Oriented						S	S	S			S	S	S			S
Veterinary Clinic						/	/					/	/		/	/
Non-categorized uses																
Data Center																OD
High Energy Use																OD
Proposed New Use																
Utility*																/

/ = Permitted Use
 Empty Box = Not Permitted
 1 Owner Occupied
 2 Accessory Only
 S = Permitted only with Special Permit (Chapter 1328)
 OD= High Energy Usage Overlay District
 *Adapted from current definitions of Private-Utility and Public-Utility
 Green= current zoning for the Property

ATTACHMENT

X.4

Rezoning Petition- Area Criteria Chart				
Zoning Criteria	I-1 District	I-2 District	High Energy District	Data Center at Niagara Digital Campus*
Maximum Setbacks				
Maximum Building Height	60'	N/A	-	34'
Maximum Lot Coverage	50%	N/A	-	31%
Minimum Setbacks				
Minimum Front Yard	20'	N/A	-	**
Minimum Side Yard	10'	N/A	-	**
Minimum Rear Yard	10'	N/A	-	**
Minimum Lot Area	10,000 sf	N/A	-	2,113,694 sf*
Minimum Landscaped Area ¹	30%*	N/A	-	**
Setbacks: Adjoining District is Zoned Industrial				
Min. Front Yard Setback	-	-	40'	N/A (b/c no adjacent I2)
Min. Side Yard Setback	-	-	20'	N/A (b/c no adjacent I2)
Min. Rear Yard Setback	-	-	20'	N/A (b/c no adjacent I2)
Setbacks: Adjoining District is Zoned Anything Except Industrial				
Min. Front Yard Setback	-	-	50'	**
Min. Side Yard Setback	-	-	25'	**
Min. Rear Yard Setback	-	-	25'	**
Buffer from the nearest boundary of any Residential or Neighborhood Commercial zoned parcels				
			200'	30'
Buffer from the nearest boundary of any Traditional Commercial, General Commercial Downtown or Business Park.				
			50'	**
Landscaping, Screening & Buffer Regulations: Zoning District Adjoining Residential or Open Space ¹				
Min. width of Buffer Area	30'	-	-	**
#trees per 100 linear ft.	6	-	-	**
#shurbs ± per 100 linear ft.	20	-	-	**
1. Refer to 1322.6 for buffering requirements: <i>A. Screening and buffers are required for any lot or use in any industrial or commercial district that abuts a residential district or open space district. In addition, Structures, pavement, utility construction, signage and similar improvements shall not be permitted to encroach on any buffer unless specifically permitted by the Planning Board.</i> <i>B. The required buffer is intended to be landscaped and improved in order to provide effective visual screening on a year-round basis. Buffers shall employ existing vegetation, or nursery stock, or both, as well as fences, walls, earth berms, or grade changes in accordance with these standards</i>				
Screening: Other screening and buffering shall be provided as follows: <ol style="list-style-type: none"> Refuse Container Screen: Refuse containers or disposal areas shall be screened from view by placement of a solid wood fence or masonry wall at least as tall as the refuse containers, but no less than 5 feet in height. Service Corridor Screen: When adjacent to residential uses, commercial and industrial service corridors shall be screened. Siting and design of such service areas shall reduce the adverse effects of noise, odor and visual clutter upon adjacent residential uses. Mechanical Equip. Screen: All mechanical equipment shall be screened from any public right-of-way or adjacent to residential use or district. Outdoor Storage: All outside storage shall be screened from view with fencing and/or landscaping. This requirement may be waived for industrial zoned properties not adjacent to commercial or residential uses. 				
*Assumes that the Property will be amalgamated for the Data Center at Niagara Digital Campus project prior to the issuance of a building permit. **As there are multiple buildings and multiple public R.O.W.'s, please see Attachment E (Concept Plans).				

ATTACHMENT

Y

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1 is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: Data Center at the Niagara Digital Campus Planned Unit District		
Project Location (describe, and attach a general location map): See Attachment C (Narrative); Attachment E (Concept Plans)		
Brief Description of Proposed Action (include purpose or need): See Attachment C (Narrative)		
Name of Applicant/Sponsor: Niagara Falls Redevelopment, LLC, Eleventh Street Properties, LLC, NFR Gateway LLC		Telephone: 716-282-0001
		E-Mail: info@niagaradigitalcampus.com
Address: 800 Main Street, Suite 3D		
City/PO: Niagara Falls	State: NY	Zip Code: 14301
Project Contact (if not same as sponsor; give name and title/role): Roger Trevino, Executive Vice President		Telephone: 716-282-0001
		E-Mail: rogercci@icloud.com
Address: 800 Main Street, Suite 3D		
City/PO: Niagara Falls	State: NY	Zip Code: 14301
Property Owner (if not same as sponsor):		Telephone:
		E-Mail:
Address:		
City/PO:	State:	Zip Code:

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Council, Town Board, <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No or Village Board of Trustees	City Council- PUD Law enactment	pending
b. City, Town or Village <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Planning Board or Commission	Planning recommendation for PUD Petition	May 2025
c. City, Town or <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Village Zoning Board of Appeals		
d. Other local agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	NF Water Board- water/sewer	pending
e. County agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	NCDOH- water/sewer	pending
f. Regional agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	NCIDA	pending
g. State agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	NYSDEC- Air; SHPO- consultation	pending
h. Federal agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
i. Coastal Resources.		
i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
iii. Is the project site within a Coastal Erosion Hazard Area?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☒ Yes ☐ No

- If Yes, complete sections C, F and G.
- If No, proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☒ Yes ☐ No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☒ Yes ☐ No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☒ Yes ☐ No

If Yes, identify the plan(s):

NYS Heritage Areas: West Erie Canal Corridor

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐ Yes ☒ No

If Yes, identify the plan(s):

C.3. Zoning	
a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. If Yes, what is the zoning classification(s) including any applicable overlay district? See Attachment C (Narrative)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<hr/>	
b. Is the use permitted or allowed by a special or conditional use permit?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
c. Is a zoning change requested as part of the proposed action? If Yes,	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
i. What is the proposed new zoning for the site? "Data Center at Niagara Digital Campus PUD"	
<hr/>	
C.4. Existing community services.	
a. In what school district is the project site located? Niagara Falls City School District	
<hr/>	
b. What police or other public protection forces serve the project site? City of Niagara Falls Police Department, Niagara County Sheriff, New York State Police, New York State National Guard, United States Military, US Fed	
<hr/>	
c. Which fire protection and emergency medical services serve the project site? Niagara Falls Fire Department	
<hr/>	
d. What parks serve the project site? Sherman Park (onsite), Hyde Park (northeast), Gill Creek Park (east), and Niagara Falls State Park (southwest)	
<hr/>	

D. Project Details

D.1. Proposed and Potential Development	
a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? See Attachment C (Narrative)	
<hr/>	
b. a. Total acreage of the site of the proposed action?	58.5 acres
b. Total acreage to be physically disturbed?	58.5 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor?	~140 acres
<hr/>	
c. Is the proposed action an expansion of an existing project or use?	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____	
<hr/>	
d. Is the proposed action a subdivision, or does it include a subdivision?	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If Yes,	
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types) See Attachment C (Narrative), Part 2, Section B	
<hr/>	
ii. Is a cluster/conservation layout proposed?	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
iii. Number of lots proposed? _____	
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____	
<hr/>	
e. Will the proposed action be constructed in multiple phases?	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
i. If No, anticipated period of construction: _____ months	
ii. If Yes:	
<ul style="list-style-type: none"> • Total number of phases anticipated _____ 5 • Anticipated commencement date of phase 1 (including demolition) _____ 5 month _____ 2026 year • Anticipated completion date of final phase _____ 5 month _____ 2032 year • Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____ 	
See Attachment C (Narrative), Part 2.	
<hr/>	

f. Does the project include new residential uses? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
If Yes, show numbers of units proposed.				
	<u>One Family</u>	<u>Two Family</u>	<u>Three Family</u>	<u>Multiple Family (four or more)</u>
Initial Phase	_____	_____	_____	_____
At completion	_____	_____	_____	_____
of all phases	_____	_____	_____	_____

g. Does the proposed action include new non-residential construction (including expansions)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If Yes,	
i. Total number of structures 9 & substation _____	
ii. Dimensions (in feet) of largest proposed structure: _____ 35 height; _____ 223 width; and _____ 575 length	
iii. Approximate extent of building space to be heated or cooled: _____ 1,232,715 square feet	

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If Yes,	
i. Purpose of the impoundment: _____	
ii. If a water impoundment, the principal source of the water: <input type="checkbox"/> Ground water <input type="checkbox"/> Surface water streams <input type="checkbox"/> Other specify: _____	
iii. If other than water, identify the type of impounded/contained liquids and their source. _____	
iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres	
v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length	
vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): _____	

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
(Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)	
If Yes:	
i. What is the purpose of the excavation or dredging? _____	
ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?	
<ul style="list-style-type: none"> • Volume (specify tons or cubic yards): _____ • Over what duration of time? _____ 	
iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them. _____	
iv. Will there be onsite dewatering or processing of excavated materials? <input type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, describe. _____	
v. What is the total area to be dredged or excavated? _____ acres	
vi. What is the maximum area to be worked at any one time? _____ acres	
vii. What would be the maximum depth of excavation or dredging? _____ feet	
viii. Will the excavation require blasting? <input type="checkbox"/> Yes <input type="checkbox"/> No	
ix. Summarize site reclamation goals and plan: _____	

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If Yes:	
i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): _____	

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

iii. Will the proposed action cause or result in disturbance to bottom sediments?

☐ Yes ☐ No

If Yes, describe:

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation?

☐ Yes ☐ No

If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____
- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

c. Will the proposed action use, or create a new demand for water?

☒ Yes ☐ No

If Yes:

i. Total anticipated water usage/demand per day: _____ 8,250 gallons/day

ii. Will the proposed action obtain water from an existing public water supply?

☒ Yes ☐ No

If Yes:

- Name of district or service area: City of Niagara Falls
- Does the existing public water supply have capacity to serve the proposal? ☒ Yes ☐ No
- Is the project site in the existing district? ☒ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☒ No
- Do existing lines serve the project site? ☒ Yes ☐ No

iii. Will line extension within an existing district be necessary to supply the project?

☒ Yes ☐ No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____
Replacement of existing 6" mains on 10th and 12th Streets with 8 or 10" mains.
- Source(s) of supply for the district: municipal water

iv. Is a new water supply district or service area proposed to be formed to serve the project site?

☐ Yes ☒ No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes?

☒ Yes ☐ No

If Yes:

i. Total anticipated liquid waste generation per day: _____ 8,250 gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): _____

See Attachment C (Narrative) Part 3.

iii. Will the proposed action use any existing public wastewater treatment facilities?

☒ Yes ☐ No

If Yes:

- Name of wastewater treatment plant to be used: City of Niagara Falls
- Name of district: City of Niagara Falls
- Does the existing wastewater treatment plant have capacity to serve the project? ☒ Yes ☐ No
- Is the project site in the existing district? ☒ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☒ No

<ul style="list-style-type: none"> • Do existing sewer lines serve the project site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No • Will a line extension within an existing district be necessary to serve the project? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <p>If Yes:</p> <ul style="list-style-type: none"> • Describe extensions or capacity expansions proposed to serve this project: _____ 	
<p>iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <ul style="list-style-type: none"> • Applicant/sponsor for new district: _____ • Date application submitted or anticipated: _____ • What is the receiving water for the wastewater discharge? _____ 	
<p>v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):</p> <p>_____</p> <p>_____</p>	
<p>vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____</p> <p>_____</p> <p>_____</p>	
<p>e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p>i. How much impervious surface will the project create in relation to total size of project parcel?</p> <p style="padding-left: 40px;">_____ Square feet or <u>37</u> acres (impervious surface)</p> <p style="padding-left: 40px;">_____ Square feet or <u>58</u> acres (parcel size)</p> <p>ii. Describe types of new point sources. <u>Connection to municipal system</u></p> <p>_____</p> <p>iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?</p> <p><u>On-site stormwater management system with eventual discharge to municipal combined sewer system.</u></p> <p>_____</p> <p>• If to surface waters, identify receiving water bodies or wetlands: _____</p> <p>_____</p> <p>• Will stormwater runoff flow to adjacent properties? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	
<p>iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	
<p>f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes, identify:</p> <p>i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)</p> <p><u>Tractor Trailers</u></p> <p>ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)</p> <p><u>Not anticipated</u></p> <p>iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)</p> <p><u>Back-up generators</u></p>	
<p>g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>ii. In addition to emissions as calculated in the application, the project will generate:</p> <ul style="list-style-type: none"> • _____ Tons/year (short tons) of Carbon Dioxide (CO₂) • _____ Tons/year (short tons) of Nitrous Oxide (N₂O) • _____ Tons/year (short tons) of Perfluorocarbons (PFCs) • _____ Tons/year (short tons) of Sulfur Hexafluoride (SF₆) • _____ Tons/year (short tons) of Carbon Dioxide equivalent of Hydrofluorocarbons (HFCs) • _____ Tons/year (short tons) of Hazardous Air Pollutants (HAPs) 	

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐ Yes ☒ No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐ Yes ☒ No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust): _____

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☐ Yes ☒ No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☐ Morning ☐ Evening ☐ Weekend
☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____

iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? ☐ Yes ☐ No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: _____

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☐ Yes ☐ No

vii. Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐ Yes ☐ No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐ Yes ☐ No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☒ Yes ☐ No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____
630,000,000 kWh

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):
Electricity will be supplied by National Grid via 115 kV transmission lines and a new 140 MW substation.

iii. Will the proposed action require a new, or an upgrade, to an existing substation? ☒ Yes ☐ No

l. Hours of operation. Answer all items which apply.

<p>i. During Construction:</p> <ul style="list-style-type: none"> Monday - Friday: _____ In accordance with the Code Saturday: _____ Sunday: _____ Holidays: _____ 	<p>ii. During Operations:</p> <ul style="list-style-type: none"> Monday - Friday: _____ 24/7 Saturday: _____ 24/7 Sunday: _____ 24/7 Holidays: _____ 24/7
--	---

<p>m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If yes:</p> <p>i. Provide details including sources, time of day and duration: See Attachment C (Narrative) _____</p>
<p>ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Describe: _____</p>
<p>n. Will the proposed action have outdoor lighting? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If yes:</p> <p>i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures: Pole-mounted site light fixtures in compliance with Code. Dark sky compliant LED with house shields. _____</p>
<p>ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Describe: <u>Some existing barriers will be removed but landscaping to minimize impacts will be incorporated into the design.</u> _____</p>
<p>o. Does the proposed action have the potential to produce odors for more than one hour per day? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____</p>
<p>p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Product(s) to be stored <u>See Attachment (Narrative), Part 3</u> _____</p> <p>ii. Volume(s) _____ per unit time _____ (e.g., month, year)</p> <p>iii. Generally, describe the proposed storage facilities: _____</p>
<p>q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Describe proposed treatment(s): _____</p>
<p>ii. Will the proposed action use Integrated Pest Management Practices? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Describe any solid waste(s) to be generated during construction or operation of the facility:</p> <ul style="list-style-type: none"> • Construction: _____ 10 tons per _____ month (unit of time) • Operation : _____ 1 tons per _____ month (unit of time) <p>ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:</p> <ul style="list-style-type: none"> • Construction: _____ • Operation: <u>Typical municipal recycling</u> _____ <p>iii. Proposed disposal methods/facilities for solid waste generated on-site:</p> <ul style="list-style-type: none"> • Construction: <u>NYSDEC- approved landfill</u> _____ • Operation: <u>NYSDEC-approved landfill</u> _____

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☒ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☒ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility: _____

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

- ☒ Urban ☒ Industrial ☒ Commercial ☒ Residential (suburban) ☐ Rural (non-farm)
- ☐ Forest ☐ Agriculture ☐ Aquatic ☒ Other (specify): Vacant land

ii. If mix of uses, generally describe:

b. Land uses and covertypes on the project site.

Land use or Covertypes	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	18.3	50.0	+36.7
• Forested	4.9	1.3	-3.6
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0		
• Agricultural (includes active orchards, field, greenhouse etc.)	0		
• Surface water features (lakes, ponds, streams, rivers, etc.)	0	0	
• Wetlands (freshwater or tidal)	0	0	
• Non-vegetated (bare rock, earth or fill)	0	0	
• Other Describe: <u>Vacant land / landscaping</u>	35.3 / 0	0 / 7.2	-35.5 / +7.2

c. Is the project site presently used by members of the community for public recreation? i. If Yes: explain: _____	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? If Yes, i. Identify Facilities: Community Missions and Niagara County Social Services _____	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
e. Does the project site contain an existing dam? If Yes: i. Dimensions of the dam and impoundment: <ul style="list-style-type: none"> • Dam height: _____ feet • Dam length: _____ feet • Surface area: _____ acres • Volume impounded: _____ gallons OR acre-feet ii. Dam's existing hazard classification: _____ iii. Provide date and summarize results of last inspection: _____ _____	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? If Yes: i. Has the facility been formally closed? <ul style="list-style-type: none"> • If yes, cite sources/documentation: _____ ii. Describe the location of the project site relative to the boundaries of the solid waste management facility: _____ _____	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
iii. Describe any development constraints due to the prior solid waste activities: _____ _____	
g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? If Yes: i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred: _____ _____	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? If Yes: i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: <input checked="" type="checkbox"/> Yes – Spills Incidents database <input checked="" type="checkbox"/> Yes – Environmental Site Remediation database <input type="checkbox"/> Neither database Provide DEC ID number(s): See Attachment C (Narrative), Part 3 Provide DEC ID number(s): See Attachment C (Narrative) Part 3	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
ii. If site has been subject of RCRA corrective activities, describe control measures: _____ _____ _____	
iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? If yes, provide DEC ID number(s): 932048A, C932164, C932159, 932166, C932182, C93... iv. If yes to (i), (ii) or (iii) above, describe current status of site(s): See Attachment C (Narrative), Part 3. _____ _____	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

v. Is the project site subject to an institutional control limiting property uses? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<ul style="list-style-type: none"> • If yes, DEC site ID number: _____ • Describe the type of institutional control (e.g., deed restriction or easement): _____ • Describe any use limitations: _____ • Describe any engineering controls: _____ • Will the project affect the institutional or engineering controls in place? <input type="checkbox"/> Yes <input type="checkbox"/> No • Explain: _____ 	
E.2. Natural Resources On or Near Project Site	
a. What is the average depth to bedrock on the project site? _____ 25 feet	
b. Are there bedrock outcroppings on the project site? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____ %	
c. Predominant soil type(s) present on project site: _____ 100 %	
_____ %	
_____ %	
d. What is the average depth to the water table on the project site? Average: _____ >10 feet	
e. Drainage status of project site soils: <input type="checkbox"/> Well Drained: _____ % of site	
<input type="checkbox"/> Moderately Well Drained: _____ % of site	
<input checked="" type="checkbox"/> Poorly Drained 100 % of site	
f. Approximate proportion of proposed action site with slopes: <input checked="" type="checkbox"/> 0-10%: _____ 100 % of site	
<input type="checkbox"/> 10-15%: _____ % of site	
<input type="checkbox"/> 15% or greater: _____ % of site	
g. Are there any unique geologic features on the project site? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If Yes, describe: _____	
h. Surface water features.	
i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
ii. Do any wetlands or other waterbodies adjoin the project site? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If Yes to either i or ii, continue. If No, skip to E.2.i.	
iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
iv. For each identified regulated wetland and waterbody on the project site, provide the following information:	
<ul style="list-style-type: none"> • Streams: Name _____ Classification _____ • Lakes or Ponds: Name _____ Classification _____ • Wetlands: Name _____ Approximate Size _____ • Wetland No. (if regulated by DEC) _____ 	
v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If yes, name of impaired water body/bodies and basis for listing as impaired: _____	
i. Is the project site in a designated Floodway? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
j. Is the project site in the 100-year Floodplain? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
k. Is the project site in the 500-year Floodplain? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If Yes:	
i. Name of aquifer: _____	

<p>m. Identify the predominant wildlife species that occupy or use the project site: <u>Typical urban/suburban wildlife</u> _____ _____ _____</p>	
<p>n. Does the project site contain a designated significant natural community? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Describe the habitat/community (composition, function, and basis for designation): _____</p> <p style="margin-left: 20px;">ii. Source(s) of description or evaluation: _____</p> <p style="margin-left: 20px;">iii. Extent of community/habitat:</p> <ul style="list-style-type: none"> • Currently: _____ acres • Following completion of project as proposed: _____ acres • Gain or loss (indicate + or -): _____ acres 	
<p>o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Species and listing (endangered or threatened): _____</p> <p>_____</p> <p>_____</p>	
<p>p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Species and listing: _____</p> <p>_____</p> <p>_____</p>	
<p>q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If yes, give a brief description of how the proposed action may affect that use: _____</p> <p>_____</p> <p>_____</p>	
<p>E.3. Designated Public Resources On or Near Project Site</p>	
<p>a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes, provide county plus district name/number: _____</p>	
<p>b. Are agricultural lands consisting of highly productive soils present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p style="margin-left: 20px;">i. If Yes: acreage(s) on project site? _____</p> <p style="margin-left: 20px;">ii. Source(s) of soil rating(s): _____</p>	
<p>c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Nature of the natural landmark: <input type="checkbox"/> Biological Community <input type="checkbox"/> Geological Feature</p> <p style="margin-left: 20px;">ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____</p> <p>_____</p> <p>_____</p>	
<p>d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. CEA name: _____</p> <p style="margin-left: 20px;">ii. Basis for designation: _____</p> <p style="margin-left: 20px;">iii. Designating agency and date: _____</p>	

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If Yes: i. Nature of historic/archaeological resource: <input checked="" type="checkbox"/> Archaeological Site <input checked="" type="checkbox"/> Historic Building or District ii. Name: Eligible property: James Mullane Garage, Eligible property: Hennepin Apartments, Eligible property: St. Hagop iii. Brief description of attributes on which listing is based: See narrative.	
f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
g. Have additional archaeological or historic site(s) or resources been identified on the project site? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes: i. Describe possible resource(s): _____ ii. Basis for identification: _____	
h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes: i. Identify resource: <u>Niagara Falls</u> ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): <u>Niagara Falls</u> iii. Distance between project and resource: _____ .7 miles.	
i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes: i. Identify the name of the river and its designation: _____ ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? <input type="checkbox"/> Yes <input type="checkbox"/> No	

F. Additional Information

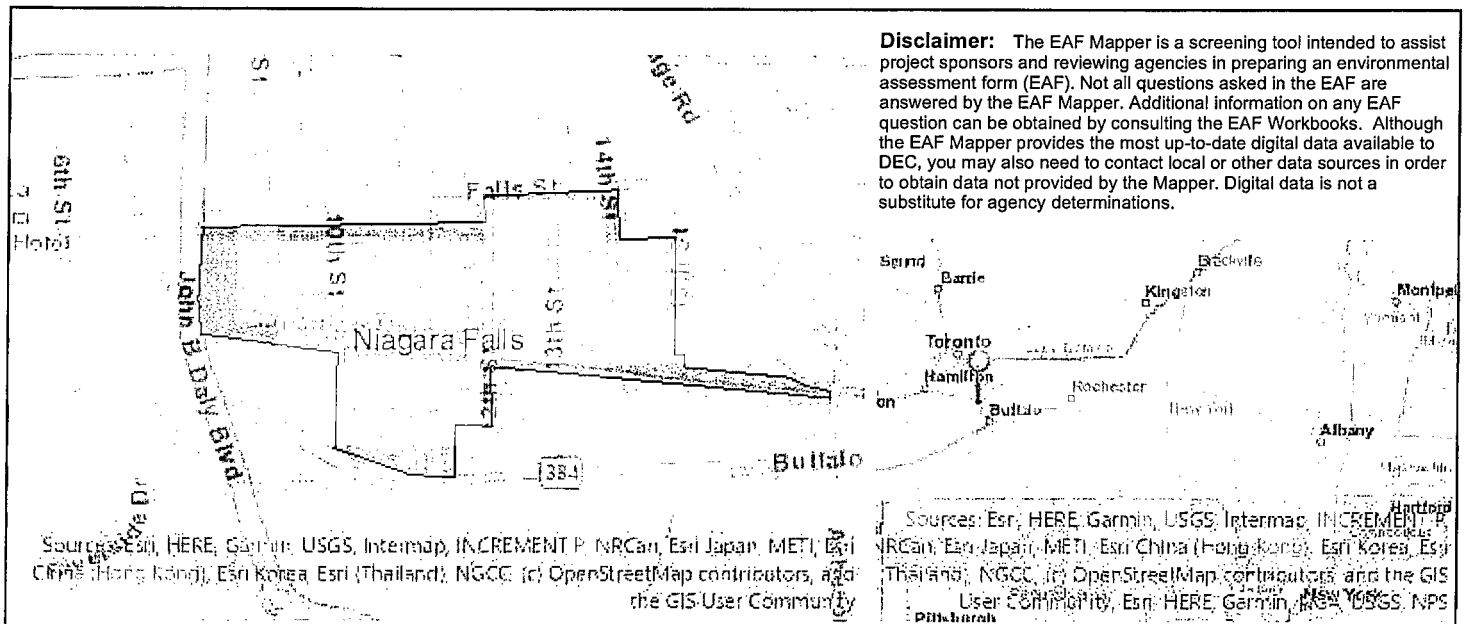
Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name ROGER TREVINO Niagara Falls Redevelopment Date 5.14.25
 Signature [Signature] Title Exec. V. P.



B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Yes - Digital mapping data are not available for all Special Planning Districts. Refer to EAF Workbook.
C.2.b. [Special Planning District - Name]	NYS Heritage Areas: West Erie Canal Corridor
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.ii [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	Yes
E.1.h.iii [Within 2,000' of DEC Remediation Site - DEC ID]	932048A, C932164, C932159, 932166, C932182, C932180, 932051A, 932051B
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	No
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	Yes
E.2.l. [Aquifers]	No
E.2.n. [Natural Communities]	No

E.2.o. [Endangered or Threatened Species]	No
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Yes - Digital mapping data for archaeological site boundaries are not available. Refer to EAF Workbook.
E.3.e.ii [National or State Register of Historic Places or State Eligible Sites - Name]	Eligible property:James Mullane Garage, Eligible property:St. Hagop Armenian Apolistic Church and Community Center, Eligible property:St. Staphis Armenian Church, Eligible property:Former Niagara Candy Co. - Former Moore Business Forms Bld., Eligible property:SHREDDED WHEAT/NABISCO GRAIN ELEVATOR, Holy Trinity Roman Catholic Church Complex
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No

ATTACHMENT

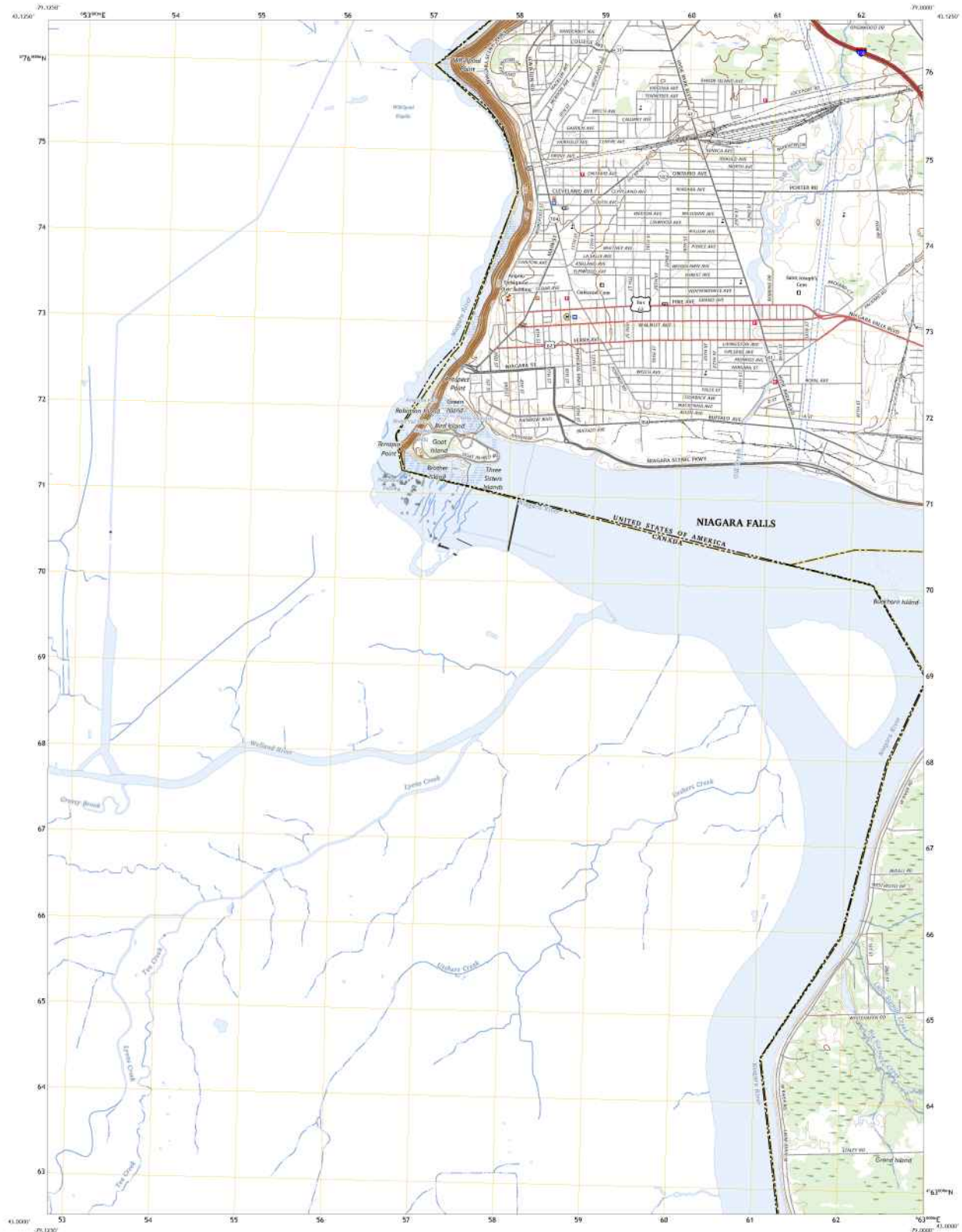
Y.1



U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

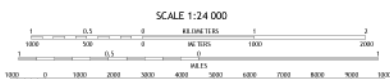
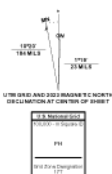


NIAGARA FALLS QUADRANGLE
NEW YORK
7.5-MINUTE SERIES



Produced by the United States Geological Survey
Map is accurate to within 1 meter (3.28 feet).
Vertical datum: National Geodetic Vertical Datum of 1988 (NGVD 88).
Horizontal datum: North American Datum of 1983 (NAD 83).
This map is not a legal document. Boundary lines may be
generated for this map scale. Private lands with government
concessions may not be shown. Obtain permission before
entering private lands.

Images:.....ANIP, September 2017 - December 2017
Roads:.....U.S. Census Bureau, 2016
Hydrography:.....National Hydrography Dataset, 2001 - 2023
Contours:.....National Elevation Dataset, 2010
Boundaries:.....Multiple sources; see metadata file J018 - 2022
Webpage:.....FWS National Wetlands Inventory 2002 - 2018



ROAD CLASSIFICATION	
Expressway	Local Connector
Secondary Hwy	Local Road
Route	400
Interstate Route	US Route
	State Route

NIAGARA FALLS, NY, ON
2023



ATTACHMENT

Y.2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Environmental Resource Mapper

Base Map: Topographical
Using this map

Search

Tools

Layers and Legend

☐ All Layers

☒ Unique Geological Features

☐ Waterbody Classifications for Rivers/Streams
☐ Waterbody Classifications for Lakes
☐ Waterbody Inventory/Priority Waterbodies List

☐ Lakes and Reservoirs
☐ Estuaries
☐ Rivers and Streams
☐ Shorelines

Other Wetland Layers

Reference Layers

Tell Me More...

Need A Permit?

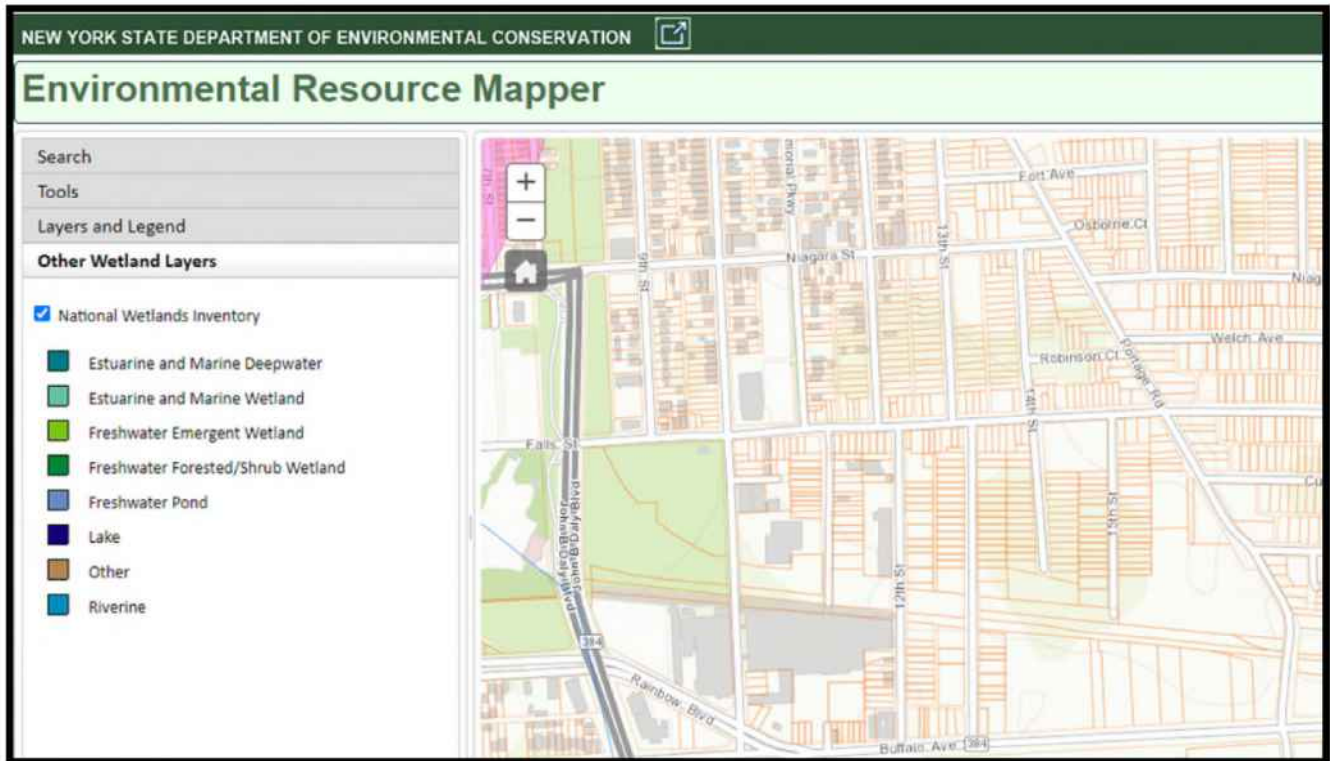
Contacts

NIAGARA DIGITAL CAMPUS

NIAGARA FALLS, NEW YORK

ATTACHMENT

Y.3



ATTACHMENT

Y.4

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Niagara County, New York



Local office

New York Ecological Services Field Office

☎ (607) 753-9334

📅 (607) 753-9699

✉ fw5es_nyfo@fws.gov

3817 Luker Road
Cortland, NY 13045-9385

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Clams

NAME	STATUS
Salamander Mussel <i>Simpsonaias ambigua</i> Wherever found There is proposed critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6208	Proposed Endangered

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the ["Supplemental Information on Migratory Birds and Eagles"](#).

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC
<https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to [Bald Eagle Nesting and Sensitivity to Human Activity](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read ["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

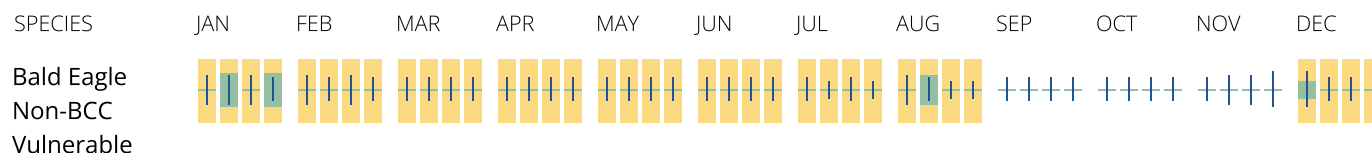
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the ["Supplemental Information on Migratory Birds and Eagles"](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC
<https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Belted Kingfisher <i>Megasceryle alcyon</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 15 to Jul 25

Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Blue-winged Warbler <i>Vermivora cyanoptera</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jun 30
Canada Warbler <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Cerulean Warbler <i>Setophaga cerulea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974	Breeds Apr 20 to Jul 20
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Golden-winged Warbler <i>Vermivora chrysoptera</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745	Breeds May 1 to Jul 20
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Rose-breasted Grosbeak <i>Pheucticus ludovicianus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 15 to Jul 31
Short-billed Dowitcher <i>Limnodromus griseus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere

Wood Thrush *Hylocichla mustelina*

Breeds May 10 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read ["Supplemental Information on Migratory Birds and Eagles"](#), specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
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To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

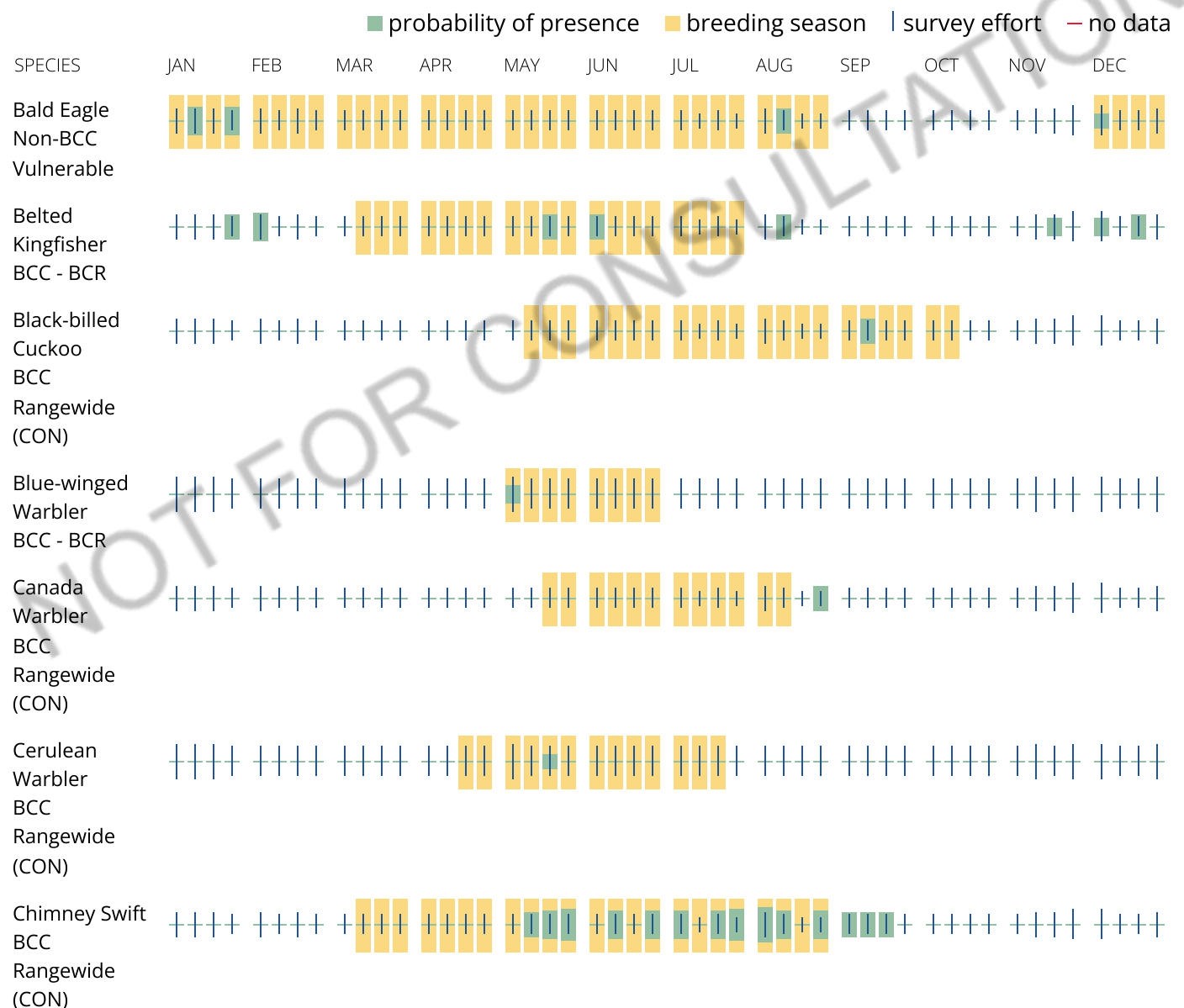
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact

[Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies.

Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

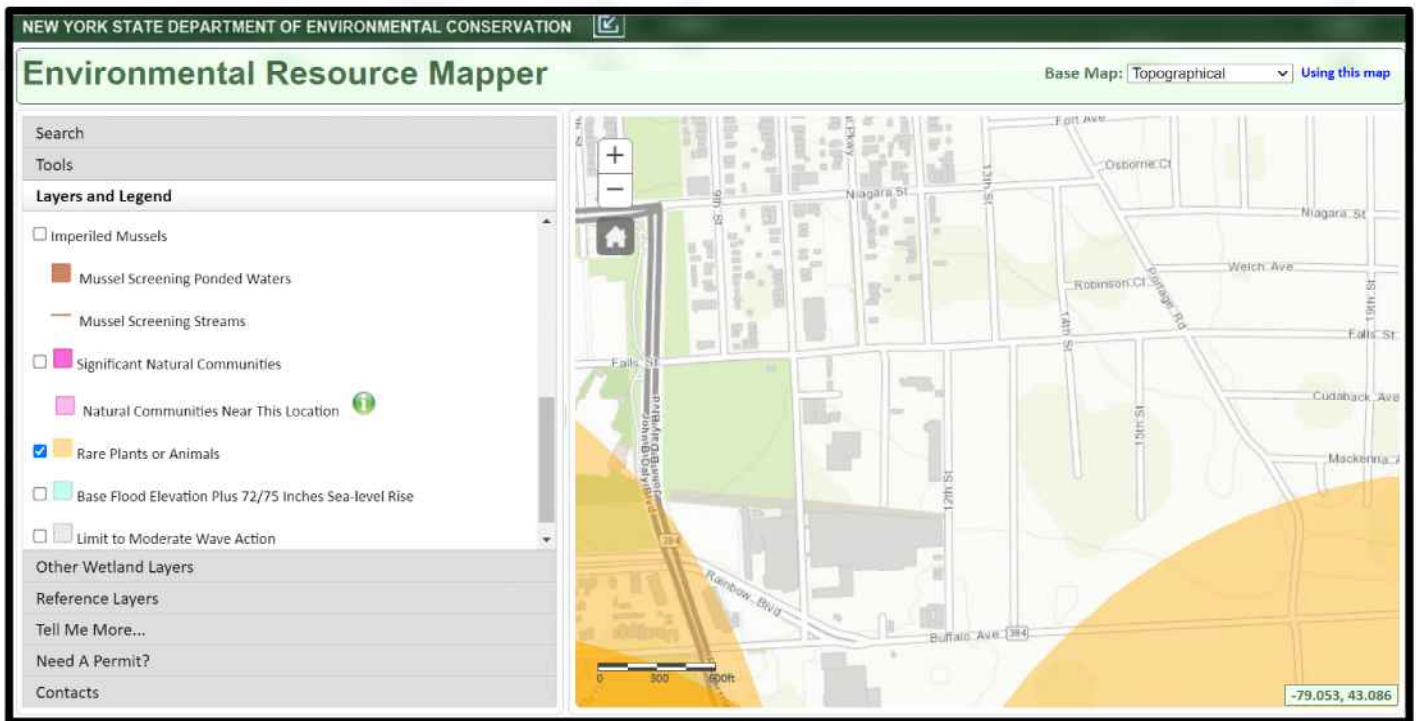
ATTACHMENT

Y.5



ATTACHMENT

Y.6



ATTACHMENT

Y.7

March 27, 2023

Mr. Roger Trevino
Executive Vice President
Niagara Fall Redevelopment, LLC
800 Main St., Suite 3D
Niagara Falls, NY 14303

Re: Requested capacity to supply 150MW load from National Grid's Transmission lines 187/188 to customer site near 220 Memorial Park, Niagara Falls NY 14304

Dear Mr. Trevino,

This letter is in response to your request for available capacity on Niagara Mohawk Power Corporations d/b/a National Grid's ("National Grid" or the "Company's") lines 187 & 188. In response to this request, National Grid's Transmission Planning group performed a preliminary localized load analysis and assessed the following.

National Grid observed that under current loading conditions with existing customer demand: addition of 150MW on lines 187/188 resulted in overloading conditions that would require system modifications, substantially in the form of conductor upgrades to approximately five (5) miles of line.

When similar analysis was performed using a slightly lower (140MW) load increase, it was observed the model did not result in overload conditions. It is therefore feasible that a load of 140MW could be supported by lines 187/188 at the location referenced above once existing 115kV infrastructure is extended to your site.

Lines 187/188 may be upgraded to a larger conductor size/material to provide sufficient additional capacity to support the original request for a total load of 150 MW. If the customer wishes to proceed with such upgrade, all costs associated with this work is fully billable to the customer.

As per your inquiry to an 'order-of-magnitude' cost for re-conductoring 115kV Transmission Lines; similar projects to re-conductor/rebuild double circuit structures have cost roughly eight million dollars per mile to complete. This does not represent an actual estimate of your project. Additional engineering design is required to determine if existing facilities are sufficient to support larger conductors & provide an actual cost estimate. The preliminary cost estimate previously provided from our 4.2 scoping document as well as the associated CRA phase 1 sent on 3/23/23 assumes a maximum load increase of 140MW and remains dependent on approval of NYISO load study.

Please note 115kV system loading is dynamic. This information is based on current system load and does not include any load which may be added to or removed from referenced lines prior to energization of customer's facility. This preliminary load analysis does not substitute or replace the requirement to enter the NYISO Interconnection queue for study. The NYISO requires a NYISO study for addition of any load greater than 10MW on the 115kV Transmission System as previously referenced.

Sincerely,



Marc Gschwend