



February 24, 2025

Ms. Theresa Joyner, Chair
and Members of the City of Hudson Planning Board

Re: Colarusso Application for Dock Conditional Use Permit Review

Dear Ms. Joyner and Planning Board Members:

This is a follow-up to the February 11, 2025, City of Hudson Planning Board monthly meeting. We are writing to address the following three issues, which are of grave concern to us:

- 1) **The Board's decision to NOT hold a public hearing for the Colarusso Dock C.U.P. application.** The value of public hearings enables the public to actively engage in discussions and provide valuable feedback to the Board on issues that directly impact our community. We feel strongly that the Board open a Public Hearing to allow public input about the Colarusso C.U.P. in light of the most recent legal opinions and findings.
- 2) **The Board's decision to eliminate hybrid meetings in the future.** New York State's Open Meetings Laws are designed to promote transparency in government and ensure that meetings are accessible to the public. Hybrid meetings have proven to be workable for public officials and members of the community alike. We ask the Board to reconsider their position and reinstate the hybrid format.
- 3) **The Board's understanding of the scope of its review of the application in view of court decisions.** We summarize relevant portions of the Planning Board's actions that we feel must be considered at this time. This is particularly important in light of the fact that all but one of the current board members (Ms. Joyner) are new to the Board and may not be aware of the depth and breadth of the Planning Board's earlier review, and critical information in the Planning Board's records that must be considered by the Board.

As it's been several years since the Board last considered the Colarusso Dock C.U.P., we researched documents on the Planning Board's webpage to refresh our memories, and thought it might be helpful to share with the current Planning Board. Following is a summary of our findings:

BACKGROUND

- **July 2019 to July 2020:** The last Planning Board (PB) public hearing involving the Colarusso dock operation was 5-6 years ago – (**July 19, 2019 to July 14, 2020**). The hearing involved two separate applications before the Board from A. Colarusso and Son Inc. for “conditional use permits with site plan components by a replacement bulkhead and proposed haul road improvements at 175 South Front Street.” Bottom line, one for the dock operation and one for the haul road.
 - November 2019, Colarusso submitted an Environmental Assessment Form (EAF) to PB; the then Board Chair (Besty Gramkow) said that “much information regarding the dock operations was still missing.”
 - The public expressed concerns about not knowing about the volume of Colarusso trucks on city streets or at the waterfront.
 - February 2020 – Board received site plan from Colarusso, for which Board said they had been requesting for months.
 - May 2020 – A PB member stated that the Board had been asking the applicant for truck traffic volume information for over three years.

BACKGROUND

- July 14, 2020 – On final day of the public hearing, Applicant advised the PB of results of a newly completed traffic study (7/9/20 report) it commissioned, performed by Creighton Manning Engineering (CM), which reported on Colarusso truck volume from 2014 through 2019 based on Colarusso truck load tickets. Subsequently, Barton & Loguidice (B&L), the PB's engineering firm, evaluated CM's report and submitted findings to the PB in August 2020, after close of the public hearing.
- Only ONE member of current Planning Board (Theresa Joyner) was on the Board during the public hearing. Ms. Joyner was appointed to PB in early 2020, and subsequently became Chair in March 2022; NONE of the Board's current counsel participated in the Dock C.U.P. review. Ms. Polidoro replaced Jeff Baker, Esq. July 14, 2020, the day public hearing ended. Ms. Polidoro handled the subsequent haul road review.
- **July 27, 2020**, PB agreed to pass a resolution classifying the Colarusso application for continuation of existing commercial dock operation as a Type I SEQRA action. The Board subsequently commenced SEQRA Part II and Part III reviews (conducted from August 2020 until November 2021).
- **November 2021**, the PB completed an Environment Assessment Form Part 3 review of the Colarusso Dock operations, which they passed unanimously that month. Board decided to adopt a Determination of Significance Positive Declaration. Colarusso subsequently sued the Planning Board for a SECOND TIME, which prevented PB from continuing its review for approximately 20 months. *One PB member commented that the PB spent hundreds of hours completing the EAF Part 3. It contains a wealth of information, and addresses many issues that overlap with the City's Zoning Codes.*
- **August 2023**, PB resumed its review of the haul road C.U.P. following a Court's decision pertaining to that C.U.P. application. The PB proceeded with its review of the haul road C.U.P., which it subsequently approved December 2023.
- **July 2024** - Court rendered decision on the remaining outstanding lawsuit by Colarusso against the PB.
- **January 2025** – PB resumed discussion of the Colarusso Dock C.U.P. application following Court's decision.
- **February 2025** – PB voted to NOT hold a public hearing for the Colarusso Dock C.U.P., and to eliminate hybrid meetings in the future. Board also communicated a very narrow scope of review under the City's Zoning Codes.

Our concerns follow:

- Regarding the **public hearing issue**, it seems (in our opinion) that the Board is motivated somehow to look for a quick and easy solution, as the issue has dragged on for so many years. The reasons this is such a complicated and convoluted situation that has dragged on for years are due in large part to the Applicant, as follows:
 - Segmentation of the dock and haul road applications by the Applicant (which should have been handled together, as one would not exist without the other);
 - Lengthy delays by the Applicant in providing essential information requested by the Board; and
 - Multiple lawsuits brought by the Applicant against the Planning Board throughout the process.

That the final lawsuit has been decided and the Board can proceed with its review of the Dock C.U.P.— does not mean that the Board should be hasty in their decision making. For instance, similar to the hybrid meeting issue discussed below, when later in the February meeting the issue of a public hearing was again discussed, the Board's engineer (we think) was quick to say something to the effect (paraphrased): *"that you're going to give them one hearing, one public meeting, that's all you're going to do."* Also, some Board members expressed concern about allowing the public to speak.

- Regarding the **hybrid meeting issue**, watching the virtual meeting, one had to wonder about the Board's motivations, as it seemed that the Board simply wanted to move things along as quickly as possible, and did not seem to care much about the public or want to hear their concerns other than written comments. For example, when a Planning Board member inquired about possibly using the City's staff support to run future meetings because Mr. Martin could not do Zoom meetings anymore, the Board's Associate counsel was quick to point out options for the Board, and strongly advocated for elimination of hybrid meetings, which the Board quickly latched onto as the thing to do. This denies the public easy access and transparency, and the ability to offer input during a public comment period (whether or not a public hearing).

Past PB meetings often offered the public the ability to make comments at the end of each agenda topic. Why is the Board now insisting on no public comments during the meeting, on an issue of the utmost concern to many? Also, as you know, Planning Board meetings are typically lengthy, and "old business" is handled later in the agenda. It can be difficult if not impossible for some to attend 6:30-9pm weeknight meetings for a multitude of reasons, including health, mobility (disabled), age (elderly) lack of transportation, work and family responsibilities, weather (e.g., snow, ice, rain, which can create dangerous conditions and safety issues), etc. We understand that the PB faces these issues too, but to force this requirement on the public seems extreme . . . and most inconsiderate, if not purposely demeaning.

Scope of review issue. We applaud the prior Planning Board for their efforts and due diligence in conducting the SEQRA reviews they undertook in the past, and hope that the current Planning Board will likewise perform a careful due diligence review of the Dock C.U.P. application in accordance with the full breadth of the City Zoning Code, as permissible by law.

Based on comments made at the January and February meetings by the Board's counsel, it appears that the current PB's focus is a very narrow review of the City Zoning Codes, and does not address all dock activities, which is not consistent with the Court's decisions. Please refer to legal assessment and conclusions laid out in **Attorney William Demarest III's (Rupp Pfalzgraff LLC) 2/13/2025 legal Memorandum**, recently provided to the Planning Board by a CR-District business owner (see **Attachment A**). Mr. Demarest's legal memorandum [underline emphasis added] concluded that "*the Court decisions establish that the Conditional Use Permit is for all Dock Activities*" and *do not support a limit on such conditions. The memorandum further outlined the types of conditions that are required under the City of Hudson Zoning Code and those that would be within the Planning Board's authority if found to be "necessary to protect the health, safety and welfare."*

We would also like to remind the Board of the following:

- It is critical to understand that SEQRA review of any issues (such as trucks) for the haul road application **cannot substitute for review of impacts under the C.U.P. requirements**. As the Valley Alliance has mentioned in past memos to the Board, SEQRA and C.U.P. are two different standards. Indeed, SEQRA is a State add-on to local processes (to provide an extra layer of review), not something that can take its place.
- Regarding a **2016 Letter from Mr. Basil Seggos (NYS Department of Environmental Conservation [DEC] Commissioner)** giving Lead Agency status to Greenport for the haul road review, nothing in his decision was intended to limit Hudson's independent review powers. He stated: "*In designating the Greenport Town Planning Board to serve as lead agency for the haul road project, **this decision in no way limits the jurisdiction or responsibilities of the other involved and interested agencies – particularly the City Planning Board**, and I encourage the Town Planning Board to seek and use the expertise of the City Planning Board as well as the DEC and the DOT in evaluating potential impacts, if any, and developing viable alternatives to mitigate or avoid any identified significant adverse impacts.*"

- The transcript of the legislative intent of the Local Waterfront Revitalization Program (LWRP) from **Mr. William (Bill) Sharpe, NYS DOS Attorney, 9/26/2011 Hudson Common Council Meeting to Approve LWRP**, specified that if any changes at all are made to any part of the property, that all of it comes under full review under the LWRP. Mr. Sharpe stated: *“There is a list of actions which will trigger the need for a Conditional Use Permit... The language that will snap in the need for a Conditional Use Permit is ‘no building shall be erected, moved, altered or enlarged, nor shall any land or improvement thereon be constructed, altered, paved, improved or rebuilt in whole or in part for any purpose in the Core Riverfront District,’ except for first applying for a Conditional Use Permit.”*

It appears to us that both February meeting decisions (public hearing and hybrid meetings) made by the Board were done in haste, looking for a quick solution that would make it easy for the Planning Board, but without consideration of the impact on the public, citizens of Hudson and other concerned parties. It also appears that the Board’s understanding of its scope of review is not consistent with the Court’s decision, or conclusions made by respected officials (see above) concerning the Planning Board’s authority, and requires correction.

CONCLUSIONS: OHW feels strongly that a **public hearing** for the Colarusso Dock C.U.P. should be held by the Planning Board for a number of reasons, including:

- There was much unknown to the Planning Board and the public during the prior public hearing due to delays by the Applicant in furnishing requested information, such as critical truck-traffic information; like the results of a truck study commissioned by Applicant that wasn’t presented to the Planning Board until July 14, 2020, the last day of the public hearing; and reviewed/evaluated by B&L Engineering after the close of the public hearing (see **Attachment B**). *[Report revealed that truck trip volume to/from the dock almost tripled from 2015 to 2019, to over 15,000 trips per year. Based on Colarusso’s proposed daily maximums, worst case scenario for our Core Waterfront District is up to 71,000 trips (or more) per year of 80,000lb gravel trucks with associated barge activity.]* The public has had no chance to comment on that study, nor any other updates or changes made to the application.
- The nature of the Planning Board’s review has changed significantly, as per the Court’s July 2024 decision (it cannot be subject to a SEQRA Type 1 Action). The Planning Board must evaluate the Dock C.U.P. application under the CITY ZONING CODES. The public has not had a chance to comment on those changes, either.
- Only one member of the current Planning Board (Ms. Joyner) was on the Board when the public hearing last took place. None of the current counsel participated in the Dock C.U.P. review.
- There have been many significant and wonderful job-creating business developments in our waterfront’s Core-Riverfront (CR) District during the past several years.

Regarding **hybrid meetings**, while we know that the Board is not required to provide these, hybrid meetings have been offered for the past 5 years, since the Pandemic. This has been a great service and value to the public, as hybrid meetings allow the public to participate remotely, to view meetings at a later date if they were unable to attend, and provide full transparency to the meeting. Also of note, past hearings were exceptionally-well attended by the public, both in person and in Zoom – but only one member of the current Board heard any of those “live” comments during the public hearing. Further, limited discussion by the current Board on the issue of public input during the haul road review and more recent meetings strongly suggest that members are not familiar with the extensive record of public input. Additionally, the Chair previously commented that past comments would be summarized in a document prepared by their attorney. However, it is not clear whether any such summary was ever circulated; nor whether it is proper for members to rely on an interpretation of public comments rather than the comments themselves. For the sake of transparency, and compassion for the public, we appeal to the Planning Board to reinstate hybrid meetings.

Another concern, whether or not hybrid meetings take place, is **meeting space**. As you know, Section 103 of the Open Meetings Law requires that public bodies make reasonable efforts to hold meetings in rooms that can “adequately accommodate” members of the public who wish to attend. In addition to reducing transparency to the meeting, we are concerned that City Hall will not provide ample enough space to adequately accommodate members of the public for any contentious issue on the agenda, whether or not it is a public hearing (e.g., Colarusso Dock C.U.P., Mill St Lofts). By way of background, many of the past Planning Board meetings that addressed the Colarusso C.U.P. applications were conducted in locations larger than City Hall.

Regarding the **scope of review issue**, we strongly feel that the scope of review is too narrow and requires correction, as clearly specified in Mr. Demarest’s legal memorandum, and statements made by Mr. Basil Seggos, NYS DEC Commissioner, and Mr. William Sharpe, NYS DOS Attorney, as per above. For new Planning Board members, the former Planning Board had already spent a huge amount of time evaluating the Dock C.U.P. issues. An excellent reference is the Board’s November 18, 2021, EAF Part 2 and EAF Part 3 for the Colarusso Dock operations. Although these documents examine the conditional use permit application for the dock under SEQRA, many of the findings have applicability to the City’s Zoning Codes. (Links to the EAF documents from the PB webpage can be found [here](#) and [here](#)).

In closing, the Colarusso Dock C.U.P. issue is of paramount concern to us, to Hudson’s citizens, business owners/leaders, elected officials, and others. Our 2019 OHW petition initiative collected over 1,200 signatures, including many from Hudson proper, Columbia County and the surrounding Hudson Valley. Among other points, that petition stated what many citizens feel strongly about:

“Given the great opportunity our Waterfront represents, we strongly oppose noisy, dusty, polluting and hazardous uses there. We firmly believe such incompatible uses jeopardize the immense opportunity before us by inhibiting public access to the river, curtailing commercial activity, reducing popular enjoyment, and discouraging economic development that will benefit the entire city and future generations.”

Hudson’s 40-year struggle to preserve, protect, and revitalize our waterfront for the benefit and enjoyment of the public, is real (see **Attachment C**). The decisions made by the Planning Board will have long-ranging impact to our beloved City of Hudson and its waterfront, and future generations, for decades to come. The future of our city and our waterfront are at stake. Please do not take this review lightly or in haste, and please accept input from Hudson’s citizens, business leaders, and other interested parties – not just in writing, but in open and transparent dialogue. Thank you for your time and consideration.

Respectfully,

Donna Streitz and David Konigsberg
Our Hudson Waterfront

Cc: *(via email)*

Victoria Polidoro, Esq.

Mayor’s Office: Mayor Kamal Johnson; Mayoral Aide Justin Weaver

Common Council: Tom DiPietro (President); Jennifer Belton; Vicky Daskaloudi;

Dominic Merante; Shershaw Mizan; Margaret Morris; Gary Purnhagen; Lola Roberts; Mohammed Rony;

Dewan Sarowar; Rich Volo; Columbia County Board of Supervisors: Michael Chameides; T. Randall Martin;

Abdus Miah; Linda Mussman; Richard Scalera

Enclosures:

- Attachment A -- Attorney William Demarest III’s (Rupp Pfalzgraff LLC) 2/13/2025, legal Memorandum
- Attachment B – Creighton Manning Engineering and Barton & Loguidice 2020 letters to PB
- Attachment C – Hudson’s Waterfront – 40-Year Struggle for a Vision, and What’s Been Said

Attachment A
OHW 2/24/25 Letter to City of Hudson Planning Board

February 13, 2025 Memorandum
Re: Conditions City of Hudson Planning Board can impose on Colarusso Dock?
by William F. Demarest III, Esq., Rupp Pfalzgraf LLC

WILLIAM F. DEMAREST III
Demarest@RuppPfalzgraf.com

MEMORANDUM

Date: February 13, 2025

Re: Conditions City of Hudson Planning Board can impose on Colarusso Dock?

This memorandum addresses whether the prior Court decisions limit the scope of conditions that the City of Hudson Planning Board can impose on a conditional use permit for the Colarusso dock. As discussed below, the Court decisions do not support a limit on such conditions and, therefore, this memorandum also outlines the types of conditions that are required under the City of Hudson Zoning Code and those that would be within the Planning Board's authority if found to be "necessary to protect the health, safety and welfare."

The Court Decisions Establish that the Conditional Use Permit is for all Dock Activities

In *Matter of A. Colarusso & Son, Inc. v. City of Hudson* (Index No. 17-906091), the Court clearly established that the vested rights to use the dock were lost when the bulkhead repair was made without approval.

The Court explicitly stated that pursuant to City of Hudson Code § 325-17.1(D) "**As soon as the owner/operator sought to make an improvement, enhancement, expansion or change, the right to operate as a nonconforming use ceased.**" Consequently, the Court upheld the City's determination that the "repair project was one of the 'actions or events specified in [the code]' triggering the termination of petitioners' right to continue to operate the commercial dock without conditional use permit". Notably, the Court denied Colarusso's request for an order "prohibiting [the City Planning Board] from further **regulating the intensity of [Colarusso's] use of their commercial dock** and haul road" and "declaring that [Colarusso's] use of their commercial dock is permissible under the Code of the City and Hudson **and that [the City Planning Board] may not lawfully further regulate the intensity of such use.**" This implicitly establishes the right of the City to limit such use. See *Matter of A. Colarusso & Son, Inc. v. City of Hudson* (Index No. 17-906091), Decision and Order and Judgment dated January 23, 2019 (J. Melkonian) (emphasis added).

In *A. Colarusso & Son, Inc. v. City of Hudson Planning Board* (Index No. E012021017875), the Court clearly held that the Planning Board is authorized to issue conditions to the full extent of the Zoning Code. It further clearly held that the conditional use permit is not limited to the repairs of the bulkhead already made.

While the Court decision limited the scope of SEQRA review to just the bulkhead, it clearly distinguished the scope of review under SEQRA from that under the Town Code for the use of the dock. As to the review of the conditional use permit, the Court stated “as [the City of Hudson Planning Board] correctly argues, as per Zoning Code 325-17.1(D), because part of the dock was being “rebuilt,” the conditional use permit requirement of the Code was triggered and **the Board is now authorized to impose certain conditions as specified in the Code, along with ‘additional conditions on such [continued] use [of the dock] as may be necessary to protect the health, safety and welfare of residents living in close proximity to commercial docks and the public while recreating and using public facilities adjacent to commercial docks’ Zoning Code 325-17.1(D)(1).**” The Court explicitly denied Colarusso’s argument that the conditional use permit was simply “a permit to *nunc pro tunc* authorize the repairs already made, but rather, a permit for continued use of the dock **with such conditions as the Board may impose consistent with law.**” The Court dismissed Colarusso’s other causes of action which, according to an earlier order, included a request for “a declaration that they have obtained constitutionally protected vested rights to the continued operations of the . . . dock operations.”

The Court certainly did not rule that the conditions imposed must be limited to the repairs of the bulkhead. In a footnote the Court states: “The court notes that **what conditions may or may not be permissibly applied to the project under Zoning Code 325-17.1(D) is not before the court** and the court does not purport to pass upon that legally distinct question by its decision here today. Indeed, the court does not believe that question is ripe for review, as it does not appear that any conditions as per 325-17.1(D) have yet been imposed.” The Court remanded the conditional use permit application under Zoning Code 325-17.1(D) back to the Planning Board “for **whatever** further proceedings and actions may be required **in accordance with said provision**”. See *A. Colarusso & Son, Inc. v. City of Hudson Planning Board* (Index No. E012021017875), Decision & Order dated July 12, 2024 (J. Rivera) (emphasis added). Thus, the Court was not limiting the scope of conditions to a subset of what is permitted under Code § 325-17.1(D).

These decisions, which are binding on both Colarusso and the City, clearly establish that the conditional use permit is for the entire use of the dock pursuant to Code § 325-17.1(D) and that no vested rights to use the dock survive. Therefore, the Planning Board is authorized and required to “**impose certain conditions as specified in the Code, along with ‘additional conditions on such [continued] use [of the dock] as may be necessary to protect the health, safety and welfare of residents living in close proximity to commercial docks and the public while recreating and using public facilities adjacent to commercial docks’**”.

The Code Sets Forth Required Conditions and Grants Authority for Additional Conditions.

As noted by the Court, § 325-17.1(D) provides: “**in addition to** the provisions of Article VIII, and as more fully set forth in § 325-17.1F(2), the Planning Board shall impose additional conditions on such use as may be necessary to protect the health, safety and welfare of residents living in close proximity to commercial docks and the public while recreating and using public facilities adjacent to commercial docks as authorized in the Local Waterfront Revitalization Program.” This creates broad authority for the Planning Board to regulate and impose conditions on the commercial dock facilities and activities.

Section 325-17.1(F)(2) imposes special conditions for commercial dock operations. **These are mandatory conditions** that a commercial dock operation subject to a conditional use permit must comply with. The Planning Board can certainly impose conditions that facilitate and flesh out these conditions. Such mandatory conditions include:

- Dust, smoke, gas, odor or air pollution shall not adversely affect the surrounding area
 - The Planning Board could impose conditions requiring dust suppression
 - The Planning Board could impose limits on the use of the dock for receipt of odor emitting materials (e.g., noxious chemicals, solid waste)
- Compliance with the City Noise Ordinance
 - Control measures including barriers, landscaping, and low volume back-up warnings on heavy equipment could be required
- Limits on hours for loading and unloading from dock and truck arrival and departure times (i.e., 7am to 7pm set in Code)
- Truck engine idling is prohibited
- Light sources shall not be visible beyond the lot lines (subject to lighting necessary for safety)
 - The Planning Board could require certain types of down facing, dark sky compliant lighting
- Visual impacts shall be minimized and direct views from public locations protected. Outdoor storage of goods and materials shall be screened
 - Could require barriers or landscape plantings to block views
 - Could require construction of a building to screen storage of goods and materials.
- Public access to and from the river shall be incorporated
 - Could require pedestrian safety and access measures on the property if needed
- Preservation of natural features, wetlands, wildlife.

Article III sets forth the criteria for site plan and conditional use approval by the Planning Board. Section 325-34 provides that **“the Planning Board ‘may prescribe appropriate conditions and safeguards as may be required in order that the result of its action may, to the maximum extent possible, further the expressed intent of this chapter.’”** Section 325-34 and § 325-35(H)(2) sets forth the standard for approval and intent of the chapter. **Optional conditions for “public health safety and welfare”** under § 325-17.1(D)(1) and 325-34 and 325-35(H)(2) include:

- Limits on the character and scale of use
 - Limit the number of barges being loaded and unloaded at 1 time
 - The Planning Board probably can prohibit convoying of trucks (i.e., the receipt or exiting of multiple trucks at one time) due to safety and noise concerns
- Require the alteration of the access location if needed for safety of pedestrians and vehicular traffic

- Require landscaping for screening, strengthening visual corridors
- Require or limit the size of walls and fences
- The Planning Board probably could impose conditions on new buildings
- Limit hours of operation before and after the dock operations are permitted (e.g., the Facility shall be closed except in the case of emergency or for security purposes between the hours of 8pm and 6am and no trucks shall be permitted to enter or leave the site during that period).

These are not an exhaustive list of possible conditions so long as the condition “may be necessary to protect the health, safety and welfare.”

Attachment B
OHW 2/24/25 Letter to City of Hudson Planning Board

Creighton Manning July 9, 2020 (updated October 30, 2020)
Traffic Evaluation letter to Colarusso & Sons

Barton & Loguidice August 7, 2020 technical review of
Creighton Manning Traffic Evaluations sent to the Planning Board Chair



July 9, 2020
(Updated October 30, 2020)

Mr. JR Heffner
Colarusso & Son, Inc.
91 Newman Road
Hudson, NY 12534

RE: Traffic Evaluation, Colarusso Gate to Gate Truck Route, City of Hudson and Town of Greenport, Columbia County, New York; CM Project No. 115-337

Dear Mr. Heffner:

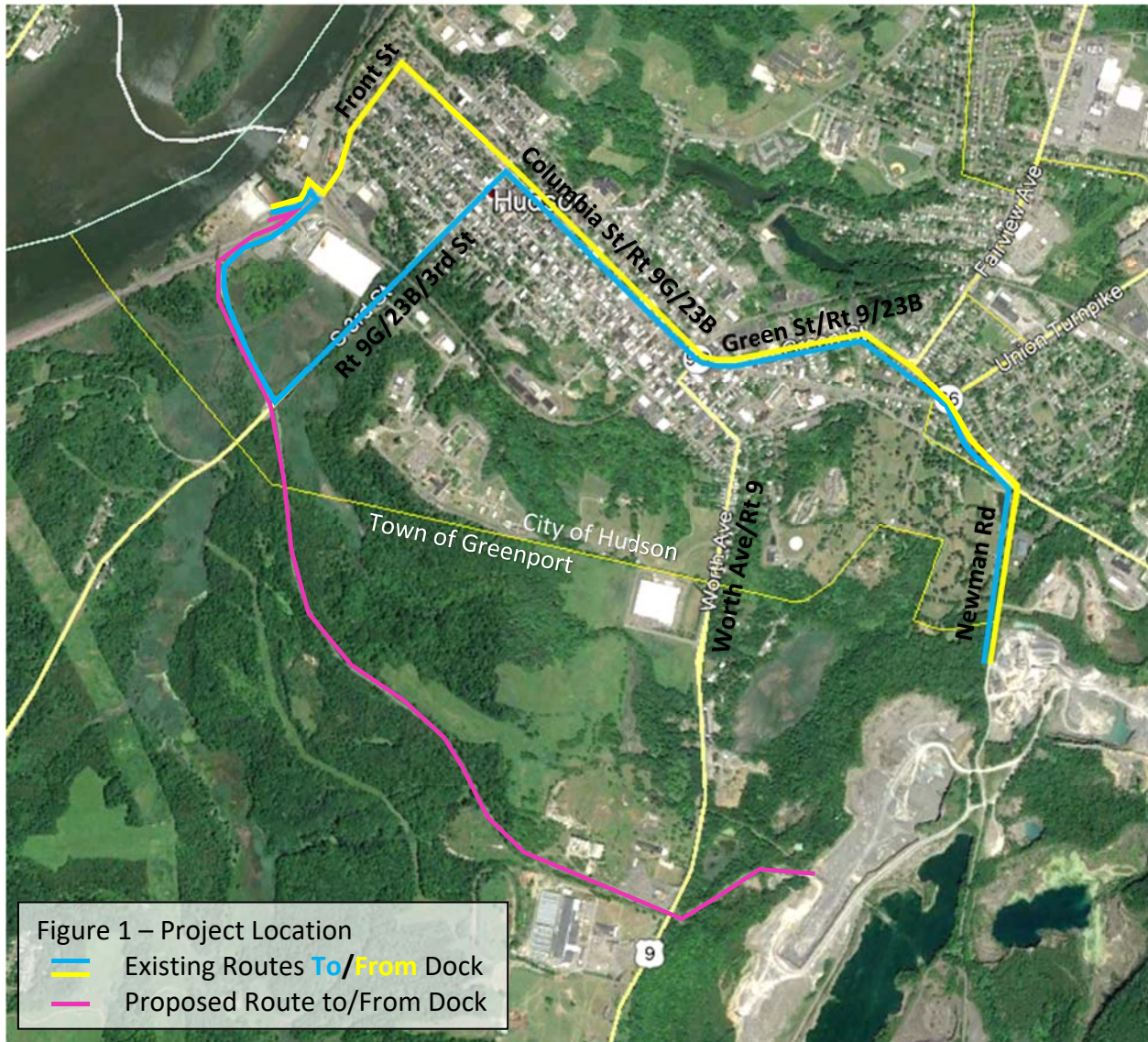
Creighton Manning Engineering, LLP (CM) has updated the previous traffic analysis conducted in 2016 to reflect current operations, existing use of part of the haul road, and the proposed use of the remainder of the road through the City of Hudson and the Town of Greenport. **The July 9, 2020 report was further updated to include traffic count data collected in August 2020.**

A. Background

A. Colarusso & Son has been operating quarries on Newman Road since the early 1900's, and purchased the Holcim quarry and dock from Holcim in fall of 2014. Some of the material removed is hauled to a dock on Broad Street in the City of Hudson, where it is loaded onto barges and shipped up or down river. Current trucking of aggregate to the dock occurs primarily through the public streets of the City of Hudson and in the Town of Greenport. The routes to and from the dock are shown on Figure 1 below. Presently, hauling is allowed seven days a week, including major holidays, from 7 a.m. to 7 p.m.

B. Proposal

The proposed change in operations would remove Colarusso trucks from the City's and Town streets by improving and utilizing a former rail bed that connects to the dock area from the quarry. This eliminates trucks traveling through 25 to 26 City intersections, and adds a crossing of US Route 9 in the Town of Greenport and NY Route 9G/23B in the City of Hudson. In addition, the intersection with US Route 9 would accommodate retail customer access to the quarry, eliminating additional truck trips through the City/Town.



C. Existing Traffic Volumes

Data Collection

Automatic Traffic Recorders (ATR's) were installed on Route 9G and Route 9 on Wednesday, June 10, 2020. The traffic volumes collected during the weekday AM and PM peak hours were found to be 12 to 35% lower when compared to volumes collected by NYSDOT in 2014 (for Route 9G) and 2015 (for Route 9). This decrease is expected to primarily be associated with the nationwide reduction in travel due to the pandemic. Since it is not possible to get accurate existing traffic observations due to phased business closings/openings implemented by the State to combat the coronavirus, historical traffic data was obtained for the 2019 calendar year (April through October) from a company that processes anonymized location records from smart phones and navigation devices and develops matrices that show origins/destinations (O/D) of traffic in an area. The AADT metrics have been validated by 6,000+ permanent counts across the U.S. with an R^2 of 0.96. The absolute and root mean square error exceed industry targets. This data represents the volume of traffic turning through the study area intersections as an average of weekdays (Tuesday through Thursdays) between April 1 and October 31, 2019.

The historical data was collected for the intersections of Broad Street/Front Street and Columbia

Street/North Third Street, since these are the intersections representative of conditions on the existing haul route. Traffic volumes on Route 9G and Route 9 were sourced from NYSDOT's 2014 and 2015 records and an annual growth rate of 1.05% per year was applied to the Route 9G volumes, and 0.55% per year to the Route 9 volumes. These growth rates were determined through a regression analysis of historical NYSDOT volumes. Applying the growth rates to the 2014/2015 data yield 2019 data.

The analysis focuses on the weekday morning peak period from 7:00 to 9:00 a.m. and the afternoon peak period from 4:00 to 6:00 p.m., which corresponds to peak commute times for the public and the beginning and ending of the aggregate-hauling period. The raw traffic volume data is included under Attachment A. The existing 2019 traffic volumes at the study area intersections are summarized on Figure 2-1 and form the basis for all traffic forecasts.

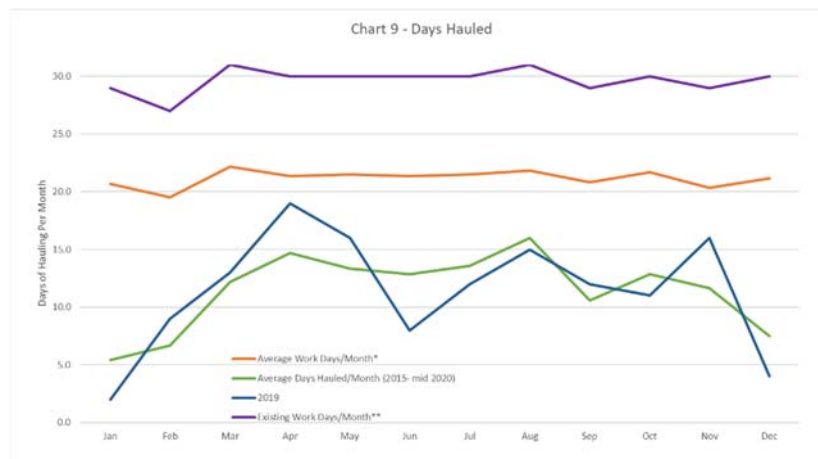
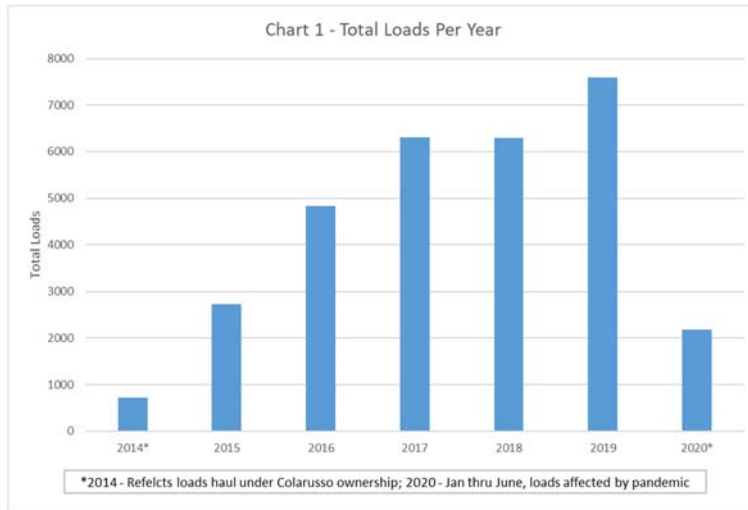
August Counts

Traffic counts were conducted at the intersections of Broad Street/Front Street and Columbia Street/North Third Street on Tuesday, August 25, 2020 from 7:00 a.m. to 7:00 p.m., which coincided with the delivery of gravel to the dock. The counts were compared to the gravel load ticket data and the percentage of gravel trucks was determined. At the Front Street/Broad Street intersection, 1,846 vehicles were observed, with 207 trucks (11%) observed over the course of 12 hours. Of the trucks observed through the intersection, 184 (89%) truck trips were associated with movements heading to/from the dock. This represents a 98.9% accuracy in the traffic count data given that the load ticket data indicated 182 truck trips (91 loads) were sent/received by the quarry. At the Columbia Street/Third Street intersection, 7,774 vehicles were observed over 12 hours, with 419 truck trips (5%). The gravel trucks represent 184 trips (44%) of trucks observed. With the existing Colarusso truck route being a westbound left turn from Columbia Street to Third Street going to the dock and an eastbound through movement on Columbia Street leaving the dock, the Colarusso gravel trucks make up 40% to 100% of the trucks observed each hour on the westbound left movement, and 60% to 100% on the eastbound through movement. The detailed summary is included under Attachment D.

D. Trip Generation

Trip generation determines the quantity of traffic expected to travel to and from a given site. The number of truckloads between the gate at the quarry and the gate at the dock made since October 2014 through June 2020 were summarized based on load tickets collected by the operator. Chart 1 (below) summarizes the number of truckloads for this period. Total loads for the year varied from about 2,730 (2015) to 7,590 (2019), while 2014 only includes the three months of Colarusso operations and does not account for Holcim business handled in 2014 or earlier years, and 2020 has been affected by the pandemic. This data includes recycled asphalt pavement (RAP) hauled from the dock to the quarry, which accounted for 8% of the loads in 2016, 1% in 2018, and 3% in 2019.

The subsequent charts (2-8 in Appendix B) illustrate the truckloads per day for their respective years. These charts indicate peak months and days but also reveal that deliveries to the dock do not happen every day of the year. As summarized on Chart 9, the number of available workdays during each month under present conditions, varies from 27 to 31 days (excluding major holidays), while the average number of weekdays (excluding weekend and major holidays) varies from about 20 to 22 days per month. Chart 9 also depicts the days hauled per month for 2019 and the average for the last five years, which indicates the days hauled is typically less than half the maximum potential.



The number of truckloads generated in 2019 was 7,591, with an average of 57 loads per day and the 85th-percentile was 91 loads, while the peak was 132 loads. The 85th-percentile represents the threshold in which 85% of the truckloads per day were less than 91 loads, and 15% were higher. This threshold is often used to represent most conditions but not the most extreme. The 2019 truckloads equated to 16 truck trips in the peak hours.

It was previously identified that 142 truckloads per day was a maximum condition, which equated to 24 trips in the peak hours.¹ This means there would be 12 truckloads going to the dock and 12 empty trucks returning to the quarry in the peak hours.

In addition, there were about 12,000 truckloads of aggregate sold to retail customers that originated to the south. These customers currently use Route 9 northbound into the city and use Warren Street, Park Place, Columbia Street, and Green Street to access Newman Road. These trips would arrive via the haul road access from Route 9 into the quarry if complete, avoiding all city streets. The 12,000 truckloads per year equates to an 85th-percentile of 12 truckloads in the peak hours, or 24 trips, (12 trips entering, 12 trips exiting the quarry site), which would make a right turn into the quarry from Route 9 and a left turn onto Route 9 from the quarry. These trips do not contribute to truck traffic traveling through the city to

the dock but are included to provide a complete analysis of the expected traffic volumes at the Route 9 driveway.

E. Trip Assignment

The trips generated by the maximum operations were distributed onto the local transportation network according to the existing haul routes – Green Street westbound to Columbia Street westbound to Third Street southbound, then through the South Bay along the haul road to Front Street/Broad Street, and the return trip via Front Street northbound to Columbia Street-Green Street eastbound. The trip assignment of the maximum condition is illustrated on Figure 2-2, and when added to the 2019 traffic volumes, yield the 2019 Maximum Volumes, shown on Figure 3-1.

With construction of the haul road, the section from Broad Street to Route 9G would be widened for two-way traffic and paved, and the section from Route 9G to Route 9 and into the quarry would be widened for two-way traffic and paved 200 feet from the state highway. Under these conditions, the quarry trucks would be relocated from the Columbia Street route to the haul road, resulting in a decrease in traffic at approximately 25 intersections, and an increase on the private haul road. The change in traffic volumes is summarized on Figure 3-2, and 2019 Build traffic volumes are reflected on Figure 4-1.

F. Intersection Operations

Intersection Level of Service (LOS) and capacity analysis were made using the procedures contained in the *Highway Capacity Manual, 6th edition* (HCM) as well as the Synchro Software (Version 10), which automates the procedures contained in the HCM. Levels of service range from A to F with LOS A conditions considered excellent with very little delay while LOS F generally represents conditions with very long delays. Attachment C contains further detailed descriptions of LOS criteria for signalized and unsignalized intersections and copies of the detailed HCS level of service reports. Table 1 summarizes the results of the LOS calculations for the peak hour.

Table 1 – Level of Service Summary

Intersection	Control	AM Peak Hour			PM Peak Hour		
		Existing	Existing Route Maximum Trucks	Haul Road Maximum Trucks	Existing	Existing Route Maximum Trucks	Haul Road Maximum Trucks
Broad St/Front St	U						
Broad St. EB LT		A (9.8)	A (9.9)	A (9.4)	A (8.4)	A (8.4)	A (8.4)
Front St. NB T		A (4.7)	A (5.5)	A (5.5)	A (9.6)	A (9.8)	A (9.4)
Columbia St/Third St	S						
Columbia St. EB LTR		B (14.4)	B (14.6)	B (14.2)	B (14.4)	B (14.4)	B (14.2)
Columbia St. WB LTR		B (17.3)	B (17.4)	B (16.7)	C (23.1)	C (23.4)	C (22.6)
S. 3 rd St. NB LTR		A (9.4)	A (9.4)	A (9.4)	B (10.0)	B (10.0)	B (10.0)
S. 3 rd St. SB LTR		A (8.3)	A (8.3)	A (8.3)	B (10.1)	B (10.1)	B (10.1)
Overall		B (12.4)	B (12.5)	B (12.1)	B (14.9)	B (15.0)	B (14.7)
NY Route 9G/Truck Crossing	U						
Truck Route WB T		--	--	C (18.2)	--	--	C (22.6)
Truck Route EB T				C (18.2)			C (22.6)
US Route 9/Truck Crossing	U						
Truck Route EB T		--	--	C (19.8)	--	--	C (22.8)
Truck Route WB T				C (21.4)			D (25.4)

NB, SB, EB, WB = North, South, East and Westbound intersection approaches
 L, T, R = Left-turn, Through, and/or Right-turn vehicle movements
 X (Y.Y) = Level of Service (Average delay in seconds per vehicle)

Table 1 shows that the Columbia Street/N. Third Street intersection operates at an overall LOS B during the AM and PM peak hours and will continue to remain unchanged if the maximum volume of trucks is reached, indicating that the minor increase in hourly truck trips will not have a substantial impact on intersection capacity.

If the haul road is completed, there will be reduction in truck trips along Front Street, N/S. Third Street, Columbia Street, and Green Street, which will result in a marginal decrease in delays (about half a second per vehicle) during the AM and PM peak hours. The haul road crossings will generally operate at LOS C during the peak hours with 18 to 23 seconds of average delay. The westbound movement exiting the quarry at Route 9 will experience LOS D with 26 seconds delay due to the presence of trucks turning left out of the driveway.

G. Sight Distance

A sight distance evaluation was completed at the two proposed intersections on the truck route with Route 9 and Route 9G as part of the June 8, 2016 Traffic Evaluation Update. Sight distances were re-verified in June 2020 as part of this update and found to be consistent with the earlier findings. The analysis found that the Route 9G haul road driveways exceeded the guidelines presented in the American Association of State Highway and Transportation Officials (AASHTO) *A Policy on Geometric Design of Highways and Streets* for 85th percentile speeds of 42 mph on Route 9G. The analysis also reaffirmed that the driveways on Route 9 were less than desirable for 55 mph due to vegetation and signage, but were not critically limited given that the stopping sight distances were well exceeded. As such, clearing of this vegetation on the west side of Route 9, north and south of the haul road would improve these conditions.

H. Mitigation

The traffic analysis methodologies indicate that the presence of trucks through the City and Town do not appear to have a significant impact on intersection capacity; however, these methodologies are not capable of measuring quality of life impacts. Although trucks have a legal right to traverse the designated streets, the applicant's primary means to mitigate the impact of their hauling operations is to improve the existing one lane haul road between the quarry and the dock by widening and paving the road to accommodate two-way travel. At current conditions, this would remove approximately 7,000 to 8,000 truckloads (14,000 to 16,000 truck trips) annually traveling between the quarry and the dock from City and Town streets. **Based on the August 2020 counts, this would reduce the percentage of trucks through the Columbia Street/Third Street intersection from 5% to 3% over 12 hours. On the west end of Columbia Street (west of Third St), trucks volumes would be reduced by 60% to 100% each hour, while the east end of Columbia Street (east of Third St) could be reduced by 40% to 100% each hour between the hours of 7:00 a.m. to 7:00 p.m.**



In addition, the applicant proposes to restrict the hauling hours from 7 a.m. to 7 p.m., Monday through Sunday, to 7 a.m. to 6 p.m., Monday through Thursday, and 7 a.m. to 5 p.m. on Friday, and no hauling on weekends or major holidays.

We further recommend that the applicant improve the sight distances at the Route 9 crossings by adjusting the industrial park sign and clearing vegetation. We also recommend the installation of advance warning signs at each of the crossings, similar to those to the right.

I. Summary

The use of city and town streets by Colarusso trucks has little to no significant impact on intersection capacity according to this analysis. However, it is acknowledged that there are other unmeasured quality of life impacts. The applicant proposes to improve the existing haul road between the quarry and the dock to accommodate two-way truck traffic, which will remove an estimated 14,000 to 16,000 truck trips, annually at current conditions, traveling between the quarry and the dock from city and town streets. In addition, hauling hours will be reduced to 7 a.m. to 6 p.m., Monday through Thursday, and 7 a.m. to 5 p.m. on Friday, and no hauling on weekends or major holidays. We recommend sight distance improvements to the Route 9 haul road crossing and that advance intersection warning signs be installed at the Route 9G and Route 9 crossings.

If you have any questions regarding the above analysis, please feel free to contact our office.

Respectfully submitted,
Creighton Manning Engineering, LLP



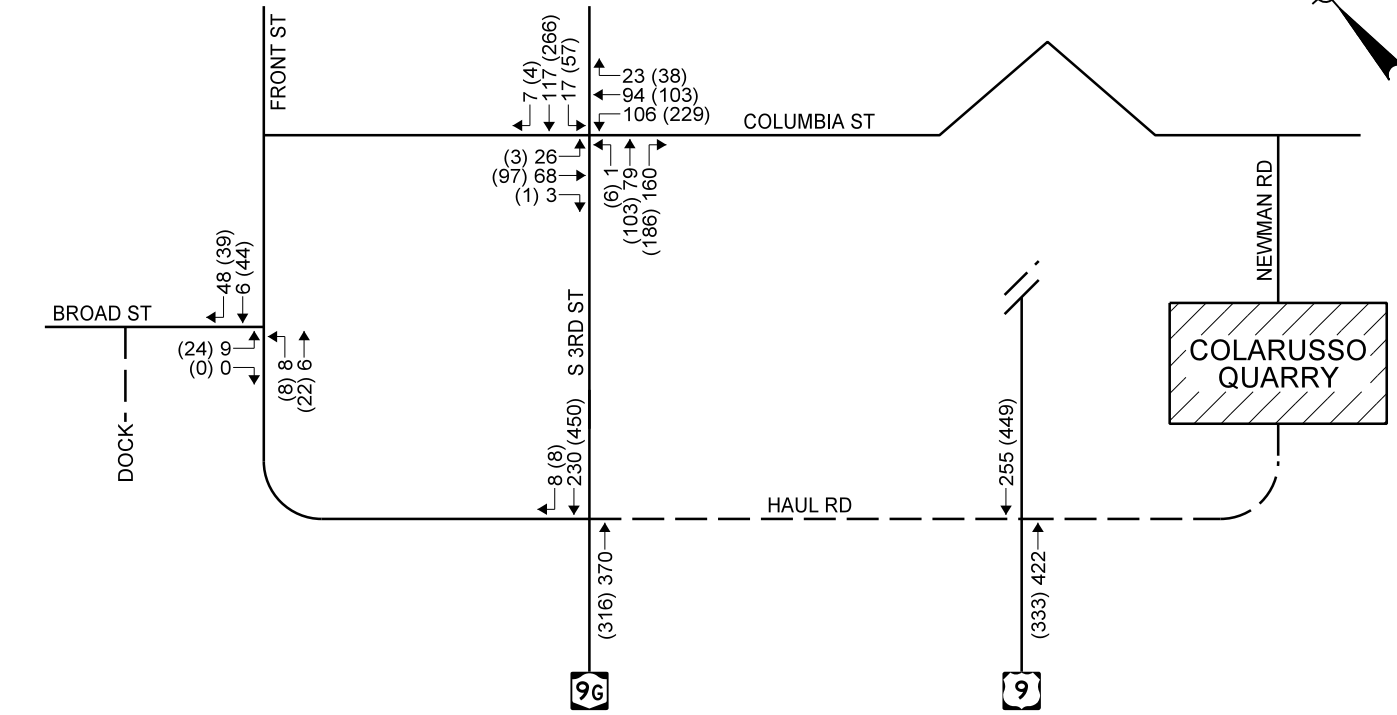
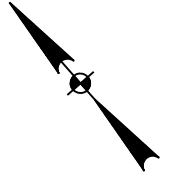
Kenneth Wersted, P.E., PTOE
Associate

C: Pat Prendergast, P.E.
John Privitera, Esq

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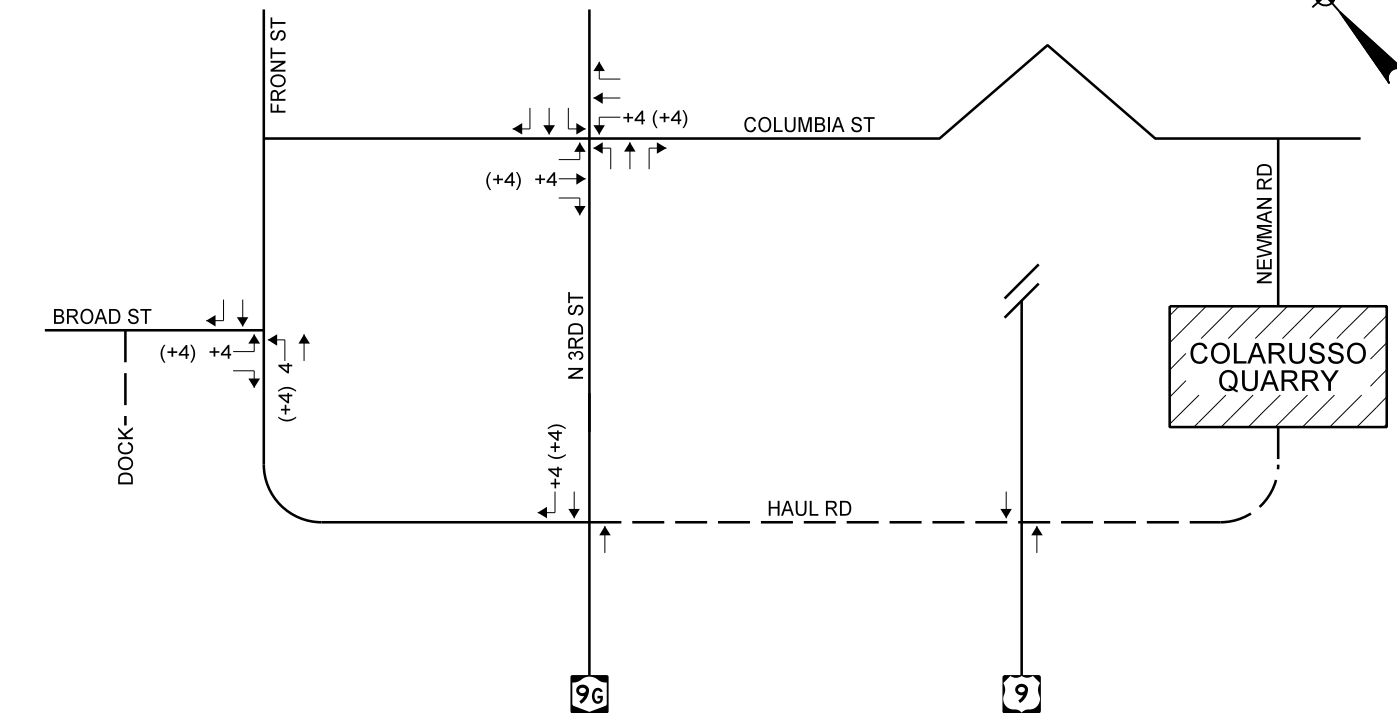
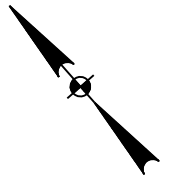
EXISTING VOLUMES (2019)



AM PEAK HOUR (PM PEAK HOUR)

2

2019 TRIP ASSIGNMENT
(MAXIMUM LOADS - NO HAUL ROAD)



AM PEAK HOUR (PM PEAK HOUR)

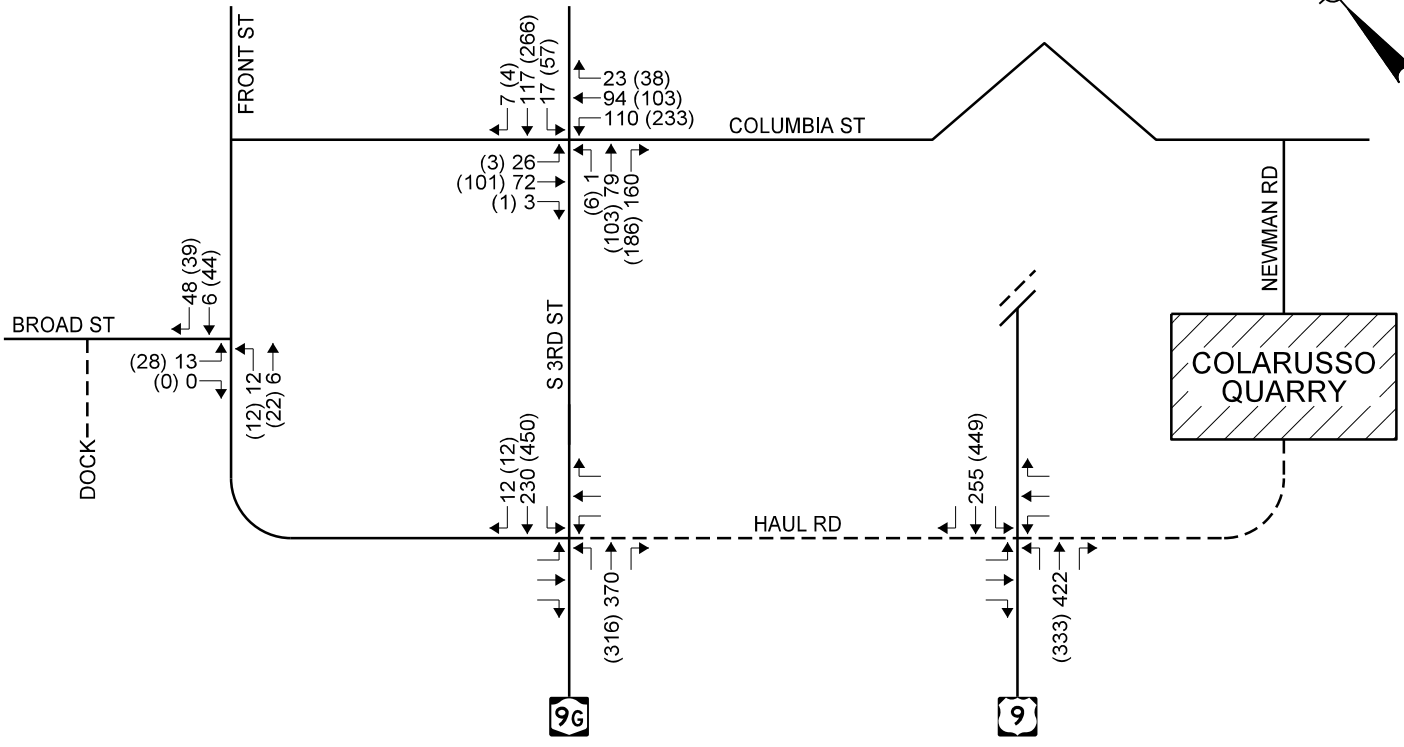
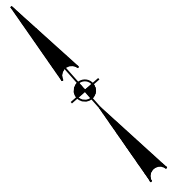
TRAFFIC VOLUMES

COLARUSSO GATE TO GATE
CITY OF HUDSON AND TOWN OF GREENPORT
NEW YORK



1

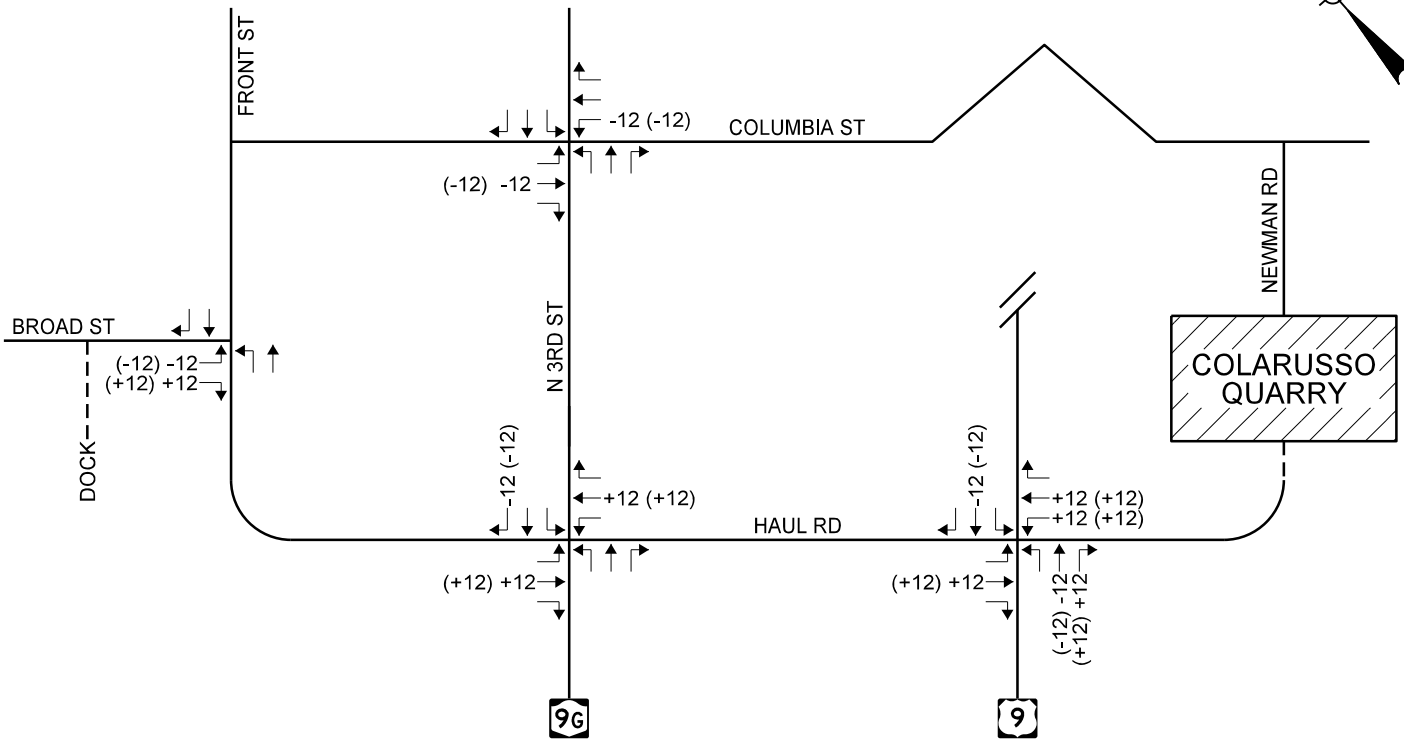
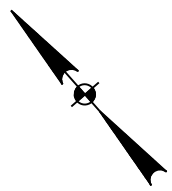
2019 BUILD (MAXIMUM LOADS - NO HAUL ROAD)



AM PEAK HOUR (PM PEAK HOUR)

2

2019 TRIP ASSIGNMENT (MAXIMUM LOADS - WITH HAUL ROAD)



AM PEAK HOUR (PM PEAK HOUR)

TRAFFIC VOLUMES

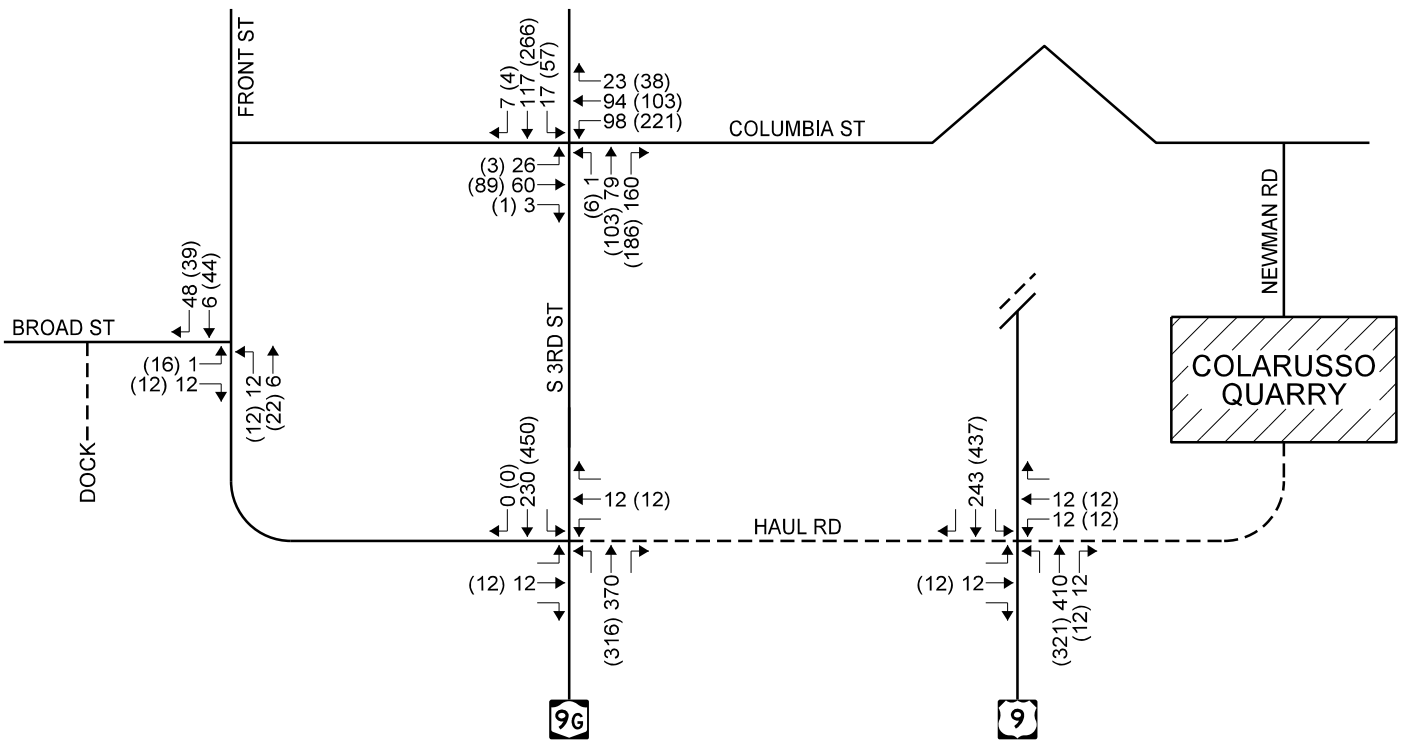
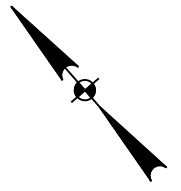
GATE TO GATE
CITY OF HUDSON AND TOWN OF GREENPORT
NEW YORK



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1

2019 BUILD
(MAXIMUM LOADS - WITH HAUL ROAD)



AM PEAK HOUR (PM PEAK HOUR)

TRAFFIC VOLUMES

GATE TO GATE
CITY OF HUDSON AND TOWN OF GREENPORT
NEW YORK



Attachment A

Traffic Counts

Gate to Gate Truck Route
City of Hudson and Town of Greenport, NY

Day Type	1: Weekday (Tu-Th)
Day Part	2: AM 2 (8am-9am)

Sum of Average Daily O-D Traffic (StL Volume)	Column Labels			
Row Labels	Broad Street West Leg	Front Street North Leg	Front Street South Leg	Grand Total
Broad Street West Leg		9	0	9
Front Street North Leg	48		6	54
Front Street South Leg		6		6
Grand Total	48	15	6	69

Day Type	1: Weekday (Tu-Th)
Day Part	3: PM 1 (4pm-5pm)

Sum of Average Daily O-D Traffic (StL Volume)	Column Labels			
Row Labels	Broad Street West Leg	Front Street North Leg	Front Street South Leg	Grand Total
Broad Street West Leg		24	0	24
Front Street North Leg	39		44	83
Front Street South Leg		22		22
Grand Total	39	46	44	129

Day Type	1: Weekday (Tu-Th)
Day Part	1: AM 1 (7am-8am)

Sum of Average Daily O-D Traffic (StL Volume)	Column Labels				
Row Labels	Columbia Street East Leg	Columbia Street West Leg	N. 3rd Street North Leg	N. 3rd Street South Leg	Grand Total
Columbia Street East Leg		94	23	106	223
Columbia Street West Leg	68		26	3	97
N. 3rd Street North Leg	17	7		117	141
N. 3rd Street South Leg	160	1	79		240
Grand Total	245	102	128	226	701

Day Type	1: Weekday (Tu-Th)
Day Part	3: PM 1 (4pm-5pm)

Sum of Average Daily O-D Traffic (StL Volume)	Column Labels				
Row Labels	Columbia Street East Leg	Columbia Street West Leg	N. 3rd Street North Leg	N. 3rd Street South Leg	Grand Total
Columbia Street East Leg		103	38	229	370
Columbia Street West Leg	97		3	1	101
N. 3rd Street North Leg	57	4		266	327
N. 3rd Street South Leg	186	6	103		295
Grand Total	340	113	144	496	1093

New York State Department of Transportation Roadway Traffic Count Hourly Report

STATION: 810158

ROUTE/ROAD: NY9G	FROM: END 9G/23 OLAP	TO: COLUMBIA ST	REGION-COUNTY: 8-COLUMBIA
FED DIR CODE: 1, 5	REF. MARKER: 9G81011015	FUNC. CLASS: 16 - U Minor Arterial	MUNI: Greenport-Town-0346
ST DIR CODE: 6	END MILEPOST: 14.24	FACTOR GROUP: 30	BIN: 2006470
DOT ID: 100506	LANES BY DIR: 1 North 1 South	CC STN:	RR CROSSING:
BEGIN DATE: 7/8/2014	WEEK OF YEAR: 27	ADDL DATA: CLS SPD	HPMS SAMPLE:
NOTES 1: NB travel lane	PLACEMENT: at Ref Marker 9G 8101 1015	JURISDICTION: 01-NYSDOT	1 WAY CODE:
NOTES 2: SB travel lane			COUNT TYPE: Vehicle
TAKEN BY: TST-BEK	PROCESSED BY: DOT-CEL	BATCH ID: DOT-R8WW28A C	SPEED LIMIT: 55

DATE	00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	DAILY TOTAL	HIGH COUNT	HIGH HOUR
7/08, Tue											427	508	546	569	578	652	716	691	392	339	297	246	157	131	6249		
7/09, Wed	36	22	28	33	59	159	327	573	668	519	516	575	538	603	578	654	772	672	511	390	334	279	218	124	9188	772	16-17
7/10, Thu	52	35	19	35	49	107	304	545	549	512	492	521	568	584	654	687	721	676	543	390	325	281	211	152	9012	721	16-17
7/11, Fri	80	45	19	41	49	103	267	475	567	538	534	570	622	627	714	757	831	746	588	468	445	290	275	224	9875	831	16-17
7/12, Sat	128	61	43	42	31	48	156	225	333	387	505	557	600	629	582	579	527	558	467	420	362	255	318	206	8019	629	13-14
7/13, Sun	118	76	42	37	27	38	83	111	247	274	375	487	522	541	511	539	422	468	414	349	282	236	179	121	6499	541	13-14
7/14, Mon	52	18	26	25	49	141	317	497	528	482	470	493	516	590	574	622	699	655	401	272	285	192	154	95	8153	699	16-17
7/15, Tue	47	30	19	27	61	117	295	503	529	467	459														2554		
AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6 AM to Fri Noon)																								AWDT			
	54	33	21	34	55	122	302	519	568	504	483	533	542	587	596	654	727	674	462	348	310	250	185	126	8685		

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY				ESTIMATED AADT				
				Roadway High Hour	% of day	North High Hour	% of day	South High Hour	% of day	Roadway	North	South
7	169	4	103	727	8.4	351	8.1	427	9.8	7990	3918	3846

FACTOR

Month	Seasonal	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Axl
7	1.09	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

New York State Department of Transportation

STATION: 810158

NB Traffic Count Hourly Report

ROUTE/ROAD: NY9G	FROM: END 9G/23 OLAP	TO: COLUMBIA ST	REGION-COUNTY: 8-COLUMBIA
FED DIR CODE: 1	REF. MARKER: 9G81011015	FUNC. CLASS: 16 - U Minor Arterial	MUNI: Greenport-Town-0346
ST DIR CODE: 6	END MILEPOST: 14.24	FACTOR GROUP: 30	BIN: 2006470
DOT ID: 100506	LANES BY DIR: 1 North	CC STN:	RR CROSSING:
BEGIN DATE: 7/8/2014	WEEK OF YEAR: 27	ADDL DATA: CLS SPD	HPMS SAMPLE:
NOTES 1: NB travel lane	PLACEMENT: at Ref Marker 9G 8101 1015	JURISDICTION: 01-NYSDOT	1 WAY CODE:
NOTES 2: SB travel lane			COUNT TYPE: Vehicle
TAKEN BY: TST-BEK	PROCESSED BY: DOT-CEL	BATCH ID: DOT-R8WW28A C	SPEED LIMIT: 55

DATE	00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	DAILY TOTAL	HIGH COUNT	HIGH HOUR
7/08, Tue											215	258	274	275	253	293	316	284	182	182	114	89	69	66	2870		
7/09, Wed	18	12	16	18	31	92	208	391	448	295	292	295	267	283	252	312	312	313	246	145	176	141	115	65	4743	448	08-09
7/10, Thu	22	16	9	16	24	46	191	349	335	277	276	283	298	270	294	312	289	294	233	187	147	119	92	70	4449	349	07-08
7/11, Fri	39	21	8	18	23	45	172	302	341	312	266	316	319	316	341	356	366	328	275	226	217	134	135	95	4971	366	16-17
7/12, Sat	62	31	19	16	15	23	97	125	203	223	275	312	326	286	289	260	276	240	226	192	158	111	155	100	4020	326	12-13
7/13, Sun	77	40	20	14	14	19	52	62	163	154	200	273	258	270	261	259	190	228	247	187	156	119	94	75	3432	273	11-12
7/14, Mon	35	10	15	14	29	88	202	319	322	279	241	257	276	296	269	261	284	269	192	110	125	76	72	45	4086	322	08-09
7/15, Tue	21	13	11	13	32	58	184	323	307	282	247														1491		
AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6 AM to Fri Noon)																								AWDT			
	25	16	11	16	28	60	191	337	351	289	256	282	279	281	267	295	300	290	213	156	141	106	87	62	4337		

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY				ESTIMATED AADT				
				Roadway High Hour	% of day	North High Hour	% of day	South High Hour	% of day	Roadway	North	South
7	169	4	103	727	8.4	351	8.1	427	9.8	7990	3918	3846

FACTOR

Month	Seasonal	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Axl
7	1.09	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

New York State Department of Transportation

STATION: 810158

SB Traffic Count Hourly Report

ROUTE/ROAD: NY9G	FROM: END 9G/23 OLAP	TO: COLUMBIA ST	REGION-COUNTY: 8-COLUMBIA
FED DIR CODE: 5	REF. MARKER: 9G81011015	FUNC. CLASS: 16 - U Minor Arterial	MUNI: Greenport-Town-0346
ST DIR CODE: 6	END MILEPOST: 14.24	FACTOR GROUP: 30	BIN: 2006470
DOT ID: 100506	LANES BY DIR: 1 South	CC STN:	RR CROSSING:
BEGIN DATE: 7/8/2014	WEEK OF YEAR: 27	ADDL DATA: CLS SPD	HPMS SAMPLE:
NOTES 1: NB travel lane	PLACEMENT: at Ref Marker 9G 8101 1015	JURISDICTION: 01-NYS DOT	1 WAY CODE:
NOTES 2: SB travel lane			COUNT TYPE: Vehicle
TAKEN BY: TST-BEK	PROCESSED BY: DOT-CEL	BATCH ID: DOT-R8WW28A C	SPEED LIMIT: 55

DATE	00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	DAILY TOTAL	HIGH COUNT	HIGH HOUR
7/08, Tue											212	250	272	294	325	359	400	407	210	157	183	157	88	65	3379		
7/09, Wed	18	10	12	15	28	67	119	182	220	224	224	280	271	320	326	342	460	359	265	245	158	138	103	59	4445	460	16-17
7/10, Thu	30	19	10	19	25	61	113	196	214	235	216	238	270	314	360	375	432	382	310	203	178	162	119	82	4563	432	16-17
7/11, Fri	41	24	11	23	26	58	95	173	226	226	268	254	303	311	373	401	465	418	313	242	228	156	140	129	4904	465	16-17
7/12, Sat	66	30	24	26	16	25	59	100	130	164	230	245	274	343	293	319	251	318	241	228	204	144	163	106	3999	343	13-14
7/13, Sun	41	36	22	23	13	19	31	49	84	120	175	214	264	271	250	280	232	240	167	162	126	117	85	46	3067	280	15-16
7/14, Mon	17	8	11	11	20	53	115	178	206	203	229	236	240	294	305	361	415	386	209	162	160	116	82	50	4067	415	16-17
7/15, Tue	26	17	8	14	29	59	111	180	222	185	212														1063		
AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6 AM to Fri Noon)																								AWDT			
	29	18	10	18	27	61	111	182	218	215	227	252	263	306	329	359	427	384	249	192	170	143	98	64	4348		

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY				ESTIMATED AADT				
				Roadway High Hour	% of day	North High Hour	% of day	South High Hour	% of day	Roadway	North	South
7	169	4	103	727	8.4	351	8.1	427	9.8	7990	3918	3846

FACTOR

Month	Seasonal	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Axl
7	1.09	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

New York State Department of Transportation Traffic Count Hourly Report

ROUTE #:	US 9	ROAD NAME:	FROM: END 9/23 OLAP BUCKLY COR	TO: RT 9G START 9/23B OLAP	COUNTY:	Columbia			
DIRECTION:	Northbound	FACTOR GROUP:	30	REC. SERIAL #:	AP48	TOWN:	GREENPORT		
STATE DIR CODE:	6	WK OF YR:	20	PLACEMENT:	.55 Mi S of Ten Broeck Ln	LION#:			
DATE OF COUNT:	05/12/2015			@ REF MARKER:		BIN:			
NOTES LANE 1:	NB travel lane			ADDL DATA:		CC Stn:			
				COUNT TYPE:	AXLE PAIRS	BATCH ID:	DOT-R08V20aTST5112HPMS SAMPLE:		
COUNT TAKEN BY:	ORG CODE:	TST	INITIALS:	BEK	PROCESSED BY:	ORG CODE:	DOT	INITIALS:	jh

DATE	DAY	AM												PM												DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR																							
		12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12																										
1	F																																																		
2	S																																																		
3	S																																																		
4	M																																																		
5	T																																																		
6	W																																																		
7	T																																																		
8	F																																																		
9	S																																																		
10	S																																																		
11	M																																																		
12	T																																																		
13	W	9	9	4	9	32	90	216	402	460	319	289	323	282	294	312	305	348	249	203	128	85	75	63	22	32	4525	460	8																						
14	T	13	9	4	16	26	91	229	410	411	312	268	315	301	320	315	355	337	295	267	180	101	83	66	26	32	4750	411	8																						
15	F	13	9	5	13	27	92	170	405	386	311	294	314	302	307	349	403	388	371	237	179	125	88	105	31	4924	405	7																							
16	S	19	13	3	8	9	27	94	108	171	231	276	299	487	293	264	256	210	174	191	135	105	97	69	35	3574	487	12																							
17	S	33	12	3	2	7	17	80	105	147	199	243	273	283	237	202	196	203	158	180	133	89	55	68	27	2952	283	12																							
18	M	16	6	8	10	28	98	216	432	407	340	279	283	268	293	311	329	292	276	207	124	84	59	51	34	4451	432	7																							
19	T	10	6	12	13	27	94	223	423	400	320	323	295	359	292																																				
20	W																																																		
21	T																																																		
22	F																																																		
23	S																																																		
24	S																																																		
25	M																																																		
26	T																																																		
27	W																																																		
28	T																																																		
29	F																																																		
30	S																																																		
31	S																																																		

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)																						ADT		
11	8	6	13	28	92	211	414	413	320	291	306	302	300	313	330	326	273	220	134	92	70	63	28	4564
<u>DAYS Counted</u>	<u>HOURS Counted</u>	<u>WEEKDAYS Counted</u>	<u>WEEKDAY Hours</u>	<u>AVERAGE WEEKDAY</u>		<u>Axle Adj. Factor</u>	<u>Seasonal/Weekday Adjustment Factor</u>	ESTIMATED																
8	164	5	98	414	9%	1.000	1.077	AADT 4238																

New York State Department of Transportation Traffic Count Hourly Report

ROUTE #:	US 9	ROAD NAME:	FROM: END 9/23 OLAP BUCKLY COR	TO: RT 9G START 9/23B OLAP	COUNTY:	Columbia	
DIRECTION:	Southbound	FACTOR GROUP:	30	REC. SERIAL #:	AP48	TOWN:	GREENPORT
STATE DIR CODE:	7	WK OF YR:	20	PLACEMENT:	.55 Mi S of Ten Broeck Ln	LION#:	
DATE OF COUNT:	05/12/2015			@ REF MARKER:		BIN:	
NOTES LANE 1:	SB travel lane			ADDL DATA:		CC Stn:	
				COUNT TYPE:	AXLE PAIRS	RR CROSSING:	
				PROCESSED BY:	ORG CODE: DOT	INITIALS:	jh
COUNT TAKEN BY:	ORG CODE: TST	INITIALS:	BEK				

DATE	DAY	AM												PM												DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR									
		12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12												
1	F																																				
2	S																																				
3	S																																				
4	M																																				
5	T																																				
6	W																																				
7	T																																				
8	F																																				
9	S																																				
10	S																																				
11	M																																				
12	T																																				
13	W	31	16	10	7	16	65	126	237	235	237	217	244	257	317	358	355	434	425	250	182	137	103	58	46												
14	T	22	10	11	14	17	65	139	241	229	213	226	259	293	332	329	407	444	384	298	225	173	107	72	55	60	4370	434	16								
15	F	26	11	13	15	17	56	123	209	220	239	240	255	285	376	357	391	424	382	265	231	212	134	111	99	4691	424	16									
16	S	32	12	13	10	10	18	56	92	189	248	200	227	257	290	302	273	252	210	188	151	125	122	74	89	3440	302	14									
17	S	34	12	3	5	8	25	40	96	92	130	173	212	233	276	241	282	263	236	207	198	111	82	43	43	3045	282	15									
18	M	15	15	4	15	20	71	129	225	248	239	254	269	266	318	335	374	438	386	211	177	133	79	65	54	4340	438	16									
19	T	24	12	12	5	20	76	131	256	311	228	259	281	308	307																						
20	W																																				
21	T																																				
22	F																																				
23	S																																				
24	S																																				
25	M																																				
26	T																																				
27	W																																				
28	T																																				
29	F																																				
30	S																																				
31	S																																				

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)															ADT									
26	12	12	10	18	66	130	234	249	231	239	262	281	318	341	379	439	398	248	199	144	95	62	54	4447
<u>DAYS Counted</u>	<u>HOURS Counted</u>	<u>WEEKDAYS Counted</u>	<u>WEEKDAY Hours</u>	<u>AVERAGE WEEKDAY</u>		<u>Axle Adj. Factor</u>	<u>Seasonal/Weekday Adjustment Factor</u>	ESTIMATED																
8	164	5	98	439	10%	1.000	1.077	AADT 4129																

MetroCount Traffic Executive Speed Statistics

SpeedStat-37 -- English (ENU)

Datasets:

Site: [115-337] ATR 2 - NY Route 9G, 900 ft South of Power Ave, Hudson, NY
Attribute: Quarry to Dock
Direction: 7 - North bound A>B, South bound B>A. **Lane:** 1
Survey Duration: 11:02 Wednesday, June 10, 2020 => 16:23 Wednesday, June 17, 2020,
Zone:
File: 115-337 0 2020-06-17 1623.EC1 (Plus)
Identifier: R519M98M MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Factory default axle (v5.02)
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 16:00 Wednesday, June 10, 2020 => 8:00 Thursday, June 11, 2020 (0.666667)
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 6 - 99 mph.
Direction: North, East, South, West (bound), P = North, Lane = 0-16
Separation: Headway > 0 sec, Span 0 - 328.084 ft
Name: Default Profile
Scheme: Vehicle classification (Scheme F3)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Vehicles = 2846 / 3476 (81.88%)

Speed Statistics

SpeedStat-37

Site: 115-337.1.2NS
Description: ATR 2 - NY Route 9G, 900 ft South of Power Ave, Hudson, NY
Filter time: 16:00 Wednesday, June 10, 2020 => 8:00 Thursday, June 11, 2020
Scheme: Vehicle classification (Scheme F3)
Filter: Cls(1-13) Dir(NESW) Sp(6,99) Headway(>0) Span(0 - 328.084) Lane(0-16)

Vehicles = 2846

Posted speed limit = 30 mph, Exceeding = 2514 (88.33%), Mean Exceeding = 37.52 mph

Maximum = 74.6 mph, Minimum = 12.3 mph, Mean = 36.4 mph

85% Speed = 42.28 mph, 95% Speed = 46.75 mph, Median = 35.68 mph

12 mph Pace = 29 - 41, Number in Pace = 2067 (72.63%)

Variance = 34.54, Standard Deviation = 5.88 mph

Speed Bins (Partial days)

Speed	Bin	Below	Above	Energy	vMult	n * vMult
0 - 6	0 0.000%	0 0.000%	2846 100.0%	0.00	0.00	0.00
6 - 12	1 0.035%	1 0.035%	2845 99.96%	0.00	0.00	0.00
12 - 19	2 0.070%	3 0.105%	2843 99.89%	0.00	0.00	0.00
19 - 25	24 0.843%	27 0.949%	2819 99.05%	0.00	0.00	0.00
25 - 31	465 16.34%	492 17.29%	2354 82.71%	0.00	0.00	0.00
31 - 37	1215 42.69%	1707 59.98%	1139 40.02%	0.00	0.00	0.00
37 - 43	821 28.85%	2528 88.83%	318 11.17%	0.00	0.00	0.00
43 - 50	250 8.784%	2778 97.61%	68 2.389%	0.00	0.00	0.00
50 - 56	57 2.003%	2835 99.61%	11 0.387%	0.00	0.00	0.00
56 - 62	7 0.246%	2842 99.86%	4 0.141%	0.00	0.00	0.00
62 - 68	2 0.070%	2844 99.93%	2 0.070%	0.00	0.00	0.00
68 - 75	1 0.035%	2845 99.96%	1 0.035%	0.00	0.00	0.00
75 - 81	1 0.035%	2846 100.0%	0 0.000%	0.00	0.00	0.00
81 - 87	0 0.000%	2846 100.0%	0 0.000%	0.00	0.00	0.00
87 - 93	0 0.000%	2846 100.0%	0 0.000%	0.00	0.00	0.00
93 - 99	0 0.000%	2846 100.0%	0 0.000%	0.00	0.00	0.00
99 - 106	0 0.000%	2846 100.0%	0 0.000%	0.00	0.00	0.00
106 - 112	0 0.000%	2846 100.0%	0 0.000%	0.00	0.00	0.00
112 - 118	0 0.000%	2846 100.0%	0 0.000%	0.00	0.00	0.00
118 - 124	0 0.000%	2846 100.0%	0 0.000%	0.00	0.00	0.00

Total Speed Rating = 0.00

Total Moving Energy (Estimated) = 0.00

Speed limit fields (Partial days)

Limit	Below	Above
0 30 (PSL)	332 11.7%	2514 88.3%

MetroCount Traffic Executive Speed Statistics

SpeedStat-38 -- English (ENU)

Datasets:

Site: [115-337] ATR 2 - NY Route 9G, 900 ft South of Power Ave, Hudson, NY
Attribute: Quarry to Dock
Direction: 7 - North bound A>B, South bound B>A. **Lane:** 1
Survey Duration: 11:02 Wednesday, June 10, 2020 => 16:23 Wednesday, June 17, 2020,
Zone:
File: 115-337 0 2020-06-17 1623.EC1 (Plus)
Identifier: R519M98M MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Factory default axle (v5.02)
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 16:00 Wednesday, June 10, 2020 => 8:00 Thursday, June 11, 2020 (0.666667)
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 6 - 99 mph.
Direction: AB , Lane = 0-16
Separation: Headway > 0 sec, Span 0 - 328.084 ft
Name: Default Profile
Scheme: Vehicle classification (Scheme F3)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Vehicles = 1411 / 3476 (40.59%)

Speed Statistics

SpeedStat-38

Site: 115-337.1.2NS
Description: ATR 2 - NY Route 9G, 900 ft South of Power Ave, Hudson, NY
Filter time: 16:00 Wednesday, June 10, 2020 => 8:00 Thursday, June 11, 2020
Scheme: Vehicle classification (Scheme F3)
Filter: Cls(1-13) Dir(NB) Sp(6,99) Headway(>0) Span(0 - 328.084) Lane(0-16)

Vehicles = 1411

Posted speed limit = 30 mph, Exceeding = 1260 (89.30%), Mean Exceeding = 36.77 mph

Maximum = 57.9 mph, Minimum = 12.3 mph, Mean = 35.8 mph

85% Speed = 41.28 mph, 95% Speed = 44.93 mph, Median = 35.23 mph

12 mph Pace = 29 - 41, Number in Pace = 1101 (78.03%)

Variance = 26.41, Standard Deviation = 5.14 mph

Speed Bins (Partial days)

Speed	Bin	Below	Above	Energy	vMult	n * vMult
0 - 6	0 0.000%	0 0.000%	1411 100.0%	0.00	0.00	0.00
6 - 12	1 0.071%	1 0.071%	1410 99.93%	0.00	0.00	0.00
12 - 19	1 0.071%	2 0.142%	1409 99.86%	0.00	0.00	0.00
19 - 25	10 0.709%	12 0.850%	1399 99.15%	0.00	0.00	0.00
25 - 31	225 15.95%	237 16.80%	1174 83.20%	0.00	0.00	0.00
31 - 37	666 47.20%	903 64.00%	508 36.00%	0.00	0.00	0.00
37 - 43	402 28.49%	1305 92.49%	106 7.512%	0.00	0.00	0.00
43 - 50	93 6.591%	1398 99.08%	13 0.921%	0.00	0.00	0.00
50 - 56	11 0.780%	1409 99.86%	2 0.142%	0.00	0.00	0.00
56 - 62	2 0.142%	1411 100.0%	0 0.000%	0.00	0.00	0.00
62 - 68	0 0.000%	1411 100.0%	0 0.000%	0.00	0.00	0.00
68 - 75	0 0.000%	1411 100.0%	0 0.000%	0.00	0.00	0.00
75 - 81	0 0.000%	1411 100.0%	0 0.000%	0.00	0.00	0.00
81 - 87	0 0.000%	1411 100.0%	0 0.000%	0.00	0.00	0.00
87 - 93	0 0.000%	1411 100.0%	0 0.000%	0.00	0.00	0.00
93 - 99	0 0.000%	1411 100.0%	0 0.000%	0.00	0.00	0.00
99 - 106	0 0.000%	1411 100.0%	0 0.000%	0.00	0.00	0.00
106 - 112	0 0.000%	1411 100.0%	0 0.000%	0.00	0.00	0.00
112 - 118	0 0.000%	1411 100.0%	0 0.000%	0.00	0.00	0.00
118 - 124	0 0.000%	1411 100.0%	0 0.000%	0.00	0.00	0.00

Total Speed Rating = 0.00

Total Moving Energy (Estimated) = 0.00

Speed limit fields (Partial days)

Limit	Below	Above
0 30 (PSL)	151 10.7%	1260 89.3%

MetroCount Traffic Executive Speed Statistics

SpeedStat-39 -- English (ENU)

Datasets:

Site: [115-337] ATR 2 - NY Route 9G, 900 ft South of Power Ave, Hudson, NY
Attribute: Quarry to Dock
Direction: 7 - North bound A>B, South bound B>A. **Lane:** 1
Survey Duration: 11:02 Wednesday, June 10, 2020 => 16:23 Wednesday, June 17, 2020,
Zone:
File: 115-337 0 2020-06-17 1623.EC1 (Plus)
Identifier: R519M98M MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Factory default axle (v5.02)
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 16:00 Wednesday, June 10, 2020 => 8:00 Thursday, June 11, 2020 (0.666667)
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 6 - 99 mph.
Direction: BA , Lane = 0-16
Separation: Headway > 0 sec, Span 0 - 328.084 ft
Name: Default Profile
Scheme: Vehicle classification (Scheme F3)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Vehicles = 1435 / 3476 (41.28%)

Speed Statistics

SpeedStat-39

Site: 115-337.1.2NS
Description: ATR 2 - NY Route 9G, 900 ft South of Power Ave, Hudson, NY
Filter time: 16:00 Wednesday, June 10, 2020 => 8:00 Thursday, June 11, 2020
Scheme: Vehicle classification (Scheme F3)
Filter: Cls(1-13) Dir(SB) Sp(6,99) Headway(>0) Span(0 - 328.084) Lane(0-16)

Vehicles = 1435

Posted speed limit = 30 mph, Exceeding = 1254 (87.39%), Mean Exceeding = 38.29 mph

Maximum = 74.6 mph, Minimum = 17.7 mph, Mean = 37.0 mph

85% Speed = 43.43 mph, 95% Speed = 48.50 mph, Median = 36.18 mph

12 mph Pace = 29 - 41, Number in Pace = 977 (68.08%)

Variance = 41.90, Standard Deviation = 6.47 mph

Speed Bins (Partial days)

Speed	Bin	Below	Above	Energy	vMult	n * vMult
0 - 6	0 0.000%	0 0.000%	1435 100.0%	0.00	0.00	0.00
6 - 12	0 0.000%	0 0.000%	1435 100.0%	0.00	0.00	0.00
12 - 19	1 0.070%	1 0.070%	1434 99.93%	0.00	0.00	0.00
19 - 25	14 0.976%	15 1.045%	1420 98.95%	0.00	0.00	0.00
25 - 31	240 16.72%	255 17.77%	1180 82.23%	0.00	0.00	0.00
31 - 37	549 38.26%	804 56.03%	631 43.97%	0.00	0.00	0.00
37 - 43	419 29.20%	1223 85.23%	212 14.77%	0.00	0.00	0.00
43 - 50	157 10.94%	1380 96.17%	55 3.833%	0.00	0.00	0.00
50 - 56	46 3.206%	1426 99.37%	9 0.627%	0.00	0.00	0.00
56 - 62	5 0.348%	1431 99.72%	4 0.279%	0.00	0.00	0.00
62 - 68	2 0.139%	1433 99.86%	2 0.139%	0.00	0.00	0.00
68 - 75	1 0.070%	1434 99.93%	1 0.070%	0.00	0.00	0.00
75 - 81	1 0.070%	1435 100.0%	0 0.000%	0.00	0.00	0.00
81 - 87	0 0.000%	1435 100.0%	0 0.000%	0.00	0.00	0.00
87 - 93	0 0.000%	1435 100.0%	0 0.000%	0.00	0.00	0.00
93 - 99	0 0.000%	1435 100.0%	0 0.000%	0.00	0.00	0.00
99 - 106	0 0.000%	1435 100.0%	0 0.000%	0.00	0.00	0.00
106 - 112	0 0.000%	1435 100.0%	0 0.000%	0.00	0.00	0.00
112 - 118	0 0.000%	1435 100.0%	0 0.000%	0.00	0.00	0.00
118 - 124	0 0.000%	1435 100.0%	0 0.000%	0.00	0.00	0.00

Total Speed Rating = 0.00

Total Moving Energy (Estimated) = 0.00

Speed limit fields (Partial days)

Limit	Below	Above
0 30 (PSL)	181 12.6%	1254 87.4%

MetroCount Traffic Executive Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-31 -- English (ENU)

Datasets:

Site: [115-337] ATR 2 - NY Route 9G, 900 ft South of Power Ave, Hudson, NY
Attribute: Quarry to Dock
Direction: 7 - North bound A>B, South bound B>A. **Lane:** 1
Survey Duration: 11:02 Wednesday, June 10, 2020 => 16:23 Wednesday, June 17, 2020,
Zone:
File: 115-337 0 2020-06-17 1623.EC1 (Plus)
Identifier: R519M98M MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Factory default axle (v5.02)
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 16:00 Wednesday, June 10, 2020 => 8:00 Thursday, June 11, 2020 (0.666667)
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 6 - 99 mph.
Direction: AB , Lane = 0-16
Separation: Headway > 0 sec, Span 0 - 328.084 ft
Name: Default Profile
Scheme: Vehicle classification (Scheme F3)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Vehicles = 1411 / 3476 (40.59%)

Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-31

Site: 115-337.1.2NS
Description: ATR 2 - NY Route 9G, 900 ft South of Power Ave, Hudson, NY
Filter time: 16:00 Wednesday, June 10, 2020 => 8:00 Thursday, June 11, 2020
Scheme: Vehicle classification (Scheme F3)
Filter: Cls(1-13) Dir(NB) Sp(6,99) Headway(>0) Span(0 - 328.084) Lane(0-16)

Hour	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Averages	
								1 - 5	1 - 7
0000-0100	*	*	*	12.0	*	*	*	12.0	12.0
0100-0200	*	*	*	14.0	*	*	*	14.0	14.0
0200-0300	*	*	*	8.0	*	*	*	8.0	8.0
0300-0400	*	*	*	9.0	*	*	*	9.0	9.0
0400-0500	*	*	*	18.0	*	*	*	18.0	18.0
0500-0600	*	*	*	43.0	*	*	*	43.0	43.0
0600-0700	*	*	*	123.0	*	*	*	123.0	123.0
0700-0800	*	*	*	244.0	*	*	*	244.0	244.0
0800-0900	*	*	*	*	*	*	*	*	*
0900-1000	*	*	*	*	*	*	*	*	*
1000-1100	*	*	*	*	*	*	*	*	*
1100-1200	*	*	*	*	*	*	*	*	*
1200-1300	*	*	*	*	*	*	*	*	*
1300-1400	*	*	*	*	*	*	*	*	*
1400-1500	*	*	*	*	*	*	*	*	*
1500-1600	*	*	*	*	*	*	*	*	*
1600-1700	*	*	250.0	*	*	*	*	250.0	250.0
1700-1800	*	*	201.0	*	*	*	*	201.0	201.0
1800-1900	*	*	185.0	*	*	*	*	185.0	185.0
1900-2000	*	*	106.0	*	*	*	*	106.0	106.0
2000-2100	*	*	57.0	*	*	*	*	57.0	57.0
2100-2200	*	*	63.0	*	*	*	*	63.0	63.0
2200-2300	*	*	38.0	*	*	*	*	38.0	38.0
2300-2400	*	*	40.0	*	*	*	*	40.0	40.0
Totals									
0700-1900	*	*	*	*	*	*	*	*	*
0600-2200	*	*	*	*	*	*	*	*	*
0600-0000	*	*	*	*	*	*	*	*	*
0000-0000	*	*	*	*	*	*	*	*	*
AM Peak	*	*	*	*	*	*	*	*	*
PM Peak	*	*	*	*	*	*	*	*	*

* - No data.

MetroCount Traffic Executive Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-32 -- English (ENU)

Datasets:

Site: [115-337] ATR 2 - NY Route 9G, 900 ft South of Power Ave, Hudson, NY
Attribute: Quarry to Dock
Direction: 7 - North bound A>B, South bound B>A. **Lane:** 1
Survey Duration: 11:02 Wednesday, June 10, 2020 => 16:23 Wednesday, June 17, 2020,
Zone:
File: 115-337 0 2020-06-17 1623.EC1 (Plus)
Identifier: R519M98M MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Factory default axle (v5.02)
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 16:00 Wednesday, June 10, 2020 => 8:00 Thursday, June 11, 2020 (0.666667)
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 6 - 99 mph.
Direction: BA , Lane = 0-16
Separation: Headway > 0 sec, Span 0 - 328.084 ft
Name: Default Profile
Scheme: Vehicle classification (Scheme F3)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Vehicles = 1435 / 3476 (41.28%)

Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-32

Site: 115-337.1.2NS
Description: ATR 2 - NY Route 9G, 900 ft South of Power Ave, Hudson, NY
Filter time: 16:00 Wednesday, June 10, 2020 => 8:00 Thursday, June 11, 2020
Scheme: Vehicle classification (Scheme F3)
Filter: Cls(1-13) Dir(SB) Sp(6,99) Headway(>0) Span(0 - 328.084) Lane(0-16)

Hour	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Averages	
								1 - 5	1 - 7
0000-0100	*	*	*	19.0	*	*	*	19.0	19.0
0100-0200	*	*	*	10.0	*	*	*	10.0	10.0
0200-0300	*	*	*	6.0	*	*	*	6.0	6.0
0300-0400	*	*	*	10.0	*	*	*	10.0	10.0
0400-0500	*	*	*	20.0	*	*	*	20.0	20.0
0500-0600	*	*	*	47.0	*	*	*	47.0	47.0
0600-0700	*	*	*	95.0	*	*	*	95.0	95.0
0700-0800	*	*	*	130.0	*	*	*	130.0	130.0
0800-0900	*	*	*	*	*	*	*	*	*
0900-1000	*	*	*	*	*	*	*	*	*
1000-1100	*	*	*	*	*	*	*	*	*
1100-1200	*	*	*	*	*	*	*	*	*
1200-1300	*	*	*	*	*	*	*	*	*
1300-1400	*	*	*	*	*	*	*	*	*
1400-1500	*	*	*	*	*	*	*	*	*
1500-1600	*	*	*	*	*	*	*	*	*
1600-1700	*	*	292.0	*	*	*	*	292.0	292.0
1700-1800	*	*	287.0	*	*	*	*	287.0	287.0
1800-1900	*	*	185.0	*	*	*	*	185.0	185.0
1900-2000	*	*	124.0	*	*	*	*	124.0	124.0
2000-2100	*	*	71.0	*	*	*	*	71.0	71.0
2100-2200	*	*	69.0	*	*	*	*	69.0	69.0
2200-2300	*	*	36.0	*	*	*	*	36.0	36.0
2300-2400	*	*	34.0	*	*	*	*	34.0	34.0
Totals									
0700-1900	*	*	*	*	*	*	*	*	*
0600-2200	*	*	*	*	*	*	*	*	*
0600-0000	*	*	*	*	*	*	*	*	*
0000-0000	*	*	*	*	*	*	*	*	*
AM Peak	*	*	*	*	*	*	*	*	*
PM Peak	*	*	*	*	*	*	*	*	*

* - No data.

MetroCount Traffic Executive Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-30 -- English (ENU)

Datasets:

Site: [115-337] ATR 2 - NY Route 9G, 900 ft South of Power Ave, Hudson, NY
Attribute: Quarry to Dock
Direction: 7 - North bound A>B, South bound B>A. **Lane:** 1
Survey Duration: 11:02 Wednesday, June 10, 2020 => 16:23 Wednesday, June 17, 2020,
Zone:
File: 115-337 0 2020-06-17 1623.EC1 (Plus)
Identifier: R519M98M MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Factory default axle (v5.02)
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 16:00 Wednesday, June 10, 2020 => 8:00 Thursday, June 11, 2020 (0.666667)
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 6 - 99 mph.
Direction: North, East, South, West (bound), P = North, Lane = 0-16
Separation: Headway > 0 sec, Span 0 - 328.084 ft
Name: Default Profile
Scheme: Vehicle classification (Scheme F3)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Vehicles = 2846 / 3476 (81.88%)

Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-30

Site: 115-337.1.2NS
Description: ATR 2 - NY Route 9G, 900 ft South of Power Ave, Hudson, NY
Filter time: 16:00 Wednesday, June 10, 2020 => 8:00 Thursday, June 11, 2020
Scheme: Vehicle classification (Scheme F3)
Filter: Cls(1-13) Dir(NESW) Sp(6,99) Headway(>0) Span(0 - 328.084) Lane(0-16)

Hour	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Averages	
								1 - 5	1 - 7
0000-0100	*	*	*	31.0	*	*	*	31.0	31.0
0100-0200	*	*	*	24.0	*	*	*	24.0	24.0
0200-0300	*	*	*	14.0	*	*	*	14.0	14.0
0300-0400	*	*	*	19.0	*	*	*	19.0	19.0
0400-0500	*	*	*	38.0	*	*	*	38.0	38.0
0500-0600	*	*	*	90.0	*	*	*	90.0	90.0
0600-0700	*	*	*	218.0	*	*	*	218.0	218.0
0700-0800	*	*	*	374.0	*	*	*	374.0	374.0
0800-0900	*	*	*	*	*	*	*	*	*
0900-1000	*	*	*	*	*	*	*	*	*
1000-1100	*	*	*	*	*	*	*	*	*
1100-1200	*	*	*	*	*	*	*	*	*
1200-1300	*	*	*	*	*	*	*	*	*
1300-1400	*	*	*	*	*	*	*	*	*
1400-1500	*	*	*	*	*	*	*	*	*
1500-1600	*	*	*	*	*	*	*	*	*
1600-1700	*	*	542.0	*	*	*	*	542.0	542.0
1700-1800	*	*	488.0	*	*	*	*	488.0	488.0
1800-1900	*	*	370.0	*	*	*	*	370.0	370.0
1900-2000	*	*	230.0	*	*	*	*	230.0	230.0
2000-2100	*	*	128.0	*	*	*	*	128.0	128.0
2100-2200	*	*	132.0	*	*	*	*	132.0	132.0
2200-2300	*	*	74.0	*	*	*	*	74.0	74.0
2300-2400	*	*	74.0	*	*	*	*	74.0	74.0
Totals									
0700-1900	*	*	*	*	*	*	*	*	*
0600-2200	*	*	*	*	*	*	*	*	*
0600-0000	*	*	*	*	*	*	*	*	*
0000-0000	*	*	*	*	*	*	*	*	*
AM Peak	*	*	*	*	*	*	*	*	*
PM Peak	*	*	*	*	*	*	*	*	*

* - No data.

MetroCount Traffic Executive Speed Statistics

SpeedStat-47 -- English (ENU)

Datasets:

Site: [115-337] US Route 9, 0.5 miles south of Ten Broeck Lane, Hudson, NY
Attribute: Quarry to Dock
Direction: 7 - North bound A>B, South bound B>A. **Lane:** 1
Survey Duration: 10:58 Wednesday, June 10, 2020 => 16:27 Wednesday, June 17, 2020,
Zone:
File: 115-337 0 2020-06-17 1628.EC1 (Plus)
Identifier: BG78EVVB MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Factory default axle (v5.02)
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 13:00 Wednesday, June 10, 2020 => 7:00 Thursday, June 11, 2020 (0.75)
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 6 - 99 mph.
Direction: North, East, South, West (bound), P = North, Lane = 0-16
Separation: Headway > 0 sec, Span 0 - 328.084 ft
Name: Default Profile
Scheme: Vehicle classification (Scheme F3)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Vehicles = 4596 / 8093 (56.79%)

Speed Statistics

SpeedStat-47

Site: 115-337.1.2NS
Description: US Route 9, 0.5 miles south of Ten Broeck Lane, Hudson, NY
Filter time: 13:00 Wednesday, June 10, 2020 => 7:00 Thursday, June 11, 2020
Scheme: Vehicle classification (Scheme F3)
Filter: Cls(1-13) Dir(NESW) Sp(6,99) Headway(>0) Span(0 - 328.084) Lane(0-16)

Vehicles = 4596

Posted speed limit = 45 mph, Exceeding = 3420 (74.41%), Mean Exceeding = 50.63 mph

Maximum = 78.2 mph, Minimum = 16.0 mph, Mean = 48.2 mph

85% Speed = 53.63 mph, 95% Speed = 56.99 mph, Median = 48.32 mph

12 mph Pace = 42 - 54, Number in Pace = 3436 (74.76%)

Variance = 31.54, Standard Deviation = 5.62 mph

Speed Bins (Partial days)

Speed	Bin	Below	Above	Energy	vMult	n * vMult
0 - 6	0 0.000%	0 0.000%	4596 100.0%	0.00	0.00	0.00
6 - 12	0 0.000%	0 0.000%	4596 100.0%	0.00	0.00	0.00
12 - 19	1 0.022%	1 0.022%	4595 99.98%	0.00	0.00	0.00
19 - 25	4 0.087%	5 0.109%	4591 99.89%	0.00	0.00	0.00
25 - 31	11 0.239%	16 0.348%	4580 99.65%	0.00	0.00	0.00
31 - 37	121 2.633%	137 2.981%	4459 97.02%	0.00	0.00	0.00
37 - 43	684 14.88%	821 17.86%	3775 82.14%	0.00	0.00	0.00
43 - 50	1980 43.08%	2801 60.94%	1795 39.06%	0.00	0.00	0.00
50 - 56	1445 31.44%	4246 92.38%	350 7.615%	0.00	0.00	0.00
56 - 62	311 6.767%	4557 99.15%	39 0.849%	0.00	0.00	0.00
62 - 68	32 0.696%	4589 99.85%	7 0.152%	0.00	0.00	0.00
68 - 75	5 0.109%	4594 99.96%	2 0.044%	0.00	0.00	0.00
75 - 81	2 0.044%	4596 100.0%	0 0.000%	0.00	0.00	0.00
81 - 87	0 0.000%	4596 100.0%	0 0.000%	0.00	0.00	0.00
87 - 93	0 0.000%	4596 100.0%	0 0.000%	0.00	0.00	0.00
93 - 99	0 0.000%	4596 100.0%	0 0.000%	0.00	0.00	0.00
99 - 106	0 0.000%	4596 100.0%	0 0.000%	0.00	0.00	0.00
106 - 112	0 0.000%	4596 100.0%	0 0.000%	0.00	0.00	0.00
112 - 118	0 0.000%	4596 100.0%	0 0.000%	0.00	0.00	0.00
118 - 124	0 0.000%	4596 100.0%	0 0.000%	0.00	0.00	0.00

Total Speed Rating = 0.00

Total Moving Energy (Estimated) = 0.00

Speed limit fields (Partial days)

Limit	Below	Above
45 (PSL)	1176 25.6%	3420 74.4%

MetroCount Traffic Executive Speed Statistics

SpeedStat-49 -- English (ENU)

Datasets:

Site: [115-337] US Route 9, 0.5 miles south of Ten Broeck Lane, Hudson, NY
Attribute: Quarry to Dock
Direction: 7 - North bound A>B, South bound B>A. **Lane:** 1
Survey Duration: 10:58 Wednesday, June 10, 2020 => 16:27 Wednesday, June 17, 2020,
Zone:
File: 115-337 0 2020-06-17 1628.EC1 (Plus)
Identifier: BG78EVVB MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Factory default axle (v5.02)
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 13:00 Wednesday, June 10, 2020 => 7:00 Thursday, June 11, 2020 (0.75)
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 6 - 99 mph.
Direction: AB , Lane = 0-16
Separation: Headway > 0 sec, Span 0 - 328.084 ft
Name: Default Profile
Scheme: Vehicle classification (Scheme F3)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Vehicles = 2134 / 8093 (26.37%)

Speed Statistics

SpeedStat-49

Site: 115-337.1.2NS
Description: US Route 9, 0.5 miles south of Ten Broeck Lane, Hudson, NY
Filter time: 13:00 Wednesday, June 10, 2020 => 7:00 Thursday, June 11, 2020
Scheme: Vehicle classification (Scheme F3)
Filter: Cls(1-13) Dir(NB) Sp(6,99) Headway(>0) Span(0 - 328.084) Lane(0-16)

Vehicles = 2134

Posted speed limit = 45 mph, Exceeding = 1576 (73.85%), Mean Exceeding = 50.50 mph

Maximum = 75.6 mph, Minimum = 16.0 mph, Mean = 48.1 mph

85% Speed = 53.56 mph, 95% Speed = 56.93 mph, Median = 48.09 mph

12 mph Pace = 43 - 55, Number in Pace = 1591 (74.55%)

Variance = 31.85, Standard Deviation = 5.64 mph

Speed Bins (Partial days)

Speed	Bin	Below	Above	Energy	vMult	n * vMult
0 - 6	0 0.000%	0 0.000%	2134 100.0%	0.00	0.00	0.00
6 - 12	0 0.000%	0 0.000%	2134 100.0%	0.00	0.00	0.00
12 - 19	1 0.047%	1 0.047%	2133 99.95%	0.00	0.00	0.00
19 - 25	2 0.094%	3 0.141%	2131 99.86%	0.00	0.00	0.00
25 - 31	7 0.328%	10 0.469%	2124 99.53%	0.00	0.00	0.00
31 - 37	60 2.812%	70 3.280%	2064 96.72%	0.00	0.00	0.00
37 - 43	327 15.32%	397 18.60%	1737 81.40%	0.00	0.00	0.00
43 - 50	943 44.19%	1340 62.79%	794 37.21%	0.00	0.00	0.00
50 - 56	642 30.08%	1982 92.88%	152 7.123%	0.00	0.00	0.00
56 - 62	136 6.373%	2118 99.25%	16 0.750%	0.00	0.00	0.00
62 - 68	13 0.609%	2131 99.86%	3 0.141%	0.00	0.00	0.00
68 - 75	2 0.094%	2133 99.95%	1 0.047%	0.00	0.00	0.00
75 - 81	1 0.047%	2134 100.0%	0 0.000%	0.00	0.00	0.00
81 - 87	0 0.000%	2134 100.0%	0 0.000%	0.00	0.00	0.00
87 - 93	0 0.000%	2134 100.0%	0 0.000%	0.00	0.00	0.00
93 - 99	0 0.000%	2134 100.0%	0 0.000%	0.00	0.00	0.00
99 - 106	0 0.000%	2134 100.0%	0 0.000%	0.00	0.00	0.00
106 - 112	0 0.000%	2134 100.0%	0 0.000%	0.00	0.00	0.00
112 - 118	0 0.000%	2134 100.0%	0 0.000%	0.00	0.00	0.00
118 - 124	0 0.000%	2134 100.0%	0 0.000%	0.00	0.00	0.00

Total Speed Rating = 0.00

Total Moving Energy (Estimated) = 0.00

Speed limit fields (Partial days)

Limit	Below	Above
0 45 (PSL)	558 26.1%	1576 73.9%

MetroCount Traffic Executive Speed Statistics

SpeedStat-50 -- English (ENU)

Datasets:

Site: [115-337] US Route 9, 0.5 miles south of Ten Broeck Lane, Hudson, NY
Attribute: Quarry to Dock
Direction: 7 - North bound A>B, South bound B>A. **Lane:** 1
Survey Duration: 10:58 Wednesday, June 10, 2020 => 16:27 Wednesday, June 17, 2020,
Zone:
File: 115-337 0 2020-06-17 1628.EC1 (Plus)
Identifier: BG78EVVB MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Factory default axle (v5.02)
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 13:00 Wednesday, June 10, 2020 => 7:00 Thursday, June 11, 2020 (0.75)
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 6 - 99 mph.
Direction: BA , Lane = 0-16
Separation: Headway > 0 sec, Span 0 - 328.084 ft
Name: Default Profile
Scheme: Vehicle classification (Scheme F3)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Vehicles = 2462 / 8093 (30.42%)

Speed Statistics

SpeedStat-50

Site: 115-337.1.2NS
Description: US Route 9, 0.5 miles south of Ten Broeck Lane, Hudson, NY
Filter time: 13:00 Wednesday, June 10, 2020 => 7:00 Thursday, June 11, 2020
Scheme: Vehicle classification (Scheme F3)
Filter: Cls(1-13) Dir(SB) Sp(6,99) Headway(>0) Span(0 - 328.084) Lane(0-16)

Vehicles = 2462

Posted speed limit = 45 mph, Exceeding = 1844 (74.90%), Mean Exceeding = 50.73 mph

Maximum = 78.2 mph, Minimum = 23.8 mph, Mean = 48.4 mph

85% Speed = 53.69 mph, 95% Speed = 57.15 mph, Median = 48.54 mph

12 mph Pace = 42 - 54, Number in Pace = 1849 (75.10%)

Variance = 31.24, Standard Deviation = 5.59 mph

Speed Bins (Partial days)

Speed	Bin	Below	Above	Energy	vMult	n * vMult
0 - 6	0 0.000%	0 0.000%	2462 100.0%	0.00	0.00	0.00
6 - 12	0 0.000%	0 0.000%	2462 100.0%	0.00	0.00	0.00
12 - 19	0 0.000%	0 0.000%	2462 100.0%	0.00	0.00	0.00
19 - 25	2 0.081%	2 0.081%	2460 99.92%	0.00	0.00	0.00
25 - 31	4 0.162%	6 0.244%	2456 99.76%	0.00	0.00	0.00
31 - 37	61 2.478%	67 2.721%	2395 97.28%	0.00	0.00	0.00
37 - 43	357 14.50%	424 17.22%	2038 82.78%	0.00	0.00	0.00
43 - 50	1037 42.12%	1461 59.34%	1001 40.66%	0.00	0.00	0.00
50 - 56	803 32.62%	2264 91.96%	198 8.042%	0.00	0.00	0.00
56 - 62	175 7.108%	2439 99.07%	23 0.934%	0.00	0.00	0.00
62 - 68	19 0.772%	2458 99.84%	4 0.162%	0.00	0.00	0.00
68 - 75	3 0.122%	2461 99.96%	1 0.041%	0.00	0.00	0.00
75 - 81	1 0.041%	2462 100.0%	0 0.000%	0.00	0.00	0.00
81 - 87	0 0.000%	2462 100.0%	0 0.000%	0.00	0.00	0.00
87 - 93	0 0.000%	2462 100.0%	0 0.000%	0.00	0.00	0.00
93 - 99	0 0.000%	2462 100.0%	0 0.000%	0.00	0.00	0.00
99 - 106	0 0.000%	2462 100.0%	0 0.000%	0.00	0.00	0.00
106 - 112	0 0.000%	2462 100.0%	0 0.000%	0.00	0.00	0.00
112 - 118	0 0.000%	2462 100.0%	0 0.000%	0.00	0.00	0.00
118 - 124	0 0.000%	2462 100.0%	0 0.000%	0.00	0.00	0.00

Total Speed Rating = 0.00

Total Moving Energy (Estimated) = 0.00

Speed limit fields (Partial days)

Limit	Below	Above
0 45 (PSL)	618 25.1%	1844 74.9%

MetroCount Traffic Executive Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-41 -- English (ENU)

Datasets:

Site: [115-337] US Route 9, 0.5 miles south of Ten Broeck Lane, Hudson, NY
Attribute: Quarry to Dock
Direction: 7 - North bound A>B, South bound B>A. **Lane:** 1
Survey Duration: 10:58 Wednesday, June 10, 2020 => 16:27 Wednesday, June 17, 2020,
Zone:
File: 115-337 0 2020-06-17 1628.EC1 (Plus)
Identifier: BG78EVVB MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Factory default axle (v5.02)
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 13:00 Wednesday, June 10, 2020 => 7:00 Thursday, June 11, 2020 (0.75)
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 6 - 99 mph.
Direction: North, East, South, West (bound), P = North, Lane = 0-16
Separation: Headway > 0 sec, Span 0 - 328.084 ft
Name: Default Profile
Scheme: Vehicle classification (Scheme F3)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Vehicles = 4596 / 8093 (56.79%)

Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-41

Site: 115-337.1.2NS

Description: US Route 9, 0.5 miles south of Ten Broeck Lane, Hudson, NY

Filter time: 13:00 Wednesday, June 10, 2020 => 7:00 Thursday, June 11, 2020

Scheme: Vehicle classification (Scheme F3)

Filter: Cls(1-13) Dir(NESW) Sp(6,99) Headway(>0) Span(0 - 328.084) Lane(0-16)

Hour	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Averages	
								1 - 5	1 - 7
0000-0100	*	*	*	28.0	*	*	*	28.0	28.0
0100-0200	*	*	*	10.0	*	*	*	10.0	10.0
0200-0300	*	*	*	13.0	*	*	*	13.0	13.0
0300-0400	*	*	*	16.0	*	*	*	16.0	16.0
0400-0500	*	*	*	30.0	*	*	*	30.0	30.0
0500-0600	*	*	*	136.0	*	*	*	136.0	136.0
0600-0700	*	*	*	281.0	*	*	*	281.0	281.0
0700-0800	*	*	*	*	*	*	*	*	*
0800-0900	*	*	*	*	*	*	*	*	*
0900-1000	*	*	*	*	*	*	*	*	*
1000-1100	*	*	*	*	*	*	*	*	*
1100-1200	*	*	*	*	*	*	*	*	*
1200-1300	*	*	*	*	*	*	*	*	*
1300-1400	*	*	570.0	*	*	*	*	570.0	570.0
1400-1500	*	*	579.0	*	*	*	*	579.0	579.0
1500-1600	*	*	706.0	*	*	*	*	706.0	706.0
1600-1700	*	*	671.0	*	*	*	*	671.0	671.0
1700-1800	*	*	536.0	*	*	*	*	536.0	536.0
1800-1900	*	*	375.0	*	*	*	*	375.0	375.0
1900-2000	*	*	269.0	*	*	*	*	269.0	269.0
2000-2100	*	*	141.0	*	*	*	*	141.0	141.0
2100-2200	*	*	104.0	*	*	*	*	104.0	104.0
2200-2300	*	*	76.0	*	*	*	*	76.0	76.0
2300-2400	*	*	55.0	*	*	*	*	55.0	55.0
Totals									
0700-1900	*	*	*	*	*	*	*	*	*
0600-2200	*	*	*	*	*	*	*	*	*
0600-0000	*	*	*	*	*	*	*	*	*
0000-0000	*	*	*	*	*	*	*	*	*
AM Peak	*	*	*	*	*	*	*	*	*
PM Peak	*	*	*	*	*	*	*	*	*

* - No data.

MetroCount Traffic Executive Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-42 -- English (ENU)

Datasets:

Site: [115-337] US Route 9, 0.5 miles south of Ten Broeck Lane, Hudson, NY
Attribute: Quarry to Dock
Direction: 7 - North bound A>B, South bound B>A. **Lane:** 1
Survey Duration: 10:58 Wednesday, June 10, 2020 => 16:27 Wednesday, June 17, 2020,
Zone:
File: 115-337 0 2020-06-17 1628.EC1 (Plus)
Identifier: BG78EVB MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Factory default axle (v5.02)
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 13:00 Wednesday, June 10, 2020 => 7:00 Thursday, June 11, 2020 (0.75)
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 6 - 99 mph.
Direction: AB , Lane = 0-16
Separation: Headway > 0 sec, Span 0 - 328.084 ft
Name: Default Profile
Scheme: Vehicle classification (Scheme F3)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Vehicles = 2134 / 8093 (26.37%)

Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-42

Site: 115-337.1.2NS
Description: US Route 9, 0.5 miles south of Ten Broeck Lane, Hudson, NY
Filter time: 13:00 Wednesday, June 10, 2020 => 7:00 Thursday, June 11, 2020
Scheme: Vehicle classification (Scheme F3)
Filter: Cls(1-13) Dir(NB) Sp(6,99) Headway(>0) Span(0 - 328.084) Lane(0-16)

Hour	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Averages	
								1 - 5	1 - 7
0000-0100	*	*	*	8.0	*	*	*	8.0	8.0
0100-0200	*	*	*	3.0	*	*	*	3.0	3.0
0200-0300	*	*	*	8.0	*	*	*	8.0	8.0
0300-0400	*	*	*	7.0	*	*	*	7.0	7.0
0400-0500	*	*	*	14.0	*	*	*	14.0	14.0
0500-0600	*	*	*	79.0	*	*	*	79.0	79.0
0600-0700	*	*	*	182.0	*	*	*	182.0	182.0
0700-0800	*	*	*	*	*	*	*	*	*
0800-0900	*	*	*	*	*	*	*	*	*
0900-1000	*	*	*	*	*	*	*	*	*
1000-1100	*	*	*	*	*	*	*	*	*
1100-1200	*	*	*	*	*	*	*	*	*
1200-1300	*	*	*	*	*	*	*	*	*
1300-1400	*	*	295.0	*	*	*	*	295.0	295.0
1400-1500	*	*	254.0	*	*	*	*	254.0	254.0
1500-1600	*	*	321.0	*	*	*	*	321.0	321.0
1600-1700	*	*	278.0	*	*	*	*	278.0	278.0
1700-1800	*	*	225.0	*	*	*	*	225.0	225.0
1800-1900	*	*	189.0	*	*	*	*	189.0	189.0
1900-2000	*	*	106.0	*	*	*	*	106.0	106.0
2000-2100	*	*	50.0	*	*	*	*	50.0	50.0
2100-2200	*	*	48.0	*	*	*	*	48.0	48.0
2200-2300	*	*	47.0	*	*	*	*	47.0	47.0
2300-2400	*	*	20.0	*	*	*	*	20.0	20.0
Totals									
0700-1900	*	*	*	*	*	*	*	*	*
0600-2200	*	*	*	*	*	*	*	*	*
0600-0000	*	*	*	*	*	*	*	*	*
0000-0000	*	*	*	*	*	*	*	*	*
AM Peak	*	*	*	*	*	*	*	*	*
PM Peak	*	*	*	*	*	*	*	*	*

* - No data.

MetroCount Traffic Executive Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-43 -- English (ENU)

Datasets:

Site: [115-337] US Route 9, 0.5 miles south of Ten Broeck Lane, Hudson, NY
Attribute: Quarry to Dock
Direction: 7 - North bound A>B, South bound B>A. **Lane:** 1
Survey Duration: 10:58 Wednesday, June 10, 2020 => 16:27 Wednesday, June 17, 2020,
Zone:
File: 115-337 0 2020-06-17 1628.EC1 (Plus)
Identifier: BG78EVVB MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm: Factory default axle (v5.02)
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 13:00 Wednesday, June 10, 2020 => 7:00 Thursday, June 11, 2020 (0.75)
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Speed range: 6 - 99 mph.
Direction: BA , Lane = 0-16
Separation: Headway > 0 sec, Span 0 - 328.084 ft
Name: Default Profile
Scheme: Vehicle classification (Scheme F3)
Units: Non metric (ft, mi, ft/s, mph, lb, ton)
In profile: Vehicles = 2462 / 8093 (30.42%)

Weekly Vehicle Counts (Virtual Week)

VirtWeeklyVehicle-43

Site: 115-337.1.2NS
Description: US Route 9, 0.5 miles south of Ten Broeck Lane, Hudson, NY
Filter time: 13:00 Wednesday, June 10, 2020 => 7:00 Thursday, June 11, 2020
Scheme: Vehicle classification (Scheme F3)
Filter: Cls(1-13) Dir(BA) Sp(6,99) Headway(>0) Span(0 - 328.084) Lane(0-16)

Hour	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Averages	
								1 - 5	1 - 7
0000-0100	*	*	*	20.0	*	*	*	20.0	20.0
0100-0200	*	*	*	7.0	*	*	*	7.0	7.0
0200-0300	*	*	*	5.0	*	*	*	5.0	5.0
0300-0400	*	*	*	9.0	*	*	*	9.0	9.0
0400-0500	*	*	*	16.0	*	*	*	16.0	16.0
0500-0600	*	*	*	57.0	*	*	*	57.0	57.0
0600-0700	*	*	*	99.0	*	*	*	99.0	99.0
0700-0800	*	*	*	*	*	*	*	*	*
0800-0900	*	*	*	*	*	*	*	*	*
0900-1000	*	*	*	*	*	*	*	*	*
1000-1100	*	*	*	*	*	*	*	*	*
1100-1200	*	*	*	*	*	*	*	*	*
1200-1300	*	*	*	*	*	*	*	*	*
1300-1400	*	*	275.0	*	*	*	*	275.0	275.0
1400-1500	*	*	325.0	*	*	*	*	325.0	325.0
1500-1600	*	*	385.0	*	*	*	*	385.0	385.0
1600-1700	*	*	393.0	*	*	*	*	393.0	393.0
1700-1800	*	*	311.0	*	*	*	*	311.0	311.0
1800-1900	*	*	186.0	*	*	*	*	186.0	186.0
1900-2000	*	*	163.0	*	*	*	*	163.0	163.0
2000-2100	*	*	91.0	*	*	*	*	91.0	91.0
2100-2200	*	*	56.0	*	*	*	*	56.0	56.0
2200-2300	*	*	29.0	*	*	*	*	29.0	29.0
2300-2400	*	*	35.0	*	*	*	*	35.0	35.0
Totals									
0700-1900	*	*	*	*	*	*	*	*	*
0600-2200	*	*	*	*	*	*	*	*	*
0600-0000	*	*	*	*	*	*	*	*	*
0000-0000	*	*	*	*	*	*	*	*	*
AM Peak	*	*	*	*	*	*	*	*	*
PM Peak	*	*	*	*	*	*	*	*	*

* - No data.

Attachment B

Loads Delivered Charts

Gate to Gate Truck Route
City of Hudson and Town of Greenport, NY

Chart 2 - Loads Delivered



Chart 3 - Loads Delivered

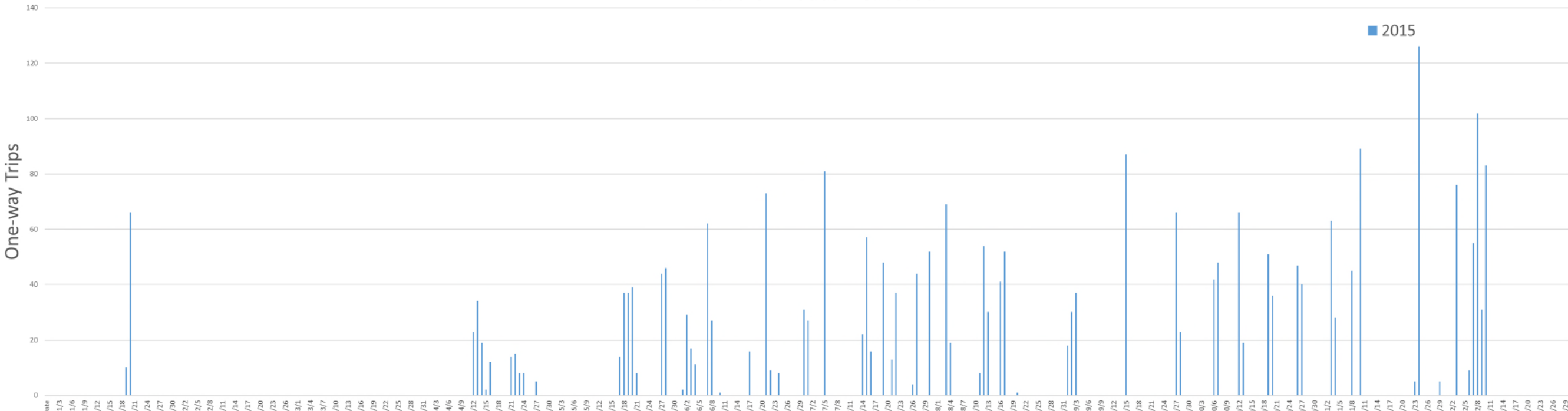


Chart 4 - Loads Delivered

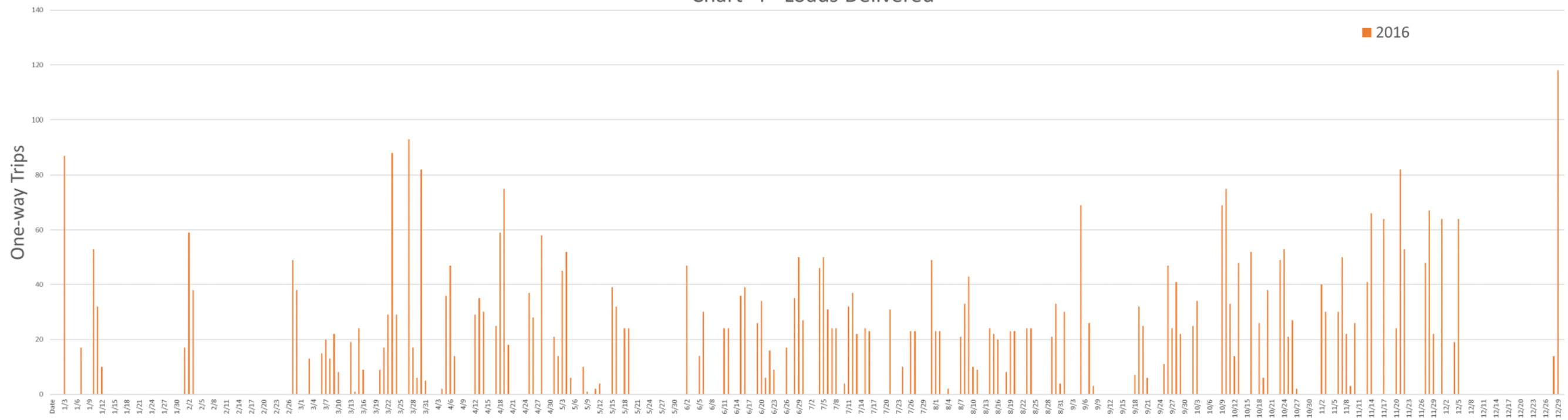


Chart 5 - Loads Delivered

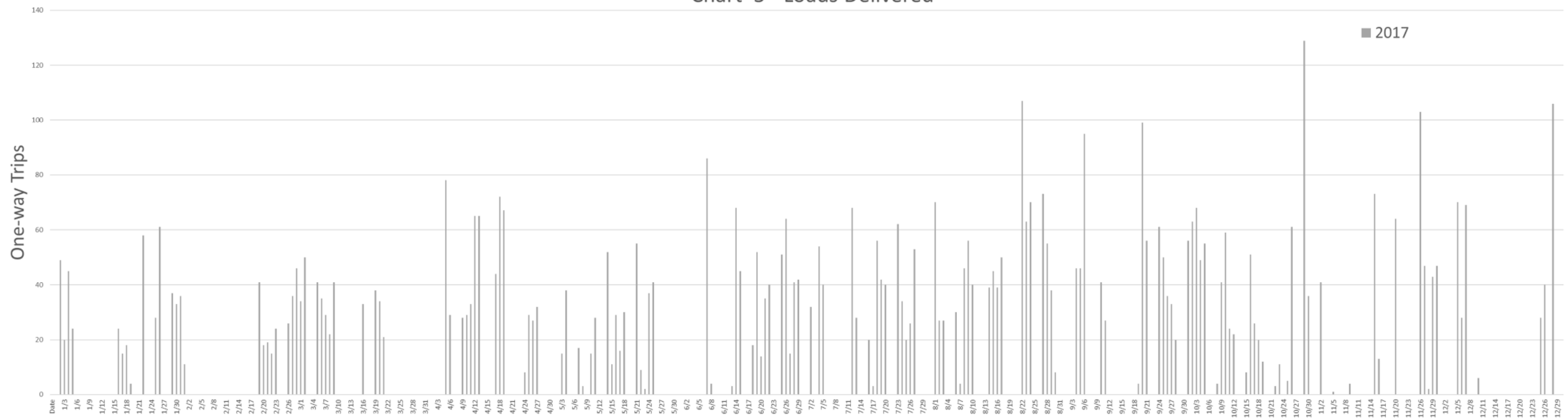


Chart 6 - Loads Delivered

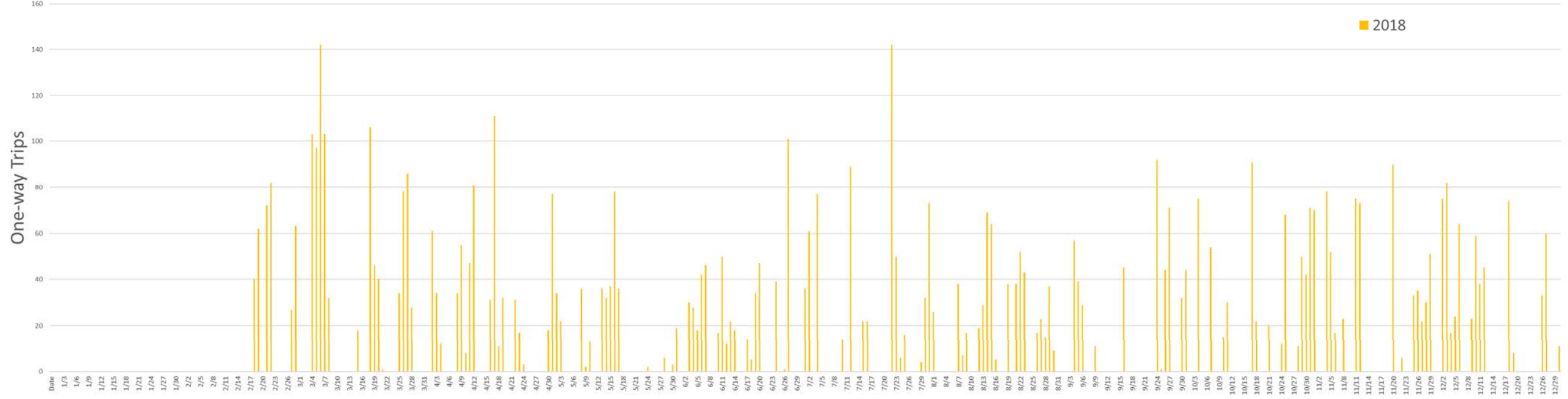


Chart 7 - Loads Delivered

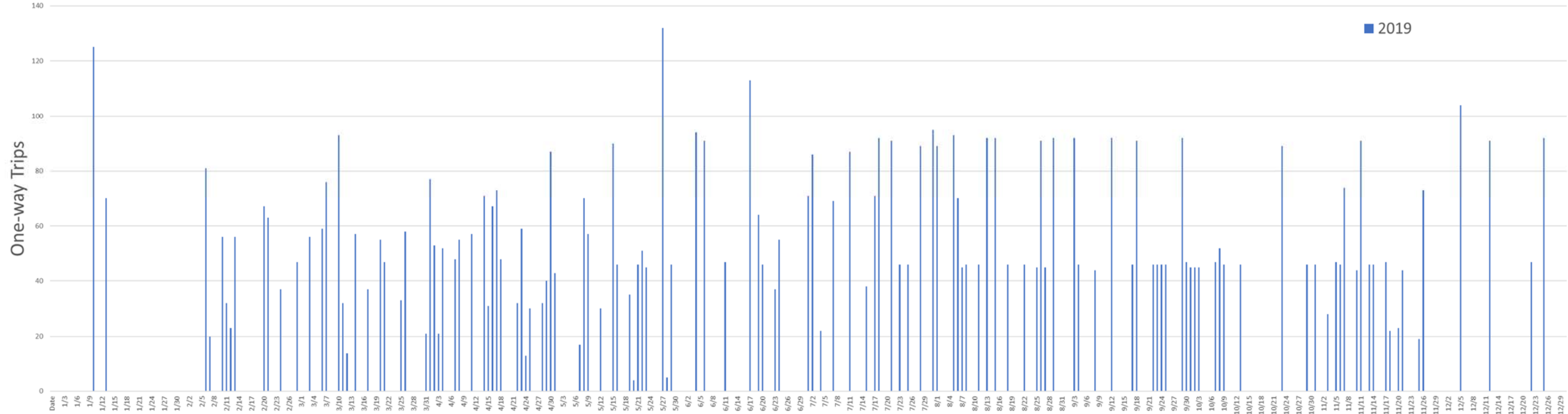
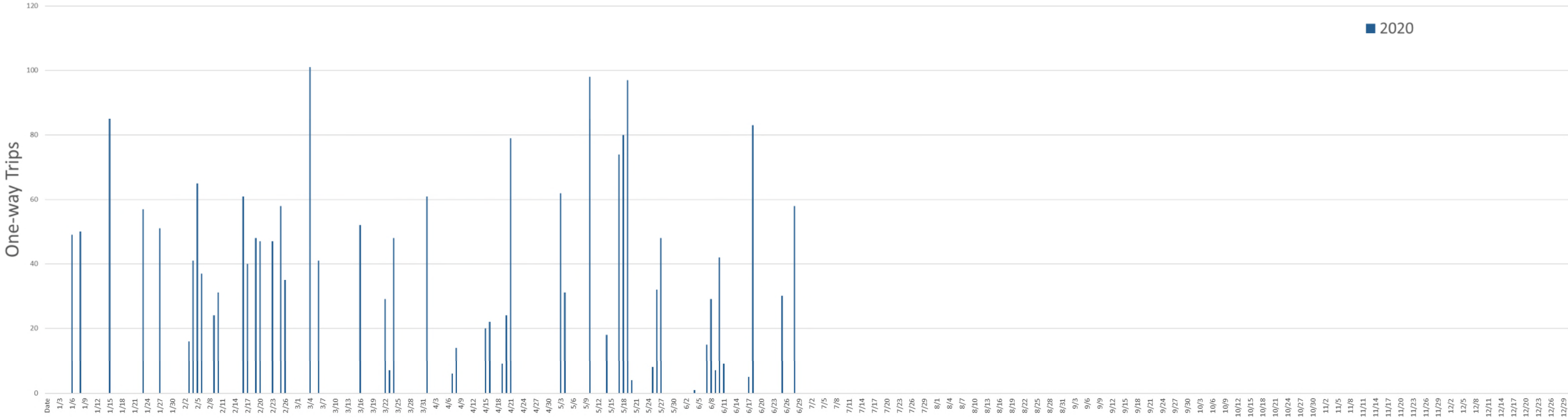


Chart 8 - Loads Delivered



Attachment C

Level of Service Analysis

Gate to Gate Truck Route
City of Hudson and Town of Greenport, NY

LOS Definitions

The following is an excerpt from the Highway Capacity Manual, 6th Edition (HCM).

Level of Service for Signalized Intersections

Level of Service (LOS) can be characterized for the entire intersection, each intersection approach, and each lane group. Control delay alone is used to characterize LOS for the entire intersection or an approach. Control delay *and* volume-to-capacity (v/c) ratio are used to characterize LOS for a lane group. Delay quantifies the increase in travel time due to traffic signal control. It is also a surrogate measure of driver discomfort and fuel consumption. The v/c ratio quantifies the degree to which a phase's capacity is utilized by a lane group. The following paragraphs describe each LOS.

LOS A describes operations with a control delay of 10 s/veh or less and a v/c ratio no greater than 1.0. This level is typically assigned when the v/c ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.

LOS B describes operations with control delay between 10 and 20 s/veh and a v/c ratio no greater than 1.0. This level is typically assigned when the v/c ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.

LOS C describes operations with control delay between 20 and 35 s/veh and a v/c ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate. Individual *cycle failures* (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.

LOS D describes operations with control delay between 35 and 55 s/veh and a v/c ratio no greater than 1.0. This level is typically assigned when the v/c ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.

LOS E describes operations with control delay between 55 and 80 s/veh and a v/c ratio no greater than 1.0. This level is typically assigned when the v/c ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.

LOS F describes operations with control delay exceeding 80 s/veh or a v/c ratio greater than 1.0. This level is typically assigned when the v/c ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

A lane group can incur a delay less than 80 s/veh when the v/c ratio exceeds 1.0. This condition typically occurs when the cycle length is short, the signal progression is favorable, or both. As a result, both the delay and v/c ratio are considered when lane group LOS is established. A ratio of 1.0 or more indicates that cycle capacity is fully utilized and represents failure from a capacity perspective (just as delay in excess of 80 s/veh represents failure from a delay perspective).

Average control delay and queue length at roundabout controlled intersections are calculated using SIDRA Intersection. The physical geometry such as entry lane width and approach flare, and traffic volume at the roundabout are factors that influence the intersection's performance. The average delay reported using SIDRA Intersection is based on the signalized HCM Method of Delay for Level-of-Service.

Level of Service Criteria for Unsignalized Intersections

Level of service (LOS) for Two-Way Stop-Controlled (TWSC) intersections is determined by the computed or measured control delay. For motor vehicles, LOS is determined for each minor-street movement (or shared movement) as well as major-street left turns by using criteria given in Exhibit 20-2. LOS is not defined for the intersection as a whole or for major-street approaches for three primary reasons: (a) major-street through vehicles are assumed to experience zero delay; (b) the disproportionate number of major-street through vehicles at a typical TWSC intersection skews the weighted average of all movements, resulting in a very low overall average delay for all vehicles; and (c) the resulting low delay can mask important LOS deficiencies for minor movements. LOS F is assigned to the movement if the volume-to-capacity (v/c) ratio for the movement exceeds 1.0, regardless of the control delay.

The LOS criteria for TWSC intersections are somewhat different from the criteria used in Chapter 18 for signalized intersections, primarily because user perceptions differ among transportation facility types. The expectation is that a signalized intersection is designed to carry higher traffic volumes and will present greater delay than an unsignalized intersection. Unsignalized intersections are also associated with more uncertainty for users, as delays are less predictable than they are at signals, which can reduce users' delay tolerance.

The LOS criteria for All-Way Stop-Controlled (AWSC) intersections are given in Exhibit 21-8. LOS F is assigned if the v/c ratio of a lane exceeds 1.0, regardless of the control delay. For assessment of LOS at the approach and intersection levels, LOS is based solely on control delay.

**Exhibits 20-2/21-8:
Level-of-Service Criteria for Stop Controlled Intersections**

Control Delay (s/veh)	LOS by Volume-to-Capacity Ratio	
	v/c ≤ 1.0	v/c ≥ 1.0
10.0	A	F
>10.0 and ≤ 15.0	B	F
>15.0 and ≤ 25.0	C	F
>25.0 and ≤ 35.0	D	F
>35.0 and ≤ 50.0	E	F
>50.0	F	F

Intersection						
Int Delay, s/veh	2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	9	0	8	6	6	48
Future Vol, veh/h	9	0	8	6	6	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	89	2	100	0	0	17
Mvmt Flow	10	0	9	7	7	52

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	58	33	59	0	0
Stage 1	33	-	-	-	-
Stage 2	25	-	-	-	-
Critical Hdwy	7.29	6.22	5.1	-	-
Critical Hdwy Stg 1	6.29	-	-	-	-
Critical Hdwy Stg 2	6.29	-	-	-	-
Follow-up Hdwy	4.301	3.318	3.1	-	-
Pot Cap-1 Maneuver	770	1041	1096	-	-
Stage 1	806	-	-	-	-
Stage 2	813	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	764	1041	1096	-	-
Mov Cap-2 Maneuver	764	-	-	-	-
Stage 1	800	-	-	-	-
Stage 2	813	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	4.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1096	-	764	-	-
HCM Lane V/C Ratio	0.008	-	0.013	-	-
HCM Control Delay (s)	8.3	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection						
Int Delay, s/veh	2.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	13	0	12	6	6	48
Future Vol, veh/h	13	0	12	6	6	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	92	2	100	0	0	17
Mvmt Flow	14	0	13	7	7	52

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	66	33	59	0	0
Stage 1	33	-	-	-	-
Stage 2	33	-	-	-	-
Critical Hdwy	7.32	6.22	5.1	-	-
Critical Hdwy Stg 1	6.32	-	-	-	-
Critical Hdwy Stg 2	6.32	-	-	-	-
Follow-up Hdwy	4.328	3.318	3.1	-	-
Pot Cap-1 Maneuver	757	1041	1096	-	-
Stage 1	801	-	-	-	-
Stage 2	801	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	748	1041	1096	-	-
Mov Cap-2 Maneuver	748	-	-	-	-
Stage 1	791	-	-	-	-
Stage 2	801	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	5.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1096	-	748	-	-
HCM Lane V/C Ratio	0.012	-	0.019	-	-
HCM Control Delay (s)	8.3	0	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	1	12	12	6	6	48
Future Vol, veh/h	1	12	12	6	6	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	100	100	0	2	2
Mvmt Flow	1	13	13	7	7	52

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	66	33	59	0	0
Stage 1	33	-	-	-	-
Stage 2	33	-	-	-	-
Critical Hdwy	6.42	7.2	5.1	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	4.2	3.1	-	-
Pot Cap-1 Maneuver	939	818	1096	-	-
Stage 1	989	-	-	-	-
Stage 2	989	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	928	818	1096	-	-
Mov Cap-2 Maneuver	928	-	-	-	-
Stage 1	977	-	-	-	-
Stage 2	989	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	5.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1096	-	826	-	-
HCM Lane V/C Ratio	0.012	-	0.017	-	-
HCM Control Delay (s)	8.3	0	9.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	24	0	8	22	44	39
Future Vol, veh/h	24	0	8	22	44	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	33	2	100	0	2	2
Mvmt Flow	26	0	9	24	48	42

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	111	69	90	0	-	0
Stage 1	69	-	-	-	-	-
Stage 2	42	-	-	-	-	-
Critical Hdwy	6.73	6.22	5.1	-	-	-
Critical Hdwy Stg 1	5.73	-	-	-	-	-
Critical Hdwy Stg 2	5.73	-	-	-	-	-
Follow-up Hdwy	3.797	3.318	3.1	-	-	-
Pot Cap-1 Maneuver	816	994	1062	-	-	-
Stage 1	881	-	-	-	-	-
Stage 2	907	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	809	994	1062	-	-	-
Mov Cap-2 Maneuver	809	-	-	-	-	-
Stage 1	873	-	-	-	-	-
Stage 2	907	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.6	2.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1062	-	809	-	-
HCM Lane V/C Ratio	0.008	-	0.032	-	-
HCM Control Delay (s)	8.4	0	9.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	28	0	12	22	44	39
Future Vol, veh/h	28	0	12	22	44	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	43	2	100	0	0	2
Mvmt Flow	30	0	13	24	48	42

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	119	69	90	0	-	0
Stage 1	69	-	-	-	-	-
Stage 2	50	-	-	-	-	-
Critical Hdwy	6.83	6.22	5.1	-	-	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.887	3.318	3.1	-	-	-
Pot Cap-1 Maneuver	787	994	1062	-	-	-
Stage 1	859	-	-	-	-	-
Stage 2	877	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	778	994	1062	-	-	-
Mov Cap-2 Maneuver	778	-	-	-	-	-
Stage 1	849	-	-	-	-	-
Stage 2	877	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1062	-	778	-	-
HCM Lane V/C Ratio	0.012	-	0.039	-	-
HCM Control Delay (s)	8.4	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	16	12	12	22	44	39
Future Vol, veh/h	16	12	12	22	44	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	100	100	2	2	4
Mvmt Flow	17	13	13	24	48	42

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	119	69	90	0	0
Stage 1	69	-	-	-	-
Stage 2	50	-	-	-	-
Critical Hdwy	6.44	7.2	5.1	-	-
Critical Hdwy Stg 1	5.44	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-
Follow-up Hdwy	3.536	4.2	3.1	-	-
Pot Cap-1 Maneuver	872	777	1062	-	-
Stage 1	949	-	-	-	-
Stage 2	967	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	862	777	1062	-	-
Mov Cap-2 Maneuver	862	-	-	-	-
Stage 1	938	-	-	-	-
Stage 2	967	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1062	-	823	-	-
HCM Lane V/C Ratio	0.012	-	0.037	-	-
HCM Control Delay (s)	8.4	0	9.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

HCM 6th Signalized Intersection Summary
 115-337 Quarry to Dock

6: S. 3rd St. & Columbia St.
 Existing 2019_AM Peak



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	26	68	3	106	94	23	1	79	160	17	117	7
Future Volume (veh/h)	26	68	3	106	94	23	1	79	160	17	117	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1737	1737	1737	1767	1767	1767	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	28	74	3	115	102	25	1	86	174	18	127	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
Percent Heavy Veh, %	11	11	11	9	9	9	2	2	2	2	2	2
Cap, veh/h	181	426	16	300	245	53	61	282	566	127	795	47
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.51	0.51	0.51	0.51	0.51	0.51
Sat Flow, veh/h	308	1247	46	619	716	154	1	556	1113	117	1565	93
Grp Volume(v), veh/h	105	0	0	242	0	0	261	0	0	153	0	0
Grp Sat Flow(s),veh/h/ln	1601	0	0	1488	0	0	1670	0	0	1775	0	0
Q Serve(g_s), s	0.0	0.0	0.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.6	0.0	0.0	7.3	0.0	0.0	5.5	0.0	0.0	2.7	0.0	0.0
Prop In Lane	0.27		0.03	0.48		0.10	0.00		0.67	0.12		0.05
Lane Grp Cap(c), veh/h	623	0	0	597	0	0	909	0	0	969	0	0
V/C Ratio(X)	0.17	0.00	0.00	0.41	0.00	0.00	0.29	0.00	0.00	0.16	0.00	0.00
Avail Cap(c_a), veh/h	623	0	0	597	0	0	909	0	0	969	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.8	0.0	0.0	15.3	0.0	0.0	8.6	0.0	0.0	7.9	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	2.0	0.0	0.0	0.8	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	2.6	0.0	0.0	1.8	0.0	0.0	1.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.4	0.0	0.0	17.3	0.0	0.0	9.4	0.0	0.0	8.3	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		105			242			261				153
Approach Delay, s/veh		14.4			17.3			9.4				8.3
Approach LOS		B			B			A				A
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.0		35.0		25.0		35.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.5		30.5		20.5		30.5				
Max Q Clear Time (g_c+I1), s		9.3		7.5		4.6		4.7				
Green Ext Time (p_c), s		1.0		1.6		0.4		0.8				

Intersection Summary

HCM 6th Ctrl Delay	12.4
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary
 115-337 Quarry to Dock

6: S. 3rd St & Columbia St
 Build 2019 Without Haul Rd_AM Peak



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	26	72	3	110	94	23	1	79	160	17	117	7
Future Volume (veh/h)	26	72	3	110	94	23	1	79	160	17	117	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1648	1648	1648	1767	1767	1767	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	28	78	3	120	102	25	1	86	174	18	127	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
Percent Heavy Veh, %	17	17	17	9	9	9	2	2	2	2	2	2
Cap, veh/h	171	411	14	306	239	51	61	282	566	127	795	47
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.51	0.51	0.51	0.51	0.51	0.51
Sat Flow, veh/h	278	1204	42	634	700	150	1	556	1113	117	1565	93
Grp Volume(v), veh/h	109	0	0	247	0	0	261	0	0	153	0	0
Grp Sat Flow(s),veh/h/ln	1525	0	0	1485	0	0	1670	0	0	1775	0	0
Q Serve(g_s), s	0.0	0.0	0.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.8	0.0	0.0	7.5	0.0	0.0	5.5	0.0	0.0	2.7	0.0	0.0
Prop In Lane	0.26		0.03	0.49		0.10	0.00		0.67	0.12		0.05
Lane Grp Cap(c), veh/h	596	0	0	596	0	0	909	0	0	969	0	0
V/C Ratio(X)	0.18	0.00	0.00	0.41	0.00	0.00	0.29	0.00	0.00	0.16	0.00	0.00
Avail Cap(c_a), veh/h	596	0	0	596	0	0	909	0	0	969	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.9	0.0	0.0	15.3	0.0	0.0	8.6	0.0	0.0	7.9	0.0	0.0
Incr Delay (d2), s/veh	0.7	0.0	0.0	2.1	0.0	0.0	0.8	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	2.7	0.0	0.0	1.8	0.0	0.0	1.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.6	0.0	0.0	17.4	0.0	0.0	9.4	0.0	0.0	8.3	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		109			247			261				153
Approach Delay, s/veh		14.6			17.4			9.4				8.3
Approach LOS		B			B			A				A
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.0		35.0		25.0		35.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.5		30.5		20.5		30.5				
Max Q Clear Time (g_c+I1), s		9.5		7.5		4.8		4.7				
Green Ext Time (p_c), s		1.0		1.6		0.4		0.8				

Intersection Summary

HCM 6th Ctrl Delay	12.5
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary
 115-337 Quarry to Dock

6: S. 3rd St. & Columbia St.
 Build 2019 With Haul Road_AM Peak



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	26	60	3	98	94	23	1	79	160	17	117	7
Future Volume (veh/h)	26	60	3	98	94	23	1	79	160	17	117	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	28	65	3	107	102	25	1	86	174	18	127	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
Percent Heavy Veh, %	4	4	4	2	2	2	2	2	2	2	2	2
Cap, veh/h	203	430	18	302	269	58	61	282	566	127	795	47
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.51	0.51	0.51	0.51	0.51	0.51
Sat Flow, veh/h	366	1258	52	628	789	169	1	556	1113	117	1565	93
Grp Volume(v), veh/h	96	0	0	234	0	0	261	0	0	153	0	0
Grp Sat Flow(s),veh/h/ln	1676	0	0	1587	0	0	1670	0	0	1775	0	0
Q Serve(g_s), s	0.0	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.2	0.0	0.0	6.5	0.0	0.0	5.5	0.0	0.0	2.7	0.0	0.0
Prop In Lane	0.29		0.03	0.46		0.11	0.00		0.67	0.12		0.05
Lane Grp Cap(c), veh/h	650	0	0	629	0	0	909	0	0	969	0	0
V/C Ratio(X)	0.15	0.00	0.00	0.37	0.00	0.00	0.29	0.00	0.00	0.16	0.00	0.00
Avail Cap(c_a), veh/h	650	0	0	629	0	0	909	0	0	969	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.7	0.0	0.0	15.0	0.0	0.0	8.6	0.0	0.0	7.9	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	1.7	0.0	0.0	0.8	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	2.5	0.0	0.0	1.8	0.0	0.0	1.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.2	0.0	0.0	16.7	0.0	0.0	9.4	0.0	0.0	8.3	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		96			234			261			153	
Approach Delay, s/veh		14.2			16.7			9.4			8.3	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.0		35.0		25.0		35.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.5		30.5		20.5		30.5				
Max Q Clear Time (g_c+I1), s		8.5		7.5		4.2		4.7				
Green Ext Time (p_c), s		1.0		1.6		0.4		0.8				
Intersection Summary												
HCM 6th Ctrl Delay				12.1								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 115-337 Quarry to Dock

6: S. 3rd St & Columbia St
 Existing 2019_PM Peak



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	3	97	1	229	103	38	6	103	186	57	266	4
Future Volume (veh/h)	3	97	1	229	103	38	6	103	186	57	266	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	1781	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	105	1	249	112	41	7	112	202	62	289	4
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
Percent Heavy Veh, %	8	8	8	2	2	2	2	2	2	2	2	2
Cap, veh/h	65	597	6	403	151	52	66	311	535	174	758	10
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.51	0.51	0.51	0.51	0.51	0.51
Sat Flow, veh/h	11	1746	16	894	442	152	10	611	1053	204	1490	19
Grp Volume(v), veh/h	109	0	0	402	0	0	321	0	0	355	0	0
Grp Sat Flow(s),veh/h/ln	1773	0	0	1488	0	0	1674	0	0	1713	0	0
Q Serve(g_s), s	0.0	0.0	0.0	11.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.6	0.0	0.0	14.4	0.0	0.0	7.0	0.0	0.0	6.9	0.0	0.0
Prop In Lane	0.03		0.01	0.62		0.10	0.02		0.63	0.17		0.01
Lane Grp Cap(c), veh/h	667	0	0	606	0	0	912	0	0	941	0	0
V/C Ratio(X)	0.16	0.00	0.00	0.66	0.00	0.00	0.35	0.00	0.00	0.38	0.00	0.00
Avail Cap(c_a), veh/h	667	0	0	606	0	0	912	0	0	941	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.9	0.0	0.0	17.5	0.0	0.0	9.0	0.0	0.0	9.0	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	5.7	0.0	0.0	1.1	0.0	0.0	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	5.4	0.0	0.0	2.4	0.0	0.0	2.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.4	0.0	0.0	23.1	0.0	0.0	10.0	0.0	0.0	10.1	0.0	0.0
LnGrp LOS	B	A	A	C	A	A	B	A	A	B	A	A
Approach Vol, veh/h		109			402			321			355	
Approach Delay, s/veh		14.4			23.1			10.0			10.1	
Approach LOS		B			C			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.0		35.0		25.0		35.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.5		30.5		20.5		30.5				
Max Q Clear Time (g_c+I1), s		16.4		9.0		4.6		8.9				
Green Ext Time (p_c), s		1.0		2.0		0.4		2.2				
Intersection Summary												
HCM 6th Ctrl Delay				14.9								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 115-337 Quarry to Dock

6: S. 3rd St & Columbia St
 Build 2019 Without Haul Road_PM Peak



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	3	101	1	233	103	38	6	103	186	57	266	4
Future Volume (veh/h)	3	101	1	233	103	38	6	103	186	57	266	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	1781	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	110	1	253	112	41	7	112	202	62	289	4
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
Percent Heavy Veh, %	8	8	8	2	2	2	2	2	2	2	2	2
Cap, veh/h	65	597	5	405	148	51	66	311	535	174	758	10
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.51	0.51	0.51	0.51	0.51	0.51
Sat Flow, veh/h	10	1748	16	900	434	150	10	611	1053	204	1490	19
Grp Volume(v), veh/h	114	0	0	406	0	0	321	0	0	355	0	0
Grp Sat Flow(s),veh/h/ln	1773	0	0	1485	0	0	1674	0	0	1713	0	0
Q Serve(g_s), s	0.0	0.0	0.0	11.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.7	0.0	0.0	14.6	0.0	0.0	7.0	0.0	0.0	6.9	0.0	0.0
Prop In Lane	0.03		0.01	0.62		0.10	0.02		0.63	0.17		0.01
Lane Grp Cap(c), veh/h	667	0	0	605	0	0	912	0	0	941	0	0
V/C Ratio(X)	0.17	0.00	0.00	0.67	0.00	0.00	0.35	0.00	0.00	0.38	0.00	0.00
Avail Cap(c_a), veh/h	667	0	0	605	0	0	912	0	0	941	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.9	0.0	0.0	17.6	0.0	0.0	9.0	0.0	0.0	9.0	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	5.9	0.0	0.0	1.1	0.0	0.0	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	5.4	0.0	0.0	2.4	0.0	0.0	2.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.4	0.0	0.0	23.4	0.0	0.0	10.0	0.0	0.0	10.1	0.0	0.0
LnGrp LOS	B	A	A	C	A	A	B	A	A	B	A	A
Approach Vol, veh/h		114			406			321			355	
Approach Delay, s/veh		14.4			23.4			10.0			10.1	
Approach LOS		B			C			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.0		35.0		25.0		35.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.5		30.5		20.5		30.5				
Max Q Clear Time (g_c+I1), s		16.6		9.0		4.7		8.9				
Green Ext Time (p_c), s		0.9		2.0		0.4		2.2				
Intersection Summary												
HCM 6th Ctrl Delay				15.0								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary
 115-337 Quarry to Dock

6: S. 3rd St & Columbia St
 Build 2019 With Haul Road_PM Peak



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	3	89	1	221	103	38	6	103	186	57	266	4
Future Volume (veh/h)	3	89	1	221	103	38	6	103	186	57	266	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	97	1	240	112	41	7	112	202	62	289	4
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
Percent Heavy Veh, %	4	4	4	2	2	2	2	2	2	2	2	2
Cap, veh/h	66	615	6	397	157	53	66	311	535	174	758	10
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.51	0.51	0.51	0.51	0.51	0.51
Sat Flow, veh/h	12	1801	18	878	459	156	10	611	1053	204	1490	19
Grp Volume(v), veh/h	101	0	0	393	0	0	321	0	0	355	0	0
Grp Sat Flow(s),veh/h/ln	1831	0	0	1493	0	0	1674	0	0	1713	0	0
Q Serve(g_s), s	0.0	0.0	0.0	11.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.3	0.0	0.0	13.9	0.0	0.0	7.0	0.0	0.0	6.9	0.0	0.0
Prop In Lane	0.03		0.01	0.61		0.10	0.02		0.63	0.17		0.01
Lane Grp Cap(c), veh/h	687	0	0	607	0	0	912	0	0	941	0	0
V/C Ratio(X)	0.15	0.00	0.00	0.65	0.00	0.00	0.35	0.00	0.00	0.38	0.00	0.00
Avail Cap(c_a), veh/h	687	0	0	607	0	0	912	0	0	941	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.8	0.0	0.0	17.4	0.0	0.0	9.0	0.0	0.0	9.0	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	5.3	0.0	0.0	1.1	0.0	0.0	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	5.2	0.0	0.0	2.4	0.0	0.0	2.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.2	0.0	0.0	22.6	0.0	0.0	10.0	0.0	0.0	10.1	0.0	0.0
LnGrp LOS	B	A	A	C	A	A	B	A	A	B	A	A
Approach Vol, veh/h		101			393			321			355	
Approach Delay, s/veh		14.2			22.6			10.0			10.1	
Approach LOS		B			C			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		25.0		35.0		25.0		35.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.5		30.5		20.5		30.5				
Max Q Clear Time (g_c+I1), s		15.9		9.0		4.3		8.9				
Green Ext Time (p_c), s		1.0		2.0		0.4		2.2				
Intersection Summary												
HCM 6th Ctrl Delay				14.7								
HCM 6th LOS				B								

Intersection												
Int Delay, s/veh	0											
Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	370	0	0	230	8
Future Vol, veh/h	0	0	0	0	0	0	0	370	0	0	230	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	100
Mvmt Flow	0	0	0	0	0	0	0	402	0	0	250	9

Major/Minor	Minor1		Minor2		Major1		Major2					
Conflicting Flow All	657	661	402	657	657	255	259	0	0	402	0	0
Stage 1	402	402	-	255	255	-	-	-	-	-	-	-
Stage 2	255	259	-	402	402	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	378	383	648	378	385	784	1306	-	-	1157	-	-
Stage 1	625	600	-	749	696	-	-	-	-	-	-	-
Stage 2	749	694	-	625	600	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	378	383	648	378	385	784	1306	-	-	1157	-	-
Mov Cap-2 Maneuver	378	383	-	378	385	-	-	-	-	-	-	-
Stage 1	625	600	-	749	696	-	-	-	-	-	-	-
Stage 2	749	694	-	625	600	-	-	-	-	-	-	-

Approach	NB	SB	NE	SW
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NEL	NET	NER	NBLn1	SBLn1	SWL	SWT	SWR
Capacity (veh/h)	1306	-	-	-	-	1157	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-

Intersection												
Int Delay, s/veh	0											
Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	370	0	0	230	12
Future Vol, veh/h	0	0	0	0	0	0	0	370	0	0	230	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	100
Mvmt Flow	0	0	0	0	0	0	0	402	0	0	250	13

Major/Minor	Minor1		Minor2		Major1		Major2					
Conflicting Flow All	659	665	402	659	659	257	263	0	0	402	0	0
Stage 1	402	402	-	257	257	-	-	-	-	-	-	-
Stage 2	257	263	-	402	402	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	377	381	648	377	384	782	1301	-	-	1157	-	-
Stage 1	625	600	-	748	695	-	-	-	-	-	-	-
Stage 2	748	691	-	625	600	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	377	381	648	377	384	782	1301	-	-	1157	-	-
Mov Cap-2 Maneuver	377	381	-	377	384	-	-	-	-	-	-	-
Stage 1	625	600	-	748	695	-	-	-	-	-	-	-
Stage 2	748	691	-	625	600	-	-	-	-	-	-	-

Approach	NB	SB	NE	SW
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NEL	NET	NER	NBLn1	SBLn1	SWL	SWT	SWR
Capacity (veh/h)	1301	-	-	-	-	1157	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-

Intersection												
Int Delay, s/veh	0.7											
Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	12	0	0	12	0	0	370	0	0	230	0
Future Vol, veh/h	0	12	0	0	12	0	0	370	0	0	230	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	100	2	2	100	2	2	2	2	2	2	100
Mvmt Flow	0	13	0	0	13	0	0	402	0	0	250	0

Major/Minor	Minor1		Minor2		Major1		Major2					
Conflicting Flow All	659	652	402	659	652	250	250	0	0	402	0	0
Stage 1	402	402	-	250	250	-	-	-	-	-	-	-
Stage 2	257	250	-	409	402	-	-	-	-	-	-	-
Critical Hdwy	7.12	7.5	6.22	7.12	7.5	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	6.5	-	6.12	6.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	6.5	-	6.12	6.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.9	3.318	3.518	4.9	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	377	285	648	377	285	789	1316	-	-	1157	-	-
Stage 1	625	462	-	754	552	-	-	-	-	-	-	-
Stage 2	748	552	-	619	462	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	364	285	648	364	285	789	1316	-	-	1157	-	-
Mov Cap-2 Maneuver	364	285	-	364	285	-	-	-	-	-	-	-
Stage 1	625	462	-	754	552	-	-	-	-	-	-	-
Stage 2	730	552	-	602	462	-	-	-	-	-	-	-

Approach	NB		SB		NE		SW	
HCM Control Delay, s	18.2		18.2		0		0	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NEL	NET	NER	NBLn1	SBLn1	SWL	SWT	SWR
Capacity (veh/h)	1316	-	-	285	285	1157	-	-
HCM Lane V/C Ratio	-	-	-	0.046	0.046	-	-	-
HCM Control Delay (s)	0	-	-	18.2	18.2	0	-	-
HCM Lane LOS	A	-	-	C	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection												
Int Delay, s/veh	0											
Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	316	0	0	450	8
Future Vol, veh/h	0	0	0	0	0	0	0	316	0	0	450	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	100
Mvmt Flow	0	0	0	0	0	0	0	343	0	0	489	9

Major/Minor	Minor1		Minor2		Major1		Major2					
Conflicting Flow All	837	841	343	837	837	494	498	0	0	343	0	0
Stage 1	343	343	-	494	494	-	-	-	-	-	-	-
Stage 2	494	498	-	343	343	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	286	301	700	286	303	575	1066	-	-	1216	-	-
Stage 1	672	637	-	557	546	-	-	-	-	-	-	-
Stage 2	557	544	-	672	637	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	286	301	700	286	303	575	1066	-	-	1216	-	-
Mov Cap-2 Maneuver	286	301	-	286	303	-	-	-	-	-	-	-
Stage 1	672	637	-	557	546	-	-	-	-	-	-	-
Stage 2	557	544	-	672	637	-	-	-	-	-	-	-

Approach	NB	SB	NE	SW
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NEL	NET	NER	NBLn1	SBLn1	SWL	SWT	SWR
Capacity (veh/h)	1066	-	-	-	-	1216	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-

Intersection												
Int Delay, s/veh	0											
Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	316	0	0	450	12
Future Vol, veh/h	0	0	0	0	0	0	0	316	0	0	450	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	100
Mvmt Flow	0	0	0	0	0	0	0	343	0	0	489	13

Major/Minor	Minor1		Minor2		Major1		Major2					
Conflicting Flow All	839	845	343	839	839	496	502	0	0	343	0	0
Stage 1	343	343	-	496	496	-	-	-	-	-	-	-
Stage 2	496	502	-	343	343	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	285	300	700	285	302	574	1062	-	-	1216	-	-
Stage 1	672	637	-	556	545	-	-	-	-	-	-	-
Stage 2	556	542	-	672	637	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	285	300	700	285	302	574	1062	-	-	1216	-	-
Mov Cap-2 Maneuver	285	300	-	285	302	-	-	-	-	-	-	-
Stage 1	672	637	-	556	545	-	-	-	-	-	-	-
Stage 2	556	542	-	672	637	-	-	-	-	-	-	-

Approach	NB	SB	NE	SW
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NEL	NET	NER	NBLn1	SBLn1	SWL	SWT	SWR
Capacity (veh/h)	1062	-	-	-	-	1216	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-

Intersection												
Int Delay, s/veh	0.7											
Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	12	0	0	12	0	0	316	0	0	450	0
Future Vol, veh/h	0	12	0	0	12	0	0	316	0	0	450	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	100	2	2	100	2	2	2	2	2	2	100
Mvmt Flow	0	13	0	0	13	0	0	343	0	0	489	0

Major/Minor	Minor1		Minor2		Major1		Major2					
Conflicting Flow All	839	832	343	839	832	489	489	0	0	343	0	0
Stage 1	343	343	-	489	489	-	-	-	-	-	-	-
Stage 2	496	489	-	350	343	-	-	-	-	-	-	-
Critical Hdwy	7.12	7.5	6.22	7.12	7.5	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	6.5	-	6.12	6.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	6.5	-	6.12	6.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.9	3.318	3.518	4.9	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	285	217	700	285	217	579	1074	-	-	1216	-	-
Stage 1	672	495	-	561	416	-	-	-	-	-	-	-
Stage 2	556	416	-	666	495	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	272	217	700	272	217	579	1074	-	-	1216	-	-
Mov Cap-2 Maneuver	272	217	-	272	217	-	-	-	-	-	-	-
Stage 1	672	495	-	561	416	-	-	-	-	-	-	-
Stage 2	539	416	-	648	495	-	-	-	-	-	-	-

Approach	NB		SB		NE		SW	
HCM Control Delay, s	22.6		22.6		0		0	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NEL	NET	NER	NBLn1	SBLn1	SWL	SWT	SWR
Capacity (veh/h)	1074	-	-	217	217	1216	-	-
HCM Lane V/C Ratio	-	-	-	0.06	0.06	-	-	-
HCM Control Delay (s)	0	-	-	22.6	22.6	0	-	-
HCM Lane LOS	A	-	-	C	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.2	0	-	-

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	422	0	0	255	0
Future Vol, veh/h	0	0	0	0	0	0	0	422	0	0	255	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	459	0	0	277	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	736	736	277	736	736	459	277	0	0	459	0	0
Stage 1	277	277	-	459	459	-	-	-	-	-	-	-
Stage 2	459	459	-	277	277	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	335	346	762	335	346	602	1286	-	-	1102	-	-
Stage 1	729	681	-	582	566	-	-	-	-	-	-	-
Stage 2	582	566	-	729	681	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	335	346	762	335	346	602	1286	-	-	1102	-	-
Mov Cap-2 Maneuver	335	346	-	335	346	-	-	-	-	-	-	-
Stage 1	729	681	-	582	566	-	-	-	-	-	-	-
Stage 2	582	566	-	729	681	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1286	-	-	-	-	1102	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	422	0	0	255	0
Future Vol, veh/h	0	0	0	0	0	0	0	422	0	0	255	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	459	0	0	277	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	736	736	277	736	736	459	277	0	0	459	0	0
Stage 1	277	277	-	459	459	-	-	-	-	-	-	-
Stage 2	459	459	-	277	277	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	335	346	762	335	346	602	1286	-	-	1102	-	-
Stage 1	729	681	-	582	566	-	-	-	-	-	-	-
Stage 2	582	566	-	729	681	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	335	346	762	335	346	602	1286	-	-	1102	-	-
Mov Cap-2 Maneuver	335	346	-	335	346	-	-	-	-	-	-	-
Stage 1	729	681	-	582	566	-	-	-	-	-	-	-
Stage 2	582	566	-	729	681	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1286	-	-	-	-	1102	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	12	0	12	12	0	0	410	12	0	243	0
Future Vol, veh/h	0	12	0	12	12	0	0	410	12	0	243	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	100	2	100	100	2	2	3	100	2	2	2
Mvmt Flow	0	13	0	13	13	0	0	446	13	0	264	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	723	723	264	724	717	453	264	0	0	459	0	0
Stage 1	264	264	-	453	453	-	-	-	-	-	-	-
Stage 2	459	459	-	271	264	-	-	-	-	-	-	-
Critical Hdwy	7.12	7.5	6.22	8.1	7.5	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	6.5	-	7.1	6.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	6.5	-	7.1	6.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.9	3.318	4.4	4.9	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	342	256	775	242	258	607	1300	-	-	1102	-	-
Stage 1	741	543	-	436	434	-	-	-	-	-	-	-
Stage 2	582	431	-	563	543	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	329	256	775	233	258	607	1300	-	-	1102	-	-
Mov Cap-2 Maneuver	329	256	-	233	258	-	-	-	-	-	-	-
Stage 1	741	543	-	436	434	-	-	-	-	-	-	-
Stage 2	565	431	-	549	543	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	19.8		21.4		0		0	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1300	-	-	256	245	1102	-	-
HCM Lane V/C Ratio	-	-	-	0.051	0.106	-	-	-
HCM Control Delay (s)	0	-	-	19.8	21.4	0	-	-
HCM Lane LOS	A	-	-	C	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.4	0	-	-

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	333	0	0	449	0
Future Vol, veh/h	0	0	0	0	0	0	0	333	0	0	449	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	362	0	0	488	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	850	850	488	850	850	362	488	0	0	362	0	0
Stage 1	488	488	-	362	362	-	-	-	-	-	-	-
Stage 2	362	362	-	488	488	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	280	298	580	280	298	683	1075	-	-	1197	-	-
Stage 1	561	550	-	657	625	-	-	-	-	-	-	-
Stage 2	657	625	-	561	550	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	280	298	580	280	298	683	1075	-	-	1197	-	-
Mov Cap-2 Maneuver	280	298	-	280	298	-	-	-	-	-	-	-
Stage 1	561	550	-	657	625	-	-	-	-	-	-	-
Stage 2	657	625	-	561	550	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1075	-	-	-	-	1197	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	0	0	0	0	333	0	0	449	0
Future Vol, veh/h	0	0	0	0	0	0	0	333	0	0	449	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	362	0	0	488	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	850	850	488	850	850	362	488	0	0	362	0	0
Stage 1	488	488	-	362	362	-	-	-	-	-	-	-
Stage 2	362	362	-	488	488	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
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	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	280	298	580	280	298	683	1075	-	-	1197	-	-
Stage 1	561	550	-	657	625	-	-	-	-	-	-	-
Stage 2	657	625	-	561	550	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	280	298	580	280	298	683	1075	-	-	1197	-	-
Mov Cap-2 Maneuver	280	298	-	280	298	-	-	-	-	-	-	-
Stage 1	561	550	-	657	625	-	-	-	-	-	-	-
Stage 2	657	625	-	561	550	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1075	-	-	-	-	1197	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	12	0	12	12	0	0	321	12	0	437	0
Future Vol, veh/h	0	12	0	12	12	0	0	321	12	0	437	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	100	2	100	100	2	2	2	100	2	2	2
Mvmt Flow	0	13	0	13	13	0	0	349	13	0	475	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	837	837	475	838	831	356	475	0	0	362	0	0
Stage 1	475	475	-	356	356	-	-	-	-	-	-	-
Stage 2	362	362	-	482	475	-	-	-	-	-	-	-
Critical Hdwy	7.12	7.5	6.22	8.1	7.5	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	6.5	-	7.1	6.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	6.5	-	7.1	6.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.9	3.318	4.4	4.9	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	286	215	590	198	217	688	1087	-	-	1197	-	-
Stage 1	570	423	-	500	487	-	-	-	-	-	-	-
Stage 2	657	484	-	418	423	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	273	215	590	189	217	688	1087	-	-	1197	-	-
Mov Cap-2 Maneuver	273	215	-	189	217	-	-	-	-	-	-	-
Stage 1	570	423	-	500	487	-	-	-	-	-	-	-
Stage 2	639	484	-	405	423	-	-	-	-	-	-	-

Approach	EB		WB		NB			SB		
HCM Control Delay, s	22.8		25.4		0			0		
HCM LOS	C		D							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1087	-	-	215	202	1197	-	-
HCM Lane V/C Ratio	-	-	-	0.061	0.129	-	-	-
HCM Control Delay (s)	0	-	-	22.8	25.4	0	-	-
HCM Lane LOS	A	-	-	C	D	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.4	0	-	-

Attachment D
August Truck Counts

Gate to Gate Truck Route
City of Hudson and Town of Greenport, NY

Project No.: 115-337
 Project Name: Colarusso Quarry to Dock
 Count Date: August 25, 2020 (Tuesday)

Legend:
Traveling TO dock
Traveling FROM dock

TRUCKS						
Leg Direction	Broad St. Eastbound		Front St. Northbound		Front St. Southbound	
	Left*	Right	Left*	Thru	Thru	Right
7:00 AM	6	0	7	0	0	0
8:00 AM	8	0	10	0	1	0
9:00 AM	9	0	8	1	1	0
10:00 AM	9	0	9	1	1	0
11:00 AM	9	0	9	2	1	0
12:00 PM	8	1	7	2	0	0
1:00 PM	11	0	9	0	0	1
2:00 PM	11	2	13	0	1	1
3:00 PM	13	0	13	2	1	2
4:00 PM	8	2	7	0	0	0
5:00 PM	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0
Total:	92	5	92	8	6	4

Total Trucks: 207

SUMMARY				
Colarusso Truck Volume		% of Trucks that are Colarusso		
To Dock	From Dock	EBL	NBL	
7	6	100%	100%	7:00 AM
10	8	100%	100%	8:00 AM
8	9	100%	100%	9:00 AM
9	9	100%	100%	10:00 AM
9	9	100%	100%	11:00 AM
7	8	100%	100%	12:00 PM
9	11	100%	100%	1:00 PM
13	11	100%	100%	2:00 PM
13	13	100%	100%	3:00 PM
7	8	100%	100%	4:00 PM
0	0	0%	0%	5:00 PM
0	0	0%	0%	6:00 PM

TOTAL						
Leg Direction	Broad St. Eastbound		Front St. Northbound		Front St. Southbound	
	Left*	Right	Left*	Thru	Thru	Right
7:00 AM	20	1	8	8	14	14
8:00 AM	22	2	11	12	6	20
9:00 AM	45	2	10	14	15	36
10:00 AM	31	3	11	15	9	34
11:00 AM	49	2	14	17	18	43
12:00 PM	60	4	10	21	20	56
1:00 PM	54	9	13	15	12	52
2:00 PM	70	9	19	23	15	46
3:00 PM	61	5	14	24	18	57
4:00 PM	43	9	8	25	27	45
5:00 PM	30	2	11	23	24	44
6:00 PM	49	5	8	13	12	61
Total:	534	53	137	210	190	508

Total Vehicles: 1846

TRUCK PERCENTAGE						
Leg Direction	Broad St. Eastbound		Front St. Northbound		Front St. Southbound	
	Left*	Right	Left*	Thru	Thru	Right
7:00 AM	30%	0%	88%	0%	0%	0%
8:00 AM	36%	0%	91%	0%	17%	0%
9:00 AM	20%	0%	80%	7%	7%	0%
10:00 AM	29%	0%	82%	7%	11%	0%
11:00 AM	18%	0%	64%	12%	6%	0%
12:00 PM	13%	25%	70%	10%	0%	0%
1:00 PM	20%	0%	69%	0%	0%	2%
2:00 PM	16%	22%	68%	0%	7%	2%
3:00 PM	21%	0%	93%	8%	6%	4%
4:00 PM	19%	22%	88%	0%	0%	0%
5:00 PM	0%	0%	0%	0%	0%	0%
6:00 PM	0%	0%	0%	0%	0%	0%

*Truck volumes include Colarusso company trucks and other business' truck traffic on these movements. Volumes include tractor trailer and single unit trucks.

Project No.: 115-337

Project Nam Colarusso Quarry to Dock

Count Date: August 25, 2020 (Tuesday)

Legend:

Traveling TO dock

Traveling FROM dock

TRUCKS*												
Leg	Columbia St.			Columbia St.			N. 3rd St.			N. 3rd St.		
Direction	Eastbound			Westbound			Northbound			Southbound		
Start Time	Left	Thru*	Right	Left*	Thru	Right	Left	Thru	Right	Left	Thru	Right
7:00 AM	0	8	1	11	5	1	1	3	4	0	2	0
8:00 AM	0	12	1	18	2	0	0	0	4	0	1	0
9:00 AM	0	15	2	20	3	3	0	1	6	1	4	2
10:00 AM	0	9	2	15	1	0	0	1	6	0	1	0
11:00 AM	1	12	0	13	4	0	0	3	11	0	5	0
12:00 PM	0	11	1	15	5	0	0	1	6	0	1	1
1:00 PM	0	14	1	20	2	0	1	2	3	0	2	0
2:00 PM	0	12	2	17	4	0	1	1	5	0	2	1
3:00 PM	0	16	0	15	0	0	0	4	7	0	3	0
4:00 PM	0	8	0	7	0	0	0	1	3	0	1	0
5:00 PM	0	0	0	1	0	0	0	0	7	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	117	10	152	26	4	3	17	62	1	22	4

TOTAL												
Leg	Columbia St.			Columbia St.			N. 3rd St.			N. 3rd St.		
Direction	Eastbound			Westbound			Northbound			Southbound		
Start Time	Left	Thru*	Right	Left*	Thru	Right	Left	Thru	Right	Left	Thru	Right
7:00 AM	7	27	5	28	16	4	1	56	33	5	49	0
8:00 AM	4	36	5	44	14	8	6	66	43	10	61	2
9:00 AM	1	43	3	51	19	8	4	70	48	4	68	4
10:00 AM	2	44	4	44	17	8	9	77	31	6	58	4
11:00 AM	10	50	2	53	34	13	3	60	46	7	86	8
12:00 PM	13	46	4	57	35	15	4	81	48	9	90	9
1:00 PM	10	60	9	71	41	9	9	99	56	10	106	12
2:00 PM	9	69	11	66	40	4	7	88	35	10	89	6
3:00 PM	13	63	6	74	31	12	5	101	39	5	122	4
4:00 PM	6	45	2	64	34	12	6	111	31	9	123	3
5:00 PM	8	17	3	38	24	8	9	99	34	6	97	4
6:00 PM	15	32	4	24	21	12	8	74	17	3	68	9
Total	98	532	58	614	326	113	71	982	461	84	1017	65

TRUCK PERCENTAGE*												
Leg	Columbia St.			Columbia St.			N. 3rd St.			N. 3rd St.		
Direction	Eastbound			Westbound			Northbound			Southbound		
Start Time	Left	Thru*	Right	Left*	Thru	Right	Left	Thru	Right	Left	Thru	Right
7:00 AM	0%	30%	20%	39%	31%	25%	100%	5%	12%	0%	4%	#DIV/0!
8:00 AM	0%	33%	20%	41%	14%	0%	0%	0%	9%	0%	2%	0%
9:00 AM	0%	35%	67%	39%	16%	38%	0%	1%	13%	25%	6%	50%
10:00 AM	0%	20%	50%	34%	6%	0%	0%	1%	19%	0%	2%	0%
11:00 AM	10%	24%	0%	25%	12%	0%	0%	5%	24%	0%	6%	0%
12:00 PM	0%	24%	25%	26%	14%	0%	0%	1%	13%	0%	1%	11%
1:00 PM	0%	23%	11%	28%	5%	0%	11%	2%	5%	0%	2%	0%
2:00 PM	0%	17%	18%	26%	10%	0%	14%	1%	14%	0%	2%	17%
3:00 PM	0%	25%	0%	20%	0%	0%	0%	4%	18%	0%	2%	0%
4:00 PM	0%	18%	0%	11%	0%	0%	0%	1%	10%	0%	1%	0%
5:00 PM	0%	0%	0%	3%	0%	0%	0%	0%	21%	0%	0%	0%
6:00 PM	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

SUMMARY				
Colarusso Truck Volumes		% of Trucks that are Colarusso		
To Dock	From Dock	EBT	WBL	
7	6	75%	64%	7:00 AM
10	8	67%	56%	8:00 AM
8	9	60%	40%	9:00 AM
9	9	100%	60%	10:00 AM
9	9	75%	69%	11:00 AM
7	8	73%	47%	12:00 PM
9	11	79%	45%	1:00 PM
13	11	92%	76%	2:00 PM
13	13	81%	87%	3:00 PM
7	8	100%	100%	4:00 PM
0	0	0%	0%	5:00 PM
0	0	0%	0%	6:00 PM
Total Trucks:	92	92	79%	61%

Total Trucks: 419

Total Vehicles: 7774

*Truck volumes include Colarusso company trucks and other business' truck traffic on these movements. Volumes include tractor trailer and single unit trucks.

115-337 Quarry to Dock - TMC

Tue Aug 25, 2020

Full Length (7 AM-7 PM)

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

All Movements

ID: 776827, Location: 42.252852, -73.798305, Site Code: 115-337



Provided by: Creighton Manning Engineering, LLP

2 Winners Circle, Albany, NY, 12205, US

Leg Direction	Broad St. Eastbound						East Westbound						Front St. Northbound						Front St. Southbound						Int
	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	
2020-08-25 7:00AM	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	0	0	5	6	0	11	0	15
7:15AM	4	0	0	0	4	0	0	0	0	0	0	0	1	1	0	0	2	0	0	2	5	0	7	1	13
7:30AM	10	0	1	0	11	0	0	0	0	0	0	0	4	1	0	0	5	0	0	4	3	0	7	0	23
7:45AM	6	0	0	0	6	0	0	0	0	0	0	0	2	3	0	0	5	0	0	3	0	0	3	0	14
Hourly Total	20	0	1	0	21	0	0	0	0	0	0	0	8	8	0	0	16	0	0	14	14	0	28	1	65
8:00AM	5	0	1	0	6	0	0	0	0	0	0	0	2	1	0	0	3	0	0	1	5	0	6	0	15
8:15AM	9	0	0	0	9	0	0	0	0	0	0	0	4	5	0	0	9	0	0	1	5	1	7	0	25
8:30AM	6	0	0	0	6	0	0	0	0	0	0	0	0	3	0	0	3	0	0	3	4	1	8	0	17
8:45AM	2	0	1	0	3	0	0	0	0	0	0	0	5	3	0	0	8	0	0	1	6	0	7	0	18
Hourly Total	22	0	2	0	24	0	0	0	0	0	0	0	11	12	0	0	23	0	0	6	20	2	28	0	75
9:00AM	12	0	0	0	12	0	0	0	0	0	0	0	2	2	0	0	4	0	0	7	10	0	17	0	33
9:15AM	8	0	1	0	9	0	0	0	0	0	0	2	2	5	0	0	7	0	0	1	8	1	10	0	26
9:30AM	9	0	1	0	10	0	0	0	0	0	0	0	5	4	0	0	9	0	0	4	9	0	13	0	32
9:45AM	16	0	0	0	16	0	0	0	0	0	0	0	1	3	0	0	4	0	0	3	9	0	12	0	32
Hourly Total	45	0	2	0	47	0	0	0	0	0	0	2	10	14	0	0	24	0	0	15	36	1	52	0	123
10:00AM	9	0	2	0	11	0	0	0	0	0	0	0	2	8	0	0	10	0	0	1	10	0	11	0	32
10:15AM	8	0	0	0	8	0	0	0	0	0	0	0	2	4	0	0	6	0	0	2	6	0	8	0	22
10:30AM	7	0	1	0	8	0	0	0	0	0	0	0	3	2	0	0	5	0	0	2	8	1	11	0	24
10:45AM	7	0	0	0	7	0	0	0	0	0	0	0	4	1	0	0	5	0	0	4	10	1	15	0	27
Hourly Total	31	0	3	0	34	0	0	0	0	0	0	0	11	15	0	0	26	0	0	9	34	2	45	0	105
11:00AM	17	0	0	0	17	0	0	0	0	0	0	0	3	6	0	0	9	0	0	4	7	1	12	1	38
11:15AM	6	0	0	0	6	1	0	0	0	0	0	1	5	3	0	0	8	1	0	5	11	0	16	0	30
11:30AM	16	0	2	0	18	0	0	0	0	0	0	0	5	4	0	0	9	0	0	5	11	0	16	0	43
11:45AM	10	0	0	0	10	0	0	0	0	0	0	0	1	4	0	0	5	0	1	4	14	0	19	0	34
Hourly Total	49	0	2	0	51	1	0	0	0	0	0	1	14	17	0	0	31	1	1	18	43	1	63	1	145
12:00PM	9	0	0	0	9	0	0	0	0	0	0	0	1	11	0	0	12	0	0	4	11	1	16	0	37
12:15PM	15	0	2	0	17	0	0	0	0	0	0	0	5	4	0	0	9	0	1	7	13	0	21	0	47
12:30PM	14	0	0	0	14	0	0	0	1	0	1	1	2	4	0	0	6	0	0	3	15	1	19	0	40
12:45PM	22	0	2	0	24	0	0	0	0	0	0	0	2	2	0	0	4	1	0	6	17	0	23	0	51
Hourly Total	60	0	4	0	64	0	0	0	1	0	1	1	10	21	0	0	31	1	1	20	56	2	79	0	175
1:00PM	10	0	3	0	13	0	0	0	0	0	0	0	3	3	0	0	6	0	0	2	18	1	21	0	40
1:15PM	11	0	0	0	11	0	0	0	0	0	0	0	6	3	0	0	9	0	1	4	8	1	14	0	34
1:30PM	18	0	2	0	20	0	0	0	0	0	0	0	2	4	0	0	6	0	0	4	15	0	19	0	45
1:45PM	15	0	4	0	19	0	0	0	0	0	0	0	2	5	0	0	7	0	0	2	11	0	13	0	39
Hourly Total	54	0	9	0	63	0	0	0	0	0	0	0	13	15	0	0	28	0	1	12	52	2	67	0	158
2:00PM	14	0	2	0	16	0	0	0	0	0	0	0	7	7	0	0	14	0	0	4	12	1	17	0	47
2:15PM	17	0	3	0	20	0	0	0	0	0	0	0	2	4	0	0	6	0	0	2	14	0	16	0	42
2:30PM	17	0	2	0	19	0	0	0	1	0	1	0	4	5	0	0	9	0	0	2	12	0	14	0	43
2:45PM	22	0	2	0	24	0	0	0	0	0	0	0	6	7	0	0	13	0	0	7	8	0	15	0	52
Hourly Total	70	0	9	0	79	0	0	0	1	0	1	0	19	23	0	0	42	0	0	15	46	1	62	0	184
3:00PM	8	0	1	0	9	0	0	0	0	0	0	0	4	3	0	0	7	0	0	7	17	0	24	0	40
3:15PM	20	0	2	0	22	0	0	0	0	0	0	0	4	7	0	0	11	0	0	3	16	0	19	0	52
3:30PM	14	0	2	0	16	0	0	0	0	0	0	0	3	11	0	0	14	0	0	7	14	0	21	0	51
3:45PM	19	0	0	0	19	0	0	0	0	0	0	0	3	3	0	0	6	0	0	1	10	1	12	0	37
Hourly Total	61	0	5	0	66	0	0	0	0	0	0	0	14	24	0	0	38	0	0	18	57	1	76	0	180
4:00PM	12	0	1	0	13	2	0	0	0	0	0	0	4	7	0	0	11	0	0	3	7	0	10	0	34
4:15PM	9	0	1	0	10	0	0	0	0	0	0	0	2	7	0	0	9	0	1	8	17	0	26	0	45
4:30PM	12	0	6	0	18	0	0	0	0	0	0	1	2	8	0	0	10	0	0	8	9	0	17	0	45
4:45PM	10	0	1	0	11	0	0	0	0	0	0	0	0	3	0	0	3	0	0	8	12	0	20	0	34
Hourly Total	43	0	9	0	52	2	0	0	0	0	0	1	8	25	0	0	33	0	1	27	45	0	73	0	158
5:00PM	7	0	0	0	7	0	0	0	0	0	0	0	5	12	0	0	17	0	0	5	8	0	13	0	37
5:15PM	7	0	0	0	7	0	0	0	0	0	0	0	1	3	0	0	4	0	0	3	9	0	12	0	23
5:30PM	6	0	1	0	7	1	0	0	0	0	0	0	2	3	0	0	5	0	0	7	11	0	18	0	30
5:45PM	10	0	1	0	11	1	0	0	0	0	0	0	3	5	0	0	8	0	0	9	16	2	27	0	46
Hourly Total	30	0	2	0	32	2	0	0	0	0	0	0	11	23	0	0	34	0	0	24	44	2	70	0	136
6:00PM	11	0	1	0	12	0	0	0	0	0	0	0	2	2	0	0	4	0	0	2	15	0	17	0	33
6:15PM	12	0	1	0	13	0	0	0	0	0	0	0	2	2	0	0	4	0	0	6	10	0	16	0	33
6:30PM	16	0	1	0	17	0	0	0	0	0	0	1	1	4	0	0	5	0	0	2	15	0	17	0	39
6:45PM	10	0	2	0	12	0	0	0	0	0	0	1	3	5	0	0	8	1	0	2	21	1	24	0	44
Hourly																									

Leg Direction	Broad St. Eastbound					East Westbound					Front St. Northbound					Front St. Southbound									
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
% Lights	80.9%	0%	90.6%	0%	81.8%	-	0%	0%	100%	0%	100%	-	32.8%	94.3%	0%	0%	70.0%	-	100%	94.7%	94.9%	100%	95.0%	-	85.1%
Articulated Trucks and Single-Unit Trucks	92	0	5	0	97	-	0	0	0	0	0	-	92	8	0	0	100	-	0	6	4	0	10	-	207
% Articulated Trucks and Single-Unit Trucks	17.2%	0%	9.4%	0%	16.5%	-	0%	0%	0%	0%	0%	-	67.2%	3.8%	0%	0%	28.8%	-	0%	3.2%	0.8%	0%	1.4%	-	12.5%
Buses	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Buses	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Bicycles on Road	10	0	0	0	10	-	0	0	0	0	0	-	0	4	0	0	4	-	0	4	22	0	26	-	40
% Bicycles on Road	1.9%	0%	0%	0%	1.7%	-	0%	0%	0%	0%	0%	-	0%	1.9%	0%	0%	1.2%	-	0%	2.1%	4.3%	0%	3.6%	-	2.4%
Pedestrians	-	-	-	-	-	5	-	-	-	-	-	7	-	-	-	-	-	3	-	-	-	-	-	2	-
% Pedestrians	-	-	-	-	-	-100%	-	-	-	-	-	-100%	-	-	-	-	-	-100%	-	-	-	-	-	-	-100%
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	-	0%

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

115-337 Quarry to Dock - TMC

Tue Aug 25, 2020

Full Length (7 AM-7 PM)

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

All Movements

ID: 776492, Location: 42.253617, -73.790399, Site Code: 115-337



Provided by: Creighton Manning Engineering, LLP
2 Winners Circle, Albany, NY, 12205, US

Leg Direction Time	Columbia St. Eastbound						Columbia St. Westbound						N. 3rd St. Northbound						N. 3rd St. Southbound						Int
	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	
2020-08-25 7:00AM	2	2	0	0	4	1	2	4	2	0	8	3	0	7	5	0	12	0	0	7	0	0	7	4	31
7:15AM	0	4	4	0	8	1	10	4	0	0	14	2	1	10	6	0	17	1	1	11	0	0	12	0	51
7:30AM	3	12	0	0	15	0	8	3	1	0	12	1	0	14	10	0	24	1	3	14	0	0	17	1	68
7:45AM	2	9	1	0	12	0	8	5	1	0	14	3	0	25	12	0	37	0	1	17	0	0	18	0	81
Hourly Total	7	27	5	0	39	2	28	16	4	0	48	9	1	56	33	0	90	2	5	49	0	0	54	5	231
8:00AM	1	8	1	0	10	0	11	7	1	0	19	0	2	15	12	0	29	0	1	16	0	0	17	0	75
8:15AM	0	12	2	0	14	0	14	5	1	0	20	1	2	21	9	0	32	1	3	15	0	0	18	3	84
8:30AM	2	8	1	0	11	1	3	0	2	0	5	0	0	17	11	0	28	0	2	17	2	0	21	2	65
8:45AM	1	8	1	0	10	0	16	2	4	0	22	5	2	13	11	0	26	0	4	13	0	0	17	3	75
Hourly Total	4	36	5	0	45	1	44	14	8	0	66	6	6	66	43	0	115	1	10	61	2	0	73	8	299
9:00AM	0	10	0	0	10	1	14	5	0	0	19	2	1	14	8	0	23	0	0	15	1	0	16	3	68
9:15AM	1	8	2	0	11	1	13	2	4	0	19	2	1	19	11	0	31	0	1	11	1	0	13	3	74
9:30AM	0	12	1	0	13	0	11	6	4	0	21	2	2	24	15	0	41	0	3	28	0	0	31	0	106
9:45AM	0	13	0	0	13	0	13	6	0	0	19	0	0	13	14	0	27	0	0	14	2	0	16	0	75
Hourly Total	1	43	3	0	47	2	51	19	8	0	78	6	4	70	48	0	122	0	4	68	4	0	76	6	323
10:00AM	1	8	2	0	11	0	12	4	0	0	16	7	2	13	6	0	21	1	2	11	0	0	13	5	61
10:15AM	1	9	1	0	11	0	12	4	3	0	19	3	3	19	10	0	32	0	1	16	1	0	18	3	80
10:30AM	0	10	1	0	11	0	10	4	3	0	17	6	3	23	9	0	35	0	1	17	2	0	20	3	83
10:45AM	0	17	0	0	17	0	10	5	2	0	17	5	1	22	6	0	29	0	2	14	1	0	17	1	80
Hourly Total	2	44	4	0	50	0	44	17	8	0	69	21	9	77	31	0	117	1	6	58	4	0	68	12	304
11:00AM	3	11	0	0	14	0	11	4	2	0	17	2	1	15	8	0	24	0	0	25	3	0	28	2	83
11:15AM	2	13	2	0	17	0	17	5	5	0	27	4	0	13	13	0	26	0	2	21	2	0	25	0	95
11:30AM	4	13	0	0	17	3	13	11	3	0	27	6	0	20	17	0	37	1	1	21	2	0	24	2	105
11:45AM	1	13	0	0	14	0	12	14	3	0	29	1	2	12	8	0	22	0	4	19	1	0	24	2	89
Hourly Total	10	50	2	0	62	3	53	34	13	0	100	13	3	60	46	0	109	1	7	86	8	0	101	6	372
12:00PM	2	11	1	0	14	2	17	10	4	0	31	2	0	14	10	0	24	0	1	26	1	0	28	6	97
12:15PM	5	11	1	0	17	0	19	5	2	0	26	4	2	22	11	0	35	0	3	24	2	0	29	0	107
12:30PM	3	14	1	0	18	0	9	13	6	0	28	7	0	29	14	0	43	0	2	22	2	0	26	0	115
12:45PM	3	10	1	0	14	1	12	7	3	0	22	5	2	16	13	0	31	0	3	18	4	0	25	1	92
Hourly Total	13	46	4	0	63	3	57	35	15	0	107	18	4	81	48	0	133	0	9	90	9	0	108	7	411
1:00PM	2	16	0	0	18	1	14	11	5	0	30	7	3	24	13	0	40	0	4	21	3	0	28	0	116
1:15PM	2	9	1	0	12	3	16	9	1	0	26	2	1	21	20	0	42	1	2	28	3	0	33	1	113
1:30PM	3	22	2	0	27	1	22	8	3	0	33	1	3	19	12	0	34	0	2	30	6	0	38	1	132
1:45PM	3	13	6	0	22	2	19	13	0	0	32	0	2	35	11	0	48	0	2	27	0	0	29	0	131
Hourly Total	10	60	9	0	79	7	71	41	9	0	121	10	9	99	56	0	164	1	10	106	12	0	128	2	492
2:00PM	1	13	0	0	14	0	16	8	2	0	26	2	3	23	15	0	41	0	5	17	1	0	23	0	104
2:15PM	2	16	7	0	25	1	20	11	2	0	33	0	1	26	8	0	35	0	1	24	1	0	26	2	119
2:30PM	3	18	2	0	23	1	15	12	0	0	27	3	3	19	6	0	28	1	2	18	1	0	21	0	99
2:45PM	3	22	2	0	27	1	15	9	0	0	24	1	0	20	6	0	26	0	2	30	3	0	35	3	112
Hourly Total	9	69	11	0	89	3	66	40	4	0	110	6	7	88	35	0	130	1	10	89	6	0	105	5	434
3:00PM	3	12	1	0	16	0	27	7	5	0	39	2	1	21	9	0	31	0	1	27	1	0	29	0	115
3:15PM	3	16	2	0	21	1	14	8	3	0	25	4	0	21	10	0	31	0	1	28	2	0	31	0	108
3:30PM	3	20	2	0	25	0	13	9	3	0	25	0	1	31	11	0	43	1	0	32	0	0	32	1	125
3:45PM	4	15	1	0	20	0	20	7	1	0	28	1	3	28	9	0	40	0	3	35	1	0	39	1	127
Hourly Total	13	63	6	0	82	1	74	31	12	0	117	7	5	101	39	0	145	1	5	122	4	0	131	2	475
4:00PM	1	10	1	0	12	2	21	7	5	0	33	0	0	27	9	0	36	0	3	32	0	0	35	0	116
4:15PM	2	15	0	0	17	1	17	11	2	1	31	3	1	29	8	0	38	0	3	22	0	0	25	3	111
4:30PM	2	9	1	0	12	0	17	9	5	0	31	6	4	29	6	0	39	2	1	34	2	0	37	6	119
4:45PM	1	11	0	0	12	2	9	7	0	0	16	10	1	26	8	0	35	2	2	35	1	0	38	4	101
Hourly Total	6	45	2	0	53	5	64	34	12	1	111	19	6	111	31	0	148	4	9	123	3	0	135	13	447
5:00PM	1	3	2	0	6	1	14	4	3	0	21	2	6	31	11	0	48	0	0	23	2	0	25	1	100
5:15PM	1	2	1	0	4	2	8	5	0	0	13	1	1	29	7	0	37	0	1	27	2	0	30	2	84
5:30PM	4	5	0	0	9	1	8	5	2	0	15	5	1	29	8	0	38	0	4	23	0	0	27	2	89
5:45PM	2	7	0	0	9	1	8	10	3	0	21	2	1	10	8	0	19	0	1	24	0	0	25	6	74
Hourly Total	8	17	3	0	28	5	38	24	8	0	70	10	9	99	34	0	142	0	6	97	4	0	107	11	347
6:00PM	2	4	1	0	7	1	10	3	3	0	16	1	1	21	6	0	28	0	0	25	2	0	27	3	78
6:15PM	2	8	1	0	11	1	9	4	3	0	16	3	3	16	3	0	22	0	1	14	2	0	17	3	66
6:30PM	6	10	1	0	17	2	0	6	3	0	9	0	2	21	5	0									

Leg Direction	Columbia St. Eastbound						Columbia St. Westbound						N. 3rd St. Northbound						N. 3rd St. Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
Bicycles on Road	3	6	1	0	10	-	1	4	0	0	5	-	0	3	0	0	3	-	0	6	2	0	8	-	26
% Bicycles on Road	3.1%	1.1%	1.7%	0%	1.5%	-	0.2%	1.2%	0%	0%	0.5%	-	0%	0.3%	0%	0%	0.2%	-	0%	0.6%	3.1%	0%	0.7%	-	0.6%
Pedestrians	-	-	-	-	-	35	-	-	-	-	-	129	-	-	-	-	-	15	-	-	-	-	-	85	
% Pedestrians	-	-	-	-	-	-97.2%	-	-	-	-	-	-100%	-	-	-	-	-	-100%	-	-	-	-	-	-96.6%	-
Bicycles on Crosswalk	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	3	
% Bicycles on Crosswalk	-	-	-	-	-	2.8%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	3.4%	-

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

SENT VIA EMAIL

August 7, 2020

Ms. Betsy Gramkow, Chair
City of Hudson Planning Board
520 Warren Street
Hudson, NY 12534

Re: A. Colarusso & Son Conditional Use Applications
Updated Traffic Evaluation Comments

File: 1204.006.001

Dear Ms. Gramkow:

Barton & Loguidice, D.P.C. (B&L) has completed a technical review of the following reports and information for the Quarry-to-Dock Haul Road and Commercial Dock Operations projects proposed by A. Colarusso & Son, Inc.:

- Traffic Evaluation, Colarusso Quarry to Dock Truck Route dated January 25, 2016 as prepared by Creighton Manning Engineering, LLP; and
- Traffic Evaluation Update, Colarusso Quarry to Dock Truck Route dated August 17, 2016 and updated December 5, 2016 as prepared by Creighton Manning Engineering, LLP; and
- Traffic Evaluation, Colarusso Gate to Gate Truck Route dated July 9, 2020 as prepared by Creighton Manning Engineering, LLP.

We offer the following comments and observations related to the potential traffic impacts of this project:

1. The traffic evaluation and updates were completed in accordance with industry accepted practices and methodology.
2. Existing traffic volume collection followed traditional industry techniques but due to reduction in travel as a result of the pandemic it expectedly revealed a decrease in traffic volume on Routes 9 and 9G.
 - a. We agree with the use of historical data on Routes 9 and 9G projected into the future using annual growth rates.
 - b. We agree with the origin/destination method for establishing 2019 volumes through the study area intersections. Please provide the source from where the data was derived.
3. The projected 2019 existing traffic data shows that Colarusso truck trips currently represent 3.4% and 2.4% of the AM and PM peak hours respectively through the Columbia Street/Third Street intersection.



4. Trip generation rates were derived from data supplied by the applicant and based on the average and maximum rates of barge deliveries. A typical traffic impact study would establish trip generation rates from the industry standard Institute of Transportation Engineers (ITE), *Trip Generation Manual*. However the land use and nature of this project does not fit within the published data categories, therefore the applicant's method for determining trips generated by the project is acceptable.
 - a. Please provide clarification to the trip generation volumes that are included in the analysis.
 - The 2016 study presented the following:
 - Average: 24 truckloads/day or 48 trips/day resulting in an hourly rate of 4 trips/hour
 - Maximum: 142 truckloads/day or 284 trips/day resulting in an hourly rate of 24 trips/hour
 - The updated 2019 study presented the following:
 - Average: 57 truckloads/day or 114 trips/day resulting in an hourly rate of 10 trips/hour
 - 85th Percentile: 91 truckloads/day or 182 trips/day resulting in an hourly rate of 16 trips/hour
 - Maximum: 132 truckloads/day or 264 trips/day resulting in an hourly rate of 22 trips/hour
 - The 2019 average is higher than the 2016 average trips/day and trips/hour. The 2019 maximum trips/day has reduced from the 2016 study. The updated study is maintaining the higher 2016 maximum rate of 24 trips/hour for analyzing the no-build and build conditions.
 - b. Commercial/Retail Trips:
 - The 2016 study, Table 2, presented 8 trips/peak hour
 - The 2019 study, Section D describes that the 85th percentile of commercial/retail volume is 24 trips/peak hour.
 - Please clarify the commercial/retail trips and provide an updated Trip Generation table.
 - Please clarify if the difference between additional 4 trips in Figure 2-2 and the additional 12 trips in Figure 3-2 is the result of the commercial/retail trips.
5. The applicant has provided confirmation in the project narrative that there are no current plans to expand operations and therefore there would not be an increase in the number of maximum truckloads per day or trips per day (142 truckloads/day = 284 trips/day or if revised in the clarification to #4 above).
 - a. Since the trip generation is calculated based on the applicant supplied data and not the industry standard published data, a suggested mitigation is to request post construction traffic counts to confirm the projected data used in the traffic evaluation study. These counts should be completed on Columbia Street and the new Haul Road for comparison to pre-construction counts.

Ms. Betsy Gramkow, Chair
City of Hudson Planning Board
August 7, 2020
Page 3 of 3



6. We agree with the sight distance improvement recommendation to the Route 9 haul road crossing and the recommendation for advance intersection warning sign installation at both Route 9G and Route 9 intersection crossings.
7. The applicant has proposed to restrict the hauling hours from 7 a.m. to 7 p.m. all week, to 7 a.m. to 6 p.m., Monday through Thursday, and 7 a.m. to 5 p.m. on Friday, and no hauling on weekends or major holidays. This reduction in operating hours will result in a small increase to the hourly trip generation statistics presented and should be provided in the updated trip generation table.
8. As a result of increased truck, vehicle, pedestrian, and bicycle volumes in the vicinity of the Broad St. / Front St. intersection, the City may wish to consider improvements such as signing and striping to delineate right of way and guidance as well as to increase awareness of the different modes of travel utilizing the space.

If you have any questions, please feel free to contact our office.

Sincerely,

BARTON & LOGUIDICE, D.P.C.

A handwritten signature in blue ink, appearing to read 'Daniel J. Rourke', written over a horizontal line.

Daniel J. Rourke, P.E., PTOE
Senior Managing Engineer

CKD/PJC

Cc: Victoria L. Polidoro, Esq. *via email*

Attachment C
OHW 2/24/25 Letter to City of Hudson Planning Board

C.1. Hudson's Waterfront—the 40-Year Struggle for a Vision
and

C.2. Hudson Waterfront Vision – What's been said



Hudson’s Waterfront—the 40-Year Struggle for a Vision

1982-1996

Hudson Vision Plan

1982: City of Hudson Common Council unanimously adopt resolution not to allow further development in South Bay.

1996: Hudson Vision Plan reimagines the Waterfront with outpouring of public support.

1998-2006

De-Industrializing Waterfront

2001: City of Hudson and its Planning Commission file application for party status with NYS DEC, stating overriding planning goal of de-industrializing the Waterfront.

1998-2005: Friends of Hudson and allies successfully block massive industrial facility by St Lawrence Cement Plant; Plant fails coastal test.

2005 Secretary of State Randy Daniels’ decision sets clear instructions for rezoning Waterfront to sunset heavy industry and support more beneficial uses.

2006 public survey by Waterfront Advisory Steering Committee again finds heavy industry use least popular riverfront option.

2002

Comprehensive Plan

A new Comprehensive Plan enacted. Heavy industry deemed least desirable waterfront activity.

Sets forth a plan for eliminating industrial uses in waterfront zone.

70% of residents in Comprehensive Plan community survey rated Heavy Industry as “a bad way to use the waterfront” (ranked last); highest rated best uses was Parks/Recreation/ Open space (76%).

2011

Re-Zoning

City of Hudson revises its zoning to remove industrial activities as permitted, as-of-right use, in its waterfront zones. Waterfront re-zoned as Core Riverfront (C-R) District.

2011-2013

South Bay Creek & Marsh / LWRP

2006-2011: Save the South Bay organizes to improve the Local Waterfront Revitalization Program (LWRP), and LWRP adopted.

2012: NYS Dept of State designates South Bay Creek & Marsh as a protected significant wildlife area.

2013: Valley Alliance brings forth evidence that the City owns 4.4 acres to south of the Dock; Council President announces, “we do own it.”

2017

DRI

Hudson wins \$10 million Downtown Revitalization Initiative in Capital Region, for use in waterfront projects.

Funding explicitly designed to attract an additional \$40-60 million in public and private funding for waterfront development.

Hudson has less than half the ideal World Health Organization (WHO) standard of 538 sq. feet of recreational space per person

More open space for residents and visitors is a necessity, not a luxury.

“Hudson is as dense as larger urban areas, with about 3,000 people per square mile ... More than half of the world’s population lives in cities, and urban open spaces and natural resources provide tremendous benefits for people. Parks and natural areas give urban residents places to encounter plants and animals and experience solitude.”
“Healthy natural areas provide services to the community that mitigate the impacts of dense development.”

Hudson must overcome obstacles threatening its Waterfront

2005-2017

Gravel Trucking/Shipping Take Hold

Post 2005, O&G/Holcim begin trucking gravel and shipping out from Dock by barge, without permits.

2015: Colarusso buys Dock from O&G and continues trucking gravel and shipping from Dock, expanding its 100-year-old business radius from 50 miles to NYC (120 miles). Colarusso's conforming use permit becomes non-conforming when waterfront rezoned to Core Riverfront.

2017: Colarusso loses non-conforming use permit for the Dock when it makes unpermitted changes to property, triggering a full Environmental Impact Study (EIS) review by Planning Board of entire operations.

2017-Current: Colarusso operates Dock without permits.

2015-current

Colarusso Fights Attempts to Review

2016-2019 (4 years): Colarusso refuses to cooperate and provide Planning Board with vital truck volume and other information, essential to evaluate applications.

2015-current: Colarusso refuses to use Causeway road for two-way truck traffic to/from Dock, misleading public that it can't use without widening to two-lanes, contrary to LWRP intent.

Colarusso attorney repeatedly tells Planning Board it has no legal authority to put ANY limitations on volume of heavy truck traffic.

2018-current: Colarusso sues Planning Board, twice, trying to thwart review of its operation.

- **2019:** Judge Melkonian ruling totally rejects first lawsuit.

- **2023:** State Supreme Court Appellate Division upholds Planning Board's right to approve, deny, or modify Colarusso's plans for the haul road portion of suit.

2015-Current

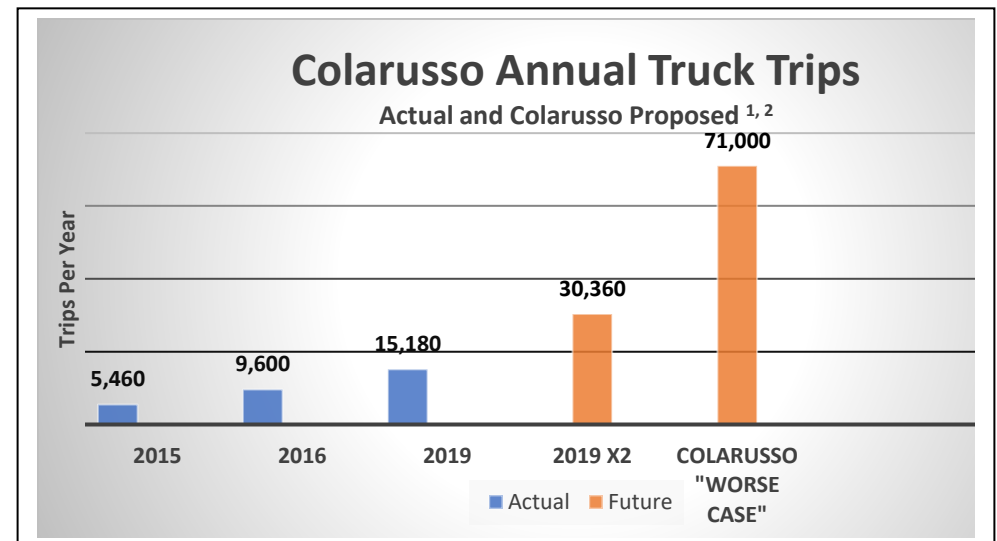
NYS DEC and DOT Issue Approvals Based on Understated Volume and Erroneous Forecasts

2016 NYS DOT approval for Route 9G truck crossing was based on 2015 truck volume (24 trips/day – 12 to/from), which is hugely understated to actual volume since **2019 (114 trips/day)** and proposed future volume (up to **284 trips/day**).

2018 NYS DEC permit approval to do work on Colarusso private road was based on Greenport SEQR approval of haul road, which did not take into consideration actual or proposed gravel dump truck volume.

Both approvals should be challenged based on actual and proposed massive increases in heavy truck traffic to/from our Waterfront.

Colarusso's growing gravel shipping operation is incompatible with all Waterfront de-industrialization initiatives, and imperils our Waterfront and South Bay Creek & Marsh as a protected significant wildlife area.



Big spike in gravel dump truck volume threatens public safety at highway crossings on Route 9 and 9G (major routes into Hudson), as well as the Amtrak rail crossing at Broad Street.

¹ July 9, 2020 Creighton Manning Truck Study. "Actual" does not include additional "retail trips" e.g., 2019 = Additional 12,000 loads/24,000 trips.

² Colarusso Worse Case = "Proposed" up to 284 trips/day, up to 250 days/year.



Hudson Waterfront Vision – What’s been said:

2001- Quotes from Jason Shaw, Hudson City Attorney

to two administrative law judges, re: St Lawrence Cement review:

“Industrial use of the waterfront in the City of Hudson is, for the most part, a thing of the past...Hudson cannot serve as a port for industrial uses anymore as it did years ago.”

“The Hudson waterfront and, in fact, the entire City of Hudson has changed significantly over the last several decades...In fact, much of the urban renewal that went on in the ‘70s was the result of the demolition of the old industrial sites down by the waterfront.... The old industries have, for one reason or another, gone away; and the waterfront has changed from an industrial area generally into an area that is now being sought for commercial and recreational purposes.”

“... it really is not part of the Comprehensive Plan to envision or the proposed plan to envision that Hudson will again become an industrial area. That’s not what has been proposed for the waterfront development.”

“...this park [the Henry Hudson Waterfront Park] will be used for many purposes, one of which will be the enjoyment of the serenity of the kind of beauty of the Hudson River. It’s one of the few places along the Hudson River where there will be access to the general public.”

“... we’re not going to be looking at more industrial uses along the river and the City of Hudson.”

2002 – Comprehensive Plan excerpts:

“In order for Hudson continue to be successful it must protect the assets that make it attractive.”

“...maintaining and improving the quality of life in Hudson is the City’s source of long-term economic competitiveness for attracting and expanding employment opportunities.”

“...to give the City the regulatory authority to impose future development conditions along the waterfront, the City should complete and officially adopt the Local Waterfront Revitalization Program.”

“Hudson’s LWRP will establish an official vision for the Hudson waterfront and require all development to be consistent with the local goals and policies set forth in the LWRP which in turn will be consistent with New York State’s coastal management policies.”

“The waterfront was studied extensively in the 1996 Hudson Vision Plan sponsored by the Hudson Opera House and improvements have been recommended to enhance connections to Warren Street. These improvements should continue to be developed as Hudson’s waterfront evolves.”

“It is a powerful tool to implement the core recommendations of the 1995[6] Hudson Vision Plan: the creation of a mixed-use waterfront. This mixed-used development should incorporate the design guidelines recommended under Plan Goal 1 to insure that the ultimate character of the waterfront is consistent with the historical character of the City.”

2011 – LWRP excerpts:

“...shipping operations at the port must not conflict with or compromise the City’s ability to meet the goal of Policy 4 to promote such desirable activities as recreational fishing, marinas, historic preservation, cultural pursuits, and other compatible activities that have made smaller harbor areas appealing as tourist destinations and as commercial and residential areas.”

“Heavy truck traffic through the City and in particular through the LWRA and the proposed Core Riverfront zone from the existing level of shipping operations at the dock facility is not consistent with the goals and policies of the LWRP. An alternative method of transport must...”

2011 - Re-Zoning excerpts:

Excerpts from Hudson City Code, Chapter 325, Section 325-17, amended by adding the following new sections:

“D. Conditional Uses. ...no building shall be erected, moved, altered, rebuilt or enlarged, nor shall any land or improvement thereon, be constructed, altered, paved, improved or rebuilt, in whole or in part, for any purpose in the Core Riverfront C-R District except that the following conditional uses are permitted, subject to the approval of the Planning Commission in accordance with Article VIII hereof.

(1) Continuation of existing commercial dock operations for the transport and shipment of goods and raw materials, including loading and unloading facilities, and storage of such goods and raw materials, and associated private roads providing ingress and egress to or from such commercial dock operations, as such uses existed on the effective date of this local law.”

Transcript excerpts from 9/26/11 Hudson Common Council Meeting to Approve LWRP:

NYS DOS Attorney William Sharpe: *“There is a list of actions which will trigger the need for a Conditional Use Permit... The language that will snap in the need for a Conditional Use Permit is ‘no building shall be erected, moved, altered or enlarged, nor shall any land or improvement thereon be constructed, altered, paved, improved or rebuilt in whole or in part for any purpose in the Core Riverfront District,’ except for first applying for a Conditional Use Permit.”*

Cheryl Roberts, City Attorney: *“I just want to point out that what Bill is describing is very protective... The zoning that has been drafted is very protective of the environment. I mean, I don’t think I’ve seen anything this protective in many other statutes I’ve looked at. It really does nail it down.”*

2016 Letter from Basil Seggos (NYS DEC Commissioner) giving Lead Agency status to Greenport for haul road review (excerpt):

*“In designating the Greenport Town Planning Board to serve as lead agency for the haul road project, **this decision in no way limits the jurisdiction or responsibilities of the other involved and interested agencies – particularly the City Planning Board**, and I encourage the Town Planning Board to seek and use the expertise of the City Planning Board as well as the DEC and the DOT in evaluating potential impacts, if any, and developing viable alternatives to mitigate or avoid any identified significant adverse impacts.”*