

## TCE 22-270 RE: Allstone/Julian CU Permit Application Revisions

Jeremy Matosky, P.E. <Jeremy.Matosky@tcevt.com>

Thu 12/7/2023 3:16 PM

To: Zoning <zoning@chestervt.gov>

Cc: Mark Hall <MHall@pfclaw.com>; Eddie Duncan <Eddie.Duncan@rsginc.com>; Colen Johnson, PE <Colen.Johnson@tcevt.com>; Jason Julian <jbjulian@julianenterprises.com>; Jonathan Patrick <jrpatrick@julianenterprises.com>; Andrew Julian <acjulian@julianenterprises.com>; James A. Dumont (dumont@gmavt.net) <dumont@gmavt.net>; Stephen Ankuda <parkerankudasa@vermontel.net>; Ronis, Jenny <Jenny.Ronis@vermont.gov>; Jim Carroll <jcarroll@64court.com>

7 attachments (12 MB)

South Quarry DRB App Revised.pdf; TIA Technical Memorandum 2023-1207.pdf; JE Allstone Letter3 Supplemental.pdf; JE Allstone South Quarry Cover Letter Revised.pdf; C2-101 South Quarry Site Plan.pdf; C2-000 Overall North and South Site Plan.pdf; Altered Permit.pdf;

Dear Preston,

Enclosed please find supplemental and/or revised information for the previously submitted conditional use permit application (originally submitted 5/31/2023) on behalf of the applicant: Julian Materials, LLC and landowners: 3643 VT Route 103 N, LLC and 137 Chandler Road, LLC. The applicants have decided to modify their proposal to further reduce impacts of the project(s) on the neighborhood and are seeking approval from the DRB at the upcoming hearing on December 11, 2023, so that they can move forward with these operational changes.

These changes include:

- Eliminate the proposed new metal building at the South Quarry entirely and revert to the grading limits imposed by the original permit(s), no further lowering of the quarry at this time is proposed currently, but the applicant reserves the right to submit for lowering (or expanding) the quarry in the future. Clarify that extraction limits will continue as approved by the Town and District Commission previously at this location. Blasted stone will be hauled to, and processed at, a new location outside of the town limits of Chester, VT.
- Phase out current processing operations including use of hydraulic guillotines and wet sawing equipment inside the existing buildings at Chandler Quarry **no later than June 30, 2024**. Extraction activities (drilling, blasting, etc. and limited hammering – see below) will continue but no further stone material from the VT 103 site(s) will be imported to this site. Blasted stone will be hauled to, and processed at, a new location outside of the town limits of Chester, VT.
- At each quarry site, propose limits on rock hammering to 2 days per week (Tuesdays and Thursdays between the hours of 8 am and 3 pm only)
- At each quarry site, utilize two or three-sided, min. 12' high, portable, and temporary concrete waste block “bunkers” to reduce noise impacts from rock hammering activities on surrounding area– hammering will occur within the bunkers only which can be set up and moved around the site(s). Clarify that limited rock hammering is used only to size material so it can be transported to a new location outside of the town limits of Chester, VT for further processing and preparation for sale.

- Clarify that limited on-site portable crushing activities may occur within the same parameters and limits previously approved by the District Commission in Land Use Permit 2S0775-1 (altered) dated June 21, 2005, at north or south quarries.
- Clarify that North Quarry reclamation and final grading, as per the previously submitted plans, to construct a new Contractor Yard and new State Highway Access (including for future uses, if approved) **will be completed by October 1, 2025**, unless otherwise extended by the Town of Chester Development Review Board.

Mark Hall and I will be attending the upcoming hearing on December 11, 2023, to answer any questions the DRB may have relating to the project changes. If you have any questions or need additional information, please do not hesitate to contact me directly at (802) 879-6331 or by email at [Jeremy.Matosky@tcevt.com](mailto:Jeremy.Matosky@tcevt.com)

Regards,

Jeremy



**Jeremy M. Matosky, P.E.**  
*Chief Executive Officer*

*e. [Jeremy.Matosky@tcevt.com](mailto:Jeremy.Matosky@tcevt.com)*  
*p. 802.316.5076 | c. 802.734.9629*

Civil  
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Land  
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revised 12/4/2023



VERMONT

# Application for Hearing before the Development Review Board

Applicant name: Julian Materials, LLC

Applicant address: 3643 VT Rte 103 North, Chester, VT 05143

Applicant email: jbjulian@julianenterprises.com Phone: 203-673-4054

Landowner name (if different): 3643 VT Route 103 N, LLC and 137 Chandler Road, LLC

Landowner address: Same as applicant


Landowner email: Same as applicant Phone: Same as applicant

Location of property: VT 103 and Chandler Road - See Narrative

Description of Request: Modifications to three dimensional stone quarries including the removal of processing at Chandler Road, implementation of stormwater improvements at the Chandler Road, North and South quarries, reclamation of the North quarry and conversion to a new contractor yard with improved access. Limited use of a portable crusher at South Quarry consistent with Act 250 approval 2S0775-1 (altered), and limited hammering activities (at all 3 locations with sound mitigation) to break down extracted rocks for transport to a new offsite location for processing. See the project narrative for more information.

If new construction is involved, provide a **sketch or plan** showing the boundaries of the lot, the distance from the proposed new construction to each boundary, and the dimensions of the new construction together with its position on the lot in relation to existing buildings and driveways.

After receipt of this application, the Zoning Administrator will inform you of what further information is required.

Applicant Signature  Date 12/7/2023

**\*\* TO BE COMPLETED BY THE ZONING ADMINISTRATOR\*\***

Parcel Map #: multiple Zoning District: multiple DRB Case #: 594

Type of application:  Conditional Use Approval,  Flood Hazard Review,  Waiver or Variance

Appeal of decision of Zoning Administrator,  Other Amended Application

Received with \$200 application fee P.B. (ZA initials) Date 12/7/23



December 4, 2023

Preston Bristow, Town Planner and Zoning Administrator  
Chester Development Review Board  
556 Elm Street  
Chester, VT 05143

RE: Allstone Vermont – Julian Materials, LLC  
137 Chandler Road and 3643 VT Route 103  
Chester, VT 05143  
TCE #22-270

Dear Mr. Bristow,

Enclosed please find supplemental and/or revised information for the previously submitted conditional use permit application (submitted 5/31/2023) on behalf of the applicant: Julian Materials, LLC and landowners: 3643 VT Route 103 N, LLC and 137 Chandler Road, LLC. The applicants have decided to modify their proposal to further reduce impacts of the project(s) on the neighborhood. These changes include:

- Eliminate the proposed new metal building at the South Quarry entirely and revert to the grading limits imposed by the original permit(s), no further lowering of the quarry at this time is proposed currently, but the applicant reserves the right to submit for lowering (or expanding) the quarry in the future. Clarify that extraction limits will continue as approved by the Town and District Commission previously at this location. Blasted stone will be hauled to, and processed at, a new location outside of the town limits of Chester, VT.
- Phase out current processing operations including use of hydraulic guillotines and wet sawing equipment inside the existing buildings at Chandler Quarry **no later than June 30, 2024**. Extraction activities (drilling, blasting, etc. and limited hammering – see below) will continue but no further stone material from the VT 103 site(s) will be imported to this site. Blasted stone will be hauled to, and processed at, a new location outside of the town limits of Chester, VT.
- At each quarry site, propose limits on rock hammering to 2 days per week (Tuesdays and Thursdays between the hours of 8 am and 3 pm only)
- At each quarry site, utilize two or three-sided, min. 12' high, portable, and temporary concrete waste block "bunkers" to reduce noise impacts from rock hammering activities on surrounding area– hammering will occur within the bunkers only which can be set up and moved around the site(s). Clarify that limited rock hammering is used only to size material so it can be transported to a new location outside of the town limits of Chester, VT for further processing and preparation for sale.
- Clarify that limited on-site portable crushing activities may occur within the same parameters and limits previously approved by the District Commission in Land Use Permit 2S0775-1 (altered) dated June 21, 2005, at north or south quarries.

Conditional Use Permit  
Allstone Vermont  
Julian Materials, LLC  
December 4, 2023

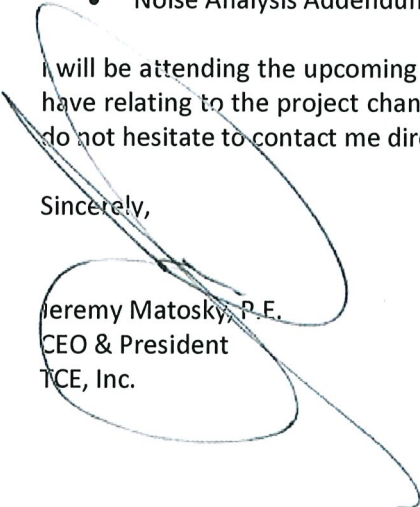
- Clarify that final grading, as per the previously submitted plans, to construct a new Contractor Yard and new State Highway Access (including for future uses, if approved) **will be completed by October 1, 2025**, unless otherwise extended by the Town of Chester Development Review Board.

This supplemental information includes the following items:

- Revised Plan Set by TCE, Inc. – last revised 12/4/2023
- Revised Project Narrative dated 12/4/23.
- Revised Traffic Report, dated 7/6/23, revised 12/4/23.
- Revised Conditional Use Application
- Noise Analysis Addendum for Hammer Mitigation by RSG (under separate cover)

I will be attending the upcoming hearing on December 11, 2023, to answer any questions the DRB may have relating to the project changes. If you have any questions or need additional information, please do not hesitate to contact me directly at (802) 879-6331 or by email at [Jeremy.Matosky@tcevt.com](mailto:Jeremy.Matosky@tcevt.com)

Sincerely,



Jeremy Matosky, P.E.  
CEO & President  
TCE, Inc.

Page 2 of 2

Civil Engineering

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Landscape Architecture

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December 7, 2023

Preston Bristow, Town Planner and Zoning Administrator  
Chester Development Review Board  
556 Elm Street  
Chester, VT 05143

RE: Allstone Vermont – Julian Materials, LLC - Revised Application  
137 Chandler Road and 3643 VT Route 103  
Chester, VT 05143  
TCE #22-270

Dear Mr. Bristow,

Enclosed please find a REVISED conditional use permit application and supporting documents which are being submitted on behalf of the applicant: Julian Materials, LLC and landowners: 3643 VT Route 103 N, LLC and 137 Chandler Road, LLC, for operations at three existing quarries on VT 103 and Chandler Road in Chester, Vermont. These quarry project sites are denoted herein as the VT103 North and South Quarry and Chandler Road Quarry. This application proposes modifications to the existing project areas and overall operations as follows:

1. Chandler Road Quarry

- a. **Eliminate stone splitting, wet saw cutting, and related processing operations from this site BY JUNE 30, 2024**— relocating these operations to a new off-site processing location outside of the Town of Chester limits. Quarrying of stone will continue at the site and blasted stone materials hauled in trucks periodically to the New Offsite Facility for processing. This facility will not be located in the Town of Chester.
- b. Install best management practices (BMPs) to ensure water quality requirements are met for discharge from the site in accordance with a Multi-Sector General Permit (permit pending) and an Operational Stormwater Permit for new impervious surfaces (3-9050 application pending)
- c. Limited rock hammering activities to break down extracted stone to allow for transport to a new offsite location for further processing. Hammering will occur only on Tuesdays and Thursdays between the hours of 8 am and 3 pm and will be performed within portable concrete block “bunkers” at least 12’ high with at least two sides to maximize sound reduction on the adjacent properties.

2. VT 103 South Quarry

- a. The South Quarry will continue to be operated in accordance with the previous approval(s) from the Town of Chester and consistent with the grading plans approved by the Town and Act 250 under Land Use Permit 2S0775-1 (altered). Use of a limited portable crusher consistent with the approved Land Use Permit 2S0775-1 (altered). Install best management practices (BMPs) including diversion berms, two centralized

stormwater settling ponds, and other practices required to ensure water quality requirements are met for discharge from the site in accordance with a Multi-Sector General Permit (application pending)

- b. Limited rock hammering activities to break down extracted stone to allow for transport to a new offsite location for further processing. Hammering will occur only on Tuesdays and Thursdays between the hours of 8 am and 3 pm and will be performed within portable concrete block “bunkers” at least 12’ high with at least two sides to maximize sound reduction on the adjacent properties.

3. VT 103 North Quarry

- a. Reclaim the current quarry limits and construct a contractor yard for storage and misc. support operations, e.g. storing finished product stone pallets, extra equipment, trailers, pallets, or construction vehicles when not in use. **This work will be performed no later than October 1, 2025.** Note: This site will also continue to provide access to remaining lands for forestry and future extraction operations, and a future internal haul road to connect with South Quarry. The road and any new quarries will require additional local and State permitting.
- b. During construction and reclamation, limited rock hammering activities to break down extracted stone to allow for transport to a new offsite location for further processing. Hammering will occur only on Tuesdays and Thursdays between the hours of 8 am and 3 pm and will be performed within portable concrete block “bunkers” at least 12’ high with at least two sides to maximize sound reduction on the adjacent properties.

**Existing Conditions**

Julian Materials, LLC operates three quarry sites (two parcels) in Chester, Vermont known as Allstone Vermont. The existing conditions of each site are summarized as follows:

1. Chandler Road Quarry

Project Location: 137 Chandler Road

Span: 144-045-10646

Parcel Size: +/- 8.7 Acres

Zoning District: Residential (3 acre) 120 District (R120)

The existing Chandler Road quarry property is approximately 8.7 acres and consists of an access road, three existing buildings, and an existing dimensional stone quarry. The stone quarry is an existing non-conforming use within the zoning district. The property is adjacent to the Great Brook. Processing, wet saw cutting, and misc. stone quarry operations occur within the existing

buildings and other areas of the site. Stone from the other two quarries associated with this application (South and North Quarries) are trucked to the Chandler Road Quarry for processing.

2. South Quarry

Project Location: 3645 VT Route 103

Span: 144-045-11176

Parcel Size: +/- 343 Acres

Zoning District: Conservation-Residential (C-R) District

The existing South Quarry is an approved approximately 13-acre dimensional stone quarry located on an approximate 343 acre parcel on the south side of VT 103. Approximately 2.5 acres of cleared quarry area exists to date within the previously approved limits. The access road for the quarry crosses over property owned by the railroad company before crossing an existing bridge over the Williams River to the quarry site. The existing Allstone retail store for the project quarry operations is located on railroad owned property adjacent to VT 103 and the South Quarry access road.

3. North Quarry

Project Location: VT Route 103 Adjacent to the VT103 Williams River Bridge

Span: 144-045-11176

Parcel Size: +/- 343 Acres

Zoning District: Conservation-Residential (C-R) District

The existing North Quarry is an approximately 1 acre dimensional stone quarry at the northeast corner of the +/- 343 acre parcel (same parcel as South Quarry). This quarry project site is located adjacent to the VT 103 right-of-way near the highway's bridge crossing over the Williams River. The Vtran's right-of-way is irregular and extends farther onto the project property due to previous VT 103 alignments. There is an existing access road on the east side of the quarry area within the state right-of-way. The quarry area slopes quickly up from VT 103 (and the access road within the right-of-way) to an elevation at the quarry floor approximately 40-55 feet higher than the adjacent roadway.

**Proposed Conditions**

The purpose of this application is to make modifications to the three quarry sites as follows:

Chandler Road Quarry

The existing stone (post-blasting) processing operations including, but not limited to, wet saw cutting, hydraulic breakers are proposed to be eliminated from the Chandler Road Quarry site and moved to a



new processing facility located outside of the Town of Chester limits. The existing buildings on the Chandler property are proposed to remain and be used for storage and the applicant is seeking a permit to operate the existing facility as is until June 30, 2024. After June 30, 2024, the dimensional stone quarry is proposed to remain for extraction purposes with no changes from its previous non-conforming use. Blasted stone will be periodically hauled to the New Offsite Facility for further processing. Any boulders too large to handle after blasting will be periodically split using either a hydraulic hammer mounted on an excavator or by the blasting company which will only operate on Tuesdays and Thursdays between the hours of 8 am and 3 pm and will be done within a portable waste block barrier / bunker with at least two sides and at least 12 feet tall situated to minimize sound related impacts on neighboring properties. The barriers will be moved around the site periodically and as needed. Diesel generators will no longer be needed for operations on the site once processing can occur at the South Quarry.

Stormwater best management practices are proposed on site to treat and clean runoff, ensuring that discharge from the site meets State mandated water quality requirements. The depressed quarry excavation area will act as a settling pond and runoff collection area. Collected water from the quarry area will be settled in the quarry and then dewatered via pump to a 15' x 15' dewatering/sediment filter bag as shown on the site plan. After passing through this filter bag which collects suspended solids, water will flow through a new stone lined swale with check dams before final discharge to the Great Brook. *Note: the above referenced stormwater improvements were installed in May 2023 and compliant total suspended solids (TSS) sampling (<100 mg/L) occurred during a site visit by TCE on May 25, 2023.*

Furthermore, a more robust containment berm (with an impervious core) will be constructed to ensure there are no uncontrolled discharges to the brook, if this can also be approved by the State of Vermont Agency of Natural Resources given its location adjacent to the brook, flood plain, river corridor and Class 2 wetlands.

#### South Quarry

The South Quarry is proposed to continue stone extraction within the previously approved limits for both the Town of Chester and Act 250. Stormwater runoff will be managed on-site via two new stormwater treatment ponds and additional best management practices, in accordance with state requirements. No new impervious surfaces are proposed. (MSGP Permit application pending). The south quarry will be phased and reclaimed in accordance with all prior State and local approvals. This application seeks to allow / clarify the use of a portable crusher with the same operational parameters in Land Use Permit 2S0775-1 (altered).

Any boulders too large to handle after blasting will be periodically split using either a hydraulic hammer mounted on an excavator which will only operate on Tuesdays and Thursdays between the hours of 8 am and 3 pm and will be done within a portable waste block barrier / bunker with at least two sides and at least 12 feet tall situated to minimize sound related impacts on neighboring properties. The barriers will be moved around the site periodically and as needed.

Given this site utilizes the only means of access across the Williams River for the southernmost 2/3 of the parcel, any future access to remaining lands for forestry and future extraction operations, as well as any planned future uses including a potential connection with the North Quarry (future Contractor Yard) and/or other parts of the undeveloped property. No construction or development is currently proposed in these areas (outside the quarry limits) or included in this application.

North Quarry

Extraction of stone in the existing North Quarry area is proposed to be discontinued after reclamation and construction of an alternative use as a contractor yard for the storage of materials, equipment, and misc. operational items. The construction timeframe is to be completed on or before October 1, 2025. Due to the steep gradient of the existing area, the site is proposed to be lowered with a gradual slope from south to north, allowing for improved safe circulation out of the traveling roadway and portions of the site repurposed for use as a proposed contractor yard with a stable surface of crushed gravel. A new highway access closer to the State Bridge over the Williams River will further improve site access and be built in accordance with the B71 State Standards. The existing open quarry areas outside of the proposed contractor yard will be allowed to revegetate naturally and/or reclaimed in accordance with prior State permits. New stormwater conveyance and treatment measures will be installed in accordance with state requirements. (3-9050 and MSGP Permit application pending)

During construction and reclamation, any boulders too large to handle after blasting will be periodically split using either a hydraulic hammer mounted on an excavator which will only operate on Tuesdays and Thursdays between the hours of 8 am and 3 pm and will be done within a portable waste block barrier / bunker with at least two sides and at least 12 feet tall situated to minimize sound related impacts on neighboring properties. The barriers will be moved around the site periodically and as needed.

As noted previously, this site will also continue to provide access to remaining lands for forestry and future extraction operations, as well as any planned future uses including a potential connect with South Quarry and/or other parts of the undeveloped property.

The following table summarize the proposed use of the three quarry sites and associated compliance standards for the parcels in accordance with the Chester Unified Development Bylaws (10/26/2022):4

Project Site	Zoning District	Existing/Proposed Use	Specific Use Per Bylaws	Use Type
Chandler Road Quarry	R120	Quarry/Quarry	Extraction	Pre-Existing Non-Conforming / Conditional
South Quarry	C-R	Quarry/Quarry	Extraction	Conditional
North Quarry	C-R	Quarry/Contractor Yard	Heavy Construction Trades	Conditional

Table 1: Proposed Use

It should be noted that the proposed modifications included with this application will not increase the level of non-conformance of the Chandler Road Quarry site and will adhere to the applicable dimensional standards for the proposed development of the South and North Quarries. These dimensional standards include but are not limited to:

South Quarry Dimensional Standard Compliance

- Greater than 100 feet from any highway/property line to quarrying/mining (3.9.C.5)
- The proposed building will not exceed 35 feet in height and will exceed the setback requirements in section 2.11.D.
- Less than 10% of the +/- 343 acre parcel will be covered in the project's proposed condition

North Quarry Dimensional Standard Compliance

- The surfacing limits for the proposed contractor yard at the North Quarry site will be located 5 feet minimum from the property line in accordance with section 3.20.E (parking lot setback).
- Less than 10% of the +/- 343 acre parcel will be covered in the project's proposed condition

**State Permits**

If the Conditional Use Permit is granted, the following State permits are anticipated to be obtained for the project sites:

Chandler Road Quarry

- Multi-Sector General Permit (MSGP) – pending

South Quarry

- Act 250 Amendment Under 2S0775 Series
- Multi-Sector General Permit (MSGP)
- Stormwater Operational Discharge Permit (3-9050)
- Wastewater System and Potable Water Supply Permit

North Quarry

- Act 250 Amendment Under 2S0775 Series
- Multi-Sector General Permit
- Stormwater Construction General Permit (CGP)
- Stormwater Operational Discharge Permit (3-9050)
- Vtrans 1111 Highway Access Permit

**Noise and Offsite Impacts**

The existing noise levels for the project sites was monitored by Resource Systems Group, Inc. (RSG) during April and May of 2023. RSG, Inc. is performing noise monitoring for the project sites' proposed conditions to ensure compliance with local noise standards are met for the project and that the project will not adversely impact offsite properties or violate any previously issued conditions of approval. This noise monitoring and reporting will be submitted to the town as supplemental information.

### **Future Planning**

Future development options and extraction areas are being evaluated on the 343-acre parcel with the North and South Quarry areas. No additional expansion, development, or extraction is proposed at this time, but the plans do denote potential areas of the property with potential for future development/extraction. This future development may include additional stone quarry areas and/or an internal haul road between the North (future Contractor Yard) and South Quarry areas. Any future development will obtain local and state approvals prior to construction.

### **Project Timeframe**

The applicant is requesting temporary use approval to allow continued processing activities to occur at the Chandler Road Quarry (with appropriate conditions) until June 30, 2024. . For the north quarry, the applicant is requesting until October 1, 2025 to complete the reclamation of the north quarry, construct the Contractor Yard, and improve the access on the State Highway.

### **Summary**

This application, on behalf of Julian Materials, LLC, proposes to modify three existing stone quarries (known as Allstone Vermont) to:

- Relocate processing/cutting operations from the Chandler Road Quarry to a new location outside of the limits of the Town of Chester on or before June 30, 2024.
- Construct stormwater best management practices (BMPs) at the Chandler Road to ensure water quality discharge requirements are met – *these BMPs were installed in May 2023 and are currently operating with compliant discharge levels.*
- Construct new stormwater improvements continue extraction within pre-approved limits and allow for periodic crushing (per Land Use Permit 2S0775-1 (altered)
- Reclaim the open North Quarry area and construct a contractor yard at the existing cleared site and provide future access to remaining lands on or before October 1, 2025.
- Using a hydraulic hammer mounted on an excavator to resize blasted stone which will only operate on Tuesdays and Thursdays between the hours of 8 am and 3 pm and will be done within a portable waste block barrier / bunker with at least two sides and at least 12 feet tall situated to minimize sound related impacts on neighboring properties. The barriers will be moved around the site periodically and as needed.

Given the construction timeframe requirements for the new building at the South Quarry, an 18-month temporary use approval is requested to allow for continued processing operations at the Chandler Road Quarry until the new South Quarry building can be completed and operations can be relocated.

Conditional Use Permit  
Allstone Vermont  
Julian Materials, LLC  
May 2023 / Revised 12/04/23

The proposed conditions of all three quarry sites will minimize operations at the most visible quarry areas (North and South Quarries), will lower the elevation of the South Quarry area – thus reducing offsite impacts (noise, aesthetics, etc.), and will improve water quality from discharge at the Chandler Road Quarry. The modifications included with this application are proposed to ensure that local/state requirements are met for all three quarry sites and the operations do not unduly impact offsite properties or uses.

This application submission includes the following items and supplemental information may be submitted as requested and/or if requested:

- Revised Completed Application for Hearing before the Development Review Board
- \$200 fee (paid previously)
- Revised Cover letter & Narrative (this document)
- Revised Site Plan Drawings by TCE
- Revised Traffic Report
- Revised Noise Assessment (by others under separate cover)

If you have any questions or need additional information, please do not hesitate to contact me directly at (802) 879-6331 or by email at [Jeremy.Matosky@tcevt.com](mailto:Jeremy.Matosky@tcevt.com)

Sincerely,



Jeremy Matosky, P.E.  
TCE, Inc.  
478 Blair Park Road  
Williston, VT 05495

## TECHNICAL MEMORANDUM

**Project:** Allstone Quarries – Chester  
**Date:** July 6, 2023, rev. December 7, 2023  
**From:** Roger Dickinson, PE  
**Subject:** Traffic Impact Assessment

The purpose of this traffic impact assessment (TIA) is to examine the potential impacts of proposed operational and physical modifications to Allstone's quarries located in the Town of Chester, Vermont on future traffic congestion and safety conditions.

### Project Description

Allstone produces dimensional stone which is used in building construction and various hardscape features (stone walls, patios, walkways, etc.). Products include thin stone, flagstone and wall stone. Allstone's Chester facilities include:

- The North Quarry located on VT Route 103 N just north of Bridge 51 over the Green Mountain Railroad and the Williams River ( $\pm 0.9$  miles north of the VT Route 103 N / VT Route 10 intersection).
- The South Quarry located at 3645 VT Route 103 N. Access to this quarry is located  $\pm 0.3$  miles north of the VT Route 103 N / VT Route 10 intersection.
- The Chandler Road Quarry located at 137 Chandler Road (TH #22). Chandler Rd intersects with VT Route 10 approximately 1 mile east of VT Route 103 N.
- A small retail store located at 3643 VT Route 103 N. Access to the retail store is shared with that to the South Quarry.

Allstone's existing operations include quarrying stone at the North and South Quarries. The quarried stone is then transported to the Chandler Road Quarry where it is processed into dimensional stone and prepared for shipment. A large majority of the dimensional stone is then shipped directly to customers. The remainder is transported to the retail store or stored on-site.

The proposed modifications to the existing operations include:

- Reclaiming the North Quarry and transforming that location into a storage yard for product, equipment and materials. Access to the North Quarry will be relocated to

the south and the driveway approach regraded to eliminate the sharp turn required at the existing access. This work is proposed to be completed by October 1, 2025.

- The South Quarry will be used for extraction and other uses previously permitted by the Town and State at this location, including limited crushing activities.
- Converting the existing stone processing buildings at the Chandler Road Quarry to equipment storage and reducing operations at this location to pre-existing levels (limited stone extraction and off-site transport). This work is proposed to be completed by June 30, 2024.
- Processing of quarried stone will be done at a new location outside of the Town of Chester.

**Trip Generation**

The existing truck trip generation of the North and South Quarries is presently limited to 40 loaded truck trips per day, combined from both quarries.<sup>1</sup> Forty (40) loaded truck trips per day generates a total of 80 total truck trips per day entering and exiting the two quarries. Estimating an 8-hour day with a peaking factor of 2 to account for hourly variations, the resulting peak hour trip generation rate for the North and South Quarries, combined, equals 20 truck trips per hour.

The Chandler Road Quarry and the small retail store do not appear to have existing trip generation allocations; either for trucks or other vehicles. However, since all of the existing stone processing occurs at the Chandler Road Quarry, its existing truck trip generation would also be 40 loaded trucks / 80 total truck trips per day.

The proposed modifications will result in reduced overall operations, which in turn will reduce future volumes of truck traffic on Routes 10 and 103 traveling between the three quarries. Extracted materials from each location in Chester will be hauled to a new processing facility located outside of the Town limits. The proposed truck trip generation at each location is detailed in Table 1.

**Table 1 – Proposed Truck Trip Generation**

Location	Prior to June 30, 2024		July 1, 2024 - October 1, 2025		2025 and Beyond	
	Avg. Day	Peak Hour	Avg. Day	Peak Hour	Avg. Day	Peak Hour
North Quarry	30	7	20	5	6	1
South Quarry	60	15	40	10	40	10
Chandler Rd Quarry	80	20	10	3	8	1
Total	170	42	70	18	54	12

<sup>1</sup> Act 250 Land Use Permit 2S0775-1, May 17, 2005, Condition #7

## Traffic Congestion

With existing operations transporting stone quarried at the North and South Quarries to the Chandler Road Quarry for processing, the location most affected by the resulting truck traffic and by the proposed modifications is the intersection of VT Routes 10 and 103.

Peak hour traffic volumes at that intersection and on its approaches were obtained from traffic counts performed by the Vermont Agency of Transportation (VTrans). Two different counts provide the needed volumes for analytical purposes. The first is an automatic recorder count which was performed on Route 103 north of the intersection<sup>2</sup> from July 7-12, 2021. The annual average daily traffic volume (AADT) estimated from this count equaled 5,773 vehicles per day (vpd). The peak hour volume observed during this count was 642 vehicles per hour (vph). That peak hour volume occurred on a Friday between 1-2 pm. A tabulation of this count is included in Appendix A.

Per VTrans' guidelines, the estimated design hour volume (DHV) on a summer/winter recreational state highway having a, AADT of 5,800 vpd is 890 vph. The DHV is defined as being the 30<sup>th</sup> highest hourly volume occurring annually, and is used to design roadways and intersections, and to assess traffic congestion conditions.

Adjusting for background traffic growth from 2021 to 2030 (a five-year projection from the estimated project completion in 2025) will increase the future 2030 DHV to 926 vph, a 4.1% increase.<sup>3</sup>

The most recent turning movement count at the intersection of Routes 10 and 103 was performed by VTrans on August 10, 2015. The observed peak hours from this count are included in Appendix B. The above 2030 DHV was used to factor the highest observed peak hour volumes (4:00 – 5:00 pm) from that turning movement count to an estimated design hour condition.

Future traffic delays and levels of service for No-Build and Build DHV traffic conditions were then determined by performing intersection capacity analyses using the analytical methodology prescribed in the Highway Capacity Manual.<sup>4</sup> The results of these analyses include levels of service (LOS), average delays (seconds/vehicle) and volume/capacity ratios (V/C), all of which are summarized in Table 2. Detailed results are included in Appendix C.

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<sup>2</sup> VTrans ATR Count Station Y495

<sup>3</sup> *Continuous Traffic Counter Report (The Redbook)*, Vermont Agency of Transportation, June 2023

<sup>4</sup> *Highway Capacity Manual*, Transportation Research Board, 6<sup>th</sup> Edition



**Table 2 – VT Routes 10 & 103**  
PM Peak Hour (DHV) Levels of Service

Approach & Lane Group	LOS	Avg. Delay	V/C Ratio	LOS	Avg. Delay	V/C Ratio
	2030 No-Build			2030 Build		
VT 103 SB LT	A	8.6	0.17	A	8.6	0.16
VT 10 WB LT	D	29.2	0.39	D	27.7	0.37
VT 10 WB RT	B	11.1	0.25	B	11.0	0.24

The above results are typical of a two-way stop-controlled (TWSC) intersection where traffic from the minor street approach (Route 10) experiences greater delays due to having to yield to Route 103 traffic, which experiences little or no delay. VTrans' level of service policy at TWSC intersections is to maintain a minimum of LOS D on the side streets having  $\geq 150$  vph for a multi-lane approach.<sup>5</sup> LOS D is defined at unsignalized intersections by average delays of 25-35 seconds per vehicle. Future levels of service at the intersection of Routes 10 and 103 will conform to that standard.

The above results also show that the reduced truck volumes resulting from this Project will create a small decrease in the average delays experienced by left-turns from Route 10 onto Route 103. Future levels of service will remain the same for all movements.

With the final location of the new off-site processing facility not yet determined, the direction of trucks hauling materials from the three quarries may result in reduced traffic volumes and less traffic congestion at the above intersections than previously analyzed. In addition, all quarried stone will be transported to the new off-site processing facility by using only state highways within the Town of Chester.

An additional intersection capacity analysis was also performed at the access to the South Quarry onto VT Route 103 using the projected 2030 DHV volumes on VT 103 and future peak hour volumes entering and exiting the South Quarry. That analysis indicates that traffic exiting the South Quarry will experience LOS B.

### **Traffic Safety**

Available sight distances along VT Route 103 at the North and South Quarries exceed the recommended 555 ft for oncoming traffic traveling at the 50 mph speed limit. Having 555 ft of sight distance also satisfies the safe stopping distance for vehicles traveling at 55-60 mph.

Chandler Road is a relatively narrow gravel roadway having a posted speed limit of 30 mph. Relocating the existing stone processing facilities from the Chandler Road Quarry to the South Quarry will reduce truck traffic and improve future traffic safety conditions on Chandler Road.

<sup>5</sup> Highway Design "Level of Service" Policy, Vermont Agency of Transportation, May 31, 2007

The 2018-2022 five-year crash history on roadways in the vicinity of all three quarries was also examined using VTrans' online Public Crash Data Query Tool. The North and South Quarries each had one crash on Route 103 in their immediate vicinity over that five-year period. Neither crash resulted in injuries. The crash near the North Quarry was a head-on collision and the one near the South Quarry was a same direction sideswipe. Both were likely caused by operator error. There was also one crash at the Route 10 / Chandler Road intersection which involved property damage only. There were no crashes on Chandler Road during this five-year period.

Unfortunately, there was a fatal collision at #498 VT Route 10 during the early afternoon on Saturday, June 19, 2021. This crash was a left-turn and thru angle broadside collision.

None of the above crashes involved trucks or pedestrians.

### **Conclusions**

In conclusion, it is our opinion:

- a) that the proposed modifications in the operation of Allstone's Chester quarries and related facilities will improve future traffic congestion and safety conditions on the roadways in the immediate vicinity of those facilities, and;
- b) that the relocation of processing to a new offsite location outside of the Town of Chester, combined with using existing state highways for transporting quarried stone, will not result in undue or adverse conditions with respect to traffic safety and congestion.



## Appendix A

# Automatic Traffic Recorder Count VT 103 Station Y495



Vermont Agency of Transportation

**Volume By Hour By Week for 7/7/2021 - 7/12/2021**  
 Criteria: Location ID = Y495

District : 2  
 Located On : VT ROUTE 103

Location ID : Y495

County : WINDSOR  
 Functional Class : Other Principal Arterial

SF Group : 5  
 Area Type : Rural

YEAR	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
AADT										5900			6100	6411	6533	5671	5597	5603	4746	5773

Start Time	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Avg	Avg Volume Graph	Pct. of Total
	7/7/2021	7/8/2021	7/9/2021	7/10/2021	7/11/2021	7/12/2021			
12:00 AM	17	15	20	11	7	16	14		0.2%
1:00 AM	33	30	27	7	10	24	22		0.4%
2:00 AM	38	43	42	22	13	39	33		0.5%
3:00 AM	122	108	107	56	30	118	90		1.5%
4:00 AM	294	306	263	76	56	280	213		3.5%
5:00 AM	459	426	353	171	143	356	318		5.3%
6:00 AM	393	380	385	269	231	375	339		5.6%
7:00 AM	334	360	410	368	354	364	365		6.0%
8:00 AM	382	345	443	446	428	367	402		6.6%
9:00 AM	390	407	445	480	507	429	443		7.3%
10:00 AM	399	484	462	490	481	407	454		7.5%
11:00 AM	417	481	528	424	477	444	462		7.6%
12:00 PM	436	438	583	387	498	390	455		7.5%
1:00 PM	528	517	642	405	455	458	501		8.3%
2:00 PM	516	535	566	415	434	458	487		8.0%
3:00 PM	370	471	594	364	396	388	431		7.1%
4:00 PM	302	309	440	262	268	251	305		5.0%
5:00 PM	185	224	276	210	260	167	220		3.6%
6:00 PM	145	194	347	189	190	132	200		3.3%
7:00 PM	113	128	202	137	106	86	129		2.1%
8:00 PM	58	74	130	88	76	50	79		1.3%
9:00 PM	49	55	78	59	38	43	54		0.9%
10:00 PM	29	30	29	28	16	34	28		0.5%
11:00 PM	15	14	16	18	8	19	15		0.2%
<b>Total</b>	<b>6024</b>	<b>6374</b>	<b>7388</b>	<b>5382</b>	<b>5482</b>	<b>5695</b>	<b>Avg</b>		
AM Pk Hr	5:00 AM	10:00 AM	11:00 AM	10:00 AM	9:00 AM	11:00 AM			
AM Peak	459	484	528	490	507	444	485		
PM Pk Hr	1:00 PM	2:00 PM	1:00 PM	2:00 PM	12:00 PM	1:00 PM			
PM Peak	528	535	642	415	498	458	513		
Peak %	8.76%	8.39%	8.69%	9.10%	9.25%	8.04%	8.71%		

## Appendix B

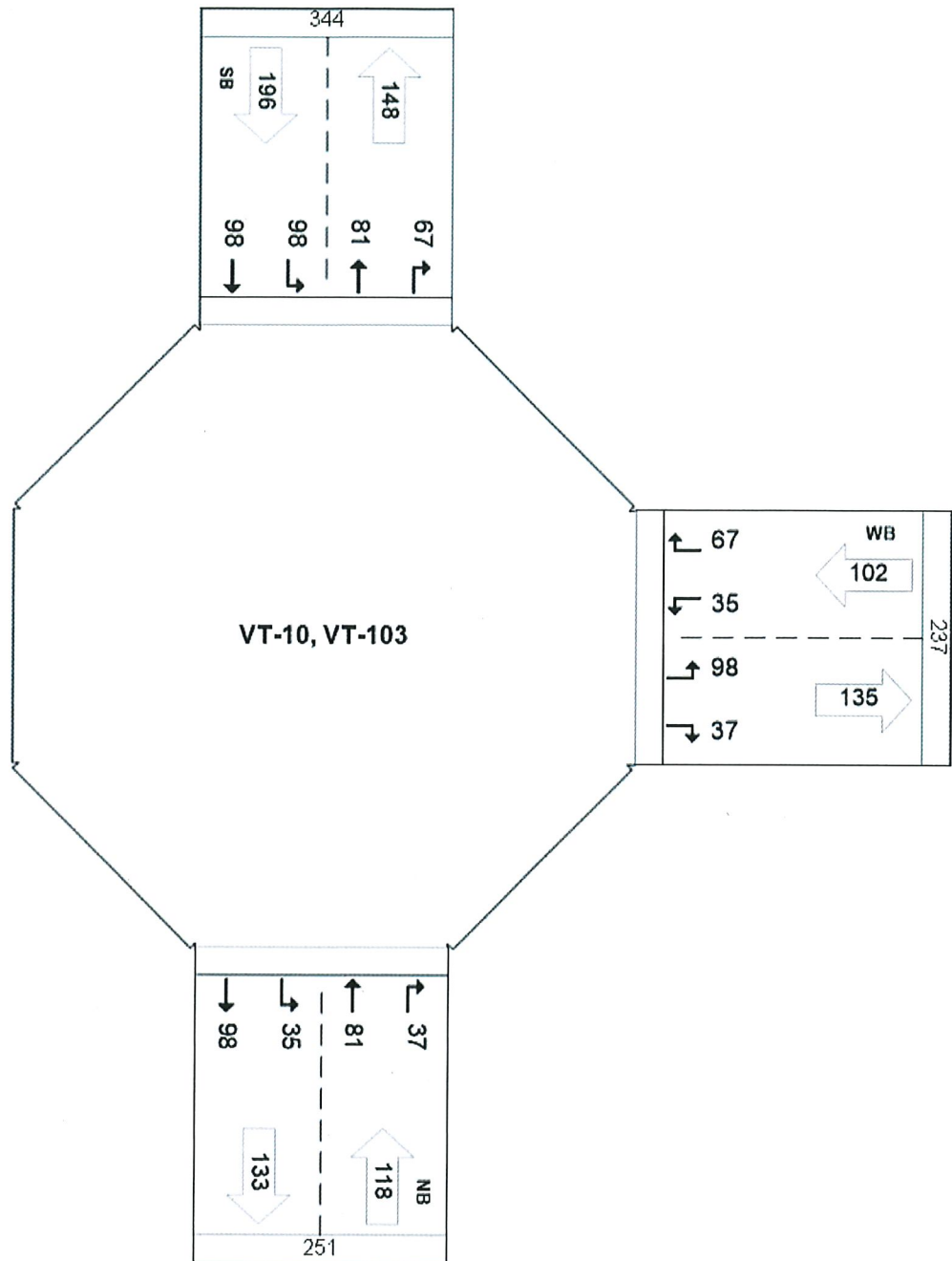
### VT Route 10 & 103 Turning Movement Count Peak Hour Diagrams

ID 31407805

Car & Pedestrian & Truck

08/11/2015

7:15 AM-8:15 AM

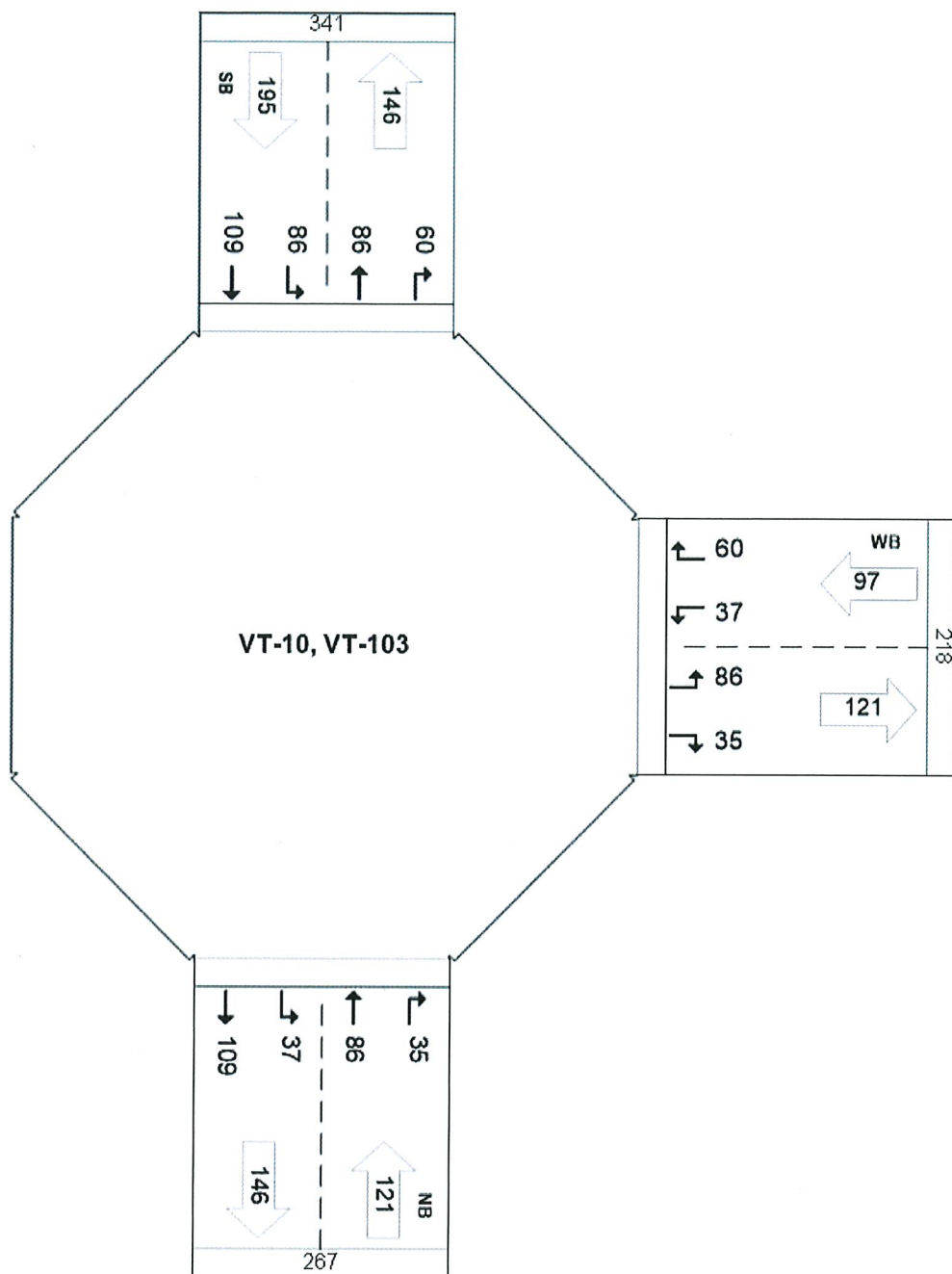


ID 31407805

Car & Pedestrian & Truck

08/11/2015

10:15 AM-11:15 AM

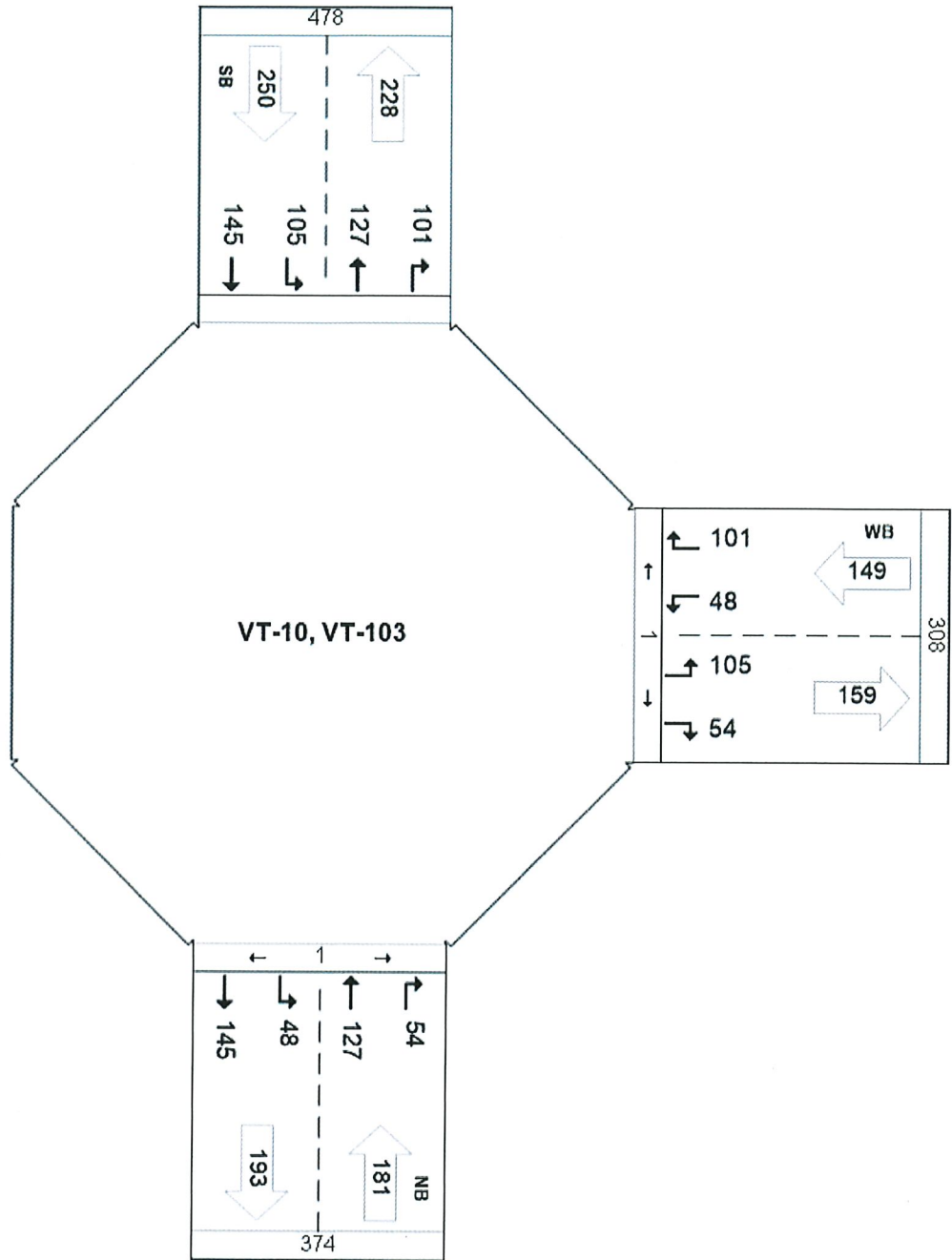


ID 31407806

Car & Pedestrian & Truck

08/10/2015

4:00 PM-5:00 PM





## Appendix C

# Intersection Capacity Analysis Reports

Intersection

Int Delay, s/veh	5.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘	↗	↑	↗	↘	↑
Traffic Vol, veh/h	93	196	246	105	204	281
Future Vol, veh/h	93	196	246	105	204	281
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	None
Storage Length	0	100	-	250	125	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	93	196	246	105	204	281

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	935	246	0	0	351
Stage 1	246	-	-	-	-
Stage 2	689	-	-	-	-
Critical Hdwy	6.45	6.25	-	-	4.15
Critical Hdwy Stg 1	5.45	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-
Follow-up Hdwy	3.545	3.345	-	-	2.245
Pot Cap-1 Maneuver	291	785	-	-	1191
Stage 1	788	-	-	-	-
Stage 2	493	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	241	785	-	-	1191
Mov Cap-2 Maneuver	241	-	-	-	-
Stage 1	788	-	-	-	-
Stage 2	409	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.9	0	3.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	241	785	1191
HCM Lane V/C Ratio	-	-	0.386	0.25	0.171
HCM Control Delay (s)	-	-	29.2	11.1	8.6
HCM Lane LOS	-	-	D	B	A
HCM 95th %tile Q(veh)	-	-	1.8	1	0.6

Intersection

Int Delay, s/veh 5.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘	↘	↑	↘	↘	↑
Traffic Vol, veh/h	93	188	246	105	193	281
Future Vol, veh/h	93	188	246	105	193	281
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	None
Storage Length	0	100	-	250	125	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	93	188	246	105	193	281

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	913	246	0	0	351
Stage 1	246	-	-	-	-
Stage 2	667	-	-	-	-
Critical Hdwy	6.45	6.25	-	-	4.15
Critical Hdwy Stg 1	5.45	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-
Follow-up Hdwy	3.545	3.345	-	-	2.245
Pot Cap-1 Maneuver	300	785	-	-	1191
Stage 1	788	-	-	-	-
Stage 2	505	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	251	785	-	-	1191
Mov Cap-2 Maneuver	251	-	-	-	-
Stage 1	788	-	-	-	-
Stage 2	423	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.5	0	3.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	251	785	1191	-
HCM Lane V/C Ratio	-	-	0.371	0.239	0.162	-
HCM Control Delay (s)	-	-	27.7	11	8.6	-
HCM Lane LOS	-	-	D	B	A	-
HCM 95th %tile Q(veh)	-	-	1.7	0.9	0.6	-

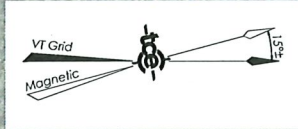
Intersection

Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			↑	↑	
Traffic Vol, veh/h	2	3	4	442	485	1
Future Vol, veh/h	2	3	4	442	485	1
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	100	100	100	100	100	100
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	2	3	4	442	485	1

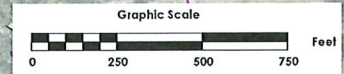
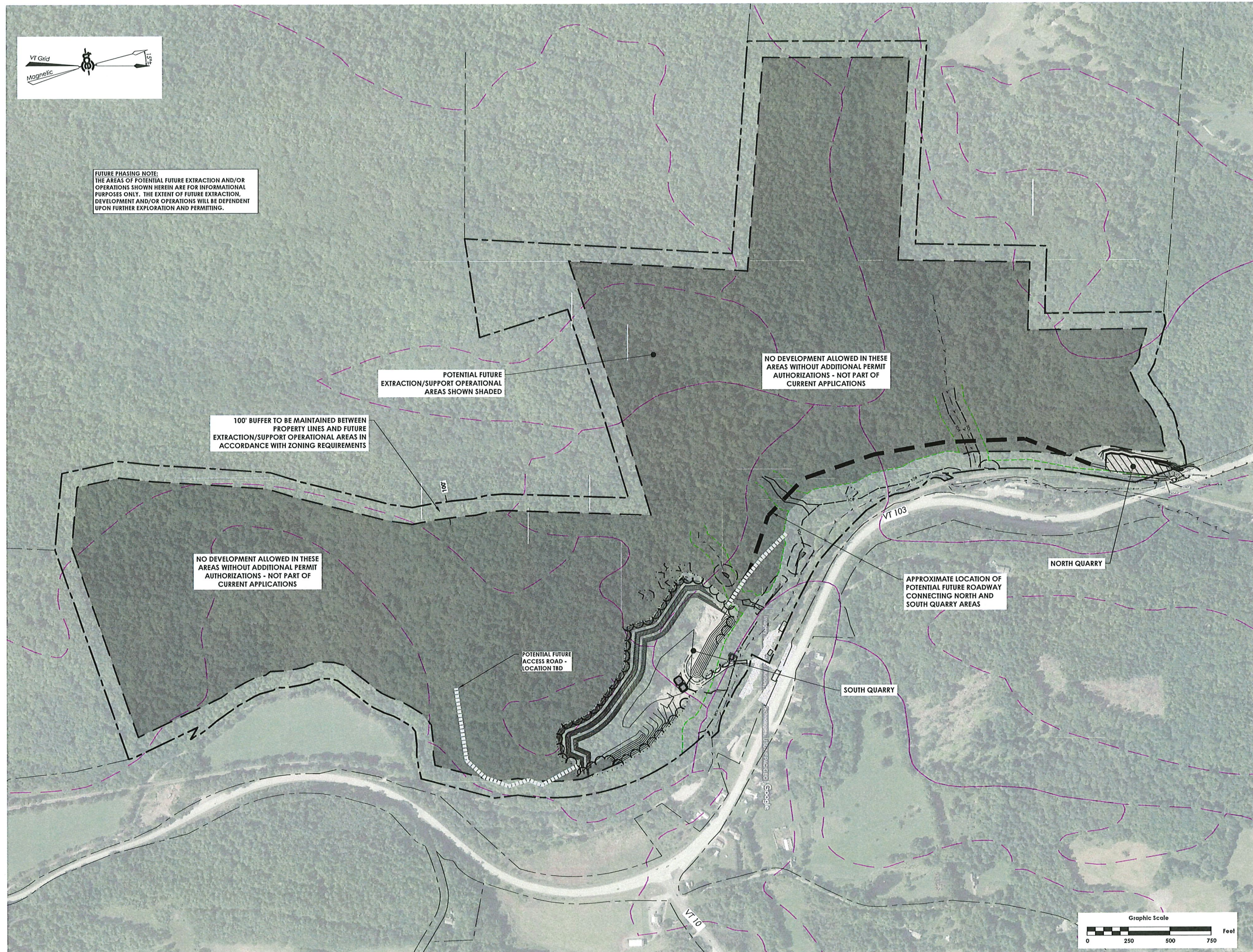
Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	936	486	486	0	0
Stage 1	486	-	-	-	-
Stage 2	450	-	-	-	-
Critical Hdwy	6.45	6.25	4.15	-	-
Critical Hdwy Stg 1	5.45	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-
Follow-up Hdwy	3.545	3.345	2.245	-	-
Pot Cap-1 Maneuver	291	575	1062	-	-
Stage 1	612	-	-	-	-
Stage 2	636	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	290	575	1062	-	-
Mov Cap-2 Maneuver	290	-	-	-	-
Stage 1	609	-	-	-	-
Stage 2	636	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.8	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1062	-	413	-	-
HCM Lane V/C Ratio	0.004	-	0.012	-	-
HCM Control Delay (s)	8.4	0	13.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-



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 THE AREAS OF POTENTIAL FUTURE EXTRACTION AND/OR OPERATIONS SHOWN HEREIN ARE FOR INFORMATIONAL PURPOSES ONLY. THE EXTENT OF FUTURE EXTRACTION, DEVELOPMENT AND/OR OPERATIONS WILL BE DEPENDENT UPON FURTHER EXPLORATION AND PERMITTING.



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Revisions No.	Description	Date	By
1	Revisions for Local Permitting	06/30/2023	CMJ
2	Boundary Line Revision	07/06/2023	CMJ
3	Reissue for Local DRB	12/04/2023	JWM

## Exhibit TT

**Use of These Drawings**  
 1. Unless otherwise noted, these drawings are intended for preliminary planning, coordination with other disciplines or utilities, and/or approval from the regulatory authorities. They are not intended as construction drawings unless noted as such or marked approved by a regulatory authority.  
 2. By use of these drawings for construction of the Project, the Owner represents that they have reviewed, approved, and accepted the drawings, obtained all necessary permits, and have met with all applicable parties/disciplines, including but not limited to, the Engineer and the Architect, to insure these plans are properly coordinated including, but not limited to, contract documents, specifications, owner/contractor agreements, building and mechanical plans, private and public utilities, and other pertinent permits for construction.  
 3. Owner and Architect are responsible for final design and location of buildings shown, including an area measured a minimum five (5) feet around any building and coordinating final utility connections shown on these plans.  
 4. Prior to using these plans for construction layout, the user shall contact TCE to ensure the plan contains the most current revisions.  
 5. These Drawings are specific to the Project and are not interchangeable. As instruments of service, these drawings, and copies thereof, furnished by TCE are its exclusive property. Changes to the drawings may only be made by TCE. If errors or omissions are discovered, they shall be brought to the attention of TCE immediately.  
 6. It is the User's responsibility to ensure this copy contains the most current revisions.



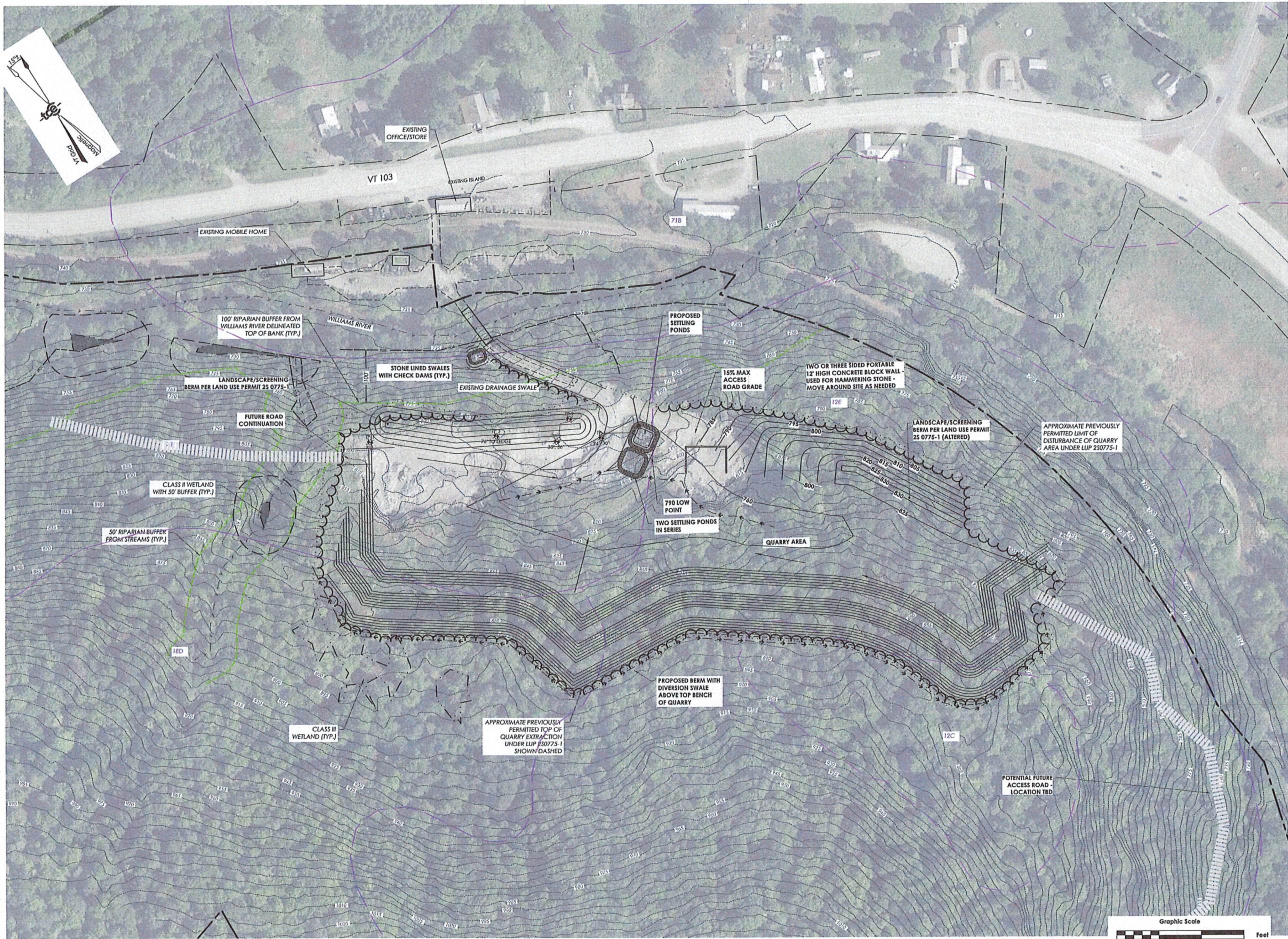
**For Local Permitting Only**  
 Project Title

**Allstone Vermont**  
 VT 103  
 Chester, VT

Sheet Title  
**Overall North and South Site Plan**

Date:	05/31/2023
Scale:	1" = 250'
Project Number:	22-270
Drawn By:	CMJ
Project Engineer:	CMJ
Approved By:	JWM
Field Book:	

# C2-000



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Revisions	No.	Description	Date	By
⚠	1	Revisions for Local Permitting	06/30/2023	CMJ
⚠	2	Reissue for Local DRB	12/04/2023	JMM

## Exhibit UU

- Use of these Drawings:  
 1. Unless otherwise noted, these Drawings are intended for preliminary planning, coordination with other disciplines or utilities, and/or approval from the regulatory authorities. They are not intended as construction drawings unless noted as such or marked approved by a regulatory authority.  
 2. By use of these drawings for construction of the Project, the Owner represents that they have reviewed, approved, and accepted the drawings, obtained all necessary permits, and have met with all applicable parties/disciplines, including but not limited to, the Engineer and the Architect, to insure these plans are properly coordinated including, but not limited to, contract documents, specifications, owner/contractor agreements, building and mechanical plans, private and public utilities, and other pertinent permits for construction.  
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 6. It is the User's responsibility to ensure this copy contains the most current revisions.



**For Local Permitting Only**

Project Title  
**Allstone Vermont**  
 VT 103  
 Chester, VT

Sheet Title  
**South Quarry Site Plan**

Date:	05/31/2023
Scale:	1" = 60'
Project Number:	22-270
Drawn By:	CMJ
Project Engineer:	CMJ
Approved By:	JMM
Field Book:	

# C2-101

