Town of Philipstown Planning Board

Planning Board Meeting Agenda

VFW Hall, Kemble Avenue, Cold Spring, New York 10516 September 20, 2012 7:30 PM

Pledge of Allegiance Roll Call

Approval of Minutes: 05-17-12 (as presented), 08-16-12

Public Hearing: Cold Spring Fuel Corp. (Pidala Oil)

Applications:

Cold Spring Fuel Corp. – Minor Site Plan amendment to allow installation of 18,800-gallon propane tank: Submission of revised and additional materials/discussion

Ming H. Wang – 3-lot subdivision – Jaycox Road, Cold Spring: Request for 90-day extension and revision of Resolution of final approval

Lyons Realty LLC - Soil Mine Application: Request for return of escrow

SNK Farms, Inc. – Minor site plan amendment and special permit application, 3188 Route 9, Cold Spring, NY: Revised EAF Parts 1, 2, and 3

E. Polhemus Enterprises, LLC - Site plan (soil processing) - Horsemen's Trail, Cold Spring: Revised materials

Other Business

Adjourn

Michael Leonard, Chairman

Note: All items may not be called. Items may not always be called in order.

Philipstown Planning Board Public Hearing – September 20, 2012

The Philipstown Planning Board for the Town of Philipstown, New York will hold a public hearing on Thursday, September 20, 2012 at 7:30 p.m. at the VFW Hall on Kemble Avenue in Cold Spring, New York to consider the following application:

Cold Spring Fuel Corp. - Application dated July 12, 2012 for approval of an amended site plan prepared for Cold Spring Fuel Corp. Proposed amendment seeks approval for the addition of an 18,000-gallon propane storage tank and related equipment. Proposed use is for the expansion of existing fuel delivery and heating/hot water equipment installation and repair business. Property is located at 3524 Route 9 in the Town of Philipstown in an HC (highway commercial) zoning district. Tax map #16.12-1-15.

At said hearing all persons will have the right to be heard. Copies of the application, plat map, site plan and related material may be seen in the Office of the Building Department at the Town Hall.

Dated at Philipstown, New York this 23rd day of August 2012.

Michael Leonard, Chairman



3063 Route 9, Cold Spring, New York 10516 (845)265-9217 (877)3.141593 (NY Toll Free) (845)265-4428 (Fax) email: info@badey-watson.com website: www.badey-watson.com Land Surveying Civil Engineering Laser Scanning GPS Surveys Site Planning Subdivisions Landscape Design

Glennon J. Watson, L.S. John P. Delano, P.E. Peter Meisler, L.S. Stephen R. Miller, L.S. Jennifer W. Reap, L.S. Robert S. Miglin, Jr., L.S. Mary Rice, R.L.A., Consultant George A. Badey, L.S., (1973-2011)

September 6, 2012

Honorable Michael Leonard, Chairman Philipstown Planning Board 238 Main Street Cold Spring, NY 10516

RE: Application of Cold Spring Fuel Corp. - Submission of Revised & Additional Materials

Dear Mr. Leonard and Honorable Board Members:

Attached are 23 copies of our Site Plan for Cold Spring Fuel Corp., last revised September 6, 2012. The plans have been revised in response to comments received during our discussion with the Board during its meeting on August 16, 2012.

Plan revisions of particular note include:

- Corrections to the Zoning Chart;
- □ Increase in the number of and decrease in the spacing between the protective bollards to be placed in front of the proposed propane tank; and
- □ Correction to the specified height of the new fencing.

We look forward to discussing the plan during the Public Hearing scheduled for September 20, 2012

As always, thank you for your concern for and attention to this application.

Yours truly, BADEY & WATSON, Surveying & Engineering, P.C.

bv

Glennon J. Watson, L.S.

Enclosure (1) GJW/bms cc: File 77-113\ML05SP12BP_SubmitsAddMaterial.doc James Pidala, w/enclosures

Owners of the records of:

♦ Joseph S. Agnoli ♦ Barger & Hustis ♦ Burgess & Behr ♦ Roy Burgess ♦ Vincent Burruano ♦ Hudson Valley Engineering Company ♦ G. Radcliff Hustis ♦
 ♦ Peter R. Hustis ♦ J. Wilbur Irish ♦ James W. Irish, Jr. ♦ Douglas A. Merritt ♦ E.B. Moebus ♦ Reynolds & Chase ♦ General Jacob Schofield ♦
 ♦ Sidney Schofield ♦ Allan Smith ♦ Taconic Surveying and Engineering ♦ D. Walcutt ♦



3063 Route 9, Cold Spring, New York 10516 (845)265-9217 (877)3.141593 (NY Toll Free) (845)265-4428 (Fax) email: info@badey-watson.com website: www.badey-watson.com Land Surveying Civil Engineering Description GPS Surveys Site Planning Subdivisions Landscape Design Glennon J. Watson, L.S. John P. Delano, P.E. Peter Meisler, L.S. Stephen R. Miller, L.S.

Jennifer W. Reap, L.S. Robert S. Miglin, Jr., L.S. Mary Rice, R.L.A., Consultant George A. Badey, L.S., (1973-2011)

September 6, 2012

Honorable Michael Leonard, Chairman Philipstown Planning Board 238 Main Street Cold Spring, NY 10516

RE: Application of Yung & Ming-Hsien Wang – Request for 90-day Extension and Revision of Resolution of Final Approval

Dear Mr. Leonard and Honorable Board Members:

Please consider this letter as our formal request, on behalf of our clients Yung and Ming-Hsien Wang for an additional 90-day extension of the conditional final approval of their subdivision granted on June 16, 2011, by the Planning Board's Resolution PPB#6, a copy of which is attached for your convenience.

As you will recall, there has been an unavoidable delay in perfecting the subdivision. This was due to a claim of ownership of a portion of the property by the Village of Cold Spring. An agreement has been negotiated between the Wangs and the Village whereby the Village will release any claim of ownership by way of a Quit-Claim Deed to the Wangs in exchange for the rights to the waters of Jaycox Pond and the easement necessary to access and exercise those rights.

Mr. Gaba has indicated that conveyance of the water rights and related easement is not something that requires approval of the Planning Board, but for the sake of full disclosure he believes the Water Rights Area and Easement Area to be granted to the Village of Cold Spring should be shown on the plat. We fully agree, and for this reason ask that the resolution granting approval be revised and re-approved.

In furtherance of these requests, we attach13 copies of our Subdivision Plat prepared for Yung & Ming-Hsien Wang ...", which was last revised on August 31, 2012. In addition to responding to the adopted conditions, this version of the plat has been revised to show the

Owners of the records of:

Joseph S. Agnoli ◆ Barger & Hustis ◆ Burgess & Behr ◆ Roy Burgess ◆ Vincent Burruano ◆ Hudson Valley Engineering Company ◆ G. Radcliff Hustis ◆
 Peter R. Hustis ◆ J. Wilbur Irish ◆ James W. Irish, Jr. ◆ Douglas A. Merritt ◆ E.B. Moebus ◆ Reynolds & Chase ◆ General Jacob Schofield ◆

[•] Sidney Schofield • Allan Smith • Taconic Surveying and Engineering • D. Walcutt •

extent and the metes and bounds of both the Water Rights Area and the Easement Area that will be granted to the Village of Cold Spring.

Please place these requests on the agenda for the September 20, 2012, meeting of the Planning Board, at which time we are hopeful that the Board will grant the extension, adopt a revised resolution and sign the plat so that it can be filed on September 21st.

As always, thank you for your concern for and attention to this application.

Yours truly, BADEY & WATSON, Surveying & Engineering, P.C.

Viter by

Glennon J. Watson, L.S.

Enclosure (2)

GJW/bms cc: File 75-109B\ML05SP12BP_SubmitsAddMaterial.doc Yung & Ming-Hsien Wang, w/enclosures Stephen Gaba, Esquire/ w/enclosures Andrew Chmar, HHLT w/o enclosures Michael Englert, Esquire w/o enclosures

F `orm Letters1

BADEY & WATSON Surveying & Engineering, P.C.

PHILIPSTOWN PLANNING BOARD

TOWN OF PHILIPSTOWN, NEW YORK

RESOLUTION PPB # 6 Yung Wang & Ming-Hsien Wang 2-lot three lot subdivision. 81.108 +/-Acres of Land located on Jaycox Road. Tax Map # 38-2-27.

Wang 2-lot Subdivision

June 16, 2011

Einal Subdivision Approval

WHEREAS, Wang own a parcel totaling some 81.108 +/- of acres located on Jaycox Road in an R-40 Zoning District; and

WHEREAS, an application was made to the Planning Board of the Town of Philipstown for approval of a 2-lot subdivision; and

WHEREAS, the Planning Board has completed SEQRA review for this project; and

WHEREAS, a duly advertised public hearing on the application has been held; and

WHEREAS, referral of the application pursuant to GML §239-n has been duly made to the

County Planning Department, which has responded with approval of the project; and

WHEREAS, the Planning Board has carefully considered all of the comments raised by the public, the Board's consultants, and other interested agencies, organizations and officials; and

WHEREAS, the applicant has submitted the following materials for consideration:

Author	Title	Last Revision Date
Badey & Watson Surveying & Engineering, PC	Subdivision Plat prepared for Yung Wang & Ming-Hsien Wang	June 16, 2011
Badey & Watson Surveying & Engineering, PC	Constraints Map	March 28, 2011

WHEREAS, the Town Planning Board has been duly authorized to approve plat applications and to grant subdivision approval for property located within the Town and approve local wetlands permits; and

WHEREAS, appropriate application fees have been received by the Town.

NOW, THEREFORE, BE IT RESOLVED, that:

I. Subdivision Approval:

1) The Planning Board finds that the applicant has met the requirements of Town of Philipstown Article 112 for grant of subdivision approval; and

2) The Planning Board grants Final approval of the subdivision plat as depicted on the plans listed above and final approval subject to the following conditions:

- A. Presentation of a tracing and print of the final plat in accordance with Section 112-14C(1) of the Philipstown Code, including all required endorsements; and
- B. Signature of the Plat by the Putnam County Health Department; and
- C. To address concerns of the Planning Board, the Construction Plans shall incorporate the following:
 - A note should be added to the plans to specify that, prior to the construction of any lot improvements, an erosion/sediment control plan conforming to applicable NYS and Town Stormwater Pollution Prevention Plan (SWPPP) requirements, and including all necessary construction details required therein, acceptable to the Building Inspector and Town Engineer shall be prepared and implemented on each lot
 - Concrete Monuments should be provided where specified by the Town Engineer
 - Addition of the attached standard Plat notations on the plans
- D. Bayswater Findings - Payment of a Recreation Fee for the second and each additional residential lot in the subdivision which does not contain an existing dwelling shall be collected by the Town in an amount then in effect as of the date the plat is presented for the Chairperson's signature, which fees shall be paid prior to signing that section to be filed in the County Clerk's office. The Planning Board has determined, based upon the present and anticipated future need for parks and recreational facilities in the Town [as calculated from projected population growth to which this subdivision will contribute], that parklands should be created as a condition of approval of this subdivision. However, because parks of a size adequate to meet the Town's requirements cannot be properly located on the subdivision plat or would otherwise be impractical thereon, the Planning Board, pursuant to Section 277(4) of the Town Law of the State of New York, hereby requires that the applicant deliver payment in lieu of parkland, by cashier's check or certified check drawn to the order of the Town of Philipstown in such sum as the Town Board shall determine. In this regard, since the Town Board has promulgated Chapter 71 of the Town Code fixing the amount to be paid in lieu of dedication of parkland at

<u>\$5,000.00</u> and 00/100 Dollars for every additional lot created in a subdivision; such Recreation fee payment being <u>1</u> lots x <u>\$5,000.00</u> for a total of <u>\$5,000.00</u>. Such amount shall be paid at the time the Plat is presented for endorsement by the Planning Board Chair, and before any on site work commences or building permits are issued, unless payment shall be deferred to a later date by agreement between the applicant and the Town Board.

- E. Payment of all outstanding fees for review and approval of this application.
- 3) The Chairman is authorized as officer of the Planning Board to endorse the final plat when Conditions A through E have been met.
- 4) Pursuant to Section 112-47D(5)(e) of the Philipstown Code, conditional approval expires 180 days after the date of this resolution unless the conditions or requirements have been certified as completed. Provided, however, that the Planning Board may extend the time in which the conditionally approved plat must be submitted for signature for two (2) additional periods of ninety (90) days each.

Adopted at a meeting of the Philipstown Planning Board on June 16, 2011.

PHILIPSTOWN PLANNING BOARD

Anthony Merante, Chairman.

c: Richard Shea, Town Supervisor Kevin Donohue, Building Inspector David Klotzle, Wetlands Inspector

TOWN OF PHILIPSTOWN

SUBDIVISION NOTES FOR WANG SUBDIVISION

The following standard notes utilized by the Town of Philipstown should be placed on the subdivision plat.

- 1. Specify the datum for the Topographic information contained on the plat.
- 2. All proposed utilities shall be placed underground.
- 3. Prior to the initiation of construction the applicant or his representative will meet with the Building Inspector, Site Contractor, and/or any additional outside agencies that may have jurisdiction for a Pre-Construction Conference to review all facets of construction and required inspections.
- 4. All erosion controls are to be set in place prior to any land disturbances on the site.
- 5. Per New York State Law, the contractor shall call the Underground Facilities Protective Organization (UFPO) at 1-800-962-7962 two (2) full days prior to performing any excavation work.
- 6. All embankments are to be graded and seeded immediately upon being laid back.
- 7. Stabilized construction entrances shall be provided at all driveway entrances and shall conform to New York State Guidelines for Urban Erosion and Sediment Control.
- 8. The house and driveway locations shown hereon are not to be revised without further Planning Board approval.
- 9. In accordance with §112-15D of the Philipstown Code, the subdivider shall deliver to the Planning Board within 10 days after filing the final plat five certified copies, complete with file number and date of filing.
- 10. All areas shown by limits of disturbance shall be flagged and suitable barriers erected prior to any construction activities.
- 11. Existing stone walls on the property shall be preserved, to the maximum extent possible.

RESOLUTION ADOPTING A NEGATIVE DECLARATION UNDER SEQRA

WHEREAS, Yung Wang and Ming-Hsien Wang have applied to the Town of Philipstown Planning Board for subdivision approval pursuant to Town Code Chapter 112, Article II, for a two lot subdivision on certain real property located on Jaycox Road, Philipstown, New York in a Residential (R-40) Zoning District, and identified as Town of Philipstown Tax Map No. 38-2-27; and

WHEREAS, in regard to the proposed Subdivision application, a Long Environmental

Assessment Form -- Part 1 ("EAF") has been submitted pursuant to the New York State

Environmental Quality Review Act ("SEQRA"), and

WHEREAS, the project represents an "unlisted" action pursuant to SEQRA, and the

Planning Board has deemed itself the responsible agency for review under SEQRA;

WHEREAS, the Planning Board has duly reviewed the EAF, the public record and the latest plans filed;

NOW, THEREFORE, BE IT RESOLVED as follows:

That the Planning Board does hereby adopt the Negative Declaration attached hereto.

W. presented the foregoing resolution which was oska Jeozaro seconded by

The vote on the foregoing resolution was as follows: Kim Conner, Member, voting KONIISI Michael Gibbons, Member, vóting Servise Michael Leonard, Member, voting Kerry Meehan, Member, voting مر) 'ID Pat Sexton, Member, voting Neal Zuckerman, Member, voting no vote Anthony Merante, Chairman, voting

Adopted at a meeting of the Philipstown Planning Board on June 16, 2011.

NEGATIVE DECLARATION

Wang 2-lot Subdivision Town of Philipstown Planning Board, County of Putnam

Date: June 16, 2011

This Notice is issued pursuant to Part 617 of the implementing regulations pertaining to Article 8 (the State Environmental Quality Review Act) of the Environmental Conservation Law.

The Town of Philipstown Planning Board as Lead Agency has determined that the proposed action described below will not have potential significant harmful effects on the environment, and a Draft Environmental Impact Statement will not be prepared.

Name of Project:	Wang Subdivision
Action Type :	Unlisted
Site Location :	Jaycox Road, Town of Philipstown, N.Y.
Location :	Town of Philipstown.

Summary of Action: The action is grant of subdivision approval for a 2-lot residential subdivision of a 81.108 acre parcel.

Reasons Supporting This Determination: No significant environmental effects are associated with the proposed subdivision of the project site as per review of the EAF prepared and duly adopted herein.

Agency Address:	Town of Philipstown Planning Board
	Cold Spring, New York 10516
	Tel. No. (845) 265-5200

Contact Person: Planning Board Chairman, Anthony Merante



3063 Route 9, Cold Spring, New York 10516 (845)265-9217 (877)3.141593 (NY Toll Free) (845)265-4428 (Fax) email: info@badey-watson.com website: www.badey-watson.com Land Surveying Civil Engineering Laser Scanning GPS Surveys Site Planning Subdivisions Landscape Design

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Mary Rice, R.L.A., Consultant George A. Badey, L.S., (1973-2011)

September 6, 2012

Honorable Michael Leonard, Chairman Philipstown Planning Board 238 Main Street Cold Spring, NY 10516

RE: Application of SNK Farms, Inc. - Submission of Revised & Additional Materials

Dear Mr. Leonard and Honorable Board Members:

Attached the following documents:

- □ Site Plan prepared for SNK Farms, Inc., last revised August 27, 2012 (23 sets);
- Full Environmental Assessment Form, Part 1 and our suggested Part 2, dated September 6, 2012 (13 copies); and
- Letter from VHB Engineering, PC, dated August 27, 2012 (attached to EAF).

The plans have been revised in response to comments contained in your consultant's reports and our discussion with the Board during its meeting on August 16, 2012.

Plan revisions of particular note include:

- The addition of a traffic striping sheet to the plan set;
- The addition of reflective posts along the curb installed by the adjoining owner
- The reduction of the width of the southern entry in accordance with the recommendations of VHB Engineering, our traffic consultant.

The Full EAF is submitted in substitution of the Short Form EAF, originally submitted in response to the preliminary classification of the project we were given at the Pre-Application meeting.

Owners of the records of:

 [♦] Joseph S. Agnoli ♦ Barger & Hustis ♦ Burgess & Behr ♦ Roy Burgess ♦ Vincent Burruano ♦ Hudson Valley Engineering Company ♦ G. Radcliff Hustis ♦
 ♦ Peter R. Hustis ♦ J. Wilbur Irish ♦ James W. Irish, Jr. ♦ Douglas A. Merritt ♦ E.B. Moebus ♦ Reynolds & Chase ♦ General Jacob Schofield ♦

Please place this matter on the agenda for the September 20, 2012, meeting of the Planning Board, at which time we are hopeful that a Public Hearing will be scheduled.

As always, thank you for your concern for and attention to this application.

Yours truly, BADEY & WATSON, Surveying & Engineering, P.C.

Veter by

Glennon J. Watson, L.S.

Enclosure (3) GJW/bms cc: File 75-109B\ML05SP12BP_SubmitsAddMaterial.doc S. Kirmani, w/enclosures

File Form Letters1

BADEY & WATSON Surveying & Engineering, P.C.

FULL ENVIRONMENTAL ASSESSMENT FORM PARTS 1 & 2

for the application of **SNK FARMS**

for approval of a **SITE PLAN** ON A PARCEL CONTAINING 1.073 acres Located on **U.S. Route 9** in the **TOWN OF PHILIPSTOWN PUTNAM COUNTY NEW YORK** SEPTEMBER 6, 2012

Prepared for and at the request of THE PHILIPSTOWN PLANNING BOARD TOWN HALL 238 MAIN STREET COLD SPRING, NY 10516

Prepared and compiled by BADEY & WATSON Surveying & Engineering, P.C. 3063 Route 9 Cold Spring, NY 10516 (845) 265-9217 (V) (845) 265-4428 (F) www.Badey-Watson.com

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Environmental Assessment Form Part 1 Environmental Assessment Form Part 2 Attachments

1. Traffic Study

FULL ENVIRONMENTAL ASSESSMENT FORM PART 1

617.20 Appendix A State Environmental Quality Review FULL ENVIRONMENTAL ASSESSMENT FORM

.pose: The full EAF is designed to help applicants and agencies determine, in an orderly manner, whether a project or action may be significant. The question of whether an action may be significant is not always easy to answer. Frequently, there are aspects of a project that are subjective or unmeasurable. It is also understood that those who determine significance may have little or no formal knowledge of the environment or may not be technically expert in environmental analysis. In addition, many who have knowledge in one particular area may not be aware of the broader concerns affecting the question of significance.

The full EAF is intended to provide a method whereby applicants and agencies can be assured that the determination process has been orderly, comprehensive in nature, yet flexible enough to allow introduction of information to fit a project or action.

Full EAF Components: The full EAF is comprised of three parts:

- Part 1 Provides objective data and information about a given project and its site. By identifying basic project data, it assists a reviewer in the analysis that takes place in Parts 2 and 3.
- Part 2 Focuses on identifying the range of possible impacts that may occur from a project or action. It provides guidance as to whether an impact is likely to be considered small to moderate or whether it is a potentially-large impact. The form also identifies whether an impact can be mitigated or reduced.
- Part 3 If any impact in Part 2 is identified as potentially-large, then Part 3 is used to evaluate whether or not the impact is actually important.

THIS AREA FOR <u>L</u>	EAD AGENCY USE ONLY
DETERMINATION OF SIGNIFIC	ANCE Type 1 and Unlisted Actions
dentify the Portions of EAF completed for this project:	🖌 Part1 🖌 Part2 🗌 Part3
oon review of the information recorded on this EAF (Parts 1 and 2 unsidering both the magnitude and importance of each impact, it is	2 and 3 if appropriate), and any other supporting information, and reasonably determined by the lead agency that:
A The project will not result in any large and in significant impact on the environment, the	nportant impact(s) and, therefore, is one which will not have a erefore a negative declaration will be prepared .
B. Although the project could have a significant for this Unlisted Action because the mitigation a CONDITIONED negative declaration will	effect on the environment, there will not be a significant effect measures described in PART 3 have been required, therefore be prepared.*
C. The project may result in one or more large a environment, therefore a positive declarat	nd important impacts that may have a significant impact on the tion will be prepared.
*A Conditioned Negative Declaration is only valid for Unlis	ted Actions
Approval of a Minor Site Plan/Spec	cial Use Permit prepared for SNK Farms, Inc.
N	ame of Action
Philipsto	wn Planning Board
Nam	e of Lead Agency
Michael Leonard	Chairman
Print or Type Name of Responsible Officer in Lead Agency	Title of Responsible Officer
Signature of Responsible Officer in Lead Agency	Signature of Preparer (If different from responsible officer)
	Date
	Page 1 of 21

Please Complete Each Question- Indicate N.A. if not applicable

A. SITE DESCRIPTION

Physical setting of overall project, both developed and undeveloped areas.

1. Present Land Use: Urban Industrial Commercial	Residential (suburban)	Rural (non-farm)
Forest Agriculture V Other Constructors	vards auto repair shop. La	nds to the rear
are su	burban single family resider	itial uses
2. Total acreage of project area: 1.073 acres.		
	PRESENTLY	FTER COMPLETION
Meadow or Brushland (Non-agricultural)	0 acres	0acres
Forested	0.09 acres	.09 acres
Agricultural (Includes orchards, cropland, pasture, etc.)	0 acres	acres
Wetland (Freshwater or tidal as per Articles 24,25 of ECL)	0 acres	<u> </u>
Water Surface Area	.03 acres	03acres
Unvegetated (Rock, earth or fill)	0 acres	<u> </u>
Roads, buildings and other paved surfaces	0.81 acres	0.81 acres
Other (Indicate type) Lawns, Gardens and Landscape	<u>0.14</u> acres	0.14 acres
Tota	al <u>1.073</u> Total	1.073
a. Soil drainage: \checkmark Well drained 90 % of site \checkmark Moderately well drained 10 % of site	trained 16 % of site	
 b. If any agricultural land is involved, now many acres of soil are classified within soil group Classification System? <u>N/A</u> acres (see 1 NYCRR 370). 4. Are there bedrock outcroppings on project site? Yes No 	p 1 Through 4 of the NYS Land	
a. What is depth to bedrock $\underline{0>2'}$ (in feet)		
5. Approximate percentage of proposed project site with slopes:		
✓ 0-10% 100 % 10-15% % 15% or greater %		
6. Is project substantially contiguous to, or contain a building, site, or district, listed on the State or f	National Registers of Historic Places?	
7. Is project substantially contiguous to a site listed on the Register of National Natural Landmarks?	? Yes 🖌 No	
8. What is the depth of the water table? $0 > 5'$ (in feet)		
9. Is site located over a primary, principal, or sole source aquifer?		
10. Do hunting, fishing or shell fishing opportunities presently exist in the project area?	Yes 🔽 No	

PART 1 -- PROJECT INFORMATION Prepared by Project Sponsor

NOTICE: This document is designed to assist in determining whether the action proposed may have a significant effect on the environment. Please complete the entire form, Parts A through E. Answers to these questions will be considered as part of the application for approval and may be yiet to further verification and public review. Provide any additional information you believe will be needed to complete Parts 2 and 3.

Tt is expected that completion of the full EAF will be dependent on information currently available and will not involve new studies, research or investigation. If information requiring such additional work is unavailable, so indicate and specify each instance.

e <u>10516</u>
ie <u>10516</u>
×

Approval of a Minor Site Plan/Special Use Permit for SNK Farms, Inc., which, if approved would allow the continued use of retail sales as filling station, convenience store/deli. Approval would also allow the conversion of existing 3 bay car wash to use as light automobile repair shop (oil changes, tire changes, wiper blade replacement).

•

1?		Yes	No
	L		

According to:

dentify each species:		
	N/A	
e there any unique or unusual land fo	ms on the project site? (i.e., cliffs, dunes, other geological formations?	
Yes 🔽 No		
Describe:		
	N/A	
		·
	community or neighborhood as an open space or recreation area?	
Yes No		
	N/A	
bes the present site include scenic view	As known to be important to the community?	
	N/A	
reams within or contiguous to project	area:	
	Ies	
a. Name of Stream and name of Rive	r to which it is tributary	·
Clove Creek runs through	rear of property. It is tributary to the Fishkill Creek, which is tributary to th	a Hudeon Div
Clove Creek runs un ough	No activity is proposed within 50' of Creek.	
akes, ponds, wetland areas within or co	intiguous to project area:	
	NONE	
		·
b, Size (in acres):		
,		

17. Is the site served by existing public utilities? Xes No	
a) If Yes, does sufficient capacity exist to allow connection? X Yes 🗌 No	
b) If Yes, will improvements be necessary to allow connection?	
18. Is the site located in an agricultural district certified pursuant to Agriculture and Markets law, Article 25-AA, Section 303 and 304?	
19. Is the site located in or substantially contiguous to a Critical Environmental Area designated pursuant to Article 8 of the ECL, and 6 NYCRR 617?	
20. Has the site ever been used for the disposal of solid or hazardous wastes? \square Yes $~$ No	
B. PROJECT DESCRIPTION 1. Physical dimensions and scale of project (fill in dimensions as appropriate)	
a. Total contiguous acreage owned or controlled by project sponsor 1.07 acres	
b. Project acreage to be developed: .81 already developed acres initially; .81 already developed acres ultimately.	
a Project acreage to remain undeveloped 0.26 acres	
d. Length of project, in miles:NA (if appropriate)	
e. If the project is an expansion, indicate percent of expansion proposed? NA %	
f. Number of off-street parking spaces existing 10 , proposed 13	
g. Maximum vehicular trips generated per hour156 (upon completion of project)?	
h. If residential: Number and type of housing units:	
One Family Two Family Muttiple Family Condominium	
Initially NA NA NA NA	
Ultimately NA NA NA NA	
i. Dimensions (in feet) of largest proposed structureNAheight;NAwidth;NAlength.	
j. Linear feet of frontage along a public thoroughfare project will occupy is?ft.	
2. How much natural material (i.e. rock, earth, etc.) will be removed from the site? ZERO tons/cubic yards?	
3 Will disturbed areas be reclaimed 2. \mathbf{N} Vec. \mathbf{N} N/A	
a. If yes, for what intended purpose is the site being reclaimed?	
h Will topsoil be stockoiled for reclamation? X Yes No	
c. Will upper subsoil be stockpiled for reclamation? X Yes No	
How many acres of vegetation (trees, shrubs, ground covers) will be removed from site?	

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5. Will any mature forest (over 100 years old) or other locally-important vegetation be removed by this project?
6. If single phase project: Anticipated period of construction: <u>6</u> months, (including demolition)
7. If multi-phased:
a. Total number of phases anticipated NA (number)
b. Anticipated date of commencement phase 1: <u>NA</u> month <u>NA</u> year, (including demolition)
c. Approximate completion date of final phase: <u>NA</u> month <u>NA</u> year.
d. Is phase 1 functionally dependent on subsequent phases?
8. Will blasting occur during construction?
9. Number of jobs generated: during construction5, after project is complete5
10. Number of jobs eliminated by this project
11. Will project require relocation of any projects or facilities? Yes 📈 No
If yes, explain:
N/A
12. Is surface liquid waste disposal involved?
a. If yes, indicate type of waste (sewage, industrial, etc) and amountNA
b. Name of water body into which effluent will be discharged NA
13. Is subsurface liquid waste disposal involved? Ves No Type Human Waste, system in place
14. Will surface area of an existing water body increase or decrease by proposal? Ves V
If yes, explain:
N/A
15. Is project or any portion of project located in a 100 year flood plain? Yes No
16. Will the project generate solid waste? Xes No
a. If yes, what is the amount per month? tons
b. If yes, will an existing solid waste facility be used? 📝 Yes 🗌 No
c. If yes, give name Commercial Carting , location unknown
d. Will any wastes not go into a sewage disposal system or into a sanitary landfill? Ves 🔲 No

Recyclables will be segregated for that purpose. Waste oil will be collected and removed by licensed contractor
17. Will the project involve the disposal of solid waste?
a. If yes, what is the anticipated rate of disposal? NA tons/month.
b. If yes, what is the anticipated site life? <u>NA</u> years.
18. Will project use herbicides or pesticides?
19. Will project routinely produce odors (more than one hour per day)? 🗌 Yes 📈 No
20. Will project produce operating noise exceeding the local ambient noise levels?
21. Will project result in an increase in energy use? Ves 🗌 No
If yes, indicate type(s)
Minor increase in consumption of heating fuel, electricity
22. If water supply is from wells, indicate pumping capacity 5 (in place) gallons/minute.
23. Total anticipated water usage per day 550 includes existing demand gallons/day.
24. Does project involve Local, State or Federal funding? Ves 📈 No
If yes, explain:
N/A

25. Approvals Required:

City, Town, Village Board	Yes	No No	Туре	Submittal Date
City, Town, Village Planning Board	Ves	No	Site Plan/Special Use Permit	5/3/2012
City, Town Zoning Board	Yes	VN NO		
City, County Health Department	Yes	No		
Other Local Agencies	Ves	No	County 239 Referral	7/6/2012
Other Regional Agencies	Yes	No 🔽		
State Agencies	Ves	No	NYSDOT Highway Work	TBD
Federal Agencies	U Yes	No No		
C. ZONING AND PLANNING INF	ORMATION			
1. Does proposed action involve a planning or a	oning decision?	Ves No		
If Yes, indicate decision required:				
Zoning amendment	Zoning v	variance	New/revision of master plan	Subdivision
Site plan	Special C	use permit	Resource management plan	Other

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HM (Hamlet mixed use)

3. What is the maximum potential development of the site if developed as permitted by the present zoning?

0.7 acres (30,300 s.f.) of lot coverage, 10,000 square feet of building footpring

4. What is the proposed zoning of the site?

No change proposed

5. What is the maximum potential development of the site if developed as permitted by the proposed zoning?

No change proposed

No

6. Is the proposed action consistent with the recommended uses in adopted local land use plans? \overline{V} Yes

7. What are the predominant land use(s) and zoning classifications within a 1/4 mile radius of proposed action?

Uses along Route 9 is a mix of retail and commercia redi-mix yard. Uses to the rear of the property that use lots on	l (semi-industrial) e other roads for a 1 to 2 acres+ lots.	uses such as a contractor's ccess are suburban type si	yard and concrete ngle family residential
8. Is the proposed action compatible with adjoining/surrounding land uses with a	1/4 mile? 🖌 Yes	No	
9. If the proposed action is the subdivision of land, how many lots are proposed?		N/A	
a. What is the minimum lot size proposed?	N/A		

Page 9 of 21

li propose	d action require any authorizati	n(s) for the formation of sewer o	>r water districts? Yes	√ No	
i the prop	oosed action create a demand f	or any community provided serv	ices (recreation, education, (police, fire protection?	
Yes	No No				
a. If yes, is	s existing capacity sufficient to h	andle projected demand? 👿	Yes No		
_					
_					
II the prop	osed action result in the genera	ion of traffic significantly above p	resent levels?		

D. INFORMATIONAL DETAILS

Attach any additional information as may be needed to clarify your project. If there are or may be any adverse impacts associated with your proposal, please discuss such impacts and the measures which you propose to mitigate or avoid them.

E. VERIFICATION

I certify that the information provided above is true to the best of my knowledge.

Applicant/Sponsor Name SNUE Farms, Inc.	Date 9/5/2012
Signature	
Title Surveyor for Applicant	

If the action is in the Coastal Area, and you are a state agency, complete the Coastal Assessment Form before proceeding with this assessment.

FULL ENVIRONMENTAL ASSESSMENT FORM PART 2

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PART 2 - PROJECT IMPACTS AND THEIR MAGNITUDE Responsibility of Lead Agency

Suggested by Badey & Watson September 5, 2012

Adopted Date

Recommended Date _____ by ____ (int.)

by

reral Information (Read Carefully)

In completing the form the reviewer should be guided by the question: Have my responses and determinations been reasonable? The reviewer is not expected to be an expert environmental analyst.

- In the Examples provided are to assist the reviewer by showing types of impacts and wherever possible the threshold of magnitude that would trigger a response in column 2. The examples are generally applicable throughout the State and for most situations. But, for any specific project or site other examples and/or lower thresholds may be appropriate for a Potential Large Impact response, thus requiring evaluation in Part 3.
- ! The impacts of each project, on each site, in each locality, will vary. Therefore, the examples are illustrative and have been offered as guidance. They do not constitute an exhaustive list of impacts and thresholds to answer each question.
- ¹ The number of examples per question does not indicate the importance of each question.
- In identifying impacts, consider long term, short term and cumulative effects.

Instructions (Read carefully) a.

b.

1.1

- ¹ Answer each of the 20 questions in PART 2. Answer Yes if there will be any impact. Maybe answers should be considered as Yes answers.
- c If answering Yes to a question then check the appropriate box (column 1 or 2) to indicate the potential size of the impact. If impact threshold equals or exceeds any example provided, check column 2. If impact will occur but threshold is lower than example, check 1.
- d. Identifying that an Impact will be potentially large (column 2) does not mean that it is also necessarily significant. Any large impact must be evaluated in PART 3 to determine significance. Identifying an impact in column 2 simply asks that it be looked at further.
- e. If reviewer has doubt about size of the impact then consider the impact as potentially large and proceed to PART 3.
- f. If a potentially large impact checked in column 2 can be mitigated by change(s) in the project to a small to moderate impact, also check the Yes box in column 3. A No response indicates that such a reduction is not possible. This must be explained in Part 3.

IMPACT ON LAND	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change
Vill the Proposed Action result in a physical change to the project site? NO \checkmark YES \square			
Examples that would apply to column 2			
Any construction on slopes of 15% or greater, (15 foot rise per 100 foot of length), or where the general slopes in the project area exceed 10%.			Yes No
Construction on land where the depth to the water table is less than 3 feet.			Yes No
Construction of paved parking area for 1,000 or more vehicles.			Yes No
Construction on land where bedrock is exposed or generally within 3 feet of existing ground surface.			Yes No
Construction that will continue for more than 1 year or involve more than one phase or stage.			Yes No
Excavation for mining purposes that would remove more than 1,000 tons of natural material (i.e., rock or soil) per year.			Yes No

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change
Construction or expansion of a sanitary landfill.			Yes No
Construction in a designated floodway.			Yes No
Other impacts:			Yes No
Mill there be an effect to any unique or unusual land forms found on the site? (i.e., cliffs, dunes, geological formations, etc.) Image: No YES Specific land forms:			Yes No
<u>IMPACT ON WATER</u> Will Proposed Action affect any water body designated as protected? (Under			
Articles 15, 24, 25 of the Environmental Conservation Law, ECL)			
Developable area of site contains a protected water body.			Yes N
Dredging more than 1 00 cubic yards of material from channel of a protected stream.			Yes N
Extension of utility distribution facilities through a protected water body.			Yes N
Construction in a designated freshwater or tidal wetland.			
Other impacts:			Yes [] N
Will Proposed Action affect any non-protected existing or new body of water?			
V NO LYES			
Examples that would apply to column 2			
A 10% increase or decrease in the surface area of any body of water or more than a 10 acre increase or decrease.			Yes I
			Yes I
Construction of a body of water that exceeds 10 acres of surface area.			

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change
5. Will Proposed Action affect surface or groundwater quality or quantity?			
V NO YES			
Examples that would apply to column 2			
Proposed Action will require a discharge permit.			Yes No
Proposed Action requires use of a source of water that does not have approval to serve proposed (project) action.			Yes No
Proposed Action requires water supply from wells with greater than 45 gallons per minute pumping capacity.			Yes No
Construction or operation causing any contamination of a water supply system.			Yes No
Proposed Action will adversely affect groundwater.			Yes No
Liquid effluent will be conveyed off the site to facilities which presently do not exist or have inadequate capacity.			Yes No
Proposed Action would use water in excess of 20,000 gallons per day.			Yes No
Proposed Action will likely cause siltation or other discharge into an existing body of water to the extent that there will be an obvious visual contrast to natural conditions.			Yes No
Proposed Action will require the storage of petroleum or chemical products greater than 1,100 gallons.			Yes No
Proposed Action will allow residential uses in areas without water and/or sewer services.			Yes No
Proposed Action locates commercial and/or industrial uses which may require new or expansion of existing waste treatment and/or storage facilities.			Yes No
Other impacts:			Yes No

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change
Vill Proposed Action alter drainage flow or patterns, or surface water run off?			
Examples that would apply to column 2	_		
Proposed Action would change flood water flows			└── Yes └── No
Proposed Action may cause substantial erosion.			Yes No
Proposed Action is incompatible with existing drainage patterns.			Yes No
Proposed Action will allow development in a designated floodway.			Yes No
Other impacts:			Yes No
IMPACT ON AIR Mill Proposed Action affect air quality? NO YES			
Examples that would apply to column 2			
Proposed Action will induce 1,000 or more vehicle trips in any given hour.			Yes No
Proposed Action will result in the incineration of more than 1 ton of refuse per hour.			Yes No
Emission rate of total contaminants will exceed 5 lbs. per hour or a heat source producing more than 10 million BTU's per hour.			Yes No
Proposed Action will allow an increase in the amount of land committed to industrial use.			Yes No
Proposed Action will allow an increase in the density of industrial development within existing industrial areas.			Yes 🗌 No
Other impacts:			Yes No
IMPAÇT ON PLANTS AND ANIMALS			

8. Will Proposed Action affect any threatened or endangered species?

VNO VES

Examples that would apply to column 2

Reduction of one or more species listed on the New York or Federal list, using the site, over or near the site, or found on the site.

	1	2	3
	Small to Moderate Impact	Potential Large Impact	Can Impact Be Mitigated by Project Change
Removal of any portion of a critical or significant wildlife habitat.			Yes No
Application of pesticide or herbicide more than twice a year, other than for agricultural purposes.			Yes No
Other impacts:			Yes No
Will Proposed Action substantially affect non-threatened or non-endangered species?			
V NO YES			
Examples that would apply to column 2 Proposed Action would substantially interfere with any resident or migratory fish, shellfish or wildlife species.			Yes No
Proposed Action requires the removal of more than 10 acres of mature forest (over 100 years of age) or other locally important vegetation.			Yes No
Other impacts:			Yes No
IMPACT ON AGRICULTURAL LAND RESOURCES			
). Will Proposed Action affect agricultural land resources?			
Examples that would apply to column 2			
The Proposed Action would sever, cross or limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc.)			Yes No
Construction activity would excavate or compact the soil profile of agricultural land.			Yes No
The Proposed Action would irreversibly convert more than 10 acres of agricultural land or, if located in an Agricultural District, more than 2.5 acres of agricultural land.			Yes No

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change
The Proposed Action would disrupt or prevent installation of agricultural land management systems (e.g., subsurface drain lines, outlet ditches, strip cropping); or create a need for such measures (e.g. cause a farm field to drain poorly due to increased runoff).			Yes No
Other impacts:			Yes No
IMPACT ON AESTHETIC RESOURCES 11. Will Proposed Action affect aesthetic resources? (If necessary, use the Visual EAF Addendum is Section (17.00, Amendu B.)			
$\mathbf{N} = \mathbf{N} \mathbf{N} \mathbf{N} \mathbf{N} \mathbf{N} \mathbf{N} \mathbf{N} \mathbf{N}$			
Examples that would apply to column 2			
Proposed land uses, or project components obviously different from or in sharp contrast to current surrounding land use patterns, whether man-made or natural.			Yes No
Proposed land uses, or project components visible to users of aesthetic resources which will eliminate or significantly reduce their enjoyment of the aesthetic qualities of that resource.			Yes No
Project components that will result in the elimination or significant screening of scenic views known to be important to the area.			Yes No
Other impacts:			Yes No
IMPACT ON HISTORIC AND ARCHAEOLOGICAL RESOURCES			
12. Will Proposed Action impact any site or structure of historic, prehistoric or paleontological importance?			
V NO YES			
Examples that would apply to column 2			
Proposed Action occurring wholly or partially within or substantially contiguous to any facility or site listed on the State or National Register of historic places.			Yes No
Any impact to an archaeological site or fossil bed located within the project site.			Yes No
Proposed Action will occur in an area designated as sensitive for archaeological sites on the NYS Site Inventory.			Yes No

	1 Small to Moderate Impact	2 Potential Large Impact	Can Impact Be Mitigated by Project Change
Other impacts:			Yes
IMPACT ON OPEN SPACE AND RECREATION Il proposed Action affect the quantity or quality of existing or future open spaces recreational opportunities?			
\bigvee NO \square YES			
xamples that would apply to column 2			
The permanent foreclosure of a future recreational opportunity.			Yes
A major reduction of an open space important to the community.	,		Yes
Other impacts:			Yes
IMPACT ON CRITICAL ENVIRONMENTAL AREAS			
IMPACT ON CRITICAL ENVIRONMENTAL AREAS Ill Proposed Action impact the exceptional or unique characteristics of a critical wironmental area (CEA) established pursuant to subdivision 6 NYCRR 617.14(g)? NO YES			
IMPACT ON CRITICAL ENVIRONMENTAL AREAS fill Proposed Action impact the exceptional or unique characteristics of a critical nvironmental area (CEA) established pursuant to subdivision 6 NYCRR 617.14(g)? NO YES List the environmental characteristics that caused the designation of the CEA.			
IMPACT ON CRITICAL ENVIRONMENTAL AREAS ill Proposed Action impact the exceptional or unique characteristics of a critical invironmental area (CEA) established pursuant to subdivision 6 NYCRR 617.14(g)? NO YES List the environmental characteristics that caused the designation of the CEA.			
IMPACT ON CRITICAL ENVIRONMENTAL AREAS Ill Proposed Action impact the exceptional or unique characteristics of a critical ivironmental area (CEA) established pursuant to subdivision 6 NYCRR 617.14(g)? ND YES List the environmental characteristics that caused the designation of the CEA. Examples that would apply to column 2			
IMPACT ON CRITICAL ENVIRONMENTAL AREAS III Proposed Action impact the exceptional or unique characteristics of a critical wironmental area (CEA) established pursuant to subdivision 6 NYCRR 617.14(g)? Image: ND YES List the environmental characteristics that caused the designation of the CEA. Examples that would apply to column 2 Proposed Action to locate within the CEA?			
IMPACT ON CRITICAL ENVIRONMENTAL AREAS II Proposed Action impact the exceptional or unique characteristics of a critical wironmental area (CEA) established pursuant to subdivision 6 NYCRR 617.14(g)? IV NO YES List the environmental characteristics that caused the designation of the CEA. Examples that would apply to column 2 Proposed Action to locate within the CEA? Proposed Action will result in a reduction in the quantity of the resource?			Yes
IMPACT ON CRITICAL ENVIRONMENTAL AREAS II Proposed Action impact the exceptional or unique characteristics of a critical vironmental area (CEA) established pursuant to subdivision 6 NYCRR 617.14(g)? IV NO YES List the environmental characteristics that caused the designation of the CEA. Examples that would apply to column 2 Proposed Action to locate within the CEA? Proposed Action will result in a reduction in the quantity of the resource? Proposed Action will result in a reduction in the quality of the resource?			Yes
IMPACT ON CRITICAL ENVIRONMENTAL AREAS III Proposed Action impact the exceptional or unique characteristics of a critical wironmental area (CEA) established pursuant to subdivision 6 NYCRR 617.14(g)? III Proposed Action impact the exceptional or unique characteristics of a critical wironmental area (CEA) established pursuant to subdivision 6 NYCRR 617.14(g)? III Proposed Action impact the exceptional or unique characteristics of a critical wironmental area (CEA) established pursuant to subdivision 6 NYCRR 617.14(g)? III Proposed Action mental characteristics that caused the designation of the CEA. Examples that would apply to column 2 Proposed Action to locate within the CEA? Proposed Action will result in a reduction in the quantity of the resource? Proposed Action will result in a reduction in the quality of the resource? Proposed Action will result in a reduction or enjoyment of the resource?			☐ Yes ☐ Yes ☐ Yes

	1 Smail to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change
IMPACT ON TRANSPORTATION			
Will there be an effect to existing transportation systems? NO YES			
Examples that would apply to column 2			
Alteration of present patterns of movement of people and/or goods.			Yes No
Proposed Action will result in major traffic problems.			Yes No
Other impacts:	\checkmark		Yes No
Potential increase in site traffic and conflicts at entry points. See report of VHB Engineering byJohn Canning, PE dated August 27,	, 2012.		
IMPACT ON ENERGY			
Will Proposed Action affect the community's sources of fuel or energy supply?			
VID YES			
Examples that would apply to column 2			
Proposed Action will cause a greater than 5% increase in the use of any form of energy in the municipality.			Yes No
Proposed Action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two family residences or to serve a major commercial or industrial use.			Yes No
Other impacts:			Yes No
NOISE AND ODOR IMPACT			
Will there be objectionable odors, noise, or vibration as a result of the Proposed Action?			
ND THES			
Examples that would apply to column 2			
			Yes No
Blasting within 1,500 feet of a hospital, school or other sensitive facility.			
Blasting within 1,500 feet of a hospital, school or other sensitive facility. Odors will occur routinely (more than one hour per day).			Yes No
Blasting within 1,500 feet of a hospital, school or other sensitive facility. Odors will occur routinely (more than one hour per day). Proposed Action will produce operating noise exceeding the local ambient noise levels for noise outside of structures.			Yes No
 Blasting within 1,500 feet of a hospital, school or other sensitive facility. Odors will occur routinely (more than one hour per day). Proposed Action will produce operating noise exceeding the local ambient noise levels for noise outside of structures. Proposed Action will remove natural barriers that would act as a noise screen. 			Yes No Yes No Yes No
	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change
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IMPACT ON PUBLIC HEALTH			
ro. Will Proposed Action affect public health and safety?			
NO MES	_		
Proposed Action may cause a risk of explosion or release of hazardous substances (i.e. oil, pesticides, chemicals, radiation, etc.) in the event of accident or upset conditions, or there may be a chronic low level discharge or emission.			Yes No
Proposed Action may result in the burial of "hazardous wastes" in any form (i.e. toxic, poisonous, highly reactive, radioactive, initating, infectious, etc.)			Yes No
Storage facilities for one million or more gallons of liquefied natural gas or other flammable liquids.			Yes No
Proposed Action may result in the excavation or other disturbance within 2,000 feet of a site used for the disposal of solid or hazardous waste.			Yes No
Other impacts:			Yes No
IMPACT ON GROWTH AND CHARACTER OF COMMUNITY OR NEIGHBORHOOD 19. Will Proposed Action affect the character of the existing community? NO YES			
Examples that would apply to column 2 The permanent population of the city, town or village in which the project is located is likely to grow by more than 5%.			Yes No
The municipal budget for capital expenditures or operating services will increase by more than 5% per year as a result of this project.			Yes No
Proposed Action will conflict with officially adopted plans or goals.			Yes No
Proposed Action will cause a change in the density of land use.			Yes No
Proposed Action will replace or eliminate existing facilities, structures or areas of historic importance to the community.			Yes No
Development will create a demand for additional community services (e.g. schools, police and fire, etc.)			Yes No

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Channe
Proposed Action will set an important precedent for future projects.			Yes No
roposed Action will create or eliminate employment.			Yes No
Other impacts:			Yes No

20. Is there, or is there likely to be, public controversy related to potential adverse environment impacts?

NO YES

If Any Action in Part 2 Is Identified as a Potential Large Impact or If you Cannot Determine the Magnitude of Impact, Proceed to Part 3

Part 3 - EVALUATION OF THE IMPORTANCE OF IMPACTS

Responsibility of Lead Agency

Part 3 must be prepared if one or more impact(s) is considered to be potentially large, even if the impact(s) may be mitigated.

Instructions (If you need more space, attach additional sheets)

Discuss the following for each impact identified in Column 2 of Part 2:

1. Briefly describe the impact.

2. Describe (if applicable) how the impact could be mitigated or reduced to a small to moderate impact by project change(s).

3. Based on the information available, decide if it is reasonable to conclude that this impact is important.

To answer the question of importance, consider:

- ! The probability of the impact occurring
- ! The duration of the impact
- ! Its irreversibility, including permanently lost resources of value
- ! Whether the impact can or will be controlled
- ! The regional consequence of the impact
- ! Its potential divergence from local needs and goals
- ! Whether known objections to the project relate to this impact.

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ATTACHMENT 1 TRAFFIC STUDY prepared by VHB Engineering, Surveying, and Landscape Architecture, P.C. August 27, 2012



VHB Engineering, Surveying and Landscape Architecture, P.C. Affiliated with Vanasse Hangen Brustlin, Inc.

Planning Transportation Land Development Environmental

August 27, 2012

Ref: 28812.00

Mr. Glennon J. Watson, LS Badey & Watson Surveying & Engineering, P.C. 3063 Route 9 Cold Spring, NY 10516

Re: Kirmani – Gas Station and Ancillary Activities 3188 Route 9 North Highland, NY

Dear Mr. Watson:

I am a professional engineer, licensed to practice in the State of New York and have over 20 years of traffic engineering and transportation planning experience. I was also the engineer responsible for the design of the traffic signal at the intersection of Fishkill Road with US Route 9 by the subject site.

I have visited the site and am familiar with its surroundings. I have also reviewed the following documents relating to the above project for issues relating to traffic and parking:

- Existing Conditions Plan (sheet 1 of 4), prepared by Badey & Watson, last revised 8/27/12;
- Site Layout & Planting Plan (sheet 2 of 4), prepared by Badey & Watson, revised 8/27/12;
- Pavement Striping (sheet 3 of 4), prepared by Badey & Watson, last revised 8/27/12;
- Site Details (sheet 4 of 4), prepared by Badey & Watson, last revised 8/27/12;
- Review Memorandum, prepared by AKRF, dated July 23, 2012;
- Site Walk Memorandum, prepared by Ronald J. Gainer, P.E., PLLC, dated July 23, 2012;
- Review Memorandum, prepared by Ronald J. Gainer, P.E., PLLC, dated July 24, 2012;

50 Main Street, Suite 360 White Plains, New York 10606 914.761.3582 = FAX 914.761.3759 email: info@vhb.com www.vhb.com

A. Existing Conditions

The subject site is currently developed as a gas station which has a convenience store and a 3-bay car wash as ancillary activities. Access to US Route 9 is provided by two driveways (both of which permit traffic to enter and exit), one unsignalized driveway at the south end of the site and the second driveway at the north end of the site. The driveway at the north end of the site is opposite to but offset by 19 feet from Fishkill Road. The intersection of Fishkill Road is controlled by a traffic signal (installed within the past couple of years) but there is no signal indication facing vehicles exiting the gas station. The stop line on northbound US Rout 9 is just to the south of the site's north driveway, preventing queued vehicles on US Route 9 from blocking the driveway and allowing vehicles to enter and exit the site during the Fishkill Road portion of the signal phase. A third access point connects the property to the abutting property to the south. The tank filling caps are located on the south side of the site adjacent to this cross access driveway.

The site has been used as a gas station for approximately 20 years and the ancillary convenience store and car wash were added somewhat more recently. Operation of the car wash has recently become intermittent due to issues not relating to traffic. When in use, cars visiting the car wash would go around the back of the building and form a queue. After entering the car wash bays and being washed, they would exit the front of the building and depart. A total of approximately 10 parking spaces are stripped along the north side of the building and along the northern half of the front of the building.

B. Proposed Action

It is proposed to replace the three car-wash bays with three automobile light repair bays (oil, tire and similarly simple service). This capital investment also provides an opportunity to make some other minor changes to the Site Plan to improve the site's operation. Specifically, it is proposed to:

- Provide a loading zone and delivery and auto-service queuing/circulation lanes around the rear of the building;
- Provide delineators to identify a raised curb which runs along the bulk of the south side of the property; and
- Restripe the site with 13 parking spaces.

C. Potential Traffic Impacts

Traffic count data for Self-Service Car Washes (Land Use Code 947), Quick Lube Vehicle Shops (Land Use Code 941) and Automobile Care Centers (Land Use Code 942), which have been compiled by the Institute of Transportation Engineers (ITE) and are presented in their publication, *Trip Generation*, 8th Edition, indicate that the proposal to convert the 3 car wash bays to 3 automobile light service repair bays will result in a reduction of the site's trip generation potential.

A review of the data, which are attached, indicates that Self-Service Car Wash facilities generate between 1.1 and 3.2 times more traffic than Quick Lube Vehicle Shops during all times for which data is available and that, over the course of an entire week, Self-Service Car Washes generate 2.8 times more traffic than Quick Lube Vehicle Shops.

A review of the attached data also indicates that Self-Service Car Wash facilities generate between 2.6 and 10.6 times more traffic than Automobile Care Centers during all times for which data is available and that, on average, Self-Service Car Washes generate 5.1 times more traffic than Automobile Care Centers.

Since the site is developed with and the Applicant has the right to operate the existing 3-bay, self-serve car wash, it is, therefore, concluded that the proposed conversion of the bays for use as automobile light service repair bays will result in an overall reduction of the Site's traffic potential (estimated at 35 and 60 percent).

Based on available ITE data (also attached), it is calculated that the existing service station and convenience store generate a maximum of 138 trips in the busiest hour of the day. Assuming that 15 percent of the automobile repair customers will decide to get some quick auto repair work done when they stop for gas, it is projected that the 3 auto-repair bays will add a maximum of 18 trips to the gas station and convenience store traffic, a 13 percent increase over existing conditions, where the car wash is not in operation. This is substantially fewer than the maximum 53 trips which the 3-bay car wash would add in its busiest hour.

The empirical data indicate that the conversion of the 3 bays from car wash to auto repair will reduce the site's traffic potential and since the auto-repair-related traffic activity will be just a small component of Site activity, it is concluded that the proposed action will not have any significant adverse traffic impacts.

A review of the Site Plan indicates that the new circulation patterns, including signing and pavement markings directing car-care customers and deliveries around the back of the building, will provide improved traffic circulation over the existing conditions. Providing separate, designated paths for various on-site activities, such as deliveries and the auto service component of the business (which are predominantly all in the same direction of flow) will substantially simplify on-site operations, resulting in a safer driving environments. Fuel deliver vehicles will no longer back out of the site onto US 9. Striping at the site driveways will provide better-defined/separated travel paths for entering and exiting vehicles.

The revised plans will also increase the number of striped parking spaces from 10 to 13 (with employee parking confined to the rear of the building), and, with the installation of new bollards, will eliminate a condition wherein access to and from the vehicle fueling position closest to the building parking conflicted with the door exiting the building.

D. Response to Comments

7/23/12 AKRF Memorandum

Comment: The proposed addition of oil change services and the improvements to the existing gas filling station/retail store would likely cause an increase in the volume of traffic to the property.

Response: While the proposed addition of oil change services and other improvements would modestly increase the volume of traffic to the property with the existing car-wash facility closed, the proposed action actually results in a reduction in the site's traffic potential with the car wash operational (a much greater reduction than the modest increase).

Comment: The proposed improvements will change the vehicular and pedestrian circulation patterns on the site.

Response: The proposed parking and circulation improvements will better define and separate various activities on the site, thereby improving conditions.

Comment: The proposed additional service would introduce a new vehicular flow to a site with complex and undirected vehicular flow pattern.

Response: It is proposed to replace an existing, approved service with similarly-operating service which has a lower traffic potential. The proposed new striping will provide direction to this flow pattern.

Comment: Existing site complexities which would be exacerbated include the operation of the site's north driveway, cross access with the property to the south, confusing on-site circulation, unpredictable pedestrian movements, high speed of entering traffic, deliveries.

Response: The reviewer's comments create an image of the gas station as a veritable safety hazard ("hazardous, dangerous, confusing, unpredictable"). In point of fact, the gas station has been in operation, pretty much in its present configuration, for almost 20 years and is presently one of the most successful businesses in the North Highland community. The current and former owners have testified that there have been no accidents at the property that they can recall. Absent any evidence of actual patterns of safety incidents, it is reasonable to conclude that reducing the site's long-term traffic potential while approving a modest increase in traffic activity in the near term, along with implementing other measures to improve site circulation, will permit the site to continue to operate safely and successfully in the future.

In response to specific concerns, it is noted that the location of the stop line on northbound US Route 9, which is south of the north driveway, makes it easier for motorists to enter and, particularly, exit the site at that location. What little cross traffic activity there is between the site and the property to the south occurs and very low speeds and poses little, if any, risk to anyone. Striping is now proposed to improve and better define on-site pedestrian and vehicular circulation. Fuel deliveries are infrequent, can be scheduled for off hours and where fuel transfer occurs will not change appreciably as a result of the proposed action. The curb cut on the south US Route 9 driveway is proposed to be reduced from 36 to 33 feet which will have the effect of reducing the speed at which vehicles enter the site, albeit modestly. Reflective delineators are proposed to rectify a deficient site condition along that portion of the northern border of the property immediately abutting to the south. These delineators will alert motorists who might try to drive between the two properties to the presence of a raised curb.

Comment: The Applicant should refer to the Putnam County Main Street Partnership Planning Study for guidance.

Response: The Putnam County Main Street Partnership Planning Study was reviewed and its recommendations are laudable. However, the cost of implementing the Study's improvements may be beyond the ability of the subject project to support, particularly in light of the scale of the proposed site improvements. The site improvements will not preclude the future implementation of the plan's recommendations.

Comment: The Applicant's traffic engineer should propose potential improvements at the north access point.

Response: Absent any evidence to suggest that the north access point is not functioning satisfactorily, and considering the scale of the proposed project which will actually reduce the site's traffic potential, no changes to the north access point, other than minor striping or curb improvements, are proposed. Establishing a one-way traffic pattern, enter-only at the north access point and exit-only at the south access point, which would make it significantly more difficult to exit the site safely, is not recommended.

7/23/12 Site Walk Through Memorandum

Comment: The site plans should be revised to illustrate vehicle travel paths and queuing for the auto service bays with access to the bays from the rear and with vehicles exiting through the front garage doors.

Response: The site plans have been revised accordingly.

Comment: The applicant should review whether a one-way traffic flow configuration, making one access in-only and the second access exit-only, would be beneficial for the site.

Response: After review, it is concluded that making a one-way traffic flow configuration would not be beneficial to the site. Making an entrance-only at the north access point and an exit-only at the south access point would make it significantly more difficult to exit the site safely. Making an exit-only at the north access point and an entrance-only at the south access point would make it significantly more difficult for Fishkill Road traffic to enter the site. Both driveways are proposed to be striped with stop lines and double yellow lines to better define entering and exiting movements thereat.

Comment: The handicapped parking spaces on the 7/12/12 site plan are too close to the gas pumps and should be moved elsewhere.

Response: The handicapped parking spaces have been relocated as shown on the revised site plans.

Comment: Revised delivery procedures and hours of operation should be considered

Response: The site plan has been revised to direct delivery vehicles to the rear of the site and the owner has indicated that he will request overnight fuel deliveries or, when overnight deliveries are not feasible, will specify that daytime deliveries take place between the hours of 10:00 a.m. and 2:00 p.m.

Comment: The Board reviewed the curbing and landscaping improvements to be done at the internal lot access between Philipstown Square and the gasoline station sites, and felt that this would provide the necessary improvements to make this safe.

Response: Comment noted. Delineators have subsequently been added to the plan to better identify the curbing.

Comment: The County's recommendations for the area of NYS Route 9 & Fishkill Road could be of interest in the Board's review of the Site Plan.

Response: See the response to the corresponding AKRF comment.

7/24/12 Ronald J. Gainer, P.E., PLLC Memorandum

Comment: The plans should review parking layout and access circulation within the site, reconfiguration of the auto repair use building ingress and egress, and pavement delineation/lanes/arrows to direct customers through the site to support the circulation intended.

Response: The plans have been revised to reflect the enumerated items, which are described in more detail above.

Comment: Off-street loading occurring for the convenience store and layout for the gasoline delivery vehicles should be identified on the site plan. Further any commitments by the applicant to require gasoline deliveries on off-peak hours should be specified.

Response: The plans have been revised to reflect directional striping for loading and deliveries, and the applicant should specify commitments, if any, to require gasoline deliveries during off-peak hours.

Comment: It would appear appropriate to require technical quantification of the additional traffic which may be expected for the proposed auto repair use, as well as expected hours of operation.

Response: The proposed automobile light repair component of the business is projected to add, at most, 18 trips to the surrounding roadways during the peak hours. This is just a modest increase over the traffic activity associated with the gas station and convenience store and is considerably less than the traffic which would be generated by an active 3-bay, self-serve car wash. It is, therefore, concluded that no mitigations are warranted as no environmental concerns will result from the change in use.

I trust that this information will assist you. Should you require any additional information or clarification, please do not hesitate to contact me.

Very truly yours,

VHB Engineering, Surveying and Landscape Architecture, P.C.

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John Canning, P.E.

TRIP GENERATION An ITE Informational Report

8th Edition • Volume 3 of 3

Trip Generation Rates, Plots and Equations

- Institutional (Land Uses 500 599)
- Medical (Land Uses 600 699)
- Office (Land Uses 700 799)
- Retail (Land Uses 800 899)
- Services (Land Uses 900 999)



Land Use: 941 Quick Lubrication Vehicle Shop

Independent Variables with One Observation

The following trip generation data are for independent variables with only one observation. This information is shown in this table only; there are no related plots for these data.

Users are cautioned to use data with care because of the small sample size.

Independent Variable	Trip Generation <u>Rate</u>	Size of Independent <u>Variable</u>	Number of <u>Studies</u>	Directional Distribution
Servicing Positions				
Weekday	. 40.0	2	1	50% entering, 50% exiting
Weekday a.m. Peak Hour of Adjacent Street Traffic	3.0	2	1	67% entering, 33% exiting
Weekday a.m. Peak Hour of Generator	4.0	2	1	50% entering, 50% exiting
Saturday	42.0	2	1	50% entering, 50% exiting
Saturday Peak Hour of Generator	7.0	2	1	50% entering, 50% exiting
Sunday	28.0	2	1	50% entering, 50% exiting
Sunday Peak Hour of Generator	4.5	2	1	56% entering, 44% exiting

Quick Lubrication Vehicle Shop (941)

Average Vehicle Trip Ends vs: On a:	Servicing Positions Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.
Number of Studies: Avg. Num. of Servicing Positions: Directional Distribution:	8 3 55% entering, 45% exiting

Trip Generation per Servicing Position

Average Rate	Range of Rates	Standard Deviation
5.19	3.00 - 10.00	2.96

Data Plot and Equation



Trip Generation, 8th Edition

Quick Lubrication Vehicle Shop

(941)

Average Vehicle Trip Ends vs: Servicing Positions On a: Weekday, P.M. Peak Hour of Generator

Number of Studies:6Avg. Num. of Servicing Positions:3Directional Distribution:55% entering, 45% exiting

Trip Generation per Servicing Position

Average Rate	Range of Rates	Standard Deviation
4.60	3.25 - 6.00	1.97

Data Plot and Equation



Trip Generation, 8th Edition

Land Use: 942 Automobile Care Center Independent Variables with One Observation

The following trip generation data are for independent variables with only one observation. This information is shown in this table only; there are no related plots for these data.

Users are cautioned to use data with care because of the small sample size.

	Trip	Size of	Number	
	Generation	independent	of	
Independent Variable	<u>Rate</u>	<u>Variable</u>	<u>Studies</u>	Directional Distribution

1,000 Square Feet Occupied Gross Leasable Area

Saturday	15.86	23	1	50% entering, 50% exiting
Sunday	2.59	23		50% entering, 50% exiting

Employees

Weekday a.m. Peak Hour of Adjacent Street Traffic	1.00	44	1	68% entering, 32% exiting
Weekday p.m. Peak Hour of Adjacent Street Traffic	1.43	44	1	Not available
Weekday a.m. Peak Hour of Generator	1.00	44	1	68% entering, 32% exiting
Weekday p.m. Peak Hour of Generator	1.43	44	1	Not available
Saturday	8.23	44	1	50% entering, 50% exiting
Sunday	1.34	44	1	50% entering, 50% exiting

Service Stalls

Weekday a.m. Peak Hour of Adjacent Street Traffic	1.52	29	1	68% entering, 32% exiting
Weekday p.m. Peak Hour of Adjacent Street Traffic	2.17	29	1	Not available
Weekday a.m. Peak Hour of Generator	1.52	29	1	68% entering, 32% exiting
Weekday p.m. Peak Hour of Generator	2.17	29	1	Not available
Saturday	12.48	29	1	50% entering, 50% exiting
Sunday	2.03	29	1	50% entering, 50% exiting

Land Use: 947 Self-Service Car Wash Independent Variables with One Observation

The following trip generation data are for independent variables with only one observation. This information is shown in this table only; there are no related plots for these data.

Users are cautioned to use data with care because of the small sample size.

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Independent Variable	Trip Generation <u>Rate</u>	Size of Independent <u>Variable</u>	Number of <u>Studies</u>	Directional Distribution
Wash Stalls				
Weekday	108.00	5	1	50% entering, 50% exiting
Weekday a.m. Peak	8.00	5	1	50% entering, 50% exiting
Hour of Generator				
Weekday p.m. Peak	8.00	5	1	50% entering, 50% exiting
Hour of Generator				
Saturday	132.80	5	1	50% entering, 50% exiting

Trip Generation, 8th Edition

Self-Service Car Wash (947)

Average Vehicle Trip Ends vs: On a:	Wash Stalls Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.
Number of Studies:	6
Average Num. of Wash Stalls:	7
Directional Distribution:	51% entering, 49% exiting

Trip Generation per Wash Stall

Average Rate	Range of Rates	Standard Deviation
5.54	4.00 - 8.00	2.67

Data Plot and Equation



		Average Vehicle	Trip Ends vs: On a:	Wash Stalls Saturday, Peak Hour of G	ienerator
		Num Average Num. o Direction	ber of Studies: of Wash Stalls: al Distribution:	2 5 50% entering, 5	0% exiting
) Ge	nerat Aver	ion per Wash S age Rate	tall	of Rates	Standard Deviation
	2	20.60	<u>11.20</u>	- 30.00	*
	150				
	150 -				
	140 -				
	130				
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	- 70 -				
	60 -				
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	50 -				

Trip Generation, 8th Edition

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Gasoline/Service Station with Convenience Market (945)

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Average Vehicle Trip Ends vs: Vehicle Fueling Positions On a: Weekday, P.M. Peak Hour of Generator

Number of Studies: 37 Average Vehicle Fueling Positions: 10 Directional Distribution: 50% entering, 50% exiting

Trip Generation per Vehicle Fueling Position

Average Rate	Range of Rates	Standard Deviation
13.57	4.25 - 57.80	7.94

Data Plot and Equation





3063 Route 9, Cold Spring, New York 10516 (845)265-9217 (877)3.141593 (NY Toll Free) (845)265-4428 (Fax) email: info@badey-watson.com website: www.badey-watson.com Land Surveying Civil Engineering Laser Scanning GPS Surveys Site Planning Subdivisions Landscape Design Glennon J. Watson, L.S.

John P. Delano, P.E. Peter Meisler, L.S. Stephen R. Miller, L.S. Jennifer W. Reap, L.S. Robert S. Miglin, Jr., L.S. Mary Rice, R.L.A., Consultant George A. Badey, L.S., (1973-2011)

September 5, 2012

Honorable Michael Leonard, Interim Chairman Philipstown Planning Board 238 Main Street Cold Spring, NY 10516

RE: Application of E. Polhemus Enterprise, LLC - Submission of Revised Materials

Dear Mr. Leonard and Honorable Board Members:

We submit herewith 13 copies each of the following materials:

- □ Site Plan for E. Polhemus Enterprise, LLC, 3 sheets, last revised September 5, 2012, and
- □ Full Environmental Assessment, Parts 1, 2 and 3 for the captioned application, and
- Dependence of the Planning Board Minutes showing Public Hearing conducted and closed on January 19, 2012

The site plan has been revised to incorporate suggestions of the applicant and as a result of a meeting among Edgar B. Polhemus, Jr., Code Enforcement Officer Kevin Donohue, Planning Board Member Anthony Merante, Planning Board consultants Susan Janechill, RLA and Ron Gainer, PE and the undersigned at the Town Hall on August 27, 2012. During this meeting a number of suggestions were made. They have been incorporated in the plan and include, generalization of the work area, addition of a sign at the northeast corner, other generalization of the equipment parking area. During the meeting Mr. Gainer suggested that the EAF should be revised to reflect all plan changes and completed for the Board's consideration.

Other changes incorporated in the plan include signage to direct traffic to the appropriate intersection of Horsemen's Trail and Route 9, and relocation of the work area to maximize the distance of the screening operation from all property lines.

Please place this matter on the agenda for the September 20, 2012 meeting of the Planning Board, at which time we are hopeful that the matter will be brought to a satisfactory conclusion. As always, thank you for you attention to and concern for this project.

Owners of the records of:

♦ Joseph S. Agnoli
 ♦ Barger & Hustis
 ♦ Burgess & Behr
 ♦ Roy Burgess
 ♦ Vincent Burruano
 ♦ Hudson Valley Engineering Company
 ♦ G. Radcliff Hustis
 ♦ Peter R. Hustis
 ♦ James W. Irish, Jr.
 ♦ Douglas A. Merritt
 ♦ E.B. Moebus
 ♦ Reynolds & Chase
 ♦ General Jacob Schofield

◆ Sidney Schofield ◆ Allan Smith ◆ Taconic Surveying and Engineering ◆ D. Walcutt ◆

Yours truly, BADEY & WATSON, Surveying & Engineering, P.C.

) eter by

Glennon J. Watson, L.S.

Enclosures (2) GJW/bms cc: File 90-130B\ML05SP12BP_SubmitRevMaterial.doc Edgar B. Polhemus, Jr., w/enclosures.

File Form Letters1

BADEY & WATSON Surveying & Engineering, P.C. Philipstown Planning Board Meeting Minutes January 19, 2012

The Philipstown Planning Board held its regular monthly meeting on Thursday, January 19, 2012 at the VFW Hall on Kemble Avenue, Cold Spring, New York. The meeting was opened at 7:30 a.m. by Acting Chair, Kim Conner.

Present: Kim Conner, Acting Chair Mary Ellen Finger Michael Leonard Kerry Meehan Pat Sexton Neal Zuckerman Steve Gaba, Counsel Ron Gainer, Planner Absent: Anthony Merante, Chairman

Ms. Conner announced that the Santucci application/public hearing would be adjourned to next month.

Public Hearing

E. Polhemus Enterprises, LLC: Site plan (soil processing) – Horsemen's Trail, Cold Spring: Revised plans/discussion

Mr. Watson said that essentially, they are seeking permission to continue a use that's been going on for a good number of years, augmented a little bit from the original. He said that it is a seven acre parcel, of which the activities will be limited to the two-acre site that was disturbed and was the floor of a soil mine that was closed roughly thirty years ago. Mr. Watson said that the storage and some processing of material has gone on since then that was conducted and continued to be conducted after the mining was closed by the Polhemus family. The Building Inspector has advised them that there was no c.o. for the activity and to continue, a site plan approval is required. Mr. Watson said that they made the application a couple of years ago. That application did include wood processing and a building. He said that the wood processing proved to have impacts they couldn't overcome, so they withdrew that from the application. The building became unrealistic from a financial point of view. They redeveloped the site plan and amended the application to what is before the Board today. Mr. Watson said that the core area of the site is roughly level with the road. He said that you come in from one of two driveways - they're going to close one of them (pointed out on plan). Mr. Watson said that if you come in to the south of the existing garage to the open area that's been used for many years. He said that until a few years ago, there was also a house on the site that's been removed. Mr. Watson said that the application is to continue to use the site as a depot for the storage and processing of materials. At the south portion of the site, they'll be some concrete bins that will store processed material, sand, graded gravel, top soil, etc. It will be toward the northwest of the site. There will be four or five stock piles - each about fifteen feet high, which will be raw material that will be trucked onto the site for processing for storage. Mr. Watson said that some of that will also just leave the

site and not be processed. Towards the northeastern portion of the site, they have located a screening plan – a portable screening plan, which will take the raw material, run it through a series of sids to grade it and size it and turn it into the finished project that will be stored toward the southwest corner of the site. Mr. Watson said that there are a couple of design features that have been added to the site. The site has been re-graded, so the grade will fall gently and evenly toward the northeast corner where there will be a siltation basin to catch runoff and any of the solids that are picked up and carried (sand and gravel) toward and into the stilling basin and the water will drop its solids and either the water will absorb into the ground at that point or in a larger storm, would fill up and will be allowed to spill over and into an existing drainage ditch that's on the northeast line of the property. Mr. Watson said that over the years, there's been a berm built up - abank of material that's been built up to separate the site from the road. It provides a partial screen, which is actually fairly affective. They're going to build that up a little bit more and a highly dense landscape plan has been developed for that site, so that they'll have the advantage of the additional height and the landscaping plan to screen the activity from the road. Mr. Watson said that as you pass by the garage, it would largely remain unchanged. He said that there would be no soil mining on the site. The grading that exists today other than in the floor of the site will remain unchanged. The back part of the property has gone from meadow to woods over the thirty years since the mining operation shut down. It's not going to be touched. Mr. Watson said that they would provide some additional screening for cars approaching and for the neighbors to the south. There are some additional plantings planted at the southwest corner.

Ms. Conner asked Mr. Watson if he received a copy of Mr. Chirico's letter.

Mr. Watson said that he believed he did, but it was late this afternoon

Ms. Conner said that his concern had to do with drainage. She read that part of the letter aloud (copy on file at Town Hall).

Mr. Watson said that he was sure there was a concern with that with regard to maintenance and they would certainly address it, but the whole purpose of the stilling basin and a major purpose of the grading plan is to direct the water into the stilling basin, so it will simply be overflow and the biggest part of the solids will certainly have dropped out. Mr. Watson said that there is a catch basin and drainage system in the corner (pointed out). He said that he believed that there is runoff coming from the road and coming down along the property line.

Mr. Meehan said that a couple of winters ago, there was some pretty heavy flooding and a lot of ice on Route 9 going toward Giachinta's cement place. He said that (inaudible) the pipe underneath Route 9 couldn't handle the flow of water.

Mr. Watson said that he remembered that and always understood that it was a groundwater problem where it was actually just breaking through the concrete and it wasn't a matter of the draining system failing.

Mr. Meehan said that he thought Joe Giachinta had some comments on that, but couldn't remember what they were.

Mr. Watson said that the drainage characteristics are really going to be fairly well unchanged.

Ms. Sexton said at the site visit, they talked about the screening and dust control, and now there's going to be rock crushing.

Mr. Watson said no. He said that there would be an occasional time -a day or so - when a crusher will be rented and brought in to get rid of the material that's too large to be graded and mixed into the product. Mr. Watson said that would occur on a very infrequent basis. It will also occur behind a screen. He said that there is a well on site, which originally served the house and continues to be available. It will be used to pull water to keep the dust down when needed.

Mr. Leonard asked if there would be noise from the soil processing.

Mr. Watson said that they didn't expect the noise would be much different than it is today and the berm will help deflect it upward from going across the street toward the trailer park. He said that they moved to the north of the property to minimize the sound that reaches the south part of the property, where there's actually an industrial building zone.

Ms. Conner said that there won't be a bathroom facility, so there's no septic tank, and there won't be any regular employees.

Mr. Watson said no, it never is operated that way. It's always been sort of a depot transfer station...work there for a little while and take the product where it needs to go. He said that there might be a day or a week when somebody works there, but typically it's not going to be manned.

Ms. Conner asked Mr. Gaba how they regulate that and if he knew what the rules were on that.

Mr. Gaba said that he didn't believe that anybody regulates that – sanitary (inaudible) by the Department of Health. He said for a port-a-potty, he didn't think there was any permit required.

Ms. Conner said that the Planning Board is not required to require...(did not finish sentence).

Mr. Gaba said on-site sanitary facilities, no – not at all...not for a commercial site like this.

Ms. Conner asked Mr. Gainer if he had any comment.

Mr. Gainer said that the Board had site walk comments that have been distributed. He said that there were a few technical issues he thought that remained, but they can be addressed directly with the applicant. Mr. Gainer said that he thought the largest open issue that he recalled from December was the question of whether with the change now proposed in the use (soil processing), if the Board wished to see an amended EAF to address some of the language they just talked about tonight – dust control, elimination of wood processing.

Mr. Watson said that he thought all of the changes in the site plan could be seen as mitigations to the EAF that they've already submitted and could combine the Part 3 to reflect that. He said it could be addressed in the Part 3 because every change they made mitigates an impact that they've previously identified.

Ms. Conner opened the meeting to the public.

Mr. Mickey Deneher of Sky Line Drive, introduced himself. He said that he would like to acknowledge the Board and thanked them for their work. He said that one of the first things the Board said they talked about was sound...across the street – to the south. Mr. Deneher said that he and his neighbors live to the west and they did not address that.

Mr. Watson said that he was right, he did not. He said that all he could say was that they had a fair amount of distance and did not think the noise was going to change.

Mr. Deneher said, but if he is telling him they are going to increase the amount of activity there – occasionally bring in a stone crusher and doing additional work, how can it not but increase.

Mr. Watson said that it is really a matter of what they deliver to the property line and they will look at that.

Mr. Deneher asked how big the equipment that will be coming on site would be.

Mr. Watson said that if he wanted to get a sense of the size of the screen – the piece that's going to be there more or less permanently, he could look over to where Lyons' is and said that it is going to be a very similar operation to that. Mr. Watson said that he was really guessing, but said they're about fifteen feet high. He said that this (pointed out) might be thirty or forty feet.

Mr. Deneher asked if Mr. Watson said the screen would be there permanently.

Mr. Watson said that it is a portable screen and will be moved around in the general area as need be, but this (pointed out) is the basic area. He said that it might be brought off site when needed.

Mr. Deneher said he was wondering about the amount of trucks coming in, days and hours of operations, etc.

Mr. Watson said that those were enumerated in the Statement of Use. He said that the answer is that it will vary. There might be days where they have a day's worth of trucks coming in and going out, which might happen once an hour or something like that. Mr. Watson said that more often than not, this would act as a depot where they'll be a trip or two a day. He looked in the Statement of Use and said that in the worst situation, you might have 42 trips over the course of an eight-hour workday. Typically, you might have as few as one every couple of hours.

Mr. Deneher said that 42 trips is an incredible amount. He said that they would not be small trucks either.

Mr. Watson said that they're dump trucks.

Mr. Deneher said exactly, so that's just a concern. He said that if you think about Sky Line Drive with regard to the ice, the flooding, the heavy run-off that comes down, the corner is not a large area. Mr. Deneher said if you've got the possibility of 42 trucks coming in and out of there, it concerns him a lot.

Mr. Watson said that he would differ with him when you consider that Route 9 sees 15,000 trips a day. He said that 42 is one every (did not finish sentence).

Mr. Deneher said that Route 9 is a much larger avenue as compared to Sky Line and Horsemen's Trail. He said you're also talking about the volume of traffic. Mr. Deneher said again, it's something for the Board to consider.

Mr. Watson said that with regard to the question of hours of operation, the yard will operate between 7:00 a.m. to 6:00 p.m. Monday through Friday, 7:00 a.m. to 3:00 p.m. on Saturdays, and will not operate on Sundays, legal holidays, except in cases of emergencies. The crushing, on the occasions when it does take place, it will take place only between 9:00 a.m. and 3:00 p.m. on weekdays.

Mr. Zuckerman asked Mr. Watson if he would compare and contrast what will be in the future versus what is now.

Mr. Watson said that he thought the difference is the more regular operation of the screen. For years, material has been stockpiled here and occasionally has been screened, but that wasn't a regular thing. This will be a more regular thing. He said that as far as what's stored there, how it's brought in and out, it would stay the same.

Ms. Finger asked if it was going to be at all similar to the operation just to the north of it at Harold Lyons'.

Mr. Watson said that he thought it was going to be precisely like that.

Mss. Kelly Martin, 128 Sky Line Drive, introduced herself. She stated that her concern was her children and the buses that pass through on Horsemen's Trail. There are kids waiting for the bus in the morning and getting off the buses in the afternoon. Ms. Martin said that she would think with that many trucks coming in and out, it could be very dangerous. She said that now she knows he does work there, but it's minimal and she hardly ever sees the trucks. Ms. Martin said that 42 seemed like a lot, especially on that road.

Mr. Watson said that if you read the Statement of Use, he painted three scenarios. He said in an attempt to give her the absolute worst-case situation...he truly did not believe that it would be the situation every day. Mr. Watson said, does he think it will happen once in a while?...yes, he does, but it won't be at all typical.

Ms. Martin said that when the bus does come through and she's coming in the opposite direction, she actually has to pull over so that the bus can get by, so it's going to be tight if there is a bus on the road. She asked if they were going to burn there.

Mr. Watson said no burning. He said that there was wood processing stuff turning logs, etc, into mulch. It turned out the noise generated by that was significant.

Mr. David Vicory of 3 Horsemen's Trail introduced himself. He said that he's been an observer of the Polhemus operation for about ten years and it's been an observation that the Polhemus operation is a good neighbor. Mr. Vicory said that he worked there – in the yard, on the farm during the day, and he sees the Polhemus trucks going in and out. He said that he had never seen them go fast. He's only seen them go cautiously – no matter what trucks they drove. Mr. Vicory said that he thinks they are very responsible and good neighbors and would like to see them be able to do what they'd like to do.

Mr. Meehan said that he did not know school buses went down Horsemen's Trail. He asked how many buses there were.

Ms. Martin said two in the morning - one at 7:00 and one at 8:10, and then in the afternoon at 2:45 and then 3:30.

Mr. Meehan said he didn't see any school bus signs.

Ms. Martin said that there is no sign. She said that they actually used to stop on Route 9, but it's too dangerous.

Mr. Meehan said that he thought there should be signage to warn people.

Mr. Gainer said that it's the Board's decision on whether or not to move this forward. He said that the Board could decide also on whether or not to require a new EAF or not.

Mr. Watson said that they could investigate to make sure the Part 2 doesn't have any additional things and then they'll prepare the Part 3 and have that ready.

FULL ENVIRONMENTAL ASSESSMENT FORM PARTS 1, 2, & 3

for the application of

E. POLHEMUS ENTERPRISE, LLC

for approval of a **SITE PLAN** ON A PARCEL CONTAINING 6.605 ACRES AT THE INTERSECTION OF **Route 9 & Horsemen's Trail** in the **TOWN OF PHILIPSTOWN PUTNAM COUNTY NEW YORK** SEPTEMBER 5, 2012

Prepared for and at the request of THE PHILIPSTOWN PLANNING BOARD TOWN HALL 238 MAIN STREET COLD SPRING, NY 10516

Prepared and compiled by BADEY & WATSON Surveying & Engineering, P.C. 3063 Route 9 Cold Spring, NY 10516 (845) 265-9217 (V) (845) 265-4428 (F) www.Badey-Watson.com

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- 2.
- Traffic Study Noise Impact Evaluation Alternate Noise Mitigation Option (Option 4) 2a.

FULL ENVIRONMENTAL ASSESSMENT FORM PART 1

Appendix A State Environmental Quality Review FULL ENVIRONMENTAL ASSESSMENT FORM

The full EAF is intended to provide a method whereby applicants and agencies can be assured that the determination process has been orderly, comprehensive in nature, yet flexible enough to allow introduction of information to fit a project or action.

Full EAF Components: The full EAF is comprised of three parts:

Part I - Provides objective data and information about a given project and its site. By identifying basic project data, it assists a reviewer in the analysis that takes place in Parts 2 and 3.

Part 2- Focuses on identifying the range of possible impacts that may occur from a project or action. It provides guidance as to whether an impact is likely to be considered small to moderate or whether it is a potentially-large impact. The form also identifies whether an impact can be mitigated or reduced.

Part 3- If any impact in Part 2 is identified as potentially-large, then Part 3 is used to evaluate whether or not the impact is actually important.

	THIS AREA FOR <u>LEAD</u>	AGENCY USE ONLY					
DETERMINATION OF SIGNIFICANCE Type 1 and Unlisted Actions							
Identify the Po Upon review of t nsidering both	rtions of EAF completed for this project: he information recorded on this EAF (Parts 1 and 1 the magnitude and importance of each impact, it	Part 1 Part 2 Part 3 2 and 3 if appropriate), and any other supporting information, and is reasonably determined by the lead agency that:					
- 🗌 A	The project will not result in any large and imp significant impact on the environment, there	ortant impact(s) and, therefore, is one which will not have a fore a negative declaration will be prepared.					
В	B. Although the project could have a significant effect on the environment, there will not be a significant effect for this Unlisted Action because the mitigation measures described in PART3 have been required, therefore a CONDITIONED negative declaration will be prepared.*						
<u>с</u> .	C. The project may result in one or more large and important impacts that may have a significant impact on the environment, therefore a positive declaration will be prepared.						
*A Cor	nditioned Negative Declaration is only valid for L	Unlisted Actions					
	E. Polhem	us Enterprises, LLC					
	Nar	me of Action					
	Philipstown Planning Board						
Name of Lead Agency							
Michael Leonard Chairman							
Print or Type	Name of Responsible Officer in Lead Agency	Title of Responsible Officer					
Signature of Res	sponsible Officer in Lead Agency	Signature of Preparer (If different from responsible officer)					
·	Date						
4							

PARTI-PRUJEUT INFORMATION

Prepared by Project Sponsor

NOTICE: This document is designed to assist in determining whether the action proposed may have a significant effect on the environment. Please complete the entire form, Parts A through E. Answers to these questions will be considered as part of the application for approval and may be subject to further verification and public review. Provide any additional information you believe will be needed to complete Parts 2 and 3.

It is expected that completion of the full EAF will be dependent on information currently available and will not involve new studies, research or investigation. If information requiring such additional work is unavailable, so indicate and specify each instance.

Approval of Site Plan for E. Polhen	nus Enterprise, LLC		
Horseman's Trail Cold Spring, NY 10516 Tow	n of Philipstown, Put	nam County	
NAME OF APPLICANT/SPONSOR	<u> </u>	BUSINESSTE	LEPHONE
E. Polhemus Enterprise, LLC		845-	424-3477
ADDRESS 200 Devite 0D Devi	. 12		_
		STATE	
Garrison		NY	10524
NAME OF OWNER (if different)		BUSINESSTE	LEPHONE
	<u> </u>		
СПУ/РО		STATE	ZIP CODE
DESCRIPTION OF ACTION			
Approval of Site Plan for E. Polhemus Enterprise, LLC which will all	low the operation of a	n outdoor soil pr	ocessing, storage.
sales, and contractor	rs yard.		6, ····································
		;	
Please Complete Each Question - Indicate N. A. if not applicable	•		-
A Site Description			
A, one beschphon			
Physical setting of overall project, both developed and undeveloped	21020		
Physical setting of overall project, both developed and undeveloped	areas.	vurban) MIR	(um) (non-form)
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Physical setting of overall project, both developed and undeveloped 1. Present land use: Urban Industrial Commercial Forest Agriculture Other Mixe	areas. X Residential (sub d Use Area	ourban) 🛛 🕅 R	lural (non-farm)
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5. Approximate percentage of proposed site with slopes:	⊠ 0-10%	31.7 %	⊠ 10-15%	9.8	%
6. Is project substantially contiguous to, or contain a building, Places?	site, or district, lis	sted on the Str	ate or National Re	gisters of Hist	oric
' Is project substantially continuous to a site listed on the Begis	ster of National N	latural Landma	arks? 🗍 Yes 🛛		
8 What is the depth of the water table? < 7' (in fi	eet)				
9 is site located over a primary principal or sole source aguited	~~~, ? [] Yes []	7 No			
10. Do builting fishing or shell fishing opport unities presently ex	ist in the project a	anea? []`	Ves 1721 N.S.		
11. Does project site contain any species of plant or animal life t	hat is identified a	s threatened o	rendangered?		
Yes No According to	Visual Inspe	ection, (prev	iously submitte	d)	
Identify each species		NA			
12. Are there any unique or unusual land forms on the project	site? (i.e., diffs, c	lunes, other g NA	eological formation	ns.)	
13. Is the project site presently used by the community or neigh	nborhood as an c	pen space or NA	recreational area?		
14. Does the present site include scenic views known to be im	portant to the cor	mmunity?			
15. Streams within or contiguous to project area:		None			
a. Name of Stream and name of River to which it is tributary	/		NA		
					-
16. Lakes, ponds, wetland areas within or contiguous to project a. Name <u>None</u>	tarea:	b. Size	e (in acres)	NA	
17. Is the site served by existing public utilities?] No				
 a) If Yes, does sufficient capacity exist to allow connection b) If Yes, will improvements be necessary to allow connect 	? 🛛 Yes 🗍 tion? 🗍 Yes]Nb ⊠Nb			
18. Is the site located in an agricultural district certified pursuan Section 303 and 304? ☐ Yes	t to Agriculture ar	nd Markets lav	v, Article 25-AA,		
19. Is the site located in or substantially contiguous to a Critical ECL and 6 NYCRR 617? TYes X No	Environmental A	rea designate	d pursuant to Articl	e 8 of the	
20. Has the site ever been used for the disposal of solid or haza	ardous wastes?	🗌 Yes 🕅	Nb		
B. Project Description					
1. Physical dimensions and scale of project (fill in dimensions a a. Total contiguous acreage owned or controlled by project	as appropriate) t sponsor	6.605	acres		
b. Project acreage to be developed: 2.046	acres initially;		2.046	acres ultima	ately.
c. Project acreage to remain undeveloped4.099	acres.				
d. Length of project, in miles: <u>NA</u> (if	f appropriate)				
e. If the project is an expansion, indicate percent of expans	sion proposed?	<u>N/A</u>	%		
t. Number of off-street parking spaces existing3	, propose	eemeleties (2		
g. Maximum venicular trips generated per hour	iu (upon	completion of	project)?		
One Family Two F	-amily	Multin	e Family	Contr	ninium
Initially N/A N	Α	N	A	NA	
ately N/A N	A	N	IA	NA	
n	NA heigh	nt, <u>NA</u>	width;	NA ler	ngth.

2. How much natural material (i.e. rock, earth, etc.) will be removed from the site? <u>Zero</u> tons/cubic yards?
3. Will disturbed areas be reclaimed? 🛛 🖾 Yes 🗔 No 📋 N/A
a. If yes, for what intended purpose is the site being reclaimed? Plants & Landscaping
b. Will topsoil be stockpiled for reclamation? \blacksquare Yes \square Nb \square NA
c. Will upper subsoil be stockpiled for reclamation? 🛛 Yes 🗌 Nb 📋 N/A
4. How many acres of vegetation (trees, shrubs, ground covers) will be removed from site? <u>Zero</u> acres.
5. Will any mature forest (over 100 years old) or other locally-important vegetation be removed by this project?
6. If single phase project: Anticipated period of construction? <u>8</u> months, (including demolition).
7. If multi-phased:
a. Total number of phases anticipated?NA (number).
b. Anticipated date of commencement phase 1 NA month NA year, (including demolition)
c. Approximate completion date of final phase <u>NA</u> month <u>NA</u> year.
d. Is phase 1 functionally dependent on subsequent phases? 🛛 🗌 Yes 🛛 No
8. Will blasting occur during construction? \Box Yes \blacksquare Nb
9. Number of jobs generated during construction? 3, after project is complete 3
1 0. Number of jobs eliminated by this project?
11. Will project require relocation of any projects or facilities?? □ Yes ⊠ No If yes, explain NA
12. Is surface liquid waste disposal involved? 🗌 Yes 🛛 No
a. If yes, indicate type of waste (sewage, industrial, etc.) and amount
b. Name of water body into which effluent will be discharged. NA
12 b α that the second limit of the second limit of the second limit of M b β
13. Is subsultable iquid waste disposal it volved ? 🗀 165 🖾 10
 13. Is subsultate inquid waste disposal involved? 14. Will surface area of an existing water body increase or decrease by proposal? 14. Will surface area of an existing water body increase or decrease by proposal? 14. Will surface area of an existing water body increase or decrease by proposal? 14. Will surface area of an existing water body increase or decrease by proposal? 14. Will surface area of an existing water body increase or decrease by proposal? 14. Will surface area of an existing water body increase or decrease by proposal?
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13. Is subsultate inquid waste disposal involved? □ Tes ≥ NO 14. Will surface area of an existing water body increase or decrease by proposal? □ Yes ⊠ No Explain NA 15. Is project or any portion of project located in 100 year flood plain? □ Yes ⊠ No 16. Will the project generate solid waste? □ Yes ⊠ No a. If yes, what is the amount per month NA
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13. Is subsultate inquid waste disposal involved? □ Tes ⊠ No 14. Will surface area of an existing water body increase or decrease by proposal? □ Yes ⊠ No Explain NA 15. Is project or any portion of project located in 100 year flood plain? □ Yes ⊠ No 16. Will the project generate solid waste? □ Yes ⊠ No a. If yes, what is the amount per month NA b. If yes, will an existing solid waste facility be used? □ Yes □ No ⊠ NA c. If yes oive name NA
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13. Is Substitute disposal involved? □ Tes ≥ INO 14. Will surface area of an existing water body increase or decrease by proposal? □ Yes ⊠ No Explain NA 15. Is project or any portion of project located in 100 year flood plain? □ Yes ⊠ No 16. Will the project generate solid waste? □ Yes ⊠ No a. If yes, what is the amount per month NA b. If yes, will an existing solid waste facility be used? □ Yes □ No ⊠ NA c. If yes, give name NA d. Will any wastes not go into a sewage disposal system or into a sanitary landfill? □ Yes ⊠ No e. If yes, explain NA
13. Is subsultable inquite waster disposal involved? □ Test ≥ IND 14. Will surface area of an existing water body increase or decrease by proposal? □ Yest ⊠ Nb Explain NA 15. Is project or any portion of project located in 100 year flood plain? □ Yest ⊠ Nb 16. Will the project generate solid waste? □ Yest ⊠ Nb a. If yes, what is the amount per month NA b. If yes, will an existing solid waste facility be used? □ Yest □ Nb ⊠ N/A c. If yes, give name NA d. Will any wastes not go into a sewage disposal system or into a sanitary landfill? □ Yest ⊠ Nb 17. Will the project involve the disposal of solid waste? □ Yest ⊠ Nb
13. Is subscribted inquite weakled disposal in Noveal? □ Hes ⊠ No 14. Will surface area of an existing water body increase or decrease by proposal? □ Yes ⊠ No Explain NA 15. Is project or any portion of project located in 100 year flood plain? □ Yes ⊠ No 16. Will the project generate solid waste? □ Yes ⊠ No a. If yes, what is the amount per month NA b. If yes, will an existing solid waste facility be used? □ Yes □ No ⊠ NA c. If yes, give name NA d. Will any wastes not go into a sewage disposal system or into a sanitary landfill? □ Yes ⊠ No e. If yes, explain NA 17. Will the project involve the disposal of solid waste? □ Yes ⊠ No a. If yes, what is the anticipated rate of disposal? NA tons/month. NA
13. Is Subsultable include wester disposal involved? □ Test is 10 14. Will surface area of an existing water body increase or decrease by proposal? □ Yest is No Explain
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13. Is substituted inductive inductive of explosing introduction of the explosing interval of explosing into a set explosing explosing explosing into a set explosing explosing explosing into a set explosing
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13. Is substitute induitive induities inducted? □ res is indicated in the second property increase or decrease by proposal? □ Yes Is No 14. Will surface area of an existing water body increase or decrease by proposal? □ Yes Is No Explain NA 15. Is project or any portion of project located in 100 year flood plain? □ Yes Is No 16. Will the project generate solid waste? □ Yes Is No 16. Will the project generate solid waste? □ Yes Is No 17. Vill an existing solid waste facility be used? □ Yes Is No 17. Will any wastes not go into a sewage disposal system or into a sanitary landfill? □ Yes Is No 17. Will the project involve the disposal of solid waste? □ Yes Is No 17. Will the project involve the disposal of solid waste? □ Yes Is No 17. Will the project involve the disposal of solid waste? □ Yes Is No 18. Will project involve the disposal of solid waste? □ Yes Is No 18. Will project involve the disposal of solid waste? □ Yes Is No 18. Will project use herbicides or pesticides? □ Yes Is No 19. Will project routinely produce odors (more than one hour per day?) □ Yes Is No 19. Will project produce operating noise exceeding the local ambient noise levels? ☑ Yes Is No 19. Will project result in an increase
13. Is substituted waste disputes involved if the solution If the solution 14. Will surface area of an existing water body increase or decrease by proposal? If Yes X No Explain NA 15. Is project or any portion of project located in 100 year flood plain? If Yes X No 16. Will the project generate solid waste? If Yes X No 16. Will the project generate solid waste? If Yes X No 16. Will the project generate solid waste? If Yes X No 16. Will the project generate solid waste? If Yes X No 16. Will an existing solid waste facility be used? If Yes INO 17. Will any wastes not go into a sewage disposal system or into a sanitary landfill? If Yes X No 17. Will the project involve the disposal of solid waste? If Yes X No 17. Will the project involve the disposal of solid waste? If Yes X No 17. Will the project involve the disposal of solid waste? If Yes X No 18. Will project use herbicides or pesticides? If Yes X No 19. Will project routinely produce odors (more than one hour per day?) If Yes X No 19. Will project produce operating noise exceeding the local ambient noise levels? If Yes No 19. Will project result in an increase in energy use? Xes No 19. Will project result in an
14. Will surface area of an existing water body increase or decrease by proposal? □Yes ☑ No Explain NA 15. Is project or any portion of project located in 100 year flood plain? □Yes ☑ No 16. Will the project generate solid waste? □Yes ☑ No 16. Will the project generate solid waste? □Yes ☑ No 16. Will the project generate solid waste? □Yes ☑ No 17. Will an existing solid waste facility be used? □Yes ☑ No 17. Will any wastes not go into a sewage disposal system or into a sanitary landfill? □Yes ☑ No 17. Will the project involve the disposal of solid waste? □Yes ☑ No NA 17. Will the project involve the disposal of solid waste? □Yes ☑ No NA 17. Will the project involve the disposal of solid waste? □Yes ☑ No NA 17. Will the project routinety produce odors (more than one hour per day?) □Yes ☑ No 18. Will project routinety produce odors (more than one hour per day?) □Yes ☑ No 19. Will project produce operating noise exceeding the local ambient noise levels? ☑ Yes □ No □To be determined 21. Will project result in an increase in energy use? ☑ Yes
13. Is Subschilded included: If is ≥ NO 14. Will surface area of an existing water body increase or decrease by proposal? If yes ≥ No Explain NA 15. Is project or any portion of project located in 100 year flood plain? If yes ≥ No 16. Will the project generate solid waste? If yes ≥ No 17. Will the project generate solid waste? If yes ≥ No 18. If yes, what is the amount per month NA 19. If yes, give name NA 10. If yes, give name NA 11. Will any wastes not go into a sewage disposal system or into a sanitary landfill? If yes ≥ No 10. Will any wastes not go into a sewage disposal system or into a sanitary landfill? If yes ≥ No 11. Will the project involve the disposal of solid waste? If yes ≥ No 12. Will project use herbicides or pesticides? If yes ≥ No 13. Will project routinely produce odors (more than one hour per day?) If yes ≥ No 19. Will project produce operating noise exceeding the local ambient noise levels? Yes ≥ No 19. Will project result in an increase in energy use? M yes ⊂ No 11. Will project result in an increase in energy use? M yes ⊂ No 13. Total anticipated water usage per day 100 (occcassional) gallons/minute.

			Туре	Submittal Date
City, Town, Village Board	∐ Yes	Νο		
City, Town, Village Planning Board	XYes	🗆 No	Site Plan	3 Mar 2009, Rev/ 3 Nov 20
ି"y, Town Zoning Board	⊡Yes	Νο		
J, County Health Department	⊠Yes		Spetic & Well Permit	
Other Local Agencies	⊠Yes	🗆 No	County Planning 239 Referral	
Other Regional Agencies	⊡Yes	🛛 No		
State Agencies	∐ Yes	X No		·····
Federal Agencies	∏ Yes	Νο		·····
C. Zoning and Planning Info	ormation			
1. Does proposed action involve a plan If yes, indicate decision required:	ning or zonir	ng decision?	XYes INo	
new/revision of master plan	resou	irce manageme	ent plan \Box other	
2. What is the zoning classification(2) of	the site?	I-Industrial (Old Zoning Applicable), Office Commercial/I	ndustry Mixed Use (New)
3. What is the maximum potential devel	opment of th	e site if develo	oped as permitted by the present zoning?	
Per	haps 40,000	SF of comme	ercial building or/ 3 residential units	
4. What is the proposed zoning of the s	ite?		No change proposed	
5. What is the maximum potential devel	opment of th	e site if develo	pped as permitted by the proposed zoning?	
			NA	
6. Is the proposed action consistent wit	h the recom	mended uses i	in adopted local land use plans? 🛛 Yes	No
		Jaco Mantiona	within a 1/1 mile radius of proposed action?	
7. What are the predominant land use(s)	and zoning o	assincations	within a 1/4 mile radius of proposed action r	
7. What are the predominant land use(s) Mixed use	and zoning c	ial, Contracto	ors Yard, Industrial (materials processing	s)
7. What are the predominant land use(s) Mixed use	and zoning o <u>Commerci</u> n adjoining/su	ial, Contracto	ors Yard, Industrial (materials processing d uses within a 1/4 mile? X Yes IN	0
7. What are the predominant land use(s) <u>Mixed use</u> is the proposed action compatible with 9. If the proposed action is the subdivisi	and zoning of <u>Commerci</u> n adjoining/su on of land, he	ial, Contracto urrounding land ow many lots a	ors Yard, Industrial (materials processing d uses within a 1/4 mile? X Yes A No are proposed?	3) IA
 7. What are the predominant land use(s) <u>Mixed use</u> is the proposed action compatible with 9. If the proposed action is the subdivisi a. What is the minimum lot size prop 	and zoning of <u>Commerci</u> n adjoining/su on of land, ho posed?	ial, Contractor urrounding land ow many lots a	ors Yard, Industrial (materials processing d uses within a 1/4 mile? X Yes I No are proposed? <u>NA</u>	s) IA
 7. What are the predominant land use(s) Mixed use S the proposed action compatible with 9. If the proposed action is the subdivisional what is the minimum lot size proposed action require any automatical action action require any automatical action a	and zoning of <u>Commerci</u> n adjoining/su on of land, he possed?	ial, Contractor urrounding land ow many lots a	d uses within a 1/4 mile radius of proposed action? d uses within a 1/4 mile? are proposed? NA tion of sewer or water districts? Yes	A
 7. What are the predominant land use(s) Mixed use Is the proposed action compatible with 9. If the proposed action is the subdivisional what is the minimum lot size proposed action require any autors and the proposed action require and autors are a deserved. 	and zoning of <u>Commerci</u> n adjoining/su on of land, ho posed? 	ial, Contractor urrounding land ow many lots a) for the forma y community p	within a 1/4 mile radius of proposed action? ors Yard, Industrial (materials processing d uses within a 1/4 mile? are proposed? NA tion of sewer or water districts? D Yes provided services (recreation, education, political services (recreation, education, political services (recreation)	A No ce, fire protection?
 7. What are the predominant land use(s) Mixed use If the proposed action compatible with 9. If the proposed action is the subdivisional what is the minimum lot size proposed action require any autors and the proposed action require any autors are a data and the proposed action result in the subdivisional term and the proposed action result in the subdivisional actional actionactional actional actional a	and zoning of <u>Commercian</u> adjoining/su on of land, he posed? <u>uthorization(s</u> emand for an e generation	ial, Contractor introunding land ow many lots a) for the forma y community p of traffic signifi	within a 1/4 mile radius of proposed action? ors Yard, Industrial (materials processing d uses within a 1/4 mile? are proposed? NA tion of sewer or water districts? provided services (recreation, education, politicantly above present levels?	IA IA IND ce, fire protection? IND

D. Informational Details

Attach any additional information as may be needed to darify your project. If there are or may be any adverse impacts associated with your proposal, please discuss such impacts and measures which you propose to mitigate or avoid them.

E. Verification

25. Approvals Required:

I certify that th	e information provi	ded ab	pove is true to the best of my knowledge.		
Applicant/Sponsor	Nane	G	i & Marson Surveying & Engineering, P.C.	Date	<u>5 Sep 2012</u>
Signature	P	7	Title	Surveyor for A	pplicant

te action is in the Coastal Area, and you are a state agency, complete the Coastal Assessment Form before proceeding
FULL ENVIRONMENTAL ASSESSMENT FORM PART 2

PART 2 - PROJECT IMPACTS AND THEIR MAGNITUDE Responsibility of Lead Agency

Suggested by Badey & Watson September 5, 2012

Recommended Date _____ by_____ (int.)

Adopted Date _____ by

General Information (Read Carefully)

- In completing the form the reviewer should be guided by the question: Have my responses and determinations been reasonable? The reviewer is not expected to be an expert environmental analyst.
- In the Examples provided are to assist the reviewer by showing types of impacts and wherever possible the threshold of magnitude that would trigger a response in column 2. The examples are generally applicable throughout the State and for most situations. But, for any specific project or site other examples and/or lower thresholds may be appropriate for a Potential Large Impact response, thus requiring evaluation in Part 3.
- ! The impacts of each project, on each site, in each locality, will vary. Therefore, the examples are illustrative and have been offered as guidance. They do not constitute an exhaustive list of impacts and thresholds to answer each question.
- ! The number of examples per question does not indicate the importance of each question.
- In identifying impacts, consider long term, short term and cumulative effects.

Instructions (Read carefully)

- b. Answer each of the 20 questions in PART 2. Answer Yes if there will be any impact. Maybe answers should be considered as Yes answers.
- c If answering Yes to a question then check the appropriate box (column 1 or 2) to indicate the potential size of the impact. If impact threshold equals or exceeds any example provided, check column 2. If impact will occur but threshold is lower than example, check 1.
- d. Identifying that an Impact will be potentially large (column 2) does not mean that it is also necessarily significant. Any large impact must be evaluated in PART 3 to determine significance. Identifying an impact in column 2 simply asks that it be looked at further.
- e. If reviewer has doubt about size of the impact then consider the impact as potentially large and proceed to PART 3.
- f. If a potentially large impact checked in column 2 can be mitigated by change(s) in the project to a small to moderate impact, also check the Yes box in column 3. A No response indicates that such a reduction is not possible. This must be explained in Part 3.

~~	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change
IMPACT ON LAND			
1. Will the Proposed Action result in a physical change to the project site? NO \square YES \checkmark			
Examples that would apply to column 2			
Any construction on slopes of 15% or greater, (15 foot rise per 100 foot of length), or where the general slopes in the project area exceed 10%.	\checkmark		Yes No
Construction on land where the depth to the water table is less than 3 feet.			Yes No
Construction of paved parking area for 1,000 or more vehicles.			Yes No
Construction on land where bedrock is exposed or generally within 3 feet of existing ground surface.			Yes No
Construction that will continue for more than 1 year or involve more than one phase or stage.			Yes No
Excavation for mining purposes that would remove more than 1,000 tons of natural material (i.e., rock or soil) per year.			Yes No

Construction or expansion of a sanitary landfill. Construction in a designated floodway. Other impacts:		Yes No
Construction in a designated floodway. Other impacts:		Yes No
Other impacts: Mill there be an effect to any unique or unusual land forms found on the site? i.e., cliffs, dunes, geological formations, etc.) M ND YES Specific land forms: IMPACT ON WATER Vill Proposed Action affect any water body designated as protected? (Under		Yes No
Mill there be an effect to any unique or unusual land forms found on the site? i.e., cliffs, dunes, geological formations, etc.) Image: No YES Specific land forms: Impact on WATER Vill Proposed Action affect any water body designated as protected? (Under		Yes No
✓ NO YES Specific land forms:		Yes No
Specific land forms: IMPACT ON WATER Vill Proposed Action affect any water body designated as protected? (Under		Yes No
IMPACT ON WATER Vill Proposed Action affect any water body designated as protected? (Under		
Articles 15, 24, 25 of the Environmental Conservation Law, ECL)		
Examples that would apply to column 2		
Developable area of site contains a protected water body.		Yes No
Dredging more than 1 00 cubic yards of material from channel of a protected stream.		Yes No
Extension of utility distribution facilities through a protected water body.		Yes No
Construction in a designated freshwater or tidal wetland.		Yes N
Other impacts:		Yes N
Vill Proposed Action affect any non-protected existing or new body of water?	 	
Examples that would apply to column 2		
A 10% increase or decrease in the surface area of any body of water or more than a 10 acre increase or decrease.		Yes N
Construction of a body of water that exceeds 10 acres of surface area.		Yes N
Other impacts:		Yes N

Proposed Action affect surface or groundwater quality or quantity?		
\square NO \checkmark YES		
Examples that would apply to column 2		
Proposed Action will require a discharge permit.		Yes N
Proposed Action requires use of a source of water that does not have approval to serve proposed (project) action.		Yes N
Proposed Action requires water supply from wells with greater than 45 gallons per minute pumping capacity.		Yes N
Construction or operation causing any contamination of a water supply system.		Yes N
Proposed Action will adversely affect groundwater.	\checkmark	Yes N
Liquid effluent will be conveyed off the site to facilities which presently do not exist or have inadequate capacity.		Yes N
Proposed Action would use water in excess of 20,000 gallons per day.		Yes N
Proposed Action will likely cause siltation or other discharge into an existing body of water to the extent that there will be an obvious visual contrast to natural conditions.		Yes N
Proposed Action will require the storage of petroleum or chemical products greater than 1,100 gallons.		Yes N
Proposed Action will allow residential uses in areas without water and/or sewer services.		Yes N
Proposed Action locates commercial and/or industrial uses which may require new or expansion of existing waste treatment and/or storage facilities.		Yes N
Other impacts:		Yes I

	T Smalito Moderate Impact	2 Potential Large impact	3 Can Impact Be Mitigated by Project Change	
6. Will Proposed Action alter drainage flow or patterns, or surface water run off?				-
√ NO YES				
Examples that would apply to column 2				
Proposed Action would change flood water flows			Yes No	
Proposed Action may cause substantial erosion.			Yes No	
Proposed Action is incompatible with existing drainage patterns.			Yes No	
Proposed Action will allow development in a designated floodway.			Yes No	
Other impacts:			Yes No	
IMPACT ON AIR				
7. Will Proposed Action affect air quality?				
NO VES				
Examples that would apply to column 2				
Proposed Action will induce 1,000 or more vehicle trips in any given hour.			Yes No	
Proposed Action will result in the incineration of more than 1 ton of refuse per hour.			Yes No	
Emission rate of total contaminants will exceed 5 lbs. per hour or a heat source producing more than 10 million BTU's per hour.			Yes No	
Proposed Action will allow an increase in the amount of land committed to industrial use.			Yes No	
Proposed Action will allow an increase in the density of industrial development within existing industrial areas.			Yes No	
Other impacts:	\checkmark		Yes No	
Potential dust impacts from proposed soil processing operation.				
IMPACT ON PLANTS AND ANIMALS				
8. Will Proposed Action affect any threatened or endangered species?				
VND YES				
Examples that would apply to column 2				
Reduction of one or more species listed on the New York or Federal list, using the site, over or near the site, or found on the site.			Yes No	-

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	1 Smali to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change
Removal of any portion of a critical or significant wildlife habitat.			Yes No
Application of pesticide or herbicide more than twice a year, other than for agricultural purposes.			Yes No
Other impacts:			Yes No
Will Proposed Action substantially affect non-threatened or non-endangered species?			
V NO LYES			
Examples that would apply to column 2 Proposed Action would substantially interfere with any resident or migratory fish, shellfish or wildlife species.			Yes No
Proposed Action requires the removal of more than 10 acres of mature forest (over 100 years of age) or other locally important vegetation.			Yes No
Other impacts:			Yes No
IMPACT ON AGRICULTURAL LAND RESOURCES 10. Will Proposed Action affect agricultural land resources?			
V NO YES			
Examples that would apply to column 2			
The Proposed Action would sever, cross or limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc.)			Yes No
Construction activity would excavate or compact the soil profile of agricultural land.			Yes No
The Proposed Action would irreversibly convert more than 10 acres of agricultural land or, if located in an Agricultural District, more than 2.5 acres of agricultural land.			Yes No

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change	
The Proposed Action would disrupt or prevent installation of agricultural land management systems (e.g., subsurface drain lines, outlet ditches, strip cropping); or create a need for such measures (e.g. cause a farm field to drain poorly due to increased runoff).			Yes 🛄 No	(
Other impacts:			Yes No	
IMPACT ON AESTHETIC RESOURCES				
 Will Proposed Action affect aesthetic resources? (If necessary, use the Visual EAF Addendum in Section 617.20, Appendix B.) 				
VINO YES				
Examples that would apply to column 2				
Proposed land uses, or project components obviously different from or in sharp contrast to current surrounding land use patterns, whether man-made or natural.			Yes No	
Proposed land uses, or project components visible to users of aesthetic resources which will eliminate or significantly reduce their enjoyment of the aesthetic qualities of that resource.			Yes No	
Project components that will result in the elimination or significant screening of scenic views known to be important to the area.			Yes No	-
Other impacts:			Yes No	
IMPACT ON HISTORIC AND ARCHAEOLOGICAL RESOURCES				
12. Will Proposed Action impact any site or structure of historic, prehistoric or paleontological importance?				
$\mathbf{\nabla}$ NO $\mathbf{\Box}$ Yes				
Examples that would apply to column 2				
Proposed Action occurring wholly or partially within or substantially contiguous to any facility or site listed on the State or National Register of historic places.			Yes No	
Any impact to an archaeological site or fossil bed located within the project site.			Yes No	
Proposed Action will occur in an area designated as sensitive for archaeological sites on the NYS Site Inventory.			Yes No	

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Other impacts:		Yes I
IMPACT ON OPEN SPACE AND RECREATION	 	
recreational opportunities?		
V NO YES		
Examples that would apply to column 2	 []	·
The permanent foreclosure of a future recreational opportunity.		
A major reduction of an open space important to the community.		Yes
Other impacts:		Yes
wironmental area (CEA) established pursuant to subdivision 6 NYCRR 617.14(g)? $\sqrt{100}$ NO $\sqrt{100}$ YES		
LIST THE ENVIRONMENTAL CRARACTERISTICS THAT CAUSED THE DESIGNATION OF THE CHEA.	 	
Examples that would apply to column 2	 	Vac
Pronosed Action will result in a reduction in the quantity of the	 	
resource?		Tes
Proposed Action will result in a reduction in the quality of the resource?		Yes
Proposed Action will impact the use, function or enjoyment of the resource?		Yes

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change
IMPACT ON TRANSPORTATION			
Mill there be an effect to existing transportation systems? NO VES			
Examples that would apply to column 2			
Alteration of present patterns of movement of people and/or goods.			Yes No
Proposed Action will result in major traffic problems.			Yes No
Other impacts:	\checkmark		Yes No
Potential traffic conflict with trucks entering Route 9 from Horsemen's	Trail. (Evaluat	te sight distan	ices, etc.)
IMPACT ON ENERGY			
Will Proposed Action affect the community's sources of fuel or energy supply?			
VNO YES			
Examples that would apply to column 2			
Proposed Action will cause a greater than 5% increase in the use of any form of energy in the municipality.			Yes No
Proposed Action will require the creation or extension of an energy transmission or supply			Ves No
system to serve more than 50 single or two family residences or to serve a major commercial or industrial use.			
Other impacts:			Yes No
NOISE AND ODOR IMPACT			
Will there be objectionable odors, noise, or vibration as a result of the Proposed Action?			
Examples that would apply to column 2			
Blasting within 1,500 feet of a hospital, school or other sensitive facility.			Yes No
Odors will occur routinely (more than one hour per day).			Yes No
Proposed Action will produce operating noise exceeding the local ambient noise levels for noise outside of structures.	\checkmark		Yes No
Proposed Action will remove natural barriers that would act as a noise screen.			Yes No
Other impacts:			Yes No

	1	2	3
	Small to Moderate Impact	Potential Large Impact	Can Impact Be Mitigated by Project Change
IMPACT ON PUBLIC HEALTH			
Will Proposed Action affect public health and safety?			
V NO YES			
Proposed Action may cause a risk of explosion or release of hazardous substances (i.e. oil, pesticides, chemicals, radiation, etc.) in the event of accident or upset conditions, or there may be a chronic low level discharge or emission.			Yes No
Proposed Action may result in the burial of "hazardous wastes" in any form (i.e. toxic, poisonous, highly reactive, radioactive, initating, infectious, etc.)			Yes No
Storage facilities for one million or more gallons of liquefied natural gas or other fiammable liquids.			Yes No
Proposed Action may result in the excavation or other disturbance within 2,000 feet of a site used for the disposal of solid or hazardous waste.			Yes No
Other impacts:			Yes No
IMPACT ON GROWTH AND CHARACTER OF COMMUNITY OR NEIGHBORHOOD 19. Will Proposed Action affect the character of the existing community? Image: No Image: YES Evenue that use that use that use that use the column 0.			
The permanent population of the city, town or village in which the project is located is likely to grow by more than 5%.			Yes No
The municipal budget for capital expenditures or operating services will increase by more than 5% per year as a result of this project.			Yes No
Proposed Action will conflict with officially adopted plans or goals.			Yes No
Proposed Action will cause a change in the density of land use.			Yes No
Proposed Action will replace or eliminate existing facilities, structures or areas of historic importance to the community.			Yes No
Development will create a demand for additional community services (e.g. schools, police and fire, etc.)			Yes No

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|                                                                      | 1<br>Small to<br>Moderate<br>Impact | 2<br>Potential<br>Large<br>Impact | 3<br>Can Impact Be<br>Mitigated by<br>Project Change |   |
|----------------------------------------------------------------------|-------------------------------------|-----------------------------------|------------------------------------------------------|---|
| Proposed Action will set an important precedent for future projects. |                                     |                                   | Yes 🗌 No                                             | - |
| Proposed Action will create or eliminate employment.                 |                                     |                                   | Yes No                                               |   |
| Other impacts:                                                       |                                     |                                   | Yes No                                               |   |
|                                                                      |                                     |                                   |                                                      |   |
|                                                                      |                                     |                                   |                                                      |   |

20. Is there, or is there likely to be, public controversy related to potential adverse environment impacts?

VINO YES

If Any Action in Part 2 Is Identified as a Potential Large Impact or If you Cannot Determine the Magnitude of Impact, Proceed to Part 3

### Part 3 - EVALUATION OF THE IMPORTANCE OF IMPACTS

### **Responsibility of Lead Agency**

Part 3 must be prepared if one or more impact(s) is considered to be potentially large, even if the impact(s) may be mitigated.

Instructions (If you need more space, attach additional sheets)

Discuss the following for each impact identified in Column 2 of Part 2:

1. Briefly describe the impact.

2. Describe (if applicable) how the impact could be mitigated or reduced to a small to moderate impact by project change(s).

3. Based on the information available, decide if it is reasonable to conclude that this impact is important.

To answer the question of importance, consider:

- ! The probability of the impact occurring
- ! The duration of the impact
- ! Its irreversibility, including permanently lost resources of value
- ! Whether the impact can or will be controlled
- ! The regional consequence of the impact
- ! Its potential divergence from local needs and goals
- ! Whether known objections to the project relate to this impact.

# FULL ENVIRONMENTAL ASSESSMENT FORM PART 3

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## ENVIRONMENTAL ASSESSMENT FORM, Part 3 Application of E. Polhemus Enterprise LLC

### **INTRODUCTION & BACKGROUND**

E. Polhemus Enterprise, LLC is the owner of a 6.605-acre parcel on the westerly side of Horsemen's Trail, immediately south of its intersection with Sky Line Drive. The property appears on the Putnam County Tax Map for the Town of Philipstown as Sheet 16.12, Block 1, Lot 7.

E. Polhemus Enterprise applied for site plan approval in 2009, prior to the enactment of the current zoning. The property was zoned I - Industrial. With the adoption of the new zoning, it is now zoned OC – Office, Commercial/Industry Mixed Use. Because the application preceded the 2011 adoption of the current zoning law, the site plan is being processed under the previous zoning.

In addition to the soil processing, storage, and sales and the contractor's yard, discussed in this EAF, the original application sought approval to construct an office building and operate a wood products processing facility. These uses were eliminated from the application in November of 2011 in an effort to the minimize potential impacts associated with them.

The property was the site of a former soil mine that ceased operation ca. 1980. Members of the Polhemus family operated the mine. After the mining ceased, the site continued to operate as a material's storage and contractor's yard, with occasional processing of material. This was conducted without the benefit of site plan approval or a Certificate of Occupancy. Until recently, there was also a house on the property. It was razed about 5 years ago.

The application seeks approval to continue and formalize the material storage and contractor's yard. The application also seeks approval to process and sell soil products, such as sand, gravel, topsoil, etc.

Following the November 2011 revisions submitted by the applicant as noted above, the Planning Board conducted and closed a Public Hearing on the application. The hearing was conducted on January 19, 2012, after which the applicant was instructed to review the plan and address issues raised by the public, members of the Planning Board and its consultants. Chief among the concerns was the potential impact of noise generated by the soil screener proposed by the applicant.

On August 27, 2012, Edgar B. Polhemus, Jr., member of E. Polhemus Enterprise, LLC, and Glennon J. Watson, L.S., the applicant's surveyor met in Town Hall with Code Enforcement Officer Donohue, Planning Board Member Anthony Merante and Planning Board Consultants Susan Jainchill, RLA and Ron Gainer, PE, to review the application and discuss the reasons why it appeared to be stalled.

### Environmental Assessment Form, Part 3 Application of E Polhemus Enterprise, LLC

During the meeting Messrs. Polhemus and Watson explained what had happened during the past several months, at the same time explaining the reasons for the delay. Following this meeting, the Town's representatives offered comment and several suggestions regarding how the application might be moved forward. Chief among the suggestions was that the applicant prepare this EAF for consideration by the Planning Board. Other suggestions regarding the site plan have been incorporated in the September 5, 2012 edition of the plan set. This EAF was completed following that revision.

Parts 1 and 2 of this EAF have been revised to incorporate the changes necessitated by the elimination of the office building and wood product processing activities from the application.

## **IMPACTS IDENTIFIED AND DISCUSSED**

Part 2 of this revised EAF identifies 4 small to moderate impacts and 1 potentially large impact associated with approval of the application in its revised form. Each is listed and discussed below.

### IMPACTS ON LAND

 $\blacksquare$  Any construction on slopes of 15 % or greater, (15 foot rise per 100 foot of length), or where the general slopes in the project area exceed 10%.

This is a small to moderate impact that threatens erosion and sedimentation. The applicant's plan minimizes disturbance to steep slopes by limiting it to the existing berm along the road. This activity is necessary to enlarge the berm and provide landscaping that has been designed to obscure the operation and enhance the appearance of the road frontage. Nevertheless, the threat of erosion exists. The applicant's designers have provided standard erosion control measures and notes on their plan. These measures are designed to minimize the increased threat of erosion resulting from disturbing steep slopes. By making the implementation of these measures a condition of site plan approval, the potential impact will be minimized to the greatest practical extent.

### IMPACTS ON WATER

Proposed Action will adversely affect groundwater.

This is also a small to moderate impact. The operation of engine-powered machinery always has the potential for equipment failure. In the instant situation there is the potential for a hydraulic hose to burst or some other fluid to leak onto and be absorbed into the ground. Should this happen without immediate response, the fluid could eventually reach and foul the groundwater.

The applicant's plan shows that a 500-gallon fuel tank on the site will remain. Were this tank to leak without protection and response, a similar fouling of the groundwater might occur.

The applicant's plan and program of equipment maintenance assures that this impact has been minimized to the greatest practical extent.

First, the applicant has stated that all of his equipment is subject to regular inspection and maintenance. This program is intended to minimize equipment failure and thus minimize fluid leaks. The Planning Board will make regular inspection and maintenance of all equipment on the site a condition of Site Plan Approval.

Second, the applicant's designers have specified that a spill kit be kept on site. Doing so will assure that the means necessary to contain and correct a spill, which may occur despite the maintenance and inspection program conducted by the applicant, will be immediately available.

Finally, as noted on the plan, the oil tank is housed in a concrete tank, providing double containment for the fuel oil. This precautionary measure provides assurance that the threat of the impact associated with a leak from the tank has been minimized to the greatest practical extent.

### IMPACTS ON AIR

☑ Other Impacts – Potential dust impacts from proposed soil processing operation.

This is a potentially small to moderate impact. The operation of a screener and the other operations associated with a soil processing operation have the potential to release of dust into the atmosphere. The applicant notes that most of the time, the material being processed is damp, which reduces the threat of dust being released. Still, the applicant's designers have specified that the existing well on the site be made operational so that the ground and stockpiled material can be dampened when it is necessary to control dust. Other areas where dust might be generated are to be seeded and otherwise planted to minimize the potential impact.

The Planning Board will make control of dust by watering a condition of site plan approval. By doing so this potential impact will be minimized to the greatest practical extent.

### **IMPACTS ON TRANSPORTATION**

☑ Other Impacts- Potential traffic conflict with trucks entering Route 9 from Horsemen's Trail. (Evaluate sight distances, etc.)

This is a small to moderate impact. There will be few trips in an out of the site, but all traffic must eventually come from or enter onto Route 9. The number of trips will have little impact. Nevertheless, the applicant commissioned John Collins Engineers to conduct the traffic study, which forms Attachment 1 to this EAF. The study considers the once quarterly impact of the recently approved site plan submitted by Entergy. It

### Environmental Assessment Form, Part 3 Application of E Polhemus Enterprise, LLC

concludes that there will be a reduction of the Level of service. This reduction is associated with the once quarterly traffic from Entergy. The additional impact from the Polhemus proposal does not further reduce the expected Level of Service at the intersections of Horsemen's Trail with Route 9.

The report recommends that signs directing southbound traffic from the site to turn right exiting the site and use the southern intersection of Horsemen's Trail and Route 9, while northbound traffic is directed to turn left and use the northern intersection. The applicant's designers have specified that the recommended signage be installed. When the signage is installed the potential impact will be minimized to the greatest practical extent.

### NOISE AND ODOR IMPACTS

☑ Proposed Action will produce operating noise exceeding the local ambient noise levels for noise outside of structures.

A potentially large impact from noise was threatened by the project as originally proposed. The original proposal included the wood processing operation. The applicant commissioned Sound Sense to conduct a noise study. This study forms Attachment 2 to this EAF. The study demonstrated several ways the potential noise impact from the wood processing operation might be minimized. The applicant considered the various options and concluded that none of them were affordable considering the size and scale of the operation. Accordingly, the applicant decided that the best way to reduce the impact of the wood processing application was to eliminate if from the application and did so.

Although considerably smaller, there remains the potential noise impact associated with the contractor's yard and the soil processing operation. One reduction of the remaining impact has been incorporated into the revised plan. Specifically, the designers have moved the work area from the near the road to the rear of the yard area on the site.

The previously mentioned maintenance regimen that the applicant employs also includes replacement of mufflers on all of the equipment. This will assure that the equipment continues to operate as designed.

Finally, the noise study recommends that the screener be modified by lining the hopper with 1" thick rubber material and replacing the screen cloth with screen cloth made of  $\frac{1}{2}$ " thick polymer screen material.

In combination the impact of noise associated with the revised plan and reduced activity level will be minimized to the greatest practical extent. The Planning Board will make maintenance of the hopper liner and use of the polymer screen material a condition of Site Plan approval.

### **CONCLUSION**

The impacts associated with approval of the revised site plan submitted by E. Polhemus Enterprise, LLC have been reviewed, identified, discussed and addressed. Based on the discussion in this EAF, it is reasonable to conclude that those impacts that were identified are either small to moderate and/or have been minimized to the greatest practical extent. At is therefore reasonable to consider the adoption of a Negative Declaration under SEQRA.

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Page 5 of 5 pages

ATTACHMENT 1 TRAFFIC STUDY prepared by John Collins Engineers, P.C. March 2, 2012

# JOHN COLLINS ENGINEERS, P.C. TRAFFIC • TRANSPORTATION ENGINEERS

===== 11 BRADHURST AVENUE • HAWTHORNE, N.Y. • 10532 • (914) 347-7500 • FAX (914) 347-7266 =====

March 2, 2012

Mr. Glennon J. Watson, L. S. Badey & Watson Surveying & Engineering, P.C. 3063 Route 9 Cold Spring, NY 10516

RE: E. Polhemus Enterprise, LLC Route 9 and Horseman's Trail Town of Philipstown, New York

### Dear Glenn:

As requested, we have completed our field investigation and traffic analysis for the proposed E. Polhemus Enterprise, LLC contractor's yard, which is planned to be constructed on property located on the west side of Horseman's Trail south of Skyline Drive (see Figure No. 1) in the Town of Philipstown, New York. The approximately 6.6-acre site is proposed for the processing, storage and sale of sand, gravel, soild and related construction materials and the operation of a contractor's yard. Based on the Statement of Use provided by E. Polhemus Enterprise, LLC it is expected that the site will have approximately three employees on site daily. The following summarizes the tasks undertaken in our review and our recommendations as a result of our analysis.

### 1. <u>2012 Existing Traffic Volumes</u> (Figures No. 2 and 3)

Turning movement traffic counts were collected at the intersection of Horseman's Trail South with U.S. Route 9. These counts were conducted during the weekday peak hours from 3:30 to 6:30PM on February 2, 2012 and between 7:00 and 9:15 AM on February 3, 2012. In addition, traffic data available from the New York State Department of Transportation (NYSDOT) as well as from other studies completed in the area were referenced to identify the existing peak hour traffic volumes. The resulting 2012 Existing Traffic Volumes are shown on Figures No. 2 and 3.

### 2. <u>2014 No-Build Traffic Volumes</u> (Figures No. 4 and 5)

The Existing Traffic Volumes were projected to a future design year utilizing a background growth factor of 1% per year. This factor was used to account for other development traffic as well as normal background growth in the corridor. In addition, traffic associated with the proposed Entergy Emergency Operation Center to be located along Horseman's Trail has also been considered. It should be noted that the traffic volumes associated with this project which were analyzed in the this report are associated with the quarterly event conditions that will occur at the site and therefore better operating conditions can be expected under typical conditions when it is expected that only two or three employees will be present at the Entergy facility. Figures No. 4 and 5 show the 2014 No-Build Traffic Volumes for the AM and PM Peak Hours.

### 3. <u>Site Generated Traffic Volumes</u> (Table No. 1)

As indicated previously, the site is expected to only have three employees on site daily. Based on the Statement of Use provided by E. Polhemus Enterprise, LLC it is expected that there will approximately 3 vehicles entering and 3 vehicles exiting the site per hour during a peak day. The expected trip generation numbers are shown in Table No. 1.

### 4. <u>Arrival and Departure Distributions</u> (Figures No. 6 and 7)

The expected arrival and departure distributions of trips to this site for typical and the quarterly event conditions are shown on Figures No. 6 and 7.

### 5. <u>2014 Build Traffic Volumes</u> (Figures No. 8, 9, 10 and 11)

The Site Generated Traffic Volumes shown on Table No. 1 were assigned to the roadway network and added together with the No-Build Traffic Volumes to obtain the Build Traffic Volumes. The Site Generated Traffic Volumes are shown on Figures No. 8 and 9 while the Build Traffic Volumes are shown on Figures No. 10 and 11.

### 6. Description of Analysis Procedures

In order to determine existing and future traffic operating conditions at the study area intersections, it was necessary to perform capacity analyses. The unsignalized intersection capacity analysis method utilized in this report was also performed in accordance with the procedures described in the 2010 Highway Capacity Manual. The procedure is based on total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line. The average total delay for any particular critical movement is a function of the service rate or capacity of the approach and the degree of saturation. In order to identify the Level of Service, the average amount of vehicle delay is computed for each critical movement to the intersection.

Additional information concerning unsignalized Levels of Service can be found in Appendix "D" of this report.

### 7. Findings and Recommendations

Capacity analysis was conducted for the U.S. Route 9 and Horseman's Trail north intersections. This intersection is a "T" type unsignalized intersection, which is controlled by "stop" signs on the Horseman's Trail approaches.

The capacity analysis results, which accounted for the traffic associated with both the proposed Entergy Emergency Operations Center (quarterly event conditions) and the E. Polhemus Enterprise, LLC contractor's yard, are summarized in Table No. 2. The capacity analysis conducted for the Horseman's Trail north intersection indicates that the intersection currently operates at a Level of Service "C" during each of the peak hours. The analysis was recomputed with the 2014 No-Build Traffic Volumes which indicates that the intersection will continue to experience a Level of Service "C" during the AM Peak Hour and will operate at a Level of Service "E" during the PM Peak Hour. The intersection was again analyzed with the 2014 Build Traffic Volumes which indicates that a Level of Service "C" will be maintained during the AM Peak Hour, while a Level of Service "E" will be experienced during the PM Peak Hour. Note that it is expect that a Level of Service "D" will

be experienced during other typical days of operation associated with the Entergy Facility.

Furthermore, based on our findings for the Entergy evaluation, it was determined that the sight distance for left turn exiting movements at the south leg of Horseman's Trail and U.S. Route 9 are restricted. Therefore signs should be installed on the exit driveway from the E. Polhemus Enterprise, LLC directing traffic destined to U.S. Route 9 northbound to make a left onto Horseman's Trail and use the northerly connection to U.S. Route 9 northbound.

### 8. <u>Summary and Conclusions</u>

Based on the results of the capacity analysis contained herein, the Levels of Service are consistent with other locations along this area of U.S. Route 9. The left turns exiting onto U.S. Route 9 northbound should be directed to the Horseman's Trail north leg intersection as discussed above. Again, it should be noted that the operating conditions presented will only be experienced four times per year when emergency drills are conducted at the proposed Entergy facility.

Respectfully submitted,

JOHN COLLINS ENGINEERS, P.C.

Philip J.

## APPENDIX "A"

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### **FIGURES**



JOHN COLLINS ENGINEERS, P.C. HAWTHORNE , NEW YORK



JOHN COLLINS ENGINEERS, P.C. HAWTHORNE, NEW YORK



JOHN COLLINS ENGINEERS, P.C. HAWTHORNE , NEW YORK



JOHN COLLINS ENGINEERS, P.C. HAWTHORNE , NEW YORK





HAWTHORNE , NEW YORK



JOHN COLLINS ENGINEERS, P.C. HAWTHORNE , NEW YORK



PHILIPSTOWN, NEW YORK

JOHN COLLINS ENGINEERS, P.C. HAWTHORNE , NEW YORK



JOHN COLLINS ENGINEERS, P.C. HAWTHORNE, NEW YORK



PHILIPSTOWN, NEW YORK

WEEKDAY PEAK AM HOL

JOHN COLLINS ENGINEERS, P.C. HAWTHORNE , NEW YORK



JOHN COLLINS ENGINEERS, P.C. HAWTHORNE , NEW YORK

## APPENDIX "B"

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## TABLES

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#### TABLE NO. 1

#### HOURLY TRIP GENERATION RATES (HTGR) AND ANTICIPATED SITE GENERATED TRAFFIC VOLUMES

|                                                      | EN.   |        | Ð     |        |
|------------------------------------------------------|-------|--------|-------|--------|
| E. POLHEMUS ENTEPRISE, LLC<br>PHILLIPSTOWN, NEW YORK | HTGR* | VOLUME | HTGR* | VOLUME |
| CONTRACTOR'S YARD<br>(6.605 ACRES)                   |       |        |       |        |
| PEAK AM HOUR                                         | 0.45  | 3      | 0.45  | 3      |
| PEAK PM HOUR                                         | 0.45  | 3      | 0.45  | 3      |

NOTES:

1)\* THE HOURLY TRIP GENERATION RATES (HTGR) AND VOLUEMS ARE BASED ON DATA PROVIDED BY E. POLHEMUS ENTERPRISE, LLC IN THEIR STATEMENT OF USE FOR THE PROPOSED CONTRACTOR'S YARD.

3/2/2012

**JCE JOB** 1883

## APPENDIX "C"

## CAPACITY ANAYLSIS

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TWO-WAY STOP CONTROL SUMMARY

| Analyst:                                 | RGD                  |                                         |                         |               |           |           |          |    |
|------------------------------------------|----------------------|-----------------------------------------|-------------------------|---------------|-----------|-----------|----------|----|
| Agency/Co.:                              | 2/20                 | /2012                                   |                         |               |           | ·         |          |    |
| Analygia Time Dori                       | 2/23                 | /2012<br>778 UA1                        | סז                      |               |           |           |          |    |
| Intersection.                            | יייזרא געט.<br>שוראם | 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | JA<br>JADQ <b>UM</b> UN | ז מידם אד     | τ.        |           |          |    |
| Jurisdiction.                            | ROOI                 |                                         | IOKOBMBI                | 10 IKAL       |           |           |          |    |
| Unite. II S Custo                        | mary                 |                                         |                         |               |           |           |          |    |
| Analysis Year                            | 2012                 | EXIST.                                  | ING TRAF                | FTC VO        | LUMES     |           |          |    |
| Project ID: 1883A                        | MEXI                 |                                         |                         |               |           |           |          |    |
| East/West Street:                        | HORS                 | SEMENS                                  | FRAIL (N                | ORTH)         |           |           |          |    |
| North/South Street                       | : <b>U.S</b> .       | ROUTE                                   | 9                       |               |           |           |          |    |
| Intersection Orier                       | ntation:             | NS                                      |                         | S             | tudy per  | riod (hr: | s): 0.2  | 5  |
|                                          | Vehi                 |                                         | lumos ar                | d Adiu        | etmente   |           |          |    |
| Major Street: Apr                        | veni                 |                                         | orthbour                | id Adju<br>id | BCillence | Southbo   | und      |    |
| Mov                                      | vement               | 1                                       | 2                       | 3             | 4         | 5         | 6        |    |
|                                          |                      | L                                       | т                       | R             | L         | т         | R        |    |
| · · · · · · · · · · · · · · · · · · ·    |                      |                                         |                         |               | <u> </u>  |           |          |    |
| VOLUME                                   | DUD                  | 0                                       | 434                     |               |           | 665       | 0        | 'n |
| reak-nour factor,                        | rnr<br>upp           | 0.90                                    | 0.90                    |               |           | 0.9       | 0 0.9L   | ,  |
| Dorgent Verser Vers                      | nrk                  | U<br>2                                  | 482                     |               |           | /38       | U<br>    |    |
| Fercent neavy veni<br>Median Tyme/Growse | ICTG2                | 2<br>175 4 -                            | rided                   |               | ,         | ~-        |          |    |
| RT Channelived?                          | je                   | OUGT                                    | v Tueu                  |               | /         |           |          |    |
| lanes                                    |                      | n                                       | 1                       |               |           | 1         | 0        |    |
| Configuration                            |                      | U.                                      | -<br>- Tri              |               |           | -         | TR       |    |
| Upstream Signal?                         |                      |                                         | No                      |               |           | No        |          |    |
|                                          |                      |                                         |                         |               |           |           |          |    |
| inor Street: App                         | roach                | W                                       | estbound                | 1             |           | Eastbou   | nd       |    |
| Mov                                      | vement               | 7                                       | 8                       | 9             | 10        | 11        | 12       |    |
|                                          |                      | L                                       | T                       | R             | ļΓ        | Т         | R        |    |
| Volume                                   |                      | <u></u>                                 |                         |               | 3         |           | 1        |    |
| Peak Hour Factor.                        | PHF                  |                                         |                         |               | <u> </u>  | 90        | 0.9      | 3  |
| Hourly Flow Rate,                        | HFR                  |                                         |                         |               | 3         |           | 1        |    |
| Percent Heavy Vehi                       | cles                 |                                         |                         |               | 2         |           | 2        |    |
| Percent Grade (%)                        |                      |                                         | 0                       |               |           | 2         |          | •  |
| Flared Approach:                         | Exists?,             | Storag                                  | e                       |               | 1         |           | No       | 1  |
| Lanes                                    |                      | 5                                       |                         |               | -         | 0         | 0        | -  |
| Configuration                            |                      |                                         |                         |               |           | LR        |          |    |
|                                          |                      |                                         |                         |               |           | <b></b>   |          |    |
| ······································   | Delay, (             | Queue L                                 | ength, a                | and Lev       | el of S   | ervice    | <u> </u> |    |
| Approach                                 | NB                   | SB                                      | We                      | stbound       | ł         | Ea        | stbound  |    |
| Movement                                 | 1                    | 4                                       | 7                       | 8             | 9         | 10        | 11       | 12 |
| Lane Config                              | $\mathbf{LT}$        | 1                                       |                         |               |           | ł         | LR       |    |
| v (vph)                                  | 0                    |                                         |                         |               | ······    | <u></u>   | 4        |    |
| C(m) (vph)                               | 868                  |                                         |                         |               |           |           | 203      |    |
| v/c                                      | 0.00                 |                                         |                         |               |           |           | 0.02     |    |
| 95% queue length                         | 0.00                 |                                         |                         |               |           |           | 0.06     |    |
| Control Delay                            | 9.1                  |                                         |                         |               |           |           | 23.1     |    |
| LOS                                      | A                    |                                         |                         |               |           |           | С        |    |
| Approach Dolay                           |                      |                                         |                         |               |           |           | 23.1     |    |
| HUDTOACH DETAY                           |                      |                                         |                         |               |           |           | C        |    |
| roach LOS                                |                      |                                         |                         |               |           |           | Č        |    |

HCS+: Unsignalized Intersections Release 5.6 TWO-WAY STOP CONTROL SUMMARY Analyst: RGD JCE Agency/Co.: Date Performed: 2/29/12 Analysis Time Period: PM PEAK HOUR ROUTE 9 & HORSEMENS TRAIL Intersection: Jurisdiction: Units: U. S. Customary 2012 EXISTING TRAFFIC VOLUMES Analysis Year: Project ID: 1883PMEX1 East/West Street: HORSEMENS TRAIL (NORTH) North/South Street: U.S. ROUTE 9 Intersection Orientation: NS Study period (hrs): 0.25 Vehicle Volumes and Adjustments Major Street: Approach Northbound Southbound Movement 2 5 1 3 4 6 T. т R L Т R Volume 493 986 3 2 0.92 Peak-Hour Factor, PHF 0.92 0.92 0.92 Hourly Flow Rate, HFR 2 1071 535 3 Percent Heavy Vehicles 2 - -..... Median Type/Storage Undivided 1 **RT** Channelized? Lanes 1 0 0 1 Configuration TR LT **Upstream Signal?** No No Minor Street: Eastbound Westbound Approach Movement 7 10 11 12 9 8 т R т R ь L Volume 1 1 Peak Hour Factor, PHF 0.92 0.92 Hourly Flow Rate, HFR 1 1 Percent Heavy Vehicles 2 2 Percent Grade (%) 0 2 Flared Approach: Exists?/Storage No 1 Lanes 0 0 Configuration LR Delay, Queue Length, and Level of Service Eastbound Approach NB SB Westbound Movement 8 9 10 11 12 1 4 7 Lane Config LT LR v (vph) 2 2 C(m) (vph) 1030 189 0.00 0.01 v/c 95% queue length 0.01 0.03 24.3 Control Delay 8.5 LOS С Α Approach Delay 24.3

С

Approach LOS

\_\_\_\_TWO-WAY STOP CONTROL SUMMARY\_\_\_

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proach LOS

| `nalyst:<br>gency/Co.:                                                                              | RGD<br>JCE                                                       |         |                |             |          |        |        |                                                            |                                        |
|-----------------------------------------------------------------------------------------------------|------------------------------------------------------------------|---------|----------------|-------------|----------|--------|--------|------------------------------------------------------------|----------------------------------------|
| Date Performed:                                                                                     | 2/29/                                                            | 2012    |                |             |          |        |        |                                                            |                                        |
| Analysis Time Period                                                                                | AM PE                                                            | АК Н    | OUR            |             |          |        |        |                                                            |                                        |
| Intersection:                                                                                       | ROUTE                                                            | 3 e :   | HORSEMENS      | TRAI        | L .      |        |        |                                                            |                                        |
| Jurisdiction:                                                                                       |                                                                  |         |                |             |          |        |        |                                                            |                                        |
| Units: U. S. Customa:                                                                               | ry                                                               |         |                |             |          |        |        |                                                            |                                        |
| Analysis Year:                                                                                      | 2014                                                             | NO-B    | UILD TRAFI     | FIC VO      | LUMES    |        |        |                                                            |                                        |
| Project ID: 1883AMN                                                                                 | B1                                                               |         |                |             |          |        |        |                                                            |                                        |
| East/West Street:                                                                                   | HORSE                                                            | MENS    | TRAIL (NO      | ORTH)       |          |        |        |                                                            |                                        |
| North/South Street:                                                                                 | U.S.                                                             | ROUT    | Е 9            |             |          |        |        |                                                            |                                        |
| Intersection Orienta                                                                                | tion: N                                                          | IS      |                | S           | tudy pe  | riod   | (hrs)  | : 0.25                                                     |                                        |
|                                                                                                     |                                                                  |         |                |             |          |        |        |                                                            |                                        |
| ·····                                                                                               | Vehic                                                            | le V    | olumes and     | i Adju      | stments  |        |        |                                                            |                                        |
| Major Street: Appro                                                                                 | ach                                                              |         | Northbound     | 1           |          | Sout   | hbound | 1                                                          |                                        |
| Movem                                                                                               | ent                                                              | 1       | 2              | 3           | 4        |        | 5      | 6                                                          |                                        |
|                                                                                                     |                                                                  | L       | Т              | R           | L        |        | т      | R                                                          |                                        |
| ••••••••••••••••••••••••••••••••••••••                                                              |                                                                  |         |                |             |          |        | 686    |                                                            |                                        |
| Volume                                                                                              | -                                                                | 0       | 443            |             |          |        | 678    | 42                                                         |                                        |
| Peak-Hour Factor, PH.                                                                               | r<br>F                                                           | 0.9     | 0 0.90         |             |          |        | 0.90   | 0.90                                                       |                                        |
| Hourly Flow Rate, HF.                                                                               | к<br>~                                                           | 0       | 492            |             |          |        | 753    | 46                                                         |                                        |
| Nadian Turne (Stampage                                                                              | es                                                               | 2       |                |             | ,        |        |        |                                                            |                                        |
| Median Type/Storage                                                                                 |                                                                  | Unc     | ivided         |             | /        |        |        |                                                            |                                        |
| RI Chamerized?                                                                                      |                                                                  |         | 0 1            |             |          |        | 1      | •                                                          |                                        |
| Lanes                                                                                               |                                                                  |         |                |             |          |        | т<br>Т | D                                                          |                                        |
| Unstroam Signal?                                                                                    |                                                                  |         | No             |             |          |        | No     | ĸ                                                          |                                        |
| Opscieam Signal?                                                                                    |                                                                  |         | NO             |             |          |        | NO     |                                                            |                                        |
| inor Street: Appro                                                                                  | ach                                                              |         | Westbound      |             |          | East   | bound  |                                                            |                                        |
| Movem                                                                                               | ent                                                              | 7       | 8              | 9           | 10       | )      | 11     | 12                                                         |                                        |
|                                                                                                     |                                                                  | L       | т              | R           | L        |        | T      | R                                                          |                                        |
| Volumo                                                                                              |                                                                  |         | . <u> </u>     |             | <u> </u> |        |        | 1                                                          | ······································ |
| Volume<br>Book Hour Pastor DH                                                                       | T                                                                |         |                |             | 3        | 90     |        | 1 0 0                                                      |                                        |
| Hourly Rlow Rate WE                                                                                 | r<br>D                                                           |         |                |             | 3        | . 90   |        | 1                                                          |                                        |
| Bercent Weavy Vehicl                                                                                | A.G.                                                             |         |                |             | 2        |        |        | 2                                                          |                                        |
| Percent Grade (%)                                                                                   | C.3                                                              |         | 0              |             | 2        |        | 2      | 2                                                          |                                        |
| Flared Approach: Ex                                                                                 | ists?/S                                                          | stors   | ure v          |             | 1        |        | •      | No                                                         | 1                                      |
| Lanes                                                                                               | 1000.70                                                          |         | .ge            |             | ,        | 0      |        | 0                                                          | ,                                      |
| Configuration                                                                                       |                                                                  |         |                |             |          | •      | LR     | •                                                          |                                        |
|                                                                                                     |                                                                  |         |                |             |          |        |        |                                                            |                                        |
|                                                                                                     |                                                                  |         |                |             |          |        |        |                                                            |                                        |
| De                                                                                                  | 7                                                                | ielle   | Length, a      | nd Lev      | rel of S | Servio | ;e     |                                                            |                                        |
| Approach                                                                                            | ταγ, Οι                                                          |         |                |             |          |        |        |                                                            |                                        |
|                                                                                                     | NB                                                               | SB      | Wes            | tbound      | l        |        | East   | bound                                                      |                                        |
| Movement                                                                                            | nB<br>1                                                          | SB<br>4 | Wes            | tbound<br>8 | l<br>9   | 10     | East   | bound<br>11                                                | 12                                     |
| Movement<br>Lane Config                                                                             | NB<br>1<br>LT                                                    | SB<br>4 | Wes<br>  7<br> | tbound<br>8 | l<br>9   |        | East   | bound<br>11<br>LR                                          | 12                                     |
| Movement<br>Lane Config<br>v (vph)                                                                  | NB<br>1<br>LT<br>0                                               | SB<br>4 | Wes            | tbound<br>8 | l<br>9   |        | East   | bound<br>11<br>LR<br>4                                     | 12                                     |
| Movement<br>Lane Config<br>v (vph)<br>C(m) (vph)                                                    | 1 ay, Q(<br>NB<br>1<br>LT<br>0<br>824                            | SB<br>4 | Wes            | tbound<br>8 | l<br>9   |        | East   | bound<br>11<br>LR<br>4<br>189                              | 12                                     |
| Movement<br>Lane Config<br>v (vph)<br>C(m) (vph)<br>v/c                                             | 1 ay, Q(<br>NB<br>1<br>LT<br>0<br>824<br>0.00                    | SB<br>4 | Wes            | tbound<br>8 | l<br>9   |        | East   | bound<br>11<br>LR<br>4<br>189<br>0.02                      | 12                                     |
| Movement<br>Lane Config<br>v (vph)<br>C(m) (vph)<br>v/c<br>95% queue length                         | 149, QU<br>NB<br>1<br>LT<br>0<br>824<br>0.00<br>0.00             | SB<br>4 | Wes            | tbound<br>8 | 9        | 10     | East   | bound<br>11<br>LR<br>4<br>189<br>0.02<br>0.06              | 12                                     |
| Movement<br>Lane Config<br>v (vph)<br>C(m) (vph)<br>v/c<br>95% queue length<br>Control Delay        | Iay, QU<br>NB<br>1<br>LT<br>0<br>824<br>0.00<br>0.00<br>9.4      | SB<br>4 | Wes            | tbound<br>8 | l<br>9   | 10     | East   | bound<br>11<br>LR<br>4<br>189<br>0.02<br>0.06<br>24.5      | 12                                     |
| Movement<br>Lane Config<br>v (vph)<br>C(m) (vph)<br>v/c<br>95% queue length<br>Control Delay<br>LOS | Iay, QU<br>NB<br>1<br>LT<br>0<br>824<br>0.00<br>0.00<br>9.4<br>A | SB<br>4 | Wes            | tbound<br>8 | l<br>9   |        | East   | bound<br>11<br>LR<br>4<br>189<br>0.02<br>0.06<br>24.5<br>C | 12                                     |

С

HCS+: Unsignalized Intersections Release 5.6 TWO-WAY STOP CONTROL SUMMARY Analyst: RGD Agency/Co.: JCE Date Performed: 2/29/2012 Analysis Time Period: PM PEAK HOUR Intersection: ROUTE 9 & HORSEMENS TRAIL Jurisdiction: Units: U. S. Customary Analysis Year: 2014 NO-BUILD TRAFFIC VOLUMES Project ID: 1883PMNB1 East/West Street: HORSEMENS TRAIL (NORTH) North/South Street: U.S. ROUTE 9 Intersection Orientation: NS Study period (hrs): 0.25 Vehicle Volumes and Adjustments Major Street: Northbound Southbound Approach Movement 1 4 5 2 3 6 т R т R L Г Volume 2 1006 503 3 Peak-Hour Factor, PHF 0.92 0.92 0.92 0.92 Hourly Flow Rate, HFR 1093 546 2 3 Percent Heavy Vehicles 2 - -- -~ -Median Type/Storage Undivided Ι **RT** Channelized? Lanes 1 1 0 0 Configuration LT TR **Upstream Signal?** No No Eastbound Minor Street: Approach Westbound Movement 7 9 10 11 12 8 т R т  $\mathbf{L}$ R  $\mathbf{L}$ Volume 1 43 0.92 Peak Hour Factor, PHF 0.92 Hourly Flow Rate, HFR 46 1 Percent Heavy Vehicles 2 2 Percent Grade (%) 0 2 Flared Approach: Exists?/Storage No 1 Lanes 0 0 Configuration LR Delay, Queue Length, and Level of Service Westbound Eastbound Approach NB SB Movement 8 9 10 11 1 4 7 12 Lane Config  $\mathbf{LT}$ LR 47 v (vph) 2 128 C(m) (vph) 1021 0.37 v/c 0.00 95% queue length 0.01 1,51 Control Delay 8.5 48.6 Е LOS Α 48.6 Approach Delay Approach LOS Е

TWO-WAY STOP CONTROL SUMMARY

| <b>\nalyst</b> :       | RGD                     |              |        |      |
|------------------------|-------------------------|--------------|--------|------|
| gency/Co.:             | JCE                     |              |        |      |
| Date Performed:        | 2/29/2012               |              |        |      |
| Analysis Time Period:  | AM PEAK HOUR            |              |        |      |
| Intersection:          | ROUTE 9 & HORSEMENS TRA | IL           |        |      |
| Jurisdiction:          |                         |              |        |      |
| Units: U. S. Customary | 7                       |              |        |      |
| Analysis Year:         | 2014 BUILD TRAFFIC VOLU | IMES         |        |      |
| Project ID: 1883AMBD:  | L                       |              |        |      |
| East/West Street:      | HORSEMENS TRAIL (NORTH) |              |        |      |
| North/South Street:    | U.S. ROUTE 9            |              |        |      |
| Intersection Orientat: | on: NS                  | Study period | (hrs): | 0.25 |

|                                   | Veh:       | icle Vol     | umes an | d Adju | .stments_ |          |      |         |
|-----------------------------------|------------|--------------|---------|--------|-----------|----------|------|---------|
| Major Street:                     | Approach   | No           | rthboun | d      | -         | Southbou | ınd  |         |
| -                                 | Movement   | 1            | 2       | 3      | 4         | 5        | 6    |         |
|                                   |            | L            | т       | R      | L         | Т        | R    |         |
| Volume                            |            | 1            | 443     |        |           | 678      | 44   | <u></u> |
| Peak-Hour Facto                   | or, PHF    | 0.90         | 0.90    |        |           | 0.90     | 0.90 |         |
| Hourly Flow Rat                   | te, HFR    | 1            | 492     |        |           | 753      | 48   |         |
| Percent Heavy                     | Vehicles   | 2            |         |        |           |          |      |         |
| Median Type/Sto<br>RT Channelized | orage<br>? | Undiv        | ided    |        | /         |          |      |         |
| Lanes                             |            | 0            | 1       |        |           | 1        | 0    |         |
| Configuration                     |            | $\mathbf{L}$ | т       |        |           |          | TR   |         |
| Upstream Signal                   | 1?         |              | No      |        |           | No       |      |         |
| .inor Street:                     | Approach   | We           | stbound | 1      |           | Eastbour | nd   |         |
|                                   | Movement   | 7            | 8       | 9      | 10        | 11       | 12   |         |
|                                   |            | L            | т       | R      | L         | Т        | R    |         |
| Volume                            |            |              |         |        | 5         |          | 2    |         |
| Peak Hour Facto                   | or, PHF    |              |         |        | 0.        | 90       | 0.90 |         |
| Hourly Flow Rat                   | te, HFR    |              |         |        | 5         |          | 2    |         |
| Percent Heavy                     | Vehicles   |              |         |        | 2         |          | 2    |         |
| Percent Grade                     | (%)        |              | 0       |        |           | 2        |      |         |
| Flared Approach                   | h: Exists? | /Storage     |         |        | /         |          | No   | 1       |
| Lanes                             |            | _            |         |        |           | 0        | 0    |         |
| Configuration                     |            |              |         |        |           | LR       |      |         |

| Approach                | _Delay,<br>NB | Queue<br>SB | Le | ngth | , and Lev<br>Westbound | vel of<br>d | Service | Eastbound |    |
|-------------------------|---------------|-------------|----|------|------------------------|-------------|---------|-----------|----|
| Movement<br>Lane Config | 1<br>LT       | 4           |    | 7    | 8                      | 9           | 10      | 11<br>LR  | 12 |
| v (vph)                 | 1             |             |    |      |                        |             |         | 7         |    |
| C(m) (vph)              | 822           |             |    |      |                        |             |         | 192       |    |
| v/c                     | 0.00          |             |    |      |                        |             |         | 0.04      |    |
| 95% queue length        | 0.00          |             |    |      |                        |             |         | 0.11      |    |
| Control Delay           | 9.4           |             |    |      |                        |             |         | 24.5      |    |
| LOS                     | A             |             |    |      |                        |             |         | С         |    |
| Approach Delay          |               |             |    |      |                        |             |         | 24.5      |    |
| proach LOS              |               |             |    |      |                        |             |         | С         |    |

| TWO-WAY STOP CONTROL SUMMARY       Analyst:     RGD       Agency/Co.:     JCE       Date Performed:     2/29/2012       Analysis Time Period: PM PERA HOUR     Intersection:       Durisdiction:     ROUTE 9 & HORSEMENS TRAIL       Jurisdiction:     Customary       Analysis Vear:     2014 BUILD TRAFFIC VOLUMES       Project ID:     1683PMED1       East/West Street:     HORSEMENS TRAIL (NORTH)       North/South Street:     U.S. ROUTE 9       Intersection Orientation:     NS       Study period (hrs):     0.25       Vehicle Volumes and Adjustments       Major Street:     Approach       Movement     1     2       Jurye/Storage     Undivided       // Channelized?     0       Lanes     0     1       Upstream Signal?     No       Minor Street:     Approach     Westbound       Movement     7     8     9       Minor Street:     Approach     Vestbound       Movement     7     8     9       Volume     2     2     2       Percent Heavy Vehicles     2     2       Percent Grade (%)     0     1     1       In     T     R     0 <t< th=""><th></th><th>HCS+: Uns:</th><th>ignaliz</th><th>ed Inter</th><th>secti</th><th>ons Relea</th><th>se 5.6</th><th></th><th></th></t<>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                        | HCS+: Uns:  | ignaliz     | ed Inter                               | secti                                 | ons Relea                              | se 5.6              |           |    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------|-------------|----------------------------------------|---------------------------------------|----------------------------------------|---------------------|-----------|----|
| Analyst:       ROD         Agency/Co.:       JCE         Date Performed:       2/29/2012         Analysis Time Period:       FM FRAK HOUR         Intersection:       ROUTE 9 & HORSEMENS TRAIL         Jurisdiction:       Duits:         Us:       S. Customary         Analysis Year:       2014 BUILD TRAFFIC VOLUMES         Project ID:       1883FMEDI         East/West Street:       HORSEMENS TRAIL (NORTH)         North/South Street:       U.S. ROUTE 9         Intersection Orientation: NS       Study period (hrs):         Major Street:       Approach         Movement       1       2         Intersection Orientation: NS       Study period (hrs):         Major Street:       Approach         Movement       1       2         Intersection Orientation: NS       Study period (hrs):         Major Street:       Approach         Movement       1       2         Percent Heavy Vehicles       2       -         Hourly Flow Rate, HFR       3       1093         Percent Heavy Vehicles       1       0         Configuration       LT       T       R         Volume       4       9       <                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                        | TWO         | -WAY ST     | TOP CONTI                              | ROL SU                                | MMARY                                  |                     |           |    |
| Agency/Co.:     JCE       Date Performed:     2/29/2012       Analysis Time Period:     PP SAK HOUR       Intersection:     ROUTE 9 & HORSEMENS TRAIL       Jurisdiction:     Units: U.S. Customary       Analysis Year:     2014 BUILO TRAFFIC VOLUMES       Project ID:     1803PMED1       East/West Street:     HORSEMENS TRAIL (NORTH)       North/South Street:     U.S. ROUTE 9       Movement     1     2       Vehicle Volumes and Adjustments     Southbound       Major Street:     Northbound     Southbound       Movement     1     2       June     3     1006       Peak-Hour Factor, PHF     0.92     0.92       Houring Formation     LT     R       Volume     3     1093     546       Percent Heavy Vehicles     2     -       Percent Heavy Vehicles     2     -       Upstream Signal?     No     No       Minor Street:     Approach     Westbound     Eastbound       Movement     7     8     9     10     1       Volume     2     2     2       Percent Heavy Vehicles     2     2       Percent Heavy Vehicles     2     2       Percent Heavy Vehicles     2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Analyst:               | RGD         |             |                                        |                                       |                                        |                     |           |    |
| Date Performed:       2/29/2012         Analysis Time Period:       PM PEAK HOUR         Intersection:       ROUTE 9 & HORSEMENS TRAIL         Juridiction:       Units: U. S. Customary         Analysis Year:       2014 BUILD TRAFFIC VOLUMES         Project ID:       1883PMED1         East/West Street:       HORSEMENS TRAIL (NORTH)         North/South Street:       U.S. ROUTE 9         Intersection Orientation: NS       Study period (hrs):       0.25         Vehicle Volumes and Adjustments         Major Street:       Approach       Northbound       Southbound         Movement       1       2       3       4       5       6         Volume       3       1006       503       5       5         Percent Heavy Vehicles       2       0.92       0.92       0.92         Hourly Flow Rate, HFR       3       1093       546       5         Percent Heavy Vehicles       0       1       0       Configuration       Tr       R         Upstream Signal?       No       No       No       No       Minor Street: Approach       Westbound       Eastbound       Eastbound         Minor Street:       Approach:       HFK       9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Agency/Co ·            | JCE         |             |                                        |                                       |                                        |                     |           |    |
| Analysis Time Period: PM PEAK HOUR<br>Intersection: ROUTE 9 & HORSEMENS TRAIL<br>Urisdiction:<br>Units: U. S. Customary<br>Analysis Year: 2014 BUILD TRAFFIC VOLUMES<br>Project ID: 1883PMED1<br>East/West Street: HORSEMENS TRAIL (NORTH)<br>North/South Street: U.S. ROUTE 9<br>Intersection Orientation: NS Study period (hrs): 0.25<br>Vehicle Volumes and Adjustments<br>Major Street: Approach Northbound Southbound<br>Movement 1 2 3   4 5 6<br>L T R   L T R<br>Volume 3 1006 503 5<br>Peak-Hour Factor, PHF 0.92 0.92 0.92<br>Hourly Flow Rate, HFR 3 1093 546 5<br>Percent Heavy Vehicles 2<br>Movement 7 8 9   10 11 12<br>L T R   L T R<br>Volume 7 8 9   10 11 12<br>Volume 7 8 9   10 11 12<br>Feak Hour Factor, PHF 0.92 0.92<br>No No<br>Minor Street: Approach Westbound Eastbound<br>Movement 7 8 9   10 11 12<br>L T R   L T R<br>Volume 45 2<br>Percent Heavy Vehicles 2<br>Vehicle Volume 45 2<br>Percent Heavy Vehicles 2<br>Minor Street: Approach Westbound Eastbound<br>Movement 7 8 9   10 11 12<br>L T R   L T R<br>Volume 45 2<br>Percent Heavy Vehicles 2 - 2<br>Percent Heavy Vehicles 2 - 2<br>Percent Heavy Vehicles 2<br>Movement 7 8 9   10 11 12<br>L T R   L T R<br>Volume 45 2<br>Percent Heavy Vehicles 2 - 2<br>Percent Grade (%) 0 / No / LR<br>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Date Performed.        | 2/29        | /2012       |                                        |                                       |                                        |                     |           |    |
| Intersection: ROTE 9 & HORSEMENS TRAIL<br>Juriadiction:<br>Units: U. S. Customary<br>Analysis Year: 2014 BUILD TRAFFIC VOLUMES<br>Projact ID: 1883PMED1<br>East/West Street: HORSEMENS TRAIL (NORTH)<br>North/South Street: U.S. ROUTE 9<br>Intersection Orientation: NS Study period (hrs): 0.25<br>Vehicle Volumes and Adjustments<br>Major Street: Approach Northbound Southbound<br>Movement 1 2 3   4 5 6<br>L T R   L T R<br>Volume 3 1006 503 5<br>Peak-Hour Factor, PHF 0.92 0.92 0.92 0.92<br>Hourly Flow Rate, HFR 3 1093 546 5<br>Percent Heavy Vehicles 2<br>Median Type/Storage Undivided /<br>RT Channelized?<br>Lanes 0 1 1 0<br>Configuration LT T TR<br>Upstream Signal? No No<br>Minor Street: Approach Westbound Eastbound<br>Movement 7 8 9   10 11 12<br>L T R   L T R<br>Volume 45 2<br>Percent Heavy Vehicles 2<br>Percent Heavy Vehicles 2<br>Percent Heavy Vehicles 2<br>Percent Heavy Vehicles 2<br>Percent Grade (*)<br>Plared Approach: Exists?/Storage / No /<br>Lanes 0<br>Configuration LR<br>Volume Eastbound Eastbound<br>Movement 1 8 9   10 11 12<br>L T R   L T R<br>Volume 45 2<br>Percent Heavy Vehicles 2<br>Percent Grade (*)<br>Plared Approach: Exists?/Storage / No /<br>Lanes 0<br>Configuration LR<br>Volume Delay, Queue Length, and Level of Service<br>Approach NB S3 Westbound Eastbound<br>Movement 1 4 7 8 9   10 11 12<br>Lane Config LT   LR<br>Volume Delay, Queue Length, and Level of Service<br>Approach NB S3 Westbound LR<br>Volume Delay, 0.00 0, 39                                                                                                                                                                                                                                                                                                                                                                           | Analysis Time Der      | 100 - 100 P | FAR HOI     | тр                                     |                                       |                                        |                     |           |    |
| Intrisdiction:       KOTE 9 & DADAMES TART         Unitadiction:       Note 9 & DADAMES TART         Unitadiction:       2014 BUILD TRAFFIC VOLUMES         Project ID:       1803PMBD1         East/West Street:       HORSEMENS TRAIL (NORTH)         North/South Street:       U.S. ROUTE 9         Intersection Orientation: NS       Study period (hrs):       0.25         Vehicle Volumes and Adjustments         Major Street:       Approach       North/bound       Southbound         Movement       1       2       3       4       5       6         L       T       R       L       T       R       7       8         Volume       3       1006       503       5       5         Peak-Bour Factor, PHF       0.92       0.92       0.92       0.92         Hourly Flow Rate, HFR       3       1093       546       5         Percent Heavy Vehicles       2             Motion Street:       Approach       Westbound       Eastbound       Movement       4       1       0       1       1       1       1       1       1       1       1       1       1 <t< td=""><td>Intersection.</td><td>TOU. PM P</td><td></td><td>iod gement</td><td>י ד א כוידי</td><td>· <b>T</b>.</td><td></td><td></td><td></td></t<>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Intersection.          | TOU. PM P   |             | iod gement                             | י ד א כוידי                           | · <b>T</b> .                           |                     |           |    |
| Duriss U. S. Custowary         Analysis Year:       2014 BUILD TRAFFIC VOLUMES         Project ID:       18378MED1         East/West Street:       HORSEMENS TRAIL (NORTH)         North/South Street:       U.S. ROUTE 9         Intersection Orientation: NS       Study period (hrs):       0.25         Vehicle Volumes and Adjustments         Major Street:       Approach       Northbound       Southbound         Movement       1       2       3       4       5         Major Street:       Approach       Northbound       Southbound       Southbound         Movement       1       2       3       4       5         Major Street:       Approach       Northbound       Southbound       Southbound         Movement       3       1006       503       5         Percent Heavy Vehicles       2            Upstream Signal?       No       No       No         Minor Street:       Approach       Westbound       Eastbound         Movement       7       8       9       10       11       12         L       T       R       2       2       2       2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Turi di ation.         | ROOII       | E, 9 CE I   | IONDISMEN.                             | J IKAT                                | . 11                                   |                     |           |    |
| Difter 0. S. Customary       2014 BUILD TRAFFIC VOLUMES         Project ID: 1883PMED1       Esast/West Street: HORSEMENS TRAIL (NORTH)         North/South Street: U.S. ROUTE 9       Intersection Orientation: NS       Study period (hrs): 0.25         Vehicle Volumes and Adjustments         Major Street: Approach       Northbound       Southbound         Movement       1       2       3       4       5       6         L       T       R       L       T       R         Volume       3       1006       503       5         Peak-Hour Factor, PHF       0.92       0.92       0.92       0.92         Hourly Flow Rate, HFR       3       1093       546       5         Percent Heavy Vehicles       2            Median Type/Storage       On 1       1       0       Configuration       IT         Upstream Signal?       No       No       No       No       No         Minor Street: Approach       Westbound       Eastbound       Eastbound       1       1         L       T       R       9       10       11       12       1       2         Percent Grade (%)       0       2 <td>Unita, H. C. Cuat</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unita, H. C. Cuat      |             |             |                                        |                                       |                                        |                     |           |    |
| Analysis lear: 2014 BOILD TRAFTL VOLUMES<br>Project ID: 1833PMED1<br>East/West Street: HORSEMENS TRAIL (NORTH)<br>North/South Street: U.S. ROUTE 9<br>Intersection Orientation: NS Study period (hrs): 0.25<br>Vehicle Volumes and Adjustments<br>Major Street: Approach Northbound Southbound<br>Movement 1 2 3 4 5 6<br>L T R L T R<br>Volume 3 1006 503 5<br>Peak-Hour Factor, PHF 0.92 0.92 0.92 0.92<br>Hourly Flow Rate, HFR 3 1093 546 5<br>Percent Heavy Vehicles 2<br>Median Type/Storage Undivided //<br>RT Channelized?<br>Lanes 0 1 1 0<br>Configuration LT TR<br>Upstream Signal? No No<br>Minor Street: Approach Westhound Eastbound<br>Movement 7 8 9 10 11 12<br>L T R L T R<br>Volume 45 2<br>Percent Heavy Vehicles 2 - 2<br>Peak Hour Factor, PHF 0.92 0.92 0.92<br>Minor Street: Approach Westhound Eastbound<br>Movement 7 8 9 10 11 12<br>L T R L T R<br>Volume 45 2<br>Percent Grade (*) 0 2<br>Flared Approach: Exists?/Storage / No /<br>Lanes 0 0<br>Configuration LR<br>Delay, Queue Length, and Level of Service<br>Approach NB SB Westbound Eastbound<br>Movement 1 4 7 6 9 10 11 12<br>Lane Config LT / No /<br>Lane Config LT / No /<br>L29<br>V/c 0.00                                                                                                                                                                                                                                                                                                                                                                                         | Analyzia Veam          | Omary       |             |                                        | TOTIN                                 | 120                                    |                     |           |    |
| Project D: 10000000       Difference         Bast/West Street:       U.S. ROUTE 9         Intersection Orientation: NS       Study period (hrs): 0.25         Vehicle Volumes and Adjustments         Major Street:       Aproach         Movement       1       2       3       4       5       6         L       T       R       L       T       R         Volume       3       1006       503       5         Peak-Hour Factor, PHF       0.92       0.92       0.92       0.92         Hourly Flow Rate, HFR       3       1093       546       5         Percent Heavy Vehicles       2            KT Channelized?       Undivided       /       /       RT         Lanes       0       1       1       0         Configuration       LT       T       R       L       T         Minor Street:       Approach       Weetbound       Eastbound       Eastbound         Minor Street:       Approach       Weetbound       Eastbound       2         Peak Hour Factor, PHF       0.92       0.92       0.92       0.92         Hourly Flow Rate, HFR       48                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | MIALYSIS IEAL:         | 2014        | POTID       | IRAFFIC                                | VOTOR                                 | 165                                    |                     |           |    |
| Bast Mean Street:       North/South Street:       U.S. ROUTE 9         Intersection Orientation:       NS       Study period (hrs):       0.25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | FIDJect ID: 1003       | PRODI       | DADNO D     |                                        | זיחתר                                 |                                        |                     |           |    |
| Intersection Orientation: NS       Study period (hrs): 0.25         Vehicle Volumes and Adjustments         Major Street: Approach       Northbound       Southbound         Movement       1       2       3       4       5       6         L       T       R       L       T       R         Volume       3       1006       503       5         Peak-Hour Factor, PHF       0.92       0.92       0.92         Hourly Flow Rate, HFR       3       1093       546       5         Percent Heavy Vehicles       2            Mainor Street: Approach       Westbound       Eastbound       Mo         Minor Street: Approach       Westbound       Eastbound       1       1         Movement       7       8       9       10       11       12         Peak Hour Factor, PHF       0.92       0.92       0.92       1.92         Percent Grade (*)       0       2       2       2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Marth (Couth Street:   |             |             | CRAID (M)                              | JK1H/                                 |                                        |                     |           |    |
| Vehicle Volumes and Adjustments       Major Street: Approach     Northbound     Southbound       Movement     1     2     3     4     5     6       L     T     R     L     T     R       Volume     3     1006     503     5       Peak-Hour Factor, PHF     0.92     0.92     0.92     0.92       Hourly Flow Rate, HFR     3     1093     546     5       Percent Heavy Vehicles     2          Median Type/Storage     Undivided     /     /     RT       Lanes     0     1     1     0       Configuration     LT     TR     TR       Upstream Signal?     No     No       Minor Street: Approach     Westbound     Eastbound       Movement     7     8     9     10     11     12       L     T     R     L     T     R       Volume     45     2     2     2       Percent Heavy Vehicles     2     2     2       Percent Heavy Vehicles     2     2     2       Percent Grade (%)     0     2     2       Percent Heavy Vehicles     2     2     2       Pe                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Intergostion Orig      |             | ROUTE       | 9                                      | ~                                     |                                        | ad (bra)            | . 0.25    |    |
| Vehicle Volumes and AdjustmentsMajor Street:ApproachNorthboundSouthboundMovement123456LTRLTRVolume310065035Peak-Hour Factor, PHF0.920.920.920.92Hourly Flow Rate, HFR310935465Percent Heavy Vehicles2Median Type/StorageUndivided//RT Channelized?Lanes0110Lanes01TTRUpstream Signal?NoNoNoMinor Street:ApproachWestboundEastboundMovement7891011LTRLTRVolume45222Peak Hour Factor, PHF0920.92Hourly Flow Rate, HFR4822Percent Heavy Vehicles222Percent Heavy Vehicles2<                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Intersection Orie      | ntation:    | NS          |                                        | 2                                     | scudy peri                             | .04 (1118)          | : 0.25    |    |
| Movement       1       2       3       4       5       6         L       T       R       L       T       R         Volume       3       1006       503       5         Peak-Hour Factor, PHF       0.92       0.92       0.92       0.92         Hourly Flow Rate, HFR       3       1093       546       5         Percent Heavy Vehicles       2            Median Type/Storage       Undivided       /       //       RT         Channelized?       Lanes       0       1       1       0         Lanes       0       1       10       11       12         Movement       7       8       9       10       11       12         Movement       7       8       9       10       11       12         Wolume       45       2       2       2       2         Peak Hour Factor, PHF       0.92       0.92       0.92       92         Hourly Flow Rate, HFR       48       2       2       2         Percent Heavy Vehicles       2       2       2       2         Flared Approach       NB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Major Street. Ar       | Vehi        | cle Vol     | lumes and                              | d Adju<br>A                           | istments                               | outhhour            |           |    |
| Novement123430LTRLTRVolume310065035Peak-Hour Factor, PHF0.920.920.92Hourly Flow Rate, HFR31093546Percent Heavy Vehicles2RT Channelized?Undivided/Lanes011OffigurationLTTRUpstream Signal?NoNoMinor Street:ApproachWestboundMovement78Peak Hour Factor, PHF0.920.92Hourly Flow Rate, HFR482Percent Grade (%)02Flared Approach:Exists?/Storage/Movement147Movement112LTRLTRPercent Grade (%)02Plared Approach:Exists?/Storage/Movement147S91011Lanes00ConfigurationLRLane ConfigLT1V(vph)350C(m) (vph)1019129V/C0.000.39                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Major Bureet: Ap       | Proacu      | 1           | 2<br>2                                 | -<br>-                                | с<br>) л                               | 5                   |           |    |
| Volume     3     1006     503     5       Peak-Hour Factor, PHF     0.92     0.92     0.92     0.92       Hourly Flow Rate, HFR     3     1093     546     5       Percent Heavy Vehicles     2          Median Type/Storage     Undivided     /     /     RT       Lanes     0     1     1     0       Configuration     LT     TR     TR       Upstream Signal?     No     No     No       Minor Street:     Approach     Westbound     Eastbound       Movement     7     8     9     10     11     12       L     T     R     L     T     R       Volume     45     2     2     2       Peak Hour Factor, PHF     0.92     0.92     0.92       Hourly Flow Rate, HFR     48     2     2       Percent Heavy Vehicles     2     2     2       Percent Heavy Vehicles     0     2     2       Percent Grade (%)     0     2     0       Configuration     LR     0     0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | MO                     | V GIIGII L  |             | ے<br>۳                                 | J                                     | , *≇<br>  T.                           | J<br>T              | q         |    |
| Volume       3       1006       503       5         Peak-Hour Factor, PHF       0.92       0.92       0.92       0.92         Hourly Flow Rate, HFR       3       1093       546       5         Percent Heavy Vehicles       2            Median Type/Storage       Undivided       /       7       7           Median Type/Storage       0       1       1       0       Configuration       LT       TR         Upstream Signal?       No       No       No       No       No         Minor Street:       Approach       Westbound       Eastbound       Eastbound         Movement       7       8       9       10       11       12         L       T       R       L       T       R         Volume       45       2       2       2       2         Percent Heavy Vehicles       2       2       2       2         Percent Grade (%)       0       2       2       2         Percent Grade (%)       0       0       0       0         Configuration       LR       LR       1       1       1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                        |             | ц           | +                                      | ĸ                                     |                                        | Ŧ                   | ĸ         |    |
| Joint Street       Joint Street <td< td=""><td>Volume</td><td></td><td></td><td>1000</td><td></td><td></td><td>503</td><td></td><td></td></td<>                                                                                                                                                                                                                                                                                                                                                          | Volume                 |             |             | 1000                                   |                                       |                                        | 503                 |           |    |
| Hourly Flow Rate, HFR     3     1033     546     5       Percent Heavy Vehicles     2          Median Type/Storage     Undivided     /     //       RT Channelized?     Lanes     0     1     0       Configuration     LT     TR       Upstream Signal?     No     No       Minor Street:     Approach     Westbound     Eastbound       Movement     7     8     9     10     11     12       Volume     45     2       Percent Heavy Vehicles     2     2       Percent Grade (%)     0     2       Percent Grade (%)     0     2       Planed Approach:     Exists?/Storage     /     No       Lanes     0     0     0       Configuration     LR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Peak-Hour Pactor       | סעד         | -2<br>0 0-2 | U 0.0<br>T 0.00                        |                                       |                                        | 0 00                | nan       |    |
| Mounty Low Rate, MAX     5     1095     5       Percent Heavy Vehicles     2         Median Type/Storage     Undivided     /       RT Channelized?     Lanes     0     1     0       Configuration     LT     TR       Upstream Signal?     No     No       Minor Street:     Approach     Westbound     Eastbound       Movement     7     8     9     10     11     12       L     T     R     L     T     R       Volume     45     2       Peak Hour Factor, PHF     0.92     0.92       Hourly Plow Rate, HPR     48     2       Percent Grade (%)     0     2       Plared Approach:     Exists?/Storage     /     No       Lanes     0     0     0       Configuration     LR     1     12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Hourly Flow Date       | EUL<br>UBD  | ບ. ສ∡<br>ວ  | 1000                                   |                                       |                                        | U.JZ<br>5 <i>86</i> | 5         |    |
| Median Type/Storage     Undivided     /       RT Channelized?     J     0       Lanes     0     1     0       Configuration     LT     TR       Upstream Signal?     No     No       Minor Street:     Approach     Westbound     Eastbound       Movement     7     8     9     10     11     12       L     T     R     L     T     R       Volume     45     2       Peak Hour Factor, PHF     0.92     0.92       Hourly Flow Rate, HFR     48     2       Percent Heavy Vehicles     2     2       Percent Grade (%)     0     2       Flared Approach:     Exists?/Storage     /     No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Dergent Booms Vol      | nr.         | 2           | 7022                                   |                                       |                                        | 540                 | 5         |    |
| Actival Type/Storage       0       1       7         RT Channelized?       1       0       1       0         Lanes       0       1       1       0         Orfiguration       LT       TR       Upstream Signal?       No       No         Minor Street:       Approach       Westbound       Eastbound         Movement       7       8       9       10       11       12         L       T       R       L       T       R         Volume       45       2       0.92       0.92         Hourly Flow Rate, HFR       48       2       2         Percent Heavy Vehicles       2       2       2         Percent Grade (%)       0       2       2         Flared Approach:       Exists?/Storage       /       No       /         Lanes       0       0       0       0       0         Configuration       LR       Image: Storage       /       No       /         Approach       NB       SB       Westbound       Eastbound       Eastbound         Movement       1       4       7       8       9       10       11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Modian Tuno (Store     | ICLES       | Z           |                                        |                                       | ,                                      |                     |           |    |
| Lanes       0       1       0         Lanes       0       1       0         Configuration       LT       TR         Upstream Signal?       No       No         Minor Street:       Approach       Westbound       Eastbound         Movement       7       8       9       10       11       12         L       T       R       L       T       R         Volume       45       2       2       0.92         Peak Hour Factor, PHF       0.92       0.92       0.92         Hourly Flow Rate, HFR       48       2       2         Percent Heavy Vehicles       2       2       2         Percent Grade (%)       0       2       2         Flared Approach:       Exists?/Storage       /       No         Lanes       0       0       0         Configuration       LR       LR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | meutan type/Stora      | lge         | Unal        | A T G G G                              |                                       | /                                      |                     |           |    |
| Halles0110ConfigurationLTTRUpstream Signal?NoMinor Street:ApproachWestboundEastboundMovement789101112LTRLTRVolume452Peak Hour Factor, PHF0.920.920.92Hourly Flow Rate, HFR482Percent Heavy Vehicles22Percent Grade (%)02Flared Approach:Exists?/Storage/NoMovement1478910Movement147891011Lanes00111212Lane ConfigLT1112129v (vph)3500.000.390.39                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Ki Channellzeg?        |             | ~           | ٦                                      |                                       |                                        | -                   | ^         |    |
| Configuration     LT     TR       Upstream Signal?     No     No       Minor Street: Approach<br>Movement     Westbound<br>T     Eastbound<br>Eastbound       Movement     7     8     9     10     11     12       L     T     R     L     T     R       Volume     45     2       Peak Hour Factor, PHF     0.92     0.92       Hourly Flow Rate, HFR     48     2       Percent Heavy Vehicles     2     2       Percent Grade (%)     0     2       Plared Approach:     Exists?/Storage     /     No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Lanes<br>Configuention |             | 0           |                                        |                                       |                                        | <u>ب</u>            | U         |    |
| No     No       Minor Street: Approach<br>Movement     Westbound<br>L     Eastbound<br>L       Movement     7     8     9     10     11     12       L     T     R     L     T     R       Volume     45     2       Peak Hour Factor, PHF     0.92     0.92       Hourly Flow Rate, HFR     48     2       Percent Heavy Vehicles     2     2       Percent Grade (%)     0     2       Flared Approach:     Exists?/Storage     /     No       Lanes     0     0       Configuration     LR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Configuration          |             |             | ыт.<br>Тат.                            |                                       |                                        | N                   | .R.       |    |
| Minor Street:Approach<br>MovementWestbound<br>7Eastbound<br>10I112<br>12Movement789101112<br>12LTRLTRVolume452Peak Hour Factor, PHF0.920.92Hourly Flow Rate, HFR482Percent Heavy Vehicles22Percent Grade (%)02Flared Approach:Exists?/Storage/NoLanes00ConfigurationLRDelay, Queue Length, and Level of ServiceApproachNBSBWestboundMovement14789Lane ConfigLT101112V (vph)35050C(m) (vph)10191290.39                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | opscream Signal?       |             |             | NO                                     |                                       |                                        | NO                  |           |    |
| Movement789101112LTRLTRVolume452Peak Hour Factor, PHF0.920.92Hourly Flow Rate, HFR482Percent Heavy Vehicles22Percent Grade (%)02Flared Approach:Exists?/Storage/No/00ConfigurationLRDelay, Queue Length, and Level of ServiceApproachNBSBMovement141478V (vph)350C(m) (vph)1019129V/c0.000.39                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Minor Street: Ap       | proach      | W           | estbound                               |                                       | I                                      | Sastbound           | 1         |    |
| LTRLTRVolume452Peak Hour Factor, PHF0.920.92Hourly Flow Rate, HFR482Percent Heavy Vehicles22Percent Grade (%)02Flared Approach:Exists?/Storage/NoConfigurationLRDelay, Queue Length, and Level of ServiceApproachNBSBWestboundMovement14789LTILRLRv (vph)350C(m) (vph)1019129v/c0.000.39                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Mc                     | vement      | 7           | 8                                      | 9                                     | 10                                     | 11                  | 12        |    |
| Volume       45       2         Peak Hour Factor, PHF       0.92       0.92         Hourly Flow Rate, HFR       48       2         Percent Heavy Vehicles       2       2         Percent Grade (%)       0       2         Plared Approach:       Exists?/Storage       /       No         Lanes       0       0       0         Configuration       LR       0       0         Delay, Queue Length, and Level of Service                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |             | Г           | Т                                      | R                                     | L                                      | Т                   | R         |    |
| Peak Hour Factor, PHF0.920.92Hourly Flow Rate, HFR482Percent Heavy Vehicles22Percent Grade (%)02Flared Approach: Exists?/Storage/NoLanes00ConfigurationLR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Volume                 |             |             |                                        |                                       | 45                                     | <del></del>         | 2         |    |
| Hourly Flow Rate, HFR     48     2       Percent Heavy Vehicles     2     2       Percent Grade (%)     0     2       Flared Approach:     Exists?/Storage     /     No       Lanes     0     0       Configuration     LR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Peak Hour Factor.      | PHF         |             |                                        |                                       | 0.93                                   | 2                   | 0.92      |    |
| Percent Heavy Vehicles     2     2       Percent Grade (%)     0     2       Plared Approach:     Exists?/Storage     /     No       Lanes     0     0       Configuration     LR       Delay, Queue Length, and Level of Service       Approach     NB     SB       Movement     1     4     7       Lane Config     LT     LR       v (vph)     3     50       C(m) (vph)     1019     129       v/c     0.00     0.39                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Hourly Flow Rate,      | HFR         |             |                                        |                                       | 48                                     |                     | 2         |    |
| Percent Grade (%)     0     2       Flared Approach: Exists?/Storage     /     No       Lanes     0     0       Configuration     LR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Percent Heavy Ver      | licles      |             |                                        |                                       | 2                                      |                     | 2         |    |
| Plared Approach: Exists?/Storage       /       No       /         Lanes       0       0       0         Configuration       LR       LR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Percent Grade (%)      |             |             | ß                                      |                                       | ~                                      | 2                   | -         |    |
| Lanes00ConfigurationLRDelay, Queue Length, and Level of ServiceApproachNBMovement11478910101112Lane ConfigLT000000000101111101121101121101129100.39                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Flared Approach.       | Exists?/    | Storage     | ê                                      |                                       | 1                                      |                     | No        | 1  |
| ConfigurationLR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Lanes                  |             |             | -                                      |                                       | ,                                      | D                   | 0         | ,  |
| Delay, Queue Length, and Level of ServiceApproachNBSBWestboundEastboundMovement14789101112Lane ConfigLTLR50 $C(m) (vph)$ 1019129v/c0.000.39139                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Configuration          |             |             |                                        |                                       |                                        | LR                  | •         |    |
| Delay, Queue Length, and Level of Service           Approach         NB         SB         Westbound         Eastbound           Movement         1         4         7         8         9         10         11         12           Lane Config         LT         Image: Config in the second in | ·<br>                  |             |             | ······································ | · · · · · · · · · · · · · · · · · · · | ······································ |                     |           |    |
| Approach         NB         SB         Westbound         Eastbound           Movement         1         4         7         8         9         10         11         12           Lane Config         LT         IT         It         1         12         LR           v (vph)         3         50         50         129         129           v/c         0.00         0.39         139         139         139                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                        | _Delay, Q   | ueue L      | ength, a                               | nd Le                                 | vel of Se                              | rvice               | 1         |    |
| Movement     1     4     7     8     9     10     11     12       Lane Config     LT     I     I     I     I     I     I2       v (vph)     3     50       C(m) (vph)     1019     129       v/c     0.00     0.39                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Approach               | NB          | SB          | Wes                                    | tbound                                | a ,                                    | East                | bound     | 10 |
| Lane config     LT     Image: LT     Image: LT       v (vph)     3     50       C(m) (vph)     1019     129       v/c     0.00     0.39                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | movement               | 1           | 4           | 7                                      | 8                                     | 9                                      | T0                  | 11<br>7 D | 12 |
| v (vph)         3         50           C(m) (vph)         1019         129           v/c         0.00         0.39                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Lane Config            | ЬT          | 1           |                                        |                                       | 1                                      |                     | ыĸ        |    |
| C(m) (vph) 1019 129<br>v/c 0.00 0.39                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | v (vph)                | 3           |             |                                        |                                       |                                        |                     | 50        |    |
| v/c 0.00 0.39                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | C(m) (vph)             | 1019        |             |                                        |                                       |                                        |                     | 129       |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | v/c                    | 0.00        |             |                                        |                                       |                                        |                     | 0.39      |    |
| 95% gueue length 0.01 1.63                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 95% queue length       | 0.01        |             |                                        |                                       |                                        |                     | 1.63      |    |
| Control Delay 8.5 49.6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Control Delav          | 8.5         |             |                                        |                                       |                                        |                     | 49.6      |    |
| LOS A E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | LOS                    | A           |             |                                        |                                       |                                        |                     | E         |    |
| Approach Delay 49.6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Approach Delay         |             |             |                                        |                                       |                                        |                     | 49.6      |    |
| Approach LOS E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Approach LOS           |             |             |                                        |                                       |                                        |                     | E         |    |

## APPENDIX "D"

### LEVEL OF SERVICE STANDARDS

#### LEVEL OF SERVICE STANDARDS

#### 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 measure of driver discomfort and fuel consumption. The volume-to-capacity ratio quantifies the degree to which a phase's capacity is utilized by a lane group.

LOS A describes operations with a control delay of 10 s/veh or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity 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 volume-tocapacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity 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 volume-tocapacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate.

LOS D describes operations with control delay between 35 and 55 s/veh and a volume-tocapacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. LOS E describes operations with control delay between 55 and 80 s/veh and a volume-tocapacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long.

LOS F describes operations with control delay exceeding 80 s/veh or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long.

A lane group can incur a delay less than 80 s/veh when the volume-to-capacity 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 volume-to-capacity 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).

The Level of Service Criteria for signalized intersections are given in Exhibit 18-4 from the 2010 Highway Capacity Manual published by the Transportation Research Board.

| Exhibit 18-4          |                |                       |  |  |  |
|-----------------------|----------------|-----------------------|--|--|--|
|                       | LOS by Volume- | to-Capacity Ratio     |  |  |  |
| Control Delay (s/veh) | v/c ≤1.0       | <b>v/c &gt;1.0</b>    |  |  |  |
| <u>≤10</u>            | A              | F                     |  |  |  |
| >10-20                | В              | F                     |  |  |  |
| >20-35                | С              | <b>F</b> <sup>°</sup> |  |  |  |
| >35-55                | D              | F                     |  |  |  |
| >55-80                | Е              | F                     |  |  |  |
| >80                   | F              | F                     |  |  |  |

For approach-based and intersectionwide assessments, LOS is defined solely by control delay.

### LEVEL OF SERVICE CRITERIA FOR TWO-WAY STOP-CONTROLLED (TWSC) UNSIGNALIZED INTERSECTIONS

Level of Service (LOS) for a two-way stop-controlled (TWSC) intersection 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. LOS is not defined for the intersection as a whole or for major-street approaches.

The Level of Service Criteria for TWSC unsignalized intersections are given in Exhibit 19-1 from the 2010 Highway Capacity Manual published by the Transportation Research Board.

| Exhibit 19-1                    |          |          |  |  |  |
|---------------------------------|----------|----------|--|--|--|
| LOS by Volume-to-Capacity Ratio |          |          |  |  |  |
| Control Delay (s/veh)           | v/c ≤1.0 | v/c >1.0 |  |  |  |
| 0-10                            | A        | F        |  |  |  |
| >10-15                          | В        | F        |  |  |  |
| >15-25                          | С        | F        |  |  |  |
| >25-35                          | D        | F        |  |  |  |
| >35-50                          | Έ        | F        |  |  |  |
| >50                             | F        | F        |  |  |  |

The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-street approaches or for the intersection as a whole.

As Exhibit 19-1 notes, LOS F is assigned to the movement if the volume-to-capacity ratio for the movement exceeds 1.0, regardless of the control delay.

The Level of Service Criteria for unsignalized intersections are somewhat different from the criteria for signalized intersections.

#### LEVEL OF SERVICE CRITERIA

### FOR ALL-WAY STOP-CONTROLLED (AWSC) UNSIGNALIZED INTERSECTIONS

The Levels of Service (LOS) for all-way stop-controlled (AWSC) intersections are given in Exhibit 20-2. As the exhibit notes, LOS F is assigned if the volume-to-capacity (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.

The Level of Service Criteria for AWSC unsignalized intersections are given in Exhibit 20-2 from the 2010 Highway Capacity Manual published by the Transportation Research Board.

| Exhibit 20-2                    |          |          |  |  |  |  |
|---------------------------------|----------|----------|--|--|--|--|
| LOS by Volume-to-Capacity Ratio |          |          |  |  |  |  |
| Control Delay (s/veh)           | v/c ≤1.0 | v/c >1.0 |  |  |  |  |
| 0-10                            | A        | F        |  |  |  |  |
| >10-15                          | B        | F        |  |  |  |  |
| >15-25                          | С        | · F      |  |  |  |  |
| >25-35                          | D        | F        |  |  |  |  |
| >35-50                          | E        | F        |  |  |  |  |
| >50                             | F        | F        |  |  |  |  |

For approaches and intersectionwide assessment, LOS is defined solely by control delay.

ATTACHMENT 2 NOISE IMPACT EVALUATION prepared by SoundSense, LLC March 24, 2010



## (DRAFT)

# E. POLHEMUS ENTERPRISE, LLC GARRISON TREE, Inc. HORSEMAN'S TRAIL and U.S. ROUTE 9 Town of Philipstown, NY

## **NOISE IMPACT EVALUATION**

As requested by:

Badey & Watson, Surveying & Engineering

3063 US Rt 9

Cold Spring, NY 10516

Prepared by:

SoundSense, LLC

Engineers: Bonnie Schnitta, PhD

Melissa Russo

**Greg Greenwald** 

46 Newtown Lane East Hampton NY 11937 3/24/2010 www.soundsense.com P# 631-324-2266 F# 631-324-6750

### INTRODUCTION

SoundSense, LLC was contracted to perform a Noise Impact Evaluation for the proposed E. Polhemus Enterprise, LLC and Garrison Tree, Inc. site on Horseman's Trail near Route 9 in the Town of Philipstown, New York. The evaluation was conducted in four stages as follows:

- 1) Identify sensitive receptor locations in the vicinity of the proposed facility.
- 2) Determine ambient noise levels and operational noise levels at the receptor locations.
- 3) Model the projected noise levels from the equipment activity to the receptor locations using maximum operational noise levels and determine the effect on the existing ambient noise levels.
- 4) If operational noise levels are determined to be in violation of local noise code, outline one or more possible solution sets.

### **II. SUMMARY**

The operation of the equipment (inclusive of the soil screener, the mobile rock crusher, the wood grinder, the front-end loaders and dump trucks) and the processing of materials will be in violation of the noise code for the town of Philipstown, New York. In many cases, it is in excess of 20 decibels above the ambient conditions and code limitations at the various receptor locations. In order to sufficiently protect the neighboring residences, an enclosure must be constructed on the property. Processing activities must be contained to such a structure. Several options are presented in Section F of the report, inclusive of detailed construction criteria and placement.

### **III. BACKGROUND**

#### A. Surrounding Area

The surrounding area consists of residential, commercial and vacant commercial parcels. Commercial properties are situated to the north and east of the subject property along Skyline Drive and Route 9. Residential receptors were located to the south and southwest on Horseman's Trail, as shown on the attached Receptor Location Map.

### **B. Proposed Activity**

The owner, E. Polhemus Enterprise, LLC intends to jointly use the property with the tenant, Garrison Tree, Inc. The sound levels from the onsite activity will include the use of a variety of front-end loaders and dump trucks, as well as a soil screener (McCloskey 407), a mobile rock crusher (Komatsu BR380JG-1), and a wood grinder (Bandit 3680 Beast Recycler), ("Noise") were analyzed. This equipment will be used to process and stockpile soil, stone, and forest products (trees, etc). There is no proposed activity between the hours of 6PM and 7 AM on any day of the week.

### IV. ACOUSTIC CRITERIA AND STANDARDS

Noise is unwanted sound. In order to evaluate the impact that the Noise from the proposed activities will have on the surrounding receptors, we first have to establish the criteria to which these levels will be compared.

### A. Annoyance

Annoyance by sound is a response to auditory experience. The standard acoustic ruler is that any noise that exceeds the background noise level by 5 dB(A) or more is perceivable and significant (see Section B below) and should be considered as a potential disturbance to the comfort of a person.

### **B.** Subjective Perception of Actual Sound Energy Change

Sound or noise is measured by decibels (dB). As sound increases or decreases, decibels increase or decrease logarithmically - not arithmetically. The doubling of the volume of a sound only shows a ten point increase in dB. For example, one TV set at a normal conversational level is about 60 dB. Ten TV sets at the same volume will sound twice as loud and register about 70 dB.

| dB Change                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Subjective Derception | 06 Sound Energy Change                                                                                          | đ |
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TABLE 1. SUBJECTIVE PERCEPTION OF ACTUAL SOUND ENERGY CHANGE

| dB Change       | Subjective Perception       | % Sound Energy Change |
|-----------------|-----------------------------|-----------------------|
| 0               | 3 dB Barely perceivable     | 50 %                  |
| 4 - <b>5 dB</b> | Perceivable and significant | 69 %                  |
| 6 dB            | Double sound pressure       | 75%                   |
| 7 - 9 dB        | Major perceived increase    | 87 %                  |
| 10 dB           | Double loudness, 10x power  | 90 %                  |

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#### C. Chapter 175: Zoning Code for the Town of Philipstown

- 1) § 175-63 Performance Standards: Standards Enumerated
  - A. Section F. Noise: With the exception of time and emergency signals and noise necessarily involved in the construction or demolition of buildings and other structures, no continuous sound or frequent impulse sound shall be transmitted outside the lot where it originates:
    - (1) So as to be a hazard to public health and safety;
    - (2) Exceeding 55 decibels between 7:00 a.m. and 10:00 p.m. and 45 decibels between 10:00 p.m. and 7:00 a.m., or greater than five decibels above the ambient noise at the point on the boundary of the lot where measured, whichever is greater.

### V. METHODS, PROCEDURES AND RESULTS

#### A. Determine Existing Ambient Noise Levels for Receptor Locations

In order to determine if the proposed activities will impact the surrounding receptors, it is paramount to any investigation to determine the existing ambient noise levels for the receptor locations. Six receptor locations were chosen along the boundary lines of the subject property. These receptor locations, identified as "A-F," were chosen in order to cover a broad area of the property. Receptors "A," "D" and "E" are of particular significance as they are close to nearby residences. These locations are depicted on the attached map.

#### **B.** Equipment

The acoustic readings obtained during the monitoring activities were acquired using a Larson Davis System 824 Precision Sound Level Meter with a Real-Time Frequency Analyzer.

The System 824 features high speed data gathering and recording. The time history record records different broadband and spectral parameters such as spectral Ln's, RTA Leq, RTA Max or RTA Min (SSA), and includes 1/1 and 1/3 true digital octave analysis capabilities. The readings presented throughout this document are A-weighted, since this is most similar to how a human perceives noise, as well as the required weight for Code readings. The microphone is Type-1 per ASTM standards and was calibrated for the readings.

#### C. Noise Level Monitoring

Noise level monitoring of the site occurred on January 22, 2010 between the hours of 9:30am and 12:30pm. Readings were taken of the ambient conditions, individual equipment operation, and simultaneous equipment operation at the various receptor locations. Temperature ranged between 25 and 38 degrees F, with relative humidity between 60% and 80%, and winds typically between 5mph and 10mph. In preparation for the monitoring events, the equipment was calibrated prior to obtaining the readings.

#### **D.** Ambient Noise Level Results

In order to accurately describe the ambient noise environment of each location, we monitored the ambient noise level at each receptor location. The following table displays the results.

| Receptor<br>Location | [9:45am]<br>L <sub>EQ</sub><br>dB(A) | [12:30pm]<br>L <sub>EQ</sub><br>dB(A) | Average<br>L <sub>EQ</sub><br>dB(A) | Standard<br>Deviation<br>dB(A) |
|----------------------|--------------------------------------|---------------------------------------|-------------------------------------|--------------------------------|
| A                    | 56.6                                 | 50.1                                  | 53.4                                | 4.6                            |
| В                    | 66.2                                 | 66.9                                  | 66.6                                | 0.5                            |
| C                    | 50.4                                 | 50.6                                  | 50.5                                | 0.1                            |
| D                    | 55.2                                 | 51.5                                  | 53.4                                | 2.6                            |
| E                    | 56.0                                 | 49.7                                  | 52.9                                | 4.5                            |
| F                    | 54.4                                 | 50.1                                  | 52.3                                | 3.0                            |

#### TABLE 2. AMBIENT NOISE LEVELS AT RECEPTOR LOCATIONS

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Referencing Table 2, the Leq, or, Equivalent Continuous Sound Level, is the equivalent sound pressure level of a fluctuating noise over a period of time, in terms of a constant noise level. This level tells us how the residences within the area would be affected by the overall Noise during that time period.

The data displayed in Table 2 and Figure 1 tells us the following about the typical daytime acoustical environment of the site:

- With the exception of Receptor "B," the typical daytime ambient conditions at the site are approximately between 50-55 dB(A). It is important to note that this is greater than the typical ambient noise levels of a quiet community.
- The ambient sound pressure level at Receptor "B" is approximately 66 dB(A), roughly 10-15 dB higher than the others. This can be attributed to its proximity to Route 9 and the neighboring concrete facility.

### E. Operational Noise Level Results

The operational Noise levels of the proposed equipment were taken at various locations on the property. Individual readings of each piece of equipment during both idle conditions and operational conditions were taken to specifically identify the projected Noise across the full auditory spectrum. The individual readings are listed in Table 3 below.

|                                              | Leq - Sound Level dB(A) |              |                    |                           |                           |
|----------------------------------------------|-------------------------|--------------|--------------------|---------------------------|---------------------------|
| Equipment                                    | Idling @ 20'            | Idling @ 40' | Operating @<br>40' | Operating @<br>Receptor A | Operating @<br>Receptor E |
| Soil Screener<br>[McCloskey 407]             | 68.3                    | 64.1         | 76.3               | 63.6                      | 66.8                      |
| Mobile Rock Crusher<br>[Komatsu BR380JG-1]   | 63.7                    | 59.7         | 79.7               | 71.2                      | 72.5                      |
| Wood Grinder<br>[Bandit 3680 Beast Recycler] | 66.7                    | 65.6         | 83.5               | 72.0                      | 72.2                      |

Simultaneous equipment operational Noise levels were also taken at each receptor location ("A"-"F"). During these readings, the Soil Screener, the Mobile Rock Crusher, and the Wood Grinder were all in full operation, with individuals operating the onsite pay-loading equipment. The simultaneous equipment readings are listed in Table 4 under this section of the report.

| Receptor Location | L <sub>EQ</sub> dB(A) |
|-------------------|-----------------------|
| A                 | 74.9                  |
| В                 | 73.7                  |
| С                 | 78.7                  |
| D                 | 72.6                  |
| E                 | 74.8                  |
| F                 | 72.2                  |

TABLE 4. SIMULTANEOUS EQUIPMENT NOISE LEVELS

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#### F. **Projected Noise Levels at Receptor Locations**

In addition to the readings taken at the site, SoundSense engineers virtually modeled the source and receptor information using a computer simulation of the location. There are various methods of calculating the path of an acoustic wave from the Source (proposed activities) to the Receiver (sensitive receptors). The computer algorithm used to determine the main acoustic paths and the main reflected paths of the noise from the Source to the Receiver is one that has been used by Bonnie Schnitta, PhD for over 30 years and has been well tested for known acoustic environments. The algorithm models the projected noise levels for each activity and calculates the resultant noise levels at the receptors. We then compared the projected noise levels to the existing noise levels (operational and ambient) to determine the resultant effect on the sensitive receptors.

The algorithm for total attenuation ( $A_{TOTAL}$  in dB) incorporates the cumulative attenuation effects of geometric divergence, air absorption, ground attenuation and other miscellaneous factors such as existing foliage and topography.

#### $A_{TOTAL} = A_{div} + A_{air} + A_{ground} + A_{misc}$

 $A_{div} = 20 \log_{10} r + 0.6 - C$ 

Where

- r = distance of point source to receiver in feet
  - C = the correction factor as a function of temperature for varying values of atmospheric pressure.

 $A_{air} = \alpha d / 100 dB$ 

Where  $\alpha$  = air attenuation coefficient in dB per kilometer

d = distance in meters

 $A_{\text{ground}} = 4.8 - (2h_{\text{m}}/r) (17 + 300/r) \text{ dB}$ 

Where  $\mathbf{r}$  = distance between source and receiver in meters

> $h_m$  = the mean height of the propagation path above the ground in meters

 $A_{misc} = dB/m$ 

This is based on frequencies of concern for each activity.

Reference: Harris, Cyril M (1998) Handbook of Acoustical Measurements and Noise Control. Woodbury, NY: Acoustical Society of America.

In addition, the sound waves being emitted from the various sources are directly influenced by thermal gradients in the atmosphere and wind shear. This effect is known as refraction, and will cause the path of the sound waves to bend. Generally, refraction is a major concern across distances greater than 300 feet, but in some rare cases can have a significant effect at distances as short as 50 feet. Sound projections are refracted downward in the direction of the wind, increasing downwind sound levels. Due to nighttime temperature inversion, sound levels are increased at ground level, when the ground itself is cooler than the atmosphere (at night). During the daytime the ground is heated by the sunlight, bending the sound waves upwards. Since the focus is daytime only this variable was not modeled. These factors are not taken into account in the projected sound level analysis due to their irregularity, and can have a significant positive or negative effect depending on weather conditions. The ambient data collected was done so under low wind conditions and significant cloud cover, providing estimated mean values with regards to atmospheric refraction.

All information regarding elevations, property boundaries, and proposed construction is based on the plan developed by Badey and Watson Surveying and Engineering. This noise impact study incorporated the contour data depicted on the most recent survey prepared by Badey and Watson, dated September 3, 2009.

### **G.** Conclusions

On average, the operation of the proposed equipment is roughly 20 dB above code and ambient conditions at the receptor locations. The breakdown of this noise across the auditory spectrum is fairly broad, with high energy levels in most octaves. This Noise will not be in violation of the noise code in the Town of Philipstown when properly treated with acoustically rated materials. This Noise will not be a significant disturbance to the nearby residents, inclusive of the properties to the south, east, and west of the site, with the proper acoustic treatment.

There are several options with regards to mitigating the elevated Noise issue. These options are outlined below and the second option is supported with the attached graphical representations.

#### **OPTION 1:**

Solution #1 involves the installation of a full enclosure, including a roof, four walls, and a closable door or gate. Each major interior surface (including walls, door, and ceiling) must be lined with a material exhibiting the following

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minimum acoustical properties: STC: 30, NRC: 1.0. The STC rating represents the Sound Transmission Loss, or how much sound can pass through the surface. The NRC rating represents the acoustical absorptivity of the surface, or how much sound energy is reflected back into the space. The recommended material is SoundSense QB14 (STC: 32, NRC: 1.05, or equivalent. The space must also include vertically hung baffles (from the ceiling) with a minimum NRC: 1.0. These baffles must be at least 9'0" tall, must run the length of the footprint of any machinery below it, and must be spaced a maximum of 4' The recommended material is SoundSense QA4 (NRC: 1.05), or apart. equivalent. The building(s) may be sized to house one or all of the proposed equipment as long as it meets the above conditions. The suggested form is a pre-engineered steel structure with a large bi-fold, top hinged door (similar to a typical airplane hangar). The door must be closed during operation of the Rock Crusher, Wood Grinder, and Soil Screener. Due to the fact that the door must remain open during the transportation of material into and out of the structure, the doorway should face northeast to use the rest of the structure as a noise barrier.

#### **OPTION 2:**

Solution #2 involves the installation of a three-sided barrier wall, with a rooftop and vertical baffles. A series of sketches are attached in the appendix of the report, representing the shape and approximate dimensions of such a structure. The longest wall must run parallel to Horsemans Trail, and must be at a minimum distance of 170' from Horsemans Trail. Allowing 15' for clearance between the equipment and such wall, the shorter side walls must be a minimum length of 40'. The structure must incorporate a complete roof, including vertical baffies (40' long by 9' tall) positioned above the footprint of any machinery below it. The baffles must be spaced a maximum of 4' apart. Each major interior surface (including walls, door, and ceiling) must be lined with a material exhibiting the following minimum acoustical properties: STC: 30, NRC: 1.0. The recommended material is SoundSense QB14 (STC: 32, NRC: 1.05) or equivalent. The baffles must exhibit a minimum NRC: 1.0. The recommended material is **SoundSense QA4** (NRC: 1.05) or equivalent. The open side of the structure must incorporate vertically hung, flexible barrier strips that allow access to the equipment. These strips must have a 100% overlap, implying no gap between seams and a second row of strips, offset horizontally by 1/2 the width of a strip, as well as a minimum STC of 25. We recommend SoundSense LV-1 Clear (STC: 26), offered in a reinforced 1/2 lb/sq. ft. variation, or equivalent. The attached sketches display one of the short walls in red. This wall may be an actuated doorway for easier equipment positioning, but must be closed during equipment operation.

#### **OPTION 3:**

Solution #3 represents a similar method to Solution #2, only it is designed for the operation of only one piece of equipment at a time. A series of sketches are attached in the appendix of the report, representing the shape and approximate Allowing 15' for clearance between the dimensions of such a structure. equipment and such wall, the shorter side walls must be a minimum length of 40'. The structure must incorporate a complete roof, including vertical baffles (40' long by 9' tall) positioned along the entire length of the structure. The baffles must be spaced a maximum of 4' apart. Each major interior surface (including walls, door, and ceiling) must be lined with a material exhibiting the STC: 30, NRC: 1.0. The following *minimum* acoustical properties: recommended material is SoundSense QB14 (STC: 32, NRC: 1.05), or equivalent. The baffles must exhibit a minimum NRC: 1.0. The recommended material is **SoundSense QA4** (NRC: 1.05), or equivalent. The open side of the structure must incorporate vertically hung, flexible barrier strips that allow access to the equipment. These strips must have a 100% overlap, implying no gap between seams and a second row of strips, offset horizontally by 1/2 the width of a strip, as well as a minimum STC of 25. We recommend SoundSense LV-1 Clear (STC: 26) offered in a reinforced <sup>1/2</sup> lb/sg. ft. variation. The attached sketches display one of the short walls in red. This wall may be an actuated doorway for easier equipment positioning, but must be closed during equipment operation.

### H. GLOSSARY OF TERMS

#### A. Standards

The information within this findings sheet is based on the ASTM Standards. Any variation to the ASTM criteria is based on additional research that focuses on the well being of humans in the presence of noise.

### B. Sound Transmission Class (STC)

Definition: STC is the rating that identifies the ability of an object to block sound. Specifically, STC is a single-number rating calculated in accordance with ASTM classification E413 by using values of sound transmission loss. This is a single-number rating for sound insulation. Generally, STC ratings can be interpreted as follows:

- 25 Normal speech can be understood quite clearly
- 30 Loud speech can be understood fairly well
- 35 Loud speech is audible but not intelligible
- 45 Loud speech is very faint
- 48 Some loud speech is barely audible
- 50 Normal speech is not audible, but amplified sound will be audible
- 60 Minimum requirement for amplified sound

### C. Decibel (dB)

Definition: The term used to identify ten times the common logarithm of the ratio of two like quantities proportional to power or energy. Thus one decibel corresponds to a power ratio (10 to the 0.1 power) to the n power. Since the decibel expresses the ratio of two like quantities, it has no dimensions.

#### **D. Ambient**

Definition: In this document ambient refers to that sound level in the residence when there are no noises of concern. This is a critical value, since it is level that determines the degree of annoyance that a noise is.

#### E. Reflection Amplification

Not all noise will be stopped by an acoustic barrier. The residual noise that passes over the barrier can then reflect off the nearest structure, which in this case is the building. This would then reflect off the barrier, amplifying the noise, unless the barrier has an absorptive or diffusive surface.

### F. Noise reduction coefficient (NRC)

Definition: The rating that identifies the ability of an object to absorb rather than reflect sound. Specifically, NRC of a material is the average of the sound absorption coefficient for 250, 500, 1000, and 2000 Hz rounded to the nearest multiple of .05.

#### G. Equivalent-Continuous Sound Level (Leq)

Definition: Equivalent-continuous, frequency-weighted sound pressure level over a specified averaging time is the equivalent steady level, in that time interval, of the time-mean-square, frequency-weighted sound pressure produced by the sources of steady, fluctuating, intermittent, irregular, or impulsive sounds.

A-frequency-weighting is most commonly selected for a measure of equivalent-continuous, frequency-weighted sound pressure level. Unless otherwise stated, A-weighting is understood. Decibels measured with A-frequency weighting are indicated as dB (A).

The equivalent-continuous sound level of a time-varying sound is equal to the level of an equivalent steady sound at a measurement location for the same measurement duration. Specifically, Leq is 10 times the common logarithm of the ratio of the time-mean-square, A-weighted sound pressure  $p^2(t)$  over time period  $T = T_2 - T_1$  to the square of the standard reference sound pressure  $p_0^2(t)$ . Measured in dB (A) the Leq is

$$L_{eq} = 10 \cdot \log_{10} \left( \frac{\int_{T_1}^{T_1} p^2(t) \cdot dt}{p_0^2(t)} \right)$$

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#### H. (Ln)

Definition: Percentile levels are used greatly when measuring environmental noise. Ln, where n may be anything from 1 to 99, is that noise level exceeded for n% of the measurement time. By definition of percentiles, L1 must be greater than or equal to L2, which must be greater than or equal to L3, etc. L90 represents that noise level that was exceeded 90% of the time and is indicative of the typical ambient environment for the location.

#### I. Sound Pressure Level (SPL)

Definition: a Bell (named for Alexander Graham Bell) scale is the log base 10 of the ratio of some measurement divided by a reference value. A decibel is one tenth of a Bell. Three scales are commonly used for sound pressure levels. They are called the linear scale (measured in dB), the A-weighted scale (measured in dBA), and the C-weighted scale (measured in dBC). The linear scale is directly related to the mean square pressure differential,  $p^2$ , by the following equation

SPL = 10 log 
$$\begin{bmatrix} p_2 \\ p_n \end{bmatrix}$$

#### J. Table of Comparative Noise Levels

(TO BE ADDED)

## ATTACHMENT 2a ALTERNATE NOISE MITIGATION OPTION (OPTION 4) prepared by SoundSense, LLC April 9, 2010

## SoundSense, LLC

46 Newtown Lane, East Hampton, New York 11937

 Phone:
 631-324-2266

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 631-324-6750

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 www.soundsense.com

April 9, 2010

Garrison Tree, Inc. E. Polhemus Enterprise, LLC Horseman's Trail and U.S. Route 9 Town of Philipstown, NY

#### Re: Alternate Noise Mitigation Option (Option 4)

To whom it may concern;

Due to client interest, we have pursued several new alternate design options for mitigating the Noise created by the operation of the soil screener (McCloskey 407), the mobile rock crusher (Komatsu BR380JG-1), and the wood grinder (Bandit 3680 Beast Recycler), at the proposed Garrison Tree site at the intersection of Horseman's Trail and U.S. Route 9, Philipstown NY. The results are as follows:

- (1) If only a berm is used as the noise mitigation method, it WILL NOT provide sufficient acoustic attenuation. On the other hand if a berm is used in combination with direct acoustic treatment to the equipment, the noise from the equipment will meet Code. These treatments are as follows:
- (2) The Soil Screener (McCloskey 407)
  - a. The majority of the disturbing noise coming from the Soil Screener is a result of both the material being loaded into the hopper and the rocks tumbling in the trommel drum. We propose the following treatment:
    - i. Lining of the interior of the hopper with 1" thick 60 Durometer rubber.
    - ii. Replacing the screen cloth with a <sup>1</sup>/<sub>2</sub>" thick polymer screen material (Durex Eurethane Armor, spec attached).
  - b. We have been in contact with Durex Products, Inc. (<u>www.durexproducts.com</u>) and they can provide both solutions at a reasonable cost (estimated \$29.83/sqft for the hopper material and \$488.60 per 37.75" x 42" panel for the trommel).

#### Garrison Tree Addendum Horseman's Trail and U.S. Route 9

(3) The Mobile Rock Crusher (Komatsu BR380JG-1)

The majority of the disturbing noise coming from the Rock Crusher is a result of both the material being loaded into the hopper and the rocks exploding in the crusher's jaws. We propose the following treatment:

Create a vertical acoustic barrier, attached directly to the perimeter of the hopper. The barrier must be continuous around the perimeter of the hopper, and must be a minimum height of 4'. This barrier must have a minimum STC of 30, with a minimum NRC of 0.85. We recommend SoundSense QB12-EXT. Due to the geometry of the hopper, the best fit will occur if the material is ordered in raw form, as opposed to prefabricated panels. The solution will require two full rolls, with a grommet kit and edge biding kit. Steel framework will have to be attached to the hopper in order to support the material. Because the solution will be integrated into the product owned by Pine Bush Equipment Co., Inc., treatment must be reviewed and discussed with their local representative (Dave Ewald, **P**: 845.878.4004. C: 845.518.5774. **E**: dewald@pbeinc.com).

(4) The Wood Grinder (Bandit 3680 Beast Recycler)

The majority of the disturbing noise coming from the Wood Grinder is a result of the radiator fan, the grinding wheel, the grinding impact noises, and the engine noise. Due to the wide range of noise sources, we propose the following treatment:

The creation of a smaller, individual canopy. A sketch is attached detailing the dimensions and placement with respect to the unit. A structure must be designed and installed to support an acoustic barrier on the top and two sides. This barrier should have a minimum STC of 30 and a minimum NRC of 0.85. We recommend **SoundSense QB12-EXT**, if the design is inclusive of the frame and the acoustic material alone. We recommend **SoundSense QB112**, if the design is a plywood canopy to which the acoustic material is attached. Since a great deal of the noise emanates from the grinding wheel, an acoustic barrier curtain must be included in this acoustic canopy. In this design, the curtain is comprised of 8' long strips of **SoundSense LV-1 Clear**, suspended from the 17' tall roofline of the structure. In this configuration, the acoustic materials would cost an estimated \$15,000, not including the structural support. A formal quote will be issued, once the design is finalized.

Sincerely,

Bonnie Schnitta Greg Greenwald SoundSense, LLC