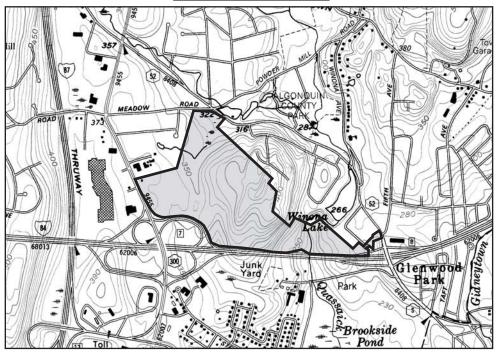
# DRAFT ENVIRONMENTAL IMPACT STATEMENT VOLUME II



### THE MARKETPLACE AT NEWBURGH

TOWN OF NEWBURGH ORANGE COUNTY, NEW YORK

Prepared by: Tim Miller Associates, Inc.

Project Sponsor: Wilder Balter Partners, Inc.

Lead Agency:
Town of Newburgh Planning Board

**April 4, 2006** 

## THE MARKETPLACE AT NEWBURGH DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)

<u>Project Description</u>: The applicant proposes the construction of a commercial shopping center

consisting of approximately 850,000 square feet on 127.6 acres of primarily vacant land within the Interchange Business (IB) zoning district

opposite and east of the Newburgh Mall.

Location: The project site is located at the northeast quadrant formed by the

intersection of NYS Route 300 with Interstate Route 84 in the unincorporated area of the Town of Newburgh, Orange County, NY.

Access to the site would be via NYS Route 300 and NYS Route 52.

Tax Map

<u>Identification:</u> (Tax Map/Block/Lot Numbers): 60/3/49.22; 60/3/49.1; 60/3/41.3; 60/3/48;

60/3/41.4; 60/3/49.21; 71/4/7; 71/4/8; 71/4/9; 71/4/10; 71/4/11-14; 71/5/9;

71/5/15,16; 97/1/13.3; 97/1/20.3.

Lead Agency

and Contact Person: TOWN OF NEWBURGH PLANNING BOARD

c/o Norma Jacobsen, Planning Board Secretary

308 Gardnertown Road Newburgh, NY 12550 (845) 564-7804

Project Sponsor:

WILDER BALTER PARTNERS, INC.

570 Taxter Road, Sixth Floor

Elmsford, NY 10523 Contact: Bob Wilder (914) 347-3333

**DEIS Preparer:** 

TIM MILLER ASSOCIATES, INC.

10 North Street

Cold Spring, New York, 10516 Attention: Tim Miller, AICP

(845) 265-4400

Lead Agency Acceptance Date: May 4, 2006

Date of Public Hearing: June 1, 2006

Deadline for Receipt of Public Comments: \_\_\_\_\_TBD\_\_\_\_\_

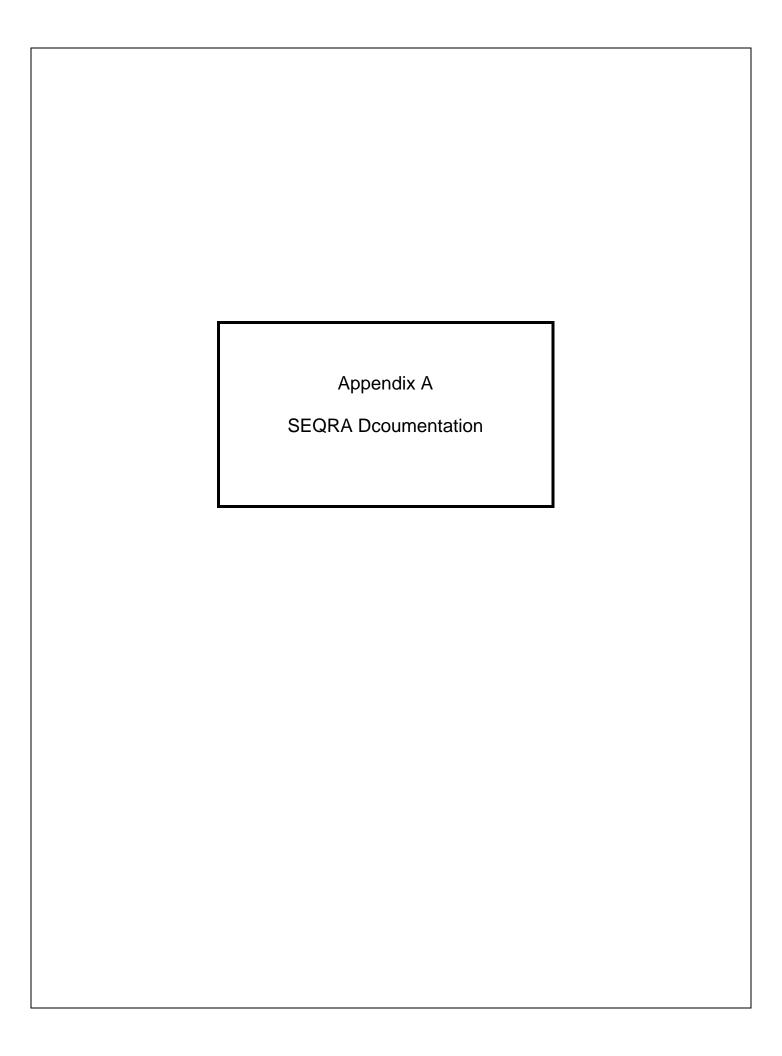
**April 4, 2006** 

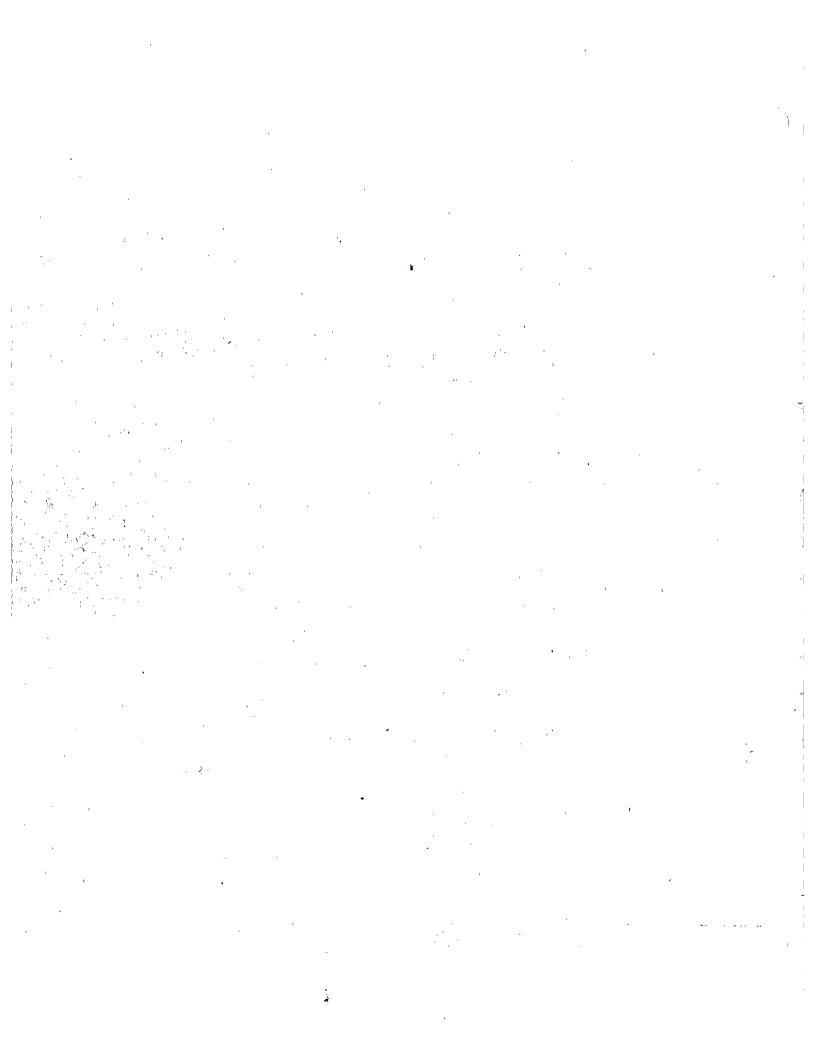
## THE MARKETPLACE AT NEWBURGH Draft Environmental Impact Statement (DEIS)

### **VOLUME II: APPENDICES A thru E, G thru J**

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| Appendix D | Wetland Report (the wetland delineation map referenced in this appendix is included as a drawing accompanying the site plan) |
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## TOWN OF NEWBURGH PLANNING BOARD NOTICE OF INTENT FOR DESIGNATION OF LEAD AGENCY

Please take notice that, according to the provisions of 6NYCRR Part 617, the Town of Newburgh Planning Board has declared its intent to be lead agency for the purposes of review of and action on the project named below. If within 30 calendar days from the date of mailing this notification no involved agency submits a written objection to the Town of Newburgh Planning Board, the Town of Newburgh Planning Board shall act as lead agency and shall follow the provisions of 6NYCRR Part 617.7 governing determination of significance of the proposed action.

Contact Person/Address: Norma Jacobsen, Secretary

Town of Newburgh Planning Board

308 Gardnertown Road Newburgh, New York 12550

(845) 564-7804

Name of Project: Wilder Balter Partners/Crossroads @ Newburgh

Location: Northeast corner of Routes 84 and 300

Tax Map Parcel: Section 60, Block 3, Lots 41.3, 41.4, 48, 49.1 and 49.22

totaling 108.6 acres

Town of Newburgh, County of Orange

**SEQRA Status**: Type 1, over 100,000 square feet of commercial area and over 10 acres of disturbance

#### **Project Description:**

The applicant proposes to develop a 108.6 acre IB Interchange Business zoned site on the northeast corner of Routes 84 and 300 opposite the Newburgh Mall for 798,350 square feet of commercial floor area. The plans are in concept form and they may consist of two primary development areas. The higher area to the rear or east is planned to contain large box retail stores in some form while the lower area near the entrance on Route 300 opposite Newburgh Mall will consist of smaller scale mixed use commercial-office-public space to be determined. The actual commercial uses, access and designs will be developed during the SEQRA and planning process.

Date of Action: October 21, 2004

Date of Mailing: October 22, 2004

#### **Involved Agencies:**

Town of Newburgh Planning Board 308 Gardnertown Road Newburgh, New York 12550

Town of Newburgh Town Board 1496 Route 300 Newburgh, New York 12550

City of Newburgh City Manager 83 Broadway Newburgh, New York 12550 Att: Sewers Department

Orange County Health Department 124 Main Street Goshen, New York 10924

Orange County Planning Department 124 Main Street Goshen, New York 10924

New York State Thruway Authority 4 Executive Blvd. Suffern, New York 10901 Attention: Darren Scalzo

New York State Department of Transportation\
4 Burnett Blvd.
Poughkeepsie, New York 12603

New York State Department of Environmental Conservation 21 South Putt Corners Road New Paltz, New York 12561

United States Army Corps of Engineers New York District-Regulatory Branch J. Javits Federal Building, 26 Federal Plaza New York, New York 10278-00090

#### Interested Agencies/Parties:

Michael Donnelly, Esquire PO Box 610 Goshen, New York 10924

James Osborne, P.E. Town of Newburgh 308 Gardnertown Road Newburgh, New York 12550 Wilder Balter Partners, Inc. 570 Taxter Road, Sixth Floor Elmsford, New York 10523

Tim Miller
Tim Miller Associates
10 North Street
Cold Springs, New York 10516

Newburgh Mall 1401 Route 300 Newburgh, New York 12550

Other businesses along Route 300 as requested in the future

|  | ; |  |
|--|---|--|
|  |   |  |
|  |   |  |
|  |   |  |
|  |   |  |

#### 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.

| NAME OF ACTION   |  |  |                                    |
|--|--|--|------------------------------------|
| Crossroads at Newburgh   |  |  |                                    |
| LOCATION OF ACTION (Include Street Address, Municipality and County)  Northeast Corner of I-84 and Union Ave.  |  |  |                                    |
| NAME OF APPLICANT/SPONSOR  |  | BURINES                                | TELEPHONE                          |
| Wilder Balter Partners, Inc.   |  | (914) 347-                             |                                    |
| ADDRESS  |  |  |                                    |
| 570 Taxter Road  |  |  | 1                                  |
| CITY/PO  |  | STATE                                  | ZIP CODE                           |
| Elmsford   |  | New York                               | 10523                              |
| NAME OF OWNER (if different)  Kenneth L. Miron   |  |  | TELEPHONE                          |
| ADDRESS  |  | (203) 309-                             | 1834                               |
| 4 Jonathan Lane  |  |  | •                                  |
| CITY/PO  |  | STATE                                  | ZIP CODE                           |
| Poughkeepsie   |  | NY                                     | 12603                              |
| DESCRIPTION OF ACTION  |  |  |                                    |
| Site Plan approval for development of a shopping center including  | ng 798,350 SF of   | retail buildings,                      | parking, roads and                 |
| stormwater management facilities. The project is on 108.6 acres of I A.  | and north of 1-84 at   | nd east of Union                       | Ave. See attachment                |
| Λ.   |  |  |                                    |
|  |  |  |                                    |
|  |  |  |                                    |
|  |  |  |                                    |
| Please Complete Each Question - Indicate N.A. if not applicable  | e  |  |                                    |
| A. Site Description  |  |  |                                    |
| Physical setting of overall project, both developed and undeveloped  | l areas  |  |                                    |
| Present land use: □ Urban □ Industrial ■ Commercial  |  |  | 5                                  |
|  | Residential (  | suburban) $\Box$                       | Rural (non-farm)                   |
| ■ Forest ☐ Agriculture ☐ Other   |  |  |                                    |
|  |  |  |                                    |
| 2. Total acreage of project area: 108.6 acres.   |  |  |                                    |
| APPROXIMATE ACREAGE  |  | ENTLY A                                | FTER COMPLETION                    |
| Meadow or Bushland (Non-agricultural)  | 6  | acres                                  | 5.1 acres                          |
| Forested   | 88.3   | acres                                  | 10 acres                           |
| Agricultural (Includes orchards, cropland, pastures, etc.)   | 0  | acres                                  | 0 acres                            |
| Wetland (Freshwater or tidal as per Articles 24, 25 or ECL   | 14.3   |  | 15.2                               |
| •  | 0  | acres                                  | acies                              |
| Water Surface Area   |  | acres                                  | acres                              |
|  | Λ  |  |                                    |
| Unvegetated (Rock, earth or fill)  | 0  | acres                                  | 0 acres                            |
| Unvegetated (Rock, earth or fill)  Roads, buildings an other paved surfaces  | 0  | acres                                  | 0 acres<br>64.4 acres              |
|  |  |  | 64.4                               |
| Roads, buildings an other paved surfaces   |  | acres                                  | 64.4 acres                         |
| Roads, buildings an other paved surfaces Other (Indicate type)   |  | acres                                  | 64.4 acres                         |
| Roads, buildings an other paved surfaces Other (Indicate type) Lawns, stormwater management facilities  3. What is predominant soil type(s) on project site? MdB,  | 0<br>MdC, Ca, BnB, RSE   | acres acres  3, RkD and FAC            | 64.4 acres 13.9 acres              |
| Roads, buildings an other paved surfaces  Other (Indicate type) Lawns, stormwater management facilities  3. What is predominant soil type(s) on project site? MdB,  a. Soil drainage: Well Drained 45 % of site  | 0  | acres acres  3, RkD and FAC            | 64.4 acres                         |
| Roads, buildings an other paved surfaces Other (Indicate type)  Lawns, stormwater management facilities  3. What is predominant soil type(s) on project site?  MdB, a. Soil drainage:  Well Drained  45  % of site  Poorly Drained  15  % of site  | 0<br>MdC, Ca, BnB, RSE<br>■ Moderately we                            | acres acres  3, RkD and FAC Il drained | 64.4 acres 13.9 acres 40 % of site |
| Roads, buildings an other paved surfaces Other (Indicate type) Lawns, stormwater management facilities  3. What is predominant soil type(s) on project site? MdB, a. Soil drainage: Well Drained 45 % of site Poorly Drained 15 % of site b. If any agricultural land is involved, how many acres of soil are classif  | MdC, Ca, BnB, RSE  ■ Moderately we  ded within soil group            | acres acres  3, RkD and FAC Il drained | 64.4 acres 13.9 acres 40 % of site |
| Roads, buildings an other paved surfaces Other (Indicate type)  Lawns, stormwater management facilities  3. What is predominant soil type(s) on project site?  MdB, a. Soil drainage:  Well Drained  45  % of site  Poorly Drained  15  % of site  | MdC, Ca, BnB, RSE  ■ Moderately we  ded within soil group            | acres acres  3, RkD and FAC Il drained | 64.4 acres 13.9 acres 40 % of site |
| Roads, buildings an other paved surfaces Other (Indicate type)Lawns, stormwater management facilities  3. What is predominant soil type(s) on project site? MdB, a. Soil drainage: Well Drained 45   | MdC, Ca, BnB, RSE  ■ Moderately we led within soil group IYCRR 370O. | acres acres  3, RkD and FAC Il drained | 64.4 acres 13.9 acres 40 % of site |
| Roads, buildings an other paved surfaces  Other (Indicate type) Lawns, stormwater management facilities  3. What is predominant soil type(s) on project site? MdB, a. Soil drainage: Well Drained 45 % of site  Poorly Drained 15 % of site b. If any agricultural land is involved, how many acres of soil are classif Land Classification System? NA acres. (See 1 N | MdC, Ca, BnB, RSE  ■ Moderately we  ded within soil group            | acres acres  3, RkD and FAC Il drained | 64.4 acres 13.9 acres 40 % of site |

| <ol><li>Appro</li></ol> | ximate percentage of proposed site with sl   | opes:             | <b>■</b> 0-10% | 83          | %                 | <b>1</b> 0-15%   | 8                 | % |
|-------------------------|--|-------------------|----------------|-------------|-------------------|------------------|-------------------|---|
|                         |  |                   | ■ 15% or       |             | 9                 | %                |                   |   |
| 6. Is pro               | oject substantially contiguous to, or contain<br>es? □ Yes ■ No  | a building, site, | or district, I | isted on th | e State or N      | ational Regis    | sters of Historic |   |
|                         | ect substantially contiguous to a site listed  |                   |                | Natural La  | ndmarks?          | □Yes             | <b>l</b> No       |   |
| 8. What i               | is the depth of the water table?   | 0-6 (in           | feet)          |             |                   |                  |                   |   |
| 9. Is site              | located over a primary, principal, or sole so  | ource aquifer?    | □Yes           | No          |                   |                  |                   |   |
| 10. Do h                | unting, fishing or shell fishing opportunities   | presently exist i | n the projec   | t area?     | □Yes              | No               |                   |   |
| 11. Does                | project site contain any species of plant or ☐ Yes ■ No According toTMA Identify each species  |                   | be confirm     | ed with DI  | EC)               | ingered?         |                   |   |
| 12. Are the             | here any unique or unusual land forms on t ☐ Yes ■ No Describe   | he project site?  |                |             | -                 | ,                |                   |   |
|                         | e project site presently used by the commur  ☐ Yes ■ No If yes, explain  | nity or neighborh |                |             |                   |                  |                   |   |
|                         | the present site include scenic views know ☐ Yes ■ No  | n to be importar  | nt to the cor  | nmunity?    |                   |                  |                   |   |
| 15. Strea               | ms within or contiguous to project area:   | NA                |                |             |                   |                  |                   |   |
| a. Na                   | me of Stream and name of River to which i  | t is tributary    |                |             |                   |                  |                   | — |
| 16. Lakes<br>a. Na      | s, ponds, wetland areas within or contiguou<br>ame Army Corps jurisdictional Wetlan  |                   |                | . I         | o. Size (In a     | acres) 14.3      | acres             |   |
| a) If                   | site served by existing public utilities?<br>Yes, does sufficient capacity exist to allow of<br>Yes, will improvements be necessary to allow |                   | ■Yes □         |             |                   |                  |                   |   |
|                         | site located in an agricultural district certific<br>on 303 and 304? ☐ Yes ■ No  | ed pursuant to A  | griculture a   | nd Markets  | law, Article      | 25-AA,           |                   |   |
| ECL,                    | site located in or substantially contiguous tand 6 NYCRR 617? ☐ Yes ■ No the site ever been used for the disposal of so                      |                   |                | _           | ated pursua  ■ No | int to Article 8 | 3 of the          |   |
|                         | ·  | on mazardou       | o wastos:      | L 103       | _110              |                  |                   |   |
| -                       | e <b>ct Description</b><br>cal dimensions and scale of project (fill in di   | mensions as an    | oropriate)     |             |                   |                  |                   |   |
| -                       | tal contiguous acreage owned or controlled   | _                 |                | 108.6       | Acres.            |                  |                   |   |
| b. Pr                   | oject acreage to be developed: 78  | 3.3 acre          | es initially;  | _           |                   | acı              | es ultimately.    |   |
| c. Pro                  | oject acreage to remain undeveloped  | 30.3              | acres.         |             |                   |                  |                   |   |
| d. Le                   | ngth of project, in miles: NA  | (if appro         | priate)        |             |                   |                  |                   |   |
| e. If t                 | he project is an expansion, indicate percent   | of expansion p    | roposed?       | N/          | <u>4</u> %        | b                |                   |   |
| f. Nu                   | mber of off-street parking spaces existing   | 0                 | ; propose      | _           | ,026              | ·                |                   |   |
| •                       | aximum vehicular trips generated per hour  | 2,500             | (upon c        | ompletion   | of project)?      |                  |                   |   |
| h. If r                 | residential: Number and type of housing unit   |                   |                |             |                   |                  |                   |   |
| laitich.                | One Family   | Two Family        |                | Multip      | ole Family        |                  | Condominium       |   |
| Initially<br>Ultimately |  |                   |                |             |                   |                  |                   |   |
| -                       | ions (in feet) of largest proposed structure   | <35'              | height;        | 472         | d' width          | ; 562            | length.           |   |
|                         | eet of frontage along a public thoroughfare p  |                   |                | 3,900       | ft.               | ,                |                   |   |
|                         | 5 5 F  | 3                 |                |             |                   |                  |                   |   |
|                         |  | 3                 |                |             |                   |                  |                   |   |

| 2.  | How much natural material (i.e. rock, earth, etc.) will be removed from the site? 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? Proposed buildings, lawns, and landscaping.             |
|     | b. Will topsoil be stockpiled for reclamation? ■ Yes □ No   |
|     | c. Will upper subsoil be stockpiled for reclamation? ■ Yes □ No   |
| 4.  | How many acres of vegetation (trees, shrubs, ground covers) will be removed from site? acres.                             |
| 5.  | Will any mature forest (over 100 years old) or other locally-important vegetation be removed by this project?  ☐ Yes ■ No |
| 6.  | If single phase project: Anticipated period of construction? NA months, (including demolition).                           |
| 7.  | If multi-phased:  |
|     | a. Total number of phases anticipated?TBD (number).   |
|     | b. Anticipated date of commencement phase 1 month year, (including demolition)  |
|     | c. Approximate completion date of final phase month year.   |
|     | d. Is phase 1 functionally dependent on subsequent phases? ☐ Yes ☐ No   |
| 8.  | Will blasting occur during construction? ☐ Yes ☐ No TBD   |
| 9.  | Number of jobs generated during construction? ; after project is complete1,996  |
| 10  | Number of jobs eliminated by this project?0   |
| 11. | Will project require relocation of any projects or facilities?? ☐ Yes ■ No  If yes, explain                               |
| 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.   |
| 13. | ls subsurface liquid waste disposal involved? ☐ Yes ■ No  |
| 14. | Will surface area of an existing water body increase or decrease by proposal? ☐ Yes ■ No  Explain                         |
| 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 (0.001 tons/day/capita X 1996 employee= 60 tons per month)              |
|     | a. If yes, what is the amount per month60 Tons  |
|     | b. If yes, will an existing solid waste facility be used? ■ Yes □ No  |
|     | c. If yes, give name Orange County Municipal Landfill ; location New Hampton, NY  |
|     | d. Will any wastes not go into a sewage disposal system or into a sanitary landfill? ■ Yes □ No                           |
|     | e. If yes, explain Recyclables  |
| 17. | Will the project involve the disposal of solid waste? ☐ Yes ■ No  |
|     | a. If yes, what is the anticipated rate of disposal? tons/month.  |
|     | b. If yes, what is the anticipated site life? years.  |
| 18. | Will project use herbicides or pesticides? ■ Yes □ No Lawns and landscaping maintenance                                   |
| 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? ☐ Yes ■ No                                 |
| 21. | Will project result in an increase in energy use? ■ Yes □ No  |
|     | If yes, indicate type(s)Commercial consumption of electricity, natural gas and/or fuel oil for heating.                   |
| 22. | If water supply is from wells, indicate pumping capacity NA gallons/minute.   |
| 23. | Total anticipated water usage per day App. 80,000 gallons/day.  |
| 24. | Does project involve Local, State or Federal funding? ☐ Yes ■ No If yes, explain  |
|     | 7-1,  |

| 25. Approvais Required:  |                |                   | Type Submit  |
|--|----------------|-------------------|--|
| City, Town, Village Board  | ■ Yes          | □No               | Water & Sanitary Sewer Service                                     |
| City, Town, Village Planning Board   | ■ Yes          | □ No              | Site Plan Approval   |
| City, Town Zoning Board  | □Yes           | ■ No              |  |
| City, County Health Department   | ■ Yes          | □No               | Water & Sanitary Sewer Extension                                   |
| Other Local Agencies   | Yes            | □ No              | County 239 Review  |
| Other Regional Agencies  | □Yes           | ■ No              | Orange County Health Department                                    |
| State Agencies   | Yes            | □ No              | NYS DOT Entrance Permit,   |
|  |                |                   | NYS DEC SPDES,   |
|  |                | _                 | NYS Thruway Authority  |
| Federal Agencies   | ■ Yes          | □No               | ACOE Wetland Permit, Federal Aviation Administration               |
| C. Zoning and Planning Info  | rmation        |                   |  |
| Does proposed action involve a plan  | nning or zonir | ng decision?      | ■ Yes □ No .   |
| If yes, indicate decision required:  |                |                   | ·  |
| _  | oning variand  | xe □s             | pecial use permit subdivision site plan                            |
| new/revision of master plan  | resour         | ce managem        | ent plan   |
| 2. What is the zoning classification(2) of   | the site? _    | IB Interchan      | ge Business District and A-Airport Overlay District                |
| 3. What is the maximum potential development   | opment of the  | site if develo    | oped as permitted by the present zoning?                           |
| 1,225,000 SF commercial building   | gs             |                   |  |
| 4. What is the proposed zoning of the sit  |                |                   |  |
|  |                | a sita if dayal   | oped as permitted by the proposed zoning?                          |
| NA   | pinent of the  | c site ii devei   | oped as permitted by the proposed zonning?                         |
|  |                |                   |  |
| <ol><li>Is the proposed action consistent wit</li></ol>  |                |                   |  |
| 7. What are the predominant land use(s)  | and zoning     | classifications   | s within a ¼ mile radius of proposed action?                       |
| IB Interchange Business, B Busin   | ess, R-3 Res   | idential and      | A-Airport Overlay Districts  |
| 8. Is the proposed action compatible with  | n adjoining/su | ırrounding lar    | nd uses within a ¼ mile? ■ Yes □ No                                |
| 9. If the proposed action is the subdivision   | on of land, ho | w many lots a     | are proposed? _NA  |
| a. What is the minimum lot size propo  | osed? NA       |                   |  |
| •  | -              | for the format    | ion of sewer or water districts? TBD                               |
|  |                |                   | rovided services (recreation, education, police, fire protection?  |
| ☐ Yes ■ No   | nand for any   | community p       | rovided services (recreation, education, police, fire protection?  |
| 12. Will the proposed action result in the   | generation of  | f traffic signifi | cantly above present levels? ■ Yes □ No                            |
| • •  | -              | _                 |  |
| a. If yes, is the existing road network  | adequate to    | nancie the a      | dditional traffic? ☐ Yes ☐ No TBD                                  |
| D. Informational Details   |                |                   |  |
| Attach any additional information as   | may be need    | ded to clarify    | your project. If there are or may be any adverse impacts associate |
| r maon any additional information de   |                |                   | •  |
|  | npacis and n   |                   |  |
| with your proposal, please discuss such in   | npacis and n   |                   |  |
| with your proposal, please discuss such in<br>E. Verification  |                | to the best o     | f my knowledge.  |
| with your proposal, please discuss such in<br>E. Verification<br>I certify that the information provided | above is true  |                   |  |
| with your proposal, please discuss such in<br>E. Verification  | above is true  | nc.               |  |

# Full Environmental Assessment Form Attachment A PROJECT DESCRIPTION Crossroads at Newburgh

#### INTRODUCTION

This Full Environmental Assessment Form (EAF) examines the potential effects of a proposed shopping center development on a total of approximately 108.6 acres of undeveloped land. This development project is called "Crossroads at Newburgh".

#### Site Location

The regional setting and site location are shown in Figure 1: location map. The project site is located north of Interstate 84, east of Union Avenue (NYS Route 300), and east of I-84 and I-87 interchange, in the Town of Newburgh, Orange County, New York. The proposed commercial development will be located on land zoned as Interchange Business (IB) District.

#### Description of the Project

The proposed development will be constructed on approximately 108.6 acres of undeveloped land designated on tax map as five separate parcels as summarized in Table 1 below. Total gross leasable area of these commercial uses is anticipated to be approximately 798,350 square feet. Appurtenant parking, infrastructure (municipal water and sewer connections), stormwater management facilities, wetland mitigation and landscaping will be incorporated into the plan. A reduced site plan map is shown in Figure 2: Concept Plan.

| Table 1<br>Summary of Lot A      | ea      |
|----------------------------------|---------|
| TAX LOT                          | ACREAGE |
| Section 60 – Block 3 – Lot 49.22 | 84.86   |
| Section 60 – Block 3 – Lot 49.1  | 9.95    |
| Section 60 – Block 3 – Lot 41.3  | 9.82    |
| Section 60 – Block 3 – Lot 48    | 2.97    |
| Section 60 – Block 3 – Lot 41.1  | 1.0     |
| Total site Acreage               | 108.6   |

Of the 108.6 total acreage of the project site, approximately 15.2 acres will be maintained as wetlands (existing and created), 64.4 acres will consist of roads, buildings and other paved surfaces, and 13.9 acres will consist of lawn and landscaping.

#### TOWN OF NEWBURGH PLANNING BOARD

## NOTICE OF DETERMINATION OF SIGNIFICANCE (Positive Declaration)

#### THE MARKETPLACE

#### Determination:

. Significant Environmental Effects have been identified in regard to the Marketplace and the Town of Newburgh Planning Board acting as Lead Agency under SEQRA, in accordance with 6NYCRR Part 617.7 and following review or proposed plans and a Full EAF has determined that an Environmental Impact Statement will be prepared. The significant environmental effects identified are:

- a. Traffic-Two means of site access to Routes 300 and 52 are proposed along with major intersection changes for the Meadow Road-Route 52-Powder Mill Road intersection. The size of the use could be limited by traffic and the ability to mitigate traffic.
- Drainage, Erosion and Sediment Control are major issues and significant wetland areas will be disturbed that will require ACOE approval.
- c. The site is located across from the town's largest commercial development, Newburgh Mall and may be even larger than the Newburgh Mall and have considerable land use, tax, economic and development impacts.
- d. Municipal services, utilities, emergency and safety services must be evaluated and provided for this site.
- e. Visual impacts will be of concern as there will be considerable site disturbance near Interstate 84, Route 300, commercial and neighboring residential areas.
- f. Signage and Lighting near major traffic routes.

Lead Agency: Town of Newburgh Planning Board

Contact Person: Norma Jacobsen, Secretary

308 Gardnertown Road

Newburgh, New York 12550

(845) 564-7804

SEQRA Status: Type 1

Location: Northeast corner of Route 300 and Interstate 84

#### **Project Description:**

The applicant proposes to develop a 108.6 acre IB Interchange Business zoned site on the northeast corner of Routes 84 and 300 opposite the Newburgh Mall for approximately 775,000-900,000 square feet of commercial floor area. The plans are in concept form and they may consist of two primary development areas. The higher area to the rear or east is planned to contain large box retail stores in some form while the lower area near the entrance on Route 300 opposite Newburgh Mall will consist of smaller scale mixed use commercial-office-public space to be determined. The actual commercial uses, access and designs will be developed during the SEQRA and planning process and will consist of uses allowed in the IB District as a commercial-mixed use site

**Scoping Session**: A scoping session will be held at 6 PM, on Thursday, January 13, 2005 at the Town Hall Meeting Room at 1496 Route 300 in Newburgh, New York 12550. A draft scope is enclosed for your perusal.

Date of Action: December 9, 2004

Date of Mailing: December 10, 2004

#### **Involved Agencies:**

Town of Newburgh Planning Board 308 Gardnertown Road Newburgh, New York 12550

Town of Newburgh Town Board 1496 Route 300 Newburgh, New York 12550

City of Newburgh City Manager 83 Broadway Newburgh, New York 12550 Att: Sewers Department

Orange County Health Department 124 Main Street Goshen, New York 10924

Orange County Planning Department 124 Main Street Goshen, New York 10924 New York State Thruway Authority 4 Executive Blvd. Suffern, New York 10901 Attention: Darren Scalzo

New York State Department of Transportation\
4 Burnett Blvd.
Poughkeepsie, New York 12603

New York State Department of Environmental Conservation 21 South Putt Corners Road New Paltz, New York 12561

United States Army Corps of Engineers New York District-Regulatory Branch J. Javits Federal Building, 26 Federal Plaza New York, New York 10278-00090

#### Interested Agencies/Parties:

Michael Donnelly, Esquire PO Box 610 Goshen, New York 10924

James Osborne, P.E. Town of Newburgh 308 Gardnertown Road Newburgh, New York 12550

Wilder Balter Partners, Inc. 570 Taxter Road, Sixth Floor Elmsford, New York 10523

Tim Miller
Tim Miller Associates
10 North Street
Cold Springs, New York 10516

Newburgh Mall 1401 Route 300 Newburgh, New York 12550

Orange Lake Fire District 408 South Plank Road Newburgh, New York 12550

Other businesses along Route 300 as requested in the future

#### AFFIDAVIT OF MAILING

| STATE OF NEW YORK | ) |     |
|-------------------|---|-----|
|                   | ) | SS. |
| COUNTY OF PUTNAM  | ) |     |

I, Lisa Sabin, being duly sworn says:

I am not a party to this action, am over 18 years of age and reside in Cold Spring, New York.

On December 22, 2004, I served true copies of the attached Notice Of Public Scoping Session for The Marketplace in the Town of Newburgh, New York.

By mailing the Notices in a sealed envelope, with postage prepaid thereon, in a post-office or official depository of the U.S. Postal Service within the State of New York, addressed to the last known address of each of the addressees, as indicated on the attached mailing list which is annexed hereto.

Sworn to before me this

23nd day of December, 2004

Notary Public

Signature

JILL M. BUTLER
Notary Public, State of New York
No. 4833705
Qualified in Dutches County
Cordificate Filod in Putnam County
Cordificate Expires July 31, 2005

C:affidavit for mailing

65 CLPIES

| Eric L. Gordon Esq.                                      | 60-2-51.1                               | 60-3-2                                  |  |
|--|---|---|--|
| Kean & Beane P.C.  | County of Orange                        | Colico, Inc.                            |  |
| One North Broadway                                       | 255-275 Main Street                     | PO Box 224                              |  |
| " "ite Plains, NY 10601                                  | Goshen, NY 10924                        | Walden, NY 12586                        |  |
| to Hams, (V) 10001                                       | Goshen, 147 10724                       | Wildell, 141 12500                      |  |
| 60-3-16.21   | 60-3-16.22                              | 60-3-17.1                               |  |
| Patriot Properties LLC                                   | Newburgh Algonquin Lanes Incorporated   | Robert G. and Georgette Earl            |  |
| 46 Sunset Road   | 173 South Plank Road                    | or Current Resident                     |  |
| Bay Shore, NY 11706                                      | Newburgh, NY 12550                      | 24 Denton Road                          |  |
| ,  |   | Wallkill, NY 12589                      |  |
| 60-3-17.2  | 60-3-18                                 | 60-3-19                                 |  |
| Kristopher Noto  | Azb, Inc.                               | Myron Applebaum                         |  |
| PO Box 7   | or Current Occupant                     | 733 Lantern Lane                        |  |
| Marlboro, NY 12542                                       | 165 South Plank Road                    | Olivette, MO 63132                      |  |
|  | Newburgh, NY 12550                      |   |  |
| 60-3-41.21   | 60-3-43                                 | 60-3-44.2                               |  |
| Newburgh Mall LLC., c/o Newburgh Cap. Group              | Plaza of Newburgh Union LLC             | Orsell F. and Adeline L. Sherwood       |  |
| Division of Simon Properties                             | PO Box 2202                             | or Current Resident                     |  |
| Site 3106, 7700 Congress Avenue                          | Monroe, NY 10950                        | 1402 St. Route 300                      |  |
| Boca Raton, FL 33487                                     |   | Newburgh, NY 12550                      |  |
| 60-3-49.21   | 64-4-20                                 | 64-4-21                                 |  |
| Erk Alvis Niedritis, M.D.                                | Winona Lake Fire Co.                    | John Leonard Russell & Diane Lee        |  |
| or Current Resident                                      | PO Box 7360                             | PO Box 7359                             |  |
| 35 Seaman Avenue   | Newburgh, NY 12550                      | Newburgh, NY 12550                      |  |
| Rockville Centre, NY 11570                               |   |   |  |
| ٥. ٥-8.1   | 65-6-12, 65-6-14                        | 65-6-13                                 |  |
| James F. & Geraldine Dennis                              | Michael L. & Laurie A. Clegg            | David M. & Bonnie H. Fekishazy          |  |
| or Current Resident                                      | or Current Resident                     | or Current Resident                     |  |
| 3 Powder Mill Road                                       | 4 Innis Avenue                          | 6 Powelton Farm Road                    |  |
| Newburgh, NY 12550                                       | Newburgh, NY 12550                      | Newburgh, NY 12550                      |  |
| 66-2-13  | 66-2-14                                 | 66-2-15                                 |  |
| Harold A. Baynes & Jeanette Y. Grimsley                  | Eileen Sherman                          | Jerome L. & Jan V. Edwards              |  |
| or Current Resident                                      | or Current Resident                     | or Current Resident                     |  |
| 2 Charlile Circle  | 4 Charlile Circle                       | 6 Charlile Circle                       |  |
| Newburgh, NY 12550                                       | Newburgh, NY 12550                      | Newburgh, NY 12550                      |  |
| 66-2-16  | 66-3-9                                  | 66-3-10                                 |  |
| Frank & Phyllis Ianella                                  | Victor & Joan Pickens                   | George & Josephine Palm                 |  |
| or Current Resident                                      | or Current Resident                     | or Current Resident                     |  |
| 23 Starrow Drive   | 22 Starrow Drive                        | 24 Starrow Drive                        |  |
| Newburgh, NY 12550                                       | Newburgh, NY 12550                      | Newburgh, NY 12550                      |  |
| 66-3-11, 66-3-19   | 66-3-12                                 | 66-3-13                                 |  |
| LT Building Corp   | Zamira Johnson                          | Gregory & Theresa Laraia                |  |
| c/o Thylan Associates Inc.                               | or Current Resident                     | or Current Resident                     |  |
| 805 Third Avenue, Fl 10                                  | 13 Charlile Circle                      | 11 Charlile Circle                      |  |
| New York, NY 10022                                       | Newburgh, NY 12550                      | Newburgh, NY 12550                      |  |
| 66-3-14  | 66-3-15                                 | 66-3-16                                 |  |
| nt & Maria Desimone                                      | Richard J. & Lori M. Cassidy            | Pedro Rios                              |  |
|  | or Current Resident                     | or Current Resident                     |  |
| or current Resident                                      |   |   |  |
| or Current Resident 9 Charlile Circle Newburgh, NY 12550 | 7 Charlile Circle<br>Newburgh, NY 12550 | 5 Charlile Circle<br>Newburgh, NY 12550 |  |

66-3-17 66-3-18 67-1-1 Carlos & Norma Ortiz Arthur W. Fowler William H. Whalen, IV or Current Resident D/b/a Double Eagle Development or Current Resident 3 Charlile Circle 8 Snider Avenue 153 South Plank Road Newburgh, NY 12550 Walden, NY 12586 Newburgh, NY 12550 67-1-2 67-1-3 67-1-4 Scott J. & Jonnie Leinweber Edith Stevens Russel F. Davis & Michele F. Noto or Current Resident or Current Resident or Current Resident 151 South Plank Road 147 South Plank Road 145 South Plank Road Newburgh, NY 12550 Newburgh, NY 12550 Newbugh, NY 12550 67-1-5 67-1-6 67-1-7.12, 67-8-1.2 Philip L. Pisano, Jr. & Jeanne M. Stillwaggon Robert R. Marchione Eugene & Vaughn Ghikas or Current Resident or Current Resident or Current Resident 143 South Plank Road 21 Sylvan Park Drive 131 Highland Avenue Newburgh, NY 12550 Newburgh, NY 12550 Newburgh, NY 12550 67-1-7.2 67-5-12 67-5-13 Margaret E. Watson & Kathleen A. Define Martha Dahl Mary A. Thomas 32 Alpert Drive or Current Resident or Current Resident Wappingers Falls, NY 12590 51 Wintergreen Avenue 49 Wintergreen Avenue Newburgh, NY 12550 Newburgh, NY 12550 67-6-9.22 67-6-10 67-6-11 Ultimate Builders LTD Thomas W. Yozzo & Jennifer J. Kelly John C. & Lisa A. Tucker 65 Reagan Road or Current Resident or Current Resident Spring Valley, NY 10977 17 Hilltop Avenue 18 Hilltop Avenue Newburgh, NY 12550 Newburgh, NY 12550 67-6-12 67-6-13 67-6-14 Frank L. & Elizabeth Gibbens Edward T. Sampson Charles L.A. Diamond, Jr. & Robert Joseph or Current Resident or Current Resident Diamond or Current Resident 16 Hilltop Avenue 1 New Street 14 Hilltop Avenue Newburgh, NY 12550 Newburgh, NY 12550 Newburgh, NY 12550 67-6-15 67-6-16 67-6-17 Elizabeth Jane Harrsen Bartholomew F. Welch, III & Janine M. Thomas McMillan & Susan Surprise or Current Resident Spampinato or Current Resident or Current Resident 13 Hilltop Avenue 11 Hilltop Avenue 124 Colden Hill Road Newburgh, NY 12550 Newburgh, NY 12550 Newburgh, NY 12550 67-6-18 67-7-1 67-7-2 Charles C. & Dawn L. Mocko Calvin Wesley & Grace Hyatt Loretta R. Hogancamp or Current Resident or Current Resident or Current Resident 105 Fern Avenue 2 Hilltop Avenue 4 Hilltop Avenue Newburgh, NY 12550 Newburgh, NY 12550 Newburgh, NY 12550 67-7-3 67-7-4 67-7-5 Horace M. & Lee B. Murphy Arthur J. & Katheryn L. Bernard David W. & Gail K. Crawford or Current Resident or Current Resident or Current Resident 6 Hilltop Avenue 8 Hilltop Avenue 10 Hilltop Avenue Newburgh, NY 12550 Newburgh, NY 12550 Newburgh, NY 12550 67-7-7 Eduardo & Pamela Cazorla Anthony & Christine Michetti Christopher J. & Jacqueline A. Holsten or Current Resident or Current Resident or Current Resident 2 New Street 12 Hilltop Avenue 102 Fern Avenue

Newburgh, NY 12550

Newburgh, NY 12550

Newburgh, NY 12550

67-8-3 Stewart M. & Diane L. Sancton or Current Resident 104 Fern Avenue /burgh, NY 12550

67-8-7 Paul & Sheryl Breau or Current Resident 1 Hilltop Avenue Newburgh, NY 12550 67-8-4 John Dawson Riach or Current Resident 106 Fern Avenue Newburgh, NY 12550

97-1-13.3 George A. & Mary D. Hendricks or Current Resident 162 Brookside Farm Road Newburgh, NY 12550 67-8-5, 67-8-6 Joseph & Virginia Lovato or Current Resident 3 Hilltop Avenue Newburgh, NY 12550

#### TOWN OF NEWBURGH

Planning Board

John P. Ewasuytn, Chair

Phone 564-7804 Fax 564-7802

#### NOTICE OF PUBLIC SCOPING SESSION

PLEASE TAKE NOTICE that the Planning Board will hold a public scoping session on Thursday, January 13, 2004 at 6 p.m. at the Town Hall, 1496 Route 300, Newburgh, NY 12550 on the Marketplace project. The Board has already determined that a full Environmental Impact Statement (EIS) should be prepared, and the Board is now conducting this "Scoping" process to determine what issues should be examined in the EIS document.

The project is being proposed on a 108.6 acre IB Interchange Business zoned site on the northeast corner of Routes 84 and 300 opposite the Newburgh Mall for approximately 775,000 to 900,000 square feet of commercial floor area. The plans are in concept form and they may consist of two preliminary development areas. The higher area to the rear or east is planned to contain large box retail stores in some form while the lower area near the entrance on Route 300 opposite the Newburgh Mall will consist of smaller scale commercial-office-public space to be determined. The actual commercial uses, access and designs will be developed during the SEQRA and planning process and will consist of uses allowed in the IB District as a commercial-mixed use site.

The Planning Board is the Lead Agency for the SEQR analysis. The draft scoping document submitted by the applicant is available for inspection at the Town Planning Board office during regular business hours (see address below). Copies will also be available at the scoping session. Written comments will also be accepted on the proposed scope until 4 p.m. on Monday, January 24, 2004. Written comments should be addressed to:

Norma Jacobsen, Planning Board Secretary Town of Newburgh Planning Board 308 Gardnertown Road Newburgh, NY 12550

Scoping is a way to make sure that the EIS covers all the relevant issues, to assure that the Board and the public have sufficient information in the EIS document before the public hearing process begins. The purpose of public scoping is to invite suggestions from residents, neighbors, agencies, and the public about what should be included in the EIS, including the issues and impacts to be studied, methodologies to be used, alternatives to be discussed, and mitigation to be considered. The Planning Board will adopt a "Final Scope" for the EIS after it reviews all the comments made during the scoping process.

By Order of the Town of Newburgh Planning Board

Dated: December 16, 2004

# TOWN OF NEW BURGH PLANNING BOARD 308 GARDNERTOWN ROAD NEWBURGH NEW YORK 12550

TO:

MICHAEL FOGARTY, TOWN ASSESSOR

FROM:

JOHN P. EWASUTYN, CHAIRMAN TO May

DATE:

**DECEMBER 10, 2004** 

RE:

LIST OF PROPERTY OWNERS WITHIN 300 FEET

Please prepare a list of property owners within <u>300 ft</u> for the project Wilder Balter now called the Market Place: Sec. 60; Blk. 3; Lots 49.22, 49.1, 41.3, 48 and 41.4 for a scoping session scheduled for January 13, 2005

HAD FIC. 4 GORDEN G the north Bradway

60-2-511 County of Orange 255-275 Main St, Goshen NY 12924

22 - 3 2 Collice Inc PC BLX 224, Walden NY 12586

60-3 16 21 Patriot Properties LLC He Sunset Road, Bay Shere NY 11706

,60-3-16 22 Newburgh Algonquin Lanes Incorporated 173 South Plank Rd. Newburgh NY 12550

160-3-17.1 Robert & and Georgette Eurl 24 Denton Rd, Wallkill Nr 12587

EC-3-17-2 Kristopher Noto PC Bex 7, Marlboro NY 12542

60-3-13 Azb Inc

165 South Plank Rd, Newburgh NY 12550

60-3-19 Myran Applebaum

733 Lantern Lane, Olivette MO 63132

60 - 3-41,21 Numbergh Mall LLC

5% Newburgh Capital Group, Division of Size - Rep 51th 3106

7700 Congress Ave, Bock Raton FL 33457

60-3-43 Plaza of Newburgh Union LLC

PC 80,22C2, Monroe NY 10950

60 3 14.2 Orsell F. and Adeline L. Shermard 140% St Route BCC, Numbergh M., 12501

EC-3-117 ZI Erik Alais Miedrits, MD

35 Section Ave Recover Control Residence

64-4-20 Winena Lake Fire Co Pr Box 7300, Newburgh NY 12550 64-4-21 John Leonard Russell + Diane Lee PC BLX 7359, Newburgh NY 12550 .65-5-8.1 James F + Geraldine Dennis 3 Pander Mill Ru, Newburgh NY 12550 65-6-12 Michael L. + Laurie A. Clegg 4 Inris Ave, Newburgh NY 12550 165-6-13 David M + Bunnie H Fekishazy 6 Pavelton Form Rd, Newburgh NY 12550 65-6-14 Michael L. + Laurie A. Clegg 4 Innis Ave. Newburgh NY 12550 .66-2-13 Hareld A Baynes + Jennette Y Grimsley 2 Charlik Cir, Newburgh NT 12550 66-2-14 Elieun Sherman 4 Charlile Cir, Newburgh NY 12550 66-2-15 Jerum - L + Jan V Edwards 6 Charlile Cir, Newburgh NY 12550 66-2-16 Frank + Phyllis Ianella 23 Starren Dr., Newburgh NY 12550 66-3-7 Victor + Joan Pickens 22 Starren Dr, Newburgh NT 12550 66-3-10 George + Josephine Polm 24 Storred Dr. Newburgh NY 12500 66-5-11 LT Building Corp % Thylan Associates Inc J. S. FI & A. C. FI 10 , New York Not 100-2 En State Zenning James

10 Charlie ( . , Nowbergh N.Y 12550

66-3-13 Gregery + Theresa Laraia In Courtle Cor, Newburgh NY 12050 66 - 3 - 14 Vincent + Maria Desimone 9 Charlile Cir, Newburgh NY 12550 166-3-15 Richard J + Lori M Cassidy 7 Charlile Cir, Nemburgh NY 12550 166-3-16 Peure Riss 5 Charlile Cir, Newburgh NY 12550 66-3-17 Carlos + Norma Ortiz 3 Charle Cir, Newborgh NY 12550 ..66-3-15 Arthur W Fowler, D/b/a Double Engle Development 8 Smider Ave, Walden NY 12586 66-3-19 LT Building Corp, Wo Thylan Associates Inc 805 Third Ave FI 10, New York NY 10022 . 67-1-1 William H Whalen IV 153 South Plank Rd, Newburgh NY 12550 67-1-2 Sect J + Jonnie Leinweber 131 South Plank Rd, Newburgh NY 12550 67-1-3 Edith Steveris 147 South Plane Rd , Newburgh NY 12550 267-1-4 Paris & Michele F Noto 145 Jouth Plank Rd, Newburgh NY 12550 67-1-5 Philip L Pisona Jr + Jeanne M Stillwaggen 143 South Plank Rd, Newburgh NY 12550 67-1-1 Hober + R Niarenione 2 Sylven Park Dr., Newborgh 1.7 12550 67-1 7.12 Layer - Verylon Chikes

131 Highland Ave , Newburgh NT 12550

- 67-1-7.2 Margaret E Watson + Kathleen A Define 32 Alpert Dr. Wappingers Falls NT 12570
- 67-5-12 Martha Dahl
  51 Wintergreen Ave, Newburgh NY 12550
- .67-5-13 Mary A. Thomas 49 Wintergreen Ave, Newburgh NY 12550
- 67-6-9.22 Ultimate Builders LTD 65 Reagen Rd, Spring Valley NY 10977
- 67-6-10 Thomas W Yozzo + Jennifer J Kelly 17 Hilltop Ave, Newburgh NY 12550
- 67-6-11 John C + Lisa A Tucker 13 Hilltop Ave, Newborgh NY 12550
- 67-6-12 Frank L + Elizabeth Gibbens
  16 Hilltop Ave, Newburgh NY 12550
- 67-6-13 Edward T Sampson
  I New St , Newburgh NY 12550
- 67-6-14 Charles LA Diamend, Jr + Robert Joseph Diamend 14 Hilltop Ave., Newburgh NY 12550
- 67-6-15 Elizabeth Jane Harrson 13 Hill-op Ave, Newbargh NY 12550
- 67-6-16 Barthelomen F Welch III + Janine M Spampinato
  11 Hillep Ave, Newburgh NY 12550
- 67-6-17 Thomas Memillan + Susan Surprise
  124 Colden Hill Rd, Newburgh NY 12550
- 137-6 & Charles C + Dawn L Mocko
  169 Firm Ave. Newburgh NY 12550
- 17 / 1 1 1 1. In weeky + Grace Hyett I Hottop Ace, Newborgh NY 12050

67-7-2 Loretta R Hoganicomp 4 Hilliop Ave, Newborgh NY 12550 67-7-3 Herace M + Lee B Murphy 6 Hiltop Ave, Newburgh NY 12500 :67-7-4 Arthur J + Katheryn L Bernard SHillton Ave. Newburgh NY 12550 . 67-7-5 Pavid W & Gail K Crawford 10 Hillo, Ave, Newburgh, NY 12550 . 67-7-6 Christopher J + Jacqueline A Holsten 2 New St, Newburgh NY 12550 . 67-7-7 Eduardo + Pamela Cozorla 12 Hilltop Ave, Newburgh NY 12550 Eugene M. + Vaughn Ghikas 67-8-1.2 131 Highland Ave, Newburgh NY 12550 ,67-3-2 Anthony + Christine Michetti 102 Fern Ave, Newburgh NY 12550 67-8-3 Stenart M + Diane L Sancton 164 Fein Ave, Newburgh NY 12550 67-8-4 John Dawson Riach 106 Fern Ave, Newburgh NY 12550 67-8-5 Joseph + Virginia Lovato 3 Hillitop Are, Newburgh NY 12550 67-3-6 Joseph + Virginia Lovato 3 Hillop Ave, Newburgh NY 1255C 61-5-7 Paul + Sheryl Bream I Hilltop Ave , Newburgh NY 12550. 77-1 Para George A + Mary D Hendricks 162 Box home From Rd, Nambergh NY 12000

### **Positive Declaration And Public Scoping**

**Orange County** - The Planning Board of the Town of Newburgh has determined that the proposed Marketplace may have a significant adverse impact on the environment and a Draft Environmental Impact Statement must be prepared. A public scoping session will be held on **January 13**, **2005 at 6:00 p.m.** at the Town Hall Meeting Room at 1496 Route 300, Newburgh, NY. The action involves a development of 108.6 acre IB Interchange Business Zoned site on the northeast corner of Routes 84 and 300 opposite the Newburgh Mall for between 750,000 to 900,000 square foot commercial floor area.

**Contact:** Norma Jacobsen, Town of Newburgh, 308 Gardnertown Road, Newburgh, NY 12550, phone (845) 564-7804.

#### Final Scope

For Preparation of a Draft Environmental Impact Statement
For the "Market Place" development
Routes 84 and 300
Town of Newburgh, New York
February 10, 2005

SEQR Classification of Action: Type 1

Lead Agency: Planning Board, Town of Newburgh, Orange County, New York

#### **DESCRIPTION OF PROPOSED ACTION**

The applicant proposes to develop a 108.6 acre IB Interchange Business zoned site on the northeast corner of Routes 84 and 300 opposite the Newburgh Mall for between 750,000 to 900,000 square feet of commercial floor area.

#### **GENERAL GUIDELINES:**

The DEIS shall cover all items in this Scoping Document. Each impact issue (e.g., soils, surface water, traffic, etc.) will be presented in a separate subsection as it relates to existing conditions, future conditions without the project and future conditions with the project as presently planned and any mitigation measures designed to minimize the identified impacts.

Narrative discussions will be accompanied by appropriate tables, charts, graphs, and figures whenever possible. If a particular subject can be most effectively described in graphic format, the narrative discussion will merely summarize and highlight the information presented graphically. All plans and maps showing the site should include adjacent properties (if appropriate), neighboring uses and structures, roads (I-84, Thruway, Meadow Avenue, etc.), and water bodies.

Information shall be presented in a manner which can be readily understood by the public. Efforts should be made to avoid the use of technical jargon.

Discussions of mitigation measures shall clearly indicate which measures have been incorporated into project plans, versus measures that may mitigate impacts, but have not been incorporated into project plans. Mitigation measures that are not incorporated into the proposed action shall be discussed as to why the applicant considers them unnecessary. These shall all be reviewed by town consultants prior to final determinations by the Planning Board.

The document and any appendices or technical reports shall be written in the third person (i.e., the terms "we" and "our" should not be used). The applicant's conclusions and opinions, if given, shall be identified as those of "the applicant."

Any assumptions incorporated into assessments of impact should be clearly identified. In such cases, the "worst case" scenario analysis should also be identified and discussed.

The entire document should be checked carefully to ensure consistency with respect to the information presented in the various sections prior to submission to the Planning Board for acceptance.

#### I. INTRODUCTORY MATERIAL

- A. Cover Sheet: The DEIS must begin with a cover sheet that identifies the following:
  - 1. That it is a Draft Environmental Impact Statement.
  - 2. The name and description of the project.
  - 3. The location of the project.
  - 4. The Town of Newburgh Planning Board as the Lead Agency for the project and the name and telephone number of the following person to be contacted for further information:

Norma Jacobsen, Secretary Town of Newburgh Planning Board 308 Gardnertown Road Newburgh, NY 12550 (845) 564-7804

- 5. The name and address of the project sponsor, and the name and telephone number of a contact person representing the applicant.
- 6. The name and address of the primary preparer(s) of the DEIS and the name and telephone number of a contact person representing the preparer.
- 7. Date of acceptance of the DEIS (to be inserted later).
- 8. Deadline for comments on the DEIS (to be inserted later).
- B. List of Consultants Involved With the Project: The names, addresses and project responsibilities of all consultants involved with the project shall be listed.
- C. Table of Contents: All headings which appear in the text shall be presented in the Table of Contents along with the appropriate page numbers. In addition, the Table of Contents shall include a list of figures, a list of tables, a list of appendix items and a list of additional DEIS volumes, if any.

# II. SUMMARY

The DEIS must include a summary. The summary shall only include information found elsewhere in the main body of the DEIS and shall be organized as follows:

- A. Brief description of the action.
- B. List of Involved and Interested Agencies and required approvals/permits, including the status of these approvals.
- C. Brief listing of the anticipated impacts and proposed mitigation measures for each impact issue discussed in the DEIS.
- D. Brief description of the project alternatives considered in the DEIS. A table shall be presented which assesses and compares each alternative relative to the various impact issues.
- E. Brief description of issues and potential controversy.
- F. Listing of matters to be decided, including listing of permits and approvals.

## III. DESCRIPTION OF THE PROPOSED ACTION

- A. Introduction. The reasons for and purpose of the DEIS and the nature of the proposed action.
- B. \_Approvals and Involved Agencies. A complete listing of all Involved Agencies along with their addresses and required approvals/permits they may grant.
- C. Interested Parties. A listing of agencies, persons, and groups who have expressed interest in reviewing the DEIS.
- D. Project Purpose, Needs and Benefits.
  - 1. A description of public need and benefits to be fulfilled by the project and the various alternatives.
  - 2. Objectives of the project sponsor and compatibility.
- E. Project Location, Description and Environmental Setting.
  - 1. Description of the geographic boundaries of the project in the region and Town.
  - 2. Description of access to the site, including any special features unique to the site.
  - 3. Description of the site including existing zoning, topography, site characteristics such as wetlands, steep slopes, tree cover and land use.

4. Description of surrounding area land uses, topography and environmental characteristics from the Thruway to Route 52 to Route 84. Land use and traffic shall be described for this area as well as the area extending south to Route 17K. This area shall be used henceforth relative to describing extended or surrounding site areas.

## F. Project Description and Layout.

- 1. Characteristics of the site and surrounding area.
- a. Map showing existing zoning and land use
- b. Map showing traffic volumes along area highways
- c. Map of environmental characteristics including topography, water bodies, wetlands and floodplains.
- 2. Structures and Site, including a description of proposed:
  - a. Building Layout
  - b. Floor area
  - c. Building use
  - d. Drainage and plans
  - e. Parking layout
  - f. Landscaping Plan
  - g. Lighting Plan
  - h. Erosion and Sedimentation Control Plan
  - i. Setbacks and Buffer treatments
  - i. Sidewalk/Pedestrian treatments
  - k. Internal traffic controls

#### G. Construction and Operation.

- 1. Construction.
  - a. Total construction period anticipated.
  - b. Schedule of construction (sequencing).
  - c. Erosion and sedimentation control to be utilized during construction.
  - d. Construction equipment and staging area.
  - e. Truck traffic.
  - f. Dust suppression.
- 2. Operation.
  - a. Hours of operation.
  - b. Deliveries.
  - c. Lighting and security.
  - d. Maintenance responsibilities (i.e., drainage, roads, wetland mitigation, etc.)

#### IV. IMPACT ISSUES

The sub-headings presented under each impact issue below represent items of specific interest which shall be addressed. The discussion under each impact area shall highlight potential impacts caused by the proposed project and any mitigation measures that minimize or eliminate adverse impacts. All physical analyses shall extend at least 200 feet beyond the outer property boundaries or as may be required by the Planning Board prior to acceptance of a DEIS. These areas will be discussed and agreed to based on consultant work sessions over the next three to six months.

#### A. Soils and Topography:

# 1. Existing Conditions

- a. Existing topographic and slope conditions, incl. history of past modifications of the property from available information.
- b. Soils types and characteristics including non-jurisdictional hydric soils.

#### 2. Potential Impacts

- a. Area of disturbance relative to steep slopes, erosion potential and balancing of cuts and fills on site
- b. Discuss rock and solid materials on site and need for blasting. Discuss procedures required for blasting and potential impacts to nearby wells. Locate all known wells within 500 feet of areas of potential disturbance and have this section of report and wells analysis prepared by a hydro-geologist. Discuss provision of a level of insurance necessary to meet requirements for blasting and general industry standards for blasting.

#### 3. Mitigation Measures.

If cuts and fills are not balanced and soils are removed from or brought into the site the eventual location of the source or the area of disposal, if in the Town of Newburgh, will have to be cited prior to final approval. If there is movement of soil into or off the site the truck movements and road cleaning will have to described with appropriate mitigation.

#### B. Wetlands:

#### 1. Existing Conditions.

- a. Delineation, survey and mapping of Federally regulated wetlands and wetlands which may ultimately be considered isolated wetlands.
- b. For each wetland identified, indicate:
  - (1) Location

- (2) Wetlands type
- (3) Wetland acreage
- (4) Description of wetland function

#### 2. Potential Impacts.

- a. Acreage of: direct and indirect wetlands, wetland adjacent areas (if any), disturbances of wetlands regulated by the Army Corps of Engineers, and non-regulated, or isolated wetlands.
- b. Short-term and long-term modifications of wetland functions.
- c. Description of any permits required.
- d. Impacts of wetland disturbance as it may impact adjacent land.

#### 3. Mitigation Measures.

- a. Replacement and enhancement of wetlands for loss of wetlands areas and/or functions, or intrusion into the wetland buffer areas.
- b. An Erosion and Sedimentation Control Plan which incorporates best management practices (BMPs) for control of erosion and sedimentation during construction.
- c. Discussion of how former wetland areas, regardless of ACOE regulations, will be designed and developed.

#### C. Terrestrial and Aquatic Ecology:

## 1. Existing Conditions

- a. Existing habitat types and typical associated wildlife. Tree cover, tree species and location of special trees and trees above 18 inches in diameter within 200 feet of lot lines shall be discussed and shown on plans.
- b. Potential for use of the site by rare, endangered or protected species.

#### 2. Potential Impacts

- a. Site disturbance by habitat type.
- b. Potential impact to wildlife and wildlife habitats.
- c. Potential impact to rare or endangered species .
- d. Potential impacts to wildlife as it may impact adjacent land.

3. Mitigation measures

#### D. Water Resources:

- 1. Existing Conditions.
  - a. Existing drainage patterns on the site and within a 1/4-mile radius of the site,
  - b. Discharge points of existing drainage.
  - c. Stormwater runoff quantity. The volume of site stormwater runoff and stormwater routed through the site, and peak discharge rates for the two (2) through one hundred (100) year design storms using the Soil Conservation Service (SCS) model.
  - d. Existing stormwater quality.
  - e. Existing groundwater availability on site.
- 2. Potential Impacts.
  - a. Stormwater runoff quantity. The volume of stormwater runoff and peak discharge rates for the two (2) through one hundred (100) year design storms resulting from the project.
  - b. Stormwater runoff water quality impacts
    - (1) Potential increased pollutant runoff from impervious surfaces.
    - (2) Potential sedimentation from construction and operation of the project.
    - (3) Impacts on Quassaick Creek and areas within ¼ mile of the site.
  - c. Description of required permits. Discuss Hydraulic Design of new facilities and developments impacting thruway drainage in accordance with Thruway requirements. Also, address DEC Stormwater SPDES requirements and Town of Newburgh requirements.
- 3. Mitigation Measures.
  - a. Erosion and sedimentation control measures.
  - b. Stormwater Management Plan
  - c. Stormwater runoff quality control measures
  - d. Maintenance of stormwater control systems.
    - (1) Type of maintenance
    - (2) Frequency of maintenance.
    - (3) Responsible parties providing short and long term maintenance.

#### E. Zoning and Surrounding Land Uses:

## 1. Existing Conditions

- a. Description of the existing land use and zoning on and in the vicinity of the project site and the surrounding area as previously described.
- b. Description of all Town of Newburgh planning documents, development regulations and policies as they relate to the project site and the surrounding area.

# 2. Potential Impacts of proposed development

- a. Compatibility of proposed project changes with surrounding land use patterns.
- b. Compliance with zoning and other land development regulations.
- c. Compatibility with Town Comprehensive Plan of 1991 and current plan proposals. If new plan is adopted prior to issuance of the DEIS discuss how project relates to and complies with 2005 Town Plan.
- d. Compatibility with County and/or other regional plans
- 3. Mitigation Measures

#### F. Vehicular Traffic and Roadways:

- 1. Existing Conditions.
  - a. A description of the local area roadways including pavement width conditions, number of lanes, posted speed limits, types of roadways, parking and traffic controls and bus routes and stops.
  - b. Manual traffic movement surveys at study intersections listed below for existing PM peak hour and Saturday midday peak periods. Traffic volumes should reflect conditions on typical days. Other peak hours may be included for sensitivity analysis if so warranted by the traffic data collected and/or by a change in land use mix. These dates and studies will be discussed with the town's traffic consultants prior to completion.
    - (1) Union Avenue (Route 300) and NYS Route 52
    - (2) Union Avenue and Meadow Hill Road/Meadow Avenue
    - (3) Union Avenue and Newburgh Commons Driveway
    - (4) Union Avenue and Newburgh Mall Northerly Driveway
    - (5) Union Avenue and Newburgh Mall Southerly Driveway (Primary Site Entrance)
    - (6) NYS Route 52 and Meadow Avenue/Powder Mill Road (Secondary Site Entrance)
    - (7) NYS Route 52 and Fifth Avenue

- (8) NYS Route 52 and I-84 Eastbound on/off Ramps (Exit 8)
- (9) NYS Route 52 and I-84 Westbound on/off Ramps (Exit 8)
- (10) Route 300 and I-84 Exit 7 Ramps
- (11) Route 300 and Thruway Exit 17 Ramps
- (12) Route 300 and Route 17K
- (13) Route 300 and Route 32

If new access points are proposed other than the primary and secondary noted above, the Planning Board and its consultants may review the proposal and request that additional intersections be added to the scope as needed to address the alternative access point(s).

- (2) Directional hourly traffic volumes on major segments should be collected for the period of several weekdays and include volume data for weekends. These segments should include several segments of Route 300 between Route 17K and Route 52 and Route 52 between I-84 and Route 300.
- d. Capacity analyses should be completed for existing conditions at each intersection noted above. A simulation or system analysis of the Route 300 corridor should be provided given the number of signals, spacing and density of development through the corridor. The simulation and analysis should reflect existing queuing conditions.
- e. Safety concerns regarding existing roadways. Conduct intersection and segment accident analysis with comparison to statewide averages. Locations with averages exceeding the statewide averages and/or location with specific patterns should be identified along with any contributing factors or patterns in the types of accidents.

#### 2. Potential Impacts.

- a. Determine site generated peak hour traffic using standard Institute of Transportation Engineers practices, including supplemental data from "destination" shopping centers, if applicable. Provide modal split of passenger cars, buses and trucks. An estimate of daily trips to the site for an average weekday and weekend will also be included.
- b. Evaluate distribution of project generated traffic.
- c. Background traffic volume for the design year, including a general growth factor and any pending or approved projects in the immediate vicinity of the site, including as applicable, the expected completion of the proposed Thruway Exit 17 ramp project with I-84, and the I-84/Drury Lane interchange project.
- d. Capacity analysis and simulation based on No-build future background traffic conditions for the corridor and each intersection for the proposed design year conditions, incl. evaluation of driveway geometry.

- e. Capacity analysis and simulation of combined conditions for each intersection (including proposed development of site plus future background traffic).
- f. Analysis of site accesses and all potential access configurations, including road conditions and sight distance, queue lengths, storage capacity and character.
- g. Analysis of internal traffic circulation and pedestrian circulation and their relationship and impact. Pedestrian circulation within the site and pedestrian connections to and within the community. For example, the potential need for sidewalks to connect to other places within the community, to possibly be built in conjunction with roadway improvements. Public transportation to and from the site, on a local level and on a more regional scale.
- h. Discuss special event or holiday conditions relative to typical peak hour conditions.
- i. Sight distance evaluation at the proposed access drive(s).
- j. Emergency access to the site.
- k. Evaluate operation of roundabout alternatives.
- I. Description of the impact of construction traffic on local roads and traffic.
- m. Description of potential local bus routes and how the site will accommodate bus traffic. If this project will be a regional shopping hub, the need for bus or pedestrian connections to the nearby Shortline Bus Station should also be studied.
- 3. Mitigation Measures.
  - a. Roadway improvements (as needed).
    - (1) Types of improvements
    - (2) Responsibility for improvements.
    - (3) Methods of funding, as appropriate.
  - b. Measures for special event or extraordinary traffic conditions, including Transportation Management Plan for such conditions if applicable.
  - c. Internal signage for traffic management purposes.

#### G. Community Services/Socioeconomic:

- 1. Taxes.
  - a. Existing Conditions. Current level of taxes generated from project site.

(1) Property taxes. (a) Orange County (b) Town of Newburgh (c) School District (2) Other taxes (special districts) b. Potential Impacts (1) Property taxes after development. (a) Orange County (b) Town of Newburgh (c) School District (2) Other special district taxes (3) Other taxes after development such as sales taxes c. Mitigation Measures 2. Employment a. Existing Conditions b. Employment Opportunities (1) short term construction jobs (2) long term employment (3) local housing availability and needs, source of employees c. Mitigation Measures 3. Police/Fire Protection **Existing Conditions** Potential Impacts-discuss shoplifting relative to proposed establishments and assistance with bank deposits, compare to facilities elsewhere in town (Newburgh Mall) and County (Galleria and Woodbury

points.

Commons) and costs to town relative to police. Show emergency access

c. Mitigation Measures-Discuss mitigation impacts such as costs of policing, fees to reset alarms and costs of police and patrols and discuss mitigation impacts relative to b. above. Also, discuss building heights, lengths, widths and accessibility for fire apparatus and personnel.

#### 4. Solid Waste

- a. Existing Conditions
- b. Potential Impacts, location of compactors and storage relative to surrounding land uses and recycling provisions.
- c. Mitigation Measures, incl. screening, buffering, pest management.

#### 5. Water Service

- a. Existing Conditions (discuss prior to preparation of report with Jim Osborne and Bill Puchalski)
- b. Potential Impacts
- c. Mitigation Measures
- 6. Sewage Disposal (discuss prior to preparation of report with Jim Osborne)
  - a. Existing Conditions
  - b. Potential Impacts
  - c. Mitigation Measures.

#### H. Ambient Noise Levels:

- 1. Existing Conditions.
  - a. Current ambient noise levels in vicinity of project site in residential areas as detected on local streets in area. Locations to be determined prior to study and approved by Planning Board. This will include airport traffic, noise and frequency.
  - b. Local noise ordinance.
- 2. Potential Impacts
  - a. Construction Noise
  - b. Operational Noise
    - (1) Truck and automobile traffic

- (2) Schedule of truck traffic and loading
- Mitigation Measures -Impact of tree clearing on noise in adjacent residential areas.
  - a. Study the impacts of additional tree planting in the parking areas as mitigation of noise and air pollution. In efforts to successfully cultivate trees in parking areas, Cornell University has studied the use of structural soils under pavements. The DEIS should study whether or not these soils can be used so more trees could be planted within the parking area in diamond shaped planters between parking spaces to reduce air pollution and potentially reduce noise pollution
  - b. Enlarged buffer areas adjacent to residences.
  - c. Identify portions of the buffer that could remain undisturbed to save trees to provide an immediate buffer. The height of the building and the shading effects of the building on the surrounding residential property should also be studied.
  - d. Study the amount of increase of noise pollution to neighboring properties as a result of deforestation of tens of acres of trees. To mitigate noise, several options should be explored, including but not limited to building gabion sound barriers from rock crushed on site, relocating potential noise sources (however the large building helps block sound from Route 84), etc.
  - e. Discuss the buffer areas in regard to remaining tree cover and fencing to eliminate trespassing.
- Air Quality- An air quality analysis will be conducted based on the standards followed by the New York State Department of Environmental Conservation (NYSDEC).
  - 1. Existing Conditions: Conduct an air quality screening at the three worst case study area intersections included in the scope where sensitive receptors are proximate to the intersection. The air quality screening will include a level of service screening, followed by a capture criteria screening and a volume threshold screening, where applicable. Existing conditions should include a discussion of ambient air quality data collected from NYSDEC monitoring stations and a discussion of the attainment status in the study area.
  - 2. Potential Impacts:.
  - a. Construction Impacts: A qualitative discussion of construction related impacts will be included in the study.
  - b. Project Related Impacts: Impacts on air quality related to the increase in traffic volumes associated with the project will be determined. If the results of the screening analysis indicate the need for a detailed air quality analysis, the applicant will perform a microscale air quality analysis. The air quality analysis

will be conducted for each of the peak hours of the full build-out design year for conditions with and without the proposed project. The analysis will result in carbon monoxide concentrations for one-hour and eight-hour conditions. The analysis results will be compared to 1-hour and 8-hour National and New York State ambient air quality standards for compliance. The results of the detailed analysis will be presented in summary format for inclusion in the EIS. The analysis will include a technical appendix with supporting documentation.

- 3. Mitigation: Improvements required to mitigate air quality impacts will be documented including the resulting levels of air quality.
  - a. Study the impacts of additional tree planting in the parking areas as mitigation of noise and air pollution. In efforts to successfully cultivate trees in parking areas, Cornell University has studied the use of structural soils under pavements. The DEIS should study whether or not these soils can be used so more trees could be planted within the parking area in diamond shaped planters between parking spaces to reduce air pollution and potentially reduce noise pollution
  - b. The use of green roofs, if not cost prohibitive, may help to reduce air pollution. The city of Chicago is undergoing a study by the DEP using several green roofs and believe the findings indicate that green roofs do help reduce air pollution. Discuss the mitigating effects of green roofs and the practicality of using this new technology.

#### J. Visual Quality:

- 1. Existing Conditions
  - a. Views of the site from area roads.
  - b. Views of the site from adjacent residential properties at the locations to be identified by the Planning Board.

# 2. Potential impacts

- a. Describe proposed architecture, themes and potential colors
- b. Main and supplemental sign location
- c. Analysis of altered views using photographs, sight line diagrams and/or cross-sections, as appropriate.
- d. Night lighting, especially as it relates to nearby residences.

#### 3. Mitigation Measures

a. Landscaping

- b. Lighting plan that describes type, location, and timing of exterior lighting fixtures.
- c. Other.

NOTE: Discussion at interim consultant work sessions during the DEIS process shall be scheduled by the Planning Board at the Planning Board. Consultants or applicants request to discuss progress on the DEIS, changes needed or new alternatives and how they are to be addressed in the DEIS. Such meetings would be part of a Consultants Work Session.

## V. ALTERNATIVES

The following alternatives to the Proposed Action are to be evaluated in terms of the impact issues listed above. The description and evaluation of each alternative should permit a comparative assessment of the alternatives discussed and be analyzed in summary format.

- A. No Action
- B. Site design alternative (building orientation)
- C. Other Alternatives

# VI. ADVERSE ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED IF THE PROJECT IS IMPLEMENTED

#### VII. OTHER ISSUES

- A. Irreversible and Irretrievable Commitment of Resources
- B. Growth Inducing Impacts
- C. Effects on the Use and Conservation of Energy Resources:
  - 1. The energy sources to be used if the Proposed Action is implemented.
  - 2. Increased energy consumption.
  - 3. Energy conservation measures.

#### VIII. SOURCES AND BIBLIOGRAPHY

# IX. APPENDICES

- A. All SEQR documentation, including a copy of the Environmental Assessment Form (EAF) the Positive Declaration, and the DEIS Scoping Outline.
- B. Copies of all official correspondence related to issues discussed in the DEIS.
- C. Copies of all technical studies, in their entirety.



RICHARD D. MCGOEY, P.E. (NY & PA) WILLIAM J. HAUSER, P.E. (NY & NJ) MARK J. EDSALL, P.E. (NY, NJ & PA) JAMES M, FARR, P.E. (NY & PA)

MAIN OFFICE 33 Airport Center Drive Suite 202 New Windsor, New York 12553

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TOWN OF NEWBURGH PLANNING BOARD REVIEW COMMENTS

PROJECT:

WILDER BALTER PARTNERS (MARKET PLACE)

PROJECT NO.:

PROJECT LOCATION:

**SECTION 60 BLOCK 3 LOT 49.22, 49.1, 3.41 VARIOUS** 

OTHER PROPERTIES

PROJECT REPRESENTATIVE: WILDER BALTER PARTNERS/TIM MILLER ASSOCIATES

REVIEW DATE:

**29 DECEMBER 2005** 

**MEETING DATE:** 

**5 JANUARY 2006** 

It is noted that the positive Declaration in SEQRA forms submitted for the project, identified the project as a 8 +/- acre parcel, while the current Draft Environmental Impact Statement identifies the 127.6 +/- acre parcel including portions of property not previously depicted on the plans.

COMMENT NOTED.

2. Executive summary 1.2 add to the City of Newburgh in the sewer approvals.

P2-3

- Reference is made to the Winona Lake Fire District, the correct Fire District name is Orange Lake pp 2-3, 3. Fire District. 2-5
- Impact associated with on site blasting, as well as on-site processing of material including noise, 4. vibration, and dust control must be addressed. P31-8 to 3.1-12
- Records of conversation with the Health Department representative identified in the blasting section 5. should be incorporated in the DEIS. P3,1-12
- Clarify if blast mitigating activity will occur within 500 feet of the blast site or 500 feet of the 6. project property lines. Further clarify "certain specific mitigation measures" to be incorporated in a blasting permit. PP3,1-9 TO 3,1-12
- The document identifies proposed disturbance to 1.76 acres of Federal Jurisdictional Wetland area 7. with a corresponding 1.79 acres of Wetland Mitigation area proposed. This one to one ratio appears to be less than what is typically required by Army Corps of Engineers. Confirmation as to the F3.2-7 Army Corps of Engineers permitting of the one to one Wetland Mitigation should be received.

- 507 Broad Street Milford, Pennsylvania 18337 570-296-2765 •
- 540 Broadway
   Monticello. New York 12701
   845-794-3399

Town of Newburgh Planning Board Wilder Palter Partners (Market Place)

2

5 January 2006

- As part of the US Army Corps Wetlands permit analysis of potential impact to the Indiana Bat, a 8. federally endangered species will be required. This has been a condition of all recent federal PP 3.3-10,11 Jurisdictional Wetland comments.
- The document should reference that the project is seeking a waiver from the 5 acre limit of 9. disturbance requirement from NYSDEC for Stormwater SPEDES permit. P3.4-6
- Grading plan figure 3.1-4 is difficult to read and does not contain existing contours. P3.1-7 10.
- Has test borings been preformed to determine the amount of rock on the site? Section 3-1-8, 11. Potential Blasting identifies between 300,000 and 700,000 cubic yards of material to be blasted and process on the site. This is a significant volume of material. The project identifies that blasting mats will be utilized for control of fly rock on the site. Blasting mats are typically utilized during small blasting events near sensitive receptors. Mass rock removal required to remove the volume of rock required will most likely not permit the use of blasting mats for control fly rock.

23.1.8

PS. 1-8.9

- 12. Air blast limits should be established including air blast limits at property lines and at sensitive receptors. Air blast of 134 decibels near residential properties can have significant impacts to residences. P31-9
- Simply stating that blasting will comply with regulations as a mitigation is not acceptable. Peak 13. particle velocity ranges are identified up to 2 inches per second which can cause significant vibration. It is recommended that a blasting plan be prepared which significantly limits the peak particle velocity. P3.1-9
- 14. Section 3.3-6 identifies the Indiana bat as a potential wild life species on the site. The Indiana bat, as identified in the list, however, not indicated as a state and federal endangered species. 3.3-3, 3.3-3,
- 15. Reptiles on the site could include the wood turtle, a species of special concern and should be listed. P3.3-3
- 16. Page 3.7-18 identifies an 18 inch forcemain, which should be confirmed by the Town Engineer. 73.7-18
- Under construction noise, the rock crushing activity associated with noise as well as numerous back 17. P3,8-22, 3,8-14 up alarms on construction equipment should be considered.
- Appendix F, the Stormwater Management appendixes is completely lacking in substance and detail. 18. Stormwater Pollution Prevention plan developed in compliance with NYSDEC guidelines must be This project will have a significant impact on surface water resources within the MHE Quassiack Creek (Watershed). The narrative portion of the report identifies multiple mitigation under measures to be implemented while the Stormwater Management Report prepared is completely SEPARATE deficient including lacking of technical appendixes and computer models, etc.,

SENT TO

COVE

19. Ownership operation and maintenance of the road realignment Meadow Avenue/project entrance drive must be addressed. p3.6-24

Town of Newburgh Planning Board Wilder Palter Partners (Market Place)

3

5 January 2006

- 20. Plan proposes areas of embankments including slopes in excess of one on one. Previous projects which had slopes in excess of two on one has had significant problems maintaining slope stability throughout construction phase as well as ongoing maintenance of the slopes. Slopes in excess of one on one are not acceptable for standard construction practices.
- 21. The Soil and Erosion Control Report Appendix C identifies blanks when referring to wetland areas.

  Please revise.

  REPORT ATTACHED
- 22. Soil and Erosion Control Report identifies implementation measures as specified in the New York guidelines for Urban Erosion and Sediment Control. It is recommended that all erosion and sediment control measures be in conformance and adhered to the most updated NYSDEC standards.
- 23. Soil and Erosion Sediment Control should address the requirements of the Town of Newburgh's Stormwater and Erosion Control inspection requirements.

Based on our review of the documents as proposed, we recommend that the document be declared incomplete and that a revised Draft Environmental Impact Statement be submitted addressing the deficiencies noted above.

respectfully submitted,

McGoey, Hauser and Edsall Consulting Engineers, P.C.

Patrick J. Hines

Associate



**Partners** 

Charles W. Manning, P.E. John M. Tozzi, P.E. Edward V. Woods, P.E. Donald G. Sovey, P.L.S. Associates

Shelly A. Johnston, P.E., PTOE Mark A. Sargent, P.E., PTOE Jeffrey W. Pangburn, P.E. Thomas R. Johnson, P.E., PTOE

January 13, 2006

Mr. John Ewasutyn Planning Board Chairman Town of Newburgh 308 Gardnertown Road Newburgh, NY 12550

RE: Wilder-Balter Partners, Marketplace at Newburgh, Route 300, Town of Newburgh, NY; Town Project No. 2004-54, CME Project No. 04-136.

Dear Mr. Ewasutyn:

Creighton Manning Engineering (CME) is in receipt of the Draft Environmental Impact Statement (DEIS), prepared for the above noted project by Tim Miller Associates dated November 23, 2005. Reviewing the DEIS relative to scope completeness, we offer the following comments on the air quality and noise analysis:

#### Air Quality

1. The microscale air quality analysis was conducted using the standards followed by the New York State Department of Environmental Conservation (NYSDEC). Currently the NYSDEC follows the procedures outlined by the New York State Department of Transportation (NYSDOT) in Chapter 1of the Environmental Procedures Manual (EPM). As noted in the EPM, an air quality screening analysis was performed with the results indicating that a detailed air quality analysis was required. In order to provide a technical review of the screening results, more details on the results of the screening will be required. The additional information should include details on the operations and volumes at the three intersections chosen as the worst-case locations for a detailed study.

3,9-3,4

- 2. The study should note that the study area is located in Orange County which is classified as a moderate non-attainment area for carbon monoxide in addition to a moderate non-attainment area for ozone.
- 3. The study does not address the need for a mesoscale air quality analysis. A separate screening procedure is included in the EPM for determining the need for a mesoscale analysis (EPM Chapter 1.1, Section 9). The results of the screening should be documented in the air quality report.
- The EPM also includes guidance for conducting a particulate matter analysis (EPM Chapter 1.2). The guidelines for a particulate matter analysis should be followed and included as part of the air quality study.
- Diagrams should be included in the report identifying the receptor locations and their relationship to the analyzed intersections. In addition, in order to complete a technical

Engineers, Planners and Surveyors

review of the study, copies of the CAL3QHC input files need to be provided. Detailed information on the calculation of emission factors also need to be provided.  $3 \ G \ G \ \%$ 

6. The results of the air quality analysis for the one-hour and eight-hour conditions do not include the correct ambient (background) air quality. Based on information provided in the EPM, NYSDOT Region 8 has a 1-hour background level of 3.1 parts per million (ppm) and an 8-hour background level of 2.2 ppm. The 1-hour results are obtained by adding the one-hour background levels to the results of the CAL3QHC files. The 8-hour results are obtained by multiplying the results of the CAL3QHC files by the persistence factor of 0.7 and adding the 2.2 ppm background levels. The analysis in the report incorrectly divides the results by the persistence factor and uses an 8-hour background level of 1.9 ppm.

OK THROUGHOUT

#### Noise

The statement describing the Town of Newburgh Noise Regulation beginning on page 3.8-3
excludes the Town's referral to the NYS Motor Vehicle and Traffic law. Noise generated by
motor vehicles on public roads is an element of this Environmental study. Please include a
statement with regards to motor vehicle noise and include all information with regards to the
Town Noise Regulations.

From The Town of Newburgh Noise Regulation:

§ 125-6. Noise from motor vehicles.

Noise emanating from the operation of motor vehicles on public highways is regulated by the New York State Vehicle and Traffic Law. The maximum noise levels set forth in the Vehicle and Traffic Law for the operation of motor vehicles on public highways, as they may be amended from time to time, are hereby designated to be the maximum permissible noise levels for the operation of motor vehicles on all private roads in the Town of Newburgh. When operated on other property, motor vehicles must conform to the standards set forth in § 125-5.

3.8-5

2. The Town Noise Regulation reads that:

"Except for noise emanating from the operation of motor vehicles on public highways and private roads, the permissible intensity of noise for the foregoing between the hours from 8:00 a.m. to 10:00 p.m. and from 10:00 p.m. to 8:00 a.m., respectively, whether such noise is intermittent, impulsive, sporadic or continuous, is as follows. The maximum sound-pressure level [A-scale reading of standard calibrated sound meter, instrument calibration frequency of one hundred (100) cycles per second (hertz)]: "

DUSCUSSED)
THROUGHOUT

The study needs to discuss and present data that shows that noise levels that are intermittent, impulsive, sporadic or continuous will not cause an impact.

3. The noise measurement locations are acceptable; however, noise levels vary throughout the day and night. Due to the nature of the project, and that it has the potential to cause noise impacts during the day or night, measurements representing a 24-hour period are required to accurately represent existing noise levels.

An area (such as the subject site) influenced by traffic noise and other daytime activities often experience a peak noise period between 4 p.m. and 6 p.m. The study is not

accounting for increases or changes in noise levels at different periods of the day or night that may or may not be greater than the 4 p.m. to 6 p.m. time period. 3.8 - 4.7

- 4. The noise study needs to provide data that will compare existing noise levels to proposed noise levels due to the project at all sensitive receptors. While it is not practical to perform noise measurements at every sensitive location, existing noise levels in the entire project area can be determined by the using the fundamentals of sound propagation, the actual field measurements, and sound engineering judgment. The measured levels are reference noise levels that should be used to create a quantitative noise level assessment of the entire project impact area. There are different ways to present data that describes and quantifies a noise level for each sensitive location in a project area. Two such ways are to:
  - Assign analysis receptor locations (perhaps locations A through Z) and quantify each location with an existing sound level based on the actual measurements and the analysis.

3.8-7,8

3,8-14

3-18-14,15

3,8-11

- Construct noise level contours over the entire affected project area using the data obtained from the field measurements and the analysis.
- 5. The total noise impact of the proposed project is the summation of all new noise sources introduced as a result of the proposed project, not just motor vehicles. For example, the noise study needs to take into consideration (and quantify) the noise that will be created from the operation of climate control systems that will likely be located on the rooftop of the proposed buildings. This noise will need to be added to noise levels expected from all other sources such as traffic noise, and other operations on the proposed site. The rooftop heating and/or cooling units may not be the only source of noise on the roof. This needs to be assessed and quantified.
- 6. Sensitive residences, including but not limited to those along Hilltop Avenue, New Street and Fern Avenue may be impacted by an increase in noise levels throughout the entire 24 hour period in a day based on their proximity to the proposed site. Commercial rooftop appliances can run day and night and, at times, all at once. The Town of Newburgh Code provides a performance standard that closely resembles the 24-hour day/night method of determining noise exposure limits during waking and sleeping periods. The analysis needs to assess noise levels not only during peak periods during the day, but also needs to assess the noise levels between the hours of 10 PM and 8 am.
- 7. The analysis loosely discusses the proposed retail buildings as a noise or sound barrier. This discussion needs to quantify what this attenuation would be (if any) at each affected receptor and how the attenuation factor was determined. Additionally, please provide an assessment of sound pressure wave reflection associated with the buildings and the barrier analysis method or software utilized.
- 8. The discussion of the analysis for the new site drive at Route 52/5<sup>th</sup> Avenue needs to be revised. A measurement 5' from the roadway edge is not an acceptable measurement location based on generally accepted noise measurement practice and the Town of Newburgh Regulations. Please refer to the Town Code for acceptable measurement locations. Also, noise level reductions due to ground attenuation are not valid within 50 feet of the noise source. The attenuation effects, due to the doubling of the distance, apply once beyond 50 feet from the source.

Technical Note: The attenuation effects, due to the doubling of the distance, as correctly determined by the applicant at 3.3 dBA +/-, will likely be reduced once the soft existing ground is replaced by a hard surface (parking lots). Please include a discussion on the potential reduction of attenuation effects and apply it to the predicted noise levels.

3.8-15

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PETERWICE

DNW

- 10. This is not a Federally Funded project. References and comparisons to Federal Highway Administration (FHWA) noise criteria are not applicable to this project. The Town of COMMENT Newburgh Policies and Standards apply. OST334
- 11. Reference is made to an FHWA document as the study discusses reductions in noise levels based on vehicle speed. We feel the results of sound level testing, experiments, and documented relationships between traffic noise and traffic operations conducted by reputable sources (including FHWA) are generally acceptable. However, the study incorrectly rationalizes a reduction in noise levels of 10 dBA by halving the vehicle speed. The referenced document states that a reduction from 65 mph to 30 mph will result in a halving of the sound levels (a reduction of 10 dBA). While this is a valid statement when 3,8-11 vehicles are operating in the range of 65 mph to 30 mph, it is not valid for a reduction in speed from 30 mph to 15 mph. The relationship is not linear and does not apply below speeds under 30 mph. Additionally, the applicant states that vehicles will be accelerating. Accelerating vehicles, especially trucks, will produce much greater noise levels than vehicles at a steady speed. This needs to be analyzed and incorporated into the study.
- 12. The discussions of landscaping, plantings, vegetation and buffers with regards to mitigation 3,8-15 should be removed unless they provide some quantification of the mitigation provided in regards to noise. Please quantify the reductions (if any) expected.
- 13. The discussion on noise from Stewart International Airport appears complete and will be evaluated for technical content during the technical review.

Based on the comments noted above, we do not consider the current DEIS complete. If you have any questions regarding these comments or recommendations, please feel free to contact our office.

Respectfully submitted,

/he for

Creighton Manning Engineering, LLP

Kenneth Wersted, P.E.

**Project Engineer** 

Cc: Ed Garling - Town Planner Jim Osborne - Town Engineer

Pat Hines - MHE

Tim Miller - Tim Miller Associates

Michael Donnelly - PB Attorney Gerry Canfield - Code Enforcement Karen Arent - KALA

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# GARLING ASSOCIATES 301 MAIN STREET, SUITE A GOSHEN, NEW YORK 10924 (845) 294-5835 fax: 294-5754

#### **MEMORANDUM**

TO: Town of Newburgh Planning Board, John Ewasutyn - Chairman

FR: Garling Associates DT: January 4, 2006

RE: Marketplace at Newburgh DEIS

The Town of Newburgh Planning Board is in receipt of the Draft Environmental Impact Statement (DEIS) for the Marketplace at Newburgh dated November 23, 2005. Upon review of this project we have several outstanding issues that would deem the DEIS not complete.

Items left out of the Marketplace DEIS (listing indicates number in final scoping session prepared by the Town of Newburgh Planning Board):

# Section 2 - Summary

P 2-2

2B. In the list of involved and interested agencies, the status of approvals was not included.

2D. A description of proposed alternatives were given, but a table comparing each alternative relative to the various impacts was not provided.

2F. A listing of matters to be decided, including listing of permits and approvals  $PP 2 - 2 \approx 24$  was left out of the DEIS.

## Section 3 – Description of Proposed Action

P2-6

3D-1. There were no alternatives given to the description of public need and benefits to be fulfilled by the project.

SOME MAPS BEST INCLUDED IN APPROPRIATE

SERTIONS

3F-1. There were several maps that were requested in this section that were included in the DEIS at other points. These maps should be added in this section and include the existing zoning and land use, traffic volumes along highways, and environmental characteristics. The DEIS also states that the existing zoning and land use map is labeled as figure 2.3, while there is no figure 2.3 in this section.

# Section 4 – Impact Issues

NEW APPRIOR

4B-3c. There was no discussion of how former wetland areas will be designed and developed.

P3.4-3,4,5

4D-1e. No discussion of existing groundwater availability on site, regardless of the Marketplace using municipal water.

73.4-3,

4D-2a. There were no volumes of stormwater runoff and peak discharges for the two through one hundred year design storms resulting from the project.

3.4-8

| P | 3.4-3, |
|---|--------|
|   | 3,4-8  |

4C-2c. There were no listings of required permits and descriptions of each permit needed. This section is important because the DEC is an involved agency regarding SPDES permits, and because of the proximity to the thruway and the drainage caused by it.

P3,6-10

4F-2c. There was no listing of pending projects and the impacts on traffic. The Town of Newburgh is experiencing a period of growth surrounding this area that will affect traffic volumes. These projects include the Newburgh Plaza (former Lloyd's site) and Newburgh Retail Development at the corner of Route 300 and 17K. Both of these pending projects will have an impact on traffic volumes for the surrounding roadways. Additionally, there are a number of smaller office and commercial projects.

P3.6-17

4F-2k. No description of alternatives to operation of roundabouts.

P 3.6-25

4F-3a-3. There were no mitigation measures included for methods of funding for transportation impacts on the surrounding areas.

P3.7-8

4G-2c. No mitigation measures were given for employment conditions, either existing or employment opportunities that will be created by the creation of the Marketplace and how that will impact future development.

FOUND
THREDGHAUT
REVISED
SECTION 3.8

4H-3. The mitigation measures were not included in the sound reduction from vegetation section of the DEIS. This whole section is missing from the DEIS, which should address the impacts of additional tree plantings, enlarging buffer areas, identifying portions of the buffer to remain undisturbed, the amount of increase of noise pollution as a result of deforestation, and buffering in regard to remaining tree cover and fencing to eliminate trespassing. This is going to be a major issue for the residents of adjacent communities that will be affected by this project.

SEZTICH 3.8, P3.9-17 4I-3a. There were no mitigation measures looking at increasing tree plantings and the resulting increase in air quality and mitigation of noise. Again, this is a major issue and should be looked at for the quality of life of surrounding communities. 4J-2a. There are no architectural drawings, description of themes or potential

P3.10-8, NEW colors included in the DEIS. This information is vital to the Planning Board and community at large because of the scale of the project. The absence of this section would lead to each big box development having its own nationally recognized design, with no continuity between the buildings and the lifestyle center. Architectural Review is going to be a major factor in approving this project and should be addressed in the DEIS.

14 3.10

4J-2b. There are no descriptions of the signage proposed for either the buildings or for the entrance signs on the access points. This is also subject to Architectural Review, should following the zoning code, and should be included in the DEIS.

NEW FIGURES 12 3,10, 23,10-9

5C. There are no alternatives for the site given in this section. Alternatives for no action and site design alternatives are given, but there are no alternatives given for this site should the Marketplace be replaced by another project.

582710A 4.0

8. The sources are listed in the text of the document, but a bibliography is still needed at the back of volume 1 of the DEIS.

PREPARATION



# KAREN ARENT LANDSCAPE ARCHITECT Memorandum

To: Chairman John Ewasutyn and the Town of Newburgh Planning Board

From: Karen Arent, Landscape Architect

Date: December 30, 2005

Subject: Marketplace DEIS

Town Project Number: 2004-54 Consultant. Tim Miller Associates

Cc: Mr. Ed Garling, Mr. Michael Donnelly, Mr. Pat Hines, Mr. Tim Miller

#### COMMENTS:

# 1.1 and 2.0 Description of the Proposed Action

1. The lifestyle center is described as a design that allows more foot tragic with minimal onstreet parking with parking lots oriented in the rear of buildings. The site plan shows significant parking and appears more like a "strip mall" atmosphere than a "main street" atmosphere. Several of the areas between parking and building along the "main street" portion of the plan measure only 5' in width. This plan was changed significantly from the originally presented plan and needs either revision or further development to create a "main street" atmosphere as described within the DEIS. For example, could the road system be one way to reduce the width or pavements to allow more sidewalk space? Can DeTA IC some of the parking be shifted to other areas?

2. This area should also have some kind of focal point, ideally an outdoor civic space perhaps within the circular roadway, similar to what was originally presented.

MORE PROJEDOD IN REVISED ALT-C"

COMMENT

NOTED.

# 1.3 and 3.0 Potential Impacts and Proposed Mitigation Measures

#### 3.1 Soil Erosion and Sedimentation Control

3. Several steep slopes exist where stone rip-rap is not proposed. Landscape Plans should show plantings of slope stabilizing shrubs and/or seed mixtures for all slopes greater than 2' horizontal to 1' vertical. Erosion control measures such as jute netting should also be proposed for these slopes. P 3.1-14

Page 1 of 6

P. 3.10 -10

P 3.3-15

#### COMMENTS FOR MARKETPLACE DEIS Dated December 30, 2005 continued

#### 3.3 Terrestrial and Aquatic Ecology

The Mitigation Measures section states that many of the trees along the boundary of the site will be preserved yet the clearing and grading limit line follows many property lines. preserving little if any of the large trees surveyed. This clearing and grading limit line could be shown close to proposed grades and many more of the large specimen trees along property SEE BYISED LANDSCAPING PLAN. lines could be preserved.

- 4. Landscape plans show minimal tree cover. More landscaping could be proposed to mitigate impacts to replace tree canopy lost due to grading operations to help mitigate P3,3-15 impacts to avian species.
- 5. Additional shrub and tree planting could be shown along disturbed property borders to replace loss of habitat for various wildlife species, in accordance with recommendations for re-landscaping with high-quality native vegetation for wildlife habitat. Lawn areas POVISAD along the edges of the outer drives that border wooded edges, the Route 84 corridor and LAND SCAPE storm water management areas should be minimized and buffer plantings for wildlife habitat should be shown. In some areas 50' of lawn is shown whereas only 10' of lawn is necessary and the rest could be planting for wildlife habitat.

6. Patches of wooded areas are shown on the Landscape Plan which should be labeled wooded areas to remain since the entire site is wooded. Wooded areas are shown where existing woods will not remain. This plan should be cleaned up to provide an accurate illustration of proposed wooded areas that will remain and descriptions included in the DEIS should be revised accordingly. SEE REVISED LANDSCAPE PLAN

- 7. The Tree Preservation section of the DEIS states that tree protection fencing will follow the limits of the areas to be cleared whereas the Erosion Control Plan shows tree protection fencing only around specimen trees. The Erosion Control Plan should clearly delineate the clearing and grading limit line and notes should be put on the drawing that this line shall be surveyed in the field and wherever siltation fencing is not located along this line, tree protection fencing will be installed, prior to the start of construction. The Erosion Control Plan should also include notes that all individual specimen trees outside of protected areas will be individually fenced in accordance with the tree protection COMMENT NOTED. detail.
- 8. The tree survey was supposed to be included in Appendix E of the DEIS. This appendix was not included in the DEIS dated 23, 2005. NOW ATTACHED
- Landscape plans do not show tree planting in accordance with Town of Newburgh P. 3.3.15 requirements. One tree for every eight parking spaces must be shown, not including buffer or street tree plantings. The project site could introduce tree plantings within the parking area with 5' wide square shaped tree planting areas, with the points of the square aligned with parking striping in each direction. This type of planting helps to provide space to plant required trees without creating large snow plowing obstacles. This type of planting may also be beneficial since most likely snow will not be piled high around the tree breaking branches and destroying the canopy of the tree. Specific trees that are hardy in this type of planter must be specified, along with a detail that illustrates an appropriate SUE REVISED LANDSCAPING PLAN planting space and planting soil.

# 3.5 Zoning and Surrounding Land Uses

- 10. Setbacks and Buffers: As stated previously, along the property line abutting Hilltop residences, the Landscape Plan shows existing woods to remain whereas the grading limit line shown on the Grading Plan shows that existing woods will be removed. The grading limit line should be revised accordingly. Please note that additional comments will be made under visual and noise impact section.
- 11. Site Plan Review: As noted in this section, the submitted site plan is a final site plan for review.

#### 3.6 Traffic and Transportation

- 12. The site plan does not introduce new sidewalk or bicycle connections to the adjoining residential neighborhoods since neighbors have indicated a desire to limit interaction

  P. 3 -6 -27

  between the shopping center and the residential area. The Planning Board may want to reconsider this since not installing sidewalks that connect the site to the surrounding major roads does present public health safety and welfare concerns for those citizens that do use walking for their means of transportation, including people too young to drive, people to old or with poor eye sight that cannot drive, those who choose not to drive as well as those who cannot afford to drive.
- 13. During work sessions, an internal pedestrian circulation system was discussed that would provide safe walkways that cross the site so that people could park in the center of the lot between the big box retailers, walk to one big box, walk back to their car to deposit their purchases, and then conveniently walk to another big box. This plan does not show any cross center pedestrian circulation. This would also be important for those people arriving by bus since pedestrians usually choose the shortest route between places which the proposed sidewalk plan does not provide so most likely people will walk in the street and in the parking lots. The pedestrian circulation should be studied to create a user friendly system. Section 2-20 does mention that sidewalks and brick cross walks will lead pedestrians across larger lots should they choose to walk; if this is the intent, crosswalks and sidewalks should be shown on the site plan.
- 14 Where are bus pick up locations and are benches and other site amenities proposed for FIGA-Z these areas?
- 15. Section 3.6.4, Existing Pedestrian and Bicycle Activity should state the time of year that no pedestrian and bicycling activity was observed.

#### 3.8 Ambient Noise Levels

- 16. This section did not sufficiently evaluate all new noise sources and potential mitigation measures. The following must be further evaluated:
- Mechanical and trash compaction equipment, specifically with regard to increase in ambient noise to Hilltop residences.
   P3.8-15
- Delivery truck and refuse disposal truck traffic with regard to Hilltop residences.
   Within the DEIS it is stated that the average noise reading for Hilltop Drive over a period of time is 48.9 and over 5 percent of the time is 58.1. Once trucks begin to traverse the

FIG

4-2

drive located only 100-190' from these residences, the average noise level over 5 percent of the time has to change since the maximum sound pressure level of large diesel delivery trucks at approximately 200' away measures 64-68 dBA. Accurately studying the effect of locating a delivery and trash collection access drive so close to nearby residences may result in mitigation measures that move these areas further away, perhaps with building between them. For example, if the buildings were reconfigured to allow deliveries on the east side of building C and the west die of Building D, noise levels may be reduced to levels acceptable for residential neighborhoods. P = 3.8 - 14

- 17. The compliance with noise standards indicates a worst case scenario of a noise level of 58.5 dBA without illustrating how this worst case scenario was derived. Furthermore, the 58.5 dBA is almost 10 points higher than the 48.9 reading over a period of time for the Hilltop residences. The impact statement includes a table of community response to increases in noise levels and lists a change in the noise level of 10 dBA results in widespread complaints about the increased noise from the community. Therefore, noise mitigation for Hilltop residents is necessary.
- 18. This section also states that the fence will provide buffering of the sound but does no state exactly how much sound the fence will buffer. P3.8 14
- 19. In the Compliance with Noise Standards Section, the analysis presented compares the future noise levels of the proposed Marketplace development to thresholds as forth in the Town of Newburgh noise standards for IB zoning district. Should this analysis illustrate that noise thresholds will be mitigated along residential borders to thresholds appropriate for residential districts, not IB districts? Not Required By Code, But Does Complyy. See Discussion in Sec. 3. &

#### 3.9 Air Quality

- 20. The DEIS does not mention negative effects of air pollution from large parking lots and the mitigating effects of tree cover over large parking lots. Heat fumes from gasoline vent into the air even when cars are not running. Results of a study at the University of California, Davis, showed that parking in the shade lowers the temperature of gas tanks by 4-7 degrees, enough to curb emissions by 2 percent. The mitigating effects of shaded parking lots have been documented for over twenty years.
- 21. The DEIS states that removal of the trees from the site and the creation of large parking areas, building areas, and traffic do not have an adverse effect on local air pollution. This development does have a negative effect on air quality which can be mitigated. Trees ability to lower air temperature and absorb ozone back makes them a boon for air quality. The DEIS should further study the amount of air pollution created by this project and the mitigating effects of the proposed tree cover to determine if adequate tree cover is proposed. Amount of ozone that trees absorb back are quantified and listed on the following website: <a href="www.fs.fed.us/ne/syracuse/vocrates.pdf">www.fs.fed.us/ne/syracuse/vocrates.pdf</a> by David Nowak, project leader for the US Forest Service's Northeastern Research Station, Syracuse, NY.

P3.9-2,3 NO FURTHER ANALYSIS APPROPRIATE



#### 3.10 Visual Quality

#### Site Views from Area Roads

- 22. The DEIS mentions that the visual character of the shopping center would be compatible with its surrounds; in the proposed action the "life style center" was described as being neo-traditional in it's design. Perhaps instead of "fitting in" with the surrounding neighborhood, this development could be an aesthetically pleasing focal point with the proposed neo-classically designed life style center, which supports the concept of a community center. Further development of landscaping and architecture is necessary before conclusions can be made as to the visual quality of this development and the overall vision of the project as stated in the proposed action section of the DEIS and the overall vision for the Town of Newburgh.
- 23. Please note that one of the goals of the Town is to minimize views of parking areas and to P3.10~6 create aesthetically pleasing streetscapes. Additional landscaping along Route 300 will be necessary along with additional trees within parking areas for this to be accomplished.
- 24. Plans show stone walls aligning the main entrance and entrances to several of the big box retail stores. This is a very attractive entrance treatment that is strongly encouraged.
- 25. The DEIS notes that seven acres within the I-84 right-of-way abutting the project site maintains a scenic easement. The planning board should consider requesting screening of the project site from I-84 since most of the scenery within the I-84 corridor in Orange P. 310-6 County is rural and natural and many towns do require screening to maintain these vistas along the highway.

# Site views from Adjacent Residences and Potential Impacts

- 26. The DEIS states that homeowners standing in his or her back yards will be fully screened from views of the proposed buildings. This is not what the line of site drawings illustrate. Line of sight drawings B and C illustrate that there are potential views from Hilltop residences depending upon if existing vegetation will remain, the thickness of that vegetation and the season of the year. Efforts should be made to retain as much quality vegetation as possible along with planting as proposed on the landscape plan. Sizes of proposed plant material must be in accordance with Town of Newburgh regulations. The DEIS should be revised and should state buildings most likely will be visible, especially during winter months. Additional mitigation measures should be proposed such as retaining as much quality existing vegetation as possible, architectural treatments of the upper portions of the rear facades to help buildings blend with the scenery, along with proposing evergreen plantings of trees that are of sufficient size to minimize views into the site in the near future.
- 27. The DEIS does mention that brick paver sidewalks and cross walks would be installed which is an aesthetic amenity which could provide a distinctive pedestrian circulation system.
- 28. Line of Site Profile A illustrates that there could be views of Building C from Route 52 and Algoguin Park. Surrounding topography should be shown to the park area to

determine if additional line of sight profiles are necessary to illustrate potential views of the big box buildings from this area. App'L obselvances MADE, NOT

# Marketplace Architectural Theme

- 29. The DEIS states that the Lifestyle Center would consist of freestanding stores clustered P3.10-8 around open air plazas with sidewalks, street-side cafes and limited on street parking. The site plan shows more space allocated for on street parking than allocated for amenities as described in the DEIS. Either the DEIS verbal description should be revised or the site plan should be revised and the site improvements as described should be shown on the site plan.
- 30. The location that the artist's rendering of the Lifestyle Center, Figure 3-10-9, should be Fi63.16-10 shown on the plan to determine if this rendering is an accurate depiction of the proposed project.
- 31. Architectural guidelines as presented offer a good starting point from which to develop building facades and streetscapes but actual renderings and site plans must be provided in the DEIS to determine if these guidelines are reasonable and appropriate and if the verbal description accurately portrays the proposed design.

# Landscaping

- 32. The DEIS mentions several different types of landscaping areas, including façade plantings, street tree and buffer plantings, etc. All plantings must be shown on the site plan to determine if adequate space is allocated for these amenities.
- 33. Will landscaped area be irrigated? If so, irrigation must be included in the water resources section of the DEIS. P3.4-5

#### Lighting

34. Lighting styles and proposed posts and heights should be detailed on the Lighting Plan.

Lighting styles along the access drives and within the Lifestyle Center should be low, pedestrian oriented lighting to encourage a community center atmosphere.

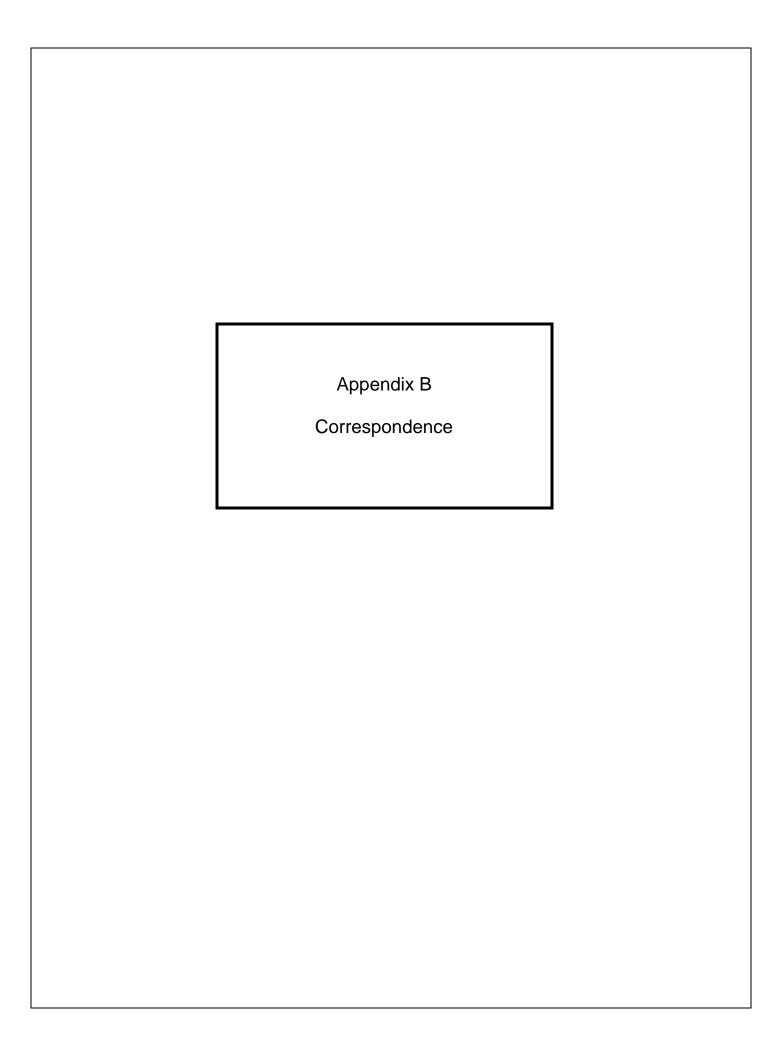
LIGHTING PLAN SHEET 20+2

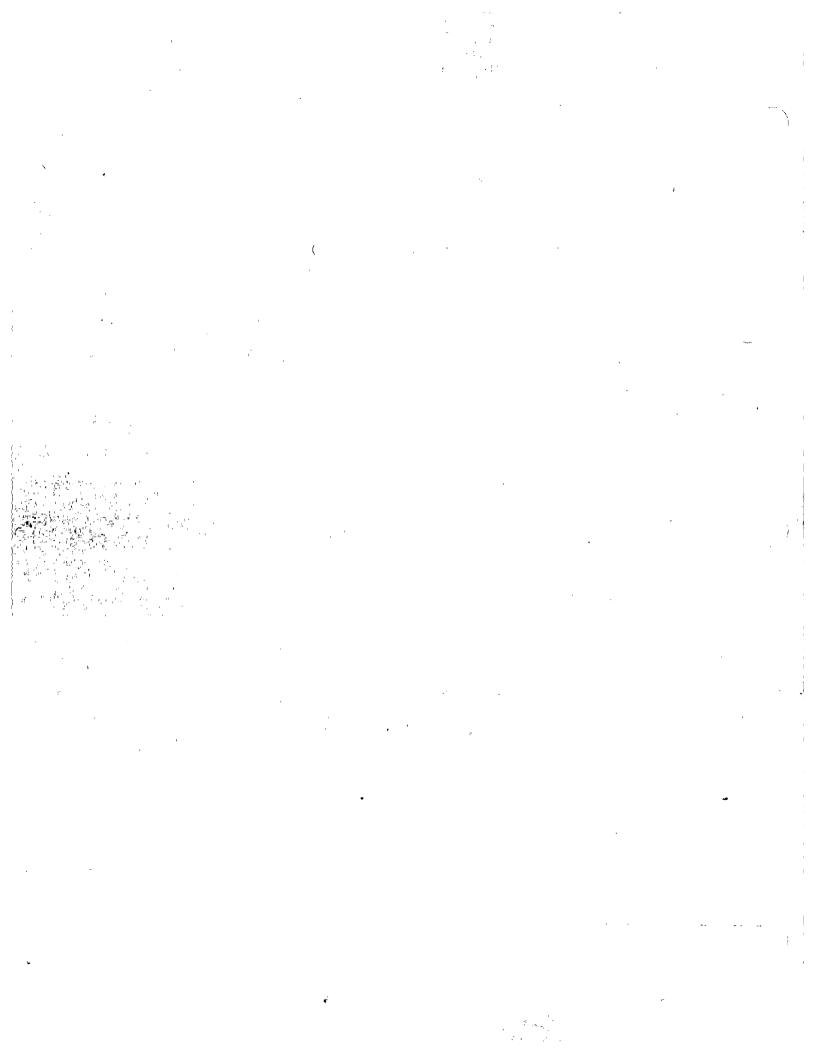
## 4.0 Alternatives

- 35. Alternative 4.2 should discuss negative consequences to the site plan of this alternative. This alternative, without noise pollution mitigation for Hilltop residents, is not much better than the proposed plan.
- 36. Alternative 4.4, the alternative lifestyle center presents somewhat more of a main street alternative however there is no focal point and views into the site from Route 300 may not be as desirable as the proposed plan. If the proposed plan could be revised so that there is ample space for amenities as described in the DEIS and if a civic focal point could be created, the proposed plan would probably be the desired alternative.

COMMENT NOTED.

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State of New York
Department of Transportation
4 Burnett Boulevard
Poughkeepsie, NY 12603
http://www.dot.state.ny.us

Robert A. Dennison III, P.E Regional Director Thomas J. Madison, Jr. Acting Commissioner

July 7, 2005

Mr. Robert H. Wilder, Jr. Wilder Balter Partners, Inc. 570 Taxter Rd., 6<sup>th</sup> Floor Elmsford, NY 10523

Re: Surt

Surplus Property Application Town of Newburgh (8.2 acres) Orange County

Dear Mr. Wilder:

The New York State Department of Transportation ("DOT") is in receipt of the Real Property Application of WB Interchange Associates, LLC ("WBI") which was filed with the New York State Thruway on November 3, 2004 and forwarded to DOT for review and comment. This application requested that the Thruway Authority consider the sale of two parcels, totaling approximately eight (8) acres, near Interstate 84 in the Town of Newburgh (the "State Property"). Our understanding is that WBI presently owns or controls all of the privately owned land that abuts this State Property.

As you are aware, based on your discussions with DOT and Thruway Authority staff, given that the State Property was acquired in part with Federal funds, Federal Highway Administration ("FHWA") approval is required to dispose of the property. DOT has had preliminary discussions with the FHWA with respect to your application, and the FHWA has not raised any objections to the sale of the State Property.

We understand that WBI has applied to the Town of Newburgh Planning Board for site plan approval to develop a 850,000 square foot retail facility on one hundred ten (110) acres that are adjacent to the State Property, also referred to as the "Marketplace" Project, and that the Planning Board is the Lead Agency under SEQRA. DOT and the State Thruway Authority are Involved Agencies for purposes of the SEQRA review of the project.

Robert H. Wilder, Jr. 7/6/05

We understand that the State Property is not required to construct the Marketplace Project, and is not part of the site plan that has been presented to the Town of Newburgh Planning board. Primary access to the facility is proposed to be located on Union Avenue.

WBI has presented DOT with two alternatives for a secondary means of access to the Marketplace facility to mitigate the impact of traffic along Route 300 near the proposed main entrance.

The first alternative that has been presented for secondary access is to construct a road to the Marketplace facility from Route 52 in the vicinity of Exit 8 on Interstate 84, through real property that is owned or controlled by WBI. This alternative does not involve or require the State Property.

The second alternative that has been presented to DOT is the construction of a road starting from the same access point on Route 52 as set forth above, but connecting to the Marketplace facility approximately 800 feet east of Route 52 by running through the State Property, parallel to and somewhat to the south of the "first alternative" route. This second alternative is acceptable to DOT.

It is our understanding that WBI will modify its site plan to show the second alternative for secondary access that is set forth above, and will incorporate the alternative into its Draft Environmental Impact Statement.

We will approve the sale of the State Property to WBI subject to the completion of the SEQRA process (i.e. the issuance of a positive findings statement by the Town Planning Board as Lead Agency under SEQRA, which demonstrates that the proposed secondary access through the State Property avoids and/or minimizes environmental impacts to the maximum extent practicable).

The sale will be processed in accordance with the rules, regulations and procedures that govern the disposal of surplus State property by the Department of Transportation to adjacent landowners.

Very truly yours,

ROBERT A. DENNISON III, P.E.

Regional Director

# TIM MILLER ASSOCIATES, INC.

10 North Street, Cold Spring, New York 10516

Phone (845) 265-4400

Fax (845) 265-4418

August 4, 2005

Chief Robert Hertman Town of Wallkill Police Department P.O. Box 398, Route 211 East Middletown, New York 10940

Re: Proposed Shopping Center Development in Town of Newburgh, New York

Dear Chief Hertman:

TIM MILLER ASSOCIATES, INC. (TMA) is preparing a draft environmental impact statement for a proposed retail development to be located in the Town of Newburgh. The facility is proposed to be approximately 850,000 square feet of gross floor area.

The Town of Newburgh Planning Board has asked TMA to contact local police departments with similar commercial facilities in their jurisdiction to assess the potential demands such a proposed development may place on the police department of Newburgh. Specifically, we have been requested to discuss your experience with the Wallkill Galleria and the demands this retail facility's operation has placed on your department. Below is an agenda list of items TMA would like to discuss with you at a meeting to be scheduled at your earliest convenience.

- 1. What is the Town of Wallkill's commitment in manpower and equipment to the Wallkill Galleria?
- 2. How has this commitment increased or decreased in the past five years?
- 3. What support does the Wallkill Galleria security or private forces provide the Town of Wallkill Police Department? What support does the State Police provide?
- 4. What security improvements has your department recommended for the Wallkill Galleria and how have these recommendations been implemented? What have been the results?
- 5. From the police logs, can you quantify Town Police activity at the Wallkill Galleria over the past 2-3 years including traffic accidents, fire support, traffic support, special events, burglaries, emergency medical support, vandalism, other crimes, other situations and events?
- 6. Have these events increased or decreased over the past 3 years and if so in which categories?
- 7. What role has technology played in the number of occurrences or events requiring the Town of Wallkill police to respond to a call at the Wallkill Galleria (cameras, burglar alarms, other)?
- 8. Does the Wallkill Galleria provide additional financial support for the Wallkill Police Department other than through the payment of real estate taxes?
- 9. Has there been an increase in assistance with bank deposits?
- 10. Please discuss shoplifting and its occurrence relative to the Wallkill Galleria. How is this being-addressed?

Thank you in advance for your assistance with this matter. Please do not he sitate to call me at the office, 845-265-4400 ext. 23.

Kendra J. Billings Planner

TIM MILLER ASSOCIATES, INC.

### TIM MILLER ASSOCIATES, INC.

10 North Street, Cold Spring, New York 10516

Phone (845) 265-4400

Fax (845) 265-4418

August 2, 2005

Chief Robert J. Kwiatkowski Town of Woodbury Police Department P.O. Box 1004 Highland Mills, New York 10930

Re: Proposed Shopping Center Facility in Town of Newburgh, New York

Dear Chief Kwiatkowski:

TIM MILLER ASSOCIATES, INC. (TMA) is preparing an environmental impact statement for a proposed retail development to be located in the Town of Newburgh. The facility is proposed to be approximately 850,000 square feet of gross floor area.

The Town of Newburgh Planning Board has asked TMA to contact local police departments with similar facilities in their jurisdiction to assess the potential demands such a proposed development may place on the police department of Newburgh. Specifically, we have been requested to discuss your experience with Woodbury Commons and the demands this retail facility's operation has placed on your department. Below is an agenda list of items TMA would like to discuss with you during our scheduled meeting on August 3, 2005.

- 1. What is the Town of Woodbury's commitment in manpower and equipment to Woodbury Commons?
- 2. How has this commitment increased or decreased in the past five years?
- 3. What support does Woodbury Commons security or private forces provide the Town of Woodbury Police Department? What support does the State Police provide?
- 4. What security improvements has your department recommended for Woodbury Commons and how have these recommendations been implemented? What have been the results?
- 5. From the police logs, can you quantify Town Police activity at Woodbury Commons over the past 2-3 years including traffic accidents, fire support, traffic support, special events, burglaries, emergency medical support, vandalism, other crimes, other situations and events?
- 6. Have these events increased or decreased over the past 3 years and if so in which categories?
- 7. What role has technology played in the number of occurrences or events requiring the Town of Woodbury police to respond to a call at Woodbury Commons (cameras, burglar alarms, other)?
- 8. Does Woodbury Commons provide additional financial support for the Woodbury Police Department other than through the payment of real estate taxes?
- 9. Has there been an increase in assistance with bank deposits?
- 10. Please discuss shoplifting and its occurrence relative to Woodbury Commons. How is this being addressed?

Thank you in advance for your assistance with this matter. Please do not hesitate to call me at the office, 845-265-4400 ext. 23, should you have any questions or comments.

III X

Kendra J. Billings

Planner /

Sincerely,

TIM MILLER ASSOCIATES, INC.



### United States Department of the Interior



### FISH AND WILDLIFE SERVICE

3817 Luker Road Cortland, NY 13045

June 30, 2005

Mr. Bruce R. Friedmann Environmental Scientist Tim Miller Associates, Inc. 10 North Street Cold Spring, NY 10516

Dear Mr. Friedmann:

This responds to your May 5, 2005, letter requesting information on the presence of endangered or threatened species in the vicinity of the proposed 108.6-acre Crossroads at Newburgh shopping center located north of I-84 and east of Union Avenue in the Town of Newburgh, Orange County, New York.

There is potential for the Federally- and State-listed endangered Indiana bat (*Myotis sodalis*) to occur within the proposed project area. The Indiana bat is known to winter in six counties in New York State. While the U.S. Fish and Wildlife Service (Service) has learned a great deal about the wintering population with standardized biennial counts organized by the New York State Department of Environmental Conservation (NYSDEC) Endangered Species Unit, we are continuing to study Indiana bat migratory patterns and summer habitat use within the State. Previous research has documented Indiana bat movements of up to 330 miles between hibernacula and summer habitats (Kurta and Murray 2002). However, that study, as well as the majority of research on Indiana bats, took place in the Midwest.

In the Northeast, multiple State and Federal agencies are investigating Indiana bat movements; the most recent studies of bats from hibernacula in Essex and Ulster Counties, New York, provide additional information. In the spring of 2002 through 2005, the NYSDEC successfully tracked female Indiana bats from their hibernacula in Essex and Ulster Counties to their spring roosts, distances up to approximately 40 miles. Multiple roosts were located on both sides of the Hudson River near the City of Poughkeepsie and in the Towns of Beekman, East Fishkill, LaGrange, Unionvale, and Wappinger, Dutchess County; in the Towns of Crawford, Hamptonburgh, Montgomery, New Windsor, Wallkill, and Wawayanda, Orange County; and in the Towns of Esopus and Hurley in Ulster County. The closest observed roost trees were within approximately 8 miles from the proposed project and the Ulster County hibernacula are approximately 24 miles from the proposed project. Based on the proximity of the proposed project site to both the hibernacula and known spring roost locations, the Indiana bat may be found at the proposed project site if suitable roosting or foraging habitat is present.

The Indiana bat is typically associated with cave habitats for hibernacula and trees with exfoliating bark for roosting. Suitable potential summer roosting habitat is characterized by trees

(dead, dying, or alive) or snags, greater than or equal to 5 inches diameter breast height (d.b.h.) with exfoliating or defoliating bark, or containing cracks, crevices, or holes that could potentially be used by Indiana bats as a roost. However, maternity colonies generally use trees greater than or equal to 9 inches d.b.h. Overall, structure appears to be more important than a particular tree species or habitat type. The growing body of information, including ongoing studies in New York, indicates usage of numerous species of trees that contain suitable structure. Only site-specific information can lead to habitat suitability determinations. Additional information on potentially suitable summer habitat can be found on our website at http://nyfo.fws.gov/es/ibatdraft99.pdf.

Streams, associated floodplain forests, and impounded water bodies (ponds, wetlands, reservoirs, etc.) provide preferred foraging habitat for pregnant and lactating Indiana bats, some of which may fly up to 1.5 miles from upland roosts. Indiana bats also forage within the canopy of upland forests, over clearings with early successional vegetation (e.g. old fields), along the borders of croplands, along wooded fencerows, and over farm ponds in pastures (U.S. Fish and Wildlife Service 1999).

The project site should be evaluated and described by a qualified person as to the presence, amount, and distribution of suitable summer roosting/maternity and foraging habitat, and the presence of any mine(s)/cave(s) that could serve as a hibernacula that would be disturbed by the proposed project. Please contact us to discuss this evaluation in greater detail. Staff from our office may be available to assist with an initial site visit to determine whether additional detailed habitat analyses or surveys for Indiana bats will continue to be recommended.

The project's environmental documents should identify project activities that might result in adverse impacts to the Indiana bat or their habitat. Information on any potential impacts and the results of any recommended habitat analyses or surveys for the Indiana bat should be provided to this office and they will be used to evaluate potential impacts to the Indiana bat or their habitat, and to determine the need for further coordination or consultation pursuant to the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Except for the potential for Indiana bat and occasional transient individuals, no other Federally-listed or proposed endangered or threatened species under our jurisdiction are known to exist in the project area. In addition, no habitat in the project area is currently designated or proposed "critical habitat" in accordance with provisions of the ESA. Should project plans change, or if additional information on listed or proposed species or critical habitat becomes available, this determination may be reconsidered. The most recent compilation of Federally-listed and proposed endangered and threatened species in New York\* is available for your information. If the proposed project is not completed within one year from the date of this letter, we recommend that you contact us to ensure that the listed species presence/absence information for the proposed project is current.

The above comments pertaining to endangered species under our jurisdiction are provided as technical assistance pursuant to the ESA. This response does not preclude additional Service comments under other legislation.

As stated above, the Indiana bat is listed as endangered by the State of New York. The information requested above should be coordinated with both this office and with the NYSDEC. The NYSDEC contact for the Endangered Species Program is Mr. Peter Nye, Endangered Species Unit, 625 Broadway, Albany, NY 12233 (telephone: [518] 402-8859).

For additional information on fish and wildlife resources or State-listed species, we suggest you contact the appropriate State regional office(s),\* and:

New York State Department of Environmental Conservation New York Natural Heritage Program Information Services 625 Broadway Albany, NY 12233-4757 (518) 402-8935

Work in certain waters of the United States, including wetlands and streams, may require a permit from the U.S. Army Corps of Engineers (Corps). If a permit is required, in reviewing the application pursuant to the Fish and Wildlife Coordination Act, the Service may concur, with or without recommending additional permit conditions, or recommend denial of the permit depending upon potential adverse impacts on fish and wildlife resources associated with project construction or implementation. The need for a Corps permit may be determined by contacting the appropriate Corps office(s).\* In addition, should any part of the proposed project be authorized, funded, or carried out, in whole or in part, by a Federal agency, such as the Corps, further consultation between the Service and that Federal agency pursuant to the ESA may be necessary.

Thank you for your time. If you require additional information please contact Robyn Niver or Michael Stoll at (607) 753-9334. Future correspondence with us on this project should reference project file 51543.

Sincerely,

David A. Stilwell Field Supervisor

\*Additional information referred to above may be found on our website at: http://nyfo.fws.gov/es/section7.htm

#### References:

Kurta, A., and S.W. Murray. 2002. Philopatry and migration of banded Indiana bats (*Myotis sodalis*) and effects of radio transmitters. Journal of Mammalogy 83(2):585-589.

U.S. Fish and Wildlife Service. 1999. Agency Draft Indiana Bat (*Myotis sodalis*) Revised Recovery Plan. Fort Snelling, MN: U.S. Department of the Interior, Fish and Wildlife Service, Region 3. 53 p.

cc: NYSDEC, New Paltz, NY (Attn: S. Joule) NYSDEC, Albany, NY (Endangered Species; Attn: P. Nye) NYSDEC, Albany, NY (Natural Heritage) COE, New York, NY

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### **DEPARTMENT OF FINANCE**

Joel Kleiman
Commissioner

Jodi L. Currier
Deputy Commissioner

Administration:
Accounts Payable:
Accounts Receivable:

Real Property Tax:

845-291-2485 845-291-2508 845-291-2511

845-291-2480

Orange County Government Center Goshen, New York 10924-1698

Payroll Office: Audit: 845-291-2030 845-291-2510

Edward A. Diana
County Executive

May 25, 2005

Bonnie Franson Director, Planning Services Tim Miller Associates, Inc. 10 North Street Cold Spring, New York 10516

RE: Proposed Marketplace at Newburgh Retail Development Town of Newburgh, NY

Dear Bonnie,

The information you requested is as follows:

|  | <u>2003</u>   | <u>2004</u>   |
|--|---------------|---------------|
| Amount of sales tax received by County | \$151,534,023 | \$181,933,402 |
| Amount of sales tax distributed        | 39,980,737    | 43,858,542    |
| Amount kept by County                  | 111,553,286   | 138,870,770   |
|  |               |               |
| Amount distributed to Town of Newburgh | \$ 2,666,937  | \$ 2.887.220  |

Sincerely,

Jo**é**∖ Kleiman

Commissioner of Finance

## New York State Department of Environmental Conservation Division of Fish, Wildlife & Marine Resources

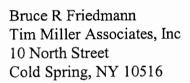
New York Natural Heritage Program

625 Broadway, 5th floor, Albany, New York 12233-4757

Phone: (518) 402-8935 • FAX: (518) 402-8925

Website: www.dec.state.ny.us

May 23, 2005



Dear Mr. Friedmann:

In response to your recent request, we have reviewed the New York Natural Heritage Program databases with respect to an Environmental Assessment for the proposed 'Crossroads' Shopping Center, site as indicated on the map you provided, located in the Town of Newburgh, Orange County.

We have no records of <u>known</u> occurrences of rare or state-listed animals or plants, significant natural communities, or other significant habitats, on or in the immediate vicinity of your site.

The absence of data does not necessarily mean that rare or state-listed species, natural communities or other significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain any information which indicates their presence. For most sites, comprehensive field surveys have not been conducted. For these reasons, we cannot provide a definitive statement on the presence or absence of rare or state-listed species, or of significant natural communities. This information should not be substituted for on-site surveys that may be required for environmental assessment.

Our databases are continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

This response applies only to known occurrences of rare or state-listed animals and plants, significant natural communities and other significant habitats maintained in the Natural Heritage Data bases. Your project may require additional review or permits; for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, at the enclosed address.

Betty A. Ketcham, Information Services
New York Natural Heritage Program

Erin M. Crotty

Commissioner

Enc.

cc: Reg. 3, Wildlife Mgr.

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### New York State Department of Environmental Conservation

rision of Environmental Permits, Region 3

South Putt Corners Road, New Paltz, New York 12561-1696

Phone: (845) 256-3054 FAX: (845) 255-3042

Website: www.dec.state.ny.us

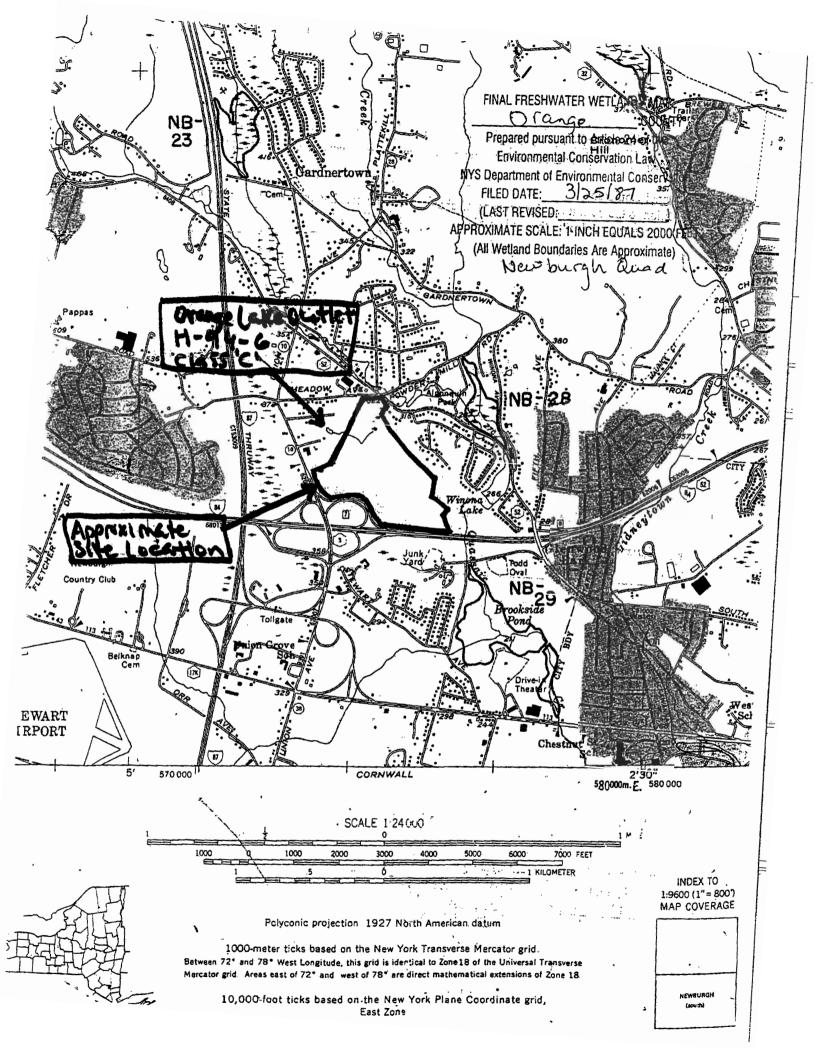


|                | 12/14/04   |
|----------------|--|
| TO<br>UN<br>NE | TN: Planning Board WN HALL OF NEWBURGH TION AVENUE EXT WBURGH, NY 12550  |
| Re:            | Cross roads at Newburgh - The Marketplace Town: Newburgh County: Orange DEC Project No. 3-3346-00353/0000  |
| Dea            | r <u>flanning</u> Board  |
|                | have reviewed the SEQR lead agency coordination request for the above referenced project which our be received on 004.25,2004.   |
| Base           | artment Jurisdiction ad upon our review of the circulated documents, it appears that the project will require the Department nits that are indicated below by a checked box:   |
|                | Article 15, Protection of Waters: For physical disturbance to the bed or banks of a protected stream, excavation or fill within a navigable waterbody, or repair/construction of a dam (see enclosed map).   |
|                | Article 24, Freshwater Wetlands: For physical disturbance proposed within or near State-designated Freshwater Wetland, or its 100-foot adjacent area (see enclosed map). If the project sponsors have not already done so, they should contact the Department to have the wetland boundary field inspected and validated by DEC staff, as noted in the enclosed sheet entitled "Delineating and Surveying Freshwater Wetland Boundaries". The applicant will be required by DEC to demonstrate that the project meets the permit issuance standards contained in the Freshwater Wetland Permit Requirements Regulations (6 NYCRR Part 663.5; copy available upon request or on-line at "www.dec.state.ny.us/website/regs/index.html"). |
| M              | Compliance with the SPDES General Permit for Stormwater Discharges from Construction Activities: For the proposed disturbance of over 1 acre of land. When other DEC permits are required, the sponsor must provide a copy of the required Stormwater Pollution Prevention Plan (SPPP) with their permit application for DEC review and approval. Authorization for coverage under the SPDES General Permit is not granted until approval of the SPPP and issuance of any other necessary DEC permits.   |
| ×              | Other: Wa Certification for disturbance to Federal Westands  |
| Ė              | Other:   |

| SEQR Lead Agency Response: | Project: The | ManketPlace | Date: 12-14-04 |  |
|----------------------------|--------------|-------------|----------------|--|
| Page 2                     |              |             |                |  |

By copy of this letter, we are advising project representatives of the potential need for these permits. It is

|   |   |  |  | mental Conservation permit requid or as project modifications oc   |   |
|---|---|--|--|--|---|
| In a  |   |  |  | resources that are indicated belinder SEQR:  | ow by a checked box                                 |
|   |   |  |  | to Department records, the follower the progression to the progression of the progression |   |
|   | Species:  |  |  | NYS Status:  |   |
|   | Species:  | <u></u>  |  | NYS Status:  |   |
|   | the review  | of the project pursuant  | to SEQR. In a  | this(these) species should be ful<br>ddition, project modifications n<br>ed. For further guidance on thi   | nay be needed to                                    |
| <b>S</b>  | maintained<br>and Histor<br>considered<br>the project | d by the New York State<br>ric Preservation. These<br>I to be sensitive with reg | e Museum and the records indicate gard to archaeolon of a cultural | ewide inventory of archaeologic<br>the New York State Office of Pa<br>e that the project is located with<br>logical resources. Therefore, the<br>resources assessment and the re-<br>ric Preservation.   | arks, Recreation,<br>in an area<br>he DEC review of |
|   |   | ransmitting the above co<br>agency assuming lead ag                              | •  | tter also serves to confirm that this project.   | we have no objection                                |
| ana   | lyst assigne  |  |  | related matters should be direct<br>project number identified above  |   |
| e.  |   | <b>н</b>   | ,  | Sincerely,   |   |
|   | •   |  |  | Laurence 6. Division of Environmental Pe (845) 256-30-f1   | Blezel @  |
| Image: Control of the | Enclosures  | s as Indicated Mor   | · · · · ·  |  |   |
| cc;   | Project Sp<br>Wilde<br>570                            | oonsor (w/enclosures):<br>er Bauter Pa<br>Taxter Rd (a                           | others   |  | en g  |



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### **COUNTY OF ORANGE**

EDWARD A. DIANA COUNTY EXECUTIVE

### **DEPARTMENT OF PLANNING**

124 MAIN STREET

GOSHEN, NEW YORK 10924-2124 TEL: (845) 291-2318 FAX: (845) 291-2533 WWW.ORANGECOUNTYGOV.COM/PLANNING

DAVID E. CHURCH, A.I.C.P. COMMISSIONER

September 21, 2005

Tim Miller Associates, Inc. Attn: Ann Cutignola 10 North Street Cold Spring, N.Y. 10516

Dear Ms Cutignola,

As per our telephone conversation, I am writing to you in reference to the Marketplace at Newburgh project. We support and desire that the proposed project site plan incorporate public transit and private bus service - both with the site layout to accommodate bus movement as well as with rational location and design of bus stop facilities. We are more than willing to collaborate on the best options for public bus service, but we can not yet commit to guaranteeing any service until the proposal advancing further and there is a demand and a cooperating operator.

If you have any questions or would like to discuss this matter further please do not hesitate to contact my office at 845.291.2410.

Sincerely.

Robert C. Parrington

Planner/Transit Coordinator

### TIM MILLER ASSOCIATES, INC.

10 North Street, Cold Spring, New York 10516

Phone (845) 265-4400

Fax (845) 265-4418

May 5, 2005

Ms. Jean Petrusiak NYS Department of Environmental Conservation Information Services Division of Regulatory Affairs 625 Broadway, 5th Floor Albany, NY 12233-4757

Re: Crossroads at Newburgh, Town of Newburgh, Orange County, NY

Dear Ms. Petrusiak:

Tim Miller Associates, Inc. is preparing environmental documentation for development of a shopping center north of I-84 and east of Union Avenue at the above referenced property. The project site location is shown on the enclosed USGS topographic map for your reference.

The development is proposing to include 798,350 SF of retail buildings, parking, roads and associated stormwater management facilities. The project would be developed on 108.6 acres of vacant land. The project site is presently primarily forested land (88.3 acres), with smaller areas of wetlands (14.3 acres) and non-agricultural wetlands (6 acres). USACE jurisdictional wetlands are included in this assessment.

We would like to know if your records show the presence of any rare or protected plant or animal species or significant wildlife habitat communities on the project site or vicinity. Please notify this office by letter of any such resources that may be affected by future development on this property.

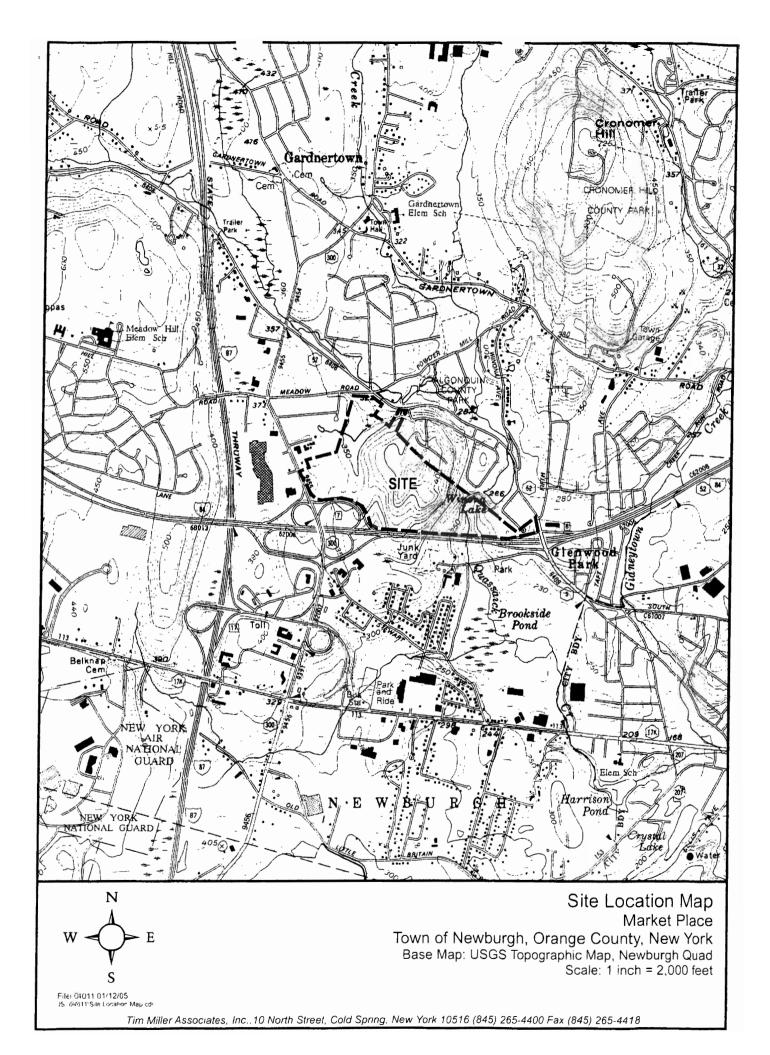
Thank you for your prompt assistance in this matter. Please call me at (845) 265-4400 x30 should you have any questions or need additional information.

Sincerely.

Bruce R. Friedmann Environmental Scientist

TIM MILLER ASSOCIATES, INC.

enclosure



### TIM MILLER ASSOCIATES, INC.

10 North Street, Cold Spring, New York 10516

Phone (845) 265-4400

Fax (845) 265-4418

May 5, 2005

US Fish and Wildlife Service New York Field Office 3817 Luker Road Cortland, NY 13045

Re: Crossroads at Newburgh, Town of Newburgh, Orange County, NY

Dear Sir or Madam:

Tim Miller Associates, Inc. is preparing environmental documentation for development of a shopping center north of I-84 and east of Union Avenue at the above referenced property. The project site location is shown on the enclosed USGS topographic map for your reference.

The development is proposing to include 798,350 SF of retail buildings, parking, roads and associated stormwater management facilities. The project would be developed on 108.6 acres of vacant land. The project site is presently primarily forested land (88.3 acres), with smaller areas of wetlands (14.3 acres) and non-agricultural wetlands (6 acres). USACE jurisdictional wetlands are included in this assessment.

Please provide us with a determination as to whether your records indicate the potential presence of any federally-listed plant or animal species on or near the project site. Please notify this office by letter of any such resources that may be affected by future development on this property.

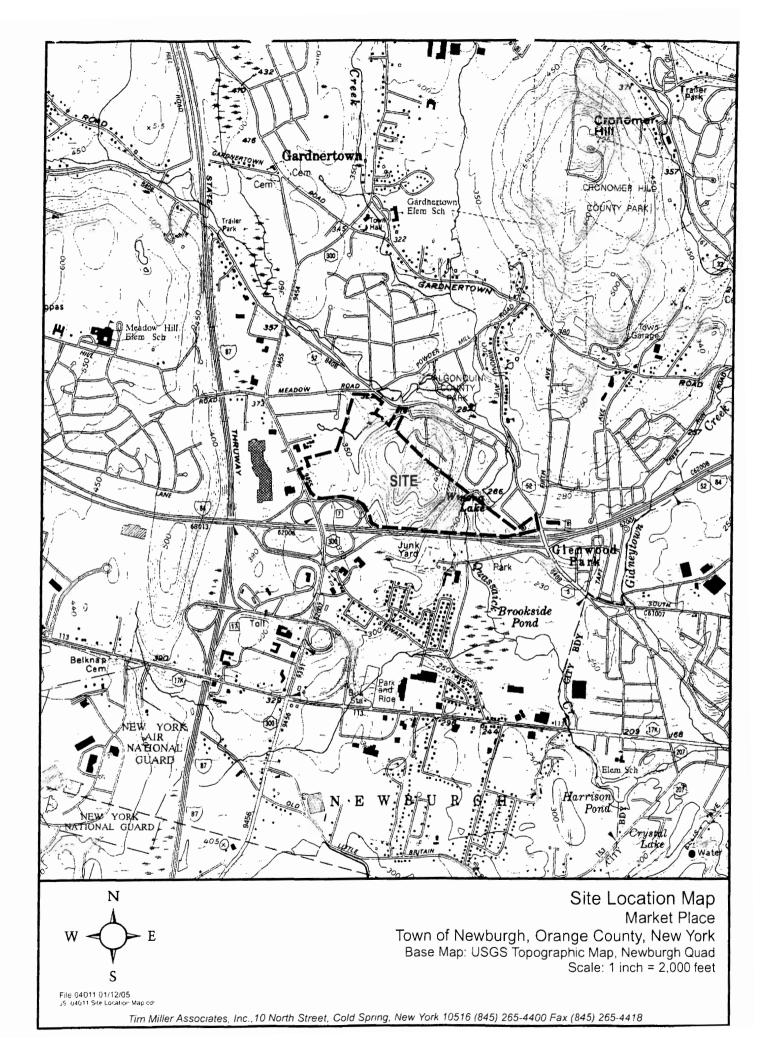
Thank you for your prompt assistance in this matter. Please call me at (845) 265-4400 x30 should you have any questions or need additional information.

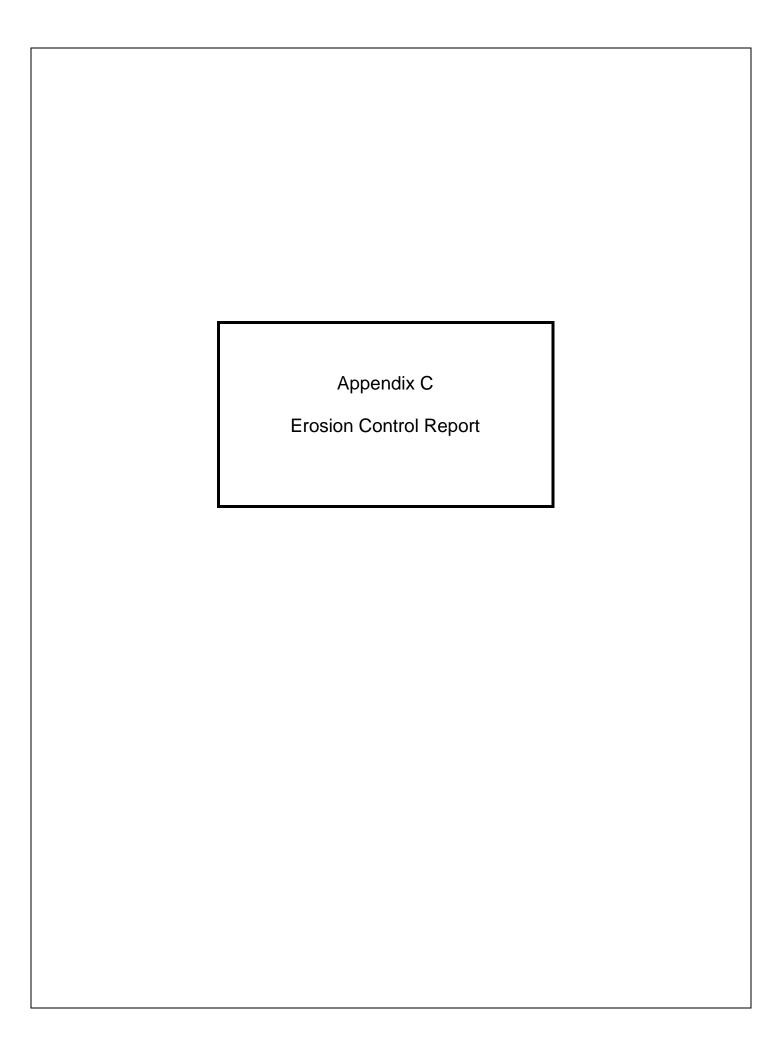
Sincerely.

Bruce R. Friedmann Environmental Scientist

TIM MILLER ASSOCIATES, INC.

enclosure





# THE MARKETPLACE AT NEWBURGH NEWBURGH, NEW YORK

### **EROSION CONTROL REPORT**

### Prepared for:

WILDER BALTER PARTNERS LLC Elmsford, New York

Prepared By:

DIVNEY TUNG SCHWALBE, LLP One North Broadway, Suite 1407 White Plains, New York 10601

> September 2005 Revised February 2006

### The MarketPlace At Newburgh

Newburgh, New York

### **Erosion Control Report**

### 1. Summary

The project is required to comply with the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity, Permit No. GP-02-01. The permit specifies requirements for both temporary erosion control measures to be used during construction, and permanent stormwater management measures. The coverage under the permit specifies that:

- A. There shall be no increase in turbidity that will cause a substantial visible contrast to natural conditions.
- B. There shall be no increase in suspended, colloidal and settleable solids that will cause deposition or impair the water for their best usages.
- C. There shall be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

This report will address the erosion control during construction. A separate Stormwater Management Report has been prepared to address the permanent stormwater measures.

The approximately 128-acre site is mostly wooded land and includes approximately 1.76 acres of regulated wetland. The site is located between Interstate 84 to the south, Union Avenue to the west, and Route 52 to the north and east. The project site will be developed to provide an approximate 850,00 sf retail shopping area and associated parking, driveways, and sidewalks.

#### 2. Erosion Control Measures

NYSDEC technical standards for erosion and sediment control are contained in the document "New York Standards and Specifications for Erosion and Sediment Control" (previously the New York Guidelines for Urban Erosion and Sediment Controls) and will be implemented. The measures will be installed prior to beginning construction and maintained and adjusted throughout the construction process. The proposed erosion control measures are shown on drawing SP-6.0 Erosion Control Plan and SP-6.1 Erosion Control Details. Initial stormwater runoff will be directed to sediment traps via swales and earthen berms. As construction progresses, stormwater runoff will be routed through newly installed storm sewer piping. Construction entrance pads with wheel wash stations will be used to prevent soil from trucks leaving the site to be spread to adjacent roadways. While NYSDEC's SPDES permit requires that the maximum soil exposure area be kept under five acres at any one time, it will not be feasible to construct this project with such minimal disturbance because of the size and scope. Therefore, the Applicant will request a waiver of the five (5) acre disturbance limitation from NYSDEC. To compensate for the larger exposure areas additional prevention measures will be implemented beyond what is required by the New York State Guidelines. These measures include:

- A. The site will be inspected every other day by a Certified Professional in Erosion and Sediment Control (CPESC) or a Professional Engineer (P.E.) and in accordance with the Town of Newburgh Stormwater and Erosion Control inspection requirements as defined in Chapter 83: Clearing and Grading (Subsection 83-14, Inspections and enforcement; penalties for offenses.) and Chapter 157: Stormwater Management (Subsection 157-11, Procedures and Fees) of the Town Code.
- B. Areas identified by the erosion control inspector will be addressed within three days.
- C. Disturbed areas that will not be used for construction within ten days will have temporary stabilization methods applied.

- D. A supply of temporary erosion control measures, to include mulch, erosion control blankets, and hydroseed shall be maintained on site to stabilize all exposed areas.
- E. Prior to forecasted storms in excess of one inch in 24 hours, the exposed area shall be reduced to a maximum of 10 acres through the use of temporary erosion control measures.
- F. Building foundations shall be excavated to contain runoff for dewatering to sediment traps whenever feasible.
- G. Rock that is exposed during construction will generally be cleared of loose soils.
- H. Slopes of 3:1 or greater will have jute mesh, top soil, and seed applied immediately after final grading is complete.

#### 3. Construction Sequence

Construction will be phased over an approximate 24 to 36 month period to minimize the amount of soil that is exposed at any one time. After the installation of erosion control measures, areas of the site will be excavated to balance the cut and fill. Only portions of the site that are actively under construction will be exposed. Construction will generally be completed in a counter clockwise direction, starting in the western portion of the site. See Figures 1a through 1e for graphical representation of the construction sequencing.

#### A. Phase 1A – Erosion Control

The first step in the construction process will be to establish erosion control measures. This will include the creation of three sediment traps to capture and detain stormwater runoff. An earthen berm will be created around the perimeter of the site to keep runoff within the site and direct it to the sediment basin. Additionally a stabilized access road and an on-site rock crushing facility will be setup during this phase. Construction vehicle access to the site will be from Union

Avenue.

### B. Phase 1B - Lifestyle Center

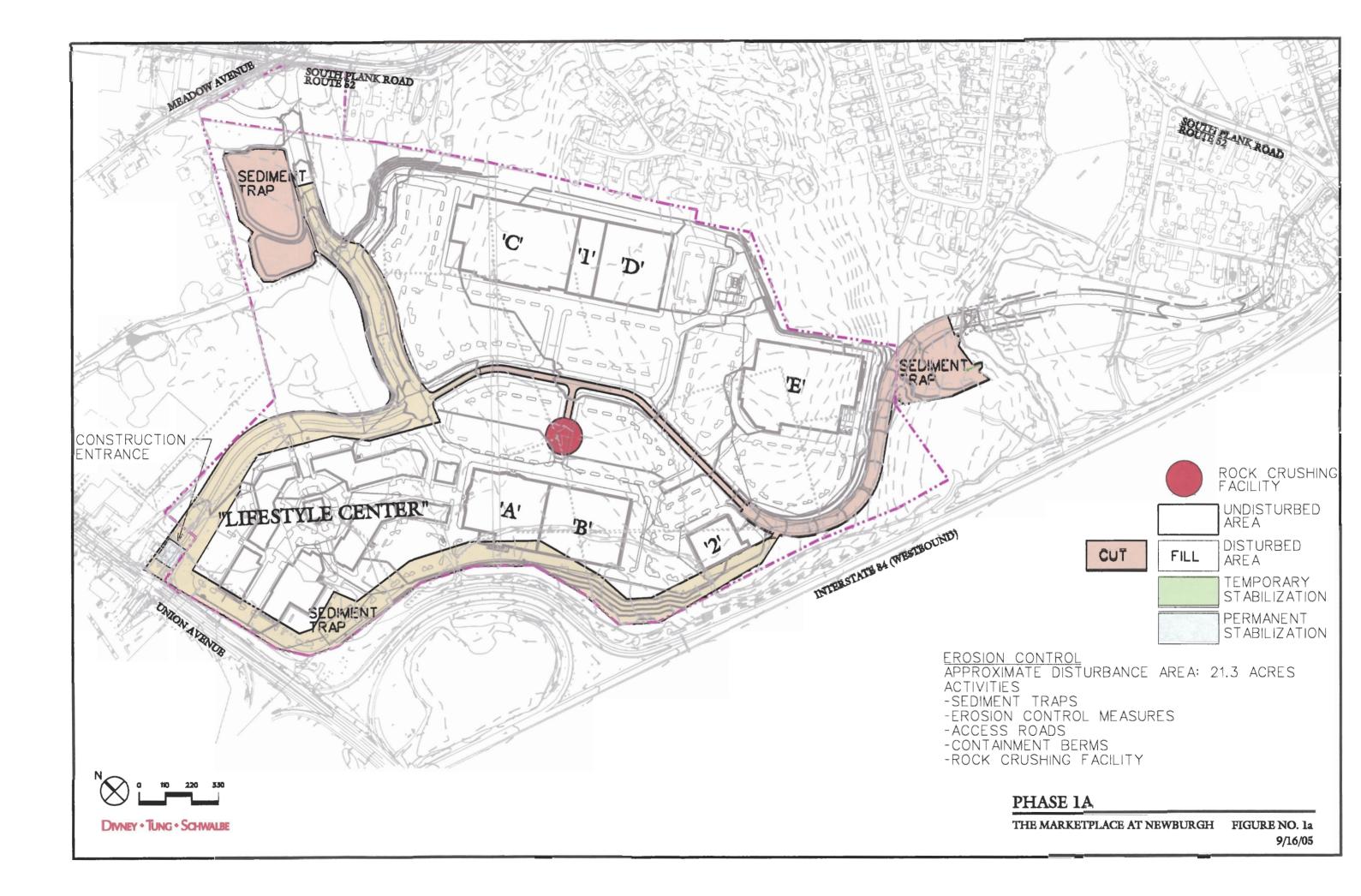
The location for the Lifestyle Center will be cleared of topsoil, trees and other vegetation. Excess fill from the center of the site will be placed in compacted lifts to bring the project area up to final grade. The on-site rock crusher will be utilized to minimize the amount of rock and soil entering or leaving the site. Pavement base courses and building foundations will be placed as soon as possible to stabilize the site. The sediment trap at the west end of the site will be replaced with the permanent below grade stormwater treatment system once significant stabilization is complete. Installation of the on-site utility infrastructure will also be commenced during this phase.

### C. Phase 1C - Buildings A, B, and 2

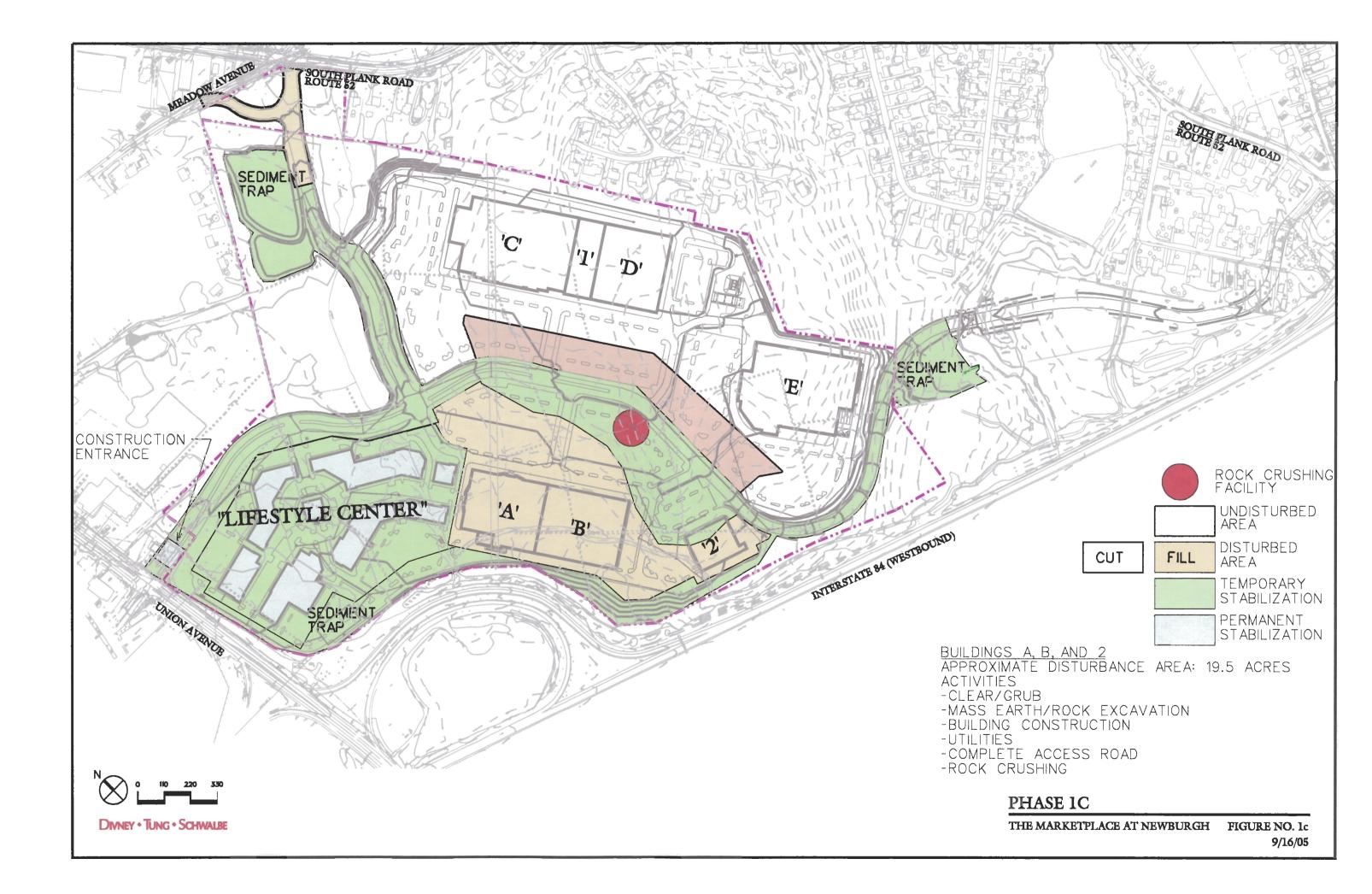
Construction will continue in the area of buildings A, B, and 2 and will include the driveways, parking lots, walkways and utility infrastructure. Excess fill from the center of the site will be placed in layers to bring the project area up to final grade. The on-site rock crusher will be utilized to minimize the amount of rock and soil entering or leaving the site. Pavement base courses and building foundations will be placed as soon as possible to stabilize the site. Additionally, the connection to Meadow Avenue and Route 52 northeast of the site will be completed in this phase.

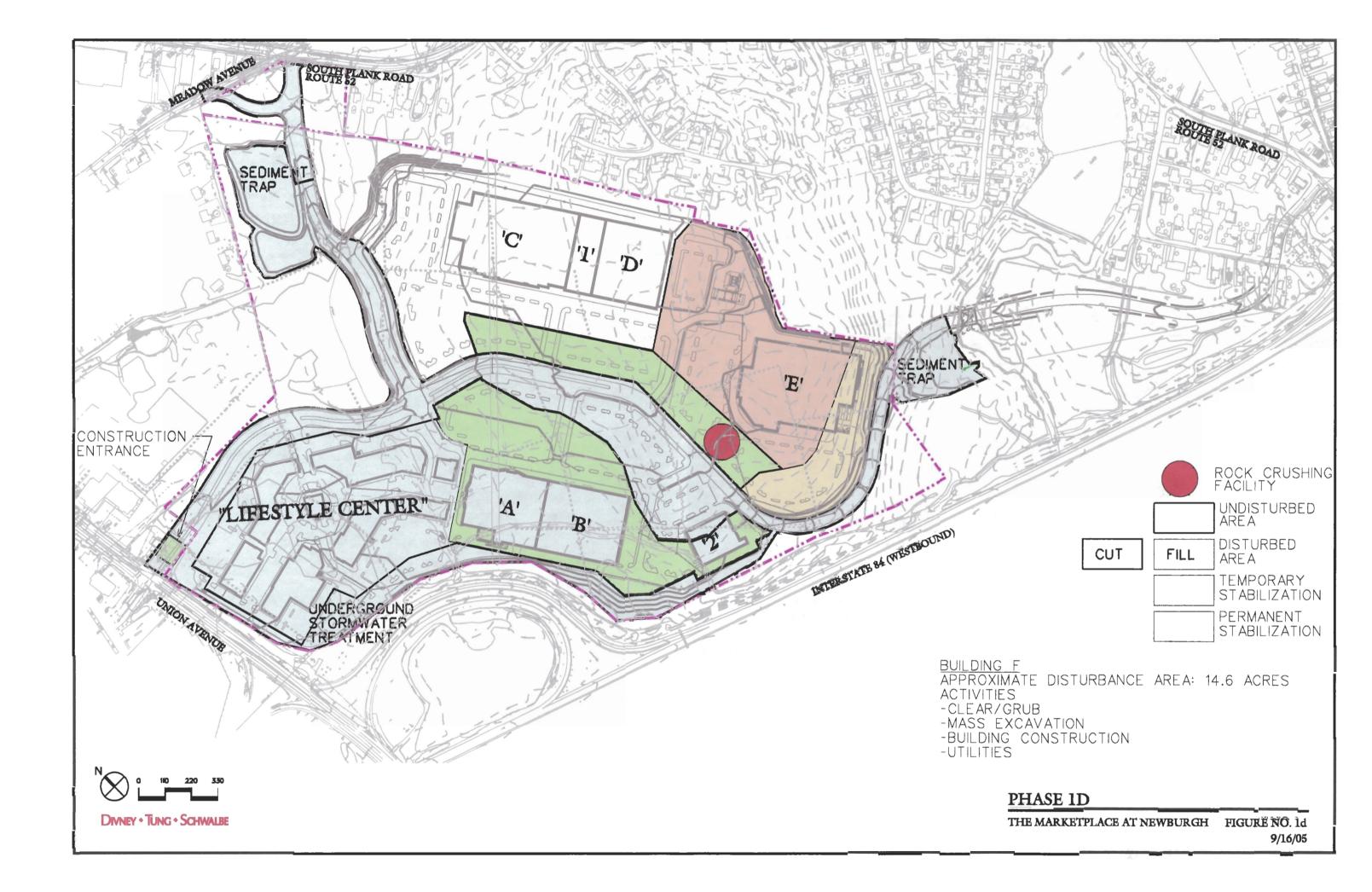
#### D. Phase 1D - Building E

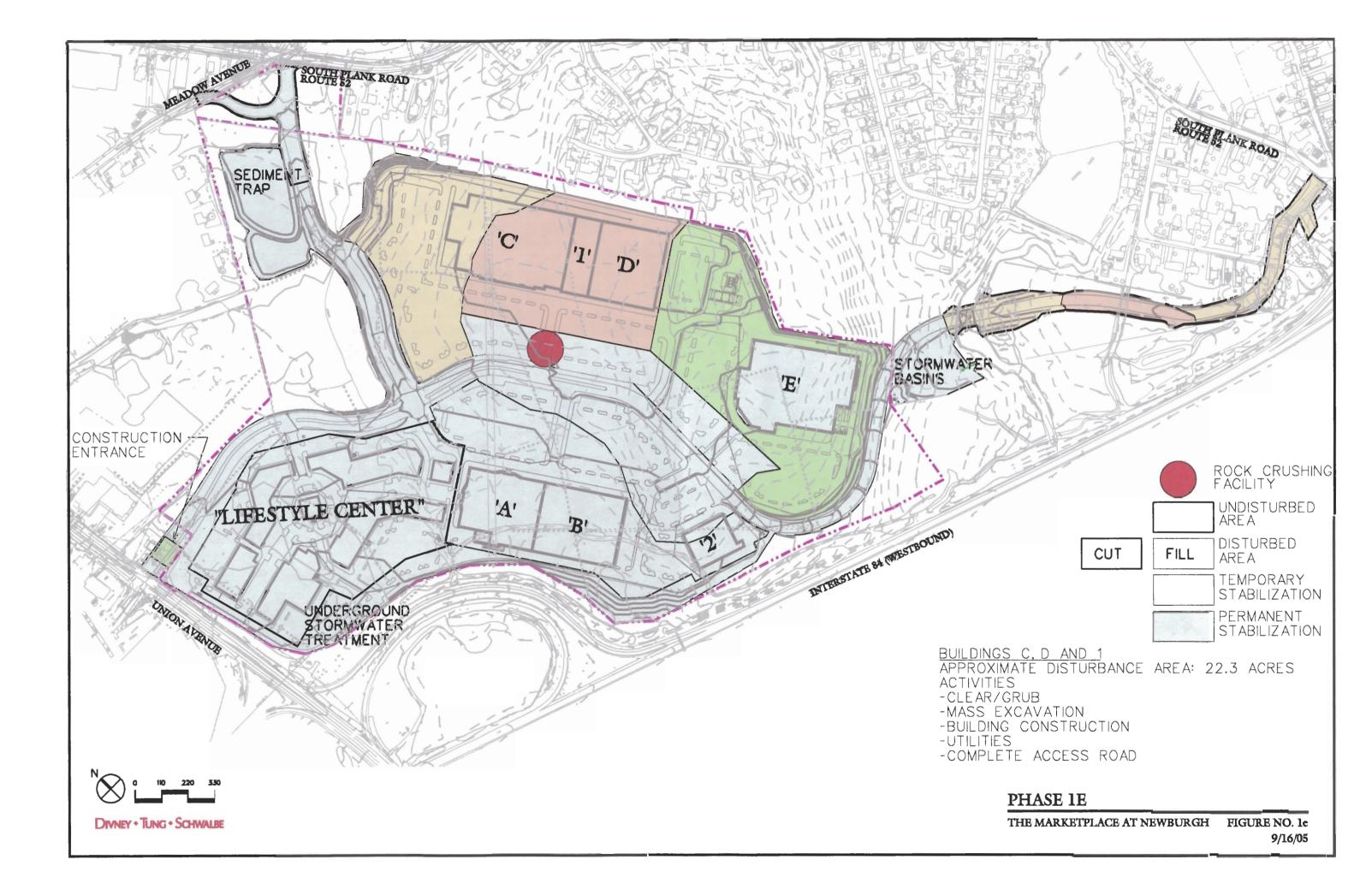
Construction will continue in the area of buildings E and will include the driveways, parking lots, walkways and utility infrastructure. Excess fill from the center of the site will be placed in layers to bring the project area up to final grade. The on-site rock crusher will be utilized to minimize the amount of rock and soil entering or leaving the site. Pavement base courses and building foundations will be placed as soon as possible to stabilize the site. Once the pavement base course has been installed, the temporary sediment trap will be converted into permanent stormwater quality and detention basins.

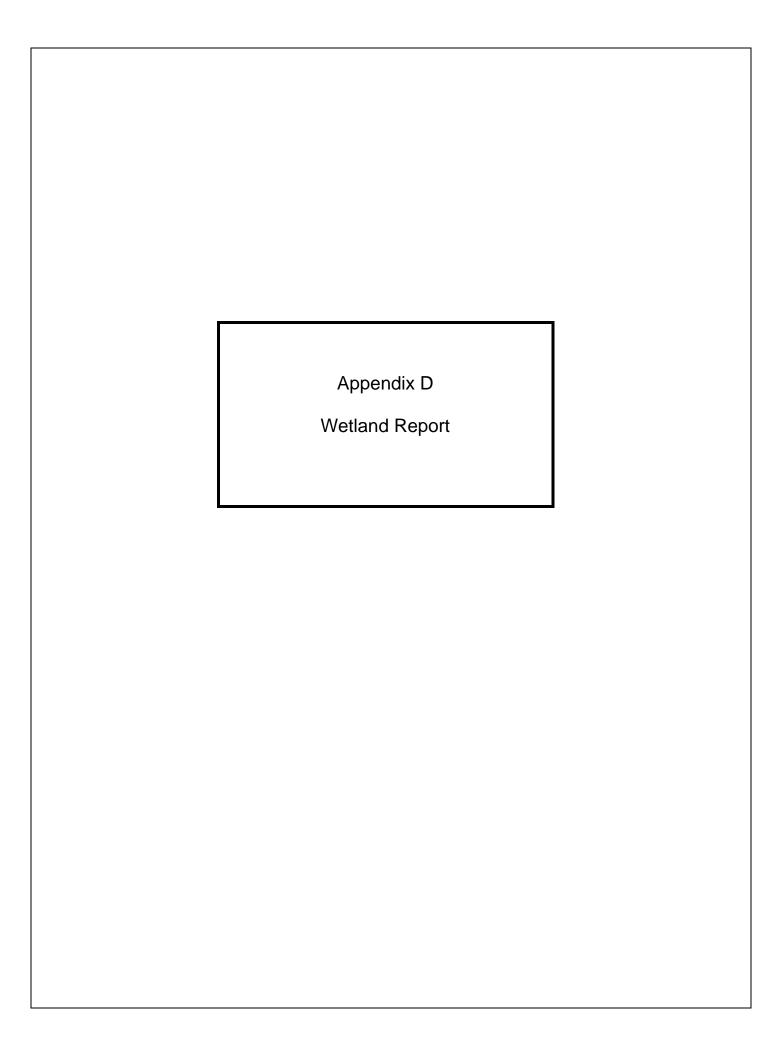












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# Wetland Delineation Report Wilder Balter Partners, LLC Crossroads at Newburgh

Town of Newburgh Orange County, New York

> June 16, 2004 70413.00



Prepared for:

Wilder Balter Partners, LLC 570 Taxter Road Sixth Floor Elmsford, NY 10523

# Wetland Delineation Report Wilder Balter Partners, LLC Crossroads at Newburgh

Town of Newburgh Orange County, New York

June 16, 2004



Prepared by:

The Orange County Office The Chazen Companies 263 Route 17K Newburgh, NY 12550 (845) 567-1133

Dutchess County (845) 454-3980

Capital District (518) 235-8050

North Country (518) 812-0513

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# **APPENDICES**

Appendix A: Wetland Data Sheets

Appendix B: Site Photographs

Appendix C: Wetland Survey

#### 1.0 INTRODUCTION

This wetland delineation report was prepared for "The Crossroads at Newburgh" property, an approximately 107.60-acre wooded parcel located in the Town of Newburgh, Orange County, New York. More specifically, the property is located on the northern side of Interstate 84 (I-84), northeast of the exit 7N ramp for Union Avenue, and south of Meadow Avenue. Figure 1.1-1 "Site Location Map," provides an illustration of the site on the United States Geological Survey (USGS) Newburgh Topographic Quadrangle.

The on-site wetlands were field delineated by The Chazen Companies (TCC) on April 20 and April 21, 2004, using the three parameter approach as described in the 1987, US Army Corps of Engineers' Wetland Delineation Manual.<sup>1</sup> The project sponsor for this project is Wilder Balter Partners, L.L.C. of Elmsford, NY.

The following sections of this report provide descriptions of the existing site conditions including site topography, soils, vegetation, hydrology, wetland and stream mapping; the methods used for the wetland delineation; the results of the wetland delineation which includes a discussion of each wetland area; a brief discussion of hydrological connections to navigable waters of the United States; and any conclusionary remarks.

### 2.0 EXISTING CONDITIONS

# 2.1 Topography

The site's topography ranges from rolling to areas with steep slopes. Typical slopes range from approximately three percent to greater than 15 percent in the steeper portions of the site. Most of the slopes consist of moderately sloping areas to steeply sloping areas containing rock outcroppings. Site elevations ranges from approximately 300 above mean sea level (msl) to 440 feet msl. Some of the highest elevations are located in the eastern portion of the site. The wetland areas are located within the lower elevations of the site in the western and northern portion of the property.

<sup>&</sup>lt;sup>1</sup> U.S. Army Corps of Engineers. 1987. Wetlands Delineation Manual, Technical Report Y-87-1.

#### 2.2 Soils

According to the Orange County Soil Survey,<sup>2</sup> eight soil types are mapped within the bounds of the project site. The following section provides a description of these soil types including soil properties, typical sequence, depth, and composition of soil groupings, hydric or non-hydric capabilities, and location of the soils within the project area. Figure 2.2-1, "Soil Map," illustrates the location of the soils for this site.

Bath-Nassau shaly silt loams, 3 to 8 percent slopes (BnB) – This soil complex consists of deep, well drained soils and shallow, somewhat excessively drained soils that were formed in glacial till deposits derived from shale and slate. This complex is mapped in the west-central portions of the property and generally is located on the hilltops and upland ridges of the site. Bath soils exhibit a perched water table above the fragipan³ for very brief periods during early spring. Permeability is moderate in the subsoil above the fragipan and slow or very slow in the fragipan. The available water capacity is moderate and surface runoff is slow to medium. For the Nassau soils, no seasonal high water table is present. Soil permeability is moderately throughout and runoff is slow to medium. This soil complex is not listed as a hydric soil in New York State. The typical depth, sequence, and pedon for this mapping unit follow:

<u>0 to 9 inches</u> - dark brown (10YR 3/3 shaly silt loam; moderate fine granular structure; friable; many roots; 15 percent coarse fragments; medium acid; abrupt smooth boundary.

9 to 16 inches – yellowish brown (10YR 5/6) shaly silt loam; moderate fine subangular blocky structure; friable; common roots; 15 percent coarse fragments; common pores; medium acid; clear wavy boundary.

16 to 26 inches – yellowish brown (10YR 5/4) shaly silt loam; moderate medium subangular blocky structure; friable; common roots; 20 percent coarse fragments; common pores; medium acid; clear wavy boundary.

<u>26 to 29 inches</u> – olive brown (2.5Y 4/40 shaly silt loam; few fine faint yellowish brown (10YR 5/6) mottles; weak medium subangular blocky structure; firm; few roots; 30 percent coarse fragments; few pores; slightly acid; clear wavy boundary.

<sup>2</sup> USDA Natural Resource Conservation Service. Soil map for Orange County, New York.

<sup>&</sup>lt;sup>3</sup> Fragipan – the loamy, brittle subsurface horizon low in porosity and content of organic matter and low or moderate in clay but high in silt or very fine sand; the fragipan appears cemented and restricts roots. When dry, it is hard or very hard and has a higher bulk density than the horizon or horizons above. The fragipan can rupture suddenly under pressure when moist.

29 to 53 inches – olive brown (2.5Y 4/4) very shally silt loam; weak very coarse prismatic structure; firm, brittle; 35 percent coarse fragments; light yellowish brown (2.5Y 6/4) prism faces with strong brown (7.5YR 5/6) borders; few pores; patchy clay films in pores; medium acid; abrupt wavy boundary.

53 inches - dark gray shale bedrock.

Canandaigua silt loam (Ca) – This mapping unit is comprised of deep, nearly level, poorly drained and very poorly drained soil that formed in glacial lake deposits of clay, silt, and very fine sand. This soil is found in small depressional areas of uplands and broad flat lowland plains. For this site, Canandaigua soils are located in the western portion of the site in the area occupied by Wetlands A and B. Slopes are generally less than two or three percent. The water table for this mapping unit is at or near the surface for prolonged periods. Some areas become ponded for brief periods during the spring. Surface runoff is very slow, and the available water capacity is high. Permeability is moderate or moderately slow in the surface layer and subsoil and moderately rapid in the substratum. This soil is listed as a hydric soil in New York State. The typical depth, sequence, and pedon for this mapping unit follow:

<u>0 to 8 inches</u> – very dark gray (10YR 3/1) silt loam; light brownish gray (10YR 6/2) dry; weak medium granular structure; friable; common roots; slightly acid; clear wavy boundary.

<u>8 to 20 inches</u> – dark grayish brown (10YR 4/2) silt loam; few fine distinct grayish brown (2.5Y 5/2) mottles; moderate medium subangular blocky structure; friable; common roots; many pores; thin clay films in pores; neutral; abrupt wavy boundary.

20 to 35 inches – grayish brown (2.5Y 5/2) silty clay loam; many medium distinct strong brown (7.5YR 5/8) and common medium distinct gray (10YR 5/1) mottles; moderate medium subangular blocky structure; friable; few roots; many pores; clay films in pores; neutral; clear wavy boundary.

<u>35 to 50 inches</u> – dark brown (10YR 3/3) fine sand; common medium distinct strong brown (7.5YR 5/8) mottles; massive; friable, non-sticky and non-plastic; neutral; clear wavy boundary.

50 to 60 inches – dark brown (10YR 3/3); massive; friable; non-sticky and non-plastic; mildly alkaline.

<u>Farmington silt loam, sloping (FAC)</u> – This mapping unit is comprised of shallow, well drained, sloping and gently sloping soil that formed in glacial till deposits

derived from limestone, shale, slate, and siltstone. This soil is located on the hill tops and ridges of the northwestern portion of the site. Slopes range from approximately one to 15 percent. Surface runoff is medium to rapid and the available water capacity is low or very low. No perched water table is present for this soil above the jointed and fractured bedrock. Permeability is moderate. This soil is not listed as a hydric soil in New York State. The typical depth, sequence, and pedon for this mapping unit follow:

<u>0 to 8 inches</u> – dark grayish brown (10YR 4/2) silt loam; weak fine granular structure; friable; many roots; five percent coarse fragments; slightly acid; abrupt clear boundary.

8 to 19 inches – yellowish brown (10YR 5/4) silt loam; moderate medium subangular blocky structure; friable; common roots; 10 percent coarse fragments; neutral; abrupt irregular boundary;

19 inches - hard gray limestone bedrock.

Mardin gravelly silt loam, 3 to 8 percent slopes (MdB) – This mapping unit consists of deep, moderately well drained, gently sloping soil that formed in glacial till deposits derived from sandstone, shale, and slate. This soil is mapped in the northwestern corner, along the southwestern corner, and southeastern portions of the site. The water table is perched above the fragipan early in the spring and in other excessively wet time periods. Permeability is moderate in the surface layer and slow or very slow in the subsoil. The fragipan is dense in the subsoil; accordingly, seasonal wetness and slow or very slow permeability provide limitations for urban development. The available water capacity is moderate to low, and runoff is slow.

Mardin gravelly silt loam, 8 to 15 percent slopes (MdC) – This Mardin soil is maintain much of the same properties as the above MdB mapping unit. This particular mapping unit commonly receives runoff from higher adjacent soils and has a dense fragipan in the lower part of the subsoil. Permeability is moderate in the surface layer and upper part of the subsoil and slow or very slow in the pan<sup>4</sup> and substratum. The available water capacity is moderate to low, and surface runoff is medium. Mardin soils are not listed as hydric in New York State. The typical depth, sequence, and pedon for this mapping unit follow:

<u>0 to 8 inches</u> – dark brown (10YR 4/3) gravelly silt loam; weak fine granular structure; friable; many roots; 15 percent coarse fragments; very strongly acid; abrupt smooth boundary.

<sup>&</sup>lt;sup>4</sup> Pan - is a compact, dense, layer in a soil that impedes the movement of water and the growth of roots.

<u>8 to 15 inches</u> – yellowish brown (10YR 5/6) gravelly silt loam; weak medium granular structure; friable; common roots; 20 percent coarse fragments; common pores; strongly acid; clear wavy boundary.

15 to 20 inches – pale brown (10YR 6/3) gravelly silt loam; common medium distinct light brownish gray (2.5Y 6/2) mottles and common medium distinct strong brown (7.5YR 5/6) mottles; moderate medium subangular blocky structure; friable; few roots; 25 percent coarse fragments; few pores; few silt films; strongly acid; clear wavy boundary.

20 to 60 inches – olive brown (2.5Y 4/4) channery silt loam; weak very coarse prismatic structure parting to weak thin platy; prism exteriors of light brownish gray (10YR 6/2) coated with silt films; prism boarders of strong brown (7.5YR 5/6) firm; 30 percent coarse fragments; medium acid.

Rock outcrop-Arnot complex, moderately steep (RKD) –This soil complex consists of exposed bedrock and shallow, somewhat excessively drained to moderately well drained Arnot soil. Arnot soils formed in a thin mantle of glacial till deposits over sandstone or shale bedrock. This mapping unit is mapped along hillsides, sides or ravines, and valley sides of mountainous uplands; for this site this soil complex is mapped in a north-south direction through the central portion of the site. Soil permeability is moderate and the available water capacity is low or very low. Surface runoff is rapid to very rapid. This rock outcrop complex is not listed as a hydric soil in New York State. The typical depth, sequence, and pedon for this Arnot soil are as follows:

<u>0 to 4 inches</u> – dark brown (7.5YR 3/2) channery silt loam; weak fine granular structure; friable; many roots; 25 percent coarse fragments; very strongly acid; abrupt smooth boundary.

4 to 15 inches – reddish brown (5Y 4/4) very channery silt loam; weak fine granular structure; friable; many roots; 40 percent coarse fragments; very strongly acid; abrupt smooth boundary.

15 inches – brown and gray sandstone, horizontally bedded.

# 2.3 Hydrology and Wetland Mapping

## 2.3.1 Watercourses

One small unnamed stream is mapped in the northern portion of the site. This stream flows northeast; across the northern section of the property, continuing toward the northeast to where it proceeds off-site. According to the NYSDEC stream mapping for the site, this watercourse is identified as being a tributary to Orange Lake Outlet located in Algonquin Park. This unnamed tributary has been assigned a Water Index Number of H-94-6-1-1,<sup>5</sup> and is classified as a "C" watercourse. The "C" standard indicates the stream supports fish and is suitable for non-contact recreational activities. This stream is not regulated under the NYSDEC protection of waters program due to its "C" classification.<sup>6</sup> This stream corridor is associated with the wetlands located in the northern portion of the site.

A second unnamed stream was historically located off-site in a small area south of the southwestern most portion of the site. This stream is an unnamed tributary of the Quassaic Creek and is assigned a Water Index Number of H-94-5a.<sup>7</sup> While this particular stream is mapped on the 1957 USGS map, (see Figure 2.3-1 Historical USGS Topographic Map) the construction of Interstate I-84 has altered the flow of the channel, effectively isolating the upstream wetlands from the tributary stream. The lack of connection is discussed in greater detail in Section 4.0 of this report.

According to the National Wetland Inventory (NWI) Map, Newburgh Quadrangle two small wetlands are mapped on-site. The first wetland is located in the northwestern corner of the site. This wetland is mapped as PFO1Eh, [P] Palustrine, [FO] Forested, [1] Broad-Leaved Deciduous, [E] Seasonally Flooded/Saturated, [h] Diked/Impounded. The second wetland is located in the western portion of the site and is mapped as PFO1E, P] Palustrine, [FO] Forested, [1] Broad-Leaved Deciduous, [E] Seasonally Flooded/Saturated.

Table 2.3.2 "NWI Definitions" defines the terms used to describe these wetlands identified within the project area. Figure 2.3-2 NWI and NYSDEC Wetland Mapping" provides an illustration of these wetland resources adjacent to the study area.

According to the NYSDEC wetland mapping for this site, no State wetlands are located on-site. See Figure 2.3-2 for reference.

<sup>&</sup>lt;sup>5</sup> Title 6, Chapter X, Section 862.6, Item Number 227. Water Index Number H-94-6-1-1 Tributary to Orange Lake Outlet Class C Standard C. Map Ref. No O-23se.

<sup>&</sup>lt;sup>6</sup> Article 15, Environmental Conservation Law Implementing Regulations, NYCRR Part 608 Protection of Waters <sup>7</sup> Title 6, Chapter X, Section 862.6, Item No. 223.1. Water Index Number H-94-5a Tributary to Quassaic Creek. Class C Standard C. Map Ref. No O-23se.

## Table 2.3.1 NWI Definitions

| Table 2.5.1 It wi Delimitions  |   |  |  |
|--|---|--|--|
| Term   | Definition  |  |  |
|  | Non-tidal wetlands dominated by trees, shrubs,        |  |  |
|  | persistent emergent, or emergent mosses and           |  |  |
| Palustrine   | lichens, and all such wetlands that occur in tidal    |  |  |
|  | areas where salinity due to ocean derived salts is    |  |  |
|  | below 0.0 ppt.  |  |  |
| Forested   | A wetland class characterized by woody                |  |  |
| Forested   | vegetation (i.e., trees) that are 6 meters or taller. |  |  |
|  | A class of woody vegetation (shrubs and trees)        |  |  |
| Broad leaved deciduous   | that have leaves not needles that are shed            |  |  |
|  | annually as part of the trees natural cycle.          |  |  |
|  | Surface water is present for extended                 |  |  |
|  | periods especially early in the growing season        |  |  |
| Seasonally Flooded/Saturated   | and when surface water is absent, substrate           |  |  |
|  | remains saturated near the surface for most of        |  |  |
|  | the growing season.                                   |  |  |
|  | Created or modified by a man-made barrier or          |  |  |
| Diked/Impounded  | dam which obstructs the inflow or outflow of          |  |  |
| 2 incu impounded   | water. Originally, Diked and Impounded are            |  |  |
|  | described as separate modifiers.                      |  |  |
| Source: US Department of the Interior Fish and Wildlife Service National Wetland Inventory |   |  |  |

# 2.4 Vegetative Communities

Two major plant communities were identified within the Crossroads at Newburgh site, as defined in "Ecological Communities of New York State." These two communities include a successional hardwood forest and red maple hardwood swamp. The following section provides a description of these two communities and their approximate locations within the subject property. Table 2.4.1, "Flora of the Crossroads at Newburgh and Indicator Status," provides a list of the dominant vegetation that was identified and the wetland indicator status of these species. Figure 1.1-1, provides an aerial illustration of the site.

Successional hardwood forest: The upland areas of the site are comprised of a successional hardwood community generally located around the vicinity of the A, B, and C wetland lines. This community is a hardwood or mixed forest that occurs on sites that have been cleared for farming, logging or otherwise disturbed. The dominant trees are usually any two or more of the following: quaking aspen (Populus tremuloides), black cherry (Prunus serotina), red maple (Acer rubrum), white pine (Pinus strobus), paper birch (Betula papyrifera), gray birch (B. populifolia), green ash (Fraxinus pennsylvanica), and American elm (Ulmus americana). Most of these species are found to some degree at this site. The shrub layer was comprised of a significant amount of tartarian honeysuckle (Lonicera tatarica) and multiflora rose (Rosa multiflora). Some of the more common herbaceous species that were identified include Christmas ferns (Polystichum achrostichoides) and garlic mustard (Alliaria petiolata).

Additionally, there is a distinct area of early successional forest located in the southwestern portion of the site defined by a recently logged area. This forested community is dominated primarily by early successional shrubby vegetation. Numerous trails meander through this portion of the site which appear to be extensively used as an ATV recreational area and as an illegal dump, evident by old children's toys, furniture and other debris are scattered about the area. The remaining upland forests on-site are comprised of mature growth trees as described above.

Red maple hardwood swamp: This wetland community is dispersed throughout New York State and comprises the wetlands identified on this site. This community is recognized by the presence of red maple, and American elm in the upper story. The shrub layer is generally dominated by highbush blueberry (Vaccinium corymbosum), spicebush (Lindera bengion) and arrow-wood (Viburnum recognitum).

<sup>&</sup>lt;sup>8</sup> Edinger, G.J., D.J. Evans, S. Gebauer, T.G. Howard, D.M. Hunt, and A.M. Olivero (editors). 2002. Ecological Communities of New York State. Second Edition. A revised and expanded edition of Carol Reschke's Ecological Communities of New York State. (Draft for review). New York Natural Heritage Program, New York State Department of Environmental Conservation, Albany, NY.136 pgs.

The herbaceous layer may consist of sensitive fern (Onoclea sensibilis), tussock sedge (Carex stricta) and skunk cabbage (Symplocarpus foetidus).

This community is identified in the wetland areas located in the northern and southwestern portions of the site. The dominant species that were identified during the wetland delineation include red maple, American elm in the over story and spicebush (*Lindera benzoin*), dogwood (*Cornus* spp.), and arrow wood (*Viburnum recognitun*) in the shrub layer; sedges (*Carex* spp.) sensitive fern, and skunk cabbage were identified in the herbaceous layer.

Table 2.4.1 Flora of the Crossroads at Newburgh and Indicator Status

| Common Name           | Scientific Name             | Indicator Status |
|-----------------------|-----------------------------|------------------|
|                       | TREES                       |                  |
| Red maple             | Acer rubrum                 | FAC              |
| Sugar maple           | Acer saccharum              | FACU-            |
| Speckled alder        | Alnus rugosa                | FACW+            |
| Tree-of-heaven        | Ailanthus altissima         | NL               |
| Birch species         | Betula spp.                 |                  |
| Gray birch            | Betula populifolia          | FAC              |
| American hornbeam     | Carpinus caroliniana        | FAC              |
| Shagbark hickory      | Carya ovata                 | FACU             |
| Green ash             | Fraxinus pennsylvanica      | FACW             |
| Eastern red cedar     | Juniperus virginiana        | FACU             |
| Eastern hop-hornbeam  | Ostrya virginiana           | FACU-            |
| Eastern white pine    | Pinus strobus               | FACU             |
| Quaking aspen         | Populus tremuloides         | FACU             |
| Black cherry          | Prunus serotina             | FACU             |
| Red oak               | Quercus rubra               | FACU-            |
| Swamp White Oak       | Quercus bicolor             | FACW+            |
| White oak             | Quercus alba                | FACU             |
| Black locust          | Robinia pseudoacacia        | FACU-            |
| Willow species        | Salix spp.                  |                  |
| Black willow          | Salix nigra                 | FACW+            |
| American basswood     | Tilia americana             | FACU             |
| American elm          | Ulmus americana             | FACW             |
|                       | SHRUBS                      |                  |
| Barberry              | Berberis thunbergii         | FACU             |
| Gray dogwood          | Cornus foemina sp. racemosa | FAC-             |
| Dogwood               | Cornus spp.                 |                  |
| Red stemmed dogwood   | Cornus stolonifera          | FACW             |
| Hawthorn species      | Crataegus spp.              |                  |
| Tartarian honeysuckle | Lonicera tatarica           | FACU             |
| Virginia creeper      | Parthenocissus quinquefolia | FACU             |
| Staghorn sumac        | Rhus hirta                  | NL               |
| Multiflora rose       | Rosa multiflora             | FACU             |
| Blackberry            | Rubus spp.                  | NL               |
| Black raspberry       | Rubus occidentalis          | NL               |
| Common buckthorn      | Rhamnus cathartica          | FACU+            |
| Poison ivy            | $Toxicodendron\ radicans$   | FAC              |
| Speckled alder        | Alnus rugosa                | FACW+            |

| Spice bush           | Lindera benzoin       | FACW- |
|----------------------|-----------------------|-------|
| Highbush blueberry   | Vaccinium corymbosum  | FACW  |
| Arrow-wood           | Viburnum recognitum   | FACW- |
| River bank grape     | Vitis riparia         | FACW  |
|                      | FORBS AND FERNS       |       |
| Common yarrow        | Achillea millefolium  | FACU  |
| Garlic mustard       | Alliaria petiolata    | FACU- |
| Field garlic         | Allium vineale        | FACU- |
| Queen Anne's lace    | Daucus carota         | NL    |
| Purple loosestrife   | Lythrum salicaria     | FACW+ |
| Sensitive fern       | Onoclea sensibilis    | FACW  |
| Cinnamon fern        | Osmunda cinnamomea    | FACW  |
| Interrupted fern     | Osmunda claytonia     | FAC   |
| Curly dock           | Rumex crispus         | FACU  |
| Goldenrod species    | Solidago spp.         |       |
| Skunk cabbage        | Symplocarpus foetidus | OBL   |
| Broad leaved cattail | Typha latifolia       | OBL   |
| Stinging nettle      | Urtica dioica         | FACU  |
|                      | GRASSES AND SEDG      | ES    |
| Tussock sedge        | Carex stricta         | OBL   |
| Sedge species        | Carex spp.            | FACW  |
| Soft rush            | Juncus effuses        | FACW+ |
| Timothy              | Phleum pratense       | FACU  |
| Common reed          | Phragmites australis  | FACW  |
| Rush species         | Scirpus spp.          |       |
|                      |                       |       |

# Figure 2.4-1 Historical USGS Topographic Map

#### 3.0 METHODOLOGY

The wetland delineation for the subject property was conducted on April 20 and 21, 2004, by Mr. William Mullin of the Chazen Companies and field verified by Mr. David Tompkins. The delineation was established in the field using the three-parameter approach described in the 1987, US Army Corps of Engineers' Wetland Delineation Manual.<sup>9</sup> The boundary was established using flagging marked with consecutively numbered wetland flags along a wetland boundary.

At representative points along the wetland boundary, data were collected in the wetlands and uplands to document the existing vegetation, soils and hydrology. This information was later transferred onto the data sheets contained in Appendix A, "Wetland Data Sheets."

Using a Dutch auger, soil samples were taken to approximately 16 to 18 inches deep at representative points along the boundary to characterize the on-site soil conditions. Soil colors were documented using a Munsell Soil Color Chart. Hydrology was assessed by evaluating each area for inundation, saturation, water marks, drainage channels, or other field indicators (or lack thereof) of wetland hydrology.

Vegetation found at each of the sampling locations was described in terms of the dominant species in the overstory, understory/shrub, vine, and herbaceous layers. Overstory vegetation represents the canopy tree species greater than six inches in diameter. Understory/shrub vegetation is comprised of woody tree species between two and six inches in diameter, and saplings and shrubs less than two inches in diameter and three to 12 feet in height. Ground layer vegetation consists of both woody and herbaceous vegetation less than three feet in height. The indicator status of each dominant plant species was determined using the "National List of Plant Species that Occur in Wetlands – Northeast (Region 1)." <sup>10</sup>

Photographs were taken of the site at the wetland and upland data points, and at other representative locations throughout the site. These photographs are contained in Appendix B, "Site Photographs."

Following the establishment of the wetland boundary in the field, the wetland boundary was surveyed and plotted on the site map. The delineation survey is located in Appendix C.

U.S. Army Corps of Engineers. 1987. Wetlands Delineation Manual, Technical Report Y-87-1.
 Reed, P.B., Jr. 1988. National List of Plant Species that Occur in Wetlands: Northeast (Region 1), USFWS Biological Report 88 (26.1).

#### 4.0 RESULTS AND DISCUSSION

Three wetland areas were delineated within the subject property and are identified as Wetland A, Wetland B, and Wetland C. This section discusses each wetland or wetland group identified on the site, its location on the site, and the number of flags in the line(s), and the soil, hydrological and vegetative characteristics of the wetland.

Finally, this section briefly addresses whether the on-site wetlands are hydrologically isolated. TCC Staff conducted a review of historical data and conducted a subsequent field visit of the site on May 19, 2004, specifically to make a field determination as to whether the on-site wetlands in the southern portion of the site were hydrologically connected to any waters of the United States and therefore, subject to USCOE Jurisdiction.

### 4.1 Wetland A

Wetland A is the largest wetland delineated on-site encompassing approximately 9.69 acres in the northern portion of the property associated with the unnamed stream corridor. Approximately 178 flags identified as flags A1 through A 178 were used to delineate this wetland. This wetland is comprised of a palustrine forested wetland defined as a red maple hardwood swamp. 11 Red maple, American elm, and green ash co-dominate the canopy layer while spicebush, dogwoods and highbush blueberry occupy the shrub layer. Skunk cabbage and sensitive fern are the dominant herbaceous species.

Soils in the wetland were saturated to the surface and consisted of dark brown (7.5YR 3/2) and very dark brown (10YR 2/2) loam to clay silt loam, respectively in the upper 10 inches. Soils mapped within this portion of the wetland are Mardin gravelly silt loam, a non hydric soil in New York State, and Canandaigua silt loam which is listed on the New York State hydric soils list. Hydrologic indicators included saturated soils in the upper 12 inches, drift lines, and drainage patterns. Secondary indicators included oxidized root channels in the upper 12 inches.

Adjacent upland soils were comprised of dark brown (10YR 3/2) loam in the upper four inches and brown (7.5YR 4/3) in the upper eight inches. Bedrock was encountered at just below eight inches.

Based upon the current and historical mapping data<sup>12</sup> available for the subject property, Wetland A is hydrologically connected to a tributary to Orange Lake

<sup>11</sup> Ibid.

<sup>&</sup>lt;sup>12</sup> Historical data - 1957, 1970 USGS topographical mapping, aerial photography 1963, 1971, 1975, OCSCS 1970 soil survey

Outlet located in Algonquin Park. The site inspection supports the historical data. Accordingly, this wetland is hydrologically not isolated, and is thus regulated under existing ACOE regulations.

#### 4.2 Wetland B

Wetland B is delineated by 83 flags and includes the B, BB, and BU lines. The approximately 4.12 acre wetland is situated in the southwestern corner of the site and continues off-site across the southern property boundary. The wetland is comprised of a palustrine-forested community also defined<sup>13</sup> as red maple hardwood swamp. Similar to Wetland A, this wetland contains red maple, American elm, green ash in the canopy layer with spice bush, dogwoods, high bush blueberry, and arrowwood in the shrub layer and sensitive fern and skunk cabbage in the herbaceous layer.

The soils mapped within Wetland B are listed on the New York State hydric soils list comprised of Canandaigua silt loam. Soil samples taken in the field confirmed the soil data. Soils ranged from black (10YR 2/1), dark gray (10YR 4/1) sandy silt loams to black muck covered clay silt loams with brown (10YR 4/3) mottles. Additionally, the soils were saturated to the surface throughout with small areas of inundation of up to several inches deep. Other hydrological indicators include drift lines, drainage patterns in the wetland, and oxidized root channels in the upper 12 inches. The adjacent upland area consists of brown (10YR 3/2 and 10YR 4/3) loam and stony loam soils. No hydrological indicators were present in the adjacent upland soils.

As discussed in Section 2.3.1, "Watercourses," an unnamed stream channel is shown on an historic (1957) USGS Topographic Map for this area. The construction of Interstate I-84 in the 1960's and subsequent modification to the off ramp onto NY State Route 300 north by the NYSDOT has altered the flow of the channel, effectively isolating the wetlands on this site from the tributary stream. Field investigations determined that surface-water from Wetland B flows into a man made drainage ditch that is located along the road shoulder of the I-84 westbound off-ramp to New York State Route 300. From that location, water flows downward along the road shoulder of the exit ramp in a poorly defined drainage ditch. Approximately halfway down the off-ramp, at the apex of the off-ramp curve, the defined drainage channel ceases and no longer exhibits signs of surface water flow. This area is entirely an upland consisting of bedrock outcroppings along the ramp. There are places where the flow is over the bedrock and some poured concrete. The distance of the bedrock and upland area without a defined channel was not measured, but it is estimated to be approximately 150 to 200 feet in length. There

<sup>13</sup> Ibid.

<sup>&</sup>lt;sup>14</sup> USDA Natural Resource Conservation Service. Soil map for Orange County, New York.

are no indications of wetlands or water flow in this area. At the end of the off-ramp, where the ramp exits the highway, there is another drainage culvert that is located under I-84. The unconsolidated flow along the ramp also collects in this area. From this location, there is a drainage culvert under the highway, which appears to connect into a wetland on the southern side of I-84.

The alterations to the drainage system in this area are judged to have occurred as a result of the construction of I-84. Drainage ditches that are constructed in uplands with no defined channel or Ordinary High Water Mark are not waters of the United States. Because the isolation of Wetland B is the result of construction of the highway in the 1960's, we have determined this wetland to be isolated and therefore exempt from ACOE jurisdiction under the SWANC ruling.

#### 4.3 Wetland C

Wetland C is approximately 0.52 acre and is situated in the south-central portion of the site, several hundred feet east of Wetland B. The C-line includes flags C1 through C22. This wetland extends off site across the southern property boundary and continues to flow into the I-84 exit ramp ditch system as described above. This line delineates a palustrine-forested community. Analogous to wetlands A and B, this wetland also contains red maple, American elm, green ash in the canopy layer with spicebush, dogwoods, high bush blueberry, and arrow-wood in the shrub layer and sensitive fern and skunk cabbage in the herbaceous layer. The soils in the wetland are comprised of black (2.5Y 2.5/1) muck in the surface layer to a depth of approximately three inches and very dark gray 10YR 3/1 loamy clay loam from three to 15 inches. Soils were saturated to the surface throughout, and in a few areas slightly inundated.

The adjacent upland soils are a very dark grayish brown (10YR 3/2) loam at the surface to a very dark brown (10YR 2/2) loam from three to 17 inches.

Based on the site inspection, surface water flow from this wetland was determined to extend across the southern property boundary off-site continuing into the I-84 exit ramp ditch system. A drainage culvert is located adjacent to the wetland on the Interstate right of way, which provides drainage down to the Interstate. It should be noted that wetland C is approximately 20 to 30 feet higher than the adjacent I-84. Similar to Wetland B, this wetland has been impacted by highway construction and is isolated from the historical drainage pattern. Therefore, this area is also not subject to ACOE jurisdiction under SWANC.

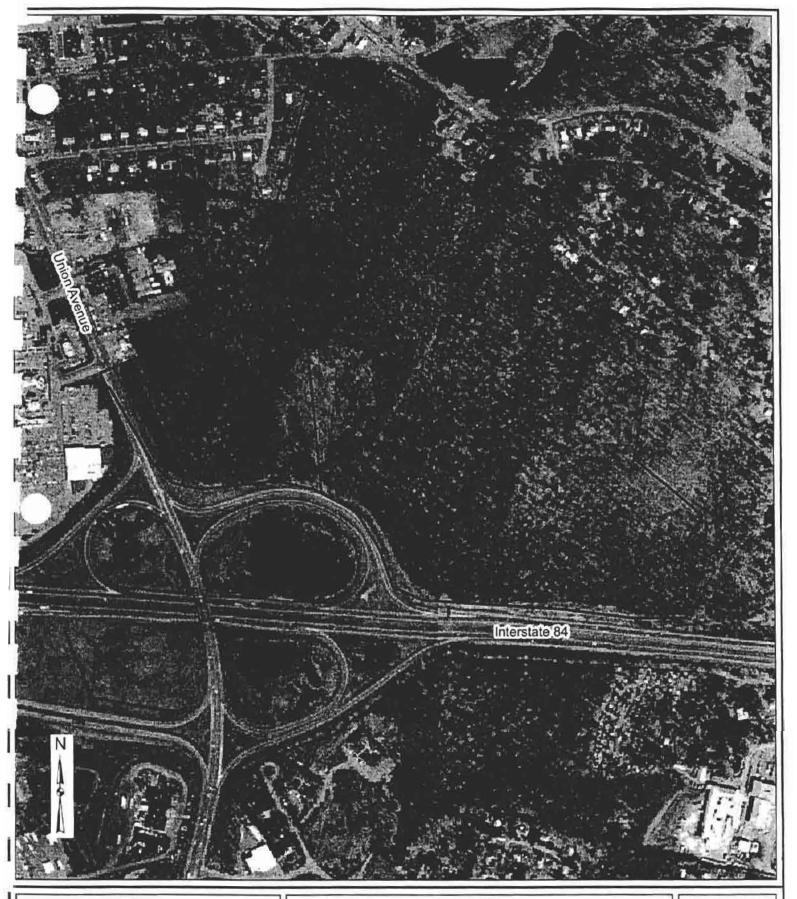
<sup>&</sup>lt;sup>15</sup> See FR 51:219, p. 41217. "For clarification it should be noted that we generally do not consider the following waters to be "Waters of the Untied States." However, the Corps reserves the right on a case-by-case basis to determine that a particular waterbody within these categories of waters is a water of the United States. EPA also has the right to determine on a case-by-case basis if any of these waters are "waters of the United States." A) Non-tidal drainage and irrigation ditches excavated on dry land."

#### 5.0 CONCLUSIONS

The wetland delineation for this site identified three wetland areas totaling 14.33 acres. Wetland A is the largest wetland that was delineated on-site encompassing approximately 9.69 acres in the northern portion of the property. This wetland is associated with the unnamed stream corridor that flows from the north, southeast to where it passes off-site. Wetland B is approximately 4.12 acres situated in the southwestern corner of the site and continues off-site across the southern property boundary. Wetland C is the smallest wetland on-site and is approximately 0.52 acre situated in the south-central portion of the site, several hundred feet east of Wetland B.

Investigation of the site indicates that flow from Wetlands B and C are no longer through a watercourse that would be regulated by the ACOE. As a result, these two wetlands are determined to be isolated and not subject to ACOE jurisdiction.

Figures





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ENVIRONMENTAL SCIENTISTS

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Orange County Office: 263 Route 17K Newburgh, NY 12550

Capital District Office: 20 Gurley Avenue Troy, NY 12182

Glons Falls Office: 110 Glon Street Glons Falls, NY 12801 Figure 1.1-1 Site Location Map 1994 Aerial Photograph Crossroads at Newburgh Town of Newburgh, Orange County, New York

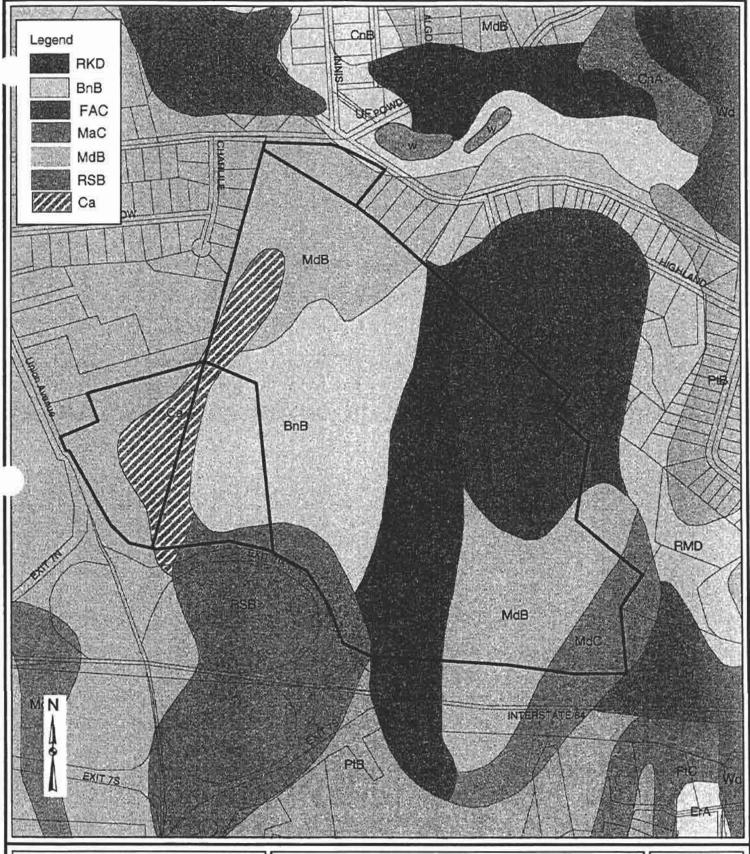
1994 Orthophotograph

Date: June 8, 2004

Scale: 1" = 500 ft.

Project #: 70413.00

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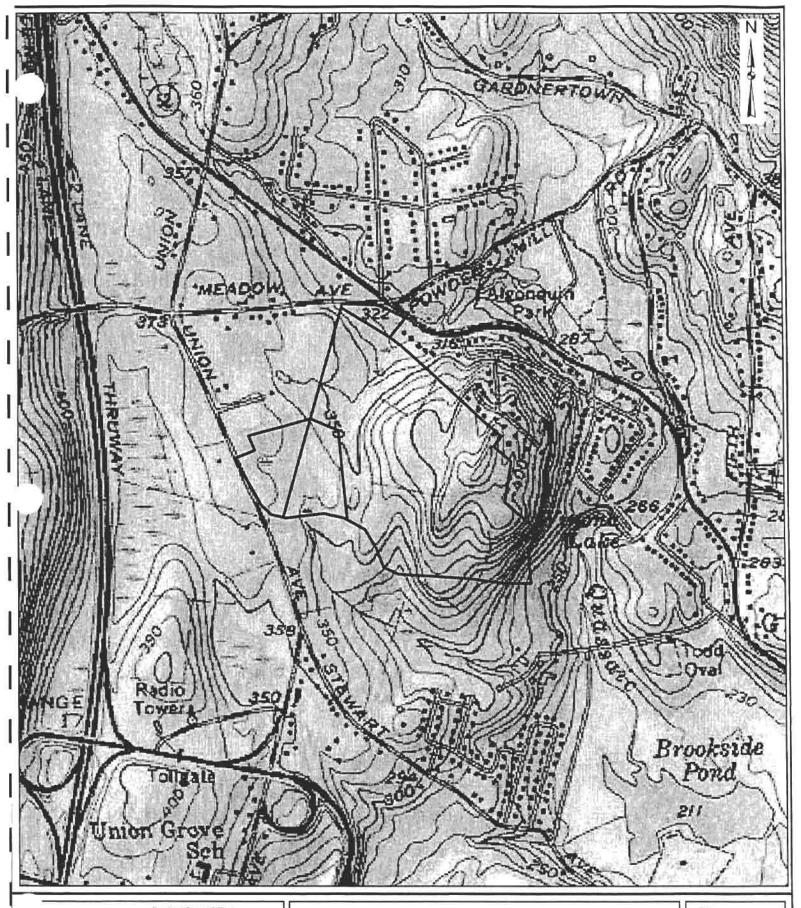
Glens Falls Office: 110 Glen Street Glens Falls, NY 12801 Figure 2.2-1 Soils Map Crossroads at Newburgh Town of Newburgh, Orange County, New York

Orange County Soil Survey Orange County Tax Parcel Data Date: June 2, 2004

Scale: 1" = 500 ft.

Project #: 70413.00

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Orange County Office: 263 Route 17K Newburgh, NY 12550

Capital District Office: 20 Gurley Avenue Troy, NY 12182

Glens Falls Office: 110 Glen Street Glens Falls, NY 12801 Figure 2.3-1 Historical USGS Topographic Map Crossroads at Newburgh Town of Newburgh, Orange County, New York

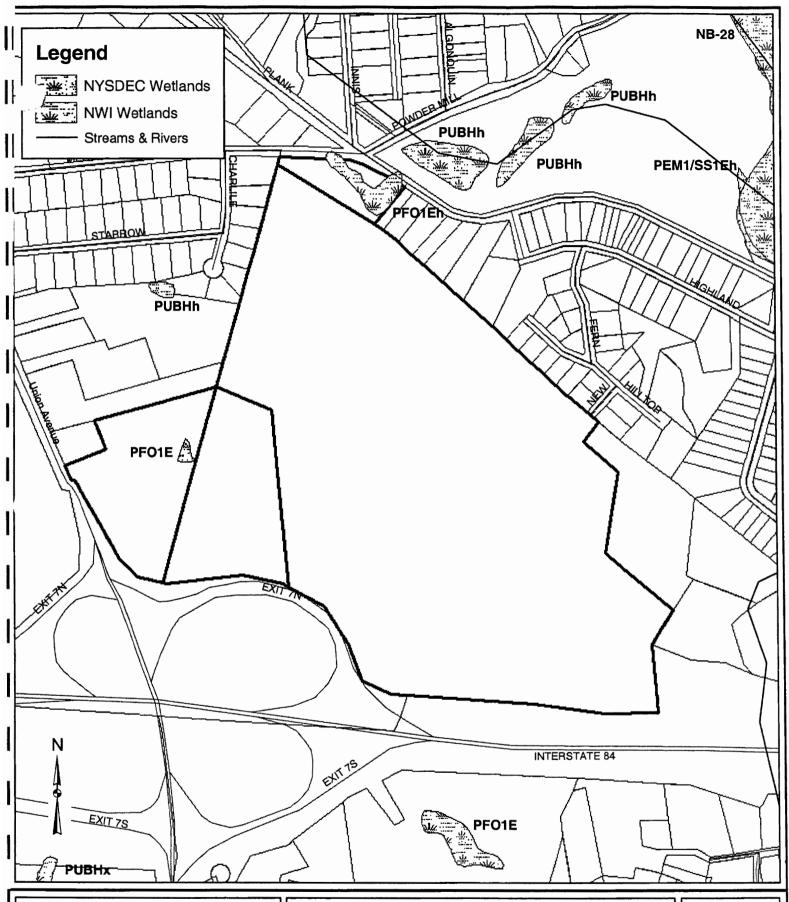
Revised Recon 1955 & 1956 Field Check 1957

Date: June 8, 2004

Scale: 1" = 1,000 ft.

Project #: 70413.00

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Glens Falls Office: 110 Glen Street Glens Falls, NY 1280!

Figure 2.3-2 NYSDEC and NWI Wetland Mapping Crossroads at Newburgh

Town of Newburgh, Orange County, New York
NYSDEC Wetland Map

Orange County Tax Parcel Data

NWI Wetland Map

Date: June 8, 2004

Scale: 1" = 500 ft.

Project #: 70413.00

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Appendix A: Wetland Data Sheets

| Proje            | ct/Site: Exxon Route 300                   | Community   | ID: up         | Date:                          | 20-Apr-04                               |
|------------------|--|-------------|----------------|--------------------------------|---|
| Applic           | cant/Owner: Exxon                          | Transect ID | :              | County:                        | Orange                                  |
| Inves            | tigator Mullin                             | Plot ID:    | <b>\-21</b>    | State:                         | NY                                      |
| A. D             | o normal circumstances exist on this s     | ite?        |                | ✓ Yes                          | ☐ No                                    |
| B. Is            | this site significantly disturbed (Atypica |             |                | ☐ Yes                          | ✓ No                                    |
|                  | the area a potential Problem Area?         |             |                | ☐ Yes                          | ☑ No                                    |
| (1               | f needed, explain on reverse)              |             |                |                                |   |
| VEGE             | ETATION                                    |             |                |                                |   |
|                  | INANT PLANT SPECIES:                       |             |                | STRATUM                        | INDICATOR                               |
| 1.               | Acer saccharu                              | ım          |                | tree                           | FACU                                    |
| 2.               | Parthenocissis quin                        | quefolia    |                | Vine                           | FACU                                    |
| 3.               | Lonicera tatari                            | ica         |                | Shrub                          | FACU                                    |
| 4.               | Carya ovata                                | 1           |                | Tree                           | FACU                                    |
| 5.               | Lindera benzo                              | oin         |                | Shrub                          | FACW-                                   |
| 6.               |  |             |                |                                |   |
| 7.               |  |             | <del>,</del>   |                                |   |
| 8                |  |             |                |                                |   |
| 9                |  |             |                |                                |   |
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| 11               |  |             |                |                                |   |
| 12. —            |  |             |                |                                |   |
| 13. —            |  |             |                |                                |   |
| 14. —            |  |             |                | <del></del>                    |   |
| <sup>15.</sup> — |  |             |                |                                |   |
| II —             | ent of Dominant Species that are OB        | I FACW or   | EAC (ovaluding | EAC \.                         | 20%                                     |
| Rema             | •  | L, FACVI UI | FAC (excluding | FAC - ).                       | 2070                                    |
| Kem              | 11 KS.                                     |             |                |                                |   |
|                  |  |             |                |                                |   |
|                  |  |             |                |                                |   |
| <u> </u>         |  |             |                |                                |   |
| HYDI             | ROLOGY                                     |             |                |                                |   |
|                  | Recorded Data (Describe in Remark          | s Section)  |                |                                |   |
|                  | Stream, Lake or Tide Guage                 |             | Primary Indica | tors:                          |   |
|                  | Aerial Photographs                         |             | Inundated      |                                |   |
|                  | Other No Recorded Data Available           |             | Water Marl     | n Upper 12 Inches              |   |
| -                | _ No Recorded Data Available               |             | Drift Lines    | <b>N</b> 5                     |   |
| ∥ F              | ield Observations                          | l           | Sediment I     | Deposits                       |   |
|                  | Depth of Surface Water                     | (in,)       |                | atterns in Wetland             | is                                      |
|                  | Depth to Free Water in pit:                | (in,)       | Secondary Ind  | licators (2 or more            | required)                               |
|                  | Depth to Saturated Soil                    | (in,)       | <b>—</b>       | oot Channels in U              | pper 12"                                |
|                  |  |             | <del></del>    | ned Leaves                     |   |
|                  |  |             |                | Survey Data                    |   |
|                  |  | İ           | FAC-Neutr      | ai i est<br>Iain in Remarks Se | notion)                                 |
|                  |  |             | Other (exp     |                                | ======================================= |
| Rem              | arks:                                      |             |                |                                |   |
|                  |  |             |                |                                |   |
| this is          | s an upland point lacking evidence of h    | ydrology    |                |                                |   |
|                  |  |             |                |                                |   |

| Project/Site: Exxon Route 300  | Co              | mmunity ID:   | up  | Date:                                 | 20-Apr-04       |
|--|-----------------|---|---|---------------------------------------|-----------------|
| Applicant/Owner: Exxon   |                 | ansect ID:  |   | County:                               | Orange          |
| Investigator Mullin  | Plo             | ot ID: A-21   |   | State:                                | NY              |
| SOILS  |                 |   |   |                                       |                 |
| Map Unit Name:   |                 | D   | rainage Class:                                  |                                       |                 |
| (Series and Phase):  |                 |   | ield Observations:                              |                                       |                 |
| Taxonomy (Subgroup):   |                 |   | Confirm Mapped                                  | Type: 🗆 `                             | Yes 🗌 No        |
| Profile Description:   |                 |   |   |                                       |                 |
| Depth !  | Matrix Colors   |   | Mottle  |                                       | Concentrations, |
|  | (Munsell Moist) | Abunda  | nce/Contrast                                    | Stru                                  | cture, etc.     |
| 0-5  | 10 YR 3/2       |   |   |                                       | loam            |
| 5-8  | 7.5 YR 4/3      |   |   | · · · · · · · · · · · · · · · · · · · | loam            |
| 8 + Auger  | Refusal         |   |   |                                       | rock            |
|  |                 |   |   |                                       |                 |
|  |                 |   |   |                                       |                 |
|  |                 |   |   |                                       |                 |
|  | -               |   |   |                                       |                 |
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|  |                 |   | 74  |                                       |                 |
|  |                 |   |   | <del></del>                           |                 |
|  |                 |   |   |                                       |                 |
| Hydric Soils Indicators:  Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Reducing Conditions Gleyed or Low-Chroma Co Remarks:  Soils at this point are in the upland |                 | Concretions High Organic Col Organic Streakin Listed on Local H Listed on Nationa Other (Explain in | g in Sandy S<br>lydric Soils L<br>al Hydric Soi | ist<br>Is List                        |                 |
| WETLAND DETERMINATION  |                 |   |   |                                       |                 |
| Hydrophytic Vegetation Present?  | ☐ Yes           | ☑ No  |   |                                       |                 |
| Wetland Hydrology Present?   | ☐ Yes           |   | s this Sampling Poil Wetland?                   | nt within                             | ☐ Yes ☑ No      |
| Hydric Soils Present?  | ☐ Yes           | ☑ No ☐  | Trodana.  |                                       |                 |
| Remarks:   |                 | •   |   |                                       |                 |

| Project/Site: Exxon Route 300                 | Community         | ID: wet       | Date:                                  | 20-Apr-04 |
|---|-------------------|---------------|--|-----------|
| Applicant/Owner: Exxon                        | Transect ID:      |               | County:                                | Orange    |
| Investigator Mullin                           | Plot ID:          | <b>4-21</b>   | State:                                 | NY        |
| A. Do normal circumstances exist on t         | his site?         |               | ☑ Yes                                  | ☐ No      |
| B. Is this site significantly disturbed (At   | voical Situation) |               | ☐ Yes                                  | _<br>☑ No |
| C. Is the area a potential Problem Area       | • ·               |               | ☐ Yes                                  | ☑ No      |
| (If needed, explain on reverse)               |                   |               |  |           |
| VEGETATION                                    |                   |               |  |           |
| DOMINANT PLANT SPECIES:                       |                   |               | STRATUM                                | INDICATOR |
| 1. Lindera b                                  | enzoin            |               | Shrub                                  | FACW-     |
| 2. Ulmus am                                   | ericana           |               | Tree                                   | FACW-     |
| 3. Lonicera t                                 | atarica           |               | Shrub                                  | FACU      |
| 4. Symplocarpu                                | is foetidus       |               | Herb                                   | OBL       |
| 5.  |                   |               |  |           |
| 6.  |                   |               |  |           |
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| 14.   |                   |               |  |           |
| 15.   |                   |               |  |           |
| 16.   | ODL FACIN OF      | TAO (avaludin |  | 75%       |
| Percent of Dominant Species that are Remarks: | BUBL, FACTY OF    | FAC (excludii | ig FAC - j:                            | 7570      |
| Remarks:                                      |                   |               |  |           |
|   |                   |               |  |           |
|   |                   |               |  |           |
|   |                   |               |  |           |
| HYDROLOGY                                     |                   |               |  |           |
| Recorded Data (Describe in Rer                | marks Section)    | Wetland Hydro | ology Indicators:                      |           |
| Stream, Lake or Tide Guage                    | , i               | Primary Ind   | icators:                               |           |
| Aerial Photographs                            |                   | Inundate      |  |           |
| Other   |                   |               | ed in Upper 12 Inches                  | 3         |
| No Recorded Data Available                    |                   | Water M       |  |           |
| 5:31 QL                                       |                   | X Drift Line  |  |           |
| Field Observations                            | (:)               |               | nt Deposits                            | .1.       |
| Depth of Surface Water                        | (in,)             |               | e Patterns in Wetland                  |           |
| Depth to Free Water in pit:                   | surface (in,)     |               | Indicators (2 or more                  |           |
| Depth to Saturated Soil                       | surface (in,)     |               | d Root Channels in U<br>Stained Leaves | ipper 12  |
|   |                   |               | oil Survey Data                        |           |
|   |                   |               | eutral Test                            |           |
|   |                   |               | explain in Remarks S                   | ection)   |
| Remarks:                                      | l                 |               |  |           |
| кетагка:                                      |                   |               |  |           |
|   |                   |               |  |           |
|   |                   |               |  |           |
|   |                   |               |  |           |

| Project/Site: Exxon Route 300  | Cc                            | mmunit   | y ID:  | wet  | _Date:            | 20-Apr-04       |
|--|-------------------------------|----------|--|--|-------------------|-----------------|
| Applicant/Owner: Exxon   |                               | ansect I |  |  | County:           | Orange          |
| Investigator Mullin  | Plo                           | ot ID:   | A-21   |  | State:            | NY              |
| SOILS Map Unit Name:   |                               |          | Dr   | ainage Class:                              |                   |                 |
| (Series and Phase):  |                               |          | •  | eld Observations:                          |                   |                 |
| Taxonomy (Subgroup):   |                               |          |  | Confirm Mapped                             | Туре:             | Yes ☐ No        |
| Profile Description:   |                               |          |  |  |                   |                 |
| 1  | Matrix Colors                 | ٨ь       |  | lottle                                     |                   | Concentrations, |
| (inches) Horizon   | (Munsell Moist)<br>7.5 YR 3/2 | A0       | undar  | ice/Contrast                               | Str               | ucture, etc.    |
| 4-10   | 10 YR 2/2                     |          | 10%  | 10YR 4/3                                   |                   | loam            |
| 10 + Auger   | Refusal                       |          | 1070   | 1011(4/0                                   |                   | rock            |
|  | rtoladar                      |          |  |  |                   |                 |
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|  | <del></del>                   |          |  |  |                   |                 |
| Hydric Soils Indicators: HistosolHistic EpipedonSulfidic OdorAquic Moisture RegimeReducing ConditionsX Gleyed or Low-Chroma Colors  Remarks: |                               |          | Concretions High Organic Co Organic Streakin Listed on Local H Listed on Nationa Other (Explain in | g in Sandy<br>Hydric Soils<br>al Hydric So | List<br>oils List |                 |
| WETLAND DETERMINATION  |                               |          | ī  |  |                   |                 |
| Hydrophytic Vegetation Present?  | ✓ Yes                         | ☐ No     | -  | this Committee Del                         | mė sasiėlai:m     |                 |
| Wetland Hydrology Present?   | ✓ Yes                         | ☐ No     |  | this Sampling Poi Wetland?                 | iit within        | ☑ Yes ☐ No      |
| Hydric Soils Present?  | ✓ Yes                         | ☐ No     |  |  |                   |                 |
| Remarks:   |                               |          |  |  |                   | ·               |

| Project/Site: Exxon Route 300  | Community         | D: up                   | Date:               | 20-Apr-04 |
|--|-------------------|-------------------------|---------------------|-----------|
| Applicant/Owner: Exxon   | Transect ID:      |                         | County:             | Orange    |
| Investigator Mullin  | Plot ID: B        | -45                     | State:              | NY        |
| A. Do normal circumstances exist on thi  | s site?           |                         | ✓ Yes               | ☐ No      |
| B. Is this site significantly disturbed (Atyr  | ningl Olivertian) |                         | □ Vaa               | ✓ No      |
| C. Is the area a potential Problem Area?   | >                 |                         | ☐ Yes               | ✓ No      |
| (If needed, explain on reverse)  | ••••••            |                         | •••                 |           |
| VEGETATION   |                   |                         |                     |           |
| DOMINANT PLANT SPECIES:  |                   |                         | STRATUM             | INDICATOR |
| 1. Quercus sp 2. Parthenocissis q 3. Lonicera ta   |                   |                         | Vina                | FACIL     |
| 2. Parthenocissis quality and the second sec |                   |                         | Vine<br>Shrub       | FACU FACU |
| 4. Conicera ta   |                   |                         | Vine                | FAC       |
| 5. Lindera bei   | ·                 |                         | Shrub               | FACW-     |
| 5. Lindera bei<br>6. Alliaria pel  |                   |                         | Herb                | FACU-     |
| 7.   |                   |                         |                     |           |
| 8.<br>9.   |                   |                         |                     |           |
|  |                   |                         |                     |           |
| 10.  |                   |                         |                     |           |
| 11.  |                   |                         |                     |           |
| 12.  |                   |                         |                     |           |
| 13.  |                   |                         | -                   |           |
| 14.<br>15.   |                   |                         |                     |           |
| 16.  |                   |                         |                     |           |
| Percent of Dominant Species that are   | OBL FACW or F     | AC (excluding           | FAC - ):            | 40%       |
| Remarks:   | 002, 1 7,011 01 1 | rio (oxoluullig         |                     |           |
|  |                   |                         |                     |           |
|  |                   |                         |                     |           |
|  |                   |                         |                     |           |
| HYDROLOGY  |                   |                         |                     |           |
| Recorded Data (Describe in Rem   | arks Section)     | Vetland Hydrolo         | gy Indicators:      |           |
| Stream, Lake or Tide Guage   | <i>'</i>          | Primary Indica          |                     |           |
| Aerial Photographs   |                   | Inundated               |                     |           |
| Other  | 1                 |                         | in Upper 12 Inches  | 3         |
| No Recorded Data Available   | ļ                 | Water Mar               |                     |           |
| Field Observations   |                   | Drift Lines<br>Sediment |                     |           |
| Depth of Surface Water   | (in,)             |                         | Patterns in Wetland | de        |
| Depth to Free Water in pit:  | (in,)             |                         | dicators (2 or more |           |
| Depth to Saturated Soil  | (in,)             |                         | Root Channels in U  |           |
|  |                   |                         | ined Leaves         | • •       |
|  |                   | Local Soil              | Survey Data         |           |
|  |                   | FAC-Neut                |                     |           |
|  |                   | Other (exp              | olain in Remarks S  | ection)   |
| Remarks:   |                   |                         |                     |           |
|  |                   |                         |                     |           |
| this is an upland point lacking evidence   | of hydrology      |                         |                     |           |
|  |                   |                         |                     |           |

| Project/Site: Exxon Route 300  | Con                              | nmunity ID:     | up   | Date:   | 20-Apr-04                               |
|--|----------------------------------|-----------------|--|---|---|
| Applicant/Owner: Exxon   | Trai                             | nsect ID:       |  | County:   | Orange                                  |
| Investigator Mullin  | Plot                             | ID: <u>B-45</u> |  | _State:   | NY                                      |
| SOILS  |                                  |                 |  |   |   |
| Map Unit Name:   |                                  |                 | rainage Class:   |   |   |
| (Series and Phase):  |                                  | Fi              | eld Observations:  |   |   |
| Taxonomy (Subgroup):   |                                  |                 | Confirm Mapped   | Type: 🗌 Y   | es 🗌 No                                 |
| Profile Description:   |                                  |                 | 8a44a  | T-1411 0  |   |
| Depth<br>(inches) Horizon  | Matrix Colors<br>(Munsell Moist) |                 | Nottle<br>nce/Contrast   |   | oncentrations,<br>ture, etc.            |
| 0-3  | 10 YR 3/2                        | Abanda          | 100/00/11/1250   |   | oam                                     |
| 3-16   | 10 YR 4/3                        |                 |  |   | ny Ioam                                 |
|  |                                  |                 | <del></del>  |   | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
|  |                                  |                 |  |   |   |
|  |                                  |                 |  |   |   |
|  |                                  |                 |  |   |   |
|  |                                  |                 |  |   |   |
|  |                                  |                 |  |   |   |
|  | <del></del>                      |                 |  |   |   |
|  | <u>_</u>                         |                 |  |   |   |
|  |                                  |                 |  |   |   |
| Hydric Soils Indicators:  Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Reducing Conditions Gleyed or Low-Chroma Colors  Remarks:  Soils at this point are in the upland category |                                  |                 | Concretions High Organic Cor Organic Streaking Listed on Local H Listed on Nationa Other (Explain in | g in Sandy So<br>lydric Soils Li<br>al Hydric Soils | ist<br>s List                           |
|  |                                  |                 |  |   |   |
| WETLAND DETERMINATION  |                                  |                 |  |   |   |
| Hydrophytic Vegetation Present   | ? ☐ Yes                          | ☑ No            |  |   |   |
| Wetland Hydrology Present?   | ☐ Yes                            |                 | this Sampling Poir Wetland?  | nt within   | ☐ Yes   ☑ No                            |
| Hydric Soils Present?  | ☐ Yes                            | ☑ No            |  |   |   |
| Remarks:   |                                  |                 |  |   |   |
|  |                                  |                 |  |   |   |

| Project/Si | te: Exxon Route 300             | Community                               | ID: wet                                 | Date:                              | 20-Apr-04                             |
|------------|---------------------------------|---|---|------------------------------------|---------------------------------------|
| Applicant  | /Owner: Exxon                   | Transect ID                             | ):                                      | County:                            | Orange                                |
| Investigat | or Mullin                       | Plot ID:                                | B-45                                    | State:                             | NY                                    |
| A. Do no   | ormal circumstances exist on    | this site?                              |   | ✓ Yes                              | ☐ No                                  |
|            | site significantly disturbed (A |   |   |                                    | ✓ No                                  |
| C. is the  | area a potential Problem Are    | a?                                      | *************************************** | <br>☐ Yes                          | ✓ No                                  |
| (If ne     | eded, explain on reverse)       | ••••••••••••••••••••••••••••••••••••••• | ••••••                                  |                                    |                                       |
| VEGETA     | TION                            |   |   |                                    |                                       |
|            | NT PLANT SPECIES:               |   |   | STRATUM                            | INDICATOR                             |
| 1.         | Lindera b                       | enzoin                                  |   | Shrub                              | FACW-                                 |
| 2.         | Ulmus am                        | ericana                                 |   | Tree                               | FACW-                                 |
| 3.         | Rosa mu                         | ıltiflora                               |   | Shrub                              | FACU                                  |
| 4.         | Symplocarpu                     | us foetidus                             |   | Herb                               | OBL                                   |
| 5.         | Onoclea s                       | ensibilis                               |   | Herb                               | FACW                                  |
| 6.         |                                 |   |   |                                    |                                       |
| 7.         |                                 |   |   |                                    |                                       |
| 8.         |                                 |   |   |                                    |                                       |
| 9.         |                                 |   |   |                                    |                                       |
| 10.        |                                 |   |   |                                    |                                       |
| 11.        |                                 |   |   |                                    |                                       |
| 12.        |                                 |   |   |                                    |                                       |
| 13.        |                                 |   |   |                                    |                                       |
| 14.        |                                 |   |   |                                    |                                       |
| 15.        |                                 |   |   |                                    |                                       |
| 16         |                                 |   |   |                                    |                                       |
|            | of Dominant Species that ar     | e OBL, FACW or                          | FAC (excluding                          | g FAC - ):                         | 75%                                   |
| Remarks    | :                               |   |   |                                    |                                       |
|            |                                 |   |   |                                    |                                       |
|            |                                 |   |   |                                    |                                       |
|            |                                 |   |   |                                    |                                       |
| HYDROL     | OCY                             | <del></del>                             |   |                                    |                                       |
|            | ecorded Data (Describe in Re    | marke Section)                          | Wetland Hydrol                          | logy Indicators:                   | i i i i i i i i i i i i i i i i i i i |
| ] —'``     | Stream, Lake or Tide Guage      | , 1                                     | Primary Indi                            |                                    |                                       |
| · –        | Aerial Photographs              |   | X Inundate                              |                                    |                                       |
| _          | Other                           |   |   | d in Upper 12 Inches               | 6                                     |
| No         | Recorded Data Available         |   | Water Ma                                | arks                               |                                       |
|            |                                 |   | X Drift Line                            | s                                  |                                       |
| 11         | Observations                    |   |   | t Deposits                         |                                       |
|            | epth of Surface Water           | 1 (in,)                                 |   | Patterns in Wetlan                 |                                       |
|            | epth to Free Water in pit:      | surface (in,)                           |   | ndicators (2 or more               |                                       |
| 0          | epth to Saturated Soil          | surface (in,)                           |   | Root Channels in U<br>ained Leaves | pper 12"                              |
|            |                                 |   |   | il Survey Data                     |                                       |
|            |                                 |   | FAC-Neu                                 | -                                  |                                       |
|            |                                 |   | _                                       | kplain in Remarks S                | ection)                               |
| Bome de    |                                 |   |   |                                    |                                       |
| Remarks    | :                               |   |   |                                    |                                       |
|            |                                 |   |   |                                    |                                       |
|            |                                 |   |   |                                    |                                       |
| l          |                                 |   |   |                                    |                                       |

| Project/Site: Ex   | xxon Route 300    | Cc                                    | ommun  | ity ID:     | wet  | Date:   | 20-Apr-04                   |
|--|-------------------|---------------------------------------|--------|-------------|--|---|-----------------------------|
| Applicant/Owne   |                   |                                       | ansect |             |  | County:   | Orange                      |
| Investigator M   | ullin             | Plo                                   | ot ID: | B-45        |  | State:  | NY                          |
| SOILS<br>Map Unit Name   | :                 |                                       |        | D           | ainage Class:  |   |                             |
| (Series and Pha  |                   |                                       |        |             | eld Observations   | s;  |                             |
| Taxonomy (Sub  | ogroup):          |                                       |        | _           | Confirm Mappe  | ed Type:  | Yes 🗌 No                    |
| Profile Descript   | ion:              |                                       |        |             |  |   |                             |
| Depth<br>(inches)  | Horizon           | Matrix Colors<br>(Munsell Moist)      | Δ      |             | lottle<br>ice/Contrast   |   | Concentrations, cture, etc. |
| 0-3  | 110112011         | 10 YR 2/1                             |        | Daridar     | ioc/ oorkrast  |   | icky loam                   |
| 3-19   |                   | 10 YR 4/1                             |        | 10%         | 10YR 4/3   |   | lay loam                    |
|  |                   |                                       | _      |             |  |   |                             |
|  |                   |                                       | _      |             |  |   |                             |
|  |                   |                                       |        |             |  |   |                             |
|  |                   |                                       |        | <del></del> | ······   |   |                             |
|  |                   | · · · · · · · · · · · · · · · · · · · |        |             |  |   |                             |
|  |                   |                                       | - —    |             |  |   |                             |
|  |                   |                                       |        |             |  |   |                             |
|  | -                 |                                       |        |             |  |   |                             |
| Hydric Soils Indicators:  Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Reducing Conditions X Gleyed or Low-Chroma Colors  Remarks: |                   |                                       |        |             | Concretions High Organic C Organic Streak Listed on Local Listed on Natio Other (Explain | ing in Sandy :<br>Hydric Soils<br>nal Hydric So | List<br>ils List            |
| WETLAND DE   | TERMINATION       |                                       |        |             |  |   |                             |
| Hydrophytic Ve   | getation Present? | ✓ Yes                                 | □Ńo    |             |  |   |                             |
| Wetland Hydrol   | logy Present?     | ✓ Yes                                 | ☐ No   |             | this Sampling P<br>Wetland?  | oint within                                     | ☑ Yes ☐ No                  |
| Hydric Soils Pre   | esent?            | ✓ Yes                                 | □ No   |             | vveuand?   |   |                             |
| Remarks:   |                   |                                       |        |             |  |   |                             |
|  |                   |                                       |        |             |  |   |                             |
|  |                   |                                       |        |             |  |   |                             |

| Proj            | ect/Site: Exxon Route 300                                       | Community     | ID: up                                  | Date:                            | 20-Apr-04                                      |
|-----------------|---|---------------|---|----------------------------------|--|
|                 | licant/Owner: Exxon   | Transect ID   | :                                       | County:                          | Orange   |
| Inve            | estigator Mullin  | Plot ID:      | C-1                                     | State:                           | NY   |
| A.              | Do normal circumstances exist on this s                         | ite?          |   | ✓ Yes                            | ☐ No   |
|                 | Is this site significantly disturbed (Atypica                   | al Situation) |   | Yes                              | ☑ No   |
|                 | Is the area a potential Problem Area?                           | ,             | *************************************** | □ Yes                            | ☑ No   |
| <b>U</b> .      | (If needed, explain on reverse)                                 | ••••••        |   |                                  |  |
|                 | SETATION  |               |   |                                  |  |
|                 | MINANT PLANT SPECIES:   |               |   | STRATUM                          | INDICATOR                                      |
| 1.              | Ostrya virginia   | nna           |   | Tree                             | FACU-  |
| 2.              | Alliaria petioli  |               |   | Herb                             | FACU-  |
| 3.              | Lonicera tatan  |               |   | Shrub                            | FACU   |
| 4.              | Rosa multiflo   |               |   | Shrub                            | FACU   |
| 5.              | Lindera benzo   |               |   | Shrub                            | FACW-  |
| 6.              | Toxicodendron rad   |               |   | Vine                             | FAC  |
| 7.              |   |               |   |                                  |  |
| 8.              |   |               |   |                                  |  |
| 8.<br>9.<br>10. |   |               |   |                                  |  |
| 10.             |   |               |   |                                  |  |
| 11.             |   |               |   |                                  |  |
| 12.             |   |               | ,                                       |                                  |  |
| 13.             |   |               |   |                                  |  |
| 14.             |   |               |   |                                  |  |
| 15.             |   |               |   |                                  |  |
| 16.             |   |               |   |                                  |  |
| Per             | cent of Dominant Species that are OE                            | BL, FACW or   | FAC (excludin                           | g FAC - ):                       | 33%  |
| Rer             | marks:  |               |   |                                  |  |
| H               |   |               |   |                                  |  |
|                 |   |               |   |                                  |  |
|                 |   |               |   |                                  |  |
| <u></u>         |   |               |   |                                  |  |
| HY              | DROLOGY   | Oti\ I        | Mada and Mada                           | la au . In dia ataun.            |  |
|                 | Recorded Data (Describe in Remark<br>Stream, Lake or Tide Guage | (S Section)   | vvetiand Hydro<br>Primary Indi          | logy Indicators:                 |  |
| 1               | Stream, Lake of Tide Guage<br>Aerial Photographs                |               | Inundate                                |                                  |  |
|                 | Other   |               |   | d in Upper 12 Inches             | <u>,                                      </u> |
|                 | No Recorded Data Available                                      |               | Water M                                 |                                  |  |
|                 |   |               | Drift Line                              | es                               |  |
|                 | Field Observations  |               |   | nt Deposits                      |  |
|                 | Depth of Surface Water  | (in,)         |   | e Patterns in Wetland            |  |
|                 | Depth to Free Water in pit:                                     | (in,)         |   | Indicators (2 or more            |  |
|                 | Depth to Saturated Soil   | (in,)         |   | Root Channels in U               | pper 12"                                       |
| 1               |   |               | _                                       | tained Leaves<br>oil Survey Data |  |
| 1               |   |               |   | utral Test                       |  |
|                 |   |               | _                                       | xplain in Remarks S              | ection)  |
| _               |   |               |   |                                  |  |
| Kei             | marks:  |               |   |                                  |  |
| L.:-            | is an unland point leaking avidance of h                        | oudrolo =: ·  |   |                                  |  |
| unis            | is an upland point lacking evidence of h                        | iyarology     |   |                                  |  |
| 11              |   |               |   |                                  |  |

| Project/Site: Exxon Route 300  | )             | Community   | y ID: up                      | Date:  | 20-Apr-                 | 04     |
|--|---------------|-------------|-------------------------------|--|-------------------------|--------|
| Applicant/Owner: Exxon   |               | Transect II |                               | County   |                         | ige    |
| Investigator Mullin  |               | Plot ID:    | C-1                           | State:   | NY                      |        |
| SOILS Map Unit Name:   |               |             | Drainage Cla                  | cc:  |                         |        |
| (Series and Phase):  |               |             | Field Observa                 |  |                         |        |
| Taxonomy (Subgroup):   |               |             |                               |  | ☐ Yes [                 | □ No   |
| Profile Description:   |               |             | <u> </u>                      |  |                         |        |
| Depth  | Matrix Colo   |             | Mottle                        |  | re, Concentra           | tions, |
| (inches) Horizon   | (Munsell Mois |             | undance/Contras               | <u>st                                    </u>  | Structure, etc.         |        |
| 0-2  | 10 YR 3/2     |             |                               |  | loam                    |        |
| 2-17   | 10 YR 3/3     |             |                               |  | sandy loam              |        |
|  |               |             | <del></del>                   |  |                         |        |
|  |               |             |                               |  |                         |        |
|  |               |             |                               |  |                         |        |
|  |               |             |                               |  |                         |        |
|  |               |             |                               |  |                         |        |
|  |               |             |                               |  |                         |        |
|  |               |             |                               | -  |                         |        |
|  |               |             |                               |  |                         |        |
| Hydric Soils Indicators:  Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Reducing Conditions Gleyed or Low-Chroma Colors  Remarks: |               |             | Organic S Listed on Listed on | ns<br>anic Content<br>streaking in Sand<br>Local Hydric So<br>National Hydric<br>plain in Remark | oils List<br>Soils List |        |
| Soils at this point are in the up  | land category |             |                               |  |                         |        |
| WETLAND DETERMINATION  |               |             |                               |  |                         |        |
| Hydrophytic Vegetation Preser  |               | ☑ No        |                               |  |                         |        |
| Wetland Hydrology Present?   | ☐ Yes         | ☑ No        | Is this Sampli<br>a Wetland?  | ing Point within   | ☐ Yes                   | ☑ No   |
| Hydric Soils Present?  | ☐ Yes         | ☑ No        | a vvetiand?                   |  |                         |        |
| Remarks:   |               |             |                               |  |                         |        |
|  |               |             |                               |  |                         |        |
|  |               |             |                               |  |                         |        |

| Project/Site: Exxon Route 300                 | Community       | ID: wet                                 | Date:               | 20-Apr-04 |
|---|-----------------|---|---------------------|-----------|
| Applicant/Owner: Exxon                        | Transect ID:    |   | County:             | Orange    |
| Investigator Mullin                           | Plot ID: C      | ;-1                                     | State:              | NY        |
| A. Do normal circumstances exist on this      | site?           |   | ☑ Yes               | □ No      |
| B. Is this site significantly disturbed (Atyp | ical Situation) |   | <br>Yes             | ☑ No      |
| C. Is the area a potential Problem Area?      | •               | *************************************** | <br>☐ Yes           | ☑ No      |
| (If needed, explain on reverse)               | ••••••••••      | ••••••••                                |                     |           |
| VEGETATION                                    |                 |   |                     |           |
| DOMINANT PLANT SPECIES:                       |                 |   | STRATUM             | INDICATOR |
| 1. Lindera ben.                               | zoin            |   | Shrub               | FACW-     |
| 2. Ulmus ameri                                | cana            |   | Tree                | FACW-     |
| 3. Rhus spec                                  | ies             |   | Herb                |           |
| 4. Symplocarpus f                             | oetidus         |   | Herb                | OBL       |
| 5. Onoclea sens                               | sibilis         |   | Herb                | FACW      |
| 6.  |                 |   |                     |           |
| 7.  |                 |   |                     |           |
| 8.  |                 |   |                     |           |
| 9.  |                 | ·                                       |                     |           |
| 10  |                 | ·····                                   |                     |           |
| 11  |                 |   |                     |           |
| 12.   |                 |   |                     |           |
| 13.   |                 |   |                     |           |
| 14.   |                 |   |                     |           |
| 15.   |                 |   |                     |           |
| 16.   | DI 540W - 1     |   |                     | 100%      |
| Percent of Dominant Species that are C        | BL, FACW of I   | -AC (excluding                          | FAC - ):            | 100%      |
| Remarks:                                      |                 |   |                     |           |
|   |                 |   |                     |           |
|   |                 |   |                     |           |
|   |                 |   |                     |           |
| HYDROLOGY                                     |                 |   |                     |           |
| Recorded Data (Describe in Rema               | rks Section) V  | Vetland Hydrolo                         | gy Indicators:      |           |
| Stream, Lake or Tide Guage                    | 1               | Primary Indica                          | ators:              |           |
| Aerial Photographs                            | į               | Inundated                               |                     |           |
| Other   |                 | X Saturated Water Mar                   | in Upper 12 Inches  |           |
| No Recorded Data Available                    | İ               | X Drift Lines                           | KS                  |           |
| Field Observations                            |                 | Sediment                                | Denosits            |           |
| Depth of Surface Water                        | (in,)           |   | Patterns in Wetland | ds        |
| Depth to Free Water in pit: 1                 | (in,)           |   | dicators (2 or more |           |
| Depth to Saturated Soil su                    | rface (in,)     |   | Root Channels in U  | pper 12"  |
|   |                 |   | ned Leaves          |           |
|   |                 |   | Survey Data         |           |
|   |                 | FAC-Neuti                               |                     | nation)   |
|   | <u> </u>        | Other (exp                              | lain in Remarks Se  | schon)    |
| Remarks:                                      |                 |   |                     |           |
|   |                 |   |                     |           |
|   |                 |   |                     |           |
|   |                 |   |                     |           |

| Applicant/Owner: Exxon Transect ID: County: Orange Investigator Mullin Plot ID: C-1 State: NY  SOILS  Map Unit Name: Orange Class: State: NY  Map Unit Name: Orange Class: Field Observations: Taxonomy (Subgroup): Confirm Mapped Type: Yes No  Profile Description: Orange Class: Field Observations: Taxonomy (Subgroup): Confirm Mapped Type: Yes No  Profile Description: Orange Class: Field Observations: Taxonomy (Subgroup): Confirm Mapped Type: Yes No  Profile Description: Orange Class: Field Observations: Taxonomy (Subgroup): Orange Class: Field Observations: Orange Class: Field Observations: Orange Class: Structure, etc. No  Profile Description: Orange Class: Field Observations: Orange Class: Oran | Project/Site: Exxon Route 300  | Co                                    | mmunity ID: | wet              | Date:            | 20-Apr-04                             |
|--|--------------------------------|---------------------------------------|-------------|------------------|------------------|---------------------------------------|
| Map Unit Name:   |                                |                                       |             |                  | County:          | Orange                                |
| Map Unit Name:   |                                | Plo                                   | ot ID: C-1  |                  | State:           | NY                                    |
| Series and Phase):   |                                |                                       |             |                  |                  |                                       |
| Taxonomy (Subgroup): Confirm Mapped Type:  | Map Unit Name:                 |                                       | D           | rainage Class:   |                  |                                       |
| Profile Description: Depth (nches) Horizon   | (Series and Phase):            |                                       | F           | ield Observation | s:               |                                       |
| Depth (Inches) Horizon (Munsell Moist) Abundance/Contrast Structure, etc.  O-3 2 5 Y 2.5/1 mucky loam  3-15 10 YR 3/1 15% 10YR 4/3 clay loam  Hydric Soils Indicators:  Histosol Histo Epipedon Sulfidic Odor Aquic Moisture Regime Reducing Conditions Geleved or Low-Chroma Colors  Remarks:    Concretions High Organic Content Organic Streaking in Sandy Soils Listed on National Hydric Soils List Listed on National Hydric Soils List Other (Explain in Remarks Section)    WETLAND DETERMINATION  | Taxonomy (Subgroup):           |                                       |             | Confirm Mappe    | ed Type:         | Yes 🗌 No                              |
| Horizon (Nunsell Molst)  | Profile Description:           |                                       |             |                  |                  |                                       |
| 0-3 3-15 10 YR 3/1 15% 10YR 4/3 clay loam  Hydric Soils Indicators:  Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Reducing Conditions X Gleyed or Low-Chroma Colors  Remarks:  WETLAND DETERMINATION  Hydrophytic Vegetation Present? ✓ Yes □ No Wetland Hydrology Present? ✓ Yes □ No Hydric Soils Present? ✓ Yes □ No Hydric Soils Present? ✓ Yes □ No Hydric Soils Present? ✓ Yes □ No Hydric Soils Present? ✓ Yes □ No   |                                |                                       |             |                  |                  |                                       |
| Hydric Soils Indicators:   Histosol  |                                |                                       | Abunda      | nce/Contrast     |                  |                                       |
| Hydric Soils Indicators:  Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Reducing Conditions X Gleyed or Low-Chroma Colors  Remarks:  WETLAND DETERMINATION  Hydrophytic Vegetation Present?   |                                |                                       |             |                  |                  |                                       |
| Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Reducing Conditions X Gleyed or Low-Chroma Colors  Remarks:  WETLAND DETERMINATION  Hydrophytic Vegetation Present?  Wetland Hydrology Present?  Yes No Hydric Soils Present?  Concretions High Organic Content Organic Streaking in Sandy Soils Listed on Local Hydric Soils List Listed on National Hydric Soils List Other (Explain in Remarks Section)  Is this Sampling Point within Yes No Wetland?  No Wetland?  | 3-15                           | 10 YR 3/1                             | 15%         | 10YR 4/3         |                  | lay loam                              |
| Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Reducing Conditions X Gleyed or Low-Chroma Colors  Remarks:  WETLAND DETERMINATION  Hydrophytic Vegetation Present?  Wetland Hydrology Present?  Yes No Hydric Soils Present?  Concretions High Organic Content Organic Streaking in Sandy Soils Listed on Local Hydric Soils List Listed on National Hydric Soils List Other (Explain in Remarks Section)  Is this Sampling Point within Yes No Wetland?  No Wetland?  |                                |                                       |             |                  |                  |                                       |
| Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Reducing Conditions X Gleyed or Low-Chroma Colors  Remarks:  WETLAND DETERMINATION  Hydrophytic Vegetation Present?  Wetland Hydrology Present?  Yes No Hydric Soils Present?  Concretions High Organic Content Organic Streaking in Sandy Soils Listed on Local Hydric Soils List Listed on National Hydric Soils List Other (Explain in Remarks Section)  Is this Sampling Point within Yes No Wetland?  No Wetland?  |                                |                                       |             |                  |                  |                                       |
| Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Reducing Conditions X Gleyed or Low-Chroma Colors  Remarks:  WETLAND DETERMINATION  Hydrophytic Vegetation Present?  Wetland Hydrology Present?  Yes No Hydric Soils Present?  Concretions High Organic Content Organic Streaking in Sandy Soils Listed on Local Hydric Soils List Listed on National Hydric Soils List Other (Explain in Remarks Section)  Is this Sampling Point within Yes No Wetland?  No Wetland?  |                                |                                       |             |                  |                  |                                       |
| Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Reducing Conditions X Gleyed or Low-Chroma Colors  Remarks:  WETLAND DETERMINATION  Hydrophytic Vegetation Present?  Wetland Hydrology Present?  Yes No Hydric Soils Present?  Concretions High Organic Content Organic Streaking in Sandy Soils Listed on Local Hydric Soils List Listed on National Hydric Soils List Other (Explain in Remarks Section)  Is this Sampling Point within Yes No Wetland?  No Wetland?  |                                |                                       |             |                  |                  |                                       |
| Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Reducing Conditions X Gleyed or Low-Chroma Colors  Remarks:  WETLAND DETERMINATION  Hydrophytic Vegetation Present?  Wetland Hydrology Present?  Yes No Hydric Soils Present?  Concretions High Organic Content Organic Streaking in Sandy Soils Listed on Local Hydric Soils List Listed on National Hydric Soils List Other (Explain in Remarks Section)  Is this Sampling Point within Yes No Wetland?  No Wetland?  |                                |                                       |             | ····             |                  |                                       |
| Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Reducing Conditions X Gleyed or Low-Chroma Colors  Remarks:  WETLAND DETERMINATION  Hydrophytic Vegetation Present?  Wetland Hydrology Present?  Yes No Hydric Soils Present?  Concretions High Organic Content Organic Streaking in Sandy Soils Listed on Local Hydric Soils List Listed on National Hydric Soils List Other (Explain in Remarks Section)  Is this Sampling Point within Yes No Wetland?  No Wetland?  |                                |                                       |             |                  |                  |                                       |
| Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Reducing Conditions X Gleyed or Low-Chroma Colors  Remarks:  WETLAND DETERMINATION  Hydrophytic Vegetation Present?  Wetland Hydrology Present?  Yes No Hydric Soils Present?  Concretions High Organic Content Organic Streaking in Sandy Soils Listed on Local Hydric Soils List Listed on National Hydric Soils List Other (Explain in Remarks Section)  Is this Sampling Point within Yes No Wetland?  No Wetland?  |                                |                                       |             |                  |                  | · · · · · · · · · · · · · · · · · · · |
| Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Reducing Conditions X Gleyed or Low-Chroma Colors  Remarks:  WETLAND DETERMINATION  Hydrophytic Vegetation Present?  Wetland Hydrology Present?  Yes No Hydric Soils Present?  Concretions High Organic Content Organic Streaking in Sandy Soils Listed on Local Hydric Soils List Listed on National Hydric Soils List Other (Explain in Remarks Section)  Is this Sampling Point within Yes No Wetland?  No Wetland?  | ·                              | · · · · · · · · · · · · · · · · · · · |             |                  | •                |                                       |
| Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Reducing Conditions X Gleyed or Low-Chroma Colors  Remarks:  WETLAND DETERMINATION  Hydrophytic Vegetation Present?  Wetland Hydrology Present?  Yes No Hydric Soils Present?  Concretions High Organic Content Organic Streaking in Sandy Soils Listed on Local Hydric Soils List Listed on National Hydric Soils List Other (Explain in Remarks Section)  Is this Sampling Point within Yes No Wetland?  No Wetland?  |                                |                                       |             |                  | •                |                                       |
| Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Reducing Conditions X Gleyed or Low-Chroma Colors  Remarks:  WETLAND DETERMINATION  Hydrophytic Vegetation Present?  Wetland Hydrology Present?  Yes No Hydric Soils Present?  Concretions High Organic Content Organic Streaking in Sandy Soils Listed on Local Hydric Soils List Listed on National Hydric Soils List Other (Explain in Remarks Section)  Is this Sampling Point within Yes No Wetland?  No Wetland?  | Hydric Soils Indicators:       |                                       |             |                  |                  |                                       |
| Histic Epipedon Sulfidic Odor Aquic Moisture Regime Reducing Conditions X Gleyed or Low-Chroma Colors  Remarks:  WETLAND DETERMINATION  Hydrophytic Vegetation Present?  |                                |                                       |             | Concretions      |                  |                                       |
| Sulfidic Odor Aquic Moisture Regime Reducing Conditions X Gleyed or Low-Chroma Colors  Remarks:  WETLAND DETERMINATION  Hydrophytic Vegetation Present?  | l <b>—</b>                     |                                       | _           |                  | Content          |                                       |
| Aquic Moisture Regime Reducing Conditions X Gleyed or Low-Chroma Colors  Remarks:    Listed on Local Hydric Soils List   Listed on National Hydric Soils List   Other (Explain in Remarks Section)    WETLAND DETERMINATION    Hydrophytic Vegetation Present?   |                                |                                       |             |                  |                  | Soils                                 |
| Reducing Conditions X Gleyed or Low-Chroma Colors Remarks:  WETLAND DETERMINATION  Hydrophytic Vegetation Present?   | : <del>_</del>                 |                                       | -           |                  |                  |                                       |
| X Gleyed or Low-Chroma Colors Other (Explain in Remarks Section)   Remarks: Other (Explain in Remarks Section)    WETLAND DETERMINATION  Hydrophytic Vegetation Present?   |                                |                                       | _           |                  |                  |                                       |
| WETLAND DETERMINATION  Hydrophytic Vegetation Present? ☑ Yes ☐ No Wetland Hydrology Present? ☑ Yes ☐ No a Wetland?  Hydric Soils Present? ☑ Yes ☐ No   |                                | olors                                 | _           |                  |                  |                                       |
| WETLAND DETERMINATION  Hydrophytic Vegetation Present?   |                                | 0.0.0                                 | _           |                  |                  |                                       |
| Hydrophytic Vegetation Present? ☑ Yes ☐ No Wetland Hydrology Present? ☑ Yes ☐ No Hydric Soils Present? ☑ Yes ☐ No  Wetland?  Is this Sampling Point within ☑ Yes ☐ No  | itemarks.                      |                                       |             |                  |                  |                                       |
| Hydrophytic Vegetation Present? ☑ Yes ☐ No Wetland Hydrology Present? ☑ Yes ☐ No Hydric Soils Present? ☑ Yes ☐ No  Wetland?  Is this Sampling Point within ☑ Yes ☐ No  |                                |                                       |             |                  |                  |                                       |
| Hydrophytic Vegetation Present? ☑ Yes ☐ No Wetland Hydrology Present? ☑ Yes ☐ No Hydric Soils Present? ☑ Yes ☐ No  |                                |                                       |             |                  |                  |                                       |
| Hydrophytic Vegetation Present? ☑ Yes ☐ No Wetland Hydrology Present? ☑ Yes ☐ No Hydric Soils Present? ☑ Yes ☐ No  |                                |                                       |             |                  |                  |                                       |
| Hydrophytic Vegetation Present? ☑ Yes ☐ No Wetland Hydrology Present? ☑ Yes ☐ No Hydric Soils Present? ☑ Yes ☐ No  |                                |                                       |             |                  |                  |                                       |
| Hydrophytic Vegetation Present? ☑ Yes ☐ No  Wetland Hydrology Present? ☑ Yes ☐ No Hydric Soils Present? ☑ Yes ☐ No   |                                |                                       |             |                  |                  |                                       |
| Wetland Hydrology Present? ☑ Yes ☐ No Is this Sampling Point within ☑ Yes ☐ No Hydric Soils Present? ☑ Yes ☐ No  |                                |                                       |             |                  |                  |                                       |
| Hydric Soils Present?  | Hydrophytic Vegetation Present | Yes Yes                               |             | Alaia Oassatia   | Dalma vedale ter |                                       |
|  | Wetland Hydrology Present?     | ✓ Yes                                 |             |                  | Point Within     | ✓ Yes                                 |
| Remarks:   | Hydric Soils Present?          | ✓ Yes                                 | ☐ No        |                  |                  |                                       |
|  | Remarks:                       |                                       |             |                  |                  |                                       |
|  |                                |                                       |             |                  |                  |                                       |
|  |                                |                                       |             |                  |                  |                                       |
|  |                                |                                       |             |                  |                  |                                       |
|  |                                |                                       |             |                  |                  |                                       |
|  |                                |                                       |             |                  |                  |                                       |

Appendix B: Photographs of Site



Photo #1
Description: View facing north of wetland A near flag A-25.



Photo #2
Description: View facing east of upland area adjacent to Wetland A.

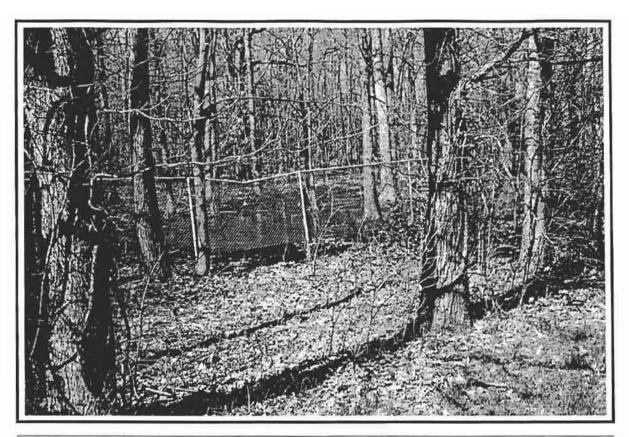


Photo #3
Description: View northeast of Wetland B from the northern side of the I-84 exit ramp.

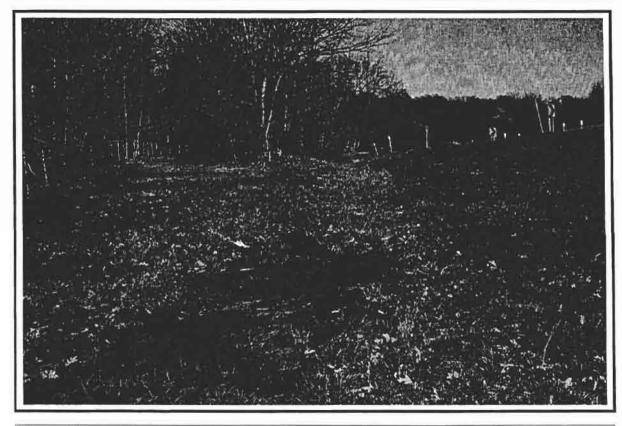


Photo #4
Description: View of wetland area along the I 84 exit ramp.

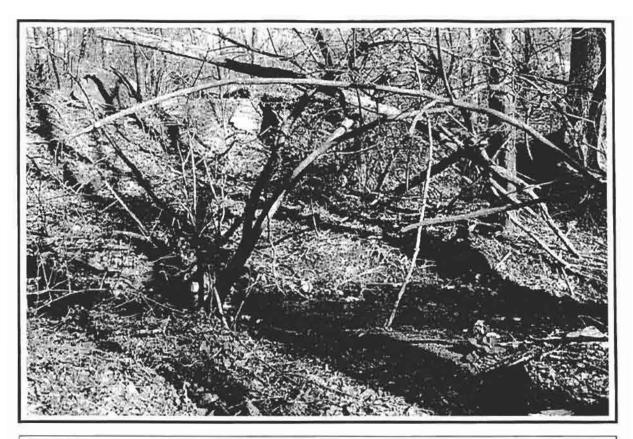


Photo #5
Description: View of typical portion of Wetland A.



Photo #6
Description: View of typical upland area on site.

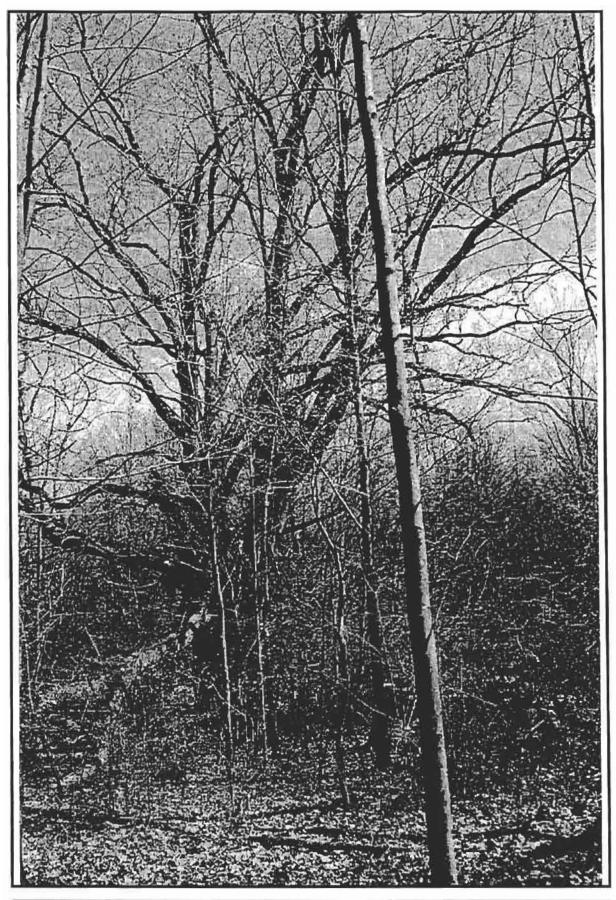


Photo #7

Description: View of upland area in the southern portion of the site adjacent to open sandy area.



Photo #8
Description: View of pathway and typical upland area used by campers and hunters.

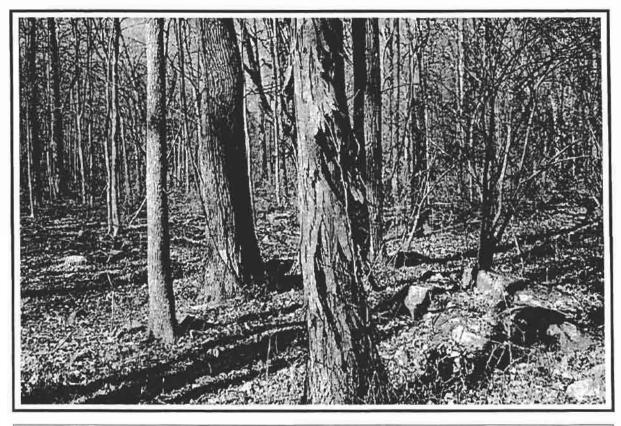


Photo #9
Description: View of upland wetland transition area. Wetlands are on the right and upland to the left.

Appendix C: Wetland Survey Map



#### DEPARTMENT OF THE ARMY

NEW YORK DISTRICT, CORPS OF ENGINEERS JACOB K. JAVITS FEDERAL BUILDING NEW YORK, N.Y. 10278-0090

NOV 3 0 2005

REPLY TO ATTENTION OF: Regulatory Branch

SUBJECT: Permit Application Number 2004-00814-YS

by Wilder Balter Partners

David B. Tompkins Chazen Engineering & Land Surveying Co., P.C. 356 Meadow Avenue Newburgh, New York 12550

Dear Mr. Tompkins:

On July 8, 2004, the New York District Corps of Engineers received a request for a Department of the Army jurisdictional determination for the above referenced project. This request was made by The Chazen Companies, as consultant for Wilder Balter Partners. The area within the project boundary consists of approximately 137.5 acres, in the Hudson River watershed, located on Union Avenue in the Town of Newburgh, Orange County, New York. The proposed project would involve the construction of a retail shopping center.

In the letter received on July 8, 2004, your office submitted a proposed delineation of the extent of waters of the United States within the project boundary. Site inspections were conducted by representatives of this office on September 2, 2004, September 23, 2004 and May 11, 2005, in which it was agreed that changes would be made to the delineation and that the modified delineation would be submitted to this office. On October 17, 2005, this office received the modified delineation.

Based on the material submitted and the observations of the representatives of this office during the site visits, this site has been determined to contain jurisdictional waters of the United States based on: the presence of wetlands determined by the occurrence of hydrophytic vegetation, hydric soils and wetland hydrology according to criteria established in the 1987 "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1 that are either adjacent to or part of a tributary system; the presence of a defined water body (e.g. stream channel, lake, pond, river, etc.) which is part of a tributary system; and the fact that the location includes property below the ordinary high water mark, high tide line or mean high water mark of a water body as determined by known gage data or by the presence of physical markings including, but not limited to, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter or debris or other characteristics of the surrounding area.

These jurisdictional waters of the United States are shown on the drawings entitled "Crossroads at Newburgh Wetland Survey Map Prepared For Wilder Balter Partners, Inc. Town of Newburgh, Orange County, New York", Sheet Nos. W-1 and W-2, prepared by The Chazen Companies, dated August 9, 2005, and last revised October 12, 2005. These drawings indicate that there are four (4) principal wetland areas on the project site which are part of a tributary system, and are considered to be waters of the United States.

The first wetland (Wetland "A" and Wetland "A-1") is located on the western and northwestern portions of the property and is approximately 9.70 acres within the project boundary. The second and third wetlands (Wetland "A2" and Wetland "A3", respectively) are located just west of the first wetland and are a total of approximately 0.054 acres within the project boundary. The fourth wetland (Wetland "D" and Wetland "E") includes a portion of Quassaic Creek, is located on the eastern portion of the property and is approximately 1.53 acres within the project boundary.

The first, second and third wetlands, as described above are considered to be above the headwaters. The fourth wetland, as described above, is considered to be below the headwaters.

It should be noted that, in light of the recent U.S. Supreme Court decision (Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers, No. 99-1178, January 9, 2001), the remainder of the wetlands shown on the above referenced drawings (Wetland "B" and Wetland "C") do not meet the current criteria of waters of the United States under Section 404 of the Clean Water Act. The Court ruled that isolated, intrastate waters can no longer be considered waters of the United States, based solely upon their use by migratory birds.

This determination regarding the delineation shall be considered valid for a period of five years from the date of this letter unless new information warrants revision of the determination before the expiration date. Enclosed is a Notification of Administrative Appeal Options which provides information on your acceptance of this approved jurisdictional determination.

This delineation/determination has been conducted to identify the limits of the Corps Clean Water Act jurisdiction for the particular site identified in this request. This delineation/determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service prior to starting work.

It is strongly recommended that the development of the site be carried out in such a manner as to avoid as much as possible the discharge of dredged or fill material into the delineated waters of the United States. If the activities proposed for the site involve such discharges, authorization from this office may be necessary prior to the initiation of the proposed work. The extent of such discharge of fill will determine the level of authorization that would be required.

If any questions should arise concerning this matter, please contact Brian A. Orzel, of my staff, at (917) 790-8413.

Sincerely

George Meves

Chief, Western Permits Section

Enclosures

cf: NYSDEC - Region 3 Town of Newburgh

#### NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL Applicant: Wilder Balter Partners File Number: 2004-00814 Date: November 30, 2005 Attached is: See Section Below INITIAL PROFFERED PERMIT (Standard Permit or Letter of Permission) PROFFERED PERMIT (Standard Permit or Letter of Permission) В PERMIT DENIAL С X APPROVED JURISDICTIONAL DETERMINATION D PRELIMINARY JURISDICTIONAL DETERMINATION

SECTION T. The following indentifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found as http://usacu.amiy.mil/inst/functions/cw/cecwo/reg or Corps regulations at 32 CFR Part 33.

- A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.
- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the New York District
  Engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is
  authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety,
  and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations (JD)
  associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the New York District Engineer. Your objections must be received by the New York District Engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the New York District Engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the New York District Engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.
- B: PROFFERED PERMIT: You may accept or appeal the permit.
- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the New York District
  Engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is
  authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety,
  and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations
  associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you
  may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this
  form and sending the form to the North Atlantic Division Engineer, ATTN: CENAD-ET-O, Fort Hamilton Military Community,
  Building 301, General Lee Avenue, Brooklyn, NY 11252-6700. This form must be received by the Division Engineer within 60
  days of the date of this notice.
- C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the North Atlantic Division Engineer, ATTN: CENAD-ET-O, Fort Hamilton Military Community, Building 301, General Lee Avenue, Brooklyn, NY 11252-6700. This form must be received by the Division Engineer within 60 days of the date of this notice.
- D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.
- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative
  Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be
  received by the North Atlantic Division Engineer within 60 days of the date of this notice with a copy furnished to the New
  York District Engineer.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

# SECTION:H-REQUEST FOR APPEAL of OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

#### POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:
Richard L. Torner
U.S. Army Corps of Engineers, New York District
Jacob K. Javits Federal Building
New York, NY 10278-0090
(917) 790-8510

If you only have questions regarding the appeal process you may also contact: James W. Haggerty, Regulatory Appeals Review Officer

North Atlantic Division, U.S. Army Engineer Division Fort Hamilton Military Community
General Lee Avenue, Building 301
Brooklyn, NY 11252-6700
(718) 765-7150

10) /03-/130

E-mail: James.W.Haggerty@nad02.usace.army.mil

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

|                                  | Date: | Telephone number: |
|----------------------------------|-------|-------------------|
| Signature of appellant or agent. |       |                   |

#### JURISDICTIONAL DETERMINATION

U.S. Army Corps of Engineers

Revised 8/13/04

DISTRICT OFFICE:

NEW YORK DISTRICT (CENAN)

| FILE NUMBER:                     | 2004-00814   |            |  |
|----------------------------------|--|------------|--|
| PROJECT LOCA                     | TION INFORMATION:  |            |  |
| State:                           | New York   |            |  |
| County:                          | Orange   |            |  |
| Center coordinate                | s of site (latitude/longitude):                          | lat:41-3   | 1-1.9200 lon:74-3-50.4000  |
|                                  | of area (parcel) reviewed, in                            |            |  |
|                                  | VEICEWBY: QUASSRIC Creek                                 |            | Francis Control  |
| Name of watershe                 |  | - YONKI    | ers to poughkeepsie  |
|                                  |  |            |  |
|                                  | L DETERMINATION  |            |  |
| Completed:                       | Desktop determination                                    | []         | Date:  |
|                                  | Site visit(s)  | [X]        | Date(s): 9/2/04, 9/23/04, 5/11/05  |
| Jurisdictional I                 | Determination (JD):                                      |            |  |
| [] Preliminary                   | ID - Based on available infor                            | mation,    | ] there appear to be (or) [] there appear to be no "waters of the          |
| United                           | d States" and/or "navigable w<br>rence 33 CFR part 331). | raters of  | the United States" on the project site. A preliminary JD is not appealable |
| [X] Approved JI<br>Check all tha | ,  | pealable a | action (Reference 33 CFR part 331).  |
|                                  | "navigable waters of the Uni                             |            | es" (as defined by 33 CFR part 329 and associated guidance)                |
|                                  | - "  |            | Sined by 33 CFR part 328 and associated guidance) within the               |
|                                  | area. Approximate size of ju                             |            |  |
|                                  |  |            | waters or wetlands" within the reviewed area.                              |
| [X] D                            | ecision supported by SWANG                               | CC/Migra   | story Bird Rule Information Sheet for Determination of No Jurisdiction.    |
|                                  | DICTIONAL DETERMINA                                      |            |  |
|                                  |  |            | igable waters of the United States":                                       |
| [] The presence                  | of waters that are subject to                            | the ebb    | and flow of the tide and/or are presently used, or have been used          |
| in the past, o                   | r may be susceptible for use                             | to transp  | ort interstate or foreign commerce.  |
| B. Waters defin                  | ed under 33 CFR part 328.                                | .3(a) as " | waters of the United States":  |
| [](]) The prese                  | ence of waters, which are cum                            | rently use | ed, or were used in the past, or may be susceptible to use in              |
|                                  |  |            | aters which are subject to the ebb and flow of the tide.                   |
|                                  | ence of interstate waters inclu                          |            |  |
|                                  |  |            | lakes, rivers, streams (including intermittent streams), mudflats,         |
|                                  |  |            | et meadows, playa lakes, or natural ponds, the use, degradation or         |
|                                  |  |            | merce including any such waters (check all that apply):                    |
|                                  |  |            | the or foreign travelers for recreational or other purposes.               |
|                                  |  |            | uld be taken and sold in interstate or foreign commerce.                   |
|                                  |  |            | trial purposes by industries in interstate commerce.                       |
|                                  | nents of waters otherwise def                            |            |  |
|                                  |  |            |  |

Rationale for the Basis of Jurisdictional Determination (applies to any boxes checked above). If the jurisdictional water or welland is not itself a navigable water of the United States, describe connection(s) to the downstream navigable waters. If B(1) or B(3) is used as the Basis of Jurisdiction, document navigability and/or interstate commerce connection (i.e., discuss site conditions, including why the waterbody is navigable and/or how the destruction of the waterbody could affect interstate or foreign commerce). If B(2, 4, 5 or 6) is used as the Basis of Jurisdiction, document the rationale used to make the determination. If B(7) is used as the Basis of Jurisdiction, document the rationale used to make adjacency determination: Wetlands include Quassaic Creek, which flows to the Hudson River, which is navigable.

[X] (7) The presence of wetlands adjacent to other waters of the US, except for those wetlands adjacent to other wetlands.

[X] (5) The presence of a tributary to a water identified in (1) - (4) above.

[ ] (6) The presence of territorial seas.

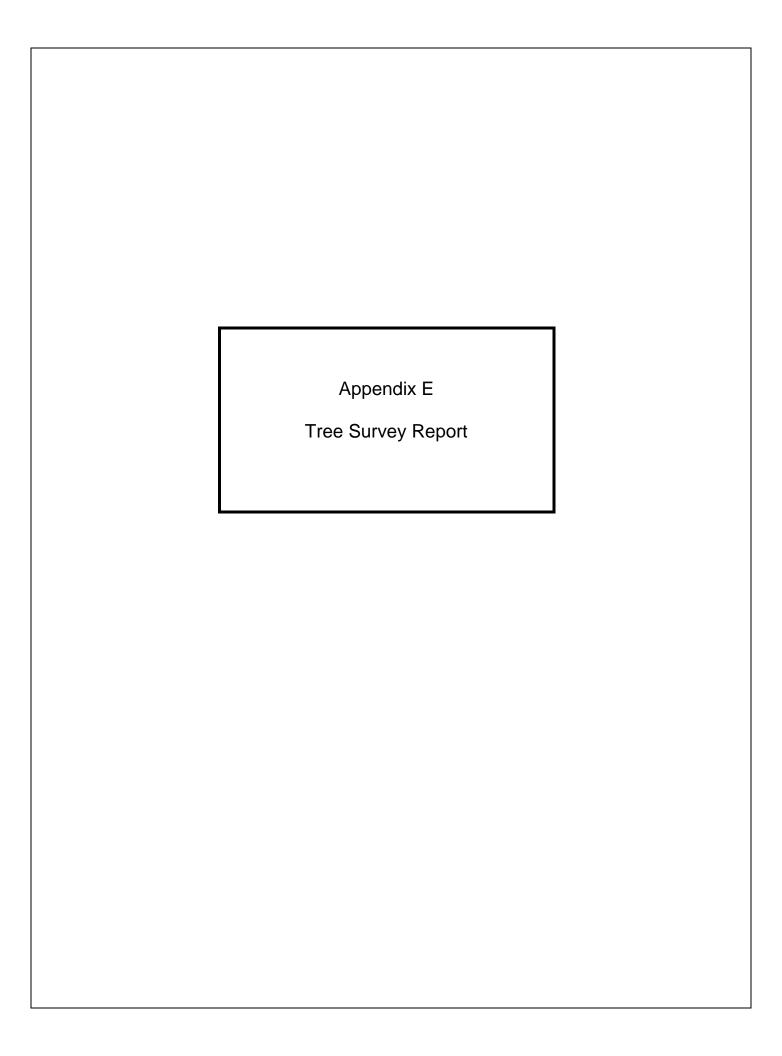
2

| Lateral Extent of Jurisdiction: (Reference: 33 CFR [X] Ordinary High Water Mark indicated by: [X] clear, natural line impressed on the bank [X] the presence of litter and debris [X] changes in the character of soil [X] destruction of terrestrial vegetation [X] shelving [] other:  | parts 328 and 329) [] High Tide Line indicated by: [] oil or scum line along shore objects [] fine shell or debris deposits (foreshore) [] physical markings/characteristics [] tidal gages [] other:  |
|--|--|
| [] Mean High Water Mark indicated by: [] survey to available datum; [] physical marking  | s; [] vegetation lines/changes in vegetation types.  |
| [X] Wetland boundaries, as shown on the attached wet   | and delineation map and/or in a delineation report prepared by:  |
| the United States:  [] Waste treatment systems, including treatment po [] Artificially irrigated areas, which would revert to [] Artificial lakes and ponds created by excavating retain water and which are used exclusively for rice growing.  [] Artificial reflecting or swimming pools or other by excavating and/or diking dry land to retain w [] Water-filled depressions created in dry land incident the purpose of obtaining fill, sand, or gravel unlead and the resulting body of water meets 328.3(a).  [X] Isolated, intrastate wetland with no nexus to into   | e basis of 33 CFR part 328.3(a)(3), that the following waters present on the site are not Waters of ands or lagoons, pursuant to 33 CFR part 328.3, o upland if the irrigation ceased, and/or diking dry land to collect and such purposes as stock watering, irrigation, settling basins, or small ornamental bodies of water created after for primarily aesthetic reasons. Idental to construction activity and pits excavated in dry land for essand until the construction or excavation operation is the definition of waters of the United States found at 33 CFR extrate commerce. |
| DATA REVIEWED FOR JURISDICTIONAL DETERM  [X] Maps, plans, plots or plat submitted by or on behalf of a control of the plant of the plan | f of the applicant. he applicant, ated , prepared by (company); report, dated , prepared by (company); aps: Newburgh, NY gles: ples: Survey: Orange County, NY   |

Wetlands are identified and delineated using the methods and criteria established in the Corps Wetland Delineation Manual (87 Manual) (i.e., occurrence of hydrophytic vegetation, hydric soils and wetland hydrology).

<sup>&</sup>lt;sup>2</sup>The term "adjacent" means bordering, contiguous, or neighboring. Wetlands separated from other waters of the U.S. by man-made dikes or barriers, natural river berms, beach dunes, and the like are also adjacent.





## **MEMORANDUM**

To:

Dave Tompkins

From:

Jason Tourscher

cc:

Steve Tedeschi

Date:

September 19, 2005

Re:

Wilder Balter Tree Survey

Job #:

70413.00

The Wilder Balter property is located between Rt. 300/Union Avenue and Rt. 52/South Plank Road in Newburgh, Orange County, New York. The property is surrounded by residential property on the northeast side, commercial property on the northwest side, and Interstate-84 to the south. Land disturbances on the eastern half include a power line easement which transects the property from north to south, and many all-terrain vehicle paths scattered throughout the property. Land disturbances on the western half include old homestead foundations, stonewalls, all-terrain vehicle paths, and a power line easement which transects the property from the northeast to southeast. There are two large wetlands present within the western half of the property. Wetland "A" is approximately 9.69 acres, and wetland "B" is approximately 4.12 acres. The Quassaick creek traverses the eastern portion of the property.

Adjacent to the northeastern section of the Wilder Balter property, there were fourteen residential lots which were inventoried for tree resources. The lots are located along Brookside Avenue and South Plank Road. They mostly contained areas of mowed lawn with some lots contained a combination of forest and mowed lawn. The proposed project site is primarily comprised of second-growth, mixed hardwood forests.

At the request of Wilder Balter, two tree surveys were conducted to identify and inventory trees within potentially developed parcels. The primary tree survey inventoried all trees with a diameter at breast height (dbh) equal to or greater than 18 inches within 200 feet of the property line of potentially developed parcels. The survey was carried out to determine the particular type and size

of trees that would be disturbed by the proposed development. Specifically, the data collection was restricted to 200 foot buffers around the inside of potentially developed parcels. Areas of the site that were outside of the 200 foot zone (i.e.: interior section proposed for development) were not surveyed. The survey, as completed, was designed to provide a general assessment of the size of trees and type that are present within the proposed areas of development on-site.

As part of this initial survey the minimum tree size class measured was 18 inches at breast height (dbh). Trees with features such as scaling bark, broken snags, and open cavities were recorded as potential mammalian habitats. Most of the trees were also graded on an "A through C" scale in regard to their landscape value. "A" trees were classified as trees that have landscape value after development. "A" trees should try to be maintained throughout the construction process. "B" trees were ones which have some value after development, but not enough to redesign construction plans around them. Trees classified as "C" have little or no landscape value after development occurs. During the course of the survey, 350 trees were cataloged that were 18 inches dbh size class or greater. This number represents 24 different species of trees, with an average diameter of 22.9 inches. Dominant tree species included red oak (46 percent), white oak (8 percent), sugar maple (7 percent), and red maple (7 percent). Many of the "A" to "B" quality trees were located alongside stonewalls in the western half of the property and on the residential lots. A residential lot owned by the Corbett's contained a large portion of highgrade trees including two oaks with dbh's greater than 40 inches.

The secondary tree survey inventoried all trees with a dbh equal to or greater than 12 inches within 75 feet of a section of the northern property boundary. Specifically, the section of the northern property line started behind residential properties located along South Plank Road, and ended behind residential lots adjacent to Wintergreen Avenue.

The survey was carried out to determine the location and species composition of trees located within this buffer area. During the course of the survey, 135 trees were cataloged that were 12 inches dbh size class or greater. This does not include trees which were flagged during the initial survey. Nineteen different species of trees with an average diameter of 15.1 inches were identified. Dominant tree species included red oak (26 percent), sugar maple (21 percent), and white oak (11 percent).

| ID# | Species Name | Size (DBH)<br>Inches | Description            | Date/Person |
|-----|--------------|----------------------|------------------------|-------------|
| J1  | Red oak      | 18                   | "C"                    | 6/17, JT    |
| J2  | Red oak      | 19                   | "C"                    | 6/17, JT    |
| J3  | Red oak      | 21                   | "C", Dead branches     | 6/17, JT    |
| J4  | Red oak      | 19                   | "B", Three main trunks | 6/17, JT    |
| J5  | Red oak      | 21                   | "B-C"                  | 6/17, JT    |
| J6  | Red oak      | 20                   | "C", Shed bark         | 6/17, JT    |
| J7  | Red oak      | 22                   | "C"                    | 6/17, JT    |
| J8  | White oak    | 29                   | "B", Dead branches     | 6/17, JT    |
| J9  | Red oak      | 18                   | "C", Dead branches     | 6/17, JT    |
| J10 | Tulip poplar | 29                   | "B"                    | 6/17, JT    |
| J11 | Tulip poplar | 25                   | *B*                    | 6/17, JT    |
| J12 | Red oak      | 19                   | "C", Dead branches     | 6/17, JT    |
| J13 | Red oak      | 21                   | "B-C"                  | 6/17, JT    |
| J14 | Red oak      | 21                   | "B-C"                  | 6/17, JT    |
| J15 | Red oak      | 21                   | "B-C"                  | 6/17, JT    |
| J16 | Red oak      | 20                   | "C"                    | 6/17, JT    |
| J17 | Red oak      | 18                   | "C"                    | 6/17, JT    |
| J18 | Red oak      | 38                   | "A-B"                  | 6/17, JT    |
| J19 | Tulip poplar | 23                   | "B"                    | 6/17, JT    |
| J20 | Red oak      | 21                   | "B-C"                  | 6/17, JT    |
| J21 | Red oak      | 19                   | "C"                    | 6/17, JT    |
| J22 | Red oak      | 20                   | "C"                    | 6/20, JT    |
| J23 | Red oak      | 21                   | "C"                    | 6/20, JT    |
| J24 | Red oak      | 21                   | "C"                    | 6/20, JT    |
| J25 | Red oak      | 25                   | "B"                    | 6/20, JT    |
| J26 | Red oak      | 19                   | "C"                    | 6/20, JT    |
| J27 | Red oak      | 27, 20               | "B", Two main trunks   | 6/20, JT    |
| J29 | White oak    | 19                   | "C"                    | 6/20, JT    |
| J30 | Sugar maple  | 22                   | "B-C"                  | 6/20, JT    |

| ID#          | Species Name     | Size (DBH)<br>Inches | Description                   | Date/Person |
|--------------|------------------|----------------------|-------------------------------|-------------|
| J32          | Shagbark hickory | 21                   | "B", Good shedding bark       | 6/20, JT    |
| J33          | Red oak          | 20                   | "C"                           | 6/20, JT    |
| J34          | Red oak          | 25, 21               | "A-B"                         | 6/20, JT    |
| J35          | Tulip poplar     | 21                   | "B"                           | 6/20, JT    |
| J36          | Tulip poplar     | 20                   | "B*                           | 6/20, JT    |
| J37          | Red oak          | 19.5, 11             | *C*                           | 6/20, JT    |
| J38          | Sugar maple      | 27                   | "B"                           | 6/20, JT    |
| J39          | Sugar maple      | 24                   | "B"                           | 6/20, JT    |
| J40          | Sugar maple      | 22.5                 | "C"                           | 6/20, JT    |
| J41          | Red oak          | 24                   | "B"                           | 6/20, JT    |
| J42          | Sugar maple      | 21                   | "C"                           | 6/20, JT    |
| J43          | Red oak          | 22                   | "C", Scaling bark, dying tree | 6/20, JT    |
| J <b>44</b>  | Sugar maple      | 23                   | "B"                           | 6/20, JT    |
| J45          | Chestnut oak     | 23, 26               | "C", Blocky bark              | 6/20, JT    |
| J46          | Chestnut oak     | 23                   | "C", Blocky bark              | 6/20, JT    |
| J <b>4</b> 7 | Tulip poplar     | 29                   | "B"                           | 6/20, JT    |
| J48          | Tulip poplar     | 26, 14               | "A-B", Two main trunks        | 6/20, JT    |
| J50          | Red oak          | 30                   | "A-B"                         | 6/20, JT    |
| J51          | Tulip poplar     | 24                   | "B"                           | 6/20, JT    |
| J52          | Red maple        | 28                   | "C", Dead branches            | 6/22, JT    |
| J53          | Red oak          | 23.5                 | "B"                           | 6/22, JT    |
| J54          | Sycamore         | 28                   | "A-B"                         | 6/22, JT    |
| J55          | Red oak          | 22                   | "B"                           | 6/22, JT    |
| J56          | Red oak          | 23.5                 | "B"                           | 6/22, JT    |
| J57          | Scarlet oak      | 37.5                 | "A-B"                         | 6/22, JT    |
| J58          | Tulip poplar     | 23                   | "B"                           | 6/22, JT    |
| J59          | Red oak          | 19.5                 | "C"                           | 6/22, JT    |
| 160          | Sugar maple      | 18                   | "C"                           | 6/22, JT    |
| J <b>6</b> 2 | Scarlet oak      | 24.5                 | "A-B <b>"</b>                 | 6/22, JT    |
| J63          | White oak        | 38                   | "A-B"                         | 6/22, JT    |

| ID# | Species Name | Size (DBH)<br>Inches | Description                             | Date/Person |
|-----|--------------|----------------------|---|-------------|
| J65 | Scarlet oak  | 22                   | "B-C"                                   | 6/22, JT    |
| J66 | Scarlet oak  | 26                   | "B"                                     | 6/22, JT    |
| J67 | Scarlet oak  | 26                   | "B*                                     | 6/22, JT    |
| J68 | Scarlet oak  | 23.5                 | "B"                                     | 6/22, JT    |
| J69 | Black cherry | 18.5                 | "B"                                     | 6/22, JT    |
| J70 | Dead         | 24                   | "C", Shed bark, possible cavities       | 6/22, JT    |
| J71 | Red oak      | 19                   | "C"                                     | 6/22, JT    |
| J72 | Red oak      | 25.5                 | "B"                                     | 6/22, JT    |
| J73 | Scarlet oak  | 25                   | -B-                                     | 6/22, JT    |
| J74 | Chestnut oak | 24                   | "B"                                     | 6/22, JT    |
| J75 | Red maple    | 18, 18               | "A-B"                                   | 6/22, JT    |
| J76 | Red maple    | 30                   | "A-B"                                   | 6/22, JT    |
| J77 | Red maple    | 27                   | "B"                                     | 6/22, JT    |
| J78 | Red maple    | 21                   | "C"                                     | 6/22, JT    |
| J79 | Scarlet oak  | 26                   | "C", Few dead branches                  | 6/22, JT    |
| J81 | White oak    | 19                   | "C"                                     | 6/22, JT    |
| J82 | Red oak      | 25                   | "B-C"                                   | 6/22, JT    |
| J83 | Scarlet oak  | 24                   | "B-C"                                   | 6/22, JT    |
| J84 | Scarlet oak  | 22                   | "B-C"                                   | 6/22, JT    |
| J85 | Red oak      | 24, 23, 18           | "B"                                     | 6/22, JT    |
| J86 | Black oak    | 17, 21.5, 19         | "B"                                     | 6/22, JT    |
| J87 | Red maple    | 25                   | "B", dead branches, cavities, shed bark | 6/22, JT    |
| J88 | Red oak      | 43                   | "A", dead branches, cavities, shed bark | 6/22, JT    |
| J89 | Red oak      | 25                   | *B-C*                                   | 6/22, JT    |
| J90 | Red oak      | 24                   | "B-C"                                   | 6/22, JT    |
| J91 | Black oak    | 20, 14               | *C*                                     | 6/22, JT    |
| J92 | Red oak      | 19                   | *C*                                     | 6/22, JT    |
| J93 | White oak    | 21.5                 | "C"                                     | 6/22, JT    |
| J94 | Scartet oak  | 20                   | "C"                                     | 6/22, JT    |

| ID#         | Species Name | Size (DBH)<br>Inches | Description                     | Date/Person |
|-------------|--------------|----------------------|---------------------------------|-------------|
| J95         | White oak    | 26                   | "B-C"                           | 6/22, JT    |
| J9 <b>6</b> | Red cak      | 19                   | "C"                             | 6/27, JT    |
| J97         | Red oak      | 21                   | "C"                             | 6/27, JT    |
| J98         | Red maple    | 19.5                 | "C"                             | 6/27, JT    |
| J99         | Red maple    | 19, 18               | "B-C", Two main trunks          | 6/27, JT    |
| J100        | Red oak      | 19                   | "C"                             | 6/27, JT    |
| J101        | Red oak      | 20                   | "C"                             | 6/27, JT    |
| J102        | Red oak      | 22                   | "C»                             | 6/27, JT    |
| J103        | Red maple    | 19, 15, 10           | "C*                             | 6/27, JT    |
| J104        | Red maple    | 19                   | "C"                             | 6/27, JT    |
| J105        | Red oak      | 22                   | "C"                             | 6/27, JT    |
| J106        | White oak    | 43                   | "B-C", Two main trunks (22, 21) | 6/27, JT    |
| J107        | Red oak      | 29, 25               | "A-B", Two main trunks          | 6/27, JT    |
| J108        | Oak          | 31                   | "B*                             | 6/27, JT    |
| J109        | Grey birch   | 26                   | "B"                             | 6/27, JT    |
| J110        | Sugar maple  | 21                   | "C"                             | 6/27, JT    |
| J111        | White oak    | 19                   | "C"                             | 6/27, JT    |
| J112        | Red oak      | 37                   | "A-B"                           | 6/27, JT    |
| J113        | Red oak      | 30                   | *B*                             | 6/27, JT    |
| J114        | Red oak      | 31.5                 | "B"                             | 6/27, JT    |
| J115        | White oak    | 29                   | "B"                             | 6/27, JT    |
| J116        | Red oak      | 22                   | "C"                             | 6/27, JT    |
| J117        | Red oak      | 24                   | "C"                             | 6/27, JT    |
| J118        | White oak    | 33                   | "B"                             | 6/27, JT    |
| J119        | Green ash    | 18.5                 | *C*                             | 6/27, JT    |
| J120        | Red oak      | 20                   | *C*                             | 6/27, JT    |
| J121        | White oak    | 18                   | "C"                             | 6/27, JT    |
| J122        | Red oak      | 19                   | "C"                             | 6/27, JT    |
| J123        | Chestnut oak | 27                   | "B-C"                           | 6/27, JT    |
| J124        | Chestnut oak | 28                   | "C", Two main trunks (14,13.5)  | 6/27, JT    |

| ID#  | Species Name | Size (DBH)<br>Inches | Description                            | Date/Person |
|------|--------------|----------------------|--|-------------|
| J126 | Chestnut oak | 25                   | "C"                                    | 6/27, JT    |
| J127 | White oak    | 27                   | "B <b>"</b>                            | 6/27, JT    |
| J128 | Red oak      | 20                   | "C"                                    | 6/27, JT    |
| J129 | Red oak      | 23                   | "C"                                    | 6/27, JT    |
| J130 | Red oak      | 23                   | "C"                                    | 6/27, JT    |
| J131 | Red maple    | 26                   | "C"                                    | 6/27, JT    |
| J132 | Red maple    | 34                   | "B-C", Four main trunks (18, 15, 7, 4) | 6/27, JT    |
| J133 | Beech        | 20                   | *C*                                    | 6/27, JT    |
| J134 | Red oak      | 25                   | "B"                                    | 6/27, JT    |
| J135 | Red maple    | 22                   | "C"                                    | 6/27, JT    |
| J136 | Red oak      | 23                   | "C"                                    | 6/27, JT    |
| J137 | Red oak      | 23                   | "C"                                    | 6/27, JT    |
| J138 | Red oak      | 25                   | "B-C"                                  | 6/27, JT    |
| J139 | Red maple    | 27                   | "B-C"                                  | 6/27, JT    |
| J140 | Red maple    | 20                   | ·c·                                    | 6/27, JT    |
| J141 | White oak    | 18.5                 | *C*                                    | 6/27, JT    |
| J142 | Red maple    | 20.5, 11             | *C*                                    | 6/27, JT    |
| J143 | Red maple    | 29                   | "B"                                    | 6/27, JT    |
| J144 | Oak          | 18                   | *C*                                    | 6/27, JT    |
| J145 | Red oak      | 29                   | "B", Two main trunks                   | 6/27, JT    |
| J146 | Chestnut oak | 21                   | "C"                                    | 6/27, JT    |
| J147 | Red maple    | 23                   | "C"                                    | 6/27, JT    |
| J148 | Red maple    | 21                   | "C"                                    | 6/27, JT    |
| J149 | Red maple    | 23                   | "C"                                    | 6/27, JT    |
| J150 | Red maple    | 24                   | "B"                                    | 6/27, JT    |
| J151 | Red maple    | 20                   | "C"                                    | 6/27, JT    |
| J152 | Chestnut oak | 23                   | "C"                                    | 6/27, JT    |
| J153 | Oak          | 20                   | *C*                                    | 6/27, JT    |
| J154 | Red maple    | 22                   | "C"                                    | 6/27, JT    |
| J155 | Dead         | 22                   | "C", Cavities                          | 6/27, JT    |

| ID#          | Species Name     | Size (DBH)<br>Inches | Description                         | Date/Person |
|--------------|------------------|----------------------|-------------------------------------|-------------|
| J156         | Red oak          | 19                   | *C"                                 | 6/27, JT    |
| J157         | Shagbark hickory | 21                   | "B", Three main trunks              | 6/27, JT    |
| J158         | Shagbark hickory | 19, 12               | "B-C"                               | 6/28, JT    |
| J190         | Pin oak          | 23                   | "B-C"                               | 6/28, JT    |
| J191         | Red oak          | 24                   | "B-C"                               | 6/28, JT    |
| J192         | Red oak          | 22, 17, 15           | "B"                                 | 6/28, JT    |
| J193         | Red maple        | 20                   | "C"                                 | 6/28, JT    |
| J194         | Oak              | 25                   | "B"                                 | 6/28, JT    |
| J197         | Oak              | 31                   | "A-B", Cavities                     | 6/28, JT    |
| J198         | Sugar maple      | 23                   | "C"                                 | 6/28, JT    |
| J199         | Red oak          | 18                   | "C"                                 | 6/28, JT    |
| J200         | White oak        | 20.5                 | "C"                                 | 6/28, JT    |
| J201         | Sugar maple      | 24                   | "B-C", Three main trunks (12,12,12) | 6/28, JT    |
| J202         | Chestnut oak     | 19                   | "C"                                 | 6/28, JT    |
| J203         | Red oak          | 19                   | "C"                                 | 6/28, JT    |
| J204         | Tulip poplar     | 19                   | "C"                                 | 6/28, JT    |
| J205         | White oak        | 31                   | "B", Two main trunks_               | 7/8, JT     |
| J20 <b>6</b> | White oak        | 39                   | "B", Two main trunks                | 7/8, JT     |
| J207         | Red oak          | 41                   | "A"                                 | 7/8, JT     |
| J208         | Scarlet oak      | 43                   | "A-B", Some dead branches           | 7/8, JT     |
| J209         | White oak        | 33                   | "B"                                 | 7/8, JT     |
| J210         | Red oak          | 31                   | "B*                                 | 7/8, JT     |
| J211         | Norway maple     | 24.5                 | "B-C*                               | 7/8, JT     |
| J212         | White oak        | 19                   | "C"                                 | 7/8, JT     |
| J213         | Red oak          | 42                   | "A-B"                               | 7/8, JT     |
| J214         | Red oak          | 34                   | "B"                                 | 7/8, JT     |
| J215         | Beech            | 27                   | "B"                                 | 7/8, JT     |
| J216         | Beech            | 23                   | "B"                                 | 7/8, JT     |
| J217         | Red oak          | 30                   | "B"                                 | 7/8, JT     |
| J218         | Red oak          | 38                   | "B"                                 | 7/8, JT     |

| !D#          | Species Name  | Size (DBH)<br>Inches | Description                               | Date/Person |
|--------------|---------------|----------------------|---|-------------|
| J219         | Red oak       | 33                   | "B"                                       | 7/8, JT     |
| J220         | Red oak       | 31                   | "B"                                       | 7/8, JT     |
| J221         | Oak           | 33                   | "B-C"                                     | 7/8, JT     |
| J222         | Oak           | 32, 17               | "B"                                       | 7/8, JT     |
| J223         | Red oak       | 32, 27               | "B", Two main trunks                      | 7/8, JT     |
| J224         | Red oak       | 18                   | "C"                                       | 7/8, JT     |
| J225         | Red oak       | 30, 29               | "A-B"                                     | 7/8, JT     |
| J226         | Red oak       | 23                   | "B-C"                                     | 7/8, JT     |
| J227         | Red oak       | 26.5                 | -B-                                       | 7/8, JT     |
| J228         | Red oak       | 29                   | "B-C"                                     | 7/8, JT     |
| J229         | Red oak       | 23                   | "B-C"                                     | 7/8, JT     |
| J230         | Red oak       | 31, 23               | "B"                                       | 7/8, JT     |
| J231         | Red oak       | 33                   | "B"                                       | 7/8, JT     |
| J232         | Red oak       | 25                   | "B-C"                                     | 7/8, JT     |
| J233         | Red oak       | 30                   | "B-C"                                     | 7/8, JT     |
| J234         | Red oak       | 23                   | "B-C"                                     | 7/8, JT     |
| J235         | Red oak       | 26                   | "B-C"                                     | 7/8, JT     |
| J236         | Red oak       | 27                   | "B-C"                                     | 7/8, JT     |
| J237         | Tulip poplar  | 19                   | "C"                                       | 7/8, JT     |
| J237 (1)     | Oak           | 24                   | "C", Same datapoint as J237 (2 ft. apart) | 7/8, JT     |
| 1238         | Norway spruce | 23                   | "B-C"                                     | 7/8, JT     |
| J239         | Norway spruce | 28                   | "B-C"                                     | 7/8, JT     |
| J240         | Norway spruce | 24                   | "B-C"                                     | 7/8, JT     |
| J241         | Norway spruce | 25                   | "B-C"                                     | 7/8, JT     |
| J242         | Norway spruce | 18.5                 | "B-C"                                     | 7/8, JT     |
| J243         | Norway spruce | 20                   | "B-C"                                     | 7/8, JT     |
| J24 <b>4</b> | Red oak       | 41                   | *A-B*                                     | 7/8, JT     |
| J245         | Black oak     | 25                   | *B*                                       | 7/8, JT     |
| J246         | Black oak     | 29                   | "B"                                       | 7/8, JT     |
| J247         | Red oak       | 29                   | "B-C"                                     | 8/1, JT     |

| ID#          | Species Name | Size (DBH)<br>Inches | Description                                 | Date/Person |
|--------------|--------------|----------------------|---|-------------|
| J248         | Red oak      | 34                   | "B"   | 8/1, JT     |
| J249         | Sugar maple  | 25                   | "B"   | 8/10, JT    |
| J250         | Red oak      | 31                   | "B-C"                                       | 8/10, JT    |
| J251         | Sugar maple  | 22                   | "B-C"                                       | 8/10, JT    |
| J252         | Dead         | 19                   | *C*   | 8/10, JT    |
| J253         | Sugar maple  | 24                   | "C"   | 8/10, JT    |
| J254         | Sugar maple  | 27                   | "B"   | 8/10, JT    |
| J255         | Sugar maple  | 27                   | "B"   | 8/10, JT    |
| J256         | Red oak      | 28                   | "B-C"                                       | 8/10, JT    |
| J257         | Sugar maple  | 21                   | "C"   | 8/10, JT    |
| J258         | Dead         | 22                   | "C"   | 8/10, JT    |
| J259         | Sugar maple  | 28                   | "C"   | 8/10, JT    |
| J260         | Red maple    | 38                   | "B*   | 8/10, JT    |
| J261         | Red oak      | 22, 20               | "B*   | 8/10, JT    |
| J262         | Red oak      | 33                   | "B-C"                                       | 8/10, JT    |
| J263         | Red oak      | 22, 22               | "B", Two main trunks                        | 8/10, JT    |
| J264         | Chestnut oak | 23                   | "B-C", Same datapoint as J265 (2 ft. apart) | 8/10, JT    |
| J265         | Chestnut oak | 21                   | "B-C"                                       | 8/10, JT    |
| J266         | Sugar maple  | 22                   | "B"   | 8/10, JT    |
| J26 <b>7</b> | White oak    | 27                   | "B"   | 8/10, JT    |
| J268         | Red oak      | 23                   | "C"   | 8/10, JT    |
| J269         | Red oak      | 22                   | "C"   | 8/10, JT    |
| J270         | Oak          | 27                   | "B-C"                                       | 8/10, JT    |
| J271         | Black oak    | 21                   | "C"   | 8/10, JT    |
| J272         | Red oak      | 24                   | "C"   | 8/10, JT    |
| J273         | Red oak      | 21                   | "C"   | 8/10, JT    |
| J274         | Red oak      | 29                   | "B", Same datapoint as J275 (2 ft. apart)   | 8/10, JT    |
| J275         | Red oak      | 30                   | "B"   | 8/10, JT    |
| 276          | Oak          | 24                   | "C"   | 8/10, JT    |
| 277          | Red oak      | 27                   | "B"   | 8/10, JT    |

| ID#  | Species Name | Size (DBH)<br>Inches | Description            | Date/Person |
|------|--------------|----------------------|------------------------|-------------|
| J278 | Tulip poplar | 26                   | "B-C"                  | 8/10, JT    |
| J279 | Oak          | 24                   | "C"                    | 8/10, JT    |
| J280 | Tulip poplar | 33                   | "B"                    | 8/10, JT    |
| J281 | Red oak      | 34                   | *A*                    | 8/10, JT    |
| J282 | Tulip poplar | 36                   | "A"                    | 8/10, JT    |
| J283 | Red oak      | 28                   | "B-C"                  | 8/10, JT    |
| J284 | Red oak      | 28                   | "B"                    | 8/10, JT    |
| J285 | Red oak      | 23                   | "C"                    | 8/10, JT    |
| J286 | Red oak      | 24                   | *C*                    | 8/10, JT    |
| J287 | Red oak      | 30, 25, 21           | "A", Three main trunks | 8/10, JT    |
| J288 | Red oak      | 27                   | "B"                    | 8/10, JT    |
| J289 | Red oak      | 23                   | "B-C"                  | 8/10, JT    |
| J290 | Red oak      | 30                   | "B"                    | 8/10, JT    |
| J291 | Black oak    | 24                   | "B-C"                  | 8/10, JT    |
| J292 | Red oak      | 22                   | "B-C"                  | 8/10, JT    |
| J293 | Red oak      | 19                   | -c-                    | 8/10, JT    |
| J294 | Red oak      | 34                   | "B"                    | 8/10, JT    |
| J295 | Red oak      | 19, 18, 11           | "C", Three main trunks | 8/10, JT    |
| J296 | Red oak      | 22                   | "C"                    | 8/10, JT    |
| J297 | Red oak      | 23                   | "B-C"                  | 8/10, JT    |
| J298 | Red oak      | 23                   | "B-C"                  | 8/10, JT    |
| J299 | Tulip poplar | 26                   | "B*                    | 8/10, JT    |
| J300 | Red oak      | 27                   | "B"                    | 8/22, JT    |
| J301 | Sugar maple  | 23                   | "C"                    | 8/22, JT    |
| J302 | Sugar maple  | 23                   | "C"                    | 8/22, JT    |
| J303 | Sugar maple  | 21                   | "C"                    | 8/22, JT    |
| J304 | Red oak      | 21                   | "C"                    | 8/22, JT    |
| J305 | Red oak      | 27                   | "B-C"                  | 8/22, JT    |
| J306 | Red oak      | 19                   | *C*                    | 8/22, JT    |
| J307 | Oak          | 27                   | *C*                    | 8/22, JT    |

| ID#  | Species Name | Size (DBH)<br>Inches | Description        | Date/Person |
|------|--------------|----------------------|--------------------|-------------|
| J308 | Red oak      | 25                   | "C"                | 8/22, JT    |
| J309 | Red oak      | 22                   | "C"                | 8/22, JT    |
| J310 | Red oak      | 23                   | "C"                | 8/22, JT    |
| J311 | Red oak      | 19                   | "C"                | 8/22, JT    |
| J312 | Red oak      | 18                   | "C"                | 8/22, JT    |
| J313 | Red oak      | 37                   | "B", 2 trunks      | 8/22, JT    |
| J314 | Red oak      | 27                   | "C", Dead branches | 8/22, JT    |
| J315 | Red oak      | 24                   | "B-C"              | 8/22, JT    |
| J316 | Red oak      | 19                   | "C"                | 8/22, JT    |
| J317 | Red oak      | 21.5                 | "C"                | 8/22, JT    |
| J318 | Red oak      | 19                   | "C"                | 8/22, JT    |
| J319 | Red oak      | 18                   | "C"                | 8/22, JT    |
| J320 | Red oak      | 19                   | "C"                | 8/22, JT    |
| J329 | Sycamore     | 20.5                 | "C"                | 9/15, JT    |
| J339 | American elm | 18, 17               | "C"                | 9/15, JT    |
| J354 | Chestnut oak | 22                   | <b>"</b> C"        | 9/15, JT    |
| J359 | White oak    | 18                   | "C"                | 9/15, JT    |
| J365 | Chestnut oak | 20                   | *C*                | 9/15, JT    |
| J366 | Chestnut oak | 24                   | "B <b>"</b>        | 9/15, JT    |
| J367 | Beech        | 19                   | "C"                | 9/15, JT    |
| J373 | Sugar maple  | 21                   | "C"                | 9/15, JT    |
| J379 | Chestnut oak | 21                   | "C"                | 9/15, JT    |
| J380 | Chestnut oak | 22                   | "C"                | 9/15, JT    |
| J381 | Basswood     | 18                   | "C"                | 9/15, JT    |
| J384 | White oak    | 22                   | "C"                | 9/15, JT    |
| J387 | Scarlet oak  | 20                   | "C"                | 9/15, JT    |
| J394 | Sugar maple  | 19                   | <u>"C"</u>         | 9/15, JT    |
| 1395 | Oak          | 35                   | "B"                | 9/15, JT    |
| J397 | Sugar maple  | 39                   | "B"                | 9/15, JT    |
| 1399 | White oak    | 19, 18               | *C*                | 9/15, JT    |

| ID#  | Species Name   | Size (DBH)<br>Inches                         | Description         | Date/Person  |
|--|--|--|---------------------|--|
| J405   | Sugar maple  | 22   | "C"                 | 9/15, JT   |
| J406   | White oak  | 20, 13                                       | "C"                 | 9/15, JT   |
| J411   | White oak  | 22   | "C"                 | 9/15, JT   |
| J414   | Red oak  | 23   | *C*                 | 9/15, JT   |
| J415   | White oak  | 19   | rc•                 | 9/15, JT   |
| J416   | White oak  | 20   | *c*                 | 9/15, JT   |
| J418   | Red oak  |  | *c*                 | 9/15, JT   |
| J423   | Red oak  | 20.5   | -c                  | 9/15, JT   |
| J425   | Beech  | 18.5   | -c-                 | 9/15, JT   |
| J426   | Beech  | 23   | "B-C"               | 9/15, JT   |
| J430   | Oak  | 21.5   | *C*                 | 9/15, JT   |
| J431   | Red oak  | 20   | *C*                 | 9/15, JT   |
| J432   | White oak  | 20   | *C*                 | 9/15, JT   |
| J437   | Red oak  | 20, 14                                       | "C"                 | 9/15, JT   |
| J438   | Red oak  | 23, 17                                       | "B-C"               | 9/15, JT   |
| J440   | Red oak  | 18.5   | *C*                 | 9/15, JT   |
| J442   | Red oak  | 24   | *c*                 | 9/15, JT   |
| J443   | Red oak  | 23   | "B-C"               | 9/15, JT   |
| J444   | Red oak  | 24   | "B-C"               | 9/15, JT   |
| J465   | Red oak  | 22, 18                                       | "C"                 | 9/15, JT   |
| J469   | Red oak  | 19   | "C"                 | 9/15, JT   |
| J472   | Red oak  | 19   | "C"                 | 9/15, JT   |
| J473   | Catalpa  | 19   | "C"                 | 9/15, JT   |
| J474   | Catalpa  | 23   | "C"                 | 9/15, JT   |
| J494   | Oak  | 23   | "C"                 | 9/15, JT   |
| J499   | Swamp white oak  | 23   | "C"                 | 9/15, JT   |
| J500   | Swamp white oak  | 22   | "C"                 | 9/15, JT   |
| J501   | Swamp white oak  | 21   | "C"                 | 9/15, JT   |
| J503   | Swamp white oak  | 21   | "C"                 | 9/15, JT   |
| J510   | Dead   |  | "C"                 | 9/15, JT   |
| ID#  | Species Name   | Size (DBH)<br>Inches                         | Description         | Date/Person  |
| J511   | Red oak  | 23   | "B-C"               | 9/15, JT   |
| J512   | Oak  | 23   | "B-C"               | 9/15, JT   |
| J510   | Dead   | 26   | *C*                 | 9/15, JT   |
| J511   | Red oak  | 23   | "B-C"               | 9/15, JT   |
| J512   | Oak  | 23   | "B-C"               | 9/15, JT   |
| J513   | Chestnut oak   | 26   | "B"                 | 9/15, JT   |
| J514   | Red oak  | 22   | "C"                 | 9/15, JT   |
| J515   | Red oak  | 28   | "B <b>"</b>         | 9/15, JT   |
| J516   | White oak  | 18   | "C"                 | 9/15, JT   |
| J519   | Willow   | 24, 24                                       | "B"                 | 9/15, JT   |
| J520   | Willow   | 26   | "B"                 | 9/15, JT   |
| J521   | Willow   | 25   | "B"                 | 9/15, JT   |
| J521   | AA III OW  | 20   |                     |  |
| J522   | Willow   |  | "B"                 | 9/15, JT   |
|  |  | 24   | "B"                 | 9/15, JT<br>9/15, JT   |
| J522   | Willow   | 24<br>33                                     |                     |  |
| J522<br>J523                                 | Willow   | 24<br>33<br>29                               | "B"                 | 9/15, JT   |
| J522<br>J523<br>J524                         | Willow<br>Dead<br>Red maple                            | 24<br>33<br>29<br>25                         | "B"                 | 9/15, JT<br>9/15, JT   |
| J522<br>J523<br>J524<br>J525                 | Willow Dead Red maple Sycamore                         | 24<br>33<br>29<br>25<br>23                   | "B" "C"             | 9/15, JT<br>9/15, JT<br>9/15, JT<br>9/15, JT                         |
| J522<br>J523<br>J524<br>J525<br>J526         | Willow Dead Red maple Sycamore Red oak Red oak         | 24<br>33<br>29<br>25<br>23                   | "B" "C" "B-C"       | 9/15, JT<br>9/15, JT<br>9/15, JT<br>9/15, JT<br>9/15, JT             |
| J522<br>J523<br>J524<br>J525<br>J526<br>J527 | Willow Dead Red maple Sycamore Red oak Red oak Red oak | 24<br>33<br>29<br>25<br>23<br>23             | "B" "C" "B-C" "B-C" | 9/15, JT<br>9/15, JT<br>9/15, JT<br>9/15, JT                         |
| J522<br>J523<br>J524<br>J525<br>J526<br>J527 | Willow Dead Red maple Sycamore Red oak Red oak         | 24<br>33<br>29<br>25<br>23<br>23<br>20<br>25 | "B" "C" "B-C"       | 9/15, JT<br>9/15, JT<br>9/15, JT<br>9/15, JT<br>9/15, JT<br>9/15, JT |

# Wilder Balter Tree Survey

| Species          | Number of Trees | Avg. dbh (in.) | Species/Percentage Make-up |
|------------------|-----------------|----------------|----------------------------|
| American elm     | 1               | 18.0           | 0.3                        |
| Basswood         | -               | 18.0           | 0.3                        |
| Beech            | 9               | 21.8           | 1.7                        |
| Black cherry     |                 | 18.5           | 0.3                        |
| Black oak        | 9               | 23.4           | 1.7                        |
| Catalpa          | 2               | 21.0           | 0.0                        |
| Chestnut oak     | 17              | 23.2           | 4.9                        |
| Dead             | 7               | 24.6           | 2.0                        |
| Green ash        | _               | 18.5           | 0.3                        |
| Grey birch       |                 | 26.0           | 0.3                        |
| Norway maple     |                 | 24.5           | 0.3                        |
| Norway spruce    | 9               | 23.1           | 1.7                        |
| Oak              | 17              | 26.0           | 4.9                        |
| Pin oak          | _               | 23.0           | 0.3                        |
| Red maple        | 26              | 24             | 7.4                        |
| Red oak          | 161             | 24.5           | 46.0                       |
| Scarlet oak      | 13              | 26.1           | 3.7                        |
| Shagbark hickory | 3               | 20.3           | 0.0                        |
| Swamp white oak  | 4               | 21.8           | 1.1                        |
| Sugar maple      | 25              | 23.6           | 7.1                        |
| Sycamore         | 3               | 24.5           | 0.0                        |
| Tulip poplar     | 15              | 25.3           | 4.3                        |
| White oak        | 28              | 24.6           | 8.0                        |
| Willow           | 4               | 24.8           | 1.1                        |
| TOTAL            | 320             | 22.9           | 100.00                     |

| ID#  | Species Name     | Size (DBH) Inches | Date/Person |
|------|------------------|-------------------|-------------|
| J28  | Shagbark hickory | 16                | 6/20, JT    |
| J80  | Dead             | 16                | 6/22, JT    |
| J321 | Sugar maple      | 13.5              | 9/15, JT    |
| J322 | Sugar maple      | 14.5              | 9/15, JT    |
| J323 | White oak        | 17                | 9/15, JT    |
| J324 | Red oak          | 15                | 9/15, JT    |
| J325 | Red oak          | 13                | 9/15, JT    |
| J326 | Tree-of-Heaven   | 13                | 9/15, JT    |
| J327 | Tree-of-Heaven   | 15                | 9/15, JT    |
| J328 | Sugar maple      | 14                | 9/15, JT    |
| J330 | Tree-of-Heaven   | 17                | 9/15, JT    |
| J331 | Tree-of-Heaven   | 14                | 9/15, JT    |
| J332 | Sugar maple      | 13                | 9/15, JT    |
| J333 | Dead             | 13                | 9/15, JT    |
| J334 | Black cherry     | 17                | 9/15, JT    |
| J335 | Tree-of-Heaven   | 15                | 9/15, JT    |
| J336 | Dead             | 15                | 9/15, JT    |
| J337 | Red oak          | 15                | 9/15, JT    |
| J338 | Hickory          | 15.5              | 9/15, JT    |
| J340 | Beech            | 17                | 9/15, JT    |
| J341 | Dead             | 14                | 9/15, JT    |
| J342 | Sugar maple      | 15                | 9/15, JT    |
| J345 | Sugar maple      | 17.5              | 9/15, JT    |
| J346 | Chestnut oak     | 16                | 9/15, JT    |
| J347 | Sugar maple      | 12                | 9/15, JT    |
| J348 | Oak              | 14                | 9/15, JT    |
| J349 | Sugar maple      | 17                | 9/15, JT    |
| J350 | Sugar maple      | 16.5              | 9/15, JT    |
| J351 | Black oak        |                   | 9/15, JT    |

| ID#  | Species Name | Size (DBH) Inches | Date/Person |
|------|--------------|-------------------|-------------|
| J352 | Chestnut oak | 15                | 9/15, JT    |
| J353 | Chestnut oak | 17                | 9/15, JT    |
| J355 | Sugar maple  | 16                | 9/15, JT    |
| J356 | Red oak      | 15                | 9/15, JT    |
| J357 | Red oak      | 15                | 9/15, JT    |
| J358 | Chestnut oak | 14                | 9/15, JT    |
| J360 | Oak          | 15                | 9/15, JT    |
| J361 | Sugar maple  | 12                | 9/15, JT    |
| J362 | Sugar maple  | 15                | 9/15, JT    |
| J363 | Chestnut oak | 14                | 9/15, JT    |
| J364 | Chestnut oak | 15                | 9/15, JT    |
| J368 | Chestnut oak | 17                | 9/15, JT    |
| J369 | Chestnut oak | 16                | 9/15, JT    |
| J370 | Red oak      | 17                | 9/15, JT    |
| J371 | Sugar maple  | 15                | 9/15, JT    |
| J372 | Beech        | 12                | 9/15, JT    |
| J374 | Sugar maple  | 17                | 9/15, JT    |
| J375 | Sugar maple  | 13                | 9/15, JT    |
| J376 | Red oak      | 17, 17            | 9/15, JT    |
| J377 | Sugar maple  | 16                | 9/15, JT    |
| J378 | Sugar maple  | 13                | 9/15, JT    |
| J382 | Sugar maple  | 13                | 9/15, JT    |
| J383 | Sugar maple  | 16, 14, 12, 11    | 9/15, JT    |
| J385 | Ash          | 15                | 9/15, JT    |
| J386 | White oak    | 13                | 9/15, JT    |
| J388 | Hickory      | 14                | 9/15, JT    |
| J389 | Sugar maple  | 15                | 9/15, JT    |
| J390 | Sugar maple  | 17.5              | 9/15, JT    |
| J391 | Sugar maple  | 17                | 9/15, JT    |

| ID#    | Species Name | Size (DBH) Inches | Date/Person |
|--------|--------------|-------------------|-------------|
| J392   | Sugar maple  | 15                | 9/15, JT    |
| J393   | Beech        | 13                | 9/15, JT    |
| J396   | White oak    | 15                | 9/15, JT    |
| J398   | Red oak      | 17                | 9/15, JT    |
| J400   | Sugar maple  | 15                | 9/15, JT    |
| J401   | Red oak      | 17                | 9/15, JT    |
| J402   | Beech        | 17                | 9/15, JT    |
| J403   | Sugar maple  | 14                | 9/15, JT    |
| J404   | Sugar maple  | 15                | 9/15, JT    |
| J407   | Red oak      | 17                | 9/15, JT    |
| J408   | Red oak      | 15                | 9/15, JT    |
| J409   | Ash          | 17.5              | 9/15, JT    |
| J410   | White oak    | 17.5              | 9/15, JT    |
| J412   | White oak    | 16                | 9/15, JT    |
| J413   | Oak          | 17                | 9/15, JT    |
| J417   | White oak    | 15                | 9/15, JT    |
| J419   | Red oak      | 15                | 9/15, JT    |
| J420 _ | Red oak      | 14                | 9/15, JT    |
| J421   | White oak    | 15                | 9/15, JT    |
| J422   | Oak          | 14                | 9/15, JT    |
| J424   | White oak    | 14                | 9/15, JT    |
| J427   | White oak    | 12                | 9/15, JT    |
| J428   | White oak    | 17                | 9/15, JT    |
| J429   | Red oak      | 12                | 9/15, JT    |
| J433   | White oak    | 15                | 9/15, JT    |
| J434   | Red oak      | 13                | 9/15, JT    |
| J435   | Red oak      | 15.5              | 9/15, JT    |
| J436   | White oak    | 15.5              | 9/15, JT    |
| J439   | Red oak      | 17, 17, 15, 15    | 9/15, JT    |

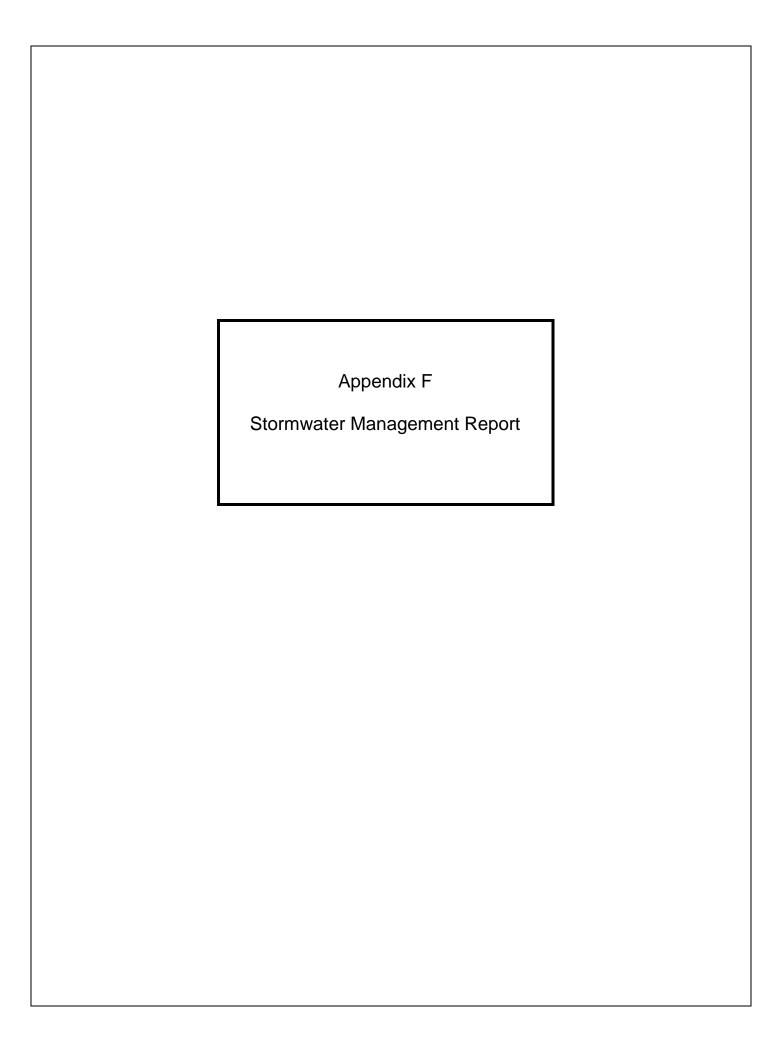
| ID#          | Species Name | Size (DBH) Inches | Date/Person |
|--------------|--------------|-------------------|-------------|
| J441         | Red oak      | 16.5              | 9/15, JT    |
| J445         | Red oak      | 17.5              | 9/15, JT    |
| J446         | Ash          | 13.5              | 9/15, JT    |
| J447         | White oak    | 13                | 9/15, JT    |
| J448         | Red oak      | 17.5, 15          | 9/15, JT    |
| J449         | Red oak      | 16                | 9/15, JT    |
| J450         | Red oak      | 17                | 9/15, JT    |
| J451         | Black oak    | 13                | 9/15, JT    |
| J452         | Black oak    | 14, 12            | 9/15, JT    |
| J453         | Red oak      | 13                | 9/15, JT    |
| J454         | Red oak      | 12                | 9/15, JT    |
| J455         | Black oak    | 17, 17            | 9/15, JT    |
| J456         | Red oak      | 16                | 9/15, JT    |
| J457         | Red oak      | 15                | 9/15, JT    |
| J458         | Red oak      | 17                | 9/15, JT    |
| J459         | Red oak      | 13                | 9/15, JT    |
| J460         | White oak    | 13                | 9/15, JT    |
| J461         | Red oak      | 17                | 9/15, JT    |
| J462         | Red oak      | 13                | 9/15, JT    |
| J <u>463</u> | Red oak      | 17                | 9/15, JT    |
| J464         | Red oak      | 14                | 9/15, JT    |
| J466         | Red oak      | 12.5              | 9/15, JT    |
| J467         | Beech        | 16.5              | 9/15, JT    |
| J468         | Sugar maple  | 16                | 9/15, JT    |
| J470         | Sugar maple  | 13                | 9/15, JT    |
| J471         | Red oak      | 13.5              | 9/15, JT    |
| J475         | Hickory      | 16                | 9/15, JT    |
| J476         | Catalpa      | 17.5              | 9/15, JT    |
| J477         | Catalpa      | 17.5, 17          | 9/15, JT    |
| J478         | Red oak      | 15                | 9/15, JT    |
| J479         | Sweet cherry | 16                | 9/15, JT    |
| J480         | Red maple    | 12                | 9/15, JT    |
| J491         | Beech        | 12                | 9/15, JT    |
| J492         | Maple        | 13, 12            | 9/15, JT    |

## Wilder Balter Extension Parcels Tree Survey Addendum Newburgh, NY 12550

| ID#  | Species Name    | Size (DBH) Inches | Date/Person |
|------|-----------------|-------------------|-------------|
| J493 | Oak             | 15                | 9/15, JT    |
| J495 | American elm    | 16                | 9/15, JT    |
| J496 | Swamp white oak | 17                | 9/15, JT    |
| J497 | Oak             | 16                | 9/15, JT    |
| J498 | Swamp white oak | 16                | 9/15, JT    |
| J502 | Swamp white oak | 16                | 9/15, JT    |
| J504 | Swamp white oak | 17                | 9/15, JT    |
| J505 | Oak             | 14                | 9/15, JT    |
| J506 | Oak             | 15                | 9/15, JT    |
| J507 | Hickory         | 14                | 9/15, JT    |
| J508 | American elm    | 14                | 9/15, JT    |
| J509 | American elm    | 13, 13            | 9/15, JT    |
| J517 | White oak       | 17                | 9/15, JT    |
| J518 | Ash             | 15                | 9/15, JT    |

Wilder Balter Tree Survey Addendum

| Species          | Number of Trees | Avg. dbh (in.) | Species/Percentage Make-up |
|------------------|-----------------|----------------|----------------------------|
| American elm     | 3               | 14.3           | 2.2                        |
| Ash              | 4               | 15.3           | 3.0                        |
| Beech            | 9               | 14.6           | 4.4                        |
| Black cherry     | 1               | 17.0           | 0.7                        |
| Black oak        | 4               | 14.5           | 3.0                        |
| Catalpa          | 2               | 17.5           | 1.5                        |
| Chestnut oak     | 8               | 15.5           | 5.9                        |
| Dead             | 4               | 14.5           | 3.0                        |
| Hickory          | 4               | 14.9           | 3.0                        |
| Maple            | 1               | 13.0           | 0.7                        |
| Oak              | 8               | 15.0           | 5.9                        |
| Red maple        | 1               | 12.0           | 0.7                        |
| Red oak          | 35              | 15.2           | 25.9                       |
| Shagbark hickory |                 | 16.0           | 0.7                        |
| Sugar maple      | 28              | 14.9           | 20.7                       |
| Swamp white oak  | 4               | 16.5           | 3.0                        |
| Sweet cherry     | _               | 16.0           | 0.7                        |
| Tree-of-Heaven   | 5               | 14.8           | 3.7                        |
| White oak        | 15              | 15.0           | 11.1                       |
| TOTAL            | 135             | 15.1           | 100.00                     |



## MARKETPLACE AT NEWBURGH TOWN OF NEWBURGH, NEW YORK

## STORM WATER MANAGEMENT REPORT

Prepared For:

Wilder Balter Partners, LLC Elmsford, New York

Prepared By:

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September 2005

## MARKETPLACE AT NEWBURGH TOWN OF NEWBURGH ORANGE COUNTY, NEW YORK

## STORM WATER MANAGEMENT REPORT

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## MARKETPLACE AT NEWBURGH TOWN OF NEWBURGH ORANGE COUNTY, NEW YORK

## STORM WATER MANAGEMENT REPORT

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## I. SUMMARY

This report addresses stormwater impacts and mitigative measures associated with the development of the Marketplace at Newburgh project in the Town of Newburgh, Orange County, New York. The project is located between Union Avenue to the west, Interstate 84 to the south and residential areas to the north and east.

Under existing conditions, there are no impervious areas on the 137.50 acre site. Currently, the site is undeveloped and predominantly wooded. The Quassaick Creek runs through the property in the eastern most portion of the site.

The improvements proposed for the Marketplace at Newburgh site include the development of "big-box" retail buildings, a "village center", plaza, and associated parking areas, walkways and grassed and landscaped areas.

To mitigate the increase in peak rates of runoff as a result of developing the Marketplace property, stormwater detention facilities have been to design to reduce the developed rate of runoff to those below existing. (See Table 1)

TABLE NO. 1

MARKETPLACE AT NEWBURGH
NEWBURGH, NEW YORK

## **DESIGN FLOW SUMMARY**

| DESIGN                              | 2-YEAR | 10-YEAR | 25-YEAR | 50-YEAR | 100-YEAR |
|-------------------------------------|--------|---------|---------|---------|----------|
| POINT NO.                           | (CFS)  | (CFS)   | (CFS)   | (CFS)   | (CFS)    |
| Dutchess<br>County<br>Rainfall (IN) | 3.5    | 5.5     | 6.0     | 7.0     | 7.5      |
| A Existing                          | 66     | 148     | 192     | 214     | 237      |
| Developed                           | 35     | 96      | 123     | 139     | 171      |
| Delta                               | -30    | -52     | -69     | -75     | -66      |
| B Existing                          | 0.87   | 2.22    | 2.97    | 3.35    | 3.74     |
| Developed                           | 1 0.10 | 0.03    | 0.33    | 0.38    | 0.42     |
| Delta                               | -0.77  | -2.20   | -2.64   | -2.97   | -3.32    |
| C Existing                          | 58     | 138     | 181     | 203     | 226      |
| Developed                           | 1 41   | 125     | 158     | 173     | 187      |
| Delta                               | -18    | -12     | -23     | -31     | -39      |
| D Existing Developed Delta *        | 4      | 13      | 19      | 22      | 25       |
|                                     | 1 8    | 18      | 24      | 26      | 29       |
|                                     | 4      | 5       | 5       | 5       | 4        |

 $<sup>^{*}</sup>$  Increase in Peak Rate of Runoff resulting from shorter Time of Concentration.

## II. BACKGROUND

### A. SITE LOCATION

The project site, located in the Town of Newburgh, New York totals approximately 137.50 acres. The project site is bounded by Union Avenue to the west, Interstate 84 to the south and residential areas to the north and east.

## B. PURPOSE

The purpose of this report is to evaluate storm water management requirements of the proposed Marketplace at Newburgh project. This report will quantify storm water runoff and pollutant loading on the site for existing and developed conditions.

## C. SITE CHARACTERISTICS AND DRAINAGE

## 1. Existing Conditions

The site is predominately wooded, with no on-site stormwater treatment. Stormwater runoff from the north-western quadrant of the Marketplace at Newburgh site discharges to the north passing under South Plank Road (Route 52) entering a series of ponds and the upper reaches of the Quassaick Creek, located in Algonquin Powder Mill Park, where it is transmitted to Winona Lake, and then enters the Quassaick Creek. Runoff from the southern quadrant enters a swale running eastward and parallel to Interstate 84 discharging into the Quassaick Creek. The eastern portion of the site drains eastward directly to the Quassaick Creek. Upon entering the Quassaick Creek, the stormwater travels southerly, passing under Interstate 84 via a large box culvert, traveling through Brookside Pond, Harrison Pond and Muchattoes Lake, and ultimately discharges into the Hudson River. (See DA-1 "Existing Drainage Area Map")

Table 9 reflects the estimated stormwater pollutant loading for the existing site.

## 2. <u>Developed Conditions</u>

The Marketplace at Newburgh will be developed with the construction of several large retail buildings, a "village center", plaza, and associated parking areas, walkways and grassed and landscaped areas. Under proposed conditions, the site will have approximately 75.0 acres of impervious area. Existing drainage areas were respected as much as possible in the placement and design of the stormwater management system including water quality basins, detention basins, catch basins, storm piping and culverts. In order to treat storm water runoff under developed conditions, the developed areas of the site are directed to water quality facilities. (See DA-2 "Proposed Drainage Area Map")

## D. FLOODING CONDITIONS

The only flooding on the site occurs in the vicinity of the Quassaick Creek. The 100 Flood Plane has been illustrated on the drawings.

## III. STORM WATER QUANTITY

## A. METHODOLOGY

## 1. Zero Increase In Watershed Peak Runoff

The peak rate of storm water discharge from the site after the completion of development shall not exceed the estimated pre-development peak discharge.

## 2. Storm Frequencies

The storm frequencies to be used as a basis for computing peak rate of discharge shall be storms expected once every 2, 10, 25, 50 and 100 years with a duration of 24 hours as defined by the U.S. Department of Agriculture Soil Conservation Service, and in accordance with the Town of Newburgh Code, Chapter 157: Stormwater Management, § 157-6.M(4).

### 3. Technical Approach

The method used for estimating peak discharge shall be as per the document released by the Engineering Division of the U.S. Department of Agriculture Soil Conservation Service titled "Urban Hydrology for Small Watersheds", Technical Release No. 55, dated June 1986, Type III Storm Distribution. This criterion governs the data that is input into the software, namely the Haestad Methods Quick TR-55 computer program. The input and output data is provided in the Technical Appendix.

## 4. Soil Classifications

The soil classifications and their limits were provided from mapping compiled by the U.S. Department of Agriculture Soil Conservation Service.

The U.S. Department of Agriculture Soil Conservation Service has classified soil types as follows:

Table No. 2

|                         |   | HYDROLOGIC   |
|-------------------------|---|--|
| MAP SYMBOL              | SOIL  | GROUP  |
| BnB                     | Bath-Nassau shaly silt loams, 3-8% slopes           | C  |
| Ca                      | Canandaigua silt loam                               | D  |
| FAC                     | Farmington silt loam, sloping                       | С  |
| MdB                     | Mardin gravelly silt loam, 3-8% slopes              | С  |
| MdC                     | Mardin gravelly silt loam, 8-15% slopes             | D  |
| PtB                     | Pittsfield gravelly loam, 3-8% slopes               | В  |
| RKD                     | Rock outcrop-Arnot complex, moderately steep        | D  |
| RMD                     | Rock outcrop-Farmington complex, hilly              | D  |
| RSB                     | Rock outcrop-Nassau complex, undulating             | D  |
| UH                      | Udorthents, smoothed                                | С  |
| * Data from "Soil Surve | y of Orange County, New York", Issued October 1981. | THE STATE OF THE S |

Slopes range from slightly sloping to strongly sloping.

## 5. Detention Requirements

Detention facilities have been provided to reduce the increased peak rates of runoff to levels below those of existing. Methodologies as set forth in Engineering Division of the U.S. Department of Agriculture Soil Conservation Service titled "Urban Hydrology for Small Watersheds", Technical Release No. 55, dated June 1986.

## 6. Rainfall Intensity

Frequency and intensities, which have been used in this report in accordance with the Town of Newburgh Code, Chapter 157: Stormwater Management, § 157-6.M(4), are as follows:

| Storm     | Rainfall Intensity |
|-----------|--------------------|
| Frequency | (24-Hour Period)   |
| Year      | (Inches)           |
| 100       | 7.5                |
| 50        | 7.0                |
| 25        | 6.5                |
| 10        | 5.5                |
| 2         | 3.5                |
|           |                    |

RAINFALL INTENSITY BY STORM FREQUENCY

## 7. Times of Concentration and Travel Times

The times of concentration (Tc) and travel times (Tt) have been estimated to determine the time of the longest hydraulic route within the sub-watershed being analyzed. These routes include overland, shallow-concentrated and channel or pipe flows.

## 8. Pipe Sizing

Table No. 3

The pipes capacity design is determined by the using the generally accepted Rational Method which is well suited for small areas and will include standard practices that take into consideration headwater, velocity, slope, area and diameter. Manning's Equation is to be used for pipes that have sufficient length and constant slopes, to establish uniform flow at normal depth without backwater or pressure head.

## B. STORMWATER MANAGEMENT

## 1. Approach and Concept

The approach to storm water runoff rate management for the proposed project is to achieve a storm water management system design that will limit the proposed peak rate of storm water runoff to levels at or less than the existing peak rates. This shall be accomplished by providing stormwater detention facilities to reduce the peak rates of runoff for all storms.

Table Nos. 4 and 5 reflect the parameters of the existing and developed watersheds.

Stormwater detention has been provided for Drainage Areas A and C. Due to the close proximity to the Quassaic Creek, and the overall reduction in peak rates of runoff from the subject property, no detention is required for lands east of the Quassaic Creek.

Table 6 reflects the flooding characteristics of the 2 detention basins.

MARKETPLACE AT NEWBURGH NEWBURGH, NEW YORK TABLE NO. 4

## **EXISTING DRAINAGE CONDITIONS**

|        |    |       |      |      |       | 73.84  |      |                      |            |            |                  |      | WGT. CN     |
|--------|----|-------|------|------|-------|--------|------|----------------------|------------|------------|------------------|------|-------------|
|        |    |       |      |      |       | 132.40 | 0.40 | 122.86               | 9.14       | 1.57       | 4.82             | 2.75 | TOTAL AREA  |
|        |    |       |      |      |       |        |      |                      |            |            |                  |      |             |
| D      | !  | 0.37  | 73.0 | 0.20 | 3.42  | 11.10  |      | 10.72                | 0.38       | 0.29       | 0.00             | 0.09 | D           |
| С      | l  | 0.28  | 73.0 | 0.20 | 2.69  | 63.10  |      | 61.40                | 1.70       | 1.28       | 0.39             | 0.03 | С           |
| В      | 1  | 0.18  | 70.0 | 0.20 | 0.00  | 1.00   |      | 1.00                 | 0.00       | 0.00       | 0.00             | 0.00 | В           |
| Þ      | -  | 0.20  | 75.0 | 0.20 | 12.34 | 57.20  | 0.40 | 49.74                | 7.06       | 0.00       | 4.43             | 2.63 | Α           |
|        |    |       |      |      |       |        |      |                      |            |            |                  |      |             |
| #      |    | (HRS) |      |      | (%)   | AREA   | POND | IMP. TOTAL LAWN/LSCP | IMP. TOTAL | STREET     | PKG/WALKS STREET | ROOF |             |
| POINT  | Tt | Tc    | CN   | Ŗ    | П     | TOTAL  |      | PERVIOUS             |            | IMPERVIOUS | IMPER            |      | SUBBASIN ID |
| DESIGN |    | (4)   | (3)  | (2)  | (I)   |        |      |                      | AREA (AC)  |            |                  |      | WATERSHED   |

I=Percent Impervious, (Impervious Area/Total Area)\*100%
 R<sub>v</sub> = 0.05+0.009(I), Minimum Rv=0.2
 CN=Curve Number
 Tc=Time of Concentration, Tt=Travel Time

MARKETPLACE AT NEWBURGH NEWBURGH, NEW YORK TABLE NO. 5

## DEVELOPED DRAINAGE CONDITIONS

|        |       |                           |      |      |       | 86.92  |      |                      |            |            |           |       | WGT. CN     |
|--------|-------|---------------------------|------|------|-------|--------|------|----------------------|------------|------------|-----------|-------|-------------|
|        |       |                           |      |      |       | 132.40 | 0.40 | 53.83                | 78.17      |            |           |       | TOTAL AREA  |
|        |       |                           |      |      |       |        |      |                      |            |            |           |       |             |
| D      | !     | 0.22                      | 73.0 | 0.20 | 5.00  | 7.60   |      | 7.22                 | 0.38       | 0.29       | 0.00      | 0.09  | DD          |
| C      | 1     | 0.26                      | 94.0 | 0.82 | 85.02 | 25.50  |      | 3.82                 | 21.68      | 0.00       | 17.59     | 4.09  | CC-4        |
| C      | 1     | 0.18                      | 94.0 | 0.82 | 85.00 | 10.60  |      | 1.59                 | 9.01       | 0.00       | 6.99      | 2.02  | CC-3        |
| С      | 1     | 0.15                      | 74.0 | 0.20 | 0.00  | 1.70   |      | 1.70                 | 0.00       | 0.00       | 0.00      | 0.00  | CC-2        |
| С      | 1     | 1.00                      | 73.0 | 0.20 | 0.00  | 7.30   |      | 7.30                 | 0.00       | 0.00       | 0.00      | 0.00  | CC-1        |
| В      | ;     | 0.08                      | 70.0 | 0.20 | 0.00  | 0.10   |      | 0.10                 | 0.00       | 0.00       | 0.00      | 0.00  | ВВ          |
| >      | i     | 0.27                      | 92.0 | 0.75 | 77.33 | 51.00  |      | 11.56                | 39.44      | 0.00       | 26.53     | 12.91 | AA-2        |
| ۶      | i     | 0.23                      | 77.0 | 0.29 | 26.78 | 28.60  | 0.40 | 20.54                | 7.66       | 0.00       | 5.03      | 2.63  | AA-1        |
|        |       |                           |      |      |       |        |      |                      |            |            |           |       |             |
| #      | (HRS) | (HRS)                     |      |      | (%)   | AREA   | POND | IMP. TOTAL LAWN/LSCP | IMP. TOTAL | STREET     | PKG/WALKS | ROOF  |             |
| POINT  | Tt    | $\mathbf{T}_{\mathbf{c}}$ | CN   | R,   | -     | TOTAL  |      | PERVIOUS             |            | IMPERVIOUS | IMPER     |       | SUBBASIN ID |
| DESIGN | (4)   | (4)                       | (3)  | (2)  | (1)   |        |      |                      | AREA (AC)  |            |           |       | WATEBSHED   |
|        |       |                           |      |      |       |        |      |                      |            |            |           |       |             |

I=Percent Impervious, (Impervious Area/Total Area)\*100%
 R<sub>v</sub> = 0.05+0.009(I), Minimum Rv=0.2
 CN=Curve Number
 Tc=Time of Concentration, Tt=Travel Time

TABLE NO. 6

# MARKETPLACE AT NEWBURGH NEWBURGH, NEW YORK

## **DETENTION BASIN SUMMARY**

| TOTAL | CC-4        | AA-2        | BASIN<br>ID   |
|-------|-------------|-------------|---|
|       | 243.00      | 323.00      | BASE<br>ELEV.   |
|       | 246.14      | 325.18      | BASE         2-YEAR         10-YEAR         25-YEAR         50-YEAR           ELEV. $HWE^{(1)}$ $SV^{(2)}$ $HWE^{(1)}$ $SV^{(2)}$ $HWE^{(1)}$ $SV^{(2)}$ $HWE^{(1)}$ $SV^{(2)}$ |
| 3.07  | 0.92 247.26 | 2.15 328.10 | SV <sup>(2)</sup>   |
|       | 247.26      | 328.10      | 10-YEAR<br>HWE <sup>(1)</sup> SV  |
| 7.99  | 1.39        | 6.60        | EAR<br>SV <sup>(2)</sup>  |
|       | 247.53      | 328.97 8.01 | 25-YEAR<br>HWE <sup>(1)</sup> SV  |
| 9.51  | 1.50        |             | EAR<br>SV <sup>(2)</sup>  |
|       | 1.50 247.65 | 329.30      | 50-YEAR<br>HWE <sup>(1)</sup> SV  |
| 10.10 | 1.56        | 8.54        |   |
|       | 247.76 1.61 | 329.58      | 100-YEAR<br>HWE <sup>(1)</sup> SV <sup>(2)</sup>  |
| 10.63 | 1.61        | 9.02        | SV <sup>(2)</sup>   |

<sup>(1)</sup> High Water Elevation (Feet)

<sup>(2)</sup> Storage Volume (Acre Feet)

## IV. STORMWATER QUALITY

## A. STORMWATER QUALITY ANALYSIS

## 1. Existing Conditions

Refer to Section II.C.1. for a description of existing conditions.

## 2. Post-Development Conditions Without Treatment

The change in land use and increase in impervious area will result in the increase in pollutant loading. Without treatment the pollutant loads would increase for Total Phosphorus, Total Nitrogen, Metals, and Bacteria.

## 3. Post-Development Conditions With Treatment

The use of an extended detention pond, catch basin sumps and water quality swales is expected to reduce the pollutant loading from the treated runoff. The treatment methods will be designed in compliance with the NYDSDEC Stormwater Management Design Manual.

## B. STORMWATER QUALITY MANAGEMENT MEASURES

The Stormwater Management Plan is based on the analysis of the existing and proposed stormwater conditions discussed in the previous section of this report and the design criteria of the stormwater management practices noted below. As the proposed development will involve the creation of an approximately 75.0-acre increase in on-site impervious surfaces associated with pavements and roofs, higher pollutant loadings would be expected to occur on the developed site. An outline of the varying stormwater quality management BMP's,

both structural and non-structural, to be implemented both during construction and/or after project completion is presented below.

## 1. Micropool Extended Detention Pond

A micropool extended detention pond treats the required water quality volume through extended detention and incorporates a micropool at the outlet of the pond to prevent sediment resuspension. The treatment system includes a stone-lined sediment forebay, rip-rap berm, micropool, outlet control structure, and emergency overflow weir. The micropool extended detention pond will treat the 90% rainfall event through filtration and detain a portion of all storm events. The outlet structure is designed to accommodate flow from all storm events up to the 100 year frequency.

## 2. Catch Basin Sumps

All new catch basins will be provided with sumps to capture and collect sediment and debris prior to it entering the municipal stormwater conveyance system. Each catch basin sump will be cleaned out periodically to remove the dirt and debris as part of routine maintenance.

## 3. Stormwater Pollution Prevention Plan

In compliance with requirements established for the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity (Permit No. GP-02-01), a Stormwater Pollution prevention Plan will be prepared and implemented. As a result, an Erosion Control Plan shall be prepared as part of the contract documents and will require that the erosion and sedimentation controls set forth thereon be implemented before the start of construction and further will be monitored and maintained during construction. Stabilization of the site shall also comply with the conditions or requirements set forth therein and further established by the Town of Newburgh.

Several temporary structural practices to be utilized to mitigate any potential impacts include, but shall not be limited to, surrounding material stockpiles with silt fencing and hay bale dams, excavated and embankment areas will be graded to permit drainage and the runoff will be intercepted in ditches with silt barriers or collected in settling basins to permit sedimentation, and stabilized construction entrances will be constructed and maintained during construction to minimize the off-site migration of sediment.

Table 7 shows the Weighted Pollutant Concentrations in the drainage areas before treatment.

Surface Extended Detention Water Quality Basins have been provided in Drainage Areas A-2 and C-4. Table 8 illustrates the computed required storage volumes and the volume provided for each basin. Drainage Area C-3 has been designed with a sub-surface infiltration system that will discharge to south, directly to the existing swale running parallel to Interstate 84.

Table 9 reflects the estimated stormwater pollutant loading for existing, pre-treatment developed and post-treatment developed. The remaining drainage areas have not been provided with water quality treatment BMPs. The increase in pollutant loading, in particular metals, in these drainage areas is a direct result of the decrease of on-site acreage contributing to the sub-basin relative to the unchanged acreage of off-site impervious areas. As the off-site impervious component becomes a larger percentage of the watershed, the amount of pollutant loading increases.

Water quality swales will be constructed to mitigate any adverse impacts from the introduction of paved surfaces on lands east of the Quassaic Creek.

## MARKETPLACE AT NEWBURGH NEWBURGH, NEW YORK

# WEIGHTED POLLUTANT CONCENTRATIONS BASED ON LAND COVER CONDITIONS

|               | WATERSHED/<br>SUBBASIN ID |                    |
|---------------|---------------------------|--------------------|
| (ac)          | ROOF                      |                    |
| (ac)          | PKG/WALKS DRIVEWAY        |                    |
| (ac)          | DRIVEWAY                  | AREA BY LAND COVER |
| (ac)          | STREET                    | ND COVER           |
| (ac)          | LAWN/LSCP                 |                    |
| (ac)          | TOTAL<br>AREA             |                    |
| (mg/l)        | WGT.C                     | TSS                |
| (mg/l)        | WGT.C'                    | TP                 |
| (mg/l)        | WGT.C                     | TN                 |
| (mg/l)        | WGT.C                     | METALS             |
| (1000 col/ml) |                           | BACTERIA           |

# **EXISTING ON-SITE LAND COVER CONDITIONS**

| Total or Wgt.<br>Ave. | D     | С     | В    | A     |
|-----------------------|-------|-------|------|-------|
|                       | 0.09  | 0.03  | 0.00 | 2.63  |
|                       | 0.00  | 0.39  | 0.00 | 4.43  |
|                       | 0.00  | 0.00  | 0.00 | 0.00  |
|                       | 0.29  | 1.28  | 0.00 | 0.00  |
|                       |       |       | I    | 49.74 |
| 132.00                | 11.10 | 63.10 | 1.00 | 56.80 |
| 563.5                 | 586   | 589   | 602  | 530   |
| 2.0                   | 2.0   | 2.1   | 2.1  | 1.9   |
| 8.6                   | 8.8   | 8.9   | 9.1  | 8.2   |
| 0.0                   | 0.0   | 0.0   | 0.0  | 0.0   |
| 23.0                  | 24.1  | 24.1  | 24.0 | 21.5  |

# DEVELOPED ON-SITE LAND COVER CONDITIONS

| Total or Wgt. | DD   | CC-4  | CC-3  | CC-2 | CC-1 | BB   | AA 2  | AA-1  |
|---------------|------|-------|-------|------|------|------|-------|-------|
|               | 0.09 | 4.09  | 2.02  | 0.00 | 0.00 | 0.00 | 12.91 | 2.63  |
|               | 0.00 | 17.59 | 6.99  | 0.00 | 0.00 | 0.00 | 26.53 | 5.03  |
|               | 0.00 | 0.00  | 0.00  | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  |
|               | 0.29 | 0.00  | 0.00  | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  |
|               | 7.22 | 3.82  | 1.59  | 1.70 | 7.30 | 0.10 | 11.56 | 20.54 |
| 132.00        | 7.60 | 25.50 | 10.60 | 1.70 | 7.30 | 0.10 | 51.00 | 28.20 |
| 260           | 579  | 112   | 110   | 602  | 602  | 602  | 155   | 445   |
| 0.9           | 2.0  | 0.4   | 0.4   | 2.1  | 2.1  | 2.1  | 0.6   | 1.6   |
| 4.8           | 8.7  | 2.9   | 2.9   | 9.1  | 9.1  | 9.1  | 3.4   | 7.1   |
| 0.1           | 0.0  | 0.1   | 0.1   | 0.0  | 0.0  | 0.0  | 0.1   | 0.1   |
| 12.4          | 24.2 | 7.6   | 7.5   | 24.0 | 24.0 | 24.0 | 8.5   | 18.5  |

| MISSECTO | PECTAINT COIN                  | CENTRATIONS                                   | KOM SOURCE                                   | AKEAS  |           |  |
|----------|--------------------------------|---|--|--|-----------|--|
| Tee 3    | Tp 4                           | TN 5  |  | Metals <sup>6</sup>  |           | Bactaria   |
| 100      | -                              | -   | Copper                                       | Zinc   | AVERAGE   | Dactella   |
| mg/l     | mg/l                           | mg/l  | mg/l   | mg/l   | mg/l      | 1000col/ml   |
| 19       | 0.11                           | 1.5   | 0.02   | 0.31   | 0.17      | 0.3  |
| 9        | 014                            | 2.1   | 0.01   | 0.26   | 0.13      | 1.1  |
| 27       | 0.15                           | 1.9   | 0.05   | 0.14   | 0.10      | 5.8  |
| 172      | 0.55                           | 14  | 0 03   | 0.17   | 0.10      | 37.0   |
| 602      | 2.10                           | 9.1   | 0.02   | 0.05   | 0.03      | 24.0   |
| 173      | 0.56                           | 2.1   | 0.02   | 0.11   | 0.06      | 17.0   |
|          | TSS 3 mg/l 19 9 27 172 602 173 | TSS 3 TP 1 TP 1 TP 1 TP 1 TP 1 TP 1 TP 1 TP 1 | mg/l 0.11 0.15 0.15 0.15 0.15 0.15 0.15 0.15 | TP   TN   Copper   mg/l   mg/l   mg/l   0.02   0.05   0.05   0.05   0.05   0.05   0.05   0.05   0.05   0.05   0.05   0.05   0.05   0.05   0.05   0.05   0.05   0.05   0.05   0.05   0.02   0.05   0.02   0. | TP 1 TN 5 | TP   TN   Copper   Zinc   Metals   Copper   Zinc   Zinc   Copper   Zinc   Zi |

The Simple Method for CHEMICAL CONSTITUENTS. L. = 0.226\*P\*C\*A. Appendix A. New York State Stormwater Management Design Manual, October 2001, page A.1
 The Simple Method for BACTERIA. L. = 103\*P\*C\*A. Appendix A. New York State Stormwater Management Design Manual, October 2001, page A.1
 TSS = Total Suspended Solids
 TP = Total Photophorous
 TN = Total Nitrogen
 Total Nitrogen
 Metals = The Average of Copper and Zinc as representative Indicators.

TABLE NO. 8

### MARKETPLACE AT NEWBURGH NEWBURGH, NEW YORK

### WATER QUALITY BASIN VOLUME

|          | AR    | EA    |       |       |      | REQUIRED | VOLUME   |
|----------|-------|-------|-------|-------|------|----------|----------|
| BASIN ID | IMP   | TOTAL | I     | $R_v$ | P    | VOLUME   | PROVIDED |
|          | (AC)  | (AC)  | (%)   |       | (in) | (CFT)    | (CFT)    |
| AA-1     | 7.66  | 28.60 | 26.78 | 0.29  | 1.1  | 33,238   | 0 *      |
| AA-2     | 39.44 | 51.00 | 77.33 | 0.75  | 1.1  | 151,918  | 185,575  |
| ВВ       | 0.00  | 0.10  | 0.00  | 0.20  | 1.1  | 80       | 0 *      |
| CC-1     | 0.00  | 7.30  | 0.00  | 0.20  | 1.1  | 5,830    | 0 *      |
| CC-2     | 0.00  | 1.70  | 0.00  | 0.20  | 1.1  | 1,358    | 0 *      |
| CC-3     | 9.01  | 10.60 | 85.00 | 0.82  | 1.1  | 34,496   | 35,000   |
| CC-4     | 21.68 | 25.50 | 85.02 | 0.82  | 1.1  | 83,002   | 100,039  |
| DD       | 0.38  | 7.60  | 5.00  | 0.20  | 1.1  | 6,069    | 0 *      |

### NOTES

- 1. Design per New York State Stormwater Management Design Manual, October 2001, Chapter 4.
- 2. New York Stormwater Sizing Criteria: 90% RULE
- 3. Water Quality Volume,  $WQ_v = [(P)(R_v)(A)]/12$
- 4. Rv = 0.05 + 0.009(I), Minimum Rv = 0.2
- 5. I=Impervious Cover (%)
- 6. P=90% Rainfall Event Number
- P=1.1 in. (See Figure 4.1, New York State Stormwater Management Design Manual, October 2001,page 4-2)

<sup>\*</sup> Impervious areas exist off-site only. No treatment provided.

## MARKETPLACE AT NEWBURGH NEWBURGH, NEW YORK

## ESTIMATED STORMWATER POLLUTANT LOADS

| ## A P R R R RAINUAL RUNOFF ANNUAL RUNOFF ANNUAL RUNOFF (In) (In) (In) (In) (In) (In) (In) (In)  | _                 | _          |         | _   |
|--|-------------------|------------|---------|-----|
| SMP   SEC   TOTAL SS   |                   |            |         |     |
| SMP   SEC   TOTAL SS   | (ac)              | AREA       | TOTAL   |     |
| SMP   SEC   TOTAL SS   | Ē                 | RAIN       | ANNUAL  |     |
| SMP   SEC   TOTAL SS   |                   | COEFF      | RUNOFF  | 3   |
| SMP   SEC   TOTAL SS   | Ē                 | RUNOF      | ANNUA   | (2) |
| ## TOTAL S  **TOTAL PHOSPHOROUS****  TOTAL PHOSPHOROUS***  TOTAL PHOSPHOROUS**  TOTAL PHOS | Г                 |            | SMI     | (3) |
| TOTAL SS  TOTAL PHOSPHOROUS  TOTAL NITROGEN  TOTAL SESONT NET WGT. C LOAD REM. SBSQNT  | Su                | bse<br>M I | quent   |     |
| TOTAL SS  TOTAL PHOSPHOROUS  TOTAL NITROGEN  TOTAL SESONT NET WGT. C LOAD REM. SBSQNT  | (mg/t)            | WCT.       | (3)     |     |
| TOTAL PHOSPHOROUS  | (lbs/yr           | LOAD       |         |     |
| TOTAL PHOSPHOROUS  TOTAL PHOSPHO | 98                | REM        | TOTAL   |     |
| TOTAL PHOSPHOROUS  TOTAL PHOSPHO | REM.<br>(%)       | SBSQN      | SS      |     |
| TOTAL PHOSPHOROUS  TOTAL PHOSPHO | (lbs/yr)          | NET        |         |     |
| TOTAL NITROGEN   | /gm)              | WCT        |         |     |
| TOTAL NITROGEN   | l) (lbs/yr        | CLOAL      | TOTA    |     |
| TOTAL NITROGEN   | (%)               | REM        | LPHOS   |     |
| TOTAL NITROGEN   | REM.<br>(%)       | SBSQN      | PHORO   |     |
| TOTAL NITROGEN   | (lbs/yr)          | NET        | S       |     |
| TOTAL NITROGEN   | Ŧ                 | WCT.       |         |     |
| METALS   BACTERIA  | _                 | CLOVD      | TOT     |     |
| METALS   BACTERIA  | (%)               | REM.       | AL NITI |     |
| METALS   BACTERIA  | REM<br>(%)        | SBSQNT     | ROGEN   |     |
| BEQNIT   NET WGT. C   LOAD   REM   BEGONT   REM   (1067)ri)   (1000   (colonles   %)   REM   (col mit)   /yr)   (%)   (%)   (%)   (%)  | (lbs/yr)          | NET        |         |     |
| BEQNIT   NET WGT. C   LOAD   REM   BEGONT   REM   (1067)ri)   (1000   (colonles   %)   REM   (col mit)   /yr)   (%)   (%)   (%)   (%)  | (mg/l)            | WGT C      |         |     |
| BEQNIT   NET WGT. C   LOAD   REM   BEGONT   REM   (1067)ri)   (1000   (colonles   %)   REM   (col mit)   /yr)   (%)   (%)   (%)   (%)  | (lbs/yr)          | LOAD       | _       |     |
| BEQNIT   NET WGT. C   LOAD   REM   BEGONT   REM   (1067)ri)   (1000   (colonles   %)   REM   (col mit)   /yr)   (%)   (%)   (%)   (%)  | (%)               | REM        | METALS  |     |
| BACTERIA C LOAD REM BBSONT Colonles (%) REM (colo  | REM<br>(%)        | SBSQNT     | -       |     |
| BACTERIA C LOAD REM BBSONT Colonles (%) REM (colo  | (lbs/yr)          | NET        |         |     |
| BACTERIA  D REM SBSQNT es (%) REM (cok   | (1000<br>col /ml) | WCT. C     |         |     |
| QNT<br>EM (cok   | (colonles<br>/yr) | LOAD       |         |     |
| QNT<br>EM (cok   | (%)               | REM        | BACTE   |     |
| NET (colonles /yr)   | REM<br>(%)        | SBSQNT     | RIA     |     |
|  |                   | NET        |         |     |

## EXISTING ON-SITE POLLUTANT LOADS

| ٦       | Γ      |             |          | 1        |
|---------|--------|-------------|----------|----------|
| Ave.    | 0      | C           |          | >        |
| 132.40  | 11.10  | 63.10       | 1.00     | 57.20    |
|         | 49.5   | 49.5        | 49.5     | 49.5     |
|         | 0.20   | 0.20        | 0.20     | 0.20     |
|         |        | . 9         | 9        | 9        |
|         | -      | _           | -        | -        |
|         | -      | -           | _        |          |
|         | 586    | 589         | 602      | 530      |
| 150218  | 13099  | 74896       | 1212     | 61011    |
|         | 0%     | 98          | 0%       | <b>3</b> |
| 0%      | 9%     | 98          | 9%       | 9        |
| 150218  | 13099  | 74896       | 1212     | 61011    |
|         | 2.04   | 2.06        | 2.10 4   | 1.86     |
| 525     | 46     | 261         | _        | 214      |
|         | 0%     | 0%          | 0%       | 0%       |
| 9%      | 0%     | 0%          | 9        | 0%       |
| 525     |        | 261         |          | 214      |
|         | 8.8    | 8.9         | 91       | 8.2      |
| 2292    | _      | _           | 8        | _        |
|         | 0%     | 9%          | 98       | 9        |
| 0%      | 0%     | 9%          | 9%       | 960      |
| 2292    | 198    | 1130        | <b>æ</b> | 946      |
|         | 0.0    | 0.0         | 0.0      | 0.0      |
| 10.3    | 0.8    | 4.5         | <u></u>  | 4.9      |
|         | 0%     | 98          | 9%       | 9%       |
| 0%      | 0%     | %           | 9%       | 9%       |
| 10.3    | 0.8    | <u>4</u> .5 | 0        | 4.9      |
|         | 24.1   | 24 1        | 24.0     | 215      |
| 2795606 | 245982 | 1397914     | 22026    | 1129684  |
|         | 0%     | 0%          | 0%       | 0%       |
| 0%      | - 0%   | 0%          | 0%       | 0%       |
| 2795606 | 245982 | 1397914     | 22026    | 1129684  |
|         | _      | _           | _        | _        |

## DEVELOPED ON-SITE POLLUTANT LOADS WITHOUT TREATMENT

|   | Total or Wgt. | DD     | CC-4   | CC-3       | CC-2     | CC-1   | 88   | AA-2    | AA-1         |
|---|---------------|--------|--------|------------|----------|--------|------|---------|--------------|
|   | 132.40        | 7.60   | 25.50  | 10.60      | 1.70     | 7.30   | 0.10 | 51.00   | 28.60        |
|   |               | 49.5   | 49.5   | 19.5       | 49.5     | 19.5   | 19.5 | 19.5    | 49.5         |
|   |               | 0.20   | 0.82   | 0.82       | 0.20     | 0.20   | 0.20 | 0.75    | 0.29         |
|   |               | 9      | 36     | 36         |          | 9      | 9    | 33      | 131          |
|   |               | -      | -      | -          | _        | -      | _    | -       | -            |
|   |               | -      | -      | _          | _        | -      | _    | -       | _            |
|   |               | 579    | 112    | ē          | 602      | 602    | 602  | 155     | 445          |
|   | 149642        | 8856   | 23410  | 9552       | 2061     | 8849   | 121  | 59492   | 37300        |
|   |               | 98     | 98     | 9%         | 98       | 0%     | 9    | 9       | 9%           |
|   | 0%            | 9%     | 0%     | 9          | 0%       | 0%     | 9%   | 0%      | <b>9</b> ,   |
|   | 149642        | 8856   | 23410  | 9552       | 2061     | 8849   | 121  | 59492   | 37300        |
|   |               | 2.02   | 0.44   | 0.43       | 2.10     | 2.10   | 2.10 | 0.58    | 1.57         |
|   | 553           | 31     | 91     | 38         | 7        | 31     | •    | 223     | 31           |
|   |               | 98     | 9%     | 98         | 9%       | 98     | 98   | 98      | 3            |
|   | 0%            | 0%     | 98     | 0%         | 0%       | 96     | 9%   | 98      | 98           |
|   | 553           | 31     | 91     | <b>3</b> 8 | 7        | 31     | 0    | 223     | 131          |
|   |               | 8.7    | 2.9    | 2.9        | 9.1      | 9.1    | 9.1  | Α       | 7.1          |
| ĺ | 3072          | 133    | 610    | 253        | 3        | 34     | 2    | 1314    | 596          |
|   |               | 0%     | 0%     | 0%         | 0%       | 9%     | 0%   | 98      | 0%           |
|   | 9%            | 0%     | 0%     | 0%         | 0%       | 0%     | 0%   | 9%      | 9            |
|   | 3072          | 133    | 610    | 253        | 31       | 34     | 2    | 1314    | 596          |
|   |               | 0.0    | 0.1    | 9.         | 0.0      | 0.0    | 0.0  | 0.1     | 0.1          |
|   | 72.9          | 0.6    | 20.3   | 8.6        | 0        | 0.5    | 0.0  | 37 9    | - <u>1</u> - |
|   |               | 0%     | 9%     | 9%         | 98       | 0%     | 0%   | 9%      | 0%           |
|   | %0            | 0%     | 0%     | 9%         | 98       | 0%     | 9%   | 9%      | 0%           |
|   | 72.9          | 0.6    | 20.3   | 8.6        | <u>e</u> | 0.5    | 0.0  | 37.9    | 4.8          |
|   |               | 24.2   | 7.6    | 7.5        | 24.0     | 24.0   | 24.0 | æ<br>5  | 18.5         |
|   | 3590220       | 168893 | 728532 | 296290     | 37443    | 160786 | 2203 | 1487935 | 708139       |
|   |               | 0%     | 0%     | 0%         | 9%       | 0%     | 96   | 9%      | 0%           |
|   | 9%            | 0%     | 0%     | 0%         | 2        | 0%     | 98   | 9       | 9%           |
|   | 3590220       | 168893 | 728532 | 296290     | 37443    | 160786 | 2203 | 1487935 | 708139       |

## DEVELOPED ON-SITE POLLUTANT LOADS WITH TREATMENT

| _             | ,-     | _      | _     |       |          |      |             |        |
|---------------|--------|--------|-------|-------|----------|------|-------------|--------|
| Total or Wgt. | B      | CC-4   | CC 3  | CC-2  |          | 88   | AA-2        | A A -1 |
| 132.40        | 7.60   | 25.50  | 10.60 | 1.70  | 7.30     | 010  | 51.00       | 28.60  |
|               | 49.5   | 49.5   | 49.5  | 49.5  | 49.5     | 495  | 49.5        | 49.5   |
|               | 0.20   | 0.82   | 0.82  | 0.20  | 0.20     | 0.20 | 0.75        | 0.29   |
|               | 9      | 36     | 36    | 9     | . 9      | 9    | ະ           | :3     |
|               | -      | 2      | 5     | -     | <u>-</u> | -    | 2           | -      |
|               | -      | -      | -     | -     | -        | -    | -           | _      |
|               | 579    | 1112   | 100   | 602   | 602      | 602  | 155         | 445    |
| 149642        |        | _      |       |       |          |      |             | 37300  |
|               | 0%     | 80%    | 90%   | 98    | 96       | 0%   | 80%         | . 0%   |
| 50%           | 0%     | 9%     | 0%    | 9%    | %        | 0%   | 9%          | 98     |
| 74723         | 8856   | 4682   | 955   | 2061  | 8849     | 121  | 11898       | 37300  |
|               | 2.02   | 044    | 0.43  | 210   | 2.10     | 2.10 | 0.58        | 1.57   |
| 553           | 31     | 91     | 38    | 7     | <u>u</u> | . 0  | 223         | 131    |
|               | 0%     | 50%    | 70%   | 9%    | 9%       | 0%   | 50%         | 0%     |
| 33%           | 0%     | 9%     | 0%    | 0%    | .%       | 0%   | 9%          | 0%     |
| 369           | 31     | 6      | =     | 7     | <u>3</u> | 0    | Ξ           | 131    |
|               | 8.7    | 2.9    | 2.9   | 9.    | 9.1      | 9.   | 3.4         | 7.1    |
| 3072          | 133    | 610    | 253   | 3     | 34       | 2    | 1314        | 596    |
|               | 0%     | 35%    | 50%   | 9%    | 9%       | 9    | 35%         | 98     |
| 26%           | 0%     | 98     | 98    | 3     | 98       | 9    | 9           | 0%     |
| 2273          | 133    | 396    | 126   | 31    | 134      | 2    | 854         | 596    |
|               | 0.0    | 2.2    | 01    | 0.0   | 0.0      | 0.0  | 0.1         | 01     |
| 72.9          | 0.6    | 20.3   | 8.6   | 0.1   | 0.5      | 0.0  | 37.9        | 4.8    |
|               | 0%     | 60%    | 90%   | 0%    | 9%       | 9%   | 60%         | 9%     |
| 59%           | 0%     | 98     | 98    | 0%    | 9%       | 9%   | 0%          | 0%     |
|               |        |        |       |       |          |      |             |        |
|               | 24.2   | 7.6    | 7 5   | 24.0  | 24.0     | 24.0 | <b>8</b> .5 | 18.5   |
| fa)           |        |        |       |       |          |      | _           | 708139 |
|               | 98     | 70%    | 90%   | 0%    | 9%       | 9%   | 70%         | 9      |
| 51%           | 0%     | 0%     | 9%    | 0%    | 9%       | 98   | 0%          | 9      |
| 1772033       | 168893 | 218559 | 29629 | 37443 | 160786   | 2203 | 446381      | 708139 |

| 65432-  | No.            |                      |
|---|----------------|----------------------|
| NO SMP MEASURE WET PONDS STORMWATTER WETLANDS FILTERING PRACTICES INFILTRATION PRACTICES WATER QUALITY SWALES | TYPE           | NYSDEC SUGGESTED REA |
| %58<br>%08<br>%08<br>%08<br>%0  | SST            | OVAL RA              |
| 0%<br>50%<br>50%<br>60%<br>70%  |                | TES FO               |
| 0%<br>35%<br>30%<br>40%<br>50%<br>50%   | IVAOV          | OR SMI               |
| 0%<br>60%<br>40%<br>70%<br>70%  | RATE<br>Metals | 3                    |
| 0%<br>70%<br>80%<br>35%<br>90%  | Bacteria       |                      |
|   |                |                      |

<sup>1.</sup> Rv = 0.05 ±0.009(1). Minhmum Rv=0.2
2. R = P - Ps. R.; Pl = Fraction of annual rainful events that produce rainoff, usually 0.9 (Per PVSDLC Stormwater Management Design Manual, Appendix A, Page A-0, 3 Table A 4 Suspecial Removal Rates for SMFs, NYSDLC Stormwater Management Design Manual Appendix A, Page A-7. Subsequent measures remove assigned percentage of pollutants remaining from proceeding measure.
4. The Simple Method for CHEMICAL CONSTITULENTS. L = 0.226 °R °C °A. Appendix A. New York State Stormwater Management Design Manual, October 2001, page A-1.
5. The Simple Method for BACTERIA. L = 103 °R °C °A. Appendix A. New York State Stormwater Management Design Manual, October 2001, page A-1.
6. TSS = Total Stormsended Solids.
7. Te = Total Procedurous
8. TN = Total Procedurous
8. TN = Total Procedurous
8. TN = Total Procedurous
9. Metab = The Average of Copper and Zinc as representative indicators

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