TOWN OF NORTH CASTLE

WESTCHESTER COUNTY
17 Bedford Road
Armonk, New York 10504-1898

PLANNING DEPARTMENT
Adam R. Kaufman, AICP
Director of Planning

Telephone: (914) 273-3542
Fax: (914) 273-3554
www.northcastleny.com

Application for Site Development Plan Approval

Application Name

16 Quaker Meeting House Rd

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Important General Information

- Prior to submitting an application, the "Notice to Applicants" should be reviewed.

- To appear before the Planning Board, all required application materials shall be submitted not later than **12:00 P.M., Monday, fourteen (14) days** prior to the date of the Planning Board meeting at which the application is scheduled to be heard or as otherwise noted by the Planning Board Secretary. Continuing Business can be submitted 12 days prior to the Next Planning Board meeting by the close of business. Except where noted.

  If all required application materials, including the pertinent application fee and escrow monies are not submitted by that deadline, the application shall be automatically removed from the agenda.

  At the discretion of the Planning Board Chairman, the application may be rescheduled, if appropriate, for the next available Planning Board meeting or the application may be removed from future agendas altogether. Without prior authorization from the Planning Board, application submissions shall not be accepted at Planning Board meetings.

- At the time of submission, all required application materials shall be submitted. **Piecemeal** submissions **shall not** be accepted. Substitution of previously submitted materials shall not be permitted.

- All submissions shall be dated, with revision dates identified on new submissions.

- All submissions shall be accompanied by a cover letter describing the project and/or any changes as compared to previous submissions.

- For distribution purposes and mailing to the Planning Board Members and others (as required), multiple copies of application materials shall be collated into separate sets, each containing one copy of every submitted document. All application materials shall be submitted in a form that fits into a **12" x 17" envelope.** Plans shall be **folded** and **rubber banded** as necessary.

- To be considered complete for Planning Board hearing purposes, an application package shall contain the information identified in Parts IV and V of this application form.

- For purposes of completing this application form, all responses provided shall be printed, except as otherwise specified.

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AT THE TIME OF SUBMISSION TO THE PLANNING DEPARTMENT PLEASE MAKE SURE THE FOLLOWING IS PROVIDED

- ✓ SUBMISSION OF A SINGLE PDF FILE (PLANS, APPLICATION FORM, OTHER PAPERWORK) ON A DISK, THUMBDRIVE OR EMAIL

- ✓ COVER LETTER DESCRIBING THE PROJECT OR CHANGES TO THE PROJECT

- ✓ ALL PLANS ARE SIGNED AND SEALED BY A LICENSED NYS PROFESSIONAL

- ✓ ALL PLANS SHALL BE COLLATED AND FOLDED INTO 8 INDIVIDUAL SETS

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NOTICE TO APPLICANTS

In the Town of North Castle, the Planning Board is responsible for the review and approval of all applications concerning site plans, subdivisions and lot line changes; some applications concerning special use permits, wetlands permits and tree removal permits; and the environmental review of those applications over which it has jurisdiction. The Planning Board may also have an advisory role in connection with some applications before the Town Board, such as those involving other categories of special use permits and zoning amendments.

The Planning Board is composed of five volunteer members – all residents of North Castle – who are appointed by the Town Board for five-year terms. As part of the review of some applications, the Planning Board is assisted on an as-needed basis by other lay boards of the Town, such as the Conservation Board (CB), the Zoning Board of Appeals (ZBA), the Open Space Committee and the Architectural Review Board (ARB). As part of the review of most applications, the Planning Board is also assisted by the Director of Planning, the Town Engineer, the Town Attorney and other special consultants when required.

FEES:

If you submit an application for Planning Board review, you will be required to reimburse the Town for the cost of professional review services, including legal and engineering services, incurred in connection with the review of your application. The charges for professional planning review services have been $120/hour. If other types of professional consultant review services are required, those charges will be in accord with fees usually charged for such services and pursuant to a contractual agreement between the Town and such professional.

At the time of submission of an application, the Planning Board will require the establishment of an escrow account from which withdrawals shall be made to reimburse the Town for the cost of consultant fees and professional staff services.

ESCROW ACCOUNT:

Escrow Accounts are established for each application. Monies will be deducted from the account for professional review services rendered. Monthly escrow disbursement summaries will be mailed for your reference regarding your project. When the balance in such escrow account is reduced to one-third (1/3) of its initial amount, a letter will be mailed to the applicant and the applicant shall deposit additional funds into such account to restore its balance to the amount of the initial deposit. Additional information on these requirements is provided in the North Castle Town Code (see Sections 355-79B and 275-36.C).

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PROCEDURE:

Prior to submitting an application to the Planning Board for review and approval, prospective applicants should schedule an appointment with the Planning Board Secretary at (914) 273-3542 for a consultation with the Town Planner and the Town Engineer. When the appointment is made, a verbal description of the proposal should be provided to the Planning Board Secretary. The Town of North Castle is providing the services of the Director of Planning and the Town Engineer for ***initial*** consultation at no cost to the applicant so that it is possible to conduct the application review as efficiently as possible for the benefit of the applicant as well as the Planning Board.

After meeting with the Town Planner and Town Engineer, prospective applicants should prepare one complete set of application documents and plans. This set will be reviewed for completeness by the Town Planner. If determined to be incomplete, the Planning Department will submit a checklist indicating which items have not been adequately addressed. If determined to be complete, the checklist will be initialed and the Applicant should submit the remainder of the required application packages.

Once the checklist has been initialed and all application packages have been submitted, the Planning Board Secretary will schedule the application for the first available opening on the Planning Board's meeting agenda. However, if the required application material packages, including the pertinent application fee are not received at the Planning Board office by 12:00 PM, Monday, 14 days prior to the date of the Planning Board meeting at which you are scheduled to appear (or otherwise scheduled by the Planning Board Secretary), your application will be automatically removed from the agenda. At the discretion of the Planning Board Chairman, your application may be rescheduled, if appropriate, for the next available Planning Board meeting or the application may be removed from future agendas altogether. Additional requirements pertinent to each type of application are provided on the individual application forms, which you should carefully review prior to submitting your application.

When an application is deemed complete and submitted for review, it will be forwarded to the Planning Board Members and its professional advisors in advance of the meeting to allow adequate time for review, preparation of written reports and site inspections as necessary. Your application may also be forwarded to other boards and staff of the Town as well as to agencies outside of the Town, if required. Compliance with State Environmental Quality Review (SEQR) procedures is also required as part of the processing of all applications.

At your first appearance before the Planning Board, the Applicant will describe the project and the Planning Board will discuss any preliminary issues. The Planning Board discussion may be continued at future meetings, or if the Planning Board review has progressed sufficiently, the Application may be scheduled for a public hearing (if one is required) The public hearing may occur at a single Planning Board meeting, or it may be adjourned and continued at another Planning Board meeting. Because the nature and complexity of each application varies

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considerably, it is not possible to predict in advance the length of time needed to secure Planning Board approval. There are certain steps that you can take, however, to expedite the review process. These include, but are not limited to, the following:

- Be thoroughly familiar with the requirements pertinent to your application. Carefully review relevant provisions of the North Castle Town Code and the application form for your particular type of application. Be sure to check on what other types of approvals may be required in addition to that of the Planning Board. Approvals by other Town boards or departments as well as agencies outside of the Town may be required before you will be allowed to proceed with your project.

- Make sure that your application materials are accurately prepared and contain all required information. The information that we initially request is required, so make sure that your submission is complete. If supplementary information is requested as the review process continues, make sure that it is submitted in a timely fashion so the Planning Board can continue to move your application along.

- Follow up to make sure that your application materials are being submitted on time, or deliver them to the Planning office yourself.

- Attend the Planning Board meeting at which your application will be discussed and be on time for the meeting. If you cannot appear personally, make sure that your representative will be there and is thoroughly familiar with your application.

If the Application is approved by the Planning Board, a resolution of approval will be adopted by the Planning Board. It is the Applicant's responsibility to address any and all conditions of approval. Permits from the Building Department cannot be issued until all conditions have been addressed and the plans have been signed by the Planning Board Chair and the Town Engineer.

ON LINE AGENDAS & PLANNING DEPARTMENT MEMORANDA CAN BE REVIEWED AT

WWW.NORTHCASTLENY.COM

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INFORMATION REGARDING PUBLIC HEARINGS

1. The North Castle Assessor's Office shall prepare a list of neighbors to be notified for the neighbor notifications and public hearings - **A minimum of one week's notice is required** . The fee is $50.00 which includes the list of neighbors and two sets of labels for mailing. The Assessor's Office may be reached Monday – Friday from 8:30 a.m.– 4:30 p.m. at 273-3324. You may also e-mail your request to assessor@northcastleny.com

When requesting your list please reference the list of application types below so that you can tell the Assessor's office how many feet on all sides of the property to create the list for.

Subdivisions - All lots zoned R-10, R-5 and R-2F shall notice all neighbors within 200 feet from all sides of their property. All other zoning districts shall notice neighbors within 500 feet from all sides of their property. Public hearing notice must be published in the newspaper.

Special Use Permit for Structures over 800 sq ft. & Accessory Apartment - All Zoning Districts shall notice all neighbors within 250 feet from all sides of their property. Public hearing notice must be published in the newspaper.

Site Plan, Non Residential - All Zoning Districts shall notice all neighbors within 250 feet from all sides of their property. Public hearing notice must be published in the newspaper.

Site Plan, Residential/ Neighbor Notification – All zoning districts R-3/4A or smaller shall notice all neighbors within 250' from all sides of their property. All zoning districts zoned R-1A or larger shall notice all neighbors within 500' from all sides of the property. No public hearing required, no publication in the newspaper required.

Wetlands Permit - All Zoning Districts shall notice all abutting property owners. Public hearing notice must be published in the newspaper.

2. The Director of Planning will prepare a Public Notice. The applicant and or professional will review, sign, date and return to the Planning Department Secretary. If there are any changes necessary, please edit and return for corrections. The corrections will be made and emailed back to the applicant who will forward it to the Journal Newspaper, when applicable.

If notification to the newspaper is not required, please continue to #3.

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You may email your public notice to legals@lohud.com. Please request an affidavit of publication which must be submitted to the Planning Board secretary prior to the public hearing. The Journal News requires three days prior notice before 12 noon, not counting weekends and holidays, for ad placement. Make sure the notice placement of the ad in the Greater Westchester Area. This notice cannot be published any sooner than 20 days prior to the meeting and must be published no less than 10 days prior to the meeting.

If you have any questions regarding your publication you may call 888-516-9220:
Email Address: legals@lohud.com

It is suggested that you purchase the newspaper for your records the day the notice is published.

3. Send out the Public Hearing Notice/ Neighbor Notification by First Class Mail. Notice shall be mailed by the applicant in official envelopes provided by the North Castle Planning Department; the list of noticed neighbors will be prepared by the Assessor's Office. This must be sent out no less than 10 days prior to the meeting and no more than 20 days prior to the meeting date. A Certificate of Mailing (PS Form 3817 or 3877) shall be filled out and post marked by the Post Office on the day of mailing. Neighbor Notifications – no publication in the newspaper required.

4. The Friday before the meeting or no later than 12:00 p.m. the day of the meeting the following **must** be submitted.

- List of Neighbors prepared by the Assessor's Office
- Certificate of Mailing – PS form 3817 or 3877 post marked by the US Post Office
- Affidavit of publication from the Newspaper (only if published in the newspaper)

UNITED STATES POSTAL SERVICE®

Firm Mailing Book For Accountable Mail

Name and Address of Sender

Check type of mail or service

- ☐ Adult Signature Required
- ☐ Adult Signature Restricted Delivery
- ☐ Certified Mail
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery (COD)
- ☐ Insured Mail
- ☐ Priority Mail
- ☐ Priority Mail Express
- ☐ Registered Mail
- ☐ Return Receipt for Merchandise
- ☐ Signature Confirmation
- ☐ Signature Confirmation Restricted Delivery

Affix Stamp Here
(if issued as an international certificate of mailing or for additional copies of this receipt).
Postmark with Date of Receipt.

	USPS Tracking/Article Number	Addressee (Name, Street, City, State, & ZIP Code™)	Postage	(Extra Service) Fee	Handling Charge	Actual Value if Registered	Insured Value	Due Sender if COD	ASR Fee	ASRD Fee	RD Fee	RR Fee	SC Fee	SCRD Fee	SH Fee
1.															
2.															
3.															
4.															
5.															
6.															
7.															
8.															

Handling Charge - if Registered and over $50,000 in value
Adult Signature Required
Adult Signature Restricted Delivery
Restricted Delivery
Return Receipt
Signature Confirmation
Signature Confirmation Restricted Delivery
Special Handling

Total Number of Pieces Listed by Sender	Total Number of Pieces Received at Post Office	Postmaster, Per *(Name of receiving employee)*

Complete in Ink

Privacy Notice: For more information on USPS privacy policies, visit *usps.com/privacypolicy.*

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APPLICATIONS REQUIRING PLANNING BOARD APPROVAL
SCHEDULE OF APPLICATION FEES

Type of Application	Application Fee
Site Development Plan	$200.00
Each proposed Parking Space	$10
Special Use Permit (each)	$200 (each)
Preliminary Subdivision Plat	$300 1st Lot $200 (each additional lot)
Final Subdivision Plat	$250 1st Lot $100 (each additional lot)
Tree Removal Permit	$75
Wetlands Permit	$50 (each)
Short Environmental Assessment Form	$50
Long Environmental Assessment Form	$100
Recreation Fee	$10,000 Each Additional Lot
Discussion Fee	$200.00

Prior to submission of a sketch or preliminary subdivision Plat, an applicant or an applicant's representative wishes to discuss a subdivision proposal to the Planning Board, a discussion fee of $200.00 shall be submitted for each informal appearance before the board.

Any amendment to previously approved applications requires new application forms and Fes

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PLANNING BOARD SCHEDULE OF ESCROW ACCOUNT DEPOSITS

Type of Application	Amount of Initial Escrow Account Deposit*
Concept Study	$500.00
Site Plan Waiver for Change of Use	$500.00
Site Development Plan for:	
Multifamily Developments	$3,000.00 plus $100.00 per proposed dwelling unit
Commercial Developments	$3,000.00 plus $50.00 for each required parking space
1 or 2 Family Projects	$2,000.00
Special Use Permit	$2,000.00 plus $50.00 for each required parking space
Subdivision:	
Lot Line Change resulting in no new lots	$1,500.00
All Others	$3,000.00 plus $200.00 per proposed new lot in excess of two (2)
Preparation or Review of Environmental Impact Statement	$15,000.00

* If a proposed action involves multiple approvals, a single escrow account will be established. The total amount of the initial deposit shall be the sum of the individual amounts indicated. When the balance in such escrow account is reduced to one-third (1/3) of its initial amount, the applicant shall deposit additional funds into such account to restore its balance to the amount of the initial deposit.

Keith Warner 2/18/2021

Applicant Signature Date:

I. IDENTIFICATION OF PROPERTY OWNER, APPLICANT AND PROFESSIONAL REPRESENTATIVES

Name of Property Owner: Birenberg

Mailing Address: 16 Quaker Meeting House Rd

Telephone: _____ Fax: _____ e-mail _____

Name of Applicant (if different): Ahneman Kirby

Address of Applicant: 1171 E Putnam Ave, Riverside, CT 06878

Telephone: 203-869-7707 Fax: 203-869-4606 e-mail kaw@ahnemankirby.com

Interest of Applicant, if other than Property Owner:
Engineer

Is the Applicant (if different from the property owner) a Contract Vendee?

Yes ☑ No ☐

If yes, please submit affidavit sating such. If no, application cannot be reviewed by Planning Board

Name of Professional Preparing Site Plan:
Ahneman Kirby

Address: 1171 E Putnam Ave, Riverside, CT 06878

Telephone: 203-869-7707 Fax: 203-869-4606 e-mail kaw@ahnemankirby.com

Name of Other Professional: _____

Address: _____

Telephone: _____ Fax: _____ e-mail _____

Name of Attorney (if any): _____

Address: _____

Telephone: _____ Fax: _____ e-mail _____

Applicant Acknowledgement

By making this application, the undersigned Applicant agrees to permit Town officials and their designated representatives to conduct on-site inspections in connection with the review of this application.

The Applicant also agrees to pay all expenses for the cost of professional review services required for this application.

It is further acknowledged by the Applicant that all bills for the professional review services shall be mailed to the Applicant, unless the Town is notified in writing by the Applicant at the time of initial submission of the application that such mailings should be sent to a designated representative instead.

Signature of Applicant: Keith Warner Date: 2/11/2021

Signature of Property Owner: [redacted] Date: 2/17/21

MUST HAVE BOTH SIGNATURES

II. IDENTIFICATION OF SUBJECT PROPERTY

Street Address: 16 Quaker Meeting House Rd

Location (in relation to nearest intersecting street):

350 feet (north, south, east or west) of Leisure Farm Dr

Abutting Street(s): _____

Tax Map Designation (NEW): Section 101.03 Block 4 Lot 44

Tax Map Designation (OLD): Section 2 Block 5 Lot 14-11

Zoning District: R-1A Total Land Area 1.68 Ac

Land Area in North Castle Only (if different) _____

Fire District(s)_____ School District(s)_____

Is any portion of subject property abutting or located within five hundred (500) feet of the following:

The boundary of any city, town or village?
No [✔] Yes (adjacent) [ ] Yes (within 500 feet) _____
If yes, please identify name(s): _____

The boundary of any existing or proposed County or State park or any other recreation area?
No [✔] Yes (adjacent) [ ] Yes (within 500 feet) _____

The right-of-way of any existing or proposed County or State parkway, thruway, expressway, road or highway?
No [✔] Yes (adjacent) [ ] Yes (within 500 feet) _____

The existing or proposed right-of-way of any stream or drainage channel owned by the County or for which the County has established channel lines?
No [✔] Yes (adjacent) [ ] Yes (within 500 feet) _____

The existing or proposed boundary of any county or State owned land on which a public building or institution is situated?
No [✔] Yes (adjacent) _____ Yes (within 500 feet) _____

The boundary of a farm operation located in an agricultural district?
No [✔] Yes (adjacent) _____ Yes (within 500 feet) _____

Does the Property Owner or Applicant have an interest in any abutting property?
No [✔] Yes _____

If yes, please identify the tax map designation of that property:

_____

III. DESCRIPTION OF PROPOSED DEVELOPMENT

Proposed Use: Single Family Residential

Gross Floor Area: Existing _____ S.F. Proposed _____ S.F.

Proposed Floor Area Breakdown:

Retail _____S.F.; Office _____S.F.;

Industrial _____ S.F.; Institutional _____S.F.;

Other Nonresidential _____S.F.; Residential _____ S.F.;

Number of Dwelling Units: _____

Number of Parking Spaces: Existing _____ Required _____ Proposed _____

Number of Loading Spaces: Existing _____ Required _____ Proposed _____

Earthwork Balance: Cut 150 C.Y. Fill 95 C.Y.

Will Development on the subject property involve any of the following:

Areas of special flood hazard? No X Yes _____
(If yes, application for a Development Permit pursuant to Chapter 177 of the North Castle Town Code may also be required)

Trees with a diameter at breast height (DBH) of 8" or greater?

No ☐ Yes ☑
(If yes, application for a Tree Removal Permit pursuant to Chapter 308 of the North Castle Town Code may also be required.)

Town-regulated wetlands? No ☑ Yes ☐
(If yes, application for a Town Wetlands Permit pursuant to Chapter 340 of the North Castle Town Code may also be required.)

State-regulated wetlands? No ☑ Yes ☐
(If yes, application for a State Wetlands Permit may also be required.)

IV. SUBMISSION REQUIREMENTS

The site development plan application package shall include all materials submitted in support of the application, including but not limited to the application form, plans, reports, letters and SEQR Environmental Assessment Form. **Submission of the following shall be required:**

- One (1) set of the site development plan application package (for distribution to the Town Planner for preliminary review purposes).

- Once a completed preliminary site plan checklist has been received from the Planning Department, eight (8) additional sets of the site development plan application package (for distribution to Planning Board, Town Engineer, Town Attorney, Town Planner, Planning Board Secretary, police, fire department and ambulance corps).

- One (1) additional reduced sized set (11” x 17”) of the site development plan application package if any portion of the subject property abuts or is located within five hundred (500) feet of the features identified in Section II of this application form (for distribution to Westchester County Planning Board).

- A check for the required application fee and a check for the required Escrow Account, both made payable to "Town of North Castle" in the amount specified on the "Schedule of Application Fees."

(continued next page)

V. INFORMATION TO BE INCLUDED ON SITE DEVELOPMENT PLAN

The following checklist is provided to enable the Applicant to determine if he/she has provided enough information on the site development plan for the Planning Board to review his/her proposal. Applicants are advised to review ARTICLE VIII, Site Development Plan of the North Castle Town Code for a complete enumeration of pertinent requirements and standards prior to making application for site development plan approval.

The application for site development plan approval will not be accepted for Planning Board review unless all items identified below are supplied and **so indicated with a check mark in the blank line provided.** If a particular item is not relevant to the subject property or the development proposal, **the letters "NA" should be entered instead**. In addition, the project will not be scheduled on a Planning Board agenda until the Applicant receives an initialed "site plan checklist" from the Planning Department.

The information to be included on a site development plan shall include:

Legal Data:

✔ Name of the application or other identifying title.

✔ Name and address of the Property Owner and the Applicant, (if different).

✔ Name, address and telephone number of the architect, engineer or other legally qualified professional who prepared the plan.

✔ Names and locations of all owners of record of properties abutting and directly across any and all adjoining streets from the subject property, including the tax map designation of the subject property and abutting and adjoining properties, as shown on the latest tax records.

✔ Existing zoning, fire, school, special district and municipal boundaries.

✔ Size of the property to be developed, as well as property boundaries showing dimensions and bearings as determined by a current survey; dimensions of yards along all property lines; name and width of existing streets; and lines of existing lots, reservations, easements and areas dedicated to public use.

✔ Reference to the location and conditions of any covenants, easements or deed restrictions that cover all or any part of the property, as well as identification of the document where such covenants, easements or deed restrictions are legally established.

✔ Schedule of minimum zoning requirements, as well as the plan's proposed compliance with those requirements, including lot area, frontage, lot width, lot depth, lot coverage, yards, off-street parking, off-street loading and other pertinent requirements.

✔ Locator map, at a convenient scale, showing the Applicant's entire property in relation to surrounding properties, streets, etc., within five hundred (500) feet of the site.

✔ North arrow, written and graphic scales, and the date of the original plan and all revisions, with notation identifying the revisions.

☐ A signature block for Planning Board endorsement of approval.

Existing Conditions Data:

☑ Location of existing use and design of buildings, identifying first floor elevation, and other structures.

☑ Location of existing parking and truck loading areas, with access and egress drives thereto.

☑ Location of existing facilities for water supply, sanitary sewage disposal, storm water drainage, and gas and electric service, with pipe sizes, grades, rim and inverts, direction of flow, etc. indicated.

☑ Location of all other existing site improvements, including pavement, walks, curbing, retaining walls and fences.

N/A Location, size and design of existing signs.

N/A Location, type, direction, power and time of use of existing outdoor lighting.

N/A Location of existing outdoor storage, if any.

☑ Existing topographical contours with a vertical interval of two (2) feet or less.

☑ Location of existing floodplains, wetlands, slopes of 15% or greater, wooded areas, landscaped areas, single trees with a DBH of 8" or greater, rock outcrops, stone walls and any other significant existing natural or cultural features.

Proposed Development Data:

N/A Proposed location of lots, streets, and public areas, and property to be affected by proposed easements, deed restrictions and covenants.

N/A Proposed location, use and architectural design of all buildings, including proposed floor elevations and the proposed division of buildings into units of separate occupancy.

N/A Proposed means of vehicular and pedestrian access to and egress from the site onto adjacent streets.

N/A Proposed sight distance at all points of vehicular access.

N/A Proposed number of employees for which buildings are designed

N/A Proposed streets, with profiles indicating grading and cross-sections showing the width of the roadway; the location and width of sidewalks; and the location and size of utility lines.

N/A Proposed location and design of any pedestrian circulation on the site and off-street parking and loading areas, including handicapped parking and ramps, and including details of construction, surface materials, pavement markings and directional signage.

N/A Proposed location and design of facilities for water supply, sanitary sewage disposal, storm water drainage, and gas and electric service, with pipe sizes, grades, rim and inverts, direction of flow, etc. indicated.

- ✔ Proposed location of all structures and other uses of land, such as walks, retaining walls, fences, designated open space and/or recreation areas and including details of design and construction.
- N/A Location, size and design of all proposed signs.
- N/A Location, type, direction, power and time of use of proposed outdoor lighting.
- N/A Location and design of proposed outdoor garbage enclosure.
- N/A Location of proposed outdoor storage, if any.
- ✔ Location of proposed landscaping and buffer screening areas, including the type (scientific and common names), size and amount of plantings.
- N/A Type of power to be used for any manufacturing
- N/A Type of wastes or by-products to be produced and disposal method
- N/A In multi-family districts, floor plans, elevations and cross sections
- N/A The proposed location, size, design and use of all temporary structures and storage areas to be used during the course of construction.
- ✔ Proposed grade elevations, clearly indicating how such grades will meet existing grades of adjacent properties or the street.
- ✔ Proposed soil erosion and sedimentation control measures.
- N/A For all proposed site development plans containing land within an area of special flood hazard, the data required to ensure compliance with Chapter 177 of the North Castle Town Code.
- ✔ For all proposed site development plans involving clearing or removal of trees with a DBH of 8" or greater, the data required to ensure compliance with Chapter 308 of the North Castle Town Code.
- N/A For all proposed site development plans involving disturbance to Town-regulated wetlands, the data required to ensure compliance with Chapter 340 of the North Castle Town Code.

Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

Part 1 - Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 - Project and Sponsor Information

Name of Action or Project:
Birenberg Residence

Project Location (describe, and attach a location map):
16 Quaker Meeting House Rd, Armonk, NY 10504

Brief Description of Proposed Action:
Removal of 2 trees, construction of an in ground swimming pool, low height retaining wall

Name of Applicant or Sponsor:	Telephone: 203-869-7707
Ahneman Kirby	E-Mail: kaw@ahnemankirby.com

Address:
1171 E Putnam Ave

City/PO:	State:	Zip Code:
Riverside	CT	06878

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other governmental Agency? If Yes, list agency(s) name and permit or approval:	☑	☐

3.a. Total acreage of the site of the proposed action? 1.68 acres
b. Total acreage to be physically disturbed? 0.11 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 1.68 acres

4. Check all land uses that occur on, adjoining and near the proposed action.
☐ Urban ☐ Rural (non-agriculture) ☐ Industrial ☐ Commercial ☑ Residential (suburban)
☑ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____
☐ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☐	☑	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑

	NO	YES
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area? If Yes, identify: _____	☑	☐

	NO	YES
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☑	☐
b. Are public transportation service(s) available at or near the site of the proposed action?	☑	☐
c. Are any pedestrian accommodations or bicycle routes available on or near site of the proposed action?	☑	☐

	NO	YES
9. Does the proposed action meet or exceed the state energy code requirements? If the proposed action will exceed requirements, describe design features and technologies: _____	☐	☑

	NO	YES
10. Will the proposed action connect to an existing public/private water supply? If No, describe method for providing potable water: N/A, swimming pool	☑	☐

	NO	YES
11. Will the proposed action connect to existing wastewater utilities? If No, describe method for providing wastewater treatment: N/A, swimming pool	☑	☐

	NO	YES
12. a. Does the site contain a structure that is listed on either the State or National Register of Historic Places?	☑	☐
b. Is the proposed action located in an archeological sensitive area?	☑	☐

	NO	YES
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☑	☐
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody? If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____	☑	☐

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☐ Shoreline ☑ Forest ☐ Agricultural/grasslands ☐ Early mid-successional
☐ Wetland ☐ Urban ☑ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☑	☐

	NO	YES
16. Is the project site located in the 100 year flood plain?	☑	☐

	NO	YES
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes,		
a. Will storm water discharges flow to adjacent properties? ☑ NO ☐ YES	☐	☑
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? If Yes, briefly describe: ☑ NO ☐ YES		

	NO	YES
18. Does the proposed action include construction or other activities that result in the impoundment of water or other liquids (e.g. retention pond, waste lagoon, dam)? If Yes, explain purpose and size: _____	☑	☐
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe: _____	☑	☐
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe: _____	☑	☐

I AFFIRM THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor name: Ahneman Kirby Date: 2/11/2021

Signature: Keith Werner

PRINT FORM

Eric Birenberg
16 Quaker Meeting House Road
Armonk, NY 10504

February 10, 2021

Town of North Castle Planning Board
15 Bedford Road
Armonk, NY 10504

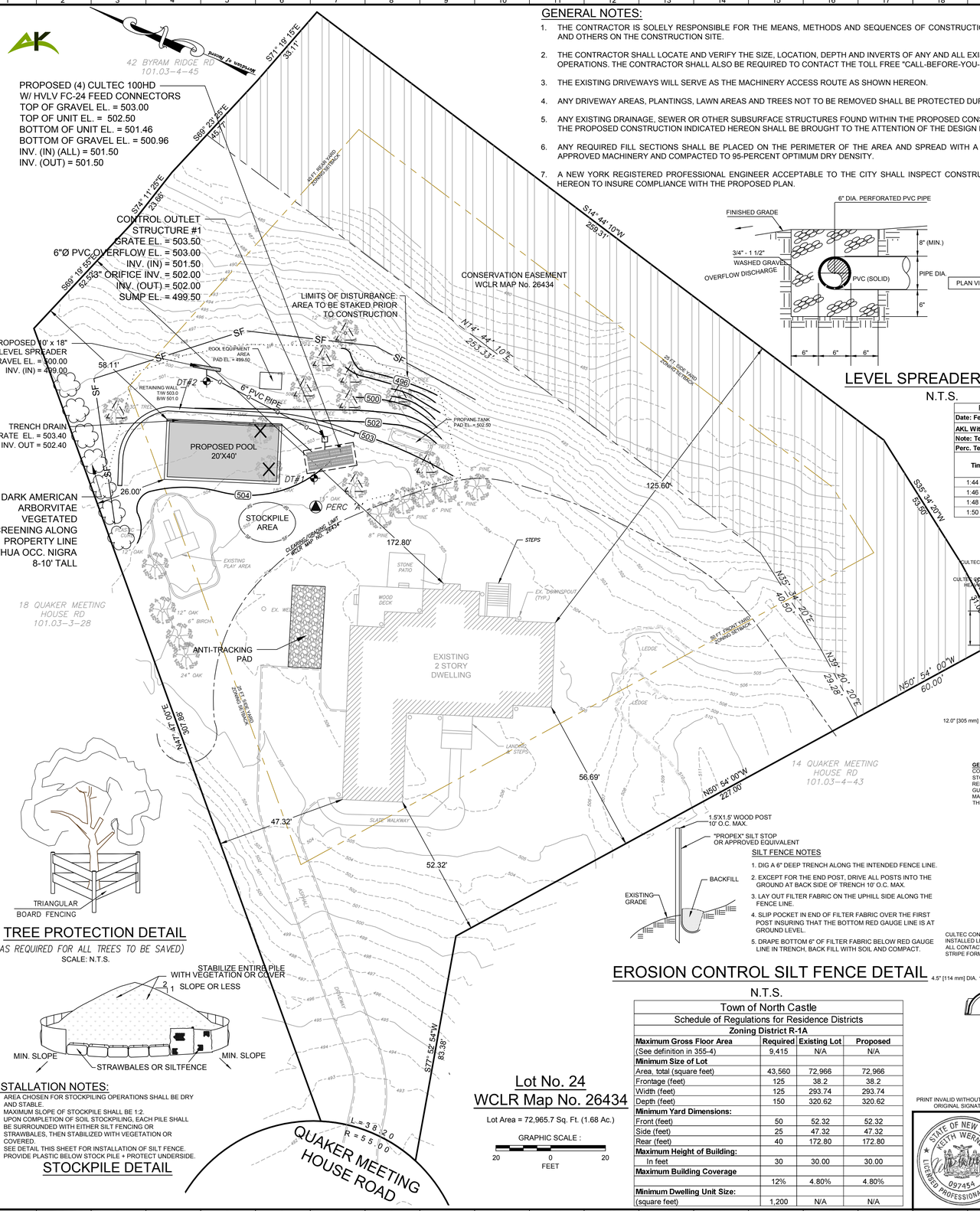
RE: 16 Quaker Meeting House Road – Armonk, NY 10504

To whom it may concern:

As the owner of the above referenced property, this letter is to confirm that Ahneman Kirby, LLC is duly authorized to submit plans, application forms and other relevant documents on my behalf as my agent to the North Castle Planning Board.

Very truly yours,

_____
Eric Birenberg



GENERAL NOTES:

1. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS, METHODS AND SEQUENCES OF CONSTRUCTION AND FOR THE SAFETY OF WORKERS AND OTHERS ON THE CONSTRUCTION SITE.
2. THE CONTRACTOR SHALL LOCATE AND VERIFY THE SIZE, LOCATION, DEPTH AND INVERTS OF ANY AND ALL EXISTING UTILITIES PRIOR TO COMMENCING OPERATIONS. THE CONTRACTOR SHALL ALSO BE REQUIRED TO CONTACT THE TOLL FREE "CALL-BEFORE-YOU-DIG" PHONE NUMBER AT 1-800-922-4455.
3. THE EXISTING DRIVEWAYS WILL SERVE AS THE MACHINERY ACCESS ROUTE AS SHOWN HEREON.
4. ANY DRIVEWAY AREAS, PLANTINGS, LAWN AREAS AND TREES NOT TO BE REMOVED SHALL BE PROTECTED DURING CONSTRUCTION.
5. ANY EXISTING DRAINAGE, SEWER OR OTHER SUBSURFACE STRUCTURES FOUND WITHIN THE PROPOSED CONSTRUCTION AREA THAT INTERFERE WITH THE PROPOSED CONSTRUCTION INDICATED HEREON SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER.
6. ANY REQUIRED FILL SECTIONS SHALL BE PLACED ON THE PERIMETER OF THE AREA AND SPREAD WITH A SMALL CRAWLER, TRACTOR OR OTHER APPROVED MACHINERY AND COMPACTED TO 95-PERCENT OPTIMUM DRY DENSITY.
7. A NEW YORK REGISTERED PROFESSIONAL ENGINEER ACCEPTABLE TO THE CITY SHALL INSPECT CONSTRUCTION OF THE FACILITATES INDICATED HEREON TO INSURE COMPLIANCE WITH THE PROPOSED PLAN.

LEVEL SPREADER DETAIL

N.T.S.

PEROLCATION TEST RESULTS

Date: February 19, 2021

AKL Witness: Ida Gheibi

Note: Test holes were presoaked

Perc. Test: A — **Hole Depth = 30.0"**

Time	Depth to Water (in)	Difference (in)	Perc. Rate (min/in)
1:44 PM	19	-	-
1:46 PM	20	1.0	2.0
1:48 PM	21	1.0	2.0
1:50 PM	22	1.0	2.0

Average 'A' = 2.0 min/in

30.00 in/hr

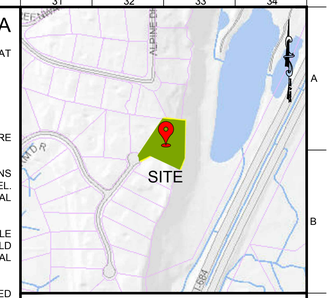
EROSION CONTROL NARRATIVE:

ZONE: R-1A

THE PURPOSE OF THIS SEDIMENT AND EROSION NARRATIVE, DETAILS AND NOTES IS TO OUTLINE A PROGRAM THAT MINIMIZES SOIL EROSION DURING CONSTRUCTION. THE PRIMARY POLICIES OF THIS PROGRAM AREA:

a) AVOID CONTAMINATION OF ADJACENT NEIGHBORING PROPERTIES AND DOWN GRADIENT MUNICIPAL ROADWAYS.
b) TRAPPING PARTICLES AT THEIR SOURCE BY PROMPTLY STABILIZING DISTURBED AREAS.
c) AVOID CONCENTRATION OF WATER OR STORM WATER RUNOFF.
d) AVOID CONTAMINATION OF EXISTING STORM DRAIN STRUCTURES AND DRAINAGE PIPES.
e) MAINTENANCE SHALL BE WEEKLY AND AFTER EVERY STORM EVENT FOR ALL CONTROLS TO ENSURE THEY ARE FUNCTIONING PROPERLY.

1. PROPOSED EROSION CONTROLS SHALL BE INSTALLED TO THE LOCATIONS AND DETAILS SHOWN ON THESE PLANS PRIOR TO CONSTRUCTION AS APPROVED IN THE FIELD BY THE APPROPRIATE MUNICIPAL AGENCY PERSONNEL. PROPOSED CONSTRUCTION PHASING TO BE DETERMINED IN CONSULTATION WITH THE APPROPRIATE MUNICIPAL AGENCY PRIOR TO THE START OF CONSTRUCTION.
2. LAND DISTURBANCE WILL BE KEPT TO A MINIMUM. RESTABILIZATION WILL BE SCHEDULED AS SOON AS POSSIBLE WITH A MINIMUM OF 4 INCHES TOPSOIL, SEED AND MULCH. "HYDRO-SEED" MAY BE REQUIRED BASED ON FIELD CONDITIONS FOR TEMPORARY GRASS GERMINATION DURING SEASONAL PLANTING PERIODS TO INSURE MINIMAL SEDIMENTATION AND EROSION.
3. HAY BALES AND SNOW FENCE AND/OR SILT CURTAIN BARRIERS WILL BE INSTALLED AT THE LOCATIONS INDICATED ON THESE PLANS AND, IF NEEDED, ALONG THE TOE OF ALL CUT AND FILL SLOPES. ALL EROSION CONTROLS SHALL BE REVIEWED WITH AND APPROVED BY THE APPROPRIATE MUNICIPAL AGENCY PERSONNEL PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
4. ALL CONTROL MEASURES WILL BE MAINTAINED DURING THE CONSTRUCTION PERIOD.
5. ADDITIONAL CONTROL MEASURES WILL BE INSTALLED DURING THE CONSTRUCTION PERIOD IF NECESSARY OR REQUIRED.
6. SEDIMENT REMOVED FROM CONTROL STRUCTURES WILL BE DISPOSED OF IN A MANNER WHICH IS CONSISTENT WITH THE INTENT OF THESE PLANS AND/OR AS DIRECTED BY THE MUNICIPAL STAFF.
7. IT IS THE RESPONSIBILITY OF THE OWNER/DEVELOPER TO INCLUDE THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED ON THE CONSTRUCTION SITE OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN, NOTIFYING THE MUNICIPAL STAFF OF ANY TRANSFER OF THIS RESPONSIBILITY, AND FOR CONVEYING A COPY OF THESE PLANS IF THE TITLE TO THE LAND IS TRANSFERRED.
8. THE EROSION CONTROLS (WHICH WILL BE INSTALLED IMMEDIATELY DOWNSTREAM OF THE PROPOSED CONSTRUCTED AREAS) SHALL BE INSPECTED PERIODICALLY AND ESPECIALLY FOLLOWING ANY PERIODS OF EXTENDED PRECIPITATION. ANY SILTATION WHICH WAS ACCUMULATED UPSLOPE OF THE PROPOSED EROSION BARRIERS IF GREATER THAN 6 INCHES IN DEPTH SHALL BE REMOVED AND THE EROSION CONTROLS CHECKED AND REPAIRED AS NECESSARY TO INSURE THAT NO BREACHING OCCURRED. ALL LAWN AND PROPOSED PLANTED AREAS SHALL BE CHECKED TO INSURE THAT GERMINATION HAS OCCURRED AND ANY REQUIRED ADJUSTMENTS PERFORMED AS NECESSARY PRIOR TO REMOVE OF TEMPORARY CONSTRUCTION EROSION CONTROLS.
9. TREES TO BE CUT, FALLEN TREES OR BUSH WITHIN DESIGNATED PROPOSED CONSTRUCTION AREAS SHALL BE CUT TO FIREPLACE LENGTHS AND STACKED OUTSIDE OF THOSE AREAS, FEED SMALLER BRANCHES AND TWIGS THROUGH CHIPPER AND STOCKPILE. ALL STOCKPILES SHALL BE OUTSIDE OF DRIP LINES OF PROTECTED TREES.
10. TREES TO BE SAVED SHALL BE BANDED WITH A BRIGHT-COLORED SURVEYOR'S RIBBON LOCATED AT A HEIGHT VISIBLE TO EQUIPMENT OPERATORS. TREE ARMORING PROTECTION MEASURES SHALL BE USED AS SHOWN IN THE DETAIL ON THIS PLAN.
11. INDIVIDUAL TREES OR STANDS TO BE SAVED WITHIN DESIGNATED AREAS OF PROPOSED STRUCTURES SHALL BE PROTECTED BY FENCING WHICH CIRCUMSCRIBES THE DRIP LINE OF THE INDIVIDUAL GROUP PER THE DETAIL ON THIS DRAWING.



LEGEND

- 95 — EXISTING MAJOR CONTOURS
- 96 — EXISTING MINOR CONTOURS
- TREE — EXISTING TREES
- 90 — PROPOSED CONTOURS
- x 94 — PROPOSED SPOT GRADES
- SF — SILT FENCE
- TREE — TREES TO BE REMOVED
- TREE — TREES TO BE PROTECTED
- TREE — EXISTING TREES

ABBREVIATIONS

INV.	INVERT ELEVATION
TYP.	TYPICAL
EL.	ELEVATION
T.B.R.	TO BE REMOVED
EX.	EXISTING
N/F	NOW OR FORMERLY
R.O.W.	RIGHT OF WAY

TREE PROTECTION DETAIL

(AS REQUIRED FOR ALL TREES TO BE SAVED)

SCALE: N.T.S.

INSTALLATION NOTES:

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STRAWBALES, THEN STABILIZED WITH VEGETATION OR COVERED.
4. SEE DETAIL THIS SHEET FOR INSTALLATION OF SILT FENCE.
5. PROVIDE PLASTIC BELOW STOCK PILE + PROTECT UNDERSIDE.

STOCKPILE DETAIL

SILT FENCE NOTES

1. DIG A 6" DEEP TRENCH ALONG THE INTENDED FENCE LINE.
2. EXCEPT FOR THE END POST, DRIVE ALL POSTS INTO THE GROUND AT BACK SIDE OF TRENCH 10' O.C. MAX.
3. LAY OUT FILTER FABRIC ON THE UPHILL SIDE ALONG THE FENCE LINE.
4. SLIP POCKET IN END OF FILTER FABRIC OVER THE FIRST POST INSURING THAT THE BOTTOM RED GAUGE LINE IS AT GROUND LEVEL.
5. DRAPE BOTTOM 6" OF FILTER FABRIC BELOW RED GAUGE LINE IN TRENCH, BACK FILL WITH SOIL AND COMPACT.

EROSION CONTROL SILT FENCE DETAIL

N.T.S.

Town of North Castle

Schedule of Regulations for Residence Districts

Zoning District R-1A

	Required	Existing Lot	Proposed
Maximum Gross Floor Area (See definition in 355-4)	9,415	N/A	N/A
Minimum Size of Lot			
Area, total (square feet)	43,560	72,966	72,966
Frontage (feet)	125	38.2	38.2
Width (feet)	125	293.74	293.74
Depth (feet)	150	320.62	320.62
Minimum Yard Dimensions:			
Front (feet)	50	52.32	52.32
Side (feet)	25	47.32	47.32
Rear (feet)	40	172.80	172.80
Maximum Height of Building: In feet	30	30.00	30.00
Maximum Building Coverage	12%	4.80%	4.80%
Minimum Dwelling Unit Size: (square feet)	1,200	N/A	N/A

Lot No. 24
WCLR Map No. 26434

Lot Area = 72,965.7 Sq. Ft. (1.68 Ac.)

GRAPHIC SCALE :

20 0 20

FEET

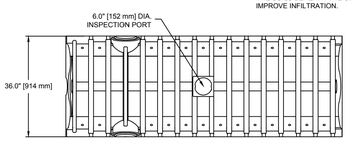
CULTEC CONTACTOR 100HD

N.T.S.

GENERAL NOTES

CONTACTOR 100HD BY CULTEC, INC. OF BROOKFIELD, CT.
STORAGE PROVIDED = 3.84 CF/FT [0.82 M^3] PER DESIGN UNIT.
REFER TO CULTEC, INC.'S CURRENT RECOMMENDED INSTALLATION GUIDELINES.
MAXIMUM ALLOWED COVER ON TOP OF UNIT SHALL BE 12.0' [3.66 m]
THE CHAMBER WILL BE DESIGNED TO WITHSTAND TRAFFIC LOADS

WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS,ALL CONTACTOR 100HD HEAVY DUTY UNITS ARE MARKED WITH A COLOR STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER. ALL CONTACTOR 100 CHAMBERS MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
THE SOILS BENEATH THE CULTEC UNITS SHALL BE SCARIFIED OR TILLED TO IMPROVE INFILTRATION.



CULTEC CONTACTOR 100HD CHAMBER STORAGE = 1.866 CF/FT [0.173 m^3/m]
INSTALLED LENGTH ADJUSTMENT = 0.5' [0.15 m]
ALL CONTACTOR 100HD HEAVY DUTY UNITS ARE MARKED WITH A COLORED STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER.

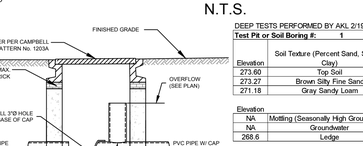
FOR USE WITHIN SUBJECT PROPERTY ONLY AND AS MANUFACTURED BY CONNECTICUT PRECAST Co., INC., MONROE, CT., OR APPROVED EQUIVALENT.
1. REINFORCED 6 x 6 x 10 GAUGE MESH OR TO SPECIFICATIONS.
2. MINIMUM CONCRETE COMPRESSIVE STRENGTH: 4,000 PSI @ 28 DAYS.

INSTALLATION NOTES

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - AS REQUIRED, BUT NOT LESS THAN 15' FEET.
3. THICKNESS - NOT LESS THAN SIX (6) INCHES
4. WIDTH - 10 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCUR.
5. FILTER FABRIC - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPARTIAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT OF WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT, OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT OF WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT OF WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

ANTI -TRACKING PAD DETAIL

N.T.S.



DEEP TESTS PERFORMED BY AKL 2/19/2021

Test Pit or Soil Boring #: 1 — Ground Elevation: 273.6

Elevation	Soil Texture (Percent Sand, Silt and Clay)	Depth Range in Inches
273.60	Top Soil	0-4
273.27	Brown Silty Fine Sand	4-29
271.18	Gray Sandy Loam	29-60

Elevation		Depth in Inches
NA	Mottling (Seasonally High Groundwater)	-
NA	Groundwater	-
268.6	Ledge	60

Test Pit or Soil Boring #: 2 — Ground Elevation: 273.6

Elevation	Soil Texture (Percent Sand, Silt and Clay)	Depth Range in Inches
273.60	Top Soil	0-7
273.02	Brown Silty Fine Sand	7-24

Elevation		Depth in Inches
NA	Mottling (Seasonally High Groundwater)	-
NA	Groundwater	-
271.6	Ledge	24

Date:	December 9, 2020
Scale:	1" = 20'
Drawn/Checked By:	KBF, KW / TGA
Book #:	257:108
Job #:	20-087-D083
Reference:	D083

PRINT INVALID WITHOUT SEAL AND ORIGINAL SIGNATURE

STATE OF NEW YORK — KEITH WERNER — 097454 — LICENSED PROFESSIONAL ENGINEER

REV. #	REV. DESCRIPTION:	DATE:
1	ADDRESS RPRC COMMENTS, PLANNING BOARD APPLICATION	2/19/2021

AHNEMAN KIRBY
ENGINEERS•SURVEYORS•PLANNERS
SINCE 1871
1171 East Putnam Avenue, Riverside, CT 06878
Tel: 203.869.7707 • Fax: 203.869.4606
www.ahnemankirby.com

PREPARED FOR:
BIRENBERG RESIDENCE
16 Quaker Meeting House Road, Amonk, NY 10504
(Tax ID: 101.03-4-44)

PROPOSED POOL PLAN

SP-1

Stormwater Management Report

Prepared for:

Josef Thor

16 Quaker Meeting House Rd

Armonk, NY 10504

February 19, 2021

Prepared by:

Ahneman Kirby, LLC

1171 East Putnam Avenue

Riverside, Connecticut

Project Narrative

Property of Eric Birenberg
16 Quaker Meeting House Rd, Armonk, NY 10504
February 19, 2021

A. GEOGRAPHICAL LOCATION AND DESCRIPTION

The subject parcel is located in the Northeast corner of a cul-de-sac at the North end of Quaker Meeting House Road, North of Leisure Farm Dr and has a lot area of 1.68 Acres. The topographic nature of the lot is sloped outward from the center where the existing dwelling is located. The property slopes down to the Northeast behind the existing dwelling and down to the Southwest in front of the existing dwelling. The property contains several rock outcroppings along the Southern boundary, with trees, and wooded open space. There is a driveway entrance to the property from Quaker Meeting House Road which leads uphill to the residence in the center of the parcel.

B. PURPOSE AND DESCRIPTION

This application package proposes a new swimming pool on the parcel. The pool footprint is 924 ft^2 (See Appendix A). The regrading keeps the topography of the site going from the Southwest to the Northeast towards the pond at a rate of approximately 8% in the rear yard with shallower slopes around the existing dwelling and proposed pool.

Drainage design was performed in accordance with the Town of North Castle Town Code Chapter 367-6, with a net zero increase in the rate of runoff. We proposed collecting runoff from the swimming pool area and treating it with North Castle's Stormwater Best Management Practices (BMP).

The area of the site being collected is in the Northwestern portion of the lot. Due to the existing topography of the site the swimming pool area needed to be leveled out with a low height retaining wall to meet the existing contours. The stormwater will be collected by a trench drain around the pool coping. From the trench drain the stormwater is then conveyed to four (4) Cultec 330XLHD Recharger basins placed underneath the lawn area behind the proposed swimming pool. The outlet from the Cultecs will then be routed to a control outlet structure to control the discharge rate. From the controlled outlet the runoff is directed to a level spreader located to the Northeast of the proposed pool (See Plans).

C. SOIL EVALUATION

The soils within the site below the surface are 63% Type B and 37% Type D per the USDA Natural Resource Conservation Service and are depicted on the soils map located in Appendix B of this report as follows:

- Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky (map unit symbol CrC)
- Chatfield-Charlton complex, 15 to 35 percent slopes, very rocky (map unit symbol CsD)
- Hollis-Rock outcrop complex, 35 to 60 percent slopes (map unit symbol HrF)

Refer to Appendix C for USDA Soils Engineering Properties.

D. PRE & POST DEVELOPMENT SITE HYDROLOGY COMPARISON

The proposed development increases the impervious coverage for the watershed but will decrease peak flows to all points of concern. The trench drain will pick up the runoff from the newly introduced impervious surfaces. The proposed grades slope towards the same location as the existing grades making for a straight forward comparison of pre and post development hydrology at a common Point of Interest.

Refer to Table 1 for a comparison of peak flow rates for the existing and proposed site conditions at point of interest A. The peak runoff to all points of concern has a zero increase for the 1, 2, 5, 10, and 25 year storms. Upon completion of the construction depicted on the proposed developments plans, there will be no drainage impacts to any of the adjoining properties.

Table 1: Comparison of Existing and Proposed Peak Flow Rates for Point of Interest A

16 Quaker Meeting House Rd, Armonk, NY - P.O.I "A"						
Existing / Proposed Stormwater Runoff Data Comparison Chart						
STORM EVENT	POINT OF INTEREST	Flow/Volume	EXISTING	PROPOSED	Δ	Δ (%)
1 YEAR	TOTAL FLOW P.O.I. A	q(ft^3/s)	0.40	0.39	-0.01	-2.50%
2 YEAR		q(ft^3/s)	0.68	0.67	-0.01	-1.47%
5 YEAR		q(ft^3/s)	1.28	1.25	-0.03	-2.34%
10 YEAR		q(ft^3/s)	1.88	1.85	-0.03	-1.60%
25 YEAR		q(ft^3/s)	2.95	2.90	-0.05	-1.69%

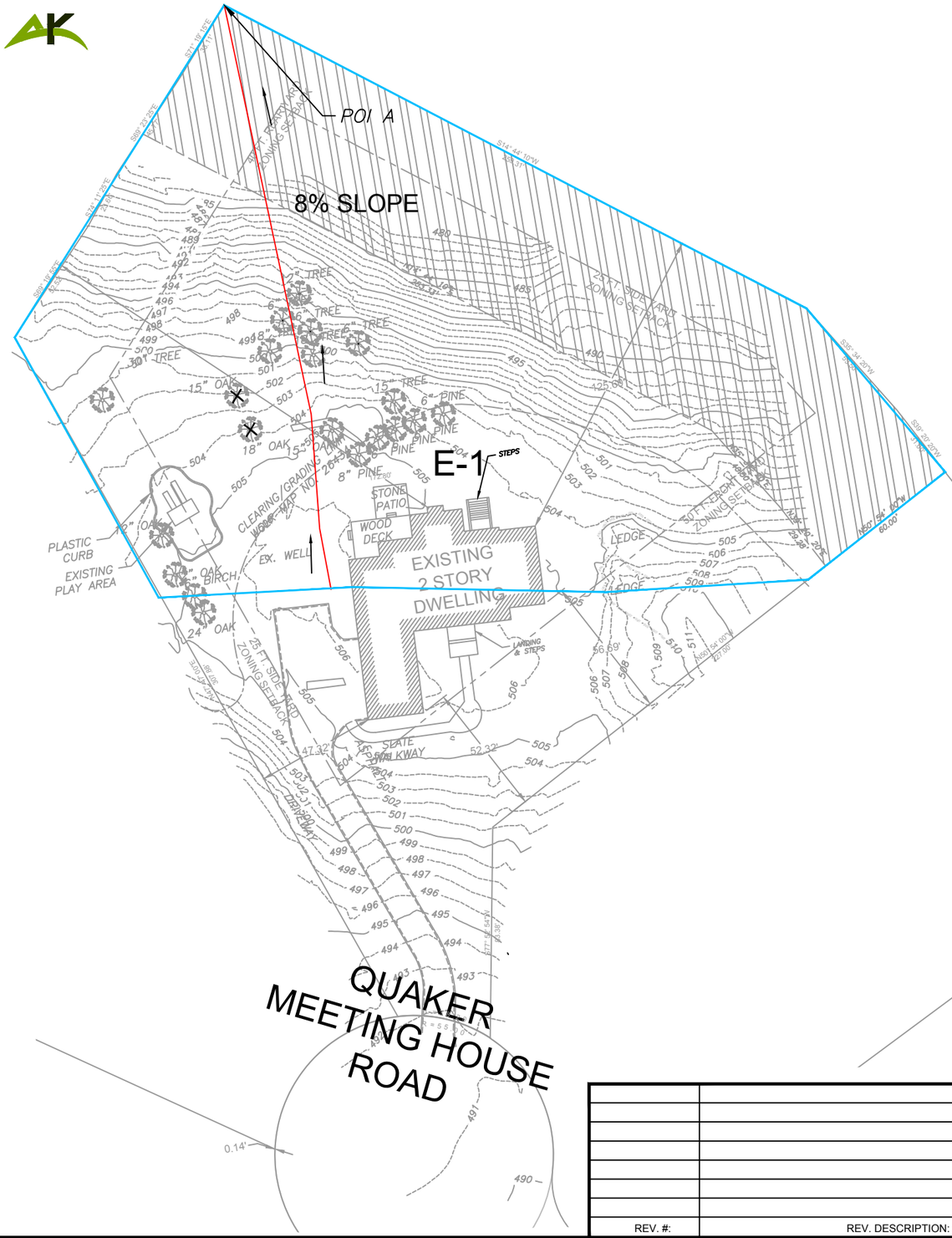
E. ALTERNATIVES CONSIDERED

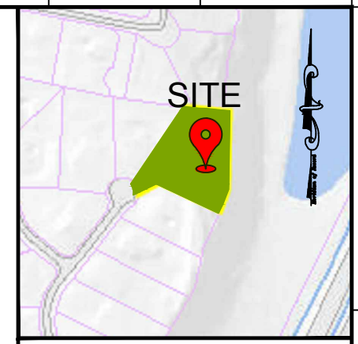
The alternatives considered included drywells collecting runoff from catch basins in the driveway and a trench drain installed along the existing driveway.

The drywells were discarded due to limiting the area of disturbance to the backyard rather than removing and replacing the existing driveway.

The trench drain collection, storage, and discharge option in the existing driveway was eliminated again due to limiting the area of disturbance to the backyard where the other work will be taking place.

Appendix A Impervious Coverage Pre & Post Development





LOCUS SCALE: N.T.S.

GRAPHIC SCALE :

50 0 50

FEET

REV. #:	REV. DESCRIPTION:	DATE:

Date:	December 2, 2020
Scale:	1" = 50'
Drawn/Checked By:	KW / TGA
Book #:	257:108
Job #:	20-087-D083
Reference:	D083

AHNEMAN KIRBY
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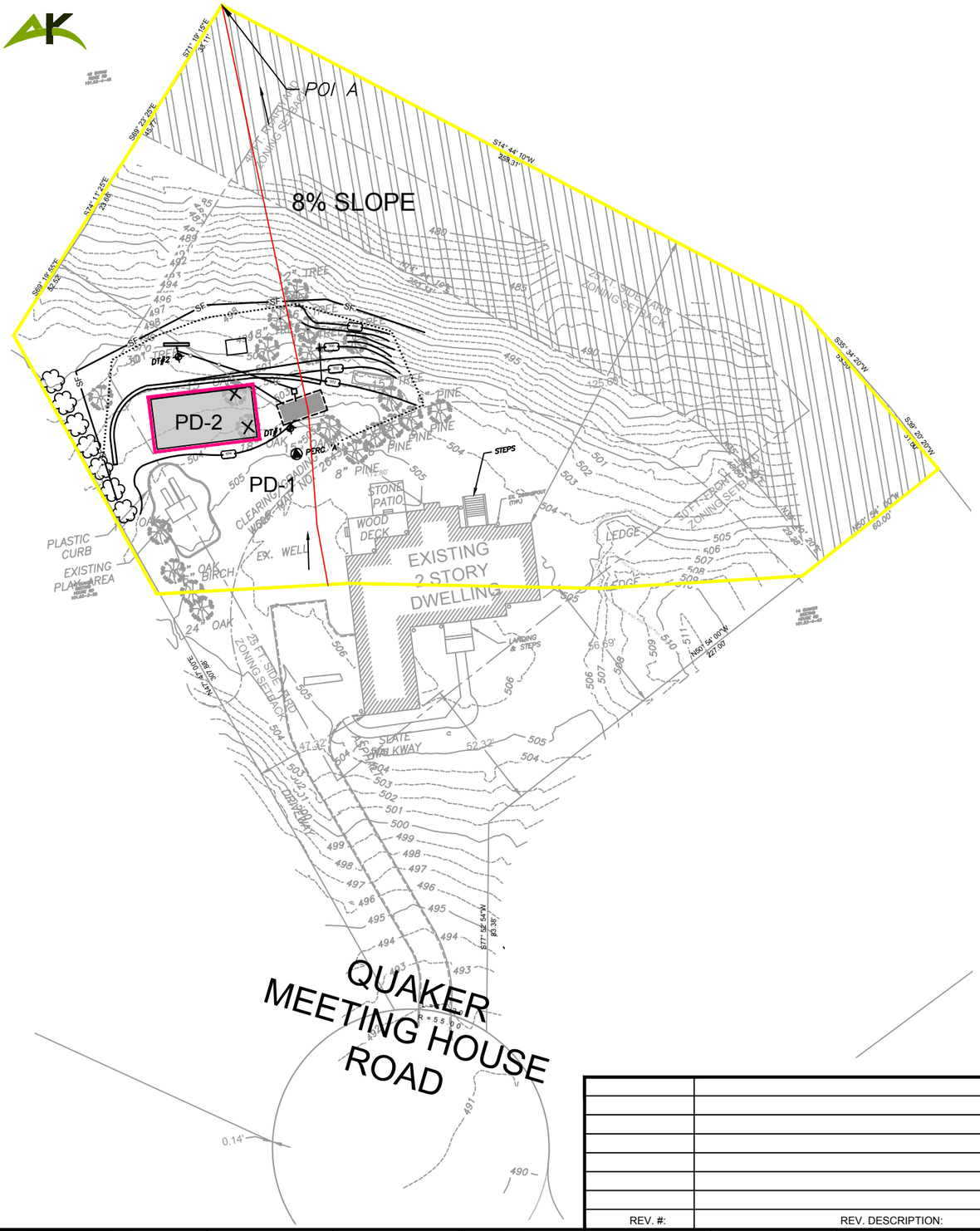
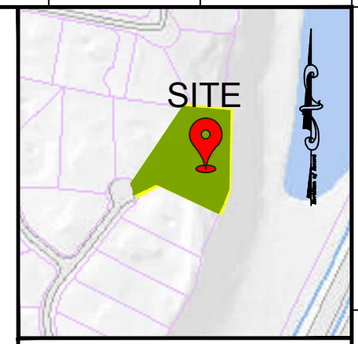
PREPARED FOR:
JT CONSTRUCTION
16 Quaker Meeting House Rd, Armonk, NY 10504
(Tax ID:101.03-4-44)

EXISTING WATERSHED MAP

EW-1





LOCUS SCALE: N.T.S.

GRAPHIC SCALE :

50 0 50

FEET

Date:	February 10, 2021
Scale:	1" = 50'
Drawn/Checked By:	KW / TGA
Book #:	257:108
Job #:	20-087-D083
Reference:	D083

REV. #:	REV. DESCRIPTION:	DATE:

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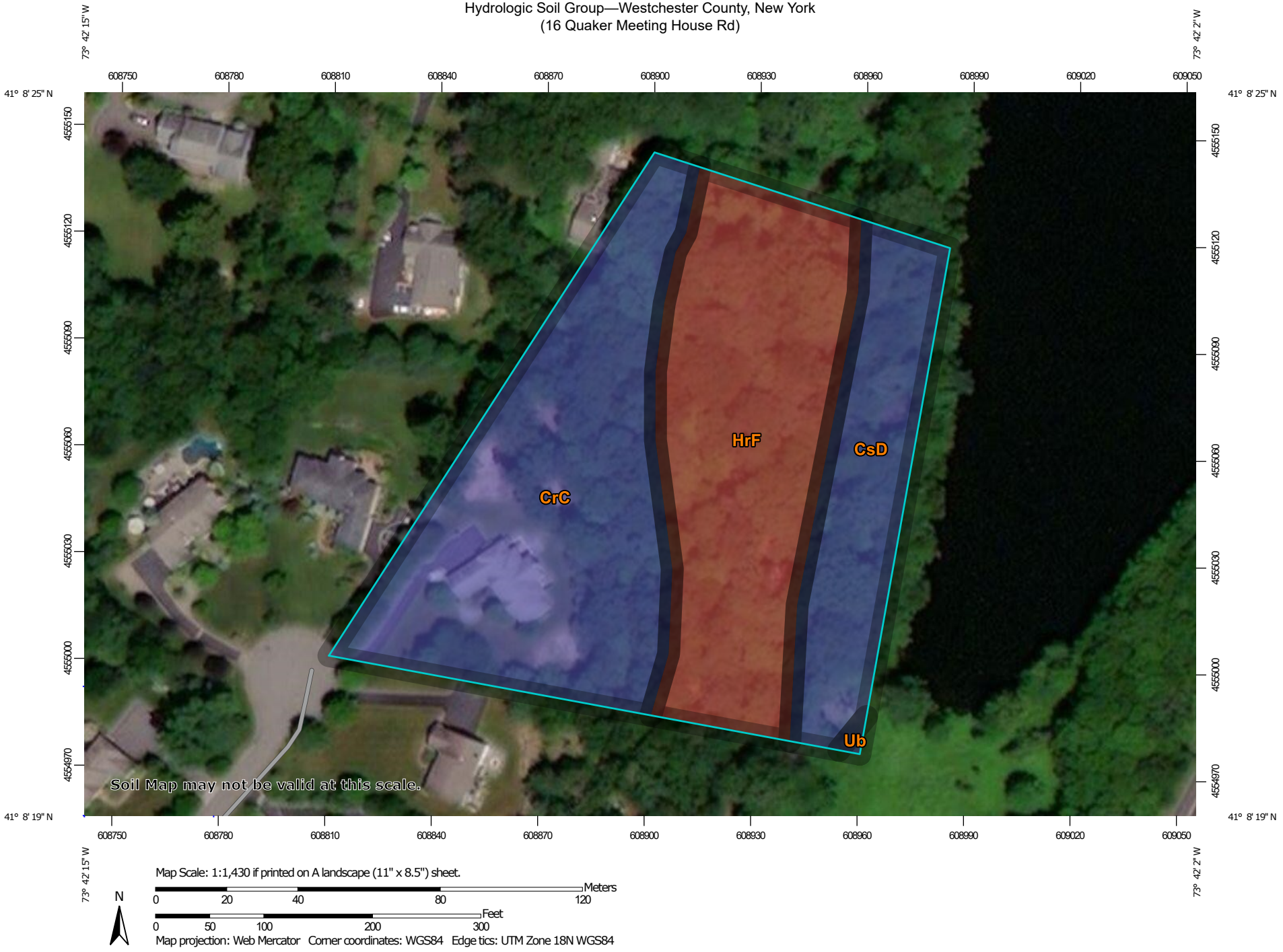
PROPOSED WATERSHED MAP

PW-1

Appendix B USDA Soils Engineering Properties

Hydrologic Soil Group—Westchester County, New York
(16 Quaker Meeting House Rd)



Map Scale: 1:1,430 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Westchester County, New York
Survey Area Data: Version 16, Jun 11, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Oct 16, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CrC	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	B	1.9	43.4%
CsD	Chatfield-Charlton complex, 15 to 35 percent slopes, very rocky	B	0.9	18.9%
HrF	Hollis-Rock outcrop complex, 35 to 60 percent slopes	D	1.7	37.5%
Ub	Udorthents, smoothed	B	0.0	0.2%
Totals for Area of Interest			**4.5**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

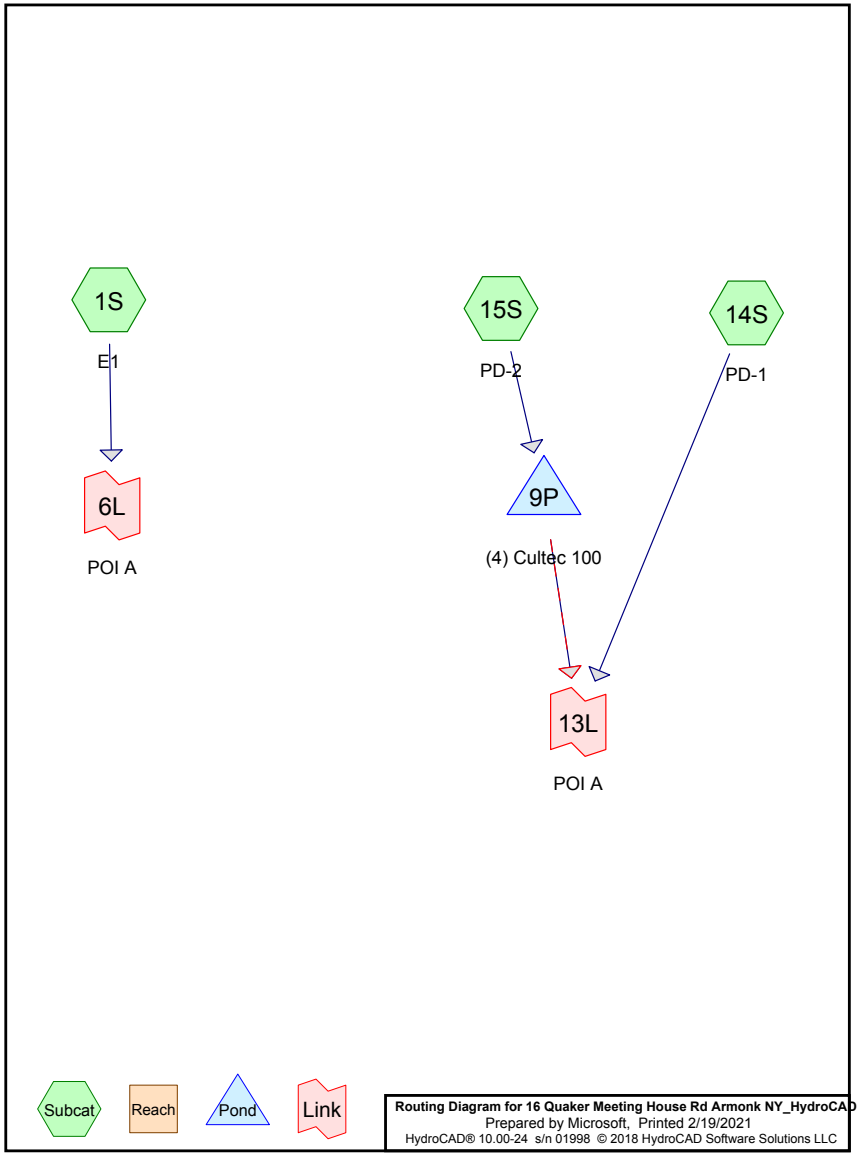
Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Appendix C HydroCAD Pre & Post Development Calculations



Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
546	98	Existing Deck (1S, 14S)
3,690	98	Existing Dwelling (1S, 14S)
330	98	Existing Patio (1S, 14S)
924	98	Proposed Pool (15S)
100,684	65	Woods/grass comb., Fair, HSG B (1S, 14S)
106,174	**67**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
100,684	HSG B	1S, 14S
0	HSG C	
0	HSG D	
5,490	Other	1S, 14S, 15S
106,174		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover	Su Nu
0	0	0	0	546	546	Existing Deck	
0	0	0	0	3,690	3,690	Existing Dwelling	
0	0	0	0	330	330	Existing Patio	
0	0	0	0	924	924	Proposed Pool	
0	100,684	0	0	0	100,684	Woods/grass comb., Fair	
0	**100,684**	**0**	**0**	**5,490**	**106,174**	**TOTAL AREA**	

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: E1 Runoff Area=53,087 sf 4.30% Impervious Runoff Depth>0.50"
Flow Length=500' Slope=0.0800 '/' Tc=14.5 min CN=66 Runoff=0.40 cfs 2,191 cf

Subcatchment14S: PD-1 Runoff Area=52,163 sf 4.38% Impervious Runoff Depth>0.50"
Flow Length=500' Slope=0.0800 '/' Tc=14.5 min CN=66 Runoff=0.39 cfs 2,153 cf

Subcatchment15S: PD-2 Runoff Area=924 sf 100.00% Impervious Runoff Depth>2.67"
Tc=5.0 min CN=98 Runoff=0.06 cfs 205 cf

Pond 9P: (4) Cultec 100 Peak Elev=501.02' Storage=3 cf Inflow=0.06 cfs 205 cf
Discarded=0.05 cfs 205 cf Primary=0.00 cfs 0 cf Outflow=0.05 cfs 205 cf

Link 6L: POI A Inflow=0.40 cfs 2,191 cf
Primary=0.40 cfs 2,191 cf

Link 13L: POI A Inflow=0.39 cfs 2,153 cf
Primary=0.39 cfs 2,153 cf

Total Runoff Area = 106,174 sf Runoff Volume = 4,550 cf Average Runoff Depth = 0.51"
94.83% Pervious = 100,684 sf 5.17% Impervious = 5,490 sf

Summary for Subcatchment 1S: E1

Runoff = 0.40 cfs @ 12.26 hrs, Volume= 2,191 cf, Depth> 0.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-Year Rainfall=2.90"

	Area (sf)	CN	Description
	50,804	65	Woods/grass comb., Fair, HSG B
*	1,845	98	Existing Dwelling
*	273	98	Existing Deck
*	165	98	Existing Patio
	53,087	66	Weighted Average
	50,804		95.70% Pervious Area
	2,283		4.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	75	0.0800	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.40"
5.0	425	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.5	500	Total			

Summary for Subcatchment 14S: PD-1

Runoff = 0.39 cfs @ 12.26 hrs, Volume= 2,153 cf, Depth> 0.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-Year Rainfall=2.90"

	Area (sf)	CN	Description
	49,880	65	Woods/grass comb., Fair, HSG B
*	1,845	98	Existing Dwelling
*	273	98	Existing Deck
*	165	98	Existing Patio
	52,163	66	Weighted Average
	49,880		95.62% Pervious Area
	2,283		4.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	75	0.0800	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.40"
5.0	425	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.5	500	Total			

Summary for Subcatchment 15S: PD-2

Runoff = 0.06 cfs @ 12.07 hrs, Volume= 205 cf, Depth> 2.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-Year Rainfall=2.90"

	Area (sf)	CN	Description
*	924	98	Proposed Pool
	924		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Pond 9P: (4) Cultec 100

Inflow Area = 924 sf,100.00% Impervious, Inflow Depth > 2.67" for 1-Year event
Inflow = 0.06 cfs @ 12.07 hrs, Volume= 205 cf
Outflow = 0.05 cfs @ 12.12 hrs, Volume= 205 cf, Atten= 16%, Lag= 2.9 min
Discarded = 0.05 cfs @ 12.12 hrs, Volume= 205 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 501.02' @ 12.12 hrs Surf.Area= 146 sf Storage= 3 cf

Plug-Flow detention time= 0.4 min calculated for 205 cf (100% of inflow)
Center-of-Mass det. time= 0.4 min (757.5 - 757.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	500.96'	96 cf	**8.33'W x 17.50'L x 2.04'H Field A** 298 cf Overall - 58 cf Embedded = 240 cf x 40.0% Voids
#2A	501.46'	58 cf	**Cultec C-100HD** x 4 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap Row Length Adjustment= +0.50' x 1.86 sf x 2 rows
		154 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	502.00'	**6.0" Vert. Outlet Pipe** C= 0.600
#2	Device 1	502.00'	**3.0" Vert. Control Outlet X 4.00** C= 0.600
#3	Device 1	502.99'	**6.0" Horiz. Overflow** C= 0.600 Limited to weir flow at low heads
#4	Discarded	500.96'	**15.000 in/hr Exfiltration over Wetted area**

Discarded OutFlow Max=0.05 cfs @ 12.12 hrs HW=501.02' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 0.05 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=500.96' (Free Discharge)
└**1=Outlet Pipe** (Controls 0.00 cfs)
  └**2=Control Outlet** (Controls 0.00 cfs)
  └**3=Overflow** (Controls 0.00 cfs)

Pond 9P: (4) Cultec 100 - Chamber Wizard Field A

Chamber Model = Cultec C-100HD (Cultec Contactor® 100HD)
Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf
Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
Row Length Adjustment= +0.50' x 1.86 sf x 2 rows

36.0" Wide + 4.0" Spacing = 40.0" C-C Row Spacing

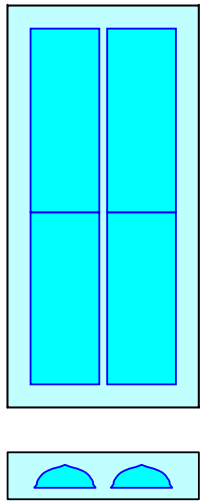
2 Chambers/Row x 7.50' Long +0.50' Row Adjustment = 15.50' Row Length +12.0" End Stone x 2 = 17.50' Base Length
2 Rows x 36.0" Wide + 4.0" Spacing x 1 + 12.0" Side Stone x 2 = 8.33' Base Width
6.0" Base + 12.5" Chamber Height + 6.0" Cover = 2.04' Field Height

4 Chambers x 14.0 cf +0.50' Row Adjustment x 1.86 sf x 2 Rows = 57.7 cf Chamber Storage

297.7 cf Field - 57.7 cf Chambers = 240.0 cf Stone x 40.0% Voids = 96.0 cf Stone Storage

Chamber Storage + Stone Storage = 153.7 cf = 0.004 af
Overall Storage Efficiency = 51.6%
Overall System Size = 17.50' x 8.33' x 2.04'

4 Chambers
11.0 cy Field
8.9 cy Stone



Stage-Area-Storage for Pond 9P: (4) Cultec 100

Elevation (feet)	Wetted (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Wetted (sq-ft)	Storage (cubic-feet)
500.96	146	0	502.00	200	85
500.98	147	1	502.02	201	87
501.00	148	2	502.04	202	89
501.02	149	4	502.06	203	90
501.04	150	5	502.08	204	92
501.06	151	6	502.10	205	94
501.08	152	7	502.12	206	96
501.10	153	8	502.14	207	98
501.12	154	9	502.16	208	100
501.14	155	11	502.18	209	101
501.16	156	12	502.20	210	103
501.18	157	13	502.22	211	105
501.20	158	14	502.24	212	107
501.22	159	15	502.26	213	108
501.24	160	16	502.28	214	110
501.26	161	18	502.30	215	111
501.28	162	19	502.32	216	113
501.30	163	20	502.34	217	114
501.32	164	21	502.36	218	116
501.34	165	22	502.38	219	117
501.36	166	23	502.40	220	118
501.38	168	25	502.42	221	120
501.40	169	26	502.44	222	121
501.42	170	27	502.46	223	122
501.44	171	28	502.48	224	123
501.46	172	29	502.50	225	124
501.48	173	31	502.52	226	126
501.50	174	33	502.54	227	127
501.52	175	36	502.56	229	128
501.54	176	38	502.58	230	129
501.56	177	40	502.60	231	130
501.58	178	42	502.62	232	131
501.60	179	44	502.64	233	133
501.62	180	46	502.66	234	134
501.64	181	48	502.68	235	135
501.66	182	50	502.70	236	136
501.68	183	52	502.72	237	137
501.70	184	54	502.74	238	138
501.72	185	56	502.76	239	140
501.74	186	59	502.78	240	141
501.76	187	61	502.80	241	142
501.78	188	63	502.82	242	143
501.80	189	65	502.84	243	144
501.82	190	67	502.86	244	145
501.84	191	69	502.88	245	147
501.86	192	71	502.90	246	148
501.88	193	73	502.92	247	149
501.90	194	75	502.94	248	150
501.92	195	77	502.96	249	151
501.94	196	79	502.98	250	152
501.96	198	81	503.00	**251**	**154**
501.98	199	83			

Summary for Link 6L: POI A

Inflow Area = 53,087 sf, 4.30% Impervious, Inflow Depth > 0.50" for 1-Year event
Inflow = 0.40 cfs @ 12.26 hrs, Volume= 2,191 cf
Primary = 0.40 cfs @ 12.26 hrs, Volume= 2,191 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Link 13L: POI A

Inflow Area = 53,087 sf, 6.04% Impervious, Inflow Depth > 0.49" for 1-Year event
Inflow = 0.39 cfs @ 12.26 hrs, Volume= 2,153 cf
Primary = 0.39 cfs @ 12.26 hrs, Volume= 2,153 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: E1 Runoff Area=53,087 sf 4.30% Impervious Runoff Depth>0.74"
Flow Length=500' Slope=0.0800 '/' Tc=14.5 min CN=66 Runoff=0.68 cfs 3,288 cf

Subcatchment14S: PD-1 Runoff Area=52,163 sf 4.38% Impervious Runoff Depth>0.74"
Flow Length=500' Slope=0.0800 '/' Tc=14.5 min CN=66 Runoff=0.67 cfs 3,231 cf

Subcatchment15S: PD-2 Runoff Area=924 sf 100.00% Impervious Runoff Depth>3.16"
Tc=5.0 min CN=98 Runoff=0.07 cfs 244 cf

Pond 9P: (4) Cultec 100 Peak Elev=501.08' Storage=7 cf Inflow=0.07 cfs 244 cf
Discarded=0.05 cfs 244 cf Primary=0.00 cfs 0 cf Outflow=0.05 cfs 244 cf

Link 6L: POI A Inflow=0.68 cfs 3,288 cf
Primary=0.68 cfs 3,288 cf

Link 13L: POI A Inflow=0.67 cfs 3,231 cf
Primary=0.67 cfs 3,231 cf

Total Runoff Area = 106,174 sf Runoff Volume = 6,762 cf Average Runoff Depth = 0.76"
94.83% Pervious = 100,684 sf 5.17% Impervious = 5,490 sf

Summary for Subcatchment 1S: E1

Runoff = 0.68 cfs @ 12.23 hrs, Volume= 3,288 cf, Depth> 0.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.40"

	Area (sf)	CN	Description
	50,804	65	Woods/grass comb., Fair, HSG B
*	1,845	98	Existing Dwelling
*	273	98	Existing Deck
*	165	98	Existing Patio
	53,087	66	Weighted Average
	50,804		95.70% Pervious Area
	2,283		4.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	75	0.0800	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.40"
5.0	425	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.5	500	Total			

Summary for Subcatchment 14S: PD-1

Runoff = 0.67 cfs @ 12.23 hrs, Volume= 3,231 cf, Depth> 0.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.40"

	Area (sf)	CN	Description
	49,880	65	Woods/grass comb., Fair, HSG B
*	1,845	98	Existing Dwelling
*	273	98	Existing Deck
*	165	98	Existing Patio
	52,163	66	Weighted Average
	49,880		95.62% Pervious Area
	2,283		4.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	75	0.0800	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.40"
5.0	425	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.5	500	Total			

Summary for Subcatchment 15S: PD-2

Runoff = 0.07 cfs @ 12.07 hrs, Volume= 244 cf, Depth> 3.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.40"

	Area (sf)	CN	Description
*	924	98	Proposed Pool
	924		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Pond 9P: (4) Cultec 100

Inflow Area = 924 sf,100.00% Impervious, Inflow Depth > 3.16" for 2-Year event
Inflow = 0.07 cfs @ 12.07 hrs, Volume= 244 cf
Outflow = 0.05 cfs @ 12.14 hrs, Volume= 244 cf, Atten= 27%, Lag= 4.1 min
Discarded = 0.05 cfs @ 12.14 hrs, Volume= 244 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 501.08' @ 12.14 hrs Surf.Area= 146 sf Storage= 7 cf

Plug-Flow detention time= 0.6 min calculated for 244 cf (100% of inflow)
Center-of-Mass det. time= 0.6 min (754.3 - 753.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	500.96'	96 cf	**8.33'W x 17.50'L x 2.04'H Field A** 298 cf Overall - 58 cf Embedded = 240 cf x 40.0% Voids
#2A	501.46'	58 cf	**Cultec C-100HD** x 4 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap Row Length Adjustment= +0.50' x 1.86 sf x 2 rows
		154 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	502.00'	**6.0" Vert. Outlet Pipe** C= 0.600
#2	Device 1	502.00'	**3.0" Vert. Control Outlet X 4.00** C= 0.600
#3	Device 1	502.99'	**6.0" Horiz. Overflow** C= 0.600 Limited to weir flow at low heads
#4	Discarded	500.96'	**15.000 in/hr Exfiltration over Wetted area**

Discarded OutFlow Max=0.05 cfs @ 12.14 hrs HW=501.08' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 0.05 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=500.96' (Free Discharge)
└**1=Outlet Pipe** (Controls 0.00 cfs)
  └**2=Control Outlet** (Controls 0.00 cfs)
  └**3=Overflow** (Controls 0.00 cfs)

Pond 9P: (4) Cultec 100 - Chamber Wizard Field A

Chamber Model = Cultec C-100HD (Cultec Contactor® 100HD)
Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf
Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
Row Length Adjustment= +0.50' x 1.86 sf x 2 rows

36.0" Wide + 4.0" Spacing = 40.0" C-C Row Spacing

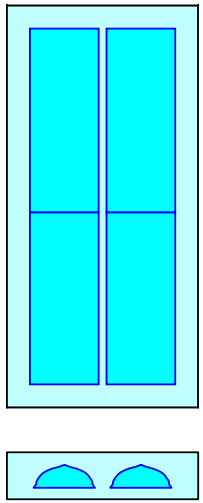
2 Chambers/Row x 7.50' Long +0.50' Row Adjustment = 15.50' Row Length +12.0" End Stone x 2 = 17.50' Base Length
2 Rows x 36.0" Wide + 4.0" Spacing x 1 + 12.0" Side Stone x 2 = 8.33' Base Width
6.0" Base + 12.5" Chamber Height + 6.0" Cover = 2.04' Field Height

4 Chambers x 14.0 cf +0.50' Row Adjustment x 1.86 sf x 2 Rows = 57.7 cf Chamber Storage

297.7 cf Field - 57.7 cf Chambers = 240.0 cf Stone x 40.0% Voids = 96.0 cf Stone Storage

Chamber Storage + Stone Storage = 153.7 cf = 0.004 af
Overall Storage Efficiency = 51.6%
Overall System Size = 17.50' x 8.33' x 2.04'

4 Chambers
11.0 cy Field
8.9 cy Stone



Stage-Area-Storage for Pond 9P: (4) Cultec 100

Elevation (feet)	Wetted (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Wetted (sq-ft)	Storage (cubic-feet)
500.96	146	0	502.00	200	85
500.98	147	1	502.02	201	87
501.00	148	2	502.04	202	89
501.02	149	4	502.06	203	90
501.04	150	5	502.08	204	92
501.06	151	6	502.10	205	94
501.08	152	7	502.12	206	96
501.10	153	8	502.14	207	98
501.12	154	9	502.16	208	100
501.14	155	11	502.18	209	101
501.16	156	12	502.20	210	103
501.18	157	13	502.22	211	105
501.20	158	14	502.24	212	107
501.22	159	15	502.26	213	108
501.24	160	16	502.28	214	110
501.26	161	18	502.30	215	111
501.28	162	19	502.32	216	113
501.30	163	20	502.34	217	114
501.32	164	21	502.36	218	116
501.34	165	22	502.38	219	117
501.36	166	23	502.40	220	118
501.38	168	25	502.42	221	120
501.40	169	26	502.44	222	121
501.42	170	27	502.46	223	122
501.44	171	28	502.48	224	123
501.46	172	29	502.50	225	124
501.48	173	31	502.52	226	126
501.50	174	33	502.54	227	127
501.52	175	36	502.56	229	128
501.54	176	38	502.58	230	129
501.56	177	40	502.60	231	130
501.58	178	42	502.62	232	131
501.60	179	44	502.64	233	133
501.62	180	46	502.66	234	134
501.64	181	48	502.68	235	135
501.66	182	50	502.70	236	136
501.68	183	52	502.72	237	137
501.70	184	54	502.74	238	138
501.72	185	56	502.76	239	140
501.74	186	59	502.78	240	141
501.76	187	61	502.80	241	142
501.78	188	63	502.82	242	143
501.80	189	65	502.84	243	144
501.82	190	67	502.86	244	145
501.84	191	69	502.88	245	147
501.86	192	71	502.90	246	148
501.88	193	73	502.92	247	149
501.90	194	75	502.94	248	150
501.92	195	77	502.96	249	151
501.94	196	79	502.98	250	152
501.96	198	81	503.00	**251**	**154**
501.98	199	83			

Summary for Link 6L: POI A

Inflow Area = 53,087 sf, 4.30% Impervious, Inflow Depth > 0.74" for 2-Year event
Inflow = 0.68 cfs @ 12.23 hrs, Volume= 3,288 cf
Primary = 0.68 cfs @ 12.23 hrs, Volume= 3,288 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Link 13L: POI A

Inflow Area = 53,087 sf, 6.04% Impervious, Inflow Depth > 0.73" for 2-Year event
Inflow = 0.67 cfs @ 12.23 hrs, Volume= 3,231 cf
Primary = 0.67 cfs @ 12.23 hrs, Volume= 3,231 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: E1 Runoff Area=53,087 sf 4.30% Impervious Runoff Depth>1.26"
Flow Length=500' Slope=0.0800 '/' Tc=14.5 min CN=66 Runoff=1.28 cfs 5,594 cf

Subcatchment14S: PD-1 Runoff Area=52,163 sf 4.38% Impervious Runoff Depth>1.26"
Flow Length=500' Slope=0.0800 '/' Tc=14.5 min CN=66 Runoff=1.25 cfs 5,496 cf

Subcatchment15S: PD-2 Runoff Area=924 sf 100.00% Impervious Runoff Depth>4.06"
Tc=5.0 min CN=98 Runoff=0.09 cfs 313 cf

Pond 9P: (4) Cultec 100 Peak Elev=501.24' Storage=16 cf Inflow=0.09 cfs 313 cf
Discarded=0.06 cfs 313 cf Primary=0.00 cfs 0 cf Outflow=0.06 cfs 313 cf

Link 6L: POI A Inflow=1.28 cfs 5,594 cf
Primary=1.28 cfs 5,594 cf

Link 13L: POI A Inflow=1.25 cfs 5,496 cf
Primary=1.25 cfs 5,496 cf

Total Runoff Area = 106,174 sf Runoff Volume = 11,403 cf Average Runoff Depth = 1.29"
94.83% Pervious = 100,684 sf 5.17% Impervious = 5,490 sf

Summary for Subcatchment 1S: E1

Runoff = 1.28 cfs @ 12.22 hrs, Volume= 5,594 cf, Depth> 1.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 5-Year Rainfall=4.30"

	Area (sf)	CN	Description
	50,804	65	Woods/grass comb., Fair, HSG B
*	1,845	98	Existing Dwelling
*	273	98	Existing Deck
*	165	98	Existing Patio
	53,087	66	Weighted Average
	50,804		95.70% Pervious Area
	2,283		4.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	75	0.0800	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.40"
5.0	425	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.5	500	Total			

Summary for Subcatchment 14S: PD-1

Runoff = 1.25 cfs @ 12.22 hrs, Volume= 5,496 cf, Depth> 1.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 5-Year Rainfall=4.30"

	Area (sf)	CN	Description
	49,880	65	Woods/grass comb., Fair, HSG B
*	1,845	98	Existing Dwelling
*	273	98	Existing Deck
*	165	98	Existing Patio
	52,163	66	Weighted Average
	49,880		95.62% Pervious Area
	2,283		4.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	75	0.0800	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.40"
5.0	425	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.5	500	Total			

Summary for Subcatchment 15S: PD-2

Runoff = 0.09 cfs @ 12.07 hrs, Volume= 313 cf, Depth> 4.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 5-Year Rainfall=4.30"

	Area (sf)	CN	Description
*	924	98	Proposed Pool
	924		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Pond 9P: (4) Cultec 100

Inflow Area = 924 sf,100.00% Impervious, Inflow Depth > 4.06" for 5-Year event
Inflow = 0.09 cfs @ 12.07 hrs, Volume= 313 cf
Outflow = 0.06 cfs @ 12.16 hrs, Volume= 313 cf, Atten= 40%, Lag= 5.6 min
Discarded = 0.06 cfs @ 12.16 hrs, Volume= 313 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 501.24' @ 12.16 hrs Surf.Area= 146 sf Storage= 16 cf

Plug-Flow detention time= 1.1 min calculated for 313 cf (100% of inflow)
Center-of-Mass det. time= 1.0 min (750.3 - 749.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	500.96'	96 cf	**8.33'W x 17.50'L x 2.04'H Field A** 298 cf Overall - 58 cf Embedded = 240 cf x 40.0% Voids
#2A	501.46'	58 cf	**Cultec C-100HD** x 4 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap Row Length Adjustment= +0.50' x 1.86 sf x 2 rows
		154 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	502.00'	**6.0" Vert. Outlet Pipe** C= 0.600
#2	Device 1	502.00'	**3.0" Vert. Control Outlet X 4.00** C= 0.600
#3	Device 1	502.99'	**6.0" Horiz. Overflow** C= 0.600 Limited to weir flow at low heads
#4	Discarded	500.96'	**15.000 in/hr Exfiltration over Wetted area**

Discarded OutFlow Max=0.06 cfs @ 12.16 hrs HW=501.24' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 0.06 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=500.96' (Free Discharge)
└**1=Outlet Pipe** (Controls 0.00 cfs)
  └**2=Control Outlet** (Controls 0.00 cfs)
  └**3=Overflow** (Controls 0.00 cfs)

Pond 9P: (4) Cultec 100 - Chamber Wizard Field A

Chamber Model = Cultec C-100HD (Cultec Contactor® 100HD)
Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf
Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
Row Length Adjustment= +0.50' x 1.86 sf x 2 rows

36.0" Wide + 4.0" Spacing = 40.0" C-C Row Spacing

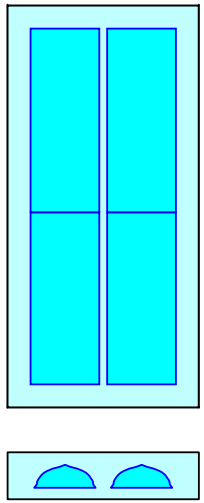
2 Chambers/Row x 7.50' Long +0.50' Row Adjustment = 15.50' Row Length +12.0" End Stone x 2 = 17.50' Base Length
2 Rows x 36.0" Wide + 4.0" Spacing x 1 + 12.0" Side Stone x 2 = 8.33' Base Width
6.0" Base + 12.5" Chamber Height + 6.0" Cover = 2.04' Field Height

4 Chambers x 14.0 cf +0.50' Row Adjustment x 1.86 sf x 2 Rows = 57.7 cf Chamber Storage

297.7 cf Field - 57.7 cf Chambers = 240.0 cf Stone x 40.0% Voids = 96.0 cf Stone Storage

Chamber Storage + Stone Storage = 153.7 cf = 0.004 af
Overall Storage Efficiency = 51.6%
Overall System Size = 17.50' x 8.33' x 2.04'

4 Chambers
11.0 cy Field
8.9 cy Stone



Stage-Area-Storage for Pond 9P: (4) Cultec 100

Elevation (feet)	Wetted (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Wetted (sq-ft)	Storage (cubic-feet)
500.96	146	0	502.00	200	85
500.98	147	1	502.02	201	87
501.00	148	2	502.04	202	89
501.02	149	4	502.06	203	90
501.04	150	5	502.08	204	92
501.06	151	6	502.10	205	94
501.08	152	7	502.12	206	96
501.10	153	8	502.14	207	98
501.12	154	9	502.16	208	100
501.14	155	11	502.18	209	101
501.16	156	12	502.20	210	103
501.18	157	13	502.22	211	105
501.20	158	14	502.24	212	107
501.22	159	15	502.26	213	108
501.24	160	16	502.28	214	110
501.26	161	18	502.30	215	111
501.28	162	19	502.32	216	113
501.30	163	20	502.34	217	114
501.32	164	21	502.36	218	116
501.34	165	22	502.38	219	117
501.36	166	23	502.40	220	118
501.38	168	25	502.42	221	120
501.40	169	26	502.44	222	121
501.42	170	27	502.46	223	122
501.44	171	28	502.48	224	123
501.46	172	29	502.50	225	124
501.48	173	31	502.52	226	126
501.50	174	33	502.54	227	127
501.52	175	36	502.56	229	128
501.54	176	38	502.58	230	129
501.56	177	40	502.60	231	130
501.58	178	42	502.62	232	131
501.60	179	44	502.64	233	133
501.62	180	46	502.66	234	134
501.64	181	48	502.68	235	135
501.66	182	50	502.70	236	136
501.68	183	52	502.72	237	137
501.70	184	54	502.74	238	138
501.72	185	56	502.76	239	140
501.74	186	59	502.78	240	141
501.76	187	61	502.80	241	142
501.78	188	63	502.82	242	143
501.80	189	65	502.84	243	144
501.82	190	67	502.86	244	145
501.84	191	69	502.88	245	147
501.86	192	71	502.90	246	148
501.88	193	73	502.92	247	149
501.90	194	75	502.94	248	150
501.92	195	77	502.96	249	151
501.94	196	79	502.98	250	152
501.96	198	81	503.00	**251**	**154**
501.98	199	83			

Summary for Link 6L: POI A

Inflow Area = 53,087 sf, 4.30% Impervious, Inflow Depth > 1.26" for 5-Year event
Inflow = 1.28 cfs @ 12.22 hrs, Volume= 5,594 cf
Primary = 1.28 cfs @ 12.22 hrs, Volume= 5,594 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Link 13L: POI A

Inflow Area = 53,087 sf, 6.04% Impervious, Inflow Depth > 1.24" for 5-Year event
Inflow = 1.25 cfs @ 12.22 hrs, Volume= 5,496 cf
Primary = 1.25 cfs @ 12.22 hrs, Volume= 5,496 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: E1 Runoff Area=53,087 sf 4.30% Impervious Runoff Depth>1.79"
Flow Length=500' Slope=0.0800 '/' Tc=14.5 min CN=66 Runoff=1.88 cfs 7,916 cf

Subcatchment14S: PD-1 Runoff Area=52,163 sf 4.38% Impervious Runoff Depth>1.79"
Flow Length=500' Slope=0.0800 '/' Tc=14.5 min CN=66 Runoff=1.85 cfs 7,779 cf

Subcatchment15S: PD-2 Runoff Area=924 sf 100.00% Impervious Runoff Depth>4.86"
Tc=5.0 min CN=98 Runoff=0.11 cfs 374 cf

Pond 9P: (4) Cultec 100 Peak Elev=501.40' Storage=25 cf Inflow=0.11 cfs 374 cf
Discarded=0.06 cfs 374 cf Primary=0.00 cfs 0 cf Outflow=0.06 cfs 374 cf

Link 6L: POI A Inflow=1.88 cfs 7,916 cf
Primary=1.88 cfs 7,916 cf

Link 13L: POI A Inflow=1.85 cfs 7,779 cf
Primary=1.85 cfs 7,779 cf

Total Runoff Area = 106,174 sf Runoff Volume = 16,069 cf Average Runoff Depth = 1.82"
94.83% Pervious = 100,684 sf 5.17% Impervious = 5,490 sf

Summary for Subcatchment 1S: E1

Runoff = 1.88 cfs @ 12.21 hrs, Volume= 7,916 cf, Depth> 1.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.10"

	Area (sf)	CN	Description
	50,804	65	Woods/grass comb., Fair, HSG B
*	1,845	98	Existing Dwelling
*	273	98	Existing Deck
*	165	98	Existing Patio
	53,087	66	Weighted Average
	50,804		95.70% Pervious Area
	2,283		4.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	75	0.0800	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.40"
5.0	425	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.5	500	Total			

Summary for Subcatchment 14S: PD-1

Runoff = 1.85 cfs @ 12.21 hrs, Volume= 7,779 cf, Depth> 1.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.10"

	Area (sf)	CN	Description
	49,880	65	Woods/grass comb., Fair, HSG B
*	1,845	98	Existing Dwelling
*	273	98	Existing Deck
*	165	98	Existing Patio
	52,163	66	Weighted Average
	49,880		95.62% Pervious Area
	2,283		4.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	75	0.0800	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.40"
5.0	425	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.5	500	Total			

Summary for Subcatchment 15S: PD-2

Runoff = 0.11 cfs @ 12.07 hrs, Volume= 374 cf, Depth> 4.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.10"

	Area (sf)	CN	Description
*	924	98	Proposed Pool
	924		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Pond 9P: (4) Cultec 100

Inflow Area = 924 sf,100.00% Impervious, Inflow Depth > 4.86" for 10-Year event
Inflow = 0.11 cfs @ 12.07 hrs, Volume= 374 cf
Outflow = 0.06 cfs @ 12.18 hrs, Volume= 374 cf, Atten= 47%, Lag= 6.8 min
Discarded = 0.06 cfs @ 12.18 hrs, Volume= 374 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 501.40' @ 12.18 hrs Surf.Area= 146 sf Storage= 25 cf

Plug-Flow detention time= 1.6 min calculated for 374 cf (100% of inflow)
Center-of-Mass det. time= 1.6 min (747.9 - 746.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	500.96'	96 cf	**8.33'W x 17.50'L x 2.04'H Field A** 298 cf Overall - 58 cf Embedded = 240 cf x 40.0% Voids
#2A	501.46'	58 cf	**Cultec C-100HD** x 4 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap Row Length Adjustment= +0.50' x 1.86 sf x 2 rows
		154 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	502.00'	**6.0" Vert. Outlet Pipe** C= 0.600
#2	Device 1	502.00'	**3.0" Vert. Control Outlet X 4.00** C= 0.600
#3	Device 1	502.99'	**6.0" Horiz. Overflow** C= 0.600 Limited to weir flow at low heads
#4	Discarded	500.96'	**15.000 in/hr Exfiltration over Wetted area**

Discarded OutFlow Max=0.06 cfs @ 12.18 hrs HW=501.39' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 0.06 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=500.96' (Free Discharge)
└**1=Outlet Pipe** (Controls 0.00 cfs)
  └**2=Control Outlet** (Controls 0.00 cfs)
  └**3=Overflow** (Controls 0.00 cfs)

Pond 9P: (4) Cultec 100 - Chamber Wizard Field A

Chamber Model = Cultec C-100HD (Cultec Contactor® 100HD)
Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf
Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
Row Length Adjustment= +0.50' x 1.86 sf x 2 rows

36.0" Wide + 4.0" Spacing = 40.0" C-C Row Spacing

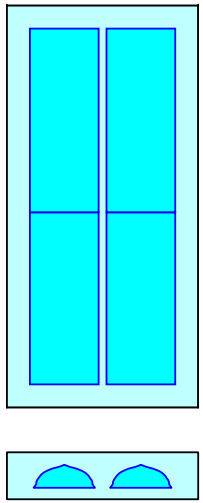
2 Chambers/Row x 7.50' Long +0.50' Row Adjustment = 15.50' Row Length +12.0" End Stone x 2 = 17.50' Base Length
2 Rows x 36.0" Wide + 4.0" Spacing x 1 + 12.0" Side Stone x 2 = 8.33' Base Width
6.0" Base + 12.5" Chamber Height + 6.0" Cover = 2.04' Field Height

4 Chambers x 14.0 cf +0.50' Row Adjustment x 1.86 sf x 2 Rows = 57.7 cf Chamber Storage

297.7 cf Field - 57.7 cf Chambers = 240.0 cf Stone x 40.0% Voids = 96.0 cf Stone Storage

Chamber Storage + Stone Storage = 153.7 cf = 0.004 af
Overall Storage Efficiency = 51.6%
Overall System Size = 17.50' x 8.33' x 2.04'

4 Chambers
11.0 cy Field
8.9 cy Stone



Stage-Area-Storage for Pond 9P: (4) Cultec 100

Elevation (feet)	Wetted (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Wetted (sq-ft)	Storage (cubic-feet)
500.96	146	0	502.00	200	85
500.98	147	1	502.02	201	87
501.00	148	2	502.04	202	89
501.02	149	4	502.06	203	90
501.04	150	5	502.08	204	92
501.06	151	6	502.10	205	94
501.08	152	7	502.12	206	96
501.10	153	8	502.14	207	98
501.12	154	9	502.16	208	100
501.14	155	11	502.18	209	101
501.16	156	12	502.20	210	103
501.18	157	13	502.22	211	105
501.20	158	14	502.24	212	107
501.22	159	15	502.26	213	108
501.24	160	16	502.28	214	110
501.26	161	18	502.30	215	111
501.28	162	19	502.32	216	113
501.30	163	20	502.34	217	114
501.32	164	21	502.36	218	116
501.34	165	22	502.38	219	117
501.36	166	23	502.40	220	118
501.38	168	25	502.42	221	120
501.40	169	26	502.44	222	121
501.42	170	27	502.46	223	122
501.44	171	28	502.48	224	123
501.46	172	29	502.50	225	124
501.48	173	31	502.52	226	126
501.50	174	33	502.54	227	127
501.52	175	36	502.56	229	128
501.54	176	38	502.58	230	129
501.56	177	40	502.60	231	130
501.58	178	42	502.62	232	131
501.60	179	44	502.64	233	133
501.62	180	46	502.66	234	134
501.64	181	48	502.68	235	135
501.66	182	50	502.70	236	136
501.68	183	52	502.72	237	137
501.70	184	54	502.74	238	138
501.72	185	56	502.76	239	140
501.74	186	59	502.78	240	141
501.76	187	61	502.80	241	142
501.78	188	63	502.82	242	143
501.80	189	65	502.84	243	144
501.82	190	67	502.86	244	145
501.84	191	69	502.88	245	147
501.86	192	71	502.90	246	148
501.88	193	73	502.92	247	149
501.90	194	75	502.94	248	150
501.92	195	77	502.96	249	151
501.94	196	79	502.98	250	152
501.96	198	81	503.00	**251**	**154**
501.98	199	83			

Summary for Link 6L: POI A

Inflow Area = 53,087 sf, 4.30% Impervious, Inflow Depth > 1.79" for 10-Year event
Inflow = 1.88 cfs @ 12.21 hrs, Volume= 7,916 cf
Primary = 1.88 cfs @ 12.21 hrs, Volume= 7,916 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Link 13L: POI A

Inflow Area = 53,087 sf, 6.04% Impervious, Inflow Depth > 1.76" for 10-Year event
Inflow = 1.85 cfs @ 12.21 hrs, Volume= 7,779 cf
Primary = 1.85 cfs @ 12.21 hrs, Volume= 7,779 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: E1 Runoff Area=53,087 sf 4.30% Impervious Runoff Depth>2.73"
Flow Length=500' Slope=0.0800 '/' Tc=14.5 min CN=66 Runoff=2.95 cfs 12,083 cf

Subcatchment14S: PD-1 Runoff Area=52,163 sf 4.38% Impervious Runoff Depth>2.73"
Flow Length=500' Slope=0.0800 '/' Tc=14.5 min CN=66 Runoff=2.90 cfs 11,873 cf

Subcatchment15S: PD-2 Runoff Area=924 sf 100.00% Impervious Runoff Depth>6.16"
Tc=5.0 min CN=98 Runoff=0.14 cfs 474 cf

Pond 9P: (4) Cultec 100 Peak Elev=501.60' Storage=44 cf Inflow=0.14 cfs 474 cf
Discarded=0.06 cfs 474 cf Primary=0.00 cfs 0 cf Outflow=0.06 cfs 474 cf

Link 6L: POI A Inflow=2.95 cfs 12,083 cf
Primary=2.95 cfs 12,083 cf

Link 13L: POI A Inflow=2.90 cfs 11,873 cf
Primary=2.90 cfs 11,873 cf

Total Runoff Area = 106,174 sf Runoff Volume = 24,430 cf Average Runoff Depth = 2.76"
94.83% Pervious = 100,684 sf 5.17% Impervious = 5,490 sf

Summary for Subcatchment 1S: E1

Runoff = 2.95 cfs @ 12.20 hrs, Volume= 12,083 cf, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.40"

	Area (sf)	CN	Description
	50,804	65	Woods/grass comb., Fair, HSG B
*	1,845	98	Existing Dwelling
*	273	98	Existing Deck
*	165	98	Existing Patio
	53,087	66	Weighted Average
	50,804		95.70% Pervious Area
	2,283		4.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	75	0.0800	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.40"
5.0	425	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.5	500	Total			

Summary for Subcatchment 14S: PD-1

Runoff = 2.90 cfs @ 12.20 hrs, Volume= 11,873 cf, Depth> 2.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.40"

	Area (sf)	CN	Description
	49,880	65	Woods/grass comb., Fair, HSG B
*	1,845	98	Existing Dwelling
*	273	98	Existing Deck
*	165	98	Existing Patio
	52,163	66	Weighted Average
	49,880		95.62% Pervious Area
	2,283		4.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	75	0.0800	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.40"
5.0	425	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.5	500	Total			

Summary for Subcatchment 15S: PD-2

Runoff = 0.14 cfs @ 12.07 hrs, Volume= 474 cf, Depth> 6.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.40"

	Area (sf)	CN	Description
*	924	98	Proposed Pool
	924		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Pond 9P: (4) Cultec 100

Inflow Area = 924 sf,100.00% Impervious, Inflow Depth > 6.16" for 25-Year event
Inflow = 0.14 cfs @ 12.07 hrs, Volume= 474 cf
Outflow = 0.06 cfs @ 12.22 hrs, Volume= 474 cf, Atten= 55%, Lag= 9.1 min
Discarded = 0.06 cfs @ 12.22 hrs, Volume= 474 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 501.60' @ 12.22 hrs Surf.Area= 146 sf Storage= 44 cf

Plug-Flow detention time= 2.8 min calculated for 474 cf (100% of inflow)
Center-of-Mass det. time= 2.7 min (745.5 - 742.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	500.96'	96 cf	**8.33'W x 17.50'L x 2.04'H Field A** 298 cf Overall - 58 cf Embedded = 240 cf x 40.0% Voids
#2A	501.46'	58 cf	**Cultec C-100HD** x 4 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap Row Length Adjustment= +0.50' x 1.86 sf x 2 rows
		154 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	502.00'	**6.0" Vert. Outlet Pipe** C= 0.600
#2	Device 1	502.00'	**3.0" Vert. Control Outlet X 4.00** C= 0.600
#3	Device 1	502.99'	**6.0" Horiz. Overflow** C= 0.600 Limited to weir flow at low heads
#4	Discarded	500.96'	**15.000 in/hr Exfiltration over Wetted area**

Discarded OutFlow Max=0.06 cfs @ 12.22 hrs HW=501.60' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 0.06 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=500.96' (Free Discharge)
└**1=Outlet Pipe** (Controls 0.00 cfs)
  └**2=Control Outlet** (Controls 0.00 cfs)
  └**3=Overflow** (Controls 0.00 cfs)

Pond 9P: (4) Cultec 100 - Chamber Wizard Field A

Chamber Model = Cultec C-100HD (Cultec Contactor® 100HD)
Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf
Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
Row Length Adjustment= +0.50' x 1.86 sf x 2 rows

36.0" Wide + 4.0" Spacing = 40.0" C-C Row Spacing

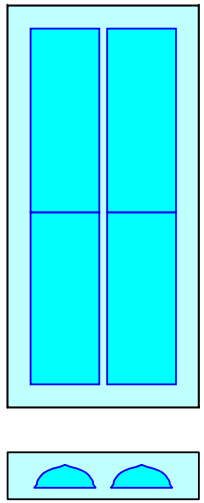
2 Chambers/Row x 7.50' Long +0.50' Row Adjustment = 15.50' Row Length +12.0" End Stone x 2 = 17.50' Base Length
2 Rows x 36.0" Wide + 4.0" Spacing x 1 + 12.0" Side Stone x 2 = 8.33' Base Width
6.0" Base + 12.5" Chamber Height + 6.0" Cover = 2.04' Field Height

4 Chambers x 14.0 cf +0.50' Row Adjustment x 1.86 sf x 2 Rows = 57.7 cf Chamber Storage

297.7 cf Field - 57.7 cf Chambers = 240.0 cf Stone x 40.0% Voids = 96.0 cf Stone Storage

Chamber Storage + Stone Storage = 153.7 cf = 0.004 af
Overall Storage Efficiency = 51.6%
Overall System Size = 17.50' x 8.33' x 2.04'

4 Chambers
11.0 cy Field
8.9 cy Stone



Stage-Area-Storage for Pond 9P: (4) Cultec 100

Elevation (feet)	Wetted (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Wetted (sq-ft)	Storage (cubic-feet)
500.96	146	0	502.00	200	85
500.98	147	1	502.02	201	87
501.00	148	2	502.04	202	89
501.02	149	4	502.06	203	90
501.04	150	5	502.08	204	92
501.06	151	6	502.10	205	94
501.08	152	7	502.12	206	96
501.10	153	8	502.14	207	98
501.12	154	9	502.16	208	100
501.14	155	11	502.18	209	101
501.16	156	12	502.20	210	103
501.18	157	13	502.22	211	105
501.20	158	14	502.24	212	107
501.22	159	15	502.26	213	108
501.24	160	16	502.28	214	110
501.26	161	18	502.30	215	111
501.28	162	19	502.32	216	113
501.30	163	20	502.34	217	114
501.32	164	21	502.36	218	116
501.34	165	22	502.38	219	117
501.36	166	23	502.40	220	118
501.38	168	25	502.42	221	120
501.40	169	26	502.44	222	121
501.42	170	27	502.46	223	122
501.44	171	28	502.48	224	123
501.46	172	29	502.50	225	124
501.48	173	31	502.52	226	126
501.50	174	33	502.54	227	127
501.52	175	36	502.56	229	128
501.54	176	38	502.58	230	129
501.56	177	40	502.60	231	130
501.58	178	42	502.62	232	131
501.60	179	44	502.64	233	133
501.62	180	46	502.66	234	134
501.64	181	48	502.68	235	135
501.66	182	50	502.70	236	136
501.68	183	52	502.72	237	137
501.70	184	54	502.74	238	138
501.72	185	56	502.76	239	140
501.74	186	59	502.78	240	141
501.76	187	61	502.80	241	142
501.78	188	63	502.82	242	143
501.80	189	65	502.84	243	144
501.82	190	67	502.86	244	145
501.84	191	69	502.88	245	147
501.86	192	71	502.90	246	148
501.88	193	73	502.92	247	149
501.90	194	75	502.94	248	150
501.92	195	77	502.96	249	151
501.94	196	79	502.98	250	152
501.96	198	81	503.00	**251**	**154**
501.98	199	83			

Summary for Link 6L: POI A

Inflow Area = 53,087 sf, 4.30% Impervious, Inflow Depth > 2.73" for 25-Year event
Inflow = 2.95 cfs @ 12.20 hrs, Volume= 12,083 cf
Primary = 2.95 cfs @ 12.20 hrs, Volume= 12,083 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Link 13L: POI A

Inflow Area = 53,087 sf, 6.04% Impervious, Inflow Depth > 2.68" for 25-Year event
Inflow = 2.90 cfs @ 12.20 hrs, Volume= 11,873 cf
Primary = 2.90 cfs @ 12.20 hrs, Volume= 11,873 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: E1 Runoff Area=53,087 sf 4.30% Impervious Runoff Depth>3.67"
Flow Length=500' Slope=0.0800 '/' Tc=14.5 min CN=66 Runoff=4.01 cfs 16,239 cf

Subcatchment14S: PD-1 Runoff Area=52,163 sf 4.38% Impervious Runoff Depth>3.67"
Flow Length=500' Slope=0.0800 '/' Tc=14.5 min CN=66 Runoff=3.94 cfs 15,956 cf

Subcatchment15S: PD-2 Runoff Area=924 sf 100.00% Impervious Runoff Depth>7.36"
Tc=5.0 min CN=98 Runoff=0.16 cfs 566 cf

Pond 9P: (4) Cultec 100 Peak Elev=501.79' Storage=64 cf Inflow=0.16 cfs 566 cf
Discarded=0.07 cfs 566 cf Primary=0.00 cfs 0 cf Outflow=0.07 cfs 566 cf

Link 6L: POI A Inflow=4.01 cfs 16,239 cf
Primary=4.01 cfs 16,239 cf

Link 13L: POI A Inflow=3.94 cfs 15,956 cf
Primary=3.94 cfs 15,956 cf

Total Runoff Area = 106,174 sf Runoff Volume = 32,761 cf Average Runoff Depth = 3.70"
94.83% Pervious = 100,684 sf 5.17% Impervious = 5,490 sf

Summary for Subcatchment 1S: E1

Runoff = 4.01 cfs @ 12.20 hrs, Volume= 16,239 cf, Depth> 3.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-Year Rainfall=7.60"

	Area (sf)	CN	Description
	50,804	65	Woods/grass comb., Fair, HSG B
*	1,845	98	Existing Dwelling
*	273	98	Existing Deck
*	165	98	Existing Patio
	53,087	66	Weighted Average
	50,804		95.70% Pervious Area
	2,283		4.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	75	0.0800	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.40"
5.0	425	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.5	500	Total			

Summary for Subcatchment 14S: PD-1

Runoff = 3.94 cfs @ 12.20 hrs, Volume= 15,956 cf, Depth> 3.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-Year Rainfall=7.60"

	Area (sf)	CN	Description
	49,880	65	Woods/grass comb., Fair, HSG B
*	1,845	98	Existing Dwelling
*	273	98	Existing Deck
*	165	98	Existing Patio
	52,163	66	Weighted Average
	49,880		95.62% Pervious Area
	2,283		4.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	75	0.0800	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.40"
5.0	425	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.5	500	Total			

Summary for Subcatchment 15S: PD-2

Runoff = 0.16 cfs @ 12.07 hrs, Volume= 566 cf, Depth> 7.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 50-Year Rainfall=7.60"

	Area (sf)	CN	Description
*	924	98	Proposed Pool
	924		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Pond 9P: (4) Cultec 100

Inflow Area = 924 sf,100.00% Impervious, Inflow Depth > 7.36" for 50-Year event
Inflow = 0.16 cfs @ 12.07 hrs, Volume= 566 cf
Outflow = 0.07 cfs @ 12.26 hrs, Volume= 566 cf, Atten= 60%, Lag= 11.5 min
Discarded = 0.07 cfs @ 12.26 hrs, Volume= 566 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 501.79' @ 12.26 hrs Surf.Area= 146 sf Storage= 64 cf

Plug-Flow detention time= 4.1 min calculated for 566 cf (100% of inflow)
Center-of-Mass det. time= 4.0 min (744.5 - 740.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	500.96'	96 cf	**8.33'W x 17.50'L x 2.04'H Field A** 298 cf Overall - 58 cf Embedded = 240 cf x 40.0% Voids
#2A	501.46'	58 cf	**Cultec C-100HD** x 4 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap Row Length Adjustment= +0.50' x 1.86 sf x 2 rows
		154 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	502.00'	**6.0" Vert. Outlet Pipe** C= 0.600
#2	Device 1	502.00'	**3.0" Vert. Control Outlet X 4.00** C= 0.600
#3	Device 1	502.99'	**6.0" Horiz. Overflow** C= 0.600 Limited to weir flow at low heads
#4	Discarded	500.96'	**15.000 in/hr Exfiltration over Wetted area**

Discarded OutFlow Max=0.07 cfs @ 12.26 hrs HW=501.79' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 0.07 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=500.96' (Free Discharge)
└**1=Outlet Pipe** (Controls 0.00 cfs)
  └**2=Control Outlet** (Controls 0.00 cfs)
  └**3=Overflow** (Controls 0.00 cfs)

Pond 9P: (4) Cultec 100 - Chamber Wizard Field A

Chamber Model = Cultec C-100HD (Cultec Contactor® 100HD)
Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf
Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
Row Length Adjustment= +0.50' x 1.86 sf x 2 rows

36.0" Wide + 4.0" Spacing = 40.0" C-C Row Spacing

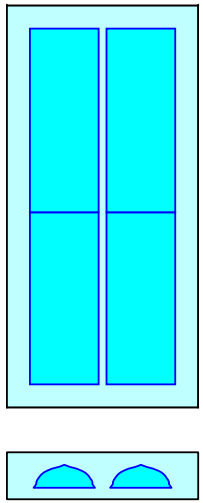
2 Chambers/Row x 7.50' Long +0.50' Row Adjustment = 15.50' Row Length +12.0" End Stone x 2 = 17.50' Base Length
2 Rows x 36.0" Wide + 4.0" Spacing x 1 + 12.0" Side Stone x 2 = 8.33' Base Width
6.0" Base + 12.5" Chamber Height + 6.0" Cover = 2.04' Field Height

4 Chambers x 14.0 cf +0.50' Row Adjustment x 1.86 sf x 2 Rows = 57.7 cf Chamber Storage

297.7 cf Field - 57.7 cf Chambers = 240.0 cf Stone x 40.0% Voids = 96.0 cf Stone Storage

Chamber Storage + Stone Storage = 153.7 cf = 0.004 af
Overall Storage Efficiency = 51.6%
Overall System Size = 17.50' x 8.33' x 2.04'

4 Chambers
11.0 cy Field
8.9 cy Stone



Stage-Area-Storage for Pond 9P: (4) Cultec 100

Elevation (feet)	Wetted (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Wetted (sq-ft)	Storage (cubic-feet)
500.96	146	0	502.00	200	85
500.98	147	1	502.02	201	87
501.00	148	2	502.04	202	89
501.02	149	4	502.06	203	90
501.04	150	5	502.08	204	92
501.06	151	6	502.10	205	94
501.08	152	7	502.12	206	96
501.10	153	8	502.14	207	98
501.12	154	9	502.16	208	100
501.14	155	11	502.18	209	101
501.16	156	12	502.20	210	103
501.18	157	13	502.22	211	105
501.20	158	14	502.24	212	107
501.22	159	15	502.26	213	108
501.24	160	16	502.28	214	110
501.26	161	18	502.30	215	111
501.28	162	19	502.32	216	113
501.30	163	20	502.34	217	114
501.32	164	21	502.36	218	116
501.34	165	22	502.38	219	117
501.36	166	23	502.40	220	118
501.38	168	25	502.42	221	120
501.40	169	26	502.44	222	121
501.42	170	27	502.46	223	122
501.44	171	28	502.48	224	123
501.46	172	29	502.50	225	124
501.48	173	31	502.52	226	126
501.50	174	33	502.54	227	127
501.52	175	36	502.56	229	128
501.54	176	38	502.58	230	129
501.56	177	40	502.60	231	130
501.58	178	42	502.62	232	131
501.60	179	44	502.64	233	133
501.62	180	46	502.66	234	134
501.64	181	48	502.68	235	135
501.66	182	50	502.70	236	136
501.68	183	52	502.72	237	137
501.70	184	54	502.74	238	138
501.72	185	56	502.76	239	140
501.74	186	59	502.78	240	141
501.76	187	61	502.80	241	142
501.78	188	63	502.82	242	143
501.80	189	65	502.84	243	144
501.82	190	67	502.86	244	145
501.84	191	69	502.88	245	147
501.86	192	71	502.90	246	148
501.88	193	73	502.92	247	149
501.90	194	75	502.94	248	150
501.92	195	77	502.96	249	151
501.94	196	79	502.98	250	152
501.96	198	81	503.00	**251**	**154**
501.98	199	83			

Summary for Link 6L: POI A

Inflow Area = 53,087 sf, 4.30% Impervious, Inflow Depth > 3.67" for 50-Year event
Inflow = 4.01 cfs @ 12.20 hrs, Volume= 16,239 cf
Primary = 4.01 cfs @ 12.20 hrs, Volume= 16,239 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Link 13L: POI A

Inflow Area = 53,087 sf, 6.04% Impervious, Inflow Depth > 3.61" for 50-Year event
Inflow = 3.94 cfs @ 12.20 hrs, Volume= 15,956 cf
Primary = 3.94 cfs @ 12.20 hrs, Volume= 15,956 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Time span=0.00-24.00 hrs, dt=0.01 hrs, 2401 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: E1 Runoff Area=53,087 sf 4.30% Impervious Runoff Depth>4.91"
Flow Length=500' Slope=0.0800 '/' Tc=14.5 min CN=66 Runoff=5.40 cfs 21,725 cf

Subcatchment14S: PD-1 Runoff Area=52,163 sf 4.38% Impervious Runoff Depth>4.91"
Flow Length=500' Slope=0.0800 '/' Tc=14.5 min CN=66 Runoff=5.30 cfs 21,347 cf

Subcatchment15S: PD-2 Runoff Area=924 sf 100.00% Impervious Runoff Depth>8.85"
Tc=5.0 min CN=98 Runoff=0.20 cfs 682 cf

Pond 9P: (4) Cultec 100 Peak Elev=502.06' Storage=90 cf Inflow=0.20 cfs 682 cf
Discarded=0.07 cfs 677 cf Primary=0.01 cfs 5 cf Outflow=0.08 cfs 682 cf

Link 6L: POI A Inflow=5.40 cfs 21,725 cf
Primary=5.40 cfs 21,725 cf

Link 13L: POI A Inflow=5.31 cfs 21,351 cf
Primary=5.31 cfs 21,351 cf

Total Runoff Area = 106,174 sf Runoff Volume = 43,753 cf Average Runoff Depth = 4.95"
94.83% Pervious = 100,684 sf 5.17% Impervious = 5,490 sf

Summary for Subcatchment 1S: E1

Runoff = 5.40 cfs @ 12.20 hrs, Volume= 21,725 cf, Depth> 4.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=9.10"

	Area (sf)	CN	Description
	50,804	65	Woods/grass comb., Fair, HSG B
*	1,845	98	Existing Dwelling
*	273	98	Existing Deck
*	165	98	Existing Patio
	53,087	66	Weighted Average
	50,804		95.70% Pervious Area
	2,283		4.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	75	0.0800	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.40"
5.0	425	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.5	500	Total			

Summary for Subcatchment 14S: PD-1

Runoff = 5.30 cfs @ 12.20 hrs, Volume= 21,347 cf, Depth> 4.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=9.10"

	Area (sf)	CN	Description
	49,880	65	Woods/grass comb., Fair, HSG B
*	1,845	98	Existing Dwelling
*	273	98	Existing Deck
*	165	98	Existing Patio
	52,163	66	Weighted Average
	49,880		95.62% Pervious Area
	2,283		4.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	75	0.0800	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.40"
5.0	425	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
14.5	500	Total			

Summary for Subcatchment 15S: PD-2

Runoff = 0.20 cfs @ 12.07 hrs, Volume= 682 cf, Depth> 8.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=9.10"

	Area (sf)	CN	Description
*	924	98	Proposed Pool
	924		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Summary for Pond 9P: (4) Cultec 100

Inflow Area = 924 sf,100.00% Impervious, Inflow Depth > 8.85" for 100-Year event
Inflow = 0.20 cfs @ 12.07 hrs, Volume= 682 cf
Outflow = 0.08 cfs @ 12.25 hrs, Volume= 682 cf, Atten= 59%, Lag= 11.1 min
Discarded = 0.07 cfs @ 12.25 hrs, Volume= 677 cf
Primary = 0.01 cfs @ 12.25 hrs, Volume= 5 cf

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 502.06' @ 12.25 hrs Surf.Area= 146 sf Storage= 90 cf

Plug-Flow detention time= 5.6 min calculated for 681 cf (100% of inflow)
Center-of-Mass det. time= 5.5 min (743.8 - 738.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	500.96'	96 cf	**8.33'W x 17.50'L x 2.04'H Field A** 298 cf Overall - 58 cf Embedded = 240 cf x 40.0% Voids
#2A	501.46'	58 cf	**Cultec C-100HD** x 4 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap Row Length Adjustment= +0.50' x 1.86 sf x 2 rows
		154 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	502.00'	**6.0" Vert. Outlet Pipe** C= 0.600
#2	Device 1	502.00'	**3.0" Vert. Control Outlet X 4.00** C= 0.600
#3	Device 1	502.99'	**6.0" Horiz. Overflow** C= 0.600 Limited to weir flow at low heads
#4	Discarded	500.96'	**15.000 in/hr Exfiltration over Wetted area**

Discarded OutFlow Max=0.07 cfs @ 12.25 hrs HW=502.06' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 0.07 cfs)

Primary OutFlow Max=0.01 cfs @ 12.25 hrs HW=502.06' (Free Discharge)
└**1=Outlet Pipe** (Orifice Controls 0.01 cfs @ 0.80 fps)
  └**2=Control Outlet** (Passes 0.01 cfs of 0.03 cfs potential flow)
  └**3=Overflow** (Controls 0.00 cfs)

Pond 9P: (4) Cultec 100 - Chamber Wizard Field A

Chamber Model = Cultec C-100HD (Cultec Contactor® 100HD)
Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf
Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
Row Length Adjustment= +0.50' x 1.86 sf x 2 rows

36.0" Wide + 4.0" Spacing = 40.0" C-C Row Spacing

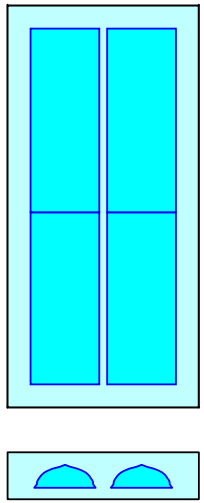
2 Chambers/Row x 7.50' Long +0.50' Row Adjustment = 15.50' Row Length +12.0" End Stone x 2 = 17.50' Base Length
2 Rows x 36.0" Wide + 4.0" Spacing x 1 + 12.0" Side Stone x 2 = 8.33' Base Width
6.0" Base + 12.5" Chamber Height + 6.0" Cover = 2.04' Field Height

4 Chambers x 14.0 cf +0.50' Row Adjustment x 1.86 sf x 2 Rows = 57.7 cf Chamber Storage

297.7 cf Field - 57.7 cf Chambers = 240.0 cf Stone x 40.0% Voids = 96.0 cf Stone Storage

Chamber Storage + Stone Storage = 153.7 cf = 0.004 af
Overall Storage Efficiency = 51.6%
Overall System Size = 17.50' x 8.33' x 2.04'

4 Chambers
11.0 cy Field
8.9 cy Stone



Stage-Area-Storage for Pond 9P: (4) Cultec 100

Elevation (feet)	Wetted (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Wetted (sq-ft)	Storage (cubic-feet)
500.96	146	0	502.00	200	85
500.98	147	1	502.02	201	87
501.00	148	2	502.04	202	89
501.02	149	4	502.06	203	90
501.04	150	5	502.08	204	92
501.06	151	6	502.10	205	94
501.08	152	7	502.12	206	96
501.10	153	8	502.14	207	98
501.12	154	9	502.16	208	100
501.14	155	11	502.18	209	101
501.16	156	12	502.20	210	103
501.18	157	13	502.22	211	105
501.20	158	14	502.24	212	107
501.22	159	15	502.26	213	108
501.24	160	16	502.28	214	110
501.26	161	18	502.30	215	111
501.28	162	19	502.32	216	113
501.30	163	20	502.34	217	114
501.32	164	21	502.36	218	116
501.34	165	22	502.38	219	117
501.36	166	23	502.40	220	118
501.38	168	25	502.42	221	120
501.40	169	26	502.44	222	121
501.42	170	27	502.46	223	122
501.44	171	28	502.48	224	123
501.46	172	29	502.50	225	124
501.48	173	31	502.52	226	126
501.50	174	33	502.54	227	127
501.52	175	36	502.56	229	128
501.54	176	38	502.58	230	129
501.56	177	40	502.60	231	130
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501.62	180	46	502.66	234	134
501.64	181	48	502.68	235	135
501.66	182	50	502.70	236	136
501.68	183	52	502.72	237	137
501.70	184	54	502.74	238	138
501.72	185	56	502.76	239	140
501.74	186	59	502.78	240	141
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501.90	194	75	502.94	248	150
501.92	195	77	502.96	249	151
501.94	196	79	502.98	250	152
501.96	198	81	503.00	**251**	**154**
501.98	199	83			

Summary for Link 6L: POI A

Inflow Area = 53,087 sf, 4.30% Impervious, Inflow Depth > 4.91" for 100-Year event
Inflow = 5.40 cfs @ 12.20 hrs, Volume= 21,725 cf
Primary = 5.40 cfs @ 12.20 hrs, Volume= 21,725 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Summary for Link 13L: POI A

Inflow Area = 53,087 sf, 6.04% Impervious, Inflow Depth > 4.83" for 100-Year event
Inflow = 5.31 cfs @ 12.20 hrs, Volume= 21,351 cf
Primary = 5.31 cfs @ 12.20 hrs, Volume= 21,351 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

TOWN OF NORTH CASTLE

WESTCHESTER COUNTY
17 Bedford Road
Armonk, New York 10504-1898

PLANNING DEPARTMENT
Adam R. Kaufman, AICP
Director of Planning

Telephone: (914) 273-3542
Fax: (914) 273-3554
www.northcastleny.com

GROSS LAND COVERAGE CALCULATIONS WORKSHEET

Application Name or Identifying Title: JT Construction Date: 11/17/2

Tax Map Designation or Proposed Lot No.: 101.03-4-44

Gross Lot Coverage

1.	Total lot Area (Net Lot Area for Lots Created After 12/13/06):	72966
2.	**Maximum** permitted gross land coverage (per Section 355-26.C(1)(b)):	12086
3.	**BONUS** maximum gross land cover (per Section 355-26.C(1)(b)):	
	Distance principal home is beyond minimum front yard setback 2.32 x 10 =	23.2
4.	**TOTAL Maximum Permitted gross land coverage** = Sum of lines 2 and 3	12109
5.	Amount of lot area covered by **principal building:** 3506 existing + 0 proposed =	3506
6.	Amount of lot area covered by **accessory buildings:** 0 existing + 0 proposed =	0
7.	Amount of lot area covered by **decks:** 267 existing + 0 proposed =	267
8.	Amount of lot area covered by **porches:** 0 existing + 0 proposed =	0
9.	Amount of lot area covered by **driveway, parking areas and walkways:** 3329 existing + 0 proposed =	3329
10.	Amount of lot area covered by **terraces:** 164 existing + 0 proposed =	164
11.	Amount of lot area covered by **tennis court, pool and mechanical equip:** 0 existing + 1052 proposed =	1052
12.	Amount of lot area covered by **all other structures:** 0 existing + 0 proposed =	0
13. Proposed	**gross land coverage:** Total of Lines 5 – 12 =	8318

If Line 13 is less than or eq ual to Line 4, your proposal **complies** with the Town's maximum gross land coverage regulations and the project may proceed to the Residential Project Review Committee for review. If Line 13 is greater than Line 4 your proposal does not comply with the Town's regulations.

Keith Wenck

Signature and Seal of Professional Preparing Worksheet

12/9/20
Date

TOWN OF NORTH CASTLE

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GROSS LAND COVERAGE WORKSHEET

The following format is to be used for all applications for the purpose of demonstrating the gross land coverage of a property as necessary to show compliance with gross land coverage limitations of the Town Code.

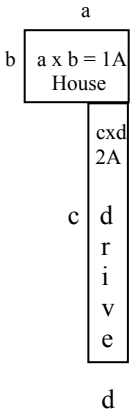
1. Scaled worksheets are to be prepared based upon a site plan which represents existing or proposed conditions as applicable to the particular circumstances of the approval being sought. All site plans and worksheets are required to be prepared by a licensed or registered professional in the State of New York.

2. Each component of the gross land coverage is to be divided into simple polygons (squares, rectangles, etc.) each being drawn on the plan. The area of each polygon is to be shown by providing the dimensions and resulting area measurement. Each polygon is to be assigned an identifying label for reference purposes.

3. A summary table for each component is to be completed. The area of each polygon is to be listed by reference label then added, resulting in the gross land coverage for the entire site.

4. Any exception of land coverage from the gross land coverage must be identified on the floor plans and summary tables. The rationale for any exception must accompany the floor area worksheets.

5. A schematic illustration of the format is shown below



1A= House
2A= Drive

1A
2A
_____
GROSS LAND COVERAGE

LOT AREA, NET – Lot area minus seventy five (75) percent of the area of any wetlands, waterbodies and, watercourses, but excluding any adjacent areas, all as defined in Chapter 209 Wetlands and Drainage, of the Town Code, and the area of any steep slopes, as defined Chapter 213, except that in the case of one-family lots, the deduction for steep slopes shall be only fifty (50) percent.

Lot Size	Maximum Permitted Gross Land Coverage for One-Family Dwelling Lots[1] (square feet)
Less than 5,000 square feet	50% of the lot area
5,000 to 9,999 square feet	2,500 plus 30% of the lot area in excess of 5,000 square feet
10,000 to 14,999 square feet	4,000 plus 24% of the lot area in excess of 10,000 square feet
15,000 square feet to 0.499 acres	5,200 plus 18% of the lot area in excess of 15,000 square feet
0.5 to 0.749 acres	6,420 plus 15% of the lot area in excess of 0.5 acres
0.75 to 0.999 acres	8,050 plus 12% of the lot area in excess of 0.75 acres
1.0 to 1.999 acres	9,350 plus 9% of the lot area in excess of 1.0 acres
2.0 acres or more	13,270 plus 7.5% of the lot area in excess of 2.0 acres

*Permitted gross land coverage limitations for two-family dwelling lots in the R-2F District shall be twenty five (25) percent greater than that permitted for one-family dwelling lots.

NOTWITHSTANDING ABOVE LIMITATIONS, AN ADDITIONAL 10 SQUARE FEET OF GROSS LAND COVERAGE SHALL BE PERMITTED FOR EACH ONE FOOT OF FRONT YARD SETBACK OF THE PRINCIPAL DWELLING IN EXCESS OF THE MINIMUM FRONT YARD SETBACK REQUIRED.

Town of North Castle Building Department
17 Bedford Road
Armonk, New York 10504-1898
Telephone: (914) 273-3000 ext. 44 Fax: (914) 273-3554
www.northcastleny.com

TOWN OF NORTH CASTLE TREE REMOVAL APPLICATION PERMIT

WHEN A PERMIT IS REQUIRED

The Town of North Castle finds and declares that the preservation of Trees is necessary to protect the health, safety and general welfare of the Town of North Castle because trees provide shade, impede soil erosion, aid water absorption and retention, inhibit excess runoff and flooding, enhance air quality, offer a natural barrier to noise, provide a natural habitat for wildlife, provide screening, enhance property values and add to the aesthetic quality of the community.

A tree removal permit is required under the following circumstances:

1. Removal of a tree within a property's regulated setback zone or landscape buffer zone (All trees 8" or greater DBH – Diameter at Breast Height).

   The regulated setback zone refers to the area of vegetative screening or landscaping measured from each property line of a residentially zoned property toward the interior of such property.

   R-4A One-Family Residence District: 25 feet.
   R-2A One-Family Residence District: 15 feet.
   R-1.5A One-Family Residence District: 12 feet.
   R-1A One-Family Residence District: 10 feet.
   All other residential districts: 5 feet
2. Removal of a Significant Tree that's 24 inches or greater DBH at 4 feet.
3. Removal of any tree in wetlands, within clearing lines, or Conservation Easements.
3. Any cutting of more than 5 trees of 8 inches in diameter or more in any one quarter-acre area, within a 12 month period with such area being measured as a square with each side measuring 104 feet.
4. Removal of any street tree within the Right of Way.
5. Removal in any calendar year of more than ten (10) trees on any lot.

Town of North Castle Building Department
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Armonk, New York 10504-1898
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Tree Removal Application

NOTE: TWO (2) SETS OF ALL REQUIRED DOCUMENTS MUST BE SUBMITTED WITH THIS APPLICATION

Section I- PROJECT ADDRESS: 16 Quaker Meeting House Rd DATE: 02/11/2021

Section II- CONTACT INFORMATION: (Please print clearly. All information must be current)

APPLICANT: Ahneman Kirby

ADDRESS: 1171 E Putnam Ave, Riverside, CT 06878

PHONE: (203) 869-7707 MOBILE: (914) 819-3113 EMAIL: kaw@ahnemankirby.com

PROPERTY OWNER: Eric Birenberg

ADDRESS: 16 Quaker Meeting House Road, Armonk, NY 10504

PHONE: _____ MOBILE: _____ EMAIL: ebirenberg@me.com

Tree Company: _____

ADRESS: _____

PHONE: _____ MOBILE: _____ EMAIL: _____

Section III- REGULATED ACTIVITY: (Check all that apply)

- ☐ Removal of a tree within a property's regulated setback zone or landscaped buffer zone.
- ☐ Removal of a significant tree.
- ✔ Removal of any tree in the wetlands, within clearing lines, or conservation easements.
- ☐ Clearing/Thinning.
- ☐ Removal of any tree within the right of way.
- ☐ Removal in any calendar year of more than ten (10) trees on any lot.

Section IV- DESCRIPTION OF WORK: (Please include how many trees will be removed)

Removal of 2 trees to permit construction of an in ground swimming pool

Section V- FUTURE PLANS:

Do you have any intention of tearing down the house to build a new house within the next six (6) months. ☐ Yes ■ No

Town of North Castle Building Department

Section V- FUTURE PLANS: (Continued)

Do you have any intention to expand the house over 1500 square feet within the next six (6) months? ☐ Yes ■ No

Section VI- RESTRICTION:

Is there any conservation easements on your deed? ■ Yes ☐ No

Section VII- PERMIT FEES: ($50 application fee and a $25 Certificate of Compliance fee)

Section VIII- APPLICANT CERTIFICATION

I hereby certify that I have read the instructions & examined this application and know the same to be true & correct. All provisions of laws & ordinances covering this type of work will be complied with whether specified herein or not. The granting of a permit does not presume to give authority to violate or cancel the provisions of any other state or local law regulating construction or land use or the performance of construction.

Signature:_____ Date:02/11/2021

Section IX- AFFIDAVIT OF OWNER AUTHORIZATION: **(To be notarized)**

STATE OF NEW YORK }

COUNTY OF WESTCHESTER } SS:

The applicant Ahneman Kirby has proper consent from said owner to make this application as submitted and said owner agrees to all terms and conditions placed upon same.

Owner's Name (PRINT) Eric Birenberg Owner's Signature_____

Sworn to before me this_____ day of _____, 20_____

OFFICE USE ONLY – DO NOT WRITE BELOW THIS LINE

Zone:_____ Section:_____ Block:_____ Lot:_____

Building Department Checklist:

Does this permit require RPRC approval? ☐ Yes ☐ No

Has a plan delineating all improvements, site grading and disturbance proposed on the subject property. ☐ Yes ☐ No

GC License Work. Comp. Liability. Ins. Disability Two sets of documents

Permit Fee $75.00 Payment type: Check #: _____ Cash

Name on check: _____ Received By:_____ Date:_____

Reviewed By:_____ Date:_____

Building Inspector Approval:_____ Date:_____

Conditions:_____