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Sep 26 2023
TOWN OF NORTH CASTLE
PLANNING DEPARTMENT

ARQ. ARCHITECTURE P.C.
ARCHITECTURE - PLANNING - ENGINEERING

September 26, 2023

Mr. Christopher Carthy, Chairman
PLANNING BOARD
Town of North Castle
15 Bedford Road
North Castle, N.Y. 10504

Re: RESUBMISSION – 176 Virginia Road, North White Plains
(S/B/L: 122.16 – 1 – 3. Zone District: " IND-A "

PRIOR BOARD APPROVAL – RESOLUTION DATED 4/25/22 (SIGNED 4/29/22)
(COPY ATTACHED)

Dear Mr. Carthy, and Honorable Members of the Planning Board,

As it relates to the aforementioned property location, and as indicated above, this Application attached is being ***resubmitted*** for the Board review and consideration. Regrettably, while the application was in the final stages of review and addressing the final comments and conditions of the April 25, 2022 Board Resolution (copy attached), the Resolution unfortunately expired.

As such, and since there currently is no opportunity to request, or the possibility of a Resolution extension, we've had no other choice than to resubmit the Application. You will note that the Application Form itself is the original application, but has been resigned and dated by the Owner to reflect todays submission. In light of its previous review and approval we have included any and all related comments and/or correspondence between the Board Consultants and our office, and the Dwgs provided are the most recent and updated plans based on said comments and conditions.

In providing the most recent and current documentation to the original Application, it is our hope and anticipation that the Application will be granted an expedited approval process. Currently the only remaining item needed for final approval was the Approval Letter from Town Consultants, Kellard-Sessions.

We ask that you please accept our sincerest thanks and appreciation for your expedited re-approval of this application, and as always, should you have any further comment of questions, please contact our office at your earliest opportunity

Sincerely,

Jorge B. Hernandez, R.A.
President

100 Executive Boulevard, Suite 204, Ossining, N.Y. 10562 Ph: (914) 944-3377, Email: info@arqpc.com

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TOWN OF NORTH CASTLE
WESTCHESTER COUNTY
17 Bedford Road
Armonk, New York 10504-1898

PLANNING BOARD
Christopher Carthy, Chair

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

RECEIVED 5/2/2022
TOWN CLERK'S OFFICE

RESOLUTION

Action:	Site Plan, Steep Slope and Tree Removal Approvals
Application Name:	Mistis Properties 100 Inc. [2021-017]
Applicant/Owner:	Mistis Properties 100 Inc.
Designation:	122.16-1-3
Zone:	IND-A Zoning District
Acreage:	0.38 acres
Location:	176 Virginia Road
Date of Approval:	April 25, 2022
Expiration Date:	April 25, 2023 (1 Year)

WHEREAS, the Applicant is proposing the construction of 2 metal prefab buildings (totaling approximately 5,000 square feet) which will be primarily used as parking bays for trucks, including one wash bay; and

WHEREAS, the Planning Board on November 25, 2019 approved an identical project that has since expired; and

WHEREAS, in connection with the proposed development, the Applicant has submitted the following plans:

- Plan labeled "1 of 14," entitled "Site Plan, Map & Notes," dated March 8, 2021, last revised March 23, 2022, prepared by ARQ Architecture P.C.
- Plan labeled "2 of 14," entitled "Drainage, Grading & Erosion Control," dated March 8, 2021, last revised March 29, 2022, prepared by ARQ Architecture P.C.
- Plan labeled "3 of 14" entitled "Turns & Sight Distance," dated March 8, 2021, last revised March 23, 2022, prepared by ARQ Architecture P.C.
- Plan labeled "4 of 14," entitled "Site Details," dated March 8, 2021, last revised March 29, 2022, prepared by ARQ Architecture P.C.
- Plan labeled "5 of 14," entitled "Site Details," dated March 8, 2021, last revised March 23, 2022, prepared by ARQ Architecture P.C.
- Plan labeled "6 of 14," entitled "Site Details," dated March 8, 2021, last revised March 23, 2022, prepared by ARQ Architecture P.C.
- Plan labeled "7 of 14," entitled "Section & Site Details," dated March 8, 2021, last revised March 23, 2022, prepared by ARQ Architecture P.C.
- Plan labeled "8 of 14," entitled "2-Bay Warehouse Floor Plans," dated March 8, 2021, last revised March 23, 2022, prepared by ARQ Architecture P.C.
- Plan labeled "9 of 14," entitled "4-Bay Warehouse Floor Plans," dated March 8, 2021, last revised March 23, 2022, prepared by ARQ Architecture P.C.

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- Plan labeled "10 of 14," entitled "2-Bay Warehouse Elevations," dated March 8, 2021, last revised March 23, 2022, prepared by ARQ Architecture P.C.
- Plan labeled "11 of 14," entitled "4-Bay Warehouse Elevations," dated March 8, 2021, last revised March 23, 2022, prepared by ARQ Architecture P.C.
- Plan labeled "12 of 14," entitled "Lighting Plan," dated March 8, 2021, last revised March 23, 2022, prepared by ARQ Architecture P.C.
- Plan labeled "13 of 14," entitled "Photometric Plan," dated March 8, 2021, last revised March 23, 2022, prepared by ARQ Architecture P.C.
- Plan labeled "14 of 14," entitled "Schedules, Specifications & Detail," dated March 8, 2021, last revised March 23, 2022, prepared by ARQ Architecture P.C.

WHEREAS, the site plan depicts the removal of 6 Town-regulated trees; and

WHEREAS, the site plan depicts a truck washing bay; and

WHEREAS, truck washing is limited to the trucks stored on the site and a maximum use of 200 gallons/day; and

WHEREAS, the Architectural Review Board approved the proposed building design at the November 13, 2019 meeting; and

WHEREAS, the application for site plan approval was referred to the Westchester County Planning Board pursuant to § 239-m of New York State General Municipal Law (GML) on March 12, 2019; and

WHEREAS, on April 25, 2022, the Planning Board, pursuant to § 355-44 of the North Castle Code, conducted a duly noticed public hearing with respect to the site plan application, at which time all those wishing to be heard with respect to the site plan were given an opportunity to be heard; and

WHEREAS, the Proposed Action would be classified as an Unlisted Action pursuant to the State Environmental Quality Review Act (SEQRA); and

WHEREAS, the Planning Board has elected to conduct an uncoordinated SEQRA review; and

WHEREAS the site plan was forwarded to the Chief of Police, Fire Inspector and the North White Plains Fire Chief so that they may make any pertinent recommendations to the Planning Board including, but not limited to, the designation of no-parking zones, emergency vehicle access or any other issued deemed important to providing emergency services; and

WHEREAS, the site plan was forwarded to the Water and Sewer department so that they may make any pertinent recommendations to the Planning Board including, but not limited to, the capacity of the sewer and water infrastructure to handle the proposed amount of effluent and water demand; and

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WHEREAS, the Water & Sewer Department, most recently on October 25, 2019, has provided the following comments:

- With regard to sewer capacity, based upon the owner projections there should not be any impact on SD1 infrastructure. All waste is conveyed via gravity sewer to Westchester County for treatment.
- Water supply and the ability to serve should also be manageable, based upon the water service size designed, and our rate structure that is in place to handle volumes of excess.
- As noted on the plans all existing water and sewer services that are no longer intended to be used must be abandoned in the street at the main connection, and require inspection by this department.
- Although the plan illustrates a new 1" water service in a "Hot Box" with an RPZ, an appropriate engineer's plan and application for the backflow device must be submitted to my office for review, which will then be forwarded on the Westchester County Health Department for their approval.
- I did not see a fire service in the design, although not a requirement of this department, just wanted to make sure it was not an oversite.
- The water service connection detail shows the curb stop within 5' of the water main. That is unlikely as the water main is closer to the middle of Virginia Road. When the water tap is installed the curb box is set at the property line.
- The detail of the sewer connection at the main would be cleaner and easier to install by utilizing a "Dog House" manhole over the existing sewer main. The 4" ductile iron service can be connected directly with an invert rather that the transition connection on the Clay Sewer main. This would eliminate multiple fittings and various types of materials at the connection point. This will also enable the Sewer District to monitor the discharge of the facility, in particular any accumulation of grease discharge should the oil and grease separator maintenance become neglected.
- Applications for both water and sewer service require filing of applications with this department for inspection, a water tap, and meter. Our maximum water tap size is 1" anything larger than that will require a contractor with the proper equipment for such purpose.

WHEREAS, the Planning Board has inspected the site and is familiar with the nature of the site, the surrounding area, and the proposed development; and

WHEREAS, the Planning Board has requested, received, and considered comments from the Town Attorney, Town Engineer, and Town Planner regarding the proposed development; and

WHEREAS, the requirements of the Zoning Ordinance of the Town of North Castle have been met by said application; and

NOW THEREFORE BE IT RESOLVED, that based upon its review of the full environmental record the Planning Board finds that the proposed action will not result in any significant adverse

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environmental impacts and hereby adopts a Negative Declaration pursuant to the requirements of Article 8 of the New York State Environmental Quality Review Law and 6 NYCRR Part 617; and

BE IT FURTHER RESOLVED, that the application for site plan and tree removal permit approvals, as described herein, is hereby conditionally approved, subject to the following conditions and modifications; and

BE IT FURTHER RESOLVED that, this site plan, steep slopes permit and tree removal permit approvals shall expire one (1) year after the date of this resolution unless all of the conditions and modifications identified below have been substantially completed or an extension of time has been requested by the applicant or granted by the North Castle Planning Board.

Prior to the Signing of the Site Plan:
(The Planning Board Secretary's initials and date shall be placed in the space below to indicate that the condition has been satisfied.)

_____1. The plan requires a retaining wall along the rear and sides of the property with a maximum height of approximately 28 feet. The Grading Plan shall illustrate the required grading of the slopes above the retaining wall necessary to maintain the proposed 1V:2H slope and include a detail of the armored slope referenced in the typical retaining wall sections to the satisfaction of the Town Engineer. The Landscaping Plan shall be revised as needed to accommodate the armored slope to the satisfaction of the Town Engineer.

_____2. The plan shall clearly state that retaining wall design calculations, prepared by a New York State Licensed Professional Engineer, shall be provided prior to the issuance of a Building Permit.

_____3. The proposed outlet structure, detailed on Sheet S-5, is not illustrated Sheet S-2 (Drainage & Grading Plan). It appears this is no longer required. Please clarify to the satisfaction of the Town Engineer.

_____4. Pursuant to Section 127-17 of the Town Code, the applicant shall submit a detailed quantity cost estimate for all site improvements proposed, with the quantities certified to by the applicant's engineer, to the satisfaction of the Town Engineer.

_____5. The site plan shall be revised to depict and quantify (in square feet) any proposed Town-regulated steep slope disturbance to the satisfaction of the Planning Department.

_____6. Payment of all applicable fees, including any outstanding consulting fees.

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_____7. The Applicant shall submit to the Planning Board Secretary two (2) sets of plans (with required signature block) incorporating all required amendments to the plans as identified in this resolution of approval to the satisfaction of the Town Planner, Town Engineer and Town Attorney.

_____8. The Applicant shall submit final construction plans for site improvements to the Town Engineer for his approval of driveways, parking areas, storm drainage system, water and sewer connections, sidewalks, erosion and sediment controls and any other information requested by the Town Engineer to the satisfaction of the Town Engineer.

Prior to the Issuance of a Building Permit:
(The Planning Board Secretary's initials and date shall be placed in the space below to indicate that the condition has been satisfied.)

_____1. A final design of the proposed retaining walls, prepared by a New York State Licensed Engineer, shall be submitted demonstrating appropriate factors of safety against sliding, overturning and bearing capacity to the satisfaction of the Town Engineer.

_____2. The Applicant shall address all of the issues identified in the October 25, 2019 letter from the Water & Sewer Department to the satisfaction of the Water and Sewer Department, the Town Engineer and Building Department.

_____3. The applicant will be required to obtain a Curb Cut Permit and/or Highway Work Permit from the North Castle Highway Department and/or Westchester County Department of Public Works.

_____4. All proposed building/site signage shall require ARB approval.

_____5. The approved site plan shall be signed by both the Planning Board Chair and Town Engineer.

_____6. The proper construction type stickers shall be affixed to the building to the satisfaction of the Building Department.

_____7. The submission of a complete set of building plans for review and approval by the Town Building Inspector prior to the issuance of a building permit.

_____8. The applicant shall submit an engineering inspection fee equal to 3% of the estimated cost of construction.

_____9. Payment of all outstanding fees, including professional review fees.

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Prior to the Issuance of a Certificate of Occupancy/Compliance:
(The Planning Board Secretary's initials and date shall be placed in the space below to indicate that the condition has been satisfied.)

_____1. A Knox Box shall be installed at the entrances to the building (or an alternate location) to the satisfaction of the Building Department.

_____2. The plan proposes improvements, including curb, sidewalk, pavement and landscaping, within the Town of North Castle and/or Westchester County right-of-way. The applicant shall submit proof of compliance and satisfaction of any required Highway Work Permits to the satisfaction of the Town Engineer.

_____3. Provide proof of closure of any Town Water & Sewer Department Permits

_____ 4. Prior to the issuance of a certificate of occupancy/compliance, the actual construction, installation and implementation of all landscaping shall be certified by a licensed landscape architect as being in compliance with the approved plans and conditions, at the sole cost and expense of the Applicant.

_____ 5. The submission to the Town Building Inspector of an "As Built" site plan.

Other Conditions:

1. Truck washing is limited to the trucks stored on the site and a maximum use of 200 gallons/day.

2. Vehicle Repair shall be prohibited on site.

3. Any outdoor storage of vehicles and material not depicted on the approved site plan shall be prohibited.

4. Prior to the start of construction and throughout the construction period, area of disturbance lines shall be clearly delineated in the field with snow fence or another demarcation acceptable to the Building Department and Town Engineer, which shall be placed around the entire proposed construction area. Except as necessary to provide mitigation plantings, no encroachment beyond these limits by workers or machinery shall be permitted.

5. Grading and clearing and other construction-related activities shall take place only within the delineated area of disturbance lines. These area of disturbance lines represent the maximum limits of construction activities. Every attempt shall be made to further reduce grading and clearing activities within the area of disturbance lines by maintaining natural vegetation and topography wherever practicable.

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6. Prior to the commencement of any site work, the Applicant shall stake the location of the proposed construction for inspection and approval by the Building Department and Town Engineer.

7. All soil erosion and sedimentation control measures shown on this plan shall be in place prior to the start of any site work. The Building Department and Town Engineer shall have inspected the installation of all required soil erosion and sedimentation control measures prior to the authorization to proceed with any phase of the site work.

8. Throughout the construction period, a qualified professional retained by the Applicant shall, on at least a weekly basis, prior to any predicted rain event and after any runoff-producing rain event, inspect the soil erosion and sedimentation control measures to ensure their proper functioning. Soil shall be removed from the silt fence when bulges develop in the fence in accordance with Westchester County recommendations. Records shall be kept onsite and made available for review by Town personnel. Inspections shall be in accordance with the NYSDEC Phase II regulations.

9. If the Applicant, during the course of construction, encounters such conditions as flood areas, underground water, soft or silty areas, improper drainage, or any other unusual circumstances or conditions that were not foreseen in the original planning, he shall report such conditions immediately to the Building Department and Town Engineer. The Applicant may submit, if he so desires, his recommendations as to the special treatment to be given such areas to secure adequate, permanent and satisfactory construction. The Building Department, without unnecessary delay, shall investigate the condition or conditions, and shall either approve the Applicant's recommendations to correct the conditions, order a modification thereof, or issue his own specifications for the correction of the conditions. In the event of the Applicant's disagreement with the decision of the Building Department, or in the event of a significant change resulting to the site plan or any change that involves the wetlands regulated areas, the matter shall be decided by the Planning Board. Any such conditions observed by the Planning Board or its agents shall be similarly treated.

10. Compliance with all applicable local laws and ordinances of the Town of North Castle and any conditions attached to permits issued thereunder.

11. The applicant shall provide sedimentation and erosion control measures to the satisfaction of the Town Engineer and in accordance with the measures set forth in the Westchester County Best Management Practices for Construction and Related Activities.

12. All landscaping shown on this plan shall be maintained in a vigorous growing condition throughout the duration of the use. All plants not so maintained shall be replaced with new plants of comparable size and quality at the beginning of the next immediately following growing season.

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13. The applicant shall provide confirmation from the North Castle Highway Department and/or the Westchester County Department of Public Works, to the satisfaction of the Town Engineer, that all improvements in the right-of-way have been satisfactorily completed in accordance with the Highway Work Permit.

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****

APPLICANT, agreed and understood as to contents and conditions, including expiration, contained herein

4/29/2022
Date

DocuSigned by:
23E6A42B93654BB...
Mistis Properties 100 Inc.

NORTH CASTLE PLANNING OFFICE,
as to approval by the North Castle Planning Board

4/29/2022
Date

DocuSigned by:
Valerie B. Desimone
8148558E898542E...
Valerie B. Desimone, Planning Board Secretary

KELLARD SESSIONS CONSULTING
As to Drainage and Engineering Matters

4/29/2022
Date

DocuSigned by:
C73E7A6DFB4A4DB...
Joseph M. Cermele, P.E.
Consulting Town Engineer

STEPHENS BARONI REILLY & LEWIS LLP
As to Form and Sufficiency

4/29/2022
Date

DocuSigned by:
53BB48809A42414...
Roland A. Baroni, Jr. Esq., Town Counsel

NORTH CASTLE PLANNING BOARD

4/29/2022
Date

DocuSigned by:
Christopher Carthy
CA24AD4EC45E471...
Christopher Carthy, Chairman

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

176 Virginia

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
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PLANNING BOARD SCHEDULE OF ESCROW ACCOUNT DEPOSITS

Type of Application Deposit*	Amount of Initial Escrow Account
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.

Applicant Signature _____ Date: 1/16/19

For Sept. 2023 Re-Submission: _____ Dated: September 26, 2023

I. IDENTIFICATION OF PROPERTY OWNER, APPLICANT AND PROFESSIONAL REPRESENTATIVES

Name of Property Owner: Manuel Yanez (Mistis Properties INC)

Mailing Address: 132 Fulton Street White Plains NY 10608

Telephone: 914-774-3625 Fax: _____ e-mail manolinagp@hotmail.com

Name of Applicant (if different): _____

Address of Applicant: _____

Telephone: _____ Fax: _____ e-mail _____

Interest of Applicant, if other than Property Owner:

_____

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:
ARQ PC Paul Berte, PE

Address: 100 Executive Blvd Suite 104 Ossining, NY 10562

Telephone: 914-944-3377 Fax: _____ e-mail paul@arqpc.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: _____ Date: 1/16/19

Signature of Property Owner: _____ Date: 1/16/19

MUST HAVE BOTH SIGNATURES

FOR SEPT. 2023 RE-SUBMISSION:

SIGNING AS BOTH APPLICANT & PROPERTY OWNER: _____

DATED: SEPTEMBER 26, 2023

II. IDENTIFICATION OF SUBJECT PROPERTY

Street Address: 176 Virginia Road

Location (in relation to nearest intersecting street):

0 feet (north, south, east or west) of Lafayette Avenue

Abutting Street(s): Virginia Road

Tax Map Designation (NEW): Section 122.16 Block 1 Lot 3

Tax Map Designation (OLD): Section 6 Block 6 Lot 45,46,47,48,49,50

Zoning District: IND-A Total Land Area 16,708.59 SF

Land Area in North Castle Only (if different) _____

Fire District(s) North White Plains School District(s) Valhalla

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) X
If yes, please identify name(s): Greenburgh

The boundary of any existing or proposed County or State park or any other recreation area?
No ____ Yes (adjacent) _____ Yes (within 500 feet) X (Bronx River Parkway Reservation)

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) X

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 X 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) X

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

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

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

_____

III. DESCRIPTION OF PROPOSED DEVELOPMENT

Proposed Use: Parking bays for truck parking

Gross Floor Area: Existing 746 S.F. Proposed 3600 S.F.

Proposed Floor Area Breakdown:

Retail _____ S.F.; Office _____ S.F.;

Industrial 3600 S.F.; Institutional _____ S.F.;

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

Number of Dwelling Units: _____

Number of Parking Spaces: Existing _____ Required _____ Proposed 9

Number of Loading Spaces: Existing _____ Required _____ Proposed _____

Earthwork Balance: Cut 2686 C.Y. Fill 121 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 x
(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 x 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 x Yes _____
(If yes, application for a State Wetlands Permit may also be required.)

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.

____ Location, size and design of existing signs.

____ Location, type, direction, power and time of use of existing outdoor lighting.

____ 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:

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

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

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

____ Proposed sight distance at all points of vehicular access.

____ Proposed number of employees for which buildings are designed

____ 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.

____ 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.

✓ 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.

_____ Location, size and design of all proposed signs.

✓ Location, type, direction, power and time of use of proposed outdoor lighting.

✓ Location and design of proposed outdoor garbage enclosure.

_____ 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.

_____ Type of power to be used for any manufacturing

_____ Type of wastes or by-products to be produced and disposal method

_____ In multi-family districts, floor plans, elevations and cross sections

_____ 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.

_____ 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.

_____ 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

176 Virginia Road

Name of Action or Project:

176 Virginia Road, North White Plains, N.Y.

Project Location (describe, and attach a location map):

176 Virginia Road, North White Plains, N.Y. (Nearest Intersection/Cross Street = Virginia Rd. & Washington Ave. N.) SEE ATTACHED

Brief Description of Proposed Action:

PROPOSED EMOLITION OF EXISTING BUILDING AND CONSTRUCTION OF PREFABRICATED METAL BUILDING WITH PARKING BAYS FOR TRUCKS.

Name of Applicant or Sponsor:	Telephone: (914) 944-3377
Jorge B. Hernandez, R.A. (SPONSOR)	E-Mail: jb@arqpc.com / rjm@arqpc.com

Address:

ARQ Architectures, P.C., 100 Executive Boulevard, Suite 204

City/PO:	State:	Zip Code:
Ossining	New York	10562

	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 government Agency? If Yes, list agency(s) name and permit or approval: North Castle Planning Board - Approval; Northc Castle Building Dept. - Permit(s)	☐	☑

3. a. Total acreage of the site of the proposed action? .383 acres
   b. Total acreage to be physically disturbed? .383 acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? .383 acres

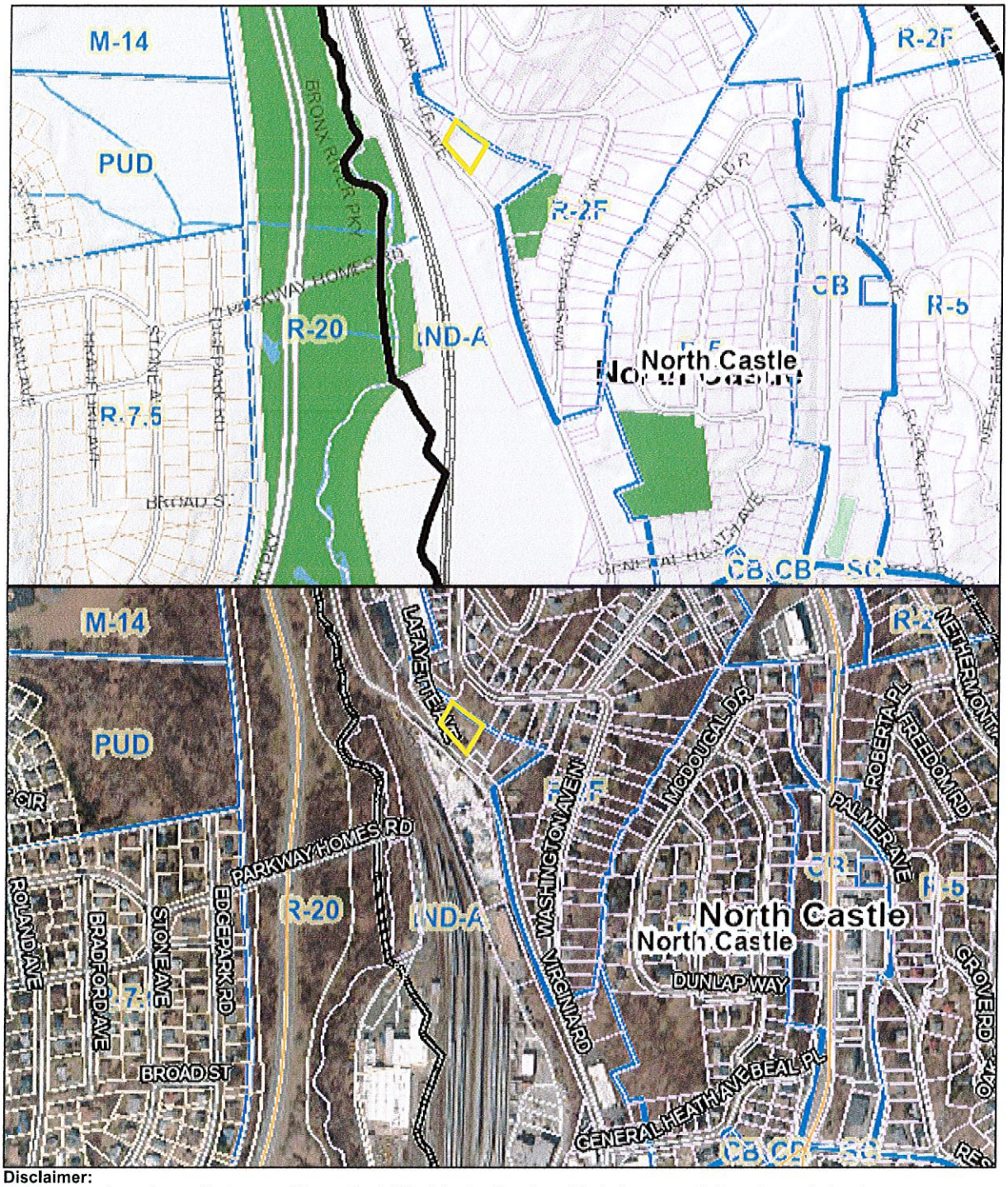
4. Check all land uses that occur on, are adjoining or near the proposed action:

5. ☐ Urban ☐ Rural (non-agriculture) ☑ Industrial ☐ Commercial ☐ Residential (suburban)
   ☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other(Specify):
   ☐ Parkland

Tax Parcel Maps

Address: 176 VIRGINIA RD

Print Key: 122.16-1-3 **SBL:** 1220160001003000000



Disclaimer:

This tax parcel map is provided as a public service to Westchester County residents for general information and planning purposes only, and should not be relied upon as a sole informational source. The County of Westchester hereby disclaims any liability from the use of this GIS mapping system by any person or entity. Tax parcel boundaries represent approximate property line location and should **NOT** be interpreted as or used in lieu of a survey or property boundary description. Property descriptions must be obtained from surveys or deeds. For more information please contact the assessor's office of the municipality.

	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: Name:Floodplains, Name:County & State Park Lands, Reason:Protect water & natural area, Reason:Exceptional or unique character, Agency:Greenburgh, Town of, Agency:Westchester County, Date:1-30-79, Date:1-31-90	☐	☑

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

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

	NO	YES
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	☐	☑
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	☐	☑

	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?	☑	☐
16. Is the project site located in the 100-year flood plan?	☑	☐
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?	☑	☐
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?	☐	☑
If Yes, briefly describe:		
Runoff will be directed to an infiltration system.		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)?	☑	☐
If Yes, explain the purpose and size of the impoundment:		
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 CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

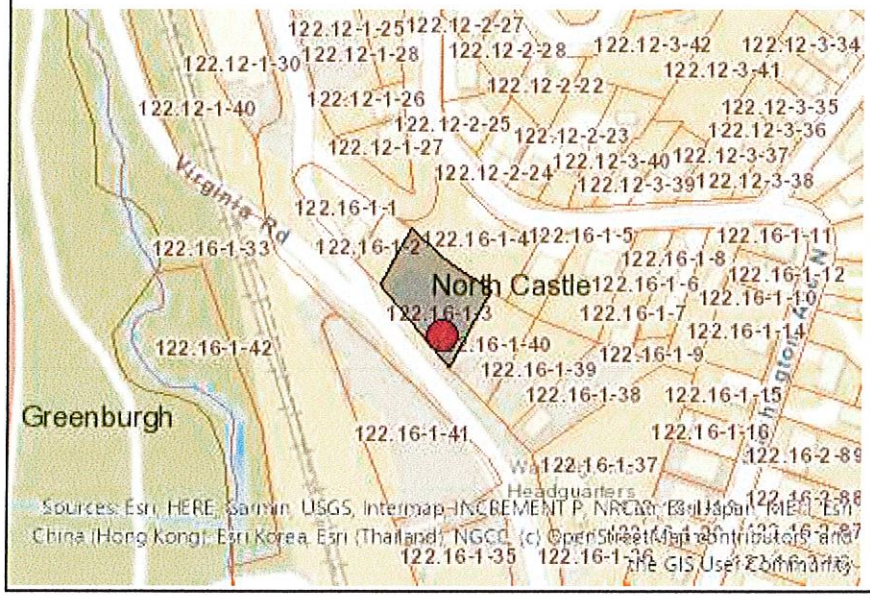
Applicant/sponsor/name: Jorge B. Hernandez, R.A. (SPONSOR) Date: September 25, 2023

Signature: Title: President

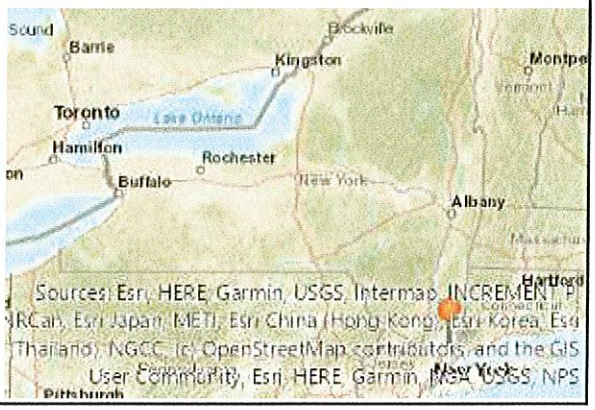
PRINT FORM

EAF Mapper Summary Report

Tuesday, September 26, 2023 10:47 AM



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



Part 1 / Question 7 [Critical Environmental Area]	Yes
Part 1 / Question 7 [Critical Environmental Area - Identify]	Name:Floodplains, Name:County & State Park Lands, Reason:Protect water & natural area, Reason:Exceptional or unique character, Agency:Greenburgh, Town of, Agency:Westchester County, Date:1-30-79, Date:1-31-90
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	Yes
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered Animal]	No
Part 1 / Question 16 [100 Year Flood Plain]	No
Part 1 / Question 20 [Remediation Site]	No

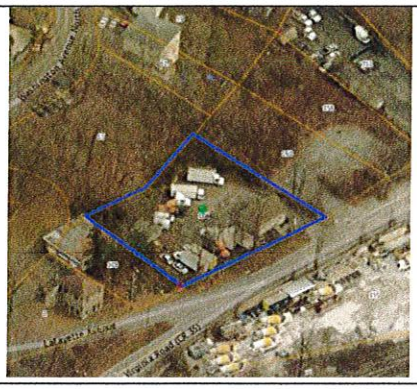
STAFF REPORT - TOWN OF NORTH CASTLE PLANNING DEPARTMENT
April 30, 2021

APPLICATION NAME & NUMBER	SBL
MISTIS PROPERTIES 100 INC - #2020-017	122.16-1-3
MEETING DATE	**PROPERTY ADDRESS/LOCATION**
May 10, 2021	176 Virginia Road, North White Plains

BRIEF SUMMARY OF REQUEST

Re-approval of an expired site plan.

Proposed construction of 2 metal prefab buildings (totaling approximately 5,000 square feet) which will be primarily used as parking bays for trucks, including one wash bay. Applicant has also indicated that light vehicle maintenance and repair would occur on the site.



PENDING ACTION: ■ Plan Review ☐ Town Board Referral ☐ Preliminary Discussion

EXISTING ZONING	EXISTING LAND USE	SURROUNDING ZONING & LAND USE	SITE IMPROVEMENTS	SIZE OF PROPERTY
IND-A – Industrial A Zoning District	Commercial/Residential	Industrial development along Virginia Road	Construction of prefab vehicle storage buildings	0.38 acres

PROPERTY HISTORY

1980 – Warehouse/Office building approved (not constructed)

1995 – Warehouse approved for site (not constructed)

11/25/19 – Planning Board adopted resolution approving project

COMPATIBILITY with the COMPREHENSIVE PLAN

The Comprehensive Plan states the following:

- Maintain and strengthen the office and industrial tax base
- The Town should explore opportunities to improve aesthetics in this area, potentially through amendments to the Industrial A (IND-A) zoning to add performance standards for landscaping and pedestrian improvements.

STAFF RECOMMENDATIONS

1. The Applicant should address all staff and consultant's comments.

2. The Planning Board will need to determine whether the project is compatible with the Comprehensive Plan.

Procedural Comments	Staff Notes
1. Pursuant to Section 12-18(1) of the Town Code, all site development plans submitted to the Planning Board are required to be referred to the Architectural Review Board (ARB) for review and comment.	The Architectural Review Board approved the proposed building design at the November 13, 2019 meeting
2. The application for site plan approval will need to be referred to the Westchester County Planning Board, pursuant to § 239-m of New York State General Municipal Law (GML). This referral is required because the subject site is located within 500 feet of CR 29A.	The Application was referred to Westchester County on March 12, 2019.
3. The Proposed Action would be classified as an Unlisted Action pursuant to the State Environmental Quality Review Act (SEQRA).	The Planning Board will need to determine whether it wishes to coordinate the environmental review of this project.
4. A Public Hearing for the proposed site plan will need to be scheduled.	
5. The site plan should be forwarded to the Chief of Police, Fire Inspector and the North White Plains Fire Chief so that they may make any pertinent recommendations to the Planning Board including, but not limited to, the designation of no-parking zones, emergency vehicle access or any other issued deemed important to providing emergency services.	The Application was referred to emergency services on March 12, 2019.
6. The site plan should be forwarded to the Sewer and Water Department so that they may make any pertinent recommendations to the Planning Board including, but not limited to, the ability to provide water and sewer capacity for the proposed truck wash bay. It is recommended that the Applicant coordinate directly with the Water & Sewer Department so that the Water & Sewer Department can respond to the Planning Board's request.	The Water & Sewer Department has provided the following comments: You... stated that per the owner, the wash bay will be used rarely 5 times per month, however on the plans page 4 of 5 there is a water flow calculation which indicates 115 buses per week or 1,700 gallons per day? Major difference, so I will need some additional clarification. Also, there is no indication showing the size of the water service. The service according to the plan, is branching in two directions, this will require a meter pit, additionally the site will require a backflow prevention device, you may want to incorporate the meter and RPZ in a hotbox. RPZ design will have to come to me and I will forward to the Health Department for approval. Regarding the sewer, the plan shows 4" ductile iron but the detail shows cast iron. All original existing services (for both lots) both water & sewer will need to be abandoned properly.
7. The Applicant will be required to obtain a curbcut permit from the North Castle Highway Department.	

General Comments	
1. The Applicant is seeking re-approval of the project since the previous site plan approval (#19-004) has expired.	
2. The site plan shall be revised to depict and quantify (in square feet) any proposed Town-regulated steep slope disturbance.	
3. The site plan depicts the removal of 6 Town-regulated trees.	The Planning Board will need to determine whether the proposed amount of Town-regulated tree removal is acceptable.
4. The site plan should be revised to clearly indicate whether any freestanding signs are proposed.	It is recommended that the use of freestanding signs be limited since they may cause visual clutter along the Virginia Road corridor.

KELLARD SESSIONS

John Kellard, P.E.
David Sessions, RLA, AICP
Joseph M. Cermele, P.E., CFM
Jan K. Johannessen, AICP

MEMORANDUM

TO: North Castle Planning Board

CC: Adam Kaufman, AICP
Paul Berte, P.E.
Mistis Properties, Inc.

FROM: Joseph M. Cermele, P.E., CFM
Kellard Sessions Consulting
Consulting Town Engineers

DATE: May 7, 2021

RE: Mistis Properties
176 Virginia Road
Section 122.16, Block 1, Lot 3

As requested, Kellard Sessions Consulting has reviewed the site plans submitted in conjunction with the above-referenced project. The applicant is proposing the installation of two (2) prefabricated warehouse buildings and associated parking, stormwater mitigation and utilities. The plan requires the construction of retaining walls greater than six (6) feet in height. The property is 16,709 s.f. in size and located in the IND-A Zoning District.

Our comments are outlined below.

GENERAL COMMENTS

1. The plan requires a retaining wall along the rear and sides of the property with a maximum height of approximately 28 feet. For clarity, the proposed retaining wall shown on the grading plan shall include top of wall and bottom of wall elevations at each change in elevation to be coordinated with the elevation changes shown in section provided on Sheet S-7. The plan shall also illustrate the required grading of the slopes above the retaining wall necessary to maintain the proposed 1V:2H slope and include a detail of the armored slope referenced in the typical retaining wall sections.

2. Provide a site lighting and photometric plan for review and consideration by the Planning Board. Include specifications and details of all fixtures, poles and pole bases.

3. The proposed Frame and Cover Detail on Sheet S-5 shall require that manhole covers for sanitary sewers be stamped with "SEWER" on the casting.

4. The sanitary manhole detail included on Sheet S-2 shall be revised to require two (2) coats of bitumastic sealant to be applied to the exterior.

5. Please clarify the purpose and intent of the proposed pipe entering the proposed sewer manhole from the east. It is assumed that this is the sanitary connection for the bathroom in the building. Please specify the pipe size and material as necessary.

Pipe size and material added to plan

6. The hydrologic model demonstrates that the proposed stormwater management system will effectively mitigate the increased stormwater runoff generated by the project. However, it is suggested that the plan be revised to also connect the roof leaders of the proposed 2-bay warehouse (north building) and proposed Drain Inlet, DI-1. Doing so would allow the for the connection of Drain Inlet, DI-1, to the proposed Stormtrap System, rather than the current proposed 6"x 6" PVC TEE connection, (which would not be acceptable) and eliminate the multiple connections at Drain Inlet, DI-2. This would also provide mitigation and treatment for all impervious surfaces. The outlet structure shall be labeled on plan Sheet S-2.

All roof and driveway area to DI 1 now directed to Stormtrap system. Outlet structure labeled on S-2

7. The proposed outlet structure needs clarification. The detail on Sheet S-5 indicates a connection to the hydrodynamic separator; however, there is no indication of this on plan Sheet S-2. The detail also indicates outlet pipes of twelve (12) inch and four (4) inch diameter, while the plan illustrates a six (6) inch outlet pipe to Drain Inlet, DI-2. Please clarify. It appears that an additional structure will be required for the pipe transition or an alternate outlet structure design. The six (6) inch pipe connection should also be included in the hydrologic model. It currently appears to be undersized.

Noted we need to redraw. will do after submit

8. Drainage area maps shall be included in the Stormwater Pollution Prevention Plan (SWPPP). The areas and cover types tributary to each sub-catchment shall be clarified.

Noted

As additional information becomes available, we will continue our review. It is noted that an itemized response to all comments will facilitate completeness and efficiency of review.

PLANS REVIEWED, PREPARED BY PAUL BERTE, P.E., DATED MARCH 8, 2021:

- Site Plan, Map, & Notes (S-1)
- Drainage, Grading & Erosion Control (S-2)

- Turns & Sight Distance (S-3)
- Site Details (S-4 & S-5 & S-6)
- Section & Site Details (S-7)
- 2-Bay Warehouse First & Mezzanine Flood Plans (A-1)
- 4-Bay Warehouse Flood Plan (A-2)
- 2-Bay Warehouse Elevations (A-3)
- 4-Bay Warehouse Elevations (A-4)
- Engineer's Report

JMC/dc

https://kellardsessionsconsulti.sharepoint.com/sites/Kellard/Municipal/Northcastle/Corresp/018SitePlans/2021-05-07_NCPB_Mistis - 176 Virginia Rd_Review Memo.docx

ARQ. ARCHITECTURE P.C.
ARCHITECTURE - PLANNING - ENGINEERING

March 30, 2022

Adam R. Kaufman, AICP
Director of Planning
Town of North Castle
15 Bedford Road
Armonk, NY 10504

Re: Mistis Properties Inc, 176 Virginia Road (Site Plan Response Memo)

Dear Mr. Kaufman,

This Memorandum responds to the outstanding Site Plan comments set forth in the Kellard Sessions Consulting, P.C. Memorandum, dated May 7, 2021. Kellard's comments are provided attached, Our responses are noted below in bold, blue and italics.
Included here within:

General Comments

1. The plan requires a retaining wall along the rear and sides of the property with a maximum height of approximately 28 feet. For clarity, the proposed retaining wall shown on the grading plan shall include top of wall and bottom of wall elevations at each change in elevation to be coordinated with the elevation changes shown in section provided on Sheet S-7. The plan shall also illustrate the required grading of the slopes above the retaining wall necessary to maintain the proposed 1V:2H slope and include a detail of the armored slope referenced in the typical retaining wall section.

   Plans were updated as per comment. (See Retaining Wall Section on Sheet S-7.)

2. Provide a site lighting and photometric plan for review and consideration by the Planning Board include specifications and details of all fixtures, poles, and pole bases.

   Plans were updated as per comment. (See Site Lighting & Photometric Plans, Schedules, Specifications and Detail on Sheet E-1 to E-3.)

3. The proposed Frame and Cover Detail on Sheet S-5 shall require that manhole covers for sanitary sewers be stamped with "SEWER" on the casting.

   Plans were updated as per comment. (See Frame and Cover Detail on Sheet S-2 & S-5.)

4. The sanitary manhole detail included on Sheet S-2 shall be revised to required two (2) coats of bitumastic sealant to be applied to the exterior.

   Plans were updated as per comment. (See note in Sewer Manhole Detail on Sheet S-2.)

5. Please clarify the purpose and intent of the proposed pipe entering the proposed sewer manhole from the east. It is assumed that this is the sanitary connection for the bathroom in the building. Please specify the pipe size and material as necessary.

   Plans were updated as per comment. (Pipe size and material added to plan.)

6. The hydrologic model demonstrates that the proposed stormwater management system will effectively mitigate the increased stormwater runoff generated by the project. However, it is suggested that the plan be revised to also connect the roof leaders of the proposed 2-bay warehouse (north building) and proposed Drain Inlet, DI-1. Doing so would allow the for the connection of Drain Inlet, DI-1, to the proposed Stormtrap System, rather than the current proposed 6"x6" PVC TEE connection, (which would not be acceptable) and eliminate the multiple connections at Drain Inlet, DI-2. This would also provide mitigation and treatment for all impervious surfaces. The outlet structure shall be labeled on plan Sheet S-2.

   Plans were updated as per comment. (All roof and driveway area to DI-1 now directed to Stormtrap system. Outlet Structure labeled on S-2.)

7. The proposed outlet structure need clarification. The Detail on Sheet S-5 indicates a connection to the hydrodynamic separator: however, there is no indication of this on plan Sheet S-2. The detail also indicates outlet pipes of twelve (12) inch and four (4) inch diameter, while the plan illustrates a six (6) inch outlet pipe to Drain Inlet, DI-2. Please clarify. It appears that an additional structure will be required for the pipe transition or an alternate outlet structure design. The six (6) inch pipe connection should also be included in the hydrologic model. It currently appears to be undersized.

   Plans were updated as per comment. (See plan on Sheet S-2 and Detail on Sheet S-5)

8. Drainage area maps shall be included in the Stormwater pollution Prevention Plan (SWPPP). The areas and cover types tributary to each sub-catchment shall be clarified.

   Plans were updated as per comment. (Please see the attached SWPPP)

Sincerely,
ARQ PC

Paul Berté

ARQ. ARCHITECTURE P.C.
ARCHITECTURE · PLANNING · ENGINEERING

April 01, 2023

Adam R. Kaufman, AICP
Director of Planning
Town of North Castle
15 Bedford Road
Armonk, NY 10504

Re: Mistis Properties Inc, 176 Virginia Road (Site Plan Response Memo)

Dear Mr. Kaufman,

This Memorandum responds to the outstanding Site Plan comments set forth in the Kellard Sessions Consulting, P.C. Memorandum, dated March 7, 2023. Kellard's comments are provided attached, Our responses are noted below in bold, blue and italics.
Included here within:

General Comments

1. The Grading Plan shall illustrate the required grading of the slopes above the retaining wall necessary to maintain the proposed IV:2H slope and include a detail of the armored slope referenced in the typical retaining wall sections. The plan shall clearly illustrate the extents of the required grading and any tree removal. The Landscaping Plan shall be revised as needed to accommodate the armored slope.

   The wall is designed to meet the existing grade at the top of wall; therefore, no proposed grades would be shown. The Cut/Fil on Sheet S-2 best clearly illustrates this. Based on the topographical survey provided. Any of the existing slope that is disturbed beyond the top of the wall is called to be stabilized with an erosion control blanket, as noted on the Landscape Plan on Sheet 2 with a detail provided on Sheet S-5.

2. The Plan shall clearly state that retaining wall design calculations, prepared by a NYS Licensed Professional Engineer, shall be submitted prior to the issuance of a Building Permit and that the construction of all retaining walls shall be certified by the Design Professional.

   Site Plan Note 14 has been added to Sheet S-1, and a note has been added to Sheet S-7 Retaining Wall Details.

3. The proposed outlet structure, detailed on Sheet S-5, is not illustrated on Sheet S-2. It appears this is no longer required. Please clarify and provide appropriate details. Provided an updated SWPPP and design calculations.

The Engineer's Report last dated 3/2022 includes the latest stormwater management design which excluded the Outlet Structure. The Outlet Structure Detail is removed from Sheet 5.

4. A markup of the construction cost estimate is provided, as well as a list of additional items to be included in the cost estimate. The estimate shall be signed and sealed by the Design Professional. In addition, a landscaping cost estimate should also be provided, signed and sealed by a NYS Registered Landscape Architect, and incorporated into the overall estimate.

   The Cost Estimate has been revised accordingly.

5. Satisfied

6. Satisfied

7. Satisfied

8. This Condition will be satisfied once the above conditions have been addressed.

Sincerely
ARQ PC

Paul Berté

Mistis Properties Inc.
Proposed Storage Warehouses
176 Virginia Rd. White Plains, NY

ARQ PC
100 Executive Blvd Suite 204
Ossining NY 10562

ITEMIZED ESTIMATE

APPROX. QUANTITY	DESCRIPTION	UNIT	UNIT PRICE	TOTAL AMOUNT
Site work				
2.00	Building Demolition	PER DAY	$2,850.00	$5,700.00
6.00	Concrete Slab Debris Removal	PER LOAD	$1,200.00	$7,200.00
2,686.00	Excavation/Grading/Compaction	CY	$30.00	$80,580.00
7.00	Rock Hammer	DAYS	$2,850.00	$19,950.00
N/A	New Building Delivered (Ironbuilt)	LUMP SUM	N/A	$60,000.00
N/A	Insulation Package (Ironbuilt)	LUMP SUM	N/A	$10,000.00
3,600.00	New Building Erection	SF	$25.00	$90,000.00
6.00	Manual Garage Door	EA	$4,250.00	$25,500.00
N/A	Electrical	LUMP SUM	N/A	$30,000.00
160.00	Gutters	LF	$12.00	$1,920.00
55.00	Concrete Slab (5" slab)	CY	$230.00	$12,650.00
65.00	Subbase Course (6" under slab)	CY	$69.00	$4,485.00
82.50	ASPHALT CONCRETE TYPE 6F - TOP COURSE	TONS	$170.00	$14,025.00
110.00	ASPHALT CONCRETE - TYPE 3 - BINDER COURSE	TONS	$170.00	$18,700.00
330.00	SUBBASE COURSE, TYPE 1	TONS	$65.00	$21,450.00
215.00	Stone Curb	LF	$38.00	$8,170.00
400.00	Concrete Retaning Wall	CY	$375.00	$150,000.00
6.50	Concrete Sidewalk	CY	$230.00	$1,495.00
120.00	1" Copper Water Service	LF	$40.00	$4,800.00
1.00	Hotbox RPZ/Meter Pit	EA	$4,000.00	$4,000.00
20.00	K-crete Backfill	CY	$135.00	$2,700.00
120.00	4" DIP Sewer Pipe	LF	$65.00	$7,800.00
1.00	Sewer Manhole	EA	$5,000.00	$5,000.00
1.00	Doghouse Manhole	EA	$5,000.00	$5,000.00
40.00	4" PVC	LF	$22.00	$880.00
250.00	6" PVC Pipe	LF	$24.00	$6,000.00

Mistis Properties Inc.
Proposed Storage Warehouses
176 Virginia Rd. White Plains, NY

ARQ PC
100 Executive Blvd Suite 204
Ossining NY 10562

ITEMIZED ESTIMATE

APPROX. QUANTITY	DESCRIPTION	UNIT	UNIT PRICE	TOTAL AMOUNT
N/A	Stormwater mitigation (4 Stormtrap chambers, catch basins, AS-4, etc.)	LS	$30,000.00	$30,000.00
N/A	Aquaswirl AS4 hydrodynamic separator	LS	$15,000.00	$15,000.00
2.00	Trench Drain	EA	$2,000.00	$4,000.00
2.00	Drain Inlet	EA	1500	$3,000.00
120.00	Construction Fence	LF	$5.50	$660.00
120.00	Silt Fence	LF	$5.50	$660.00
30.00	Tree Protection	LF	$5.50	$165.00
2.00	Inlet Protection	EA	$350.00	$700.00
1.00	Stabilized Construction Entrance	EA	$3,000.00	$3,000.00
1,500.00	Erosion Control Blankets/reinforced Slope	SF	$12.50	$18,750.00
1.00	Dewatering Station	EA	$1,500.00	$1,500.00
3.00	Concrete Washout	EA	$1,200.00	$3,600.00
1.00	Grease Trap	EA	$3,000.00	$3,000.00
100.00	6' Stockade Fence	LF	$40.00	$4,000.00
270.00	4' Chain Link w/ privacy slats	LF	$40.00	$10,800.00
13.00	Signage/Striping	EA	$6.00	$78.00
1.00	Garbage Enclosure	EA	$4,000.00	$4,000.00
1.00	Handicap Signage	EA	$500.00	$500.00
1,850.00	Armored Slope Protection	SF	$20.00	$37,000.00
			Sub Total	**$738,418.00**
			10% Contingencuy	$73,841.80
			APPROX. COST	**$812,259.80**

Mistis Properties Inc.
Proposed Storage Warehouses
176 Virginia Rd. White Plains, NY

ARQ PC
100 Executive Blvd Suite 204
Ossining NY 10562

ITEMIZED ESTIMATE

APPROX. QUANTITY	DESCRIPTION	UNIT	UNIT PRICE	TOTAL AMOUNT
Landscape				
2.00	Eastern Redbud 6'-7' feet/2" dbh	EA	$750.00	$1,500.00
3.00	Purple Leaf Plum Tree 6'-7' feet/2" dbh	EA	$750.00	$2,250.00
4.00	Chanticleer Pear 6'-7' feet/2" dbh	EA	$750.00	$3,000.00
2.00	Pin Oak 6'-7' feet/2" dbh	EA	$750.00	$1,500.00
300.00	Crown Vetch (seeded at 15lbs/acre)	SF	$2.00	$600.00
500.00	Mulch	SF	$3.00	$1,500.00
			Sub Total	**$10,350.00**
			10% Contingencuy	$1,035.00
			APPROX. COST	**$11,385.00**

TOWN OF NORTH CASTLE
WESTCHESTER COUNTY
17 Bedford Road
Armonk, New York 10504-1898

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

PLANNING BOARD
Christopher Carthy, Chair

RESOLUTION

Action:	Site Plan, Steep Slope and Tree Removal Approvals
Application Name:	Mistis Properties 100 Inc. [2021-017]
Applicant/Owner:	Mistis Properties 100 Inc.
Designation:	122.16-1-3
Zone:	IND-A Zoning District
Acreage:	0.38 acres
Location:	176 Virginia Road
Date of Approval:	April 25, 2022
Expiration Date:	April 25, 2023 (1 Year)

WHEREAS, the Applicant is proposing the construction of 2 metal prefab buildings (totaling approximately 5,000 square feet) which will be primarily used as parking bays for trucks, including one wash bay; and

WHEREAS, the Planning Board on November 25, 2019 approved an identical project that has since expired; and

WHEREAS, in connection with the proposed development, the Applicant has submitted the following plans:

- Plan labeled "1 of 14," entitled "Site Plan, Map & Notes," dated March 8, 2021, last revised March 23, 2022, prepared by ARQ Architecture P.C.
- Plan labeled "2 of 14," entitled "Drainage, Grading & Erosion Control," dated March 8, 2021, last revised March 29, 2022, prepared by ARQ Architecture P.C.
- Plan labeled "3 of 14" entitled "Turns & Sight Distance," dated March 8, 2021, last revised March 23, 2022, prepared by ARQ Architecture P.C.
- Plan labeled "4 of 14," entitled "Site Details," dated March 8, 2021, last revised March 29, 2022, prepared by ARQ Architecture P.C.
- Plan labeled "5 of 14," entitled "Site Details," dated March 8, 2021, last revised March 23, 2022, prepared by ARQ Architecture P.C.
- Plan labeled "6 of 14," entitled "Site Details," dated March 8, 2021, last revised March 23, 2022, prepared by ARQ Architecture P.C.
- Plan labeled "7 of 14," entitled "Section & Site Details," dated March 8, 2021, last revised March 23, 2022, prepared by ARQ Architecture P.C.
- Plan labeled "8 of 14," entitled "2-Bay Warehouse Floor Plans," dated March 8, 2021, last revised March 23, 2022, prepared by ARQ Architecture P.C.
- Plan labeled "9 of 14," entitled "4-Bay Warehouse Floor Plans," dated March 8, 2021, last revised March 23, 2022, prepared by ARQ Architecture P.C.

- Plan labeled "10 of 14," entitled "2-Bay Warehouse Elevations," dated March 8, 2021, last revised March 23, 2022, prepared by ARQ Architecture P.C.
- Plan labeled "11 of 14," entitled "4-Bay Warehouse Elevations," dated March 8, 2021, last revised March 23, 2022, prepared by ARQ Architecture P.C.
- Plan labeled "12 of 14," entitled "Lighting Plan," dated March 8, 2021, last revised March 23, 2022, prepared by ARQ Architecture P.C.
- Plan labeled "13 of 14," entitled "Photometric Plan," dated March 8, 2021, last revised March 23, 2022, prepared by ARQ Architecture P.C.
- Plan labeled "14 of 14," entitled "Schedules, Specifications & Detail," dated March 8, 2021, last revised March 23, 2022, prepared by ARQ Architecture P.C.

WHEREAS, the site plan depicts the removal of 6 Town-regulated trees; and

WHEREAS, the site plan depicts a truck washing bay; and

WHEREAS, truck washing is limited to the trucks stored on the site and a maximum use of 200 gallons/day; and

WHEREAS, the Architectural Review Board approved the proposed building design at the November 13, 2019 meeting; and

WHEREAS, the application for site plan approval was referred to the Westchester County Planning Board pursuant to § 239-m of New York State General Municipal Law (GML) on March 12, 2019; and

WHEREAS, on April 25, 2022, the Planning Board, pursuant to § 355-44 of the North Castle Code, conducted a duly noticed public hearing with respect to the site plan application, at which time all those wishing to be heard with respect to the site plan were given an opportunity to be heard; and

WHEREAS, the Proposed Action would be classified as an Unlisted Action pursuant to the State Environmental Quality Review Act (SEQRA); and

WHEREAS, the Planning Board has elected to conduct an uncoordinated SEQRA review; and

WHEREAS the site plan was forwarded to the Chief of Police, Fire Inspector and the North White Plains Fire Chief so that they may make any pertinent recommendations to the Planning Board including, but not limited to, the designation of no-parking zones, emergency vehicle access or any other issued deemed important to providing emergency services; and

WHEREAS, the site plan was forwarded to the Water and Sewer department so that they may make any pertinent recommendations to the Planning Board including, but not limited to, the capacity of the sewer and water infrastructure to handle the proposed amount of effluent and water demand; and

WHEREAS, the Water & Sewer Department, most recently on October 25, 2019, has provided the following comments:

- With regard to sewer capacity, based upon the owner projections there should not be any impact on SD1 infrastructure. All waste is conveyed via gravity sewer to Westchester County for treatment.
- Water supply and the ability to serve should also be manageable, based upon the water service size designed, and our rate structure that is in place to handle volumes of excess.
- As noted on the plans all existing water and sewer services that are no longer intended to be used must be abandoned in the street at the main connection, and require inspection by this department.
- Although the plan illustrates a new 1" water service in a "Hot Box" with an RPZ, an appropriate engineer's plan and application for the backflow device must be submitted to my office for review, which will then be forwarded on the Westchester County Health Department for their approval.
- I did not see a fire service in the design, although not a requirement of this department, just wanted to make sure it was not an oversite.
- The water service connection detail shows the curb stop within 5' of the water main. That is unlikely as the water main is closer to the middle of Virginia Road. When the water tap is installed the curb box is set at the property line.
- The detail of the sewer connection at the main would be cleaner and easier to install by utilizing a "Dog House" manhole over the existing sewer main. The 4" ductile iron service can be connected directly with an invert rather that the transition connection on the Clay Sewer main. This would eliminate multiple fittings and various types of materials at the connection point. This will also enable the Sewer District to monitor the discharge of the facility, in particular any accumulation of grease discharge should the oil and grease separator maintenance become neglected.
- Applications for both water and sewer service require filing of applications with this department for inspection, a water tap, and meter. Our maximum water tap size is 1" anything larger than that will require a contractor with the proper equipment for such purpose.

WHEREAS, the Planning Board has inspected the site and is familiar with the nature of the site, the surrounding area, and the proposed development; and

WHEREAS, the Planning Board has requested, received, and considered comments from the Town Attorney, Town Engineer, and Town Planner regarding the proposed development; and

WHEREAS, the requirements of the Zoning Ordinance of the Town of North Castle have been met by said application; and

NOW THEREFORE BE IT RESOLVED, that based upon its review of the full environmental record the Planning Board finds that the proposed action will not result in any significant adverse

environmental impacts and hereby adopts a Negative Declaration pursuant to the requirements of Article 8 of the New York State Environmental Quality Review Law and 6 NYCRR Part 617; and

BE IT FURTHER RESOLVED, that the application for site plan and tree removal permit approvals, as described herein, is hereby conditionally approved, subject to the following conditions and modifications; and

BE IT FURTHER RESOLVED that, this site plan, steep slopes permit and tree removal permit approvals shall expire one (1) year after the date of this resolution unless all of the conditions and modifications identified below have been substantially completed or an extension of time has been requested by the applicant or granted by the North Castle Planning Board.

Prior to the Signing of the Site Plan:
(The Planning Board Secretary's initials and date shall be placed in the space below to indicate that the condition has been satisfied.)

_____1. The plan requires a retaining wall along the rear and sides of the property with a maximum height of approximately 28 feet. The Grading Plan shall illustrate the required grading of the slopes above the retaining wall necessary to maintain the proposed 1V:2H slope and include a detail of the armored slope referenced in the typical retaining wall sections to the satisfaction of the Town Engineer. The Landscaping Plan shall be revised as needed to accommodate the armored slope to the satisfaction of the Town Engineer.

_____2. The plan shall clearly state that retaining wall design calculations, prepared by a New York State Licensed Professional Engineer, shall be provided prior to the issuance of a Building Permit.

_____3. The proposed outlet structure, detailed on Sheet S-5, is not illustrated Sheet S-2 (Drainage & Grading Plan). It appears this is no longer required. Please clarify to the satisfaction of the Town Engineer.

_____4. Pursuant to Section 127-17 of the Town Code, the applicant shall submit a detailed quantity cost estimate for all site improvements proposed, with the quantities certified to by the applicant's engineer, to the satisfaction of the Town Engineer.

_____5. The site plan shall be revised to depict and quantify (in square feet) any proposed Town-regulated steep slope disturbance to the satisfaction of the Planning Department.

_____6. Payment of all applicable fees, including any outstanding consulting fees.

_____7. The Applicant shall submit to the Planning Board Secretary two (2) sets of plans (with required signature block) incorporating all required amendments to the plans as identified in this resolution of approval to the satisfaction of the Town Planner, Town Engineer and Town Attorney.

_____8. The Applicant shall submit final construction plans for site improvements to the Town Engineer for his approval of driveways, parking areas, storm drainage system, water and sewer connections, sidewalks, erosion and sediment controls and any other information requested by the Town Engineer to the satisfaction of the Town Engineer.

Prior to the Issuance of a Building Permit:
(The Planning Board Secretary's initials and date shall be placed in the space below to indicate that the condition has been satisfied.)

_____1. A final design of the proposed retaining walls, prepared by a New York State Licensed Engineer, shall be submitted demonstrating appropriate factors of safety against sliding, overturning and bearing capacity to the satisfaction of the Town Engineer.

_____2. The Applicant shall address all of the issues identified in the October 25, 2019 letter from the Water & Sewer Department to the satisfaction of the Water and Sewer Department, the Town Engineer and Building Department.

_____3. The applicant will be required to obtain a Curb Cut Permit and/or Highway Work Permit from the North Castle Highway Department and/or Westchester County Department of Public Works.

_____4. All proposed building/site signage shall require ARB approval.

_____5. The approved site plan shall be signed by both the Planning Board Chair and Town Engineer.

_____6. The proper construction type stickers shall be affixed to the building to the satisfaction of the Building Department.

_____7. The submission of a complete set of building plans for review and approval by the Town Building Inspector prior to the issuance of a building permit.

_____8. The applicant shall submit an engineering inspection fee equal to 3% of the estimated cost of construction.

_____9. Payment of all outstanding fees, including professional review fees.

Prior to the Issuance of a Certificate of Occupancy/Compliance:
(The Planning Board Secretary's initials and date shall be placed in the space below to indicate that the condition has been satisfied.)

_____1. A Knox Box shall be installed at the entrances to the building (or an alternate location) to the satisfaction of the Building Department.

_____2. The plan proposes improvements, including curb, sidewalk, pavement and landscaping, within the Town of North Castle and/or Westchester County right-of-way. The applicant shall submit proof of compliance and satisfaction of any required Highway Work Permits to the satisfaction of the Town Engineer.

_____3. Provide proof of closure of any Town Water & Sewer Department Permits

_____ 4. Prior to the issuance of a certificate of occupancy/compliance, the actual construction, installation and implementation of all landscaping shall be certified by a licensed landscape architect as being in compliance with the approved plans and conditions, at the sole cost and expense of the Applicant.

_____ 5. The submission to the Town Building Inspector of an "As Built" site plan.

Other Conditions:

1. Truck washing is limited to the trucks stored on the site and a maximum use of 200 gallons/day.

2. Vehicle Repair shall be prohibited on site.

3. Any outdoor storage of vehicles and material not depicted on the approved site plan shall be prohibited.

4. Prior to the start of construction and throughout the construction period, area of disturbance lines shall be clearly delineated in the field with snow fence or another demarcation acceptable to the Building Department and Town Engineer, which shall be placed around the entire proposed construction area. Except as necessary to provide mitigation plantings, no encroachment beyond these limits by workers or machinery shall be permitted.

5. Grading and clearing and other construction-related activities shall take place only within the delineated area of disturbance lines. These area of disturbance lines represent the maximum limits of construction activities. Every attempt shall be made to further reduce grading and clearing activities within the area of disturbance lines by maintaining natural vegetation and topography wherever practicable.

6. Prior to the commencement of any site work, the Applicant shall stake the location of the proposed construction for inspection and approval by the Building Department and Town Engineer.

7. All soil erosion and sedimentation control measures shown on this plan shall be in place prior to the start of any site work. The Building Department and Town Engineer shall have inspected the installation of all required soil erosion and sedimentation control measures prior to the authorization to proceed with any phase of the site work.

8. Throughout the construction period, a qualified professional retained by the Applicant shall, on at least a weekly basis, prior to any predicted rain event and after any runoff-producing rain event, inspect the soil erosion and sedimentation control measures to ensure their proper functioning. Soil shall be removed from the silt fence when bulges develop in the fence in accordance with Westchester County recommendations. Records shall be kept onsite and made available for review by Town personnel. Inspections shall be in accordance with the NYSDEC Phase II regulations.

9. If the Applicant, during the course of construction, encounters such conditions as flood areas, underground water, soft or silty areas, improper drainage, or any other unusual circumstances or conditions that were not foreseen in the original planning, he shall report such conditions immediately to the Building Department and Town Engineer. The Applicant may submit, if he so desires, his recommendations as to the special treatment to be given such areas to secure adequate, permanent and satisfactory construction. The Building Department, without unnecessary delay, shall investigate the condition or conditions, and shall either approve the Applicant's recommendations to correct the conditions, order a modification thereof, or issue his own specifications for the correction of the conditions. In the event of the Applicant's disagreement with the decision of the Building Department, or in the event of a significant change resulting to the site plan or any change that involves the wetlands regulated areas, the matter shall be decided by the Planning Board. Any such conditions observed by the Planning Board or its agents shall be similarly treated.

10. Compliance with all applicable local laws and ordinances of the Town of North Castle and any conditions attached to permits issued thereunder.

11. The applicant shall provide sedimentation and erosion control measures to the satisfaction of the Town Engineer and in accordance with the measures set forth in the Westchester County Best Management Practices for Construction and Related Activities.

12. All landscaping shown on this plan shall be maintained in a vigorous growing condition throughout the duration of the use. All plants not so maintained shall be replaced with new plants of comparable size and quality at the beginning of the next immediately following growing season.

13. The applicant shall provide confirmation from the North Castle Highway Department and/or the Westchester County Department of Public Works, to the satisfaction of the Town Engineer, that all improvements in the right-of-way have been satisfactorily completed in accordance with the Highway Work Permit.

TOWN OF NORTH CASTLE
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17 Bedford Road
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Telephone: (914) 273-3542
Fax: (914) 273-3554
www.northcastleny.com

PLANNING BOARD
Christopher Carthy, Chair

RESOLUTION

Action:	Site Plan, Steep Slope and Tree Removal Approvals
Application Name:	Mistis Properties 100 Inc. [19-004]
Applicant/Owner:	Mistis Properties 100 Inc.
Designation:	122.16-1-3
Zone:	IND-A Zoning District
Acreage:	0.38 acres
Location:	176 Virginia Road
Date of Approval:	November 25, 2019
Expiration Date:	November 25, 2020 (1 Year)

WHEREAS, the Applicant is proposing the construction of 2 metal prefab buildings (totaling approximately 5,000 square feet) which will be primarily used as parking bays for trucks, including one wash bay; and

WHEREAS, in connection with the proposed development, the Applicant has submitted the following plans:

- Plan labeled "1 of 7," entitled "Site Plan," dated January 20, 2019, last revised October 13, 2019, prepared by Fusion Engineering P.C.
- Plan labeled "2 of 7," entitled "Drainage, Grading & Erosion Control," dated January 20, 2019, last revised October 13, 2019, prepared by Fusion Engineering P.C.
- Plan labeled "3 of 7," entitled "Site Plan," dated January 20, 2019, last revised October 13, 2019, prepared by Fusion Engineering P.C.
- Plan labeled "4 of 7," entitled "Details," dated January 20, 2019, last revised October 13, 2019, prepared by Fusion Engineering P.C.
- Plan labeled "5 of 7," entitled "Details," dated May 28, 2019, last revised October 13, 2019, prepared by Fusion Engineering P.C.
- Plan labeled "6 of 7," entitled "Details," dated August 5, 2019, last revised October 13, 2019, prepared by Fusion Engineering P.C.
- Plan labeled "7 of 7," entitled "Details," dated October 13, 2019, prepared by Fusion Engineering P.C.
- Plan labeled "1 of 4," entitled "2-Bay Warehouse Floor Plans," dated May 28, 2019, last revised October 28, 2019, prepared by Fusion Engineering P.C.
- Plan labeled "2 of 4," entitled "4-Bay Warehouse Floor Plans," dated May 28, 2019, last revised October 28, 2019, prepared by Fusion Engineering P.C.
- Plan labeled "3 of 4," entitled "2-Bay Warehouse Elevations," dated April 22, 2019, last revised October 28, 2019, prepared by Fusion Engineering P.C.

- Plan labeled "4 of 4," entitled "4-Bay Warehouse Elevations," dated May 28, 2019, last revised October 28, 2019, prepared by Fusion Engineering P.C.
- Plan labeled "1 of 2," entitled "4-Bay Warehouse Elevation," dated October 9, 2019, last revised October 28, 2019, prepared by Fusion Engineering P.C.
- Plan labeled "2 of 2," entitled "2-Bay Warehouse Elevation," dated October 9, 2019, last revised October 28, 2019, prepared by Fusion Engineering P.C.

WHEREAS, the site plan depicts the removal of 6 Town-regulated trees; and

WHEREAS, the site plan depicts a truck washing bay; and

WHEREAS, truck washing is limited to the trucks stored on the site and a maximum use of 200 gallons/day; and

WHEREAS, the Architectural Review Board approved the proposed building design at the November 13, 2019 meeting; and

WHEREAS, the application for site plan approval was referred to the Westchester County Planning Board pursuant to § 239-m of New York State General Municipal Law (GML) on March 12, 2019; and

WHEREAS, on November 18, 2019, the Planning Board, pursuant to § 355-44 of the North Castle Code, opened a duly noticed public hearing with respect to the site plan application and closed such hearing on November 25, 2019, at which time all those wishing to be heard with respect to the site plan were given an opportunity to be heard; and

WHEREAS, the Proposed Action would be classified as an Unlisted Action pursuant to the State Environmental Quality Review Act (SEQRA); and

WHEREAS, the Planning Board has elected to conduct an uncoordinated SEQRA review; and

WHEREAS the site plan was forwarded to the Chief of Police, Fire Inspector and the North White Plains Fire Chief so that they may make any pertinent recommendations to the Planning Board including, but not limited to, the designation of no-parking zones, emergency vehicle access or any other issued deemed important to providing emergency services; and

WHEREAS, the site plan was forwarded to the Water and Sewer department so that they may make any pertinent recommendations to the Planning Board including, but not limited to, the capacity of the sewer and water infrastructure to handle the proposed amount of effluent and water demand; and

WHEREAS, the Water & Sewer Department, most recently on October 25, 2019, has provided the following comments:

- With regard to sewer capacity, based upon the owner projections there should not be any impact on SD1 infrastructure. All waste is conveyed via gravity sewer to Westchester County for treatment.
- Water supply and the ability to serve should also be manageable, based upon the water service size designed, and our rate structure that is in place to handle volumes of excess.
- As noted on the plans all existing water and sewer services that are no longer intended to be used must be abandoned in the street at the main connection, and require inspection by this department.
- Although the plan illustrates a new 1" water service in a "Hot Box" with an RPZ, an appropriate engineer's plan and application for the backflow device must be submitted to my office for review, which will then be forwarded on the Westchester County Health Department for their approval.
- I did not see a fire service in the design, although not a requirement of this department, just wanted to make sure it was not an oversite.
- The water service connection detail shows the curb stop within 5' of the water main. That is unlikely as the water main is closer to the middle of Virginia Road. When the water tap is installed the curb box is set at the property line.
- The detail of the sewer connection at the main would be cleaner and easier to install by utilizing a "Dog House" manhole over the existing sewer main. The 4" ductile iron service can be connected directly with an invert rather that the transition connection on the Clay Sewer main. This would eliminate multiple fittings and various types of materials at the connection point. This will also enable the Sewer District to monitor the discharge of the facility, in particular any accumulation of grease discharge should the oil and grease separator maintenance become neglected.
- Applications for both water and sewer service require filing of applications with this department for inspection, a water tap, and meter. Our maximum water tap size is 1" anything larger than that will require a contractor with the proper equipment for such purpose.

WHEREAS, the Planning Board has inspected the site and is familiar with the nature of the site, the surrounding area, and the proposed development; and

WHEREAS, the Planning Board has requested, received, and considered comments from the Town Attorney, Town Engineer, and Town Planner regarding the proposed development; and

WHEREAS, the requirements of the Zoning Ordinance of the Town of North Castle have been met by said application; and

NOW THEREFORE BE IT RESOLVED, that based upon its review of the full environmental record the Planning Board finds that the proposed action will not result in any significant adverse environmental impacts and hereby adopts a Negative Declaration pursuant to the requirements of Article 8 of the New York State Environmental Quality Review Law and 6 NYCRR Part 617; and

BE IT FURTHER RESOLVED, that the application for site plan and tree removal permit approvals, as described herein, is hereby conditionally approved, subject to the following conditions and modifications; and

BE IT FURTHER RESOLVED that, this site plan, steep slopes permit and tree removal permit approvals shall expire one (1) year after the date of this resolution unless all of the conditions and modifications identified below have been substantially completed or an extension of time has been requested by the applicant or granted by the North Castle Planning Board.

Prior to the Signing of the Site Plan:
(The Planning Board Secretary's initials and date shall be placed in the space below to indicate that the condition has been satisfied.)

_____1. The site plan shall be revised to contain a note stating that "Truck washing is limited to the trucks stored on the site and a maximum use of 200 gallons/day" to the satisfaction of the Planning Department. NOTE ADDED ON SHEET 1 OF 7

_____2. The site plan shall be revised to contain a note stating that "Vehicle Repair shall be prohibited on site" to the satisfaction of the Planning Department. NOTE ADDED ON SHEET 1 OF 7

_____3. The site plan shall be revised to contain a note stating that "Any outdoor storage of vehicles and material not depicted on the approved site plan shall be prohibited" to the satisfaction of the Planning Department.NOTE ADDED ON SHEET 1 OF 7

_____4. The site plan shall be revised to indicate the type of Pear tree proposed to be planted along the property frontage to the satisfaction of the Planning Department. Additionally, it is recommended that a variety of trees be planted along the frontage to minimize blight and add visual diversity. Recommended trees for this site include: Eastern Redbud, Hawthorn, Schubert Cherry, Japanese Lilac, Purple leaf Plum. In addition, the Landscape Plan shall be revised to illustrate and quantify proposed plantings, ground over and vegetation at the sides and rear of the site. The plan shall also clarify ground cover requirements along the property frontage, including limits of planting beds, lawn area, mulch, etc.LANDSCAPE

PLAN ON SHEET 2 OF 7 TO INCLUDE SPECIFIC TREE SPECIES AND GROUND COVER

_____5. The top-of-wall elevations along the length of the proposed retaining wall shall be verified to the satisfaction of the Town Engineer. It is not clear how proposed steps/grade changes will be addressed with the wall height. As shown, there are sections of the proposed wall that are several feet below the adjacent retained soils. Final slopes and required grading above the wall shall be illustrated, as well as stabilization measures. ALIGNMENT ALONG TOP OF WALL PROFILE INCLUDED ON SHEET 7 OF 7

_____6. Pursuant to Section 127-17 of the Town Code, the applicant shall submit a detailed quantity cost estimate for all site improvements proposed, with the quantities certified to by the applicant's engineer, to the satisfaction of the Town Engineer. DETAILED COST ESTIMATE PROVIDED

_____7. The location of the final connection of the sanitary sewer shall be adjusted to avoid conflict with the existing utility pole and maintain a minimum six (6) foot clear to the satisfaction of the Town Engineer. The sewer connection shall be made with a dog house sanitary manhole vs. the cut-in tee-wye as shown. Sheet 2 of 7 DRAINAGE AND GRADING PLAN REVISED TO INCLUDE DOGHOUSE MANHOLE

_____8. The applicant shall provide a site lighting plan to the satisfaction of the Planning Department and Town Engineer. Fixture specifications and details shall be included on the plan. TO BE SUBMITTED

_____9. The sidewalk layout shall be revised to avoid conflict with an existing hydrant, utility pole and concrete drainage swale to the satisfaction of the Town Engineer. NOTED ADDED TO THE SITE PLAN ON SHEET 1 OF 7

_____10. The plan proposes to connect the storm mitigation system outlet to an existing catch basin on Virginia Road, noted to be full of debris. The plan shall note that this basin will be cleaned to ensure proper operation of the outlet as intended to the satisfaction of the Town Engineer.NOTE ADDED TO DRAINAGE AND GRADING PLAN ON SHEED 2 OF 7

_____11. The Outlet Structure Detail shall include details for connection to the detention system, as well as for the multiple outlets to the water quality treatment unit to the

satisfaction of the Town Engineer.OUTLET STRUCTURE DETAIL ON SHEET 4 OF 7 HAS BEEN MODIFIED

_____12. The width of the Leaf Gate Detail for Refuse Area should be coordinated with the plan to the satisfaction of the Town Engineer.NOTED

_____13. The plan proposes a 4-way pipe connection at the inlet of the treatment unit. This configuration shall be replaced with a structure to accept all of the various inlet pipes and provide a single connection to the treatment unit to the satisfaction of the Town Engineer. STRUCTURE ADDED UPSTREAM OF AS-4 ON DRAINAGE AND GRADING PLAN ON SHEED 2 OF 7

_____14. The Applicant shall address the following comments on the Stormwater Pollution Prevention Plan (SWPPP) to the satisfaction of the Town Engineer:

- Section D - Stormwater Runoff Rate should correct references to "9 Stormwater Treatment Units".
- The SWPPP shall include a schedule of long-term maintenance requirements and clearly note the responsible party.
- Operation and Maintenance Requirements for the detention system, hydrodynamic separator and grease trap shall be included.
- Include drainage area maps for the proposed sub-watersheds. The areas and cover types tributary to sub-catchments 4S and 6S are not clear.
- The outlet orifice in the model and on the plan/detail shall be coordinated.

_____15. The 4" orifice included in the hydrologic model for the AquaSwirl unit should be clarified and reflected on the plans and detention system details to the satisfaction of the Town Engineer. Also, the Aqua Swirl treatment capacity and maintenance procedure shall be included in the SWPPP Report.

_____16. The signature block for endorsement of approval by the Planning Board Chairman and Consulting Town Engineer shall be updated with the current version obtained from the Planning Department.

_____17. Pursuant to Section 355-56.H of the Town Code, the site plan shall be revised to include a parking lot landscape plan that depicts a minimum of 10% of the interior parking area as a landscaped area to the satisfaction of the Planning Department.

_____18. The site plan shall be revised to depict and quantify (in square feet) any proposed Town-regulated steep slope disturbance to the satisfaction of the Planning Department.

_____19. Payment of all applicable fees, including any outstanding consulting fees.

_____20. The Applicant shall submit to the Planning Board Secretary one (1) set of plans (with required signature block) incorporating all required amendments to the plans as identified in this resolution of approval to the satisfaction of the Town Planner, Town Engineer and Town Attorney.

_____21. The Applicant shall submit final construction plans for site improvements to the Town Engineer for his approval of driveways, parking areas, storm drainage system, water and sewer connections, sidewalks, erosion and sediment controls and any other information requested by the Town Engineer to the satisfaction of the Town Engineer.

Prior to the Issuance of a Building Permit:
(The Planning Board Secretary's initials and date shall be placed in the space below to indicate that the condition has been satisfied.)

_____1. A final design of the proposed retaining walls, prepared by a New York State Licensed Engineer, shall be submitted demonstrating appropriate factors of safety against sliding, overturning and bearing capacity to the satisfaction of the Town Engineer.

_____2. The Applicant shall address all of the issues identified in the October 25, 2019 letter from the Water & Sewer Department to the satisfaction of the Water and Sewer Department, the Town Engineer and Building Department.

_____3. The Applicant will be required to obtain a curbcut permit from the North Castle Highway Department and/or Westchester County Department of Public Works.

_____4. All proposed building/site signage will require ARB approval.

_____5. The approved site plan shall be signed by both the Planning Board Chair and Town Engineer.

_____6. The proper construction type stickers shall be affixed to the building to the satisfaction of the Building Department.

_____7. The submission of a complete set of building plans for review and approval by the Town Building Inspector prior to the issuance of a building permit.

_____8. The applicant shall submit an engineering inspection fee equal to 3% of the estimated cost of construction.

_____9. Payment of all outstanding fees, including professional review fees.

Prior to the Issuance of a Certificate of Occupancy/Compliance:
(The Planning Board Secretary's initials and date shall be placed in the space below to indicate that the condition has been satisfied.)

_____1. A Knox Box shall be installed at the entrances to the building (or an alternate location) to the satisfaction of the Building Department.

_____2. The plan proposes improvements, including curb, sidewalk, pavement and landscaping, within the Town of North Castle and/or Westchester County right-of-way. The applicant shall submit receipt of all required Highway Work Permits to the satisfaction of the Town Engineer.

_____ 3. Prior to the issuance of a certificate of occupancy/compliance, the actual construction, installation and implementation of all landscaping shall be certified by a licensed landscape architect as being in compliance with the approved plans and conditions, at the sole cost and expense of the Applicant.

_____ 4. The submission to the Town Building Inspector of an "As Built" site plan.

Other Conditions:

1. Truck washing is limited to the trucks stored on the site and a maximum use of 200 gallons/day.

2. Vehicle Repair shall be prohibited on site.

3. Any outdoor storage of vehicles and material not depicted on the approved site plan shall be prohibited.

4. Prior to the start of construction and throughout the construction period, area of disturbance lines shall be clearly delineated in the field with snow fence or another demarcation acceptable to the Building Department and Town Engineer, which shall be placed around the entire proposed construction area. Except as necessary to provide mitigation plantings, no encroachment beyond these limits by workers or machinery shall be permitted.

5. Grading and clearing and other construction-related activities shall take place only within the delineated area of disturbance lines. These area of disturbance lines represent the maximum limits of construction activities. Every attempt shall be made to further reduce grading and clearing activities within the area of disturbance lines by maintaining natural vegetation and topography wherever practicable.

6. Prior to the commencement of any site work, the Applicant shall stake the location of the proposed construction for inspection and approval by the Building Department and Town Engineer.

7. All soil erosion and sedimentation control measures shown on this plan shall be in place prior to the start of any site work. The Building Department and Town Engineer shall have inspected the installation of all required soil erosion and sedimentation control measures prior to the authorization to proceed with any phase of the site work.

8. Throughout the construction period, a qualified professional retained by the Applicant shall, on at least a weekly basis, prior to any predicted rain event and after any runoff-producing rain event, inspect the soil erosion and sedimentation control measures to ensure their proper functioning. Soil shall be removed from the silt fence when bulges develop in the fence in accordance with Westchester County recommendations. Records shall be kept onsite and made available for review by Town personnel. Inspections shall be in accordance with the NYSDEC Phase II regulations.

9. If the Applicant, during the course of construction, encounters such conditions as flood areas, underground water, soft or silty areas, improper drainage, or any other unusual circumstances or conditions that were not foreseen in the original planning, he shall report such conditions immediately to the Building Department and Town Engineer. The Applicant may submit, if he so desires, his recommendations as to the special treatment to be given such areas to secure adequate, permanent and satisfactory construction. The Building Department, without unnecessary delay, shall investigate the condition or conditions, and shall either approve the Applicant's recommendations to correct the conditions, order a modification thereof, or issue his own specifications for the correction of the conditions. In the event of the Applicant's disagreement with the decision of the Building Department, or in the event of a significant change resulting to the site plan or any change that involves the wetlands regulated areas, the matter shall be decided by the Planning Board. Any such conditions observed by the Planning Board or its agents shall be similarly treated.

10. Compliance with all applicable local laws and ordinances of the Town of North Castle and any conditions attached to permits issued thereunder.

11. The applicant shall provide sedimentation and erosion control measures to the satisfaction of the Town Engineer and in accordance with the measures set forth in the Westchester County Best Management Practices for Construction and Related Activities.

12. All landscaping shown on this plan shall be maintained in a vigorous growing condition throughout the duration of the use. All plants not so maintained shall be replaced with new plants of comparable size and quality at the beginning of the next immediately following growing season.

13. The applicant shall provide confirmation from the North Castle Highway Department and/or the Westchester County Department of Public Works, to the satisfaction of the Town Engineer, that all improvements in the right-of-way have been satisfactorily completed in accordance with the Highway Work Permit.

****

APPLICANT, agreed and understood as to contents and conditions, including expiration, contained herein

Date _____ Mistis Properties 100 Inc.

NORTH CASTLE PLANNING OFFICE,
as to approval by the North Castle Planning Board

Date _____ Valerie B. Desimone, Planning Board Secretary

KELLARD SESSIONS CONSULTING
As to Drainage and Engineering Matters

Date _____ Joseph M. Cermele, P.E.
Consulting Town Engineer

STEPHENS BARONI REILLY & LEWIS LLP
As to Form and Sufficiency

Date _____ Roland A. Baroni, Jr. Esq., Town Counsel

NORTH CASTLE PLANNING BOARD

Date _____ Christopher Carthy, Chairman

F:\PLAN6.0\Resolutions\Reso 2019\Mistis.Site Plan.Tree.Steep Slope.approval.doc

RECEIVED
Sep 26 2023
TOWN OF NORTH CASTLE
PLANNING DEPARTMENT

ARQ. ARCHITECTURE P.C.
ARCHITECTURE - PLANNING - ENGINEERING

Engineers Report

for

176 Virginia Road

White Plains, NY

Westchester County, New York

Calculations and Report By: Paul Berté

Date: 3/29/2022

Last Revised: _____

NYS Professional Engineer Lic # 071859

100 Executive Boulevard, Suite 204 Ossining, NY 10562 Ph: 914-944-3377

Table of Contents

A. Introduction

This report has been prepared in accordance with Chapter 267 of the town of North Castle for the improvements on site on the subject property 176 Virginia Road.

This site is 0.383 acres as shown on a survey prepared by T.C. Merritts Surveyors, map of survey dated August 30, 2018 entitled "TOPOGRAPHY OF PROPERTY PREPARED FOR MISTIS PROPERTIES 100 INC".

This existing impervious surfaces on this lot is approximately 13,586 sf. 11,510 sf of the lot is covered in a heavily compacted subbase type material over asphalt pavement so it has been modeled as an impervious surface. The proposed impervious surfaces is estimated to be 13,340 sf.

An underground stormwater detention system is designed to reduce the post development peak rates of runoff to the pre-development rates for the 2, 10, 25, 100 24-hour storm events. Proposed grading has been designed to minimize the impact to adjacent properties and the Erosion and Sediment controls have been designed to manage stormwater and pollutants from the active site in accordance with the New York Standards and Specifications for Erosion and Sediment Control. Detailed flow control calculations (routings) are also included herewith.

B. Site Description

Existing Improvement
Existing improvements include a single-family home.

Existing Tress
Six (6) trees are to be removed from the property.

Soils
The site consists primarily of CuD Chatfield-Hollis-Rock described by the USDA NRCS as outcrop complex, 15 to 35 percent slopes. A soil report is included in Appendix B.

Flood Plain
The FEMA floodplain map (attached herewith in section 2) does not show potential floodplains in the immediate vicinity of the site.

Site Drainage Characteristics
Most of the site currently drains via sheet flow from north to south. Runoff drains into a concrete swale and catch basin in the street. Other than collecting and treating the runoff from the proposed impervious areas, no changes to the site drainage patterns are proposed with this application.

C. Project Description

Proposed Improvements
Proposed improvements include the installation of two (2) prefabricated warehouse buildings and parking areas.

D. Stormwater Management Methodology

Stormwater Runoff Rate
The on-site stormwater management design was analyzed using HydroCAD stormwater modeling software V10.00, which models Type III 24 hour stormwater flows using those methods contained in "Urban Hydrology for Small Watersheds Technical Release No. 55," prepared by the United States Department of Agriculture Soil Conservation Service. The stormwater management plan has been implemented to provide quality of runoff and flow control by means of the storage provided within the 4 Stormtrap ST1 Units. The system provides 666 cf of storage. The design was based on detention values for the 100, 25, 10, and 2-year storm events, to mitigate the post-development runoff flow to a rate that is less than the pre-development condition.

Grading and Drainage Design
This proposal includes a drainage design in accordance with chapter 9 of the 2015 Stormwater Management Design manual for redevelopment activity. It is anticipated that the subsurface stormwater treatment system will be installed in bedrock. Because infiltration will not be possible, the system has been designed as a detention system. The water quality volume has been achieved with a hydrodynamic separator which provides a total of 666 cf. Calculations can be seen in Appendix E. The runoff from roof leaders of the warehouse building 1 and 2 and the area Drain Inlet DI-1 will be sent to the Stormtrap ST1 units and then be directed to the hydrodynamic separator to be treated and finally out to the catch basin in the street. Runoff from the Trench Drain at the driveway entrance will be captured and directed to the hydrodynamic separator for treatment before going to the catch basin in Virginia Road. Runoff is captured and treated to mitigate the peak flows to the predevelopment rates.

Run off from the rain events will be detained in the Stormtrap ST1 single trap units and metered out to catch basin via a 8" orifice located at the base of the proposed underground detention system. The system is designed to reduce the peak rate of discharge from the existing condition.

Throughout the construction process, strict adherence to the **Site Plan** which specifies all erosion and sediment controls will be maintained to minimize sediment and pollutants from discharging off site.

The following table (Table 1) is a summary of the results of the hydrograph routings for the Pre-Development and Post Development stormwater flows for the entire property:

Table 1: Summary of Stormwater Runoff Rates

Storm Event	Rainfall Depth	Pre Development Rate (cfs)	Post Development Rate (cfs)
2 year	3.4"	1.03	.94
10 year	5.1"	1.61	1.44
25 year	6.4"	2.06	1.79
100 year	9.0"	2.93	2.47

E. Construction Phasing Plan and Stormwater Management Facilities Maintenance Program

Maintenance of Temporary and Permanent Structures and Practices
Temporary and permanent erosion controls measures will be maintained and inspected in accordance with the Site Plans and Details**.** All proposed soil erosion and sediment control practices are designed in accordance with the following publications:

- New York State Standards and Specifications for Erosion and Sediment Control, August 2005, latest edition.
- New York State Guidelines for Urban Erosion and Sediment Control, latest edition,
- New York State General Permit for Stormwater Discharges,
- "Reducing the Impacts of Stormwater Runoff from New Development", as published by the New York State Department of Environmental Conservation (NYSDEC).

The proposed soil erosion and sediment control devices include: protective earthmoving procedures and grading practices, soil stabilization, inlet protection, stabilized construction entrance and silt fencing. The approach of the plan is to control off-site sedimentation and re-establish vegetation as soon as practicable.

Additionally, contractor shall adhere to the recommended material stockpile location and construction entrance shown on the plans attached herewith. The plan will be implemented prior to commencement of earthmoving activities.

Construction Phasing Plan:

1. Erosion and sediment control (esc) measures and pollution prevention (pp) implementation,
    a. Install silt fences along easterly project limits
    b. Utilize existing driveway for construction access. If required, install stone (per detail) if access is required on and off exposed areas.
    c. Install tree protection
    d. Install temporary sanitary facilities (portable toilets) in a location that is at least 20 from any drainage facility or flow path. Recommend staking the facility to prevent accidental tipping by construction activity or wind.
    e. Install waste container – maintain rigorous site cleaning schedule to prevent debris from blowing off site. Construction waste shall be stored in a dumpster and carried off-site on a regular basis
    f. Allocate concrete washout areas in advance of pour.
2. Phase 1 clearing, demo & excavation.
    a. Clear all trees marked to be removed on the demolition plan. Clear & grub north half of the property, north of the existing 1 story residence. The existing residence is to remain until phase 2.
    b. Excavate to proposed grade. It is anticipated that rock will be present on portions of the site. A minimum productivity rate of 55yards per day with a 2000ftlbf hammer is proposed to remove any rock encountered.
    c. Due to the limited site area, all excavated soils & rock are to be immediately trucked off site.
    d. Disturbed areas where construction will cease for more than 14 days will be stabilized with erosion controls, such hydro-seeding, hydro-mulch, or hay
    e. Form and pour proposed retaining wall along rear property line up to the next phase section. If stable rock is encountered along the limits of the proposed cut, the retaining wall will not be necessary.
3. Construct retaining wall on west side of lot as shown in phase 1 phasing plan.

4. Cut in curb at proposed location and install temporary construction entrance.
5. Phase 2 clearing, demo & excavation
    a. Disconnect and cap all utilities to existing 1 story residence. Restore pavement as specified.
    b. Demolish all existing improvements remaining on the demolition plan.
    c. Clear & grub south end of property.
    d. Excavate to proposed grade. It is anticipated that rock will be present on portions of the site. A minimum productivity rate of 55cubicyards per day with a 2000ftlbf hammer is proposed to remove any rock encountered.
    e. Due to the limited site area, all excavated soils & rock are to be immediately trucked off site.
    f. Disturbed areas where construction will cease for more than 14 days will be stabilized with erosion controls, such hydro-seeding, hydro-mulch, or hay.
6. Form and pour proposed retaining wall along rear property line up to the next phase section. If stable rock is encountered along the limits of the proposed cut, the retaining wall will not be necessary.
7. Install subsurface storage system, site drainage and hydrodynamic separator to capture roof leader runoff. Protect inlets with sediment control inlet protection.
8. Vertical construction (install foundation and construct prefab metal warehouse structures)
9. Install underground utilities. Restore pavement as specified.
10. Install proposed curb and asphalt parking lot
11. Paint all striping for proposed lot.
12. Plant all proposed landscaping.
13. Final stabilization of disturbed areas
    a. Remove all esc and pp measures upon approval of design engineer and/or esc inspector.
    b. Awarded contractor shall be responsible for the proper implementation of the esc and pp practices. The following maintenance program is proposed in order to maintain the proper function of all drainage and erosion and sediment control facilities:
        i. Inspect sediment control devices and construction access point routinely and if necessary remove accumulated sedimentation and debris; at no point should the filter bed be allowed to continue operations beyond 50% of its capacity being compromised by debris.
        ii. All disturbed area will be stabilized and the sediment build-up in the filter removed. After the construction is completed, any areas disturbed shall be stabilized immediately after the required work is completed.
        iii. Restore and re-seed any eroded areas as soon as possible
        iv. The stormwater management facilities maintenance program will be managed by the home owner and shall include yearly inspection of the on-site catch basins and underground storage facilities and the removal of sediment, as necessary.

F. Narrative Report

The primary goal of the soil erosion and sediment control measures is to reduce soil erosion from areas stripped of vegetation during and after construction, and to prevent discharge of silt offsite. Erosion control barriers shall be placed around exposed areas during construction. The barriers shall consist of silt fence. Alternate practice may be implemented by the contractor after approval from the Design Engineer and the City Engineer.

Any areas stripped of vegetation during construction will be left bare for the shortest time possible. Any topsoil removed during construction will be temporarily stockpiled for future use in grading and landscaping. Stockpile locations have been provided on the Erosion and Sediment Control Plan and shall be contained within a silt fence/hay bale barrier.

Temporary vegetation will be established to protect exposed soil areas during construction. If growing conditions are not suitable for the temporary vegetation, mulch will be used. Materials that may be used for mulching include; straw, hay, salt hay, wood fiber, synthetic soil stabilizers, mulch netting, and sod. A permanent vegetative cover will be established upon completion of construction of those areas that have been brought to finish grade and to remain undisturbed.

A temporary stabilized construction entrance comprised of a stone anti-track pad shall be installed as necessary to minimize dirt tracking onto Virginia Road. The purpose of a stabilized entrance is to remove as much soil from the construction vehicle tires prior to exiting the site and traveling on the existing roadways. During construction, inlet protection (as applicable) will be installed at each storm sewer inlet to minimize the conveyance of silt and sediment through the storm sewer system.

For dewatering activities during excavation of the footings, a dewatering pump shall be in a perforated tub surrounded by filter fabric and stone (or approved alternative). Clean discharge should be directed to onsite drainage appurtenances to minimize erosion of soils. Discharge with suspended sediment shall be connected to a sediment bag on undisturbed ground in a location where the discharge will not cause erosion or flow over exposed soils.

Portable toilets shall be provided and located at least 20 feet from a drainage facility and shall be staked down to minimize overtopping from wind.

If the contractor encounters ground water during the excavation of the filtering system, he shall notify the design engineer immediately. The contractor shall store all excavated material at the designated location show on the Grading and Erosion Control Plan with the appropriate erosion control measures corresponding to the stockpile detail.

G. Material Handling and Waste Management

Contractor shall be responsible for all waste materials being collected and disposed of into one (1) metal trash dumpster. Dumpster shall have a secure watertight lid, be placed away from stormwater conveyances and drains, and meet all local and state solid-waste management regulations. Only trash and construction debris from the site will be deposited in the dumpster.

Contractor shall not store erodible or hazardous materials on any roadway. Oil and machinery fuels shall be kept to a necessary minimum and stored in structurally sound and sealed shipping containers or stored in the contractor's vehicles. Hazardous-material storage should be segregated from other non-waste materials. All hazardous materials will be disposed of in accordance with federal, state, and municipal regulations.

Contractor shall be responsible for maintaining the cleanliness of the streets (driveways/parking and adjacent areas) and storm drain inlet protection (as applicable) Best Management Practices (BMPs) throughout the construction project.

Contractor shall provide adequate designated concrete washout areas throughout the construction project and will be responsible for proper disposal of the concrete, mortar or grout collected there.

One (1) temporary sanitary facility (portable toilet) shall be provided at the site in the combined staging area. The toilet shall be away from a concentrated flow path and traffic flow and shall have collection pans underneath as secondary containment. The unit shall be staked down to prevent wind overtopping the unit.

Wood pallets, cardboard boxes, and other recyclable construction scraps will be disposed of in a designated dumpster for recycling. Construction equipment and maintenance materials shall be stored at the combined staging area.

All spills shall be cleaned up immediately upon discovery. Spent absorbent materials and rags will be hauled

off-site immediately after the spill is cleaned up for disposal. Spill large enough to discharge to surface water will be reported to the National Response Center at 1-800-424-8802. Material safety date sheets, a material inventory, and emergency contact information will be maintained on site.

H. Inspection and Maintenance

1. Stormtrap ST1 Singletrap*:*

Units shall be inspected once a year, sediment shall be removed. Owner shall be responsible for maintenance.

- Locate manholes connected to the system
- Remove grates or covers
- Vacuum pump the sediment. Do not flush sediment out inlet pipes.
- Replace grates and covers
- Record depth and date and schedule next inspection

2. Catch Basins/Inlets:

- Shall be inspected once a year, trash and debris shall be removed.
- Owner shall be responsible for maintenance.

3. Grease trap/oil separator

- Water generated from the truck wash will be captured by the floor trench drain and directed to the grease trap/oil separator, the baffle will separate the oil from water, then the water will continue towards the outlet pipe that is followed by the house trap and sewer line.
- Oil will rise and build up in the inlet chamber until it gets removed.
- Take a long stick that will reach the bottom of the chamber. Any resistance pushing to the bottom signifies sludge build up. Service the oil/water separator when build up is about 6 inches deep in the inlet chamber.
- Maintenance of oil/water separator must include through pump-out and cleaning a minimum of once a year. Cleaning shall be done before the oil accumulation inside the separator is within 2 inches from the top of the water level
- More frequent cleaning of oil/water separator may be required if deemed necessary by building department inspector.
- Owner shall be responsible for the proper removal and disposal. Owner may be required to maintain on-site records of dates and means of disposal which are subject to review by building department. Any removal of the waste material not performed by the owner's personnel must be performed by a licensed waste water disposal firm.

4. ***Aqua-Swirl: AS-4****:*

- During the first year post-construction, the unit should again be inspected every three months and cleaned as needed.
- It is also recommended that the system be inspected and cleaned once annually regardless of whether it has reached its sediment or floatable pollutant storage capacity.
- For the second and subsequent years post-construction, the Aqua-Swirl can be inspected and cleaned once annually if the system did not reach full sediment or floatable pollutant capacity in the first year post-construction.
- If the Aqua-Swirl® reached full sediment or floatable pollutant capacity in less than 12 months in the first year post-construction, the system should be inspected once every six months and cleaned as needed.

- AquaShield further recommends that external bypass (diversion) and convergence structures should be inspected and cleaned when feasible during inspection and maintenance events.
- Essential elements of a swirl chamber inspection include observing floating materials and measuring the accumulated sediment at the base of the swirl chamber. These two activities can be performed at the ground surface and there is no need to enter the device. A typical maintenance event includes the vacuuming and disposal of floatable pollutants and sediment from the swirl chamber. Proper health and safety protocols should be followed during all inspection and maintenance events. AquaShield™ recommends that all materials removed during the maintenance process be handled and disposed in accordance with all applicable federal, state and local guidelines. Depending on the influent pollutant characteristics of the system drainage area, it may be appropriate to perform Toxicity Characteristics Leaching Procedure (TCLP) analyses on representative samples of the removed material to ensure that the handling and disposition of materials complies with applicable environmental regulations.
- Owner shall be responsible for maintenance.

I. Final Stabilization

Permanent seeding shall be applied immediately after the final design grades are achieved as applicable throughout the site but no later than fourteen (14) days after construction activities have ceased. After stabilization, accumulated sediment shall be removed from site for disposal along with construction debris, trash and temporary BMPs e.g. silt fences, straw bales, material storage areas, sanitary toilets, etc.

Seedbed preparation/grass application

A minimum depth of 2 to 6 inches shall be applied on areas where disturbance results in subsoil being the final grade surface. The seedbed shall be free of large clods, rocks, woody debris and other intrusive materials; fertilizer shall be applied accordingly.

J. Conclusion:

The implementation of this stormwater management plan will mitigate the post development stormwater flows to the predevelopment rates and not adversely affect the adjacent properties or the existing drainage system in Virginia Road.

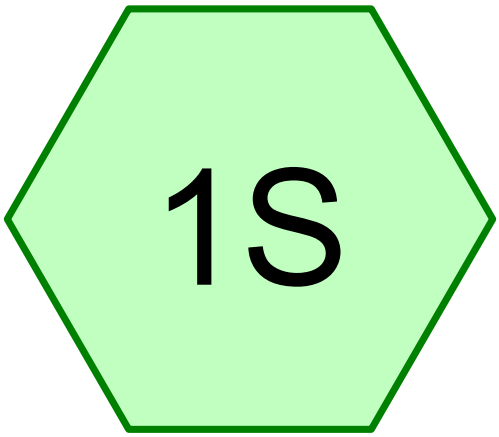
Respectfully Submitted,

ARQ PC

APPENDIX A

Stormwater Routings

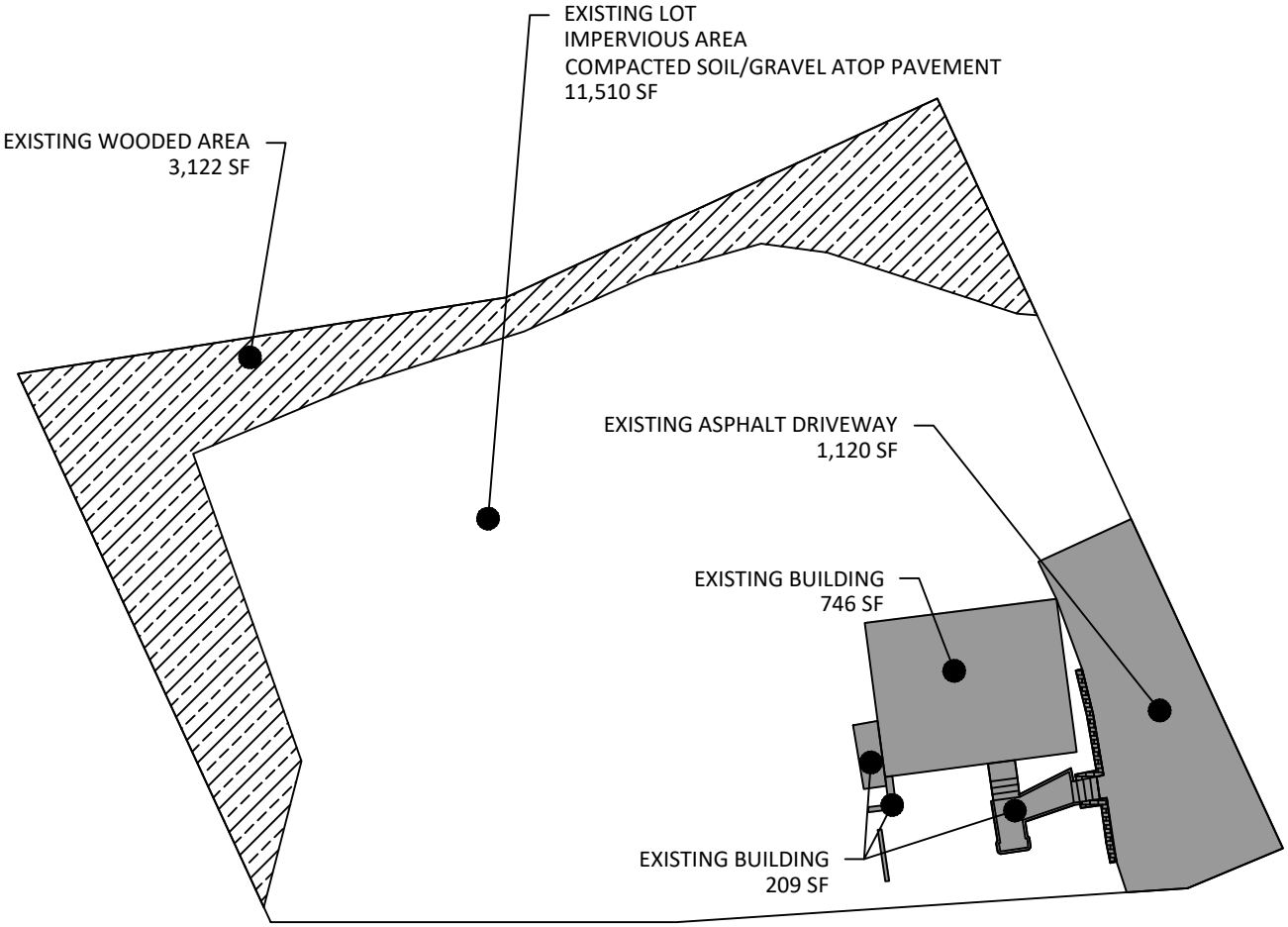
Pre Development Calculations



Existing Conditions

Subcat Reach Pond Link

Routing Diagram for 176 Virginia Road 22.3.29
Prepared by PB, Printed 3/30/2022
HydroCAD® 10.00-26 s/n 05751 © 2020 HydroCAD Software Solutions LLC



PRE DEVELOPMENT

SCALE: 1" = 30'

Area Listing (selected nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
13,586	98	Impervious (Building, Driveway & Lot) (1S)
3,122	76	Woods/grass comb., Fair, HSG C (1S)

Soil Listing (selected nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
0	HSG B	
3,122	HSG C	1S
0	HSG D	
13,586	Other	1S

Summary for Subcatchment 1S: Existing Conditions

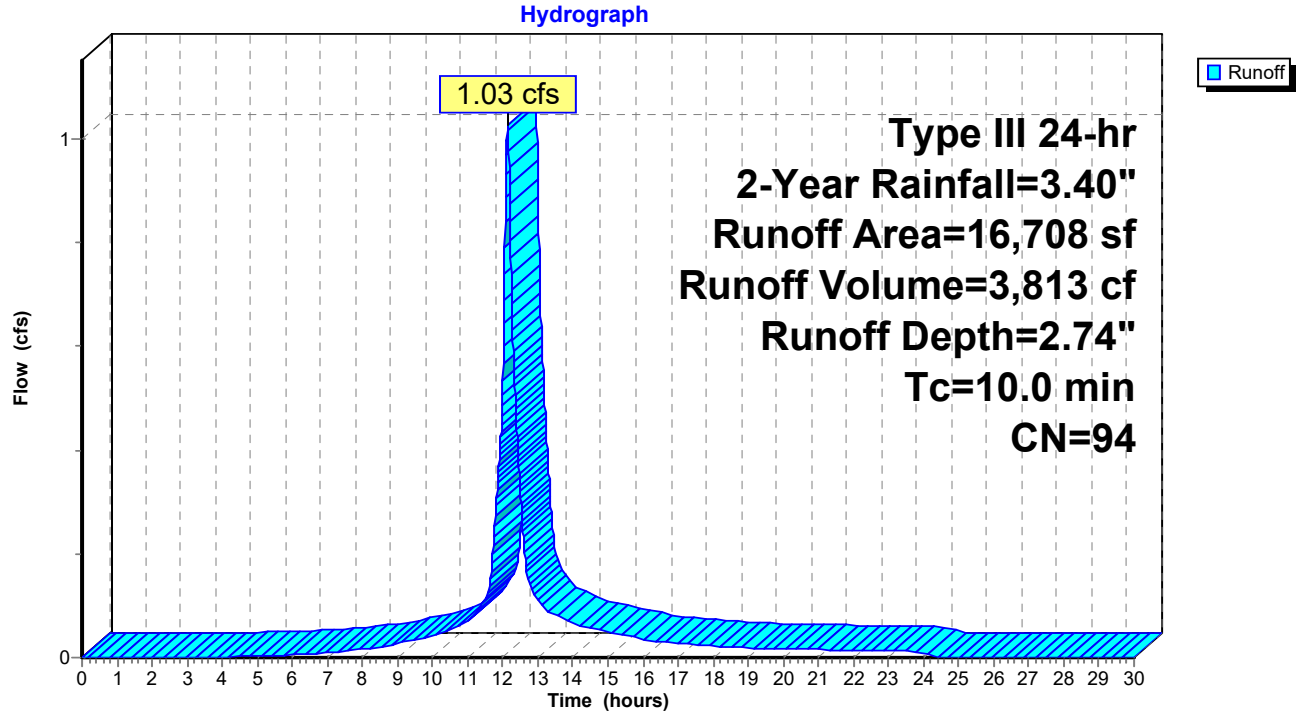
Runoff = 1.03 cfs @ 12.14 hrs, Volume= 3,813 cf, Depth= 2.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.40"

	Area (sf)	CN	Description
*	13,586	98	Impervious (Building, Driveway & Lot)
	3,122	76	Woods/grass comb., Fair, HSG C
	0	98	Unconnected pavement, HSG C
	16,708	94	Weighted Average
	3,122		18.69% Pervious Area
	13,586		81.31% Impervious Area

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

Subcatchment 1S: Existing Conditions



Summary for Subcatchment 1S: Existing Conditions

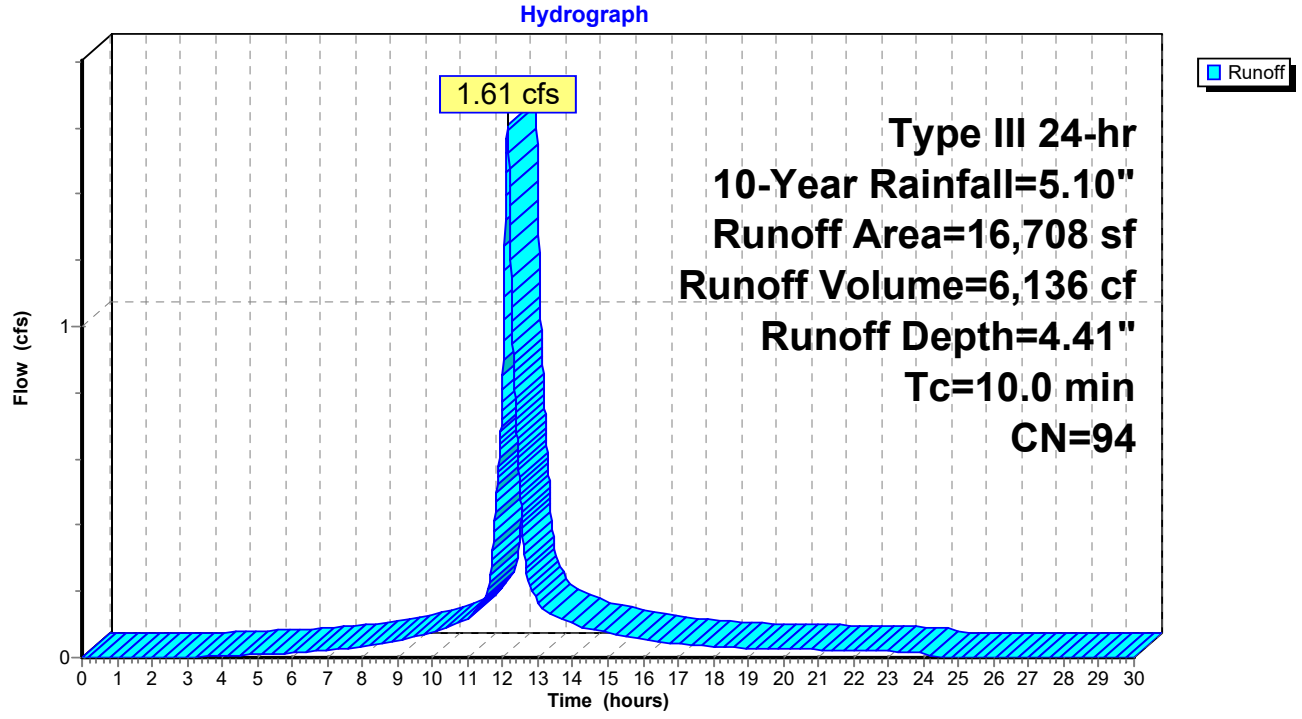
Runoff = 1.61 cfs @ 12.13 hrs, Volume= 6,136 cf, Depth= 4.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.10"

	Area (sf)	CN	Description
*	13,586	98	Impervious (Building, Driveway & Lot)
	3,122	76	Woods/grass comb., Fair, HSG C
	0	98	Unconnected pavement, HSG C
	16,708	94	Weighted Average
	3,122		18.69% Pervious Area
	13,586		81.31% Impervious Area

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

Subcatchment 1S: Existing Conditions



Summary for Subcatchment 1S: Existing Conditions

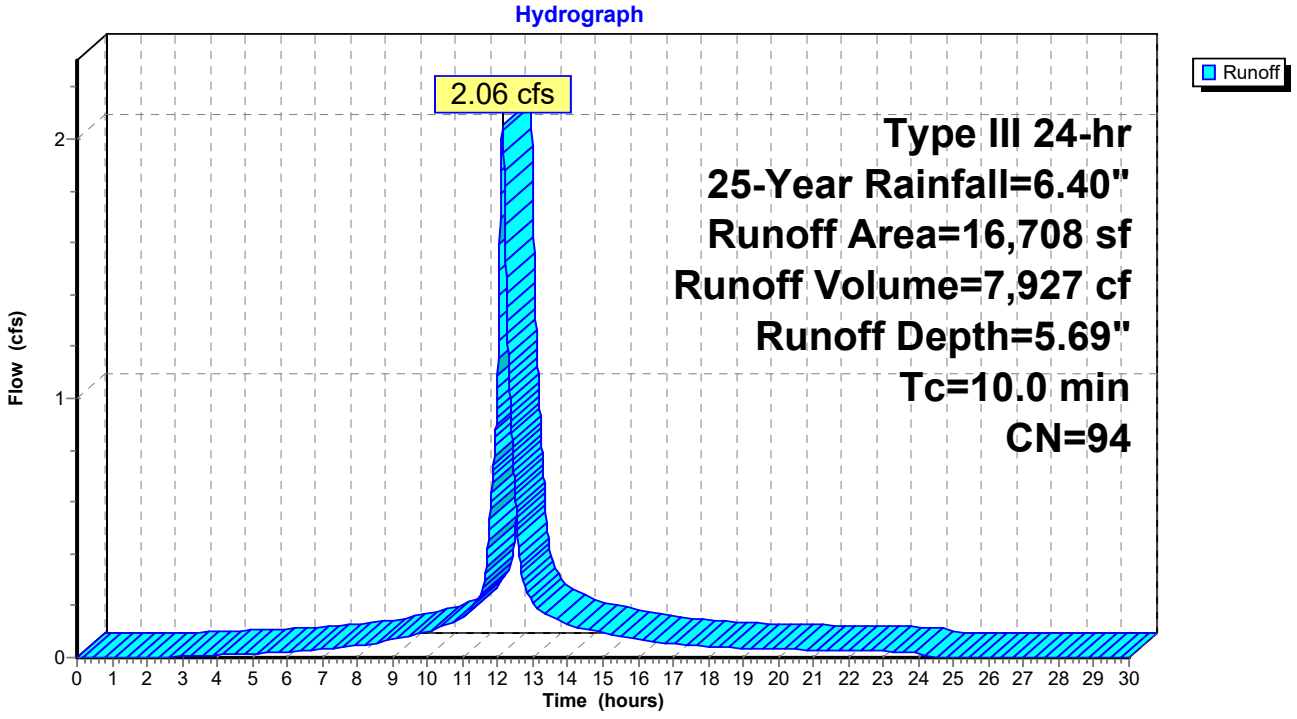
Runoff = 2.06 cfs @ 12.13 hrs, Volume= 7,927 cf, Depth= 5.69"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.40"

	Area (sf)	CN	Description
*	13,586	98	Impervious (Building, Driveway & Lot)
	3,122	76	Woods/grass comb., Fair, HSG C
	0	98	Unconnected pavement, HSG C
	16,708	94	Weighted Average
	3,122		18.69% Pervious Area
	13,586		81.31% Impervious Area

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

Subcatchment 1S: Existing Conditions



Summary for Subcatchment 1S: Existing Conditions

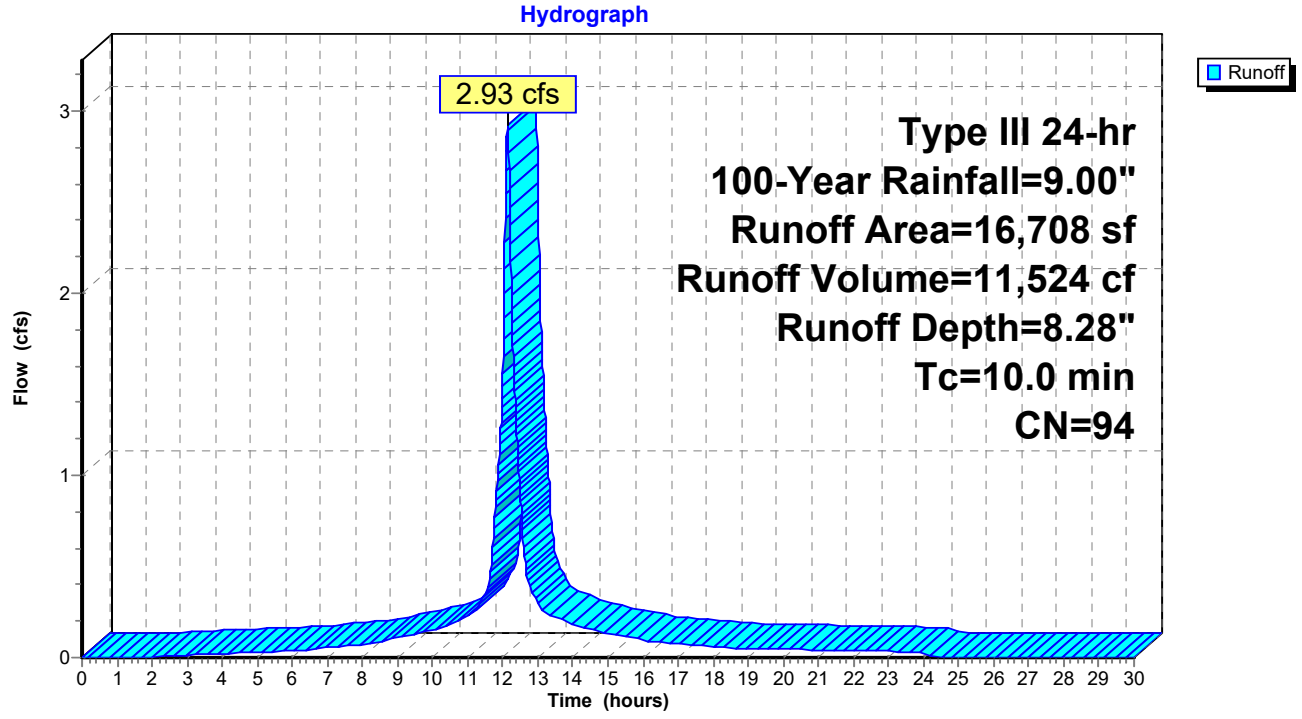
Runoff = 2.93 cfs @ 12.13 hrs, Volume= 11,524 cf, Depth= 8.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=9.00"

	Area (sf)	CN	Description
*	13,586	98	Impervious (Building, Driveway & Lot)
	3,122	76	Woods/grass comb., Fair, HSG C
	0	98	Unconnected pavement, HSG C
	16,708	94	Weighted Average
	3,122		18.69% Pervious Area
	13,586		81.31% Impervious Area

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

Subcatchment 1S: Existing Conditions



Summary for Subcatchment 1S: Existing Conditions

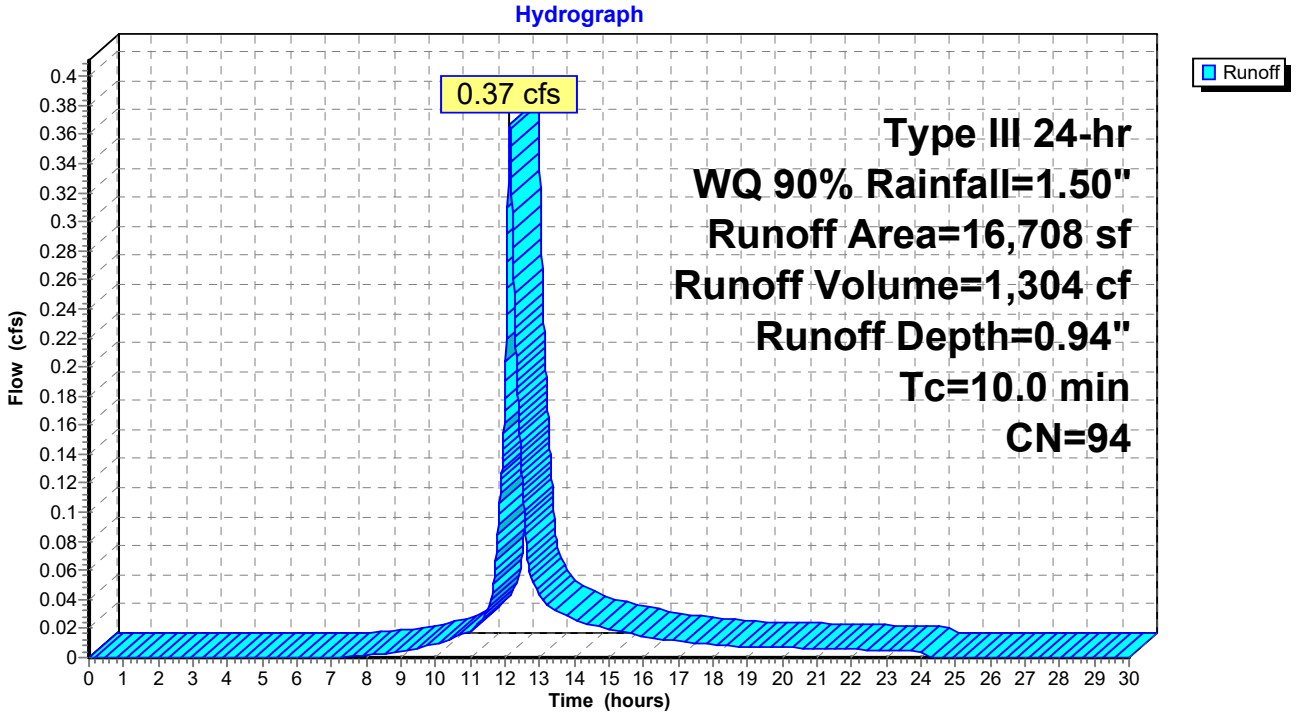
Runoff = 0.37 cfs @ 12.14 hrs, Volume= 1,304 cf, Depth= 0.94"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr WQ 90% Rainfall=1.50"

	Area (sf)	CN	Description
*	13,586	98	Impervious (Building, Driveway & Lot)
	3,122	76	Woods/grass comb., Fair, HSG C
	0	98	Unconnected pavement, HSG C
	16,708	94	Weighted Average
	3,122		18.69% Pervious Area
	13,586		81.31% Impervious Area

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

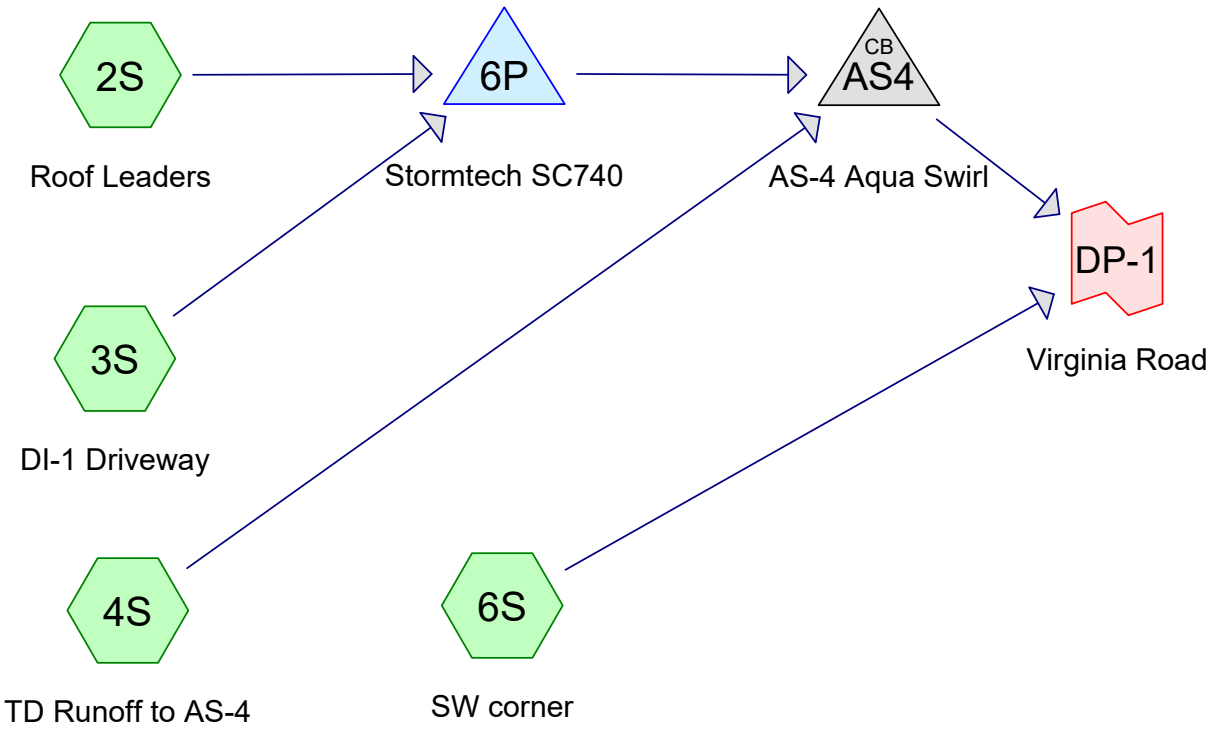
Subcatchment 1S: Existing Conditions



APPENDIX B

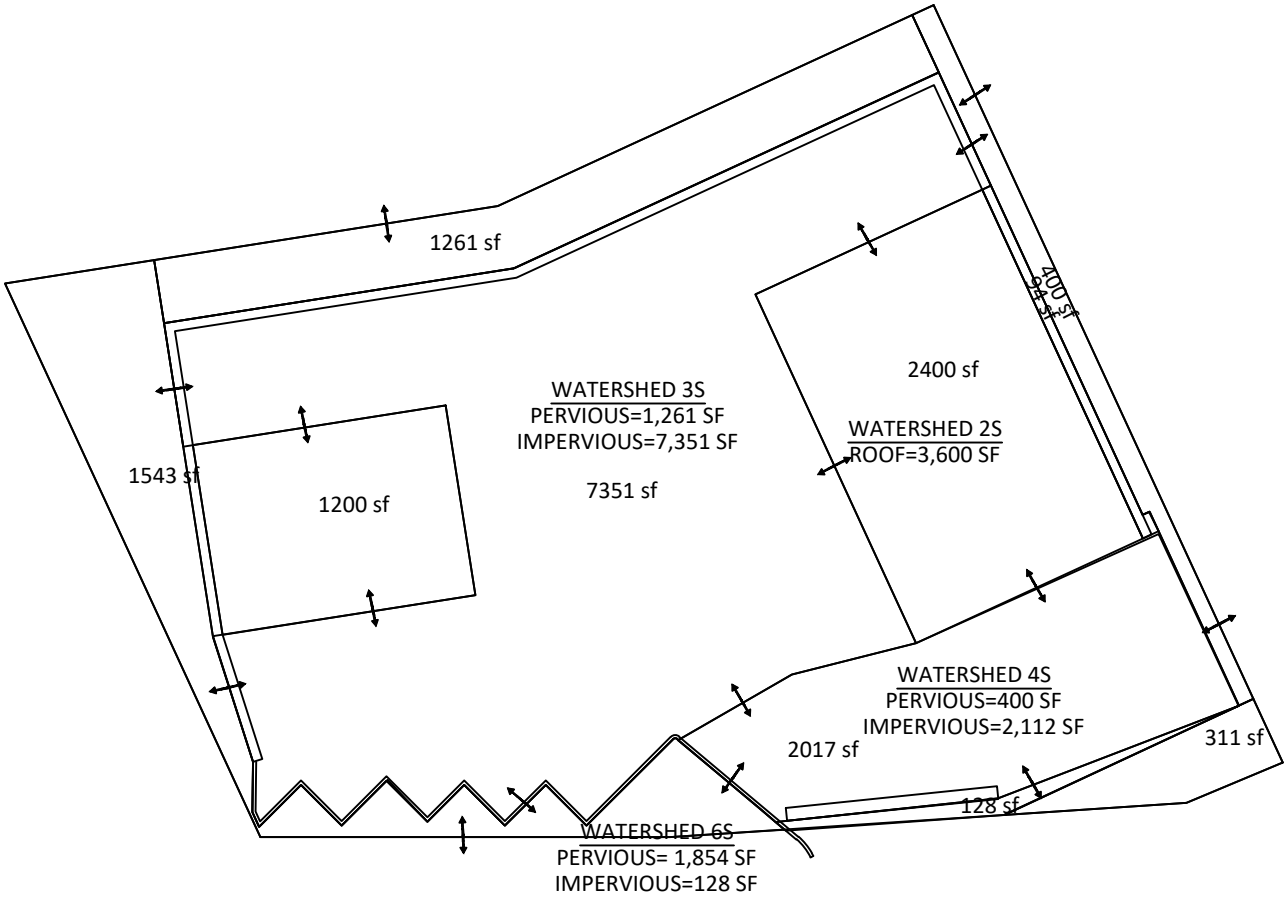
Stormwater Routings

Post Development Calculations



Subcat Reach Pond Link

Routing Diagram for 176 Virginia Road 22.3.29
Prepared by PB, Printed 3/30/2022
HydroCAD® 10.00-26 s/n 05751 © 2020 HydroCAD Software Solutions LLC



POST DEVELOPMENT

SCALE: 1" = 30'

Area Listing (selected nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
1,261	76	Area behind wall (3S)
400	76	Behind Bldg Bay 3-6 (4S)
7,351	98	Driveway (3S)
2,112	98	Dvwy to Trench Drain (4S)
128	98	Impervious (6S)
311	76	Landsacape area (6S)
1,543	76	Northerly landscape area (6S)
3,600	98	ROOF LEADERS (2S)

Soil Listing (selected nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
0	HSG B	
0	HSG C	
0	HSG D	
16,706	Other	2S, 3S, 4S, 6S

Summary for Subcatchment 2S: Roof Leaders

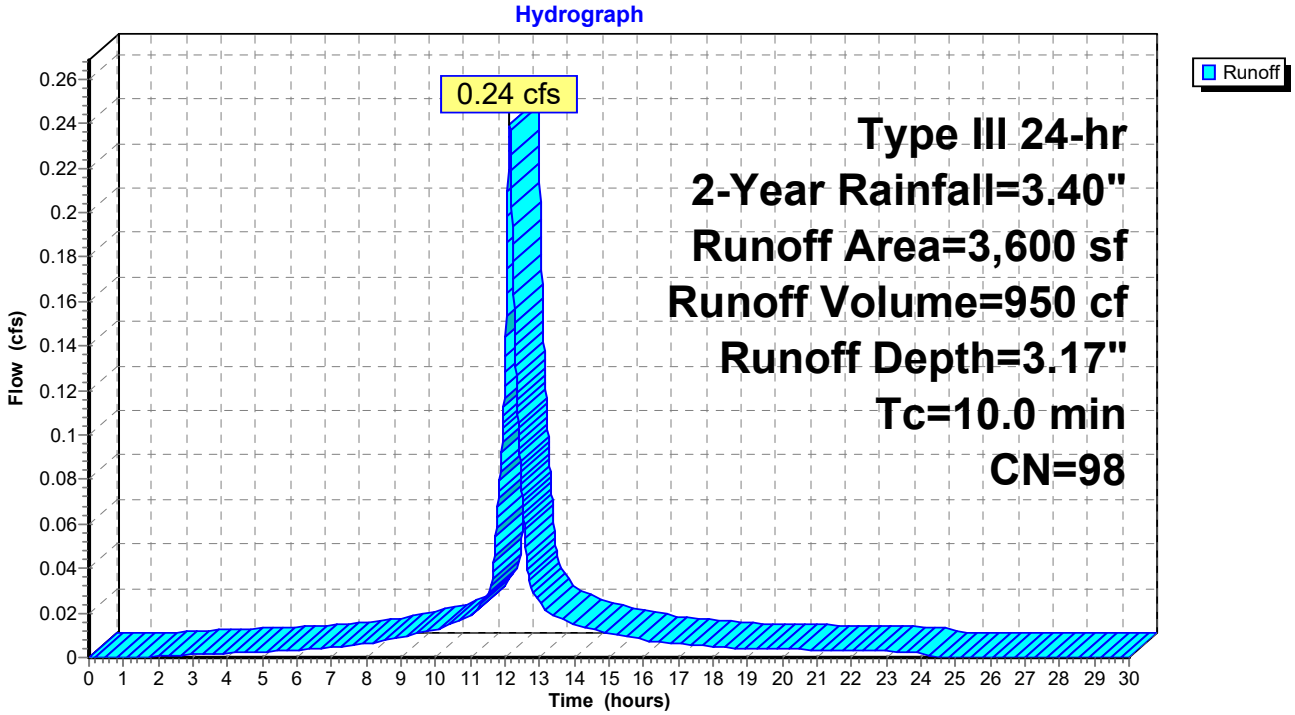
Runoff = 0.24 cfs @ 12.13 hrs, Volume= 950 cf, Depth= 3.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.40"

	Area (sf)	CN	Description
*	3,600	98	ROOF LEADERS
	3,600		100.00% Impervious Area

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

Subcatchment 2S: Roof Leaders



Summary for Subcatchment 3S: DI-1 Driveway

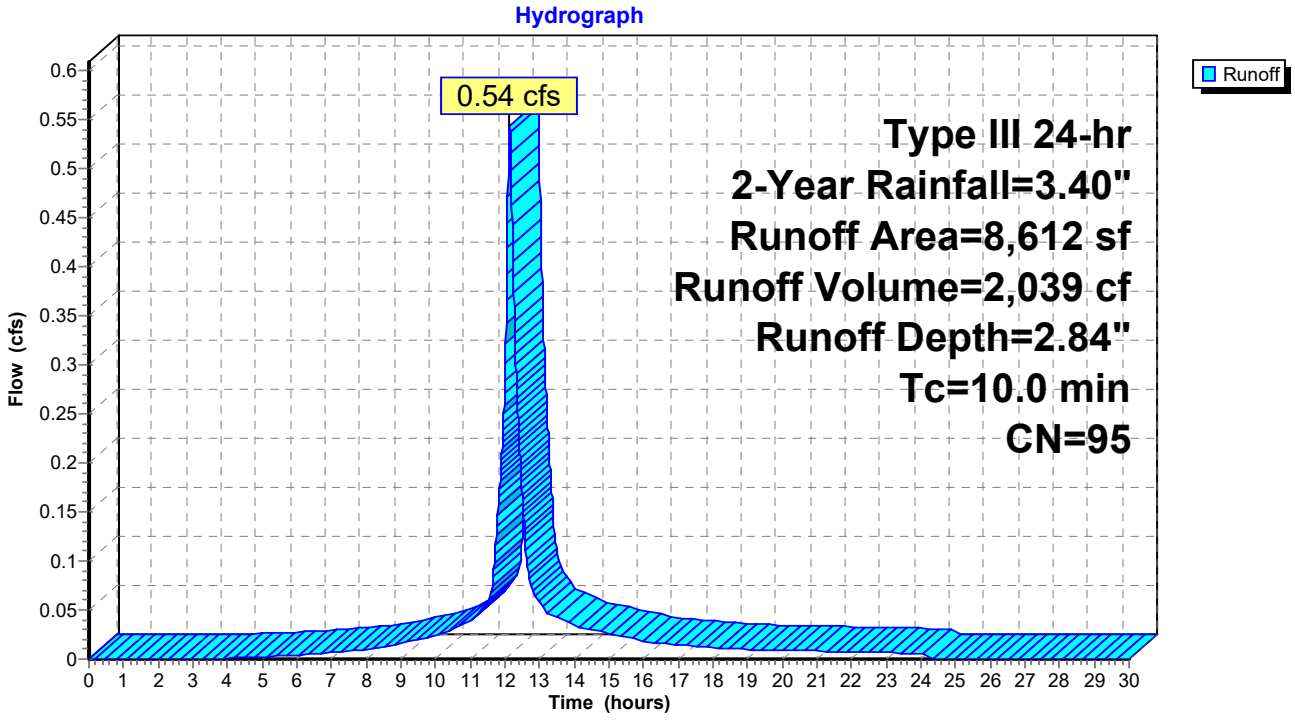
Runoff = 0.54 cfs @ 12.13 hrs, Volume= 2,039 cf, Depth= 2.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.40"

	Area (sf)	CN	Description
*	7,351	98	Driveway
*	1,261	76	Area behind wall
	8,612	95	Weighted Average
	1,261		14.64% Pervious Area
	7,351		85.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry, Overland Flow to Inlet**

Subcatchment 3S: DI-1 Driveway



Summary for Subcatchment 4S: TD Runoff to AS-4

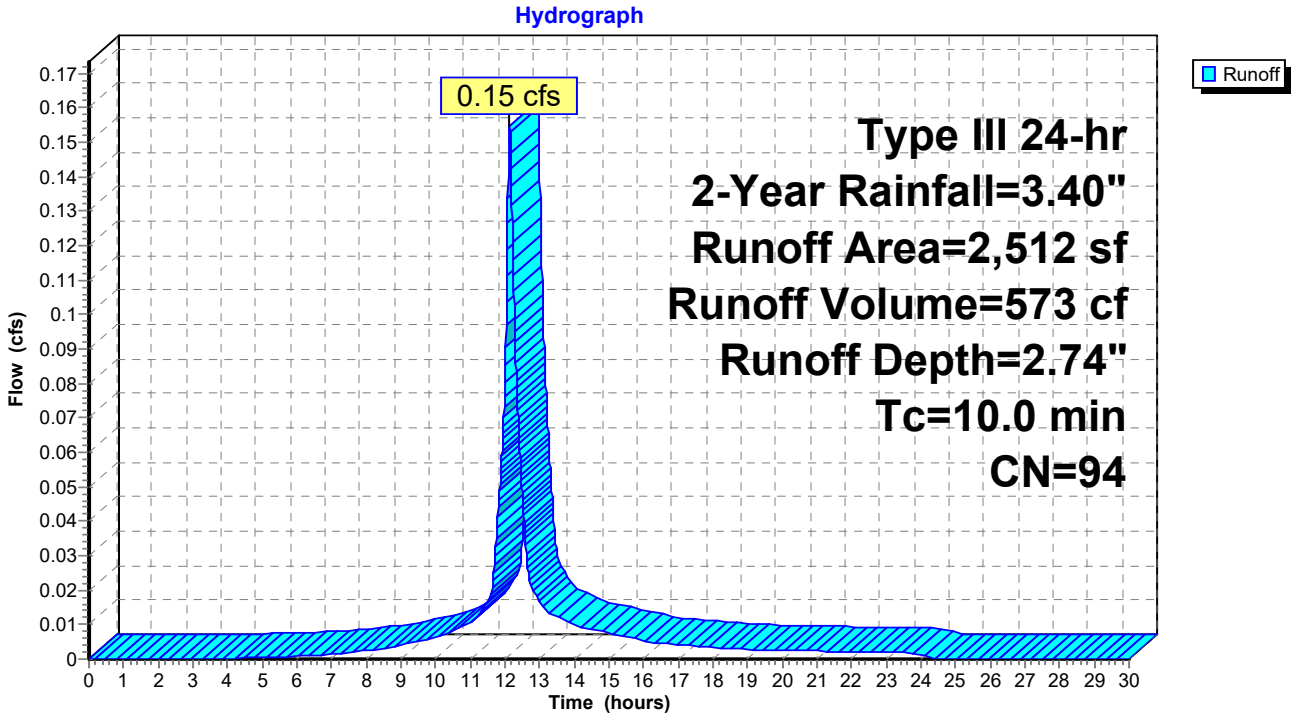
Runoff = 0.15 cfs @ 12.14 hrs, Volume= 573 cf, Depth= 2.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.40"

	Area (sf)	CN	Description
*	2,112	98	Dvwy to Trench Drain
*	400	76	Behind Bldg Bay 3-6
	2,512	94	Weighted Average
	400		15.92% Pervious Area
	2,112		84.08% Impervious Area

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

Subcatchment 4S: TD Runoff to AS-4



Summary for Subcatchment 6S: SW corner

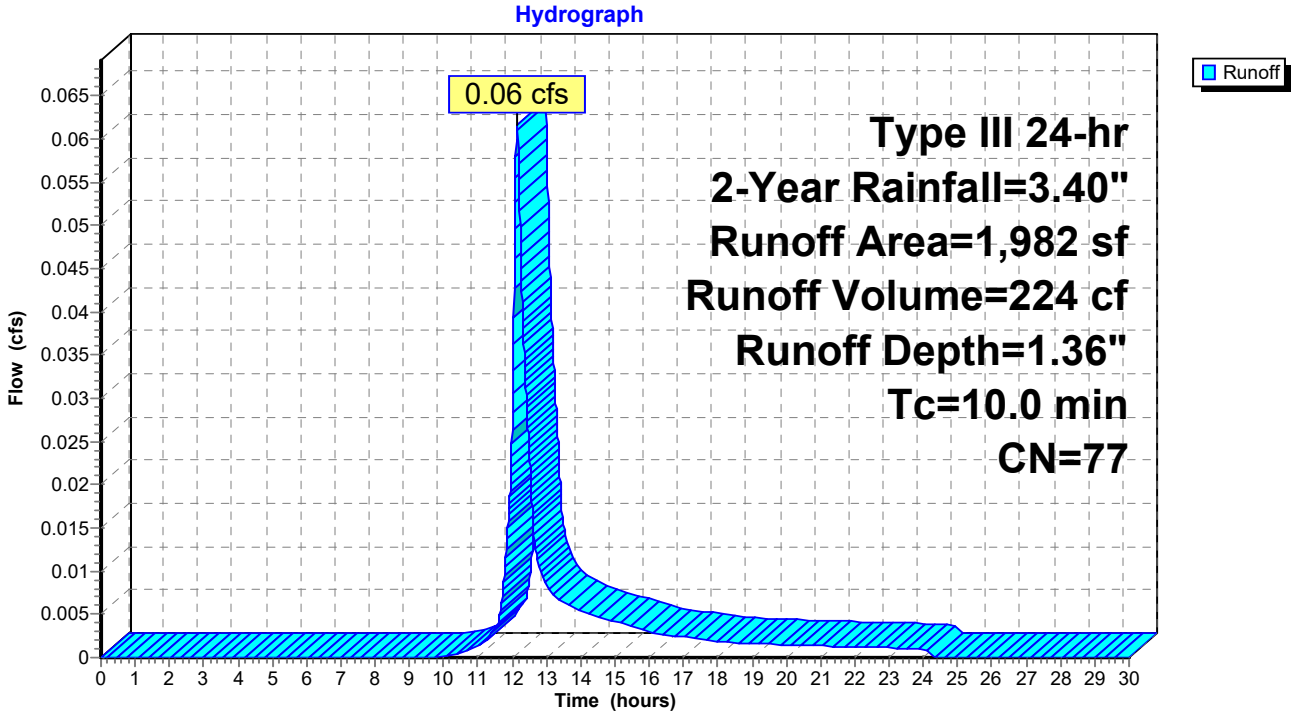
Runoff = 0.06 cfs @ 12.15 hrs, Volume= 224 cf, Depth= 1.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.40"

	Area (sf)	CN	Description
*	128	98	Impervious
*	311	76	Landsacape area
*	1,543	76	Northerly landscape area
	1,982	77	Weighted Average
	1,854		93.54% Pervious Area
	128		6.46% Impervious Area

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

Subcatchment 6S: SW corner



Summary for Pond 6P: Stormtech SC740

Inflow Area = 12,212 sf, 89.67% Impervious, Inflow Depth = 2.94" for 2-Year event
Inflow = 0.78 cfs @ 12.13 hrs, Volume= 2,989 cf
Outflow = 0.73 cfs @ 12.17 hrs, Volume= 2,989 cf, Atten= 7%, Lag= 2.4 min
Primary = 0.73 cfs @ 12.17 hrs, Volume= 2,989 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 201.43' @ 12.17 hrs Surf.Area= 461 sf Storage= 176 cf

Plug-Flow detention time= 12.1 min calculated for 2,989 cf (100% of inflow)
Center-of-Mass det. time= 12.1 min (787.3 - 775.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	200.40'	0 cf	**15.29'W x 30.13'L x 3.67'H Field A** 1,689 cf Overall - 1,071 cf Embedded = 618 cf x 0.0% Voids
#2A	200.90'	666 cf	**StormTrap ST1 SingleTrap 2-0** x 4 Inside #1 Inside= 82.7"W x 24.0"H => 11.84 sf x 14.06'L = 166.5 cf Outside= 82.7"W x 32.0"H => 18.39 sf x 14.06'L = 258.6 cf 4 Chambers in 2 Rows 13.79' x 28.13' Core + 0.00' x 0.50' Border = 13.79' x 29.13' System
		666 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	200.90'	**8.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.73 cfs @ 12.17 hrs HW=201.43' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.73 cfs @ 2.47 fps)

Pond 6P: Stormtech SC740 - Chamber Wizard Field A

Chamber Model = StormTrap ST1 SingleTrap 2-0 (StormTrap ST1 SingleTrap® Type VI)
Inside= 82.7"W x 24.0"H => 11.84 sf x 14.06'L = 166.5 cf
Outside= 82.7"W x 32.0"H => 18.39 sf x 14.06'L = 258.6 cf

82.7" Wide + 6.0" Spacing = 88.7" C-C Row Spacing

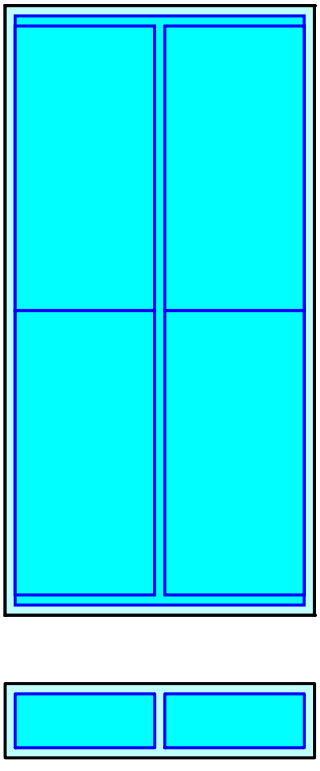
2 Chambers/Row x 14.06' Long = 28.13' Row Length +6.0" Border x 2 +6.0" End Stone x 2 = 30.13' Base Length
2 Rows x 82.7" Wide + 6.0" Spacing x 1 + 6.0" Side Stone x 2 = 15.29' Base Width
6.0" Base + 32.0" Chamber Height + 6.0" Cover = 3.67' Field Height

4 Chambers x 166.5 cf = 666.0 cf Chamber Storage
4 Chambers x 258.6 cf + 36.8 cf Border = 1,071.2 cf Displacement

1,689.1 cf Field - 1,071.2 cf Chambers = 617.9 cf Stone x 0.0% Voids = 0.0 cf Stone Storage

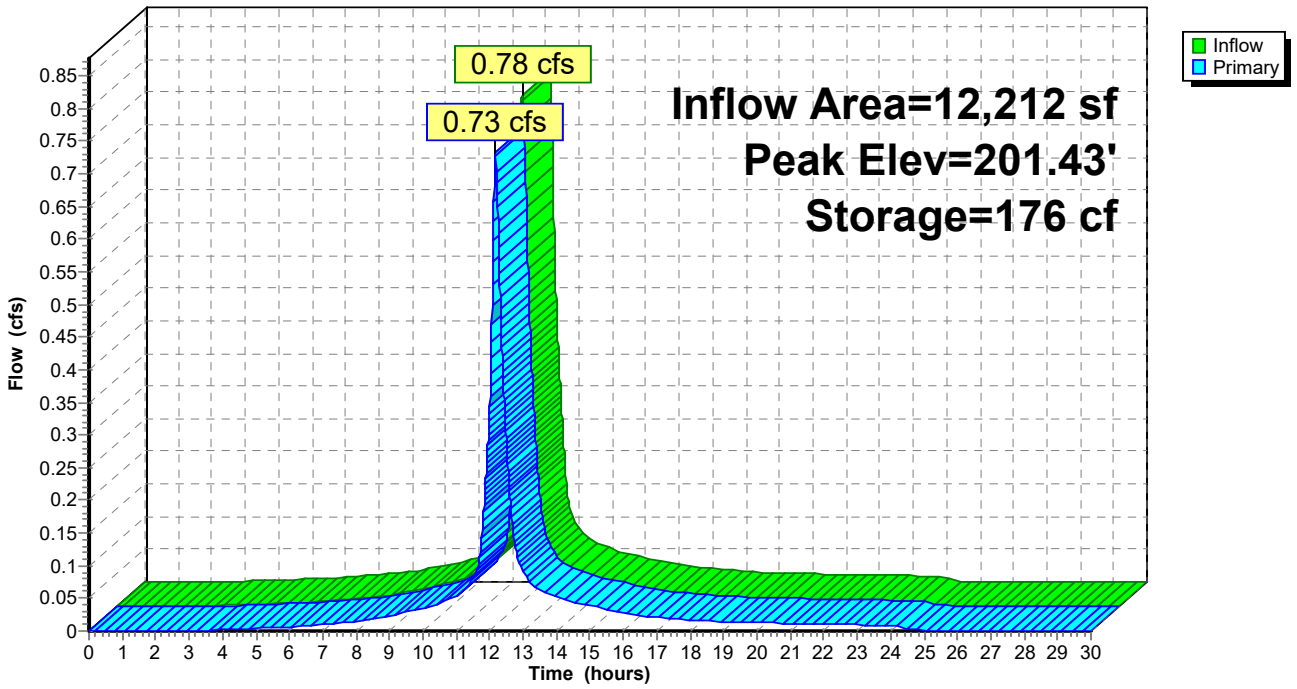
Chamber Storage = 666.0 cf = 0.015 af
Overall Storage Efficiency = 39.4%
Overall System Size = 30.13' x 15.29' x 3.67'

4 Chambers (plus border)
62.6 cy Field
22.9 cy Stone



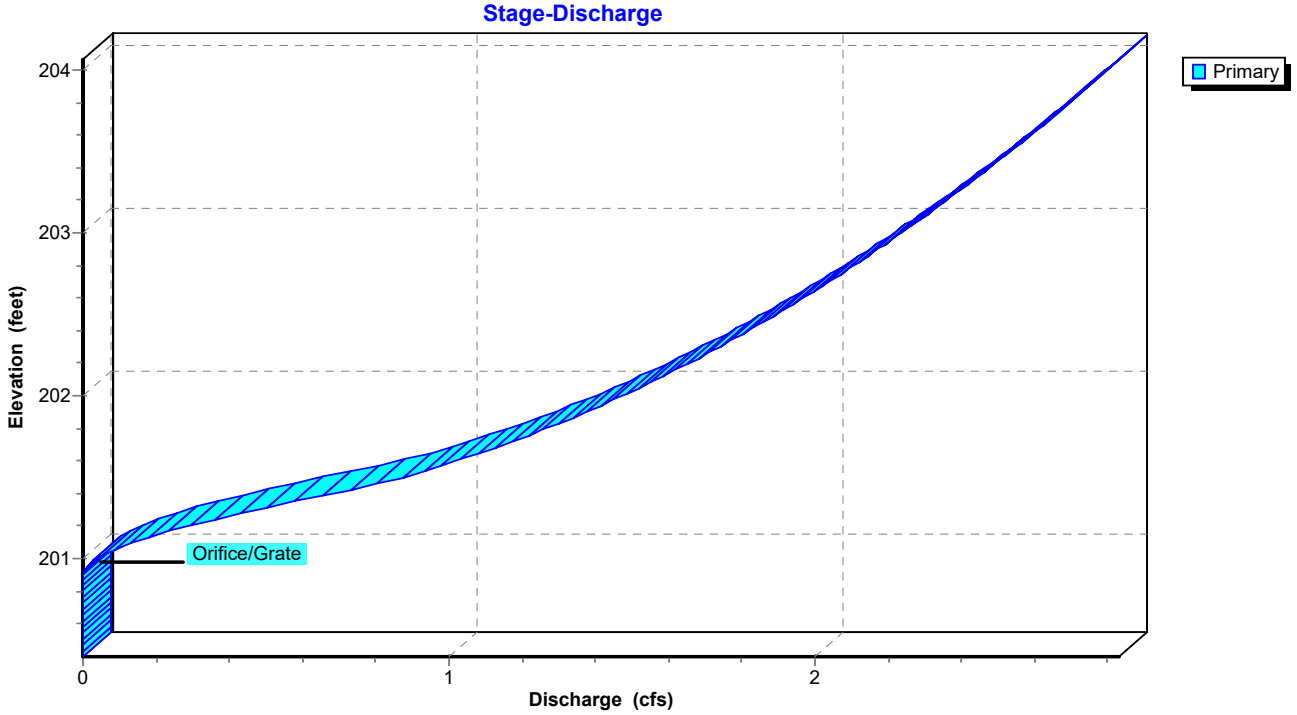
Pond 6P: Stormtech SC740

Hydrograph



Pond 6P: Stormtech SC740

Stage-Discharge



Summary for Pond AS4: AS-4 Aqua Swirl

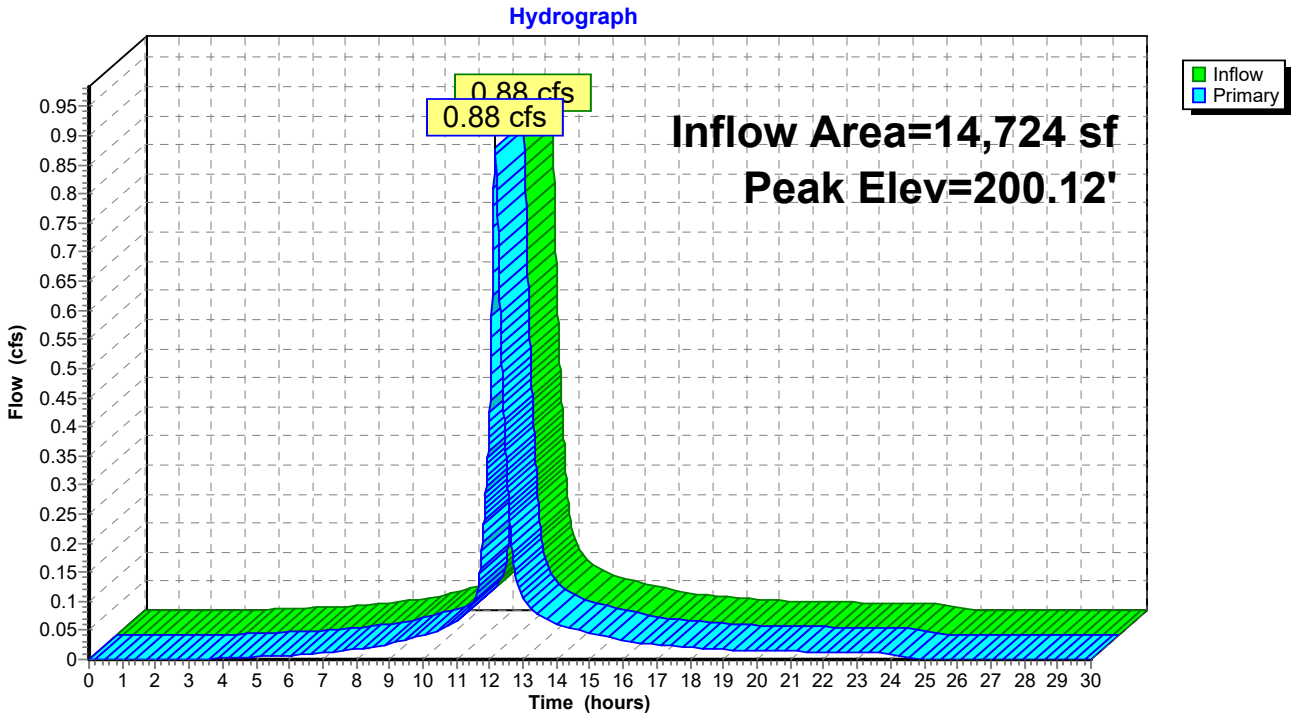
Inflow Area = 14,724 sf, 88.72% Impervious, Inflow Depth = 2.90" for 2-Year event
Inflow = 0.88 cfs @ 12.17 hrs, Volume= 3,562 cf
Outflow = 0.88 cfs @ 12.17 hrs, Volume= 3,562 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.88 cfs @ 12.17 hrs, Volume= 3,562 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 200.12' @ 12.17 hrs

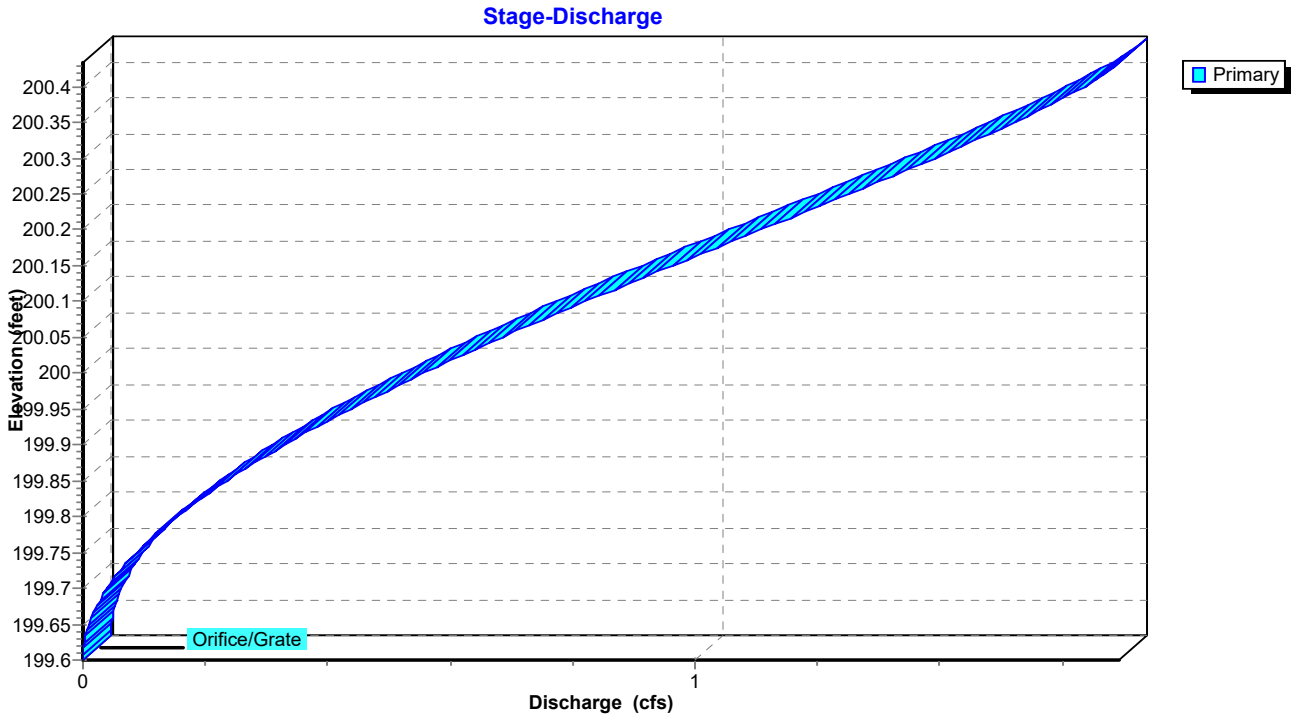
Device	Routing	Invert	Outlet Devices
#1	Primary	199.60'	**10.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.88 cfs @ 12.17 hrs HW=200.12' (Free Discharge)
1=Orifice/Grate (Orifice Controls 0.88 cfs @ 2.45 fps)

Pond AS4: AS-4 Aqua Swirl



Pond AS4: AS-4 Aqua Swirl

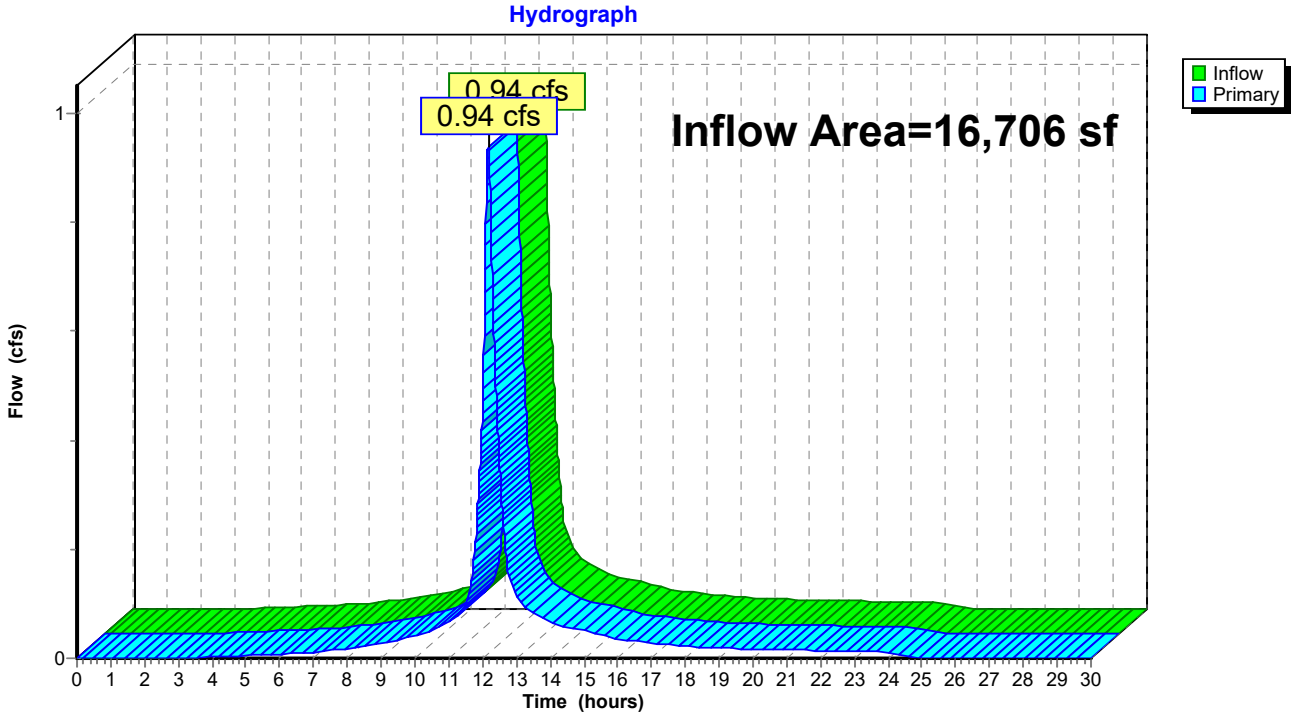


Summary for Link DP-1: Virginia Road

Inflow Area = 16,706 sf, 78.96% Impervious, Inflow Depth = 2.72" for 2-Year event
Inflow = 0.94 cfs @ 12.17 hrs, Volume= 3,786 cf
Primary = 0.94 cfs @ 12.17 hrs, Volume= 3,786 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Link DP-1: Virginia Road



Summary for Subcatchment 2S: Roof Leaders

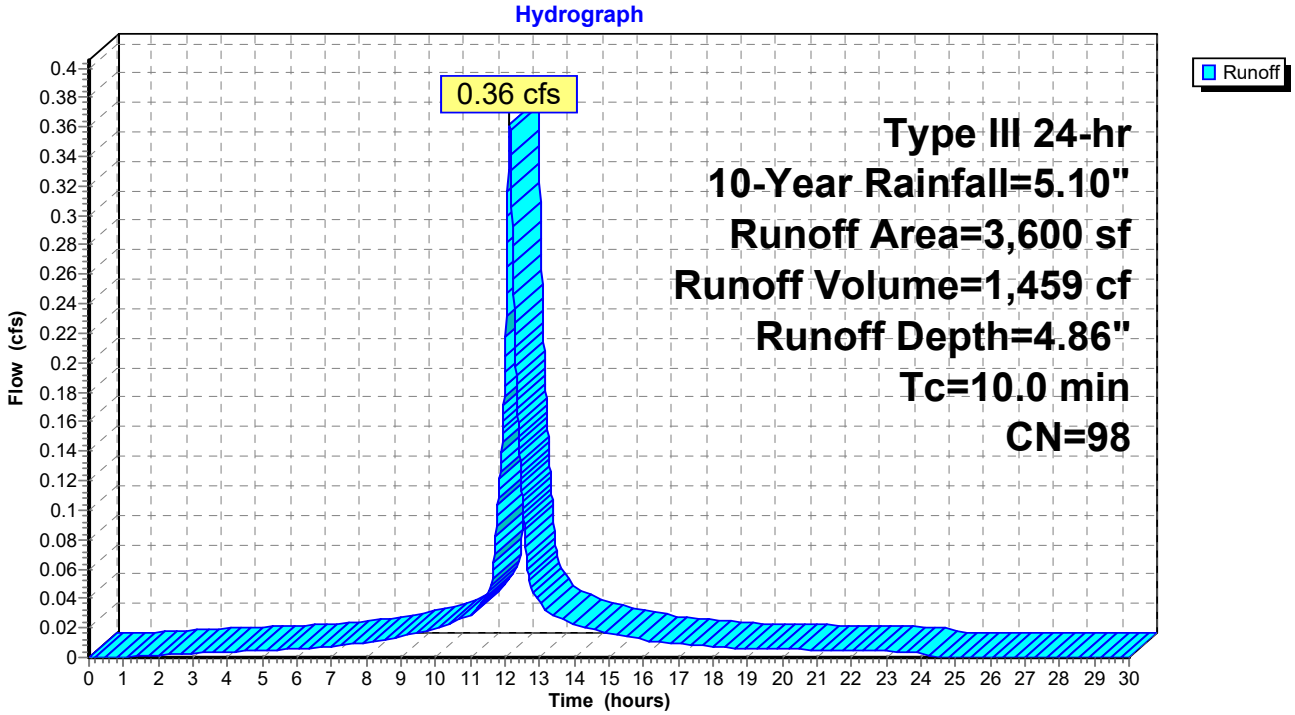
Runoff = 0.36 cfs @ 12.13 hrs, Volume= 1,459 cf, Depth= 4.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.10"

	Area (sf)	CN	Description
*	3,600	98	ROOF LEADERS
	3,600		100.00% Impervious Area

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

Subcatchment 2S: Roof Leaders



Summary for Subcatchment 3S: DI-1 Driveway

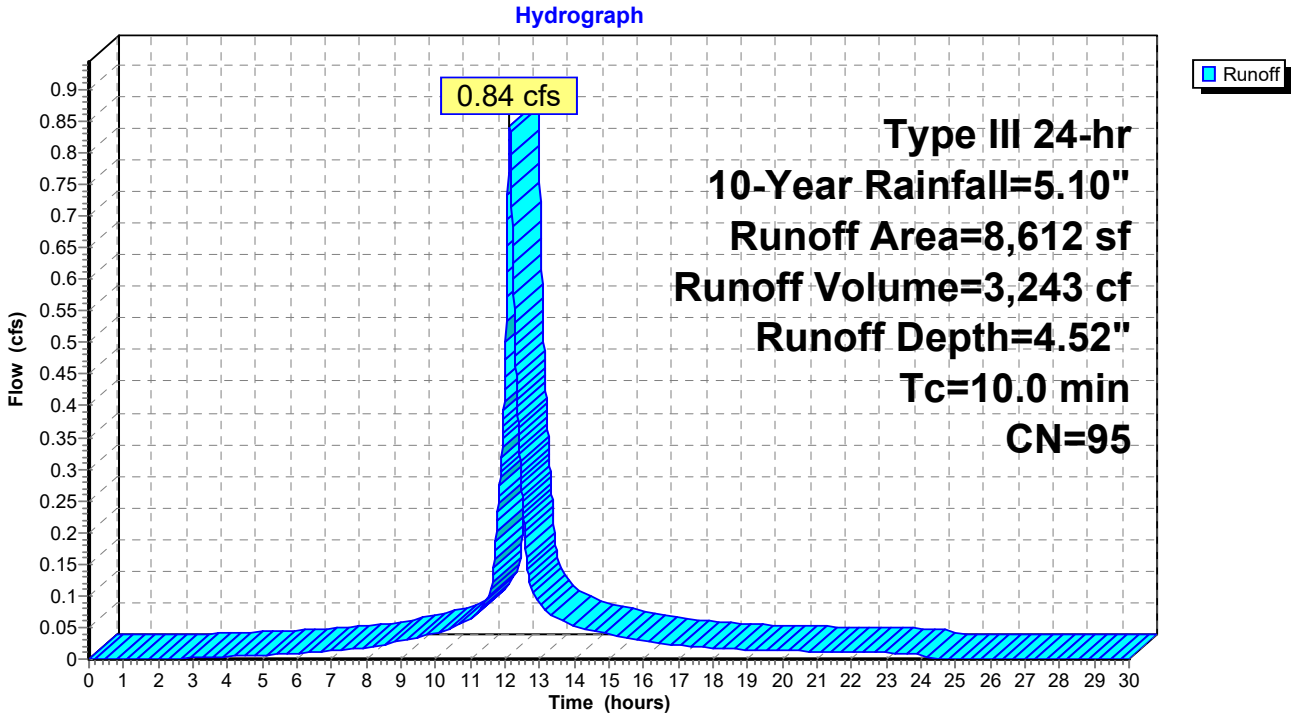
Runoff = 0.84 cfs @ 12.13 hrs, Volume= 3,243 cf, Depth= 4.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.10"

	Area (sf)	CN	Description
*	7,351	98	Driveway
*	1,261	76	Area behind wall
	8,612	95	Weighted Average
	1,261		14.64% Pervious Area
	7,351		85.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry, Overland Flow to Inlet**

Subcatchment 3S: DI-1 Driveway



Summary for Subcatchment 4S: TD Runoff to AS-4

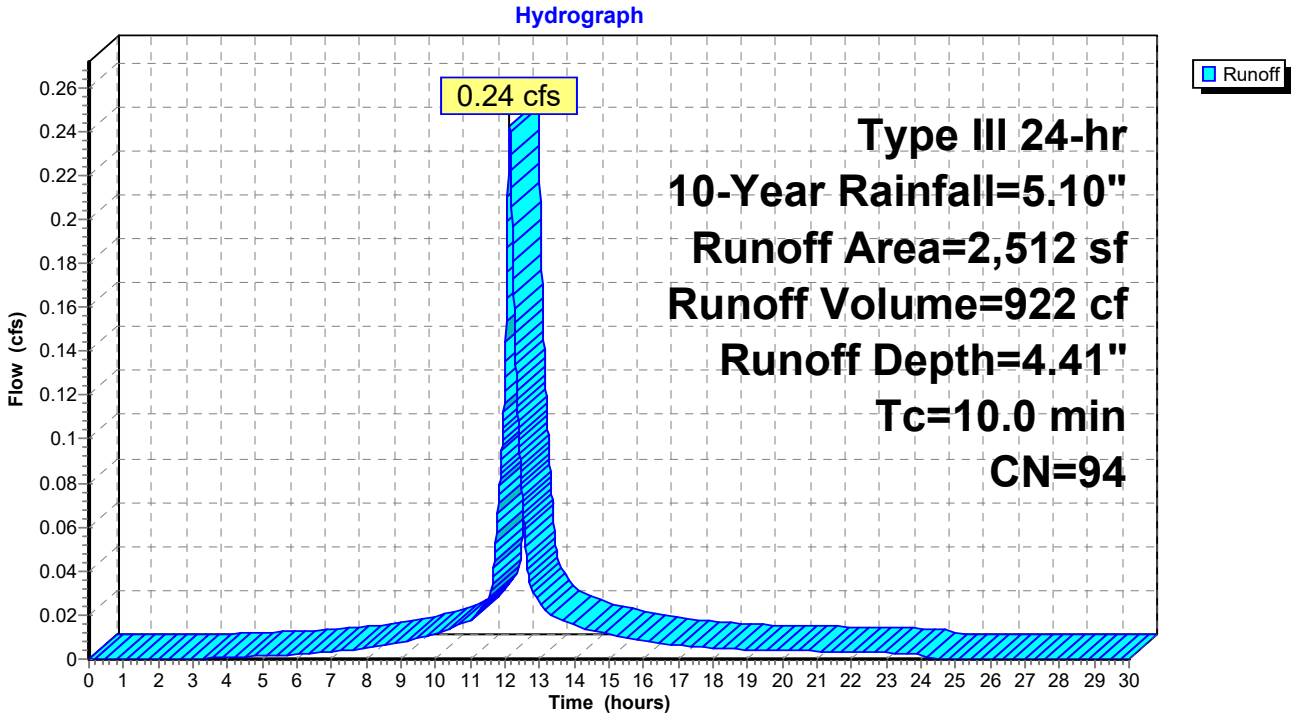
Runoff = 0.24 cfs @ 12.13 hrs, Volume= 922 cf, Depth= 4.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.10"

	Area (sf)	CN	Description
*	2,112	98	Dvwy to Trench Drain
*	400	76	Behind Bldg Bay 3-6
	2,512	94	Weighted Average
	400		15.92% Pervious Area
	2,112		84.08% Impervious Area

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

Subcatchment 4S: TD Runoff to AS-4



Summary for Subcatchment 6S: SW corner

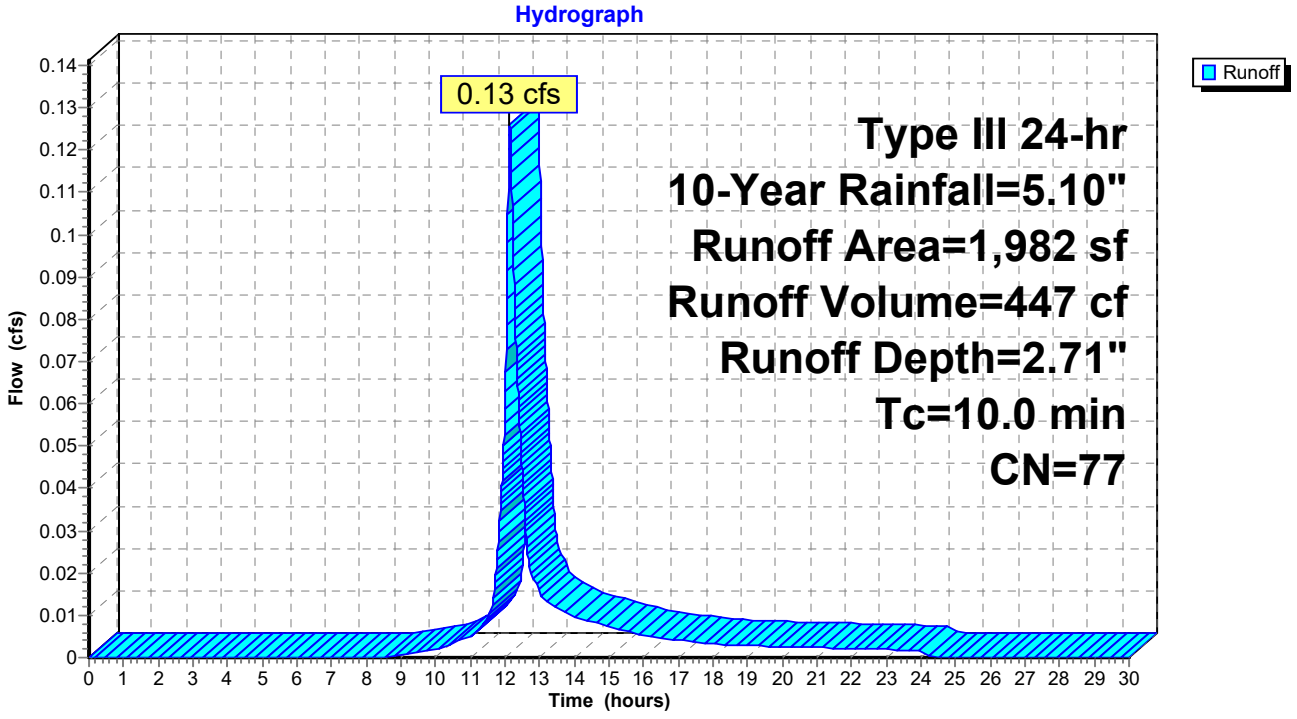
Runoff = 0.13 cfs @ 12.14 hrs, Volume= 447 cf, Depth= 2.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.10"

	Area (sf)	CN	Description
*	128	98	Impervious
*	311	76	Landsacape area
*	1,543	76	Northerly landscape area
	1,982	77	Weighted Average
	1,854		93.54% Pervious Area
	128		6.46% Impervious Area

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

Subcatchment 6S: SW corner



Summary for Pond 6P: Stormtech SC740

Inflow Area = 12,212 sf, 89.67% Impervious, Inflow Depth = 4.62" for 10-Year event
Inflow = 1.20 cfs @ 12.13 hrs, Volume= 4,702 cf
Outflow = 1.09 cfs @ 12.18 hrs, Volume= 4,701 cf, Atten= 10%, Lag= 2.9 min
Primary = 1.09 cfs @ 12.18 hrs, Volume= 4,701 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 201.65' @ 12.18 hrs Surf.Area= 461 sf Storage= 251 cf

Plug-Flow detention time= 10.1 min calculated for 4,701 cf (100% of inflow)
Center-of-Mass det. time= 10.0 min (775.2 - 765.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	200.40'	0 cf	**15.29'W x 30.13'L x 3.67'H Field A** 1,689 cf Overall - 1,071 cf Embedded = 618 cf x 0.0% Voids
#2A	200.90'	666 cf	**StormTrap ST1 SingleTrap 2-0** x 4 Inside #1 Inside= 82.7"W x 24.0"H => 11.84 sf x 14.06'L = 166.5 cf Outside= 82.7"W x 32.0"H => 18.39 sf x 14.06'L = 258.6 cf 4 Chambers in 2 Rows 13.79' x 28.13' Core + 0.00' x 0.50' Border = 13.79' x 29.13' System
		666 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	200.90'	**8.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=1.09 cfs @ 12.18 hrs HW=201.65' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 1.09 cfs @ 3.12 fps)

Pond 6P: Stormtech SC740 - Chamber Wizard Field A

Chamber Model = StormTrap ST1 SingleTrap 2-0 (StormTrap ST1 SingleTrap® Type VI)
Inside= 82.7"W x 24.0"H => 11.84 sf x 14.06'L = 166.5 cf
Outside= 82.7"W x 32.0"H => 18.39 sf x 14.06'L = 258.6 cf

82.7" Wide + 6.0" Spacing = 88.7" C-C Row Spacing

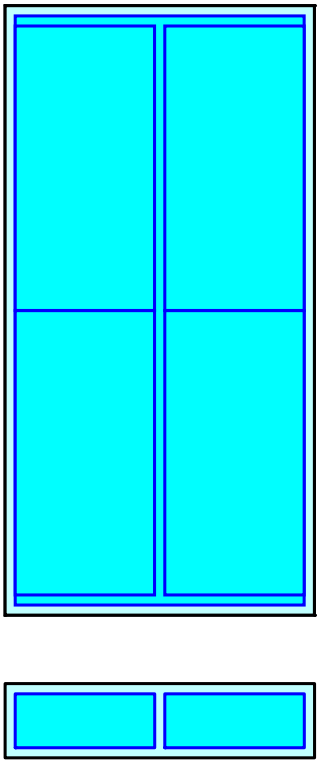
2 Chambers/Row x 14.06' Long = 28.13' Row Length +6.0" Border x 2 +6.0" End Stone x 2 = 30.13' Base Length
2 Rows x 82.7" Wide + 6.0" Spacing x 1 + 6.0" Side Stone x 2 = 15.29' Base Width
6.0" Base + 32.0" Chamber Height + 6.0" Cover = 3.67' Field Height

4 Chambers x 166.5 cf = 666.0 cf Chamber Storage
4 Chambers x 258.6 cf + 36.8 cf Border = 1,071.2 cf Displacement

1,689.1 cf Field - 1,071.2 cf Chambers = 617.9 cf Stone x 0.0% Voids = 0.0 cf Stone Storage

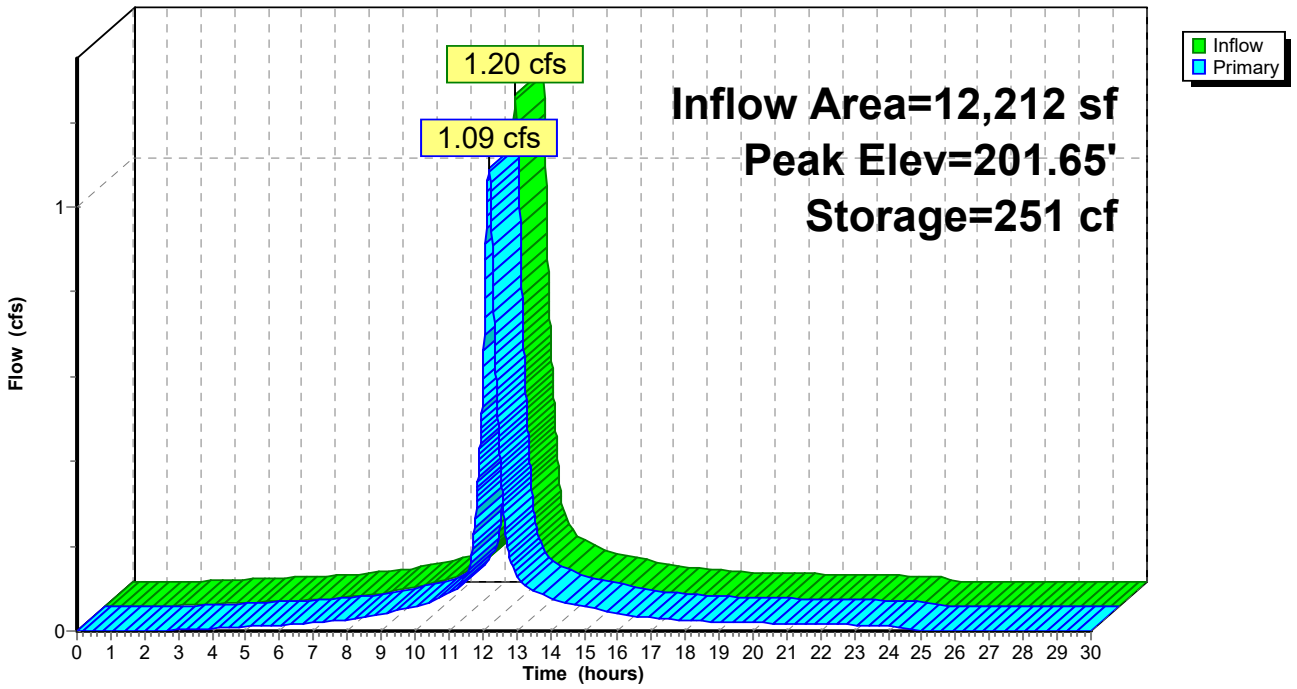
Chamber Storage = 666.0 cf = 0.015 af
Overall Storage Efficiency = 39.4%
Overall System Size = 30.13' x 15.29' x 3.67'

4 Chambers (plus border)
62.6 cy Field
22.9 cy Stone



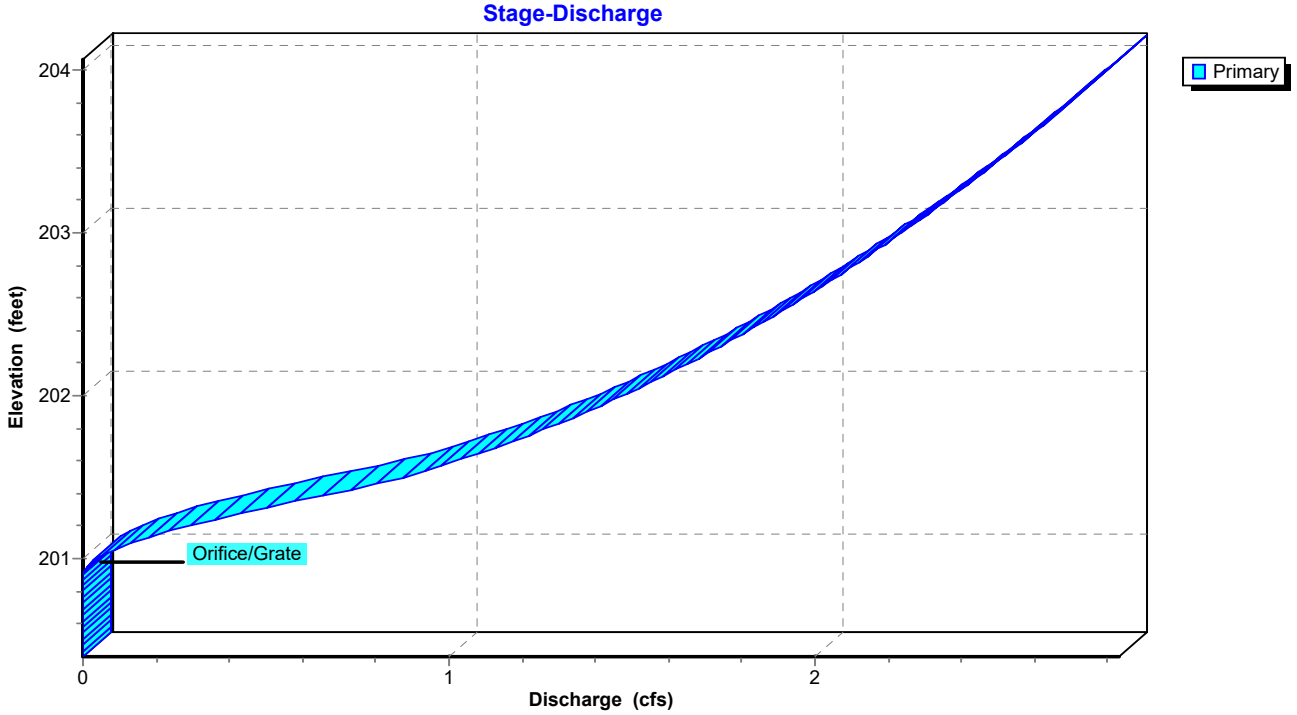
Pond 6P: Stormtech SC740

Hydrograph



Pond 6P: Stormtech SC740

Stage-Discharge



Summary for Pond AS4: AS-4 Aqua Swirl

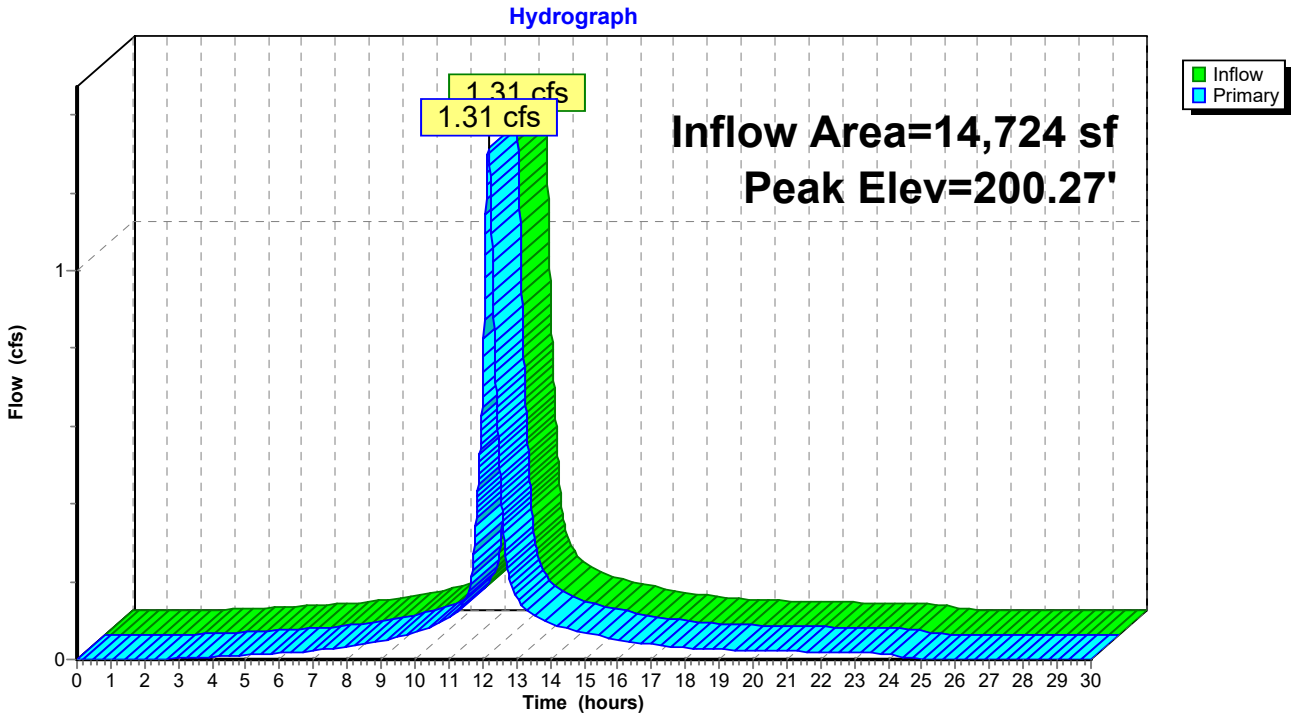
Inflow Area = 14,724 sf, 88.72% Impervious, Inflow Depth = 4.58" for 10-Year event
Inflow = 1.31 cfs @ 12.17 hrs, Volume= 5,624 cf
Outflow = 1.31 cfs @ 12.17 hrs, Volume= 5,624 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.31 cfs @ 12.17 hrs, Volume= 5,624 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 200.27' @ 12.17 hrs

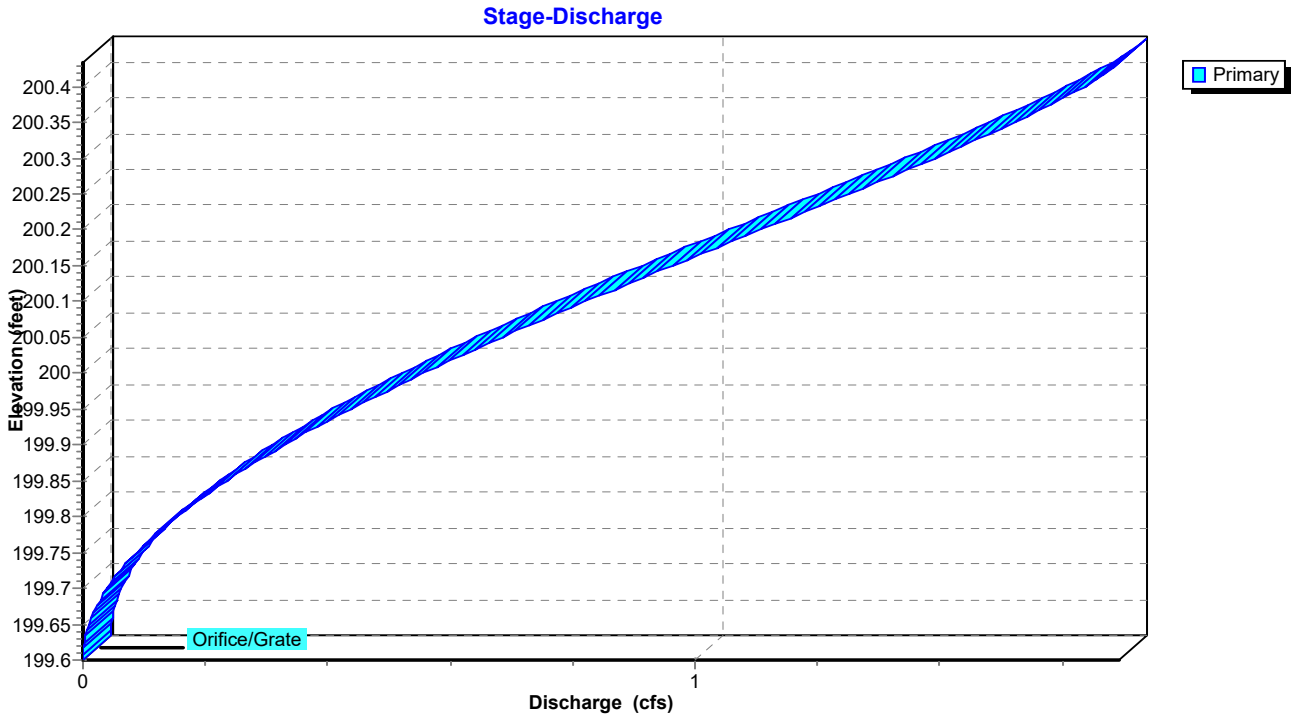
Device	Routing	Invert	Outlet Devices
#1	Primary	199.60'	**10.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=1.31 cfs @ 12.17 hrs HW=200.27' (Free Discharge)
1=Orifice/Grate (Orifice Controls 1.31 cfs @ 2.79 fps)

Pond AS4: AS-4 Aqua Swirl



Pond AS4: AS-4 Aqua Swirl

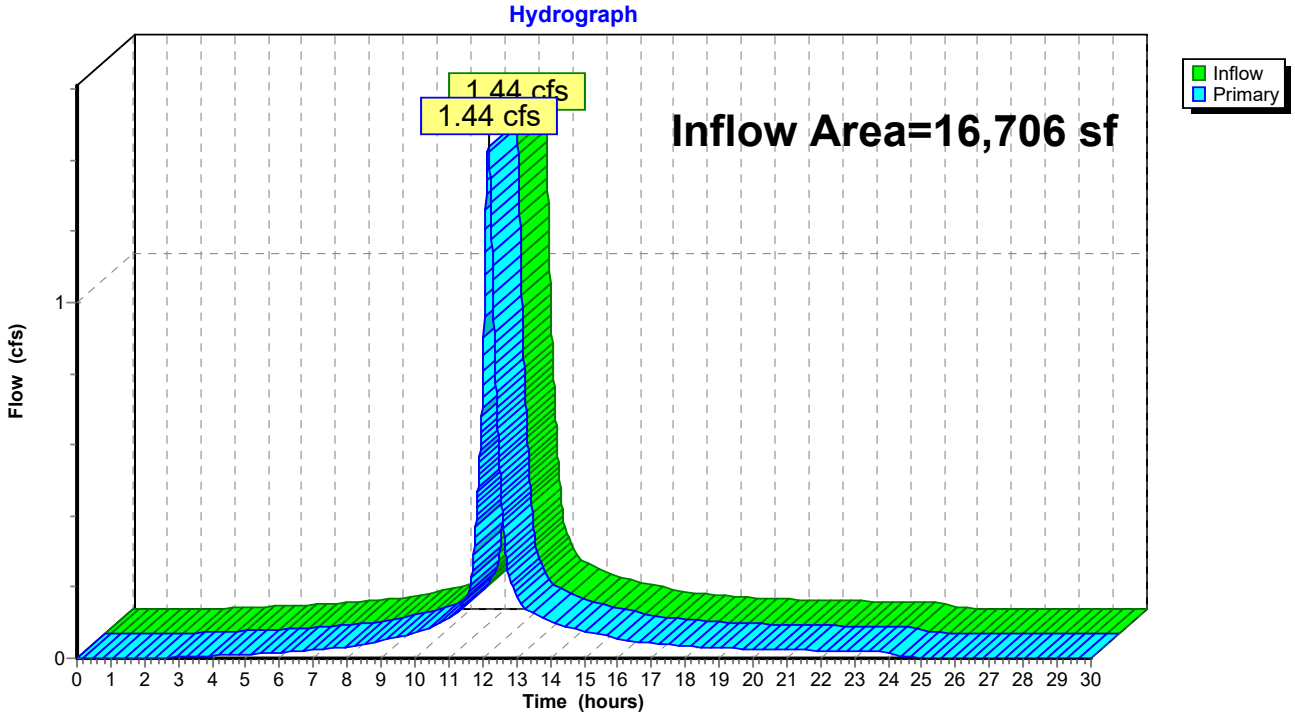


Summary for Link DP-1: Virginia Road

Inflow Area = 16,706 sf, 78.96% Impervious, Inflow Depth = 4.36" for 10-Year event
Inflow = 1.44 cfs @ 12.17 hrs, Volume= 6,071 cf
Primary = 1.44 cfs @ 12.17 hrs, Volume= 6,071 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Link DP-1: Virginia Road



Summary for Subcatchment 2S: Roof Leaders

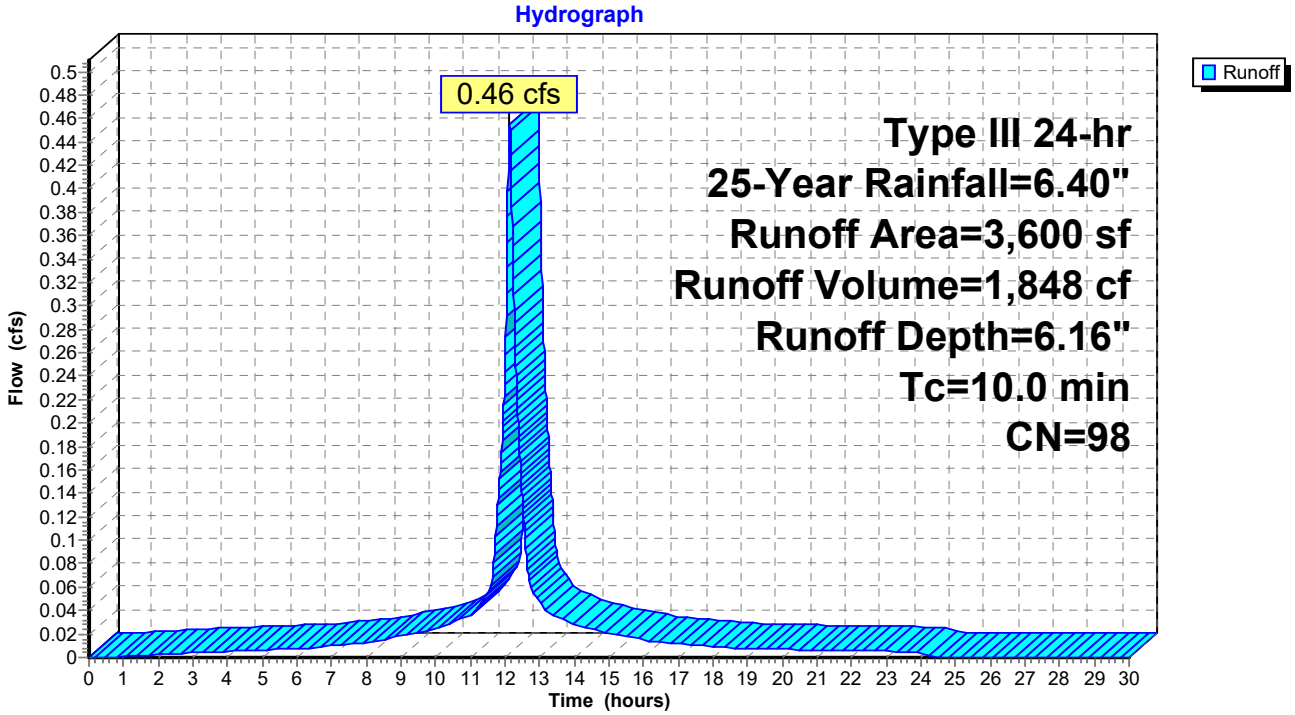
Runoff = 0.46 cfs @ 12.13 hrs, Volume= 1,848 cf, Depth= 6.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.40"

	Area (sf)	CN	Description
*	3,600	98	ROOF LEADERS
	3,600		100.00% Impervious Area

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

Subcatchment 2S: Roof Leaders



Summary for Subcatchment 3S: DI-1 Driveway

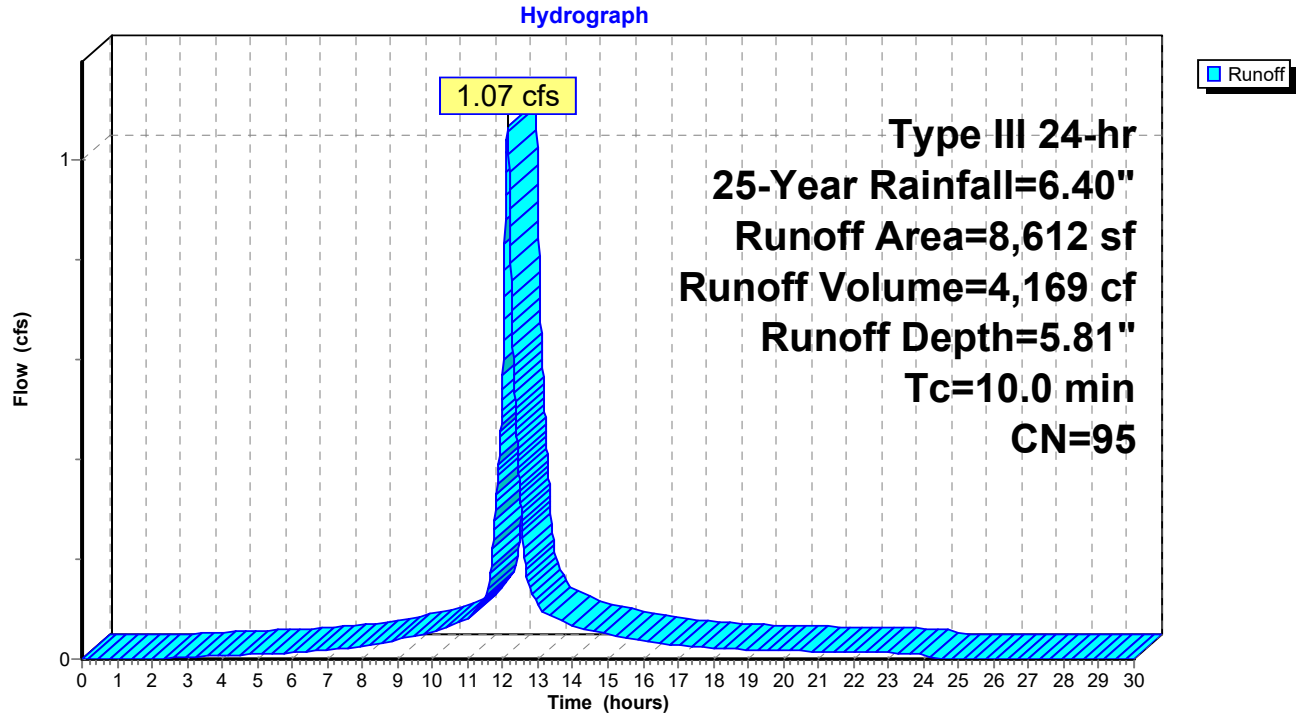
Runoff = 1.07 cfs @ 12.13 hrs, Volume= 4,169 cf, Depth= 5.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.40"

	Area (sf)	CN	Description
*	7,351	98	Driveway
*	1,261	76	Area behind wall
	8,612	95	Weighted Average
	1,261		14.64% Pervious Area
	7,351		85.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry, Overland Flow to Inlet**

Subcatchment 3S: DI-1 Driveway



Summary for Subcatchment 4S: TD Runoff to AS-4

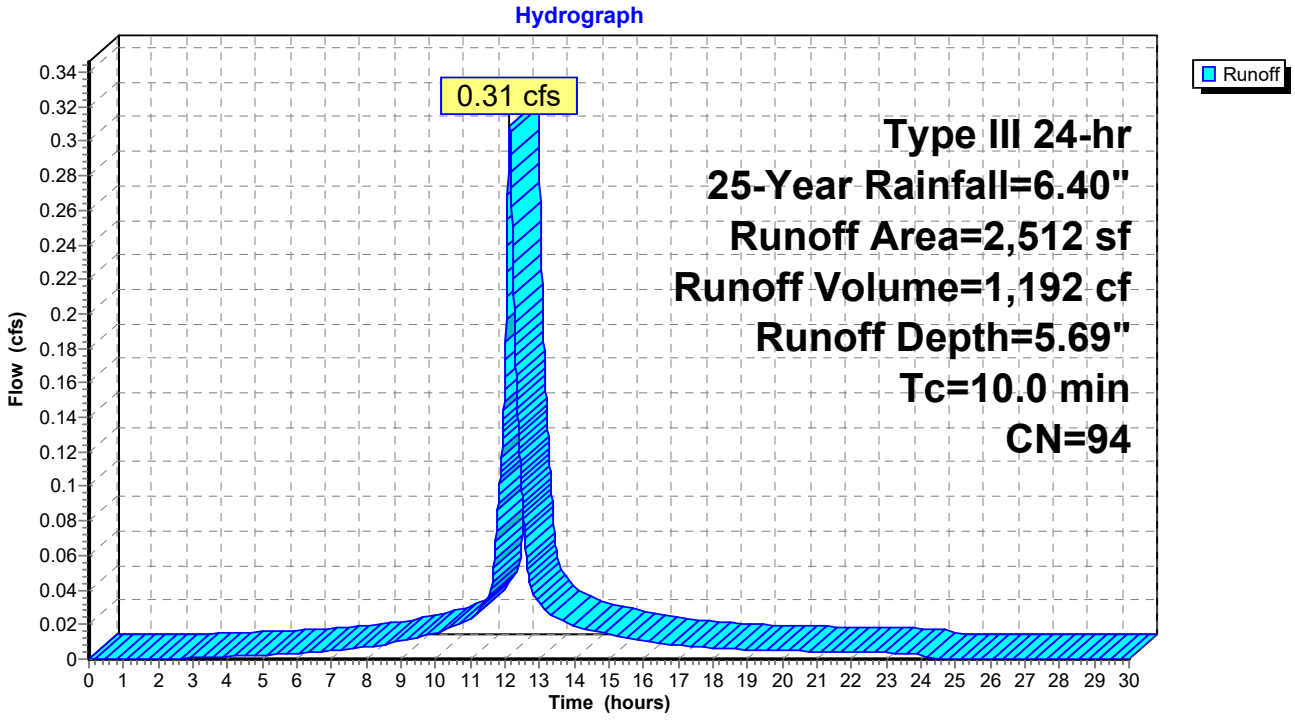
Runoff = 0.31 cfs @ 12.13 hrs, Volume= 1,192 cf, Depth= 5.69"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.40"

	Area (sf)	CN	Description
*	2,112	98	Dvwy to Trench Drain
*	400	76	Behind Bldg Bay 3-6
	2,512	94	Weighted Average
	400		15.92% Pervious Area
	2,112		84.08% Impervious Area

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

Subcatchment 4S: TD Runoff to AS-4



Summary for Subcatchment 6S: SW corner

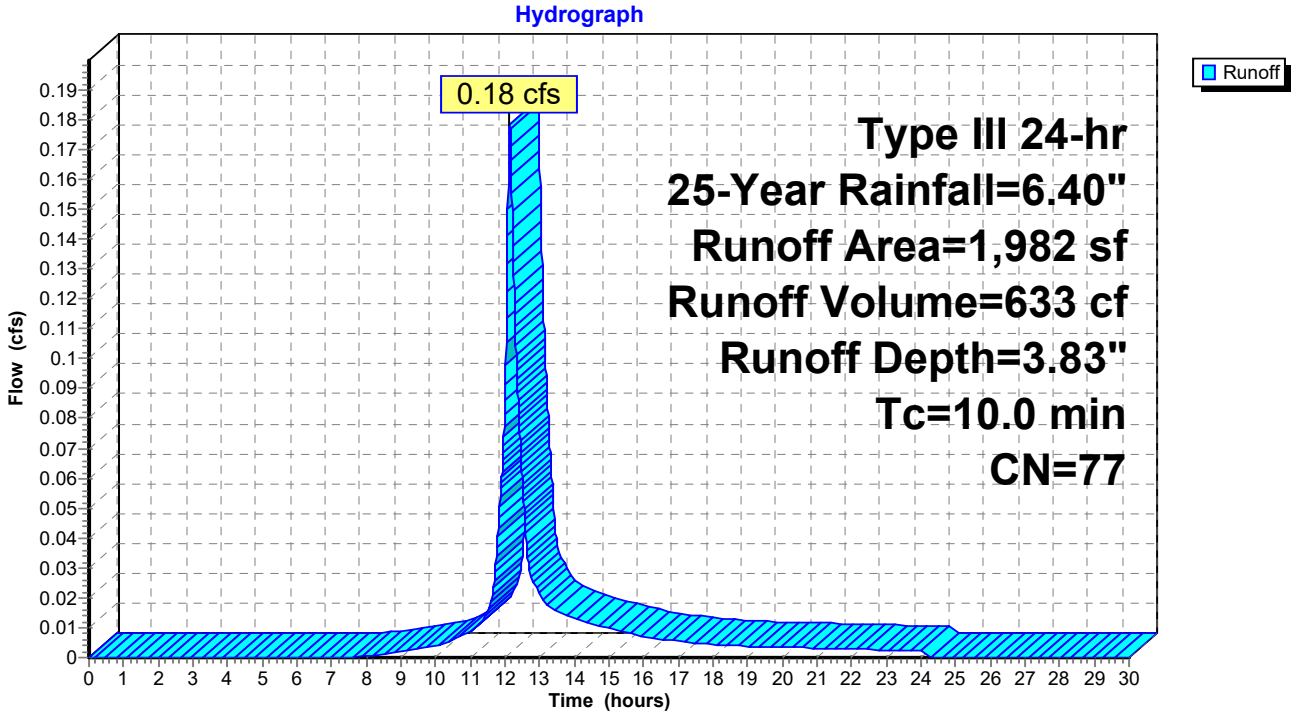
Runoff = 0.18 cfs @ 12.14 hrs, Volume= 633 cf, Depth= 3.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.40"

	Area (sf)	CN	Description
*	128	98	Impervious
*	311	76	Landsacape area
*	1,543	76	Northerly landscape area
	1,982	77	Weighted Average
	1,854		93.54% Pervious Area
	128		6.46% Impervious Area

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

Subcatchment 6S: SW corner



Summary for Pond 6P: Stormtech SC740

Inflow Area = 12,212 sf, 89.67% Impervious, Inflow Depth = 5.91" for 25-Year event
Inflow = 1.52 cfs @ 12.13 hrs, Volume= 6,017 cf
Outflow = 1.34 cfs @ 12.19 hrs, Volume= 6,017 cf, Atten= 12%, Lag= 3.4 min
Primary = 1.34 cfs @ 12.19 hrs, Volume= 6,017 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 201.87' @ 12.19 hrs Surf.Area= 461 sf Storage= 324 cf

Plug-Flow detention time= 9.2 min calculated for 6,017 cf (100% of inflow)
Center-of-Mass det. time= 9.1 min (769.4 - 760.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	200.40'	0 cf	**15.29'W x 30.13'L x 3.67'H Field A** 1,689 cf Overall - 1,071 cf Embedded = 618 cf x 0.0% Voids
#2A	200.90'	666 cf	**StormTrap ST1 SingleTrap 2-0** x 4 Inside #1 Inside= 82.7"W x 24.0"H => 11.84 sf x 14.06'L = 166.5 cf Outside= 82.7"W x 32.0"H => 18.39 sf x 14.06'L = 258.6 cf 4 Chambers in 2 Rows 13.79' x 28.13' Core + 0.00' x 0.50' Border = 13.79' x 29.13' System
		666 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	200.90'	**8.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=1.34 cfs @ 12.19 hrs HW=201.87' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 1.34 cfs @ 3.85 fps)

Pond 6P: Stormtech SC740 - Chamber Wizard Field A

Chamber Model = StormTrap ST1 SingleTrap 2-0 (StormTrap ST1 SingleTrap® Type VI)
Inside= 82.7"W x 24.0"H => 11.84 sf x 14.06'L = 166.5 cf
Outside= 82.7"W x 32.0"H => 18.39 sf x 14.06'L = 258.6 cf

82.7" Wide + 6.0" Spacing = 88.7" C-C Row Spacing

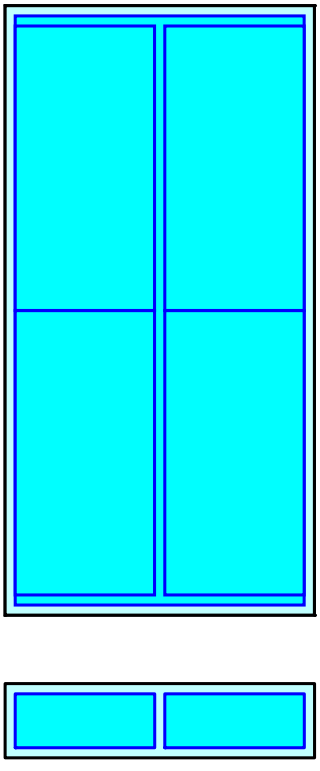
2 Chambers/Row x 14.06' Long = 28.13' Row Length +6.0" Border x 2 +6.0" End Stone x 2 = 30.13' Base Length
2 Rows x 82.7" Wide + 6.0" Spacing x 1 + 6.0" Side Stone x 2 = 15.29' Base Width
6.0" Base + 32.0" Chamber Height + 6.0" Cover = 3.67' Field Height

4 Chambers x 166.5 cf = 666.0 cf Chamber Storage
4 Chambers x 258.6 cf + 36.8 cf Border = 1,071.2 cf Displacement

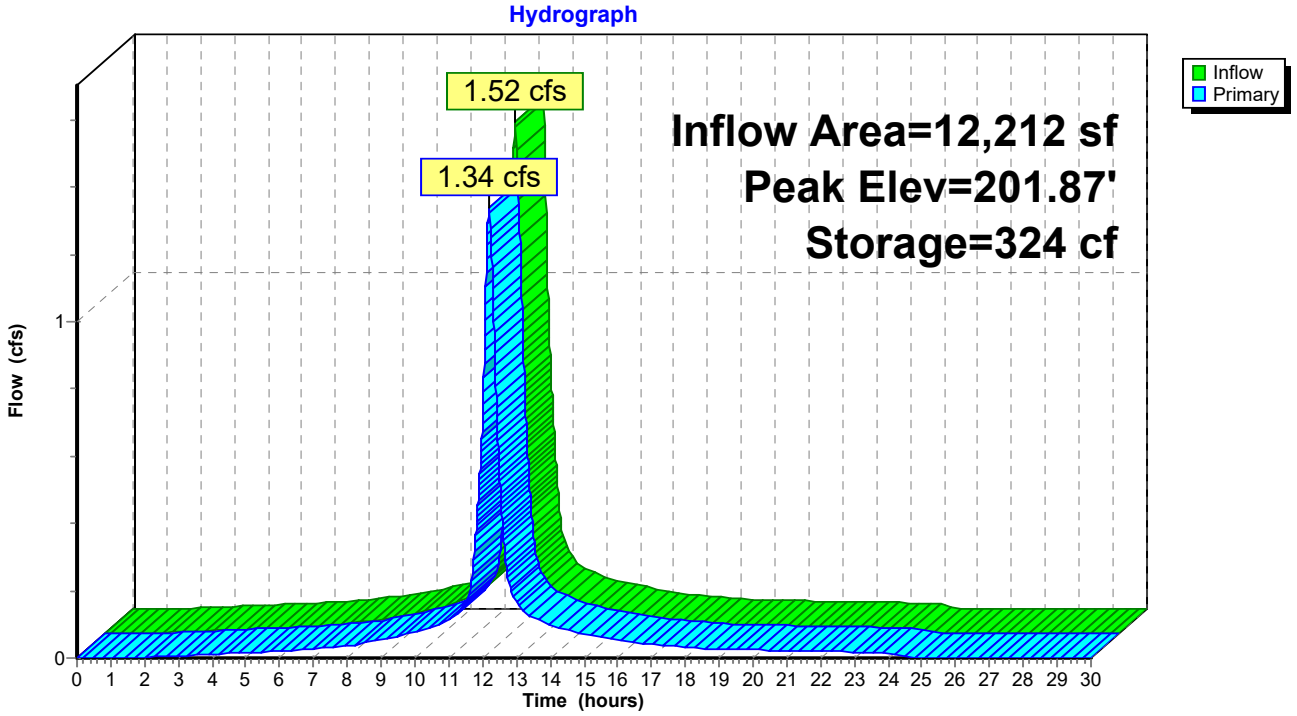
1,689.1 cf Field - 1,071.2 cf Chambers = 617.9 cf Stone x 0.0% Voids = 0.0 cf Stone Storage

Chamber Storage = 666.0 cf = 0.015 af
Overall Storage Efficiency = 39.4%
Overall System Size = 30.13' x 15.29' x 3.67'

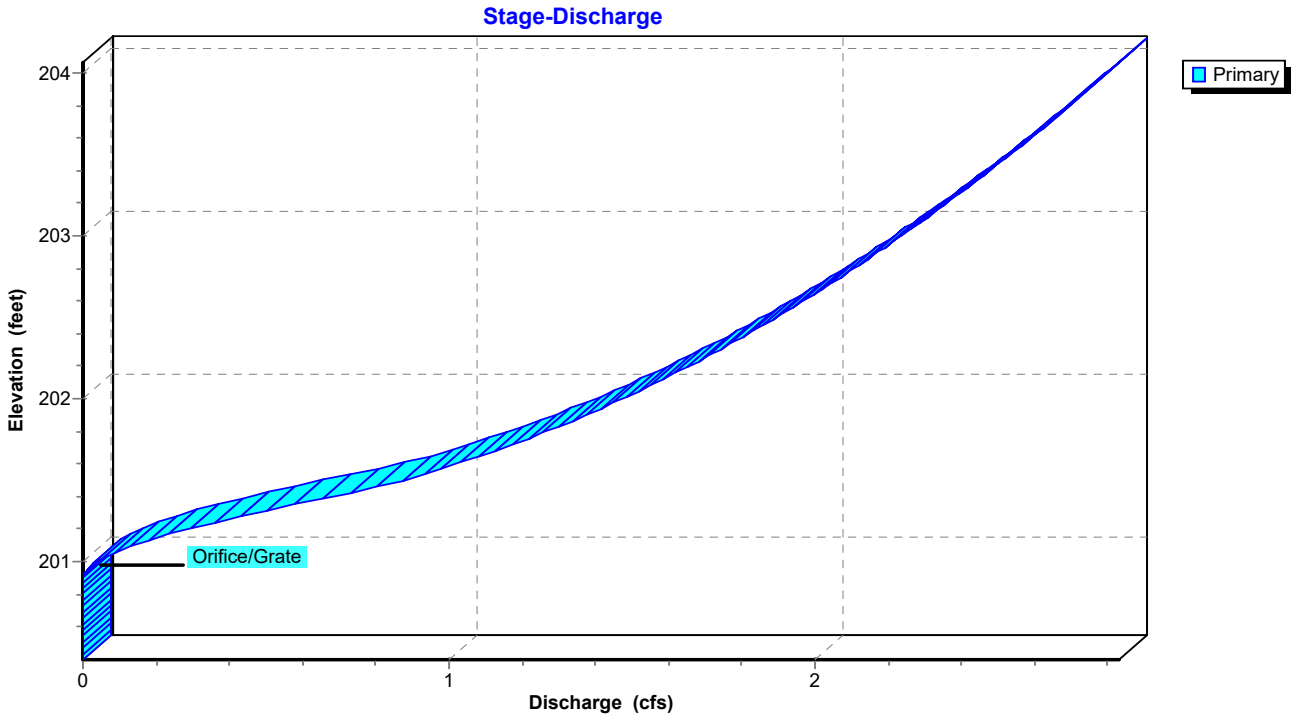
4 Chambers (plus border)
62.6 cy Field
22.9 cy Stone



Pond 6P: Stormtech SC740



Pond 6P: Stormtech SC740



Summary for Pond AS4: AS-4 Aqua Swirl

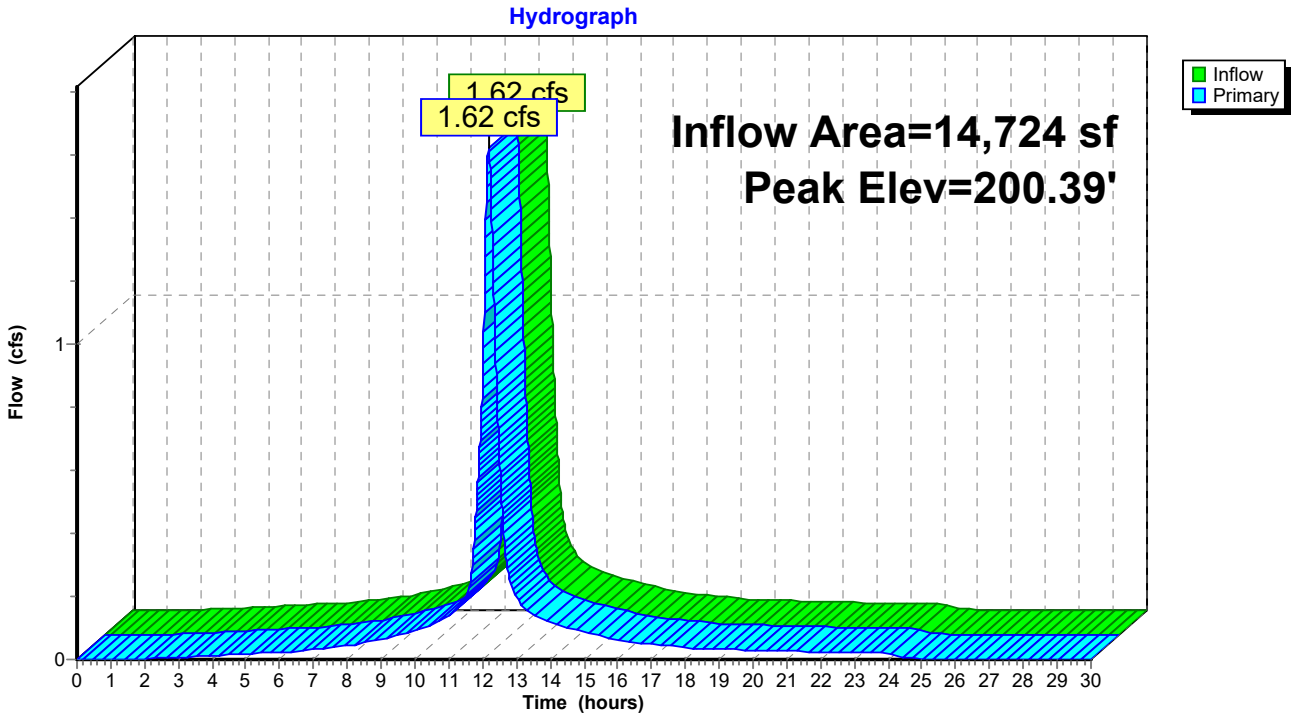
Inflow Area = 14,724 sf, 88.72% Impervious, Inflow Depth = 5.88" for 25-Year event
Inflow = 1.62 cfs @ 12.17 hrs, Volume= 7,209 cf
Outflow = 1.62 cfs @ 12.17 hrs, Volume= 7,209 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.62 cfs @ 12.17 hrs, Volume= 7,209 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 200.39' @ 12.17 hrs

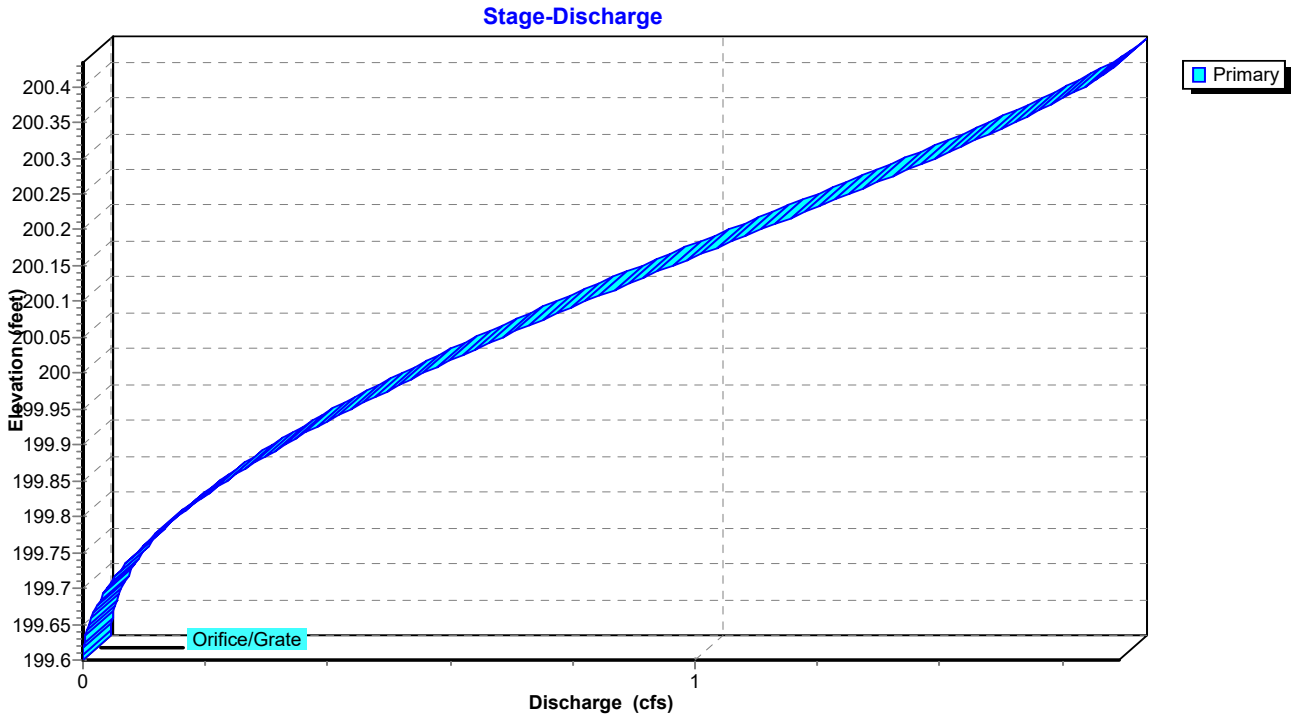
Device	Routing	Invert	Outlet Devices
#1	Primary	199.60'	**10.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=1.62 cfs @ 12.17 hrs HW=200.39' (Free Discharge)
1=Orifice/Grate (Orifice Controls 1.62 cfs @ 3.03 fps)

Pond AS4: AS-4 Aqua Swirl



Pond AS4: AS-4 Aqua Swirl

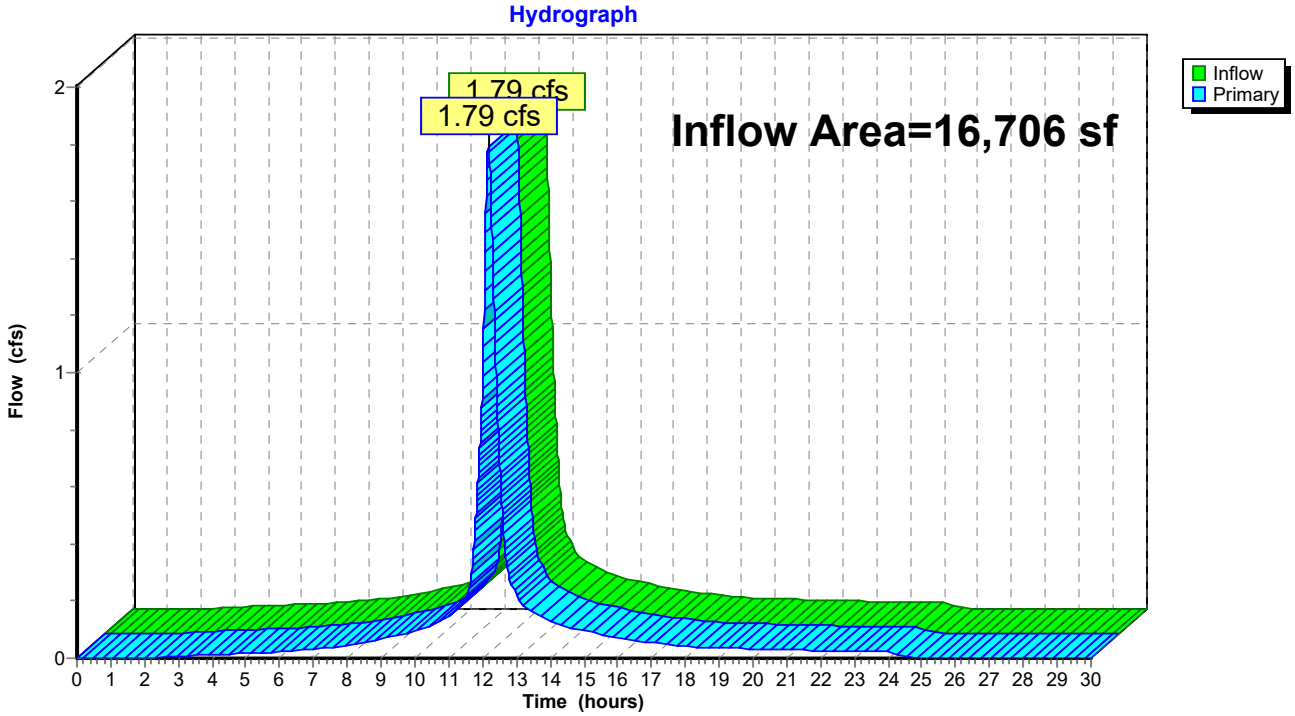


Summary for Link DP-1: Virginia Road

Inflow Area = 16,706 sf, 78.96% Impervious, Inflow Depth = 5.63" for 25-Year event
Inflow = 1.79 cfs @ 12.17 hrs, Volume= 7,841 cf
Primary = 1.79 cfs @ 12.17 hrs, Volume= 7,841 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Link DP-1: Virginia Road



Summary for Subcatchment 2S: Roof Leaders

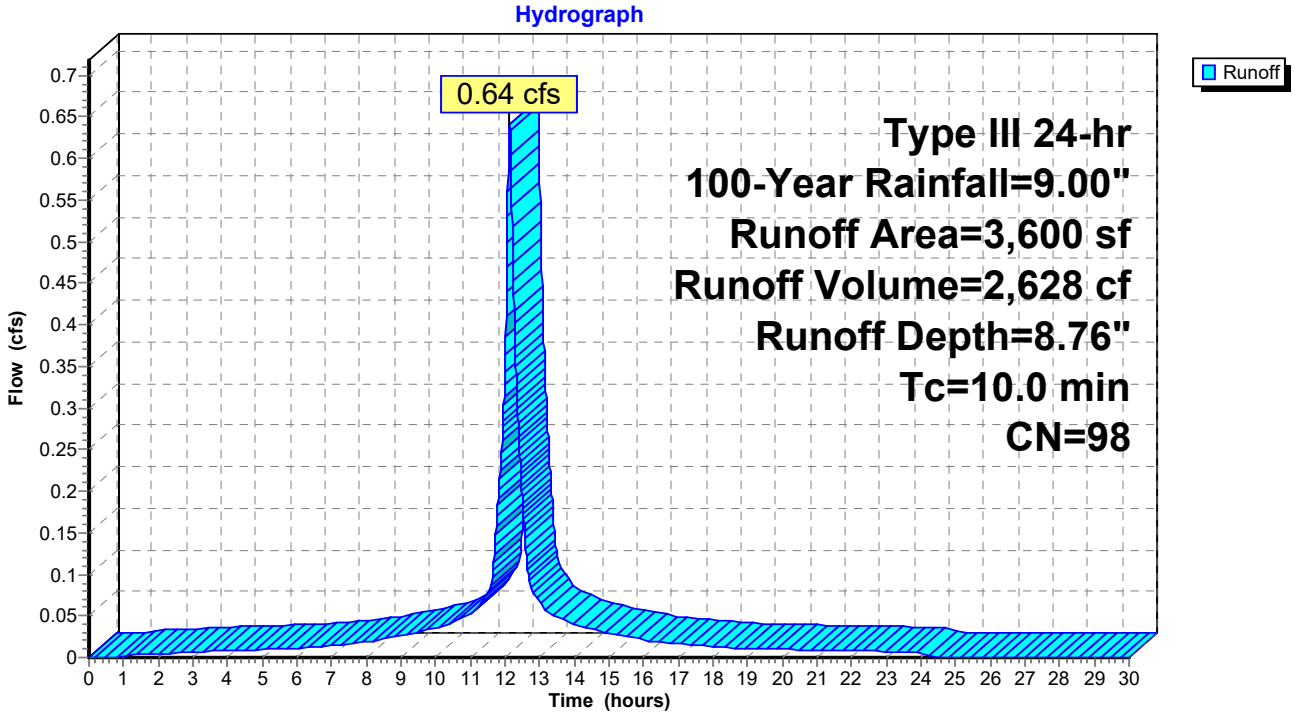
Runoff = 0.64 cfs @ 12.13 hrs, Volume= 2,628 cf, Depth= 8.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=9.00"

	Area (sf)	CN	Description
*	3,600	98	ROOF LEADERS
	3,600		100.00% Impervious Area

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

Subcatchment 2S: Roof Leaders



Summary for Subcatchment 3S: DI-1 Driveway

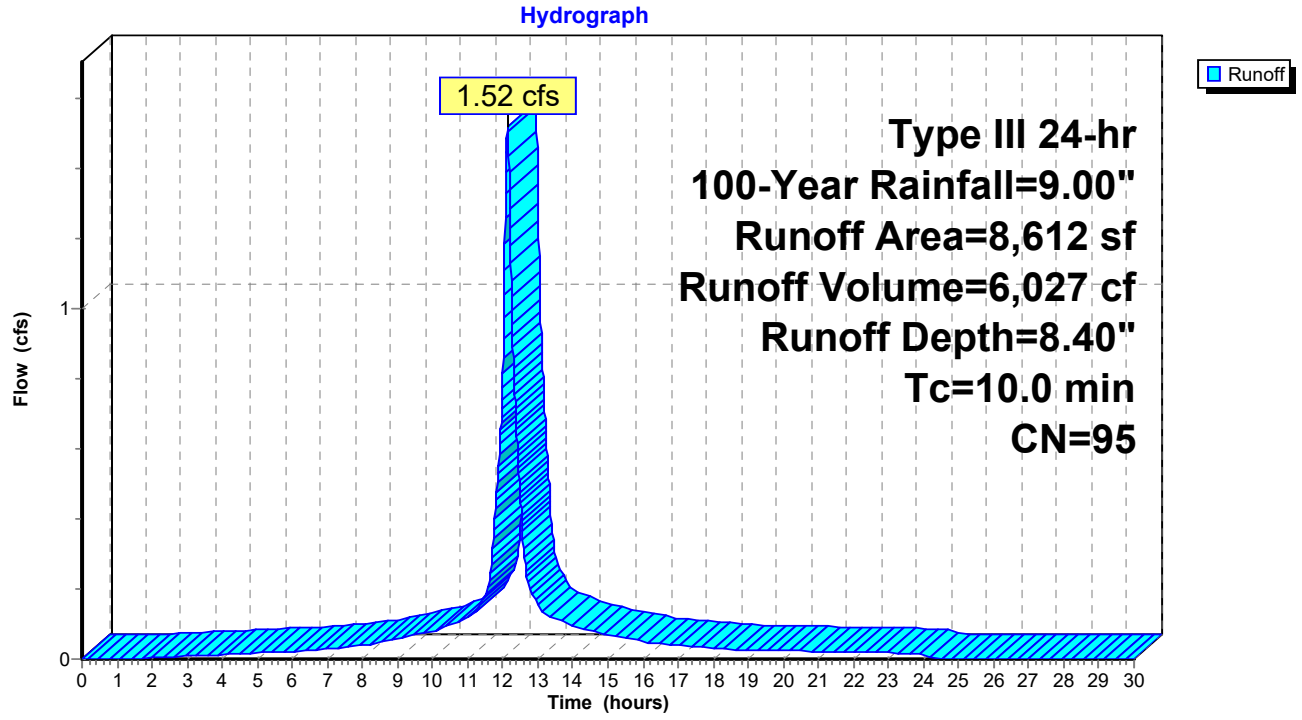
Runoff = 1.52 cfs @ 12.13 hrs, Volume= 6,027 cf, Depth= 8.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=9.00"

	Area (sf)	CN	Description
*	7,351	98	Driveway
*	1,261	76	Area behind wall
	8,612	95	Weighted Average
	1,261		14.64% Pervious Area
	7,351		85.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry, Overland Flow to Inlet**

Subcatchment 3S: DI-1 Driveway



Summary for Subcatchment 4S: TD Runoff to AS-4

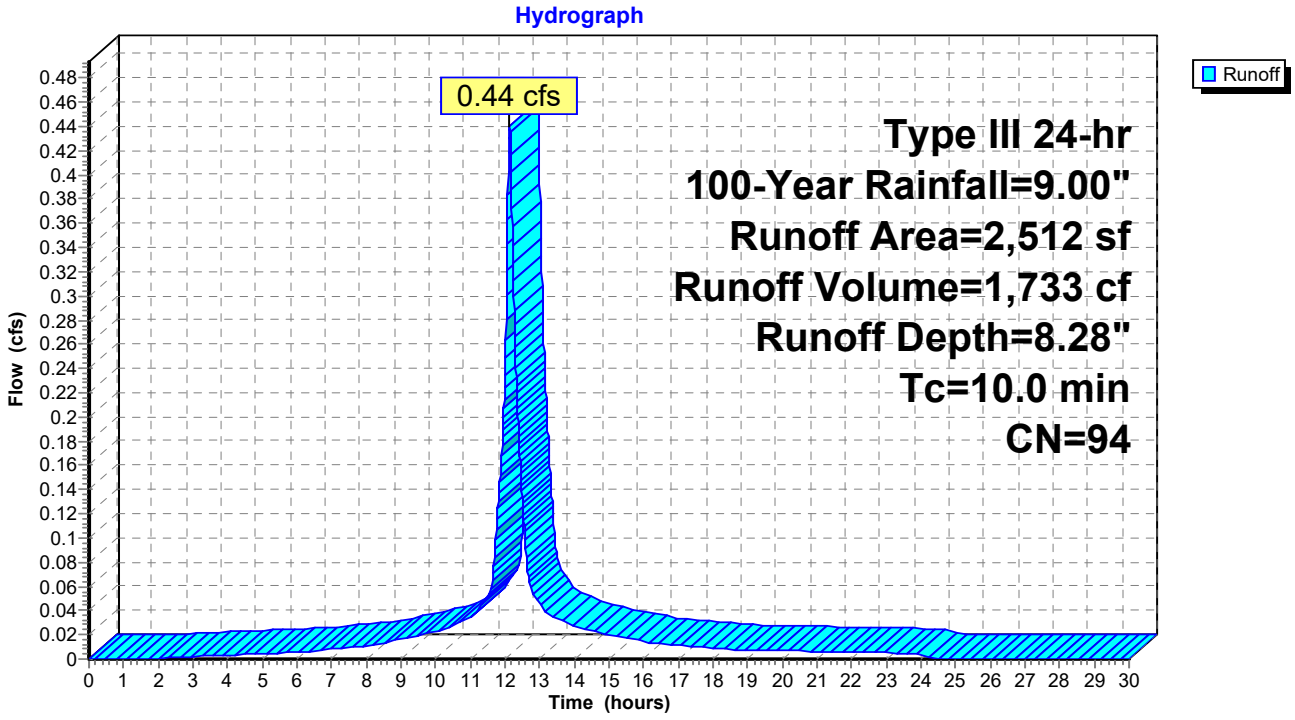
Runoff = 0.44 cfs @ 12.13 hrs, Volume= 1,733 cf, Depth= 8.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=9.00"

	Area (sf)	CN	Description
*	2,112	98	Dvwy to Trench Drain
*	400	76	Behind Bldg Bay 3-6
	2,512	94	Weighted Average
	400		15.92% Pervious Area
	2,112		84.08% Impervious Area

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

Subcatchment 4S: TD Runoff to AS-4



Summary for Subcatchment 6S: SW corner

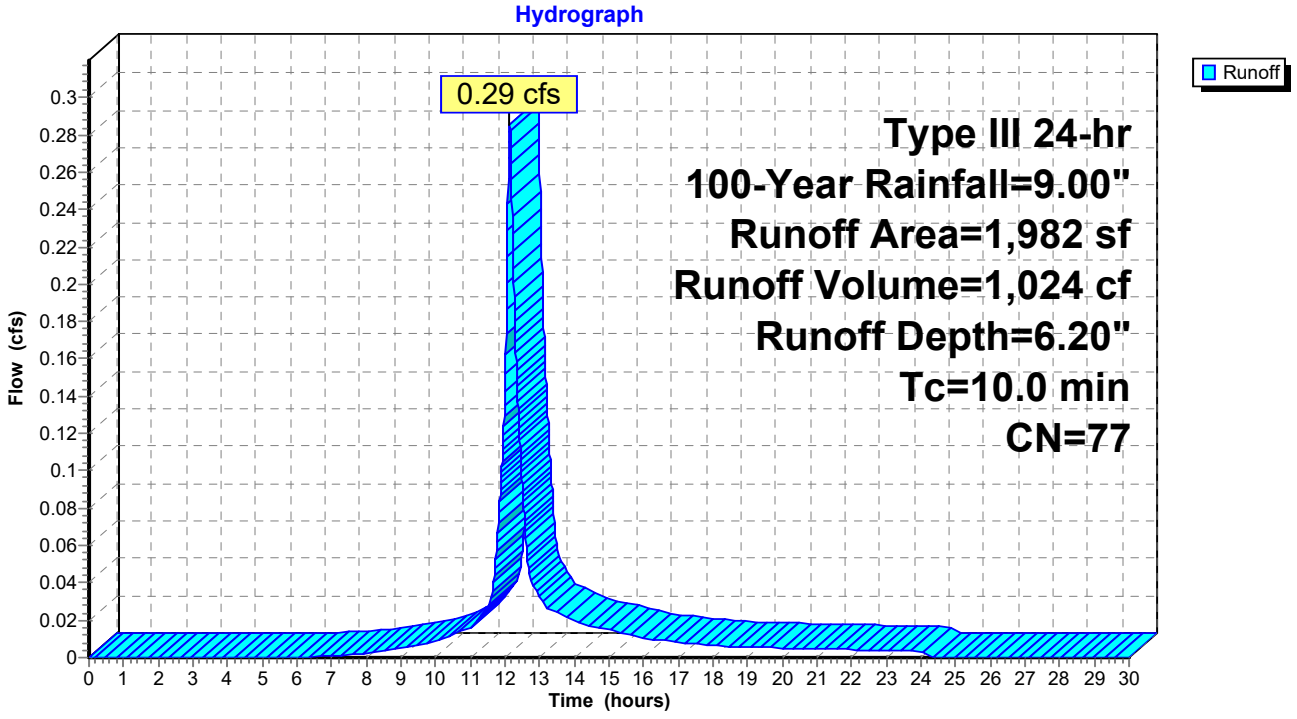
Runoff = 0.29 cfs @ 12.14 hrs, Volume= 1,024 cf, Depth= 6.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=9.00"

	Area (sf)	CN	Description
*	128	98	Impervious
*	311	76	Landsacape area
*	1,543	76	Northerly landscape area
	1,982	77	Weighted Average
	1,854		93.54% Pervious Area
	128		6.46% Impervious Area

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

Subcatchment 6S: SW corner



Summary for Pond 6P: Stormtech SC740

Inflow Area = 12,212 sf, 89.67% Impervious, Inflow Depth = 8.50" for 100-Year event
Inflow = 2.16 cfs @ 12.13 hrs, Volume= 8,655 cf
Outflow = 1.81 cfs @ 12.20 hrs, Volume= 8,654 cf, Atten= 16%, Lag= 4.1 min
Primary = 1.81 cfs @ 12.20 hrs, Volume= 8,654 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 202.40' @ 12.20 hrs Surf.Area= 461 sf Storage= 499 cf

Plug-Flow detention time= 8.1 min calculated for 8,654 cf (100% of inflow)
Center-of-Mass det. time= 8.1 min (761.9 - 753.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	200.40'	0 cf	**15.29'W x 30.13'L x 3.67'H Field A** 1,689 cf Overall - 1,071 cf Embedded = 618 cf x 0.0% Voids
#2A	200.90'	666 cf	**StormTrap ST1 SingleTrap 2-0** x 4 Inside #1 Inside= 82.7"W x 24.0"H => 11.84 sf x 14.06'L = 166.5 cf Outside= 82.7"W x 32.0"H => 18.39 sf x 14.06'L = 258.6 cf 4 Chambers in 2 Rows 13.79' x 28.13' Core + 0.00' x 0.50' Border = 13.79' x 29.13' System
		666 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	200.90'	**8.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=1.81 cfs @ 12.20 hrs HW=202.40' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 1.81 cfs @ 5.19 fps)

Pond 6P: Stormtech SC740 - Chamber Wizard Field A

Chamber Model = StormTrap ST1 SingleTrap 2-0 (StormTrap ST1 SingleTrap® Type VI)
Inside= 82.7"W x 24.0"H => 11.84 sf x 14.06'L = 166.5 cf
Outside= 82.7"W x 32.0"H => 18.39 sf x 14.06'L = 258.6 cf

82.7" Wide + 6.0" Spacing = 88.7" C-C Row Spacing

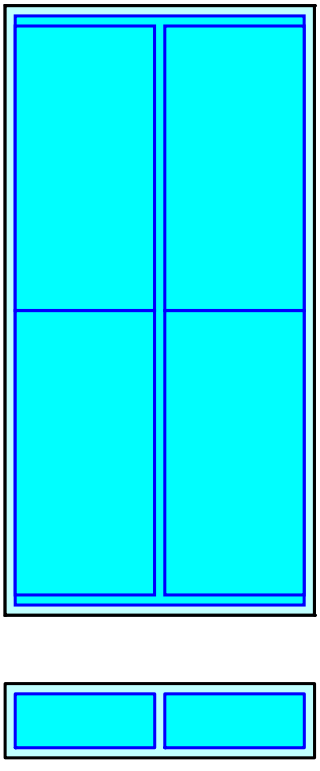
2 Chambers/Row x 14.06' Long = 28.13' Row Length +6.0" Border x 2 +6.0" End Stone x 2 = 30.13' Base Length
2 Rows x 82.7" Wide + 6.0" Spacing x 1 + 6.0" Side Stone x 2 = 15.29' Base Width
6.0" Base + 32.0" Chamber Height + 6.0" Cover = 3.67' Field Height

4 Chambers x 166.5 cf = 666.0 cf Chamber Storage
4 Chambers x 258.6 cf + 36.8 cf Border = 1,071.2 cf Displacement

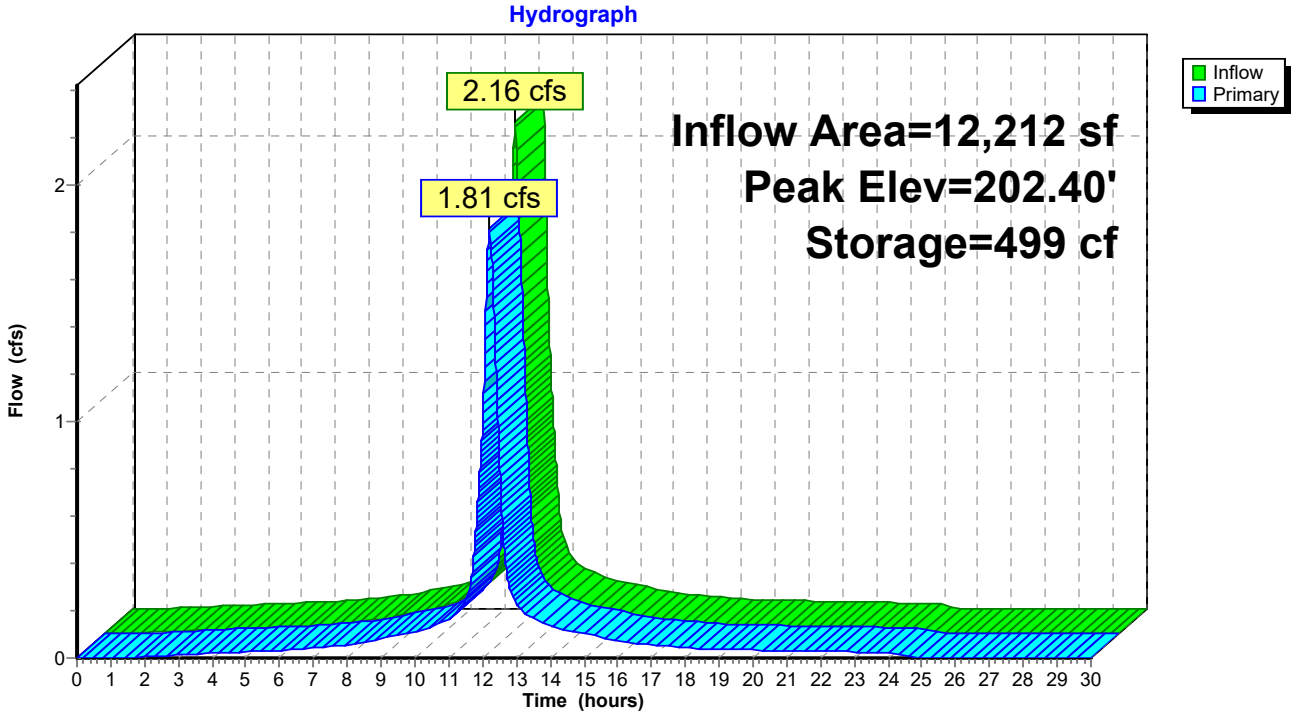
1,689.1 cf Field - 1,071.2 cf Chambers = 617.9 cf Stone x 0.0% Voids = 0.0 cf Stone Storage

Chamber Storage = 666.0 cf = 0.015 af
Overall Storage Efficiency = 39.4%
Overall System Size = 30.13' x 15.29' x 3.67'

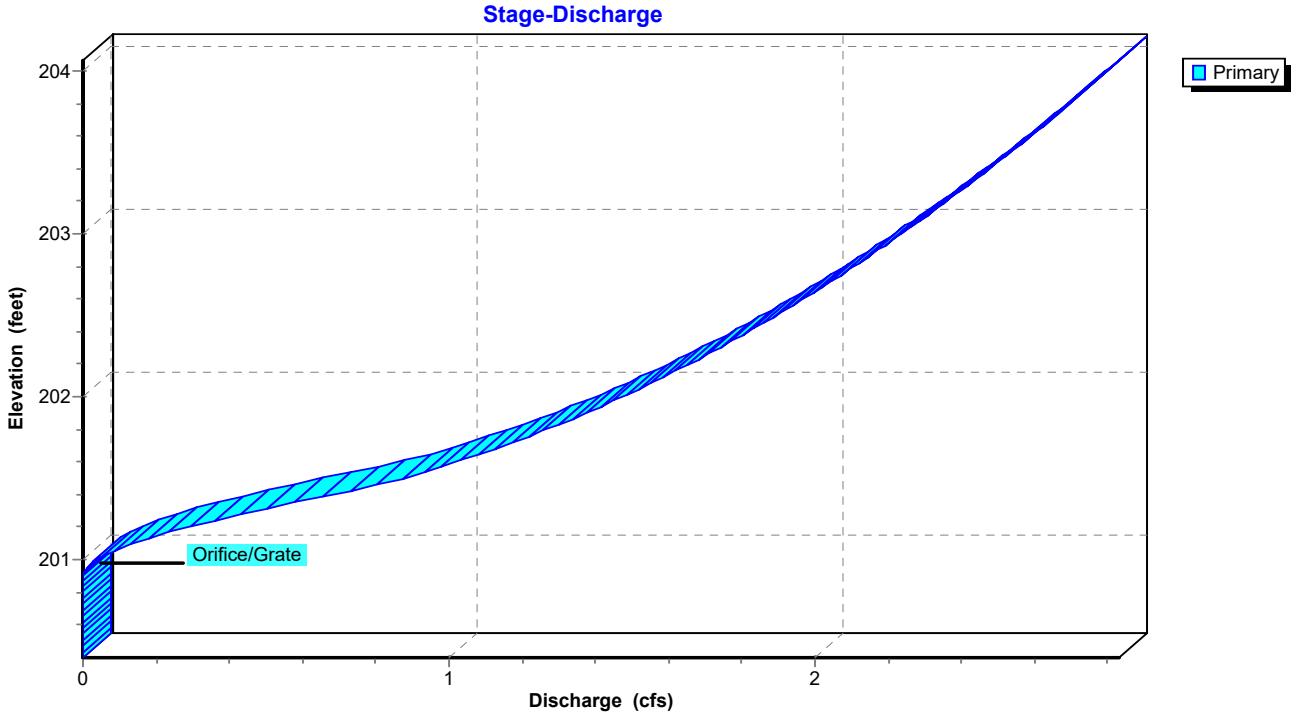
4 Chambers (plus border)
62.6 cy Field
22.9 cy Stone



Pond 6P: Stormtech SC740



Pond 6P: Stormtech SC740



Summary for Pond AS4: AS-4 Aqua Swirl

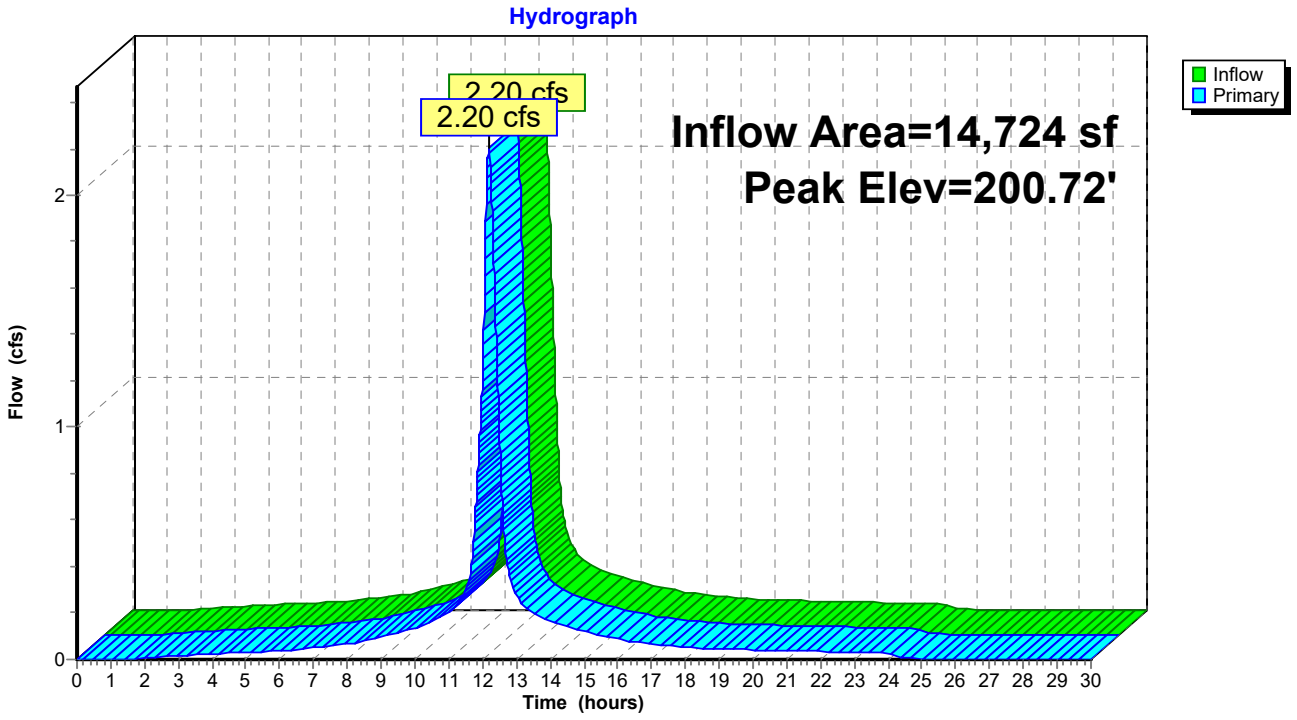
Inflow Area = 14,724 sf, 88.72% Impervious, Inflow Depth = 8.47" for 100-Year event
Inflow = 2.20 cfs @ 12.18 hrs, Volume= 10,387 cf
Outflow = 2.20 cfs @ 12.18 hrs, Volume= 10,387 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.20 cfs @ 12.18 hrs, Volume= 10,387 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 200.72' @ 12.18 hrs

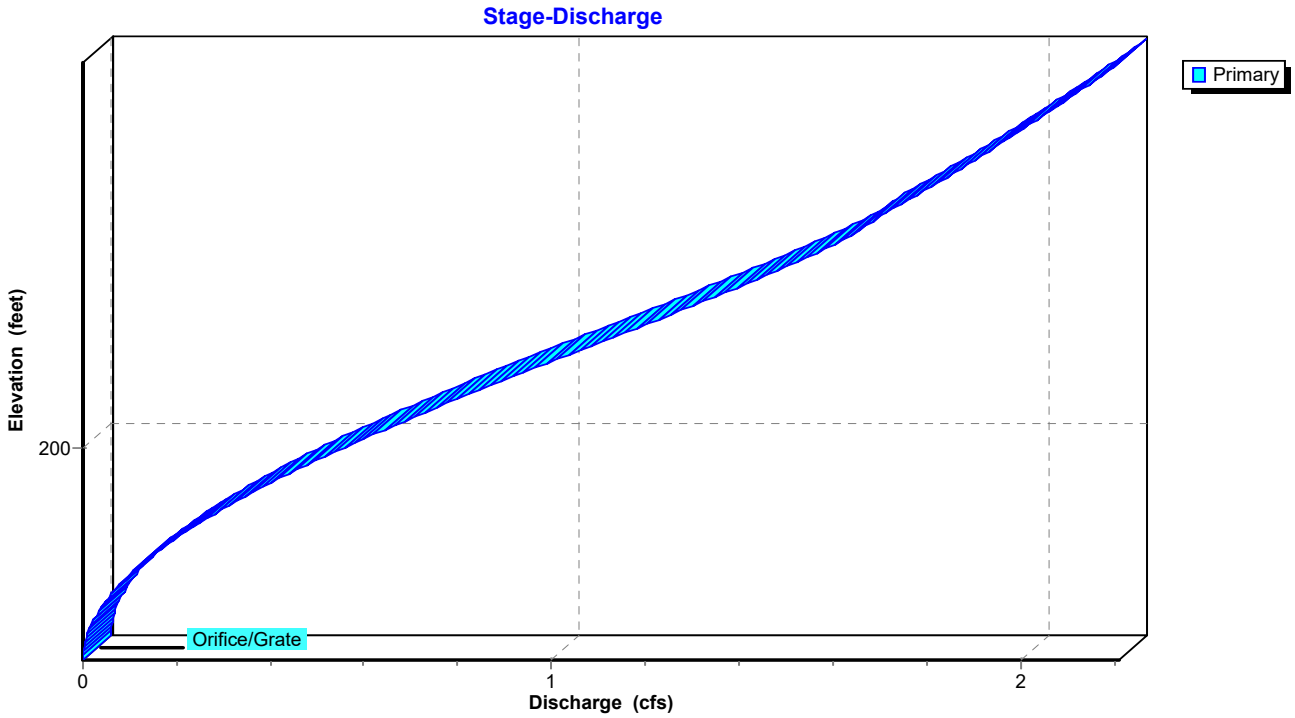
Device	Routing	Invert	Outlet Devices
#1	Primary	199.60'	**10.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=2.20 cfs @ 12.18 hrs HW=200.72' (Free Discharge)
1=Orifice/Grate (Orifice Controls 2.20 cfs @ 4.03 fps)

Pond AS4: AS-4 Aqua Swirl



Pond AS4: AS-4 Aqua Swirl

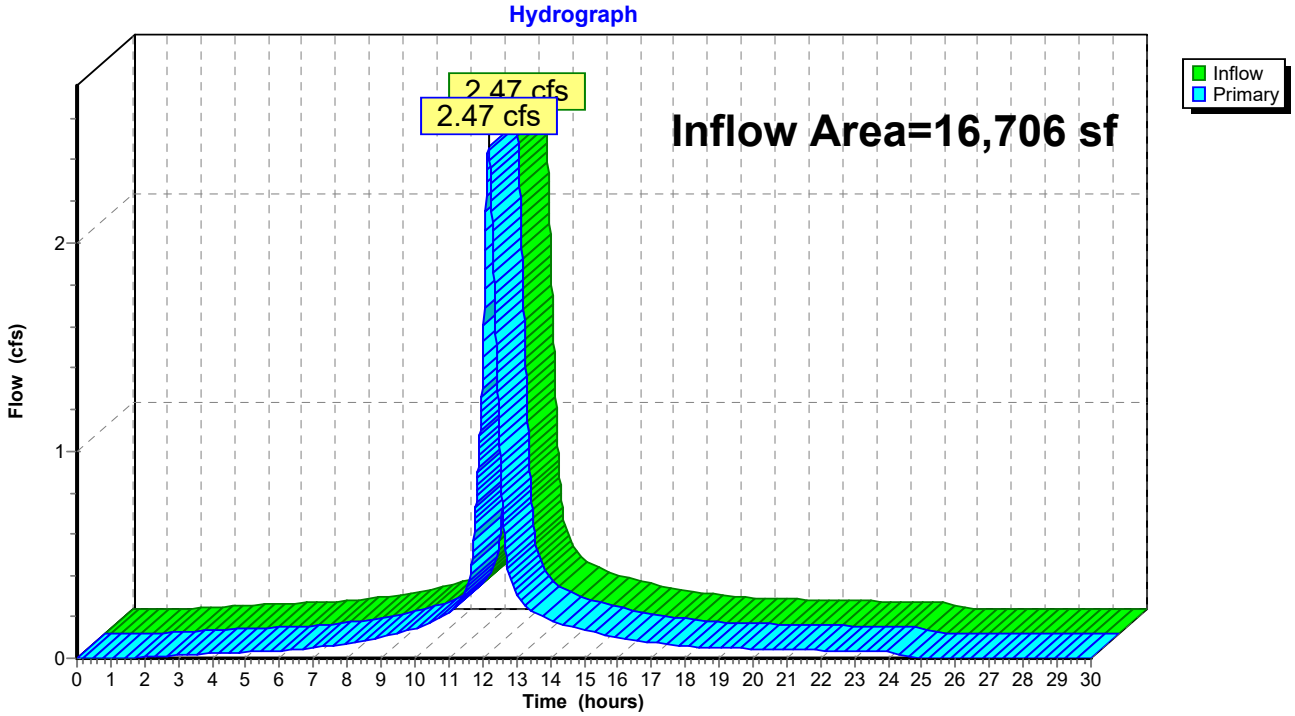


Summary for Link DP-1: Virginia Road

Inflow Area = 16,706 sf, 78.96% Impervious, Inflow Depth = 8.20" for 100-Year event
Inflow = 2.47 cfs @ 12.17 hrs, Volume= 11,411 cf
Primary = 2.47 cfs @ 12.17 hrs, Volume= 11,411 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Link DP-1: Virginia Road



Summary for Subcatchment 2S: Roof Leaders

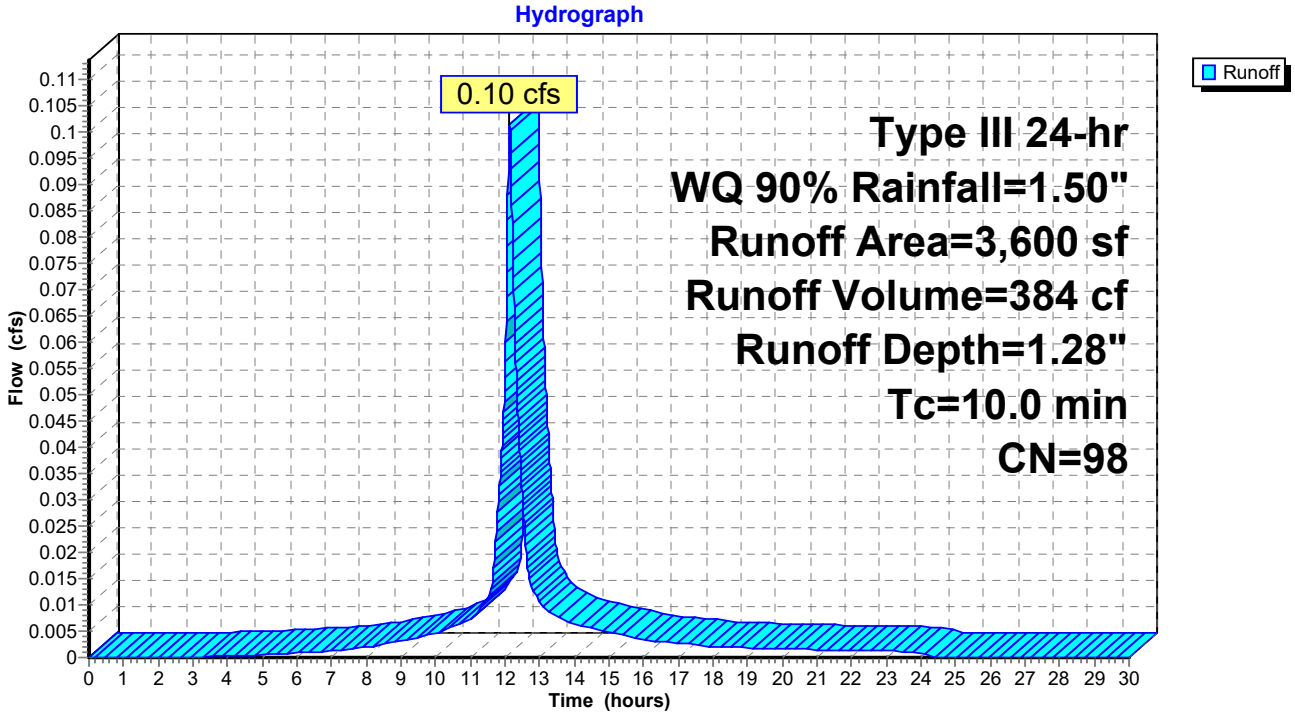
Runoff = 0.10 cfs @ 12.13 hrs, Volume= 384 cf, Depth= 1.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr WQ 90% Rainfall=1.50"

	Area (sf)	CN	Description
*	3,600	98	ROOF LEADERS
	3,600		100.00% Impervious Area

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

Subcatchment 2S: Roof Leaders



Summary for Subcatchment 3S: DI-1 Driveway

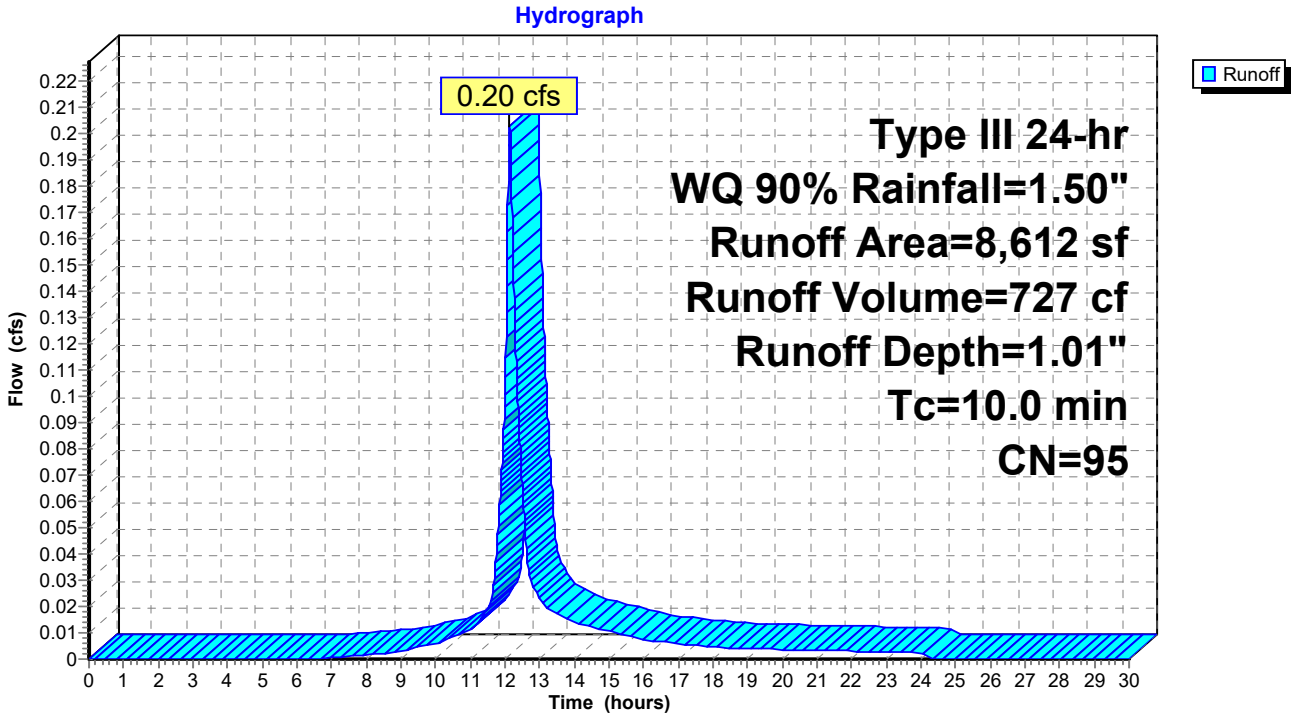
Runoff = 0.20 cfs @ 12.14 hrs, Volume= 727 cf, Depth= 1.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr WQ 90% Rainfall=1.50"

	Area (sf)	CN	Description
*	7,351	98	Driveway
*	1,261	76	Area behind wall
	8,612	95	Weighted Average
	1,261		14.64% Pervious Area
	7,351		85.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry, Overland Flow to Inlet**

Subcatchment 3S: DI-1 Driveway



Summary for Subcatchment 4S: TD Runoff to AS-4

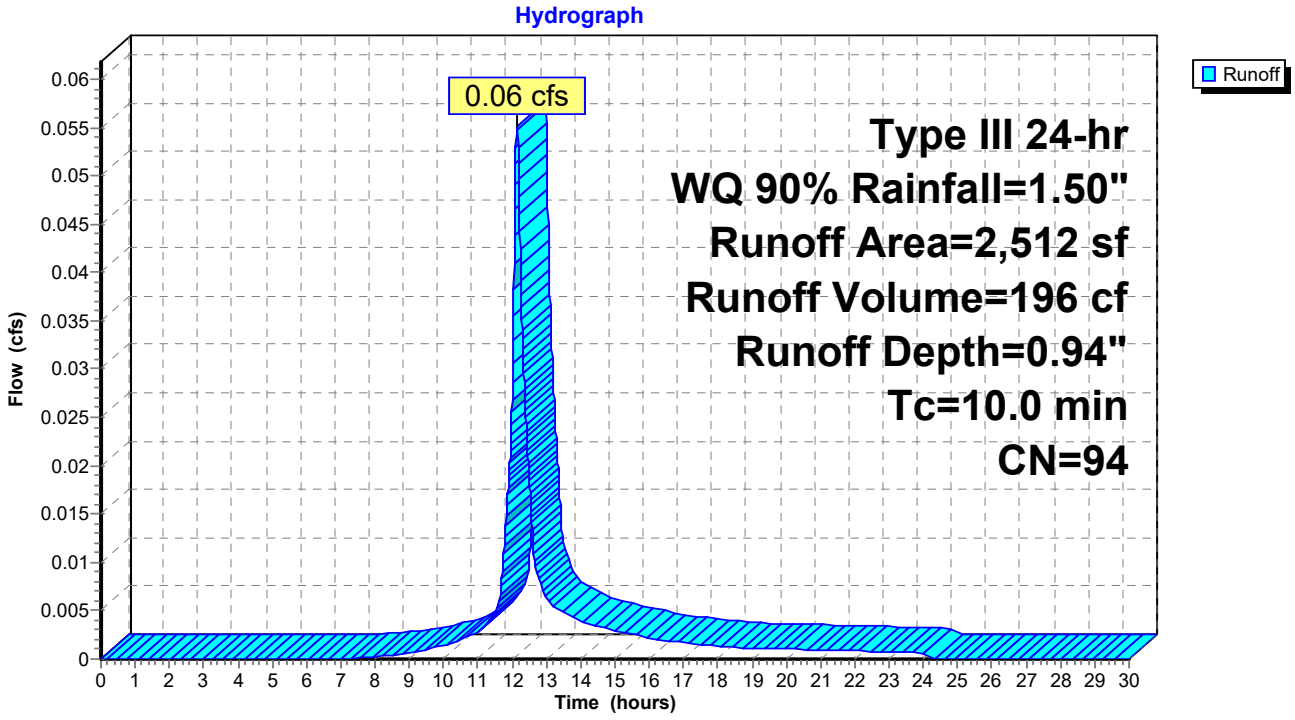
Runoff = 0.06 cfs @ 12.14 hrs, Volume= 196 cf, Depth= 0.94"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr WQ 90% Rainfall=1.50"

	Area (sf)	CN	Description
*	2,112	98	Dvwy to Trench Drain
*	400	76	Behind Bldg Bay 3-6
	2,512	94	Weighted Average
	400		15.92% Pervious Area
	2,112		84.08% Impervious Area

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

Subcatchment 4S: TD Runoff to AS-4



Summary for Subcatchment 6S: SW corner

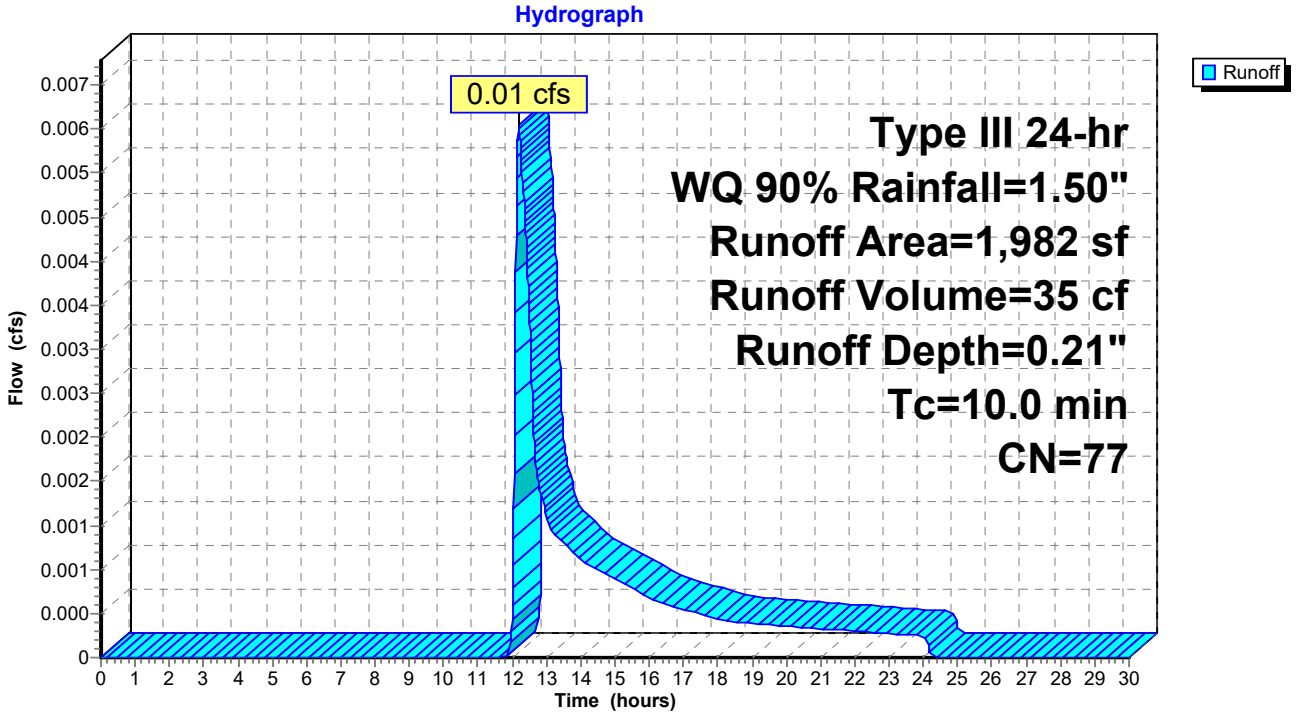
Runoff = 0.01 cfs @ 12.19 hrs, Volume= 35 cf, Depth= 0.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr WQ 90% Rainfall=1.50"

	Area (sf)	CN	Description
*	128	98	Impervious
*	311	76	Landsacape area
*	1,543	76	Northerly landscape area
	1,982	77	Weighted Average
	1,854		93.54% Pervious Area
	128		6.46% Impervious Area

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

Subcatchment 6S: SW corner



Summary for Pond 6P: Stormtech SC740

Inflow Area = 12,212 sf, 89.67% Impervious, Inflow Depth = 1.09" for WQ 90% event
Inflow = 0.30 cfs @ 12.14 hrs, Volume= 1,111 cf
Outflow = 0.28 cfs @ 12.19 hrs, Volume= 1,110 cf, Atten= 10%, Lag= 3.0 min
Primary = 0.28 cfs @ 12.19 hrs, Volume= 1,110 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 201.19' @ 12.19 hrs Surf.Area= 461 sf Storage= 98 cf

Plug-Flow detention time= 17.9 min calculated for 1,110 cf (100% of inflow)
Center-of-Mass det. time= 17.8 min (817.8 - 800.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	200.40'	0 cf	**15.29'W x 30.13'L x 3.67'H Field A** 1,689 cf Overall - 1,071 cf Embedded = 618 cf x 0.0% Voids
#2A	200.90'	666 cf	**StormTrap ST1 SingleTrap 2-0** x 4 Inside #1 Inside= 82.7"W x 24.0"H => 11.84 sf x 14.06'L = 166.5 cf Outside= 82.7"W x 32.0"H => 18.39 sf x 14.06'L = 258.6 cf 4 Chambers in 2 Rows 13.79' x 28.13' Core + 0.00' x 0.50' Border = 13.79' x 29.13' System
		666 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	200.90'	**8.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.27 cfs @ 12.19 hrs HW=201.19' (Free Discharge)
↑—**1=Orifice/Grate** (Orifice Controls 0.27 cfs @ 1.85 fps)

Pond 6P: Stormtech SC740 - Chamber Wizard Field A

Chamber Model = StormTrap ST1 SingleTrap 2-0 (StormTrap ST1 SingleTrap® Type VI)
Inside= 82.7"W x 24.0"H => 11.84 sf x 14.06'L = 166.5 cf
Outside= 82.7"W x 32.0"H => 18.39 sf x 14.06'L = 258.6 cf

82.7" Wide + 6.0" Spacing = 88.7" C-C Row Spacing

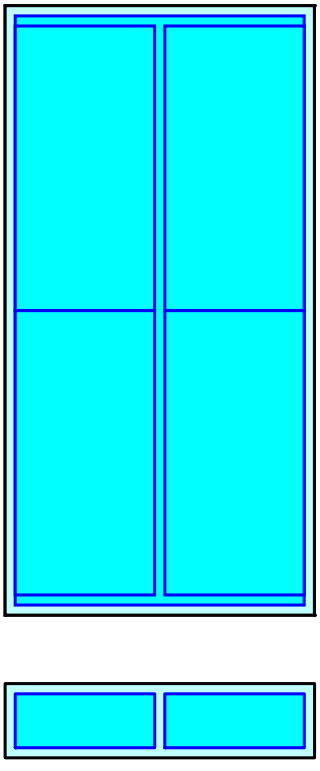
2 Chambers/Row x 14.06' Long = 28.13' Row Length +6.0" Border x 2 +6.0" End Stone x 2 = 30.13' Base Length
2 Rows x 82.7" Wide + 6.0" Spacing x 1 + 6.0" Side Stone x 2 = 15.29' Base Width
6.0" Base + 32.0" Chamber Height + 6.0" Cover = 3.67' Field Height

4 Chambers x 166.5 cf = 666.0 cf Chamber Storage
4 Chambers x 258.6 cf + 36.8 cf Border = 1,071.2 cf Displacement

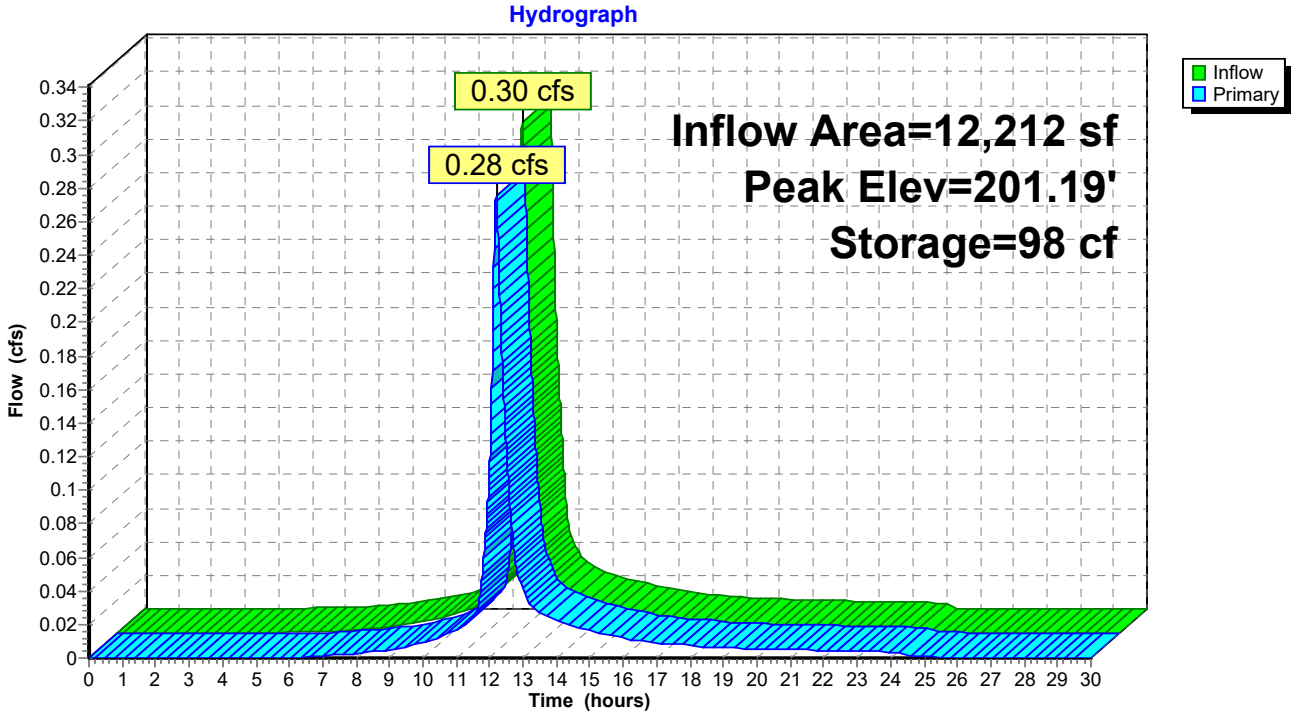
1,689.1 cf Field - 1,071.2 cf Chambers = 617.9 cf Stone x 0.0% Voids = 0.0 cf Stone Storage

Chamber Storage = 666.0 cf = 0.015 af
Overall Storage Efficiency = 39.4%
Overall System Size = 30.13' x 15.29' x 3.67'

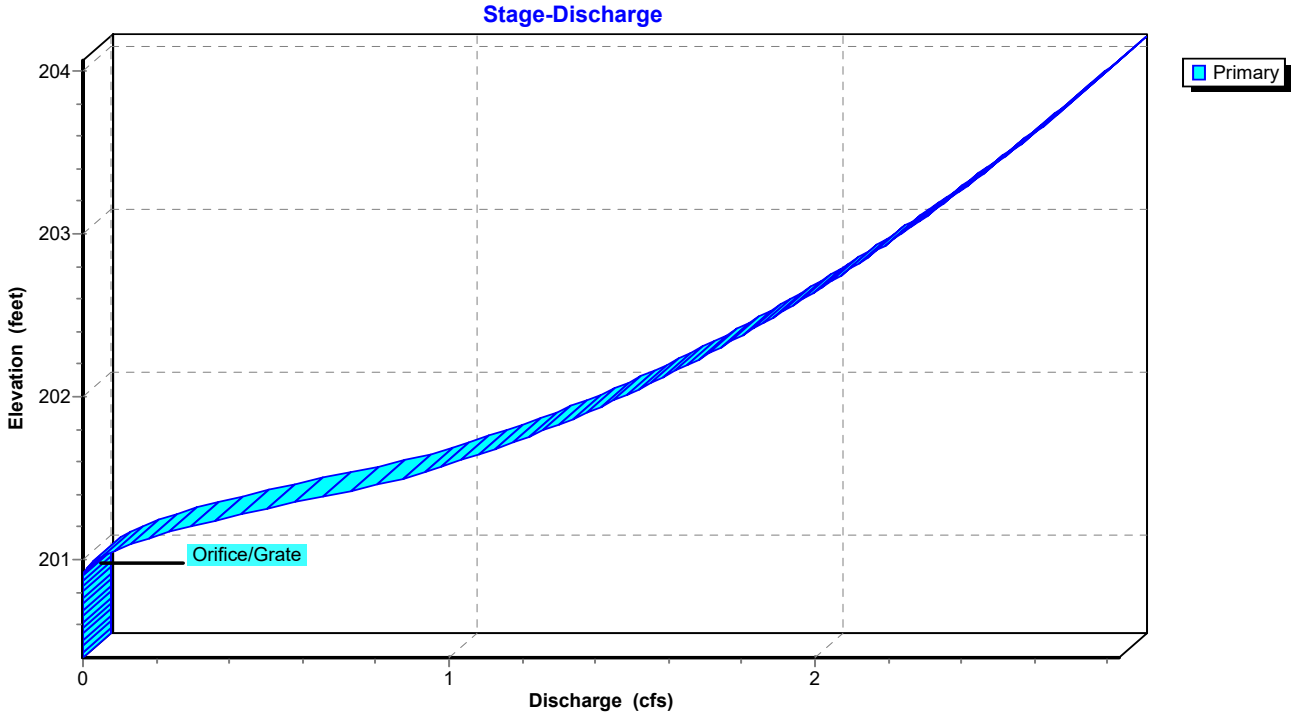
4 Chambers (plus border)
62.6 cy Field
22.9 cy Stone



Pond 6P: Stormtech SC740



Pond 6P: Stormtech SC740



Summary for Pond AS4: AS-4 Aqua Swirl

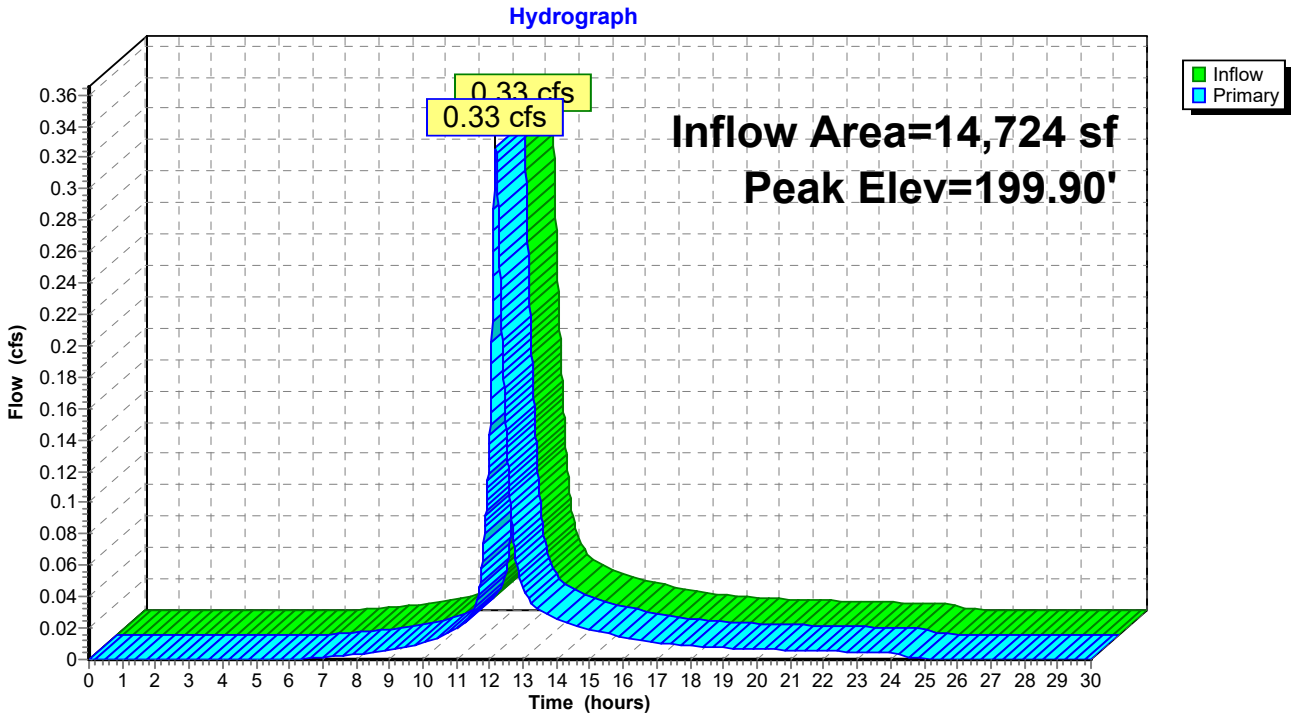
Inflow Area = 14,724 sf, 88.72% Impervious, Inflow Depth > 1.06" for WQ 90% event
Inflow = 0.33 cfs @ 12.18 hrs, Volume= 1,307 cf
Outflow = 0.33 cfs @ 12.18 hrs, Volume= 1,307 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.33 cfs @ 12.18 hrs, Volume= 1,307 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 199.90' @ 12.18 hrs

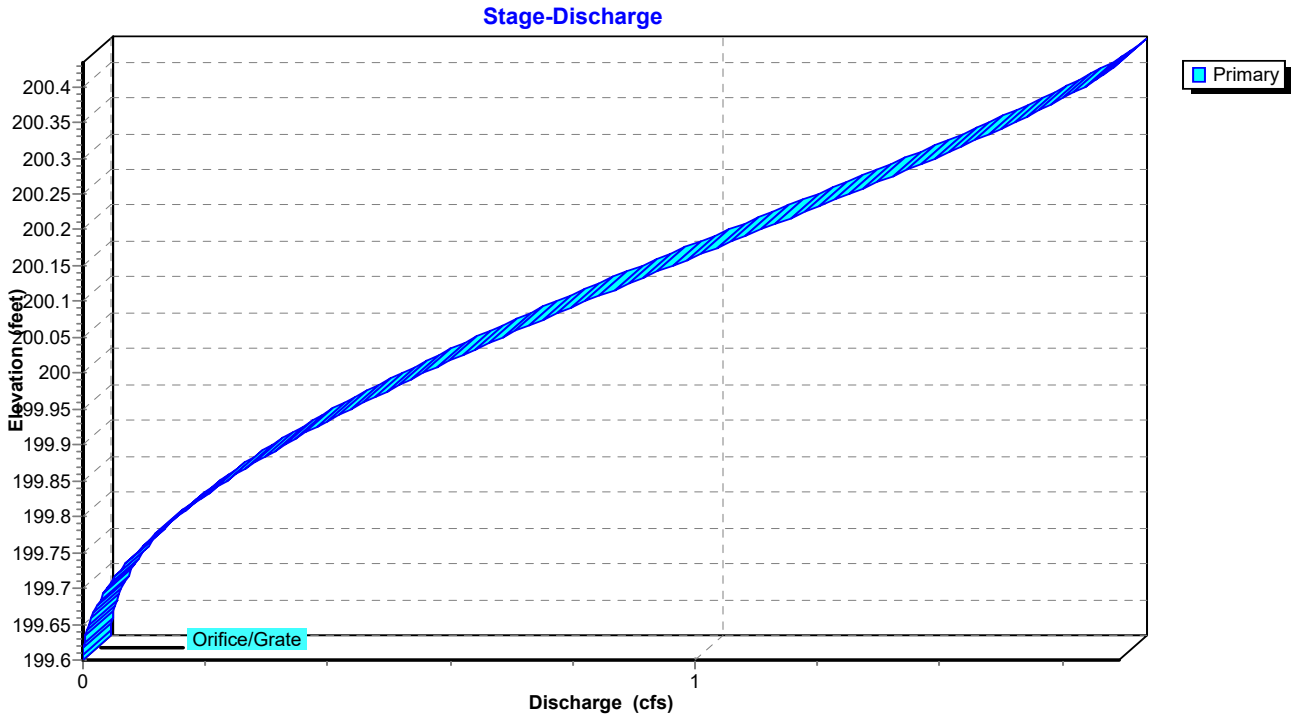
Device	Routing	Invert	Outlet Devices
#1	Primary	199.60'	**10.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.33 cfs @ 12.18 hrs HW=199.90' (Free Discharge)
1=Orifice/Grate (Orifice Controls 0.33 cfs @ 1.86 fps)

Pond AS4: AS-4 Aqua Swirl



Pond AS4: AS-4 Aqua Swirl

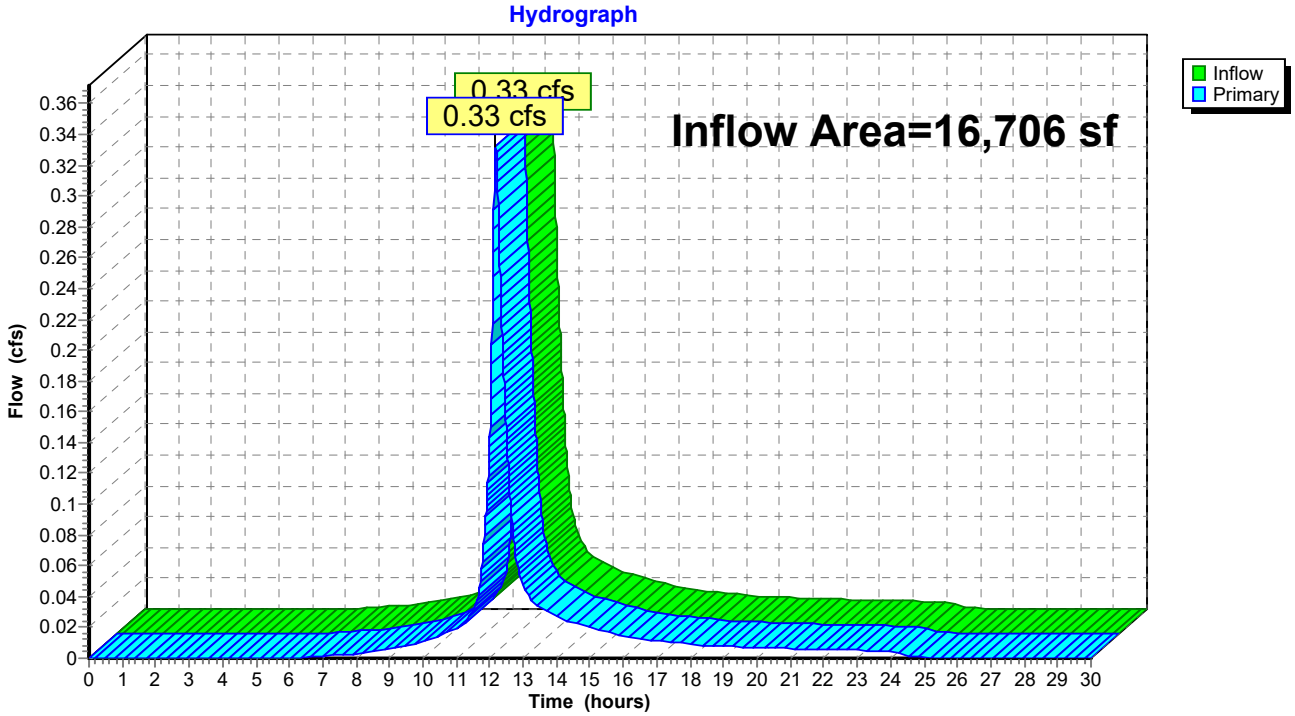


Summary for Link DP-1: Virginia Road

Inflow Area = 16,706 sf, 78.96% Impervious, Inflow Depth > 0.96" for WQ 90% event
Inflow = 0.33 cfs @ 12.18 hrs, Volume= 1,341 cf
Primary = 0.33 cfs @ 12.18 hrs, Volume= 1,341 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Link DP-1: Virginia Road



APPENDIX C

USDA Soils Report

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Westchester County, New York

January 23, 2019

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:358 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 5 10 20 30

Feet: 0 15 30 60 90

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 Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

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 14, Sep 3, 2018

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

Date(s) aerial images were photographed: Jul 21, 2014—Aug 27, 2014

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.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CuD	Chatfield-Hollis-Rock outcrop complex, 15 to 35 percent slopes	0.2	77.0%
Uf	Urban land	0.0	23.0%
Totals for Area of Interest		**0.2**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Westchester County, New York

CuD—Chatfield-Hollis-Rock outcrop complex, 15 to 35 percent slopes

Map Unit Setting

National map unit symbol: 2w69h
Elevation: 0 to 1,540 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Chatfield, extremely stony, and similar soils: 35 percent
Hollis, extremely stony, and similar soils: 30 percent
Rock outcrop: 20 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Chatfield, Extremely Stony

Setting

Landform: Ridges, hills
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Crest, side slope, nose slope
Down-slope shape: Convex
Across-slope shape: Convex, linear
Parent material: Coarse-loamy melt-out till derived from granite, gneiss, and/or schist

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
A - 1 to 2 inches: fine sandy loam
Bw - 2 to 30 inches: gravelly fine sandy loam
2R - 30 to 40 inches: bedrock

Properties and qualities

Slope: 15 to 35 percent
Percent of area covered with surface fragments: 9.0 percent
Depth to restrictive feature: 20 to 41 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water storage in profile: Low (about 4.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: B
Hydric soil rating: No

Description of Hollis, Extremely Stony

Setting

Landform: Hills, ridges
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Side slope, nose slope, crest
Down-slope shape: Convex
Across-slope shape: Linear, convex
Parent material: Coarse-loamy melt-out till derived from granite, gneiss, and/or schist

Typical profile

Oi - 0 to 2 inches: slightly decomposed plant material
A - 2 to 7 inches: gravelly fine sandy loam
Bw - 7 to 16 inches: gravelly fine sandy loam
2R - 16 to 26 inches: bedrock

Properties and qualities

Slope: 15 to 35 percent
Percent of area covered with surface fragments: 9.0 percent
Depth to restrictive feature: 8 to 23 inches to lithic bedrock
Natural drainage class: Somewhat excessively drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water storage in profile: Very low (about 2.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Hydric soil rating: No

Description of Rock Outcrop

Setting

Landform: Hills, ridges
Parent material: Igneous and metamorphic rock

Typical profile

R - 0 to 79 inches: bedrock

Properties and qualities

Slope: 15 to 35 percent
Depth to restrictive feature: 0 inches to lithic bedrock
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Available water storage in profile: Very low (about 0.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8

Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Charlton, extremely stony
Percent of map unit: 7 percent
Landform: Hills, ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear, convex
Across-slope shape: Convex
Hydric soil rating: No

Leicester, extremely stony
Percent of map unit: 4 percent
Landform: Drainageways, hills, ground moraines, depressions
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear, concave
Across-slope shape: Concave
Hydric soil rating: Yes

Paxton, extremely stony
Percent of map unit: 2 percent
Landform: Hills, ground moraines, drumlins
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear, convex
Across-slope shape: Convex, linear
Hydric soil rating: No

Sutton, extremely stony
Percent of map unit: 2 percent
Landform: Ground moraines, hills
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Uf—Urban land

Map Unit Setting
National map unit symbol: bd7j
Elevation: 50 to 2,400 feet
Mean annual precipitation: 46 to 50 inches
Mean annual air temperature: 46 to 52 degrees F

Frost-free period: 115 to 215 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Minor Components

Udorthents

Percent of map unit: 5 percent
Hydric soil rating: No

Riverhead

Percent of map unit: 2 percent
Hydric soil rating: No

Udorthents, wet substratum

Percent of map unit: 2 percent
Hydric soil rating: No

Unadilla

Percent of map unit: 2 percent
Hydric soil rating: No

Chatfield

Percent of map unit: 2 percent
Hydric soil rating: No

Sutton

Percent of map unit: 2 percent
Hydric soil rating: No

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APPENDIX D

FEMA Flood Plain Map

National Flood Hazard Layer FIRMette

FEMA

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN — Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 — Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- 513 — Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 1/23/2019 at 12:10:19 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

APPENDIX E

Water Quality Calculations

Project **Mistis Properties**

176 Virginia Road

Revised **11-Jun-19**

WATER QUALITY COMPUTATIONS, WQv

A = Total Site Area (Limit of Disturbance) = 0.386 ac = 16,813 s.f.

Ai = Impervious Area at Post Development Condition = 0.048 ac = 2,076 s.f. Total area reconstruced within project limits

I = percent Impervious Area = [(Ai)(100)]/(A)=

I = percent Impervious Area = [(0.048 ac)(100)]/(0.386 ac)= 12 %

Rv = Volumetric Runoff Coeff. = (se)+[(0.009)(12.35)]=

Rv = Volumetric Runoff Coeff. = (0.05)+[(0.009)(12.35)]= 0.161

P = Precipitation Depth = 1.5 in.

WQv = Water Quality Volume = [(P)(Rv)(A)]/ 12

WQv (required) [(1.5 in.)(0.161)(0.386 ac)]/ 12 = 0.008 ac.ft = 0,339 cf

WQv = 0.008 ac.ft = 0,339 cf

25% WQv (required per re-development) = 0.002 ac.ft = **0,085 cf**

A = Total Site Area (Limit of Disturbance) = 0.386 ac = 16,813 s.f.

Ai = Impervious Area at Post Development Condition = 0.259 ac = 11,264 s.f. Expanded Impervious Cover

I = percent Impervious Area = [(Ai)(100)]/(A)=

I = percent Impervious Area = [(0.259 ac)(100)]/(0.386 ac)= 67 %

Rv = Volumetric Runoff Coeff. = (se)+[(0.009)(equired W( )]=

Rv = Volumetric Runoff Coeff. = (0.05)+[(0.009)(67.00)]= 0.653

P = Precipitation Depth = 1.5 in.

WQv = Water Quality Volume = [(P)(Rv)(A)]/ 12

WQv (required) [(1.5 in.)(0.653)(0.386 ac)]/ 12 = 0.032 ac.ft = 1,372 cf

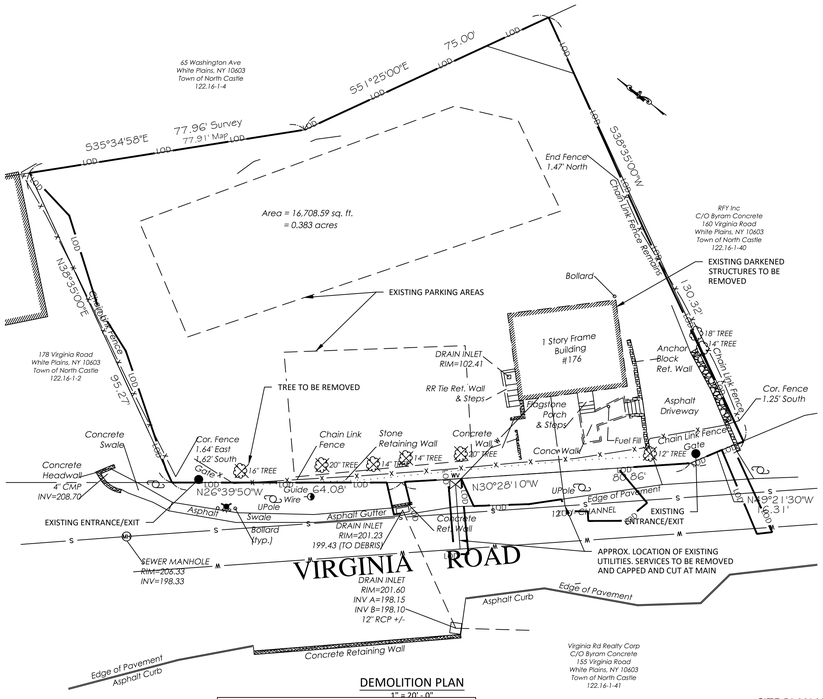
WQv = 0.032 ac.ft = 1,372 cf

Total WQv 90% Rainfall Event = 0.033 ac.ft = 1,457 cf

AquaSwirl AS-4

Note: See HydroCAD for storm routings = 0.030 ac.ft 1,304 cf

Total WQv (Provided) = **0.033 ac.ft** = **1,457 cf**



DEMOLITION PLAN
1" = 20' - 0"

TREES TO BE REMOVED		
#	DBH	TYPE
1	12"	MAPLE
2	20"	OAK
3	14"	OAK
4	14"	OAK
5	20"	OAK
6	16"	OAK

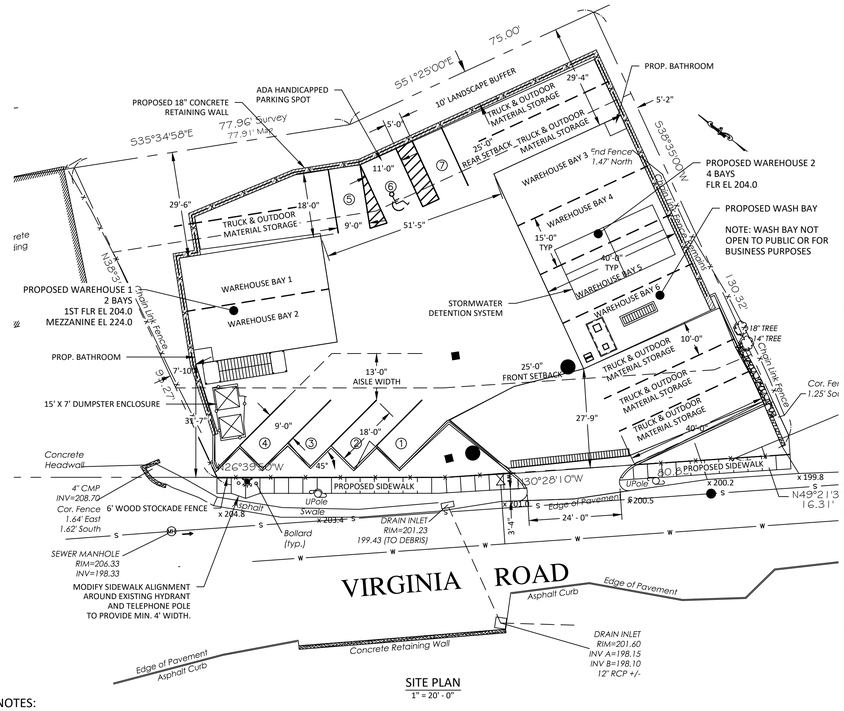
ZONING ANALYSIS		
176 VIRGINIA ROAD | SECTION 122.16| BLOCK 1 | LOT 3		
ZONE IND-A		
REQUIREMENTS	ALLOWABLE	PROPOSED
LOT AREA (SQ. FT.)	5000.0	16708.6
STREET FRONTAGE	50.0	161.0
LOT DEPTH	100.0	112.8
FRONT SETBACK	10.0	30.8
SETBACK FROM STREET	25.0	39.0
SIDE SETBACK	0.0	4.3
REAR SETBACK	10.0	26.0
BUILDING COVERAGE	40%	22%
BUILDING STORIES	2.0	2.0
BUILDING HEIGHT	35.0	30.0
FAR	0.6	0.29
PARKING	6.0	8.00

FLOOR AREA

WAREHOUSE 1	
1ST FLR	1200 Sq Ft
MEZZANINE	1200 Sq Ft
WAREHOUSE 2	
1ST FLR	2400 Sq FT
TOTAL AREA	4800 Sq Ft

PARKING REQUIREMENTS

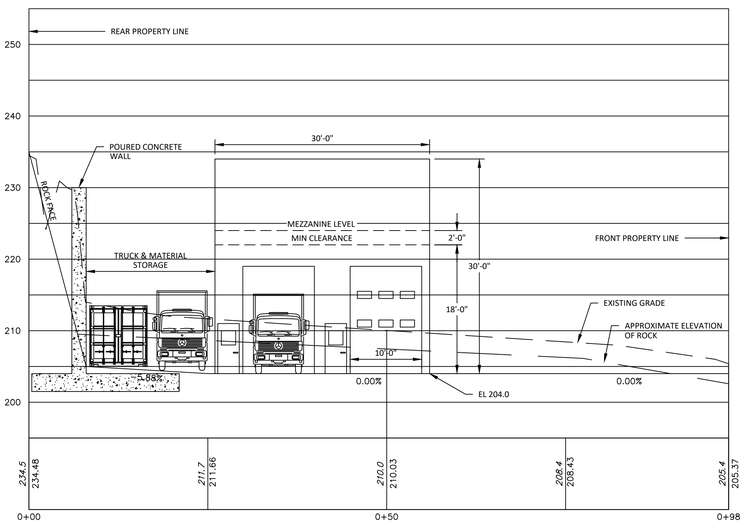
EITHER 1 SPACE/1200 SF OR 1 PER BAY
4800/1200 = 4 PARKING SPACES
6 BAYS = 6 PARKING SPACES
6 > 4 THEREFORE 6 PARKING SPACES ARE REQUIRED



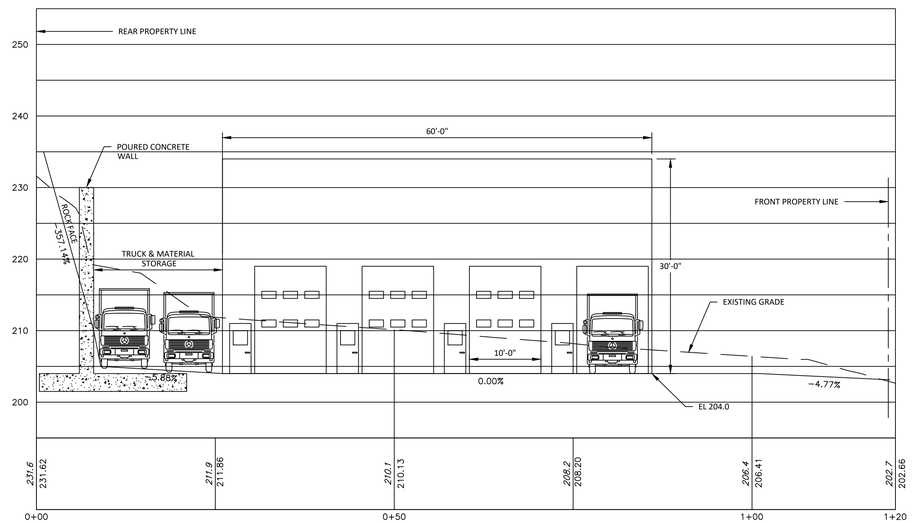
SITE PLAN
1" = 20' - 0"

SITE PLAN NOTES:

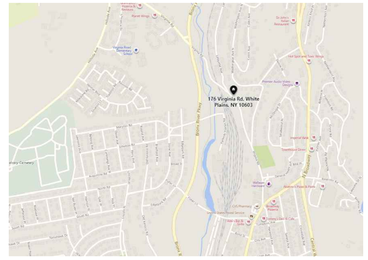
1. TRUCK WASHING IS LIMITED TO THE TRUCKS STORED ON THE SITE AND A MAXIMUM USE OF 200 GALLONS/DAY.
2. VEHICLE REPAIR SHALL BE PROHIBITED ON SITE.
3. ANY OUTDOOR STORAGE OF VEHICLES AND MATERIAL NOT DEPICTED ON THE APPROVED SITE PLAN SHALL BE PROHIBITED.
4. Prior to the start of construction and throughout the construction period, area of disturbance lines shall be clearly delineated in the field with snow fence or another demarcation acceptable to the Building Department and Town Engineer, which shall be placed around the entire proposed construction area. Except as necessary to provide mitigation plantings, no encroachment beyond these limits by workers or machinery shall be permitted.
5. Grading and clearing and other construction-related activities shall take place only within the delineated area of disturbance lines. These area of disturbance lines represent the maximum limits of construction activities. Every attempt shall be made to further reduce grading and clearing activities within the area of disturbance lines by maintaining natural vegetation and topography wherever practicable.
6. Prior to the commencement of any site work, the Applicant shall stake the location of the proposed construction for inspection and approval by the Building Department and Town Engineer.
7. All soil erosion and sedimentation control measures shown on this plan shall be in place prior to the start of any site work. The Building Department and Town Engineer shall have inspected the installation of all required soil erosion and sedimentation control measures prior to the authorization to proceed with any phase of the site work.
8. Throughout the construction period, a qualified professional retained by the Applicant shall, on at least a weekly basis, prior to any predicted rain event and after any runoff - producing rain event, inspect the soil erosion and sedimentation control measures to ensure their proper functioning. Soil shall be removed from the silt fence when bulges develop in the fence in accordance with Westchester County recommendations. Records shall be kept onsite and made available for review by Town personnel. Inspections shall be in accordance with the NYSDEC Phase II regulations.
9. If the Applicant, during the course of construction, encounters such conditions as flood areas, underground water, soft or silty areas, improper drainage, or any other unusual circumstances or conditions that were not foreseen in the original planning, he shall report such conditions immediately to the Building Department and Town Engineer. The Applicant may submit, if he so desires, his recommendations as to the special treatment to be given such areas to secure adequate, permanent and satisfactory construction. The Building Department, without unnecessary delay, shall investigate the condition or conditions, and shall either approve the Applicant's recommendations to correct the conditions, order a modification thereof, or issue his own specifications for the correction of the conditions. In the event of the Applicant's disagreement with the decision of the Building Department, or in the event of a significant change resulting to the site plan or any change that involves the wetlands regulated areas, the matter shall be decided by the Planning Board. Any such conditions observed by the Planning Board or its agents shall be similarly treated.
10. Compliance with all applicable local laws and ordinances of the Town of North Castle and any conditions attached to permits issued thereunder.
11. The applicant shall provide sedimentation and erosion control measures to the satisfaction of the Town Engineer and in accordance with the measures set forth in the Westchester County Best Management Practices for Construction and Related Activities.
12. All landscaping shown on this plan shall be maintained in a vigorous growing condition throughout the duration of the use. All plants not so maintained shall be replaced with new plants of comparable size and quality at the beginning of the next immediately following growing season.
13. The applicant shall provide confirmation from the North Castle Highway Department and/or the Westchester County Department of Public Works, to the satisfaction of the Town Engineer, that all improvements in the right-of-way have been satisfactorily completed in accordance with the Highway Work Permit.
14. Retaining wall design calculations, prepared by a NYS Licensed Professional Engineer, shall be submitted prior to the issuance of a Building Permit. The construction of all retaining walls shall be certified by the Design Professional.



PROPOSED 2 BAY WAREHOUSE
1" = 10' - 0"



PROPOSED 4 BAY WAREHOUSE
1" = 10' - 0"



LOCATION MAP
N.T.S.

MISCELLANEOUS DATA:

SURVEYOR:	TC MERRITTS LAND SURVEYORS 394 BEDFORD ROAD PLEASANTVILLE NY 10570 914-769-8003
ENGINEER:	FUSION ENGINEERING 600 NORTH BROADWAY SUITE 215 WHITE PLAINS NY 10603 914-358-5009
MUNICIPALITY:	TOWN OF NORTH CASTLE
WATERSHED:	BRONX RIVER BASIN
SECTION:	122.16
BLOCK:	1
LOT:	3
OWNER:	MANUEL YANEZ MISTIS PROPERTIES INC. 132 FULTON STREET WHITE PLAINS, NY 10608 914-774-3625
FIRE DISTRICT:	NORTH WHITE PLAINS FD
ZONE:	IND-A
SCHOOL:	VALHALLA
LOT SIZE:	0.383 ACRES

GENERAL NOTES

1. THIS PLAN WAS PREPARED TO COMPLY WITH THE APPLICATION REQUIREMENT FOR BUILDING PERMIT IN THE TOWN OF NORTH CASTLE.
2. EXISTING TOPOGRAPHIC AND SURVEY INFORMATION SHOWN HEREON PROVIDED BY A SURVEY PREPARED BY TC MERRITS LAND SURVEYORS ON AUGUST 30, 2018. PROPOSED GRADING SHALL DRAIN AWAY FROM THE PROPOSED STRUCTURE AT A MINIMUM SLOPE REQUIRED TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE FOUNDATION.
3. UNDERGROUND UTILITIES, FACILITIES AND STRUCTURES MAY NOT BE ALL SHOWN HEREON. THE LOCATIONS OF PORTIONS OF THE UNDERGROUND UTILITIES INDICATED HEREON WHERE OBTAIN FROM THE MAP REFERRED TO ABOVE AND FIELD MARK-OUTS BY THE UTILITY COMPANY PERSONNEL. THERE MAY BE OTHER UNDERGROUND UTILITIES TO WHICH THE LOCATIONS ARE CURRENTLY UNKNOWN. ANY PARTY UTILIZING THE INFORMATION AND DATA DEPICTED ON THIS PLAN SHALL CONTACT "DIG SAFELY. NEW YORK" AT PHONE NUMBER 1-800-962-7962 OR 811 A MINIMUM OF 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITIES TO VERIFY THE LOCATION OF ANY AND ALL UNDERGROUND UTILITIES.
4. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS AND METHODS AND SEQUENCES OF CONSTRUCTION AND FOR THE SAFETY OF WORKERS AND OTHERS ON THE CONSTRUCTION SITE. THE CONTRACTOR SHALL LOCATE AND VERIFY THE SIZE, LOCATION, DEPTH AND INVERTS OF ANY AND ALL EXISTING UTILITIES PRIOR TO COMMENCING OPERATIONS.
5. PVC DRAIN PIPES SHALL BE SCHEDULE 40, SLOPES HAVING A MINIMUM SLOPE OF 1%.
6. NO SOIL STOCKPILES, CONSTRUCTION MATERIALS, AND NO EQUIPMENT SHALL BE STORED IN THE AREA OF THE PROPOSED (AND EXISTING) STORMWATER INFILTRATION PRACTICES.
7. THE CONTRACTOR SHALL PROVIDE A TRAINED INDIVIDUAL (CARRYING CARD/CERTIFICATION BY THE NYSDEC) TO BE PRESENT ON SITE AT ALL TIMES DURING SOIL DISTURBING ACTIVITIES.
8. DURING CONSTRUCTION, SEDIMENT AND EROSION CONTROLS SHALL BE IN ACCORDANCE WITH THE CURRENT DPW STANDARDS FOR SEDIMENT AND EROSION CONTROL. DPW RESERVES THE RIGHT TO ORDER ADDITIONAL SEDIMENT CONTROL PRACTICES INSTALLED DURING CONSTRUCTION.
9. OWNER/OWNER'S REPRESENTATIVE SHALL CONTACT TOWN BUILDING DEPARTMENT TO INSPECT SEDIMENT AND EROSION CONTROL PRACTICES PRIOR TO START OF CONSTRUCTION. ANY DESIGN CHANGES TO THE STORMWATER SYSTEM DURING CONSTRUCTION DUE TO SHALLOW GROUNDWATER, ROCK, ETC. MUST BE RESUBMITTED TO THE TOWN ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION START.
10. STORMWATER SYSTEM MUST BE INSPECTED AND CERTIFIED BY A PROFESSIONAL ENGINEER
11. UNDERGROUND UTILITIES (ELECTRIC, GAS, & COMMUNICATION) TO BE FIELD LOCATED BY CONTRACTOR.
12. ROOF LEADER CONNECTIONS SHOWN HEREON ARE APPROXIMATE AND SHALL BE COORDINATED WITH GUTTER/DOWNSPOUT INSTALLATION. DRAINAGE SHALL BE INSTALLED TO PROVIDE A CONNECTION TO ALL REQUIRED ROOF LEADER DOWNSPOUTS.
13. NO SOIL STOCKPILING ALLOWED ON SITE. ALL EXCAVATED SOIL TO BE IMMEDIATELY TRUCKED OFF SITE.

EROSION CONTROL NOTES:

1. TREE PROTECTION MEASURES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF WORK.
2. SUGGESTED LOCATIONS OF EROSION AND SEDIMENT CONTROL MEASURES ARE SHOWN HEREON. PLACEMENT OF BEST MANAGEMENT PRACTICES TO MANAGE SOIL EROSION AND POLLUTION PREVENTION ON SITE MAY BE MODIFIED IN THE FIELD AFTER CONSULTATION WITH THE APPROPRIATE REGULATORY AGENCY HAVING JURISDICTION PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. PRACTICES MUST BE PROPERLY INSTALLED PRIOR TO START OF CONSTRUCTION AND SHALL BE INSPECTED AND MAINTAINED AS NEEDED TO INSURE THE CONTROLS ARE FUNCTIONING AS DESIGNED. CONTRACTOR SHALL TAKE CARE TO VISUALLY INSPECT CONTROLS, ESPECIALLY PRIOR TO PRECIPITATION EVENTS AND MAKE ANY CORRECTIONS OR PROVIDE ADDITIONAL MEASURES AS NECESSARY TO TRY TO PREVENT SEDIMENT OR POLLUTANTS FROM LEAVING THE SITE.
3. CONSTRUCTION ACCESS TO EXPOSED/GRADED SOILS SHALL BE DEFINED BY THE PLACEMENT OF AN ANTI-TRACKING MANAGEMENT PRACTICE PRIOR TO THE START OF CONSTRUCTION. TRACK OUT ONTO PUBLIC STREETS SHALL BE SWEPT DAILY AND BEFORE PRECIPITATION EVENTS.
4. DISTURBED SOILS SHALL BE TEMPORARILY STABILIZED WITHIN 14 DAYS.
5. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH NYSDEC 'NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.
6. THE ENGINEER MAY AT HIS DISCRETION REQUIRE ADDITIONAL EROSION CONTROL MEASURES THROUGHOUT CONSTRUCTION TO MITIGATE UNFORESEEN EROSION AND SILTATION.
7. PROVISIONS SHALL BE MADE TO PREVENT SURFACE WATER FROM DAMAGING THE CUT FACE OF EXCAVATIONS OR THE SLOPING SURFACES FILLS.
8. TREES, ROOT SYSTEMS AND OTHER VEGETATION REMOVED FOR CONSTRUCTION PURPOSES SHALL BE CHIPPED OR REMOVED FROM SITE. NO ON-SITE BURIAL OR BURNING SHALL BE PERMITTED.
9. DURING GRADING OPERATIONS, APPROPRIATE MEASURES FOR DUST CONTROL SHALL BE EXERCISED.
10. ALL FILLS SHALL BE COMPACTED TO PROVIDE STABILITY OF MATERIAL AND TO PREVENT UNDESIRABLE SETTLEMENT.
11. AFTER FINAL GRADES ARE ESTABLISHED, DISTURBED AREAS SHALL BE COVERED WITH FOUR INCHES OF TOPSOIL AND SEEDED; LANDSCAPE AREAS SHALL BE MULCHED.
12. FOR DEWATERING ACTIVITIES: A DEWATERING PUMP SHALL BE LOCATED IN A PERFORATED TUB SURROUNDED BY FILTER FABRIC AND STONE (OR APPROVED ALTERNATIVE). CLEAN DISCHARGE SHOULD BE DIRECTED TO ONSITE DRAINAGE APPURTENANCES TO MINIMIZE EROSION OF SOILS. DISCHARGE WITH SUSPENDED SEDIMENT SHALL BE CONNECTED TO A SEDIMENT BAG ON UNDISTURBED GROUND IN A LOCATION WHERE THE DISCHARGE WILL NOT CAUSE EROSION OR FLOW OVER EXPOSED SOILS.

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED 4/25/2022

CHRISTOPHER CARTHY, CHAIRMAN, DATE:
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING PLANS REVIEWED REVIEWED FOR CONFORMANCE TO RESOLUTION

JOSEPH M. CERMELE, PE DATE:
KELLARD SESSIONS CONSULTING
CONSULTING TOWN ENGINEERS

ARQ. ARCHITECTURE P.C.
ARCHITECTURE - PLANNING & ENGINEERING
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100 EXECUTIVE BLVD, SUITE 204
OSSINING, NY 10562
PHONE: (914) 944-3377
FAX: (866) 567-6240

JORGE B. HERNANDEZ R.A. A.I.A.
LICENSE NUMBER: 030424-1
CERTIFICATE NUMBER: 0973256

PAUL A. BERTE, P.E
100 EXECUTIVE BLVD. SUITE 204
OSSINING, NY 10562

REVISIONS	DATE	BY
CONSULTING CMT.	3/23/2022	ARQ.
P.B. RESOLUTION	4/1/2023	ARQ.
P.B. RESOLUTION	6/8/2023	ARQ.
REVISED FOR FINAL SIGNATURE	8/22/2023	ARQ.

DRAWING TITLE:
SITE PLANS, MAP, & NOTES

PROJECT:
MISTIS PROPERTIES INC.

PROJECT ADDRESS:
176 VIRGINA ROAD
WHITE PLAINS
NEW YORK, 10603

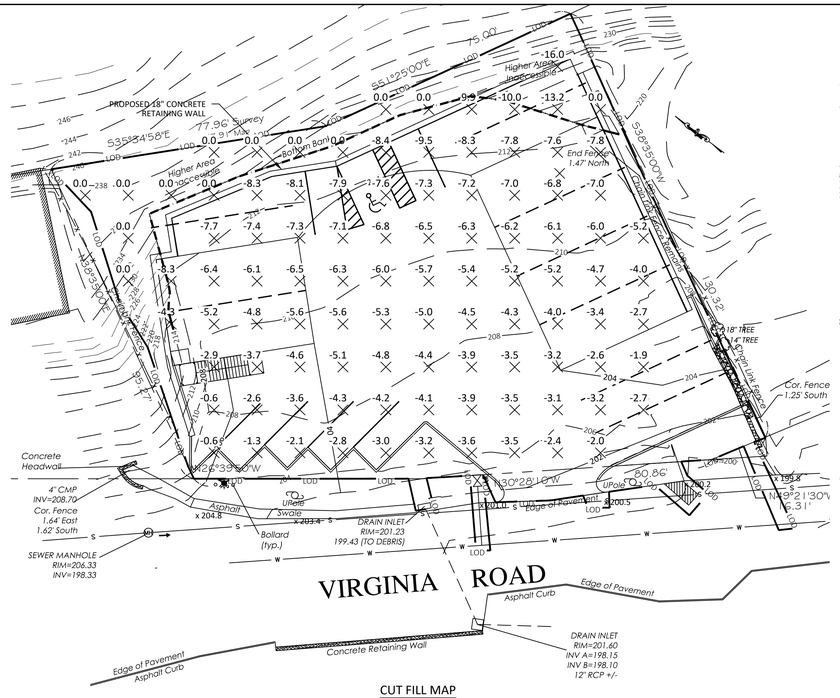
DOB EXAMINER SIGNATURE:

DOB BSCAN STICKER:

SEAL & SIGNATURE

STATE OF NEW YORK
PAUL A. BERTE
071855
LICENSED PROFESSIONAL ENGINEER

DATE: 03/08/2021	DWG. NO.: S-1
PROJECT NO.: 21029	
DRAWING BY: ARQ	CAD FILE NO.: 1 OF 14
CHECKED BY: PB	

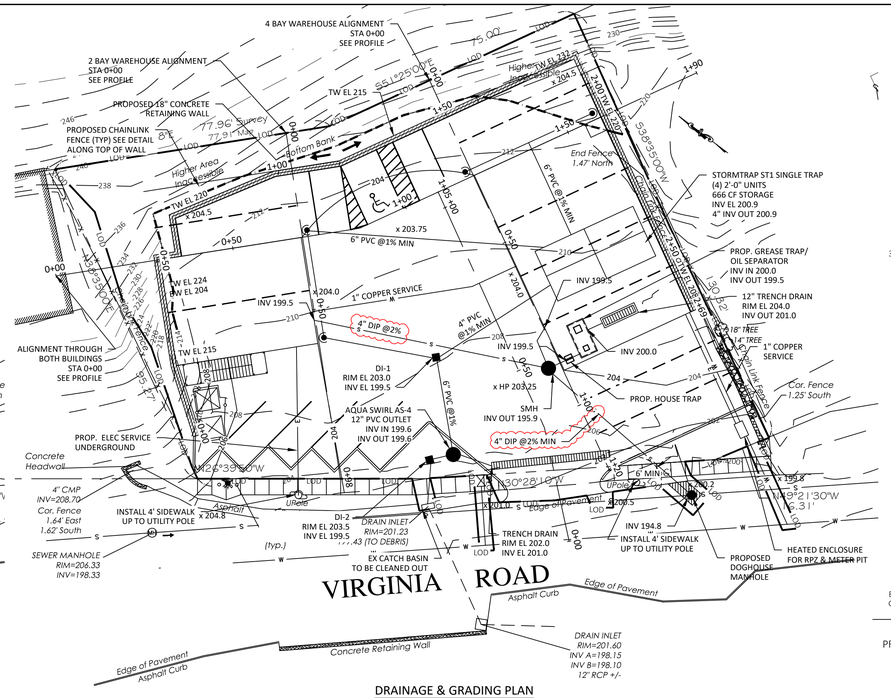


CUT FILL MAP

1" = 20' - 0"

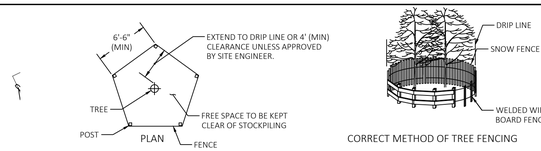
CUT FILL DATA		
CUT (YDS)	FILL (YDS)	NET (YDS)
2,686	121	2,565

* CUT MATERIAL TO BE IMMEDIATELY REMOVED FROM THE SITE AND MOVED TO AN APPROVED SITE



DRAINAGE & GRADING PLAN

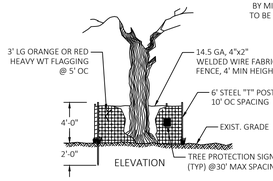
1" = 20' - 0"

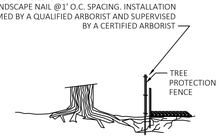


CORRECT METHOD OF TREE FENCING

NOTE:
THE TREE PROTECTION SHOULD BE INSTALLED PRIOR TO ANY WORK IN AREA, AND REMAIN UNTILL END OF ALL WORK.

SILT FENCE TO BE INSTALLED ON GRADE WITH NO TRENCH. MATTING TO BE INSTALLED OVER SILT FABRIC AND ANCHORED BY MIN 12" LANDSCAPE NAIL @1' O.C. SPACING. INSTALLATION TO BE PERFORMED BY A QUALIFIED ARBORIST AND SUPERVISED BY A CERTIFIED ARBORIST





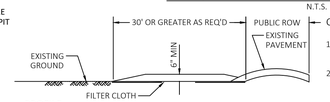
ROOT PROTECTION MATTING DETAIL

CONSTRUCTION SPECIFICATIONS:

1. TREE PROTECTION AREA WILL BE DETERMINED AS PART OF THE PLAN REVIEW PROCESS. EXACT LOCATION, DEPTH AND METHODS OF ROOT PRUNING TO BE DETERMINED IN FIELD BY PROJECT FORESTER.
2. EXACT LOCATION OF TREE PROTECTION AREAS SHALL BE STAKED OR FLAGGED PRIOR TO TRENCHING.
3. TRENCH SHOULD BE BACKFILLED IMMEDIATELY OR INCORPORATED WITH SILT FENCE INSTALLATION.
4. ROOTS SHOULD BE SEVERED BY TRENCHER, VIBRATORY PLOW OR APPROVED EQUIVALENT. ROOTS OVER 1.5" DIAMETER SHOULD BE CLEANLY CUT BY HAND. ROOT PRUNING ADJACENT TO SPECIMEN TREES MAY REQUIRE SOIL REMOVAL BY SUPERSONIC AIR TOOL TO MINIMIZE TREE AND ROOT IMPACTS.

TREE/VEGETATION PROTECTION BARRIER

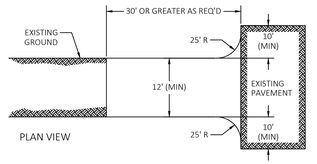
N.T.S.



NOTE:
PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION ENTRANCE AND PUBLIC R.O.W.

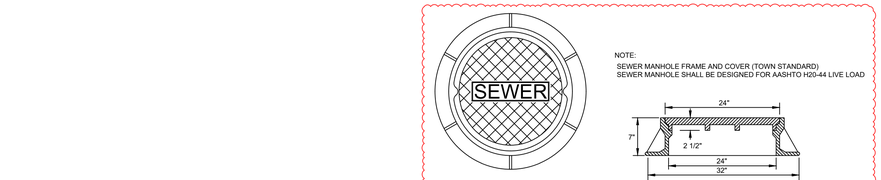
CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SIGHT.
5. FILTER CLOTH - 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 IMPRACTICAL, 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 RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUITED, IT SHALL BE DONE ON A AREA STABILISED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

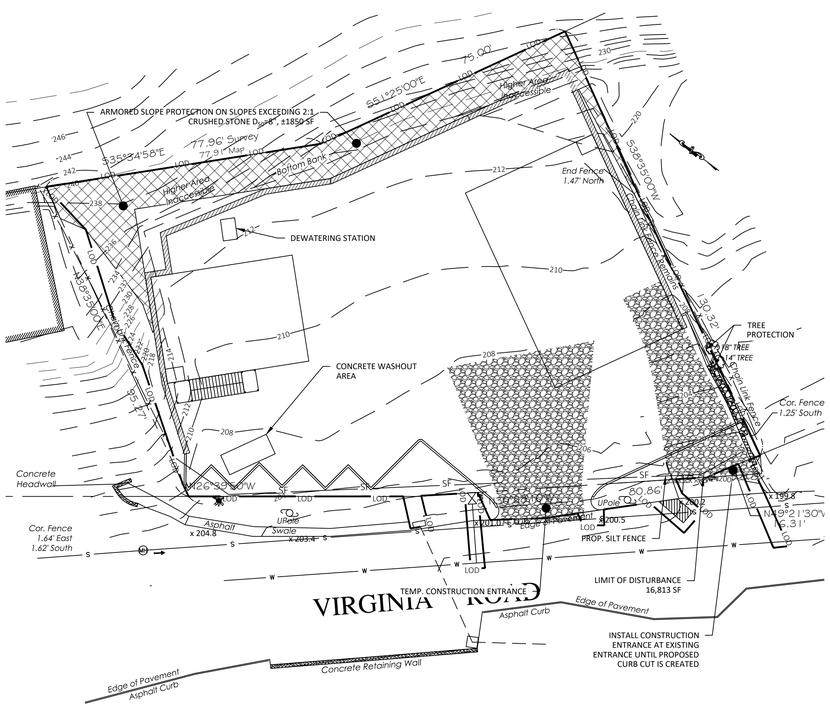


STABILIZED CONSTRUCTION ENTRANCE

N.T.S.

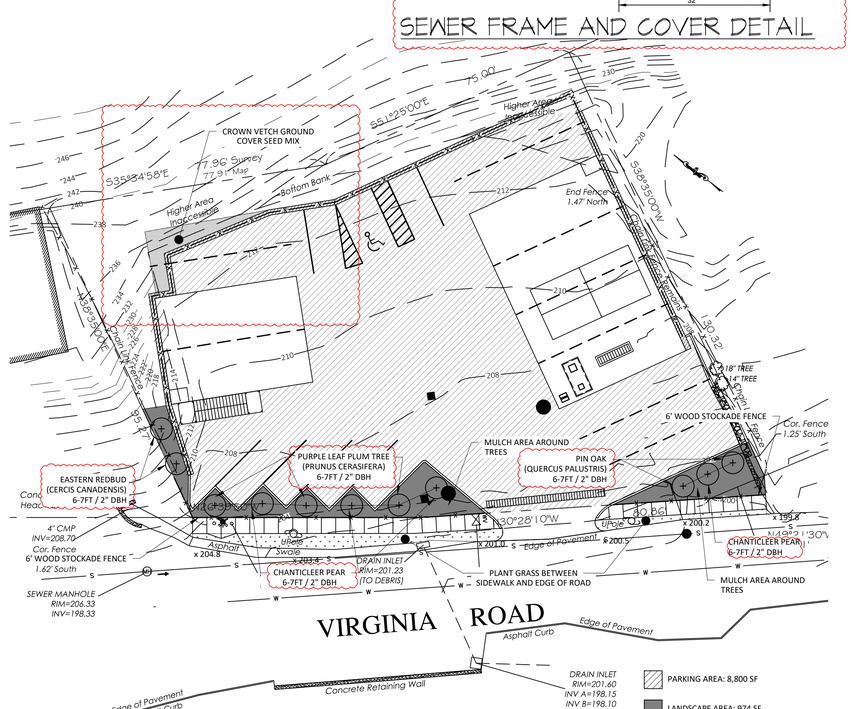


SEWER FRAME AND COVER DETAIL



EROSION CONTROL PLAN

1" = 20' - 0"



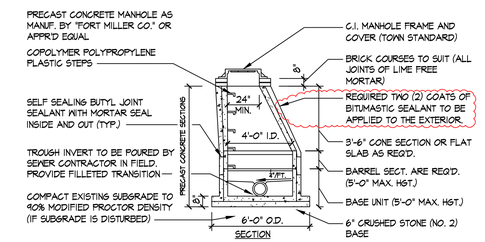
PARKING AREA: 8,800 SF

LANDSCAPE AREA: 974 SF

MIN LANDSCAPE AREA = 10% OF PARKING AREA = 8800*0.10 = 880 SF

LANDSCAPING PLAN

1" = 20' - 0"



SEWER MANHOLE DETAIL

N.T.S.

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED 4/25/2022

_____ DATE: _____

CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING PLANS REVIEWED REVIEWED FOR CONFORMANCE TO RESOLUTION

_____ DATE: _____

JOSEPH M. CERMELE, PE
KELLARD SESSIONS CONSULTING
CONSULTING TOWN ENGINEERS

ARQ. ARCHITECTURE P.C.
ARCHITECTURE - PLANNING & ENGINEERING
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100 EXECUTIVE BLVD, SUITE 204
OSSINING, NY 10562
PHONE: (914) 944-3377
FAX: (866) 567-6240

JORGE B. HERNANDEZ R.A. A.I.A.
LICENSE NUMBER: 030424-1
CERTIFICATE NUMBER: 0973256

PAUL A. BERTE, P.E
100 EXECUTIVE BLVD. SUITE 204
OSSINING, NY 10562

REVISIONS	DATE	BY
CONSULTING CMT.	3/23/2022	ARQ.
P.B. RESOLUTION	4/1/2023	ARQ.
P.B. RESOLUTION	6/8/2023	ARQ.
REVISED FOR FINAL SIGNATURE	8/22/2023	ARQ.

DRAWING TITLE:
DRAINAGE, GRADING & EROSION CONTROL

PROJECT:
MISTIS PROPERTIES INC.

PROJECT ADDRESS:
176 VIRGINIA ROAD
WHITE PLAINS
NEW YORK, 10603

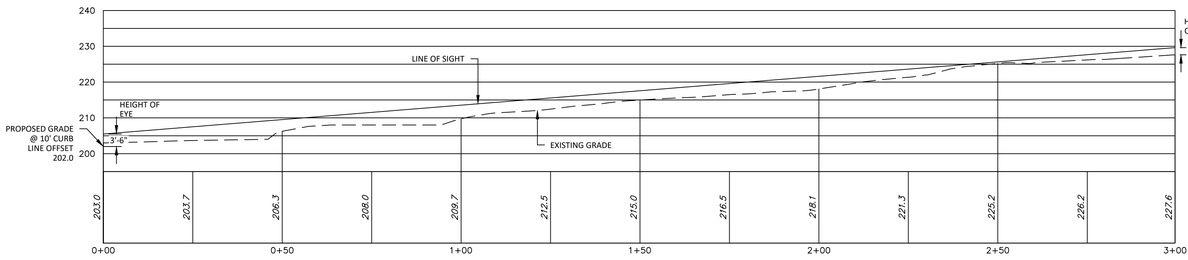
DOB EXAMINER SIGNATURE:

DOB BSCAN STICKER:

SEAL & SIGNATURE

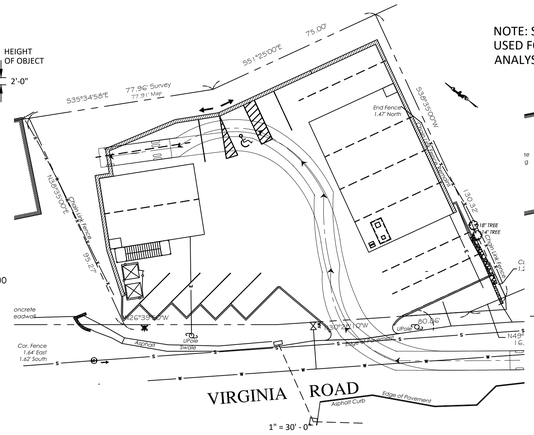
STATE OF NEW YORK
PAUL A. BERTE
071855
LICENSED PROFESSIONAL ENGINEER

DATE:	DWG. NO.:
03/08/2021	S-2
PROJECT NO.: 21029	
DRAWING BY: ARQ	CAD FILE NO.:
CHECKED BY: PB	2 OF 14



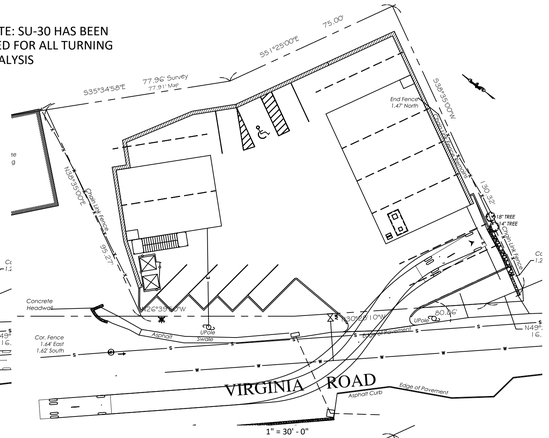
LINE OF SIGHT - NORTH VIEW LAFEYETTE AVENUE

1" = 20' - 0"

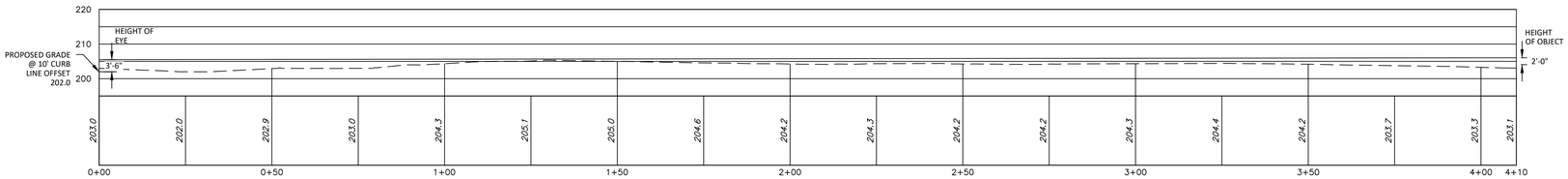


1" = 30' - 0"

NOTE: SU-30 HAS BEEN USED FOR ALL TURNING ANALYSIS

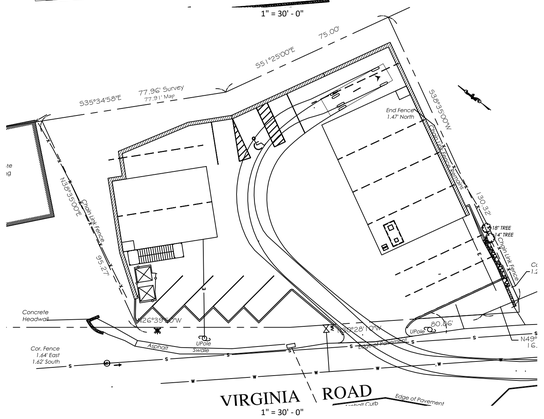


1" = 30' - 0"

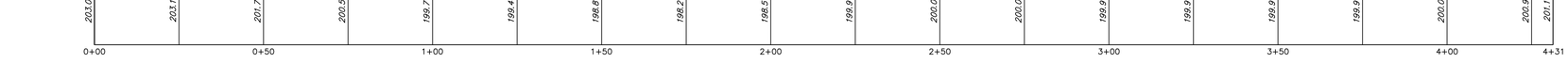


LINE OF SIGHT - NW VIEW ACROSS RAILROAD TRACKS

1" = 20' - 0"



1" = 30' - 0"



LINE OF SIGHT - SE VIEW

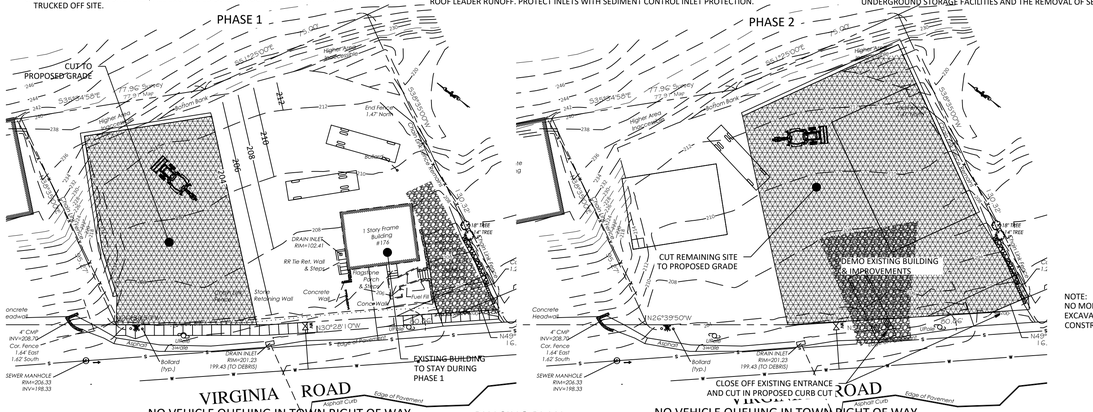
1" = 20' - 0"

SIGHT DISTANCE STUDY	
DIRECTION	SIGHT DISTANCE
TO THE NORTH ACROSS RAIL ROAD TRACKS	410'
TO THE NORTH UP LAFAYETTE AVENUE	299'
TO THE SOUTH	431'

NOTE: AASHTO POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS GUIDELINES WERE USED TO MEASURE THE SIGHT DISTANCE. THIS SPECIFIES VALUES FOR HEIGHT OF EYE AND HEIGHT OF OBJECT EQUAL TO 3.5 FT AND 2.0 FT RESPECTIVELY. THE HEIGHT OF EYE WAS CENTERED WITHIN THE PROPOSED DRIVEWAY OFFSET 10 FEET FROM THE EDGE OF VIRGINIA ROAD. THE HEIGHT OF OBJECT WAS MEASURED FROM THE CENTER OF THE EXISTING TRAVELED WAY.

CONSTRUCTION SEQUENCE

1. EROSION AND SEDIMENT CONTROL (ESC) MEASURES AND POLLUTION PREVENTION (PP) IMPLEMENTATION,
   a. INSTALL SILT FENCES ALONG EASTERLY PROJECT LIMITS
   b. UTILIZE EXISTING DRIVEWAY FOR CONSTRUCTION ACCESS. IF REQUIRED, INSTALL STONE (PER DETAIL) IF ACCESS IS REQUIRED ON AND OFF EXPOSED AREAS.
   c. INSTALL TREE PROTECTION
   d. INSTALL TEMPORARY SANITARY FACILITIES (PORTABLE TOILETS) IN A LOCATION THAT IS AT LEAST 20 FROM ANY DRAINAGE FACILITY OR FLOW PATH. RECOMMEND STAKING THE FACILITY TO PREVENT ACCIDENTAL TIPPING BY CONSTRUCTION ACTIVITY OR WIND.
   e. INSTALL WASTE CONTAINER - MAINTAIN RIGOROUS SITE CLEANING SCHEDULE TO PREVENT DEBRIS FROM BLOWING OFF SITE. CONSTRUCTION WASTE SHALL BE STORED IN A DUMPSTER AND CARRIED OFF-SITE ON A REGULAR BASIS
   f. ALLOCATE CONCRETE WASHOUT AREAS IN ADVANCE OF POUR.
2. PHASE 1 CLEARING, DEMO & EXCAVATION.
   a. CLEAR ALL TREES MARKED TO BE REMOVED ON THE DEMOLITION PLAN. CLEAR & GRUB NORTH HALF OF THE PROPERTY, NORTH OF THE EXISTING 1 STORY RESIDENCE. THE EXISTING RESIDENCE IS TO REMAIN UNTIL PHASE 2.
   b. EXCAVATE TO PROPOSED GRADE. IT IS ANTICIPATED THAT ROCK WILL BE PRESENT ON PORTIONS OF THE SITE. A MINIMUM PRODUCTIVITY RATE OF 55YARDS PER DAY WITH A 2000FTLBF HAMMER IS PROPOSED TO REMOVE ANY ROCK ENCOUNTERED.
   c. DUE TO THE LIMITED SITE AREA, ALL EXCAVATED SOILS & ROCK ARE TO BE IMMEDIATELY TRUCKED OFF SITE.
   d. DISTURBED AREAS WHERE CONSTRUCTION WILL CEASE FOR MORE THAN 14 DAYS WILL BE STABILIZED WITH EROSION CONTROLS, SUCH HYDRO-SEEDING, HYDRO-MULCH, OR HAY
   e. FORM AND POUR PROPOSED RETAINING WALL ALONG REAR PROPERTY LINE UP TO THE NEXT PHASE SECTION. IF STABLE ROCK IS ENCOUNTERED ALONG THE LIMITS OF THE PROPOSED CUT, THE RETAINING WALL WILL NOT BE NECESSARY.
3. CONSTRUCT RETAINING WALL ON WEST SIDE OF LOT AS SHOWN IN PHASE 1 PHASING PLAN.
4. CUT IN CURB AT PROPOSED LOCATION AND INSTALL TEMPORARY CONSTRUCTION ENTRANCE.
5. PHASE 2 CLEARING, DEMO & EXCAVATION
   a. DISCONNECT AND CAP ALL UTILITIES TO EXISTING 1 STORY RESIDENCE. RESTORE PAVEMENT AS SPECIFIED.
   b. DEMOLISH ALL EXISTING IMPROVEMENTS REMAINING ON THE DEMOLITION PLAN.
   c. CLEAR & GRUB SOUTH END OF PROPERTY.
   d. EXCAVATE TO PROPOSED GRADE. IT IS ANTICIPATED THAT ROCK WILL BE PRESENT ON PORTIONS OF THE SITE. A MINIMUM PRODUCTIVITY RATE OF 55CUBICYARDS PER DAY WITH A 2000FTLBF HAMMER IS PROPOSED TO REMOVE ANY ROCK ENCOUNTERED.
   e. DUE TO THE LIMITED SITE AREA, ALL EXCAVATED SOILS & ROCK ARE TO BE IMMEDIATELY TRUCKED OFF SITE.
   f. DISTURBED AREAS WHERE CONSTRUCTION WILL CEASE FOR MORE THAN 14 DAYS WILL BE STABILIZED WITH EROSION CONTROLS, SUCH HYDRO-SEEDING, HYDRO-MULCH, OR HAY.
6. FORM AND POUR PROPOSED RETAINING WALL ALONG REAR PROPERTY LINE UP TO THE NEXT PHASE SECTION. IF STABLE ROCK IS ENCOUNTERED ALONG THE LIMITS OF THE PROPOSED CUT, THE RETAINING WALL WILL NOT BE NECESSARY.
7. INSTALL SUBSURFACE STORAGE SYSTEM, SITE DRAINAGE AND HYDRODYNAMIC SEPARATOR TO CAPTURE ROOF LEADER RUNOFF. PROTECT INLETS WITH SEDIMENT CONTROL INLET PROTECTION.
8. VERTICAL CONSTRUCTION (INSTALL FOUNDATION AND CONSTRUCT PREFAB METAL WAREHOUSE STRUCTURES)
9. INSTALL UNDERGROUND UTILITIES. RESTORE PAVEMENT AS SPECIFIED.
10. INSTALL PROPOSED CURB AND ASPHALT PARKING LOT
11. PAINT ALL STRIPING FOR PROPOSED LOT.
12. PLANT ALL PROPOSED LANDSCAPING.
13. FINAL STABILIZATION OF DISTURBED AREAS
    a. REMOVE ALL ESC AND PP MEASURES UPON APPROVAL OF DESIGN ENGINEER AND/OR ESC INSPECTOR.
    b. AWARDED CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER IMPLEMENTATION OF THE ESC AND PP PRACTICES. THE FOLLOWING MAINTENANCE PROGRAM IS PROPOSED IN ORDER TO MAINTAIN THE PROPER FUNCTION OF ALL DRAINAGE AND EROSION AND SEDIMENT CONTROL FACILITIES:
    i. INSPECT SEDIMENT CONTROL DEVICES AND CONSTRUCTION ACCESS POINT ROUTINELY AND IF NECESSARY REMOVE ACCUMULATED SEDIMENTATION AND DEBRIS; AT NO POINT SHOULD THE FILTER BED BE ALLOWED TO CONTINUE OPERATIONS BEYOND 50% OF ITS CAPACITY BEING COMPROMISED BY DEBRIS.
    ii. ALL DISTURBED AREA WILL BE STABILIZED AND THE SEDIMENT BUILD-UP IN THE FILTER REMOVED. AFTER THE CONSTRUCTION IS COMPLETED, ANY AREAS DISTURBED SHALL BE STABILIZED IMMEDIATELY AFTER THE REQUIRED WORK IS COMPLETED.
    iii. RESTORE AND RE-SEED ANY ERODED AREAS AS SOON AS POSSIBLE THE STORMWATER MANAGEMENT FACILITIES MAINTENANCE PROGRAM WILL BE MANAGED BY THE HOME OWNER AND SHALL INCLUDE YEARLY INSPECTION OF THE ON-SITE CATCH BASINS AND UNDERGROUND STORAGE FACILITIES AND THE REMOVAL OF SEDIMENT, AS NECESSARY.



NO VEHICLE QUEUING IN TOWN RIGHT OF WAY

PHASING PLAN

1" = 30' - 0"

NO VEHICLE QUEUING IN TOWN RIGHT OF WAY

NOTE:
NO MORE THAN TWO DUMP TRUCKS AND ONE EXCAVATOR TO BE ON SITE AT ONCE DURING CONSTRUCTION.

SIGHT DISTANCE STUDY

1" = 60' - 0"

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED 4/25/2022

_____ DATE: _____

CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD
ENGINEERING PLANS REVIEWED REVIEWED FOR CONFORMANCE TO RESOLUTION

_____ DATE: _____

JOSEPH M. CERMELE, PE
KELLARD SESSIONS CONSULTING
CONSULTING TOWN ENGINEERS

ARQ. ARCHITECTURE P.C.
ARCHITECTURE - PLANNING & ENGINEERING
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100 EXECUTIVE BLVD. SUITE 204
OSSINING, NY 10562
PHONE: (914) 944-3377
FAX: (866) 567-6240

JORGE B. HERNANDEZ R.A. A.I.A.
LICENSE NUMBER: 030424-1
CERTIFICATE NUMBER: 0973256

PAUL A. BERTE, P.E
100 EXECUTIVE BLVD. SUITE 204
OSSINING, NY 10562

REVISIONS	DATE	BY
CONSULTING CMT.	3/23/2022	ARQ.
P.B. RESOLUTION	4/1/2023	ARQ.
P.B. RESOLUTION	6/8/2023	ARQ.
REVISED FOR FINAL SIGNATURE	8/22/2023	ARQ.

DRAWING TITLE:
TURNS & SIGHT DISTANCE

PROJECT:
MISTIS PROPERTIES INC.

PROJECT ADDRESS:
176 VIRGINIA ROAD
WHITE PLAINS
NEW YORK, 10603

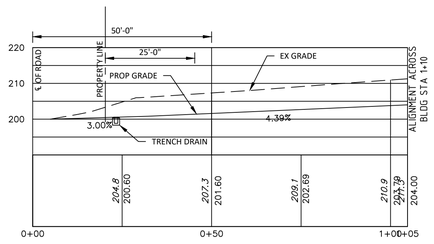
DOB EXAMINER SIGNATURE:

DOB BSCAN STICKER:

SEAL & SIGNATURE

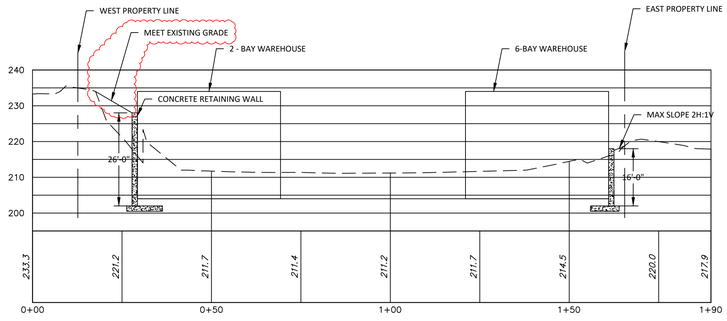
STATE OF NEW YORK
PAUL A. BERTE
071855
LICENSED PROFESSIONAL ENGINEER

DATE: 03/08/2021
PROJECT NO: 21029
DRAWING BY: ARQ
CHECKED BY: PB
DWG. NO.: S-3
CAD FILE NO.:
3 OF 14

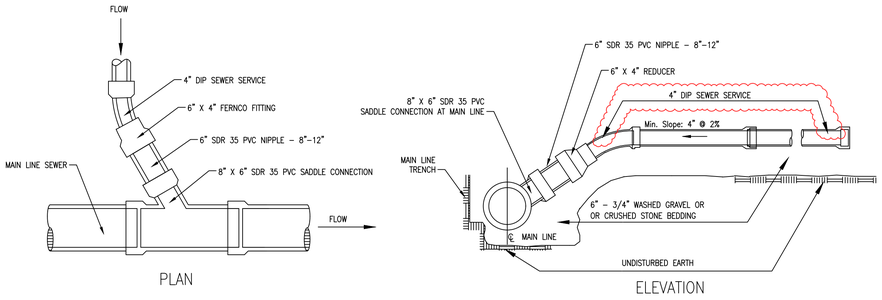


DRIVEWAY PROFILE

1" = 20' - 0"

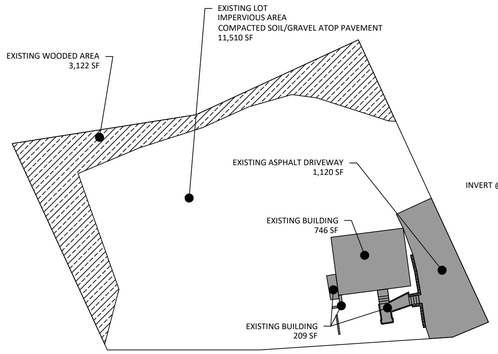


CROSS SECTIOIN THROUGH BUILDINGS



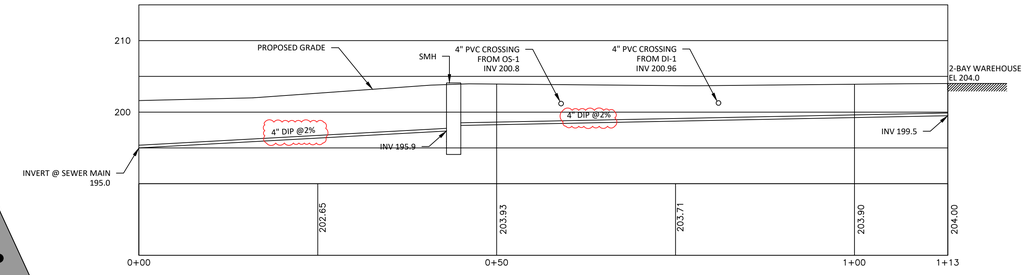
HOUSE CONNECTION AT GRADE

NTS



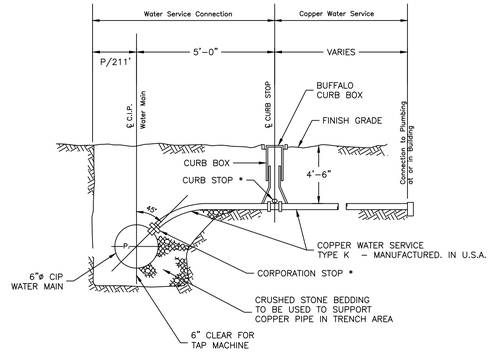
EXISTING LOT COVERAGE

SCALE: 1" = 30'



SEWER ALIGNMENT: SEWER MAIN TO WAREHOUSE 1

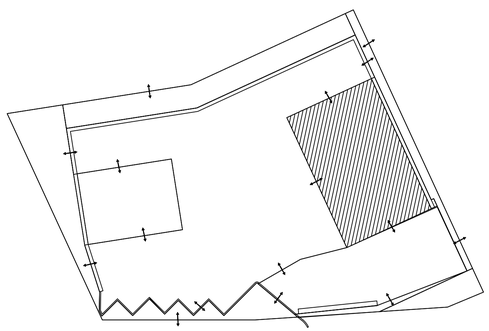
SCALE: 1" = 10'-0"



* CURB STOP AND CORPORATION STOP TO BE MUELLER OR EQUAL

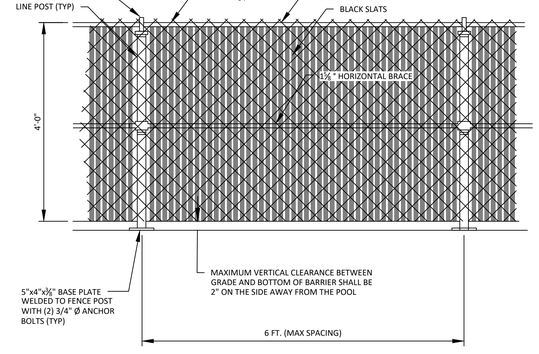
WATER SERVICE CONNECTION

NTS



PROPOSED LOT COVERAGE

SCALE: 1" = 30'

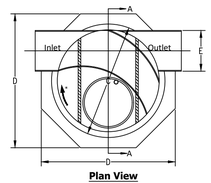


CHAIN LINK FENCE WITH SLATS ON RETAINING WALL

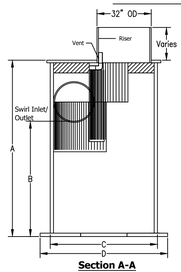
Aqua -Swirl Dimensions						
Aqua Swirl Model #	Chamber Height	Chamber Depth to Invert	Chamber Outside Diameter	Base Plate		Outside Diameter
	A	B	C	D		E
AS-4	104"	68"	54"	66" x 66"		12"

Bollards shall be placed around access riser(s) in non-traffic areas to prevent inadvertent loading by maintenance vehicles
If traffic loading (H-20) is required or anticipated, a concrete pad must be placed over the entire Stormwater Treatment System. Sample details of concrete pad available upon request.

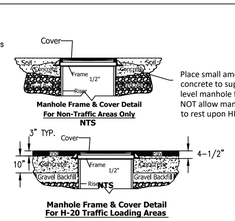
* Unit may be fabricated for clockwise or counter-clockwise flow direction.



Plan View

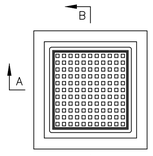


Section A-A



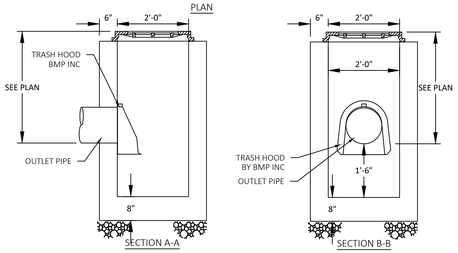
STORMWATER PRE-TREATMENT, AQUA-SWIRL FILTER

NTS



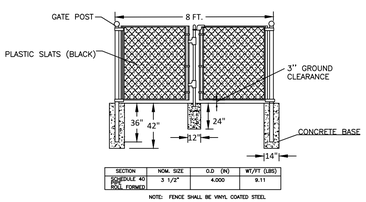
GENERAL NOTES:

1. FRAME AND GRATE TO BE No. 3193 AS MANUFACTURED BY CAMPBELL FOUNDRY CO. OR APPROVED EQUAL.



2' x 2' DRAIN INLET (DI)

SCALE: 1/2" = 1'

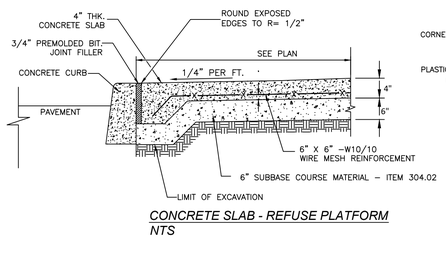


SECTION	NOM. SIZE	O.D (IN)	WT/FT (LBS)
SCHEDULE 40 STEEL FORMED	3 1/2"	4.000	9.11

NOTE: FENCE SHALL BE VINYL COATED STEEL

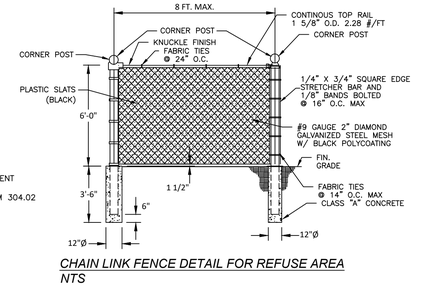
LEAF GATE DETAIL FOR REFUSE AREA

NTS



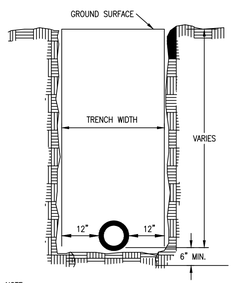
CONCRETE SLAB - REFUSE PLATFORM

NTS



CHAIN LINK FENCE DETAIL FOR REFUSE AREA

NTS



NOTE:
PIPES SHALL BE BACKFILLED WITH SELECT FILL MATERIAL FOR 24" ABOVE TOP OF PIPE. SELECT FILL MATERIAL SHALL CONSIST OF SAND OR SOIL WITH NO STONES GREATER THAN 2" IN DIAMETER. BACKFILL MATERIAL MAY CONTAIN STONES UP TO 6" IN THEIR GREATEST DIMENSION FROM 24" ABOVE THE TOP OF THE PIPE TO THE BOTTOM OF THE SUBGRADE. SELECT AND BACKFILL MATERIAL SHALL BE PLACED IN 12" LIFTS (PRIOR TO COMPACTION) AND COMPACTED WITH A MECHANICAL TAMPER.

TYPICAL TRENCH SECTION

NTS

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED 4/25/2022

_____ DATE: _____

CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING PLANS REVIEWED REVIEWED FOR CONFORMANCE TO RESOLUTION

_____ DATE: _____

JOSEPH M. CERMELE, PE
KELLARD SESSIONS CONSULTING
CONSULTING TOWN ENGINEERS

ARQ ARCHITECTURE P.C.
ARCHITECTURE - PLANNING & ENGINEERING
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100 EXECUTIVE BLVD, SUITE 204
OSSINING, NY 10562
PHONE: (914) 944-3377
FAX: (866) 567-6240

JORGE B. HERNANDEZ R.A. A.I.A.
LICENSE NUMBER: 030424-1
CERTIFICATE NUMBER: 0973256

PAUL A. BERTE, P.E
100 EXECUTIVE BLVD. SUITE 204
OSSINING, NY 10562

REVISIONS	DATE	BY
CONSULTING CMT.	3/23/2022	ARQ.
P.B. RESOLUTION	4/1/2023	ARQ.
P.B. RESOLUTION	6/8/2023	ARQ.
REVISED FOR FINAL SIGNATURE	8/22/2023	ARQ.

DRAWING TITLE:
SITE DETAILS

PROJECT:
MISTIS PROPERTIES INC.

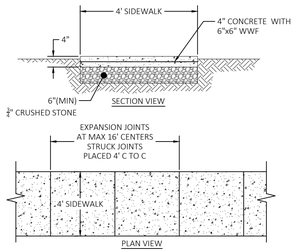
PROJECT ADDRESS:
176 VIRGINA ROAD
WHITE PLAINS
NEW YORK, 10603

DOB EXAMINER SIGNATURE:

DOB BSCAN STICKER:

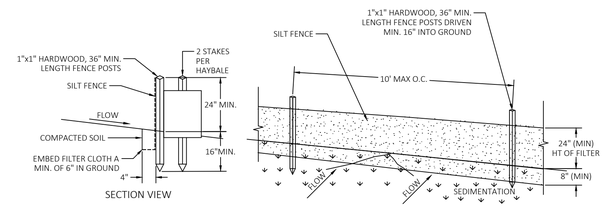
SEAL & SIGNATURE

DATE: 03/08/2021	DWG. NO.: S-4
PROJECT NO.: 21029	
DRAWING BY: ARQ	CAD FILE NO.:
CHECKED BY: PB	4 OF 14



CONCRETE SIDEWALK

N.T.S.

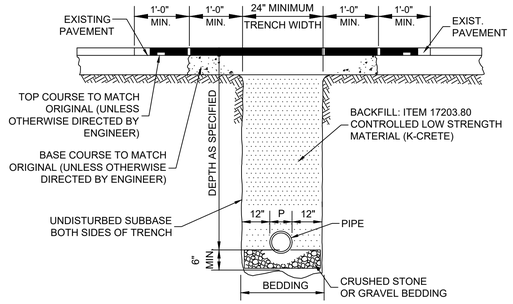


CONSTRUCTION SPECIFICATIONS:

1. SILT FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH STAPLES. POSTS SHALL BE 1"X1" HARDWOOD, OR APPROVED EQUAL.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE WRAPPED AROUND 2 STAKES, MIN 2X. FILTER CLOTH SHALL BE EITHER FILTER USCF MISF180, MIRAFI 100X OR APPROVED EQUIVALENT.
3. MAINTENANCE SHALL BE PERFORMED AS NEEDED, REINFORCE AREA LOW POINTS WITH ADDITIONAL STAKES OR OTHER MATERIALS (AS RECOMMENDED BY ENGINEER). MATERIAL SHALL BE REMOVED WHEN SEDIMENT LOAD REACHES 50% HEIGHT OF FENCE.

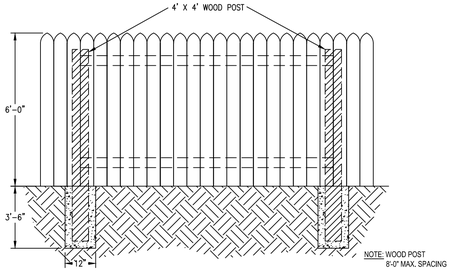
SILT FENCE INSTALLATION DETAIL

N.T.S.



PAVEMENT REPLACEMENT OVER TRENCH DETAIL

NTS



STOCKADE FENCE DETAIL

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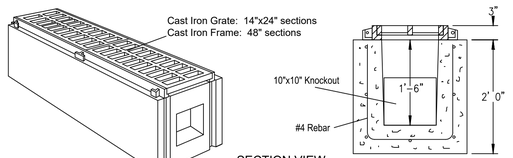
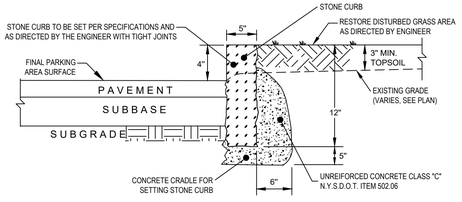


MODEL TD-HD - WOODARD'S CONCRETE PRODUCTS, INC. OR EQUAL

PRECAST TRENCH DRAIN DETAIL

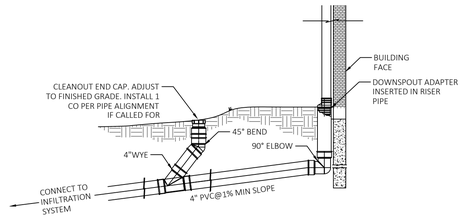
N.T.S

SPECIFICATIONS
Concrete Minimum Strength: 4,000 psi at 28 days
Reinforcement: #4 Rebar
Air Entrainment: 5%
Weight: 3,000 lbs
Load Rating: H20, truck traffic



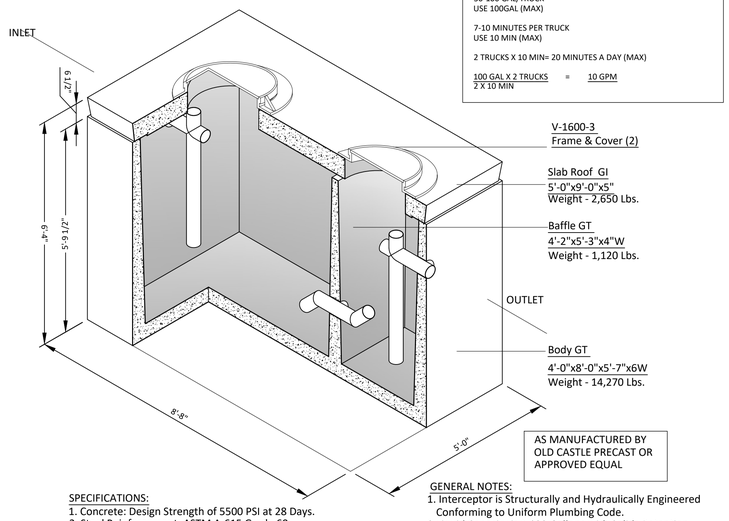
STONE CURB DETAIL

N.T.S. (ITEM # 609.01)



ROOF LEADER CONNECTIONS

N.T.S.



AS MANUFACTURED BY OLD CASTLE PRECAST OR APPROVED EQUAL

SPECIFICATIONS:
1. Concrete: Design Strength of 5500 PSI at 28 Days.
2. Steel Reinforcement: ASTM A-615 Grade 60.
3. Loading: Designed for HS-20 Loading.
4. C.I. Castings: ASTM A-48 Class 30/35.

GENERAL NOTES:
1. Interceptor is Structurally and Hydraulically Engineered Conforming to Uniform Plumbing Code.
2. Liquid Capacity is 1,033 Gallons with Solids Retention Capacity of Approx. 2,600 Pounds.
3. Recommended for Flow Rate up to 28 GAL Per Minute.

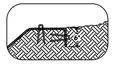
GREASE TRAP/ OIL SEPARATOR (1000 GALLON)

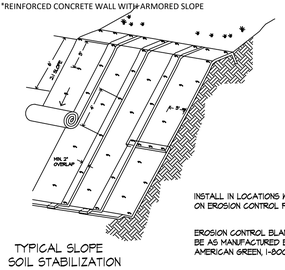
NTS

WATER FLOW CALCULATIONS
APPROX 5 TRUCKS WASHED PER MONTH (PROVIDED BY OWNER)
A MAX OF 2 TRUCKS TO BE WASHED A DAY
WATER USAGE: 30-100 GAL/TRUCK USE 100GAL (MAX)
7-10 MINUTES PER TRUCK USE 10 MIN (MAX)
2 TRUCKS X 10 MIN= 20 MINUTES A DAY (MAX)
100 GAL X 2 TRUCKS / 2 X 10 MIN = 10 GPM

INSTALLATION NOTES:

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING SEED AND FERTILIZER. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. BLANKETS SHALL HAVE GOOD SOIL CONTACT.
2. BEGIN AT THE TOP OF SLOPE BY ANCHORING THE BLANKET IN 6" DEEP x 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL THE BLANKETS DOWN THE SLOPE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH ±2" OVERLAP.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH 24" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, ±12" APART.
6. CONSULT WITH NORTH AMERICAN GREEN FOR REQUIRED STAPLE PATTERNS.
7. FOR SLOPES GREATER THAN 2:1 INSTALL ARMORED SLOPE PROTECTION. SEE SHEET S-7 DETAIL "REINFORCED CONCRETE WALL WITH ARMORED SLOPE DETAIL".





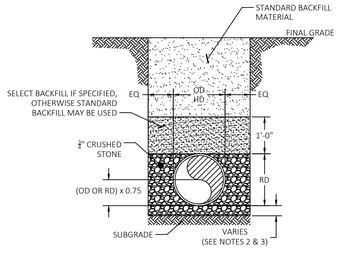
INSTALL IN LOCATIONS WHERE SHOWN ON EROSION CONTROL PLANS.

EROSION CONTROL BLANKET SHALL BE AS MANUFACTURED BY NORTH AMERICAN GREEN, 1-800-772-2040

TYPICAL SLOPE SOIL STABILIZATION

EROSION CONTROL BLANKET INSTALLATION DETAIL

NTS

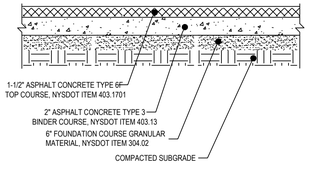


NOTES:
1. FILL SECTION AREA MUST BE GRADED TO 2'-0" MIN. ABOVE TOP OF PIPE BEFORE EXCAVATING TRENCH.
2. REMOVE TRENCH ROCK TO 6' BELOW BOTTOM OF PIPE
3. WHERE UNSUITABLE MATERIAL IS ENCOUNTERED IN TRENCH BOTTOM, UNDERCUT AS DIRECTED BY OWNER'S FIELD REPRESENTATIVE.
4. PAYMENT LIMIT IN ROCK NOT TO EXCEED W (MIN) AND UNDERCUT EQUALS 6".

D	INSIDE DIAMETER, SPAN
RD	OUTSIDE RISE AT BELL OR BAND
OD	OUTSIDE BARREL DIAMETER, SPAN, OR RISE
HD	OUTSIDE DIAMETER, SPAN, OR RISE @ BELL OR BAND
W	O.D.+2.0'-CONDUIT 48" OR LESS DIAMETER OR SPAN
W	O.D.+2.5'-CONDUIT GREATER THAN 48" DIAMETER OR SPAN
SD	2/3 DIAMETER FOR ALL PVC PIPING
EQ	2.0'-CONDUIT 48" OR LESS DIAMETER OR SPAN
EQ	2.5'-CONDUIT GREATER THAN 48" DIAMETER OR SPAN

PIPE TRENCH EXCAVATION & BACKFILL

N.T.S.



SECTION THRU PARKING LOT

N.T.S.

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED 4/25/2022

CHRISTOPHER CARTHY, CHAIRMAN, TOWN OF NORTH CASTLE PLANNING BOARD — DATE:

ENGINEERING PLANS REVIEWED REVIEWED FOR CONFORMANCE TO RESOLUTION

JOSEPH M. CERMELE, PE
KELLARD SESSIONS CONSULTING
CONSULTING TOWN ENGINEERS — DATE:

ARQ. ARCHITECTURE P.C.
ARCHITECTURE - PLANNING & ENGINEERING
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100 EXECUTIVE BLVD. SUITE 204
OSSINING, NY 10562
PHONE: (914) 944-3377
FAX: (866) 567-6240

JORGE B. HERNANDEZ R.A. A.I.A.
LICENSE NUMBER: 030424-1
CERTIFICATE NUMBER: 0973256

PAUL A. BERTE, P.E
100 EXECUTIVE BLVD. SUITE 204
OSSINING, NY 10562

REVISIONS	DATE	BY
CONSULTING CMT.	3/23/2022	ARQ.
P.B. RESOLUTION	4/1/2023	ARQ.
P.B. RESOLUTION	6/8/2023	ARQ.
REVISED FOR FINAL SIGNATURE	8/22/2023	ARQ.

DRAWING TITLE:
SITE DETAILS

PROJECT:
MISTIS PROPERTIES INC.

PROJECT ADDRESS:
176 VIRGINA ROAD
WHITE PLAINS
NEW YORK, 10603

DOB EXAMINER SIGNATURE:

DOB BSCAN STICKER:

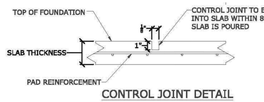
SEAL & SIGNATURE

STATE OF NEW YORK · PAUL A. BERTE · 071855 · LICENSED PROFESSIONAL ENGINEER

DATE: 03/08/2021
PROJECT NO: 21029
DRAWING BY: ARQ
CHECKED BY: PB
DWG. NO.: S-5
CAD FILE NO.:
5 OF 14

NOTES:

1. CONCRETE STRENGTH @ 28 DAYS, 5%-8% ENTRAINED AIR, 4" MAX. SLUMP.
2. NET ALLOWABLE SOIL PRESSURE AS INDICATED ON SHEET 1.0.
3. SOIL CONDITIONS TO BE VERIFIED ON SITE BY OTHERS.
4. REBAR: ASTM A-615 GRADE 60. BLACK BAR.
5. DIMENSION OF FOUNDATION MUST HAVE 1'-0" OVERHANG BEYOND EXTERNAL FACE OF MODULE.
6. DIMENSION OF STORMTRAP SYSTEM ALLOW FOR A 3/4" GAP BETWEEN EACH MODULE.
7. ALL DIMENSIONS TO BE VERIFIED IN THE FIELD BY OTHERS.
8. THE CONTROL JOINTS SHALL BE BETWEEN (IF REQUIRED BY ENGINEER OF RECORD) 16'-0" TO 24'-0" MAX APART.
9. SEE SHEET 3.0 FOR INSTALLATION SPECIFICATIONS.



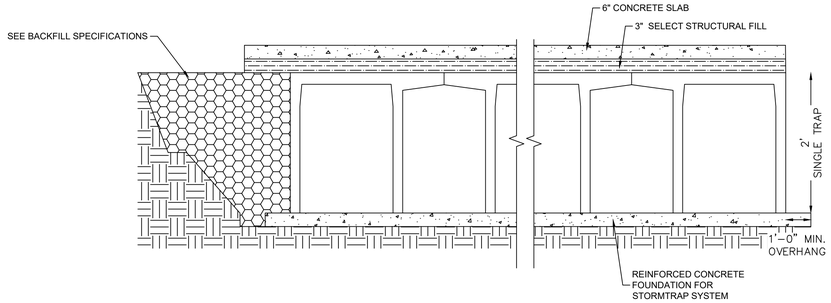
CONTROL JOINT DETAIL

STORMTRAP FOUNDATION DETAIL

MAXIMUM SYSTEM COVER	SLAB THICKNESS	CONCRETE STRENGTH	REINFORCEMENT (BOTH DIRECTIONS)
6" - 12"	0'-8"	4000 PSI	#4 @ 18" O.C.
>1'-0" - 2'-0"	0'-8"	4000 PSI	#4 @ 16" O.C.
>2'-0" - 3'-0"	0'-8"	4000 PSI	#4 @ 12" O.C.
>3'-0" - 4'-0"	0'-8"	4000 PSI	#4 @ 12" O.C.
>4'-0" - 5'-0"	0'-8"	4000 PSI	#5 @ 18" O.C.
>5'-0" - 6'-0"	0'-8"	4000 PSI	#5 @ 16" O.C.
>6'-0" - 7'-0"	0'-8"	4000 PSI	#5 @ 16" O.C.
>7'-0" - 8'-0"	0'-9"	4000 PSI	#5 @ 12" O.C.
>8'-0" - 9'-0"	0'-10"	4000 PSI	#5 @ 12" O.C.
>9'-0" - 10'-0"	0'-10"	4500 PSI	#5 @ 12" O.C.

STORMTRAP STRUCTURAL DESIGN CRITERIA

1. STORMTRAP MODULES SHALL BE MANUFACTURED AND INSTALLED ACCORDING TO SHOP DRAWINGS APPROVED BY THE INSTALLING CONTRACTOR AND ENGINEER OF RECORD. THE SHOP DRAWINGS SHALL INDICATE SIZE AND LOCATION OF ROOF OPENINGS AND INLET/ OUTLET PIPE TYPES, SIZES, INVERT ELEVATIONS AND SIZE OF OPENINGS.
2. COVER RANGE: MIN. 1.08' MAX. 10.00' (CONSULT STORMTRAP FOR ADDITIONAL COVER OPTIONS).
3. ALL DIMENSIONS AND SOIL CONDITIONS, INCLUDING BUT NOT LIMITED TO GROUNDWATER AND SOIL BEARING CAPACITY ARE REQUIRED TO BE VERIFIED IN THE FIELD BY OTHERS PRIOR TO STORMTRAP INSTALLATION.

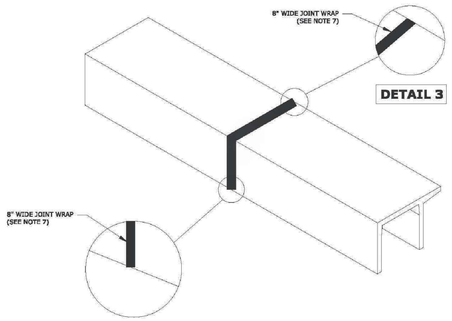


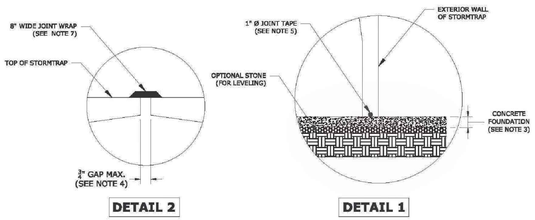
STORMTRAP ELEVATION - SINGLE TRAP

NTS

STORMTRAP INSTALLATION SPECIFICATIONS

1. STORMTRAP SHALL BE INSTALLED IN ACCORDANCE WITH ASTM C891, STANDARD FOR INSTALLATION OF UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES, THE FOLLOWING ADDITIONS AND/OR EXCEPTIONS SHALL APPLY:
2. IT IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR TO ENSURE THAT PROPER/ADEQUATE EQUIPMENT IS USED TO SET/INSTALL THE MODULES.
3. STORMTRAP MODULES SHALL BE PLACED ON A LEVEL CONCRETE FOUNDATION (SEE SHEET 2.1) WITH A 1'-0" OVERHANG ON ALL SIDES THAT SHALL BE POURED IN PLACE BY INSTALLING CONTRACTOR. A QUALIFIED GEOTECHNICAL ENGINEER WILL BE EMPLOYED, BY OWNER, TO PROVIDE ASSISTANCE IN EVALUATING THE EXISTING SOIL CONDITIONS. TO ENSURE THAT HE SOIL BEARING PRESSURE MEET OR EXCEED THE STRUCTURAL DESIGN LOADING CRITERIA AS SPECIFIED ON SHEET 1.0.
4. THE STORMTRAP MODULES SHALL BE PLACED SUCH THAT THE MAXIMUM SPACE BETWEEN ADJACENT MODULES DOES NOT EXCEED ¾" (SEE DETAIL 2). IF THE SPACE EXCEEDS ¾", THE MODULES SHALL BE RESET WITH APPROPRIATE ADJUSTMENT MADE TO LINE AND GRADE TO BRING THE SPACE INTO SPECIFICATION.
5. THE PERIMETER HORIZONTAL JOINT BETWEEN THE STORMTRAP MODULES AND THE CONCRETE FOUNDATION SHALL BE SEALED TO THE FOUNDATION WITH PRE-FORMED MASTIC JOINT SEALER ACCORDING TO ASTM C891, 8.8 AND 8.12 (SEE DETAIL 1). THE MASTIC JOINT TAPE DOES NOT PROVIDE A WATERTIGHT SEAL. THE SOLE PURPOSE OF THE JOINT TAPE IS TO PROVIDE A SILT AND SOIL TIGHT SYSTEM.
6. STORMTRAP MODULES ARE NOT WATERTIGHT. IF A WATERTIGHT SOLUTION IS REQUIRED, CONTACT STORMTRAP FOR RECOMMENDATIONS. THE WATERTIGHT APPLICATION IS TO BE PROVIDED AND IMPLEMENTED BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THE SELECTED WATERTIGHT SOLUTION PERFORMS AS SPECIFIED BY THE MANUFACTURER. CONTACT STORMTRAP IF A WATERTIGHT APPLICATION IS REQUIRED.
7. ALL EXTERIOR JOINTS BETWEEN ADJACENT STORMTRAP MODULES SHALL BE SEALED WITH 8" WIDE PRE-FORMED, COLD-APPLIED, SELF-ADHERING ELASTOMERIC RESIN, BONDED TO A WOVEN , HIGHLY PUNCTURE RESISTANT POLYMER WRAP, CONFORMING TO ASTM C891 AND SHALL BE INTEGRATED WITH PRIMER SEALANT AS APPROVED BY STORMTRAP (SEE DETAILS 3 & 4). THE JOINT WRAP DOES NOT PROVIDE A WATERTIGHT SEAL. THE SOLE PURPOSE OF THE JOINT WRAP IS TO PROVIDE A SILT AND SOIL TIGHT SYSTEM. THE ADHESIVE EXTERIOR JOINT WRAP SHALL BE INSTALLED ACCORDING TO THE FOLLOWING INSTALLATION INSTRUCTIONS:
   - 7.1. USE A BRUSH OR WET CLOTH TO THOROUGHLY CLEAN THE OUTSIDE SURFACE AT THE POINT WHERE JOINT WRAP IS TO BE APPLIED.
   - 7.2. A RELEASE PAPER PROTECTS THE ADHESIVE SIDE OF THE JOINT WRAP. PLACE THE ADHESIVE TAPE (ADHESIVE SIDE DOWN) AROUND THE STRUCTURE, REMOVING THE RELEASE PAPER AS YOU GO. PRESS THE JOINT WRAP FIRMLY AGAINST THE STORMTRAP MODULE SURFACE WHEN APPLYING.
8. IF THE CONTRACTOR NEEDS TO CANCEL ANY SHIPMENTS, THEY MUST DO SO 48 HOURS PRIOR TO THEIR SCHEDULED ARRIVAL AT THE JOB SITE. IF CANCELED AFTER THAT TIME, PLEASE CONTACT THE PROJECT MANAGER.
9. IF THE STORMTRAP MODULE(S) IS DAMAGED IN ANY WAY PRIOR, DURING, OR AFTER INSTALL, STORMTRAP MUST BE CONTACTED IMMEDIATELY TO ASSESS THE DAMAGE AND DETERMINE WHETHER OR NOT THE MODULE(S) WILL NEED TO BE REPLACED. IF ANY MODULE ARRIVES AT THE JOBSITE DAMAGED DO NOT UNLOAD IT; CONTACT STORMTRAP IMMEDIATELY. ANY DAMAGE NOT REPORTED BEFORE THE TRUCK IS UNLOADED WILL BE THE CONTRACTOR'S RESPONSIBILITY.
10. STORMTRAP MODULES CANNOT BE ALTERED IN ANY WAY AFTER MANUFACTURING WITHOUT WRITTEN CONSENT FROM STORMTRAP.

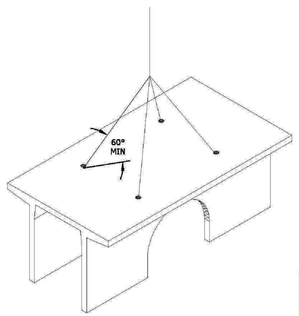




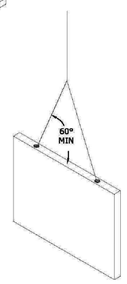
SINGLE TRAP MODULE INSTALLATION

END PANEL ERECTION/INSTALLATION NOTES

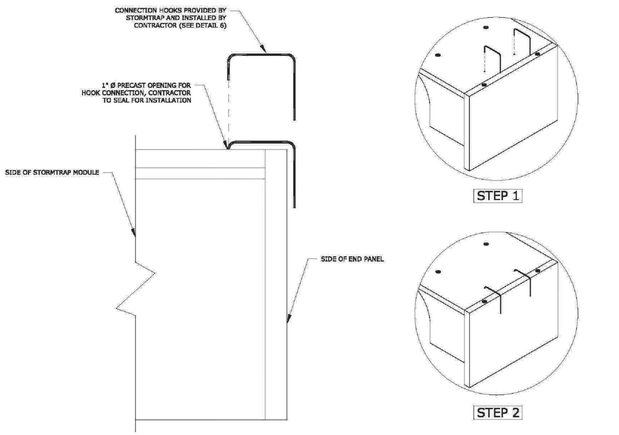
1. END PANELS WILL BE SUPPLIED TO CLOSE OFF OPEN ENDS OF ROWS.
2. PANELS SHALL BE INSTALLED IN A TILT UP FASHION DIRECTLY ADJACENT TO OPEN END OF MODULE (REFER TO SHEET 2.0 FOR END PANEL LOCATIONS).
3. CONNECTION HOOKS WILL BE SUPPLIED WITH END PANELS TO SECURELY CONNECT PANEL TO ADJACENT STORMTRAP MODULE (SEE PANEL CONNECTION ELEVATION VIEW).
4. ONCE CONNECTION HOOKS ARE ATTACHED, LIFTING CLUTCHES MAY BE REMOVED.
5. JOINT WRAP SHALL BE PLACED AROUND PERIMETER JOINT PANEL (SEE SHEET 3.0).



MODULE LIFTING DETAIL



END PANEL LIFTING DETAIL



PANEL CONNECTION ELEVATION VIEW

SINGLE TRAP MODULE

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED 4/25/2022

_____ DATE: _____
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING PLANS REVIEWED REVIEWED FOR CONFORMANCE TO RESOLUTION

_____ DATE: _____
JOSEPH M. CERMELE, PE
KELLARD SESSIONS CONSULTING
CONSULTING TOWN ENGINEERS

ARQ ARCHITECTURE P.C.
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OSSINING, NY 10562
PHONE: (914) 944-3377
FAX: (866) 567-6240

JORGE B. HERNANDEZ R.A. A.I.A.
LICENSE NUMBER: 030424-1
CERTIFICATE NUMBER: 0973256

PAUL A. BERTE, P.E
100 EXECUTIVE BLVD. SUITE 204
OSSINING, NY 10562

REVISIONS	DATE	BY
CONSULTING CMT.	3/23/2022	ARQ.
P.B. RESOLUTION	4/1/2023	ARQ.
P.B. RESOLUTION	6/8/2023	ARQ.
REVISED FOR FINAL SIGNATURE	8/22/2023	ARQ.

DRAWING TITLE:
SITE DETAILS

PROJECT:
MISTIS PROPERTIES INC.

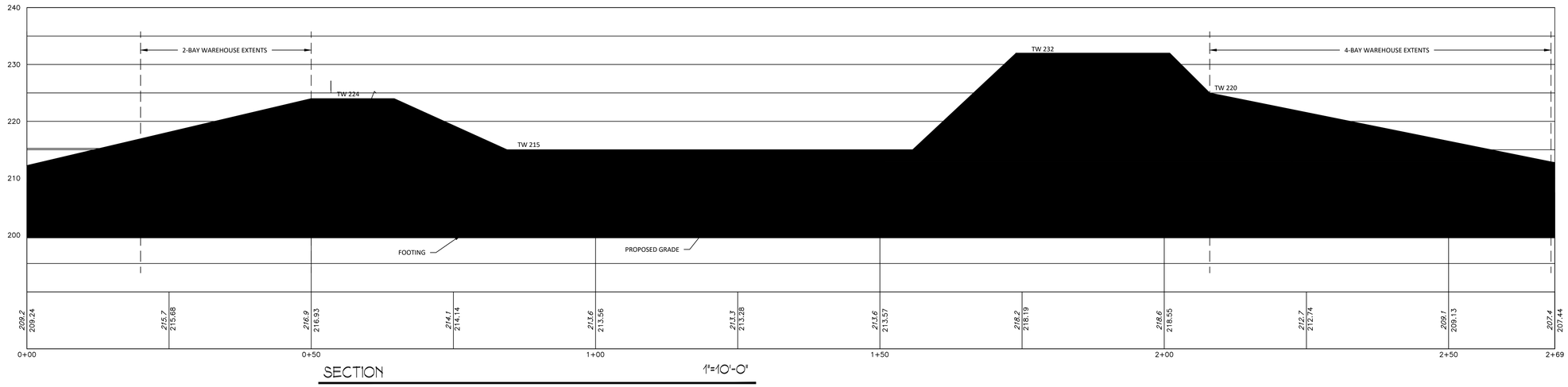
PROJECT ADDRESS:
176 VIRGINA ROAD
WHITE PLAINS
NEW YORK, 10603

DOB EXAMINER SIGNATURE:

DOB BSCAN STICKER:

SEAL & SIGNATURE

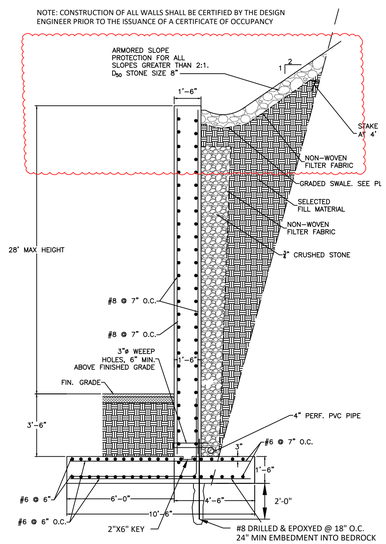
DATE:	DWG. NO.:
03/08/2021	S-6
PROJECT NO.: 21029	
DRAWING BY: ARQ	CAD FILE NO.:
CHECKED BY: PB	6 OF 14



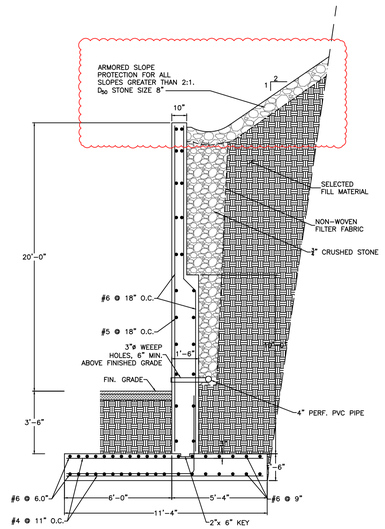
SECTION 1"=10'-0"

NOTE:
RETAINING WALL DESIGN CALCULATIONS, PREPARED BY A NYS LICENSED PROFESSIONAL ENGINEER, SHALL BE SUBMITTED PRIOR TO THE ISSUANCE OF A BUILDING PERMIT. THE CONSTRUCTION OF ALL RETAINING WALLS SHALL BE CERTIFIED BY THE DESIGN PROFESSIONAL.

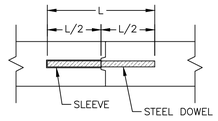
DATA:
1. CONCRETE STRENGTH (f'c) = 4000 PSI
2. REINFORCING BAR STRENGTH (f's) = 60,000 PSi (Grade 60)
3. SOIL BEARING CAPACITY = 4,000 PSF
4. SLUMP: 3" MIN. - 5" MAX.
5. AIR OF ENTRAINMENT: 5% MIN. - 7% MAX.



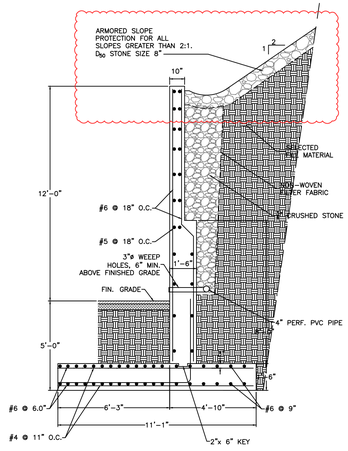
REINFORCED CONCRETE WALL WITH ARMORED SLOPE DETAIL
SCALE: ¼"= 1'



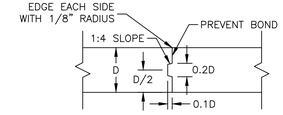
20 FT HGT. WALL
SCALE: 1/2"=1'-0"



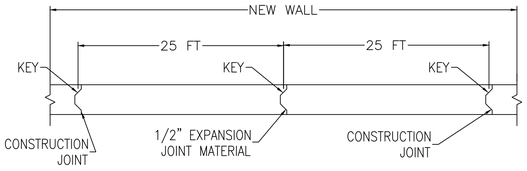
STEEL DOWEL
SCALE: 1/2"=1'-0"



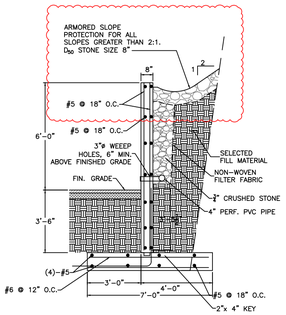
12 FT HGT. WALL
SCALE: 1/2"=1'-0"



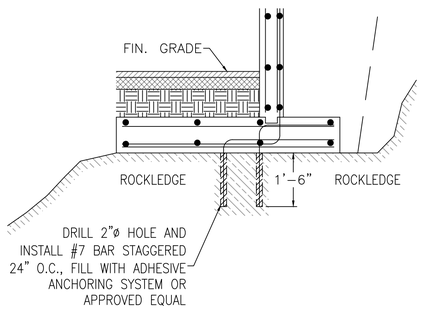
EXPANSION JOINT DIMENSION
SCALE: 1/2"=1'-0"



WALL EXPANSION JOINT
SCALE: 1/2"=1'-0"



6 FT HGT. WALL
SCALE: 1/2"=1'-0"



FOOTING ON ROCKLEDGE
SCALE: 1/2"=1'-0"

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED 4/25/2022

_____ DATE: _____
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD
ENGINEERING PLANS REVIEWED REVIEWED FOR CONFORMANCE TO RESOLUTION

_____ DATE: _____
JOSEPH M. CERMELE, PE
KELLARD SESSIONS CONSULTING
CONSULTING TOWN ENGINEERS

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FAX: (866) 567-6240

JORGE B. HERNANDEZ R.A. A.I.A.
LICENSE NUMBER: 030424-1
CERTIFICATE NUMBER: 0973256

PAUL A. BERTE, P.E
100 EXECUTIVE BLVD. SUITE 204
OSSINING, NY 10562

REVISIONS	DATE	BY
CONSULTING CMT.	3/23/2022	ARQ.
P.B. RESOLUTION	4/1/2023	ARQ.
P.B. RESOLUTION	6/8/2023	ARQ.
REVISED FOR FINAL SIGNATURE	8/22/2023	ARQ.

DRAWING TITLE:
SECTION & SITE DETAILS

PROJECT:
MISTIS PROPERTIES INC.

PROJECT ADDRESS:
176 VIRGINA ROAD
WHITE PLAINS
NEW YORK, 10603

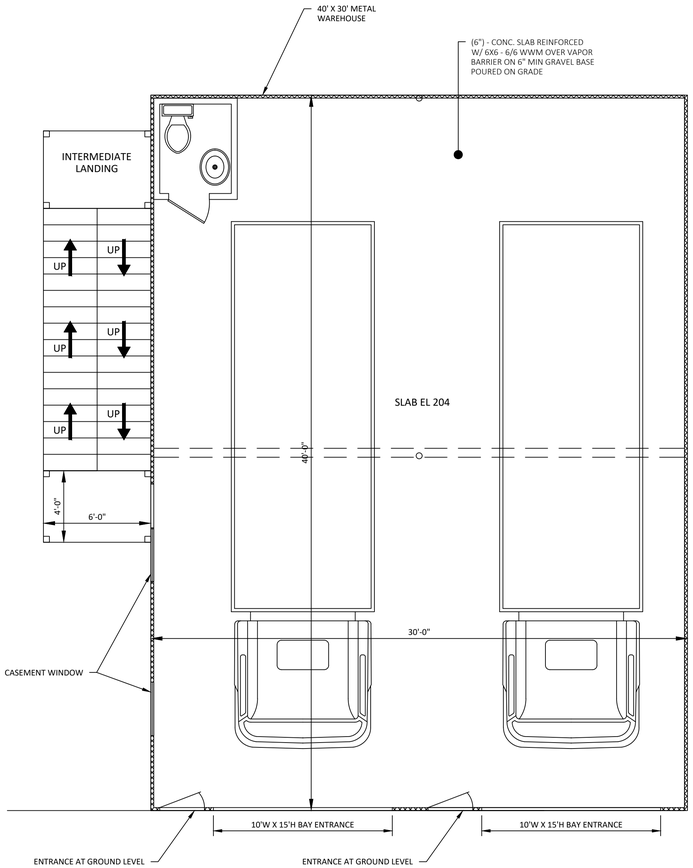
DOB EXAMINER SIGNATURE:

DOB BSCAN STICKER:

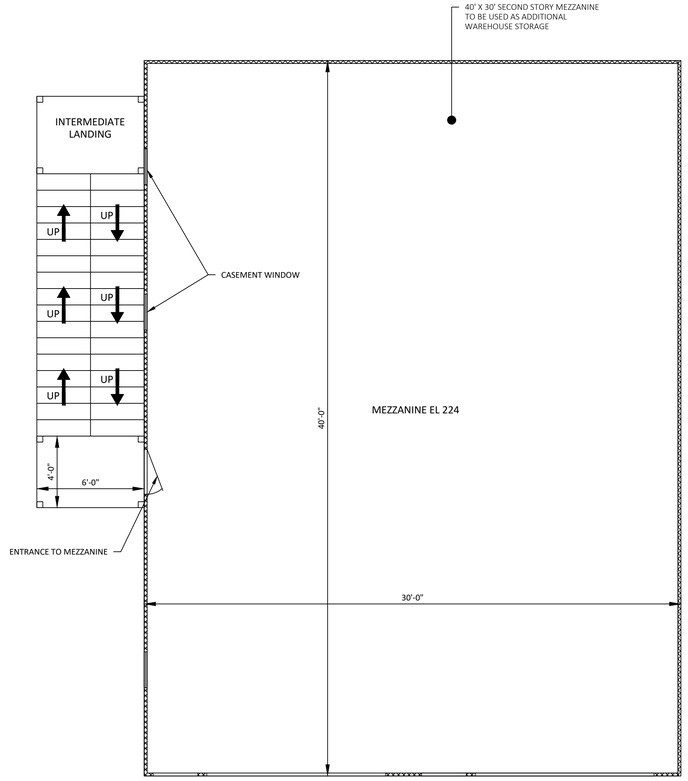
SEAL & SIGNATURE

STATE OF NEW YORK
PAUL A. BERTE
071855
LICENSED PROFESSIONAL ENGINEER

DATE: 03/08/2021	DWG. NO.: S-7
PROJECT NO.: 21029	
DRAWING BY: ARQ	CAD FILE NO.: 7 OF 14
CHECKED BY: PB	



2-BAY WAREHOUSE
FIRST FLOOR PLAN 1/4"=1'-0"



2-BAY WAREHOUSE
MEZZANINE FLOOR PLAN 1/4"=1'-0"

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED 4/25/2022

DATE:

CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING PLANS REVIEWED REVIEWED FOR CONFORMANCE TO RESOLUTION

DATE:

JOSEPH M. CERMELE, PE
KELLARD SESSIONS CONSULTING
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LICENSE NUMBER: 030424-1
CERTIFICATE NUMBER: 0973256

PAUL A. BERTE, P.E
100 EXECUTIVE BLVD. SUITE 204
OSSINING, NY 10562

REVISIONS	DATE	BY
CONSULTING CMT.	3/23/2022	ARQ.
P.B. RESOLUTION	4/1/2023	ARQ.
P.B. RESOLUTION	6/8/2023	ARQ.
REVISED FOR FINAL SIGNATURE	8/22/2023	ARQ.

DRAWING TITLE:
2-BAY WAREHOUSE FIRST & MEZZANINE FLOOR PLANS

PROJECT:
MISTIS PROPERTIES INC.

PROJECT ADDRESS:
176 VIRGINA ROAD
WHITE PLAINS
NEW YORK, 10603

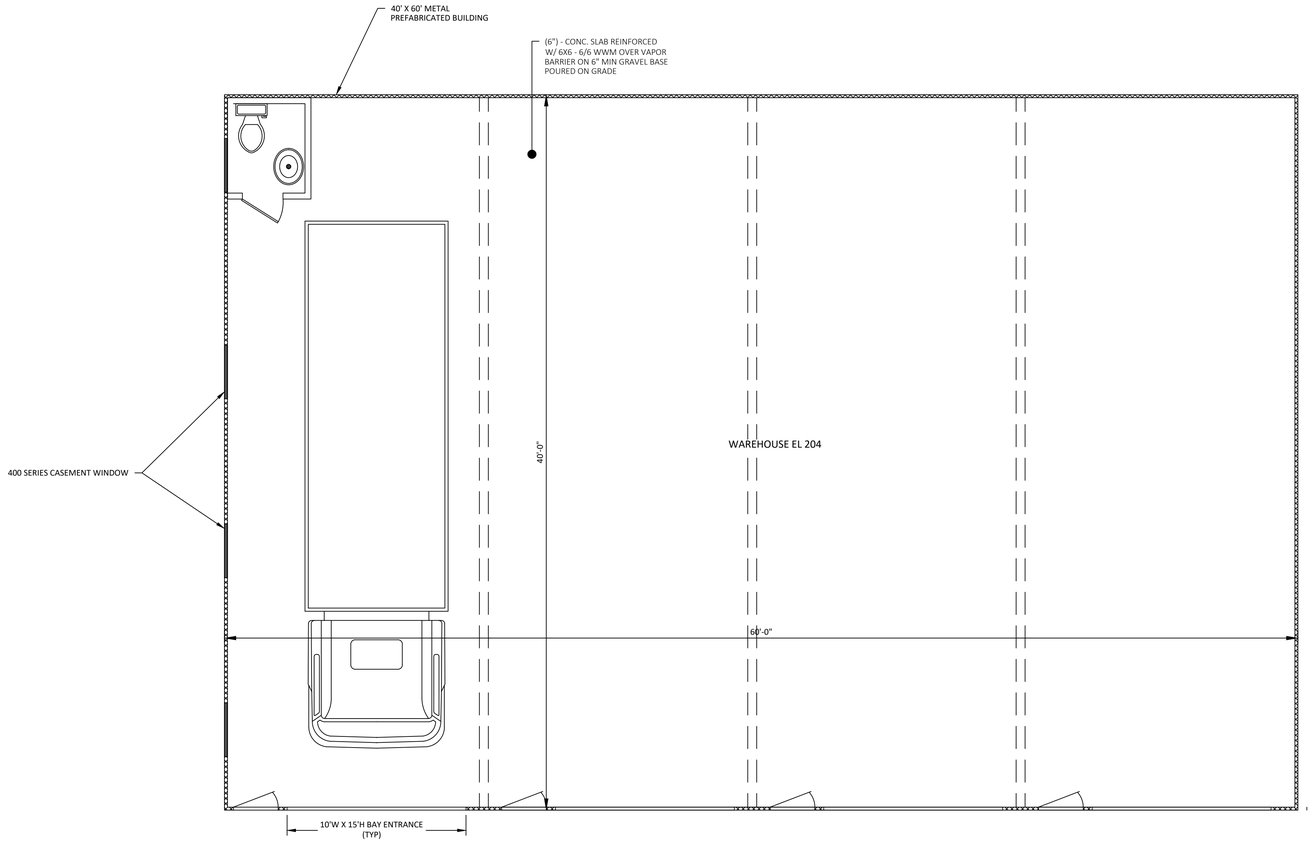
DOB EXAMINER SIGNATURE:

DOB BSCAN STICKER:

SEAL & SIGNATURE

STATE OF NEW YORK PAUL A. BERTE 071855 LICENSED PROFESSIONAL ENGINEER

DATE:	DWG. NO.:
03/08/2021	A-1
PROJECT NO.: 21029	
DRAWING BY: ARQ	CAD FILE NO.:
CHECKED BY: PB	8 OF 14



4-BAY WAREHOUSE
FLOOR PLAN

1/4"=1'-0"

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED 4/25/2022

_____ DATE:_____
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING PLANS REVIEWED REVIEWED FOR CONFORMANCE TO RESOLUTION

_____ DATE:_____
JOSEPH M. CERMELE, PE
KELLARD SESSIONS CONSULTING
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JORGE B. HERNANDEZ R.A. A.I.A.
LICENSE NUMBER: 030424-1
CERTIFICATE NUMBER: 0973256

PAUL A. BERTE, P.E
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OSSINING, NY 10562

REVISIONS	DATE	BY
CONSULTING CMT.	3/23/2022	ARQ.
P.B. RESOLUTION	4/1/2023	ARQ.
P.B. RESOLUTION	6/8/2023	ARQ.
REVISED FOR FINAL SIGNATURE	8/22/2023	ARQ.

DRAWING TITLE:
4 BAY WAREHOUSE FLOOR PLAN

PROJECT:
MISTIS PROPERTIES INC.

PROJECT ADDRESS:
176 VIRGINA ROAD
WHITE PLAINS
NEW YORK, 10603

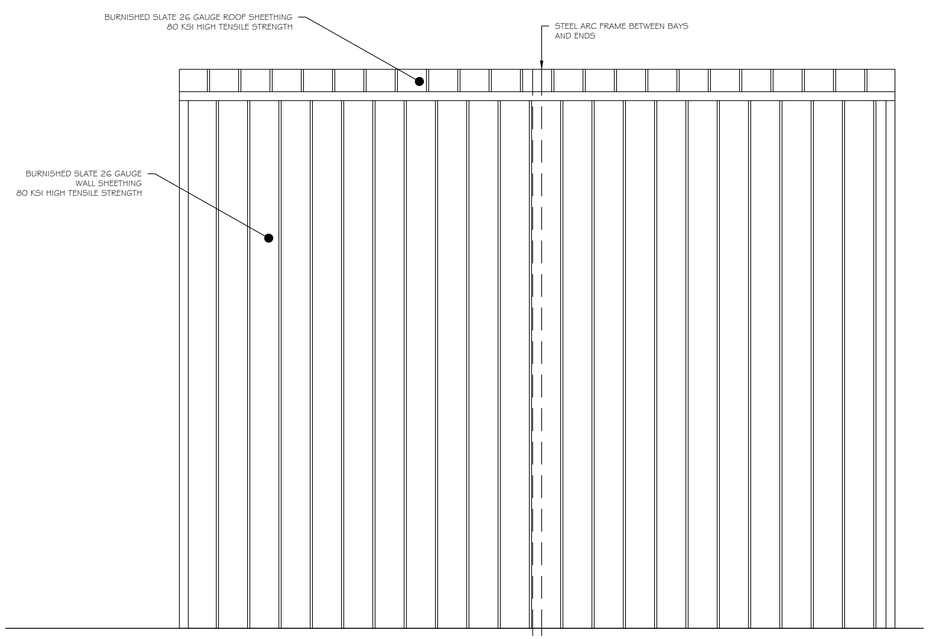
DOB EXAMINER SIGNATURE:

DOB BSCAN STICKER:

SEAL & SIGNATURE

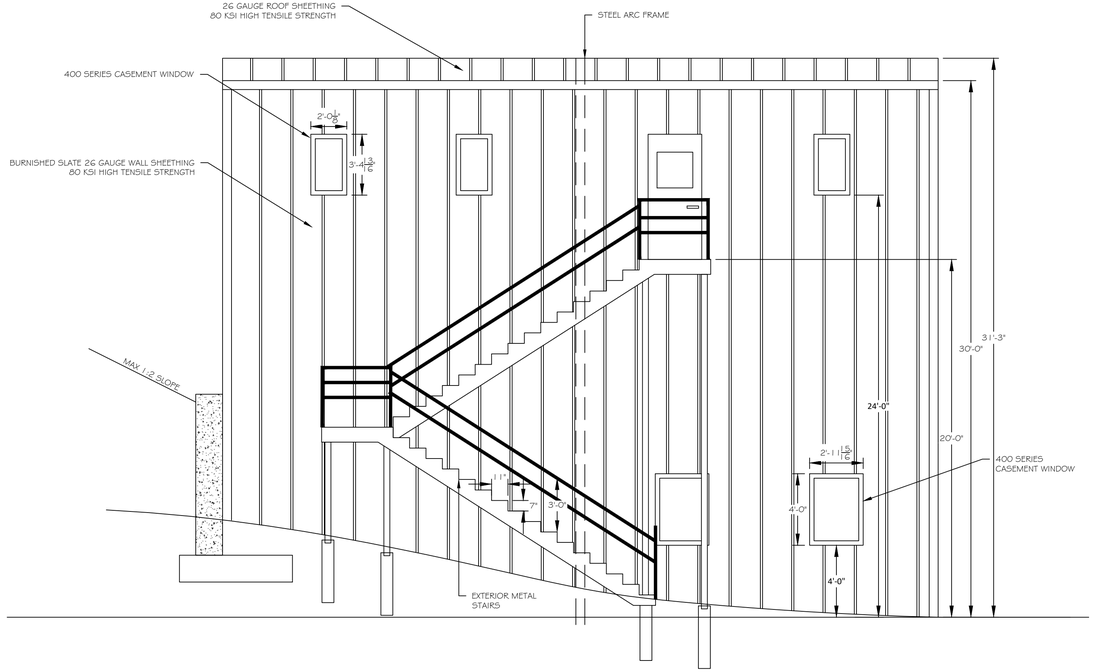
STATE OF NEW YORK
PAUL A. BERTE
071858
LICENSED PROFESSIONAL ENGINEER

DATE:	DWG. NO.:
03/08/2021	A-2
PROJECT NO.: 21029	
DRAWING BY: ARQ	CAD FILE NO.:
CHECKED BY: PB	9 OF 14



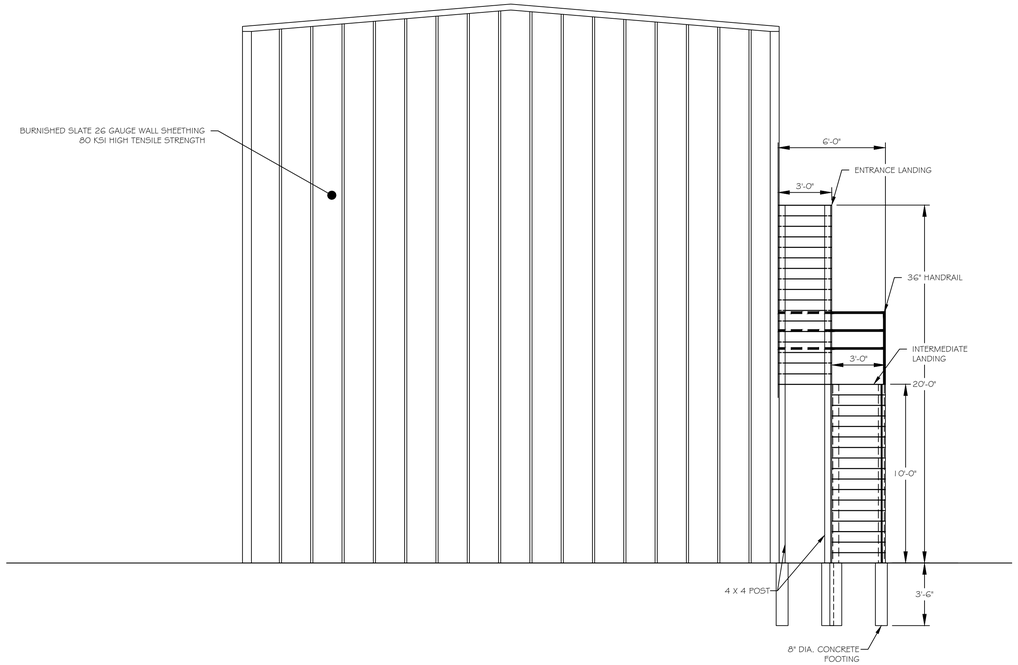
2-BAY WAREHOUSE
RIGHT ELEVATION

1/4"=1'-0"



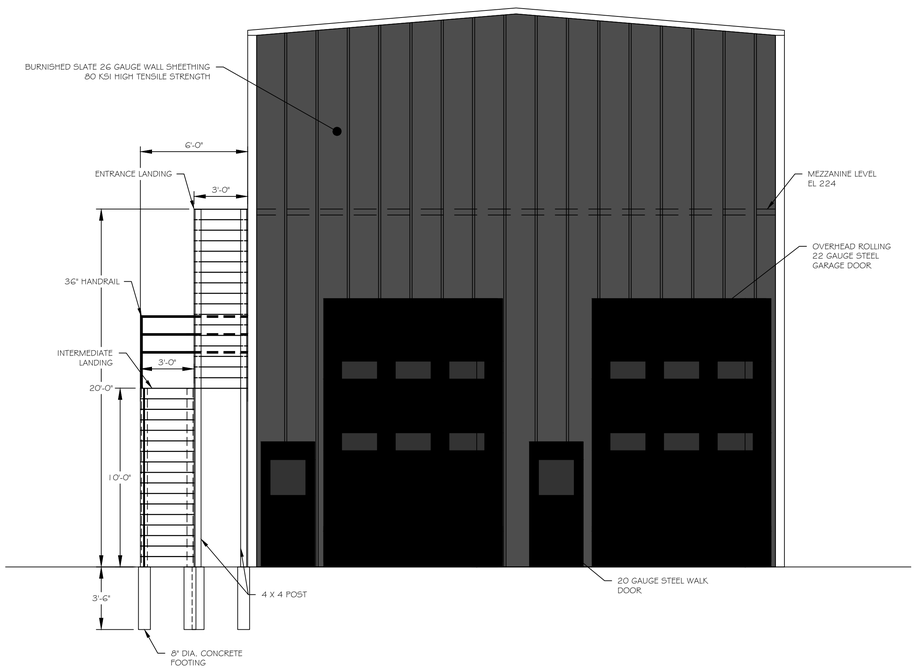
2-BAY WAREHOUSE
LEFT ELEVATION

1/4"=1'-0"



2-BAY WAREHOUSE
REAR ELEVATION

1/4"=1'-0"



2-BAY WAREHOUSE
FRONT ELEVATION

1/4"=1'-0"

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED 4/25/2022

DATE:

CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING PLANS REVIEWED REVIEWED FOR CONFORMANCE TO RESOLUTION

DATE:

JOSEPH M. CERMELE, PE
KELLARD SESSIONS CONSULTING
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JORGE B. HERNANDEZ R.A. A.I.A.
LICENSE NUMBER: 030424-1
CERTIFICATE NUMBER: 0973256

PAUL A. BERTE, P.E
100 EXECUTIVE BLVD. SUITE 204
OSSINING, NY 10562

REVISIONS	DATE	BY
CONSULTING CMT.	3/23/2022	ARQ.
P.B. RESOLUTION	4/1/2023	ARQ.
P.B. RESOLUTION	6/8/2023	ARQ.
REVISED FOR FINAL SIGNATURE	8/22/2023	ARQ.

DRAWING TITLE:
2-BAY WAREHOUSE
ELEVATIONS

PROJECT:
MISTIS
PROPERTIES INC.

PROJECT ADDRESS:
176 VIRGINA ROAD
WHITE PLAINS
NEW YORK, 10603

DOB EXAMINER SIGNATURE:

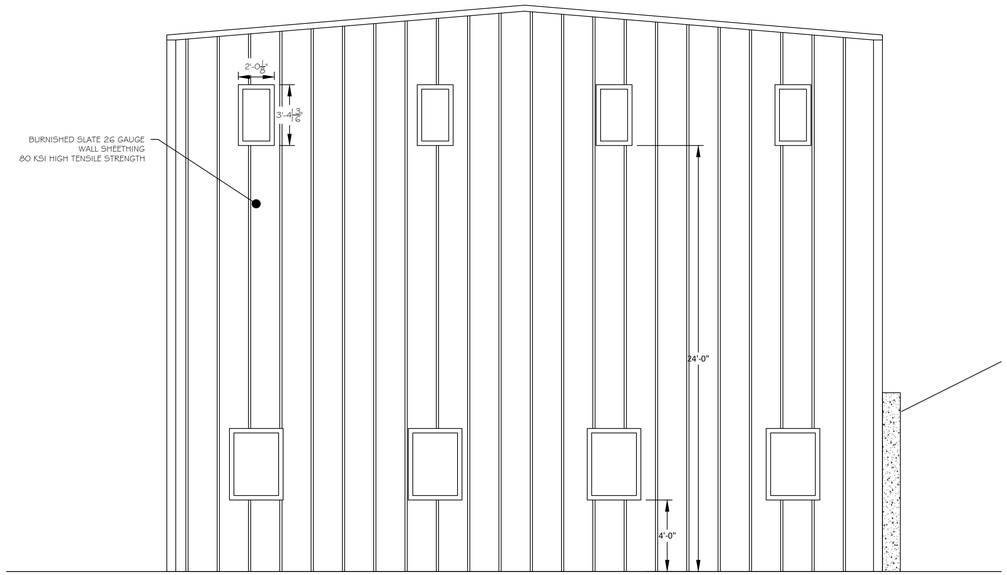
DOB BSCAN STICKER:

SEAL & SIGNATURE

STATE OF NEW YORK
PAUL A. BERTE
071855
LICENSED PROFESSIONAL ENGINEER

DATE: 03/08/2021
PROJECT NO: 21029
DRAWING BY: ARQ
CHECKED BY: PB

DWG. NO.: A-3
CAD FILE NO.:
10 OF 14

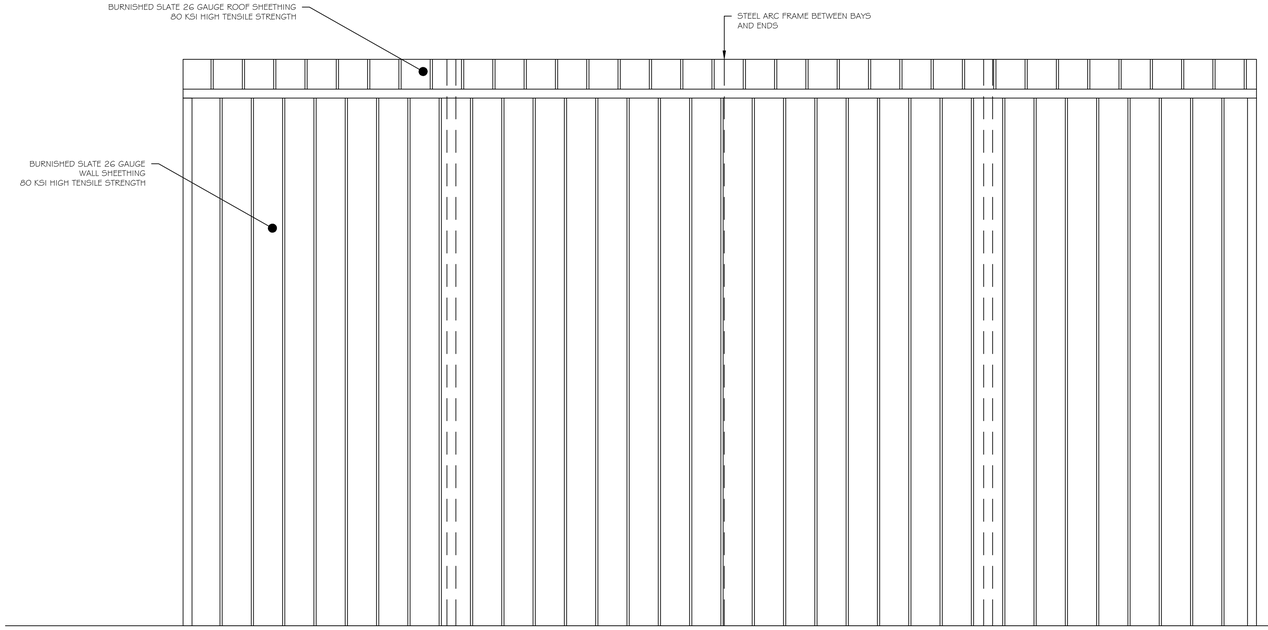


4-BAY WAREHOUSE
RIGHT ELEVATION

1/4"=1'-0"

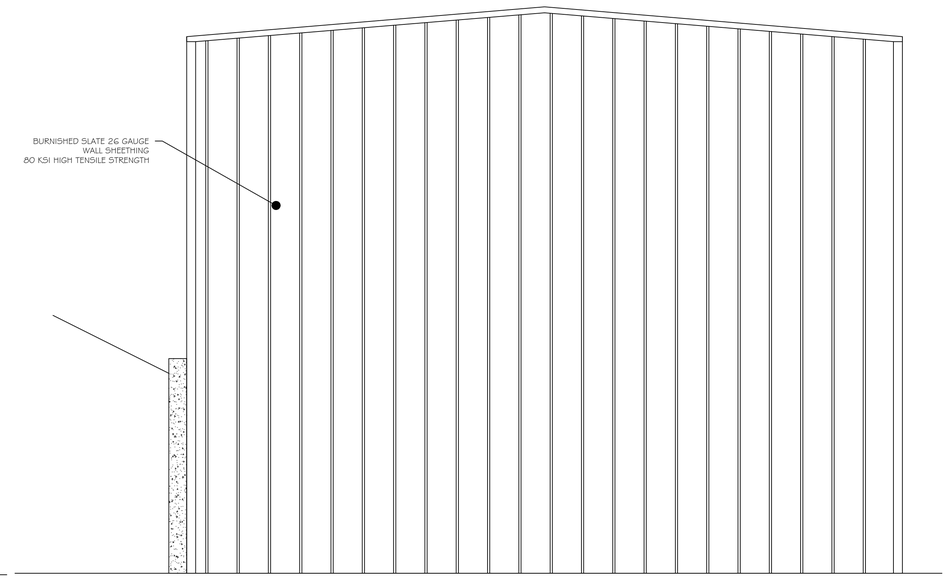
4-BAY WAREHOUSE
FRONT ELEVATION

1/4"=1'-0"



4-BAY WAREHOUSE
REAR ELEVATION

1/4"=1'-0"



4-BAY WAREHOUSE
LEFT ELEVATION

1/4"=1'-0"

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED 4/25/2022

_____ DATE: _____
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING PLANS REVIEWED REVIEWED FOR CONFORMANCE TO RESOLUTION

_____ DATE: _____
JOSEPH M. CERMELE, PE
KELLARD SESSIONS CONSULTING
CONSULTING TOWN ENGINEERS

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JORGE B. HERNANDEZ R.A. A.I.A.
LICENSE NUMBER: 030424-1
CERTIFICATE NUMBER: 0973256

PAUL A. BERTE, P.E
100 EXECUTIVE BLVD. SUITE 204
OSSINING, NY 10562

REVISIONS	DATE	BY
CONSULTING CMT.	3/23/2022	ARQ.
P.B. RESOLUTION	4/1/2023	ARQ.
P.B. RESOLUTION	6/8/2023	ARQ.
REVISED FOR FINAL SIGNATURE	8/22/2023	ARQ.

DRAWING TITLE:
4-BAY WAREHOUSE
ELEVATIONS

PROJECT:
MISTIS
PROPERTIES INC.

PROJECT ADDRESS:
176 VIRGINA ROAD
WHITE PLAINS
NEW YORK, 10603

DOB EXAMINER SIGNATURE:

DOB BSCAN STICKER:

SEAL & SIGNATURE

STATE OF NEW YORK
PAUL A. BERTE
071852
LICENSED PROFESSIONAL ENGINEER

DATE: 03/08/2021
PROJECT NO: 21029
DRAWING BY: ARQ
CHECKED BY: PB

DWG. NO.: A-4
CAD FILE NO.: 11 OF 14

LIGHTING PLAN N.T.S.

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LICENSE NUMBER: 030424-1
CERTIFICATE NUMBER: 0973256

PAUL A. BERTE, P.E
100 EXECUTIVE BLVD. SUITE 204
OSSINING, NY 10562

REVISIONS	DATE	BY
CONSULTING CMT.	3/23/2022	ARQ.
P.B. RESOLUTION	4/1/2023	ARQ.
P.B. RESOLUTION	6/8/2023	ARQ.
REVISED FOR FINAL SIGNATURE	8/22/2023	ARQ.

DRAWING TITLE:
LIGHTING PLAN

PROJECT:
MISTIS
PROPERTIES INC.

PROJECT ADDRESS:
176 VIRGINA ROAD
WHITE PLAINS
NEW YORK, 10603

DOB EXAMINER SIGNATURE:

DOB BSCAN STICKER:

SEAL & SIGNATURE

STATE OF NEW YORK
PAUL A. BERTE
071855
LICENSED PROFESSIONAL ENGINEER

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED 4/25/2022

_____ DATE: _____
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD
ENGINEERING PLANS REVIEWED REVIEWED FOR CONFORMANCE TO RESOLUTION

_____ DATE: _____
JOSEPH M. CERMELE, PE
KELLARD SESSIONS CONSULTING
CONSULTING TOWN ENGINEERS

DATE: 03/08/2021	DWG. NO.: E-1
PROJECT NO.: 21029	
DRAWING BY: ARQ	CAD FILE NO.:
CHECKED BY: PB	12 OF 14

PHOTOMETRIC PLAN N.T.S.

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REVISIONS	DATE	BY
CONSULTING CMT.	3/23/2022	ARQ.
P.B. RESOLUTION	4/1/2023	ARQ.
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DRAWING TITLE:
PHOTOMETRIC PLAN

PROJECT:
MISTIS PROPERTIES INC.

PROJECT ADDRESS:
176 VIRGINA ROAD
WHITE PLAINS
NEW YORK, 10603

DOB EXAMINER SIGNATURE:

DOB BSCAN STICKER:

SEAL & SIGNATURE

STATE OF NEW YORK · PAUL A. BERTE · 071855 · LICENSED PROFESSIONAL ENGINEER

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED 4/25/2022

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JOSEPH M. CERMELE, PE
KELLARD SESSIONS CONSULTING
CONSULTING TOWN ENGINEERS

DATE: 03/08/2021
PROJECT NO: 21029
DRAWING BY: ARQ
CHECKED BY: PB
DWG. NO.: E-2
CAD FILE NO.:
13 OF 14

Luminaire Schedule

Tag	Symbol	Qty	Label	Arrangement	Lum. Lumens	LLF	Description	Lum. Watts	Arr. Watts	Total Watts
A		2	SLIM18	SINGLE	2560	1.000	Wall Mount	21.1	21.1	42.2
B		2	SLIMFC37	SINGLE	3565	1.000	Wall Mount	35.3	35.3	70.6
C		3	WPLED26	SINGLE	3475	1.000	Wall Mount	30	30	90

Calculation Summary

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Description	PtSpcLr	PtSpcTb	Meter Type
Property Line	Illuminance	Fc	0.11	0.49	0.00	N.A.	N.A.	Readings Taken On Vertical @ 5	2	N.A.	Vert-PerpCCW
Site	Illuminance	Fc	0.22	4.7	0.0	N.A.	N.A.	Readings Taken At 0' 0" AFG	10	10	Horizontal
Parking Lot	Illuminance	Fc	1.46	4.7	0.0	N.A.	N.A.	Readings Taken At 0' 0" AFG			

Luminaire Location Summary

LumNo	Label	Mounting Height
1	SLIMFC37	20
2	WPLED26	18
3	SLIMFC37	20
4	WPLED26	18
5	WPLED26	18
6	SLIM18	16
7	SLIM18	16

NOTES:
* The light loss factor (LLF) is a product of many variables, only lamp lumen depreciation (LLD) has been applied to the calculated results unless otherwise noted. The LLD is the result (quotient) of mean lumens / initial lumens per lamp manufacturers' specifications.

* Illumination values shown (in footcandles) are the predicted results for planes of calculation either horizontal, vertical or inclined as designated in the calculation summary. Meter orientation is normal to the plane of calculation.

* The calculated results of this lighting simulation represent an anticipated prediction of system performance. Actual measured results may vary from the anticipated performance and are subject to means and methods which are beyond the control of Damin Sales.

* Mounting height determination is job site specific, our lighting simulations assume a mounting height (insertion point of the luminaire symbol) to be taken at the top of the symbol for ceiling mounted luminaires and at the bottom of the symbol for all other luminaire mounting configurations.

* Damin Sales luminaire and product designs are protected under U.S. and International intellectual property laws. Patents issued or pending apply.

Isoline Legend	
Illuminance (Fc)	
Color	Value
	0.5
	1
	2

WPLED26

RAB Outdoor

Color: Bronze Weight: 7.2 lbs

Project:	Type:
Prepared By:	Date:

Driver Info		LED Info	
Type	Constant Current	Watts	26W
120V	0.26A	Color Temp	5000K (Cool)
208V	0.16A	Color Accuracy	72 CRI
240V	0.14A	L70 Lifespan	100,000
277V	0.12A	Lumens	3,483
Input Watts	29.1W	Efficacy	119.7 LPW

Technical Specifications

Listings

UL Listing:
Suitable for wet locations. Suitable for mounting within 1.2m (4ft) of the ground.

DLC Listed:
This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.
DLC Product Code: P000001701

LED Characteristics

Lifespan:
100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

Color Consistency:
7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:
LED color temperature is warrantied to shift no more than 200K in CCT over a 5-year period

Color Uniformity:
RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Construction

IP Rating:
Ingress Protection rating of IP65 for dust and water

Finish:
Formulated for high durability and long-lasting color

Ambient Temperature:
Suitable For use in 40 C (104 F)

Cold Weather Starting:
Minimum starting temperature is -40 C (-40 F)

Green Technology:
Mercury and UV free. RoHS-compliant components.

Other

Patents:
The WPLED design is protected by U.S. Pat. D834878, Canada Pat. 184878, China Pat. CN301649084S.

Equivalency:
Equivalent to 175W Metal Halide

Warranty:
RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at www.rablighting.com/legal#warranty

Buy American Act Compliance:
RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA-compliant.

Optical

BUG Rating:
B1 U0 G0

Electrical

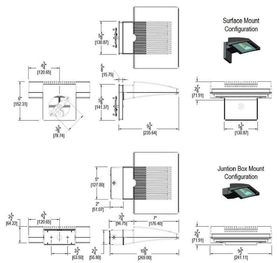
Driver:
Multi-chip 26W high output long life LED Driver Constant Current, 720mA, Class 2, 6kV Surge Protection, 100V-277V, 50-60 Hz, 100-240V 4 Amps.

THD:
11.91% at 120V, 9.58% at 277V

Power Factor:
99.1% at 120V, 93.1% at 277V

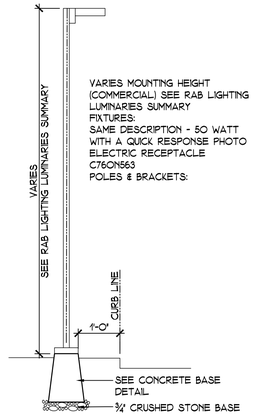
WPLED26

Dimensions

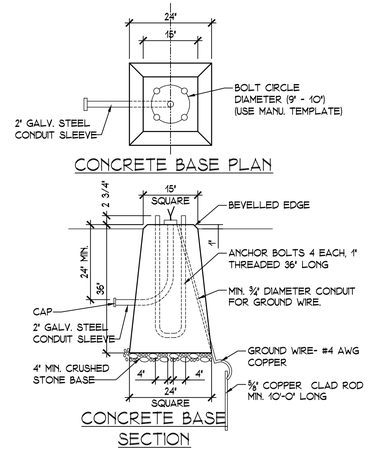


Features

- Maintains 70% of initial lumens at 100,000-hours
- Weatherproof high temperature silicone gaskets
- Superior heat sinking with die cast aluminum housing and external fins
- 100 up to 277 Volts
- 5-Year, No-Compromise Warranty



LIGHTING POLE DETAIL



CONCRETE BASE PLAN

CONCRETE BASE SECTION

1/4" = 1'-0"

SLIM18

RAB Outdoor

12, 18 and 26 Watt SLIM wall packs are ultra-efficient and deliver impressive light distribution with a compact low-profile design that's super easy to install as a downlight or uplight.

Color: Bronze Weight: 4.3 lbs

Project:	Type:
Prepared By:	Date:

Driver Info		LED Info	
Type	Constant Current	Watts	18W
120V	0.18A	Color Temp	5100K (Cool)
208V	0.11A	Color Accuracy	75 CRI
240V	0.09A	L70 Lifespan	100,000
277V	0.08A	Lumens	2,565
Input Watts	21W	Efficacy	122.1 LPW

Technical Specifications

Listings

UL Listing:
Suitable for wet locations. Suitable for mounting within 1.2m (4ft) of the ground.

ADA Compliant:
SLIM™ is ADA Compliant.

IESNA LM-79 & LM-80 Testing:
RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

DLC Listed:
This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities.
DLC Product Code: P5PVC3C7

Construction

IP Rating:
Ingress Protection rating of IP66 for dust and water

Cold Weather Starting:
Minimum starting temperature is -40 C (-40 F)

Maximum Ambient Temperature:
Suitable for use in 40 C (104 F)

Housing:
Precision die-cast aluminum housing

Mounting:
Heavy-duty mounting bracket with hinged housing for easy installation

Recommended Mounting Height:
Up to 14 ft

Lens:
Tempered glass lens

Reflector:
Specular thermoplastic

Gaskets:
High-temperature silicone

Finish:
Formulated for high durability and long-lasting color

Green Technology:
Mercury and UV free. RoHS-compliant components.

LED Characteristics

LED:
Multi-chip, long-life LED

Lifespan:
100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

Color Consistency:
7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:
LED color temperature is warrantied to shift no more than 200K in CCT over a 5-year period

SLIM18

RAB Outdoor

Technical Specifications (continued)

LED Characteristics

Color Uniformity:
RAB's range of CCT (Correlated Color Temperature) follows the guidelines for the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Other

Patents:
The design of the SLIM™ is protected by patents in U.S. Pat D681,864, and pending patents in Canada, China, Taiwan and Mexico.

HID Replacement Range:
Replaces 100W Metal Halide

Warranty:
RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at www.rablighting.com/legal#warranty

Buy American Act Compliance:
RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Optical

BUG Rating:
B1 U0 G0

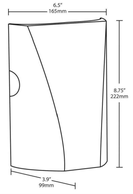
Electrical

Driver:
Constant Current, Class 2, 100-277V, 50/60 Hz., 4kV surge protection, 120V: 0.19A, 208V: 0.11A, 240V: 0.10A, 277V: 0.08A

THD:
11% at 120V, 21% at 277V

Power Factor:
99.2% at 120V, 91.5% at 277V

Dimensions



Features

- Full cutoff, fully shielded LED wall pack
- Can be used as a downlight or uplight
- Contractor friendly features for easy installation
- 100,000-hour LED Life
- 5-Year, No-Compromise Warranty

Ordering Matrix

Family	Wattage	Color Temp	Finish	Driver	Options
SLIM	18				
	12 = 12W 18 = 18W 26 = 26W	Blank = 5000K (Cool) N = 4000K (Neutral) Y = 3000K (Warm)	Blank = Bronze W = White	Blank = Standard (120-277V) /D10 = Dimmable	Blank = No Option /PC = 120V Button /PC2 = 277V Button /LC = Lightcloud® Controller

SLIMFC37

RAB Outdoor

37, 57 and 62 Watt SLIM Wall packs are designed to cover the footprint of most traditional wall packs. They are suitable for mounting heights from 20' to 30', and replace HID Wattages from 200W MH to 320W MH. These ultra-high efficiency fixtures are available in cutoff or full cutoff models.

Color: Bronze Weight: 7.5 lbs

Project:	Type:
Prepared By:	Date:

Driver Info		LED Info	
Type	Constant Current	Watts	37W
120V	0.31A	Color Temp	5000K (Cool)
208V	0.19A	Color Accuracy	73 CRI
240V	0.16A	L70 Lifespan	100,000
277V	0.14A	Lumens	3,565
Input Watts	35.3W	Efficacy	101 LPW

Technical Specifications

Listings

UL Listing:
Suitable for Wet Locations. Wall Mount Only.

IESNA LM-79 & LM-80 Testing:
RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

Construction

Footprint:
Designed to replace RAB HID WP1 wall packs, both in size and footprint template, so upgrading to LED is easy and seamless

IP Rating:
Ingress Protection rating of IP66 for dust and water

Cold Weather Starting:
Minimum starting temperature is -40 C (-40 F)

Maximum Ambient Temperature:
Suitable for use in 40 C (104 F)

Housing:
Precision die-cast aluminum housing and door frame

Mounting:
Die-cast back box with four (4) conduit entry points and knockout pattern for junction box or direct wall mounting. Hinged housing and bubble level for easy installation.

Full Cutoff:
Full-cutoff meets dark-sky requirements.

Recommended Mounting Height:
Up to 20 ft

Lens:
Microprismatic diffusion glass lens reduces glare and has smooth and even light distribution

Reflector:
Specular thermoplastic

Gaskets:
The unique design of the light-lock gasket ensures no water or environmental elements will ever get inside the SLIM

Finish:
Formulated for high durability and long-lasting color

Green Technology:
Mercury and UV free. RoHS-compliant components.

LED Characteristics

LED:
Long-life, high-efficiency, micro-power surface mount LEDs, binned and mixed for uniform light output and color

Lifespan:
100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

Color Stability:
LED color temperature is warrantied to shift no more than 200K in CCT over a 5-year period

Color Consistency:
7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

SLIMFC37

RAB Outdoor

Technical Specifications (continued)

Other

Accessories:
Available accessories include polyshield and wire guard. Click www.rablighting.com/filter/Wall packACCESSORIES to see all accessories.

Patents:
The design of the SLIM™ is protected by patents pending in US, Canada, China, Taiwan and Mexico

HID Replacement Range:
Replaces 200W Metal Halide

Warranty:
RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at www.rablighting.com/legal#warranty

Buy American Act Compliance:
RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Optical

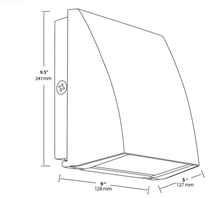
BUG Rating:
B1 U0 G0

Electrical

Driver:
Constant Current, 100-277V. 50/60Hz, 100-277VAC 0.6A, 4kV Surge Protection, 700mA, Power Factor 99.6%

THD:
22.1% at 347V

Dimensions



Features

- Covers footprint of most traditional wall packs
- Easy installation with hinged access, bubble level and multiple conduit entries
- Tight-lock gasket keeps elements out
- 100,000-hour LED lifespan
- 5-Year, No-Compromise Warranty

Ordering Matrix

Family	Cutoff	Wattage	Color Temp	Finish	Driver Options	Options	Other Options
SLIM	FC	37					
	Blank = Cutoff (10 degrees) FC = Full Cutoff (0 degrees)	37 = 37W 57 = 57W 62 = 62W	Blank = 5000K (Cool) N = 4000K (Neutral) Y = 3000K (Warm)	Blank = Bronze W = White	Blank = Standard (120-277V) /BL = Bi-Level /D10 = Dimmable /480 = 480V	/LC = Lightcloud® Controller Blank = No Option /PC = 120V Button Photocell /PC2 = 277V Button Photocell /PC5 = 120V Swivel Photocell /PC52 = 277V Swivel Photocell	Blank = Standard USA = BAA Compliant

ARQ. ARCHITECTURE P.C.
ARCHITECTURE - PLANNING & ENGINEERING
100 EXECUTIVE BLVD, SUITE 204
OSSINING, NY 10562
PHONE: (914) 944-3377
FAX: (866) 567-6240

JORGE B. HERNANDEZ R.A. A.I.A.
LICENSE NUMBER: 030424-1
CERTIFICATE NUMBER: 0973256

PAUL A. BERTE, P.E
100 EXECUTIVE BLVD. SUITE 204
OSSINING, NY 10562

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REVISIONS	DATE	BY
CONSULTING CMT.	3/23/2022	ARQ.
P.B. RESOLUTION	4/1/2023	ARQ.
P.B. RESOLUTION	6/8/2023	ARQ.
REVISED FOR FINAL SIGNATURE	8/22/2023	ARQ.

DRAWING TITLE:
SCHEDULES, SPECIFICATIONS & DETAIL

PROJECT:
MISTIS PROPERTIES INC.

PROJECT ADDRESS:
176 VIRGINA ROAD
WHITE PLAINS
NEW YORK, 10603

DOB EXAMINER SIGNATURE:

DOB BSCAN STICKER:

SEAL & SIGNATURE

STATE OF NEW YORK
PAUL A. BERTE
071855
PROFESSIONAL ENGINEER

APPROVED BY TOWN OF NORTH CASTLE PLANNING BOARD RESOLUTION, DATED 4/25/2022

_____ DATE:_____
CHRISTOPHER CARTHY, CHAIRMAN,
TOWN OF NORTH CASTLE PLANNING BOARD

ENGINEERING PLANS REVIEWED REVIEWED FOR CONFORMANCE TO RESOLUTION

_____ DATE:_____
JOSEPH M. CERMELE, PE
KELLARD SESSIONS CONSULTING
CONSULTING TOWN ENGINEERS

DATE: 03/08/2021	DWG. NO.: E-3
PROJECT NO: 21029	
DRAWING BY: ARQ	CAD FILE NO.:
CHECKED BY: PB	14 OF 14