



TOWN OF NORTH CASTLE

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

Telephone: (914) 273-3000 x 43
Fax: (914) 273-3554
www.nortcastleny.com

RESIDENTIAL PROJECT
REVIEW COMMITTEE
Adam R. Kaufman AICP, Chair

RESIDENTIAL PROJECT REVIEW COMMITTEE (RPRC) APPLICATION

Section I- PROJECT

ADDRESS: 9 HOBBY FARM DRIVE, BEDFORD NY 10504

Section III- DESCRIPTION OF WORK:

INSTALLATION OF A SWIMMING POOL & PATIO

Section III- CONTACT INFORMATION:

APPLICANT: WILLIAM A EINHORN, FLA
ADDRESS: 12 JEANNE COURT, CARMEL NY 10512
PHONE: _____ MOBILE: 914.403.6444 EMAIL: BILLEINHORN@GMAIL.COM

PROPERTY OWNER: ESTELLE COHEN R/LT
ADDRESS: 9 HOBBY FARM DRIVE, BEDFORD NY 10504
PHONE: _____ MOBILE: 914.329.8667 EMAIL: RAYMOND.COHEN@CTI.COM

PROFESSIONAL: WILLIAM A EINHORN, FLA
ADDRESS: 12 JEANNE COURT, CARMEL NY 10512
PHONE: _____ MOBILE: 914 403-6444
EMAIL: BILL EINHORN@GMAIL.COM

Section IV- PROPERTY INFORMATION:

Zone: R-2A Tax ID (lot designation) 102.04-2-10



Town of North Castle
Residential Project Review Committee
17 Bedford Road Armonk, New York 10504
(914) 273-3542 (914) 273-3554 (fax)

RPRC COMPLETENESS REVIEW FORM

This form represents the standard requirements for a completeness review for all Residential Project Review Committee submissions. Failure to provide all of the information requested will result in a determination that the application is incomplete.

Project Name on Plan: Cohen Residence, Proposed swimming pool

Initial Submittal Revised Preliminary

Street Location: 9 Hobby Farm Drive

Zoning District: R-2A Property Acreage: 1.976 Tax Map Parcel ID: 102.04-2-10

Date: 10/28/2021

DEPARTMENTAL USE ONLY

Date Filed: _____ Staff Name: _____

Preliminary Plan Completeness Review Checklist

Items marked with a are complete, items left blank are incomplete and must be completed, "NA" means not applicable.

1. Plan prepared by a registered architect or professional engineer
2. Aerial photo (Google Earth) showing the applicant's entire property and adjacent properties and streets
3. Map showing the applicant's entire property and adjacent properties and streets
4. A locator map at a convenient scale
5. The proposed location, use and design of all buildings and structures
6. Existing topography and proposed grade elevations
7. Location of drives
8. Location of all existing and proposed site improvements, including drains, culverts, retaining walls and fences

RPRC COMPLETENESS REVIEW FORM

Page 2

- 9. Description of method of water supply and sewage disposal and location of such facilities
- 10. The name and address of the applicant, property owner(s) if other than the applicant and of the planner, engineer, architect, surveyor and/or other professionals engaged to work
- 1. Submission of a Zoning Conformance Table depicting the plan's compliance with the minimum requirements of the Zoning District
- 2. If a tree removal permit is being sought, submission of a plan depicting the location and graphical removal status of all Town-regulated trees within the proposed area of disturbance. In addition, the tree plan shall be accompanied by a tree inventory includes a unique ID number, the species, size, health condition and removal status of each tree.
- 3. If a wetlands permit is being sought, identification of the wetland and the 100-foot wetland buffer.

More information about the items required herein can be obtained from the North Castle Planning Department. A copy of the Town Code can be obtained from Town Clerk or on the North Castle homepage: <http://www.northcastleny.com/townhall.html>

_____ On this date, all items necessary for a technical review of the proposed site plan have been submitted and constitute a COMPLETE APPLICATION.



TOWN OF NORTH CASTLE
 WESTCHESTER COUNTY
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PLANNING DEPARTMENT
 Adam R. Kaufman, AICP
 Director of Planning

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

GROSS LAND COVERAGE CALCULATIONS WORKSHEET

Application Name or Identifying Title: COHED RESIDENCE Date: 10/28/2021
 Tax Map Designation or Proposed Lot No.: 102.04-2-10

Gross Lot Coverage

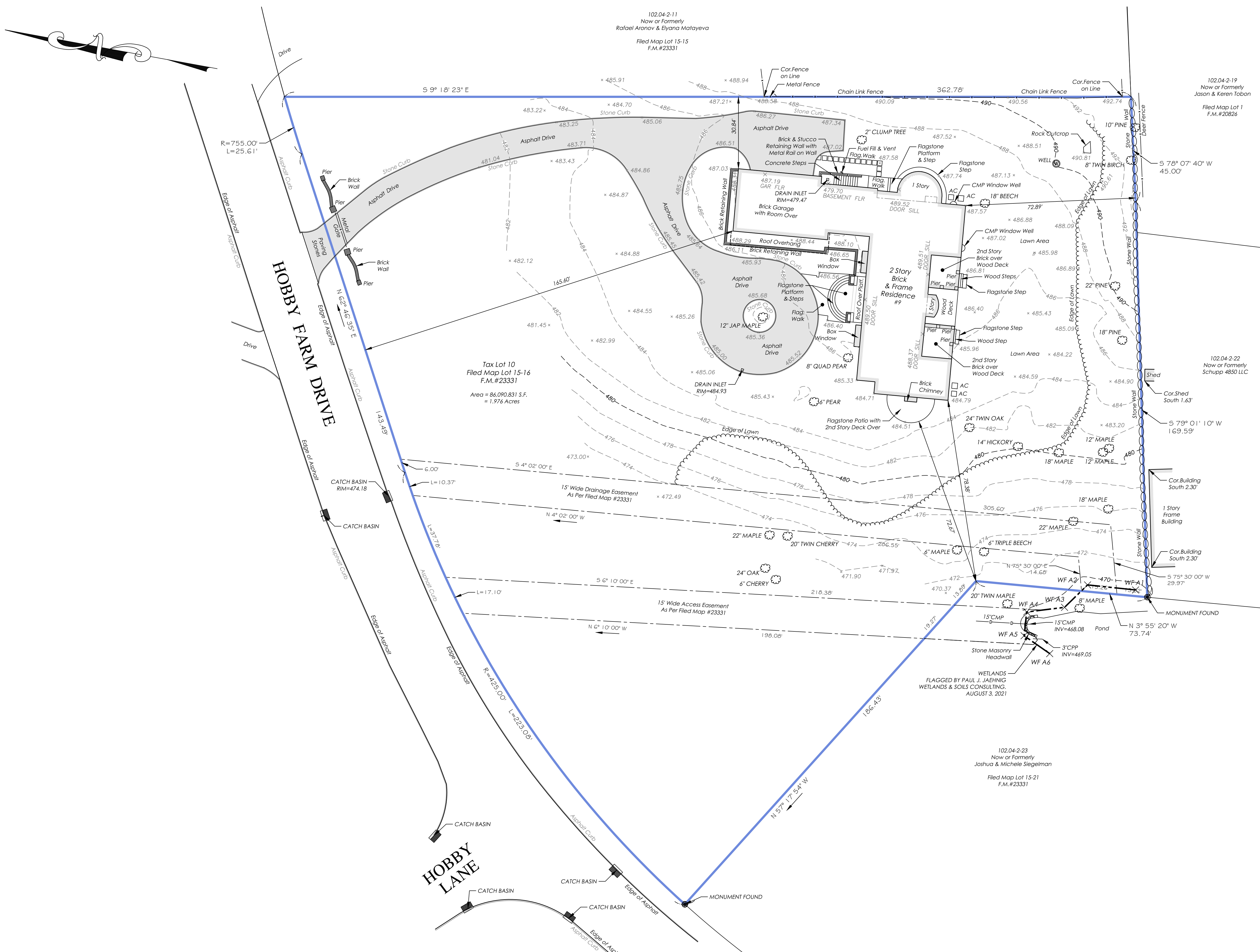
- 1. Total lot Area (Net Lot Area for Lots Created After 12/13/06): 86,090.83
- 2. Maximum permitted gross land coverage (per Section 355-26.C(1)(b)): 13,132.70
- 3. BONUS maximum gross land cover (per Section 355-26.C(1)(b)):
 Distance principal home is beyond minimum front yard setback
115.6 x 10 = 1156
- 4. TOTAL Maximum Permitted gross land coverage = Sum of lines 2 and 3 14,288.70
- 5. Amount of lot area covered by principal building:
4867 existing + 4867 proposed = 4,867
- 6. Amount of lot area covered by accessory buildings:
0 existing + 0 proposed = 0
- 7. Amount of lot area covered by decks:
154.5 existing + 0 proposed = 154.5
- 8. Amount of lot area covered by porches:
372 existing + 0 proposed = 372
- 9. Amount of lot area covered by driveway, parking areas and walkways:
7004.5 existing + 0 proposed = 7004.5
- 10. Amount of lot area covered by terraces:
168 existing + 829 proposed = 997
- 11. Amount of lot area covered by tennis court, pool and mechanical equip:
0 existing + 670 proposed = 670
- 12. Amount of lot area covered by all other structures:
157 existing + 16 proposed = 173
- 13. Proposed gross land coverage: Total of Lines 5 – 12 = 14,238

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

Signature and Seal of Professional Preparing Worksheet



Date 10/28/2021



Only copies from the original of this topography map marked with an original of the Land Surveyors embossed seal or red colored seal shall be considered to be true, valid copies.

Unauthorized alteration or addition to a map bearing a licensed Land Surveyors seal is a violation of Section 7209, Subdivision 2 of the New York State Education Law.

Possession only where indicated.

Adjacent property lines and easements not surveyed or certified. Access to adjacent rights of way, easements and public or private lands not guaranteed or certified.

Underground utilities shown hereon are approximate and should be verified before excavating. Additional underground utilities are not shown or certified. Encroachments and structures below grade, if any, not shown or certified.

Subject to covenants, easements, restrictions, conditions and agreements of record.

This map is prepared to show topography only and is not to be used for title transfer purposes. Map may not be certified to title companies and/or banks.

Tree species shown hereon to be verified by a licensed arborist and are not certified by surveyor.

Elevations shown hereon generally in accordance with North American Vertical Datum 88.

Premises hereon being Lot 15-16 as shown on a certain map entitled, "Subdivision Map of Northbrook Knoll." Said map filed in the Westchester County Clerk's Office, Division of Land Records July 27, 1988 as map number 23331.

Surveyed in accordance with Deed Control Number 610823182.

Premises shown hereon designated on the Town of North Castle Tax Maps as: Section 102.04, Block 2, Lot 10.

Property Address: 9 Hobby Farm Drive
Bedford, NY 10506

**TOPOGRAPHIC SURVEY
PREPARED FOR
RAYMOND COHEN**
SITUATE IN THE
TOWN OF NORTH CASTLE
WESTCHESTER COUNTY, NEW YORK

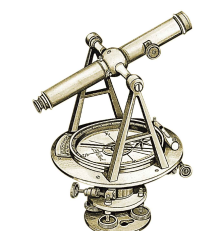
SCALE: 1" = 20'

GRAPHIC SCALE



(IN FEET)
1 inch = 20 ft.

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TC MERRITTS LAND SURVEYORS
ALL RIGHTS RESERVED. UNAUTHORIZED DUPLICATION OR
ELECTRONIC TRANSMISSION WITHOUT PRIOR PERMISSION
IS A VIOLATION OF APPLICABLE LAWS.

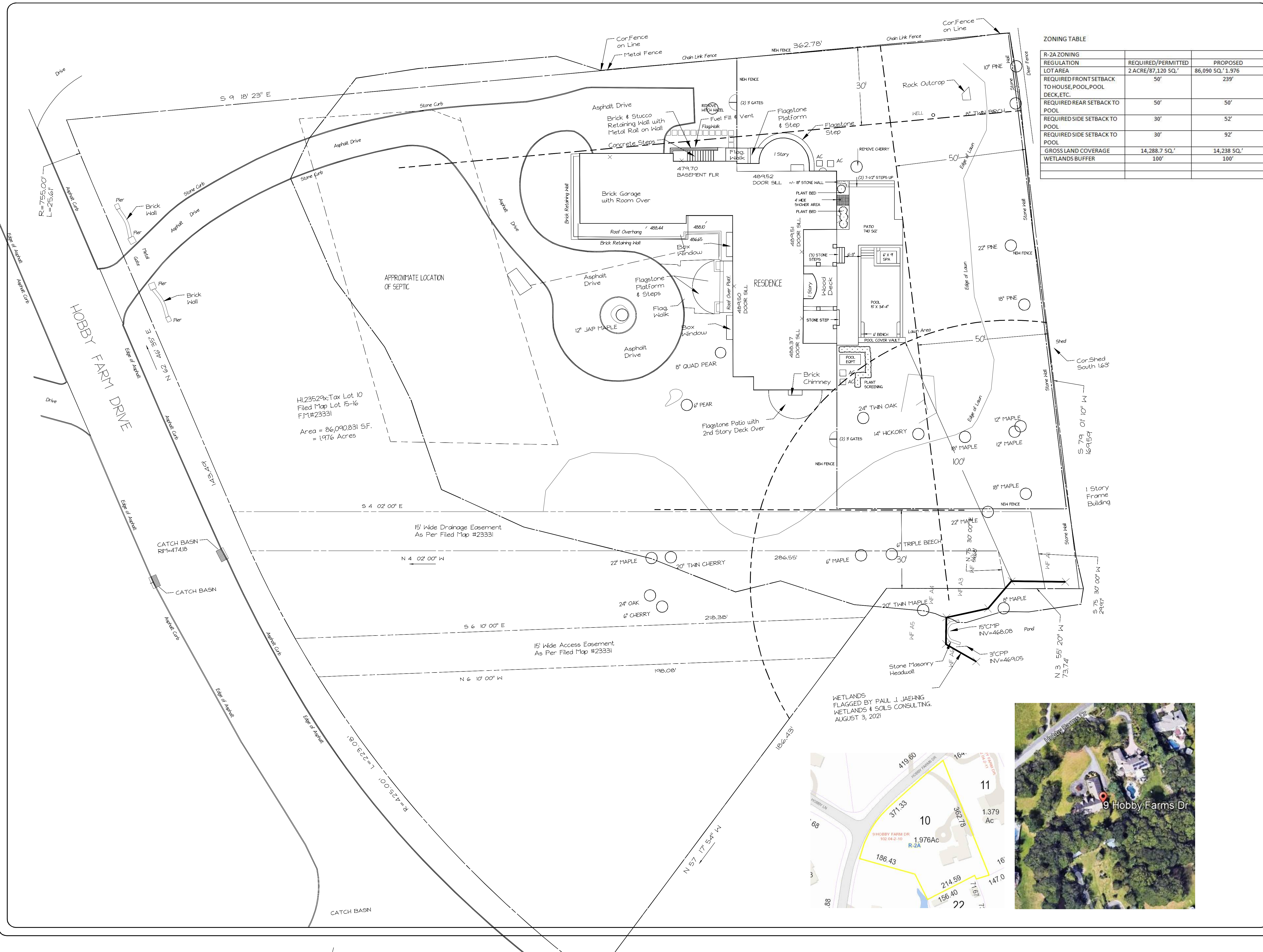


TC MERRITTS LAND SURVEYORS
394 BEDFORD ROAD • PLEASANTVILLE • NY 10570
(914) 769-8003 • (203) 622-8899



Surveyed: August 12, 2021
Map Prepared: August 13, 2021
By: *Daniel T. Merritt*
New York State Licensed Land Surveyor No. 050604

Project: Ref.04-075 21-353	Field Survey By: CRJE
Drawn By: DA	Checked By: DM



ZONING TABLE

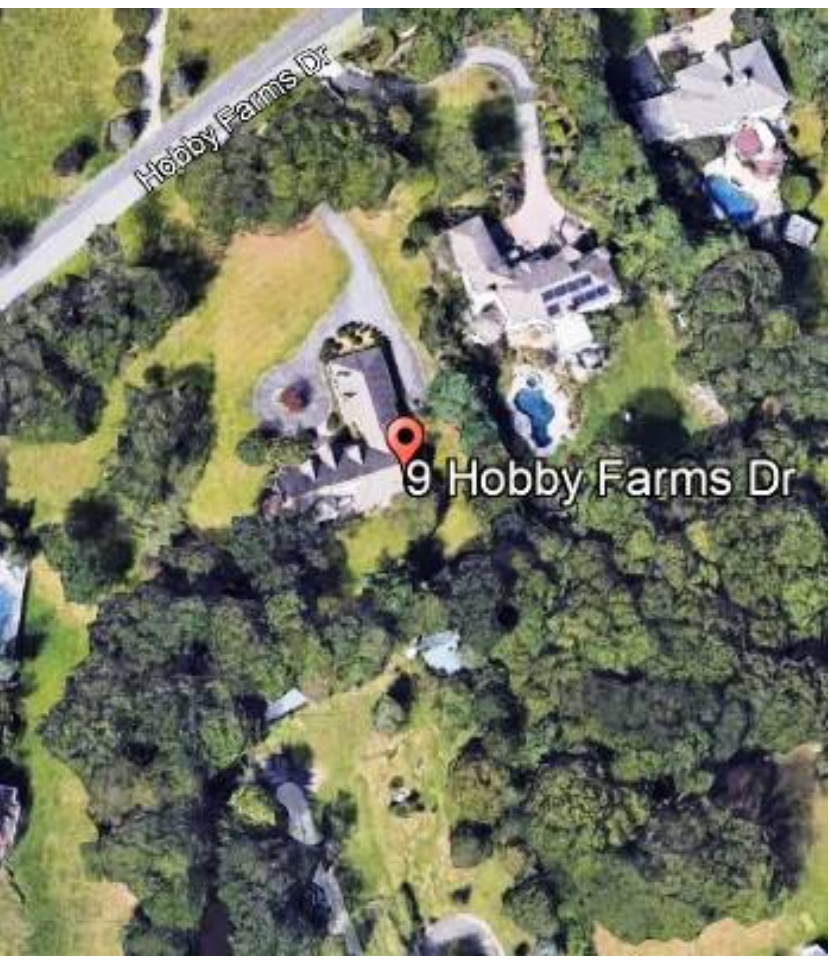
R-2A ZONING REGULATION	REQUIRED/PERMITTED	PROPOSED
LOT AREA	2 ACRE/87,120 SQ. FT.	86,090 SQ. FT. 1.976
REQUIRED FRONT SETBACK TO HOUSE, POOL, POOL DECK, ETC.	50'	239'
REQUIRED REAR SETBACK TO POOL	50'	50'
REQUIRED SIDE SETBACK TO POOL	30'	52'
REQUIRED SIDE SETBACK TO POOL	30'	92'
GROSS LAND COVERAGE	14,288.7 SQ. FT.	14,238 SQ. FT.
WETLANDS BUFFER	100'	100'

H123529x; Tax Lot 10
 Filed Map Lot 15-16
 F.M.#23331
 Area = 86,090.831 SF.
 = 1.976 Acres

15' Wide Drainage Easement
 As Per Filed Map #23331

15' Wide Access Easement
 As Per Filed Map #23331

WETLANDS
 FLAGGED BY PAUL J. JAEHNG
 WETLANDS & SOILS CONSULTING.
 AUGUST 3, 2021



NOTES



F. CAPPARELLI
 LANDSCAPE DESIGN
 635 Halstead Ave.
 Mamaroneck, NY 10543
 914.698.6144 - 914.630.4647
 Flandscapedesign.com

WILLIAM HARRIS ENHORN, RLA



No.	Date	Description

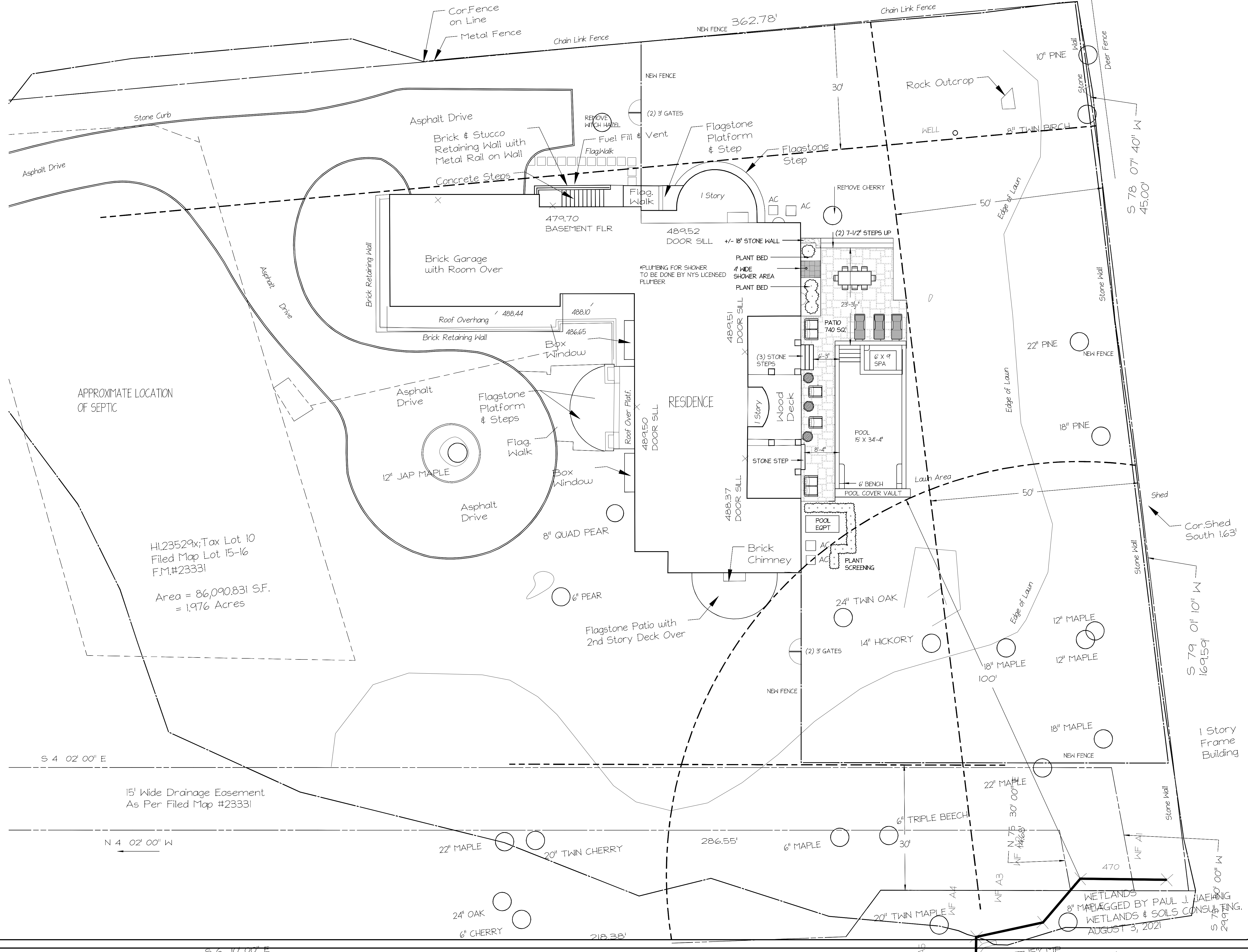
PROPOSED POOL
 SETBACKS/ZONING

SCALE: 1" = 30' 0"

PROPOSED POOL
 SETBACKS/ZONING

COHEN RESIDENCE
 9 HOBBY HILLS
 FARM DRIVE
 BEDFORD, NY 10504

SCALE: 1" = 30' 0"	PROJECT NO.
DRAWN BY: WHE	SHEET NO.
DATE: 10/2021	2
DATE OF PRINT	



APPROXIMATE LOCATION OF SEPTIC


H1.23529x; Tax Lot 10
Filed Map Lot 15-16
F.M.#23331

Area = 86,090.831 S.F.
= 1.976 Acres

15' Wide Drainage Easement
As Per Filed Map #23331

WETLANDS
8" MAP LAGGED BY PAUL J. JAEHRING
WETLANDS & SOILS CONSULTING
AUGUST 3, 2021


NOTES



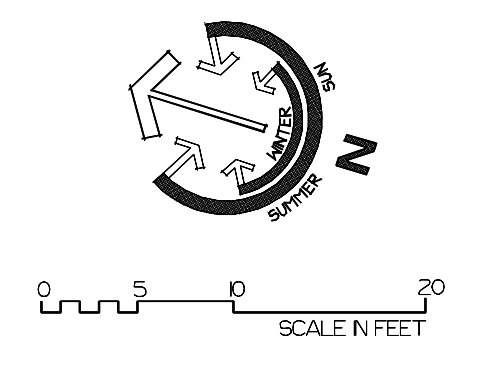
**F. CAPPARELLI
LANDSCAPE DESIGN**

635 Halstead Ave.
Mamaroneck, NY 10543
914.698.6144 - 914.630.4647
Fclandscapedesign.com

WILLIAM HARRIS EINHORN, RLA



No.	Date	Description
1	9/8/2021	SHOWER
REVISIONS		



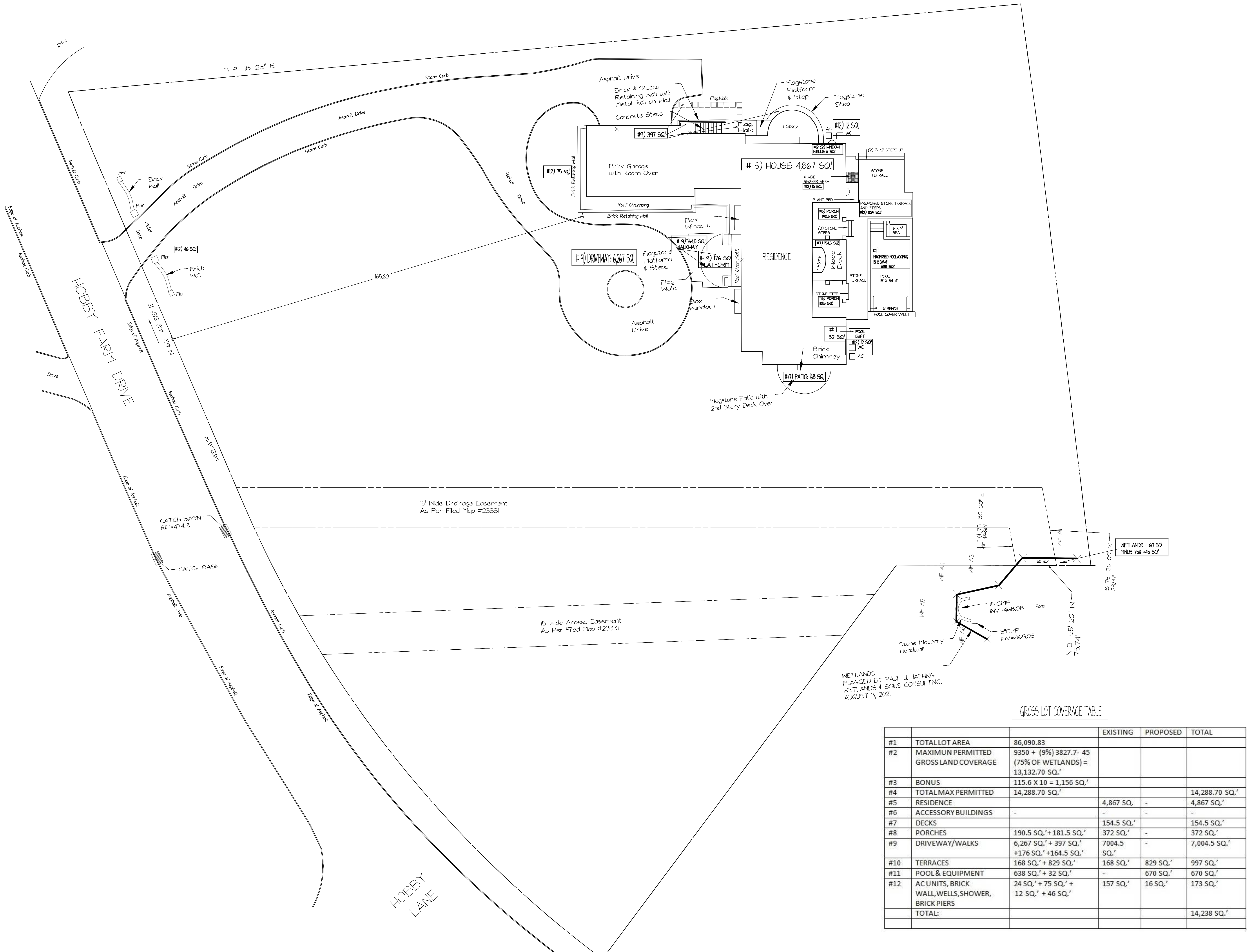
SCALE IN FEET

PROPOSED POOL
GENERAL DESIGN

COHEN RESIDENCE

9 HOBBY FARM DRIVE
BEDFORD, NY 10506

SCALE: 1"=10'-0"	PROJECT NO.
DRAWN BY: WHE	SHEET NO.
CHECKED BY:	3
DATE: 8/2021	
DATE OF PRINT:	



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914.698.6144 - 914.630.4647
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WILLIAM HARRIS ENHORN, RLA



No.	Date	Description

PROPOSED POOL
GROSS LOT COVERAGE

COHEN RESIDENCE
9 HOBBY FARM DRIVE
BEDFORD, NY 10504

GROSS LOT COVERAGE TABLE

#	DESCRIPTION	EXISTING	PROPOSED	TOTAL
#1	TOTAL LOT AREA	86,090.83		
#2	MAXIMUM PERMITTED GROSS LAND COVERAGE	9350 + (9%) 3827.7 = 45 (75% OF WETLANDS) = 13,132.70 SQ.'		
#3	BONUS	115.6 X 10 = 1,156 SQ.'		
#4	TOTAL MAX PERMITTED	14,288.70 SQ.'		14,288.70 SQ.'
#5	RESIDENCE	4,867 SQ.	-	4,867 SQ.'
#6	ACCESSORY BUILDINGS	-	-	-
#7	DECKS	154.5 SQ.'	-	154.5 SQ.'
#8	PORCHES	190.5 SQ.' + 181.5 SQ.'	372 SQ.'	372 SQ.'
#9	DRIVEWAY/WALKS	6,267 SQ.' + 397 SQ.' + 176 SQ.' + 164.5 SQ.'	7004.5 SQ.'	7,004.5 SQ.'
#10	TERRACES	168 SQ.' + 829 SQ.'	168 SQ.'	829 SQ.'
#11	POOL & EQUIPMENT	638 SQ.' + 32 SQ.'	-	670 SQ.'
#12	AC UNITS, BRICK WALL, WELLS, SHOWER, BRICK PIERS	24 SQ.' + 75 SQ.' + 12 SQ.' + 46 SQ.'	157 SQ.'	173 SQ.'
	TOTAL:			14,238 SQ.'

SCALE: 1"=16'-0"
DRAWN BY: WHE
CHECKED BY:
DATE: 8/2021
DATE OF PRINT:

PROJECT NO.
SHEET NO.
4

**** EXISTING AND PROPOSED DOORS WITHIN POOL AREA TO BE ALARMED AS PER SECTION R326.4.2.I THROUGH R326.4.2.6 WINDOWS TO BE SCREENED OR ALARMED AND MEET UL2017**



Andersen Window Opening Control Device Kit
Stone
ALL-ARND & DOORS & WINDOWS

POOL CONTRACTOR NOTES

- Pool contractor is responsible for installing anti tracking pad as required by town.
- Pool contractor is responsible for erecting and maintaining erosion control measures as per town code.
- Pool contractor is responsible for installing and maintaining any temporary fencing as per town code.
- Pool contractor responsible for obtaining all permits and inspections in relation to pool construction.
- Pool contractor responsible for providing any electrical, hydraulic, or structural drawings as it relates to permit requirements for pool installation.
- Pool contractor to provide all pool bonding and bonding inspections.
- Pool cost should include all electrical work for pool including trenching.
- Pool contractor responsible for grading table top for pool area surround.
- Pool contractor responsible for removal of excess cut from pool excavation and table top creation from site.
- Pool contractor responsible for back filling and compacting operations around pool shell.
- Pool contractor to pressure test all lines prior to shooting pool.
- Pool contractor to report any discrepancies in layout to landscape architect.
- Pool contractor to provide concrete pad for pool equipment.
- Steps and pool benches to have steel reinforcing, #4 bar, 60 grade.
- Pool contractor to provide split main drains.
- All plumbing by pool contractor to be solid PVC
- Concrete mix for shell shall be a minimum of 4000 PSI in 28 days.
- ** All suction outlets must be provided with a cover that conforms with reference standard ASME/ANSI A112.19.8.1**
- Colors and samples to be approved by landscape architect
- Price should include installation of winter safety cover
- Pool contractor to include price of pool water into contract
- Provide auto fill for pool

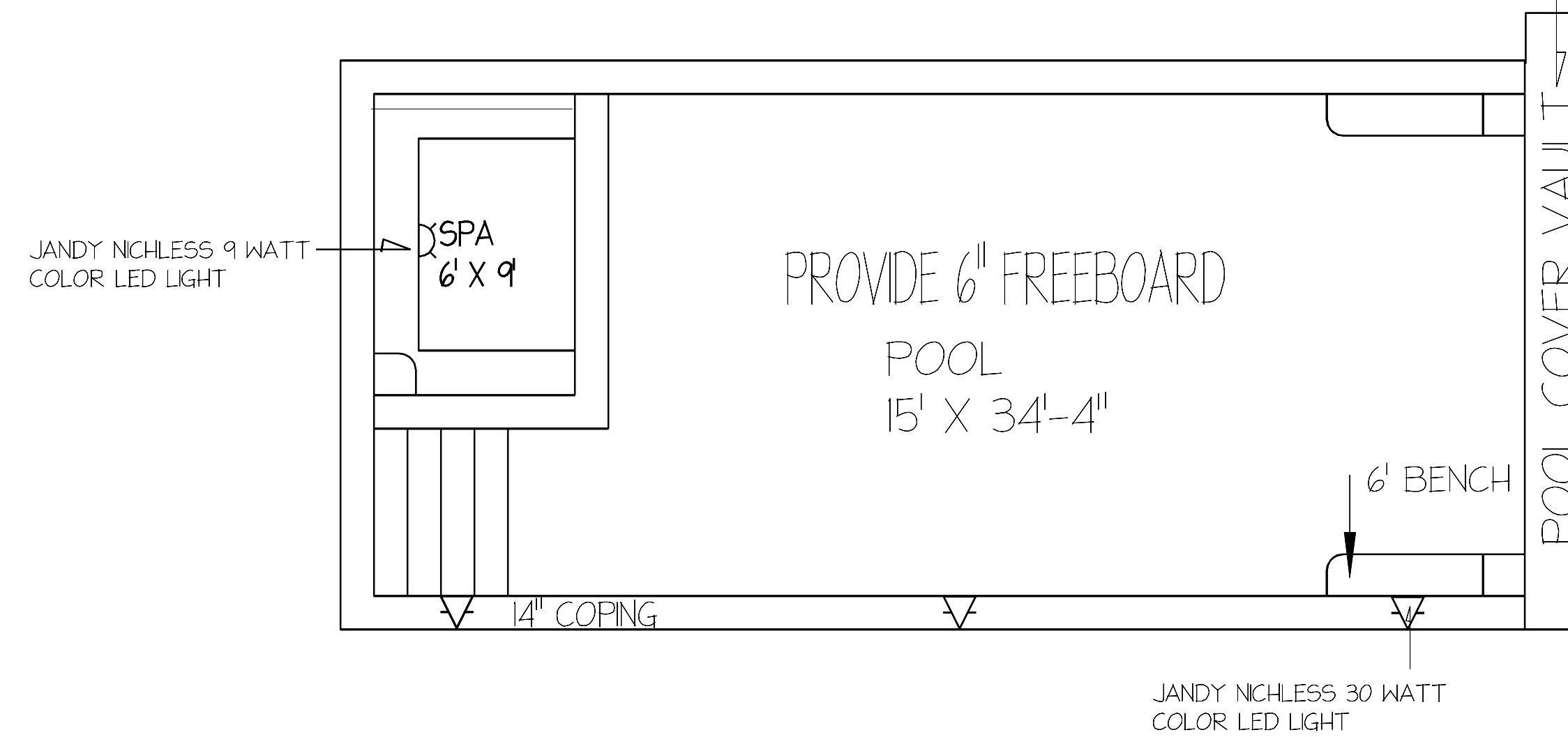
Pool/Spa Equipment

- Jandy Aqualink RS8 pool and spa controller with all sub panels and control centers.(or equivalent).
- Link Kit and firmware
- Hayward Cartridge filter
- Jandy Chlorine Generator system
- Hayward XI Natural Gas Heater
- 1 HP Jandy Stealth pump for pool
- Galaxy IHP Blower for spa
- Polaris 280 automatic pool cleaner and booster pump
- Jandy salt generator system
- SVRS as per ASME A112.19.17

*** Location of any above grade transformers to be discussed with home owner and landscape architect
** Any substitutions or additional equipment needed for pool or spa to be discussed with and agreed by client and Landscape Architect

****POOL CONSTRUCTION SHALL MEET 2020 UNIFORM CODE SUPPLEMENT AND ANSI/APSP/ICC5**

AUTO SAFETY COVER TO MEET ASTM F1346-91 STANDARD



JANDY NICHLESS 9 WATT COLOR LED LIGHT



JANDY NICHLESS 30 WATT COLOR LED LIGHT

GAS POOL HEATER



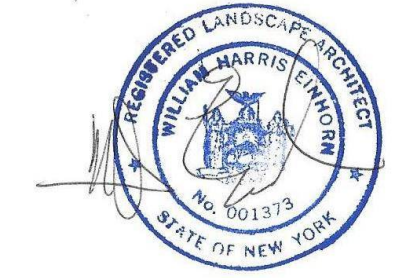
NOTES



F. CAPPARELLI
LANDSCAPE DESIGN

635 Halstead Ave.
Mamaroneck, NY 10543
914.698.6144 - 914.630.4647
fclandscape.com

WILLIAM HARRIS EINHORN, R.L.A.



No.	Date	Description



POOL DESIGN
POOL SPECS

COHEN RESIDENCE
9 HOBBY HILLS FARM DRIVE
BEDFORD, NY 10504

SCALE: 1/4" = 1'-0"
DRAWN BY: WHE
CHECKED BY:
DATE: 9/2021
DATE OF PRINT:

PROJECT NO.
SHEET NO. 5

General Notes:

- Contractor to verify all dimensions and conditions on the job and report all discrepancies to the Architect and/or owner before proceeding with the work.
- All work shall conform to local and state building codes and regulations of all other agencies having jurisdiction.
- Contractor shall obtain and pay for all required permits.
- All materials shall be new and of the best quality.
- Contractors to be fully covered by Workmen's Compensation Insurance as may be required by law.
- Contractors to remove all debris from premises as required.
- Patch and repair exterior walls, as required.

Site Work:

- All footings to bear on firm undisturbed soil - minimum bearing capacity of 12 tons per square foot. Bottom of footing min. 3'-6" below finish grade for frost proofing.
- Trucks and heavy equipment shall not be permitted within 8' of foundation.
- Backfill and compact equally on both sides of foundation wall.
- Dispose of all excavated and demolished material in a legal manner.

Concrete:

- No concrete shall be poured on frozen ground or subject to freezing conditions.
- 28 Day compressive strength of all concrete shall be 3000 p.s.i.
- Concrete footing to be formed to sizes shown on drawings.
- All concrete work shall comply with the latest provisions of ACI 318.
- Reinforcing bars shall be of new billet steel - conforming to ASTM A615, wire mesh to conform to ASTM 185.

Masonry:

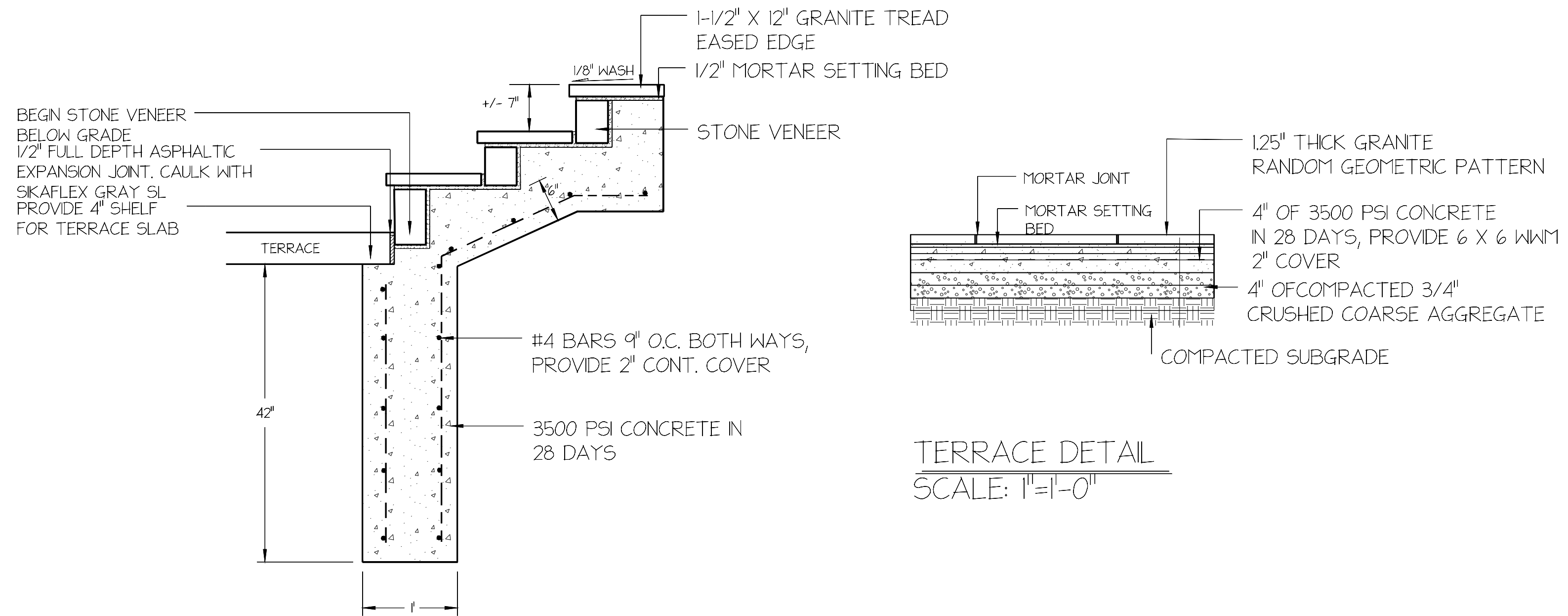
- Concrete masonry walls shall conform to "specifications for the design and construction of load bearing concrete masonry" published by the National Concrete Masonry Association.
- All concrete block to be standard hollow load bearing units meeting ASTM C-90. Place cement 1/4 to 1/2 part hydrated lime and 2 1/4 to 3 parts sand.
- No work shall be done subject to freezing conditions or using frozen materials. No antifreeze is permitted. Protect work subject to freezing.
- Form Continuous 2 x 4 key in top of footing - fill first block course and top 3 courses with cement.

Electrical:

- Electrical work, wiring and equipment shall conform to the National Electrical Code (NFPA) latest edition and all regulating agencies.
- Electrical contractor to provide all required wiring, additional circuit breakers, conv. outlets and switches per code and as required by law.
- Light fixtures and bulbs to be supplied and installed by electrician. Fixtures shall be selected and approved by the owner, with the exception of recessed down lights to be selected by the architect or contractor, if applicable.

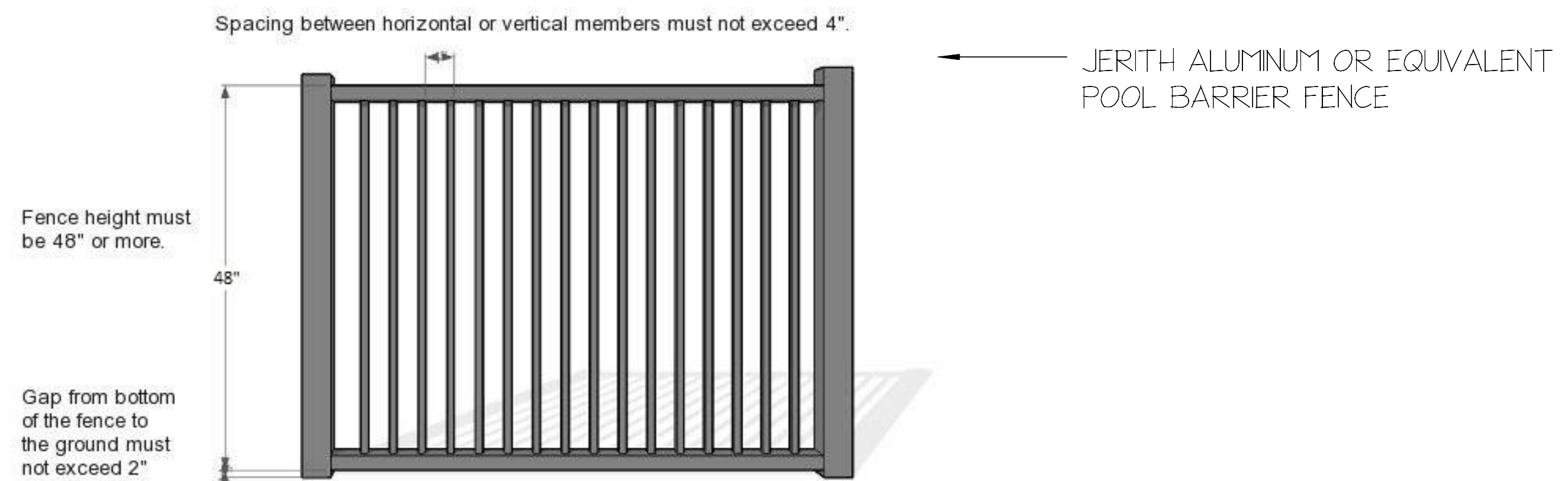
Mechanical:

- New gas line and hook up to be executed by licensed plumber, to comply with all applicable building codes.

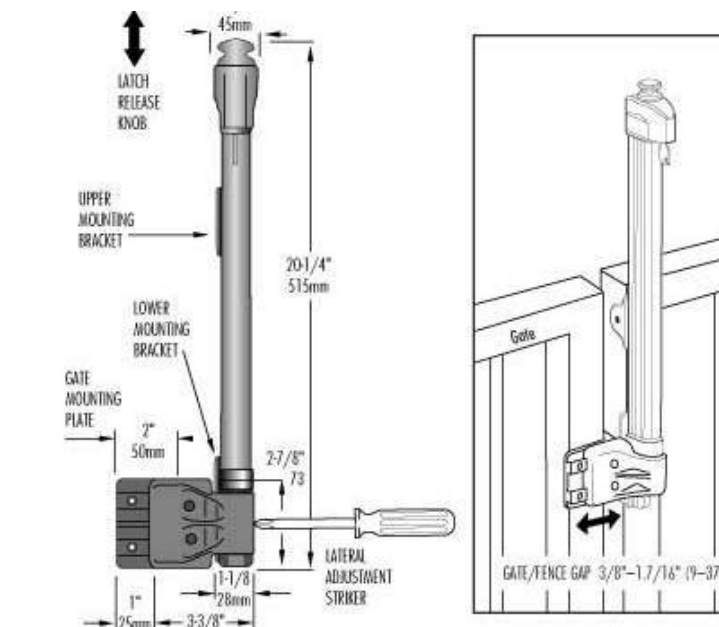


STEP DETAIL: TYP SCALE: 1"=1'-0"

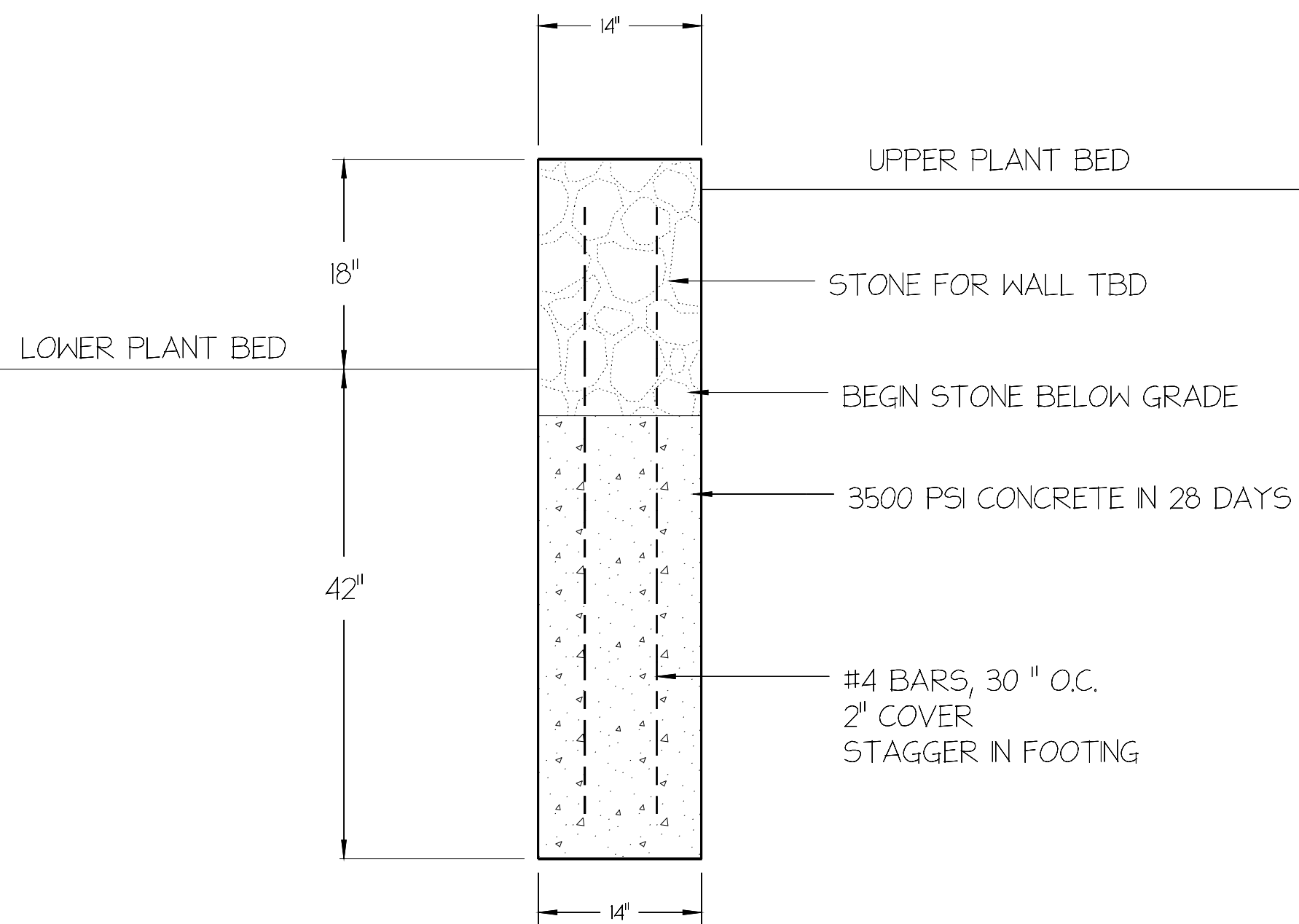
POOL BARRIER TO MEET 2020 NYS RESIDENTIAL CODE R326.4.1 THROUGH R326.4.2.6



**GATES TO MEET 2020 NYS RESIDENTIAL CODES R326.5.3 SECTIONS 1-7

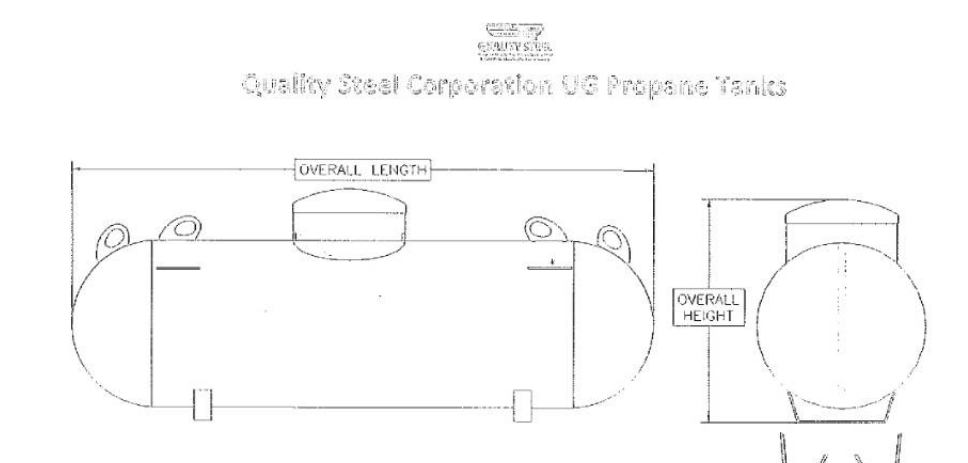


PROPOSED GATES TO BE SELF LATCHING WITH LATCH 54" ABOVE GRADE



LOW PLANTER WALL DETAIL SCALE: 1/4"=1'-0"

1 1/2' 1'



APPROXIMATE UNDERGROUND VESSEL DIMENSIONS AND SPECIFICATIONS									
WATER CAPACITY	DIAMETER (OD)	HEAD TYPE	OVERALL LENGTH	OVERALL HEIGHT	LEG**	WEIGHT (lbs.)	FULL LOAD	PER STACK	**QUANTITY
120 wgt.	24"	Ellip.	5'-8"	3'-10"	4'-5"	1'-1 1/2"	260	108 96	16 12
250 wgt.	30"	Heml.	7'-10"	4'-4"	5'-1"	400	54	9	9
320 wgt.	30"	Heml.	9'-2"	4'-6"	5'-1"	520	45	9	9
500 wgt.	37 1/2"	Heml.	10'	5'	5'-7"	950	37 30	8 6	8 6
1000 wgt.	41"	Heml.	16'	5'-3"	5'-10"	1,800	17 15	6 5	6 5
1500 wgt.	46 1/2"	Ellip.	17'-4"	5'-9"	6'-4"	2,650	12	4	4
1900 wgt.	46 1/2"	Ellip.	23'-11"	5'-9"	6'-4"	3,550	8	4	4

* Dual lifting lugs for 500 and 1000 wgt. standard tanks.
 ** Leg width and spacing may vary based on mfg. location. Check with your salesperson for details. 120, 250, 320 wgt. standard tanks - no lugs
 † Lugs (on center hole on request). 500 and 1000 wgt. standard tanks - 2 holes 16" on center. 1400 wgt. and up as shown above.
 *** Full load and stack quantities vary by shipping location. Check with your salesperson for details.

General Specifications

- Conforms to the latest edition of ASME Rules for Construction of Pressure Vessels, Section VIII, Division 1, Complies with NFPA 58.
- Rated at 250 psig from -20° F to 125° F. All vessels registered with National Board. Some standard vessels available with CRN (Canadian Registration Number).
- Vessels shipped with durable ready-to-bury coating. Vessels, depending on manufacturing location, are either powder coated with phenolic epoxy, painted with a single application urethane coating, or primed with liquid epoxy and coated with liquid epoxy top coat - all providing a durable ready-to-bury coating.
- All vessels are shipped vacuum pre-purged to enable simplified first fill of the vessel.
- Green composite dome provides large working space and is resistant to the elements. Anode stud attached to riser pipe to enable ease of cathodic connection.

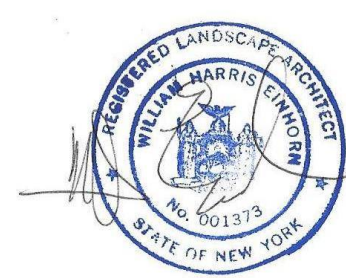
Applicable federal, state, or local regulations may contain specific requirements for protective coatings and cathodic protection. The purchaser and installer are responsible for compliance with all federal, state, local and industry regulations, including proper priming for first fill per NFPA 333-85(6). Cathodic protection required. Coatings must be continuous and uninterrupted and meet closely with on local, state or national code.

NOTES

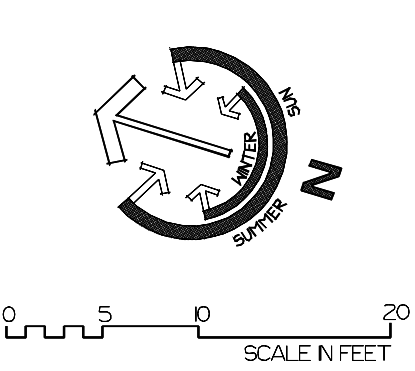


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 914.698.6144 - 914.630.4647
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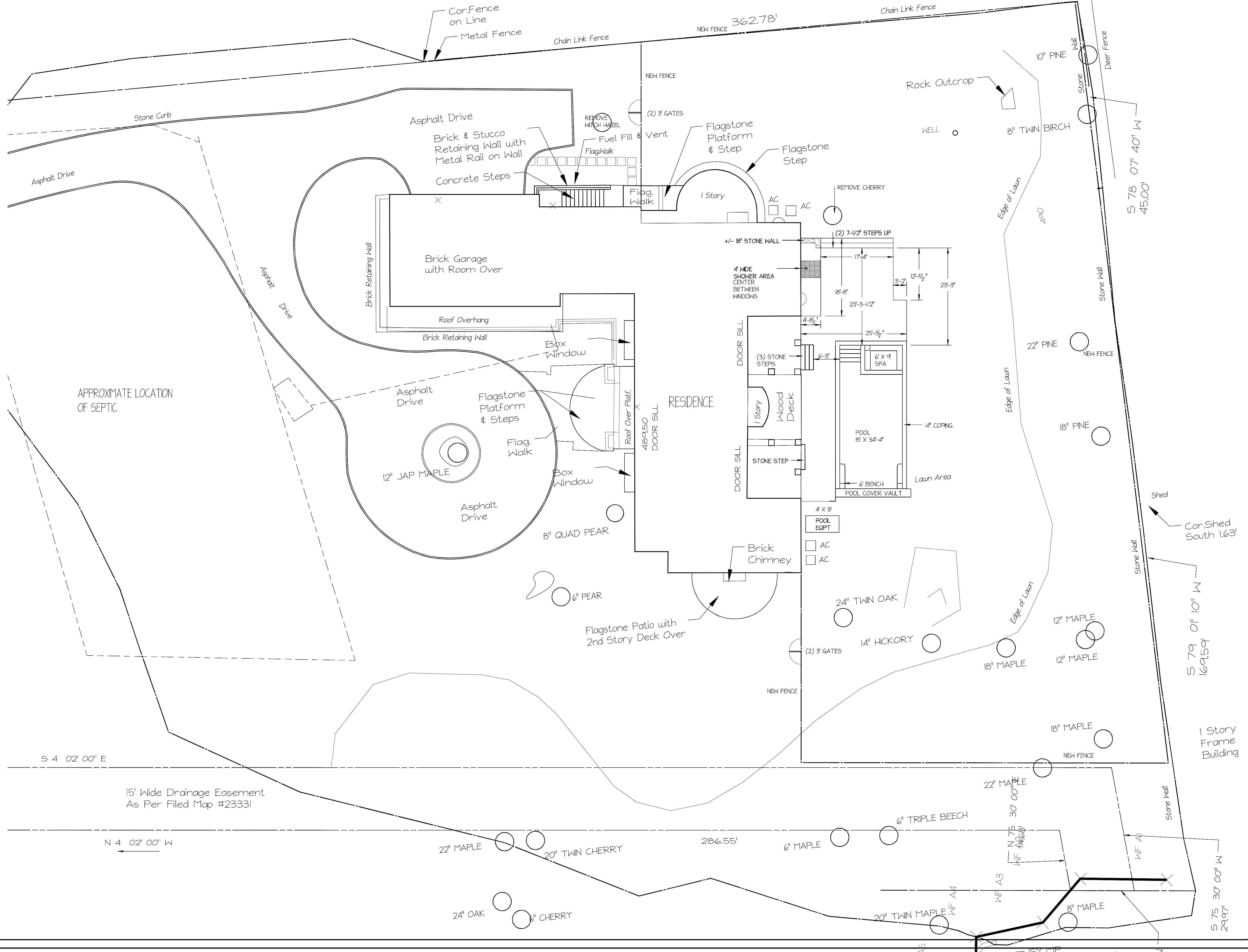
No.	Date	Description



PROPOSED POOL
 DETAILS

COHEN RESIDENCE
 9 HOBBY FARM DRIVE
 BEDFORD, NY 10506

SCALE: 1/4"=1'-0"	PROJECT NO.
DRAWN BY: WHE	SHEET NO.
CHECKED BY:	6
DATE: 8/2021	
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NOTES

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No.	Date	Description

SCALE IN FEET

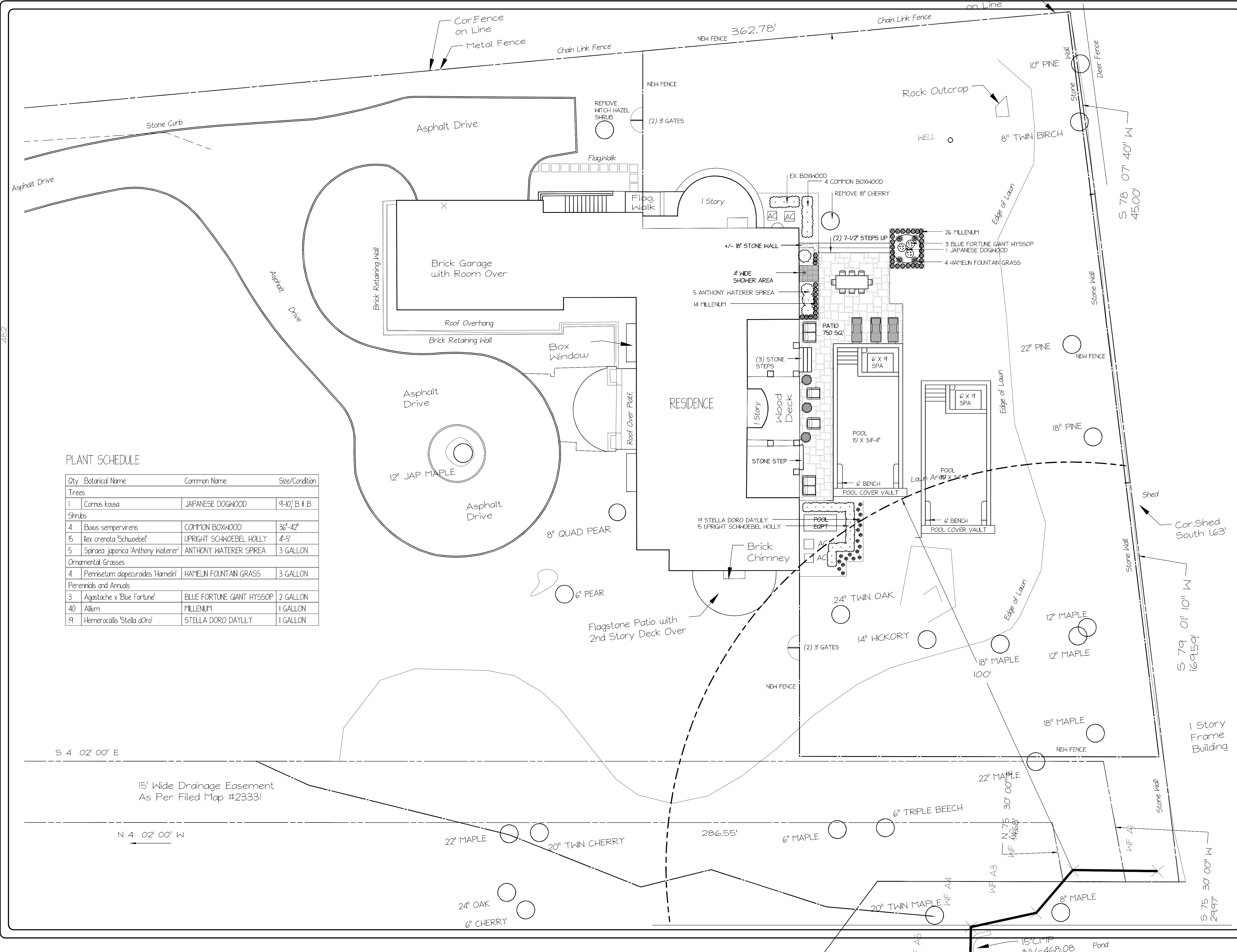
PROPOSED POOL
LAYOUT

COHEN RESIDENCE

9 HOBBY FARM DRIVE

BEDFORD, NY 10506

SCALE: 1"=10'-0"	PROJECT NO.
DRAWN BY: WHE	SHEET NO.
CHECKED BY:	7
DATE: 8/2021	
DATE OF PRINT:	



PLANT SCHEDULE

Qty	Botanical Name	Common Name	Size/Condition
Trees			
1	<i>Cornus kousa</i>	JAPANESE DOGWOOD	9-10' B & B
Shrubs			
4	<i>Buxus sempervirens</i>	COMMON BOXWOOD	36"-42"
15	<i>Ilex crenata 'Schwoebel'</i>	UPRIGHT SCHWOEBEL HOLLY	4'-5'
5	<i>Spiraea japonica 'Anthony Waterer'</i>	ANTHONY WATERER SPIREA	3 GALLON
Ornamental Grasses			
4	<i>Pennisetum alopecuroides 'Hamelin'</i>	HAMELIN FOUNTAIN GRASS	3 GALLON
Perennials and Annuals			
3	<i>Agastache x 'Blue Fortune'</i>	BLUE FORTUNE GIANT HYSSOP	2 GALLON
40	<i>Allium</i>	MILLENUM	1 GALLON
19	<i>Hemerocallis 'Stella d'Oro'</i>	STELLA DORO DAYLILY	1 GALLON

NOTES

**F. CAPPARELLI
LANDSCAPE DESIGN**

635 Halstead Ave.
Mamaroneck, NY 10543
914.698.6144 - 914.630.4647
fclandscapedesign.com

WILLIAM HARRIS EINHORN, RLA

No.	Date	Description

SCALE IN FEET

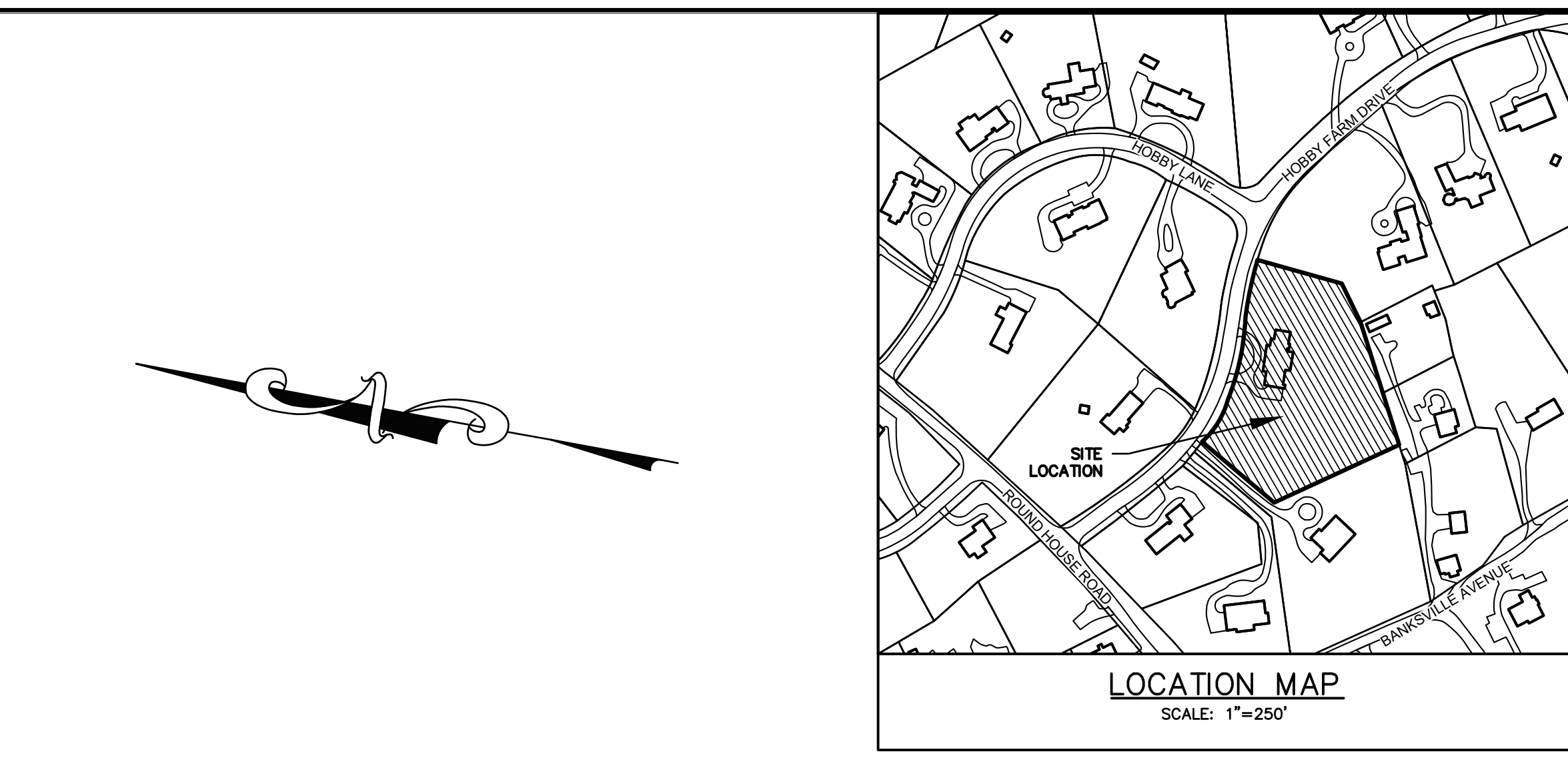
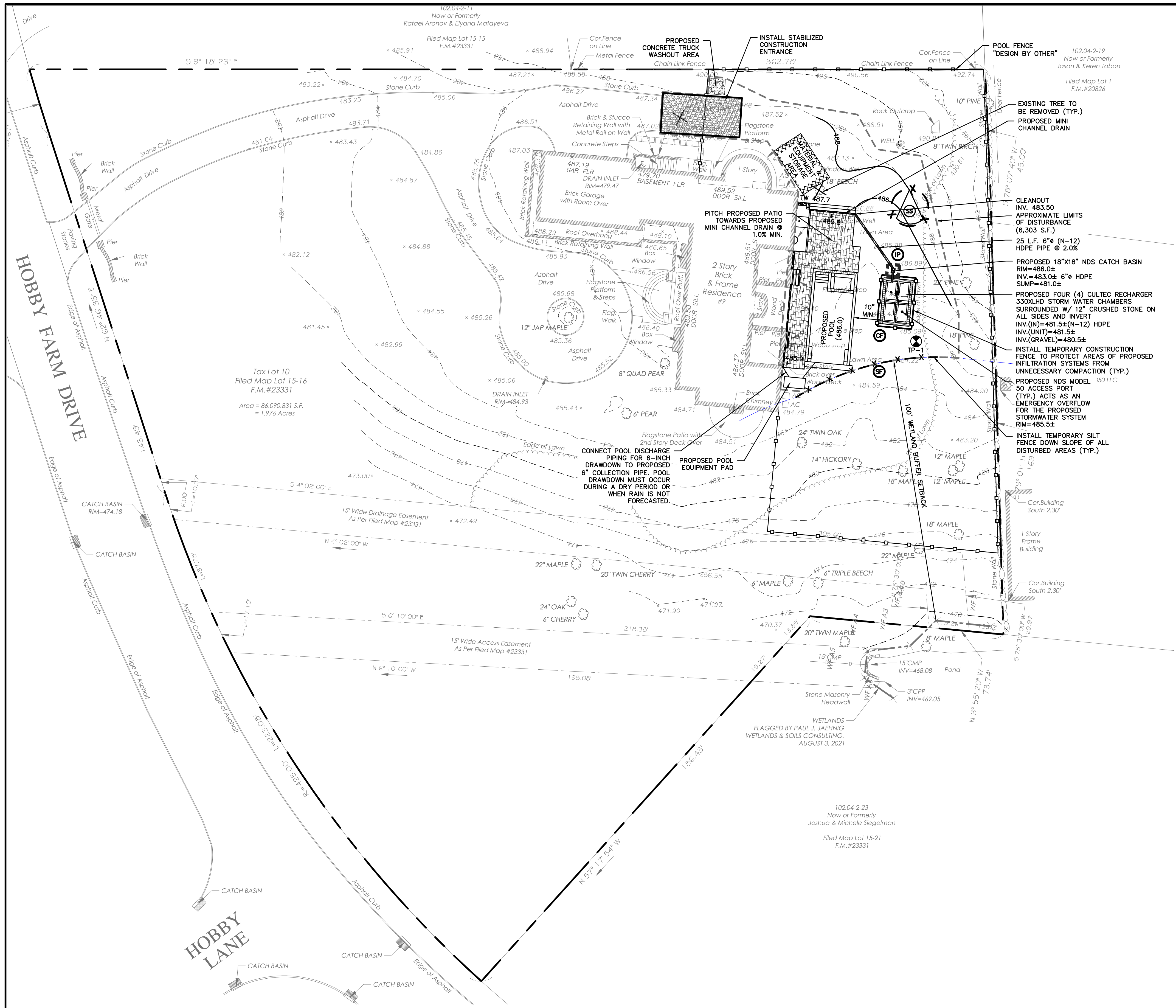
PROPOSED POOL
LANDSCAPE

COHEN RESIDENCE

9 HOBBY FARM DRIVE

BEDFORD, NY 10506

SCALE: 1"=10'-0"	PROJECT NO.
DRAWN BY: WHE	SHEET NO.
CHECKED BY:	8
DATE: 8/2021	
DATE OF PRINT:	



GENERAL NOTES:

1. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE SUPERVISION OF THE CONSTRUCTION.
2. NO CHANGES SHALL BE MADE TO THESE PLANS EXCEPT AS PER NYS LAW CHAPTER 987.
3. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL APPLICABLE CODES, INCLUDING BUT NOT LIMITED TO ACI, AISC, ZONING, AND THE NEW YORK STATE BUILDING CODE.
4. ALL CONDITIONS, LOCATIONS AND DIMENSIONS SHALL BE FIELD VERIFIED AND THE ENGINEER SHALL BE IMMEDIATELY NOTIFIED OF ANY DISCREPANCIES.
5. ALL CHANGES MADE TO THE PLANS SHALL BE APPROVED BY THE ENGINEER AND ANY SUCH CHANGES SHALL BE FILED AS AMENDMENTS TO THE ORIGINAL BUILDING PERMIT.
6. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING HIS BEST SKILL AND ATTENTION. HE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
7. THE CONTRACTOR SHALL BE RESPONSIBLE TO THE OWNER FOR THE ACTS AND OMISSIONS OF HIS EMPLOYEES, SUBCONTRACTORS AND THEIR AGENTS AND EMPLOYEES, AND OTHER PERSONS PERFORMING ANY OF THE WORK UNDER A CONTRACT WITH THE CONTRACTOR.
8. SAFETY DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONFORM TO ALL LOCAL, STATE AND FEDERAL AGENCIES IN EFFECT DURING THE PERIOD OF CONSTRUCTION.
9. THE CONTRACTOR AND HIS SUBCONTRACTORS SHALL MAKE APPLICATION TO RECEIVE ALL NECESSARY PERMITS TO PERFORM THE WORK UNDER CONTRACT. THE CONTRACTOR AND HIS SUBCONTRACTORS SHALL BE LICENSED TO DO ALL WORK AS REQUIRED BY THE LOCAL, COUNTY, AND STATE AGENCIES WHICH MAY HAVE JURISDICTION OVER THOSE TRADES, AND SHALL PRESENT THE OWNER WITH COPIES OF ALL LICENSES AND INSURANCE CERTIFICATES.
10. FINAL GRADINGS AROUND THE BUILDING AREA SHALL SLOPE AWAY FROM THE STRUCTURE.
11. ALL WRITTEN DIMENSIONS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER ANY SCALED DIMENSIONS.
12. ADJOINING PUBLIC AND PRIVATE PROPERTY SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION, REMODELING AND DEMOLITION WORK. PROTECTION SHALL BE PROVIDED FOR FOOTINGS, FOUNDATIONS, PARTY WALLS, CHIMNEYS, SKYLIGHTS AND ROOFS. PROVISIONS SHALL BE MADE TO CONTROL WATER RUNOFF AND EROSION DURING CONSTRUCTION OR DEMOLITION ACTIVITIES. THE PERSON MAKING OR CAUSING AN EXCAVATION TO BE MADE SHALL PROVIDE WRITTEN NOTICE TO THE OWNERS OF ADJOINING BUILDINGS ADVISING THEM THAT THE EXCAVATION IS TO BE MADE AND THAT THE ADJOINING BUILDINGS SHOULD BE PROTECTED. SAID NOTIFICATION SHALL BE DELIVERED NOT LESS THAN 10 DAYS PRIOR TO THE SCHEDULED STARTING DATE OF THE EXCAVATION.
13. OWNER SHALL INSURE THAT THE INSURANCE PROVIDED BY THE CONTRACTOR HIRED TO PERFORM THE WORK SHALL BE ENDORSED TO NAME HUDSON ENGINEERING & CONSULTING, P.C., AND ANY DIRECTORS, OFFICERS, EMPLOYEES, SUBSIDIARIES, AND AFFILIATES, AS ADDITIONAL INSURED ON ALL POLICIES AND HOLD HARMLESS DOCUMENTS, AND SHALL STIPULATE THAT THIS INSURANCE IS PRIMARY, AND THAT ANY OTHER INSURANCE OR SELF-INSURANCE MAINTAINED BY HUDSON ENGINEERING & CONSULTING, P.C., SHALL BE EXCESS ONLY AND SHALL NOT BE CALLED UPON TO CONTRIBUTE WITH THIS INSURANCE. ISO ADDITIONAL INSURED ENDORSEMENT FORM NUMBER CG2010 1185 UNDER GL. COPIES OF THE INSURANCE POLICIES SHALL BE SUBMITTED TO HUDSON ENGINEERING & CONSULTING, P.C., FOR APPROVAL PRIOR TO THE SIGNING OF THE CONTRACT.
14. INDUSTRIAL CODE RULE 753: THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 72 HOURS PRIOR TO THE START OF HIS OPERATIONS AND SHALL COMPLY WITH ALL THE LATEST INDUSTRIAL CODE RULE 753 REGULATIONS.

POOL NOTES:

1. POOL DRAINAGE/DRAWDOWN TO BE DIRECTED FROM POOL EQUIPMENT INTO THE INFILTRATION CHAMBERS.
2. NO CHEMICALS CAN BE ADDED TO THE POOL FOR MINIMUM OF TEN DAYS PRIOR TO THE POOL DRAWDOWN.
3. POOL DRAWDOWN MUST BE DONE DURING A DRY PERIOD OR WHEN RAIN IS NOT FORECAST.
4. POOL DRAWDOWN SHALL NOT EXCEED 8-INCHES. IF ADDITIONAL DRAWDOWN IS REQUIRED FOR POOL MAINTENANCE, DRAWDOWNS MUST OCCUR AT 3 DAY (MIN.) INTERVALS OR WATER SHALL BE PUMPED AND TRUCKED OFF-SITE BY A QUALIFIED/LICENSED PROFESSIONAL.

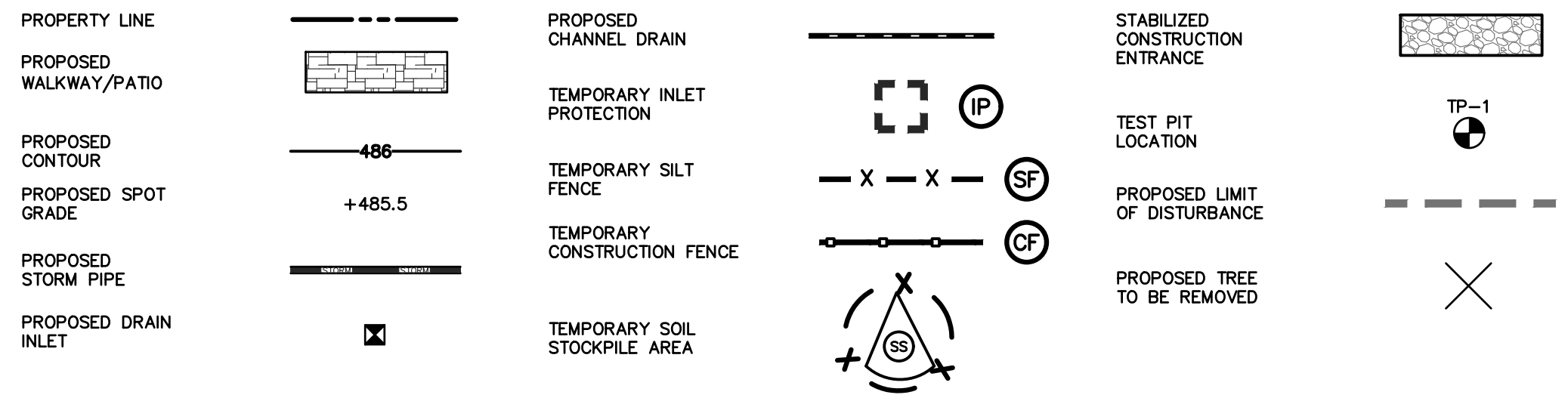
INSTALLATION & MAINTENANCE OF EROSION CONTROL:

- CONSTRUCTION SCHEDULE
NOTIFY APPROPRIATE MUNICIPAL AGENCY HAVING JURISDICTION AT LEAST 5 DAYS PRIOR TO START.
- EROSION CONTROL MEASURES
INSTALL ALL EROSION CONTROL MEASURES PRIOR TO START OF CONSTRUCTION. CALL FOR INSPECTION FROM THE APPROPRIATE MUNICIPAL AGENCY HAVING JURISDICTION AT LEAST 2 DAYS PRIOR TO FINISH.
- INSPECTION BY MUNICIPALITY - MAINTENANCE (TO BE PERFORMED DURING ALL PHASES OF CONSTRUCTION)
AFTER ANY RAIN CAUSING RUNOFF, CONTRACTOR TO INSPECT HAYBALES, ETC. AND REMOVE ANY EXCESSIVE SEDIMENT AND INSPECT STOCKPILES AND CORRECT ANY PROBLEMS WITH SEED ESTABLISHMENT. INSPECTIONS SHALL BE DOCUMENTED IN WRITING AND SUBMITTED TO THE APPROPRIATE MUNICIPAL AGENCY HAVING JURISDICTION.
- INSPECTION BY MUNICIPALITY - FINAL GRADING
REMOVE UNNEEDED SUBGRADE FROM SITE. CALL FOR INSPECTION FROM THE APPROPRIATE MUNICIPAL AGENCY HAVING JURISDICTION AT LEAST 2 DAYS PRIOR TO FINISH.
- INSPECTION BY MUNICIPALITY - LANDSCAPING
SPREAD TOPSOIL EVENLY OVER AREAS TO BE SEEDDED. HAND RAKE LEVEL. BROADCAST 1.25 LB. BAG OF JONATHAN GREEN "FASTGROW" MIX OR EQUAL OVER AREA TO BE SEEDDED. APPLY STRAW MULCH AND WATER WITHIN 2 DAYS OF COMPLETION OF TOPSOILING. CALL FOR INSPECTION FROM THE APPROPRIATE MUNICIPAL AGENCY HAVING JURISDICTION AT LEAST 2 DAYS PRIOR TO FINISH.
- INSPECTION BY MUNICIPALITY - FINAL LANDSCAPING
GRASS ESTABLISHED. CALL FOR INSPECTION FROM THE APPROPRIATE MUNICIPAL AGENCY HAVING JURISDICTION AT LEAST 2 DAYS PRIOR TO FINISH.
- INSPECTION BY MUNICIPALITY - FINAL LANDSCAPING
ALL EROSION CONTROL MEASURES REMOVED AND GRASS ESTABLISHED. CALL FOR INSPECTION FROM THE APPROPRIATE MUNICIPAL AGENCY HAVING JURISDICTION AT LEAST 2 DAYS PRIOR TO FINISH.

STORMWATER MANAGEMENT FACILITIES MAINTENANCE PROGRAM

MEASURE	DATES FOR INSPECTION	TIMING, ACTIVITY, AND LOCATION
GENERAL MAINTENANCE (STORM SEWER, CATCH BASINS/ DRAIN INLETS, MANHOLES, PRE-TREATMENT DEVICES AND INFILTRATION BASIN)	ALL	ALL STORMWATER FACILITIES SHALL BE INSPECTED IMMEDIATELY AFTER COMPLETION OF CONSTRUCTION, AND THEN MONTHLY FOR THE FIRST THREE (3) MONTHS FOLLOWING THE COMPLETION OF THE PROJECT. WITHIN THE FIRST THREE (3) MONTHS, INSPECTIONS SHALL IMMEDIATELY BE PERFORMED FOLLOWING A LARGE STORM EVENT (I.E. PRODUCING 1/2" (ONE-HALF INCH) OF RAIN OR GREATER). THEREAFTER, THESE FACILITIES SHALL BE INSPECTED AS DESCRIBED AS FOLLOWS. UPON INSPECTION, FACILITIES SHALL BE IMMEDIATELY MAINTAINED AND/OR CLEANED AS MAY BE REQUIRED. ANY SITE AREAS EXHIBITING SOIL EROSION OF ANY KIND SHALL BE IMMEDIATELY RESTORED AND STABILIZED WITH VEGETATION, MULCH OR STONE, DEPENDING ON THE AREA TO BE STABILIZED. UPON EACH INSPECTION, ALL VISIBLE DEBRIS INCLUDING, BUT NOT LIMITED TO, TWIGS, LEAF AND FOREST LITTER SHALL BE REMOVED FROM THE BASIN, OVERFLOW DISCHARGE POINTS AND FRAMES AND GRATES OF DRAINAGE STRUCTURES.
SUMPS - CATCH BASIN/DRAIN INLETS AND DRAIN MANHOLES	UPON COMPLETION OF CONSTRUCTION; -ONCE A MONTH FOR THE FIRST THREE (3) MONTHS; AFTER FIRST THREE (3) MONTHS; -EVERY FOUR (4) MONTHS THEREAFTER	ALL CATCH BASIN/DRAIN INLETS AND DRAIN MANHOLES WITH SUMPS HAVE BEEN DESIGNED TO TRAP SEDIMENT PRIOR TO ITS TRANSPORT TO THE INFILTRATION PRACTICE AND, ULTIMATELY, DOWNSTREAM. THESE SUMPS WILL REQUIRE PERIODIC INSPECTION AND MAINTENANCE TO ENSURE THAT ADEQUATE DEPTH IS MAINTAINED WITHIN THE SUMPS. THE OWNER, OR THEIR DULY AUTHORIZED REPRESENTATIVE, SHALL TAKE MEASUREMENTS OF THE SUMP DEPTH. IF SEDIMENT HAS ACCUMULATED TO 1/2 (ONE-HALF) THE DEPTH OF THE SUMP, ALL SEDIMENT SHALL BE REMOVED FROM THE SUMP. SEDIMENTS CAN BE REMOVED WITH HAND-LABOR OR WITH A VACUUM TRUCK. THE USE OF ROAD SALT SHALL BE MINIMIZED FOR MAINTENANCE OF ROADWAY AND DRIVEWAY AREAS.
SUBSURFACE INFILTRATION AND LOGGING OF INLET AND OUTLET PIPING	UPON COMPLETION OF CONSTRUCTION; -IMMEDIATELY AFTER CONSTRUCTION -EVERY SIX (6) MONTHS THEREAFTER (SPRING & FALL) BY INDIVIDUAL HOMEOWNERS	ALL INFILTRATION SYSTEMS SHALL BE INSPECTED EVERY SIX (6) MONTHS (SPRING AND FALL) FOR EXCESS SEDIMENT ACCUMULATION AND CLOGGING OF INLET AND OUTLET PIPING. DURING DRY WEATHER CONDITIONS, WHEN SEDIMENT HAS ACCUMULATED TO AN AVERAGE DEPTH EXCEEDING 3" (THREE INCHES), THE GALLERY SHALL BE WATER JETTED CLEAN, AND ALL ACCUMULATED SEDIMENTS SHALL BE VACUUMED OUT OR REMOVED MANUALLY. A STADIA ROD MAY BE INSERTED TO DETERMINE THE DEPTH OF THE SEDIMENT. MAINTENANCE OF THE INFILTRATION SYSTEMS LOCATED ON EACH INDIVIDUAL LOT SHALL BE THE RESPONSIBILITY OF THE INDIVIDUAL PROPERTY OWNER.

LEGEND



POOL DRAWDOWN	
POOL AREA	516 S.F.
DRAWDOWN DEPTH	0.66 FT.
TOTAL STORAGE REQUIRED	341 C.F.
TOTAL STORAGE PROVIDED	369 C.F.

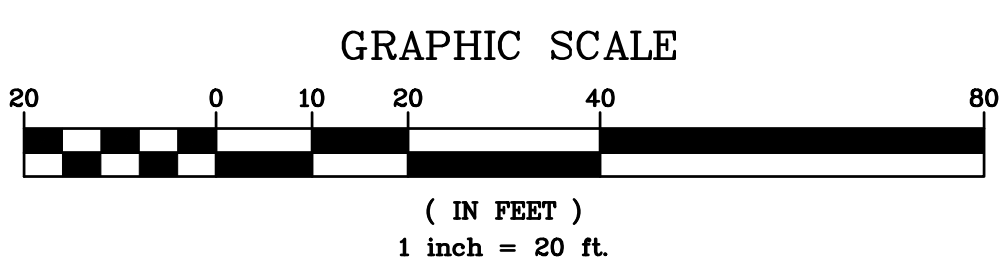
TEST HOLE DATA:

TEST HOLE #1
DEPTH - 112"
0-6" TOPSOIL
6-24" BROWN SILT WITH FILL AND ROCKS
24-48" GREY CLAY
48-112" FILL
NO GROUNDWATER
NO LEDGE ROCK
PERC. = 89.55" INCHES/HOUR

CONTRACTOR SHALL CONTACT DESIGN ENGINEER TO SCHEDULE A SITE INSPECTION PRIOR TO BACKFILLING INFILTRATION/ATTENUATION SYSTEM(S). SHOULD THE CONTRACTOR BACKFILL PRIOR TO INSPECTION, THE CONTRACTOR SHALL EXPOSE THE SYSTEM AT THEIR OWN EXPENSE.

ANY ALTERATIONS OR REVISIONS OF THESE PLANS, UNLESS DONE BY OR UNDER THE DIRECTION OF THE NYS LICENSED AND REGISTERED ENGINEER THAT PREPARED THEM, IS A VIOLATION OF THE NYS EDUCATION LAW.

EXISTING INFORMATION SHOWN HEREON PROVIDED BY TC MERRITTS LAND SURVEYORS DATED AUGUST 12, 2021



PROJECT: PROPOSED POOL AND PATIO
9 HOBBY FARM DRIVE
TOWN OF NORTH CASTLE
WESTCHESTER COUNTY - NEW YORK

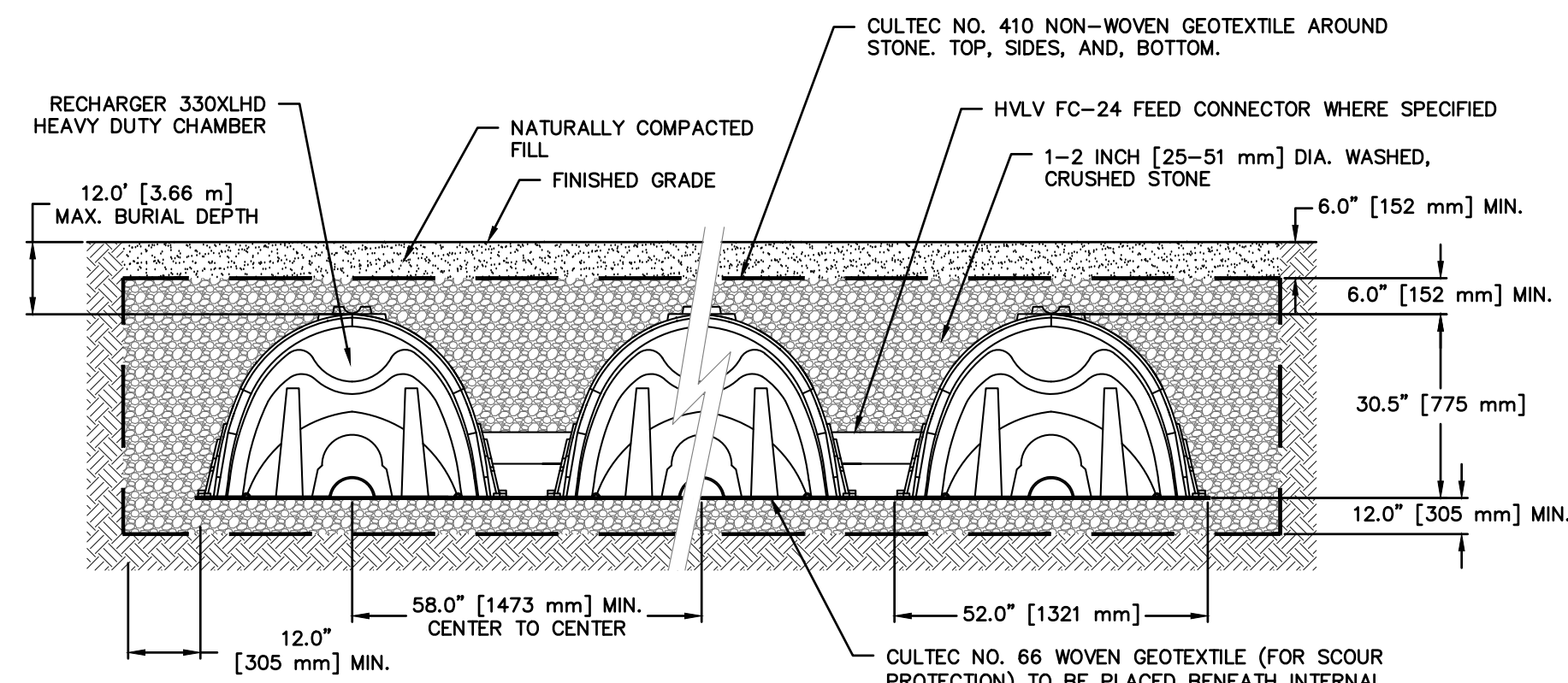
STORMWATER MANAGEMENT PLAN

HUDSON ENGINEERING CONSULTING, P.C.
45 Knollwood Road - Suite 201
Elmstorf, New York 10523
T: 914-909-0420
F: 914-560-2086

HEC

DATE: 10/28/21
SCALE: 1" = 20'
DESIGNED BY: D.Y.
CHECKED BY: M.S.
SHEET NO. 2

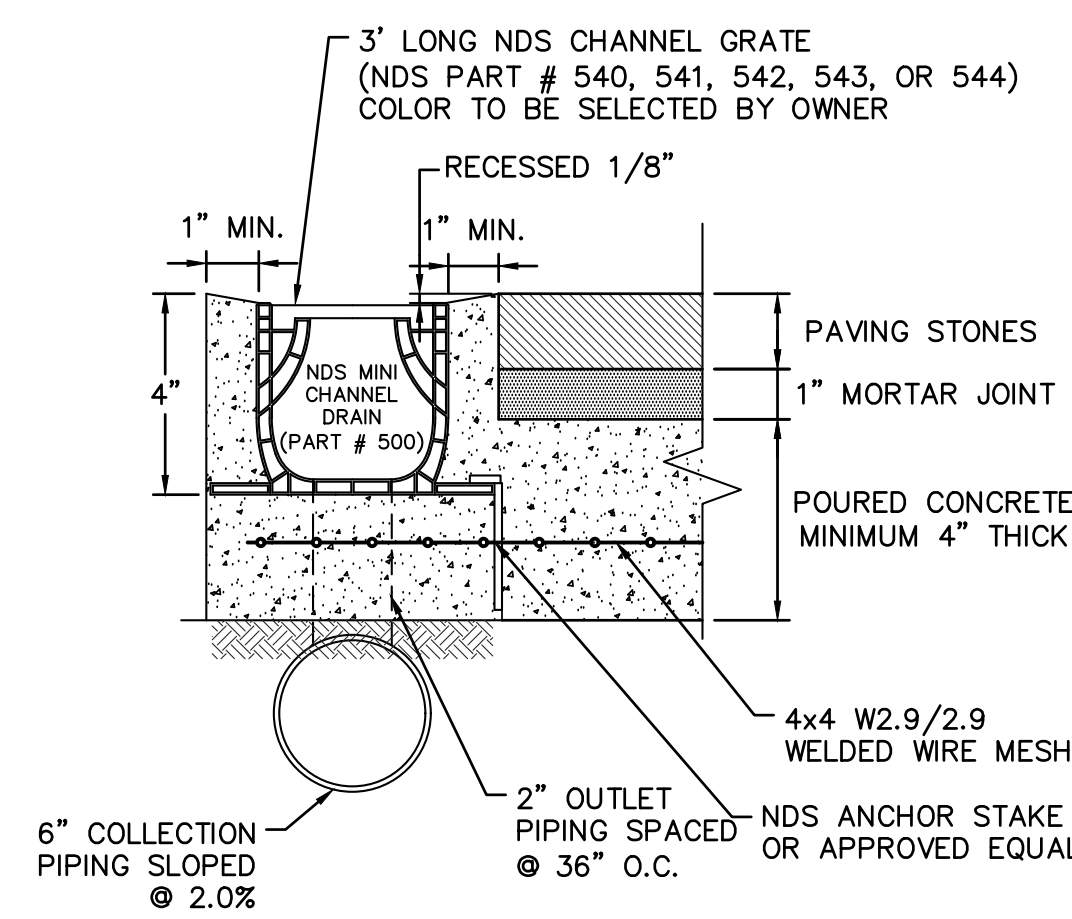
C-1



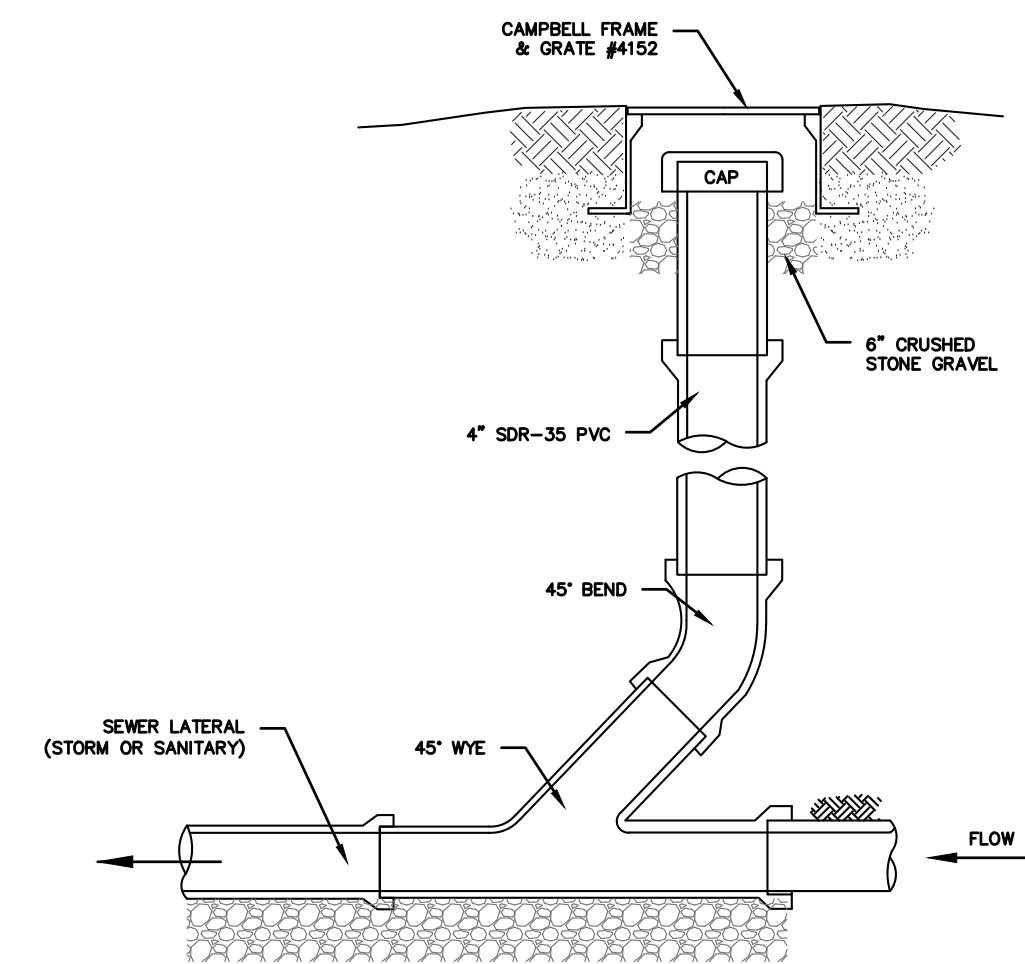
GENERAL NOTES
 RECHARGER 330XL HD BY CULTEC, INC. OF BROOKFIELD, CT. STORAGE PROVIDED = 11.32 CF/FT [1.05 m³/m] PER DESIGN UNIT.
 REFER TO CULTEC, INC.'S CURRENT RECOMMENDED INSTALLATION GUIDELINES.
 THE CHAMBER WILL BE DESIGNED TO WITHSTAND TRAFFIC LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS

ALL RECHARGER 330XL HD HEAVY DUTY UNITS ARE MARKED WITH A COLOR STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER.
 ALL RECHARGER 330XL HD CHAMBERS MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS

CULTEC RECHARGER 330XLHD



NDS MINI CHANNEL DRAIN



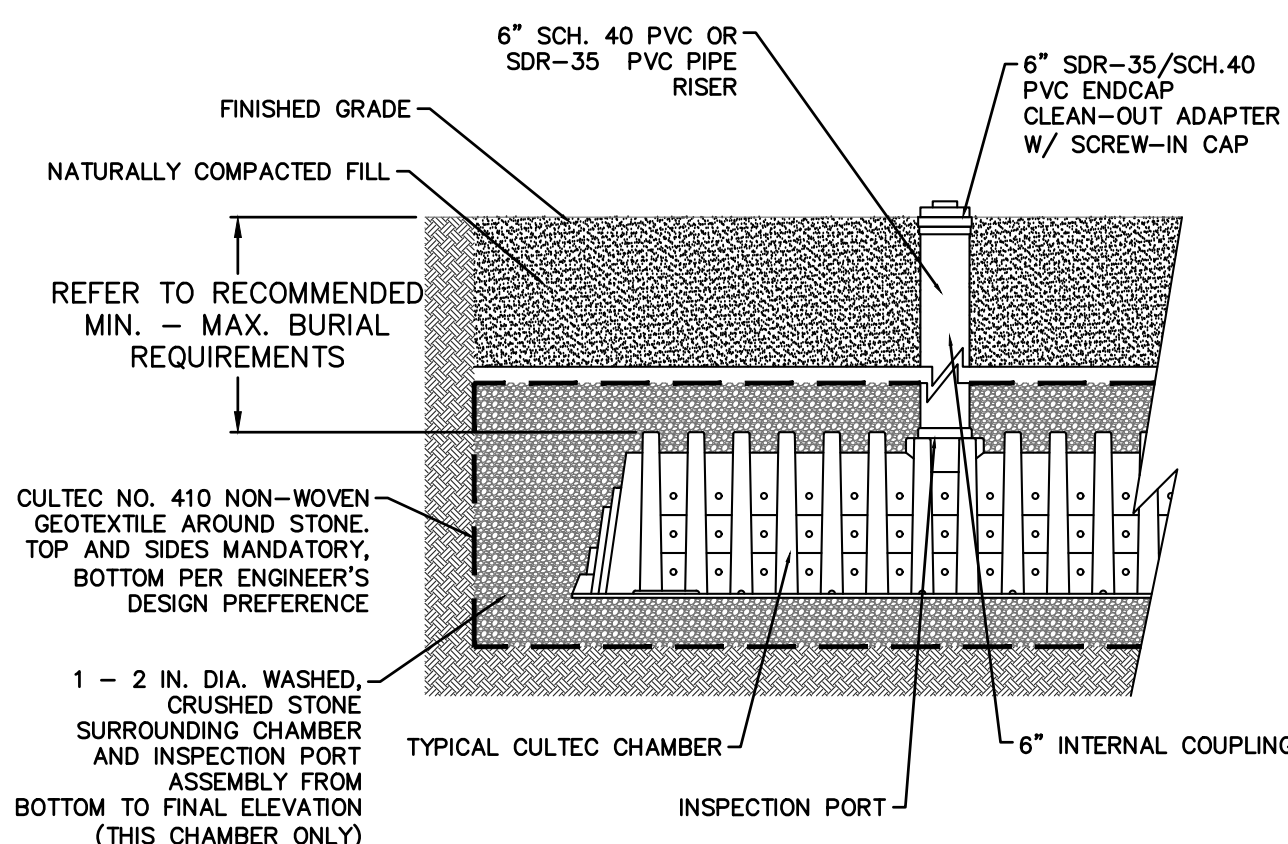
NOTES (SANITARY SEWER SERVICES):

- ALL SANITARY SEWER SERVICES TO BE 4\"/>
- IN ACCORDANCE WITH THE NYS RESIDENTIAL BUILDING CODE, THE FOLLOWING REQUIREMENTS APPLY:
 - CLEANOUTS SHALL BE INSTALLED NOT MORE THAN 100 FEET APART IN HORIZONTAL DRAINAGE LINES (P3005.2.2).
 - CLEANOUTS SHALL BE INSTALLED AT EACH CHANGE OF DIRECTION OF THE DRAINAGE SYSTEM GREATER THAN 45 DEGREES.
 - CLEANOUTS SHALL BE INSTALLED SO THAT THE CLEANOUT OPENS TO ALLOW CLEANING IN THE DIRECTION OF THE FLOW OF THE DRAINAGE LINE (P3005.2.8).

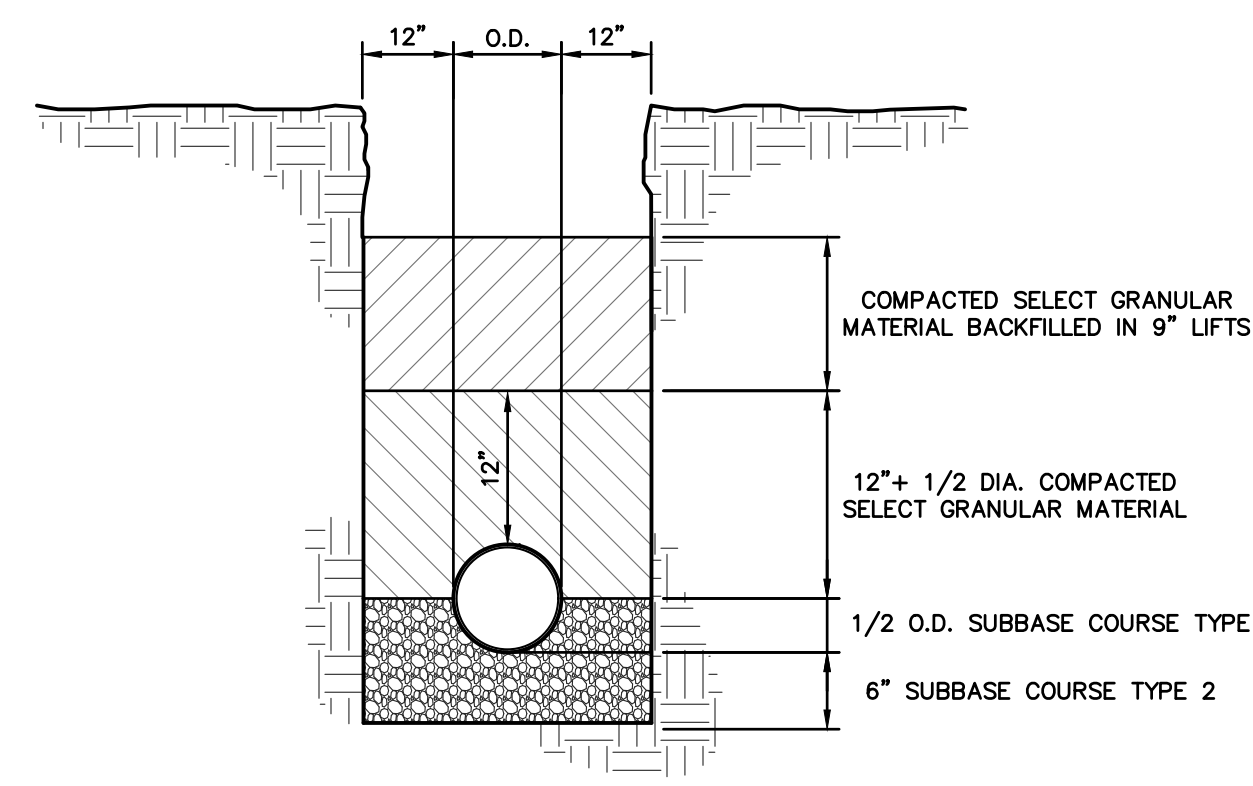
NOTES (STORM SEWER):

- REFER TO PLAN FOR SPECIFIC PIPE SIZING AND SLOPE SPECIFICATIONS; HOWEVER, IN GENERAL, ALL STORM SEWER SERVICES TO BE 6\"/>
- CLEANOUTS SHALL BE PLACED BEFORE SIGNIFICANT PIPE BEND LOCATIONS (I.E., JUNCTIONS, 90-DEGREE BENDS, ETC.) UNLESS A ROOF LEADER DOWNSPOUT CONNECTION IS PROPOSED.

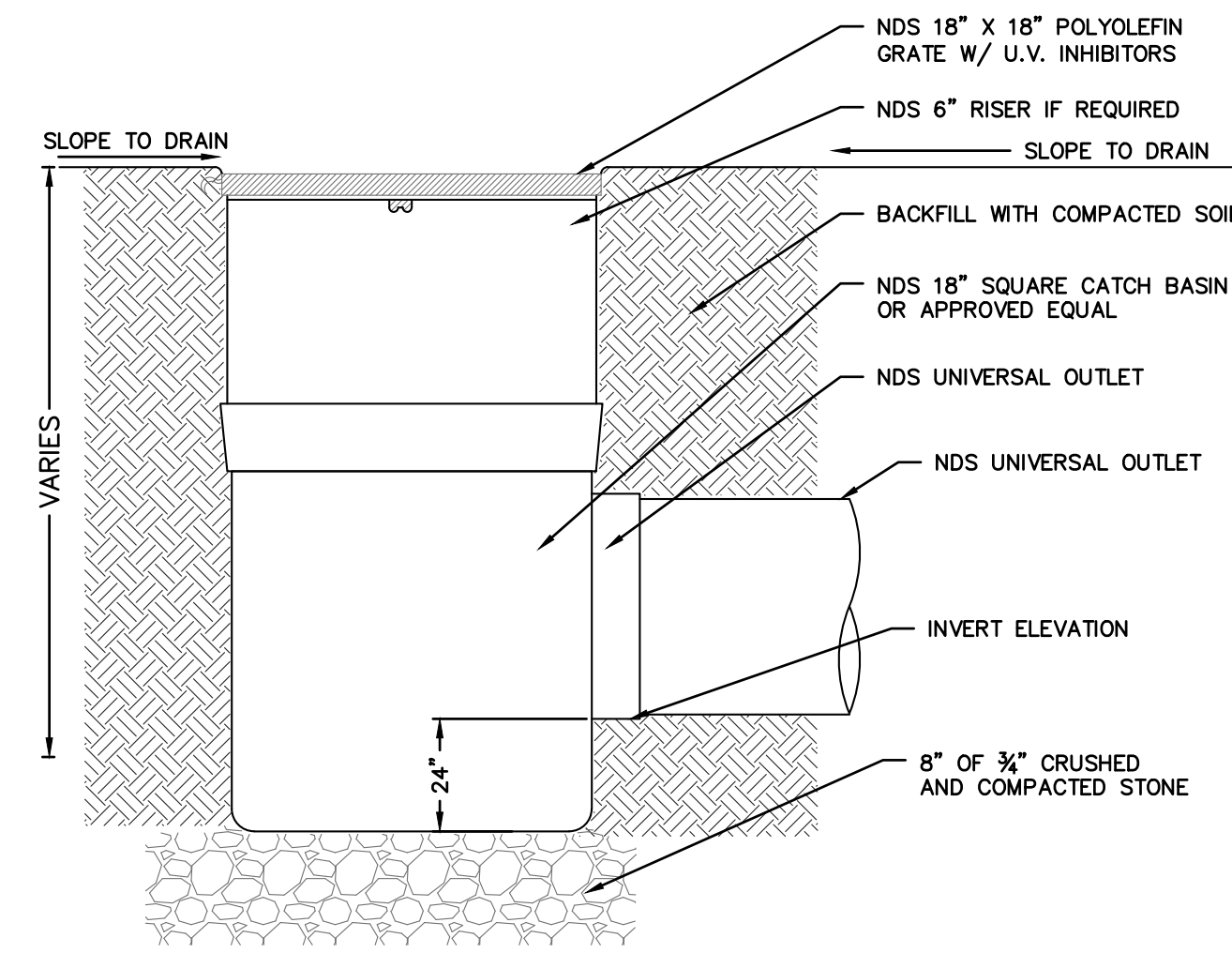
SEWER CLEANOUT DETAIL (GRAVITY)
 (STORM OR SANITARY)



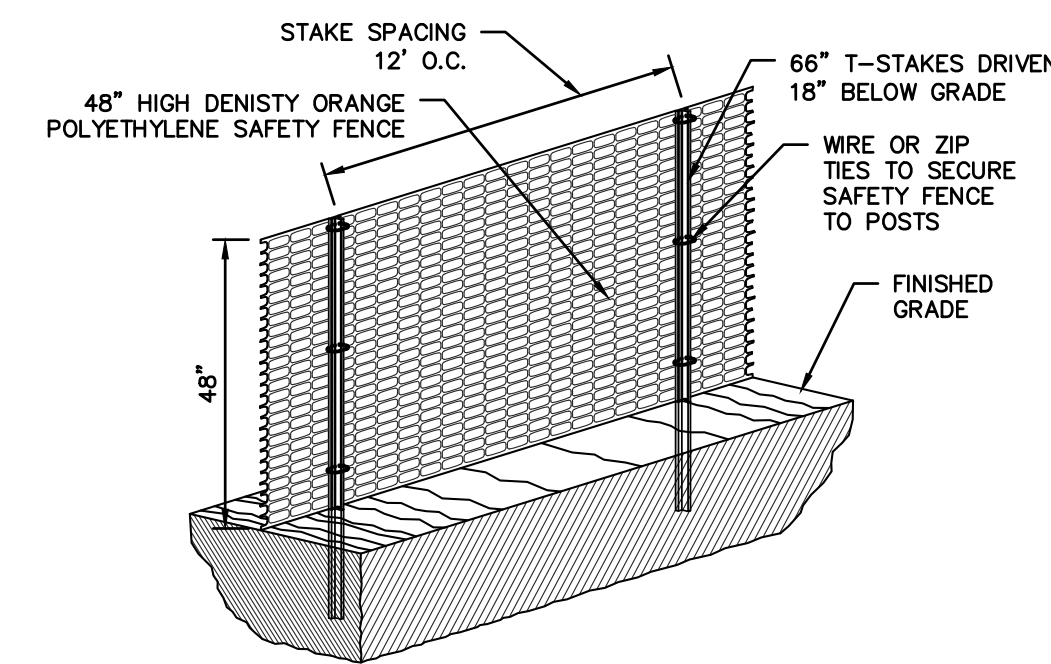
CULTEC ACCESS PORT



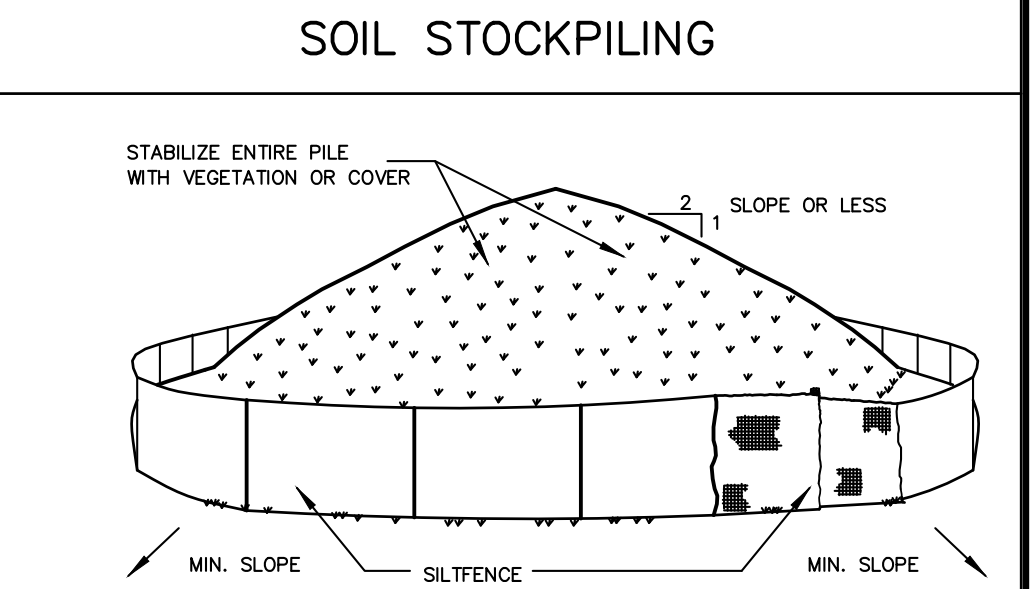
TRENCH BEDDING



NDS SQUARE CATCH BASIN



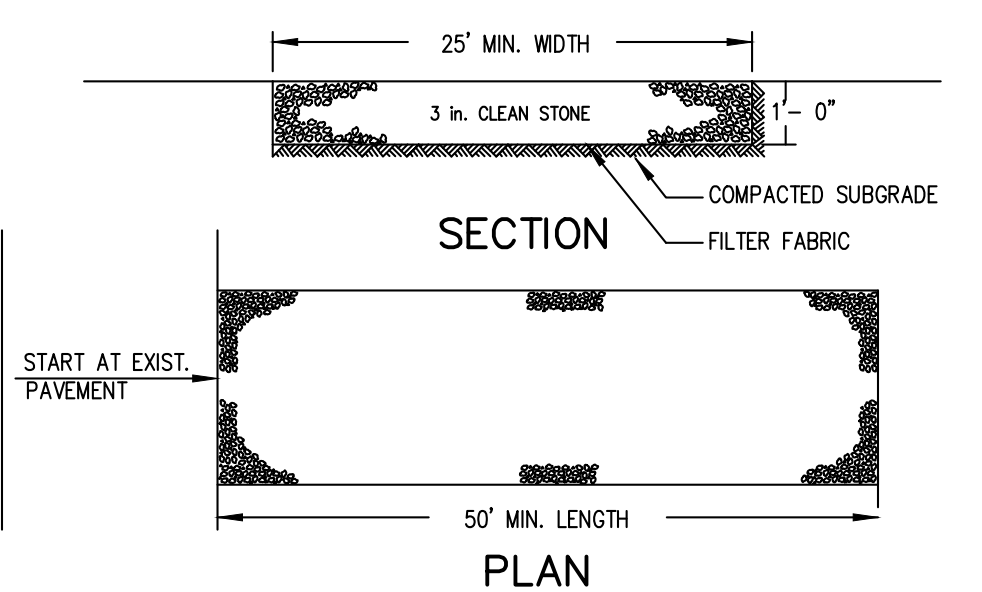
CONSTRUCTION FENCE



INSTALLATION NOTES

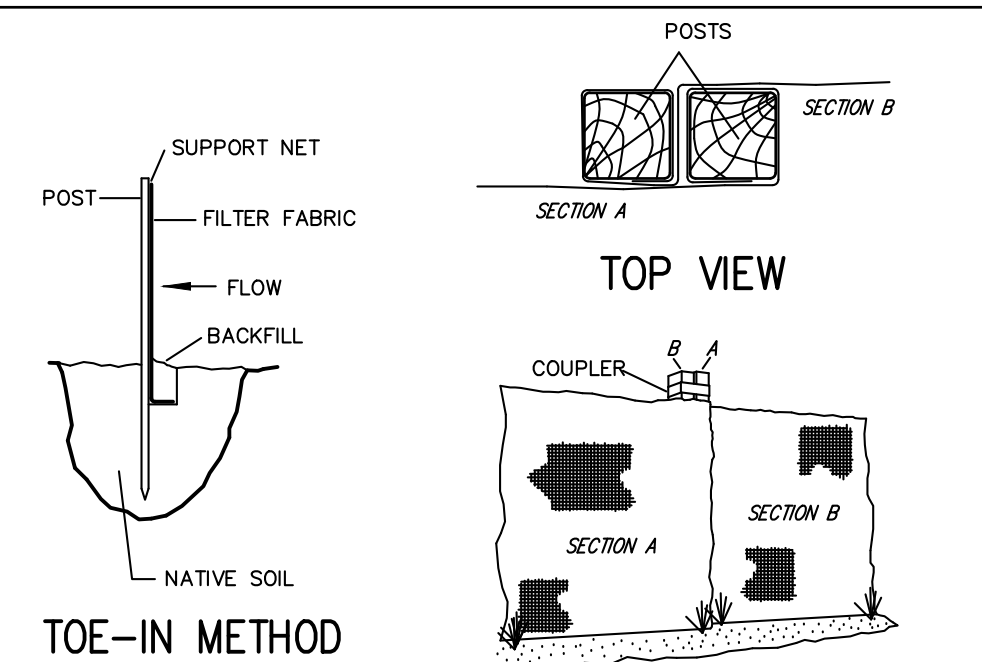
- AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
- SOILS OR FILL TO BE STOCKPILED ON SITE DURING CUTTING AND FILLING ACTIVITIES SHOULD BE LOCATED ON LEVEL PORTIONS OF THE SITE WITH A MINIMUM OF 50-75 FOOT SETBACKS FROM TEMPORARY DRAINAGE SWALES.
- MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2.
- UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STRAWBALES, THEN STABILIZED WITH VEGETATION OR COVERED.
- STOCKPILES REMAINING IN PLACE FOR MORE THAN A WEEK SHOULD BE SEEDED AND MULCHED OR COVERED WITH GEOTEXTILE FABRIC SURROUNDED BY SILT FENCE.
- SEE SPECIFICATIONS (THIS MANUAL) FOR INSTALLATION OF SILT FENCE.

STABILIZED CONSTRUCTION ENTRANCE



- INSTALLATION NOTES:**
- STONE SIZE - USE 3\"/>
 - LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
 - THICKNESS - NOT LESS THAN SIX (6) INCHES.
 - WIDTH - 25 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCUR.
 - FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER CLOTH WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
 - 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.
 - MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT OF WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT OF WAY MUST BE REMOVED IMMEDIATELY.
 - WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT OF WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
 - PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

SILT FENCE



INSTALLATION NOTES:

- EXCAVATE A 4 INCH x 4 INCH TRENCH ALONG THE LOWER PERIMETER OF THE SITE.
- UNROLL A SECTION AT A TIME AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH (NET SIDE AWAY FROM DIRECTION OF FLOW).
- DRIVE THE POST INTO THE GROUND UNTIL THE NETTING IS APPROXIMATELY 2 INCHES FROM THE TRENCH BOTTOM.
- LAY THE TOE-IN FLAP OF FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH. BACKFILL THE TRENCH AND TAMP THE SOIL. STEEPER SLOPES REQUIRE AN INTERCEPT TRENCH.
- JOIN SECTIONS AS SHOWN ABOVE.

ANY ALTERATIONS OR REVISIONS OF THESE PLANS, UNLESS DONE BY OR UNDER THE DIRECTION OF THE NYS LICENSED AND REGISTERED ENGINEER THAT PREPARED THEM, IS A VIOLATION OF THE NYS EDUCATION LAW.

PROJECT: PROPOSED POOL AND PATIO 9 HOBBY FARM DRIVE TOWN OF NORTH CASTLE WESTCHESTER COUNTY - NEW YORK	
THIS PLAN NOT VALID FOR CONSTRUCTION WITHOUT ENGINEER'S SEAL & SIGNATURE	HEC
HUDSON ENGINEERING CONSULTING, P.C. 45 Knollwood Road - Suite 201 Elmsford, New York 10523 T: 914-809-0420 F: 914-560-2086	C-2

STORMWATER MANAGEMENT PLAN & DRAINAGE ANALYSIS

**9 Hobby Farm Drive
Town of North Castle - New York**

October 28, 2021



Hudson Engineering & Consulting, P.C.

45 Knollwood Road – Suite 201

Elmsford, NY 10523

(914) 909-0420

**STORMWATER MANAGEMENT
PLAN & DRAINAGE ANALYSIS
9 Hobby Farm Drive
Town of North Castle - New York**

INTRODUCTION

This Stormwater Management Plan presents the proposed Best Management Practices (BMPs) to control erosion and sedimentation and manage stormwater during and upon construction of proposed pool and patio at 9 Hobby Farm Drive in the Town of North Castle, Westchester County, New York.

This Plan consists of this narrative and a plan set entitled: “Proposed Pool and Patio, 9 Hobby Farm Drive, Town of North Castle, Westchester County - New York”, all as prepared by Hudson Engineering and Consulting, P.C., Elmsford, New York, dated, October 28, 2021. The design is in accordance with the Town of North Castle requirements. Since the project disturbance is less than one acre the New York State Department of Environmental Conservation [NYSDEC] stormwater regulations are not applicable.

METHODOLOGY

The stormwater analysis was developed utilizing the Soil Conservation Service (SCS) TR-20, 24-hour Type III storm events (HydroCad®) to assist with the design of the mitigating practices. The “Complex Number” (CN) value determination is based on soil type, vegetation and land use. The design is in accordance with the Town of North Castle’s stormwater regulations. The “Time of Concentration” (T_c) was determined as a direct entry of one-minute. The CN and T_c data are input into the computer model. The project site was modeled for the 25-year Type III – 24-hour extreme storm event.

PRE-DESIGN INVESTIGATIVE ANALYSIS

A pre-design investigative analysis was performed including percolation and deep holes tests in the location shown on the plans. A percolation test was performed in the vicinity of the potential stormwater mitigation practice [TP-1] until constant rates were achieved, their results as follows:

- TP-1: A percolation rate of 0.67-minutes per inch (89.55-inches per hour) was observed. A rate of 20.0-inches per hour was utilized in the design.

A deep test hole was excavated and labeled TP-1 as shown on the plans.

- TP-1 was excavated to a depth of 112-inches. The test revealed topsoil to a depth of 6-inches, brown silt with fill and rocks to a depth of 24-inches,

grey clay to a depth of 48-inches, and fill to the invert. No groundwater or ledge rock was encountered.

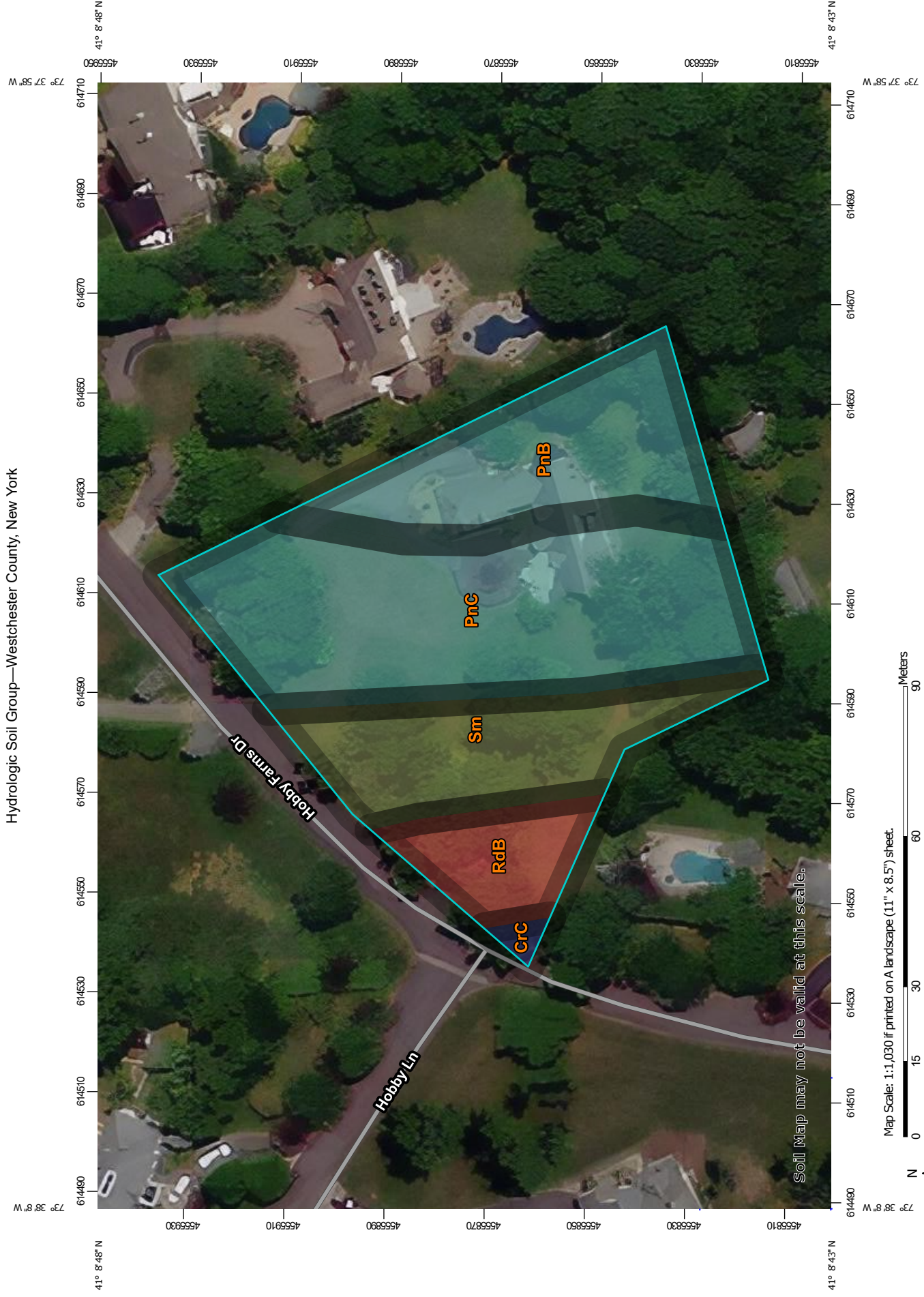
The deep test hole log and percolation test data sheets are attached.

POST-DEVELOPED CONDITION

The proposed driveway was modeled as one watershed, Watershed 1, containing approximately 1,550 square feet of impervious area. The CN value for this area is 98 and the Tc is a direct entry of 1 minute. The stormwater runoff from this tributary area is conveyed via a comprehensive drainage system to four (4) Cultec® 330XLHD Rechargers set in one foot of gravel at the sides and invert. The system is designed to fully accept (no release) the entire stormwater runoff volume for the 25-year storm event from the watershed and ex-filtrate the runoff into the surrounding soil sub-strata.

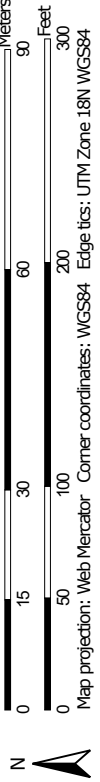
CONCLUSION

The stormwater management plan proposed meets all the requirements set forth by the Town of North Castle. Design modification requirements that may occur during the approval process will be performed and submitted for review to the Town of North Castle.



Soil Map may not be valid at this scale.

Map Scale: 1:1,030 if printed on A landscape (11" x 8.5") sheet.











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

MAP LEGEND









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

Soils




Soil Rating Polygons












-  A
-  A/D
-  B
-  B/D
-  C
-  C/D
-  D
-  Not rated or not available

Soil Rating Lines

-  A
-  A/D
-  B
-  B/D
-  C
-  C/D
-  D
-  Not rated or not available

Soil Rating Points

-  A
-  A/D
-  B
-  B/D

-  C
 -  C/D
 -  D
 -  Not rated or not available
- Water Features**
-  Streams and Canals
- Transportation**
-  Rails
 -  Interstate Highways
 -  US Routes
 -  Major Roads
 -  Local Roads
- Background**
-  Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Westchester County, New York
 Survey Area Data: Version 17, Sep 1, 2021

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

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

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

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CrC	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	B	0.0	0.8%
PnB	Paxton fine sandy loam, 3 to 8 percent slopes	C	0.5	23.6%
PnC	Paxton fine sandy loam, 8 to 15 percent slopes	C	0.9	46.3%
RdB	Ridgebury complex, 3 to 8 percent slopes	D	0.2	9.0%
Sm	Sun loam, extremely stony	C/D	0.4	20.3%
Totals for Area of Interest			2.0	100.0%

Description

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

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

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

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

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

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

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

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Smoothing	Yes
State	New York
Location	
Longitude	73.634 degrees West
Latitude	41.146 degrees North
Elevation	0 feet
Date/Time	Wed, 27 Oct 2021 15:16:32 -0400

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.34	0.52	0.64	0.84	1.05	1.31	1yr	0.90	1.22	1.50	1.86	2.29	2.82	3.19	1yr	2.50	3.06	3.55	4.26	4.91	1yr
2yr	0.40	0.62	0.77	1.01	1.28	1.60	2yr	1.10	1.49	1.84	2.27	2.79	3.43	3.86	2yr	3.03	3.71	4.26	5.04	5.71	2yr
5yr	0.47	0.73	0.92	1.23	1.58	1.99	5yr	1.36	1.83	2.30	2.85	3.51	4.30	4.88	5yr	3.81	4.69	5.42	6.32	7.09	5yr
10yr	0.53	0.83	1.05	1.42	1.85	2.35	10yr	1.59	2.15	2.73	3.39	4.17	5.10	5.82	10yr	4.52	5.60	6.51	7.50	8.35	10yr
25yr	0.61	0.97	1.24	1.72	2.28	2.94	25yr	1.97	2.66	3.43	4.27	5.26	6.41	7.37	25yr	5.67	7.08	8.31	9.41	10.37	25yr
50yr	0.69	1.11	1.43	2.00	2.69	3.49	50yr	2.32	3.12	4.07	5.09	6.26	7.62	8.81	50yr	6.74	8.47	9.99	11.17	12.22	50yr
100yr	0.79	1.27	1.64	2.33	3.17	4.14	100yr	2.74	3.67	4.85	6.06	7.45	9.06	10.53	100yr	8.02	10.13	12.02	13.26	14.42	100yr
200yr	0.89	1.46	1.89	2.71	3.74	4.92	200yr	3.23	4.32	5.77	7.23	8.88	10.78	12.60	200yr	9.54	12.11	14.48	15.75	17.00	200yr
500yr	1.07	1.76	2.29	3.33	4.66	6.18	500yr	4.02	5.36	7.26	9.11	11.20	13.58	15.97	500yr	12.02	15.36	18.52	19.79	21.16	500yr

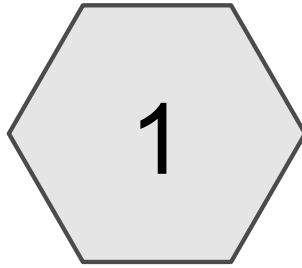
Lower Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.26	0.40	0.48	0.65	0.80	0.92	1yr	0.69	0.90	1.28	1.61	2.00	2.54	2.77	1yr	2.25	2.66	3.22	3.85	4.28	1yr
2yr	0.39	0.60	0.74	1.00	1.24	1.48	2yr	1.07	1.45	1.69	2.17	2.73	3.33	3.74	2yr	2.95	3.60	4.12	4.88	5.55	2yr
5yr	0.43	0.66	0.82	1.13	1.43	1.74	5yr	1.24	1.70	1.97	2.56	3.21	3.97	4.51	5yr	3.51	4.33	4.98	5.80	6.56	5yr
10yr	0.46	0.71	0.88	1.24	1.60	1.96	10yr	1.38	1.92	2.22	2.93	3.63	4.54	5.18	10yr	4.02	4.98	5.73	6.58	7.44	10yr
25yr	0.50	0.76	0.95	1.36	1.79	2.27	25yr	1.54	2.22	2.60	3.46	4.29	5.39	6.22	25yr	4.77	5.98	6.91	7.78	8.77	25yr
50yr	0.53	0.80	1.00	1.43	1.93	2.53	50yr	1.67	2.47	2.94	3.95	4.86	6.15	7.15	50yr	5.44	6.88	7.91	8.80	9.94	50yr
100yr	0.56	0.84	1.06	1.53	2.09	2.80	100yr	1.81	2.74	3.33	4.52	5.45	7.01	8.23	100yr	6.21	7.91	9.08	9.96	11.27	100yr
200yr	0.59	0.89	1.13	1.63	2.27	3.12	200yr	1.96	3.05	3.76	5.19	6.20	7.97	9.46	200yr	7.05	9.10	10.42	11.24	12.77	200yr
500yr	0.63	0.94	1.21	1.75	2.50	3.59	500yr	2.15	3.51	4.45	6.27	7.34	9.44	11.37	500yr	8.36	10.93	12.47	13.17	15.08	500yr

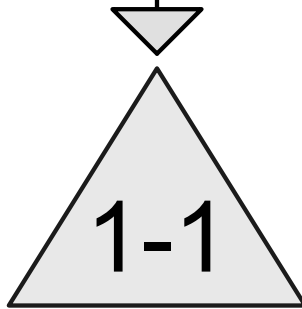
Upper Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.37	0.57	0.70	0.94	1.16	1.38	1yr	1.00	1.35	1.59	2.07	2.60	3.05	3.45	1yr	2.70	3.31	3.82	4.61	5.30	1yr
2yr	0.43	0.66	0.81	1.10	1.36	1.58	2yr	1.17	1.55	1.80	2.31	2.89	3.55	4.00	2yr	3.14	3.85	4.43	5.25	5.92	2yr
5yr	0.51	0.79	0.98	1.35	1.72	2.01	5yr	1.48	1.97	2.32	2.97	3.70	4.63	5.25	5yr	4.10	5.05	5.87	6.85	7.65	5yr
10yr	0.61	0.93	1.16	1.61	2.09	2.42	10yr	1.80	2.37	2.83	3.59	4.50	5.69	6.46	10yr	5.03	6.21	7.29	8.41	9.31	10yr
25yr	0.77	1.17	1.46	2.08	2.74	3.13	25yr	2.36	3.06	3.67	4.62	5.80	7.45	8.53	25yr	6.60	8.20	9.74	11.03	12.06	25yr
50yr	0.92	1.39	1.74	2.50	3.36	3.80	50yr	2.90	3.72	4.48	5.59	7.04	9.16	10.52	50yr	8.11	10.11	12.15	13.57	14.69	50yr
100yr	1.10	1.67	2.09	3.02	4.14	4.63	100yr	3.58	4.53	5.45	6.78	8.81	11.28	12.99	100yr	9.98	12.49	15.15	16.71	17.90	100yr
200yr	1.33	2.00	2.53	3.66	5.11	5.63	200yr	4.41	5.50	6.64	8.20	10.75	13.89	16.04	200yr	12.30	15.42	18.90	20.58	21.82	200yr
500yr	1.72	2.56	3.29	4.78	6.79	7.29	500yr	5.86	7.13	8.62	10.55	14.01	18.30	21.21	500yr	16.19	20.40	25.37	27.16	28.34	500yr

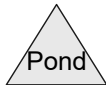
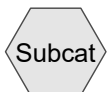




Watershed 1



4 Cultec 330XLHD
Rechargers



9 Hobby Farms Drive - Proposed Condition

Type III 24-hr 25-Year Rainfall=6.41"

Prepared by Hudson Engineering & Consulting, P.C.

Printed 10/28/2021

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Page 2

Summary for Subcatchment 1: Watershed 1

Runoff = 0.27 cfs @ 12.01 hrs, Volume= 0.018 af, Depth= 6.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.41"

Area (sf)	CN	Description
* 1,550	98	Pool and Patio
1,550		100.00% Impervious Area

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

Summary for Pond 1-1: 4 Cultec 330XLHD Rechargers

Inflow Area = 0.036 ac, 100.00% Impervious, Inflow Depth = 6.17" for 25-Year event
 Inflow = 0.27 cfs @ 12.01 hrs, Volume= 0.018 af
 Outflow = 0.09 cfs @ 11.84 hrs, Volume= 0.018 af, Atten= 66%, Lag= 0.0 min
 Discarded = 0.09 cfs @ 11.84 hrs, Volume= 0.018 af

Routing by Stor-Ind method, Time Span= 0.00-60.00 hrs, dt= 0.01 hrs
 Peak Elev= 1.15' @ 12.20 hrs Surf.Area= 195 sf Storage= 81 cf

Plug-Flow detention time= 3.4 min calculated for 0.018 af (100% of inflow)
 Center-of-Mass det. time= 3.4 min (742.9 - 739.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	0.00'	138 cf	11.17'W x 17.50'L x 3.54'H Field A 692 cf Overall - 231 cf Embedded = 461 cf x 30.0% Voids
#2A	1.00'	231 cf	Cultec R-330XLHD x 4 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap Row Length Adjustment= +1.50' x 7.45 sf x 2 rows
		369 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	0.00'	20.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.09 cfs @ 11.84 hrs HW=0.04' (Free Discharge)

↑**1=Exfiltration** (Exfiltration Controls 0.09 cfs)



SITE ADDRESS: 9 Hobby Farm Drive

TOWN/VILLAGE: North Castle

DATE: 09/22/2021 TIME: 10:18am

WEATHER: M. Cloudy TEMP. 72° F

WITNESSED BY: Nicholas Shirriah

DEEP TEST HOLE DATA SHEET – STORMWATER MANAGEMENT SYSTEM

DEPTH	HOLE NO. <u>1</u>	HOLE NO. <u>2</u>	HOLE NO. <u>3</u>	HOLE NO. <u>4</u>
G.L.	0 – 6” Topsoil			
6”				
12”				
18”				
24”	6 – 24”			
30”	Brown silt w/ fill,			
36”	Very rocky			
42”				
48”	24 – 48”			
54”	Grey Clay			
60”				
66”	48 – 112”			
72”	Fill			
78”				
84”	No Ledge			
90”	No GW			
96”				
102”				
108”				

- Indicate level at which Ground Water (GW), Mottling and/or Ledge Rock is encountered.
- Indicate level for which water level rises after being encountered.

EXCAVATION PERFORMED BY: PRECISION FIELD TESTING



SITE ADDRESS: 9 Hobby Farm Drive

TOWN/VILLAGE: North Castle

DATE: 09/22/2021 TIME: 10:57am

WEATHER: M. Cloudy TEMP. 73° F

WITNESSED BY: Nicholas Shirriah

PERCOLATION TEST HOLE DATA SHEET – STORMWATER MANAGEMENT SYSTEM

Owner _____

HOLE #	CLOCK TIME				PERCOLATION					
	Hole Number	Run No.	Start	Stop	Elapse Time (Min.)	Depth to Water From Ground Surface		Water Level in Inches Drop in inches	Soil Rate	
						Start Inches	Stop Inches		Min. per inch	Inches per Hour
# <u>1</u>	1	11:01	11:03	2	39	42	3	0.67	89.55	
	2	11:04	11:06	2	39	42	3	0.67	89.55	
	4" Ø	3	11:07	11:09	2	39	42	3	0.67	89.55
		4								
		5								
# <u>2</u>	1									
	2									
	4" Ø	3								
		4								
		5								
# <u>3</u>	1									
	2									
	4" Ø	3								
		4								
		5								

Notes:

- 1) Tests to be repeated at the same depth until approximately equal soil rates are obtained at each percolation test hole. All data to be submitted for review.
- 2) Depth measurements to be made from top of hole

Wetlands Survey
The Cohen Site
9 Hobby Farm Drive

North Castle, NY

Approx. 1.976-Acres Area

Prepared for
Raymond and Karen Cohen

Aug. 3, 2021

Introduction

A wetland investigation was completed on property identified as 9 Hobby Farm Drive, Town of North Castle on Aug. 3, 2021 by Paul J. Jaehnig, Certified Professional Geologist, Soil Scientist, and Wetland Scientist. The work consisted of the re-delineation of the wetland boundary. The work was conducted in accordance with the Town of North Castle Freshwater Wetlands Law. The work was carried-out at the request of the clients and property owners, Raymond and Karen Cohen.

Site Description

The site is an approx. 1.976-acres area property situated on the southeast side of Hobby Farm Drive. The site is located in an established relatively low-density residential neighborhood. Woodland buffers commonly separate the residences from each other.

The site consists of: a residence; surrounding lawn; woodland borders; and small area of wetlands (see *photos 1- 10* in Appendix I and enclosed *Wetland and Soils Map*). Slopes across the site vary from nearly level and gently sloping to steep sloping. The land slopes down on the western and eastern sides to a small, relatively broad valley, which has its long axis in a north to south orientation across the central-western portion and southwest corner of the site. Most of the site is very gently sloped. Nearly level land is on the central, as well as, the northeast, southeast, and central-western portions of the site. Steep slopes are confined along a 30 ft. wide band going from the southwest corner of the site, across the western-central portion of the site, and ending near the northeast portion of the site. Most of the site has been previously disturbed by man, except for the southern and northern edges of the site, as well as, along the band of steep sloping ground just described. This man-made topography, formed by past cut, fill, and grading of soil, was carried-out as part of the residential development of the site.

The paved driveway comes off the southeast side of Hobby Farm Drive and into the northeast corner of the site (see *photo 1* in Appendix I). The driveway climbs up a slope as it curves southeast and then south to a level area next to the central-eastern property line. The driveway splits into two branches: one branch continues southerly for a short distance and ends at the garage on the east side of the residence; the other branch goes southwest to the form a driveway loop in front of the residence (see *photo 2* in Appendix I). The residence is located on the southeast-central portion of the site (see *photos 2 & 3* in Appendix I).

Lawn area covers the southern, central, northern, and some of the western portions of the site (see *photos 2 to 4* in Appendix I). The lawn area is quite open.

A meadow area covers some of the central-western portion of the site (see *photos 5 to 7* in Appendix I). The lush vegetative cover consists of: mugwort, ragweed, goldenrod, Japanese stilt grass, pokeweed, and few jewelweed plants.

Narrow woodland borders are found along the southern edge of the site, as well as, the northwest corner of the site and some of the southwest central-western portions of the site (see *photo 8* in Appendix I). Woodlands have a tree canopy of sugar maple, black cherry,

and hickory. Some winged euonymus provides the shrub understory; garlic mustard, Virginia creeper, and some raspberry grow on the woodland floor. Twig and leaf litter cover the woodland floor. Dumped brush is noted on the woodland floor on the northwest portion of the site.

A drainage easement and access easement traverses north to south across the western portion of the site (see easements on the enclosed *Wetland and Soils Map*). A two catch basins plot a linear drainage pipe route along the path of the drainage easement.

Wetlands

The wetlands boundary was delineated or flagged with consecutively marked ribbon (WL-A-1, A-2, A-3, etc.) in the field and plotted on the enclosed *Wetland and Soils Map*. Wetlands on the site cover the very southwest edge of the site. Wetlands consist of: a portion of a small pond with fringe wetlands (see *photo 9* in Appendix I).

The northernmost end of a small pond is on the southwest corner of the site. The pond extends to the south for approx. 0.2 acre. The pond section on the site is very narrow, approx. 20 ft. across in an east to west direction. The pond does widen to the south and away from the site. The depth of the pond is unknown, but believed to be shallow. The portion of the pond on and adjacent to the site is probably less than 1 ft. deep. At the northern end of the pond is a steel cage protecting the drainage pipe inlet from being clogged with wood and leaf debris (see *photo 10* in Appendix I). Side slopes around this section of the pond are steep, generally 1 to 2 ft. height. The pond is in a somewhat “draw-down” period, being there has been little rainfall during the time of the study. There is no drainage flow into the pipe at this time. The pond level is anticipated to rise during wetter times of the year sufficient enough to have drainage discharged north via the pipe.

Small fringe wetlands occur on the east side of the pond where adjacent land relief is slight relative to the pond edge. Wetlands are narrow and discontinuous areas of swampland, being less than 10 ft. wide near the site. The wetlands are poorly drained and lack any micro-topography. The vegetative cover consists of: a very shady canopy of small red maples with shallow and exposed roots; few winged euonymus shrubs; herbaceous growth of Japanese stilt grass, skunk cabbage, and jewelweed. The soils are soggy. Locally rock debris has been introduced into the edges of the wetland from adjacent uplands.

Historical Perspective of Pond and Wetlands

The occurrence of the pipe and cage, along with the shape and character of the abutting land, and examination of neighboring properties to the south and adjacent to the pond, suggests that the pond is in part man-made. The pond likely was shaped and dredged out of a natural wetland area in order to form a storm-water detention pond for the neighborhood.

Review of Westchester County Dept. of Planning historical aerial photos of the site show in 1976 what appears to be a golf course occupying the site and neighborhood (see

Historical Aerial Photo in Appendix II. The photo shows the site outline with no residence, a pond and drainage course going north and ultimately connecting to other small ponds. The site pond and other ponds to the north as most likely “water hazards” along a fairway. A small foot bridge appears to cross the drainage course. The site residence location appears to be a golf course green. As part of the development of the site it appears that drainage course going north from the pond was piped and filled over in order to execute the development plan of the neighborhood as is seen today.

Wetland Buffers

The pond and adjacent small wetlands are buffered by: nearly level residential lands to the west; level lightly wooded land to the north; moderate to steep sloped woodlands to the east.

Wetland Functions

The pond functions as a storm-water detention area for the neighborhood. The pond also supports wildlife habitat area for bull frogs and snapping turtles, as well as, waterfowl from time to time. The adjacent wetlands function primarily as shallow groundwater recharge area supporting the hydrology of the pond. At wetter periods of the year the wetlands provide some water storage function as the level of the pond rises and inundates the adjacent wetlands. The wetlands provide some minor habitat area to be utilized by the wildlife frogs mentioned previously.

NY State Dept. of Environmental Conservation (NYSDEC) Wetland Jurisdiction

Wetlands on the site are not NYSDEC jurisdiction wetlands according to a review of the NYSDEC Agency published maps (see *NYSDEC Wetland Map* in Appendix III).

Regional Drainage

Drainage on the site is directed north, ultimately making its way to Piping Brook, approx. 0.3 mile north of the site (see *Regional Drainage Map* in Appendix IV). Piping Brook drains southerly into Connecticut and eventually to Long Island Sound.

Soils

Soils borings were taken across the site using a Dutch auger and spade. Each soil boring was logged or described noting soil horizon depth, color, texture, structure, and presence of any redoximorphic (wetland or hydric) soil features such as mottling. The water table, if encountered, was measured. The detailed descriptions of each soil boring, previously taken, are provided in Appendix V. The location of each soil boring is labeled SS-1, SS-2, etc. and plotted on the enclosed *Wetland and Soils Map*.

Soils encountered on the site include: non-wetland, moderately well-drained Paxton fine sandy loam (PnB), slopes 3 to 8 %, in the undisturbed, gently sloped woodland borders and lawn area on the northern and southern edges of the site; non-wetland, well drained Paxton fine sandy loam (PnC), slopes 8 to 15 %, in the undisturbed, moderate to steep sloped woodland and lawn areas; non-wetland, well-drained Udorthents soil (Ud1), slopes 0 to 10 %, to describe soils where the natural soil profile has been mixed or disturbed due to the past man-made cut, fill, and grading of soil, carried-out along the

driveway, around the residence, yard areas, and some woodland areas, in the course of developing the site; non-wetland, moderately well-drained Udorthents (Ud2), slopes 0 to 3 %, to describe soil where the natural soil profile has been mixed or disturbed due to past fill and grading of soil, carried-out in the vicinity of a catch basin on the northern end of the site; non-wetland, moderately well drained Woodbridge loam (WdA), slopes 0 to 3 %, in the undisturbed, nearly level lawn area on the south edge of the site; and wetland, very poorly-drained Sun silt loam (Sh), slopes 0 to 2 %, in the undisturbed, small fringe wetlands adjacent to the pond. The distribution of each soil-type found on the site is depicted on the enclosed *Wetland and Soils Map*.

Appendix I

Selected Site Photographs

Photo 1 Looking south and upslope along driveway and entrance.

Photo 2 Looking southerly toward residence. Note red car parked in driveway loop in front of residence; driveway branch leading to garage is in the left edge of photo.

Aug. 2021– The Cohen Site, 9 Hobby Farm Drive, North Castle, NY

Photo 3 Looking west across back yard and toward residence.

Photo 4 Looking south across level lawn in broad valley on western portion of site. Note neighbor's residence in background of photo.

Aug. 2021- The Cohen Site, 9 Hobby Farm Drive, North Castle, NY

Photo 5 Looking west and downslope across side yard. Note meadow area in center background of photo.

Photo 6 Looking south to southeast across meadow in west to southwest portion of the site.

Aug. 2021- The Cohen Site, 9 Hobby Farm Drive, North Castle, NY

Photo 7 Looking east toward residence. Note meadow in center foreground of photo.

Photo 8 Looking southeast across lightly wooded land in the west-central portion of the site.
Aug. 2021- The Cohen Site, 9 Hobby Farm Drive, North Castle, NY

Photo 9 Looking southwest across pond at the very southwest corner of the site.

Photo 10 Looking toward drainage pipe with cage exposed at northern end of pond.

Aug. 2021- The Cohen Site, 9 Hobby Farm Drive, North Castle, NY

Appendix II

Historical Aerial Photo
1976

Appendix III

New York State
Dept. of Environmental Conservation
Wetlands Map

Appendix IV

Regional Drainage Map

Appendix V

Soil Boring Logs

Key To Boring Logs

SS-1	Soil Boring
0-2"	Depth in inches from the ground surface
General Color	Munsell Color Notation Hue Value Chroma
Very dark gray	10YR 3 / 1

SS-1

SITE: NEARLY LEVEL WOODLANDS; LOCALLY UNDULATING GROUND; WINGED EUONYMUS SHRUB UNDERSTORY; GARLIC MUSTARD HERBACEOUS GROWTH; POISON IVY AND VIRGINIA CREEPER DOT GROUND; TWIG AND LEAF LITTER COVER WOODLAND FLOOR.

0-2" DARK BROWN 10YR 3/3 LOAM.

2-28" MIXED BROWNISH YELLOW 10YR 6/6 AND BROWN 10YR 4/3 LOAM WITH 10 % GRAVEL.

WATER TABLE NOT ENCOUNTERED.

SS-2

SITE: NEARLY LEVEL LAND; SIMILAR TO SS-1; SPARSE BLACK CHERRY TREE CANOPY; FEW MULTIFLORA ROSE SHRUBS; FEW GARLIC MUSTARD PLANTS; BITTERSWEET VINES COVER SOME TREES; VIRGINIA CREEPER AND POISON IVY DOTS GROUND; TWIG AND LEAF LITTER COVERS WOODLAND FLOOR.

0-2" DARK BROWN 10YR 3/3 LOAM.

2-28" MIXED LIGHT YELLOW BROWN 2.5Y 6/4 FINE SANDY LOAM AND BROWN 10YR 4/3 LOAM WITH 10 % GRAVEL.

WATER TABLE NOT ENCOUNTERED.

SS-3

SITE: LEVEL EDGE OF MEADOW; VEGETATIVE COVER OF MUGWORT, GOLDENROD, RAGWEED, AND FEW JEWELWEED.

0-2" VERY DARK GRAY BROWN 10YR 3/2 LOAM.

2-28" MIXED DARK GRAY BROWN 10YR 5/2 LOAM AND BROWN 10YR 5/3 LOAM WITH INCLUSIONS OF BROWNISH YELLOW 10YR 6/6 FINE SANDY LOAM AND 10% GRAVEL.

WATER TABLE NOT ENCOUNTERED.

SS-4

SITE: LEVEL MEADOW; VEGETATIVE COVER OF MUGWORT, RAGWEED, POKEWEED AND JEWELWEED.

0-6" MIXED DARK GRAY BROWN 10YR 4/2 LOAM.

6-12" MIXED BROWNISH YELLOW 10YR 6/6 LOAM WITH 10% GRAVEL.

12-28" MIXED DARK GRAY BROWN 10YR 4/2 LOAM WITH INCLUSIONS OF BROWNISH YELLOW 10YR 6/6 FINE SANDY LOAM AND 5% GRAVEL.

WATER TABLE NOT ENCOUNTERED.

SS-5

SITE: LEVEL EDGE OF MEADOW; VEGETATIVE COVER OF MUGWORT, GOLDENROD, AND JEWELWEED; WILD GRAPE DRAPES SOME TALLER PLANTS.

0-3" VERY DARK GRAY 10YR 3/1 LOAM.

3-28" MIXED LIGHT YELLOW BROWN 2.5Y 6/4 LOAM WITH 10% GRAVEL.

WATER TABLE NOT ENCOUNTERED.

SS-6

SITE: LEVEL WETLANDS ADJACENT TO POND; VERY POORLY DRAINED; NO MICRO-TOPOGRAPHY; WETLANDS SHADED BY RED MAPLES WITH SHALLOW AND EXPOSED ROOTS; FEW WINGED EUONYMUS SHRUBS; HERBACEOUS GROWTH OF JAPANESE STILT GRASS, SKUNK CABBAGE, VIRGINIA CREEPER AND POISON IVY DOT WETLAND FLOOR; SOME MATTED LEAF LITTER COVERS UN-VEGETATED GROUND.

0-12" DARK GRAY 10YR 4/1 SILT LOAM.

12-28" GRAY 10YR 6/1 FINE SANDY LOAM

WATER TABLE AT 1".

SS-7

SITE: LEVEL LAWN.

0-28" MIXED BROWN 10YR 4/3 LOAM WITH 20% GRAVEL.

WATER TABLE NOT ENCOUNTERED.

SS-8

SITE: LEVEL AND CONCAVE WOODLANDS; ADJACENT TO CATCH BASIN. WOODS SHADED BY RED AND SUGAR MAPLE; OPEN UNDERSTORY; COMMON GARLIC MUSTARD AND FEW RASPBERRY; ADJACENT PILE OF DUMPED BRUSH; TWIG AND LEAF LITTER COVERS WOODLAND FLOOR

0-20" MIXED VERY DARK GRAY BROWN 10YR 3/2 LOAM.

WATER TABLE NOT ENCOUNTERED.

SS-9

SITE: VERY GENTLY SLOPED WOODLANDS; SHADED BY SUGAR MAPLE, HICKORY TREES; COMMON WINGED EUONYMUS SHRUB UNDERSTORY; TWIG AND LEAF LITTER COVERS WOODLAND FLOOR.

0-2" VERY DARK GRAY BROWN 10YR 3/2 LOAM.

2-28" MIXED LIGHT YELLOW BROWN 2.5Y 6/4 WITH DARK BROWN 10YR 3/3 LOAM AND 5 % GRAVEL.

WATER TABLE NOT ENCOUNTERED.

SS-10

SITE: NEARLY LEVEL WOODLANDS; SIMILAR TO SS-8.

0-24" MIXED GRAY BROWN 10YR 5/2 LOAM WITH INCLUSIONS OF LIGHT YELLOW BROWN 10YR 6/4 LOAM

24"- REFUSAL; LARGE BOULDER.

WATER TABLE NOT ENCOUNTERED.

**Wetlands Survey
The Cohen Site
9 Hobby Farm Drive**

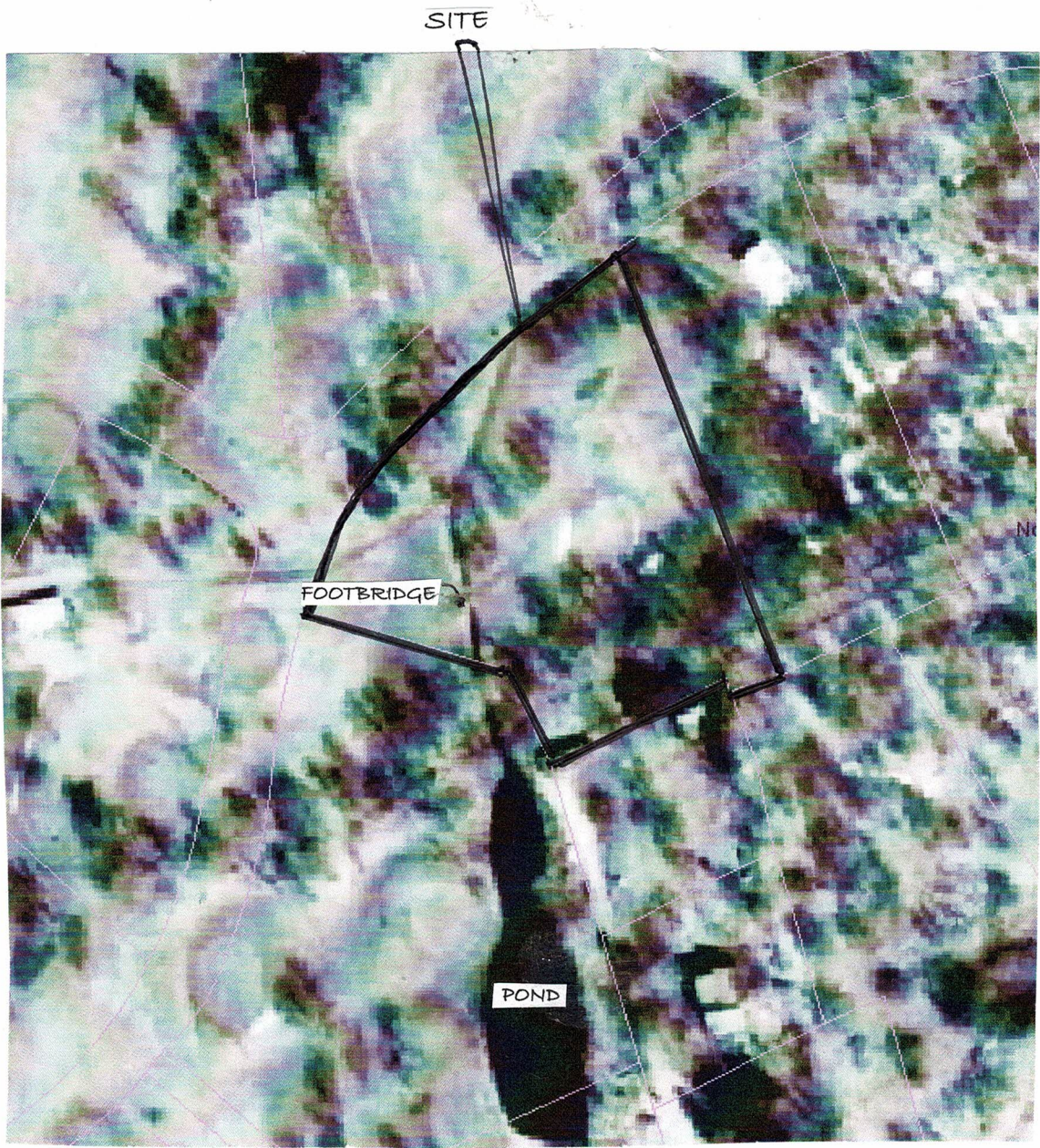
North Castle, NY

Approx. 1.976-Acres Area

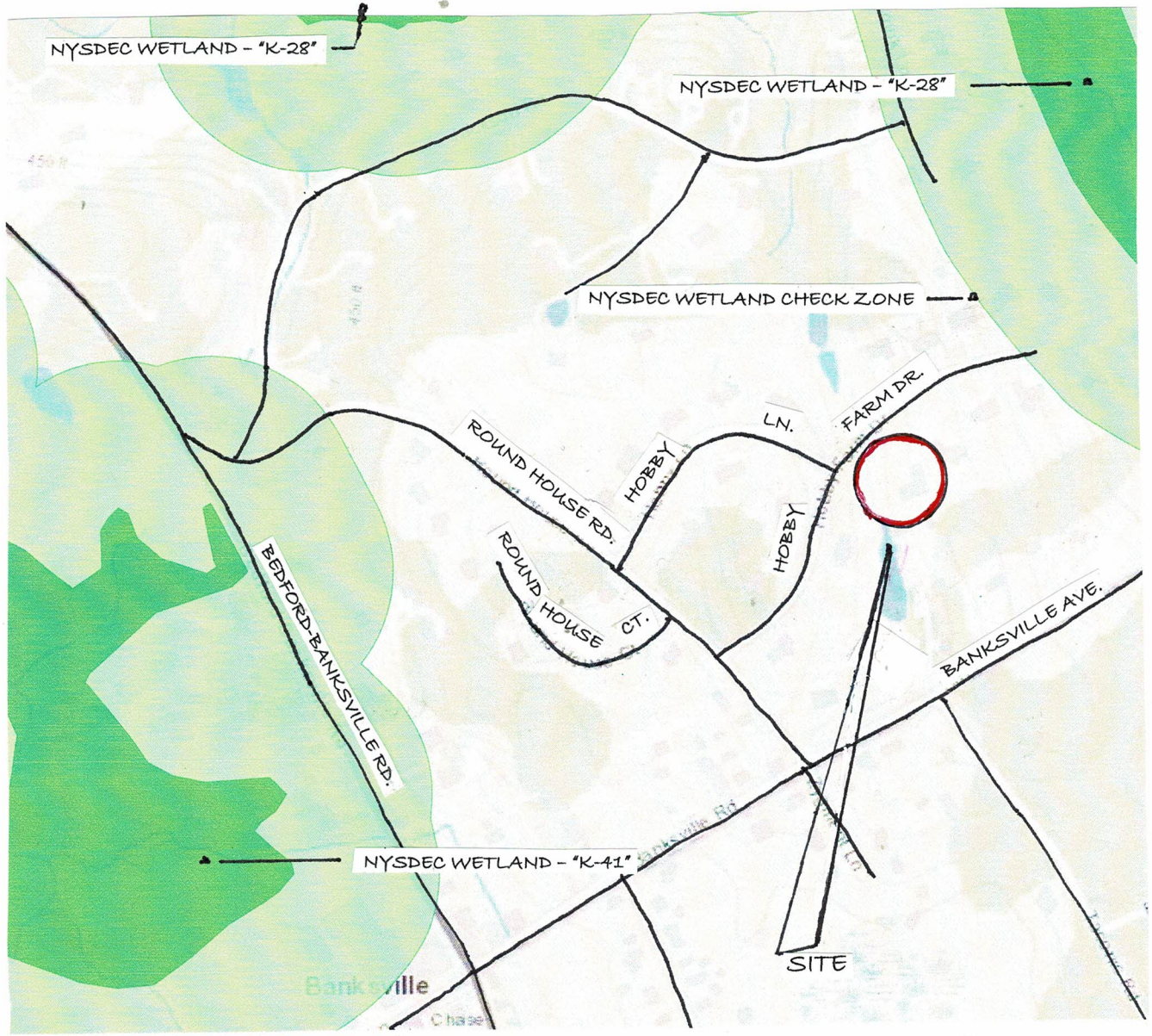
*Prepared for
Raymond and Karen Cohen*

Aug. 3, 2021





HISTORICAL AERIAL PHOTO 1976
N.T.S.



NYSDEC WETLAND MAP
N.T.S.



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Photo 2 Looking southerly toward residence. Note red car parked in driveway loop in front of residence; driveway branch leading to garage is in the left edge of photo.

Aug. 2021– The Cohen Site, 9 Hobby Farm Drive, North Castle, NY



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Aug. 2021- The Cohen Site, 9 Hobby Farm Drive, North Castle, NY



Photo 7 Looking east toward residence. Note meadow in center foreground of photo.



*Photo 8 Looking southeast across lightly wooded land in the west-central portion of the site.
Aug. 2021- The Cohen Site, 9 Hobby Farm Drive, North Castle, NY*

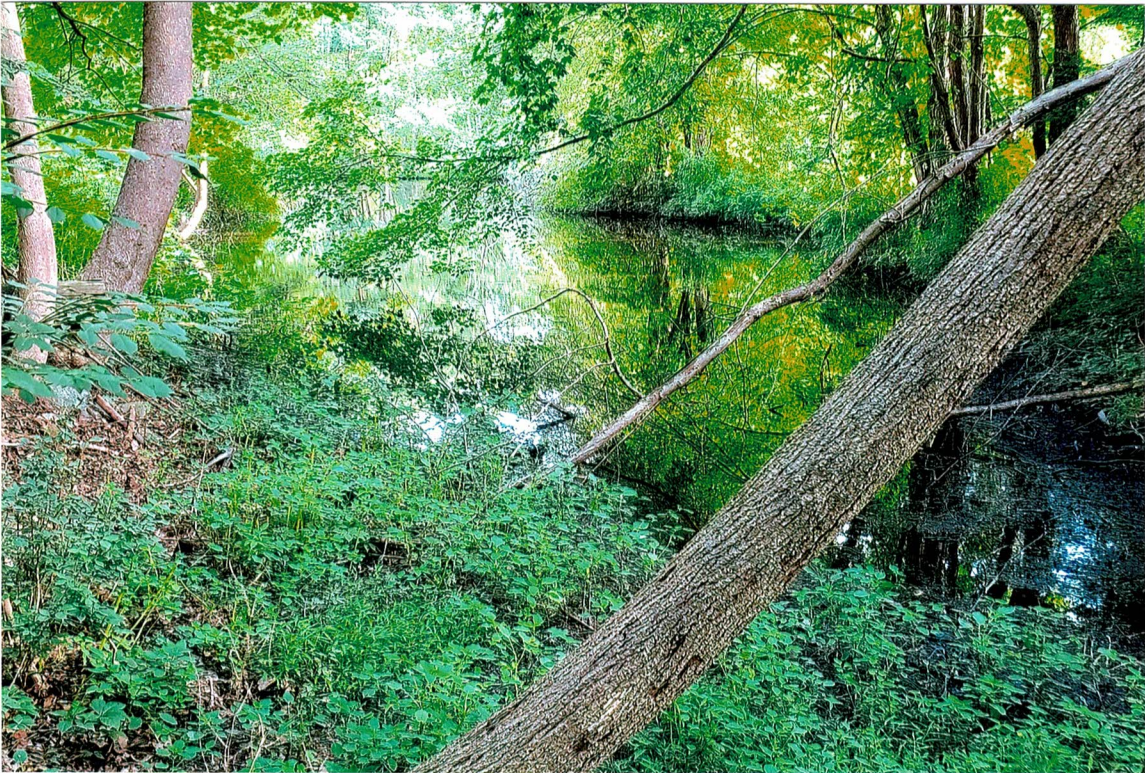
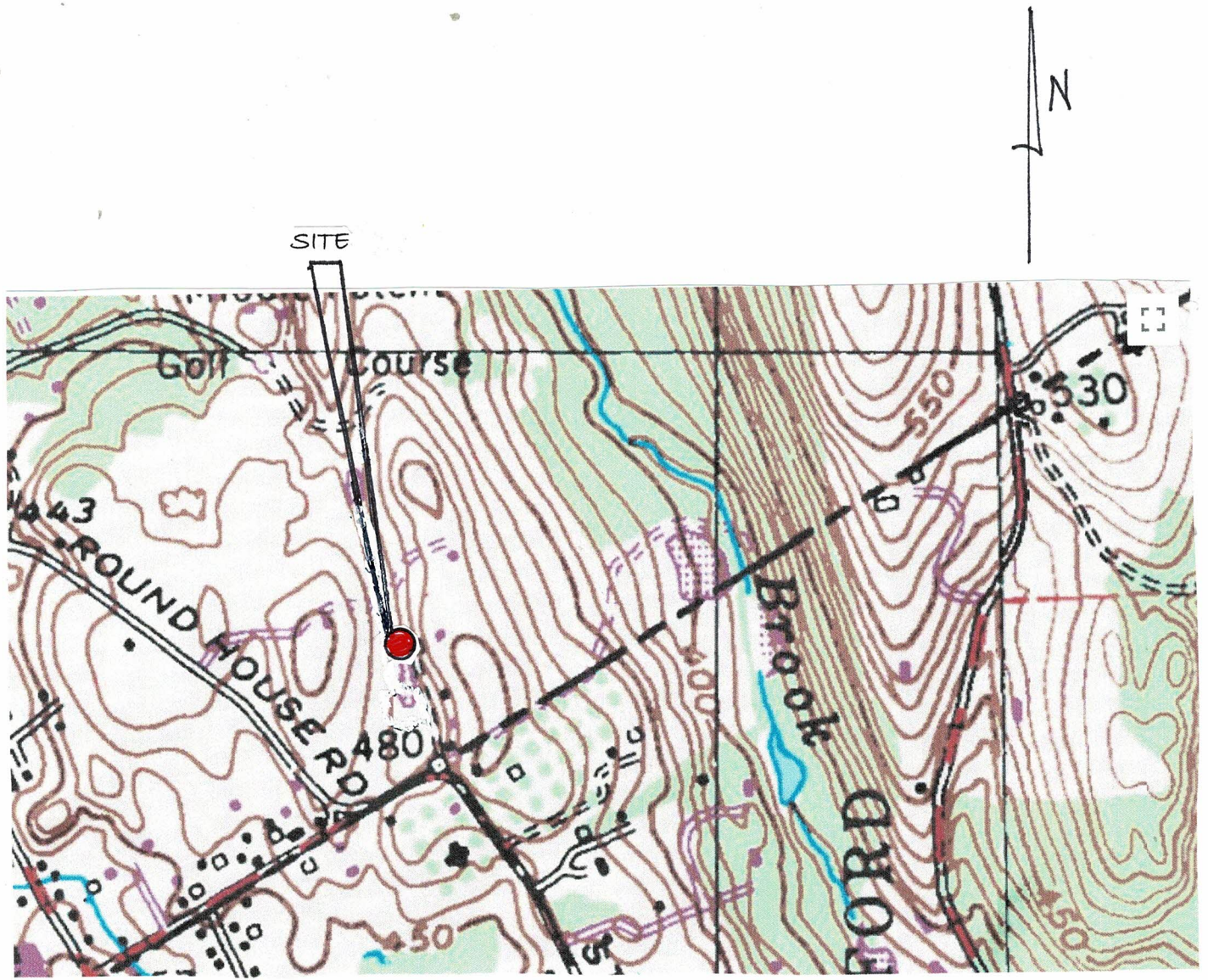


Photo 9 Looking southwest across pond at the very southwest corner of the site.



*Photo 10 Looking toward drainage pipe with cage exposed at northern end of pond.
Aug. 2021- The Cohen Site, 9 Hobby Farm Drive, North Castle, NY*



REGIONAL DRAINAGE MAP
N.T.S.

Wetland & Soils Map

The Cohen Site

9 Hobby Farm Drive
North Castle, NY

1.976 Acres Total Area

Prepared for
Raymond and Karen Cohen

Aug. 3, 2021

Prepared By
Paul J. Jaehning - Wetlands and Soils Consulting
P.O. Box 1071 Ridgefield, CT 06877

Map Scale: 1 inch = 60 ft.

KEY TO MAP

- SS-1 SOIL BORING LOCATION
- WL-A-1 WL-A-2 WL-A-3 FLAGGED WETLAND BOUNDARY
- - - 470 ELEVATION CONTOUR IN FEET

SOILS INFORMATION

NON-WETLAND SOILS	
PwB	Paxton fine sandy loam well drained, slopes 3 to 8 %
PwC	Paxton fine sandy loam well drained, slopes 8 to 15 %
Ud1	Udorthents soils well drained, slopes varied
Ud2	Udorthents soils moderately well drained, slopes varied
WdA	Woodbridge loam moderately well drained, slopes 0 to 3 %
WETLAND SOILS	
Sh	Swamp silt loam very poorly drained, slopes 0 to 2 %



MAP NOTES:

1. WETLANDS INVESTIGATION COMPLETED AUG. 3, 2021 BY PAUL J. JAEHNIG - CERTIFIED PROFESSIONAL GEOLOGIST, SOIL SCIENTIST, AND WETLAND SCIENTIST IN ACCORDANCE WITH THE TOWN OF NORTH CASTLE WETLANDS LAWS. WETLANDS BOUNDARIES, AS DEPICTED ON THIS MAP, HAVE NOT BEEN SURVEY-LOCATED.
2. LOCATION OF PROPERTY LINE, EASEMENTS, RESIDENCE, DRIVEWAY, AND CATCH BASINS AND DRAINAGE PIPES FROM BUNNEY ASSOCIATES LAND SURVEYORS.
3. TOPOGRAPHY FROM WESTCHESTER COUNTY DEPT. OF PLANNING PUBLISHED MAPS.
4. LOCATION OF VEGETATIVE COVERS AND DRIVEWAY ENTRANCE PLOTTED ONTO MAP DURING WETLAND INVESTIGATION.