

Section I- PROJECT

TOWN OF NORTH CASTLE

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

RESIDENTIAL PROJECT REVIEW COMMITTEE Adam R. Kaufman AICP, Chair Telephone: (914) 273-3000 x 43 Fax: (914) 273-3554 www.nortcastleny.com

RESIDENTIAL PROJECT REVIEW COMMITTEE (RPRC) APPLICATION

ADDRESS: 26 BLAIR RD
Section III- DESCRIPTION OF WORK:
PROPOSED IN-GROUD SUIMMING POOL, STONE PATIO, STONE STEPS, FIRE PIT
STANE SETTUALL 1+ OUTDOOR KITCHEN
Section III- CONTACT INFORMATION:
APPLICANT: DANIEL SHERMAU
ADDRESS: 4 BROADWAY SUTTE #9, VALHALLA, NY 10595
PHONE 914-824-0999 MOBILE 914-755-0865 EMAIL DAY DAYSHERMAN LANDSCADE @ 6MAIL COM
PROPERTY OWNER:
MARTIN + BLAKEN BROOBECK
ADDRESS: Z6 BLAIR RD, ARMOUK, LIY 10504
PHONE: 914-439-3201 MOBILE: EMAIL:
PROFESSIONAL:: DAUIEL SHERMAU
ADDRESS: 4 BRCADWAY, SUITE #9, VALHAUA, UN 10593
PHONE: 914-824-0999 MOBILE: 914-755-0855
EMAIL: DAU. DAUSHERMATULANDSCADE @ FIMALL. COM
Section IV- PROPERTY INFORMATION:
Zone: <u>2-2A</u> Tax ID (lot designation) <u>2-8-13.E-48</u>



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: BROORECK RESIDENCE
Initial Submittal Revised Preliminary
Street Location: ZLo BLAIR RD
Zoning District: 2-2A Property Acreage: 2 Tax Map Parcel ID: 2-8-13 . 🗷 - 48
Date: 11 2 20
DEPARTMENTAL USE ONLY
Date Filed: Staff Name:
Preliminary Plan Completeness Review Checklist tems 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 adjacen properties and streets
B. Map showing the applicant's entire property and adjacent properties and streets
1. A locator map at a convenient scale
The proposed location, use and design of all buildings and structures
6. Existing topography and proposed grade elevations
7. Location of drives
Location of all existing and proposed site improvements, including drains, culverts retaining walls and fences

RPRC COMPLETENESS REVIEW FORM

Page 2

). Desc	cription of method of water supply and sewage disposal and location of such facilities
10. The of th	name and address of the applicant, property owner(s) if other than the applicant and e planner, engineer, architect, surveyor and/or other professionals engaged to work
	mission of a Zoning Conformance Table depicting the plan's compliance with the mum requirements of the Zoning District
└── grap distu	tree removal permit is being sought, submission of a plan depicting the location and hical removal status of all Town-regulated trees within the proposed area of irbance. In addition, the tree plan shall be accompanied by a tree inventory includes ique ID number, the species, size, health condition and removal status of each tree.
3. If a v	vetlands permit is being sought, identification of the wetland and the 100-foot wetland er.
Planning D	mation about the items required herein can be obtained from the North Castle epartment. A copy of the Town Code can be obtained from Town Clerk or on the e homepage: http://www.northcastleny.com/townhall.html
35	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 17 Bedford Road Armonk, New York 10504-1898

PLANNING DEPARTMENT Adam R. Kaufman, AICP Director of Planning

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

GROSS LAND COVERAGE CALCULATIONS WORKSHEET

Applicat	ntion Name or Identifying Title: 26 BLAS	RE RD	Date: 11 3 70
Тах Мај	p Designation or Proposed Lot No.: 101, 04	-1-34	
Gross Le	ot Coverage		
1.	Total lot Area (Net Lot Area for Lots Created After 12	(13/06):	87,170
2.	Maximum permitted gross land coverage (per Section	355-26.C(1)(a)):	13,270
3.	BONUS maximum gross land cover (per Section 355-2	26.C(1)(b)):	
	Distance principal home is beyond minimum front yard 20,5 x 10 =	l setback	205
4.	TOTAL Maximum Permitted gross land coverage	Sum of lines 2 and 3	13,475
5.	Amount of lot area covered by principal building: + 003 existing + proposed =		4,003
6.	Amount of lot area covered by accessory buildings:existing + _ ZZO _ proposed =		220
7 _∗	Amount of lot area covered by decks: existing + 428 proposed =		1426
8.	Amount of lot area covered by porches: existing + proposed =		
9,	Amount of lot area covered by driveway, parking are 2470 existing + proposed =	as and walkways:	6742
10.	Amount of lot area covered by terraces: existing + roposed =		_180°C
11.	Amount of lot area covered by tennis court, pool and existing - 4 5 proposed =	mechanical equip:	_045
12.	Amount of lot area covered by all other structures: existing + proposed =		0
13.	Proposed gross land coverage: Total of Lines 5 – 12	=	10:064
the proje does not	13 is less than or equal to Line 4, your proposal complice ect may proceed to the Residential Project Review Compt comply with the fown's regulations. The and Seal of Professional Preparing Worksheet	es with the Town's maximum mittee for review. If Line 13	is greater than Line 4 your proposa
Signatui	Object Of College of the College of		or .



TOWN OF NORTH CASTLE

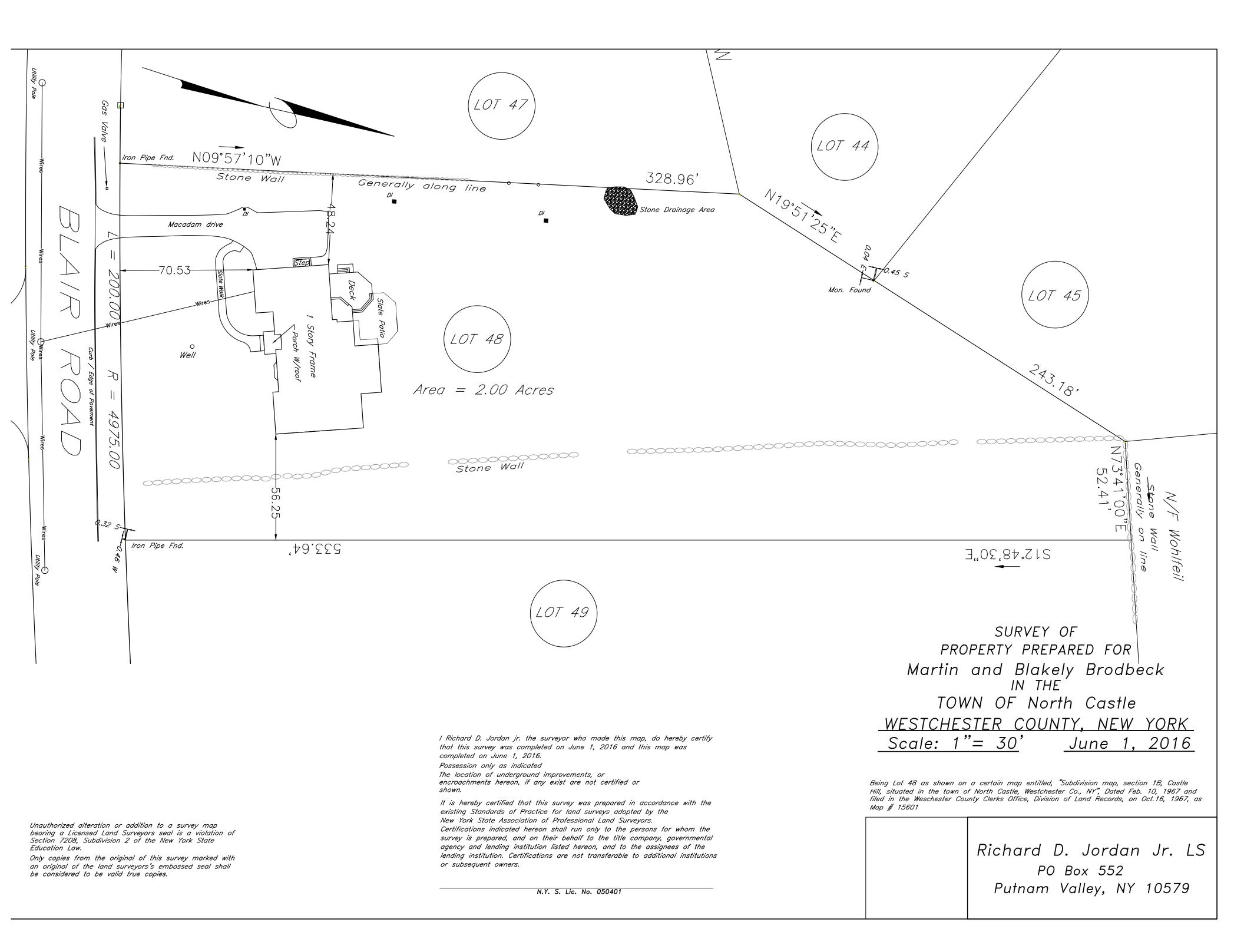
WESTCHESTER COUNTY 17 Bedford Road Armonk, New York 10504-1898

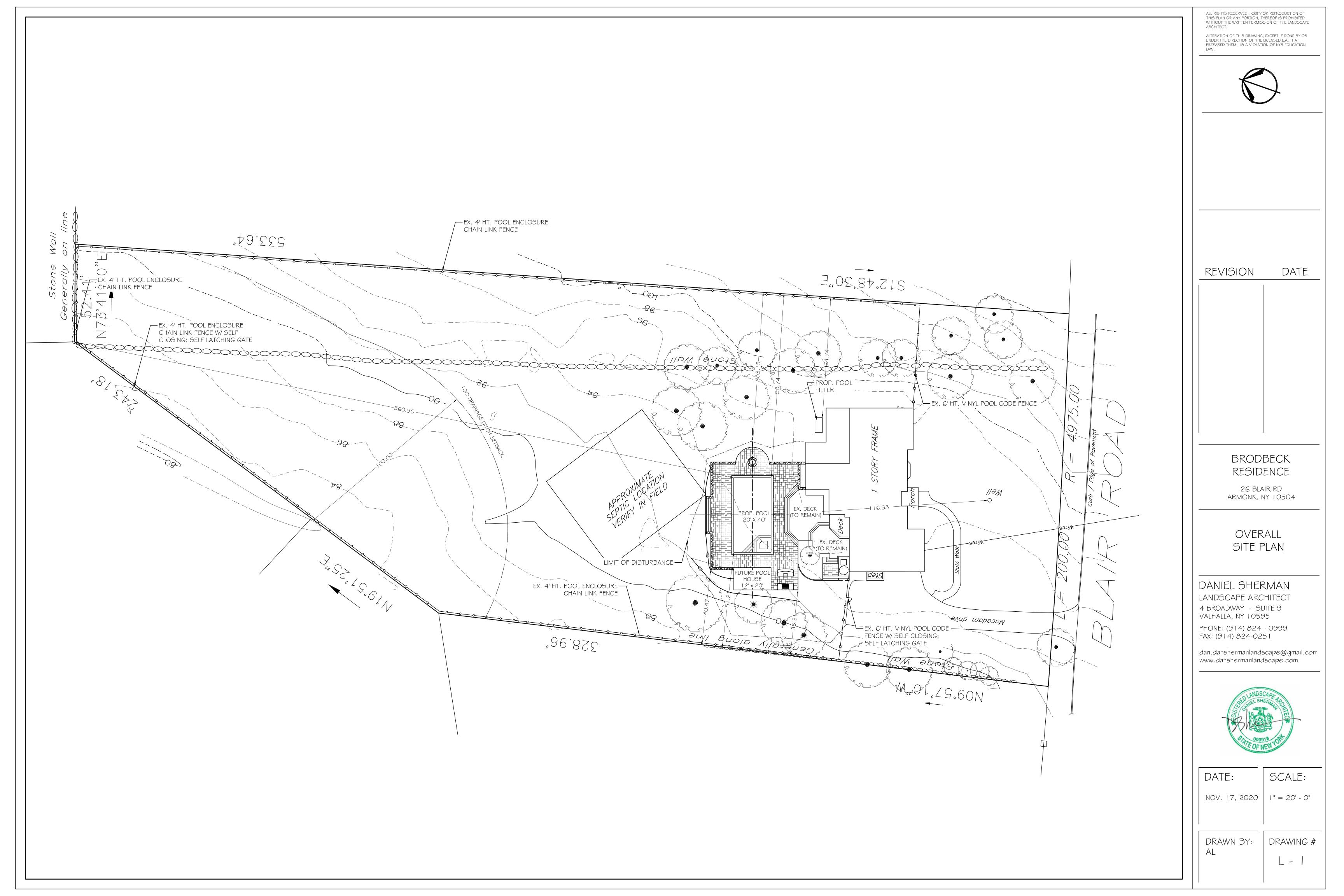
PLANNING DEPARTMENT Adam R. Kaufman, AICP Director of Planning

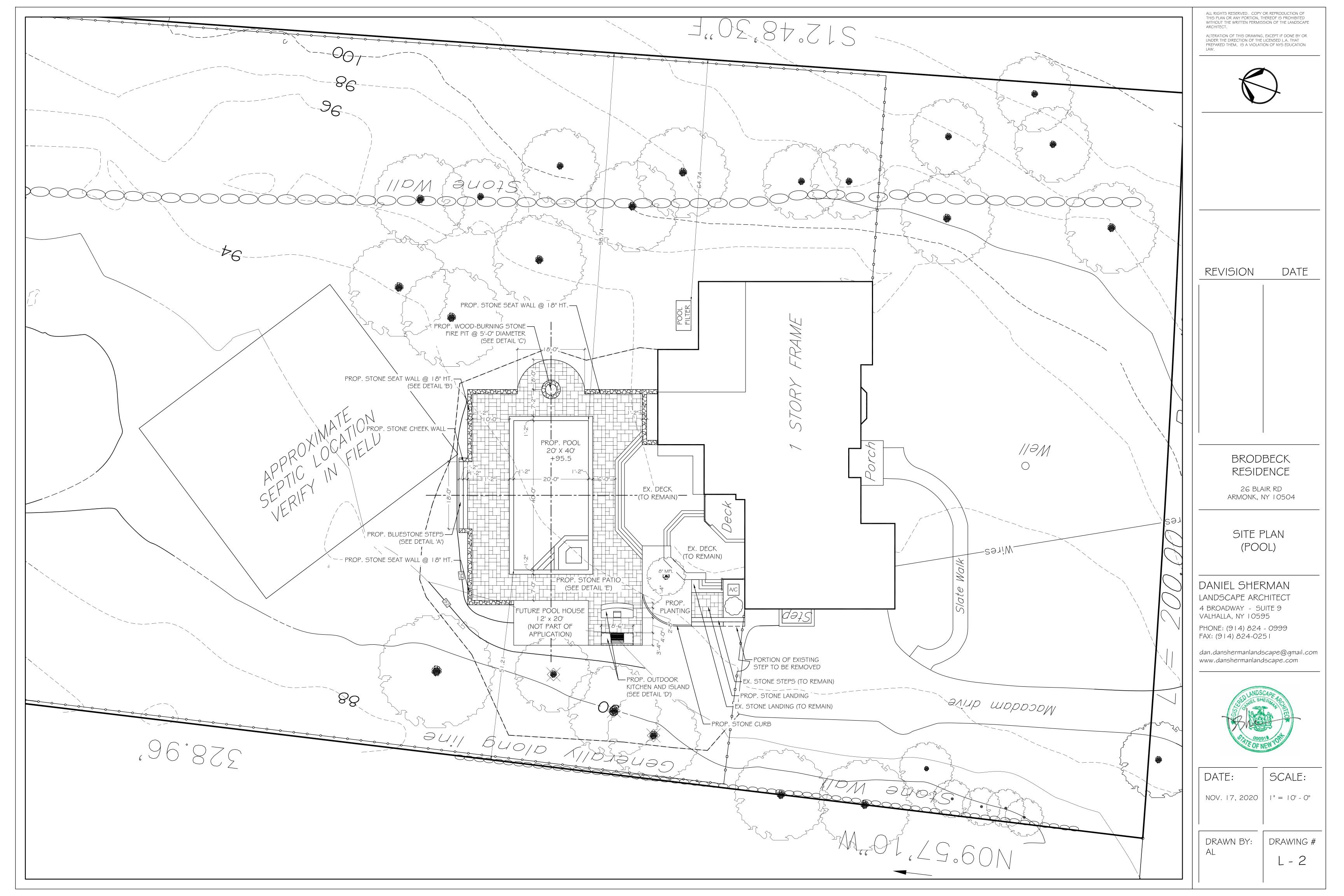
January 29, 2019 Telephone: (914) 273-3542 Fax: (914) 273-3554 www.northcastleny.com

FLOOR AREA CALCULATIONS WORKSHEET

Application Name or Identifying Title:	Date:
Tax Map Designation or Proposed Lot No.:	3
Floor Area	
1. Total Lot Area (Net Lot Area for Lots Created After 12/13/06):	
2. Maximum permitted floor area (per Section 355-26.B(4)):	
3. Amount of floor area contained within first floor: existing + proposed =	-
4. Amount of floor area contained within second floor: existing + proposed =	_
5. Amount of floor area contained within garage: existing +proposed =	-
6. Amount of floor area contained within porches capable of being enclosed: existing +proposed =	-
7. Amount of floor area contained within basement (if applicable – see definition) — existing + proposed =) :
8. Amount of floor area contained within attic (if applicable see definition): existing +proposed =	1
9. Amount of floor area contained within all accessory buildings: existing + proposed =	-
10. Pro posed floor area: Total of Lines 3 – 9 =	E
If Line 10 is less than or equal to Line 2, your proposal complies with the Town's ma and the project may proceed to the Residential Project Review Committee for review. If L your proposal does not comply with the Town's regulations.	ximum floor area regulations ine 10 is greater than Line 2
Signature and Seal of Professional Preparing Worksheet	Date

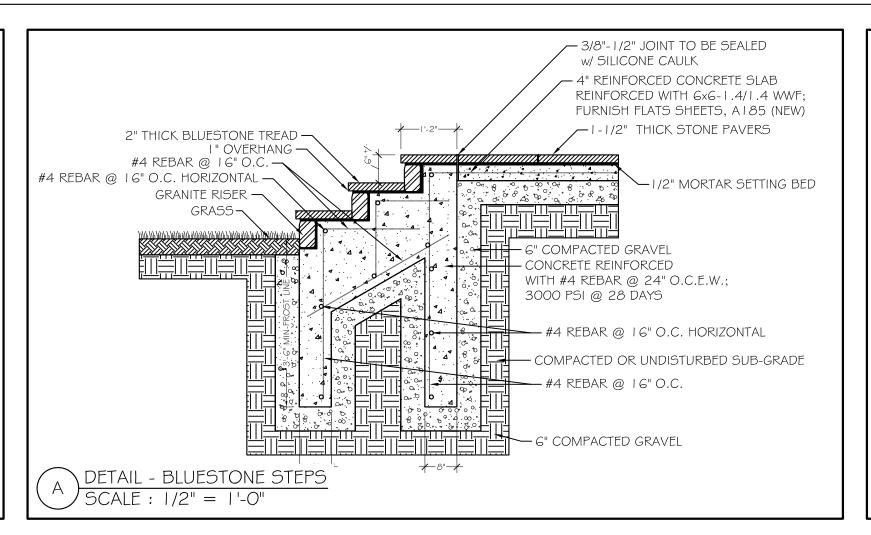


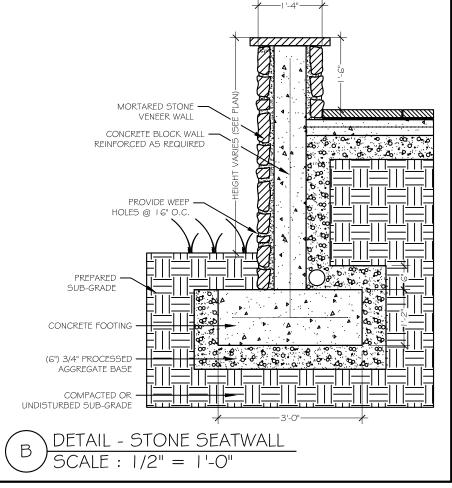


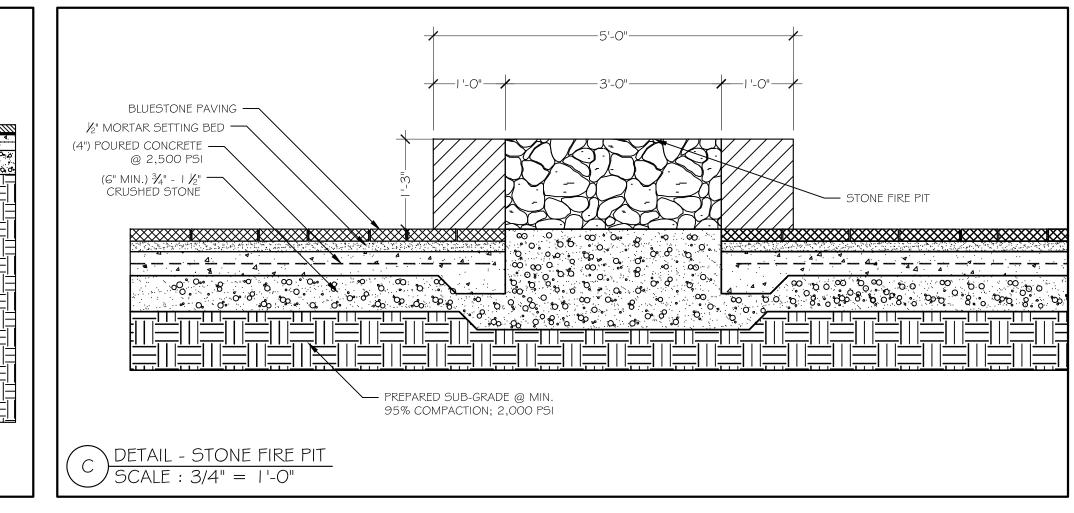


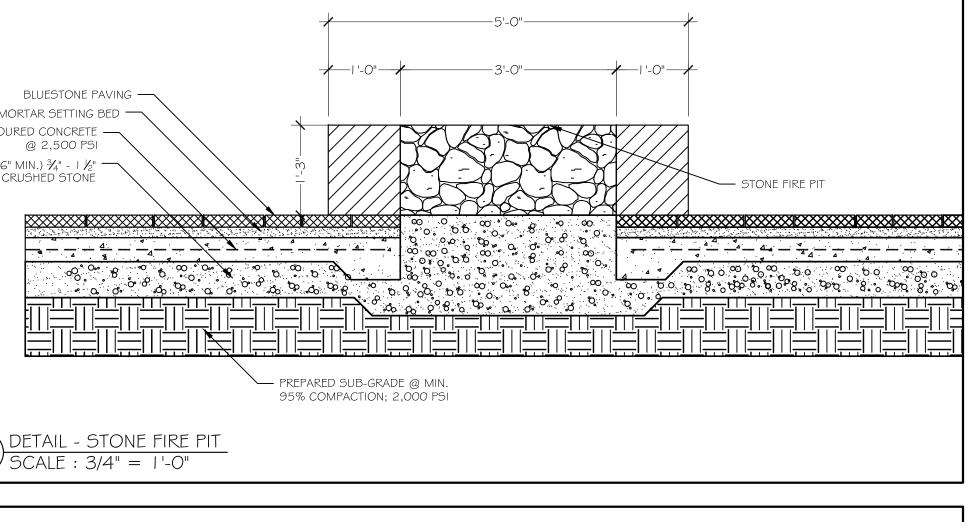
GENERAL NOTES 1. CONTRACTOR IS TO VISIT SITE AND VERIFY ALL EXISTING CONDITIONS (INCLUDING UNDERGROUND

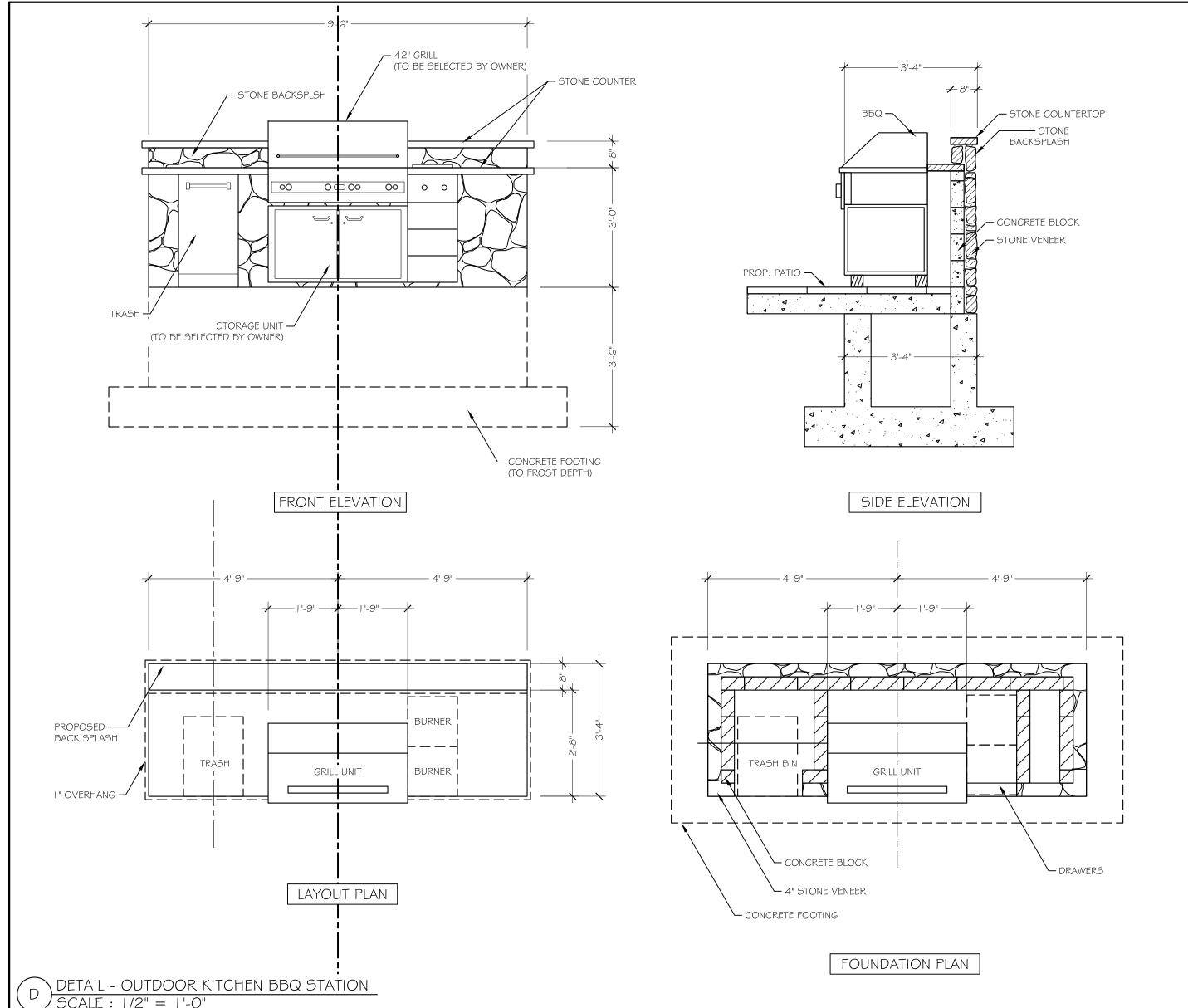
- UTILITIES, PIPES, ETC) AND LIMITATIONS AFFECTING THE PROPOSED WORK 2. ALL WORK IS TO BE PERFORMED IN COMPLIANCE WITH ALL LOCAL, STATE, AND APPLICABLE BUILDING CODE
- 3. CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THE IS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE CITY REPRESENTATIVES HARMLESS FROM AND AND ALL LIABILITY, REAL AND/OR ALLEGED, IN CONJUNCTION WITH THE PERFORMANCE OF THIS PROJECT.
- 4. CONTRACTOR SHALL VERIFY LOCATIONS, LEVELS, DISTANCES, AND FEATURES THAT MAY AFFECT THE WORK. SHOULD EXISTING CONDITIONS DIFFER FROM THESE PLANS, STANDARD SPECIFICATIONS, AND SPECIAL PROVISIONS DO NOT ADEQUITELY DETAIL THE WORK TO BE DONE, CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT PRIOR TO CONTINUING WITH ANY RELATED WORK. NO ALLOWANCE WILL BE MADE IN HIS BEHALF FOR ANY EXTRA EXPENSE RESULTING FROM FAILURE OR NEGLECT IN DETERMINING THE CONDITIONS UNDER WHICH WORK IS TO BE PERFORMED. NOTED DIMENSIONS TAKE PRECEDENCE OVER
- 5. A SET OF SIGNED BLUEPRINTS AND A SET OF SPECIFICATIONS SHALL BE KEPT ON SITE AT ALL TIMES 6. CONTRACTOR SHALL NOTIFY ALL PUBLIC OR PRIVATE UTILITY COMPANIES (48) HOURS PRIOR TO COMMENCEMENT OF WORK ADJACENT TO EXISTING UTILITY LINES UNLESS ENCROACHMENT PERMIT
- SPECIFIES OTHERWISE. 7. CONTRACTOR SHALL PROVIDE AND MAINTAIN SUFFICIENT BARRICADES TO PROVIDE FOR THE SAFETY OF
- THE GENERAL PUBLIC TO THE SATISFACTION OF THE MUNICIPAL BUILDING DEPARTMENT. 8. ALL MATERIALS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.

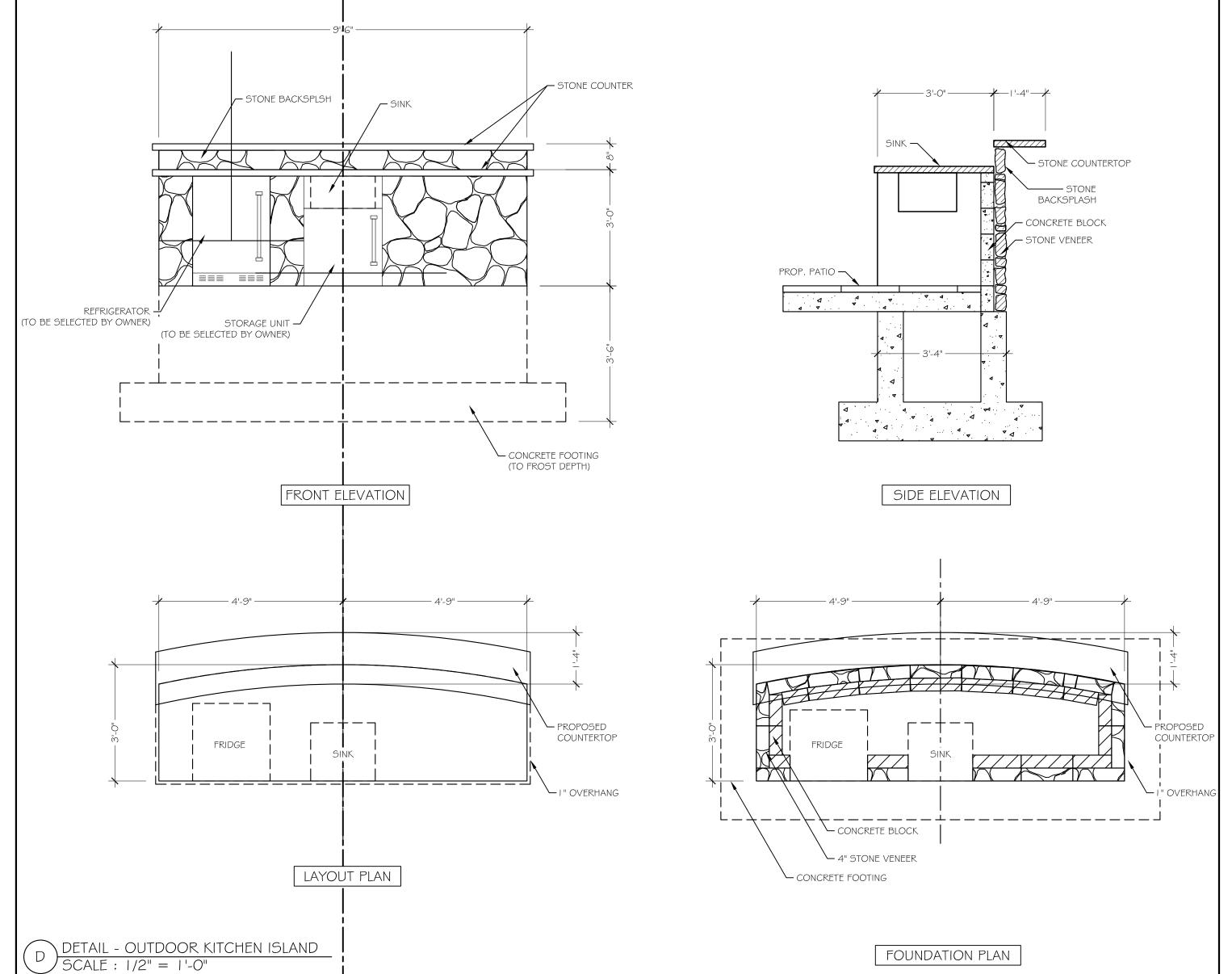


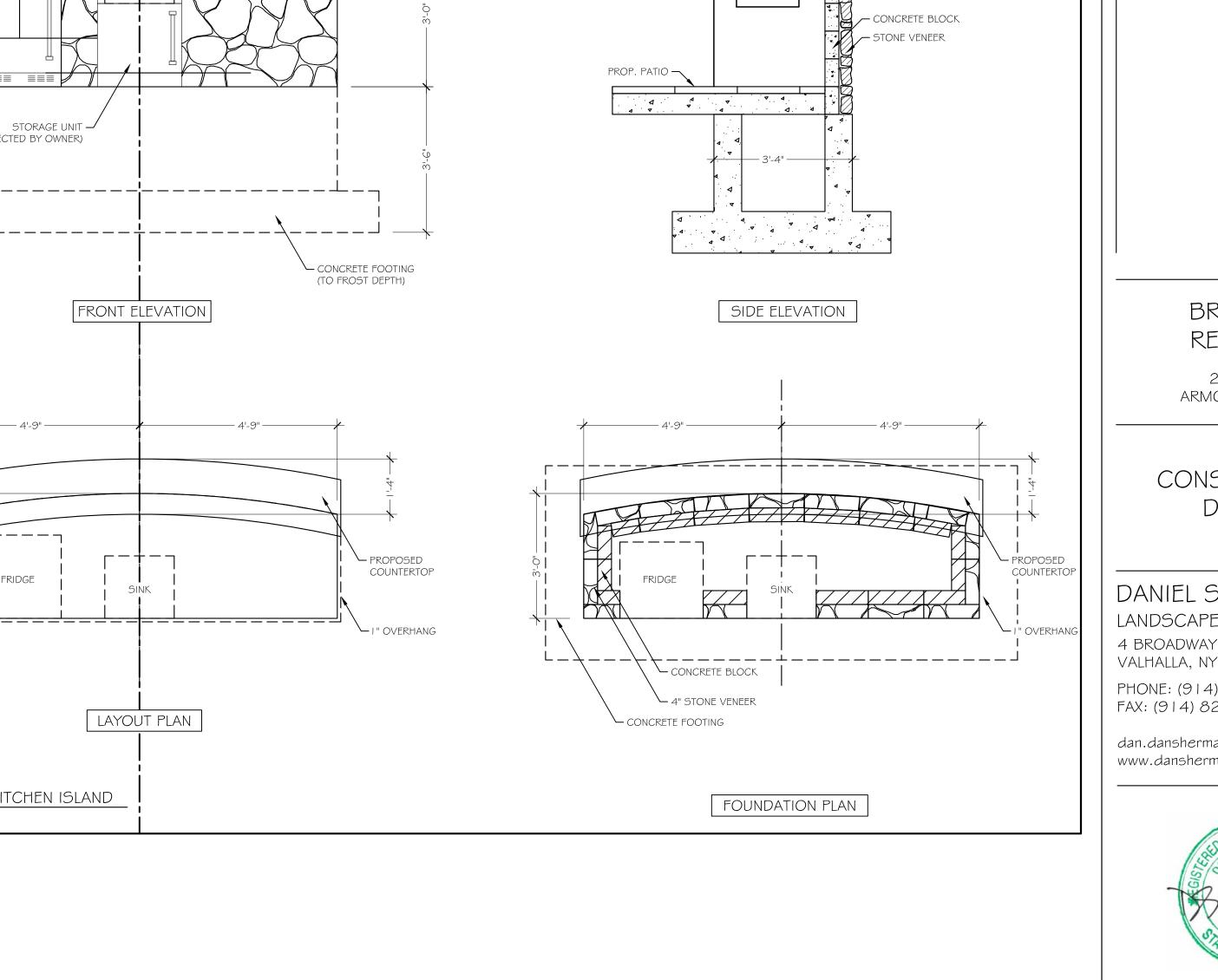


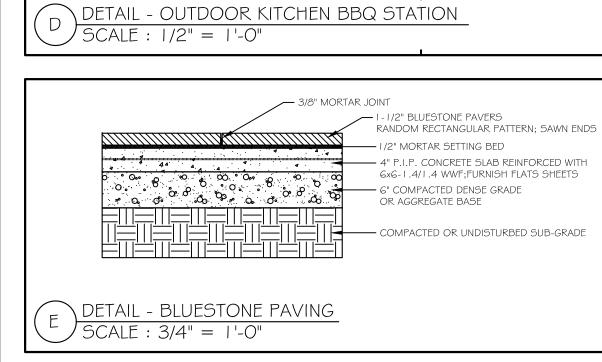












REVISION DATE

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ALTERATION OF THIS DRAWING, EXCEPT IF DONE BY OR

PREPARED THEM, IS A VIOLATION OF NYS EDUCATION

UNDER THE DIRECTION OF THE LICENSED L.A. THAT

BRODBECK RESIDENCE

26 BLAIR RD ARMONK, NY 10504

CONSTRUCTION DETAILS

DANIEL SHERMAN

LANDSCAPE ARCHITECT 4 BROADWAY - SUITE 9 VALHALLA, NY 10595

PHONE: (914) 824 - 0999 FAX: (914) 824-0251

dan.danshermanlandscape@gmail.com www.danshermanlandscape.com



NOV. 17, 2020 AS NOTED

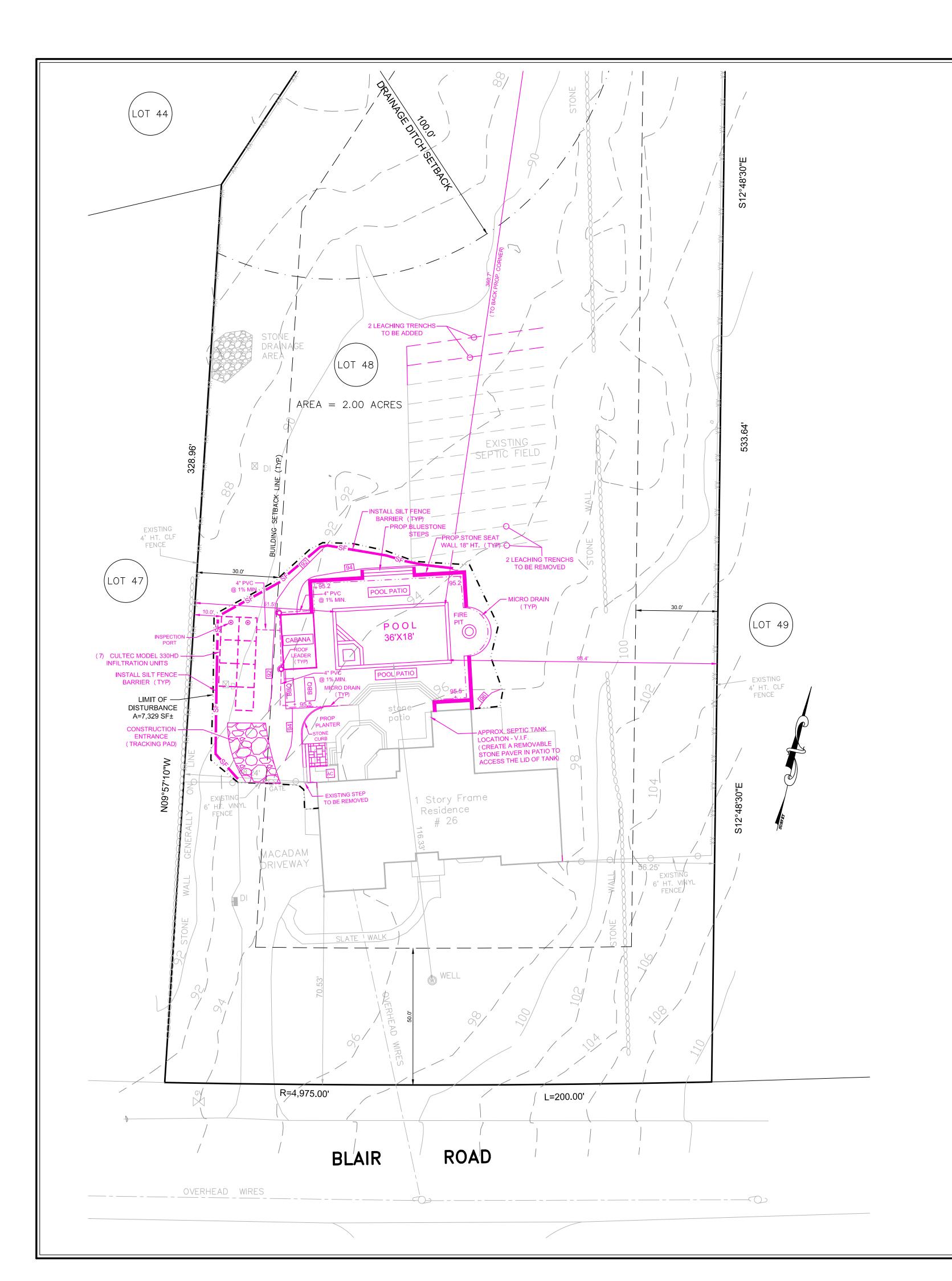
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DRAWING #

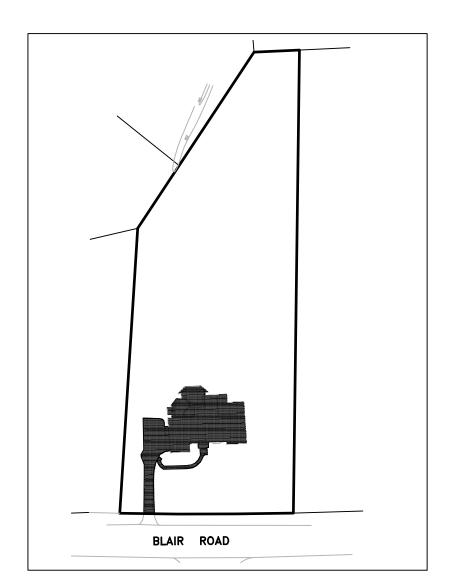
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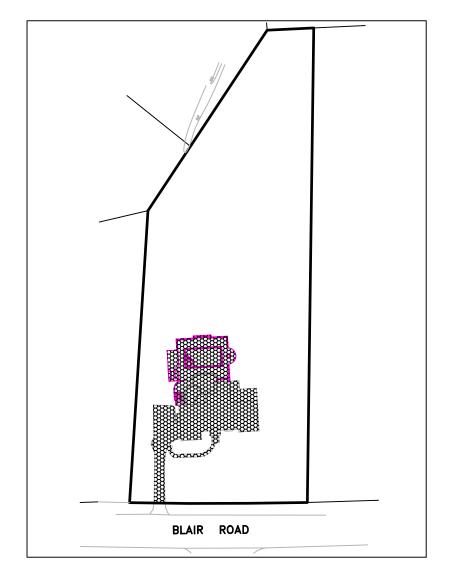


Percola	tion Tes	st No. 2	(TO BE V	'ERIFIED	W/TOWN)	
Start Time	End Time	Min.	Depth to W Ground	/ater From Surface	Water level Drop	Soil Rate Min./in.
		Elapsed	Start (in.)	Stop (in.)	р Біор	drop)
9:37	9:41	4	46.5	49	2.5	1.6
9:43	9:47	4	43	46.5	2.5	1.6

Test Pit #1(TO BE VERIFIED W/TOWN)			
Depth 60"	Elevation ± 377.5, performed on 3/4/20		
0-18"	Topsoil		
18-54"	Fine Sand		
54"-72"	Course Sand		
72"	Ground Water		
	· · · · · · · · · · · · · · · · · · ·		



EXISTING IMPERVIOUS AREA = 7,424 SF



PROPOSED IMPERVIOUS AREA = 10,798 SF NET IMPERVIOUS INCREASE = 3,374 SF



LOCATION MAP N.T.S

General Notes

- 1. Contractor to verify all conditions and dimensions prior to the start of work, any discrepancies are to be reported to the design engineer immediately. 2. The contractor shall notify DigSafelyNY at 811, no less than two days
- prior to commencing excavating activities. 3. All work shall conform to the official rules and regulations of the State of New York Building Construction, Fire, Safety and all other applicable Municipal, State and
- Federal regulations. 4. Underground Utilities are shown schematically and all utilities may not be shown hereon
- contractor to verify all utilities have been field marked by the approriate agency and rely on those representations over locations indicated hereon.
- 5. Grading of the property shall be performed to provide positive drainage away from the proposed foundation.

Erosion Control

- 1. Erosion control measures shall be installed as the first phase of work, and be
- maintained throughout the durstion of the project 2. Maintenace and installation shall be in accordance with NYSDEC "Standards and
- Specifications for Erosion and Sediment Control".
- 3. The Town can require additional measures be implemented at their discretion. 4. The plans indicate locations of erosion control measures however the contractor
- must us best management practices as necessary to assure proper controls. 5. The final subgrade shall recieve no less than 4" of topsoil and be sseded and mulched.

Town of North Castle Notes

- 1. All driveway work shall conform with the Town of North Castle code
- 2. Erosion control measures must be properly installed, maintained so the dirt and debris is not deposited on street.
- 3. Exposed areas must be stabilized as soon as alterations are completed.
- 4. Any under ground structures must be inspected prior to backfilling.
- 5. A minimum of 24 hours notice is required for any inspection 6. No Town Regulated tree removal is proposed.

Map Reference

1. Survey information shown was taken from a Topographic Survey prepared by Richard D. Jordan Jr. LS dated September 8, 2015

2. See Architectural plans by Daniel Sherman, Landscape Architect for details Architectural Plans supercede in all building dimensions cases

ZONING TABLE				
26 BLAIR ROAD				
'R-1A' SINGLE FAMILY				
REQUIRED/AL	LOWED	EXISTING	PROPOSED	VARIANCE GRANTE
MIN. LOT AREA	43,560 SF	2.00 ACRES	UNCHANGED	
LOT COVERAGE 8%	6,969 SF	4,003 SF	UNCHANGED	
MIN LOT FRONTAGE	450	0001	LINGUANGER	
MIN. LOT FRONTAGE	150'	200'	UNCHANGED	
FRONT YARD	50'	70.53'	UNCHANGED	
SIDE YARD	30'	48.24'	UNCHANGED	
SIDE YARD, TOTAL	60'	104.49'	UNCHANGED	
REAR YARD	50'	>200'	>200'	
MAXIMUM HEIGHT (STORIES)	2.5	2.5	UNCHANGED	
MAXIMUM HEIGHT (FEET)	30'-0"		UNCHANGED	

LEGEND

	CATCH BASIN
	DRAINAGE INLET
S	SEWER MANHOLE
•	DRAINAGE MANHOLE
©	ELECTRIC MANHOLE
M	MANHOLE
- # 045	

• SS LOT SEWER SERVICE ● SCO SEWER CLEAN-OUT STS LOT STORM SERVICE

●WS LOT WATER SERVICE ●E-X ELECTRIC CROSSING LIGHTPOLE -⊙- UTILITY POLE

EXISTING CONTOUR - INDEX

EXISTING CONTOUR - INTER

SILT FENCE AND CONSTRUCTION FENCE

EXISTING TREE TO BE REMOVED

PROPOSED CONTOURS

ROOF LEADER

EXISTING TREE, SIZE, TYPE

PT PERCOLATION TEST APPROXIMATE LOCATION OF WATER MAIN DRAINAGE LINE APPROXIMATE LOCATION OF 8" PVC SANITARY SEWER

W.V. WATER VALVE

⊞ G V GAS VALVE

UTILITY BOX

UTILITY BOX

TP TEST PIT

UTSCHIG,

P

SITE

CHRISTOPHER (
Civil Engine

SCALE: 1"=20' DATE: NOV. 15, 2020

SHEET 1 OF 3 JOB No. 1204



EX BUI	LDING AREA (B) SF	
B1	40X23	920
B2	42X31	1,302
В3	34X22	748
B4	19X14	266
B5	24X11	264
В6	24X15	360
В7	13X11	143
	TOTAL	4,003

EX DECK AREA (DE) SF			
DE1	26X11		286
DE2	11X8		88
DE3	27X16		492
DE4	22X6		132
		TOTAL	998

EX DRIVE AND WALKS AREA (P) SF			
D1	57X11		627
D2	20X13		260
D3	38X18		684
D4	40X12		480
D5	10X6		60
D6	28X5		140
D7	15X5		75
D8	12X12		144
		TOTAL	2,470

PROP BUILDING AREA (PB) SF					
PB1	20X11	220			
	TOTAL	220			

ROP P	POOL AREA (PO) SF	
D1	58X32.5	1,885
D2	20X2.5	50
D 3	13X8	104
	TOTAL	2,039

PROP DECK (PDE) SF						
PDE1	16X8	128				
PDE2	9X5	45				
PDE3	20X8	160				
PDE4	10X9.5	95				
	TOTAL	428				

PROP T	TERRACE AREA (PO) SF	
T1	26X14.5	377
T2	22X7	154
Т3	5X5	25
T4	15X10	150
	TOTAL	706

TOTAL COVERAGE 10,864 SF

LEGEND

CATCH BASIN

STS LOT STORM SERVICE

●WS LOT WATER SERVICE ●E-X ELECTRIC CROSSING

SF&CF SILT FENCE AND CONSTRUCTION FENCE EXISTING TREE TO BE REMOVED

LIGHTPOLE -⊙- UTILITY POLE EXISTING CONTOUR - INDEX

EXISTING CONTOUR - INTER

PROPOSED CONTOURS

• SS LOT SEWER SERVICE SEWER CLEAN-OUT

TRAFFIC SIGN

O ROOF LEADER

▼ FIRE ALARM SPLICE BOX

□ UTILITY BOX TP TEST PIT PERCOLATION TEST DRAINAGE LINE

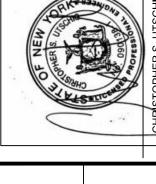
⊞ G.V. GAS VALVE

☐ UTILITY BOX

EXISTING TREE, SIZE, TYPE

W.V. WATER VALVE

APPROXIMATE LOCATION OF WATER MAIN APPROXIMATE LOCATION OF 8" PVC SANITARY SEWER LIMIT OF DISTURBANCE



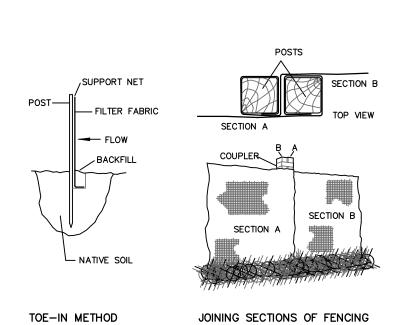
ERAGE CALCULATION

COV

S. UTSCHIG, Ineering Design CHRISTOPHER Site - Stormwater -

SCALE: 1"=30' DATE: NOV. 15, 2020

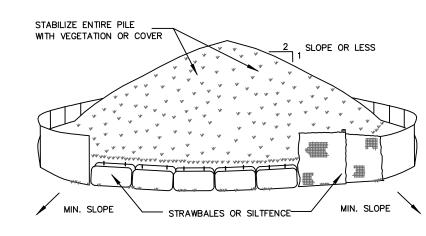
SHEET 2 OF 3 JOB No. 1204



INSTALLATION NOTES 1. EXCAVATE A 4 INCH X 4 INCH TRENCH ALONG THE PROPOSED FENCE ALIGNMENT.

2. UNROLL A SECTION AT A TIME AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM)

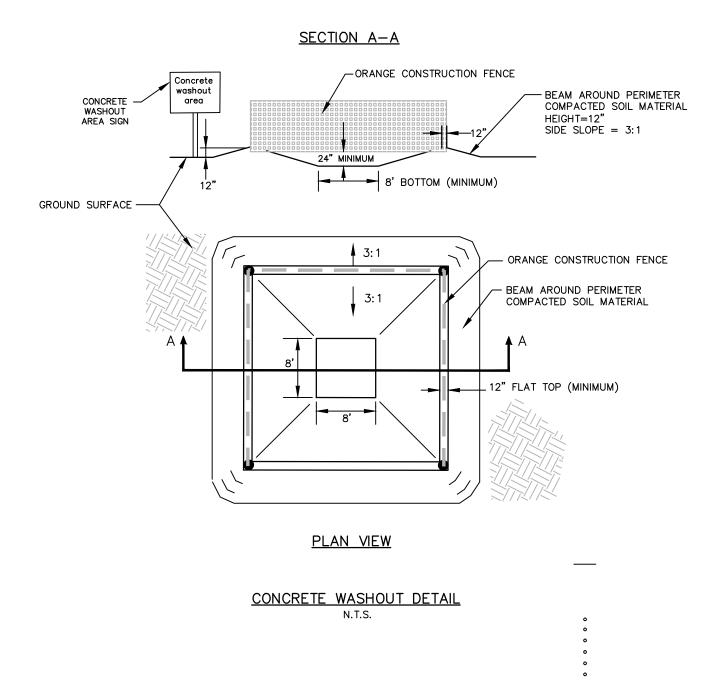
- WALL OF THE TRENCH (NET SIDE AWAY FROM DIRECTION OF FLOW). 3. DRIVE THE POST INTO THE GROUND UNTIL THE NETTING IS APPROXIMATELY 2 INCHES
- FROM THE TRENCH BOTTOM.
- 4. LAY THE TOE-IN FLAP OF FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL THE TRENCH AND TAMP THE SOIL.
- 5. JOIN SECTIONS AS SHOWN ABOVE. 6. CONTRIBUTING AREA SLOPE LENGTH SHALL BE LIMITED TO LENGTHS ON N.Y.S. GUIDELINES.

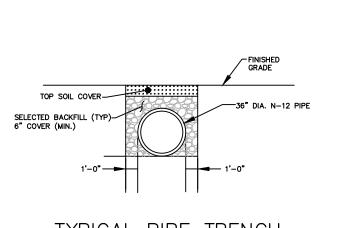


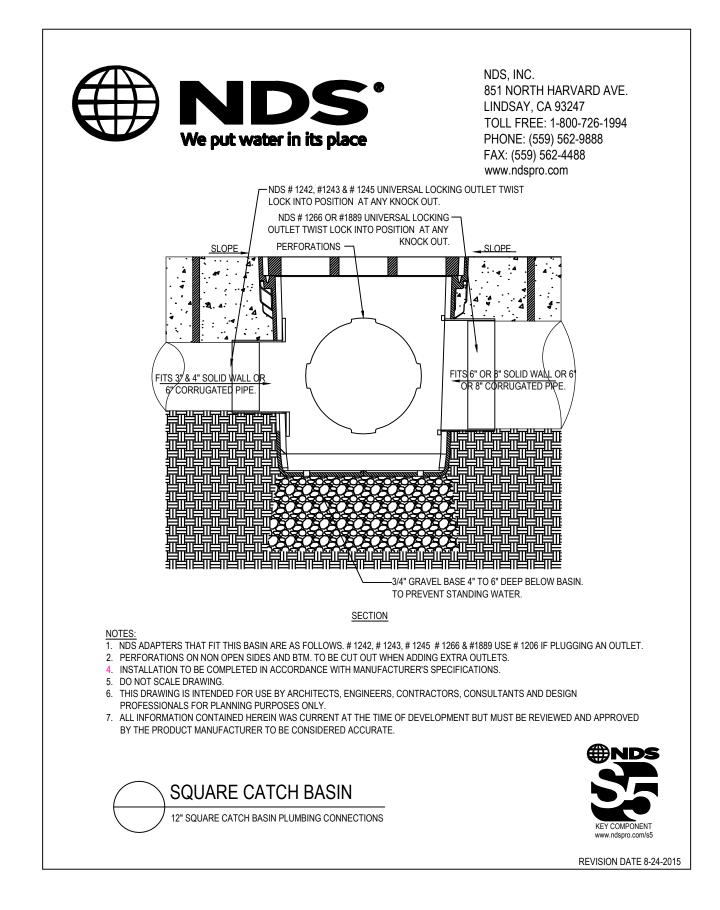
INSTALLATION NOTES

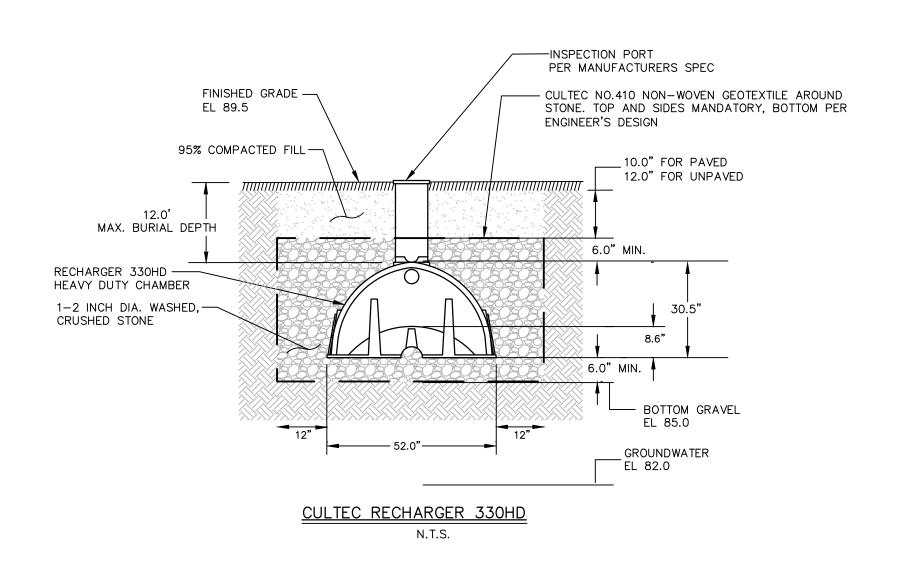
- 1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
- 2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2. 3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STRAWBALES, THEN STABILIZED AS NOTED.
- 4. TEMPORARILY STABILIZE AS NOTED IN SPECIFICATIONS.

SOIL STOCKPILING NOT TO SCALE









DETAIL(ISTRUCTION CO

UTSCHIG,

SCALE: AS SHOWN DATE: NOV. 15, 2020

SHEET 3 OF 3 JOB No. 1204

CHRISTOPHER

Engineer's Report

for

The Brodbeck Residence

26 Blair Road Armonk, New York

Dated	11/2/20
Revised	

Prepared by: Christopher S. Utschig P.E. 65 Ralph Ave White Plains, NY 914 391-9550

Introduction

This report has been prepared in support of the improvements to the property at 26 Blair Road. The proposed improvements will include a pool, new patio, and reconfigured patio. The report and associated plans were prepared in accordance with the Westchester County, NY, Stormwater Management Best Management Practices for Stormwater Runoff Control in compliance with the requirements of the Town of North Castle pursuant to a Surface Water Control Permit. The existing conditions identified on the site plan were taken from a survey prepared by Richard D. Jorden LS. The geometry for the proposed improvements are from plans prepared by Dan Sherman LA.

A. Existing Conditions

The existing property is a 2.0 Ac residentially zoned property within the R2-A zone. The property is occupied by a 2 1/2 story single family home; additional improvements include a driveway, patio, , deck, and walks. The balance of the property is landscaped lawn area and wooded areas. The existing condition includes 7,380 sf of impervious area. The subject properties topography can be described as gently sloping. There appears to be an existing drainage system that will remain untouched. Based on Westchester County Soil Mapping the onsite soils in the area of infiltration and proposed development are (Pah) Paxton Loam type soils, having a type "C" hydrologic group.

C. Proposed Condition

The proposed condition includes a rear yard in ground pool, reconstructed and expanded patio and walkways. The grading as proposed leaves the existing yard grading essentially untouched and thereby leaving the existing drainage patterns unchanged. The proposed condition will result in an impervious area of 10,798 sf. the balance of the property will remain unchanged, this represents an increase in impervious area of 3,374 sf. The comparative analysis was performed in Hydrocad for the entire property for both the Existing and Proposed condition for the 25 year storm. The analysis resulted in volumes of runoff for the existing and proposed condition to be 25,213 cf and 25,940 cf respectively, a net increase of 727 cf

The on-site drainage has been designed to provide mitigation for all proposed increase in impervious area when analyzing for the 25 Year storm event. The design was analyzed using the Westchester County Best Management Practices Manual for Type III storms, modeled with Hydro Cad, for the 25-yr(6.4") storm event. The design proposes an underground detention system consisting of 7 cultec 330 HD's. The system has been sized such that the additional volume of runoff from the design storm is fully mitigated through storage and infiltration.

D. Construction Phasing Plan and Sediment and Erosion Control Management

Maintenance of Temporary and Permanent Structures and Practices

Temporary and permanent erosion controls measures will be maintained and inspected in accordance with the *Grading and Drainage Plan*. 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), second edition, April 1993.

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.

Construction shall be implemented in the following order:

- 1. Erosion and sediment control (ESC) measures and Pollution Prevention (PP) implementation,
 - a) Install silt fences along easterly project limits,
 - b) Maintain existing macadam driveway to utilize as a site construction entrance to the project area, material storage area and dumpster location.
 - Contractor shall install stone stabilized entrance at end of the existing paved driveway in advance of construction vehicles requiring access from graded /exposed soils to City Streets.
 - 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 offsite. Construction waste shall be stored in a dumpster and carried off-site on a regular basis
 - f) Allocate concrete washout areas
- 2. Clearing and grubbing.
 - Strip top soil and stockpile. Initiate cover practices and sediment controls at the base of the stockpile. Stockpile can be temporarily stabilized with tarp or mulch and/or temporary seeding.
 - b) Disturbed areas where construction will cease for more than 14 days will be stabilized with erosion controls, such hydro-seeding, hydro-mulch, or hay
- 3. Excavate for pool.
 - a) Install dewatering practice if necessary.
- 4. Construct hardscape
- 5. Install subsurface storage and infiltration system and site drainage to capture runoff.
- 6. Final stabilization of disturbed areas
 - a) Install minimum 4" topsoil and final stabilize with lawn or mulch in landscape areas.
 - b) Remove all ESC and PP measures upon approval of design engineer and/or ESC inspector.

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:

- 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.
- 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.
- 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 removal of sediment from the on-site catch basins and underground storage facilities.

The contractor shall provide a Trained Individual to be present on site at all times during soil disturbing activities

Any disturbed areas shall be re-vegetated as soon as possible. Topsoil shall 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.

The existing driveway shall be maintained throughout construction to be utilized for the site construction entrance. A temporary stabilized construction entrance comprised of a stone anti-track pad shall be installed as necessary to minimize dirt tracking. 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.

For dewatering activities during excavation of the footings, 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.

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.

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.

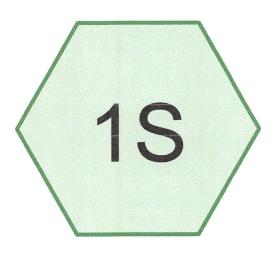
Permanent seeding shall be installed immediately after the final design grades are achieved but no later than fourteen (14) days after construction activities have ceased. After stabilization, accumulated sediment shall be removed from site for disposal along with construction debris, trash and temporary BMPs

E. Conclusion:

The implementation of this stormwater management plan will mitigate the post development stormwater flows and not adversely affect the adjacent properties or the existing drainage system. The additional stormwater runoff generated by the proposed addition has been attenuated by the construction of an underground storage system.

APPENDIX A

Existing Condition Calculations



Existing









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Area Listing (all nodes)

Area	a CN	Description
(sq-ft)	(subcatchment-numbers)
79,740	74	>75% Grass cover, Good, HSG C (1S)
7,380	98	Water Surface, HSG B (1S)
87,120	76	TOTAL AREA

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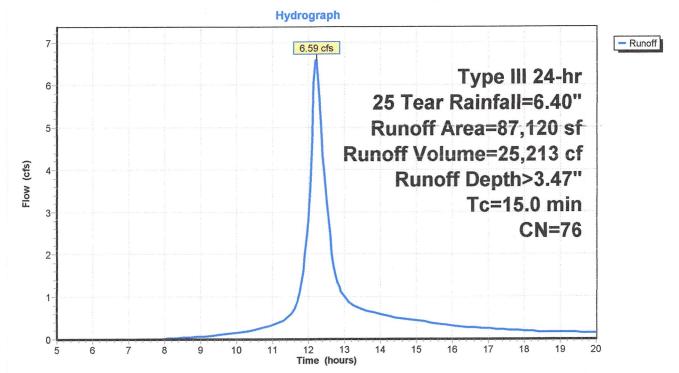
Soil Listing (all nodes)

Area	Soil	Subcatchment
(sq-ft)	Group	Numbers
0	HSG A	
7,380	HSG B	1S
79,740	HSG C	1S
0	HSG D	
0	Other	
87,120		TOTAL AREA

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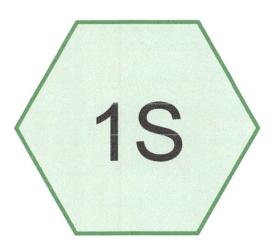
Subcatchment 1S: Existing



Engineer's Report Brodbeck Residence

APPENDIX B

Proposed Condition Calculations



Proposed









Proposed
Prepared by Microsoft
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Page 2

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
 76,3 22	74	>75% Grass cover, Good, HSG C (1S)
10,79 8	98	Paved parking, HSG B (1S)
87,120	77	TOTAL AREA

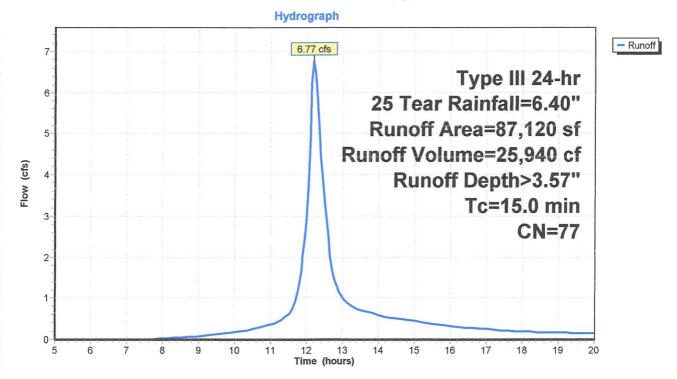
Soil Listing (all nodes)

Area	Soil	Subcatchment
(sq-ft)	Group	Numbers
0	HSG A	
10,798	HSG B	1S
76,322	HSG C	1S
0	HSG D	
0	Other	
87,120		TOTAL AREA

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Subcatchment 1S: Proposed



APPENDIX C

Infiltration Calculations

CULTEC Recharger® 330XLHD Stormwater Chamber



The Recharger® 330XLHD is a 30.5" (775 mm) tall, high capacity chamber. Typically when using this model, fewer chambers are required resulting in less labor and a smaller installation area. The Recharger® 330XLHD has the side portal internal manifold feature. HVLV® FC-24 Feed Connectors are inserted into the side portals to create the internal manifold.

Size (L x W x H)	8.5' x 52" x 30.5"
	2.59 m x 1321 mm x 775 mm
Installed Length	7'
	2.13 m
Length Adjustment per Run	1.50'
	0.46 m
Chamber Storage	7.46 ft ³ /ft
	0.69 m³/m
	52.21 ft³/unit
	1.48 m³/unit
Min. Installed Storage	11.32 ft³/ft
	1.05 m³/m
	79.26 ft³/unit
	2.24 m³/unit
Min. Area Required	33.83 ft ²
	3.14 m ²
Chamber Weight	73.0 lbs
	33.11 kg
Shipping	30 chambers/skid
	2,335 lbs/skid
	10 skids/48' flatbed
Min. Center-to-Center Spacing	4.83'
	1.47 m
Max. Allowable Cover	12'
	3.66 m
Max. Inlet Opening in End Wall	24" HDPE, PVC
	600 mm HDPE, PVC
Max. Allowable O.D.	10" HDPE, 12" PVC
in Side Portal	250 mm HDPE, 300 mm PVC
Compatible Feed Connector	HVLV FC-24 Feed Connector

Calculations are based on installed chamber length,

All above values are nominal.

Min. installed storage includes 6" (152 mm) stone base, 6" (152 mm) stone above crown of chamber and typical stone surround at 58" (1473 mm) center-to-center spacing.

	Stone Foundation Depth			
	6" 12"			
	152 mm	305 mm	457 mm	
Chamber and Stone Storage Per Chamber	79.26 ft ³	86.03 ft ³	92.79 ft ³	
Chamber	2.24 m ³	2.44 m ³	2.63 m ³	
Min. Effective Depth	3.54'	4.04'	4.54'	
	1.08 m	1.23 m	1.38 m	
Stone Required Per Chamber	2.50 yd ³	3.13 yd ³	3.76 yd ³	
	1.91 m³	2.39 m ³	2.87 m ³	

Calculations are based on installed chamber length. Includes 6" (305 mm) stone above crown of chamber and typical stone surround at 58"(1473 mm) center-to-center spacing and stone foundation as listed in table. Stone void calculated at 40%.



Recharger® 330XLHD Bare Chamber Storage Volumes

Elevation		Inc	Incremental Storage Volume				Cumulative Storage	
	mm	ft³/ft	m³/m					
30.5	775	0.000	0.000	0.000	0.000	52.213	1.479	
30	762	0.019	0.002	0.133	0.004	52,213	1.479	
29	737	0.051	0.005	0.357	0.010	52.080	1.475	
28	711	0.084	0.008	0.588	0.017	51.723	1.465	
27	686	0.124	0.012	0.868	0.025	51.135	1.448	
26	660	0.150	0.014	1.05	0.030	50.267	1.424	
25	635	0.173	0.016	1.211	0.034	49,217	1.394	
24	609	0.191	0.018	1.337	0.038	48.006	1.360	
23	584	0.207	0.019	1.449	0.041	46.669	1,322	
22	559	0.221	0.021	1,547	0.044	45.220	1.281	
21	533	0.233	0.022	1,631	0.046	43.673	1.237	
20	508	0.244	0.023	1.708	0.048	42,042	1,191	
19	483	0.254	0.024	1.778	0.050	40.334	1,142	
18	457	0.264	0.025	1.848	0.052	38,556	1.092	
17	432	0.271	0.025	1.897	0.054	36.708	1.040	
16	406	0.283	0.026	1.981	0.056	34.811	0.986	
15	381	0.294	0.027	2.058	0.058	32.830	0.930	
14	356	0.296	0.027	2.072	0.059	30.772	0.871	
13	330	0.299	0.028	2.093	0.059	28.700	0.813	
12	305	0.301	0.028	2.107	0.060	26.607	0.754	
11	279	0.303	0.028	2.121	0.060	24.500	0.694	
10	254	0.304	0.028	2.128	0.060	22.379	0.634	
9	229	0.306	0.028	2.142	0.061	20.251	0.574	
8	203	0.313	0.029	2.191	0.062	18.109	0.513	
7	178	0.321	0.030	2.247	0.064	15.918	0.451	
6	152	0.322	0.030	2.254	0.064	13,671	0.387	
5	127	0,323	0.030	2.261	0.064	11.417	0.323	
4	102	0,324	0.030	2,268	0.064	9.156	0.259	
3	76	0,325	0.030	2.275	0.064	6.888	0.195	
2	51	0.327	0.030	2,289	0.065	4.613	0.131	
1	25	0.332	0.031	2,324	0.066	2.324	0.066	
Tol	tal	7.459	0.693	52.213	1.479	52.213	1.479	

Calculations are based on installed chamber length.

Visit http://cultec.com/downloads/ for Product Downloads and CAD details.

APPENDIX D

USDA Soils Report



MAP LEGEND

Special Line Features Very Stony Spot Stony Spot Spoil Area Wet Spot Other ater Features Soil Map Unit Polygons Area of Interest (AOI) Soil Map Unit Points Soil Map Unit Lines Area of Interest (AOI) Blow Special Point 9

oint Foatures	,	Spe
Blowout	Water Features	res
***************************************		Stre
במוסא בור	Transportation	uoi
Clay Spot		Rail

Streams and Canals



Closed Depression





Gravelly Spot

Gravel Pit



Local Roads



Marsh or swamp

Lava Flow

Landfill

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Background

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at

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

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

Please rely on the bar scale on each map sheet for map measurements. Natural Resources Conservation Service Web Soil Survey URL: Source of Map:

Coordinate System: Web Mercator (EPSG:3857)

distance and area. A projection that preserves area, such as the Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts 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.

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

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

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.

Severely Eroded Spot

Slide or Slip

Sinkhole

Sodic Spot

Sandy Spot

Saline Spot

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
PnB	Paxton fine sandy loam, 3 to 8 percent slopes	0.0	0.6%
PnC	Paxton fine sandy loam, 8 to 15 percent slopes	1.5	99.4%
Totals for Area of Interest		1.5	100.0%

Map Unit			Hydrologic
Symbol	map Unit Name	Component Name	Soil Group
LcA	Leicester loam, 0 to 3 percent slopes, stony	Leicester	ΑĐ
LcB	Leicester loam, 3 to 8 percent slopes, stony	Leicester	ΑD
LcB	Leicester loam, 3 to 8 percent slopes, stony	Leicester	ΑD
LeB	Leicester loam, 2 to 8 percent slopes, very stony	Leicester	Αď
LeB	Leicester loam, 2 to 8 percent slopes, very stony	Leicester	ĄD
Pa		Palms	ĄD
Pc	Palms and Carlisle soils, ponded	Palms	ĄD
Pc	Palms and Carlisle soils, ponded	Carlisle	Ą
PnB	Paxton fine sandy loam, 2 to 8 percent slopes	Paxton	C
PnC	Paxton fine sandy loam, 8 to 15 percent slopes	Paxton	ဂ
PnD	Paxton fine sandy loam, 15 to 25 percent slopes	Paxton	ဂ
PoB		Paxton	C
PoC	Paxton fine sandy loam, 8 to 15 percent slopes, very stony	Paxton	ဂ
PoD	Paxton fine sandy loam, 15 to 25 percent slopes, very stony	Paxton	C
Ρţ		Pits, gravel	
Рν	Pits, quarry	Pits, quarry	
₽w	Pompton silt loam, loamy substratum	Pompton	B/D
Ra	Raynham silt loam	Raynham	C/D
RdA	Ridgebury loam, 0 to 3 percent slopes	Ridgebury	B/D
RdA	Ridgebury loam, 0 to 3 percent slopes	Ridgebury	B/D
RdB	Ridgebury loam, 3 to 8 percent slopes	Ridgebury	B/D
RdB	Ridgebury loam, 3 to 8 percent slopes	Ridgebury	B/D
RgB	Ridgebury loam, 2 to 8 percent slopes, very story	Ridgebury	B/D
RgB	Ridgebury loam, 2 to 8 percent slopes, very stony	Ridgebury	B/D
RhA	Riverhead loam, 0 to 3 percent slopes	Riverhead	Α
RhB	Riverhead loam, 3 to 8 percent slopes	Riverhead	Α
RhC	Riverhead loam, 8 to 15 percent slopes	Riverhead	Α
RhD	Riverhead loam, 15 to 25 percent slopes	Riverhead	Α
RNE	Riverhead loam, 25 to 50 percent slopes	Riverhead	Þ
SbB	Stockbridge silt loam, 2 to 8 percent slopes	Stockbridge	င
Sh.	Sun loam	Sun	C/D
Sm	Sun loam, extremely stony	Sun	C/D
SuA	Sutton loam, 0 to 3 percent slopes	Sutton	В
SuB	Sutton loam, 3 to 8 percent slopes	Sutton	В
G	Udorthents, smoothed	Udorthents	8
Uc	Udorthents, wet substratum	Udorthents	A/D
UdB	Unadilla silt loam, 2 to 6 percent slopes	Unadilla	В
Ç	Urban land	Urban land	
UhB	Urban land-Charlton complex, 2 to 8 percent slopes	Urban land	
UhB	Urban land-Charlton complex, 2 to 8 percent slopes	Charlton	В