DTS Provident Design Engineering, LLP One North Broadway White Plains, NY 10601

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Andrew V. Tung, ASLA, Esq., LEED AP Gerhard M. Schwalbe, P.E. Charles 'Carlito' Holt, P.E., PTOE Brian Dempsey, P.E., PTOE, RSP1

February 12, 2024

Mr Adam Kaufman, AICP Director of Planning Town of North Castle 15 Bedford Road Armonk, New York 10504

RE: 14 Tallwoods Road
Christian Jungers & Michelle Starr
14 Tallwoods
Tax ID – Section 107.02, Block 1, Lot 17

Dear Mr. Kaufman:

This office is pleased to provide updated plans in support of the Chistian Jungers and Michelle Starr Site Plan, Wetland, Steep Slope and and Tree Removal approvals related to the proposed swimming pool at 14 Tallwoods Road. Plans have been updated and supplemental information provided to address the conditions of the Resolution of Approval. Plans and comments have been addressed as follows:

- The applicant shall provide construction details of the retaining wall, inclusive of design calculations for bearing, sliding and overturning to the satisfaction of the Town Engineer.
 <u>Response</u>: Retaining wall Construction plans with details have been prepared and are attached for review by the Town Engineer.
- 2. The plans shall note, to the satisfaction of the Town Engineer, that the applicant shall retain the services of a Professional Engineer who will inspect the construction of the retaining walls and provided certification that the work is in conformance with the approved plans, prior to the issuance of a Certificate of Occupancy for the work.

<u>Response:</u> A note indicating that the applicant shall retain the services of a professional engineer who will inspect the construction of the retaining wall and provide certification that the work is in conformance with the approved plan, prior to the issuance of the Certificate of Occupancy has been added to the plan.

3. The applicant shall prepare a stormwater mitigation plan which mitigates the stormwater runoff impacts from the proposed improvement to the satisfaction of the Town Engineer. The stormwater

mitigation plan shall be accompanied by stormwater design calculations which mitigates peak flows during the 25-year, 24-hours design storm.

<u>Response</u>: Due to the constraints on the site and limited area available for stormwater mitigation, the plan offers two (2) practices to mitigate stormwater runoff; a 2,000 gallon holding tank for pool drawdown and site runoff and a rain garden. Two (2) roof drains within the project area currently discharge runoff directly to the surface. The plan proposes that stormwater runoff from a portion of the existing dwelling's roof, comparable in area to the proposed improvements, will be redirected to the rain garden. The second roof drain will be directed to the holding tank, effectively disconnecting the roof runoff from the discharge points. High level overflows will then be connected to the existing outlet pipes. The plan has been updated to reflect pipe connections directed to both the holding tank and the rain garden.

4. As required by Town Code, the applicant shall provide a long-term monitoring and maintenance plan for the proposed wetland mitigation for a period of at least five (5) years to the satisfaction of the Town Engineer. The plan shall require an 85% survival rate. The Town Engineer will provide standard conditions for the long-term monitoring and maintenance plan to be included on the Site Landscaping and Wetland Mitigation Plan.

<u>Response</u>: A long term monitoring and maintenance plan for the proposed wetland mitigation, for a period of five (5) years has been prepared and is attached for review. Any additional conditions for the long-term monitoring and maintenance plan will be included on the Wetland Mitigation Plan.

5. The applicant shall submit a detailed quantity cost estimate for all improvements proposed for the wetland mitigation with the quantities certified by the applicant's engineer to the satisfaction of the Town Engineer.

<u>Response:</u> A detailed cost estimate for the wetland mitigation has been prepared and is attached for the review of the Town Engineer.

- Payment of all applicable fees, including any outstanding consulting fees, pursuant to the master fee schedule.
 Response: So Noted.
- 7. The Applicant shall submit to the Planning Board Secretary one PDF set of plans (with required signature block) incorporating all required amendments to the plans as identified in this resolution of approval to the satisfaction of the Town Planner, Town Engineer and Town Attorney.



<u>Response</u>: A complete PDF set of plans with the required signature block has been prepared and is attached for review by Town Planner, Town Engineer and Town Attorney.

Should you have any questions or require additional information please feel free to contact me.

Very truly yours,

DTS Provident Design Engineering, LLP

Pite Jugany

Peter J. Gregory, PE Senior Associate

BENEDEK & TICEHURST LANDSCAPE ARCHITECTS & SITE PLANNERS, P.C.

February 9, 2024

- Attn: John Kellard, P.E. Kellard Sessions Consulting Consulting Town Engineers 500 Main Street Armonk, NY 10504
- Re: Starr Residence 14 Tallwoods Road Armonk, NY Sec.107.02; Blk 1; Lot 17

Dear Mr. Kellard,

As required in the Memorandum for the Planning Board, dated July 7, 2023, for the Starr Residence at 14 Tallwoods Road, please see the wetland mitigation cost estimate.

(75) Hayscented Fern x \$5.00 wholesale= \$375 x 3 (material, planting, warrantee)=	\$1,125.
(75) Ostrich Fern x \$5.00 wholesale= \$375 x 3 (material, planting, warrantee)=	\$1,125.
(50) Sensitive Fern x \$5.00 wholesale= \$250 x 3 (material, planting, warrantee)=	\$750.
(50) Cinnamon Fern x \$5.00 wholesale= \$250 x 3 (material, planting, warrantee)=	\$750.
(12) Blue Girl Holly x \$295.00 wholesale= \$3,540. x 3 (material, planting, warrantee)=	= \$10,620.
(3) Northern Red Oak x \$415.00 wholesale= \$1,245 x 3 (material, planting, warrantee)	= \$3,735.
(4) Winterberry x \$40.00 wholesale= \$160 x 3 (material, planting, warrantee)=	\$480.
(8) Turtlehead x \$5.00 wholesale= \$40 x 3 (material, planting, warrantee)=	\$120.
(16) Joe Pye Weed x \$5.00 wholesale= \$80 x 3 (material, planting, warrantee)=	\$240.
(20) Blue Flag Iris x \$5.00 wholesale= \$100 x 3 (material, planting, warrantee)=	\$300.
(20) Foamflower x \$5.00 wholesale= \$100 x 3 (material, planting, warrantee)=	\$300.
(4 lbs.) Wetland Seed Mix x \$53.00 wholesale=\$212 x3 (installation, warrantee)=	<u>\$636.</u>
Total Plant Material Cost:	\$20,181.
(3) days of investive plant species removed	\$4 500
(5) days of invasive plant species femoval– Tetal Invasive Succies Demonal Material Cast	<u>\$4,300.</u>
i otal invasive Species Removal Material Cost:	\$4,500.
\$20,181. (plant material cost) x 10% contingency=	\$2,018.10
\$20,181. (plant material cost) x 15% long term maintenance and monitoring=	\$3,027.15
\$4,500. (invasive plant species removal) x 15% long term maintenance and monitoring	= \$675.00

Total Mitigation Budget Estimate=

\$30,401.25

Please feel free to contact me if you have any questions.

Thank you,

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Seth Ticehurst, RLA

5 YEAR WETLAND MONITORING AND MAINTENANCE PLAN FOR: THE STARR RESIDENCE 14 TALLWOODS ROAD ARMONK, NY

- 1. Wetland Monitoring & Maintenance Plan
 - The purpose of the Wetland Monitoring & Maintenance Plan is to ensure that development in the wetland buffer does not compromise the functional integrity of the wetland buffer, ponds or wetlands and resulting mitigation meets its stated goals as described in the Final Resolution adopted by the Town of North Castle "Town" Planning Board for Christian Jungers and Michelle Starr of 14 Tallwoods Road.
- 2. Protocol for Commencement of Wetland Monitoring & Maintenance Plan
 - Permittee shall implement the mitigation plan (wetland plantings) approved by the Town Planning Board.
 - Following the installation of all wetland mitigation in accordance with the Final Resolution and plans adopted by the Planning Board, the Permittee shall submit two (2) copies of the following:
 - Certification from a Qualified Environmental Consultant or Landscape Architect approved by the Planning Board or its designee verifying the proper installation of all plants and materials in accordance with the approved Planning Board Resolution. The Consultant shall note any deficiencies in the installation of the plant materials or deviations from the approved resolution so that these can be corrected before final approval.
 - The monitoring period shall begin with the review of all required submitted information/materials and final written approval by the Town's Wetland Consultant and continue for a period of 5 years.

3. Assurances

- All plantings in conjunction with the mitigation work shall be accomplished in accordance with the approved drawings and completed within the first growing season after site clean-up is complete and topsoil is re-spread on the disturbed areas to be re-vegetated.
- The Permittee shall ensure that all plants in conjunction with the wetland mitigation plan shall have a minimum 85% survival rate of installed plants, which must be met or exceeded at the end of the second growing season following the initial planting/seeding. If the 85% survival rate is not met at the end of the second growing season, the Permittee shall take all necessary measures to ensure the level of survival by the end of the next growing season, including replanting and re-grading with topsoil, if necessary. Continue the program for the full term of the 5 years after planting.

4. Monitoring Reports

- The purpose of the mitigation monitoring and maintenance reports shall be to: (1) evaluate the progress of the establishment of the mitigation areas, (2) assess compliance with plant survival and plant condition requirements, and (3) identify those aspects of the mitigation areas that may require remediation by the Permittee in order to achieve the mitigation objectives.
- Permittee shall submit the mitigation monitoring and maintenance reports prepared by a Licensed Landscape Architect (or an environmental professional approved by the Town of North Castle) annually no later than November 1st to the Town's Wetland Consultant for review.
- Information for said reports shall be collected a minimum of 7 times: once prior to construction; once immediately post-construction; and annually for 5 years post-construction between the months of June 1st and September 1st.
- Minimum requirements for monitoring reports:
 - Identification of the number of surviving approved plants and area coverage at the time of the observation. The report should detail the condition, vigor, size of all planted material and compliance with the approved Planning Board Resolution.
 - Color photographs from established stations approved by the Town's Wetland Consultant showing representative conditions in the mitigation areas taken annually during the designated period defined above.
 - An estimate of the vegetative cover in the mitigation areas, noting, in particular, areas which are bare of vegetation and/or locations where erosion and sedimentation are occurring; or where invasive plant species have become established. Aerial coverage of invasive plant species must be less than 15% of the total wetland mitigation area on the site.
 - A qualitative analysis of the extent to which the mitigation has been successful. Said reports shall note areas of deficiencies and/or `1` non-compliance and provide recommendations/measures to be taken to ensure continued success of the mitigation efforts and soil stabilization.
- 5. Completion of Monitoring Period
 - Final Report submitted by the Permittee and certified by the Permittee's Consultant.
 - The Town's Wetland Consultant will review the submitted material and perform an inspection of the site for conformance with the approved Planning Board Resolution and As-Built Plans. Upon review and inspection, the Town's Wetland Consultant shall submit written approval to the Planning Board.

- A Monitoring Data Form (in Report) shall be filled out that includes the above information and the following information, if applicable:
 - The vegetative cover shall be comprised of native species (not invasive species), whether planted or resulting from natural colonization. If vegetative cover is less than 85%, replanting shall occur with native species which have survived and show good vigor within the wetland buffer mitigation planting areas.
 - Elimination of invasive plant species. Permittee shall demonstrate 100% removal of target species at initial treatment. Ongoing removal shall be demonstrated at each inspection period. Target species shall be tested, as necessary, to prevent re-establishment, including, but not limited to, Japanese Barberry (Barberis thunbergii), Common Reed (Phragmites australis), Bittersweet (Celastrus orbiculatus), Multiflora Rose (Rose multiflora), Porcelain Berry (Ampelopsis brevipedunculata), Autumn Olive (Elaegnus umbellate), Winged Euonymus (Euonymus alatus) and Garlic Mustard (Alliaria petiolate). It is incumbent on the Permittee to remove such invasive species during the appropriate season in which removal is optimal. Hand removal of any deformed, diseased or otherwise unhealthy plantings and replacement "in kind" as necessary to meet the 85% survival threshold.
- 6. Pesticide and fertilizer use is restricted within the 100' wetland buffer from the edge of the wetland line, except for those products which are permitted by the NYSDEC.



TOWN OF NORTH CASTLE ZONING REQUIREMENTS						
R-2A	R-2A RESIDENCE TWO-ACRE DISTRICT					
MINIMUM MINIMUM YARDS					MAXIMU	
	LOT AREA (ACRES)	FRONT (FEET)	SIDE (FEET)	REAR (FEET)	BUILDIN COVERA	
REQUIRED/MAXIMUM	2	50	30	50	8%	
EXISTING RESIDENCE 2.296 68.71 97.47 147.57						

PROPOSED SWIMMING POOL 131.56 115.22 114.49

PROPOSED EARTHWORK VOLUME	
CUT VOLUME OF EXCAVATION	150 C.Y.
FILL VOLUME REQUIRED	110 C.Y.
VOLUME OF FILL MATERIAL TO BE EXPORTED	40 C.Y.

DISTURBANCE CHART				
HATCH	LOT			
	WETLAND	0 SF		
	WETLAND BUFFER	4,456 SF		
	>25% SLOPE	182 SF		

-/ EXISTING ROOF DRAIN TO REMAIN PROVIDE RIP RAP STABLIZATION AT OUTLET.

PROPOSED TANK FOR POOL DRAWDOWN (REFER TO CONSTRUCTION PLAN)

- PROPOSED LIMIT OF DISTURBANCE LINE

NO ACTIVITY RELATED TO STORMWATER SYSTEM AND POOL CONSTRUCTION TO OCCUR BEYOND LIMIT LINE.

TOTAL AREA OF DISTURBANCE ASSOCIATED WITH CONSTRUCTION OF SWIMMING POOL AND TERRACE IS 4,790 S.F.

REFER TO CONSTRUCTION PLAN FOR PROPOSED 4 FT. HIGH NON CLIMBABLE, AND CODE COMPLIANT POOL BARRIER FENCE WITH SELF CLOSING GATES

107.02-1-16 Now or Formerly David Shields & Judith Altarejos

Filed Map Lot 6 F.M.#21301

----- BUILDING SETBACK LINE

Approved by Town of North Castle Planning Board Resolution, Dated: _____

Christopher Carthy, Chairman, Town of North Castle Planning Board

Date

Engineering Plans Reviewed for Conformance to Resolution:

Joseph M. Cermele, PE Kellard Sessions Consulting Consulting Town Engineers Date

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5	ISSUED TO PLANNING BOARD	11/27/23 02/12/24
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REVISION

9/5/23

NO.

1 POOL LOCATION







P	TOWN OF NORTH CASTLE WESTCHESTER COUNTY 17 Bedford Road Armonk, New York 10504-1898	Telephone: (914) 273-3542 Fax: (914) 273-3554
	Director of Planning	www.northcastleny.com
	GROSS LAND COVERAGE CALCULATIONS W	ORKSHEET
Applie	cation Name or Identifying Title:	02/12/24 _ Date:
Tax M	In Designation or Proposed Lot No.:         107.02 - 1 - 17	
<u>Gross</u>	Lot Coverage	
1.	Total lot Area (Net Lot Area for Lots Created After 12/13/06):	99,992
2.	Maximum permitted gross land coverage (per Section 355-26.C(1)(a)): 13,270 + (0.0	075)(12,872) = 14,235
3.	BONUS maximum gross land cover (per Section 355-26.C(1)(b)):	
	Distance principal home is beyond minimum front yard setback	187
	$18.71 \times 10 =$	14,422
4.	TOTAL Maximum Permitted gross land coverage = Sum of lines 2 and 3	
5.	Amount of lot area covered by principal building: <u>2,297</u> existing + <u>0</u> proposed =	2,297
6.	Amount of lot area covered by <b>accessory buildings:</b> <u>0</u> existing + <u>0</u> proposed =	0
7.	Amount of lot area covered by <b>decks:</b> <u>0</u> existing + <u>0</u> proposed =	0
8.	Amount of lot area covered by <b>porches:</b> <u>0</u> existing + <u>0</u> proposed =	0
9.	Amount of lot area covered by <b>driveway, parking areas and walkways:</b> 3,768 existing + 0 proposed =	3,768
10.	Amount of lot area covered by <b>terraces:</b> <u>676</u> existing + <u>161</u> proposed =	837
11.	Amount of lot area covered by <b>tennis court, pool and mechanical equip:</b> <u>32</u> existing + <u>654</u> proposed =	656
12.	Amount of lot area covered by <b>all other structures:</b> <u>396</u> existing + <u>68</u> proposed =	464
13.	Proposed gross land coverage: Total of Lines $5 - 12 =$	8,022
If Lind the pro- does n	e 13 is less than or equal to Line 4, your proposal <b>complies</b> with the Town's maximum oject may proceed to the Residential Project Review Committee for review. If Line 13 tot comply with the Town's regulations.	n gross land coverage regulations a 3 is greater than Line 4 your propos
Signat	ture and Seal of Professional Preparing Worksheet Date	
	DTP - SYMBOL FOR DEEP TEST HOLE DEEP TEST HOLE RESULTS <u>FEBRUARY 9</u> ,	, 2024
	DEEP TEST PIT 1 ELEV.	
	G.L. LAWN	

ELEV.		
	G.L.	LAWN
	0" - 4"	TOPSOIL
	4"- 12"	DK. BROWN SANDY LOAM
	12"- 38"	FINE TO MED. SAND W/SILTS
	38"	LEDGE
	*LEDGE F	ROCK AT 38", NO GROUND WATEI
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ELEV.		
504.0	G.L.	LAWN
503.67	0" - 4"	TOPSOIL
503.00	4"- 12"	DK. BROWN SANDY LOAM
500.83	12"- 38"	FINE TO MED. SAND W/SILTS
500.83	38"	LEDGE
	*LEDGE F	ROCK AT 38", NO GROUND WATER

Approved by Town of North Castle Planning Board Resolution, Dated:

Christopher Carthy, Chairman, Town of North Castle Planning Board

Engineering Plans Reviewed for Conformance to Resolution:

Joseph M. Cermele, PE Kellard Sessions Consulting Consulting Town Engineers Date

Date



# SOIL RESTORATION STANDARDS

THE OBJECTIVE IS TO DE-COMPACT THE SOILS IN THOSE AREAS WHICH WERE SUBJECT TO THE USE OF HEAVY EQUIPMENT TO RESTORE THE ORIGINAL PROPERTIES AND POROSITY OF THE SOIL, PROVIDING FOR REDUCTION OF RUNOFF AND A SUSTAINABLE GROWTH MEDIUM FOR VEGETATION. WHILE ALSO CONSIDERED AS A GREEN INFRASTRUCTURE TECHNIQUE, THIS MEASURE IS GENERALLY APPLIED DURING THE FINAL CLEANUP, SITE RESTORATION, AND LANDSCAPING PHASE OF THE PROJECT.

ALL DISTURBED AND COMPACTED AREAS THAT WILL BE UNPAVED, VEGETATED AND/OR LANDSCAPED IN THE POST-CONSTRUCTION CONDITION SHALL BE RESTORED IN ACCORDANCE WITH THE SOIL RESTORATION REQUIREMENTS IN TABLE 5.3 OF THE NEW YORK STATE STORMWATER MANAGEMENT DESIGN MANUAL, OR TABLE 4.6 IN THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (SEE BELOW), LATEST EDITIONS. SOIL RESTORATION WITHIN AREAS OF SATURATED SOILS SUCH AS WETLANDS SHALL NOT BE EMPLOYED, AS IT HAS THE POTENTIAL TO CREATE A SIGNIFICANT SUSPENSION OF SOILS.

FULL SOIL RESTORATION WILL BE ACCOMPLISHED DURING PERIODS OF RELATIVELY LOW TO MODERATE SUBSOIL MOISTURE, THE DISTURBED SUBSOILS WILL BE RETURNED TO ROUGH GRADE AND THE FOLLOWING STEPS WILL BE IMPLEMENTED:

- 1. THREE (3) INCHES OF COMPOST WILL BE APPLIED OVER THE SUBSOIL. THE COMPOST SHALL BE WELL DECOMPOSED (MATURED AT LEAST 3 MONTHS), WEED-FREE, ORGANIC MATTER. IT SHALL BE AEROBICALLY COMPOSTED, POSSESS NO OBJECTIONABLE ODORS, AND CONTAIN LESS THAN 1%, BY DRY WEIGHT, OF MAN-MADE FOREIGN MATTER. THE PHYSICAL PARAMETERS OF THE COMPOST SHALL MEET THE STANDARDS LISTED IN TABLE 5.2 - COMPOST STANDARDS TABLE IN THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, EXCEPT FOR "PARTICLE SIZE", 100% WILL PASS THE  $\frac{1}{2}$ " SIEVE.
- THE COMPOST LAYER WILL BE TILLED INTO THE SUBSOIL TO A DEPTH OF AT LEAST 12 INCHES USING A CAT-MOUNTED RIPPER, TRACTOR-MOUNTED DISC, OR TILLER, TO MIX AND CIRCULATE AIR AND COMPOST INTO SUBSOILS. TILLING SHOULD NOT BE PERFORMED WITHIN THE DRIP LINE OF ANY EXISTING TREES OR OVER UTILITY INSTALLATIONS THAT ARE WITHIN 24 INCHES OF THE SURFACE. THE USE OF FERTILIZERS WILL BE MINIMIZED, UTILIZED ONLY WITHIN EXISTING COMMERCIAL AND/OR RESIDENTIAL LAWN AREAS, AND SHALL BE APPLIED IN ACCORDANCE WITH WESTCHESTER COUNTY LAW (SEE "APPLICATION OF FERTILIZERS", THIS SHEET).
- ROCK-PICKING WILL BE PERFORMED UNTIL UPLIFTED STONE/ROCK MATERIALS OF FOUR INCHES AND LARGER SIZE HAVE BEEN CLEARED.
- 4. TOPSOIL WILL BE APPLIED TO A MINIMUM DEPTH OF 6 INCHES. TOPSOIL SHALL BE PROVIDED FROM STOCKPILES CREATED DURING TOPSOIL SEGREGATION OPERATIONS, OR IMPORTED FROM OFFSITE SOURCES AS REQUIRED.
- VEGETATE AREAS AS REQUIRED BY THE LANDSCAPING PLAN. USE APPROPRIATE GROUND COVER WITH DEEP ROOTS TO MAINTAIN THE SOIL STRUCTURE.
- 6. AT THE END OF THE PROJECT, THE ENVIRONMENTAL INSPECTOR SHOULD BE ABLE TO PUSH A 3/8 INCH METAL BAR 12 INCHES INTO THE SOIL JUST WITH BODY WEIGHT.

TABLE 4.6 SOIL RESTORATION REQUIREMENTS

TYPE OF SOIL DISTURBANCE	SOIL RESTORATION REQUIREMENT		COMMENTS/EXAMPLES
NO SOIL DISTURBANCE	RESTORATION NOT PERMITTED		PRESERVATION OF NATURAL FEATURES
MINIMAL SOIL DISTURBANCE	RESTORATION N	IOT REQUIRED	CLEARING AND GRUBBING
AREAS WHERE TOPSOIL IS STRIPPED	HSG A&B	HSG C&D	PROTECT AREA FROM ANY
ONLY - NO CHANGE IN GRADE	APPLY 6 AERATE* AND APPLY INCHES OF 6 INCHES OF TOPSOIL TOPSOIL ON		ACTIVITIES.
AREAS OF CUT OR FILL	HSG A&B	HSG C&D	
	AERATE* AND APPLY 6 INCHES OF TOPSOIL	APPLY FULL SOIL RESTORATION**	
HEAVY TRAFFIC AREAS ON SITE (ESPECIALLY IN A ZONE 5-25 FEET AROUND BUILDINGS BUT NOT WITHIN A 5 FOOT PERIMETER AROUND FOUNDATION WALLS)	APPLY FULL SOIL RESTORATION (DECOMPACTION AND COMPOST ENHANCEMENT)		
AREAS WHERE RUNOFF REDUCTION AND/OR INFILTRATION PRACTICES ARE APPLIED	RESTORATION NOT REQUIRED, BUT MAY BE APPLIED TO ENHANCE THE REDUCTION SPECIFIED FOR APPROPRIATE PRACTICES.		KEEP CONSTRUCTION EQUIPMENT FROM CROSSING THESE AREAS. TO PROTECT NEWLY INSTALLED PRACTICE FROM ANY ONGOING CONSTRUCTION ACTIVITIES CONSTRUCT A SINGLE PHASE OPERATION FENCE AREA.
REDEVELOPMENT PROJECTS	SOIL RESTORATION IS REQUIRED ON REDEVELOPMENT PROJECTS IN AREAS WHERE EXISTING IMPERVIOUS AREA WILL BE CONVERTED TO PERVIOUS AREA.		
ALKATION INCLUDES THE USE OF MACHINES SUCH AS TRACTOR-DRAWN INFELMENTS WITH COULTERS			

MAKING A NARROW SLIT IN THE SOIL, A ROLLER WITH MANY SPIKES MAKING INDENTATIONS IN THE SOIL, OR PRONGS WHICH FUNCTION LIKE A MINI-SUBSOILER.

** PER "DEEP RIPPING AND DE-COMPACTION, DEC 2008".

VEGETATION REQUIREMENTS

1) SITE PREPARATION

A. INSTALL NEEDED WATER AND EROSION CONTROL MEASURES AND BRING AREA TO BE SEEDED TO DESIRED GRADES USING A MINIMUM OF 4 IN. TOPSOIL.

- B. PREPARE SEEDBED BY LOOSENING SOIL TO A DEPTH OF 4-6 INCHES. C. LIME TO A PH OF 6.5
- D. FERTILIZE AS PER SOIL TEST OR, IF FERTILIZER MUST BE APPLIED BEFORE SOIL TEST RESULTS ARE RECEIVED, APPLY 850 POUNDS OF 5-10-10 OR EQUIVALENT PER ACRE (20 LBS/1,000 SQ. FT.)
- E. INCORPORATE LIME AND FERTILIZER IN TOP 2-4 INCHES OF TOPSOIL. F. SMOOTH. REMOVE ALL STONES OVER 1 INCH IN DIAMETER, STICKS, AND FOREIGN MATTER

FROM THE SURFACE. FIRM THE SEEDBED.

2) PLANTING—SUNNY LOCATION.

UPON COMPLETING SOIL DE-COMPACTION, USE A CULTIPACKER TYPE SEEDER IF POSSIBLE. SEED TO A DEPTH OF 1/8 TO 1/4 INCH. IF SEED IS TO BE BROADCAST, CULTIPACK OR ROLL AFTER SEEDING. IF HYDROSEEDED, LIME AND FERTILIZER MAY BE APPLIED THROUGH THE SEEDER AND ROLLING IS NOT PRACTICAL. SEED USING THE FOLLOWING MIX AND RATES:

SPECIES (% BY WEIGHT)	LBS/1,000SQ. FT	LBS./ACRE
65% KENTUCKY BLUEGRASS BLEND	2.0-2.6	85-114
20% PERENNIAL RYEGRASS	0.6-0.8	26-35
15% FINE FESCUE	0.4-0.6	19-26
TOTAL	3.0-4.0	130-175
OR,		
100% TALL FESCUE,		
TURF-TYPE, FINE LEAF	3.4-4.6	150-200

3) WHEN USING THE CULTIPACKER OR BROADCAST SEED METHOD, MULCH USING SMALL GRAIN STRAW, APPLIED AT A RATE OF 2 TONS PER ACRE; AND ANCHOR WITH A NETTING OR TACKIFIER. HYDROSEED APPLICATIONS SHOULD INCLUDE MULCH, FERTILIZER AND SEED.

COMMON WHITE CLOVER CAN BE ADDED TO MIXTURES AT THE RATE OF 1-2 LBS/ACRE TO HELP MAINTAIN GREEN COLOR DURING THE DRY SUMMER PERIOD, HOWEVER, THEY WILL NOT WITHSTAND HEAVY TRAFFIC. FERTILIZING—FIRST YEAR, (SPRING SEEDLINGS) THREE TO FOUR WEEKS AFTER GERMINATION APPLY 1 POUND NITROGEN/1,000 SQUARE FEET USING A COMPLETE FERTILIZER WITH A 2-1-1 OR 4-1-3 RATIO OR AS RECOMMENDED BY SOIL TEST RESULTS. FOR SUMMER AND EARLY FALL SEEDINGS, APPLY AS ABOVE UNLESS AIR TEMPERATURES ARE ABOVE 85°F FOR EXTENDED PERIOD. WAIT UNTIL HEAT WAVE IS OVER TO FERTILIZE. FOR LATE FALL/ WINTER SEEDINGS, FERTILIZE IN SPRING. RESTRICT USE-NEW SEEDLINGS SHOULD BE PROTECTED FROM USE FOR ONE FULL YEAR TO ALLOW DEVELOPMENT OF A DENSE SOD WITH GOOD ROOT STRUCTURE.

EROSION CONTROL NOTES









	NO.REVISIONDATE1POOL LOCATION9/5/23
	2 POOL SIZE AND LOCATION 10/31/23
	3 POOL SIZE AND LOCATION 11/06/23
	4 ISSUED TO PLANNING BOARD 11/27/23
50'MINEXISTING	
ISTING FILTER P MOUNTABLE BERMI CLOTH (OPTIONAL)	
PROFILE	
<u> − 50'MIN.</u>	
PLAN VIEW	
CONSTRUCTION SPECIFICATIONS	
CONSTRUCTION SPECIFICATIONS	
IE SIZE - USE 1-4" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT. TH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM	
TH WOULD APPLY).	
KNESS - NOT LESS THAN SIX (6) INCHES. TH - TWELVE (12) FOOT MINIMUM. BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS	
GRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.	
A CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STORE. ACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES	
L BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1	
ITENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING	
LOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED	
NACTED ONTO FOREIC RIGHTS-OF-WAT WOST BE REWOVED IMMEDIATELY. N WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH	
NS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.	
JUIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.	
STABILIZED CONSTRUCTION ACCESS	
NOT TO SCALE 4	
STABILIZE ENTIRE PILE	
SLOPE OR LESS	
	Benedek & Licehurst
	Bedford Village, NY 10506
	हु टू Tel: 914-234-9666
	ヴ 색 Web: btlandarch.com
made the start was deed in the second	TC Merritts Land Surveyors
	<ul> <li>394 Bedford Road</li> <li>Pleasantville, NY 10570</li> </ul>
MIN. SLOPE STRAWBALES OR SILTFENCE MIN. SLOPE	Tel: 914-769-8003
INSTALLATION NOTES	Web: survey@tcmerritts.com
	Christian lungars 9. Michalla Stars
1 AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE	14 Tallwoods Road
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2.	Armonk, NY 10504
EITHER SILT FENCING OR STRAWBALES, THEN STABILIZED WITH VEGETATION OR COVERED.	
4. SEE SPECIFICATIONS (THIS MANUAL) FOR INSTALLATION OF SILTFENCE.	
	UIS · PROVIDENT
	Intelligent Land Use
SOIL STOCKPILING	One North Broadway White Plains, NY 10601
NOT TO SCALE	P: 914.428.0010 F: 914 428 0017
	Under New York State Education Law Article 145 (Engineering), Section 7209 (2), It is A Violation Of This Law
	For Any Person, Unless Acting Under The Direction Of A
	Licensed Protessional Engineer, To Alter This Document
	© DTS Provident Design Engineering, LLP
	Certificate Of Authorization #0017846
	JUNGERS STARK RESIDENCE POOL
Approved by Town of North Castle Planning Board Resolution, Dated:	14 TALLWOODS ROAD
	TOWN OF NORTH CASTLE
	WESTCHESTER COUNTY, NEW YORK
Christopher Carthy, Chairman, Date Town of North Castle Planning Board	
	TITLE:
Engineering Plans Reviewed for Conformance to Resolution:	EROSION CONTROL DETAILS
losenh M. Cermela DF.	Seal Scale: AS NOTED
Kellard Sessions Consulting	THE J. GREOP Date: 06/26/2023
Consulting Town Engineers	Drawn By: KMM
	( L Checked By: PJG
	(* ) Project No : 0987
	Sheet No.: 3 of 4
	Sheet No.: 3 of 4
	Mo.         07         122         Sheet No.:         3 of 4           Dwg. No.:         C-103



		NO. 1		SIUN	DATE 9/5/22
		2	POOL SIZE AND LOCA	ATION	10/31/23
		3	POOL SIZE AND LOCA	ATION	11/06/23
		4	ISSUED TO PLANNING	3 BOARD	11/27/23
UNDERGROUND PLASTIC WARNING TAPE —		5	ISSUED TO PLANNING	∋ BOARD	02/12/24
GRADE 2'-0"					
2'-0" ['] MIN					
3" PVC SCH 80 PIPE —					
BACKFILL					
EXISTING GROUND — 🔨 🔪 🔪 👘 🖓 👘					
		1			
UTILITY TRENCH DETAIL	12				
NOT TO SCALE	12				
12'₋0"					
6'-6"	ET				
PLAN					
6" MIN 8"x12" 20"vวד" 24" MAX 12"x16"					
TAPER $\rightarrow \parallel \rightarrow $					
43"					
3 - FORGEOG					
OR PEA GRAVEL MIN 3" THICK					
SECTION		Be Be	nedek & Licehur	rst	
			8H UIO KOAO dford Village NY 10	1506	
TANKS MUST BE WATERTIGHT, STRUCTURALLY SOUND, DURABLE, AND NOT SUBJECT TO		Tc pic Te	l: 914-234-9666	500	
ROSION, DECAY, FROST ACTION, OR CRACKING.		N ≻ La	eb: btlandarch.com		
CAST CONCRETE TANKS SHALL BE INSTALLED LEVEL AND FIRMLY BEDDED ON SAND OR PE	A GRAVEL				
MUM 3" THICK.		TC	Merritts Land S	urveyors	
KS WITH A LIQUID DEPTH GREATER THAN OR EQUAL TO 48" SHALL HAVE A TOP OPENING	6 WITH A		4 Bedtord Road	0	
MUM OF 20" IN THE SHORTEST DIMENSION.			l: 914-769-8003		
KS SHALL BE EQUIPPED WITH INLET AND OUTLET BAFFLES. SANITARY TEFS OR OTHER DE	VICES TO	N N	eb: survey@tcmerri [,]	tts.com	
ENT PASSAGE OF FLOATING SCUM AS A RESULT OF EFFLUENT ENTERING AND EXITING T	HE TANK.	<u> </u>			
TI-COMPARTMENT TANKS SHALL BE DESIGNED TO PERMIT THE VENTING OF TANK GASES	S BY		riction lungers 0	Nichalla Ctart	
VIDING A 1" MINIMUM CLEARANCE BETWEEN THE UNDERSIDE OF THE TOP OF THE TANK	AND TOP		ristidii Jungers & Tallwoods Road	. whohene Starr	
LL BAFFLES.		Arr	nonk, NY 10504		
RE THERE IS MORE THAN 24" OF COVER OVER THE TANK, A RISER WITH MANHOLE COVE	ER TO				
DE SHALL BE PROVIDED.		DTC	. D		
		אוטן אוי			
			Intelligent Land		
2000 GALLON HOLDING TANK DETAIL	16	One Nort	h Broadway White Pla	ing, LLF iins, NY 10601	
NOT TO SCALE	τU	P: 914.42	3.0010 3.0017		
		Г: 914.428 	,		
		Under Ne	w York State Education	n Law Article 145	
		(Engineeri For Anv P	rig), section 7209 (2), erson, Unless Acting I	າເ is a violation Of Th Jnder The Direction ດ	is law f A
		Licensed I	Professional Engineer,	To Alter This Docume	nt
		© DTS Pr	ovident Design Engine	eering, LLP	
		Certificat	• Of Authorization #0(	017846	
		JUNG	ERS STARR	RESIDENCE	POOL
			14 TALLWO	ODS ROAD	
Approved by Town of North Castle Planning Board Resolution, Dated:			TOWN OF NO	ORTH CASTLE	
		WE	STCHESTER CO	UNTY, NEW Y	JRK
Christenhau Carthur Chairman			-	-	
Christopher Carthy, Chairman, Date Town of North Castle Planning Board		TITLE:			
Engineering Plans Reviewed for Conformance to Resolution:		!	STORMWA7	FER DETAILS	5
		Seal		Scalor	
Joseph M. Cormolo, D.		11	OF NEW PA	Scale:	AS NUTED
Joseph IVI. Cermele, PE Date Kellard Sessions Consulting		State	J GREGORY	Date: 06	5/26/2023
Consulting Town Engineers			~~~\ \	Drawn By:	KMM
		(*(		Checked By:	PJG
				Project No.:	0987
		I FRI A	No 20 Contraction	Sheet No.:	4 of 4
		VISED P	0712 ENO	Dwg. No.:	
		EX	PIRES 4/30/2025	C-1	.04



# WETLAND MITIGATION PLANT LIST

<u>QTY.</u>	BOTANICAL NAME	COMMON NAME	SIZE
	S AND PERENNIALS		
75 75 50 50 SCK	Dennstaedtia punctilobula Matteuccia pennsylvanica Onoclea sensibilis Osmunda cinnamomeum REENING PLANT LIST	Hayscented Fern Ostrich Fern Sensiti∨e Fern Cinnamon Fern	Qt.   Qt.   Qt.   Qt.
QTY.	BOTANICAL NAME	COMMON NAME	SIZE
SHRU	BS		
12	llex × meser∨eae 'Blue Girl'	Blue Girl Holly	5-6 FT.
TRE	E REPLACEMENT PL	ANT LIST	
QTY.	BOTANICAL NAME	COMMON NAME	SIZE
3 NOTE	Quercus rubra	Northern Red Oak	3-3.5" CA

NOTES:

1. Exact location of plant material to be determined by Landscape Architect. 2. Invasive plant material removals are to include japanese barberry, garlic

Winterberry

Foamflower

mustard, wineberry, multiflora rose, etc.

3. Wetlands seed mix to be installed at all locations where invasive plant removals occur.

# RAIN GARDEN PLANT LIST INITIALS QTY. BOTANICAL NAME COMMON NAME SIZE

SHRUBS IV/F 4 llex verticillata PERENNIALS AND GROUND COVERS Chelone obliqua Eupoatorium purpureum Iste versicolor Blue Flag Iris COBL IVER 2Ø ŤС 20 Tiarella cordifolia





3.5-4 FT.

1 GAL

I GAL.

I GAL

WINTERBERRY

APPLICABLE DISTURBANCE SHOWN WITHIN THE WETLAND BUFFER= 4,456 S.F. REQUIRED 2:1 MITIGATION = 8,912 S.F. PROPOSED INVASIVE REMOVALS = 8,290 S.F. PROPOSED MITIGATION PLANTING = 1,054 S.F. PROPOSED RAIN GARDEN PLANTING = 307 S.F. TOTAL PROPOSED MITIGATION SHOWN = 9,651 S.F.

Approved by Town of North Castle Planning Board Resolution, Dated:

Christopher Carthy, Chairman, Town of North Castle Planning Board

Engineering Plans Reviewed for Conformance to Resolution:

Joseph M. Cermele, PE **Kellard Sessions Consulting** Consulting Town Engineers

REQUIREMENTS OF THE 5 YEAR WETLANDS

MONITORING AND MAINTENANCE PLAN . Installation of the wetlands mitigation plant material and invasives removal shall be done Installation of the wetlands mitigation plant material and invasives removal shall be done in accordance with the final resolution and plans adopted by the Planning Board.
 Following the installation of the wetland mitigation, certification verifying proper installation of all plants and materials in accordance with the approved Planning Board Resolution is required.
 The monitoring period shall begin with the review of all required submitted materials and final written approval by the Town's Wetland Consultant and continue for a period of 5 years.
 Maintenance and monitoring reports shall be submitted annually no later than November 1st to the Town's Wetland Consultant of 7 times: once prior to construction, once immediately post construction, and annually for 5 years post construction between the months of June 1st and September 1st September 1st.

6. After the final report has been submitted, the Town's Wetland Consultant will perform an inspection of the site for conformance with the approved resolution. Upon review and inspection, the Town's











	Botanical Name
3.00 %	Carex vulpinoidea, PA Ecotype
2.00 %	Carex Iurida, PA Ecotype
0.00 %	Elymus virginicus, PA Ecotype
5.70 %	Carex scoparia, PA Ecotype
2.00 %	Heliopsis helianthoides, PA Ecotyp
1.60 %	Carex intumescens, PA Ecotype
1.00 %	Carex stipata, PA Ecotype
1,00 %	Juncus effusus
0.80 %	Carex crinita, PA Ecotype
0.60.%	Verbena urticifolia, PA Ecotype
0.70 %	Solidago rugosa, PA Ecotype
0.50 %	Vernonia noveboracensis, PA Ecot
0.30 %	Juncus tenuis, PA Ecotype
0.30 %	Lobelia siphilitica, PA Ecotype
0.30.%	Scinuus cyperinus, PA Ecotype





Date

Date





