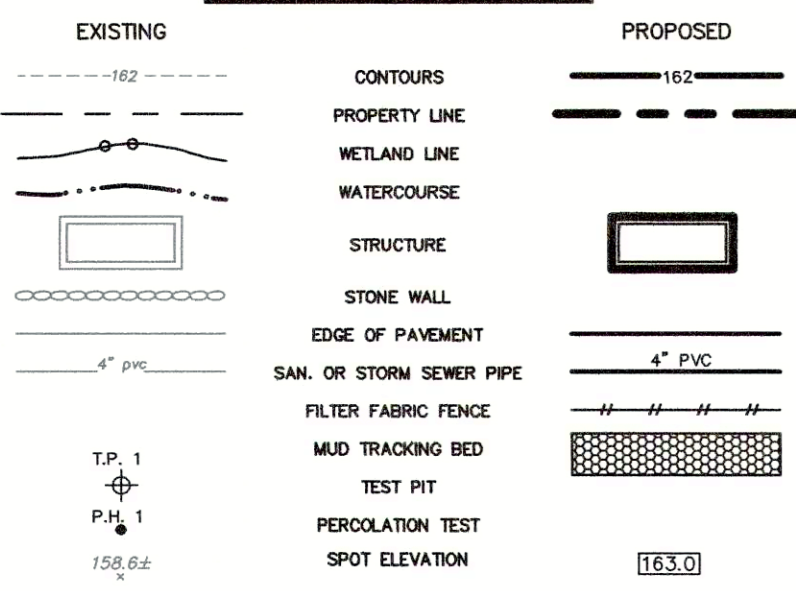


# LEGEND

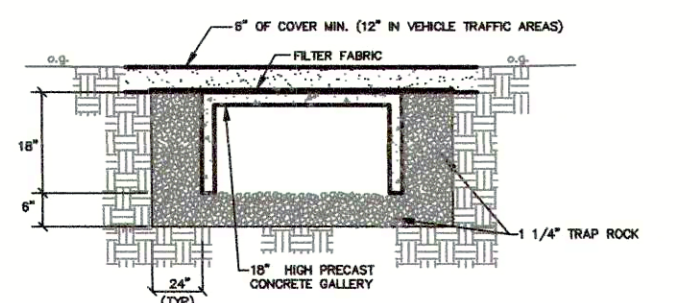


**CODE COMPLYING SEWAGE DISPOSAL SYSTEM AREA FOR A 5 BEDROOM DWELLING**

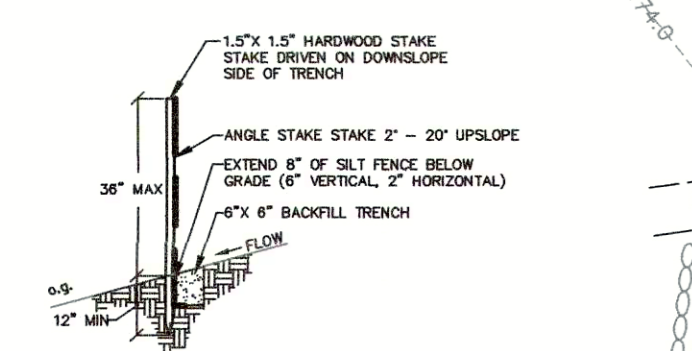
DESIGN INFORMATION:  
 NUMBER OF BEDROOMS = 5  
 CONSERVATIVE PERC. RATE: USE 1" IN 20 MIN  
 REQUIRED LEACHING AREA = 900 S.F.  
 WATER SUPPLY: PUBLIC

LEACHING AREA PROVIDED:  
 64 L.F. - 18" GREENLEACH FILTER (GLF 18-72/NF) = 902.4 S.F. ELA  
 SYSTEM WILL REQUIRE A SELECT FILL PACKAGE

MINIMUM LEACHING SYSTEM SPREAD:  
 MINIMUM LEACHING SYSTEM SPREAD = 56'  
 PROPOSED LEACHING SYSTEM SPREAD = 64'  
 (SEE M.L.S.S. CALCULATION)



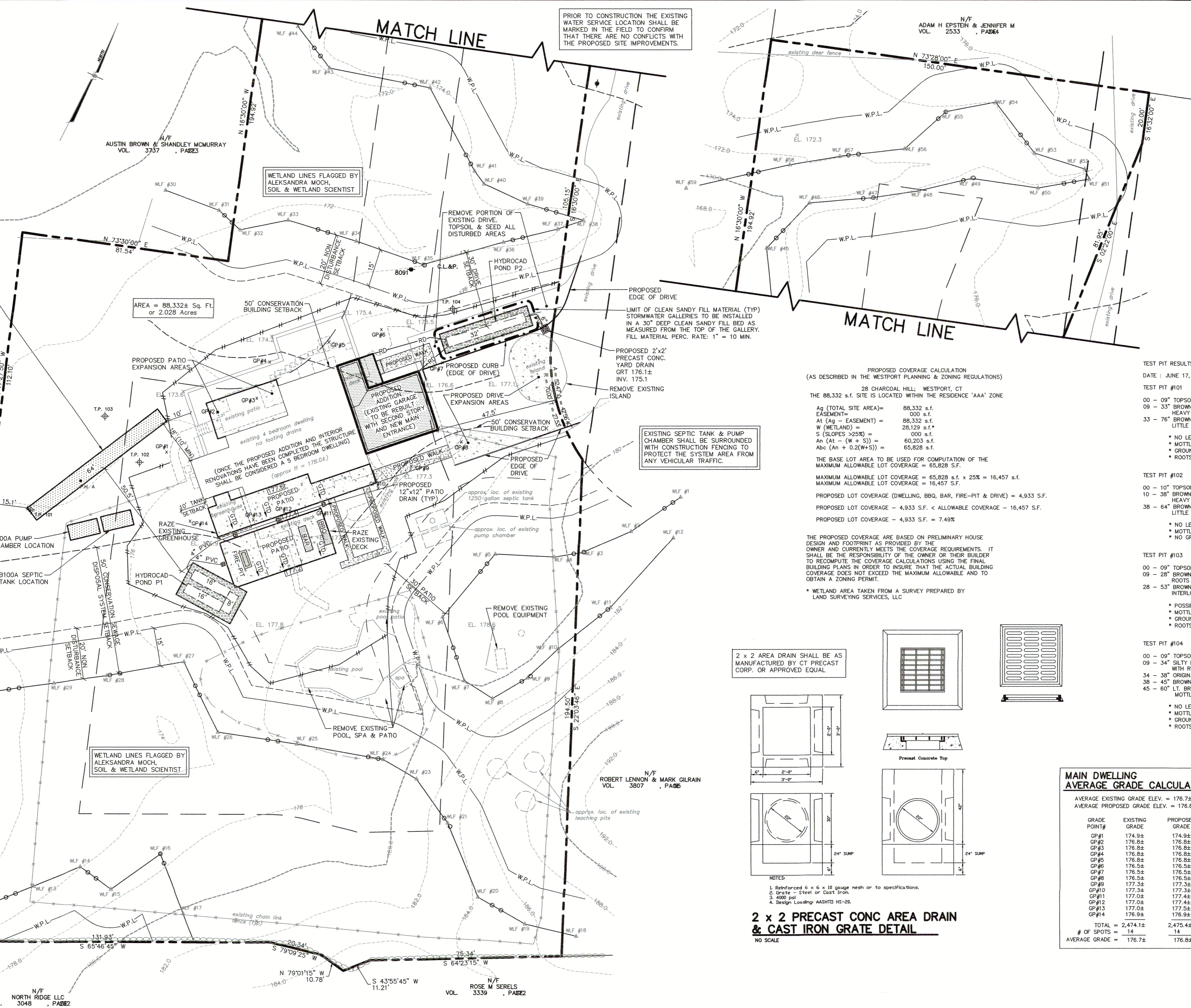
**TYPICAL 18" HIGH PRECAST CONCRETE STORM WATER GALLERY**  
NO SCALE



**TYPICAL SILT FENCE**  
NO SCALE



**TYPICAL MUD TRACKING BED**  
NO SCALE



**STORM WATER GALLERY DATA CHART**

HYDROCAD POND 1	40'-18" HIGH CONC. GALLERY	BTM ELEV=174.50	INV. 175.3
HYDROCAD POND 2	32'-18" HIGH CONC. GALLERY	BTM ELEV=174.25	INV. 174.9

**MAXIMUM ALLOWABLE EXCAVATION OR FILL AMOUNT**  
 MAX. ALLOWABLE: 65,828 S.F. x 0.125 = 8,228 x 10 FT / 27 CY.FT = 3,047 CY  
 PROPOSED EXCAVATION OR FILL AMOUNT = 175 C.Y.

ALL PROPOSED STORM WATER GALLERIES SHALL SUPPORT H2O LOADING

## SITE PLAN

SCALE: 1" = 20'

EXISTING UTILITY LOCATIONS ARE NOT GUARANTEED. CONTRACTOR SHALL NOTIFY CALL BEFORE YOU DIG PRIOR TO ANY EXCAVATION.

PRIOR TO CONSTRUCTION THE EXISTING WATER SERVICE LOCATION SHALL BE MARKED IN THE FIELD TO CONFIRM THAT THERE ARE NO CONFLICTS WITH THE PROPOSED SITE IMPROVEMENTS.

WETLAND LINES FLAGGED BY ALEXSANDRA MOCH, SOIL & WETLAND SCIENTIST

WETLAND LINES FLAGGED BY ALEXSANDRA MOCH, SOIL & WETLAND SCIENTIST

EXISTING SEPTIC TANK & PUMP CHAMBER SHALL BE SURROUNDED WITH CONSTRUCTION FENCING TO PROTECT THE SYSTEM AREA FROM ANY VEHICULAR TRAFFIC.

**PROPOSED COVERAGE CALCULATION**  
 (AS DESCRIBED IN THE WESTPORT PLANNING & ZONING REGULATIONS)

28 CHARCOAL HILL, WESTPORT, CT  
 THE 88,332 S.F. SITE IS LOCATED WITHIN THE RESIDENCE 'AA' ZONE

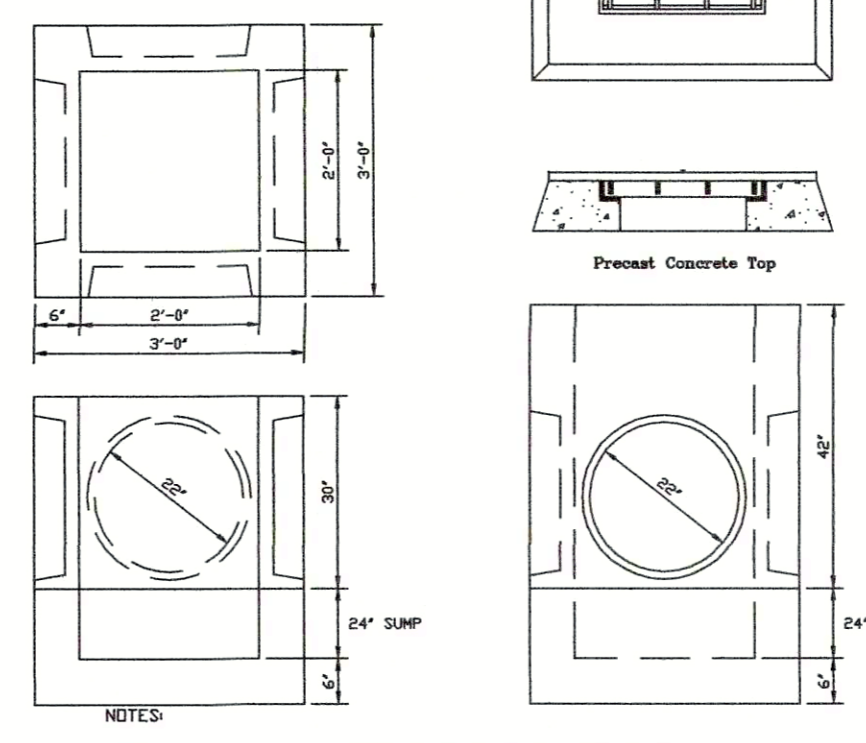
Ag (TOTAL SITE AREA)	= 88,332 s.f.
EASEMENT	= 000 s.f.
At (Ag - EASEMENT)	= 88,332 s.f.
W (WETLAND)	= 28,129 s.f.
S (SLOPES >25%)	= 000 s.f.
An (At - (W + S))	= 60,203 s.f.
Abc (An + 0.2(W+S))	= 65,628 s.f.

THE BASE LOT AREA TO BE USED FOR COMPUTATION OF THE MAXIMUM ALLOWABLE LOT COVERAGE = 65,828 S.F.  
 MAXIMUM ALLOWABLE LOT COVERAGE = 65,828 S.F. x 25% = 16,457 S.F.  
 PROPOSED LOT COVERAGE (DWELLING, BBQ, BAR, FIRE-PIT & DRIVE) = 4,933 S.F.  
 PROPOSED LOT COVERAGE = 4,933 S.F. < ALLOWABLE COVERAGE = 16,457 S.F.  
 PROPOSED LOT COVERAGE = 4,933 S.F. = 7.49%

THE PROPOSED COVERAGE ARE BASED ON PRELIMINARY HOUSE DESIGN AND FOOTPRINT AS PROVIDED BY THE OWNER AND CURRENTLY MEETS THE COVERAGE REQUIREMENTS. IT SHALL BE THE RESPONSIBILITY OF THE OWNER OR THEIR BUILDER TO RECOMPUTE THE COVERAGE CALCULATIONS USING THE FINAL BUILDING PLANS IN ORDER TO INSURE THAT THE ACTUAL BUILDING COVERAGE DOES NOT EXCEED THE MAXIMUM ALLOWABLE AND TO OBTAIN A ZONING PERMIT.

\* WETLAND AREA TAKEN FROM A SURVEY PREPARED BY LAND SURVEYING SERVICES, LLC

2 x 2 AREA DRAIN SHALL BE AS MANUFACTURED BY CT PRECAST CORP. OR APPROVED EQUAL



**2 x 2 PRECAST CONC AREA DRAIN & CAST IRON GRATE DETAIL**  
NO SCALE

NOTES:  
 1. Reinforced 6 x 6 x 10 gauge mesh or to specifications.  
 2. Grate - Steel or Cast Iron.  
 3. 4000 psi  
 4. Design Loading: AASHTO HS-20.

### TEST PIT RESULTS

DATE: JUNE 17, 2024

**TEST PIT #101**  
 00 - 09" TOPSOIL  
 09 - 33" BROWN SILTY LOAM WITH HEAVY ROOTS  
 33 - 76" BROWN MEDIUM SAND WITH LITTLE SILT, INTERLOCKING ROCK

- NO LEDGE
- MOTTLES AT 39"
- GROUNDWATER AT 75"
- ROOTS TO 33"

**TEST PIT #102**  
 00 - 10" TOPSOIL  
 10 - 38" BROWN SILTY LOAM WITH HEAVY ROOTS  
 38 - 64" BROWN MEDIUM SAND WITH LITTLE SILT, INTERLOCKING ROCK

- NO LEDGE
- MOTTLES AT 38"
- NO GROUNDWATER

**TEST PIT #103**  
 00 - 09" TOPSOIL  
 09 - 28" BROWN SILT LOAM WITH ROOTS  
 28 - 53" BROWN SAND AND SILT INTERLOCKING ROCK

- POSSIBLE LEDGE AT 53"
- MOTTLES AT 22"
- GROUNDWATER AT 51"
- ROOTS TO 28"

**TEST PIT #104**  
 00 - 09" TOPSOIL  
 09 - 34" SILTY FILL MATERIAL WITH ROOTS  
 34 - 38" ORIGINAL TOPSOIL  
 38 - 45" BROWN SILTY LOAM  
 45 - 60" LT. BROWN SILT WITH MOTTLES

- NO LEDGE
- MOTTLES AT 45"
- GROUNDWATER AT 58"
- ROOTS TO 45"

- GENERAL CONSTRUCTION NOTES:
- ALL SITE CONSTRUCTION SHALL CONFORM TO THE TOWN OF WESTPORT STANDARDS SPECIFICATION. IN THE ABSENCE OF THE TOWN OF WESTPORT STANDARDS, REFER TO THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION FORM 814A, 1995.
  - SUBSURFACE STRUCTURES AND UTILITIES HAVE BEEN DETERMINED FROM EXISTING RECORDS AND ARE NOT GUARANTEED TO BE COMPLETE OR ACCURATE. INITIAL DETERMINATION OF UTILITY LOCATIONS SHALL INCLUDE BUT IS NOT LIMITED TO CONTACTING 'CALL BEFORE YOU DIG' TO AVOID CONFLICT OF THE PROPOSED WORK AND EXISTING UTILITIES. THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES BY EXCAVATING TEST HOLES. SHOULD THE CONTRACTOR DETERMINE THAT A CONFLICT EXISTS, HE SHALL PROMPTLY NOTIFY THE ENGINEER WHO WILL MAKE THE NECESSARY DESIGN ADJUSTMENTS.
  - ALL UTILITIES SHALL BE PLACED UNDERGROUND AND SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF THE APPROPRIATE UTILITY COMPANY STANDARDS.
  - ALL PRECAST STORM-WATER GALLERIES AND YARD DRAIN BASINS SHALL SUPPORT H2O LOADING.
  - THERE ARE NO STORM WATER DRAINAGE SYSTEMS WITHIN 25' (50' DOWN GRADIENT) OF THE PROPOSED SEWAGE DISPOSAL SYSTEM ON ANY OF THE ADJACENT PROPERTIES.
  - THE CONTRACTOR/BUILDER SHALL BE RESPONSIBLE FOR DIRECTING THE PROPER VOLUME OF STORM WATER RUNOFF TO THE APPROPRIATE DRAINAGE DETENTION SYSTEM - SEE DRAINAGE COMPUTATIONS PREPARED BY CHAPPA SITE CONSULTING, LLC.
  - THERE ARE NO WELLS WITHIN 75' OF THE PROPOSED SEWAGE DISPOSAL SYSTEM B100A AREA ON ANY OF THE ADJACENT PROPERTIES.
  - THERE ARE NO SEWAGE DISPOSAL SYSTEMS WITHIN 25' OF THE PROPOSED SEWAGE DISPOSAL SYSTEM B100A AREA ON ANY OF THE ADJACENT PROPERTIES.
  - THERE ARE NO GEOTHERMAL SYSTEMS WITHIN 50' OF THE PROPOSED SEWAGE DISPOSAL SYSTEM B100A AREA ON ANY OF THE ADJACENT PROPERTIES.

- SEDIMENTATION AND EROSION CONTROL NOTES:
- ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL".
  - ALL LAND DISTURBANCE SHALL BE KEPT TO A MINIMUM; RESTABILIZATION SHALL BE SCHEDULED AS SOON AS PRACTICAL.
  - EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED PRIOR TO CONSTRUCTION WHENEVER POSSIBLE.
  - ALL CONTROL MEASURES WILL BE MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD.
  - ADDITIONAL CONTROL MEASURES WILL BE INSTALLED DURING THE CONSTRUCTION PERIOD, IF NECESSARY OR REQUIRED.
  - THE OWNER IS ASSIGNED THE RESPONSIBILITY FOR IMPLEMENTING THIS EROSION AND SEDIMENT CONTROL PLAN. THIS RESPONSIBILITY INCLUDES THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED ON THE CONSTRUCTION SITE OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN, NOTIFYING THE WESTPORT CONSERVATION COMMISSION OF ANY TRANSFER OF THIS RESPONSIBILITY, AND FOR CONVEYING A COPY OF THE EROSION AND SEDIMENT CONTROL PLAN IF THE TITLE TO THE LAND IS TRANSFERRED.
  - ALL SEDIMENT REMOVED FROM CONTROL STRUCTURES WILL BE DISPOSED OF IN A MANNER WHICH IS CONSISTENT WITH THE INTENT OF THE PLAN.
  - FOR EROSION AND SILTATION CONTROL, FILTER FABRIC FENCE WILL BE INSTALLED AROUND ALL STOCKPILES OF FILL MATERIALS, OR AS DIRECTED BY THE WESTPORT CONSERVATION COMMISSION.
  - ONCE STOCKPILES ARE IN PLACE THEY SHALL BE SEED TO PREVENT EROSION.
  - THE CONTRACTOR SHALL KEEP ALL PUBLIC ROADWAYS CLEAN AND CLEAR OF ALL MUD DURING CONSTRUCTION AND SHALL IMPLEMENT WHATEVER MEASURES DIRECTED BY THE TOWN OF WESTPORT. SUCH MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, THE CONSTRUCTION OF MUD TRACKING BEDS 4" DEEP WHERE SHOWN ON PLAN OR DIRECTED BY THE TOWN OF WESTPORT.

**PERCOLATION TEST RESULTS**  
 DATE: JUNE 17, 2024

PERC HOLE #A  
 TOTAL DEPTH = 31.0'  
 (PERC HOLE WAS DUG 9" BELOW GRADE AND WAS 22" DEEP)

TIME	READING	DROP IN INCHES	PERCOLATION RATE
8:50	FRESHWATER		
10:12	9.25"	REFILL	
10:22	14.50"	5.25"	
10:32	17.25"	2.75"	
10:42	19.25"	2.00"	
10:52	20.50"	1.25"	
11:02	21.50"	1.00"	
11:02	19.50"	REFILL	
11:12	20.50"	1.00"	

1" IN 10.0 MINUTES

**MAIN DWELLING AVERAGE GRADE CALCULATIONS**

AVERAGE EXISTING GRADE ELEV. = 176.7±  
 AVERAGE PROPOSED GRADE ELEV. = 176.8±

GRADE POINT#	EXISTING GRADE	PROPOSED GRADE
GP#1	174.9±	174.9±
GP#2	176.8±	176.8±
GP#3	176.8±	176.8±
GP#4	176.8±	176.8±
GP#5	176.8±	176.8±
GP#6	176.5±	176.5±
GP#7	176.5±	176.5±
GP#8	176.5±	176.5±
GP#9	177.3±	177.3±
GP#10	177.3±	177.3±
GP#11	177.0±	177.0±
GP#12	177.0±	177.0±
GP#13	177.0±	177.0±
GP#14	176.9±	176.9±

TOTAL = 2,474.1±  
 # OF SPOTS = 14  
 AVERAGE GRADE = 176.7±

MINIMUM LEACHING SYSTEM SPREAD (M.L.S.S.)  
 M.L.S.S. FORMULA:  
 M.L.S.S. (IN FEET) = HF x FF x PF

SLOPE  
 q = 174.5-173.0/35 = 4.88%  
 b = 174.5-173.0/38 = 3.95%

AVERAGE SLOPE = 4.32%

AVG RESTRICTIVE LAYER = 30.25" (MOTTLING)  
 PERCOLATION RATE: 1" IN 10 MINUTES

THEREFORE:  
 HF = 28 (HYDRAULIC FACTOR)  
 FF = 2.0 (FLOW FACTOR)  
 PF = 1.0 (PERCOLATION FACTOR)  
 M.L.S.S. = 28 x 2.0 x 1.0 = 56'

PROPOSED LEACHING SYSTEM SPREAD = 64'

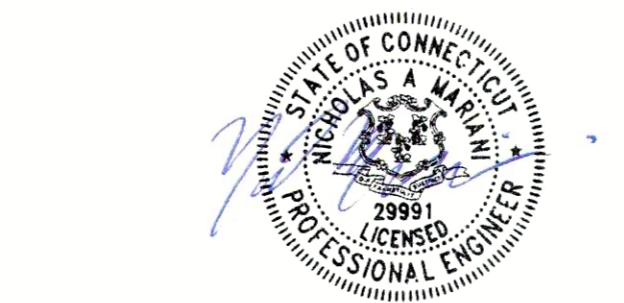
REV: 9/12/24: FUTURE POOL, PATIO & FENCE REMOVED; COVERAGE ADJ.  
 REV: 8/12/24: POOL LABEL CHANGED TO FUTURE; MLSS ADDRESS REMOVED

**VIVIAN HSU**  
 28 CHARCOAL HILL, WESTPORT, CT  
 DATE: 7/26/24

SITE IMPROVEMENTS PLAN FOR A PROPOSED ADDITION TO AN EXISTING SINGLE FAMILY DWELLING AND A PROPOSED POOL.  
 SCALE: AS NOTED

**SITE PLAN, DETAILS & NOTES**  
 PROJECT NO. 30446  
 SHEET NO. 1 of 1

**CHAPPA SITE CONSULTING, LLC**  
 55 Ridgewood Avenue - Trumbull, CT 06611  
 phone: (203) 576-1755



NICHOLAS A. MARIANI, P.E. CT REG. NO. 29991

NOT FOR CONSTRUCTION  
 FOR REVIEW AND APPROVAL BY PUBLIC AGENCIES ONLY