SOIL TEST RESULTS 1-24-23
CONDUCTED BY NEMERGUT CONSULTING
WITNESSED BY THE CHATHAM HEALTH DISTRICT (LIZ DAVIDSON)

DEEP TEST HOLE 1
0" - 7" TOPSOIL
7" - 16" BROWN MEDIUM LOAMY SAND WITH SMALL GRAVEL
MEDIUM TO COARSE GRAVELLY SAND, FIRM DAMP
16"-32" LIGHT BROWN COARSE GRAVELLY SAND, LOOSE
32"-75" LIGHT BROWN, ORANGE-BROWN MEDIUM AND COARSE GRAVELLY SAND WITH ROCKS, FIRM
NO REFUSAL
GROUNDWATER @ 68"
MOTTLING/REDOX @ 56"
ROOTS TO 56"

DEEP TEST HOLE 2
0" - 8" TOPSOIL
8" - 26" BROWN, ORANGE BROWN MEDIUM TO COARSE LOAMY SAND
26"-35" LIGHT BROWN COARSE SAND
35"-84" ORANGE BROWN, LIGHT BROWN COARSE SAND AND GRAVEL WITH ROCK AND ROTTEN ROCKS
NO REFUSAL
GROUNDWATER @ 68"
NO MOTTLING/REDOX - SOME IRON STAINING
ROOTS TO 80"
ROCKS THROUGHOUT

DEEP TEST HOLE 3
LEDGE @ 33"

DEEP TEST HOLE 4
LEDGE @ 20" (UNSUITABLE)

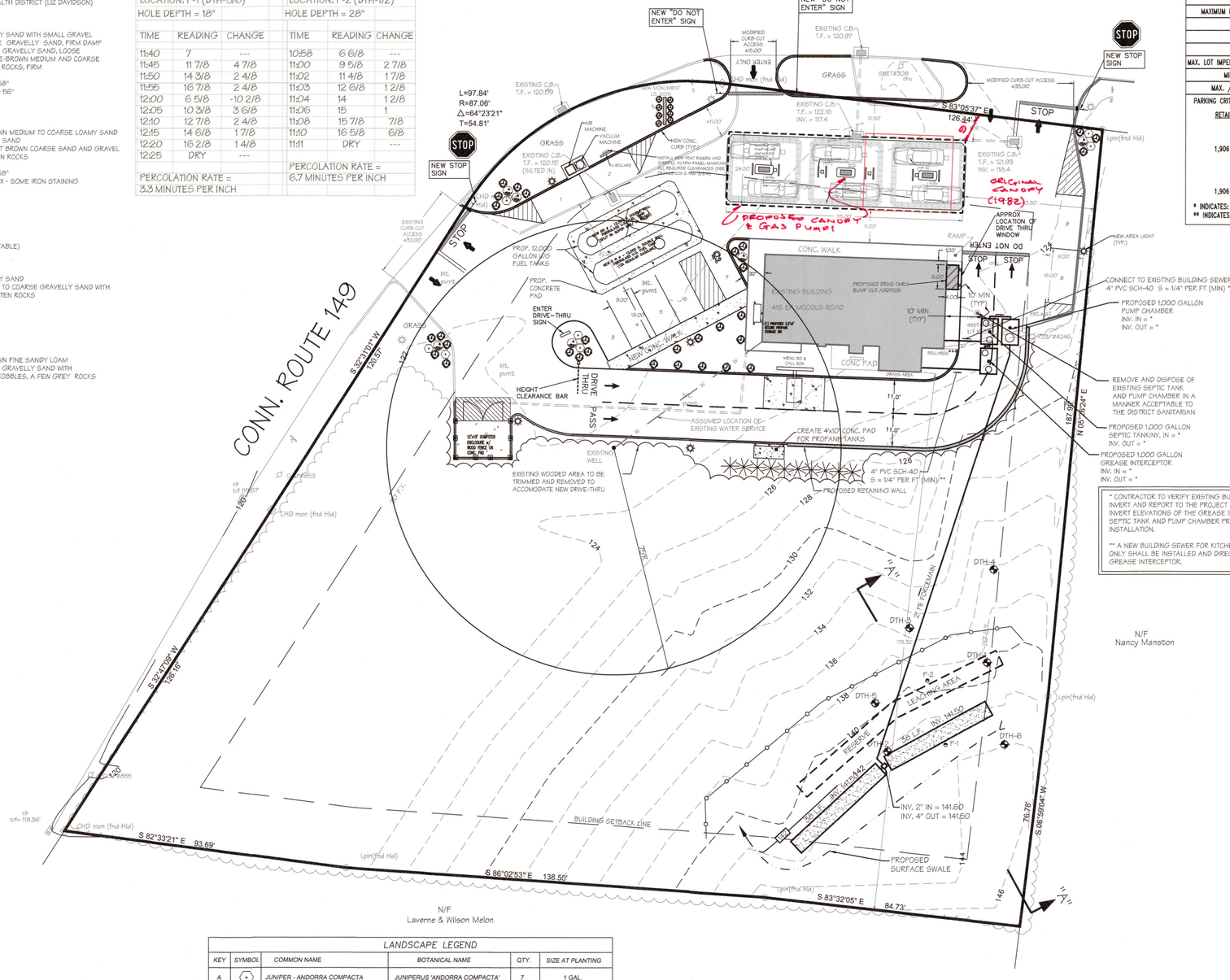
DEEP TEST HOLE 5
0" - 7" TOPSOIL
7" - 36" BROWN MEDIUM LOAMY SAND
36"-72" LIGHT BROWN MEDIUM TO COARSE GRAVELLY SAND WITH ROCKS AND GREY ROTTEN ROCKS
NO REFUSAL
NO GROUNDWATER
NO MOTTLING/REDOX
ROOTS TO 44"

DEEP TEST HOLE 6
0" - 8" TOPSOIL
8" - 28" BROWN ORANGE, BROWN FINE SANDY LOAM
28"-72" LIGHT BROWN COARSE GRAVELLY SAND WITH ROCKS, STONES AND COBBLES, A FEW GREY ROCKS
NO REFUSAL
NO GROUNDWATER
NO MOTTLING/REDOX
ROOTS TO 41"

PERCOLATION TEST RESULTS		
JANUARY 27, 2023		
LOCATION: P-1 (DTH-5/6)		
HOLE DEPTH = 18"		
TIME	READING	CHANGE
11:40	7	---
11:45	11 7/8	4 7/8
11:50	14 3/8	2 4/8
11:55	16 7/8	2 4/8
12:00	6 5/8	-10 2/8
12:05	10 3/8	3 6/8
12:10	12 7/8	2 4/8
12:15	14 6/8	1 7/8
12:20	16 2/8	1 4/8
12:25	DRY	---
PERCOLATION RATE = 3.3 MINUTES PER INCH		

PERCOLATION TEST RESULTS		
JANUARY 27, 2023		
LOCATION: P-2 (DTH-1/2)		
HOLE DEPTH = 28"		
TIME	READING	CHANGE
10:58	6 6/8	---
11:00	9 5/8	2 7/8
11:02	11 4/8	1 7/8
11:03	12 6/8	1 2/8
11:04	14	1 2/8
11:06	15	1
11:08	15 7/8	7/8
11:10	16 5/8	6/8
11:11	DRY	---
PERCOLATION RATE = 6.7 MINUTES PER INCH		

NOTE:
PRIOR TO CONSTRUCTION, A HIGHWAY ENCROACHMENT PERMIT WILL BE REQUIRED FROM THE CONNECTICUT DEPARTMENT OF TRANSPORTATION FOR ALL WORK WITHIN THE STATE RIGHT OF WAY.



LANDSCAPE LEGEND					
KEY	SYMBOL	COMMON NAME	BOTANICAL NAME	QTY.	SIZE AT PLANTING
A		JUNIPER - ANDORRA COMPACTA	JUNIPERUS 'ANDORRA COMPACTA'	7	1 GAL.
B		SPIREA - DAKOTA GOLDCHARM	SPIRAEA JAPONICA 'MERTYANN'	6	2 GAL.
C		ORNAMENTAL GRASS	LIBERTIA GOLDFINGER	38	2 GAL.
D		ARBORVITAE	ARBORVITAE THUJA	10	15' TALL

LEGEND:
EXISTING CONTOUR ---100---
PROPOSED CONTOUR 100
DEEP TEST HOLE
PERCOLATION TEST PERC
SILT FENCE/WOOD CHIP BERM
LIMIT OF UPLAND

OWNER/APPLICANT:
SHAHANI INC.
53 E INDUSTRIAL RD UNIT C-1
BRANFORD, CT 06405

ZONING ANALYSIS TABLE

ZONING DISTRICT: COMMERCIAL DISTRICT (C-3)-(Moodus Plains Road Area)
(GAS STATION/C-STORE USE SUBJECT TO APPROVAL BY SPECIAL EXCEPTION)

ZONE CRITERIA	REQUIRED	PROPOSED
MINIMUM LOT AREA	21,780 SQ. FT.	±66,376 SQ. FT.
MINIMUM LOT WIDTH	100'	±126.44'
MAXIMUM LOT COVERAGE (BLDGS.)	20%	±4.60%
MIN. FRONT YARD	30'	±9.16'**
MINIMUM SIDE YARD	20'	±43.30'
MINIMUM REAR YARD	20'	±178.32'
MAX. LOT IMPERVIOUS SURFACE COVER	60%	±7.85%
MINIMUM BUILDING HEIGHT	30' MEAN / MAX. 40'	±22.00'
MAX. / MIN. PARKING SPACES	10 MAX. / 4 MIN.	9

PARKING CRITERIA PROVIDED SIZE: 9'x18'

RETAIL:
MAX: 5 parking space for each 1,000 square feet of gross store floor area.

1,906 SF / 5 PER 1,000 SF = 10 TOTAL SPACES MAXIMUM ALLOWED

MIN: 2 parking space for each 1,000 square feet of gross store floor area.

1,906 SF / 2 PER 1,000 SF = 4 TOTAL SPACES MINIMUM REQUIRED

* INDICATES: EXISTING NON-CONFORMING FOR NOTED ITEM
** INDICATES: A VARIANCE MAY BE REQUIRED FOR NOTED ITEM

* CONTRACTOR TO VERIFY EXISTING BUILDING SEWER INVERT AND REPORT TO THE PROJECT ENGINEER FOR INVERT ELEVATIONS OF THE GREASE INTERCEPTOR, SEPTIC TANK AND PUMP CHAMBER PRIOR TO INSTALLATION.

** A NEW BUILDING SEWER FOR KITCHEN WASTE ONLY SHALL BE INSTALLED AND DIRECTED TO THE GREASE INTERCEPTOR.

GENERAL NOTES:

1. THE TOTAL AREA OF THE LOT IS 1.52 ACRES.
2. THE PARCEL IS LOCATED WITHIN C-3 COMMERCIAL ZONING DISTRICT.
3. THE PARCEL IS IDENTIFIED ON THE TAX ASSESSOR'S MAP AS MAP 64 LOT 64.
4. PROPERTY LINE AND TOPOGRAPHIC SURVEY INFORMATION TAKEN FROM A MAP ENTITLED "IMPROVEMENT LOCATION SURVEY RESURVEY PREPARED FOR SHANANI INC. 416 EAST HADDAM-MOODUS ROAD, MOODUS, CONNECTICUT" DATED 6/25/21 AS PREPARED BY NORTH STAR SURVEYING AND ENGINEERING LLC, WEST HARTFORD, CONNECTICUT.
5. PROPOSED SITE IMPROVEMENTS EXCEPT FOR THE SEPTIC SYSTEM, GRADING AND STORM WATER MANAGEMENT TAKEN FROM MAP ENTITLED "SITE PLAN PREPARED FOR: SHANANI INC. 416 EAST HADDAM-MOODUS ROAD MOODUS, CONNECTICUT" DATED 11/12/21 AS PREPARED BY NORTH STAR SURVEYING AND ENGINEERING LLC, WEST HARTFORD, CONNECTICUT.
6. THE PARCEL IS NOT LOCATED WITHIN A PUBLIC DRINKING WATER SUPPLY WATERSHED.
7. THE PARCEL IS NOT LOCATED WITHIN A FLOOD HAZARD AREA

SHAHANI, INC. 416 EAST HADDAM-MOODUS ROAD, EAST HADDAM, CT

BASIS FOR SEPTIC SYSTEM DESIGN

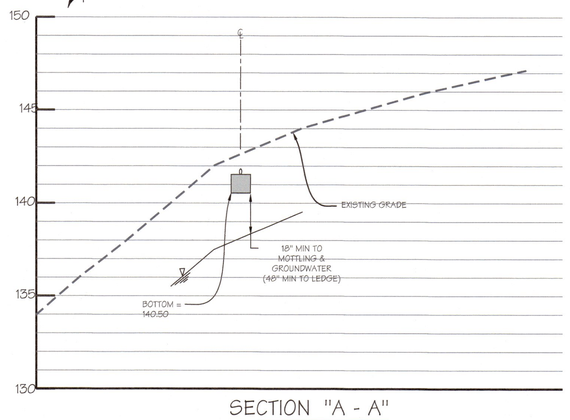
1. CONVENIENCE STORE/GAS STATION
1,898 S.F. @ 0.1 GAL/S.F./DAY 190 GAL./DAY
EFFECTIVE LEACHING SYSTEM AREA REQUIRED =
190 GAL/DAY / 1.5 GAL/S.F/DAY = 127 S.F
2. TAKE OUT--DRIVE THROUGH - COFFEE/DONUTS & FRIED CHICKEN
100 TAKEOUTS/DAY X 5 GAL. TAKEOUT = 500 GAL./DAY
EFFECTIVE LEACHING SYSTEM AREA REQUIRED =
500 GAL/DAY / 0.8 GAL./S.F./DAY 625 S.F

TOTL E.L.A. REQUIRED = 127 S.F. + 625 S.F. = 752 S.F.
USE 76 LF OF GST 6212 @ 10 SF/L.F. = 760 S.F.

MINIMUM LEACHING SYSTEM SPREAD

M.L.S.S. = HYDRAULIC FACTOR X FLOW FACTOR X PERCOLATION FACTOR
HYDRAULIC FACTOR = 10 (RECEIVING SOIL DEPTH = 48.1 TO 60.0")
(HYDRAULIC GRADIENT = > 15%)
FLOW FACTOR = 690 GAL/DAY) /300 = 2.3
PERCOLATION FACTOR = 1.0 (0.1 TO 10.0 MIN./INCH)
M.L.S.S. = 10 X 2.3 X 1.0 = 23 L.F.
L.S.S. PROVIDED = 76 L.F.

*6 HOLE AVERAGE = (56" + 60" + 33" + 20" + 60" + 60") / 6 = 48.1"



SECTION "A - A"
SCALE: 1"= 20' H. & 1"= 4' V.

20 10 0 20 40 60
SCALE: 1" =20 FEET

APPROVED BY THE EAST HADDAM PLANNING AND ZONING COMMISSION
DATE:_____ CHAIRMAN/SECRETARY:_____
EXPIRATION DATE:_____

RECEIVED FOR FILING
DATE:_____
MAP NO._____

PROGRESS PRINT - FOR REVIEW ONLY

NEMERGUT CONSULTING

235 ROUTE 80 - P.O. BOX 666
KILLINGWORTH, CONNECTICUT 06419

PHONE: 860.663.2384
NEMERGUTCONSULTING.COM

STATE OF CONNECTICUT ROGER D. NEMERGUT NO. 10008 REGISTERED PROFESSIONAL ENGINEER

ROGER D. NEMERGUT
PROFESSIONAL ENGINEER
LIC. NO. 10008

JASON A. NEMERGUT
PROFESSIONAL ENGINEER
LIC. NO. 26088

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THIS DRAWING SHALL NOT BE USED FOR CONSTRUCTION UNLESS THE DESIGN ENGINEER'S RAISED PROFESSIONAL SEAL APPEARS ON THE PLAN; AND THE OWNER/CONTRACTOR HAS CONTACTED THE DESIGN ENGINEER TO VERIFY THAT THEY ARE IN POSSESSION OF THE LATEST APPROVED DESIGN PLANS.

SITE PLAN & EROSION AND SEDIMENT CONTROL PLAN

MOODUS FOOD STOP
416 EAST HADDAM - MOODUS ROAD
(ROUTE 149)
EAST HADDAM CONNECTICUT
MAP: 64 LOT: 64

DATE: 3/30/23
DRAWN BY: J.A.N.
CHECKED BY: R.D.N.
SCALE: 1" = 20'

NO.	DATE	REVISIONS

SHEET

1 OF 2