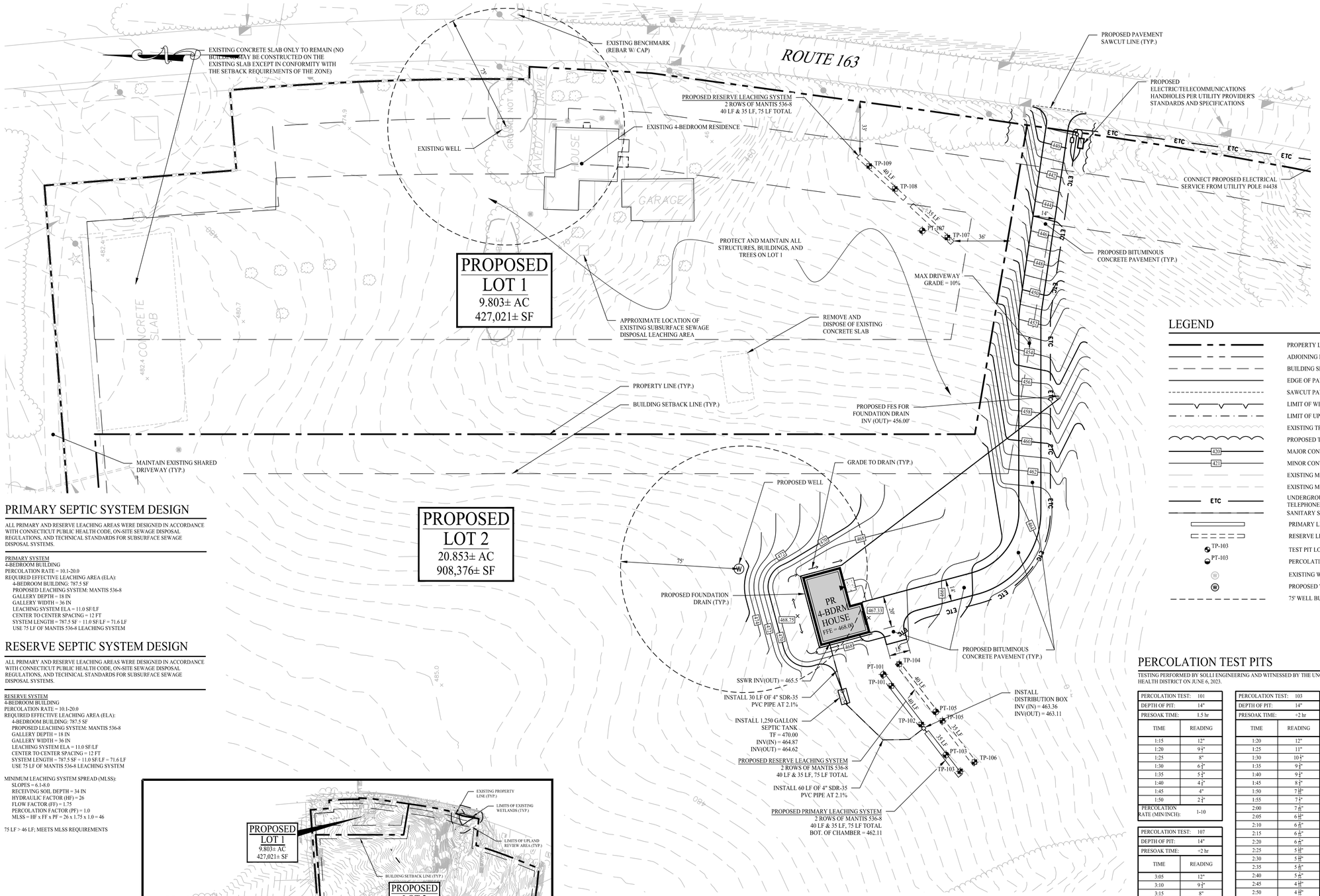

PRIMARY SEPTIC SYSTEM DESIGN

ALL PRIMARY AND RESERVE LEACHING AREAS WERE DESIGNED IN ACCORDANCE WITH CONNECTICUT PUBLIC HEALTH CODE, ON-SITE SEWAGE DISPOSAL REGULATIONS, AND TECHNICAL STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEMS.

PRIMARY SYSTEM
4-BEDROOM BUILDING
PERCOLATION RATE = 10.1-20.0
REQUIRED EFFECTIVE LEACHING AREA (ELA):
- 4-BEDROOM BUILDING: 787.5 SF
- PROPOSED LEACHING SYSTEM: MANTIS 536-8
- GALLERY DEPTH = 18 IN
- GALLERY WIDTH = 36 IN
- LEACHING SYSTEM ELA = 11.0 SF/LF
- CENTER TO CENTER SPACING = 12 FT
- SYSTEM LENGTH = 787.5 SF ÷ 11.0 SF/LF = 71.6 LF
- USE 75 LF OF MANTIS 536-8 LEACHING SYSTEM

RESERVE SEPTIC SYSTEM DESIGN

ALL PRIMARY AND RESERVE LEACHING AREAS WERE DESIGNED IN ACCORDANCE WITH CONNECTICUT PUBLIC HEALTH CODE, ON-SITE SEWAGE DISPOSAL REGULATIONS, AND TECHNICAL STANDARDS FOR SUBSURFACE SEWAGE DISPOSAL SYSTEMS.

RESERVE SYSTEM
4-BEDROOM BUILDING
PERCOLATION RATE = 10.1-20.0
REQUIRED EFFECTIVE LEACHING AREA (ELA):
- 4-BEDROOM BUILDING: 787.5 SF
- PROPOSED LEACHING SYSTEM: MANTIS 536-8
- GALLERY DEPTH = 18 IN
- GALLERY WIDTH = 36 IN
- LEACHING SYSTEM ELA = 11.0 SF/LF
- CENTER TO CENTER SPACING = 12 FT
- SYSTEM LENGTH = 787.5 SF ÷ 11.0 SF/LF = 71.6 LF
- USE 75 LF OF MANTIS 536-8 LEACHING SYSTEM

MINIMUM LEACHING SYSTEM SPREAD (MLSS):
- SLOPES = 6-1-8.0
- RECEIVING SOIL DEPTH = 34 IN
- HYDRAULIC FACTOR (HF) = 26
- FLOW FACTOR (FF) = 1.75
- PERCOLATION FACTOR (PF) = 1.0
- MLSS = HF x FF x PF = 26 x 1.75 x 1.0 = 46

75 LF > 46 LF; MEETS MLSS REQUIREMENTS

KEY MAP

SCALE: 1" = 300'

TEST PIT OBSERVATIONS

TESTING PERFORMED BY SOLLI ENGINEERING AND WITNESSED BY THE UNCAS HEALTH DISTRICT ON JUNE 6, 2023.

TEST PIT 101
0"-6" DARK BROWN, SANDY LOAM W/ TRACE SILT (TOP SOIL)
6"-22" MEDIUM BROWN, SANDY LOAM W/ SOME SILT
22"-108" LIGHT BROWN, LOAMY SAND W/ TRACE SILT
NO ROOTS, GROUNDWATER @ 104", NO LEDGE

TEST PIT 102
0"-10" DARK BROWN, SANDY LOAM W/ TRACE SILT (TOP SOIL)
10"-30" MEDIUM BROWN, SANDY LOAM W/ SOME SILT
30"-50" TAN, LOAMY SAND W/ TRACE SILT
50"-105" MEDIUM BROWN, LOAM W/ SOME SILT
NO ROOTS, NO GROUNDWATER, NO LEDGE, REDOX @ 39"

TEST PIT 103
0"-8" DARK BROWN, SANDY LOAM W/ TRACE SILT (TOP SOIL)
8"-17" MEDIUM BROWN, SANDY LOAM W/ TRACE SILT
17"-23" TAN, LOAMY SAND W/ TRACE SILT
23"-80" BROWN, LOAM W/ TRACE SILT
NO ROOTS, NO GROUNDWATER, NO LEDGE, NO REDOX

TEST PIT 104
0"-16" DARK BROWN, SANDY LOAM W/ TRACE SILT (TOP SOIL)
16"-54" MEDIUM BROWN, LOAM W/ SOME SILT
54"-90" TAN, LOAM W/ SOME SILT
NO ROOTS, GROUNDWATER @ 86", NO LEDGE

TEST PIT 105
0"-14" DARK BROWN, SANDY LOAM W/ TRACE SILT (TOP SOIL)
14"-35" MEDIUM BROWN, SANDY LOAM W/ SOME SILT
35"-88" TAN, SANDY LOAM W/ TRACE SILT
NO ROOTS, GROUNDWATER @ 65", NO LEDGE, REDOX @ 43"

TEST PIT 106
0"-9" DARK BROWN, SANDY LOAM (TOP SOIL)
9"-18" MEDIUM BROWN, LOAM W/ TRACE SILT
18"-82" TAN, LOAMY SAND
NO ROOTS, NO GROUNDWATER, NO LEDGE, NO REDOX

TEST PIT 107
0"-12" DARK BROWN, SANDY LOAM (TOP SOIL)
12"-29" MEDIUM BROWN, SANDY LOAM
29"-36" TAN, LOAMY SAND
36"-83" MEDIUM BROWN, LOAMY SAND
NO ROOTS, GROUNDWATER @ 77", NO LEDGE

TEST PIT 108
0"-18" DARK BROWN, SANDY LOAM (TOP SOIL)
18"-53" MEDIUM BROWN, LOAM W/ SOME SILT
NO ROOTS, GROUNDWATER @ 35", LEDGE @ 53"

TEST PIT 109
0"-13" DARK BROWN, SANDY LOAM (TOP SOIL)
13"-34" MEDIUM BROWN, LOAM W/ SOME SILT
34"-75" SANDY LOAM W/ SOME SILT
NO ROOTS, GROUNDWATER @ 34", NO LEDGE, REDOX @ 34"

GENERAL NOTES

1. THESE PLANS ARE FOR PERMITTING PURPOSES ONLY AND ARE NOT FOR CONSTRUCTION. NO CONSTRUCTION OR DEMOLITION SHALL BEGIN UNTIL APPROVAL OF THE FINAL PLANS IS GRANTED BY ALL GOVERNING AND REGULATORY AGENCIES.
2. ALL PROPOSED SITE WORK IS TO BE COMPLETED IN ACCORDANCE WITH ALL PERMITS, APPROVALS, AND CONDITIONS OF APPROVALS ISSUED BY LOCAL, STATE, AND/OR FEDERAL REVIEWING AGENCIES.
3. EXISTING BOUNDARY, TOPOGRAPHY AND SITE CONDITIONS INFORMATION TAKEN FROM A PLAN ENTITLED "PROPERTY & TOPOGRAPHIC SURVEY OF 958 OAKDALE ROAD (CONNECTICUT ROUTE 163), MONTVILLE, CONNECTICUT"; SCALE 1"=60'; DATED: 05/2023; BY "DGT ASSOCIATES."
4. ALL CONSTRUCTION SHALL COMPLY WITH TOWN OF MONTVILLE STANDARDS, AND THE CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS IN THE ABOVE REFERENCED INCREASING HIERARCHY. IF SPECIFICATIONS ARE IN CONFLICT, THE MORE STRINGENT SPECIFICATION SHALL APPLY. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE OSHA, FEDERAL, STATE AND LOCAL REGULATIONS.
5. THE OWNER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY ZONING PERMITS REQUIRED BY GOVERNMENT AGENCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN ALL COUNTY AND TOWN CONSTRUCTION PERMITS, INCLUDING SEWER AND WATER CONNECTION PERMITS. THE CONTRACTOR SHALL POST ALL BONDS, PAY ALL FEES, PROVIDE PROOF OF INSURANCE AND PROVIDE TRAFFIC CONTROL NECESSARY FOR THIS WORK.
6. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS IN THE FIELD AND CONTACT THE ENGINEER OF RECORD IF THERE ARE ANY QUESTIONS OR CONFLICTS REGARDING THE CONSTRUCTION DOCUMENTS AND/OR FIELD CONDITIONS SO THAT APPROPRIATE REVISIONS CAN BE MADE PRIOR TO BIDDING. ANY CONFLICT BETWEEN THE DRAWINGS SHALL BE CONFIRMED WITH THE OWNER'S CONSTRUCTION MANAGER PRIOR TO BIDDING.
7. SHOULD ANY UNCHARTED OR INCORRECTLY CHARTED, EXISTING PIPING, OR OTHER UTILITY BE UNCOVERED DURING EXCAVATION, CONSULT THE ENGINEER OF RECORD IMMEDIATELY FOR DIRECTIONS BEFORE PROCEEDING FURTHER WITH WORK IN THIS AREA.
8. DO NOT INTERRUPT EXISTING UTILITIES SERVICING FACILITIES OCCUPIED AND USED BY THE OWNER OR OTHERS DURING OCCUPIED HOURS EXCEPT WHEN SUCH INTERRUPTIONS HAVE BEEN AUTHORIZED IN WRITING BY THE OWNER AND THE LOCAL MUNICIPALITIES. INTERRUPTIONS SHALL ONLY OCCUR AFTER ACCEPTABLE TEMPORARY SERVICE HAS BEEN PROVIDED.
9. THE CONTRACTOR SHALL RESTORE ANY DRAINAGE STRUCTURE, PIPE, UTILITY, PAVEMENT, CURBS, SIDEWALKS, LANDSCAPED AREAS OR SIGNAGE DISTURBED DURING CONSTRUCTION TO THEIR ORIGINAL CONDITION OR BETTER, AS APPROVED BY THE ENGINEER OF RECORD.
10. THE ENGINEER OF RECORD IS NOT RESPONSIBLE FOR SITE SAFETY MEASURES TO BE EMPLOYED DURING CONSTRUCTION. THE ENGINEER OF RECORD HAS NO CONTRACTUAL DUTY TO CONTROL THE SAFEST METHODS OR MEANS OF THE WORK, JOB SITE RESPONSIBILITIES, SUPERVISION OR TO SUPERVISE SAFETY AND DOES NOT VOLUNTARILY ASSUME ANY SUCH DUTY OR RESPONSIBILITY.
11. ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED BY THE OWNER, ENGINEER OF RECORD, AND APPROPRIATE REGULATORY AGENCY PRIOR TO INSTALLATION DURING THE BIDDING PROCESS.
12. INFORMATION ON EXISTING UTILITIES AND STORM DRAINAGE SYSTEMS HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING UTILITY PROVIDER AND MUNICIPAL RECORD MAPS AND/OR FIELD SURVEY AND IS NOT GUARANTEED CORRECT OR COMPLETE. UTILITIES AND STORM DRAINAGE SYSTEMS ARE SHOWN TO ALERT THE CONTRACTOR TO THEIR PRESENCE AND THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES AND STORM DRAINAGE SYSTEMS INCLUDING SERVICES. PRIOR TO DEMOLITION OR CONSTRUCTION, THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" 72 HOURS BEFORE COMMENCEMENT OF WORK AT "(800) 922-4455" AND VERIFY ALL UTILITY AND STORM DRAINAGE SYSTEM LOCATIONS.
13. SHOULD ANY UNCHARTED OR INCORRECTLY CHARTED, EXISTING PIPING OR OTHER UTILITY BE UNCOVERED DURING EXCAVATION, CONSULT THE ENGINEER OF RECORD IMMEDIATELY FOR DIRECTIONS BEFORE PROCEEDING FURTHER WITH WORK IN THIS AREA.
14. ALL DISTURBANCE INCURRED TO TOWN, COUNTY, OR STATE PROPERTY DUE TO CONSTRUCTION SHALL BE RESTORED TO ITS PREVIOUS CONDITION OR BETTER.
15. IF IMPACTED OR CONTAMINATED SOIL IS ENCOUNTERED BY THE CONTRACTOR, THE CONTRACTOR SHALL SUSPEND EXCAVATION WORK OF IMPACTED SOIL AND NOTIFY THE OWNER AND/OR OWNER'S ENVIRONMENTAL CONSULTANT PRIOR TO PROCEEDING WITH FURTHER WORK IN THE IMPACTED SOIL LOCATION UNTIL FURTHER INSTRUCTED BY THE OWNER AND/OR OWNER'S ENVIRONMENTAL CONSULTANT.
16. PROPER CONSTRUCTION PROCEDURES SHALL BE FOLLOWED ON ALL IMPROVEMENTS WITHIN THIS PARCEL SO AS TO PREVENT THE SILTING OF ANY WATERCOURSE OR WETLANDS IN ACCORDANCE WITH THE REGULATIONS OF THE CONNECTICUT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL.
17. ALL PIPE LENGTHS ARE HORIZONTAL DISTANCES AND ARE APPROXIMATE.
18. GRADING CONTRACTOR SHALL RESTORE TO GRADE AND COMPACTION ALL AREAS DISTURBED BY BUILDING CONSTRUCTION PRIOR TO PAVING OPERATIONS COMMENCING.

LEGEND

- PROPERTY LINE
- ADJOINING LOT LINE
- BUILDING SETBACK
- EDGE OF PAVEMENT
- SAWCUT PAVEMENT LINE
- LIMIT OF WETLANDS
- LIMIT OF UPLAND REVIEW AREA
- EXISTING TREE LINE
- PROPOSED TREE LINE
- 420 MAJOR CONTOURS
- 421 MINOR CONTOURS
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- ETC UNDERGROUND ELECTRIC, TELEPHONE AND CABLE LINES
- SANITARY SEWER PIPE
- PRIMARY LEACHING TRENCH
- RESERVE LEACHING TRENCH
- TP-103 TEST PIT LOCATION
- PT-103 PERCOLATION TEST HOLE
- W EXISTING WELL
- W PROPOSED WELL
- 75' WELL BUFFER

PERCOLATION TEST PITS

TESTING PERFORMED BY SOLLI ENGINEERING AND WITNESSED BY THE UNCAS HEALTH DISTRICT ON JUNE 6, 2023.

PERCOLATION TEST:	101
DEPTH OF PIT:	14"
PRESOAK TIME:	1.5 hr

TIME	READING
1:15	12"
1:20	9 1/4"
1:25	8"
1:30	6 3/4"
1:35	5 3/4"
1:40	4 3/4"
1:45	4"
1:50	2 3/4"

PERCOLATION RATE (MIN/INCH):	1-10

PERCOLATION TEST:	103
DEPTH OF PIT:	14"
PRESOAK TIME:	+2 hr

TIME	READING
1:20	12"
1:25	11"
1:30	10 1/4"
1:35	9 1/4"
1:40	9 1/4"
1:45	8 1/4"
1:50	7 1/8"
1:55	7 1/4"
2:00	7 1/4"
2:05	6 1/8"
2:10	6 1/2"
2:15	6 1/2"
2:20	6 1/2"
2:25	5 1/8"
2:30	5 1/8"
2:35	5 1/4"
2:40	5 1/4"
2:45	4 1/8"
2:50	4 1/8"
2:55	4 1/4"
3:00	4 1/4"
3:05	3 1/8"
3:10	3 1/8"
3:15	3 1/4"
3:20	3 1/4"
3:25	2 1/8"

PERCOLATION RATE (MIN/INCH):	10.1-20

PERCOLATION TEST:	105
DEPTH OF PIT:	12"
PRESOAK TIME:	+2 hr

TIME	READING
1:25	12"
1:30	10 1/2"
1:35	8 1/2"
1:40	7 1/4"
1:45	6 1/8"
1:50	5 1/2"
1:55	5"
2:00	4 1/2"
2:05	3 7/8"
2:10	3 7/8"
2:15	3 1/2"
2:20	3"

PERCOLATION RATE (MIN/INCH):	1-10

PERCOLATION TEST:	107
DEPTH OF PIT:	14"
PRESOAK TIME:	+2 hr

TIME	READING
3:05	12"
3:10	9 2/4"
3:15	8"
3:20	6 1/4"
3:25	5 1/4"
3:30	5"
3:35	4 1/8"
3:40	3 2/4"
3:45	3 1/4"
3:50	2 1/4"

PERCOLATION RATE (MIN/INCH):	1-10

PASSIVE SOLAR ENERGY TECHNIQUES AS PRESCRIBED BY LAW HAVE BEEN CONSIDERED IN DEVELOPEMENT WITH THIS PLAN.

APPLICANT SIGNATURE — DATE

ENGINEER OF RECORD SIGNATURE — DATE

Rev. #:	Date	Description
2	08/31/23	Revised Per Planner Comments
1	08/04/23	Revised Per IWC Comments

Graphic Scale: 30 0 30 60

SOLLI ENGINEERING
501 Main Street, Monroe, CT 06468 T: (203) 880-5455 F: (203) 880-9695
11 Vanderbilt Ave, Norwood, MA 02062 T: (781) 352-8491 F: (203) 880-9695

Drawn By:	AWC
Checked By:	CJB
Approved By:	KMS
Project #:	22109401
Plan Date:	07/17/23
Scale:	1" = 30'

STATE OF CONNECTICUT — KEVIN M. SOLLI — 25759 — REGISTERED PROFESSIONAL ENGINEER

Kevin Solli, P.E.
CT 25759

Project:

PROPOSED 1-LOT RESUBDIVISION OF 958 ROUTE 163

(PARCEL ID : 046-008-000)
OAKDALE, CONNECTICUT
JULY 17, 2023

Sheet Title: POTENTIAL DEVELOPMENT PLAN

Sheet #: 2.11