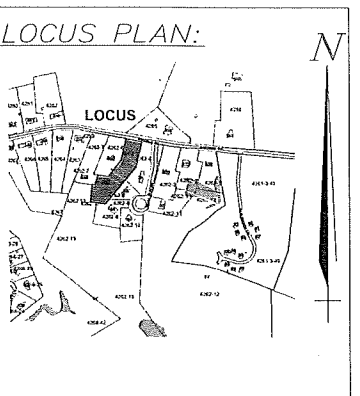
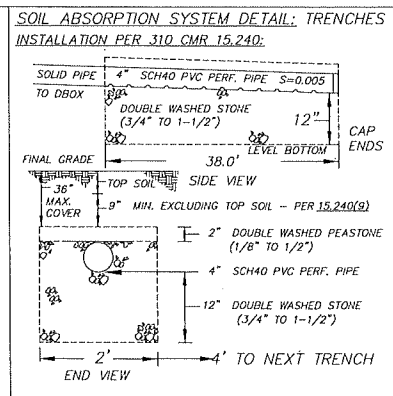
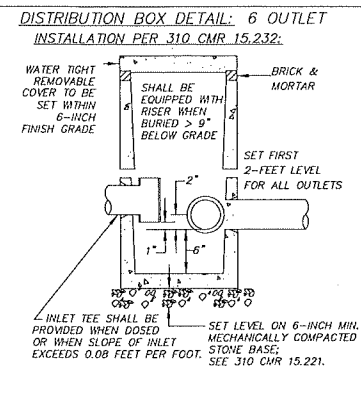
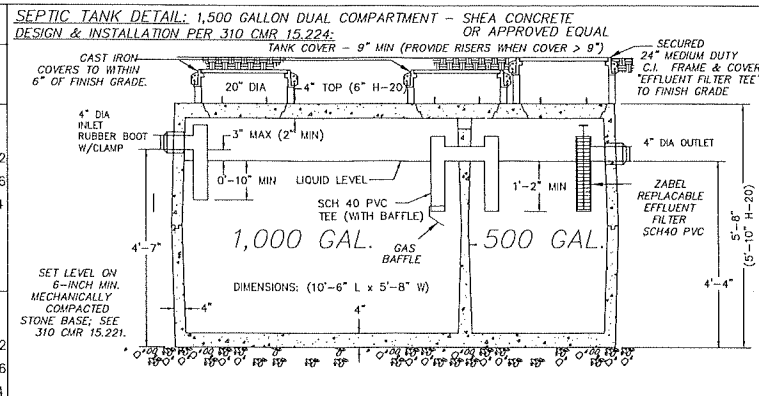


- NOTES:**
- SEWAGE DISPOSAL PLAN** - THIS PLAN IS FOR THE DESIGN AND CONSTRUCTION OF AN ON-SITE SEWAGE DISPOSAL SYSTEM FOR THIS FACILITY ONLY.
  - SYSTEM CONSTRUCTION** - ALL CONSTRUCTION METHODS AND MATERIALS UTILIZED SHALL BE PERFORMED IN FULL COMPLIANCE WITH THE REQUIREMENTS OF 310 CMR 15.000 THE STATE ENVIRONMENTAL CODE TITLE 5: AND TOWN OF CONCORD BOARD OF HEALTH REGULATIONS; CHAPTER 3.00: WASTEWATER MANAGEMENT.
  - BUFFER ZONE AREAS ADJACENT TO WETLANDS** - IF PROPOSED WORK IS WITHIN 100 FEET (100 FT) HORIZONTALLY FROM THE BOUNDARY OF ANY PROTECTED WETLAND AREA, THEN THE PERSON PROPOSING THE WORK, SHOULD SUBMIT TO THE CONSERVATION COMMISSION EITHER A NOTICE OF WORK OR A REQUEST FOR DETERMINATION OF APPLICABILITY. THE PROPOSED WORK MAY ALSO BE SUBJECT TO MORE STRINGENT LOCAL WETLAND BYLAWS AND REGULATIONS.
  - PRIVATE WATER SUPPLY WELLS** - THE LOCATION OF ALL PRIVATE WATER SUPPLY WELLS WITHIN 200 FEET OF THE LEACHING FACILITY ARE SHOWN ON THE PLAN.
  - DIG SAFE NOTIFICATION** - THE RESPONSIBLE PERSON SHALL PROPERLY NOTIFY DIG SAFE (CALL 811 OR 888-DIG-SAFE) PRIOR TO THE START OF CONSTRUCTION ACTIVITY TO CONFIRM ACTUAL LOCATIONS OF ALL UTILITIES AT THE PROJECT SITE. APPLICABLE LAWS AND REGULATIONS CAN BE ACCESSED ONLINE AT (WWW.DIGSAFE.COM). UNDERGROUND UTILITIES SHOWN ON THE PLAN ARE APPROXIMATE AND WERE COMPILED FROM AVAILABLE RECORD INFORMATION FROM AGENCIES AND BY OBSERVATIONS IN THE FIELD. WE ASSUME NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN BY THIS OFFICE OR BY ANY OUTSIDE CONSULTANTS.
  - FIELD VERIFICATION BY INSTALLER** - INSTALLER SHALL FIELD VERIFY ELEVATIONS PRIOR TO THE INSTALLATION OF THE SEPTIC TANK, DISTRIBUTION BOX AND SOIL ABSORPTION SYSTEM. DISCREPANCIES SHALL BE REPORTED TO THE DESIGN ENGINEER BEFORE PROCEEDING.
  - RESPONSIBLE PERSON (INSPECTION SCHEDULE)** - TITLE 5 AND THE LOCAL REGULATIONS REQUIRE THE DESIGN ENGINEER TO PERFORM SITE INSPECTIONS. PREPARE A CERTIFICATION AND ON OCCASION AN AS-BUILT PLAN. UNLESS OTHERWISE SPECIFICALLY STATED IN WRITING BETWEEN THE OWNER AND THE INSTALLER, THE INSTALLER SHALL BE RESPONSIBLE FOR COORDINATING INSPECTIONS WITH THE DESIGN ENGINEER AND PAY FOR THESE SERVICES. NOTIFYING THE DESIGN ENGINEER DOES NOT RELIEVE THE OWNER OR INSTALLER FROM THE RESPONSIBILITY OF HAVING THE REQUIRED INSPECTIONS BY THE APPROVING AUTHORITY.
  - INSPECTIONS AND AS-BUILT PLAN** - PER TITLE 5 (310 CMR 15.021) SUBSURFACE COMPONENTS OF A SYSTEM SHALL NOT BE BACKFILLED OR OTHERWISE CONCEALED FROM VIEW UNTIL A FINAL INSPECTION HAS BEEN CONDUCTED BY THE APPROVING AUTHORITY AND PERMISSION HAS BEEN GRANTED BY THE APPROVING AUTHORITY TO BACKFILL THE SYSTEM.
  - INSPECTION SCHEDULE AND AS-BUILT PLAN** - THE DESIGNER SHALL INSPECT THE CONSTRUCTION:
    - AFTER THE INITIAL EXCAVATION
    - PRIOR TO BACKFILLING
    - DURING BACKFILLING
    - THE FINAL INSPECTION OF THE SYSTEM SHALL BE CONDUCTED BY THE APPROVING AUTHORITY, THE SYSTEM INSTALLER AND THE DESIGNER PRIOR TO THE ISSUANCE OF A CERTIFICATE OF COMPLIANCE PURSUANT TO TITLE 5: SECTION 15.021(4) CERTIFICATES OF COMPLIANCE.
    - AS-BUILT PLAN REQUIRED PER 310 CMR 15.000.
  - CONSTRUCTION IN FILL** - ALL TOP SOIL, SUB SOIL, FILL, BOULDERS AND OTHER MATERIALS INCLUDING ANY EXISTING SEPTIC SYSTEM COMPONENTS, UNDER AND WITHIN FIVE- FEET (5') OF THE PROPOSED SOIL ABSORPTION AREA SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL ACCORDING TO TITLE 5: SECTION 15.255 CONSTRUCTION IN FILL.
  - BUILDING SEWER** - THE BUILDING SEWER SHALL BE CONSTRUCTED OF CORROSION RESISTANT MATERIAL AND EQUIPPED WITH WATER TIGHT JOINTS: CAST-IRON, SCHEDULE 40 PVC PIPE OR THE EQUIVALENT. THE BUILDING SEWER SHALL BE LAID ON A COMPACTED FIRM BASE, AT A SLOPE OF NOT LESS THAN 0.01; A SLOPE OF 0.02 (1/4 INCH PER FOOT) IS PREFERABLE.
  - DISTRIBUTION BOX** - FIRST TWO-FOOT SECTIONS OF PIPE FROM DBOX SHALL BE SET LEVEL.
  - FINISH GRADE** - OVER THE SOIL ABSORPTION SYSTEM SHALL HAVE A MINIMUM SLOPE OF 2%.
  - DISTURBED AREAS** - 4" LOAM AND SEED OVER ALL DISTURBED SURFACES.
  - ZABEL EFFLUENT TEE FILTER** - INSTALLATION & MAINTENANCE SHALL BE IN COMPLIANCE WITH DEP APPROVAL ISSUED ON AUGUST 11, 1997 AND AS AMENDED DURING USE OF THE SYSTEM. A CAST IRON SEWER MANHOLE, PERMANENTLY MARKED "EFFLUENT TEE FILTER", SHALL BE BROUGHT TO FINISH GRADE AND SECURED TO PREVENT UNAUTHORIZED ACCESS.
  - SECURE MANHOLES AT FINISH GRADE** - SEWER MANHOLES BROUGHT TO FINISH GRADE SHALL BE SECURED TO PREVENT UNAUTHORIZED ACCESS.
  - MARKING TAPE** - ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC MARKING TAPE OR A COMPARABLE MEANS IN ORDER TO LOCATE THEM ONCE BURIED PER TITLE V SECTION 310 CMR 15.22(12).
  - SONOTUBE SETBACKS** - PER LOCAL REGULATION 3.05(A) - TABLE 1, PIER OR SONOTUBE-TYPE FOUNDATIONS TYPICALLY ASSOCIATED WITH DECKS AND PORCHES SHALL BE SITED A MINIMUM OF 10 FEET FROM SEPTIC TANKS, DOSING CHAMBERS, SOIL ABSORPTION SYSTEMS AND ALL OTHER COMPONENTS.
  - EXISTING CONDITIONS** - SPOT ELEVATIONS WERE PERFORMED BY HARRINGTON ASSOCIATES, LLC UTILIZING A TOPCON RL-HSB. ELEVATIONS REFER TO BENCHMARK ELEVATION OF TOP HYDRANT SPINDLE (ELEV.=149.85') AS SHOWN ON THE RECORDED AS-BUILT PLAN OF QUAIL RUN DRIVE, PREPARED BY DAVID E. ROSS ASSOCIATES, INC.; REVISED 2-20-03.
  - ADDITIONAL DWELLING UNIT** - THE USE OF THIS PLAN IS SUBJECT TO THE APPROVAL OF A SPECIAL PERMIT BY THE TOWN OF CONCORD ZONING BOARD OF APPEALS.

**SOIL EVALUATION DATA:**  
 PERFORMED BY: HARRINGTON ASSOCIATES, LLC; ACTON, MA  
 SOIL EVALUATOR: RICHARD J. HARRINGTON/SE1012; APPROVAL: NOV. 1994  
 TESTING DATE: NOVEMBER 16, 2023  
 WITNESSED BY: MIKE FUNAIOLE, CONCORD ENVIRON. HEALTH INSPECTOR

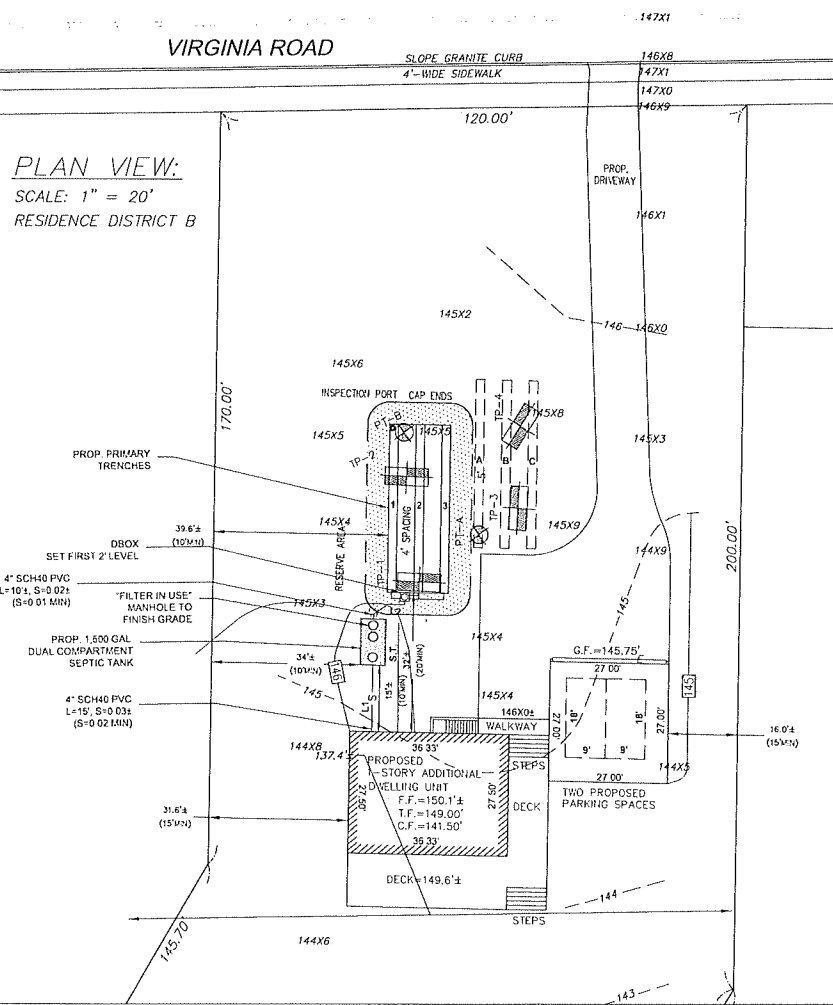
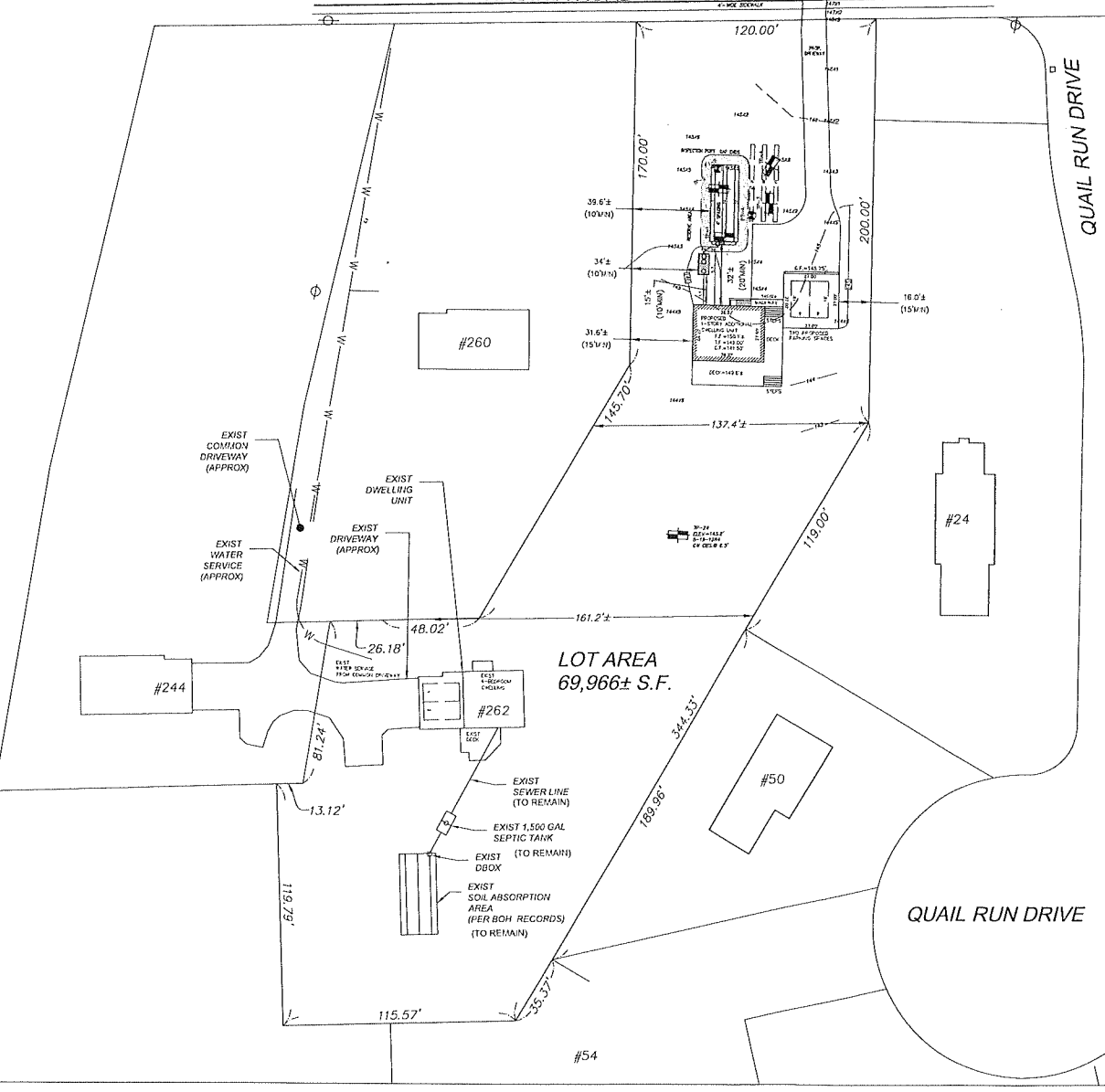
TP-1 ELEVATION = 145.9 0 - 6" A SL 10YR 3/2 6" - 15" B LS 10YR 5/6 15" - 102" C LS 2.5Y 6/4	TP-2 ELEVATION = 145.4 0 - 7" A SL 10YR 3/2 7" - 17" B LS 10YR 5/6 17" - 104" C LS 2.5Y 6/4
NO REFUSAL NO GROUNDWATER OBSERVED MOTTLING OBSERVED @ 90" ESHGW = 137.9' (90")	NO REFUSAL NO GROUNDWATER OBSERVED MOTTLING OBSERVED @ 82" ESHGW = 138.6 (82")
TP-3 ELEVATION = 145.9 0 - 8" A SL 10YR 3/2 8" - 16" B LS 10YR 5/6 16" - 110" C LS 2.5Y 6/4	TP-4 ELEVATION = 145.5 0 - 8" A SL 10YR 3/2 8" - 20" B LS 10YR 5/6 20" - 98" C LS 2.5Y 6/4
NO REFUSAL NO GROUNDWATER OBSERVED MOTTLING OBSERVED @ 92" ESHGW = 138.3 (92")	NO REFUSAL NO GROUNDWATER OBSERVED MOTTLING OBSERVED @ 82" ESHGW = 138.7 (82")



**PERCOLATION TEST DATA:**  
 SOIL EVALUATOR: R. HARRINGTON  
 TESTING DATE: NOV. 16, 2023  
 WITNESSED BY: M. FUNAIOLE, BOH

PT-A DEPTH=42" RATE: 4 MIN./INCH	PT-B DEPTH=40" RATE: 3 MIN./INCH
--	--

**PLAN VIEW:**  
 SCALE: 1" = 40'



**INVERT ELEVATIONS:**

4" INV. @ PROP. DWELLING	= 145.20
4" INV. @ SEPTIC TANK (IN)	= 144.75
4" INV. @ SEPTIC TANK (OUT)	= 144.50
4" INV. @ D. BOX (IN)	= 144.26
4" INV. @ D. BOX (OUT)	= 144.09

**AT SOIL ABSORPTION AREA:**

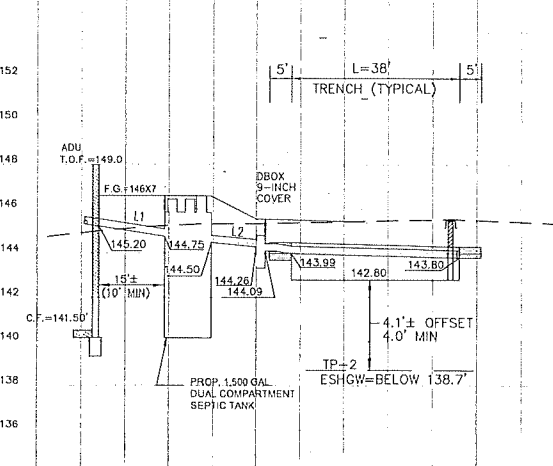
PRIMARY TRENCH	INV. BEGIN	INV. END	BOTTOM STONE
1-3	143.99	143.80	142.80

**RESERVE**

A-C	143.99	143.80	142.80
-----	--------	--------	--------

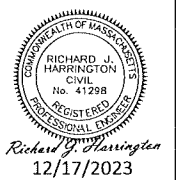
**DESIGN CALCULATIONS:**  
**DAILY SEWAGE FLOW:**  
 NEW CONSTRUCTION  
 ADDITIONAL DWELLING UNIT (SEE NOTE 20.)  
**TITLE 5: (3-BEDROOM MIN)**  
 3 BEDROOMS X 110 GPD/BDRM = 330 GPD  
**SEPTIC TANK CAPACITY:**  
 DUAL COMPARTMENT 660/330  
 1,500 GALLON MINIMUM  
 DUAL COMPARTMENT 1,000/500  
**SOIL ABSORPTION SYSTEM CAPACITY:**  
 SOIL CLASS I - SAND  
 PERC. RATE - <5 (MIN/INCH) = 0.74 GPD/S.F.  
**TITLE 5: @ 110 GPD/BDRM**  
 330 GPD/0.74 GPD/S.F. = 446 S.F. MIN.  
 (GARBAGE GRINDERS ARE NOT ALLOWED)  
**TITLE 5: 15,251 TRENCHES:**  
 PRIMARY - 3 TRENCHES: 2' W X 2.0' D X 25.00' L  
 3 X (1.0'+1.0'+2.0') X 38.0' L = 456 S.F.  
 456 S.F. > 446 S.F. O.K.  
 RESERVE TRENCHES THE SAME  
 CALC'D DESIGN FLOW=456 X 0.74= 337 GPD

**PROFILE:**  
 SCALE: 1" = 20' HORIZ.  
 1" = 4' VERT.



**SEWAGE DISPOSAL PLAN**

PREPARED FOR: MICHAEL GRESTY  
 ADDRESS: 262 VIRGINIA ROAD CONCORD, MA 01742  
 LOCATION: 262 VIRGINIA ROAD  
 CONCORD, MA 01742  
 ASSESSORS MAP 7K, PARCEL 4262-5  
 SCALE: AS SHOWN  
 DATE: DECEMBER 17, 2023  
 PREPARED BY:  
**HARRINGTON ASSOCIATES, LLC**  
 ENGINEERING | LAND PLANNING | DEVELOPMENT  
 20 MAIN STREET; WEDGEWOOD OFFICE SUITE 3  
 ACTON, MA 01720 TEL.: (978) 989-1373  
 FILE: HA-152 S.DWG PROJECT NO.: HA-152



THIS PLAN WAS REVIEWED ON 1/16/2024  
 BY MICHAEL FUNAIOLE  
 For The Concord Board of Health And Is  
 Approved In Accordance With The  
 Conditions Listed On Permit # DSCP-24-0002  
 Signature: *Michael Funaiole*