

## **GENERAL NOTES** SYSTEM PROFILE 1. <u>GENERAL</u>— FURNISH AND INSTALL A COMPLETE PUMPING SYSTEM CONSISTING OF A SUBMERSIBLE SEWAGE PUMP AND MOTOR, DISCHARGE PIPING AND VALVES, FLOAT WATER TIGHT PRECAST CONCRETE OR EQUIVALENT RISERS, WITH MEDIUM DUTY MANHOLE COVERS (ACCESSIBLE AT -SWITCH LEVEL CONTROLS, HIGH WATER ALARM, SIMPLEX CONTROL PANEL AND A PRECAST CONCRETE PUMP CHAMBER. ALL EQUIPMENT SHALL BE FINAL GRADING NOTES NOTE: ALL SYSTEM COMPONENTS ARE TO BE MARKED INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS AND SHALL BE WARRANTED FOR AT LEAST ONE YEAR. THE CONTRACTOR SHALL PROVIDE A SUFFICIENT QUANTITY OF CLEAN WATER TO CONDUCT TWO PUMP OPERATION TESTS. WATER TIGHT PRECAST CONCRETE OR EQUIVALENT RISERS WITH MEDIUM DUTY 1. 2% SLOPE MUST BE PROVIDED OVER AND AROUND SYSTEM. WITH MAGNETIC MARKING TAPE SURFACE DRAINAGE MUST BE AWAY FROM SYSTEM. 36" (MAX.) MANHOLE COVERS (ACCESSIBLE AT -3. GRADING MUST BE DONE TO PREVENT PONDING. WATER TIGHT COVER FINISHED GRADE) (SEE DETAIL) 4" SCH. 40 PVC AT 2.0% MIN. (ACCESSIBLE AT 2. <u>PUMP CHAMBER</u>— THE PUMP CHAMBER SHALL BE A REINFORCED PRECAST CONCRETE STRUCTURE. CONSTRUCTION JOINTS AND OPENINGS SHALL BE SEALED WITH A HYDRAULIC CEMENT OR OTHERWISE MADE WATERTIGHT. STEPS SHALL BE PROVIDED WHERE APPROPRIATE SYSTEM SAND (6" ABOVE TEE REQUIRED AND BELOW LINES) 10" (MIN.) 3. <u>PUMP AND MOTOR</u>— PUMP AND MOTOR SHALL BE MYERS SUBMERSIBLE SEWAGE PUMP CAPABLE OF PASSING 2—INCH SOLIDS. PUMP AND MOTOR SHALL BE FULLY SUBMERSIBLE 4" DIA. SCH 40 P.V.C. 18" (MIN. H20 LOADING) \_ 6" (MIN.) AND SHALL OPERATE AT 1550 RPM WITH A 220V, 60 CYCLE, SINGLE PHASE AC POWER SOURCE. (NOTE: ELECTRICAL CONTRACTOR SHALL VERIFY § FLOW ─► - 2" PVC BALL VALVE AVAILABLE VOLTAGE AT THE PUMP CONTROL PANEL PRIOR TO CONSTRUCTION.) PUMP SHALL BE RATED AS FOLLOWS: CLEAN BACKFILL CLEAN BACKFI 14" (MIN.)\* EMERGENCY STORAGE FLOW — SYSTEM SAND RATE: 62 GPM TDH: 10 FEET 2" (MIN.) - 4" DRILLED WEEP HOLE ENVIRO-SEPTIC® PIPE ALARM ON=335.21 3" (MAX.) (MIN.) 4" (SCH. 40) PVC MODEL: MYERS MW100 - OR EQUAL (SEE PAGE 3 OF 3 FOR SYSTEM CURVE) 2" PVC CHECK VALVE SANITARY OUTLET TEE — WITH TEE FILTER \* AND GAS BAFFLE ON CENTERLINE OF TANK 4" (SCH. 40) PVC SANITARY INLET TEE ON CENTERLINE OF TANK— PUMP ON=334.96 5 DOSE/DAY DOSE HEIGHT=0.44' 2-INCH (SCHEDULE 80) PVC PIPE AND FITTINGS SHALL BE USED FOR INTERIOR PUMP STATION DISCHARGE PIPING AND FITTINGS. THE SEWAGE FORCE MAIN SHALL BÈ 2-INCH DIAMETER SDR 21 PVC PIPE. THE DISCHARGE LINES WITHIN THE PUMP CHAMBER SHALL INCLUDE THE FOLLOWING: PUMP OFF=334.52 - MECHANICAL FLOAT of Crushed Stone BOT. CHAMBER=333.52 LEVEL SWITCHES (TYP.) 1) IN THE VERTICAL POSITION: A 2-INCH CHECK VALVE DISTRIBUTION BOX 2) IN THE HORIZONTAL POSITION: A 2-INCH BALL VALVE of crushed stone (IN ACCORDANCE WITH 310 CMR 15.232) SIZE = 5 OUTLET (UNUSED OUTLETS TO BE PLUGGED) ALL PIPING BETWEEN THE PUMP CHAMBER AND THE DISTRIBUTION BOX SHALL BE INSULATED. (SEE NOTE 8) \_\_ESTIMATED SEASONAL **BUILDING SEWER NOTES:** (H 10 LOADING REQUIRED) PUMP CHAMBER (PC-1) - H-10 PRECAST REINFORCED CONCRETE 1. SEWER LINE MUST BE LAID ON A FIRM COMPACTED BASE. (IN ACCORDANCE WITH 310 CMR 15.223 TO 15.228) MANUFACTURER: WACHUSETT PRECAST INC. (IN ACCORDANCE WITH 310 CMR 15.223 TO 15.228 AND 15.231) PROFILE/CROSS-SECTION CAPACITY = 1,500 GALLONS2. PIPE MUST BE SLOPED AT A MIN. OF 1% (2% PREFERRED) CAPACITY = 1.000 GALLONSOR EQUIVALENT SEALED FLOAT TYPE MECHANICAL SWITCHES SHALL BE SUPPLIED TO CONTROL THE PUMP LEVEL AND ALARM SIGNAL. THREE FLOAT SWITCHES SHALL BE ENVIRO-SEPTIC TREATMENT PIPE PRECAST REINFORCED CONCRETE PRECAST REINFORCED CONCRETE 3. PIPE MUST BE LAID ON A CONTINUOUS UNIFORM GRADIENT. USED TO CONTROL THE PUMP LEVEL: ONE EACH FOR PUMP "ON" AND FOR PUMP "OFF" AND A THIRD SWITCH SHALL BE PROVIDED WITH A POWER SOURCE MANUFACTURER: WACHUSETT PRECAST INC. NOT TO SCALE MANUFACTURER: WACHUSETT PRECAST INC. SEPARATE FROM THE PUMP POWER AND SHALL BE FOR THE ALARM UNIT. THE ALARM SHALL BE LOCATED IN THE BUILDING SERVED BY THE SYSTEM. FLOAT SWITCHES SHALL BE OF THE MECHANICAL TUBE TYPE SEALED IN POLYURETHANE FLOATS. THE FLOAT LEVEL CONTROLS SHALL BE SET TO OPERATE AT THE OR EQUIVALENT OR EQUIVALENT ELEVATIONS INDICATED ON THE PLANS. FLOATS AND ALARMS SHALL BE WIRED TO THE CONTROL BOX IN THE DWELLING WITHOUT THE USE OF A JUNCTION THE SIMPLEX CONTROL PANEL SHALL BE EQUIPPED WITH A RUN LIGHT FOR THE PROPERLY SIZED PUMP CIRCUIT BREAKERS, A TRANSFORMER TO GIVE PROPER VOLTAGE TO THE CONTROL CIRCUITS AND A THREE-WAY HAND CONTROL SWITCH. THE SWITCH POSITIONS SHALL BE AS FOLLOWS: 2) AUTOMATIC PUMP ON 3) MANUAL PUMP ON THE CONTROL PANEL SHALL BE HOUSED IN A NEMA-1 CONTROL BOX FOR 220V, SINGLE PHASE OPERATION. PANEL SHALL BE INSTALLED IN A SUITABLE LOCATION INSIDE THE BUILDING. A HIGH WATER ALARM SHALL BE SUPPLIED WITH BOTH AUDIBLE AND VISUAL ALARM WITH A SEPARATE POWER SUPPLY FROM THE PUMP. THE ALARMS SHALL BE MOUNTED IN A NEMA-1 ENCLOSURE SEPARATE FROM THE CONTROL PANEL. AN ALARM SILENCER BUTTON SHALL BE PROVIDED TO SILENCE THE √(FOR CONVENTIONAL) AUDIBLE ALARM WHILE THE VISUAL ALARM REMAINS ILLUMINATED UNTIL MANUALLY RESET. SYSTEM ONLY) 8. <u>PIPE INSULATION</u>— FORCE MAIN SHALL BE COVERED WITH 2—INCH, THICK RIDGED POLYSTYRENE INSULATION. 9. <u>effluent tee filter</u>— effluent tee filter shall be zabel a—1800 or equal dep approved filter. CONVENTIONAL LEACHING AREA - BIT. CONC. FINISH GRADE -PA VEMENT LOAM & SEED -COMPACTED GRAVEL GRANULAR BACKFILL 2" POLYSTYRENE INSULATION MINIMUM R-7MAGNETIC MARKING TAPE LOT LOCUS MAP SCALE 1" = 200'LIMIT OF FILL FOR CONVENTIONAL RESERVE SYSTEM -UNDISTURBED SOIL PROPOSED 5-BEDROOM TRENCH SIDE SLOPES SHALL BE IN ACCORDANCE WITH OSHA REQUIREMENTS. -DWELLING MAIN FLOOR = 350.25UPPER FLOOR = 354.75 FORCE MAIN INSULATION $_{GAR.} = 344.5$ CAPACITY LITERS PER MINUTE SLAB ELEV. = 341.0 NOT TO SCALE 40 80 120 160 200 240 280 320 360 CONVENTIONAL CONCEPT LAYOUT (NOT FOR CONSTRUCTION) SCALE 1" = 20"END VIEW



\_NOTE: <u>DO NOT</u> INSERT PVC PIPE MORE THAN 4" INTO OFFSET ADAPTER

RAISED CONNECTION

LAND SURVEYORS CIVIL ENGINEERS 1 MAIN STREET, SUITE 1 LUNENBURG, MA 01462

←ENVIRO-SEPTIC PIPE

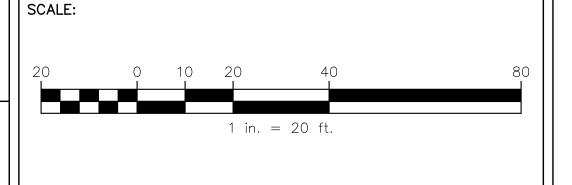
WETLAND CONSULTANTS PHONE: (978) 779-6091 www.dillisandroy.com

## OWNER:

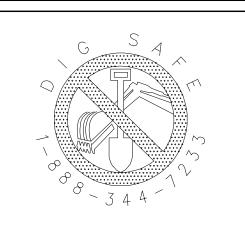
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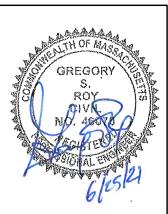
## APPLICANT:

RASHEED TIJANI 2 HERITAGE FARM ROAD HAVERHILL, MA



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/10/2020	SEWAGE DI				
BY:			MEAD( BOLT(		
VVOIVI	NO.	DATE			
BY:	2.	11/17/2020	REVISED		
RWP	3.	03/01/2021	REVISED I		

SEWAGE DISPOSAL SYSTEM DESIGN MEADOW ROAD (LOT #4) BOLTON, MASSACHUSETTS					
NO.	DATE	DESCRIPTION	В		
2.	11/17/2020	REVISED PER N.A.B.O.H COMMENTS			
3.	03/01/2021	REVISED PER NEW HOUSE BOX	R		
4.	05/17/2021	REVISED PER N.A.B.O.H COMMENTS	R		

06/25/2021 REVISED PER CONSERVATION COMMISSION COMMENTS

**CAPACITY GALLONS PER MINUTE** 

JOB NO. 4869-DRAWING NO. MEADOW ROAD SDS SHEET NO. OF 2

RWP