



Manitowoc County Private Onsite Wastewater Treatment System Inspection Report

County Permit No.

5-082-18

State Permit No:

596127

State Plan Transaction

ID#: 2018046

Parcel Tax No:

03-133-011-002.00

GENERAL INFORMATION

Personal information you provide may be used for secondary purposes [Privacy Law, s. 15.04 (1)(m)]

Permit Holder's Name:

Daniel Hershburger

Town of:

Mishicot

Type of System: ☐ New ☒ ReplacementMound: ☒ <24" ☐ >24"; Inground, At-Grade, Holding Tank, Reconnect, Tank Repl, Inground Pressure

BM Description:

Same

BM 2 Description:

Building SewerLength: >30' ☒ Y ☐ N Insulated: ☐ Y ☒ N Cleanout: ☐ Y ☒ N/ATank Information ☒ Same as Plans ☐ Revised (change below)

Type	Manufacturer	Capacity
Septic		
Dosing		
Aeration		
Holding		
Filter		

Chained and Locked ☐ Yes ☒ No (To be locked per code) Bedding: ☒ Sand ☐ Gravel ☐ NoneOld Tank Abandoned Per Comm. 83? ☐ Yes ☒ No ☐ N/A pumped**Tank Setback Information**

Tank To	P/L	Well	BLDG.	Vent/ air intake	Road
Septic	100'+	100'+	5'+	10'+	50'
Dosing					
Aeration					N/A
Holding					

Pump/Siphon Information

Manufacturer	Zoeller		Demand	
Model No.	152		39.32 GPM	
Lift 9.66	Fric. Loss 3.2	Sys. Head 3.25	TDH 16.11	
Forcemain	Length: 100'	Dia: 2"	Dist. To Well: 100'+	

Dispersal Cell Information

Dimensions	Width 6'	Length 100'	No. of Cells 1		
Cell to:	P/L 80'±	Bldg 25'	Well 100'±	OHWM —	Pool —
Leaching Chambers	Manufacturer: —	Model # —		# of Units. —	

Distribution Information

Header/Manifold	Distribution Pipe(s): 4 Lateral(s)
Length 3 Dia 1 1/2"	Length 49.3 Dia 1 1/2" Spac 3'

Distribution Information

Hole Size: 3 1/16"	Hole Spacing: 3.4'	Observation Pipes: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Vented <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Soil Information

System covered? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (To be installed per Code by Installer.)	Seeded/Sodded <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Mulched <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Site Plan Revision? ☐ Yes ☒ NoPlan Revision Needed? ☐ Yes ☒ No

Reason?

Comments:

☐ well to be located per Comm 83

Installer's Signature

8/23/18

Date

Kaitie Boeckman

Powts Inspector's Signature

1060297

Certification No.



Industry Services Division
1400 E Washington Ave
P.O. Box 7162
Madison, WI 53707-7162

County Manitowoc
Sanitary Permit Number (to be filled in by Co.)

596127 S-82-18

State Transaction Number
2018046

Project Address (if different than mailing address)

Sanitary Permit Application

In accordance with SPS 383.21(2), Wis. Adm. Code, submission of this form to the appropriate governmental unit is required prior to obtaining a sanitary permit. Note: Application forms for state-owned POWTS are submitted to the Department of Safety and Professional Services. Personal information you provide may be used for secondary purposes in accordance with the Privacy Law, s. 15.04(1)(m), Stats.

I. Application Information - Please Print All Information

Property Owner's Name

Daniel Hershburger

Property Owner's Mailing Address

3106 E. County V

City, State

Mishicot, WI

Zip Code

54228

Phone Number

Parcel #

013-133-011-00200

Property Location

Govt. Lot

SW 1/4, SW 1/4, Section 33

T. 21 N. R. 24 E. or W.

II. Type of Building (check all that apply)

☒ 1 or 2 Family Dwelling - Number of Bedrooms 4

☐ Public/Commercial - Describe Use _____

☐ State Owned - Describe Use _____

Lot #

Block #

CSM Number

Subdivision Name

☐ City of _____

☐ Village of _____

☒ Town of Mishicot

III. Type of Permit: (Check only one box on line A. Complete line B if applicable)

A. ☐ New System ☒ Replacement System ☐ Treatment/Holding Tank Replacement Only ☐ Other Modification to Existing System (explain) _____

B. ☐ Permit Renewal Before Expiration ☐ Permit Revision ☐ Change of Plumber ☐ Permit Transfer to New Owner

List Previous Permit Number and Date Issued _____

IV. Type of POWTS System/Component/Device: (Check all that apply)

☐ Non-Pressurized In-Ground ☐ Pressurized In-Ground ☐ At-Grade Mound \geq 24 in. of suitable soil ☒ Mound $<$ 24 in. of suitable soil

☐ Holding Tank ☐ Other Dispersal Component (explain) _____ ☐ Pretreatment Device (explain) _____

V. Dispersal/Treatment Area Information:

Design Flow (gpd) 600 Design Soil Application Rate (gpd/sf) 1.0/0.6 Dispersal Area Required (sf) 600 Dispersal Area Proposed (sf) 600 System Elevation 652.60

VI. Tank Info

Capacity in Gallons

New Tanks Existing Tanks

Total Gallons

of Units

Manufacturer

Prefab Concrete

Site Constructed

Steel

Fiber Glass

Plastic

Septic or Holding Tank

1250

combo

1

Murphy Precast

X

Dosing Chamber

800

VII. Responsibility Statement- I, the undersigned, assume responsibility for installation of the POWTS shown on the attached plans.

Plumber's Name (Print)

Nevin Landis

Plumber's Signature

Nevin Landis

MP/MPRS Number

954943

Business Phone Number

920-373-1193

Plumber's Address (Street, City, State, Zip Code)

7423 Fairview Rd. Oconto, WI 54153

VIII. County/Department Use Only

☒ Approved

☐ Disapproved

☐ Owner Given Reason for Denial

Permit Fee

\$550.00

Date Issued

7/13/18

Issuing Agent Signature

Karla Brechman

IX. Conditions of Approval/Reasons for Disapproval

County

Attach to complete plans for the system and submit to the County only on paper not less than 8 1/2 x 11 inches in size





Planning & Zoning Department

Manitowoc County Office Complex • 4319 Expo Drive, P.O. Box 935 • Manitowoc WI 54221-0935
Phone: 920.683.4185 • Fax: 920.683.4190 • TTY: 920.683.5168

Sanitary Permit Number: 596127 S-82-18

Permit Issue Date: 7/13/18

MAINTENANCE PROGRAM

Dear Sanitary Permit Applicant:

Owners of all new or replacement private sewage systems installed after August 16, 1983 are required to submit to the Manitowoc County Planning and Zoning Department Office a certification form (to be provided by Manitowoc County Planning and Zoning Department) every three years, signed by the owner and signed by a master plumber, a journeyman plumber or restricted plumber licensed under ch. 145, Stats., a person licensed under s. 146.20, State., (waste hauler) or by an employee of the government unit or state designated by the department, who has inspected the system. The form shall require certification that the system is in proper operating condition and that after inspection, and pumping if necessary, the septic tank is less than 1/3 full of sludge and scum.



Manitowoc County Planning and Zoning Department

4319 Expo Drive, P.O. Box 935

Manitowoc, WI 54221-0935

Planning and Zoning

920-683-4185

Fax

920-683-4190

website: www.co.manitowoc.wi.us

July 13, 2018

OWNER'S NAME: DANIEL HERSHBURGER

LEGAL: SW1/4, SW1/4, S.33, T21N-R24E

MUNICIPALITY: TOWN OF MISHICOT

SYSTEM TYPE: MOUND

PLUMBER: NEVIN LANDIS

PLAN I.D.: 2018046

FEE: \$230.00

RE: CONDITIONAL POWTS PLAN APPROVAL

The submittal described above has been reviewed for conformance with applicable Wisconsin Administrative Codes and Wisconsin Statutes. The submittal has been **CONDITIONALLY APPROVED**. The following conditions shall be met during construction or installation and prior to occupancy or use:

- This system is to be constructed and located in accordance with the enclosed approved plans and with the "Mound Component Manual for Private Onsite Wastewater Systems VERSION 2.0" SBD-10691-P (N.01/01) and the "Pressure Distribution Component Manual for Private Onsite Wastewater Treatment Systems VERSION 2.0" SBD-10706-P (N.01/01).

The licensed plumber responsible for the installation shall keep a copy of the approved plans with the Department's stamp of approval with all specifications and this letter on-site during construction and all work open for inspection by authorized representatives of the Department. The installer shall notify the appropriate inspector when inspections can be made.

In granting this approval the Division of Safety & Professional Service or Manitowoc County Planning and Zoning reserve the rights to require changes or additions should conditions arise making them necessary for code compliance. As per State Stats 101.12(2), nothing in this review shall relieve the designer of the responsibility for designing a safe building, structure, or component.

This plan approval will expire two years from the approval date, or if a sanitary permit is obtained, plan approval will expire on the day the initial sanitary permit expires. All permits required by the state or the local municipality shall be obtained prior to commencement of construction/installation/operation.

Inquiries concerning this correspondence may be made to me at the telephone number or address listed above.

Sincerely,

Karla Boeckman
Karla Boeckman

MOUND AND PRESSURE DISTRIBUTION COMPONENT DESIGN

Residential Application INDEX AND TITLE PAGE

Project Name: Hershburger

Owner's Name: Richard Anhalt

Owner's Address: 3106 E. CTY V
Mishicot, WI 54228

Legal Description: SW 1/4, SW1/4, S 33, T21N-R24E

Township: Mishicot

County: Manitowoc

Subdivision Name: _____

Lot Number: _____ Block Number: _____

Parcel I.D. Number: 013-133-011-002.00

Plan Transaction No.: _____

Page 1	Index and title
Page 2	Data entry
Page 3	Mound drawings
Page 4	Lateral and dose tank
Page 5	System maintenance specifications
Page 6	Management and contingency plan
Page 7	Pump curve and specifications
Page 8	plot plan



Designer: Nevin Landis License Number: 954153

Date: 05/02/18 Phone Number: 920-373-1193

Signature: Nevin Landis

Designed Pursuant to the
Mound Component Manual for POWTS Version 2.0 SDB-10691-P (N. 01/01), and both
SSWMP Publication 9.6 Design of Pressure Distribution Networks for ST-SAS (01/81) and
Pressure Distribution Component Manual Ver. 2.0 SBD-10706-P (N. 01/01)

Mound and Pressure Distribution Component Design

Design Worksheet

Site Information

(R or C)

R	Residential or Commercial Design
400.00	Estimated Wastewater Flow (gpd)
1.50	Peaking Factor (e.g. 1.5 = 150%)
600.00	Design Flow (gpd)
3.00	Site Slope (%)
651.18	Contour Line Elevation (ft)
19.00	Depth to Limiting Factor (in)
0.60	In-situ Soil Application Rate (gpd/ft ²)

Note: Sand fill (D) calculations assume a Table 383-44-3 in-situ soil treatment for fecal coliform of <= 36 inches.

Distribution Cell Information

100.00	Dispersal Cell Length Along Contour (ft) =	6.00	Cell Width (ft)
1.00	Dispersal Cell Design Loading Rate (gpd/ft ²)		
1	Influent Wastewater Quality (1 or 2)		

Are the laterals the highest point in the distribution network?

Y

Enter Y or N

Pressure Distribution Information

(C or E)

c	Center or End Manifold	
3.00	Lateral Spacing (ft)	If N above
4	Number of Laterals	of the high
0.188	Orifice Diameter (in)	
3.19	Estimated Orifice Spacing (ft) =	10.00 ft ² /orifice
2.00	Forcemain Diameter (in)	
80.00	Forcemain Length (ft)	Does the forcemain
646.00	Pump Tank Elevation (ft)	

If N above, enter the elevation (ft) of the highest point.

Does the forcemain drain back?

Y

Enter Y or N

3.25	System Head (ft) x 1.3
6.51	Vertical Lift (ft)
2.56	Friction Loss (ft)
0.00	In-line Filter Loss (ft)
12.32	Total Dynamic Head (ft)

13.05	Forcemain Drainback (gal)
90.47	5x Void Volume (gal)
103.52	Minimum Dose Volume (gal)
39.32	System Demand (gpm)

Lateral Diameter Selection		
in. dia.	options	choice
0.75		
1.00		
1.25	x	
1.50	x	x
2.00	x	
3.00	x	

Manifold Diameter Selection		
in. dia.	options	choice
1.25		
1.50	x	x
2.00	x	
3.00		

Treatment Tank Information

1250.00	Septic Tank Capacity (gal)
Murphy precast	Manufacturer

Gallons/Inch Calculator (optional)

	Total Tank Capacity (gal)
	Total Working Liquid Depth (in)
	gal/in (enter result in cell B49)

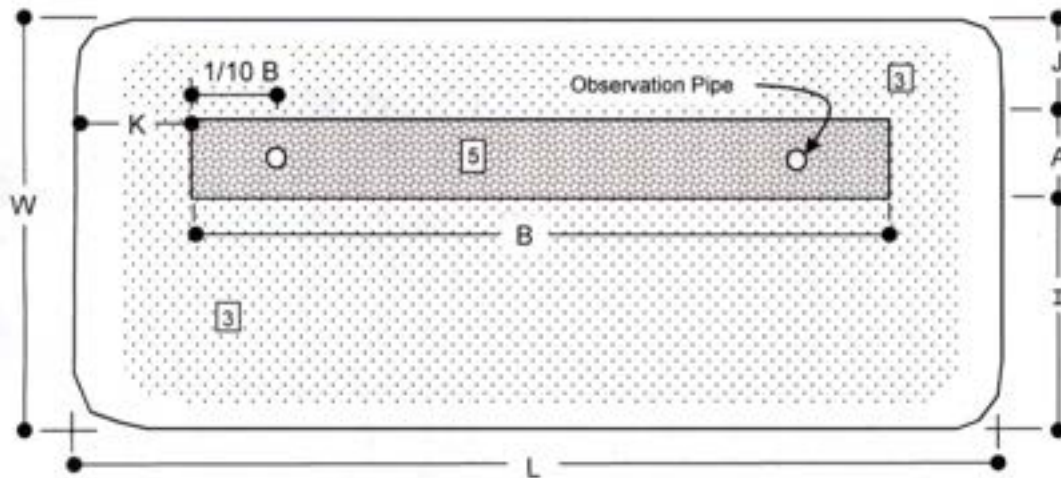
Dose Tank Information

800.00	Dose Tank Capacity (gal)
16.19	Dose Tank Volume (gal/in)
Murphy precast	Manufacturer

Effluent Filter Information

PolyLok Commercial	Filter Manufacturer
525	Filter Model Number

Mound Plan and Cross Section Views



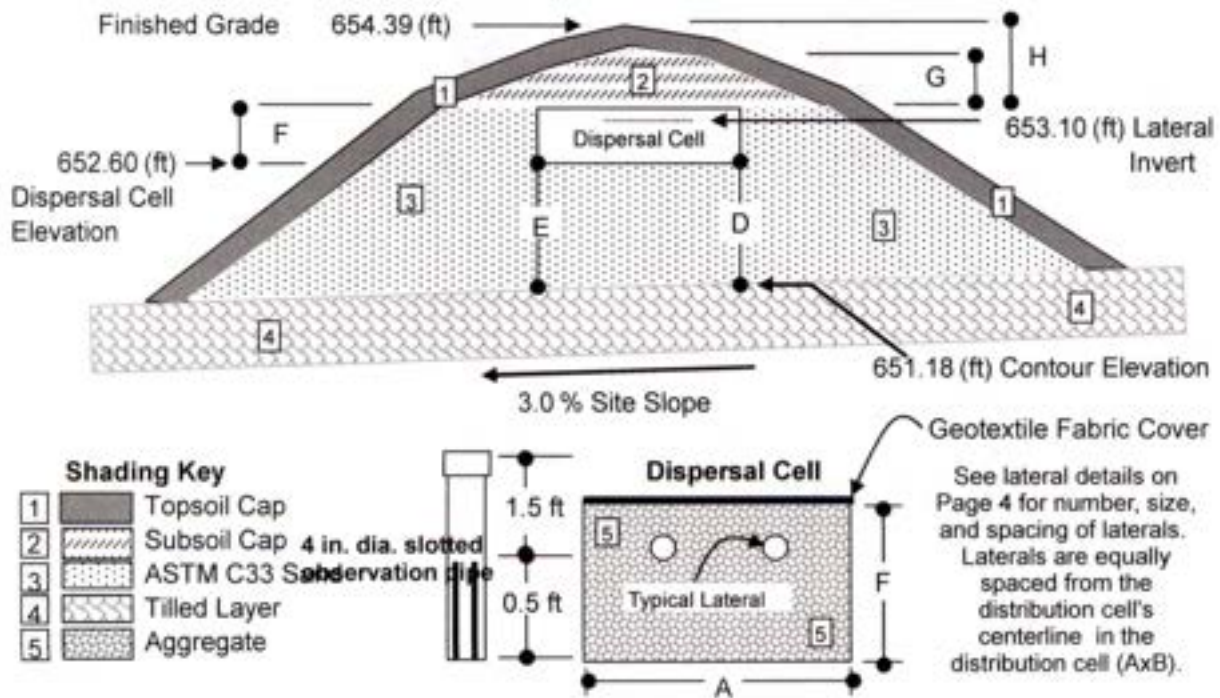
Mound Component Dimensions

A	6.00 ft	E	19.16 in	H	1.00 ft	K	9.90 ft
B	100.00 ft	F	9.50 in	I	9.52 ft	L	119.79 ft
D	17.00 in	G	0.50 ft	J	7.45 ft	W	22.98 ft

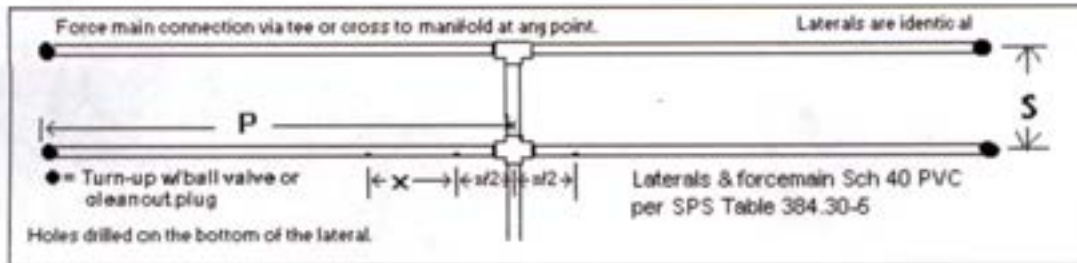
600.00 (ft ²) Dispersal Cell Area	1552.20 (ft ²) Basal Area Available
6.00 (gpd/ft) Linear Loading Rate	10.00 (ft) 1/10 B Obs. Pipe Placement

Mound Cross Section View

Aggregate Dispersal Area

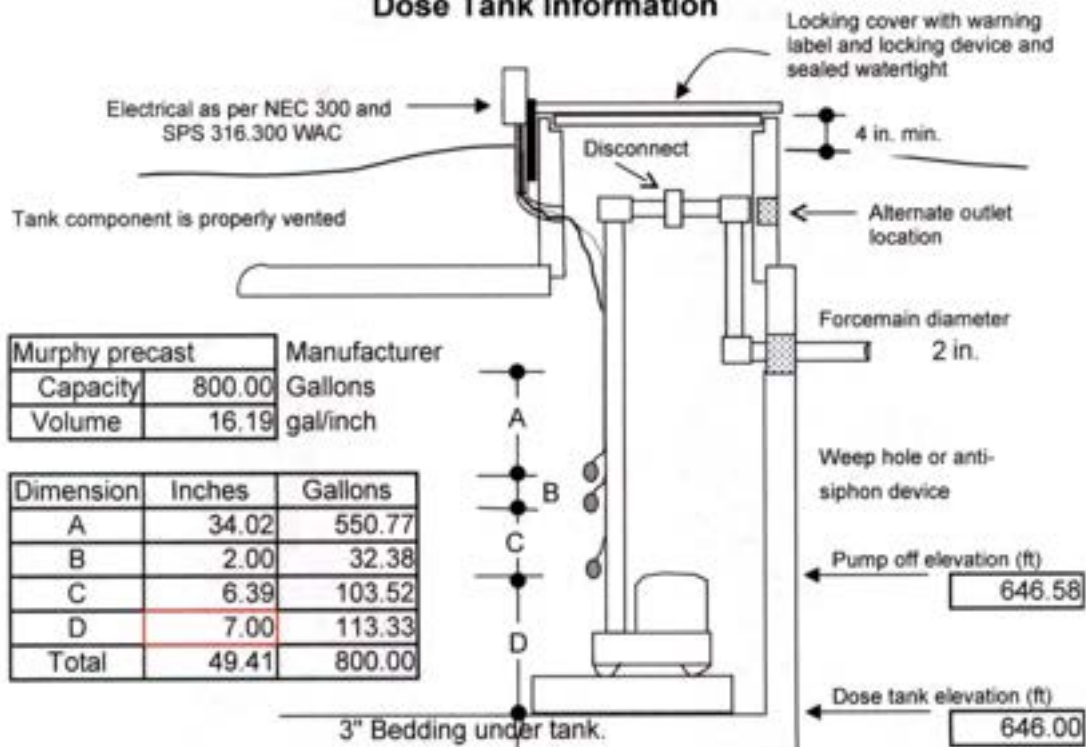


Center Connection Lateral Layout Diagram



Number of Laterals	4	Orifice Diameter	03/16 in
Lateral Diameter	1.50 in	Orifice Spacing (X)	3.40 ft
Lateral Length (P)	49.30 ft	Orifices per Lateral	15
Lateral Spacing (S)	3.00 ft	Orifice Density	10.00 ft ² /orifice
Lateral Flow Rate	9.83 gpm	Manifold Length	3.00 ft
System Flow Rate	39.32 gpm	Manifold Diameter	1.50 in
Total Dynamic Head	12.32 ft	Forcemain Velocity	4.02 ft/sec

Dose Tank Information



Alarm Manufacturer S.J. Electro
Alarm Model Number 101

Pump Manufacturer Zoeller
Pump Model Number 98

Pump Must Deliver 39.32 gpm at 12.32 ft TDH

Note: Switches containing mercury may not be used in this system.

Mound System Maintenance and Operation Specifications

Service Provider's Name

Landis Excavating

Phone

920-373-1193

POWTS Regulator's Name

Manitowoc County Zoning

Phone

920-683-4185

System Flow and Load Parameters

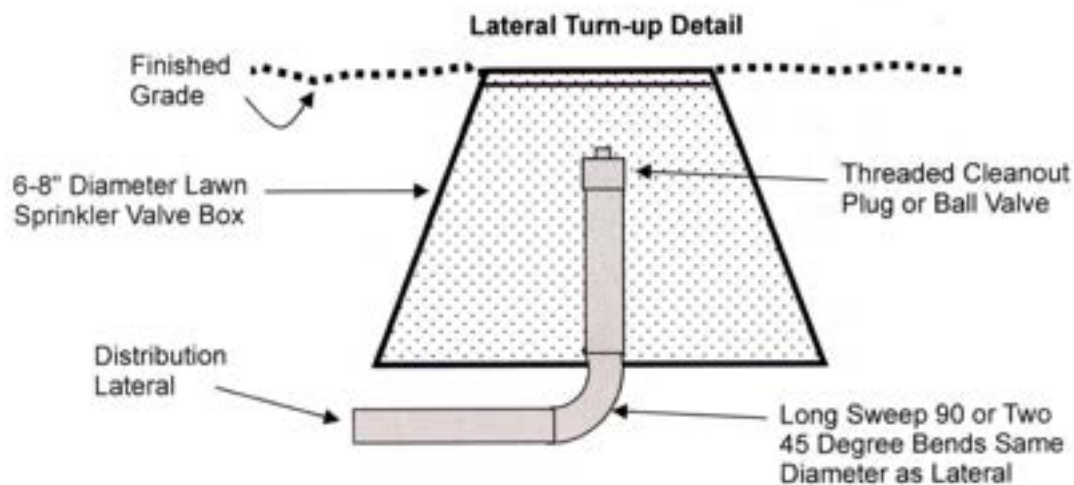
Design Flow - Peak	600	gpd	Maximum Influent Particle Size	1/8	in
Estimated Flow - Average	400	gpd	Maximum BOD5	220	mg/L
Septic Tank Capacity	1200	gal	Maximum TSS	150	mg/L
Soil Absorption Component Size	600	ft ²	Maximum FOG	30	mg/L
Type of Wastewater	Domestic		Maximum Fecal Coliform	>10E4	cfu/100 mL

Service Frequency

Septic and Pump Tank	Inspect and/or service once every 3 years
Effluent Filter	Should inspect and clean at least once every 3 years
Pump and Controls	Test once every 3 years
Alarm	Should test monthly
Pressure System	Laterals should be flushed and pressure tested every 1.5 years
Mound	Inspect for ponding and seepage once every 3 years
Other	

Miscellaneous Construction and Materials Standards

1. Observation pipes are slotted and materials conform to Table SPS 384.30-1, have a watertight cap, and are secured in as shown in the mound component manual.
2. Dispersal cell aggregate conforms to SPS 384.30 (6)(i), Wis. Adm. Code.
3. All gravity and pressure piping materials conform to the requirements in SPS 384, Wis. Adm. Code.
4. Tillage of the basal area is accomplished with a mold board or chisel plow.
5. The mound structure and other disturbed areas will be seeded and mulched to prevent soil erosion and help reduce frost penetration.



Mound System Management Plan

Pursuant to SPS 383.54, Wis. Adm. Code

General

This system shall be operated in accordance with SPS 382-84 Wis. Adm. Code, and shall be maintained in accordance with its' component manuals [SBD-10691-P (N.01/01), SSWMP Publication 9.6 (01/81), and Pressure Distribution Component Manual Ver. 2.0 SBD-10706-P (N. 01/01)] and local or state rules pertaining to system maintenance and maintenance reporting.

No one should ever enter a septic or pump tank since dangerous gases may be present that could cause death.

Septic and pump tank abandonment shall be in accordance with SPS 383.33, Wis. Adm. Code when the tanks are no longer used as POWTS components.

Septic or pump tank manhole risers, access risers and covers should be inspected for water tightness and soundness. Access openings used for service and assessment shall be sealed watertight upon the completion of service. Any opening deemed unsound, defective, or subject to failure must be replaced. Exposed access openings greater than 8-inches in diameter shall be secured by an effective locking device to prevent accidental or unauthorized entry into a tank or component.

Septic Tank

The septic tank shall be maintained by an individual certified to service septic tanks under s. 281.48, Stats. The contents of the septic tank shall be disposed of in accordance with NR 113, Wis. Adm. Code. The operating condition of the septic tank and outlet filter shall be assessed at least once every 3 years by inspection.

The outlet filter shall be cleaned as necessary to ensure proper operation. The filter cartridge should not be removed unless provisions are made to retain solids in the tank that may slough off the filter when removed from its enclosure. If the filter is equipped with an alarm, the filter shall be serviced if the alarm is activated continuously. Intermittent filter alarms may indicate surge flows or an impending continuous alarm.

The septic tank shall have its contents removed when the volume of sludge and scum in the tank exceeds 1/3 the liquid volume of the tank. If the contents of the tank are not removed at the time of a triennial assessment, maintenance personnel shall advise the owner of when the next service needs to be performed to maintain less than maximum scum and sludge accumulation in the tank.

The addition of biological or chemical additives to enhance septic tank performance is generally not required. However, if such products are used they shall be approved for septic tank use by the Department of Commerce.

Pump Tank

The pump (dosing) tank shall be inspected at least once every 3 years. All switches, alarms, and pumps shall be tested to verify proper operation. If an effluent filter is installed within the tank it shall be inspected and serviced as necessary.

Mound and Pressure Distribution System

No trees or shrubs should be planted on the mound. Plantings may be made around the mound's perimeter, and the mound shall be seeded and mulched as necessary to prevent erosion and to provide some protection from frost penetration. Traffic (other than for vegetative maintenance) on the mound is not recommended since soil compaction may hinder aeration of the infiltrative surface within the mound and snow compaction in the winter will promote frost penetration. Cold weather installations (October-February) dictate that the mound be heavily mulched as protection from freezing.

Influent quality into the mound system may not exceed 220 mg/L BOD₅, 150 mg/L TSS, and 30 mg/L FOG for septic tank effluent or 30 mg/L BOD₅, 30 mg/L TSS, 10 mg/L FOG, and 10⁶ cfu/100 mL for highly treated effluent. Influent flow may not exceed maximum design flow specified in the permit for this installation.

The pressure distribution system is provided with a flushing point at the end of each lateral, and it is recommended that each lateral be flushed of accumulated solids at least once every 18 months. When a pressure test is performed it should be compared to the initial test when the system was installed to determine if orifice clogging has occurred and if orifice cleaning is required to maintain equal distribution within the dispersal cell.

Observation pipes within the dispersal cell shall be checked for effluent ponding. Ponding levels shall be reported to the owner, and any levels above 6 inches considered as an impending hydraulic failure requiring additional, more frequent monitoring.

Contingency Plan

If the septic tank or any of its components become defective the tank or component shall be repaired or replaced to keep the system in proper operating condition.

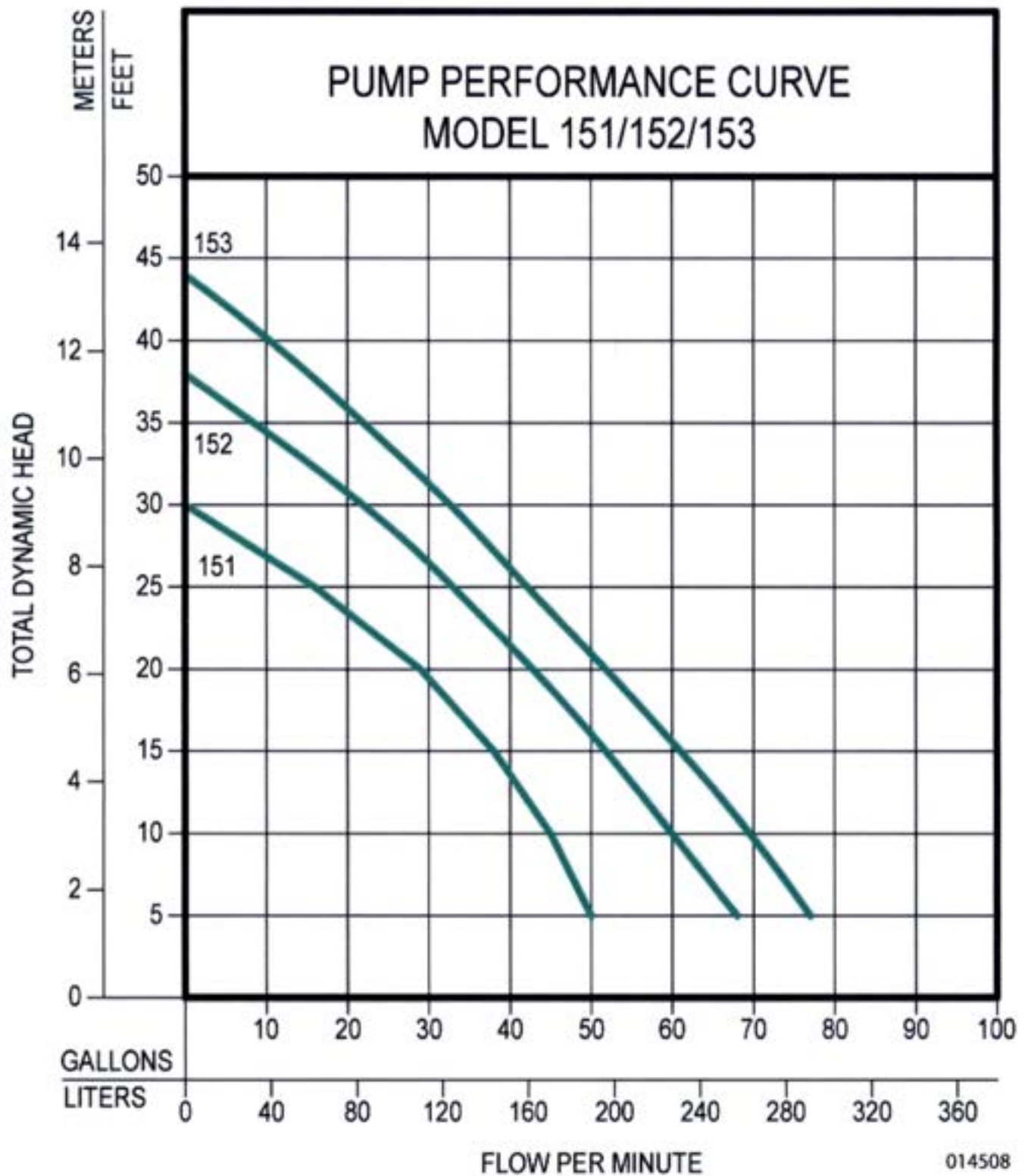
If the dosing tank, pump, pump controls, alarm or related wiring becomes defective the defective component(s) shall be immediately repaired or replaced with a component of the same or equal performance.

If the mound component fails to accept wastewater or begins to discharge wastewater to the ground surface, it will be repaired or replaced in its' present location by increasing basal area if toe leakage occurs or by removing biologically clogged absorption and dispersal media, and related piping, and replacing said components as deemed necessary to bring the system into proper operating condition.

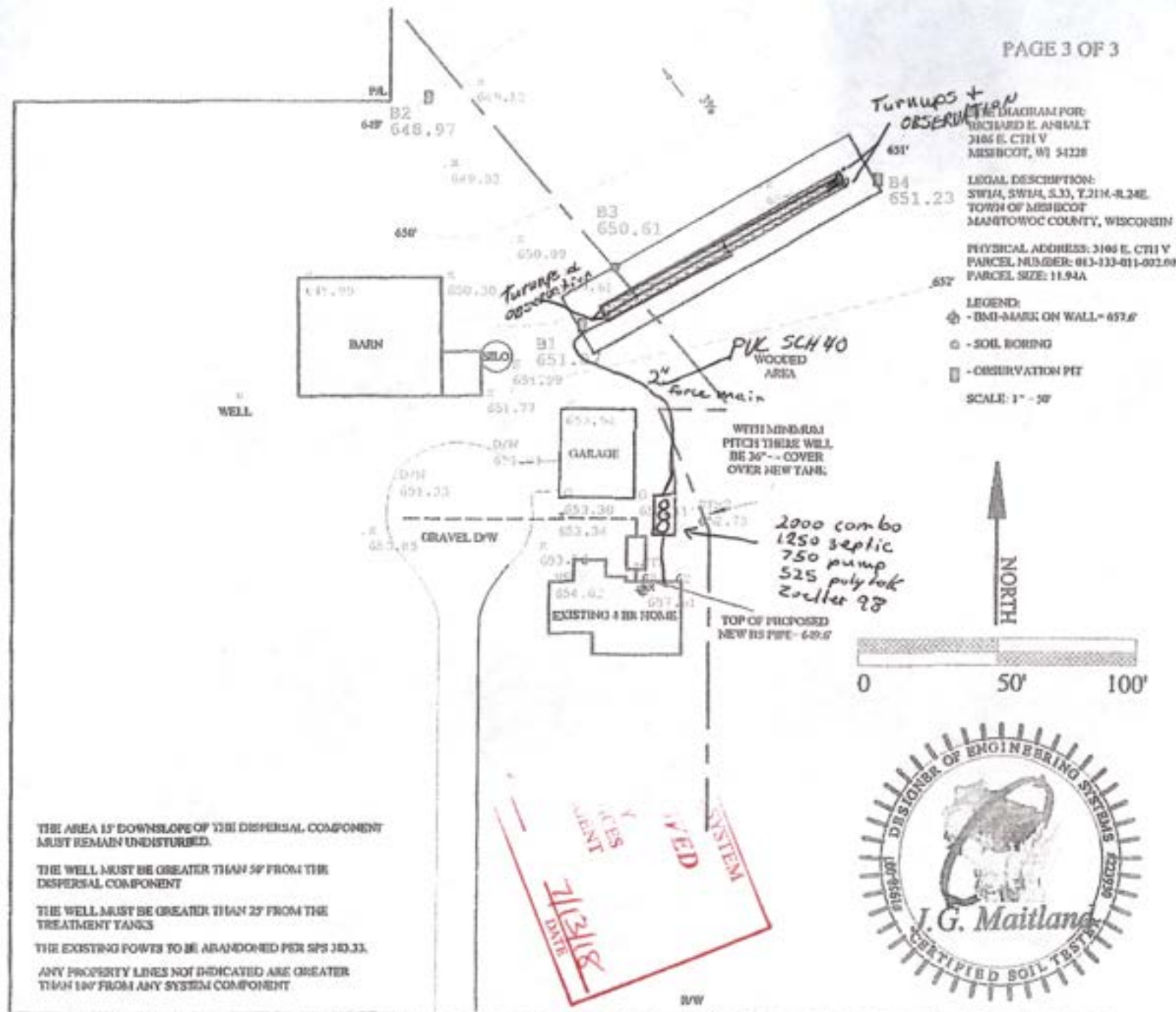
See Page 5 of this plan for the name and telephone number of your local POWTS regulator and service provider.

Pretreatment Units

The information and schedule of management and maintenance for pretreatment devices such as aerobic treatment units or disinfection units are attached as separate documents and are considered part of the overall management plan for this system.



014508



E. CTH "V"

SOIL EVALUATION REPORT

Revision

Wisconsin Department of Safety & Professional Services
Division of Safety and Buildings

Page 1 of 3

In accordance with DSPS 385, Wis. Admin. Code



Attach complete site plan on paper not less than 8 1/2 x 11 inches in size. Plan must include, but not limited to: vertical and horizontal reference point (BM), direction and percent slope, scale or dimensions, north arrow, and location and distance to nearest road.

Please print all information

Personal information you provide may be used for secondary purposes (Privacy Law, s. 15.04(1)(m)).

Property Owner RICHARD E. ANHALT		Property Location Govt. Lot SW1/4, SW1/4, S33, T21N-R24E	
Property Owner's Mailing Address 3106 E. CTH V		Lot #	Block # NA
City MISHICOT	State WI	Zip Code 54228	Phone Number DEAN 755-4128
City MISHICOT		Village	Town E. CTH V
<input type="checkbox"/> New Construction Use: <input checked="" type="checkbox"/> Residential Number of Bedrooms 4 Code derived design flow rate 600 GPD <input type="checkbox"/> Replacement <input type="checkbox"/> Public or commercial- Describe:		Flood Plain elevation if applicable NA ft.	
Parent Material GLACIAL TILL			
General comments RECOMMEND A 6' X 100' MOUND CELL WITH A MIN. 17" ASTM C33 SAND LIFT.			

1	<input type="checkbox"/> Boring	Ground surface elev. 651.07 ft.	Depth to limiting factor 19 in.	Soil Application Rate						
	<input checked="" type="checkbox"/> Pit			GPD/R2						
Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	Roots	*Eff#1	*Eff#2
Ap	0-12	10YR3/2	NONE	HVY SIL	2FGR	MFR	CS	2VF	0.6	0.8
Bt	12-19	5YR4/4	NONE	CL	2VF-FSBK	MFR	CS	1M	0.4	0.6
Bt2	19-24	5YR4/4	5YR4/6 F1F	CL	1FPR	MFR	CS	--	0.0	0.0
Ck	24-30	5YR5/4	5YR4/6 F1F	CL	MSV	MFR	--	--	0.0	0.0

2	<input type="checkbox"/> Boring	Ground surface elev. 648.97 ft.	Depth to limiting factor 19 in.	Soil Application Rate						
	<input checked="" type="checkbox"/> Pit			GPD/R2						
Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	Roots	*Eff#1	*Eff#2
Ap	0-10	10YR3/2	NONE	HVY SIL	2FGR	MFR	CS	2VF	0.6	0.8
Bt	10-19	5YR4/4	NONE	CL	2VF-FSBK	MFR	CS	1VF	0.4	0.6
Bt2	19-24	5YR4/4	5YR4/6 F1F	CL	1FPR	MFR	CS	--	0.0	0.0
Ck	24-30	5YR5/4	5YR4/6 F1F	CL	MSV	MFR	--	--	0.0	0.0

* Effluent #1 = BOD5 > 30 <= 220 mg/L and TSS > 30 <= 150 mg/L

* Effluent #2 = BOD5 <= 30 mg/L and TSS <= 30 mg/L

CST Name (Please Print) JOE MAITLAND	Signature 	CST Number 223930
Address 693 LAMERS-CLANCY RD. GREENLEAF, WI 54126	Date Evaluation Conducted 10/03/17	Telephone Number 920 532-0016

3 ☒ Boring ☐ Pit
 Boring # _____ Ground surface elev. 650.61 ft. Depth to limiting factor 19 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	Roots	Soil Application Rate GPD/ft2	
									*Eff#1	*Eff#2
Ap	0-12	10YR3/2	NONE	HVY SIL	2FGR	MFR	CS	2VF	0.6	0.8
Bt	12-19	5YR4/4	NONE	CL	2VF-FSBK	MFR	CS	1VF	0.4	0.6
Bt2	19-24	5YR4/4	5YR4/6 F1F	CL	1FPR	MFR	CS	--	0.0	0.0
Ck	24-30	5YR5/4	5YR4/6 F1F	CL	MSV	MFR	--	--	0.0	0.0

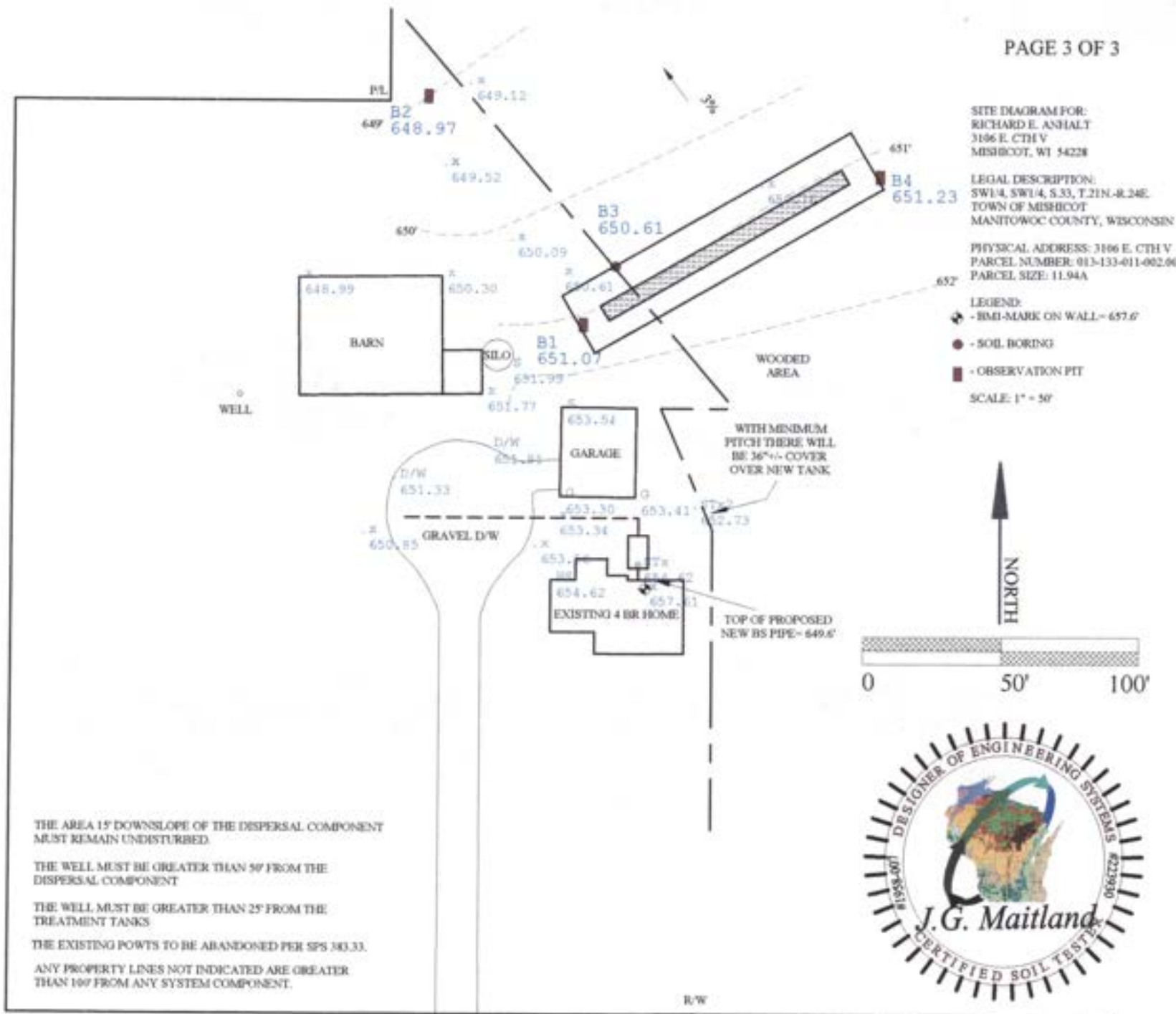
4 ☐ Boring ☒ Pit
 Boring # _____ Ground surface elev. 651.23 ft. Depth to limiting factor >20 in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	Roots	Soil Application Rate GPD/ft2	
									*Eff#1	*Eff#2
Ap	0-10	7.5YR3/2	NONE	CL	2FABK	DSH	AS	1VF	0.4	0.6
Bt	10-20	5YR4/4	NONE	CL	2MABK	DSH	--	1F	0.4	0.6

☐ Boring ☐ Pit
 Boring # _____ Ground surface elev. _____ ft. Depth to limiting factor _____ in.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	Roots	Soil Application Rate GPD/ft2	
									*Eff#1	*Eff#2

* Effluent #1 = BOD5 > 30 <= 220 mg/L and TSS >30 <= 150 mg/L *Effluent #2=BOD5<=30mg/L and TSS<=30mg/L



E. CTH "V"