



Department of Public Health and Environment
 14949 62nd Street North PO Box 6
 Stillwater MN 55082-0006
 Office: 651-430-6655 TTY: 651-430-6246 Fax: 651-430-6730

Review Fee:	\$285.00
Permit Fee:	\$300.00
Total Fee:	\$585.00
Previous Payment	\$585.00
Balance Due	\$0.00

Community: Afton
Permit Number: 0100-13-12
Owner: Tom & Brenda Laska
 13237
 Afton MN 55001-
Applicant: John Buelow

PERMISSION IS HEREBY GRANTED

To execute the work specified in this permit on the following identified property upon express condition that said persons and their agents, and employees shall conform in all respects to the provisions of Ordinance #179, Washington County Development Code, Chapter Four, Subsurface Sewage Treatment System Regulations. This permit may be revoked at any time upon violation of any of the provisions of said ordinance.

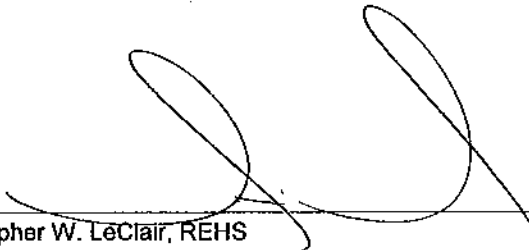
Project Address: 2685 Meadow Point Path
Geo Code: 18-028-20-31-0026
Designer: Buelow Excavating

Type of System: Drainfield		Pressure Distribution	
		N / A	
Design Criteria	Drainfield Sizing		
Percolation Rate: 31	Square Feet:	1200	
Depth To Restriction: 48	Lineal:	400	Feet
Land Slope: 2.00%	Depth Of Rock Below:	6	Inches
Flow Rate: 600	Maximum Trench Depth:	12	Inches
Number of Bedrooms: 0	Number Of Trenches:	4	
<input type="checkbox"/> Gravelless	Length Of Trenches:	100	Feet
<input type="checkbox"/> Chambered	Spacing Of Trenches:	7.5	Feet
Tank Sizes			
Tank 1: 1500	Tank 2: 1000	Tank 3: 0	Lift Station: 0

Authorized Work/Special Conditions

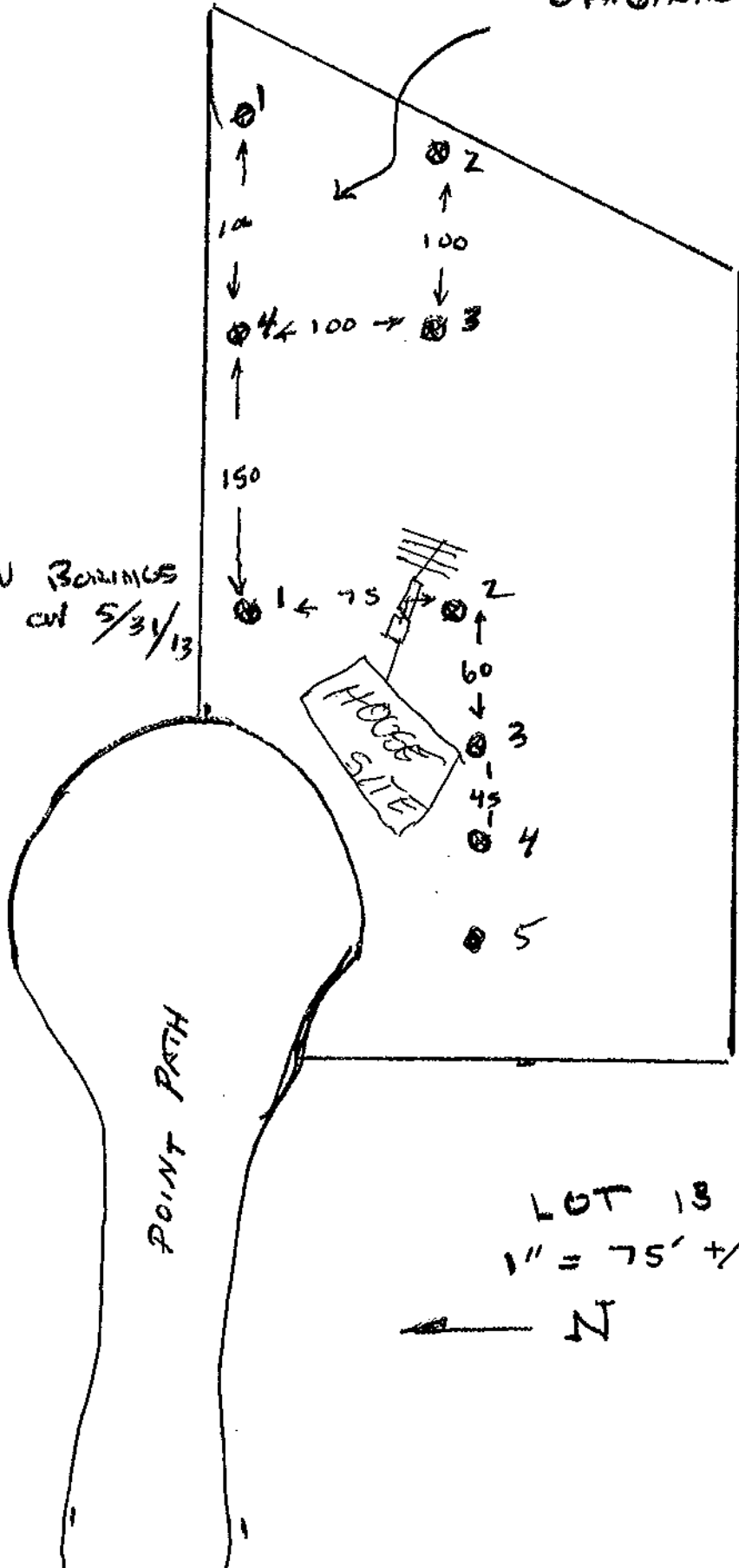
1. Building sewer can be no closer than 20 feet from well and must be pressure tested Schedule 40 within 50 feet.
2. Domestic strength waste only. Industrial waste and hazardous wastes cannot enter the septic system.
3. Effluent Filter with Alarm Required
4. Establish a vegetative cover over the soil treatment area within 30 days of the installation. Protect the soil treatment area from erosion until the vegetative cover is established.
5. Install individual sewage treatment system as per approved design in area tested and shown on the site plan.
6. Maximum trench depth 12 inches into natural soil.
7. This system must be installed by a certified/licensed sewage treatment system installer holding a current license with the Minnesota Pollution Control Agency. (A list of installers is available at your request.)
8. Use of tanks registered with the Minnesota Pollution Control Agency required.

Permit Issue Date: 8 30 2013
 Permit Expiration Date: August 30, 2014

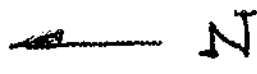

 Christopher W. LeClair, REHS
 Senior Environmental Specialist

ORIGINAL BORINGS

NEW BORINGS
DONE ON 5/31/13



LOT 13
1" = 75' +/-





OSTP Design Summary Worksheet

UNIVERSITY OF MINNESOTA



Property Owner/Client: _____ Project ID: _____ v 12.06.26
 Site Address: _____ Date: _____

1. DESIGN FLOW AND TANKS

A. Design Flow: 800 Gallons Per Day (GPD) *Note: The estimated design flow is considered a peak flow rate including a safety factor. For long term performance, the average daily flow is recommended to be < 60% of this value.*

B. Septic Tanks:

Minimum Code Required Septic Tank Capacity: 2500 Gallons, in 2 Tanks or Compartments

Recommended Septic Tank Capacity: _____ Gallons, in _____ Tanks or Compartments

Effluent Screen & Alarm? YES

C. Holding Tanks Only:

Number of Holding Tanks: _____ Total Volume of Holding Tanks: _____ Gallons

Type of High Level Alarm: _____

D. Pump Tank 1 Capacity: _____ Gallons Pump Tank 2 Capacity: _____ Gallons

2. SYSTEM TYPE

Type of Soil Treatment and Dispersal Area*

Trench Bed Mound At-Grade
 Drip Holding Tank Other _____

Type of Distribution*

Gravity Distribution Pressure Distribution-Level Pressure Distribution-Unlevel

* Selection Required Benchmark Elev = _____ ft

System Type

Type I Type II Type III Type IV Type V

Benchmark Location: _____

Type of Distribution Media: _____

3. SITE EVALUATION:

A. Depth to Limiting Layer: 48 in 4 ft Elevation of Limiting Layer: 2 ft

B. Minimum required separation: 136 in _____ ft Location of elevation: Spot 14204

C. Measured Percent Land Slope: 2 %

D. Percolation Rate: 31 MPI

E. Soil Texture: SILT LOAM Coarse Fragments: _____ if greater than >35% see below

F. Soil Hydraulic Loading Rate: 0.5 GPD/ft² E1. Amount of soil with 35-50% rock fragments >2mm = _____ in

G. Contour Loading Rate: _____ Gal/ft E2. Amount of soil with >50% rock fragments >2mm = _____ in

H. Maximum depth of system = Depth of limiting layer (3A) - required separation (3B) - 50% of E1 - 100% of E2:

_____ in - _____ in - (0.5 X _____) in - _____ in = 12 in

If number is negative a mound system or treatment level A or B may be needed.

4. DESIGN SUMMARY

Trench Design Summary

Dispersal Area 1200 ft² Sidewall Depth 6 in Trench Width 3 in
 Total Lineal Feet 400 ft Number of Trenches 4 Code Maximum Trench Depth 12 in
 Designer's Max Trench Depth 12 in



Minnesota Pollution Control Agency

OSTP Trench Design Worksheet

UNIVERSITY OF MINNESOTA



v 05.31.13

1. SYSTEM SIZING:

Project ID: _____

A. Design Flow:

600 GPD

B. Code Maximum Depth:

12 inches

Designers Maximum Depth: 12 inches

C. Soil Loading Rate:

15 GPD/ft²

Contour Loading Rate: 12 gal/ft

D. Required Bottom Area: Design Flow (1.A) ÷ Loading Rate (1.C) = Initial Required Bottom Area

600 GPD ÷ 15 GPD/ft² = 1200 ft²

E. Select Dispersal Media:

Rock

(selection required)

Registered Product

F. Select Distribution Method:

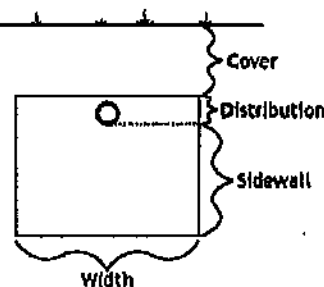
Pressure Gravity-Drop Box

Gravity-Other _____

G. If distribution media is installed in contact with sandy or loamy sand or with a percolation rate of 0.1 to 5 mpi indicate distribution or treatment method: _____

2. TRENCH CONFIGURATION: ROCK

A. Initial required trench bottom area (ft ²): (from 1.D)	Sidewall Absorption (Inches)	Bottom Area Reduction	Bottom Area Multiplier	Design trench bottom area
900	6 to 11		1	
	12 to 17	20%	0.8	
	18 to 23	34%	0.66	
	24	40%	0.6	



B. Select Sidewall Height:

6 inches = 1.5 ft

C. Design Bottom Area (2.A): _____ ft²

D. Select Trench Width: _____ ft

E. Total Designed Trench Length: Bottom Area ÷ Trench Width = Total Required Trench Length

_____ ft² ÷ _____ ft = _____ ft

I. Calculate Minimum system length based on Contour Loading Rate: Design Flow ÷ Contour Loading Rate =

600 gpd ÷ 12 gal/ft = 50 ft

F. Select No. of Trenches: _____ trenches

G. Select Trench Spacing: _____ ft

(typically 5 - 12 ft from center to center)

H. Calculate Lawn Area: Trench Length (2.E) X Trench Spacing (2.G) = square feet of lawn area

_____ ft X _____ ft = _____ ft² lawn area

J. Select Depth Required to Cover Distribution Pipe:

_____ ft (0.33 ft for pressure, 0.5 ft for gravity)

K. Calculate Rock Volume: (Sidewall Height (2.B) + Depth to Cover Pipe (2.J)) X Bottom Area (2.C) = cubic feet

(_____ ft + _____ ft) X _____ ft² = _____ ft³

Divide ft³ by 27 ft³/yd³ to calculate cubic yards:

_____ ft³ ÷ 27 = _____ yd³

3. TRENCH CONFIGURATION: REGISTERED PRODUCTS - CHAMBERS AND EZFLOW

A. Initial required trench bottom area (ft ²): (from 1.D)	Sidewall Absorption (Inches)	Bottom Area Reduction	Bottom Area Multiplier	Design trench bottom area
	6 to 11		1	
	12 to 17	20%	0.8	
	18 to 23	34%	0.66	
	24	40%	0.6	

B. Registered Product: 1PELYTRATOR

C. Select Sidewall Height: 6 inches = 1.5 ft

D. Design Bottom Area (3.A): 1200 ft²

E. Registered Width: 3 ft

F. Minimum Designed Trench Length = Bottom Area (3.C) + Trench Width (3.D)
1200 ft² + 3 ft = 400 ft

G. Enter the Registered Product Component Length: 4 ft

H. Number of Components = Minimum Total Length Required divided by Component Length (Round up)
400 ft ÷ 4 ft = 100 components

I. Actual Total Trench Length = Number of Components X Component Length:
100 components X 4 ft = 400 ft

J. Calculate Minimum length per trench based on Contour Loading Rate: Design Flow ÷ CLR =
600 gpd ÷ 12 gal/ft = 50 ft

K. Select No. of Trenches: 4 trenches

L. Length per trench = Actual Trench Length ÷ Number of Trenches. *Recommended to not exceed 3.J.*
400 ft ÷ 4 gal/ft = 100 ft

M. Select Trench Spacing: _____ ft (typically 5 - 12 ft from center to center)

N. Calculate Lawn Area: Trench Length X Trench Spacing = square feet of lawn area
400 ft X 7 ft = 2800 ft² lawn area

Comments:



STANDARD SYSTEM DESIGN INDIVIDUAL SEWAGE TREATMENT SYSTEM

WASHINGTON COUNTY PUBLIC HEALTH & ENVIRONMENT
14949 62ND STREET NORTH, P.O. BOX 6, STILLWATER, MN 55082-0006
651/430-6688 OR 651/430-6655 FAX 651/430-6730

Owner's Name	TOM + BRENDIA LASKA	Geo Code	
Job Site Address	2685 MEADOW POINT PASS		
City or Township	AFTON		
Use of Building	HOME		

Design Flow Rate	600	Perc Rate	0.200	Land Slope	2.5	Percent	
Two Required Tank Sizes	1500	Gallons	1000	Gallons	Lift Station Tank Size		Gallons
Type of System (standard, at grade, or rockless pipe add 20%)	STANDARD OR CHAMBERS						
System Size:	1200	-Square Feet	0.400	-Lineal Feet	3'	-Trench Width	
Depth of rock below pipe				Depth of Rock Above Pipe			
MINimum Depth of Trench From Existing Grade	6	Inches		MAXimum Depth of Trench From Existing Grade	120	Inches	
Recommended Number of Trenches	4			Recommended Length of Trenches	60		
Trench Spacing Measured Center to Center	7						Feet
Any Other Special Conditions	FILTER + CLEAN IN SECOND TANK						

IF PRESSURE DISTRIBUTION IS USED, COMPLETE THE PRESSURE DISTRIBUTION WORK SHEET ATTACHED.

This design must be accompanied by a site plan that clearly shows the location of the area tested and approved by the following:

1. Use an appropriate scale and indicate direction by use of a north arrow.
2. Show ALL property boundaries, rights-of-way, easements, wetlands. If necessary, an enlarged detail of the house site may also be required.
3. Show location of house, garage, driveway and all other improvements existing or proposed.
4. Show location and layout of sewage treatment system.
5. Show location of water supply (well and/or community supply line).
6. Dimension all setbacks and separation distances.

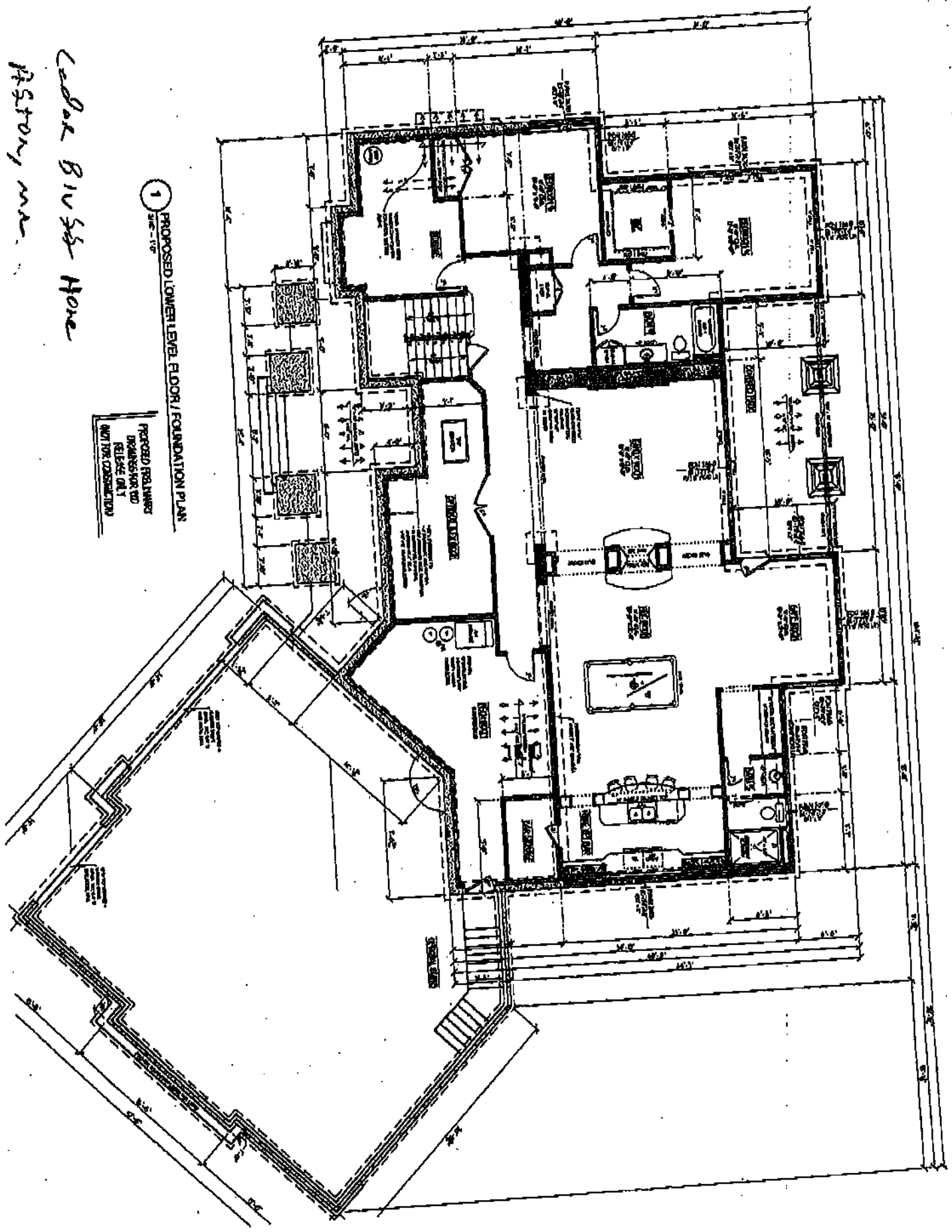
This system has been designed by a Pollution Control Agency (PCA) Certified Professional.

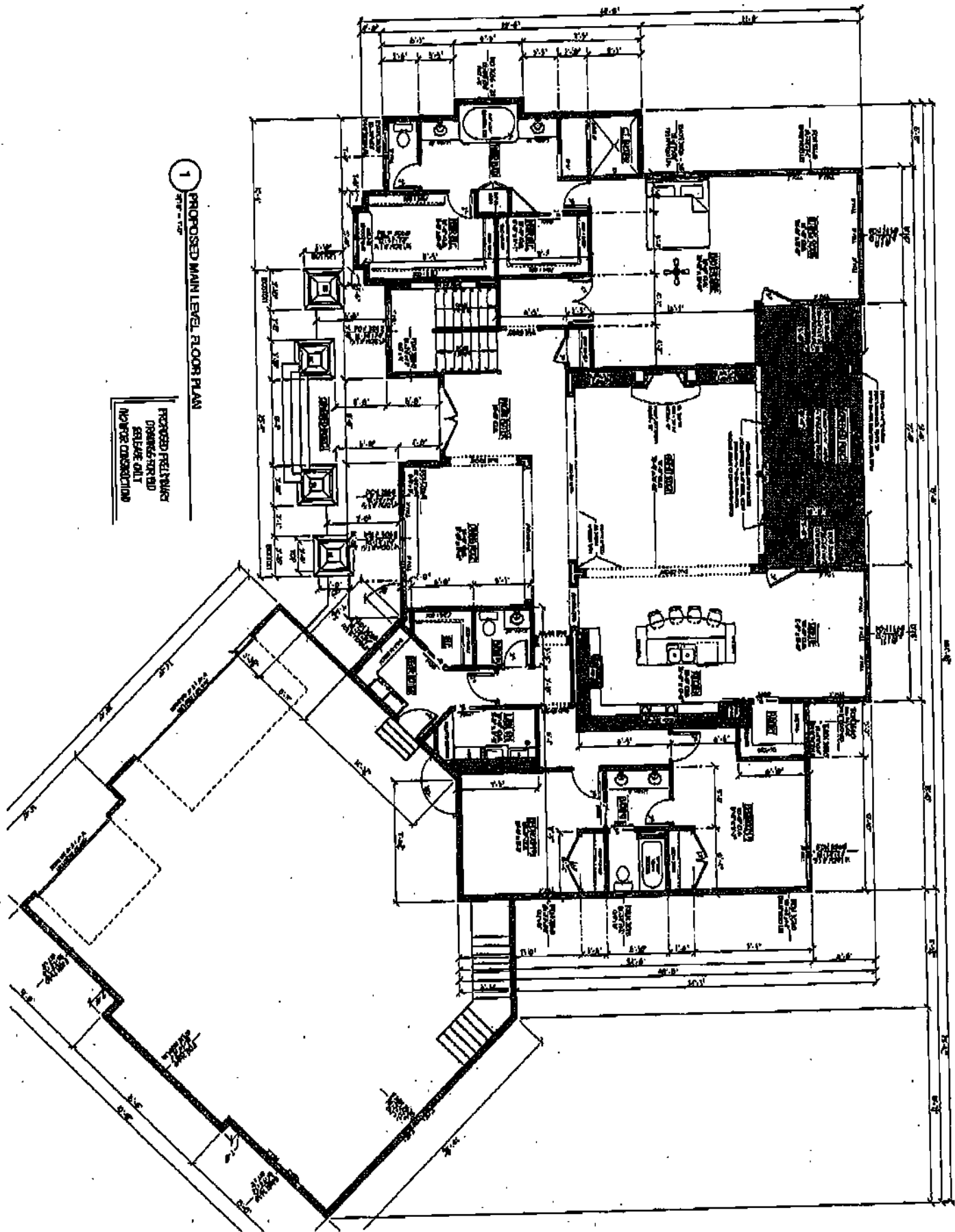
Designer Name	JOHN BOELOW	PCA Certification #	389
Address	13254 20TH ST N	Phone #	436 5326
Signature		Date	8.20.2013

Cedar Riv St Home
1st story, main

1 PROPOSED LOWER LEVEL FLOOR / FOUNDATION PLAN
SCALE: 1/8" = 1'-0"

PROPOSED REBALANCING
DIMENSIONS TO
RELIEVE O.A.T.
NOT FOR CONSTRUCTION





1 PROPOSED MAIN LEVEL FLOOR PLAN
 1/8" = 1'-0"

PROPOSED PRELIMINARY
 DRAWINGS
 RELEASE ONLY
 NO FOR CONSTRUCTION

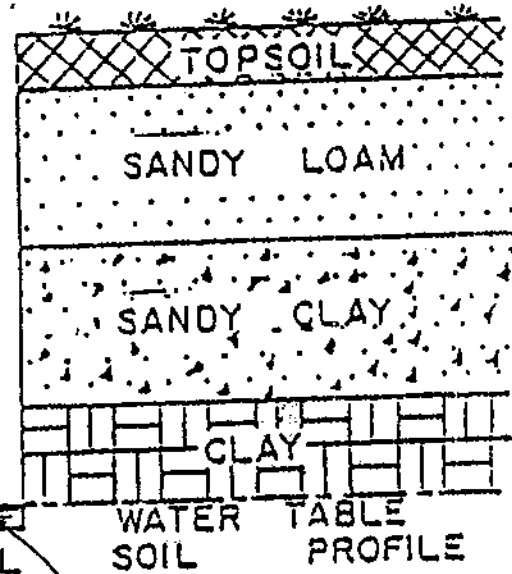
- Soil Borings -

Soil borings are made in order to determine the type and structure of soils at various depths as well as the location of the water table, impervious strata or bedrock.

Borings are most easily made with a hand auger, however other expedients may be utilized - back hoe, post hole auger, etc.

Soils encountered at various depths should be listed as to appearance, texture and composition.

Depth at which water, bedrock or heavy clay layer is encountered should be recorded.



TYPICAL
B5
0-12" TOPSOIL
12-24" BED ROCK

Soil Borings done by _____, MPCA Certification
Number _____, on _____ (date)

LOG OF SOIL BORINGS

BORING NO. 1		BORING NO. 2		BORING NO. 3		BORING NO. 4	
DEPTH IN FEET	SOIL DESCRIPTION	DEPTH IN FEET	SOIL DESCRIPTION	DEPTH IN FEET	SOIL DESCRIPTION	DEPTH IN FEET	SOIL DESCRIPTION
0-1/2	silt loam	0	silt loam	0	silt loam	0-1/2	silt loam
1/2		1/2		1/2		1/2	
1		1		1		1	
1 1/2	Sandy 30% loam rocks	1 1/2	sandy loam	1 1/2	sandy loam	1 1/2	sandy loam
2-2 1/2		2		2		2	
2 1/2		2 1/2	30% rock	2 1/2	30% rock	2 1/2	30% rock
3	loamy sand	3		3		3	
3 1/2		3 1/2	loamy sand	3 1/2	loamy sand	3 1/2	loamy sand
4		4		4		4	
4 1/2	loamy sand	4 1/2		4 1/2		4 1/2	
5		5	loamy sand	5	loamy sand	5	loamy sand
5 1/2		5 1/2		5 1/2		5 1/2	
6		6		6		6	
6 1/2		6 1/2		6 1/2		6 1/2	
7		7		7		7	
7 1/2		7 1/2		7 1/2		7 1/2	
8		8		8		8	
8 1/2		8 1/2		8 1/2		8 1/2	
9		9		9		9	

U of MN Onsite Sewage Treatment Program Soil Boring Log

Client/ Address: *Appera Cedar Meadows ? Legal Description/GPS:*

Date: *5/31*

B1 (B We 88)

P. Peterson

Soil Parent Material(s): **Till** **Outwash** **Lacustrine** **Alluvium** **Loess** **Organic Matter** **Bedrock**
 (circle all that apply)

Landscape Position: **Summit** **Shoulder** **Back/Side Slope** **Foot Slope** **Toe Slope**
 (circle one)

Vegetation: **Soil Survey Map Unit(s):**

Slope (%):

Weather conditions/Time of Day:

Slope Shape:

Depth (in)	Texture	Matrix Color(s)	Mottle Color(s)	Redox Kind(s)	Saturated Soil Indicator(s) (see back)	Shape	Structure	Consistence
0-8	<i>silt loam</i>	<i>10 3/2</i>	<i>~</i>	Concentrations Depletions Gleyed		Granular Play Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
8-27	<i>Sandy loam with rocks</i>	<i>10 3/3</i>	<i>~</i>	Concentrations Depletions Gleyed		Granular Play Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
27-48	<i>loamy sand</i>	<i>10 4/3</i>	<i>~</i>	Concentrations Depletions Gleyed		Granular Play Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
48-60	<i>loamy sand</i>	<i>10/43</i>	<i>R</i>	Concentrations Depletions Gleyed		Granular Play Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid

Comments:

Massive at 48-60

PARIS:

FAX 4306680

MY WIFE TRIED TO SEND THE FORMS + COULD NOT.

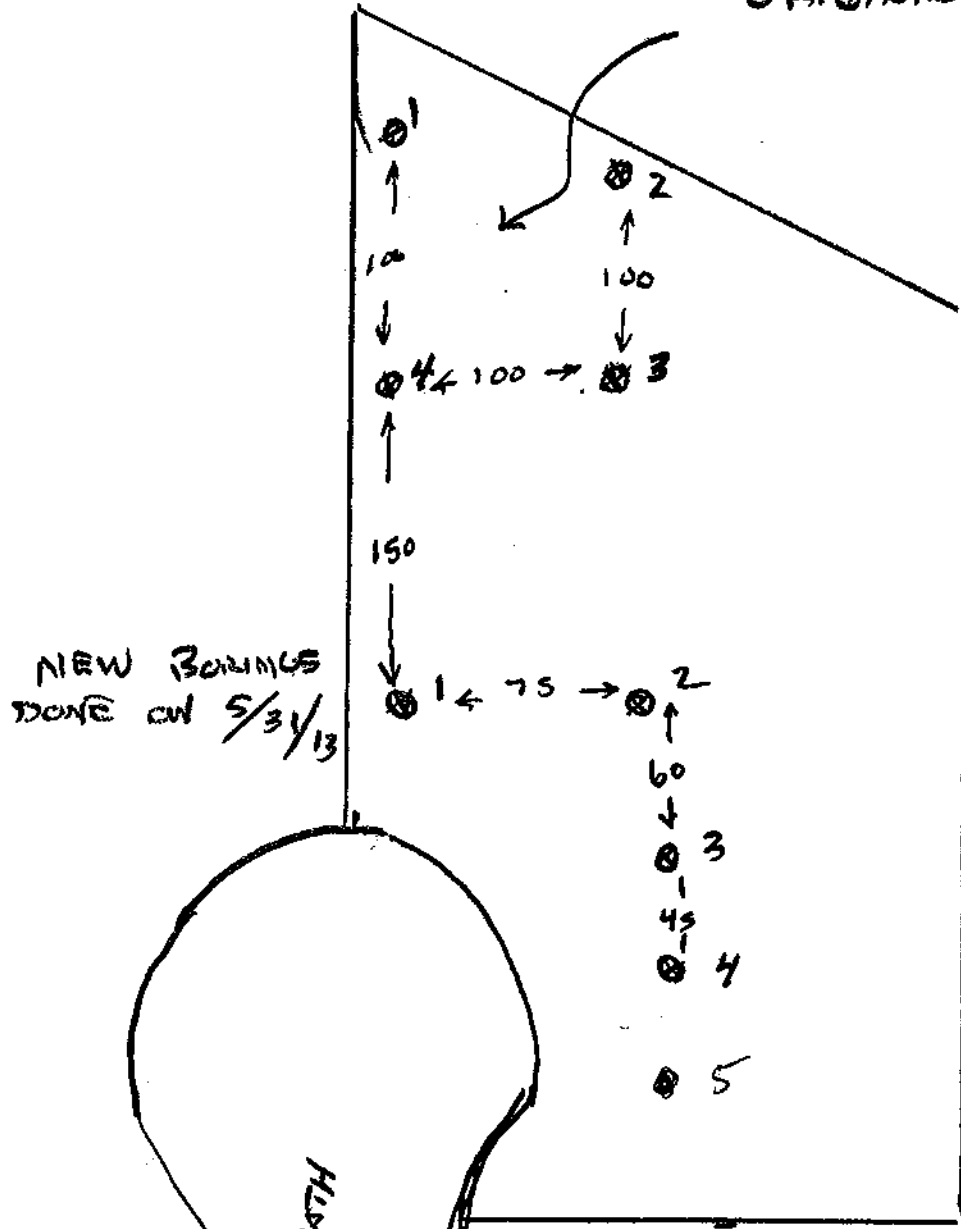
I WENT TO THE VOF M WEBSITE TO GET ON THE FORMS, AND I GOT THE FOLLOWING:

"MICROSOFT EXCEL HAS ENCOUNTERED A PROBLEM + NEEDS TO CLOSE"

WE SPENT ALMOST TWO HOURS TRYING TO DO THIS TONIGHT

John

ORIGINAL BORINGS



NEW BORINGS
DONE ON 5/31/13

POINT PATH

LOT 13
1" = 75' +/-





SEPTIC PERMIT APPLICATION

Washington County Department of Public Health & Environment
14949-62nd St N, P.O. Box 6, Stillwater MN 55082-0006
651.430.6655 FAX: 651.430.6730

LOT 13 2013

PERMIT NUMBER
0100-13-12

PROPERTY & APPLICANT INFORMATION

PROPERTY ADDRESS: 2685 MEADOW POINT PASS GEOCODE: 1802820310026

USE OF BUILDING: SINGLE FAMILY HOME NON-SINGLE FAMILY APPLICATION TYPE: NEW REPLACEMENT

APPLICANT
NAME(S): JOHN BUELOW EXCAVATING LLC ADDRESS: 13264 20TH ST N PHONE NUMBER(S): 436 5326
CITY: STILLWATER ZIP: 55082

OWNER (IF DIFFERENT FROM APPLICANT)
NAME(S): TOM + BRENDA LAGA ADDRESS: B 234 PHONE NUMBER(S): 263 2306
CITY: AFTON ZIP: 55001

SYSTEM TYPE
 TYPE I SYSTEM (Trenches, Pressure Bed, Mound, At-Grade) TYPE II SYSTEM (Floodplain, Holding Tanks, Privy) TYPE III SYSTEM
 TYPE IV SYSTEM (System using Registered Products) TYPE V SYSTEM MSTs (>5,000 GPD) LOT SPLIT
 DRAINFIELD PRESSURE BED MOUND AT-GRADE TANK REPLACEMENT SUBDIVISION REVIEW

FEE SCHEDULE - 2012

INSTALLATION PERMITS
 SOIL/SITE REVIEW APPLICATION FEE* \$285 APPLICATION FEE: 285.00
*This fee does not apply to: Reissuance of Expired Permits, Tank Replacement, Lot Split or Subdivision Approval, or System Abandonment Permits
 PERMIT FEE - PRIVY OR HOLDING TANK \$117
 PERMIT FEE - DRAINFIELD OR PRESSURE BED \$300
 PERMIT FEE - MOUND OR AT-GRADE \$480
 PERMIT FEE - NON SINGLE FAMILY \$730
 1-500 GALLONS PER DAY \$875
 501-1000 GALLONS PER DAY \$1,100
 1001-5000 GALLONS PER DAY \$1,300
 5001-999 GALLONS PER DAY \$1,700
 10,000 GALLONS PER DAY OR GREATER \$2,100
 PERMIT FEE - HOLDING TANK REPLACEMENT (NO SOIL TEST/SITE REVIEW) \$117
 PERMIT FEE - SYSTEM ABANDONMENT \$117
 PERMIT FEE - REISSUANCE OF EXPIRED PERMIT 50% of permit fee (does not include initial soil/site review fee)
Make Checks Payable to WASHINGTON COUNTY TOTAL PERMIT FEE = APPLICATION FEE + PERMIT FEE: 685.00

SUBDIVISION PERMITS
 SUBDIVISION SOIL/SITE REVIEW-APPLICATION FEE \$200 + \$85 PER LOT SUBDIVISION REVIEW BASE FEE: _____
 LOT SPLIT APPROVAL \$200 + \$85 PER LOT
LOTS: _____ X \$85 PER LOT
Make Checks Payable to WASHINGTON COUNTY TOTAL SUBDIVISION REVIEW OR LOT SPLIT APPROVAL FEE: _____

The following exhibits are required as part of the application and shall be attached hereto: Percolation Test Reports; Soil Boring Logs; Site Plan drawn to scale showing location of buildings, lot lines, percolation test holes, soil boring holes, proposed location of system and location of well(s); one (1) copy of the System Design; and one (1) copy of the Final Building Plan. The house and drainfield areas must be staked. Inaccurate or incomplete information will result in delays in processing.

AGREEMENT: The undersigned hereby makes Application for Permit to Install or Extend the Sewage Treatment System herein specified, agreeing that all work shall be done in strict accordance with ordinances and regulations of the County of Washington, Minnesota. Applicant agrees that the Site Plan, Sketches, and Design submitted herewith, and which are reviewed by Washington County, together with any requirements and/or restrictions made necessary by conditions peculiar to a particular location, shall become part of the permit. Applicant further agrees to provide access, at reasonable times, to Washington County for the purpose of performing inspections required and that no part of the system shall be covered until it has been inspected and accepted. APPLICATION IS FOR AN INSTALLATION AT A SPECIFIC LOCATION; ANY DEVIATION FROM THE APPROVED LOCATION WILL VOID THE PERMIT. It shall be the responsibility of the applicant for the permit to notify the Office of the Washington County Department of Public Health & Environment that the installation is ready for inspection.

PERMITS WILL NOT BE ISSUED ONCE FROZEN GROUND CONDITIONS EXIST due to the inability to conduct soil reviews unless arrangements are made BY THE APPLICANT to provide a backhoe, geo-probe, or any other device that can penetrate the frozen soil to allow Washington County to conduct a soil review. In accordance with Minnesota Statute 15.99, Subdivision 2, Washington County has up to SIXTY (60) DAYS to review and approve or deny the permit application.

I hereby certify the above to be true and correct. I hereby give the Washington County Department of Public Health & Environment permission to enter upon my property during normal business hours for the purpose of determining the suitability of the location, design, and construction, which may include minor excavations or soil borings by the Department.
Signature of Applicant (Owner or Contractor) [Signature] Date 8.20.2013



Department of Public Health and Environment

14949 62nd Street North PO Box 6
Stillwater MN 55082-0006

Office: 651-430-6655 TTY: 651-430-6246 Facsimile Machine: 651-430-6730

Receipt

Number: 2332
Date: 8/20/2013
Check Number: 28584
Received For: **Application #01001312**
Application Type: Drainfield
Property Address: 2685 Meadow Point Path
Community: Afton
Received From: Interior Care & Construction

451 Commerce Drive Ste 800
Woodbury MN 55125

Description

Review Fee:	\$285.00
Permit Fee:	\$300.00
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Issued By:

kh