MUNICIPALITY OF THE

TOWN OF HUNTSVILLE

PERMIT NUMBER: 016806S

37 Main Street East, Huntsville Ont. P1H 1A1

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SEWAGE SYSTEM PERMIT

Building Code Act, R.S.O. 1992, Chapter 23, as amended

OWNER: [redacted]

CONSTRUCTION CO: Green's Haulage

ISSUED BY: Mike Gooch

PROPNUM: 444204001804703

ADDRESS: 41 ALLENSVILLE RD

DATE ISSUSE 19-May-06 CLASS: 4

NOTES: Three bedroom - 15.5 Fix.

This permit is granted on the express condition of full compliance with all provisions of the BUILDING CODE ACT,R.S.O., 1992, Ch.23, and regulations made thereunder, and of any by-law or any amendment thereto of the Municipality, which in part, or in whole, regulates the structural requirements, the erection , alteration, location,use, etc., of buildings, unless otherwise specified, so provided for, and approved of in writing, by the Chief Building Official. This permit is subject to revocation pursuant to SubSection 8(10) of the Building Code Act.

REQUIRED SEWAGE SYSTEM INSPECTIONS

Subject to Section 2.4.5 of the Ontario Building Code, the person to whom the permit has been issued, is responsible for arranging the following inspections:

_1. Readiness to Construct the Sewage System

_2. Substantial completion, prior to backfilling

_3. Completion of Sewage System

ROLL #
APPLICATION #

SEWAGE SYSTEM INSTALLATION PROPOSAL

TOTAL # OF BEDROOMS :	3	TOTAL FLOOR AREA :	186 m²
TOTAL PLUMBING FIXTURE UNITS:	15.5	"T" TIME OF SOIL:	30
TOTAL DAILY DESIGN FLOW RATE (Expressed in Litres/day):			Q = 1600

Septic Tank Size =Q X 2 = 1600 **X 2 =** 3200 **Litres (Minimum 3600 litres)**

Absorption Trenches = (length of distribution pipe) = QT/200 = _____ **m (Minimum 40 meters)**

Filter Bed area = Q/75 (Q< 3000 l) = 21.3 **square meters** ***or*** **Q/50 (Q>3000l) =** _____ **square meters**

Base of Filter medium + QT/850 = 56.5 **square meters**

Mantle area = Q/ loading rate = 200 **square meters**

T	LOADING RATE
1 - 20	10
20 - 35	8
35 - 50	6
OVER 50	4

PROPOSE TO CONSTRUCT:

☑ **CLASS 4 FILTER BED** PROOF OF APPROVED FILTER MATERIAL MUST BE PROVIDED PRIOR TO FINALINSPECTION

Dug Into Existing Soil		PARTLY Raised	✓	If Raised, How Far Above Existing Soils?	1	metres	Mantle Area	200	m²
Area Of Filter Medium	21.3	m²	Base of Filter	56.5	m²	Or total length of tile		Number of runs	4
Use Existing Tank		New CSA Standard	✓	Treatment Unit Other than septic tank			Working Capacity	3600	litres

☐ **CLASS 2 GREY-WATER PIT or CLASS 3 CESSPOOL**

Wall Structure -- Concrete Block			Rock		Other:						
Dimensions Of Pit	Length:		Width:		Height:		Type Of Cover:				
Type Of Class 1 To Be Used	Privy		Composting		Chemical		Electrical		Other:		

☐ **CLASS 5 - HOLDING TANK - PUMP OUT CONTRACT MUST BE PROVIDED (District Approval Required)**

Concrete		Polyethylene		Other:			
Size (L)		Alarm Is – Audio		And Visual		Describe Platform:	

IS A PUMP REQUIRED?

Yes		No	✓	Raw Sewage		Effluent	

Name of Site Supervisor: TIM GREEN **Supervisor's Licence #:** 15722

Sewage System Designed By: TIM GREEN.

ALL APPLICATIONS MUST INCLUDE A SITE PLAN WHICH LOCATES ALL FEATURES AND STRUCTURES WITH ALL DISTANCES INDICATED , PREFERABLY DRAWN TO SCALE.

INCLUDE THE FOLLOWING ON THE SITE PLAN:

- ☐ **PROPERTY LINES & TOPOGRAPHIC FEATURES**
  Water courses/Water bodies/swamps, cliffs, bare rock, slope degree & direction.
- ☐ **EXISTING & PROPOSED STRUCTURES**
  All buildings, driveways, utility easements, wells (state: dug, bored or drilled - include neighbours). Installer to verify locations prior to installation of sewage system.
- ☐ **EXISTING & PROPOSED SEWAGE SYSTEM(S)**
  Tank & tile field orientation, distribution lines, mantle area, details of existing system if it remains in use, water lines and test pit.

TEST HOLE	Sub-surface conditions encountered			
	Rock & G.W.T.	Depth (m)	Soil Type	"T" Time
		- 0 -		30
	NO ROCK OR	- 0.25 -	TOPSOIL	
		- 0.50 -	↓	
	GROUND WATER	- 0.75 -	↓	
	↓	- 1.00 -	CLAY	
		- 1.25 -		
		- 1.50 -		

THE CHARTS BELOW ARE FOR GUIDANCE PURPOSES ONLY
You should always refer to the Ontario Building Code for current regulations.

TOTAL DAILY DESIGN FLOW RATES FOR RESIDENTIAL OCCUPANCY "Q" (Litres/Day)

Dwellings:	
a) 1 bedroom dwelling	750
b) 2 bedroom dwelling	1100
c) 3 bedroom dwelling	1600
d) 4 bedroom dwelling	2000
e) 5 bedroom dwelling	2500
f) Additional flow for:	
i) each bedroom over 5	500
ii) A) each 10 m^2 (or part thereof) over 200 m^2 up to 400 m^2	100
B) each 10 m^2 (or part thereof) over 400 m^2 up to 600 m^2	75
C) each 10 m^2 (or part thereof) over 600 m^2	50
iii) each fixture unit over 20	50

Example of how to determine daily design flow rate:

Using a 4 bedroom, 235 m^2 home with 22 fixture units.

4 bedroom home>200 m^2 or >20 fixture units.

4 bedrooms = 2000 ℓ/day
Additional 35 m^2 = 400 ℓ/day
Additional fixture units (2) = 100 ℓ/day
Q = 2,400 litres/day

If, as in the example, there is a choice in arriving at the flow rate (i.e. fixture units vs floor area) use the one calculation that provides the greatest daily flow rate value.

APPROXIMATELY SOIL PERCOLATION RATES "T"

The following are estimated typical ranges of "T" times. Actual "T" times may vary significantly due to on site soil conditions.

Soil Type →	Clean Medium - Course Sand			Silty Gravely Sands		Silty Sands Sandy Silts			Sandy Silty Clays				Silty Clays	Clay
"T" (min/cm) →	1	3	6	8	10	16	20	25	29	33	38	44	50+	

SIZING FORMULAS FOR COMPONENTS OF SEPTIC SYSTEMS BASED ON TOTAL DAILY DESIGN FLOW RATES

Class 4 Filter Bed (Surface area of filter medium in square metres)	If daily flow rate is <3000 ℓ/day ÷75 If daily flow rate is >3000ℓ/day ÷ 50 Minimum area of filter medium = 10 m^2 Maximum area of filter medium = 50 m^2	Example using the total flow rate from above. Flow rate = 2000 ℓ/day Area of Bed (A) = 2,400 ÷ 75 = 32m^2
Class 4 Trench Bed (Total length of distribution pipe in metres)	Formula for conventional beds without secondary Treatment units: L = QT + 200 Where: L is total length of pipe Q is total daily design flow rate T is soil percolation rate Minimum length of tile = 40 metres	Example using the total flow rate from above: Q = 2,400 ℓ/day T = 6 min/cm (if using typical med-course Sand) L = (total length of distribution pipe) =QT + 200 L = (2,400 x 6) ÷200 = 72 metres
Septic Tank (litres – ℓ)	Tank(s) must have a minimum working capacity of 2 times the daily design flow rate. MINIMUM TANK SIZE = 3,600 ℓ	Example using the total flow rate from above Of 2,400 litres per day then the minimum tank size would be : 2 x 2,400 ℓ = 4,800 ℓ

CLEARANCE DISTANCES FOR COMPONENTS OF SEWAGE SYSTEMS (metres)

**If the bed is raised add 2 metres for every 1 metre of rise.	Wells (with 6 m casing)	Wells (no 6 m casing)	Springs (potable)	Springs (not potable)	Surface Water (lake, river, etc...)	Property Lines	Dwellings/ Structures
Class 4 Distribution Pipe	15 m	30 m	30 m	30 m	15 m	3 m	5 m
Class 4 Septic Tank	15 m	30 m	30 m	15 m	15 m	3 m	1.5 m
Class 5 Holding Tank	15 m	30 m	30 m	15 m		3 m	1.5 m
Class 1 Privy	15 m	30 m	30 m	30 m	15 m	3 m	
Class 2 Grey-water Pit	15 m	30 m	30 m	15 m	15 m	3 m	

Description	# of Units Per Fixture	Dwelling #1		Dwelling #2		Sleeping Cabin		Other	
		# of Fixtures	# of Units	# of Fixtures	# of Units	# of Fixtures	# of Units	# of Fixtures	# of Units
Bathroom Group	6	1	6						
Toilet	4		4						
Wash Basin (Lavatory)	1		1						
Bathtub or Shower	1.5								
Bidet	1								
Kitchen Sink (single or double)	1.5		1.5						
Bar Sink	1.5								
Washing Machine	1.5		1.5						
Other	DISHWASHER		1.5						
TOTAL FIXTURE UNITS			15.5						
FINISHED FLOOR AREA									

ROLL # _____

APPLICATION # _____

APPLICATION FOR A BUILDING PERMIT
FOR A SEWAGE SYSTEM

MUNICIPAL OFFICIALS WILL NOT COMPLETE THIS FORM
THE APPLICATION MUST BE COMPLETED IN INK

THE AREA BELOW MAY BE USED FOR THE REQUIRED SITE PLAN