Town of Bow Island
PO Box 100
Bow Island, Alberta, T0K 0G0
PH: (403) 545-2522
townoffice@bowisland.com
www.bowisland.com

The Inspections Group Inc
2825 18 Avenue N
Lethbridge, Alberta, T1H 6T5
PH: (587) 787-4134 TF: (888) 787-4143
Fax: (587) 787-4142
www.inspectionsgroup.com

Please **submit all permit applications to** safetycodes@wheatlandcounty.ca for review and processing.

PRIVATE SEWAGE PERMIT APPLICATION FORM

Development Permit Number: _____ **Estimated Project Completion Date:** _____
New Home Warranty Number (if applicable): _____ **Project Value (labour and material): $**_____
Applicant Type: ☐ **Owner** ☐ **Contractor** **Work:** ☐ has not started ☐ is in progress ☐ is complete

OWNER / APPLICANT: _____ Mailing Address: _____
City: _____ Prov: _____ Postal Code: _____ Phone: _____ Fax: _____
Cell: _____ Email: _____

CONTRACTOR: _____ Mailing Address: _____
City: _____ Prov: _____ Postal Code: _____ Phone: _____ Fax: _____
Cell: _____ Email: _____

PROJECT LOCATION:
Municipality: _____ Subdivision / Hamlet Name: _____
Street Address: _____
Legal Land Description: LSD: _____ Part of: _____ Section: _____ Township: _____ Range: _____ West of: _____
Lot: _____ Block: _____ Plan: _____ Tax Roll Number: _____
Directions: _____

BUILDING USE:
- ☐ Residential
  # of bedrooms _____
- ☐ Commercial
  # of employees _____
- ☐ Industrial
- ☐ Institutional
- ☐ Agricultural
- ☐ Work Camp
  # of workers _____
- ☐ Other (specify)

_____

TYPE OF WORK:
- ☐ New Installation
- ☐ Alteration of Existing System

Expected Peak Volume _____
☐ m^3 ☐ litres ☐ imperial gallons / day

INITIAL COMPONENT:
- ☐ Holding Tank
- ☐ Septic Tank
- ☐ Packaged Treatment Plant
- ☐ Sand Filter
- ☐ Settling Tank
- ☐ Effluent Tank
- ☐ Lift Station
- ☐ Other (specify)

_____
CSA Certificate # _____

SOIL BASED TREATMENT:
- ☐ Treatment Field
- ☐ Chamber System Treatment Field
- ☐ Treatment Mound
- ☐ Sub-Surface Drip Dispersal
- ☐ LFH At-Grade
- ☐ Open Discharge
- ☐ Lagoon
- ☐ Privy
- ☐ Enhanced Surface Discharge
- ☐ Other (specify)

_____

DESCRIPTION OF WORK: _____
_____

_____
Certified Installer's Name (print) | Certified Installer's Certificate Number | Certified Installer's Signature | Homeowner's Signature (homeowner permit only)

I hereby declare that I am the owner of the premises where the work will be conducted and/or currently reside or intend to reside on the property. I assume responsibility for ensuring compliance with the applicable Act and Regulations.

OFFICE USE ONLY

PAYMENT TYPE:
☐ Cheque ☐ Mastercard ☐ Visa ☐ AMEX ☐ Interac ☐ e-Transfer ☐ Invoice

Permit Fee: $_____
+ SCC Levy*: $_____
= Total Cost: $_____ **Receipt #:** _____

* $4.50 or 4% of the permit fee maximum $560.00

APPLICATION DETAILS:
Application Date: _____
Permit Number: _____
Agency File Number: _____

The personal information provided as part of this application is collected under the Safety Codes Act and the Municipal Government Act and in accordance with the Freedom of Information and Protection of Privacy Act. The information is required and will be used for issuing permits, safety codes compliance verification and monitoring, and property assessment purposes. The name of the permit holder and the nature of the permit is available to the public upon request. If you have any questions about the collection or use of the personal information provided, please contact the Municipality.

PSDS Application Summary Design Report

(Please Print Clearly)

Legal Land Description								
1/4 section	Section	Township	Range	West of		Lot	Block	Plan
Address	Street		Municipality			Lot Size (acres)		

Development Details					
Type:	☐ Residential	☐ Commercial	☐ Other		
	☐ New Construction	☐ Renovation/Repair	☐ Temporary		
Number of Bedrooms	Number of Occupants	Average Daily Flow	Peak Daily Flow		
Additional Sizing Info:					

Soil Information

# of Test Pits_____ (1 MINIMUM for Open Discharge, 2 MINIMUM for all others)

Depth Of Pits_____ (1 foot MINIMUM below Verticle Setback Distance)

Loading Rate _____ Linear Loading Rate _____

Texture _____ Shape_____ Grade _____ (Soil Profile Used for Design)

System Details

Components to be used (Check all applicable)

☐ Holding Tank	☐ Sand Mound	☐ Open Discharge	☐ Pipe in Gravel
☐ Septic	☐ Gravity Field	☐ At-Grade	☐ Chambers
☐ Treatment Plant	☐ Pressure Field	☐ Lagoon	☐ Other

Tank Size _____(Gallons)	Dose Volume _____ (Gallons)
Flow Rate_____(GPM)	Head Pressure_____(Feet)
Trench Bottom_____(SqFt)	Sand Layer _____(SqFt)
Trench Length _____(Ft)	Chamber Size _____(inch)
Orifice Size _____(inch)	Squirt Height _____(Feet)

Tank/Plant Make and Model _____

High Level Alarm Make and Model _____

Effluent Filter/Screen Make and Model _____

Setback Distances			
Tank to Occupied Building:		Tank to Nearest Property Line:	
Tank to Water Source:		Tank to Soil Treatment:	
Soil Treatment Component to Property Lines (Must be accurate)			
North:	South:	East:	West:
Soil Treatment Component to Water Source:			Type:
Soil Treatment Component to Water Course:			Type:
Soil Treatment Component to Occupied Building:			(Nearest)

Additional Information

NOTE: All site evaluations MUST meet Part 7 of the Standard of Practice.
Incomplete applications will result in delays or refusal of Permit issuance.

Alberta Private Sewage Treatment System Soil Profile Log Form

Owner Name or Job ID.									
Legal Land Location								Test Pit GPS Coordinates	
LSD-1/4	Sec	Twp	Rg	Mer	Lot	Block	Plan	Easting	Northing

Vegetation notes:		Overall site slope %	
		Slope position of test pit:	

Test hole No.	Soil Subgroup	Parent Material	Drainage	Depth of Lab sample #1	Depth of Lab sample #2

Hori-zon	Depth (cm) (in)	Texture	Lab or HT	Colour	Gleying	Mottling	Structure	Grade	Consistence	Moisture	% Coarse Fragments

Depth to Groundwater		Limiting Soil Layer Characteristic, describe	
Depth to Seasonally Saturated Soil		Depth to Limiting Soil Layer	
Limiting Topography		Depth to Highly Permeable Layer	
Key Limiting Features on System Design			
Weather Condition notes:			
Comments: such as root depth and abundance or other pertinent observations:			

Onsite Sewage System Site Evaluation Lot Diagram Sketch and Notes

Project Name: Lot or Legal Description: Date:

N

Show the proposed location of the onsite sewage system and the following items indicating their distances from the proposed system:

trees
floodplains
wells
water sources
surface water
bedrock outcrops
buildings
property lines
easement lines
ditches or interceptors
banks or steep slopes
fills
driveways
existing sewage systems
underground utilities
soil test pit and borehole locations

drainage course

slope direction

borehole BH 1

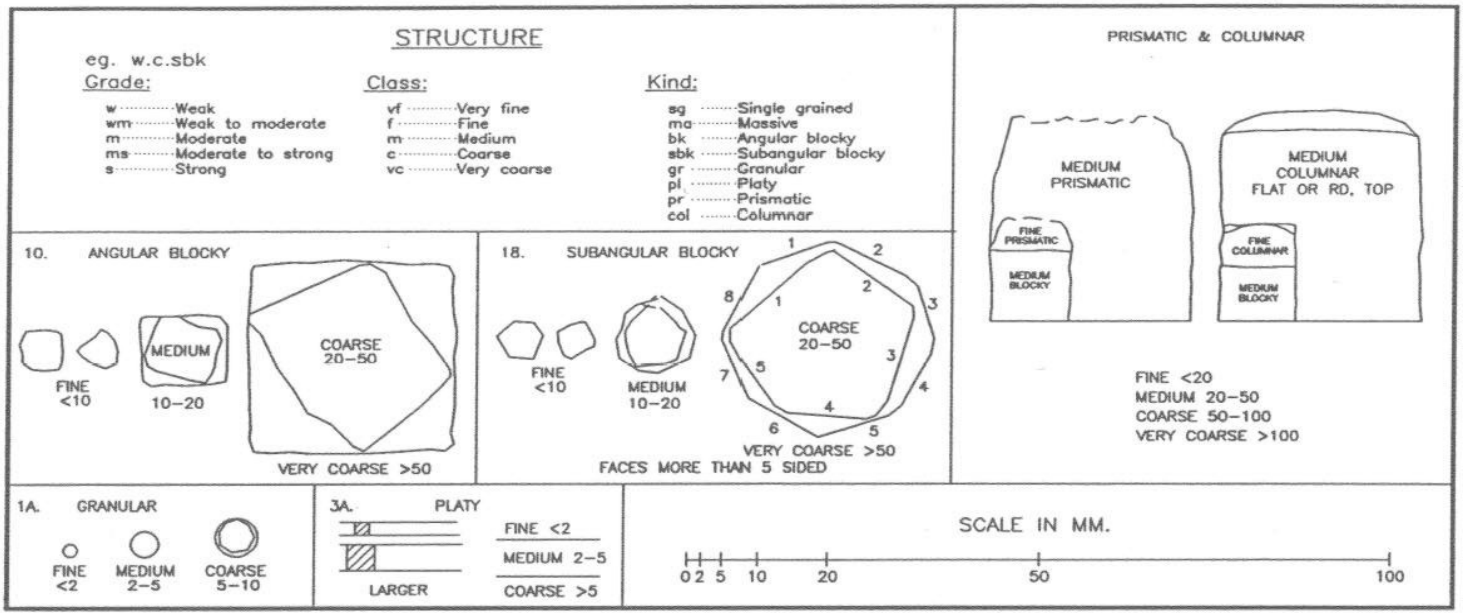
Test Pit P1

Comments:

Property line GPS coordinates:
GPS coordinates of well:
GPS coordinate of tank:
GPS coordinates of soil treatment component corners:

Additional information is required separately for the system design detail.

Figure 4: Diagrammatic representation of soil structure



SLOPE CLASSES OF LOCAL LANDFORMS

Slope Class	Percent Slope	Approximate Degrees	Description
1	0–0.5	0	level
2	0.5–2.5	0.3–1.5	nearly level
3	2–5	1–3	very gentle slopes
4	6–9	3.5–5	gentle slopes
5	10–15	6–8.5	moderate slopes
6	16–30	9–17	strong slopes
7	31–45	17–24	very strong slopes
8	46–70	25–35	extreme slopes
9	71–100	35–45	steep slopes
10	>100	>45	very steep slopes

SURFACE STONINESS

		Surface Area	Distance Apart (cm)
S0	non–stony	<0.01%	>30
S1	slightly stony	0.01–0.1%	10–30
S2	moderately stony	0.1–3%	2–10
S3	very stony	3–15%	1–2
S4	exceedingly stony	15–50%	0.1–5
S5	excessively stony	50%	0.1

SLOPE POSITION

c	– crest
u	– upper slope
m	– mid slope
l	– lower slope
t	– toe
d	– depression
l	– level

DRAINAGE

VR	- very rapidly
R	- rapidly
w	- well
M	- moderately well
I	- imperfectly
P	- poorly
VP	- very poorly

PERCENT AREAS

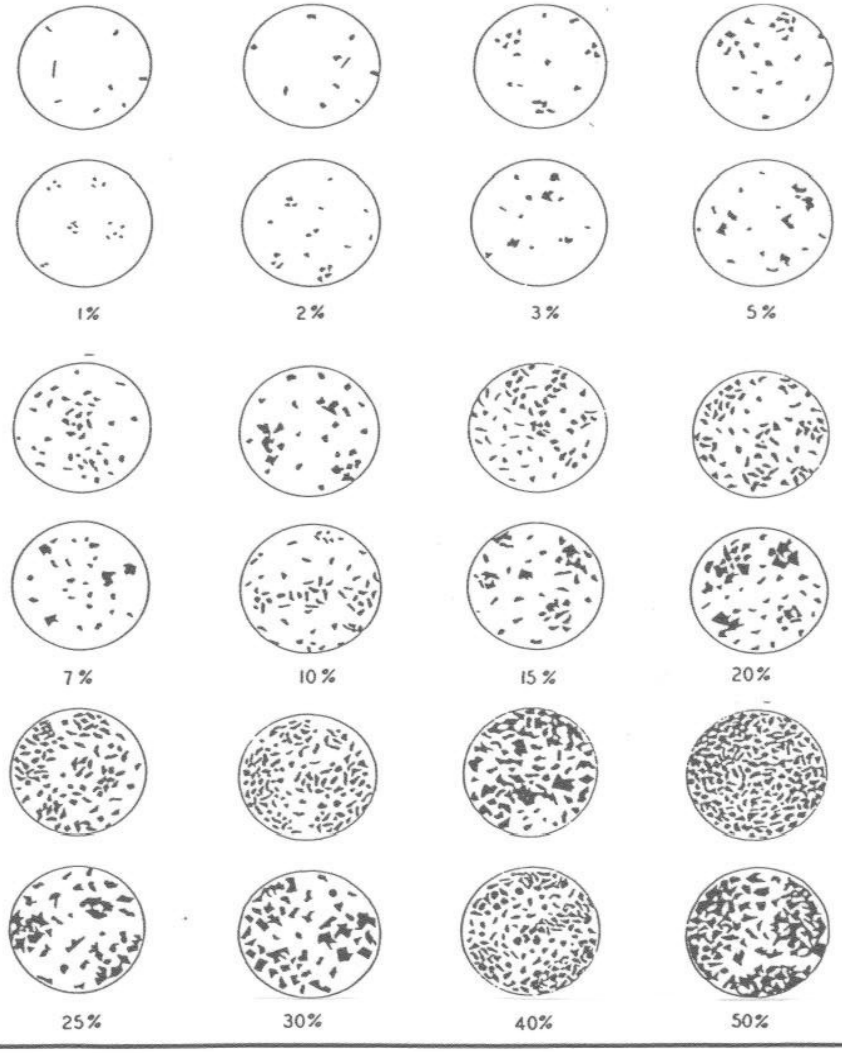


Table 10. Types, kinds and classes of soil structure.

Type	Kind (Kind Code)	Structure Class and Code	Size[1] (mm)
Blocklike - soil particles arranged around a point and bounded by flat or rounded surfaces **BK**	**Angular blocky (ABK)** peds bounded by flattened, rectangular faces intersecting at relatively sharp angles	**VF:** very fine angular blocky	<5
		F: fine angular blocky	5-10
		M: medium angular blocky	10-20
		C: coarse angular blocky	20-50
		VC: very coarse angular blocky	>50
	Subangular blocky (SBK): peds bounded by slightly rounded, subrectangular faces with vertices[2] of their intersections mostly subrounded	**VF:** very fine subangular blocky	<5
		F: fine subangular blocky	5-10
		M: medium subangular blocky	10-20
		C: coarse subangular blocky	20-50
		VC: very coarse subangular blocky	>50
	Granular (GR): spheroidal peds bounded by curved or very irregular faces that do not adjoin those of adjacent peds	**VF:** very fine granular	<1
		F: fine granular	1-2
		M: medium granular	2-5
		C: coarse granular	5-10
		VC: very coarse granular	>10
Platelike: soil particles arranged around a horizontal plane and generally bounded by relatively flat horizontal surfaces **PL**	**Platy (PL):** peds flat or platelike; horizontal planes more or less well developed	**VF:** very fine platy	<1
		F: fine platy	1-2
		M: medium platy	2-5
		C: coarse platy	5-10
		VC: very coarse platy	>10
Prismlike: soil particles arranged around a vertical axis and bounded by relatively flat vertical surfaces. **PR**	**Prismatic (PR):** vertical faces of peds well defined and vertices[2] angular (edges sharp); prism tops essentially flat	**VF:** very fine prismatic	<10
		F: fine prismatic	10-20
		M: medium prismatic	20-50
		C: coarse prismatic	50-100
		VC: very coarse prismatic	>100
	Columnar (COL): vertical edges near top of columns not sharp (vertices[2] subrounded); column tops flat, rounded, or irregular	**VF:** very fine columnar	<10
		F: fine columnar	10-20
		M: medium columnar	20-50
		C: coarse columnar	50-100
		VC: very coarse prismatic	>100
Structureless: no observable aggregation of primary particles or no definite orderly arrangement around natural lines of weakness **MA**	**Single grained (SGR):**	Loose, incoherent mass of individual primary particles, as in sands	
	Massive (MA):	amorphous; a coherent mass showing no evidence of any distinct arrangement of soil particles; separates into clusters of particles; not peds	

Cloddy (CDY): not a structure; used to indicate the condition of some ploughed surface, grade, class, and shape too varied to be described in standard terms.

[1] The size limits refer to measurements in the smallest dimension of platy, prismatic, and columnar peds and to the largest of the nearly equal dimensions of blocky and granular peds.

[2] Definition of vertex (plural, vertices): the intersection of two planes of a geometrical figure.

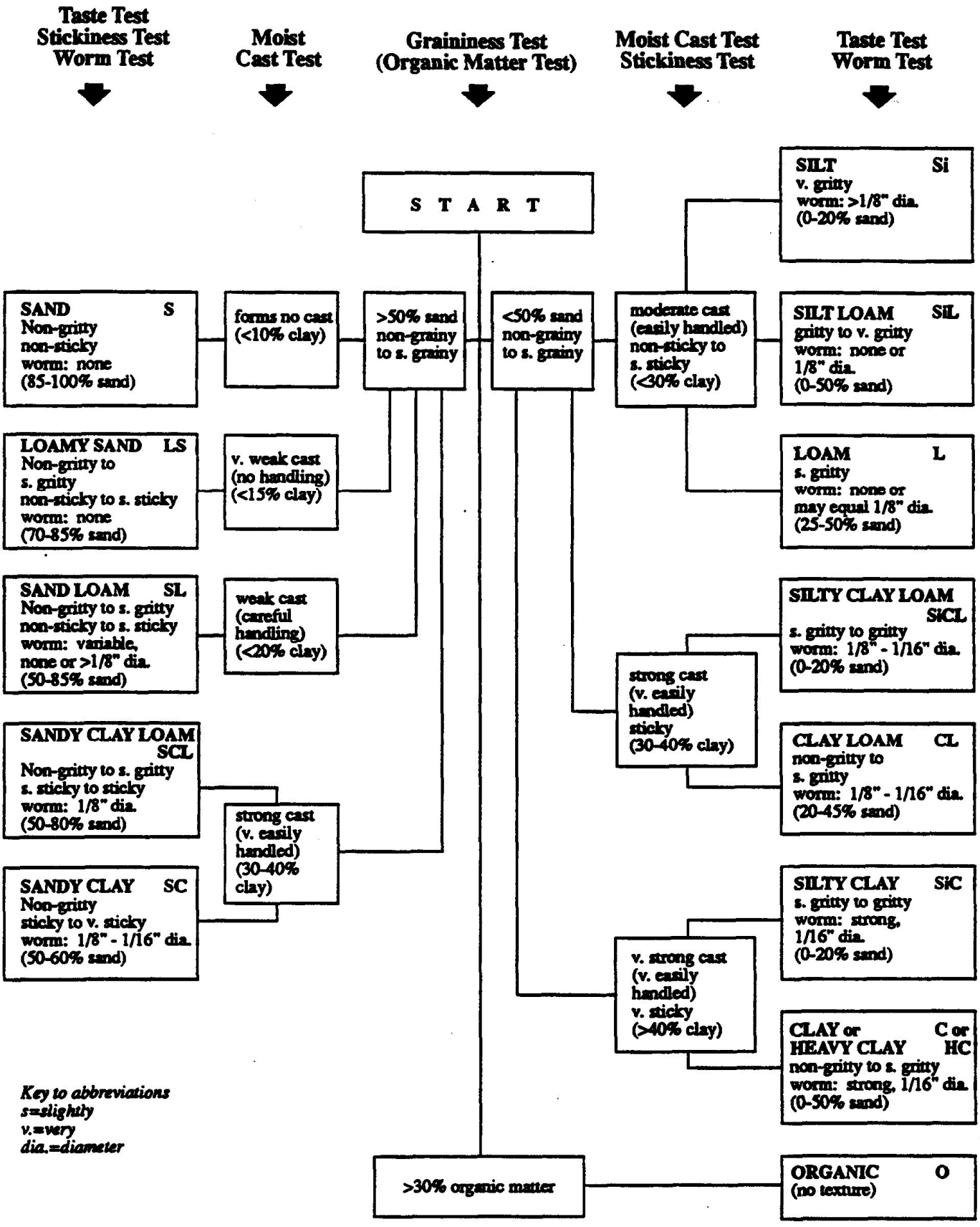
Consistence – moist soil	
• Loose:	No intact sample can be obtained.
• Friable:	Structure breaks down with slight force between the fingers.
• Firm:	Structure breaks down with moderate force between the fingers.
• Extremely firm:	Structure breaks down with moderate force between the hands or slight foot pressure.
• Rigid:	Structure breaks down only with foot pressure.

Structure Grade Descriptions

Code		Structure Grade Definition
0	**Massive /or single grained used to describe sands**	This describes a soil that has no developed structure. There is no aggregation of primary particles or no definite orderly arrangement around natural lines of weakness.
1	**Weak**	Peds are either indistinct and barely evident in place, or observable in place but incompletely separated from adjacent peds. When disturbed, the soil material separates into a mixture of only a few entire peds, many broken peds and much unaggregated material.
2	**Moderate**	Peds are moderately durable, and are evident but not distinct in the undisturbed soil. When disturbed, the soil material parts into a mixture of many well formed, entire peds, some broken peds, and little unaggregated material. The peds may be handled without breaking and they part from adjoining peds to reveal nearly entire surfaces which have properties distinct from those caused by fracturing.
3	**Strong**	Peds are durable and evident in the undisturbed soil, adhere weakly to one another, withstand displacement and separate cleanly when the soil is disturbed. When removed, the soil material separates mainly into entire peds. Surfaces of unbroken peds have distinctive properties, compared to surfaces that result from fracturing.

Mottling Descriptions

Parameter	Code	Description
Abundance	**Few**	<2% of the exposed surface
	Common	2-20% of the exposed surface
	Many	>20% of the exposed surface
Size	**Fine**	< 5 mm
	Medium	5-15 mm
	Coarse	>15 mm
Contrast	**Faint**	Evident only on close examination. Faint mottles commonly have the same hue as the colour to which they are compared and differ by no more than 1 unit of chroma or 2 units of value. Some faint mottles of similar but low chroma and value can differ by 2.5 units of hue.
	Distinct	Readily seen, but contrast only moderately with the colour to which they are compared. Distinct mottles commonly have the same hue as the colour to which they are compared, but differ by 2 to 4 units of chroma or 3 to 4 units of value; or differ from the colour to which they are compared by 2.5 units of hue but by no ore than 1 unit of chroma or 2 units of value.
	Prominent	Contrast strongly with the colour to which they are compared. Prominent mottles are commonly the most obvious colour feature in a soil. Prominent mottles that have medium chroma and value commonly differ from the colour to which they are compared by at least 5 units of hue if chroma and value are the same; or at least 1 unit of chroma or 2 units of value if hue differs by 2.5 units.


Taste Test
Stickiness Test
Worm Test
Moist
Cast Test
Graininess Test
(Organic Matter Test)
Moist Cast Test
Stickiness Test
Taste Test
Worm Test
START
SILT Si
v. gritty
worm: >1/8" dia.
(0-20% sand)
SAND S
Non-gritty
non-sticky
worm: none
(85-100% sand)
forms no cast
(<10% clay)
>50% sand
non-grainy
to s. grainy
<50% sand
non-grainy
to s. grainy
moderate cast
(easily handled)
non-sticky to
s. sticky
(<30% clay)
SILT LOAM SiL
gritty to v. gritty
worm: none or
1/8" dia.
(0-50% sand)
LOAMY SAND LS
Non-gritty to
s. gritty
non-sticky to s. sticky
worm: none
(70-85% sand)
v. weak cast
(no handling)
(<15% clay)
LOAM L
s. gritty
worm: none or
may equal 1/8" dia.
(25-50% sand)
SAND LOAM SL
Non-gritty to s. gritty
non-sticky to s. sticky
worm: variable,
none or >1/8" dia.
(50-85% sand)
weak cast
(careful
handling)
(<20% clay)
SILTY CLAY LOAM
SiCL
s. gritty to gritty
worm: 1/8" - 1/16" dia.
(0-20% sand)
strong cast
(v. easily
handled)
sticky
(30-40% clay)
CLAY LOAM CL
non-gritty to
s. gritty
worm: 1/8" - 1/16" dia.
(20-45% sand)
SANDY CLAY LOAM
SCL
Non-gritty to s. gritty
s. sticky to sticky
worm: 1/8" dia.
(50-80% sand)
strong cast
(v. easily
handled)
(30-40%
clay)
SILTY CLAY SiC
s. gritty to gritty
worm: strong,
1/16" dia.
(0-20% sand)
SANDY CLAY SC
Non-gritty
sticky to v. sticky
worm: 1/8" - 1/16" dia.
(50-60% sand)
v. strong cast
(v. easily
handled)
v. sticky
(>40% clay)
CLAY or C or
HEAVY CLAY HC
non-gritty to s. gritty
worm: strong, 1/16" dia.
(0-50% sand)
Key to abbreviations
s=slightly
v.=very
dia.=diameter
>30% organic matter
ORGANIC O
(no texture)

SYSTEM DRAWING

- ✓ **Complete drawing of proposed system, layout of laterals, position and location of tank etc.**

Comments:

_____

_____

_____

_____

_____

_____

_____

_____