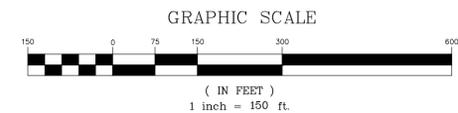


**LEGEND**

- 336 --- EXISTING CONTOUR
- 336 --- PROPOSED CONTOUR
- --- APPROXIMATE PROPERTY LINE
- --- APPROXIMATE SETBACK LINE
- ● IRON ROD/PIPE FOUND/SET
- CONCRETE MONUMENT
- SS GRAVITY SEWER LINE
- FM FORCE MAIN
- W WATER LINE
- OE OVERHEAD ELECTRIC
- UE UNDERGROUND ELECTRIC
- T TELEPHONE LINE
- G GAS LINE
- ST STORM DRAINAGE LINE
- ⊙ SEWER MANHOLE
- ⊙ STORM MANHOLE
- ⊕ HYDRANT
- ⊖ SHUT-OFF
- ⊕ POWER POLE
- ⊖ GUY WIRE
- ⊕ CATCH BASIN
- ⊖ LIGHT POLE
- ⊕ SIGN
- ⊕ DECIDUOUS TREE
- ⊕ CONIFEROUS TREE
- ⊕ EDGE OF BRUSH/WOODS
- ⊕ FENCE
- ⊕ DRAINAGE SWALE
- ⊕ TEST PIT
- ⊕ PERCOLATION TEST
- ⊕ WELL
- ⊕ PROJECT BENCHMARK

**GENERAL NOTES**

1. Utilities shown do not purport to constitute or represent all utilities located upon or adjacent to the surveyed premises. Existing utility locations are approximate only. The Contractor shall field verify all utility conflicts. All discrepancies shall be reported to the Engineer. The Contractor shall contact Dig Safe (888-344-7233) prior to any construction.
2. All existing utilities not incorporated into the final design shall be removed or abandoned as indicated on the plans or directed by the Engineer.
3. The Contractor shall maintain as-built plans (with ties) for all underground utilities. Those plans shall be submitted to the Owner at the completion of the project.
4. The Contractor shall repair/restore all disturbed areas (on or off the site) as a direct or indirect result of the construction.
5. All grassed areas shall be maintained until full vegetation is established.
6. Maintain all trees outside of construction limits.
7. The Contractor shall be responsible for all work necessary for complete and operable facilities and utilities.
8. The Contractor shall submit shop drawings for all items and materials incorporated into the site work. Work shall not begin on any item until shop drawing approval is granted.
9. In addition to the requirements set in these plans and specifications, the Contractor shall complete the work in accordance with all permit conditions and any local Public Works Standards.
10. The tolerance for finish grades for all pavement, walkways and lawn areas shall be 0.1 feet.
11. Any dewatering necessary for the completion of the sitework shall be considered as part of the contract and shall be the Contractor's responsibility.
12. The Contractor shall coordinate all work within Town Road R.O.W. with Town authorities.
13. The Contractor shall install the electrical, cable and telephone services in accordance with the utility companies requirements.
14. Existing pavement and tree stumps to be removed shall be disposed of at an approved off-site location. All pavement cuts shall be made with a pavement saw.
15. If there are any conflicts or inconsistencies with the plans or specifications, the Contractor shall contact the Engineer for verification before work continues on the item in question.
16. Property line information is approximate and based on existing tax map information. This plan is not a boundary survey and is not intended to be used as one.
17. If the building is to be sprinklered, backflow prevention shall be provided in accordance with AWWA M14. The Site Contractor shall construct the water line to two feet above the finished floor. See mechanical plans for riser detail.



**PROGRESS PLANS**  
1/2/18

SITE ENGINEER:



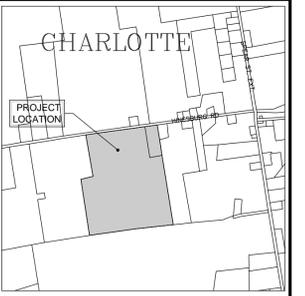
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1211 ETHAN ALLEN HIGHWAY  
CHARLOTTE, VERMONT

PROJECT:  
**BEAN FARM**  
1824 HINESBURG ROAD  
CHARLOTTE, VT



**LOCATION MAP**  
1" = 2000'

DATE	CHECKED	REVISION

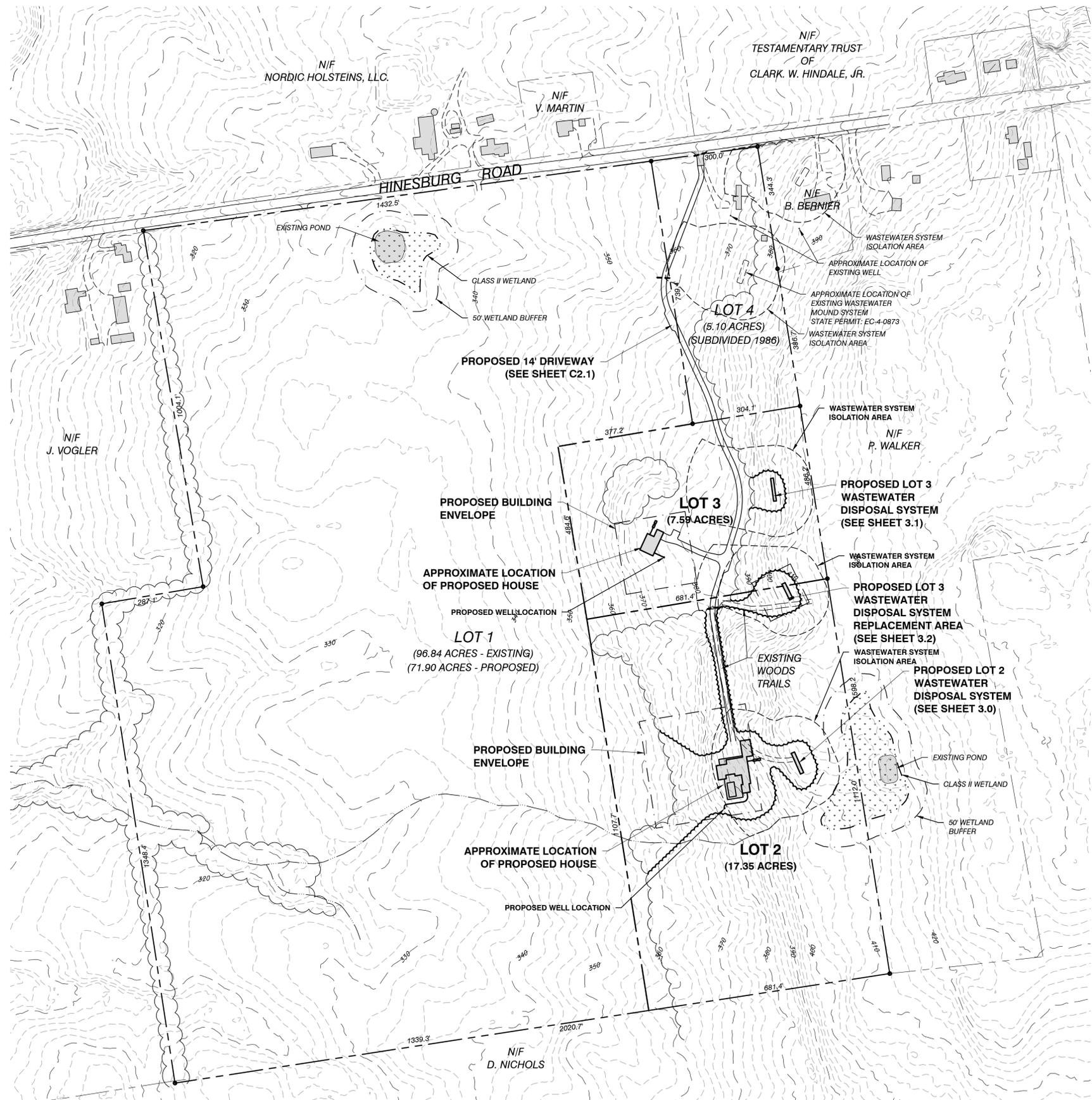
**EXISTING CONDITIONS OVERALL SITE PLAN**

DATE  
**JAN., 2018**  
SCALE  
**1" = 150'**  
PROJ. NO.  
**17218**

DRAWING NUMBER  
**C1.0**

VERMONT WATER SUPPLY RULE — CHAPTER 21  
TABLE A — REQUIRED MINIMUM SEPARATION DISTANCES

Potential Source of Contamination and other Siting Limitations	Separation Distance
Roadway, Parking Lot (outer edge of shoulder)	25'
Driveway (less than 3 residences)	15'
Sewage System Disposal Fields	a.
Subsurface Wastewater Piping and Related Tanks	50'
Property Line	10'b
Limit of Herbicide Application on Utility R.O.W.	100'c
Surface Water	10'd
Flood ways	e.
Buildings	10'
Concentrated Livestock Holding Area & Manure Storage Systems	200'
Hazardous or Solid Waste Disposal Site	f.
Non-sewage Wastewater Disposal Fields	f.
a. See Table B	
b. Increased to 50' when adjacent to agricultural cropland.	
c. Applies to rights-of-way (ROW) where herbicides have been applied in the past 12 months or may be applied in the future. This distance may be increased to 200' depending on the active ingredient in the herbicide according to Vermont Regulations for Control of Pesticides.	
d. For Public water sources, see Appendix A, part 3, Subpart 3.3.8.	
e. Water sources shall not be located in a flood way.	
f. If a water source is potentially downgradient of a source of contamination, then the Agency shall apply the criteria in 11.4.2.2.	



SITE ENGINEER:



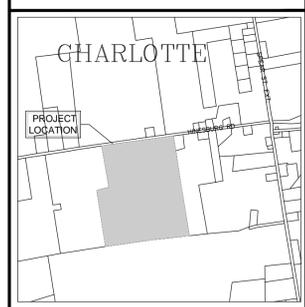
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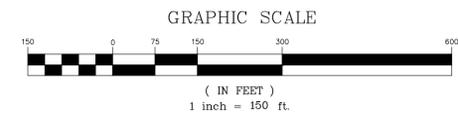


LOCATION MAP  
1" = 2000'

DATE	CHECKED	REVISION

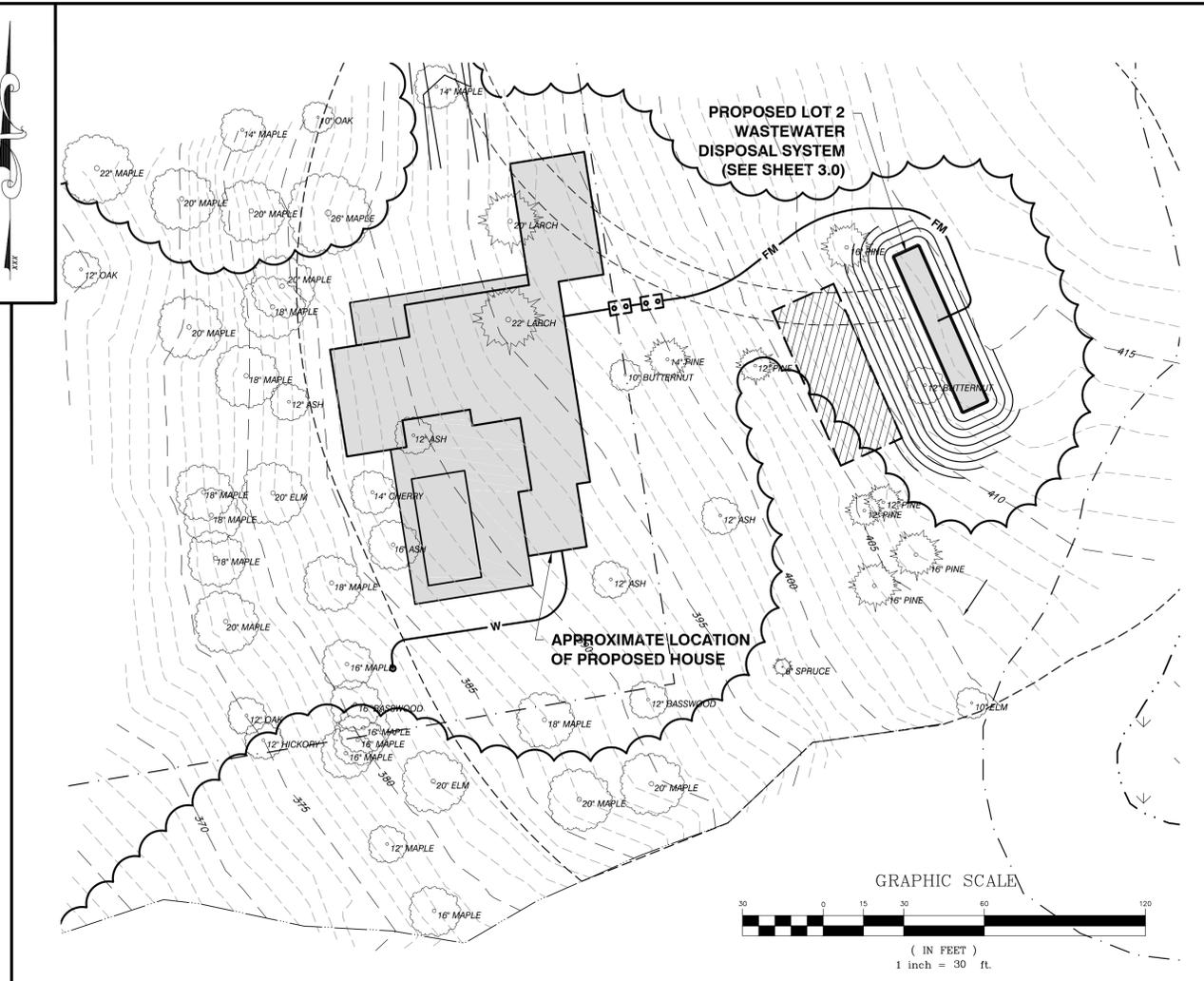
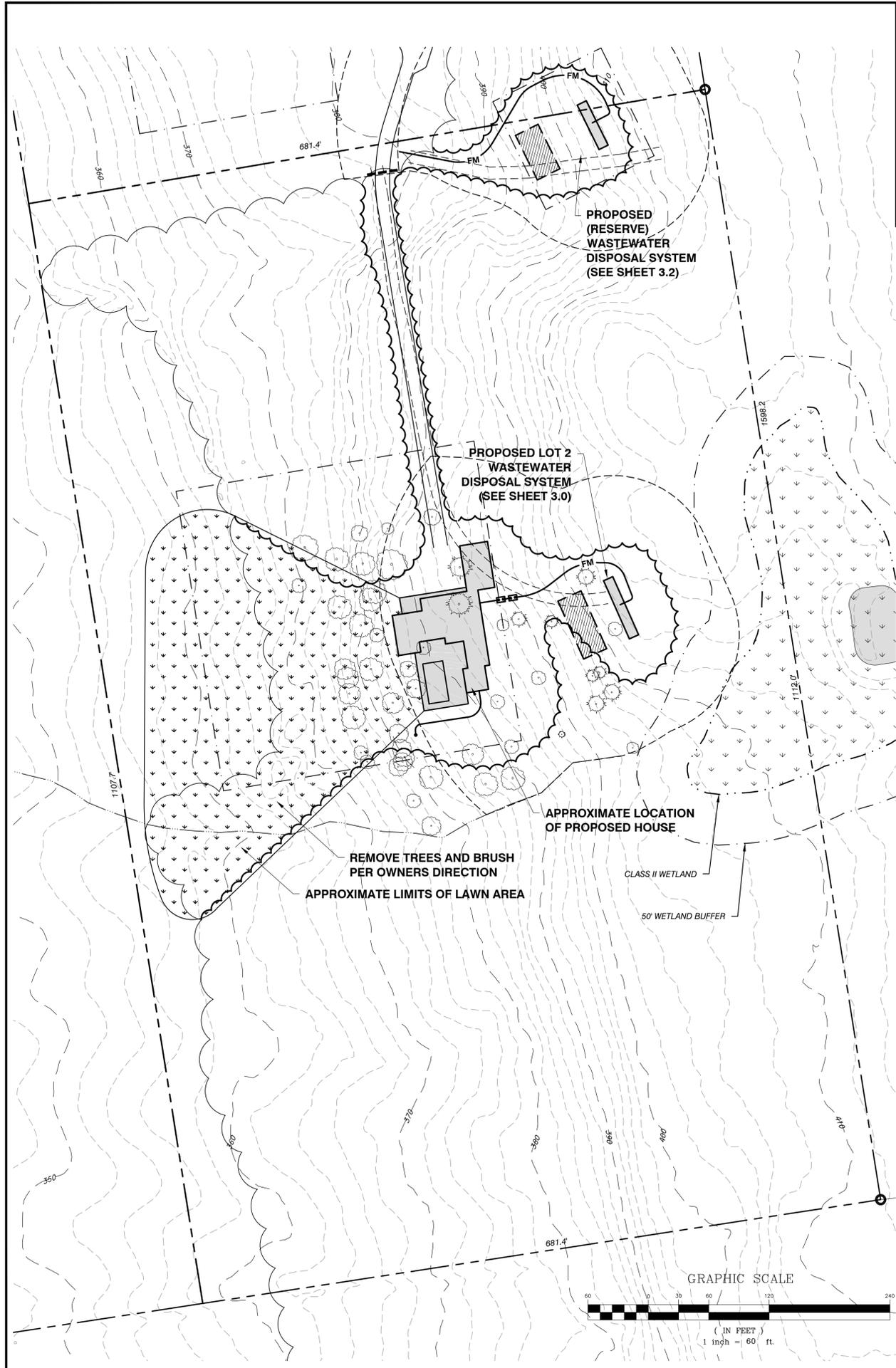
**PROPOSED  
CONDITIONS  
OVERALL SITE  
PLAN**

DATE	JAN., 2018	DRAWING NUMBER	<b>C1.1</b>
SCALE	1" = 150'		
PROJ. NO.	17218		



PROGRESS PLANS  
1/2/18

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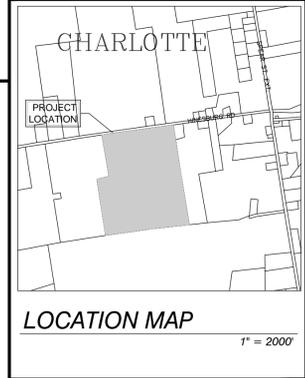
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PROJECT:

**BEAN FARM**

1824 HINESBURG ROAD  
CHARLOTTE, VT



DATE	CHECKED	REVISION

**PROPOSED  
CONDITIONS  
SITE PLAN -  
LOT 2**

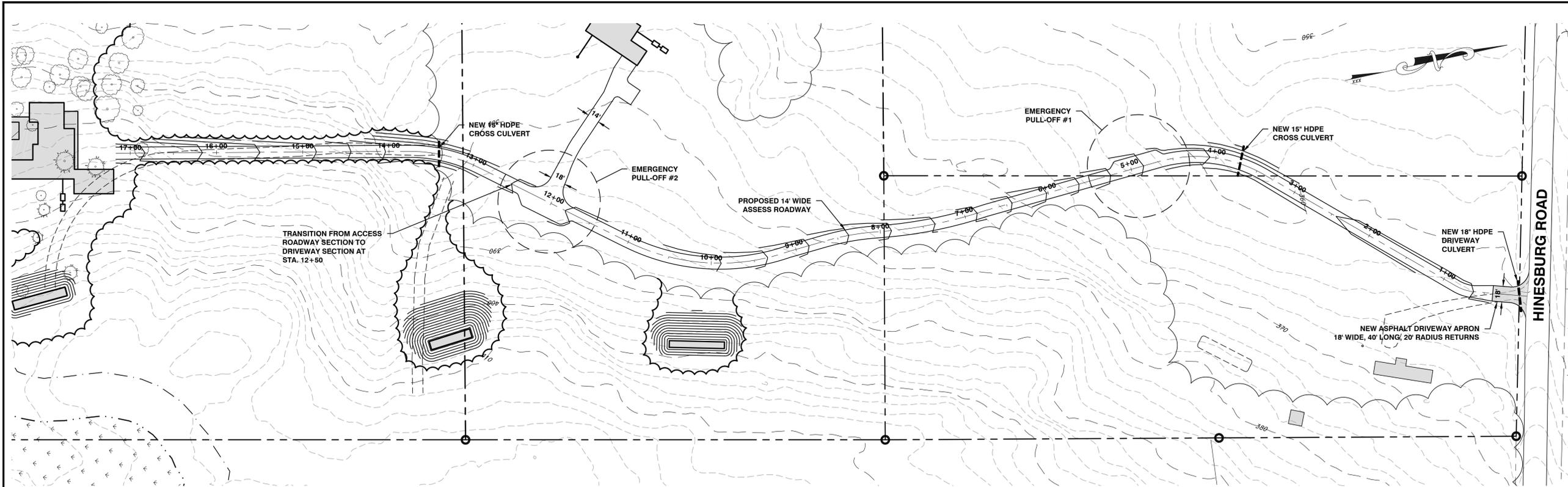
DATE  
JAN., 2018

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DRAWING NUMBER  
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PROGRESS PLANS  
1/2/18



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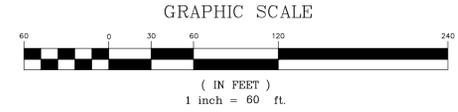
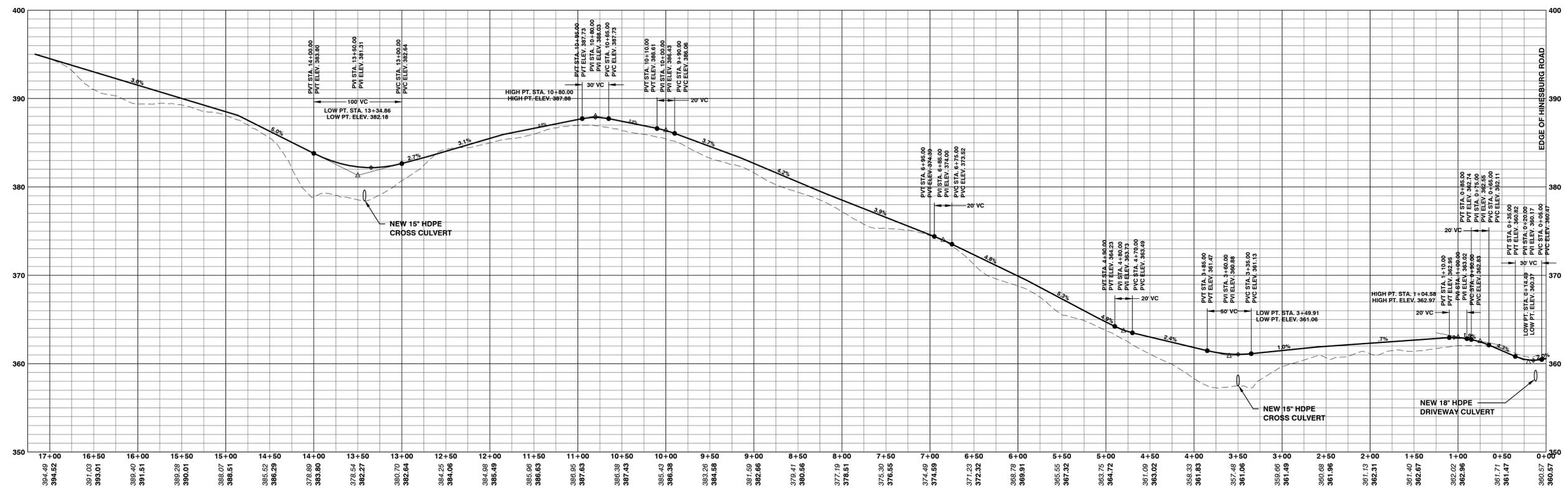
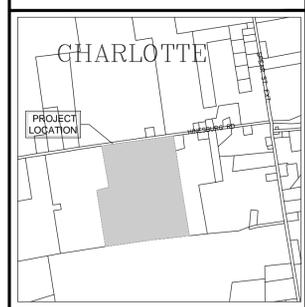
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PROGRESS PLANS  
 1/2/18

DATE	CHECKED	REVISION

**PROPOSED  
 CONDITIONS  
 DRIVEWAY  
 PROFILE**

DATE: JAN., 2018  
 SCALE: AS SHOWN  
 PROJ. NO. 17218  
 DRAWING NUMBER: **C2.1**

**Hinsdale Test Pits**  
 1824 Hinesburg Rd., Charlotte, VT  
 March 31, 2014  
 D. Marshall, S. Harris, S. Denton

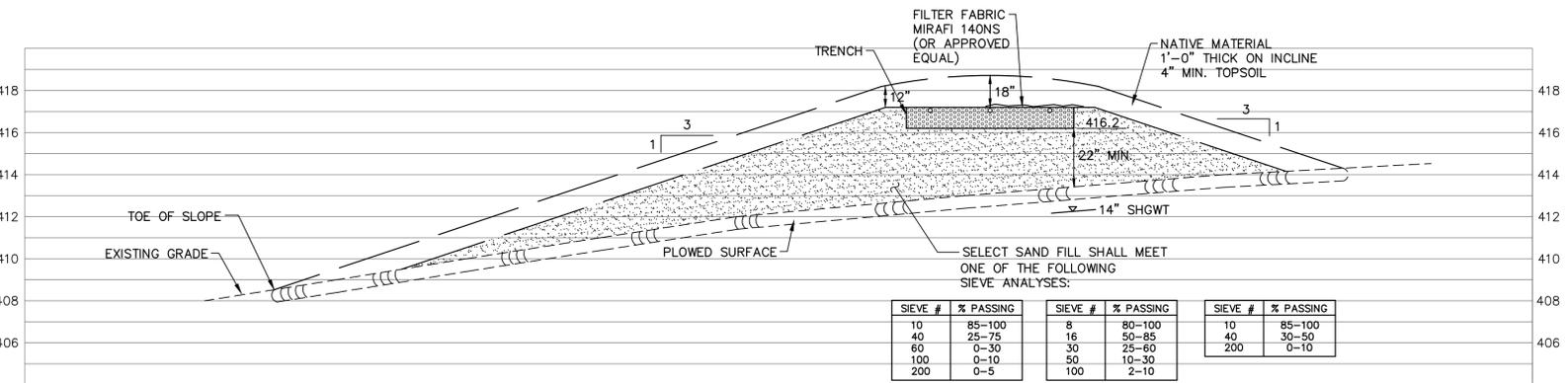
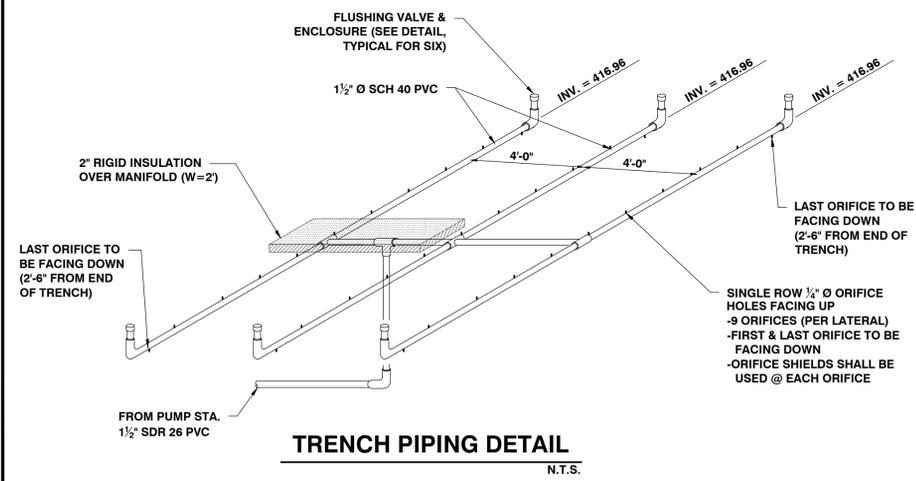
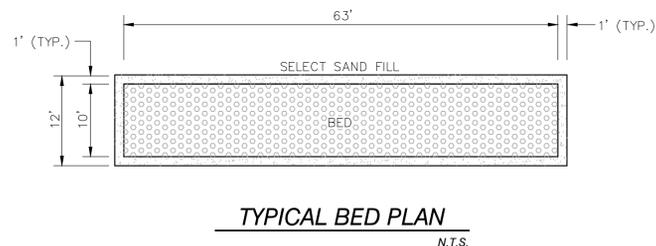
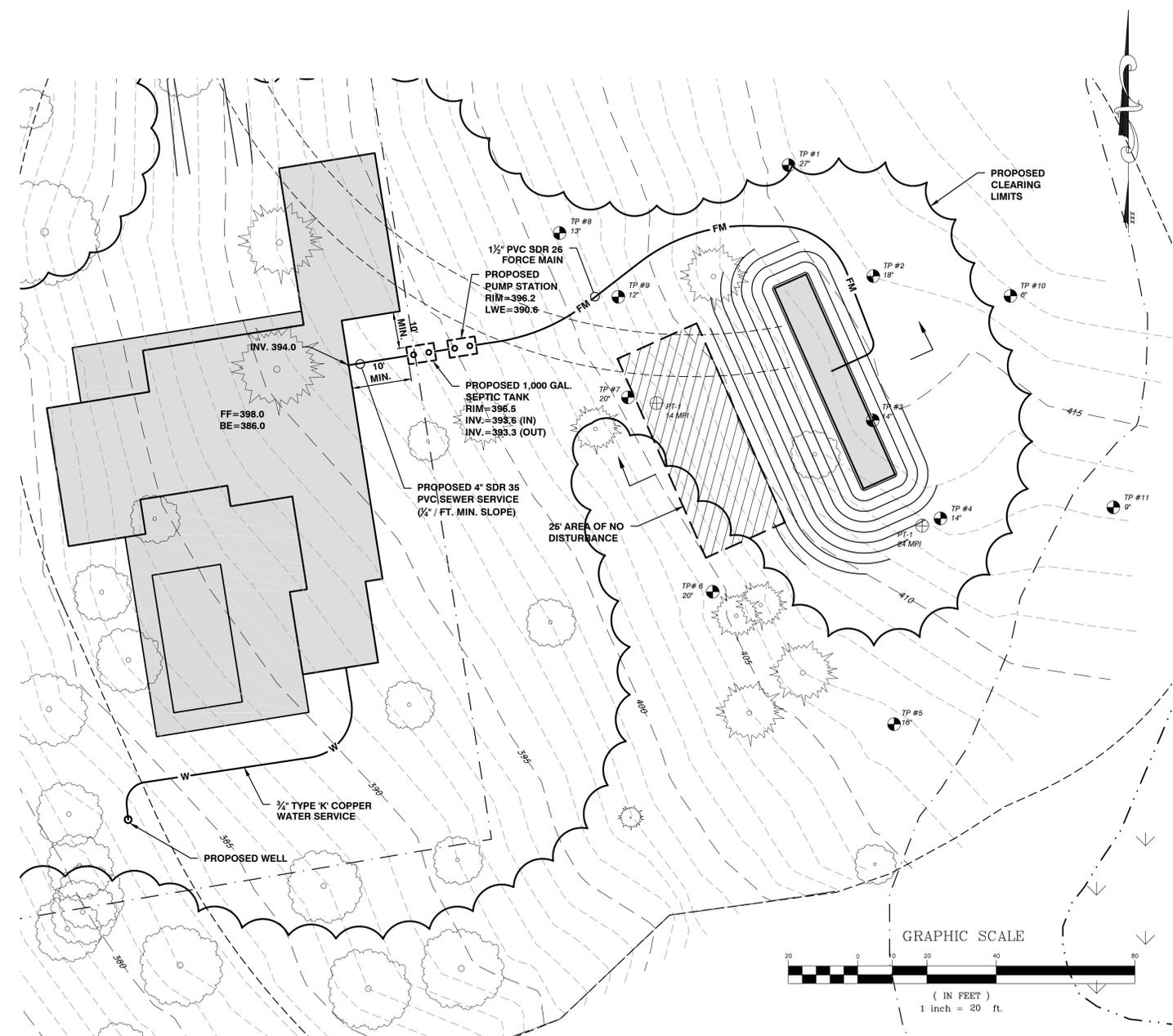
TP #	Soil Profile	SHGWT	Seeps	Roots	Ledge
TP #1	0"-7" 7"-23" 23"-30" Loose brown fine sandy loam Loose light brown fine sandy loam Medium compact red brown very fine sandy loam	27"	No seeps	to 26"	Ledge at 30"
TP #2	0"-6" 6"-9" 9"-13" 13"-20" 20"-35" 35"-43" Loose brown fine sandy loam Loose light brown fine sandy loam Loose light brown very fine sandy loam Medium compact light brown fine sandy loam Medium compact light brown very fine sandy loam Medium compact red-brown fine sand and gravel	18"	Seeps at 30"	to 20"	No ledge
TP #3	0"-7" 7"-14" 14"-27" 27"-49" Loose dark brown fine sandy loam Loose light brown very fine sandy loam Medium compact light brown very fine sandy loam Loose to medium compact brown loam	14"	Seeps at 30"	to 18"	No ledge
TP #4	0"-5" 5"-9" 9"-16" 16"-44" Loose dark brown fine sandy loam Loose light brown very fine sandy loam Medium compact light brown fine sandy loam Compact brown silt loam	14"	Seeps at 29"	to 18"	No ledge
TP #5	0"-9" 9"-16" 16"-50" Loose dark brown very fine sandy loam Loose brown very fine sandy loam Medium compact to compact olive-brown silt loam	16"	Seeps at 22"	to 30"	No ledge
TP #6	0"-7" 7"-12" 12"-22" 22"-38" Loose dark brown fine sandy loam Loose brown very fine sandy loam Medium compact light brown very fine sandy loam Medium compact brown loam	20"	Seeps at 26"	to 26"	No ledge
TP #7	0"-7" 7"-15" 15"-22" 22"-37" Loose brown fine sandy loam Loose to medium compact light brown very fine sandy loam Loose light brown loam Loose to medium compact gray-brown loam	20"	No seeps	to 20"	No ledge
TP #8	Ledge at 13"				
TP #9	0"-5" 5"-12" 12"-17" Loose brown loam Medium compact brown loam Medium compact orange-brown fine sandy loam	12"	No seeps	to 12"	Ledge at 17"
TP #10	0"-6" 6"-16" 16"-24" Loose brown silt loam Medium compact gray loam Compact orange-brown sandy loam	6"	Seeps at 20"	to 6"	Ledge at 24"
TP #11	0"-6" 6"-10" 10"-36" Loose brown loam Loose orange-brown loam Compact orange-brown loam	9"	Seeps at 10"	to 10"	No ledge

**Hinsdale Bean Farm Lot 2**  
**Charlotte, Vermont**

**Pump Station Basis of Design**

Design Flow	630 GPD
Infiltration	0 GPD
20% Municipal Credit	630 GPD
Total Design Flow	630 GPD
Average Daily Flow	0.66 GPM
Peaking Factor	5.00
Peak Flow	3.28 GPM
Required Storage	630 gallons
Storage Provided	650 gallons
Force Main Dia.	1.50 Inches
Min. Cleansing Velocity	2.00 FPS
Min. Pumping Rate	11.01 GPM
Chosen Pumping rate	33.00 GPM
Length of FM to Mound	165.00 feet
Friction Losses to Mound	14.64 feet
High Point of FM in Mound	416.96 feet
Low Elevation in PS	390.60 feet
Elevation Change	26.36 feet
Minor headlosses	3.00 feet
Residual	3.00 feet
TDH	47.00 feet
Pump Cycle Storage	100 Gallons
Run Cycle	4.52 Minutes
Wet Well Detention Time	152.38 Minutes
System Curve	GPM TDH
	25.0 41.10
	30.0 44.60
	35.0 48.70
	40.0 53.30
	45.0 58.40
	50 64.00
<b>Pump Selection</b>	Hydromatic, SHEF 50, 230 v, 60 Hz, 5/10 HP

**Percolation Test Results**  
 Perc Test #1: 14 min/in  
 Perc Test #2: 24 min/in

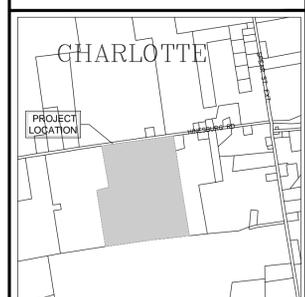


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 CHARLOTTE, VERMONT

PROJECT:  
**BEAN FARM**  
 1824 HINESBURG ROAD  
 CHARLOTTE, VT



DATE	CHECKED	REVISION

**WASTEWATER SYSTEM SITE PLAN - LOT 2**

DATE: JAN., 2018  
 SCALE: AS SHOWN  
 PROJ. NO.: 17218  
 DRAWING NUMBER: **C3.0**

PROGRESS PLANS  
 1/2/18



**Hinsdale Test Pits**  
 1824 Hinesburg Rd., Charlotte, VT  
 March 31, 2014  
 D. Marshall, S. Harris, S. Denton

**Basis of Design**  
 Design Flow  
 4-BR Home 490 GPD  
 Total Flow 490 GPD

**Percolation Test Results**  
 Perc Test #3: 26 min/in  
 Perc Test #4: 18 min/in

TP #30  
 0'-9"  
 9"-18"  
 18"-36"  
 Loose dark brown fine sandy loam  
 Medium compact gray brown sandy loam  
 Compact orange-brown fine sandy loam

SHGWT 16" No seeps  
 Roots to 24"  
 Ledge at 36"

TP #31  
 0'-8"  
 8"-23"  
 sandy loam  
 Loose dark brown fine sandy loam  
 Loose to medium compact olive brown fine sandy loam

SHGWT-None (23") No seeps  
 Roots to 23"  
 Ledge at 23"

TP #32  
 0'-6"  
 6"-14"  
 14"-18"  
 18"-32"  
 Loose dark brown fine sandy loam  
 Loose brown fine sandy loam  
 Loose orange-brown very fine sandy loam  
 Medium compact brown loam

SHGWT 16" No seeps  
 Roots to 20"  
 Ledge at 32"

TP #32A  
 0'-6"  
 6"-13"  
 13"-20"  
 20"-30"  
 Loose dark brown very fine sandy loam  
 Loose brown very fine sandy loam  
 Medium compact olive-brown very fine sandy loam  
 Compact dark orange-brown very fine sandy loam

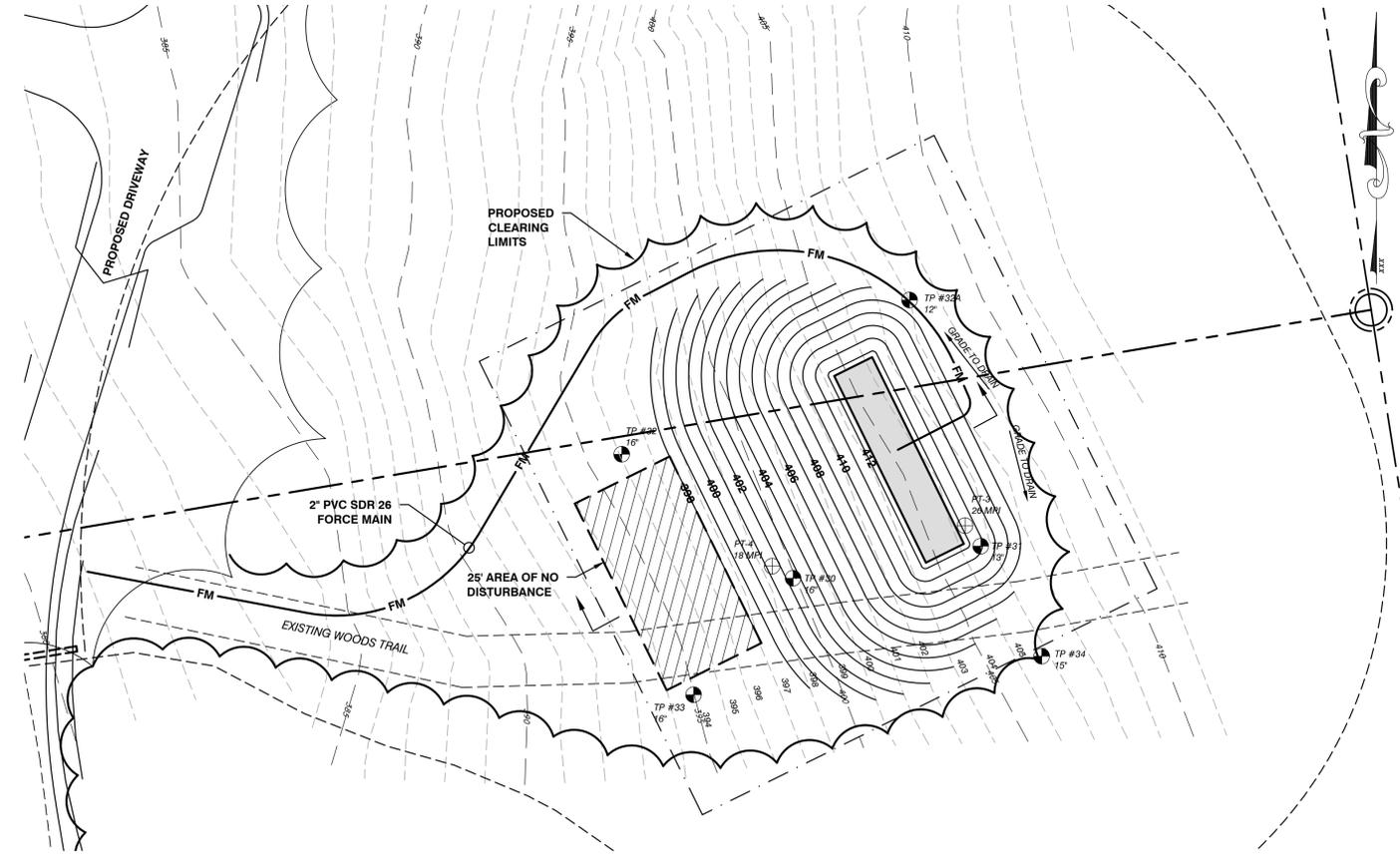
SHGWT 12" No seeps  
 Roots to 12"  
 Ledge at 30"

TP #33  
 0'-4"  
 4"-16"  
 16"-23"  
 23"-33"  
 Loose dark brown very fine sandy loam  
 Loose brown very fine sandy loam  
 Medium compact light brown very fine sandy loam  
 Compact olive-brown very fine sandy loam

SHGWT 16" No seeps  
 Roots to 20"  
 No ledge

TP #34  
 0'-5"  
 5"-13"  
 13"-18"  
 18"-26"  
 Loose gray-brown loam  
 Loose brown loam  
 Medium compact light brown loam  
 Medium orange-brown very fine sandy loam

SHGWT 15" No seeps  
 Roots to 17"  
 No ledge



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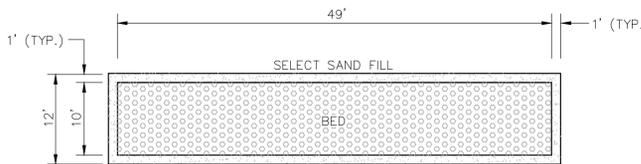


LOCATION MAP  
 1" = 2000'

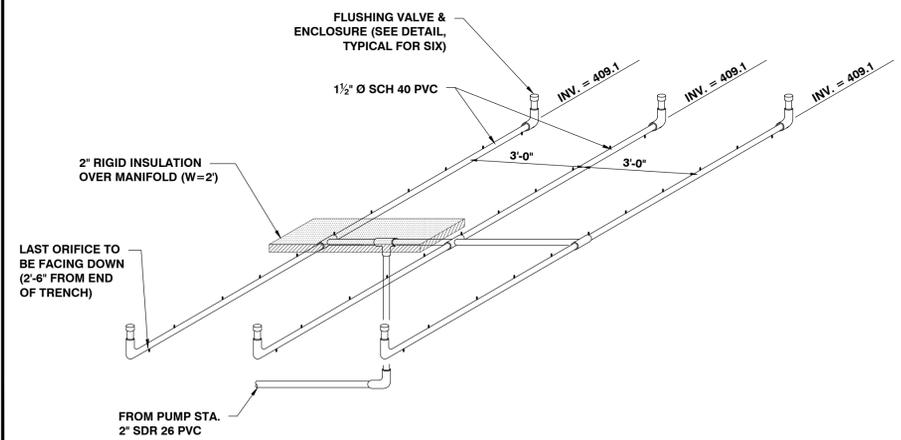
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**LOT 3 WASTEWATER SYSTEM REPLACEMENT AREA**

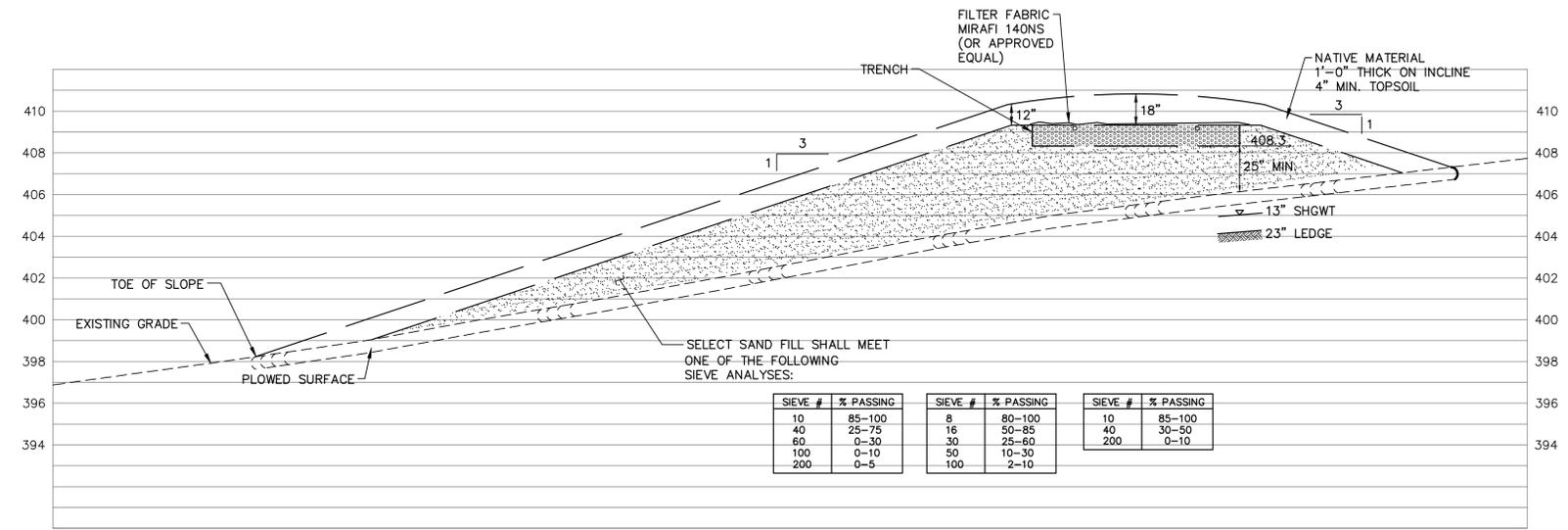
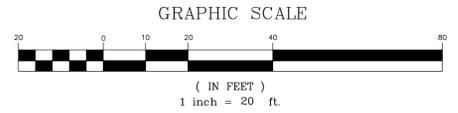
DATE  
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 17218  
 DRAWING NUMBER  
**C3.2**



**TYPICAL BED PLAN**  
 N.T.S.



**TRENCH PIPING DETAIL - FINAL DESIGN REQUIRED**  
 N.T.S.

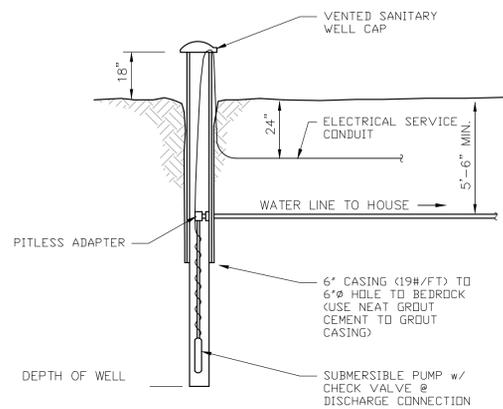


**LOT 3 WASTEWATER SYSTEM REPLACEMENT AREA - SECTION A-A**  
 1/4" = 1'-0"

SIEVE #	% PASSING	SIEVE #	% PASSING	SIEVE #	% PASSING
10	85-100	6	80-100	10	85-100
40	25-75	16	50-85	40	30-50
60	0-30	30	25-60	200	0-10
100	0-10	50	10-30		
200	0-5	100	2-10		

PROGRESS PLANS  
 1/2/18





**DESIGN BASIS:**

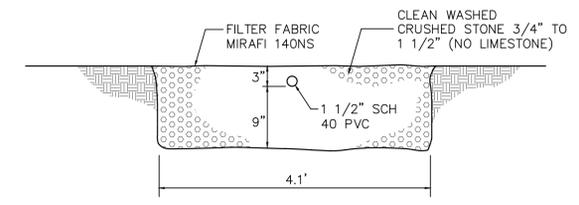
**LOT 2**  
 AVERAGE DAILY DEMAND = 600 GALLONS (4 BEDROOMS @ 150 GPD)  
 MAXIMUM DAY DEMAND 600 GPD/720 MIN. = 0.8 GPM INSTANTANEOUS  
 PEAK DEMAND = 5 GPM (RESIDENTIAL UNIT)

**LOT 3**  
 AVERAGE DAILY DEMAND = 900 GALLONS (6 BEDROOMS @ 150 GPD)  
 MAXIMUM DAY DEMAND 900 GPD/720 MIN. = 1.25 GPM  
 INSTANTANEOUS PEAK DEMAND = 5 GPM (RESIDENTIAL UNIT)

**NOTE:**

THE WELL SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE VERMONT WATER SUPPLY RULE - CHAPTER 21 (PART II SMALL SCALE WATER SUPPLY SYSTEMS)

**DRILLED WELL DETAIL**  
 N.T.S.



**TYPICAL DISPOSAL FIELD TRENCH SECTION**  
 N.T.S.

**MINIMUM ISOLATION DISTANCES**  
 (Contact Engineer for any Clarifications or Conflicts)

	Horizontal Distance (Feet)		
	Leachfield	Septic Tank	Sewer
Drilled Well Serving 1 Home - Up Slope of Disposal Field	100 (Min.) <sup>1</sup>	50	50
Drilled Well Serving 1 Home - Down Slope of Disposal Field	200 (Min.) <sup>1</sup>	50	50
Shallow Well or Spring, Up Slope of Disposal Field	150 (Min.) <sup>1</sup>	75	75
Shallow Well or Spring, Down Slope of Disposal Field	500 (Min.) <sup>1</sup>	75	75
Lakes, Ponds and Impoundment	50	25	25
Rivers, Streams	50	25	10
Drainage Swales, Roadway Ditches	25	-	-
Municipal Water Main	50	50	10
Service Water Lines	25	25	10
Roadways, Driveways, Buildings	10	5	5 <sup>4</sup>
Top of embankment or slope > 30%	25	10	-
Property Line	10 (25 Downslope) <sup>2</sup>	10	10
Trees	10	10	10
Replacement Area	10	-	-
Foundation, Footing Drains	35 (75 Downslope) <sup>3</sup>	10	-

- Isolation distances to well locations may vary due to site conditions - contact Engineer for verification with the Vermont Water Supply Rule Regulations.
- For mound disposal systems, the limit of mound fill must be 25 feet from any downhill property line and 10 feet from side or uphill property lines.
- If a curtain or foundation drain is downslope of the leachfield, the leachfield cannot be closer than 75 feet to the drain. If the drain is upslope of the leachfield, it shall be 35' if possible and 20' minimum.
- Sewers under roads, driveways or parking lots may require protective conduits or sleeves.

SITE ENGINEER:



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 1824 HINESBURG ROAD  
 CHARLOTTE, VT



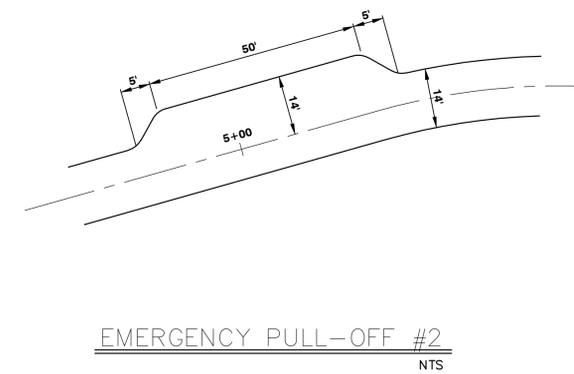
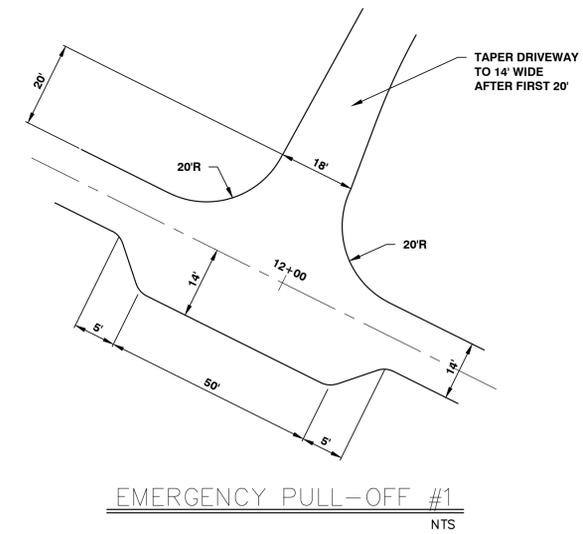
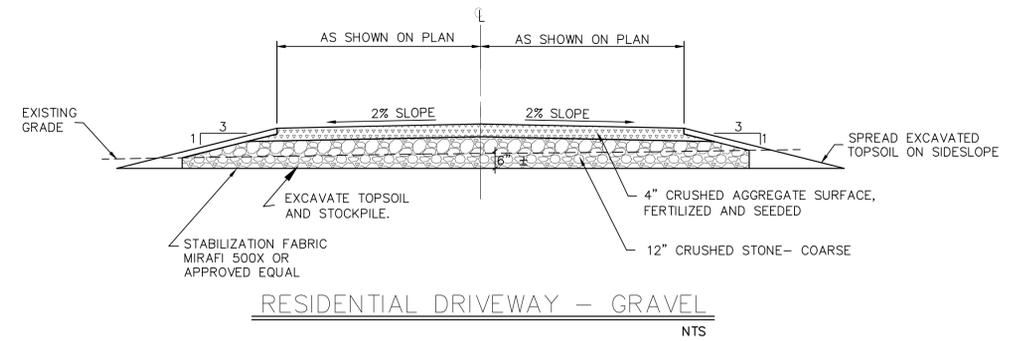
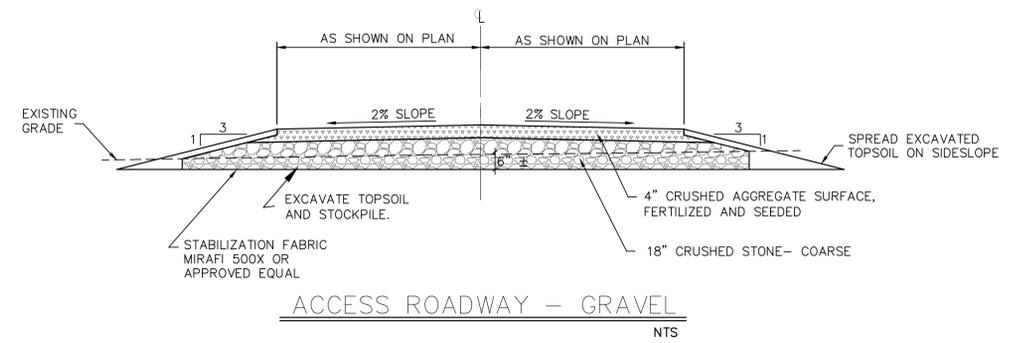
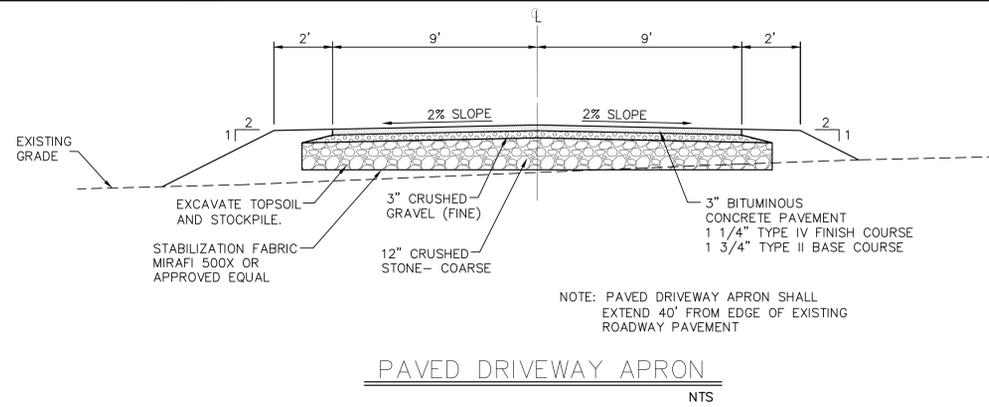
**LOCATION MAP**  
 1" = 2000'

DATE	CHECKED	REVISION

**WASTEWATER DETAILS**

DATE  
**JAN., 2018**  
 SCALE  
**AS SHOWN**  
 PROJ. NO.  
**17218**

DRAWING NUMBER  
**C4.1**



SITE ENGINEER:



CIVIL ENGINEERING ASSOCIATES, INC.  
10 MANSFIELD VIEW LANE, SOUTH BURLINGTON, VT 05403  
802-864-2323 FAX: 802-864-2271 web: www.cca-vt.com

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DRAWN

SAL

CHECKED

DSM

APPROVED

DSM

OWNER:

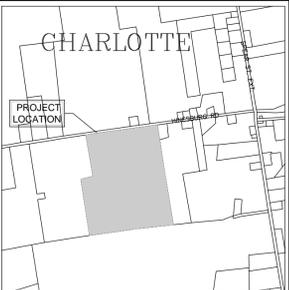
**CLARK W. HINSDALE III**

1211 ETHAN ALLEN HIGHWAY  
CHARLOTTE, VERMONT

PROJECT:

**BEAN FARM**

1824 HINESBURG ROAD  
CHARLOTTE, VT



LOCATION MAP

1" = 2000'

DATE	CHECKED	REVISION

MISC. DETAILS

DATE  
JAN., 2018

SCALE  
AS SHOWN

PROJ. NO.  
17218

DRAWING NUMBER

**C5.0**