

October 19, 2022

25052

Lori Capone, Administrator  
Sudbury Conservation Commission  
275 Old Lancaster Road  
Sudbury, MA 01776

RE: DEP File 301-1378 Rudenberg, Wayside Inn Road, Sudbury  
Additional Information

Dear Lori and Commissioners:

As discussed during the continued hearing on October 17, 2022, attached please find two sketches of alternative layouts for the proposed single family house project for your review.

Sketch 1 is a plan that we considered during the initial planning of the project. Sketch 2 is a new sketch prepared in response to a comment from Lory as to what changes could result if the garage is changed to a front entry.

In addition to the wetlands restrictions, the following are site constraints that are fixed that lead any design that is considered:

1. The septic system design location and configuration is the best that can be achieved to minimize the footprint and meet all of the required setbacks from wetlands, property lined and the exiting stormwater infiltration ditch and drain ditch.
2. The proposed driveway entrance must avoid the infiltration portion of the drain ditch. Crossing the infiltration portion of the ditch introduces a host of issues relative to the function and performance of the ditch. (Crossing the ditch would require providing compensating storage and infiltration area in order to maintain the existing function which requires significant additional work within the Town Right-of-Way). This must be avoided and was the reason that the concept in Sketch 1 was immediately rejected as infeasible.
3. Groundwater is shallow such that a basement or garage under is not feasible. This requires an at-grade structure so the footprint of the house and garage would cover more area to provide a reasonably sized living space. The ability to have a garage is very important in the real estate market.

### **SKETCH DESCRIPTIONS**

The upland area on the site suitable for development is very limited, so alternatives are also quite limited. The current design and these two sketched provide three alternatives that demonstrate the issues that need to be considered.

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**Sketch 1:**

This shows the same house and the current concept with the garage and driveway on the east side. The issues with the infiltration portion of the existing drain ditch was discussed above, and the alterations of the site are virtually the same as the current design. Therefore, this design was not considered and the current design was selected.

**Sketch 2:**

This shows the same house moved closer to the septic system with the garage doors facing the front.

The chart below shows the differences in the lot coverage for the area of alteration, lawn area, and pavement between the current plan and Sketch 2.

	CURRENT PLAN	SKETCH 2	DIFFERENCE
Alteration	18,700 SF	16,660 SF	- 2,040 SF
Lawn Area	2,800 SF	2,500 SF	- 300 SF
Impervious-House	2,150 SF	2,150 SF	Same
Paved Drive & Walk (includes Perm Pavers)	1,800 SF	1,260 SF	- 540 SF
Permeable Pavers	1,000 SF	800 SF	- 200 SF

**Comments:**

1. Sketch 2 does result in slightly less alteration of the site. The percent of the 9.9 acre site that would be altered would go from 4.4% to 3.9%. More of the east side would be left undisturbed and the limit of work would encroach closer to the wetland in the vicinity of wetland flags 6 and 7.
2. In Sketch 2, the development is tighter and more crowded particularly in the front of the site. The driveway and rain garden take up most of the space rather than the more diverse and relaxed landscape in the current design that provides some useable open space.
3. Crowding infiltrating stormwater BMPs in the front of the site in a smaller area would not be desirable. Spreading out these features as in the current design is recommended. In our opinion, the two smaller rain gardens works well with the landscape and avoids the appearance of a large stormwater basin.

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We look forward to discussing this information with you at the hearing continuance on October 31.

Sincerely,  
**DGT Associates**

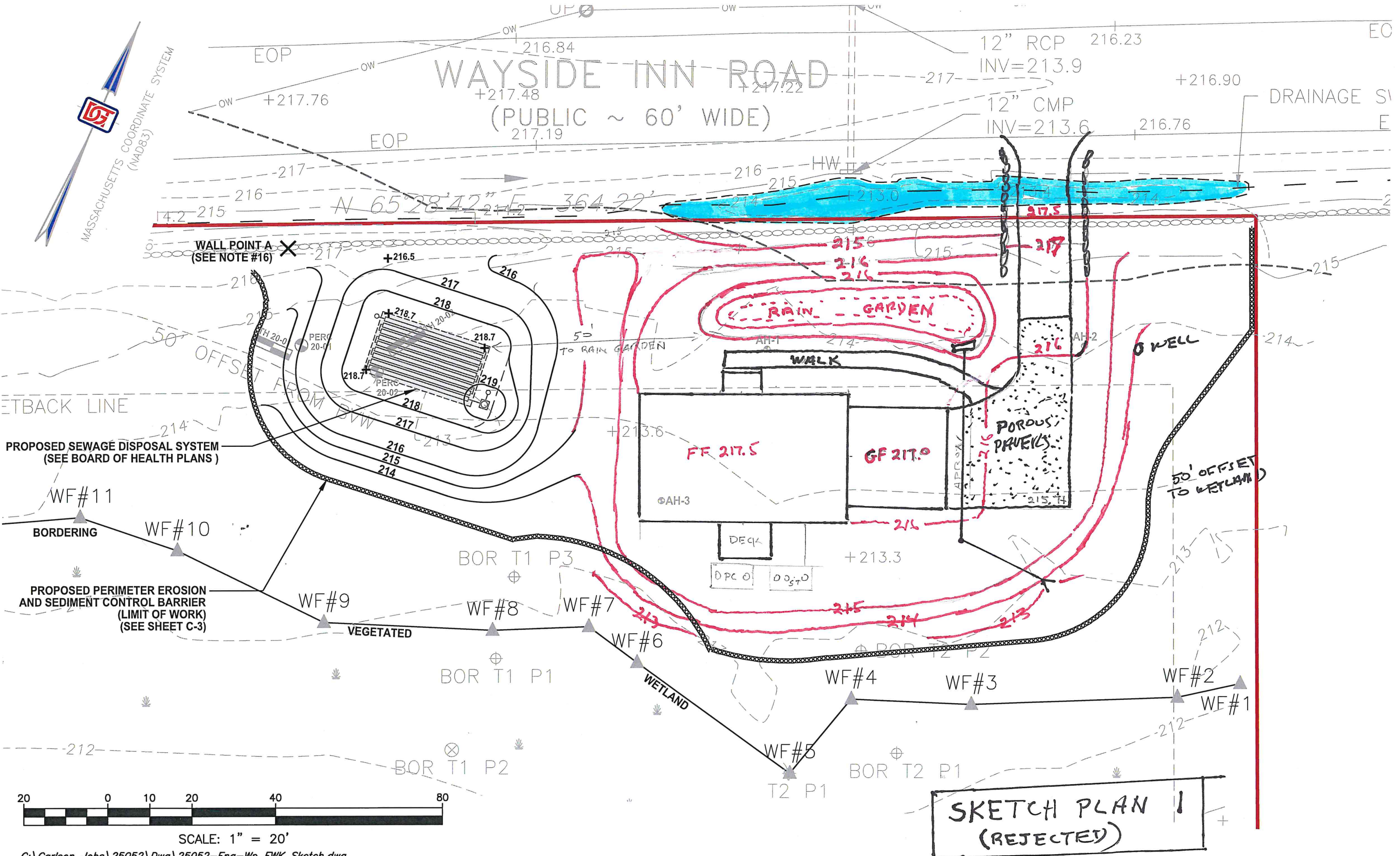
*Fredric W. King*

Fredric W. King, P.E.  
Senior Engineer  
Senior Wetland Specialist

Attachments: 2 Sketch Plans



# WAYSIDE INN ROAD (PUBLIC ~ 60' WIDE)



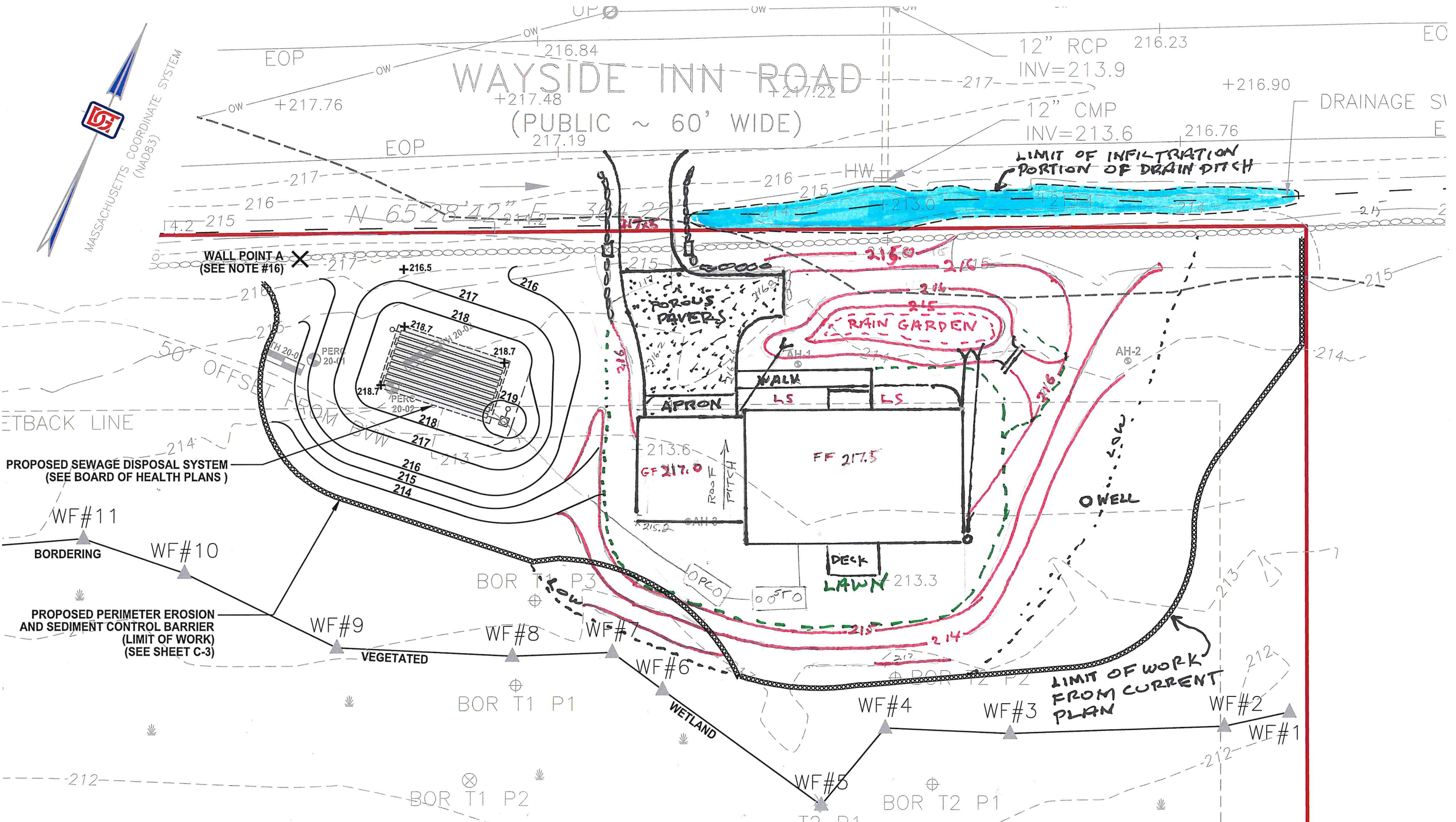
SCALE: 1" = 20'

**SKETCH PLAN 1  
(REJECTED)**





# WAYSIDE INN ROAD (PUBLIC ~ 60' WIDE)



**SKETCH PLAN 2**