

April 2, 2020

Plan review

**Site Development Plans
Proposed Medical Building
20 Henry Graf Jr. Road
Newburyport MA
March 17, 2020**

Sheet C-1

Handicap accessible ramps should be shown on the proposed 4 ft wide sidewalk on Henry Graf Jr. Road.

Sheet C-2

Pipe sizes, materials and lengths should be added.
There is a label on the southeasterly side of the parking lot for a

Prop. Modular Block
Retaining Wall
Top of Wall = 17.2
Bottom of Wall = 13.9

The wall does not show and grading in the area shows the wall isn't necessary. The engineer should clarify.

Sheet C-3

A cleanout should be provided at the bend in the sewer service
The fire service may be large enough for a tapping sleeve and valve, but the domestic water service may need only a corporation stop and a shutoff at the property line. to tie into the main.
The actual size of services needed should be established with the Water Department and the plan modified accordingly.

If the fire service is large, thrust blocks should be shown at the connection and at the bend.

Sheet LA-1

Is it the intent to landscape or pave the islands in parking lot?

Sheet ESC-1

Add a dewatering location

Sheet D-1

Add thrust blocks detail for block behind the tee and at the bend if required pipe size calls for it.

Sheet D-2

Add sidewalk detail for sidewalk on street

Sheet D-5

Add dewatering detail to plan

Test Pit data

Test pit information should be put on plan in summary form including the approximate surface elevation at the test pit and the SHGWT elevation.

The soil logs provided did not show the depth to redoximorphic features in the soil but only the depth at which water was weeping from the soil. Considering the logs show the C1 layer as clay, at a minimum the SHGWT should be assumed to be at the top of the clay layer.

Test pits should be conducted in the detention pond 2 during construction and the drainage adjusted according to the results.

TP-2 and TP-9 are in the area of Detention Pond 1.

Test pit	Surface elevation	clay layer	observed water	water elev.
TP-2	15	46"	46"	11.16
TP-9	16	36"	36"	13.0

The design elevation for the bottom of the basin is 12.2 which is lower than the estimated groundwater level as shown in TP-9.

The detail provided on Sheet D-4 of the design plans shows the bottom of the detention pond set at 2 feet minimum above the ESHGW. If the data from TP-2 is used the bottom of basin #1 should be at elevation 13.16 and if the data from TP-9 were used the bottom of the detention pond would have to be at elevation 15.0. Both are higher than the 12.2 elevation specified.

Similarly, TP-8 is at approximately elevation 16.3. With a 48" depth to the C1 layer the ground water can be assumed to be at elevation 12.3. By the design presented in the details the bottom of detention pond #2 would have to be at elevation 14.3 rather than the 13.10 specified.

The design engineer should resolve these discrepancies.