



GRADY CONSULTING, L.L.C.

Civil Engineers ♦ Land Surveyors ♦ Landscape Architects

April 6, 2020

Mr. Eugene Fulmine, Jr., Director
Department of Public Works
100 Center Street
Pembroke, MA 02359

RE: Definitive Subdivision Plan – Old Cart Path Lane Ext. (#70 Old Cart Path Lane)
Applicant – Stephen Saia

Dear Mr. Eugene Fulmine, Jr.,

On behalf of the applicant, Grady Consulting, L.L.C. hereby submits one copy of the revised Definitive Subdivision Plan. The plans were revised in response to comments from Review Consultant, Lauren E. Underwood, P.E., Environmental Partners Group, Inc. in a letter to Mr. Eugene Fulmine, Jr., Director, Department of Public Works, dated March 9, 2020.

Comments from the review letter are shown in *italic* font and the response to comments are shown in **bold** font. The response to comments are as follows:

We have reviewed the definitive subdivision plan for Old Cart Path Lane Extension and have the following comments:

1. Our records indicate that the existing water main is looped on Old Cart Path Lane and Orchard Drive and is 8-in asbestos cement. This shall be shown on the plans.

The location and size of the existing water main is shown on the plan as requested.

2. The connection to the existing water main should be performed with an 8-in by 6-in stainless steel tapping sleeve and valve.

A stainless steel tapping sleeve and valve have been added to the plan as requested.

3. Symbols for gate valves shall be shown on the proposed plans.

Symbols for gate valves have been added to the plan as requested.

4. The proposed 6-inch Class 52 ductile iron water main shall be cement mortar lined (double thickness).

The cement mortar lined (double thickness) water main has been proposed as requested.

5. All mechanical joints (valves, bends, caps, fittings, etc.) shall be restrained with EBAA Mega-lugs (Series 1100) or approved equal.

A note has been added to sheet 11 of the plan as requested.

6. The proposed water main shall be offset from the property lines (right-of-way) by at least five feet to allow for future maintenance on the water system.

The location of the proposed water main has been revised to be at least five feet from the property line.

7. Any proposed fittings shall be called out on the plans.

All proposed fittings have been called out as requested.

8. The proposed water main shall be shown on the provided profile view of the subdivision. The horizontal axis of the profile view shall include the proposed stationing.

The proposed water main has been added to the profile on sheet 4 as requested.

9. The proposed water main should maintain a cover of approximately 5 feet.

The water main is proposed to have 5 feet of cover as requested.

10. The proposed water main shall be insulated where cover is less than 4 feet.

A note has been added to sheet 11 as requested.

11. The proposed water main should have a minimum of 18 inches of vertical clearance between any utilities, whether running parallel or crossing a utility.

A note has been added to sheet 4 and 11 as requested.

12. Four feet of clearance shall be provided between the proposed water main and proposed drainage structures such as manholes and catch basins.

A note has been added to sheet 11 as requested.

13. Five feet of clearance shall be provided between the proposed water main and utility poles.

A note has been added to sheet 11 and the location of the proposed main has been revised as requested.

14. The water main, fittings, and hydrant laterals shall be polyethylene encased with V-BIO in any instance the water system appurtenances may be installed within the seasonal high ground water table.

A note has been added to sheet 11 as requested.

15. The limits of clearing near Station 1+00 shall be relocated so as to not interfere with the proposed water main.

The proposed water main has been relocated.

16. The Contractor shall refrain from using 90° bends in water main installation to avoid excessive head loss in the water system.

A note has been added to sheet 11 as requested.

17. Provide detail and a phasing plan for relocating the water service to #70 Old Cart Path Lane. The existing water service shall remain in service during construction. The existing water service shall be abandoned by closing the corporation and so that there are no open ends. The plan shall show where the existing water service is connected to the existing water system.
A phasing plan for the existing water service at #70 Old Cart Path Lane has been added to Sheet 11 as requested. The location of the existing water service has been shown based on as-built notes provided by Pembroke DPW and is approximate.

18. A fire hydrant and hydrant gate valve shall be installed at approximately Station 1+00. Fire hydrants shall be located not less than every 500'.
A fire hydrant and gate valve is proposed at station 1+00 as requested.

19. The proposed water main shall terminate directly into a fire hydrant without the use of any additional bends.
A note has been added to sheet 11 as requested.

20. All proposed water services shall be 1-in. Residential water line material should be in accordance with the DPW's rules and regulations, which state the use of copper tubing is required for water services.
A note has been added to sheet 11 as requested.

21. A temporary tap/blow off is required immediately downstream of the newly installed tapping sleeve and valve to facilitate the chlorination of the new water main. A tap for a proposed water service in the cul-de-sac shall be utilized for sampling.
A note has been added to sheet 11 as requested.

If you have any questions please do not hesitate to contact us.

Sincerely,

GRADY CONSULTING, L.L.C.


Paul Seaberg
Project Manager

cc: Stephen Saia
70 Old Cart Path Lane
Pembroke, MA 02359

Conservation Commission
Town Hall
Pembroke, MA 02359