

Date: December 22, 2022

Re: Responses to City Comments – Sanitary Sewer
Orchard Woods
PEI #211142

We have received your comments and have addressed each with the enclosed plans and comment responses in *red italics* below. Please let us know if you have any questions during your review.
Thank you,
Doug

Engineering Review - Corrections

1. General:

- Submit an Engineer's Estimate of Probable Construction Costs.
Response: Will be provided prior to release of permit.
- Submit a copy of the MDNR Permit.
Response: Will be provided prior to release of permit.
- Show location of all oil/gas wells, or indicate none are present, and cite the source.
Response: Noted on Sheets 1 and 2. Locations shown on Sheet 2
- Design and Construction Manual Section 6501.L.1.c states "For installations greater than 7 feet deep, easements shall be a minimum of 2 feet wide for every foot of trench depth." The easement between MHs A-1 & A-2 does not meet this requirement.
Response: This run has been removed.
- Please investigate ways to design the sanitary sewer so that it isn't so deep.
Response: Sewer will be designed as shallow as possible.

2. Sheet 2:

- Use the following City MH numbers on this sheet and throughout the plan set:
 - o Ex MH B-2 = MH 09-024
 - o Ex MH B-3 = MH 09-044
 - o Ex MH B-4 = MH 09-045
 - o Ex MH B-5 = MH 09-046*Response: Labels added to the plan set*
- Please explain the extension of Lines A & B beyond the plat boundary. If MHs A-7 & B-2 are to be constructed as shown, easements will be required prior to plan approval. Please submit a copy for review prior to recording.
Response: Sewer extends beyond plat boundary to serve future development upstream. Easements will be provided for review.
- There is an existing sanitary sewer that runs along the western plat boundary. Please show.
Response: Added to plans.
- Please relocate the downstream segment of Line D to the west side of Lot 12. Routing a sanitary main

between houses is not preferred.

Response: Alignment revised.

- Show and label the detention basin 100-yr WSE on Tract C.

Response: Added to plan.

3. Sheets 3-5:

- Replace "XXXX.X" with elevations in the service line information labels (MSFE and FL@EOS) in Plan view.

Response: As we finalize the grades based on survey data we will finalize the elevations and then provide these elevations. Ju

- Include "No Doghouse MH Allowed" for MH A-1.

Response: Text added.

- Line A between MHs A-1 & A-2 does not appear to be centered in the easement, as is required. Please review and revise if needed.

Response: This line segment has been removed.

- Indicate any connection to an existing MH shall be by core drilling.

Response: There are no longer any connections to existing manholes.

- The following MHs do not meet the 0.5' minimum drop thru structure:

- o Line A @ MHs A-1, A-2
- o Line B @ MH A-5
- o Line C @ MHs C-1, A-3
- o Line D @ MH D-I, Ex MH

Response: Revised.

- Include the following note on any profile sheet applicable: "Compacted Fill shall be placed to a minimum 18" above the top of the pipe prior to installation." Show and label the limits of the compacted fill placement in the Profile view. Use hatching for clarity.

Response: Note added.

- The flowlines entering MH A-5 on Line B and MH A-3 on Line C in Profile view are incorrect. Please revise.

Response: Revised.

- Please review the Line D flowline elevations at the existing MH connection. They don't make sense.

Response: Revised.

- Include FL(N) and FL(S) at MH A-1 on Line A in Profile view.

Response: This connection to existing on Line A has been removed.

- Include all pipe crossings in Profile view.

Response: Added the crossings.

- All service line connections shall be by wye, not tee. Please revise.

Response: Revised.

Traffic Review - No Comments

In order to calculate the Engineering Plan Review and Inspection Fee, a sealed Engineer's Opinion of Probable Construction Costs shall accompany your final submittal copies. The itemized estimate (material and installation) shall be sufficiently broken down and shall include the following items, as applicable.

- Public infrastructure, both onsite and offsite.
- Private street construction, including parking lots and driveways.
- Sidewalks located within the right-of-way.
- ADA accessible ramps.
- Sanitary sewer manholes and piping between manholes, including private mains.

- Connection of the building sanitary sewer stub to the public main.
- Waterlines larger than 2 inches in diameter, valves, hydrants, and backflow preventer with vault, if outside the building.
- Stormwater piping greater than 6 inches in diameter, structures, and detention / retention facilities - public or private.
- Water quality features installed to meet the 40-hour extended duration detention requirements.
- Grading for detention / retention ponds.
- Grading to establish proper site drainage.
- Utility infrastructure adjustments to finished grade (i.e. manhole lids, water valves, etc.).
- Erosion and sediment control devices required for construction.
- Re-vegetation and other post-construction erosion and sediment control activities.

Response: Estimate will be provided prior to permit release for review of fees.

