

Building Permit Checklist for Maberly Pines Subdivision

1. Check well records, pumping test data and well water quality analysis for three or more anomalies. Refer to Brian Stratton, Hydrogeologist, Mississippi-Rideau Source Water Protection, for review as required.
2. No extra apartments, coach houses, guest houses, bed and breakfasts or high water operations are permitted beyond the four person occupancy of a dwelling on a lot.
3. Wells must be installed by a licensed well contractor in accordance with Ontario Regulation 903.
4. Water supply wells must be constructed at least 30 m from and up-gradient of the septic system locations (*on site and on adjacent lots*). All new water supply wells on the subdivision should be located more than 30 m from the high-water line of surface water courses and water bodies.
5. Recommended well construction:
 - A 10-inch (0.25 m) diameter hole should be drilled through the overburden and at least 12 m into bedrock.
 - New 6-inch (0.15 m) diameter steel casing should be installed in the drilled hole. Steel casing must extend 12 m into bedrock.
 - The annular space between the well casing and the drilled hole should be sealed with high early strength cement grout, prepared with 4% bentonite.
 - Ontario Reg. 903 well placement requirements and grouting procedures should be followed to ensure that surface derived contaminants cannot enter the well.
 - Each well should be completed with a submersible pump, pitless adaptor and vented vermin-proof well cap.
 - The grading around the well casing should be slightly elevated to direct surface runoff away from the well.
 - The casing should project approximately 400 mm above the mounded soil within 3 m in all directions from the casing.
6. Newly constructed wells should be pumped for a minimum of six hours after construction to ensure adequate well development and to reduce groundwater turbidity to acceptable level before connection to the residences plumbing system.
7. New wells should be chlorinated after completion of well development produce a free chlorine residual of at least 50 mg/L (ppm). The chlorine should be mixed with the standing water in the casing using a procedure that will result in the thorough vertical mixing of the chlorine over the entire depth of the well.
8. The installed water well must be maintained by the well owner as per the requirements under Ontario Reg. 903 (and subsequent amendments).
9. If the well yield is less than 15 L/min, additional water storage may be required to meet the peak demand flow. The storage system should be designed by an Ontario licensed professional engineer.

10. A water softener is recommended to address natural water quality issues such as elevated hardness and manganese. Since conventional water softeners will introduce sodium into the water supply, and it may be appropriate to bypass the water softener with a separate tap for drinking water.
11. The relative position of the home, sewage system and well should be maintained, in accordance with Figure 5, BluMetric Revised Report, October 27, 2022. In all cases, wells should be upgradient relative to septic beds, and the indicated minimum separation distances must be taken into account.
12. A minimum setback distance of 30 m must be maintained between the water body high water line and any septic bed. The exceptions are Lot 44 and Lot 45 where this will not be possible. On these lots, the OBC minimum distance of 15 m must be maintained. It is recommended that dwellings and wells on these lots be positioned as far as reasonably possible away from the pond. A phosphorous removal add on to the septic system or incinerating toilet must be used.
13. Best management practices are recommended such as regular pumping of the septic system, cursory inspection of break-out, consideration as to what materials are being discharged to the septic.
14. Homeowners should take all reasonable measures to conserve water and promote infiltration of water into the subsurface within each of their lots.
15. On lots smaller than 0.5 ha or lots with steep slopes, tertiary treatment systems are suitable. The systems must be approved for use in Ontario and comply with the design requirements of the Ontario Building Code Section 8.
16. 29 lots were found to be unable to support conventional (Class IV) sewage systems. Selected alternative treatment systems within the OBC Class I systems such as incinerating toilets, composting toilets, chemical toilets, or other Ontario-approved self-contained portable toilets. Class V (holding tank) systems are provided as another alternative if the lot conditions permit the installation, although pit privies should not be permitted.