

For Site Plan Application Only

Sewage System Details: Class IV Filter Bed Sewage System Ontario Building Code Compliance Analysis

Proposed Health & Strength Training Facility, c/w 2 showers (based on 40 L/day per person, reference OBC Table 8.2.1.3.B. item 23): Max. Occupancy = 18 x 40 L/day x 5 classes/day = 3,600 L

Q = 3,600 L/day: Daily Design Sewage Flow

Septic Tank: min. 3 x 3,600 L = 10,800 L. Provide septic tank = 14,000 L, c/w gravity flow to pump station.

Pump Station: Provide pump tank = 4,500 L, with timed dosing to Filter Bed.

Soil Percolation Rate: Silty Clay soils, with an assessed T = 35 min/cm based on septic test pit investigation undertaken by Gunnell Engineering Ltd. on August 28, 2024.

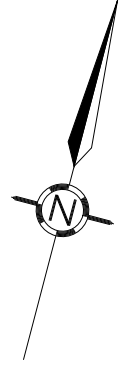
Filter Bed (based on Q = 3,600 L/day and T = 35 min/cm):
Filter Area: Maximum loading = 50 L/m² (i.e. 3,000 < Q ≤ 5,000 L/day); 3,600 / 50 = 72.0m².
Provide Filter Medium Area: 96.0m² (8.0m x 6.0m x 2 pods)

Base of Filter Medium, extending 300mm thickness, over Area = Q x T / 850 = 3,600 x 35 / 850 = 148.2m².
Provide Extended Base Contact area = 220.0m² (11.0m x 20.0m).

Loading Requirements - Reference Table 8.7.4.1.:
Required Area (based on a loading rate = 8 L/m²/day (i.e. 20 < T ≤ 35)) = 3,600 / 8 = 450.0m²
Provide Loading Area = 550.0m² (27.5m x 20.0m)

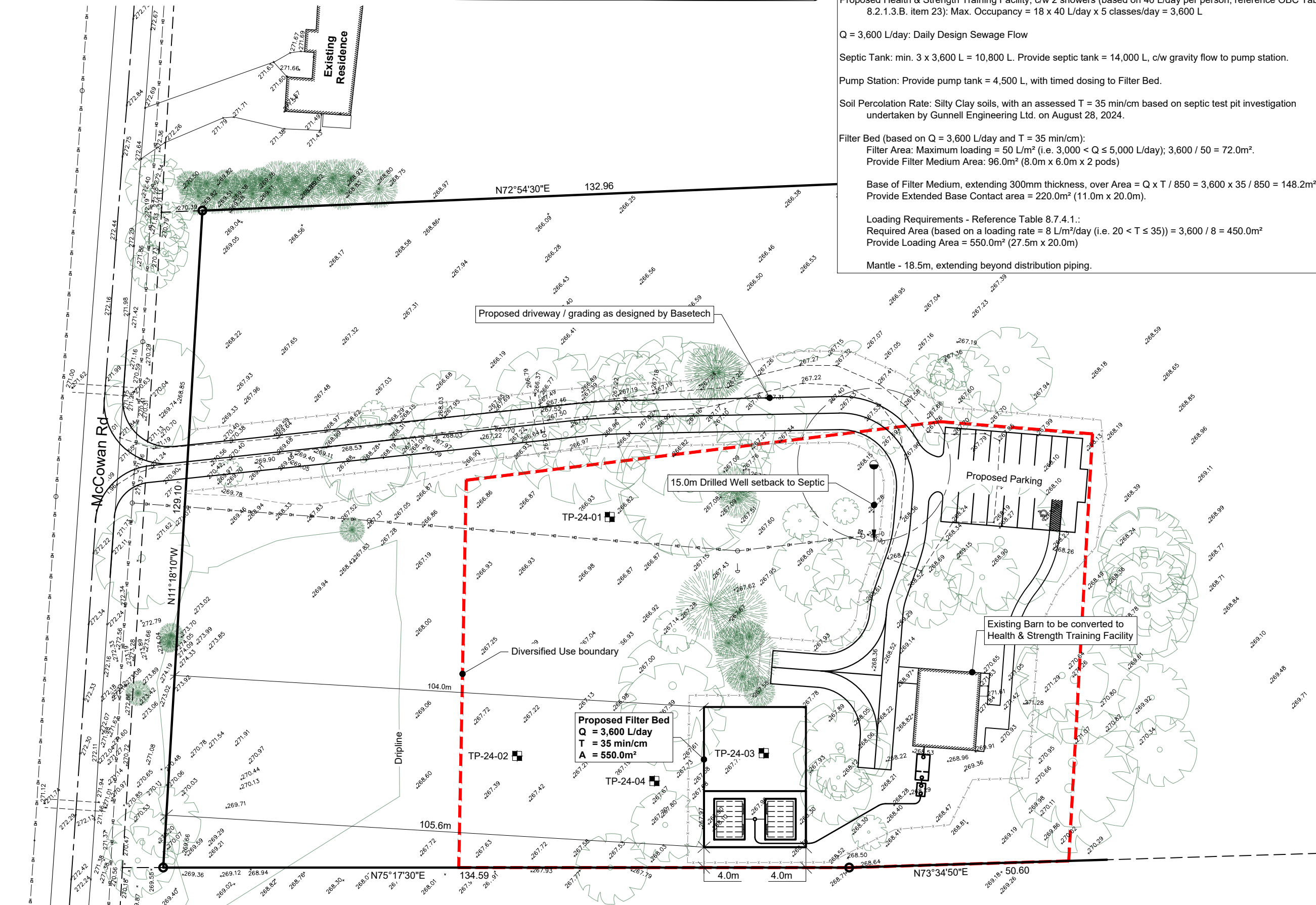
Mantle - 18.5m, extending beyond distribution piping.

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LEGEND

■ Septic Test Pits



Proposed Filter Bed
Q = 3,600 L/day
T = 35 min/cm
A = 550.0m²

No wells within 30.0m of property boundary (forested lot)

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Plotted on: ---

Survey reference: Altimap Land Surveyors
Survey dated: June 17, 2022

Proposed Health and Strength Training Facility
17743 McCowan Rd
Part of Lot 2, Conc. 7
Town of East-Gwillimbury
Site & Part Grading Plan
Sewage System Design

Scale: 1:750	Designed By: CS
Date: 12-Nov-2024	Drawn By: CS
Project No.:	Checked By: DB
D3781	Drawing No.: SP-1