

July 21, 2021

Municipality of Lakeshore
419 Notre Dame Street
Lakeshore, ON
NOR 1A0

Attention: Aaron Hair, MCIP, RPP, Planner III
Planning Coordinator

Forest Hills Phase 4B – Increase in Lot Coverage Assessment

As discussed, the client is requesting an increase in lot coverage from 35% to 40% for 6 single residential lots along Christine Avenue within Phase 4B of the Forest Hills Development Area in the Municipality of Lakeshore (as shown highlighted in yellow within the attached **Figure 1.0**).

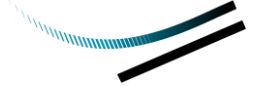
A stormwater management (SWM) analysis report was recently submitted to the municipality by Dillon Consulting for the proposed Cooper II and ultimate buildout condition of the Forest Hills development area (*Forest Hills Development Ultimate Buildout SWM Report – October 2020*). As part of this analysis, an ultimate buildout condition SWM strategy was proposed, which assessed both existing and future development within the Forest Hills development area and identified an ultimate SWM strategy end of pipe treatment to accommodate the future developed lands. This SWM strategy included either an expansion to the existing SWM facility or upgrades to the pump station outlet to accommodate ultimate buildout conditions. Proposed single residential units at that time for Phase 4B through to ultimate buildout were assessed based on a minimum impervious value of 60% (as per Table 3.7.4.1 of the Windsor-Essex Region SWM Standards Manual).

Based on updates to the lot coverage for the 6 lots within Phase 4B, a conservative assessment of 65 % impervious was now considered along Christine Avenue as part of this updated assessment. It was identified that the changes of impervious value for the 6 lots showed the following impacts to the proposed system:

- No increase in 1:5 Year HGL along Christine Avenue Storm Sewer;
- 1:100 Year HGL increase in the Christine Avenue storm sewer of 0.001 m; and
- No Change in maximum water surface elevations or active storage volumes in the existing Forest Hills SWM Facility.

An ultimate buildout condition scenario was also simulated for the additional lot coverage for the 6 lots within Phase 4B. Based on the slight change in impervious value, there were no impacts to the proposed storm sewer or roadway 1:5 and 1:100 year HGLs other than what is shown above along Christine Avenue. It is also identified that

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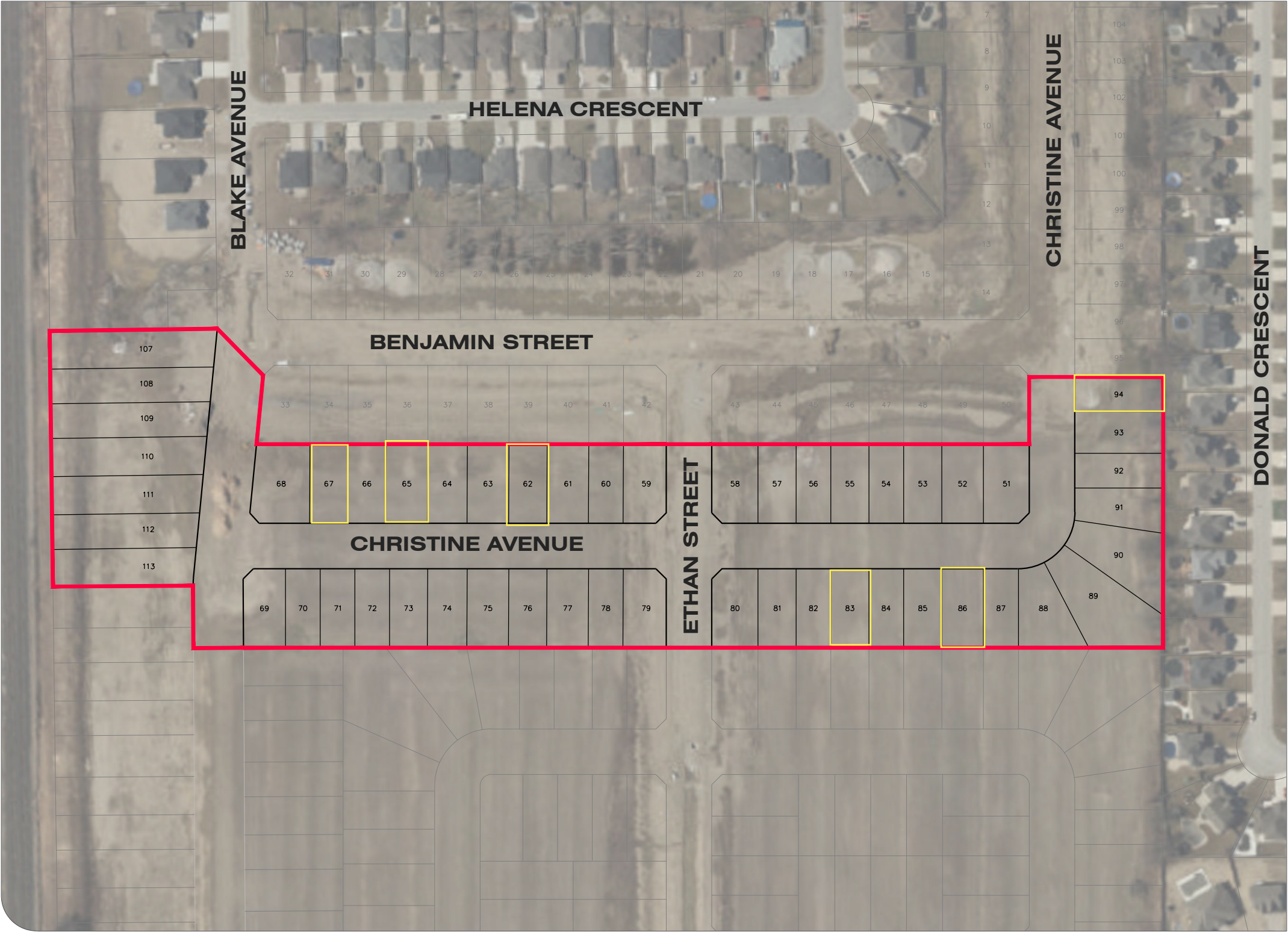
there are no changes in maximum water surface elevations or active storage volume requirements in the ultimate buildout conditions for the SWM facility. Similar results were identified for both the pond expansion and pump station improvement option.

It is therefore identified that at this time that there are no significant impacts on the existing and proposed storm infrastructure for the Forest Hills development based on the very minor changes to the impervious level within the 6 lots. This is expected, as the slight increase in impervious is negligible to the overall Forest Hills development area.

Please do not hesitate to contact the undersigned if you have any questions or require any clarifications to the information provided within this letter.

Regards,

Ryan Langlois, P.Eng
Water Resources Engineer




PHASE 4B LOT INFORMATION

LOT NUMBER	ADDRESS	ROLL NUMBER	AREA (m ²)
51	332 CHRISTINE AVENUE	380000008110000	688.34
52	334 CHRISTINE AVENUE	380000008120000	634.85
53	336 CHRISTINE AVENUE	380000008130000	581.74
54	338 CHRISTINE AVENUE	380000008140000	528.98
55	340 CHRISTINE AVENUE	380000008150000	581.74
56	342 CHRISTINE AVENUE	380000008160000	528.98
57	344 CHRISTINE AVENUE	380000008170000	581.74
58	346 CHRISTINE AVENUE	380000008180000	3695.20
59	348 CHRISTINE AVENUE	380000008190000	644.23
60	350 CHRISTINE AVENUE	380000008200000	528.98
61	352 CHRISTINE AVENUE	380000008200000	634.78
62	354 CHRISTINE AVENUE	380000008220000	581.57
63	356 CHRISTINE AVENUE	380000008230000	634.78
64	358 CHRISTINE AVENUE	380000008240000	602.91
65	360 CHRISTINE AVENUE	380000008250000	634.50
66	362 CHRISTINE AVENUE	380000008260000	581.74
67	364 CHRISTINE AVENUE	380000008270000	581.57
68	366 CHRISTINE AVENUE	380000008280000	859.95
69	367 CHRISTINE AVENUE	380000008290000	632.90
70	365 CHRISTINE AVENUE	380000008300000	529.12
71	363 CHRISTINE AVENUE	380000008310000	529.12
72	361 CHRISTINE AVENUE	380000008320000	529.12
73	359 CHRISTINE AVENUE	380000008330000	578.70
74	357 CHRISTINE AVENUE	380000008340000	603.08
75	355 CHRISTINE AVENUE	380000008350000	634.95
76	353 CHRISTINE AVENUE	380000008360000	581.72
77	351 CHRISTINE AVENUE	380000008370000	634.95
78	349 CHRISTINE AVENUE	380000008380000	529.12
79	347 CHRISTINE AVENUE	380000008390000	647.66
80	345 CHRISTINE AVENUE	380000008400000	695.38
81	343 CHRISTINE AVENUE	380000008410000	581.89
82	341 CHRISTINE AVENUE	380000008420000	529.12
83	339 CHRISTINE AVENUE	380000008430000	581.89
84	337 CHRISTINE AVENUE	380000008440000	529.12
85	335 CHRISTINE AVENUE	380000008450000	581.89
86	333 CHRISTINE AVENUE	380000008460000	635.01
87	331 CHRISTINE AVENUE	380000008470000	536.38
88	329 CHRISTINE AVENUE	380000008480000	770.05
89	327 CHRISTINE AVENUE	380000008490000	1284.94
90	325 CHRISTINE AVENUE	380000008500000	999.81
91	323 CHRISTINE AVENUE	380000008510000	3661.09
92	321 CHRISTINE AVENUE	380000008520000	592.36
93	319 CHRISTINE AVENUE	380000008530000	711.22
94	317 CHRISTINE AVENUE	380000008540000	3592.50
107	310 BLAKE AVENUE	380000008670000	1220.08
108	308 BLAKE AVENUE	380000008680000	1082.46
109	306 BLAKE AVENUE	380000008690000	1057.03
110	304 BLAKE AVENUE	380000008700000	1133.09
111	302 BLAKE AVENUE	380000008710000	1102.34
112	300 BLAKE AVENUE	380000008720000	975.66
113	298 BLAKE AVENUE	380000008730000	1029.66

COOPER ESTATES LIMITED
FOREST HILL - PHASE 4B

PROPOSED MINOR VARIANCES
FIGURE 1.0

 PHASE 4B - 4.82 ha
(LOTS REQUESTING
VARIANCE)

File Location:
c:\pw working directory\projects 2020\32esb\dms55521\forest hill - phase 4b lot
coverage variance.dwg
October, 14, 2020 12:16 PM

SOURCE: COUNTY OF ESSEX INTERACTIVE MAPPING (2019)

MAP/DRAWING INFORMATION
THIS DRAWING IS FOR INFORMATION PURPOSES ONLY. ALL
DIMENSIONS AND BOUNDARY INFORMATION SHOULD BE
VERIFIED BY AN O.L.S PRIOR TO CONSTRUCTION.
CREATED BY: ESB
CHECKED BY: JHB
DESIGNED BY: ESB

SCALE: 1:2000 (11x17)



PROJECT: 20-3090

STATUS: DRAFT

DATE: 10/14/2020