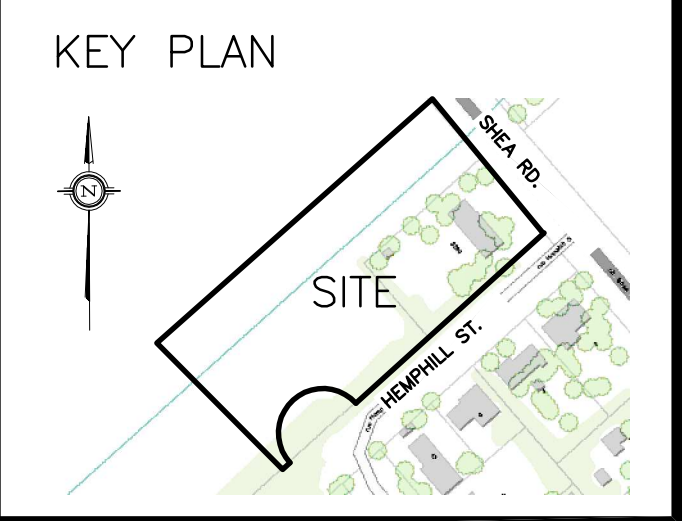


DRAWING LEGEND

- CB CATCH BASIN
- MH MANHOLE
- CB/MH CATCH BASIN/MANHOLE
- WS/WM WATER SERVICE / WATERMAIN
- SSM SANITARY SEWER
- ST STORM SEWER
- FH FIRE HYDRANT
- UP UTILITY POLE
- EXISTING GRADE ELEVATION
- + 93.79 PROPOSED GRADE ELEVATION
- 0.5% EXISTING SLOPE OF GRADE
- 0.5% SLOPE OF GRADE
- SWALE/DITCH (CENTERLINE)
- T.O.S. TOP OF SLOPE
- B.O.S. BOTTOM OF SLOPE
- PROPERTY LINE
- FFL FIRST FLOOR ELEVATION
- TOP TOP OF FOUNDATION ELEVATION
- BFL BASEMENT FLOOR ELEVATION
- USF UNDERSIDE OF FOOTING ELEVATION



PROPOSED RESIDENTIAL DEVELOPMENT AREA

CONTOUR (m)	PRE-DEVELOPMENT CONDITIONS					POST DEVELOPMENT CONDITIONS					LOSS OF STORAGE VOLUME	
	TOP AREA (sq.m)	BOTTOM AREA (sq.m)	DEPTH (m)	VOLUME (cu.m)	CUMULATIVE VOLUME (cu.m)	TOP AREA (sq.m)	BOTTOM AREA (sq.m)	DEPTH (m)	VOLUME (cu.m)	CUMULATIVE VOLUME (cu.m)	VOLUME (cu.m) (REFER TO SUMMARY)	CUMULATIVE VOLUME (cu.m)
93.62	4,679	563	0.15	343	343	624	0	0.15	31	31	312	312
93.77	9,438	4,679	0.15	1,038	1,381	1,746	624	0.15	171	202	867	1,179
93.92	12,465	9,438	0.15	1,637	3,019	2,015	1,746	0.15	282	484	1,356	2,535
94.07 (100-YEAR FLOOD)	12,819	12,465	0.15	1,896	4,915	2,637	2,015	0.15	348	832	1,548	4,083

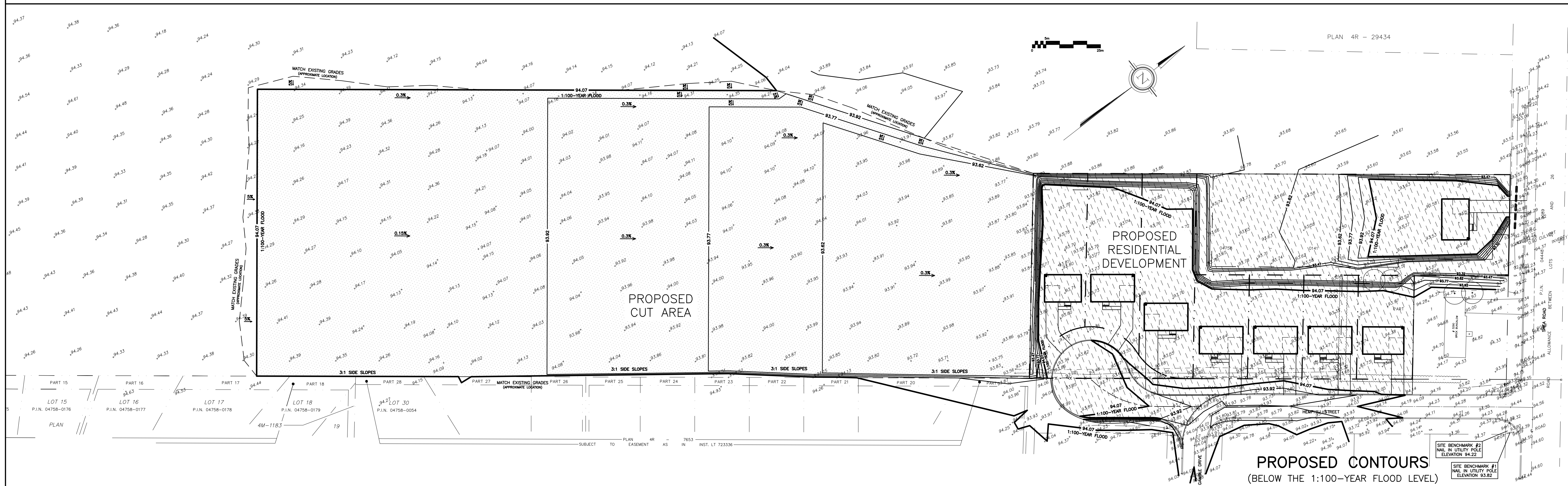
PROPOSED CUT AREA

CONTOUR (m)	PRE-DEVELOPMENT CONDITIONS					POST DEVELOPMENT CONDITIONS					GAIN IN STORAGE VOLUME	
	TOP AREA (sq.m)	BOTTOM AREA (sq.m)	DEPTH (m)	VOLUME (cu.m)	CUMULATIVE VOLUME (cu.m)	TOP AREA (sq.m)	BOTTOM AREA (sq.m)	DEPTH (m)	VOLUME (cu.m)	CUMULATIVE VOLUME (cu.m)	VOLUME (cu.m) (REFER TO SUMMARY)	CUMULATIVE VOLUME (cu.m)
93.62	5	0	0.15	0	0	6,238	0	0.15	312	312	312	312
93.77	205	5	0.15	12	12	10,525	6,238	0.15	1,243	1,555	1,231	1,543
93.92	4,058	205	0.15	259	271	16,860	10,525	0.15	2,035	3,590	1,777	3,319
94.07 (100-YEAR FLOOD)	16,902	4,058	0.15	1,462	1,733	28,380	16,860	0.15	3,356	6,946	1,894	5,213

SUMMARY

CONTOUR (m)	LOSS VOLUME (cu.m)	GAIN VOLUME (cu.m)
93.62	312	312
93.77	867	1,231
93.92	1,356	1,777
94.07 (100-YEAR FLOOD)	1,548	1,894

VOLUMES CALCULATED USING PRISMOIDAL FORMULA:
 $V = D \times (A_1 + A_2) + (A_1 \times A_2)^{0.5} \times 3$
 WHERE:
 V = VOLUME
 D = DEPTH (CONTOUR INTERVAL)
 A₁ = TOP AREA
 A₂ = BOTTOM AREA



No.	Date	REVISION
4	AUG 21-19	343 cu.m. STORAGE ADDED ABOVE 93.77 RE-ISSUED TO RVCA FOR APPROVAL
3	APR 18-19	RE-ISSUED TO RVCA FOR APPROVAL
2	FEB 20-19	ISSUED FOR APPROVAL
1	FEB 19-19	ISSUED FOR CLIENT REVIEW

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 Ottawa, Ontario K1T 4E9 dbgray@rogers.com

Project
PROPOSED 8-LOT RESIDENTIAL DEVELOPMENT HEMPHILL STREET/SHEA ROAD RICHMOND, ONTARIO

Drawing Title
FLOODPLAIN CUT & FILL

Engineer's Seal

 NOT VALID UNLESS SIGNED & DATED

Drawn D.B.G.
 Hor. Scale 1:750
 Vert. Scale
 Date NOV 29-17
 Job No. 17037
 Drawing No.
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