



GOLDER

REVIEWED

By Terri Hunt at 2:44 pm, Sep 20, 2021

TECHNICAL MEMORANDUM

DATE June 30, 2020

Project No.
20145976(1147)

TO Erin O'Connor, MCIP, RPP
Leitrim South Holdings Inc.

FROM Ali Ghirian, P.Eng.; Bill Cavers, P.Eng.

EMAIL Ali_Ghirian@golder.com;
William_Cavers@golder.com

GRADE RAISE REVIEW (REV. 2) PATHWAYS AT FRIENDLY CREEK RESIDENTIAL DEVELOPMENT – PHASE 2 4800 BANK STREET, OTTAWA, ONTARIO

This technical memorandum provides a detailed geotechnical review of the proposed site grading including a summary table for each individual lot/block, for Phase 2 of the Pathways residential development located at 4800 Bank Street in Ottawa, Ontario

The attached Summary of Design Details table, as well as the following sections provides our geotechnical recommendations pertaining to the grading of the site.

Subsurface Conditions

Golder Associates previously carried out a geotechnical investigation for the proposed development and the results of that investigation were provided in the following report:

- *Golder report titled "Geotechnical Investigation, Proposed Residential Development, Remer and Idone Lands, Ottawa, Ontario", dated January 2017 (report number 13-1121-0083 (1046)).*

Based on the results of the geotechnical investigation, in general, the subsurface conditions on this site consist of topsoil or peat (at the western portion of the site) overlying sands, silts, and followed by bouldery glacial till, which is in turn underlain by bedrock. Localized thin layers of silty clay were encountered below the peat or topsoil within the extreme southwest portion of the site.

The depth to the bedrock surface varies from about 2 m to greater than 7 m below the ground surface, generally increasing in depth from east to west.

Grading Plan Review

The street, block, lot or part numbering used in the attached Summary of Design Details tables was obtained from the following grading plans prepared by IBI Group for this site, and associated civic addressing plan:

- Grading Plan, Project No. 33956, Drawing Nos. 210 to 214, Revision 10, dated April 28, 2020.

The existing and finished grades as well as the Underside of Footing (USF) elevations for the proposed development are provided on the grading plan drawing referenced above.

Based on recommendations provided in our geotechnical report, the maximum permissible grade is 2.5 m for the proposed development.

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1931 Robertson Road Ottawa, Ontario, K2H 5B7 Canada

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The finished grades were reviewed for each individual block/lot in comparison to the permissible grade, raises and the proposed grading plan for the proposed Phase 2 development was found to be in accordance with the guidelines and recommendations provided in the geotechnical report prepared for this site and, as such, are considered acceptable from a geotechnical point of view.

Frost Protection

The soils at this site are considered to be highly frost susceptible. All exterior perimeter foundation elements or foundation elements in unheated areas should therefore be provided with a minimum of 1.5 m of earth cover for frost protection purposes. Isolated, unheated exterior footings adjacent to surfaces which are cleared of snow cover during winter months should be provided with a minimum of 1.8 m of earth cover.

Based on the review of the proposed finished grades and the USF elevation, as highlighted on the attached Summary of Design Details table, Block 35 does not meet the minimum frost cover requirements, and as such, equivalent insulation needs to be provided at the rear of Block 35.

Closure

We trust that this memo provides sufficient information for your present requirements. If you have any questions concerning this memo, please do not hesitate to contact the undersigned.

Yours truly,

Golder Associates Ltd.

Ali Ghirian

Ali Ghirian, P.Eng.
Geotechnical Engineer



Bill Cavers

Bill Cavers, P.Eng.
Associate, Senior Geotechnical Engineer

AG/WC/hdw

[https://goldderassociates.sharepoint.com/sites/1263333/project/files/6 deliverables/tech memo/20145976 \(1147\)-001-tm-rev2- pathways phase 2 grade raise review 30-06-2020.docx](https://goldderassociates.sharepoint.com/sites/1263333/project/files/6%20deliverables/tech%20memo/20145976%20(1147)-001-tm-rev2-pathways%20phase%20grade%20raise%20review%2030-06-2020.docx)

Attachments: Table 1 – Summary of Design Details (Rev. 2)



SUMMARY OF DESIGN DETAILS

Grading Plan Summary for
Pathways Phase 2
Letrim South Holdings Inc.

JOB #: 20142688-1147
DATE: 6/30/2020

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Reference Drawing No.	Street Name	Street #	Block #	Part #	Lot #	Existing Grades				USF	Proposed Finished Grades				Grade Limit	Calculated Grade Raises					Exceeding Front Grade Raise Limit?	Exceeding Rear Grade Raise Limit?	USF From Lowest Proposed Front Grade	USF From Lowest Proposed Rear Grade	Front Frost Protection Sufficient (USF > 1.8 m Below Finished Grade)	Rear Frost Protection Sufficient (USF > 1.5 m Below Finished Grade)		
						FL	FR	RL	RR		AVE	FL	FR	RL		RR	AVE	FL	FR	RL							RR	RR
212	Paakanaak Avenue	588		6	360	96.50	96.50	96.45	96.46	96.48	96.43	98.70	98.70	98.20	98.05	2.50	2.20	2.20	1.75	1.74	No	No	2.3	1.8	Yes	Yes		
212	Paakanaak Avenue	586		7	361	96.50	96.50	96.46	96.48	96.49	96.33	98.60	98.60	98.10	97.95	2.50	2.10	2.10	1.64	1.62	No	No	2.3	1.8	Yes	Yes		
212	Paakanaak Avenue	584		8	362	97.00	97.00	96.91	96.72	96.91	96.33	98.60	98.60	98.20	97.91	2.50	2.10	1.60	1.52	1.09	No	No	2.3	1.7	Yes	Yes		
212	Paakanaak Avenue	600		93	363	97.00	97.00	96.91	96.91	96.96	96.48	98.75	98.75	98.20	98.08	2.50	1.75	1.75	1.29	1.29	No	No	2.3	1.7	Yes	Yes		
212	Paakanaak Avenue	598		94	356	96.38	96.34	96.50	96.43	96.43	96.43	98.70	98.70	98.00	97.97	2.50	2.32	2.36	1.50	1.50	No	No	2.3	1.6	Yes	Yes		
212	Paakanaak Avenue	596		95	357	96.34	96.33	96.50	96.42	96.33	96.33	98.60	98.60	97.85	97.85	2.50	2.26	2.27	1.35	1.35	No	No	2.3	1.6	Yes	Yes		
212	Paakanaak Avenue	594		96	358	96.33	96.34	96.50	96.23	96.35	96.38	98.65	98.65	98.00	97.94	2.50	2.32	2.31	1.50	1.77	No	No	2.3	1.6	Yes	Yes		
212	Paakanaak Avenue	592		97	359	96.34	96.33	96.23	96.28	96.48	96.48	98.75	98.75	98.00	98.00	2.50	2.41	2.42	1.77	1.77	No	No	2.3	1.5	Yes	Yes		
212	Gartersnake Way	75		44		96.63	95.67	96.07	95.85	96.06	94.47	96.74	96.74	96.74	96.31	2.50	0.11	1.07	0.77	0.90	No	No	2.3	2.3	Yes	Yes		
212	Gartersnake Way	77		44		96.63	95.67	96.07	95.85	96.06	94.47	96.74	96.74	96.74	96.31	2.50	0.11	1.07	0.77	0.90	No	No	2.3	2.3	Yes	Yes		
212	Gartersnake Way	79		44		96.63	95.67	96.07	95.85	96.06	94.47	96.74	96.74	96.74	96.31	2.50	0.11	1.07	0.77	0.90	No	No	2.3	2.3	Yes	Yes		
212	Gartersnake Way	81		44		96.71	95.63	95.87	96.07	95.82	94.63	96.90	96.90	96.85	96.90	2.50	1.19	1.27	0.98	0.83	No	No	2.2	2.2	Yes	Yes		
212	Gartersnake Way	83		44		95.71	95.63	95.87	96.07	95.82	94.63	96.90	96.90	96.85	96.90	2.50	1.19	1.27	0.98	0.83	No	No	2.2	2.2	Yes	Yes		
212	Gartersnake Way	85		44		95.71	95.63	95.87	96.07	95.82	94.63	96.90	96.90	96.85	96.90	2.50	1.19	1.27	0.98	0.83	No	No	2.2	2.2	Yes	Yes		
212	Gartersnake Way	87		44		95.71	95.63	95.87	96.07	95.82	94.63	96.90	96.90	96.85	96.90	2.50	1.19	1.27	0.98	0.83	No	No	2.2	2.2	Yes	Yes		
212	Gartersnake Way	89		44		95.89	95.71	95.98	95.87	95.86	94.67	96.94	96.94	97.05	96.52	2.50	1.05	1.23	1.07	1.13	No	No	2.3	2.3	Yes	Yes		
212	Gartersnake Way	91		44		95.89	95.71	95.98	95.87	95.86	94.67	96.94	96.94	97.05	96.52	2.50	1.05	1.23	1.07	1.13	No	No	2.3	2.3	Yes	Yes		
212	Gartersnake Way	93		44		95.89	95.71	95.98	95.87	95.86	94.67	96.94	96.94	97.05	96.52	2.50	1.05	1.23	1.07	1.13	No	No	2.3	2.3	Yes	Yes		
212	Gartersnake Way	95		44		95.89	95.71	95.98	95.87	95.86	94.67	96.94	96.94	97.05	96.52	2.50	1.05	1.23	1.07	1.13	No	No	2.3	2.3	Yes	Yes		
212	Gartersnake Way	90		45		95.99	95.66	95.88	95.78	95.83	94.43	96.70	96.70	96.70	96.25	2.50	0.71	1.04	0.82	0.92	No	No	2.3	2.3	Yes	Yes		
212	Gartersnake Way	92		45		95.99	95.66	95.88	95.78	95.83	94.43	96.70	96.70	96.70	96.25	2.50	0.71	1.04	0.82	0.92	No	No	2.3	2.3	Yes	Yes		
212	Gartersnake Way	94		45		95.99	95.66	95.88	95.78	95.83	94.43	96.70	96.70	96.70	96.25	2.50	0.71	1.04	0.82	0.92	No	No	2.3	2.3	Yes	Yes		
212	Gartersnake Way	96		45		95.99	95.66	95.88	95.78	95.83	94.43	96.70	96.70	96.70	96.25	2.50	0.71	1.04	0.82	0.92	No	No	2.3	2.3	Yes	Yes		
213	Milkana Road	746		2		94.08	93.95	95.15	94.20	94.35	93.03	95.30	95.30	95.30	94.86	2.50	1.22	1.35	0.20	1.10	No	No	2.3	2.3	Yes	Yes		
213	Milkana Road	748		2		94.08	93.95	95.15	94.20	94.35	93.03	95.30	95.30	95.30	94.86	2.50	1.22	1.35	0.20	1.10	No	No	2.3	2.3	Yes	Yes		
213	Milkana Road	750		2		94.08	93.95	95.15	94.20	94.35	93.03	95.30	95.30	95.30	94.86	2.50	1.22	1.35	0.20	1.10	No	No	2.3	2.3	Yes	Yes		
213	Milkana Road	752		2		94.08	93.95	95.15	94.20	94.35	93.03	95.30	95.30	95.30	94.86	2.50	1.22	1.35	0.20	1.10	No	No	2.3	2.3	Yes	Yes		
213	Milkana Road	754		2		94.08	93.95	95.15	94.20	94.35	93.03	95.30	95.30	95.30	94.86	2.50	1.22	1.35	0.20	1.10	No	No	2.3	2.3	Yes	Yes		
213	Milkana Road	756		2		93.95	94.25	94.20	94.52	94.23	93.03	95.30	95.30	95.30	94.85	2.50	1.35	1.05	1.10	0.78	No	No	2.3	2.3	Yes	Yes		
213	Milkana Road	758		2		93.95	94.25	94.20	94.52	94.23	93.03	95.30	95.30	95.30	94.85	2.50	1.35	1.05	1.10	0.78	No	No	2.3	2.3	Yes	Yes		
213	Milkana Road	760		2		93.95	94.25	94.20	94.52	94.23	93.03	95.30	95.30	95.30	94.85	2.50	1.35	1.05	1.10	0.78	No	No	2.3	2.3	Yes	Yes		
213	Milkana Road	762		2		93.95	94.25	94.20	94.52	94.23	93.03	95.30	95.30	95.30	94.85	2.50	1.35	1.05	1.10	0.78	No	No	2.3	2.3	Yes	Yes		
213	Milkana Road	764		2		94.25	93.95	94.52	94.41	94.28	93.08	95.35	95.35	95.35	94.86	2.50	1.10	1.40	0.78	0.81	No	No	2.3	2.1	Yes	Yes		
213	Milkana Road	766		2		94.25	93.95	94.52	94.41	94.28	93.08	95.35	95.35	95.35	94.87	2.50	1.10	1.40	0.83	0.81	No	No	2.3	2.1	Yes	Yes		
213	Milkana Road	770		2		94.25	93.95	94.52	94.41	94.28	93.08	95.35	95.35	95.35	94.87	2.50	1.10	1.40	0.83	0.81	No	No	2.3	2.1	Yes	Yes		
213	Milkana Road	772		2		94.25	93.95	94.52	94.41	94.28	93.08	95.35	95.35	95.35	94.87	2.50	1.10	1.40	0.83	0.81	No	No	2.3	2.1	Yes	Yes		
213	Milkana Road	774		1		93.95	94.00	94.41	94.75	94.28	93.30	95.30	95.30	95.30	94.90	2.50	1.35	1.30	0.89	0.55	No	No	2.0	2.0	Yes	Yes		
213	Milkana Road	776		1		93.95	94.00	94.41	94.75	94.28	93.30	95.30	95.30	95.30	94.90	2.50	1.35	1.30	0.89	0.55	No	No	2.0	2.0	Yes	Yes		
213	Milkana Road	778		1		93.95	94.00	94.41	94.75	94.28	93.30	95.30	95.30	95.30	94.90	2.50	1.35	1.30	0.89	0.55	No	No	2.0	2.0	Yes	Yes		
213	Milkana Road	780		1		93.95	94.00	94.41	94.75	94.28	93.30	95.30	95.30	95.30	94.90	2.50	1.35	1.30	0.89	0.55	No	No	2.0	2.0	Yes	Yes		
213	Milkana Road	782		1		93.95	94.00	94.41	94.75	94.28	93.30																	



Adverse Soils Conditions

Address(&lot):spreadwing way, Omakigi, Dun Skipper, Miikana, ninaatik, Paakanaak, gartersnake, esban (only 4)
Subdivision, Phase, Builder: 4800 Bank St, Pathways, Phase 2, SRR-19-000006
Geotechnical Memo (s) & Report (s): Golder Associates 20145976(1147) dated June 30, 2020, ref Golder's geotech report, Remer and Iodone lands, 13-1121-0083 (1046)
Notes: grade raise only listed, no special considerations for pools or decks, additions required P.Eng per the geotech report, LWF only req'd if grade raise exceeded

September 20, 2021

Permit Approvals - requirements at permit application	
Site Class A,B,C,D,E or F	A, B, C, D - Standard Procedure unless dictated by other factors
Bearing Capacity Kpa	75 kPa or greater, part 9 fdtm - Standard Procedure unless dictated by other factors
Maximum Permissible Grade Raise Identified Part 4/9	Part 9 & 4 Foundation Requirements Geotechnical Engineer • Confirmation of part 9/4 foundation • Part 9 only - Lot specific bearing capacity values at the USF as a function of founding elevation, including footing restrictions • Part 4 only - Soil design bearing capacity, SLS and ULS at USF as a function of founding elevation, including footing restrictions • Footing sizes and the effects of long term groundwater lowering accounted for • Existing grade elevation, proposed finished grade elevation, maximum allowable grade raise, actual grade raise, proposed USF elevation • Calculated post construction settlements (include special requirements for foundation construction where calculated settlements are more than 25mm total and 20mm differential)
Additional for part 4	N/A
Light Weight Fill Required	Part 9&4 Foundation Requirements Geotechnical Engineer • Confirmation of part 9 Foundation (site conditions may dictate part 4 design as determined by geotechnical engineer) • Lot Specific, backfill, engineered fill details • Calculated post construction settlements, (include special requirements for footing and foundation wall construction where calculated settlements are more than 25mm total and 20mm differential).

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Adverse Soils Conditions

Address(&lot):spreadwing way, Omakigi, Dun Skipper, Miikana, ninaatik, Paakanaak, gartersnake, esban (only 4)
Subdivision, Phase, Builder: 4800 Bank St, Pathways, Phase 2, SRR-19-000006
Geotechnical Memo (s) & Report (s): Golder Associates 20145976(1147) dated June 30, 2020, ref Golders geotech report, Rem
Notes: grade raise only listed, no special considerations for pools or decks, additions required P.Eng per the geotech report, LWF only req'd if grade raise exceeded

September 20, 2021	
Building Inspection - requirements at key inspection stages	
Site Class A,B,C,D,E or F	A, B, C, D - Standard Procedure unless dictated by other factors
Bearing Capacity Kpa	75 kPa or greater, part 9 fdtn - Standard Procedure unless dictated by other factors
Maximum Permissible Grade Raise Identified Part 4/9	Part 9 or 4 fdtn Excavation Inspection - Geotechnical Engineer Confirm bearing capacity at USF meets/exceeds minimum design requirements. Final Inspection - Geotechnical Engineer • Lot specific letter signed under professional seal confirming that the grade raise, is as recommended (reference all geotechnical reports) • Expected post construction settlement limits of 25 mm total and 20 mm differential will not be exceeded.
Additional for part 4	N/A
Light Weight Fill Required	Part 9 or 4 foundation design Excavation Inspection - Geotechnical Engineer Confirm bearing capacity at USF meets/exceeds minimum design requirements. Framing Inspection - Geotechnical Engineer/Designate Lot specific site review memo confirming light weight fill has been placed in accordance with geotechnical engineers recommendations. Final Inspection - Geotechnical Engineer • Lot specific letter signed under professional seal confirming that the installed backfill, lightweight fill, granular fill are installed as recommended (reference all geotechnical reports) • Expected post construction settlement limits of 25 mm total and 20 mm differential will not be exceeded.

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SUMMARY OF DESIGN DETAILS

Grading Plan Summary for
Pathways Phase 2
Leitrim South Holdings Inc.

JOB #: 20142688-1147
DATE: 6/30/2020

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Reference Drawing No.	Street Name	Street #	Block #	Part #	Lot #	Existing Grades				USF	Proposed Finished Grades				Grade Raise Limit	Calculated Grade Raises				Exceeding Front Grade Raise Limit?	Exceeding Rear Grade Raise Limit?	USF From Lowest Proposed Front Grade	USF From Lowest Proposed Rear Grade	Front Frost Protection Sufficient (USF > 1.8 m Below Finished Grade)	Rear Frost Protection Sufficient (USF > 1.5 m Below Finished Grade)		
						FL	FR	RL	RR		FL	FR	RL	RR		FL	FR	RL	RR								
210	Milkana Road	713	52			94.26	93.93	94.16	93.80	94.04	93.10	95.10	95.10	95.10	94.80	94.64	2.50	0.84	1.17	0.94	1.00	No	No	2.0	1.7	Yes	Yes
210	Milkana Road	715	52			94.26	93.93	94.16	93.80	94.04	93.10	95.10	95.10	95.10	94.80	94.64	2.50	0.84	1.17	0.94	1.00	No	No	2.0	1.7	Yes	Yes
210	Milkana Road	717	52			94.26	93.93	94.16	93.80	94.04	93.10	95.10	95.10	95.10	94.80	94.64	2.50	0.84	1.17	0.94	1.00	No	No	2.0	1.7	Yes	Yes
210	Milkana Road	721	52			93.93	93.78	93.80	93.78	93.82	93.10	95.10	95.10	95.10	94.70	94.66	2.50	1.17	1.32	0.90	0.88	No	No	2.0	1.6	Yes	Yes
210	Milkana Road	723	52			93.93	93.78	93.80	93.78	93.82	93.10	95.10	95.10	95.10	94.70	94.66	2.50	1.17	1.32	0.90	0.88	No	No	2.0	1.6	Yes	Yes
210	Milkana Road	725	52			93.93	93.78	93.80	93.78	93.82	93.10	95.10	95.10	95.10	94.70	94.66	2.50	1.17	1.32	0.90	0.88	No	No	2.0	1.6	Yes	Yes
210	Milkana Road	727	52			93.93	93.78	93.80	93.78	93.82	93.10	95.10	95.10	95.10	94.70	94.66	2.50	1.17	1.32	0.90	0.88	No	No	2.0	1.6	Yes	Yes
210	Milkana Road	729	52			93.93	93.78	93.80	93.78	93.82	93.10	95.10	95.10	95.10	94.70	94.66	2.50	1.17	1.32	0.90	0.88	No	No	2.0	1.6	Yes	Yes
210	Milkana Road	681	54			94.51	95.58	94.40	94.35	94.71	93.93	96.20	96.20	96.20	95.80	95.53	2.50	1.69	0.62	1.40	1.15	No	No	2.3	1.8	Yes	Yes
210	Milkana Road	683	54			94.51	95.58	94.40	94.35	94.71	93.93	96.20	96.20	96.20	95.80	95.53	2.50	1.69	0.62	1.40	1.15	No	No	2.3	1.6	Yes	Yes
210	Milkana Road	685	54			94.51	95.58	94.40	94.35	94.71	93.93	96.20	96.20	96.20	95.80	95.53	2.50	1.69	0.62	1.40	1.15	No	No	2.3	1.6	Yes	Yes
210	Milkana Road	687	54			94.51	95.58	94.40	94.35	94.71	93.93	96.20	96.20	96.20	95.80	95.53	2.50	1.69	0.62	1.40	1.15	No	No	2.3	1.6	Yes	Yes
210	Milkana Road	689	54			94.51	95.58	94.40	94.35	94.71	93.93	96.20	96.20	96.20	95.80	95.53	2.50	1.69	0.62	1.40	1.15	No	No	2.3	1.6	Yes	Yes
210	Milkana Road	691	54			94.51	95.58	94.40	94.35	94.71	93.93	96.20	96.20	96.20	95.80	95.53	2.50	1.69	0.62	1.40	1.15	No	No	2.3	1.6	Yes	Yes
210	Wabikon Crescent	108	55			94.46	94.44	94.25	94.25	94.35	94.15	96.15	96.15	96.15	96.65	95.95	2.50	1.69	1.71	2.40	2.40	No	No	2.0	2.5	Yes	Yes
210	Wabikon Crescent	106	55			94.46	94.44	94.25	94.25	94.35	94.15	96.15	96.15	96.15	96.65	95.95	2.50	1.69	1.71	2.40	2.40	No	No	2.0	2.5	Yes	Yes
210	Wabikon Crescent	104	55			94.46	94.44	94.25	94.25	94.35	94.15	96.15	96.15	96.15	96.65	95.95	2.50	1.69	1.71	2.40	2.40	No	No	2.0	2.5	Yes	Yes
210	Wabikon Crescent	102	55			94.46	94.44	94.25	94.25	94.35	94.15	96.15	96.15	96.15	96.65	95.95	2.50	1.69	1.71	2.40	2.40	No	No	2.0	2.5	Yes	Yes
210	Wabikon Crescent	132	56			94.41	94.33	94.25	94.26	94.31	93.65	95.65	95.65	95.65	95.30	95.55	2.50	1.24	1.32	1.05	1.29	No	No	2.0	1.6	Yes	Yes
210	Wabikon Crescent	130	56			94.41	94.33	94.25	94.26	94.31	93.65	95.65	95.65	95.65	95.30	95.55	2.50	1.24	1.32	1.05	1.29	No	No	2.0	1.6	Yes	Yes
210	Wabikon Crescent	128	56			94.41	94.33	94.25	94.26	94.31	93.65	95.65	95.65	95.65	95.30	95.55	2.50	1.24	1.32	1.05	1.29	No	No	2.0	1.6	Yes	Yes
210	Wabikon Crescent	126	56			94.41	94.33	94.26	94.31	93.65	95.65	95.65	95.65	95.30	95.55	2.50	1.24	1.32	1.05	1.29	No	No	2.0	1.6	Yes	Yes	
210	Wabikon Crescent	172	57			94.20	94.30	94.35	94.35	94.30	93.40	95.40	95.40	95.40	95.30	94.95	2.50	1.20	1.10	0.95	0.90	No	No	2.0	1.8	Yes	Yes
210	Wabikon Crescent	170	57			94.20	94.30	94.35	94.35	94.30	93.40	95.40	95.40	95.40	95.30	94.95	2.50	1.20	1.10	0.95	0.90	No	No	2.0	1.8	Yes	Yes
210	Wabikon Crescent	168	57			94.20	94.30	94.35	94.35	94.30	93.40	95.40	95.40	95.40	95.30	94.95	2.50	1.20	1.10	0.95	0.90	No	No	2.0	1.8	Yes	Yes
210	Wabikon Crescent	166	57			94.26	94.20	94.25	94.24	94.24	93.40	95.40	95.40	95.40	95.30	94.97	2.50	1.14	1.20	1.15	1.00	No	No	2.0	1.8	Yes	Yes
210	Wabikon Crescent	164	57			94.26	94.20	94.25	94.24	94.24	93.40	95.40	95.40	95.40	95.30	94.97	2.50	1.14	1.20	1.15	1.00	No	No	2.0	1.8	Yes	Yes
210	Wabikon Crescent	162	57			94.26	94.20	94.25	94.24	94.24	93.40	95.40	95.40	95.40	95.30	94.97	2.50	1.14	1.20	1.15	1.00	No	No	2.0	1.8	Yes	Yes
210	Wabikon Crescent	160	57			94.26	94.20	94.25	94.24	94.24	93.40	95.40	95.40	95.40	95.30	94.97	2.50	1.14	1.20	1.15	1.00	No	No	2.0	1.8	Yes	Yes
210	Wabikon Crescent	158	57			94.26	94.20	94.25	94.24	94.24	93.40	95.40	95.40	95.40	95.30	94.97	2.50	1.14	1.20	1.15	1.00	No	No	2.0	1.8	Yes	Yes
210	Wabikon Crescent	156	57			94.26	94.20	94.25	94.24	94.24	93.40	95.40	95.40	95.40	95.30	94.97	2.50	1.14	1.20	1.15	1.00	No	No	2.0	1.8	Yes	Yes
210	Milkana Road	716	4			94.47	94.47	94.32	94.25	94.38	93.02	95.29	95.29	95.29	95.38	94.88	2.50	0.82	0.82	1.10	1.13	No	No	2.3	2.4	Yes	Yes
210	Milkana Road	720	4			94.47	94.47	94.32	94.25	94.38	93.02	95.29	95.29	95.29	95.38	94.88	2.50	0.82	0.82	1.10	1.13	No	No	2.3	2.4	Yes	Yes
210	Milkana Road	722	4			94.47	94.47	94.32	94.25	94.38	93.02	95.29	95.29	95.29	95.38	94.88	2.50	0.82	0.82	1.10	1.13	No	No	2.3	2.4	Yes	Yes
210	Milkana Road	724	4			94.47	94.47	94.25	94.25	94.36	93.08	95.35	95.35	95.35	95.35	94.90	2.50	0.88	0.88	1.10	1.13	No	No	2.3	2.3	Yes	Yes
210	Milkana Road	726	4			94.47	94.47	94.25	94.25	94.36	93.08	95.35	95.35	95.35	95.35	94.90	2.50	0.88	0.88	1.10	1.13	No	No	2.3	2.3	Yes	Yes
210	Milkana Road	728	4			94.47	94.47	94.25	94.25	94.36	93.08	95.35	95.35	95.35	95.35	94.90	2.50	0.88	0.88	1.10	1.13	No	No	2.3	2.3	Yes	Yes
210	Milkana Road	730	4			94.47	94.47	94.25	94.25	94.36	93.08	95.35	95.35	95.35	95.35	94.90	2.50	0.88	0.88	1.10	1.13	No	No	2.3	2.3	Yes	Yes
210	Milkana Road	732	4			94.47	94.47	94.25	94.25	94.36	93.08	95.35	95.35	95.35	95.35	94.90	2.50	0.88	0.88	1.10	1.13	No	No	2.3	2.3	Yes	Yes
210	Milkana Road	734	4			94.47	94.47	94.25	94.25	94.36	93.08	95.35	95.35	95.35	95.35	94.90	2.50	0.88	0.88	1.10	1.13	No	No	2.3	2.3	Yes	Yes
210	Milkana Road	736	4			94.47	94.47	94.25	94.25	94.36	93.08	95.35	95.35	95.35	95.35	94.90	2.50	0.88	0.88	1.10	1.13	No	No	2.3	2.3	Yes	Yes

SITE
COPY
City of Ottawa

Grading Plan Summary for
Pathways Phase 2
Letrim South Holdings Inc.

REVIEWED

[illegible]

Reference Drawing No.	Street Name	Street #	Block #	Part #	Lot #	Existing Grades				USF	Proposed Finished Grades				Grade Raise Limit	Calculated Grade Raises				Exceeding Front Grade Raise Limit?	Exceeding Rear Grade Raise Limit?	USF From Lowest Proposed Front Grade	USF From Lowest Proposed Rear Grade	Front Frost Protection Sufficient (USF > 1.8 m Below Finished Grade)	Rear Frost Protection Sufficient (USF > 1.5 m Below Finished Grade)		
						FL	FR	RL	RR		AVE	FL	FR	RL		RR	FL	FR	RL							RR	
210	Milkana Road	738		4		94.47	94.07	95.26	95.15	94.74	93.07	95.35	95.35	95.40	95.40	94.91	2.50	0.88	1.28	0.14	0.25	No	No	2.3	2.3	Yes	Yes
210	Milkana Road	740		4		94.47	94.07	95.26	95.15	94.74	93.07	95.35	95.35	95.40	95.40	94.91	2.50	0.88	1.28	0.14	0.25	No	No	2.3	2.3	Yes	Yes
210	Milkana Road	742		4		94.47	94.07	95.26	95.15	94.74	93.07	95.35	95.35	95.40	95.40	94.91	2.50	0.88	1.28	0.14	0.25	No	No	2.3	2.3	Yes	Yes
210	Milkana Road	688		5		94.80	94.96	94.75	94.85	94.84	93.72	95.99	95.99	95.90	95.90	95.42	2.50	1.19	1.03	1.15	0.65	No	No	2.3	2.3	Yes	Yes
210	Milkana Road	690		5		94.80	94.96	94.75	94.85	94.84	93.72	95.99	95.99	95.90	95.90	95.42	2.50	1.19	1.03	1.15	0.65	No	No	2.3	2.3	Yes	Yes
210	Milkana Road	692		5		94.80	94.96	94.75	94.85	94.84	93.72	95.99	95.99	95.90	95.90	95.42	2.50	1.19	1.03	1.15	0.65	No	No	2.3	2.3	Yes	Yes
210	Milkana Road	694		5		94.80	94.96	94.75	94.85	94.84	93.72	95.99	95.99	95.90	95.90	95.42	2.50	1.19	1.03	1.15	0.65	No	No	2.3	2.3	Yes	Yes
210	Milkana Road	700		5		94.96	94.75	94.85	94.63	94.80	93.28	95.55	95.55	95.48	95.50	95.07	2.50	0.59	0.80	0.63	0.87	No	No	2.3	2.3	Yes	Yes
210	Milkana Road	702		5		94.96	94.75	94.85	94.63	94.80	93.28	95.55	95.55	95.48	95.50	95.07	2.50	0.59	0.80	0.63	0.87	No	No	2.3	2.3	Yes	Yes
210	Milkana Road	704		5		94.96	94.75	94.85	94.63	94.80	93.28	95.55	95.55	95.48	95.50	95.07	2.50	0.59	0.80	0.63	0.87	No	No	2.3	2.3	Yes	Yes
210	Milkana Road	706		5		94.96	94.75	94.85	94.63	94.80	93.28	95.55	95.55	95.48	95.50	95.07	2.50	0.59	0.80	0.63	0.87	No	No	2.3	2.3	Yes	Yes
210	Milkana Road	708		5		94.75	94.47	94.63	94.32	94.54	93.08	95.35	95.35	95.45	95.45	94.94	2.50	0.60	0.88	0.82	1.13	No	No	2.3	2.4	Yes	Yes
210	Milkana Road	710		5		94.75	94.47	94.63	94.32	94.54	93.08	95.35	95.35	95.45	95.45	94.94	2.50	0.60	0.88	0.82	1.13	No	No	2.3	2.4	Yes	Yes
210	Milkana Road	712		5		94.75	94.47	94.63	94.32	94.54	93.08	95.35	95.35	95.45	95.45	94.94	2.50	0.60	0.88	0.82	1.13	No	No	2.3	2.4	Yes	Yes
210	Milkana Road	714		5		94.75	94.47	94.63	94.32	94.54	93.08	95.35	95.35	95.45	95.45	94.94	2.50	0.60	0.88	0.82	1.13	No	No	2.3	2.4	Yes	Yes
210	Spreading Way	301		6	1	94.84	94.93	94.80	94.77	94.84	94.03	96.30	96.30	96.20	96.20	95.81	2.50	1.46	1.37	1.40	1.43	No	No	2.3	2.4	Yes	Yes
210	Spreading Way	303		6		94.93	94.98	94.80	94.77	94.86	94.03	96.30	96.30	96.20	96.20	95.81	2.50	1.46	1.37	1.40	1.43	No	No	2.3	2.4	Yes	Yes
210	Spreading Way	305		6	3	94.98	94.98	94.75	94.75	94.87	94.13	96.40	96.40	96.30	96.30	95.95	2.50	1.42	1.32	1.28	1.30	No	No	2.3	2.0	Yes	Yes
210	Spreading Way	309		7	4	94.98	94.83	94.75	94.75	94.83	94.03	96.30	96.30	96.30	96.30	95.95	2.50	1.32	1.47	1.20	1.20	No	No	2.3	1.8	Yes	Yes
210	Spreading Way	313		7	6	94.81	94.82	94.75	94.75	94.79	94.10	96.30	96.30	96.30	96.30	95.76	2.50	1.47	1.49	1.05	1.27	No	No	2.2	1.7	Yes	Yes
210	Spreading Way	315		7	7	94.82	94.82	94.63	94.69	94.74	94.15	96.35	96.35	96.00	96.00	95.77	2.50	1.53	1.53	1.37	1.31	No	No	2.2	1.8	Yes	Yes
210	Spreading Way	317		7	8	94.82	94.80	94.69	94.60	94.73	94.05	96.25	96.25	96.10	96.10	95.75	2.50	1.43	1.45	1.41	1.50	No	No	2.2	2.1	Yes	Yes
210	Viceroy Mews	50		8	9	94.60	94.60	94.53	94.79	94.85	93.80	96.00	96.00	95.70	95.70	95.44	2.50	1.40	1.47	0.91	0.85	No	No	2.2	1.9	Yes	Yes
210	Viceroy Mews	52		8	10	94.53	94.45	94.63	94.85	94.63	93.80	96.00	96.00	95.00	95.65	95.42	2.50	1.47	1.55	0.80	1.02	No	No	2.2	1.7	Yes	Yes
210	Viceroy Mews	54		8	11	94.45	94.29	94.63	94.36	94.43	93.80	96.00	96.00	95.50	95.66	95.36	2.50	1.55	1.71	0.87	1.14	No	No	2.2	1.7	Yes	Yes
210	Viceroy Mews	56		8	12	94.29	94.25	94.36	94.32	94.31	93.65	95.85	95.85	95.50	95.50	95.27	2.50	1.56	1.60	1.14	1.18	No	No	2.2	1.8	Yes	Yes
210	Viceroy Mews	58		13	232	94.25	94.24	94.32	94.28	94.26	93.60	95.80	95.80	95.45	95.45	95.22	2.50	1.60	1.61	1.13	1.17	No	No	2.2	1.8	Yes	Yes
210	Viceroy Mews	60		8	233	94.24	94.25	94.28	94.25	94.26	93.60	95.80	95.80	95.45	95.45	95.22	2.50	1.60	1.61	1.13	1.17	No	No	2.2	1.8	Yes	Yes
210	Viceroy Mews	62		8	234	94.25	94.36	94.25	94.25	94.28	93.50	95.70	95.70	95.55	95.55	95.20	2.50	1.45	1.34	1.30	1.30	No	No	2.2	2.1	Yes	Yes
210	Viceroy Mews	64		8	16	94.36	95.30	94.25	94.25	94.54	93.50	95.70	95.70	95.65	95.65	95.24	2.50	1.34	0.40	1.40	1.40	No	No	2.2	2.4	Yes	Yes
210	Viceroy Mews	71		9	17	94.63	94.75	94.94	96.14	95.11	93.61	95.80	95.80	95.95	95.95	95.40	2.50	1.18	1.08	1.11	-0.09	No	No	2.2	2.4	Yes	Yes
210	Viceroy Mews	69		9	18	94.50	94.63	94.75	94.75	94.71	93.56	95.76	95.76	95.91	95.91	95.37	2.50	1.26	1.13	1.20	1.01	No	No	2.2	2.4	Yes	Yes
210	Viceroy Mews	67		9	19	94.50	94.50	94.72	94.75	94.62	93.55	95.75	95.75	95.91	95.91	95.37	2.50	1.25	1.25	1.19	1.16	No	No	2.2	2.4	Yes	Yes
210	Viceroy Mews	65		9	20	94.49	94.50	94.70	94.72	94.60	93.60	95.80	95.80	95.90	95.90	95.40	2.50	1.31	1.30	1.20	1.18	No	No	2.2	2.3	Yes	Yes
210	Spreading Way	321		10	240	94.81	94.96	94.57	94.38	94.68	94.00	96.20	96.20	96.00	96.00	95.76	2.50	1.39	1.24	1.63	1.82	No	No	2.2	2.2	Yes	Yes
210	Spreading Way	323		10	22	94.96	95.05	94.38	94.70	94.77	94.25	96.45	96.45	95.95	95.95	95.81	2.50	1.49	1.40	1.57	1.25	No	No	2.2	2.2	Yes	Yes
210	Spreading Way	325		10	23	95.05	95.13	94.70	94.72	94.90	94.25	96.45	96.45	95.95	95.95	95.81	2.50	1.40	1.32	1.25	1.23	No	No	2.2	1.7	Yes	Yes
210	Spreading Way	327		10	24	95.13	95.17	94.72	94.75	94.94	94.20	96.40	96.40	96.10	96.10	95.84	2.50	1.27	1.23	1.38	1.35	No	No	2.2	1.9	Yes	Yes
210	Spreading Way	329		10	25	95.27	95.27	94.75	94.75	95.03	94.20	96.50	96.50	96.10	96.10	95.84	2.50	1.33	1.23	1.35	1.35	No	No	2.2	2.2	Yes	Yes
210	Spreading Way	331		10	26	95.27	95.35	94.94	95.12	95.17	94.20	96.40	96.40	96.25	96.25	95.90	2.50	1.33	1.23	1.35	1.35	No	No	2.2	1.8	Yes	Yes
210	Spreading Way	326		11	246	95.20	95.32	95.42	96.25	95.55	94.30	96.50	96.50	96.50	96.52	96.07	2.50	1.30	1.18	1.10	0.27	No	No	2.2	2.2	Yes	Yes
210	Spreading Way	324		11	247	95.10	95.20	95.31	95.37	95.27	94.30	96.50	96.50	96.50	96.50	96.06	2.50	1.40	1.30	1.13	1.08	No	No	2.2	2.2	Yes	Yes
210	Spreading Way	322		11	248	95.02	95.10	95.31	95.37	95.20	94.15	96.35	96.35	96.35	96.35	95.92	2.50	1.33	1.25	1.11	1.14	No	No	2.2	2.4	Yes	Yes
210	Spreading Way	320		11	249	95.02	95.02	95.34	95.31	95.17	94.10	96.30	96.30	96.30	96.30	95.97	2.50	1.33	1.25	1.19	1.14	No	No	2.2	2.3	Yes	Yes
210	Spreading Way	318		11	250	95.00	95.02	95.44	95.34	95.20	94.15	96.35	96.35	96.35	96.35	95.95	2.50	1.35	1.33	1.01	1.11	No	No	2.2	2.3	Yes	Yes
210	Spreading Way	316			251	94.99	95.00	95.02	95.44	95.24	94.20	96.40	96.40	96.40	96.40	95.98	2.50	1.41	1.40	0.92	1.01	No	No	2.3	2.3	Yes	Yes

SUMMARY OF DESIGN DETAILS

Grading Plan Summary for
Pathways Phase 2
Leitrim South Holdings Inc.

JOB #: 20142888-1147
DATE: 6/30/2020

REVIEWED
By Terri Hunt at 2:44 pm, Sep 20, 2021

Reference Drawing No.	Street Name	Street #	Block #	Part #	Lot #	Existing Grades				USF	Proposed Finished Grades				Grade Raise Limit	Calculated Grade Raises					Exceeding Front Grade Raise Limit?	Exceeding Rear Grade Raise Limit?	USF From Lowest Grade	USF From Lowest Grade	Proposed Front Grade	Proposed Rear Grade	Front Frost Protection Sufficient (USF > 1.8 m Below Finished Grade)	Rear Frost Protection Sufficient (USF > 1.5 m Below Finished Grade)
						Existing Grades					Proposed Finished Grades					Calculated Grade Raises												
						FL	FR	RL	RR		FL	FR	RL	RR		FL	FR	RL	RR	FL								
210	Spreading Way	314			33	252	95.00	94.99	95.61	95.53	95.28	94.20	96.40	96.40	96.40	95.98	2.50	1.40	1.41	0.84	0.92	No	No	2.2	2.3	Yes	Yes	
210	Spreading Way	312			34	253	95.12	95.00	95.60	95.61	95.33	94.13	96.40	96.40	96.40	95.95	2.50	1.28	1.40	0.80	0.79	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way	310			35	254	95.27	95.12	95.61	95.60	95.65	94.08	96.35	96.35	96.40	95.92	2.50	1.08	1.23	-0.21	0.80	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way	308			36	255	95.32	95.27	95.58	95.61	95.70	94.13	96.40	96.40	96.40	95.95	2.50	1.23	1.18	0.77	0.82	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way	306			37	256	95.27	95.32	95.63	95.58	95.45	94.23	96.50	96.50	96.40	96.01	2.50	1.23	1.18	0.77	0.82	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way	304			38	257	95.17	95.27	95.57	95.63	95.41	94.23	96.50	96.50	96.35	95.99	2.50	1.33	1.23	0.78	0.72	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way	302			39	258	95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way	300			40	259	94.96	95.05	95.29	95.46	95.19	94.08	96.35	96.35	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No	2.3	2.3	Yes	Yes	
210	Spreading Way						95.05	95.17	95.46	95.57	95.31	94.13	96.40	96.40	96.35	95.93	2.50	1.35	1.23	0.89	0.78	No	No					

SUMMARY OF DESIGN DETAILS

Grading Plan Summary for
Pathways Phase 2
Leitrim South Holdings Inc.
JOB #: 20142688-1147
DATE: 6/30/2020

REVIEWED
By Terri Hunt at 2:44 pm, Sep 20, 2021

Reference No.	Street Name	Street #	Block #	Part #	Lot #	Existing Grades				Proposed Finished Grades				Grade Raise Limit	Calculated Grade Raises				Exceeding Front Grade Raise Limit?	Exceeding Rear Grade Raise Limit?	USF From Lowest		USF From Lowest Proposed Front Grade	USF From Lowest Proposed Rear Grade	Front Frost Protection Sufficient (USF > 1.8 m Below Finished Grade)	Rear Frost Protection Sufficient (USF > 1.5 m Below Finished Grade)											
						USF				Grade Raise					USF From Lowest																						
						FL				FR				RR				RL				FR				RR				RL				RR			
211	Esban Drive	92	27	84	303	97.25	97.52	97.52	97.62	97.21	96.62	97.41	96.87	97.03	96.78	98.90	98.90	98.50	98.60	98.32	2.50	1.65	1.38	0.98	0.78	No	No	2.1	1.7	Yes	Yes						
211	Esban Drive	94	27	85	304	97.52	97.95	97.72	98.13	97.83	96.63	99.05	98.90	98.50	98.39	2.50	1.53	1.10	0.88	0.47	2.50	1.53	1.10	0.88	0.47	No	No	2.4	2.0	Yes	Yes						
211	Esban Drive	96	30	86	306	97.00	97.54	97.71	98.07	97.58	96.53	99.00	98.80	98.55	98.29	2.50	1.80	1.26	0.94	0.58	2.50	1.80	1.26	0.94	0.58	No	No	2.3	2.1	Yes	Yes						
211	Dun Skipper Drive	33	31	88	307	98.10	97.71	99.24	98.41	98.37	96.47	98.74	98.85	98.80	98.31	2.50	0.64	1.03	-0.44	0.39	2.50	0.64	1.03	-0.44	0.39	No	No	2.3	2.3	Yes	Yes						
211	Dun Skipper Drive	31	31	89	308	98.32	98.10	99.48	99.24	98.79	96.58	98.85	98.85	98.80	98.38	2.50	0.53	0.75	-0.68	-0.44	2.50	0.53	0.75	-0.68	-0.44	No	No	2.3	2.2	Yes	Yes						
211	Dun Skipper Drive	29	31	90	309	98.44	98.32	99.41	99.48	98.91	96.73	99.00	99.00	98.80	98.47	2.50	0.56	0.26	-0.61	-0.61	2.50	0.56	0.26	-0.61	-0.61	No	No	2.3	2.1	Yes	Yes						
211	Dun Skipper Drive	27	31	91	310	98.35	98.44	98.20	99.41	98.60	96.43	98.70	98.70	98.80	98.29	2.50	0.35	0.26	-0.61	-0.61	2.50	0.35	0.26	-0.61	-0.61	No	No	2.3	2.1	Yes	Yes						
211	Dun Skipper Drive	25	31	92	311	97.93	98.35	97.66	98.20	98.04	96.34	98.50	98.50	98.70	98.15	2.50	0.57	0.15	1.04	0.50	2.50	0.57	0.15	1.04	0.50	No	No	2.2	2.4	Yes	Yes						
211	Omakagi Way	665	17			96.75	96.95	96.89	97.41	97.00	96.27	98.54	98.54	98.02	98.02	2.50	1.79	1.59	1.31	1.14	2.50	1.79	1.59	1.31	1.14	No	No	2.3	1.9	Yes	Yes						
211	Omakagi Way	663	17			96.75	96.95	96.89	97.41	97.00	96.27	98.54	98.54	98.02	98.02	2.50	1.79	1.59	1.31	1.14	2.50	1.79	1.59	1.31	1.14	No	No	2.3	1.9	Yes	Yes						
211	Omakagi Way	661	17			96.75	96.95	96.89	97.41	97.00	96.27	98.54	98.54	98.02	98.02	2.50	1.79	1.59	1.31	1.14	2.50	1.79	1.59	1.31	1.14	No	No	2.3	1.9	Yes	Yes						
211	Omakagi Way	951	17			95.84	96.75	95.83	96.64	96.27	95.63	97.90	97.90	97.41	2.50	2.06	1.15	1.87	1.26	2.50	2.06	1.15	1.87	1.26	No	No	2.3	2.1	Yes	Yes							
211	Omakagi Way	949	17			95.84	96.75	95.83	96.64	96.27	95.63	97.90	97.90	97.41	2.50	2.06	1.15	1.87	1.26	2.50	2.06	1.15	1.87	1.26	No	No	2.3	2.1	Yes	Yes							
211	Omakagi Way	947	17			95.84	96.75	95.83	96.64	96.27	95.63	97.90	97.90	97.41	2.50	2.06	1.15	1.87	1.26	2.50	2.06	1.15	1.87	1.26	No	No	2.3	2.1	Yes	Yes							
211	Omakagi Way	945	16			95.75	95.84	95.40	95.40	95.60	95.43	97.70	97.70	97.05	2.50	1.95	1.86	1.60	2.00	2.50	1.95	1.86	1.60	2.00	No	No	2.3	1.6	Yes	Yes							
211	Omakagi Way	943	16			95.75	95.84	95.40	95.40	95.60	95.43	97.70	97.70	97.05	2.50	1.95	1.86	1.60	2.00	2.50	1.95	1.86	1.60	2.00	No	No	2.3	1.6	Yes	Yes							
211	Omakagi Way	939	16			96.50	95.75	95.48	95.36	95.77	95.33	97.60	97.60	97.25	2.50	1.10	1.85	2.37	2.49	2.50	1.10	1.85	2.37	2.49	No	No	2.3	2.5	Yes	Yes							
211	Omakagi Way	937	16			96.50	95.75	95.48	95.36	95.77	95.33	97.60	97.60	97.25	2.50	1.10	1.85	2.37	2.49	2.50	1.10	1.85	2.37	2.49	No	No	2.3	2.5	Yes	Yes							
211	Omakagi Way	935	16			96.50	95.75	95.48	95.36	95.77	95.33	97.60	97.60	97.25	2.50	1.10	1.85	2.37	2.49	2.50	1.10	1.85	2.37	2.49	No	No	2.3	2.5	Yes	Yes							
211	Omakagi Way	933	16			96.50	95.75	95.48	95.36	95.77	95.33	97.60	97.60	97.25	2.50	1.10	1.85	2.37	2.49	2.50	1.10	1.85	2.37	2.49	No	No	2.3	2.5	Yes	Yes							
211	Omakagi Way	931	16			96.50	95.75	95.48	95.36	95.77	95.33	97.60	97.60	97.25	2.50	1.10	1.85	2.37	2.49	2.50	1.10	1.85	2.37	2.49	No	No	2.3	2.5	Yes	Yes							
211	Omakagi Way	929	16			96.50	95.75	95.48	95.36	95.77	95.33	97.60	97.60	97.25	2.50	1.10	1.85	2.37	2.49	2.50	1.10	1.85	2.37	2.49	No	No	2.3	2.5	Yes	Yes							
211	Omakagi Way	927	15			96.29	96.50	95.60	95.48	95.97	95.28	97.55	97.55	96.80	96.80	2.50	1.26	1.05	1.20	1.32	2.50	1.26	1.05	1.20	1.32	No	No	2.3	2.5	Yes	Yes						
211	Omakagi Way	925	15			96.29	96.50	95.60	95.48	95.97	95.28	97.55	97.55	96.80	96.80	2.50	1.26	1.05	1.20	1.32	2.50	1.26	1.05	1.20	1.32	No	No	2.3	2.5	Yes	Yes						
211	Omakagi Way	923	15			96.29	96.50	95.60	95.48	95.97	95.28	97.55	97.55	96.80	96.80	2.50	1.26	1.05	1.20	1.32	2.50	1.26	1.05	1.20	1.32	No	No	2.3	2.5	Yes	Yes						
211	Omakagi Way	921	15			96.29	96.50	95.60	95.48	95.97	95.28	97.55	97.55	96.80	96.80	2.50	1.26	1.05	1.20	1.32	2.50	1.26	1.05	1.20	1.32	No	No	2.3	2.5	Yes	Yes						
211	Omakagi Way	919	15			96.29	96.50	95.60	95.48	95.97	95.28	97.55	97.55	96.80	96.80	2.50	1.26	1.05	1.20	1.32	2.50	1.26	1.05	1.20	1.32	No	No	2.3	2.5	Yes	Yes						
211	Omakagi Way	917	15			96.29	96.50	95.60	95.48	95.97	95.28	97.55	97.55	96.80	96.80	2.50	1.26	1.05	1.20	1.32	2.50	1.26	1.05	1.20	1.32	No	No	2.3	2.5	Yes	Yes						
211	Omakagi Way	915	15			96.29	96.50	95.60	95.48	95.97	95.28	97.55	97.55	96.80	96.80	2.50	1.26	1.05	1.20	1.32	2.50	1.26	1.05	1.20	1.32	No	No	2.3	2.5	Yes	Yes						
211	Omakagi Way	913	15			96.29	96.50	95.60	95.48	95.97	95.28	97.55	97.55	96.80	96.80	2.50	1.26	1.05	1.20	1.32	2.50	1.26	1.05	1.20	1.32	No	No	2.3	2.5	Yes	Yes						
211	Omakagi Way	911	15			96.29	96.50	95.60	95.48	95.97	95.28	97.55	97.55	96.80	96.80	2.50	1.26	1.05	1.20	1.32	2.50	1.26	1.05	1.20	1.32	No	No	2.3	2.5	Yes	Yes						
211	Omakagi Way	909	15			96.29	96.50	95.60	95.48	95.97	95.28	97.55	97.55	96.80	96.80	2.50	1.26	1.05	1.20	1.32	2.50	1.26	1.05	1.20	1.32	No	No	2.3	2.5	Yes	Yes						
211	Omakagi Way	907	15			96.29	96.50	95.60	95.48	95.97	95.28	97.55	97.55	96.80	96.80	2.50	1.26	1.05	1.20	1.32	2.50	1.26	1.05	1.20	1.32	No	No	2.3	2.5	Yes	Yes						
211	Omakagi Way	905	15			96.29	96.50	95.60	95.48	95.97	95.28	97.55	97.55	96.80	96.80	2.50	1.26	1.05	1.20	1.32	2.50	1.26	1.05	1.20	1.32	No	No	2.3	2.5	Yes	Yes						
211	Omakagi Way	903	15			96.29	96.50	95.60	95.48	95.97	95.28	97.55	97.55	96.80	96.80	2.50	1.26	1.05	1.20	1.32	2.50	1.26	1.05	1.20	1.32	No	No	2.3	2.5	Yes	Yes						
211	Omakagi Way	901	15			96.29	96.50	95.60	95.48	95.97	95.28	97.55	97.55	96.80	96.80	2.50	1.26	1.05	1.20	1.32	2.50	1.26	1.05	1.20	1.32	No	No	2.3	2.5	Yes	Yes						
211	Omakagi Way	899	15			96.29	96.50	95.60	95.48	95.97	95.28	97.55	97.55	96.80	96.80	2.50	1.26	1.05	1.20	1.32	2.50	1.26															



SUMMARY OF DESIGN DETAILS

Grading Plan Summary for
Pathways Phase 2
Leitrim South Holdings Inc.

JOB #: 20142688-1147
DATE: 6/30/2020

REVIEWED

By Terri Hunt at 2:44 pm, Sep 20, 2021

Reference Drawing No.	Street Name	Street #	Block #	Part #	Lot #	Existing Grades				USF	Proposed Finished Grades				Grade Raise Limit	Calculated Grade Raises				Exceeding Front Grade Raise Limit?	Exceeding Rear Grade Raise Limit?	USF From Lowest Proposed Front Grade	USF From Lowest Proposed Rear Grade	Front Frost Protection Sufficient (USF > 1.8 m Below Finished Grade)	Rear Frost Protection Sufficient (USF > 1.5 m Below Finished Grade)	
						FL	FR	RL	RR		AVE	FL	FR	RL		RR	FL	FR	RL							RR
212	Ginebik Way	282		45	312	97.14	96.99	97.93	98.09	97.54	95.93	98.20	98.25	97.77	2.50	1.06	1.21	0.32	0.16	No	No	2.3	2.3	Yes	Yes	
212	Ginebik Way	280			313	96.99	97.00	98.09	97.94	97.51	95.98	98.25	98.25	97.80	2.50	1.26	1.25	0.16	0.31	No	No	2.3	2.3	Yes	Yes	
212	Ginebik Way	278			314	96.72	96.57	97.66	97.33	97.33	95.98	98.25	98.25	97.82	2.50	1.25	1.53	0.31	0.59	No	No	2.3	2.3	Yes	Yes	
212	Ginebik Way	276			315	96.72	96.57	97.66	97.13	97.13	95.98	98.25	98.25	97.82	2.50	1.25	1.53	0.31	0.59	No	No	2.3	2.3	Yes	Yes	
212	Ginebik Way	274			316	96.57	96.70	97.56	97.52	97.09	95.98	98.25	98.25	97.82	2.50	1.68	1.55	0.74	0.78	No	No	2.3	2.3	Yes	Yes	
212	Ginebik Way	272			317	96.70	96.60	97.52	97.23	97.01	95.93	98.20	98.20	97.79	2.50	1.50	1.60	0.78	1.07	No	No	2.3	2.4	Yes	Yes	
212	Ginebik Way	270			318	96.60	96.60	97.23	97.23	96.92	95.98	98.25	98.25	97.82	2.50	1.65	1.65	1.07	1.07	No	No	2.3	2.3	Yes	Yes	
212	Ginebik Way	271	35		323	96.51	96.44	96.10	96.06	96.28	95.83	98.10	98.10	97.00	2.50	1.59	1.66	0.90	0.94	No	No	2.3	1.2	Yes		
212	Ginebik Way	273		35	324	96.44	96.43	96.06	96.00	96.23	95.83	98.10	98.10	97.00	2.50	1.66	1.67	0.94	1.00	No	No	2.3	1.2	Not Compliant		
212	Ginebik Way	275		35	325	96.43	96.50	96.00	96.15	96.27	95.78	98.05	98.05	96.95	2.50	1.62	1.55	0.95	0.80	No	No	2.3	1.2	Not Compliant		
212	Ginebik Way	277		35	326	96.50	96.52	96.47	96.11	96.32	95.78	98.05	98.05	96.95	2.50	1.55	1.53	0.80	0.84	No	No	2.3	1.2	Not Compliant		
212	Ginebik Way	279		35	327	96.52	96.41	95.97	95.80	96.16	95.78	98.05	98.05	96.95	2.50	1.58	1.64	0.98	1.15	No	No	2.3	1.2	Not Compliant		
212	Ginebik Way	281		35	328	96.47	96.41	95.97	95.80	96.16	95.78	98.05	98.05	96.95	2.50	1.59	1.62	0.95	1.01	No	No	2.3	1.0	Yes	Not Compliant	
212	Ginebik Way	283		35	329	96.41	96.38	95.80	95.74	96.08	95.73	98.00	98.00	96.75	2.50	1.59	1.62	0.95	1.01	No	No	2.3	1.0	Yes	Not Compliant	
212	Ginebik Way	285		35	330	96.38	96.20	95.74	95.65	95.99	95.73	98.00	98.00	96.95	2.50	1.62	1.80	1.21	1.30	No	No	2.3	1.2	Yes	Not Compliant	
212	Milkana Road	650		36	331	95.45	95.51	95.65	95.74	95.59	94.23	96.50	96.50	96.07	2.50	1.05	0.90	0.81	0.80	No	No	2.3	2.3	Yes	Not Compliant	
212	Milkana Road	648		36	332	95.51	95.60	95.74	95.80	95.66	94.23	96.50	96.50	96.09	2.50	0.99	0.90	0.86	0.80	No	No	2.3	2.4	Yes	Yes	
212	Milkana Road	646		36	333	95.60	95.62	95.80	95.97	95.75	94.23	96.50	96.50	96.09	2.50	0.90	0.88	0.63	0.63	No	No	2.3	2.3	Yes	Yes	
212	Milkana Road	644		36	334	95.62	95.66	95.97	95.81	95.86	94.48	96.65	96.65	96.22	2.50	1.03	0.99	0.73	0.73	No	No	2.3	2.3	Yes	Yes	
212	Milkana Road	642		36	335	95.66	95.70	95.97	95.81	95.86	94.48	96.65	96.65	96.22	2.50	1.00	0.96	0.59	0.55	No	No	2.3	2.3	Yes	Yes	
212	Milkana Road	640		36	336	95.70	95.74	96.11	96.15	95.93	94.43	96.70	96.70	96.25	2.50	0.93	0.92	0.60	0.60	No	No	2.3	2.3	Yes	Yes	
212	Milkana Road	638		36	337	95.74	95.75	96.15	96.15	95.95	94.40	96.67	96.67	96.25	2.50	0.90	0.90	0.61	0.76	No	No	2.3	2.4	Yes	Yes	
212	Milkana Road	636		36	338	95.75	95.77	96.00	96.00	95.91	94.38	96.65	96.65	96.24	2.50	0.95	0.93	0.76	0.70	No	No	2.3	2.3	Yes	Yes	
212	Milkana Road	634		36	339	95.75	95.76	96.06	96.06	95.90	94.43	96.70	96.70	96.27	2.50	0.98	0.99	0.74	0.72	No	No	2.3	2.3	Yes	Yes	
212	Milkana Road	632		36	340	95.77	95.76	96.06	96.06	95.92	94.48	96.75	96.75	96.32	2.50	0.98	0.99	0.74	0.72	No	No	2.3	2.3	Yes	Yes	
212	Milkana Road	630		36	341	95.76	95.76	96.08	96.11	95.93	94.58	96.85	96.85	96.38	2.50	1.09	1.09	0.72	0.69	No	No	2.3	2.2	Yes	Yes	
212	Milkana Road	628		37	342	95.76	95.79	96.13	96.20	96.01	94.51	96.78	96.78	96.35	2.50	0.99	0.88	0.72	0.65	No	No	2.3	2.2	Yes	Yes	
212	Milkana Road	626		37	343	95.79	95.90	96.13	96.20	96.01	94.51	96.78	96.78	96.35	2.50	0.85	0.63	0.67	0.38	No	No	2.2	2.3	Yes	Yes	
212	Milkana Road	624		37	344	95.90	96.12	96.20	96.47	96.17	94.58	96.75	96.75	96.36	2.50	0.85	0.63	0.67	0.38	No	No	2.2	2.3	Yes	Yes	
212	Milkana Road	622		37	345	96.12	96.42	96.47	96.48	96.37	95.08	96.75	96.75	96.82	2.50	1.23	0.93	0.68	0.67	No	No	2.3	2.1	Yes	Yes	
212	Milkana Road	620		37	346	96.42	96.45	96.48	96.28	96.41	95.33	96.60	96.60	97.11	2.50	1.18	1.15	1.02	1.22	No	No	2.3	2.2	Yes	Yes	
212	Milkana Road	619		42	347	96.23	96.21	96.23	96.23	96.23	95.33	96.60	96.60	97.07	2.50	1.37	1.39	1.17	1.17	No	No	2.3	2.1	Yes	Yes	
212	Milkana Road	621		42	348	96.21	96.16	96.23	95.99	96.15	95.03	96.60	96.60	96.73	2.50	1.09	1.14	0.77	1.01	No	No	2.3	2.0	Yes	Yes	
212	Milkana Road	623		42	349	96.16	95.98	95.99	95.99	96.03	94.65	96.60	96.60	96.49	2.50	0.84	1.02	0.91	0.91	No	No	2.3	2.3	Yes	Yes	
212	Milkana Road	625		42	350	95.98	95.85	95.99	95.87	95.92	94.63	96.80	96.80	96.37	2.50	0.82	0.95	0.86	0.98	No	No	2.3	2.3	Yes	Yes	
212	Milkana Road	806		43	351	95.98	96.02	95.87	95.99	95.97	94.88	96.85	96.85	96.66	2.50	1.17	1.13	1.18	1.06	No	No	2.3	2.2	Yes	Yes	
212	Milkana Road	804		43	352	96.02	96.30	95.99	96.19	96.13	94.93	96.80	96.80	96.65	2.50	1.18	0.90	0.96	0.76	No	No	2.3	2.0	Yes	Yes	
212	Milkana Road	802		43	353	96.30	96.17	96.19	96.23	96.22	95.43	96.85	96.85	96.66	2.50	1.40	1.53	1.11	1.07	No	No	2.3	1.9	Yes	Yes	
212	Milkana Road	800		43	354	96.30	96.17	96.19	96.23	96.22	95.43	96.85	96.85	96.66	2.50	1.40	1.53	1.11	1.07	No	No	2.3	2.0	Yes	Yes	

