

to:	Tamarack Developments - Mr. Gary Schafer - gschafer@tamarackhomes.com
re:	Grading Plan Review Chaperal Residential Development - Phase 4
date:	January 21, 2013
file:	PG1557-MEMO.21
from:	David Gilbert

Further to your request, Paterson Group (Paterson) has prepared the present memo report regarding our review of the grading plan for Phase 4 of the Chaperal residential development. The present memo report should be read in conjunction with Paterson Report PG1557-4 dated January 15, 2013.

Grading Plan Review

Paterson reviewed the following grading plans prepared by exp. Services for the aforementioned residential development:

- Grading and Drainage Plan - GR-4 - Project 2762 - Revision 7 dated September 17, 2012
- Grading and Drainage Plan - GR-5 - Project 2762 - Revision 7 dated September 17, 2012

Based on our review, several of the blocks within Phase 4 have slightly exceeded our permissible grade raise recommendations. Where permissible grade raise exceedances have occurred, lightweight fill (LWF) will be required to compensate for the exceedances. Grading and LWF dimensions are provided in Table 1 attached for subject lots within Phase 4.

We trust that this information satisfies your immediate requirements.

Best Regards,

Paterson Group Inc.



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**Table 1 - Summary of Lightweight Fill Details
Chaperal - Phase 4**

	Original GS Front (m)	Proposed GS Front (m)	Original GS Rear (m)	Proposed GS Rear (m)	Permissible Grade Raise (m)	Proposed Grade Raise Front (m)	Proposed Grade Raise Rear (m)	Above Permissible Grade Raise Front (m)	Above Permissible Grade Raise Back (m)	Minimum Thickness LWF In Garage (m)	Minimum Thickness LWF extending 2.4 m Beyond the building face (m)
Block 1	87.99	88.77	87.99	88.91	1.10	0.78	0.92	n/a	n/a	n/a	n/a
Block 2	88.00	88.78	88.00	88.95	1.10	0.78	0.95	n/a	n/a	n/a	n/a
Block 3	88.02	88.78	88.02	88.94	1.10	0.76	0.92	n/a	n/a	n/a	n/a
Block 4	87.92	88.80	87.92	89.00	1.10	0.88	1.08	n/a	n/a	n/a	n/a
Block 5	87.91	88.79	87.85	89.04	1.10	0.88	1.19	n/a	0.09	n/a	n/a
Block 6	87.90	88.72	87.85	88.97	1.10	0.82	1.12	n/a	0.02	n/a	n/a
Block 7	87.88	88.70	87.90	88.95	1.10	0.82	1.05	n/a	n/a	n/a	n/a
Block 8	87.82	88.63	87.79	88.91	0.90	0.81	1.12	n/a	0.22	n/a	0.2 m rear
Block 9	87.82	88.63	87.73	88.91	0.90	0.81	1.18	n/a	0.28	n/a	0.3 m rear
Block 10	87.78	88.60	87.78	88.84	0.90	0.82	1.06	n/a	0.16	n/a	0.2 m rear
Block 11	87.73	88.52	87.72	88.78	0.90	0.79	1.06	n/a	0.16	n/a	0.2 m rear
Block 12	87.73	88.50	87.66	88.73	0.90	0.77	1.07	n/a	0.17	n/a	0.2 m rear
Block 13	87.57	88.50	87.54	88.75	0.90	0.93	1.21	0.03	0.31	n/a	0.3 m rear
Block 14	87.59	88.48	87.56	88.73	0.90	0.89	1.17	n/a	0.27	n/a	0.3 m rear
Block 15	87.86	88.70	87.73	88.90	1.10	0.84	1.17	n/a	0.07	n/a	n/a
Block 16	87.89	88.77	87.89	88.92	1.10	0.88	1.03	n/a	n/a	n/a	n/a
Block 17	87.87	88.78	87.87	88.98	1.10	0.91	1.11	n/a	0.01	n/a	n/a
Block 18	87.89	88.73	87.89	89.01	1.10	0.84	1.12	n/a	0.02	n/a	n/a
Block 19	87.83	88.80	87.93	89.05	1.10	0.97	1.12	n/a	0.02	n/a	n/a

Proposed grade raise information was based on the following grading plan prepared by Exp. Services Inc:

- Project Number 2762 - Grading and Drainage Plan - Drawing No. GR-4 - Revision 7, dated September 17, 2012.
- Project Number 2762 - Grading and Drainage Plan - Drawing No. GR-5 - Revision 7, dated September 17, 2012.
- It is recommended to extend LWF to the property line where LWF is required within sideyards and 2.4 m is not available.
- Original ground surface elevations refer to native ground surface excluding existing fill