

**re: Geotechnical Assessment – Grading Plan Review**  
**Proposed Residential Development**  
**2370 Tenth Line Road - Ottawa**

**to: Mattamy Homes – Ms. Melissa Pettem – [Melissa.Pettem@mattamycorp.com](mailto:Melissa.Pettem@mattamycorp.com)**

**to: Fotten – Mr. Nathan Petryshyn – [petryshyn@fotenn.com](mailto:petryshyn@fotenn.com)**

**date: February 27, 2023**

**file: PG5914-MEMO.02 Revision 3**

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Further to your request and authorization, Paterson Group (Paterson) prepared the current memorandum to provide the geotechnical design summary details for the aforementioned project. The current memorandum should be read in conjunction with Paterson Report PG5914-1 Revision 2, dated October 6, 2022.

Relevant Design information is presented in Table 1 – Summary of Design Details for the subject lots and blocks. The relevant design and inspection information includes the following:

- Legal/block number
- Proposed underside of footing (USF) elevation
- Bearing resistance value at SLS
- Original ground surface elevation
- Proposed finished grade elevation
- Maximum allowable grade raise
- Lightweight fill (LWF) recommendations
- Seismic site class

## Grading Review

Paterson reviewed the following grading plans prepared by Stantec for the aforementioned development:

- Grading Plan – Orleans Decoeur Residential Development 2370 Tenth Line Road – Project No. 160401710 – Drawing No. GP-1 – Sheet 4 of 7 – Revision 3, dated February 27, 2023.

Based on our review of the grading plans provided, the proposed grading for the blocks/units and subject roadways within the aforementioned development are found to be in compliance with the anticipated permissible grade raise recommendations and are considered acceptable from a geotechnical perspective. Therefore, LWF will not be required for the proposed development.

Refer to the attached Table 1 – Summary of Design Detail for further details on the grading review, and to the attached plan for assigned lot number.

## **Bearing Resistance Values for Foundation Design**

Strip footings, up to 3 m wide, and pad footings, up to 5 m wide, founded on an undisturbed, very stiff to stiff brown silty clay can be designed using a bearing resistance value at serviceability limit states (SLS) of **150 kPa** and a factored bearing resistance value at ultimate limit states (ULS) of **250 kPa** incorporating a geotechnical factor of 0.5.

Strip footings, up to 2 m wide, and pad footings, up to 4 m wide, founded on an undisturbed, firm grey silty clay can be designed using a bearing resistance value at SLS of **70 kPa** and a factored bearing resistance value at ULS of **150 kPa** incorporating a geotechnical factor of 0.5.

Footings designed using the above noted bearing resistance value at SLS given above will be subjected to potential post construction total and differential settlements of 25 and 20 mm, respectively.

An undisturbed soil bearing surface consists of a surface from which all topsoil and deleterious materials, such as loose, frozen or undisturbed soil, whether in situ or not, have been removed, in the dry, prior to the placement of concrete for footings.

## **Tree Planting Restrictions**

In accordance with the City of Ottawa Tree Planting in Sensitive Marine Clay Soils (2017 Guidelines), Paterson completed a soils review of the site to determine applicable tree planting setbacks. Atterberg limits testing was completed for recovered silty clay samples at selected locations throughout the subject site. Grain size distribution and hydrometer testing were also completed on selected soil sample at BH 2. The above noted soil samples were recovered from elevations below the anticipated design underside of footing elevation and 3.5 m depth below anticipated finished grade. The results of our testing are presented in the aforementioned geotechnical report.

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Based on the results of our review, the subject site is considered as a low/medium sensitivity area for tree planting according to the City of Ottawa Tree Planting in Sensitive Marine Clay Soils (2017 Guidelines).

Since the modified plasticity limit (PI) does not exceed 40%, large trees (mature height over 14 m) can be planted at the subject site provided a tree to foundation setback equal to the full mature height of the tree can be provided (e.g., in a park or other green space).

According to the City of Ottawa Tree Planting Guidelines, tree planting setback limits may be reduced to 4.5 m for small (mature tree height up to 7.5m) and medium size trees (mature tree height 7.5 m to 14 m) provided that the following conditions are met:

- The underside of footing (USF) is 2.1 m or greater below the lowest finished grade must be satisfied for footings within 10 m from the tree, as measured from the center of the tree trunk and verified by means of the Grading Plan as indicated procedural changes below.
- A small tree must be provided with a minimum of 25 m<sup>3</sup> of available soil volume while a medium tree must be provided with a minimum of 30 m<sup>3</sup> of available soil volume, as determined by the Landscape Architect. The developer is to ensure that the soil is generally un-compacted when backfilling in street tree planting locations.
- The tree species must be small (mature tree height up to 7.5 m) to medium size (mature tree height 7.5 m to 14 m) as confirmed by the Landscape Architect.
- The foundation walls are to be reinforced at least nominally (minimum of two upper and two lower 15M bars in the foundation wall).
- Grading surrounding the tree must promote drainage to the tree root zone (in such a manner as not to be detrimental to the tree).

### **In-Ground Swimming Pools**

The in-situ soils are considered to be acceptable for the installation of in-ground swimming pools. The soil removed to accommodate an in-ground swimming pool weighs more than the water filled in-ground pool. Therefore, no additional load is being applied to the underlying sensitive clays.

### **Aboveground Swimming Pools, Hot Tubs, Decks and Additions**

If consideration is given to construction of an above ground swimming pool, a hot tub or an exterior deck, a geotechnical consultant should be retained by the homeowner to review the site conditions.

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No additional grading should be placed around the exterior structure. The swimming pool should be located at least 3 m away from the existing foundation to avoid adding localized loading to the foundation and the hot tub should be located at least 2 m away from the existing foundation. Otherwise, construction is considered routine, and can be constructed in accordance with the manufacturer's specifications.

We trust that the current submission meets your immediate requirements.

Best Regards,

**Paterson Group Inc.**



Maha Saleh, M.A.Sc., P.Eng.



David J. Gilbert, P.Eng.

**Attachments**

- Table 1 – Summary of Design Details

Table 1 - Summary of Design Details

PG5914 - Mattamy Homes - 2370 Tenth Line Road

Block Number	Lot Number	Dwelling Type	Original GS Front	Proposed GS Front	Original GS Rear	Proposed GS Rear	Underside of Footing Elevation	Bearing Resistance Value at SLS	Seismic Site Class	Permissible Grade Raise	Above Permissible Grade Raise Front	Above Permissible Grade Raise Rear	Engineered Fill Thickness	Minimum Thickness LWF in Garage and Front Porch	Minimum Thickness LWF and Extents	Notes
			(m)	(m)	(m)	(m)	(m)	(kPa)	(m)	(m)	(m)	(m)	(m)	(m)		
Block 1	Lot 1	Exterior	88.52	88.69	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 2	Interior	88.52	88.65	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 3	Interior	88.52	88.65	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 4	Interior	88.37	88.65	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 5	Interior	88.37	88.65	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 6	Exterior	88.37	88.65	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 7	Exterior	88.33	88.40	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 8	Interior	88.33	88.50	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 9	Interior	88.33	88.50	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 10	Interior	88.49	88.50	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 11	Interior	88.49	88.50	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 12	Exterior	88.49	88.56	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
Block 2	Lot 1	Exterior	88.41	88.65	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 2	Interior	88.41	88.65	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 3	Interior	88.15	88.65	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 4	Interior	88.15	88.65	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 5	Interior	88.41	88.65	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 6	Exterior	88.41	88.69	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 7	Exterior	88.36	88.56	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 8	Interior	88.40	88.50	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 9	Interior	88.24	88.50	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 10	Interior	88.24	88.50	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 11	Interior	88.24	88.50	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 12	Exterior	88.24	88.65	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
Block 3	Lot 1	Exterior	88.32	88.73	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 2	Interior	88.32	88.65	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 3	Interior	88.32	88.65	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 4	Interior	88.47	88.65	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 5	Interior	88.47	88.65	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 6	Exterior	88.47	88.58	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 7	Exterior	88.55	88.58	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 8	Interior	88.55	88.50	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 9	Interior	88.20	88.50	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 10	Interior	88.20	88.50	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 11	Interior	88.07	88.50	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 12	Exterior	88.07	88.63	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
Block 4	Lot 1	Exterior	88.61	88.67	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 2	Interior	88.61	88.65	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 3	Interior	88.61	88.65	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 4	Interior	88.58	88.65	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 5	Interior	88.58	88.65	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 6	Exterior	88.58	88.74	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 7	Exterior	87.88	88.63	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 8	Interior	87.88	88.50	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 9	Interior	87.88	88.50	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 10	Interior	87.86	88.50	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 11	Interior	87.86	88.50	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 12	Exterior	87.86	88.55	N/A	N/A	86.38	150	E	1.00	0.00	N/A	0.00	0.00	n/a	

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Block Number	Lot Number	Dwelling Type	Original GS Front	Proposed GS Front	Original GS Rear	Proposed GS Rear	Underside of Footing Elevation	Bearing Resistance Value at SLS	Seismic Site Class	Permissible Grade Raise	Above Permissible Grade Raise Front	Above Permissible Grade Raise Rear	Engineered Fill Thickness	Minimum Thickness LWF in Garage and Front Porch	Minimum Thickness LWF and Extents	Notes
			(m)	(m)	(m)	(m)	(m)	(kPa)	(m)	(m)	(m)	(m)	(m)	(m)		
Block 5	Lot 1	Exterior	87.48	88.15	N/A	N/A	85.82	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 2	Interior	87.48	88.24	N/A	N/A	85.82	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 3	Interior	87.59	88.24	N/A	N/A	85.82	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 4	Interior	87.59	88.24	N/A	N/A	85.82	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 5	Interior	87.52	88.15	N/A	N/A	85.82	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 6	Exterior	87.52	88.12	N/A	N/A	85.82	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 7	Exterior	87.42	88.12	N/A	N/A	85.82	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 8	Interior	87.42	88.15	N/A	N/A	85.82	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 9	Interior	87.51	88.15	N/A	N/A	85.82	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 10	Interior	87.51	88.15	N/A	N/A	85.82	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 11	Interior	87.44	87.97	N/A	N/A	85.82	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 12	Exterior	87.44	87.98	N/A	N/A	85.82	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
Block 6	Lot 1	Exterior	87.56	88.31	N/A	N/A	85.94	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 2	Interior	87.56	88.36	N/A	N/A	85.94	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 3	Interior	87.62	88.36	N/A	N/A	85.94	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 4	Interior	87.62	88.36	N/A	N/A	85.94	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 5	Interior	87.49	88.27	N/A	N/A	85.94	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 6	Exterior	87.49	88.12	N/A	N/A	85.94	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 7	Exterior	88.07	88.12	N/A	N/A	85.94	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 8	Interior	88.07	88.17	N/A	N/A	85.94	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 9	Interior	87.66	88.27	N/A	N/A	85.94	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 10	Interior	87.66	88.27	N/A	N/A	85.94	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 11	Interior	87.40	88.27	N/A	N/A	85.94	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 12	Exterior	87.40	88.20	N/A	N/A	85.94	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
Block 7	Lot 1	Exterior	87.65	88.42	N/A	N/A	86.01	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 2	Interior	87.65	88.43	N/A	N/A	86.01	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 3	Interior	87.65	88.43	N/A	N/A	86.01	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 4	Interior	87.65	88.43	N/A	N/A	86.01	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 5	Interior	87.52	88.28	N/A	N/A	86.01	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 6	Exterior	87.52	88.28	N/A	N/A	86.01	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 7	Exterior	87.64	88.28	N/A	N/A	86.01	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 8	Interior	87.64	88.28	N/A	N/A	86.01	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 9	Interior	87.52	88.43	N/A	N/A	86.01	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 10	Interior	87.52	88.43	N/A	N/A	86.01	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 11	Interior	87.52	88.43	N/A	N/A	86.01	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 12	Exterior	87.52	88.42	N/A	N/A	86.01	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
Block 8	Lot 1	Exterior	87.73	88.42	N/A	N/A	86.01	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 2	Interior	87.73	88.43	N/A	N/A	86.01	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 3	Interior	87.73	88.43	N/A	N/A	86.01	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 4	Interior	87.66	88.43	N/A	N/A	86.01	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 5	Interior	87.66	88.28	N/A	N/A	86.01	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 6	Exterior	87.66	88.28	N/A	N/A	86.01	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 7	Exterior	87.63	88.28	N/A	N/A	86.01	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 8	Interior	87.63	88.28	N/A	N/A	86.01	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 9	Interior	87.63	88.43	N/A	N/A	86.01	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 10	Interior	87.75	88.43	N/A	N/A	86.01	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 11	Interior	87.75	88.43	N/A	N/A	86.01	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 12	Exterior	87.75	88.42	N/A	N/A	86.01	150	E	1.00	0.00	N/A	0.00	0.00	n/a	

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Block Number	Lot Number	Dwelling Type	Original GS Front	Proposed GS Front	Original GS Rear	Proposed GS Rear	Underside of Footing Elevation	Bearing Resistance Value at SLS	Seismic Site Class	Permissible Grade Raise	Above Permissible Grade Raise Front	Above Permissible Grade Raise Rear	Engineered Fill Thickness	Minimum Thickness LWF in Garage and Front Porch	Minimum Thickness LWF and Extents	Notes
			(m)	(m)	(m)	(m)	(m)	(kPa)	(m)	(m)	(m)	(m)	(m)			
Block 9	Lot 1	Exterior	87.71	88.69	N/A	N/A	86.27	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 2	Interior	87.71	88.69	N/A	N/A	86.27	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 3	Interior	87.71	88.69	N/A	N/A	86.27	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 4	Interior	87.65	88.69	N/A	N/A	86.27	150	E	1.00	0.04	N/A	0.00	0.00	n/a	
	Lot 5	Interior	87.65	88.60	N/A	N/A	86.27	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 6	Exterior	87.65	88.28	N/A	N/A	86.27	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 7	Exterior	87.77	88.28	N/A	N/A	86.27	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 8	Interior	87.77	88.39	N/A	N/A	86.27	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 9	Interior	87.77	88.42	N/A	N/A	86.27	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 10	Interior	87.55	88.42	N/A	N/A	86.27	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 11	Interior	87.55	88.42	N/A	N/A	86.27	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 12	Exterior	87.55	88.42	N/A	N/A	86.27	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
Block 10	Lot 1	Exterior	88.05	88.60	N/A	N/A	86.27	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 2	Interior	88.05	88.60	N/A	N/A	86.27	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 3	Interior	88.05	88.60	N/A	N/A	86.27	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 4	Interior	87.81	88.60	N/A	N/A	86.27	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 5	Interior	87.81	88.42	N/A	N/A	86.27	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 6	Exterior	87.81	88.42	N/A	N/A	86.27	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 7	Exterior	88.14	88.60	N/A	N/A	86.27	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 8	Interior	88.14	88.60	N/A	N/A	86.27	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 9	Interior	88.14	88.69	N/A	N/A	86.27	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 10	Interior	87.83	88.69	N/A	N/A	86.27	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 11	Interior	87.83	88.69	N/A	N/A	86.27	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 12	Exterior	87.83	88.69	N/A	N/A	86.27	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
Block 11	Lot 1	Exterior	87.92	88.56	N/A	N/A	86.17	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 2	Interior	87.92	88.56	N/A	N/A	86.17	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 3	Interior	87.92	88.56	N/A	N/A	86.17	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 4	Interior	87.85	88.56	N/A	N/A	86.17	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 5	Interior	87.85	88.50	N/A	N/A	86.17	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 6	Exterior	87.85	88.49	N/A	N/A	86.17	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 7	Exterior	87.79	88.49	N/A	N/A	86.17	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 8	Interior	87.79	88.44	N/A	N/A	86.17	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 9	Interior	87.79	88.44	N/A	N/A	86.17	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 10	Interior	87.74	88.44	N/A	N/A	86.17	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 11	Interior	87.74	88.53	N/A	N/A	86.17	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 12	Exterior	87.74	88.53	N/A	N/A	86.17	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
Block 12	Lot 1	Exterior	87.96	88.70	N/A	N/A	86.23	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 2	Interior	87.92	88.65	N/A	N/A	86.23	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 3	Interior	87.92	88.65	N/A	N/A	86.23	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 4	Interior	87.93	88.65	N/A	N/A	86.23	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 5	Interior	87.93	88.65	N/A	N/A	86.23	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 6	Exterior	87.93	88.65	N/A	N/A	86.23	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 7	Exterior	87.94	88.65	N/A	N/A	86.23	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 8	Interior	87.94	88.50	N/A	N/A	86.23	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 9	Interior	87.94	88.56	N/A	N/A	86.23	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 10	Interior	87.98	88.56	N/A	N/A	86.23	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 11	Interior	87.98	88.56	N/A	N/A	86.23	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
	Lot 12	Exterior	87.98	88.60	N/A	N/A	86.23	150	E	1.00	0.00	N/A	0.00	0.00	n/a	
Block A	North Side	Building	88.02	88.72	N/A	N/A	87.19	70	E	1.00	0.00	N/A	0.00	0.00	n/a	
	East Side	Building	87.93	88.72	N/A	N/A	87.19	70	E	1.00	0.00	N/A	0.00	0.00	n/a	
	South Side	Building	88.30	88.72	N/A	N/A	87.19	70	E	1.00	0.00	N/A	0.00	0.00	n/a	
	West Side	Building	88.13	88.72	N/A	N/A	87.19	70	E	1.00	0.00	N/A	0.00	0.00	n/a	

**Table 1 - Summary of Design Details**

**PG5914 - Mattamy Homes - 2370 Tenth Line Road**

Block Number	Lot Number	Dwelling Type	Original GS Front	Proposed GS Front	Original GS Rear	Proposed GS Rear	Underside of Footing Elevation	Bearing Resistance Value at SLS	Seismic Site Class	Permissible Grade Raise	Above Permissible Grade Raise Front	Above Permissible Grade Raise Rear	Engineered Fill Thickness	Minimum Thickness LWF in Garage and Front Porch	Minimum Thickness LWF and Extents	Notes
			(m)	(m)	(m)	(m)	(m)	(kPa)	(m)	(m)	(m)	(m)	(m)	(m)		
Block B	North Side	Building	88.25	88.72	N/A	N/A	87.19	70	E	1.00	0.00	N/A	0.00	0.00	n/a	
	East Side	Building	88.09	88.72	N/A	N/A	87.19	70	E	1.00	0.00	N/A	0.00	0.00	n/a	
	South Side	Building	88.11	88.72	N/A	N/A	87.19	70	E	1.00	0.00	N/A	0.00	0.00	n/a	
	West Side	Building	88.25	88.72	N/A	N/A	87.19	70	E	1.00	0.00	N/A	0.00	0.00	n/a	
Block C	North Side	Building	87.86	88.71	N/A	N/A	87.18	70	E	1.00	0.00	N/A	0.00	0.00	n/a	
	East Side	Building	87.86	88.71	N/A	N/A	87.18	70	E	1.00	0.00	N/A	0.00	0.00	n/a	
	South Side	Building	87.85	88.71	N/A	N/A	87.18	70	E	1.00	0.00	N/A	0.00	0.00	n/a	
	West Side	Building	87.92	88.71	N/A	N/A	87.18	70	E	1.00	0.00	N/A	0.00	0.00	n/a	

**Notes:**  
 - Proposed grade raise information was based on the following grading plan prepared by Stantec:  
 - Orleans Decoeur Residential Development - 2370 Tenth Line Road - Grading Plan - Project Number 160401710, Drawing No. GP-1, Sheet 4 of 7 - Revision 3, dated February 27, 2023  
 \* Current Lot numbers assigned clockwise, starting from top left corner  
 \* Back to back lots - Where only the front grades are present, back grades are not present and are therefore marked as N/A.