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June 19, 2014  
File:1636 00974

**Attention: Mr. Kevin Murphy, P.Eng.**  
Project Manager, Land Development  
Mattamy Homes  
50 Hines Road, Suite 100  
Ottawa, ON  
K2K 2M5

Dear Kevin,

**Reference: Half Moon Bay South Phase 4/5 – Transportation Impact Assessment Update**

## 1 INTRODUCTION

Mattamy Homes (Mattamy) seeks to obtain draft plan approval for their proposed development in South Barrhaven referred to as Half Moon Bay South (HMBS) Phase 4/5. Phase 4/5 represents the remaining undeveloped lands of HMBS.

Until recently, Phase 4/5 was put on hold until such time that the alignment of future Realigned Greenbank Road was finalized as part of an Environmental Assessment (EA). With the EA now complete and the alignment finalized the development application for Phase 4/5 can proceed. It is noted that the final alignment of Realigned Greenbank Road was provided by the City (through their consultants) and is reflected in the current Phase 4/5 plan illustrated in the attached **Figure 1**.

This transportation impact assessment update will compare the trip generation characteristics and road layout of the current Phase 4/5 development proposal to the earlier concepts and transportation assessments which have either received draft plan approval or have been registered.

## 2 BACKGROUND

In 2011, Mattamy attained draft approval for the development of the Phases 1 and 2 of HMBS. The *Half Moon Bay South Transportation Impact Study (TIS)*, January 20, 2011, was prepared by GENIVAR to accompany the draft plan submission. The GENIVAR TIS accounted for the transportation impacts from all of the lands within HMBS, including Phase 4/5. The application was deemed complete and Phases 1 and 2 received approval and were subsequently registered.

In December 2013 Stantec prepared a Transportation Assessment update in support of the HMBS Phase 3 draft plan application. The December 2013 assessment compared the Phase 3 application (which also accounted for the remaining undeveloped lands of Phase 4/5) to what was assumed in the previous assessments by GENIVAR and validated the previous work. The application was deemed complete and Phase 3 received draft approval on April 24, 2014.



Reference: Half Moon Bay South Phase 4/5 – Transportation Impact  
Assessment Update

## 2.1 HALF MOON BAY SOUTH TRANSPORTATION IMPACT STUDY FINDINGS AND CONCLUSIONS SUMMARY

Through the *Half Moon Bay South Transportation Impact Study (TIS)*, January 20, 2011 it was determined that the following upgrades would be required to support the full build out of Half Moon Bay South (including Phases 1, 2, 3, and the subject Phase 4/5):

- Signalization of the intersection of existing Greenbank Road and Dundonald Drive
- Northbound left turn lane at existing Greenbank Road and Dundonald Drive
- Southbound right turn lane at existing Greenbank Road and Dundonald Drive
- Eastbound left turn lane at existing Greenbank Road and Dundonald Drive

Furthermore, it was concluded that with the above upgrades, the HMBS development could proceed in advance of the realigned Greenbank Road extension.

Attached is Table 5 from the 2011 TIS, which summarizes the proposed upgrades at the intersection of existing Greenbank Road and Dundonald Drive.

Through Transportation Impact Assessments (TIA) submitted to support the registration of Phases 1 and 2 these upgrades were reconfirmed and the timing of the upgrades was determined. As part of the staged construction of the intersection of Dundonald Drive and existing Greenbank Road the ultimate turning lane configurations were built and the underground components of the traffic signals were installed. Through the phase specific TIAs the timing of the implementation of the signals was determined. The Phase 2 traffic impact assessment (representing the registration of the final phase of Draft Plan #1) determined that the signals would be warranted before the full build-out of Draft Plan #1. The intersection has been constructed to its ultimate configuration and the timing of the signals has been determined. As a result, if there are no major modifications to the total number of trips generated by the site then no further upgrades will be required to accommodate the full build-out of Half Moon Bay South.

## 3 PROPOSED DEVELOPMENT

### 3.1 TRAFFIC GENERATION

Table 1 provides a comparison of the unit count and trips generated between the original and current planning applications.

The 2011 GENIVAR TIS assessed a plan that included a total of 1200 residential units including 713 single family homes and 487 townhouse units. The original concept, which was subsequently draft approved, was forecasted to generate a total of 766 PM peak hour site trips.

With the proposed Phase 4/5 development's unit count and the previously registered and draft approved phases, HMBS will now include a total of 1190 residential units featuring 619 single family homes and 571 townhouse units. The latest concept has 10 fewer residential units than the earlier plan



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and is expected to generate a total of 713 PM peak hour site trips or 53 fewer site trips than previously forecasted.

**Table 1 – Unit Count and Trip Generation Comparison**

		Residential Units						Peak Trip Generation	
		Single Family		Townhouse		Total		(PM Peak Hour)	
Original Draft Plan Total*	Entire HMBS Development	713		487		1200		766	
Revised Draft Plan Total*	Phase 1 and 2 (registered)	321	619	340	571	661	1190	388	713
	Phase 3 (draft approved)	139		126		265		159	
	Phase 4/5 (subject application)	159		105		264		166	
Difference		-94		84		-10		-53	

\* Unit totals represent all of Half Moon Bay South

### 3.2 ROAD NETWORK / ACCESS LOCATIONS

When compared to earlier concepts, the nature of the internal road network for Half Moon Bay South remains relatively unchanged in Phase 4/5. The intersection of River Mist Road and Damsely Way is not aligned at an ideal 90 degree angle, however, the proposed 83 degree alignment falls within the TAC standard (70 degrees to 110 degrees) and is considered acceptable. The resulting daylighting triangle is sufficient for the sightlines required. At all other 90 degree intersections standard daylighting triangles have been provided.

## 4 CONCLUSIONS

With the alignment of Realigned Greenbank Road now established, the development application for HMBS Phase 4/5 may now proceed.

When comparing the overall unit count, trip generation potential and the planned road network, the changes to Phase 4/5 from what was originally assumed and assessed are considered to be minor in nature.

Given the minor nature of the revisions it can be concluded that the results of the previous transportation assessments remain valid and no further transportation impact assessment is required. As such, from a transportation impact perspective draft plan approval of the Half Moon Bay South Phase 4/5 application should be permitted to proceed.

All of which is respectfully submitted;



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Sincerely,

**STANTEC CONSULTING LTD.**

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Attachment: Figure 1 – Half Moon Bay South Phases 4 and 5  
Table 5 – Intersection Warrants for Greenbank Road and Dundonald Drive; from the Half  
Moon Bay South Phase 1A Transportation Impact Study, April 5, 2011, GENIVAR

Figure 1 - Draft Plan

# Half Moon Bay South

## Phase 4 & 5

### Coloured Plan

May 29th, 2014

— Phase 4 & 5 Limit

#### Unit Type

- 30' Single
- 36' Single
- 43' Single
- 21' Townhomes
- 23' Townhomes
- 21' Villagehomes

#### HMBS Phase 4 Lot Count

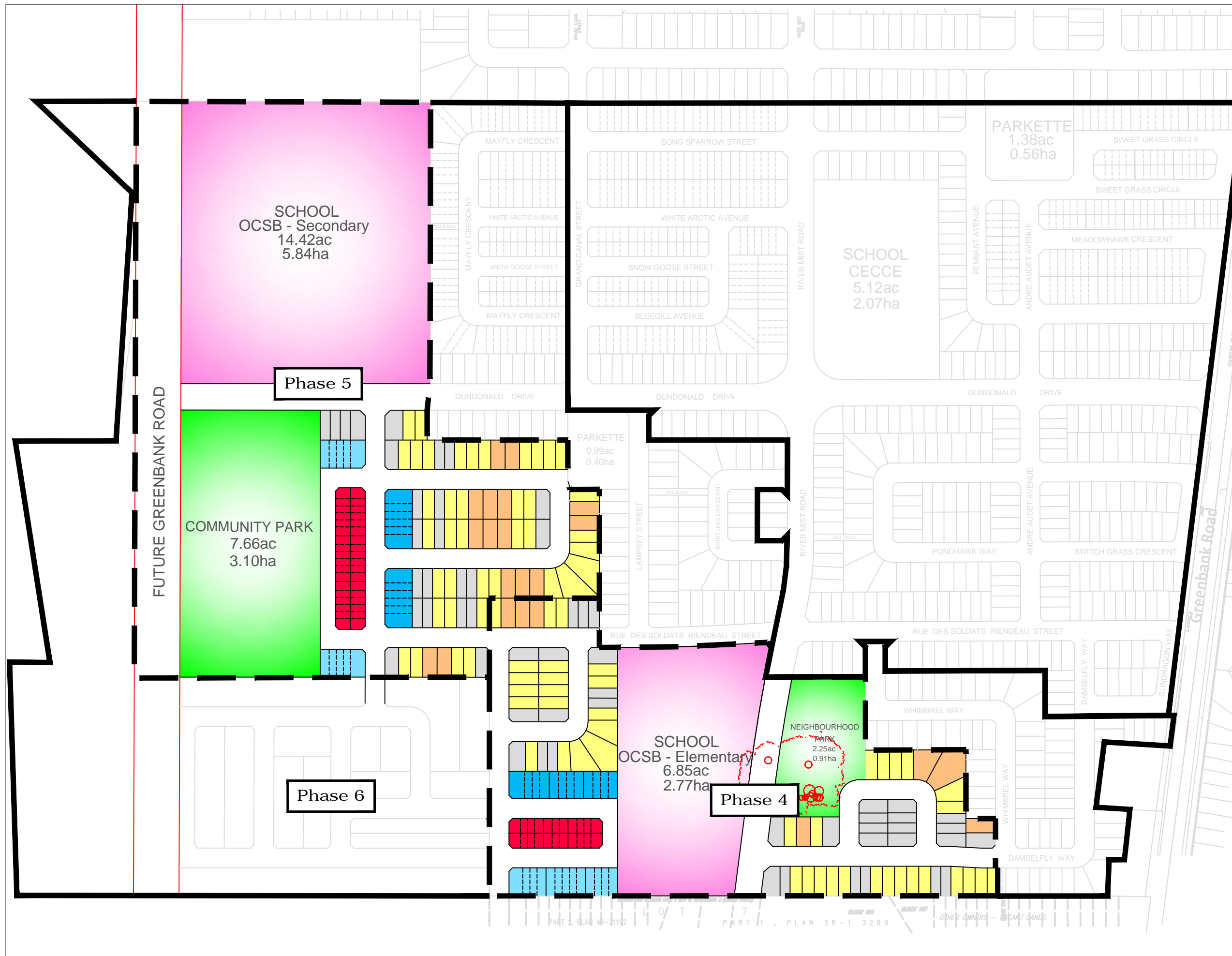
22	BTB Townhomes	(17%)
13	21' Townhomes	(10%)
12	23' Townhomes	(9%)
18	30' Singles	(14%)
15	30' Singles Corner	(12%)
41	36 Singles	(32%)
07	43' Singles	(6%)

128 TOTAL      47 Townhomes (37%)  
81 Singles (63%)

#### HMBS Phase 5 Lot Count

36	BTB Townhomes	(26%)
10	21' Townhomes	(7%)
12	23' Townhomes	(9%)
17	30' Singles	(13%)
07	30' Singles Corner	(5%)
39	36 Singles	(29%)
15	43' Singles	(11%)

136 TOTAL      58 Townhomes (43%)  
78 Singles (57%)





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Table 5, below, is an excerpt from the *Half Moon Bay South Phase 1A Transportation Impact Study*, April 5, 2011, prepared by GENVIAR.

**Table 5**  
**Intersection Warrants for Greenbank Road and Dundonald Drive**

Warrant Type	Required	Recommendation	Justification
2-lane Signalization <sup>1</sup>	Yes	Yes	- Will also provide pedestrian connectivity across Greenbank Road.
4-lane Signalization <sup>1</sup>	No	N/A	- With the New Greenbank Road alignment being constructed in Phase 2 of the TMP, the need for a 4 lane existing Greenbank Road will diminish. The need to widen existing Greenbank Road will be determined through the completion of the New Greenbank Road EA and the development schedule.
Northbound Left Turn Lane <sup>2</sup>	Storage Length = 30 m Parallel Lane = 70 m Taper Length = 70 m	Storage Length = 30 m Parallel Lane = 70 m Taper Length = 70 m	- The storage and taper lengths are appropriate for the volume turning into the development during the PM Peak period.
Southbound Right Turn Lane <sup>2</sup>	Parallel Lane = 60 m Taper Length = 70 m	Parallel Lane = 60m Taper Length = 70 m	- The storage and taper lengths are appropriate for the volume turning into the development during the PM Peak period.
Eastbound Left Turn Lane <sup>2</sup>	Not Required	Storage Length = 15 m Taper Length = 50 m	- While the warrants were not triggered for the left turn lane, exiting the development, it is recommended for improved operation and to reduce the delay for vehicles making through or right turn movements.

<sup>1</sup> MTO Signal Warrant Analysis

<sup>2</sup> Geometric Design Manual, MTO, Chapter E