Stantec Consulting Ltd. 400 - 1331 Clyde Avenue, Ottawa ON K2C 3G4



March 5, 2019 File: 163601091

Attention: Rosanna Baggs, C.E.T.

City of Ottawa

Dear Ms. Baggs,

Reference: Mattamy Half Moon Bay West Community Transportation Study Update

INTRODUCTION AND PURPOSE

Mattamy is making amendments to the previously approved Half Moon Bay West (HMBW) draft plan in order to accommodate changes to the location of a community park. Changes to the draft plan necessitate making updates to the technical studies which supported the earlier plan.

The purpose of this letter is to provide an update to the original *Community Transportation Study* submitted in support of the original plan.

CONTEXT

In November 2017 Stantec prepared a Community Transportation Study (CTS) - Addendum 1, in support of a Zoning Bylaw and Official Plan amendment for Mattamy's HMBW development. The HMBW draft plan that accompanied the aforementioned CTS is provided in **Attachment 1**.

The findings from the 2017 CTS Addendum 1 included:

- The Borrisokane Road at Strandherd Drive intersection is anticipated to operate at or above capacity during the 2024 future background horizon. With the planned widening of Strandherd Drive in place, as per the City of Ottawa's 2013 Transportation Master Plan, this intersection is anticipated to operate acceptably under 2024 total future conditions. However, under 2029 ultimate conditions, this intersection is projected to operate at or above capacity. This is largely attributed to the full build-out of the Citi Gate development and is consistent with the findings from the Citi Gate Highway 416 Employment Lands Community Transportation Study (Novatech 2012).
- The Greenbank Road station along the Jock River Screenline is anticipated to operate at or above capacity during the AM peak hour in the inbound direction (i.e. towards the urban core) under 2024 total future conditions. The Borrisokane Road station along the Jock River Screenline is also anticipated to operate at or above capacity during the AM peak hour in the inbound direction under 2029 ultimate conditions. However, the remaining three stations along this Screenline (Jockvale and Prince of Wales) are projected to have residual capacity, and therefore, the Screenline as a whole is anticipated to operate acceptably under both the 2024 and 2029 future horizons.
- Due to the high delays at the Cambrian Road at Borrisokane Road under 2024 total future conditions, it is recommended to implement traffic signals at this intersection.

Reference: Mattamy Half Moon Bay West Community Transportation Study Update

- The intersection of Borrisokane Road at Site Access 1 (main site access for Glenview's development)
 meets the warrants for a southbound left turn auxiliary lane with a storage length of 70m under 2024
 total future conditions. Due to the high delays anticipated at this intersection, signals are
 recommended to accommodate the projected 2024 total future traffic volumes.
- The intersection of Cambrian Road at Apolune Street meets the warrants for an eastbound left turn
 auxiliary lane with a storage length of 40m under 2024 total future conditions. Due to the high delays
 anticipated at this intersection, signals are recommended to accommodate the projected 2024 total
 future traffic volumes.

REVISED DRAFT PLAN OF SUBDIVISION

Mattamy has since updated their draft plan and the revised draft plan can be seen in **Attachment 2**. A comparison of the original and revised plan indicates that the proposed subdivision's collector road network and intersections with the existing boundary road network remain unchanged.

The changes to the unit count are outlined in **Table 1** below. The new HMBW draft plan is proposed to include 64 less residential units than the original October 2017 draft plan.

Original Draft Plan Revised Draft Plan Dwelling Type Difference (+ / -) (Oct 2017) (Feb 2019) **Apartments** 92 72 - 20 **Townhomes** 427 455 + 28 Single Family Homes 518 446 - 72 **Total** 1037 973 - 64

Table 1 - Unit Count Changes

In addition to the unit count changes, the community park has been relocated from the western portion of the development to the southern portion, abutting the woodlot and fronting onto Cambrian Road.

TRIP GENERATION COMPARISON

To confirm the validity of the previously submitted CTS, a comparison of the trip generation potential of the original and revised draft plans was undertaken.

Table 2 and Table 3 outline the expected traffic generation of the original and revised draft plans, respectively.

Reference:

Mattamy Half Moon Bay West Community Transportation Study Update

Table 2 - Auto Trip Generation - Original Draft Plan (October 2017)

| Loud Hos Code | Heite | AM Peak Hour | | | PM Peak Hour | | |
|--|-------|--------------|----------|------|--------------|----------|------|
| Land Use Code | Units | Inbound | Outbound | Rate | Inbound | Outbound | Rate |
| Step 1: ITE Trip Generation Rate | ates | | | | | | |
| 210 - Single Detached Houses | 518 | 25% | 75% | 0.72 | 63% | 37% | 0.89 |
| 230 - Residential Condo / Townhouse | 427 | 17% | 83% | 0.39 | 67% | 33% | 0.46 |
| 220 - Apartments | 92 | 20% | 80% | 0.53 | 65% | 35% | 0.74 |
| Step 2: Auto Trips Generated | | | | | | | |
| 210 - Single Detached Houses | 518 | 93 | 280 | 373 | 290 | 171 | 461 |
| 230 - Residential Condo / Townhouse | 427 | 28 | 139 | 167 | 131 | 65 | 196 |
| 220 - Apartments | 92 | 10 | 39 | 49 | 44 | 24 | 68 |
| Total Development | | 131 | 458 | 589 | 465 | 260 | 725 |

As can be seen in **Table 2**, the original draft plan was projected to generate 589 and 725 auto trips (two-way) during the AM and PM peak hours, respectively.

Table 3 - Auto Trip Generation - Revised Draft Plan (February 2019)

| Land Use Code | Units | AM Peak Hour | | | PM Peak Hour | | |
|--|-----------------------------|--------------|----------|------|--------------|----------|------|
| Land Use Code | | Inbound | Outbound | Rate | Inbound | Outbound | Rate |
| Step 1: ITE Trip Generation Rate | : ITE Trip Generation Rates | | | | | | |
| 210 - Single Detached Houses | 446 | 25% | 75% | 0.72 | 63% | 37% | 0.89 |
| 230 - Residential Condo / Townhouse | 455 | 17% | 83% | 0.39 | 67% | 33% | 0.46 |
| 220 - Apartments | 72 | 20% | 80% | 0.53 | 65% | 35% | 0.74 |
| Step 2: Auto Trips Generated | | | | | | | |
| 210 - Single Detached Houses | 446 | 80 | 241 | 321 | 250 | 147 | 397 |
| 230 - Residential Condo / Townhouse | 455 | 30 | 147 | 177 | 140 | 69 | 209 |
| 220 - Apartments | 72 | 8 | 30 | 38 | 34 | 19 | 53 |
| Total Development | | 118 | 418 | 536 | 424 | 235 | 659 |

As can be seen in **Table 3**, the revised draft plan is expected to generate 536 and 659 auto trips (two-way) during the AM and PM peak hours, respectively.

CONCLUSION

A comparison of the original and revised plan shows that the proposed subdivision's collector road network and intersections with the existing boundary road network remain unchanged.

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Furthermore, the changes to the draft plan have resulted in fewer net site trips generated when compared to the previously submitted 2017 CTS (approximately 55 and 65 fewer trips during the AM and PM peak hours, respectively).

Given the above, and that the original study was completed recently (i.e. within 5 years), it can be concluded that the findings of the 2017 CTS remain valid and that the draft plan changes can be accommodated under the recommendations of the earlier study.

In addition, as each phase of the HMBW development proceeds to registration, subsequent Transportation Impact Assessments (TIAs) will be submitted. These future TIAs will examine the surrounding intersections and confirm the timelines of the proposed recommendations outlined in the 2017 CTS.

Based on the transportation evaluation presented in this study, Mattamy's Half Moon Bay West draft plan should be permitted to proceed from a transportation perspective.

Regards,

Stantec Consulting Ltd.

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Attachments:

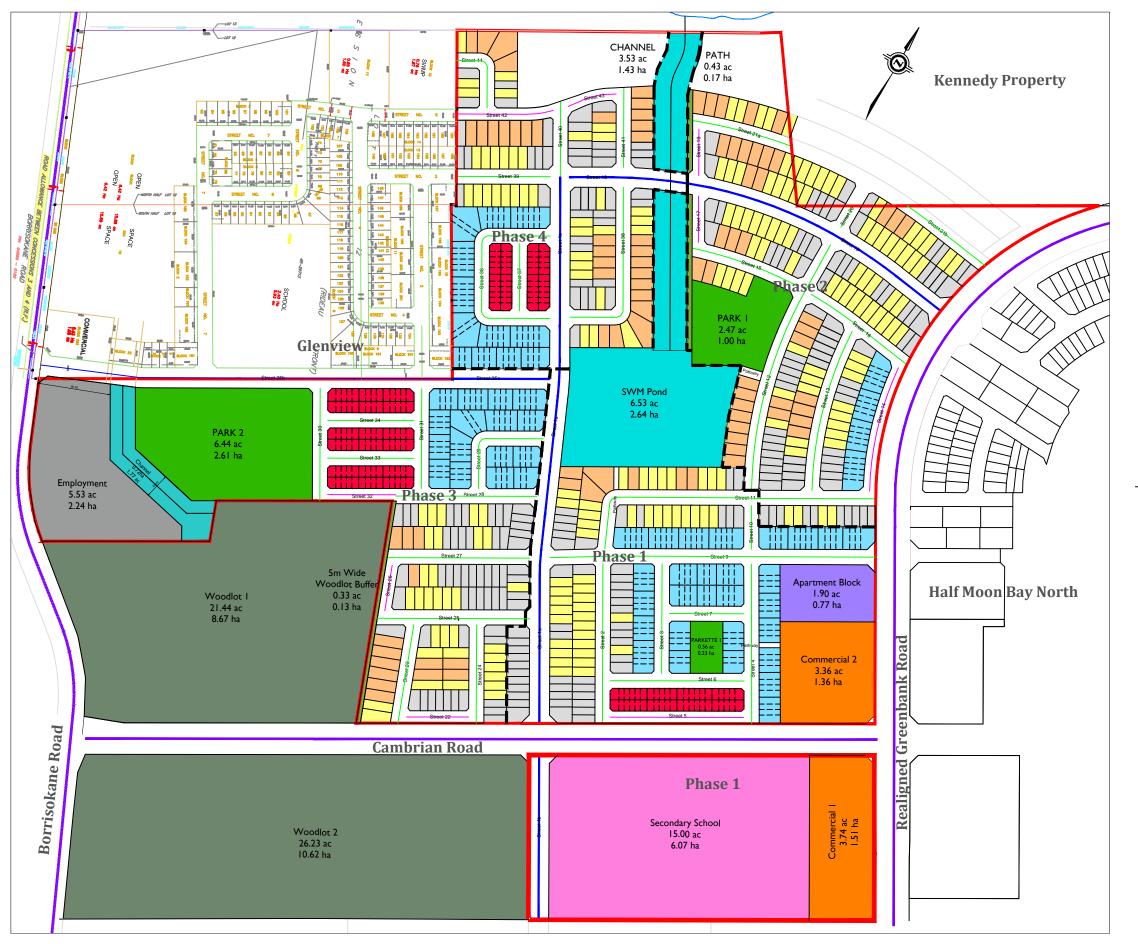
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Attachment 1 – Original Draft Plan (October 2017)

Attachment 2 – Revised Draft Plan (February 2019)

Attachment 1 – Original Draft Plan (October 2017)





Half Moon Bay West October 19, 2017

| LOT COUNTS | PH1 | PH2 | PH3 | PH4 | TOTAL |
|----------------|-----|-----|-----|-----|-------|
| 21' Village TH | 44 | 0 | 84 | 44 | 172 |
| 21' Widelot TH | 114 | 21 | 65 | 55 | 255 |
| 30' Single | 38 | 60 | 44 | 26 | 169 |
| 30'C Single | 12 | 21 | 12 | 17 | 62 |
| 36' Single | 45 | 84 | 33 | 36 | 198 |
| 43' Single | 7 | 38 | 14 | 31 | 90 |
| | 260 | 224 | 252 | 209 | 945 |

ROW

—— 14.75m

24m - Minor Collector

— Arterial

Attachment 2 – Revised Draft Plan (February 2019)





Half Moon Bay West February 27, 2019

| LOT COUNTS | PH1 | PH2 | PH3 | PH4 | PH5 | TOTAL |
|----------------|-----------|----------|-----|-----------|-----|------------|
| 21' Village TH | 42 106 | 40 81 | 0 | 72 114 | 0 | 154 301 |
| 30' Single | 49 | 44 | 17 | 22 | 0 | 132 |
| 30'C Single | 14 | 23 | 10 | 9 | 0 | 56 |
| 36' Single | 53 | 82 | 26 | 28 | 0 | 189 |
| 43' Single | 17 | 36 | 13 | 3 | 0 | 69 |
| 21' Stacked TH | 0 | 0 | 0 | 0 | 72 | 72 |
| | 281 | 306 | 66 | 248 | 72 | 973 |

^{**} Phase 3 does not include lots on Kennedy property