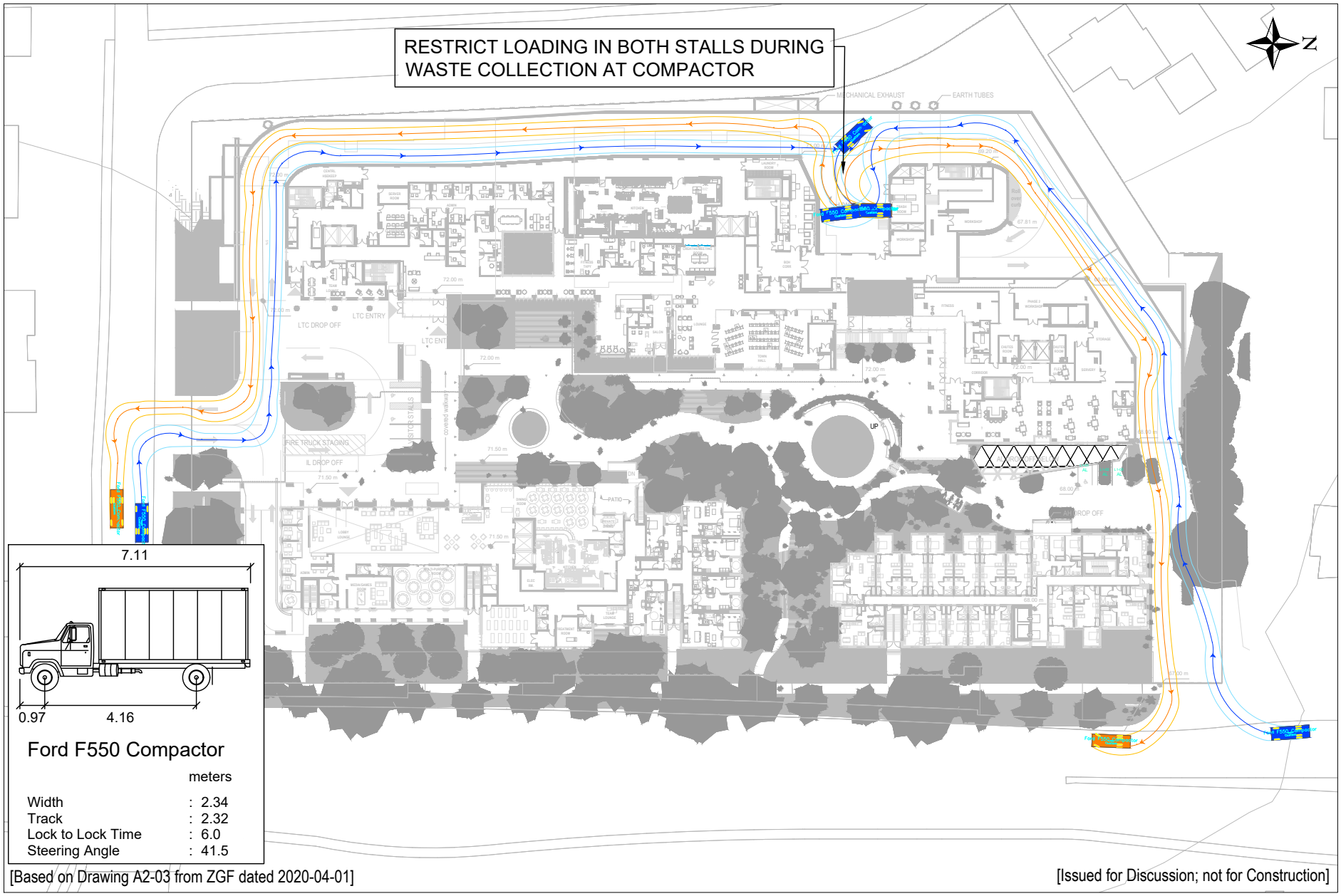
M:\Operations\Dept BC\Projects\2020\04-20-0028 Inglewood Care Centre Pre App\4.0 Analysis & Design\4.1 ACAD\1. Overall Site Design\04-20-0028_Inglewood - Site Design Review_AT_V02-1.dwg
2021/09/23 15:02, Plotted by Nathan Birk

RESTRICT LOADING IN BOTH STALLS DURING WASTE COLLECTION AT COMPACTOR



Ford F550 Compactor

	meters
Width	: 2.34
Track	: 2.32
Lock to Lock Time	: 6.0
Steering Angle	: 41.5

[Based on Drawing A2-03 from ZGF dated 2020-04-01]

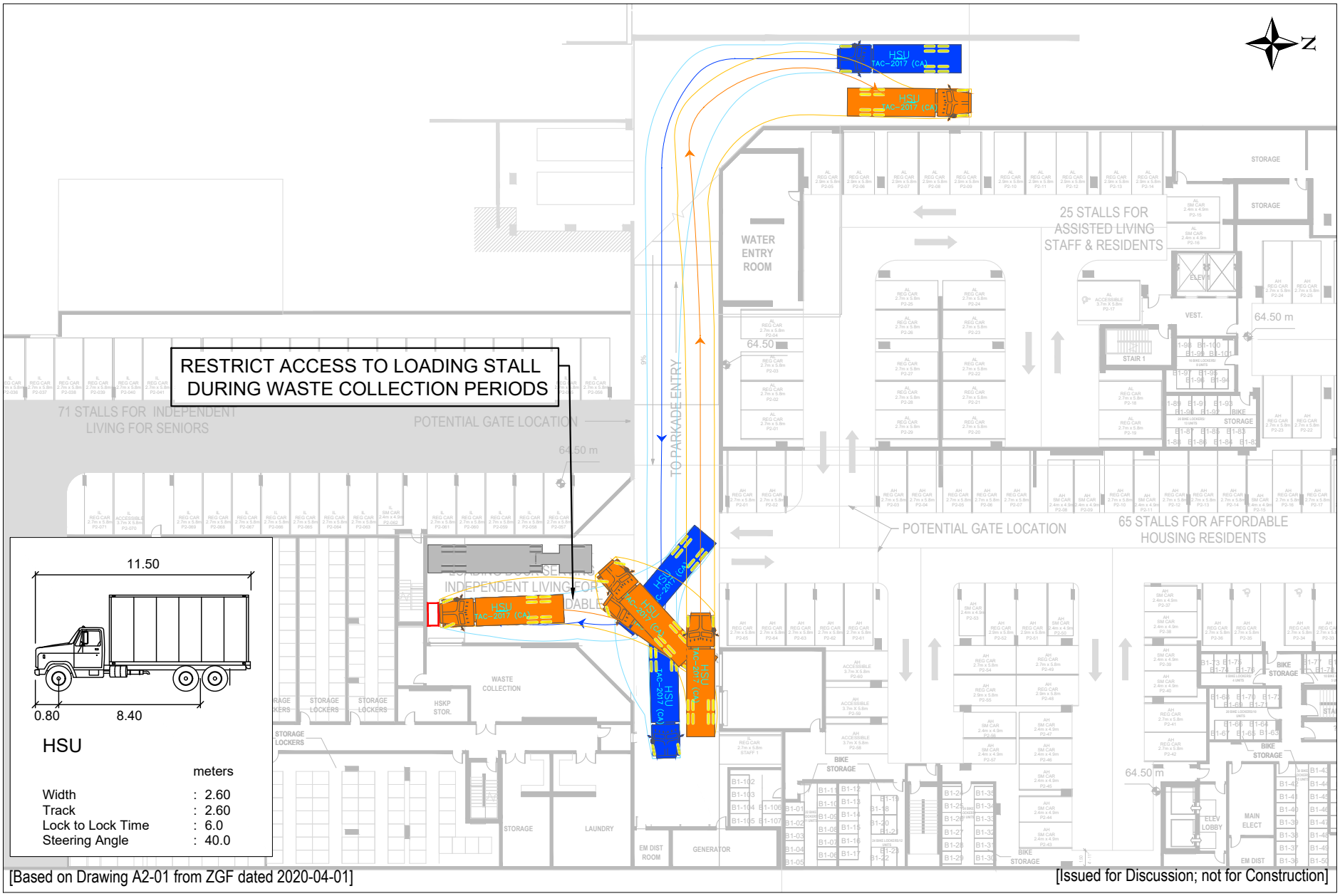
[Issued for Discussion; not for Construction]

Exhibit 4.17

Waste Compactor Manoeuvers

04-20-0028 September 2021 Inglewood Care Centre
Scale 1:1000 on Letter Prepared by NB

bunt associates



[Based on Drawing A2-01 from ZGF dated 2020-04-01]

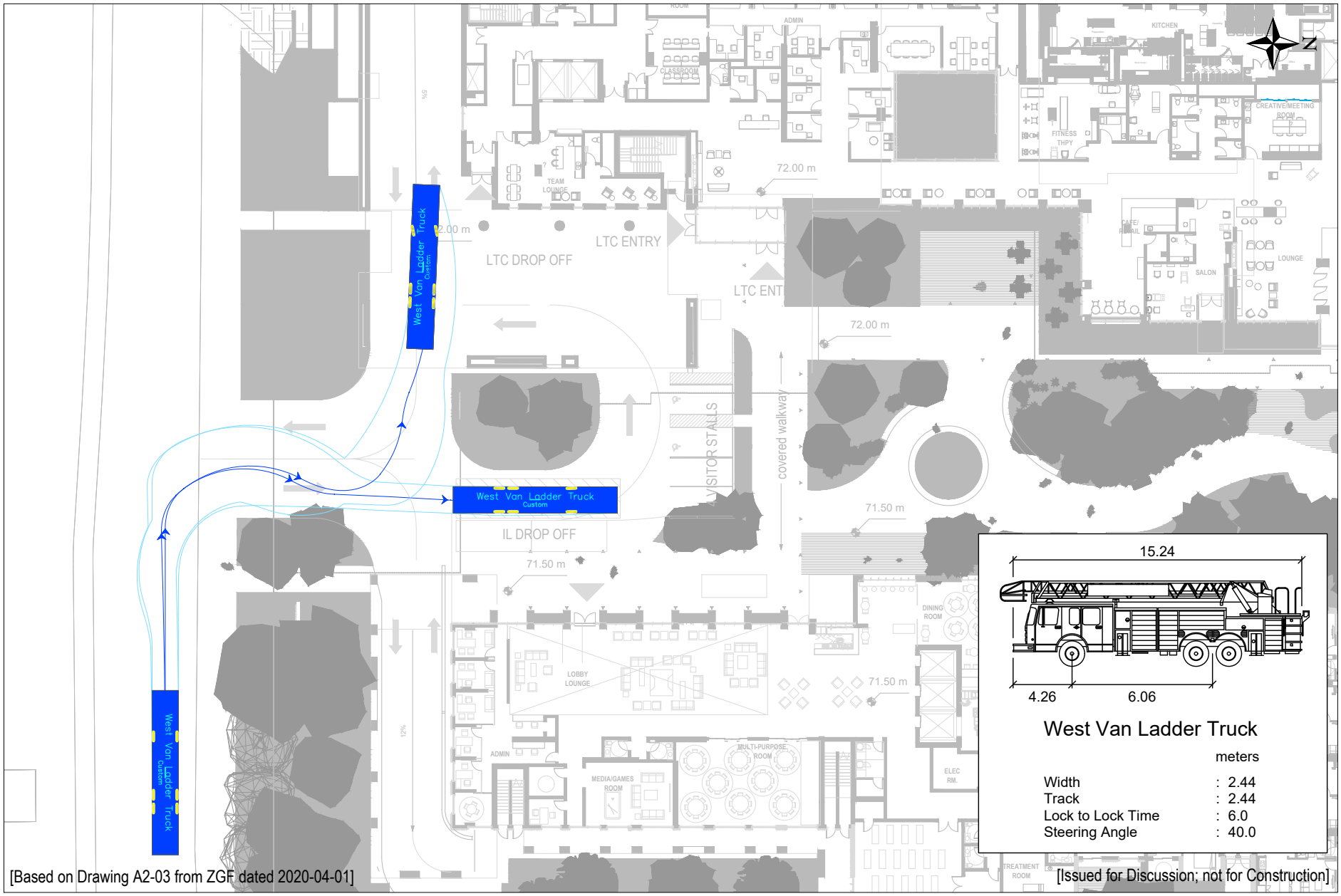
[Issued for Discussion; not for Construction]

Exhibit 4.18

Level P1 Waste Collection Manoeuvers

04-20-0028 September 2021 Scale 1:500 on Letter

Inglewood Care Centre
Prepared by NB



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2021/09/23 15:03, Plotted by Nathan Birk

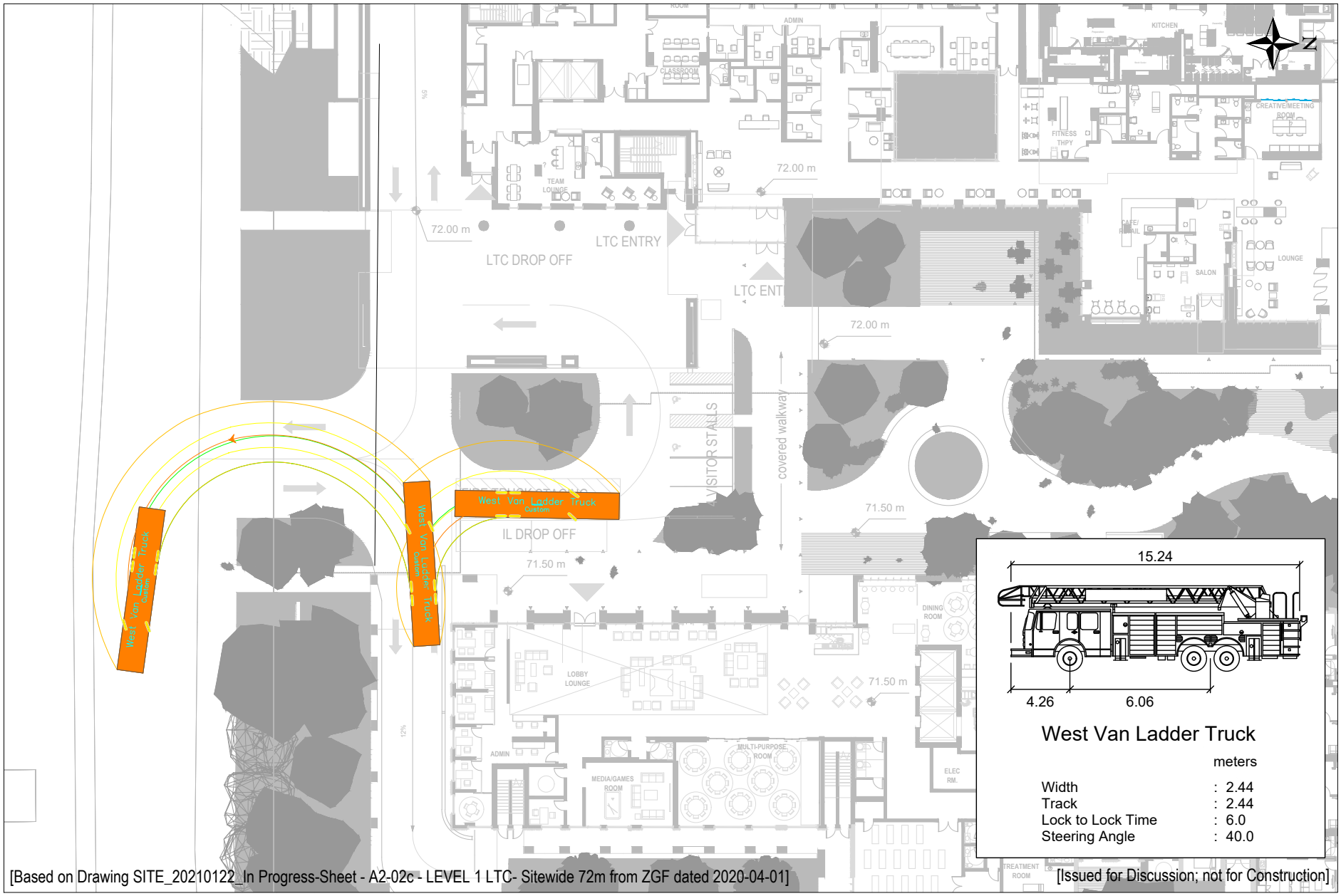
Exhibit 4.19

Fire Truck South Site Access

04-20-0028 September 2021 Scale 1:500 on Letter

Inglewood Care Centre
Prepared by NB

bunt associates



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2021/09/23 15:03, Plotted by Nathan Birk

Exhibit 4.20

Fire Truck South Site Egress

04-20-0028 September 2021 Scale 1:500 on Letter Prepared by NB

Inglewood Care Centre

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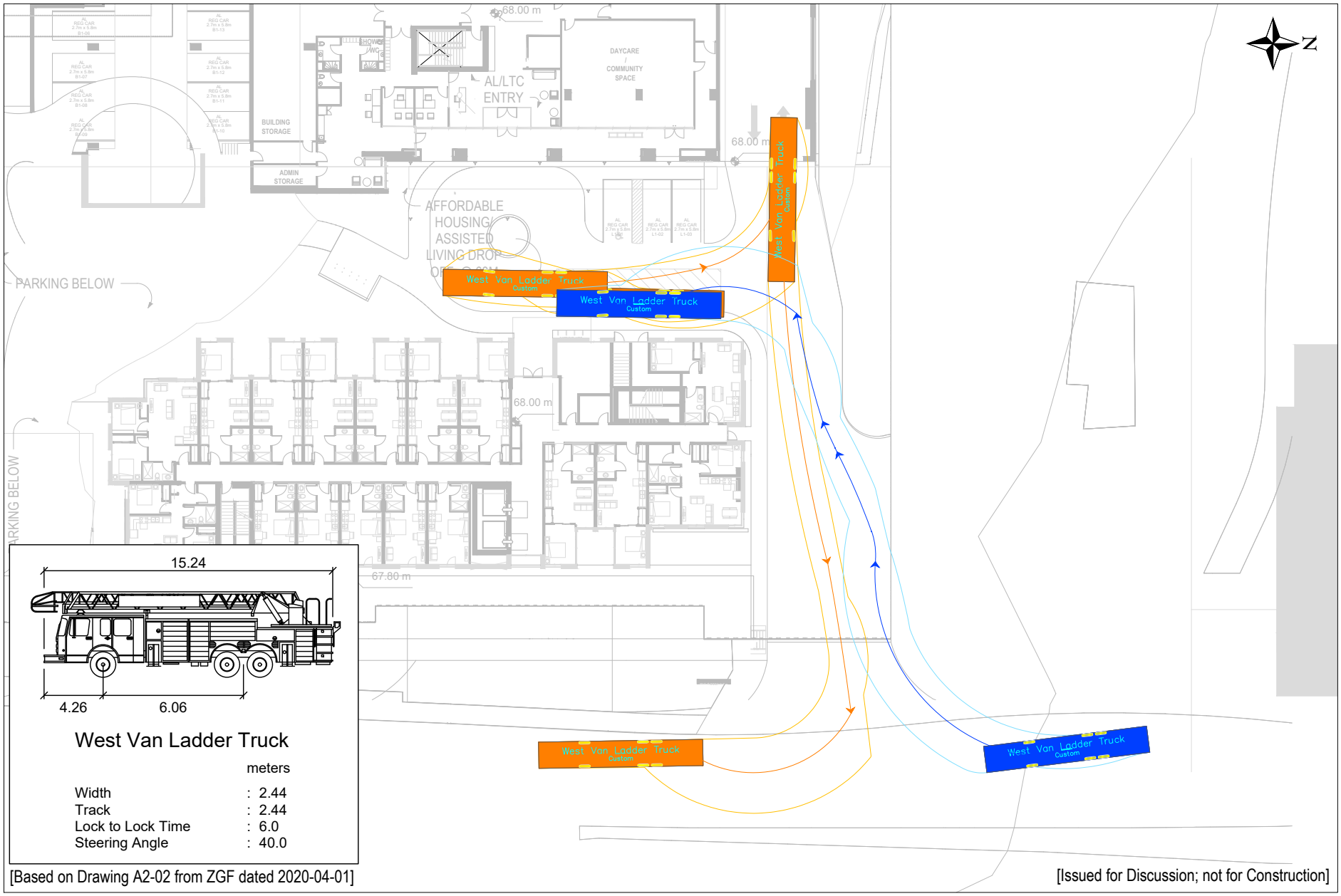
2021/09/23 15:03, Plotted by Nathan Birk



West Van Ladder Truck

	meters
Width	: 2.44
Track	: 2.44
Lock to Lock Time	: 6.0
Steering Angle	: 40.0

[Based on Drawing A2-02 from ZGF dated 2020-04-01]

[Issued for Discussion; not for Construction]

Exhibit 4.21

Fire Truck North Site Access & Egress

04-20-0028 September 2021 Inglewood Care Centre Scale 1:500 on Letter Prepared by NB

5. CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusions

- Baptist housing is proposing to redevelop the existing 235 bed Inglewood Care Centre into a new seniors' care facility with 699 beds / units. The new facility will provide a full range of seniors' care options including assisted living, long term care, affordable seniors' rental, and residential rental for seniors. It will also provide team member and workforce housing.

- The proposed redevelopment plan will improve the active transportation infrastructure within and adjacent to the site.

- The proposed development is anticipated to generate approximately 140 AM / 170 PM peak hour vehicle trips (combined inbound and outbound trips) at full-build out.

- The site accesses and the nearby intersection at Inglewood & Taylor way are expected toto operate acceptably during all existing and future horizon years.

- For the existing and future traffic scenarios, traffic operations issues were noted at the Taylor Way & Highway 1 interchange. The site traffic generated by the Inglewood site is predicted to contribute in the range of a 1% to 3% increase in traffic volumes at the north and south intersections at the interchange on and off ramps, and would not have a material impact on the operations.

- Vehicle parking demand data was collected at several seniors' care facilities ranging from independent living, to assisted living, to long-term care, and the observed demand rate ranged from 0.30 to 0.34 occupied stalls per bed / unit inclusive of resident, staff and visitor parking activity.

- Bicycle parking demand data was collected at several seniors' care facilities, and the observed demand rate ranged from 0.01 to 0.08 occupied stalls per bed / unit.

- The development proposes variances to the vehicle parking supply rates for the affordable team member and workforce housing. All other uses meet the Bylaw vehicle parking requirements.

- The development plan proposes variances in the bicycle parking supply requirements for all uses except the affordable team member and workforce housing. Note that the West Vancouver Bylaw bicycle parking requirements are not specific to Senior's facilities.

- In total, the proposed development will provide:
    - 360 vehicle parking spaces;
    - 436 secured bicycle parking spaces;
    - 58 short-term bicycle parking spaces;
    - 3 loading stalls sized for a WB-12 design vehicle;
    - 1 loading stall sized for a HSU design vehicle;
    - 6 at-grade short term parking spaces;
    - 3 HandyDart pick-up / drop-off locations; and,
    - 2 HandyDart staging stalls.
- The proposed site can adequately accommodate the required design vehicles based on a review of vehicle swept paths.

5.2 Recommendations

- Provide a painted box and signage at the Inglewood Avenue access to the site to mitigate any blocking of the entrance by eastbound queues at the Inglewood Avenue & Taylor Way intersection.
- Reduce the vehicle parking requirement for the affordable team member and workforce housing from 56 stalls to 42 stalls (a 14 stall reduction resulting in a supply rate of 0.39 stalls per unit). This reduced vehicle parking supply should be supported by the following TDM measures:
    - 2.0 secure bicycle parking spaces per unit
    - Access to a proposed car share vehicle to be located on the site
    - Paid car share memberships tied to the units
- Provide secured bicycle parking at a rate of 0.75 spaces unit for the affordable seniors' rental housing and the residential rental for seniors, and at a rate of 0.10 spaces per bed / unit for the assisted living and long term care. Provide short term bicycle parking at a rate of 2 spaces + 0.05 spaces per bed / unit for these uses. Note that these reduced bicycle parking supply rates are based on the City of Vancouver Bylaw which includes bicycle parking requirements specific to seniors' housing.
- Consider implementing a dual eastbound right turn lanes from the eastbound Highway 1 off ramp to Taylor Way southbound, replacing the existing yield control with signal control on this approach. This potential change is outside of the scope of the Inglewood Care Centre redevelopment.

APPENDIX A

Terms of Reference

MEMO

DATE: May 25, 2020
PROJECT NO: 04-20-0028
PROJECT: Inglewood Campus of Care
SUBJECT: Terms of Reference for Transportation Study

TO: Lisa Berg
District of West Vancouver

PREPARED BY: Matt Taylor & Peter Joyce

Baptist Housing has recently acquired the Inglewood Care Centre at 725 Inglewood Avenue in the District of West Vancouver. The 235 bed seniors' care facility has been in operation for nearly 60 years and Baptist Housing is now proposing a comprehensive redevelopment of the entire site to feature the following located in several new buildings:

- 299 long-term care beds,
  - Phase 1: Porte Cochere access on Burley Dr, parking access on Inglewood Ave,
  - Phase 2: Porte Cochere and parking access from Inglewood Avenue,
- 50 assisted living care beds with parking access via 735 Burley Drive,
- 50 affordable seniors' rental units with parking access via Taylor Way right-in/out,
- 104 affordable housing (Team) units with parking access via Taylor Way right-in/out,
- 185 independent living life lease units with parking access Inglewood Ave,

The new Inglewood Campus of Care facility will require new parking and loading facilities and anticipated changes to the site access driveways and internal traffic circulation patterns. With the increased density, there will be additional site traffic loads on the area street network and additional transit trips, particularly for staff but also visitors and some of the future residents of the development.

A preliminary traffic forecast was prepared for the development, by referring to our Bunt database trip generation information for seniors' facilities. Using rates of 0.25 vehicle trips per bed for the long-term care, assisted, living, life-lease, and independent living components, and 0.20 vehicle trips per unit for the social housing component, it was found that this site is anticipated to generate approximately 165 peak hour vehicle trips (this is based on the PM peak period, which generates more traffic than the AM peak period). The existing site was found to generate 50 peak hour vehicle trips, based on data collected at the site.

This equates to an additional 115 peak hour vehicle trips, or on average fewer than two additional vehicles per minute during peak traffic periods. Given this relatively modest increase in comparison to the existing traffic volumes on the Taylor Way corridor, Bunt proposes that the study area be limited to those intersections adjacent to the site.

The following document outlines Bunt's proposed Terms of Reference (ToR) for Inglewood Campus of Care Transportation Study.

A preliminary review of transportation considerations and potential loading circulation strategies is attached for reference. The transportation study outlined in this document will be based on the preferred design option, which is to be selected following discussions regarding these conceptual strategies with the District of West Vancouver (DWV) and BC Ministry of Transportation (MoTI).

1. INFORMATION ASSEMBLY

- Review transportation systems for all modes (vehicle, pedestrians, cyclists, and public transit) in the vicinity of the development site;
- Collect and review previous transportation study reports by the DWV and the MoTI, as well as Bunt in-house reports of previous TIA work for other projects along this section of Taylor Way;
- Compile previously collected traffic count data (which was gathered prior to the Covid-19 health emergency) at the following study area intersections:
    - Inglewood Avenue & Taylor Way;
    - Inglewood Avenue & Burley Avenue;
    - Site Accesses (2) & Inglewood Avenue.
- Observe existing transportation conditions at the intersection of Inglewood Avenue and Taylor Way and at the existing Inglewood Care Centre and note any operational problems.

Note: As a result of the current Covid-19 health emergency, transportation data collection for the foreseeable future will not be possible as the typical traffic and parking behaviours of the Metro Region have been significantly impacted by newly imposed regulations on visitations to care facility, mandated work from home policies, social distancing guidelines, etc.

2. TRAFFIC IMPACT ANALYSIS

2.1.1 Existing Conditions

- Report or estimate existing traffic volumes at the following study intersections:
    - Inglewood Avenue & Taylor Way;
    - Inglewood Avenue & Burley Avenue;
    - Site Accesses (2) & Inglewood Avenue; and,
    - Proposed north access on Taylor Way (shared with the Congregation Har El North Shore Jewish Community Centre)
- Calculate site trip generation and rates based on the data collected and information on the land uses at the existing site;
- Evaluate existing weekday AM and PM peak traffic period performance using the HCM 2000 analysis methodology at the study area intersections based on the observed traffic data; and,
- Assess existing traffic operational deficiencies on the area road system and potential improvements.

2.1.2 Background Traffic

- Predict future traffic growth rates for Taylor Way and Inglewood Avenue based on historic traffic count data if available, or an assumed rate or rates to be agreed upon with the District of West Vancouver and BC Ministry of Transportation.
- Estimate future background traffic volumes at the study area intersections for the following horizon years:
    - Opening day of the development (2024);
    - Opening date of the development plus 5 years (2029); and,
    - Opening date of the development plus 10 years (2034).
- Evaluate background weekday AM and PM peak traffic period performance on the study area intersections based on the observed traffic data.
- Identify potential future background traffic operational deficiencies associated with this increase in area traffic generally.

2.1.3 Total Traffic

- Estimate trip generation rates for the proposed development based on data previously collected by Bunt at comparable sites. Compare these proposed rates to those found in the ITE trip generation database.

- Estimate the volume of future site generated traffic resulting from the proposed redevelopment for the weekday AM and PM peak traffic periods.

- Estimate trip distribution and assignment patterns for site generated traffic based on observed travel patterns in the study area and broader regional transportation survey data.

- Forecast future total (background + site) traffic volumes at the following study area intersections:
    - Inglewood Avenue & Taylor Way;
    - Inglewood Avenue & Burley Avenue;
    - Future site access & Inglewood Avenue; and,
    - Future site access & Taylor way.

- Provide forecasts for the following scenarios and horizon years:
    - Background traffic at opening day (2024) + Phase 1 site traffic
    - Background traffic at opening day plus 5 years (2029) + full build out site traffic
    - Background traffic at opening day plus 10 years (2034) + full build out site traffic.

- Assess potential future traffic operational deficiencies on the area road system and recommend potential improvements.

3. PARKING AND LOADING SUPPLY

- Evaluate the parking supply and loading supply requirements for the project based on the provisions of the District of West Vancouver Zoning Bylaw.

- Develop estimates of the anticipated peak parking demand for the proposed redevelopment for comparison to the Zoning Bylaw requirements.

- Based on the above considerations, develop a parking and loading supply strategy for the project.

4. SITE DESIGN REVIEW

- Assess site's access, vehicle parking, loading, and garbage/recycling collection arrangements, and recommend any necessary changes.
- Perform vehicle swept path analysis to confirm the feasibility of the following transportation design elements:
    - Passenger vehicle access and circulation;
    - Loading access and stall configuration;
    - HandyDart access;
    - Waste collection vehicle operations; and,
    - Emergency vehicle access and egress.

5. TIA REPORT

- Prepare a comprehensive TIA report document that summarizes the data collection, analysis, and key findings and recommendations.

APPENDIX B

Loading Truck Access Location Review

October 19, 2020
04-20-0028

Andrew Thomson
ZGF Architects Inc.
355 Burrard Street, Suite 350
Vancouver, BC
V6C 2G8

VIA E-MAIL: andrew.thomson@zgf.com

Dear Andrew:

Re: Inglewood Campus of Care Redevelopment Plan
Loading Truck Access Locations Review

Bunt & Associates Engineering Ltd. has prepared a review of the proposed truck exit locations for the Inglewood Campus of Care Redevelopment Plan, West Vancouver, BC. The attached report provides an assessment of the current proposed truck exit location on Inglewood Avenue and the exit location on Burley Drive recommended by the District of West Vancouver. This review considers both transportation design and traffic volumes.

We trust that the information provided in the attached report will be of assistance to you and your team for the development application. Please contact us, should you have any questions.

Yours truly,
Bunt & Associates

Matt Taylor, P. Eng., M. Eng., PTOE
Transportation Engineer

1. INTRODUCTION

Baptist Housing has recently acquired the Inglewood Care Centre at 725 Inglewood Avenue in the District of West Vancouver. The location of the site is shown in **Exhibit 1.1**. The 235 bed seniors' care facility has been in operation for nearly 60 years and Baptist Housing is now proposing a comprehensive redevelopment of the entire site to following located in several new buildings:

- 356 l care beds/units;
- 243 senior residential;
- 107 staff housing;
- 50 daycare places.

The new Inglewood Campus of Care facility will require new parking and loading facilities and anticipated changes to the site access driveways and internal traffic circulation patterns.

The proposed vehicle and truck access to the site are shown in **Exhibit 1.2**. As it is currently planned, loading trucks will access the site either by the full movements access along Inglewood Avenue, or the southbound right-in/right-out only access on Taylor Way. A third vehicular access to the site is proposed along Burley Drive, but this does not connect to the loading facilities.

The District of West Vancouver (DWV) provided preliminary comments on the development application which indicated DWV's requirement that *"truck exit should be on Burley Drive or Taylor Way rather than Inglewood."* The purpose of this memo is to evaluate this requirement to determine its implications.

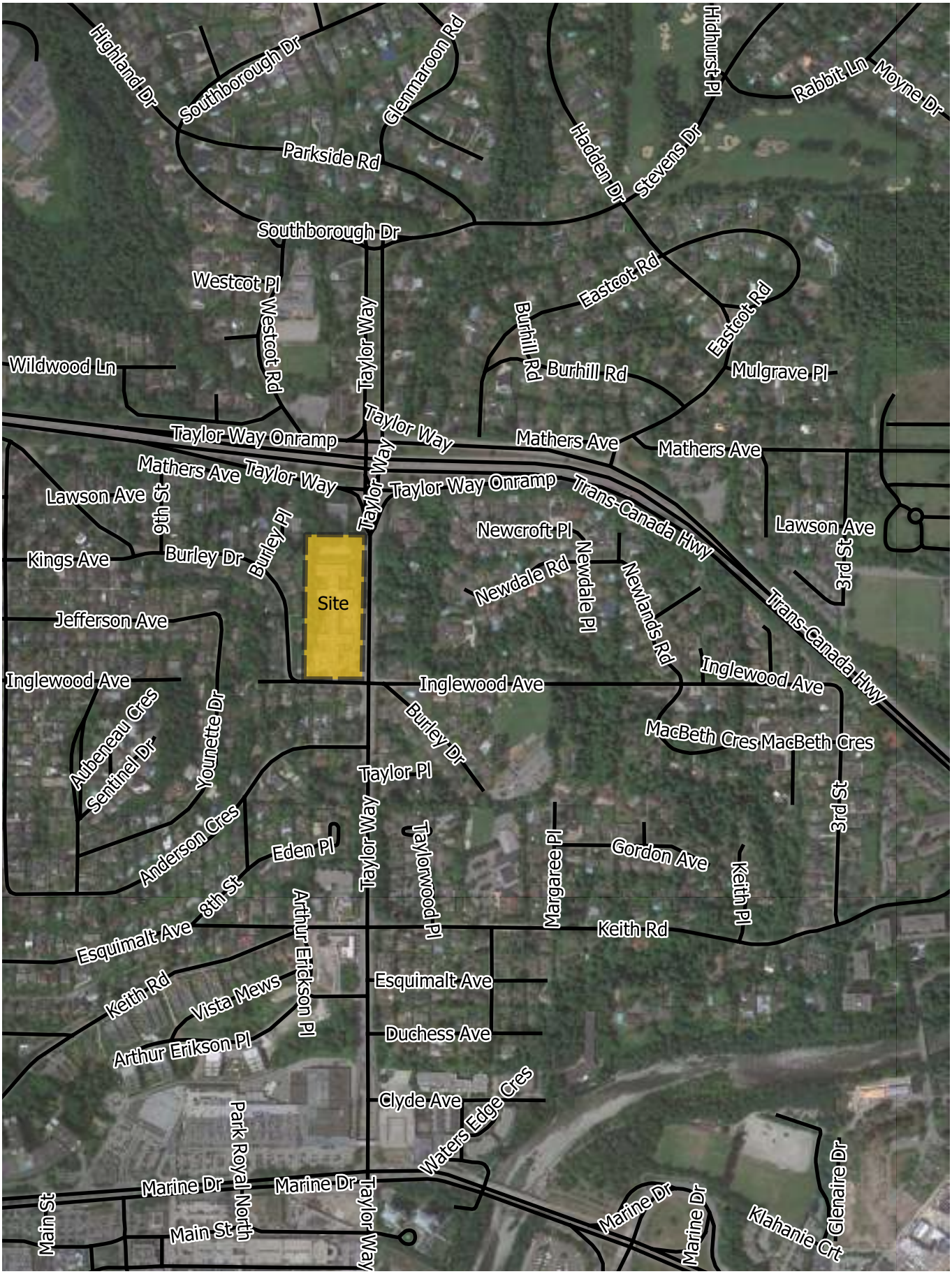


Exhibit 1.1

Site Location

Inglewood Care Centre
October 2020

04-20-0028

bunt & associates

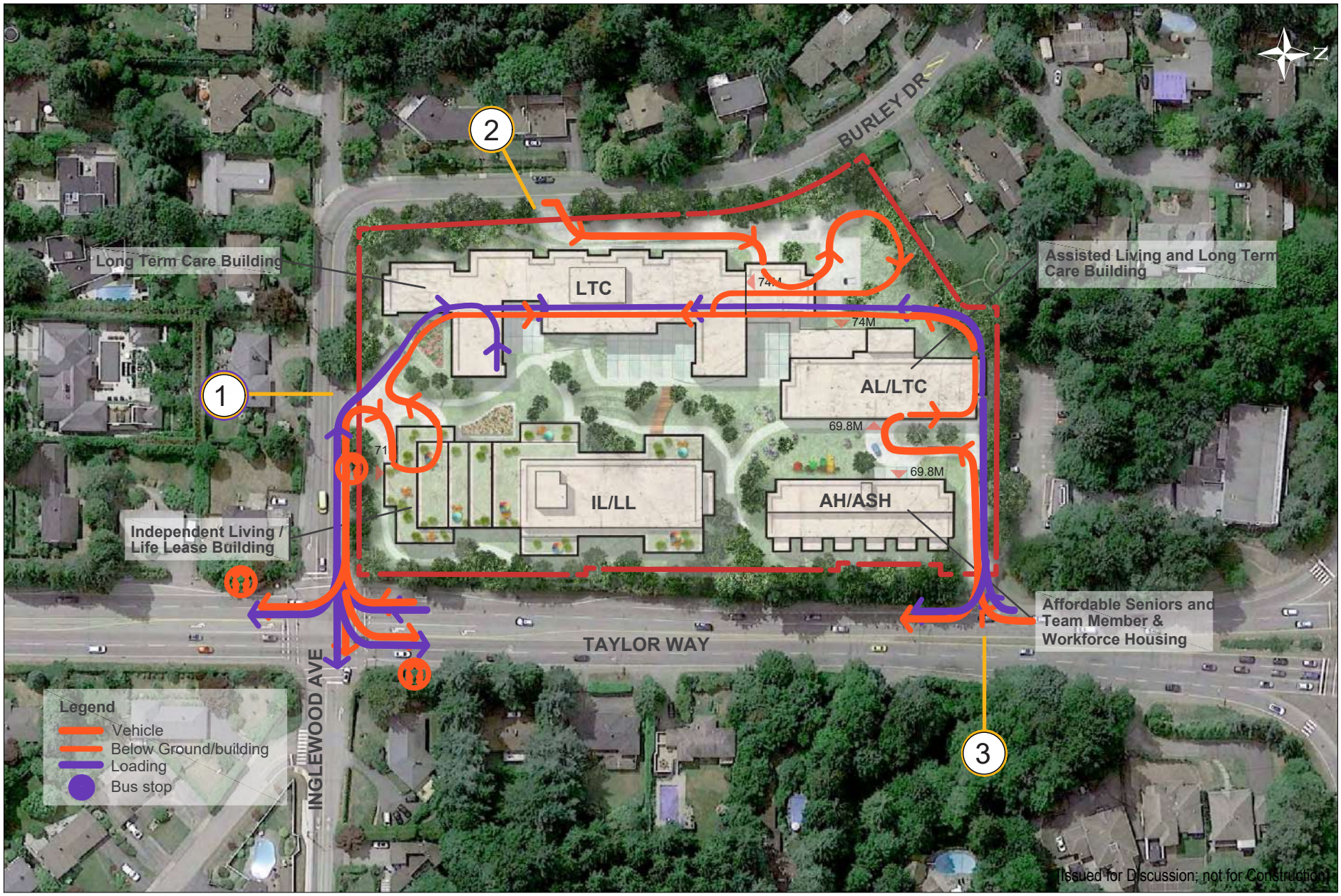


Exhibit 1.2

Site Access Plan

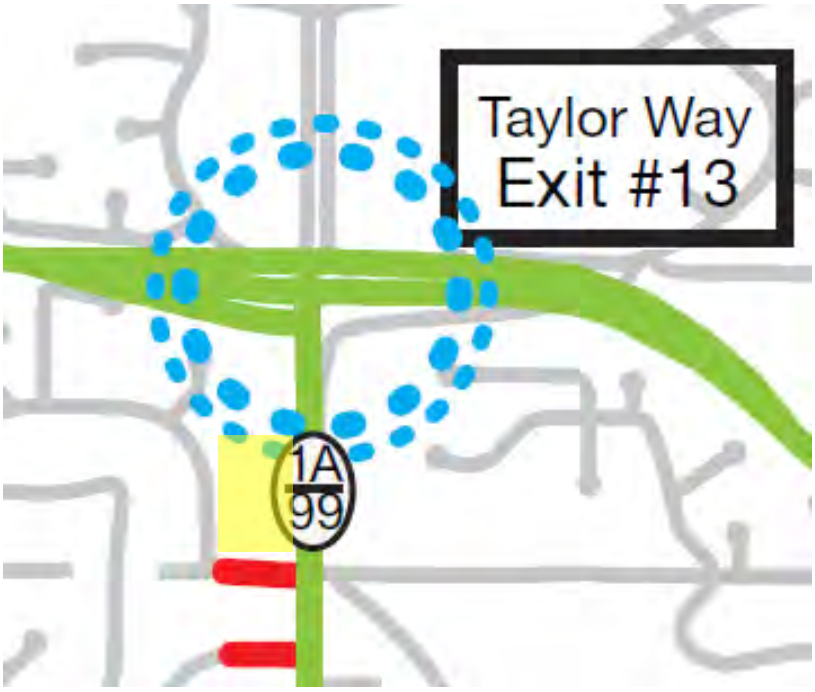
Inglewood Care Centre
04-20-0028 October 2020

2. DESIGN CONSIDERATIONS

2.1 Road Grades

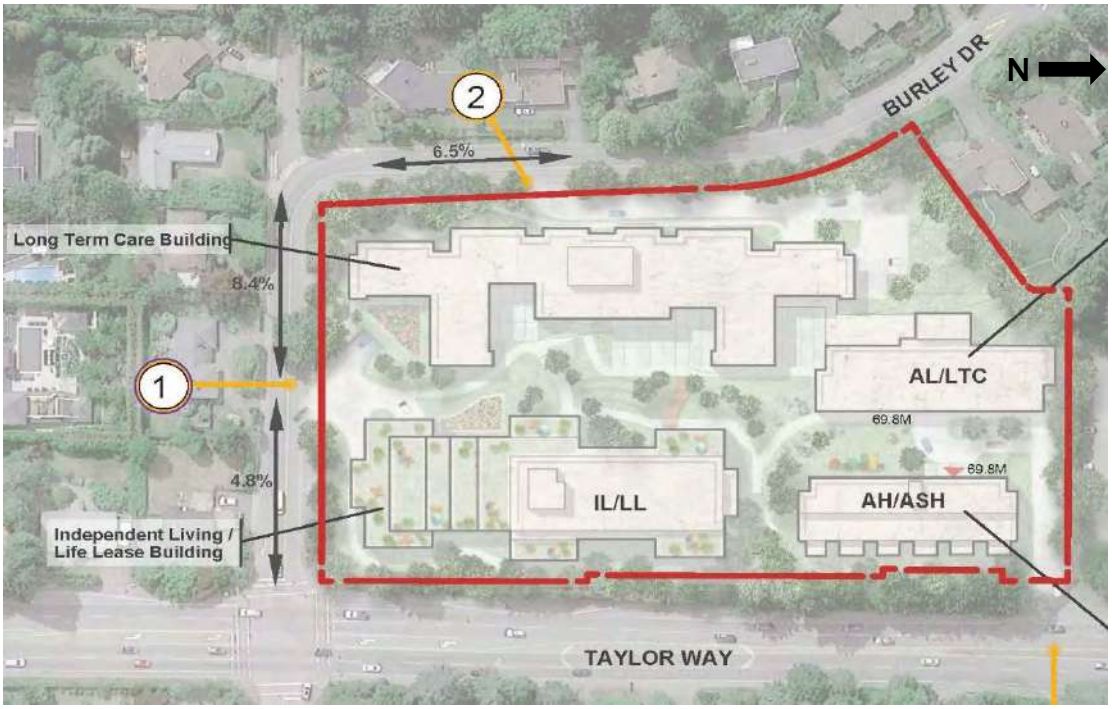
Due to the steep terrain in West Vancouver, trucks, trailers or truck-tractor combinations in excess of 10,000 kg gross vehicle weight (GVW) are prohibited from travelling downhill on most streets. Figure 2.1 shows the prohibited routes (shown in red) in the vicinity of the Inglewood Care Centre site (shown in yellow). The illustration shows that downhill truck travel is prohibited on Inglewood Avenue adjacent to the site, but not permitted on Burley Drive.

Figure 2.1: Prohibited Downhill Truck Restrictions



A review of the road grades within the vicinity of the site was undertaken to inform decisions regarding truck access. **Figure 2.2** illustrates the existing grades at 3 key locations.

Figure 2.2: Road Grades Adjacent to Site



The key finding of this analysis are:

- A truck exiting to Inglewood Avenue eastbound from the current proposed access location would encounter a downhill grade of 4.8%;
- A truck exiting to Inglewood Avenue eastbound from an access at Burnley Drive would encounter a 6.5% downhill grade along Burley Drive and a 8.4% downhill grade along Inglewood Avenue; and,
- If a truck were to exit to Burley Drive northbound, as would be required by the restricted downhill truck routes shown in **Figure 2.1**, it would need to travel over 2 km through residential neighbourhoods to reach the 15th Street Interchange and return to the truck routes.

Given these findings, the impact of trucks exiting the site at the proposed location along Inglewood Avenue is not a concern from the perspective of heavy trucks on steep downhill segments. Conversely, if exiting to Inglewood Avenue eastbound was permitted, the access along Burley Drive would either lead directly to vehicles travelling on steep downhill grades. If access to Inglewood eastbound was not permitted, it is likely that many truck drivers would ignore this restriction given the substantial detour that would otherwise be required, and the short segment of road where they would be ignoring the restrictions.

2.2 Traffic Circle at Burley Drive & Inglewood Avenue

Along with the note from DWV regarding removing the exiting truck movements off Inglewood Avenue, there were several comments related to a traffic circle at Burley Drive & Inglewood Avenue:

- *"Traffic circle impractical at this location, interferes with bike and pedestrian movement"*
- *"While traffic circles are used successfully as intersection treatments, DWV has a history of complaints of residents misusing traffic circles. For DWV, traffic circles are not a popular intersection treatment"*
- *"Truck turning movements should be accommodated on the site"*

These comments were in reference to an illustration by ZGF, the project architects, in an early site circulation analysis. The illustration, shown in **Figure 2.1** below, was to demonstrate potential traffic calming features.

Figure 2.1: Traffic Circle Illustration

Although this exhibit shows a truck exiting the site and circulating around the traffic circle, it is only an illustration of an additional option that would be available to trucks if the traffic circle were in place. This is not a requirement to accommodate trucks exiting from the site at this location. Without the traffic circle trucks would simply turn directly left out of the site.

2.3 Truck Exiting Manoeuvres

The largest vehicles anticipated to access the site are consistent with a WB-12 design vehicle, which is representative of a small tractor-trailer. **Exhibit 2.1** tests the outbound truck manoeuvre from the proposed truck exit on Inglewood Avenue eastbound. As seen in the exhibit, there are no issues with the WB-12 design vehicle making this turn.

Exhibit 2.2 illustrates the WB-12 truck exiting manoeuvres from the Burley Drive exit location recommended by DWV, with turning paths shown for both the left and right turns to Burley Drive. As seen in the exhibit, the exiting manoeuvre to Burley Drive northbound (which is the only manoeuvre permitted by the current restrictions) is infeasible with the current access configurations. Substantial modifications would be required to the overall design of the site to accommodate this manoeuvre. The exiting manoeuvre to Burley Drive southbound, while feasible, would require the removal of the on-street parking on the west side of the road adjacent to the site. As previously noted, this turn would also require the truck to drive downhill on steep segments of Burley Drive and Inglewood Avenue.

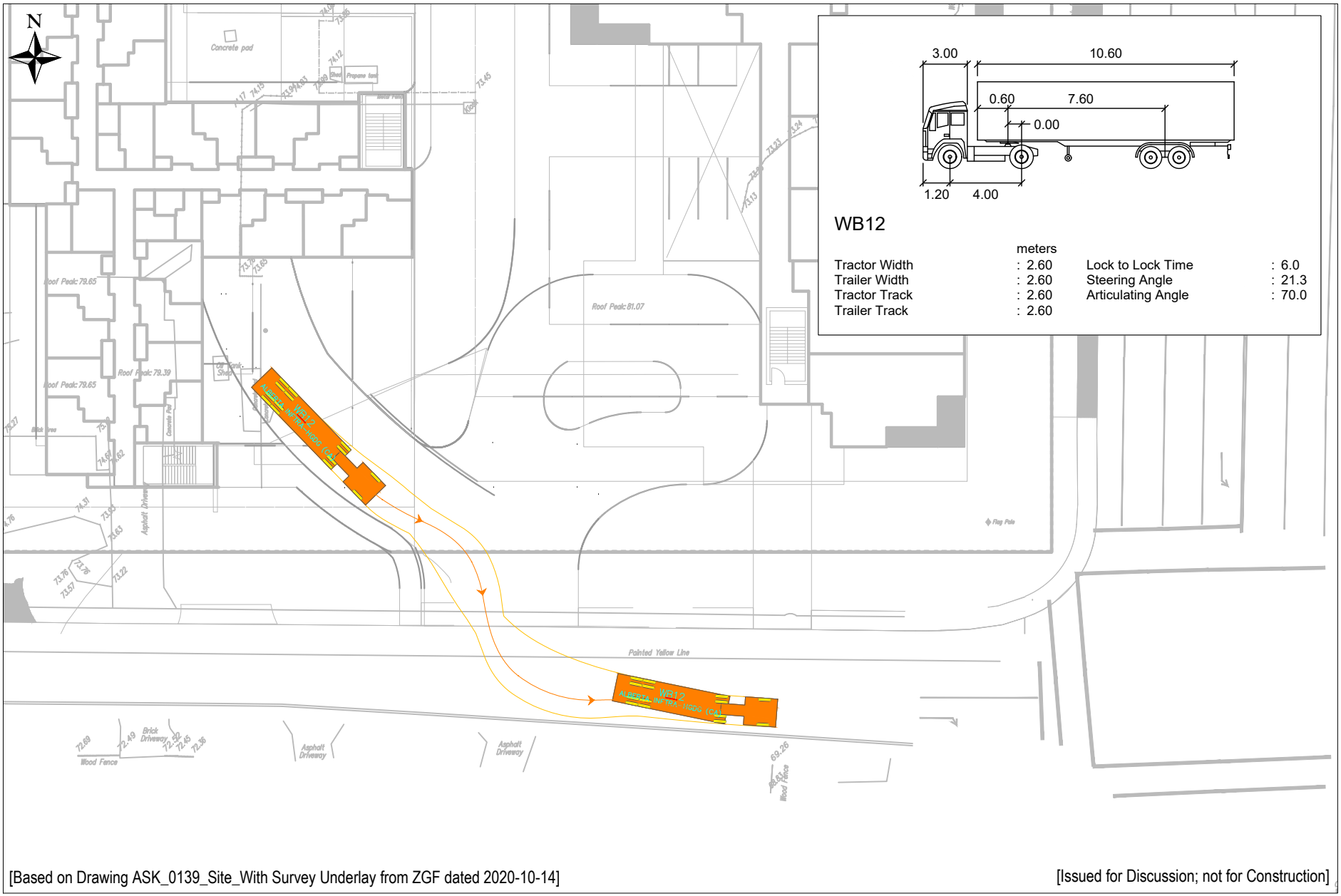
Exhibit 2.3 illustrates truck exiting manoeuvres at the right-in/right-out only Taylor Way access which is proposed under all scenarios.

2.4 Single Truck Exit at Taylor Way

One potential strategy is to only allows trucks to exit the site to Taylor Way at the southbound right-in/right-out access. The issues with this strategy are:

- The Taylor Way access would not be accessible during the first phase of the development because of the location of the existing building, so a secondary access would be required in the interim condition regardless;
- The loading court on the west site of the site has been designed to accommodate southbound entry and exiting manoeuvres. This would no longer be feasible unless a turnaround that could accommodate WB-12 was provided.

For the reasons outlined in this memo, the truck exiting manoeuvres on the Inglewood Avenue are not seen as a significant issue. Given this, along with the reasons outlines above, it is not recommended to modify the site plan to shift all exiting truck manoeuvres to Taylor Way at full build-out.



[Based on Drawing ASK_0139_Site_With Survey Underlay from ZGF dated 2020-10-14]

[Issued for Discussion; not for Construction]

Exhibit 2.1

WB-12 Exiting Manoeuver at Inglewood Avenue

Inglewood Care Centre

04-20-0028 October 2020 Scale 1:500 on Letter Prepared by NB

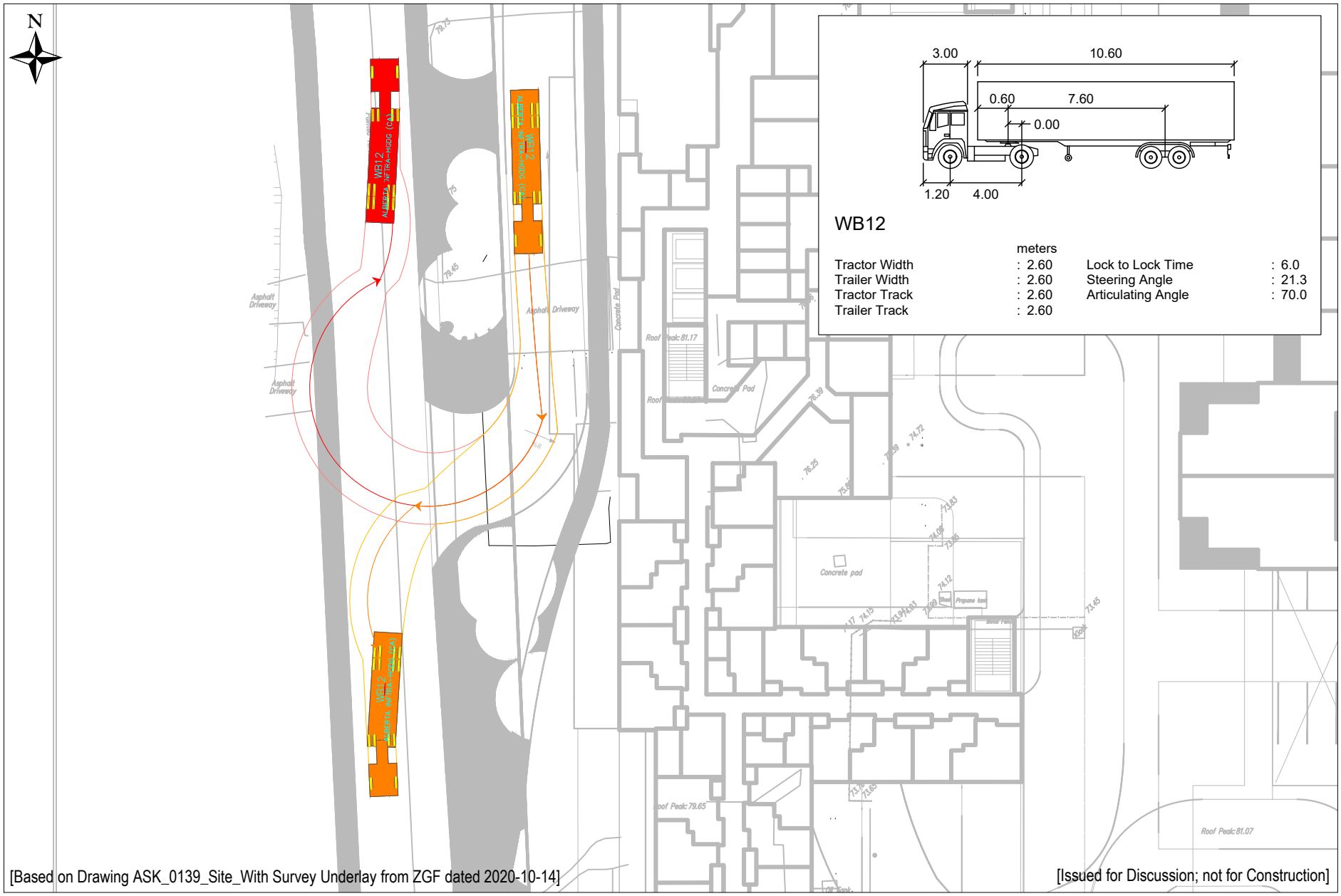


Exhibit 2.2

WB-12 Exiting Manoeuver at Burely Drive

Inglewood Care Centre

04-20-0028 October 2020 Scale 1:500 on Letter Prepared by NB

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2020/10/15 16:12, Plotted by Nathan Birk

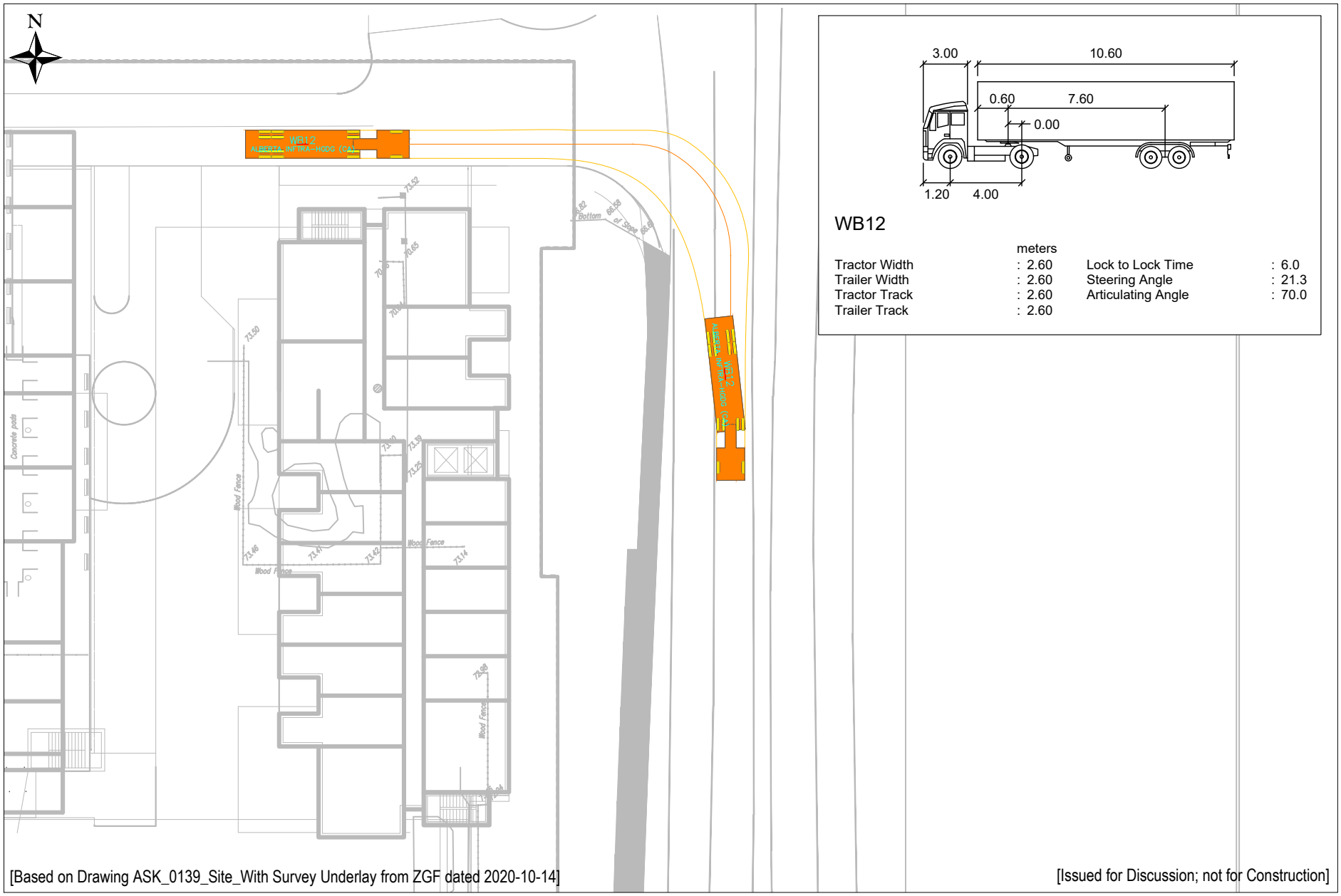

Exhibit 2.3

WB-12 Exiting Manoeuver at Taylor Way

Inglewood Care Centre

04-20-0028 October 2020 Scale 1:500 on Letter Prepared by NB

3. TRAFFIC VOLUME CONSIDERATIONS

3.1 Anticipated Truck Traffic Volumes

The existing Inglewood Care Centre site receives approximately 5 loading events per week for food delivery and medical supplies, as well as 2 waste collection events. This translates to 1 – 2 trucks per day, given that they only come on weekdays. With the proposed expansion, 3 additional deliveries and 1 additional waste collection event are expected each week based on the operations of the site. This equates to approximately 2 trucks exiting the site each weekday, which is a negligible impact.

These loading and waste collection operations typically occur during the weekday AM period, while the regularly occurring queueing issues along Taylor Way which can spill back onto Inglewood occur during the weekday PM peak period. In the event where a truck needs to exit the site and queue has formed on Inglewood Avenue, the truck could wait on site until the queue clears or there is a sufficient gap to enter, which is the same as would be required of any other vehicle. Alternatively, the truck could exit the site to Burley drive westbound and continue along to 15th Street to reach the Highway 99 interchange.

3.2 Truck Traffic on Residential Streets

The proposed access locations for trucks minimizes the amount of additional truck traffic on residential streets. By shifting the location for exiting trucks to Burley Drive, the impact to the residential neighbours to the west and southwest of the site will be increased. Although truck traffic volumes are anticipated to be very low, when they are present they would be mixing with residential traffic on a narrow sharply curved downhill segment of road with several residential accesses along it. The current proposed access locations keep large trucks off this challenging segment of road.

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

- With the proposed truck exit location on Inglewood Avenue, trucks travel along a maximum downhill grade of 4.8%. With the exit of Burley Drive and recommended by DWV, trucks would need to either travel along a maximum downhill grade of 8.4% to reach Inglewood Avenue & Taylor Way, or travel 2 km (potentially out of direction) through residential neighbourhoods to reach the 15th Street & Highway 99 interchange.

- A traffic circle at Inglewood Drive & Burley Avenue is not required to allow for trucks to exit at the proposed location. It was previously illustrated as a potential traffic calming measure.

- The selected WB-12 design vehicle can turn from the proposed access location to Inglewood Avenue eastbound without any issues. If the trucks were to exit onto Burley Drive southbound, the on-street parking on the west side of Burley Avenue would need to be removed to accommodate the vehicle paths. Substantial modifications to the overall site plan would be required to allow the trucks to exit to Burley Drive northbound.

- Restricting truck exiting movements to Taylor Way only is not feasible during Phase 1 of the development. Although this could become feasible at full buid-out, it would require redesigning the loading court on the west side of the site.

- At full-build out of the development, approximately 2 exiting truck trips per weekday day are anticipated. These will typically occur during the AM when queueing issues along Taylor Way and Inglewood Avenue are not typically an issue.

- Shifting the truck exit to Burley Drive would have a greater impact on the residential neighbours to the west and southwest of the site and would require large trucks mixing with residential traffic on a narrow sharply curved downhill segment of road with several residential accesses along it.

4.2 Recommendations

- It is recommended that the proposed truck exiting location at Inglewood Avenue be reconsidered by the District of West Vancouver as an appropriate and safe location.

APPENDIX C

Taylor Way Access Review

MEMO

DATE: January 11, 2021
PROJECT NO: 04-20-0028
PROJECT: Inglewood Campus of Care Redevelopment
SUBJECT: Taylor Way Access Review

TO: Andrew Thompson
ZGF Architects

PREPARED BY: Matt Taylor, P. Eng. M. Eng, PTOE
REVIEWED BY: Peter Joyce, P. Eng.

1. INTRODUCTION

Baptist Housing has recently acquired the Inglewood Care Centre at 725 Inglewood Avenue in the District of West Vancouver. The site is located at the corner of Inglewood Avenue & Taylor Way, and extends west to Burley Drive, as shown **Exhibit 1.1**. The 235 bed seniors' care facility has been in operation for nearly 60 years and Baptist Housing is now proposing a comprehensive redevelopment of the entire site to feature the following located in several new buildings. **Exhibit 1.2** illustrates the proposed site plan. The size of the proposed development is summarized in **Table 1.1.**

Table 1.1: Proposed Development

FACILITY TYPE	DENSITY
Long Term Care	253 beds
Assisted Living	103 beds
Independent Living / Life Lease	195 units
Affordable Seniors Housing	48 units
Team Members & Workforce Housing	107 units
Child Daycare	50 spaces
TOTAL	356 BEDS & 350 UNITS & 50 DAYCARE SPACES

Three vehicle access are proposed on site: one on Burley Drive, one on Inglewood Avenue, and a right-in/right-out only access on Taylor Way. These accesses minimize pressure at any one access point and facilitate an efficient on-site circulation, particularly for the larger delivery trucks which are planned to utilize the Inglewood and Taylor Way accesses. The planned Taylor Way access will be combined with the existing access to the Congregation Har El, the Centre for Jewish Life on the North Shore (Har El). This also serves as a fire lane access to the existing Inglewood Care Centre and is located on its property.

Exhibit 1.1

Site Location

Inglewood Care Centre

04-20-0028 January 2021

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Exhibit 1.2
Site Plan

Inglewood Care Centre
04-20-0028 January 2021

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2. EXISTING CONDITIONS

The existing Taylor Way access is located approximately 100 metres south of the signalized intersection of the eastbound on and off-ramps to the Highway 99 & Taylor way Interchange, and 200 metres north of the signalized intersection at Taylor Way & Inglewood Avenue. The access is restricted to right-in/right-out movements only both through a physical medial along Taylor Way, and a painted channelizing island at the access. **Figure 2.1** shows the configuration of the existing access.

Figure 2.1: Existing Taylor Way Access Looking Southbound

The access is located along an uphill grade of approximately 4%. A brake check is located 60 metres downstream of the access, in advance of the southbound downhill section of Taylor Way leading toward Marine Drive.

At present, the access serves vehicle traffic coming to and from Har El (along with providing access to the fire lane along the north side of the Inglewood Care Centre). Several uses are located at the Har El Jewish Centre including the Congregation, a Child Daycare, a Montessori School, and a Hebrew School.

To document the existing traffic conditions, traffic data was collected at the Taylor Way site access. The counts were conducted on Tuesday November 10th, 2020 from 7:00 – 10:00 AM and from 2:30 – 6:30 PM. This date and study period were selected as all uses located on site were opened during this time. It was also confirmed prior to conducting the count that the uses located on site were operating at normal capacity and with a normal event schedule. This was important to ensure given the current Covid-19 pandemic. It was also observed that the Har El parking lot was full or nearly full at peak times. **Table 2.1** summarizes the data collection information

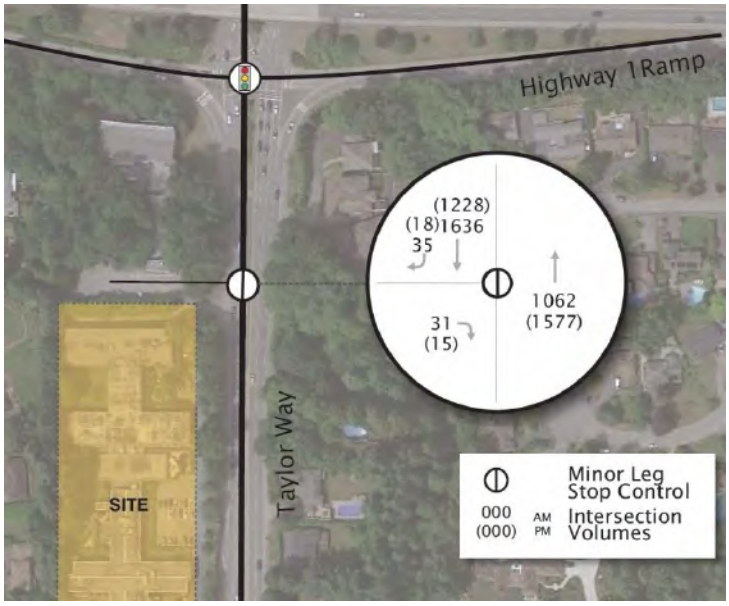
Table 2.1: Summary of Available and Counted Traffic Data

INTERSECTION	SOURCE	DATE OF COUNT	PEAK HOURS	
			AM	PM
Taylor Way & Har El Access	Bunt	2020-11-10	8:30 - 9:30	2:30 – 3:30
Taylor Way & Inglewood Ave	Bunt	2020-01-22	8:00 - 9:00	2:30 – 3:30
Burley Dr & Inglewood Ave	Bunt	2020-01-22	8:00 - 9:00	2:30 – 3:30
Taylor Way Highway 1 Interchange	MoTI	2017-02-28	8:00 - 9:00	2:30 – 3:30
OVERALL STUDY AREA PEAK HOUR			8:00 – 9:00	2:30 – 3:30

The peak period for the on-site uses at Har El roughly coincided with the peak hours for the overall study area, and therefore the overall study area peak was utilized in this analysis.

Figure 2.2 illustrates the existing peak period traffic utilizing this access.

Figure 2.2 Existing Peak Period Traffic Volumes



The existing volumes at the access equate to roughly one vehicle every minute on average during the AM peak hour, and one vehicle every 2 minutes during the PM peak hour.

3. FUTURE TRAFFIC VOLUMES

The redevelopment of the Inglewood Care Centre site, along with the planned use of the existing Taylor Way access for general purpose vehicle traffic, would result in additional traffic using the Taylor Way site access. To estimate the amount of additional traffic using this access, vehicle trip generation, distribution, and assignment patterns were estimated for the proposed development.

Table 3.1 summarizes the proposed trip generation rates for each component of the proposed development. These rates were previously discussed with MoTI and agreed upon, based on the information provided by Bunt in the September 2, 2020 *Proposed Trip Generation and Background Growth Rates* Memo. Since this time, a child daycare has been added to the planned redevelopment of the Inglewood Care Centre. The rates used for this land use are also provided below, which are based on the trip rates from the Institute of Transportation Engineers (ITE) Trip Generation Database.

Table 3.1: Vehicle Trip Generation Rate Summary

FACILITY TYPE	TRIP RATE CATEGORY	UNITS	AM PEAK HOUR			PM PEAK HOUR		
			IN	OUT	TOTAL	IN	OUT	TOTAL
Long Term Care Assisted Living	Assisted Living / Long Term Care	Beds	0.12	0.07	0.19	0.09	0.16	0.25
Independent Living / Life Lease Affordable Seniors Rental Housing	Independent Living / Seniors Housing	Units	0.07	0.13	0.20	0.14	0.12	0.26
Team Members & Workforce Housing	Multi-Family Housing	Units	0.02	0.18	0.20	0.13	0.05	0.18
Child Daycare	Day Care Centre	Children	0.43	0.35	0.78	0.37	0.42	0.79

Table 3.2 calculates the anticipated trip generation for the site based on the above rates.

Table 3.2: Peak Hour Vehicle Trip Generation

NAME	DENSITY	AM PEAK HOUR			PM PEAK HOUR		
		IN	OUT	TOTAL	IN	OUT	TOTAL
Long Term Care	235 beds	30	18	48	48	15	63
Assisted Living	103 beds	10	10	20	17	19	26
Independent Living / Life Lease	195 units	14	25	39	27	24	51
Affordable Seniors Rental Housing	48 units	4	6	10	7	6	13
Team Members & Workforce Housing	107 units	2	19	21	14	5	19
Daycare	50 children	21	18	39	19	21	40
TOTAL		81	96	177	132	90	212

The proposed development is anticipated to generate approximately 180 vehicle trips during the AM peak period and 210 vehicle trips during the PM peak period. These new vehicle trips associated with the proposed development were distributed and assigned to the site accesses and road network based on existing turning movements and travel patterns observed within the study area, along with engineering judgement considering logical routings. **Exhibit 3.1** illustrates the site traffic forecasts for the proposed Inglewood Care Centre redevelopment.

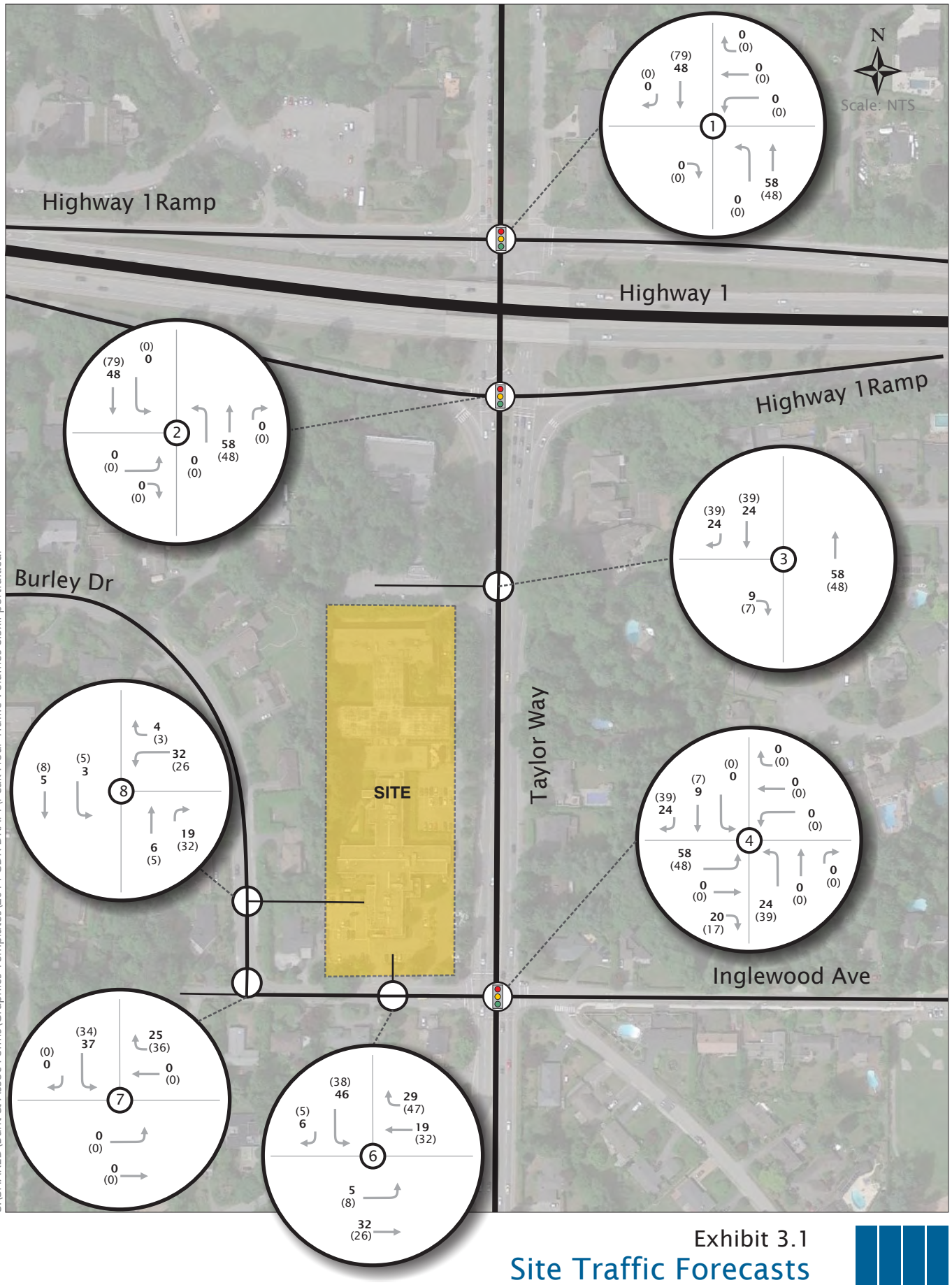


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Exhibit 3.1

Site Traffic Forecasts

Inglewood Care Centre
04-20-0028 January 2021

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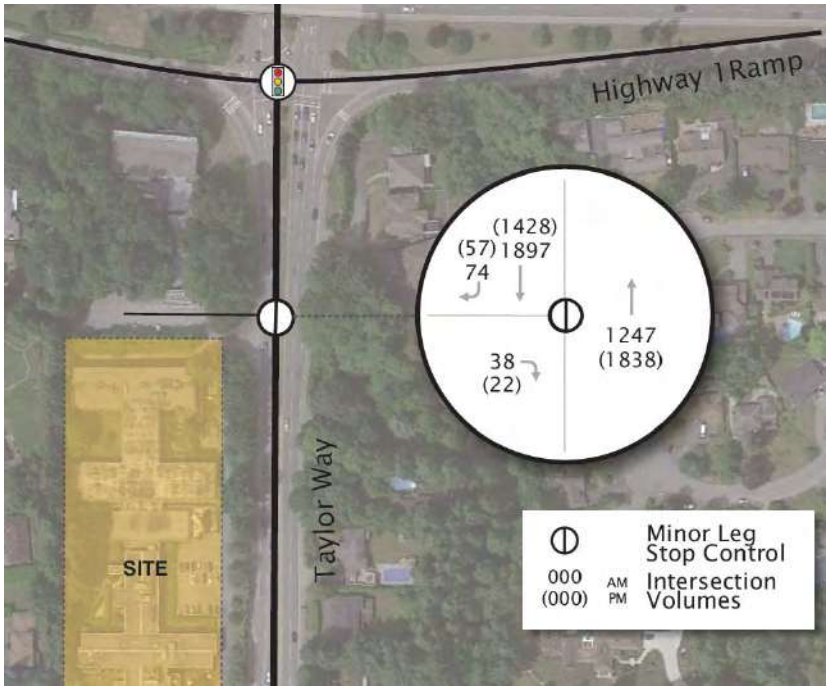
An additional 33 peak hour vehicle trips are anticipated at the Taylor Way site access during the AM peak period, and 46 vehicle trips during the PM peak period. This equates to roughly one additional vehicle every 1-2 minutes on average during the weekday AM and PM peak traffic periods on Taylor.

Figure 3.1 illustrates the anticipated future (Year 2034) peak period traffic utilizing this access. The turning volumes to and from the Taylor Way access are based on the combination of the existing Har El and site forecasted traffic. The through traffic volumes were based on existing traffic count data and an assumed 1.1% per annum linear traffic growth rate.

Figure 3.1 Future (2034) Peak Period Traffic Volumes



The development proposed using this access to the site for trucks, along with the access at Inglewood Avenue. At full-build out of the development, approximately 2 truck trips to and from the site are anticipated each weekday. The largest vehicles anticipated are approximately equivalent to the WB-12 design vehicle, which is a 15m long tractor-trailer. Based on the proposed site plan, the Taylor Way access will serve as the primary entry point for this site, while truck existing will primarily take place at the Inglewood Avenue access.

4. TRAFFIC OPERATIONS

The operations of the Taylor Way access point were assessed using the methods outlined in the 2000 Highway Capacity Manual (HCM), using the Synchro 9 analysis software (Build 915). The traffic operations were assessed using the performance measures of Level of Service (LOS) and volume-to-capacity (V/C) ratio. HCM 2000 outputs for V/C are reported. The Level of Service (LOS) are based on SimTraffic estimated delays, and the 95th Percentile Queues are also reported as estimated by SimTraffic.

Table 4.1 summarizes the existing traffic conditions at the Taylor Way site access.

Table 4.1 Existing Traffic Operations

INTERSECTION/ TRAFFIC CONTROL	MOVEMENT	AM			PM		
		LOS	V/C	95TH Q (M)	LOS	V/C	95TH Q (M)
	EBR	A	0.12	16	A	0.04	12
	SBR	A	0.37	0	A	0.27	0

The anticipated future traffic conditions at the Taylor Way site access are summarized in **Table 4.2**.

Table 4.2: Future (Year 2034) Traffic Operations

INTERSECTION/ TRAFFIC CONTROL	MOVEMENT	AM			PM		
		LOS	V/C	95TH Q (M)	LOS	V/C	95TH Q (M)
	EBR	A	0.19	16	A	0.07	13
	SBR	A	0.44	0	A	0.34	0

As seen in the previous tables, the access is anticipated to operating with no capacity, queueing, or LOS issues, including with the addition of site generated traffic from the Inglewood Care Centre redevelopment.

5. TRANSPORTATION DESIGN

One potential transportation design consideration for the Taylor Way access is the spacing to the upstream signalized intersection at the Highway 1 eastbound ramp junction with Taylor Way, and the downstream Taylor Way intersection with Inglewood Avenue. Spacing guidelines between intersections and accesses are recommended by the Transportation Association of Canada's *Geometric Design Guidelines for Canadian Roads* (TAC). **Table 5.1** indicates these guidelines along with the measured spacing distances. The guidelines are based on the requirements for a divided arterial road. These measurements are measured between road edge to road edge as illustrated in TAC. The measured distances exceed the TAC minimum spacing guidelines.

Table 5.1: Intersection and Access Spacing

SPACING	TAC GUIDELINE	MEASURED DISTANCE
Taylor Way at Eastbound Off-Ramp to Har El/Inglewood Care Centre Access	70 metres	100 metres
Har El/Inglewood Care Centre Access to Inglewood & Taylor Way	70 metres	200 metres

Another potential transportation design concern is sight distance between the right-turns for exiting traffic and southbound through traffic. Sight distance is provided at intersections to allow drivers of stopped vehicles a sufficient view of the intersecting roadway to decide when to enter the intersection roadway. If the available sight distance for an entering vehicle is at least equal to the appropriate stopping sight distance for the major road, then drivers have sufficient sight distance to anticipate and avoid collisions. However, in some cases, a major-road vehicle may need to stop or slow to accommodate the maneuver by a minor road vehicle.

The minimum sight distance criteria for vehicles approaching an intersection is stopping sight distance (SSD) based on design speed, however, to enhance traffic operations, intersection sight distances (ISD) that exceed stopping sight distance are desirable along the major road. ISD is adequate when it allows the design vehicles to safely make all the maneuvers that are permitted by the layout (e.g., left turns, right turns, through moves), without significantly affecting vehicles travelling on the main roadway.

Table 5.2 indicates the TAC SSD and ISD guidelines, which are based on a 50 km/h design speed and a +4% road grade.

Table 5.1: Intersection and Access Spacing

SIGHT DISTANCE TYPE	TAC GUIDELINE
Stopping Sight Distance (SSD)	61m
INTERSECTION SIGHT DISTANCE (ISD)	91M

Exhibit 5.1 illustrates the stopping sight distance and intersection sight distance guidelines at the Taylor Way access.