



Green Ginger Developments Inc.

Green Ginger Phase 2 Transit Facilities Plan

September 2016



September 6, 2016

Mr Eddy Chan
Project Manager
Green Ginger Development Inc.
3751 Victoria Park Avenue
Toronto, ON M1W 3Z4

Our ref: 2820785

Dear Mr Chan,

**RE: Transit Facilities Plan
Green Ginger Phase 2 Residential Subdivision
Northwest Corner of Dundas Street and Trafalgar Road
Oakville, Ontario**

GHD is pleased to submit the enclosed Transit Facilities plan for submission to the Town's review team to verify that the draft plan of subdivision will conform to the Town's Transit Plan at the initial phase of development, and all subsequent phases up to the ultimate build-out of the development.

We trust the enclosed is sufficient for your needs, but please do not hesitate to contact the undersigned should you require any additional assistance.

Sincerely
GHD Ltd.

Michael Dowdall, C.Tech.
Transportation Planner
905 814 4368

William Maria, P.Eng.
Transportation Engineer
905 814 4397



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1. Introduction

Green Ginger Development Inc. is filing a draft plan of subdivision application for the Green Ginger Phase 2 Development located in the northwest quadrant of Dundas Street East and Trafalgar Road in the Town of Oakville, see **Figure 1**. These lands form part of the North Oakville Secondary Plan.

GHD was retained by Green Ginger Developments Inc. to prepare a Transit Facilities Plan for Phases 2 to confirm that the proposed subdivision development is consistent with the Town's transit plan for North Oakville.



Green Ginger Developments Inc.
Green Ginger Phase 2
Transit Facilities Plan

Job Number 28-20785
Revision A
Date August 2016

Figure 01

Site Location

2. Site characteristics

2.1 Site environs

Figure 2 shows the preliminary draft plan of subdivision dated February 23, 2016. Currently the subject lands are primarily agricultural. Surrounding the subject lands are the Green Ginger Phase 1 and Oakville development lands located west of Morrison Creek and east of Trafalgar Road respectively, with connections to the subject development via Street 'A' and Street 'B'. The lands on the south side of Dundas Street are built-out with a mix of residential and commercial uses.

The proposal is to develop approximately 757 townhouse units and approximately 880 mid-rise condominium units. The Green Ginger Phase 2 lands are designated within the Town of Oakville's Official Plan (February 2008) as an urban residential area and are proposed to be developed and marketed as part of the Trafalgar Road Urban Core Area (TRUCA).

2.2 Road system

The internal road system currently shows a modified layout from that contained in the North Oakville East Secondary Plan resulting in a discontinuous north-south Avenue / Transit Corridor through the development. The draft plan of subdivision introduces an alternative to the North Oakville Secondary Plan's alignment of Ernest Appelbe Boulevard. The alternative Ernest Appelbe Boulevard is proposed to terminate at a Street 'B' T-intersection and extend northerly from Street 'B' as Street 'C' through future development north of the site with a connection to the future New North Oakville Transportation Corridor (NNOTC). Street 'B' intersects Street 'C' and Ernest Appelbe Boulevard approximately 150 metres and 590 metres west of Trafalgar (centreline to centreline) respectively.

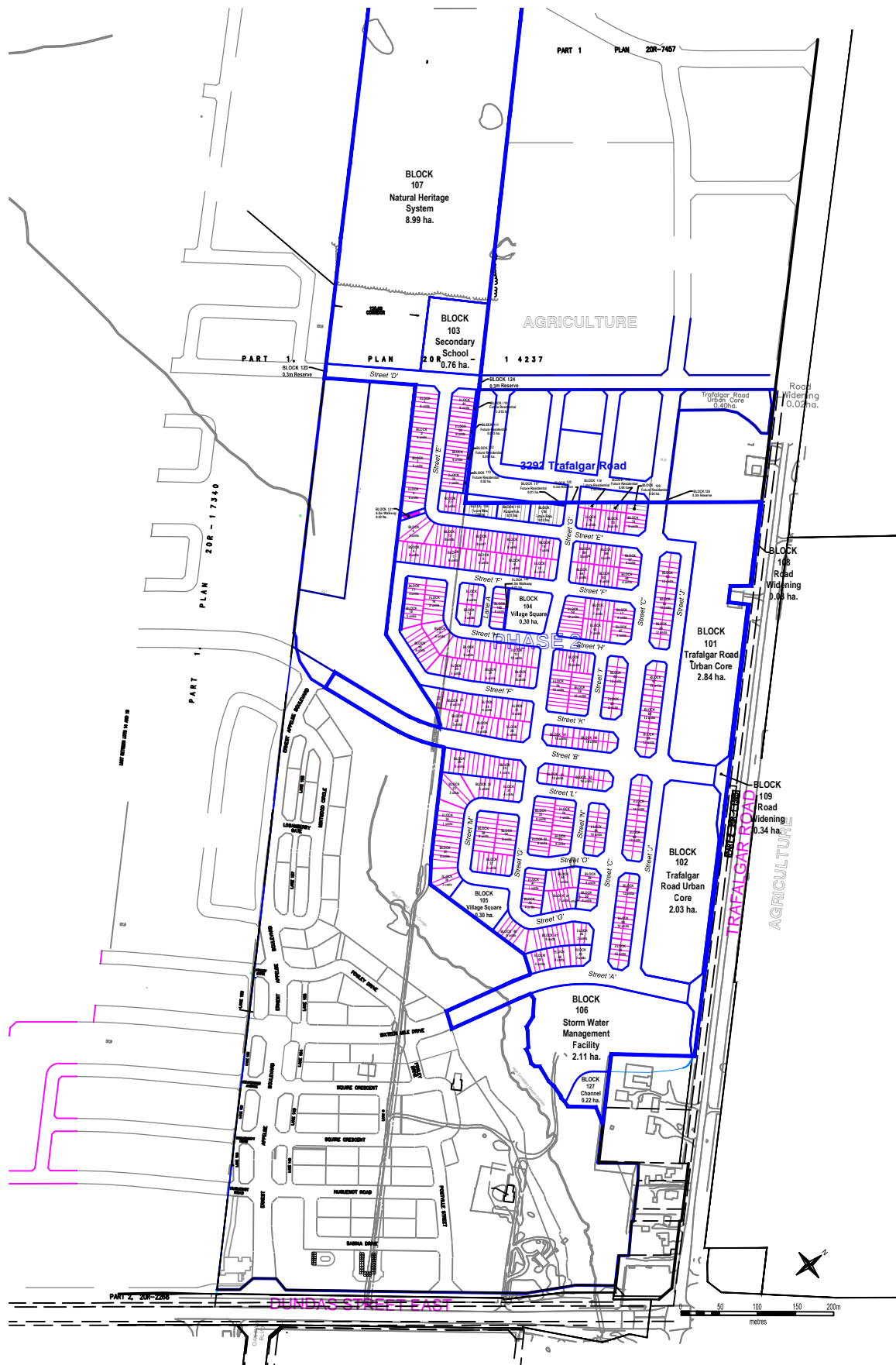
The subdivision has one connection to Dundas Street through the Green Ginger Phase 1 subdivision to the south, identified as Ernest Appelbe Boulevard, via Street 'A' and Street 'B'. Ernest Appelbe Boulevard is a north-south Avenue / Transit Corridor opposite Oak Park Boulevard that extends from Dundas Street to Street 'B'.

The subdivision proposes two connections to Trafalgar Road opposite proposed intersection within the subdivision east of Trafalgar Road, identified as Street 'A' and Street 'B'. Streets 'A' and 'B' are both east-west roads with 24 metre R.O.W. that extend from Trafalgar Road to the subdivision's west boundary. Street 'A' is classified as an Avenue / Transit Corridor and Street 'B' is classified as a Connector / Transit Corridor. In the future, both transit corridors will extend through the entire North Oakville Secondary Plan.

The subdivision has one connection to the north property limit, identified as Street 'C'. Street 'C' is a north-south Avenue / Transit Corridor that extends from Street 'A' to the subdivision's north boundary. In the future, this transit corridor will extend through future development to the north and intersect with Burnhamthorpe Road and the New North Oakville Transportation Corridor.

Street 'D' is an east-west Connector / Transit Corridor located in the northwest corner of the subdivision, south of the Natural Heritage System. Street 'D' will provide future connections to developments lands to the west and north of Phase 2. Future intersections external to the draft plan of subdivision include Street 'C' and Trafalgar Road.

Access to the Dundas Street and Trafalgar Road Urban Core blocks will be provided by internal local roads.



Draft plan of subdivision provided by Malone Given Parsons Ltd., dated February 23, 2016.



Green Ginger Developments Inc.
Green Ginger Phase 2
Transit Facilities Plan

Job Number | 28-20785
Revision | A
Date | August 2016

Draft Plan of Subdivision

Figure 02

6705 Millcreek Drive, Unit 1, Mississauga Ontario L5N 5M4 T 1 416 213 7121 F 1 416 890 8499 E info@ghdcanada.com W www.ghd.com

3. Transit streets

3.1 North Oakville East transit Plan

The North Oakville East Transportation Plan has identified transit routes that are intended to serve the new development north of Dundas Street. Within the Green Ginger lands, transit routes include the Oak Park Boulevard extension (Ernest Appelbe Boulevard) and Street 'C' in the north-south direction and Streets 'A', 'B' and 'D' in the east-west direction. Ernest Appelbe Boulevard intersects Street 'A' and Street 'B' approximately 350 metres and 850 metres north of Dundas Street (centreline to centreline) respectively. Street 'C' intersects Street 'A' and Street 'B' approximately 160 metres west of Trafalgar Road (centreline to centreline). With future development to the north, Street 'D' will intersect Street 'C' 160 metres west of Trafalgar Road. The North Oakville East Transportation Plan is appended.

Streets 'A', 'B' and 'C' have a right-of-way width of 24 metres with a pavement width of 14.5 metre and are classified as follows:

- Street 'A' is classified as an Avenue / Transit Corridor providing Secondary Transit Corridor Service;
- Street 'B' is classified as a Connector / Transit Corridor providing Community Service; and
- Street 'C' is classified as an Avenue / Transit Corridor providing Community Service

Street 'D' is classified as an Avenue / Transit Corridor and is proposed to provide Community Service. The right-of-way width is 19 metres with a pavement width of 9.5 metres.

Local services provide the highest degree of local access at the neighbourhood level. Some routes will be very similar to many of the existing local routes, operating at similar levels of service. These routes provide direct access to lower demand and existing areas, and operate on the network of arterial, avenue and connector roads. Transit riders will use these routes to access local destinations, such as schools or shopping, and as connections to the corridor routes for longer trips.

Secondary transit corridors provide high level of service, operate on the grid network of streets and provide cross-boundary connections.

Transit stop facilities will be located in the 4.75 metre boulevards on the Avenue / Transit and Connector / Transit Corridors.

Trafalgar Road and Dundas Street are classified as Major Arterial / Transit Corridors and proposed to provide bus-way corridor service. The mid-block right-of-way width is 50 metres with a pavement width of 28.4 metres; two travel lanes and one bus only lane in each direction. The boulevard width on each side varies. Transit stop facilities will be located in the boulevards.

All units in the subdivision are located less than 150 metres from the Transit Corridors which define the planned transit service routes. Samples of the North Oakville roadway cross-sections planned within the subdivisions transit routes are appended.

3.2 Existing transit services

Oakville Transit

Oakville Transit operates four transit routes south of the site with bus stops located at the Uptown Core Bus Terminal. Although these routes currently extend beyond the minimum 400 metres

walking distance of an existing transit stop, the North Oakville East Transportation Plan has identified transit routes within the draft plan that are intended to serve the new development north of Dundas Street with connections the existing transit routes below.

Route #1 (Trafalgar) provides north-south service through the City of Oakville with 20-minute frequency during the weekday and weekend peak hours. The route provides service to/from the Oakville GO Station to the Uptown Core Bus Terminal.

Route #5 (Dundas) provides east-west service along Dundas Street with 40-minute frequency during the weekday and weekend peak hours. The route provides service to/from the Bronte Road / Dundas Street intersection to the Uptown Core Bus Terminal.

Route #19 (River Oaks) provides north-south through Oakville's Sunningdale neighbourhood with 20-minute frequency during the weekday peak hours, and 30-minute frequency during the weekend peak hours. The route provides service to/from the Oakville GO Station to the Uptown Core Bus Terminal.

Route #20 (Northridge) provides north-south through Oakville's Trafalgar neighbourhood with 20-minute frequency during the weekday peak hours, and 60-minute frequency during the weekend peak hours. The route provides service to/from the Oakville GO Station to the Uptown Core Bus Terminal.

Route #24 (South Common) provides north-south through Oakville's Trafalgar neighbourhood with 20-minute frequency during the weekday peak hours, and 30-minute frequency during the weekend peak hours. The route provides service to/from the Oakville GO Station to the South Common Mall (Mississauga).

GO Transit

GO Transit operates two routes along Trafalgar Road with a stop north of the Dundas Street intersection, within 400 metres of the planned Sixteen Mile Drive intersection at Trafalgar Road.

Route #20 (Milton/Oakville) provides north-south service along Trafalgar Road with 60-minute frequency during the weekday peak hours from the Milton GO Station to the Oakville GO Station. There is no scheduled weekend bus service for this route.

Route #46 (407 West) provides east-west service via Trafalgar Road with 30-minute frequency during the weekday peak hours. The route provides service to/from the Oakville GO Station to York University. There is no scheduled weekend bus service for this route.

3.3 Bus Rapid Transit (BRT)

Halton Region with the City of Burlington and the Town of Oakville is carrying out a study to consider Bus Rapid Transit (BRT) within Burlington and Oakville along Dundas Street and Trafalgar Road. The study provides an opportunity to develop improvements along both major arterials and other transit supportive corridors so that people living or working in Halton Region have a better alternative to automotive travel.

The proposed infrastructure improvements will provide exclusive transit lanes on Dundas Street from Brant Street to Trafalgar Road, and on Trafalgar Road from the Oakville GO Station to the Oakville Highway 407 carpool lot. Curb BRT is preferred over Median BRT as it would provide slightly better BRT travel time and better integration with local transit services.

The Trafalgar BRT Corridor study identifies potential far-side curb BRT stations at Street 'A' and Street 'B' on each side of Trafalgar Road.

The Dundas BRT Corridor study identifies the closest potential BRT station at Ernest Appelbe Boulevard / Oak Park Boulevard.

4. Transit stops

4.1 Bus stop type

Based on the warrants for bus stop levels of amenities such as; boarding volumes, transfer locations, land use activity type, type of road and wait time, stop types A-Sheltered Info, C-Comfort and D-Basic transit stops are warranted for this area.

A Type D-Basic bus stop should provide the following standard amenities:

- Sign and post;
- Route designation;
- Route schedules;
- Route map(s); and
- Wheelchair landing pad

A Type C-Comfort bus stop should provide the same as a Type D-Basic plus a potential bench.

A Type A-Sheltered Info bus stop should provide the same as a Type C-Comfort plus a shelter, standard bench, lighting and power pedestal.

The minimum physical space requirement for Types D, C and A are 2.10, 2.85 and 4.00 metres, respectively, from the front of curb, including the sidewalk, which can be accommodated within the 4.75 metre boulevard that is available on the roads. No additional property is required to provide the described bus stops. Recommended bus stop type exhibits are appended.

4.2 Street 'A'

The street distance between Trafalgar Road and the west limit of the subdivision along Street 'A' is approximately 350 metres. This transit corridor would provide secondary transit corridor service with connections to primary and community transit corridors with 7-10 minute service frequency.

East-west transit stops along Street 'A' are proposed to be located at Trafalgar Road (both sides), and east of the Morrison Creek crossing (both sides).

4.3 Street 'B'

The street distance between Trafalgar Road and the west limit of the subdivision along Street 'B' is approximately 600 metres. This transit corridor would provide community (local) service with connections to primary and secondary transit corridors with 15-30 minute service frequency.

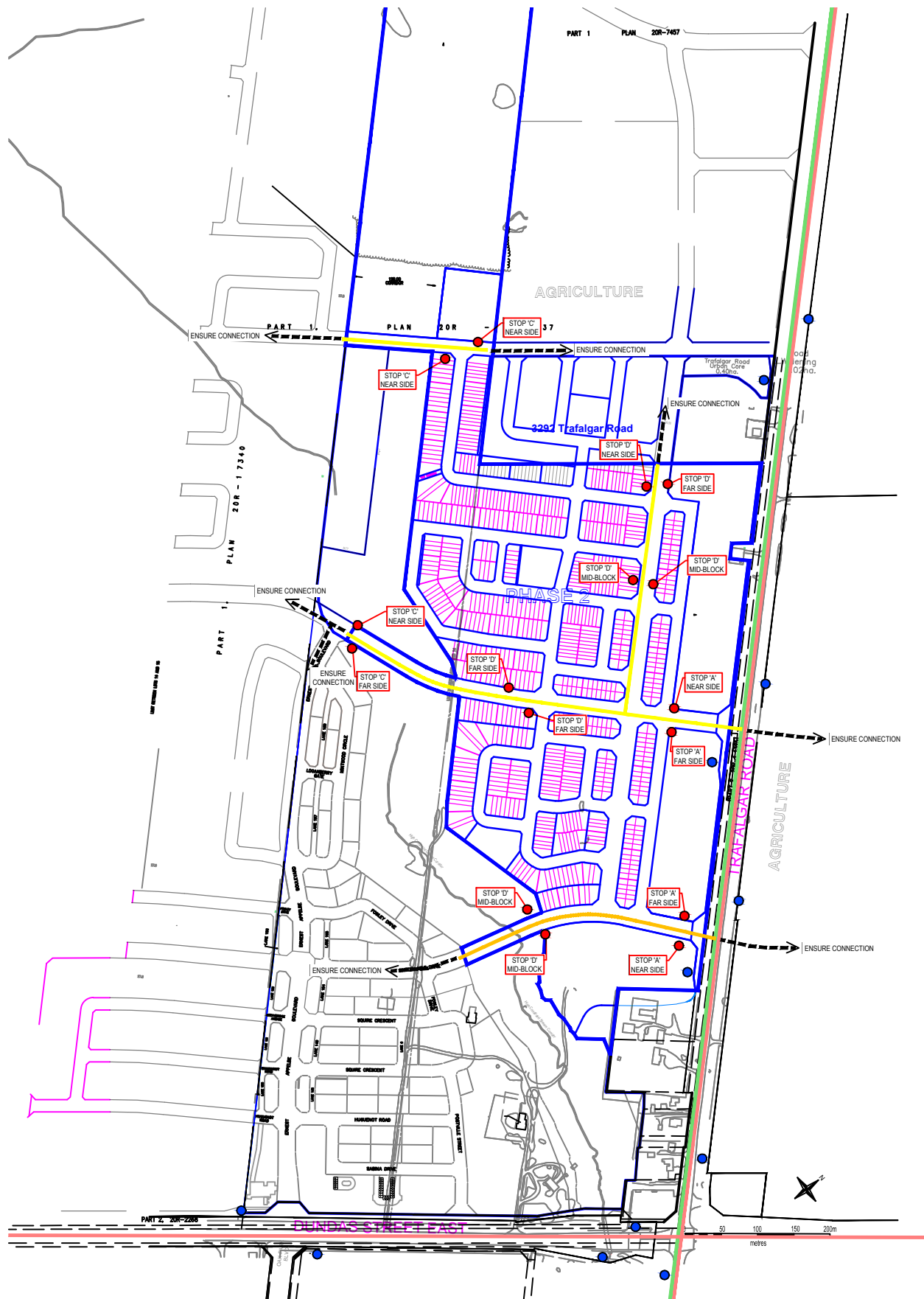
East-west transit stops along Street 'B' would be located at Street 'K' (both sides), Street 'G' (both sides) and Ernest Appelbe Boulevard (both sides).

4.4 Street 'C'

The street distance between Street 'B' and the north limit of the subdivision is approximately 350 metres. This transit corridor would provide community (local) service with connection to primary transit corridors and secondary transit corridors with 15-30 minute service frequency.

North-south transit stops along Street 'C' would be located at Street 'E' (both sides), and mid-block approximately 45 metres north of Street 'J' on both sides of the street.

Figure 3 shows the Functional Servicing Plan - Transit Stop Locations when full transit service is provided along the transit corridor roads. Spacing of transit stops range from 110 metres to 250 metres.



Draft plan of subdivision provided by Malone Given Parsons Ltd., dated February 23, 2016.

Legend

- Transit Stop
- Future BRT Stop
- Community Service
- Secondary Transit Corridor Service
- Future Busway Corridor
- GO Transit Service



NOT TO SCALE



Green Ginger Developments Inc.
Green Ginger Phase 2
Transit Facilities Plan
Functional Servicing Plan
Transit Stop Locations

Job Number | 28-20785
Revision | A
Date | August 2016
Figure 03

6705 Millcreek Drive, Unit 1, Mississauga Ontario L5N 5M4 T 1 416 213 7121 F 1 416 890 8499 E info@ghdcanada.com W www.ghd.com

5. Conclusions

The transit facilities plan has evaluated conditions for the Green Ginger Phase 2 lands. The long term transit plan utilizes one Avenue / Transit Corridor and two Connector / Transit Corridors in the east-west direction, and one Avenue / Transit Corridor in the north-south direction. These roads will form part of the continuous routes between Neyagawa Boulevard and White Oaks Golf Club (east-west), and between Dundas Street and the New North Oakville Transportation Corridor (north-south).

The Green Ginger Phase 2 development is located adjacent to Morrison Creek to the south, Trafalgar Road to the east and the future residential subdivisions to the west and north. This is consistent with the phasing objective of avoiding creation of lengthy transit routes with limited market.

The number of residential units is 1,637 made up of a mix of townhouse and condominium units. All units are located less than 400 metres from a Transit Corridor which defines the planned transit service routes. The proposed bus stops will be implemented at the maximum spacing of 250 metres along the transit routes.

Based on the warrants for bus stop levels of amenities, Type A-Sheltered Info, Type C-Comfort and Type D-Basic stops are warranted for the area. Spacing of transit stops in ranges from 110 metres to 250 metres.

Street 'A' and Street 'B' will be constructed prior to any occupancy in the subdivision. This will allow introductory transit service to be started whenever deemed appropriate.

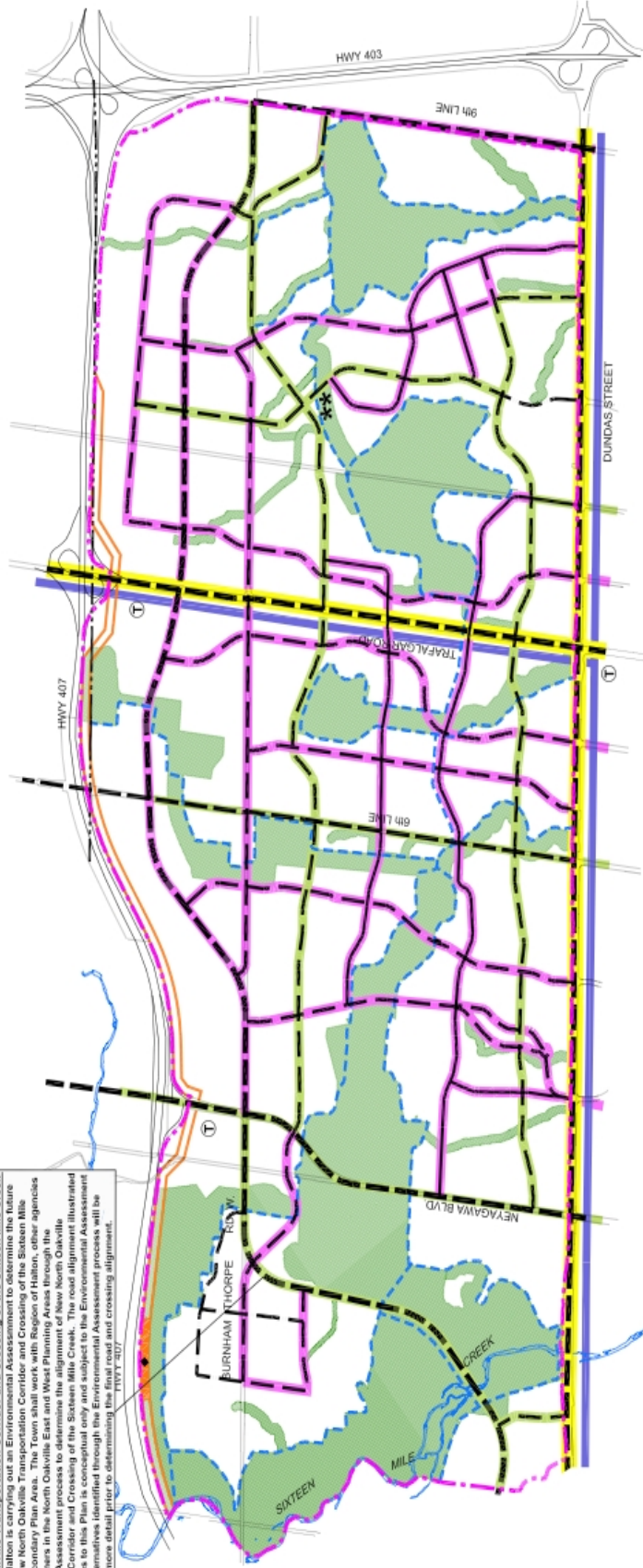
The actual route of initial transit service will be governed by the overall system services in operation at the time and practical integration of the new route.

Appendix A

North Oakville plans

Exhibit 5A ~ North Oakville East Transportation Plan

New North Oakville Transportation Corridor and Crossing of the Sixteen Mile Creek
The Region of Halton is carrying out an Environmental Assessment to determine the future alignment of New North Oakville Transportation Corridor and Crossing of the Sixteen Mile Creek in the Secondary Plan Area. The Town shall work with Region of Halton, other agencies and the landowners in the North Oakville East and West Planning Areas through the Environmental Assessment process to determine the alignment of New North Oakville Transportation Corridor and Crossing of the Sixteen Mile Creek. The alignment is illustrated on the schedules to this Plan is conceptual only and subject to the Environmental Assessment process. All alternatives identified through the Environmental Assessment process will be investigated in more detail prior to determining the final road and crossing alignment.



NOTE: Actual transit routing will be determined by Oakville Transit through periodic service updates.

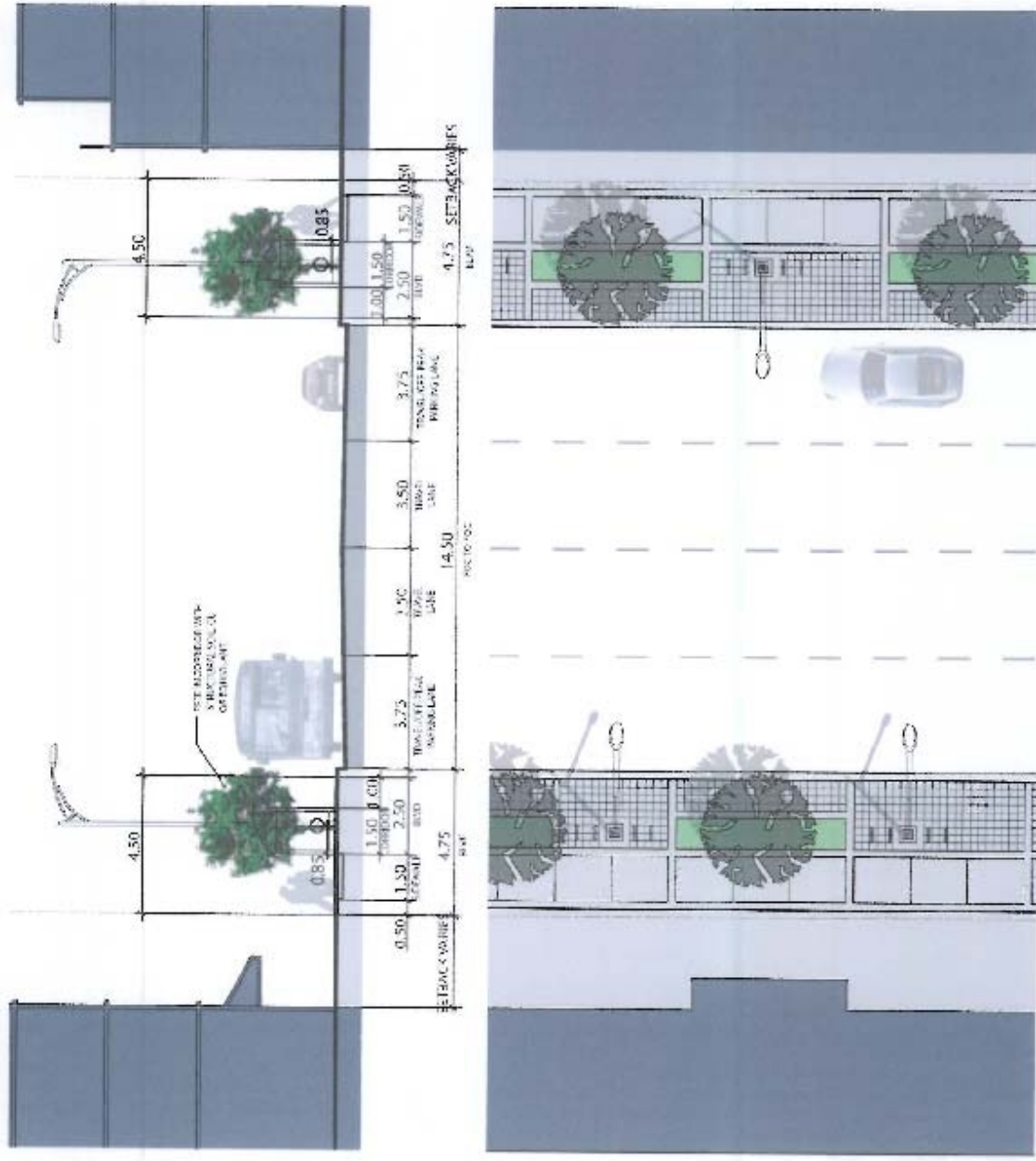
- LEGEND**
- SECONDARY PLAN AREA BOUNDARY
 - OAKVILLE/MILTON MUNICIPAL BOUNDARY
 - PROVINCIAL FREEWAY
 - MAJOR ARTERIAL/TRANSIT CORRIDOR
 - MINOR ARTERIAL/TRANSIT CORRIDOR
 - AVENUE/TRANSIT CORRIDOR
 - CONNECTOR/TRANSIT CORRIDOR
 - TRANSITWAY CORRIDOR
 - UNDERLYING LAND USE NOT DETERMINED subject to Section 7.4.7.1(b)(i)
 - BUSWAY CORRIDOR
 - MAJOR TRAIL SYSTEM
 - Ⓣ TRANSIT TERMINAL
 - NATURAL HERITAGE SYSTEM AREA
 - ** SUBJECT TO SECTIONS 7.4.7.3 c viii & 7.4.14.3 d)
 - TRANSIT SERVICE CONCEPT
 - INTER-REGIONAL TRANSIT CORRIDOR SERVICE
 - PRIMARY TRANSIT CORRIDOR SERVICE
 - SECONDARY TRANSIT CORRIDOR SERVICE
 - COMMUNITY SERVICE



Appendix B

Cross sections

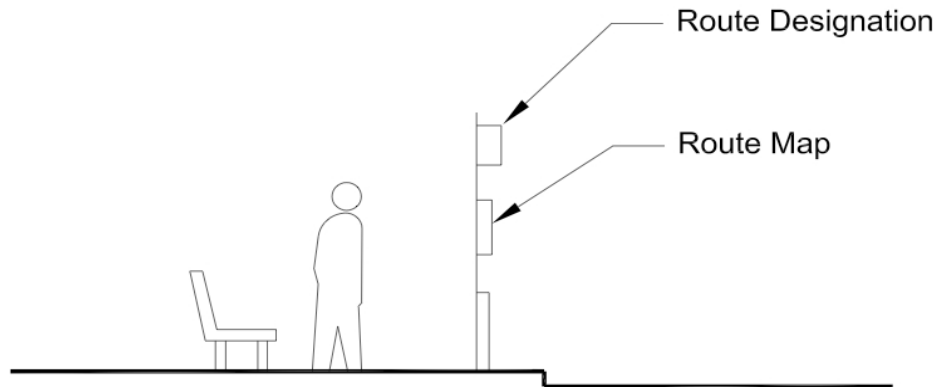
Exhibit 10 ~ Avenue / Transit Corridor (24.0m ROW) – Urban Core Area



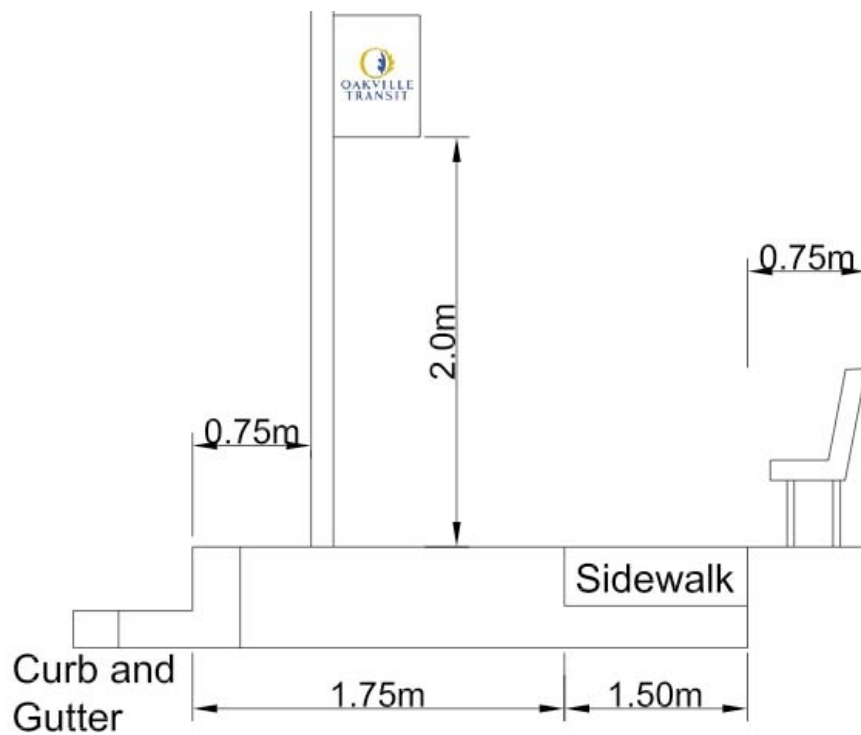
Appendix C

Transit stops

Exhibit 17 ~ Stop C, Comfort

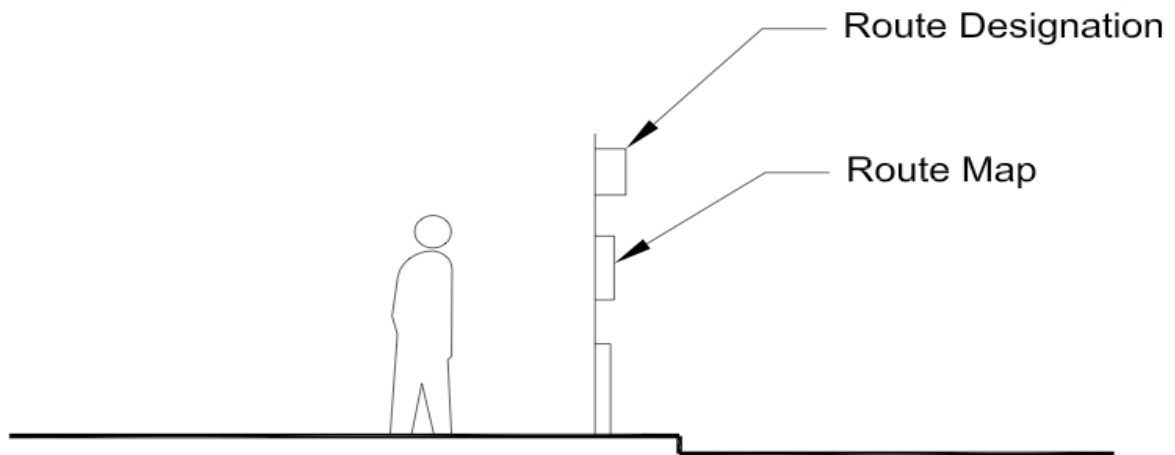


Stop C
Comfort

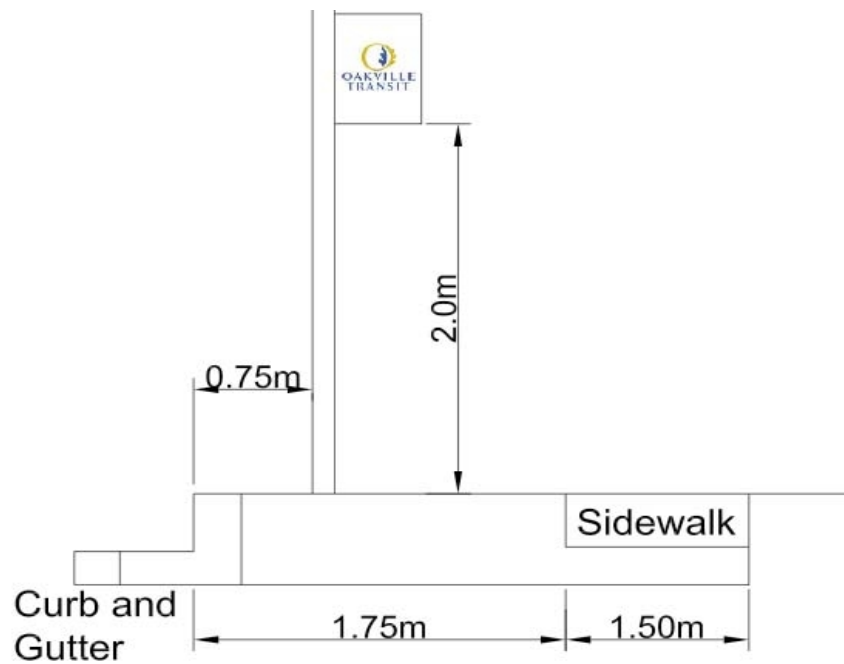


Stop C - Comfort

Exhibit 18 ~ Stop D, Basic



Stop D Basic



Stop D - Basic

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