

1. INTERSECTION SIGHT DISTANCE:

ISD is the minimum distance required for a motorist at an intersection to see and react to conflicting vehicles or road users to complete a safe turning maneuver, such as crossing, merging, or turning. ISD ensures that drivers have sufficient time to assess gaps in traffic and proceed without causing undue risk.

Based on TAC guideline (Chapter 9- Intersections, June 2017, Pg 66) the distance from the front of the vehicle to driver's eye is assumed 2.4m. Accordingly, a distance of 2.4m from the edge of the sidewalk into the access was used as the driver's eye location.

The design vehicle for determine ISD is a Single Unit Truck.

1.1. Left Turn from Access:

Vehicles turning left from the access onto Bilberry Drive should have clear visibility of vehicles traveling south on Bilberry Drive, including the eastbound right-turn and westbound left-turn movements from Jeanne d'Arc Boulevard. The turning speed of vehicles was assumed to be 15km/h (MTO Design Supplement for TAC, June 2023, Chapter 9, Pg 10 of 38).

- Considering a turning speed of 15 km/h, the required intersection sight distance (ISD) is calculated to be 40 m.

1.1. Right Turn from Access:

Vehicles turning right from the access onto Bilberry Drive must have clear visibility of vehicles approaching the access from the right, traveling northbound on Bilberry Drive toward Jeanne d'Arc Boulevard. The curb radius along Bilberry Drive for vehicles approaching the access from the right is approximately 74 m (See Dark Blue Line). Based on this radius, the calculated vehicle speed is approximately 40 km/h. Accordingly, northbound vehicles are not expected to exceed 40 km/h to the south of the access due to the roadway curvature.

- $V^2 = 127R(e+f)$ (TAC Guideline, Chapter 3 - Alignment and Lane Configuration, June 2017, Pg 6)
 $R=74, e=0.02, f=0.2$

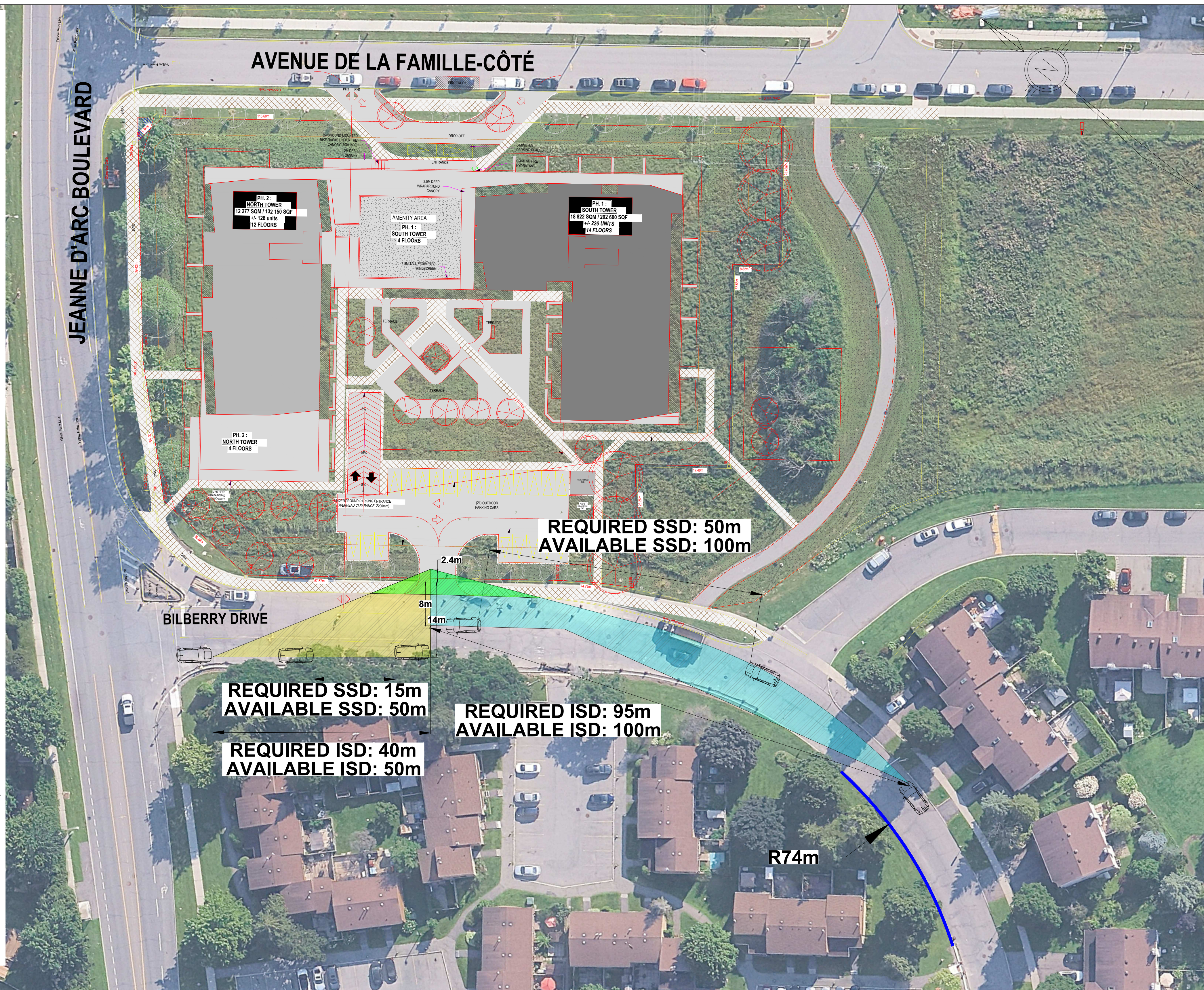
2. STOPPING SIGHT DISTANCE:

Stopping Sight Distance is the minimum distance required for a driver to perceive an object on the roadway, react to it, and bring the vehicle to a complete stop under prevailing conditions. The SSD accounts for both perception-reaction time and braking distance under assumed design conditions.

v=15 km/h SSD= 15m

v=40 km/h SSD= 50m

(TAC Guideline, Chapter 2 - Design Controls, Classification and Consistency, June 2017, Pg 38, Table 2.5.2)



CONSULTANT

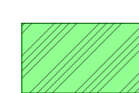


Castleglenn Consultants
Engineers, Project Managers & Planners

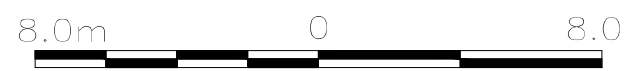
DESIGNED BY S.J.	CHECKED BY AEG & A.P.
CONSULTANTS JOB NO.7381	

LEGEND

LANDS WITHIN THE SHADED AREAS MUST BE CLEARED FROM ALL VISUAL OBSTRUCTIONS (e.g., TREES, TALL SHRUBS, SIGNS, BERMS etc.).

 IT IS RECOMMENDED TO CLEAR ALL VEGETATION THAT MAY POSES A VISUAL OBSTACLE.

THE ACCESS IS ASSUMED TO OPERATE UNDER STOP CONTROL CONDITIONS.



HORIZ 1: 400

SCALE

7381-1

PLAN NUMBER

7381 - BATIMO FAMILLE-Côté AVE DEVELOPMENT

SIGHT DISTANCES

STATUS	DATE	SHEET
	MARCH 5th, 2026	01 OF 01