

Line 15 N Traffic Calming Review

Report OCS2023-06

May 10, 2023

Background 2019 Road Network Plan Study Deliverables



2019 Traffic Assessment

July 9-27, 2019, 72-hour traffic counts with speed data at 19 locations across the Township including Line 15N from Hwy 12 to Bass Lake Sideroad.

Line 15 N Hwy 12 – to BLSR Findings:

- Traffic Volume – 4,281 Vehicles Per Day
- Speed limit - 40 km/h
- 85th percentile travel speed – 59 km/h
- % of vehicles exceeding the speed limit – 92%
- Speed limit assessment – 40km/h
- While intended to serve a local function, the development of West Orillia area has resulted in a high volume of through traffic.

Actions taken to date:

2019

- Initiation of Traffic Safety Task Force
- Road Painting
- Review of mid to longer-term considerations
- OPP targeted enforcement



Dragon Teeth - painted section 35 M each section.

Line 15 @ Bass Lake
Lane width 3.2m off centre line with edge lines.

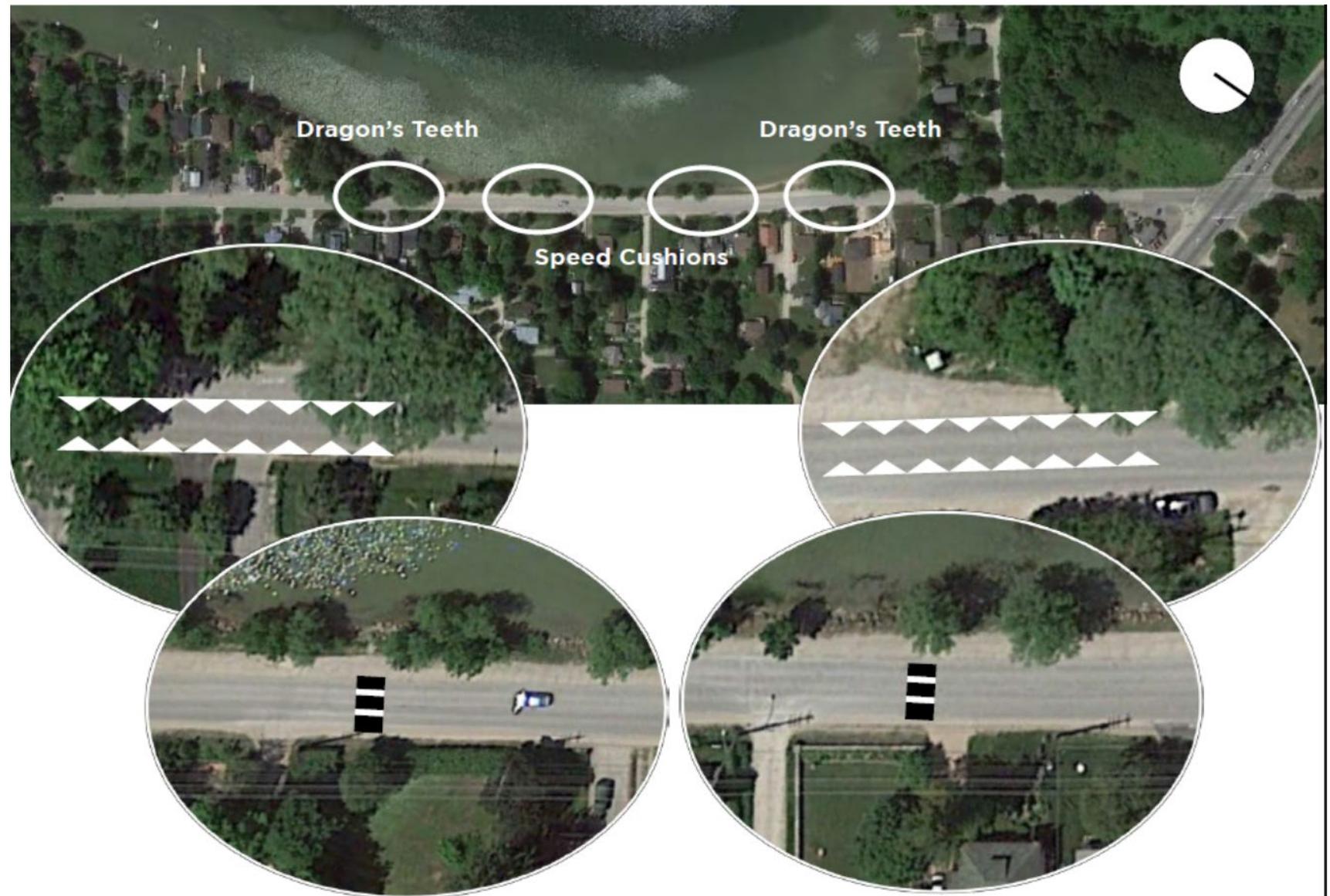


2020

- Implementation of speed humps and additional painting.
- Targeted traffic enforcement
- Review mid-long-term considerations

2021

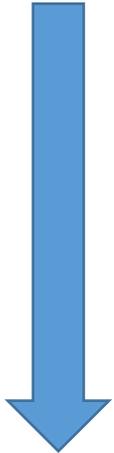
- Dynamic radar signs
- Continuation of speed humps
- Targeted traffic enforcement
- Resident Parking Pass (Beach Area)
- Discussions with Orillia on growth and road considerations
- Review of options to reduce traffic volumes



Mid-Long Term Options Reviewed

A number of options reviewed including additional traffic calming, directional closure, re-routing and one-way.

Less
Intrusive



Additional traffic calming

Would be effective in reducing travel speed
Seasonal (urban applications not feasible)
Limited options to reduce traffic volume

Directional closure

NB and SB reviewed. Only NB would be feasible
Would reduce volume
A number of considerations
 Compliance
 Flow of traffic
 Emergency services

Re-Routing

No feasible options

Closing at BLSR for local traffic (one way with cul-de-sac or hammer head turn around)

Would require land acquisition (limited feasibility)
Provide significant complications for emergency and public services such as snow removal and waste collection.

**Continuing
review of
multi-
jurisdictional
options with
growth of
West Orillia**

More
Intrusive



Mid-Long Term Options Reviewed

The initial pilot program, consisting of temporary speed humps, narrowed travel lanes (through pavement markings), and supplemental pavement markings (dragon teeth) through the beach area, along with the use of dynamic radar signs and targeted traffic enforcement, had limited results. In light of this, more restrictive measures were reviewed in 2022.

At its meeting of May 11, 2022, Council passed Motion No. C220511-6 providing direction to implement a northbound directional closure and additional traffic calming in 2022 as a one-year pilot.

Background staff reports;

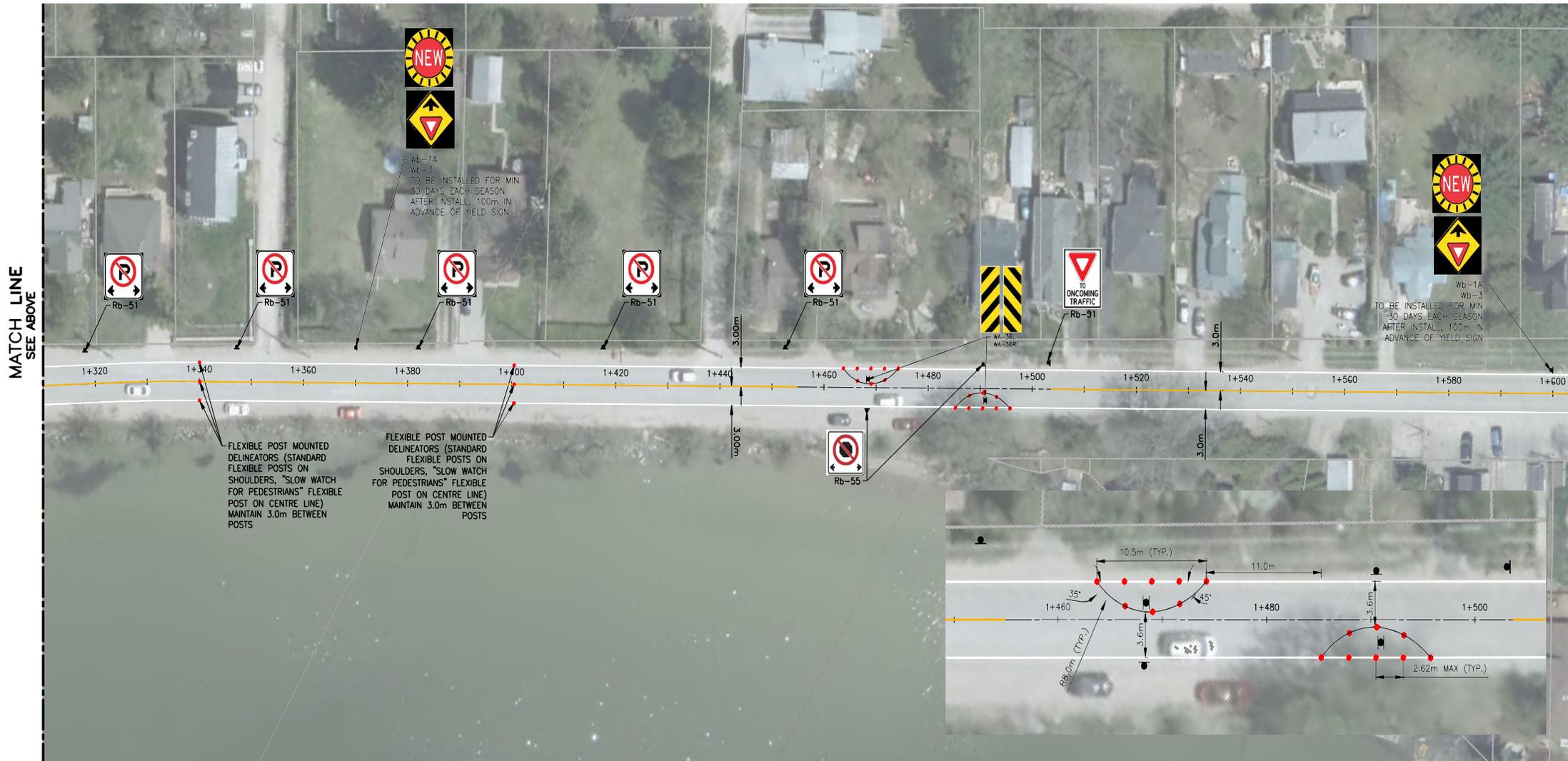
OCS2022-10 Line 15 North Traffic Calming

OCS2022-13 Line 15 North Traffic Calming Follow Up

Current Situation – NB Directional Closure and Seasonal Traffic Calming – Implemented Mid Aug. 2022



Current Situation – NB Directional Closure and Seasonal Traffic Calming – Implemented Mid Aug. 2022

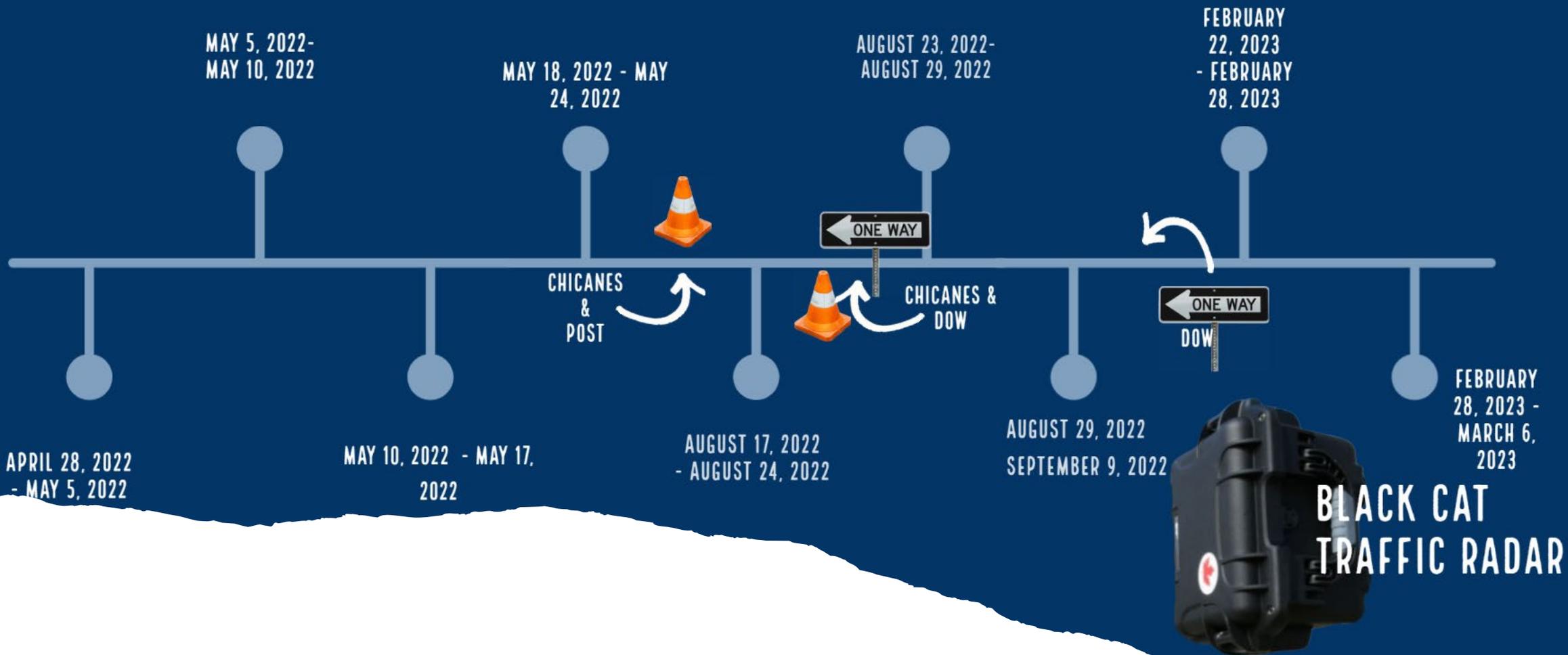


Current Situation – NB Directional Closure and Seasonal Traffic Calming – Implemented Mid Aug. 2022



Review of one-way directional closure



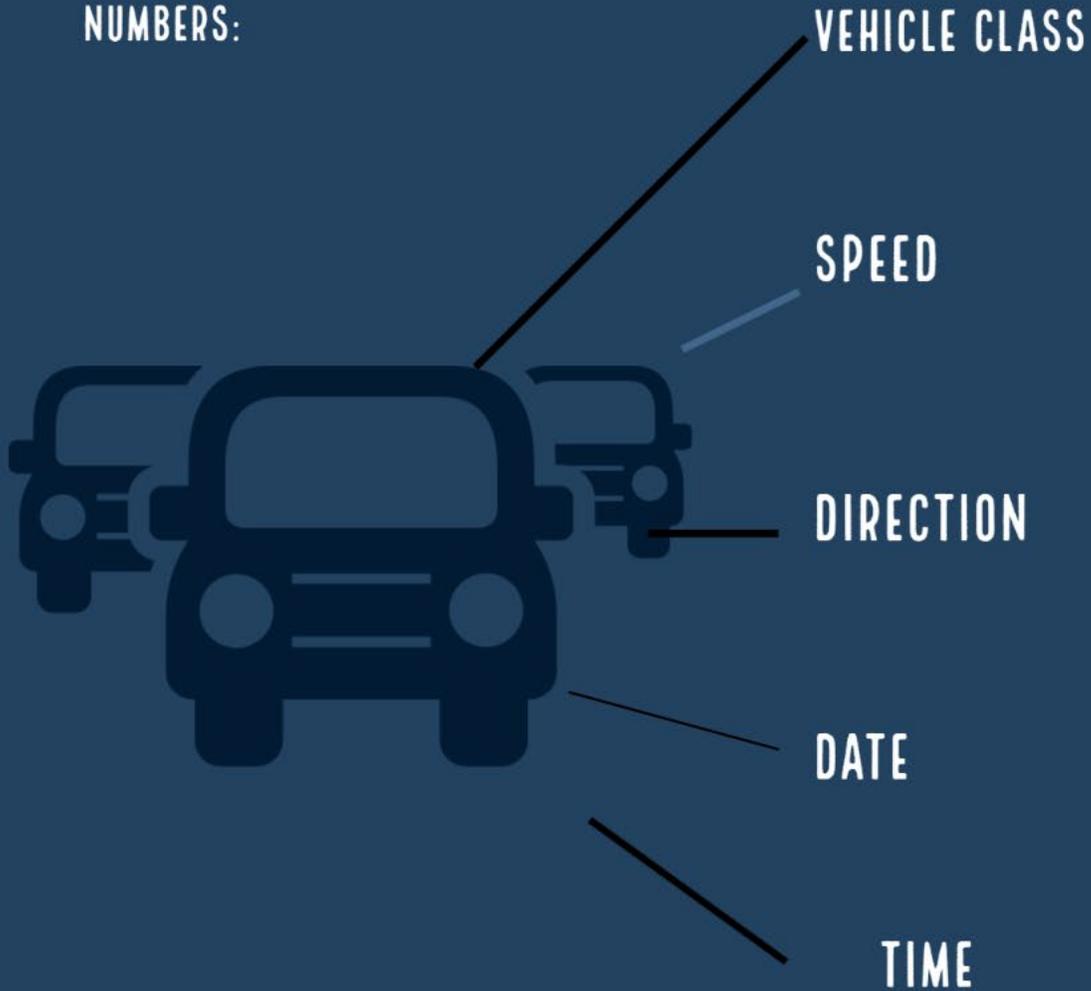


Black Cat Traffic Radar Deployments

**BLACK CAT
TRAFFIC RADAR**

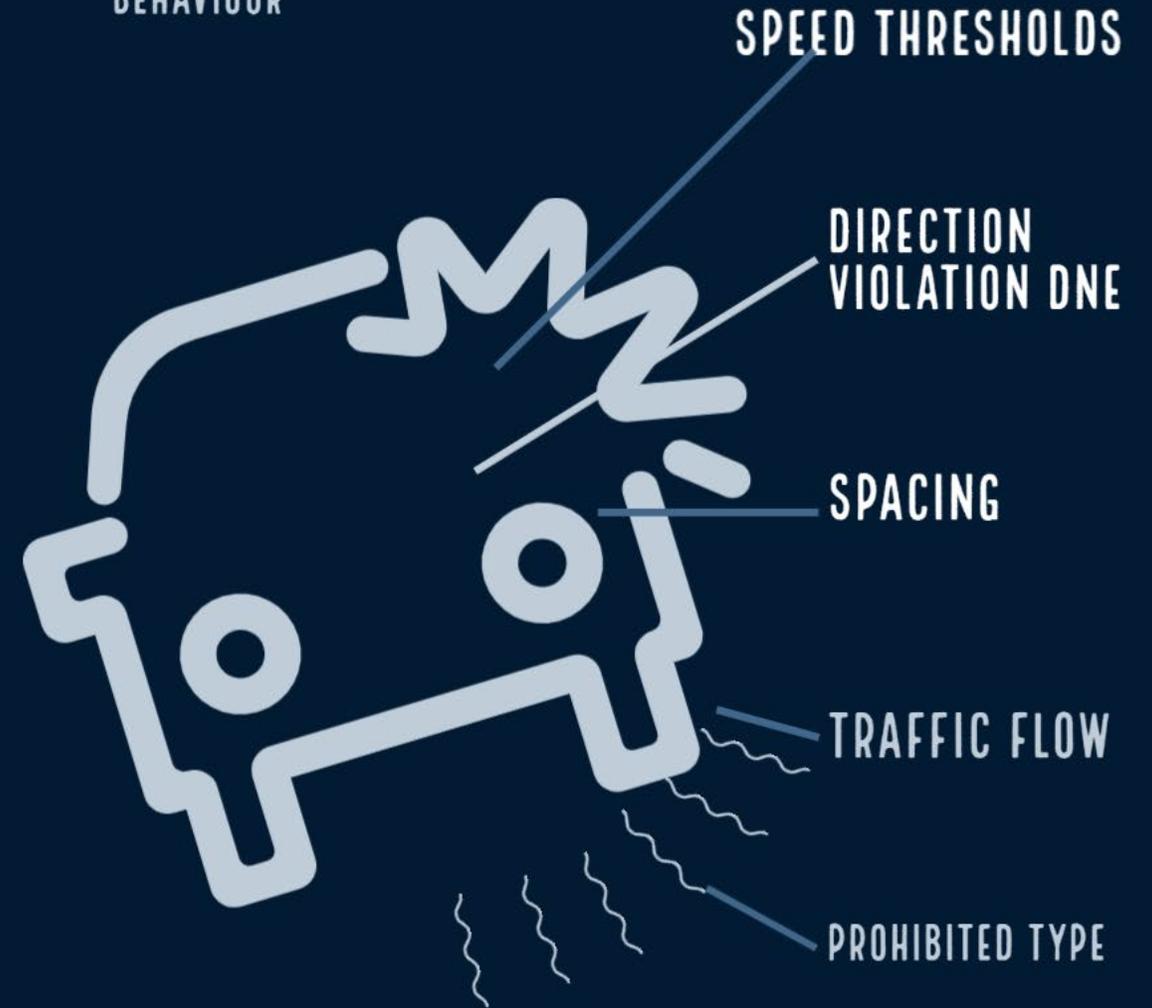
TRAFFIC VOLUME

MONITORING THE VEHICLE
NUMBERS:

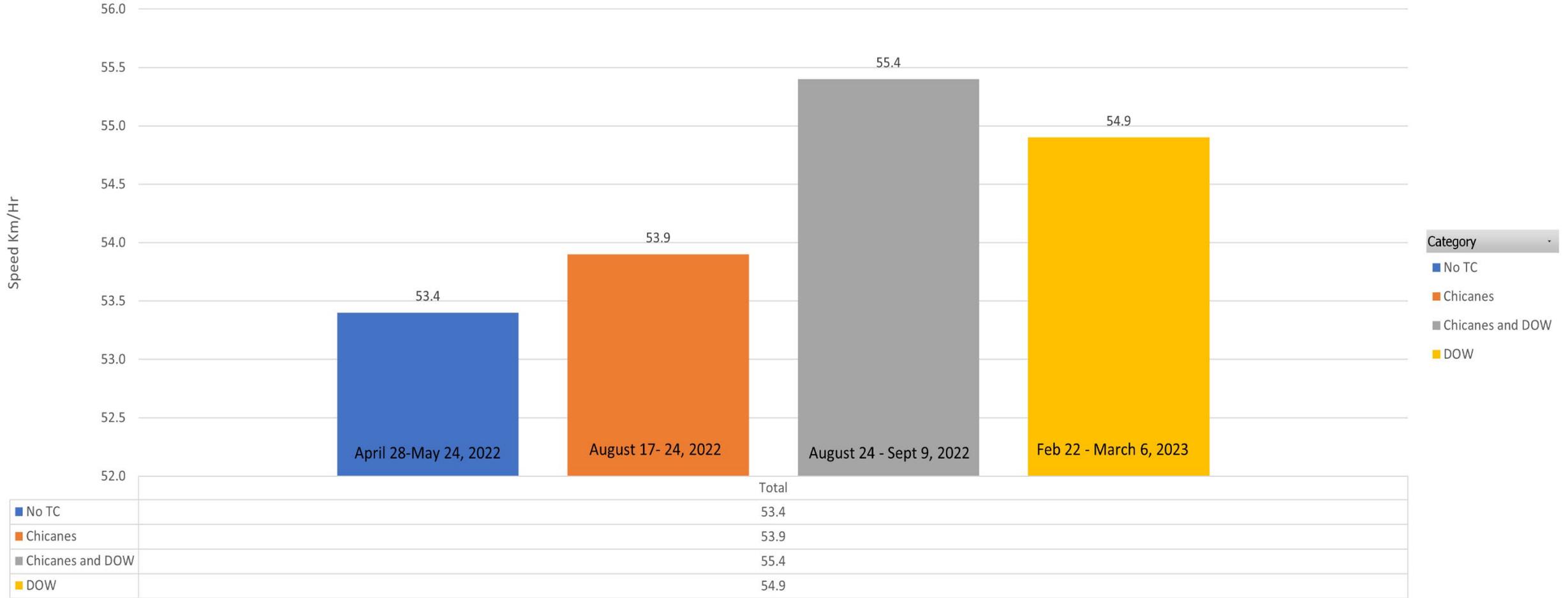


TRAFFIC SAFETY

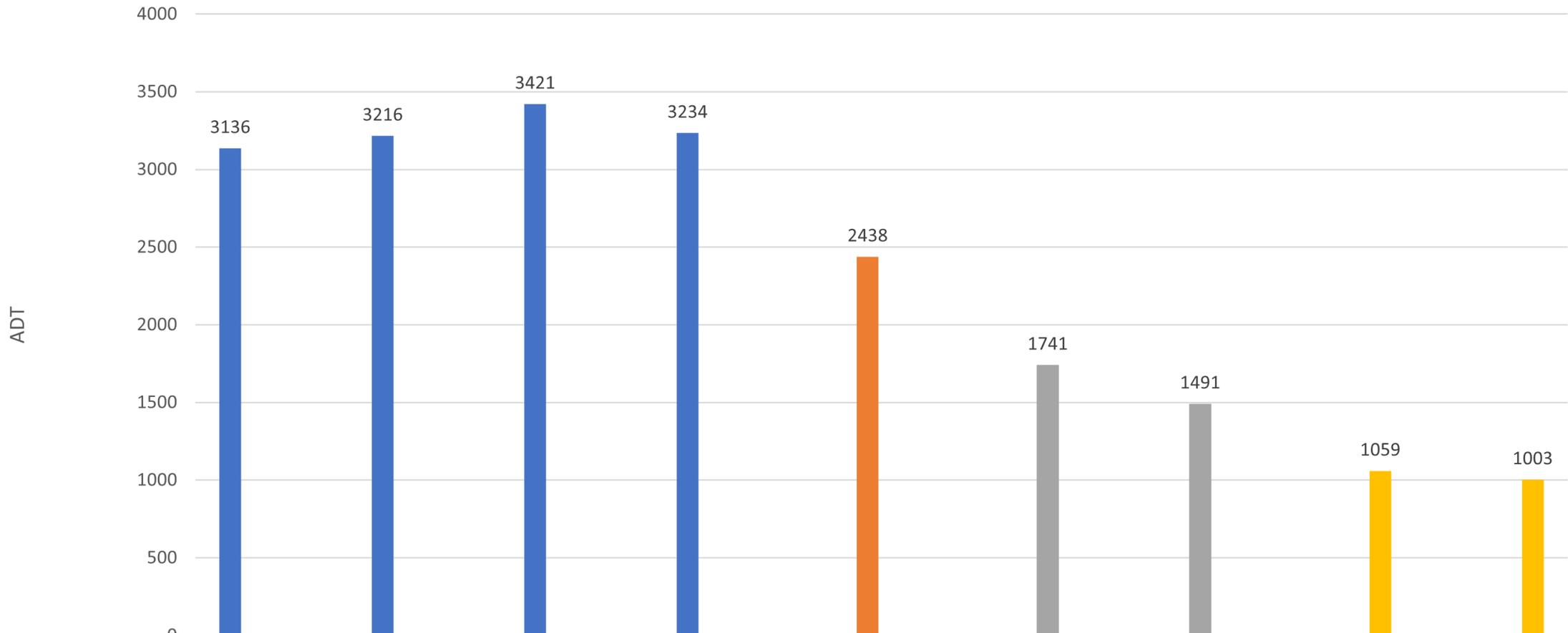
MONITORING TRAFFIC
BEHAVIOUR



85th% Travel Speed (Km/Hr)



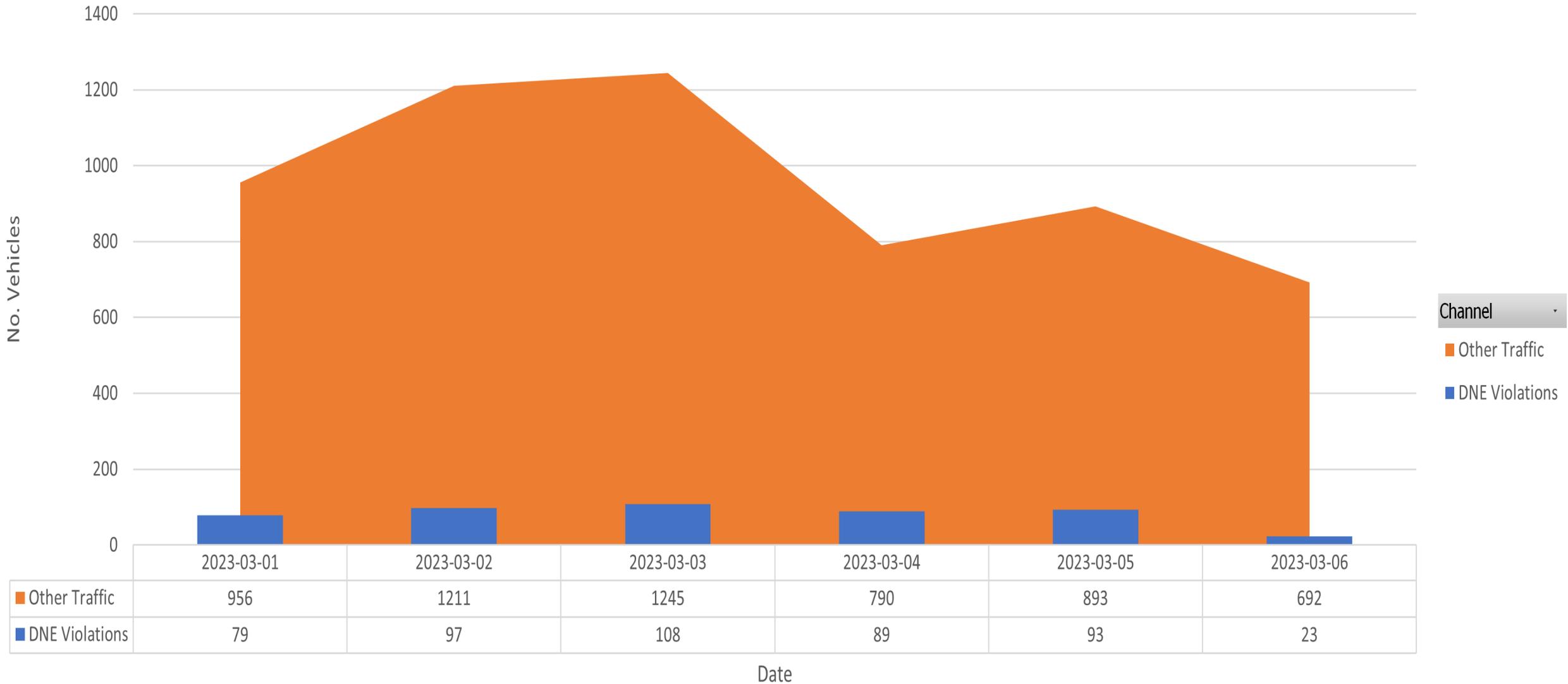
ADT - Line 15 North



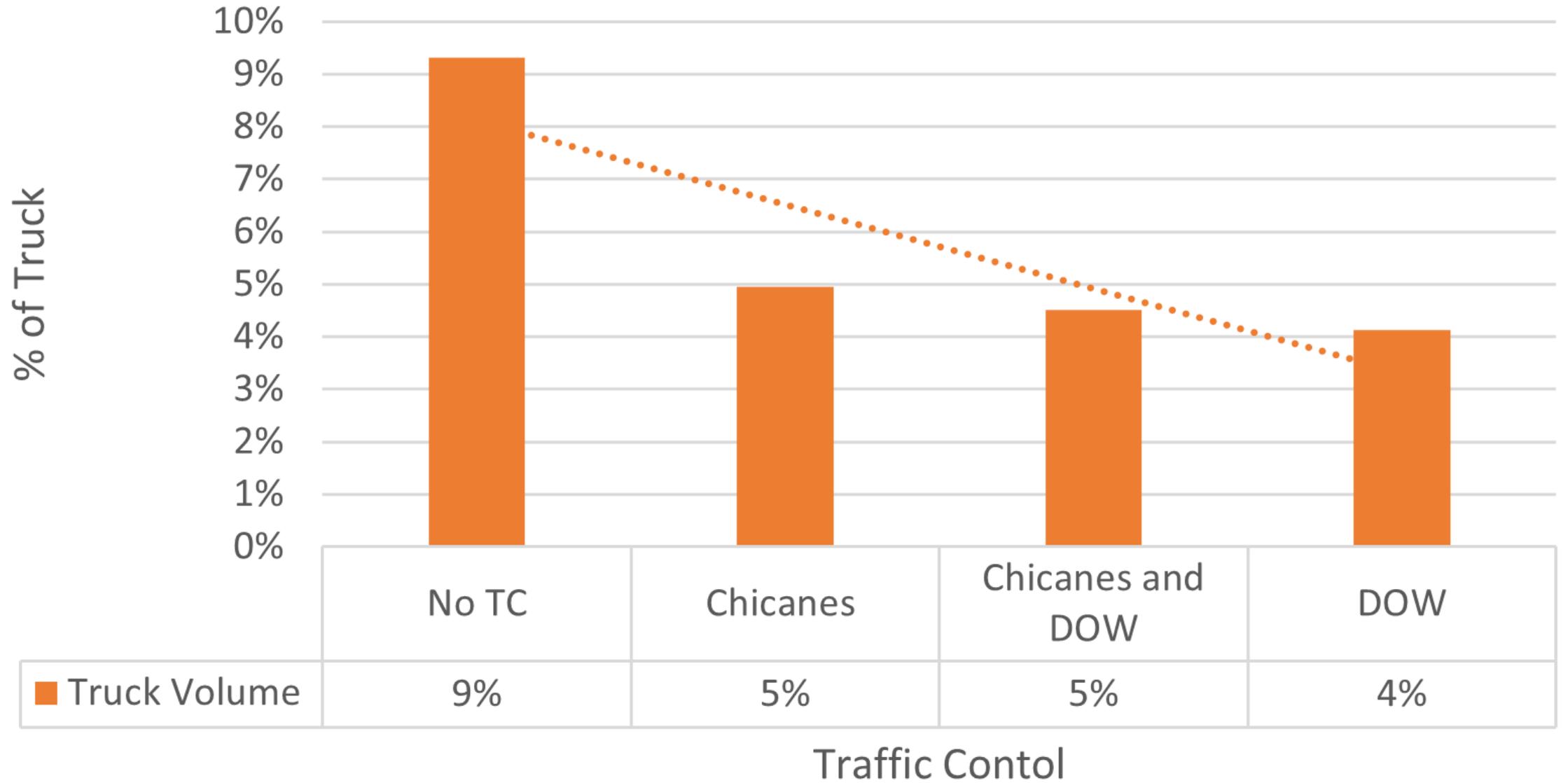
Category	2022-04-28	2022-05-05	2022-05-10	2022-05-18	2022-08-17	2022-08-23	2022-08-29	2023-02-22	2023-02-28
No TC	3136	3216	3421	3234					
Chicanes					2438				
Chicanes and DOW						1741	1491		
DOW								1059	1003

Report Date (Avg 7 Day Cycle Counts)

DNE Non Compliance v Traffic Counts



Truck Volume



Summary of observations / findings

- A submission was made to Google maps / Waze as map editors – Updated to reflect restrictions which may have contributed to a reduction in truck traffic.
- Targeted paid duty OPP traffic enforcement occurred on several occasions and had little impact on compliance with directional closure. OPP enforcement capability is limited amidst other priorities across the Township.
- Space limitations for placement of chicanes created issues for the safety of mail delivery. Canada Post will not deliver mail if the existing configuration remains.
- Despite advisory signage, the chicanes presented confusion for drivers (i.e. the majority of drivers failed to understand which direction of travel had right of way despite signage)
- Emergency services have reported safety concerns regarding non-compliance with directional closure and chicanes, as well as impacts on response time for volunteer firefighters.

Summary of observations / findings

- Complaints from residents on Hepinstall Place, Orsi and Sunset Drive as well as Bass Lake Side Road, that traffic volume and truck traffic have increased since the installation of the closure. The Township has received a petition from a number of residents on Hepinstall Place.
- Traffic volume appears to decrease slightly in the winter months likely due to vehicles remaining on highway or county roads given higher winter maintenance service levels.
- The directional closure has not been well received by the general public (outside of those residents along the segment) and has created animosity and “us vs. them” situation.
- The narrow road width and characteristics of the roadway present limited opportunities for improving the roadway for motorists and pedestrians.



Summary of observations / findings

Travel speeds

- Traffic calming has been effective at the location of installation but had little impact on overall travel speeds. A slight increase of 1-2km/h was seen with the addition of traffic calming which is indicative of motorists speeding up after traffic calming implements.
- There was no impact on speed following the seasonal removal of chicanes and lane constrictions. This could be a result of motorists understanding traffic calmed neighbourhood and/or seasonality.

Traffic Volume

- Average Daily Traffic (ADT) Traffic volume decreased from 4281 in July 2019 to 3252 in May 2022 (24%); likely the result of the completion of Hwy 12 projects.
- Traffic volume reduced by approx. 25% following installation of traffic calming (chicanes and land constrictions)
- Following implementation of the directional closure, traffic volumes were reduced by 50% from pre traffic calmed conditions and 33% from traffic calmed conditions.



Summary of observations / findings

Truck Traffic

- Traffic calming/mapping adjustment (Google Maps/Waze) was effective at reducing heavy trucks by over 40%. The directional closure did not have an impact on % of trucks in overall volume but would have decreased proportionally with overall traffic.

Chicanes

- The chicane placement resulted in implications for Canada Post mail delivery as well as confusion with motorists (right of way/yield) resulting in safety concerns. There are no other options for chicane placement due to road characteristics.



Summary of observations / findings

Traffic Gates (Flexible Delineators)

- Were successful in reducing travel speed at the location of installation however, vehicles may be accelerating quicker following the installation.
- Did require ongoing maintenance due to vehicles damaging the installation.

Directional Closure

- Was effective at reducing traffic volume.
- High degree of non-compliance. Approximately 100 non-compliant vehicles per day and limited ability to enforce has created a significant hazard at the Line 15N – Bass Lake Side Road Intersection that requires intervention.
- No feasible short-term measures to make intersection improvements.

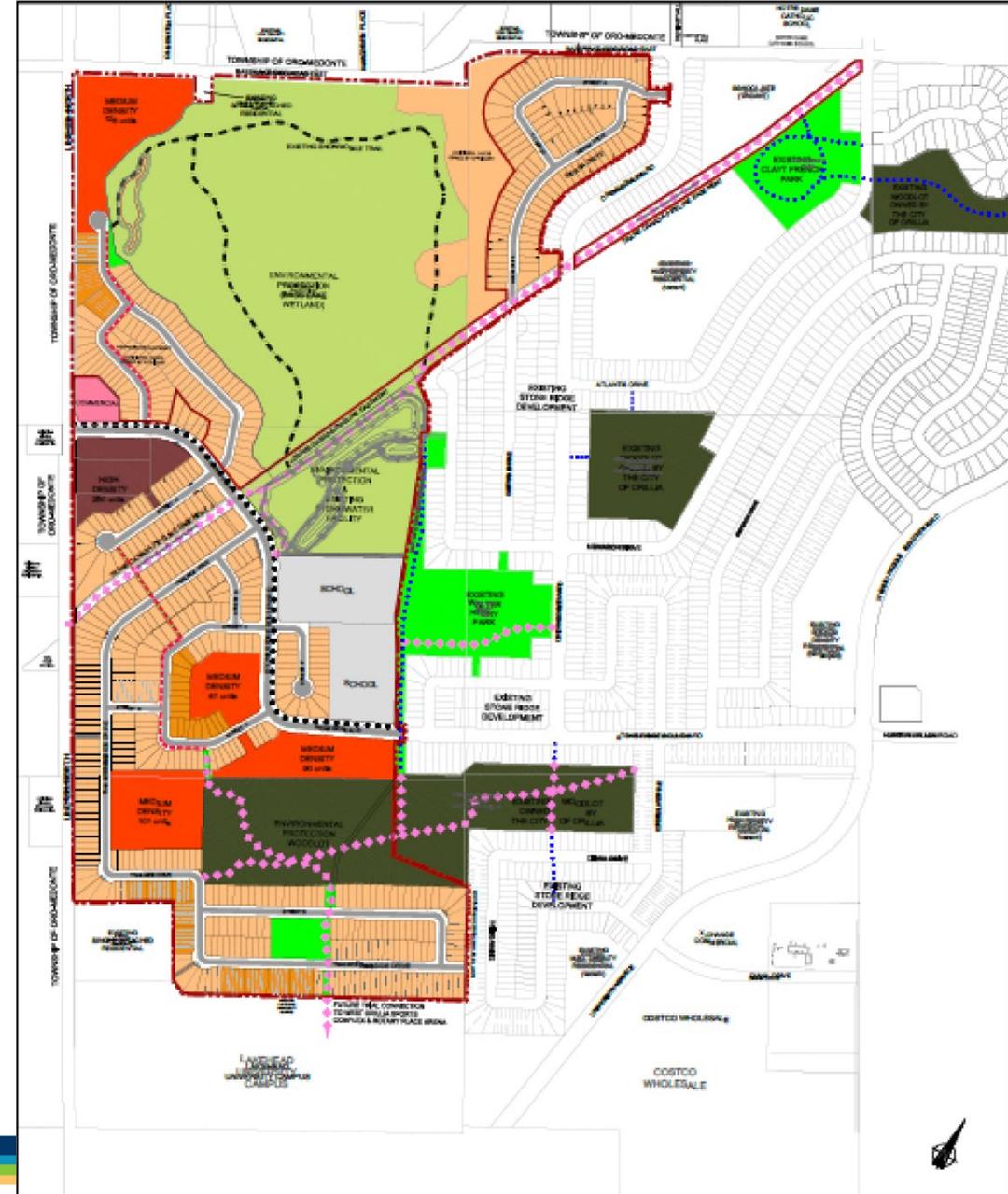


Other considerations

Westridge-Trailside Neighbourhood Plan City of Orillia

- A greenfield density of approximately 51.4 persons / jobs per hectare;
- 1,300 new residential units consisting of:
 - Single Detached Dwellings with 10 m, 12 m, and 15 m frontages;
 - Semi-Detached Dwellings with 18 m shared frontage;
 - Freehold Street Townhouses with 6 m and 8 m frontages;
 - Three (3) Medium Density Blocks for Townhouses or Apartment Buildings; and,
 - One (1) High Density Block for Apartment Buildings.
- Two (2) school sites;
- One (1) Stormwater Management Facility;
- One (1) Local Commercial Block;
- One (1) Neighbourhood Parkette and several new Integrated trails systems; and,
- Approximately 41 ha of environmentally protected lands (wood lot and the Bass Lake Wetland area).

*1300 units phased over 20+ years



Westridge-Trailside Neighbourhood Plan

City of Orillia

In 2021 Township of Oro-Medonte Staff have provided comments to City of Orillia, including:

- That the Traffic Impact Study provide additional analysis of impacts and infrastructure requirements on the segment of Line 15 North from Highway 12 to Old Barrie Road in addition to reviewing the Bass Lake Side Road from Line 15 North to Atlantis Drive.**
 - Current Status: Revised Traffic Impact Study (February 1, 2023) under review by Orillia and Oro-Medonte Staff.

- That the Stormwater Management Report address the impact downstream of the Bass Lake Side Road and any external improvements that would be required.**
 - Current Status: Revised Functional Servicing and Stormwater Management Report under review by Orillia, Oro-Medonte and NVCA Staff. City of Orillia has advised that the existing SWM Pond was designed/approved in 2008 and contemplated this development.

Recommended approach

The objective of the continuation of the pilot project on Line 15N has been to improve traffic safety. Traffic calming measures have worked well in achieving this objective. While the directional closure has been effective at reducing traffic volume, it has created a significant hazard at the Line 15N – Bass Lake Sideroad Intersection through a high degree of non-compliance. Considering these factors and a thorough review of the 2022 pilot project, the following changes are recommended:

1. Discontinuation of the directional closure;
2. Reconfiguration of traffic calming to remove chicanes and replace with additional vertical gates and speed humps;
3. Extend the Community Safety Zone to year-round application;
4. Reconfiguration of permit parking area and installation of planters;
5. Implementation of pedestrian cross over and all-way stop at Barr Avenue intersection;
6. Installation of additional pedestrian signage;
7. Work with OPP for continued targeted enforcement;
8. Continue discussion and traffic planning with the City of Orillia;
9. Continue with monitoring and collection of data to make adjustments as necessary

PROPOSED CHANGES

TRAFFIC CALMING AND TRAFFIC BY-LAW ADJUSTMENTS



PRE PILOT CONDITIONS

REDUCED SPEED
(40 KM/HR)

COMMUNITY
SAFETY
ZONE -
SEASONAL

TRUCK
PROHIBITION

CENTRE LINE AND
EDGE LINE PAINTING.

PARKING
RESTRICTIONS

PILOT PROJECT

CHICANES

SPEED HUMPS

VERTICAL
POST (GATES)

DIRECTIONAL
CLOSURE

LINE
PAINTING

PERMIT
PARKING

POST PILOT

VERTICAL POST
(GATES)

PERMIT
PARKING
REDESIGN

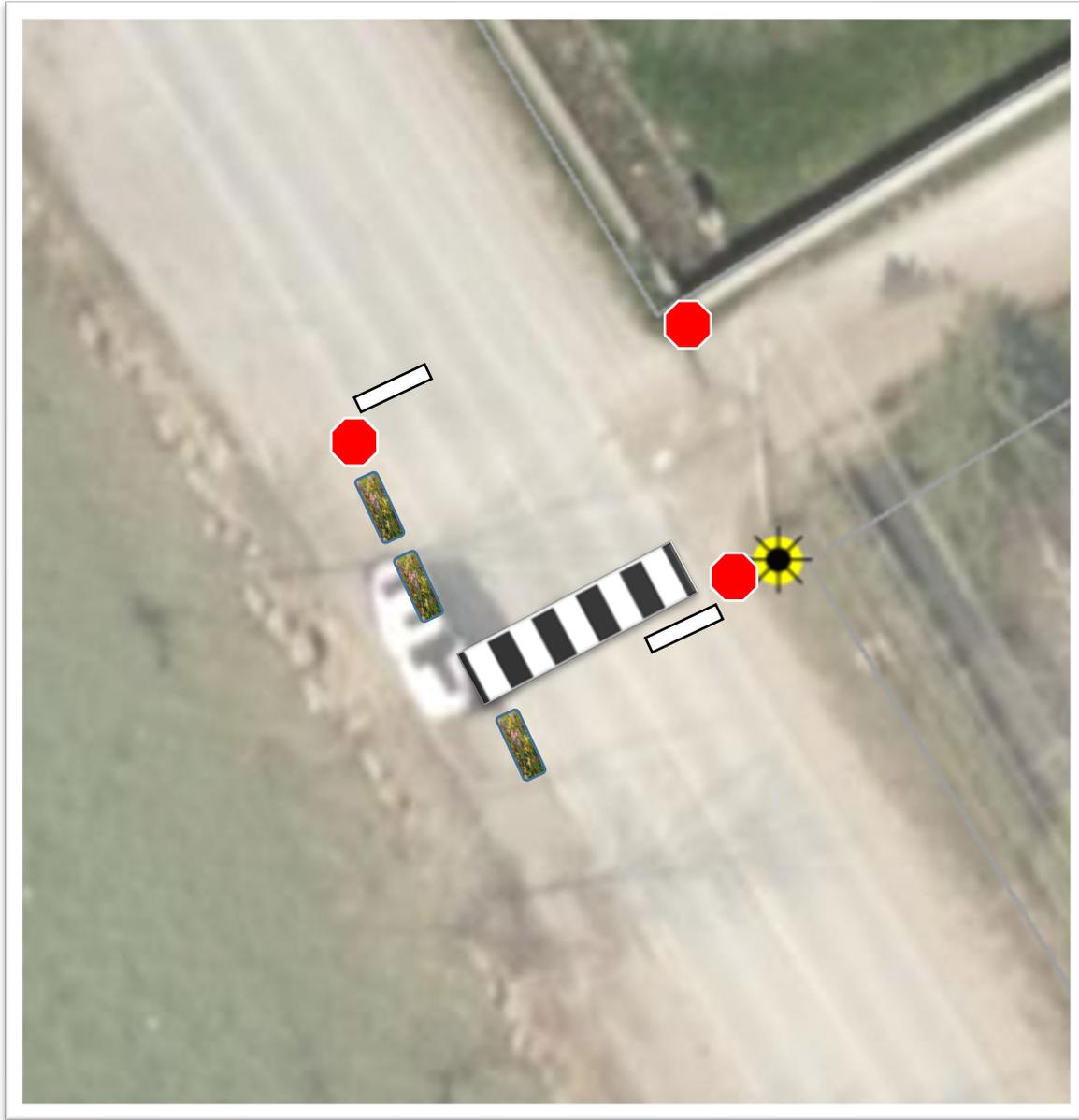
COMMUNITY
SAFETY ZONE
- PERMANENT

ALL WAY
INTERSECTION
WITH
CROSSWALK

PLANTER
PLACEMENTS



-  Vertical Gates
-  All Way Stop – W Crosswalk
-  Seasonal Speed Humps





QUESTIONS?

