



City of Grande Prairie Enforcement Services (GPES)  
Traffic Safety Plan 2023



## **INTRODUCTION:**

Grande Prairie Enforcement Services (GPES) is committed to road safety through the development of a viable Traffic Safety Plan. This plan will focus on education, general traffic enforcement, both moving and non-moving, commercial vehicle inspections, vehicle defects, and automated traffic enforcement (ATE). This traffic plan is meant to be a living document, which will give the plan room to adjust to emerging trends as they arise.

## **BACKGROUND INFORMATION:**

The City of Grande Prairie located in northwest Alberta is approximately 456 km from Edmonton. Grande Prairie is the eighth largest city in Alberta with a population of approximately 67,000 and a service radius population exceeding 250,000. Oil, Gas, Agriculture, Forestry and Retail are all major industries in the area.

## **TRAFFIC VOLUMES:**

In preparation for this report, the most recent traffic count information was obtained from the City of Grande Prairie Engineering Services. Engineering Services take measurements of traffic volume at specific sites throughout the city. These studies aid in determining strategic allocation of Enforcement resources for optimum impact on safety as well as modifications that may be needed to City infrastructure to facilitate smoother traffic flow.

## **SCHOOL ZONES:**

School parking lots are busy places during arrival and dismissal times. The high volume of pedestrian activity mixed with traffic congestion can lead to unsafe conditions. Ensuring that no child gets hurt is the primary objective and requires everyone's participation, including parents and caregivers.

GPES has a school zone schedule for the entire school year. Officers frequently monitor drop off and pick up zones during these times to assist in facilitating a safe environment that limits potential for injury.

## **COMMERCIAL VEHICLES:**

Thousands of commercial vehicles travel on Grande Prairie roads every day. These vehicles provide an invaluable service by transporting equipment, natural resources, merchandise, vehicles, and dangerous goods. To be efficient, these vehicles are often larger and heavier than other vehicles. An over-weight or over-dimensional vehicle can cause substantial damage to road infrastructure, traffic signals, streetlights, road signage, and other vehicles. All levels of government have passed legislation that recognizes this risk, implementing substantial licensing, inspection, and regulatory requirements. Enforcement Services plays a role in ensuring the licensing, inspections, and regulatory requirements of commercial vehicles operating within Grande Prairie are being met.

## **AREAS OF CONCERN:**

Intersections pose the greatest risk for collisions resulting in severe injuries due to several contributing factors such as speed, intoxication by drug or alcohol, occupant restraints, and distracted driving.

The top collision locations for 2022 can be found in Appendix B: Statistics & Analysis at the end of this report. These locations generally coincide with previously identified hotspots and efforts are ongoing to target these areas and reduce collision rates utilizing all the tools available to us.

GPES has identified school and playground zones as high-risk areas due to the number of children that use these facilities. Any school day may have over 10,000 children in attendance across the city. School zones are in effect continuously from 7:30 am to 4:30 pm on school days. Playground zones are in effect from 8:30 am to one hour after sunset daily.

## **OVERARCHING STRATEGIES:**

Although property damage collisions were technically higher in 2022 than both 2021 and 2020, it still marks the fourth consecutive year performance targets have been met. Removal of all COVID-19 restrictions represented a return to pre-pandemic normalcy. Employees returned to work, commerce resumed, and traffic volume increased exponentially. Removal of the skewed statistics of 2020 and 2021 reveals there were 9% less property damage collisions recorded in post-pandemic 2022 than pre-pandemic 2019 (1262 compared to 1387).

Aside from property damage collisions, non-fatal injury collisions saw the largest recorded drop in Grande Prairie since 2018. There were 184 non-fatal collisions reported during 2022. This represents a 2% decrease from 2021, a 24% decrease from 2020, and a major 49% reduction when compared to 2019. Although we do not anticipate more major drops in property damage or non-fatal collisions, our target for 2023 is a further reduction by at least 2% of property damage collisions, 2% for non-fatal injury collisions and 3% for ATE related infractions (speed / intersection).

Despite the major successes of Grande Prairie's Traffic Safety Plan in overall collision reduction, there were three fatalities recorded on City roadways in 2022. On average, Grande Prairie has approximately two fatal collisions per year (2014 – 2022). The primary goal for the Traffic Safety Plan into 2023 is to continue utilizing new technologies and analytics to guide and refine strategies that will deploy City resources effectively to achieve optimal results. The goal of GPES is to reduce the number of fatal collisions occurring on our roadways to as close to zero as possible. The likely outcome for 2023 will be a 67% reduction in fatal collisions from 3 to 1. Increasing the safety on the municipality's roadways for all motorists and pedestrians continues to be paramount.

Four focus areas have been identified as key components to Grande Prairie's coordinated Traffic Safety Plan. These focus areas include:

## 1. INTELLIGENCE LED ENFORCEMENT

- GPES continues to acquire raw data to determine contributing factors to collisions. Analysis of this data allows us to apply it to the departments overarching traffic safety strategies. Access to the Accident Support Services International (ASSI) Collision Reporting Center allows our department the ability to generate informative reports that can then be utilized to deploy conventional and ATE enforcement. These reports are also used in engineering meetings, cross referencing specific intersection details. Collision analysis from 2022 are attached to this report for reference.
- The top intersections in Grande Prairie for collision occurrences are reviewed monthly. Intersections change in ranking based on traffic flow, engineering changes and enforcement activities which are continually occurring. This allows GPES to quickly modify and reallocate resources as new collision hotspots are identified.
- Report and map enforcement actions to determine correlations between enforcement and collision reduction.
- Obtaining information on prolific offenders with conventional and ATE enforcement efforts. Reports are generated and reviewed to develop a strategy to reduce the impact prolific offenders have on safe driving and the safety of the community.

## 2. INTEGRATED ENFORCEMENT

- The City utilizes all authorized traffic enforcement technologies at our disposal including; intersection safety devices, automated traffic enforcement, and conventional enforcement technologies (Radar/Lidar).
- Integrate RCMP Municipal Traffic and Peace Officer Traffic on major initiatives (Check Stop campaigns).
- Take a strategic approach to Enforcement by targeting offenses that are leading contributors to injury collisions. These include impaired driving, distracted driving, speeding, occupant restraints and intersection related offences.
- Continue dedicating resources to strengthen Commercial Vehicle Enforcement.

## 3. EDUCATION

A greater emphasis on education is a top priority. Communication and awareness regarding the enforcement approaches employed by the City is essential to impart the importance of traffic safety to the community. This will allow us to identify the results we expect to achieve through the strategies utilized. Strategies to achieve these goals include:

- Enhancing our local social media and web presence regarding traffic safety.

- Transparency in reporting ATE sites, statistics, revenue and outcomes via City website and Traffic Safety Plan.
- Engage area high schools by hosting a youth symposium on traffic safety.
- Continuing to provide youth pedestrian safety presentations.
- Provide enforcement updates to area media.
- Attend Alberta Motor Transport Association (AMTA) meetings to deliver safety messages and develop professional relationships with local trucking companies.
- Attend and deliver presentations to other local groups such as the Chamber of Commerce, AMA, Grande Prairie Downtown Association, and Neighbourhood Forum Association.

#### **4. ENGINEERING**

Engineering remains a critical focus area. A strong relationship between Enforcement and Engineering has made our collective response to areas of concern more nimble, consistent, and effective. Priorities for the year will include:

- Continued facilitation of collision and violation data for analysis.
- Continuing monthly meetings to identify any required alignment, maintenance, and capital upgrade concerns.
- Collectively explore the utilization of traffic calming measures (I.E. Flashing signs).

#### **ENFORCEMENT PLAN:**

The 2023 Traffic Safety Plan aims to further reduce the number injury and fatality collisions occurring in the city by targeting driver behavior and equipment violations that increase collision frequency and severity. Target areas for this plan include:

1. Vulnerable Areas (School, Playground, and Construction Zones)
2. Intersection Offences
3. Distracted Driving
4. Speeding
5. Occupant Restraints
6. Pedestrian Safety
7. Vehicle Equipment - Unfit Vehicles
8. Commercial Vehicles
9. Off Highway Vehicle (OHV) Enforcement
10. Impaired Driving (Check Stop)

Conventional enforcement will be supplemented with Automated Traffic Enforcement (ATE) technology which consists of three components:

1. Mobile Speed Enforcement (Photo Laser),
2. Mobile Intersection (Stop Signs), and
3. Intersection Safety Devices (Red Light Cameras / Speed on Green)

The location selection for ATE requires careful planning using a combination of traffic safety programs and information resources. Regular ongoing meetings with Engineering are held to consider engineering changes where appropriate in reducing or eliminating collisions and infractions. On March 20, 2023, ATE locations were reviewed. Upon conclusion of those assessments, the total number of ATE sites were increased by three over the previous year.

Sites	2020	2021	2022	2023
Speed	110	91	66	67
Speed (Prescribed Zones)	72	64	64	66
Stop Signs	6	4	4	4
Red Lights	41	40	39	39
Intersection Safety Devices	5	5	5	5
<b>TOTAL SITES:</b>	<b>234</b>	<b>204</b>	<b>178</b>	<b>181</b>

ATE [site locations](#) via Global Traffic Group

Additions were based on the following factors:

- Volume of infraction rates,
- Proximity to higher risk intersections based on volume and severity of collisions,

ATE technology is deployed and used in conjunction with conventional enforcement activity as a comprehensive strategy designed to enhance public safety on the roads. ATE in some instances can provide 24 hour coverage of an area that would be impossible to attain through conventional means. The presence of ATE on the roadways also functions as a deterrent of negative driving behaviours that place motorists at risk. All ATE sites in Grande Prairie comply with the revised Provincial requirements specified within the Automated Traffic Enforcement Technology Guideline (December 2021). Site selection criteria are identified below:

2019 ATE Selection Criteria	2021 Selection Criteria
Areas with higher frequency of collisions.	Areas with higher frequency of collisions.
Areas with higher Frequency of speeding.	Areas with higher frequency of speeding.
Areas with higher frequency of intersection contraventions.	Areas with higher frequency of intersection contraventions.
Designated zones (school/playground & construction).	Designated zones (school/playground & construction).
Area where conventional enforcement is unsafe or ineffective.	
Areas where the public or a community has expressed concerns related to speeding.	

Analysis of the top ATE locations based on infractions recorded and violations issued is an ongoing process. Cross referencing this ATE data with associated traffic counts and collision locations assists with identifying gaps in the Traffic Safety Plan. Providing opportunity to make intelligence led deployment of enforcement assets to shifting hot spots throughout the City.

ATE fine revenue for the City of Grande Prairie in 2022 was \$1,025,615.30. This revenue has been reinvested into GPES' traffic safety initiatives through supporting department operations, specifically GPES operating expenses which are budgeted at \$7,622,412 for 2023. A complete analysis of the ATE fine revenue for 2022 can be found at the end of this report.

**CONTACT INFORMATION:**

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## APPENDIX “B” STATISTICS & ANALYSIS

### Grande Prairie Major Intersections by Traffic Volumes

Intersection	Traffic Volume	Date of Count
108 Street & 100 Avenue	54,975	2018
100 Street & 116 Avenue	52,090	2018
116 Street & 100 Avenue	42,282	2018
108 Street & 107 Avenue	40,729	2018
108 Street & 84 Avenue	↓ 35,856 ↓	2022
100 Street & 132 Avenue	34,102	2020
102 Street & 116 Avenue	36,650	2018
100 Street & 121 Avenue	36,124	2018
100 Street & 124 Avenue	35,252	2018
116 Street & 97 Avenue	34,351	2019
105 Street & 116 Avenue	32,301	2018
108 Street & 104 Avenue	32,176	2018
112 Street & 100 Avenue	30,929	2018
100 Street & 84 Avenue	29,223	2018
99 Street & 116 Avenue	29,058	2019
92 Street & 100 Avenue	28,315	2021
120 Street & 100 Avenue	28,256	2018
108 Street & 68 Avenue	28,167	2018
Resources Road & 99 Avenue	27,807*	2022
116 Street & 89 Avenue	26, 603	2019
106 Street & 100 Avenue	26,086	2018
116 Street & 104 Avenue	↓ 25,890 ↓	2022
108 Street & 79 Avenue	↓ 25,852 ↓	2022
Resources Road & 68 Avenue	25,846	2018
100 Street & 99 Avenue	24,789*	2022
Resources Road & 100 Avenue	↓ 24,751 ↓	2022
116 Street & 95 Avenue	23, 861	2019
124 Street & 100 Avenue	23, 795	2018
Kateri Drive & 68 Avenue	↑ 23,578 ↑	2022
100 Street & 100 Avenue	↓ 23,514 ↓	2022
116 Street & 84 Avenue	21, 611	2019
92 Street & 68 Avenue	21, 555	2019
116 Street & 132 Avenue	20, 967	2019
100 Street & 68 Avenue	19,601	2020
Resources Road & 84 Avenue	19,373	2021

Data collected via [Traffic Counts Dashboard \(gpgis.com\)](https://gpgis.com)

\* Added new intersections 2022.

↑ Increase in volume from previously available traffic count.

↓ Decrease in volume from previously available traffic count.

## Grande Prairie Top Collision Hotspots 2022

Intersection	Year	# MVC	Involving Injury	# Injured	# MVC +/-	MVC Severity +/-	# Injuries +/-
116 ST & 97 AVE	2022	18	4	10	38%	300%	150%
	2021	13	1	4	63%	-80%	-64%
	2020	8	5	11	-50%	-29%	-35%
	2019	16	7	17			
100 ST & 116 AVE	2022	32	5	7	167%	-29%	-56%
	2021	12	7	16	33%	133%	167%
	2020	9	3	6			
108 ST & 68 AVE	2022	11	2	4	-8%	-60%	-67%
	2021	12	5	12			
108 ST & 84 AVE	2022	18	4	8	50%	-33%	-56%
	2021	12	6	18	33%	50%	100%
	2020	9	4	9			
108 ST & 100 AVE	2021	11	4	12	38%	33%	100%
	2020	8	3	6	-70%	-75%	-81%
	2019	27	12	32			
84 AVE & 108 ST	2021	11	5	10	-15%	25%	25%
	2019	13	4	8			
100 ST & 124 AVE	2022	11	4	10	0%	0%	-41%
	2021	11	4	17	83%	100%	183%
	2020	6	2	6	-40%	100%	200%
	2019	10	1	2			
116 AVE & 105 ST	2021	9	5	17	-10%	25%	-23%
	2020	10	4	22			
RESOURCES RD & 99 AVE	2021	9	5	23			
116 ST & 100 AVE	2021	9	3	8	-25%	-25%	0%
	2020	12	4	8	-66%	-60%	-74%
	2019	35	10	31			
100 AVE & 92 ST	2022	17	5	13	143%	25%	63%
	2021	7	4	8			
116 AVE & 100 ST	2021	7	0	0	-42%	-100%	-100%
	2020	12	5	11	-37%	67%	-21%
	2019	19	3	14			
100 AVE & 112 ST	2021	6	0	0	-65%	-100%	-100%
	2019	17	7	25			
84 AVE & 100 ST	2021	9	3	12			
100 ST & 132 AVE	2022	8	0	0	0%	-100%	-100%
	2021	8	5	10	-38%	25%	-47%
	2019	13	4	19			
132 AVE & 100 ST	2021	8	2	8			
97 AVE & 116 ST	2021	8	3	6			
68 AVE & 108 ST	2021	7	1	8	0%	-50%	100%
	2020	7	2	4	-46%	-67%	-85%
	2019	13	6	27			
100 AVE & RESOURCES RD	2021	7	0	0	0%	-100%	-100%
	2020	7	3	6			
108 ST & 79 AVE	2021	6	3	8			
100 AVE & 108 ST	2022	15	3	3	25%	0%	-50%
	2020	12	3	6	-14%	-25%	-75%
	2019	14	4	24			

108 ST & 107 AVE	2020	10	3	9	11%	0%	-10%
	2019	9	3	10			
100 AVE & 116 ST	2022	26	1	3	225%	-75%	-63%
	2020	8	4	8	-50%	-43%	-47%
	2019	16	7	15			
104 AVE & 116 ST	2022	9	0	0	29%	-100%	-100%
	2020	7	1	4			
68 AVE & RESOURCES RD	2022	21	1	1	200%	-50%	-80%
	2020	7	2	5			
RESOURCES RD & 84 AVE	2020	7	4	14	-22%	33%	40%
	2019	9	3	10			
108 ST & 104 AVE	2020	6	2	4	-45%	100%	100%
	2019	11	1	2			
116 AVE & 102 ST	2020	6	4	12			
121 AVE & 100 ST	2020	6	2	4			
92 ST & 100 AVE	2020	6	1	2			
100 ST & 84 AVE	2022	15	2	4	15%	-60%	-80%
	2019	13	5	20			
100 AVE & 100 ST	2022	14	5	8	27%	400%	33%
	2019	11	1	6			
99 AVE & 100 ST	2019	11	2	6			
RESOURCES RD & 68 AVE	2019	11	5	16			
116 AVE & 99 ST	2022	13	0	0	30%	-100%	-100%
	2019	10	3	14			
100 AVE & 106 ST	2019	10	5	18			
108 ST & 97 AVE	2022	8	0	0			
100 ST & 99 AVE	2022	8	1	3			
68 AVE & 92 ST	2022	8	1	2			
92 AVE & 92 ST	2022	9	1	3			
100 AVE & 102 ST	2022	8	2	8			
101 ST & 108 AVE	2022	8	2	5			
107 AVE & 108 ST	2022	9	2	3			
108 ST & 116 AVE	2022	14	2	5			
116 ST & 84 AVE	2022	15	2	4			
100 AVE & 110 ST	2022	11	3	6			
100 ST & 121 AVE	2022	13	3	7			
108 AVE & 98 ST	2022	8	3	6			
84 AVE & RESOURCES RD	2022	8	4	7			

*Data Collected via Grande Prairie Collision Reporting Centre*

### Total Collisions Occurring Within City of Grande Prairie

	Fatality	Injury	Damage Over \$2000	Total Collisions	Percent +/-
2018	1	371	1479	1850	N/A
2019	0	360	1387	1747	-6%
2020	0	243	1026	1269	-27%
2021	1	188	961	1150	-9%
2022	3	184	1262	1449	+26%

	5 Year Average 2018 - 2022	2022 Totals	2022 Comparison to 5 Year Average
Fatality MVC	1	3	200%
Injury MVC	269	184	-32%
Damage over \$2000	1223	1262	+3%

*Data Collected via City of Grande Prairie RCMP Police Occurrence Reporting System (PROS)*

### Grande Prairie Automated Traffic Enforcement Contraventions and Violation Notices Recorded

YEAR	Speed Contravention Photo Radar/ISD	Speed Notice Photo Radar/ISD	Speed Notice Percent +/-	Red Light Contravention	Red Light Notice	Red Light Notice Percent +/-	Stop Sign Contravention	Stop Sign Notice	Stop Sign Notice Percent +/-	Total Contraventions Recorded	Total Notices Issued	Total Contravention Percent +/-	Total Notice Percent +/-
2015	11,993	6,654	N/A	4	1	N/A	1,124	619	N/A	13,121	7,274	N/A	N/A
2016	59,394	41,674	526%	2,362	1,560	155900%	7,348	4,767	670%	69,104	48,001	427%	560%
2017	43,146	31,771	-24%	3,239	2,255	45%	3,216	2,317	-51%	49,601	36,343	-28%	-24%
2018	34,978	29,008	-9%	2,527	1,994	-12%	3,157	2,675	15%	40,662	33,677	-18%	-7%
2019	39,805	30,274	4%	3,005	1,866	-6%	3,606	2,641	-1%	46,416	34,781	14%	3%
2020	41,400	30,977	2%	2,406	1,428	-23%	1,478	1,052	-60%	45,284	33,457	-2%	-4%
2021	43,236	29,873	-4%	4,200	2,808	97%	1,850	1,456	38%	49,286	34,137	9%	2%
2022	36,479	24,087	-19%	3,067	1,618	-42%	1,405	972	-33%	40,951	26,677	-17%	-22%

ATE data collected via Global Traffic Group

**APPENDIX “C”**  
**AUTOMATED TRAFFIC ENFORCEMENT – FINES GENERATED AND COLLECTED - 2022**

	Outstanding at December 31, 2022	Plus: Amounts Paid during 2022 (below)	Less: Outstanding at December 31, 2021	Fines Generated in 2022
Victim Surcharge	316,663.97	788,383.43	366,808.58	<b>738,238.82</b>
Provincial Fine Retention	583,003.52	1,542,254.27	672,233.42	<b>1,453,024.37</b>
To Global	631,153.81	1,340,577.15	788,946.06	<b>1,182,784.90</b>
To COGP	516,398.58	1,154,718.05	645,501.33	<b>1,025,615.30</b>
	<b>2,047,219.88</b>	<b>4,825,932.90</b>	<b>2,473,489.39</b>	<b>4,399,663.39</b>

**2022 Amounts Collected**

	January	February	March	April	May	June	July	August	September	October	November	December	Total 2022
Victim Surcharge	48,389.93	56,607.06	70,706.99	77,280.96	78,305.27	75,815.43	66,874.62	66,277.64	69,647.92	72,418.44	65,221.27	40,837.90	<b>788,383.43</b>
Provincial Fine Retention	94,645.67	110,702.35	136,704.54	151,160.01	153,940.99	148,035.36	129,800.95	129,756.08	136,616.83	142,375.00	128,689.99	79,826.50	<b>1,542,254.27</b>
To Global	82,280.55	97,352.75	122,609.85	131,936.75	132,947.10	128,763.25	112,845.70	112,479.40	117,524.55	122,305.70	110,319.00	69,212.55	<b>1,340,577.15</b>
To COGP	71,403.52	84,070.98	108,634.83	114,385.22	114,915.47	111,114.40	98,022.16	96,356.98	99,834.09	103,920.09	93,210.81	58,849.50	<b>1,154,718.05</b>
Total collected	<b>296,719.67</b>	<b>348,733.14</b>	<b>438,656.21</b>	<b>474,762.94</b>	<b>480,108.83</b>	<b>463,728.44</b>	<b>407,543.43</b>	<b>404,870.10</b>	<b>423,623.39</b>	<b>441,019.23</b>	<b>397,441.07</b>	<b>248,726.45</b>	<b>4,825,932.90</b>