



## EDMONTON TRANSIT SERVICE ADVISORY BOARD: PERCEPTION OF LRT SAFETY

### RECOMMENDATION

That the March 4, 2025, Edmonton Transit Service Advisory Board report EXT02558, be received for information.

### Executive Summary

As board members of ETSAB, we have undertaken the task of assessing the perception of safety on the ETS LRT system. In this report, we discuss the difference between actual and perceived safety and how this chasm perpetuates feelings of fear, concern, and distrust for users of the system.

Academic definitions of perception can provide useful insights into how the human mind understands and processes stimuli and thus, we can make determinations of perception of safety in different contexts. Particularly, persons may associate certain visuals with their definition of crime and safety and this may influence their perception of safety of the LRT. Research also supports the notion that men and women have perceptions of safety that are driven by different factors.

This report also discusses various factors that can affect perception of safety, including:

- Cleanliness
- Environmental design
- Feelings of connectivity
- Awareness of surveillance and
- Overall activity levels in LRT stations.

To substantiate our position that there is a generally negative perception of safety on the LRT, we examine recent social media and media headlines and reports to give a sense of how Edmontonians view safety on the LRT and to identify common complaints that lead to riders feeling unsafe.

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Finally, we make recommendations to improve perceptions of safety and overall rider satisfaction by improving cleanliness of LRT stations and cars, improving communications about safety and surveillance tools, reimagining transit spaces to encourage activity and liveliness, and encouraging and implementing technological improvements.

### **REPORT**

#### **Introduction**

Understanding the perception of safety on the LRT is crucial for ensuring the well-being and satisfaction of Edmonton residents who rely on this mode of transportation. Although safety on the LRT has been improving (e.g. a 19% decrease in drug-related incidents on transit and a 47% decrease in violent crime), safety is consistently identified within ETS satisfaction surveys as a major concern for riders, especially, incidents of crime, safety and security aboard LRT train cars, and general feelings of safety while commuters are waiting for LRTs.

The perception of safety, as it relates to the LRT, may be a challenge to measure or quantify due to the challenges inherent in its definition and broad interpretation. Specifically, the concept of perception – how concepts and ideas and experiences are understood – may be difficult to gauge due to the fact that perception can be difficult to define. It is defined by scholars in a multitude of disciplines with each discipline understanding, processing, and conceptualizing perception in distinctly different ways. In particular, different disciplines and scholars consider aspects, such as past experience or present goals, differently in how they shape and define perception.

This report aims to shed light on the factors influencing public perception of safety; gather insights from various sources including academic research, reports from Edmontonians, media scans, and social media posts; and outline ongoing efforts to address these concerns. By identifying areas of concern and implementing practical solutions that stem the negative perceptions of safety, we can enhance the overall experience of LRT commuters and foster a sense of security within our public transit system.

#### **Contrasting Perception of Safety with Actual Safety**

It is important to distinguish between perception of safety and actual safety. Perception of safety refers to individuals' subjective feelings of security while taking the LRT, which may not always align with objective measures of safety. The asymmetry is apparent when we look at public perception and compare the actual rates and incidences of crime in the city of Edmonton. According to data gathered by the Edmonton Police Service, non-violent crime fell by 36% from August to September of 2023 while violent crime fell by 47% in that same period. Additionally, there has been a 19% decrease in drug-related incidents on transit<sup>1</sup>. This suggests that the ETS's Enhanced Transit Safety Plan is working successfully to improve the safety of ETS riders. However, while the numbers prove that transit safety is improving, various groups such as parents view transit to be unsafe for their children due to actions such as open-air drug use or

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<sup>1</sup> Anderson, A., Ellingson, C., (2023, October 25). City council hears data shows Edmonton safety improving. CTV News.  
<https://edmonton.ctvnews.ca/city-council-hears-data-shows-edmonton-transit-safety-improving-1.6617311>

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the increased presence of unhoused individuals seeking shelter within LRT stations. While efforts should continue to be made to address actual safety, focusing on perception can help narrow the divide between perception and actual safety, alleviate fears, and improve the overall rider experience.

### What Affects Perception of Safety?

A recent study by Zhang et al (2021)<sup>2</sup> examined factors which can contribute to a “mismatch” between people’s perception of safety and crime or victimization. They noted that “when citizens are asked about the things that frighten them, instead of “real crime” such as theft or robbery, more often there is talk about signs of physical decay and disorder such as junk and trash in vacant lots, broken windows, bands of teenagers congregating on street corners and other incivilities”.

In Edmonton, some factors that may affect perception of safety on the LRT include:

- Cleanliness and maintenance of LRT cars and stations;
- Environmental design, such as ability to “escape” and clear sightlines;
- Feelings of isolation or lack of connectivity;
- Awareness of surveillance;
- Overall activity levels in stations.

However, these factors can also be affected by the demographics and individual characteristics of the users. In particular, in a study of urban parks, Polko & Kimic (2022)<sup>3</sup> found no difference between men and women on how safe they felt (i.e. perceived safety), but found significant differences in what men and women attributed that safety to. Women were found to be more likely than men to attribute the perception of safety to environmental factors, such as lighting, sightlines, cleanliness and maintenance. We argue that users of the LRT and transit spaces would find similar benefits as those described by users of urban parks and therefore, we attempt to apply the reasoning and results of the research to perception of safety on the LRT. It may be prudent for ETS to consider the distinct perceptions of women passengers (as compared to male passengers) in addressing solutions for improving the perception of safety as current systems and processes might lack a sensitivity to the factors that are weighed more heavily by women than men.

### Cleanliness & Maintenance

A recent review of the Satisfactions Surveys conducted by ETS over five years (2017-2022) indicated that riders’ satisfaction with cleanliness has been declining and is a major area of concern. The cleanliness of LRT stations and trains significantly influences passengers’ perception of safety and overall satisfaction. Well-maintained facilities and vehicles create a welcoming environment and deter anti-social behavior. Regular cleaning schedules, graffiti

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<sup>2</sup> Zhang, F., Fan, Z., Kang, Y., Hu, Y., & Ratti, C. (2001). “Perception Bias”: Deciphering a mismatch between urban crime and perception of safety. *Landscape and Urban Planning*, 207  
[https://senseable.mit.edu/papers/pdf/20210110\\_Zhang-et-al\\_PerceptionBias\\_LandscapeUrbanPlanning.pdf](https://senseable.mit.edu/papers/pdf/20210110_Zhang-et-al_PerceptionBias_LandscapeUrbanPlanning.pdf)

<sup>3</sup> Polko, P., & Kimic, K. (2022). Gender as a factor differentiating the perceptions of safety in urban parks. *Ain Shams Engineering Journal (Volume 13, Issue 3)*. <https://doi.org/10.1016/j.asej.2021.09.032>

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removal efforts, and prompt repairs contribute to passengers' sense of security and pride in the public transit system.

### **Environmental Design, Sightlines, and Service Levels**

ETS uses Crime Prevention Through Environmental Design (CPTED) techniques when planning and designing spaces; however, the nature of many LRT stations can contribute to feeling unsafe (e.g. underground, restricted spaces, long stairwells, etc.). Passengers value the ability to exit or seek assistance quickly in case of emergencies or instances where they might feel threatened or unsafe.

Frequency of LRT service may also be a factor in how passengers perceive safety when using the LRT. Long wait times between trains can contribute to riders feeling “trapped”, as well as leading to crowded platforms and increasing the likelihood of accidents or altercations.

### **Feelings of Isolation and Lack of Connectivity**

Related to the above factor, one significant aspect affecting passengers' perception of safety is the feeling of isolation during their LRT train ride. Especially during off-peak hours or late-night rides, passengers may experience heightened feelings of vulnerability due to fewer fellow riders. A lack of passenger presence, human surveillance, and the inability to engage with other passengers in times of distress or worry could contribute to further worry or anxiety that is due to isolation.

Currently, no ETS vehicles offer Wi-Fi services for passengers. ETS has done a fantastic job of making Wi-Fi services available on some LRT platforms and in select transit stations but secure and efficient Wi-Fi connectivity is not a current option for all ETS passengers. Offering Wi-Fi and reliable cellular phone signals could help improve the perception of safety as it would ensure that all passengers can connect to internet services and interface with family, friends, and safety and security resources such as Transit Watch and local authorities in times of emergency and distress.

### **Awareness of Surveillance**

ETS has a variety of tools to improve safety on the LRT, including video camera surveillance in all ETS buses and LRT train cars; yellow and red coloured emergency buttons on train cars; blue coloured emergency phones; and Transit Watch. However, our analysis showed that not all ETS commuters are aware of these tools. For example, riders may not know or understand that ETS has the ability to monitor buses in real time. ETS does not have the ability to view and monitor train cars in real time but the fact that there is video footage available may improve the perception of safety for the end user. Additionally, riders may not be aware of what will happen when the emergency buttons are pressed or what level of help they will receive upon engaging with the buttons or the blue emergency phones. We posit that the public may not fully understand the features and capabilities of these surveillance tools. ETS might be able to do a better job of communicating the extent and limits of its surveillance tools and inform the public of exactly what Transit Watch represents.

### Overall Activity Levels in Stations

The Transit Safety QR code survey ran from July of 2023 through January of 2024. In terms of the impact of presence of other riders in transit spaces on perception of safety, the transit safety QR code survey showed that presence of other riders was the top reason for feeling safe with over 60% of overall respondents who felt safe indicating this was one of the reasons they felt safe.

### What Are Edmontonians Saying About Safety on the LRT?

While levels of reported crime and illicit activity have gone down according to reports from the Edmonton Police Service (EPS), taking a look at individuals' experiences that are shared across social media provides a look into why many Edmontonians feel that transit is becoming increasingly unsafe and less appealing as a method of commuting. We acknowledge that social media is an imperfect source of information and that social media posts have a tendency to express negative sentiments; however, social media can also be a helpful source, providing insight into current trends and an overall picture of how Edmontonians view safety on the LRT.

We conducted a scan of a number of specific social media platforms, namely: Reddit, X (formerly Twitter), YouTube, and Facebook. Our scan uncovered 14 independent social media posts since 2021 which negatively represented safety on the LRT. This included:

- Six independent posts related to drug use on LRT cars and in stations;
- Five posts raising multiple issues of safety (such as drug use, cleanliness, violence, harassment, and/or mental illness);
- Two posts related to violence and weapons (such as knives);
- One post related to gang activity.

Many of the posts were supported by additional comments which reported additional instances of drug use, violence, and disorder. In contrast, over the same time period, our scan uncovered only four positive or neutral independent posts related to safety on the LRT.

A common theme presented by multiple users is how increased instances of open-air drug use in LRT cars and within transit stations has begun to make them feel less and less safe on their commutes. Users have mentioned that over the past few years they have noticed that individuals who are using drugs are no longer attempting to hide their use of them, but instead use them in the open without worry of being caught. In addition to open drug use, users have reported that there is a very real increase in potential threats to their safety when using the LRT.

One user mentioned frequent experiences of being sworn at, harassed, and catcalled. They also mention that this harassment is not limited to adults but is also directed at children who use the LRT during their commute. The same user mentions that when such actions are reported to security, nothing is done and this has discouraged them from using the LRT.

Another user mentioned their experience with an individual chasing them for no clear reason while at an LRT station after repeatedly banging on the train window and directing their aggression towards another passenger. They also mention how during a different commute,

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they witnessed an individual pull a knife out while at a station in an attempt to intimidate/possibly maim another individual at the station. Similar to the previous user, transit security was not much help during a time of heightened risk and threats to safety.

While these two instances were of potential threats to the users' safety and wellbeing, another Reddit user posted a request for witnesses after being attacked while on the LRT. The user mentioned that EPS were unable to apprehend the alleged assailant due to a lack of witnesses. This may potentially deter other transit users from continuing to use transit as they witnessed the attacker being allowed back on transit moments after assaulting another rider. This may be due to perceived injustices in safety and security processes and inaction by the EPS. The EPS reassured the user that they can re-arrest their attacker once witnesses come forth and more evidence is presented, but the lack of rapid footage being transferred from the ETS to EPS created a scenario that reduces the public's feelings of safety on board transit, no matter how rare attacks similar to the one this user experienced are. This is of extra concern as the user mentioned that EPS stated they have had multiple issues with the same individual before.

In addition to social media, Edmontonians' perception of safety on the LRT could be influenced by traditional media reports and a number of high profile incidents that have occurred on the LRT over the past few years. This includes media reports on:

- two 14-year-old boys arrested in connection with LRT assault in April 2024,
- a man shoved into the path of a Valley Line LRT train in March 2024,
- a man assaulted and robbed at an LRT station in February 2024,
- stabbings at Belvedere Station in March 2024,
- two 12-year-old girls assaulting a woman at Coliseum station in November 2023,
- an assault on a man after he left Coliseum station and boarded a bus in November 2023, and
- a man stabbed to death at Belvedere Station in July 2023.

As noted above, while statistics show that violent crime on the LRT is decreasing, these reports in the media highlight exceptional situations and affect the way LRT users perceive safety.

### **What is Being Done to Improve Safety?**

The City of Edmonton, Edmonton Transit, and the Edmonton Police Service are addressing these concerns through a number of measures, such as the City of Edmonton's Bystander Awareness Campaign, TransitWatch, video camera surveillance, and the presence of Peace Officers monitoring transit stations. Currently, there are seven members of The Bent Arrow Traditional Healing Society who patrol stations with the Peace Officers to provide help and information or resources to individuals who may not know where and how to get it.

Another solution that has been proposed by Edmonton City Council is a test run of turnstiles at two stations: one above ground and one underground to see if the level of crime and disorderly behaviour drops, or if there is no measurable change. In addition to this, EPS has given the public reassurance of their timely response in times of danger and dubious behaviour. EPS states that when officers spot individuals engaging in activities such as open-air drug use or other activities that may make transit riders feel unsafe, the officers address the actions

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immediately as a form of “behavioural direction.” However, there is no blanket response that can fully address these issues while also providing individuals in need with the resources they need.

While actions such as these help reduce instances of activities that may make riders feel unsafe, it should be noted that activities such as open-air drug use are not unique to only transit stations but are rather common in the Edmonton downtown core. This highlights that to properly address these issues affecting transit and riders' perception of safety, more social services are needed to help individuals experiencing hardship.

### **Conclusion and Recommendations**

While crime rates on the LRT have been decreasing, it is apparent that the perception of safety on the LRT has yet to ‘catch up’. Our review of social media sentiments and recent media reports shows that there is still a certain negative public perception of safety for the LRT and the public may have a distrust and fear of using LRT services.

By focusing on specific factors that contribute to perception of safety, we can improve this perception and regain the trust of Edmontonians, thereby increasing ridership. In particular, we suggest that improvements to cleanliness, communication and information, the design of transit spaces, and program (operational) and technological improvements can all enhance riders' feelings of safety while riding the LRT.

#### **Recommendation #1: Improving Cleanliness**

Cleanliness and maintenance are repeatedly mentioned as factors in the perception of safety, both within the academic articles cited within this report and by Edmontonians on social media. LRT stations that smell of urine and drug paraphernalia left in LRT cars were amongst the most cited reasons for people feeling unsafe on the LRT. Additionally, cleanliness is often noted as a major concern within the ETS Satisfaction Surveys and appears to be worsening (in terms of satisfaction rating). Cleanliness must be identified as a priority item, and be funded appropriately, to create welcoming environments in which passengers feel safe and secure.

#### **Recommendation #2: Improving Communication About Safety Tools**

ETS can find more ways to communicate the tools and measures that they currently have in place to address crime, violence, and safety and security in LRT spaces. As noted above, our analysis uncovered that not all ETS commuters know or understand that ETS has the ability to monitor buses in real time. ETS does not have the ability to view and monitor train cars in real time but the fact that there is video footage may improve the perception of safety for the end user.

ETS also has a number of other safety resources to help assist passengers while they ride on the LRT. A good example of this is the yellow and red coloured emergency buttons that are available for use in emergency situations on trains. The blue coloured emergency phones at LRT stations are another example of safety resources that are available to use in times of concern or distress. A lot of commuters don't know how these phones work or what level of help they receive upon engaging with them.

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We also identified Transit Watch as another tool that passengers are not intimately acquainted with. This program has a presence in terms of some advertising and general awareness but its mission, cause, and efficacy may be nebulous at best. Our research and analysis uncovered a number of comments from passengers that voiced some displeasure with their Transit Watch experiences. There seems to be a lack of understanding of what Transit Watch does and how it adds or creates value for commuters. While Transit Watch is constantly being improved and ETS has made great efforts to improve the program and its transparency, further feedback may be required to improve the program to a higher public standard, especially in terms of the program's goals and public expectations.

In summary, there are a multitude of safety resources available to the public but it is likely that there is a lack of understanding of their intended and potential use. Improved communication and transparency with the public may help improve perception of safety on the LRT.

### **Recommendation #3: Reimagining Transit Spaces & Improved Activity**

We propose that a reimagination and redesign of LRT transit spaces can greatly improve riders' experiences. Making better use of open spaces and inviting positive and vibrant activity into LRT spaces will create a welcoming environment that invites traffic, expectations of passenger unity and camaraderie, and a calm security presence.

Our specific recommendations are the use of art, retail, and live entertainment at LRT stations. In addition to encouraging buskers, a formal effort to have scheduled entertainers – local talent and other entertainers – perform at different times throughout the day, evening, and night would contribute to a more active and lively environment in LRT stations. This supports the concept that the presence of other riders was a top reason for feeling safe in a recent Transit Safety survey.

The design of transit spaces could also use art in various forms (painting, sculpting, drawing, etc.) to liven and brighten transit areas. ETS has effectively used art in many of its safety and operational endeavours and we believe that it is one more solution that can improve the perception of safety on the LRT.

### **Recommendation #4: Operational and Technological Improvements**

We believe that perception of safety on the LRT can be improved with some easy upgrades to the security features. The ability to monitor LRT vehicles in real time might improve the passengers' perception of safety. Currently, ETS is not able to monitor LRT train cars in real time.

Unfortunately, 'train to wayside' technology was not given any funding in the most recent budget, however, it is something that should be given serious consideration in future years. We believe that procuring this technology and informing the public of its features and benefits could make persons feel safer on the LRT as it gives ETS the ability to follow and track violent or dangerous behaviour in real time, creating opportunities to send help and scrutinize emergency events as they unfold.