



OFFICE OF THE  
**City Auditor**

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# Counterfeit Edmonton Transit Pass Investigation

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The Office of the City Auditor conducted  
this project in accordance with the  
*International Standards for the  
Professional Practice of Internal Auditing*

# Counterfeit Edmonton Transit Pass Investigation

## 1. Introduction

The City of Edmonton's Corporate Security (Corporate Security), Edmonton Transit (ETS), and the Edmonton Police Service (EPS) are conducting an investigation into the sale of counterfeit ETS adult monthly transit passes. During the investigation Corporate Security asked the Office of the City Auditor (OCA) for assistance in analysing the sales data for adult monthly transit passes.

This report provides a brief description of the investigation Corporate Security, ETS, and the EPS have performed to date into the sale of counterfeit transit passes. As well, it includes a description of the processes we used to analyse pass sales data and the observations from our analysis.

## 2. Background

ETS Security became aware of the possible sale of counterfeit adult monthly passes in early February 2011 when a Security Advisor from a large corporation notified them that someone was selling passes at lower than face value in their building. They notified Corporate Security and after some initial investigation Corporate Security notified the EPS. The EPS and Corporate Security investigated these sales and determined that they were counterfeit passes. Even though ETS monthly transit passes have more security features than any fare product it has printed in the last 10 years, these counterfeit passes were still very difficult to distinguish from the originals.

This part of the investigation by Corporate Security and the EPS led to the arrest of one person. Corporate Security determined that this person sold 351 counterfeit passes between November 2010 and February 2011. This amounts to approximately \$29,000 in lost revenue for ETS.

To assist the EPS in their continued investigation Transit Peace Officers collected serial numbers from random checks of transit rider passes. ETS analysed the serial numbers collected by the Transit Peace Officers for repeated numbers. The repeated numbers they found identified the serial numbers used on the counterfeit passes. Transit Peace Officers then conducted random checks for these specific serial numbers and found riders using the actual counterfeit passes. The Transit Peace Officers confiscated the counterfeit passes and identified the riders using these passes to the EPS for them to follow up with.

The information received from the counterfeit pass users found by the Transit Peace Officers led EPS and Corporate Security to believe that the counterfeit passes were not only being sold by individuals, but also at certain small businesses within the City where

ETS fare products are available for sale. At this point Corporate Security requested assistance from the OCA.

### 3. Role of the OCA

Corporate Security specifically asked the OCA to analyse the adult monthly pass sales data for each business selling passes (outlets) to determine which outlets may have been selling counterfeit passes. Corporate Security also asked us to try to determine the dollar value loss to ETS from the sale of the counterfeit passes.

### 4. OCA Observations

#### 4.1. Outlet Sales History Analysis

Using specialized audit software we determined the sales history for monthly adult transit passes for each outlet that sells passes for the period of January 2009 to March 2011. This included the number of passes issued to, returned by, and sold by each outlet, including ETS@Work customers. We reviewed the sales history of each outlet looking for irregularities in the number of sales or returns, such as significant decreases from month to month or compared to the same month in the previous year. These irregularities may suggest the outlet was selling counterfeit passes. Corporate Security indicated that they thought the counterfeit passes came on the market around October or November of 2010. Therefore, we focused our review on any irregularities occurring after September 2010.

Based on our review of the outlet sales history we identified 17 outlets that may have been selling counterfeit passes. We provided the sales histories of the 17 outlets to Corporate Security, who provided it to the EPS for use in its investigation. We informed Corporate Security that the irregularities we identified at these 17 outlets could be due to the sale of counterfeit passes; however, they could also be due to other factors that effect sales (i.e., construction near the outlet or a change of ownership).

In Appendix 1 of this report we have included the monthly sales history of four of the 17 outlets we identified as possibly selling counterfeit passes to show examples of the types of irregularities we discovered.

Of the 17 outlets we identified to Corporate Security, it was already aware of three, due to information gathered by the Transit Peace Officers during their random checks of rider passes. Corporate Security and the EPS analysed the remaining outlets in relation to the information they had from the investigation (i.e., possible location of the sales) and chose a couple outlets to potentially investigate further.

#### 4.2. Determination of Lost Revenue

The loss in revenue ETS is experiencing from the sales of counterfeit adult monthly passes is difficult to determine because we do not know how many have been sold.

From their investigation Corporate Security and the EPS believe that the sale of counterfeit passes goes beyond those sold by the one individual they arrested. However, as their investigation is still ongoing the exact magnitude of the other sales is unknown.

As a starting point in determining the magnitude of counterfeit pass sales we compared the total number of adult monthly passes sold by all outlets in 2009 to the total amount sold in 2010 to determine if it had declined. The number of passes sold did decline by nine percent or 35,210 passes. If ETS had sold these passes in 2010 they would have earned an additional \$2.8 million. However, we are unable to quantify the portion of this decline related to the sale of counterfeit passes because ETS expected the number of passes sold to decrease in 2010. There were several reasons for this expectation, including:

- The increased cost of an adult monthly pass from 2009<sup>1</sup>. ETS expected to sell approximately 14,000 fewer passes because of this. They expected these people would purchase ticket packs (books of 10 single use transit tickets sold at a discount) or individual fares instead of a monthly pass.
- The introduction of the NAIT Upass in September 2010.
- The downward trend in the commuter market due to the recession and unemployment.

ETS still expected to increase revenues from the sale of adult monthly passes in 2010, which it did by approximately \$140,000.

Due to the number of factors that negatively affected the sale of monthly passes, it is difficult to estimate the portion of the decline associated with the sale of counterfeit passes. We know from the arrest of one individual that he sold 351 counterfeit passes and ETS lost approximately \$29,000 from these sales. However, the EPS and Corporate Security think these numbers could be higher because they believe there are outlets also selling the counterfeit passes.

## 5. Conclusion

We provided ETS and Corporate Security the monthly sales histories for outlets we believe could be selling counterfeit passes. We also attempted to determine the amount of revenue lost due to the sale of counterfeit passes. In this attempt we found that the sale of adult monthly passes decreased in 2010 compared to 2009. However, because there were many factors that led to this decrease we could not determine how many counterfeit passes were sold; therefore, we are unable to quantify the loss in revenue due to the sale of counterfeit passes.

We do know that one person sold 351 counterfeit passes between November 2010 and February 2011 and if those people had bought valid passes ETS would have earned an additional \$29,000 in revenue.

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<sup>1</sup> The price of an adult monthly pass has increased by \$7.25 from 2009 (\$74.25) to 2010 (\$81.50).

Corporate Security has provided ETS with recommendations to help prevent the sale of more counterfeit passes. ETS has already begun implementing these recommendations. The recommendations are not in this report because people with ill intent could use them to find additional ways of creating counterfeit passes.

ETS, with the help of Corporate Security and the EPS, is managing this investigation in a responsible and timely manner. We believe ETS is aware of the threat to revenues caused by the sale of counterfeit passes and is working to implement the recommendations provided by Corporate Security to decrease its risks associated with the sale of counterfeit passes.

This is still an ongoing investigation by the EPS and Corporate Security. Corporate Security may provide additional recommendations to ETS as the investigation proceeds. They will continue to keep us informed of their progress and we will provide any additional assistance as required.

**Appendix 1 – Example of Outlet Sales History**

**Outlet A**

Year	Month	Issued	Returned	Sold
2010	Jan	15	0	15
2010	Feb	10	-9	1
2010	Mar	15	-1	14
2010	Apr	15	-5	10
2010	May	10	0	10
2010	Jun	20	-15	5
2010	Jul	0	0	0
2010	Aug	0	0	0
2010	Sep	10	-5	5
2010	Oct	0	0	0
2010	Nov	2	-2	0
2010	Dec	2	-1	1
2011	Jan	0	0	0
2011	Feb	0	0	0
2011	Mar	3	0	3

- Irregularities were the drop to zero sales in July 2010, again in October 2010 and then again in January 2011.

**Outlet C**

Year	Month	Issued	Returned	Sold
2010	Jan	40	-4	36
2010	Feb	50	-12	38
2010	Mar	40	-5	35
2010	Apr	40	-8	32
2010	May	40	-13	27
2010	Jun	45	-13	32
2010	Jul	40	-6	34
2010	Aug	40	-16	24
2010	Sep	40	-15	25
2010	Oct	40	-2	38
2010	Nov	40	0	40
2010	Dec	45	-14	31
2011	Jan	40	-30	10
2011	Feb	0	0	0
2011	Mar	10	0	10

- Irregularities were the significant drop in sales from December 2010 to January 2011 and the subsequent months lower or no sales.

**Outlet B**

Year	Month	Issued	Returned	Sold
2010	Jan	27	-14	13
2010	Feb	30	0	30
2010	Mar	25	0	25
2010	Apr	25	-3	22
2010	May	25	0	25
2010	Jun	30	0	30
2010	Jul	28	-3	25
2010	Aug	26	0	26
2010	Sep	24	-2	22
2010	Oct	15	-5	10
2010	Nov	15	-2	13
2010	Dec	18	-7	11
2011	Jan	12	0	12
2011	Feb	15	-1	14
2011	Mar	16	-1	15

- Irregularities were the significant drop in sales from September 2010 to October 2010 and subsequent months lower sales.

**Outlet D**

Year	Month	Issued	Returned	Sold
2010	Jan	15	-13	2
2010	Feb	10	-5	5
2010	Mar	15	-5	10
2010	Apr	15	-1	14
2010	May	10	0	10
2010	Jun	20	0	20
2010	Jul	0	0	0
2010	Aug	0	0	0
2010	Sep	5	-5	0
2010	Oct	0	0	0
2010	Nov	2	-1	1
2010	Des	0	0	0
2011	Jan	0	0	0
2011	Feb	0	0	0
2011	Mar	3	0	3

- Irregularities were the significant drop in sales from June 2010 to July 2010 and the subsequent months lower or no sales.