Calgary

Transportation
Roads

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Mid-Cycle Adjustments
November, 2016

November 21-25, 2016 | Presentation

Calgary

TRANSPORTATION DEPARTMENT

ROADS

OPERATE

MAINTAIN

The Roads business unit operates, maintains, rehabilitates, and reconstructs the city's current roadways and bridges, and manages traffic. We work to provide a safe, reliable, efficient, and customer-focused transportation system.

Business Unit Services
- Traffic operations
- Street, sidewalk, and bridge maintenance
- Development services
- Spring Clean-Up
- Snow & Ice Control

Traffic Safety (Calgary)

Annual Casualty Collision Rate per 100,000 Population

National Casualty Collision Rate
(Collisions per 100,000 Population)

Outlook
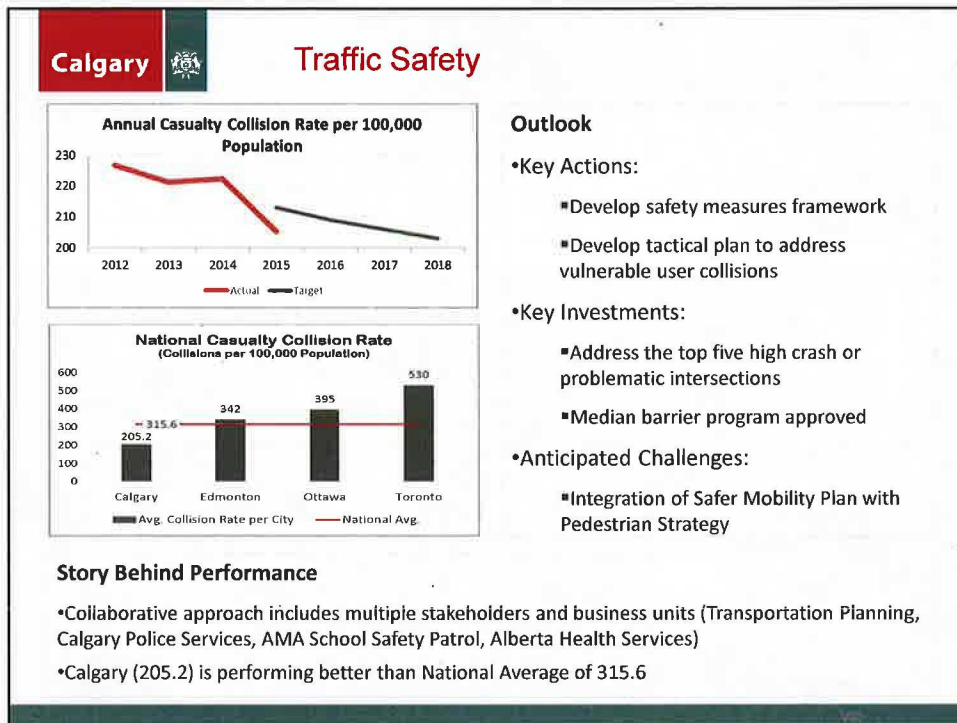
- Key Actions:
  - Develop safety measures framework
  - Develop tactical plan to address vulnerable user collisions
- Key Investments:
  - Address the top five high crash or problematic intersections
  - Median barrier program approved
- Anticipated Challenges:
  - Integration of Safer Mobility Plan with Pedestrian Strategy

Story Behind Performance

- Collaborative approach includes multiple stakeholders and business units (Transportation Planning, Calgary Police Services, AMA School Safety Patrol, Alberta Health Services)
- Calgary (205.2) is performing better than National Average of 315.6

Safer Mobility (Calgary)

Pedestrian Safety

Rectangular Rapid Flashing Beacons

Calgary Safer Mobility Plan

Community Speed Watch

Traffic Calming Curbs Innovation

Reflective Sleeves Pilot

Operational Improvements

Calgary

TMC Communications to Traffic Signals

Added 180 signals in 2016

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec 2017 2018

Signal Retiming - Major Corridors

Percent Improvement

Major Corridor Projects
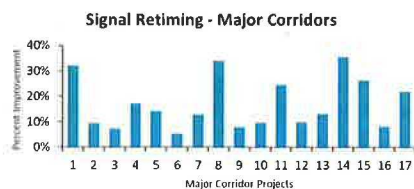
Outlook

- Key Actions:
  - Signal corridor retiming
  - Enhance pedestrian capacity in high volume areas
- Key Investments:
  - TMC communications to traffic signals and real-time traffic flow monitoring
  - Uninterruptible power supply to maintain signal operation and traffic flow
- Anticipated Challenges:
  - Prioritizing demands on a growing network

Story Behind Performance

- 'Traffic congestion' a key area Calgarians identified for improvement (Citizen Satisfaction Survey)
- Proactive incident response using real-time traffic data
- Increased signal connectivity expands detection of signals on flash, shortening response time

Accessibility Improvements
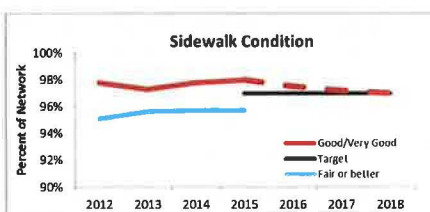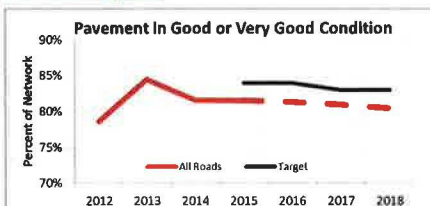
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Audible Pedestrian Signals

PEDESTRIAN DETOUR

Tactile Paver

Infrastructure Lifecycle Maintenance

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Pavement In Good or Very Good Condition

All Roads — Target

Sidewalk Condition

Good/Very Good — Target — Fair or better

Outlook

- Key Actions:
  - Improving coordination of capital works with utilities
  - Inspections to include before/after photos
- Key Investments:
  - Pave 265 of 16,300 lane km of roads and replace 28 of 5,700 km of sidewalks
  - Testing a Texas gate to prevent gravel lane washouts in severe rain events
- Challenges:
  - Freeze-thaw cycle

Story Behind Performance

- 24% of Calgary's sidewalks are older than 50 years
- Developing innovative solutions such as the development of a slip-in asphalt recycler to reduce the cost of pothole repair
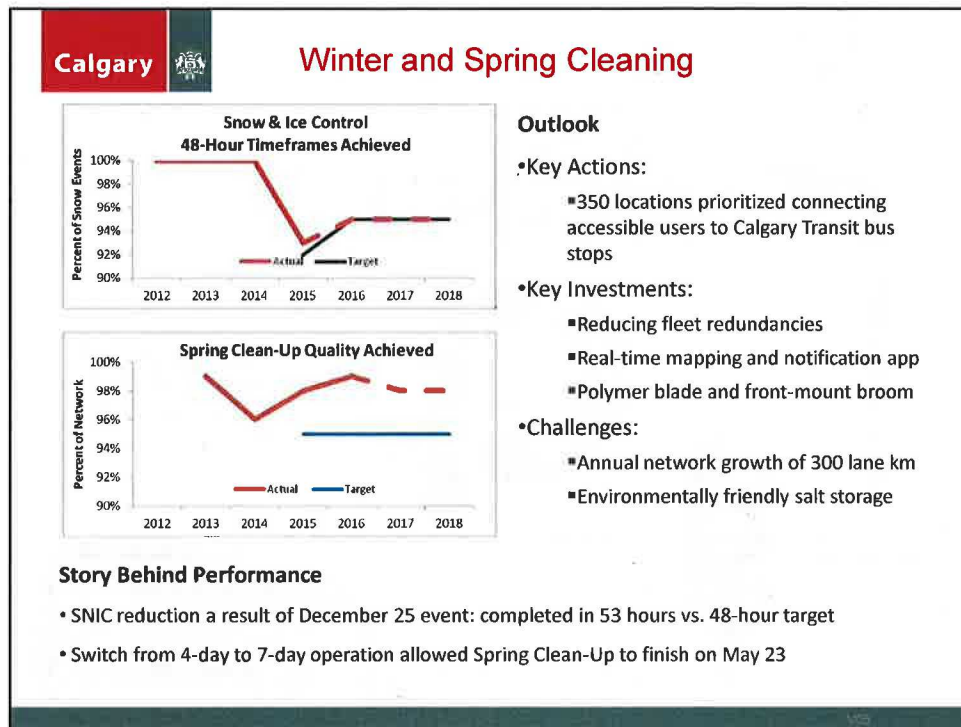
Innovation - Asphalt Recycling

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- Slip-in asphalt recycler prototype developed by City staff
- Uses existing fleet and eliminates 11 hot box vehicles
- Potential savings of up to $1M if implemented across operations

Winter and Spring Cleaning

Calgary

Snow & Ice Control 48-Hour Timeframes Achieved

Spring Clean-Up Quality Achieved

Outlook

• **Key Actions:**
- 350 locations prioritized connecting accessible users to Calgary Transit bus stops

• **Key Investments:**
- Reducing fleet redundancies
- Real-time mapping and notification app
- Polymer blade and front-mount broom

• **Challenges:**
- Annual network growth of 300 lane km
- Environmentally friendly salt storage

Story Behind Performance

• SNIC reduction a result of December 25 event: completed in 53 hours vs. 48-hour target

• Switch from 4-day to 7-day operation allowed Spring Clean-Up to finish on May 23

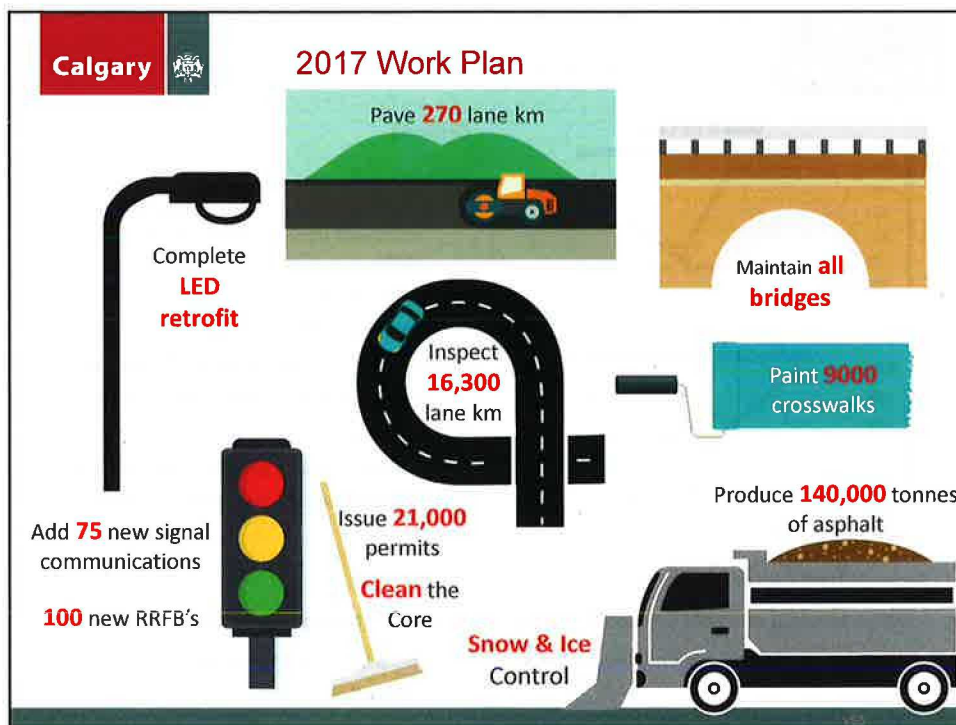## Trial – Vacuum Under Vehicle

Calgary

Current Process
- Street sweepers maneuver around parked vehicles, leaving debris
- Current options: Ticketing and short tow
- Result: time and costs

Trial
- Two-man crew and a vacuum truck
- Remove debris without contact the vehicle
- Approximately 15 minutes to complete

Result
- Small amount of debris remaining under the tires and better service to customers

2017 Work Plan

Pave **270** lane km

Complete **LED retrofit**

Maintain **all bridges**

Inspect **16,300** lane km

Paint **9000** crosswalks

Add **75** new signal communications

100 new RRFB's

Issue **21,000** permits

Clean the Core

Produce **140,000** tonnes of asphalt

Snow & Ice Control

Our focus and staff commitment:

- Safe
- Efficient
- Sustainable
- Customer-Focused Service

Questions

Roads
Mid-Cycle Adjustments
November, 2016