City of Dallas

Update on the Use of AI-Powered Camera Technology

Finance Committee
Date: 12/9/2025

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Presentation Overview

- Purpose
- How Does It Work?
- Hardware/Software
- Contract Terms
- Operational Impact
- Next Steps

Purpose

Implement 100 AI-enabled cameras on Sanitation brush trucks

- Improve visibility into curbside participation
- Modernize data collection for sanitation services
- Support proactive code compliance strategies and citywide property surveys
- Streamline resource deployment and abatement activities
- Maximize voluntary compliance rate through educational notices

How does it work?

Hardware

- 2 cameras mounted on 1 city vehicle
- Take photos as it drives (25-35 MPH)

Software

- Automatically detect potential property issues from images using computer vision and AI
- Portal for staff to log in view images and search detections

Implementation

- Staff use images to track parcel conditions over time
- Staff use images and software filters to prioritize work

Hardware – The Camera

- Side-facing cameras attached to vehicle
- Captures images from the public right-of-way
- Automated blurring of personal information (license plate numbers and faces)
- Automated transfer of images and results from camera to cloud-based software solution
- The cameras capture images at 1920p x 1080p resolution
- They have a fixed focal length, which means they do not support any zoom capability

Equipment Needed

Mounted City Detect Camera

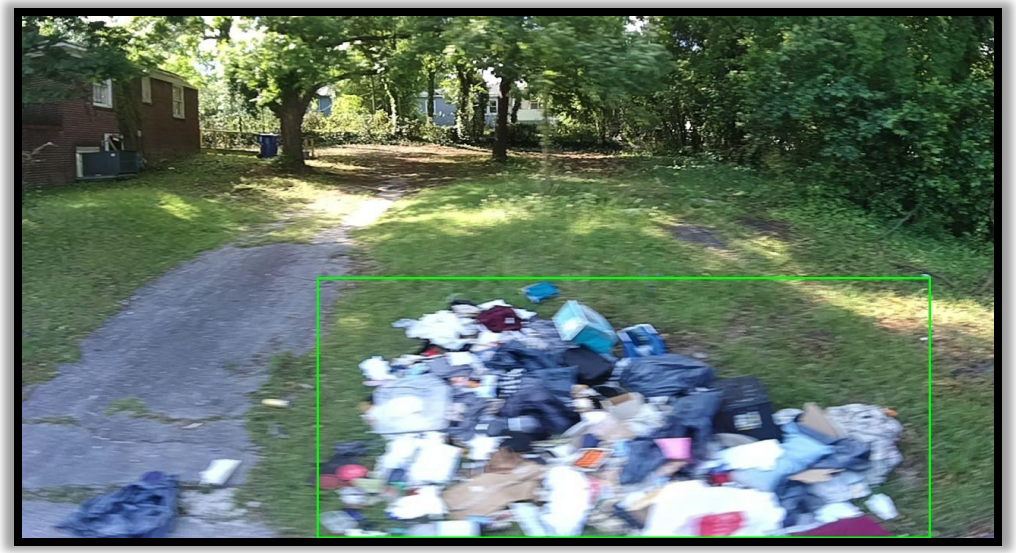
Software – Image Analysis

Detection of property conditions

- Bulk trash participation
- Collapsing structures
- Trash
- Tires
- Illegal dumping
- Graffiti
- Boarded windows/doors
- High Grass

Analysis of property conditions

- Housing Condition
- Object Level Insights
- Weekly Updated Reports
- Track change-over-time



Blurred faces and license plates for privacy.

Software – Portal for Staff

- Web portal to review results
- Searching across properties in a GIS map
- Workflow functionality for task list

What City Detect will see

Contract Terms

The contract includes the cost of purchase, installation, maintenance, warranty, and replacement support.

- This is a three-year contract for an estimated amount of $2,556,000, subject to annual City Council appropriations.
- The contract cost is $852,000 per year, which includes 100 cameras and all associated technology, installation, data services, maintenance, warranty, and replacement support.
- The City may terminate the contract with 10 days' written notice at any time, without penalty.
- The contract is therefore a service-based, fully inclusive technology agreement and not a per-camera equipment purchase model.

Operational Impact

- City Detect combines proprietary computer-vision models with ruggedized cameras mounted on existing city fleets.

- Each passively captured image becomes a data point — mapped, analyzed, and prioritized for action instantly.

Operational Impact

- Dashboards visualize detections in real time — from debris and graffiti to code violations.

- Cities can filter by severity, department, or district, turning raw data into immediate action plans.

Video provided by vendor City Detect

Operational Impact

Operational Efficiency:

- Monthly coverage of all parcels
- Route and staffing optimization

Improved Service:

- Faster blight and debris resolution
- Higher voluntary compliance

Operational Impact

What it **IS**

- Proactive property condition detection
  - ➢Tool for staff to support their work
- Public right-of-way image capture
  - ➢Just like Google Street View

What this **IS NOT**

- NOT staff replacement
- NOT automated ticketing
  - ➢There is a human in the loop for all actions
- NOT public safety surveillance
  - ➢Ability to blur faces and license plates for privacy

Summary

This technology will assist with:

- Improving safety, cleanliness, and service efficiency.
- Potentially reducing long-term operational cost.

Next Steps

- This item will be considered by the City Council on December 10, 2025

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