

# Council Briefing

## December 5, 2005

### Automated Red Light Running Enforcement



- Red light running issues
- Benefits of enforcement
- How photo enforcement works
- Cities currently operating photo enforcement systems
- Steps to implement program

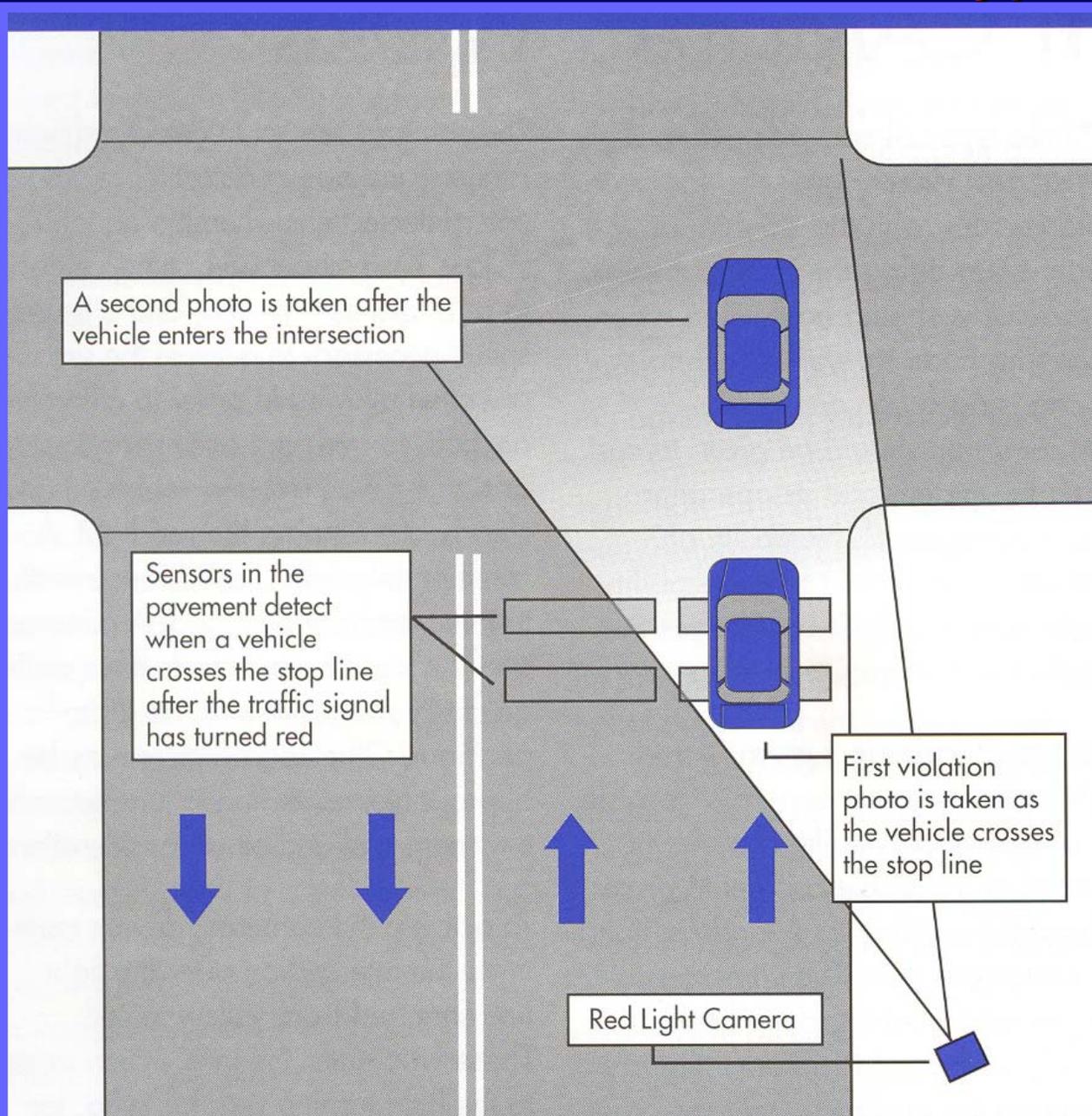
# Red Light Running Issues

- In 2003, the Federal Highway Administration reported 206,000 crashes nationwide related to red light running with 934 fatalities and 176,000 injuries.
- The Insurance Institute for Highway Safety reports a national increase of 10% in traffic signal fatalities since 1993.
- In 2000, the Insurance Institute for Highway Safety rated Texas the fourth highest in red-light-running fatalities and Dallas seventh highest among a list of 70 large cities (200,000+ population) nationwide.

# Benefits of Photo Enforcement

- The Federal Highway Administration reports that intersections nationwide average a 25% reduction in right-angle crashes after installing photo enforcement systems.
- Provides continual enforcement at high-accident locations.
- Reduces potential for congestion and secondary crashes.
- Photo evidence reduces the number of contested tickets and time spent in municipal court.

# How Photo Enforcement Typically Works



Red light camera in Garland, Texas



## How Photo Enforcement Typically Works

- 1<sup>st</sup> photo is taken as vehicle crosses stop bar and 2<sup>nd</sup> photo is taken of vehicle in intersection during red.
- Photos display time and speed after the onset of red.
- Photos are reviewed for validity before a citation is prepared.
- A citation is mailed to the registered vehicle owner.
- Some systems provide a website and give a pass code on the citation for vehicle owners to view color photos and a short video clip.
- Civil citations may be contested by administrative adjudication.
- Citations may be appealed to municipal court if found valid by adjudication.

# Cities Using Photo Enforcement

## Recommended Red-Light Program Goals

Incrementally expand the number of photo cameras to achieve a 25% reduction in right-angle crashes citywide. This would match the national average of 25% at photo enforced sites.

<u>Texas Cities</u>	<u>Cameras</u>	<u>% of Signals</u>
City of Garland	5 exist -12 planned	6%
City of Frisco	4	8%
City of Richardson	4	3%
City of Plano	5	2%
City of Houston	10	<1%

<u>Cities in Other States</u>	<u>Cameras</u>	<u>% of Signals</u>
Phoenix	64	6%
Washington, DC	85	5%
Chicago	26	<1%
New York	50 (200) empty boxes	<1%

# Cities Using Photo Enforcement

## Potential Number of Camera Sites

- Number of cameras in cities with established programs range from 1% to 6% of the total number of traffic signals.
- Cities using photo enforcement have seen “spill over” affect at nearby intersections and citywide. California cities reported a citywide reduction of 7% to 10% in red-light related crashes after implementing program.
- No statistics are available to suggest the saturation level required to achieve optimum results.
- Staff recommends implementing 15 cameras (1%)
- After 1<sup>st</sup> year of operation staff will assess program results and determine if additional cameras are required.
- Program could continue to expand to 5% of traffic signals until program goals are achieved.

# Cities Using Photo Enforcement

## City of Garland Statistics

- 50% reduction in right-angle crashes at photo enforced sites
- Last year 30,000 citations processed using five cameras
- 15 % of violation photos were not processed due to obscured license plates and other technicalities
- Less than 2% of citations are contested

## Typical Violation Rates in Texas

- Number of violations vary per location depending on volumes, congestion levels, and frequency that the traffic signal cycles (affects number of yellow-red change intervals per hour).
- A study by the Texas Transportation Institute found that major intersections typically see 30-40 violations per day.
- City of Garland reports 800 violations per month per camera.

# Cities Using Photo Enforcement

## Costs to Install System

- No capital cost to city, equipment is owned by vendor
- All cities contacted have established service contracts to provide the following services:
  - Install equipment
  - Collect and process photos
  - Prepare citations for review by city enforcement officials
  - Mail citations and collect fines
- Flat monthly fee established for each camera
  - National average is \$5,000 per month
  - Garland pays \$5,600 per month
  - Richardson, Frisco & Plano will pay \$4,870 per month (shared contract)
- Other cities utilize city personnel to approve citations and conduct adjudication. The City Attorney will determine if these functions can be outsourced; otherwise additional staff will be required.
- Contracts may be structured to terminate without penalty.

# Cities Using Photo Enforcement

## Revenue Uses

- Cities of Richardson, Plano and Frisco have established by ordinance that any revenues that exceed the cost of the program be directed to a traffic safety fund.
- Net revenues in Dallas could be directed to the following traffic safety improvements:
  - Pavement markings at stop bars, cross-walks and curves
  - Intersection improvements to eliminate accident trends
  - School zones/cross walks and side walks to schools
  - Traffic signs, pavement markings and guardrails to reduce run-off-the-road accidents

# Steps to Implement Program

- Establish a city ordinance to make red-light running violations determined by photo enforcement a civil penalty and establish a fine (Dallas-area cities are using \$75.00).
- Determine potential cameras sites by identifying intersections with frequent violations or a history right-angle accidents. Cameras must be located on city streets.
- Establish a service contract through competitive Proposals.
- Determine if administrative adjudication and approval of photo citations can be privatized. Otherwise, add the following additional city staff to oversee the project:
  - 1 Adjudication Hearing Officer
  - 2 Enforcement Officers (to review and approve citations)

# Steps to Implement Program

## Schedule

Dec 05	Prepare contract specifications
Jan 06	Request proposals
Feb 06	Close bids and review proposals
March 06	Conduct negotiations and select vendor
April 06	Finalize terms of contract - including specific cameras locations
May 06	Award and execute contract
July 06	Contractors begin operation 60 days after contract execution