

## Presentation

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# An Engineered Program as the Preferred Alternative to Vendor-Operated Automated Red Light Enforcement

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## Automated Red Light Camera Enforcement is a Good Idea

- Dramatically reduces intersection collisions
- Saves lives and reduces collision-related costs
  - Property damage
  - Human suffering (injuries and fatalities) and lost time
  - Emergency services
- Positively modifies driver behavior



## But ... Implementation Choices May Scuttle Your Program

- Two basic choices in implementation
  - Vendor installed and operated system
  - Engineered system, owned and operated by municipality or law enforcement agency
- You get just one shot, and then live with the results ...



## Typical Vendor-Operated System

- Municipality solicits and selects system from turnkey camera vendors
- Ordinances are enacted or modified to allow legal operation of the system
- Vendor installs system at key locations, usually with minimal engineering
- Vendor operates and maintains the system and issues violations for a percentage of the revenue



## *Perceived Advantages of Vendor-Operated Automated Red Light Enforcement System*

- Little or no investment required
- Program will “run itself” (no employees to hire, train or supervise)
- Vendor’s experience reduces risk of failure
- Revenue generated from system can used for other enforcement opportunities or worthy causes
- If program “does not work,” public funds are not at risk



## *Realities of Vendor-Operated Automated Red Light Enforcement System*

- Public perception is generally negative
  - As an outsider, the vendor is unaware of, and unequipped to deal with the local political climate
  - Vendor is seen as “Big Brother” or a “cash grabbing opportunist”
  - Vendor’s public involvement inexperience, desire for early revenues and need to minimize costs leads to a flawed public process
  - Opposition is mobilized and highly aggressive



## Realities of Vendor-Operated Automated Red Light Enforcement System

- Legal basis for operation is often weak
  - Negative public perception will spawn inevitable and constant legal challenges
  - Ordinances may be flawed, insufficient or inconsistent with system operation
  - Enforcement authority, system maintenance and profit motivation will be called into question
  - A single successful legal challenge may jeopardize the entire program



## Realities of Vendor-Operated Automated Red Light Enforcement System

- Owner is kept in the dark
  - Real costs are unknown
  - Owner involvement minimized to shave costs
  - System operation may be inconsistent with expectations or advertised specifications
  - Vendor provides operation and maintenance while legal defense of system up to the owner
  - If installation is unprofitable or vendor defaults, the owner is left “holding the bag”



## Vendor-Operated Automated Red Light Enforcement System

There is a better way ...



## The Engineered Automated Red Light Camera System

- Local law enforcement experts define a defensible legal model and enact proper ordinances through legislation
- Owner designs and initiates a proper and ongoing public process and media campaign based on program goals, past experience and knowledge of the local political climate



## The Engineered Automated Red Light Camera System

- Owner designs, tests and installs the system using objective information and independent consultants
  - Design fully cooperates with legal model
  - Camera is supplied as equipment (lease or purchase)
  - Municipal crews or contractors provide monitored installation services
  - Owner engages existing law enforcement agency to issue violations and collect revenues



## The Engineered Automated Red Light Camera System

- Owner recognizes that revenues will decrease as driver behavior is changed
- Owner adjusts program to maximize effectiveness (not maximize profits)
- Owner feeds program results back into ongoing public involvement process



## Advantages of the Engineered Automated Red Light Camera System

- Public support is strong due to proper media campaign and responsive public involvement program
- Legal challenges are anticipated and overcome through engineering design, testing and legislation
- Existing agencies are used for violation processing – no need to reinvent the wheel
- Owner is knowledgeable and involved
- Realistic expectations result in a successful program



## The British Columbia Automated Red Light Camera Enforcement Program – Overview

- Government-owned and engineered program
- 121 locations with 30 cameras (rotating) and 90 data gathering units (DGUs) in 21 diverse communities
- Intense public involvement process and media campaign produced support from nearly 80 percent of the public (verified by research)
- Airtight legal model was coordinated with independently tested design and enacted into law



## The British Columbia Automated Red Light Camera Enforcement Program – Overview

- Test site identified and solved engineering and operational issues and confirmed legal operation
- Civilian Enforcement Officers (CEOs) change film, rotate cameras and DGU's
- CEOs have limited police officer status for duties in camera deployments, handling evidence (film), and issuing violations (tickets)
- Ticket issued to registered owner who may nominate actual driver within 45 days



## The British Columbia Automated Red Light Camera Enforcement Program – Overview

- Local consultant team coordinated independent testing and subsequent design for each intersection
- Consultant team provided construction administration and developed maintenance program
- Vendors provided equipment for purchase
- Consultant and project team eventually became more knowledgeable than vendors regarding camera operations and related issues



## The British Columbia Automated Red Light Camera Enforcement Program – Test Site



Airport test site arrangement



## The British Columbia Automated Red Light Camera Enforcement Program – Test Site



- Speed reader
- Radar head
- Signal
- Independent Red and Yellow Timers

Test site components



## The British Columbia Automated Red Light Camera Enforcement Program – Test Site



## The British Columbia Automated Red Light Camera Enforcement Program – Installation



## The British Columbia Automated Red Light Camera Enforcement Program – Success!

- Collisions at equipped intersections down over 25 percent
- Public support verified at nearly 80 percent
- Issued violations (and revenue) are decreasing over time as driver behavior changed (negative profit motivation)
- Legal viability of program never successfully challenged



## Our Team Can Assist You

- Our team has unmatched experience and qualifications
  - A team of seven seasoned electrical engineers and designers with extensive red light camera experience
  - B.C.'s automated red light camera enforcement program manager who is a trained law enforcement officer
  - Traffic engineers and legal advisors
  - Public involvement and media specialists
- Our services include consultation, feasibility studies, design and testing, construction administration and/or program validation



## Our Team Can Assist You

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