

SCT Productions presents:

To Catch a Thief

Starring Mugsy Malone



NBC News Story



CBS News Story

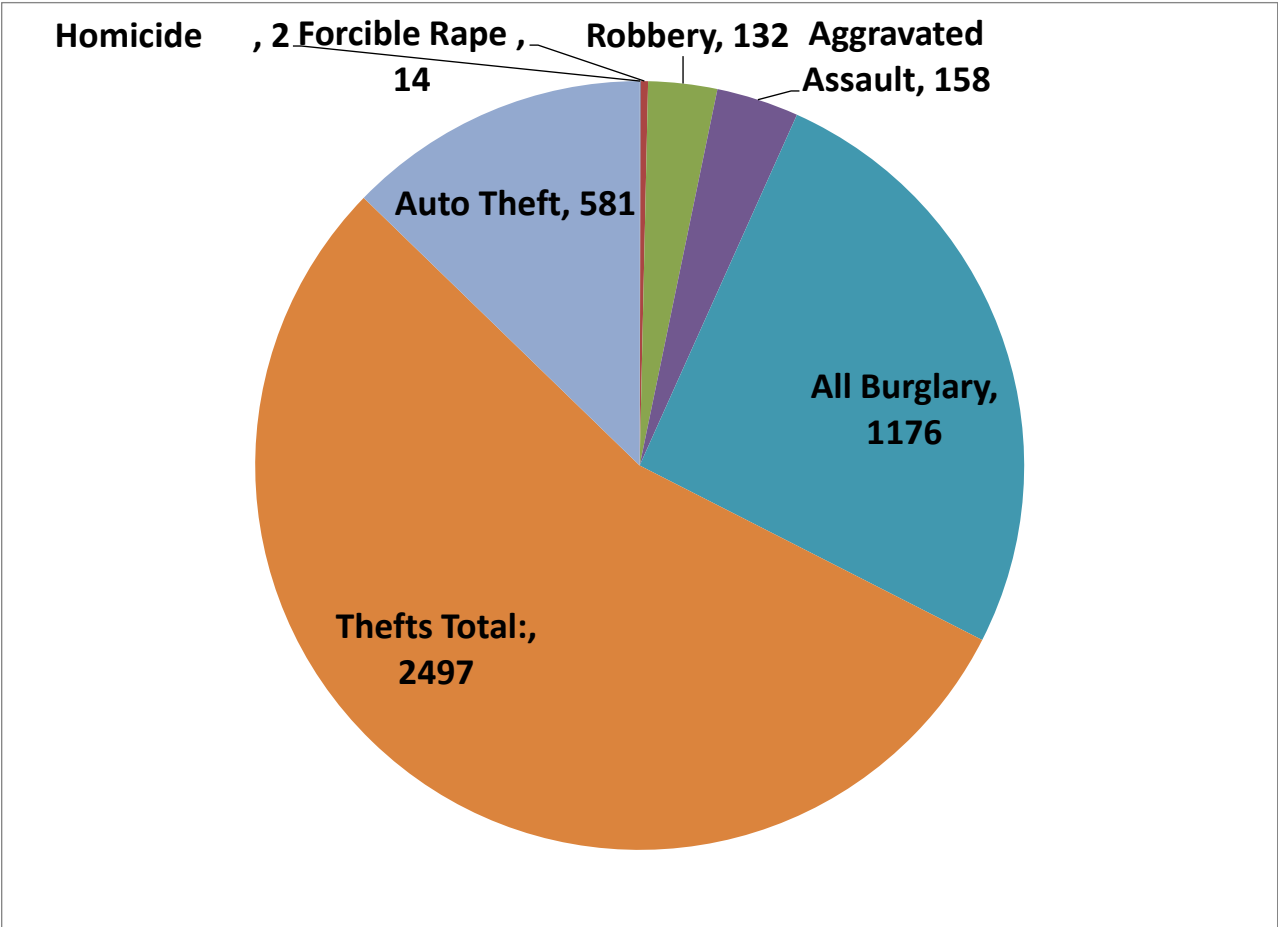


Fremont Police Department Disclaimer

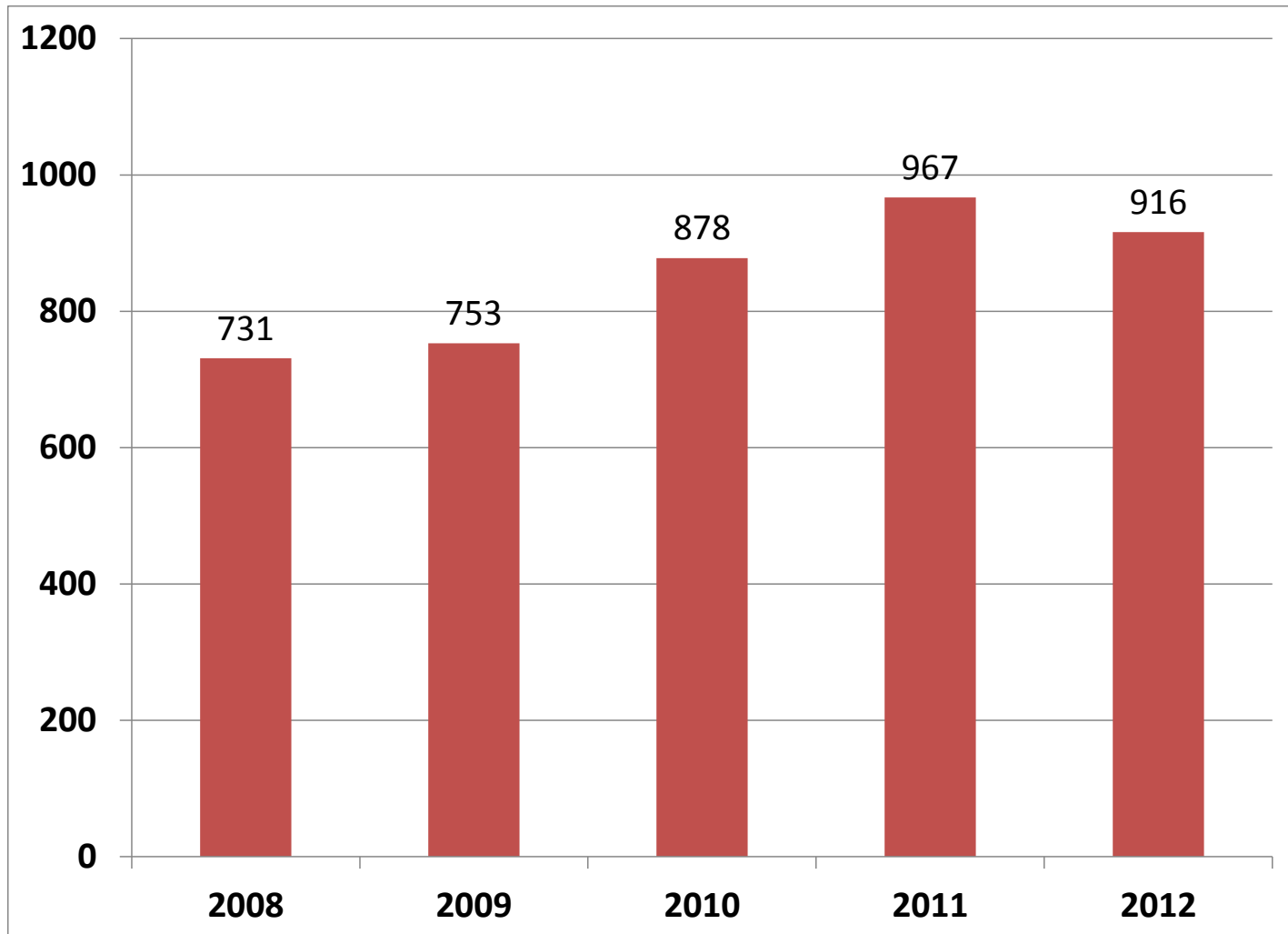
The views presented here are those from private residents of Fremont. We want to thank the Fremont Police Department for arranging the workshops and providing the nice meeting facilities.



Fremont Crimes: 2012



Residential Burglaries



A Typical Day with Mugsy



Topics

1. Organizing Camera Team and trial run
2. Surveillance Camera Systems
3. Capturing License Plate Numbers (LPN)



1. Get Neighborhood Organized and Communicating

- √ Form a Camera Team
 - Map all current camera systems
 - Figure out LPN strategy
 - Encourage neighbors to install cameras
 - Form Yahoo group
 - Trial run



Form Yahoo Group

- Yahoo group is used for communication
- Places for conversations, pictures and files
- It is a private group
- Data kept for years
- It is free



SCT Yahoo Group

The screenshot shows a web browser window displaying the Yahoo! Groups page for the 'sct-fremont' group. The browser's address bar shows the URL 'http://groups.yahoo.com/group/sct-fremont/'. The page features a navigation bar with links for Home, Mail, News, Sports, Finance, Weather, Games, Groups, Answers, Flickr, and More. A search bar is prominently displayed with 'Search Groups' and 'Search Web' buttons. Below the search bar is a banner for ProNamel toothpaste with the text 'Protect your teeth with ProNamel® Fresh Wave for Fresh Breath' and a 'SAVE \$1 NOW' button. The group's name 'sct-fremont · Scott Creek Terrace' is shown at the top of the content area. A sidebar on the left contains navigation links: Home, Messages, Post, Files, Photos, Links, Database, Polls, Members, Calendar, and Promote. The main content area is titled 'Home' and shows 'Activity within 7 days: 1 New Member - 46 New Messages'. The group description is 'Group for residents of Scott Creek Terrace, Fremont, CA'. Below the description is a search bar and a 'Topics' tab. A table of 'Most Recent Topics' is displayed:

Topic	Messages	Latest Post
City Website link to request traffic signal Hello Neighbors - The attachment is from the City of Fremont Website that summarizes the 8 warrants contained within the State Traffic Manual. At the end of	10	Jul 9, 2013 9:00 pm AmyBog amybog...
June 13 - Package Stolen - 48812 Semillon Dr (Pradith Jambudi) Hello re: June 13 - Package Stolen - 48812 Semillon Dr (Pradith Jambudi) An FPD detective has been assigned to this case, and he is ready to digest our	23	Jul 9, 2013 6:47 pm Steve Kayser silkayser...

On the right side of the page, there is a large advertisement for Pennzoil Synthetics motor oil. The ad features the text 'PENNZOIL® SYNTHETICS KEEP PISTONS CLEANER THAN MOBIL 1, VALVOLINE® SYNPOWER® & CASTROL® EDGE® WITH SYNTEC®' and a 'LEARN MORE' button. Below the ad is a 'Group Email Addresses' section with the following information:

Group Email Addresses

Post message: sct-fremont@yahoogroups.com
Subscribe: sct-fremont-subscribe@yahoogroups.com
Unsubscribe: sct-fremont-unsubscribe@yahoogroups.com

The Windows taskbar at the bottom shows the system clock as 6:48 AM on 7/10/2013, along with various application icons.

Camera Team Trial Run

- Camera Team in place
- Cameras are running
- Monitoring [Crimereports.com](https://www.crimereports.com)

Crimereports.com

The screenshot displays the Crimereports.com website interface. The browser's address bar shows the URL: https://www.crimereports.com/alert_link?alert_data=dHlwZV9pZHM9C. The website header includes the Crimereports logo, navigation links for "Public Engines, Inc [US]", "iGoogle", and "crimereports.com", and a "Submit a Tip" button. A search bar with the placeholder "Enter Address Here" is visible. Below the search bar, a map shows a residential area with a popup window for a "Theft" incident. The popup details are as follows:

Theft	
Date:	06/18/2013
Address:	48800 Block SEMILLON DR
Identifier:	130818025
Time:	12:00:00 AM
Category:	PETTY THEFT [484A]
Agency:	Fremont Police Department
Send to friend Submit a tip	

At the bottom of the page, there is a banner that reads "Get The #1 Crime Map Among Law Enforcement Agencies" and "Visit PublicEngines.com For Crime Mapping, Tip Submission, and Analytics Tools". The Windows taskbar at the bottom shows the system clock as 12:03 PM on 6/24/2013.

Takes 3-4 days to show up

Figure out who dunnit

- Narrow down time frame
- Victims address
- Review video
- Cars passing camera several times
- Communicate findings
- Put together video that “Tells the Story”



June 2012 Burglary



When you identify the suspects

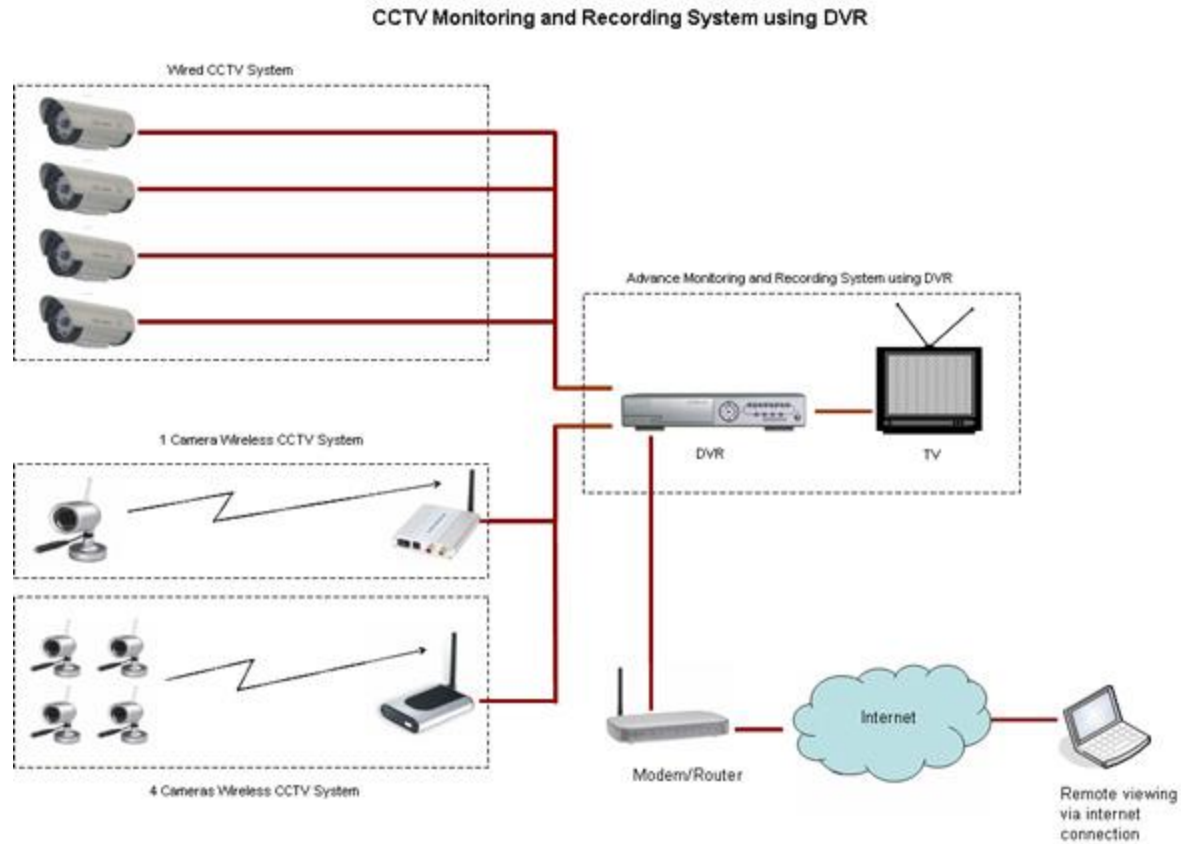
- Collect video from all cameras
- Get LPN, car description , etc
- Pass all information to detectives

2. Surveillance Cameras Purpose

- These are private cameras systems
- Homeowners pay for and install
- They record the activity 24/7
- Used to “Tell the Story”



How do Surveillance cameras work?



Which system, it is so confusing?

There's really only couple decisions

1. Major decision: cost vs resolution
2. Minor decision: # and type cameras



D1 (Low end) vs 1080p(High end)



Cost: \$250 - \$350



Cost: \$700-\$1200

D1 (Low end) vs 1080p(High end)



Say "Hi" Mugsy

Need >40 pixels/foot to identify



5 mm lens at 702 pixels (D1)

10 ft. away by 10 ft. wide, quality: 240 pix/m 73 pix/ft
18 ft. away by 17 ft. wide, quality: 133 pix/m 41 pix/ft
25 ft. away by 24 ft. wide, quality: 96 pix/m 29 pix/ft
30 ft. away by 29 ft. wide, quality: 80 pix/m 24 pix/ft
35 ft. away by 34 ft. wide, quality: 69 pix/m 21 pix/ft
40 ft. away by 38 ft. wide, quality: 60 pix/m 18 pix/ft
50 ft. away by 48 ft. wide, quality: 48 pix/m 15 pix/ft
63 ft. away by 60 ft. wide, quality: 38 pix/m 12 pix/ft

5 mm lens at 1920 pixels (1080p)

10 ft. away by 10 ft. wide, quality: 656 pix/m 200 pix/ft
18 ft. away by 17 ft. wide, quality: 365 pix/m 111 pix/ft
25 ft. away by 24 ft. wide, quality: 262 pix/m 80 pix/ft
30 ft. away by 29 ft. wide, quality: 219 pix/m 67 pix/ft
35 ft. away by 34 ft. wide, quality: 187 pix/m 57 pix/ft
40 ft. away by 38 ft. wide, quality: 164 pix/m 50 pix/ft
50 ft. away by 48 ft. wide, quality: 131 pix/m 40 pix/ft
63 ft. away by 60 ft. wide, quality: 104 pix/m 32 pix/ft
75 ft. away by 72 ft. wide, quality: 87 pix/m 27 pix/ft
100 ft. away by 96 ft. wide, quality: 66 pix/m 20 pix/ft
125 ft. away by 120 ft. wide, quality: 52 pix/m 16 pix/ft

Compare system vs cost

Brands: Qsee, Lorex, Swann

4CH DVR + 4 cams, D1	\$250
8CH DVR + 4 cams, D1	\$450 \$350
4CH DVR + 4 cams, 720p	\$700
4CH DVR + 4 cams, 1080p	\$999
8CH DVR + 4 cams, 1080p	\$1200 \$999

Feb 2014

(Costco, ~~June 2013~~)

Camera System Comparison

D1 Analog Camera System (Low end)

- 480p resolution
- Least expensive solution (\$250 - \$1,000)
- Provides “awareness”, good for “telling the story”
- Comparable to older analog TVs (not digital or HD)
- Plug and play system, minimal internet experience required

HD-SDI Camera System (High end)

- 1080p resolution
- Offers “Moderately” expensive solution, (\$1,100 - \$2,000)
- Provides “awareness” and “identification”
- True High Definition capability (1-2 megapixel)
- Plug and play system, minimal internet experience required
- Offered in two interfaces: HD-DSI or CAT5



Avoid systems that mention CIF or CIF/D1

1080p Interface Differences

1. HD-SDI Interface cable has power and coax. Compatible with older systems
2. NVR* uses CAT5 and POE**. Easier to work with.

*Network Video Recorder

**Power Over Ethernet

Common Features

- Ongoing price wars, costs dropping
- Continuous record or motion detection
- Saves videos for sometime
- Smart phone viewing
- Add timestamps



Are they tough to install?

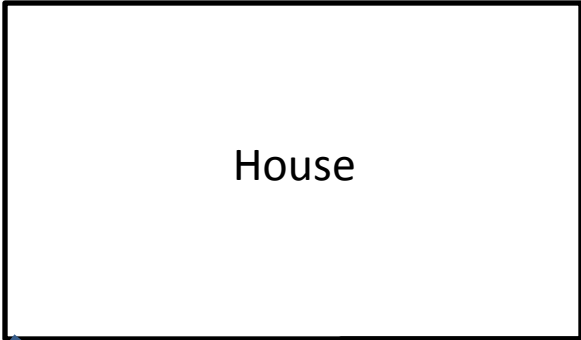
- Well Yes and No
- Give thought to where DVR resides
- Hook DVR to both cameras and router
- Run camera cable through attic or crawl space



Camera Placement and Pointing



Backyard



Garage



Street



Camera Angles

OK



Better



Lower camera position is better
Get homes in the background

But wait, There's a Problem!



Many Cameras are D1 resolution
Not enough resolution to capture license
Plate numbers
No way to identify the criminal

Solution: Install high resolution cameras

3. LPN Cameras Purpose

- Captures License Plate Number and vehicle description
- Connects crime to the criminal
- Definitely a deterrent



LPN Camera Criteria

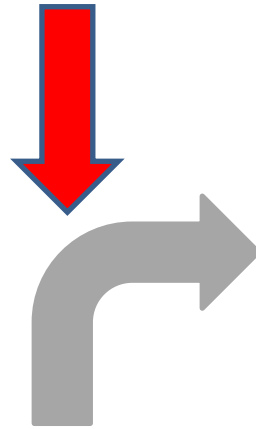
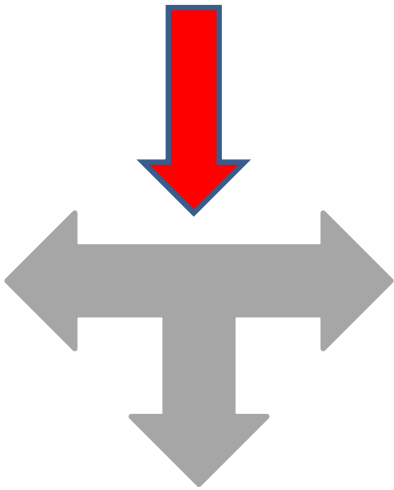
- 1080p camera w/ 12mm zoom
- Cost \$250
- Piggyback off existing system
- Position close to road
- Camera has headon view

Camera Position

Camera

Camera

Camera



T-intersection

Corner

Court

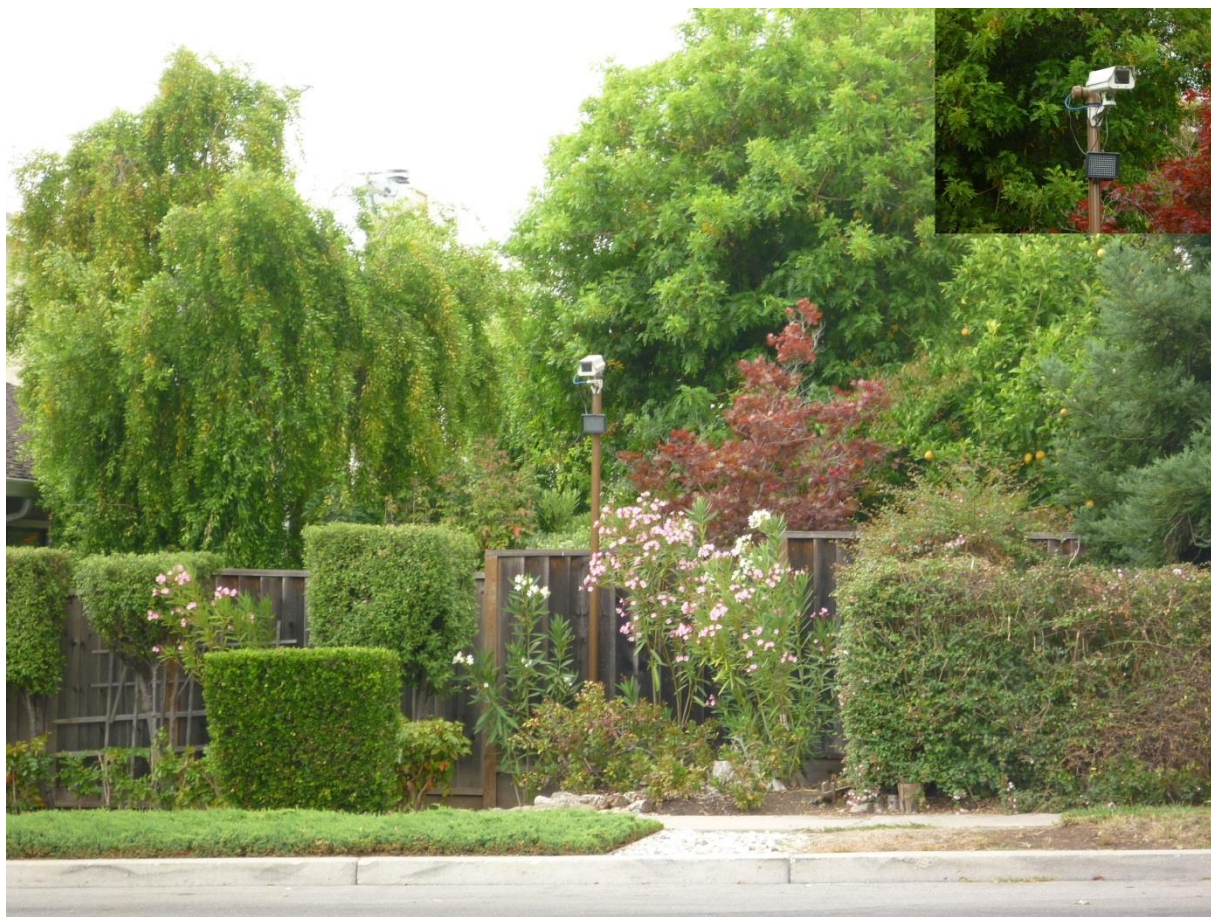
Scott Creek Terrace

Example footage of IP license plate capture system



License Plates “Readable”

High Resolution 1080p Camera



1080p with 12mm lens



Summary

- Map camera locations
- Organize camera owners
- Camera LPN Strategy

A Bad Day for Mugsy



This is our goal

Mugsy →
Overnight
Fremont
Jail
7/10/13



Brought to you by
Scott Creek Terrace Neighborhood

Special acknowledgements to:
Jerry Darrel, Steve Kayser, Ron
Douglas, Ken Thomas, Mylene
Stolpe and SCT homeowners for
making this possible.

Questions on Camera Strategies