

# | Street Alarm Boxes

SF Department of Technology, Chief Information Officer: Linda Gerull  
SF Fire Department, Chief of Fire : Joanne Hayes-White

For: San Francisco Board of Supervisors

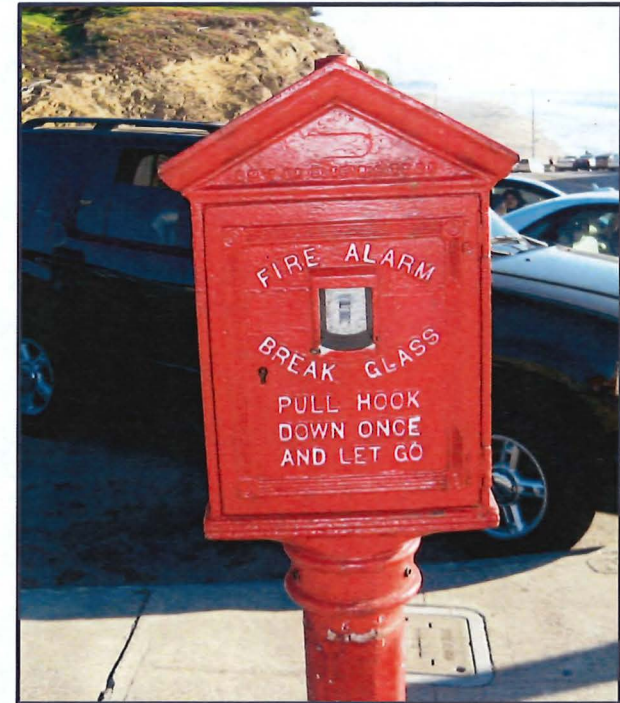
February 28, 2018



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# Background

- Invented in Boston and first installed in San Francisco during the 1860's.
- Street Alarm boxes are installed on 200 miles of underground copper cable, 150 miles overhead cable on PG&E poles and operate as a municipal telegraph system.
- Gamewell (a Honeywell Company) is the only manufacturer. Parts are no longer manufactured.
- San Francisco, New York City, and Boston are the only major municipalities that maintain Fire Boxes.





# Background

Secure and fast reporting (1-2 seconds), this decreases response times for 1<sup>st</sup> responders.

Mapped to location of call, minimizing human error in identifying location.

Some residents like the historic nature of the pull boxes.



Aging infrastructure and deteriorating copper cables over 100 years old create maintenance challenges.

Procurement of parts is difficult.

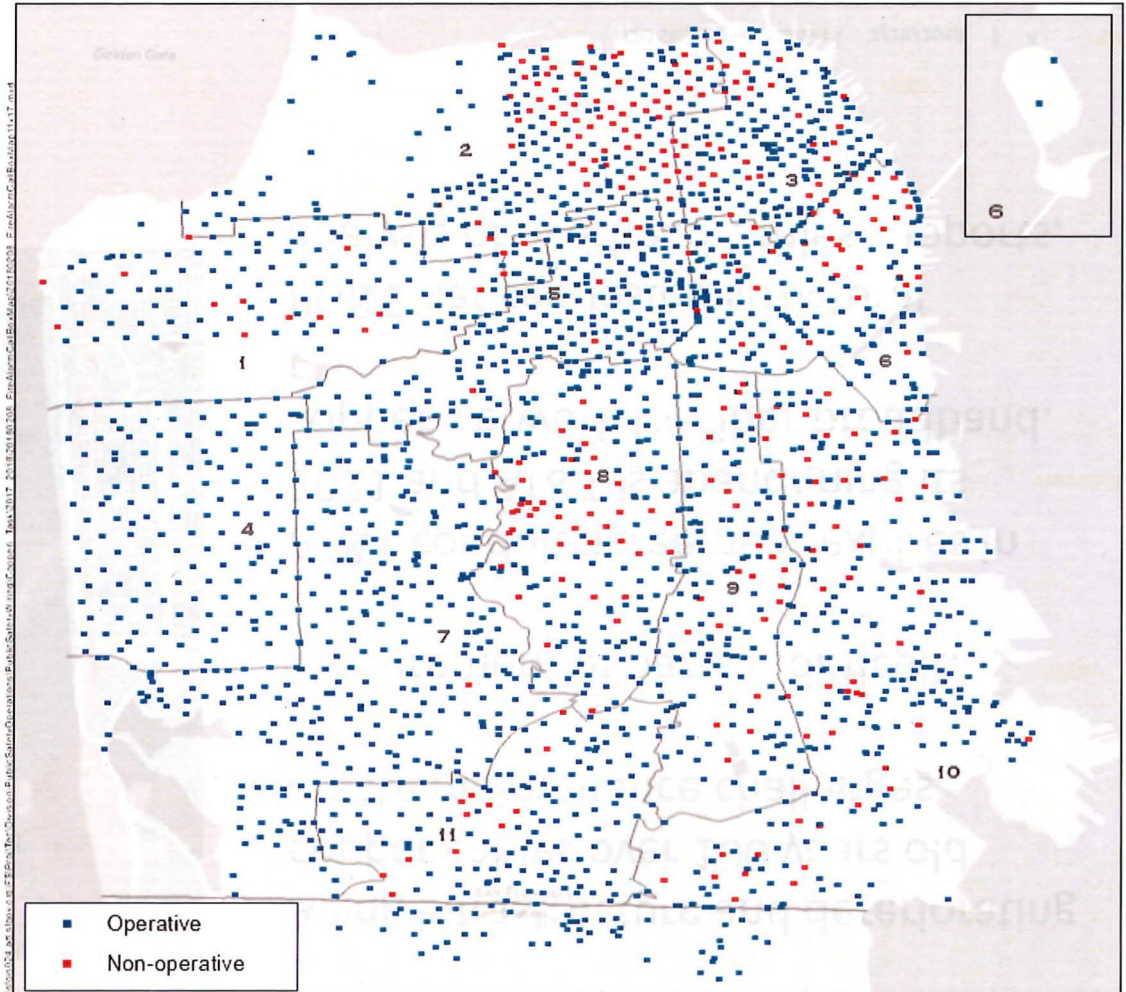
AT&T conduit agreement expires in 2021 and AT&T is abandoning its copper network for fiber broadband.

PG&E has requested structural analysis of overhead cables supports.



# Quick Data Points

- Dense geographic disbursement – a person is never more than two blocks away from a box.
- 2,300 total boxes in total
- 2,014 boxes (87%) are working
- SFFD responded to 282,900 alarm box calls over the past two years—responding to street alarms accounts for an estimated 0.02% of response work.





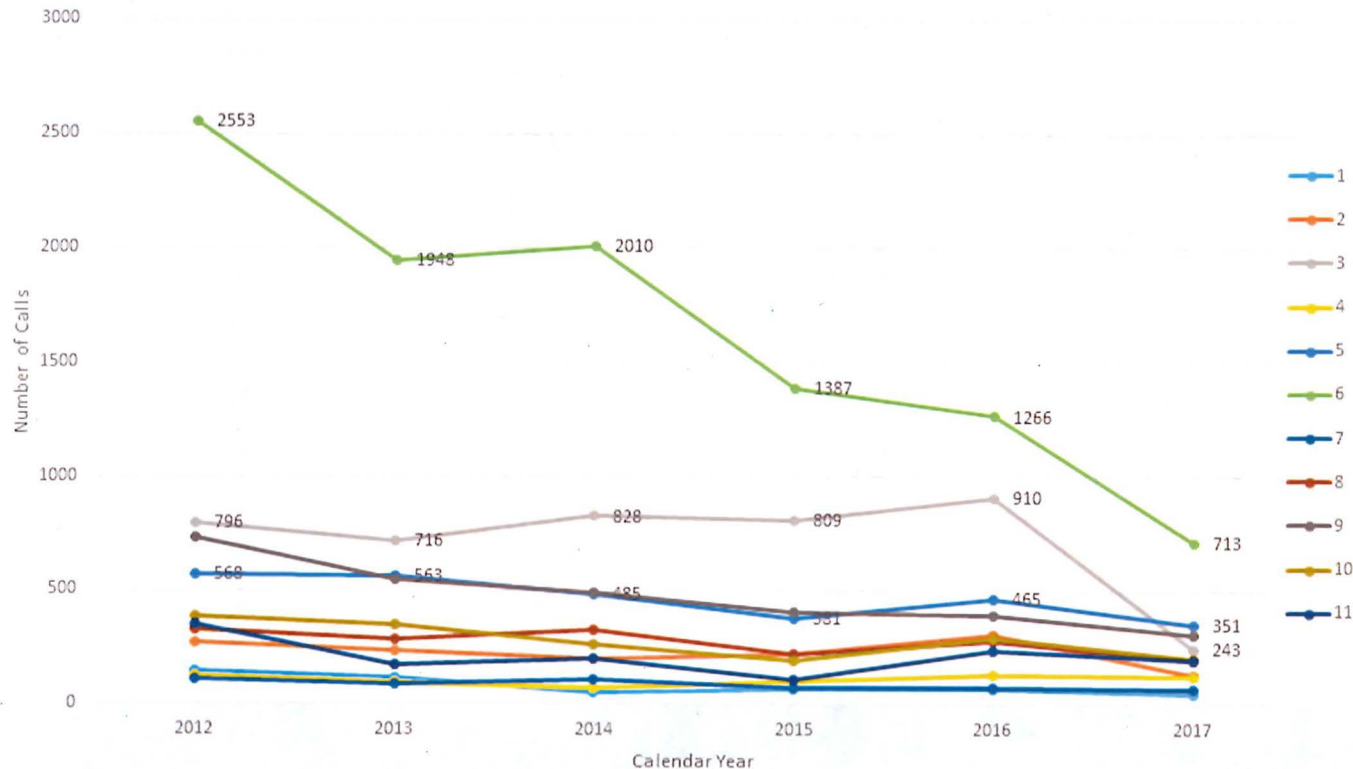
# Working Boxes by District

District	Total Boxes	Total Working Boxes	Total Non-Working Boxes	Percentage of Working Boxes
1	126	112	14	88%
2	270	203	67	75%
3	201	165	36	82%
4	149	149	0	100%
5	209	199	10	95%
6	242	207	35	85%
7	292	290	2	99%
8	196	157	39	80%
9	160	135	25	84%
10	308	262	46	85%
11	147	135	12	91%
<b>Total</b>	<b>2,300</b>	<b>2,014</b>	<b>286</b>	<b>87%</b>



# Pull Box Calls by District

Pull Box Calls by Supervisor District



Overall, a decline in the number of pulls across City.

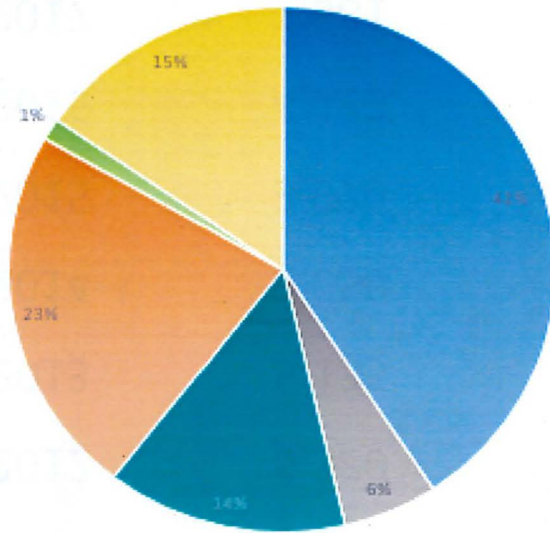
Districts 6, 3, 9, 5 have highest number of pulls over the past five years.

The decline in pulls is likely attributable to the rise in cell phones usage as DEM reported of the 708,722 total emergencies during 2017, 67% came from a wireless phone—this is a 12% jump from 2011.



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# Types of Valid Emergency Calls



Duration: 2012-2017  
Total Valid Calls: 893

- 41% are Rescue and Emergency Medical Services – defined as medical assist and service, lock-ins, search and rescue.
- 23% are Service Calls – defined as person in distress, water problem, leaks, smoke/odor, animal problem.
- 14% are Good Intent Calls – defined as dispatched and canceled en-route, controlled burning, steam/gas mistaken for smoke, HazMat release investigation w/no HazMat found.
- 6% are Fire Calls – defined as structure, vegetation, explosion fires.
- 1% are Hazardous Conditions (No fire) – defined as combustible/flammable spills and leaks, electrical wiring problem, radioactivity, biohazard.
- 15% are all others that do not fit in previously stated types.



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# Number of Valid Emergencies

Year	Total Pulls	Valid Calls	Percent
2012	6,380	165	2.6%
2013	5,135	114	2.2%
2014	5,050	172	3.4%
2015	3,970	159	4.0%
2016	4,422	177	4.0%
2017	2,581	106	4.1%

Less than 5% of pull box calls are valid emergencies. The percent of valid calls is increasing.

Top three emergencies are medical response, person or animal in distress, and calls from bystanders that perceive an emergent situation.

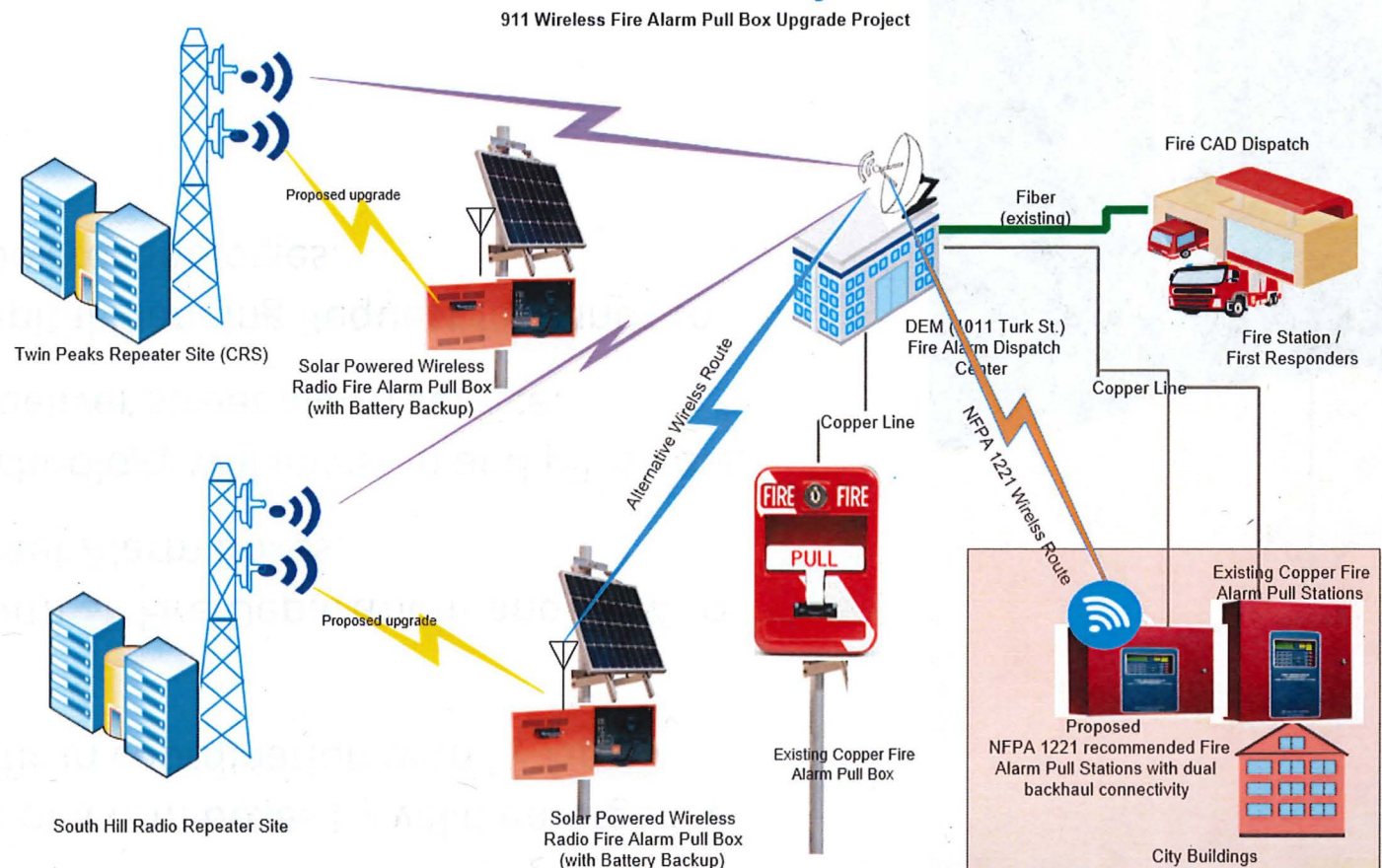
This data is consistent with other major metropolitan areas who have maintained this system—NYC reports roughly 2.6% of the approximately 90,000 pulls/yr are valid emergencies.





# Modern Options for Street Alarm System

- Wireless – radio or cellular communication
- Solar powered
- Fiber

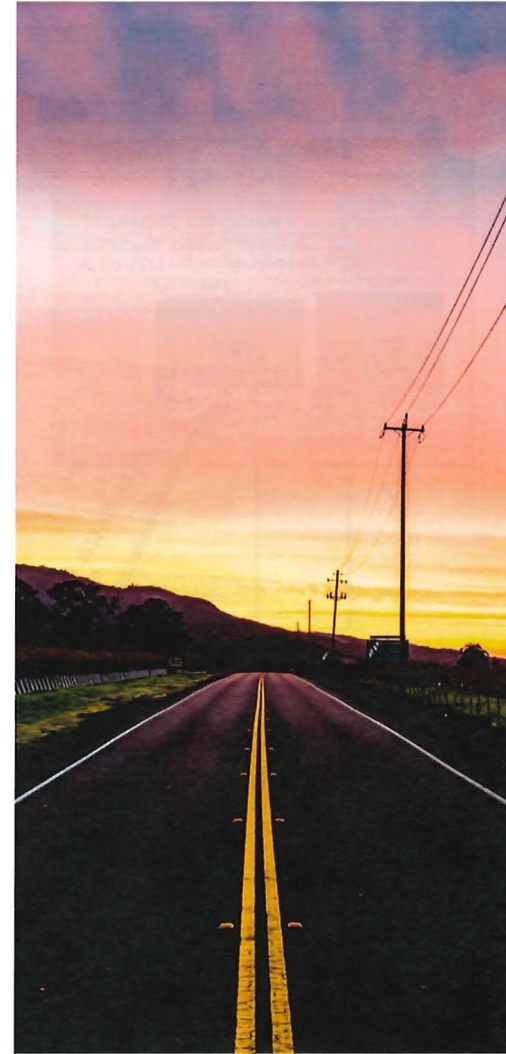


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Public Safety Wireless Fire Alarm Pull Box Network Connectivity Diagram  
Public Safety Systems, Department of Technology.  
Date: 01/04/2018  
Author: Diana Velazquez

## Next Steps

1. Prioritize maintenance of alarm boxes by valid emergency calls and high foot traffic in coordination with SF Fire Department.
2. Work collaboratively with SF Fire Department and DEM to conduct a study on Street Alarm Boxes.
3. The Department of Technology will invest in and pilot new technologies that can deliver street alarm service.
4. Currently, there is a Capital Planning Request for funds to modernize the alarm box technologies.



# THANK YOU!

SF Department of Technology, Chief Information Officer: Linda Gerull  
SF Fire Department, Chief of Fire : Joanne Hayes-White

For: San Francisco Board of Supervisors

February 28, 2018



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## Carroll, John (BOS)

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**From:** Sebastian Gutierrez <sgutierrez@casesystemsinc.com>  
**Sent:** Tuesday, February 27, 2018 6:20 PM  
**To:** Angulo, Sunny (BOS); Carroll, John (BOS)  
**Cc:** Chrisann Lawson  
**Subject:** Fire Box Presentation  
**Attachments:** SFFD Presentation (022618).pdf

**Categories:** 180141, 2018.02.28 - PSNS

Hi Sunny,

Per your email exchange with Chrisann Lawson, VP CASE Systems Inc., regarding the out of service Fire Boxes in San Francisco, I am attaching a brief presentation on how CASE might be able to offer the City of San Francisco an option for upgrading the current Fire Boxes. As Chrisann may have mentioned we are currently working with the Fire Department of New York on just such a project. We hope to begin work on refurbishing the first 900 fire boxes in NYC later this year. We hope that this presentation sparks some interest in the committee and that it provides the City of San Francisco with a viable alternative to the current antiquated system.

Please do not hesitate to contact us should you have any follow on questions or if we can meet with the appropriate personnel to hold a more detailed discussion.

We look forward to hearing from you again.

Best regards,

**Sebastian E. Gutierrez**

President / CEO

Work: 949.988.7501

Cell: 949.394.2942



[www.casesystemsinc.com](http://www.casesystemsinc.com)

[www.facebook.com/CASEsystems](https://www.facebook.com/CASEsystems)



## Overview for SFFD

*Sebastian E. Gutierrez*

*February 26, 2018*



# Agenda

- Corporate History / Overview
- Qualifications
- Existing Fire Boxes
- Options to Repair Existing Fire Boxes
- Conclusion
- Q & A





# CASE Overview

- CASE Systems, Inc.
  - Privately Held California Corporation
  - Formed Expressly to Acquire the Call Box Assets of Comarco, Inc.
  - Hired all Comarco Call Box Personnel



# CASE Overview (con't)

- Comarco was the Original Manufacturer of most Motorist Aid Call Boxes in CA System including the Call Boxes Owned and Operated by MTC and BATA
- CASE Personnel have been Involved with the CA System Since it was Originally Deployed by GTE



# Qualifications

- Sebastian E. Gutierrez
  - President / CEO
  - 21 Years Managing Call Box Business
  - Extensive Management Exp. with Comarco and Pacific Bell
  - BS ME Princeton University, MBA USC
- Chrisann Lawson
  - Project Manager
  - 22 Years of Call Box Management Experience
  - Extensive Project Management and Customer Services
  - BA Communications University of Colorado



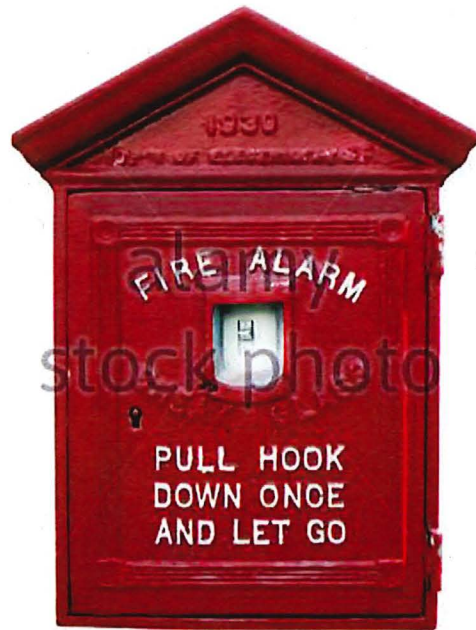


# Existing SF Fire Boxes

- Existing System is Land Line Based Alarm Boxes with no Voice
- Have been in Place for many Decades
- Have been very Expensive to Maintain
- Many Boxes are Bagged and Out of Service
- Many More Look in Disrepair



# Existing SF Fire Boxes



www.alamy.com - KEJWMM



**CASE**  
SYSTEMS, INC.

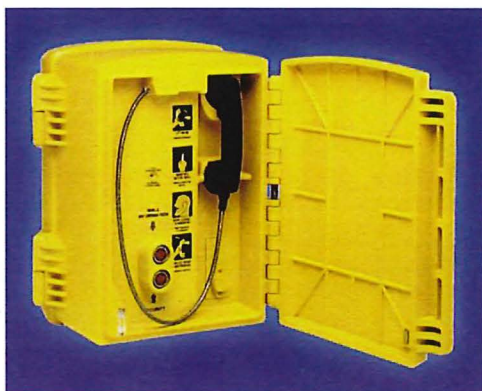
# Options to Repair Existing Fire Boxes

1. Full Replacement with Lexan (MTC style) Call Box
2. New Stainless Steel Call Box
3. Refurbishment of Existing Fire Boxes with Cellular retrofit adds Voice Capabilities





# Full Replacement with Lexan (MTC style) Call Box



**CASE**  
SYSTEMS, INC.

# New Stainless Steel Call Box



# Possible Refurbishment of Existing Fire Boxes





# Proposed Replacements

- The Proposed Replacements all Incorporate the same Proven Technology
- Option 1 & 2 are Standard “off-the-shelf” units
- Option 3 Requires NRE – Longer Time to Deploy



# Proposed Replacements

- The Three Options Discussed can be:
  - Cellular – 4G VZ Wireless Network
  - Solar or AC
  - Include Battery Backup
- Have Demonstrated Reliability



# Conclusions

- CASE has Experience and Resources to Fully Repair the SFFD System
- CASE Personnel Have Performed Numerous Large Scale Upgrades and Refurbishments
- CASE Personnel have Established Good Relationships with:
  - MTC, VZ Wireless, and other CA Motorist Aid Agencies
  - CASE Prides Itself in Being:
    - Customer Focused
    - Effective at Getting the Job Done Right
    - Easy to do Business With





# Q & A

