

# GREEN SHEET

Sacramento Metropolitan Fire Protection District

Informational Summary Report of Serious Injuries, Illness,  
Accidents and Near-Miss Incidents



Structure Fire  
Burn Injury

June 30, 2013

CA SAC #13084016

10361 Malaga Way, Rancho Cordova

A Board of Review has not approved this Summary Report. It is intended as a safety and training tool, an aid in preventing future occurrences, and to inform interested parties. Because it is published in a short time frame, the information contained herein is subject to revisions as further investigation is conducted and additional information is developed.

## SUMMARY

On Sunday, June 30, 2013, at approximately 1305 hours, a Sacramento Metropolitan Paramedic Firefighter assigned to a Sacramento Metropolitan Medic Unit received burn injuries while engaged in interior attack operations at a residential structure fire. While performing interior operations, the Paramedic Firefighter received thermal burn injuries while making multiple attempts to stretch the initial attack hose line to the seat of the fire. Additional nearby personnel escaped injury.

## CONDITIONS

- Weather Conditions as recorded at the Mather Airport NOAA Weather Station (approximately two miles from the incident) at 1253 hours:
  - Temperature: 100 degrees
  - RH: 20%
  - Wind: 7mph W/SW
- Structural Features: 1950's dimensional wood frame construction, with a two story addition near the bravo/charlie corner of the house, with vinyl siding placed over original stucco siding, and an elevated deck structure over the origin of the fire in the backyard
- Structural Conditions: Heavy fire damage to the exterior patio area in the bravo/charlie corner of the house, extreme heat indicators and heavy fire damage found from floor to ceiling of the interior of the two story addition (a large, open room with an open loft on the second story), some smoke and heat damage to the upper interior walls nearest the addition, smoke damage throughout the rest of the house, some fire and heat damage to the attic of the house, and multiple areas of melted vinyl siding around the exterior of the house near openings

## SEQUENCE OF EVENTS

On Sunday, June 30, 2013 at approximately 1305 hours, a Sacramento Metropolitan Firefighter assigned to a medic unit and attached to an engine company, received burn injuries to the hands and ears, and skin irritation to his upper back, left arm, and elbow area while in the initial attack phase of a residential structure fire. He additionally had irritation to both eyes.

The medic unit was staffed with a Paramedic Firefighter (Irons), a second Paramedic Firefighter (Control) and one Ride-Along Probationary Paramedic Firefighter (Ride Along). The engine was staffed with a Paramedic Fire Captain (Captain), Paramedic Fire Apparatus Engineer (Engineer), and a Paramedic Firefighter (Nozzle).

At 1255 hours, the Sacramento Regional Fire Emergency Communications Center (SRFECC) received a report from the Sacramento County Sheriff's Dispatch of a residential structure fire on Malaga Way in Rancho Cordova. Rancho Cordova Police Department had Officers on scene. The initial response included Battalion 14, Battalion 13, Engine 61, Medic 61, Engine 66, Engine 65, Truck 65, Engine 62 and Truck 62. Units were dispatched at 1256 hours.

Upon arrival at 1300 hours (4 minutes from time of dispatch), E61 reported a working fire from the bravo/charlie corner of a one story house with a two story addition near the area of the fire. E61 Captain voiced that they would be initiating fire attack, and M61 was assigned to pull an additional line to protect the exposure on the bravo side. E61 Captain requested the next in unit secure a water supply and take command.

E61 Captain and E61 Nozzle stretched the initial line to the front door on the alpha side of the structure in an attempt to initiate an offensive fire attack. Two firefighters from M61 (Control and Ride Along) were assisting E61 with the hose stretch. The third firefighter on M61 (Irons) staffed the exposure line on the bravo side.

M61 Control was on the nozzle of the hose line, E61 Nozzle backed him up, and E61 Captain and M61 Ride Along were behind them. No fire was visible in the hallway, only smoke. Once the nozzle was advanced six to eight feet inside the front hallway in a crouched position, the crew encountered a high heat condition with moderate smoke conditions near the ceiling. Visibility was still good near the floor level. M61 Control and E61 Captain reported feeling their ears get hot at that time.

E61 Captain gave the order for crews to back out of the structure. He advised command on the radio of the need for vertical ventilation before fire attack could be made due to high heat. M61 Control reported that his mask had become difficult to see through once he made his way back outside. Attempts to clean the mask were not successful.

With vertical ventilation in progress, an additional attempt was made for interior attack, but a high heat condition was still encountered less than six feet in, and the crew backed out again. While on the front porch, E61 Captain attempted to punch through the ceiling just inside the threshold of the front door to assist with vertical ventilation. M61 Control positioned himself in a crouched position to the side of E61 Captain inside the front door. M61 Control said that he felt like the heat had increased each time they made access inside the front door.

During this time the smoke condition changed and crews encountered flames from near the top part of the front door while backing out to the front porch. M61 Control was pulled back by E61 Captain to the porch area of the house. Additional crews had arrived by this time and had gathered near the egress route

from the porch. M61 Control reported that he attempted to open the nozzle on the flames, but had great difficulty in seeing through his SCBA mask and directing the hose line at the fire. His mask was completely obscured due to heat damage.

M61 Control was removed from the nozzle and he moved to the front yard because he couldn't see through his mask. He made contact with E61 Engineer. M61 Control began to attempt an air bottle change when E61 engineer noticed M61 Control was having difficulty manipulating the SCBA.

E61 Engineer made contact with M61 Control and noted the burn injury to M61 Control's hands. Battalion 14 (IC) was notified of the injury and medical treatment was started by on scene personnel. Medic 64 assumed patient care of M61 Control. His PPE was removed at the back of the ambulance and he was transported code-3 to UC Davis Medical Center. His injuries were assessed. He had partial thickness burns to fingers on both of his hands and his ears. It was also noted that he had redness in the area of his neck, shoulder, and left arm, as well as redness in both his eyes. He was treated and released later that day and transported home by Metro Fire personnel.

The following day he had a follow up appointment with the UC Davis Burn Center. The diagnosis of the partial thickness burns to his hands and ears, as well as an ongoing treatment plan, was confirmed. The redness and irritation had cleared up on his neck, shoulder, and left arm. The eye irritation had also subsided and his eyes were checked. There was no damage found to his eyes.

### INJURIES/DAMAGES

The firefighter received partial thickness burns to his fingers on both hands as well as his ears. Initially, he presented at the hospital with what appeared to be superficial burns to his shoulders, upper back, left arm, and elbow. He also experienced some redness and irritation in his eyes. All of the injuries were a result of heat contact with the body through his intact protective equipment.

Additional nearby personnel escaped injury, although some of their equipment showed signs of thermal exposure.

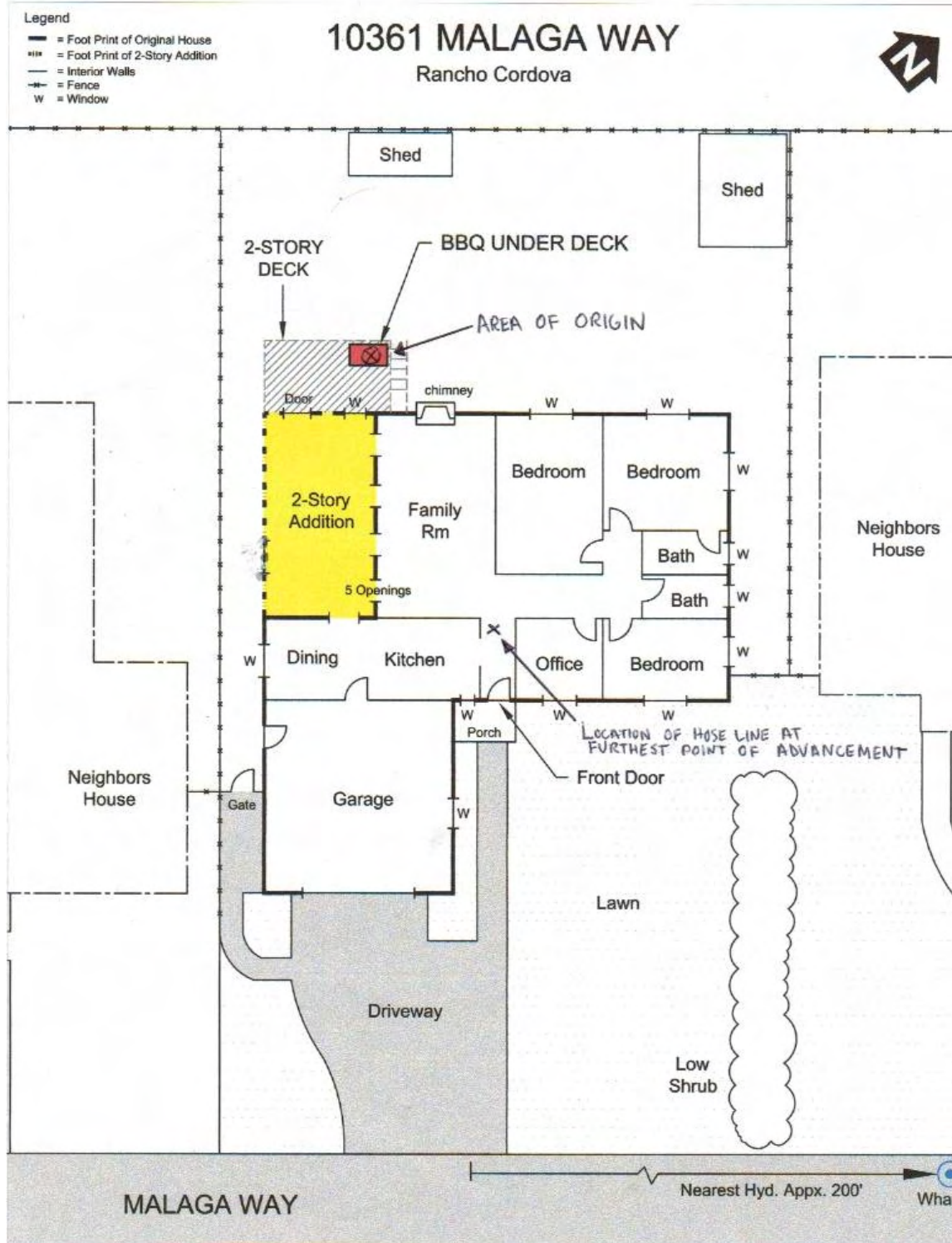
### SAFETY ISSUES FOR REVIEW

- Ensure clear coordination of vertical ventilation operations and interior attack operations
- Always wear full personal protective equipment and Self Contained Breathing Apparatus when operating in the IDLH environment

- Ensure the personnel not operating on the interior of the structure leave an exit path open in case the need develops for rapid exit of interior crews
- Maintain situational awareness for changes in the fire environment that indicate potential deteriorating conditions

### LESSONS LEARNED

- Had the Firefighter not been wearing his full structural firefighting PPE, his injuries might have been much more serious.
- Continuous application of a Risk vs. Gain process will ensure that the actions being taken are in line with the incident priorities and strategies
- Be aware that the level of protection provided by structural firefighting PPE can insulate the wearer from early indicators of a high heat environment.
- Modern furnishings have become increasingly synthetic (hydrocarbons and low mass synthetics), which will affect the smoke composition and volume. Coupled with the higher insulation values of modern construction and remodels, significant fire activity may be encountered earlier in an incident than in the past.
- The smoke itself must be considered fuel and may need to be cooled before advancing an attack line.







M61 Control SCBA Facepiece

Teamwork

Professionalism

Integrity

Service Before Self



M61 Control Hood (Top of the picture is top of the head)

Teamwork

Professionalism

Integrity

Service Before Self





M61 Control Turnout Coat

Teamwork

Professionalism

Integrity

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