

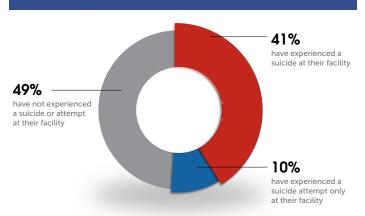
# INTRODUCTION

This publication of the International Parking & Mobility Institute (IPMI) is provided as an informative tool intended for use by organizations that design, manage, or operate parking garages as they consider the issue of suicide deterrence, response, and recovery. It is not intended to provide either legal or medical advice and, as is strongly encouraged throughout, for any consideration in addressing suicide at a parking facility, the input and recommendations of trained professionals should be sought out.

There are more than 45,000 deaths by suicide each year in the U.S., and that number is rising according to a 2018 report by the Centers for Disease Control and Prevention (CDC). Suicide is the tenth leading cause of death in this country. Of these tragedies, a very small percent – roughly two percent – involve people who jump or fall to their deaths. Many of these falls occur in transportation areas, such as railways, bridges, or parking garages.

Why parking garages? First, they provide easy access to great heights, from which jumping offers a perceived or believed higher certainty of death, according to suicide experts. Second, jumping is relatively easy, involves no cost, and lends itself to impulsivity. People considering suicide can be more easily deterred by office buildings and other high structures that are closed at night or have security personnel or other measures in place, and have sealed windows and security in the lobby.

# IPMI Survey: 51% of Parking Organizations Have Experienced a Suicide or Attempt





Garages, on the other hand, often have open sides for ventilation, allow customers to enter with little or no security checkpoints, and generally have fewer people walking around—making them much more accessible.

It is not surprising that more suicides occur at garages serving Veterans Administration (VA) and other hospitals, which are commonly associated with various psychiatric illnesses. Further, universities, whose at-risk population is often under increased stress and lacking resources and support, have higher risk of suicide at their locations.

Mental health conditions including depression are a factor in the majority of suicide attempts and deaths. According to the National Violent Death Reporting System (NVDRS), an estimated 60 percent of people who die from suicide by jumping had been diagnosed with mental health condition and 53 percent were previously treated for one.

According to the Centers for Disease Control and Prevention (CDC), suicide is the second leading cause of death among college-age students and one of the leading causes for death in middle-aged men. The American Psychological Association says that more than half of U.S. college students have considered suicide, compared with 15.3 percent of other demographic populations. College suicides often occur in high, open-air parking garages and media attention can influence "copycat" suicides by unintentionally romanticizing the act in the minds of individuals who are struggling.

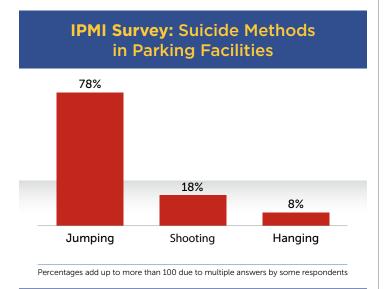
Parking & Mobility, monthly magazine published by the International Parking & Mobility Institute (IPMI) has addressed the issue of suicide in "Suicide and the Parking Garage" by Isaiah Mouw, CAPP, and Andy Troth, CAPP, (September 2010), and in two articles by Larry Cohen, CAPP, (August 2015 and November 2018).

Suicide deterrence is important both from a moral standpoint and also to minimize trauma to parking professionals and other witnesses or bystanders.

If a suicide or attempted suicide does occur in one of our garages, how do we handle the situation? IPMI has gathered information from a number of experts as well as members of the parking industry itself, with the goal of providing assistance, direction, and resources.

# **Parking Professionals Share Experiences**

To better understand the issue of suicide in parking structures IPMI surveyed member organizations in January 2016. Thirty-eight percent of respondents experienced a suicide in one of their parking structures and an additional 10 percent have experienced a suicide attempt.



The majority of the reported suicides were by jumping. Respondents' garages were mainly located in municipal (37 percent) and university (38 percent) settings. Of the respondents who experienced suicide, most said the incidents occurred within the last five years: 39 percent in the last year and 36 percent from two to five years ago.

# Why do People Consider Suicide?

There is no simple answer to this question, according to Dan Reidenberg, Ph.D., executive director of Suicide Awareness Voices of Education (SAVE), managing director of the National Council for Suicide Prevention, and the U.S. Representative appointed to the International Association for Suicide Prevention. "People die by suicide for a number of reasons. However, 90 percent of the people who take their lives were suffering with an underlying mental illness and/or substance abuse problem at the time of their deaths," he notes. "They didn't have a moral deficiency or character flaw. They were sick. Their brains were not working properly at the time of their deaths."

The save.org website points out that many people incorrectly think that the brain is where personality or character resides. "The brain is an organ just like the liver, the kidneys, the gall bladder, etc.," Reidenberg says. "When it gets sick, too often the appearance of the problem is in the form of a mental illness, as in the case of depression, bipolar disorder, anxiety disorders, or schizophrenia. If the brain is sick too long and treatment isn't working, it can lead a person to taking his or her life. However it is important to note that this isn't always the case, as millions of people live with depression and other mental illnesses and never attempt or die by suicide. But with awareness, education, and treatment, people can be helped so that suicide does not become a perceived solution."

"People who attempt suicide are in pain, distress, and often feel isolated," adds Eduardo Vega, CEO of the Mental Health Association of San Francisco, "But they are people first and foremost. They can respond to compassion, openness and hope even at a moment of intense crisis, as years of successful suicide prevention services such as crisis call centers have shown. Helping people get through these terrible moments of their lives without acting on suicidal thoughts involves positive engagement, trained staff wherever possible and reduction of access to lethal means."

Most of the suicides by jumping occurred from the roof/ top levels of the structures at a time when the facilities were open to the public and with routine patrols in the area. It is not uncommon for multiple incidences of suicide to occur within one facility, one city, or one institution (such as a hospital or university).

Among those who had experienced an attempted suicide at their garage, the intervention of law enforcement (cited by 64 percent of those experiencing a suicide attempt) was given as the primary factor in preventing the suicide. Intervention by parking staff was cited by 29 percent.

# Other Industries Address Suicide, Too

The parking industry is not the only industry that grapples with the issue of suicide. The U.S. Department of Transportation and Federal Railroad Administration released a report on countermeasures for suicide prevention in 2014. Its recommendations ranged from reducing anything that would trigger active thinking about suicide in the railroad environment to limiting access to railroad tracks. The transportation industry has long dealt with suicides from jumps from bridges. Like these industries, the parking industry can consider a wide range of mitigation options as cost-effective, from displaying suicide-hotline signage to installing physical barriers. Here are a few to consider:

# **DETERRENCE**

Facilities may wish to consider various deterrence tools, as described below. The following discussion should neither be considered an exhaustive list nor a recommended best practices approach; because, as identified above, in light of the individual's circumstances and health condition he/she may or may not be deterred by any measures. Nevertheless, the following is intended to generate a thoughtful analysis of possible ways a parking facility may address any possible attempts.

# Physical Barriers—Fencing and Screening

Installing physical barriers, such as chain-link fencing, screening, security netting (which is less dense and more attractive), vinyl-coated mesh, and, particularly in newer garages, metal grating or stainless steel or glass barricades, is recognized as a possible way to help deter suicide.

# IPMI Survey: Factors in Suicides That Were Prevented 64% Law Enforcement Professionals Others Mentioned: Bystanders Mental Health Professionals Crisis Hotlines Friends/Family Physical Barriers

A recent precedent for reducing suicides comes directly from iconic suicide bridges such as the Golden Gate, whose authority has budgeted millions of dollars for additional fencing and new netting to be installed under the walkway of the bridge.

Landscaping

The average suicide rate dropped significantly on many bridges that incorporated similar measures, according to "Suicide and the Parking Garage," a presentation by Mouw; Troth; Lanny Berman, Ph.D., former executive director of the American Association of Suicidology/ President of the International Association of Suicide Prevention; and Bobby Stone, director of Transportation Services at the University of Texas at Austin.

Gary Cudney, PE, senior vice president, parking solutions, WGI, Inc., has consulted on this issue for hospital, municipal, university, and other parking garages and has applied the industry's most stringent guidelines, the VA Parking *Design Manual & Demand Model* in a number of VA parking structures.

These include physical barriers at elevated levels—typically, six-foot fences that curve inward to impede climbing. Experts agree that it is better to use one- to two-inch chain-link fencing to minimize the potential of climbing up the fence. If there are parapets, barriers, or other structures near parking spaces that can be used to stand on, the height of the barrier should be increased to eight feet above the finished floor, according to the manual.

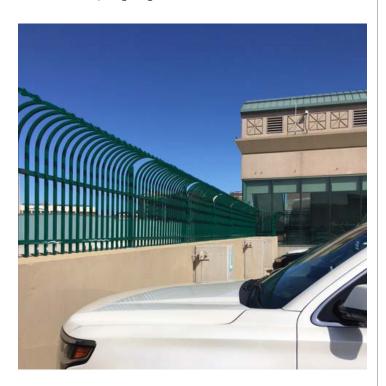
Other elements that may pose a risk: steep ramps between floors, open stairwells, and ventilation openings. Open areas can be sealed with treillage, grillage, metal screening, or stainless steel cabling that permits air and light to circulate. If vertically-mounted cable is used, it should be slanted inwardly toward the top of the parking ramp to make climbing more difficult.

# Geofencing

Other deterrents include geofencing (using closed-circuit television camera coverage) and landscaping—using trees, bushes, plantings, and grass around the garage perimeter to block the open landing area. "People tend to jump where there's concrete—they don't want to see awnings or landscaping that could break their fall," notes Cudney.

# **Costs Vary Widely**

All safety options have advantages and disadvantages, though barriers are among the most expensive solutions. Based on a recent project in which the City of Grand Rapids, Mich., installed four-foot-high fencing atop the roof-level, pre-cast concrete façade panel at four garages, the average price of the fencing was about \$64 per foot and \$34,000 per garage.



The University of Iowa is performing a study to screen seven campus garages, with an estimated total construction cost of \$1.5 million. The cost to screen levels four and higher in a seven- or eight-level garage is about \$220,000, based on this study.

Cudney points out it is less expensive to plan for physical barriers when building a new structure than to retrofit an existing garage, so it's wise to have the parking consultant and architect incorporate suicidedeterrence measures into the initial design.

Unfortunately, "no matter what you do, there is no guarantee of avoiding future suicides by installing fencing, because you typically cannot fence in an entire garage," says Larry Cohen, CAPP, executive director of the Lancaster Parking Authority, who has dealt with suicides in the city's Prince Street Garage. The goal is to provide a deterrent, and the level of investment on that will be up to owners and stakeholders, he says.

# Signage

Placing signage that promotes crisis hotlines, intervention services, and/or sources of counseling in high-probability locations can encourage individuals with suicidal intent to call the hotline number. It is important to note that there are differing opinions among mental health experts about using signage on bridges and other high points. Some wonder if it may do more harm than good. See sidebar on next page for examples of language to use and avoid in signage.

After convening a "Suicide Summit" group of law enforcement, community members, board members, staff, and mental health professionals from the city, county, and state, Cohen decided to post a local crisis number in Lancaster's garages. "Mental health professionals felt the response would be better with a local number," he says.

It is possible that properly worded signage can help, but it should be noted that although the Golden Gate Bridge has signs and phones installed, they are rarely used and there continue to be suicides at that location.

# Although there may not be consensus on

how valuable signage is in deterring suicide, if you plan to post signs in your parking facility, getting the wording right is important. Here are examples of what to do and what not to do:



Example of an ineffective sign on the Golden Gate Bridge. Although these signs have been posted for years, there are still suicides from the bridge, on average every ten days. According to mental health experts, the use of the word "crisis" at the top, "hope" in the middle, and "fatal" at the bottom, is confusing for someone in crisis.



Example of a fairly standard sign that provides a resource number to call, but enlarging the type of the line with a message of hope and reducing the type word "suicide" is recommended.



Example of a good sign. This clear, simple sign asks a question, gives call to action with a promise to listen, answer, and provides one resource.

As Reidenberg says, despite lack of evidence about the effectiveness of signage, it still may be better to do something rather than nothing, but cautions organizations from thinking that signage is enough.

# **Equipment and Operational Abatement**

Many garages have motion-activated, closed-circuit TV (CCTV) cameras with monitors. As Mouw, Troth, Berman, and Stone noted in their presentation, surveillance footage that captures a person displaying suspicious behavior may allow intervention by security or other staff.

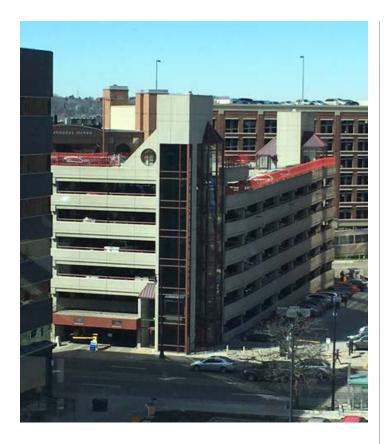
Recognizing that staff can't be everywhere, Cohen uses empty vehicles to suggest otherwise: "At night, we park one of our logo-marked vehicles at strategic locations throughout the garage giving the sense that personnel are nearby. For a person considering suicide, thinking that they are not alone in the facility can be a deterrent," he says. "The best we can do is provide physical security and give the perception that a person would be caught before being able to jump from one of our garages."

New equipment to help prevent suicides in parking garages may be available in the near future. A Houston-based company, Intuitive Machines, is developing a system that uses custom behavior-monitoring algorithms based on cameras and 3-D depth sensors, as well as infrared imaging to notify those monitoring sites when movement and behaviors that may precede a suicide attempt are detected. A prototype of this new technology is being tested for use in mental health facilities and prisons where suicide-watches are common. The amount of new equipment required varies based on the fidelity of monitoring needed as well as quality of the existing CCTV system. In some cases processing the existing CCTV feeds may be sufficient.

# **RESPONSE**

# **Prepare Your Staff**

How will your staff handle a potential suicide scene? Are they prepared? Cohen and others have successfully used suicide-deterrence training at their facilities. He says that after the training, "My staff felt comfortable that if they encountered someone on the roof or over the phone, they would be able to talk to them until police were



contacted and could respond to the scene. To date, we have encountered several other individuals contemplating suicide and have kept them from harming themselves."

# **Recognize Warning Signs**

It can be difficult to discern if a stranger is suicidal when encountering him or her in a parking garage. Only through proper training can staff be adequately prepared. The information below is offered as a preliminary overview, but is not a substitute for training.

# Examples of warning signs of suicide:

- Talking about wanting to die or to kill oneself
- Looking for a way to kill oneself, such as searching for a gun or sitting on a ledge
- Acting anxious or agitated, behaving recklessly
- Showing rage or talking about seeking revenge
- Talking about feeling hopeless or having no reason to live
- Talking about feeling trapped, in unbearable pain, or being a burden to others
- Displaying extreme mood swings

In the case of location-based attempts, individuals contemplating suicide will almost always be alone. They may spend considerable time preparing just before an attempt, for example waiting, wandering and stopping for long periods of time at or near the site, possibly visiting and returning to it several times as well.

# **Take Immediate Action**

If any these behaviors are observed, staff should take immediate action, starting with a call to 911. Here are basic possible next steps, which should be further explored in a professional training session:

- Ensure the safety of everyone present.
- Make sure you do not put yourself or others in dangers.
- Try to recognize and de-escalate by asking questions and reflecting concern.
- If a person wants to talk, do so but listen carefully. Talk in a calm, accepting, non-confrontational, non-judgmental, and supportive manner. Remember, you are there to try and help.
- If there is any threat of suicide—even if you talk the person down—you should contact the police with all pertinent information.
- If it is possible, encourage the person to talk with a crisis counselor, law enforcement, or medical personnel.

"It's important to know the warning signs and watch for them," says Reidenberg, who adds that they will be different for parking facilities at universities than at hospitals. Any preparedness training should take into account the population that the facility serves because the warning signs for suicide in youth, for instance, may be different than an older population.

# Listen, Don't Talk

According to Vega, who, in addition to being a suicide expert, is a survivor of two suicide attempts, "Listening is better than talking, but engaging can take a while. Be authentic in expressing compassion and concern and ask the person about what is positive in their lives." Saying things like "I'm going to call the police" and "Don't kill

# Media Guide: Recommendations for Reporting on Suicide

This downloadable pdf, can be shared with local media to sensitize reporters about responsible coverage that avoids glamorizing suicide or creating conditions that



might increase the likelihood of another tragedy. It is available at reportingonsuicide.org.

yourself" generally is not effective, Vega adds. "Try not to let your fear of the subject affect the other person. But don't be afraid to confront the issue directly either—to ask if they're thinking about suicide/jumping now."

"Ideally, the first on the scene should believe the person, try to connect with where their head is, and respond non-judgmentally," Reidenberg says. "The engagement may have to continue for some time—as long as it takes for law enforcement and/or medical professionals to respond.

# Connect with Local Professionals Before the Worst Happens

In their article in *The Parking Professional (now Parking & Mobility)*, Mouw and Troth recommend that owners establish relationships in advance with local police, first responders, crisis-intervention professionals, and suicide-prevention coalitions. It is advisable to train all personnel in basic life support and keep personal protective equipment nearby (i.e., non-latex gloves and CPR mask). Falls from heights present increased risk for brain, spinal cord, or extremity injuries.

If someone has attempted suicide, the first response should be to call 911 immediately, and, depending upon the status, offer assistance to the person. Then the staff member should secure the scene (if the person has died, do not let anyone come close to the body) and wait for police and/or medical responders to arrive. To assist the police investigation, provide video footage if available.

# The Dangers of Media Reports on Suicide

Knowing how to respond to the media is critical, as media reports of high-profile suicides can foster copycat or "cluster suicides," as Cohen and others learned from experience. "Whether we like it or not, suicides from garages are newsworthy," he says. "The local newspaper ran multiple stories with varying story angles when we experienced this situation. One story even outlined with dashes the path from the roof to the sidewalk, and up to five television stations covered the story."

To avoid fueling the sensationalism of the event, instruct employees to refrain from speaking to the press and to direct all questions to the police department. Under no circumstances should anyone connected to the parking organization post about the incident on social media.

If you are the spokesperson and must speak to the media, says Cohen, stress as much as possible that the story on the subject include initiatives for deterrence, awareness of mental health issues, and empathy. Focus only on the basic facts of the incident, avoiding details about the actions taken by the individual or their effects.

Training can help prepare for an incident when dealing with the press who arrive at the scene of a suicide.

# **Unintentional Advertising**

Be cautious in any messaging on suicide and safety to the media, staff, and customers, says the Action Alliance for Suicide Prevention, as a poorly worded public awareness campaign may have the unintended effect of "advertising" the parking garage as a potential means by which an individual can end his or her life. The Alliance suggests gently educating staff and colleagues who forward problematic content about the importance of safety in public communications about suicide. If there is disagreement about whether that particular content is unsafe, use the opportunity to engage in a dialogue about what kinds of messaging, generally speaking, will be most helpful in advancing deterrence goals. Keep safety in mind when creating websites, newsletters, posters, etc., because messages released into the public domain may contribute to perceptions about suicide and may be amplified by the media and others to shape their own communications.

# **RECOVERY**

# Employees Need Help in Dealing with the Aftermath

In the event of a suicide or attempted suicide, you should be prepared to deal with your staff and anyone else, including customers, who may encounter any aspect of the incident and offer professional help. For example, after a rash of suicides in 2009, the Washington D.C. Metro Rail system partnered with a local suicide-prevention group to help employees understand and cope with their own reactions to what they witnessed, and help them prevent future suicides.

Witnesses, including customers and staff, and first-responders require special handling to address post-trauma issues that may arise, says Reidenberg "They first need to be taken to a safe, neutral location, away from the scene," he says. "For them, all sense of control is gone, and they may be in shock. They need to regain their grounding and may need to deal with questions of guilt that could arise if they were near the suicidal person and unable to prevent the death. They may suffer anxiety, high blood pressure, and confusion, and should be closely watched by those informed in trauma care for more than 24 hours."

# Be Aware of the Potential for Post-Traumatic Stress

Even if witnesses think they are fine, they should be cautioned about possible post-traumatic stress and provided with resources where they can get physical and emotional care by people specially trained in suicide and suicide-grief response, Reidenberg says. Parking professionals may want to establish relationships in advance with local mental health organizations so that if the worst occurs, they can summon a pre-assembled team to help deal with it.

"These people have been forever changed and become overwhelmed when they return home alone or with their families," he added. "It's important to provide them with the proper resources in the community."

Reidenberg cautions that not all community mental health professionals may have the expertise to help people deal effectively with suicide, and it is best to reach out to those who are specifically trained in the field whenever possible.

# **Establish Workplace Policies**

Owners and managers may wish to establish policies for parking facility staff in the aftermath of a suicide, Reidenberg says. "Some people want to get back to work immediately; others need a break, but either way presents policy issues that should be addressed ahead of time."

Another issue he raises is how you secure the scene. "Using police crime tape can provide a further stigma, especially for family members who may have been called to identify the person," he says. "How you actually secure the area, whether it's with cones, barricades, or other means can be important considerations. Here again, advance planning is helpful."



To heighten staff awareness of the issue of suicide and suicide prevention, Reidenberg suggests taking advantage of events such as World Suicide Prevention Day, September 10 each year, or Mental Health Awareness Month in May and bring in suicide professionals for training sessions on warning signs, risk factors, response, and best-practice protocols.

# Legal Issues/Liability

Liability is always a concern when a suicide or attempt occurs, but actual incidences of parking facilities being sued are not common, say experts. However, the possibility of litigation always exists. You may want to share this document with your legal counsel to determine specific strategies for minimizing risk.

# **Sharing Experiences**

# Lancaster Parking Authority, Lancaster, Pa.

After five suicides occurred in parking garages in Lancaster, Pa., in the span of two years, the Lancaster Parking Authority (LPA) decided that an aggressive, proactive plan was warranted. First, it established a zero-tolerance policy for anyone on the roof of the garage who wasn't coming to or from a vehicle. The authority also displayed no-trespassing signage within the guidelines of the city defiant-trespass warning. Cohen convened a "Suicide Summit" of city, county, and state law enforcement, community members, board members, staff, and mental health professionals. Cohen, his managers, and many staff went through suicidedeterrence training, and those who drive company vehicles were directed to pass through the roof level prior to returning to the office each day. The LPA staff monitors police and hospital scanners so they can get a head start on a potentially suicidal individual entering the facility. After much debate and consultation, the LPA also decided to fence the top two levels of the garage to provide a physical deterrent. Cohen has not shied away from doing media interviews and has used them to convey the message that his organization is sympathetic and proactive.

# The University of Texas at Austin

During the span of four months of the 2010-11 academic year, The University of Texas at Austin (UT-A) experienced two deaths by suicide from jumping off campus parking garages and a total of eight deaths by suicide campuswide. This same period saw several students at other universities jumping to their deaths, including at Yale and Cornell University, which garnered considerable media attention. Worried that this campus suicide contagion would increase, a team of UT-A stakeholders that included the Department of Parking and Transportation

Services came together to devise a collaborative system of police patrols, sophisticated surveillance, multi-departmental training on suicide deterrence, and physical changes to campus parking structures. With financial support from the president's office, UT-A installed awnings across drive lane entrances and exits on garages to block the view of large concrete slabs. It increased patrols of the garages by the university police department and parking staff, focused on video monitoring of garage rooftops during sensitive times of the semester, and parked marked police cars on top of the garages to create the illusion that someone would return. According to the university, the education, outreach, and proactive patrolling and observation have been key in saving lives.

# **Veterans Administration Medical Centers**

Due to the increased risk of veterans bringing harm to themselves because of their physical and emotional trauma, the deterrence of suicide in VA parking facilities is a specific goal of the VA Parking Design Manual. This includes consideration to preventing an individual from causing harm to himself by jumping from an upper garage level. The VA uses façade screening for both aesthetics and safety including closing openings at covered parking levels, as well as the roof.

# Conclusion

There is a wide range of potential intervention measures to consider, from psychological (influencing individuals to reconsider suicide) to physical (using barriers and other means). Each requires careful evaluation to avoid causing unintended consequences or incurring costs without positive returns on the investment. For minimal cost and effort, you can proactively partner with the community, collaborate on public awareness efforts, and train your staff to deal effectively when the situation arises. The most practical and immediate steps organizations can take is to be as prepared as possible.

# Special Thanks to:

**Matthew Federici,** MS, CPRP, executive director, Copeland Center for Wellness & Recovery, Philadelphia, Pa.

**Richard McKeon,** Ph.D., chief, Suicide Prevention Branch U.S. Federal Substance Abuse and Mental Health Services Administration

**Dan Reidenberg,** Psy.D., executive director of Suicide Awareness Voices of Education (SAVE), managing director of the National Council for Suicide Prevention, and the U.S. representative for the International Association for Suicide Prevention

**Eduardo Vega,** MA, CEO/president of the Mental Health Association of San Francisco, Director and Principal Investigator of the Center for Dignity, Recovery and Empowerment. Executive Committee member, National Action Alliance on Suicide Prevention.

# **Additional Resources**

- Suicide Prevention Resource Center: sprc.org
- The Action Alliance for Suicide Prevention's taskforce focused on suicide in the workplace: actionallianceforsuicideprevention.org/taskforce/workplace
- The Jed Foundation (suicide prevention at universities): jedfoundation.org
- Substance Abuse and Mental Health Services Administration (SAMHSA): samhsa.gov
- Suicide Awareness Voices of Education (SAVE): save.org
- Recommendations for the media on writing about suicides: reportingonsuicide.org

# **Onsite Suicide Response Training**

IPMI has partnered with a renowned suicide expert and trainer to provide a customized parking facility-specific, suicide deterrence, response, and recovery training program. For more information, contact Helen Sullivan at sullivan@parking-mobility.org.

# **Support Lines**

The National Suicide Prevention Lifeline:

**English**: 1-800-273-TALK (8255) **En Español**: 1-888-628-9454

Veterans/Military Crisis Line: 1-800-273-8255 Press 1, or

www.veteranscrisisline.net, or text 838255

Crisis Text Line: 741741

Download free copies of this document at parking-mobility.org/sprr

