Camper Park Risk and Safety Assessment, Final Report

June 25, 2024

Sections:

Introduction

This assessment report has been prepared with the primary objective of evaluating the risk and safety conditions in the Camper Park trailers and facility, which informs the overall assessment of the suitability, sustainability, safety and appropriateness of the Camper Park as a method of delivering student housing on the UCSC campus. As a fundamental responsibility to our residential students, it is imperative to evaluate whether the residential facilities provided by the university's Camper Park meet the necessary standards for safe, long term habitation. This assessment has been prompted by growing concerns regarding various health and safety issues, including but not limited to structural integrity, fire safety, sanitation and overall living conditions within the trailers. The findings of this report will inform decisions regarding the future of the Camper Park, with the ultimate goal of providing safe and sustainable living environments for our students.

The Camper Park is comprised of 42 trailer spaces and 41 trailers located on Leonardo Lane on campus. One trailer, in space #37, was destroyed by fire on October 7, 2021, leaving 41 trailers that are still present at Camper Park. There are currently two different model trailers consisting of 26 Riverside Retro 189r models and 15 Keystone Springdale 202qbwe models. The trailers were mostly purchased in 2016 and 2017 making the oldest trailer about 8 years old. The facility also includes a small community building, community bathrooms, showers and a shared kitchen for resident use.

Fire Marshal's Office Assessment

The trailers are categorized as camp trailers per the CA Department of Motor Vehicles; Vehicle Industry Registration Procedures Manual. A camp trailer is classified as a vehicle, other than a motor vehicle, designed to be towed on the highway, capable of human habitation for camping or recreational purposes to provide temporary living quarters. Per the criteria of the definition, the camp trailers pose a significant risk due to the nature of their current use as long term student dwelling (greater than 30 consecutive days). The associated risks of extended living can be categorized to the following categories: Fire Hazards, Limited Fire Safety Features, Risks of Carbon Monoxide Poisoning, and the Challenges of Extended Living.

Fire Hazards: According to the National Fire Protection Association (NFPA), fire is the leading cause of camp trailer loss in the US, with almost 2,000 vehicles catching fire every year. Common fire hazards in RV's include electrical, mechanical, and cooking. Camp trailers contain various electrical systems, appliances, and combustible materials, increasing the risk of fires. Common causes of fires include electrical malfunctions, cooking accidents, and overheating appliances. Limited space in camp trailers can exacerbate fire risks as it restricts escape routes and makes fire suppression more challenging.

Limited Fire Safety Features: On-Campus dorms and apartments safety features are designed to prevent and mitigate the effects of emergency situations. In particular, all campus permanent housing units are equipped with fire sprinklers, fire alarms and fire extinguishers. Carbon monoxide detectors are equipped in all permanent campus student housing units that have gas-fed appliances such as stoves and ovens. Fire sprinkler and fire alarm detection for on campus dorms and apartments are centrally monitored by campus dispatch. The camp trailers, by virtue of the fact that they are camp trailers, are only able to have battery operated smoke/carbon monoxide detection and a fire extinguisher within every trailer. A manual fire alarm pull station is centralized at the community center. Having On-Campus dorms and apartments integrated and monitored systems provide continuous power supply, reduces the risk of detector failure due to dead batteries and enables rapid emergency response, even when occupants are away. This is not possible with camp trailers.

Risks of Carbon Monoxide Poisoning: The Camper Park camp trailers have propane tanks for cooking within the trailers. Propane-powered appliances, generators, or heaters pose a significant risk of CO poisoning. Various hazard scenarios are present when gas appliances are not vented properly or are malfunctioning. Natural and LP gas burn more efficiently and cleanly, compared to other forms of fuel. However, in circumstances of poor maintenance, inadequate ventilation, or faulty exhaust pathways, natural and LP gas appliances may emit potentially unsafe or even lethal amounts of CO without any irritating fumes to alert potential victims to the danger. Symptoms of CO poisoning include headache, dizziness, nausea, confusion, and ultimately, death if not detected and treated promptly.

Additional Challenges of Extended Living: Extended living in camp trailers presents unique challenges, including limited space, water, and waste management. Over time, wear and tear on the trailer's systems can lead to mechanical failures and maintenance issues that can lead to risks described previously such as risks of fire or carbon monoxide poisoning.

Environmental Health & Safety Assessment

As outlined above, continuous occupancy of camp trailers come with significant health and safety concerns and hazards.

Fire is a considerable threat to life and property in recreational travel trailers. Please see the Fire Marshal's Office Assessment for more description and details.

Continuous occupancy of camp trailers can accelerate corrosion and cause loose fittings and connections that can lead to propane leaks and/or explosions. While the trailers come equipped with a wired propane sensor, these alarms are often ignored by residents and their activation is not consistently reported to facilities until the condition becomes repetitive.

Indoor air quality in recreational travel trailers can be compromised by a variety of factors. Maintaining proper interior humidity levels is challenging, especially during colder months, and can lead to the buildup of condensation and mold growth. Mold growth has been identified on surfaces such as trailer walls, ceilings, flooring, mattresses, upholstery, and resident contents in most trailers EH&S has visited. Trailer mold evaluations are the most common request EH&S fields from camper park residents and facilities staff.

Continuous occupancy of recreational travel trailers also increases the probability of water intrusion events significantly contributing to the humidity, condensation, and mold issues identified.

Carbon monoxide poisoning is also a significant concern in the camp trailers. Carbon monoxide gas can originate from propane-powered trailer appliances, generators, or heaters. The limited space inside the trailers make the risk of carbon monoxide poisoning higher than in traditional living quarters. While the camp trailers come equipped with a wired carbon monoxide sensor, these alarms are often ignored by residents and their activation is not consistently reported to facilities until the condition becomes repetitive. Carbon monoxide gas evaluation and monitoring is the second most common request EH&S fields from camper park residents and facilities staff.

Camp trailers are known to potentially contain above-average levels of formaldehyde and other volatile organic compounds (VOCs) found in glues, adhesives, resins, stains, and solvents. These compounds are used in the manufacturing of particle board, medium density fiberboard

(MDF), insulation, and other common building materials found in camp trailers. The potential for higher than average VOC levels in camp trailers is well documented.

Safety and Security Issues

Permanent campus student housing units on campus generally have significantly greater security and safety features than those available at the Camper Park trailers, by virtue of the fact that they are individual camp trailer units.

Across campus, the majority of exterior and interior dormitory bedroom doors utilize hotel-style locks, which automatically secure upon entry and exit, alleviating the need for students to manually lock their bedroom doors at night or when they leave as the locks automatically engage upon closure. In contrast, the Camper Park trailers have a slender fiberglass door equipped with a key-operated handle akin to that of a toolbox, and a small independent deadbolt lock. These doors do not automatically lock and require manual locking from within or with a key upon departure. Additionally, the majority of permanent campus housing units on campus boast double-lockable doors separating the outside common areas from the bedrooms where students are sleeping. These units typically utilize Onity locks, offering programmable access requiring both a card and a unique code for entry. If an Onity card is misplaced, it cannot grant access to a residential space without the corresponding code. This functionality is not available at the Camper Park, by virtue of the fact that they are camp trailers. In the event of lost keys to Camper Park trailers, unauthorized individuals could potentially gain entry.

Restrooms within permanent campus student housing units have an added layer of security with dual locked door access from the outside. Most permanent campus student housing units buildings also have exterior door locks, accessed only with Onity or CCURE locks and most restroom doors are also secured with Onity locks. The majority of camp trailers do not have individual restroom and shower facilities. Instead, Camper Park residents utilize communal bathrooms located in the centrally positioned Community Room area of the Camper Park. While these facilities remain consistently available, reaching them poses potential risks during adverse weather conditions or in low-light settings due to the outdoor terrain’s typical uneven or slippery surfaces. The restrooms and shower rooms have a single door access, similar to a campground restrooms found across the United States.

Camper Park trailers are made of lightweight aluminum and fiberglass and are not as structurally sound as your typical residential living space on campus, making them more susceptible to damage during severe weather events such as storms or high winds, which increases the risk of danger to students in this heavily wooded area of campus.

Current Students' Perspectives and Opinions

Jim Grove and Ryan Macleod met with Camper Park residents in April and May of 2024. Their notes here reflect the ideas and input of students and student representatives in the camper park.

Context: Residents of the Camper Park are eager for this community to continue its operation. Given that the Camper Park was originally conceived of as a low-cost housing alternative (though it is no longer that in practical terms), given the current housing crisis, residents want everything possible to be done to prevent this community from being closed. Further, many consider the Camper Park to be emblematic of UCSC's ethos and so argue for its preservation as an important part of its history and legacy. Residents want much more close involvement in decision making and next steps.

Timely Issues:

- Students wish to know no later than 7/1 whether they will be able to return to the Camper Park in fall. There are at least 13 who hope to return. (Note: Residency in the Camper Park does not, however, guarantee access to the CP for the following year).
- Residents wish to know when trailers will be inspected for habitability and related issues.
- Clarify and document what constitutes habitability.

Habitability:

- Residents argue that no longer cooking inside trailers along with use of dehumidifiers, etc., has resulted in much less mold.
- Trailers in the deepest shade have more mold problems than those in the sun. They are willing to have those in shade removed. Develop alternate use plans (gardens, campsites, etc.) for the empty spaces. Not interested in having trees removed/canopy modified.

Trailer Alternatives:

- Residents request consideration of tiny homes, shipping containers turning into residences, etc. if the trailers are removed.

Rethinking Communal Space:

- Residents feel that changing the footprint and purpose of the community building to become less lounge and more easy-to-clean kitchen/food prep area is worthwhile. This would allow easier shifting of meal prep into that building and out of the trailers.

Creative Ideas:

- Residents insist that there are a number of opportunities for collaboration with various academic departments on campus that would be interested in viewing the Camper Park

as a “living lab” for purposes of studying/researching sustainable living/sustainable housing alternatives as justification for continuation of this community.

Conclusions and Recommendations

It is recommended that the Camper Park facility be permanently closed at the end of the 2023-24 academic year due to the significant health and safety concerns and risks it presents for resident students. By virtue of the fact that these are camp trailers, sufficient risk mitigation is not possible. Recreational travel trailers are neither designed nor intended for long term occupancy, and the trailers in the UCSC Camper Park are manifesting the problems associated with such long term occupancy. There would be no immediate impact to students' fall 2024 housing arrangements as the Student Housing Services department did not open the Camper Park as an option for housing application or assignment for fall 2024 to allow for this potential outcome of this Risk and Safety Assessment process.

We appreciate the concerns and perspectives shared by the students and student representatives who participated in the feedback and input sessions, whose input and ideas are reflected in this report. We believe that the valued elements of community living that students expressed in these sessions are created in many areas of the UCSC residential housing program, and we encourage current CP residents to seek out those opportunities for community living engagement. The availability of affordable housing is a top priority for UCSC, and we look forward to offering 320 affordable beds throughout the campus housing inventory when we open Kresge Phase 2, which is currently under construction.

<u>Alternate Use Proposals</u>

The space could be repurposed for the development of a meditation garden area, in consultation with the campus Ombuds and CAPS. The current community lounge, kitchen, and laundry facility, which also features bathrooms, could be transformed into a Commuter Lounge space, conveniently located near the North Remote Parking lot.