



Photo: Oregon Department of Transportation

Over the past several decades, the number of unhoused persons in the US has continued to grow; while this is a nationwide issue, the trend has disproportionately impacted the Western states. Researchers have speculated that this is likely from a combination of mild weather, a severe lack of affordable housing and progressive, more lenient local governments (Leonetti 2019, Edelen 2017).

These populations often seek shelter and establish camps on, under and around transportation right-of-ways, including highway interchanges, overpasses, bridges, tunnels and other facilities. This has created increasing challenges for state and local departments of transportation. As owners and stewards of public lands, they are concerned for the safety of the transportation workers, the travelling public, the people finding refuge within the right-of-ways, as well as for the facilities themselves. At the same time, they recognize the need to deal with a societal issue that their agency employees are generally not trained to handle (Kraus, Glover et al. 2022). There are also legal issues that need to be recognized and considered when deciding how to handle the camps that have formed on public lands.

The need to develop consistent guidance and procedures has prompted research in recent years. Several studies are currently being conducted including:

- [Guide for Addressing Encampments on State Transportation Rights-of-Way](#): “The objective of this research is to develop a guide of suggested practices for responding to, managing, and deterring encampments on the ROWs. The suggested practices shall address the challenges for state DOTs in the design, construction, and maintenance of pavements and consider social equity, environmental impacts, safety, legal issues, coordination with other agencies, and other relevant issues.” This is a pending National Cooperative Highway Research Program (NCHRP) project. NCHRP research is sponsored by the American Association of State Highway and Transportation Officials (AASHTO) in cooperation with the Federal Highway Administration, and is administered by the Transportation Research Board (TRB).
- [Understanding and Responding to Homelessness in State Transportation Settings](#): “This white paper will assess the state of homelessness in Caltrans environments, its mobility and equity implications, and best practices in responding to homelessness in transportation settings. The research team will synthesize existing analyses of homelessness in such environments and identify, describe, and compare relevant best practices.” The California Department of Transportation (Caltrans) is sponsoring this study, which is being performed by the University of California, Los Angeles.

Oregon was at the forefront of early work recognizing the concerns of growing populations of unhoused individuals and developing strategies to deal with them. In 1995, *Illegal Homeless*

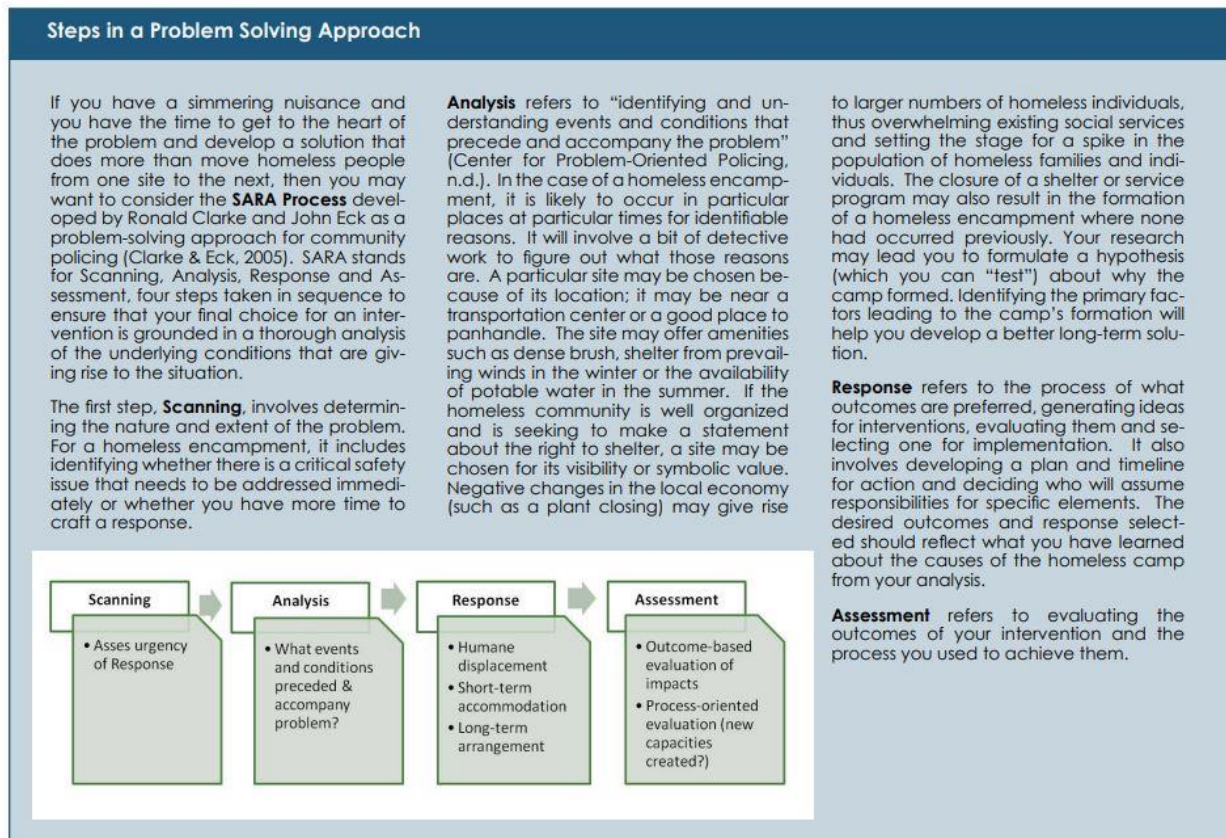
*Camping in Portland: Field Analysis and Advocacy Planning* was published through Portland State University. In it, Bernhardt, Glancy, Layne & Salvon explored ways to understand the underlying issues of homelessness and address what the campers actually desired and needed for support.

A later study from Portland State University and Oregon Transportation Research and Education Consortium (OTREC) followed the clean-up of an extensive and long-establishment homeless community on what was then known as the Baldock Rest Area on Interstate 5 south of Portland, OR (Tremoulet, Bassett 2012). This project took a multi-agency approach utilizing a “push/pull” strategy; social service agencies provided the “pull”, working to assist members of the camp obtain housing and take steps to rejoin traditional society. The “push” element was performed by law enforcement and ODOT, creating firm deadlines for disbanding the encampment and working with social workers to help campers needing further assistance. Then the camp area was cleared and cleaned.

This was considered a very challenging project; campers in this area had formed a complex and self-sustaining community over a long period of time. One resident had even reported living at the rest area for 17 years. The result was considered a success, however, with two-thirds of the residents who had accepted assistance still housed sixteen months after the camp was cleared. One report coming out of this effort was *Homeless Encampments on Public Right-of-Way: a Planning and Best Practice Guide* (Bassett, Tremoulet & Moe 2012). Developed specifically for state DOT staff, the guide was also considered helpful for other public agencies whose primary mission does not include providing assistance to homeless individuals, but sometimes find themselves in contact with these populations. Problem solving approaches in this guide were formed around six principles:

1. Homelessness is a societal issue with complex causes and effects that spill over and affect many different sectors, including transportation agencies, hospitals, the criminal justice system, nearby businesses, etc.
2. One of the most effective ways to address the issue is through a problem-solving approach that involves partners in both social service and law enforcement agencies (push/pull approach).
3. Moving homeless individuals from one site to the next through the use of law enforcement and physical barriers alone is costly, doesn't solve the problem and tends to generate hostility and further desperation among those being moved.
4. Line employees in the field should not be expected to deal with homeless camps and individuals unaided. Higher-level management needs to get involved.
5. Every situation is unique. There is no one-size-fits-all strategy that works in every context. Thus, transportation agency managers need to be empowered and equipped with skills, information and flexibility that enable them to craft a solution that works for their situation. The level of effort invested in developing a response should fit the nature and scope of the issue being addressed.
6. The problem did not arise overnight, and it will not disappear overnight. That is why building ongoing relationships with partners is so important.

The authors also suggested adopting the SARA process, involving the steps of scanning, analysis, response and assessment:



Dealing with homeless camps continued to be a challenge over the years to the transportation agencies responsible for providing for the safety of employees working within the rights-of-way. The encampments can present hazards that are often unanticipated and overlooked while planning projects (Braun 2017). Objects and artifacts left behind in cleared encampments can be dangerous. People who are impaired or asleep may be undetected by maintenance workers in the area (Bitzan, Gallagher et al. 2020). The time and resources needed to remove and clean the trash, litter and debris left behind as camps are disbanded tax an agency’s resources (Kraus, Glover et al. 2022). These authors also noted a concern about chemical or substance abuse and drug dealing at unsheltered encampments, as well as prostitution and human trafficking. The neighboring properties are also affected, with concerns of the influence and impact of homeless camps on crime in the area and reduction of property values (Kraus, Glover et al. 2022).

Traditionally, the response to these camps is to clear, or “sweep” the area, displacing the campers, collecting belongings left behind and cleaning the debris. Studies have shown that the “push/pull” technique described in the Baldock Rest Area project needs to be used thoughtfully to be effective;

otherwise encampments often recur in the same or nearby location after the original removal. Loukaitous-Sideris, Wasserman et al. (2023) illustrated how the method could be used to achieve maximum effectiveness:

Table 1. Strategies for Responding to Homelessness on DOT Land

	DOT Strategies	Local Government and External Partner Strategies
<b>“Push” Strategies</b>	<ul style="list-style-type: none"> <li>• Clearance/displacement of encampments</li> <li>• Removal and no-trespass notices</li> <li>• Preventive maintenance</li> <li>• “Defensive” architecture/hardscapes</li> </ul>	<ul style="list-style-type: none"> <li>• Clearance/displacement of encampments</li> <li>• Ticketing/monetary fines</li> <li>• Citations/arrests</li> <li>• “Defensive” architecture/hardscapes</li> </ul>
<b>“Pull” Strategies</b>	<ul style="list-style-type: none"> <li>• Accommodation of people/encampments in place</li> <li>• Arrangement for short-term shelter elsewhere</li> <li>• Arrangement for long-term housing elsewhere</li> <li>• Partnerships with homeless service providers to conduct outreach</li> <li>• Hiring a DOT staff coordinator or dedicated team for homelessness</li> <li>• Use of DOT land for building shelters</li> <li>• Sanctioned campsites on DOT land</li> <li>• Housing individuals in DOT-owned homes</li> </ul>	<ul style="list-style-type: none"> <li>• Specialized staff/teams with outreach expertise</li> <li>• Upkeeping encampments/providing amenities like toilets</li> <li>• Resources for mental health and substance abuse</li> <li>• Resource centers</li> <li>• Low-barrier shelters</li> <li>• Providing/connecting to housing opportunities</li> <li>• Coordination among a diverse set of partners</li> <li>• Temporary shelters/“tiny homes” on surplus/vacant land near freeways</li> <li>• Sanctioned campsites near DOT land</li> </ul>

Loukaitou-Sideris, Wasserman et al. 2023

Many states conduct the removal operations without consistent and documented procedures, and with mixed results. Oregon is one of a handful of states that have statutes directing the specific process for this work to be done (Kraus, Glover et al. 2022):

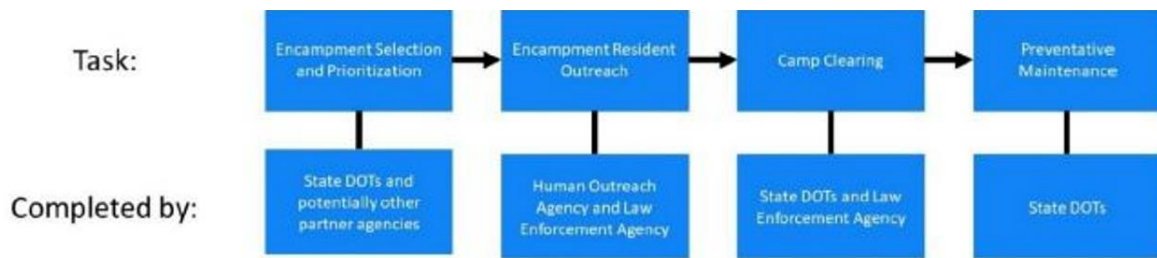
- ORS § 366.455 (2021) allows for the removal of unlawful signs and structures.
- ORS §377.650 (2021) allows for personal property that is deposited, left or displayed on a state highway to be declared a public nuisance which can be removed after a period of notification.
- ORS § 377.653 (2021) gives the procedure for the removal of personal property on state highways.

ODOT’s practice has been to notify local support services to facilitate the clearing of camps when problems have been identified (Kraus, 2020).

Utilizing local agencies has not always been a part of the way transportation maintenance projects were done, but the literature shows the benefits of incorporating the efforts of local fire departments, local district or county attorneys, homeless advocacy services, local shelters and other services (Ricord 2020). In one example, Indiana Department of Transportation (InDOT) contracted with a homeless service provider for outreach to unhoused individuals in the Indianapolis area. InDOT pays for the salaries of



some of the employees of the providers, which has allowed InDOT to essentially have a trained outreach worker on call (Loukaitou-Sideris, Wasserman et al. 2023). Two state DOTs, Hawai'i and California, have established a special office within their agency that coordinates their homeless response, and works with other agencies and organizations to determine best practices (Loukaitou-Sideris, Wasserman et al. 2023). Ricord's (2020) vision on workflow for removal of encampments:



*Ricord 2020*

Barriers such as fencing, signs, vegetation management and mowing of grass are sometimes used to deter campers from returning to cleared areas – or to make them less appealing in the first place (Ricord 2020; Loukaitou-Sideris, Wasserman et al. 2023). ODOT has used some of these practices, including placing large boulders to block access to areas, particularly under bridges.



*Photo: Oregon Department of Transportation*

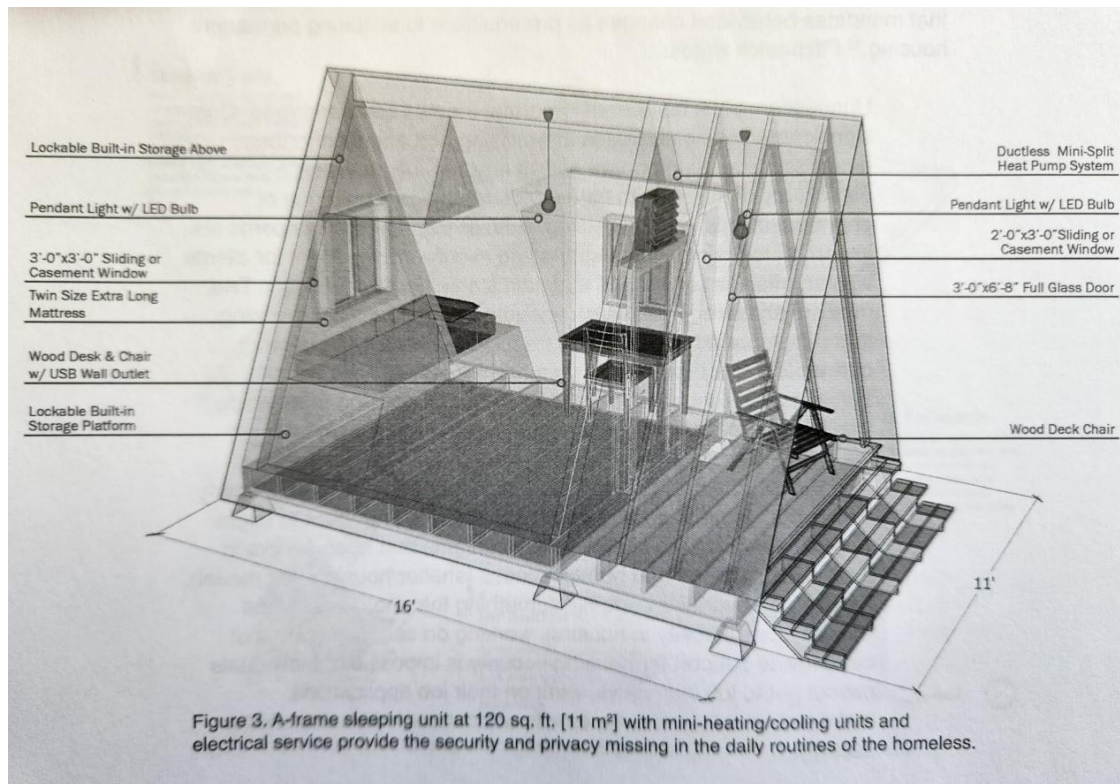
Maintenance operations often take place adjacent to the same areas that campers reside, and as noted earlier, this can present hazards that may be unanticipated by the workers, and may be beyond their training. In response to these issues, Minnesota DOT did a pilot project using remote sensing in maintenance operations. In the past, workers have encountered issues such as running over propane

bottles in the tall grass; campers have even placed hidden traps when vacating the area. The study also cited the tragic example from Oregon where a maintenance worker mowing in the right-of-way accidentally ran over and killed a camper sleeping in the tall grass. These showed the advantages of being able to identify objects and artifacts, as well as humans who may have remained in the area and may be unable to respond to maintenance operations for whatever reason. In the end, it was determined that a two-device solution would be needed – one to scan an area to check for human population (infrared/thermal) and one that could be mounted to equipment and capable of locating objects (Bitzen, Marti et al. (2020). This pilot was expanded into a larger ongoing project: [Remote Sensing in Unsheltered Encampments](#).

The process of removing camps that have been identified as priorities can be traumatizing to those being displaced. In essence, they feel that they are losing their home; they see themselves as residents of the camp, rather than trespassers (Leonetti, 2019). There has been an increasing criminalization of homeless camps, particularly by local jurisdictions adopting ordinances restricting camping activities on public lands (Loukaitou-Sideris, Wasserman 2023). Ederlen (2017) noted that the nation continues to criminalize poverty, perpetuating the notion that homelessness is a result of personal failings. He went on to say that the reality of the homeless problem lies in the fact that those involved are “a population desperately attempting to define its place in an exclusionary social structure.”

Loukaitou-Sideris, Wasserman et al. (2023) recommended developing and utilizing prioritization criteria to evaluate the necessity of encampment removals. They also pointed to the prototype strategies espoused by Bassett, Tremoulet and Moe (2012, 2013) of “humane displacement,” short-term accommodation,” and “long-term arrangement”. Providing innovative solutions for those in encampments can make transitions easier. One recommendation is to explore the use of areas of right-of-way for the development of structured camps or shelters, and bring in sanitation facilities for those making use of these locations (Kraus, Glover et al. 2022; Loukaitou-Sideris et al. 2023).

Other programs that have met with success include Project Off-Ramp, initiated by the city of Fresno, CA. The city offered individual rooms in low-barrier shelters in converted motels. Intensive outreach programs were provided, and frontline workers from these organizations contacted and worked with unhoused residents. Highway Patrol then enforced a no-camping policy along freeways in the area. The project saw an approximately 80% shelter acceptance rate, and about a 50 – 60% exit rate to permanent housing (Loukaitou-Sideris et al. 2023). Hui & Habib (2017) pointed to the Housing First approach as the best solution to the homeless situation, providing immediate access to housing coupled with wraparound support services. In some areas, “villages” are being established with individual “tiny homes” as part of a neighborhood with shared community facilities. Louni (2019) advocated this type of community and proposed simple-to-assemble A-frame individual transition units and central communal support facilities:



Louni 2019

Gathering and maintaining up-to-date data is also an important part of the solution; it's far easier to plan when an agency is aware of the full extent of the problem (Loukaitou-Sideris, Wasserman et al. 2023). Washington State DOT records information on issues related to maintenance of state roadways in the Highway Activity Tracking System (HATS). The presence of homeless encampments is tracked through this database, along with other information gathered primarily through employee reports and public complaints (Ricord, 2020). Armed with accurate statistics, an agency can make better informed decisions for the path forward.

When one considers how transportation intersects with homelessness, it is easy to think of the encampments within the right-of-ways, and helping the residents of these to eventually transition to permanent housing. However, it is also important to consider the transportation-related exclusion that these populations experience. Mobility can improve the quality of life for vulnerable residents and has the potential for them to break the cycle of poverty (Hui & Habib 2016). As noted earlier, proximity to transit and bike/ped facilities near structured camps, transitional shelters and low-income permanent housing can greatly increase access to work, health care and other support facilities. Transit agencies often function as both transportation and shelter for individuals, and agencies must balance their social responsibilities to all of their riders, housed and unhoused. Many have no formal programs to address these issues, but others have developed strategies including hub of services, mobile outreach, discounted fares and transportation to shelters. The Tri-County Metropolitan Transportation District

(TriMet) in Portland has instituted several fare programs to benefit those experiencing homelessness (Loukaitou-Sideris, Wasserman et al. 2022).

Planning is the key to begin the process of tackling the problems surrounding unhoused individuals living on public lands, and the needs of this population have not traditionally been addressed in transportation strategic planning (Bassett, Tremoulet & Moe 2012; Hui, Habib 2016; Kraus, Glover et al. 2022). Morris (2020) emphasized the importance of engaging service providers who work with homeless populations in the planning process.

It is important for transportation agencies to continue to consider how transportation and homelessness intertwine. (Loukaitou-Sideris, Wasserman et al. 2023). The stigma of homelessness takes a physical, emotional and psychological toll on those involved. We need to find ways to shift how we as a society think about homelessness to begin to alleviate this issue and find equitable solutions for those who are experiencing homelessness (Ricord 2020). Providing low-barrier housing/shelters with a path to permanent housing and making affordable transportation available is a key component to reducing the negative impact this population has experienced, and transportation agencies need to evolve solutions that meet the needs of those seeking shelter on public lands, as well as the travelling public, agency employees and the transportation infrastructure.

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