

CHAPTER 4

Support Items

4.1 Introduction. This chapter provides design guidance for support items included in Corps-managed recreational areas during new construction or rehabilitation of facilities. The quality of camping, picnicking, or other recreational experiences is often contingent upon the quality, type, and design of support facilities available. The challenge to the designer and manager is to provide aesthetically harmonious, functional facilities that are durable, vandal-resistant, and economical to install and maintain.

4.2 Universal Accessibility. All support items procured for new construction or rehabilitation of facilities shall be universally accessible. This is in accordance with paragraph 1.19, which states that any new recreation facilities purchases, such as picnic tables, grills, playground equipment, utility tables, water fountains, etc., shall specify universally accessible items. Due to this blanket requirement, the need for universal accessibility will apply to, but not be mentioned with, each specific item covered in this chapter except in areas of special emphasis.

4.3 Picnic Tables. Many standard designs exist for construction of tables. There are also commercial sources of well-built, economical, prefabricated units and components. The choice of design and construction materials should be based on long-term economy, site-specific functional requirements, durability, comfort, safety, aesthetics, and ease of maintenance or repair. Table design will depend on the individual park site and typical usage. Factors to be considered for customer service are shown in Table 4.1. Some table types and associated considerations include:

4.3.1 Portable tables facilitate off-season storage and provide flexibility in meeting varying site conditions and public use demands.

4.3.2 Heavy-duty tables are durable, minimize theft, and allow rearrangement to accommodate user preference.

4.3.3 Lightweight tables may have to be secured to prevent theft or large-scale displacement.

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4.3.4 Fixed tables should be considered in areas prone to frequent flooding.

Table 4.1

Picnic Table Checklist	
Location/Placement	
Level placement	Required
Placed 10 ft (3 m) away from a fire ring or grill	Required
Sited away from the edge of impact areas, steep slopes, or other obstacles	Required
Ideally, located where afternoon shade is available	Recommended
Located on delineated impact areas reinforced to avoid site deterioration (Photo P-13)	Recommended
On picnic sites, may be located without impact area in areas free of roots or stumps, provided soil compaction and erosion will not be a problem	Optional
Construction & Design Features	
The standard table shall accommodate UA	Required
Rounded or chamfered edges	Required
No protruding bolts or other safety hazards	Required
When anchored, anchoring method eliminates safety hazards such as protruding stakes and chains	Required
All parts splinter-resistant and treated with coatings approved for human contact	Required
Attached benches	Recommended
Rust-resistant metal and hardware	Recommended

4.4 Utility Tables. Utility tables are optional equipment at campsites and picnic sites. They may be used in conjunction with fire ring/grills and pedestal grills ([Photos I-11](#) and [I-12](#)).

4.5 Fire Rings and Grills. Where local conditions permit campfires, fire rings/grills shall be provided at campsites and group camping areas to contain campfires and prevent random campfire scars. At picnic areas, a pedestal grill may be provided. Large grills are desirable for group use. [Table 4.2](#) provides guidance for location and placement of fire rings and grills.

4.5.1 Fire Rings. Fire rings can be made of metal, firebrick, or natural stone. Circular units best fit the shape of a fire and are aesthetically attractive. Combination fire

rings and grills should be considered when replacing existing equipment. Common bricks and masonry should not be used in/under fire rings due to the potential to explode.

4.5.2 Grills.

4.5.2.1 Individual Grills. Pedestal grills shall be provided at picnic sites. They may be provided at campsites where campfires are prohibited and at universally accessible campsites. Pedestal grills should have adjustable grate height settings, rotation capability, and have a hinged or removable grate for easy cleaning.

4.5.2.2 Group Use Grills. Large grills should be provided at each group picnic shelter or group picnic area (Photos P-5 and P-8, P-10). Group grill units should meet the same general specifications as individual grills.

Table 4.2

Fire Ring/Grill Checklist	
Location/Placement	
Placed a minimum of 10 ft (3 m) away from overhanging vegetation	Required
Located within the hardened living area or impact area	Required
Placed out of the circulation paths (<u>Photos I-11 and M-3</u>)	Required
Fire rings placed on a base of gravel, pumice, fire brick, or other porous material, with drain tile if necessary, to facilitate drainage of rainwater	Required
Firmly anchored to prevent relocation	Recommended

4.6 Lantern Hangers. A lantern hanger is required at all campsites for camper convenience and tree protection. The hanger may be portable to meet specific camper needs. Hangers may have single or double lantern holders. At selected sites more than one lantern hanger may be provided. Table 4.3 provides guidance for location and placement of lantern hangers (Photos I-12, I-13, and I-14).

Table 4.3

Lantern Hanger Checklist (Photos I-13 and I-14)	
Location/Placement	
Located within the hardened living area	Required
Placed out of the access path	Required
Placed so lanterns illuminate the table and doorway of the camping unit	Required
Distance from the ground to the lantern holder approximately 6.5 ft (2 m)	Recommended
Provide moveable and/or swivel hangers	Optional

4.0 Water Hydrants. Table 4.4 provides guidance for location, placement, construction, and design features of water hydrants.

Table 4.4

Water Hydrant Checklist	
Location/Placement	
Individual water hydrants located on the driver side of the campsite to accommodate normal RV hookups (Drawing C-6)	Required
Sited at least 5 ft (1.5 m) off the camp pad and protected to the extent practical to minimize risk from vehicles	Required
Campsites with electric hookups should have water hydrants	Recommended
Construction & Design Features	
UA lever handles standard for all hydrants	Required
In cold climate regions, protect hydrants and tubing against freeze with self-draining, frost-proof sill cock or other acceptable drain-back means and provide low-point gravity-flow drain lines with force air connections	Required
Back-flow prevention valves installed in accordance with applicable state and local laws	Required
Feeder lines to individual campsites shall not exceed 45 psi (310 kPa) since greater pressures may damage recreational vehicle water lines	Required

Water Hydrant Checklist	
Construction & Design Features	
A slip-resistant, firm and stable surface, sloped to drain away from the user and conforming to UA requirements, provided for access to hydrants at UA camp and picnic sites	Required
A bordered gravel splash block placed beneath the faucet of all community water hydrants	Required
Provide water hydrants (valve box with cover) to facilitate cleanup of intensive-use areas such as restrooms, group use, and shelter areas	Optional
Include self-closing hose bib	Optional

4.8 Trash Services. Trash collection shall be provided at recreation areas. Dumpsters should be utilized where commercial services are available, and when it is cost-effective. Collection sites should be easily accessible by the public and centrally located where practical. Table 4.5 provides guidance on location and placement.

4.8.1 Individual Receptacles. Where use of a centralized dumpster is not practical or cost-effective, individual receptacles should be grouped and placed in convenient locations.

4.8.2 Carry In-Carry Out. A carry in-carry out trash policy may also be an option at some locations.

4.8.3 Recycling. Recycling containers should be provided where services are available (Photos [I-8](#), [I-9](#), and [I-10](#)). Consistent with local management policy and goals, non-profit groups may provide recycle containers.

Table 4.5

Trash Services Checklist	
Dumpster Location/Placement	
Placement locations obvious and easy to access by park users and service vehicles, generally near the park exits or at central locations within a park	Required
Prevailing winds considered in locating the site if odors are likely to be a problem	Recommended
Located on well-drained concrete pads	Recommended

Trash Services Checklist	
Dumpster Location/Placement	
Consideration given to the road surface and the amount of truck maneuvering required to provide ease of access and to prevent excessive road damage	Recommended
Site screened by natural vegetation, attractive fencing or other aesthetically pleasing screening material	Recommended
Construction & Design Features	
Grouped and located at convenient locations	Required
Secured receptacle holders to prevent overturning and relocation	Required
Lids secured to the can or holder	Required
Animal-proof covers or holders where such disturbances occur	Recommended
Located an adequate distance from campsites and picnic sites due to the potential odor	Recommended

4.9 Benches. Benches should be provided as appropriate at sites such as picnic areas, campgrounds, playgrounds, overlooks, vistas, and rest stops along trails to enhance the recreational experience. They should be strategically located near swim or play areas to enhance adult supervision. As a general rule, benches should be safe, comfortable, durable, and attractive, and designed to blend with the surrounding setting. At least 50% of all benches should be sited for shading from the afternoon sun.

4.10 Self-Pay Stations. Self-pay stations for collection of use fees are optional facilities provided for customer convenience and to meet local management needs. Self-pay stations may stand alone as the primary means for fee collection, or complement other fee collection methods. Self-pay stations may be simple honor vaults or may be automated units that can be drive-up or gate automated, may accept tokens, credit cards, or currency, may operate traffic lights, etc. The units should be constructed of commercial quality vandal-resistant materials. Table 4.6 contains guidelines for self-pay stations. Generally, the self-pay station area design shall accommodate:

- Customer convenience, safety, and ease of use.
- Aesthetics, economy, and ease of maintenance.
- Protection from vehicle traffic.
- Good lighting and visibility.
- Security of funds.

4.10.1 Honor Vaults. Honor vaults are commercially available and shall be set in concrete to prevent theft. Guidelines on acceptable honor vault systems are available in Appendix O of EP 1130-2-550 (Photos I-15, I-16, I-17, and I-18).

4.10.2 Automated Self-Pay Stations. Automated self-pay stations should be factory wired, assembled, tested, and warranted for service. The availability of electric and phone service should be confirmed early in the planning process. Electrical service is required for area lighting, automatic gate arms, area security, etc. Use of telephonic remote access is encouraged for effective management to verify credit cards, enable remote communication and troubleshooting, change messages, conduct spot audits, and verify facility alarms. The planning process for automated units should include exploration of the latest technology since rapid advancements may supercede this guidance.

Table 4.6

Self-Pay Stations (Photos <u>I-15</u> , <u>I-16</u> , <u>I-17</u> , <u>I-18</u> , <u>I-19</u> , <u>I-20</u> , and <u>I-21</u>)	
Access, Location, Parking & Lighting	
Located to maintain sight distance for safety and facility identification	Required
Vehicle circulation simple, direct, and obvious to the driver	Required
Vehicles exiting the pay station oriented toward the park interior	Recommended
Located near entry to a recreation area and adjacent to access gates, entrance stations, vehicle pull-offs, or other areas away from traffic	Recommended
In areas without an entrance station, located a minimum of 200 ft (61 m) from the main road	Recommended
Access to the pay station paved consistent with adjoining roadway	Recommended
Parking located outside of traffic flow and within 50 ft (15.2 m) of the pay station	Recommended
Parking and access provide pull-through capability and accommodate vehicles towing trailers	Recommended
Parking that does not require crossing traffic and includes a marked pedestrian walkway to the pay station	Recommended

Self-Pay Stations (Photos I-15, I-16, I-17, I-18, I-19, I-20, and I-21)	
Access, Location, Parking & Lighting	
Lighted within a 50-ft (15.2-m) radius to an average of 20 lux (2 FC) in accordance with guidance provided in 2.10.4.1.	Recommended
Funds Security Features: Automated Self-Pay Stations	
Reports features that allow ongoing audits of the system, including records of funds retrievals (Photo I-20)	Required
Customer Accommodations	
User instructions conveniently posted and easy to understand	Required
Park information conveniently posted, including rates, area map, park rules, emergency phone numbers	Recommended
Walk-up service provided due to height differential on various vehicles	Recommended
Designed to accommodate daily seasonal or partial park closure for safety, security, and economy	Recommended
Additional Customer Accommodations: Automated Self-Pay Stations	
Accommodation for visually- and hearing-impaired customers	Recommended
Programmed in multiple languages where needed	Recommended
Change dispenser	Recommended
Dispensing unit for magnetic pre-coded permits that allow return visits (i.e., same-day returns for day use)	Recommended
Oriented, shielded, or screened for sunlight glare reduction	Recommended
Back-up capability such as honor vault incorporated for "down time"	Recommended

4.11 Other Support Facilities. Other facilities may be provided to meet specific customer and safety needs. As with all park facilities, the design and planning of miscellaneous service facilities should be considered with long-term economy and public safety in mind. Some collateral support facilities, such as sanitary facilities, drinking fountains, telephones, and informational signs, are covered in other chapters of this manual.