

# **Job Aid: Logistical Considerations For the Employment of Mass Care Resources**

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The information in this Job Aid was developed by technical specialists from the following agencies:

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## Acronyms

Authority Having Jurisdiction	AHJ
Disaster Response Unit	DRU
Emergency Response Vehicle	ERV
Family Radio Service	FRS
General Mobile Radio Service	GMRS
Multi-Agency Feeding Plan Template	MAFPT
National Incident Management System	NIMS
Occupational Safety and Health Administration	OSHA

## Logistical Considerations for the Employment of Mass Care Resources

### I. Purpose of the Document

#### Introduction

The following resources are commonly requested and deployed during disasters: Field Kitchen Unit, Mobile Kitchen Unit, Food Service Delivery Unit, Shelter Management Team, Donated Goods Warehouse Management Team, and Relief Supplies Distribution Management Team.

#### Intended Audience

This aid has been developed to communicate the importance of advanced consideration for logistics and supplies needed to accompany and/or sustain each of these resources once deployed. This aid is intended to guide and assist emergency managers and incident command in analyzing and determining what details may need to be considered when deciding to request and/or deploy any of these defined resources.

This aid provides a series of considerations per typed resource that should be considered and/or applied when ordering or deploying personnel and equipment in response to a disaster affecting mass care. The Type I definition implies the greatest capability (and often times the greatest complexity); however, the lesser capabilities can be used during an incident depending on need. A table including the types and capability for each resource is provided and allows jurisdictions to determine the planning for additional logistics and supplies that might be needed to sustain these resources. These additional logistics and supplies are alphabetically listed under the tables that provide capability information, except for Water and Wastewater considerations.

### II. Additional Considerations for the Ordering and Sustained Use of Mass Care Typed Resources

#### Field Kitchen Unit

A Field Kitchen Unit prepares food for direct service delivery and/or can serve as hub and spoke distribution with food service delivery units. Food service capabilities are based on serving sizes by volume of eight-ounce entree, six-ounce vegetable, and six-ounce fruit with preparation for at least two meals a day (lunch and dinner). There are four types of kitchens defined, which are capable of serving from 5,000 meals per day to over 20,000 meals per day.

	TYPE I	TYPE II	TYPE III	TYPE IV
<b>Resource Capability</b>	20,000+ meals/day	20,000 or fewer meals/day	10,000 or fewer meals/day	5,000 or fewer meals/day

For further information on the coordination among the various organizations/agencies participating in feeding operations, please reference *Multi-Agency Feeding Plan Template (MAFPT) Guidance* at [www.nvoad.org](http://www.nvoad.org).

Additional considerations need to be made when ordering Field Kitchen Units:

- **Dumpster** – Forty (40) cubic yards is recommended. One dumpster is recommended per 20K daily meal capacity or portion thereof, but the Authority Having Jurisdiction (AHJ) determines if an alternative size is acceptable or if the service for a drop dumpster should be established. Daily removal service is recommended.
- **Food safety, sanitation, and solid waste and other public health requirements** – Standards are established and compliance is required by the AHJ.
- **Fuel for forklifts/other equipment** – Fuel will need to be supplied. Gas, diesel, and/or propane delivery with ability to fill on site or with use of drop tank is recommended.
- **Hand-washing station** – These facilities should be available for kitchen staff use only. Four sinks should be available for Types I, II, and III and two sinks for Type IV.
- **Ice** – Sufficient ice should be supplied to cool/chill food and supply food service delivery units:
  - 5 pallets for Type I
  - 4 pallets for Type II
  - 3 pallets for Type III
  - 2 pallets for Type IV

Ice should be potable, bagged, and palletized.

- **Insulated food containers** – Dimensions for insulated food containers may vary. A standard insulated food container (e.g., MPCHL 100 Cambro®) holds 100 servings at eight ounces per serving entree. This assumes the use of plastic bag liners. Three insulated food containers, each containing one component of a meal, are needed to serve 100 meals. Per kitchen insulated food container requirements, by type, are:
  - 900 containers for Type I
  - 600 containers for Type II
  - 300 containers for Type III
  - 150 containers for Type IV
- **Portable toilets/waste removal** – These facilities should be available for kitchen staff use only. Compliance with food safety, sanitation, and solid waste and other public health requirements and standards are established and required by the AHJ. Ordering additional toilets are recommended: four portable toilets for Types I, II, and III, and two portable toilets for Type IV. If the Field Kitchen Unit is being used for congregate feeding, appropriate portable toilets and waste removal need to be considered according to AHJ requirements.
- **Support equipment** – Support equipment will need to be ordered separately from the Field Kitchen Unit. The equipment request form should specify operation surface condition, such as hard surface/concrete, dirt/grass, and/or gravel or off road. The fuel type (propane, electric, or diesel/gas) and capacity in pounds required for mission specific needs should also be noted when ordering support equipment. Occupational Safety and Health Administration (OSHA) standards should be followed by forklift truck operators.

**Type I considerations:**

3 box trailers (minimum 48-foot each)  
4 refrigerated trailers (minimum 28-foot each)  
2 Type I outdoor forklifts: wheel loaders, telescopic handler  
1 Type I forklift: industrial/factory  
3 pallet jacks

**Type II considerations:**

2 box trailers (minimum 48-foot each)  
2 refrigerated trailers (minimum 28-foot each)  
2 Type I outdoor forklifts: wheel loaders, telescopic handler  
1 Type I forklift: industrial/factory  
3 pallet jacks

**Type III considerations:**

2 box trailers (minimum 48-foot each)  
2 refrigerated trailers (minimum 28-foot each)  
2 Type I outdoor forklifts: wheel loaders, telescopic handler  
1 Type I forklift: industrial/factory  
2 pallet jacks

**Type IV considerations:**

1 box trailers (minimum 48-foot)  
1 refrigerated trailer (minimum 28-foot)  
1 Type I outdoor forklift: wheel loaders, telescopic handler  
1 Type I forklift: industrial/factory  
2 pallet jacks

- **Water** – The requestor should consider the reordering of water supplies and/or the connectivity to an approved water source. Ordering additional gallons of water is recommended: 2,000 gallons for Type I and 1,000 gallons for Types II, III, and IV per day.
- **Grey water capacity** – Catch and removal will be dependent on kitchen's fresh water capacity.

**Mobile Kitchen Unit**

These mobile/movable kitchen units prepare meals and provide direct service and can be packed up and moved to another location with accompanying personnel as needed. There are four types of Mobile Kitchen Units serving from up to 500 to 1, 500 meals per day:

	TYPE I	TYPE II	TYPE III	TYPE IV
Resource Capability	Up to 1,500 meals/day	Up to 1,000 meals/day	Up to 750 meals/day	Up to 500 meals/day

- **Insulated food container** – These containers assist with the transport of cooked or prepared food from the Mobile Kitchen Unit to the field. The dimensions for insulated food containers may vary. A standard insulated food container (e.g., MPCHL 100 Cambro®) holds 100 servings at eight ounces per serving entree. This assumes the use of plastic bag liners. Additional ordering is recommended:
  - 45 containers for Type I
  - 30 containers for Type II
  - 25 containers for Type III
  - 15 containers for Type IV

- **Food safety, sanitation, and solid waste and other public health requirements** – These standards are established and compliance is required by the AHJ.
- **Fuel for equipment** – Fuel will need to be resupplied. Gas, diesel, and/or propane should be available at a service or staging area.
- **Ice** – Ice is recommended to cool/chill food. For Types I and II, ice should be bagged, potable, and stored in coolers with a minimum ½ pallet of ice available daily at staging area. For Types III and IV, ice should be bagged, potable, and stored in coolers with a minimum ¼ pallet of ice available daily at staging area.
- **Trash removal** – Trash disposal and removal service need to be available at the staging area for Type I-IV, but the AHJ determines if an alternative size/quantity is acceptable or if the service for a drop dumpster should be established.
- **Water** – Accessibility to an approved water (potable) source at service or staging area is needed (as approved by the AHJ) with a minimum of 50 gallons per day.
- **Grey water** – Grey water removal needs to be available at a service or staging area as coordinated with the AHJ. The capacity of a grey water tank is dependent on fresh water capacity contained within the Mobile Kitchen Unit.

### Food Service Delivery Unit

Food Service Delivery Units are assumed to be operating in conjunction with a Field Kitchen Unit. Nonperishable items, such as clam shells, picnic packs, and paper goods, are listed as part of the Field Kitchen Unit entry. A Type I Food Service Delivery Unit is an American Red Cross Emergency Response Vehicle (ERV) or Salvation Army Disaster Response Unit (DRU). A Type II is a commercial vehicle rented for the purpose of emergency food distribution. Meals can be served from within a Type I unit, while a Type II unit requires an external set up to serve meals.

	TYPE I	TYPE II
<b>Resource Capability</b>	Up to 1,500 meals per day (in accordance with safe food handling requirements). Meals will be served by the Unit.	Up to 1,500 meals per day (in accordance with safe food handling requirements). Meals are not served by the Unit.

- **Fuel** – Fuel for equipment will vary by vehicle (e.g., gas, diesel, or propane) and will need to be resupplied. Fuel needs to be available at a service or staging area.
- **Food safety, sanitation, and solid waste and other public health requirements** – These standards are established and compliance is required by the AHJ.
- **Picnic packs** – These packs help facilitate serving or hold food during delivery. These packs are based on a maximum of 1,500 meals per day. One clamshell and one picnic pack per meal served are recommended for Type I and II.
- **Tables** – Tables need to be ordered separately for Type II or greater (for serving).

### Shelter Management Team

A Shelter Management Team coordinates and manages resources in a congregate care facility (shelter) intended to provide a safe and protected environment for populations displaced by an incident or an event. Additional considerations for shelter operations can be found in *Shelter Guidance Aid and Shelter Staffing Matrix* at [www.nvoad.org](http://www.nvoad.org) or [nationalmasscarestrategy.org](http://nationalmasscarestrategy.org). In addition to ordering shelter teams for the shelters, considerations may need to be made for ordering/securing sanitation items and security at the following shelter settings:

	TYPE I (LONG- TERM MEGA SHELTER)	TYPE II (STANDARD SHORT- TERM SHELTER)	TYPE III (EMERGENCY EVACUATION SHELTER)	TYPE IV (TEMPORARY EVACUATION POINTS)
<b>Resource Capability</b>	Used for durations typically longer than 2 weeks	Used for durations typically not to exceed 2 weeks	Used for durations typically not to exceed 72 hours	Used for durations typically of several hours

- **Sanitation items** – The following may need to be ordered for shelter(s): portable toilets (human waste removal), hand-washing stations, and trash removal (dumpsters).
- **Security** – Force Security requirements shall be determined by the requesting agency based on actual field conditions and/or intelligence. The requesting agency shall determine if it will provide security or if the responding team/personnel needs to provide security.

#### Donated Goods Warehouse Management Team

This management team includes personnel who manage volunteers who receive, sort, inventory, and store donated goods prior to release to organizations distributing to survivors and responders. Each facility will vary in terms of additional supplies/equipment that may be needed and ordered separately from the Donated Goods Warehouse Management Team. Four teams are typed to support facilities from 25, 000 square feet to over 100,000 square feet:

	TYPE I	TYPE II	TYPE III	TYPE IV
<b>Resource Capability</b>	Supports a facility greater than 100,000 square feet	Supports a facility greater than 50,000 square feet	Supports a facility greater than 25,000 square feet	Supports a facility up to 25,000 square feet

- **Dumpster** – Recommend 30-40 cubic yards with on-demand service (two dumpsters for Type I and one dumpster for Types II, III, and IV), but the AHJ determines if an alternative size is acceptable or if the service for a drop dumpster should be established.
- **Facility utilities** – The facility needs to have land line or generated electrical power and outdoor lighting which may be necessary for night operations in accordance with OSHA standards. Other considerations for the facility include need for water and sanitation, safety shower, eye wash station, hand washing stations, showers, and toilets.

#### • **Handling equipment considerations –**

##### **Type I considerations:**

10 pallet jacks  
4 dock plates (1 per dock)  
100 pallet boxes/bulk bins  
400 pallets per week  
Fire extinguishers as required

##### **Type II considerations:**

8 pallet jacks  
2 dock plates (1 per dock)  
75 pallet boxes/bulk bins  
300 pallets per week  
Fire extinguishers as required

**Type III considerations:**

6 pallet jacks  
2 dock plates (1 per dock)  
50 pallet boxes/bulk bins  
200 pallets per week  
Fire extinguishers as required

**Type IV considerations:**

3 pallet jacks  
1 dock plate  
25 pallet boxes/bulk bins  
100 pallets per week  
Fire extinguishers as required

• **Office supplies and equipment considerations for use within the warehouse –**

**Type I considerations:**

6 desks with chair  
(10) 6-foot tables  
(30) 8-foot tables  
60 chairs  
1 locking file cabinet  
Office supplies  
500 boxes per week  
12 rolls stretch wrap per week  
2 cases packing tape per week  
6 networked computers with software and Internet access  
3 multi-function printer/fax/copier/scanner  
8 voice phone lines (5 roll-over)  
3 fax lines

**Type II considerations:**

6 desks with chair  
(8) 6-foot tables  
(30) 8-foot tables  
50 chairs  
1 locking file cabinet  
Office supplies  
400 boxes per week  
10 rolls stretch wrap per week  
1 1/2 cases packing tape per week  
6 networked computers with software and Internet access  
3 multi-function printer/fax/copier/scanner  
8 voice phone lines (5 roll-over)  
2 fax lines

**Type III considerations:**

4 desks with chair  
(6) 6-foot tables



(30) 8-foot tables  
30 chairs  
1 locking file cabinet  
Office supplies  
300 boxes per week  
8 rolls stretch wrap per week  
1 case packing tape per week  
4 networked computers with software and Internet access  
2 multi-function printer/fax/copier/scanner  
4 voice phone lines (3 roll-over)  
2 fax lines

***Type IV considerations:***

3 desks with chair  
(4) 6-foot tables  
(15) 8-foot tables  
20 chairs  
1 locking file cabinet  
Office supplies  
200 boxes per week  
6 rolls stretch wrap per week  
1/2 cases packing tape per week  
2 networked computers with software and Internet access  
1 multi-function printer/fax/copier/scanner  
4 voice phone lines (3 roll-over)  
1 fax lines

- ***Support equipment (industrial-style forklifts and certified drivers)*** – Support equipment will need to be ordered separately. The equipment request form should specify operation surface condition such as hard surface/concrete, dirt/grass, and/or gravel or off road. The fuel type (propane, electric, or diesel/gas) and capacity in pounds required for mission specific needs should also be noted when ordering support equipment. Occupational Safety and Health Administration (OSHA) standards should be followed by forklift truck operators.

***Type I considerations:***

6 propane industrial forklifts  
3 golf carts  
12 industrial fork lift operators

***Type II considerations:***

3 propane industrial forklifts  
1 golf cart  
6 industrial fork lift operators

***Type III considerations:***

2 propane industrial forklifts 4 industrial fork lift operators

***Type IV considerations:***

1 propane industrial forklift

2 industrial fork lift operators

- **Warehouse capacity –**

**Type I considerations:**

4 loading docks (minimum)  
Office space  
Worker support/rest area

**Type II considerations:**

2 loading docks (minimum)  
Office space  
Worker support/rest area

**Type III considerations:**

2 loading docks (minimum)  
Office space  
Worker support/rest area

**Type IV considerations:**

1 loading dock (minimum)  
Office space  
Worker support/rest area

#### Relief Supplies Distribution Management Team

The Relief Supplies Distribution Management Team manages the distribution of goods, such as food, blankets, hygiene kits, first aid kits, clothing, and cleaning supplies, to survivors and responders. These teams manage and support fixed sites (based on square footage) or mobile units and may need to consider ordering additional logistics and supplies for distribution.

	TYPE I	TYPE II	TYPE III	TYPE IV
<b>Resource Capability</b>	Support fixed site larger than 3, 000 square feet	Support fixed site up to 3, 000 square feet	Support a 24' to 53' mobile unit trailer	Support smaller mobile unit (e.g., ERV, DRU, truck/trailer less than 24')

- **Drivers** – Drivers need to comply with Federal/State licensing laws and regulations.
- **Equipment Needs** – Two or three cell or satellite phones are recommended for Types I and II, and one or two cell or satellite phones for Types III and IV. Family Radio Service (FRS) or General Mobile Radio Service (GMRS) radios are recommended for Type I.
- **Facility Needs** – The parking area should be adequate to support and allow access to distribution vehicle(s). Adequate space is required for worker and survivor parking, and lighting is needed for night operations.
- **Other Supplies Required** – Office supplies are suggested to record survivor information and boxes/bags are recommended for survivors to transport goods.
- **Traffic Control** – Appropriate traffic control must be considered at each distribution location.