

Next Gen Austere Basecamp Desirements:

Construction Materials/Methods

Desirements #1:

GENX Austere Basing desires construction material and method solutions for temporary facilities which meet or exceed structural performance criteria of construction grade lumber, is readily available, and cost effective. Successful solutions will comply with local building codes and regulations. Solutions will also be durable against insect, chemical, and environmental threats in austere environments for at least 5 years.

Judging Criteria:

- Cost
- Structural performance and code compliance (meets or exceeds existing methods/materials)
- Durability against biological, chemical, and environmental threats
- Energy efficiency
- Quality of life
- Mobility / weight
- Scalability
- Reusability/recyclability/disposability
- Constructability (speed, availability, required equipment)

Desirement #2:

Provide a system for a deployable, steel frame construction capability in order to fabricate customized steel framed facilities (including wall frames, trusses, and joists). Mobile factory and workshop shall be self-contained with dedicated power source. System shall be containerized or palletized for transportation on C-17 (or equivalent) type aircraft and ground transportation via tractor trailer.

Judging Criteria:

- Ease of use/ability to use troop labor to operate
- Training requirements
- Shipping weight/volume. C-17 transportable
- Initial cost
- Maintenance/sustainment costs
- Availability (system and replacement parts)
- Amount of site preparation

Specific Questions for Desirement #2:

- What flexibility does the system have, especially regarding wind loads, roof loads, etc.?
- What is the maximum span and height the system can accommodate?
- How much skill is required to operate the system? What training opportunities do you provide and what is the cost?
- How long and with how many people does it take to set up, operate, and disassemble the system?
- Is the system relatively automated or does it require significant operator oversight/input?
- What are the associated maintenance requirements and costs?
- Can the system accept a variety of materials (i.e., are there any issues using locally sourced materials in remote areas in the Middle East or Africa)?
- Are there proprietary system or software limitations/licensing costs?
- Shipping weight and volume?
- Time to construct (per linear/square foot)?
- System dimensions?
- Equipment required? MHE? Construction?

Desirement #3:

A mission specific engineering toolkit. This kit would be tailorable and modular based on downrange GENX Austere basing requirements. Kits would include sets, kits and outfits (SKO) required to accomplish basic to journeyman level electrical, plumbing and carpentry requirements. In addition a more advance system would include SKO and material handling devices for basic site preparation at austere bases.

Judging Criteria:

- Cost/Fee to replace/restock
- Time to deliver/Responsiveness
- Durability
- Reliability of tools and battery life
- Weight/Space requirement
- Tailorable/Scalable
- Transportability: Man-portable; C-146 (36" wide x 55" height, 75 lb./sf); Hilux transportable (600lb tongue weight, 2,900 lb. towed weight, 1.56m x 1.52m (1.0m between wheel arches); or 463L Pallet (108" W x 88" L).

General Questions:

Are you currently under a GSA contract?

Do you have a NSN?

Are you involved with a Program of Record?

Does the product or system comply with international building code and address HAZMAT requirements?

Do you have datasheets describing third-party tests to validate the performance and durability of the proposed system/material?

Do you have examples of past demonstrations of the material or system?

Is the material or system available for purchase in country?

Have you tested the materials/system for life safety in fire conditions (smoke toxicity and egress time)?

Do you have the required building material certification? (American Plywood Association for lumber)