U.S. ARMY CORPS OF ENGINEERS
UPDATE ON COVID-19 RESPONSE

27 March 2020
AGENDA

Introductions- Mr. Jordan Howard (Director, Federal & Heavy Construction, Associated General Contractors)

Overview - Dr. Christine Altendorf, SES (Chief, Engineering & Construction Division, HQUSACE)

Concept of Operations - Mr. Mike Schultz, SES (Chief, Interagency and International Division, HQUSACE)

Overview of Conversion Concepts- Mr. Chip Marin (Programs Director, Huntsville Center)

Contracting Considerations- Ms. Jill Stiglich, SES (Director, Contracting, HQUSACE)

Questions and Answers
Key Points

➢ We are looking to marshal the support and capability of the industry to help with this crisis
➢ Powering Down - Districts are empowered reach out to local leaders and help them to frame options

Alternate Care Site Documents

➢ Developed by USACE and HHS medical and construction experts to help States and municipalities address potential shortages in medical facilities during the 2020 COVID-19 pandemic
➢ Intended to assist in assessing and developing potential facilities for suitability as alternate care sites and to rapidly engage contractors to convert and prepare them for medical use.
➢ May not fit all circumstances
➢ Local & state governments must determine appropriate use of facilities

Execution

➢ Magnitude and required speed of effort requires Federal, State, and local agencies issue be able to contract work
➢ The decision is by the State and FEMA!
➢ Primarily via emergency contracting authorities to local/regional firms (large or small business) with capability to begin immediately and execute the work rapidly
  ▪ Contracted either by USACE or to State and local authorities
  ▪ Governor must request FEMA provide the mission assignment (MA) to USACE
  ▪ FEMA must provide USACE the MA under our Emergency Support Functions (ESFs) to be the executing agent
    ▪ Example: NY was a directive from FEMS
## PHASES - CONCEPT OF OPERATION

### Plan

**Lead: State / Municipality**

- Identify existing available facilities
- Assess for suitability
- USACE provides technical advice/assistance under FEMA Mission Assignment (MA) – Critical Public Facilities PRT
- Existing utilities and infrastructure (electric, power, water, HVAC, IT,…)
- Obtain rights / ownership (i.e. Lease facility)
- Determine construction agent

### Build

**Lead: USACE (w/ MA) / State / Municipalities**

- Convert/Retro-fit existing structure
  - Hotel, dorm, or apartment building
  - Arena or convention center
- Enable conversion of facility to support identified facility type
- Main Functions - supply & auxiliary power, washable floors & walls, negative pressure HVAC, nurse's station, IT infrastructure
- Stafford Act – emergency contracting authorities, utilizing local, capable business(es); Construction contracts.

### Supply

**Lead: FEMA / HHS / State / Municipality / Other**

- Procure, Install, and Configure medically unique equipment
- Meets end-state requirements
- FEMA would tasked to either HHS or DLA to procure and install

### Staff

**Lead: State / Municipality**

- Expect to be critical path

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*Contracts will be executed primarily via emergency contracting authorities to local/regional firms (large or small business) which have the capability to begin immediately and execute the work rapidly - under contract either to USACE or to State and local authorities as determined by the States and FEMA.*
RECOMMENDED FACILITY CONSIDERATIONS

All Facilities
• Within 10 miles/30 min of permanent medical hospital, HazWaste disposal, linen/laundry, pharmacy
• ADA compliant only to current ADA compliance of existing facility
• Facility templates and standards are adapted from DoD UFC criteria.
• Municipality and Construction Agent must discuss and agreed upon use of local municipality/county/state standards
• State or City Owned Property Preferred.
• Cost estimates
  • Do not include real estate, lease acquisition, restoration costs post-medical use
  • Are minimum costs for renovation/construction and IO&T. Actual costs developed when site adapting each facility.

Hotel to Healthcare (H2HC) Specific
• Built/Renovated after 1990 (mitigate lead paint/asbestos)
• Single Room with attached Bathroom
• Install exhaust on Exterior walls if needed
• Sprinklered and meets Fire Code
• Modern Power 3-Phase, 3-Wire

Arena to Healthcare (A2HC) Specific
• Existing redundant power or emergency power
• Can be modified or supplemented to meet Fire Code.
• Stage temporary facilities on perimeter (including med waste, sanitary, soiled linen, hand washing, med supply/pharmacy)
• Modern Power 3-Phase, 3-Wire w/ temp power supplemented to patient care areas on floor
# USACE TERMINOLOGY FOR COVID-19 PERFORMANCE WORK STATEMENTS (PWS)

## Patient Diagnosis

<table>
<thead>
<tr>
<th>Patient Diagnosis</th>
<th>Acuity **</th>
<th>Clinical Differentiation Impacting the Facility Design</th>
<th>NFPA 99 Space Category &amp; NFPA 101 Classification</th>
<th>Recommended Facility Solution per PWS’s</th>
<th>Arena</th>
</tr>
</thead>
<tbody>
<tr>
<td>COVID Positive</td>
<td>Acute*</td>
<td>Airborne Infectious On Ventilator</td>
<td>Cat 2 Plus* (General/Critical Care) Non-Ambulatory</td>
<td>Single Patient Space</td>
<td></td>
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<td>Negative Pressure Room</td>
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<td></td>
<td>Line of Sight to Patient (vision panel / camera)</td>
<td></td>
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<tr>
<td>COVID Positive or Presumed Positive (pending test)</td>
<td>Non-Acute</td>
<td>Airborne Infectious Not On Ventilator. May require supplemental oxygen</td>
<td>Cat 3 (Basic Care) Ambulatory</td>
<td>Single Patient Space</td>
<td></td>
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<td>No negative pressure</td>
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<td>Isolation by floor/room</td>
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<td>Line of sight not required (cameras to reduce contact)</td>
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</tr>
<tr>
<td>NON-COVID</td>
<td>Non-Acute</td>
<td>Not airborne infectious</td>
<td>Cat 3 (Basic Care) Ambulatory</td>
<td>No Special Requirements –</td>
<td></td>
</tr>
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<td>No negative pressure</td>
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<td>Multi-patient room permissible</td>
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<td></td>
<td></td>
<td></td>
<td>Line of sight not required</td>
<td></td>
</tr>
<tr>
<td>NON-COVID</td>
<td>Acute</td>
<td>Not airborne infectious</td>
<td>Cat 2 (General Care) Non-Ambulatory</td>
<td>Typical Med/Surg</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>May not be appropriate for ACF*</td>
<td></td>
</tr>
<tr>
<td>NON-COVID</td>
<td>Critical</td>
<td>Intense medical needs beyond Cat 2 Plus. Multiple Comorbidity</td>
<td>Cat 1 (Critical Care) Non-Ambulatory</td>
<td>Hospital ICU/AII/PE</td>
<td></td>
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<tr>
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<td></td>
<td>ACF not intended for full Category 1 Provisions</td>
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</tr>
</tbody>
</table>

Applicable Performance Work Statement for Alternate Care Facility (ACF)
- H2HC Acute or B2HC Acute
- H2HC Non-Acute or B2HC Non-Acute
- A2HC Acute
- A2HC Non-Acute (NON-COVID)

**NOTES**

* Category 2 Plus applies NFPA 99 Category 2 considerations (General Care – risk of minor injury) plus additional Category 1 provisions (Critical Care – risk of major injury or death) as relates to the specific needs of a COVID-positive patient on a ventilator.
**This column is not intended to represent true clinically defined patient acuity but represents a general categorization (and terminology) used across the PWS’s
H2HC - HOTEL ROOM to HEALTHCARE ROOM

HOTEL PROVIDED

H1. HOTEL BED
   *WITH MEDICAL LINENS
H2. HOTEL/RECLINING CHAIR
H3. HOTEL DESK
H4. HOTEL WARDROBE
H5. HOTEL PLUMBING FIXTURES

ENGINEERING CHANGES

1. REMOVE CARPET
2. INSTALL VINYL FLOORING OR EPOXY
3. *REVISE HVAC DUCTING AND HEPA FILTERING*
4. ADD EMERGENCY BACK-UP POWER & UPS
5. ADD ELECTRICAL OUTLETS
6. ADD PRIVACY CURTAIN

SPECIAL MEDICAL EQUIPMENT – TO BE PROVIDED BY OTHERS (NON-USACE)

E1. VENTILATOR CAPABLE; STORAGE CABINET
E2. TELEMETRY/PUMP ON IV STAND
E3. STOOL
E4. OVER BED TABLE
E5. MOBILE WORK STATION
E6. LINEN HAMPER
E7. SHARPS/GLOVES
E8. HAND SANITIZER STATION
E9. INFECTIOUS WASTE
E10. CUBICLE CURTAIN

PHASES

1. SITE (State)
2. BUILD (USACE)
3. SUPPLY (FEMA)
4. STAFF (State)

STANDARD DESIGN

*COVID
Non-COVID
Scalable, Tailorable, Site Adaptable
**H2HC - TYPICAL FLOOR PLAN**

**Typical Floor**

**HOTEL PROVIDED**
1. HOTEL WI-FI
2. HOTEL PHONE SYSTEM
3. HOTEL IN-HOUSE NETWORK/TVs
4. HOTEL ICE MACHINE/VENDING
5. HOTEL PACKAGED HVAC

**ENGINEERING CHANGES**
1. MODIFIED ELEVATOR CONTROLS

**SPECIAL MEDICAL EQUIPMENT**
1. NURSE CALL
2. STORAGE SHELVING
3. WORKSTATIONS
4. MED DISPENSING UNITS
5. # VENTILATORS / FLOOR
6. “CRASH” CART / FLOOR
7. REMINDER GATES
8. EYE/HAND WASH STATIONS

**STANDARD DESIGN**

*COVID
Non-COVID
Scalable, Tailorable, Site Adaptable

**Table of Contents**

- **HOTEL PROVIDED**
  - HOTEL WI-FI
  - HOTEL PHONE SYSTEM
  - HOTEL IN-HOUSE NETWORK/TVs
  - HOTEL ICE MACHINE/VENDING
  - HOTEL PACKAGED HVAC

- **ENGINEERING CHANGES**
  - MODIFIED ELEVATOR CONTROLS

- **SPECIAL MEDICAL EQUIPMENT**
  - NURSE CALL
  - STORAGE SHELVING
  - WORKSTATIONS
  - MED DISPENSING UNITS
  - VENTILATORS / FLOOR
  - “CRASH” CART / FLOOR
  - REMINDER GATES
  - EYE/HAND WASH STATIONS

- **STANDARD DESIGN**
  - COVID
  - Non-COVID
  - Scalable, Tailorable, Site Adaptable
H2HC - GROUND FLOOR PLAN

HOTEL PROVIDED
- HOTEL FURNITURE FOR STAFF QUARTERS
- HOTEL KITCHEN
- HOTEL DINING
- HOTEL VESTIBULE
- HOTEL CCTV FOR SECURITY
- HOTEL CARD READERS

STANDARD DESIGN
- COVID
- Non-COVID
- Scalable, Tailorable, Site Adaptable

NEW EQUIPMENT
- METAL DETECTOR
- VTC FOR COMMAND CENTER
- CONTROLLED ACCESS
- INFECTIOUS/CLEAN
- REMINDER GATES
- EYE HANDWASH STATIONS

ENGINEERING CHANGES
- ALL TYPICAL FLOOR PLAN ADDITIONS
- PLUS GENERATOR

PPE DOFFING AREA (12’x20’ min.)

PATIENT DROP-OFF, SCREENING, ETC. WITH ENTRY TO “DIRTY” SIDE OF GROUND FLOOR
ENGINEERING CHANGES

- ADD PERIMETER FENCING
- ADD GENERATOR
- ADD PATIENT SCREENING TENT
- ADD EXTERIOR PHARMACY
- ADD MED GAS STORAGE
- ADD ACCESS CONTROL POINT (ACP)
- ADD RED BAG DISPOSAL AREA
**ENGINEERING CHANGES**

1. ADD HVAC DUCTING AND HEPA FILTERING
2. ADD EMERGENCY BACK-UP POWER
3. ADD ELECTRICAL OUTLETS
4. ADD DATA OUTLETS
5. ADD PLUMBING

**NEW EQUIPMENT - TO BE PROVIDED BY OTHERS (NON-USACE)**

E1. VENTILATOR CAPABLE; STORAGE CABINET
E2. TELEMETRY/PUMP ON IV STAND
E3. STOOL
E4. OVER BED TABLE
E5. MOBILE WORK STATION
E6. LINEN HAMPER
E7. SHARPS/GLOVES
E8. HAND SANITIZER STATION
E9. INFECTIOUS WASTE
E10. PATIENT BED

Bedside Toilet
A2HC TYPICAL LAYOUT

- All typical floor plan additions
- Add generator
- Nurse station for each 15 patients
- Total of 120 pods

Facility provided:
- Field House Ice Machine

Engineering changes:
- All typical floor plan additions

Medical equipment:
- Storage
- Workstations
- Med dispensing units

Clean room
Patient pods
Nurse station
Mechanical chase (typical)
Contractor Response to COVID-19 | COVID-19 Info

Links

Policy & Guidance

WRDA Public Comment Period

RECREATION PASSES
From the Director of Contracting:

USACE COVID-19 Market Research Request:

Vendors with the ability to perform or supply items 1, 2, and 3 below are requested to send capabilities statements to our dedicated COVID-19 Contracting mailbox: COVIDContracting@usace.army.mil.

1. "Build-out" or retrofit of existing space (arenas, convention centers, dormitories, hotels, or other facilities) into alternate care facilities

2. Field Medical Units

3. Temporary Medical Enclosures

Please Note: Vendors of other supplies and services are welcome to submit capability or interest statements regarding support of the USACE COVID-19 Response. All interested parties are requested to register at the SAM.gov website under the "Disaster Registry" tab.
1. Can USACE post solicitation links on their COVID web pages? District, or HQ site would be helpful, but blanket reference to beta.SAM.gov does not alleviate concerns.

2. Can USACE share local POCs that can be contacted with questions about the COVID response as a whole?

3. Are USACE regions considering soliciting contracts from a single district for an MSC as a whole, similar to the BRAC approach?

4. How will USACE address impacts from COVID outbreak? We are aware of the traditional “Defaults Clause” that possibly grants non-compensable time to our work. However, we expect significant impacts to our supply chain that may not be quantifiable when “shelter in place” orders or other guidance is lifted.
QUESTIONS