

# ELLSWORTH AIR FORCE BASE B-21 BED DOWN



"The views, opinions and findings contained in this report are those of the author(s) and should not be construed as an official Department of Defense position, policy or decision, unless so designated by other official documentation."

Rocky Mountain Region Joint USACE/SAME Industry Day  
Presenters – Jimmy Harding – USACE Omaha  
8 June 2021



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# EAFB B-21 Weapons System



## Air Force Organizations

- Air Force Global Strike Command (AFGSC), User Command
- Dept. of the Air Force Rapid Capabilities Office (DAFRCO), Lead Prog. Office

## Weapons System

- Engineering and Manufacturing Development (EMD) Phase
- Intended to eventually replace B-1 and B-2 platforms
  - Approximately 100 aircraft Air Force-wide
  - Initial conventional capability – mid 2020's
  - Nuclear certification/capability thereafter



Prime Contractor – Northrop Grumman



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# EAFB B-21 Bed Down

## US Army Corps of Engineers (USACE)

- Design, procurement, and field level construction agent for the bed down.

## Air Force Civil Engineer Center (AFCEC)

- Official point of contact and authority for the Air Force for the bed down of facilities.
- Air Force liaison to USACE.

## Air Force Global Strike Command (AFGSC)

- Primary user command.

## EAFB B-21 Program Integration Office (EAFB B-21 PIO)

- Responsible for integration/coordination of B-21 requirements into existing conditions and mission set at EAFB, SD.
- Responsible for coordination of all end-user requirements into bed down-impacted facilities.

## Ellsworth AFB Civil Engineering Squadron (28 CES)

- Accepting authority for real property.
- Responsible for ensuring facilities meet base requirements.

## AF Installation & Mission Support Center Detachment 10 (AFIMSC Det-10)

- Represents the AFGSC and provides program policy, guidance, and goals.



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# EAFB B-21 Bed Down

## Basing Decisions

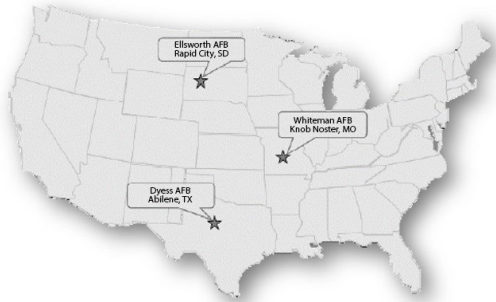
Led by Air Force Global Strike Command (AFGSC, Barksdale)

March 2019 – Candidate Main Operating Bases (MOB)

- Ellsworth AFB – near Rapid City, SD (Preferred MOB 1)
- Whiteman AFB – near Knob Noster, MO
- Dyess AFB – near Abilene, TX

Environmental Impact Study/Statement – Ongoing

- Estimated Completion – June 2021 (this month)
- Formal basing decisions announced thereafter



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# EAFB B-21 Bed Down



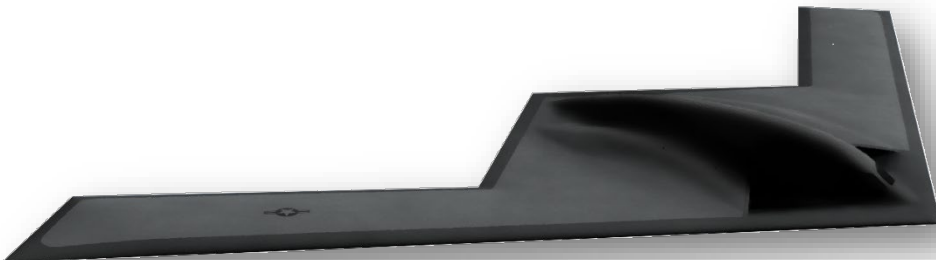
## Ellsworth AFB Planning

- Initial Planning/Programming Began Late 2019
- Mix of Military Construction (MILCON) and Operations & Maintenance projects (O&M/FSRM) spread over 6+ years
  - MILCON is front-loaded
  - O&M/FSRM is back-loaded
  - Aggressive design/delivery schedules

\*Construction cannot begin until NEPA Record of Decision is finalized.



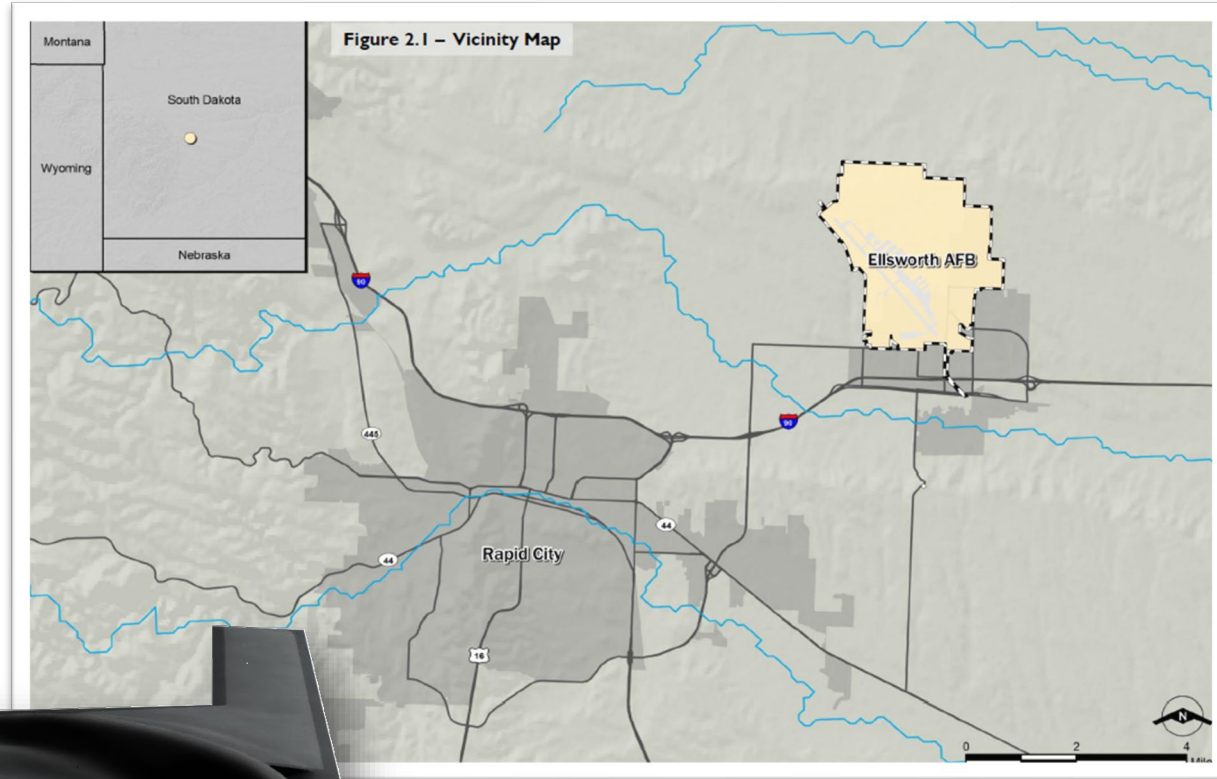
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# EAFB B-21 Bed Down

## Vicinity Map

- Northeast of Rapid City



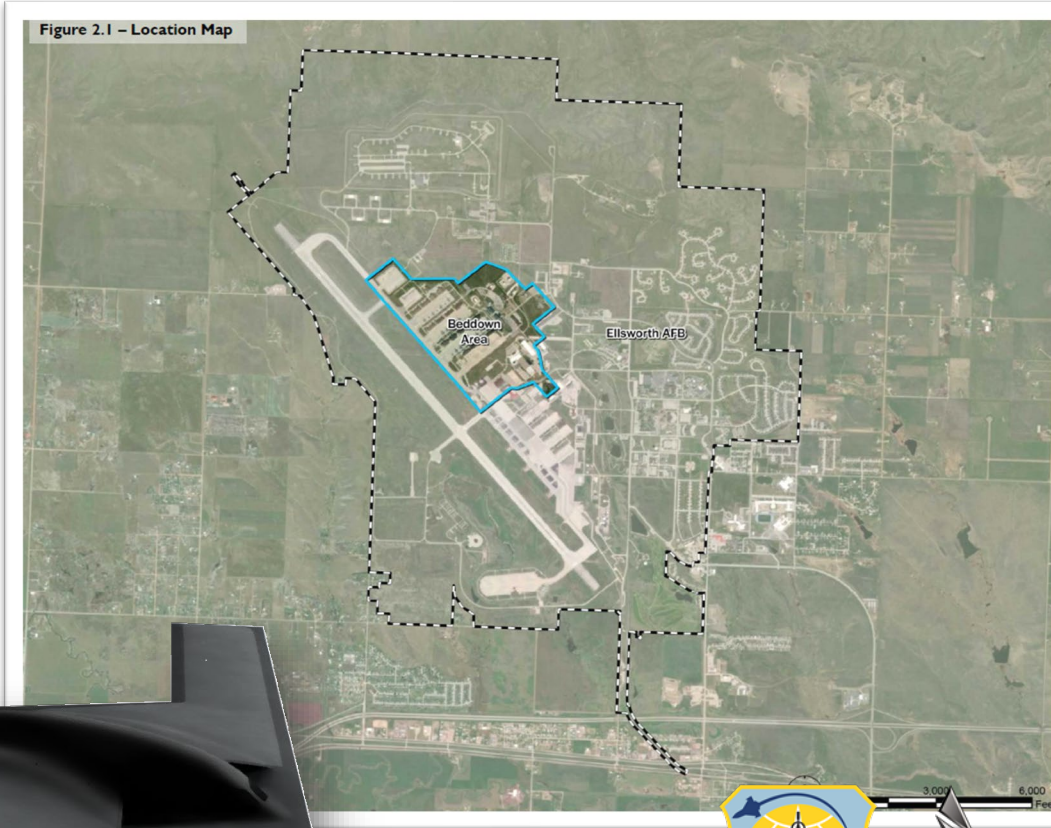
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## Bed Down Area

- EAFB North Ramp
- Alert (future)



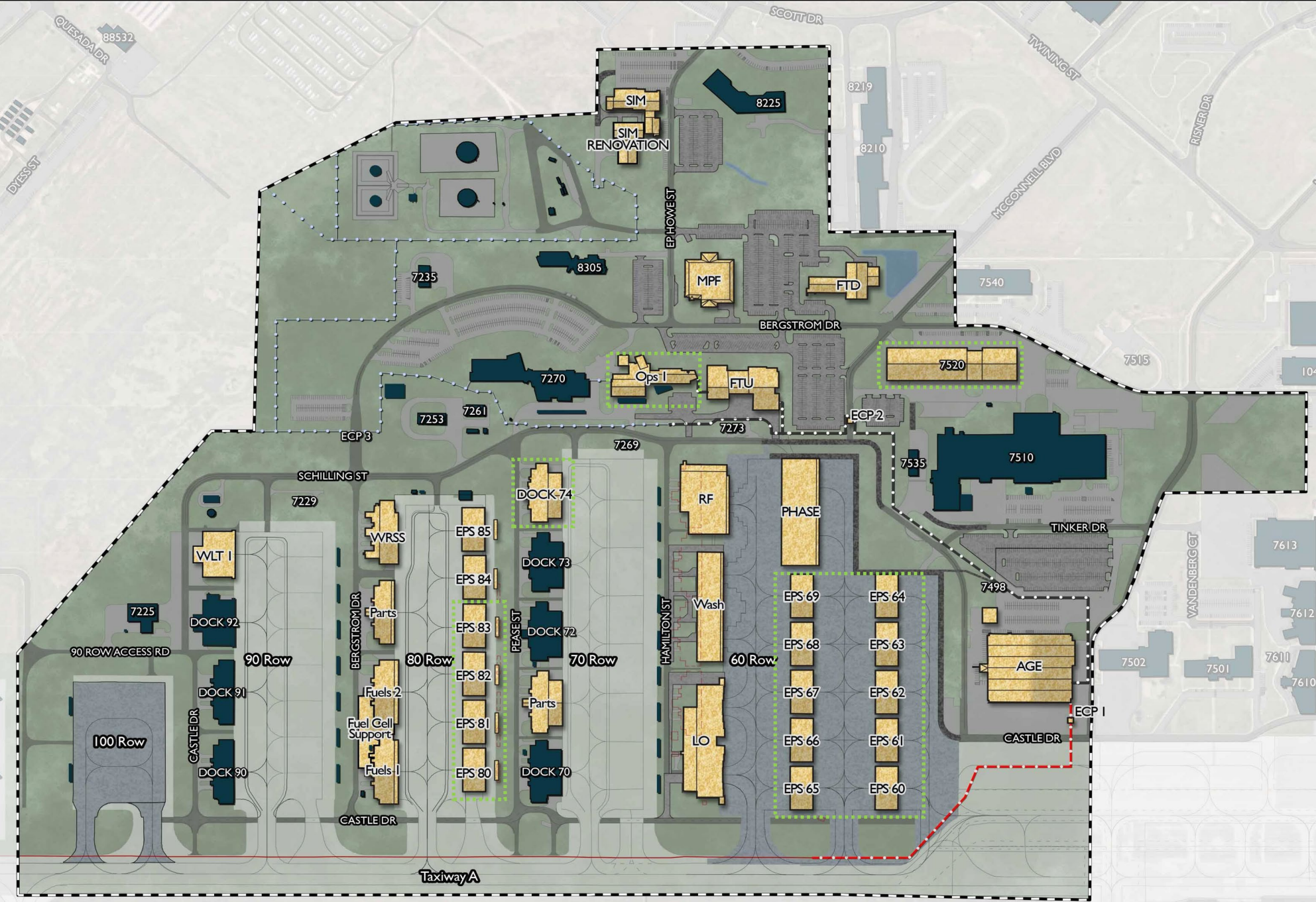
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# ELLSWORTH AFB BEDDOWN

## ILLUSTRATIVE PLAN—5th FY

-  Pavement Markings
-  Realigned Restricted Area Boundary
-  Realigned Fenceline
-  Existing Fenceline
-  Proposed Buildings
-  Proposed Roads
-  Proposed Parking
-  Proposed Airfield Surface
-  Existing Restricted Area
-  Existing Buildings
-  Airfield Surface
-  Vehicle Parking
-  Road Area
-  Beddown Area





# EAFB B-21 Bed Down

- New Construction
- Demolition
- Add/Alter
- Infrastructure/Utilities
- Airfield Paving
- Hazardous Materials
- Minor improvements
- Facility "Tails"/Fit-out
- Equipment Relocation

## Ellsworth AFB Project Types

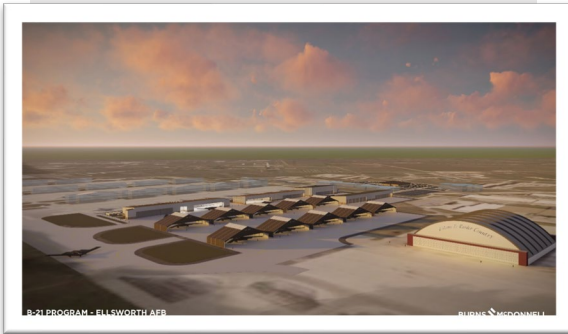
- Approaching \$1 billion in construction required at EAFB.
  - Estimated \$270M-\$410M in FY21/22.
- Wide cross section of minor and major construction.
  - Stem from direct and indirect impacts of the bed down.
  - Larger projects are front-loaded.
  - Requirements for renovations and repairs still being defined.
  - Flightline and non-flightline work.
  - Secure and non-secure work (ICD/ICS 705).



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# EAFB B-21 Bed Down



## Unique Features and Common Threads – Design Process

- Mostly design-bid-build.
- Secure Facilities.
  - Will require full or partial oversight during construction.
- Unique phasing constraints.
  - Maintain continuity of current operations.
- Airfield Paving.
- Utilities and communications work.
- FF&E, other Equipment as bid options.



Note: All project information is provided for information only, is considered approximate, and is subject to change without notice.



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# EAFB B-21 Bed Down



## Ellsworth AFB Construction Projects

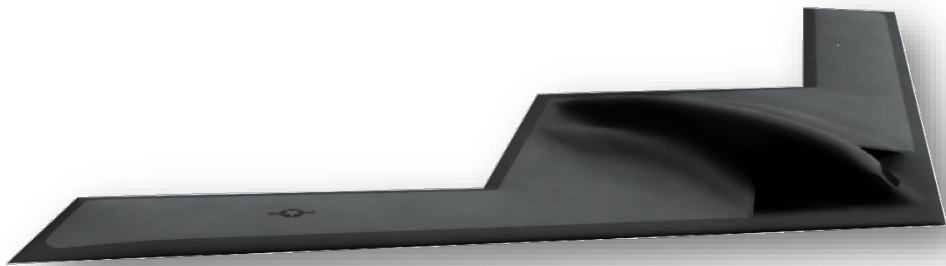
Construction contracts typically issued through USACE – Omaha.  
Some contracts may be issued locally through EAFB Contracting.

FY21-FY23 Construction projects currently under design

- FY24 and beyond entering planning
- First construction contracts forthcoming in FY21

AE IDIQs - USACE Kansas City (awarded March 2021)

- USACE Omaha (synopsis issued 29 December 2020)



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# EAFB B-21 Bed Down

Size: +/- 90,000 SF  
Type: MILCON.  
Contract Type: Design-Bid-Build.  
Magnitude: \$80-100M.  
Target Award: FY21Q4.

B-21: Low Observable Restoration Facility  
Rendering Provided by Burns & McDonnell



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## Low Observable Restoration Facility (LO Hangar)

- Two-Bay Hangar with “paint booth” type functionality.
- Includes associated airfield apron and infrastructure.
- Includes admin and support spaces.
- May include O&M options for FF&E, A/V, IDS, etc.
  - Advertised 24 March 2021 (w9128F21R0024).
    - Bifurcated source selection process.
    - Vol. I Technical Proposals due 30 April 2021.
    - Vol. II Pricing due June 2021.



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# EAFB B-21 Bed Down

Size: +/- 55,000 SF  
Type: MILCON.  
Contract Type: Design-Bid-Build.  
Magnitude: \$50-70M.  
Target Award: FY22Q2.

B-21: Washrack and General Maintenance Hangar  
Rendering Provided by Burns & McDonnell



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## Washrack and General Maintenance Hangar

- Two-Bay Hangar.
- Includes associated airfield apron and infrastructure.
- Includes admin and support spaces.
- May include O&M options for FF&E, A/V, IDS, etc.
  - Sources sought (issued 15 Jan 2021, W9128F21SM017).
  - Targeting bifurcated source selection process.
  - Target initial advertisement (FY21Q4).
  - Target pricing amendment (FY22Q1).



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# EAFB B-21 Bed Down

Size: +/- 45,000 SF  
Type: MILCON.  
Contract Type: Design-Bid-Build.  
Magnitude: \$20-40M.  
Target Award: FY22Q2.

B-21: Mission Operations Planning Facility  
Rendering Provided by Burns & McDonnell



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## Mission Operations Planning Facility (MPF)

- Secure operations planning facility (ICD/ICS 705).
- On shared site with B-21 FTD.
- Includes admin and support spaces.
- May include O&M options for FF&E, A/V, IDS, etc.
  - Sources sought (issued 17 Dec 2020, W9128F21SM011).
  - Targeting bifurcated source selection process.
  - Target initial advertisement (FY21Q4).
  - Target pricing amendment (FY22Q1).



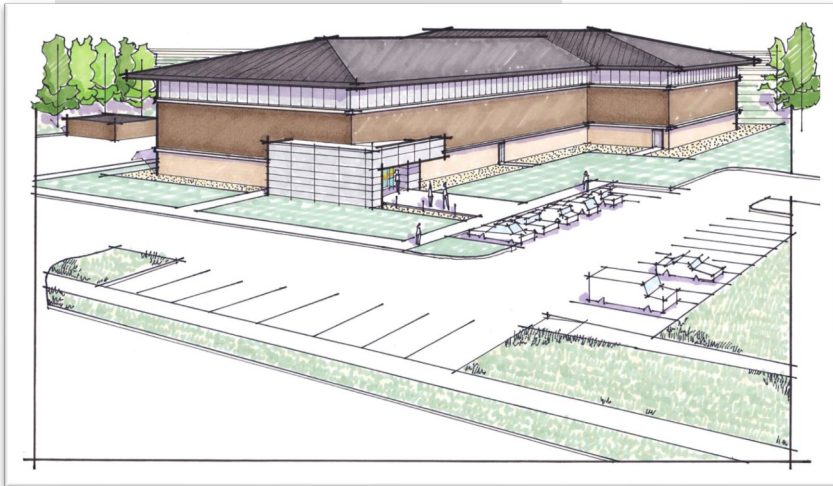
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# EAFB B-21 Bed Down

Size: +/- 55,000 SF  
Type: MILCON.  
Contract Type: Design-Bid-Build.  
Magnitude: \$30-50M.  
Target Award: FY22Q2.

B-21: Field Training Detachment Facility  
Rendering Provided by Merrick/Blair-Remy



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## Field Training Detachment Facility (FTD)

- Secure training and classroom facility (ICD/ICS 705).
- On shared site with B-21 MPF.
- Includes admin and support spaces.
- May include O&M options for FF&E, A/V, IDS, etc.
  - Sources sought (issued 17 Dec 2020, W9128F21SM011).
  - Targeting bifurcated source selection process.
  - Target initial advertisement (FY21Q4).
  - Target pricing amendment (FY22Q1).



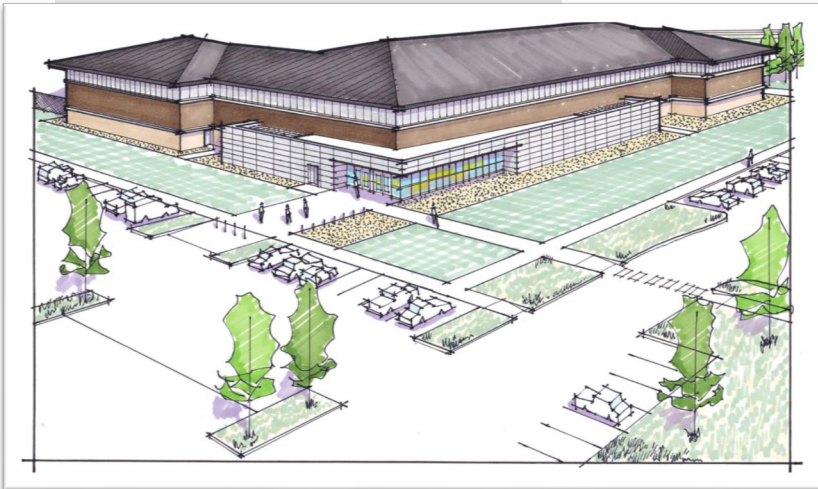
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# EAFB B-21 Bed Down

Size: +/- 90,000 SF  
Type: MILCON.  
Contract Type: Design-Bid-Build.  
Magnitude: \$55-75M.  
Target Award: FY22Q2.

B-21: Formal Training Unit/AMU  
Rendering Provided by Merrick/Blair-Remy



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## Formal Training Unit (FTU)

- Secure aircraft maintenance and squadron operations (ICD/ICS 705). Also includes flight kitchen.
- Includes admin and support spaces.
- May include O&M options for FF&E, A/V, IDS, etc.
  - Sources sought (issued 4 Jan 2021, W9128F21SM013).
  - Targeting bifurcated source selection process.
  - Target initial advertisement (FY21Q4).
  - Target pricing amendment (FY22Q1).



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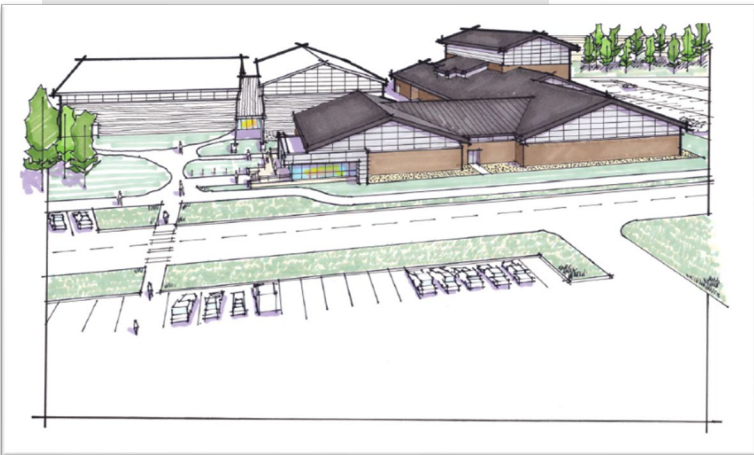




# EAFB B-21 Bed Down

Size: +/- 30,000 SF  
Type: MILCON.  
Contract Type: Design-Bid-Build.  
Magnitude: \$20-30M.  
Target Award: FY22Q2.

B-21: ADAL Flight Simulator Facility  
Rendering Provided by Merrick/Blair-Remy



Note: All project information is provided for information only, is considered approximate, and is subject to change without notice.

## Add/Alter Flight Simulator Facility (ADAL Sim Facility)

- Secure training and simulator facility (ICD/ICS 705).
- Addition to existing B-1B simulator facility at EAFB.
- Includes admin and support spaces.
- May include O&M options for FF&E, A/V, IDS, etc.
  - Sources sought (issued 13 Jan 2021, W9128F21SM016).
  - Targeting bifurcated source selection process.
  - Target initial advertisement (FY21Q4).
  - Target pricing amendment (FY22Q1).



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# EAFB B-21 Bed Down

Size: +/- 130,000 SF  
Type: O&M.  
Contract Type: TBD.  
Magnitude: \$10-20M.  
Target Award: FY22Q3.

EAFB PRIDE Hangar (Existing)



## Convert PRIDE Hangar

- Renovation of existing historical hangar to accommodate aviation ground equipment (AGE).
- Scoping still being determined.
  - Sources sought (FY21Q4).
  - Target advertisement (FY22Q2).



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# EAFB B-21 Bed Down

Size: +/- 25,000 SF  
Type: O&M.  
Contract Type: TBD.  
Magnitude: \$1-5M.  
Target Award: FY22Q3.

(No Image Available)

## Convert Dock 82 to Supply

- Renovation of existing facility to accommodate aircraft parts.
- Scoping still being determined.
- Minimal renovation, mostly interior demolition and fit-out.
  - Sources sought (FY21Q4).
  - Target advertisement (FY22Q2).



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# EAFB B-21 Bed Down



## Outlying Program (FY23 & beyond)

- Radio Frequency Facility (Hangar)
- Phase Maintenance Hangar
- Fuel Cell Maintenance Hangar(s)/Fuel Cell Support Facility
- Environmental Protection Shelters (EPSs)
- Supply Warehouse
- Weapons Loader-Trainer (WLT) 1 & 2
- Armament Shop (WRSS)
- Airfield Paving Projects (various)
- Simulator Renovation/Addition
- B-1B Squadron Ops Renovations
- Alert Apron/Alert Facility
- Existing Dock Renovations (various, General Maintenance)
- Weapons Generation Facility



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# EAFB B-21 Bed Down

Size: +/- 20,000 SF  
Type: Research & Development.  
Contract Type: Design-Build.  
Magnitude: \$3-8M.  
Awarded: 27 May 2021.

B-21: Test EPS #2  
Rendering Provided by USACE Omaha District



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## Test Environmental Protection Shelter (EPS) #2

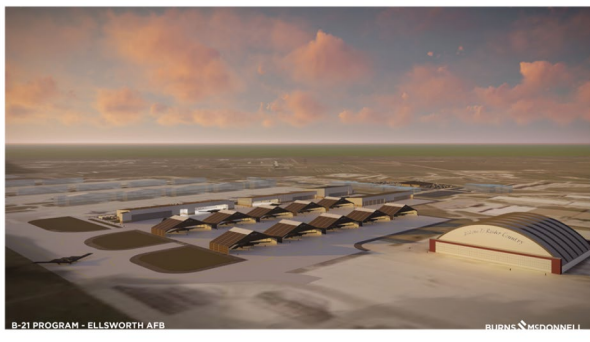
- Program RDT&E activity to build and test an EPS
- Temporary single-bay shelter facility.
- Aggressive delivery schedule.
- Results to inform +/- 30 shelters planned at EAFB.
  - Minimal building systems.
  - Built on/around existing apron.
  - Future shelters may or may not resemble the test facility.
  - Will proceed independent of pending MOB 1 Record of Decision.



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# EAFB B-21 Bed Down



## Procurement

- Most projects are design-bid-build due to complexity
- Some design-build possible (to be determined)
- RFP for construction services
  - Source selection
  - Best Value Tradeoff (BVTO)
    - Bifurcated process possible
  - Other (MATOC, LPTA, etc.)
  - Market research beginning for construction



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ELLSWORTH B-21 NORTH RAMP BEDDOWN

BURNS & MCDONNELL

# Resources

**B-21 EIS** - <https://www.b21eis.com/>

**B-21 Raider** – <https://www.northropgrumman.com/what-we-do/air/b-21-raider/>

**AFCEC** - <https://www.afcec.af.mil/>

**USACE (Omaha)** - <https://www.nwo.usace.army.mil/>

**System for Award Management (SAM)** - <https://beta.sam.gov/>

**USACE NWO AE IDIQ** – Search for “W9128F21R0010” on SAM Website.

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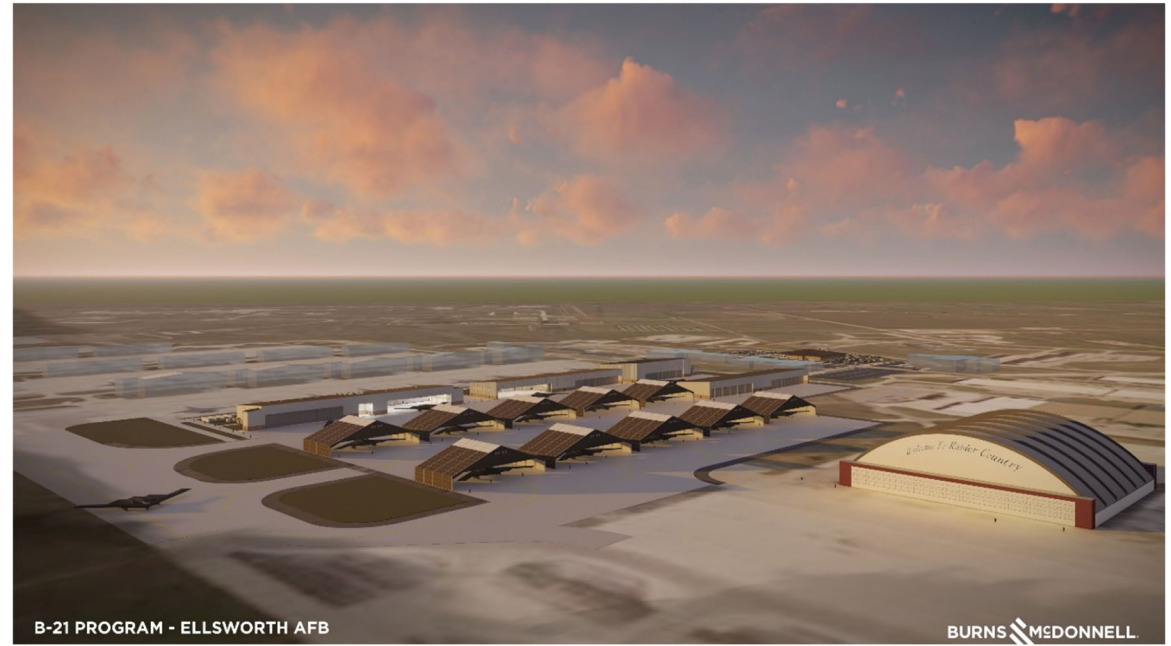
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# Questions?



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