

CRYPTOME

12 December 2009

NSA Utah Data Center

Source (original in PowerPoint, PDF by Cryptome):

<https://www.fbo.gov/utills/view?id=946cfa7f72b38f834fcba7fd001bb10d>

Full solicitation:

https://www.fbo.gov/index?s=opportunity&mode=form&id=554c219467d4e2e17617d8ef16500e74&tab=core&_cview=1

Utah Data Center (UDC)

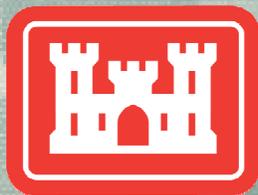
Sandy Ferguson

Troy Lange

Carlen Capenos

Presented in Salt Lake City, Utah

13 November 2009



®

US Army Corps of Engineers
BUILDING STRONG®

Agenda

- 8:00 am Sign in Begin
- 9:00 am Presentation (Collect Written Questions)
- 10:00 am Industry Networking
- 11:00 am Answer Written Questions
- 12:00 pm Lunch
- 1:15 pm Buses Depart (No Privately Owned Vehicles)
Tour Site
- 3:00 pm Arrive Back at Hotel for Wrap Up
- ~ 4:00 pm Conclusion



Purpose

- Generate Interest in the Utah Data Center (UDC)
- Networking Opportunity for Large and Small Firms
- Discuss the Acquisition Strategy



Rules of Engagement

- Place electronic devices on vibrate
- Please leave the room if you must take a call
- Recording the presentation is prohibited
- Submit questions in writing on cards provided
- Presentation, attendees and Q&A will be published on web
- Today's briefing is based on current concepts and may be subject to change



UDC Project Delivery Team

Project Mgmt Office, NSA

Client Requirements

- Troy Lange
- George Ruo
- Tom Noonan
- Matt Boren
- Carolyn Whitaker

Parsons –

Contracted support to PMO
for technical issues

US Army Corps of Engineers

Baltimore District

Acquisition and Contracting

- Randy Winemiller
- Sandy Ferguson
- Tim Mathews
- Russ Marsh
- Carlen Capenos

Sacramento District

Construction Execution

- Norbert Suter
- Tim Willard
- Dave Smeraldo
- Steve Gladwell
- Jerry Iacopini

Black & Veatch/Louis Berger Group JV–

Contracted support to USACE for A/E and RFP development

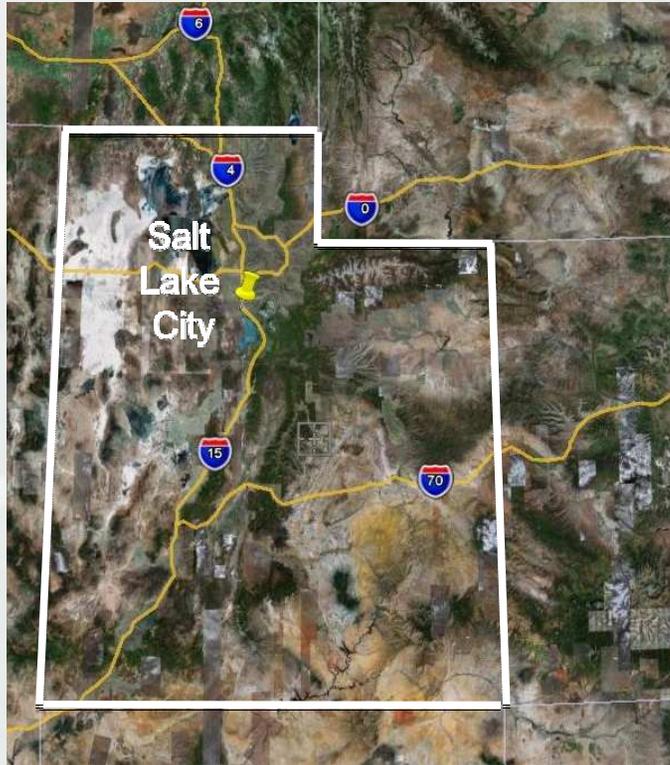


UDC Overview

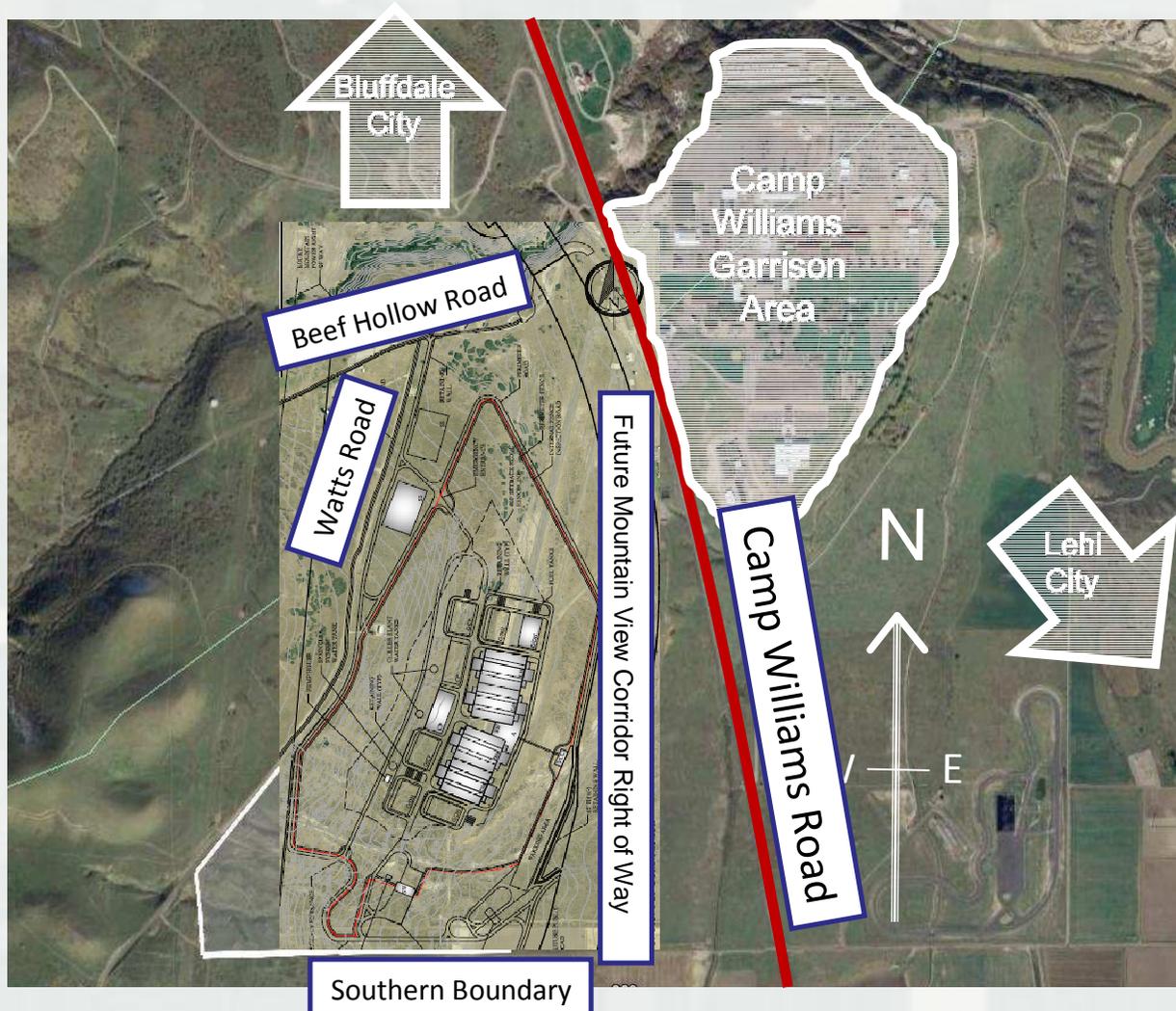
- Customer – Intelligence Community
- Executive Agent – NSA
- Contracting / Construction Agent – USACE
- Over \$1B Military Construction (MILCON)
- Driver for this Procurement is SCHEDULE
- Design / Build, Firm Fixed Price



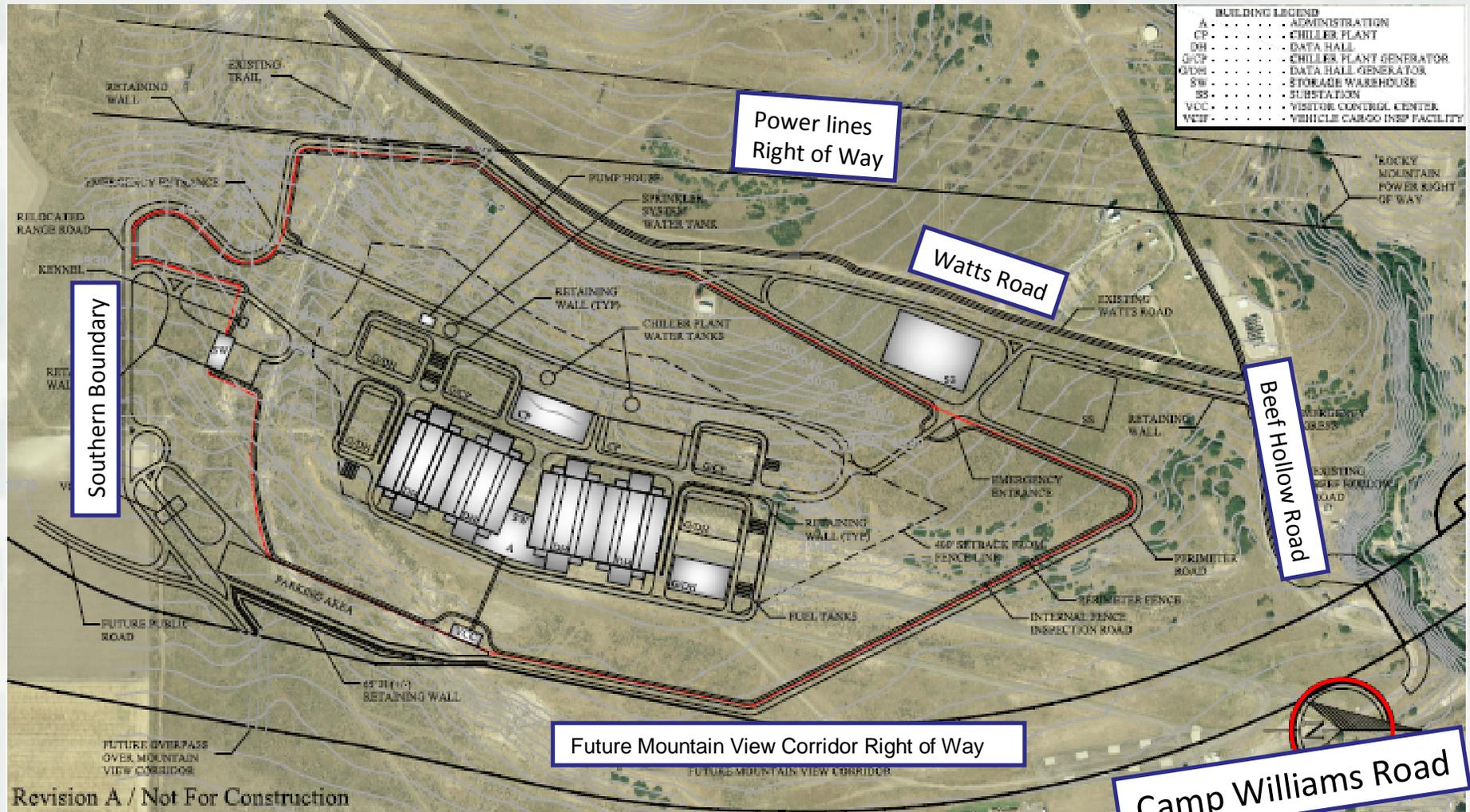
Camp Williams, Utah



Conceptual Site Layout



Conceptual Site Plan



Revision A / Not For Construction

Camp Williams Road

Project Specifics

- 65 Mega Watts Technical Load to the Raised Floor
 - ▶ Average load density: 650 watts/square feet (sf)
 - ▶ Maximum load density: 1600 watts/sf
- 100,000 sf of Raised Floor in 4 Data Halls
- Tier III Data Center Standard, Concurrently Maintainable
- Flexible Cooling to Data Hall IT Rooms: Water and Air
 - ▶ Air: 250 watts/sf
 - ▶ Water: 1600 watts/sf
- Clean Agent Fire Suppression for Data Halls
- Redundant Utilities, 100% Generator & UPS Backup
- Mechanical & Electrical Support Structures



Project Specifics (continued)

- 2 Substations
- Goal LEED Silver, Other Green Technologies Stressed
- Water usage at full load is approx 1.7 million gal/day
- Thermal energy storage tanks
- 3 days of fuel storage
- Piping distribution will be primary and secondary
- Secondary pumps will be on UPS
- Cooling towers shall be Cooling Technology Institute (CTI) certified or built up



UDC Requirements*

- Must comply with:
 - ▶ IBC – International Building Code
 - ▶ UFC – Unified Facilities Criteria
 - ▶ NFPA – National Fire Protection Association
 - ▶ UFGS – Unified Facilities Guide Specifications
 - ▶ All Local, State and Federal Codes

- Plus Executive Agent standards:
 - ▶ Facility Engineering Electrical Standards (FEES)
 - ▶ Facility Engineering Mechanical Standards (FEMS)
 - ▶ Intelligence Community Standards
 - ▶ Can deviate if justified and with express consent of PMO

* Most Stringent of Codes / Standards Apply



Data Hall Requirements

- Four 25,000 sf data halls:
 - ▶ Each data hall will be subdivided by firewalls into two IT equipment rooms
 - ▶ Each IT equipment room considered a separate electrical & fire zone
- Power requirements:
 - ▶ Total for all data halls: 65 MW technical power
 - ▶ For flexibility, each data hall will have up to 18.75 MW technical power
- Electrical connections to equipment:
 - ▶ Space provisions for under-floor and overhead connections to equipment
 - ▶ ~90% of the connections at 480/277V; most at 80A-150A
 - ▶ ~10% of the connections at 208/120V - 300 kVA PDUs on raised floor



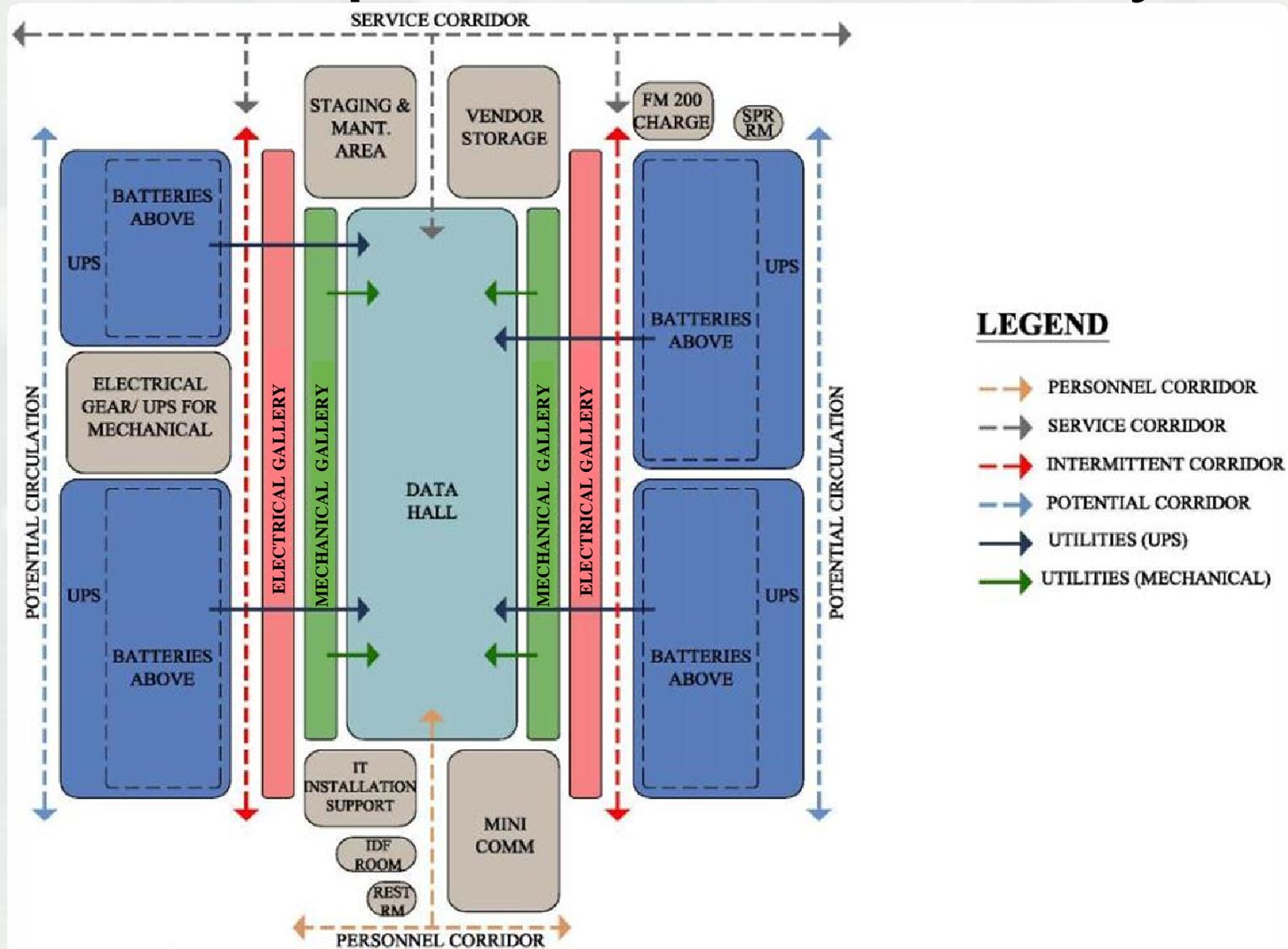
Data Hall Requirements (continued)

- Open ceiling return
- Looped secondary pipe mains
- Down flow CRAC (CRAH) units with MERV 8 Filtration
- Main piping not to interfere with under floor air distribution
- Independent Central Station AHU with MERV 13 filtration for each data hall

CRAC (CRAH): Computer Room Air Conditioner (Handler)
MERV: Minimum Efficiency Reporting Value
AHU: Air Handling Unit



Conceptual Data Hall Layout



LEGEND

- PERSONNEL CORRIDOR
- SERVICE CORRIDOR
- INTERMITTENT CORRIDOR
- POTENTIAL CORRIDOR
- UTILITIES (UPS)
- UTILITIES (MECHANICAL)



Security Considerations

- Must be US citizens
- US owned firms only
- All employees will be vetted
- Jobsite will have Government access controls
- Large portion of the project will be SCIF construction
- AT/FP medium level w/ 400 foot exclusion standoff zone
- Fence rating of DoS K-12 anti-ram, IDS, cameras, CBRN

AT/FP: Anti-Terrorism / Force Protection

DoS: Department of State

IDS: Intrusion Detection System

SCIF: Sensitive Compartmented Information Facility

CBRN: Chemical Biological Radiological, and Nuclear



Operational Considerations

A portion of the facility will be completed and come online prior to completion of the entire project, therefore:

- ▶ Operational portions cannot be disrupted
- ▶ Physical separation required with internal fence
- ▶ Access to operational side will require escorts



Acquisition Considerations

- Munitions and Explosives of Concern (MEC) remediation completed to 24” depth
- “Low Probability” stand by construction support will be required for all soil disturbance activities
- D/B will coordinate with Hill AFB for UXO response
- NEPA/EA Finding of No Significant Impact (FONSI) signed
- Stipend is being considered for ‘Step 2’ Firms
- Bond amount currently under review

NEPA/EA: National Environmental Policy Act / Environmental Assessment



Data Center RFP

Solicitation Type	Best Value (Trade-Off)												
RFP	'Two-Step' Design-Build Procurement												
Bonding Requirements	Under review												
Funding	Incremental. Specified in solicitation.												
Solicitation Schedule	<table> <tr> <td>'Step 1' Advanced Notice:</td> <td>Dec 2009</td> </tr> <tr> <td>'Step 1' Proposal Due</td> <td>Jan 2010</td> </tr> <tr> <td>'Step 1' Selected Contractors:</td> <td>Feb 2010</td> </tr> <tr> <td>RFP ('Step 1' Selected Contractors):</td> <td>Mar 2010</td> </tr> <tr> <td>Proposals Due:</td> <td>July 2010</td> </tr> <tr> <td>Contract Award:</td> <td>Oct 2010</td> </tr> </table>	'Step 1' Advanced Notice:	Dec 2009	'Step 1' Proposal Due	Jan 2010	'Step 1' Selected Contractors:	Feb 2010	RFP ('Step 1' Selected Contractors):	Mar 2010	Proposals Due:	July 2010	Contract Award:	Oct 2010
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Proposals Due:	July 2010												
Contract Award:	Oct 2010												
Contract Duration	~600 calendar days. Offerors can specify a shorter time of performance.												



Data Center Submission 'Step 1'

Anticipated Submission Requirements:

- Technical approach
- Technical qualifications that may include:
 - US owned firms only
 - Specialized experience and technical competence
 - Capability to perform to include size and scope of this project
 - Past performance of the offeror's team (including the A/E and construction members)
- Demonstrated ability to meet/exceed aggressive schedule(s)

Evaluation Process:

- Technical Qualifications: All technical factors will be adjectivally rated
- Trade-Off Analysis:
 - All factors considered to determine "best value" for selection to 'Step 2'
- Discussions: The intent is to select 'Step 2' offerors without further discussions
- Selection: The Government intends to select three to five firms for 'Step 2'



Data Center Submission 'Step 2'

Anticipated Submission Requirements:

- Volume I - Technical proposal
- Volume II - Cost Proposal
- Volume III - Subcontracting Plan

Anticipated Evaluation Process:

- Technical Qualifications: All technical factors will be adjectivally rated
- Price/Cost: Will be evaluated for reasonableness
- Trade-Off Analysis: All factors considered to determine "best value" to the Gov'nt
 - Proposed schedule most heavily weighted factor
- Oral Presentations are being considered
- Discussions: May be necessary

Anticipated Subcontracting Plan:

- Initial Plan: Submitted to demonstrate Small Business compliance
- Final Plan: Revised as needed to ensure acceptability and compliance
 - Failure to negotiate an acceptable plan will make the offer ineligible for award of the contract
- Subcontracting Participation Plan being considered



Potential Technical Factors

Factor 1: Experience and Past Performance on Large Projects

- Three to five projects
- Large complex Design-Build projects
- 500,000+ SF and completed in last 7 years
- Performance evaluations on projects for this factor

Factor 2: Experience and Past Performance on Similar Projects

- Similar projects that include data centers
- If data center experience does not exist, demonstrate ability to construct data centers
- Performance evaluation on projects for this factor

Factor 3: Schedule

- Demonstrate ability to meet or exceed aggressive schedules on D-B contracts
- Feature of work schedule

Factor 4: Project Management Plan

- Technical approach
- Project team
- Commissioning firm



Subcontracting Plan

USACE Small Business Goals will be included in the solicitation

The following are the current USACE goals:

(The goals current at the time of solicitation will be included)

Small Business:	70%
Small Disadvantage Business:	6.2%
Women – Owned Small Business:	7.0%
HUB Zones Small Business:	9.8%
Service-Disabled Veteran-Owned Small Businesses:	0.9%
Veteran–Owned Small Businesses:	3.0%



Additional Opportunities

- Contracts for bringing utilities to the site
 - ▶ Power
 - Rocky Mountain Power
 - ▶ Water
 - Bluffdale City Potable and possibly Secondary Water
 - Jordan Valley Water Conservancy District – Aqueduct
 - ▶ Waste Water
 - South Valley Sewer District



Complete Question Cards

- Pass to the attendants
- Turn in at registration desk
- Please be seated at 1100 a.m.
- Q & A will continue after site visit
- All Q & A will be posted on website:

<https://www.fbo.gov/>

search for “W912DR09S0012”

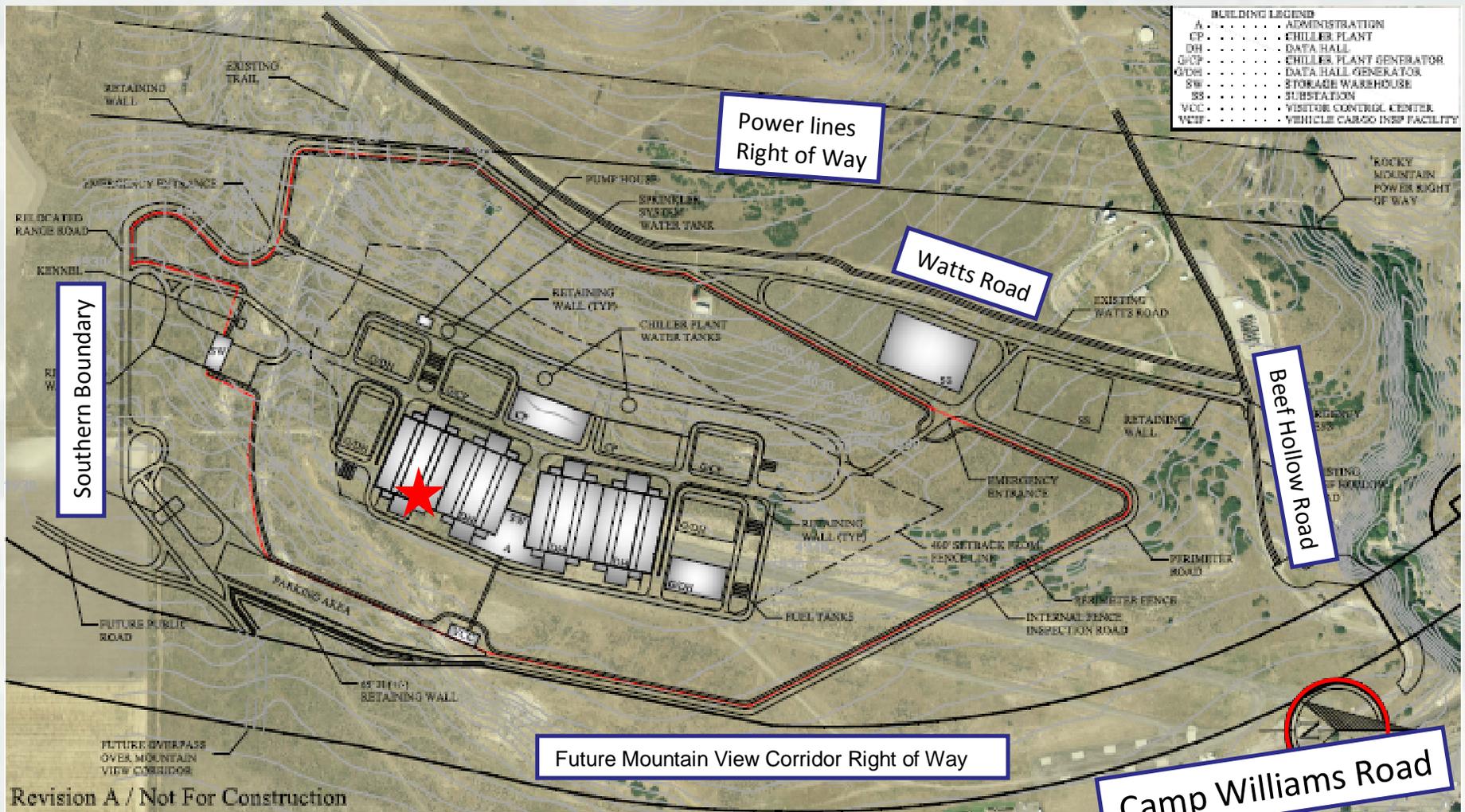


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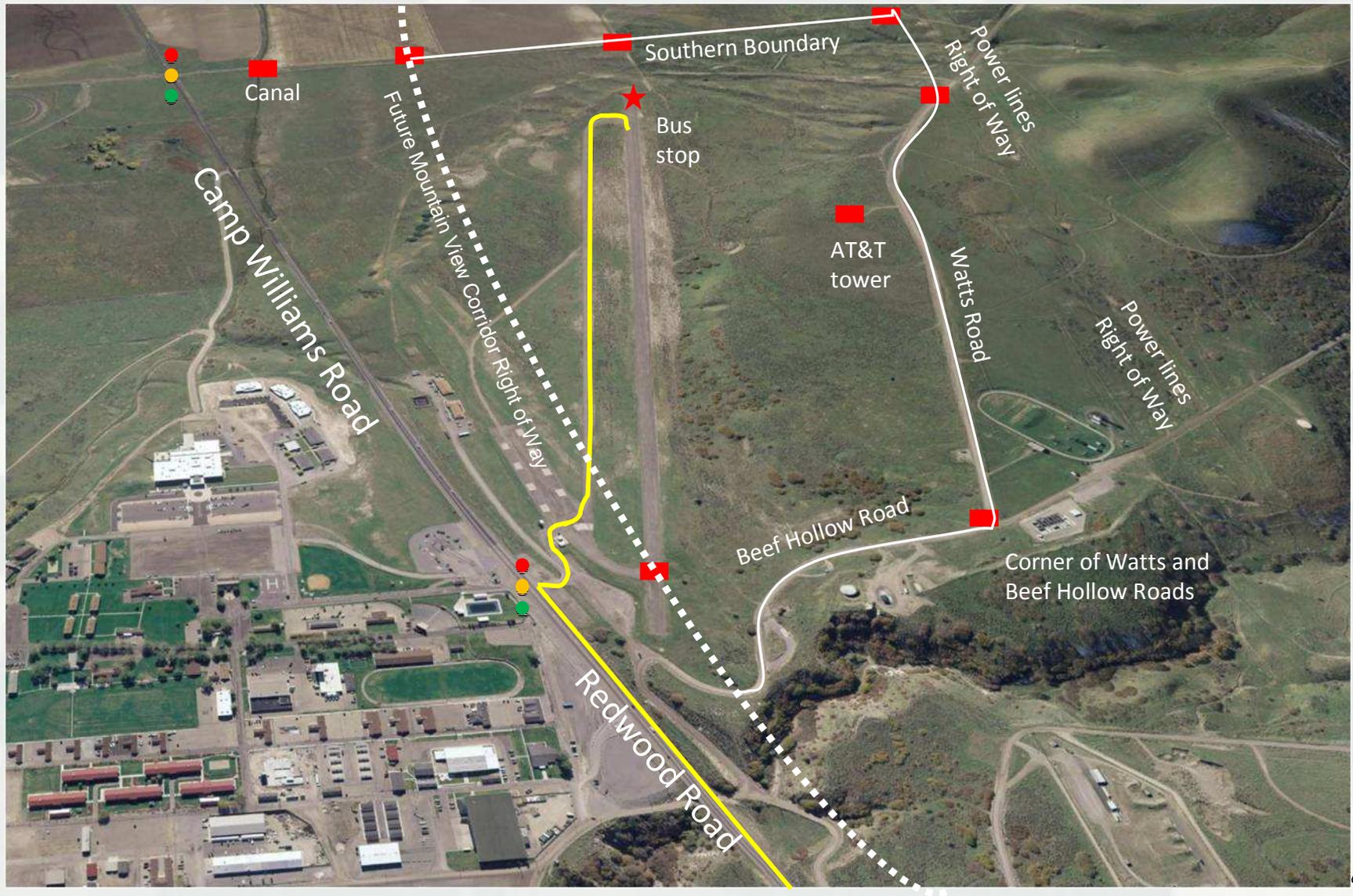


Approx On Site Briefing Location



Revision A / Not For Construction

Site Visit Orientation (Facing South)



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Federal Business Opportunities

- Government will post to the FedBizOpps website:
<https://www.fbo.gov/>
Search: “W912DR09S0012”
 - ▶ This briefing
 - ▶ Roster of attendees
 - ▶ Appropriate questions & answers

Carlen Capenos

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