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Rapid Response



Sediment Grade Control Structures at Los Alamos National Laboratories


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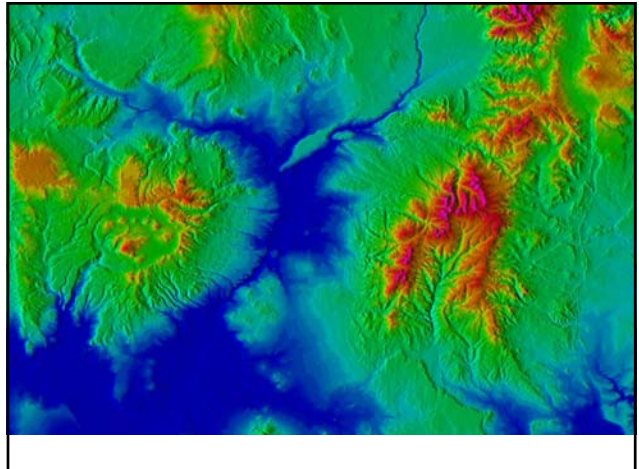
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Agenda

- Project Background
- Security, Disaster & Infrastructure Construction (SDIC) Contract
- Solution
- Lessons Learned
- Questions & Answers





Project Background

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- Los Alamos National Laboratory (LANL)
 - Founded in 1943
 - Trinity, Little Boy and Fat Man
 - Recent research: stockpile stewardship, vaccinations, human genome project, IED and mine detection
- Environmental Concerns
 - Polychlorinated Biphenyls (PCBs): Aroclor¹²⁵⁴ and Aroclor¹²⁶⁰
 - Radionuclides: Plutonium²⁴⁰, Plutonium²³⁹, Uranium, Strontium, Americium and Cesium
- Contaminant Transport
 - Wind
 - Flash floods
 - Forest Fires: Cerro Grande Fire, May 2000 and other recent fires



Project Background

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- Compliance Order on Consent
 - Between NMED and DOE
 - Signed January 2008 by LANL
 - December 31, 2009 deadline
 - 50-year flood events in Pueblo and DP Canyons
 - Subject to monetary penalties
- LANL contacted USACE Sacramento District in February 2009
- Sacramento District contacted Omaha District in March 2009
- Omaha District received program resources in May 2009
- SDIC contract

SDIC Contract

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Best Value Contract

- Multiple Award Task Order Contract (MATOC)
 - Full and open competitive process
 - RFQ: Technical and pricing components
 - In-person interviews including sample problem
 - Three contracts awarded: URS, KBR & Weston Solutions
- All task orders are competed
 - RFP: Technical and pricing components
 - TO selections made by USACE and the customer

SDIC Contract

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SDIC Contract Overview

- Rapid response contract for time-sensitive projects
- Open to all US Government customers
- Managed by the USACE Omaha District
- Scope primarily construction but can include design
- Either firm-fixed-price or cost-reimbursable
- \$490 MM capacity
- USACE small business, quality and safety requirements

SDIC Contract

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Projects

- World-wide
- Horizontal and vertical construction or renovation
- Non-classified and classified
- AT/FP improvements
- UXO and environmental requirements
- Disaster assistance
- Bid-Build or Design-Build

SDIC Contract

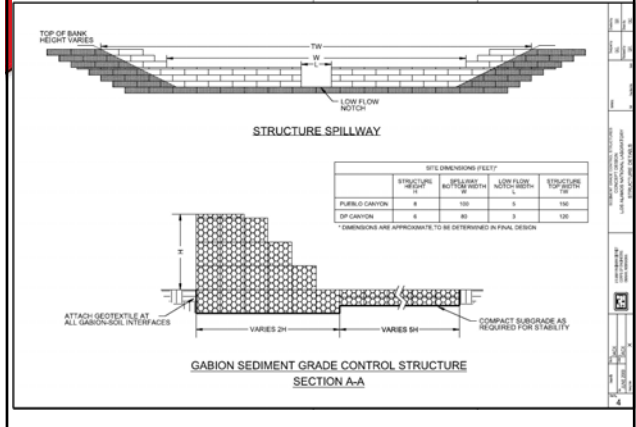
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SDIC Task Order Examples

- Marina construction in Garrison, ND
- Primary Entry Point (PEP) Expansion facilities in 32 US locations
- Water main construction for Holloman AFB, NM
- Renovations at a classified location
- Steam tunnel renovations at West Point, NY
- Fuel tank repairs at Mountain Home AFB, ID
- Sediment control structures construction at Los Alamos, NM

Solution



Solution

Solution Concept

- Slow flash flood and runoff waters
- Encourage wetland growth



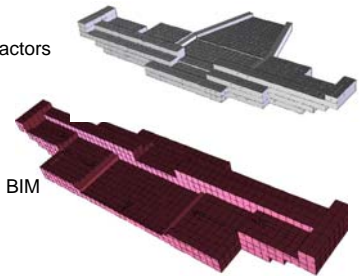
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Task Order Proposal

- Design-Build Team
 - A/E
 - Construction Subcontractors
- Qualifications
- Schedule
- Innovation
 - Conceptual Solution in BIM
 - Cost Efficiencies



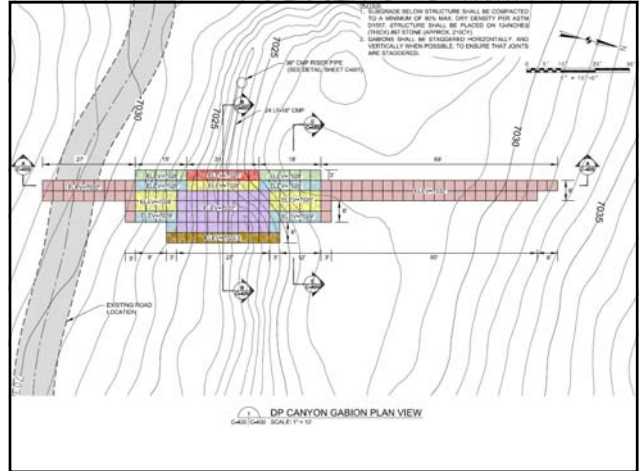
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Site & Environmental Considerations

- Biological Concerns: wetlands and animals
- Cultural Concerns: archeological, Native American Pueblos, and historical trail
- Permitting Concerns: State 401 and Federal 404
- Construction Concerns: contaminant levels, SWPPP, and laydown area limitations



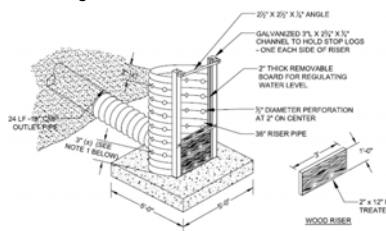
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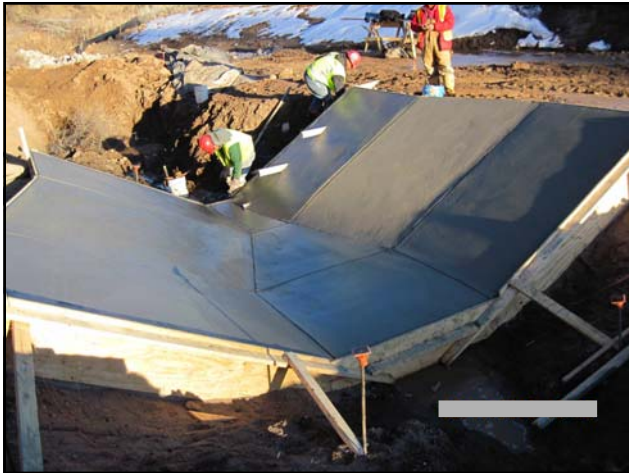


Engineering

- Hydrology Modeling
 - Watershed boundary and sub-basin delineations
 - Rainfall-runoff calculations
 - Channel and detention routing
- Geotechnical
 - Soil and rock strata
 - Geohydrology
- Structural Solution
 - Final dimensions
 - Short term retention
 - Future flexibility
- Value Engineering







Lessons Learned

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- Two Step (RFQ and RFP) Process Works
 - Three highly qualified teams
 - Timely and efficient evaluation process
 - Customer involvement
 - Decreased cost for all stakeholders
- Involve Designers and Construction Contractors Early
 - Develop conceptual solutions
 - Identify constructability issues, local techniques, materials and regulatory requirements
 - Decreases cost

Lessons Learned

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- Urgency Does Not Trump Proper Procedures
 - Project management plan
 - Site master plan
 - Partnering session!
- Understand Performance vs. Prescriptive Specifications
 - Owner's Role
 - Prescriptive: approval
 - Performance: compliance
 - Cost-reimbursable vs. firm-fixed-price
 - Ownership, quality & warranty implications

Lessons Learned

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- Design-Build Projects Require the Right People
 - Design-Build PM
 - Design Manager
 - On-site personnel
 - USACE PM
 - Client PM
- Design-Build, Fast-Track Projects Require Trust
 - Contractor suggested alternatives and betterments
 - "Over-the-shoulder" or "on-board" design reviews
 - Frequent price negotiations
 - Partnering and teaming accelerated schedule



Questions & Answers

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- Great contract, project delivery and people
- Meaningful project
- Beautiful region
- Questions?

