



Infrastructure Services Support in South Dakota

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Prepared for South Dakota Mission Support Work Shop

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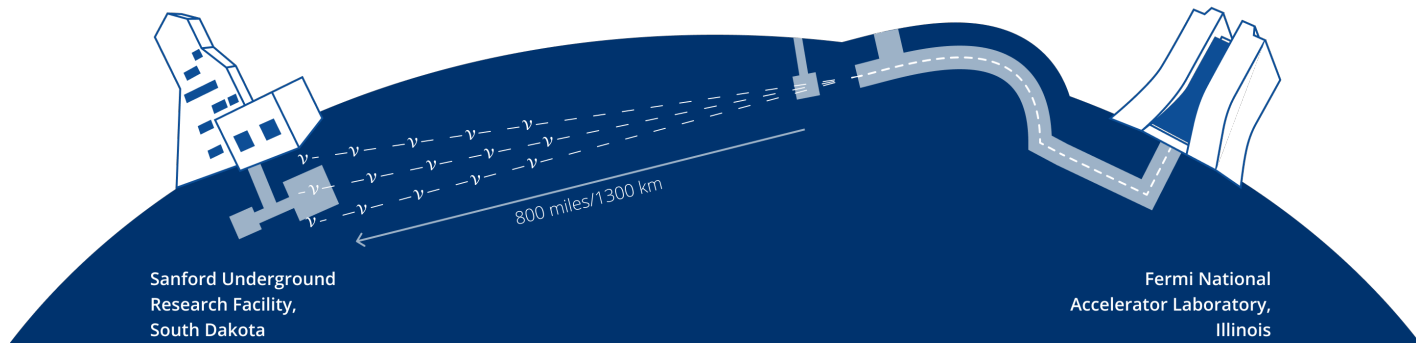
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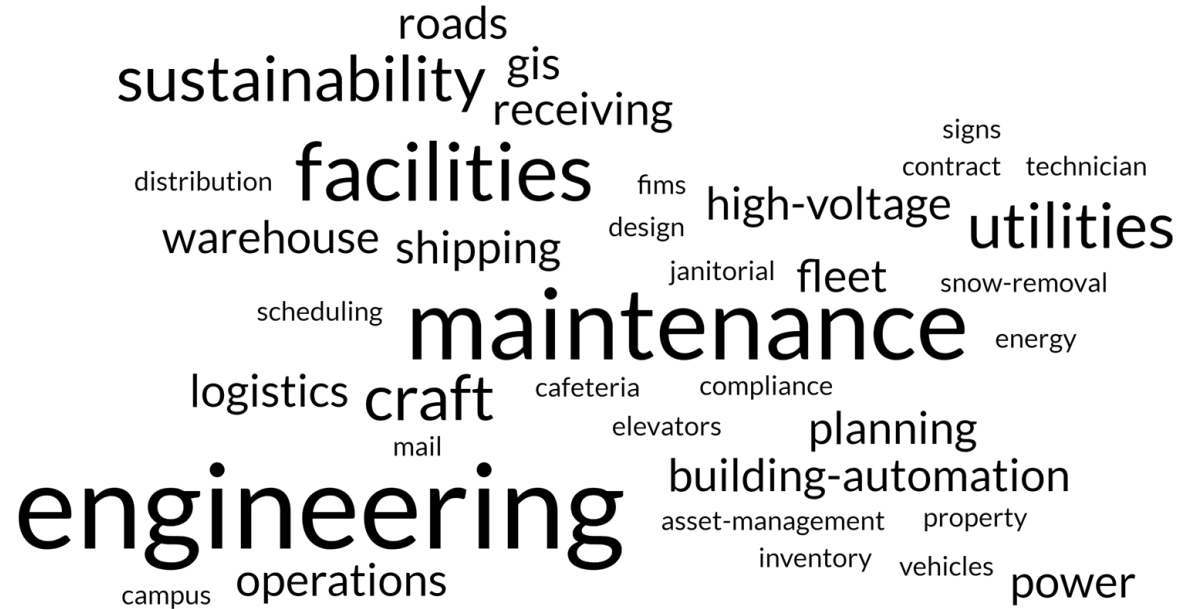
Problem Statement



The primary purpose of the Infrastructure Services Division is to effectively and efficiently manage property and infrastructure for the Laboratory. Our organization is setup and structured to perform this function at the Batavia Campus. As we are investing billions of dollars to create new infrastructure at a remote campus in Lead, SD; this provides a unique challenge to ensure we continue to provide critical mission support as the Project begins to turn over its property & infrastructure into operations.

Methodology

Starting in early FY22, a working group was formed of SMEs from both ISD and the South Dakota Services Division (SDSD) to identify all of the functions and services that ISD currently provides.



Methodology

- Over 80 distinct functions, services, etc. that ISD currently provides for the Batavia Campus were identified
- The activities were categorized into the following basic areas of support:
- The working group then reviewed each activity to summarize what current level of support ISD provides, discussed anticipated needs from the SD Site, developed a proposed scope that ISD will provide, and then created an implementation strategy to provide this support

Conventional Maintenance Activities

- e.g., utility program management, facility maintenance, inspections

Conventional Operational Activities

- e.g., planning & scheduling services, janitorial, snow removal, design services

Logistics

- e.g., fleet management, shipping, receiving

IT Systems

- e.g., FAMIS, FID, GIS, VFA, Sunflower, Metasys/Tridium, SkySpark

Reporting Requirements

- e.g., energy usage, inventories, facility condition, property disposition

New Activities

- e.g., regularly scheduled transport between IL & SD, cavern inspection

Methodology

CHALLENGES

- Not all activities may necessitate full-time staff (e.g., relamping at Batavia is a constant demand since there are 300+ facilities, but likely not full time in SD); therefore, will need to subcontract out many of the functions.
- Few contracted services currently in place at the Batavia Campus would be able available for SD (i.e., many of our subs are with local, small businesses that do not have any footprint in SD); therefore, would have to develop a SD unique acquisition plan.
- Many of the activities are not linearly scalable (e.g., the effort for procuring and overseeing a \$2M/year janitorial contract is not that much different than for procuring and overseeing a \$100k/year janitorial contract); therefore, need to have sufficient staffing for the additional activities being performed in SD.
- By definition, the bulk of the work that ISD provides is something that cannot be done remotely (e.g., hard to change a filter from your computer); therefore, a strong, onsite presence in SD is necessary.

TRANSLATION

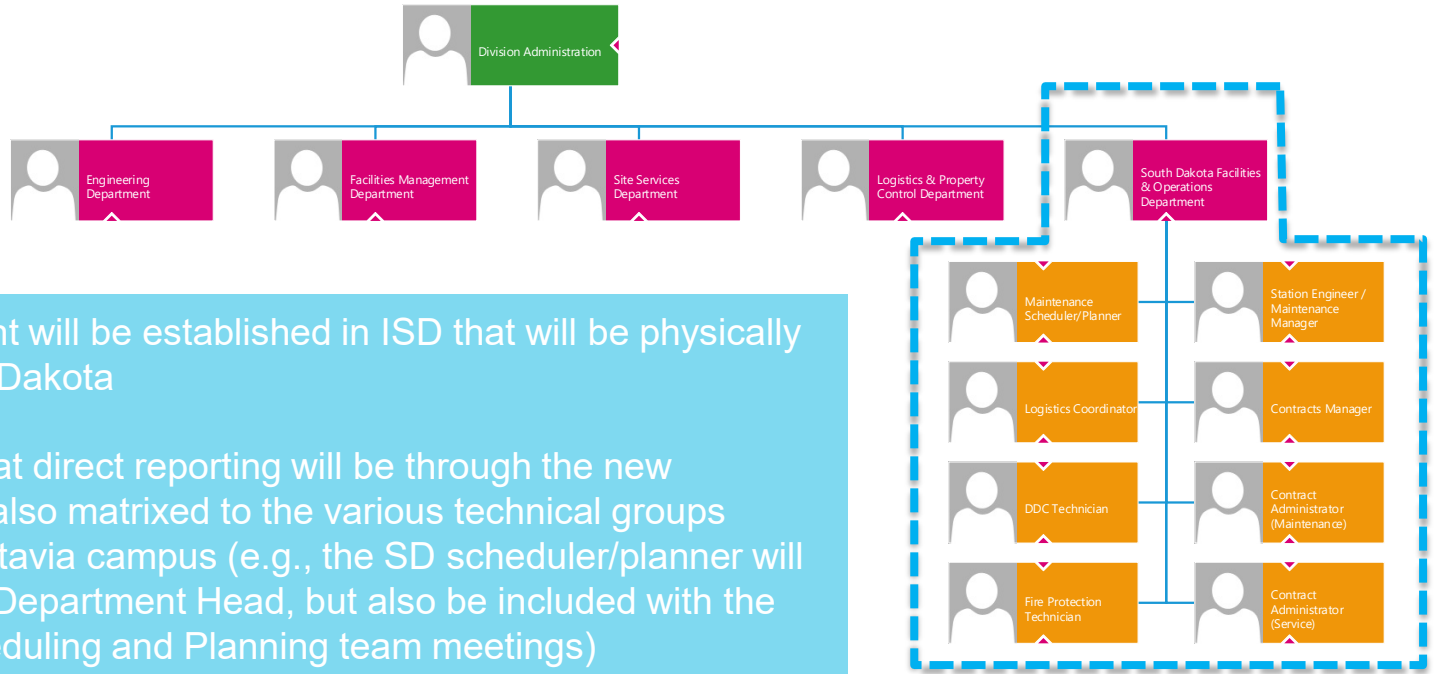
Staffing strategy will primarily be the utilization of subcontracted services

We need to setup new contracts specific to SD activities

We need to hire more people to manage contracts and oversee the overall program

Staff need to be physically located in SD

Overview of Support Strategy

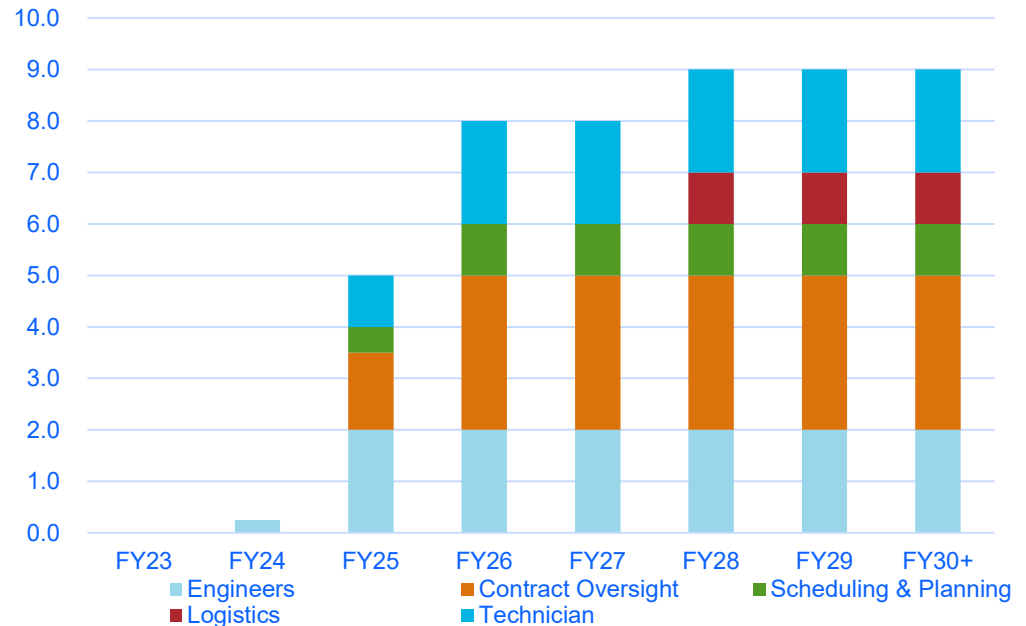


- A new department will be established in ISD that will be physically located in South Dakota
- Expectation is that direct reporting will be through the new department, but also matrixed to the various technical groups located at the Batavia campus (e.g., the SD scheduler/planner will report to the SD Department Head, but also be included with the Batavia FM Scheduling and Planning team meetings)

Overview of Support Strategy

- Staff onboarding is expected to be gradual over the next few years
- Initial hire focused on department head position to allow them to select their team
- Minimal full time staff with high dependencies on subcontracted services
- Therefore, staff should have strong skillset in program and task management

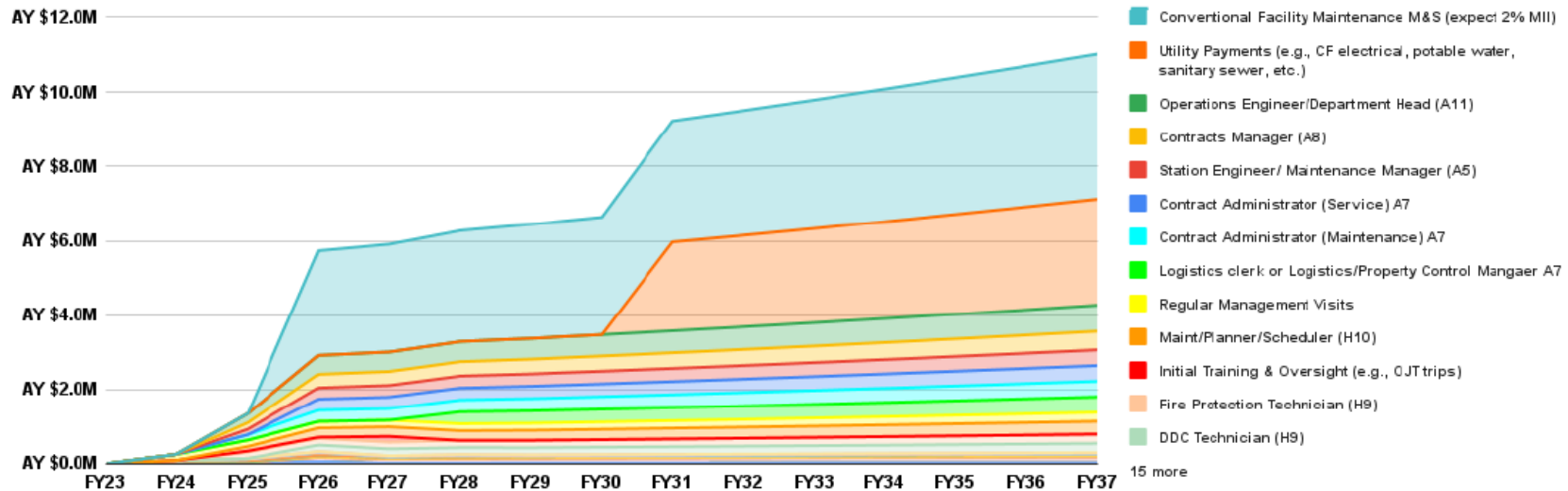
Host Lab Staffing (ISD)



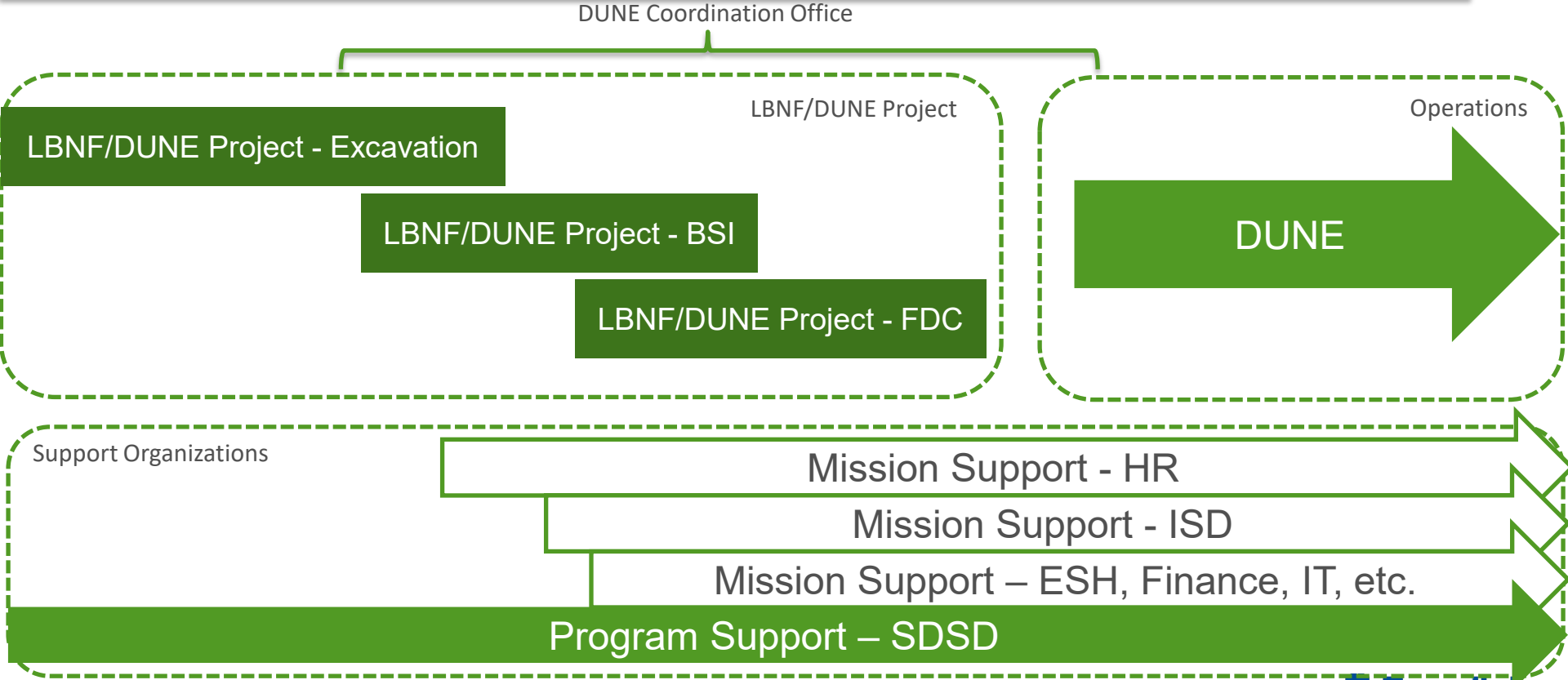
Overview of Support Strategy

Funding profile primarily driven by:

1. Staffing onboarding
2. Maintenance requirements as BSI is turned over to operations
3. Power utility demand as the experiment comes online



Overview of Roles & Responsibilities



Overview of Roles & Responsibilities

LBNF/DUNE and Mission Support Roles & Responsibilities Matrix

	LBNF/DUNE	SDSD	ISD
Primary Role	Execute LBNF/DUNE scope at Far Site	Provide programmatic support to ensure execution of Host Lab services in support of LBNF/DUNE and DUNE Operations	Provide mission support services to South Dakota operations and LBNF/DUNE, similar to experiments in Batavia
BSI Era	Provide conventional facility & equipment	Facilitate Transition to Operations for EXC and BSI (SDSTA, FDC or Mission Support Divisions)	Identify and provide necessary conventional facilities operational support
	Execute installation of cryostats, detectors, and cryogenics	Execute SDSD services & Facilitate Host Lab services from Mission Support Divisions for FDC	Identify and provide mission support services to support installation activities
FDC Era	Provide requirements for mission support services to SDSD	Understand Project scope & requirements, and communicate to Mission Support Divisions	Develop plans to deliver host lab services to FDC consistent with Batavia model, manage service & equipment subcontracts
	Provide funding & line management to Project employees performing programmatic tasks related to FDC execution	Provide matrixed management support to SD FDC personnel until FDC Mgmt. team is located in SD & management for Mission Support Division matrixed employees	Provide line management to SD-based matrixed employees
	Occupy and operate within DOE leased space	Tenant liaison of DOE leased space	Manage facility and basic services
	Provide initial funding for leased project office space	Tenant liaison of contractor leased space	Manage facility and basic services
	Fund SDSTA Ross logistics/hoisting, support and electrical subcontracts	Manage SDSTA Ross logistics/hoisting subcontract	Anticipated management of SDSTA support and various maintenance/support subcontracts
DUNE era	Collaborate with SDSTA	Provide primary interface with SDSTA	Collaborate with SDSTA
	N/A - Project Complete	Support DUNE users during Operations	Provide necessary operational support & services

Timeline

FY24

- Develop Job Descriptions for SD staff
- Begin recruiting for Department Head position
- Hire & onboard Department Head position (late FY24)
- Develop acquisition plan for subcontracted services

FY25

- Recruit & onboard approximately 50% of SD team
- Implement acquisition plan
- Begin awarding service & maintenance contracts

FY26

- Recruit & onboard the majority of the SD team (logistics still being executed by the Project)
- Implement acquisition plan, most service & maintenance contracts to be awarded
- Turnover-to-operations from the BSI subproject

FY27

- Service contracts in execution
- SD team provides conventional facilities maintenance & operations
- The Project continues to handle the bulk of the shipping and receiving logistics

FY28

- Recruit & onboard final team members (logistics staff)
- Expect to enter steady-state operations for conventional facilities maintenance and operations

Outstanding Items

Rotational Opportunities

- Is the Lab developing a process or guidance for rotations, or will each organization have to develop their own process?

Funding Mechanism

- Currently, the vast majority of ISD Batavia operational activities is funded via Common Site Support (CSS) overhead funds
- Verify that CSS is still appropriate for SD activities
- Confirm funds will be allocated in FY25 and moving forward to support these activities

Procurement Support

- Is there any expectation for any Procurement specialists to be located in SD?
- Initial conversations with Procurement identified staffing to support SD O&M activities with the intent of having some number of Procurement Specialists located in SD; however, the DUNE Host Lab Plan Volume 2 does not identify any additional Procurement staff. Is the expectation that the existing staff includes this new demand?

Outstanding Items

Talent acquisition & cultural integration

- Ensuring that the organizational culture and values are extended to the SD site; fostering a sense of belonging and alignment with the overall mission and vision. Need to setup training and onboarding for new hires which will likely include significant time at the Batavia campus prior to assignment at SD.

Workflow standardization

- Ensuring that processes and procedures are standardized across both sites to maintain consistency in operations. Need to setup/revise standard operating procedures (SOPs) and processes for various tasks and responsibilities.

Communication and collaboration

- Ensuring that there is a seamless flow of information and coordination between the two locations. Need to establish effective communication channels between the two sites.

Concerns

Funding available

- The Lab has historically under-funded O&M activities; concern is that the Lab reverts back to this model (with a new facility) and will not be appropriately funding SD support activities.

Services available in SD

- Initial inquiries identified local vendors to provide the necessary services/functions; concern is that the Lead market is limited and the demand from the Lab may overwhelm the local businesses.

Escalated pricing

- Initial inquiry into local vendors, it appeared the more established vendors were 45 min away (i.e., near Rapid City); concern that premiums will be incurred from vendors having to include transportation into their pricing

Summary

Remain Agile

- This is an unprecedented initiative with a significant amount of stakeholders from around the world; even the best laid plans need to be revised multiple times (with a few hundred interim iterations)

Communicate

- With so many stakeholders, it is easy to get mixed up which may cause further confusion
- For Host Lab activities (i.e., not normal Project support) our primary communication channels will be through the DUNE Coordination Office and the SDSD organization

Remain Excited

- There are a lot of unique opportunities with respect to career development, technical/logistical challenges, etc.

Questions?

