



Improving Site Access at Fermilab – Progress and Plans of the Site Access Steering Committee

D. Glenzinski and B. Sherin (on behalf of the Site Access Steering Committee)

06 December 2024

Preface

In response to widespread dissatisfaction and concerns associated with changes to Fermilab's site access policies and procedures

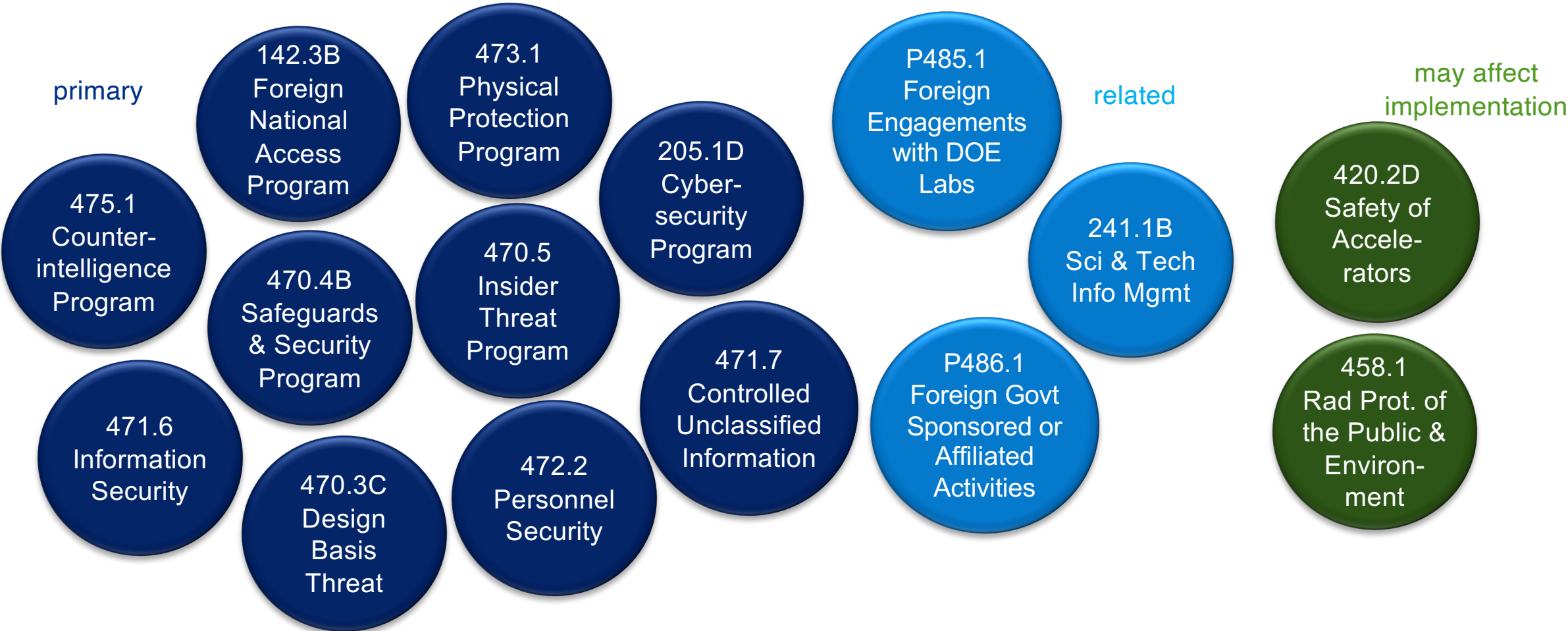
- **The DOE Office of Science leadership commissioned an Assist Visit**
 - On site visit in September 2023. Committee membership included subject matter experts from the DOE and staff of other Office of Science laboratories (LBNL, SLAC, ANL).
 - Committee issued a report in October 2023 that
 - Emphasized the need for FNAL and DOE to work collaboratively to address concerns
 - Recognized and supported planned improvements and offered additional suggestions
- **The laboratory Director formed the Site Access Steering Committee (SASC)**
 - This talk summarizes the SASC progress in addressing identified concerns and future plans for continued improvement

Introduction

- **Fermilab's accelerator complex is a designated DOE Office of Science National User Facility**
 - Provide scientists access to world-class science instruments and facilities to advance research goals
- **Fermilab has a long history of hosting for and participating in large, international, science collaborations**

We are committed to providing efficient, effective access processes to enable world-class science.

Introduction - DOE Orders relevant for Security & Access Control

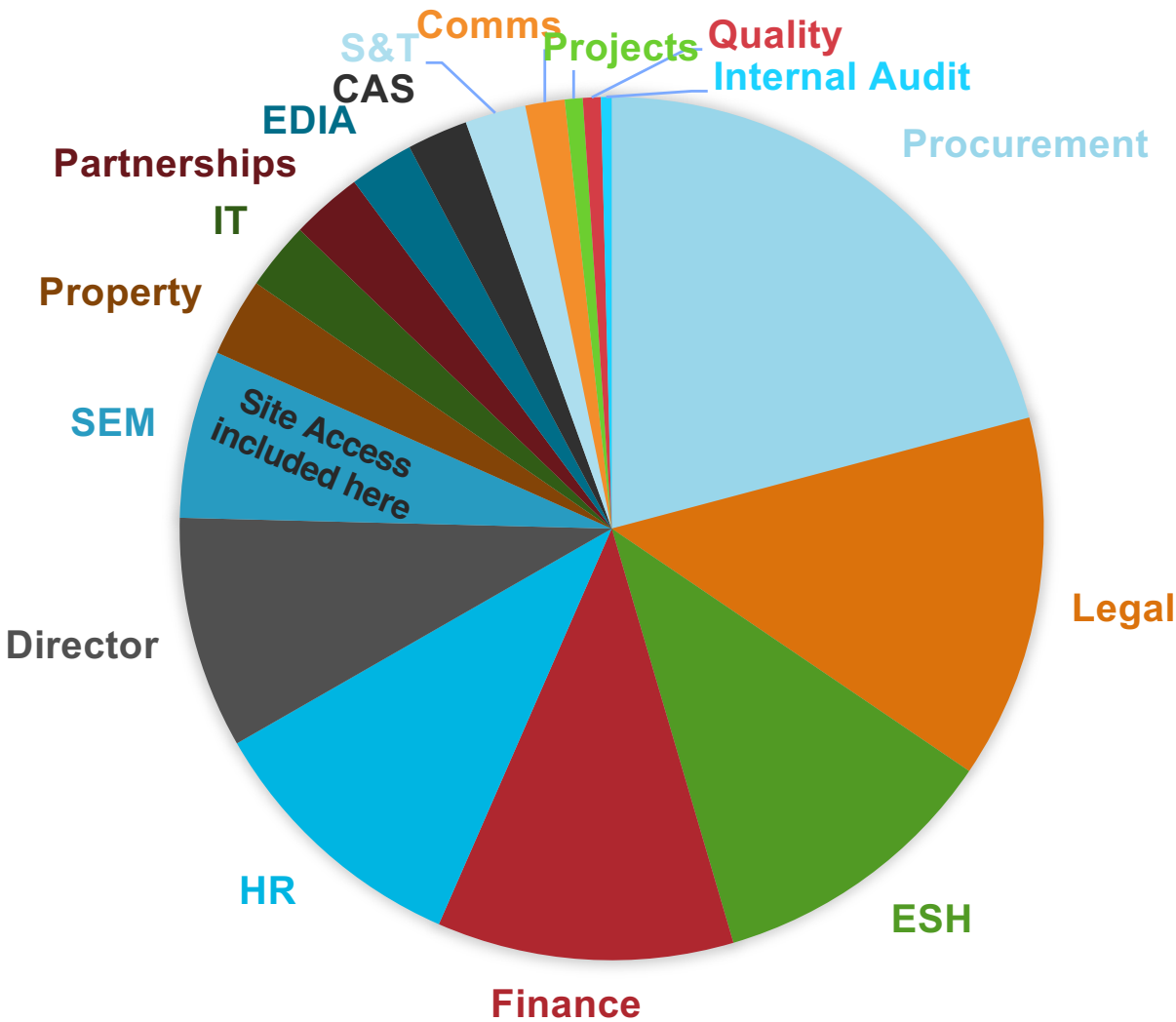


Protection of personnel, government assets and national science, technology, and economic security

https://www.directives.doe.gov/directives-browse#b_start=0

Introduction – DOE Orders, the Prime Contract, and Requirements

- Most DOE labs are Federally Funded Research and Development Centers that are Government Owned / Contractor Operated (GOCO)
- A Prime Contract between the DOE and a contractor (e.g. FRA LLC) details the requirements and deliverables
- Current Fermilab contract
 - Is over 500 pages long
 - Incorporates 62 DOE orders and, by reference, all relevant state and federal regulations
 - Identifies >700 requirements and >250 deliverables (tracked monthly)



breakdown of requirements by area



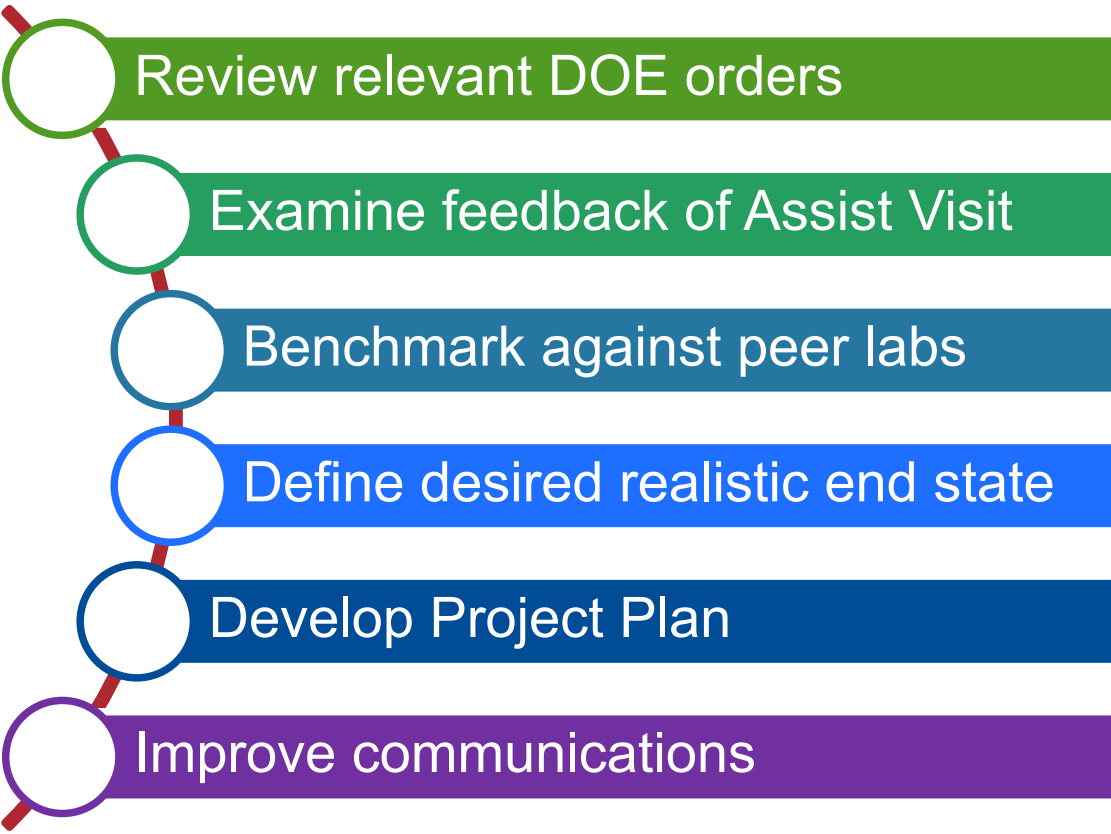
Site Access Steering Committee - Introduction

- Co-lead by Doug Glenzinski (Sr. Scientist) & Brian Sherin (Senior Advisor, former COO of SLAC). Launched by the lab director October 9, 2023.
- Objectives
 - Ensure compliance with DOE requirements and responsiveness to community-driven requirements in a manner comparable to other similar national laboratories;
 - Provide efficient processes, effective tools, and clear procedures to reduce cycle time, minimize rework, and improve customer experience; and
 - Provide effective communications to all stakeholders regarding the strategy, its implementation, and any associated processes or procedures.



- Membership includes representatives from across the lab and relevant subject-matter experts
 - Includes engineering, scientific, and administrative staff, and users/collaborators
 - Inclusive composition intended to capture range of perspectives; helpful in identifying priorities and developing realistic plan

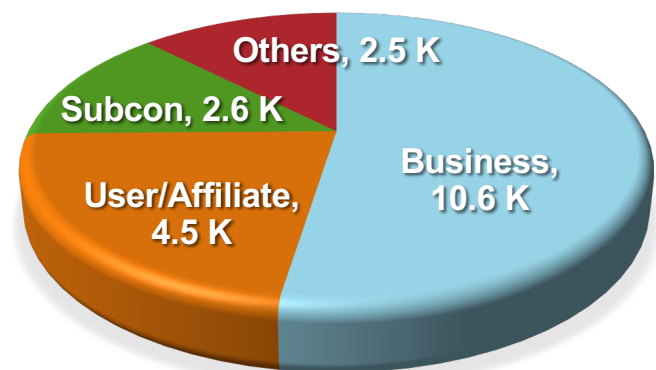
Site Access Steering Committee – Organization and Approach

- Employ strategies to achieve a comprehensive, realistic, transparent, effective approach.
- 
- Review relevant DOE orders
 - Examine feedback of Assist Visit
 - Benchmark against peer labs
 - Define desired realistic end state
 - Develop Project Plan
 - Improve communications
- Committee was organized to pursue in parallel
 - Review DOE orders, examine assist visit feedback, benchmark against peer DOE laboratories
 - Review of feedback from broad spectrum of stakeholders
 - Combined the output of these two exercises
 - To identify common pain points and associated solutions
 - Worked together to identify priorities and to develop an improvement plan
 - Some improvements entirely lab-driven, others require DOE involvement
 - Implemented broad communications campaign throughout

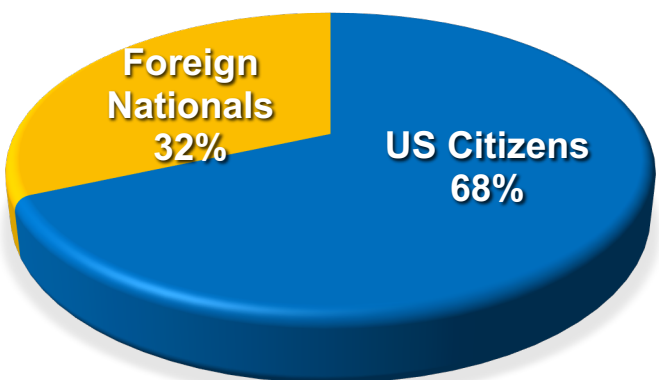
Site Access Numbers (CY2023) – 20.2K Access Requests Total



- 4% were not approved due to various problems... e.g. mistakes, duplicates, cancellations



- ~50% are business visitors (e.g. reviewers, conference attendees)
- ~25% are user/affiliate



- About 1/3 of user/affiliate requests are from international colleagues

- We averaged about 1600 requests per month
- Average approval times for 2023 using old process:
 - US citizens : 8 days
 - Non-US : 21 days

In addition, we had more than 5,000 public visitors to the site in 2023:
Lederman Science Center,
prairie hiking trails, bike access, bison viewing



Site Access Steering Committee Progress: Oct-Mar

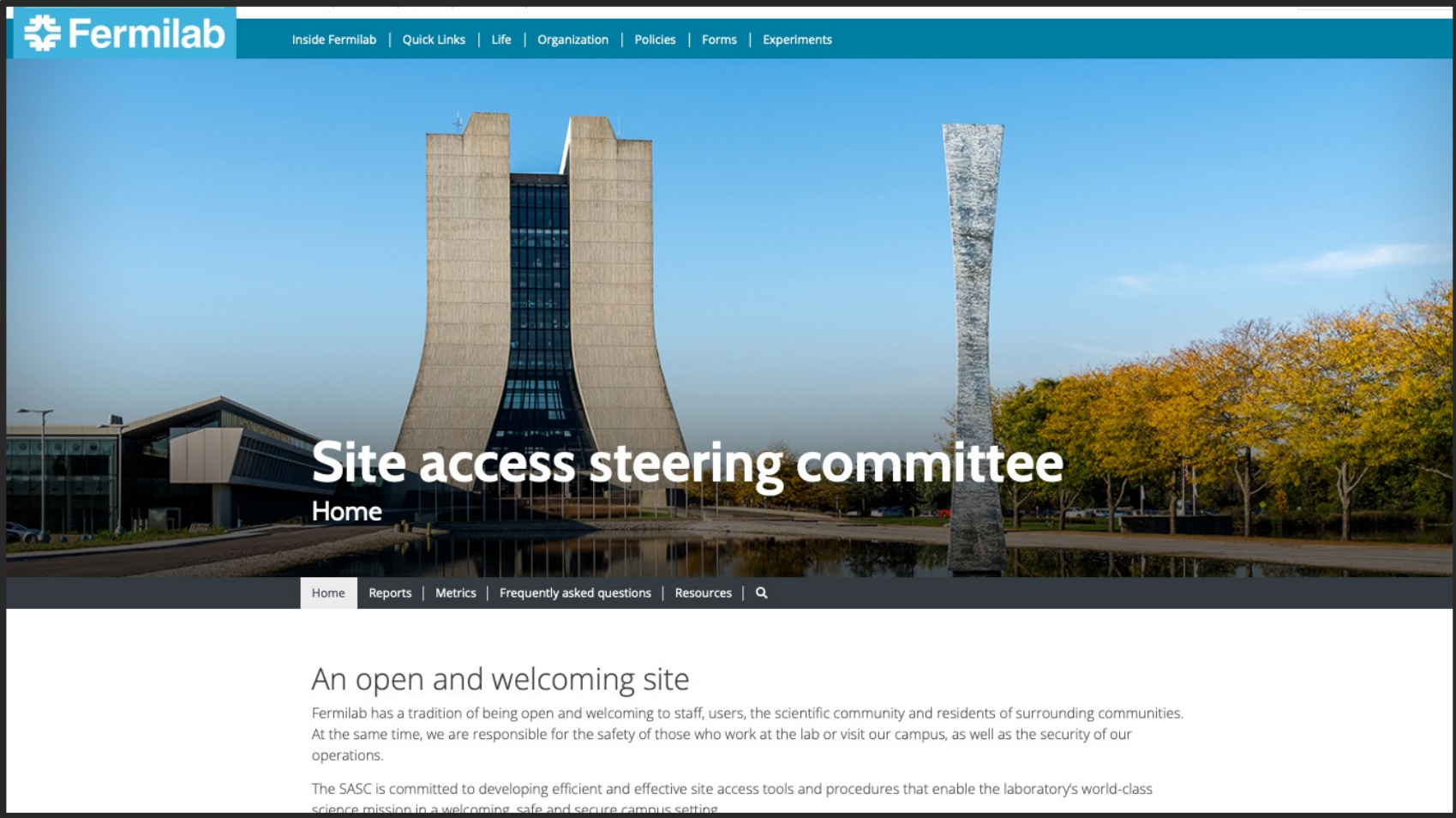
Oct 2023	<ul style="list-style-type: none">• SASC formed• Organizational workshop held• Performed broad outreach campaign• Planned for improved communications• FSO received the report from the Assist Visit	Jan 2024	<ul style="list-style-type: none">• Re-opened portions of WH to the public• Developed site access data dashboard and posted summary metrics to SASC web page
Nov 2023	<ul style="list-style-type: none">• Completed benchmark exercise with four peer laboratories• Implemented communication plan (meetings, website, all hands messaging with targeted follow-up)• Developed list of proposed changes to requirements for discussion with DOE	Feb 2024	<ul style="list-style-type: none">• Brought Public Access Gates into operation• Finalized list of proposed changes to requirements with DOE
Dec 2023	<ul style="list-style-type: none">• Categorized 100s of suggestions & comments from stakeholders to formulate a set of end-state goals• Launched SASC web page and mailbox• Expanded access to buildings for badged staff• Completed Wilson Hall card-reader project• Implemented streamlined access request software	Mar 2024	<ul style="list-style-type: none">• Received DOE approval for list of proposed changes to requirements• Expanded list of documents staff and collaborators can use for REAL-ID

Site Access Steering Committee Progress: Apr-Sep

Apr 2024	<p>Using streamlined software, achieved significant reductions in average approval times</p> <ul style="list-style-type: none">• ~65% reduction for US citizens• ~30% reduction for non-US citizens• Mistakes also reduced by ~50%	Aug 2024	<p>Released a set of reports:</p> <ul style="list-style-type: none">• Summary Report• Response to Assist Visit• Summary of Benchmark Exercise• End-State Vision• Summary Project Plan
May 2024	<ul style="list-style-type: none">• Clarify and expand access hours for users and affiliates• Implement streamlined processes for international colleagues	Sep 2024	<ul style="list-style-type: none">• Completed WH and SiDet cardreaders• Implemented improvements to Indico – SAB interface• Developed proposal for phased approach expanding access to the village
Jun 2024	<ul style="list-style-type: none">• Implemented scanners to streamline public access to the lab• Provided Notice to Proceed for new Fermilab Welcome and Access Center (FWAC) on west side of the lab	<p>Sustained program of improvements informed by community feedback.</p>	

Site Access Steering Committee Internal Website

(<https://siteaccess.fnal.gov> - available to anyone with a Fermilab Services account)



Includes FAQ, metrics, links to resources and SASC mailbox.
Updated regularly for FAQ, metrics, and progress.

Actions completed

- ✓ Review of Fermilab site access controls and requirements by peer labs (Site Assist Report, Oct. 4, 2023)
- ✓ Site Access Steering Committee was established to work with teams across the lab to ensure cross-functional collaboration in determining the vision for the site access end-state, objectives, goals, and action steps needed to achieve the vision, and the accompanying communications for each milestone achieved (October 2023)
- ✓ Aspen East Welcome and Access Center opened to provide a location for our team to help visitors complete the badging process
- ✓ Benchmarked site access policies and procedures against other comparable DOE laboratories (Nov. 8, 2023)
- ✓ Established an **email box** to collect suggestions for Site Access and communicated to staff (siteaccess-suggestions@fnal.gov)
- ✓ Public tours restarted. More tours will be scheduled to share Fermilab science with the public in 2024 (November 2023).
- ✓ Access to additional buildings for all badged personnel was enabled for all badged employees, users and affiliates. The buildings included in this first phase were: IERC, IARC, ICB, FCC and SIDET. More buildings to come in future phases.
- ✓ The single-form access request form became available, streamlining the access request process for our collaborators, visitors, and guests.

Near-term actions

- ☐ Re-opening of Wilson Hall to the public. Public access will be re-established in certain areas of the building, allowing access to bathrooms, the cafeteria, the atrium, and the ground floor of Wilson Hall, including the credit union. Employees, users and affiliates with an active Fermilab or DOE badge will continue to have access to all of Wilson Hall (January 2024).
- ☐ Public access control gates will be operational to limit access to protected areas. Once these gates are operational, Wilson Hall parking lot and roadways will be publicly accessible, allowing people to be picked up and dropped off by others.

Future actions

- ☐ Additional improvements to the access request form.
- ☐ Define desired future state and an associated project plan.
- ☐ Regular updates reporting progress against the plan via email, messages to managers and on this webpage.
- ☐ Ongoing reporting of site access metrics and trends.
- ☐ Fermilab Welcome and Access Center – opening in summer 2025, this will be the new “front door” for the lab site, located at the Pine St entrance.

snapshot from Jan-2024... most recent status from website

Expanded Access to Office Spaces

Opened office buildings to all badged personnel

- WH, IERC, IARC, ICB-Center, FCC, SiDet
- All active FNAL badge holders (staff, users, affiliates, contractors)
- Additional controls are utilized to limit access to spaces requiring added safety or security precautions (e.g., lab spaces)




This facilitates collaboration with colleagues in varied offices spaces across the site.

Welcoming the public to Wilson Hall

Celebrate Wilson Hall!

Jan. 23, 2024 | 11:00 a.m.—2:00 p.m.
Fermi National Accelerator Laboratory, Batavia, IL



You are invited to bring a friend for a no-host lunch in the cafe to celebrate the opening of the Wilson Hall atrium and second floor art gallery to the public. Effective Jan. 23, the public can access the Wilson Hall atrium, the second floor art gallery and the credit union on the ground floor.



As of January 23rd the public is welcome to visit Wilson Hall
(Auditorium, Atrium, Café, 1-West, and Art Gallery, M-F 9a-5p with REAL ID)



Welcoming the Public to Fermilab – 2024

Fermilab's education and community outreach programs hosted more than 10,000* public visitors on site this year.

**these numbers do not include visitors that only visit nature trails and/or Wilson Hall*

- **5,330** Visitors to Lederman Science Center
- **4,381** Students and teachers on field trips and site tours
- **350** Attendees on the organized monthly public tours
- **227** Students for STEM programs (e.g. Saturday Morning Physics)



Welcoming the Science Community to Fermilab – 2024

Fermilab hosted over 1700* scientists and engineers as participants in on site conference and workshops

**these numbers do not include collaboration meetings hosted at Fermilab*



Fermilab Welcome and Access Centers (FWAC)



Facilitate site access and address questions for collaborator, business, subcontractor, and public visitors.

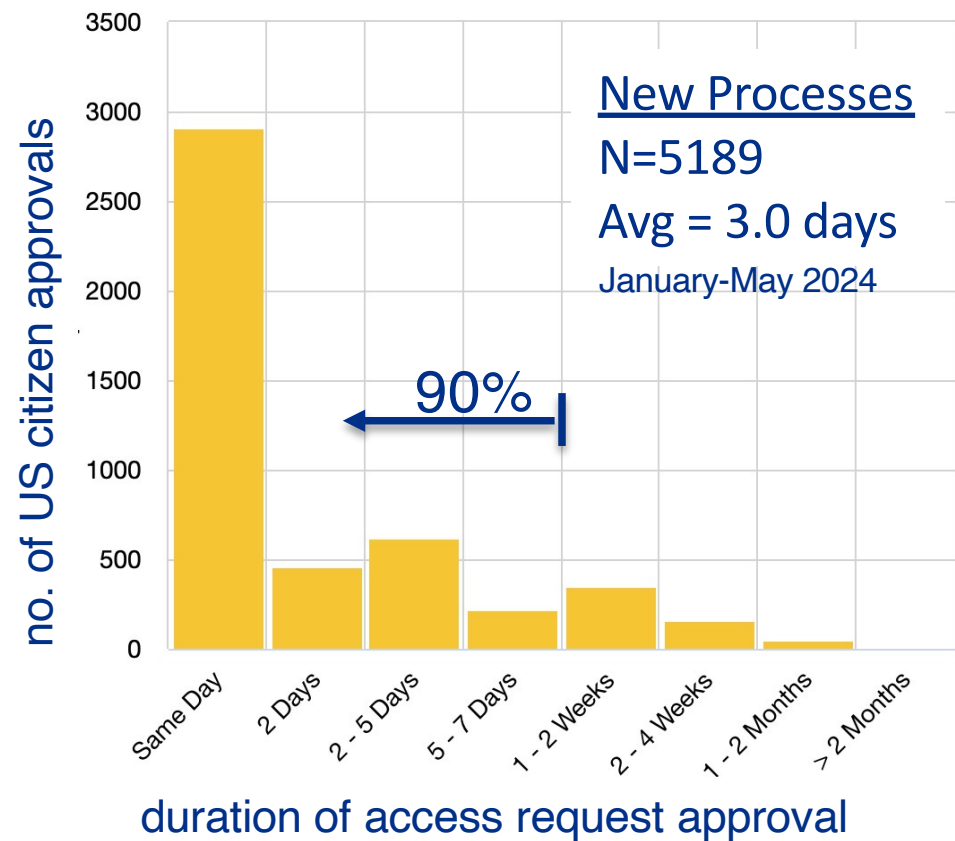
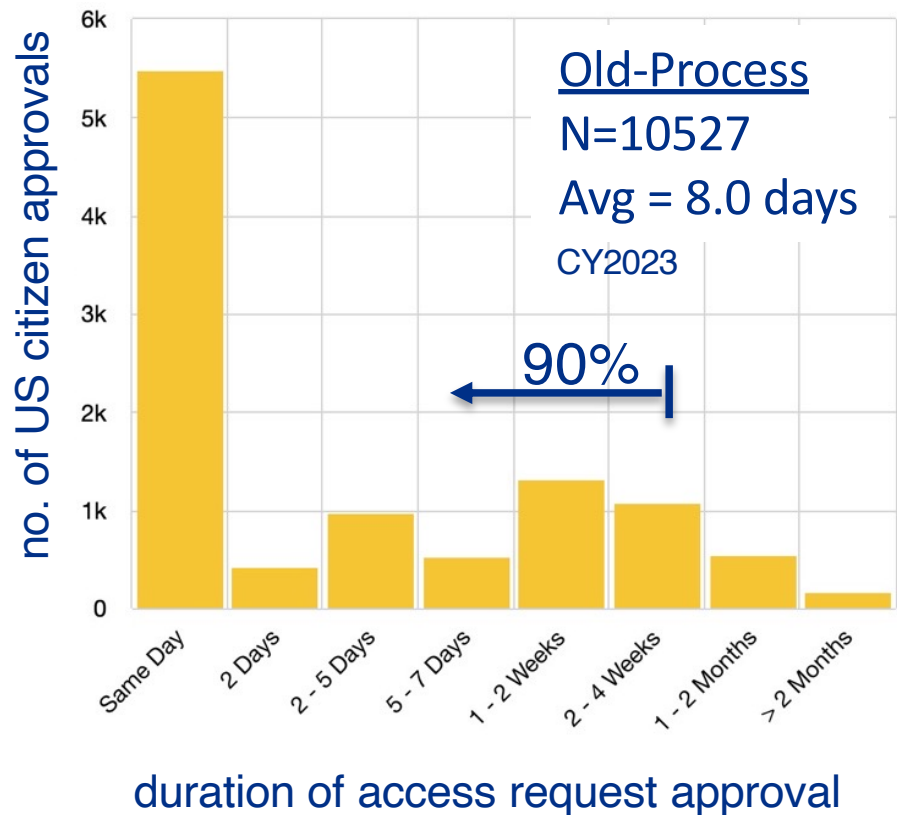
IT Improvements to the Site Access and Badging Process

- **Implemented streamlined access request software in mid-December**
 - Eliminated dominant sources of mistakes and delays.
 - Reduced average approval time for US citizen request by 65%.
 - Reduce average approval times for non-US citizen requests by 30%.
 - Reduced mistakes by 50%.
- **Other areas of Site Access and Badging IT Improvements**
 - Improve interface between event planning (e.g. conferences, collaboration meetings) and site access request processes (current focus)
 - Phase-II site access request improvements, including auto-fill, updates from 6mos. of experience with the new processes
 - Improving process for subcontractors/vendors that require intermittent onsite access

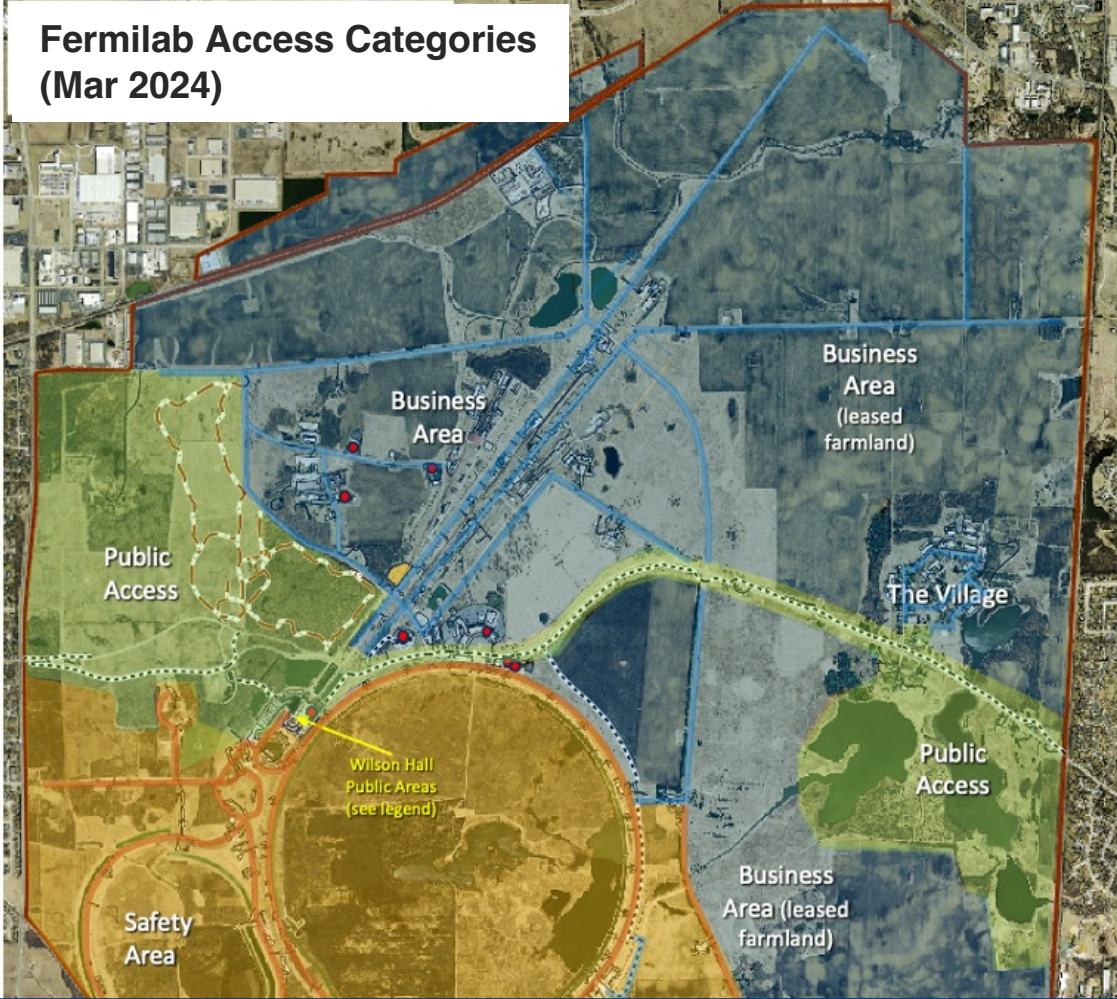
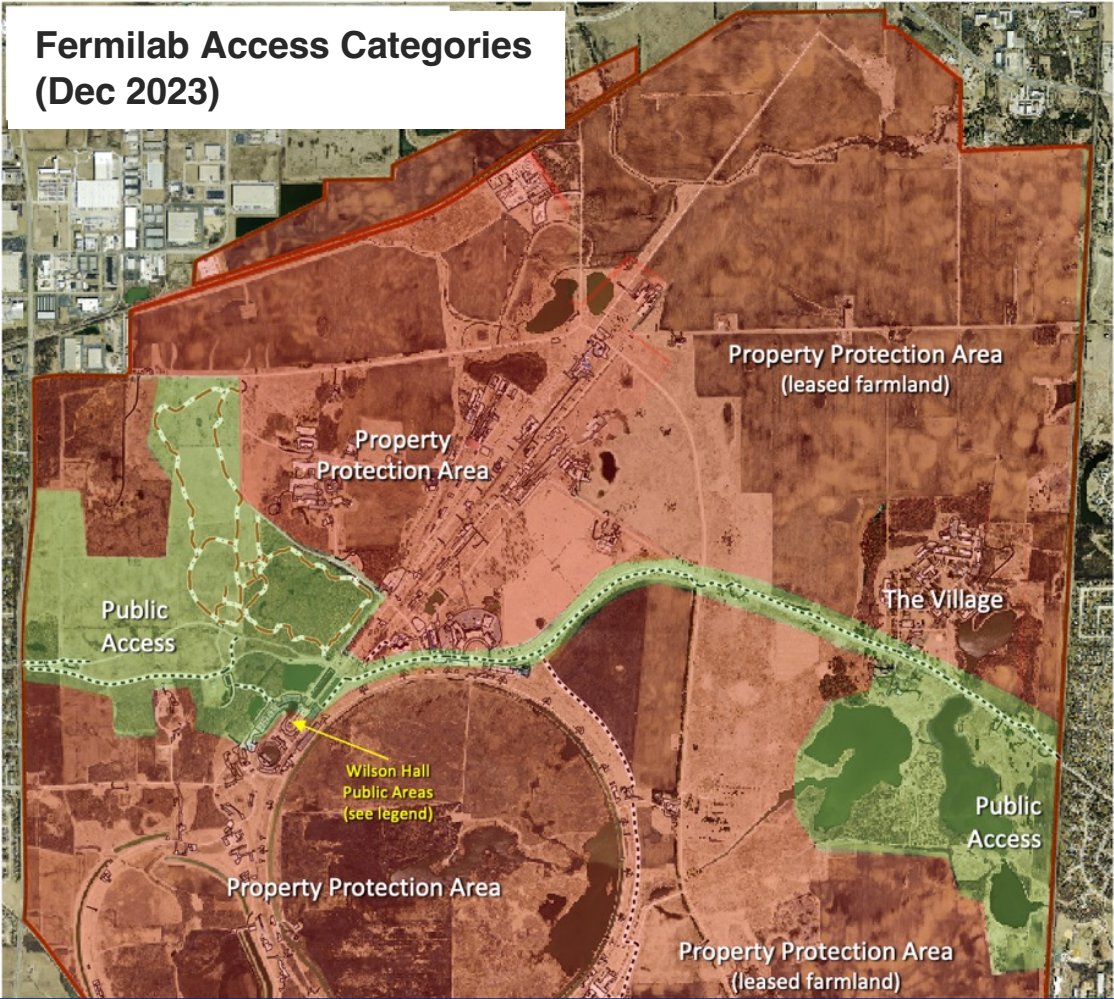
Implementing prioritized plan for IT improvements.

Recent data from streamlined access request/approval processes

- Data from a dashboard that tracks all access requests – examined monthly
- US Citizens Avg approval time Jan-Dec 2023 (Old Process): 8.0 days
US Citizens Avg approval time Jan-May 2024 (New Processes): 3.0 days
- Old Process 90% by ~3 weeks; New Process 90% by 1 week



Developed and Implemented new Access Categories



Significant reduction in Property Protection Area footprint enabled additional simplifications.

Improvements to the Foreign National Access Program

Old Process

Element	Required prior to approval for site access?
Custom security plan	Yes, for all non-US persons for all topics/work. (~1.5k / year)
CI check	
DOE Approval	

The IT improvements from page 17 have helped reduce average approval times for non-US requests by about 30%.

- from 21d ₍₂₀₂₃₎ → 15d _(last 6m)

The changes on this slide further streamline approval process for majority of our international colleagues – expect additional reduction in average approval times in coming months as we optimize the corresponding process.

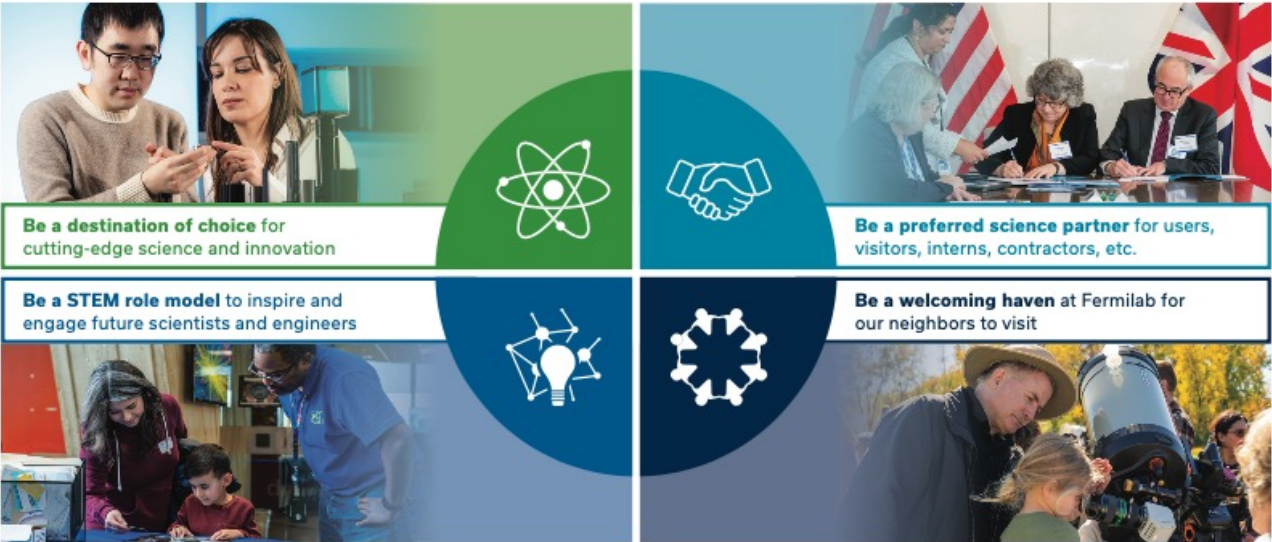
New Process (recently approved and implemented)

Element	Required prior to approval for site access?
Custom security plan	Only for specific countries working on a small number of specific topics. (few dozen / year)
CI check	
DOE Approval	

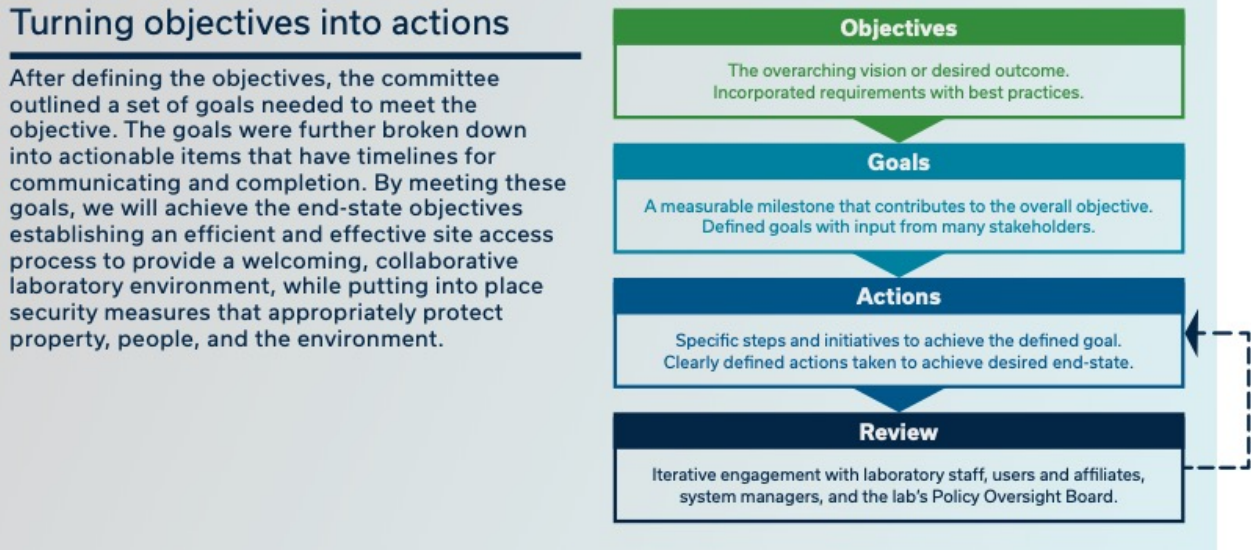
Future State Process – a comprehensive and collaborative approach

- Ensured compliance by utilizing feedback from Assist Visit and results from Benchmark exercise to identify updates to security plans and policies
- Ensured responsiveness to community stakeholders by collecting feedback from staff, users, international & business partners, public, etc.
 - Analyzed these sources to identify a set of desired outcomes responsive to the concerns expressed (read through 100s of comments and suggestions)

Organized to support laboratory objectives



Each Objective has contributing Goals and Actions



(from *End-State Vision* available from “Reports” tab of SASC web site)

Future Goals and Project Plan

Objective 1. Elevate scientific excellence

- Goal: Foster a welcoming collaborative environment**
- Install conspicuous signage and directional markers
 - Provide color-coded maps for visitors
 - Provide navigation through Fermilab App
 - Designate property protection areas only where necessary based on risk mitigation
 - Use effective engineering controls to automate access to appropriate areas (e.g., access control gates, building badge readers)

- Goal: Eliminate inefficient badging policies**
- Establish criteria and permissions for access levels
 - Determine badge issuance duration based on individual circumstances

- Goal: Develop a comprehensive communication plan**
- Consolidate and update websites and launch internal SASC website
 - Improve all-hands communications associated with site access and security
 - Improve regular updates to stakeholder committees
 - Implement a suggestion/comments mailbox
 - Track concerns and improvements
 - Acknowledge and respond to DOE Assist Visit
 - Time stamp and keep communications current
 - Provide a timeline for improvements

- Goal: Modify escort policies**
- Review escort policies
 - Ensure users do not require an escort
 - Ensure contractors and affiliates have access to the appropriate areas
 - Update tour procedures to include public, business, and personal tours
 - Allow badged personnel to escort visitors to their office space
 - Install conspicuous signage and directional markers
 - Provide an improved, color-coded map to visitors

- Goal: Streamline site access processing of non-US citizens**
- Base more stringent requirements only to sensitive subject work (e.g., pre-approvals from Counterintelligence, security plans, etc.)
 - Expand host role from US citizen only to all employees (with a few exceptions)

- Goal: Improve processes for family, guests and emeriti**
- Simplify procedure for badged personnels' families to access facilities and attend events
 - Streamline renewal process for families and emeriti
 - Streamline public access mechanism (e.g., use of REAL-ID scanner)

- Goal: Improve access times and locations**
- Properly define hours, to whom it applies
 - Full time personnel and users/affiliates should have 24/7 access
 - Identify exception process
 - Allow public events to be after hours utilizing a standardized security plan
 - Be consistent with terminology used on communications

Objective 2. Establish strategic alliances

- Goal: Utilize intuitive user-friendly site access form**
- Simplify categories with an intuitive naming convention
 - Implement single access request form with automated processes
 - Provide an invitation capability
 - Create a mobile-friendly version
 - Accept edits at any time on form
 - Develop metrics and reduce request approval times
 - Reduce choices in drop-down menus
 - Improve readability of instructions
 - Improve user interface
 - Set up regular automatic reminder emails
 - Offer a tutorial on completing the form
 - Beta test enhancements with diverse testers
 - Establish procedures for individuals without smart phones

- Goal: Delivery/ride sharing routes and procedures**
- Identify and label taxi/ride sharing drop-off/pick-up sites
 - Install conspicuous signage and directional markers
 - Clearly indicate road and lots that are public

- Goal: Establish comprehensive security plan**
- Review all security plans with respect to their new access designation
 - Ensure first responders have full accessibility
 - Establish lock-out policy during emergencies
 - Broadcast alerts with the Fermilab App

Developed a project plan to meet the identified goals, prioritize work, and report progress.

Action WBS Number	Milestones and Activities	Completion Date	Comments
Open Wilson Hall to the Public		FY24 Q2	
1.1.2	Install control gate and badge readers	Jan-24	
2.1.3	Define public vs business areas in Wilson Hall	Jan-24	
4.3.1	Post clearly visible physical signs throughout Wilson Hall	Dec-23	
1.1.3	Configure and test badge readers to limit Public access in WH to Ramsey, 1st floor, and 2nd floor crossover.	Jan-24	Public access to 15th floor to follow later (action 1.1.4).
Streamline access processing for Users, Business, Family		FY24 Q2	
3.1.1	Implement single access request form with automated processes	Dec-23	
3.1.2	Provide an invitation capability	Dec-23	
3.1.3	Reduce choices in drop-down menus	Dec-23	
3.1.4	Improve user interface	Dec-23	
3.1.9	Set up regular automatic reminder emails	Jan-24	
2.3.4	Establish procedures for individuals without smart phones	Dec-23	
2.2.1	Verify doc and training before scheduling badging appt	Mar-24	
4.5.1	Tutorial for access request form	Feb-24	
Clarify Access for Employees, Users, and Affiliates		FY24 Q3	
2.5.1	Properly define hours, to whom it applies	Apr-24	
2.5.2	Full time personnel and users/affiliates should have 24/7 access	Apr-24	
Streamline badging process for foreign nationals		FY24 Q3	
2.4	UFNAP Process Improvements	May-24	
2.4.2	Expand host from US citizen only to all employees (with a few exceptions)	Apr-24	
2.4.1	Reduced FNSPs process implemented	May-24	
4.5.2	Train users, hosts, relevant staff on badging and situation response	May-24	
Color Coding			
Task/Milestone Completed			
Task/Milestone in progress			
Task/Milestone not started			
Task/Milestone no longer needed			

Action WBS Number	Milestones and Activities	Completion Date	Comments
Improve Communication Methods		FY24 Q4	
4.1.1	Improve all-hands communications associated with site access and security	Dec-23	
4.1.2	Provide a timeline for improvements	Dec-23	
4.1.3	Time stamp and keep communications current	Dec-23	
4.2.1	Consolidate and update websites and launch internal website	Jan-24	
4.2.3	Improve readability of instructions	Mar-24	
4.3.2	Be consistent with terminology used on communications	Dec-23	
4.5.4	Establish a clear flowchart to guide resolution of common issues	Mar-24	
4.4.1	Implement a suggestion/comments mailbox	Dec-23	
4.4.3	Improve regular updates to stakeholder committees	Jan-24	SASC leadership meet regularly with stakeholders.
4.4.2	Acknowledge and respond to DOE site visit	Aug-24	Summary reports posted August 2024.
Expand and streamline public access across site		FY24 Q4	
1.1.1	Complete and commission access gates and card readers	Feb-24	
2.1.(1-3)	Access category determinations	Mar-24	
1.4.1	Clearly indicate roads and parking lots that are public	Mar-24	
2.3.1	Allow public events to be after hours utilizing a default security plan	Mar-24	
2.3.2	Streamline public access mechanism (e.g. use of REAL-ID scanner)	Jun-24	Scan and record IDs instead of writing down information by hand
1.4.2	Identify and label taxi/ride sharing drop-off/pick-up sites	Sep-24	Developed placard system to allow pick-off/drop-off throughout site. Added signs for PACE (e.g. in front of WH).
1.1.4	Evaluate configuration for public access to WH 15	Sep-24	e.g. card reader configuration change on elevators
1.2.1	Make some changes at Pine Street and Batavia Road gate entrances to provide an improved experience for security staff.	Sep-24	
4.3.3	Provide improved, color-coded maps for visitors	Oct-24	

Site Access Steering Committee Reports

SASC summary report

The SASC summary report provides an overview of the strategy developed by the committee to improve site access. In addition to this summary, the SASC is providing four additional reports: Responses to the DOE assist visit, Summary of the benchmark exercise with peer laboratories, Future state objectives and goals and the Summary implementation plan. These reports summarize the work of the SASC and outline plans for continued improvements to site access.

[Download SASC summary report](#)



Response to the DOE assist visit

Suggestions and feedback from the DOE Office of Science visit in September 2023 for improving site access policies and procedures at Fermilab.

[Download Responses to the DOE assist visit](#)



Future state objectives and goals

Outlines site access goals aligned with Fermilab's strategic objectives based on community feedback, benchmark results and input from experts.

[Download Future state objectives and goals](#)



Benchmark exercise with peer laboratories

Results from a survey conducted by the SASC of four peer labs on site access, which propose practical changes for the Fermilab Security Plan.

[Download Benchmark exercise summary](#)



Summary implementation plan

Details actionable steps based on future objectives including a time-phased work plan with quarterly milestones.

[Download Summary implementation plan](#)

The work of the SASC has been summarized in a set of reports available from the internal SASC website.

23 6 December 2024 Glenzinski & Sherin | HEPAP Meeting

 Fermilab

Site Access Steering Committee (SASC) Communications

- **Proactively communicated upcoming changes & regularly reported progress**
 - More frequent communications via FermiNews and email announcements
 - Established a dedicated website with identified milestones, metrics, and status
- **Actively sought input and feedback from the laboratory community**
 - In-person presentations from SASC co-chairs to User Executive Committee; Laboratory advisory committees including scientists, engineers, administrator, and technician staff; Sr. leadership; and experiment spokespersons
 - In-person presentations from SASC co-chairs to the Community Advisory Board including mayoral/council representatives from 12 surrounding communities
 - Briefings and presentations to DOE and FRA leadership
 - Established a suggestions mailbox and FAQ, each monitored and updated regularly

Helped established increased accountability and transparency

Summary

- The SASC has made substantive progress to improve site access and associated communications with all stakeholders.
- Recent progress has helped to reduce frustration. Nevertheless, continued timely progress and consistent effective communications are required to address the remaining issues.
- A prioritized work plan has been developed to continue progress and to substantively achieve a future-state responsive to the Fermilab community and compliant with DOE requirements.

We are committed to providing efficient, effective access processes to enable world-class science.