

Introducing Virtual Reality in Academic Health Sciences Libraries

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Designing Libraries
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Adam Garrett, Project Manager, UW Health Sciences Library

Services for Researchers



Data Wall



Virtual Reality



REDCap Classes and
Consults



Mobile App Dev
Consults



Technology Tools



Computing
Environments



omics Data Analysis



Access to UW EHR
Data



Biomedical
Informatics Consults



Clinical Study Cohort
Discovery



Biostatistical
Consults



Clinical Research
Support



Population Health
Research Consults



Bioethics Consults

Year 2 Goals July 1, 2017-June 30, 2018

#1 **Develop a virtual reality studio with programs and services for clinicians.**

- Host a retreat to design a virtual reality studio for clinical use in the TRAIL space.
- Plan appropriate staffing and training for existing HSL staff to support the studio.
- Write and openly disseminate a “how to” primer to other medical and health sciences libraries interested in implementing virtual reality.

#4 **Provide excellence and set up a high standard of support.**

- Implement processes for funneling specific queries and requests to expertise among the partners.
- Support continued staff training and development based on evolving and emerging trends and technologies.
- Teach monthly Beginner REDCap and Advanced REDCap classes.

#2 **Advance the Population Health Initiative.**

- Recruit, train and mentor a Population Health intern who will work with the Care Management and Population Health Librarian to evaluate LiveStories.
- Design a Population Health LibGuide, an online information portal.
- Develop an online module about population health, delivered via the HSL website.
- Identify and connect with UW faculty, researchers, and administrators working on population health initiatives.

#5 **Introduce initiatives to support the continued success of TRAIL members.**

- Organize, lead, and motivate a team of librarians, business analysts, and IT professionals to meet the clinical research needs of the UW community.
- Review and assess performance in context of library priorities.
- Create process improvement plans using LEAN methods.
- Mentor librarians and IT professionals in developing skill sets and establishing career paths in clinical research data management.

#3 **Redesign the TRAIL website for improved usability by health sciences researchers.**

- Design a mobile-friendly, service-focused TRAIL website.
- Identify TRAIL members best positioned to provide specific services.
- Launch the newly designed website.

#6 **Develop and teach an online data management course for health sciences researchers.**

- Develop and teach an eight-hour course.
- Assess and adjust the course based on teacher and attendee feedback.
- Teach the eight-hour course over four days in Spring 2018.

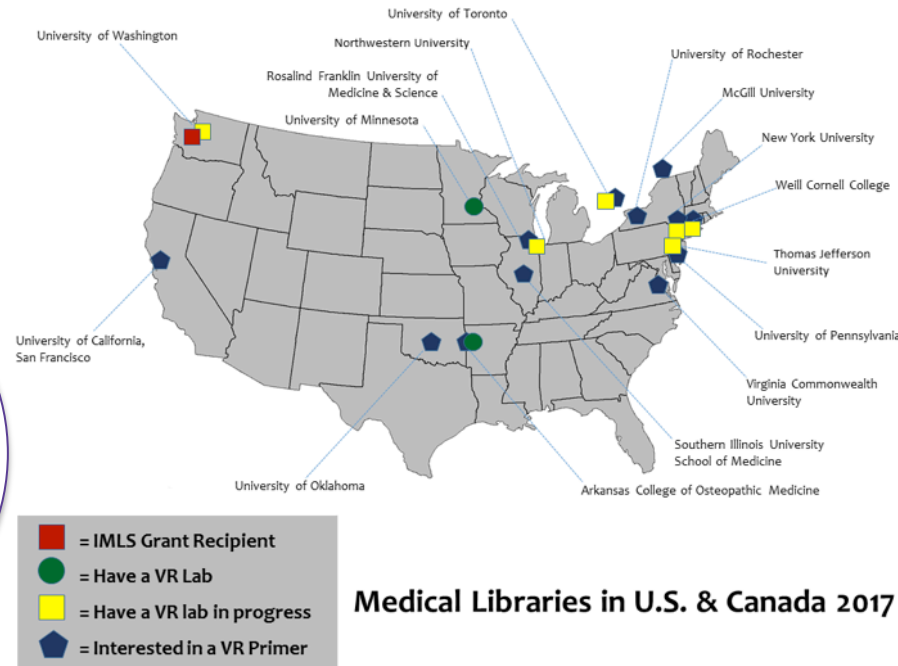
Contact: trailq@uw.edu

PARTNERS:



National Trend in Academic Health Sciences Libraries

COLLECTIVE
IMPACT



VIRTUAL
REALITY



Grant Team



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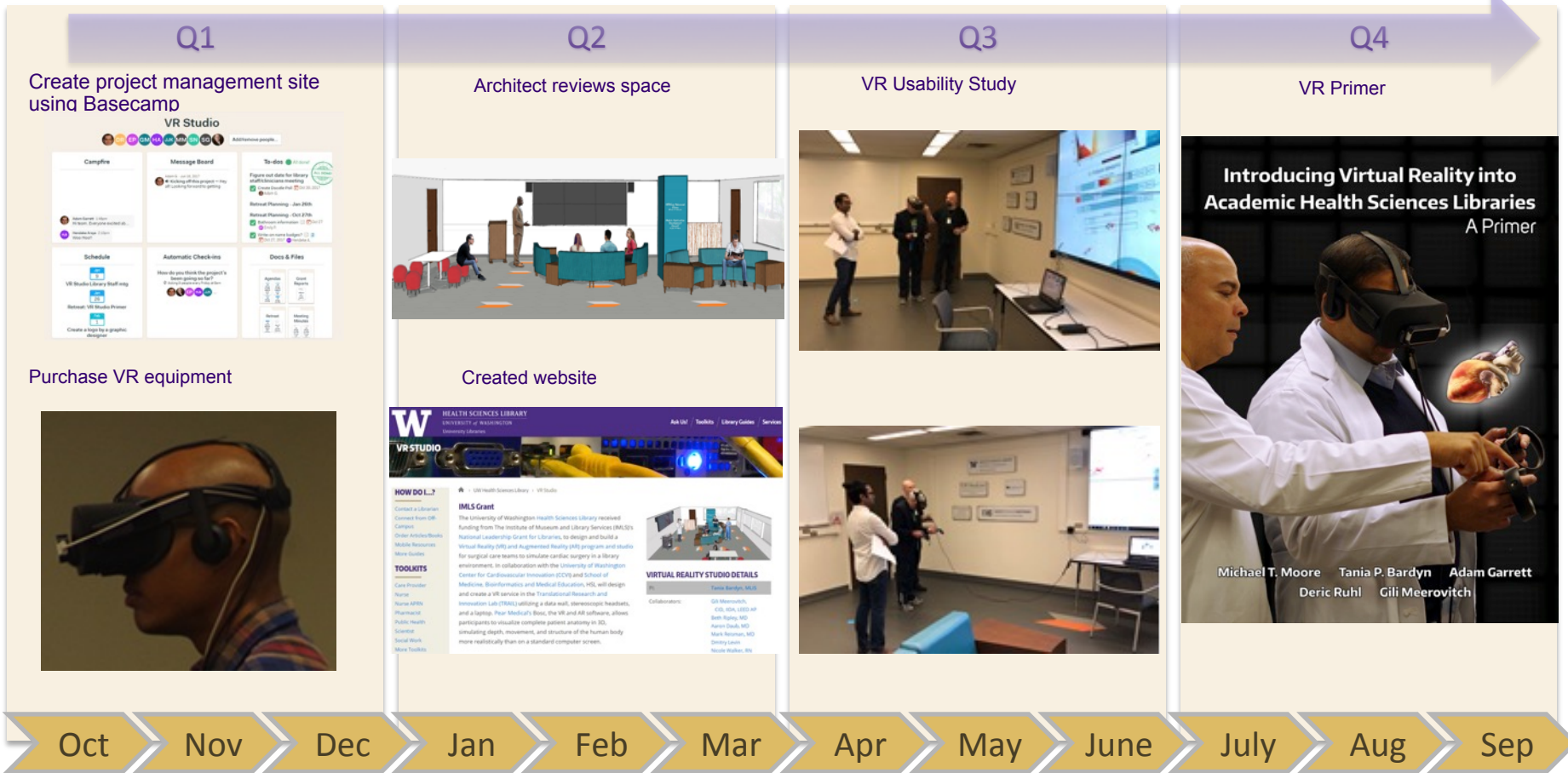
Dmitry Levin



Deric Ruhl

GRANT TIMELINE

October 2017- September 2018





Bottom L to R: Adam Garrett, Emily Patridge, Gili Meerovitch, Tania Bardyn, Beth Ripley, MD, Dmitry Levin, Ryan James, Edward Verrier, MD,
Top L to R: Mary Kay Voss, Deric Ruhl, Michael Moore, Chris Burke, MD, Francisco Gensini, MD, Kevin J. Koomalsingh, MD, Mark Reisman, MD,
Nicole Walker, Aaron Daub, MD, Margarethe Søvik, Kara McDonald, Sandeep Napa

A Need in the UW Community

Researchers & Clinicians

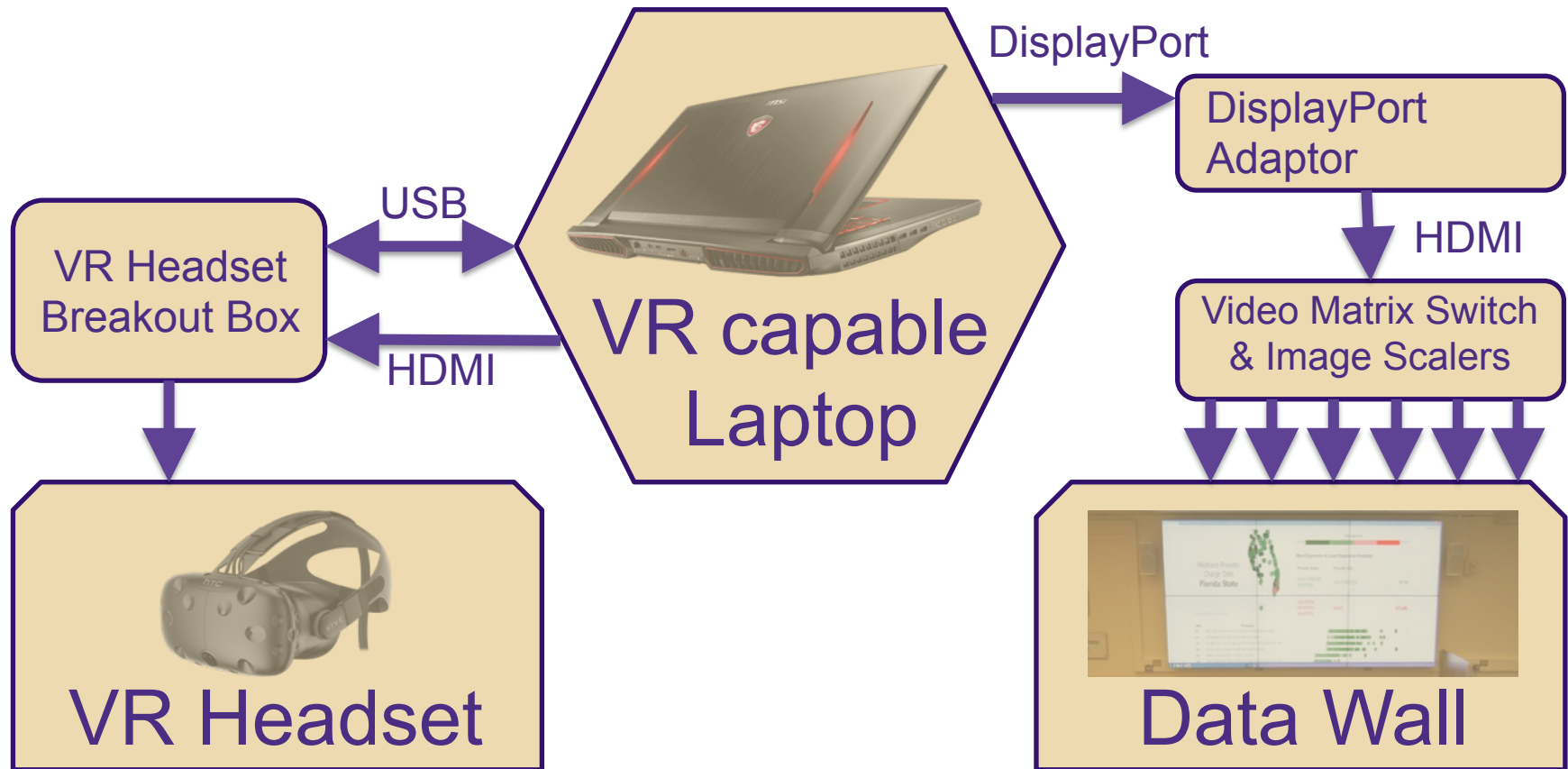


A Need in our UW Community

Surgeons interacting with VR



VR Mirroring onto Data Wall



VR Mirroring onto Data Wall



Architecture & Interior Design

▶ **the assignment**

space needs

room layout + orientation

additional design considerations

Understanding the Assignment

VR studio will be used by clinicians for:

- exploration of VR and AR technologies
- experimentation with digitized 3D models
- communication with a group of collaborators

existing TRAIL room:

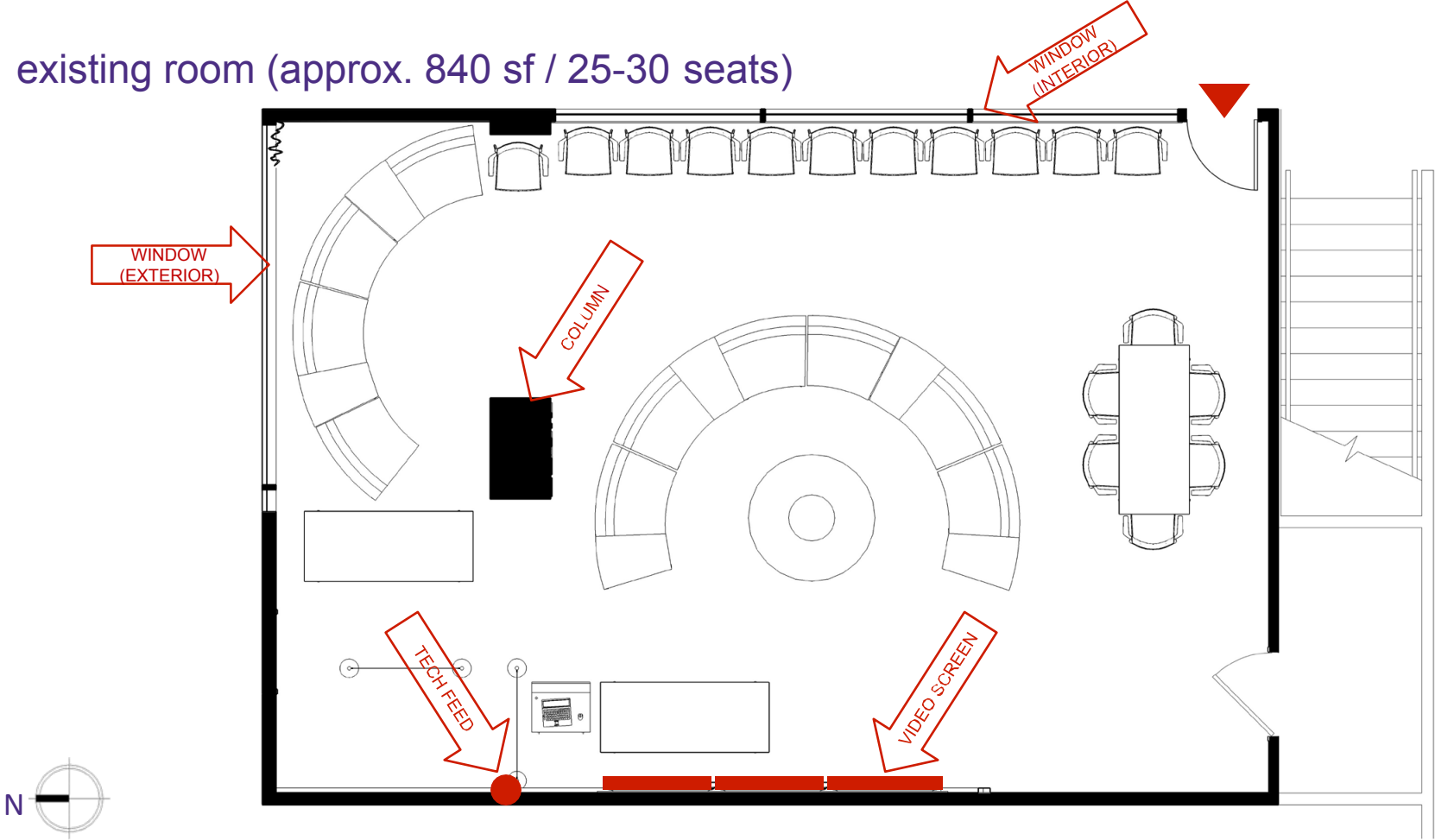
- recently renovated
- technology rich (video wall, robust feed)
- in-use, high demand
- supported by trans disciplinary programs

planning parameters

- build (VR layer) on to an existing platform
- maximize impact on a “shoe-string”
- avoid triggering asbestos abatement
- Specific assignment / broader primer

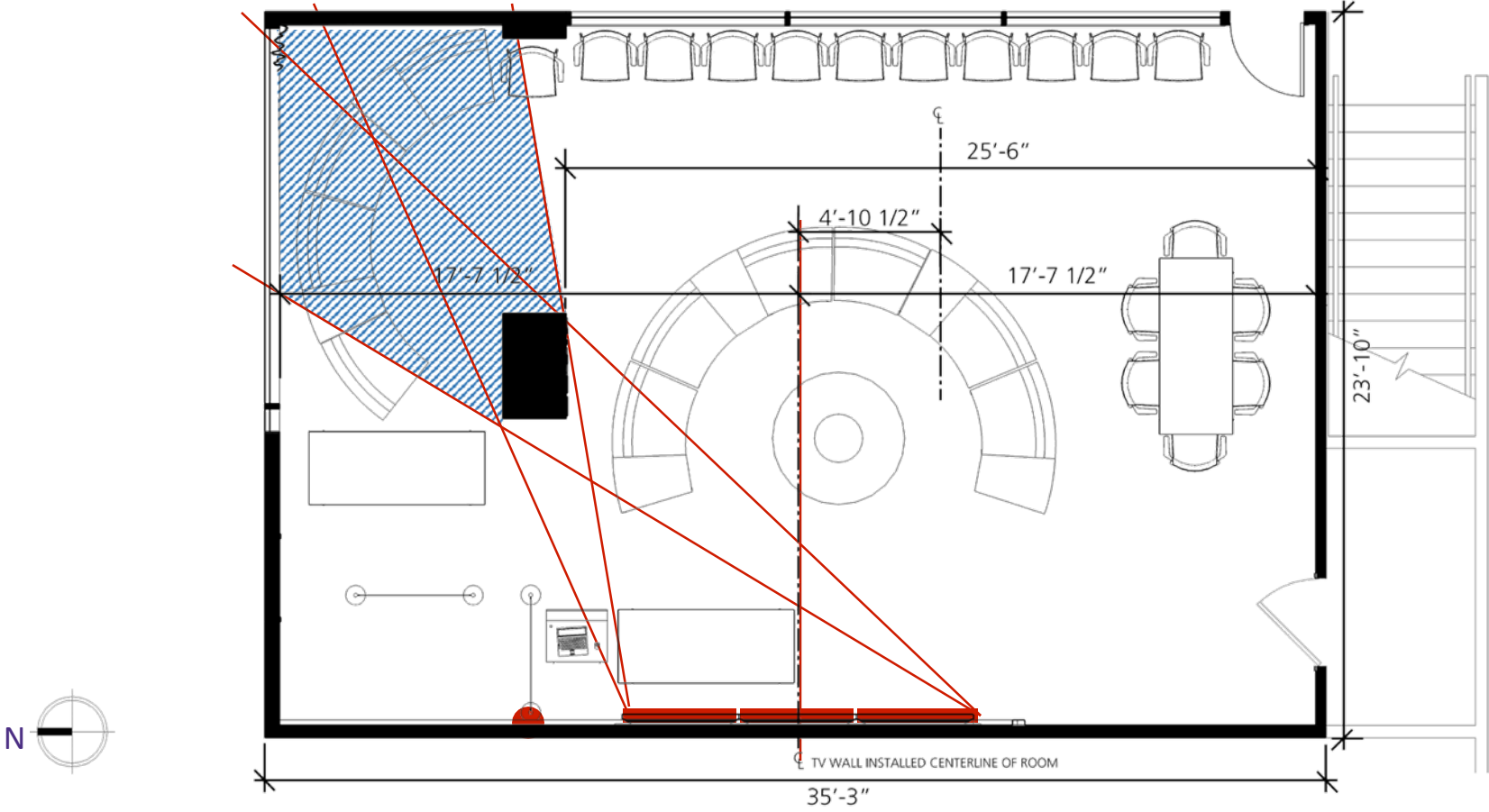
Room Layout & Lighting

existing room (approx. 840 sf / 25-30 seats)

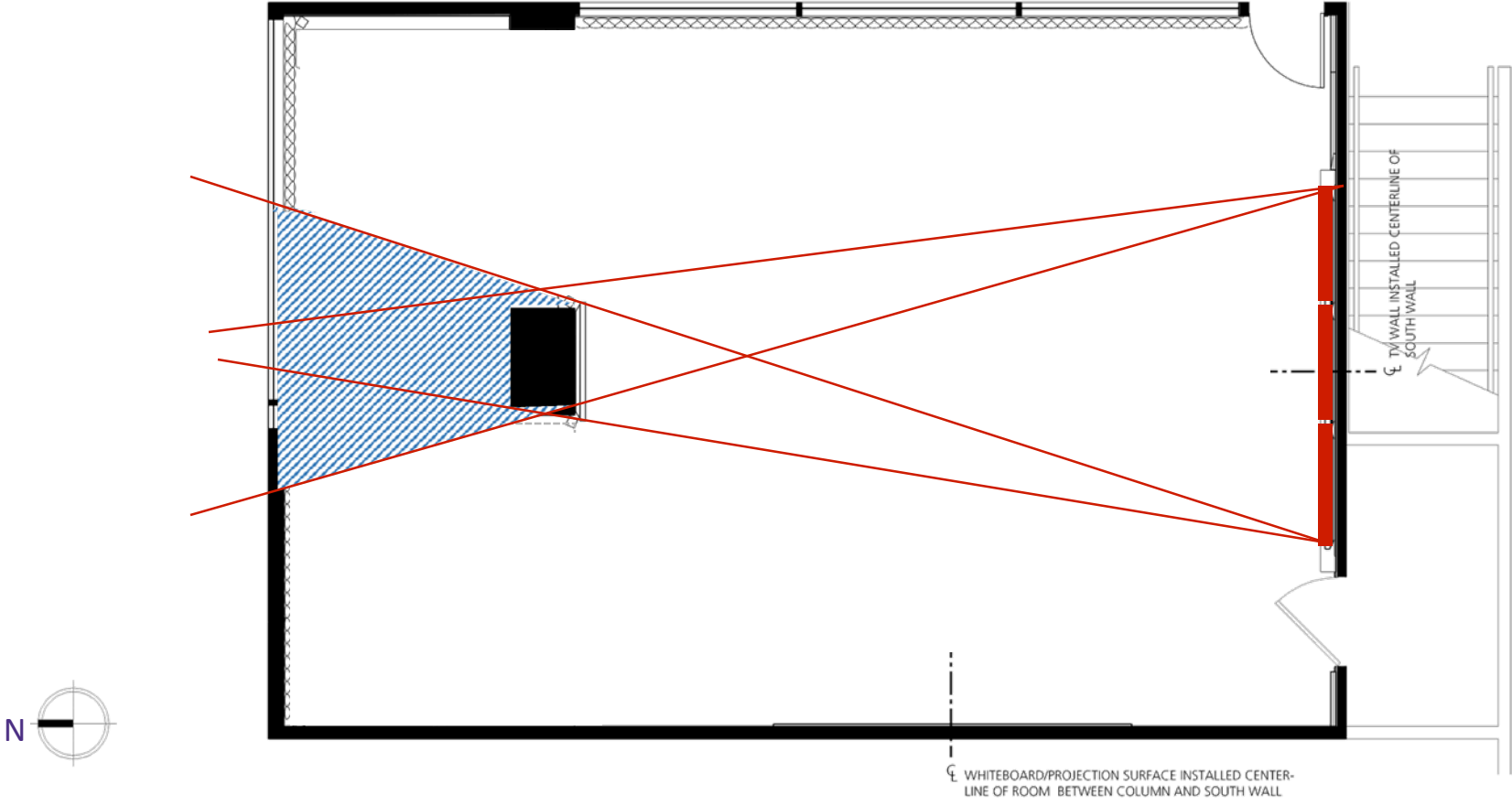


Room Layout & Lighting

existing room (approx. 840 sf / 25-30 seats)



Design Considerations



Architect Recommendation #1

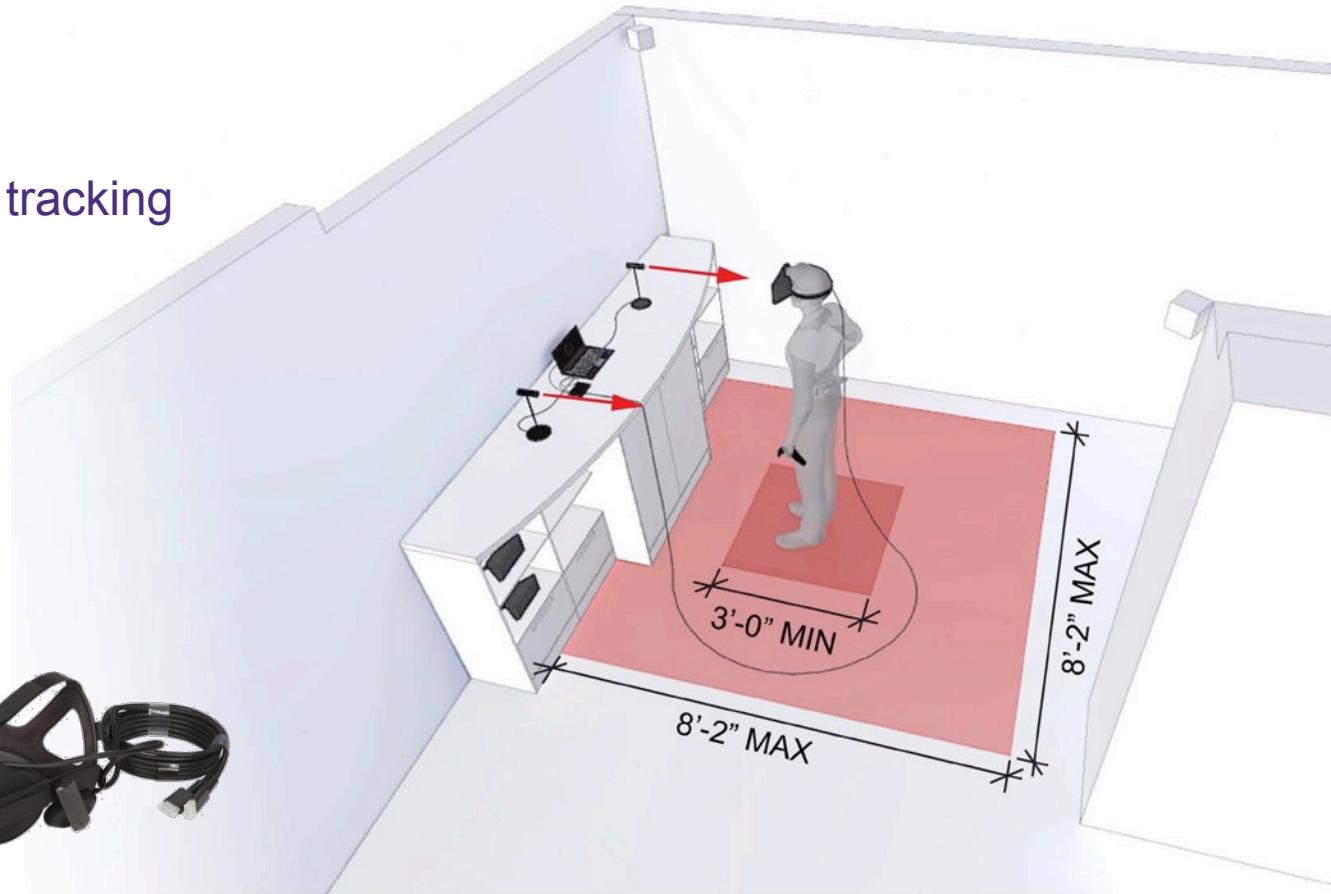


Architect Recommendation #2

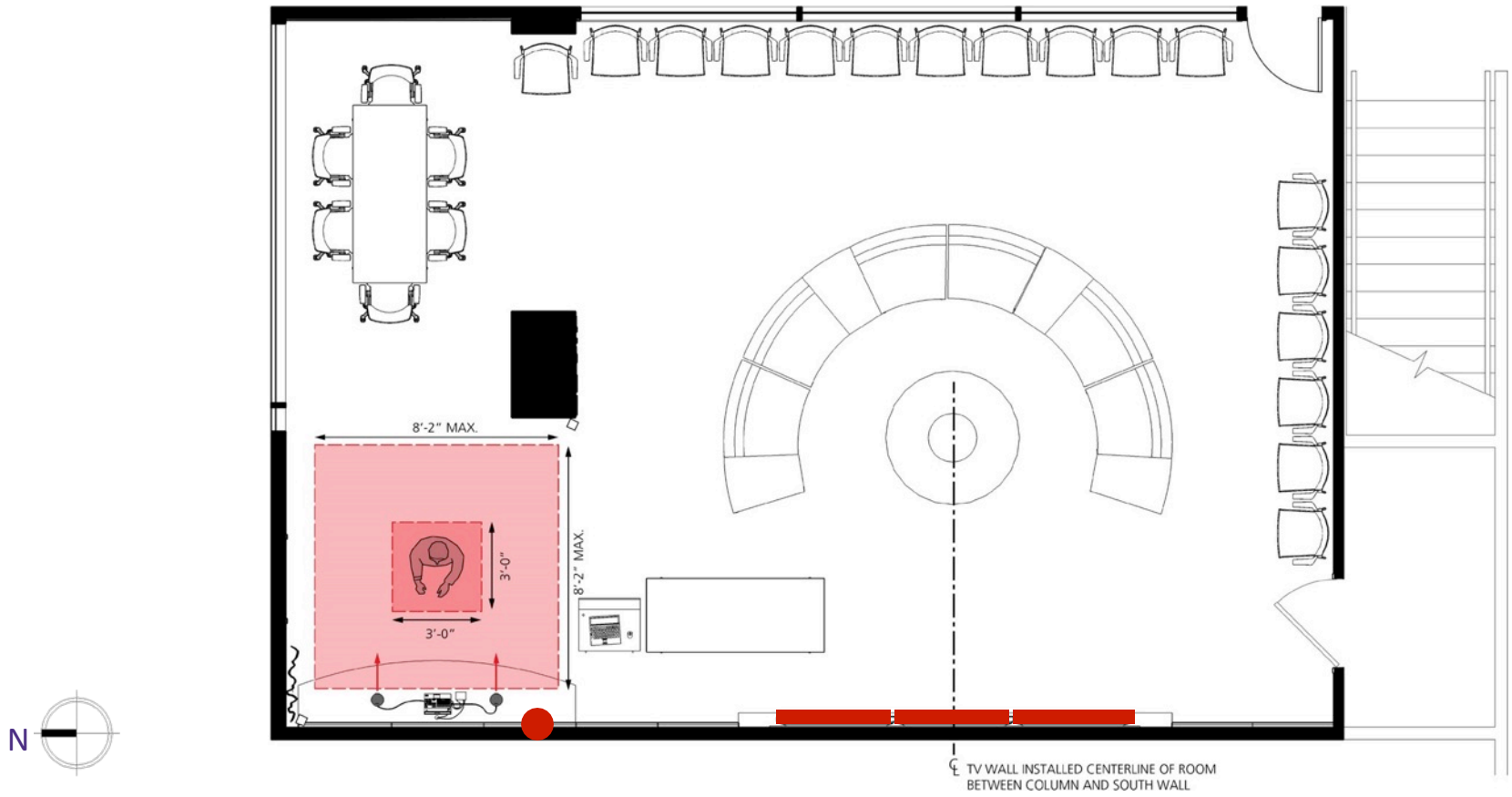


OCCULUS RIFT technology + tracking system

- designed primarily for “stationary” VR
- utilizes an “outside-in” tracking system
- tracking “bottom-up”

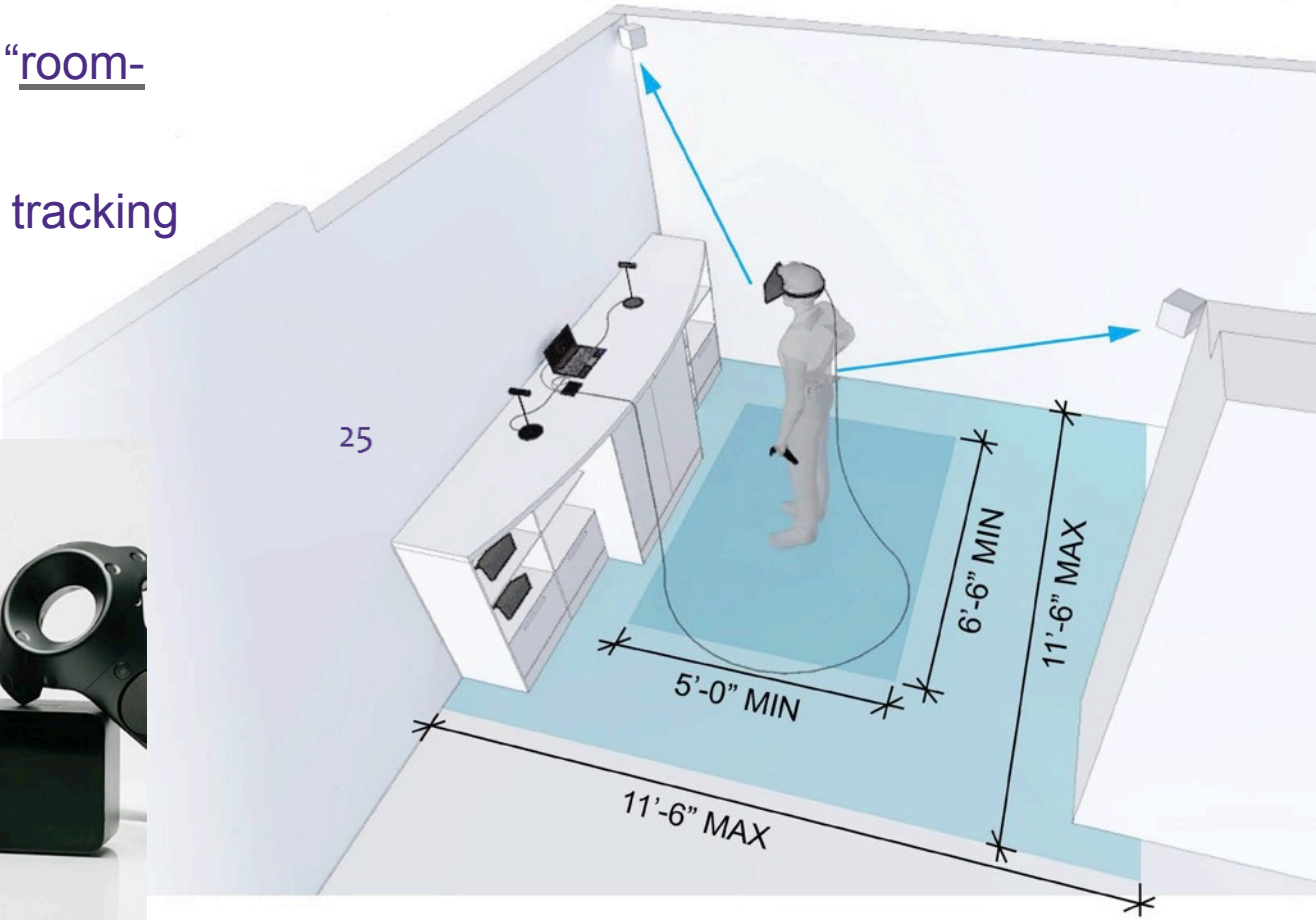


oculus system play area (23-25 seats)

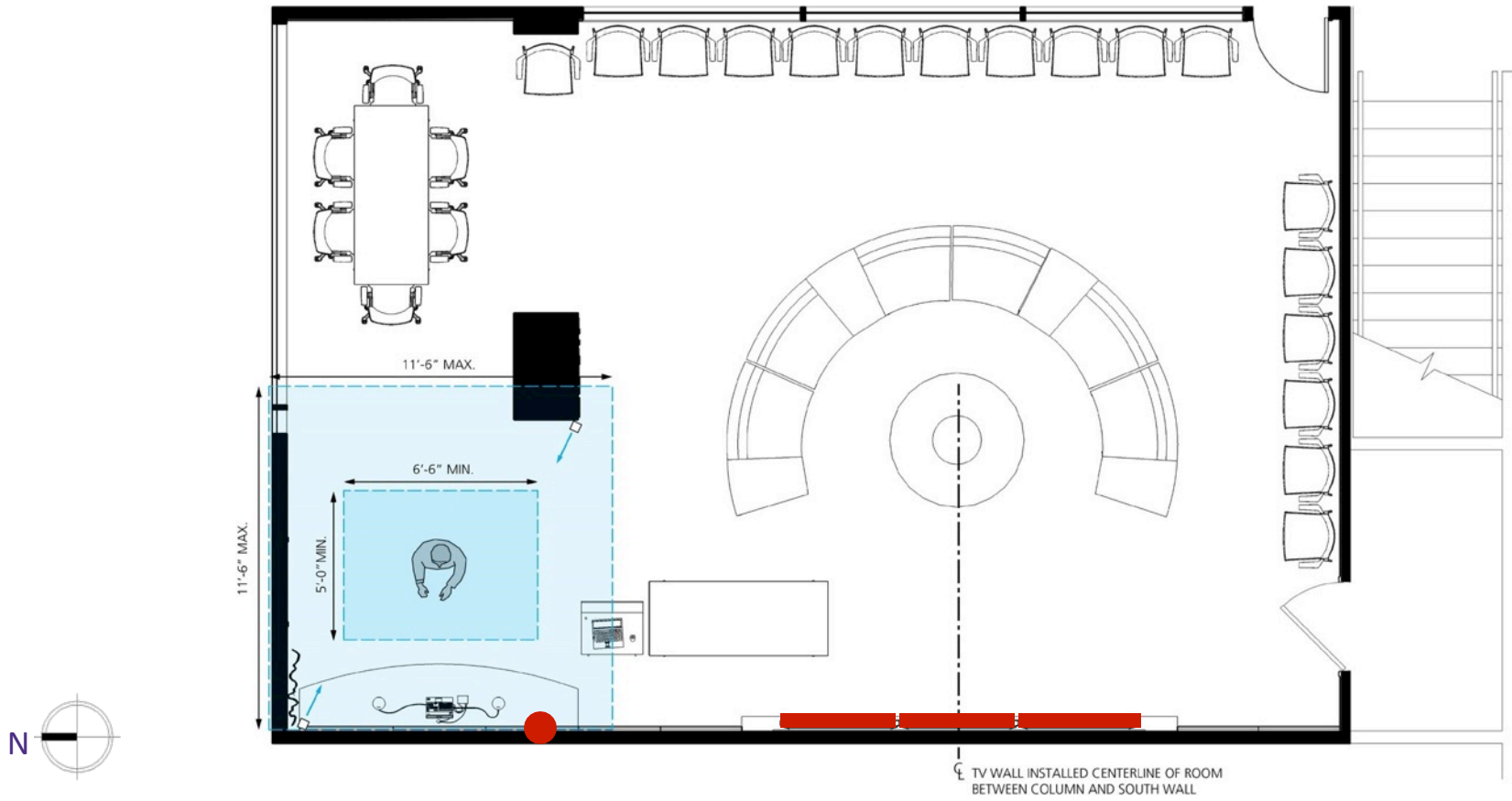


HTC VIVE technology + tracking system

- designed primarily for “room-scale” VR
- utilizes an “inside-out” tracking system
- tracking “top-down”



htc vive system play area (23-25 seats)



Recommendations for Library Leaders

- ▶ Incorporate Innovation as an element of operational excellence
- ▶ Demonstrate commitment to IT exploration
- ▶ Explore tiered participation in testing new technology to increase engagement
- ▶ Include architects and interior designers