#### CDA



# project guiding principles.

transformpropellinkleveragehonor & innovateinspire

sustain

adapt

equity

lighten









# Sustainability

- Light pollution reduction
- Increase daylight
- Historical Landscaping
- Storm water quantity control
- Energy use target: SEG modeling, AIA 2030
- On-site energy generation
- Materials re-use
- Pre-occupancy IAQ management
- Low-emitting furnishings
- Interior wall insulation

### Increase daylight in building

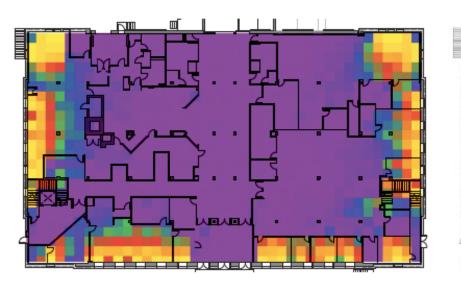


# Increase daylight in building

P68-606

1

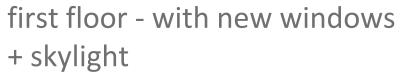
# daylight penetration study



first floor - existing

first floor - with new windows + skylight

(legend shows annual average % time with 300 lux at desktop)



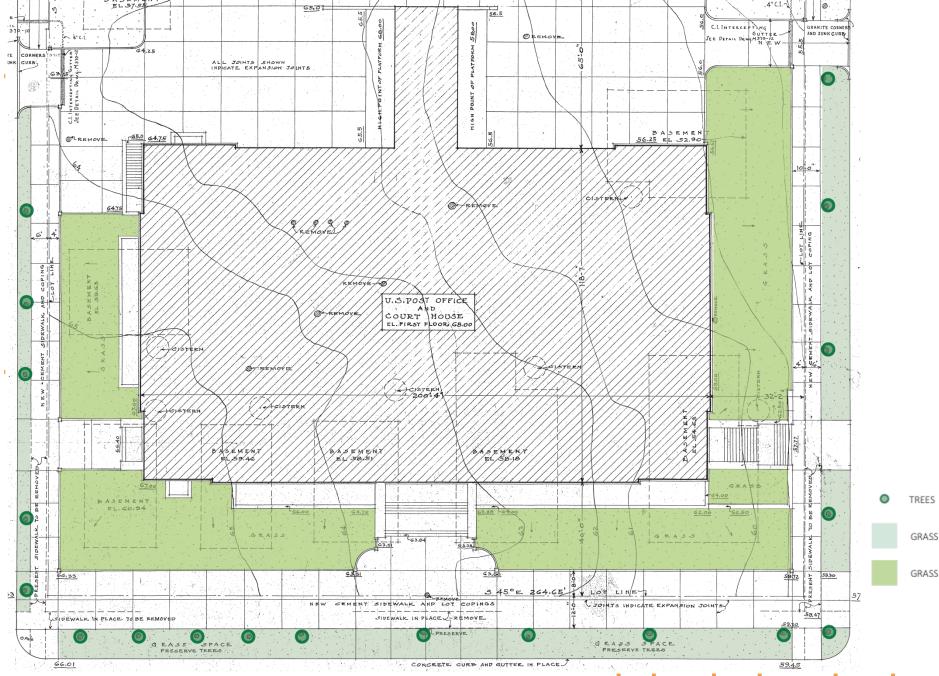


25

50

75

100



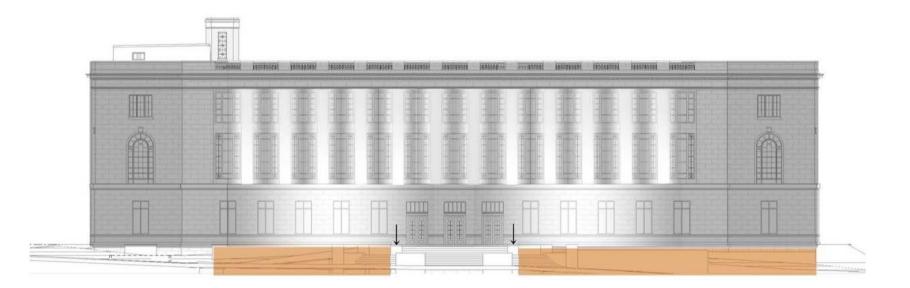
#### original site design

# **Exterior Lighting**



VERY NARROW 10 DEGREE LED SPOT

ONE PER COLUMN

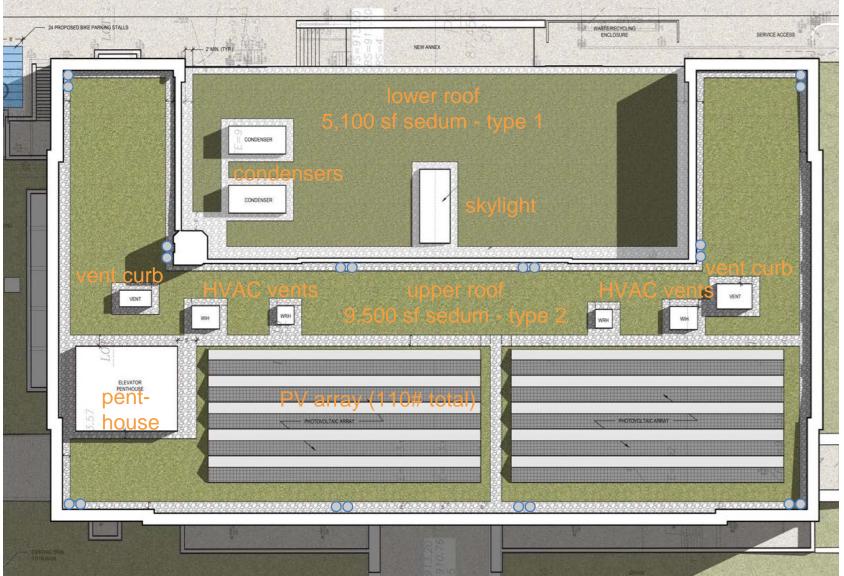


facade lighting - proposed - option b

# existing roofs



### roof proposals



#### roof plan

#### roof concepts





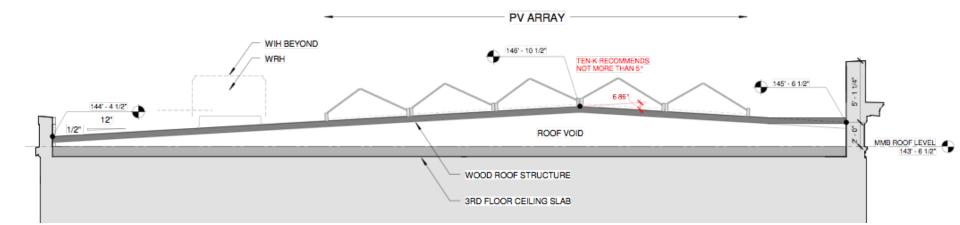


Dejope Residence Hall at UW-Madison pre-vegetated mat, interplanted with perennial plugs

extensive green roof

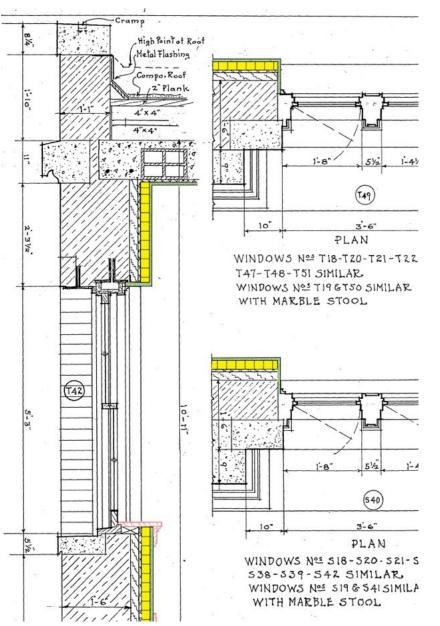
#### roof concepts





#### photovoltaic array geometry

### building envelope: wall options

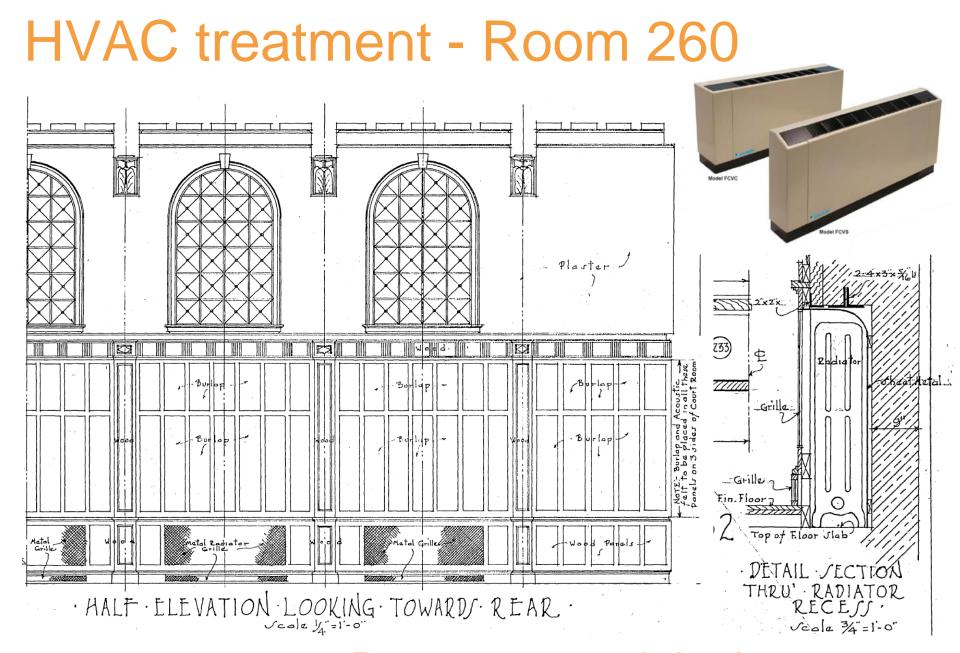


Option A:

- leave existing as is.
- Achieves approx. R-5.

#### **Option B:**

- leave existing as is.
- add 3"-4" furring and drywall to capture 2" max. new rigid insulation. Any thicker insulation adversely affect moisture content in the wall.
- Achieves approx. R-10.
- also captures limited thickness piping and most wiring for power and data.
- do not use oil-based paints or finishes that could act as a vapor barrier on these walls



#### Room 260 - original treatment

#### **Structural**



Requirements for mechanical equipment fit:

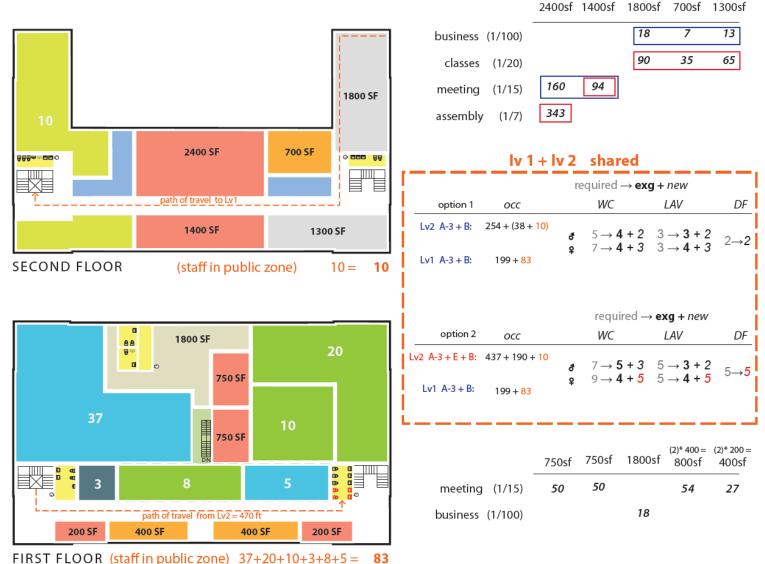
- remove two existing columns along grid 5.5.
- Expand existing areaway at west side.
- add new areaway to achieve approx.
  200 sf ventilation louver along north facade.

structural walls to remain

area of structural adjustment

Ground floor mechanical

## D4 Plumbing fixture study

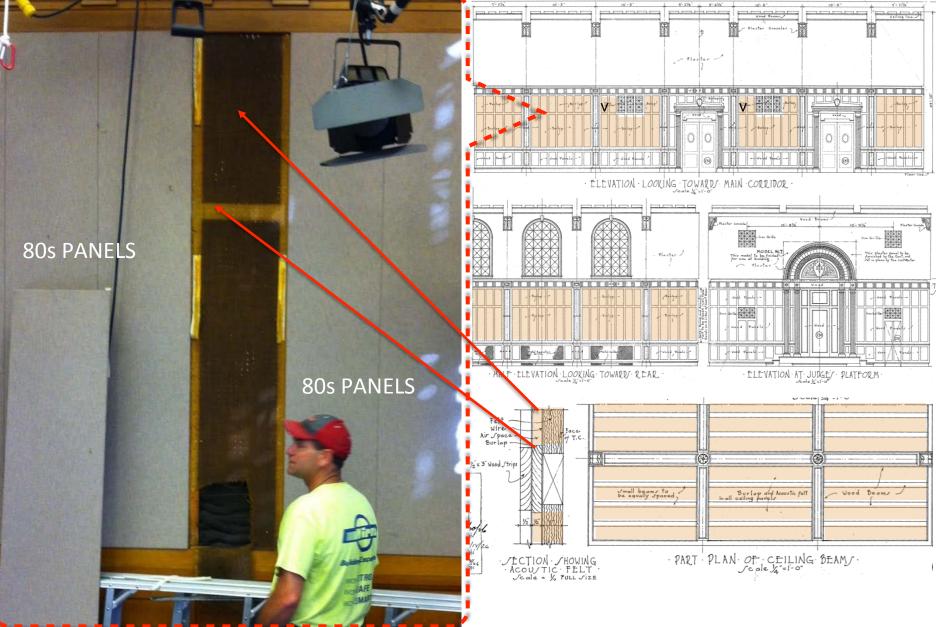


#### first and second floors

#### **ROOM 260 - Acoustics**



## **ROOM 260 - Acoustics**



### **ROOM 260 - Acoustics**





Examples of Fabritrak installation for commercial and public spaces.

Existing panels are 1/2" thick so likely fiberboard, not fiberglass, so not very effective acoustically.

Achieves approx. NRC 0.15.

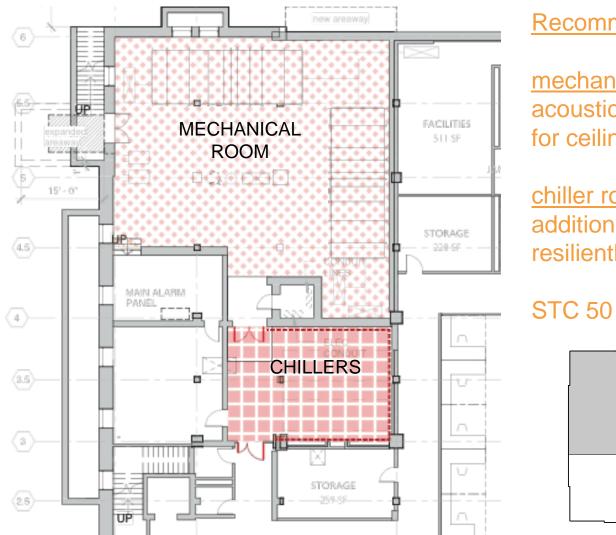
Recommendation: Stretch fabric system, such as Fabritrak.

Use burlap-looking fabric to resemble the original.

Remove felt from the cavity and fill the 1" deep space with with glass fiber.

Would be more effective acoustically due to material performance and thickness.

## **Acoustics - Mechanical**



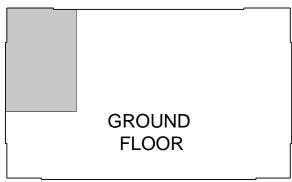
**Recommendations:** 

mechanical room: acoustical spray-on treatment for ceiling.

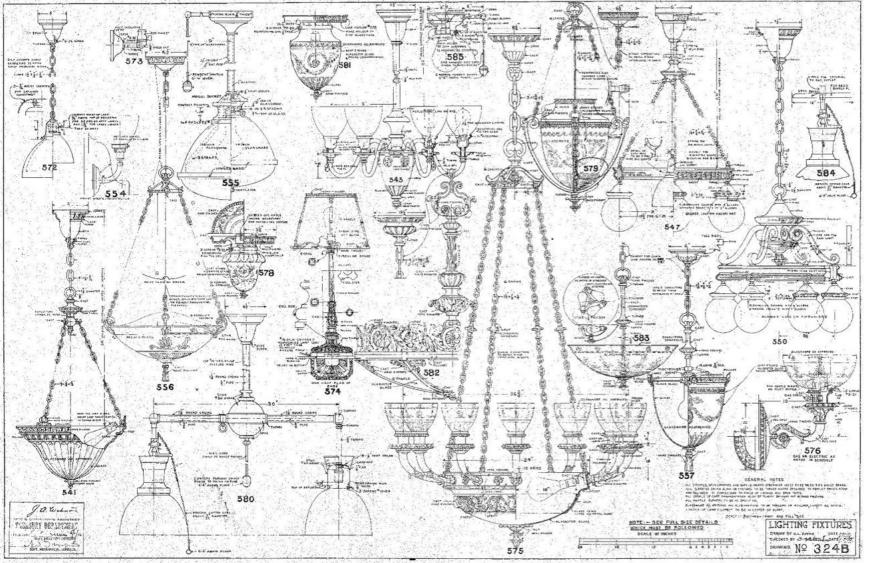
#### chiller room:

additional gyp walls and resiliently hung ceiling

#### STC 50 rated doors



# Lighting



#### historic lighting - original

# Lighting



ROOM 260 - PLASTER MOLD

LEVEL I CORRIDOR GLASS GLASS ETCHED OPAL ACRYLIC



#### historic lighting

# Lighting

#### RATED SERVICE LIFE

SOLID STATE LED T5 FLUORESCENT T5HO FLUORESCENT T8 FLUORESCENT 50,000 hr L70 30,000 hr / 36,000 hr 45,000 hr / 60,000 hr 65,000 hr / 67,000 hr

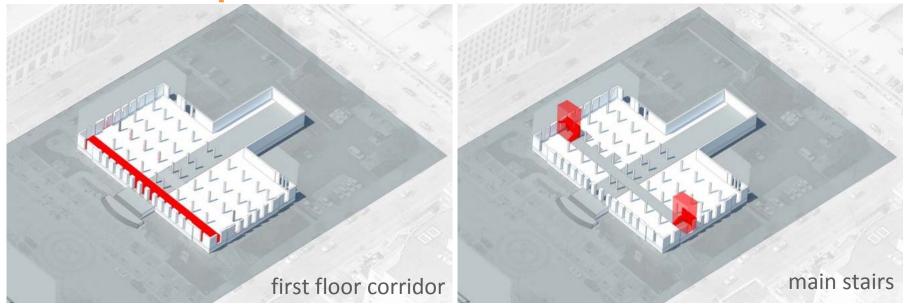


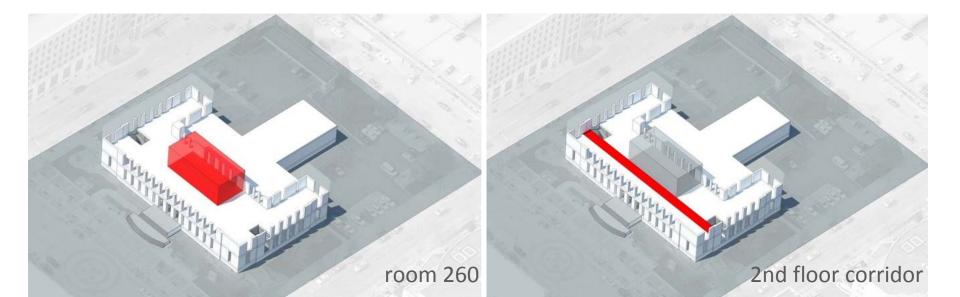
TYPE A T5 TYPE A SOLED	ТҮРЕ В Т8	TYPE C T5HO TYPE C SOLED TYPE D T8	TYPE E T5HO TYPE E SOLED TYPE F T8
3" RECESSED LINEAR	I X4 VOLUMETRIC	2" X 2" SUSPENDED INDIRECT	2" X 4" SUSPENDED DIRECT + INDIRECT

workplace lighting

# Project Driver: History.

# historic spaces





#### opportunities





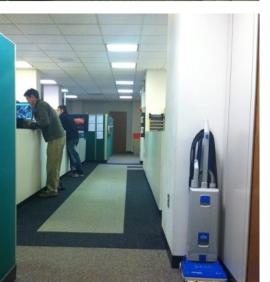


# Project Driver: Quality Workspace.

reorganize floors for efficiency/flexibility improve daylight provide spaces to support daily work

## existing staff workspaces.



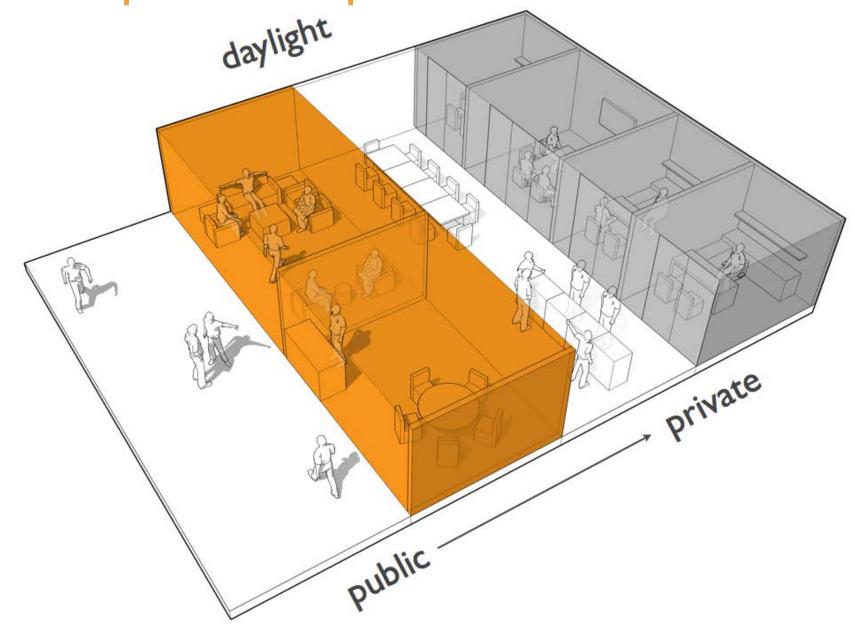








### zoned public to private.



# opportunities

westlake reed leskosky



hathaway dinwiddie

# opportunities

-



# Program test fits.



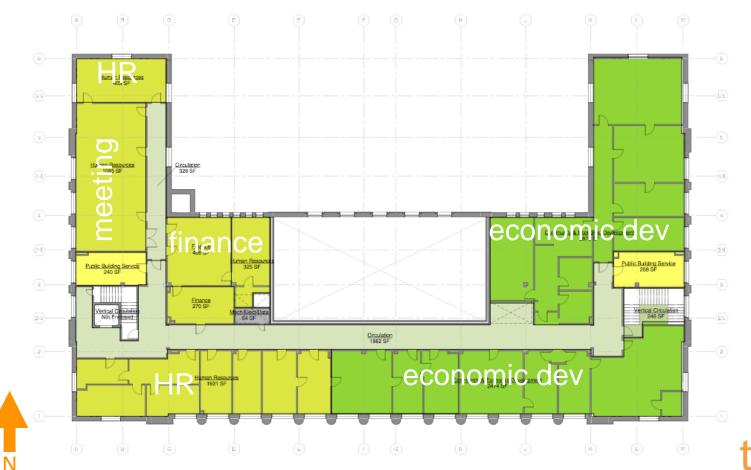


#### first floor

# existing

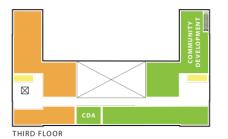






#### third floor

## **Option D Test Fit Studies**

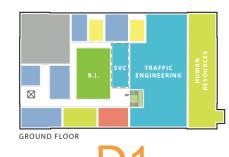


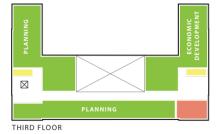


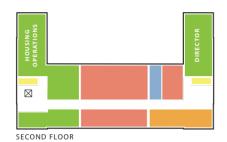
SECOND FLOOR



FIRST FLOOR

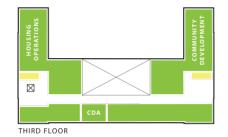


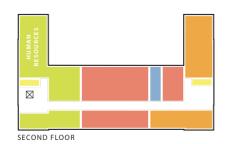


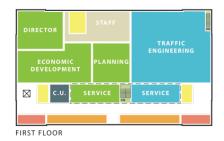


STAFF CDA COMMUNITY DEVELOPMENT C.U. SERVICE FIRST FLOOR















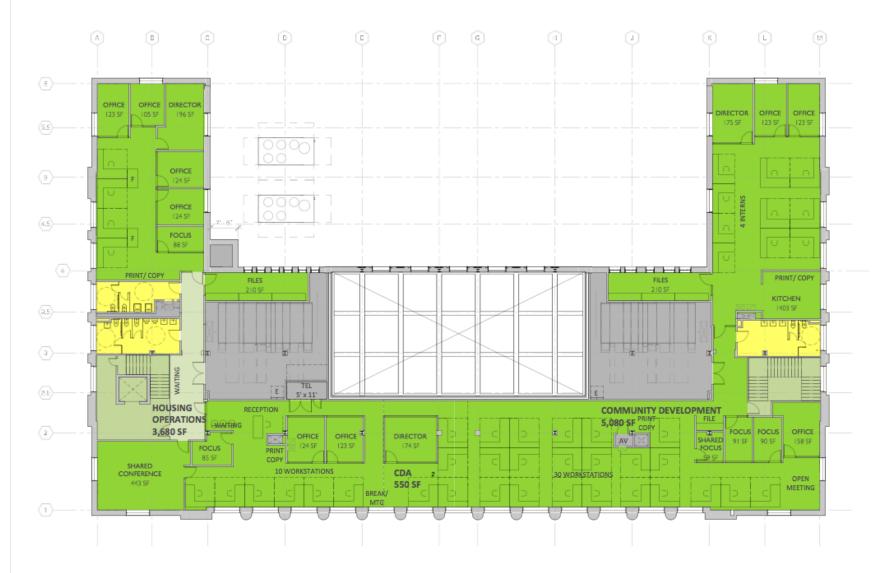
#### ground floor - option c



#### first floor - option c

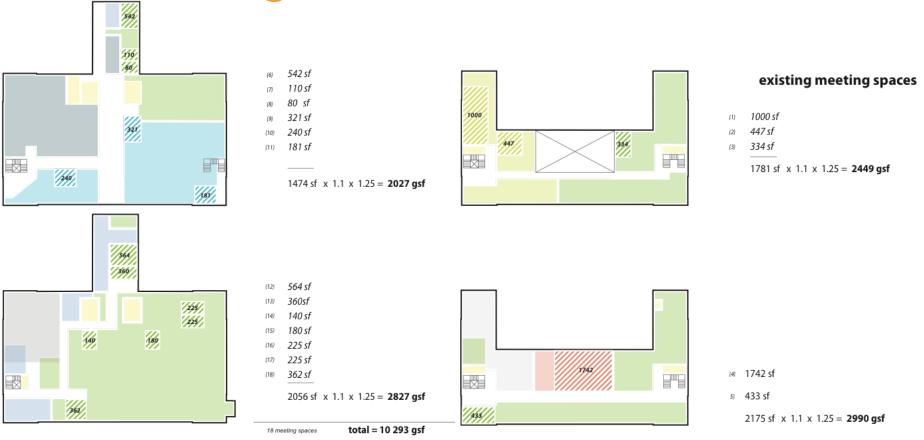


#### second floor



#### third floor

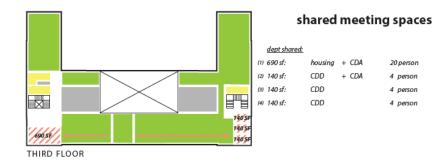
### D4 meeting rooms statistics

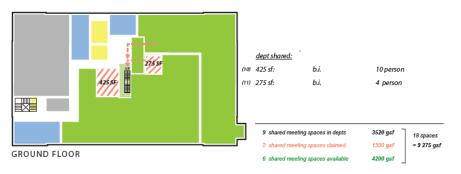


existing meeting spaces

# D4 meeting rooms statistics





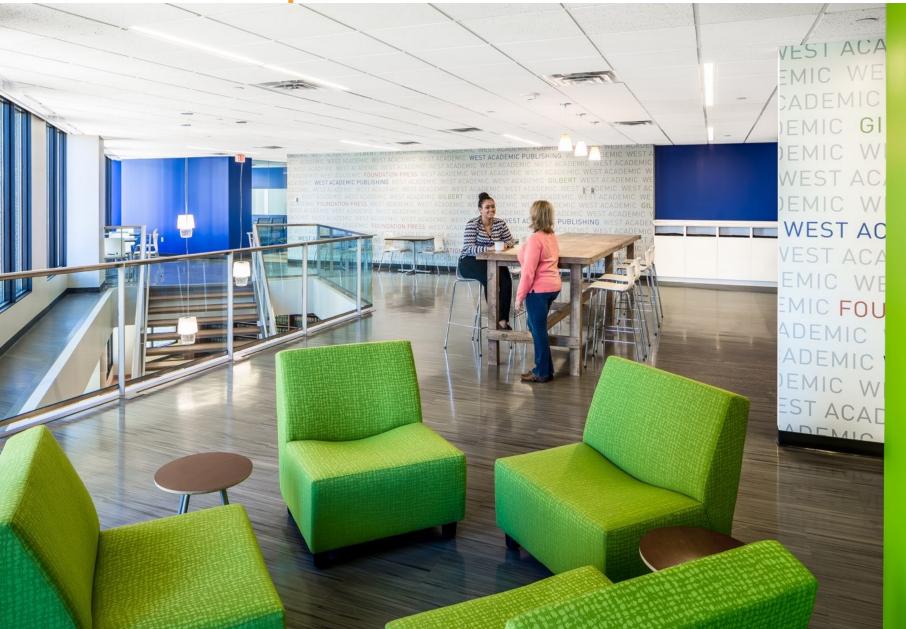




#### proposed meeting spaces



#### breakout spaces



### small meeting



### small meeting



### large flexible meeting room



#### **Questions?**

