Common Council Organization Committee

project guiding principles.

transform

link

honor & innovate

sustain

adapt

propel

leverage

inspire

equity

lighten

existing

existing

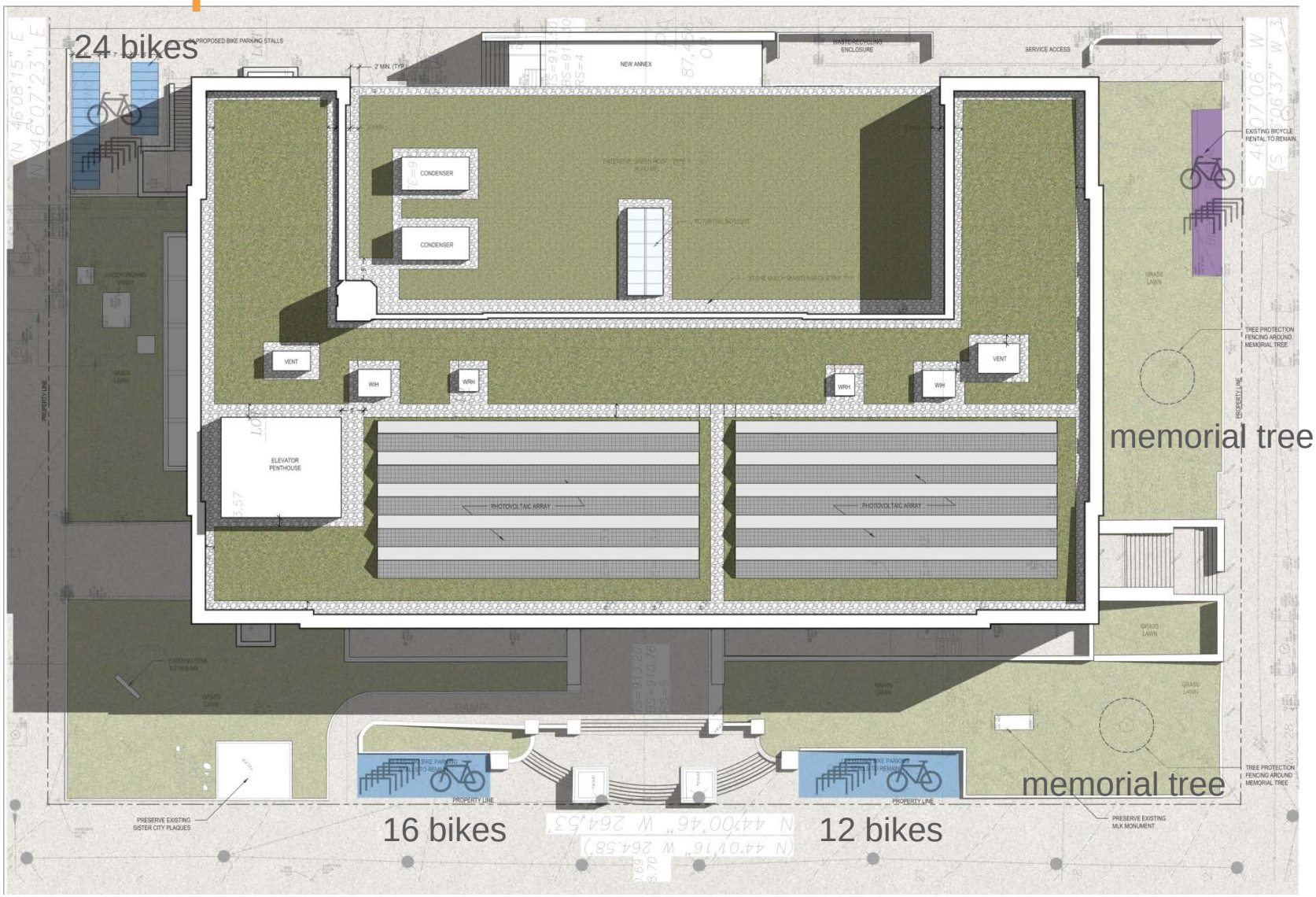
Sustainability

- 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

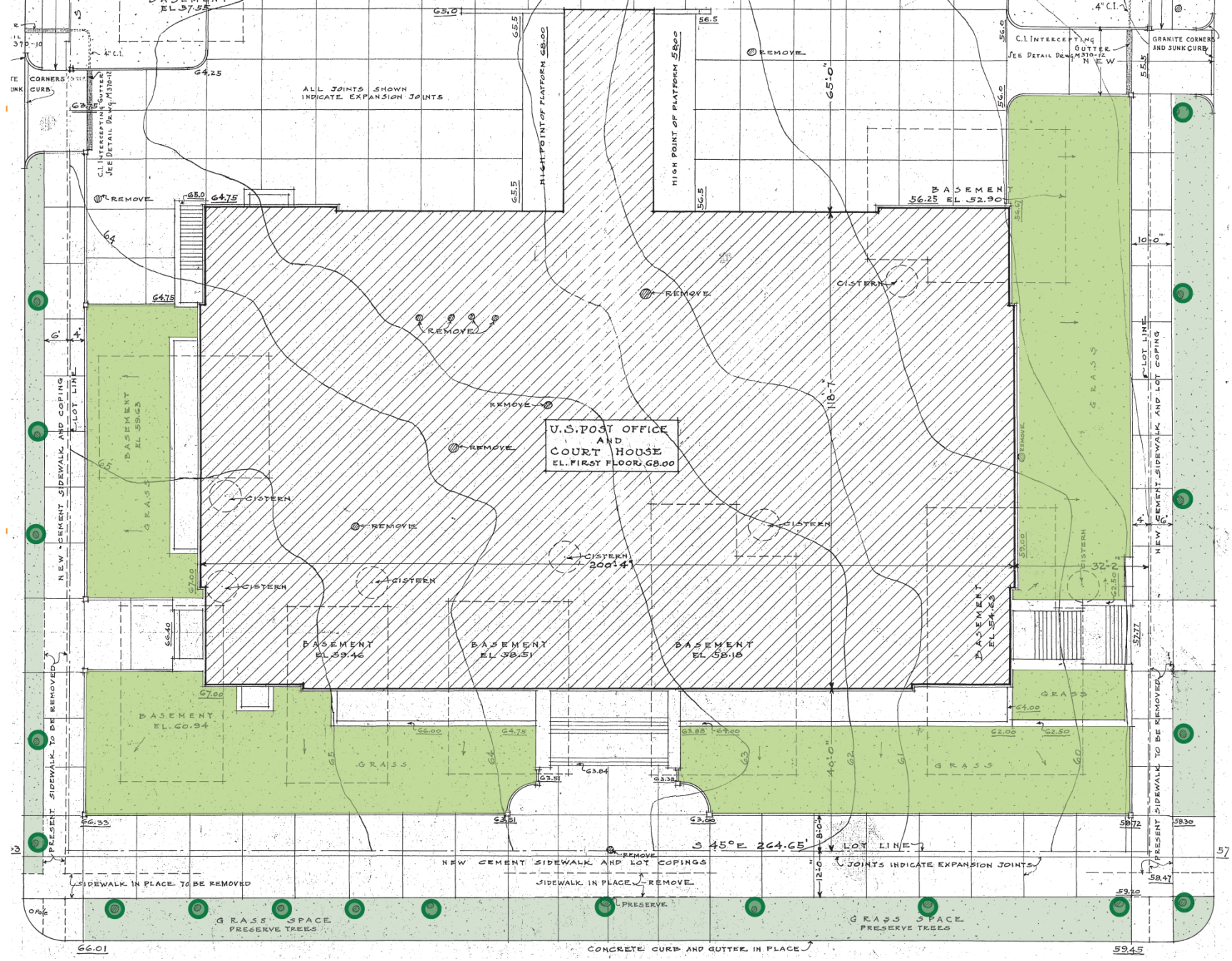
Increase daylight in building

Increase daylight in building

site improvements



preliminary site and roof plan



original site design

Exterior Lighting

VERY NARROW
10 DEGREE LED SPOT

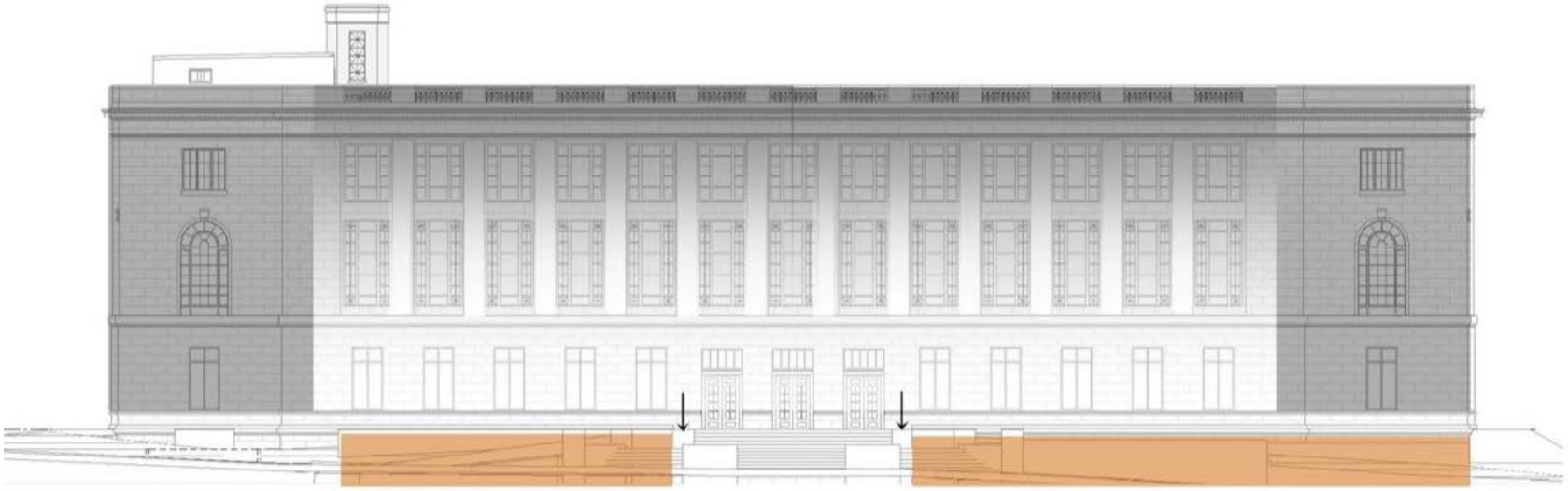
ONE PER COLUMN

facade lighting - proposed - option b

Exterior Lighting

HORIZONTAL
30 DEGREE LED FLOOD

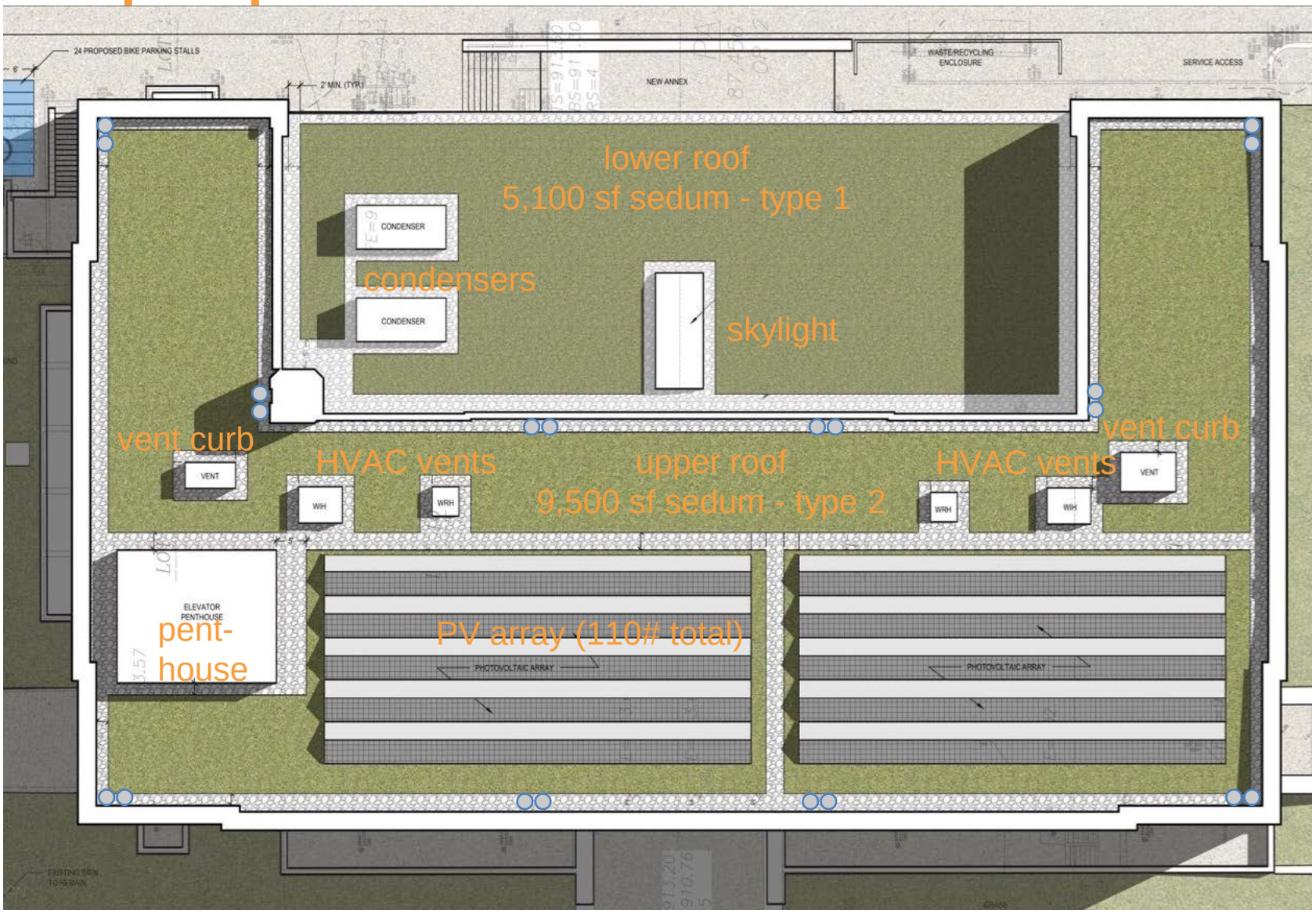
FIVE IN EACH AREA WELL



facade lighting - proposed - option d

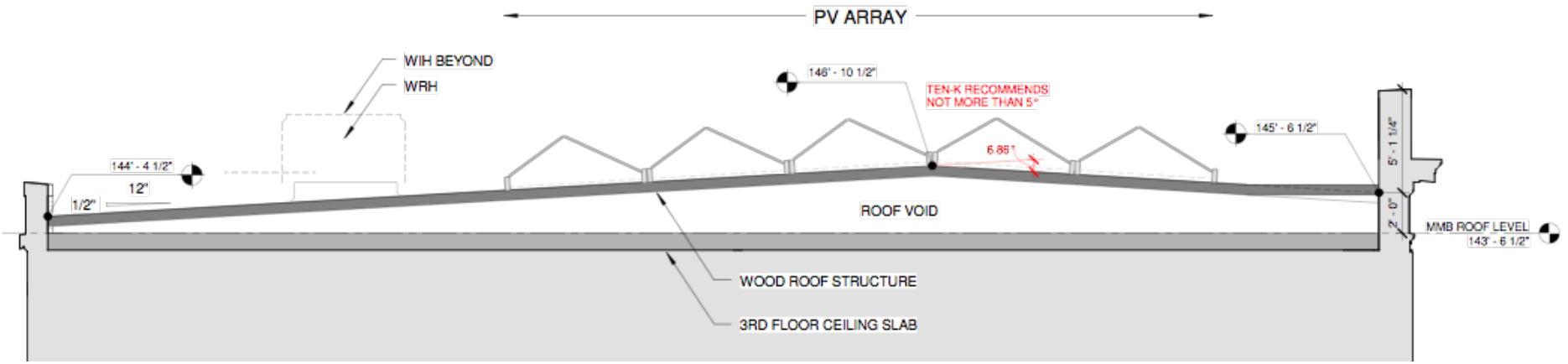
existing roofs

roof proposals



roof plan

roof concepts



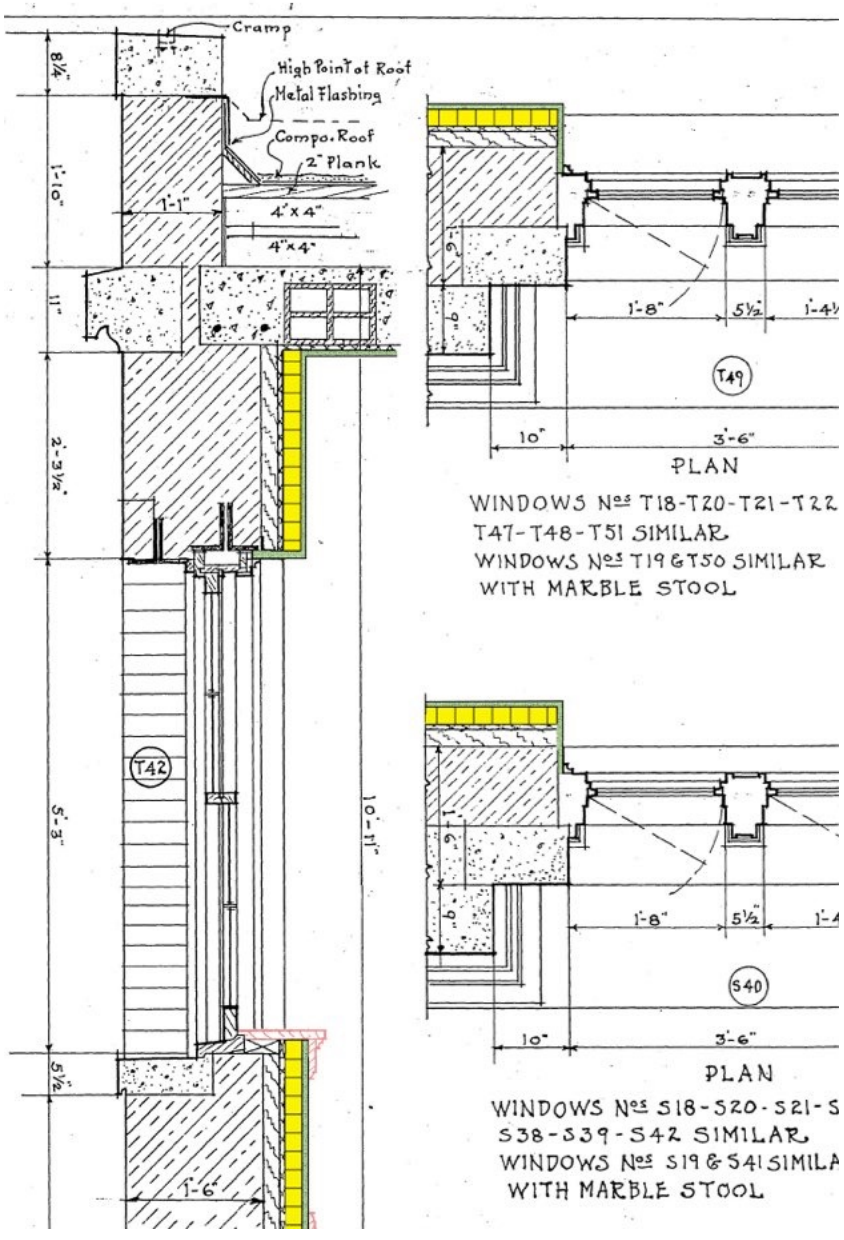
photovoltaic array geometry

roof concepts

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

extensive green roof

building envelope: wall options



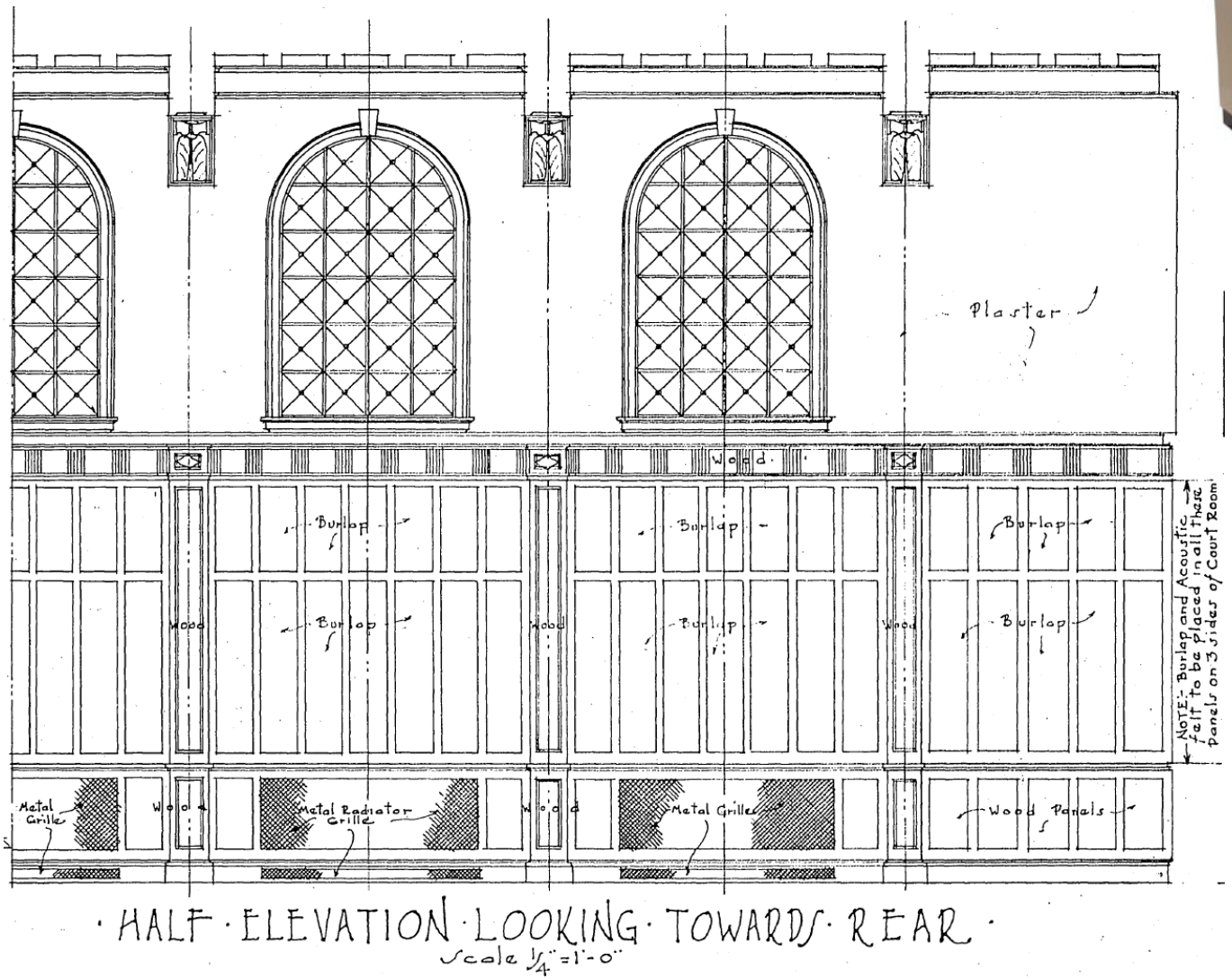
Option A:

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

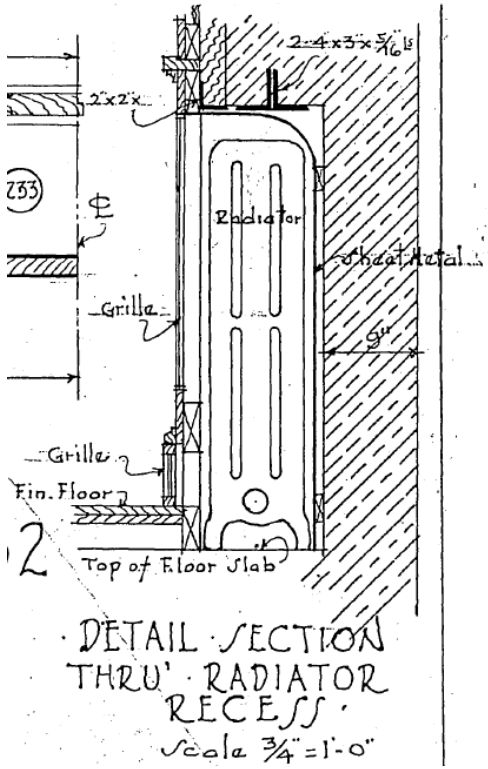
Option B:

- 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

HVAC treatment - Room 260



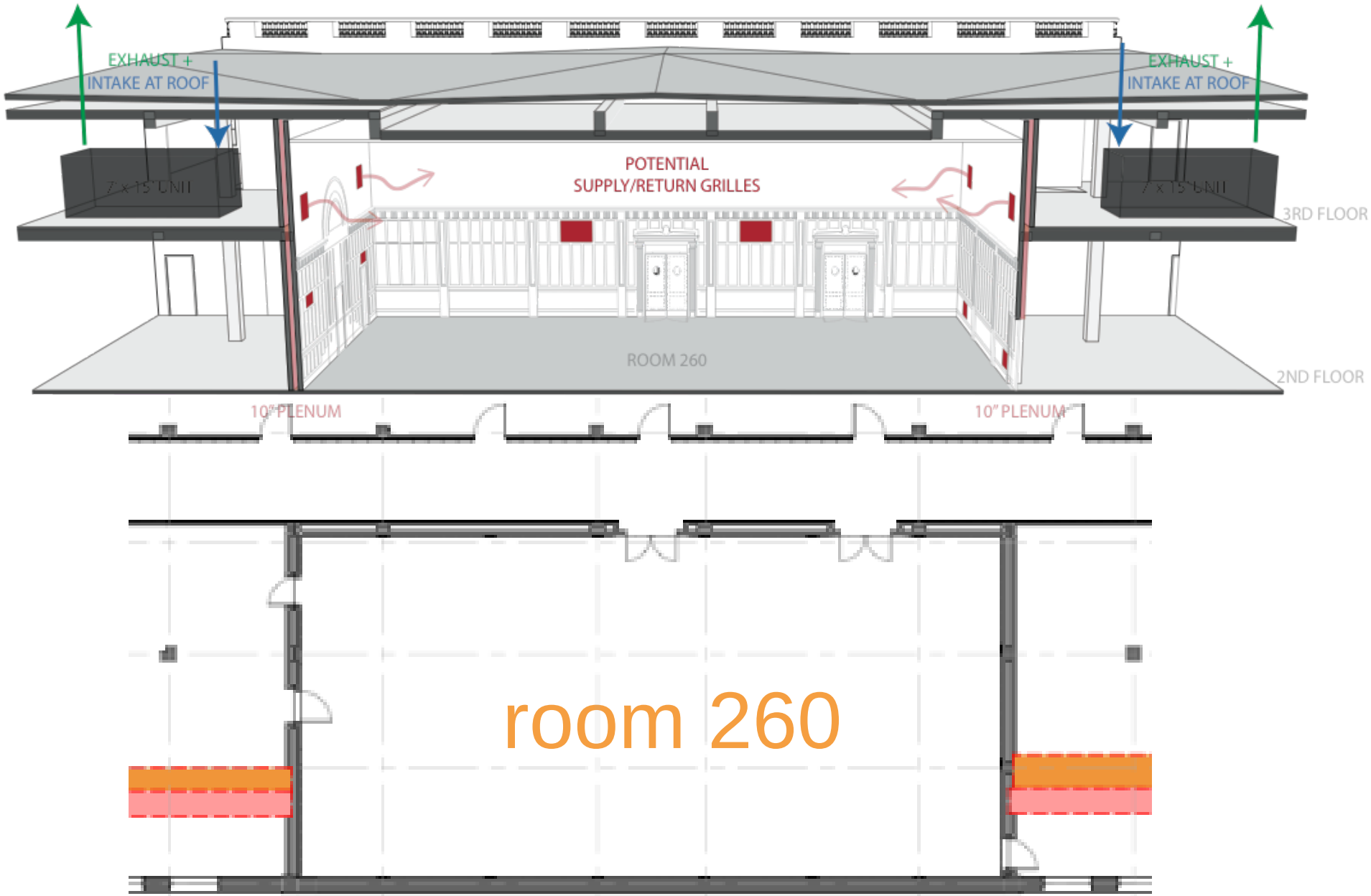
· HALF · ELEVATION · LOOKING · TOWARDS · REAR ·
Scale 1/4" = 1'-0"



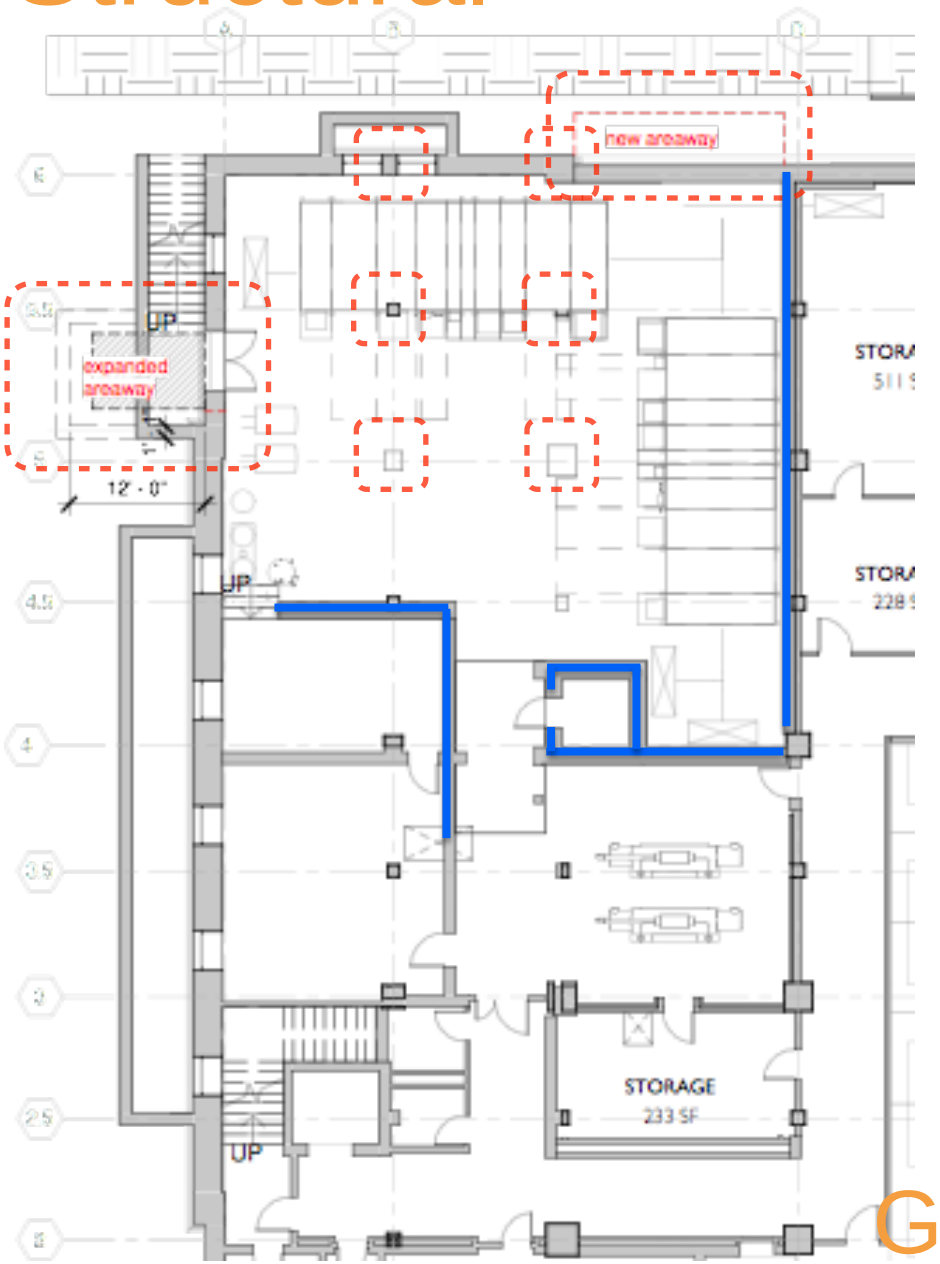
· DETAIL · SECTION THRU' · RADIATOR RECESS ·
Scale 3/4" = 1'-0"

Room 260 - original treatment

HVAC treatment - Room 260



Structural



Requirements for mechanical equipment fit:

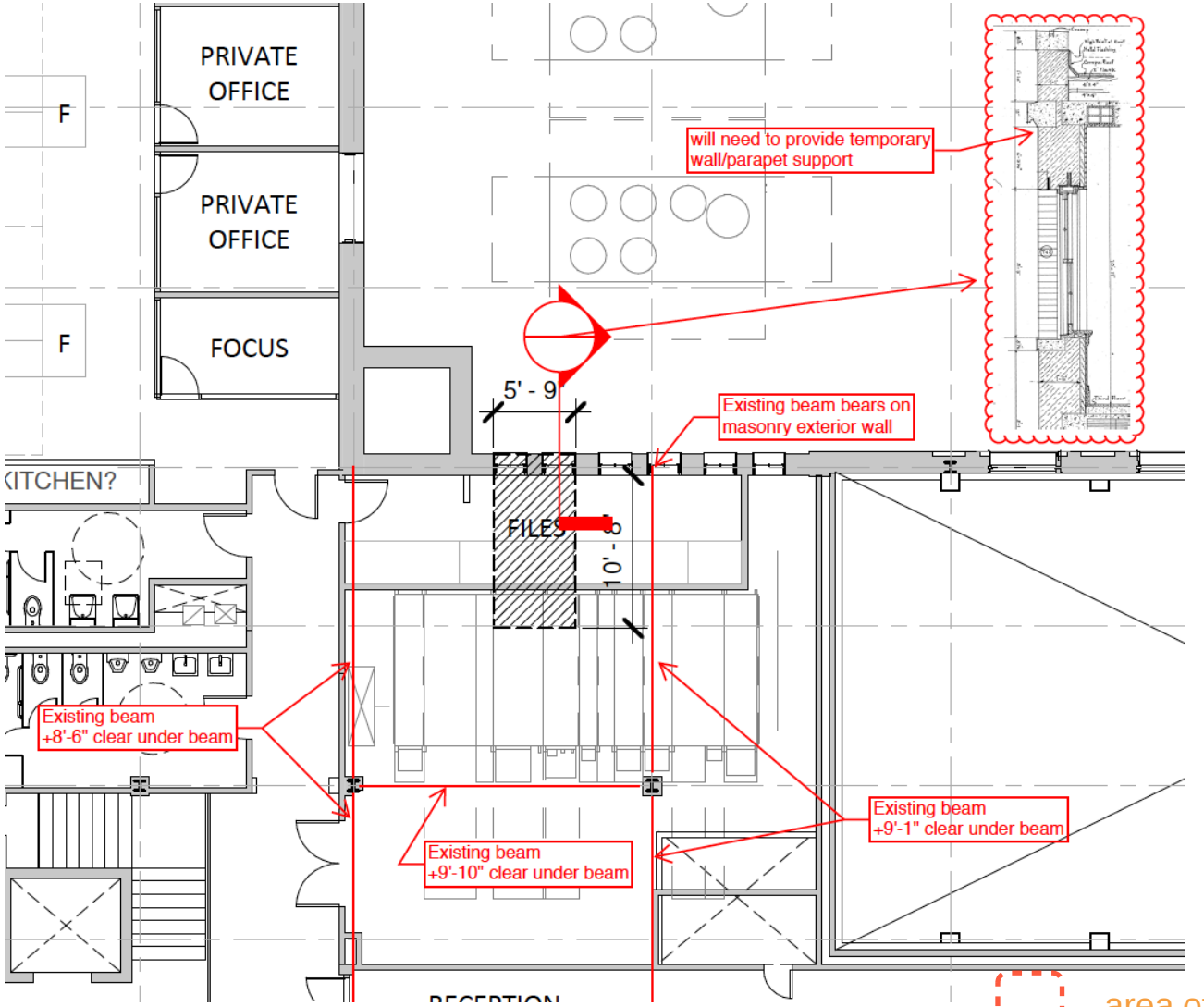
- remove two existing columns along grid 5.5.
- Expand existing areaway at west side.
- add new areaway to achieve approx. 200 sf ventilation louver along north facade.

structural walls to remain

area of structural adjustment

Ground floor mechanical

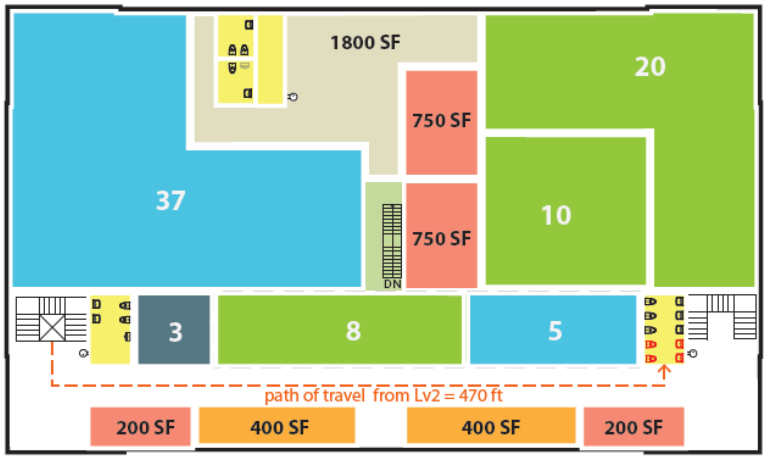
Structural



Third floor mechanical

D4 Plumbing fixture study

SECOND FLOOR (staff in public zone) 10 = **10**



FIRST FLOOR (staff in public zone) 37+20+10+3+8+5 = **83**

	2400sf	1400sf	1800sf	700sf	1300sf
business (1/100)			18	7	13
classes (1/20)			90	35	65
meeting (1/15)		160		94	
assembly (1/7)		343			

lv 1 + lv 2 shared

option 1	occ		WC required → exg + new	LAV required → exg + new	DF
Lv2 A-3 + B:	254 + (38 + 10)	♂	5 → 4 + 2	3 → 3 + 2	2→2
		♀	7 → 4 + 3	3 → 4 + 3	
Lv1 A-3 + B:	199 + 83				

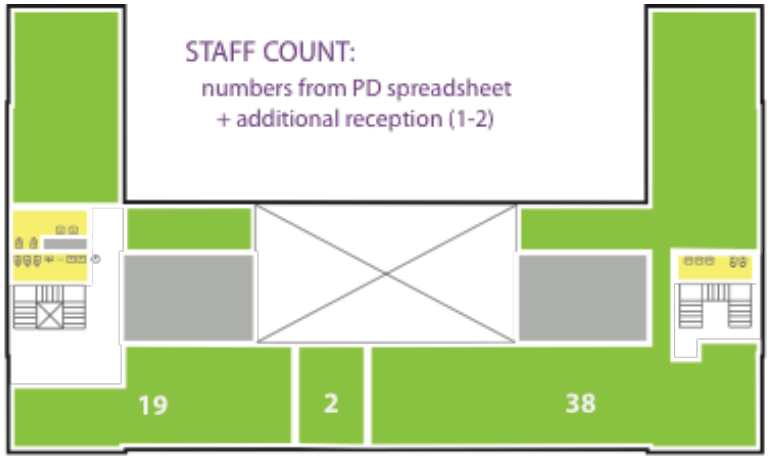
option 2	occ		WC required → exg + new	LAV required → exg + new	DF
Lv2 A-3 + E + B:	437 + 190 + 10	♂	7 → 5 + 3	5 → 3 + 2	5→5
		♀	9 → 4 + 5	5 → 4 + 5	
Lv1 A-3 + B:	199 + 83				

	750sf	750sf	1800sf	(2)* 400 = 800sf	(2)* 200 = 400sf
meeting (1/15)	50	50		54	27
business (1/100)			18		

N

first and second floors

D4 Plumbing fixture study



THIRD FLOOR

19 + 2 + 38 = **59**

staff only floors fixture count

required → **exg** + *new*

occ		*WC*	*LAV*	*DF*
59	♂	2 → **4**	1 → **2**	1→*1*
	♀	2 → **2** + *2*	1 → **3** + *2*	

GROUND FLOOR

47 + 28 = **75**

required → **exg** + *new*

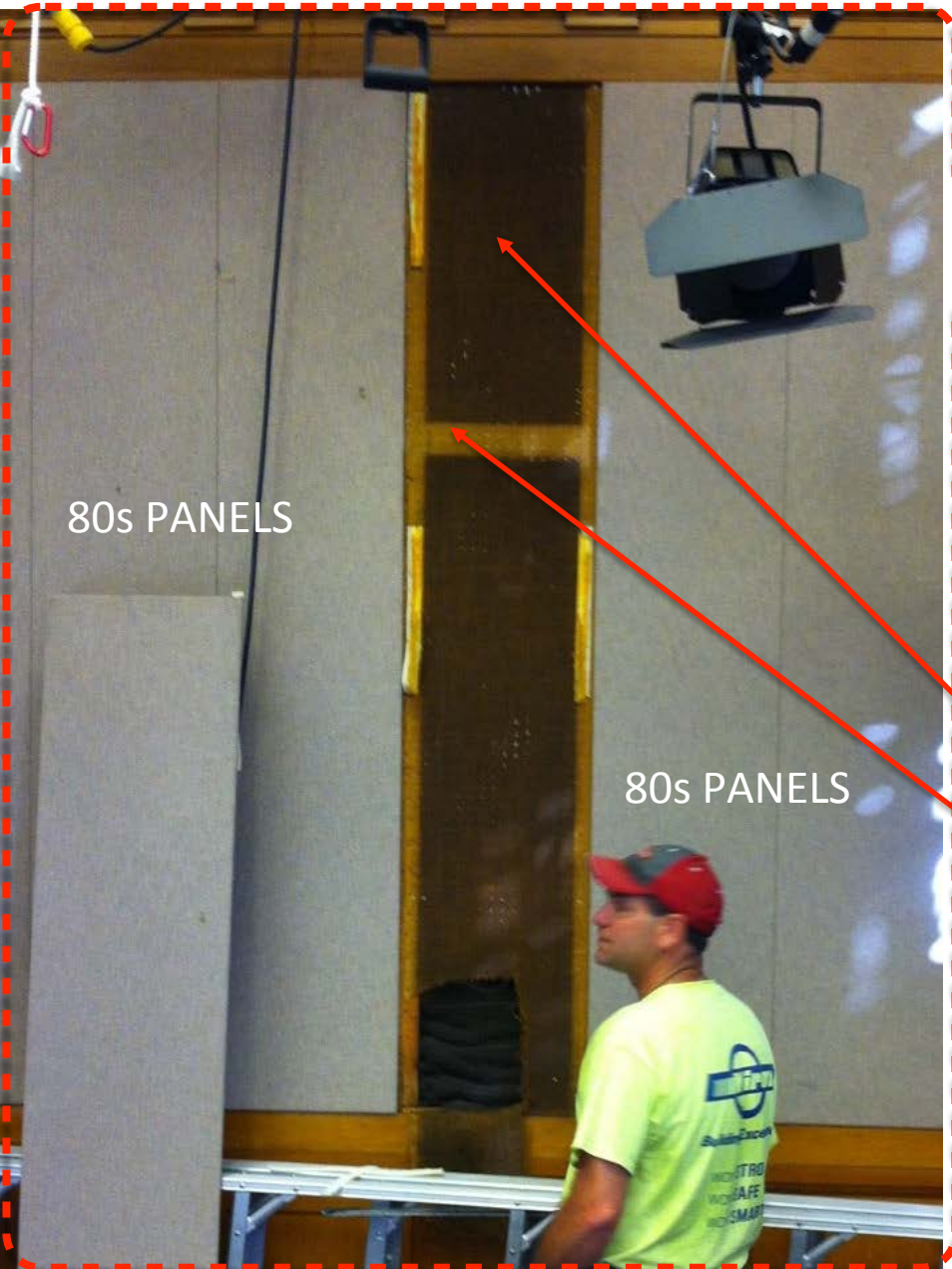
occ		*WC*	*LAV*	*DF*
75	♂	2 → **4**	1 → **2**	1→*1*
	♀	2 → *3*	1 → *2*	

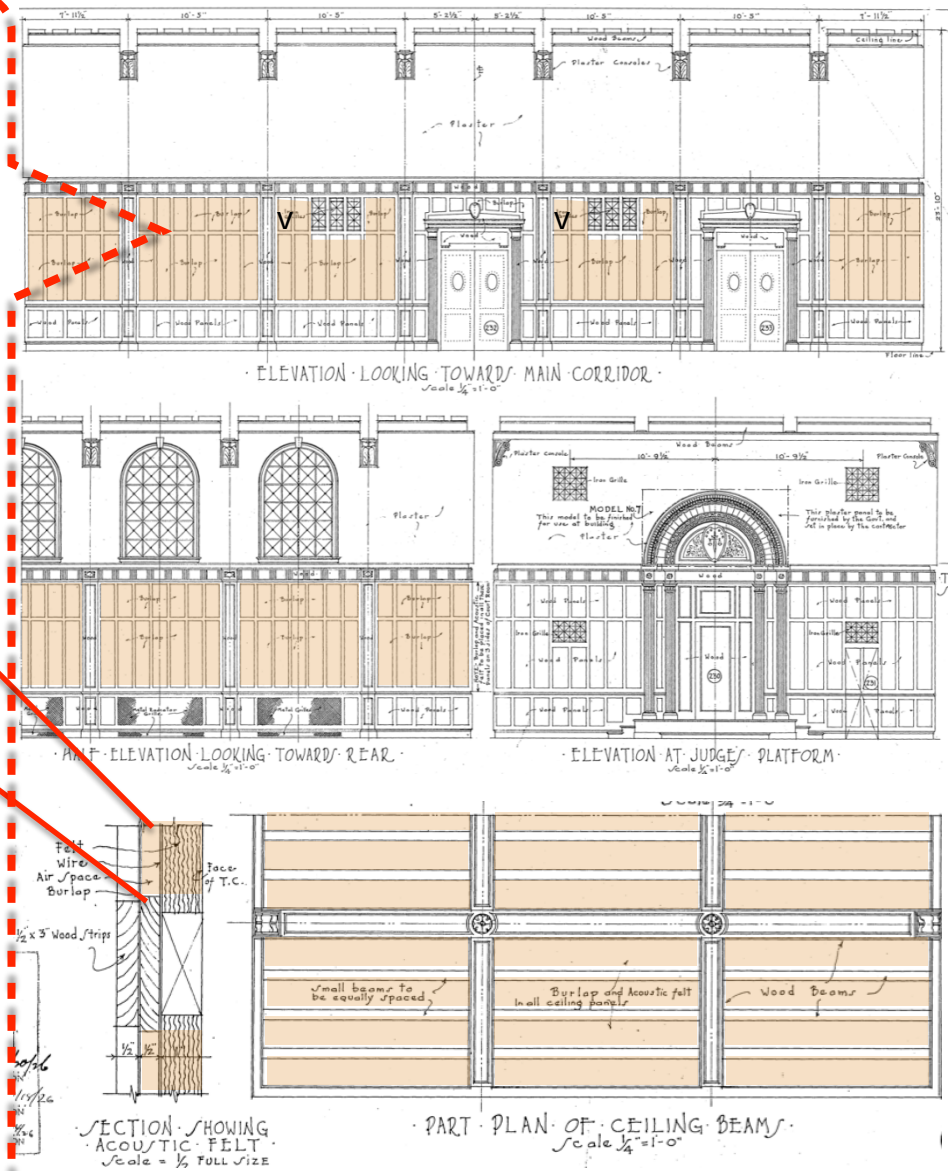
N

ground and third floors

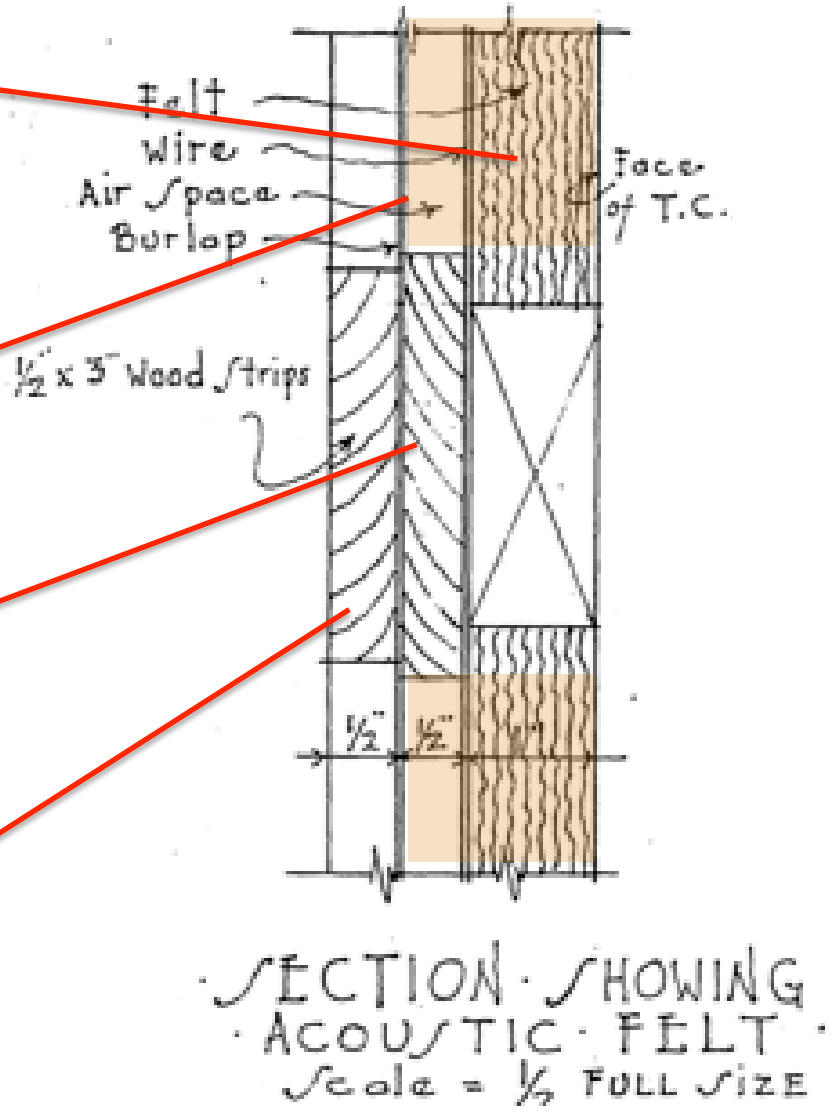
ROOM 260 - Acoustics

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.

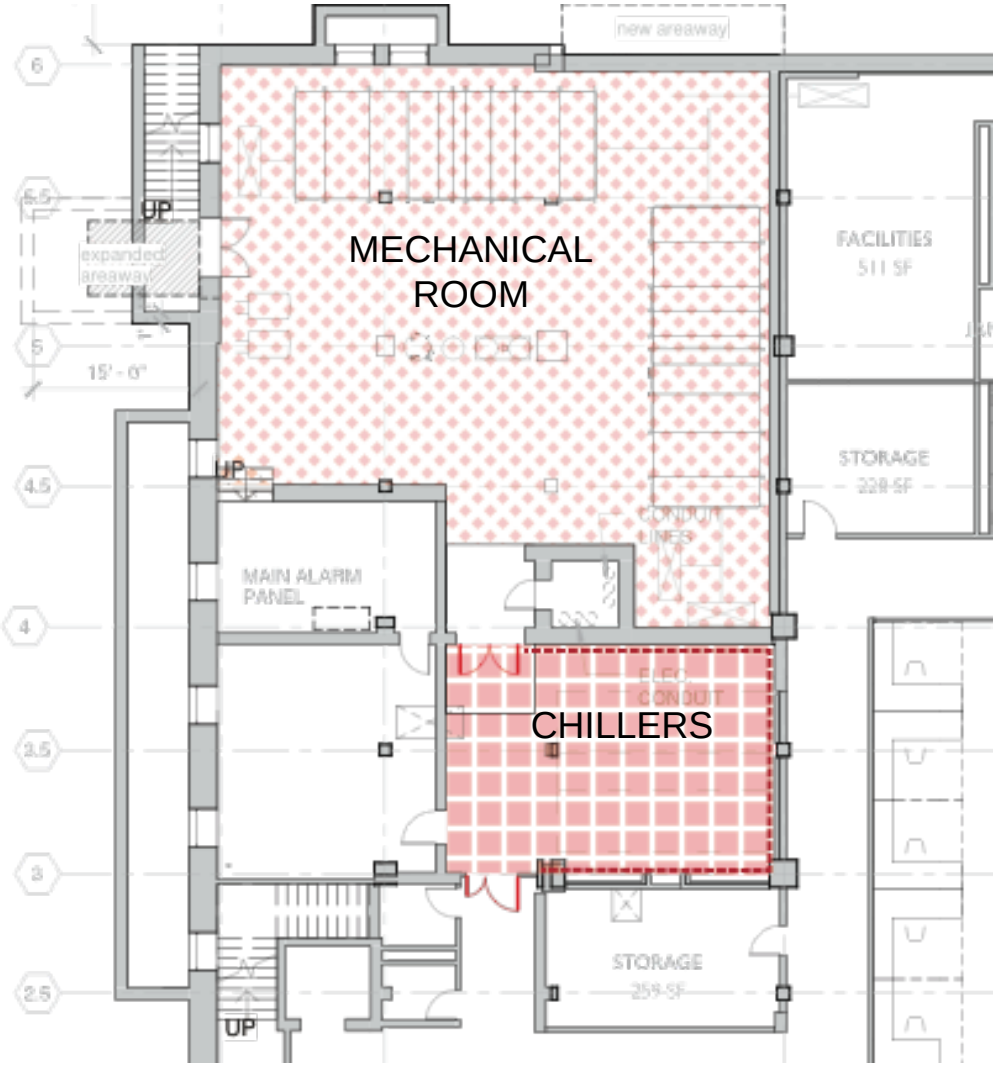
Recommendation:
Stretch fabric system, such as Fabritrak.

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

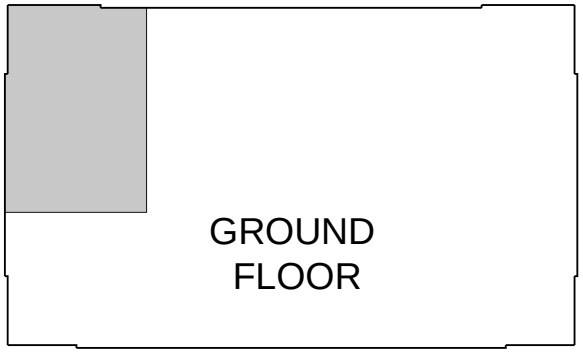


Recommendations:

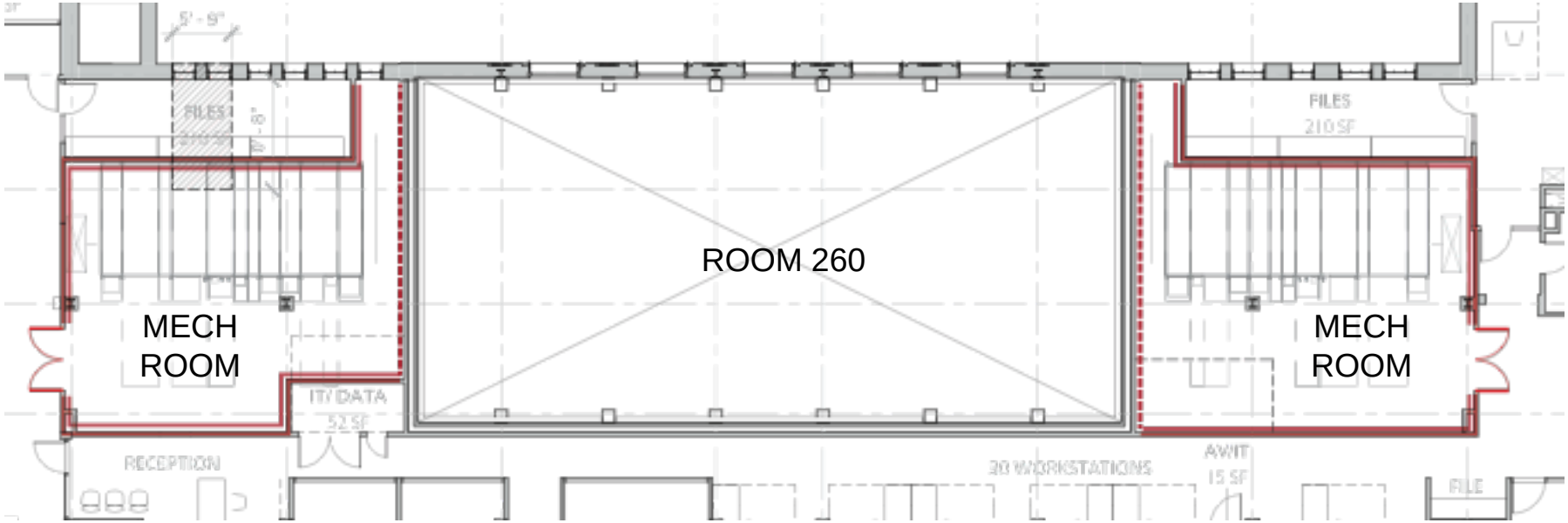
mechanical room:
acoustical spray-on treatment for ceiling.

chiller room:
additional gyp walls and resiliently hung ceiling

STC 50 rated doors



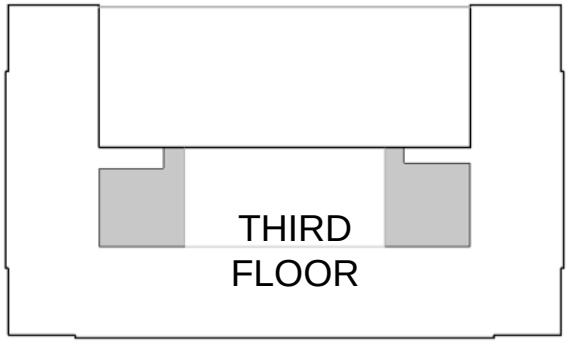
Acoustics - Mechanical



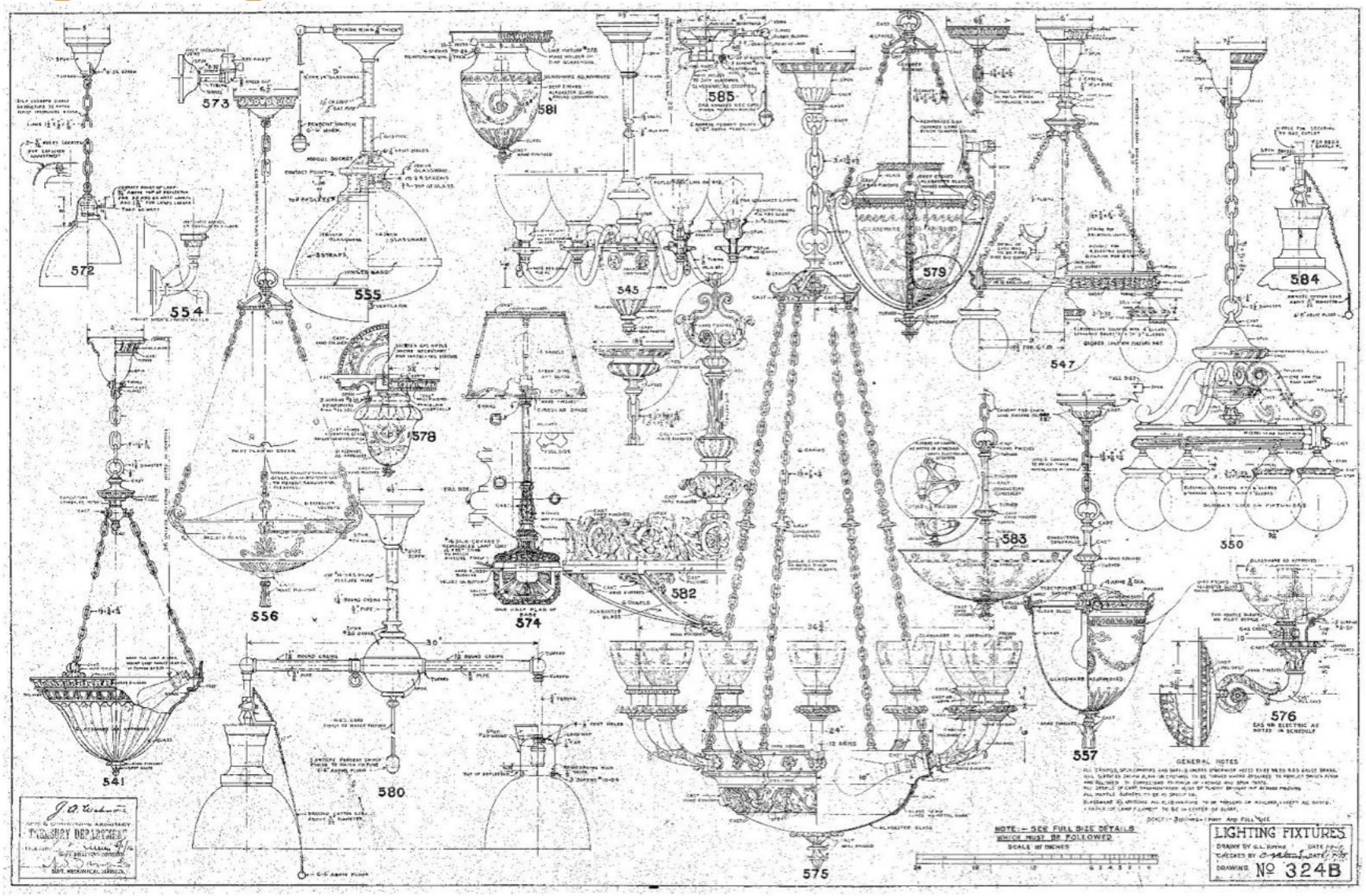
Recommendations:
mechanical rooms:
additional gypsum board wall adjacent room 260.

double wall system adjacent office areas

STC 50 rated doors



Lighting



historic lighting - original

Lighting

ROOM 260 - PLASTER MOLD

LEVEL 1 CORRIDOR
GLASS
GLASS ETCHED
OPAL ACRYLIC

historic lighting

Lighting

FIRST FLOOR — ECONOMIC DEVELOPMENT

OPEN OFFICE 3,389 SF
CONFERENCE 1,323 SF

workplace lighting

Lighting

RATED SERVICE LIFE

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

TYPE A T5
TYPE A SOLED

3" RECESSED LINEAR

TYPE B T8

1X4 VOLUMETRIC

TYPE C T5HO
TYPE C SOLED
TYPE D T8

2" X 2" SUSPENDED
INDIRECT

TYPE E T5HO
TYPE E SOLED
TYPE F T8

2" X 4" SUSPENDED
DIRECT + INDIRECT

workplace lighting

Project Driver: History.

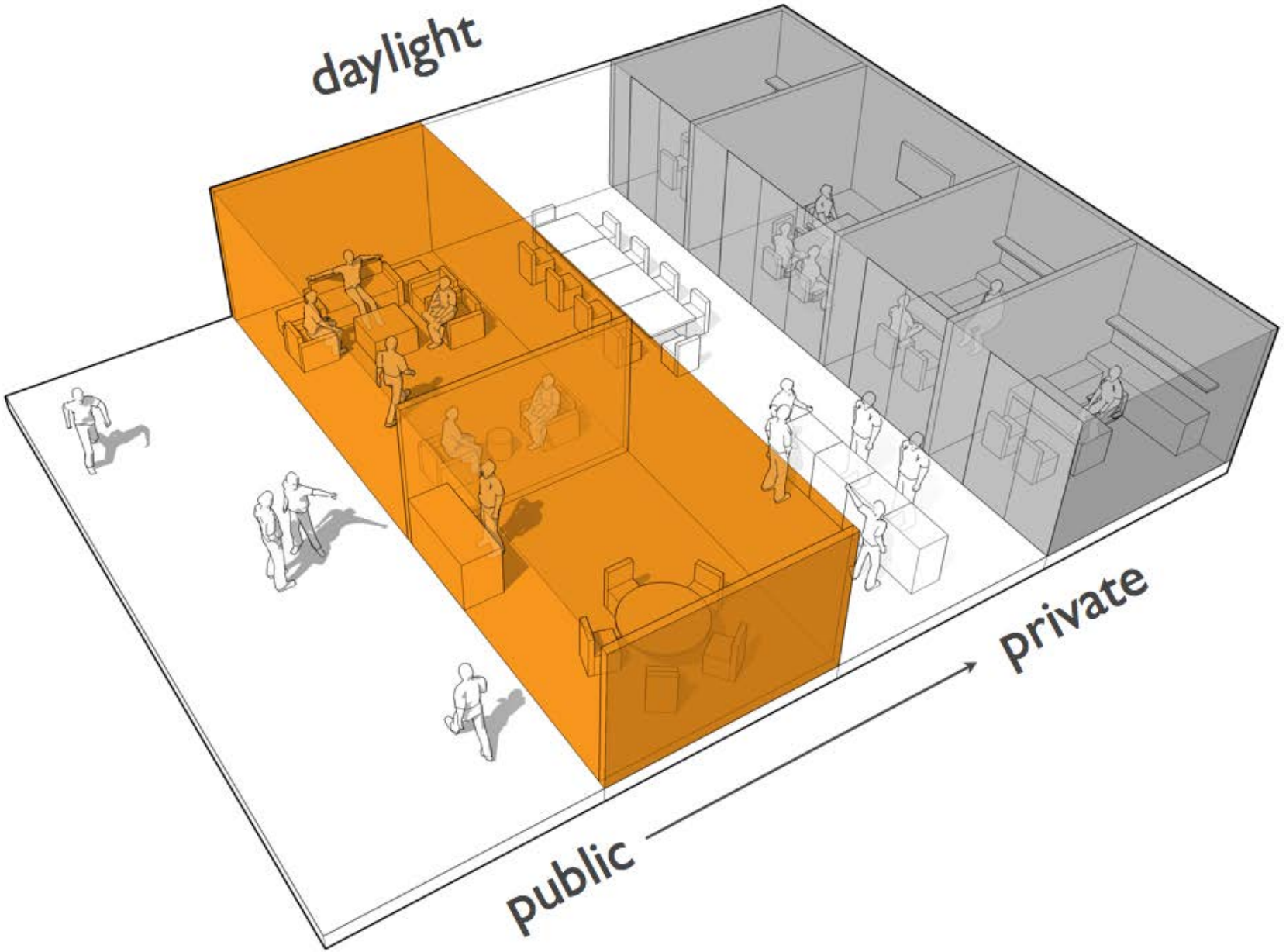
Project Driver: Quality Workspace.

reorganize floors for efficiency/flexibility

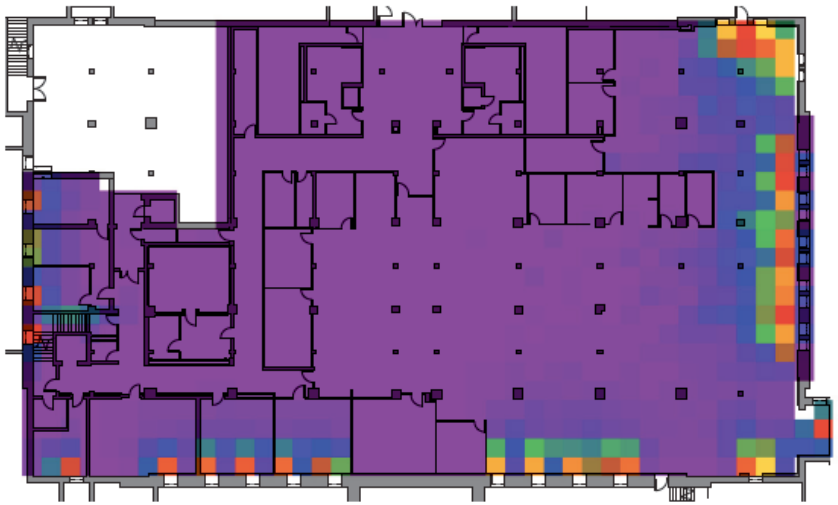
improve daylight

provide spaces to support daily work

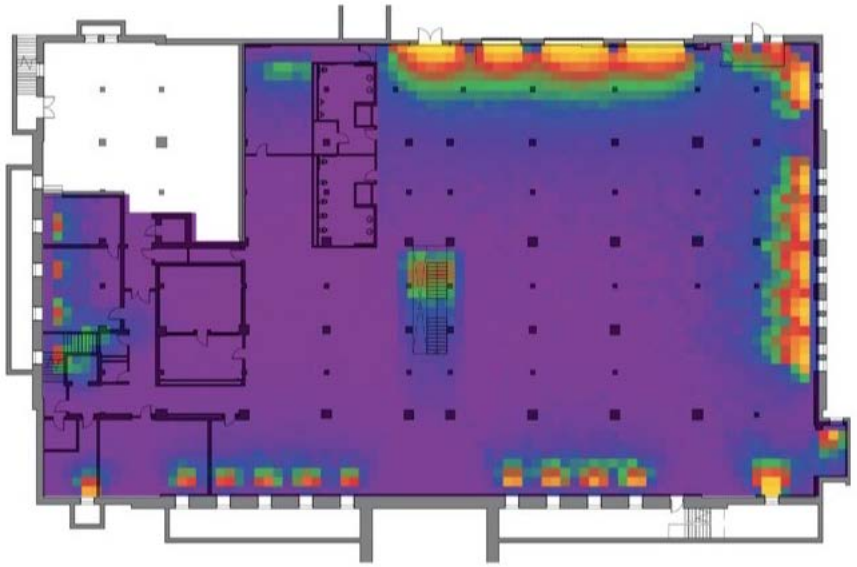
zoned public to private.



daylight penetration study



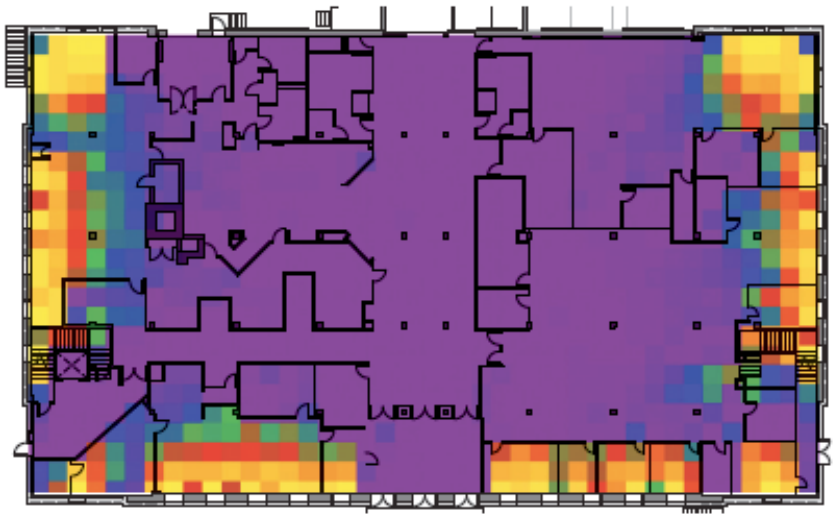
ground floor - existing



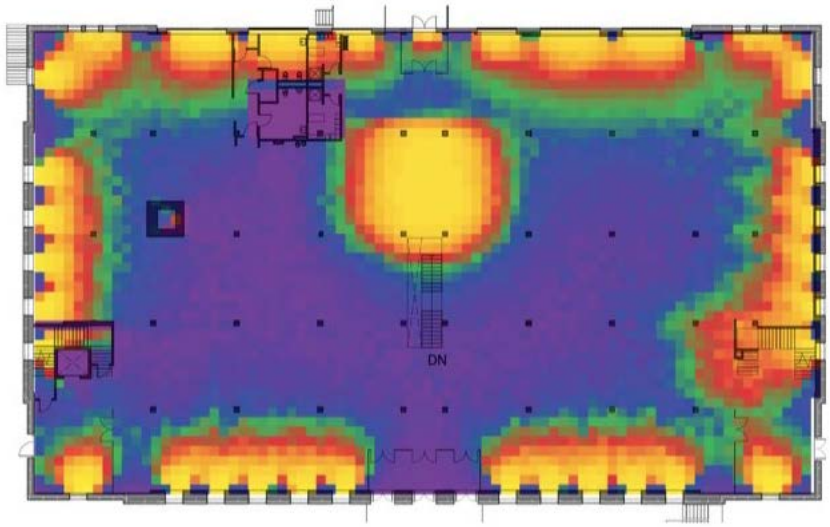
ground floor - with new windows

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

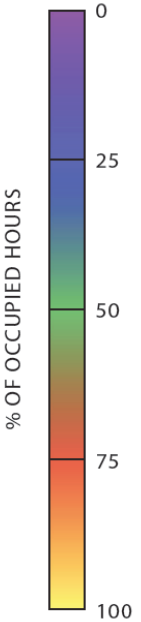
daylight penetration study



first floor - existing

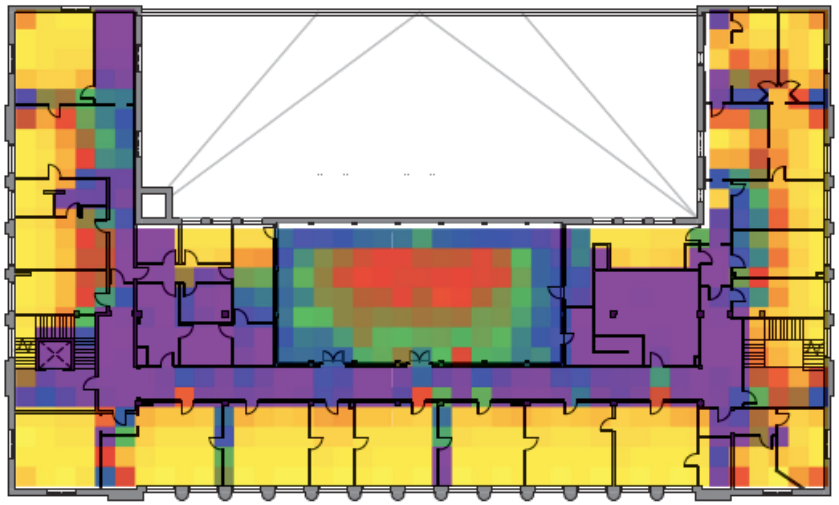


first floor - with new windows + skylight

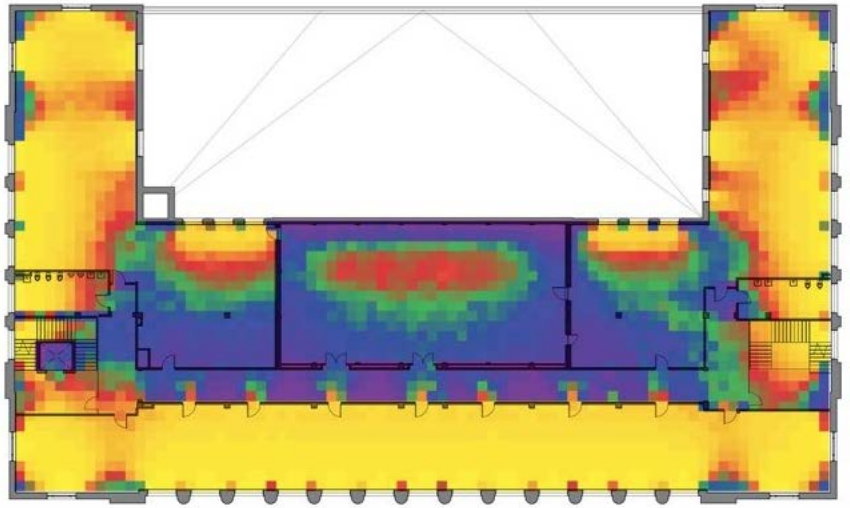


(legend shows annual average % time with 300 lux at desktop)

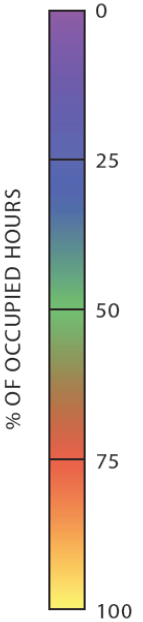
daylight penetration study



second floor - existing

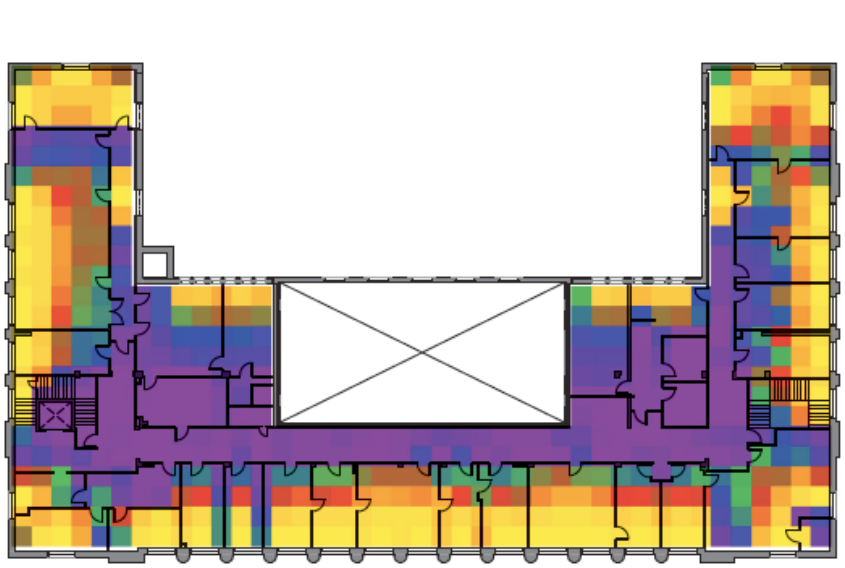


second floor - with open plan

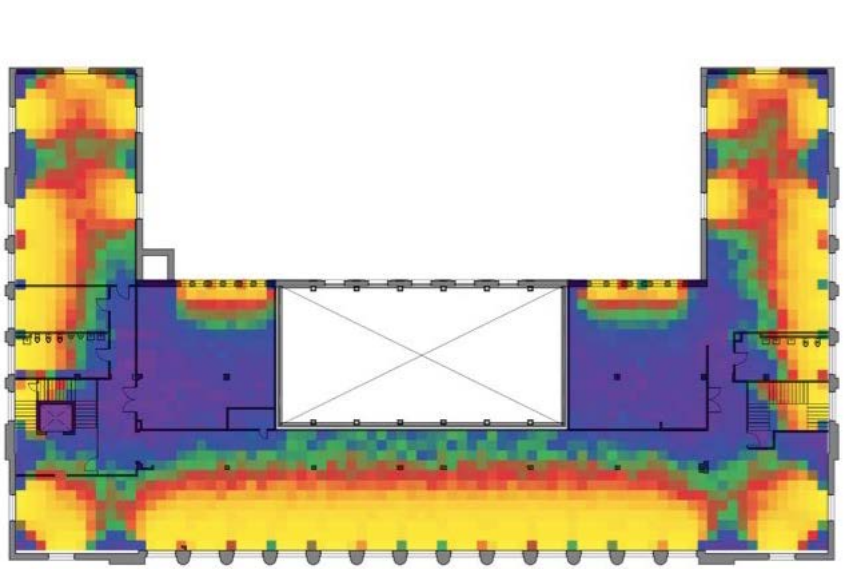


(legend shows annual average % time with 300 lux at desktop)

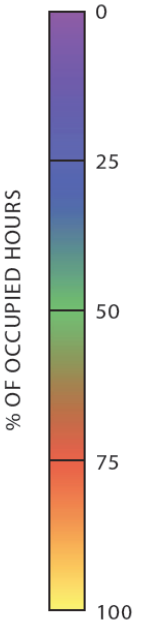
daylight penetration study



third floor - existing



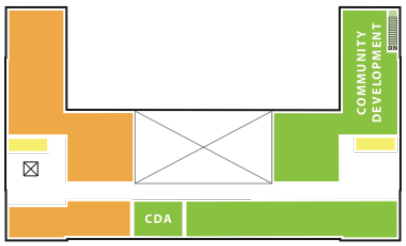
third floor - with open plan



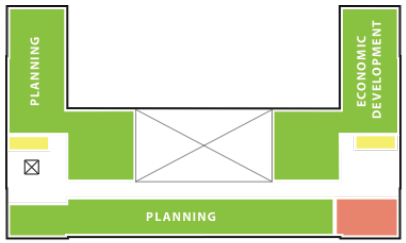
(legend shows annual average % time with 300 lux at desktop)

Program test fits.

Option D Test Fit Studies



THIRD FLOOR



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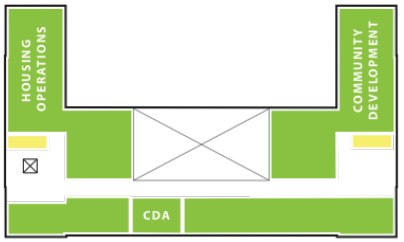
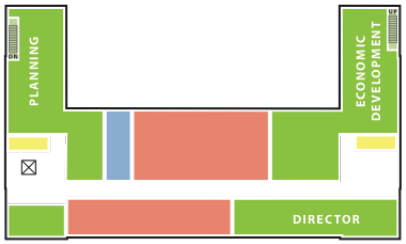


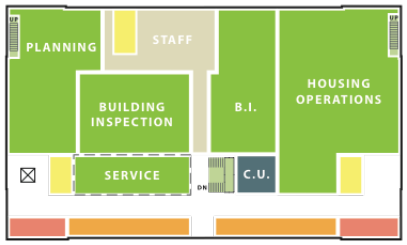
THIRD FLOOR



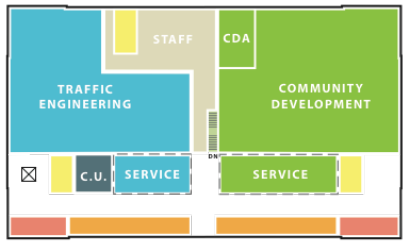
SECOND FLOOR

SECOND FLOOR

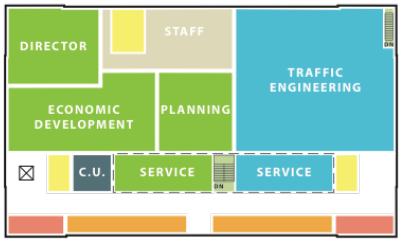
SECOND FLOOR



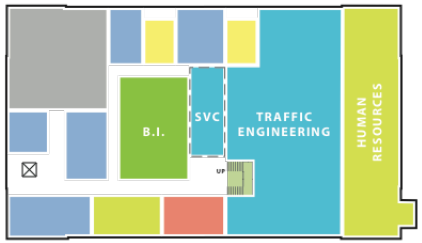
FIRST FLOOR



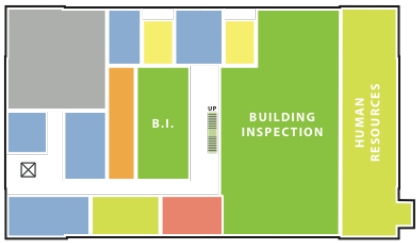
FIRST FLOOR



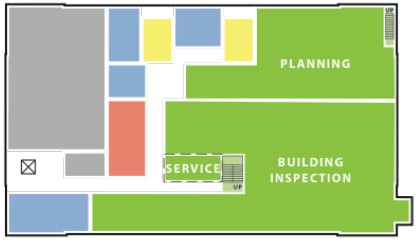
FIRST FLOOR



GROUND FLOOR



GROUND FLOOR



GROUND FLOOR

N

D1

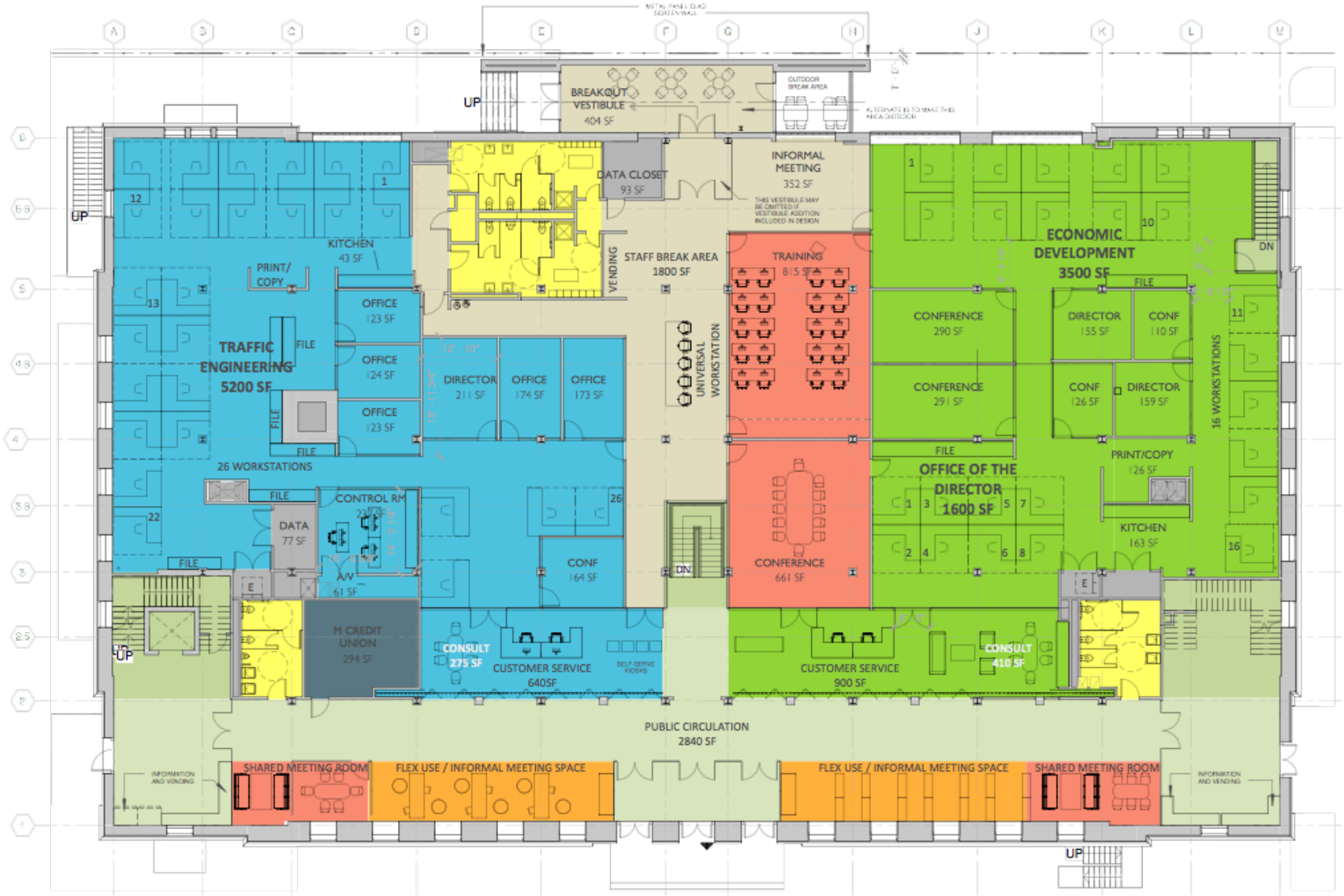
D2

D3

D4 Schematic Layout

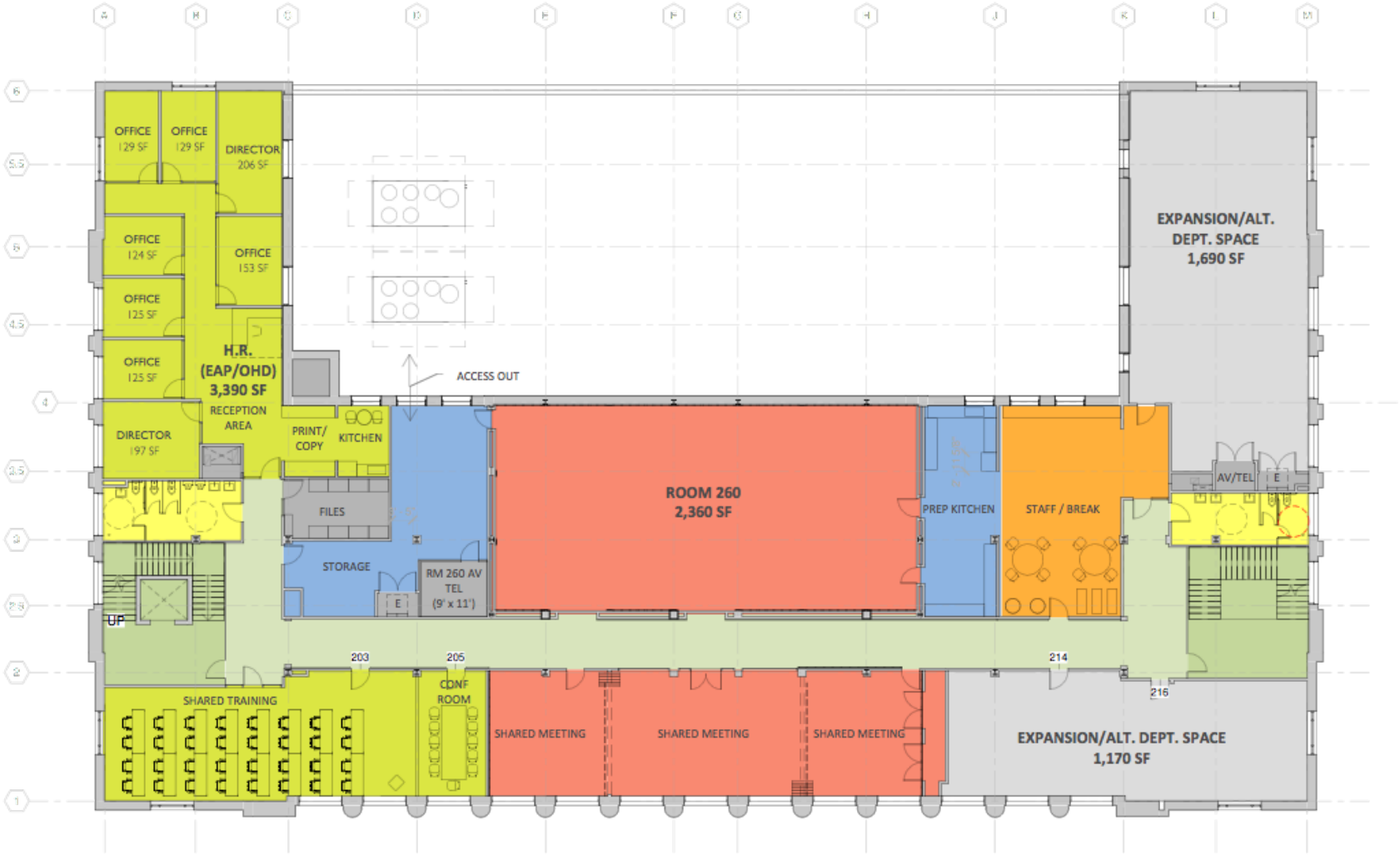
ground floor - option c

D4 Schematic Layout



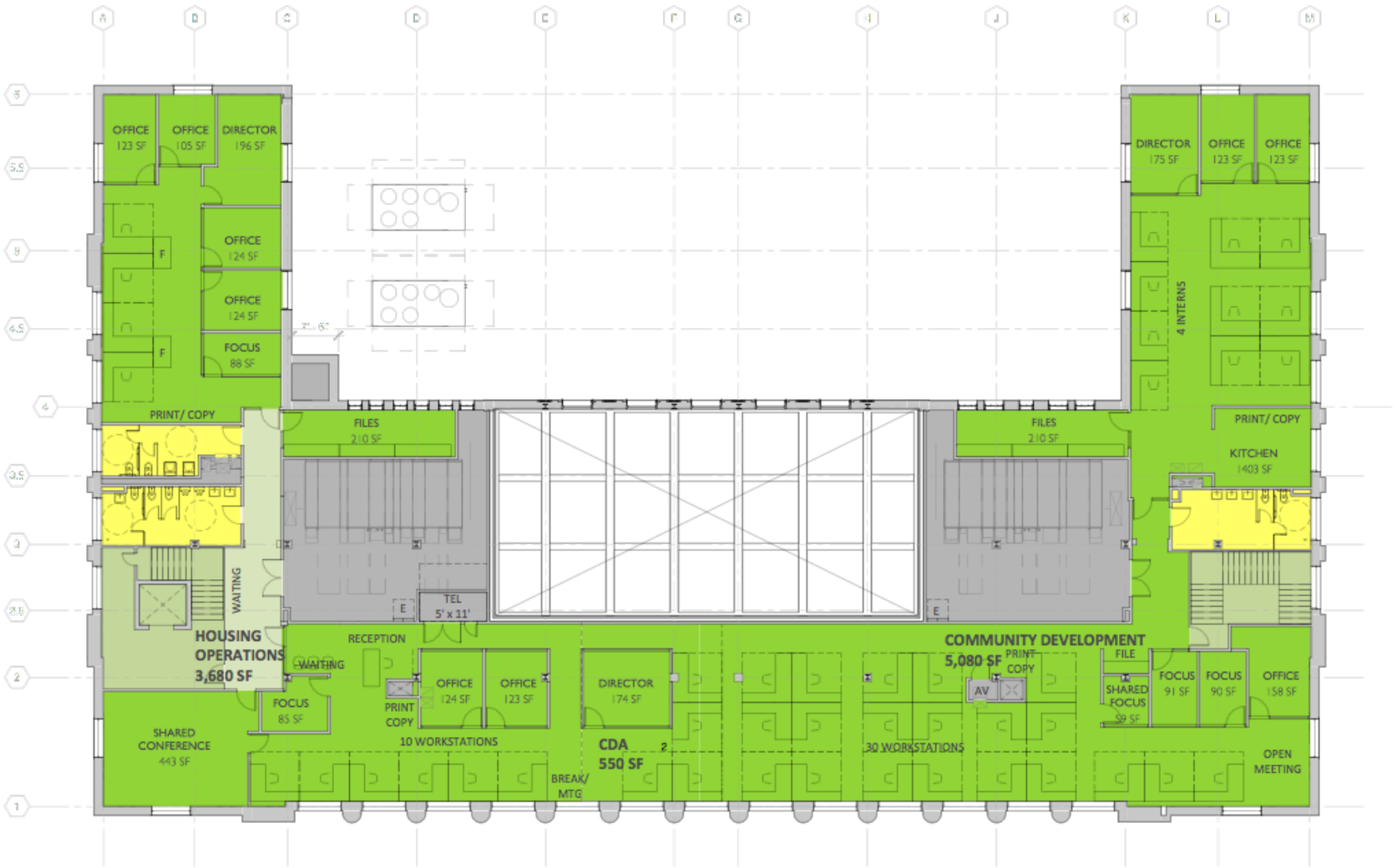
first floor - option c

D4 Schematic Layout



second floor

D4 Schematic Layout



third floor