

TIMMED DESIGN EXERCISE

Timed Design Exercise

Part 1 of 2

Instructions to Students

1. Read all of these instructions before beginning the exercise.
2. Review the project and code requirements as well as the site plan P1-1.
3. Review the matrix, material options, and material schedules on P1-1.
4. Review the interior elevation showing the window fenestration from the interior P1-1.
5. Review the floor plan P1-2.
6. Read the entire project description and carefully review the requirements in each area.
7. Complete the adjacency matrix P1-1.
8. Show your proposed layout on the sheet given to solve the problem defined (following).
9. Select finish materials for the floors and walls and indicate the best choice by circling it on the schedule P1-1.
10. Write your control number in the lower right of every sheet—even the ones that you don't write on.

Code Requirements

- Egress paths of travel may not pass through areas that may be blocked, locked, or used for storage.
- Barrier free requires a 5' turning circle (show as a dotted line) at every change in direction. Paths of travel not required for egress are not bound by this restriction.
- Egress must be provided from the residence without requiring the consultant to pass through the office to exit.
- Maintain a minimum width of 44" along accessible routes.
- Doors and storage units that open toward a path of travel may not limit the clear passage width when open.
- Doors to be a minimum of 3' clear width in all accessible spaces and a minimum 30" clear width otherwise.
- Doors in accessible areas must be flanked by clear wall space—18" on the pull side and 12" wide on the push side along the latching side.
- Sinks in barrier-free areas must have clear knee space below and may not encroach on the turning circle more than 6".
- Door swings may not encroach on turning circles.
- Habitable spaces in the living space/apartment must have an operable window.
- Floors in areas with sinks must be slip resistant.
- Surfaces in bathrooms and washrooms must be moisture resistant.

Design Requirements

All items, adjacencies, and attributes mentioned in this document are required in your passing solution. Use a freehand sketch or drafting to represent items in accurate scale. Draw your solution on drawing sheets provided using ink or felt tip (it will be assumed that all pencil is preliminary to your final solution and not intended as part of your final solution). You need only erase pencil marks that will interfere with comprehension of your solution.

Complete the partition and furniture plan on P1-1, showing typical required details (door swings, backs on chairs, pillows on bed, etc.) to the extent necessary to distinguish one type of item from another. Label all spaces listed in the project description. Include the lineal feet or cubic feet of storage required with the label for such items where the specific requirement is noted on the project requirements list.

Project Description

A business coach lives and works at this location in a large city. The building is a former light assembly plant and has been converted into mixed-use office and residential occupancy. The business and residence are to each have their own separate areas except they are to share a theater space. The theater is to be acoustically separated from both the residence and the business spaces but is to be accessible by both as well. Both the business and the residence are to have a formal atmosphere, and the residence may take on a professional atmosphere, as business clients are frequently entertained here.

Plumbing stacks flank support columns. Small circles indicate actual pipes that must be concealed in your solution to accommodate the request for a formal and successful atmosphere. Locate all floor drains within 8' of waste pipes. The exterior shell of the building cannot be changed. The limits of the client space are indicated by a single line. For the partition separating the client space from the corridor and office space, center a 6" thick wall directly on top of the single line, which indicates the limits of your client's space.

Requirements for each functional area follow. Address the items to be represented as well as adjacencies and privacy considerations. Functions may be combined as long as all requirements are met.

Office Area

The entire office area must be handicapped accessible, including the reception and office areas.

1. Reception area with a desk and return. The desk is to be 30" × 72" and the return is to be 24" × 72". Two visitor chairs located at least 10' from the receptionist (outside social distance) with a small table that can be easily reached from both chairs.
2. Small coaching office with 4 lounge chairs around a round coffee table and a desk 30" × 72" with a return of 24" × 72".
3. Two conference rooms with a large single table for 10 and a buffet surface with storage below.
4. Guest powder room with a toilet and sink. This room must be handicapped accessible.
5. Theater space to be accessible from the office as well as from the residence. Lounge seating for 10. This is to be a handicapped-accessible space. Discreetly position the door between the theater and the residence so business clients are not enticed to try to pass through it. Projector location noted on ceiling. 5 pieces of equipment 17" wide × 13" deep × 4" tall will be largely operated by remote control, but physical access to DVD player (one of the 5 pieces) is required.

Residence

Entry

1. Coat storage for 15 coats (5" per coat hanging in 2' deep closet or 12" wide on hooks)
2. Cabinet with set-down surface 24" deep × 60" wide with storage below.

Living/Entertaining Space

1. Lounge seating for 10 with convenient table surface attendant to each seat
2. Game table for 4 to be used for games as well as intimate dining.

Dining Area

1. Dining table to seat 10
2. Buffet surface 24" deep × 72" long

Kitchen

1. 15 lineal feet clear counter space over base cabinets and appliances
2. 10 lineal feet of upper cabinets
3. Full-height refrigerator 36" wide × 28" deep by 72" tall
4. Undercounter dishwasher 24" × 24"
5. Microwave 21" wide × 18" deep × 15" tall
6. Sink 24" wide × 18" deep from front to back

Sleep Space

1. Double bed 54" wide × 75" long
2. Pair of nightstands 24" wide × 20" deep × 26" tall, with drawer storage
3. Dresser 6' wide × 20" deep from front to back × 30" tall
4. Closet with 4' of long hanging and 8' of short/double hanging

Guest Powder Room

1. Toilet and sink
2. Storage for paper products

Bathroom

1. Vanity cabinet 30" wide × 22" deep containing sink
2. Toilet
3. Tub 2'-5" wide × 5'-0" long with shower. Indicate location of fittings (shower head and faucet)
4. Linen closet 24" wide × 24" deep full height

Part One of Design Exercise Business Coach, Full Version

Sheet

C-1

Scale

None

Student Control Number

Adjacency Matrix

Use only these symbols; do not make up your own symbols.

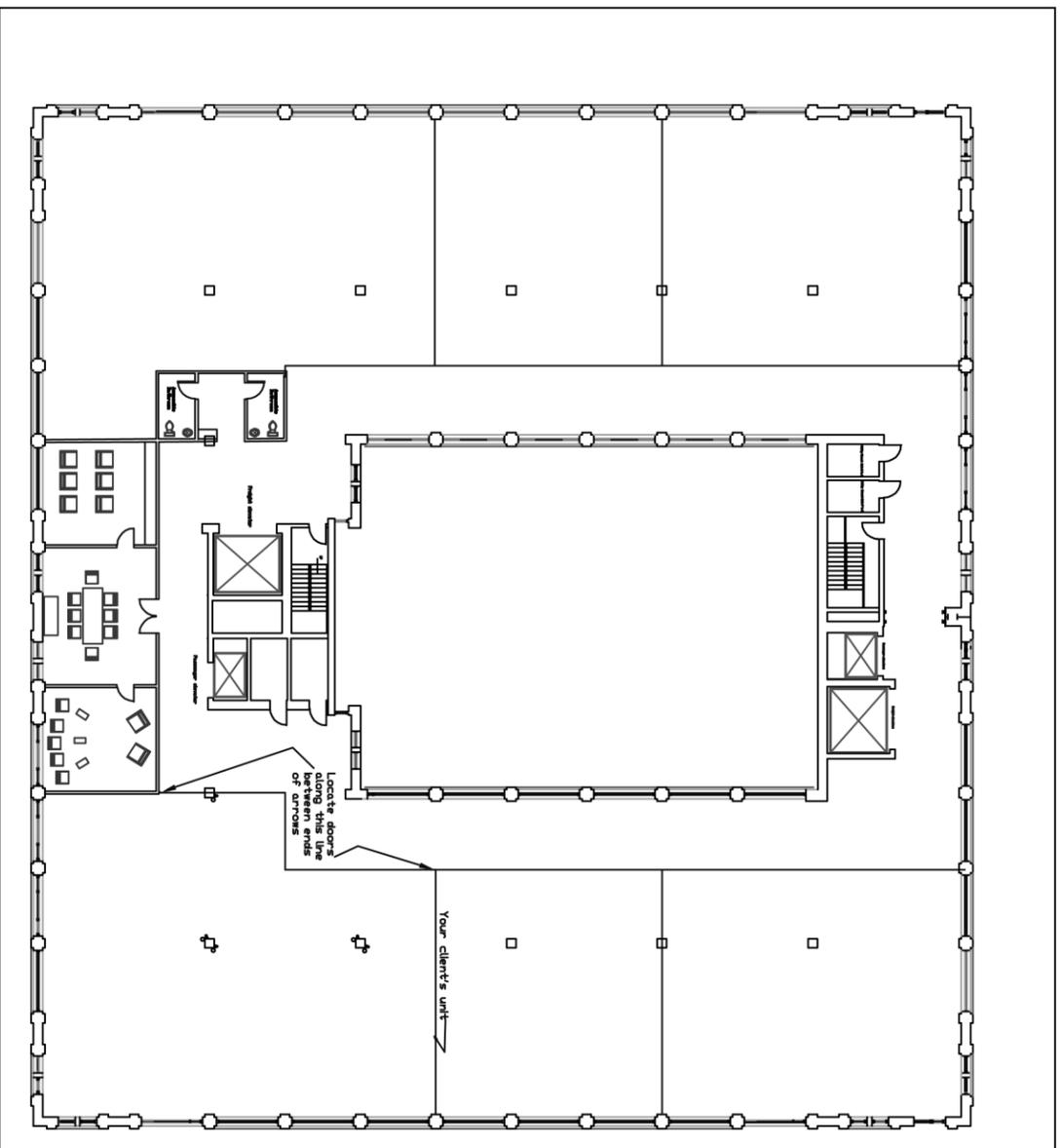
- Direct Adjacency
- Convenient Adjacency
- Visual Connection
- X Remote

	Reception	Coaching	Conference	Restroom	Theater	Entry	Living/Ent.	Kitchen	Dining	Sleeping	Bath
Reception											
Coaching											
Conference											
Restroom											
Theater											
Entry											
Living/Ent.											
Kitchen											
Dining											
Sleeping											
Bath											

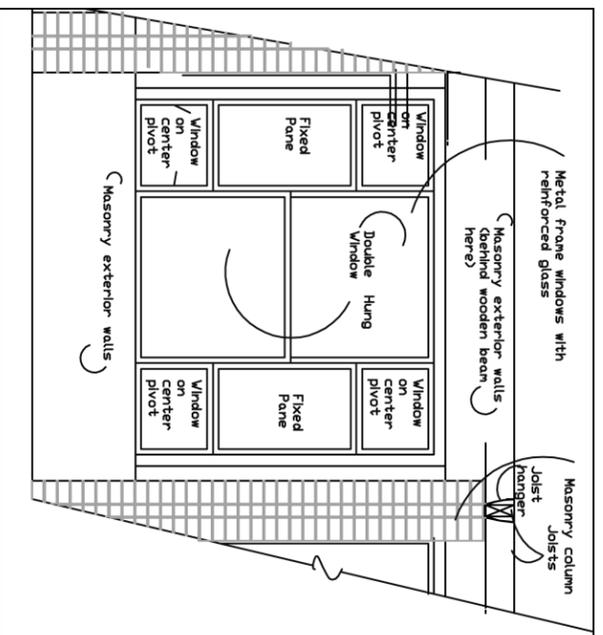
F	Floor
F1	45 oz level loop nylon carpet tiles
F2	Cut pile nylon carpet
F3	Marble tiles
F4	Stone-look porcelain tile
F5	Linoleum sheet goods
W	Walls
W1	Linen upholstered walls fire-rated
W2	Semigloss, low VOC paint
W3	Ceramic tile
W4	Textured commercial vinyl wall covering

Area	Floor					Walls				
Theater	F1	F2	F3	F4	F5	W1	W3	W3	W4	W4
Bathroom	F2	F3	F3	F5	F5	W1	W2	W2	W3	W3
Kitchen	F1	F4	F4	F5	F5	W1	W3	W3	W5	W5
Office WC	F2	F3	F3	F4	F4	W1	W2	W2	W4	W4

Circle the most appropriate choice from those listed to the right by referencing the table above for material descriptions.



A Site Plan

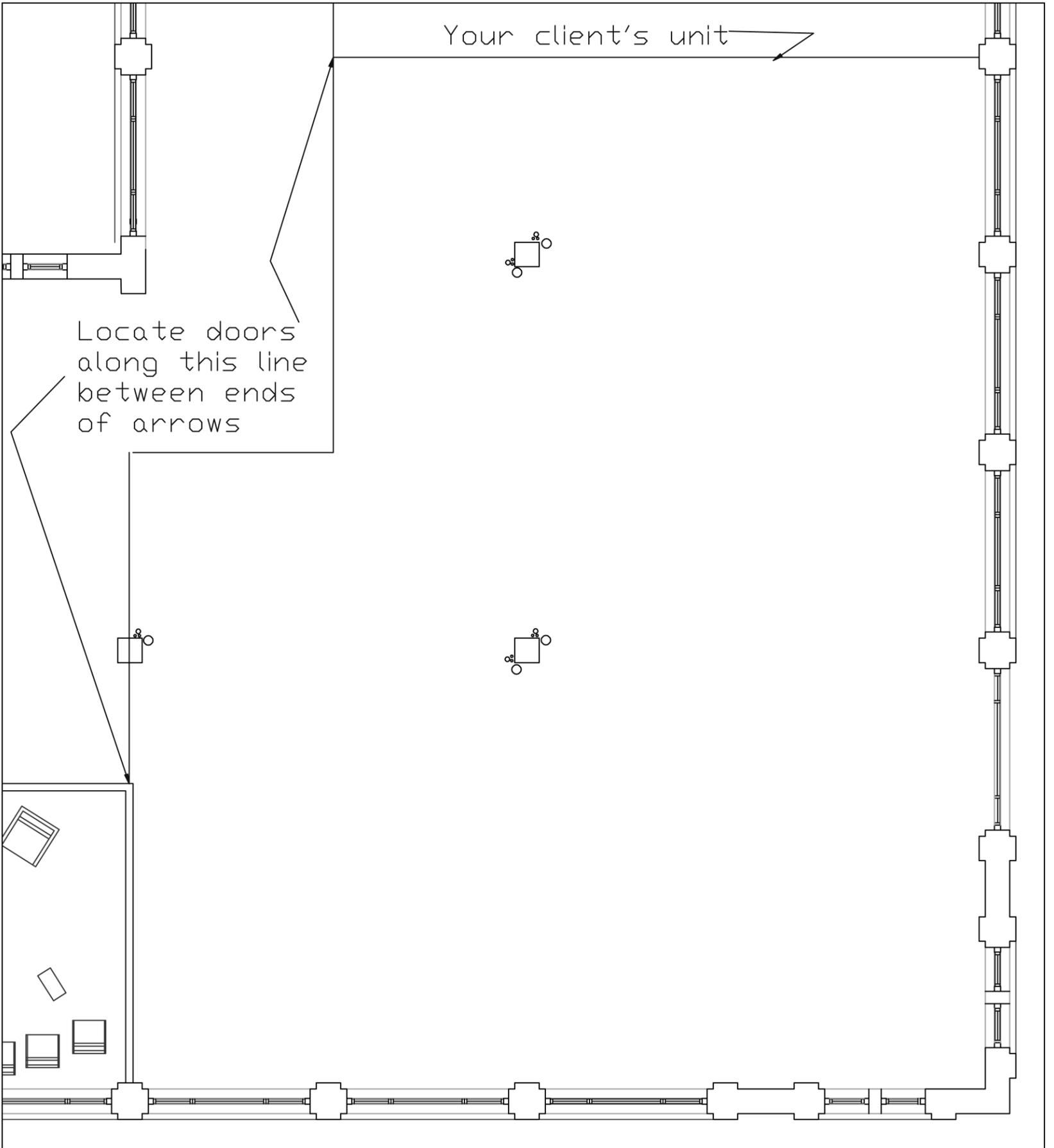


B Interior Elevation
Scale 1/8" = 1'-0"

Site Plan
Elevation
Matrix
Schedule
Business Coach, Full Version

Sheet
P1-1

Scale 1/8" = 1'-0"
Control Number



Timed Design
Exercise

Part 1 of 2

Floor Plan

Your solution must be presented in ink or felt tip
on this sheet
Business Coach, Full Version

Sheet
P1-2

Scale
1/8" = 1'-0"

Control Number

TIMMED DESIGN EXERCISE

Timed Design
Exercise

Instructions to Students

1. Read all of these instructions before beginning the exercise.
2. Review the project and code requirements and additional scope of services.
3. Review the floor plan P2-1; notice the layout for your lighting and electrical planning and also the elevation symbols indicating the elevation for the media cabinet, which is to be drawn on sheet P2-2 at $1/4" = 1'-0"$ (requirements follow). In addition to the elevation, draw a vertical section through the portion containing the 4 pieces of equipment showing how the design allows for the wiring between the equipment, TV, and speakers.
4. Review all of the symbols and electrical requirements on sheet P2-3.
5. Locate the electrical and communication devices required on the electrical/data/phone plan, sheet P2-3.
6. Create a reflected ceiling plan on sheet P2-4 showing all lighting locations.
7. Draw required circuitry and switching locations for a functional design.
8. Write your control number where indicated in the lower right corner of every sheet—even the ones that you don't write on.
9. Select the best choice from the equipment listed in the legends and use only that equipment and those symbols. Do not add equipment or make up your own symbols.

Code Requirements

- All electrical outlets must be located 18" AFF unless noted otherwise.
- Exit signage must be visible upon exiting all enclosed spaces and positioned to direct people safely out to the corridor.
- Where practical, wall outlets and ports are preferred over floor-mounted outlets and ports.
- Include in your solution exit signage in the hallway to continue to direct your client's visitors to the building's stairwell.
- Include in your solution exit signage required by code in your client's office suite.

Additional Scope of Services

Instructional audio and video presentations on CD and DVD are an important income stream for the coaching business. These discs are recorded in-house and edited by a consulting firm. Coaches in training are also filmed here. The proofing room is a second theater when needed and is also a convenient training space, as equipment here is connected to cameras in the recording space, and coaches in training can easily move back and forth between the two spaces. The conference room is frequently used for meetings and work sessions.

Design Requirements

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Project Description

Media Cabinet

1. The design of the media cabinet is to be congruent with a formal atmosphere.
2. A projection screen should be contained in the media cabinet, concealed in a crown detail integrated into the cabinet.
3. The cabinet is to also contain 4 pieces of sound equipment. Each is 17" wide \times 13" deep \times 4" tall.
4. Speakers are to be integrated into the cabinet. The left and right side channel and the center channel speakers are 8" wide \times 12" tall \times 6" deep.
5. The subwoofer is to sit directly on the floor inside the cabinet (the base may be cut out at that location). It is 15" square and 13" tall.
6. Cabinet is to house a small refrigerator that is 24" wide \times 34" tall \times 24" deep.
7. Label all finishes/surface materials for the desk; note incremental and overall dimensions.
8. Indicate location of electrical required to power the equipment contained in the cabinet with a hidden line if it falls behind equipment (solid line if it is visible when equipment is in place).
9. View Number One should show the cabinet as it would look with doors and speaker cloth removed to show equipment locations.
10. View Number Two should show the section through the equipment portion showing how the equipment connects to power and to other pieces of equipment when necessary.

Electrical Plan

1. Review the requirements on sheet P2-2 and provide for all required devices.

Lighting/Reflected Ceiling Plan

1. Energy conservation to be balanced with effective lighting techniques in display and sales areas.
2. Solution to be safe and conform with codes.

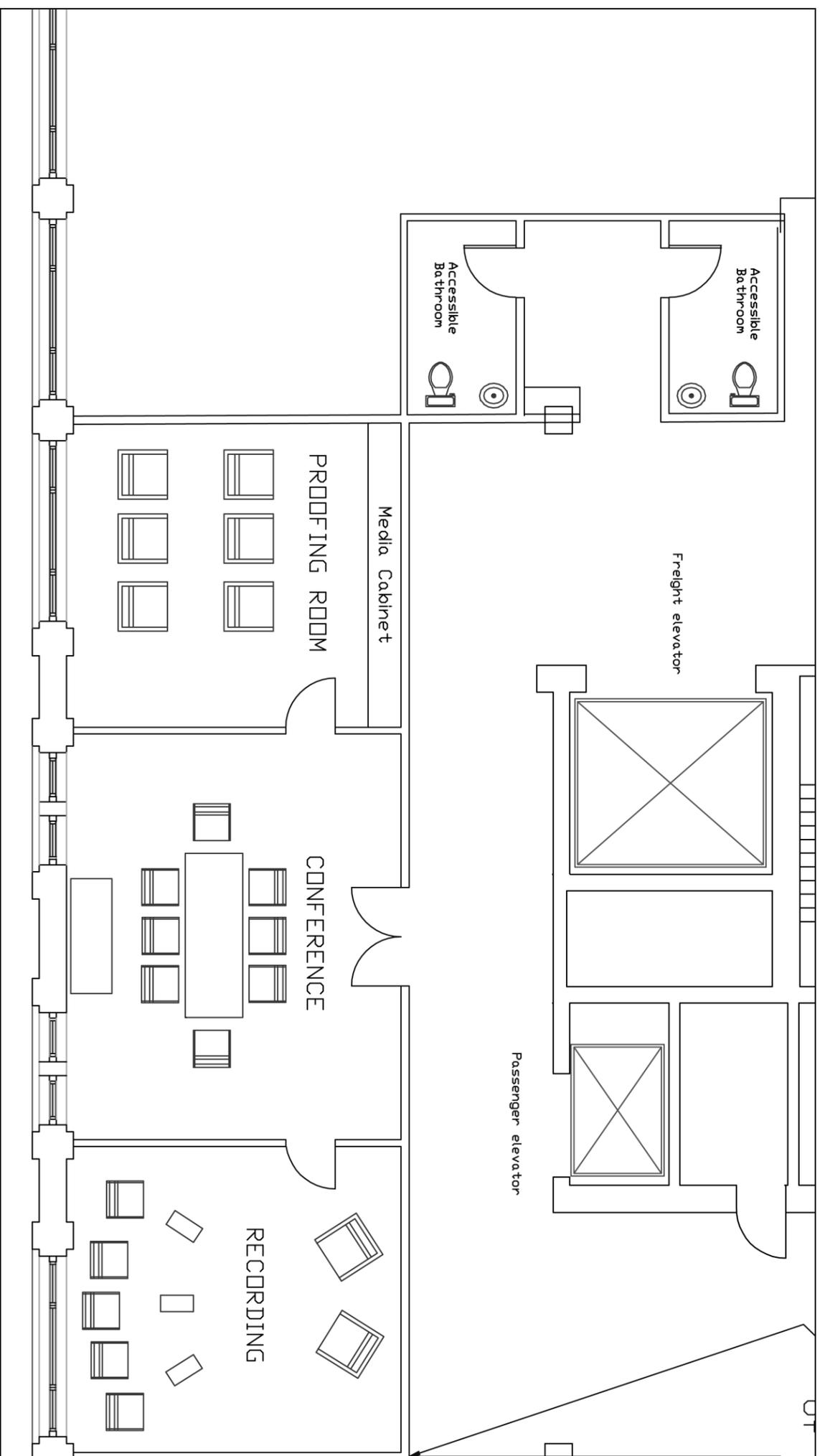
Part Two of Design Exercise Business Coach, Full Version

Part 2 of 2

Sheet
C-2

Scale
None

Student Control Number



Floor Plan Business Coach, Full Version

Sheet

P2-1

Scale $1/8'' = 1'-0''$

Control Number

Electrical Legend

	Duplex outlet
	Ground Fault Interrupt duplex outlet
	Quadruplex outlet
	220-volt outlet
	Cat 3 phone port
	Shielded RGB video port
	Phone and data port
	Phone/data/power
	Floor duplex outlet
	Floor phone port
	Floor data port

Use only these symbols to communicate your design. Do not make up your own symbols.

Equipment List

Note on your plan heights for all locations deviating from typical of 18" AFF

Qty	Location and requirements
2	Media cabinet: phone/data/power
1	Media cabinet: one quadruplex outlet for equipment
1	Media cabinet: duplex at projection screen location
2	Proofing room convenience outlets for laptops
1	Proofing room phone jack for wall-mounted phone
1	Media cabinet RGB video port
1	Conference room: phone jack for wall-mounted phone
2	Conference table: duplex floor outlets for laptops
1	Conference buffet to conceal duplex convenient to its top
2	Recording room: power/data/phone port for cameras
2	Recording room: duplex convenience outlet
4	Recording room: ports for RGB video cable one ea. camera

Refer to this list as you prepare your electrical/data/power plan; select and show only these items on that plan.

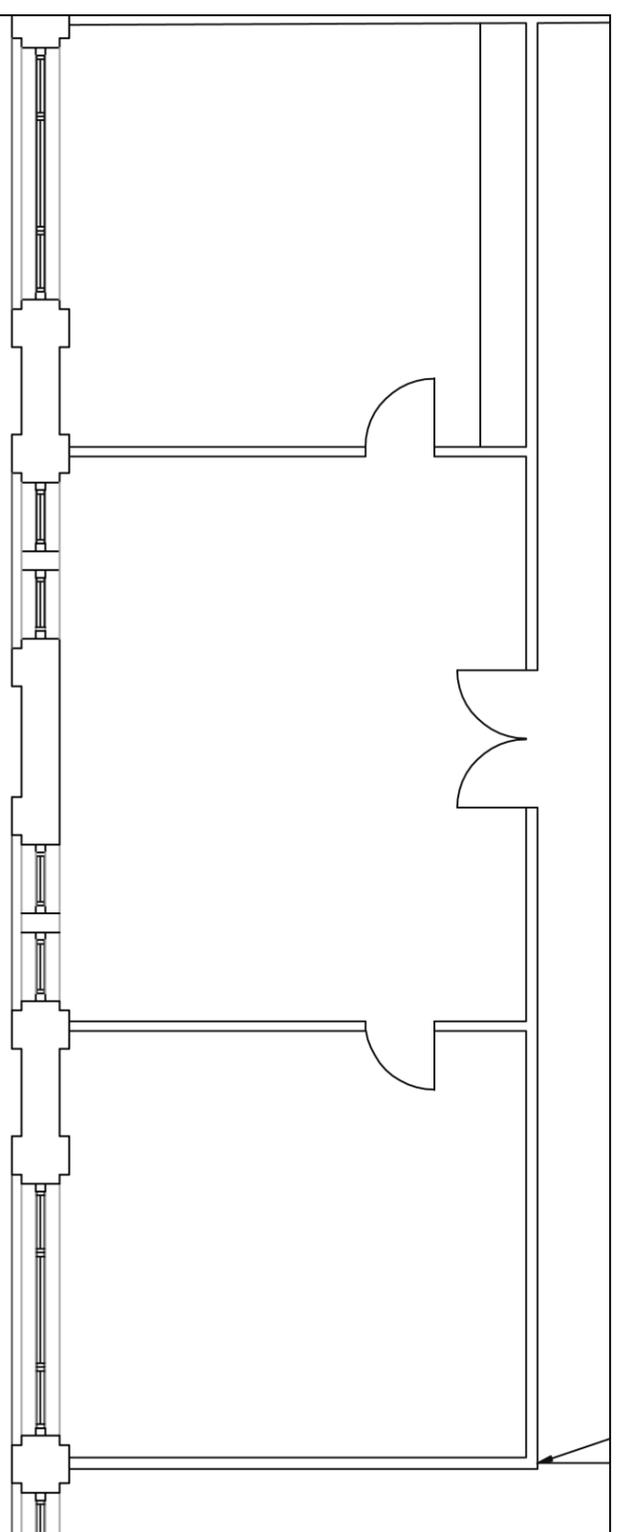
Use the space below to draw (to scale) your design for the media cabinet showing all equipment devices, dimensions, and material descriptions.

A Elevation of Media Cabinet

Scale: 1/4" = 1'-0"

B Section Through Media Cabinet

Scale: 1/4" = 1'-0"



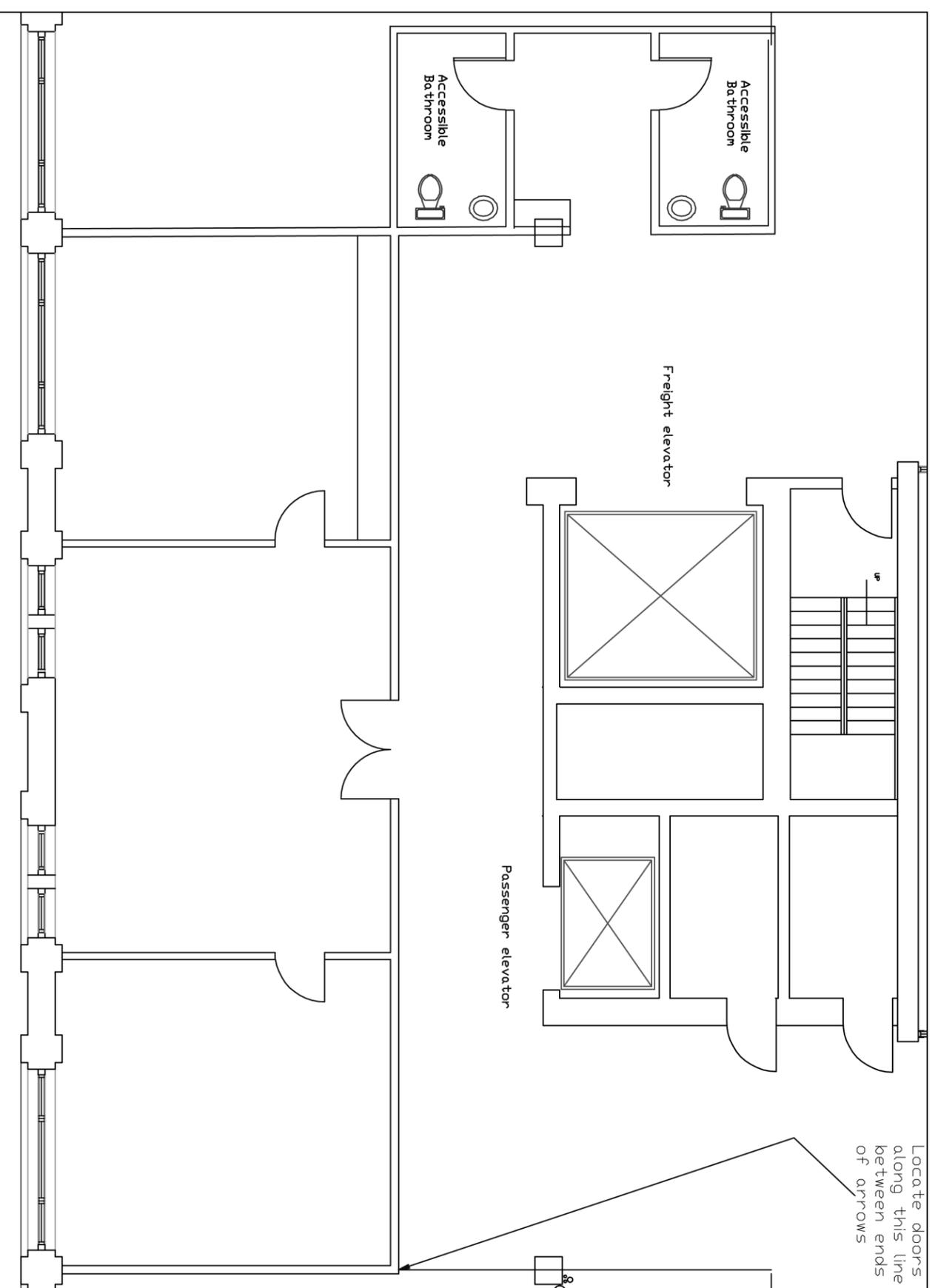
C Electrical Plan

Scale: 1/8" = 1'-0"

Lighting Legend

Wall	Ceiling	
	(R)	Recessed incandescent
(LV)	(R) LV	Recessed incandescent low voltage
(CFL)	(R) CFL	Recessed compact fluorescent
		Recessed fluorescent troffer
	---	Hidden light fixture fluorescent T5 or xenon strip light
		Portable task or table lamp
		Track lighting—broad side of triangle indicates beam side
(R) E	(R) E	Security lighting with backup battery power (always on)
		Exit sign (dark portion indicates location of lettering)
		Exhaust fan/light
\$		Light switch
\$3		3-pole switch
\$D		Dimmer switch

Refer to this list as you prepare your Lighting Plan; show only these items on your plan; use only these fixtures to solve the problem and use only these symbols—do not make up your own symbols.



Timed Design Exercise

Part 2 of 2

Reflected Ceiling Plan Business Coach, Full Version

Sheet

P2-3

Scale 1/8" = 1'-0"

Control Number