

Medium Size Clinic Floor Plan

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Analysis Methodology

- ▶ Facts
- ▶ Spaghetti Diagram
- ▶ Zoning
- ▶ Adjacency
- ▶ Efficiency
- ▶ Privacy Issues



Facts

- ▶ **Facility:**

- ▶ Total Area 2000 Sq. Ft
- ▶ 4 Patient Encounter Rooms: 150 sq. ft
- ▶ Corridor: 5 Ft wide, and 72.5 sq. ft long
- ▶ Waiting room : Seating capacity of 7 patient
- ▶ Other rooms: 2 Doctors Offices, Janitors room, ADA Rest Room, Lab/Vitals room, Managers Office, Nurse Station



Users and Nature of Activity

- ▶ Patients: ~ 20 a day - 10 hrs of operation per day, 2 doctors and 2 exam rooms each
- ▶ 2 doctors
- ▶ 2 Nurses/M.As
- ▶ 1 Manager
- ▶ 1 Receptionist
- ▶ 1 Janitor

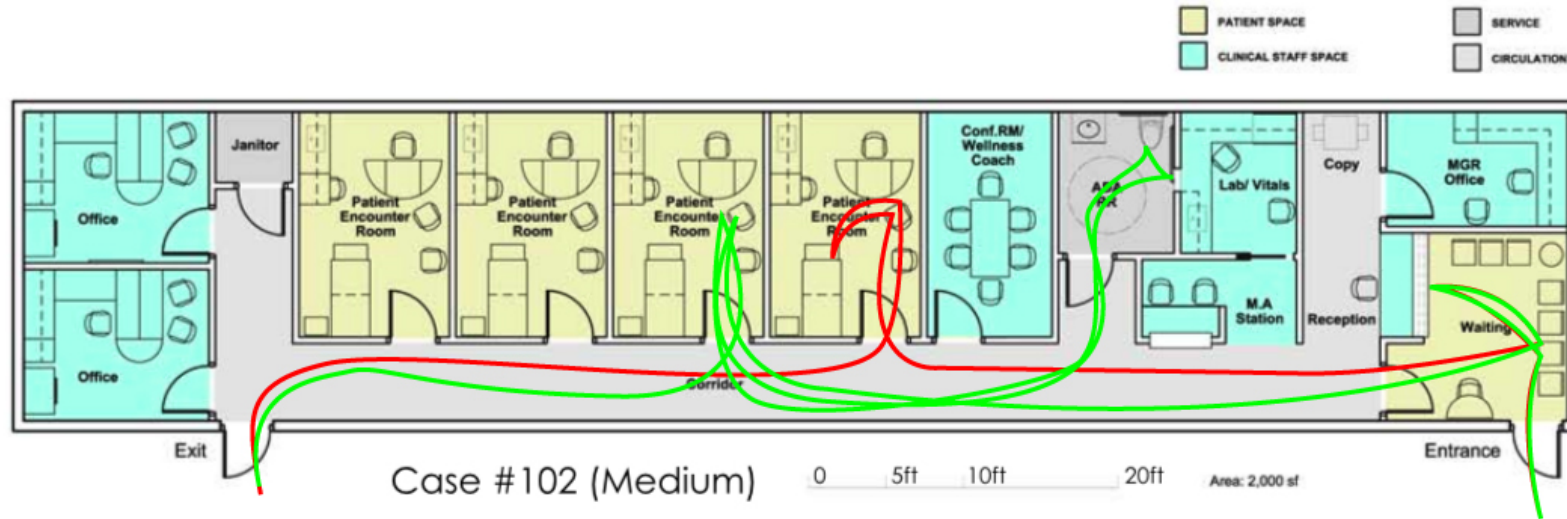


Use of Spaghetti Diagram

- ▶ Spaghetti Diagram
- ▶ Best Floor Plans: Minimize Traffic Jams and Travel Distances
- ▶ Analyze user flow
- ▶ Estimate Travel Distances
- ▶ Identify Bottlenecks

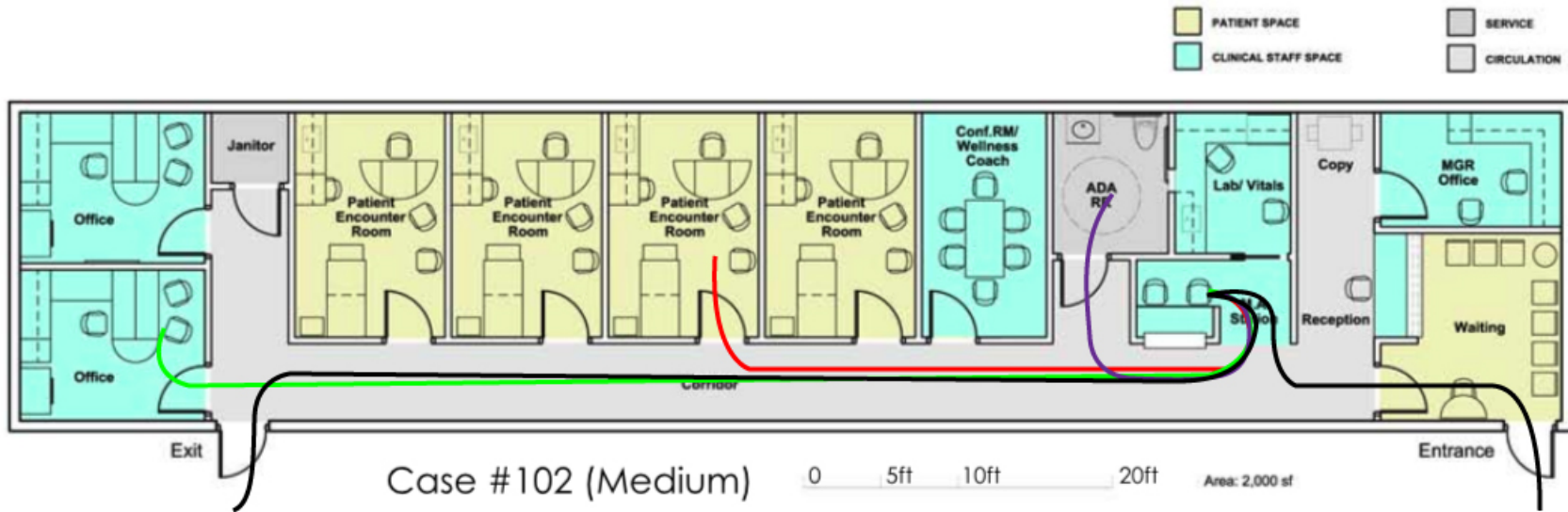


Patient



Average Distance Traveled : 162.5 ft per visit

Nurse/ M.A



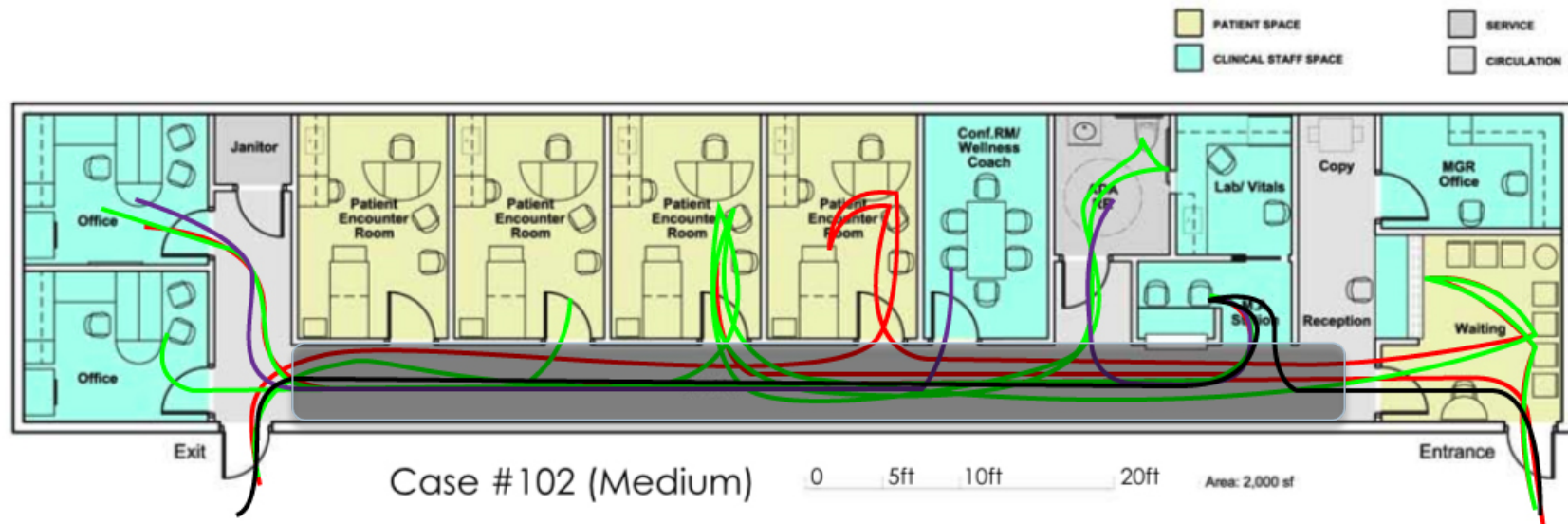
Path	Avg. Distance	Frequency	Color Code
Entry-Exit	100 Ft	Low	Black
MA Station-Lab	26 Ft	Low-Moderate	Purple
MA Station-Offices	77.5 Ft	Moderate	Green
MA Station-ER	45 Ft	High	Red

Doctors



Path	Avg. Distance	Frequency	Color Code
Entry-Exit	115 Ft	Low(2-3 times a day)	Red
Office-Conference Room	55 Ft	Low(Once a week)	Purple
Office-PER	40 Ft	High	Green

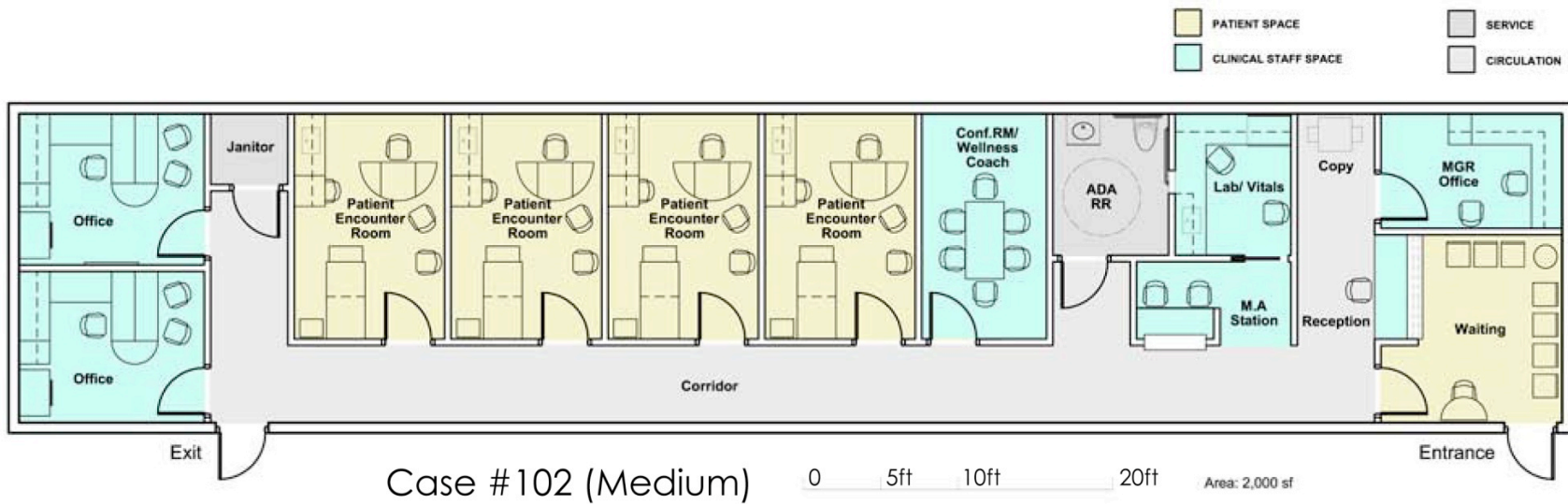
Bottleneck



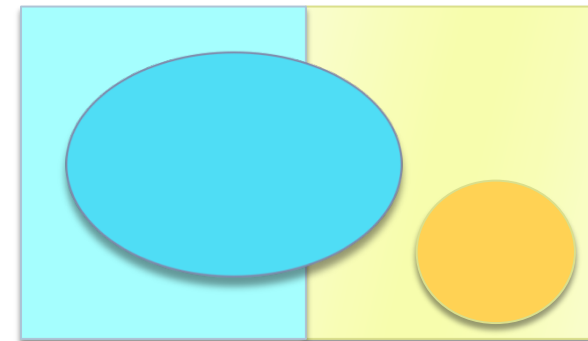
- ▶ Corridor
- ▶ 5 feet wide, 2 people
- ▶ Flow in both directions



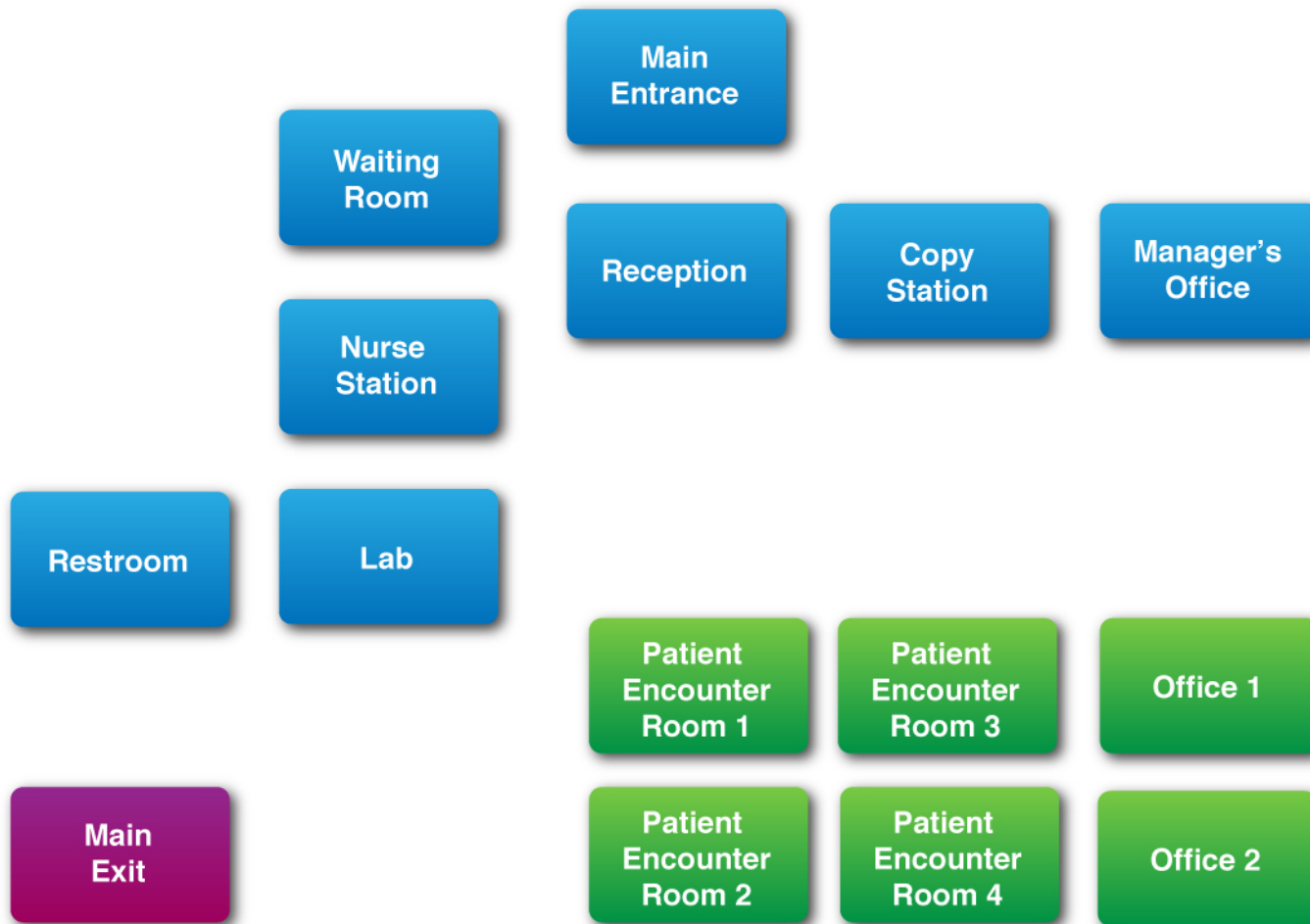
Zoning



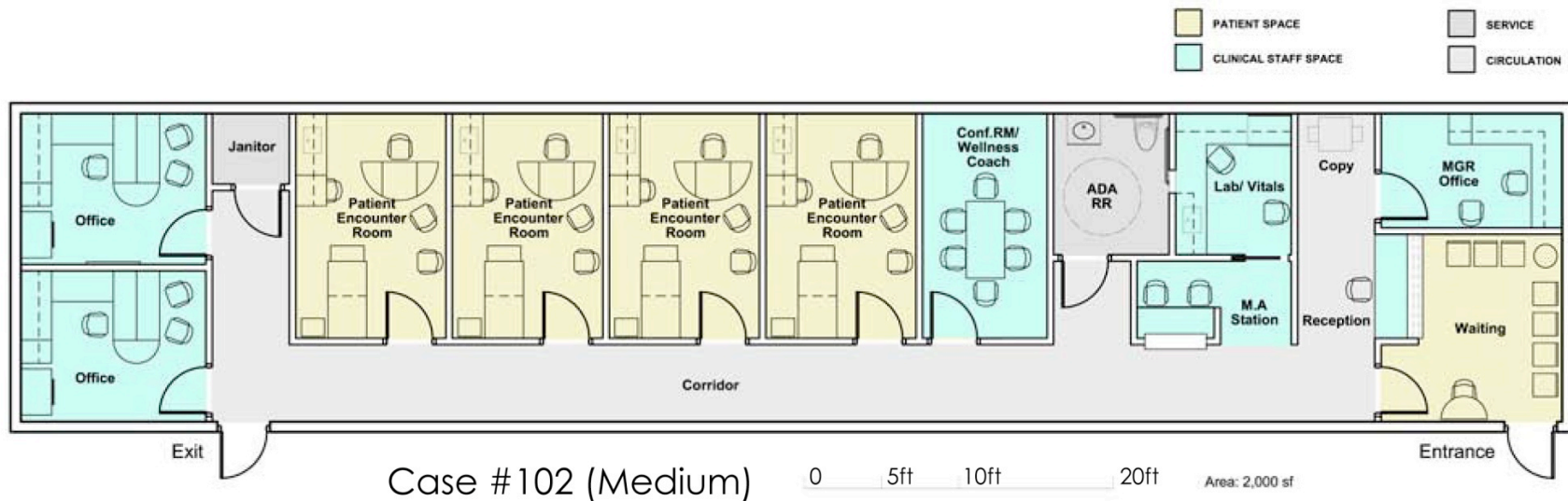
- ▶ Well defined, obvious, separate
- ▶ Does not confuse patients



Ideal Adjacency



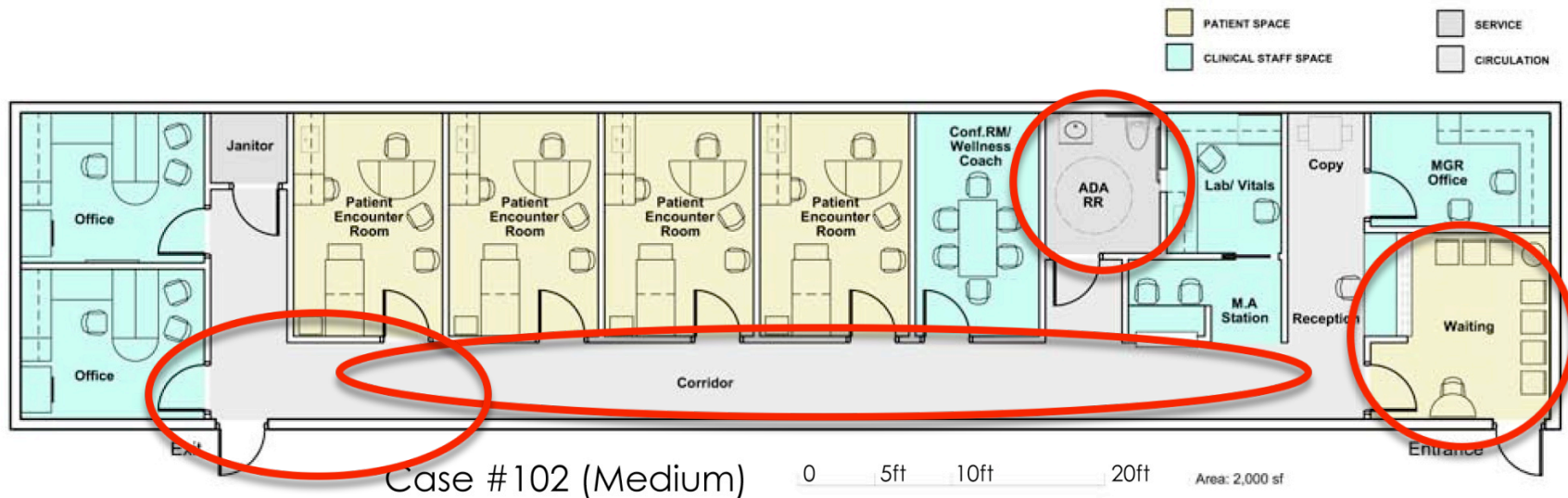
Actual Adjacency



- ▶ Very close to ideal
- ▶ Exam room and office distance potentially large



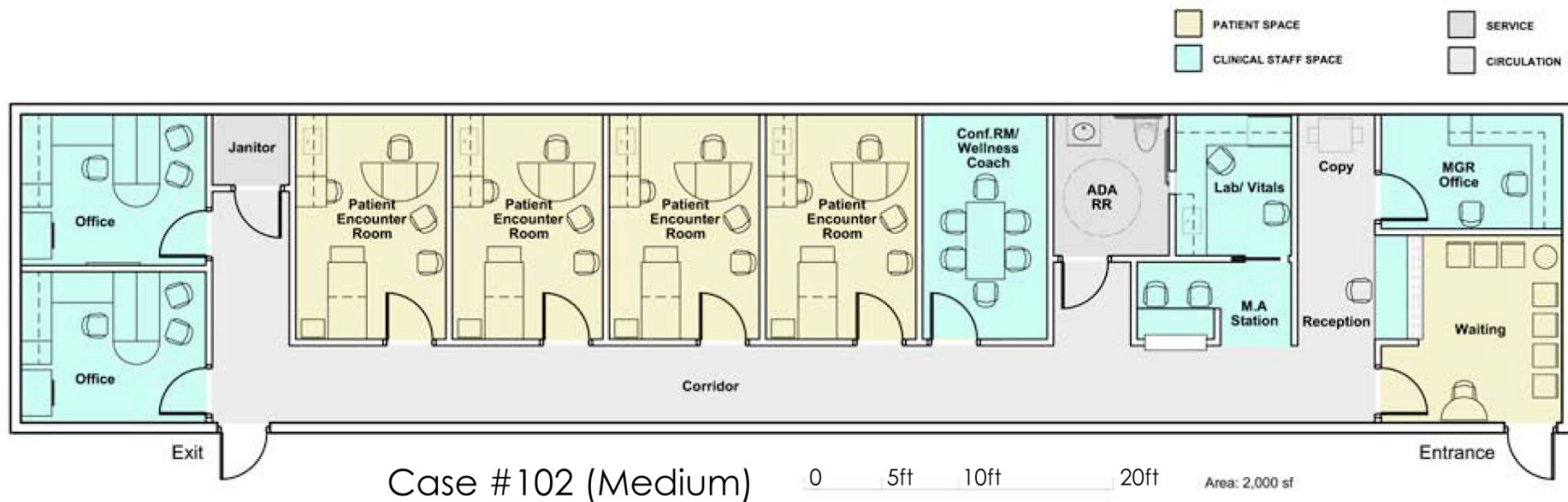
Privacy Issues



- ▶ Shared Corridor
- ▶ Shared Rest room
- ▶ Shared waiting room
- ▶ Exam rooms visible from exit



Efficiency



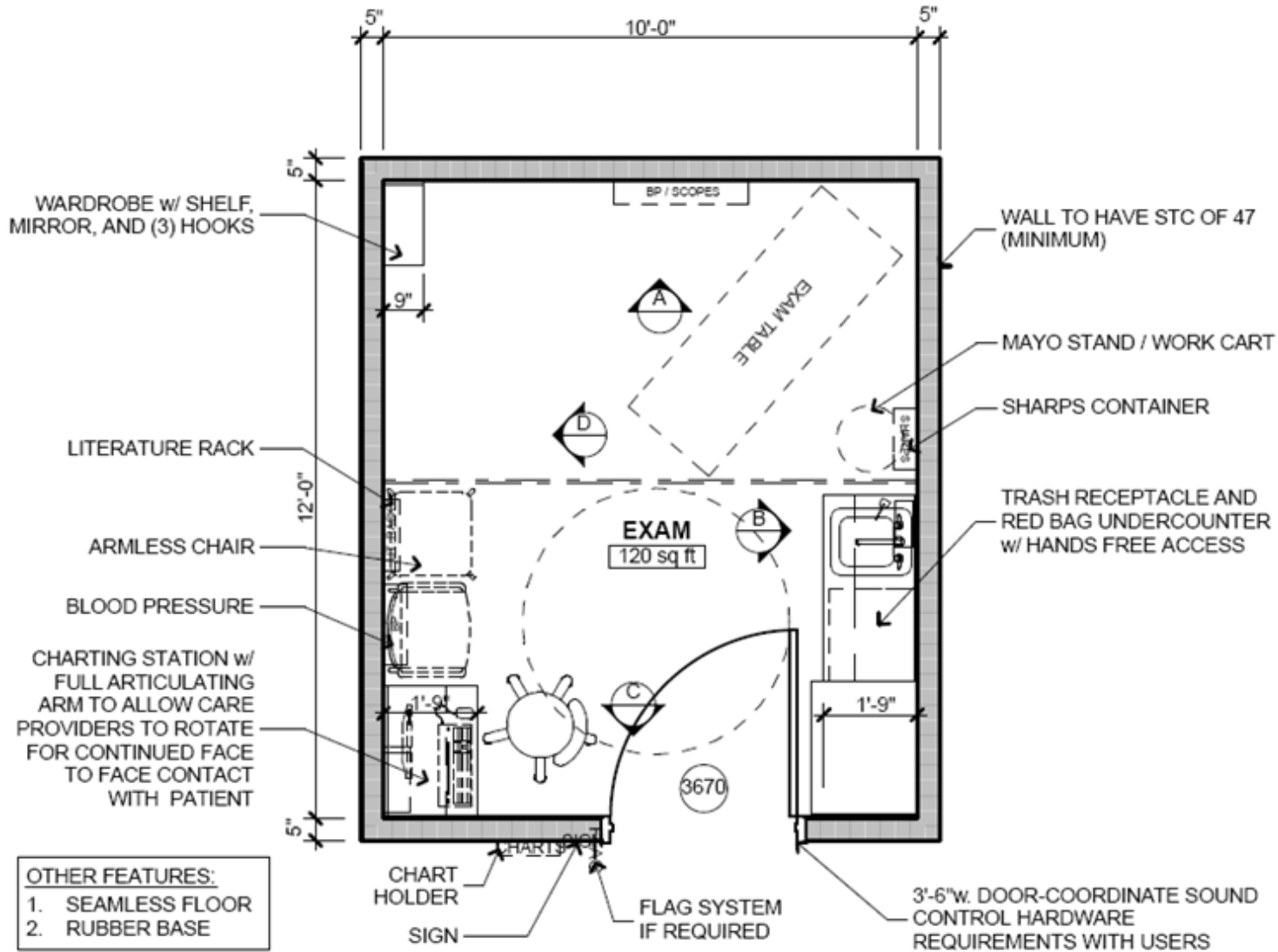
- ▶ Less used conference room – adds to heavily trafficked area
- ▶ Move to left – major traffic incoming from right
- ▶ Horizontally stacked exam rooms – add to heavily used path.
- ▶ Lack of supply room – use Exam Room and Lab storage?



Exam Room Layout Analysis

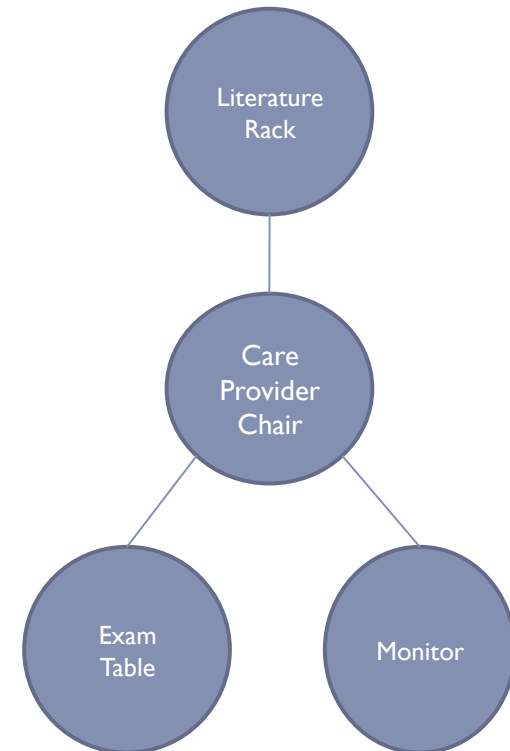
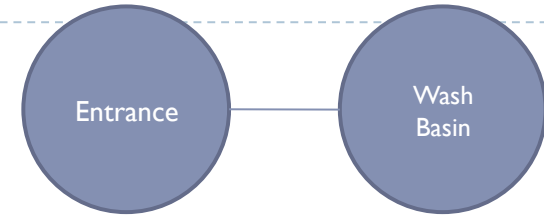
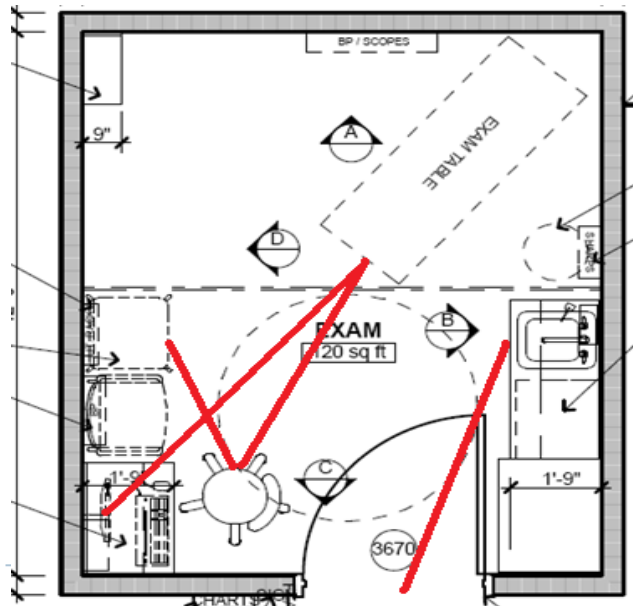
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Exam Room Layout



Adjacency

- Encourage washing hands upon entry and exit
- Simultaneous view of patient and monitor
- Exam table and monitor proximity
- Ease of access to literature rack from chair



Dimensions

Exam Room: 10 x 12 Square Feet

Work Triangle Analysis

Work Triangle 1:

Dimensions 6x6x4

Side 1: Exam Table-Chair

Side 2: Chair- Wash Basin

Side 3: Wash Basin-Exam table

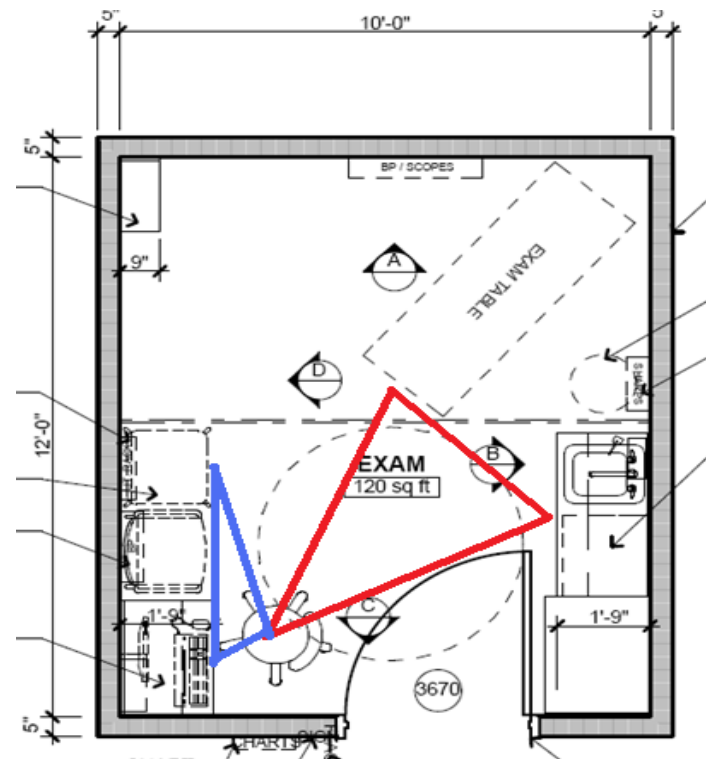
Work Triangle 2:

Dimensions : 4x3x1.5

Side 1: Monitor-Literature Rack

Side 2: Literature Rack-Chair

Side 3: Chair-Monitor



Recommendations

- ▶ Blood Pressure Measurement Arm Chair Corner of the room
- ▶ Interchange Positions: Literature Rack and Monitor Table, Chair Set
- ▶ Above changes reduce distances between
 - ▶ Exam Table-Chair
 - ▶ Chair-Wash Basin
 - ▶ Literature rack-chair + monitor

