



ALLEGRONE
COMPANIES

Design Synopsis

Skilled Nursing Facility

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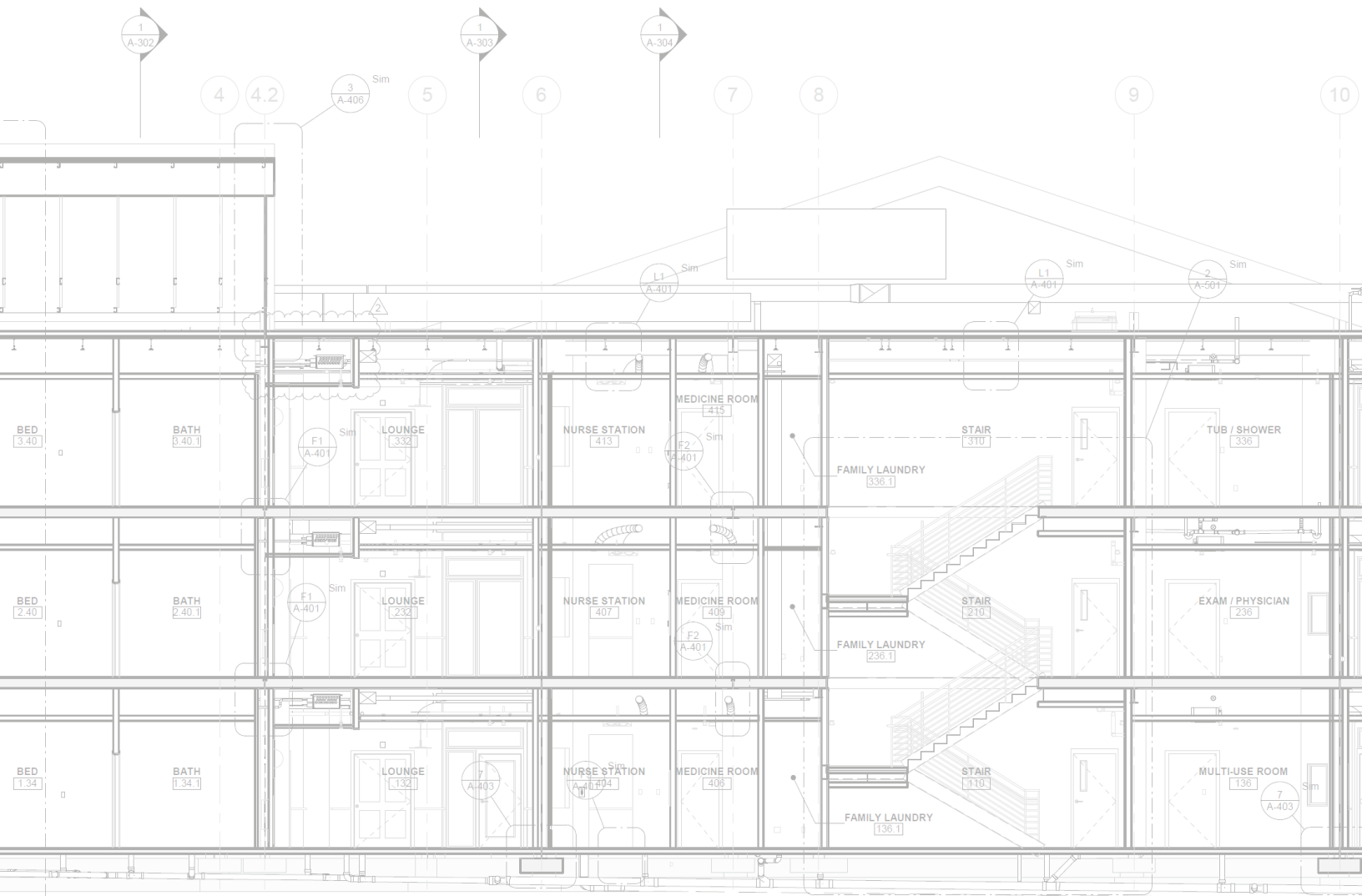
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Section 1

Project Overview

- a. Mission
- b. Design Synopsis



Mission

The project is a 120 single-bed unit Skilled Nursing Facility (SNF) that will replace the existing multi-bed unit facility that has been in operation for over 45 years.

The utmost priority is to achieve the highest standard of care imaginable that carefully aligns with the skillset of the staff and needs of the residents; a reputation that, for many years, the organization has been able to sustain. However, the executive and operational staff have been unable to proportionately adjust and adapt to the ever-changing Skilled Nursing discipline, refinement of staff process, increasing need of functionality, and understanding of the needs and wants of the specific resident demographic due to the limitations that are posed by the existing building program.

Through careful analysis of the functional and programmatic needs of the new facility during early predesign planning, there are several current problems and constraints within the existing facility that have been identified which need resolution in order to achieve a timeless and sustainable design.

The following is a brief outline of these findings:

1. Residential Environment & Function

- Single-bed Patient Rooms and Baths to advance patient experience, safety, and staff assistance
- Overall improvement of interior environment for residential areas including comfort, simplicity and reduced confusion

2. Indoor and Outdoor Environments

- Outdoor spaces to increase Patient connection with the surrounding natural environment and fresh air
- Centrally located Activity spaces specific to patient care: Long Term, Short Term, and Dementia Patient needs
- Increased functionality and square footage needs for events, education, and entertainment
- Adequately spaced and sized Lounge and Dining spaces to limit Patient and staff travel distances, increased convenience, and overall quality of life

3. Nurse Service and Operations

- Reduction of Nurse and staff travel distance to Patient Rooms
- Increased Nurse and staff line of sight to Patient Rooms
- Circulation convenience between floor levels and nursing units for staff
- Separation of staff “back of house” operations and residential environments
- Evenly distributed storage areas to eliminate equipment located in corridors
- Improved operations between Commercial Kitchen and Dining

4. Indoor Air Quality and Control

- Ventilation and infection control including controlled access, separation, and HVAC filtration

5. Life Safety

- Over-compliant and simplified life safety and means of egress systems
- Improved security and wonder management

Design Synopsis

Building Characteristics and Safety Systems

- I-2 Institutional Use Group (Nursing Home)
- 90,701 square feet total, approx. 30,000 per story
- 3 story structure
- 48' building height
- IB Construction Type - Non-combustible steel structure
- Fire protection
 - Fully Sprinklered NFPA 13
 - Portable fire extinguishers throughout
 - Spray fireproofing of structure
 - Fire rated egress and smoke compartments
- Interior finishes of Low or Zero VOC and B category flame spread
- Egress systems
 - 12 exit discharges provided (2 required)
 - Corridor width is 96"+
 - Max dead end = 17' (20' max required)



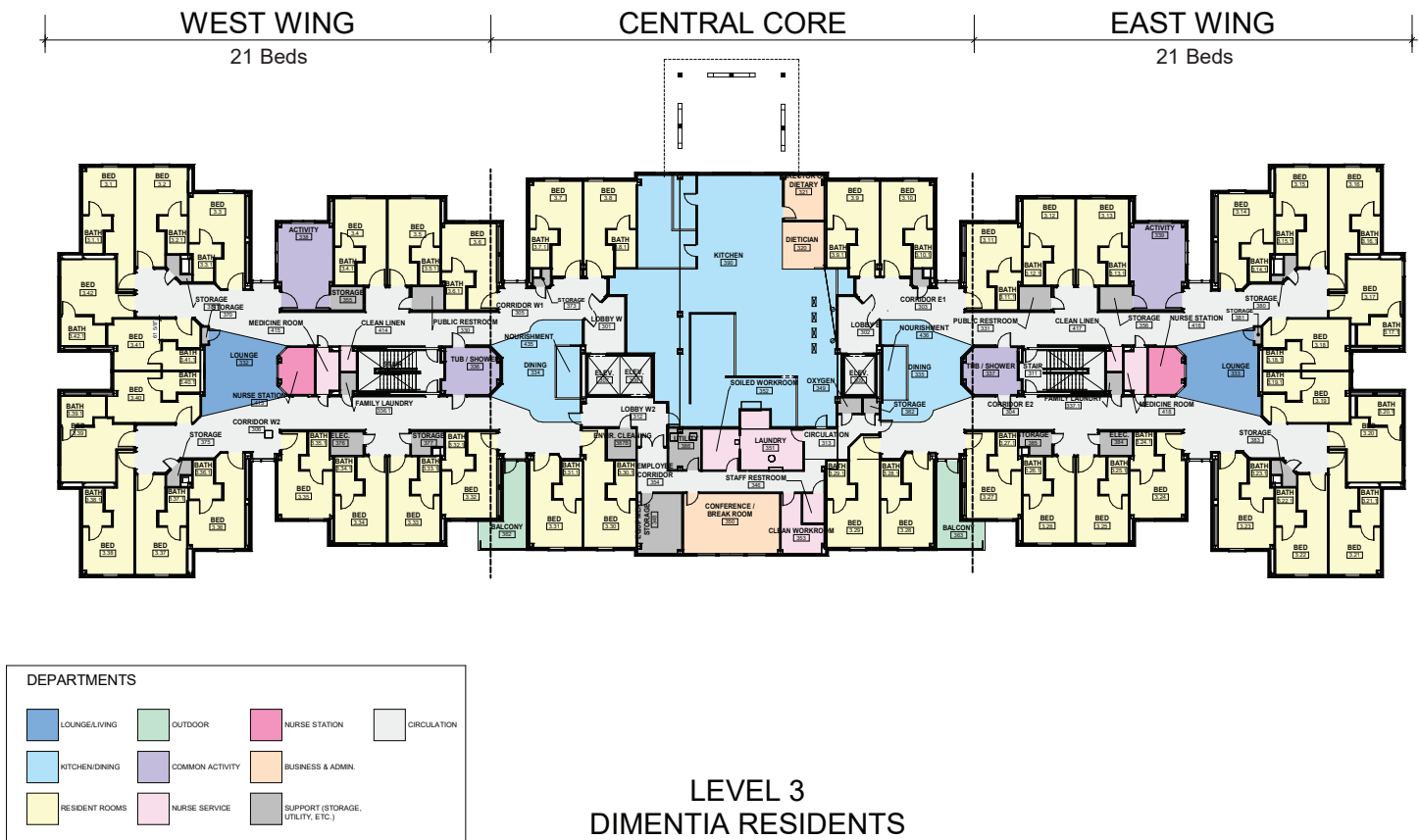
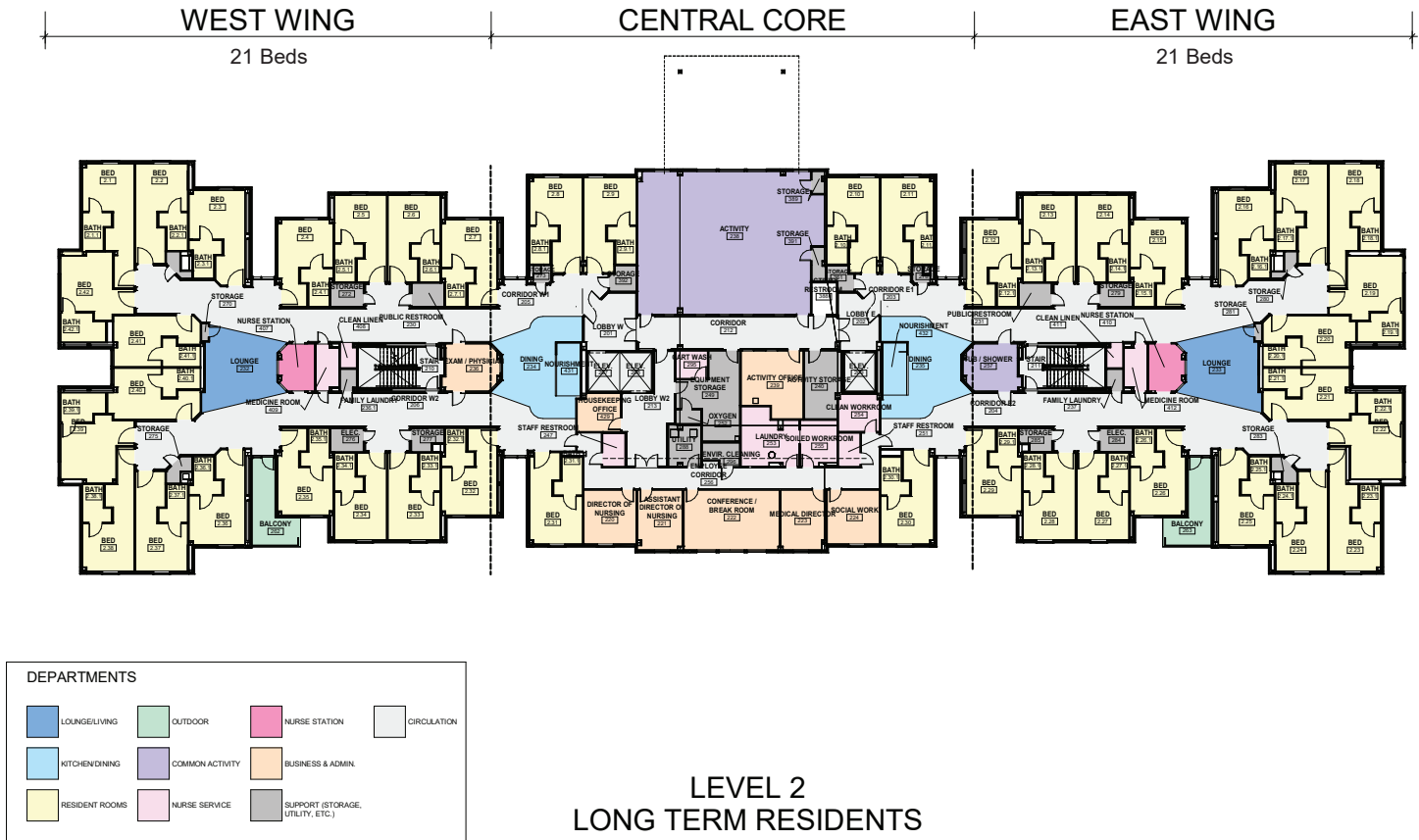
Building Form and Program

The building design includes three compartments that contribute to its overall exterior form and interior programmatic functionality. These compartments include the Central Core, East Wing, and West Wing, shown below and on the next page within each of the three floor levels. The compartments contribute significantly to the buildings staff operational functionality and resident interior environment.

The East and West Wings are the residential use areas that include the single bed rooms and baths around the perimeter of the building with Nurse Stations, Nurse Services Rooms (Med Rooms, Laundry, Clean Linen) Tub/Shower Rooms, and primary Stairways located at the interior. This perimeter bed arrangement and interior staff program creates the circulation path that is paired with the buildings Lounge/Living and Dining Areas for the residents.

The Central Core includes the staff-specific, “back of house” program such as the Freight Elevator that is used to move up and down floors, Commercial Kitchen, Commercial Laundry, Soiled and Clean Workrooms, Equipment and Supply Storage Rooms, Offices and Conference Rooms, Loading Doc, Housekeeping, and Employee only entrances and Corridors. Each of this spaces are hidden from view, separated, and directly attached to the residential areas (East and West Wings). In addition to staff-specific operations, the Central Core includes a Public Corridor that connections the Public Elevators to the centrally located shared Activity and Rehabilitation areas.

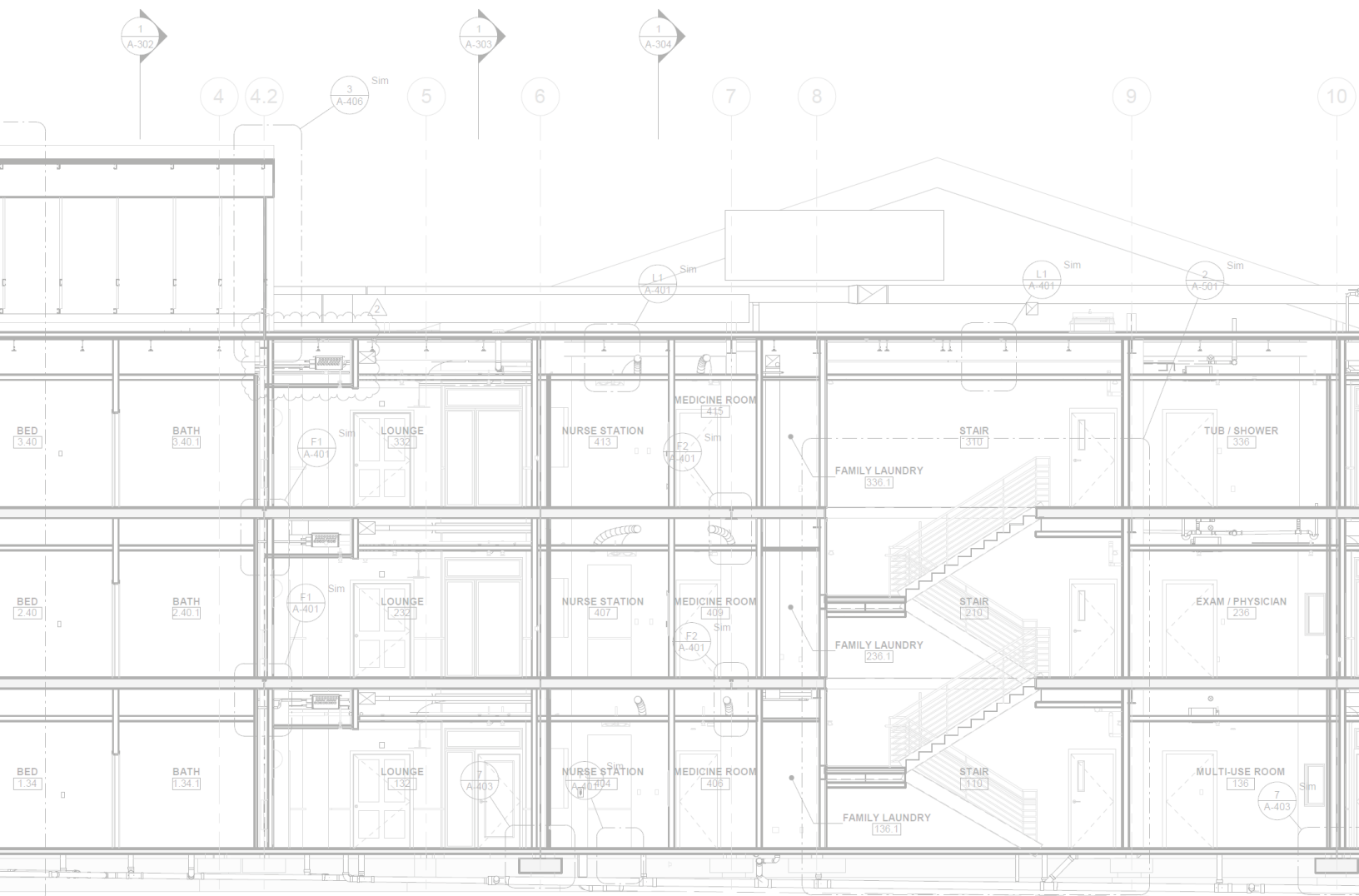




Section 2

Residential Environment & Function

- a. Private Bedroom and Bath Design
- b. Post Occupancy SNF Analysis
- c. Existing vs. New
- d. Residential Circulation



Private Bed And Bath Design

The layout and design of all units (bed and bath) have been heavily influenced by the functional and safety requirements of the residents, the assistance required by the staff based on current and future resident demographic, as well as analysis of the post occupancy of a previously completed and comparable SNF that has demonstrated several consistent years of success. The following outlines these important influences and associated design factors, specific to the Patient Bath areas, that help satisfy and achieve the GNRC care model identified during the functional programming and predesign planning process.

Functional, Safety, and Assistance Requirements:

1. Toilet rooms to be sized and configured to accommodate the use of ceiling lifting equipment.

- Lifting equipment is required for residents with limited mobility and strength.
- Water closet and shower seat alignment is crucial to the functional needs of the staff in order to simply and safely assist the resident during the lifting or manual assistance process to the water closet, shower compartment, or two and from either or at any time.
- Bath entry door and bed alignment is required based on lifting equipment offsets, ergonomics, and safety. Offsets from track to bed head wall, water closet, and shower compartment need to all be considered.

2. Shower control locations to be located outside the shower.

- This is a requirement per Connecticut Department of Public Health in order to facilitate staff assistance when a resident uses the shower compartment and is consistent with the needs of the facility based on resident safety and level of assistance required.
- Dementia residents require close assistance of temperature control.

3. Residents of the facility do not have sufficient stature and strength and therefore require single or double assisted transfers.

- This includes evaluation of the water closet in relation to the wall and grab bar feasibility.
- Clearance is required at both sides of the water closet that allow for a two-person transfer for a single resident.
- Ease of maneuverability is required from water closet to shower compartment, or vice versa, requiring both fixtures to be close in proximity.

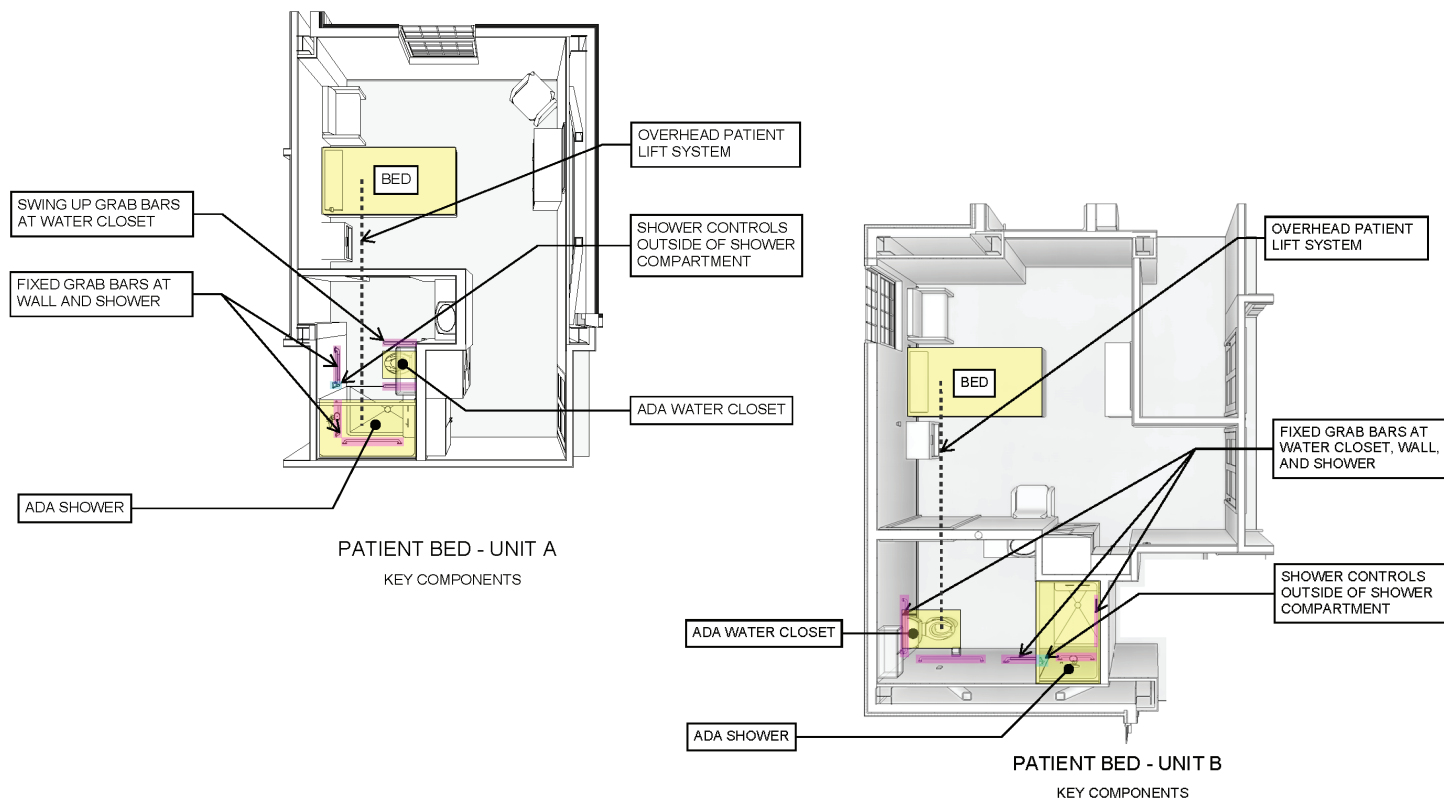
4. Staff assistance to all residents is performed at the facility for increased safety based on operations and resident needs and demographic.

5. A certain percentage of the resident rooms and bathrooms should be larger in size to accommodate persons with independent capabilities, persons of size, or to be used as a temporary hospice room that could include frequent visits from family or friends.

- This percentage has been estimated at a minimum of 5% of the rooms based on current and future analysis. For this reason, the building design includes 12 rooms (10% total of the 120 single-bed units) to be of type 'Unit B' (see details shown on sheet A-502b within the construction documents).

Code Compliance and Function of Bath Design

The bath design is a progressive path that satisfies the requirements of this project, while balancing local, state and federal requirements and conflicts.



Proposed Water Closet Design:

Swing-up grab bars have been proposed to allocate space on either side of the water closet when needed simply by pivoting the grab bars in the vertical position. Both grab bars, or a single grab bar, can be placed in the down position for residents who require and/or desire partial assistance to transfer. This strategy has been identified to satisfy the GNRC care model and is consistent and in compliance with the Connecticut adopted codes including the 2015 International Building Code (IBC), the 2009 International Code Council A117.1 Accessible and Usable Buildings and Facilities (A117.1), and the 2018 FGI Guidelines for Design and Construction of Residential Health, Care, and Support Facilities (FGI Guidelines).

Proposed Shower Control Design:

The proposed design includes the mixing valve and temperature control located outside of the shower compartment. This strategy has been identified to satisfy the GNRC care model and is consistent with Connecticut Department of Public Health per section 19-13-D8t(v) (8)(D).

Proposed Shower Compartment Design:

The proposed shower compartment is a 36"x60" roll-in shower that is open on one side of the 60" length that provides flexibility with access into the shower, and simple transferring from water closet to shower seat, or vice versa. The 36" depth, above the 30" minimum, provides additional space for a resident shower chair and the ability for staff to step into or enter the shower when needed for either a double transfer around the water closet or for shower assistance. The swing-up grab bar on the shower side of the water closet provides an additional grab bar that can be utilized for shower safety and assistance by staff or residents.

Post Occupancy SNF Analysis of Berkshire Place

Project Name: Berkshire Place Skilled Nursing Facility, 290 South Street, Pittsfield, MA 01201

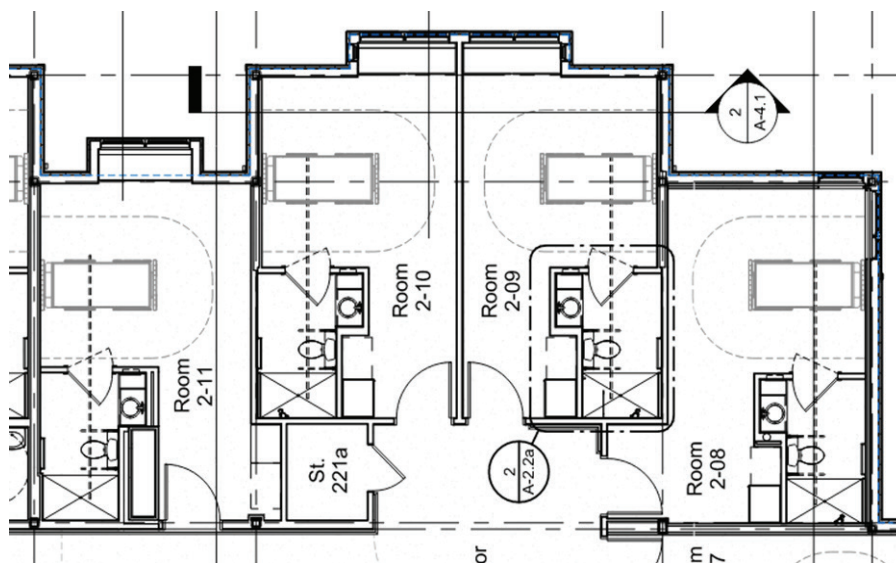
Project Overview:

Berkshire Place nursing home has been in operation for 8+ years and provides a full-range of care services ranging from short-term skilled nursing and rehabilitation, long-term care residency, memory care support, and outpatient rehabilitation. The facility has earned excellent reputation with long-standing quality of care and services provided to many generations with dedication to excellence that has been recognized with numerous deficiency-free surveys by the Massachusetts Department of Public Health and through the Medicare 5 Star rating system for quality. Berkshire Place consistently scores the highest in resident and family satisfaction with independently administered satisfaction surveys for nursing homes and has recently been HUD refinanced.

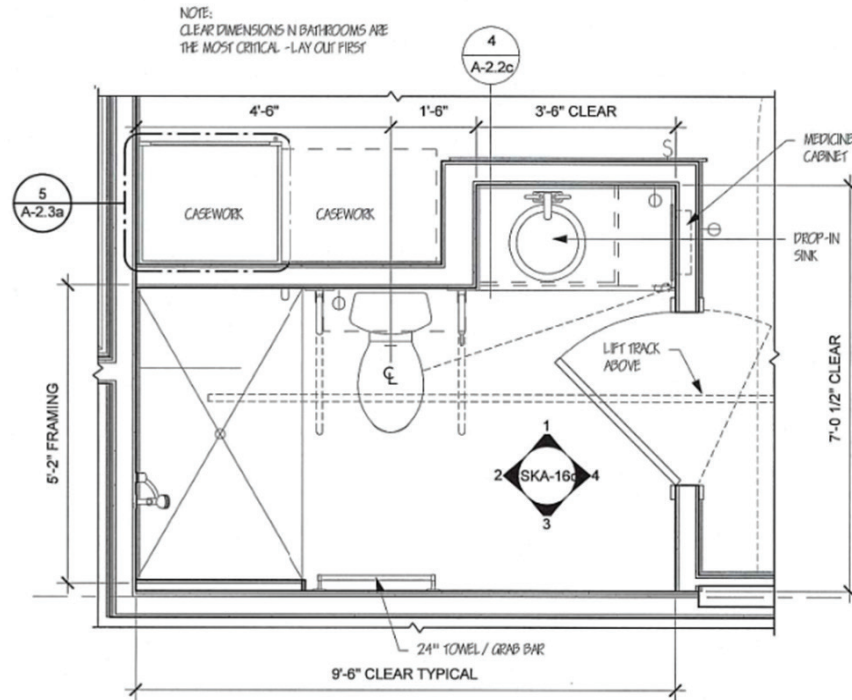
Resident Room and Bath Design:



Berkshire Place Interior Environment of Patient Rooms

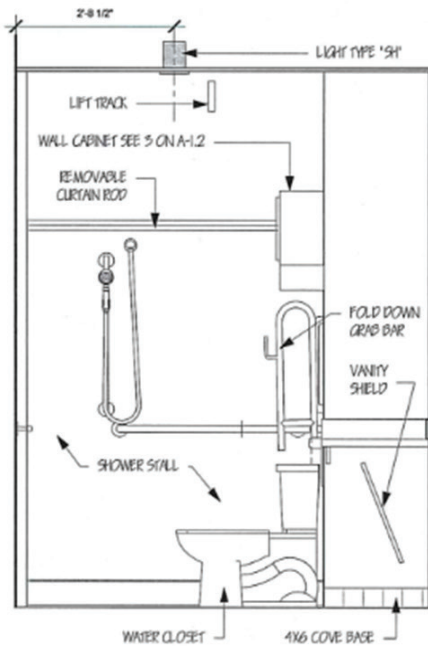


Berkshire Place Floor Plan Layout of Patient Rooms

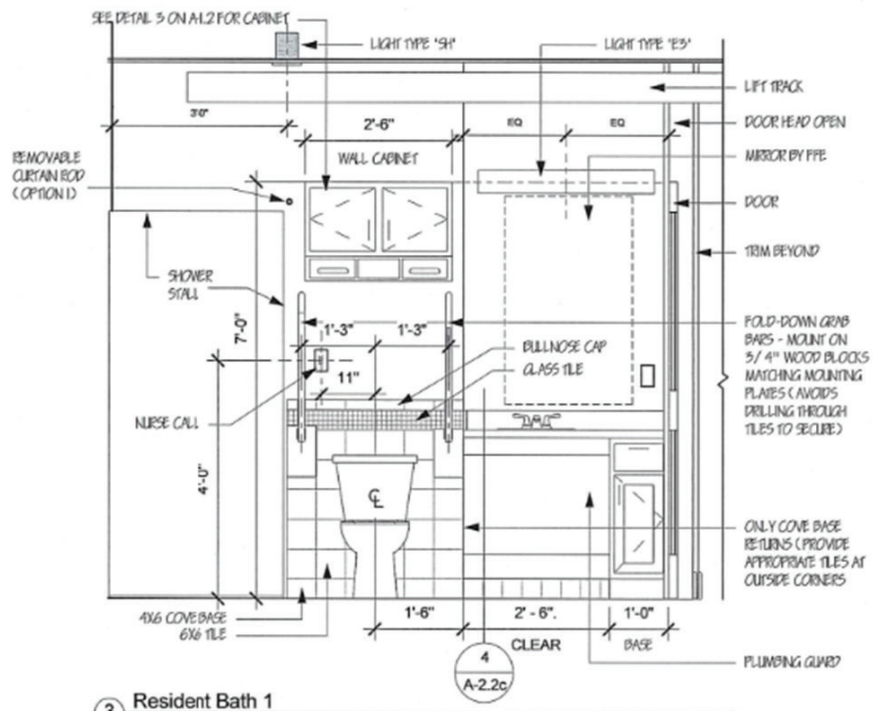


② Enlarged Resident Bath Plan
1/2" = 1'-0"

Berkshire Place Patient Bath Plan Layout



④ Resident Bath 2
1/2" = 1'-0"



③ Resident Bath 1
1/2" = 1'-0"

Berkshire Place Patient Bath Elevations

Existing vs. New

A programmatic advantage to the new facility includes the even distribution of residential rooms, amenities, and nurse surface areas in an effort to de-densify the indoor environment and allow for a more efficient flow of operations. The following outlines comparative data between the existing and proposed facility.

Area	Existing Square Footage	New Square Footage
Lounges	(4) 484 S.F. = 1936 S.F.	(6) 342 S.F. = 2052 S.F.
Dining	(1) 1260 S.F.	(6) 365 S.F. = 2190 S.F.
Activity	(2) 525 S.F. = 1050 S.F.	(4) various sized rooms = 2735 S.F.
Nurse Station	(4) 154 S.F. = 616 S.F.	(6) 100 S.F. = 600 S.F.
Rehabilitation	(1) 700 S.F.	(1) 869 S.F.
Laundry	(1) 450 S.F.	(3) various sized rooms = 492 S.F.
Kitchen	(1) 1394 S.F.	(1) 2855 S.F.
Patient Room	240 S.F. / 2 patients	281 S.F. – 331 S.F. / 1 patient

A few key takeaways from the data above, see diagrams for clarification on room locations:

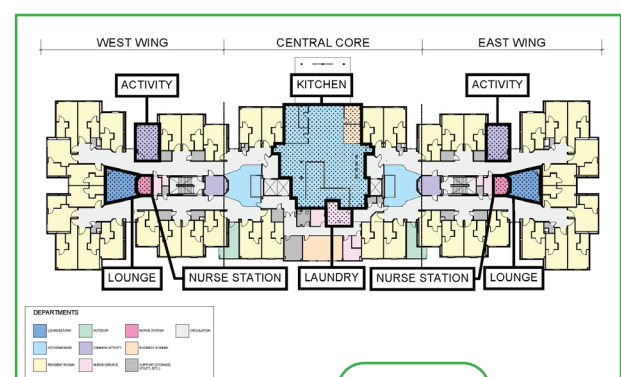
- Patient Rooms are larger with less occupants in comparison to the existing facility.**
- Lounge areas include 2 per floor (1 within each wing) for an equal square footage allocated per bed.**
- Dining areas include 2 per floor (1 within each wing) for an equal square footage allocated per bed.**
 - Existing facility includes a single Dining space on the first floor only. This increases travel distances and causes operational inefficiencies.
- Activity Spaces are allocated on each floor of various sizes catered to the specific use of each floor.**
 - First floor Activity Room is for overflow of Rehab space and use for events held within the southeast Courtyard. The first floor activity has less demand due to first floor allocation to short term residents.
 - Second floor Activity Room is the largest of the activity rooms for use by residential of any and all floor levels purposefully located at the Central Core of the second floor. This allows for equal travel distances to and from this space from all areas of the building.
 - Third floor Activity Rooms are smaller and catered specifically for memory care residents or those with dementia. These rooms are designed to be filled with daylight and consist of soft color tones, warm lighting, and a quiet atmosphere.
- Nurse Stations include 2 per floor (1 within each wing) for equal square footage and proper distribution of nursing staff per bed.**
- Laundry includes 1 commercial area per floor within the Central Core for use by staff only. This allows for adequate laundry utility per floor level based on adjacent number of beds. There are also secondary, residential style Laundry Rooms for each residential wing (east and west).**
- Commercial Kitchen on the third floor is connected to each of the 6 dining spaces by way of a freight elevator.**
 - This allows for significant reduction of travel distances.



1st Floor



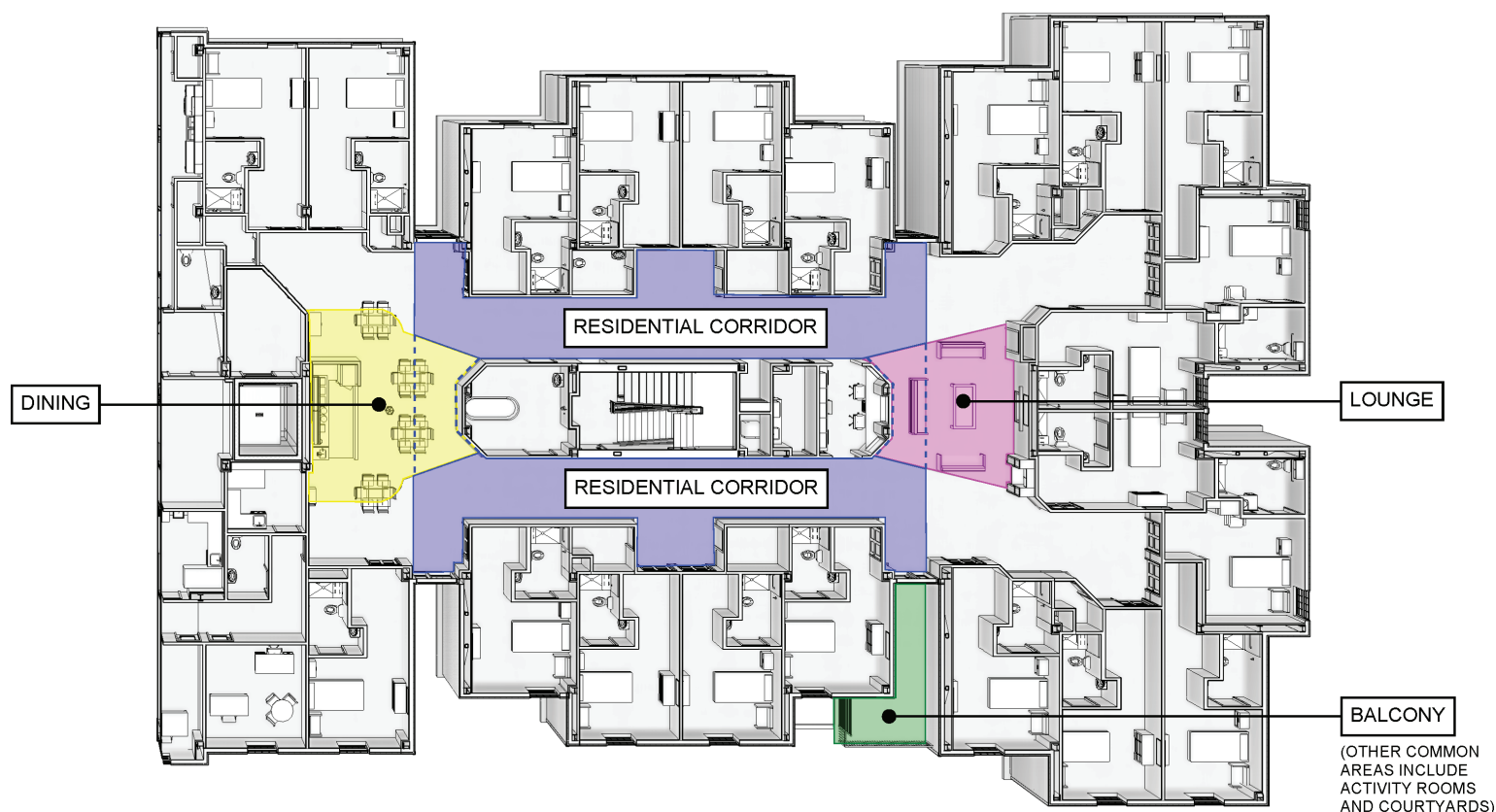
2nd Floor



3rd Floor

Residential Circulation

The circulation design has been influenced by the resident demographic including the need for simple navigation and wander management. As shown below, the residential corridors circulate around the interior cores (Nurse Station, Stair, and Tub/Shower Room) of both the East and West Wings while seamlessly connecting the residential amenities (Lounge, Dining, Balconies, and third floor Activity Rooms specific to dementia residents). Through this simple and efficient strategy of the program layout, the building design is able to limit confusion, eliminate hidden areas of view, as well as heighten the understanding of the common interior environment.



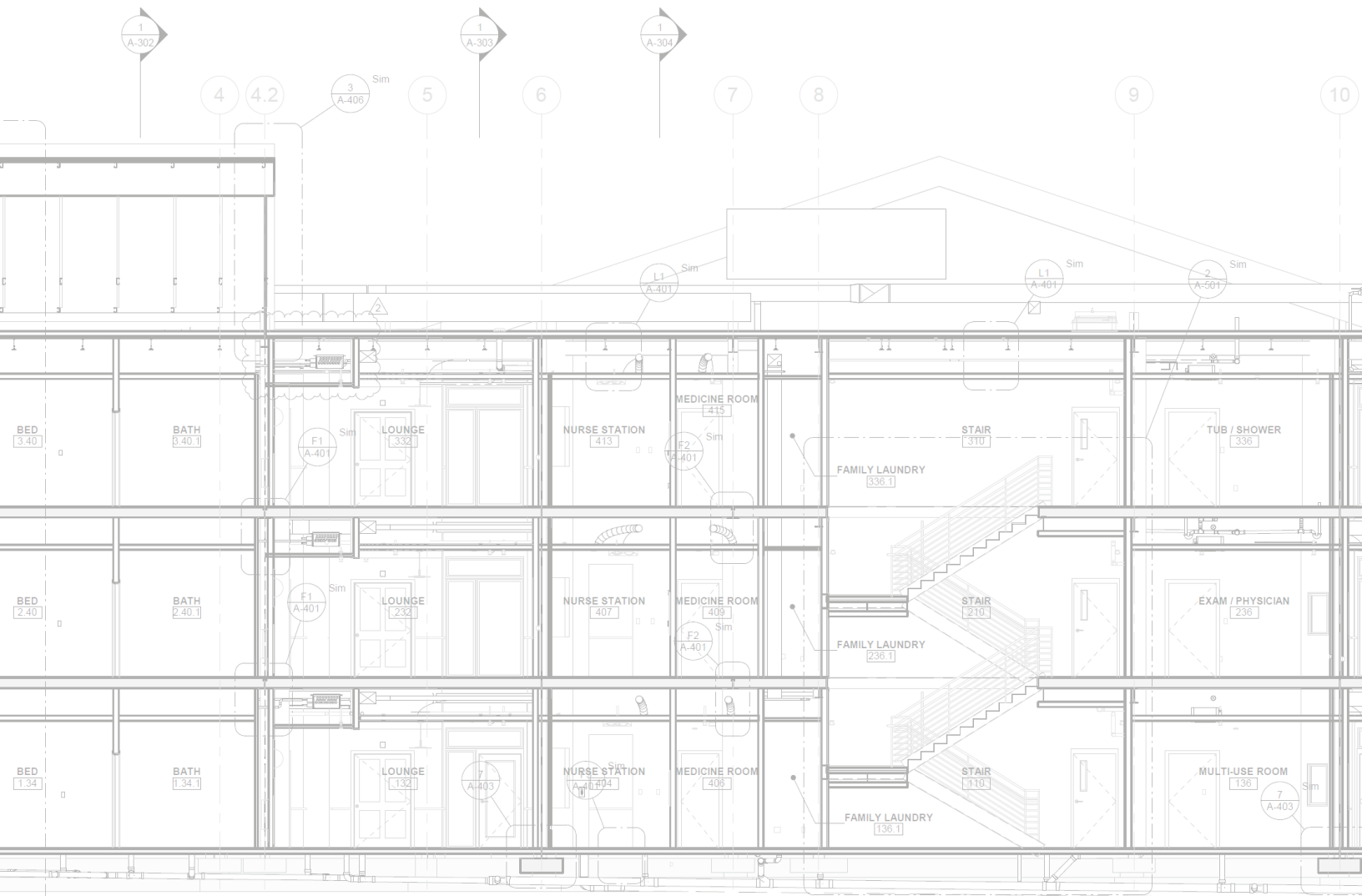
TYPICAL WING - RESIDENTIAL CIRCULATION

RESIDENTIAL CORRIDORS, LOUNGES,
 DINING & COMMON SPACES

Section 3

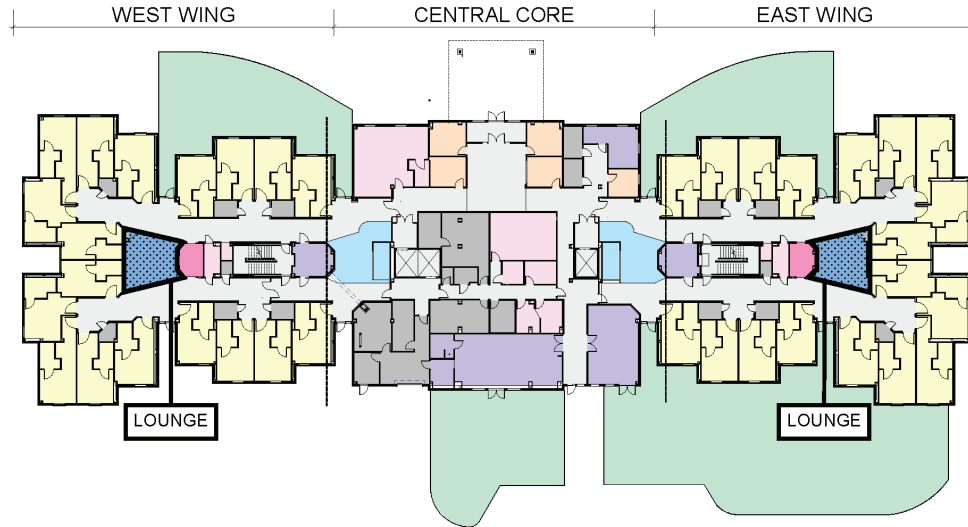
Indoor and Outdoor Environments

- a. Common Space
- b. Outdoor Connections



Common Space

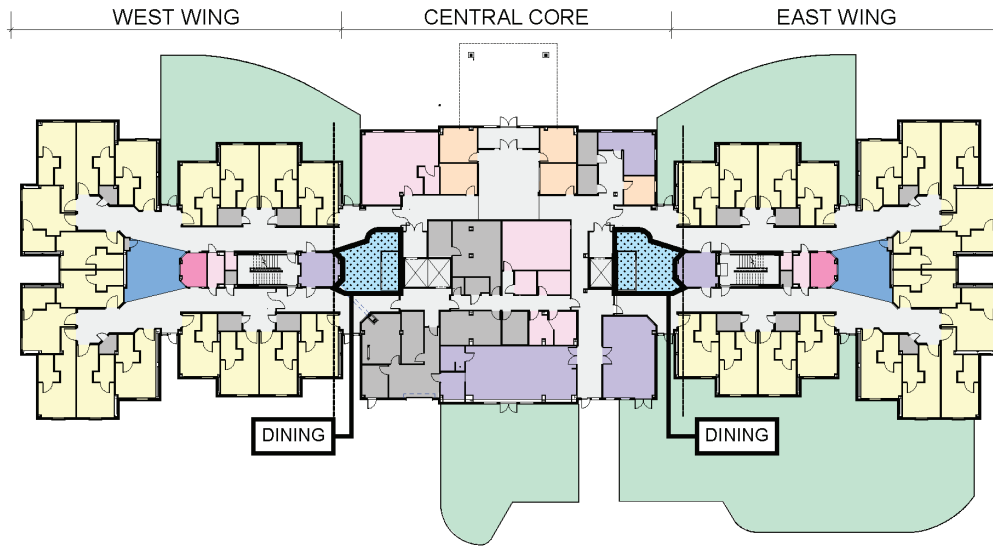
Lounge



The Lounge areas as shown above are located as part of the residential circulation, allowing for an integrative program and open floor plan for ease of access by the residents as well as enhancing the interior environment. The interior environment of each of the Lounge spaces (one allocated for each Wing on each floor level), provides a living space for the adjacent resident rooms (between 18-21 residents depending on the wing and floor served). As shown in the below sketch perspective, these areas include a fireplace, comfortable seating, natural light, and access to the outdoor courtyards (first floor) and balconies (second and third floors).



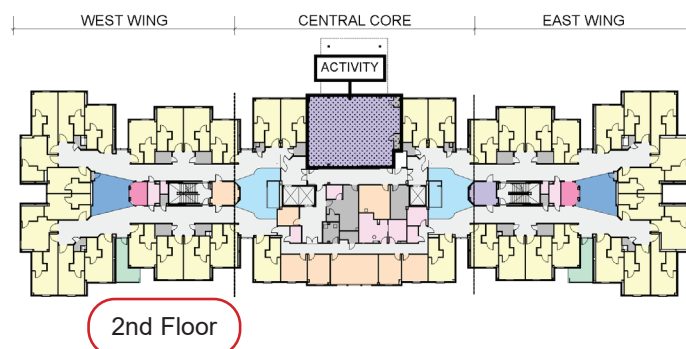
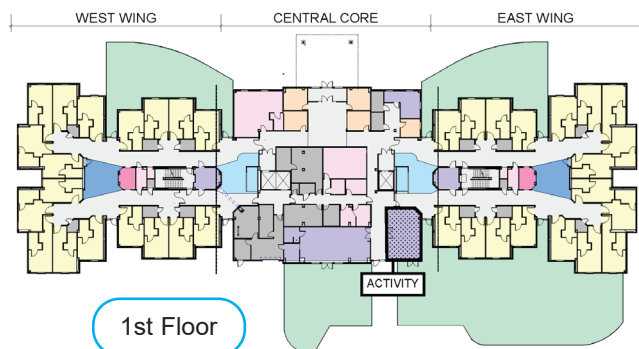
Dining



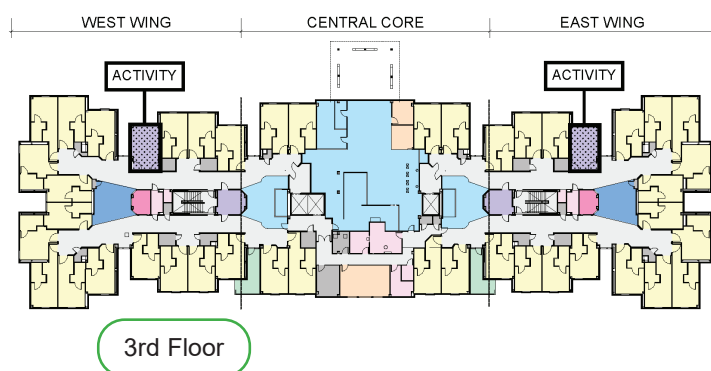
The Dining spaces as shown above are located (similar to the Lounge areas) as part of the residential circulation, allowing for an integrative program and open floor plan for ease of access by the residents as well as enhancing the interior environment. These areas provide separated Dining spaces for each Wing of each floor level (serving between 18-21 residents depending on the wing and floor served). As shown in the below sketch perspective, these areas include table seating, natural light, and a Nourishment Station (these spaces are extensions of the kitchen that are used for serving, dish and ware storage, food prep, etc.).



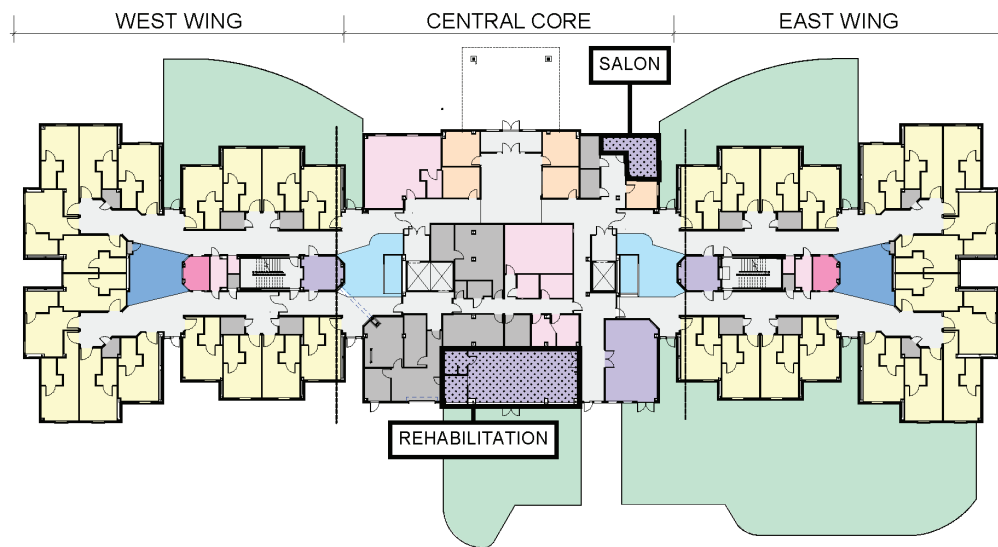
Activity



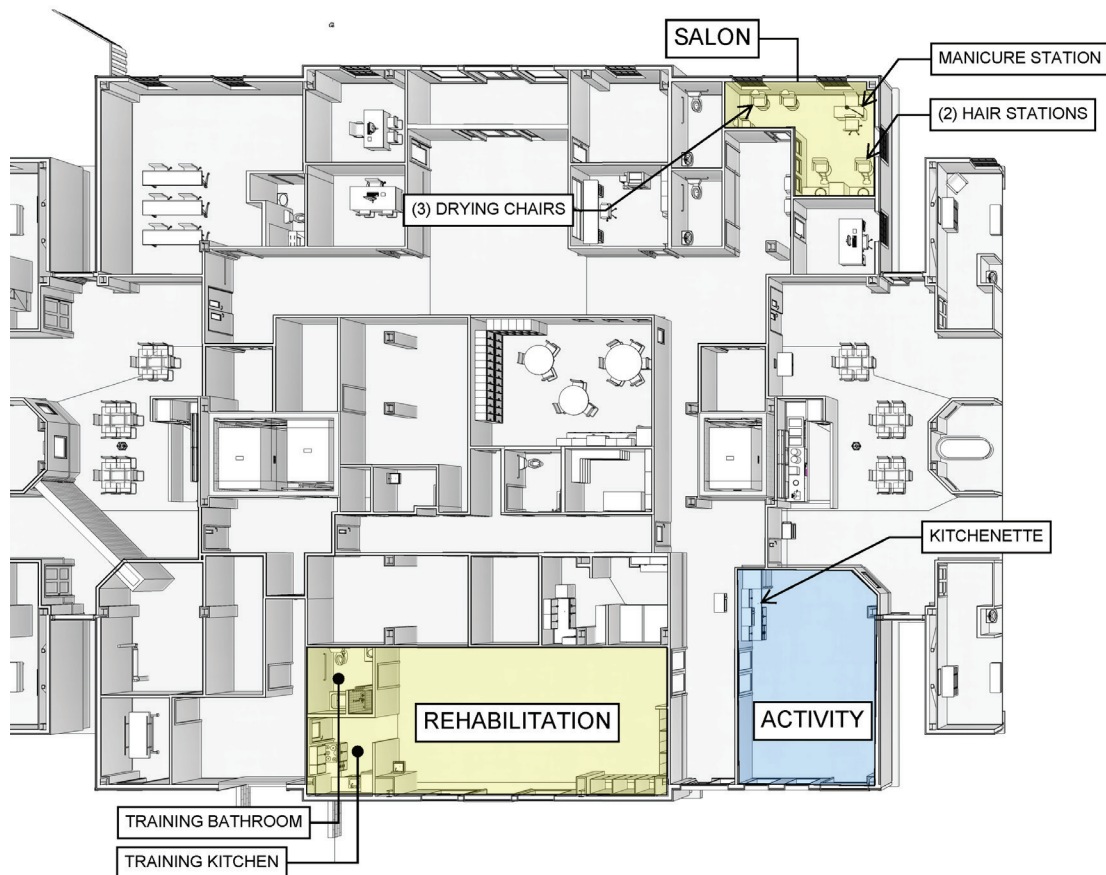
There are 4 total Activity spaces throughout the building. As shown above, there is a space located on the first floor (used for activity usage, Rehabilitation overflow, and outdoor event support), the second floor (the largest and most centrally located of the Activity spaces – this will be used for the main educational or entertainment events for the residents) and the third floor (these are smaller, quiet/sensory rooms for dementia specific residents). As shown below, these spaces are designed for ample daylight, table and/or lounge seating and kitchenettes for event and educational flexibility.



Rehabilitation and Salon

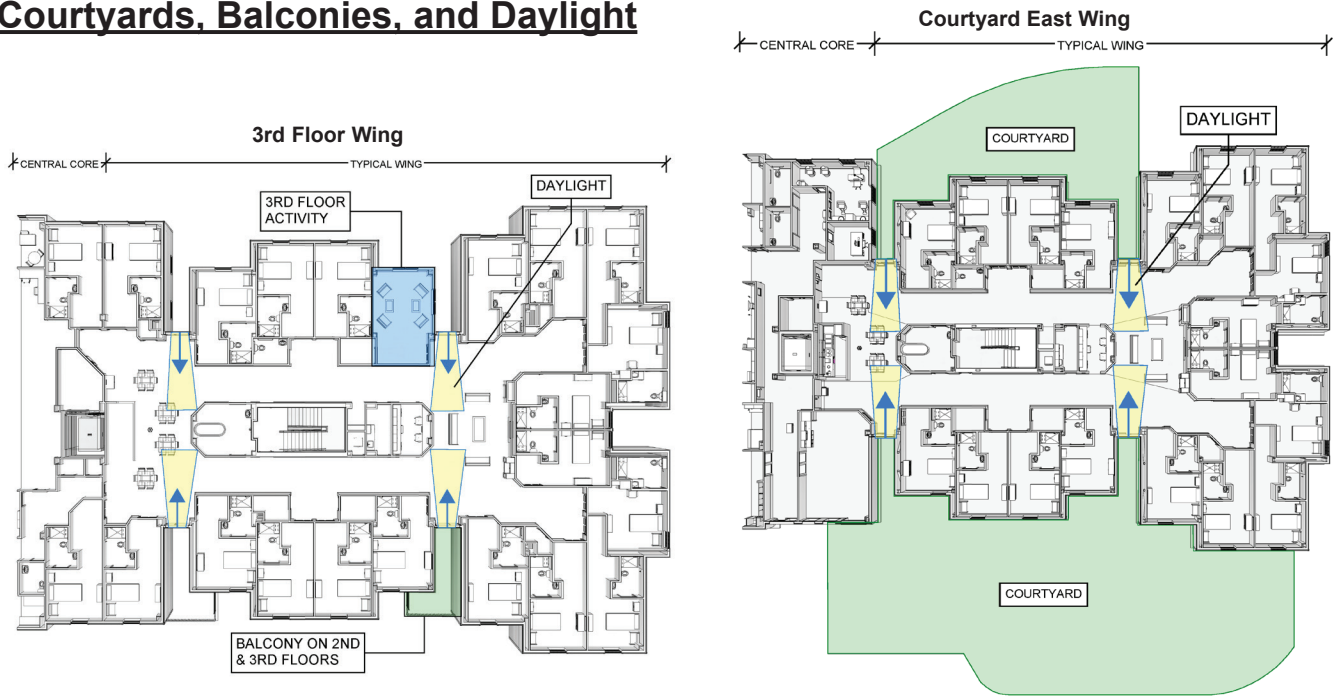


As shown above, the Rehabilitation area and Salon are centrally located within the first floor Central Core of the building. The Rehabilitation room will be used for physical and mental care and holds both a Training Kitchen and Training Bath. The Salon is a common use amenity for use by residents for personal care and wellbeing.

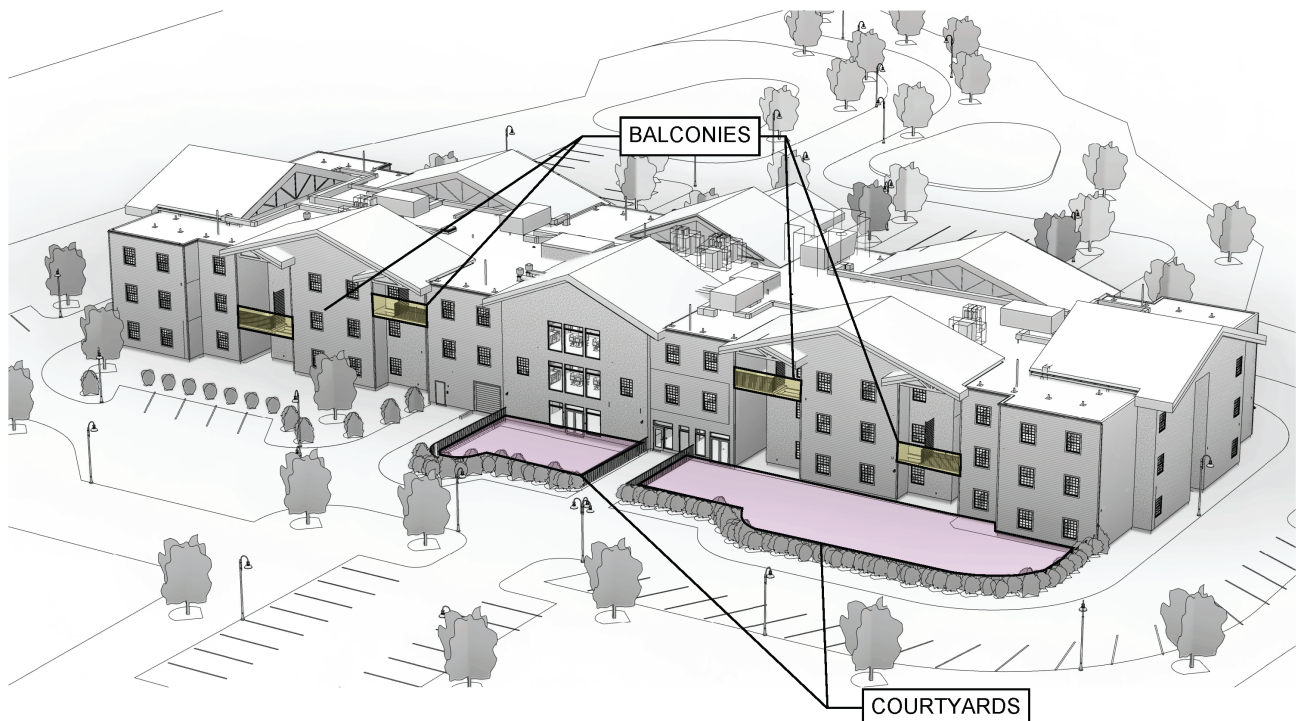


Outdoor Connections

Courtyards, Balconies, and Daylight



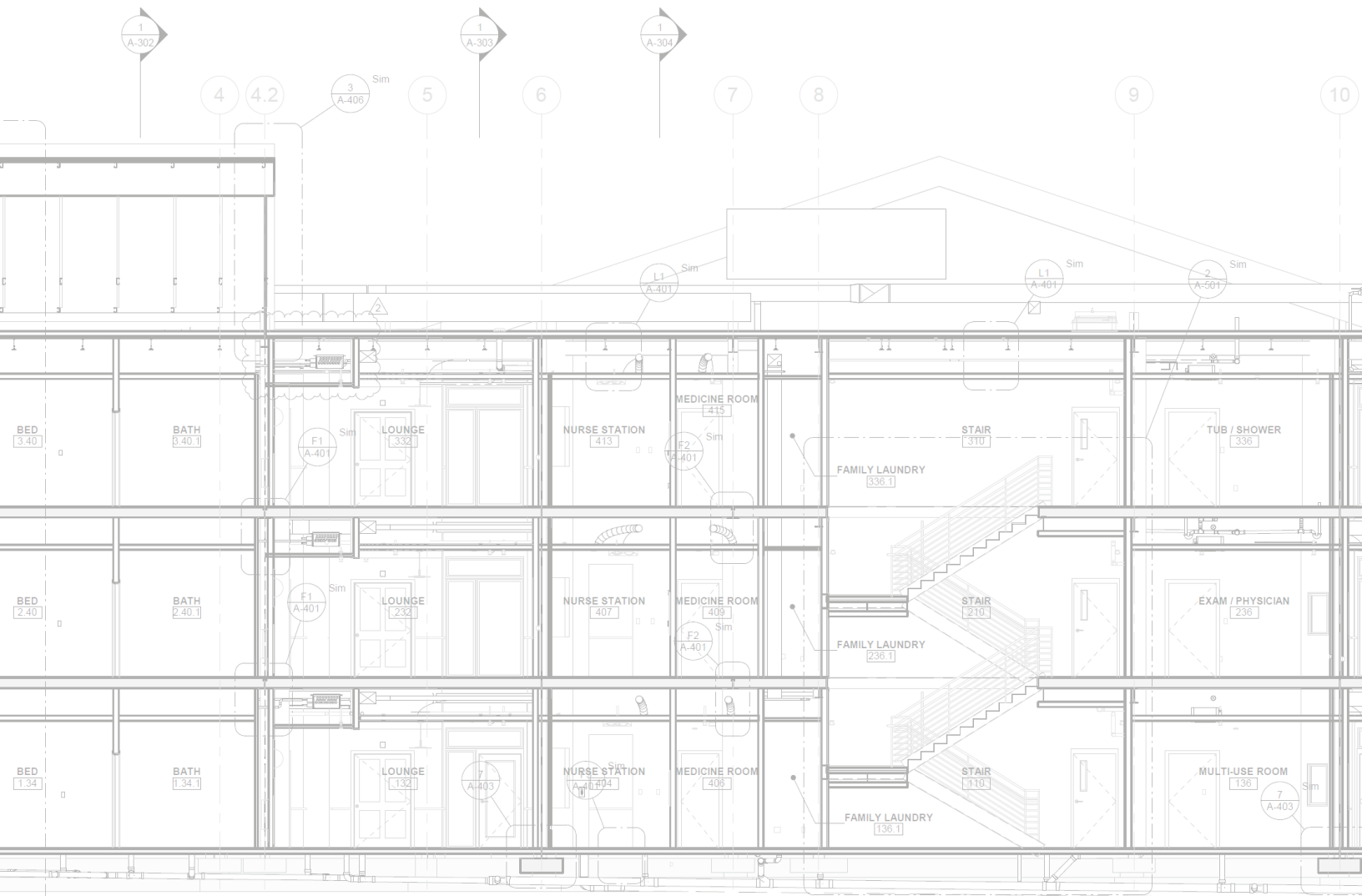
As shown above and below, exterior Courtyards have been placed as extensions of the residential indoor environments on the ground level (first floor), accessible directly from the residential circulation pathway within each Wing. Similarly, balcony conditions on the second and third floor levels extend the upper floor Lounge and Dining spaces to allow for connection to the outdoor environment throughout the building. Both the exterior Courtyard and Balcony access highlight the building's daylight penetration into both the Lounge and Dining spaces on each floor level.



Section 4

Nurse Service and Staff Operations

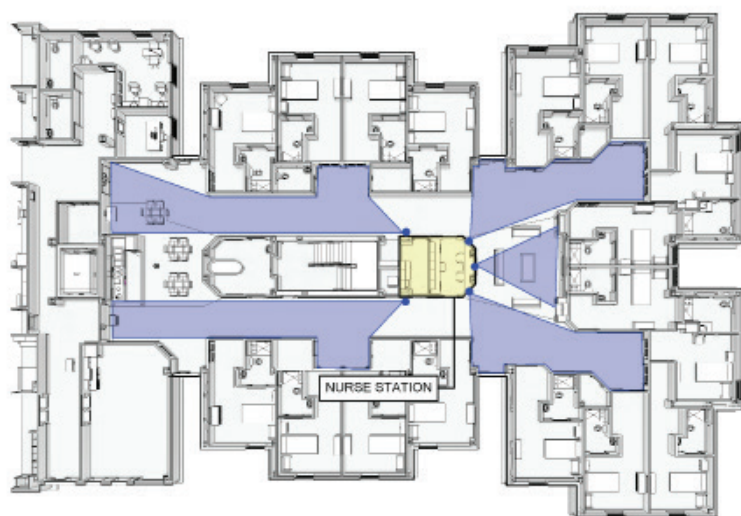
- Line of Sight
- Travel Distance
- Storage



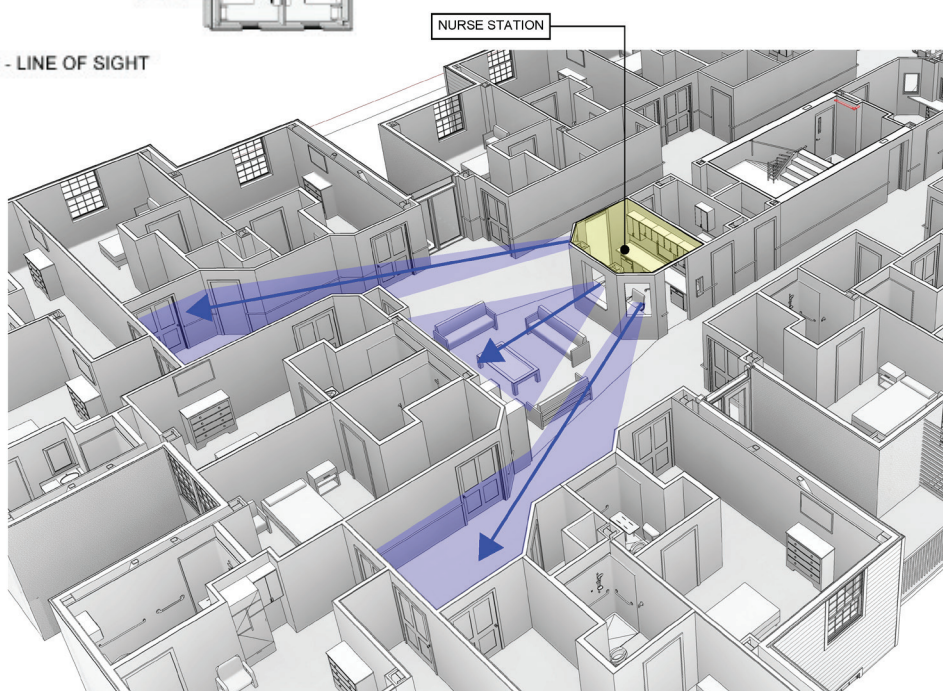
A strong focus on line of sight, travel distances, and placement of the staff and resident rooms was put in place during planning and design to improve and solve many of the conflicts and challenges within the current facility that limit the capacity and options for standard of care. Without an adequately designed program that enhances staff operations, optimal standard of care cannot be achieved.

Line of Sight

The Nurse Stations are placed centrally within both the East and West Wings allowing for viewing angles down the corridors that connect to adjacent resident rooms. The Nurse Stations themselves include cased, non-glazed openings to increase this visibility when working inside the Nurse Station room.



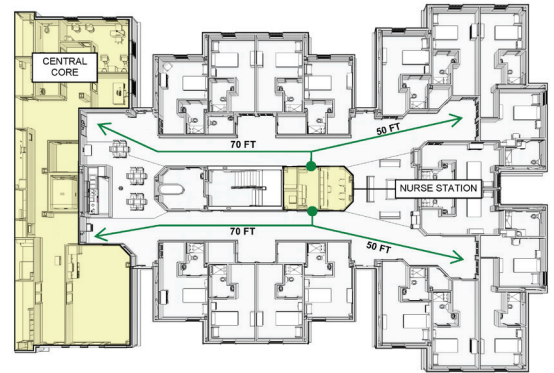
TYPICAL WING - LINE OF SIGHT



Travel Distance

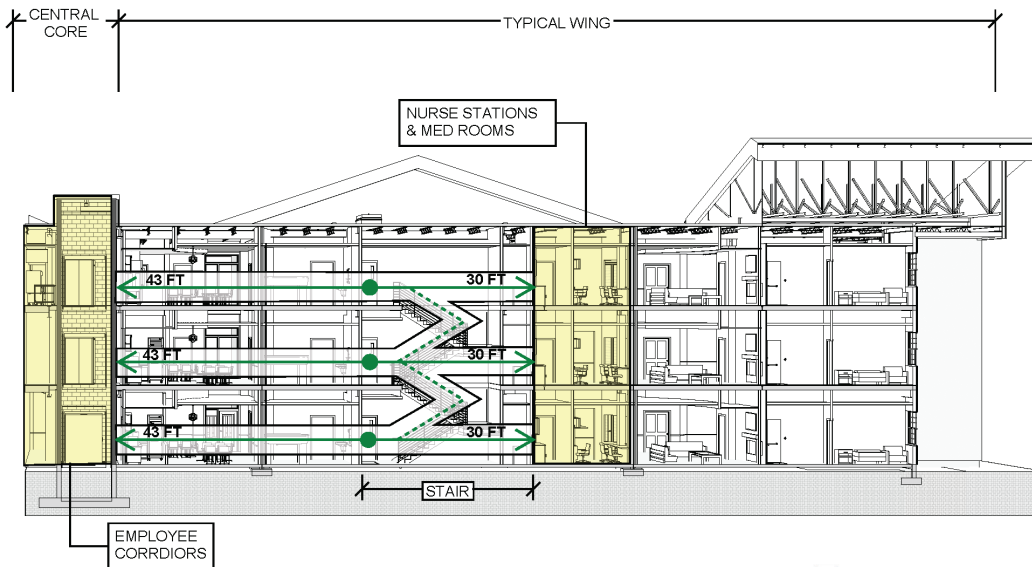
The design of travel distance focuses on the rooms which are dedicated to staff that require efficient circulation to multiple spaces within the building in order to successfully carry out day-to-day operations. The focused rooms include the following:

1. **Distance from Nurse Stations to Resident Room:** The longest distance from a Nurse Station to Resident Room (second and third floor) or Central Core (first floor) is 70 feet. In most cases, this travel distance is reduced to 50 feet or less.

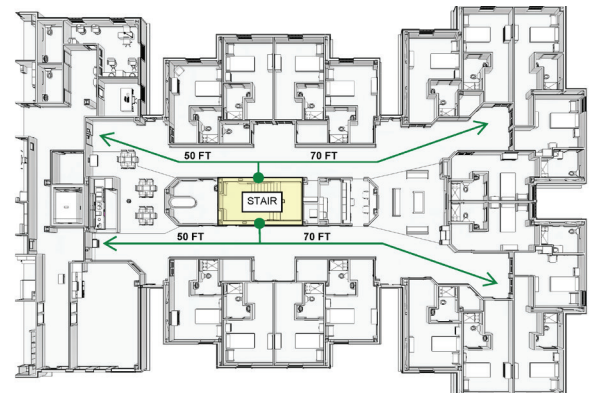


TYPICAL WING - TRAVEL DISTANCE
NURSE STATION TO END OF CORRIDOR

2. **Distance from Stairways to Nurse Stations, Med Rooms, and Resident Rooms:** The interior stairways function as both a means of egress pathway for emergencies, but also allow for optimal circulation of staff between floor levels of the East and West Wings. Similar to the Nurse Station travel distances shown above, the interior stairways are centrally located within each wing to increase travel efficiencies throughout the entire building (all floors) rather than per-floor only circulation.

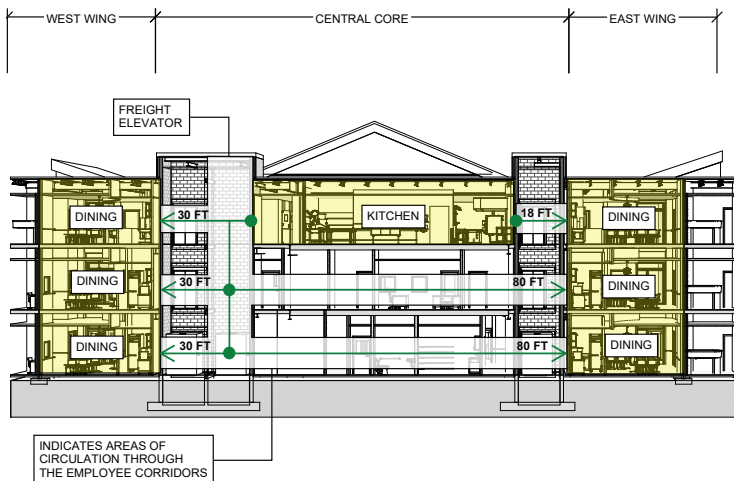
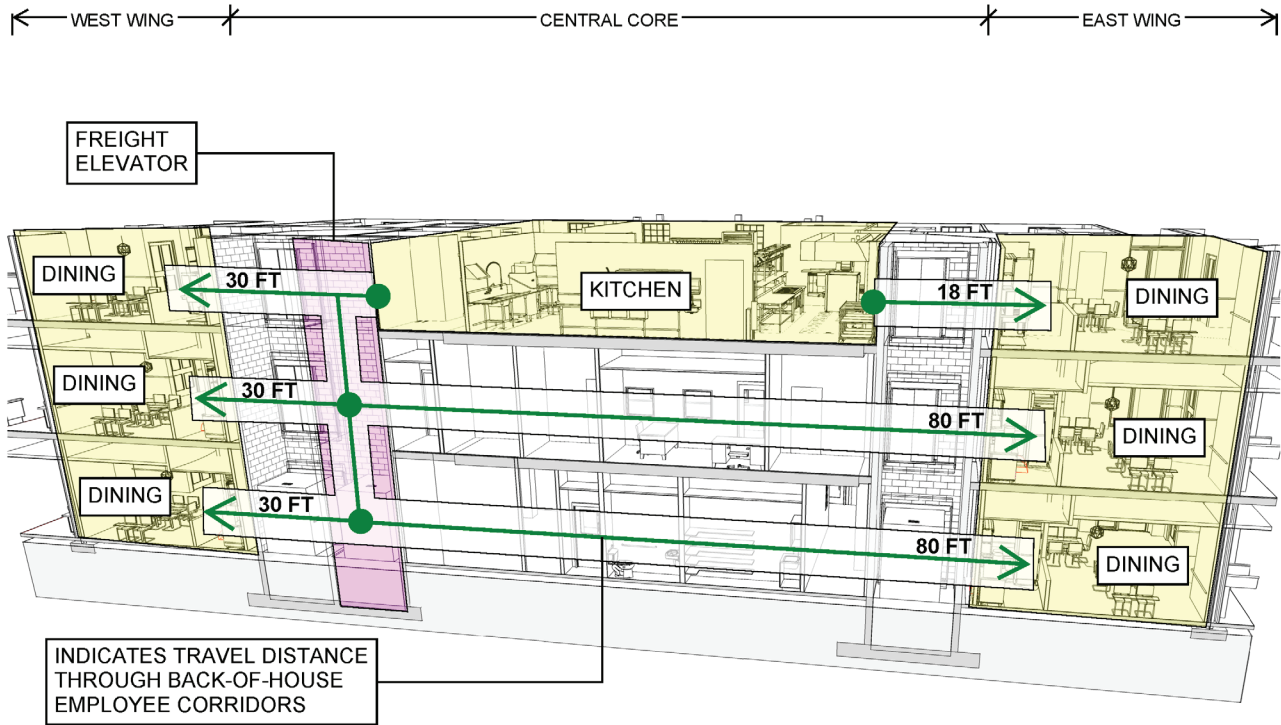


TYPICAL WING - TRAVEL DISTANCE
STAIRS TO NURSE STATION & EMPLOYEE CORRIDOR

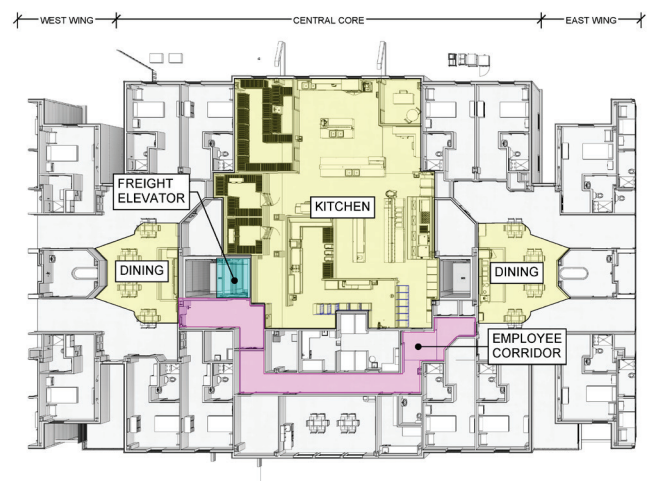


TYPICAL WING - TRAVEL DISTANCE
STAIRWAY TO END OF CORRIDOR

3. Distance from Commercial Kitchen to Dining spaces: Efficient distribution of food to the residential areas of a nursing home can be a challenge when it comes to building size, quantity of Resident Rooms, and Kitchen location. To increase efficiencies, the Kitchen has been centrally location with the Central Core of the third floor. The Kitchen is connected to a freight elevator that connects to employee only corridors that lead to the resident Dining spaces. This circulation allows food service staff to operate within “back of house” (completely avoiding residential corridors) and minimize travel distances by allocating adequately sized Dining spaces per number of adjacent beds to each wing rather than a single, large dining space within the building.

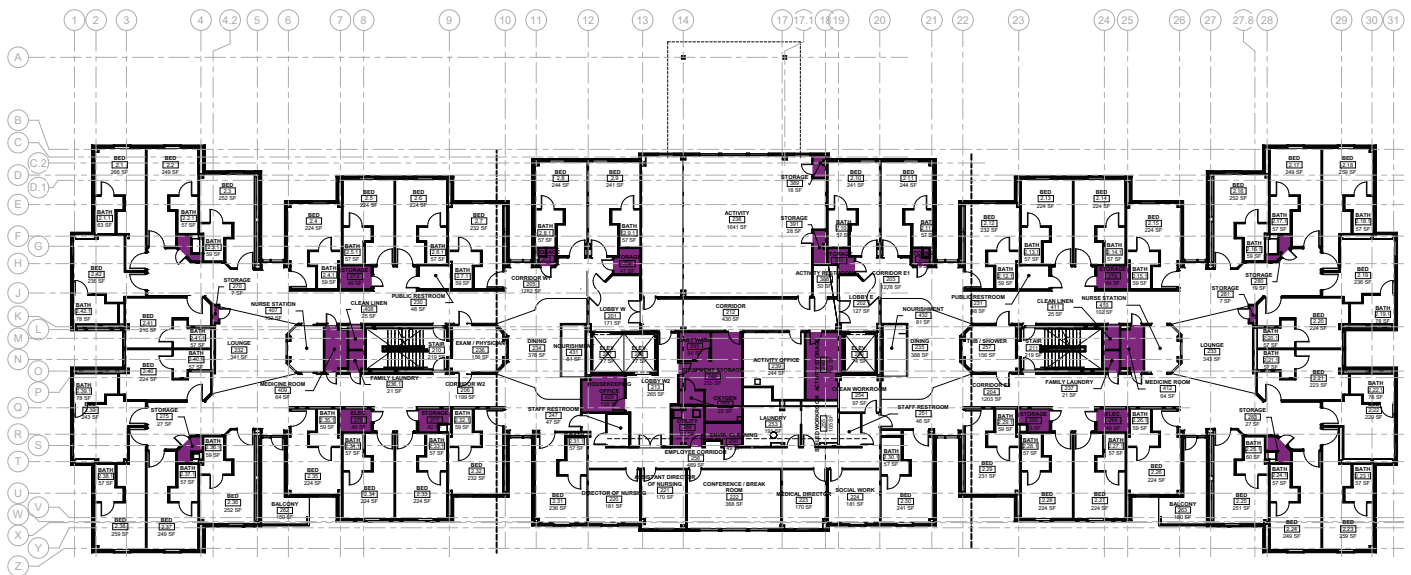


KITCHEN - TRAVEL DISTANCE
COMMERCIAL KITCHEN TO DINING AND
NOURISHMENT STATIONS



Storage

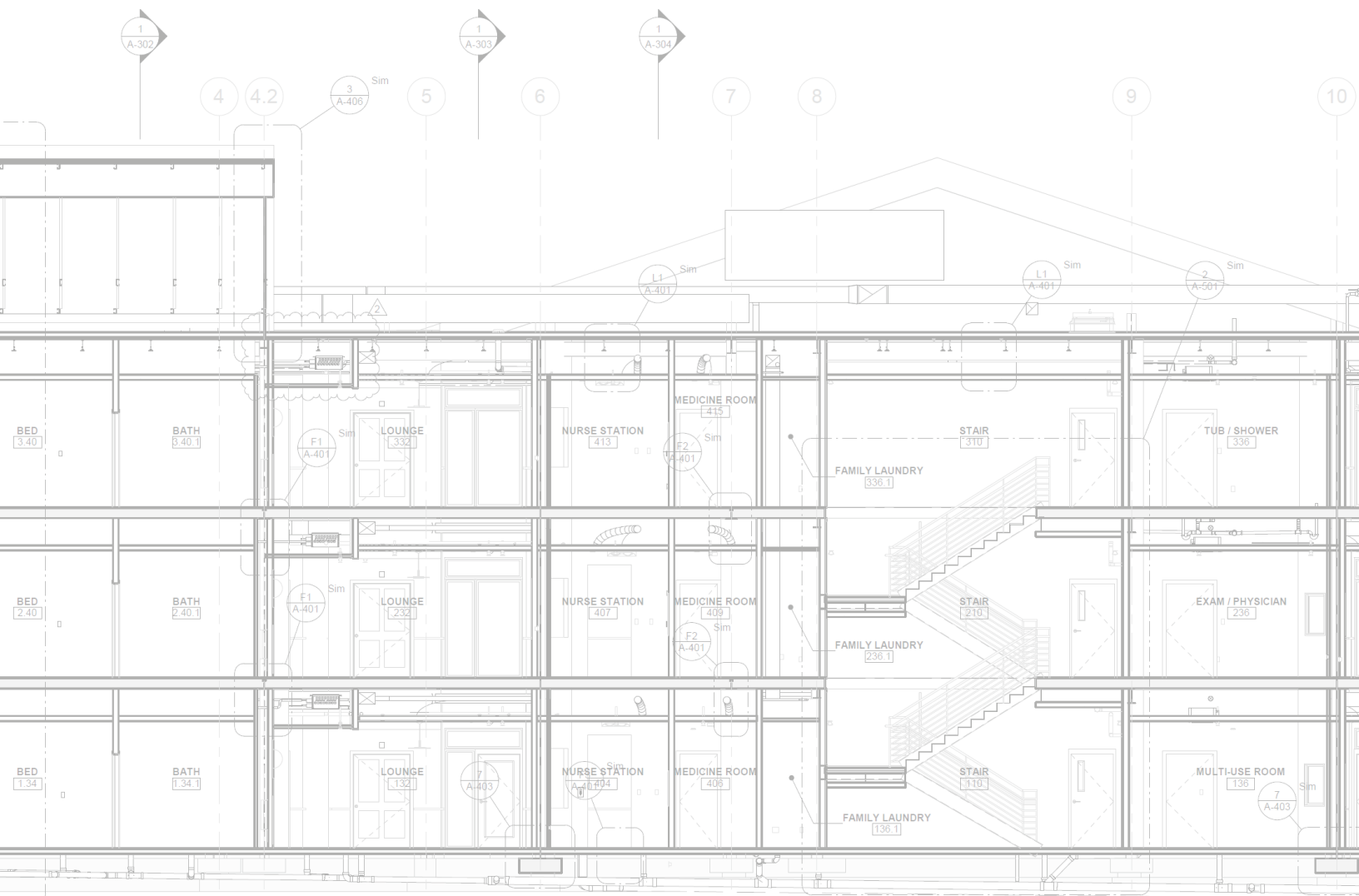
Storage has been a functionality concern for the existing facility due to inadequately sized and placed locations. This has caused reliance on the corridors for equipment storage use and in turn, this reduces operational efficiency and effectiveness. The proposed design includes consistently spaced storage areas that are achieved by way of the Resident Room vertical and horizontal separation (this design strategy also heavily influences the building façade). The result is similar sized storage areas at the Wing and Central Core locations (see highlighted areas below), allowing for convenient access off the corridors without negatively impacting the flow of travel and improving the indoor aesthetic environment for both the staff and residents.



Section 5

Indoor Air Quality and Control

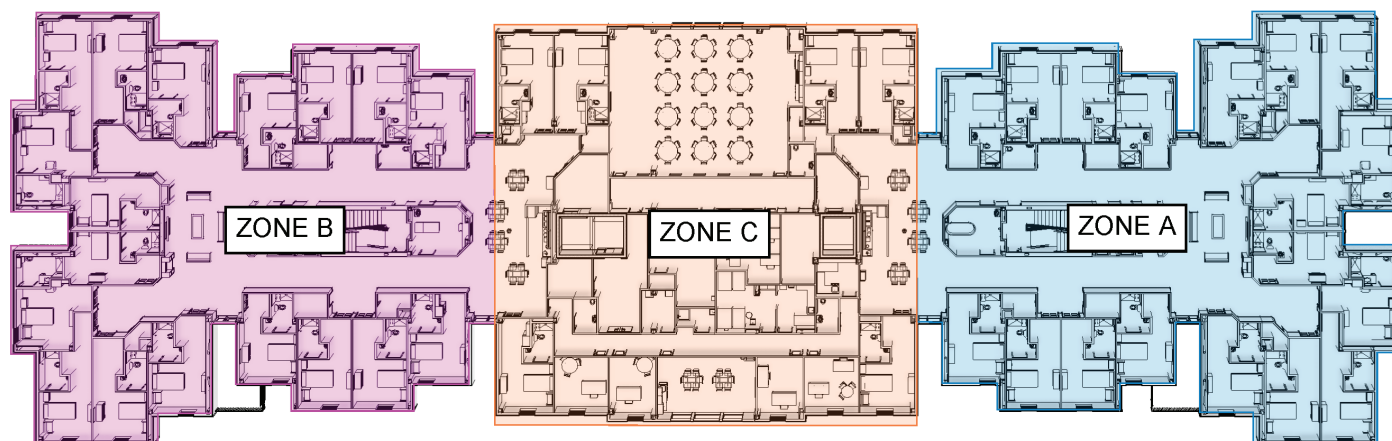
- a. Zoning & Systems
- b. Fresh Air and Treatment Components
- c. Infection Isolation



Zoning & Systems

The building's mechanical system has been designed with four primary focuses in mind: infection control, indoor air quality (IAQ), thermal comfort, and energy efficiency. The success of these components heavily weighs on both the architectural building program layout as well as the specified equipment, technology, and engineering design. The mechanical systems major components are a combination of Variable Refrigerant Flow (VRF) and Energy Recovery Units (ERU). The VRF technology is providing heating and cooling of the indoor environment while the ERU is exhausting air from the building and providing tempered fresh air in its place. These systems not only perform well regarding IAQ and thermal comfort, but they are also highly energy efficient.

One of the most important aspects of the Indoor Air Quality and Control design is the single occupancy rooms that easily allow for seamless isolation per resident simply based on the building's program layout. This program layout not only focuses on the single occupant rooms, but also allows for a low number of residential rooms to be isolated and independently controlled by way of the East Wing, West Wing, and Central Core compartmentalization. This HVAC zoning strategy is shown in the below diagram.

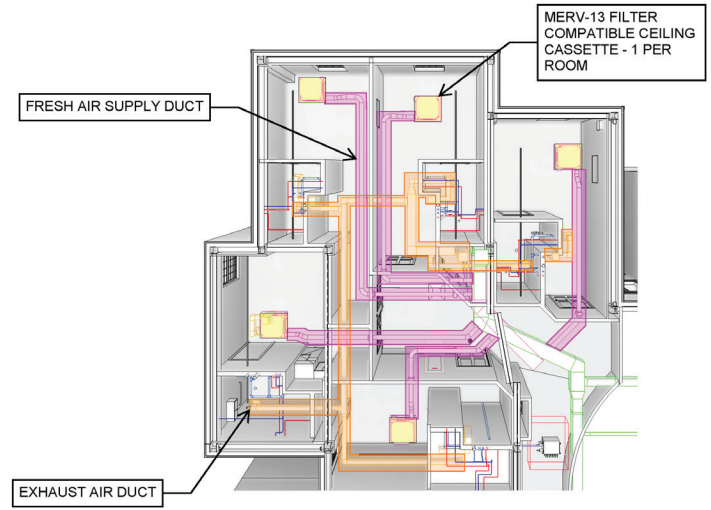


OVERALL FLOOR PLAN

HVAC ZONING

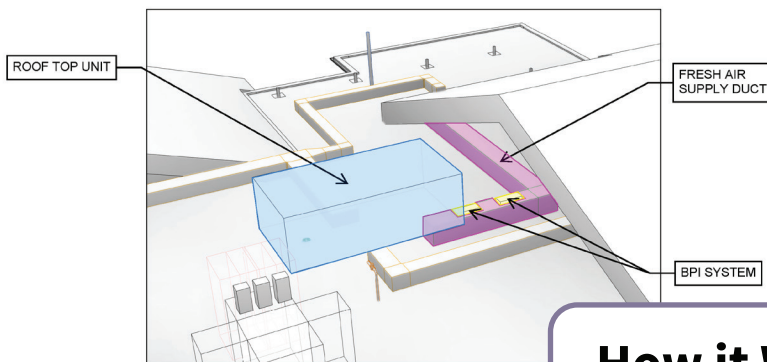
Fresh Air And Treatment Components

Each patient room is equipped with its own ceiling mounted cassette which will provide heating and cooling within the room. Each cassette can be fitted with up to MERV-13 filtration to clean the air within its space. Tempered fresh air is provided into the back of the cassette from a roof mounted ERU while exhaust air from the room is directly vented out of the building through this same ERU. This system prevents the mixing of air between patient rooms while providing an energy efficient fresh air supply and provides a total of 12 Air Changes per Hour (ACH) in each patient room. See below diagram for clarification on the location and general operation of these components.



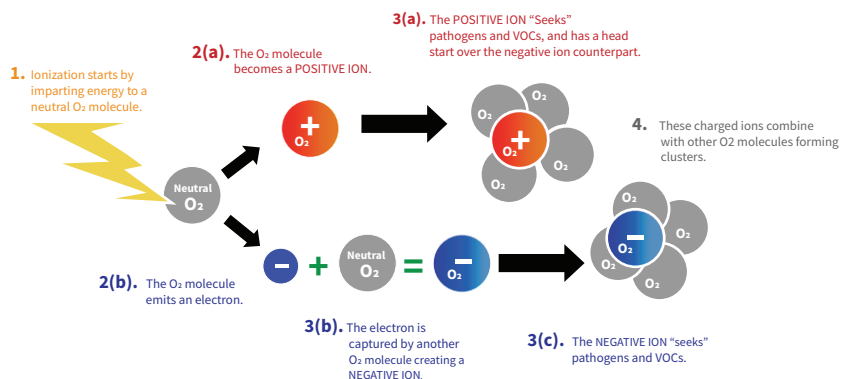
TYPICAL RESIDENTIAL HVAC ZONE
KEY COMPONENTS

The system is also set up to provide Bipolar Ionization (BPI) throughout the building (see diagram below for BPI technology explained). This is one of the leading technologies for the prevention and treatment of airborne diseases. The BPI units are located at the roof level within the duct work of the ERU as shown below.



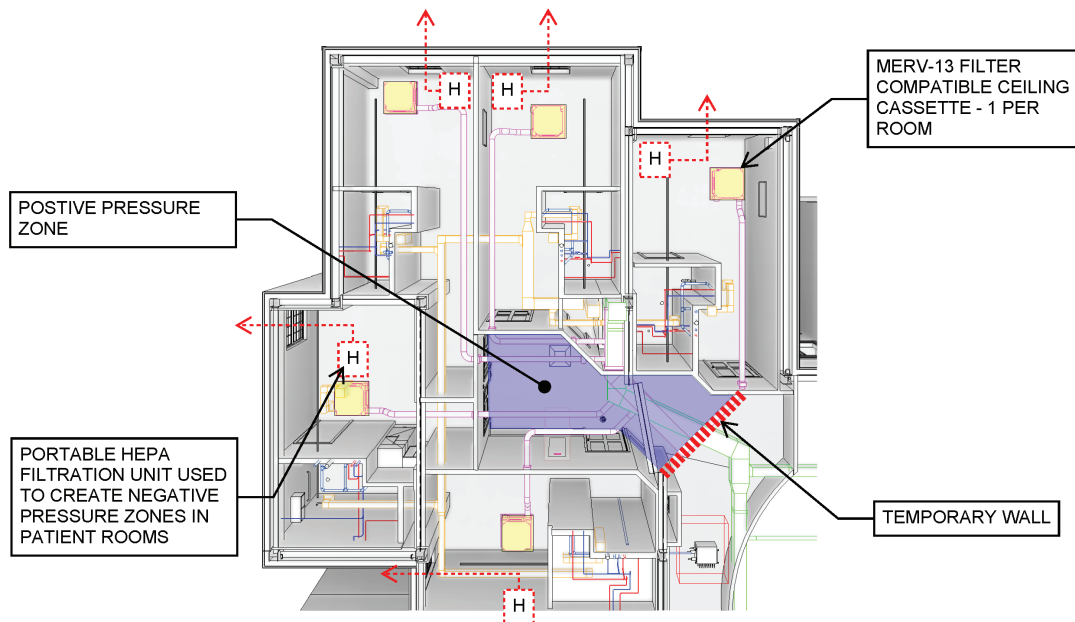
TYPICAL RESIDENTIAL HVAC ZONE
BPI SYSTEM

How it Works Bipolar Ionization

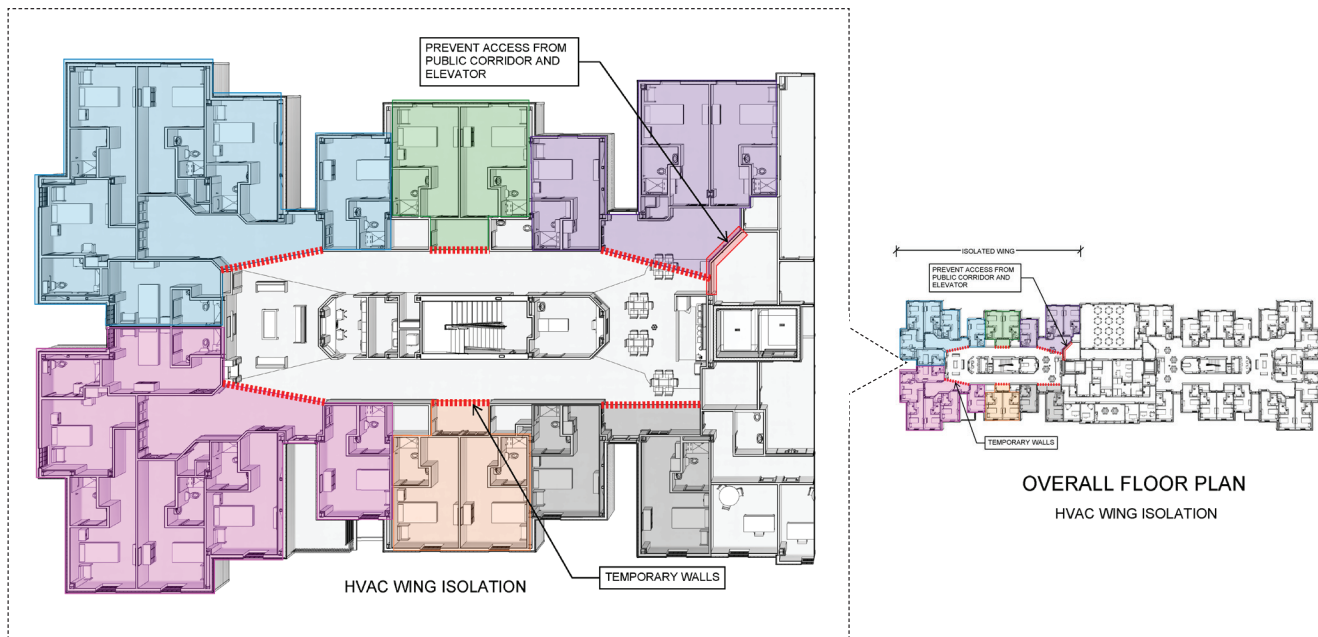


Infection Isolation

In addition to the single occupant room and baseline HVAC design, the East and West Wing functionality of the program and cluster arrangement of the residential rooms allows for the option of isolating each wing and/or cluster in the event further containment is desired such as during a severe virus outbreak or pandemic. This can easily be done by way of temporary zip walls, operable windows, and HEPA filtration units that create positive and negative pressure zones (Airborne Infection Isolation), as shown below. Although the baseline system is designed for adequate filtration and treatment, the option of further containment expands the facilities safety and operational standards.



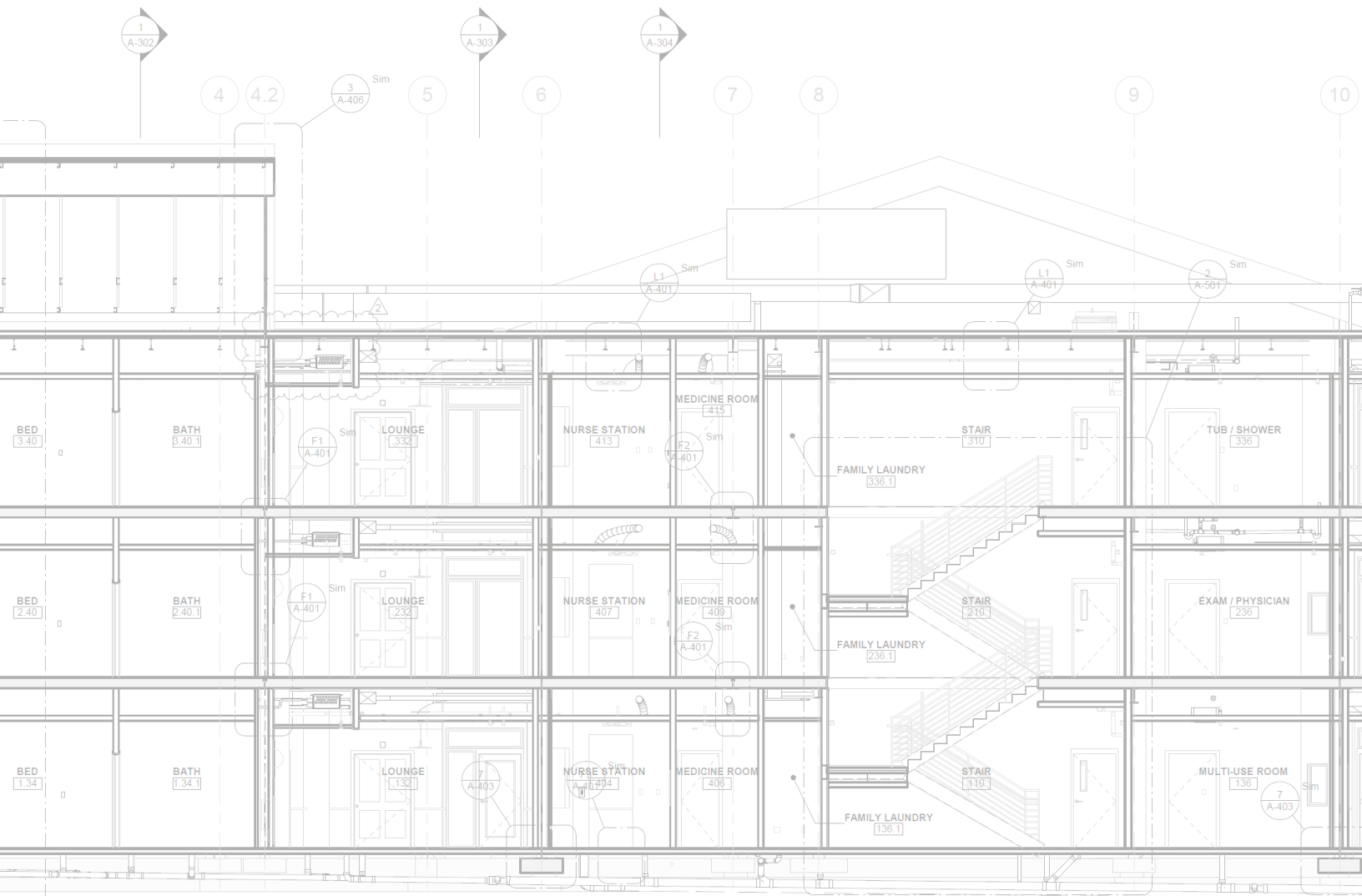
TYPICAL RESIDENTIAL HVAC ZONE
 CONVERSION TO AIRBORNE
 INFECTION ISOLATION ROOMS



Section 6

Life Safety

- a. Nurse Call and Wonder Management
- b. Fire and Emergency Egress



Nurse Call And Wander Management

Nurse Call System: Jeron Provider 790 Integrated Solution

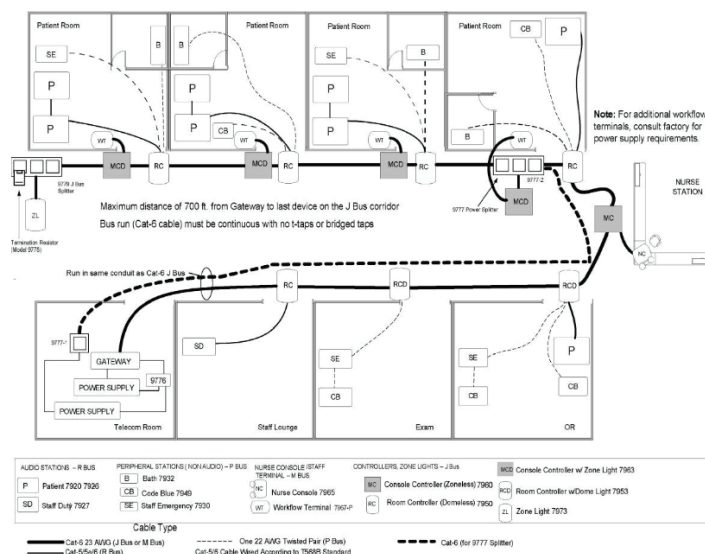
- Supports a complete offering of call, workflow, rounding, communication features supporting the most popular reporting and integrations including real-time locating and SIP wireless phones.
- Supports features including staff/doctor presence, clinician sequencing, and procedure timing.
- Streamlined and automated workflows
- Wireless communications
- One touch staff-to-staff communications
- Any combination of ambulatory and acute care features can be used to meet the needs of each patient and staff environment and can be networked together for a facility-wide solution.

Easy Communications

- Communications system that supports both patients and staff.
- Wireless alerting and communications, real time staff locating, smart bed integration, LAN-based real-time dashboard, activity logging and reporting and intradepartmental workflows.

Advanced Technology for Clear and Direct Communications

- Patient/staff communication in resident toilet rooms and staff areas.
- Multiple communication paths to reduce blocked calls from patients.
- Volume controls for room acoustic performance.

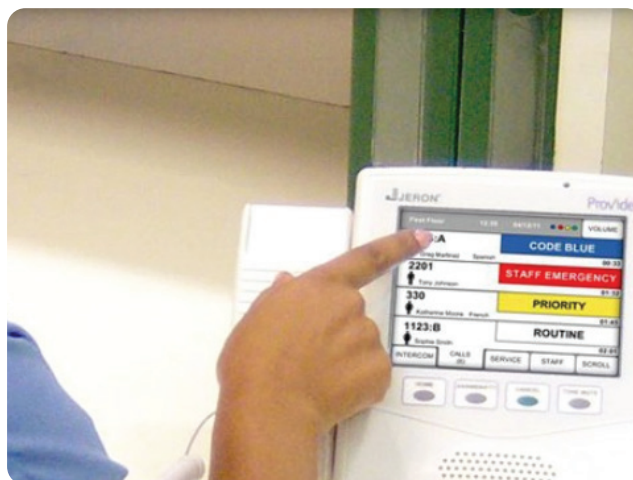


Alerts Connected to Patients & Staff

- Staff remain mobile while connected to residents.
- Increased productivity.
- High priority alerts through mobile devices and automatic public address announcements.

Reaching Patient Safety Goals

- Dome lights outside each room identifies fall risk patients
- Communication directly to the bathroom allows caregiver to reassure patients
- Bed exit alarms alert multiple caregivers before a potential fall occurs



Nurse Call System: Jeron Provider 790 Integrated Solution Ctd.

Real-Time Alerts Minimize Alarm Fatigue

- Multiple alerting modes speed response to critical events and filter out unnecessary alerts
- Clinicians are directed only to the patient room
- When Provider Nurse Call actively monitors alarms, patient doors can remain closed for a quiet and healing environment

Streamlined Workflow with Team-Based Patient Rounding

- Terminals and workflow stations allow caregivers to set and acknowledge patient rounding
- Expired rounding automatically notifies the team when another member is busy with a patient
- Rounding is actively monitored and reports can be generated based on responses, individual patients, and more

Data Network Architecture for Flexible Call Routing

- Networked Nurse Call architecture, including fiber connections for campus-wide Nurse Call, supports remote access to the entire system
- Supports flexible call routing including decentralized operation, centralized operation, and any combination in between
- Easily add additional nursing units and areas as budgets and schedules allow

Reliable Solutions With a Low Total Cost of Ownership

- 24/7 dedicated operating system is immune from potential virus attacks, hard drive crashes, or routine reboots
- Reduced initial installation costs and simplifies service
- Built-in continuous supervision of all devices reports any problems directly to technician
- Remote system programming and management means issues are addressed quickly

Wander Detection System: Stanley WanderGuard BLUE

- Safeguard senior living residents at risk of wandering.
- Protect memory care residents against elopement risk.
- Access control, advanced alerting and reporting.
- Resident bracelets and door contacts seamless integration.

Fire And Emergency Egress

General building life safety features:

1. Fully sprinklered building

- NFPA 13 compliance provided with portable fire extinguishers throughout

2. Non-combustible structure

- Steel frame with spray fireproofing (2+ hour rating)

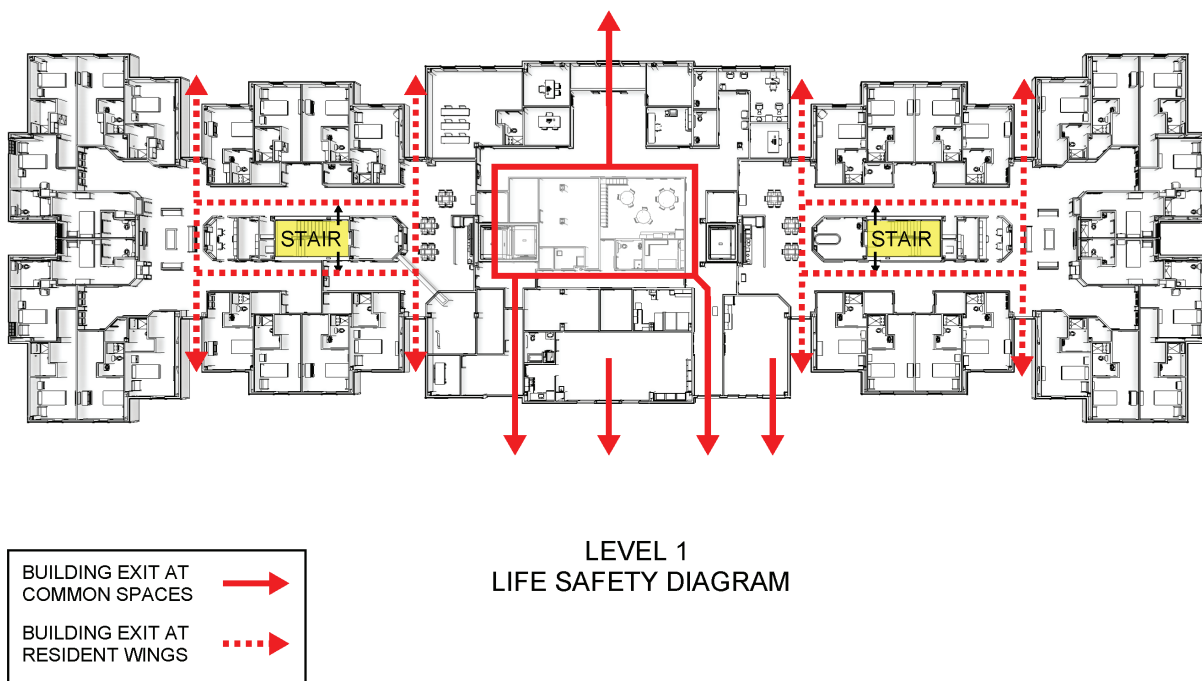
3. Smoke and fire partitions

- Due to sound partitions and high Noise Reduction Coefficient (NRC) ratings of the wall assemblies, this design criteria implemented to enhance the interior environment, naturally creates over-compliant wall assembly types including 1 hour rated walls at locations that required 0 hour ratings (improving building safety).

In addition to the above baseline life safety design, building includes three primary design components that greatly contribute to the fire and life safety systems in the event of an emergency that required evacuation, all of which are unique to this project. These three components include the following:

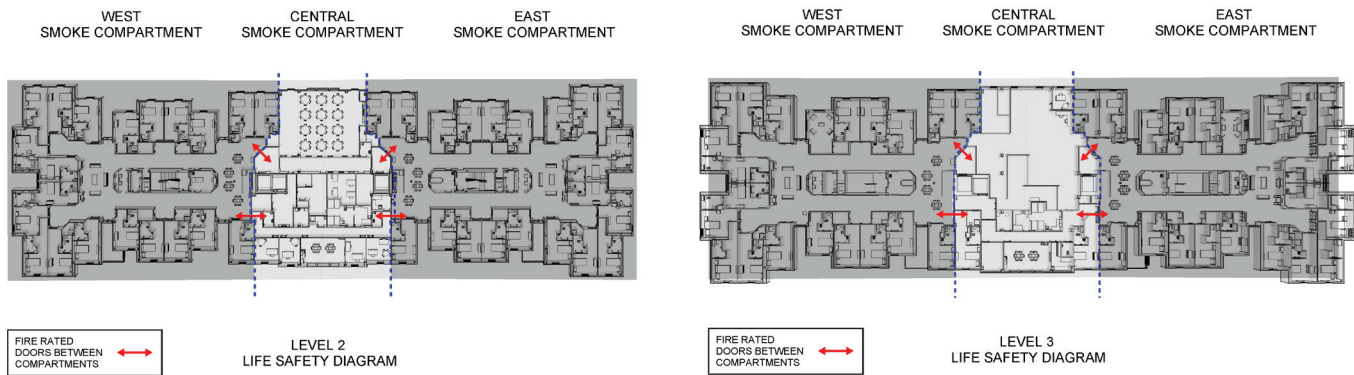
4. Multiple exit discharge locations at ground level: These exit discharge locations (shown below), enhance life safety by increasing the number of outdoor access points and increasing ease of arriving at the public way. These exits not only increase the quantity of exit opportunities in the event of an emergency, but also significantly contribute to the reduction of emergency evacuation travel distances.

- 2 exit discharges are required, 11 have been provided



5. **Three smoke compartments on all floor levels:** The smoke compartment design allows for a defend in place strategy and control of smoke. In the event of an emergency, many of the residents will not be capable of self-preservation (persons who, because of age, physical limitations, mental limitations, chemical dependency or medical treatment, cannot respond as an individual to an emergency situation). The smoke compartment design enables the opportunity to exit horizontally to the adjacent smoke compartment, rather than vertically (via stairways).

- 2 smoke compartments are required, 3 have been provided



6. **Interior stairways centrally located:** The exit and circulation stairways are provided within each Wing for ease of access by staff and residences. The travel distances to each of the stairways simplifies access and minimizes travel distances.

- 2 fire rated stairways are required, 2 have been provided

