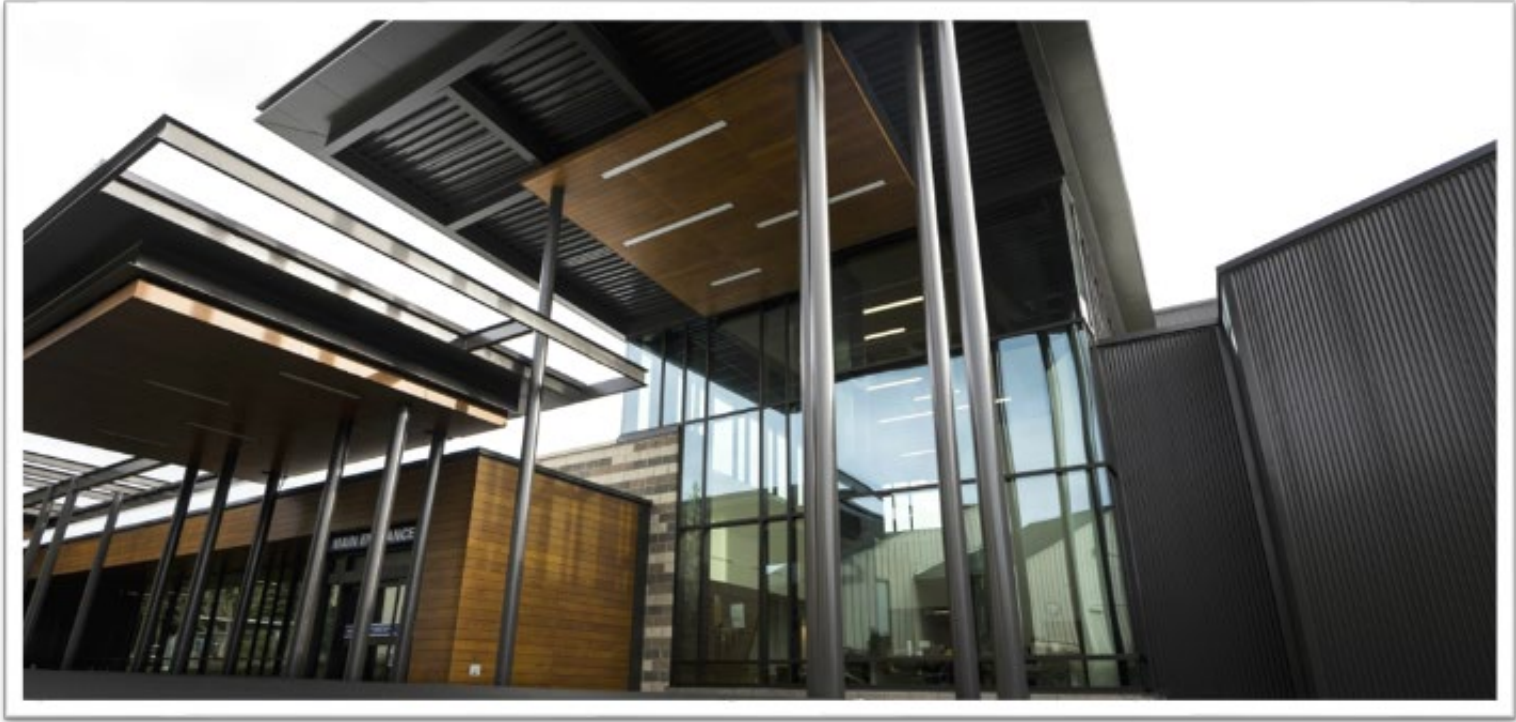


# Innovation at an Oregon Critical Access Hospital: Samaritan North Lincoln Hospital

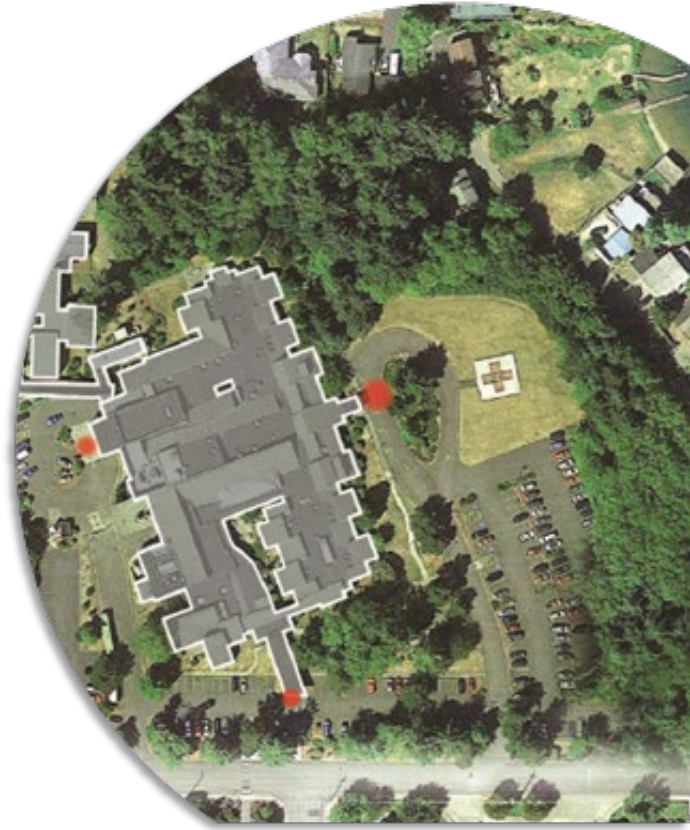


Samaritan  
Health  
Services

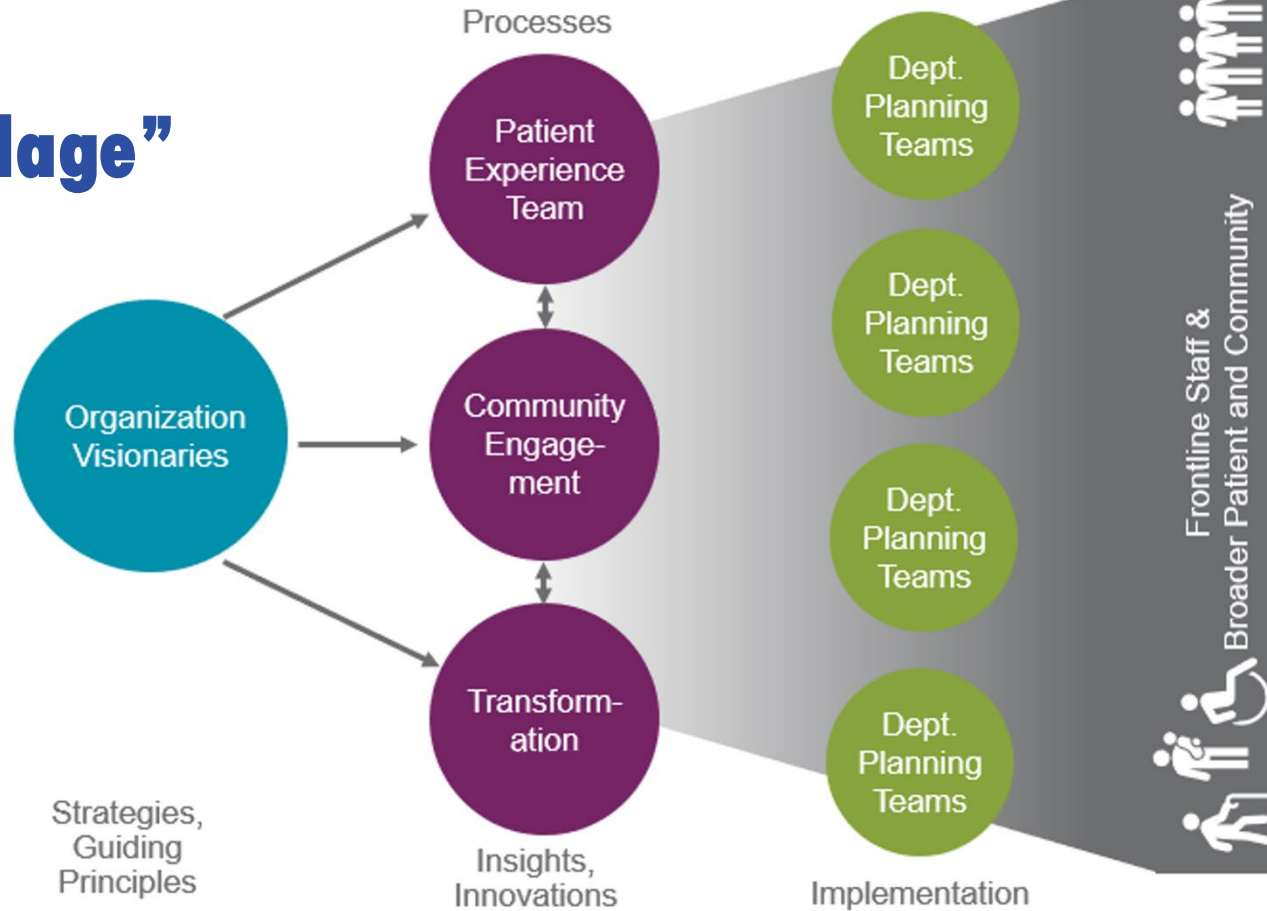
# Original Hospital Facility



**Completed in October of 1968**



# Process: “It Takes a Village”





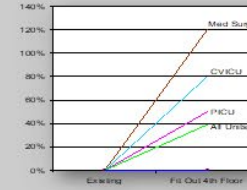
# Process: Conceptualization



Big Questions



Voice of the Customer

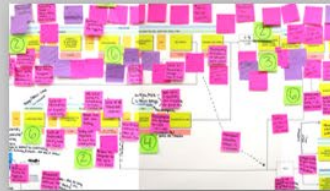


Volumes & Growth



Empowered SNLH  
"Champions"

INFORMS DEVELOPMENT OF  
TARGET FUTURE STATE



Value Stream Mapping



Gemba Walks



Pilot Project  
Process Improvements

Unit Area	Program	On Plan	Proposed	Delta vs Plan
Co-location of C-Suite & Peds	1500	1,600	1,500	-100
Storage, Supply Mgmt	2000	0	0	0
Immunization (Immunization Management)	100	1,200	1,200	0
Immunization (Immunization)	100	1,200	1,200	0
Immunization (Immunization)	100	1,200	1,200	0
Immunization (Immunization)	1000	0	0	0
Immunization (Immunization)	0	1,100	1,100	-100
Immunization (Immunization)	0	2,500	2,500	0
Immunization (Immunization)	0	1,000	1,000	0
Immunization (Immunization)	200	0	0	0
Immunization (Immunization)	30	50	50	-20
Immunization (Immunization)	30	0	0	0
Immunization (Immunization)	270	0	0	0
Immunization (Immunization)	2000	1,000	1,000	0

Space Programming



Ideal Space  
Relationships



3P and Rapid Prototyping



Quality Processes, Quality  
Spaces, Quality Solutions



# Design Images:

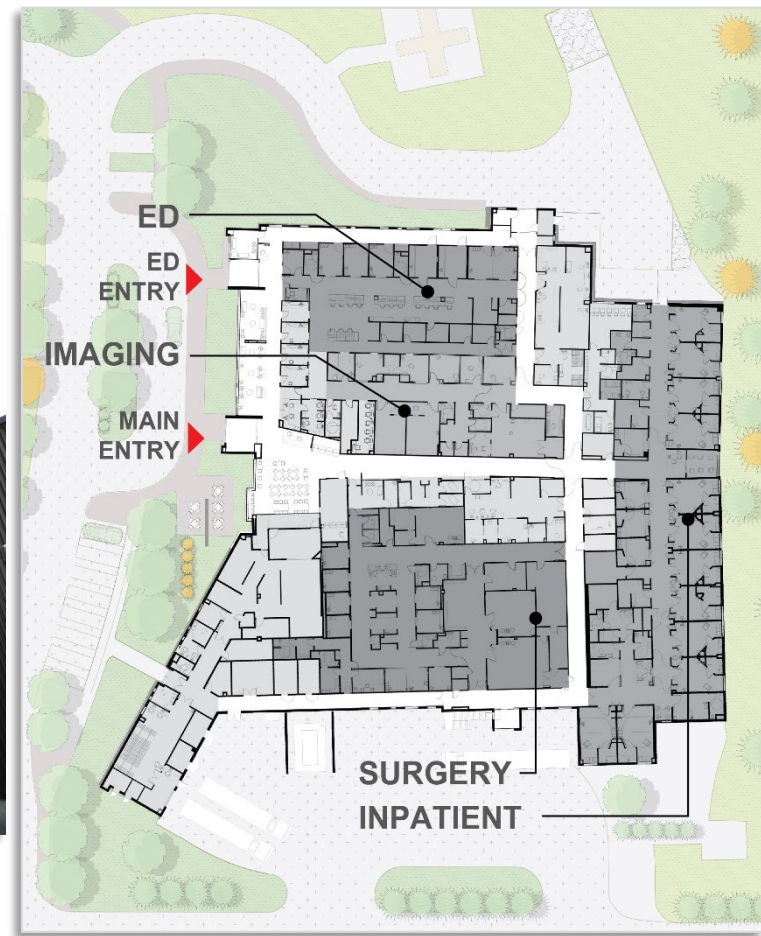




# Design Images:



# Design Images:





# Emergency Department (ED) Flexibility

**ED Surge:  
accommodated by  
unusual flexibility  
among departments**

- EMERGENCY
- OUTPATIENT SERVICES
- IMAGING



# Emergency Department (ED) Flexibility

- EMERGENCY
- OUTPATIENT SERVICES
- IMAGING



**DAY - TYPICAL**



**EVENING - TYPICAL**



**ED SURGE**

# Emergency Department (ED) Flexibility



**ED Design Resource**



# Emergency Department (ED) Flexibility



**Outpatient Flex Room**

# Emergency Department (ED) Flexibility



**Outpatient Flex Rooms From  
Clinician / Staff Work Space**

# Emergency Department (ED) Flexibility



**Old Hospital ED**



**Old Hospital Clinician /  
Staff Work Space**



# Emergency Department (ED) Flexibility



**New Hospital Clinician / Staff Work  
Space with Room Doors on Left**

# Emergency Department (ED) Flexibility



**Old ED Private Room**



**New ED, All Rooms are  
Private**

# Outpatient Services





# Waiting Area



# Consolidated Registration

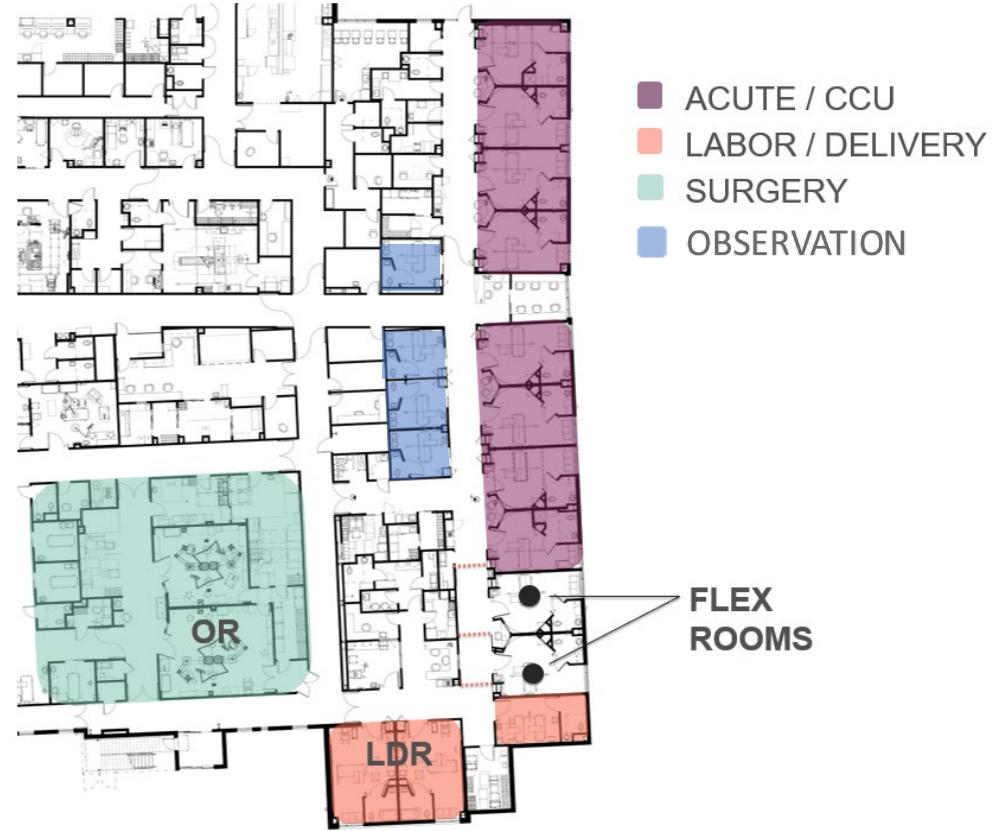


# Inpatient Flexibility

## Inpatient Flex Rooms Serve:

- **Acute Care**
- **Labor & Delivery**

**Immediate access  
from LDRP to OR**





# Inpatient Hallway



# Inpatient Room



# Public Spaces

**Gift shop is kiosk that  
expands into public  
space during day**



# Public Spaces

**Conference room used as  
dining overflow**





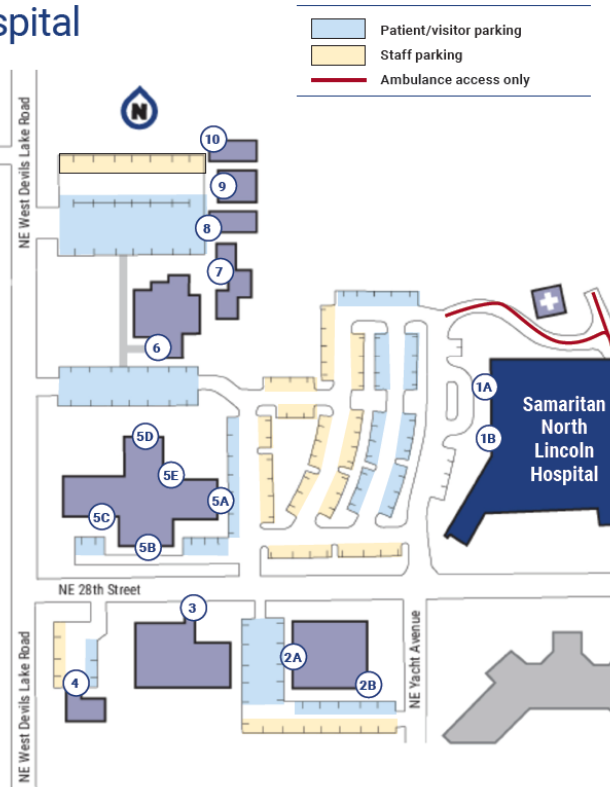
# Final Campus Map

## Samaritan North Lincoln Hospital

### Campus map

3043 NE 28th St.  
Lincoln City, Oregon  
541-994-3661

Building number	Service	Building number	Service
1A	Hospital Emergency Entrance	5D	Auxiliary/Volunteers, Gift Boutique
1B	Hospital Main Entrance	5E	Simulation Lab
2A	Samaritan Medical Plaza	6	Samaritan Lincoln City Medical Center, MRI Registration, PET-CT Registration
2B	Ambulatory Services, Anticoagulation	7	Samaritan Medical Offices, Occupational Medicine
3	Samaritan Early Learning Center	8	Conference Room
4	North Lincoln Hospital Foundation	9	Plant Engineering
5A	Employee Health, Hospice, Human Resources, Medical Records, Patient Financial Services	10	Conference Room
5B	Physical Rehabilitation (physical therapy, occupational therapy, speech therapy)	11	Medical Building
5C	Administration		



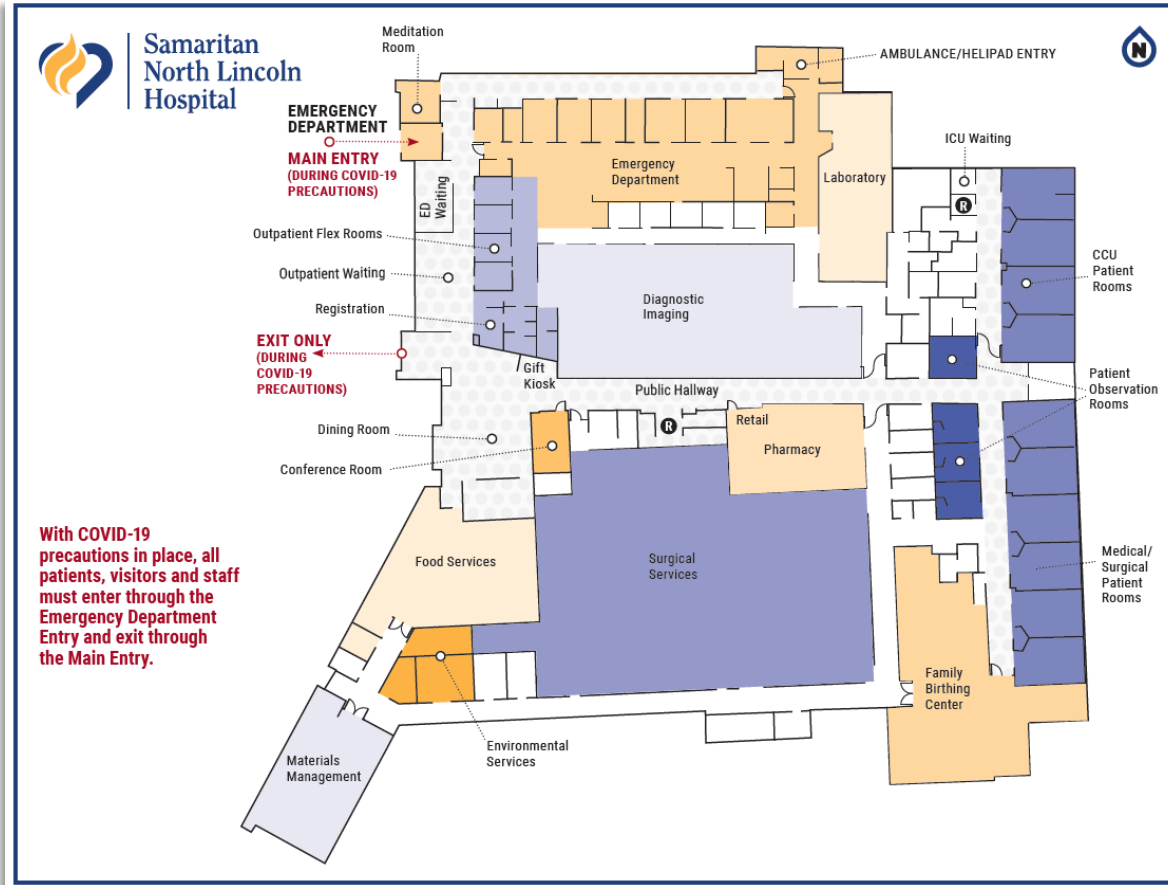
Samaritan  
North Lincoln  
Hospital

155438 0620



Samaritan  
Health  
Services

# Hospital Floorplan During COVID-19 Pandemic



# Future Growth

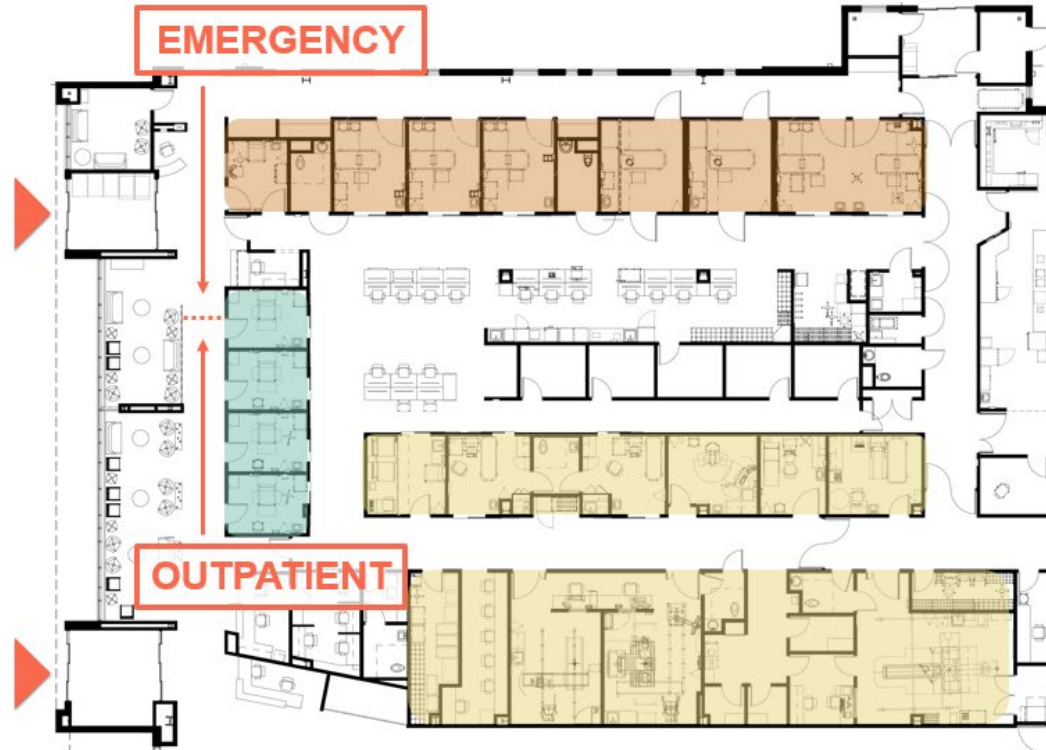
**Potential growth  
departments  
configured for  
expansion**

- **ED**
- **Surgery**
- **Inpatient**



# Code & Regulatory Considerations

- EMERGENCY
- OUTPATIENT SERVICES
- IMAGING





# Plant Engineering Innovations

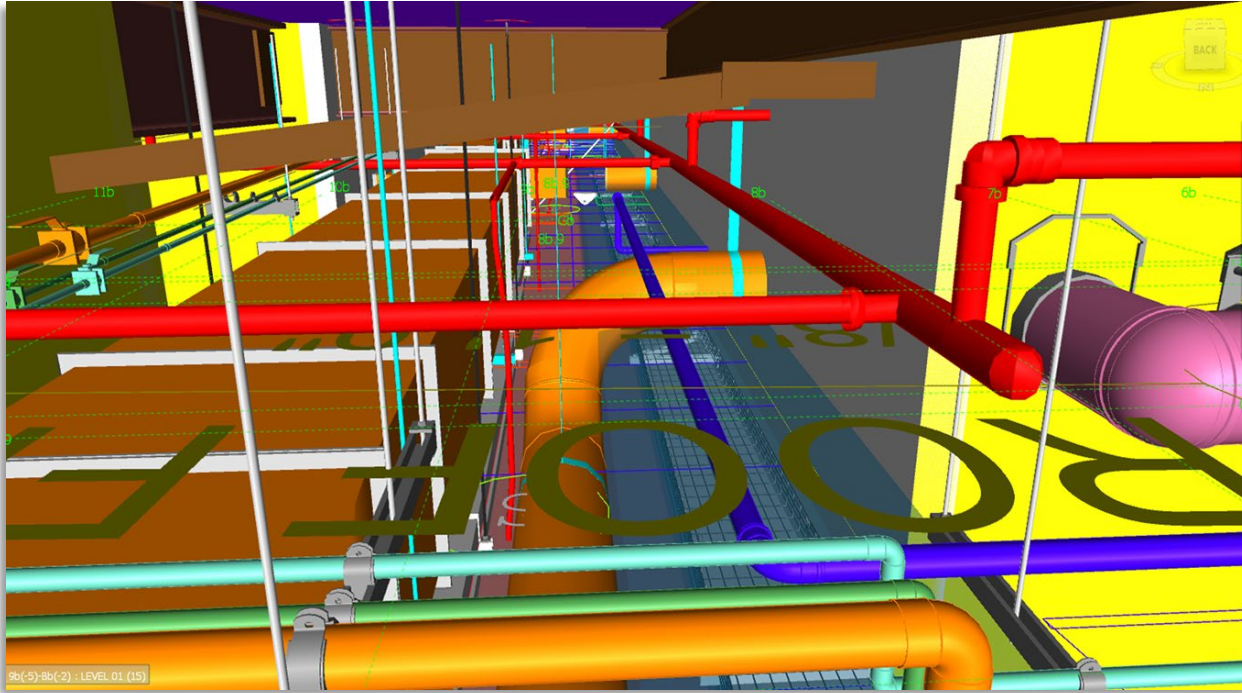
What is BIM?

# **Plant Engineering Innovations**

**Building Information Management (BIM) is a digital representation of physical and functional characteristics of a facility.**

**A BIM is a shared knowledge resource for information about a facility forming a reliable basis for decisions during its life-cycle; defined as existing from earliest conception to demolition.**

# Plant Engineering Innovations



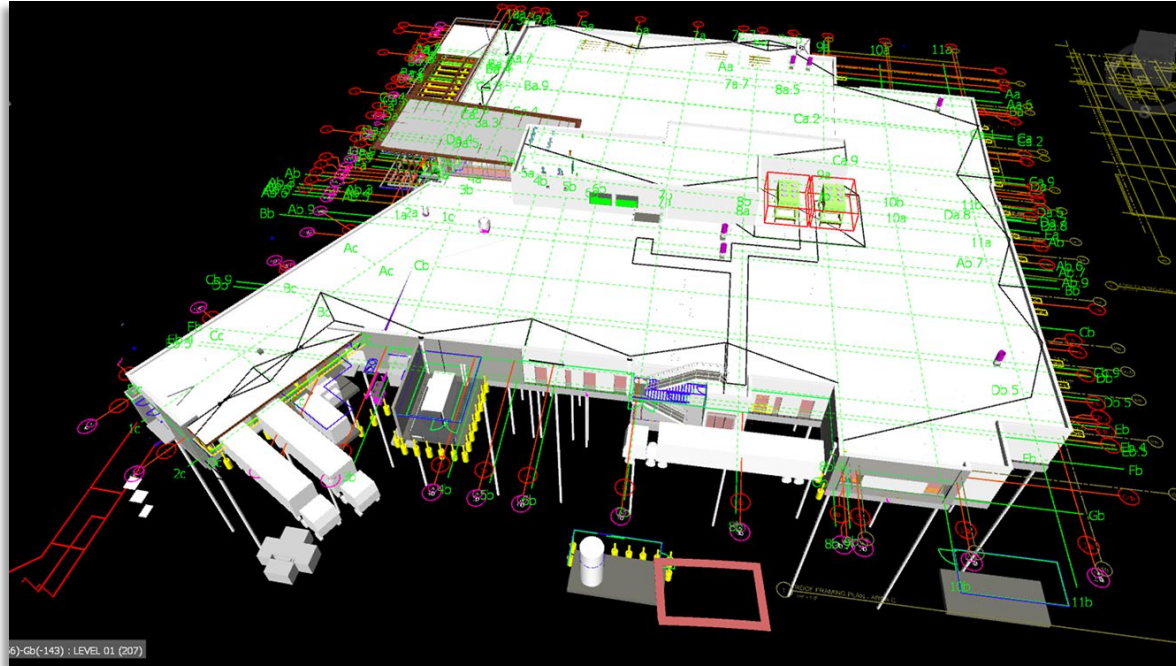
**BIM model of above-ceiling coordination and clash detection of all of the systems prior to construction and used as the plan for construction.**

## A 3D architectural rendering of a building's structural framework. The building is shown in a semi-transparent style, revealing internal components. A dense array of vertical white lines extends from the base of the building downwards, representing a complex system of connections or data flow. The lines are labeled with various alphanumeric codes, such as '1a', '2a', '3a', '4a', '5a', '6a', '7a', '8a', '9a', '10a', '11a', '12a', '13a', '14a', '15a', '16a', '17a', '18a', '19a', '20a', '21a', '22a', '23a', '24a', '25a', '26a', '27a', '28a', '29a', '30a', '31a', '32a', '33a', '34a', '35a', '36a', '37a', '38a', '39a', '40a', '41a', '42a', '43a', '44a', '45a', '46a', '47a', '48a', '49a', '50a', '51a', '52a', '53a', '54a', '55a', '56a', '57a', '58a', '59a', '60a', '61a', '62a', '63a', '64a', '65a', '66a', '67a', '68a', '69a', '70a', '71a', '72a', '73a', '74a', '75a', '76a', '77a', '78a', '79a', '80a', '81a', '82a', '83a', '84a', '85a', '86a', '87a', '88a', '89a', '90a', '91a', '92a', '93a', '94a', '95a', '96a', '97a', '98a', '99a', '100a', '101a', '102a', '103a', '104a', '105a', '106a', '107a', '108a', '109a', '110a', '111a', '112a', '113a', '114a', '115a', '116a', '117a', '118a', '119a', '120a', '121a', '122a', '123a', '124a', '125a', '126a', '127a', '128a', '129a', '130a', 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# Plant Engineering Innovations



**BIM model of the roof and key exterior clearances in the loading dock area for deliveries and mobile units such as a mobile CT trailer.**

# Challenges

- **Cultural Silos**
- **Staff Buy-In**
- **Change Management**



# Results

**Savings of over \$1 M in construction costs**

**Discovery of additional equipment and operational savings**

**Flexibility for volume fluctuations and service line changes**

# Culture of Continuous Improvement

