



# Planning and Designing for our Future

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# Longwood Medical Area

What began in cow pastures  
now contains:

- 45,000 + employees
- 18,000 students
- 150,000 patients & visitors
- Approx. 213,000 employee and visitors each day
- All vying for only 9,800 parking spaces

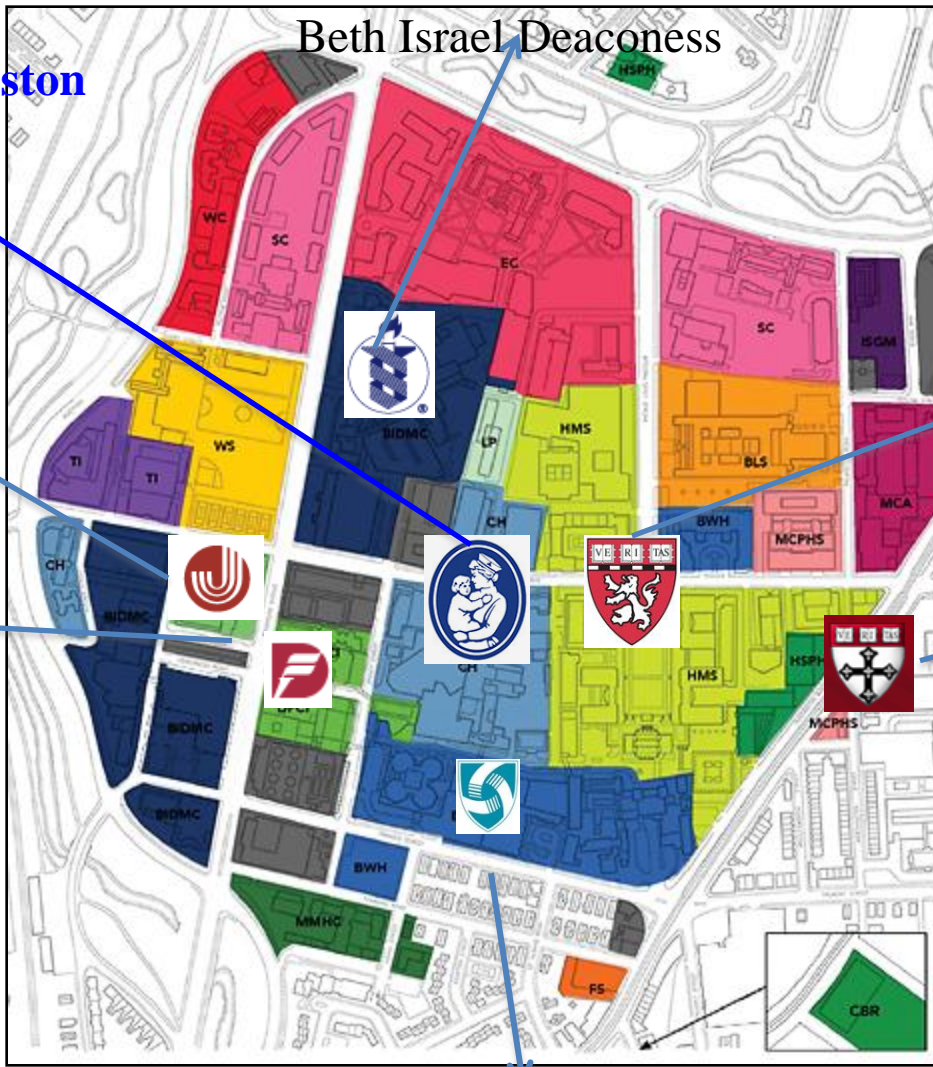




Children's Hospital Boston

Joslin Diabetes Center

Dana Farber Cancer Institute



Beth Israel Deaconess



Massachusetts General Hospital

Harvard Medical School

Harvard School Public Health

Brigham & Women's Hospital  
(affiliate of Massachusetts General Hospital)



## CHB Fast Facts:

- Founded in 1869 to combat Children's illnesses and diseases
- The pediatric teaching hospital for Harvard Medical School (HMS)
- Relocated from downtown Boston in 1914 to be adjacent to HMS
- An independent, stand alone institution devoted entirely to pediatric-care with 396 beds
- Approximately 25,000 inpatient admissions, 525,000 outpatient visits, 22,000 surgical cases each year
- 12,000 employees and associated personnel
- Featured on ABC series, "Boston Med" last year



## Children's Ranked #1(2011)

- US News & World Report
  - Heart and Heart Surgery
  - Orthopedics
  - Cancer
  - Urology and Kidney Disorders
  - Neurology and Neurosurgery



•#1 independent recipient hospital of NIH funding for pediatric research



# Vision: life changing care world changing research

## MISSION

care

research

education

community

## Strategic goals

Justifiable costs

Unsurpassed care

Clinical and research innovation

## Foundation for success

State-of-the-art infrastructure

Talent destination

Innovative and sustainable organization

Financial sustainability

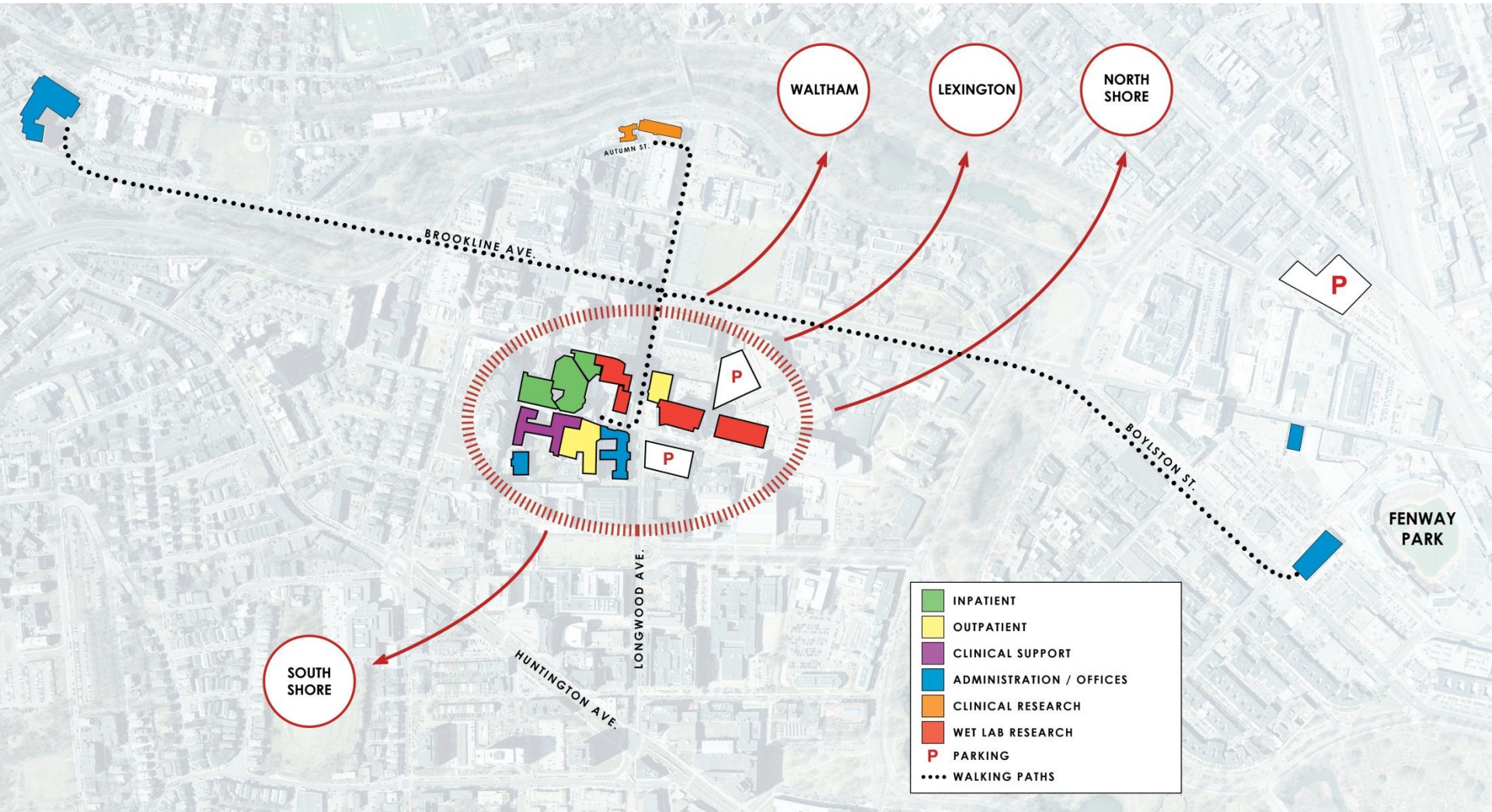


Children's Hospital Boston Main Campus



## From 1998, CHB has grown in real estate from 1.8 M to 5.5 M Square Feet

- Clinical Building Tower 250K SF
- Karp Research Building 300K SF plus 350 parking spaces
- Purchased Waltham (11 acres) and Peabody campus (26 acres) for suburban expansion
- Purchased Brookline Place (3.3 acres) & permitted 260K building with 600 car garage
- Purchased 1 and 21 Autumn Street for main campus administration and clinical research
- Purchased the Feldberg garage site (1.1 acre) for land banking opportunity- permitted 480K Research
- Purchased 241 Kent Street for parent/family accommodations
- Leased approximately 85K SF in the LMA, Fenway area and Weymouth
- Leased 250K SF of research space at CLSB
- Bought 100% ownership of 333 Longwood for clinical and administrative programs.
- Building Main Building Addition(110K) for inpatient beds and support space





## Challenges for the IMFP for 2008 - 2013

- Reduce double rooms to singles for increase patient satisfaction and infection control
- Upgrade the outdated Neonatal Intensive Care Unit (NICU) from bays (1985) to rooms
- Expand program space to allow for growth and rightsizing in Radiology, Emergency and the Pharmacy departments
- Expand total number of beds for strategic growth from 396 beds - up to 425 beds
- Resolve location for outdated electrical vault and create redundancy for the campus
- Site constraints – land locked and urban environment
- Decision making process: Programming, planning and design can take up to 36 months to complete; construction up to 36 months for a total of up to 7 years for a new building to be built.
- Financial constraints – keeping borrowing within affordable levels to maintain AA2 debt rating
- Outside influences from the healthcare market



## 2008 to 2013 IMFP Inpatient Tower options

We reviewed 7 options on the Main Campus site:

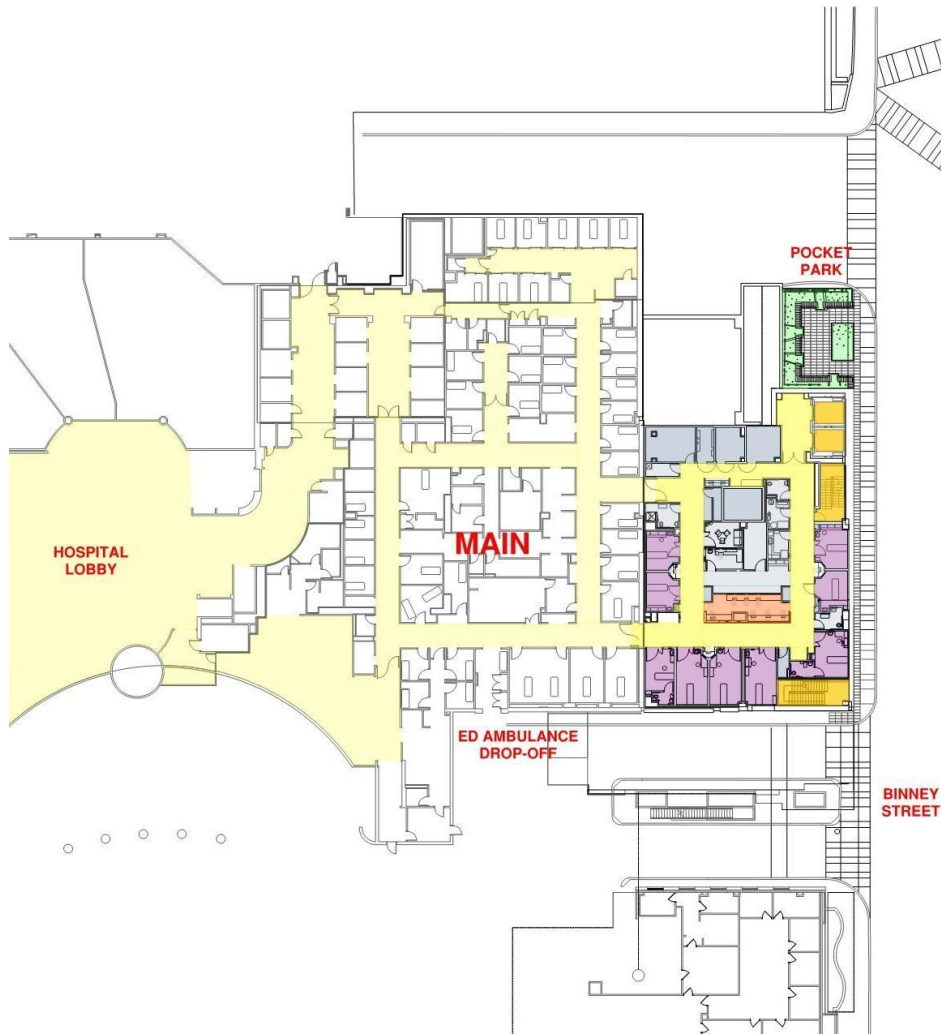
- Vertical expansion on Main Building
- Wolbach Building Site
- Jimmy Fund Building Site
- Binney Street Site
- Feldberg Garage Site
- Parking Garage Site
- Enders Building Site

In 2009, Binney Street was selected as the site for our next expansion as the project cost met expectations, scheduled for completion in 2013, increased bed capacity, expanded the Radiology and Emergency departments, has begun to resolve double and single bed issues, added new radiology technology, expanded and right sized the pharmacy.



## Binney Street Facility and Design Challenges

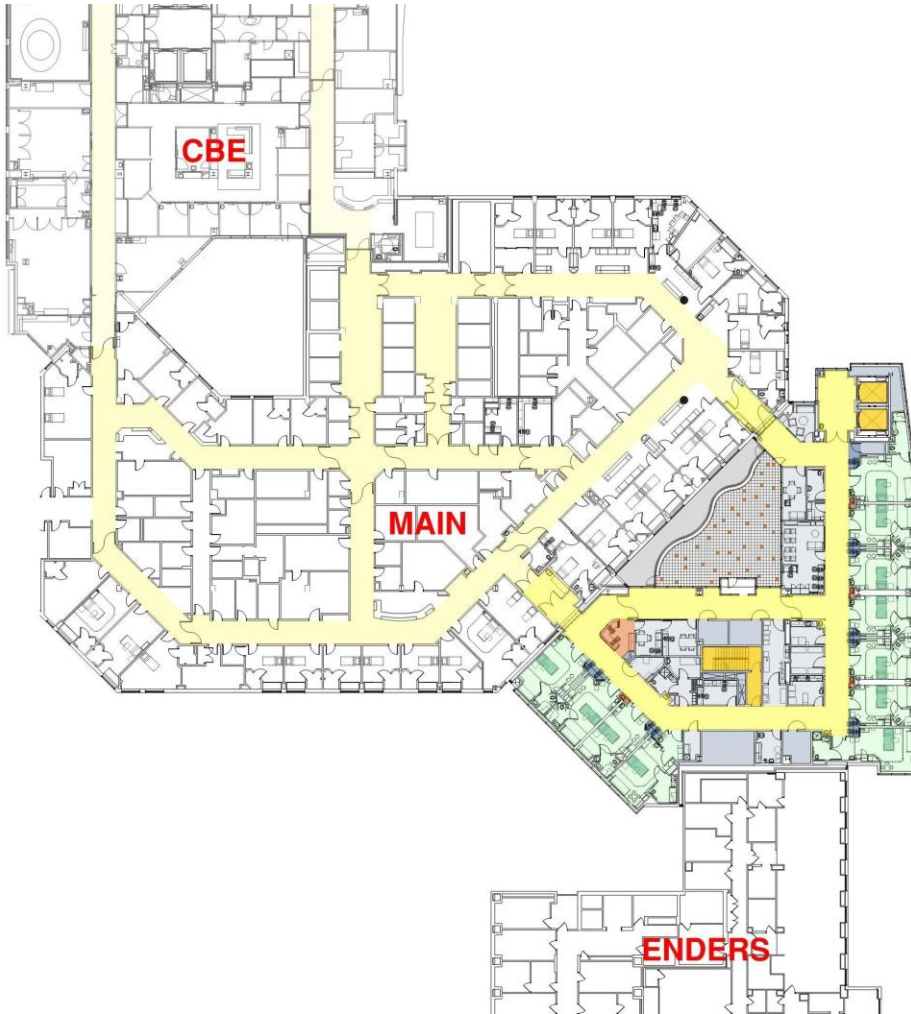
- Building Flexibility to accept new technology that isn't yet designed
- Join to existing work – circa 1985 building finishes/standards vs. 2013 standards – room sizes/amenities/floor to ceiling ht
- Loss of bed days and revenue impacts where joining to the existing buildings
- 10,000 SF floor plates – operating efficiency
- Site constraints – construction and logistics
- Cost per SF and Schedule
- Light well and Garden space for patients on mechanical roof decks
- Mirrors to reflect light in patient rooms
- Pocket parks to create green space



Binney Street - 1<sup>st</sup> floor



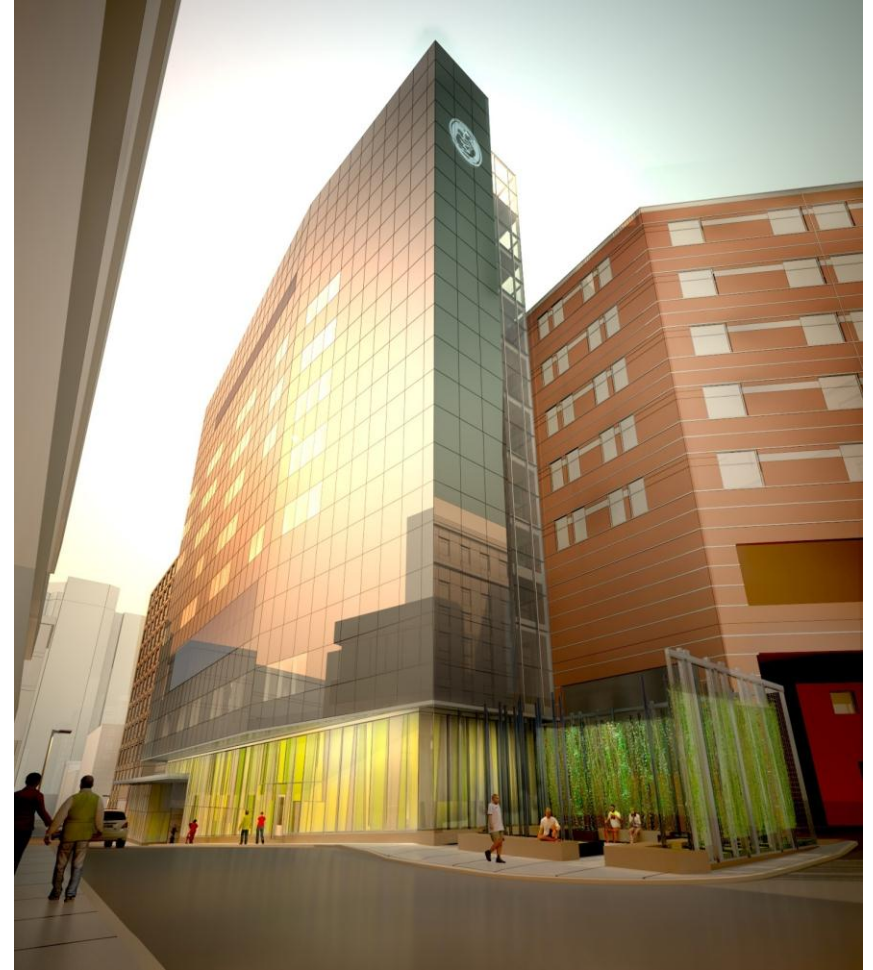
Binney Street Site



Binney Street - 1<sup>st</sup> floor



Courtyard view - Night



Binney Street - exterior and park



Binney Street – Typical Nurse's station



## Planning for the future

- Reduce double rooms to singles
- Upgrade the NICU
- Create Centers of Excellence
- Improve the patient experience
- Operational efficiencies
- Future growth potential
- Future of energy possibilities – self sustaining central utility plant
- Accessibility/parking/traffic
- LEED/Green/sustainability
- Competition in services provided and facilities environment
- Project costs and schedules



## Future Balancing Act

- Healthcare Reform Impact
- Financial capacity
- Cost and reimbursements/levels of acuity of care
- Clinical care environment
- Patient and physician access
- Multiple institutional and environmental priorities
- Physical constraints – buildings as old as 97 years
- Changing and improving technologies
- Program alignment/adjacencies
- Challenging infrastructure requirements
- Sustainability
- Teaching requirements
- Community Relations
- Regulatory Environment
- International and multicultural clients
- Centralize vs. decentralize services
- Quality of environment
- Operating efficiencies
- Lost bed days/revenue impacts
- Schedule
- Project Costs



## Designing for the future

- Understanding the institution's evolving challenges and strategies
- Understanding future program direction – more outpatient and less inpatient – acuity levels
- Planning for the unknowns for 3,5,10 and 20 years
- Real estate opportunities for future growth- land banking
- Added structural capacity for future building growth/new technology
- Shelled floor or space for future growth
- Redundant systems/capacity for growth
- Emergency management planning
- Future building code and regulatory changes
- Room design flexibility and adaptability



## Who do we select to partner with to build the future?

- Similar building type experiences
- Key individual resumes, roles they played and overall experiences
- Team experience
- Understanding the urban environment and challenges
- Company's philosophy
- LMA knowledge preferred
- Sister institution feedback and experiences
- Successes and Failures
- Process in managing expectations, delivering products and innovation
- Fees and schedules



# Questions ?

