

Integrating hospitals into healthy communities

Başak Alkan, AICP, LEED AP BD+C
Micah Lipscomb, ASLA, LEED AP BD+C

[Latin]: *hospes*

*Guest, host,
stranger...*

Host

Hostel

Hotel

Hospice

Hospital

Hospitality

....

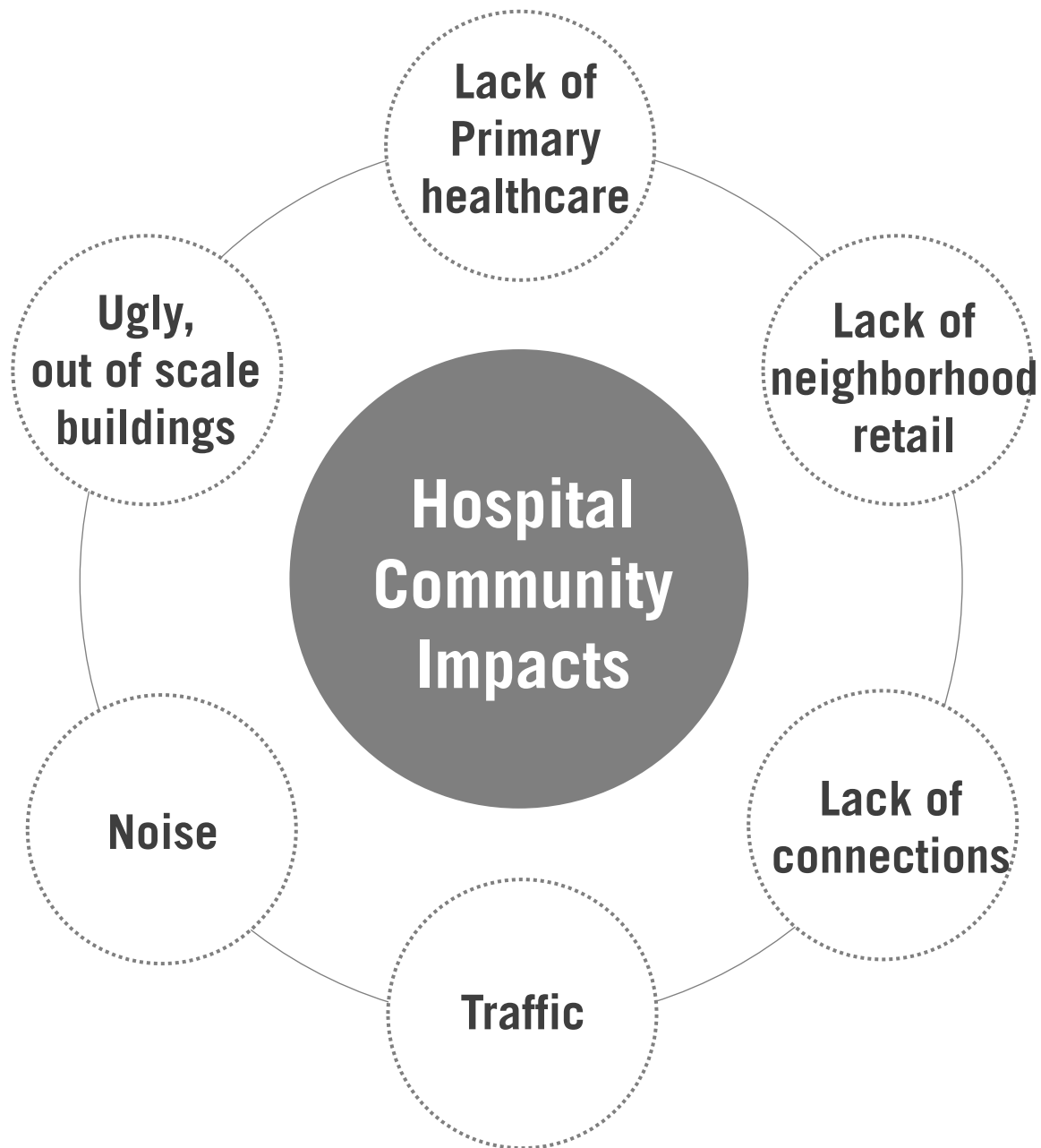
HOSPITAL

Access?
Environment?
Safety?
Physical Activity?
Social Capital?



MALL







“The symptoms or the suffering generally considered to be inevitable and incident to the disease are very often not symptoms of the disease at all, but something quite different—of **want of fresh air, or light, or warmth, or of quiet, or of cleanliness..**”

FLORENCE NIGHTINGALE, 1860
English nurse, writer, statistician



A COURT FOR KING CHOLERA.

31 August–8 September, 1854, LONDON

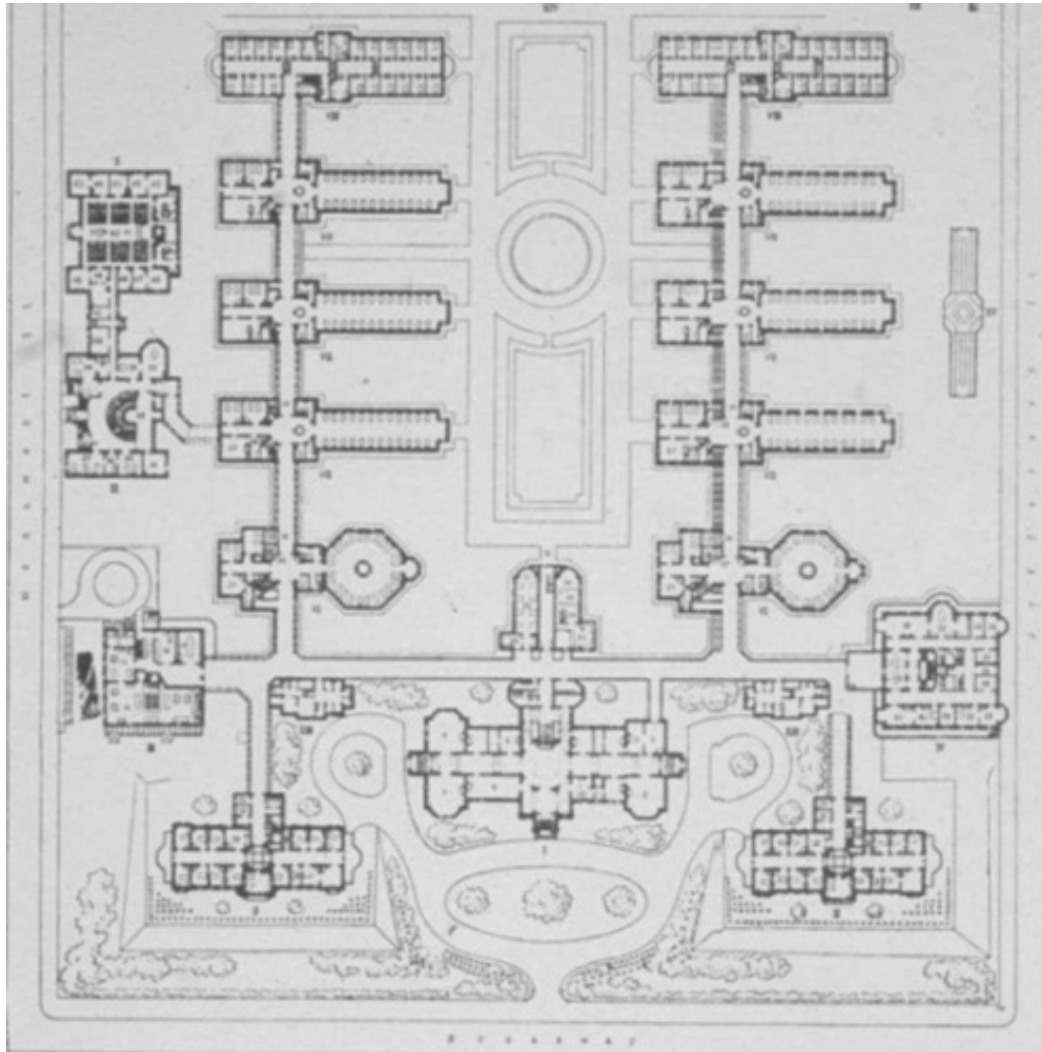
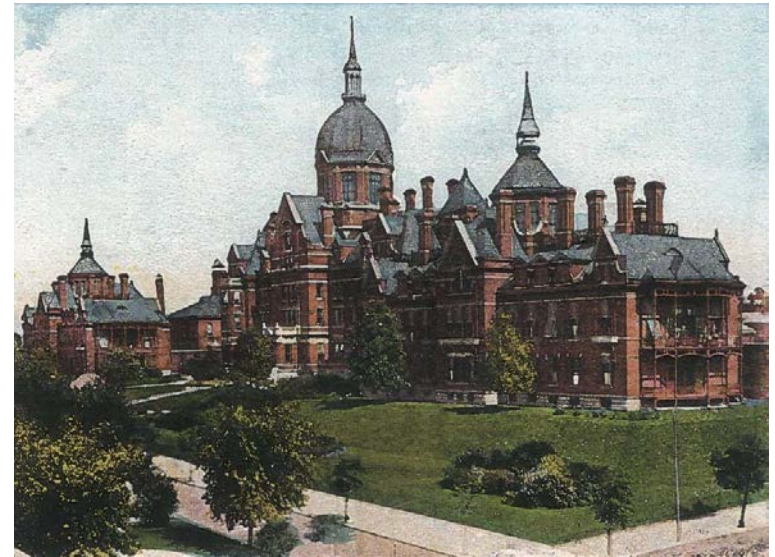


Fig. 183. Final plan for Johns Hopkins Hospital (John S. Billings' s second plan) 1876.



JOHNS HOPKINS HOSPITAL

Baltimore MD ca. 1889



POST-WAR “MODERN” HOSPITAL

D&T BASE

Efficient layout

Daylight excluded

PATIENT BED TOWER

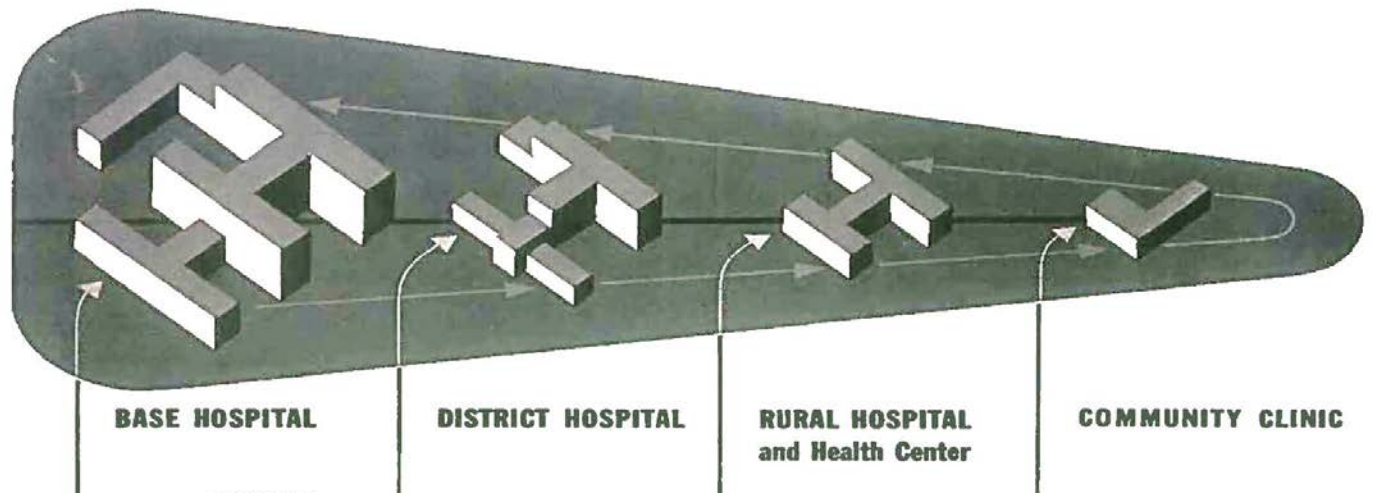
Every room the same

Core lacks daylight

PARKING

**1948
Hill-Burton
Act**

THE COORDINATED HOSPITAL SYSTEM



TODAY

Academic Medical Center	Tertiary Regional Hospital	Critical Access Hospital (rural)	Medical Office Building
Teaching Hospital	Specialty Hospital		Urgi-Center
	Community Hospital		Primary Care Clinic



THE JOHNS HOPKINS HOSPITAL

Baltimore, MD

Ca. 2012



Imperatives of Urban Planning

- **Livability**
 - Quality of life
 - Mixed-use environments
 - Transportation options
 - Job and housing options
- **Walkability**
 - Connectivity
 - Streetscape design
 - Destinations
- **Adaptability**
 - Allowing change in uses without changes in the framework
- **Sustainability**
 - Green infrastructure
 - Green buildings
 - Access to nature
 - Environmental justice
 - Support local economies

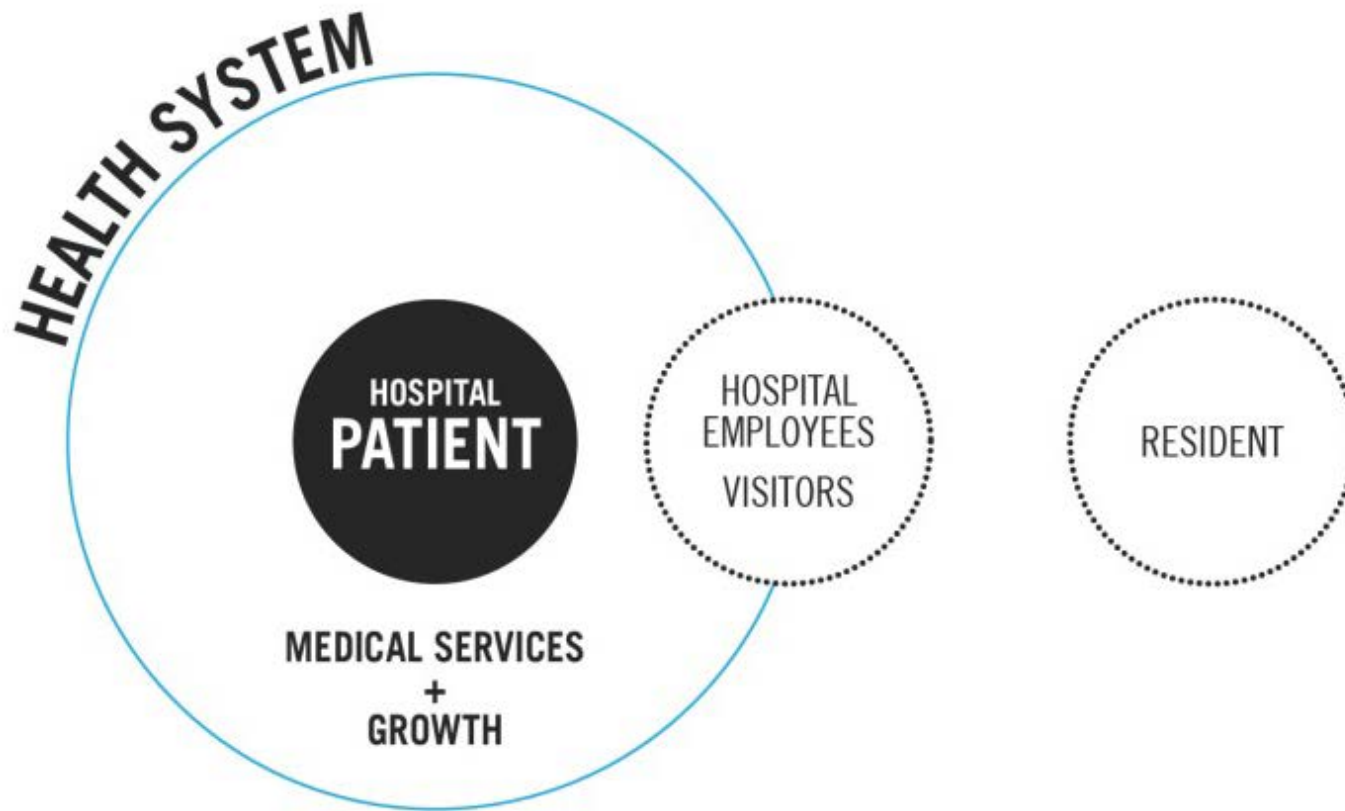
Imperatives of Medical Planning

- Functional adjacencies
- Block and stack
- Patient flow
- Materials management
- Infection control
- Travel distances
- Future flexibility
- Future expansion
- Staffing efficiencies

“Additional Planning Criteria”

- *The patient experience*
- *Staff satisfaction and retention*
- *Community interface*
- *Integrated public spaces*
- *Quality of place*
- *Brand expression*
- *Wayfinding*
- *Daylighting and access to nature*
- *Sustainability*





HEALTHCARE PLANNERS INSTITUTIONAL PLANNING PROCESS



**URBAN PLANNERS
COMMUNITY PLANNING PROCESS**



**INTERDISCIPLINARY PLANNING
MULTI-STAKEHOLDER PROCESS**



ECONOMIC DEVELOPMENT

A HEALTHY BUILT ENVIRONMENT

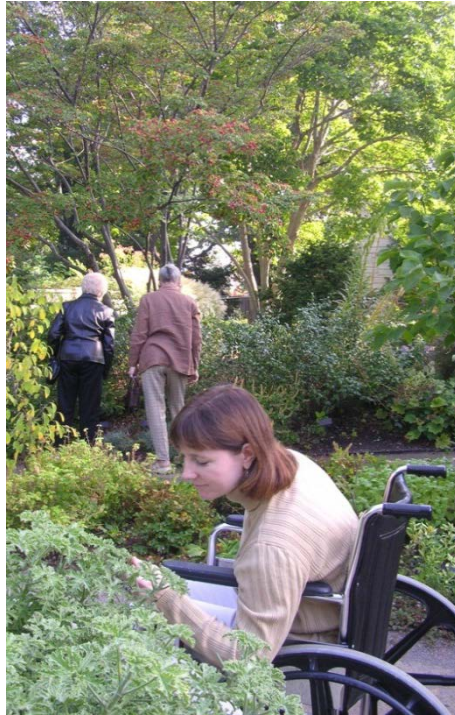


Beth Israel Deaconess Medical Center, Boston, MA

ACCESS TO OPEN SPACES



SOCIAL SUPPORT



NATURE ENGAGEMENT



SENSE OF CONTROL



EXERCISE

EVIDENCE THAT ALL OF THESE REDUCE STRESS

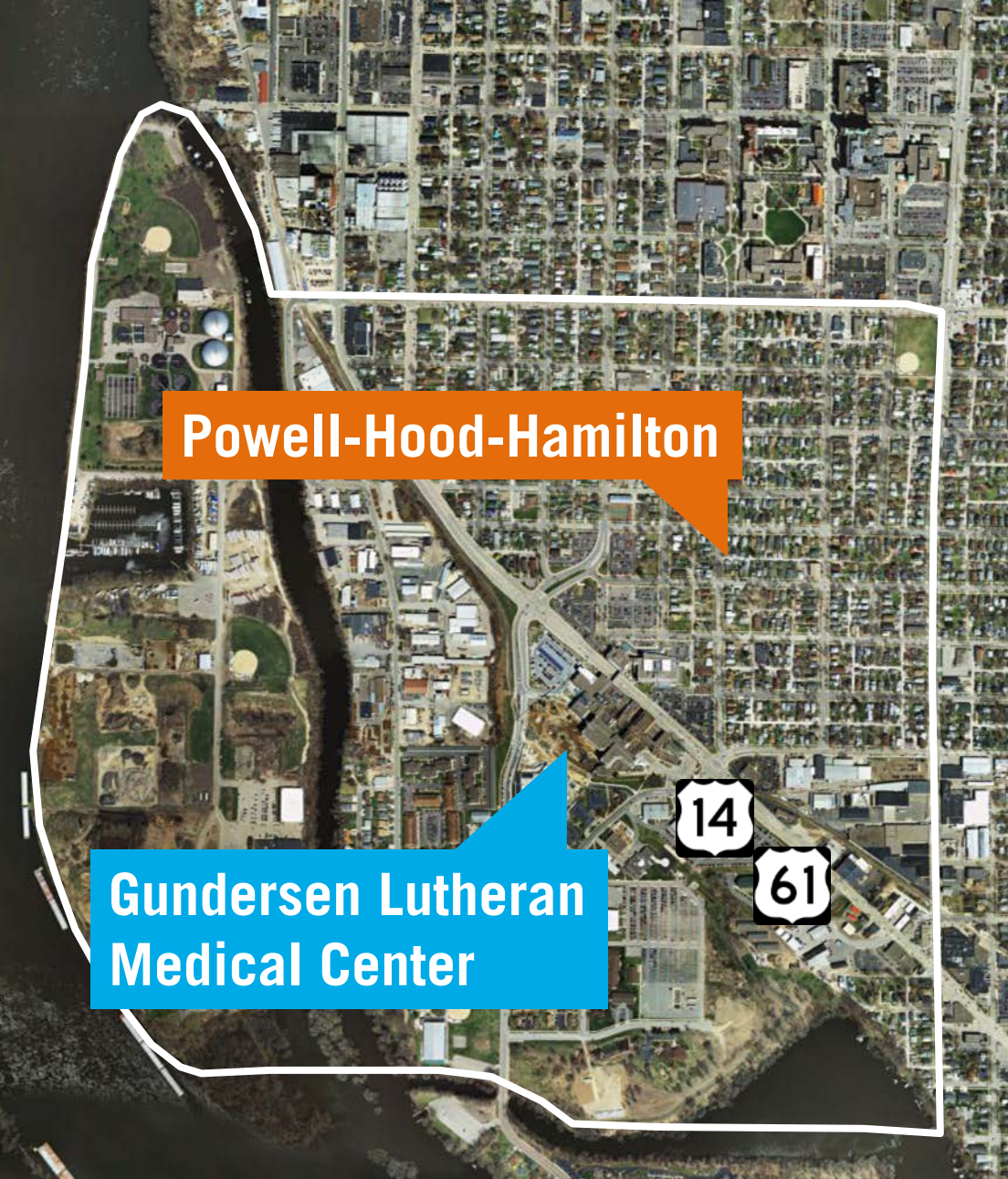


IMPROVED HEALTH OUTCOMES

HEALTH DISTRICT PLANNING ECONOMIC DEVELOPMENT

“... each hospital job supports about two more jobs and every dollar spent by a hospital supports roughly \$2.30 of additional business activity.”

AMERICAN HOSPITAL ASSOCIATION
“The Economic Contribution of Hospitals.” 2010.



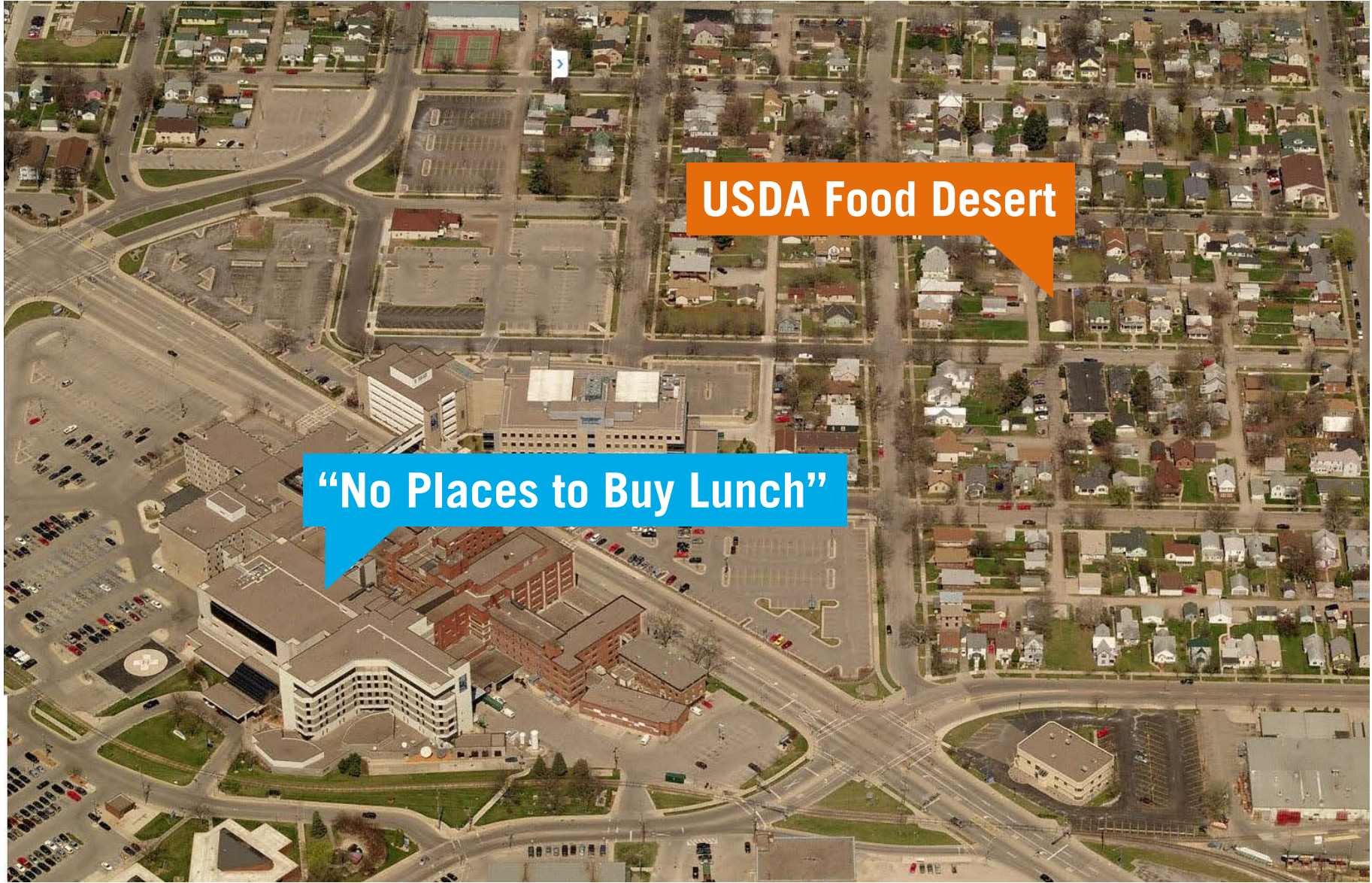
CASE STUDY

A historic opportunity to envision the joint future of one of La Crosse's oldest neighborhoods and its largest employer.



“Too Many Absentee Landlords”

“Neighborhood Not Safe to Live in”



USDA Food Desert

“No Places to Buy Lunch”

THE STUDY AREA IS UNDER-RETAILED ALTHOUGH THE REGION IS NOT.

	Demand	Supply	Sales Gap	Gap as % of Demand
Study Area	\$23.7M	\$3.1M	\$20.7M	87%
City of La Crosse	\$424.9M	\$615.1M	-\$190.2M	-45%
La Crosse MSA	\$1,217.2M	\$1,199.6M	\$17.7M	1%



Source: ESRI Business Analysis Online, 2012; HR&A Advisors, Inc.

RETAIL DEMAND BASED ON EXISTING DEMOGRAPHICS

Retail Category	Sales Gap	
<u>FOOD-BASED RETAIL:</u>		
Food & Beverage Stores	\$3,195,424	➔ 5-7k SF
Grocery Stores	\$3,128,938	
Specialty Food Stores	\$39,601	
Beer, Wine & Liquor Stores	\$26,886	
Food Services & Drinking Places	\$2,883,945	➔ 6-8k SF
Full-Service Restaurants	\$923,756	
Limited-Service Eating Places	\$2,013,427	
Special Food Services	\$85,783	
Drinking Places - Alcoholic Beverages	\$(139,021)	
<u>ADDITIONAL CATEGORIES OF EXCESS DEMAND:</u>		
Electronics & Appliance Stores	\$617,787	
Bldg. Materials, Garden Equip. & Supply Stores	\$390,916	
Gasoline Stations	\$3,536,484	
General Merchandise Stores	\$4,161,157	➔ 10-20k SF
Motor Vehicle & Parts Dealers	\$3,745,452	

A Grocery Store that is 5-7K SF

Challenging operational scale for most operators

A Café / Restaurant that is 6-8K SF



A General Merchandise Store that is 10-20K SF

Contemporary operators seek massive scale or downtown site

Market dynamics and financing availability mean virtually all new multi-family development will be affordable.

Market Rate Rent

**~\$1.00 / SF /
Month**

Project income does not cover development costs + required returns.

Affordable Rents

\$0.75 / SF / Month

Federal and State incentives fill the gap:
Low Income Housing Tax Credits for projects with tenants at 60% AMI
New Market Tax Credits for projects with at least 20% commercial space.

2013 Maximum Incomes for Low Income Housing Tax Credits, La Crosse County, WI

Household size	60% Average Median Income
One person	\$29,100
Two persons	\$33,240
Three persons	\$37,380
Four persons	\$41,520
Five persons	\$44,880
Six persons	\$48,180

Source:
<http://www.danter.com/TAXCREDIT/getrents.HTML>

Healthcare employees who may be qualified to rent affordable housing units, based on American Medical Association data:

Occupation	Starting salary	Average salary
Emergency medical technician	\$19,360	\$30,000
Pharmacy technician	\$19,480	\$28,070
Medical assistant	\$20,750	\$28,650
Cardiovascular technologist	\$25,940	\$48,300
Surgical technologist	\$27,910	\$39,400
Health Information Technician	\$30,000	\$39,100

Source: <http://www.ama-assn.org/ama/pub/education-careers/careers-health-care/health-care-income.page>

PARTNERING FOR IMPLEMENTATION

- **Joint Development Corporation**
currently in organization phase, led by City of La Crosse and Gundersen Lutheran – TIF Funds
- **Community Development Corporation**
currently in organization phase, led by Neighborhood Revitalization Commission

A CDC that would focus on housing rehabilitation in a concentrated and targeted manner would have the visible impact necessary to entice additional investment within the Study Area.

City, nonprofits launch major urban renewal project

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Renee Galstad's house will be painted this Sunday as part of RENEW.

[Buy Now](#)

HEALTH DISTRICT PLANNING

HEALTHY BUILT ENVIRONMENT



The design and location of homes, schools, workplaces, stores, streets, and open spaces —our built environment— has a tremendous impact on physical, mental, and social health.

Dr. Richard Jackson, M.D., M.P.H.

HOSPITAL

Access?
Environment?
Safety?
Physical Activity?
Social Capital?



MALL





125

2000'

850'

16

intersections
per square mile

Design, Distances, Destinations, ...

Walking is most strongly related to measures of **land use diversity, intersection density, and the number of destinations within walking distance.** Bus and train use are equally related to proximity to transit and street network design variables, with land use diversity a secondary factor.

2010. Ewing, Reid and Robert Cervero. Travel and the Built Environment: A Meta-Analysis. Journal of the American Planning Association (JAPA) Volume 76, Issue 3.



“HOSPITAL NEED”

Block size and dimensions impact flexibility of development and walkability of the urban environment.



“COMMUNITY NEED”



**2700-3000 SF
/ Inpatient**

HOSPITAL SPACE REQUIREMENTS

“Hospital Use”

- Inpatient Nursing Units
- Intensive Care Units
- Birthing Units
- Operating Rooms
- Interventional Radiology Suite
- Imaging Suite
- Emergency Department
- Chemotherapy/Infusion
- Renal Dialysis
- Primary Care Clinics
- Specialty Outpatient Clinics
- Physical Plant
- Administrative Offices
- Ancillary Support
- Loading Dock / Storage
- Instrument processing and sterilization
- **Parking**
- Adult/Pediatric/Women/Psych



hospital



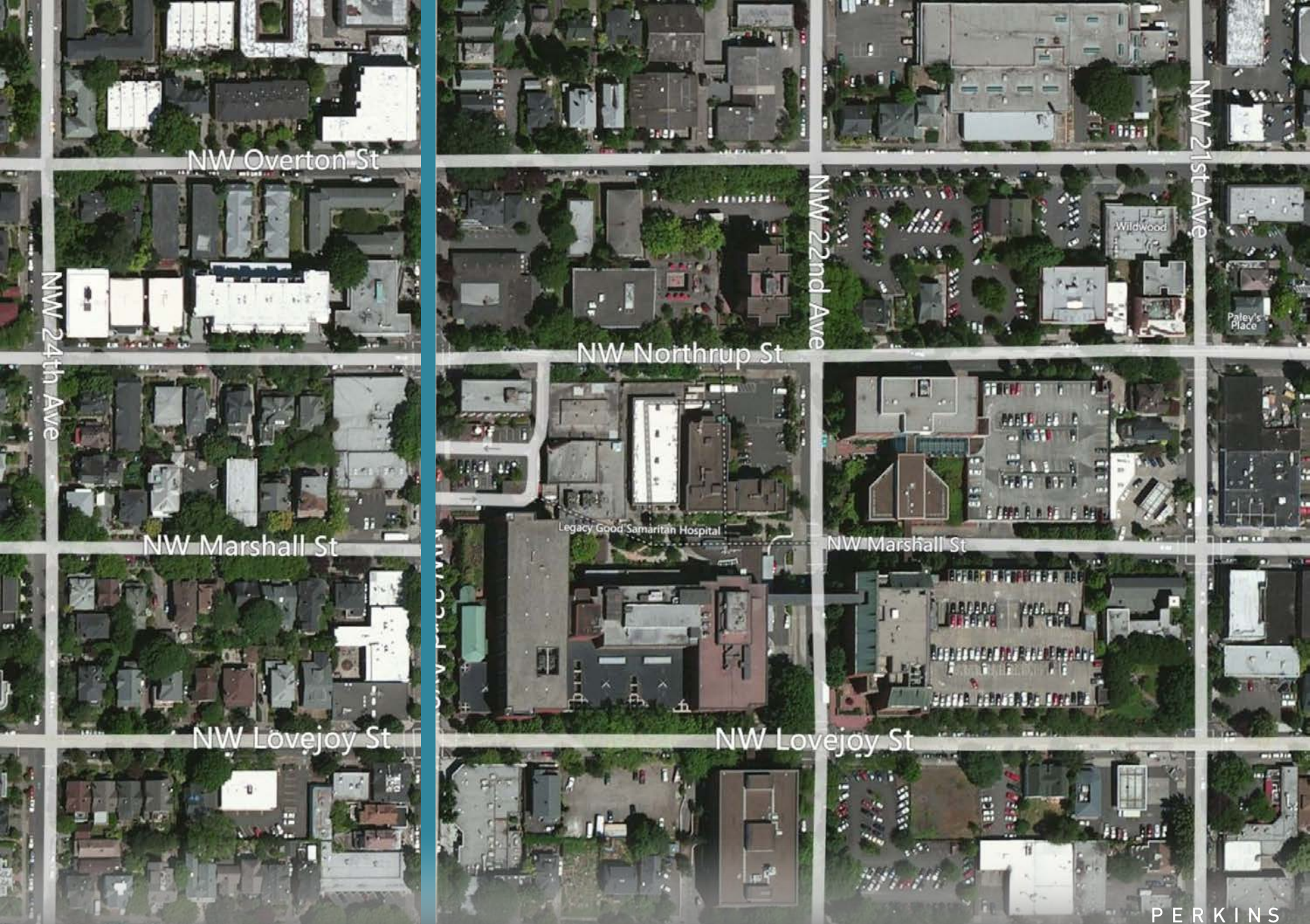
medical office





LEGACY GOOD SAMARITAN MEDICAL CENTER

249 beds, 200,000 visits



NW Overton St

NW 21st Ave

NW 24th Ave

NW 22nd Ave

NW Northrup St

NW Marshall St

Legacy Good Samaritan Hospital

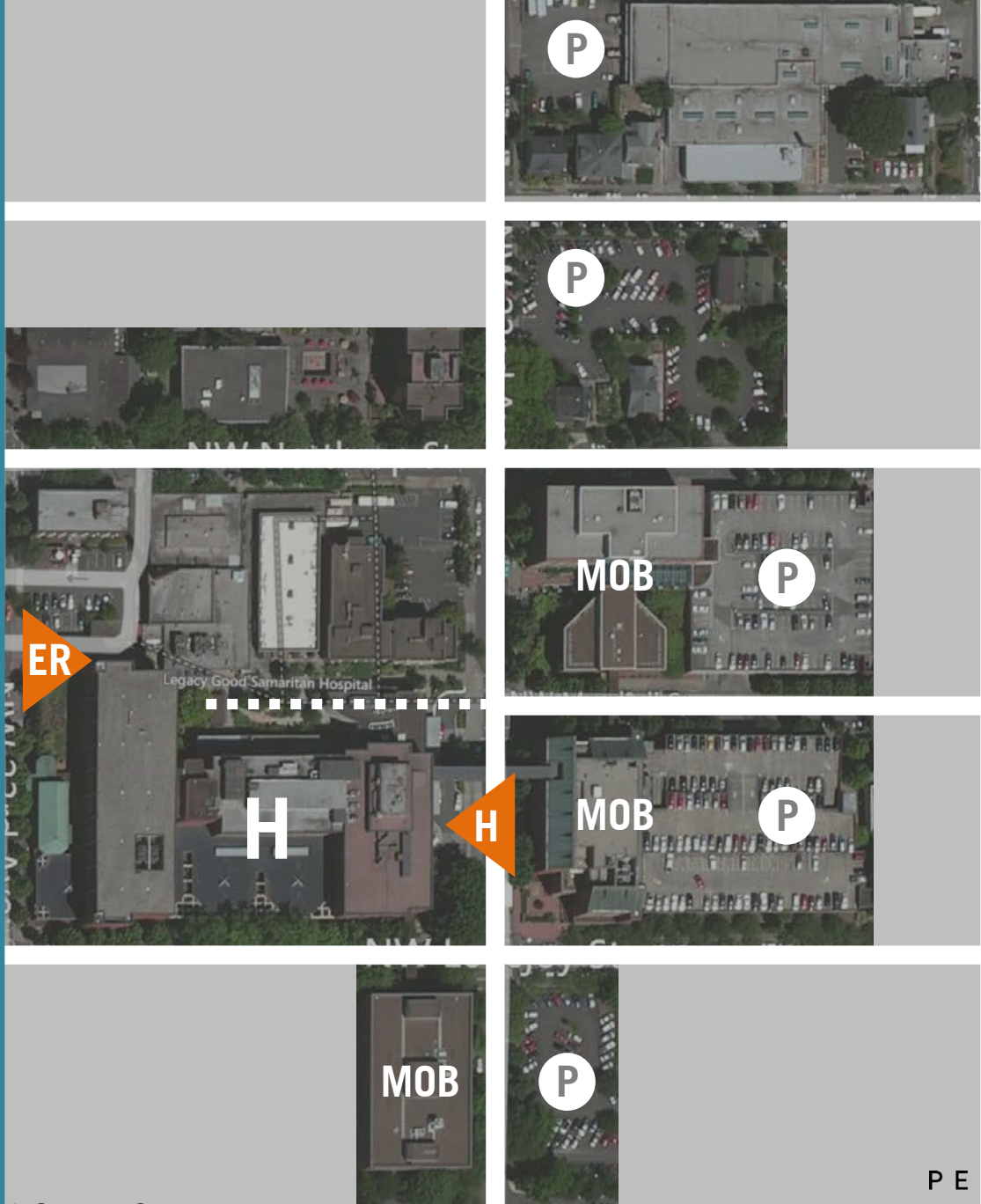
NW Marshall St

NW Lovejoy St

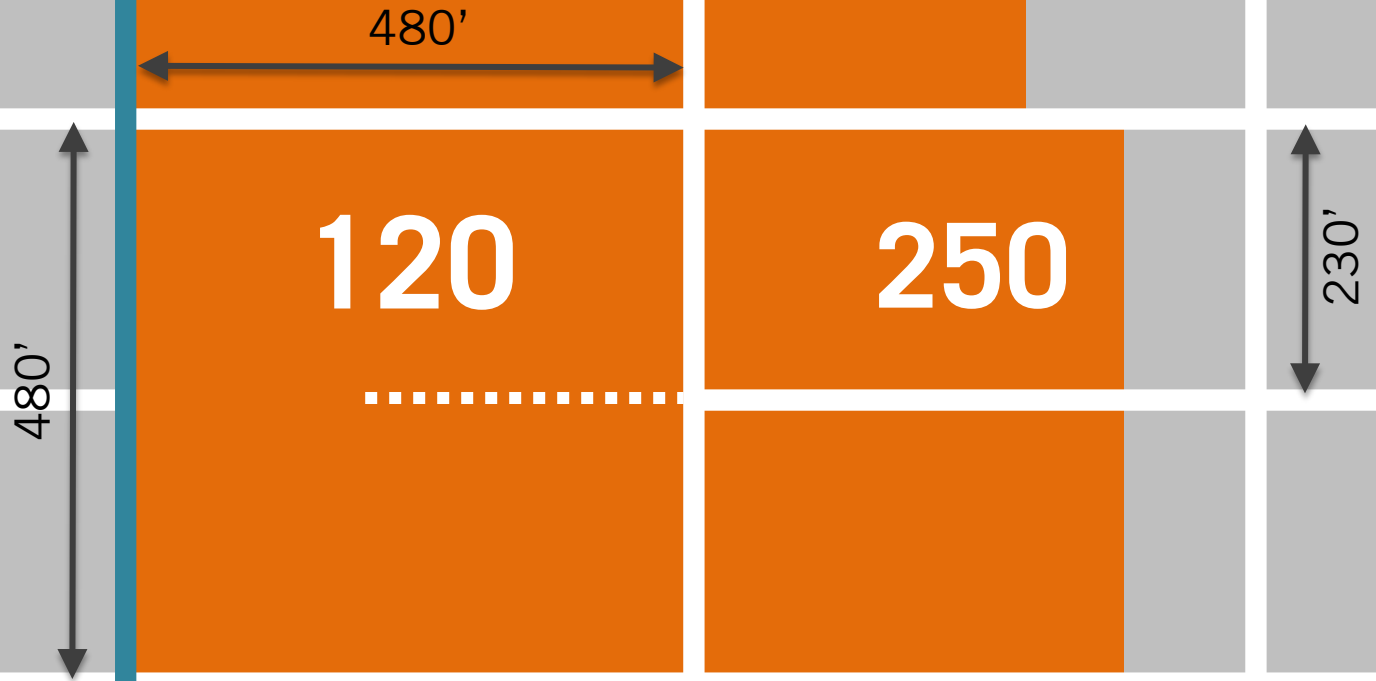
NW Lovejoy St

intersections
per square mile

21st Street



intersections
per square mile



intersections
per square mile

480'

690'

85

250

230'

intersections
per square mile

480'

690'

85

85

230'

less LIVABLE
less WALKABLE
less ADAPTABLE



St. Olav's Hospital, Trondheim, Norway

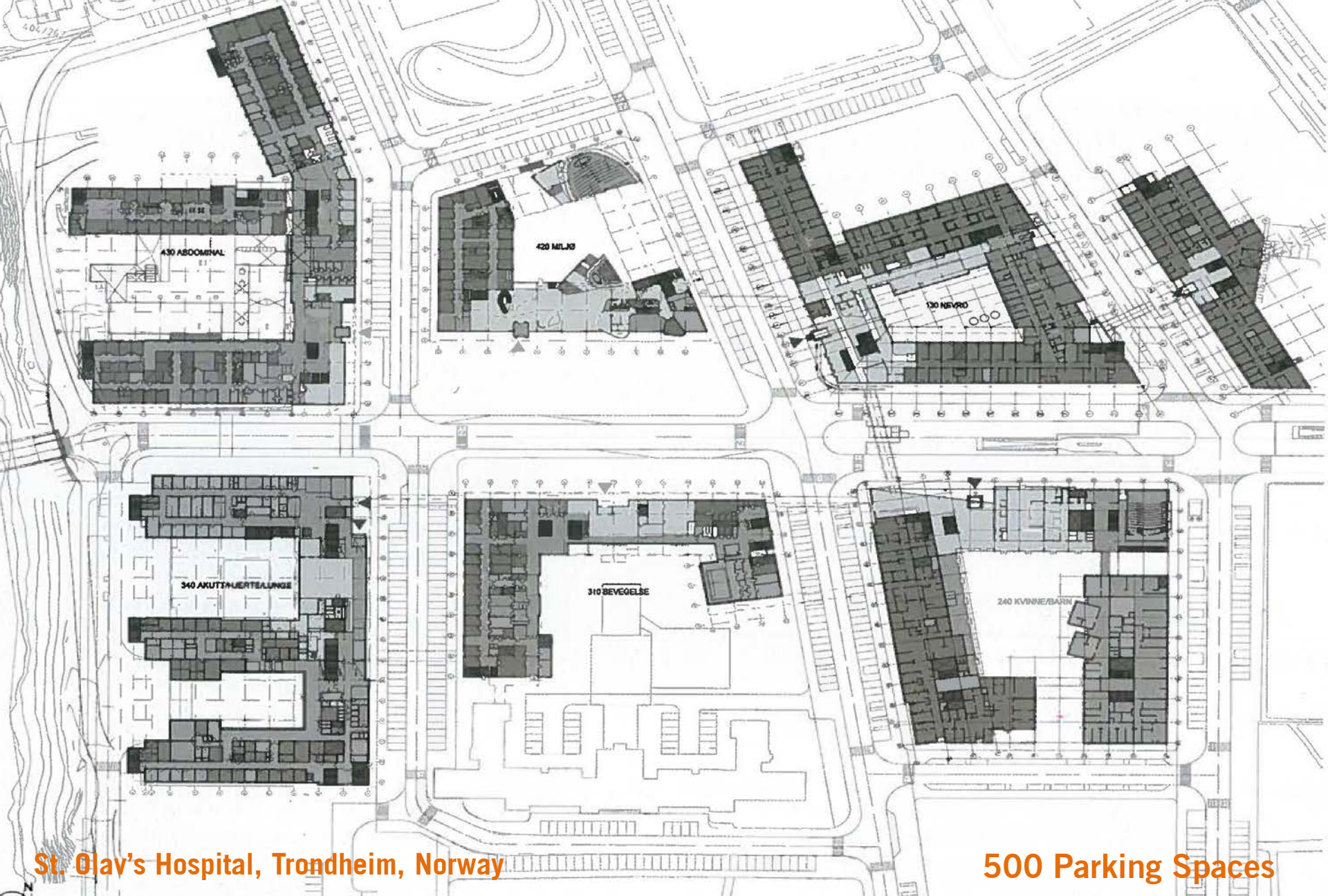


BEFORE



St. Olav's
Hospital
Trondheim
Norway

AFTER



St. Olav's Hospital, Trondheim, Norway

500 Parking Spaces



St. Olav's Hospital, Trondheim, Norway

A photograph of the Beth Israel Deaconess Medical Center in Boston, MA, showing a multi-story brick building with many windows. In the foreground, a cyclist is riding across a street intersection. A white pickup truck is driving away from the camera. Other cars are visible in the background. The sky is clear and blue. Several orange callout boxes with white text are overlaid on the image, pointing to different transportation modes: 'Regional Thoroughfare' (green box), 'Ambulances' (orange box), 'Bikes' (orange box), 'Pedestrians' (orange box), 'Buses' (orange box), and 'Cars' (orange box).

Regional Thoroughfare

Ambulances

Bikes

Pedestrians

Buses

Cars

Beth Israel Deaconess Medical Center, Boston, MA



Architecture + Materials

**Historic Preservation /
Adaptive Reuse**

Pedestrian Greenway

Public Entrance

Cafe

Beth Israel Deaconess Medical Center, Boston, MA

HEALTH DISTRICT PLANNING

ACCESS TO OPEN SPACE

Legacy Health Care Portland, OR

21st Street





Legacy Healthcare Gardens, Portland, OR

Health Districts :: CDC Built Environment Work Group :: Oct 2, 2012









THOMPSON
Mediterranean Beans
BASTARDS
BLACKBERRIES
BLACK CAPS
PINT \$2.95
1/2 GALLON \$11.50
CANTALOUPE \$1.99
\$3.00 Bunch
2 Aug. 11.00
ALL DUES, BEERES AND VEGE
WITH NO INFLECTADES AN
Reusable Pops = 2

CAUTION
WET FLOOR

Legacy Healthcare Gardens, Portland, OR



HEALTH DISTRICTS AND THE FUTURE OF HEALTHCARE

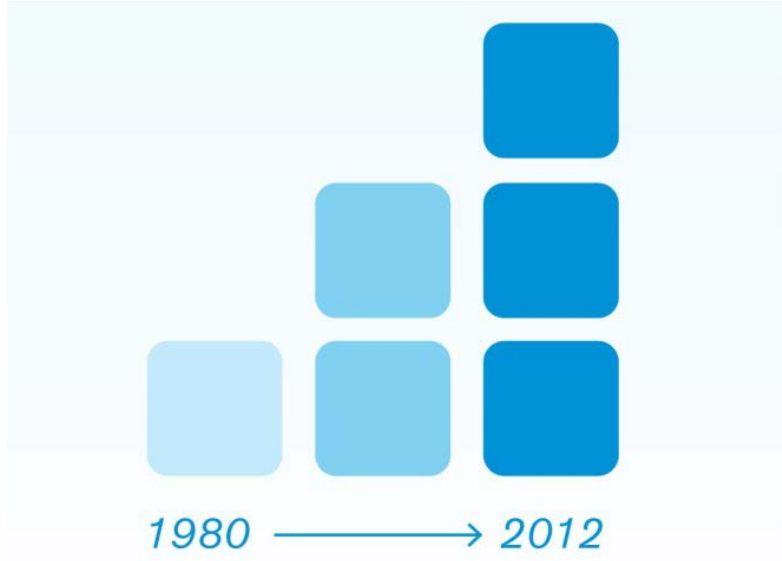
“By 2020, we had successfully transitioned the health care system from one which “fixed people after they were sick” to one of preventative, diagnostic medicine. **Treating them for the conditions we know they were likely to develop.”**

Jim Carroll - Futurist, Trends & Innovation Expert



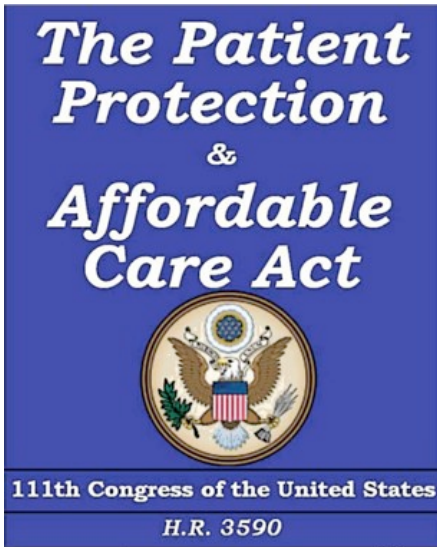


One out of 3 children are obese or overweight before their 5th birthday.



Since 1980, obesity prevalence among children and adolescents has almost tripled.

Source: (National Collaborative on Childhood Obesity Research)



- Changing the business model of healthcare
- **GREATER FOCUS ON WELLNESS, PREVENTION, AND COMMUNITY HEALTH**
- Moving from “fee for service” to “accountable care organizations”
- Community Health Needs Assessment (CHNA) required for non-profits
- Providers responsible for the care of a population
- Greater emphasis on care management, continuity and collaboration
- ***Patient Satisfaction Scores*** factored into reimbursement rates



**INTERDISCIPLINARY PLANNING
MULTI-STAKEHOLDER PROCESS**



CONCLUSION