CHAP and Historic Preservation in Baltimore

April 19, 2017

MARKS, THOMAS ARCHITECTS
OLD IDEAS CAN SOMETIMES USE NEW BUILDINGS. NEW IDEAS MUST USE OLD BUILDINGS.

- JANE JACOBS
SUSTAINABILITY

Meeting society’s current needs without compromising the ability of future generations to meet their needs
PRESERVATION

IMAGINATION

MEMORY

REASON

THE CITY WE WANT.
Housing Costs as Percentage of Income

Housing + Transportation Costs as Percentage of Income

Source: Center for Neighborhood Technology
New Urbanist?

Old Urbanist!
WHY REBUILD CITIES?

Baltimore Population 1900-2014

Population
WHY INDUSTRIAL BUILDINGS?

Baltimore Manufacturing Employment 1900-2014

Manufacturing Jobs

MARKS, THOMAS ARCHITECTS
Building on Baltimore’s History:
The Partnership for Building Reuse

November 2014
PBR DATA

Opportunities for Reuse

- Lowest Opportunity Score
- Highest Opportunity Score
- Possible Areas for Focused Attention
HISTORY

MILLER’S COURT
BALTIMORE, MD
SITE AND CONTEXT

MILLER’S COURT
EMBODIED ENERGY VS. AVOIDED IMPACT
Note: The percentage displayed for the "Proposed / Base %" column of the base case is actually the percentage of the total energy consumption.

* Denotes the base alternative for the ECB study.

|用电-空调 | 电力 | 预期能量| 峰值 | | 用电-空调 | 电力 | 预期能量| 峰值 |
|----------|------|--------|------| |----------|------|--------|------|
| Lighting - Conditioned | Electricity | 530.6 | 9 | 189 | 435.4 | 82 | 167 |
| Space Heating | Electricity | 74.3 | 1 | 44 | 60.5 | 81 | 25 |
| Gas | 1,356.9 | 22 | 3,064 | 834.7 | 62 | 1,327 |
| Space Cooling | Electricity | 590.7 | 10 | 881 | 347.1 | 59 | 382 |
| Pumps | Electricity | 40.6 | 1 | 11 | 411.7 | 1.015 | 47 |
| Heat Rejection | Electricity | 70.2 | 1 | 97 | 46.6 | 66 | 53 |
| Fans - Conditioned | Electricity | 2,104.1 | 34 | 376 | 518.4 | 25 | 165 |
| Receptacles - Conditioned | Electricity | 404.0 | 7 | 97 | 404.0 | 100 | 97 |
| Stand-alone Base Utilities | Electricity | 607.4 | 10 | 139 | 607.4 | 100 | 139 |
| Gas | 414.6 | 7 | 63 | 414.6 | 100 | 63 |

Total Building Consumption | 6,193.3 | 4,080.4 |
Avoided Impact

• Demolition = 900,000,000 BTU
• New Construction = 82,500,000,000 BTU
• Avoided Impact = 83,400,000,000 BTU
• 731,579 gal. gasoline = 6,504 metric tons CO₂
• *Does not include allowance for embodied energy of existing building*
Direct Energy Payback

• 6,504 metric tons CO₂ / 270 metric tons CO₂ / yr

• 24 year direct payback

• Calculated VMT reduction due to density and location = 163 metric tons/year

• 270 – 163 = 107 metric tons CO₂/yr net impact

• 60.8 year net payback
NEIGHBORHOOD IMPACT

Miller’s Court

• $22 million investment
• 35K office space, 40 residential units

Subsequent Development

• $160 million additional investment
• Rowhouse renovations, multi-family, restaurants, retail, office, cultural spaces
MILLER’S COURT
BALTIMORE, MD
Baltimore City Dept. of Planning consists of:

- Office of the Director
- Office of Sustainability
- Comprehensive Planning
- Land Use and Urban Design
- Research and Strategic Planning
- Historical and Architectural Preservation
“YOU NEVER CHANGE THINGS BY FIGHTING THE EXISTING REALITY. TO CHANGE SOMETHING, BUILD A NEW REALITY THAT MAKES THE EXISTING REALITY OBSOLETE.”

- R. BUCKMINSTER FULLER