Re-Envisioning City Hall:

A Journey Into The 21st Century

Henry MacLean , Architect, January 22, 1999

Visualize a Center where one might go with one's family to visit a museum , dine at great restaurants, and take in an ecological display or lecture while enjoying fresh air, sights and sounds of waterfalls and lush green gardens swirling through three nine story open atria full of activities and light. Offices and storefronts, pedestrian corridors, balconies and other spaces are all tied together at a variety of levels with ceremonial stairs leading up to an acre and a half of public space a hundred feet up in the air smack in the middle of Downtown Boston.

Imagine as well a public - private collaborative paying for such a project in less that seven years, creating 100,000 square feet of new public and retail space generating hundreds of new jobs while transforming one of the City's most well-known architectural landmarks into one of this Country's most exciting Public Spaces. Finally, picture Boston's City Hall as this project while becoming a new regional model for building and planning while establishing a home and center for teaching and leading the rest of the Country (if not the international community) in pursuing Ecological Architecture in their own homes and communities.

Redeveloping the Open Core and Bridging to Quincy Market

Located just one level up from City Hall Plaza, City Hall has a hollow core of sufficient size (40,000 square feet) to accommodate a central place or center of human activity. This is a place trapped in time, a magnificent diamond in the rough, with veins of possibility and potential leaping out of every corner. It is roughly the size of Copley Plaza's central atrium which also has several levels of office space above looking down into it's active center of water features, plants and light flooding the space from a wonderful sky-dome above.

Once City Hall is enclosed from above, side wall glazing set back from the pillars of the building (so as not to visibly change the exterior design intent) can complete the enclosure of this priceless space. By removing the hazy skylights that currently sit in the center of this space and introducing an internal set of escalators and openings, this space can be instantly reconnected to the third and main entry of the building. The dark and isolated second level where Bostonians now trudge in to pay tickets would be transformed, flooded with natural daylight and exhilarating views looking up eight stories in some areas.

City Hall sits where many paths intersect through Boston. The most prominent is clearly the Walkway to the Sea that places the building as an object between the highly

successful spaces of Faneuil Hall and City Hall Plaza. The issues that defeated the most recent proposal for a new bridge across Congress St. could be solved by treating City Hall itself as a bridge with new and interconnected spaces that gracefully open out onto the plaza on one side and the marketplace on the other

A Roof Garden for the 21st Century

In addition to Mayor Menino's call for a rooftop restaurant, there have been other uses suggested for this open platform to the city. The 10th floor of the building currently houses two rather large mechanical penthouses and ineffective roof windows, which are quite visible from the street and clearly unrelated to the design of the building below. Providing an integrated crown to the center portion of the building while maintaining the parapet's strong and dominant expression could reclaim 30,000 squarefeet of restaurant and conference space at this tenth floor level, with a loft space at the peak of a new structure.

This low pitched roof plane could double as a structure to mount translucent solar electric skylights which turn sunshine directly into electricity, providing shaded natural light at the same time to the spaces below. Working with the Million Solar Roof initiative now being sponsored by the Federal Government, these panels (that now power state of the art ecological buildings in Europe and Japan) could turn Boston City Hall into a demonstration project of photovoltaics for the Northeast.

New Shops and Arcade for Congress Street

The approach to City Hall from the East and Faneuil Hall holds what is perhaps the greatest opportunity for renovation. In addition to the bridge at level three mentioned above, the building on the two lower levels would attract shoppers from one of the nation’s busiest shopping areas located across the street. Behind the 300 foot long brick wall that runs along Congress St. and wraps the corner to the North Entry of the building is 20,000 sf of mechanical, dead storage and parking (24 stalls) that could all be relocated to more appropriate areas of this lower level.

By opening up this brick skin to create a covered arcade, the Congress St. facade could come alive with shops and commercial activity as well as connect through to the lower atria of the first two public floors and the ticket areas mentioned above. At night and after government hours, City Office suites could be separately locked to maintain security.

Economic and Energy Efficiency

What we discovered at Wentworth Institute of Technology in studying the building ecologically was simple but profound. Imagine for a moment that the efficiency of a building can be measured like a car using BTUs (British Thermal Units) per square foot instead of miles per gallon. Every human body is a little heat machine that in a state of rest puts out about 450 BTUs per hour. The fuels that power City Hall are similar to

gasoline as they burn oxygen and pour more unwanted carbon into the atmosphere. Most folks don't realize that buildings produce close to 40% of the carbon being pumped into the atmosphere today, while trucks and autos produce close to 33%.

Working with a 1995 National Program called Vital Signs, our class set out to determine how much energy City Hall used annually. Working with the Office of Property Management at City Hall who provided us with all of the energy invoices from 1995 to 1997 for the building, we determined the Energy Utilization Rate of the building to be about 277,000 BTU's per square foot. When we compared this to the performance standard for a large office building of 110,000 BTU's per square foot, we realized that City Hall was using allot of energy that could be saved.

The combined costs of powering and fueling City Hall comes to $ 1.6 million per year which is 2 and 1/2 times more costly to operate than an average office building built today. Every year the City spends a million dollars more than necessary, funds that alone could pay for the entire project in 25 years. When the reclaimed real estate is factored in, the project is paid for in less than seven years.

Conclusion

We shared our results in a full presentation to Property Management and Commissioner Michael Galvin, Members of the Trust for City Hall and the Chief Architect for the City Andy Hudak in April of 1997. Mr. Galvin, whose office had initially provided all of the raw data for our calculations was enthusiastic, and invited us to present to the Mayor and his cabinet on July, 8 1997. The entire cabinet and Tom O'Brian, Head of the BRA at that time were present for our presentation which was well received with questions lasting more than an hour.

Boston is a place where there is no shortage of vision. Mayor Menino's vision for the highest quality of life and the strongest economy of any major city in America pushes the traditional limits. An ecological renovation to Boston City Hall and its Plaza would set a new standard for the rest of the country and leave an inspiring legacy for generations of Bostonians to come.

Henry P. MacLean AIA is an Architect and Adjunct Professor of Architecture at Wentworth Institute of Technology. Henry is also a founding member of Wings Lane Collaborative, a

Multi-Disciplinary Organization dedicated to building ecological as well as economic solutions that are both sensitive and sensible for the 21st Century.