‘The Capital Master Plan: An Overview of the Historic Renovation Project, United Nations Headquarters’ 2008

Mr. Michael Adlerstein, Executive Director of the Capital Master Plan, spoke on “The Capital Master Plan: An Overview of the Historic Renovation Project, United Nations Headquarters.” Mr. Adlerstein addressed the logistics of the renovation and the new environmentally-friendly modifications to be included in the remodeled structures.
Ms. Roma Stibravy, gave an overview of the importance in bringing together businesses, individuals, and institutions to promote sustainable energy and renewable resources. She then went on to connect these goals and efforts to the current project of cultivating a greener UN, citing Secretary General Ban Ki Moon’s recent statement at the United Nations’ World Tourism Organisation conference in Madrid that “the new United Nations should be a globally acclaimed model of the efficient use of energy and resources.” This goal, according to the Secretary-General, will require “dedication, perseverance, considerable financial resources, and strong support from our member states.”
In introducing the speaker, Ms. Stibravy mentioned that Mr. Michael Adlerstein is a Rensselaer Polytechnic Institute graduate and a Harvard University Graduate School of Design Loeb Fellow. Among others, he has directed the restoration of the Statue of Liberty and Ellis Island and consulted on the restoration of the Taj Mahal. After serving as vice president and architect of the New York Botanical Gardens, Mr. Adlerstein has begun the newest endeavor. The Capital Master Plan had its groundbreaking ceremony May 5th on the North Lawn.
We learned that the main goals of the renovation project are to preserve the original form of the UN, ensuring its continued universal iconic status, to bring the UN into compliance with local New York City building codes, to increase safety, and to promote environmentally-sound energy consumption. To achieve these goals Mr. Adlerstein and his team of twenty have meticulously planned a five year construction period and have awarded most of the sub-contracts through their main contractor, Skanska USA. The changes will be swift: staff will be moved out for work on the Secretariat and Conference buildings by next year, and from the General Assembly building in two years. The project should be completed in five years, with a complete dismantling of the temporary North Lawn building and relandscaping of the area.
A representative from the World Information Transfer asked during the Q & A session why it was that renovations were chosen over tearing the structures down and building entirely anew. Mr. Adlerstein cited the historic significance of the building and its universal representation of “a vision for global peace.” The original planning and construction of the UN headquarters was, in itself, a new kind of global leadership. Rather than a design competition for a sole architect, UN leaders promoted a collaborative effort of a multinational team of leading architects under the direction of American Wallace Harrison including Le Corbusier, Oscar Niemeyer, and Sir Howard Robertson.
Mr. Adlerstein also highlighted the environmental benefits of preserving the original structures: “The inherent energy of this building is mostly in its construction… The amount of carbon released into the atmosphere in the process of bringing steel from the

pit where it is dug, to the steel mill, to New York City is an enormous amount, which is being avoided by recycling the building."

Not only can the permanent UN structures themselves be called recyclable, but so can the temporary North Lawn Building, which will be what, in the industry, is called a Butler type building. These buildings have steel frames like a "tinker-toy" houses that can be torn down and used again in a different location.

As for specific energy-saving features within the facilities, the techniques range from preventative to proactive. For example, the glass facades of the Secretariat building will be made much thicker with added layers of glaze, in order to better maintain temperature levels within the building by eliminating heat transfer with the outside. Both the plumbing and electrical systems above the 4th floor of the Secretariat will be entirely replaced with new configurations and technology. Air conditioners and lighting will be motion activated to serve only occupied rooms.

The use of solar energy in the buildings' eventual renovations is still being finalized. The project uses the term *Capital* rather than *Operational* Master Plan, as "capital" is more closely identified as an accounting term. Solar energy is being analyzed for its cost-effectiveness. The new glass curtain walls will definitely contain photovoltaic panels. However, the other sides of the building face east and west rather than south, from which direction solar energy is most easily captured. Therefore, use of solar panels on the opaque glass that covers the support beams on these sides is still being debated. If solar panels were included, it would be more as a symbolic message rather than as a practical application. One attendee inquired as to the possible use of solar panels on the roof of the building. Mr. Adlerstein countered this inquiry, citing the roof space as too small and the New York climate unsuitable for generating any meaningful amount of energy; meanwhile, the solar paneling of the roof would not constitute a visible message that the paneling of the walls would.

Either way, Mr. Adlerstein is confident that, with these green initiatives, the restored United Nations' headquarters will meet the gold level criteria of the LEED's rating system set by the U.S. Green Building Council. The Leadership in Energy and Environmental Design (LEED) Building

Rating System certification verifies that a building project meets the highest green building and performance standards and "demonstrates that a building is environmentally responsible,

profitable and a healthy place to live and work." Gold is the second highest achievable level of excellence in green building attained through a point system evaluating various subcategories including site sustainability, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, and innovation. However, the United Nations will not be officially certified because of sovereignty issues concerning the UN.

In all, Mr. Adlerstein is confident that with $28 million of the $1.87 billion of the total budget dedicated to green initiatives, UN energy efficiency will be increased by 40% and fresh water consumption will be down by 30%.