

John Hanson  
Tech-Knowledge Portal  
Office of Technology Commercialization  
University of Connecticut  
1392 Storrs, Rd.  
Storrs, CT 06269

February 19, 2007

Mr. Francis Knize;

Sky Train Corporation  
2599 Dolly Bay Drive, Suite T308  
Palm Harbor, Florida 34684

Dear Mr. Knize,

Thank you for our recent discussions about Sky Train's monorail development and your consideration of the University of Connecticut for faculty expertise. The University of Connecticut has several academic departments and institutes that can be a source of expertise for your design and development of a monorail system for downtown Hartford. After our discussions and review of your brochure, and also after discussions with several faculty members, I would propose that you consider two distinct subject areas to maximize the effectiveness of your system: engineering design, and transportation system design.

Regarding engineering design there are several areas in which the University's School of Engineering can be of service. Faculty members from our Civil Engineering and Mechanical Engineering departments have expressed interest in the structural design elements of both the overhead rail system and the passenger vehicle. The key issue is related to overall strength from the point of view of load bearing and maintaining stresses within allowable limits with a factor of safety over the service life of the system. As important however is the stiffness of the system: bending and tensional, such that the deflections under load are within the specified range and the structural dynamics are factored into the design regarding structural life and passenger comfort.

Understanding that your monorail designs are lightweight and energy efficient the use of composite materials is called for. Our faculties in chemical engineering are prepared to optimize the resin systems and, working with graduate students in our composites lab and faculty in civil and mechanical engineering disciplines, develop a structural design concept that meets the requirements of the monorail system. By iteratively working through an aesthetically appealing design concept, subject to the overall design objectives noted above, this team will be able to outline a resin-matrix system and geometry for the monorail vehicle. We should note too that should Sky Train award UConn a development contract we envision working with the Senior Design programs which will allow us to explore many design concepts while simultaneously satisfying our mission of educating our engineering students.

A second key area to consider is the overall Transportation System design. This is a field that is concerned with the overall layout of a proposed transportation system from the viewpoint of the user and the overall impact on the way of life in the surrounding region. The Connecticut Transportation Institute at the University of Connecticut is very concerned with issues such as: how will a neighborhood be impacted? Will a system divide or unite a region? What is the optimal route that maximizes benefit to the city? What are the logistics of passenger entrée and discharge? How will automobile routes and parking be impacted? How does the proposed system tie in to other modes of transportation?

The Connecticut Transportation Institute has expressed interest in your proposed monorail for Hartford and in helping to find a solution that optimizes benefits for the city. Should Sky Train engage with UConn the Institute would be eager to explore these issues with you for the benefit of Hartford.

Thank you for considering the University of Connecticut as a source of engineering and transportation expertise for your project.

Sincerely,

John Hanson; Director,  
Tech-Knowledge Portal  
University of Connecticut