

## **AC 2007-605: FOSTERING EXCELLENCE IN HIGH SCHOOL STUDENTS EXPOSED TO TRADITIONAL RESEARCH IN A SUMMER TRANSPORTATION INSTITUTE PROGRAM**

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# **Fostering Excellence in High School Students Exposed to Traditional Research in a Summer Transportation Institute Program**

## **Abstract**

During the past 11 years, the Summer Transportation Institute (STI) program at The City College of The City University of New York has provided a broad range of intermodal transportation and academic experiences to underrepresented secondary school students. Cohorts of approximately 25 students participate in the program, each year, over the four-week period immediately following Independence Day. An effective internship component is embedded in the program to accommodate the STI graduates. The students (11<sup>th</sup> or 12<sup>th</sup> graders) are paired with faculty professors to conduct research in transportation-related topics. During the past two summers, the interns worked on transportation materials including plastic and SuperPave hot mix asphalt. It is not surprising that the interns had no initial interest in this type of a traditional research environment and laboratory setting since this new generation of students is attracted to the digital world, music, iPods, etc. However, if the right conditions are set in place, significant contributions can be drawn from these groups. This paper and presentation will focus in detail on evaluation of assessment results obtained from STI interns during the past two summer of work in the Civil Engineering Transportation Materials Laboratory, at The City College of The City University of New York. Not only did the students appreciate, enjoy, learn, and contribute significantly to the research project, but their work has been presented in two separate venues in collaboration with other professional engineers and graduate and undergraduate research students. At the end of the program, the interns admitted that the research exposure attracted them and enhanced their confidence for majoring in engineering disciplines. Lessons learned from the STI interns may provide a model for other programs of similar settings.

## **Introduction**

Since its inception in 1993-1994, as the first center for the Institute, the success of the South Carolina State University Summer Transportation Institute continues to demonstrate the effectiveness of partnerships<sup>1</sup>. The resultant magnitude continues to attract youth to the field of Transportation. The Summer Transportation Institute (STI), hosted by the City University of New York (CCNY), Institute for Transportation Systems at the City College of New York campus, commenced in 1996. During the past years, the STI Program has formed partnerships with, and received support from the U.S. Government, private and public organizations, agencies, as well as the academic community. The STI Program is a collaborative investment in our youth. They represent tomorrow's work force. With the continued assistance of the various partners, the program remains committed to fulfilling the mission of creating an awareness of the career choices and opportunities that exist in the transportation industry. On average approximately 25 scholarships are awarded to students in grades 9 through 12. Every year, the Non-Residential - Summer Transportation Institute, hosted at CCNY, commences with an Opening Ceremony, usually on the day after the July 4<sup>th</sup> holiday, and concludes with its Closing/Award Ceremony on the last Saturday of July. Family members and friends of the STI

students attend the opening day and the closing ceremony. A group picture taken right after the 2005 closing ceremony is shown in Figure 1.

An effective internship component is embedded in the program to accommodate the STI graduates. Upon commencement of the internship components, the students (11<sup>th</sup> or 12<sup>th</sup> graders) are paired with faculty professors to conduct research in transportation-related topics. The students commence on a journey that will impact their lives forever. The Summer Transportation Institute (STI) experiences afford them the opportunity to explore the Transportation Industry. They are initially apprised of the need for students to fill the demand within the United States in the fields of engineering and technical disciplines. In this paper, the authors will highlight the structure and accomplishment of the STI Program at The City College of New York. A portion of the paper will concentrate on the experience of the STI Interns during the last two years. The authors hope that the lessons learned from the STI program may provide a model for other programs of similar settings.

### **Program Objectives**

The CCNY Summer Transportation Institute objectives are threefold:

- To stimulate student interest in a career in the field of transportation at the secondary educational level.
- To provide students with academic and technological enrichment to assist them in the pursuit of a career in the transportation industry.
- To sustain motivation among students towards transportation careers



Figure 1. 2005 STI Closing Ceremony Group Photograph - The City College of New York

## **Participants**

Students enrolled in public and private secondary schools in the New York City Metropolitan area are invited to participate in the primary component of the Summer Transportation Institute. A selection committee comprised of the STI Project Director, STI Program Administrator, and Academic Faculty is formed each year. The criteria utilized during the selection of participants require that a student must be a rising ninth or tenth grader; students must have completed pre-algebra, or qualified for enrollment in pre-algebra for the coming school term; have a minimum of a "B" cumulative grade point average; an expressed interest in engineering, science, computer science, transportation or technology career; two letters of recommendation; a Comprehensive Test of Basic Skills (CTBS) Standard Test Score; and transcript. All previous graduates of the Institute are invited to attend the Internship component of the program.

## **Program Structure**

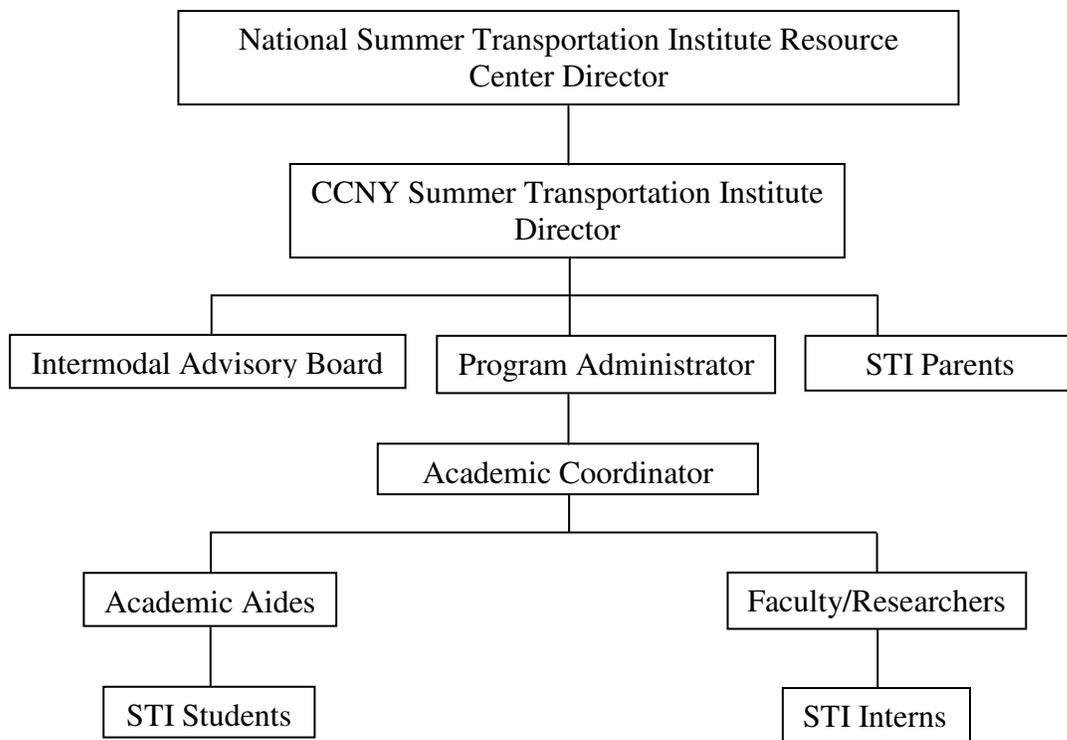
A well structured program is put in place at the CCNY Summer Transportation Institute Program to ensure that the students are provided with academic and technological enrichment to assist them in the pursuit of a career in the transportation industry. Students accepted into the program participate in an intense daily schedule. A sample of the schedule of activities is provided in Appendix A (Table A1 and A2). Job descriptions are developed for the following positions: Project Director, Program Administrator, Academic Coordinator, Academic Aides, and Faculty. The parents, as well as the Intermodal Advisory Board are also involved in the program. A schematic representation that demonstrates the interconnection between the different entities of the program is presented in Figure 2. The goals are to expose secondary school students to, and participate in, a series of Academic experiences designed to motivate them toward professions in the Transportation industry; and to provide secondary students with mathematics, science, computer skills, and technological enrichment to enable them to pursue careers in the Transportation industry. Following is a brief description of the above mentioned positions.

***Project Director:*** The STI Project Director is responsible for implementing the Institute program including executing a sub-agreement with the National Resource Center NRC; serving as the point of contact with college or university administrative officials and the National Summer Transportation Institute (NSTI) Resource Center; preparing and submitting all interim and final reports to the NSTI Resource Center; implementing, and directing all phases of the Institute which includes, but is not limited to: recruitment and selection of participants, disciplinary actions, orientation, opening program, curriculum development, academic, enhancement, and sports/recreation activities, civic and cultural activities, field trips, closing program, evaluations, and selecting the Intermodal Advisory Committee.

***Program Administrator:*** The Program Administrator reports directly to the Project Director. The duty of this post includes acting in the absence of the Project Director; conducting training sessions with the Academic Aides; interviewing and supervising the academic program staff;

implementing, evaluating and revising the academic curriculum; and performing all liaison activities with students, staff, parents, the CCNY community, and Transportation Agency Administrators and Staff; administrating or corresponding, reports, budget/financial transaction

**Intermodal Advisory Board:** The Intermodal Advisory Board (IAB) is comprised of representatives from the Federal Highway Administration New York Office; New York State Department of Transportation (DOT); New York City DOT; Port Authority of New York & New Jersey; Metropolitan Transportation Authority; New York City Transit; the New York City Board of Education; the City College of New York Community; private engineering firms; and private transportation entrepreneurial organizations. The IAB continues to fulfill its obligations of reviewing proposals and curriculum, planning and securing resources, and providing technical assistance. It continues to provide the CCNY host site with innumerable resources each year.



**Figure 2.** Structure of the CCNY Summer Transportation Institute

**Parents:** It is the contention of the STI in New York that children need families to be involved in their school life in order to be successful. As a result, the program is structured so that the parents are continuously involved from the beginning to the end. As such, the parents are required to attend at least the first and last days of the project. They regularly receive behavior reports and academic progress of their children participating in the program. These measures are set in place because the STI program believes that family involvement is essential in fostering a learning environment throughout the school career of the students.

**Academic Coordinator:** The duties of the Academic Coordinator are to supervise staff and students during off-campus activities; provide academic instruction to students; and consult with the Program Administrator on curriculum and other activities.

**Academic Aides:** The STI students are divided in groups of 5 to 6 individuals. Each group is led by an Academic Aide who reports directly to the Academic Coordinator. The academic aides, who served as counselors, were drawn from engineering students at The City College of New York. This has been a critical component of the STI, the academic aides constituting immediate recruits into the transportation pipeline.

**Faculty/Researchers:** A faculty member is responsible for providing daily academic instruction and related activities; assisting with testing, evaluation, and career counseling; interacting with students and administrative staff and; performing other duties as requested by the Director and Program Administrator.

### **Internship Component**

The intern program provides students with an opportunity to receive exposure in the field of transportation engineering, as well as practical work-setting experience. During the first week of the program, the interns attend an informative orientation program conducted by the CCNY Program Director. The orientation emphasizes discipline, body language, etiquette, communication, formal library research and writing. All faculty and the Project Director meet daily during the first week, and weekly during the following weeks to evaluate content, student projects, laboratory experiences and unit objectives. The students serving as interns during 2005 and 2006 engaged in research with Dr. Villiers in the CCNY Civil Engineering Transportation Materials Laboratory. The students conducted research in two distinctive projects which involved the evaluation of bonding strength between plastic and fiber reinforcement, and evaluation of construction and demolition debris as substitute for aggregate in hot mix asphalt. It is not surprising that the interns had no initial interest in this type of a traditional research environment and laboratory setting, since this new generation of students is attracted to the digital world, music, iPods, etc. Valuable contributions were made by the STI interns that facilitate the knowledge advancement on these projects. At the end of the program, the interns admitted that the research exposure attracted them and enhanced their confidence for majoring in engineering disciplines. A short description of each project is presented below.

#### **Evaluation of Bonding Strength between Plastic and Fiber Reinforcement (2005)**

This project was structured to conduct a literature review on the use of recycled plastics in roadway applications. A small scale laboratory experiment was implemented to prove that plastics can be bonded with a variety of reinforcing fibers. Recycled plastic was reinforced with E-glass (fiberglass), carbon, and Kevlar fibers. The assembly was heated in an oil bath at 350 °C until the plastic was completely melted. The samples were then attached to a loading device, and loaded to failure (Figure 3). Based on the results of this experiment, the students concluded that fiberglass and carbon fibers are very sensitive when exposed to heat. Poor bonding was observed

and the extended piece of fiber provided for loading purposes was burned, especially in the carbon reinforced sample. These results are not sufficient to conclude that carbon reinforcement is weak or is not capable of having a strong bond with plastic. Perhaps valuable information regarding the performance of this fiber can only be provided under a controlled environment. Nevertheless, the information gathered from the literature review, has demonstrated that reinforced plastics have the strength capacity to be used in both structural and transportation applications. These findings were further reinforced through the small-scale laboratory demonstration that was conducted.



**Figure 3.** Plastic samples reinforced with E-glass, carbon fiber and Kevlar<sup>®</sup>. The samples were loaded to failure.

### **Evaluation of Construction and Demolition Debris as Substitute for Aggregate in Hot Mix Asphalt (2006)**

The primary objectives of this project were to determine the validity and feasibility of using Recycled Concrete Aggregate (RCA) in Hot Mix Asphalt (HMA); and to compare the volumetric performance of HMA mixtures constructed with RCA as compared to conventional mixtures. Frankly, the authors were not sure that these young minds would be interested in this conventional type of research. In fact, during the first meeting the students demonstrated disappointment and were not enthusiastic about the scope of this work. In an effort to keep the students on track and excited, the faculty prepared a well-defined schedule for the students at the beginning of each week. A sample of the schedule of the research activity is presented in Appendix A (Table 3A). The STI Interns worked closely (similar framework was used in the previous project) with the other graduate students of the faculty member. These measures were put in place to stimulate interest of STI students on conducting research. The authors believed that young students learn effectively from their peers. Also, as can be seen in Table 3A, effort was made to ensure that student's communication and writing skills were assessed.

Progressively, the students became excited to prepare asphalt mixtures including aggregate batching and sieving, mixing of asphalt liquid and aggregate, and compacting of asphalt pills using the gyratory compactor. They conducted laboratory tests such as bulk and maximum

specific gravities using the American Association of State Highway and Transportation Officials (AASHTO) test procedures. Figure 4 shows two photographs that were taken while the STI students were performing a bulk specific gravity test. The students successfully designed and tested two Superpave mixtures. In addition, the STI students learned how to analyze the data in order to draw valuable conclusions from the test results. They inputted data in the computer. They were exposed to Microsoft Word, Excel, and Power Point programs. The students concluded that crushed concrete is a reliable source for pavement construction. This inference was made based on limited data.



**Figure 4.** Bulk Specific Gravity Test of Asphalt Content.

### **Activities and Accomplishments**

The CCNY STI has received several Outstanding Achievement Awards presented by the U.S. Department of Transportation. The awards were in recognition of an educational, motivational, challenging and fun-filled STI. The program provides a broad range of intermodal transportation experiences for secondary school students. Additionally, a successful, effective STI Internship component provides internship placements for STI graduates in grades 10-12. The activities and accomplishments of the Intermodal Advisory Board (IAB) have continued to enhance the CCNY STI Program. The weight and magnitude of their contributions cannot fully be appreciated or evaluated when listed on paper. As a result of the dedication and commitment of IAB members, the Summer STI students and interns have benefited as follows:

- Several informative, educational, and exciting field trips and facilitators introduced and expose the students to the many facets of the transportation industry and careers - provided by the New York Office, FHWA.
- Verbal and written information about CCNY academic programs by the Louis Stokes Alliance for Minority (LSAMP) office, President Office - School of Engineering, Academic Affairs, Admissions, Faculty, etc.
- Internships and stipends by private engineering and entrepreneurial organizations, and the CUNY Chancellor's Office.

- Exposure and interrelation between the STI students and other engineering disciplines and transportation engineering.
- Invitation to STI Interns to present their research contribution in engineering venues in collaboration with other professional engineers and graduate and undergraduate research.
  - In 2005 the interns presented their work at NYC-LSAMP Summer 2005 Poster Session held at the Steven Institute of Technology in Hoboken, New Jersey.
  - In 2006 the interns showcased their work at the 2006 ASEE Mid-Atlantic Section Conference and NYC-LSAMP Summer 2006 Poster Session hosted by the School of Technology and Design of New York City College of Technology, in Brooklyn NY.
- Use of campus facilities and resources by the various departments and professors of CCNY.
- Several lectures conducted by faculty, IAB members and outside presenters, coupled with time, knowledge, and expertise from public and private facilitators, etc.
- Media exposure and advertisements by the CCNY Public Relations Office.

### **Acknowledgements**

It is a great pleasure for us to thank and acknowledge the many individuals who assisted and supported us during the course of the STI program at The City College of The City University of New York. First of all, we would like to express our sincere appreciation to the Academic Coordinator, Mrs. Alma Jefferson. The program would have not been able to reach this milestone if not for her dedication and hard work. The authors acknowledge with gratitude the support of Dr. Clarence W. Hill, Former Director, of the National Summer Transportation Institute Resource Center, for his assistance and direction. They would also like to recognize Mr. Larrie B. Butler, Program Coordinator, and the other members of the staff for their tireless support, and commitment, as the administrative liaison to the FHWA in developing and implementing all phases of the STI. Many thanks to all the national, state, and city officials who provide the necessary exposure to the transportation industry, which is critical to our efforts in this endeavor. Sincere appreciation and gratitude is offered to the City University of New York Community. The authors would like to extend their sincere appreciation and gratitude to the City University of New York Community and to the STI staff who worked tirelessly to ensure that the project sustained a high degree of integrity and quality, and adhered to the mandates and directives established by the NSTI/FHWA.

### **Bibliography**

1. Hill, C. and Brown, H. 1999 National Summer Transportation Institute National Resource Center Final Report. Federal Highway Administration, Report Number FHWA-CR-01-002. Washington, D.C. Available online at: <http://www.fhwa.dot.gov/download/nsti1999.pdf> (accessed March 2, 2007).

**Appendix A – Table A1 - 2005 CUNY-ITS SUMMER TRANSPORTATION INSTITUTE SCHEDULE OF ACTIVITIES**  
 (July 5 – July 16, 2005) Morning Session (MS): 9:00-12:00 Lunch 12:00 Afternoon Session (AS): 1:30-4:30

| MONDAY                                                                                                                                                                                                                                                                                                 | TUESDAY                                                                                                                                                                                                                                                                                               | WEDNESDAY                                                                                                                                                                                                                                                                                                                                                | THURSDAY                                                                                                                                                                                                                                        | FRIDAY                                                                                                                                                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>4</b>                                                                                                                                                                                                                                                                                               | <b>5</b>                                                                                                                                                                                                                                                                                              | <b>6</b>                                                                                                                                                                                                                                                                                                                                                 | <b>7</b>                                                                                                                                                                                                                                        | <b>8</b>                                                                                                                                                                                                                                                 |
| <b>Holiday</b><br><br><b>College Closed</b>                                                                                                                                                                                                                                                            | <b>MS:</b> <ul style="list-style-type: none"> <li>• <b>Opening Day</b></li> <li>• <b>Ceremony</b></li> <li>• <b>Orientation</b></li> </ul> <b>AS:</b> <ul style="list-style-type: none"> <li>• Lecture –Academic Interests/Careers in Transportation</li> <li>• Reflections of the Interns</li> </ul> | <b>MS:</b> <ul style="list-style-type: none"> <li>• Cluster Activities</li> <li>• Anatomy of a Trip and Traffic Data Collection</li> <li>• Land Transportation</li> <li>• Internet Research</li> </ul> <b>AS:</b> <ul style="list-style-type: none"> <li>• Walking Tour of Campus</li> <li>• Cluster interaction</li> <li>• Organize clusters</li> </ul> | <b>MS:</b> <ul style="list-style-type: none"> <li>• Field Trip-New York Transit Museum</li> <li>• Meet Guide – Tour Transit Museum</li> </ul> <b>AS:</b> <ul style="list-style-type: none"> <li>• Overview of Art and Transportation</li> </ul> | <b>MS:</b> <ul style="list-style-type: none"> <li>• Cluster Interaction</li> <li>• <b>Field Trip – Tour Subways Stations</b></li> <li>• RE: Art and Transportation</li> </ul> <b>AS:</b> <ul style="list-style-type: none"> <li>• Evaluations</li> </ul> |
| <b>11</b>                                                                                                                                                                                                                                                                                              | <b>12</b>                                                                                                                                                                                                                                                                                             | <b>13</b>                                                                                                                                                                                                                                                                                                                                                | <b>14</b>                                                                                                                                                                                                                                       | <b>16</b>                                                                                                                                                                                                                                                |
| <b>MS:</b> <ul style="list-style-type: none"> <li>• Distribution and overview of weekly assignments</li> <li>• Introduction group Oral Presentation</li> <li>• Dragster</li> <li>• Computer Lab</li> </ul> <b>AS:</b> <ul style="list-style-type: none"> <li>• Rehearsal Poster Competition</li> </ul> | <b>MS:</b> <ul style="list-style-type: none"> <li>• Rehearsal for Poster #1 Competition</li> <li>• Life Skills Workshop</li> <li>• Computer Lab</li> </ul> <b>AS:</b> <ul style="list-style-type: none"> <li>• Poster Competition</li> <li>• Dragster</li> </ul>                                      | <b>MS:</b> <ul style="list-style-type: none"> <li>• TRAC PAC 2</li> <li>• Computer Lab</li> </ul> <b>AS:</b> <ul style="list-style-type: none"> <li>• Introduction to Toll Plaza Design</li> <li>• Dragster &amp; TRAC PAC 2</li> </ul>                                                                                                                  | <b>MS:</b> <ul style="list-style-type: none"> <li>• Toll Plaza Field Trip</li> <li>• Computer Lab</li> </ul> <b>AS:</b> <ul style="list-style-type: none"> <li>• Math</li> <li>• FLEX TIME</li> </ul>                                           | <b>MS:</b> <ul style="list-style-type: none"> <li>• Field Trip – Indian Museum</li> </ul> <b>AS:</b> <ul style="list-style-type: none"> <li>• Staten Island Ferry Evaluations</li> </ul>                                                                 |

**Table 2A - LAND TRANSPORTATION FIRST WEEK SESSION (Highway Modes)**

| <b>July 5</b><br>Tuesday                                      | <b>July 6</b><br>Wednesday                                                       | <b>July 7</b><br>Thursday                                                                                                   | <b>July 8</b><br>Friday                                                                                                         |
|---------------------------------------------------------------|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| – Steinman Hall                                               | – Steinman Hall                                                                  | – Steinman Hall                                                                                                             | – Steinman Hall                                                                                                                 |
| 9:00 Opening Day Ceremony Registration & Refreshments         | 9:00 Opening/Attendance                                                          | 8:30 Opening/Attendance                                                                                                     | 9:00 Opening: Attendance Count                                                                                                  |
| 9:30 Orientation: Discussion of rules.                        | 9:15 Organize Cluster Groups – Meet and Greet                                    | 8:40 Depart for the New York Transit Museum Corner of Boerum Place and Schermerhorn Street, Brooklyn Heights (719-694-1600) | 9:15 Cluster Interaction                                                                                                        |
| 10:00 Remarks: Invited Guests                                 | 9:30 “Anatomy of a Trip” and Traffic Data Collection. Assignment                 | 10:00 Attendance Count                                                                                                      | 10:00 Leave for Field Trip Tour Various Subway Stations RE: Art & Transportation Attendance Count at each station.              |
| 10:30 Orientation Continued                                   | 10:15 Land Transportation                                                        | Meet Guide and Tour the Transit Museum Attendance Count                                                                     | (This is a Research Assignment in preparation for a Cluster Poster and Individual Essays on Steve Bryan’s presentation on 7/7.) |
| 12:00 Lunch                                                   | 11:00 Internet Research                                                          | 1:00 Lunch Out Attendance Count                                                                                             | 1:00 Lunch Out Attendance Count                                                                                                 |
| 1:15 ID Cards                                                 | 1:00 Lunch- CCNY Cafeteria                                                       | Return to Steinman Hall                                                                                                     |                                                                                                                                 |
| 2:30 Reflections (Interns – Former STI Students) Dr. Parker   | 2:30 Walking Tour of Campus: Discussion - Modes of Transportation                | 3:30 Overview of Art and Transportation Steve Bryan                                                                         |                                                                                                                                 |
| 3:00 Academic Interests/ Careers in Transportation Dr. Parker | 4:00 Cluster Interaction: Meet and Greet Organize Clusters Select a Cluster Name | 4:30 Wrap-up                                                                                                                | 4:00 Return to CCNY Evaluations (Esther & Ryan)                                                                                 |
| 4:30 Dismissal / Staff Meeting                                | 4:30 Clean up/Dismissal & Staff Meeting                                          |                                                                                                                             | 4:30 Dismissal                                                                                                                  |

**Table 3A – STI INTERNS SCHEDULE – July 17 – 21, 2006**

| Time            | Monday                                                                | Tuesday                                    | Wednesday                                  | Thursday                                                 | Friday     |
|-----------------|-----------------------------------------------------------------------|--------------------------------------------|--------------------------------------------|----------------------------------------------------------|------------|
| 8.00 - 9.00 am  | STI Group Meeting (Program Coordinator)                               |                                            |                                            |                                                          |            |
| 09.00 - 10.00   | Literature Review –<br>HMA Testing and<br>Specifications<br>(Library) | Laboratory Testing<br>(Faculty/Researcher) | Laboratory Testing<br>(Faculty/Researcher) | Lab Report<br>Preparation<br>(Library)                   | Field Trip |
| 10.00 - 11.00   |                                                                       |                                            | Laboratory Testing<br>(Faculty/Researcher) |                                                          |            |
| 11.00 - 12.00   |                                                                       |                                            | Laboratory Testing<br>(Faculty/Researcher) |                                                          |            |
| 12 - 01.00 pm   | <b>Lunch</b>                                                          |                                            |                                            |                                                          |            |
| 01.00 - 02.00   | Feedbacks from<br>Previous Week<br>(Faculty/Researcher)               | Laboratory Testing<br>(Faculty/Researcher) | Laboratory Testing<br>(Faculty/Researcher) | Poster/PowerPoint<br>Preparation<br>(Faculty/Researcher) |            |
| 02.00 - 02.30   | <b>Break</b>                                                          |                                            |                                            |                                                          |            |
| 02:30 - 3.30 pm | Laboratory Testing<br>(Faculty/Researcher)                            | Laboratory Testing<br>(Graduate Student)   | Laboratory Testing<br>(Graduate Student)   | Weekly Progress<br>Report and Program<br>Assessments     |            |
| 3.30 - 05.00 pm |                                                                       |                                            |                                            |                                                          |            |
| 05.00 - 05.30   | Dismiss                                                               | Dismiss                                    | Dismiss                                    | Dismiss                                                  | Dismiss    |