



S A M S C H W A R T Z
E N G I N E E R I N G

January 3, 2013

Jane Marshall
Forest City Ratner Companies
1 MetroTech Center, 23rd Floor
Brooklyn, NY 11201

Re: Barclays Center Transportation Demand Management Plan Effectiveness in Meeting Mode Split Objectives Scope of Services

Dear Jane:

Sam Schwartz Engineering (SSE) is pleased to present Forest City Ratner Companies (FCRC) with the following scope of services for evaluating the effectiveness of the Barclays Center transportation demand management (TDM) plan at meeting specific objectives described in the Atlantic Yards Final Environmental Impact Statement (FEIS) for obtaining an average auto mode (i.e., personal vehicle) share of Nets game attendees of 28.3% for weekday evening games and 32.0% for Saturday afternoon games. To achieve these objectives, a TDM plan (described in the "Proposed Transportation Demand Management Plan for Barclays Center," prepared by SSE on August 15, 2012) has been in place for arena events since the venue opened on September 28, 2012.

The TDM plan effectiveness evaluation will consist of a series of travel surveys of arena patrons that will establish typical mode splits for arena events and compare the results to the specific project goals. The surveys will be executed by Clarion Research, a professional market research firm. Specific tasks of this scope are described on the following pages.

This scope incorporates the comments received from Empire State Development (ESD) and FCRC and is limited to the surveys and analysis necessary to determine whether the auto share goals of the FEIS are being met under the TDM plan as it is currently implemented in the initial year of operation. In the event that the surveys indicate that adjustments to the TDM program are necessary to achieve the goals, an additional scope of work will be prepared.

Sincerely,

Daniel Schack, AICP, PTP
Associate/Project Manager

Barclays Center: TDM Plan Effectiveness Tasks

As required in the Atlantic Yards FEIS, a review of the Barclays Center TDM plan's effectiveness in meeting the auto mode (i.e., personal vehicle) share objectives described in the FEIS is to be conducted midway through the first Nets season (early 2013) that will include evaluation of actual event fan mode splits to determine if specific auto share goals have been achieved.

Task 1. Data Collection

To determine the travel characteristics of arena attendees, surveys will be conducted at nine arena events in January and February 2013. These surveys will be designed with and executed by Clarion Research (see attached scope for detail on methodology) and will entail in-person surveying in which attendees inside the arena are asked (via oral interviews using tablets) about their mode of travel to and from the venue, trip origin before the event and destination after the event, vehicle occupancy rates, parking locations, and other metrics.

In accordance with the 2006 FEIS, six of the survey events will be Nets games as these events were determined to be the reasonable worst-case development scenario in the FEIS. The additional survey dates are being undertaken to provide FCRC and ESD with additional information regarding travel patterns at the arena; these additional events will be what are expected to be two high-attendance concerts and a family show. Patrons will be surveyed at the following events in early 2013:

1. Saturday, January 5: Nets vs. Kings (7:30 PM start)
2. Sunday, January 13: Nets vs. Pacers (6:00 PM start)
3. Tuesday, January 15: Nets vs. Raptors (7:30 PM start)
4. Saturday, January 26: Disney on Ice (11:00 AM & 3:00 PM starts)
5. Wednesday, January 30: Nets vs. Heat (8:00 PM start)
6. Tuesday, February 5: Nets vs. Lakers (7:30 PM start)
7. Wednesday, February 6: Mumford and Sons concert (8:00 PM start)
8. Saturday, February 16: Mark Anthony concert (8:00 PM start)
9. Sunday, February 24: Nets vs. Grizzlies (3:30 PM start)

Note that the FEIS auto share goals were specifically tied to weekday evening and Saturday afternoon Nets games; however, in 2013, no Saturday afternoon Nets games are scheduled to occur.

Task 2. Technical Memorandum

A technical memorandum will be prepared to summarize the results of Task 1 and will include detailed descriptions of the data collection methodology and survey findings which will be formally submitted to FCRC, ESD (to be posted on their website), and other agencies of jurisdiction, as necessary. A draft memorandum will be shared with ESD and the New York City Department of Transportation (NYCDOT) for review and comment before the memorandum is finalized.

Task 3. Public Meeting & Presentation

SSE will present the findings of the travel surveys completed in Task 1 to the public at a forum to be coordinated by ESD. Results will be conveyed via a PowerPoint presentation, to be posted by ESD on their website, which will include relevant charts and figures. A draft presentation will be shared with FCRC, ESD, and NYCDOT for review and comment prior to its completion.



Barclays Center On-Site Transportation Survey

Research Proposal

Submitted: January 3, 2013 (Revised)

Background:

To determine the travel patterns of Barclays Center visitors, Sam Schwartz Engineering will be conducting a transportation survey of selected events in January/February 2013. Clarion Research is providing this proposal to assist SSE by designing a sampling plan, conducting the survey, tabulating the data and writing up the methodology.

The sampling plan recommended would seek to achieve completed interviews with a minimum of 500 adult attendees per individual event, to provide a robust, statistically significant sample that reflects as accurate a picture as possible of the travel patterns of the entire audience.

Method:

This research calls for on-site interviewing at Barclays Center across nine specific events in January/February 2013.

For each event covered, the methodology will be as follows:

- A staff of 15 will typically cover each event to be surveyed (12 interviewers/3 supervisors), assuming there is enough attendance to support that level of staffing.
 - For an event such as an Ice Show, where attendance may be lower but multiple performances are held per day, staffing per-performance may be reduced to allow for coverage of multiple performances during the day.
- The staff will be on-site for 3-5 hours, intercepting audience members in pre-determined areas within the arena to assess their transportation patterns:

- 1-2 hours before the event (for briefing, stationing and early interviewing)
- 2-3 hours during the event
- For an event such as an Ice Show, where attendance may be lower but multiple performances are held per day, the number of hours covered could be more.
- The questionnaire will be short – it is assumed that it will only take about 2-3 minutes per respondent to complete.
 - Exact questionnaire content will be determined with SSE and will contain questions pertaining to travel mode choices for arrival and departure, parking details, vehicle occupancy, etc. During surveying periods, the staff will intercept as many people as possible.
- We estimate that we will complete interviews with at least 500 adult attendees, assuming the event has sufficient adult audience members to support this. This sample size will provide a margin of error that is +/-4% per event.
- Approximately 12 individuals will be at the arena to conduct the surveys and will be stationed at locations throughout the venue that are selected to help ensure a representative sampling of attendees over 16 years of age at all seating levels.

The surveys will occur at the nine events that are green highlighted on the following calendar.

JANUARY 2013 Barclays Center Event Calendar

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5 NETS 7:30 PM
6	7	8	9	10	11 NETS 7:30 PM	12
13 NETS 6:00 PM	14	15 NETS 7:30 PM	16	17	18	19
20	21	22	23 Ice show 7:00 PM	24 Ice show 7:00 PM	25 Ice show 7:00 PM	26 ICE SHOW 11:00 AM 3:00 PM 7:00 PM
27 ICE SHOW 1:00 PM 5:00 PM	28 NETS 7:30 PM	29	30 NETS 8:00 PM	31		

FEBRUARY 2013 Barclays Center Event Calendar

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1 NETS 7:30 PM	2
3	4	5 NETS 7:30 PM	6 CONCERT 8:00 PM	7	8	9 BOXING 5:00 PM
10 NETS 8:00 PM	11	12 CONCERT 8:30 PM	13 NETS 7:30 PM	14	15	16 CONCERT 8:00 PM
17	18	19 NETS 7:30 PM	20	21	22 NETS 7:30 PM	23
24 NETS 3:30 PM	25	26	27	28		

The selection of events to survey may be adjusted according to weather, cancellation, or other factors.