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Atlantic Yards:
Barclays Center Traffic Study Draft Scope

Image Courtesy of SHoP Architects

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Atlantic Yards Transportation Focus Group

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Barclays Center Traffic Study: Draft Scope

- **Goal: To evaluate the effect of arena event vehicle traffic on the area roadway network.**
  - Pre-Opening Study (spring 2012) – To establish a current baseline of traffic conditions in the arena study area.
  - Post-Opening Study (winter/spring 2013) – To measure the effects of arena operations and develop measures to address identified capacity constraints.
- **Draft scope developed by Sam Schwartz Engineering and New York City Department of Transportation.**

Barclays Center Traffic Study: Draft Scope

Study Locations

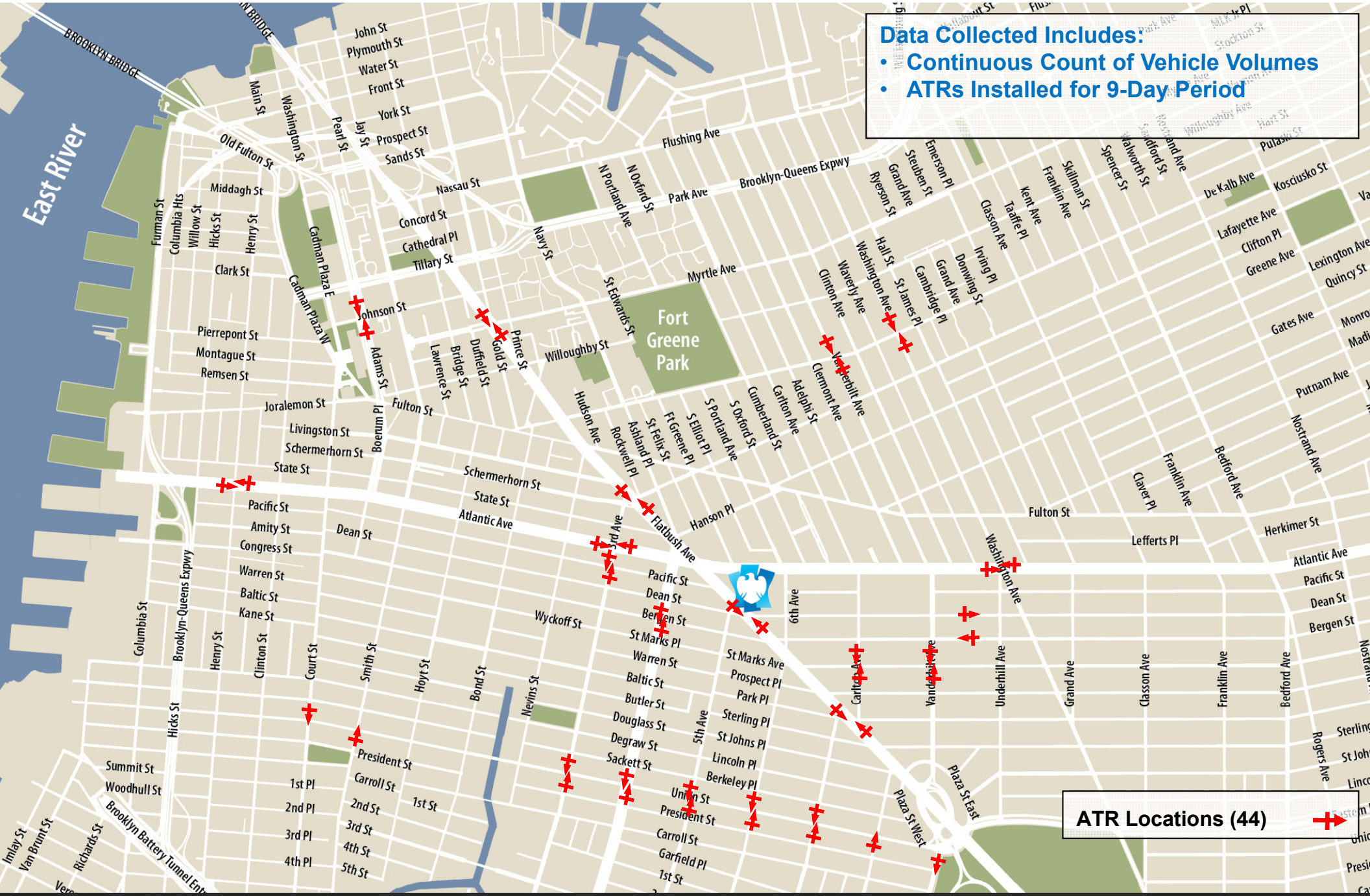
- **Study locations selected based on assessment of routes where arena-generated vehicles would likely travel.**
- **Includes locations near the arena, larger parking facilities, and regional access routes.**

Study Time Periods

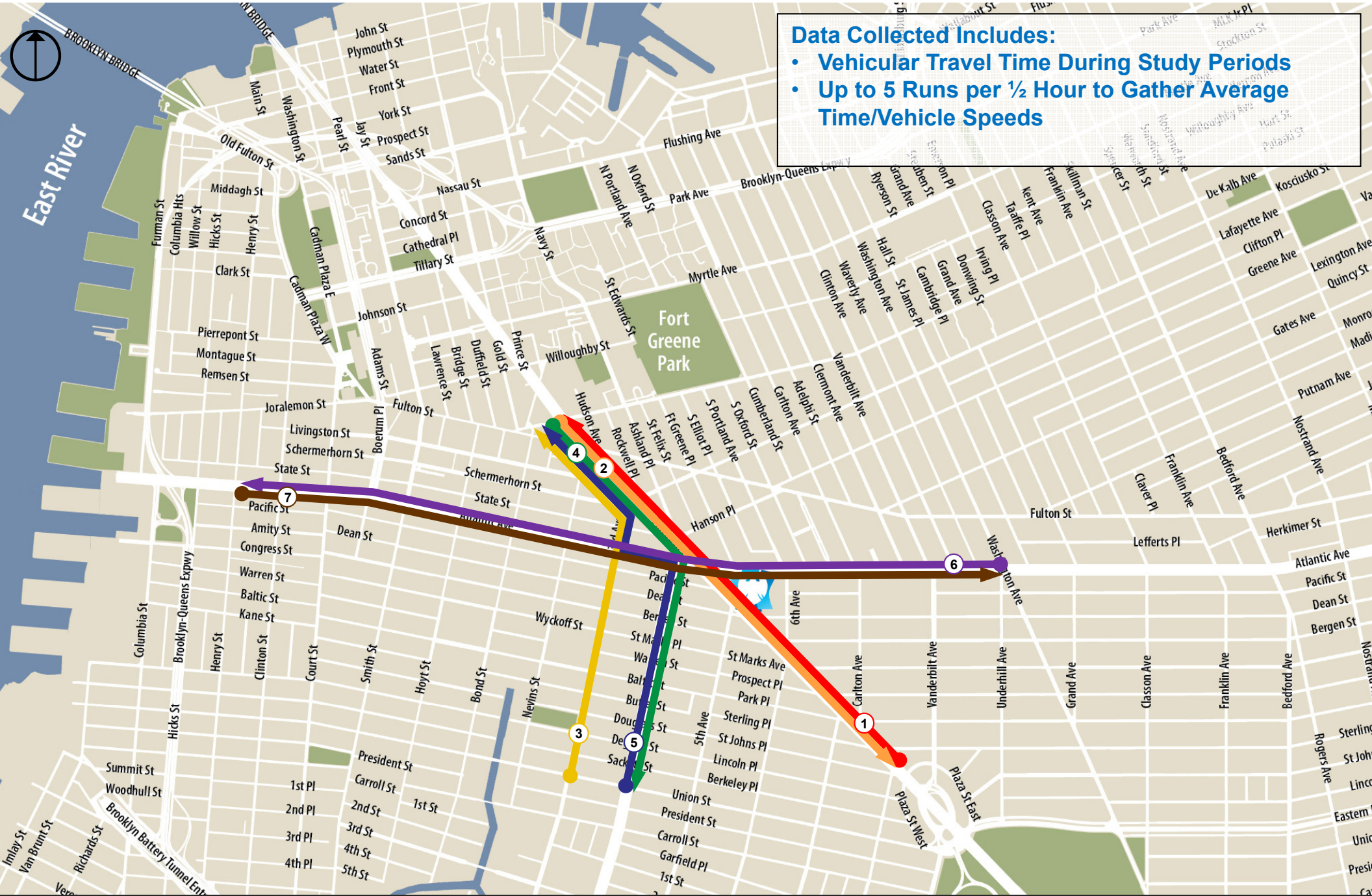
- **Most arena events occur in the evening, typically starting between 7 PM and 8 PM and ending between 10 PM and 11 PM.**
- **Study periods will correspond with the times when arena visitors would likely be arriving and departing the venue.**
- **Weekday (Tuesday – Thursday) and Saturday evening data will be collected during the following periods:**
  - Pre-Event: 6:00 PM to 8:30 PM
  - Post-Event: 9:30 PM to 11:30 PM

Barclays Center Traffic Study: Manual Counts

Barclays Center Traffic Study: ATRs



Barclays Center Traffic Study: Travel Time Runs



Barclays Center Traffic Study: Data Analysis

- **All study intersections to be analyzed with Highway Capacity Software (HCS) to establish vehicle/capacity ratios, delays, and levels of service (LOS) for each lane group, approach, and overall intersection.**
- **LOS, a function of vehicle delay times, is the primary metric used to evaluate the operations of an intersection. LOS criteria:**

	Control Delay per Vehicle (s/veh)[1]
• LOS A	≤ 10 s
• LOS B	> 10 s – 20 s
• LOS C	> 20 s – 35 s
• LOS D	> 35 s – 55 s
• LOS E	> 55 s – 80 s
• LOS F	> 80 s

1. Transportation Research Board, Highway Capacity Manual, 2000.

Barclays Center Traffic Study: Study Results

- **Pre-Opening Study Results**
  - Vehicle delay and LOS for 49 study intersections in four peak hours (pre- and post-event for weekday and Saturday).
  - Identification of pre-opening, vehicular capacity constraints (>45 seconds of delay) during study periods.
  - Typical vehicle travel times along major arterials during study periods.

- **Post-Opening Study Results**
  - Comparison of pre- and post-opening vehicle delay and LOS for 49 study intersections in four peak hours.
  - Identification of intersections and movements affected by arena-generated vehicles (where delay increases significantly).
  - Comparison of typical vehicle travel times along major arterials in the pre- and post-opening condition.
  - Potential measures to address identified vehicle capacity constraints.