

Jackson Heights Neighborhood Transportation Study



Community-Driven Planning Process

The goals for the Jackson Heights Neighborhood Transportation Study were:

- Improve pedestrian and vehicular safety
- Improve economic vitality through transportation improvements
- Improve quality-of-life by minimizing air pollution
- Identify, and prioritize, types of users for streets and public spaces
- Encourage use of efficient and sustainable modes of transportation
- Encourage efficient use of on-street parking

This report describes how the plan's improvements, which were implemented in Fall 2011, have led to faster bus service, increased pedestrian safety, and improved vehicle mobility and roadway operations. A full monitoring plan will evaluate all of the study's components and will be completed in the summer. All of the findings will be posted on the project's website and presented to the community.

Project Background

Given its proximity to major transportation networks, Jackson Heights serves as an important gateway: passenger vehicles travel to and from the Brooklyn-Queens Expressway; people come from throughout the city and region to the neighborhood's vibrant retail corridors; and the Victor Moore Arcade is one of the busiest transit hubs in the city: in 2011, over 16 million subway riders used the Arcade, ranking it as the 11th busiest station citywide.

Following many years of requests from the community, Congressman Crowley provided funding that the city matched to enable the New York City Department of Transportation (NYC DOT) to begin the Jackson Heights Neighborhood Transportation Study in 2009. NYC DOT used an innovative neighborhood-based outreach model to work with the community to define the issues and develop solutions. Implementation began in September 2011.

COMMUNITY OUTREACH TIMELINE

Early 2009: Study Begins—DOT received City and Federal funds to conduct study

May 2009: Community Advisory Committee Meeting #1—DOT receives input from key neighborhood stakeholders

July 2009: Community Workshop—Community members identify transportation issues and concerns in interactive small groups

Summer 2009: Neighborhood Walk-throughs—DOT staff held a series of walk-throughs with community stakeholders to identify issues and potential solutions

October 2009: Community Advisory Committee Meeting #2—Stakeholders identified the following critical issues: pedestrian congestion and safety, noise pollution, and merchant/vendor issues

Fall 2009: Data Collection—DOT and its consultants collected data about traffic speeds, pedestrian volumes, street vendor locations, and parking occupancy

Winter 2009-2010: Data Analysis—DOT and its consultants analyzed data

February 2010: Community Advisory Committee Meeting #3—DOT presents summary of initial field work and next steps for outreach

April 2010: Community Open House—DOT presented initial data and observations

June 2010: Community Board 3 and 4 Transportation Committee—DOT presents initial findings to each transportation committee and receives feedback

Fall 2010: Develop Short-Term Improvements—DOT incorporated all of the feedback and data into short-term improvement plan

February 2011: Community Presentation of Short-Term Improvements—Community members reviewed and commented on the short-term improvement plan

June 2011: Community Board 3 and 4 Full Board Presentation—DOT presented short-term improvement plan to each Community Board. Plan received unanimous approval from each board

Faster Bus Service

Issues:

Throughout the outreach process, community members felt that congestion on 73rd Street slowed the north-south bus service in the neighborhood. Residents said that 73rd Street was “a mess” and that “congestion is really terrible”. Data collection confirmed residents’ concerns— buses were travelling at speeds less than 5 miles per hour on this street. The two bus lines, the Q47 and Q49, which formerly travelled on 73rd Street, carried a combined 13,000 passengers daily, providing a key intermodal connection between Jackson Heights, East Elmhurst, LaGuardia Airport and five subway lines (E, F, M, R and the 7 train) at the Victor Moore Arcade.

Prior to implementation, the Q47 and Q49 both travelled southbound on 73rd Street between 35th Avenue and Broadway, before turning onto 37th Road and then circling to the Victor Moore Arcade. However, chronic double parking along this narrow street, heavy congestion and delays at the intersection of 73rd Street and Broadway all contributed to the unreliable service. In addition, a substandard stop along 37th Road, unsafe pedestrian and vehicular movements, multiple pedestrian and vehicle conflicts and the need for the buses to travel back to the Victor Moore Arcade for their northbound run added to inefficiencies.

Recommendations

During the Community Workshops and the neighborhood walk-throughs, there was consensus among community members that 75th Street would be a more appropriate road for both bus lines because it was less congested and provided a direct route into the Victor Moore Arcade. 75th Street, however, travelled one-way northbound. To implement this recommendation, the street’s direction between 30th Avenue and 37th Avenue was reversed to one-way southbound in September 2011. This change was done to improve reliability and operational efficiencies, as well as balance out the north-south connections for all motorists travelling through the area.

Following this change, both bus lines now travel directly into the Victor Moore Arcade, allowing riders to directly access the subway, and other bus routes. Additionally, the Q45 and Q47 bus routes were combined into one line, increasing efficiencies and reducing congestion due to bus layover and recirculation. With this new route, passengers have a one-seat ride between LaGuardia Airport, Jackson Heights, Middle Village, and Glendale.

Outcomes

Overall, these changes have improved bus travel times on both lines.

- Average southbound travel time decreased by 25% during the morning, improving to 24 minutes from 32 minutes before the changes.
- Evening southbound travel time decreased by 13%-- a bus trip now takes 21 minutes rather than 29 minutes.
- Northbound service remained relatively unchanged, decreasing by 1 minute (to 18 from 17 minutes) in the morning, and increasing by 1 minute (to 21 from 20 minutes) during the evening.

Direction	Northbound		Southbound	
Time of Day	AM	PM	AM	PM
Average Travel Before	18	20	32	31
Average Travel After	17	21	24	27
Percent Change	-6%	5%	-25%	-13%

In addition, rider surveys and feedback show a strong preference for the direct connection to Victor Moore Arcade. This is particularly true for elderly and handicapped riders who no longer have to cross streets and have access to elevators and escalators within the station. The new routes also provide for the reclamation of layover space along 37th Road between 74th and 75th Streets, increasing the availability of parking and pedestrian space.



Improved Safety

Recommendations

In an effort to improve the operation and safety, NYC DOT reduced the number of conflict points by closing 37th Road between 73rd Street and 74th Street, by closing 73rd Street between Broadway and Roosevelt Avenue, and by restricting the number of turns at these intersections. These changes reduced the number of allowed turns to 15 and the number of conflict points to 27 (21 vehicular-pedestrian conflicts and 6 vehicle-vehicle conflicts). NYC DOT also implemented the following additional safety improvements: a fully protected crosswalk, without any conflicts from turning vehicles; pedestrian countdown signals; and a significantly shorter crossing distance across Broadway.

Outcomes

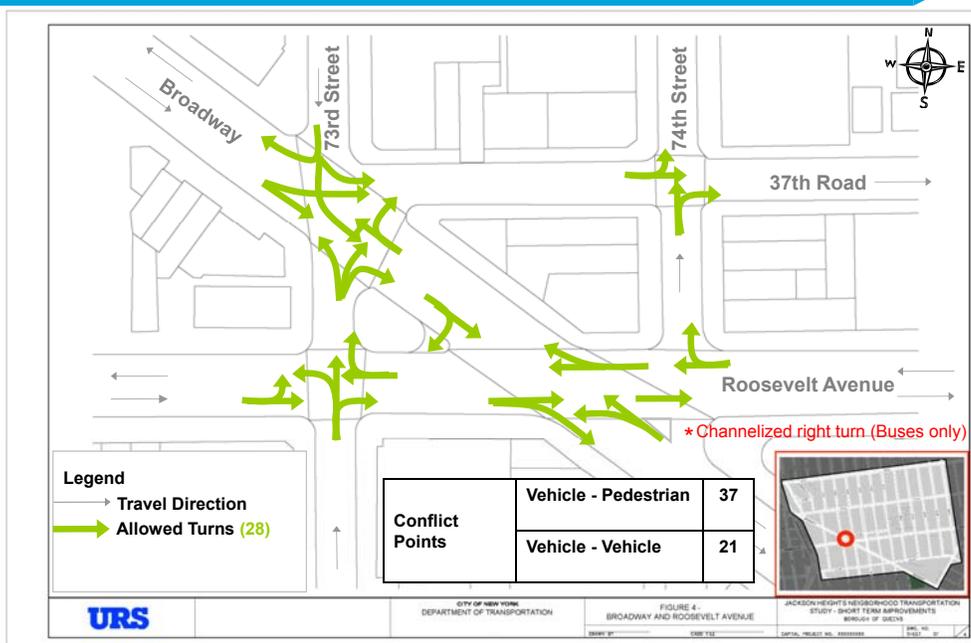
Additional pedestrian safety improvements were made at the intersections of Roosevelt Avenue and 74th Street and Roosevelt Avenue and 75th Street. Both intersections are vital connection points to the Victor Moore Arcade and a large volume of transit passengers cross the street to reach the transit hub. Before implementation, the crosswalks were 12-feet wide and could not handle the demand, which meant that pedestrians were walking into traffic. These two crosswalks were widened to 40 feet and stop bars were moved back. These crosswalks provide for the large crowds during the peak times of the day as well as protecting pedestrians travelling to and from the station. This change dramatically improves pedestrian safety at this important intersection. Additionally, signal timing was optimized along these corridors to improve vehicular movement, while at the same time affording pedestrians with additional crossing time.

Issues:

At each workshop, community members continually stressed the need to improve safety, particularly at the Victor Moore Arcade. With such a high density of pedestrians, vehicles, and transit riders, safety improvements were a key component of the study and NYC DOT made a series of improvements throughout the neighborhood to improve safety for all users.

The intersection of 73rd Street, 37th Road and Broadway was particularly challenging. The intersection's complicated geometry created significant levels of congestion and queuing of vehicles that blocked the intersections. The geometry also created a high number of dangerous conflict points between pedestrians and motorists. With the former traffic pattern, there were a total of 28 legal turns, which created 58 conflict points (37 vehicle to pedestrian conflicts and 21 vehicle to vehicle conflicts). Between 2006 and 2010, this intersection averaged 5.8 injuries a year (1.2 pedestrian injuries and 4.2 motor vehicle occupant injuries), which placed it in the 96th percentile compared to other intersections in the borough.

Intersection of Broadway and Roosevelt Avenue – Former Traffic Pattern



Improved Travel Times and Roadway Operations

Issues:

Throughout the outreach process, community members felt that vehicular and bus congestion slowed traffic throughout the neighborhood. They also felt that double parking exacerbated the problem. Field data confirmed that traffic moved slowly throughout Jackson Heights. Traffic signal timing, conflicts between turning vehicles and pedestrians, double parking by cars and trucks, and circuitous bus routing all contributed to traffic congestion. A few major streets were especially problematic, particularly Broadway, Roosevelt Avenue, and 73rd Street.

Recommendations

NYC DOT implemented a series of improvements throughout the neighborhood to help ease congestion and improve roadway reliability. The improvements include retiming signals along Broadway and Roosevelt Avenue to allow for longer green times for each movement and better timing with surrounding intersections. Dedicated turn lanes and left-turn signals were also added at key intersections on Broadway as well as the one-way north and south streets to ease congestion and accommodate rerouted traffic.



Outcomes

The plan's improvements have increased the performance and reliability of the overall network, leading to reduced queue lengths and improved travel times. Travel speeds improved along Broadway in both directions, particularly in the westbound direction, which increased from 6.3 mph to 9.0 mph. While travel speeds on the overall Roosevelt Avenue corridor did not increase, there was an improvement around key intersections, specifically in the westbound direction between 75th Street and the BQE, where travel speeds improved from less than 10 mph to almost 25 mph.

Route	Average Speed (Before)	Average Speed (After)
EB Broadway	7.0	7.6
WB Broadway	6.3	9.0
EB Roosevelt Ave	9.2	6.8
WB Roosevelt Ave	9.3	7.3

Travel speeds improved on the north and south streets, particularly 73 Street between 35th and 37th Avenues and 82nd Street between Roosevelt Avenue and 41st Avenue.

Street	Average Speed (Before)	Average Speed (After)
73 St btw 35 Ave and 37 Ave	6.5	9.2
73 St btw 37 Ave and Broadway	6.0	5.7
82 St btw 35 Ave and 37 Ave	10.1	9.0
82 St btw 37 Ave and Roosevelt	2.6	6.2
82 St btw Roosevelt and 41 Ave	8.2	11.6