Background
BACKGROUND

• DOT initiated study in response to requests from community and elected officials

• No set agenda

• Focus on improving safety, mobility, and quality of life for all street users

• Study coordinated with ongoing Port Authority capital projects at the George Washington Bridge and Bus Station
  • Port Authority in-kind contribution of technical assistance through dedicated modeling and consultant support
  • Study relied heavily on DOT staff resources with overall support from AECOM
STUDY APPROACH

• Primary Goal: Develop a set of actionable improvement concepts that address community concerns

• Step 1: Gather feedback from public on issues that affect them

• Step 2: Focus data collection and analysis on key issues identified by the public

• Step 3: Develop short and long-term improvement concepts

• Step 4: Model & analyze improvement concepts to determine feasibility

• Step 5: Present improvement concepts to public for feedback

• Step 6: Work with other DOT units to implement feasible projects
TIMELINE

Outreach: Issue Identification
Identify community concerns

Data Collection & Analysis
Traffic counts & modelling, field observations

Improvement Plan
Develop recommendations to address community concerns

Outreach: Final Plan
Return to community to discuss next steps

Fall / Winter 2014
Spring / Summer 2015
Fall / Winter 2016
PUBLIC WORKSHOPS

• Three public workshops in 2014-15

• Workshops sponsored by CM Ydanis Rodriguez, CB12 and other elected officials

• Simultaneous Spanish translation at all workshops

• Online feedback portal allowed visitors to tag and categorize issues on map

• Coordinated with Port Authority and New York Presbyterian Hospital

Map exercise from public workshop
DATA COLLECTION

- Study area divided into three focus areas based on concentration of issues raised at public workshops
  - Area A encompassed by existing Port Authority microsimulation traffic model
    - Area A: PANYNJ collected new traffic counts and updated existing traffic model
    - Area B1: Collected traffic and pedestrian counts and developed a new traffic model
    - Area B2: Used time-lapse photography to generate curb-use dataset of 10 block faces
Neighborhood Context
STUDY AREA

• All of study area is within Community District 12

• Represented in the City Council by Ydanis Rodriguez and Mark Levine

• Population of approximately 90,000, up 6% from 2010 Census
  • 72% Latino, compared to 29% of NYC population
  • 28% of households below poverty line, higher than citywide average of 21%
  • 93% of residents are renters, 6% vacancy is lower than the city average of 9%
HOUSEHOLD INCOME & VEHICLE AVAILABILITY

- Median household income of $37,325
  - Roughly half that of Manhattan
  - $15,000 below city average

- 80% of households are carless
  - Higher than Manhattan and citywide average
COMMUTE TO WORK

- Transit is the predominant commute mode
  - Transit mode share has increased 4% since 2000
- Median commute time is 38 minutes
  - Slightly shorter than the city average, but longer than the Manhattan average
Existing Conditions
EXISTING CONDITIONS

- The study team conducted multiple site visits to each focus area to observe issues raised by the community

- Transit, traffic, and crash data were analyzed to better-define and prioritize existing issues

- Existing conditions analysis informed the development of improvement concepts
AREA A: OBSERVATIONS

- George Washington Bridge Bus Station / W 181 St
  - Slow, unreliable bus service on W 181 St
  - Busy bus stops with no shelters and/or benches
  - Poor access to the GWB for bicycles and pedestrians
  - Lack of pedestrian safety amenities
  - Traffic congestion

Existing Conditions

Long crossing at W 178 St and Broadway
AREA A: BUS ISSUES

- 12 city bus routes serve area
- 6 Bronx, 6 Manhattan
- Many members of the public complained of slow buses on W 181 St
- 27,000 weekday bus passengers on W 181 St
- Bus frequency on W 181 St is greater than 1 bus per minute in each direction during the morning peak period
  - Greater bus frequency than Fulton Street transit mall in Brooklyn
AREA A: BUSTIME ANALYSIS

• Analyzed MTA BusTime data to determine bus speeds along W 181 St

• AM Westbound speed average is 3.65 MPH

• PM Eastbound speed average is 2.49 MPH

• Slow EB speeds despite bus lane in effect 4-7pm

• Likely factors contributing to slow speeds:
  • Frequent Bus lane blockages
  • High boarding volumes
AREA B1: OBSERVATIONS

- Lack of pedestrian safety amenities at several locations
- Complex intersections with unpredictable traffic patterns
- Disconnect in the north-south bike network
- Poor access to Ft. Washington Park and other green spaces
- General traffic congestion around hospital
AREA B2: CURB-USE DATA

- Curb-occupancy data analyzed between 9am and 7pm
- Median parking duration is 21 minutes
- Average occupancy of 83%
- 9 of 10 block faces average above 80% occupancy
- 6 of 10 block faces average above 85% occupancy
AREA B2: DOUBLE & ILLEGAL PARKING

- Average of at least one double parked vehicle 13% of the time
- Average of at least one illegally parked vehicle 13% of the time
- West side of Broadway between W 177 St and W 178 St has highest prevalence of illegal and double parking
- Double-parked trucks on this block contribute to congestion exiting the George Washington Bridge
STREET SAFETY

- Concentration of pedestrian injuries along Broadway and W 181 St
- Vision Zero priority corridor runs through study area
- Five Vision Zero priority intersections in area B1
Improvements
OVERVIEW OF IMPROVEMENT PLANS

1. W 181 St Bus Improvements
2. George Washington Bridge Bus Station Pedestrian Improvements
3. W 178 St and Ft. Washington Ave Pedestrian Improvements
5. Broadway/St. Nicholas Ave Pedestrian Additions
6. W 165 St and Riverside Dr Safety Improvements
7. Broadway Road Diet-Section
AREA A: W 181 ST BUS IMPROVEMENTS

- Red bus lane with expanded hours
- Curb Extensions
- Pedestrian island
- Bus queue jump signal
AREA A: W 181 ST & ST NICHOLAS AVE BUS QUEUE JUMP

Dedicated signal gives buses & Peds a 6 second head start

BUS STOP

W 181 St
AREA A: BUS STATION PEDESTRIAN IMPROVEMENTS

- Bus bulb and curb extension
- Pedestrian safety islands
- Right turn only lane

- Broadway islands shorten crossing distance and slow turning vehicles
- Curb extensions on platform over the Trans-Manhattan Expressway require coordination with PANYNJ
AREA A: W 178 ST AND FT. WASHINGTON AVE ISLAND

- Improved lighting conditions at the GWB bus station
- Conversion to right-turn only lane
- Pedestrian safety island

- Right turn only lane on W 178 St simplifies merge between W 178 and GWB ramp
- Pedestrian island provides refuge from fast-moving traffic
AREA B1: BROADWAY ROAD DIET

- Reduce travel lanes to calm traffic on Vision Zero priority corridor
- 2016 SIP project implemented road diet on Broadway south of study area; proposal extends same design to W 169 St
- Traffic analysis indicates road diet and LPIs will have minimal impact on traffic
AREA B1: BROADWAY & ST. NICHOLAS

- Reduce travel lanes to slow traffic
- Curb extensions and pedestrian islands
- Traffic realignment
- New public space
- New bicycle facilities

- Proposal simplifies intersection of Broadway & St Nicholas Ave
- Several median extensions significantly shorten long pedestrian crossings
AREA B1: W 165 ST & RIVERSIDE DR SAFETY IMPROVEMENTS

- Painted curb extensions
- New crosswalks
- Pedestrian safety islands

- High volume westbound right turn from W 165 onto Riverside Dr conflict with only crosswalk
  - Right turn on red is permitted, meaning no conflict-free pedestrian crossing
- New crosswalk on south side of intersection provides crossing with reduced conflicts
AREA B1: BROADWAY, 156-158 ST

- Reduce travel lanes to slow traffic
- Curb extensions & expanded pedestrian space
- Pedestrian safety island
- New crosswalk
- Expanded left turn lanes
  - Remove one lane in each direction to calm traffic
  - Median extensions shorten multiple long pedestrian crossings
B2: BROADWAY LOADING WINDOWS

- West side of Broadway between W 176 St and W 178 St
- Implement truck loading zone during AM hours
- Reduce lane blockages during AM peak period
- Improve flow of traffic from George Washington Bridge onto Broadway
Conclusion
IMPROVEMENTS OPEN HOUSE

• January 12, 2017

• Shared study findings and recommendations with public and stakeholders

• Improvement concepts were generally well-received

• Next Step: Work with DOT implementation groups to advance high-priority short and long-term proposals
# NEXT STEPS

## Projects Already in Planning
- Broadway Road Diet (2017 RIS SIP)
- Broadway and St Nicholas Ave ped safety improvements (School Safety capital project)

## Potential Short-Term Projects
- Leading Pedestrian Intervals in areas A and B1
- Commercial loading windows in area B2
- Expanded bus lane hours on W 181 St
- Bus Queue jump on W 181 St at St Nicholas Ave
- Pedestrian safety improvements at Riverside Dr and W 165 St
- Pedestrian safety islands in George Washington Bridge bus station area

## Potential Long-Term Projects
- Capital implementation of Broadway road diet
- Capital curb extensions in area A
THANK YOU!

Questions?