EASTERN PARKWAY

Safety Improvements and Service Road Signalization

Presentation to Community Board 9 Transportation Committee

June 14, 2017
Eastern Parkway is considered to be the world’s first parkway. It was constructed between 1870 and 1874, designed by Frederick Law Olmsted and Calvert Vaux

Not originally designed to accommodate modern traffic infrastructure

Retrofitted piecemeal over time with traffic signals, lane markings, and crosswalks
• **Vision Zero Priority Corridor**

• **2nd most pedestrians killed or severely injured (KSI) in traffic in Brooklyn after Flatbush Av**

• **5 Vision Zero Priority Intersections**
  • Franklin Av, Nostrand Av, Kingston Av, Utica Av, Rochester Av

• **1764 Total Injuries (295 ped)** between Washington Av and Ralph Av (2010-2014)
  • 108 KSI (47 ped)
  • 9 Fatalities (6 ped)

• Numerous community requests to improve safety and traffic flow submitted to DOT and NYPD
Unsignalized marked crosswalks on service roads

- Far side of one-way cross streets
- Both sides of two-way cross streets

Unpredictable movements for pedestrians, cyclists, and drivers
Stop-controlled service roads

Unpredictable movements for pedestrians, cyclists, and drivers
EXISTING UNSIGNALIZED INTERSECTIONS

6 existing stop-controlled service road intersection

17 unsignalized service road intersections

Nostrand Av

Rogers Av
No mall to mall crossings on north side of Eastern Parkway

Confusing for pedestrians, cyclists, and drivers
EXISTING ISSUES

Inconsistent lane markings throughout the corridor creates confusion at each intersection.
EXISTING ISSUES

Inconsistent signal timing and turn restrictions creates confusion for all road users.

- = existing protected (green arrow) phase
- = existing turn restriction

Inconsistent signal timing and turn restrictions creates confusion for all road users.
EXISTING ALIGNMENT – ONE-WAYS

- Unsignalized crosswalk on far side service road intersection
- No mall-to-mall crossings on north side
- Right turns share lane with thru vehicles (except Franklin Av)
- Diversion for pedestrians to cross at signalized crosswalk (350')
Add traffic and pedestrian signals on far side service road

Add pedestrian signals and crosswalk for mall-to-mall crossing on north side

Provide exclusive right turn lane with right turn signal
PROPOSED ALIGNMENT – ONE-WAYS

Existing

Proposed

- No loss of lanes
- Improved signal timing for turning vehicles
- Turning vehicles accommodated with dedicated turn lanes
**PROPOSED SIGNAL TIMING – ONE-WAYS**

**EXISTING**

- **Phase A**
  - Turns from main line held (red arrow)
  - Previously stop-controlled service road has green light
  - Pedestrians cross side street

- **Phase B**
  - Turns from main line permitted with flashing yellow arrow with no conflicts with service road traffic and pedestrians
  - Service roads have red light

- **Phase C**
  - Side street has green light
  - Pedestrians cross Eastern Parkway

**PROPOSED**

- **Phase A**
- **Phase B**
- **Phase C**
EXISTING ALIGNMENT – TWO-WAYS

Unsignalized crosswalks on north and south service roads

No mall-to-mall crossings on north side

Only 1 signalized crosswalk across side streets at intersection
Add traffic and pedestrian signals on north and south service roads

Add pedestrian signals and crosswalk for mall-to-mall crossing on north side

Restrict right turns from main line and provide diversion signage at adjacent intersections
Right turn restrictions are required in order to improve safety and traffic flow
Right turn restrictions are required in order to improve safety and traffic flow

- At two-way streets, existing protected / “green arrow” phases do not allow time for additional signal phases without negative impacts to traffic

- Left turn lane, 2 thru lanes, and right turn lane in each direction do not fit on the 60’ roadway
• Proposed turn bans are low volume turning movements

• Redundancy in street network creates easy alternate routes, which will have exclusive right turn lanes and right turn signals

• Required for service road signalization at two-way streets

• Small trade off for large safety and mobility benefits
PROPOSED SIGNAL TIMING – TWO-WAYS

**EXISTING**

*Phase A*
- Left turns from main line held (red arrow)
- Right turns from main line restricted
- Previously stop-controlled service roads have green light
- Pedestrians cross side street

*Phase B*
- Left turns from main line have green arrow with no conflicts

*Phase C*
- Side street has green light
- Pedestrians cross Eastern Parkway

**PROPOSED**

*Phase A*
- Left turns from main line held (red arrow)
- Right turns from main line restricted
- Previously stop-controlled service roads have green light
- Pedestrians cross side street

*Phase B*
- Left turns from main line have green arrow with no conflicts

*Phase C*
- Side street has green light
- Pedestrians cross Eastern Parkway
Pedestrian islands shorten crossing distances, provide refuge, and calm turns

2 additional rubber islands would be installed at Vision Zero priority intersections with turning conflicts where geometrically feasible.

All 4 islands would be removed temporarily during the West Indian Parade.
PROJECT BENEFITS

• Improves safety for pedestrians, bicyclists, and vehicles
• Improves traffic flow on main line and service road
• Clarifies vehicular and pedestrian movements
THANK YOU

QUESTIONS?