



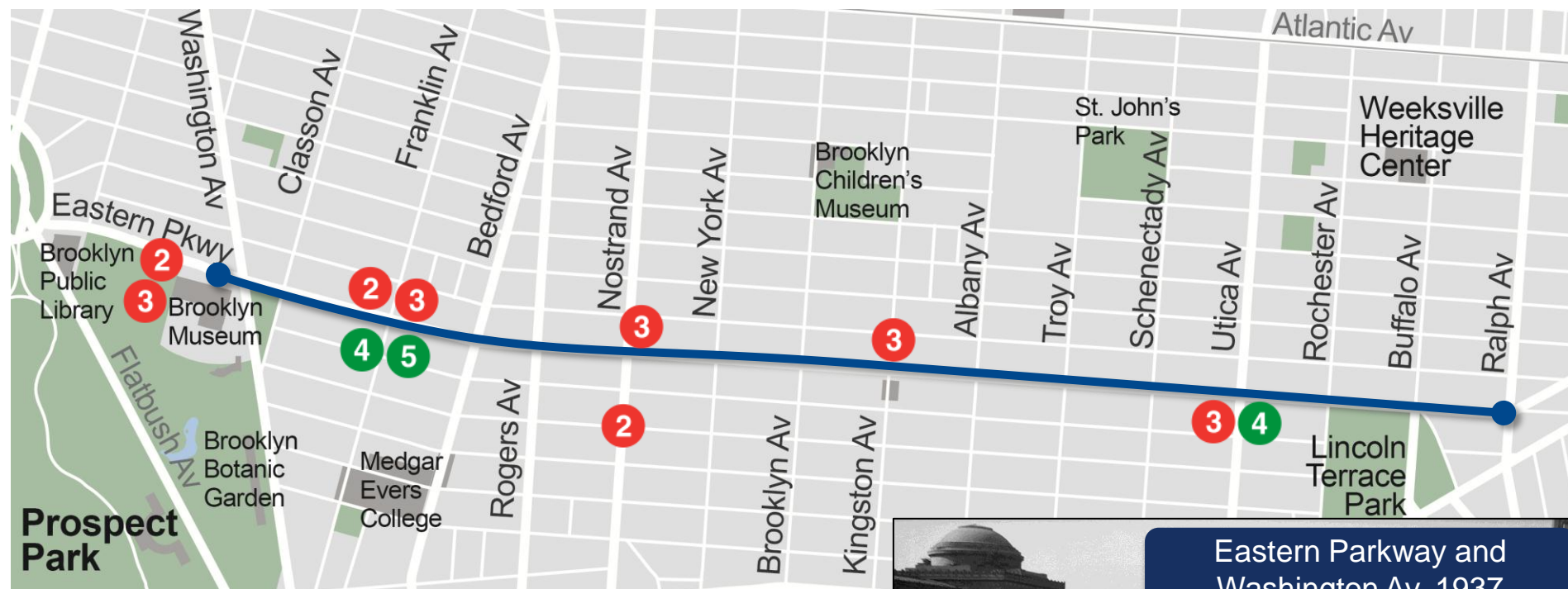
EASTERN PARKWAY

Safety Improvements and Service Road Signalization

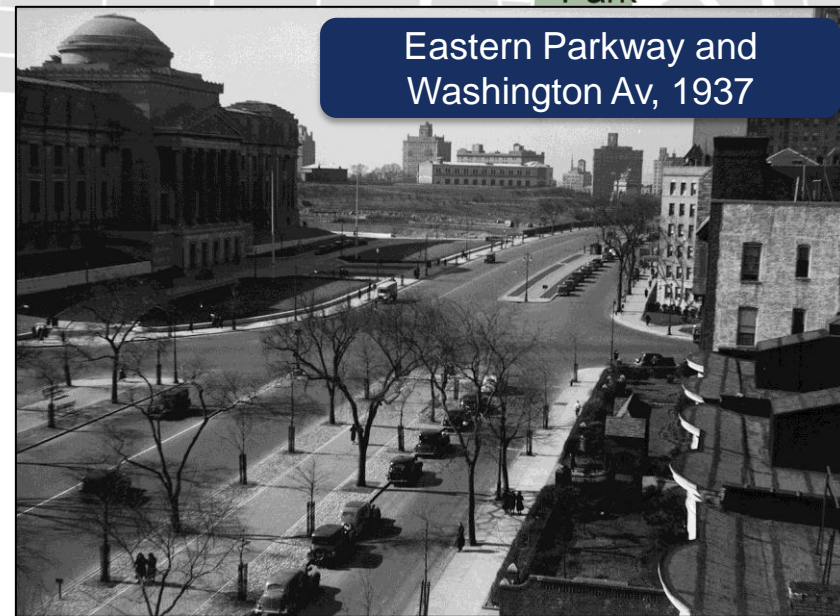
Presentation to Community Board 8 Transportation Committee

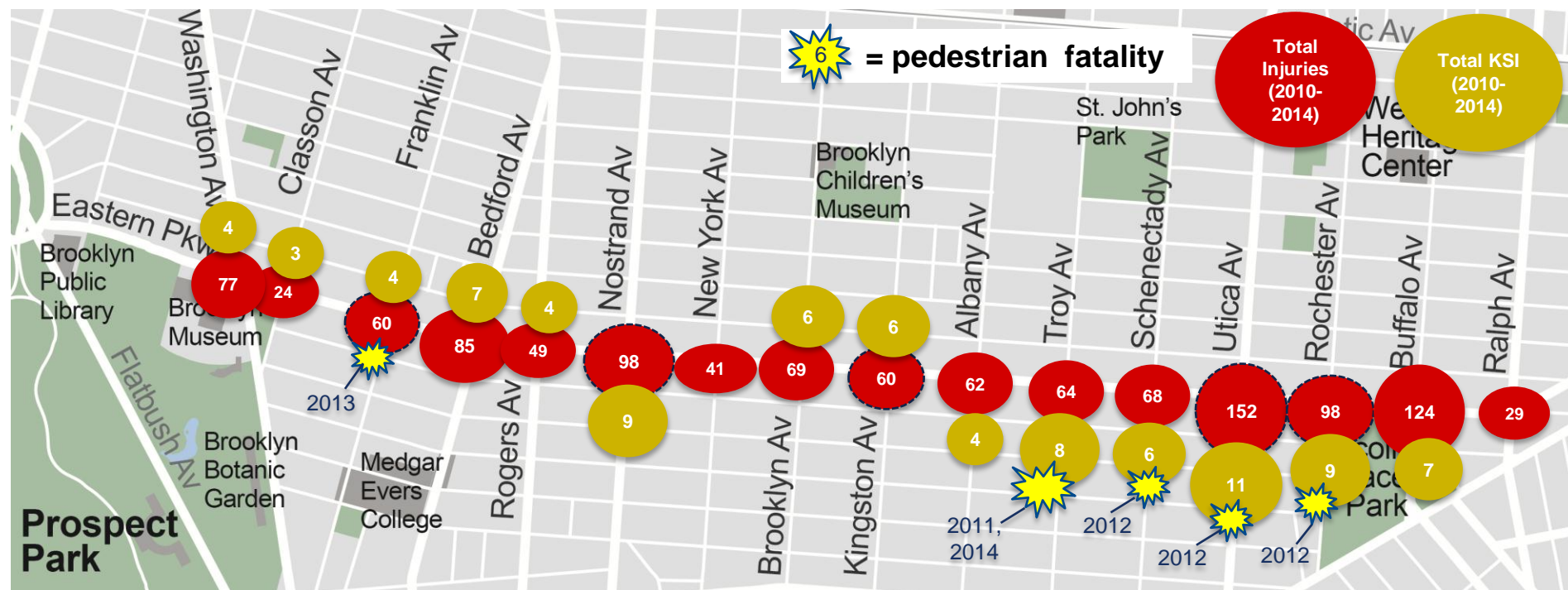
September 26, 2017

PROJECT BACKGROUND



- 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**

EXISTING ISSUES



Unsignalized marked crosswalks
on service roads

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

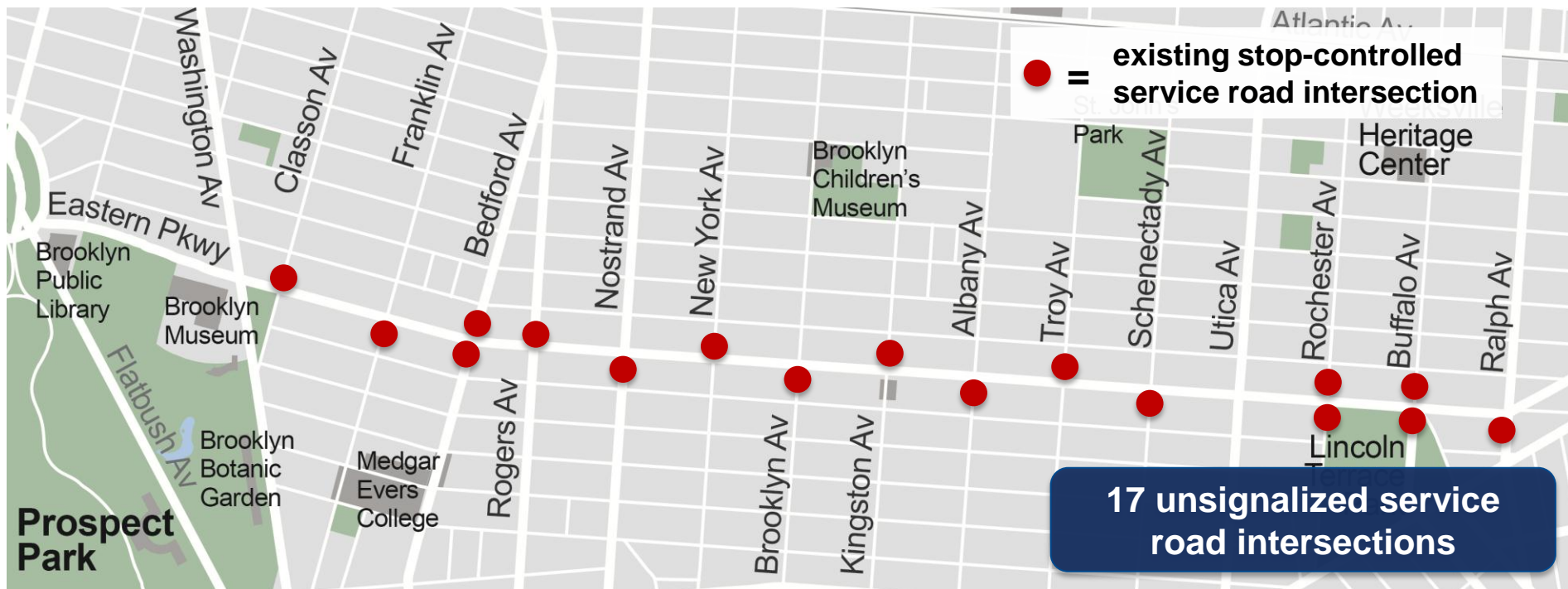
EXISTING ISSUES



**Unpredictable movements for
pedestrians, cyclists, and drivers**

Stop-controlled service roads

EXISTING UNSIGNALALIZED INTERSECTIONS



EXISTING ISSUES

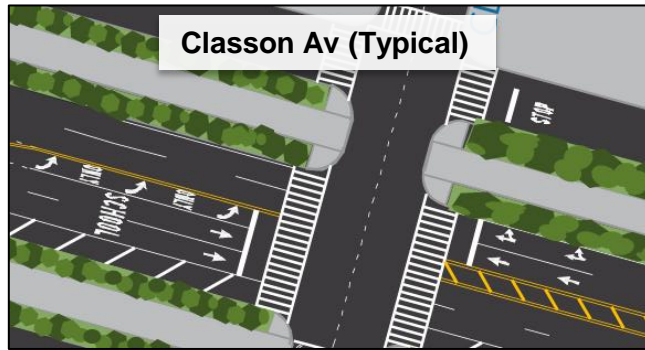


Confusing for pedestrians,
cyclists, and drivers

No mall-to-mall crossings on north side of Eastern Parkway

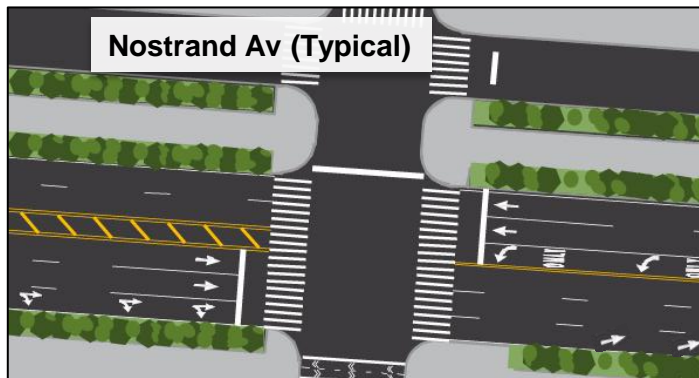
EXISTING ISSUES

One-Way
Northbound
Cross
Street

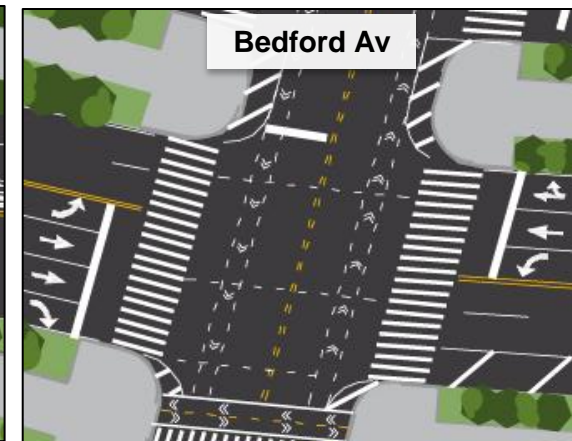
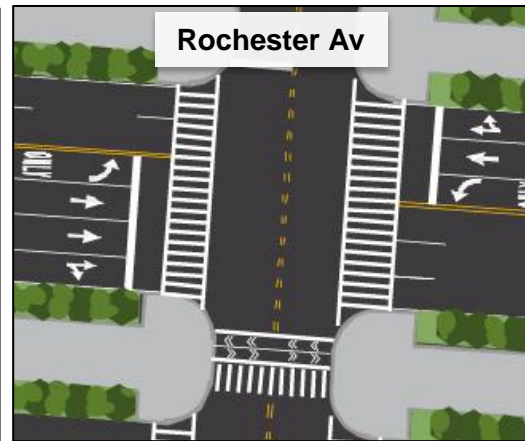
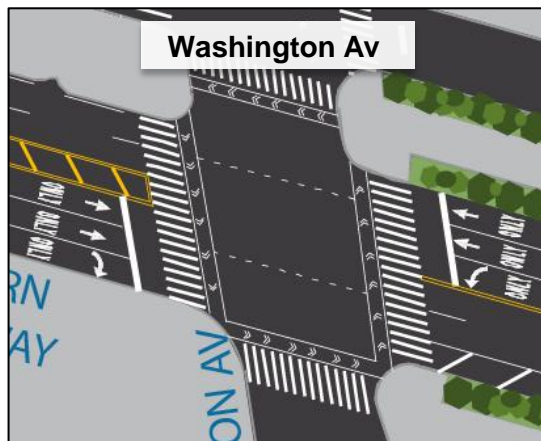


Inconsistent lane markings
throughout the corridor creates
confusion at each intersection

One-Way
Southbound
Cross
Street



Two-Way
Cross
Street



EXISTING ISSUES



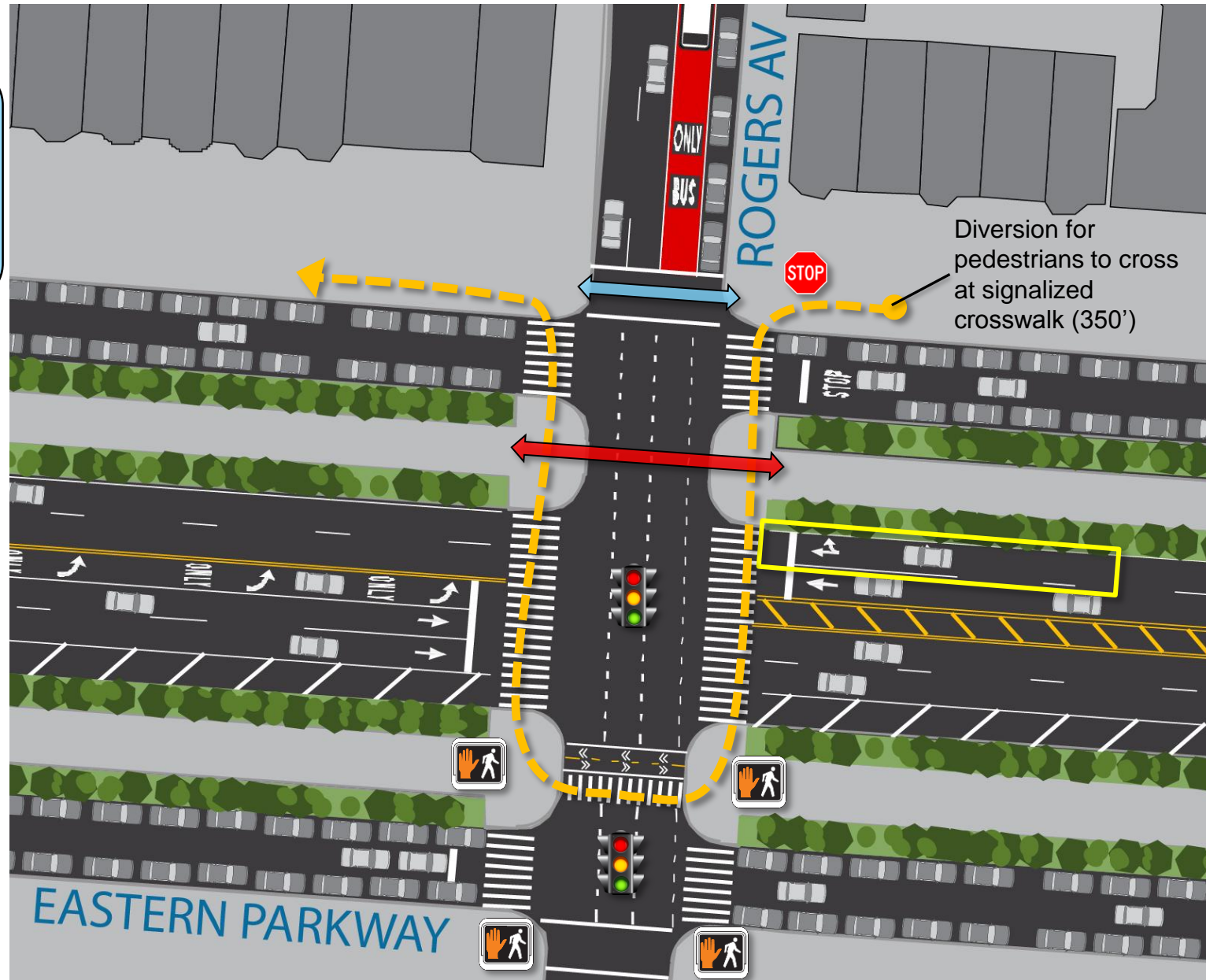
Inconsistent signal timing and turn restrictions creates confusion for all road users

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)

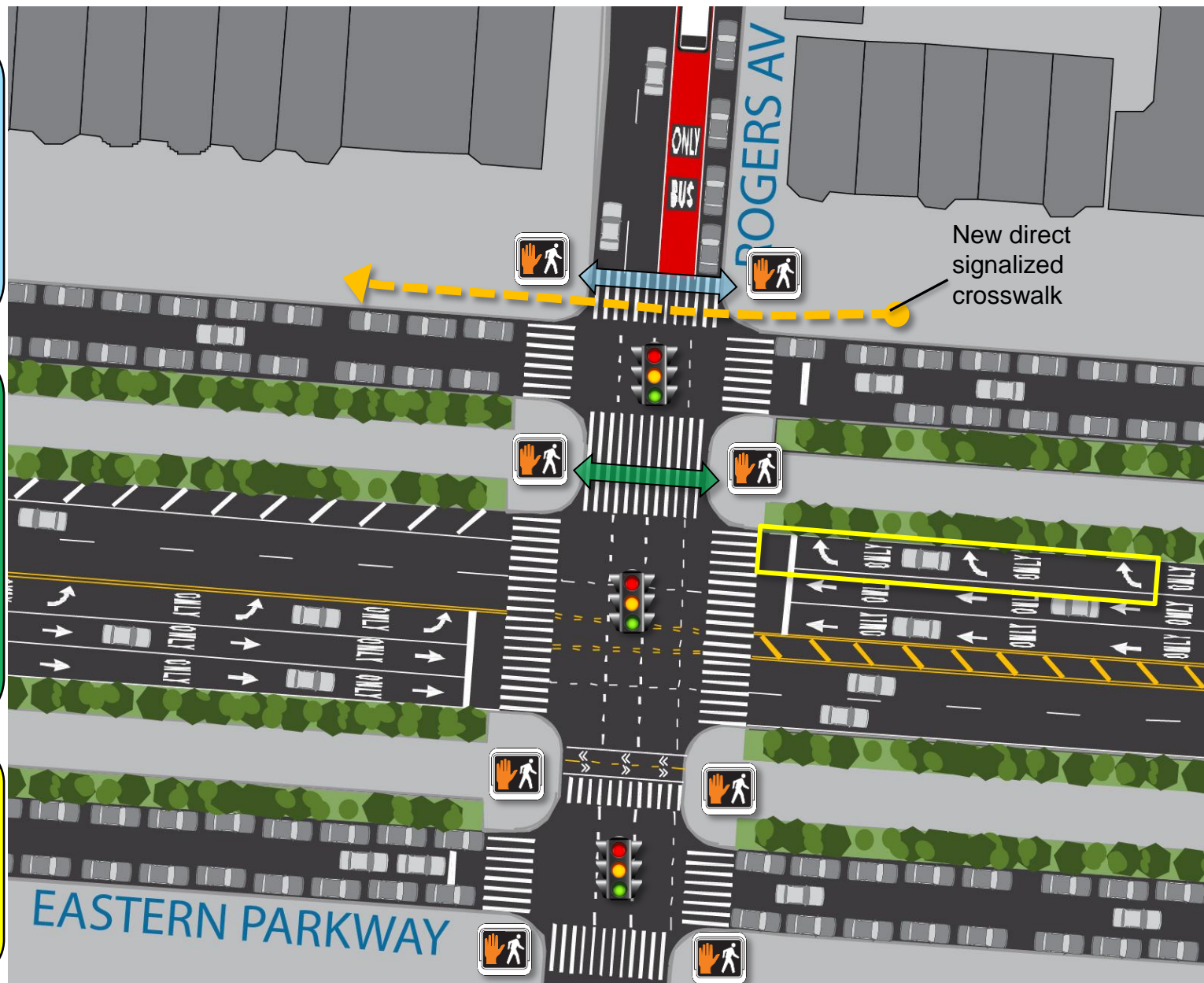


PROPOSED ALIGNMENT – ONE-WAYS

Add traffic and pedestrian signals on far side service road

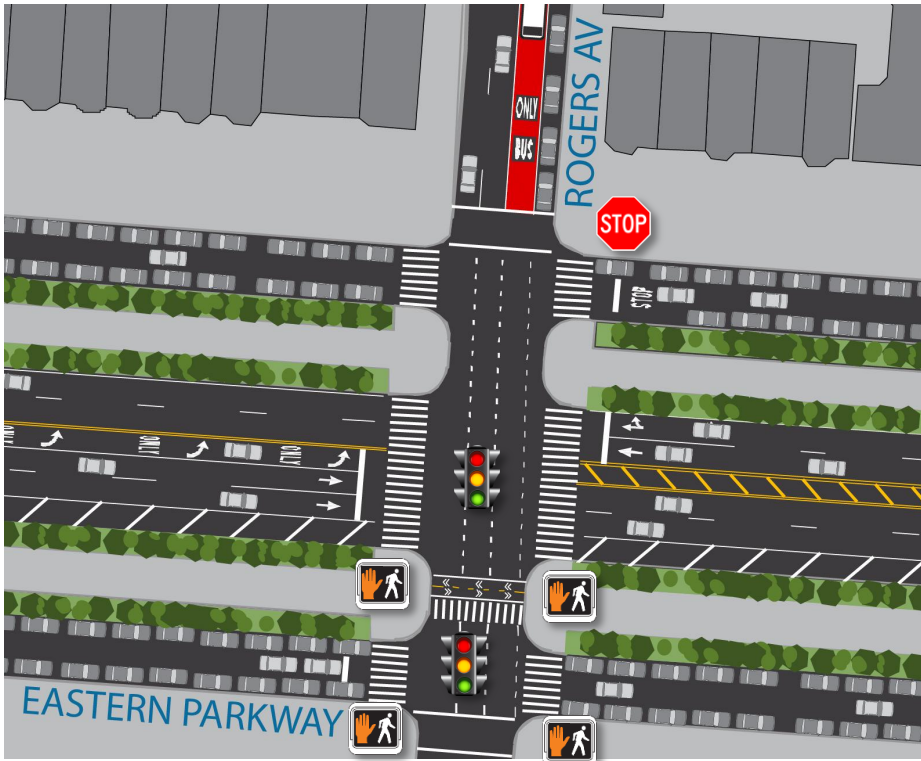
Add pedestrian signals and crosswalk for mall-to-mall crossing on north side

Provide exclusive right turn lane with right turn signal

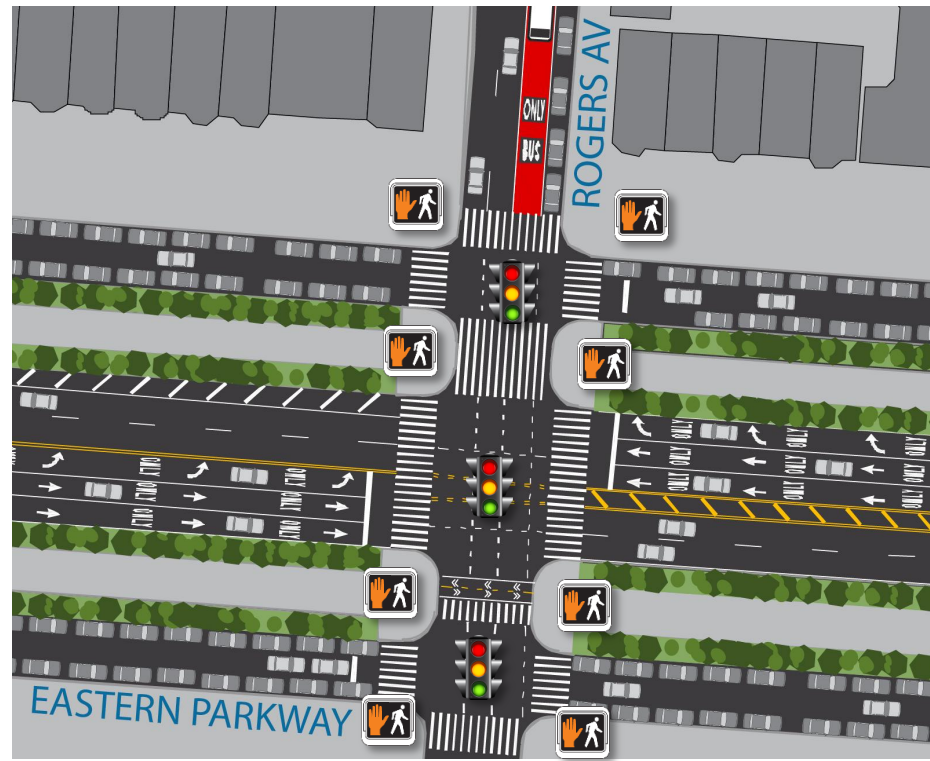


PROPOSED ALIGNMENT – ONE-WAYS

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

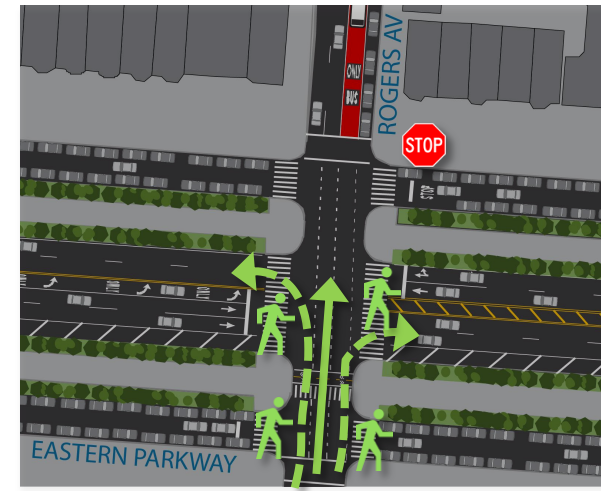
Phase A



Phase B

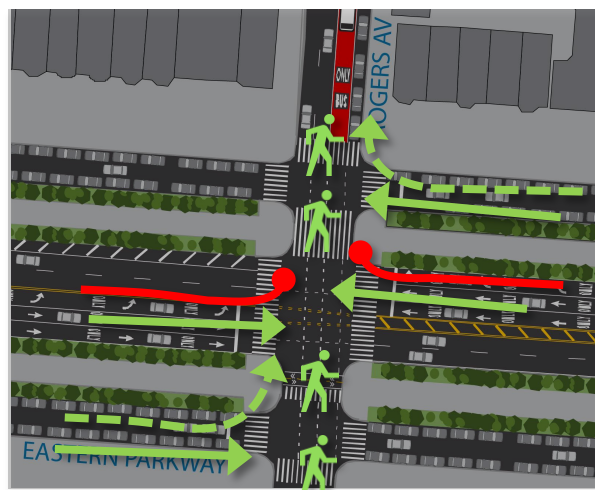


Phase C



PROPOSED

Phase A

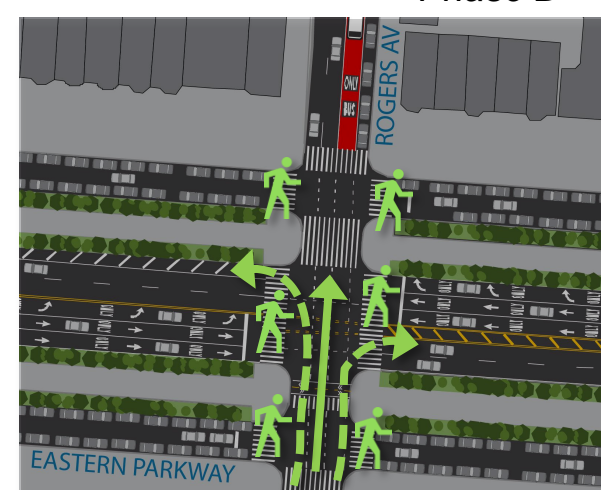


- Turns from main line held (red arrow)
- Previously stop-controlled service road has green light
- Pedestrians cross side street

Phases B & C



Phase D



- Side street has green light
- Pedestrians cross Eastern Parkway

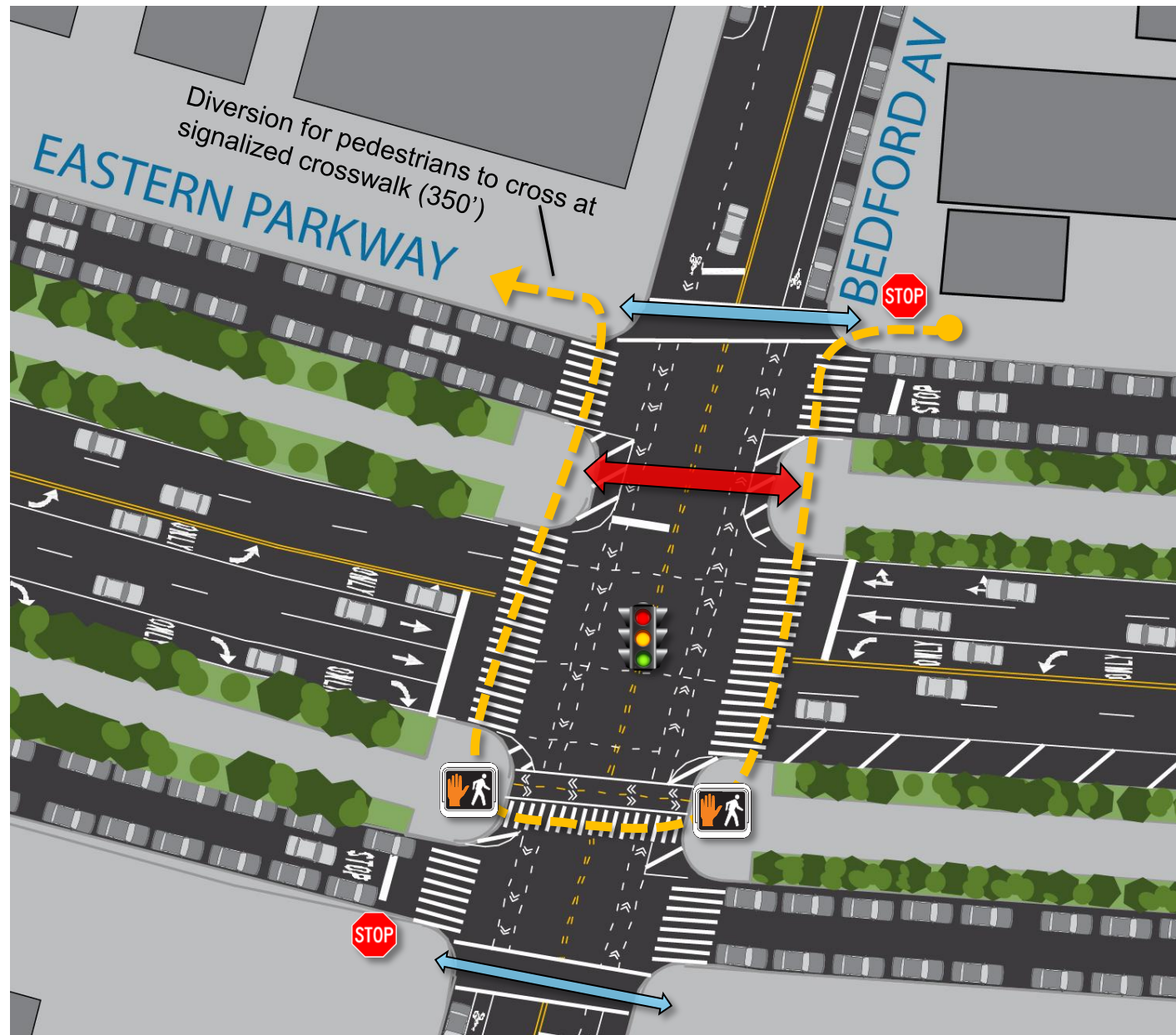
- Alternating green turn arrows for turns from main line with no conflicts

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

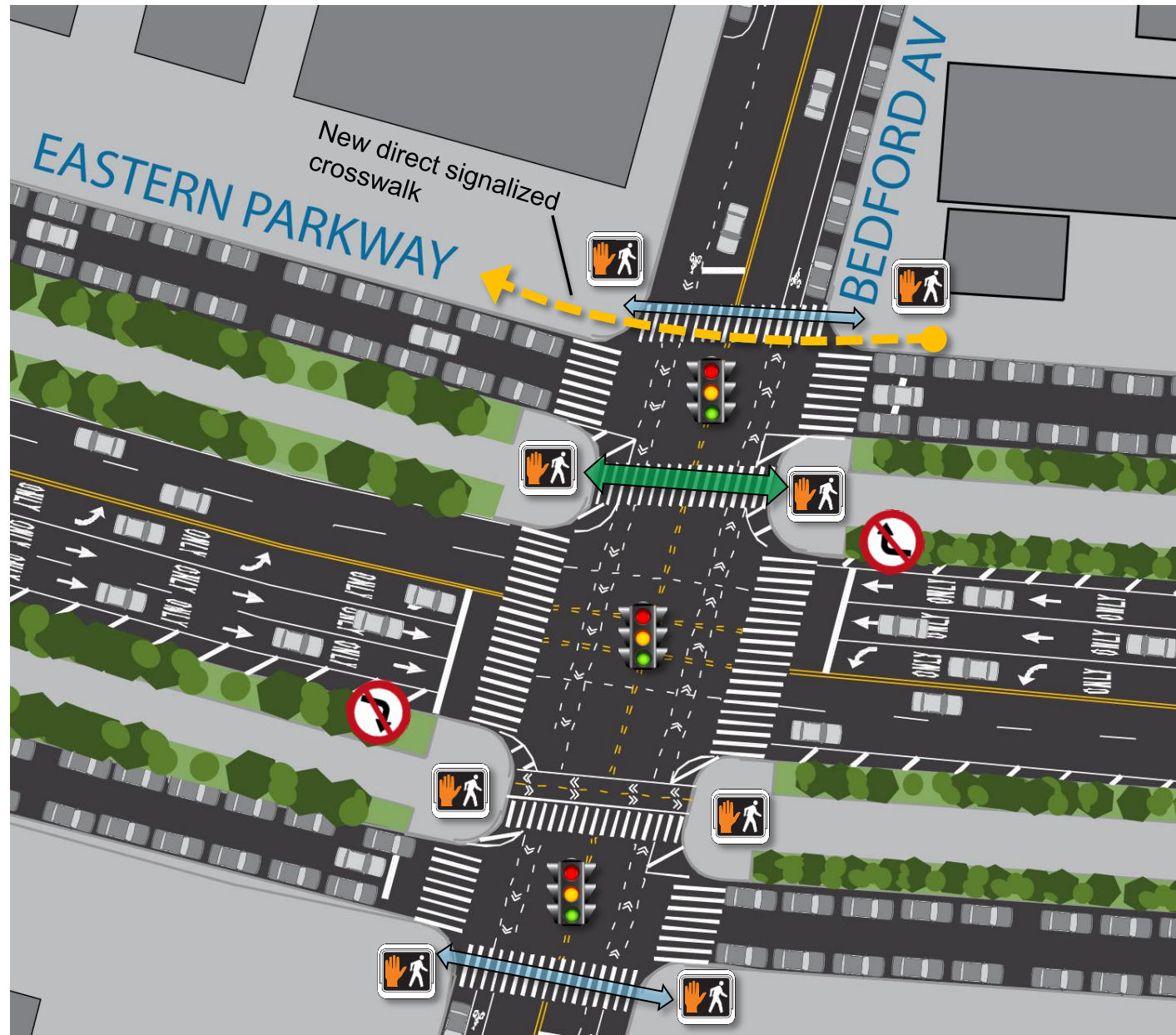


PROPOSED ALIGNMENT – TWO-WAYS

Add traffic and pedestrian signals on north and south service roads

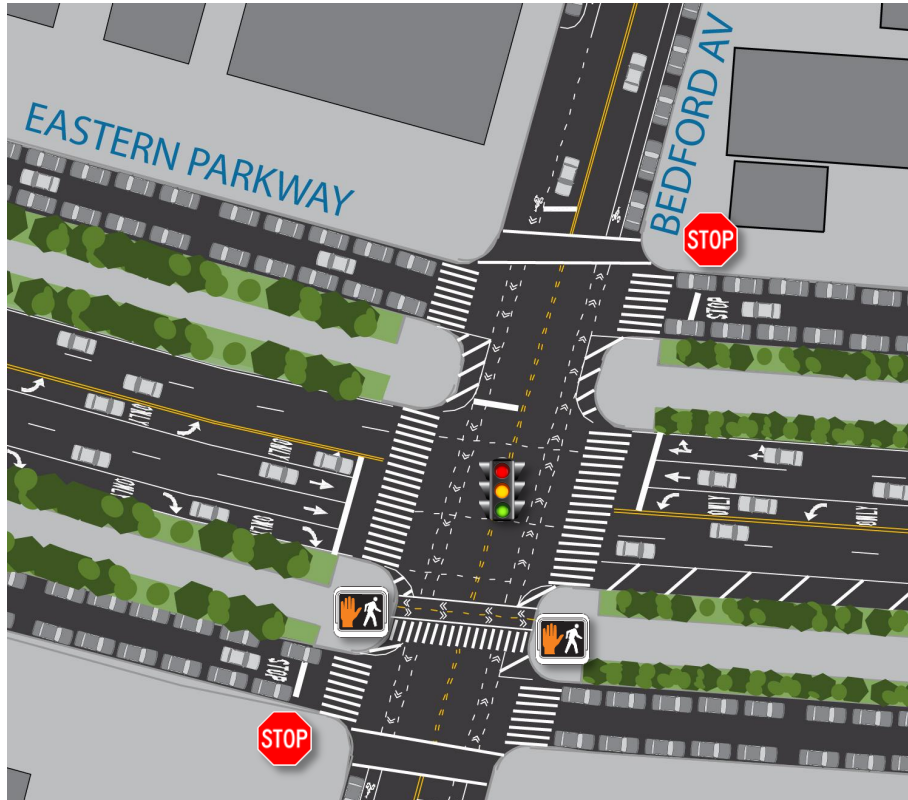
Add pedestrian signals and crosswalk for mall-to-mall crossing on north side

Restrict right turns from main line and provide diversion signage at adjacent intersections

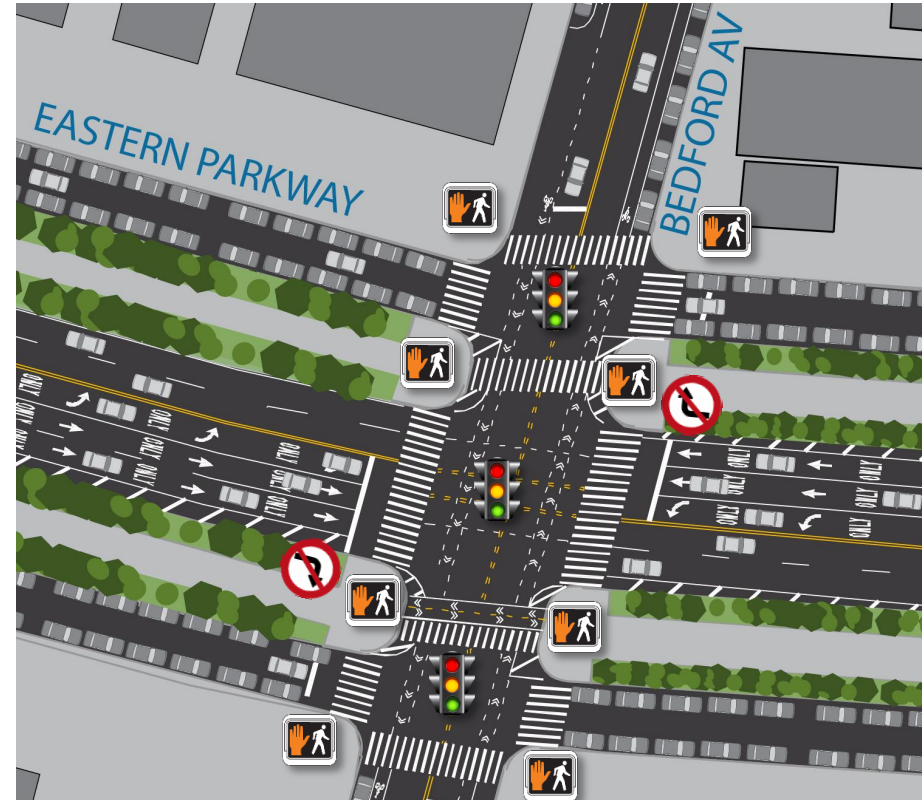


PROPOSED ALIGNMENT – TWO-WAYS

Existing

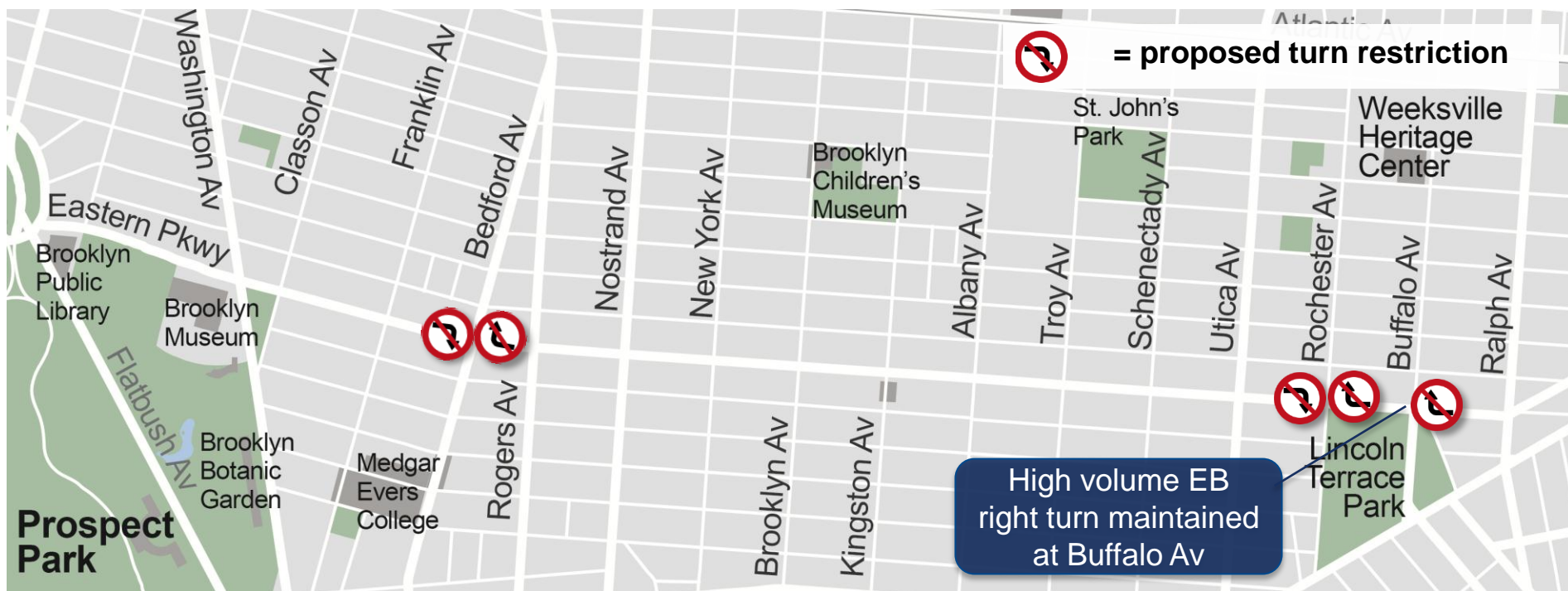


Proposed



Right turn restrictions are required in order to improve safety and traffic flow

TURN RESTRICTION ANALYSIS



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

TURN RESTRICTION ANALYSIS

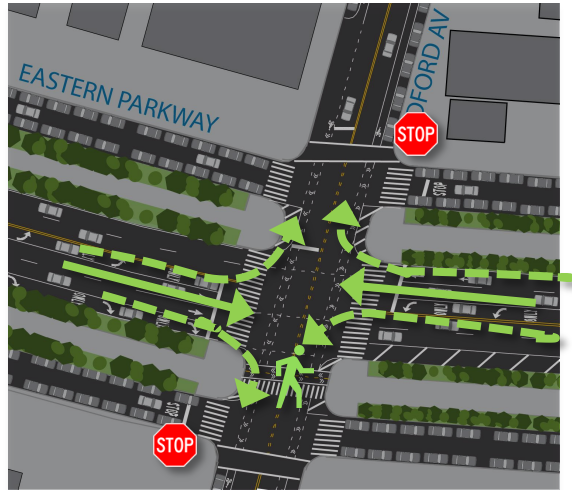


- Proposed turn bans are low volume turning movements
- Redundancy in street network creates easy alternate routes, which will have exclusive right turn lanes and right turn signals
- Required for service road signalization at two-way streets
- Small trade off for large safety and mobility benefits

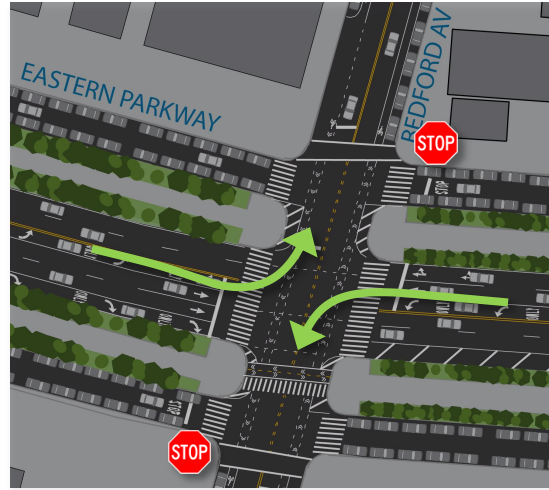
PROPOSED SIGNAL TIMING – TWO-WAYS

EXISTING

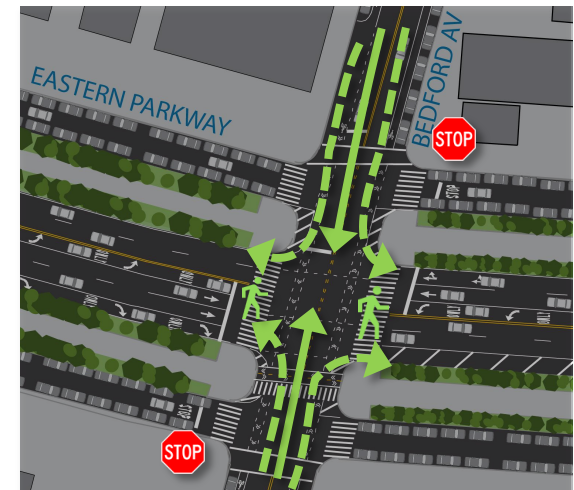
Phase A



Phase B



Phase C



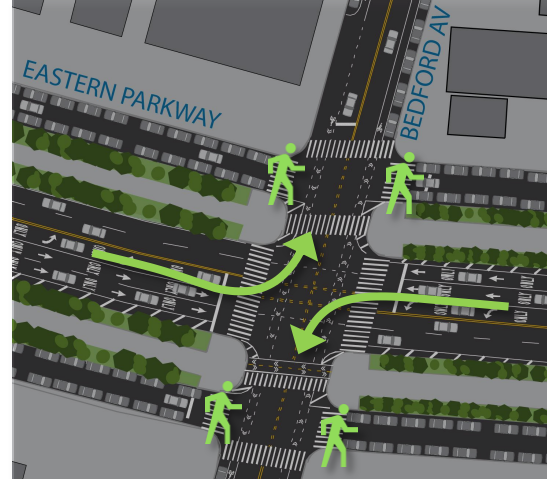
PROPOSED

Phase A



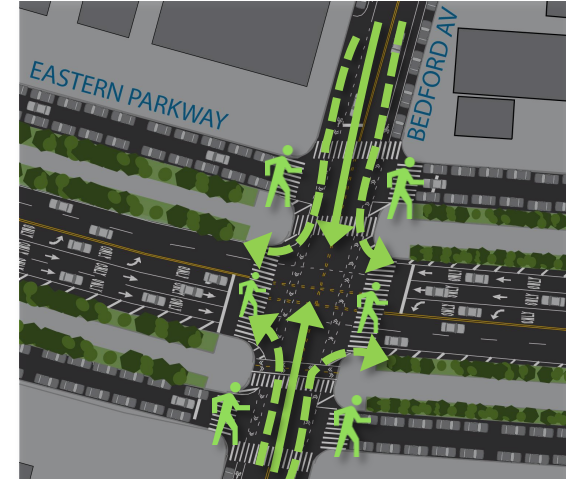
- Left turns from main line held (red arrow)
- Right turns from main line restricted
- Previously stop-controlled service roads have green light
- Pedestrians cross side street

Phase B



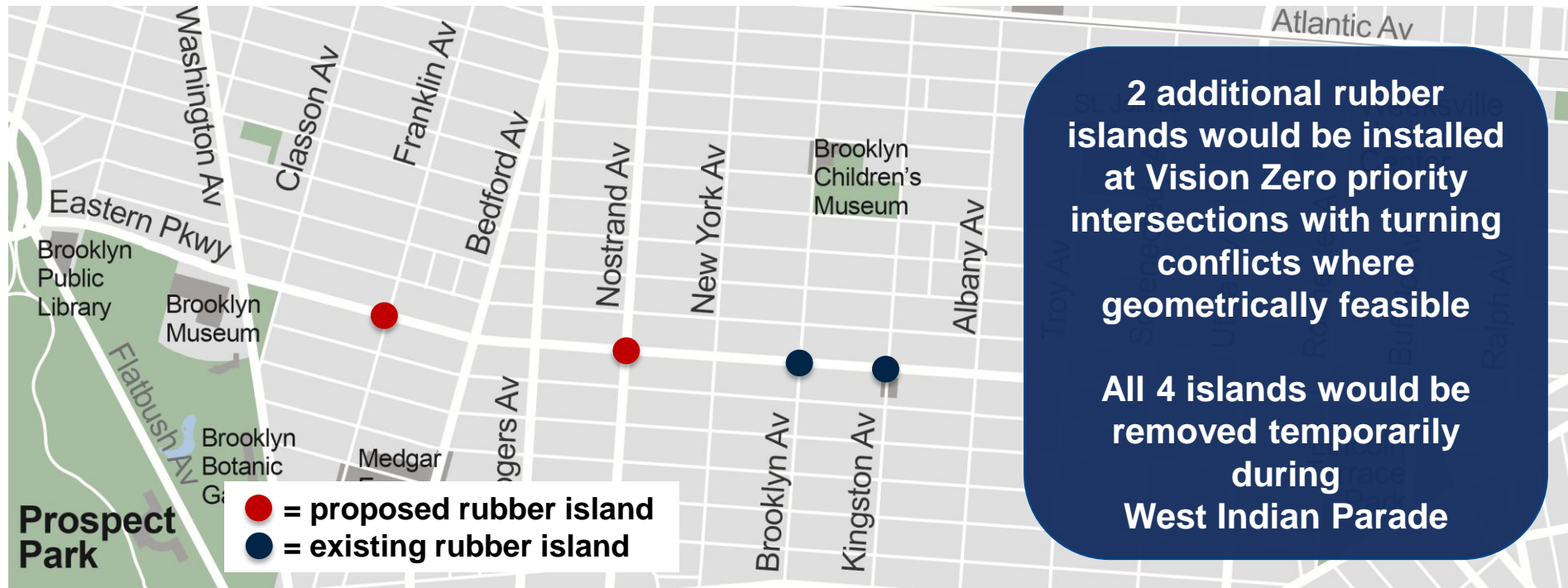
- Left turns from main line have green arrow with no conflicts

Phase C




- Side street has green light
- Pedestrians cross Eastern Parkway

RUBBER ISLANDS



Pedestrian islands shorten crossing distances, provide refuge, and calm turns



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- An aerial photograph of a busy city intersection. A yellow taxi is in the center, surrounded by other cars. Pedestrians are crossing the street. The scene is set in a city with buildings and trees in the background.
- Improves safety for pedestrians, bicyclists, and vehicles
 - Improves traffic flow on main line and service road
 - Clarifies vehicular and pedestrian movements



THANK YOU

QUESTIONS?



NYC DOT



NYC DOT



nyc_dot



NYC DOT