

WILLIAMSBURG BRIDGE APPROACH TRAFFIC CONCERNS

Update to CB3

June 2018

Review of recent projects around Williamsburg Bridge approach



DOT'S RECENT PROJECTS

2007

- Grand St Road Diet, 4 to 3 with bike lanes

2008

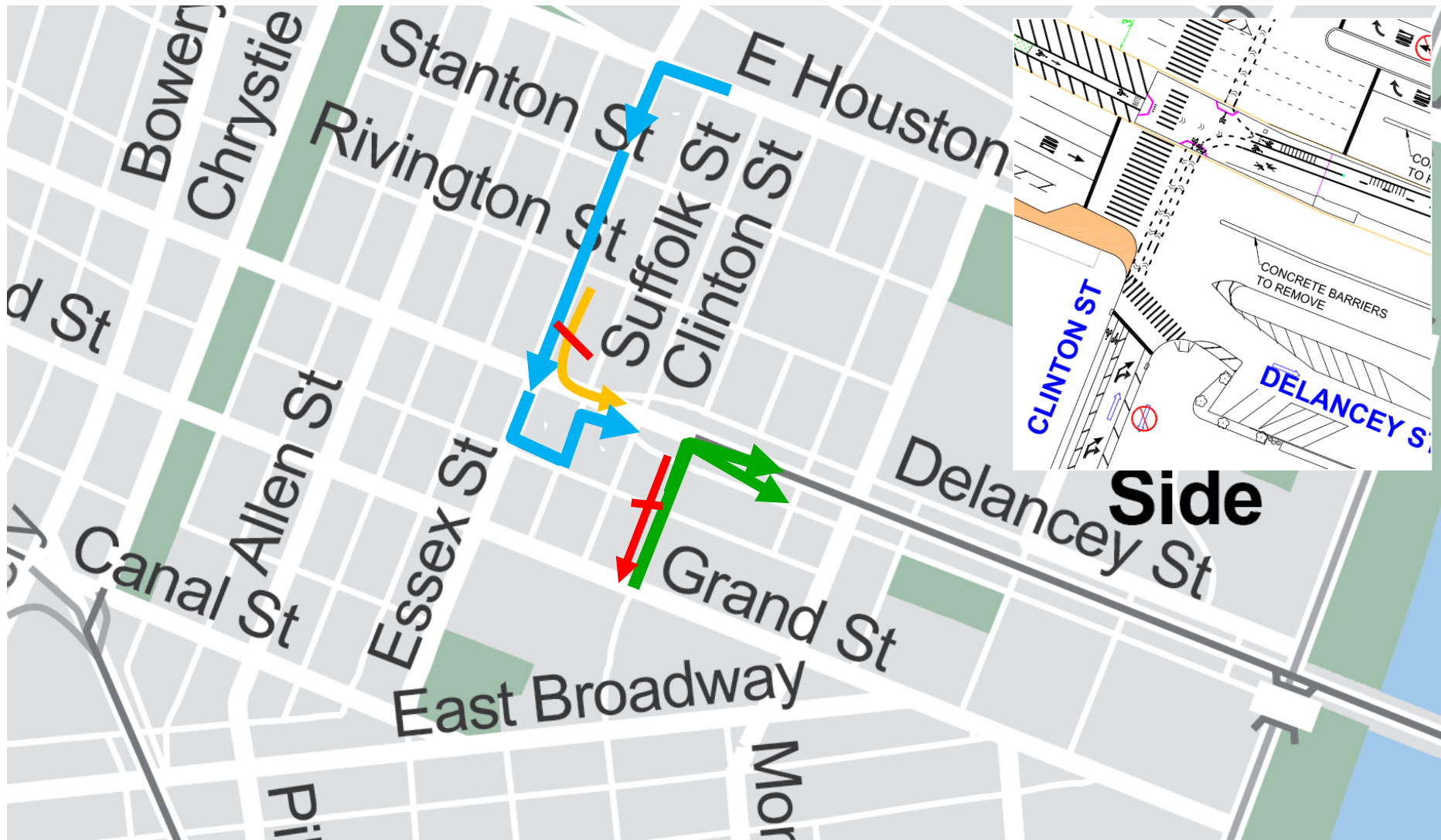
- Pedestrian refuge islands added on Grand St at Clinton, Pitt, & Willett Streets
- Clinton St bike facility

2012

- Curb extensions added along Delancey St & left turn from Essex St banned
- Clinton St two-way bike facility added



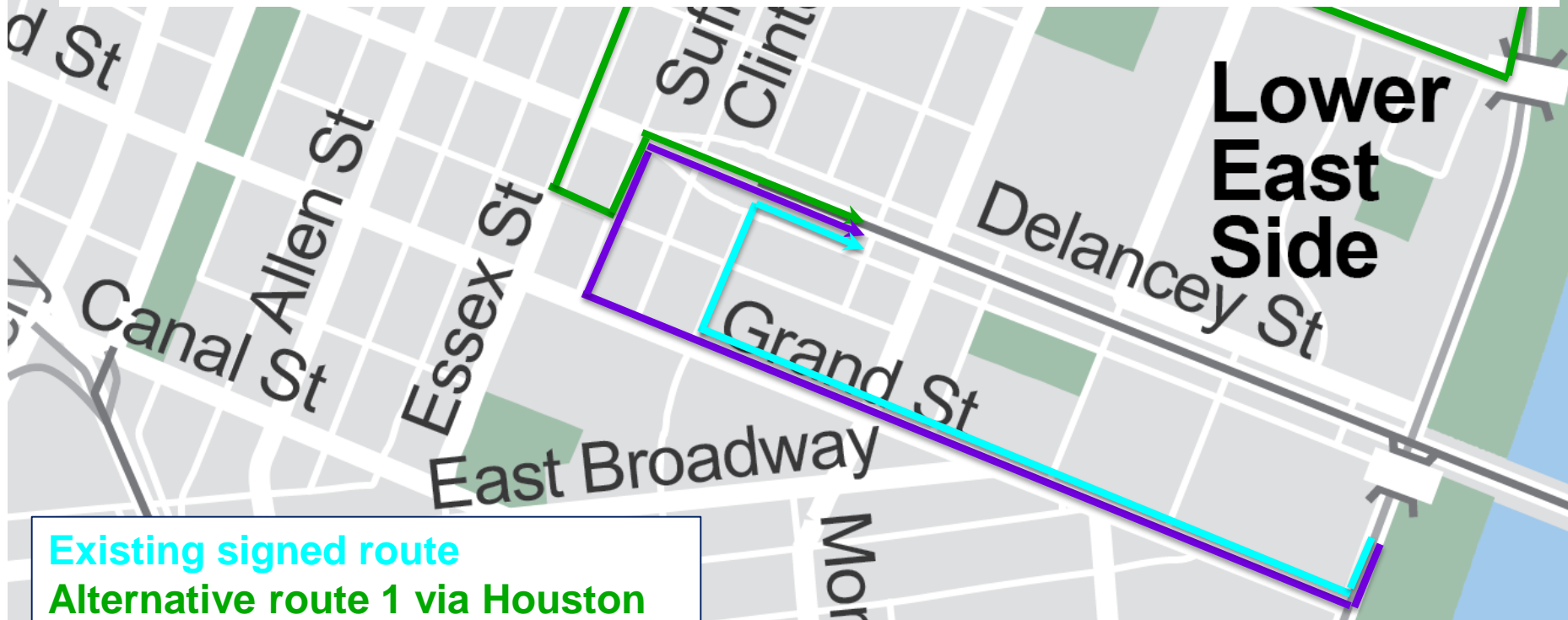
DOT'S RECENT PROJECTS: 2012 ACCESS MODIFICATIONS



DOT'S RECENT PROJECTS

2013-2014

- Increased the amount of green signal time for N/B Clinton St
- Add 2nd W/B travel lane on Grand St to allow vehicles to bypass the right turning queue
- Install guide signs along FDR Drive and E Houston ST to alert motorists to alternate routes to Williamsburg Bridge



Existing signed route

Alternative route 1 via Houston

Alternative route 2 via Norfolk

DOT'S RECENT PROJECTS

2015-2017

- Two-way bike path installed on Clinton between Grand & South (2015)
- Added new signal at Clinton and South (2015)
- Installed midblock crosswalk on Clinton between Grand and East Broadway (2016)
- Signal progression adjusted on E Houston and Essex St to improve travel times to the bridge (2017) – Results are minimally effective, discussion on following slides

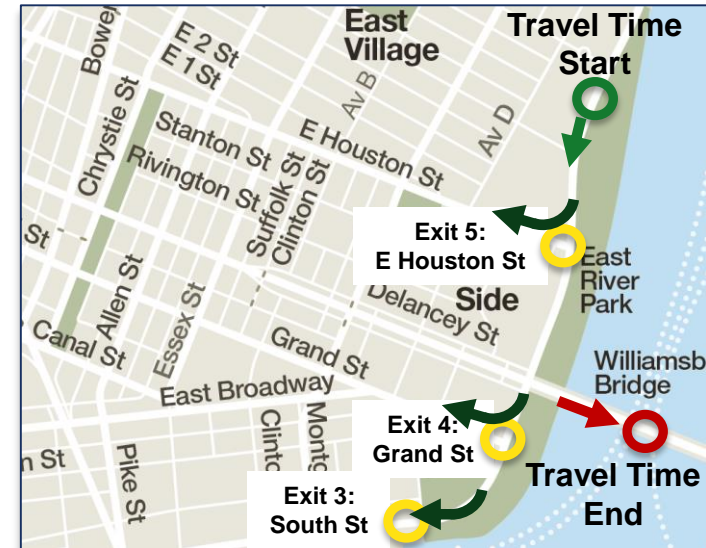
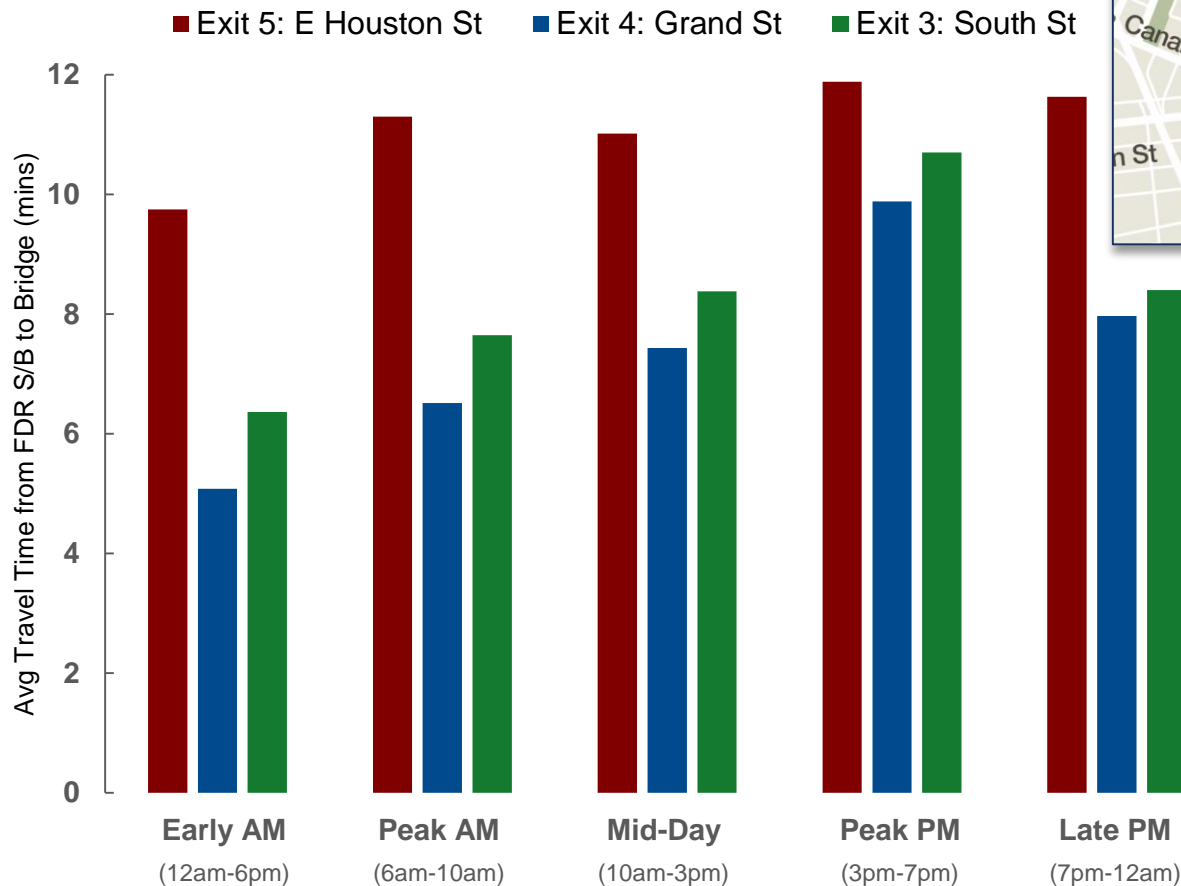


Data Analysis

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AVERAGE TRAVEL TIME (MINUTES) BY FDR SOUTHBOUND EXIT

Avg Travel Time (mins) by FDR Drive Exit



- Even after signal timing changes and signage updates Grand Street is still faster than Houston
- Without major changes to the network, mapping programs will continue to direct drivers to Grand

WEEKDAY PM PEAK

Bridge traffic from FDR S/B



WEEKDAY PM PEAK

% of FDR-Bridge traffic to ALL bridge traffic



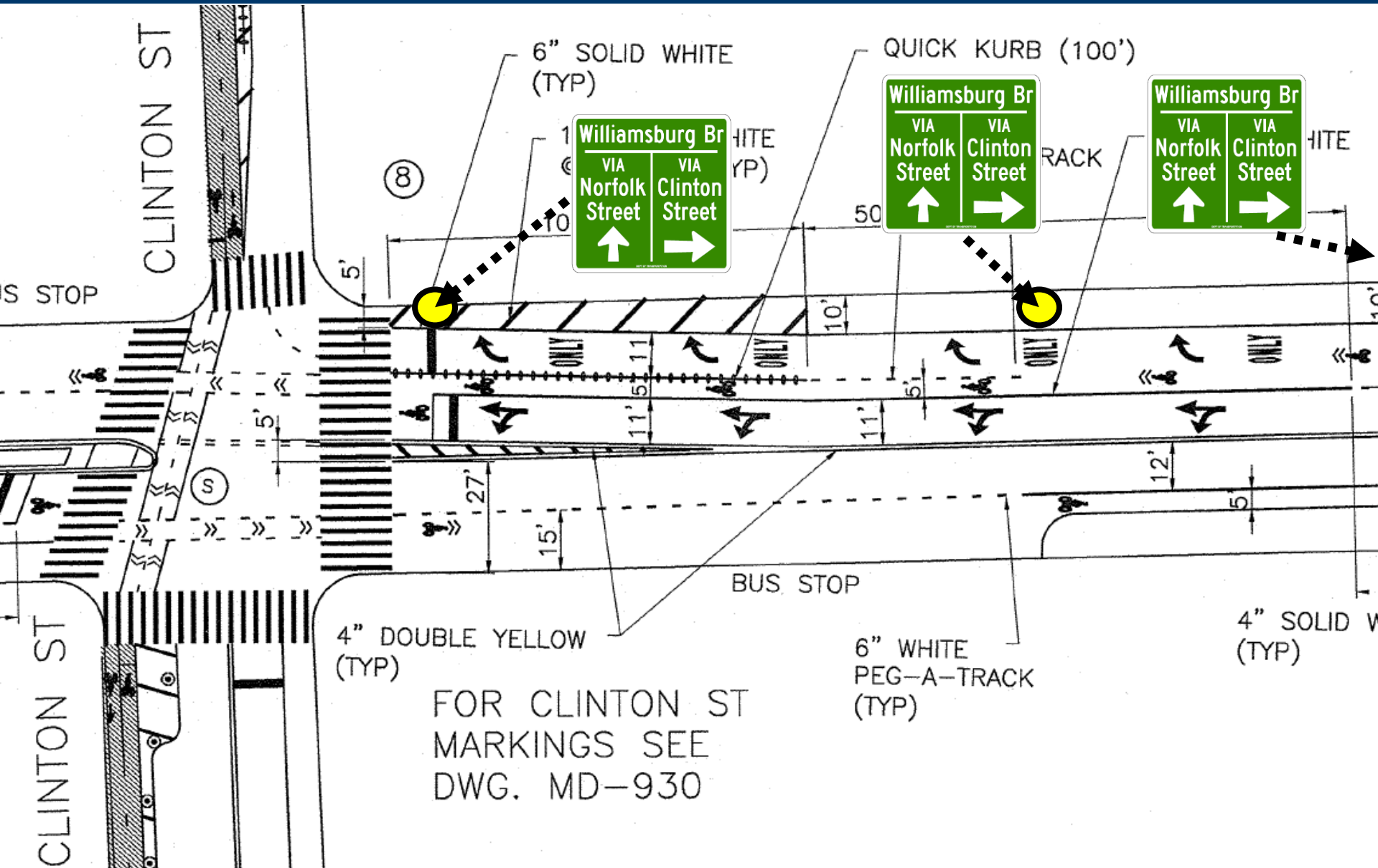
Next Steps: Actions and Evaluations

3

NEXT STEPS: SHORT TERM ACTIONS

- ✓ Walk through with community – Ongoing
- ✓ Remove construction barrels on Broome Street – Complete
- ✓ Complete review of signage in area to ensure guide signage is accurate (community request) - Complete
- ❑ Add quick curb on Grand Street between through and left turn lanes on approach to Clinton (community request) – In Progress
- ✓ Clarify bridge wayfinding signage to encourage using Norfolk for bridge access from Grand – Complete
- ✓ Move VMS ‘no honking’ sign further upstream of Clinton on Grand – NYPD
- ❑ Add traffic agent at Clinton and East Broadway (community request) – NYPD

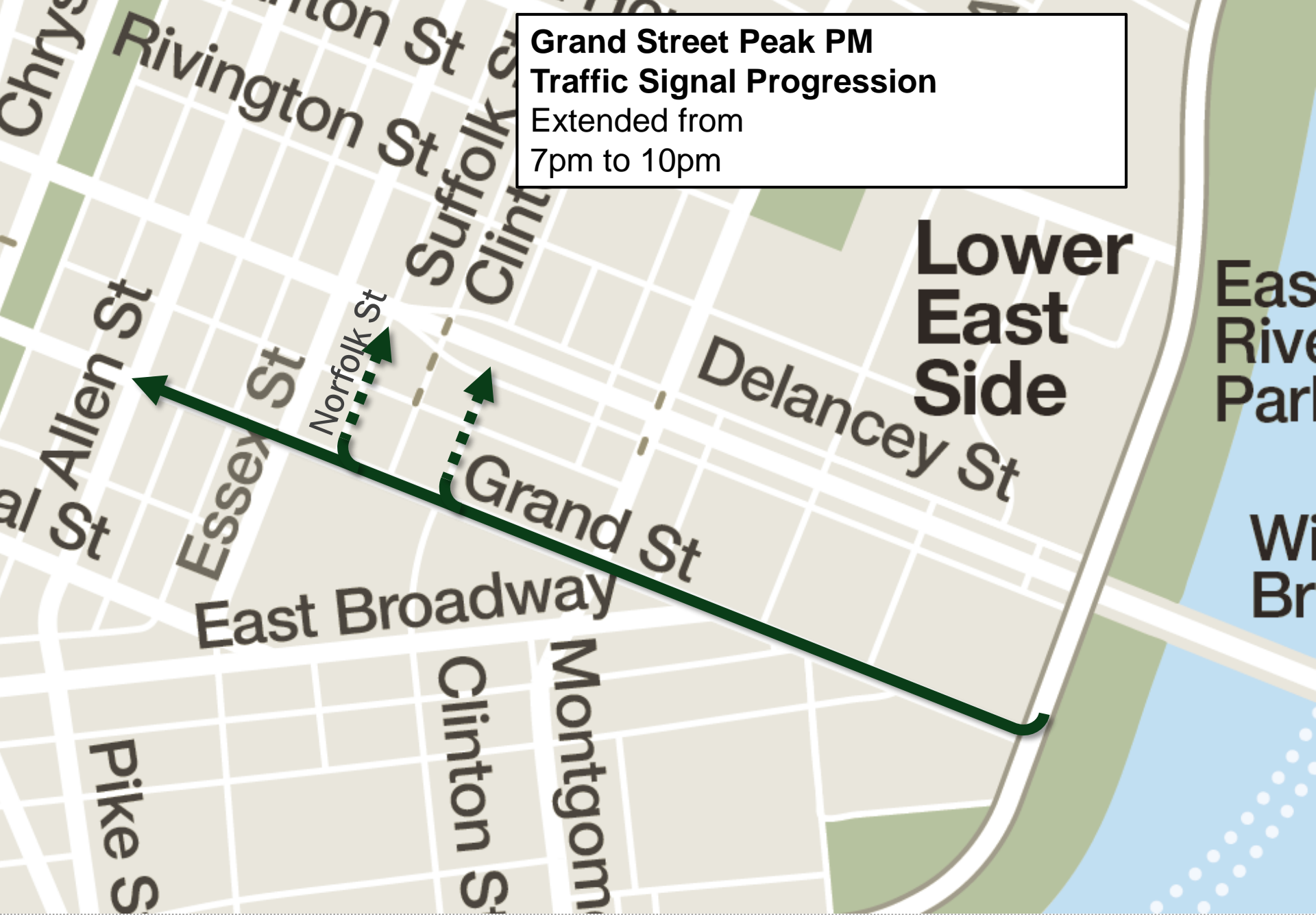
NEW MARKINGS AND WAYFINDING



NEW SHORT TERM ACTIONS

- ☒ Extend Grand St PM traffic signal progression hours – Complete
- ☐ Install a protected left-turn phase from S/B Essex St onto Broome St – Approved
- ☐ Remove 'ALT' from Williamsburg Br wayfinding on FDR S/B E Houston St exit signs – In progress
- ☒ Remove mention of Williamsburg Br from Grand St exit signs until after E Houston St exit – Complete

Grand Street Peak PM
Traffic Signal Progression
Extended from
7pm to 10pm



NEXT STEPS: LONG TERM ACTIONS

Medium analysis requirements

- ☐ Investigate restoration of Norfolk as primary bridge access from Grand
- ☐ Investigate whether a protected left turn could be added to Essex/Delancey
- ☐ Investigate storing vehicles on redesigned FDR exit ramp
- ☐ Review Broome St direction and travel patterns to improve neighborhood circulation
- ☐ NEW: Investigate PM peak hour left-turn bans from E Broadway, Henry St, & Madison St onto N/B Clinton

High analysis requirements

- ☐ Investigate converting Clinton between Grand and E. Broadway to one-way S/B (community request)
- ☐ Investigate using Delancey St South Service Road as main access point for bridge traffic from FDR exit (community request)
- ☐ Investigate using Suffolk as additional bridge access from Grand

All scenario evaluations are underway

Data has been collected and is being analyzed along with developing the traffic models and design proposals

NEXT STEPS: LONG TERM ACTIONS



Investigate options to restore Norfolk as primary access to the Bridge from E/B Grand St

- Considerations:
 - Norfolk is somewhat under capacity
 - Adding a protected left from Essex to Delancey will reduce it further
 - Norfolk will return to two lanes
 - Clinton has a high volume of non-Grand St traffic
- Approx. analysis completion: August 2018

NEXT STEPS: LONG TERM ACTIONS

Investigate storing vehicles on redesigned FDR exit ramp

- Considerations:
 - Exit has underutilized ramp space that can be further reconfigured
 - Would “move” the queue from Grand St
 - Would likely affect traffic volumes
 - One receiving lane on Grand St presents a challenge
- Approx. analysis completion: August 2018



Storing vehicles on redesigned FDR exit ramp

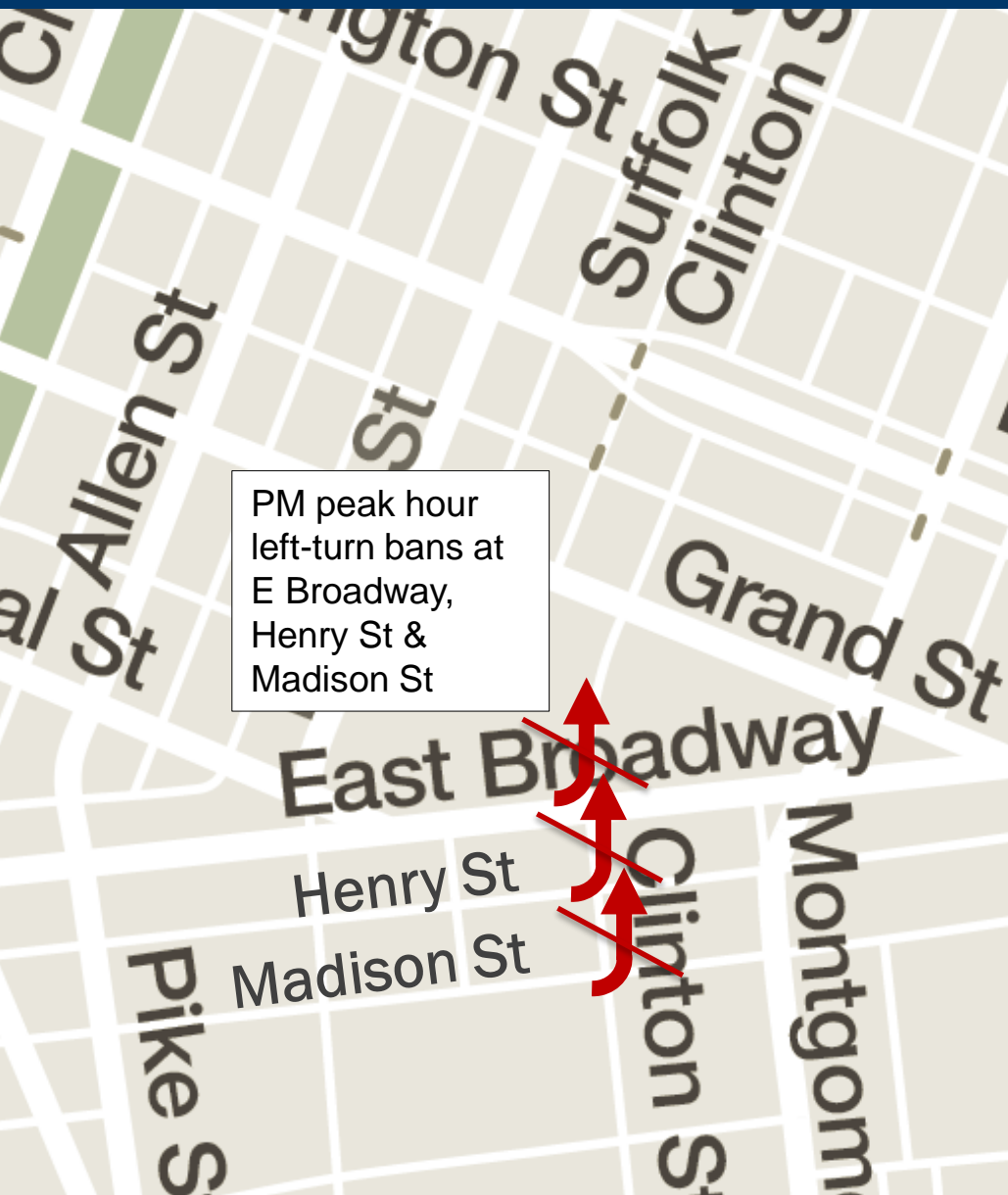
NEXT STEPS: LONG TERM ACTIONS



Investigate reducing bridge traffic on Clinton St south of Grand St

- Considerations:
 - Considerable bridge traffic that could be shifted to streets further west
 - Essex and Allen may not have the capacity for this additional load
- Approx analysis completion:
 - October 2018

NEXT STEPS: LONG TERM ACTIONS



Investigate reducing bridge traffic on Clinton St south of Grand St

- Considerations:
 - Peak hour left-turn bans may have a similar impact as a one-way conversion without decreasing neighborhood circulation
 - 76% of all traffic on Clinton St btwn E Broadway & Grand is bridge-bound
 - 150+ vehicles removed
- Approx analysis completion:
 - August 2018

NEXT STEPS: LONG TERM ACTIONS

Investigate reversing Delancey St S to become the main bridge access

- Considerations:
 - FDR exit could likely be reconfigured
 - Requires Delancey St N to become two-way
 - Significant parking impacts
 - Impacts school, park, FDNY & NYPD
 - U-turn onto Bridge is a design challenge
 - Could reduce peak PM Grand St traffic by 30% assuming minimal diversion
- Approx analysis completion: December 2018



OTHER CONSIDERATIONS

- Delancey St bicycle network project
 - Project implementation approx August 2018
- Essex Crossing: Ongoing construction is ongoing requiring various lane closures and diversions
 - Impacts overall travel times in area
 - Suffolk St 32 month closure
 - Norfolk St reduced to one lane for duration of construction
- L Train shutdown
 - Both directions planned to have HOV3+ ONLY: 5AM -10 PM, 7 days a week

THANK YOU!

Questions?



NYC DOT



NYC DOT



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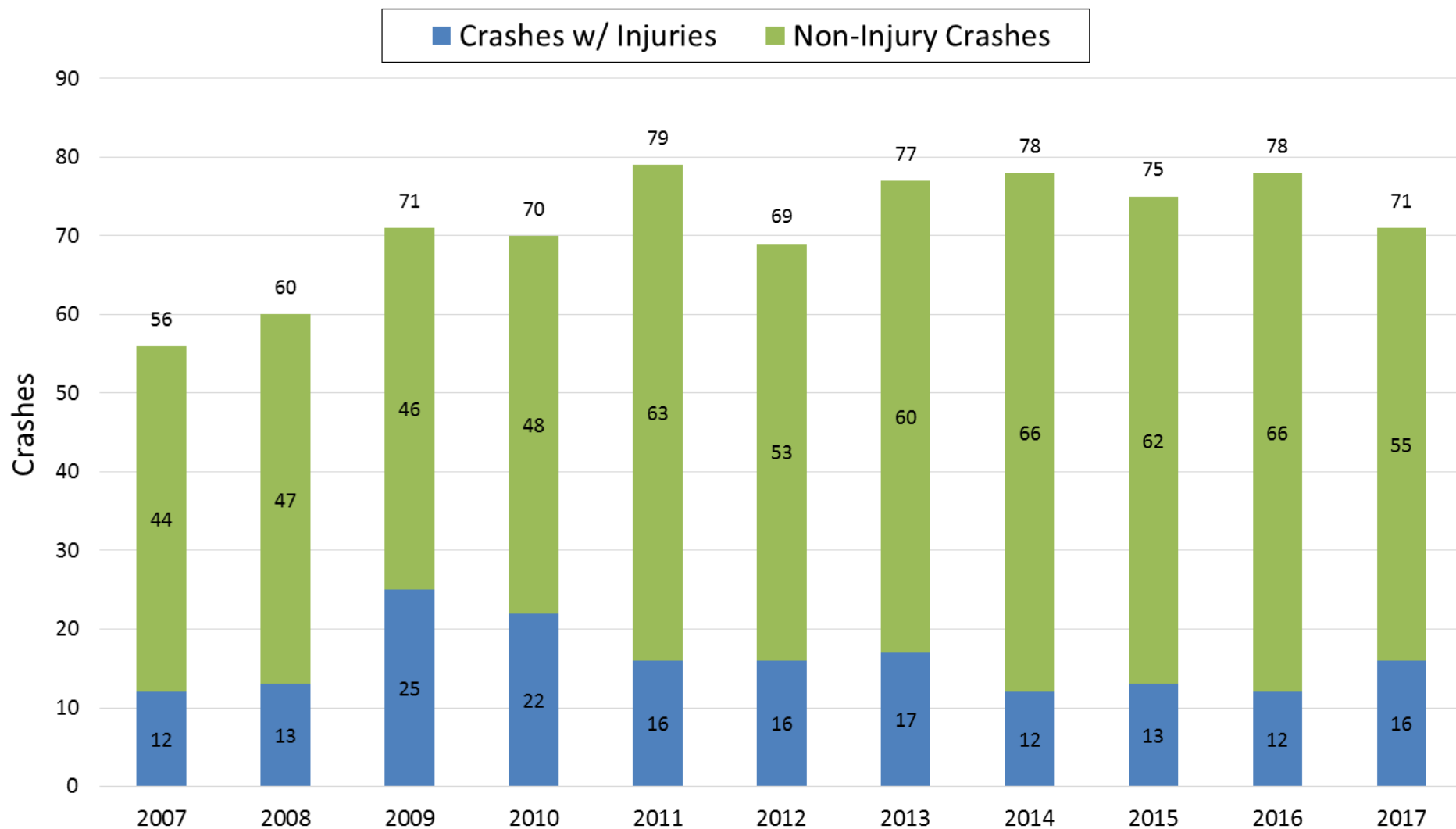


NYC DOT

NEIGHBORHOOD MAP



GRAND ST CRASH HISTORY: 2007-2017

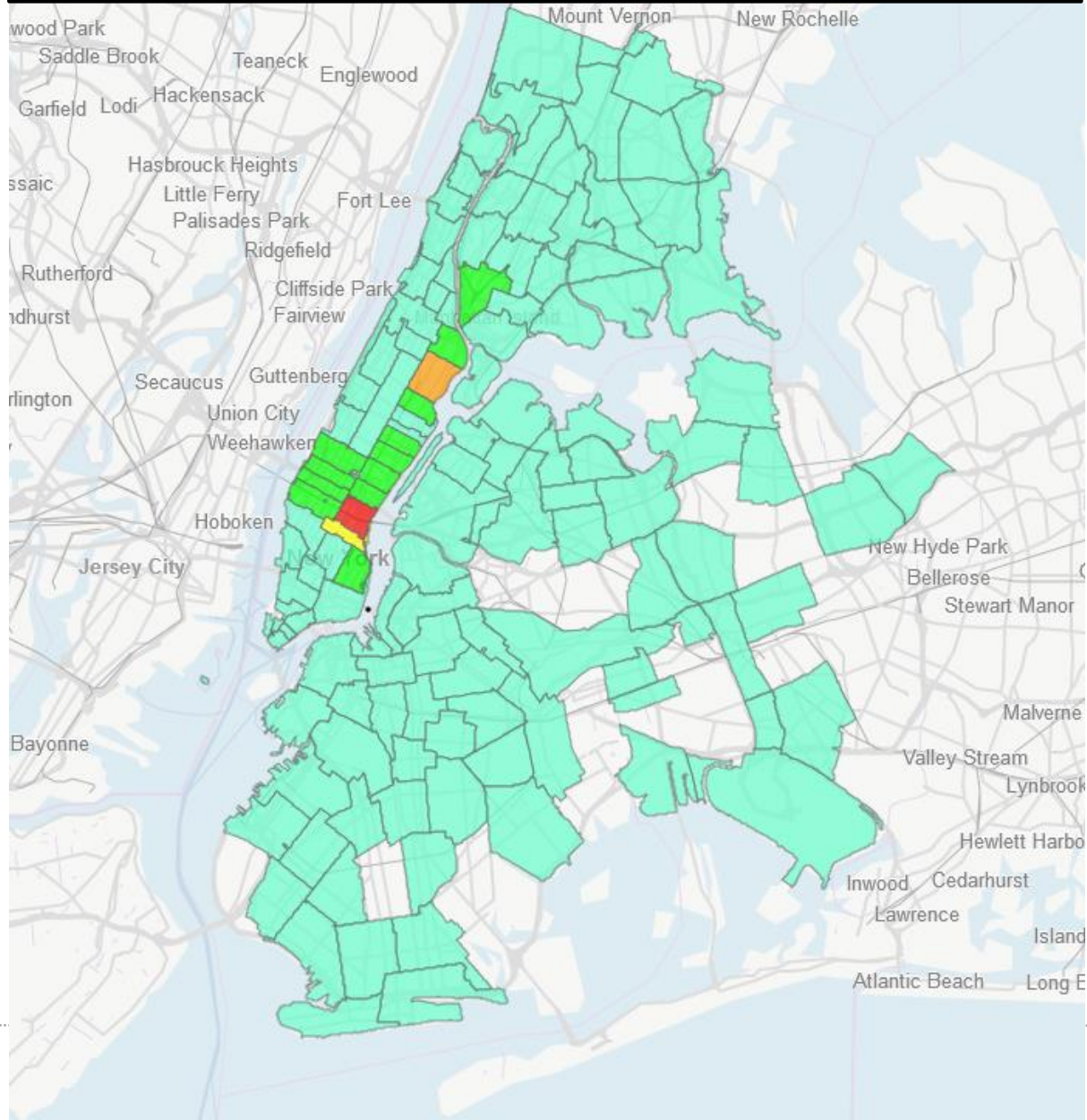


GRAND ST CRASH HISTORY: 2007-2017

Crashes and Injuries Grand Street from FDR Drive to Essex Street											
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total Crashes	56	60	71	70	79	69	77	78	75	78	71
Crashes w/ Injuries	12	13	25	22	16	16	17	12	13	12	16
Motor Vehicle Occupant	1	6	10	14	8	12	11	7	15	6	14
Pedestrian	7	5	8	8	8	3	3	7	0	5	3
Cyclist	4	4	10	4	1	2	7	1	4	3	4
Total Injuries	12	15	28	26	17	17	21	15	19	14	21

WEEKDAY: PEAK PM ORIGINS

NYC ZIP Code origins for trips travelling on FDR SB to Williamsburg Bridge EB



WEEKDAY: PEAK PM DESTINATIONS

NYC ZIP Code destinations for trips travelling on FDR SB to Williamsburg Bridge EB

