# **Hillside Av Bus Priority Improvements**

Springfield Blvd to Queens Blvd Community Board 13 – February 13, 2025









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Summary and Work to Date







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# Why Hillside Avenue?

- Study area: Springfield Blvd to Queens Blvd (4.2 miles)
- 194,000 daily bus passengers on 17 MTA bus routes + 21,000 on 5 Nassau County (NICE) bus routes
- Connections to E B J Z and LIRR
- Bus speeds as low as 4 miles per hour
- 60 people have been killed or seriously injured on Hillside Av between 2018-2022





Blocked existing curbside bus lane on Hillside Av





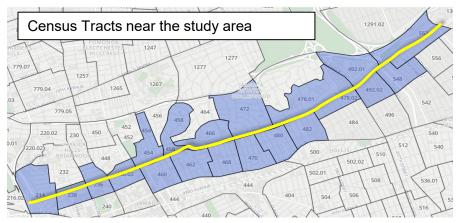


## **Demographics**

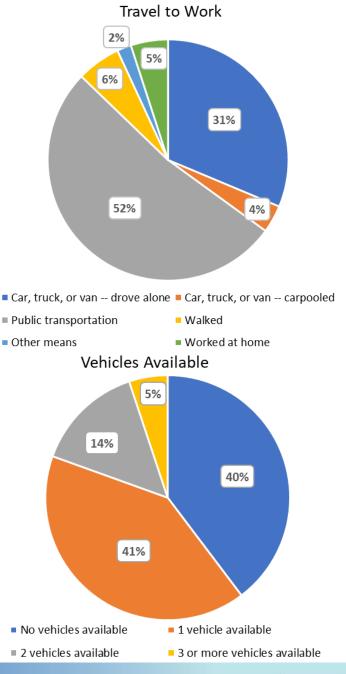
- 73,000 residents live in census tracts within a few blocks of Hillside Av
- 60% of workers commute via transit, walking, or other non-driving means

•Citywide, bus rider median annual income is lower than drivers (\$30,000 vs. \$47,000)\*

- 40% of households do not have access to a vehicle
- 46-minute average commute time above NYC average
- 3,500+ additional housing units proposed for downtown Jamaica within DCP's Jamaica Neighborhood Plan



Sources: NYC Comptroller, "Beyond Rush Hour: COVID 19 and the Future of Public Transit" (2021), American Communities Survey Population FactFinder, 2020 Census



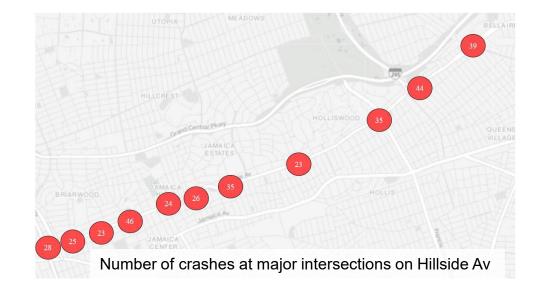






# Safety

- 992 people were injured in crashes on Hillside Av between 2018-2022
  - Average of nearly four injuries every week
- 58 people were severely injured; two were killed
- Vision Zero:
  - Priority Corridor
  - Two Priority Intersections (Springfield Blvd, 197<sup>th</sup> St)
  - Within Priority Area



Hillside Ave, Springfield Blvd to Queens Blvd Injury Summary, 2018-2022

	Total Injuries	Severe Injuries	Fatalities	KSI
Pedestrian	261	31	2	33
Bicyclist	47	3	0	3
Motor Vehical Occupant	676	23	0	23
Other Motorized	8	1	0	1
Total	992	58	2	60

KSI: Killed or Severely Injured. Data Source: NYC DOT

Source: Fatalities: NYCDOT, Injuries: NYPD FORMS database







# **Hillside Av Bus Speeds**

- Speeds as low as 4 mph during peak hours
- Significant congestion around downtown Jamaica, 179<sup>th</sup> St subway station
- Vehicles illegally park and stand in existing curbside bus lanes, slowing down buses and general traffic flow

#### **Hillside Avenue**





#### **Hillside Avenue**

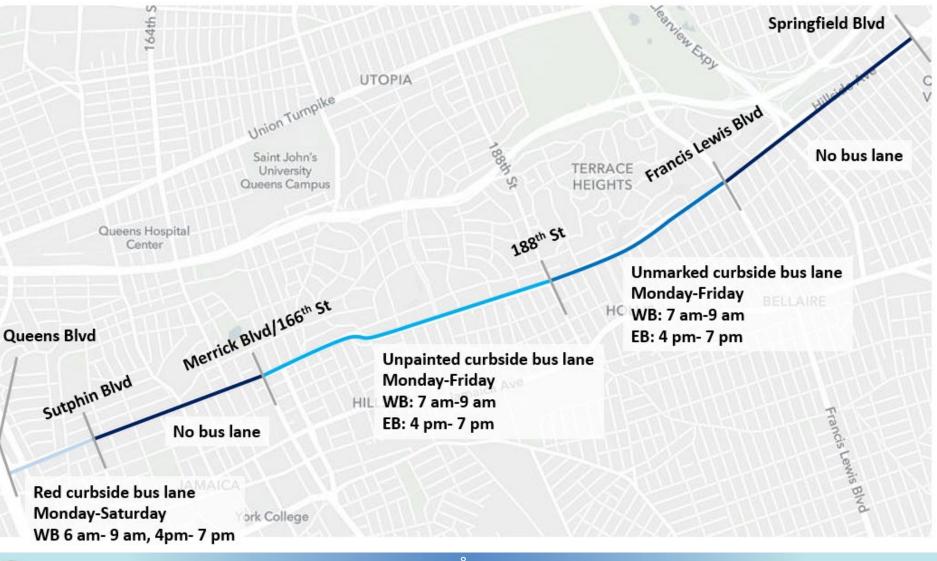


#### AM Peak: 6-10 am, PM Peak: 3-7 pm





# **Existing Conditions**







### **Existing Conditions Challenges**

- Bus lanes are inconsistent
- Unmarked bus lanes not visible to drivers or pedestrians
- Double parking blocks bus lanes, contributes to congestion
- Bus lanes frequently blocked by illegal loading and parking, forcing buses to merge in and out of lane







#### Work to Date

- Outreach
  - Pedestrian Intercept Surveys (3 days)– April 2024
  - Bus Rider Surveys (3 days) April 2024
  - Briefing to Elected Officials Existing Conditions May 2024
  - Community Board 8 Transportation Committee Existing Conditions May 2024
  - Community Board 12 Transportation Committee Existing Conditions June 2024
  - Community Board 13 Transportation Committee Existing Conditions June 2024
  - Merchant Surveys (7 days)– July/August 2024
  - Briefing to Stakeholders Existing Conditions August 2024
  - Transfer at Jamaica Exhibit Opening August 2024
  - Briefing to Elected Officials Proposal January 2025
  - Community Board 8 Transportation Committee Proposal January 2025
  - Community Board 12 Transportation Committee Proposal February 2025
  - Community Board 13 Transportation Committee Proposal February 2025
- Technical Work:
  - Project development and advancement
  - Traffic analysis
  - Community engagement, site visits and data collection





**Outreach Overview** 









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### **Elected Official, Community Board, and Stakeholder Feedback**

- Enthusiasm about bus lanes speeding up bus service on Hillside Av, especially further east
- Preference for offset bus lane
- Emphasis on the need to speak with all local businesses and community stakeholders on corridor
- Concerns about existing parking on Hillside Av
- Primary concerns regarding traffic congestion and lane reduction
- Expectation for clear identification of the effects of this project to the community









#### **On Street Engagement: 3 Phased Approach**

# Intercept

# **Testimonials**

# Merchant

#### Phase 1

Pedestrian intercept surveys administered to better understand and improve transportation challenges along Hillside Av.

#### Phase 2

Bus rider testimonials collected at critical locations on Hillside Av, discussing bus riders' commute challenges, needs, and wants.

#### Phase 3

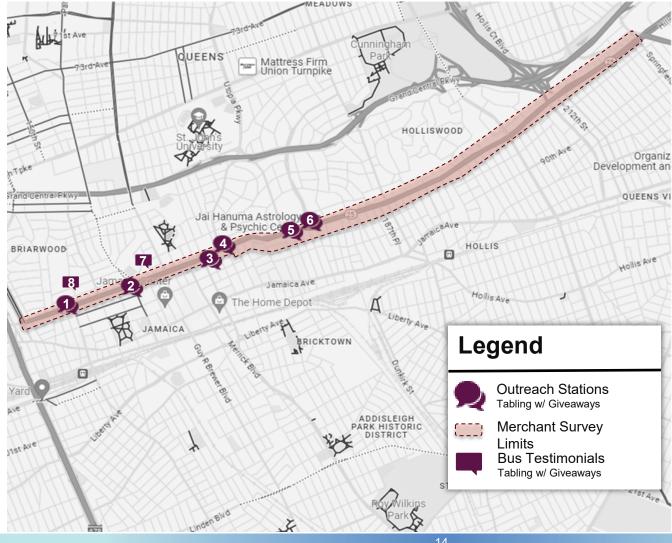
Merchant surveys were attempted at every business on Hillside Av to understand their parking, loading, and delivery needs and to elicit feedback on two potential designs for the corridor.







#### **On Street Engagement Deployment Sites**



BETTERBUSES

#### **Intercept Survey Locations**

- 1. Hillside Av & Sutphin Blvd
- 2. Hillside Av & Parsons Blvd
- 3. Hillside Av & 169 St
- 4. Hillside Av & Homelawn St
- 5. Hillside Av & 178 St
- 6. Hillside Av & 179 Pl

#### **Bus Testimonial Locations**

- 7. Hillside Av & Sutphin Blvd
- 8. Hillside Av & Parsons Blvd

#### **Merchant Survey Limits**

 Hillside Av, between Queens Blvd & Springfield Blvd

\* Locations were selected at high traffic bus stops and subway stations





#### **Overall Engagement by the Numbers**



295	Total In-Person Surveys
158	Surveys Completed in Bangla, Spanish, and Haitian Creole
145	Digital Self-Administered QR Code Surveys
420	Businesses Visited
30	Testimonials Collected









### Bus Rider and Pedestrian Survey Feedback

- "It is so congested and certain buses, especially the Q77, would take an hour. That's why I drive. If I had to wait, at most, 10 minutes, then I would take it"
- "When I was young, it was strictly buses on Hillside Avenue. Now everyone is all over. Please make the bus routes with enforcement."



New York CEV Department of Transportation Ystanis Rodriguez, Commissioner

Help us improve your commute on Hillside Ave! Ayúdenos a mejorar sus viajes en Hillside Ave! Hillside Ave-এ আপনার যাতায়াত উন্নত করতে আমাদের সাহায্য করুন!

Are you a frequent commuter on Hillside Ave? The NYC DOT needs your input for bus route improvements. Take a survey!

¿Viaja frecuentemente por Hillside Ave? El NYC DOT necesita su opinión para mejorar las rutas de autobús. ¡Tome una encuesta!

আপনি কি Hillside Ave-এ নিয়মিত ভ্রমণকারী? বাস রুটের উন্নতির জন্য NYC DOT-এর আপনার ইনপুট প্রয়োজন। একটা পরিসংখ্যান নাও! Scan For Survey Escanea para Encuesta জরিপের জন্য এটি স্ক্যান করুন



Or visit / O visite অথবা ভিজিট করুন bit.ly/4cFuJvQ







#### **Bus Rider Testimonials**

- Conversations were focused on the current conditions for those who live, work, and take the bus on and around Hillside Av
- Of the 30 bus rider testimonials recorded, bus riders' top requests were:
  - Increased frequency of buses
  - Faster buses, not sitting in traffic
  - Cleaner buses
  - Increased reliability, especially on the weekends



"I wish the bus would run more frequently between 4-5 pm"

"I wish the bus would come on time on the weekends"

"I wish the bus would [have] more consistency"

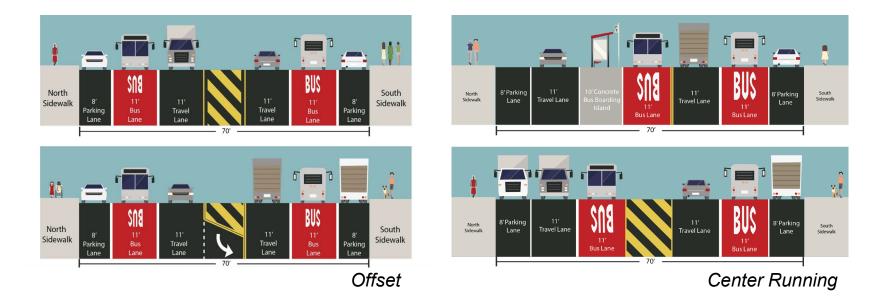






#### **Merchant Survey**

- 420 total businesses visited, 267 participated
- Two alternatives for Hillside Av shown based on the location of the business
  - Offset bus lanes were shown to businesses east of 172<sup>nd</sup> St
  - Center running bus lanes were shown to businesses west of 172<sup>nd</sup> St









# **Merchant Survey Feedback**

- "If the plan would keep the parking, it would be fine. Also, protecting pedestrians is important."
- "I like it because there are older adults and patients, and they would have more room to move around, which would give them safety to access the medical office and get off the bus."
- "I think it is genius because we would speed the bus with an exclusive bus lane, and I would waste less time getting to work; the buses will be faster..."







#### What We've Heard

Feedback we received	Next steps
Traffic congestion	<ul> <li>Continue detailed traffic analysis to determine potential effects of lane reduction</li> </ul>
Parking	<ul> <li>Add parking throughout corridor where peak hour no standing regulations are currently in effect</li> </ul>
Local Business Access	<ul> <li>Incorporate specific business concerns into design of project</li> </ul>
Loading needs	<ul> <li>Install loading zones where appropriate for efficient curb management</li> </ul>
Enforcement	<ul> <li>Propose DOT stationary cameras and ACE on bus cameras to enforce bus lane</li> <li>Coordinate with NYPD</li> </ul>







Project Updates









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# **Proposed Design**

- New, offset bus lanes for the full length of the corridor
  - Offset bus lanes are located one lane away from the curb, next to the parking lane
- Extended bus lane hours to 24/7
- Bus and truck only left turns at three intersections
  - Westbound left onto 169<sup>th</sup> St
  - Westbound left onto Merrick Blvd
  - Westbound left onto Sutphin Blvd
- Offset bus lanes serve as right turn and driveway access lanes, keeping traffic moving



21<sup>st</sup> St, QNS – up to 17% increase in bus speeds







### **Proposed Design – Curb Regulations**

- Existing regulations: No Standing during peak hours on most of the corridor
  - WB: 7-9 am No Standing
  - EB: 4-7 pm No Standing
- Approximately 650 spaces added for parking, loading, and other curbside uses with the removal of peak hour No Standing regulation

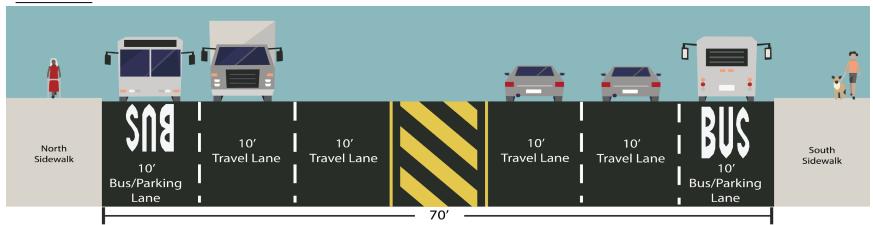




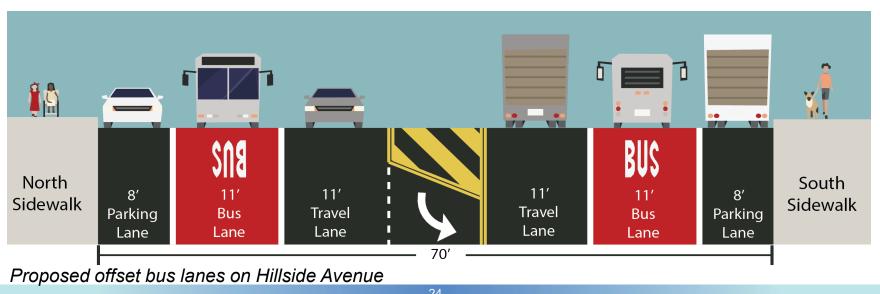




### **Existing Condition vs. Offset Bus Lanes – Cross Section**



Existing condition on Hillside Avenue



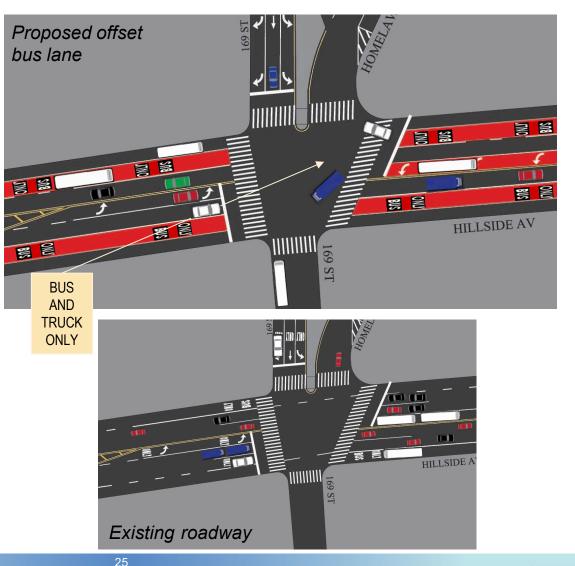






### **169th St Intersection – Sample Offset Plan**

- Bus and truck only left turn from westbound Hillside Av onto southbound 169<sup>th</sup> St
- Typical offset bus lane
- Curb space used for parking/loading









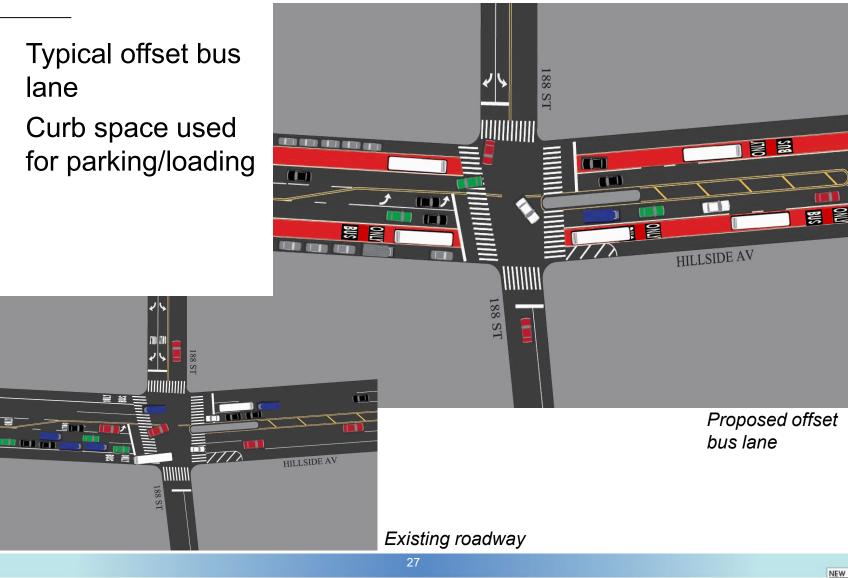
### 178<sup>th</sup> St/Edgerton Blvd Street Intersection – Sample Offset Plan

- Typical offset bus lane
- Curb space used for parking/loading



#### 188<sup>th</sup> St Intersection – Sample Offset Plan

- lane
- Curb space used ٠ for parking/loading

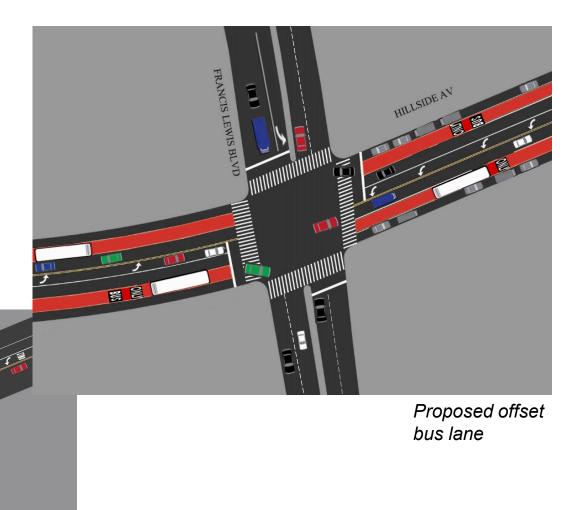




#### Francis Lewis Blvd – Sample Offset Plan

HILLSIDE AV

- Typical offset bus lane
- Curb space used for parking/loading









Existing roadway



## Why Not Center Running?

- Requires vehicles and buses to swap lane positions at two points, potentially creating congestion
- Would require the rerouting of the Q65 off Parsons Blvd to effectively build bus boarding islands
- Entails banning more left turns (six)
- Offset bus lanes:
  - Can be effectively enforced by stationary cameras, ACE, NYPD coordination
  - Promote consistency throughout the corridor
  - Are beneficial for traffic by removing conflicts due to parking, driveways, and right turns
  - Do not require major concrete work, are less disruptive to implement







### **Proposed Left Turn Bans**

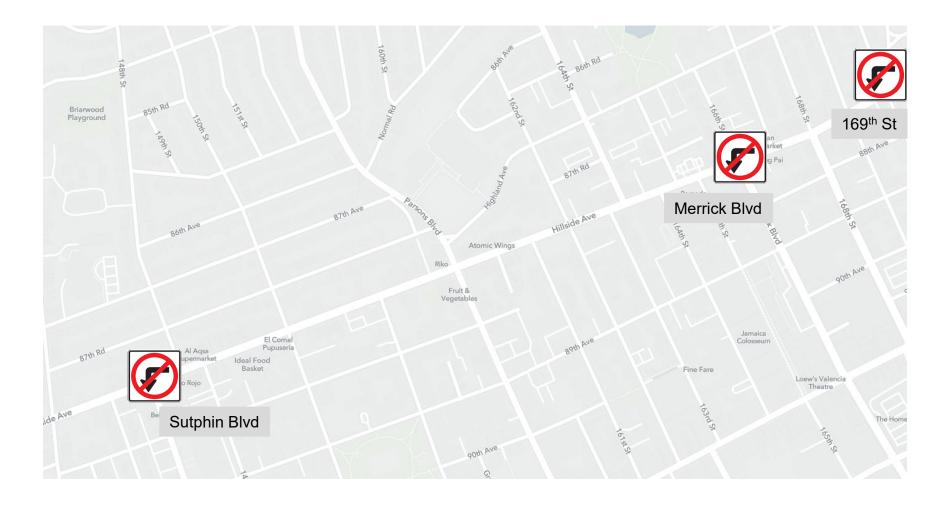
- High volumes of left turning buses and trucks at three key intersections on Hillside Av
- Banning left turns for general traffic will allow buses and trucks to make turns more efficiently and without conflict
- Preserves crucial truck connections
- Existing left turn volumes at these locations are low
- Detours using parallel routes are possible
- Left turn bans for general traffic at three intersections
  - Westbound left onto southbound 169<sup>th</sup> St
  - Westbound left onto southbound Merrick Blvd
  - Westbound left onto southbound Sutphin Blvd







#### **Proposed Left Turn Bans**









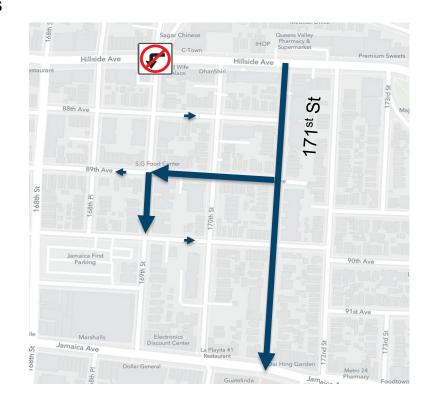
#### **169th St Left Turn Proposed Alternate Routes**

 Approximately 2 cars per light cycle during the AM and PM rush hours make the westbound left onto 169<sup>th</sup> St

Alternate routes:

- Use 168<sup>th</sup> PI to access 169 St
- Use 171<sup>st</sup> St for parallel southbound access











#### **Merrick Blvd Left Turn Proposed Alternate Routes**

- Approximately 9 cars per light cycle during the AM and PM rush hours make the westbound left onto Merrick Blvd Alternate routes:
- Use 166<sup>th</sup> St to access Merrick Blvd
- Use 164<sup>th</sup> St for parallel southbound access





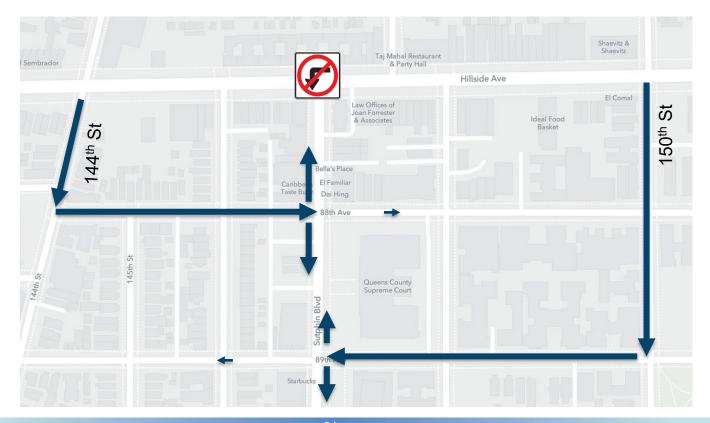






#### Sutphin Blvd Left Turn Proposed Alternate Routes

- Approximately 5 cars per light cycle during the AM and PM rush hours make the westbound left onto Sutphin Blvd
- Use 144<sup>th</sup> St to access Sutphin Blvd
- Use 150<sup>th</sup> St to access Sutphin Blvd









# **Traffic Analysis Methodology**

**1. Count traffic & pedestrians** at approx. 100 intersections on Hillside Av & nearby streets

**2. Analyze vehicle origins & destinations** with anonymized GPS data from drivers on Hillside Av, to understand likely diversion routes, with special consideration of Jamaica Av and Archer Av busways

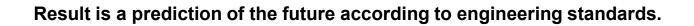
#### 3. Model each intersection and analyze:

- Signal timing
- Number of lanes and turning movements (left, straight, right)
- Pedestrian volumes
- Existing conditions & multiple potential future scenarios

**4. Validate model** with in-person observations of traffic flow, parking movements, double parking & truck loading, etc.

#### 5. Analyze worst case scenario

- Busiest hours of day, longest traffic queues
- Realistically, some drivers divert to other routes, other modes of transportation, or choose to travel at different times of day
- Prepare traffic analyses for a range of scenarios, from no traffic reduction up to a 40% reduction





Example of Synchro Traffic Model Network







### **Traffic Analysis Updates**

- Traffic analysis is ongoing, we will continue to make design and signal timing adjustments to minimize traffic congestion and ensure efficient traffic flow
  - Adjustments to signal timing to increase "green time" to keep traffic moving will be made
  - Monitoring of entire corridor post implementation will be continuous, future adjustments will be made as necessary







Next Steps and Discussion









### **Next Steps**

#### • Spring/Summer 2025:

- Continue community engagement, site visits and data collection, traffic analysis
- Refine proposal based on community feedback
- Complete traffic analysis
- Summer 2025:
  - Share finalized proposal with traffic analysis results
  - Implement project
- Fall 2025 and beyond:
  - Monitor project performance, adjust as needed



21<sup>st</sup> St, QNS



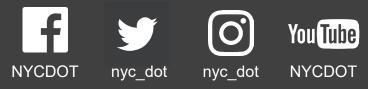






**Questions?** 









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## Appendix





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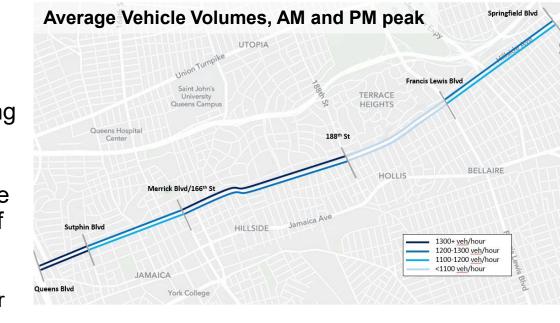


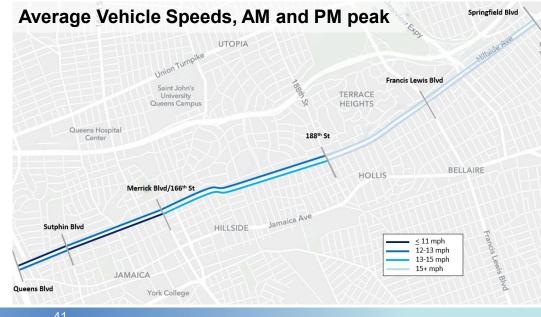
# Vehicle Speeds and Volumes

- Slowest in Jamaica, averaging under 13 mph
- 2,400+ vehicles per hour carrying approx. 2,800 people during peak hours on most of corridor
  - Plus approx. 235 bus trips carrying 14,000 people per peak hour
  - Bus passengers account for 83% of roadway users, buses are allocated less than 1/3 of the roadway itself
- Downtown Jamaica busways have had minimal impact on Hillside Av traffic speeds

Source: Speeds from INRIX May 2023, Volumes from automated traffic recorders taken April 29- May 7, 2023.

AM Peak: 7-9 am, PM Peak: 4-7 pm











#### **Hillside Avenue Pedestrian Intercept Survey**

- The New York City Department of Transportation is surveying people to understand how they move on and around Hillside Ave. The information collected will help DOT understand transportation challenges in the area, and develop proposals to help improve bus service, pedestrian safety, and vehicular access. This survey should take around 3 -5 minutes to complete, depending on your answers. We appreciate any input you provide. Any personal information you provide will not be shared with any outside parties. This survey is for research purposes only. If you'd like to take the survey in Spanish or Bangla, please click the language from the dropdown menu in the upper right corner.
- What is your home zip code? (Enter 0 if Refused/Prefer not to say) \_\_\_\_\_
- How often do you visit Hillside Ave?
  - a. Daily
  - b. Weekly
  - c. Monthly
  - d. A couple times a year
  - e. This is my first time visiting the neighborhood
- Why are you on Hillside Ave today?
  - a. Shopping/Dining/Visiting Business
  - b. Medical
  - c. Live here
  - d. Work
  - e. School
  - f. Social/Recreational/Religious
  - g. Community Resource
  - h. Transit Transfer/Going Home/Passing Through
  - Other (please specify) \_\_\_\_\_

- Did you specifically come to Hillside Ave to shop/dine visit business or are you on your way to somewhere else?
  - a. Came to Hillside Ave to visit business
  - b. Stopping by (i.e. on way home from work)
- What are the modes you typically use to get to Hillside Avenue? (Including the mode you used today)
  - a. Personal Car
  - b. Dropped Off (Family/Friend)
  - c. Walk
  - d. Bike/E-Scooter
  - e. Bus
  - f. Subway
  - g. LIRR
  - h. Access-A-Ride
  - i. Uber/Taxi/Other For-Hire Vehicle
  - j. Other (please specify)

#### How did you get to Hillside Ave today?

- a. Personal Car
- b. Dropped Off (Family/Friend)
- c. Walk
- d. Bike/E-Scooter
- e. Bus
- f. Subway
- g. LIRR
- h. Access-A-Ride
- i. Uber/Taxi/Other For-Hire Vehicle
- j. Other (please specify) \_\_\_\_\_









#### Hillside Avenue Pedestrian Intercept Survey pg 2

- How long did it take you (in minutes)?
- Bus Travel
- Which bus lines did you use today?
  - a. Q1
  - b. Q17
  - c. Q36
  - d. Q43
  - e. Q76
  - f. Q82
  - g. N6
  - h. N22
  - i. N24
  - j. Other (please specify) \_\_\_\_\_
- On a scale of 1-5 where 1 is very dissatisfied and 5 is very satisfied, how would you rate your bus trip today?
  - a. 1 Very dissatisfied
  - b. 2 Dissatisfied
  - c. 3 Neutral
  - d. 4 Satisfied
  - e. 5 Very satisfied
- What was the biggest issue with your bus ride today?
  - a. Waited too long for the bus
  - b. Bus was slow
  - c. Multiple buses showed up at once
  - d. Bus was too crowded
  - e. Other (please specify)
  - f. No issue

- Car Travel
- Did you park on Hillside Ave?
  - a. Yes
  - b. No
- How long did it take you to find a spot?
  - a. 5 minutes or less
  - b. 6 10 minutes
  - c. 11 15 minutes
  - d. More than 15 minutes
- About how many blocks away from your destination did you park?
  - a. Less then 1 block
  - b. 1-2 blocks
  - c. 3 5 blocks
  - d. More than 5 blocks
- Did you pay to park?
  - a. Yes, on street
  - b. Yes, off street
  - c. No
- How long did you park for/will you be parked for?
  - a. 5 minutes or less
  - b. 6-10 minutes
  - c. 11 15 minutes
  - d. 16 20 minutes
  - e. 21 30 minutes
  - f. 31 minutes 1 hour
  - g. 1 hour 1 minutes 2 hours
  - h. More than 2 hours







#### Hillside Avenue Pedestrian Intercept Survey pg 3

- Do you think a short-term parking zone (such as 30 mins or less) on or adjacent to Hillside Ave would be useful for quick errands or passenger pickup/drop-off?
  - a. Yes
  - b. No
  - If yes, where? \_\_\_\_\_
- Would you be willing to pay more for on-street parking if it meant you could find a spot more quickly?
  - a. Yes
  - b. No
  - If yes, how much? \_\_\_\_\_
- Would you be more likely to take transit if bus speeds and reliability improved on Hillside Ave?
  - a. Yes
  - b. No
  - If no, what would encourage you to use public transit for this trip? \_\_\_\_\_
- What do you see as the biggest transportation issue along Hillside Avenue?
- Any additional comments?
- How do you identify in terms of gender? (Select all that apply)
  - a. Male
  - b. Female
  - c. Gender non-conforming/Non-binary
  - d. Different Identity (please state):
  - e. Prefer not to say

- How do you identify in terms of race/ethnicity? (Select all that apply)
  - a. American Indian and/or Alaska Native
  - b. Asian
  - c. Black or African American
  - d. Middle Eastern and/or North African
  - e. Hispanic or Latino
  - f. Native Hawaiian and/or Other Pacific Islander
  - g. White
  - h. Other race, ethnicity or origin
  - i. Prefer not to say
- Age
  - a. Under 18
  - b. 18-24
  - c. 25-34
  - d. 35-44
- e. 45-54
- f. 55-64
- g. 65+
- How would you characterize the effectiveness of this survey in capturing your feedback on this subject?
  - a. Effective- Captured most of what I had to say
  - b. Neutral/Unsure
  - c. Ineffective- Did not capture most what I had to say
- If the survey was administered in a language other than English, please indicate below:









### Hillside Avenue Merchant Survey

- Hello! We're here from the New York City Department of Transportation. DOT is looking to improve the existing bus lanes along this corridor. Hillside Avenue currently serves 21 bus routes carrying 215,000 daily passengers, but bus speeds are as slow as four mph. We're here to conduct outreach and collect data on how you are using the curb and hear your thoughts on potential bus lane treatments. Do you have a few minutes to answer a few questions?
- DOT Representative Surveyor Initials \_\_\_\_\_
- Business Type \_\_\_\_\_
- Business Name \_\_\_\_\_
- Business Address \_\_\_\_\_
- DOT Representative: Was this survey completed?
  - a. Yes
  - b. No
  - c. Partially complete survey
- DOT Representative: If unavailable for survey, why not?
- Is the business <u>West</u> or <u>East</u> of 172<sup>nd</sup> Street?
  - a. West
  - b. East

- What is your relationship to the business?
  - a. Owner
  - b. Manager
  - c. Employee
- How often do you observe double or illegally parked vehicles outside of your business? (Cars and trucks that are not related to your business)
  - a. Never/rarely
  - b. Once or twice a day
  - c. Consistently
  - d. Unsure
- To the best of your knowledge, where do delivery vehicles typically stop when receiving deliveries/shipments?
  - a. In front of business
  - b. Double park/illegally park
  - c. Across the street
  - d. Around the corner
  - e. Off-street (i.e. parking lot, loading dock)
  - f. Other (please specify) \_\_\_\_
  - g. Do not receive deliveries





#### Hillside Avenue Merchant Survey pg 2

- What type of delivery vehicle?
  - a. E-Bike
  - b. Car/SUV/Minivan
  - c. Walking
  - d. Cargo van
  - e. Box truck
  - f. Mail truck (e.g. USPS, FedEx, etc.)
  - g. Tractor trailer (48' & up)
  - h. We don't receive deliveries
- If your business or a third-party company makes deliveries, what type of vehicle does your business use to make deliveries/shipments?
  - a. Bike/E-Bike/Moped
  - b. Car/SUV/Minivan
  - c. Walking
  - d. Cargo van
  - e. Box truck
  - f. Other (please specify)
  - g. We don't make deliveries
- About how many outgoing deliveries per day?

- How do most customer access your business?
  - a. Walking
  - b. Subway
  - c. Bus
  - d. Personal Bike
  - e. Drive Alone
  - f. Carpool
  - g. For Hire Vehicles (Taxis, Uber, Lyft)
  - h. E-Scooters/E-Bike
  - i. Moped
  - j. Other (please specify)

#### **Business that Expects Deliveries/Shipments**

- Are you aware of the existing bus lane in effect in front of your business? (will depend on location)
  - a. Yes
  - b. No
  - c. Unsure/Don't Know
  - d. No Bus Lane Present
- Is the bus lane blocked?
- a. Yes
- b. No
- c. Unsure/Don't Know
- d. No Bus Lane Present









### Hillside Avenue Merchant Survey pg 3

- Is parking a challenge in front of your business?
- a. Early Morning (5AM 8AM)
- b. Late Morning (8AM 11AM)
- c. Early Afternoon (11AM 2PM)
- d. Late Afternoon (2PM 5PM)
- e. Evening (5PM 9PM)
- f. Night (9AM 12AM)

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- g. Overnight (12AM-5AM)
- h. Other (please specify)
- i. Unsure/Don't Know

#### Center Running Bus Lane Design, West of 172nd Street

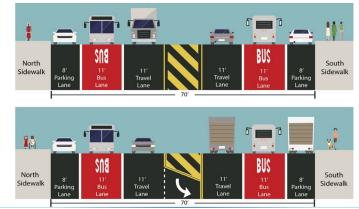


Gun Hill Road Center Running Bus Lane



This would potentially return parking that is currently occupied by a rush hour bus lane/rush hour moving regulation, what are your thoughts?

#### Offset Bus Lane Design, East of 172nd Street











### Hillside Avenue Merchant Survey pg 4

#### 21st Street Offset Bus Lane



- This would potentially return parking that is currently occupied by a rush hour bus lane/rush hour moving regulation, what are your thoughts?
- Questions for DOT Representative
- DOT related comments unrelated to curbside/loading?
- If the survey was administered in a language other than English, please indicate below:







