Project Background

- Fall 2015 - NYC DOT began investigating corridor after receiving numerous complaints regarding speeding and poor intersection design along route
- June 2016 – Project presented to Van Duzer St Civic Association
Project Overview

Improve transportation conditions for all users along the Van Duzer Street Corridor by:

- Discouraging Speeding
- Improving Intersections
- Adding Crosswalks
- Adding Bicycle Lanes
Existing Condition: Speeding Vehicles

Map of the % of vehicles traveling 5 m.p.h. or more over the speed limit
Existing Conditions
Map of existing road conditions

Wide Travel Lanes
Wider than standard travel lanes contribute to speeding

Wide Travel Lanes with Channelization
Excess channelization limits other road uses and can be replaced

Wide Roadway
A second travel lane, where volume does not require it, contributes to speeding and aggressive driving

Pinch Points
Due to peak-hour traffic volume or limited road widths, additional traffic calming measures are limited

LEGEND
Wide Travel Lanes
Excess Channelization
Wide Roadway
Pinch Points
Existing Bicycle Facilities
Protected Bicycle Path
Bicycle Lane
Shared Lane
Signed Route
Wide Travel Lanes

Example: Richmond Rd, Van Duzer St to Narrows Rd N

- Two very wide travel lanes contribute to speeding
Wide Travel Lanes
Example: Richmond Rd
From Van Duzer St to Narrows Rd N

- Narrowing travel lanes to standard width provides room for bicycle lane
Example of Proposed Design
Skillman Ave, Queens
Wide Travel Lane with Channelization

Example: St Pauls Ave

- Wide road with channelization
- 63% of vehicles speeding at Taxter Place
Wide Travel Lanes with Channelization
Example: St Pauls Ave

• Narrow travel lane to standard width to discourage speeding
• Replace channelization with bicycle lane
Example of Proposed Design
Onderdonk Ave, Queens
Wide Roads

Example: Targee St (Vanderbilt Ave to Van Duzer St)

- Traffic volume drops after Vanderbilt Ave and vehicle speeds increase
- 49% of vehicles speeding at Waverly Pl, 89% by Purroy Pl
Wide Roads
Example: Targee St
From Vanderbilt Ave to Van Duzer St

- Replace unnecessary second travel lane with buffered bicycle lane and wider parking lanes
- Add right-turn lane at Broad St intersection
Pinch Point

Example: Van Duzer St
From Beach St to Grant St & Van Duzer St Ext to Hannah St

- Narrow roadway limits further traffic calming measures
- But speeding has dropped 57% since Targee St
Pinch Point
Example: Van Duzer St
From Beach St to Grant St
From Van Duzer St Ext to Hannah St

• Add shared lane markings where roadway is too narrow for additional bicycle lanes
Example of Proposed Design
Hoyt Ave, Brooklyn
Existing Condition: Poor Intersection Design
St Paul’s Ave & Van Duzer St

- Intersection a frequent source of complaints
- Angle of intersection leads to:
  - Poor visibility
  - Confusing sign placement
  - Loss of parking
Proposed Design Concept
To be installed at St Pauls Ave & Van Duzer St

- Increase visibility
  - Angle traffic from Van Duzer St for a better view of oncoming traffic

- Buffered Bicycle Lane
  - Bicycle lane eliminates sharp bend in road

- Add Parking
  - Replace channelization with additional parking

- Better Sign Placement
  - Relocate signage to prevent confusion

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Existing Condition: Poor Intersection Design
Van Duzer St & Swan St

- Long crossing for pedestrians
- Poor alignment for through traffic
Proposed Design
To be installed at Van Duzer St & Swan St

Improve Road Alignment
- Painted curb extension improves alignment through intersection

Parking Loss
- New alignment removes two parking spaces

Shorten Crossing
- Painted curb extension shortens pedestrian crossing distance
Existing Condition: No Crosswalk
Van Duzer St & St Pauls Ave

- Sidewalk ends without pedestrian crossing
- Commercial/Transit corridor
- Low Traffic Volume/Low Speeds
Proposed Design Concept
Van Duzer St & St Pauls Ave

Add Pedestrian Space
- Painted curb extension shortens crossing distance

Add “Daylighting”
- Increase visibility in front of crosswalk

Add Crosswalk
- Add crosswalk where sidewalk ends

Existing

Proposed
Existing Condition: No Crosswalk
St Pauls Ave & Grant St

- Lack of pedestrian crossing at school
- Nearest crossing ¼ mile away
Proposed Design Concept
To be installed at St Pauls Ave & Grant St

Existing Design

Add Crosswalk
- Crosswalk provides crosswalk near school
- Will need to remove 1 parking space

Proposed

Add “Daylighting”
- Increase visibility in front of crosswalk
- Will need to remove 1 parking space

School
Existing Condition: No Crosswalk
Van Duzer St & William St

- ¼ mile between pedestrian crossings
- William St links neighborhood to Bay St commercial corridor
- Low traffic volume/low speeding levels
Proposed Design Concept
To be installed at Van Duzer St & William St

Add Crosswalk
- Cuts crossing distance between crosswalks
- Improves neighborhood connection to Bay St
- Improves connection to nearby bus stop

Reuse “Daylighting” Curb Regulation
- Use existing “No Standing Anytime” regulation for increased visibility without losing parking spaces

Shorten Crossing Distance
- Painted curb extensions cuts down on crossing distances

Existing

Proposed
Parking Changes

- Net gain of 38 full-time parking spaces (18 new spaces, 20 upgraded overnight spaces)
- Net loss of 7 overnight parking spaces

St Pauls Ave at Grant St
Remove 2 spaces for crosswalk

Van Duzer St at St Pauls Ave
Add 3 spaces after change to intersection

Van Duzer St at Shelterview Dr
Upgrade 16 overnight spaces to fulltime and remove 14 to replace extra travel lane

Van Duzer St at Young St
Add 19 spaces by replacing channelization

Swan St at Bay St
Remove 2 spaces for bicycle lane

Van Duzer St at Grant St
Upgrade 4 off-peak spaces to fulltime spaces

Van Duzer St at Beach St
Add 7 off-peak parking spaces in left-turn lane
Project Summary

- Reduce speeding along a residential corridor, while maintaining needed traffic capacity
- Improve traffic alignments and improve visibility through problem intersections
- Add more crosswalks for pedestrians
- Add or upgrade parking
- Add a bicycle route connecting to Bay St and St George Ferry Terminal
THANK YOU!

Questions?
Addendum:
Southbound Route Improvements
St Pauls Ave
Victory Blvd to Van Duzer St

- Wide road with channelization
- 63% of vehicles speeding at Taxter Place
Proposed Design
To be installed on St Pauls Ave

- Narrow travel lane to standard width to discourage speeding
- Replace channelization with bicycle lane
Pedestrian Crossing
St Pauls Ave & Grant St

• Lack of pedestrian crossing at school
• Nearest crossing ¼ mile away
Proposed Design Concept
To be installed at St Pauls Ave & Grant St

Add Crosswalk
• Crosswalk provides crosswalk near school
• Will need to remove 1 parking space

Add “Daylighting”
• Increase visibility in front of crosswalk
• Will need to remove 1 parking space
Van Duzer St (southbound)
St Pauls Ave to Broad St

- Extra travel lane for short distance during the day contributes to speeding and limits parking
- 67% of vehicles speeding at Shelterivew Drive
- Vehicles parked on sidewalk
Proposed Design
To be installed on Van Duzer St from St Pauls Ave to Broad St

- Replace daytime travel lane with bicycle lane and fulltime parking to discourage speeding
Intersection
St Paul’s Ave & Van Duzer St

• Intersection a frequent source of complaints
• Angle of intersection leads to:
  • Poor visibility
  • Confusing sign placement
  • Loss of parking
Proposed Design Concept
To be installed at St Pauls Ave & Van Duzer St

Proposed

Increase visibility
• Angle traffic from Van Duzer St for a better view of oncoming traffic

Buffered Bicycle Lane
• Bicycle lane eliminates sharp bend in road

Add Parking
• Replace channelization with additional parking

Better Sign Placement
• Relocate signage to prevent confusion

Existing
Van Duzer St (southbound)
Broad St to Baring Pl & Roff St to Hillside Ave

- Wide travel lanes with excess channelization limits parking and contributes to speeding
- 54% of vehicles speeding at Young St
- Vehicles park in channelization
Proposed Design
To be Installed on Van Duzer St
From Broad St to Baring Pl,
From Roff St to Hillside Ave

- Narrow travel lane to standard width to discourage speeding
- Replace channelization with additional parking and bicycle lanes
Van Duzer St (southbound)
Baring Pl to Roff St

- Roadway narrows, limiting traffic calming options
- But speeding has also dropped by 33% from previous section
Proposed Design

To be installed on Van Duzer St from Baring Pl to Roff St

- Shared lane markings connect bicycle route where there is not enough room for bicycle lanes

Shared Lane Markings
- Connects bicycle route where road is too narrow for bicycle lanes
- Alerts motorist to the presence of cyclists
- Shows cyclists where they should be in the roadway
Van Duzer St (southbound)
Hillside Ave to Cornell Pl

- Road not wide enough for two travel lanes on truck route
- Roadway does not require two travel lanes
**Proposed Design**

To be Installed on Van Duzer St From Hillside Ave to Cornell PI

- Buffered bicycle lane replaces extra travel lane on narrow, winding road
- Provides additional room for trucks
Van Duzer St (southbound)
Cornell Pl to Richmond Rd

- Roadway needs two lanes to accommodate existing queues during red light at signal
Proposed Design
To be Installed on Van Duzer St From Cornell Pl to Richmond Rd

- Add shared lane markings to connect bicycle route where there is not enough room for bicycle lanes
Richmond Rd
Van Duzer St to Narrows Rd N

- Two very wide travel lanes
- Traffic volumes require second travel lane after Vanderbilt Ave
Proposed Design
To be Installed on Richmond Rd
From Van Duzer St to Narrows Rd N

- Narrowing travel lanes to standard width provides room for bicycle lane
Addendum: Northbound Route Improvements
Targee St
Narrows Rd N to Vanderbilt Ave

- Higher traffic volumes require two travel lanes, limiting traffic calming measures
**Proposed Design**
To be Installed on Targee St
From Narrows Rd N to Vanderbilt Ave

- Shared lane markings connect bicycle route where traffic volumes limit additional traffic calming measures
Targee St
Vanderbilt Ave to Van Duzer St

- Traffic volume on Targee St drops after Vanderbilt Ave, allowing for additional traffic calming measures
Proposed Design
To be installed on Targee St
From Vanderbilt Ave to Van Duzer St

- Replace unnecessary second travel with buffered bicycle lane and wider parking lanes
- Add right-turn lane at Broad St intersection
Van Duzer St (northbound)
Targee St to Wright St

- Narrow winding roadway with channelization
Proposed Design

To be Installed on Van Duzer St
From Targee St to Wright St

- Reuse excess channelization space for buffered bicycle lane
Van Duzer St (northbound)
Wright St to Beach St

- Commercial corridor with limited parking
- Left-turn lane needed for weekday traffic
Proposed Design

To be Installed on Van Duzer St From Wright St to Beach St

• Calm traffic by adding additional parking overnight and on weekend
• Shared lane markings assist cyclists in wayfinding
Van Duzer St (northbound)
Beach St to Grant St & Van Duzer St Ext to Hannah St

- Narrow roadway limits further traffic calming measures
- Speeding has dropped 57% since Targee St
Proposed Design
To be Installed on Van Duzer St
From Beach St to Grant St
From Van Duzer St Ext to Hannah St

- Add shared lane markings where roadway is too narrow for additional bicycle lanes
Pedestrian Crossing
Van Duzer St & William St

- ¼ mile between pedestrian crossings
- William St links neighborhood to Bay St commercial corridor
- Bus stop nearby
- Low traffic volume/low speeding levels
Proposed Design Concept
To be installed at Van Duzer St & William St

Add Crosswalk
- Cuts crossing distance between crosswalks
- Improves neighborhood connection to Bay St
- Improves connection to nearby bus stop

Reuse “Daylighting” Curb Regulation
- Use existing “No Standing Anytime” regulation for increased visibility without losing parking spaces

Shorten Crossing Distance
- Painted curb extensions cuts down on crossing distances

Existing

Proposed
Van Duzer St (northbound)
Grant St to Van Duzer St Ext

- Unnecessary travel lane during the day
- Parking limited
Proposed Design
To be Installed on Van Duzer St
From Grant St to Van Duzer St. Ext.

- Overnight parking is made permanent to calm traffic
- Shared lane markings connect bicycle route where road is too narrow for bicycle lanes
Van Duzer St (northbound)
Hannah St to Victory Blvd

- Very wide travel lane in commercial corridor
Proposed Design
To be Installed on Van Duzer St
From Hannah St to Victory Blvd

• Narrow travel lane to standard width to discourage speeding
• Use remaining space to separate cyclists from other traffic
Pedestrian Crossing
Van Duzer St & St Pauls Ave

- Sidewalk ends without pedestrian crossing
- Commercial/Transit corridor
- Low Traffic Volume/Low Speeds
Proposed Design Concept
Van Duzer St & St Pauls Ave

Add Pedestrian Space
- Painted curb extension shortens crossing distance

Add “Daylighting”
- Increase visibility in front of crosswalk

Add Crosswalk
- Add crosswalk where sidewalk ends

Existing
Addendum:
Bay Street Connection
Van Duzer Street Extension
Van Duzer St to Bay St

- Wide road with excess travel lane
Proposed Design
To be Installed on Van Duzer St Ext. From Van Duzer St to Bay St

- Replace extra traffic lane with buffered bicycle lane and parking lane
Swan St
Bay St to Van Duzer St

- Very wide travel lane
- Does not align well with next section of the road
- Connects Bay St to St Pauls Ave
Proposed Design

To be Installed on Swan St
From Bay St to Van Duzer St

- Buffered parking lane and bicycle lane narrow travel lane to standard width and align road better with next section
Intersection
Van Duzer St & Swan St

• Long crossing for pedestrians
• Poor alignment for through traffic
Proposed Design
To be installed at Van Duzer St & Swan St

Improve Road Alignment
- Painted curb extension improves alignment through intersection

Parking Loss
- New alignment removes two parking spaces

Shorten Crossing
- Painted curb extension shortens pedestrian crossing distance
Swan St
Van Duzer St to St Pauls Ave

- Very narrow roadway
- Connects Bay St to St Pauls Ave without steep hill
**Proposed Design**

To be Installed on Swan St
From Van Duzer St to St Pauls Ave

- Add shared lane markings to connect Bay St to southern route on St Paul’s Ave