



# Prototypical Pipe Bollards

**Preliminary and Final Submission**



# Bollards in NYC



**Security Bollard**



**Martello Bollard**



**Pipe Bollard**



# Existing Pipe Bollards

Current cast iron bollards are not always contextually appropriate and present a significant maintenance challenge due to painting requirements. Bollards do not match other street furnishings in style



**Borinquen Place and Marcy Avenue**



# Why Pipe Bollards

Current illegal activities by vehicles and improper use of sidewalks create conflicts between pedestrians and vehicles, resulting in safety concerns

Pipe bollards help define and delineate boundaries between vehicles and pedestrians

DOT is focusing on three common typologies:  
Long curb cuts, Ped Ramps, Illegal short cuts



**13 Neptune Ave, BK**



**Vehicle mounted sidewalk to exit Williamsburg Bridge instead of crossing into Manhattan.**



# Existing Solutions

NYC DOT has utilized temporary solutions such as granite blocks and planters to delineate space or block drivers. However, these items tend to get moved or require a maintenance partner.

These items are also quite large and end up blocking most of the sidewalk, negating the benefit they provide.



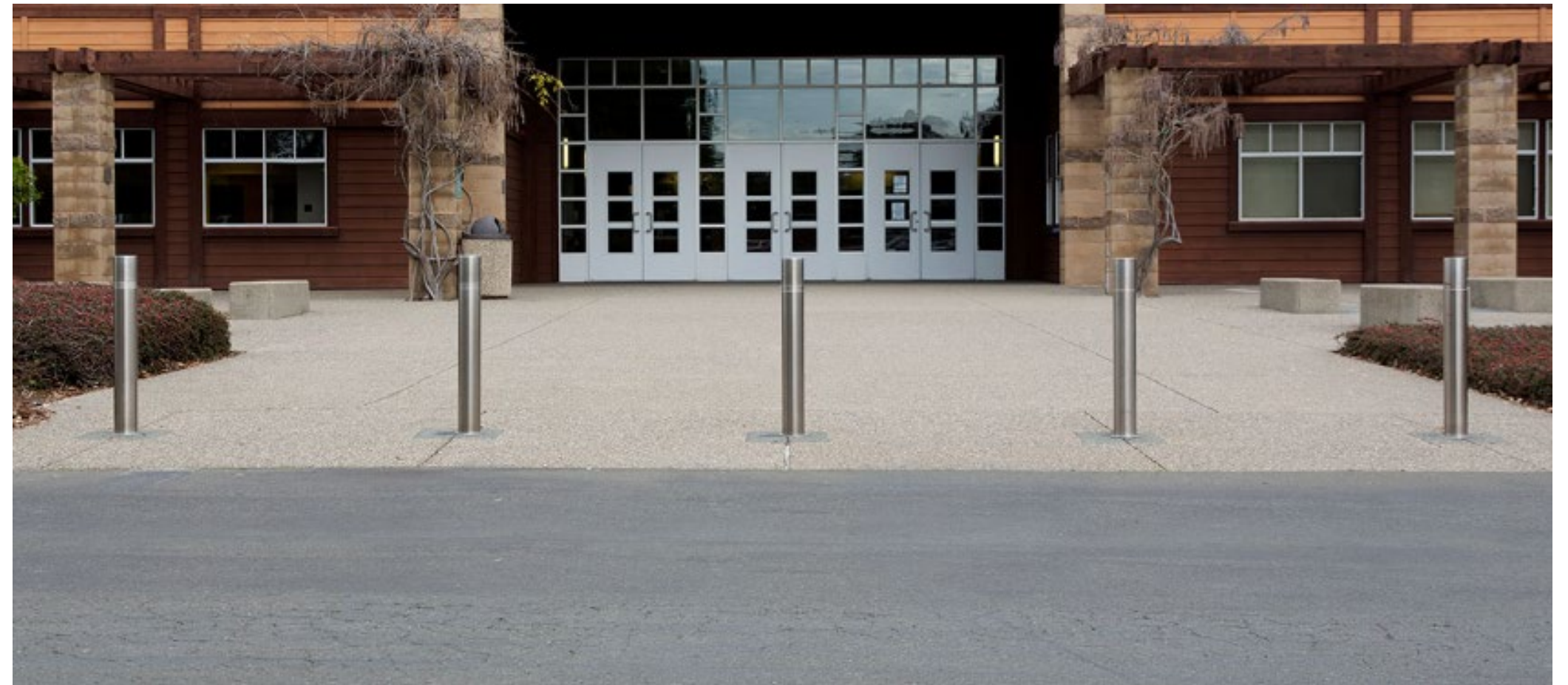
**4<sup>th</sup> Ave and 31<sup>st</sup> St – Used granite blocks to define driveways**



**Riverside Dr and Seaman Ave –  
Used planters to block sidewalk**



# Proposed Design



**Reliance Foundry Bollard Type R-8460**



# Consistent Street Furniture

The proposed pipe bollard will complement the existing street furniture applied by NYC DOT



*CityRack*



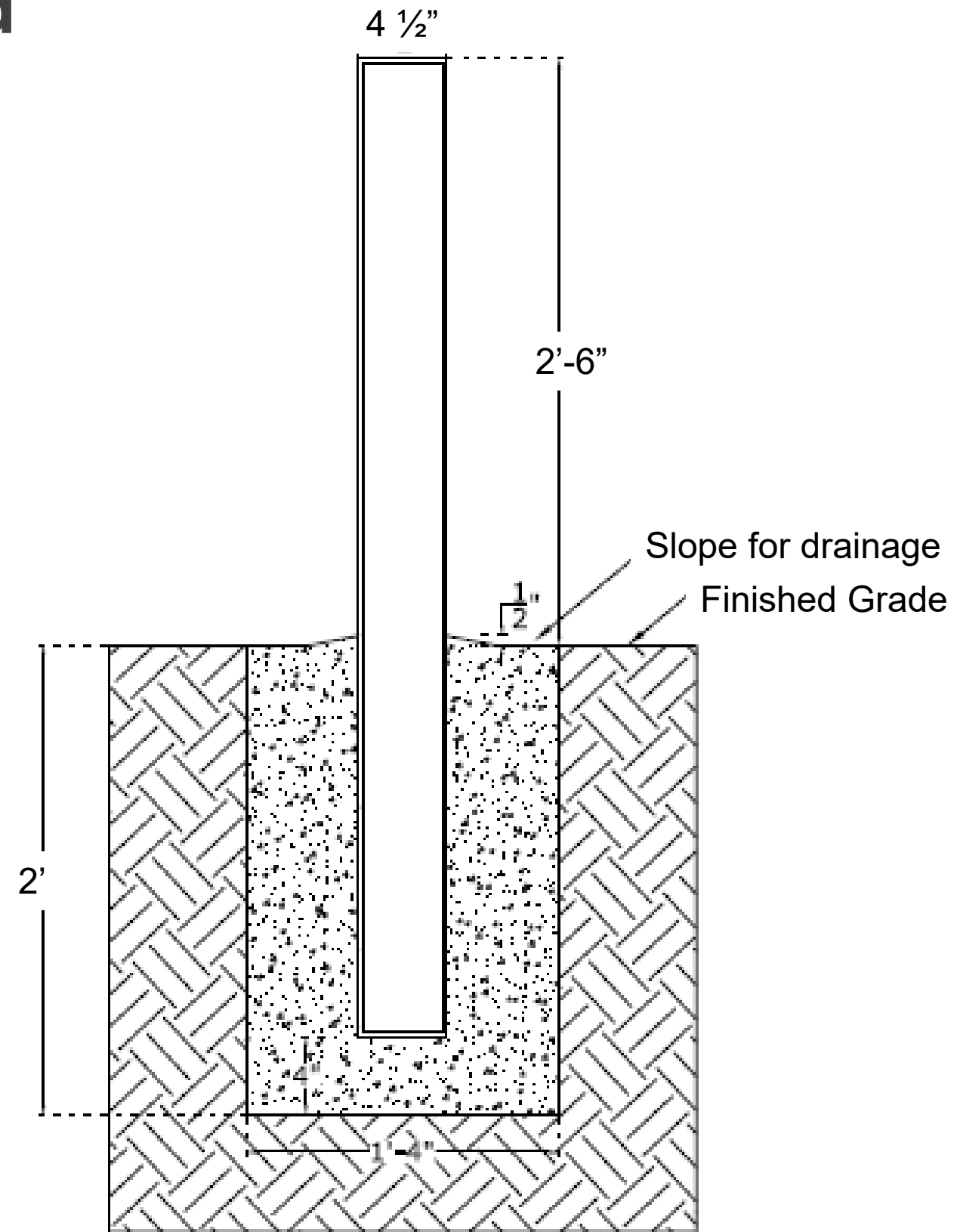
*CityBench*



*WalkNYC Wayfinding*

**Existing Standard Street Furniture**

# Cutsheet: Pipe Bollard





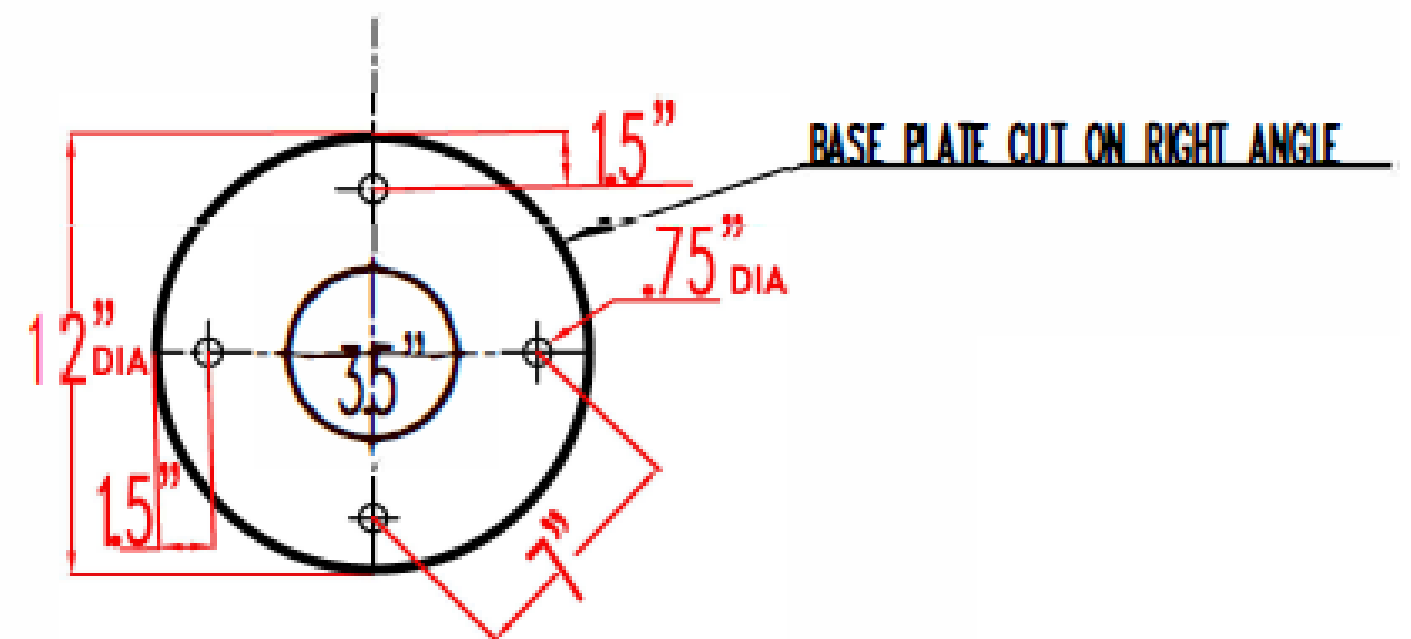
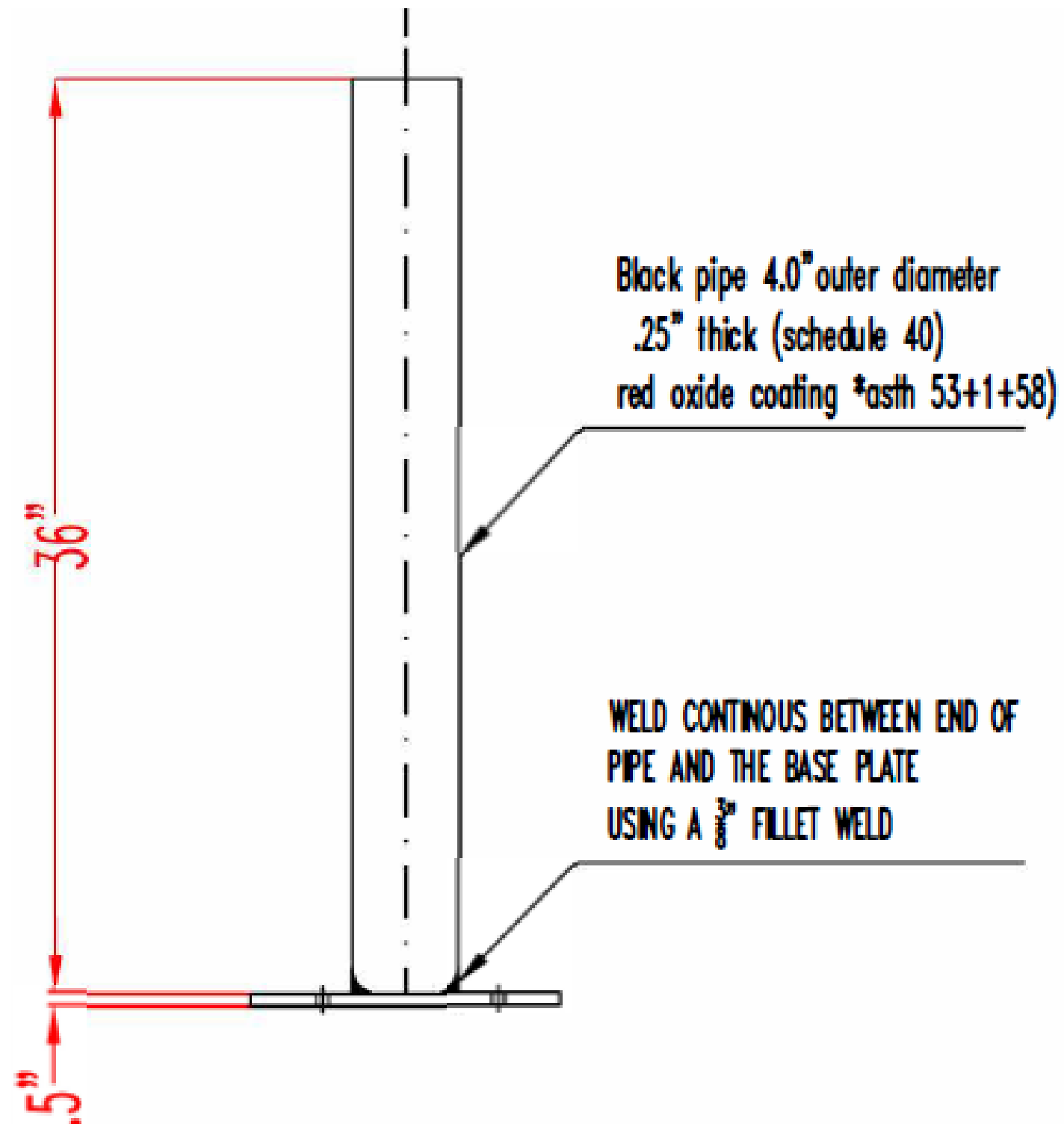
# Proposed Design (Asphalt Surface Only)



DOT Pipe Bollard



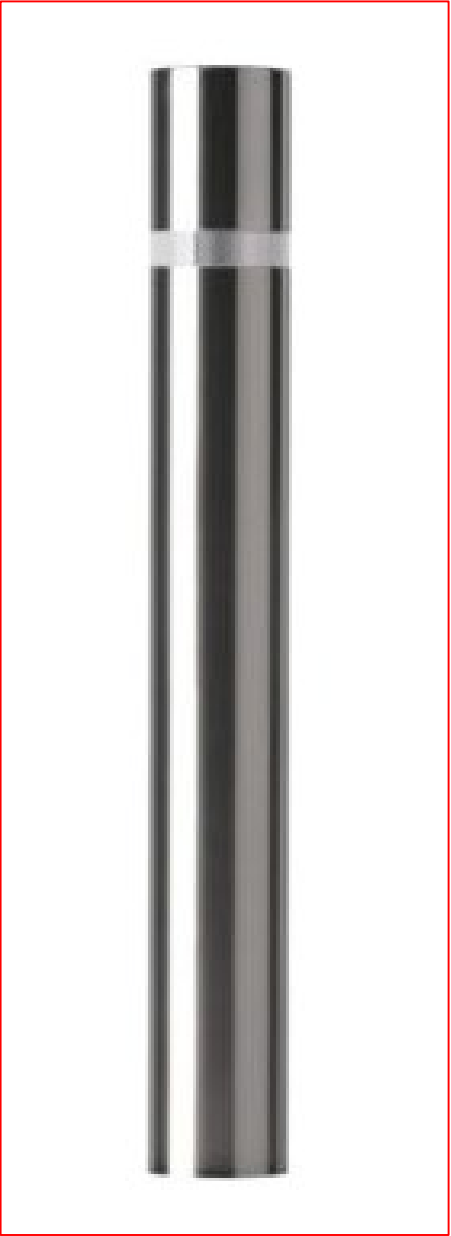
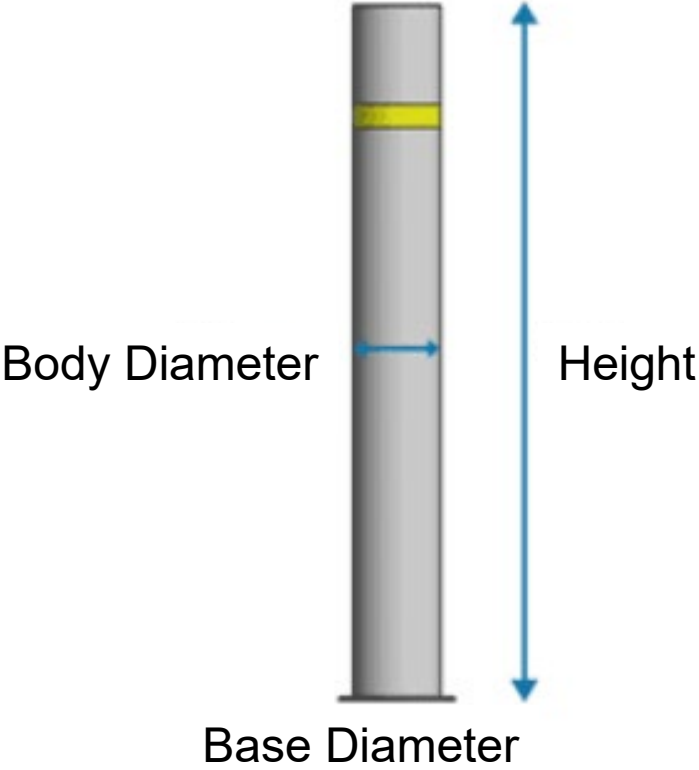
# Cutsheet: Asphalt Installations Only





# Material

Function	Embedded/Fixed
Height (in)	
Body Diameter (in)	
Material	316 Stainless



Proposed Stainless Steel



Optional Black  
(316 Powder coated)



# Siting Guidelines: Material Usage

## Guideline:

- For use on concrete surfaces
- Material finish shall match the predominant streetscape vocabulary (e.g. if all adjacent street furniture is black, the black finish will be used)



**Proposed Stainless Steel**



**Optional Black  
(316 Powder coated)**

## Guideline:

- Applied on Asphalt only



**Bumper (Stainless Steel Black)**



# Standard Citywide Application: Ped Ramps



Myrtle Ave & Seneca Ave (Queens)



# Existing Typology: Ped Ramps

Pedestrian ramps, especially wide ramps or those used for bicycles, allow for vehicles to intentionally or unintentionally access the sidewalk. These locations are also natural conflict points as pedestrians are crossing the street or queuing for the walk signal.



**Wide combined Ped Bike Ramp at Queens Plaza North and 29th St**  
(Sidewalk Bollard will be used with black finish)



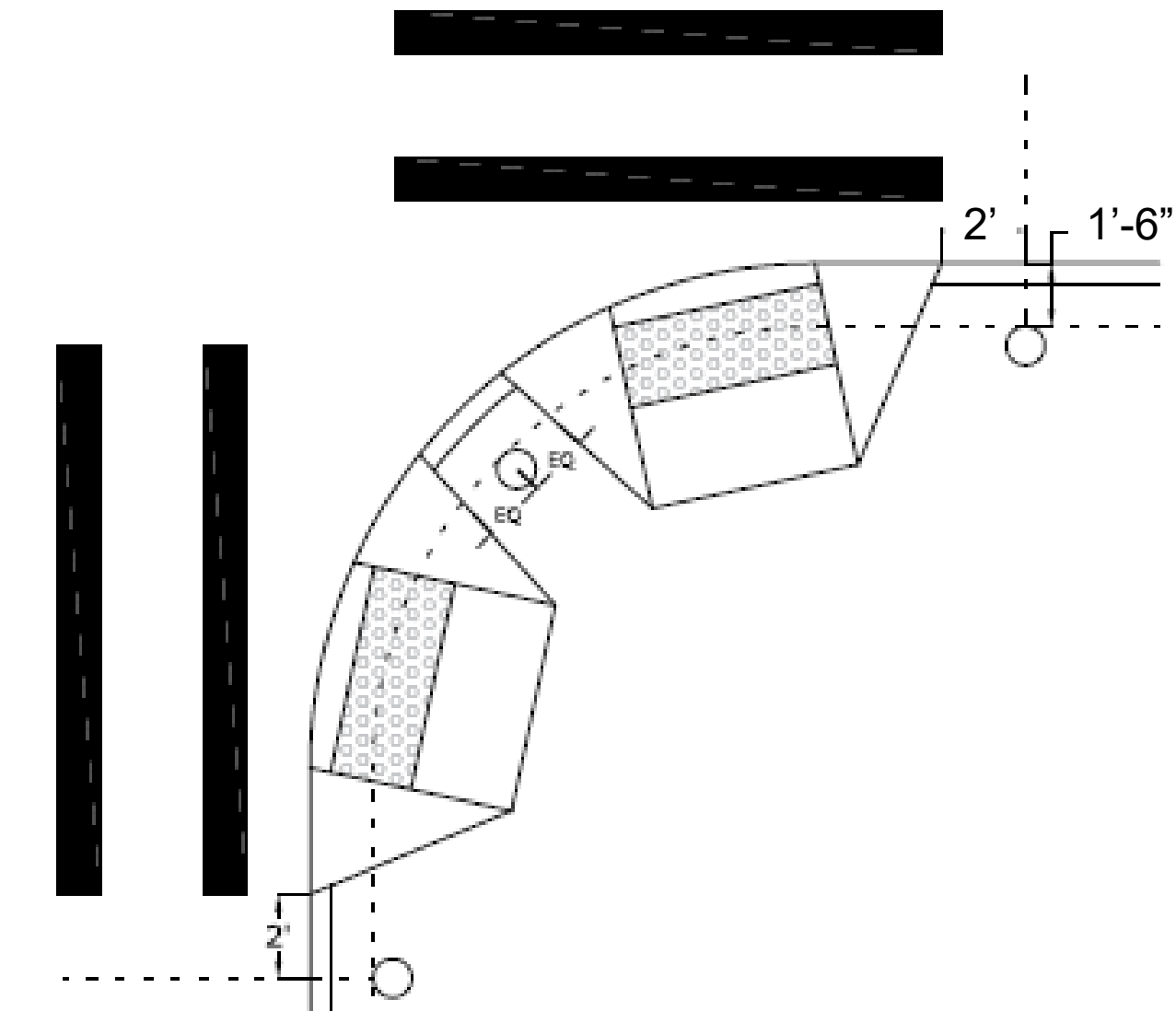
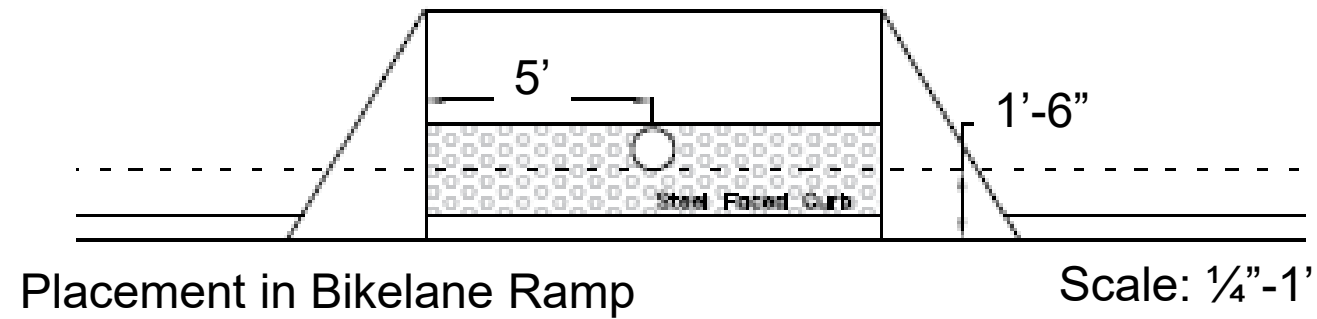
# Existing Typology: Ped Ramps



Laurel Hill Blvd and 56th Rd, Queens



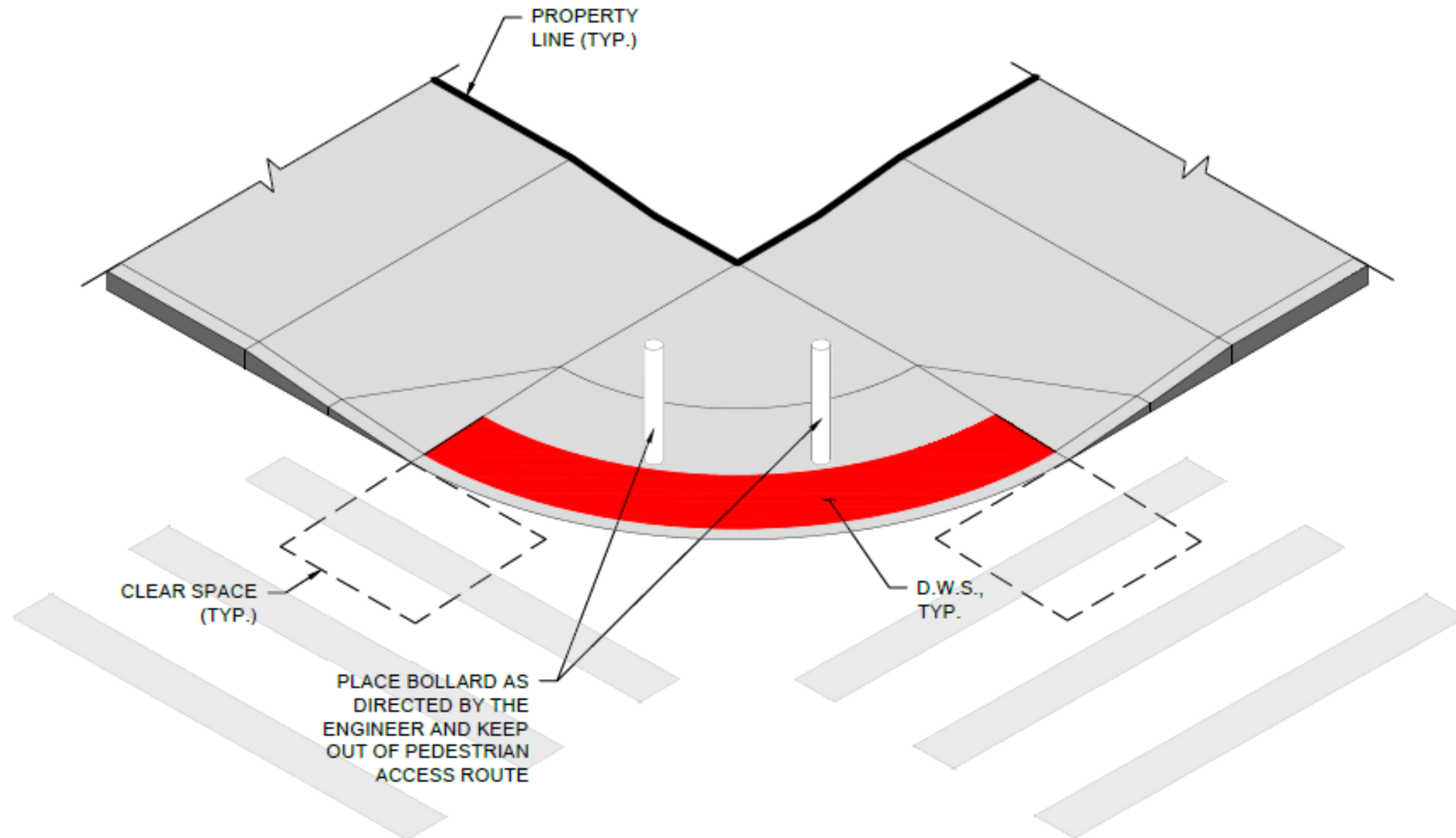
# Siting Guidelines: Ped Ramp Typology



Placement on Standard Radius corner  
Scale: 1/4"=1'



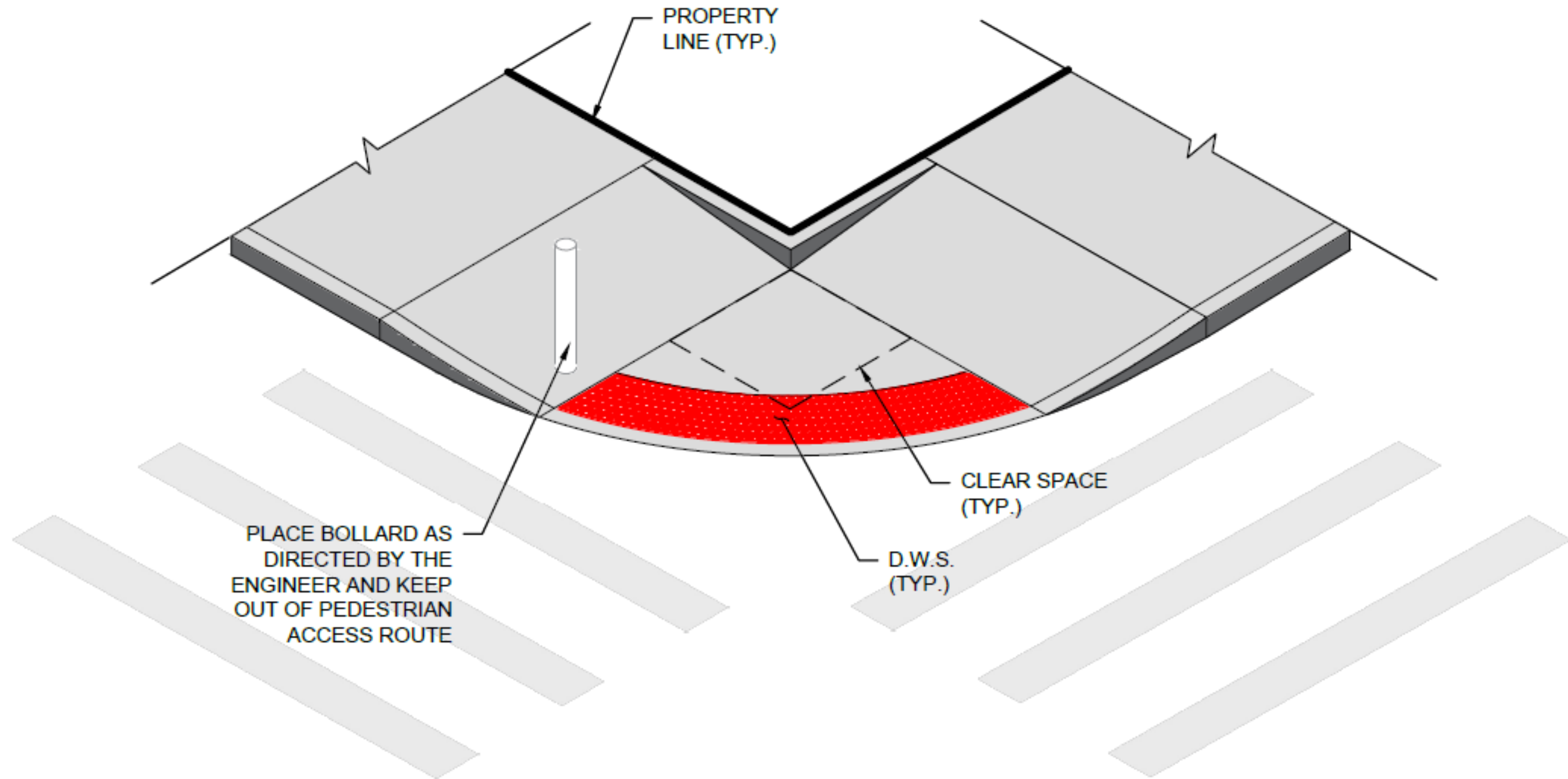
# Siting Guidelines: Ped Ramp Typology



**Blended Transition**



# Siting Guidelines: Ped Ramp Typology



Shared Parallel



# Case-by-Case Application



**Williamsburg Bridge and South Fifth Place**



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# Siting Guidelines

## General principles:

- Utilize as few bollards as possible in order to deter the illegal activity/reduce conflicts with pedestrians
- Bollard installation is prioritized based on complaints (311, local precinct, etc.) as well as staff observation

## General Siting Criteria:

- 6' center to center (bollard spacing)
- 18" from face of curb
- 12" from ROW line
- 8' clear path
- Adherence to SDM Furniture Siting Guidelines  
[https://www.nycstreetdesign.info/sites/default/files/2020-02/Furniture\\_Siting\\_Guidelines.pdf](https://www.nycstreetdesign.info/sites/default/files/2020-02/Furniture_Siting_Guidelines.pdf)

## Special Considerations:

- Installation within 75' of public art requires specific approval by PDC

## Landmark Considerations:

- Don't install in historic paving (within sidewalk regulated districts)
- Minimize disturbance to views of landmarked buildings



# Example: Long Curb Cuts

Long curb cuts by their nature result in undefined entry points and a greater likelihood for conflict with pedestrians using the sidewalk. This typology could also include sidewalks that are adjacent to auto-centric land uses, but do not have driveways.



**378 Coney Island Ave, BK – Drivers will use entire frontage to access gas station, not just designated curb cuts**



# Siting Guidelines: Long Curb Cuts

## Guidelines:

- Located just outside of the driveway apron
- Offset bollards 18" from the curb



378 Coney Island Ave, BK (Axon)

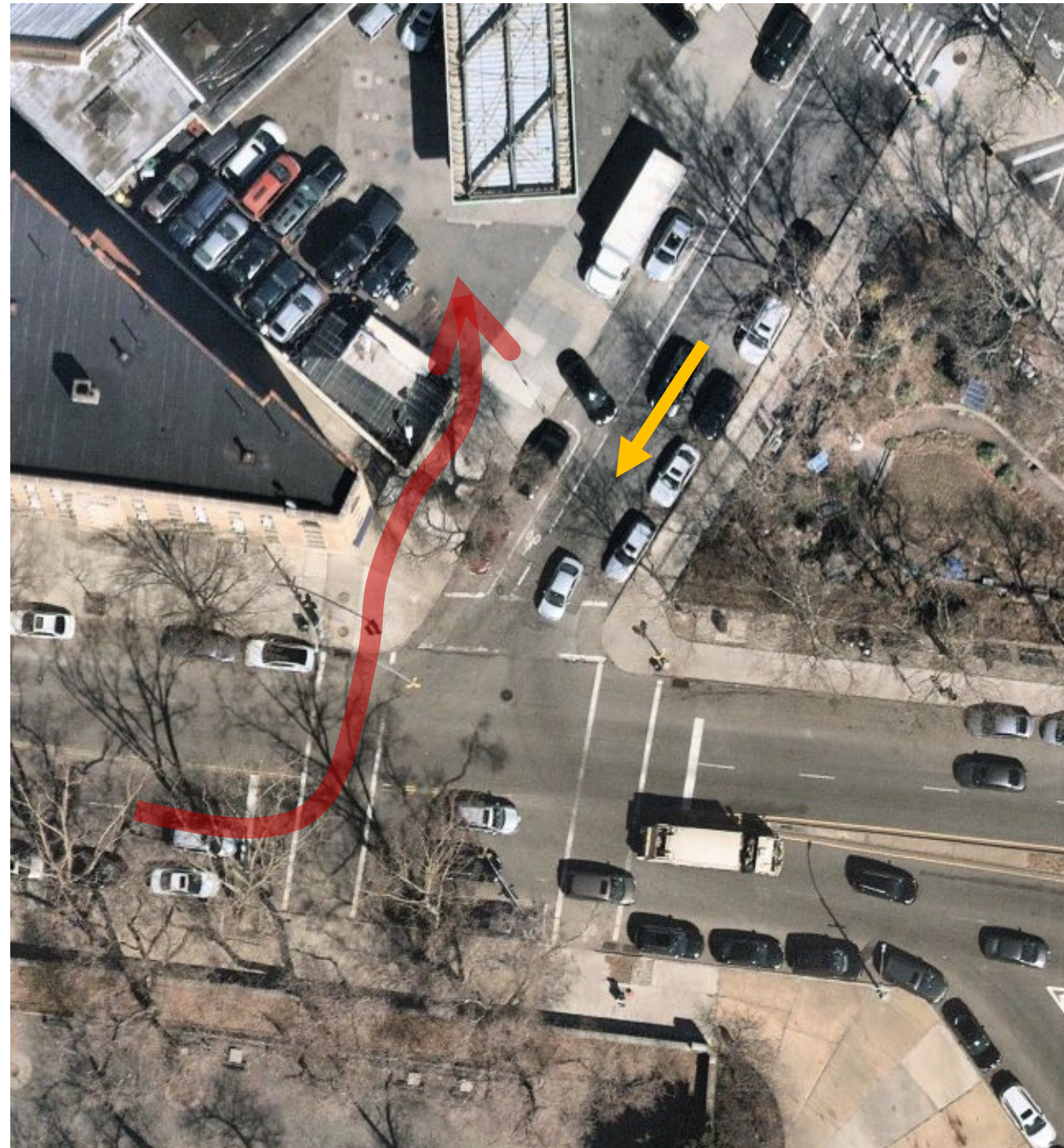


378 Coney Island Ave, BK (Plan View)



# Example: Illegal Shortcuts

Illegal shortcuts are locations where a vehicle will traverse over a sidewalk or pedestrian path in order to bypass normal vehicular routes to their destination. This creates a significant conflict as pedestrians are not expecting vehicular traffic.



**Seaman Ave and Riverside Dr – Drivers use sidewalk to access gas station as Seaman Avenue is one way southbound**



# Siting Guidelines: Illegal Shortcut

## Guidelines:

- 6' spacing on center is sufficient
- Utilize minimum number of bollards to deter the use of shortcut
- Site in context of nearby obstructions (e.g. bridge parapet wall or citibike station)



177 South 5th Street, BK (Axon)



177 South 5th Street, BK (Plan View)





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