



STRATEGIES

RAIL ADJACENT LOTS



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BEST PRACTICES

INTRODUCTION

SYNOPSIS

A commuter rail line running at or below grade often creates atypical lots adjacent to the rail corridor. This is a prevalent issue surrounding many of the focus stations of this study, and may be a common externality around the city and country where rail or other transit corridors run at or below grade. Lots that are difficult to develop are frequently vacant, fenced off and ultimately left to collect trash. This, combined with the often elongated, uninterrupted lengths, yields unattractive, poorly lit, inactive pedestrian environments. This often reinforces edge conditions, serving to separate and even isolate neighborhoods,

and when these expanses are located adjacent to stations areas, it could affect ridership, as safety concerns could easily emerge.

Development of these rail adjacent lots is impeded due to a combination of challenges, including irregular size and shape, issues of noise, safety, and vibrations associated with proximity to a rail line. Additionally shallow sites are impractical for the development of income generating uses. These best practices explore design options that will best utilize rail adjacent lots within the context of TOD.



FIGURE 1 | Vacant lots between Amtrak Hell Gate Line and Tremont Avenue.



FIGURE 2 | Materials storage abutting rail lines in Morris Park.

The goal is to foster innovative design and uses for these types of lots that will reclaim the unproductive space and provide amenities for transit riders.

BACKGROUND

In this section we have identified three basic categories of lots which are adjacent to rail lines, based on their depths. While there is overlap across the categories, typically the lots examined in our study fit within one. The three categories are as follows:

Category 1 refers to a lot with a depth less than 15 feet. Lots within this category are typically small strips of land immediately bordering rail lines, and are often part of a rail right-of-way owned by the rail company. These lots have the least likelihood of development as they are too shallow to accommodate most income generating enclosed uses. Typically they are vacant lots, and even where they are utilized, it is typically for a non-active uses like material storage. Security fencing is often found at the front property line as it meets the sidewalk, and beyond, the lots are often unkempt and littered with debris. Due to the pervasive inactivity and little development, sidewalks adjoining the lots are routinely substandard and lack amenities like lighting and street trees. This further contributes to the isolation

and safety concerns, which pedestrians face when walking along these lots.

Category 2 refers to a lot with a depth ranging from 15 to 30 feet. Lots within this category are generally too small for standard commercial development, as even maximizing the lot depth would often leave an insufficient and un-practical retail space to lease. Residential development is also not practical due to the lack of marketability directly adjacent to rail lines and open space requirements for legal windows, which generally requires 30' of depth just for the rear yard. These lots are typically vacant, or where occupied they are utilized by inactive uses like materials or vehicle storage, or where deeper, by manufacturing uses like vehicle repair shops. Security fencing is a frequent sight in these areas, and around repair shops, roll down gates and debris (such as tires and automobile parts) routinely deter pedestrians out of safety concerns. Vehicle parts left in open storage can also create environmental impacts on the site which may deter future development.

Category 3 refers to a lot with an average depth of 30 to 60 feet. Lots within this category are capable of some standard commercial development, although it may only be feasible at a lower scale of one to two stories due to commercial rear yard requirements,

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In this section we have used the three categories of lot depth to create hypothetical development scenarios. Each scenario portrays a variety of best practices which would correlate with that specific category. Generally, the deeper a lot extends, the more options are available on that site. Recommendations for each category are not meant to be mutually exclusive, and, as we portray, a Category 2 or 3 lot could easily accommodate some of the beautification measures discussed in the best practices for Category 1. Similarly, irregularly shaped lots could apply various attributes of multiple categories, as applicable.

CATEGORY 1

Parcels in this category are generally not large enough to accommodate development. Therefore, solutions are targeted towards establishing a better appearance on the lot, specifically in the vicinity of the station; and establish amenities which facilitate pedestrian connections within and between neighborhoods. This will work to reduce the effects of the edge condition which is inherent to rail adjacency. Specific solutions include:

- 1 Replacing security or barbed wire fence with decorative or vegetative fencing. Decorative fencing may also include opportunities for murals or community history or information. Fencing should be placed at the rear lot line so as to elongate the sidewalk and provide room on the lot for other amenities.
- 2 Lighting should be incorporated at regular intervals, either into the amenity strip of the sidewalk or into the fencing itself.
- 3 Seating and planting should be on the parcel. Incorporated at different intervals, and at varying degrees of intensity and scale, to create places of relaxation and visual interest for pedestrians. This is important on larger width parcels where the monotony of super blocks can be especially burdensome for pedestrians.
- 4 Ensure that sidewalks have adequate sidewalk widths, and are clear of vegetative growth and debris from adjacent lots.
- 5 Street trees should be planted at regular intervals on the amenity strip of the sidewalk.

Although not depicted in the image, parcels in closer proximity to the station should also serve auxiliary station functions, such as taxi stands or passenger drop-off points.

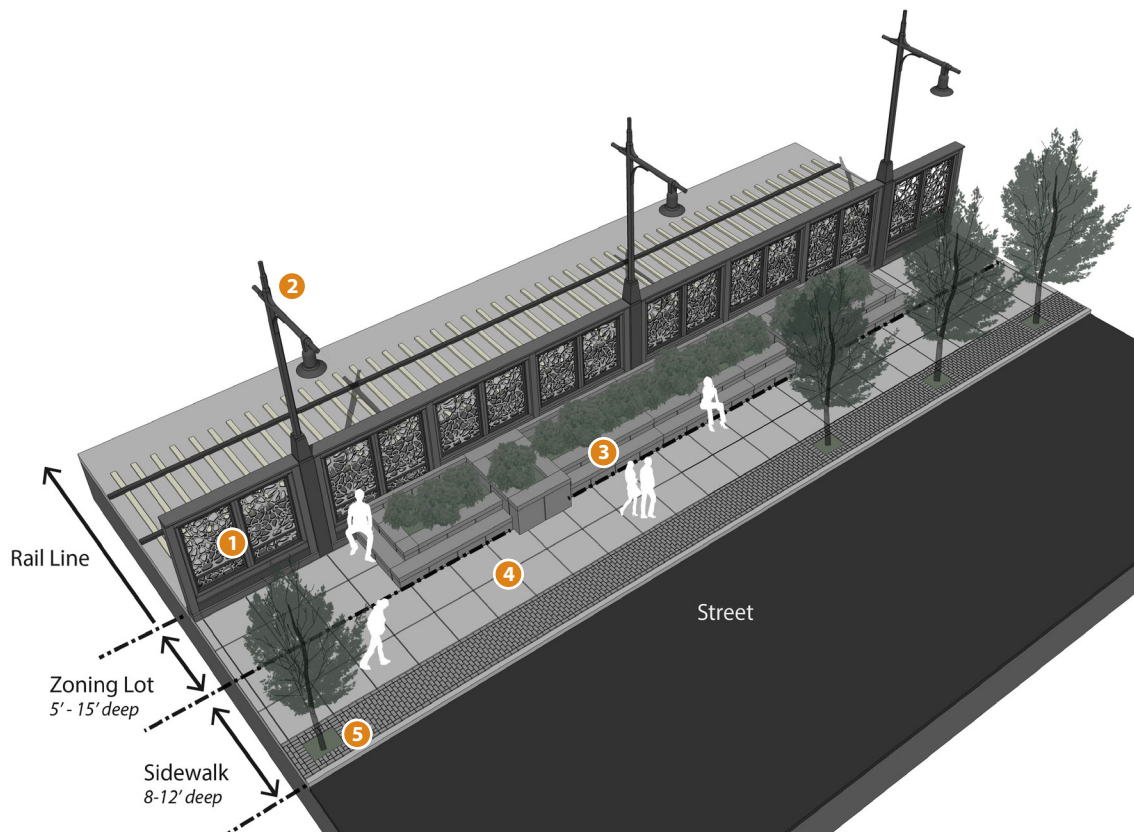


FIGURE 3 | Example of a Category 1 lot type.

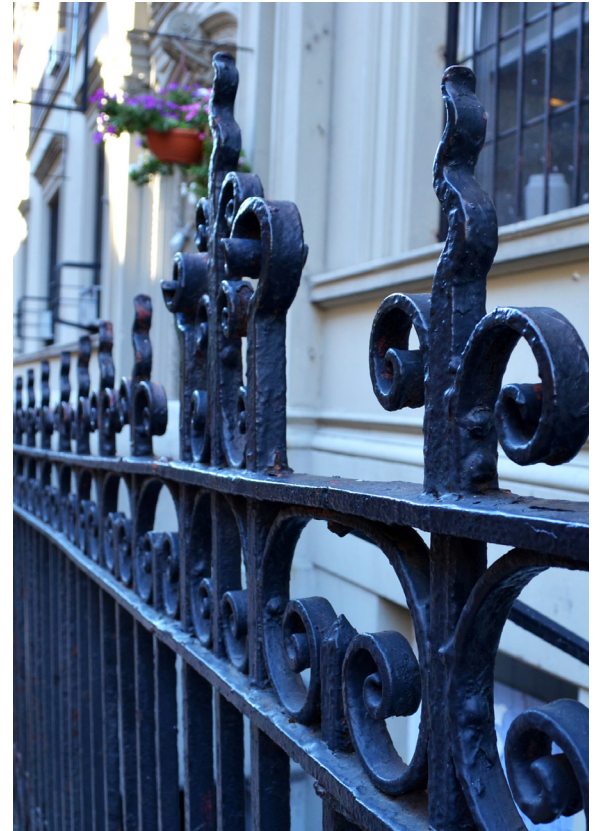


FIGURE 4 | (Left) Community improvements along Amsterdam Avenue, (right) decorative iron fence.



FIGURE 5 | Entrance to 96th Street IRT station, showing seating amenities.

CATEGORY 2

Parcels in this category are generally still not large enough to accommodate development, but may be able to accommodate kiosks or information booths. Therefore, solutions are targeted towards building on the improvements in Category 1 by introducing more active uses, especially in locations near station areas. In addition to the measures discussed in Category 1, specific solutions include:

- 1 Introduce small scale commercial uses such as food kiosks or pop-up markets. The activity associated with these uses will dramatically enliven the streetscape, and add a greater sense of safety for pedestrians in the area. This will also necessitate that commercial uses are a permitted use within the respective zoning district.
- 2 Adding moveable tables and chairs in conjunction with food kiosks. This will facilitate opportunities for flexible socializing and, when compared with permanent seating around planters, will add more variety to seating types available.

- 3 At greater depths, larger more permanent commercial structures may be viable, such as converted shipping containers.
- 4 For wider lots, kiosks could be interspersed to add variety and visual interest. In addition to food kiosks, information booths, pop-up galleries and other types of retail kiosks should be considered, although they may not have the activity associated with food service. Seating, planting, and other amenities should also be strategically distributed.

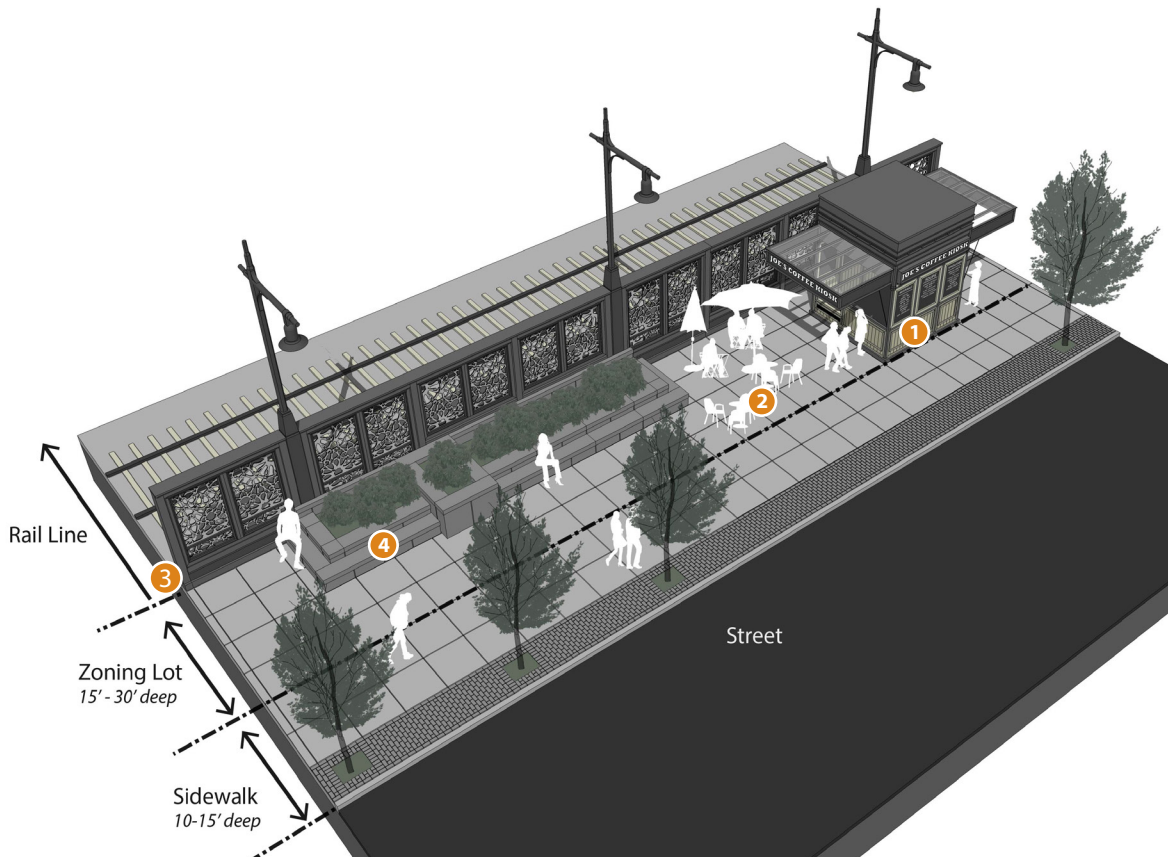


FIGURE 6 | Example of a Category 2 lot type.



FIGURE 7 | Retail space in shipping containers, DeKalb market, Brooklyn Source: @ NYC Economic Development Corporation



FIGURE 8 | Food carts buffering municipal parking lots in Portland, Oregon. Source: Visitor7, CC-BY-SA-3.0, via Wikimedia Commons from Wikimedia Commons

CATEGORY 3

Parcels in this category are approaching a depth which may be able to accommodate one or two story commercial development. Where feasible, this should be promoted as the scale and pedestrian traffic associated with a store could easily be more beneficial for the streetscape than the small-scale kiosks recommended in Category 2. They will also buffer some of the nuisances associated with rail lines from the street itself, especially noise. In addition to the measures discussed in Category 1 and Category 2 specific solutions include:

- 1 Introduce commercial development, which maximizes the potential of the lot. At heights above 23 feet a rear yard may be required, so buildings taller than two stories may not be feasible. To facilitate this development a commercial district would be needed, there should be no parking required, especially in station areas.
- 2 Community facility uses would be permitted, but should not be encouraged on the ground

floor as they typically do not generate the pedestrian foot traffic of retail uses. However, since retail often becomes difficult above the ground level, community facility, office and fitness centers would make ideal second story uses.

- 3 Since depths are restricted a tendency may emerge to construct wide floor plates. This should be counter-balanced by encouraging a multitude of individual establishments along the street, and by interspersing some of the amenities discussed in categories 1 and 2 at routine intervals. This becomes especially important where block-fronts start to exceed a width of 250'.
- 4 Lots at this depth warrant the sidewalk amenities associated with a typical street. Street lamps trees, and street furniture incorporated at routine intervals.



FIGURE 9 | Example of a Category 3 lot type.

CONCLUSION

The nature of commuter rail lines in the Bronx has created lots which are difficult to effectively use in a way that complements transit oriented development principles and often produces undesirable outcomes. However the uses on these lots, specifically as they are closer to transit stations, play an important role in creating a healthy pedestrian environment and providing amenities to transit users. While these lots have constraints and are prone to uses which are inappropriate, there are practical options for their development to enhance the surroundings. Subsequent sections of this report demonstrate specific applications of these solutions.

The recommendations and best practices described above represent a limited and clearly defined approach to the issue of rail-adjacent lots. This issue could benefit from a broader and deeper exploration of the problems and solutions. Zoning alone could be studied to examine changes to building envelopes, yards and ground floor configurations (like

glazing, required number of entrances or minimum number of establishments per block). Such a study could also explore similar issues which create the same kind of awkward and difficult lots like lots next to highways and elevated rail lines. This can be already be seen in 'L' suffix districts located along some elevated rail lines. For example, along the Broadway JMZ elevated rail line in the Bedford-Stuyvesant neighborhood of Brooklyn, a C4-4L commercial district on top so it has mandatory ground floor use and transparency measures attached to it. Additionally, conditions in the Bronx differ from those in the other boroughs – a City-wide study of rail adjacent lots could develop a comprehensive set of tools to tackle these issues.

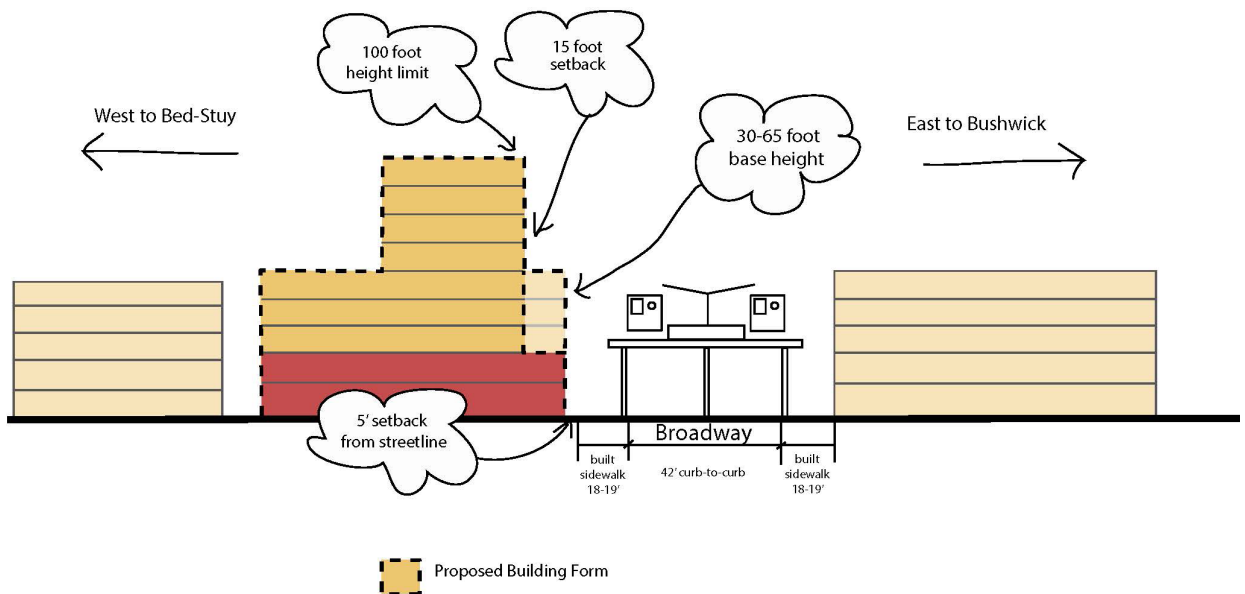


FIGURE 10 | C4-4L zoning district adopted along Broadway elevated corridor in Bedford Stuyvesant neighborhood of Brooklyn.

Source: The Department of City Planning