Interborough Express Transfers in Jackson Heights

By John Pegram[1]

The station in Jackson Heights, Queens will be one of the busiest on the Interborough Express (IBX) line. The MTA's PEL Report[2] projects the 10,500 daily IBX passengers will use that station, 9% of the total daily IBX passengers. It would be the third busiest IBX station, mainly because of transfers. However, the proposed IBX transfers there would be out-of-system[3] and take about 5 minutes or more. Compare that with 10 seconds for a cross-platform transfer.

Not very encouraging. Let's see if we can optimize this connection.

The Present Stations

The Roosevelt Avenue NYC Transit stations are already busy junction stations.[4] We will focus on the west end, at 73rd Street, nearest to the IBX right-of-way.

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1 © John Pegram 2024.

2 MTA, *Interborough Express Planning & Environmental Linkages Study* (Jan. 2023) (PEL Report), available from the MTA here. Appendix 1.11, "Capital Cost Estimate," is missing from that version. The most complete version available to the public, including all appendices, was produced to me by the MTA in response to my Freedom of Information Law (FOIL) request and is available for download here. Citations to pages of that version, as indicated by a PDF reader, are in the form [###/1150].

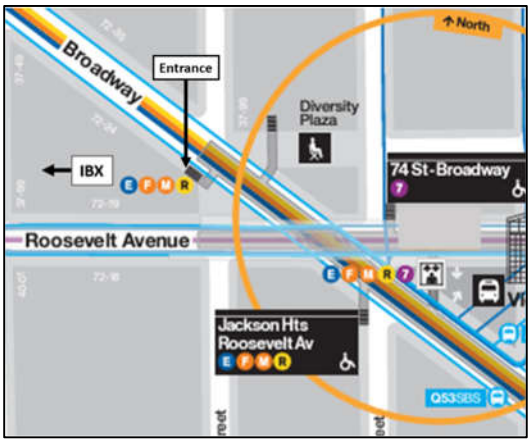
3 The Jackson Heights subway stations are listed in the PEL Report Appendix 1.2 as "Within Walkshed." That report explains: "'Within Walkshed' means the subway station falls within a half-mile walking distance from the study corridor. Stations listed as 'Within Walkshed' are not close enough to the ROW to support a direct transfer connection to new rail passenger service." *Id.* at Technical Memorandum, p. 11/57 [109/1150].

4 *See* the excellent descriptions and photos of these stations at https://www.subwaynut.com/ct/74_broadwayn7/index.php and https://www.subwaynut.com/ct/roosevelt_jackson_htse/ index.php.

There are two stations: an elevated one for the 7 line (IRT or A Division) and an underground one for the E, F, M and R lines (IND or B Division). Here is how they stack up:

- Top Level – Elevated platforms of the 7 line 74th Street-Broadway "subway" station, 28 feet above Roosevelt Ave.[5]
- Two Upper Mezzanines – below the elevated tracks, connecting between the eastbound and westbound 7 line platforms, one near 73rd Street and the other near 74th Street, 17 feet above Roosevelt Ave.
- Street Level
- Lower Mezzanine – 20 feet under Broadway and running above the entire length of the IND platforms.
- Bottom Level – Subway platforms of the Jackson Heights-Roosevelt Avenue station, serving the IND lines, 32 feet below Broadway.

The closest entrance of these stations to the IBX right-of-way is on Broadway, a few steps north of Roosevelt Ave., west of 73rd Street, as shown in the map below.[6] This entrance is a staircase down to the Lower Mezzanine, where there are further stairs down to the IND platforms. There also are nearby stairs and escalators from the Lower Mezzanine up to the western Upper Mezzanine,[7] where there are stairs up to the 7 line platforms. (The elevators are near 74th Street).



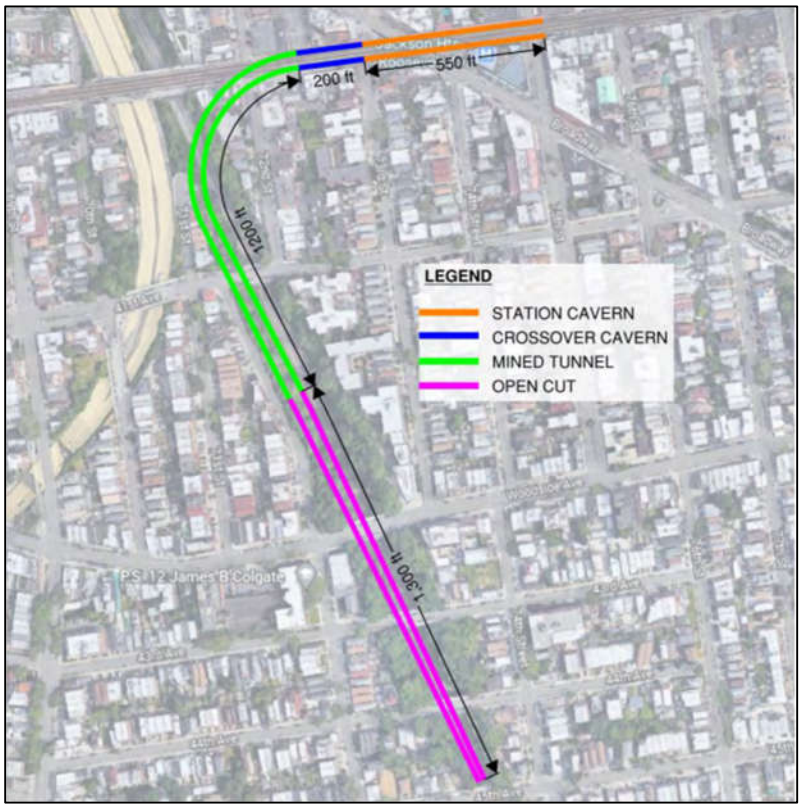
5 Vertical distances estimated from number of staircase steps.

6 Excerpt from MTA 74th St-Broadway Neighborhood Map, available at https://new.mta.info/document/1011.

7 The escalators at 73rd Street were closed at the time of my March 2024 visit.

The PEL Report Proposal

The MTA's PEL Report and its Appendices recognized the problem of providing a good connection between the IBX line and subway stations at Jackson Heights, for example, asking, "Is there potential for transfers between stations at Roosevelt Avenue (ease of transfer)?"[8] The report considered having a light rail line descend in the right-of-way and turn underground into a station under the IND platforms. See map below.[9] That was rejected as too expensive.[10] The cost estimate appears to have been approximately 450 million dollars![11]



The PEL Report recommended a station in the cut, west of the Roosevelt Avenue subway stations.[12] No plans for implementation of an in-system transfer were provided. In other words,

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8 PEL Report at p. 16 [16/1150]. *See id.* at pp. 17 & 22-25; PEL Report Appendix 1.6, in its "Appendix A: Option for Tunnel at Roosevelt Avenue" at 9/14 [237/1150].

9 From PEL Report Appendix A, *supra* note 8, at p. 11/14 [239/1150].

10 PEL Report Appendix A, *supra* note 8.

11 252 million dollar direct cost estimate, plus 37% for professional services and contingencies, adjusted upwardly by 35% to 2022 dollars.

12 PEL Report at p. 22.

transferring riders would walk along Roosevelt Avenue between the IBX line and existing subway stations.

Appendix 1.15 had suggested the possibility of "free transfer to transit rail connections by dedicated passenger corridor elevated above the street;"[13] however, that idea does not appear elsewhere in the report and appendices. As shown by the photo below, taken on Roosevelt Ave. near the IBX right-of-way, the clearance beneath the elevated tracks there is 11 feet, ten inches, which is insufficient for a "dedicated passenger corridor above the street," beneath the elevated tracks.[14]

The Transferring Rider's Street Walk

The IBX line will be in a cut, west of 72nd Street, as indicated on the map below:[15]

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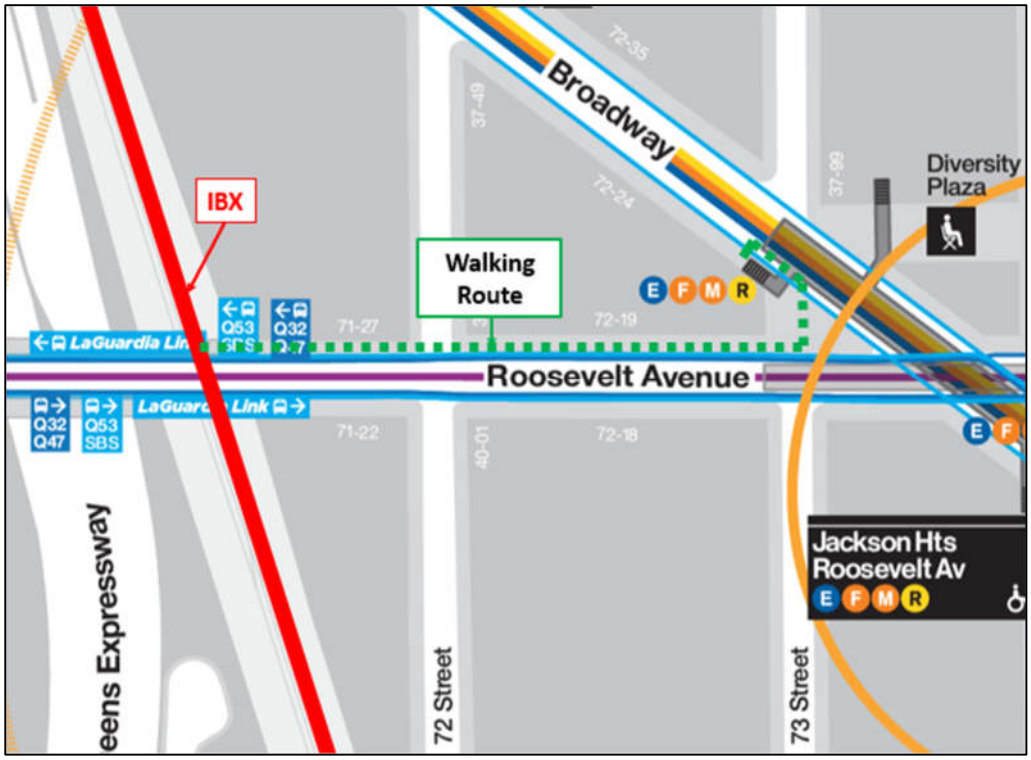
13 PEL Report, Appendix 1.15 at p. 6/7 [1061/1150] "PEL Study Findings," at "Terminal Location."

14 Photo from Google Maps, image capture Sep 2022, at Roosevelt Ave. & 72nd Street, Queens, NY.

15 Neighborhood Map, *supra* note 5.



The IBX station's central platform would be approximately 25 feet below the street.

The PEL Report indicated that stairs and an elevator would be on the south side of Roosevelt Avenue, with the possibility of another set of stairs on the north side.[16] No escalators are planned. (I recommend stairs and at least an up escalator on the north side, because the north side would provide the shortest and fastest route to a subway entrance, at 73rd Street, and the walking route would cross only one street, as indicated in the map above).

The subway entrance at 73rd Street is a staircase down to the Lower Mezzanine, from which there are stairs down to the E, F, M and G line platforms. There, riders for the 7 line can use an escalator up to the western Upper Mezzanine, from which there are stairs up to the 7 line platforms. (I suggest an additional escalator from street level to the Upper Mezzanine at this location).

16 PEL Report Appendix 1.3 at p. 8/22 [164/1150]. *See* PEL Report Appendix 1.16 at [1098 & 1120/1150] (maps).

Estimated walking times, excluding congestion delays at stairs and escalators, and additional time walking on platforms to or from stairs or escalators, are in Table 1 below:

Table 1 – Street Walking Time (minutes)

	E, F, M & R	7[17]
IBX platform to street	0:45	0:45
Street walk[18]	2:30	2:30
Delay crossing 72nd St.[19]	0:40	0:40
73rd Street entrance to platform	1:00	1:40
Total	4:55	5:35

Out-of-system transfer times of this magnitude are discouraging.

A Possible, Faster, Off-Street Walk

The PEL Report's suggestions of placing the IBX station below the IND station, or a "dedicated passenger corridor" from a station in the IBX cut recognized the inconvenience of street walking from the cut They were good ideas in terms of rider convenience. Unfortunately, moving the IBX station to under the IND station would be far too expensive and clearances above Roosevelt Avenue do not appear to permit the proposed passenger corridor "elevated above the street." Another possibility might be to extend the elevated station platforms along the 7 line to the IBX line, and provide stairs, escalators and an elevator to the IBX platform there. However, the increased walking up and down, and increased crowding that would occur on the 7 line platforms appear to render this impractical.

I suggest that the MTA consider building a passenger corridor (passageway) by cut-and-cover under Roosevelt Avenue for in-system transfer from the IBX cut to the Lower Mezzanine of the

[17] Assuming present route from street level to 7 line platform, via Lower Mezzanine.

[18] Assuming 3 mph walking speed. All time estimates were verified by personal inspection in March 2024.

[19] Assuming that riders allow for maximum traffic light delay in predicting connection times.

IND line station. Such a corridor would avoid the common, negative reaction to an out-of-system transfer. All transferring riders would save time and would avoid the effects of adverse weather.

Table 2 – Corridor Walking Time (minutes)

	E, F, M & R	7
IBX platform to corridor[20]	0:45	0:45
Corridor walk to Lower Mezzanine	2:30	2:30
Delay crossing 72nd St.	0	0
Lower Mezz. to platform	0:15	0:55
Total	3:30	4:10
% of Street Walk Time	71%	75%

This article expresses the personal views of the author and does not express the views of his employer, or any client or organization. The author has degrees in law and physics, and has taken several engineering courses. After five years of work as an engineer, he has practiced law primarily in the field of patents for over 50 years, dealing with a wide variety of technologies. He is a life-long railfan and user of public transportation in the United States, Europe and Japan.

[20] Assuming stairs and an underpass below the IBX and freight tracks to connect the IBX central platform with the corridor.