



Memorandum

TO: Andrew Worden, Town of DeWitt
Stephanie Guerreschi, Town of DeWitt
Julianne Delsole, NYSDOT
Owen Kerney, City of Syracuse
Neil Burke, City of Syracuse
Steve Koegel, Centro
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FROM: Kevan Busa, SMTC Transportation Planner

DATE: November 25, 2019

RE: Erie Boulevard Transit Mobility Enhancement

Introduction

In response to the Syracuse Metropolitan Transportation Council's (SMTC) project solicitation for the 2018-2019 Unified Planning Work Program (UPWP), the Town of DeWitt (town), with support from Centro and the City of Syracuse, submitted a proposal requesting that the SMTC identify opportunities for transit enhancements (i.e., bus pull-offs, shelters) along Erie Boulevard from Beech Street in the City of Syracuse to East Genesee Street in the Town of DeWitt. The subject planning effort was identified in the 2018-2019 UPWP with two principal considerations: 1) the development of a scope of work would commence when the New York State Department of Transportation (NYSDOT) released final design plans for the Empire State Trail along Erie Boulevard and 2) enhanced transit concepts such as Bus Rapid Transit, Light Rail Transit or Modern Streetcar would not be examined. Discussions with NYSDOT in early 2019 indicated that plans for the Empire State Trail were nearing completion and that it would be acceptable to initiate the planning scope.

As identified in the SMTC's Erie Boulevard East Pedestrian Study (2018), there are multiple bus stops along the corridor, however, there are no shelters for riders within the Erie Boulevard right-of-way. Stops are tools to attract riders, improve operational efficiency, build the brand identity of a system, and foster local economic development.¹ The Town would like to develop an approach that not

¹ *Transit Street Design Guide*. National Association of City Transportation Officials, New York, NY: 2016.

only identifies priority sites along the corridor for improvement, but also document a process that developers will follow during site plan reviews.

This study was conducted as a planning-level technical analysis with public involvement limited to Working Group meetings. As such, a project-specific Public Involvement Plan was not developed. A small working group was established to guide this analysis, including Centro, the City of Syracuse, NYSDOT, and the Town of DeWitt.



Existing bus stop along the Erie Boulevard corridor

Bus Routes

Figure 1 shows the bus routes that operate in the study area, including both Route 168, which operates directly on Erie Boulevard, and other routes in the surrounding area. Buses on Route 168 run, on average, every 30 minutes during morning, midday, and afternoon peak hours and roughly every hour at all other times. The 168 route operates consistently from before 6:00 a.m. until after midnight on weekdays. The 168 route terminates at ShoppingTown, and, therefore, the segment of Erie Boulevard between Fietta Road and Kinne Road is not served by transit.

The ShoppingTown stop has historically been the end of line for most of the routes in the area, including the Erie Boulevard Route as well as Salt Springs (76 and variants) and Genesee Street routes (30, 62, and variants). It is a transfer point and staging area for buses waiting to start their next run. Centro does not have a formal agreement with the ShoppingTown property owners currently but greatly relies on this location in the system. As redevelopment options for ShoppingTown are considered, Centro should work with the Town to identify the most appropriate location for a bus layover/transfer point. (As noted later in this memo, there may be some value to moving this layover/transfer point to the Marshall's Plaza. In either case, Centro and the Town should work closely to identify the most appropriate location.)

Bus Stops

There are a total of 29 bus stops on the Erie Boulevard corridor served by bus route 168: 18 in the City of Syracuse and 11 in the Town of DeWitt. Additionally, there are four bus stops near the Erie Boulevard/Genesee Street intersection that are served by routes 30, 62, and variants. Figure 2 shows the bus stops on the corridor as well as nearby stops around the Widewaters/ ShoppingTown Mall area.

For the purposes of this study, the following amenities were inventoried at each bus stop:

- a connection to an existing sidewalk,
- a concrete landing pad,
- benches,
- a shelter, or
- other features, such as a trash receptacle.

None of the 33 bus stops in the study corridor have complete amenities based on this inventory. As Figure 2 shows, most stops along the corridor do not have any amenities, a few have some amenities, and only one stop – which is actually on Genesee Street – has all amenities that were inventoried. One reason why most stops do not have a connection to a sidewalk is the lack of existing pedestrian infrastructure along the entire corridor. There is additional information on pedestrian infrastructure in SMTC's *Erie Boulevard Pedestrian Accommodation Study*, which was completed in 2018.

Based on the SMTC's fieldwork, the following general observations were made:

- Locations on the north side in the City generally have sidewalk connections. The south side of Erie Boulevard in the city and both sides of the road outside of the city lack sidewalk connections.

- Most bus stops in the corridor are “near-side” stops (meaning that bus stops are located before the intersection with a side street rather than after the intersection).

Ridership Data

SMTC was able to obtain numbers of riders boarding (getting on buses) and alighting (getting off of buses) from Centro for 2018. The data show that boardings are concentrated on the north side of Erie Blvd and alightings are concentrated on the south side of Erie Blvd. Figure 3 shows boarding information for Route 168 at each stop. Total daily boardings range from 0 to 36 riders at a single stop. The fact that boardings are concentrated on the north side of Erie Boulevard suggests that people are getting on the bus headed downtown. Figure 4 shows alightings along Erie Boulevard. Alightings are concentrated on the south side of the corridor; these are riders coming from downtown. Total daily alightings range from 0 to 62 riders per day at individual stops.

Review of Relevant Plans

Town of DeWitt

- The Town of DeWitt's Comprehensive Plan speaks to the rezoning and redevelopment of both Erie Boulevard and the ShoppingTown site. The Town of DeWitt has adopted a mixed-use overlay district in order to allow mixed-use development at the ShoppingTown site as well as on the Erie Boulevard corridor. The character on and near Erie Boulevard in the Town of DeWitt will slowly change from commercial to more mixed-use properties in the future.
- Widewaters office park will remain an office park per the Town of DeWitt's future planning. The Town informed the SMTC that there is a “floating zone” which would allow mixed-use activity on certain sites.

City of Syracuse

- The portion of Erie Boulevard in the City of Syracuse has traditionally been a commercial corridor and the proposed zoning under the City's current ReZone effort includes the same type of activity; no change in land use is likely in the foreseeable future for this portion of the corridor.

New York State

- New York State's Empire State Trail is a multi-use trail from Albany to Buffalo that will run through the City of Syracuse via Erie Boulevard. This will be a designated trail with signage and integrated pedestrian infrastructure. There will be sidewalks on either side of the street, a shared-use path down the median, and pedestrian crossings at intersections.

- NYSDOT's Pedestrian Safety Action Plan studied pedestrian infrastructure from Bridge Street to East Genesee Street via Erie Boulevard. This report looks to incorporate the plans from the Empire State Trail and continue pedestrian amenities so that the entire Erie Boulevard east corridor will have ADA-compliant sidewalks and intersection crossings. The focus is pedestrian safety, based on three principles: education, enforcement, and engineering. As part of the education program, there are recommendations to put educational material on the Centro bus system. The overall goal is to reduce fatal and serious injury crashes.

The Town of DeWitt has a vision for the ShoppingTown site to become a mixed-use development. A transit hub would make sense to keep in the area and incorporate into the planning for the future site. The redevelopment of ShoppingTown would likely completely reconfigure traffic circulation on the site.

Recommendations

Bus stop enhancements

Any enhancements, modifications, signage, etc, in the state right-of-way requires New York State Department of Transportation review, Use and Occupancy permit approval, and a Highway Work permit. Based on an analysis of the Erie Boulevard corridor, this memorandum recommends the following types of changes to the transit system in this area:

- Consolidation of stops,
- Three levels of stop enhancements:
 - Level 1 enhancement for stops with high boardings,
 - Level 2 enhancement for stops with moderate boardings,
 - Level 3 enhancement for stops with mostly alightings,
- Re-routing of the Route 168 through Marshall's Plaza for better circulation and the addition of a stop on Erie Boulevard, and
- Branding and signage throughout the corridor.

Figure 5 illustrates an approach to bus stop consolidation based on the proximity of existing stops to one another and ridership data. Stops within a quarter-mile of one another would be consolidated. Stops with relatively low ridership can be consolidated with nearby stops that see higher ridership. Consolidating multiple stops can improve system efficiency, making for shorter trip times for riders.

Figure 6 shows the recommended locations for stops, which would reduce the number on Erie Boulevard in the study corridor from 29 to 20. The 20 proposed stops are at key locations with existing high ridership numbers; after stops are

consolidated, it is assumed that these stops will warrant a higher level of amenities. Figure 6 shows the level of enhancement recommended at each stop.

Additional details about the suggested stop enhancements are shown in Figure 7. A Level 1 stop would include enhancements such as a bus shelter, pedestrian lighting, a bench, real time displays, and connection to the sidewalk. A Level 2 stop would include a waiting area, bench, real time displays, and lighting. Level 3 stops would include a large landing pad and connection to the sidewalk.

Four stops on the corridor are suggested for a Level 1 enhancement. Figures 8 and 9 show the recommendations for a Level 1 stop enhancement at an example location. This is a template for stop details and dimensions that could be subject to minor changes based on the site location. In most cases, a typical right-of-way of 20 feet or more from the existing curb line would allow all the stop details to be constructed within public right-of-way for a Level 1 stop. Providing a shelter, lights, connection from sidewalk to curb, and benches would be recommended for these stops. Additional amenities such as a garbage can, bike rack, and Centro schedule of Route 168 is also recommended. Level 1 gives a small group of people a place to wait for the bus while not having to wait either in snow storage or on a sidewalk. These stops have the highest numbers of riders waiting for buses and should be considered the most important stops for immediate enhancements.

Level 2 enhancements are shown in Figures 10 and 11. These stops are primarily used for boarding, and have moderate usage. The recommendations for these stops would require 16 feet of clear space from the curb into the right-of-way. They require fewer amenities than a Level 1 stop due to the moderate ridership. A waiting area, bench, trees/vegetation, and connection from sidewalk to curb are recommended. Trees and vegetation are highly recommended due to the exposure to elements as riders wait for the bus and would provide shade/wind protection. Other enhancements include lighting and Centro schedule of Route 168. Level 2 gives a few people a place to wait for the bus while not having to wait either in snow storage or on a sidewalk.

Level 3 enhancements are demonstrated in Figures 12 and 13. Level 3 stops are primarily used for alighting with few (or no) boarding riders. The primary recommendation for these stops is a large concrete landing pad at the curb that connects to a sidewalk. The landing pad would need to be 26-feet wide to allow access at both the front and rear doors. The area at the front door should be wide enough to allow a bus ramp to be safely landed on the concrete with enough space for a wheelchair to get off a bus safely and continue to a sidewalk. The Empire State Trail's preliminary design documents show that, in some instances, new sidewalks on Erie Boulevard will be directly adjacent to the curb. In these instances, there is no need for a connection between curb and sidewalk. Level 3

bus stops improvements need 10 feet of right-of-way from the curb and require fewer amenities than Level 1 or Level 2 stops.

The Town of DeWitt and City of Syracuse should work with developers to install transit stop enhancements at the sites recommended in this memorandum as part of the development approval process. Most proposed stop enhancements are in NYSDOT's right-of-way and would require a Use and Occupancy permit as well as a Highway Work permit.

Routing modifications

At Marshall's Plaza, Route 168 currently diverts from Erie Boulevard. The route runs through the plaza and continues to ShoppingTown Mall. The existing route misses a few key destinations on Erie Boulevard south of Fietta Road and the route has not been re-examined as ShoppingTown Mall has become increasingly vacant. Figure 14 shows the existing Route 168 as well as an optional route modification that includes the portion of Erie Boulevard between the entrance to Marshall's Plaza (Fietta Road) and Kinne Road. This proposed route would run along Kinne Road to Widewaters Parkway, looping back into the Marshall's Plaza. This would allow an additional stop in front of the Trader Joe's/ Raymour & Flanigan/Barnes & Noble plaza. It would also allow for a possible layover spot for up to two buses near Best Buy. As Figure 14 also shows, relocating a bus stop to a more central location within Marshall's Plaza would provide riders with better access to the existing sidewalk system. This should be considered within the context of development plans for both the Marshall's Plaza and ShoppingTown.

Branding and signage

Branding and signage are also recommended for the corridor. Figure 15 provides an example of signage for stops on Centro's bus route 168, with the signs' size and form consistent with Empire State Trail signage. Clear and consistent branding designating bus stops as Centro facilities would help unify the stops, the route, and Erie Boulevard. Providing a safe space for riders to either wait or get off a bus with proper signage would benefit riders in this corridor. All signs placed in NYSDOT's right-of-way would need approval/permit.

Permitting Process

Any enhancements, modifications, signage, etc, installed in the State right-of-way requires NYSDOT review, Use and Occupancy permit approval, and a Highway Work permit. The Highway Work permit is contingent upon Use and Occupancy permit approval. Obtaining an exact highway boundary is recommended in the early stages of design to confirm if any planned improvements are on the State's right-of-way or are on private property. If any improvements will end up on private property they will need to negotiate a separate agreement with the private property owner or modify the design so everything is within the ROW.

The permit process will involve various groups within the Region 3 NYSDOT office. For example, the Traffic & Safety and the Office of ROW groups would have to review and approve the location and format of proposed corridor branding signs before these are installed within the State's right-of-way. Official signage to be reviewed/approved by Traffic as to form and content, i.e. "branding signs." The Office of ROW typically approves official, regulatory signage in the ROW.

An applicant should first apply to Traffic & Safety for a Highway Work Permit. The Highway Work permit allows a non-State entity to perform work within the State right-of-way. The Highway Work permit application (with design plan) would need to be reviewed and approved by a Permit Engineer. Traffic then forwards the approved application/plan to the Office of ROW, which they then circulate for Use & Occupancy Permit approval. Once the Use & Occupancy Permit is approved, the Highway Work permit can be issued. Construction can begin once a Highway Work permit is issued. If the Highway Work permit application/plan is denied, changes may be recommended and the application/plan could be resubmitted. The Use & Occupancy Permit is issued after the Highway Work permit is closed out.

Once construction is complete, Traffic & Safety, NYSDOT, would inspect the work site to make sure that everything was built according to the approved plan documents. Once the Highway Work Permit is closed, a Use and Occupancy permit would be issued to the Permittee for the approved permitted use. Issuance of a Use and Occupancy permit requires the permittee to pay an annual fee and provide proof of liability insurance coverage. More details can be found by contacting the NYSDOT Region 3 Office of Right of Way and obtaining an application for the Use and Occupancy permit.

The Town/City and the developer would need to have an agreement for maintenance of the bus stop including any structures such as shelters. At this point, it is not expected that Centro would take on ownership or maintenance of these shelters.

Conclusion

SMTc has completed this analysis for the Town of DeWitt, Centro, and the City of Syracuse to provide enhanced bus infrastructure for riders on Erie Boulevard. Projects such as the Empire State Trail will alter pedestrian/bike facilities in the corridor in the near future and recommendations from this memorandum would complement these changes with better bus infrastructure. Our analysis recommends some stop consolidation and three levels of stop enhancements based on existing ridership data, along with consistent corridor branding. This analysis also suggests consideration of a route modification to provide coverage to a portion of Erie Boulevard that currently does not have service.

The ShoppingTown redevelopment in the future would impact the routing of bus routes and location of layover/transfer point(s). The City of Syracuse and Town of DeWitt should work with developers to include recommended transit amenities as properties develop/redevelop. Amenities to be installed within the State's right-of-way will require NYSDOT review, Use and Occupancy Permit approval, and a Highway Work Permit.



Table 1: Bus Stop Fieldwork Inventory
Erie Boulevard Transit Mobility Enhancement





		BUS STOP NUMBER																																
STOP AMENITY		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
	 connection to existing sidewalk	✓	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✓	✓	✓	✓	✗	✗	✗	✓	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓
	 concrete landing	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
	 benches	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
	 notable amenities	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗



Figure 3:
Estimated daily boardings (factored)
 Erie Boulevard Transit Mobility Enhancement

- 0 - 1.99
- 2.00 - 4.99
- 5.00 - 9.99
- 10.00 - 19.99
- 20.00 - 36.00

▲ ShoppingTown Mall (128.7)

Data Source: Centro 2018

This map is for presentation purposes only. The SMTC does not guarantee the accuracy or completeness of this map.

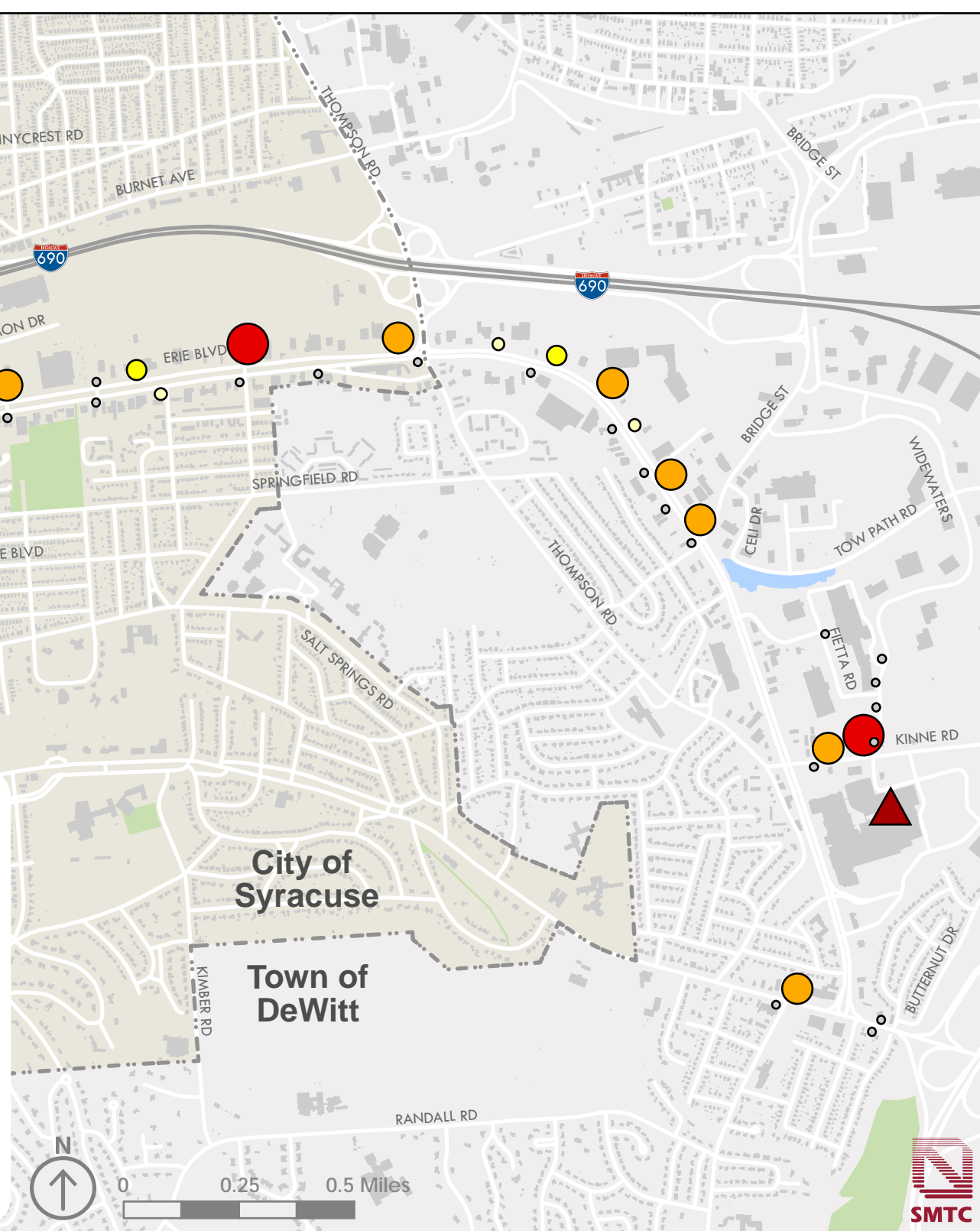


Figure 4:
Estimated daily alightings (factored)
Erie Boulevard Transit Mobility Enhancement

- 0 - 1.99
- 2.00 - 4.99
- 5.00 - 9.99
- 10.00 - 19.99
- 20.00 - 62.00
- ▲ ShoppingTown Mall (186.7)

Data Source: Centro 2018

This map is for presentation purposes only. The SMTC does not guarantee the accuracy or completeness of this map.

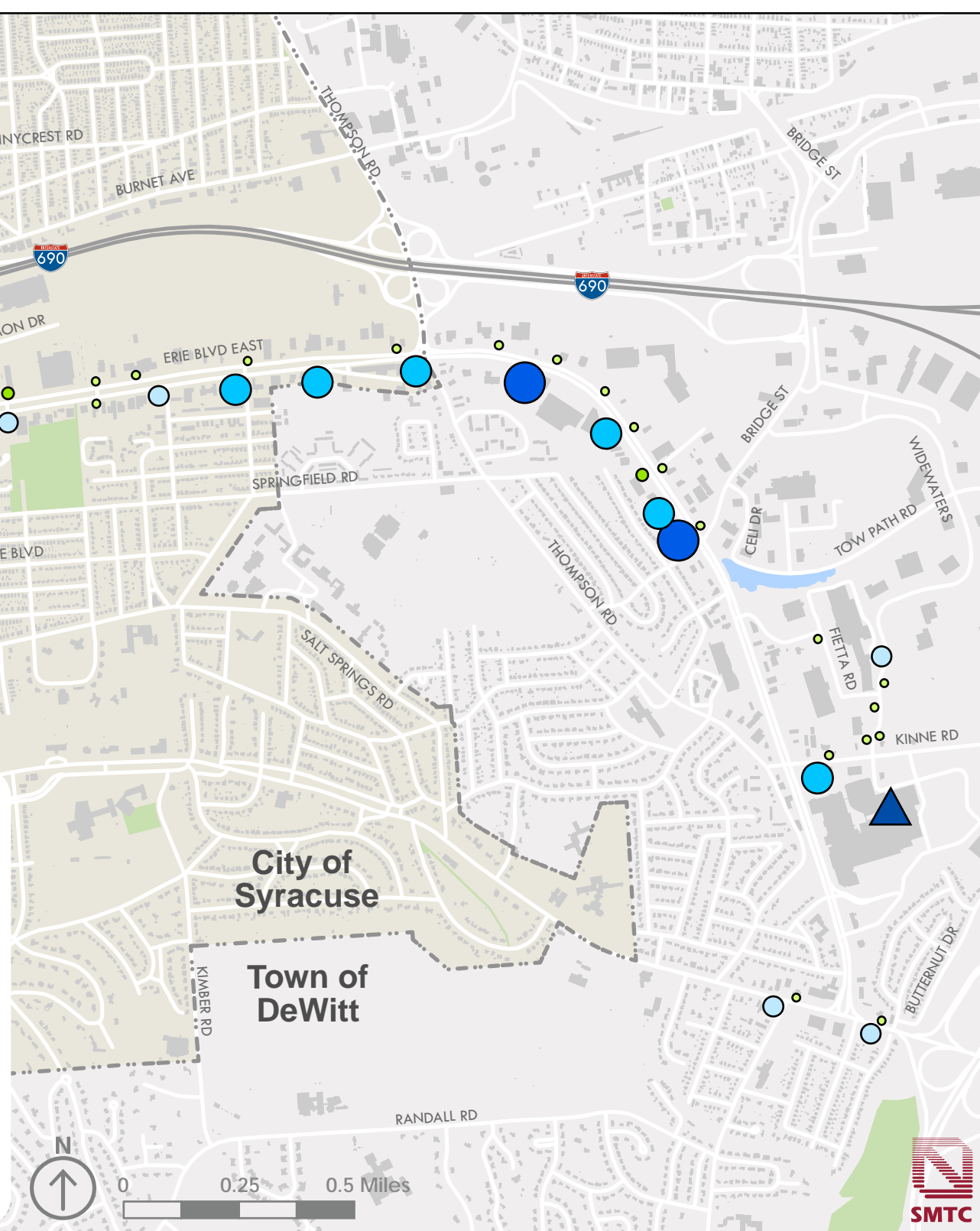
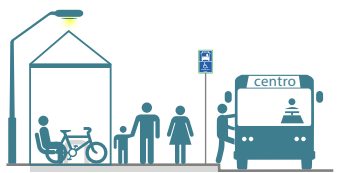


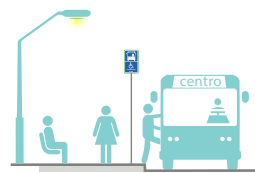


Figure 6: Suggested Stop Locations and Enhancements
Erie Boulevard Transit Mobility Enhancement

● **LEVEL 1** ● **LEVEL 2** ● **LEVEL 3**



High usage,
primarily boarding



Moderate usage,
primarily boarding



Primarily alighting

**Consolidate from 29 to 20 stops along the 168 route
on Erie Boulevard**

This map is for presentation purposes only. The SMTC does not guarantee the accuracy or completeness of this map.

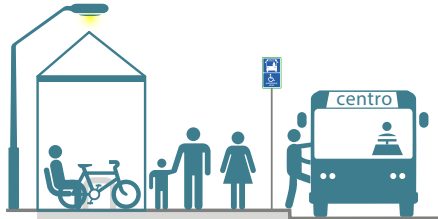


0 0.25 0.5 Miles



Figure 7: Stop Enhancement Details
Erie Boulevard Transit Mobility Enhancement

LEVEL 1



High usage,
primarily boarding

Stop Details

- Bus Shelter Structure
- Large waiting concrete pad
- Bench within shelter
- Pedestrian scale lighting
- Connection to sidewalk
- Schedule on wall of shelter
- Real time display
- Bike rack
- Trash/recycling bin
- Corridor branding signage
- Trees/plantings

LEVEL 2

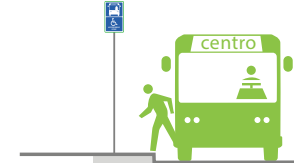


Moderate usage,
primarily boarding

Stop Details

- Large waiting concrete pad
- Bench
- Connection to sidewalk
- Pedestrian scale lighting
- Real time display
- Corridor branding signage
- Trees/plantings

LEVEL 3



Primarily alighting

Stop Details

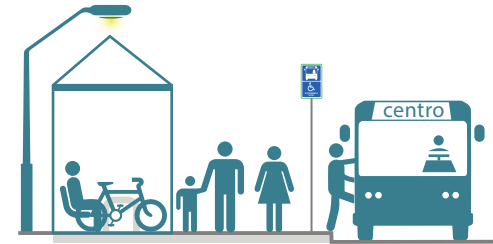
- Large concrete landing pad
- Connection to sidewalk
- Corridor branding signage

Figure 8: Level 1 Stop Enhancements
Erie Boulevard Transit Mobility Enhancement

LEVEL 1

Stop Details

Bus Shelter Structure, large waiting concrete pad, bench within shelter, pedestrian scale lighting, connection to sidewalk, system map/schedule on wall of shelter, bike rack, trash/recycling bin, trees/plantings, and corridor branding signage



High usage,
primarily boarding

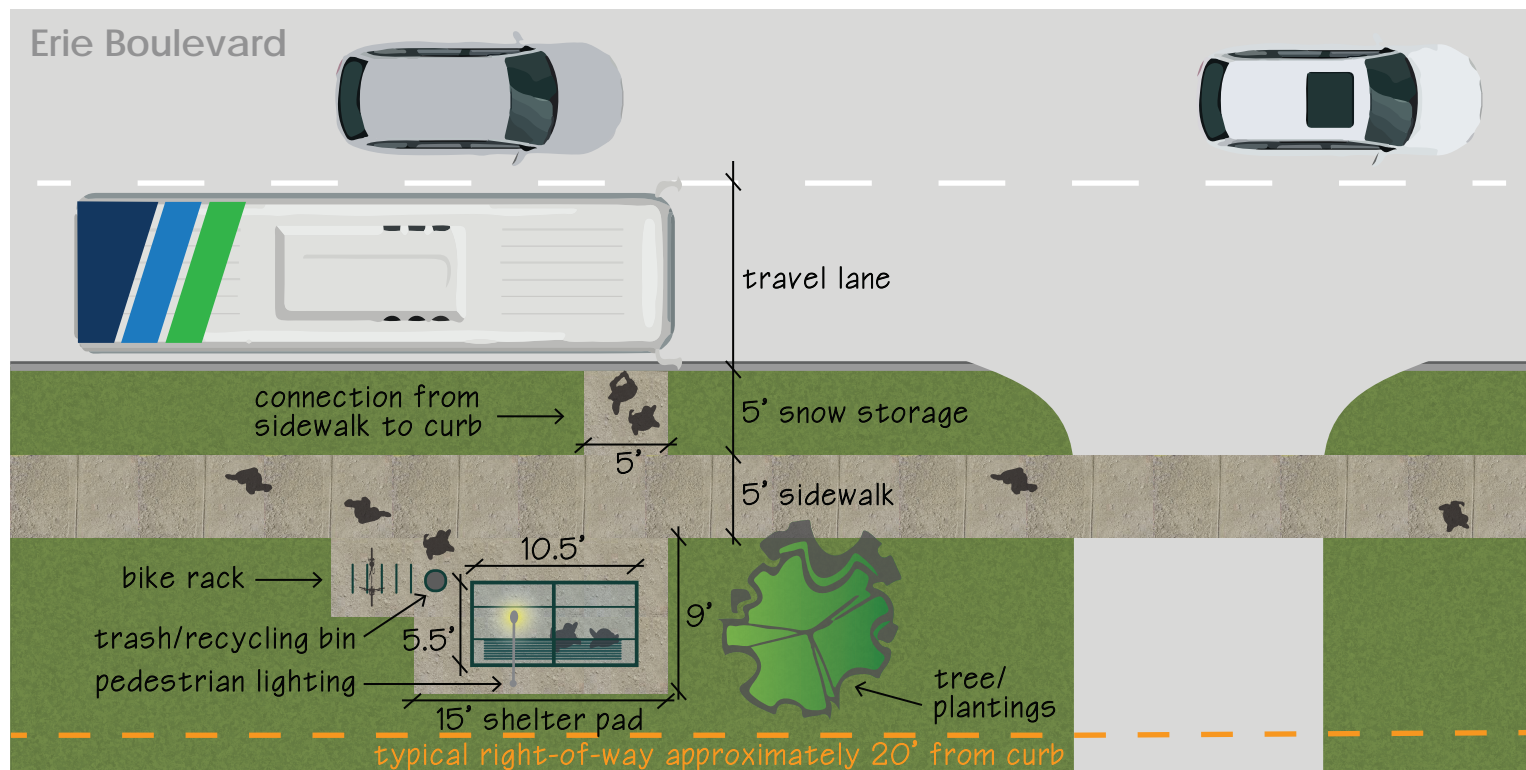


Figure 9: Level 1 Stop Enhancement Perspective
Erie Boulevard Transit Mobility Enhancement

LEVEL 1

EXISTING



PROPOSED

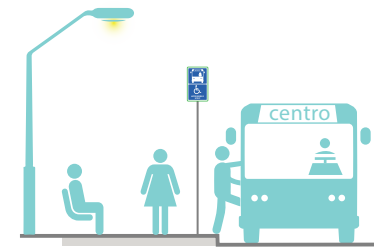


Figure 10: Level 2 Stop Enhancements
Erie Boulevard Transit Mobility Enhancement

LEVEL 2

Stop Details

Large waiting concrete pad, bench, connection to sidewalk, pedestrian scale lighting, trees/plantings, and corridor branding signage



Moderate usage,
primarily boarding

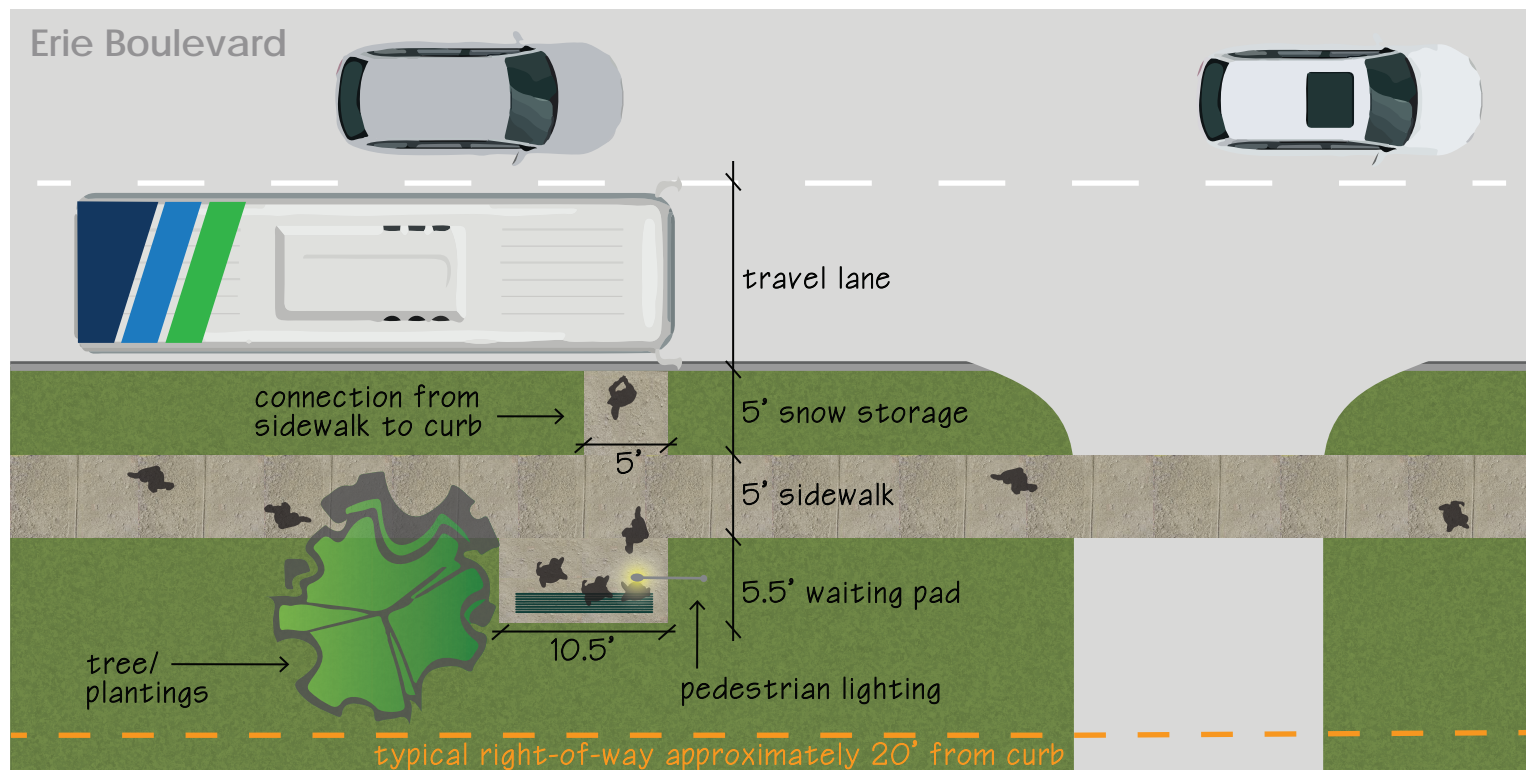


Figure 11: Level 2 Stop Enhancement Perspective
Erie Boulevard Transit Mobility Enhancement

LEVEL 2

EXISTING



PROPOSED

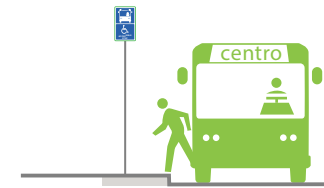


Figure 12: Level 3 Stop Enhancements
Erie Boulevard Transit Mobility Enhancement

LEVEL 3

Stop Details

Large concrete landing pad that provides alighting's from both the front and rear door, connection to sidewalk, and corridor branding signage. Some stops may have sidewalk immediately adjacent to curb. In this situation, a connection from curb to sidewalk is not needed for alighting.



Primarily alighting

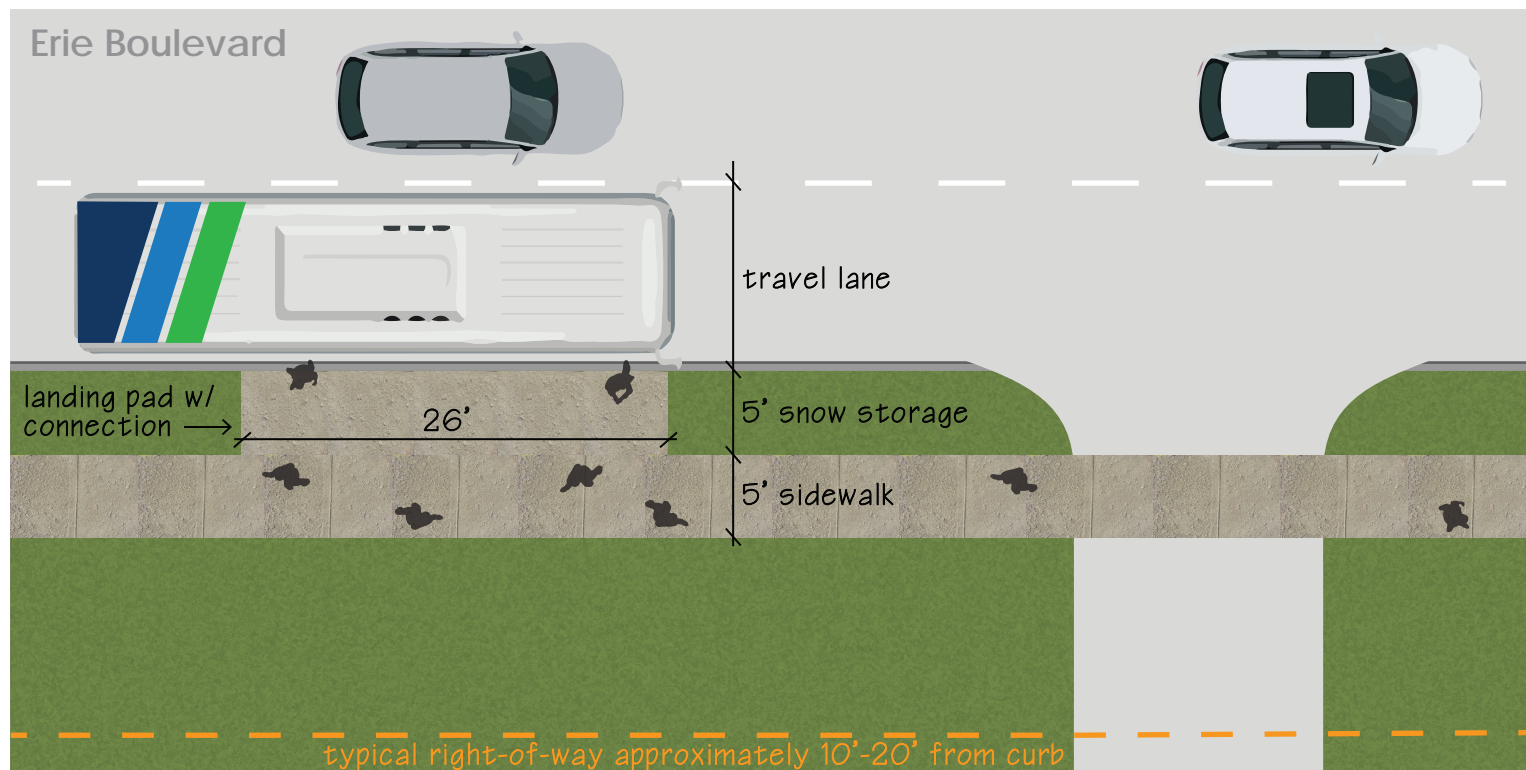


Figure 13: Level 3 Stop Enhancement Perspective
Erie Boulevard Transit Mobility Enhancement

LEVEL 3

EXISTING



PROPOSED



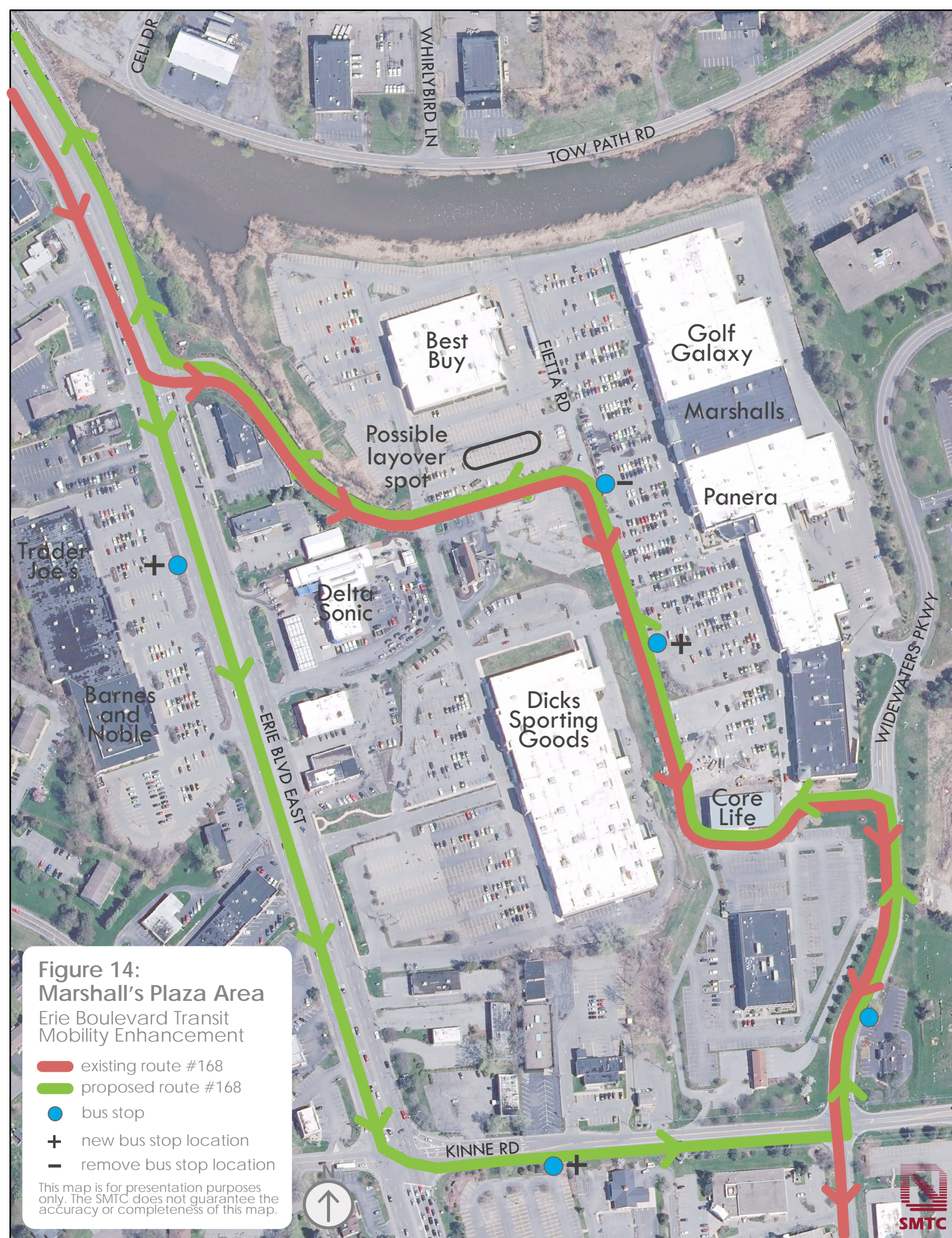
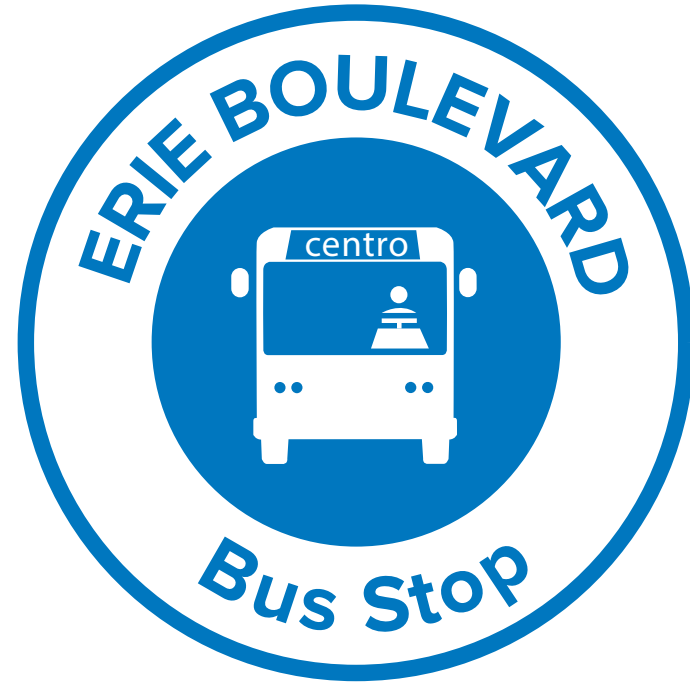


Figure 15: Signage and Branding
Erie Boulevard Transit Mobility Enhancement



General example of a wayfinding sign at a bus stop on Erie Boulevard



COLOR PALETTE

0/118/191

TYPEFACE

PROXIMA NOVA BOLD