



Fremont Ave N & N 34th St Bus Stop Expansion

Seattle Bike Advisory Board Meeting
Nico Martinucci, SDOT Transit & Mobility
December 7th, 2016



Seattle
Department of
Transportation

Our mission, vision, and core values

Mission: deliver a high-quality transportation system for Seattle

Vision: connected people, places, and products

Committed to **5 core values** to create a city that is:

- Safe
- Interconnected
- Affordable
- Vibrant
- Innovative

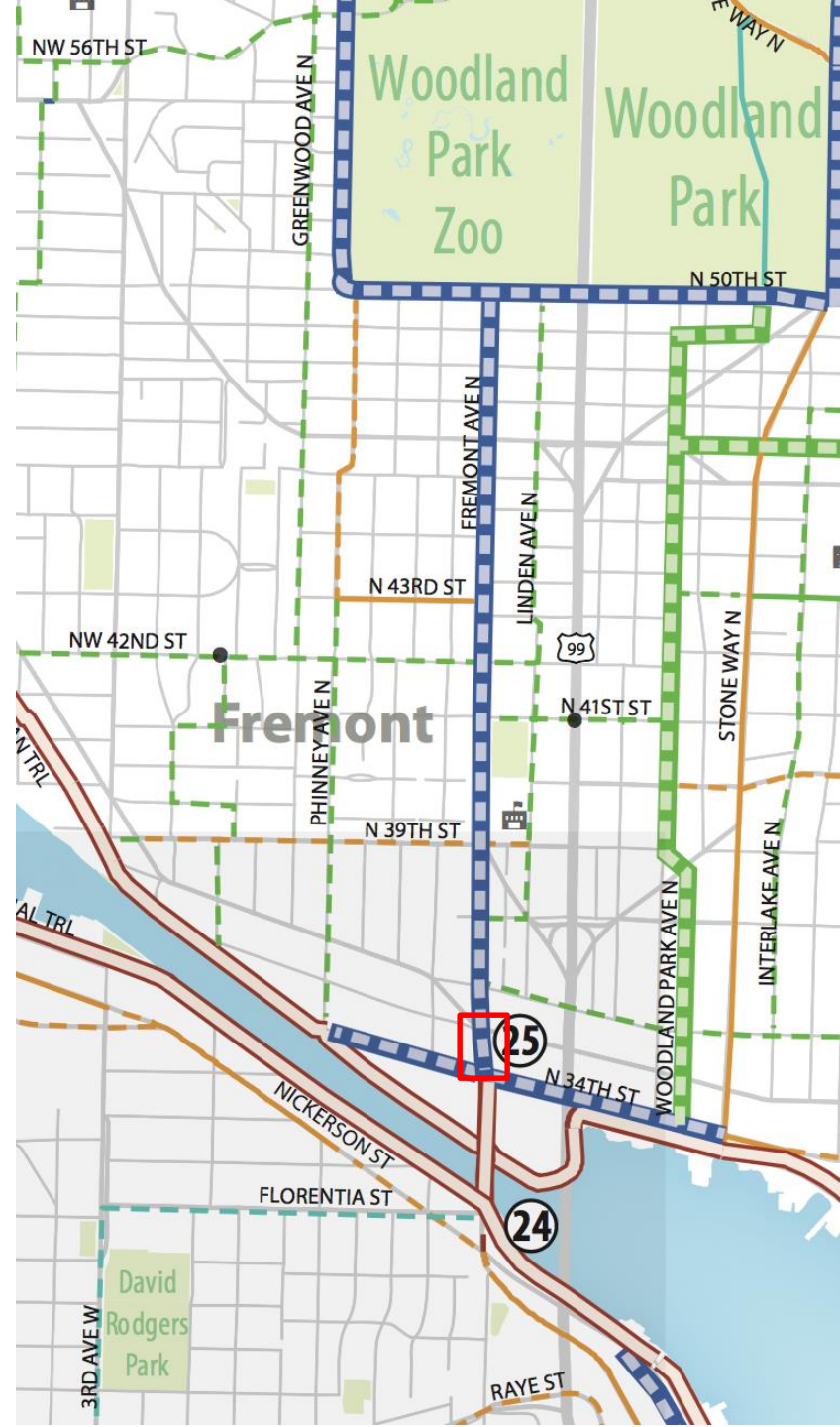
For **all**

Presentation overview

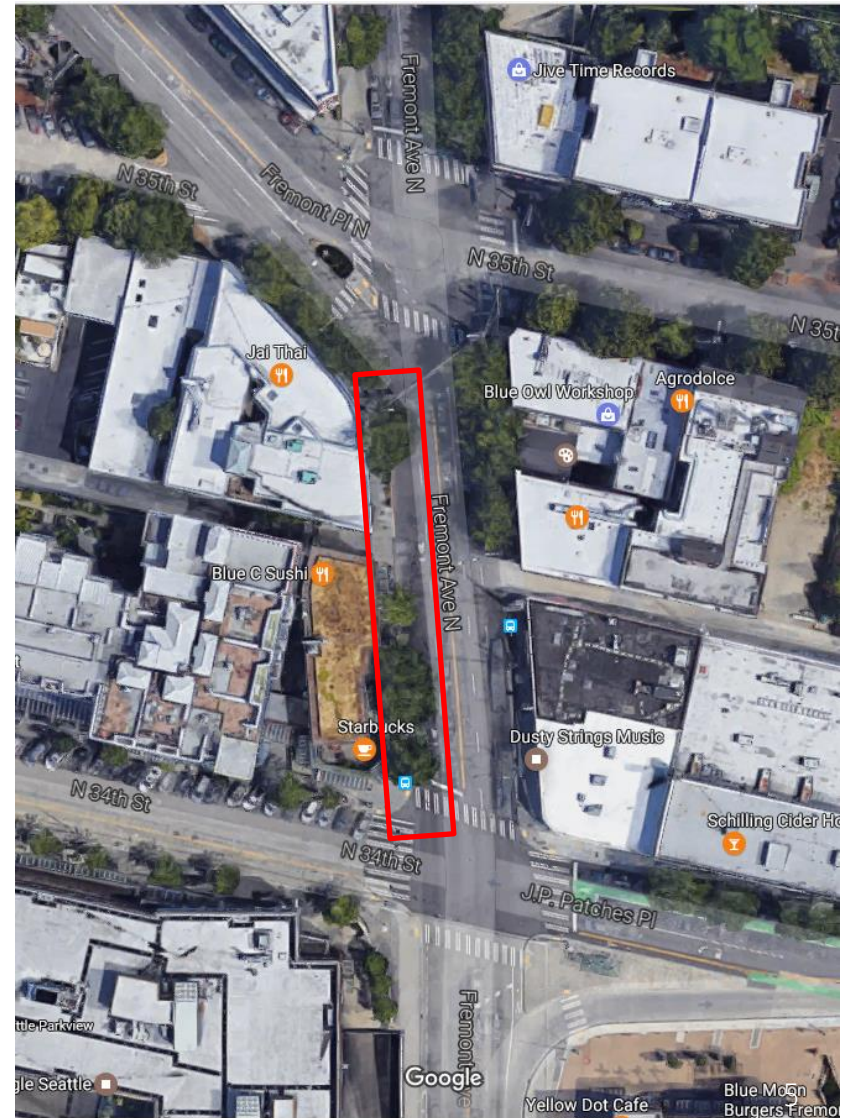
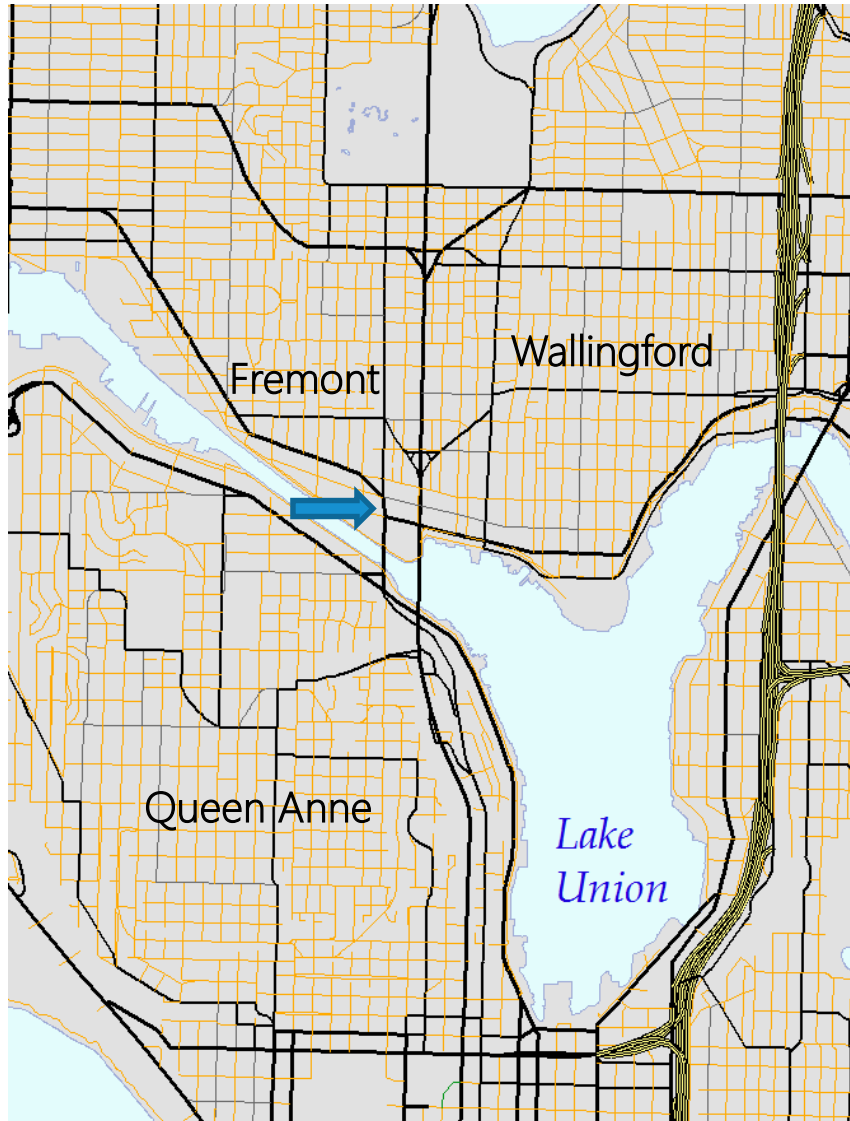
- Coordination between Transit & Bikes
- Existing Conditions
- Problem & Goals
- Overlap with BMP
- Bus/Bike Integration Concepts & Shortfalls
- Potential Next Steps
- Feedback

Why I'm here

- Overlap of projects
- Transit spot improvement at same location as future potential BMP project
- SBAB awareness of and input on impact on future bicycle infrastructure

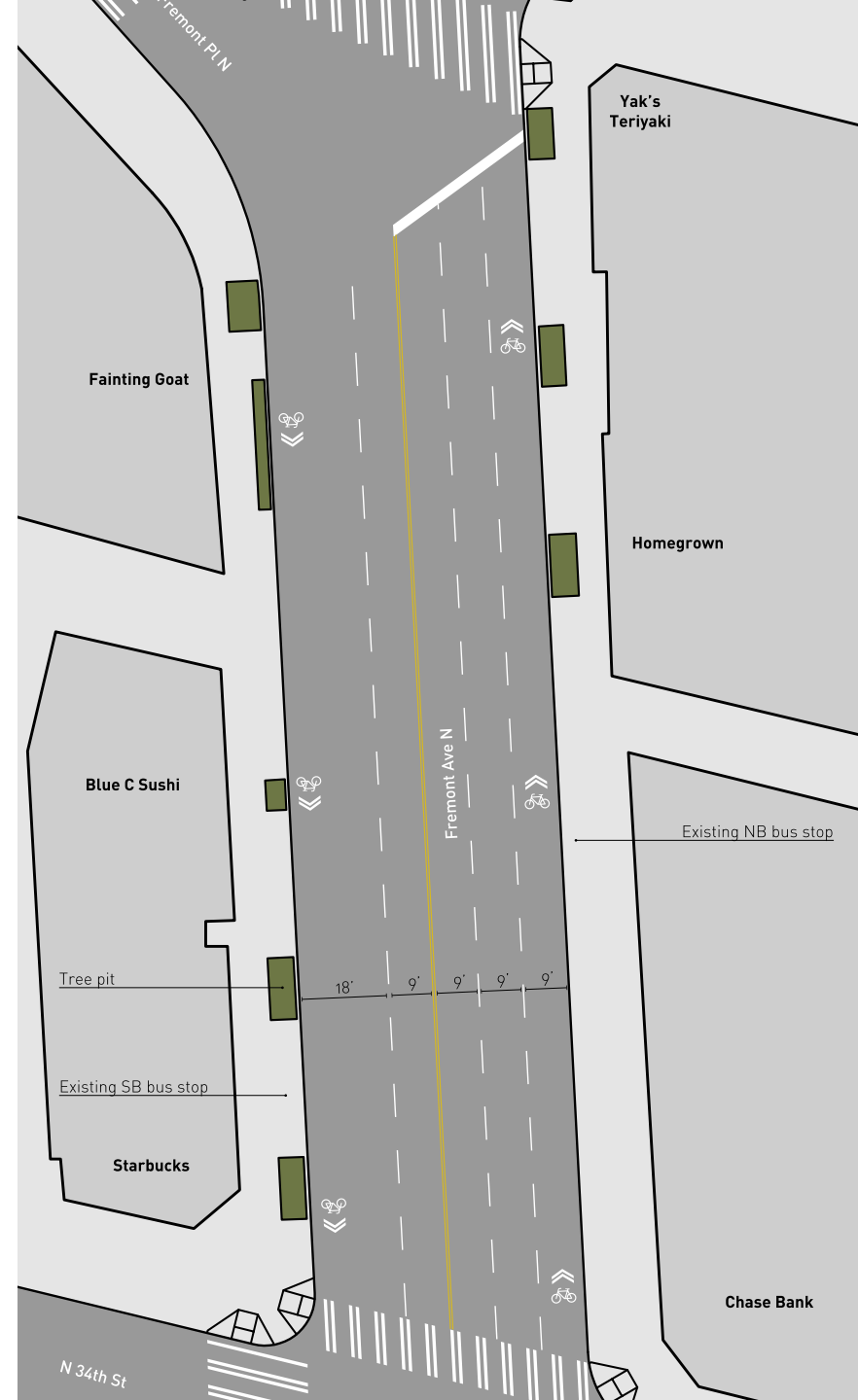


Project location



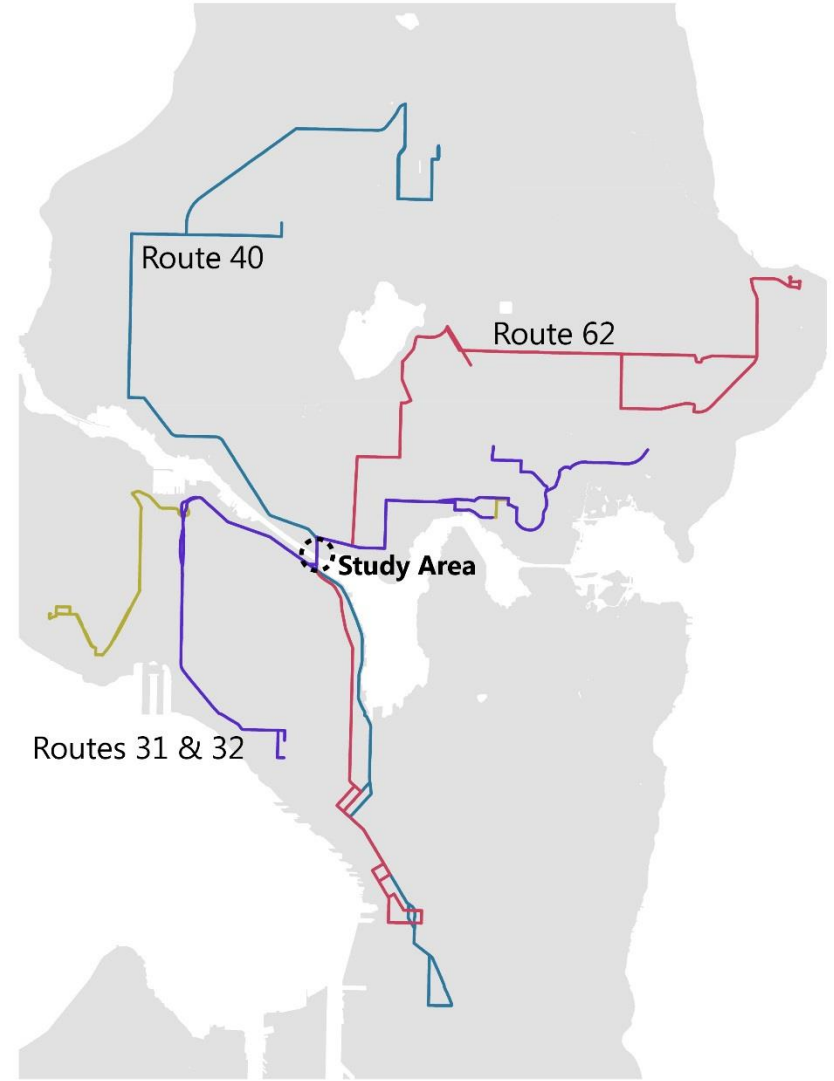
Existing conditions

- 54' roadway
- 12' west sidewalk (w/ 6' tree pits), 14' east sidewalk
- 2 SB GP lanes, 3 NB GP lanes, both curb lanes w/ sharrows
- 18' SB curb lane
- No on-street parking
- SB bus stop just north of N 34th St



Existing conditions

- SB bus stop serves routes 31, 32, 40, and 62
- Route 40: Upgrade to RapidRide frequency/amenities, 2021
- Over 1,000 boardings and over 600 alightings per weekday





The problem & project goals

- Problem: During AM peak, waiting transit riders can monopolize already limited sidewalk area, limiting mobility for pedestrians
- Project goal: Increase available waiting/walking area
- Project solution: Extend curb several feet into 18' SB lane

Overlap with BMP project

- Geographical overlap with proposed PBL on Fremont Ave N, from N 50th St to N 34th St
- Bus/Bike integration precedents, in Seattle & elsewhere
- Typical PBLs are incompatible with bus stops
- Important note: This project is not on the 5 year BMP Implementation plan



Photo from The Urban







Conceptualizing integrative solutions

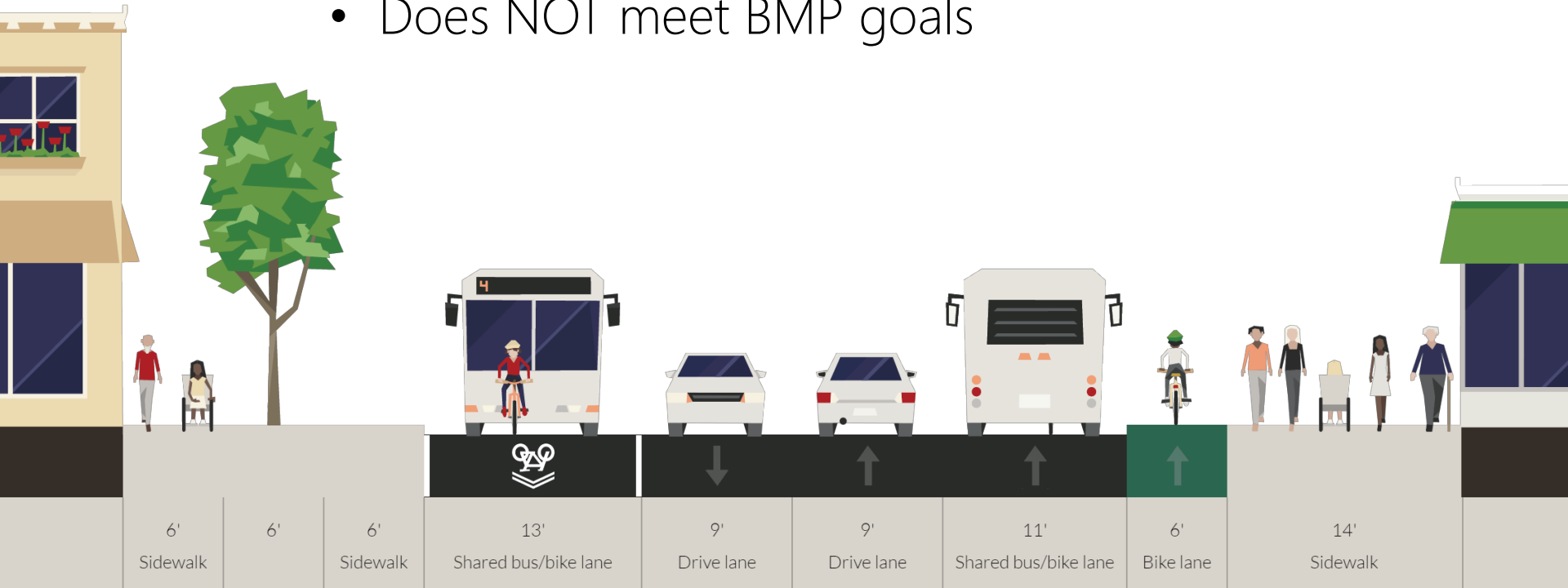
- How do we create a space that is safe, comfortable, and effective for all modal users?
- How do we accommodate potential conflicts during loading/unloading events?
- Allow capacity for future bike infrastructure – none planned as a part of this project

Assumptions

- Maintain at least two travel lanes in each direction
 - No narrower than 11' for lanes in which buses travel
 - No narrower than 9' for lanes in which GP traffic travels
 - Minimum of 40' of roadway after improvements
- Keep trees & tree pits, as well as current location of all other sidewalk furniture

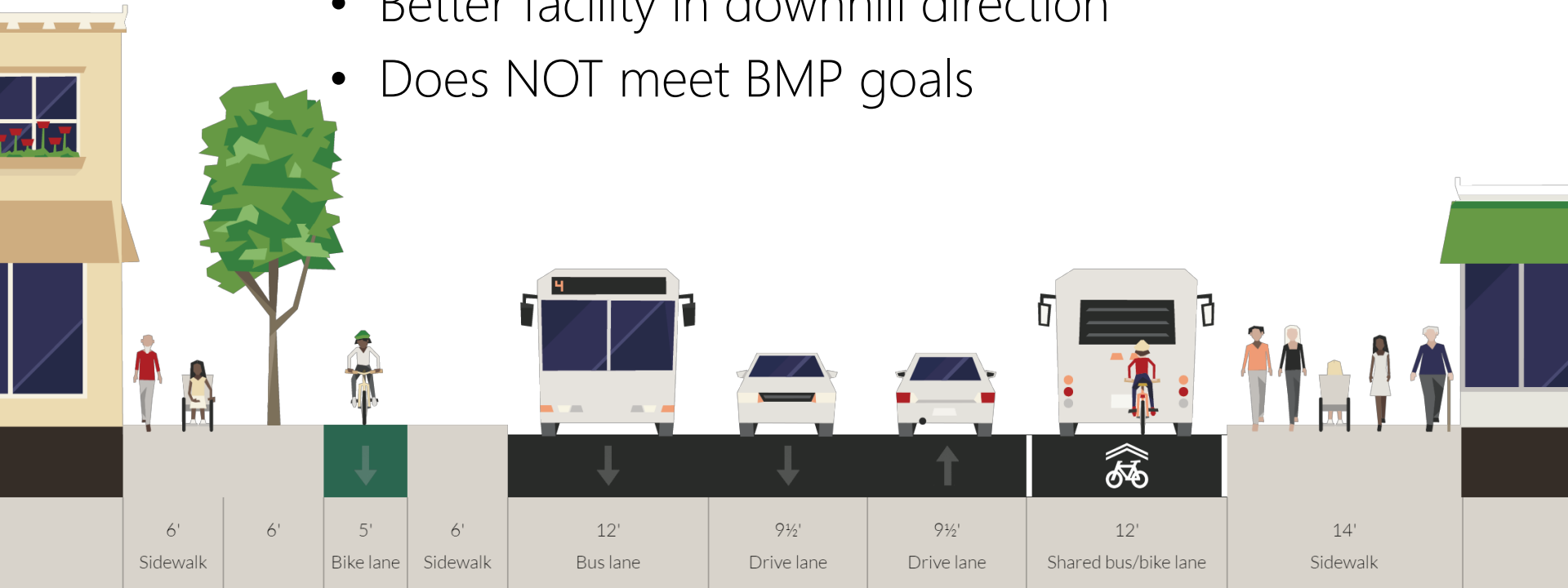
Alt 1: SB bus bulb & sharrows, NB raised bike lane

- Standard 6' curb extension/bus bulb w/ SB sharrows
- 6' NB raised bike lane – “Climbing Lane+”
- Raises issue of loading across bike lanes
- Does NOT meet BMP goals



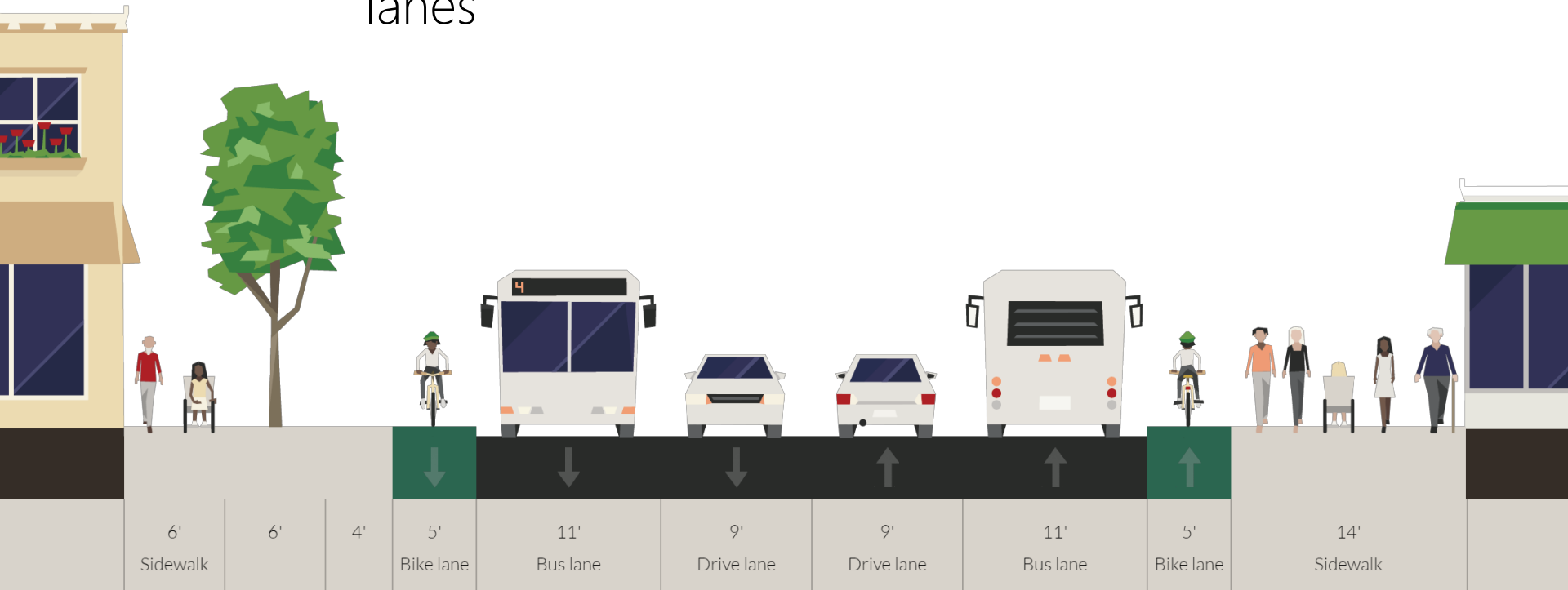
Alt 2: SB transit island & raised buffered bike lane, NB sharrows

- Typical (though compact) bike/bus stop integration – 6' transit island, 5' bike lane behind
- NB sharrows – Reverse “Climbing Lane+”
- Better facility in downhill direction
- Does NOT meet BMP goals



Alt 3: SB curb extension, two-way raised bike lanes

- 4' curb extension (slightly less than desired)
- 5' raised NB and SB bike lanes – true PBLs?
- Again – raises issue of loading across bike lanes

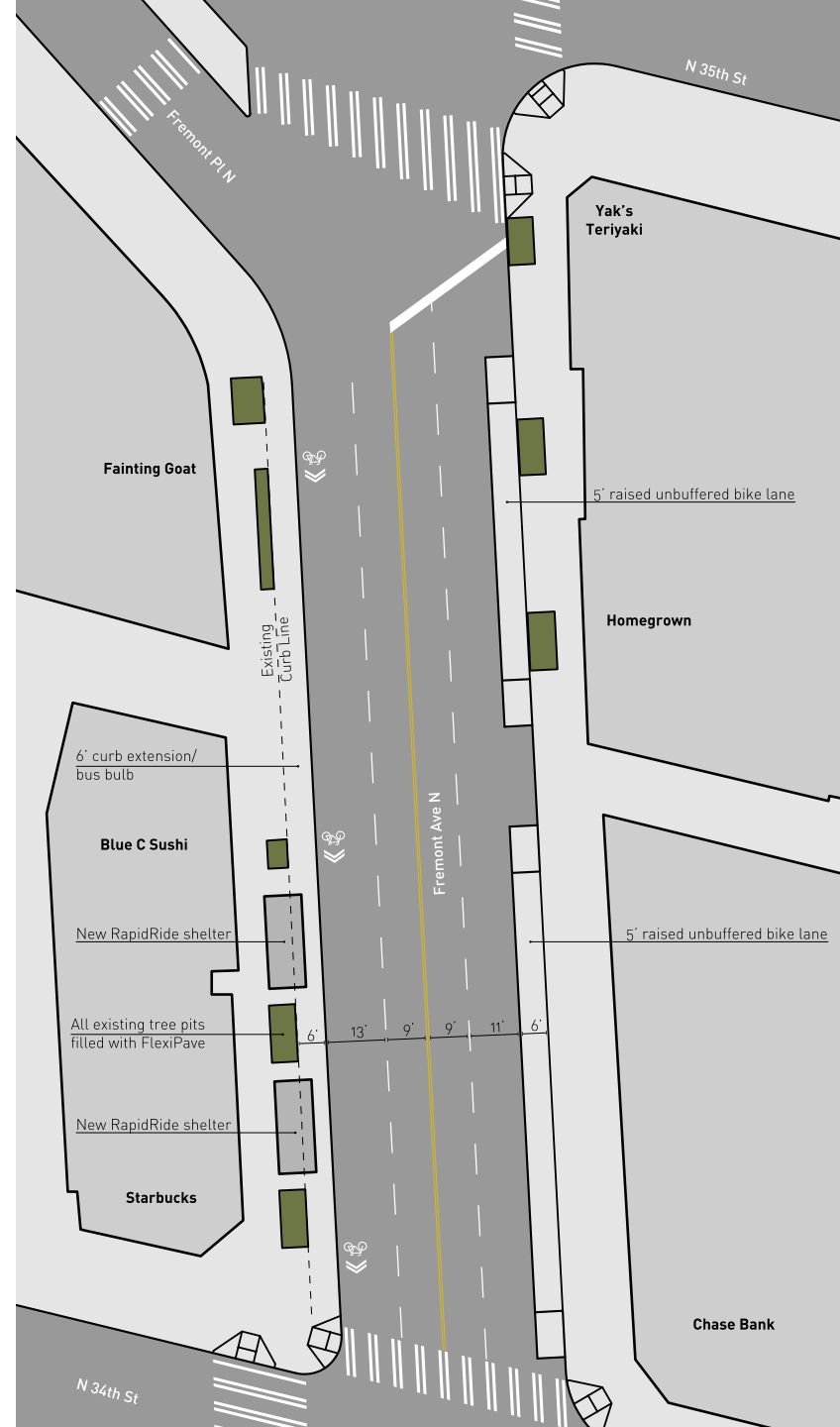


Conclusion

Both a SB bus stop expansion and two-way protected bicycle infrastructure cannot be accommodated on this block of Fremont Ave N, given current conditions.

Caveat: "Two-way"

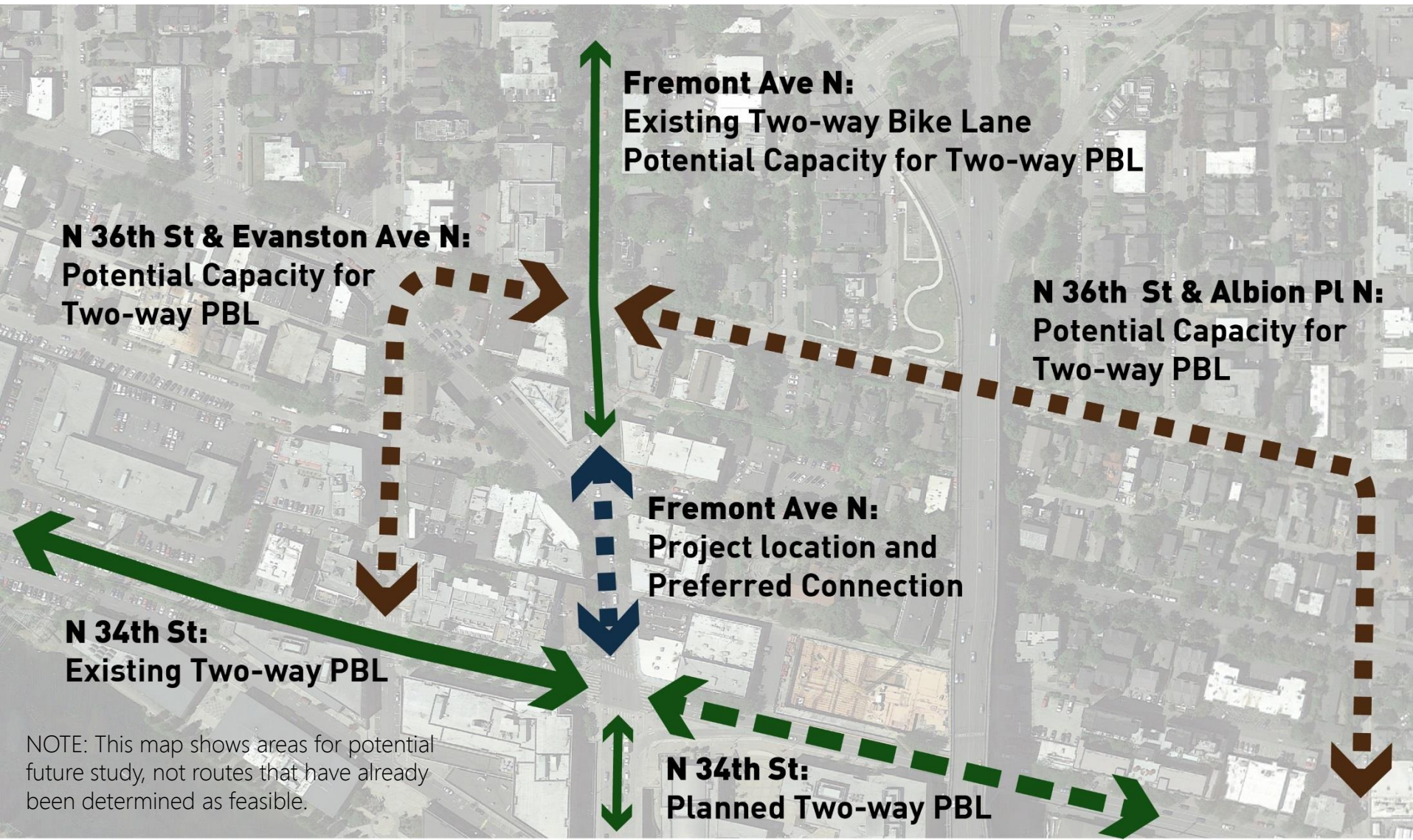
- Capacity exists for one-way protected infrastructure
- Northbound/uphill direction would likely be preferred
- Sharrows in other direction
- Consideration still needed for transit interaction



Caveat: "On Fremont Ave N"

- Preference is always for direct connection, and to build what's been laid out in our planning documents
- Capacity may exist to create connections on nearby streets, and to utilize existing/currently planned improvements
- Would not be quickest route, but helps achieve an AAA network

Potential alternate AAA routes to study



Caveat: “Given current conditions”

- Assumptions for this project included maintaining all trees/tree pits, furniture, no relocation of utility poles, etc.
- Also assumed maintaining two-way operations, two lanes in each direction, etc.
- Future capacity *might* exist for revisiting one or all of these assumptions
- (Reminder: This bike improvement isn't on 5 year implementation plan – a lot can happen in 5 years)

Proposed design

- 5' curb extension, from Fremont Pl N to N 34th St
- Revised lane widths: 11' & 9' SB, 10', 9' & 10' NB (maintain 3 NB lanes)
- Additional capacity for future bicycle improvements
- Unanswered question: How to improve bus/bike interaction?

Next steps

Date	Activity/action
12/7/16	Discussion with SBAB
12/14/16	Discussion with SPAB
Jan/Feb '17	Charrette w/ Fremont Stakeholders
Mid '17	Design Finalized
Late '17/ Early '18	Implementation

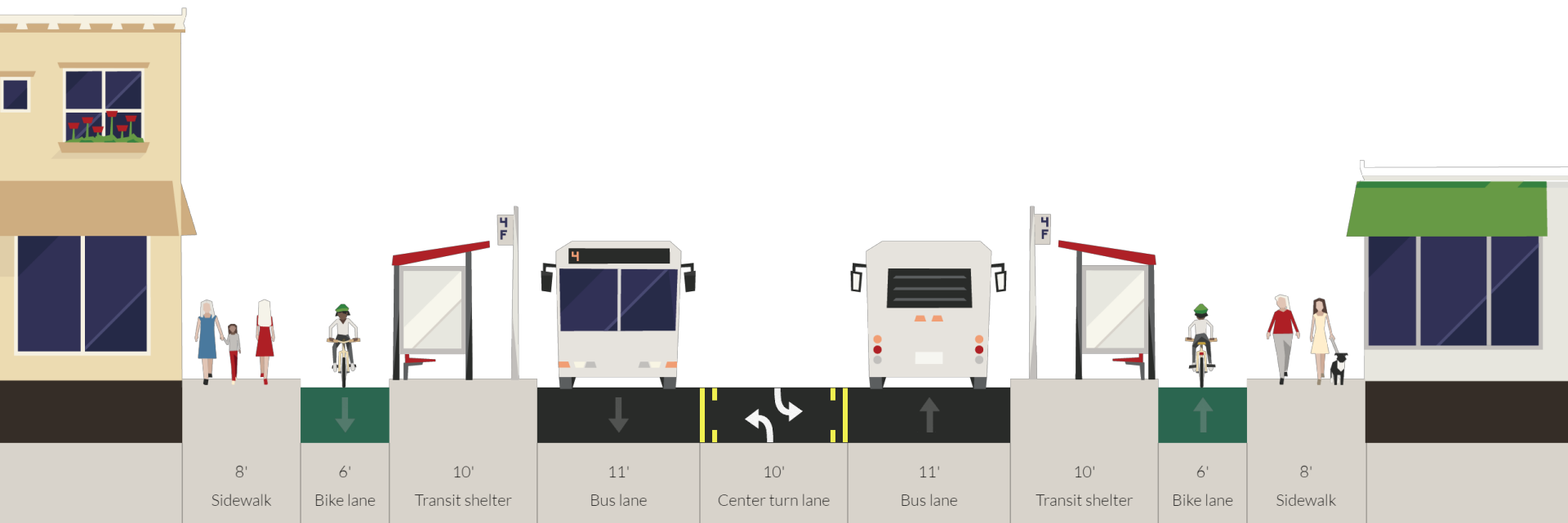
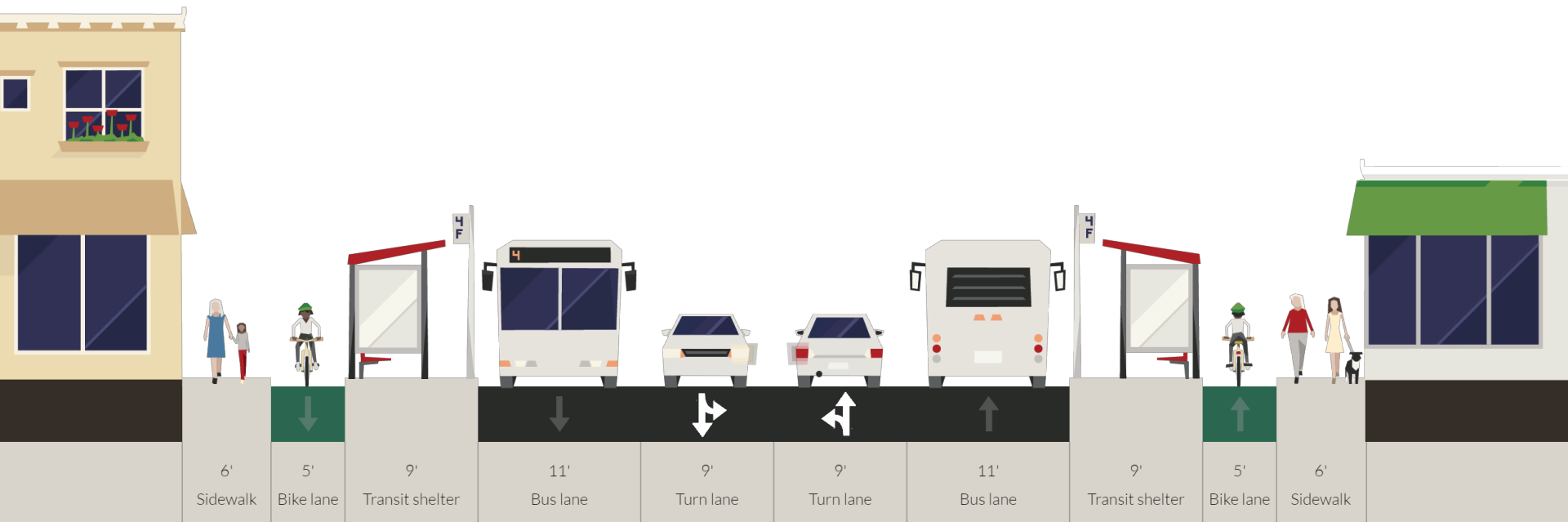
Questions?

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BMP Definition of PBL

“Cycle tracks (protected bicycle lanes) – facilities physically separated from motor vehicle traffic and distinct from the sidewalk; they may be one-way or two-way, and may be at street level or raised several inches above.”

(p. iii)