Station Plan: *Penn & Plymouth*

This station will serve the intersection of Penn Avenue and Plymouth Avenue. The Plymouth Avenue location meets station spacing guidance; the Olson & Penn station will be situated approximately 0.5 mile to south and the Penn & Golden Valley station will be situated approximately 0.5 to the north. Within the Penn Avenue corridor, the existing Penn & Plymouth bus stops have the 4th and 5th highest number of Route 19 boardings for northbound and southbound trips, respectively.[30]

Table 1: Station Plan Summary – Penn & Plymouth

Penn & Plymouth		
	Station Characteristic	*Planned Condition**
CORE STATION PLAN	**Intersection Location**	Penn & Plymouth Provides access to high-ridership location at major intersection and transit node.
CORE STATION PLAN	**Platform Location**	SB: Farside (SW corner) Farside platform is preferred to maximize transit signal priority potential and avoid nearside driveway conflicts. NB: Farside (NE corner) Farside platform is preferred to maximize transit signal priority potential.
ADDITIONAL STATION DETAILS	**Shelter**	SB: Install new shelter Will install new shelter with enhanced amenities. NB: Install new shelter Will install new shelter with enhanced amenities.
ADDITIONAL STATION DETAILS	**Curb Configuration**	SB: Bumpout Bumpout will maximizes operational efficiency and pedestrian space. No space constraints currently exist that restrict bumpout construction. NB: Bumpout Bumpout will maximize operational efficiency and pedestrian space. No space constraints currently exist that restrict bumpout construction.
ADDITIONAL STATION DETAILS	**Platform Length**	SB: 60' long Will use C Line design standard to accommodate 60' BRT vehicle. NB: 60' long Will use C Line design standard to accommodate 60' BRT vehicle.

*Final conditions to be developed during the engineering/design process.

Notes and Discussion

A major station planning consideration is the potential for connections to existing transit service. The station will serve connections to Routes 7 and 32 on Plymouth Avenue. Reduced Route 19 local service will also be maintained at this location.

30 Source: September 2014 APC data

The intersection of Penn Avenue and Plymouth Avenue is signalized. Transit signal priority will be considered for implementation during the engineering phase. Implementation is dependent upon a traffic analysis balancing acceptable traffic operations for all street users.

On-street parking will be impacted by this station. The addition of curb bumpouts will result in a reduction of on-street parking on Penn Avenue by approximately four to five parking spaces per platform.

Curb Bumpouts

A micro-simulation traffic model was developed as part of the Penn Avenue Community Works planning process to help determine the feasibility of deploying curb bumpouts at C Line stations throughout the Penn Avenue corridor.

Modeled factors included farside bumpouts at both platforms, additional C Line service frequency, and traffic volume growth through year 2035 throughout the corridor. Bumpouts have been included within the station plan resulting from these models indicating future traffic operations would remain acceptable with BRT operations.

Other Alternatives Considered

Site Station Platforms on Nearside Corners of Penn & Plymouth Avenue

Existing bus stops are located on the nearside of the intersection for both northbound and southbound buses. C Line platforms will be located on the farside of the intersection for both northbound and southbound buses. Narrow street width on Penn Avenue requires platform bumpouts to be constructed on diagonally opposite corners to allow space for safe turning movements. Therefore, moving one platform to the alternative corner would necessitate moving the other platform.

A southbound station platform on the northwest corner of the intersection was explored in order to maximize proximity to the NorthPoint Health and Wellness Center.

Farside platforms are preferred with transit signal priority in order to optimize traffic operations for all street users. For southbound operations, farside siting is possible due to adequate length for a 60' platform and no existing access conflicts. A nearside platform would be potentially in conflict with the Estes Funeral Home driveway.

Farside siting also optimizes transit signal priority potential for northbound operations. The farside northeast quadrant has adequate length for a 60' platform and no existing access conflicts.

Project Delivery

Penn Avenue Community Works

Station design and construction will be coordinated with the Hennepin County-led Penn Avenue Community Works project.[31] Hennepin County plans to reconstruct intersections on the Penn Avenue corridor in coordination with C Line construction.

31 Additional information available at: http://www.hennepin.us/residents/transportation/penn-avenue-community-works

Figure 1: Station Layout – Penn & Plymouth