TO: Project MOVER Core Team

FROM: Alex Maccallini, Project Manager, Shared Mobility, Inc.

DATE: September 18, 2024

RE: **Preliminary Siting for E-bikeshare Stations in Village of Croton-on-Hudson**

Shared Mobility Inc. (SMI) has conducted a preliminary analysis of possible siting locations for E-bikeshare stations of the Project MOVER E-bikeshare Program. The sites detailed in this memo represent suggested areas determined by SMI and Drop Mobility through both multivariate spatial analysis and on-the-ground site assessments. The locations suggested are subject to change based on community feedback and specific siting constraints identified by the Village and project partners. As part of the expansion process for the Project MOVER E-bikeshare Program, SMI now asks for feedback from community stakeholders in assessing the feasibility of the sites and recommending key locations not proposed in this report.

The final determination of the community will inform SMI on the number of racks that are feasible at each site and in turn determine the number of bikes that will be added to the Project MOVER system in Croton-on-Hudson.

Based on these findings SMI is estimating 6-8 sites and 30-40 bikes to be located within the Village of Croton-on-Hudson.

Methodology

Desktop analysis : SMI conducted a Geographic Information Systems (GIS) analysis using a propensity/equity index and street safety analysis provided by Nelson/Nygaard as well as population density, tax parcel, transit rights of way, manhole cover, utility pole, and elevation data provided by Westchester County GIS. Candidate locations were sited in proximity to retail centers, municipal services, parks, and transportation hubs. This analysis produced a list of 13 initial candidates to assess in person.

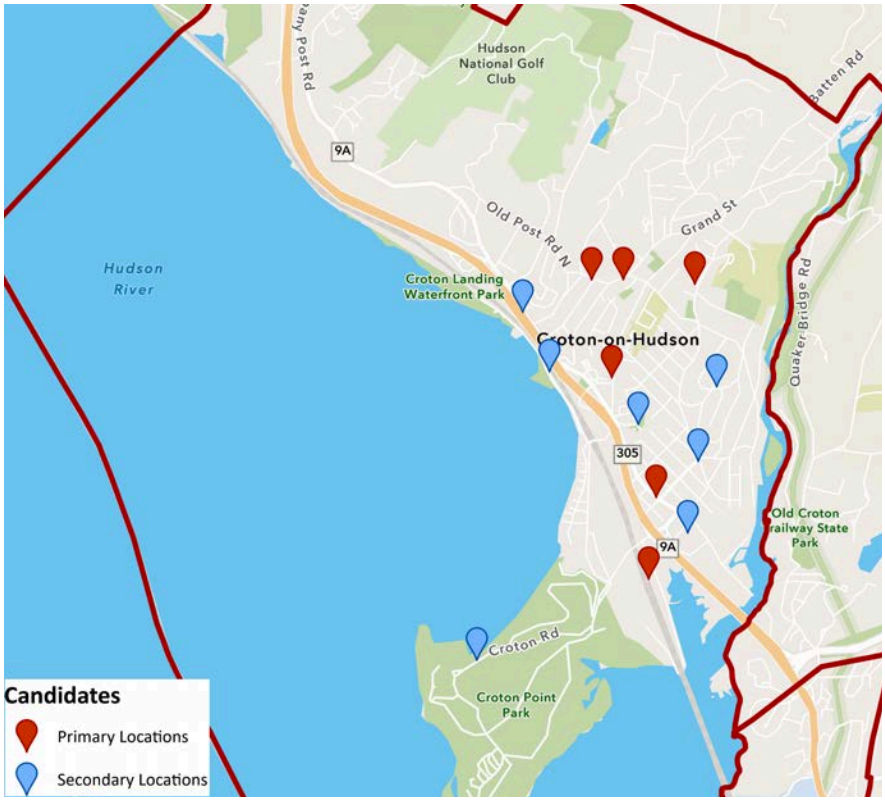
In person site visits : SMI staff visited the candidate areas to assess the viability of the locations for physical siting and overall system connectivity. In doing so SMI assessed the grade of possible station locations, access to public right of way and property, and if existing street furniture would interfere with sitting. Each site was photographed, and notes were taken on the physical site and the overall system connectivity.

Results

Distribution: SMI's analysis revealed a concentrated distribution of bike-share stations throughout the Village of Croton-on-Hudson, influenced by several key factors. A primary consideration was the nature of the village's layout, with large areas dominated by single-family residential neighborhoods that lack businesses, retail centers, or other points of interest typically used in traditional bike-share siting. These areas are generally less suitable for bike-share stations, as they do not generate the same level of demand for short-distance transportation that more commercial or densely populated zones do. As a result, the placement of stations was concentrated in areas with higher activity, such as business corridors and municipal services—locations where bike-share users are more likely to begin or end trips. These are categorized as "Primary Locations" on the provided site map (n=6).

Secondary locations (n=7) were identified as areas of interest, transit hubs, and retail centers that are present in zones of the village that are either largely residential, or with significant system connectivity/bikeability concerns and are therefore less feasible for bikeshare integration. While these secondary locations may be less feasible, there are methods the Project Team can implement to integrate these locations into the bikeshare system.

[Google My Maps with Candidate Sites]



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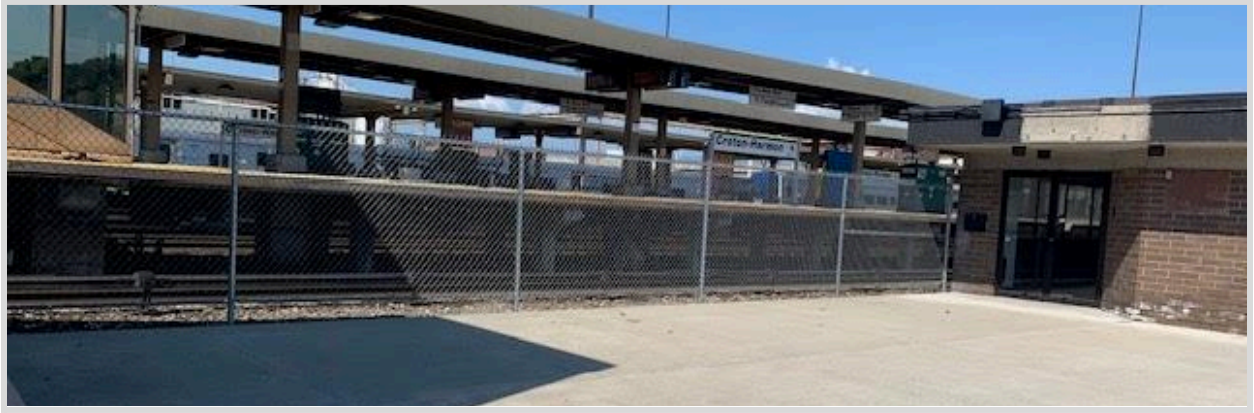
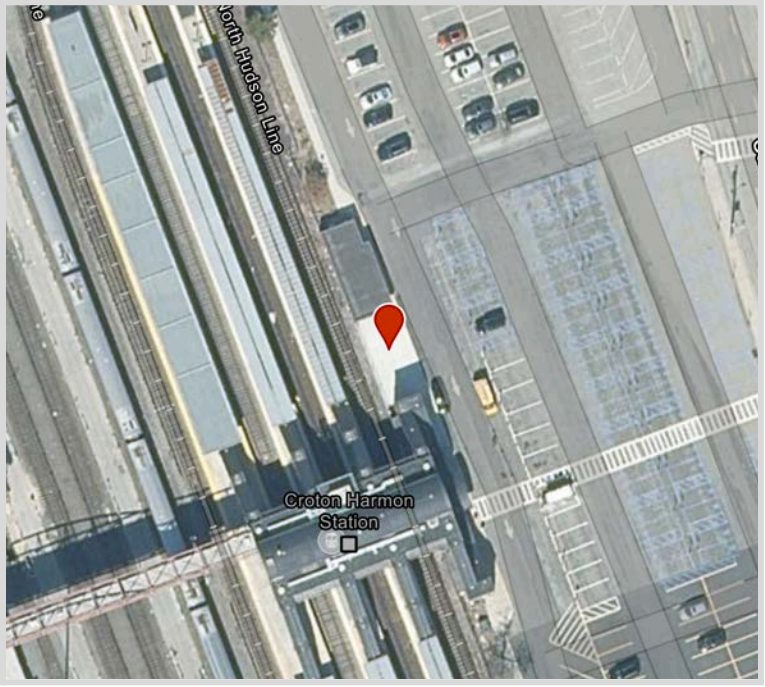
Primary Locations

Site 1 : Croton Harmon Metro North Station



[Google Street View]



Rationale: This location was chosen in an attempt to connect users to regional transportation systems. Users at this location have convenient access to Metro-North lines as well as Bee-Line bus service.

Location Description: Sidewalk block on to the north of the main entrance of the Croton Harmon Station.

Owner: Village Of Croton-on-Hudson

Parcel Tax ID: 79.17-1-10

Parcel SBL: 07901700010100000000

Additional Considerations:

- If viable, the Village of Croton will need to help work with the MTA to ensure sitting compliance.
- Site is near a 0.2 percent annual chance flood event plain. The Project Team will engage relevant stakeholders to assess the risk of floods.

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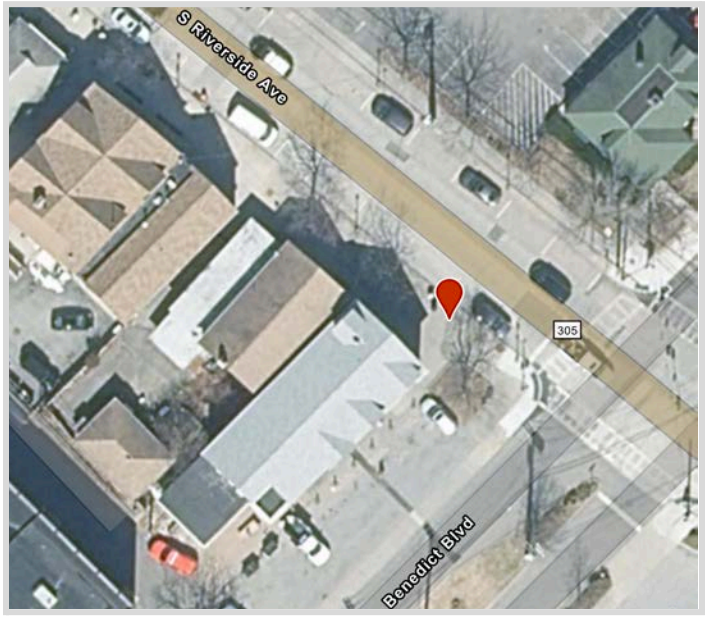
Site 2 : Corner of S. Riverside Ave and Benedict Blvd

[Google Street View]



Rationale: This location was chosen in an attempt to connect users to a local retailer hub, and to improve connections between the Metro-North station and the rest of the Village. The site is also in proximity to a retail hub and two Bee-Line bus stops. There are also existing bike racks nearby, indicating bike-friendly infrastructure.

Location Description: Sidewalk on the south side of S. Riverside Ave east of Benedict Blvd.

Owner: To be determined

Parcel Tax ID: To be determined

Parcel SBL: To be determined

Additional Considerations:

- There is siting space in the public sidewalks, but the location will need to be on privately owned parcels. The Project Team needs to identify an agreeable owner to place the station in front of.
- There's a high propensity of street furniture and utility poles on the sidewalk.

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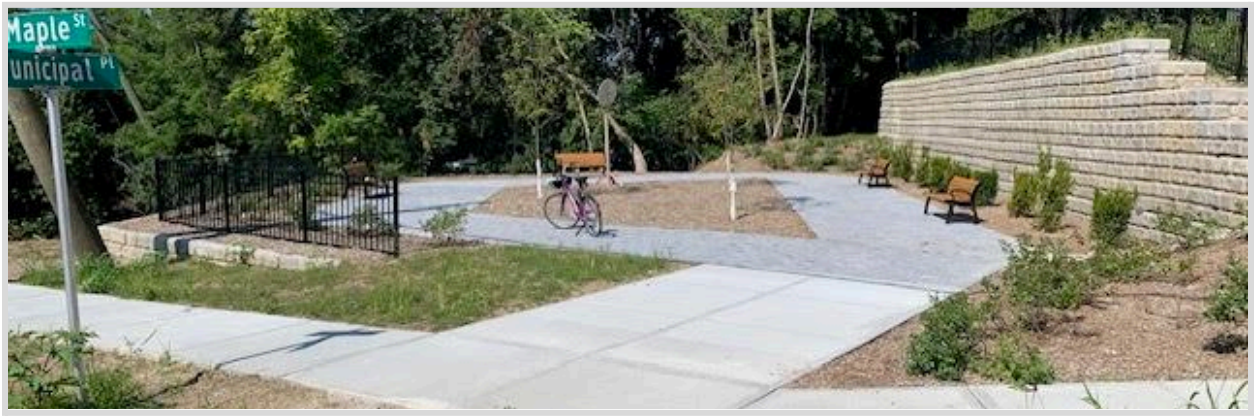
Site 3 : Pocket Park at Maple St. and Municipal Pl.



[Google Street View]

Rationale: This location was chosen in an attempt to connect users to food retailers and daily services including banks, pharmacies and a post office.

Location Description: Sidewalk or concrete pad in new pocket park adjacent to the Van Wyck Shopping Center on the west side of Maple St, north of Municipal Pl.

Owner: Village of Croton-on-Hudson

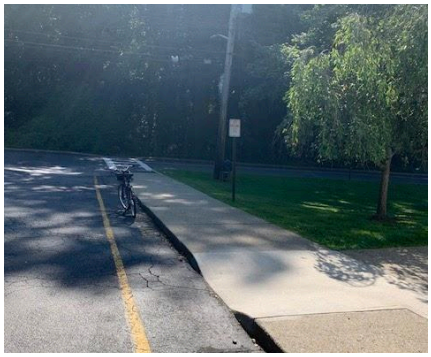
Parcel Tax ID: 78.12-3-3

Parcel SBL: 07801200030030000000

Additional Considerations:

- The Project Team seeks insight from the Village of Croton-on-Hudson to determine if bikeshare fits the character of the new park.

Site 4 : Croton Free Library


[Google Street View]

Rationale: This location was chosen in an attempt to connect users to connect users to library services. There are existing bike racks on site, indicating bike-friendly infrastructure and propensity for bike trips.

Location Description: Sidewalk on Cleveland St. entrance, existing bike rack or entrance of library for possible siting locations.

Owner: Croton Free Library

Parcel Tax ID: 79.5-1-23

Parcel SBL: 079005000102300000000

Additional Considerations:

- If viable, the Village of Croton will need to help work with the Croton Free Library to ensure sitting compliance.

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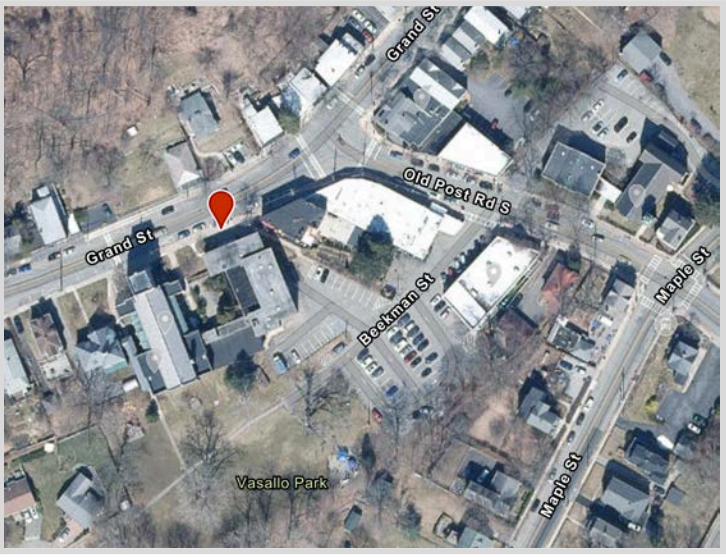
Site 5 : The corner of Old Post Rd. S and Grand St

[Google Street View]

Rationale: This location was chosen in an attempt to connect users to a vital node for retail in the village.

Location Description: On sidewalk near Holy Name of Mary Church. Several additional siting locations are feasible on Old Post Rd. S.



Owner: To be determined

Parcel Tax ID: To be determined

Parcel SBL: To be determined

Additional Considerations:

- There is siting space in the public sidewalks, but the location will need to be on privately owned parcels. The Project Team needs to identify an agreeable owner to place the station in front of.
- There's a high propensity of street furniture and utility poles on the sidewalk.

Site 6 : Village Hall

[Google Street View]

Rationale: This location was chosen in an attempt to connect users to connect users to municipal services.

Location Description: Siting space available in village hall parking lot or possibly for pouring a concrete pad. Alternative siting suggested on corner of Old Post Rd. N and Grand St.

Owner: Village of Croton-on-Hudson

Parcel Tax ID: 78.8-5-9

Parcel SBL: 07800800050090000000

Additional Considerations:

- If viable, the Project Team will coordinate with the Village of Croton-on-Hudson to ensure sitting compliance.

Secondary Locations

1. **Croton Point Park (Croton Point Beach)**

   This location was originally chosen in an attempt to improve connections to Croton Point Park - a prominent park in the community and the region. A location in the park would also provide recreational bike access for visitors to use around the park. There were several challenges presented with this site. First, 2 separate observers with separate cell service providers could not obtain cell connection when visiting the site. This is critical because cell service is required to unlock bikes with the Project MOVER app. Second, the site is a county park, which would require additional administrative coordination to execute. Third, the feasible siting locations in the park are within floodplains.

2. **N. Riverside Ave and Bank St.**

   This location is in proximity to a waterfront pedestrian access bridge as well as a cluster of local businesses. Furthermore, the site is located on a Bee-Line bus stop, improving public transit integration to the system. However, there is limited biking connectivity to the rest of the system on the village side of the rail tracks. There is also constrained siting space, and may require a concrete pad near the pedestrian bridge. N. Riverside Ave also does not appear to be bike-friendly, with wide lanes and limited shoulder access.

3. **Senasqua Park**

   A location at Senasqua park would improve access to waterfront parks. Furthermore, the park is located along an existing bike-friendly path. However, its location on the river-side of the rail tracks limits its overall connectivity to other proposed system locations. Similarly, this location is also within a 0.2 percent annual chance flood event plain. Furthermore, the park is fenced, and there's limited space along the fence line due to the existing trail design. Siting a location here may require taking a parking spot.

4. **Duck Pond Park**

   This location is a connecting point between the S. Riverside business corridor, other business corridors in the village and a large residential area in the village's southeast corner. Siting a location here would also improve access to parks and recreation. This location has challenges in elevation change and visibility for users who may not be familiar with the village. Furthermore, the park is a lone point of interest in the nearby area.

5. **ShopRite Plaza**

   While siting a location in the ShopRite Plaza would improve user's access to grocers and local retailers, there are several access constraints that limit the feasibility of this location. Both the plaza and S. Riverside Ave have car-centric designs which may discourage people from traveling there by bike. This also poses safety concerns. There is a steep single-point exit to the plaza which leads to a 4-lane road with limited shoulder width.

6. **Cleavland Dr Truesdale Dr Traffic Circle**

   This location is a hub for residential traffic. Several primarily residential streets converge at this circle and there is a Bee-Line bus stop. While siting in this location would improve residential connectivity to the bikeshare system, there are significant sitting challenges. First, the single-family residential development presents propensity concerns. Furthermore, there is limited space in the public ROW to site a location, which may require placing the station on the street in front of a private residence.

7. **Sunset Dr Park**

   This location is a neighborhood park, which serves as a centralized point in a largely single-family residential neighborhood. While the surrounding density is not ideal for siting, this could serve as a potential location to serve residential neighborhoods.

Conclusion

The above suggested locations, both primary and secondary are the results of a preliminary analysis to begin the conversation of expanding Project MOVER E-bikeshare into the Village of Croton-on-Hudson. While SMI and its partners arrived at these locations as the result of substantial experience in bikeshare design and operations, the Village of Croton-on-Hudson and its key stakeholders are the foremost experts on the village. Feedback from village partners is crucial in solidifying locations for e-bikeshare. From these suggestions, SMI will be able to determine specific siting locations to determine the number of racks each station can have, which will in turn determine the number of bikes placed in the Croton-on-Hudson system.