



CONNECT MID-HUDSON REGIONAL TRANSIT PLAN

PROJECT SUMMARY PRESENTATION



Project Background

- Connect Mid-Hudson focused on identifying opportunities to improve transit connections between Orange, Dutchess, and Ulster Counties, as well as between the study area and major employment hubs outside the region
 - Key areas of analysis include:
 - Effectiveness of regional services
 - A review of service performance and customer satisfaction monitoring
 - Capital improvements to alleviate corridor congestion or capacity constraints at park-and-rides
 - Opportunities for new technologies and service models
 - Recommendations reflect pandemic-related changes to travel patterns



Project Background

- COVID-19 Impacts
 - Travel patterns changed significantly over the course of the project in response to the pandemic and mitigation efforts
 - By April 2020, most transit operations in the region were suspended or significantly reduced
 - Service restoration began in June 2020, but at a different pace for each agency/operator
 - In September 2020, monthly Metro-North Ridership remained down more than 75% from the same month in the previous year
 - Data collection occurred before pandemic
 - Study team expects long-term commuting patterns to resemble past patterns more than present ones, but with lower volumes for quite some time
 - Stewart Airport's role in the region is expected to shift from passenger gateway to NYC to key cargo hub to support increased shipping
 - More intra-regional job-access trips
 - Fewer trips to/from NYC



Project Approach



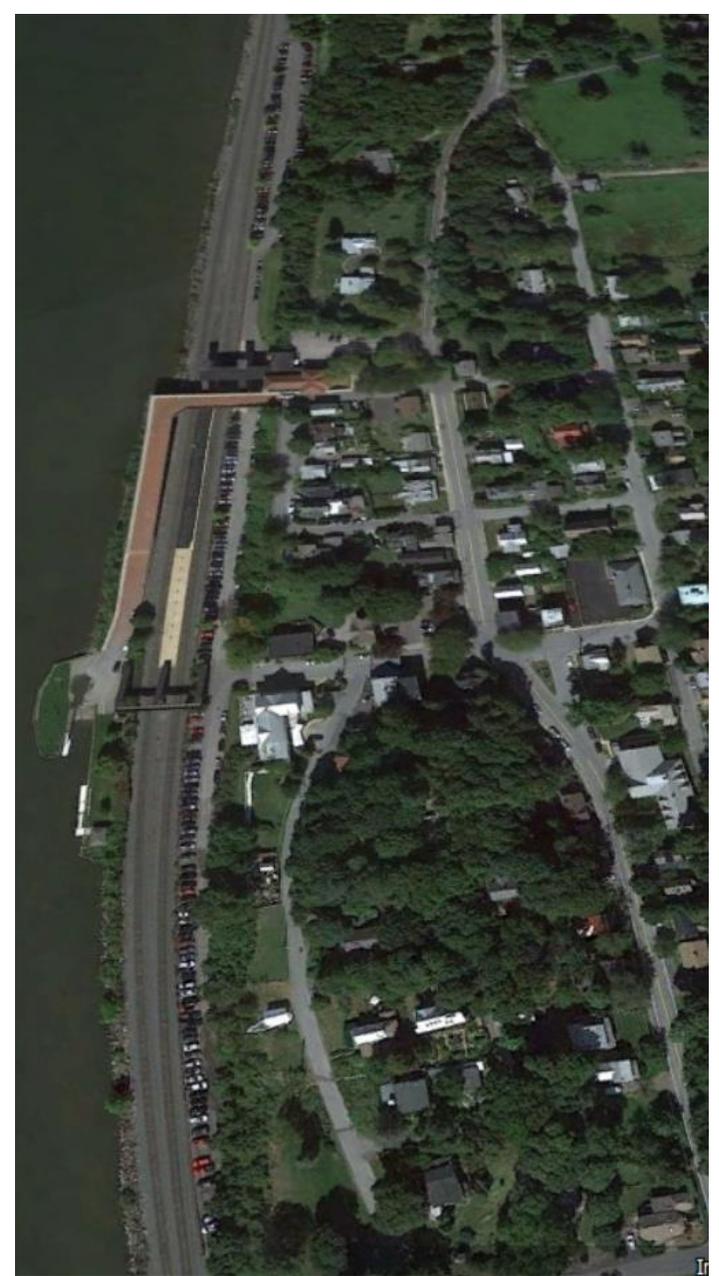
Public Survey

- Online survey was conducted in the winter of 2018 and publicized through press releases and 12 pop-up events around the region
 - 75% identified as riders / 25% non-riders
- Survey helped study team understand how area commuters interact with the existing services and highlight issues that concern them, but was not necessarily a representative sample of area residents



Public Survey

- Dutchess County Survey Response Highlights
 - Fares and Fees
 - Metro-North Fares
 - Survey respondents pointed to Metro-North's comparatively high fares and parking fees as a factor for seeking other commuting options
 - Parking
 - Limited Parking at Beacon Station
 - Beacon Station had 91% average occupancy and 97% peak occupancy in October 2018
 - Limited Parking at Rhinecliff Station (pictured right)
 - Parking lot expansion is constrained by Hudson River and surrounding residential properties. Station is not currently served by DCPT service



Public Survey

■ Dutchess County Survey Response Highlights

— Passenger Amenities and Information

■ DCPT Bus Stop Amenities

- Survey respondents called for improved passenger amenities throughout the DCPT service area, including bus stop signs, shelters, maps and schedules at stops

■ Newburgh-Beacon-Stewart Shuttle Service Information

- Schedule on Leprechaun Lines website is a PDF, and difficult to read on smartphones
- No maps displaying the route alignment or information regarding the cost of service is provided on this site

— Routes and Schedules

■ Expanded service in North Dutchess County

- Survey respondents requested additional transit coverage and frequency in Rhinecliff/Rhinebeck/Red Hook Area, as well as connections to Kingston in Ulster County via the Kingston-Rhinecliff Bridge

■ Off-Peak Service between Beacon and Newburgh

- Neither the Newburgh-Beacon-Stewart Shuttle nor the Newburgh-Beacon Ferry provide mid-day service

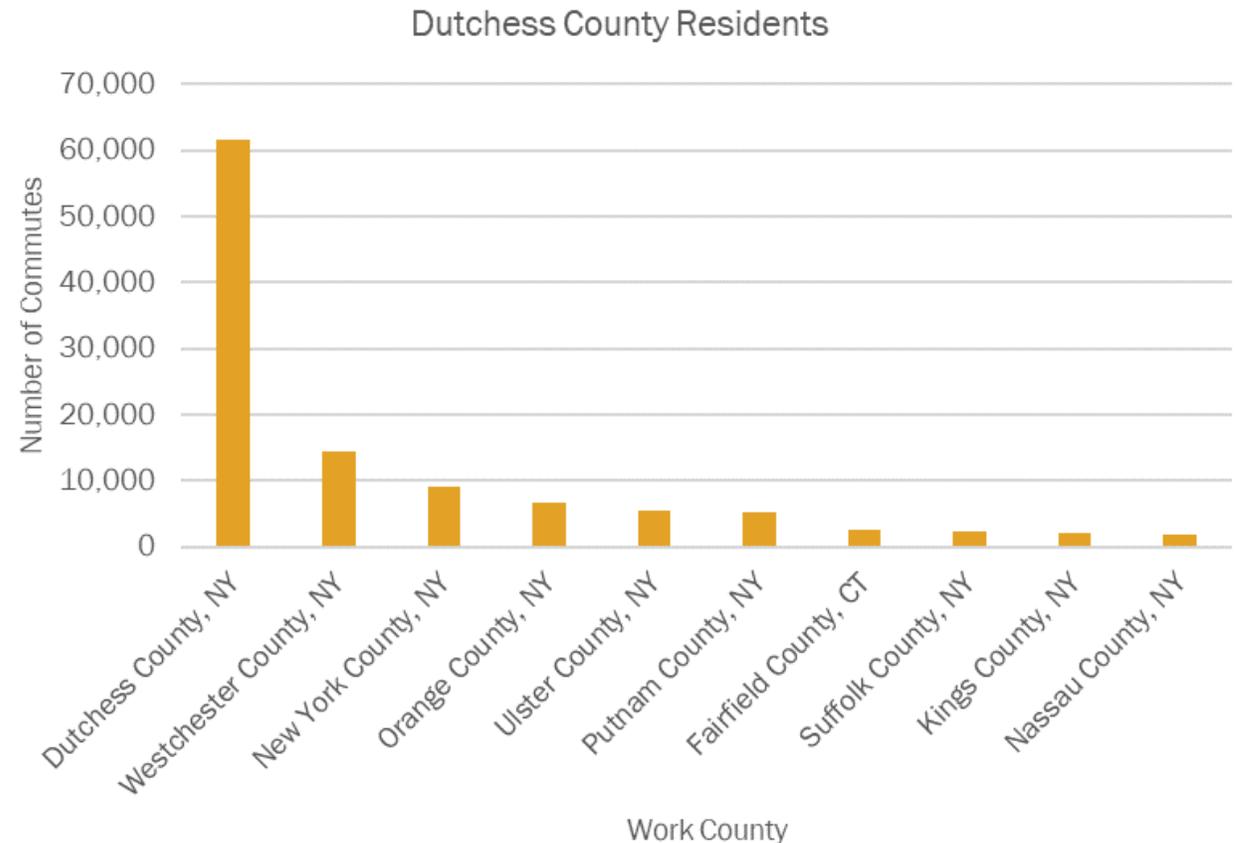
■ Service Coordination

- At Poughkeepsie Train Station, DCPT routes connect well with Metro-North trains, but not with UCAT buses



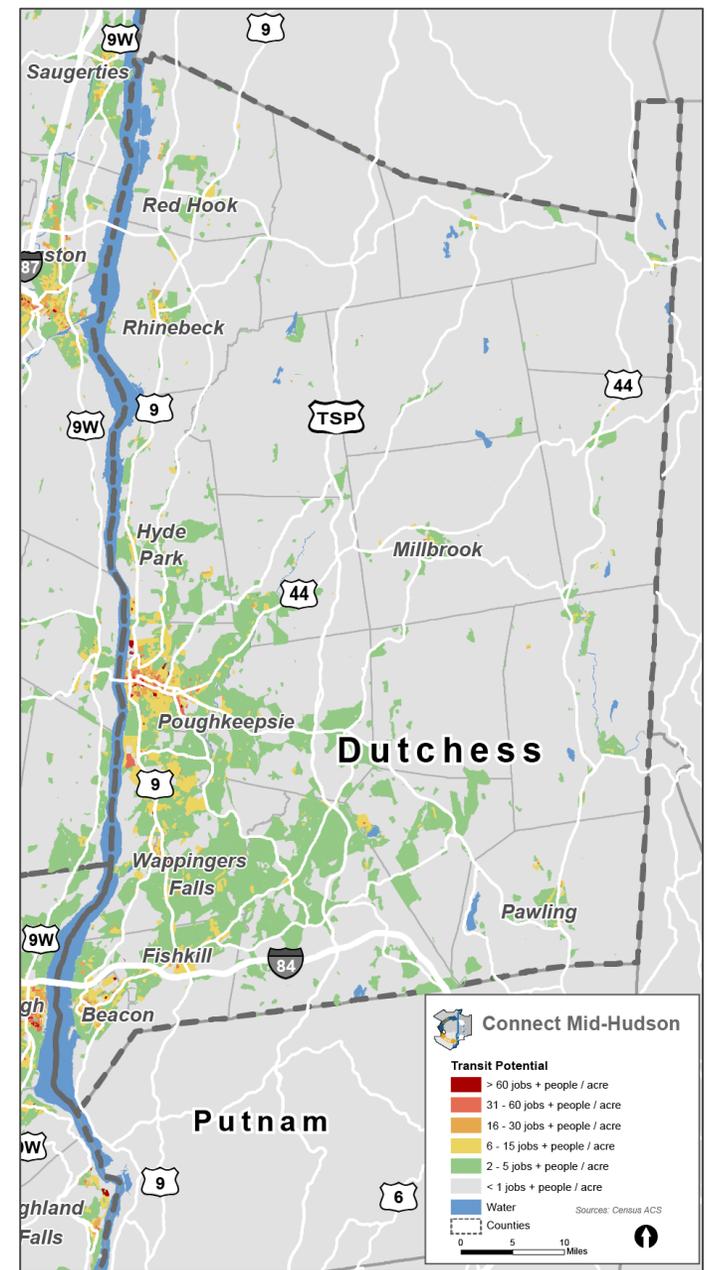
Market Analysis

- The top commuting destinations for Dutchess County residents are within the county
 - 49% of commuting trips are internal to the county
 - These trips are best served by local transit service



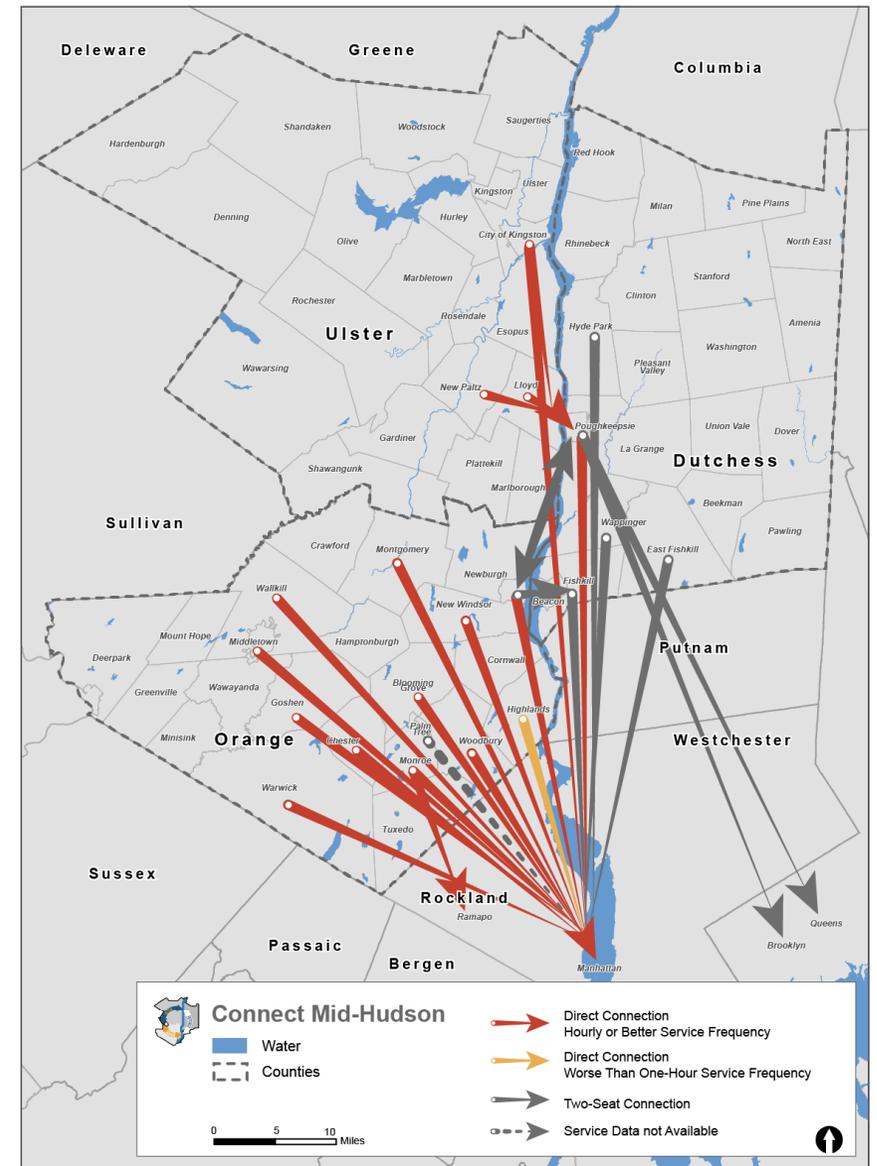
Market Analysis

- Density is key to supporting local fixed-route service
 - Transit Potential is a measure of an area's population and/or employment density
 - 5 people and/or jobs per acre is the recommended minimum density to support local fixed-route service
 - In Dutchess County, urban areas of Poughkeepsie and Beacon have the highest transit potential
 - Other clusters of transit-supportive density found along the US-9 corridor
 - Rhinebeck, Hyde Park, Wappingers Falls, and Fishkill



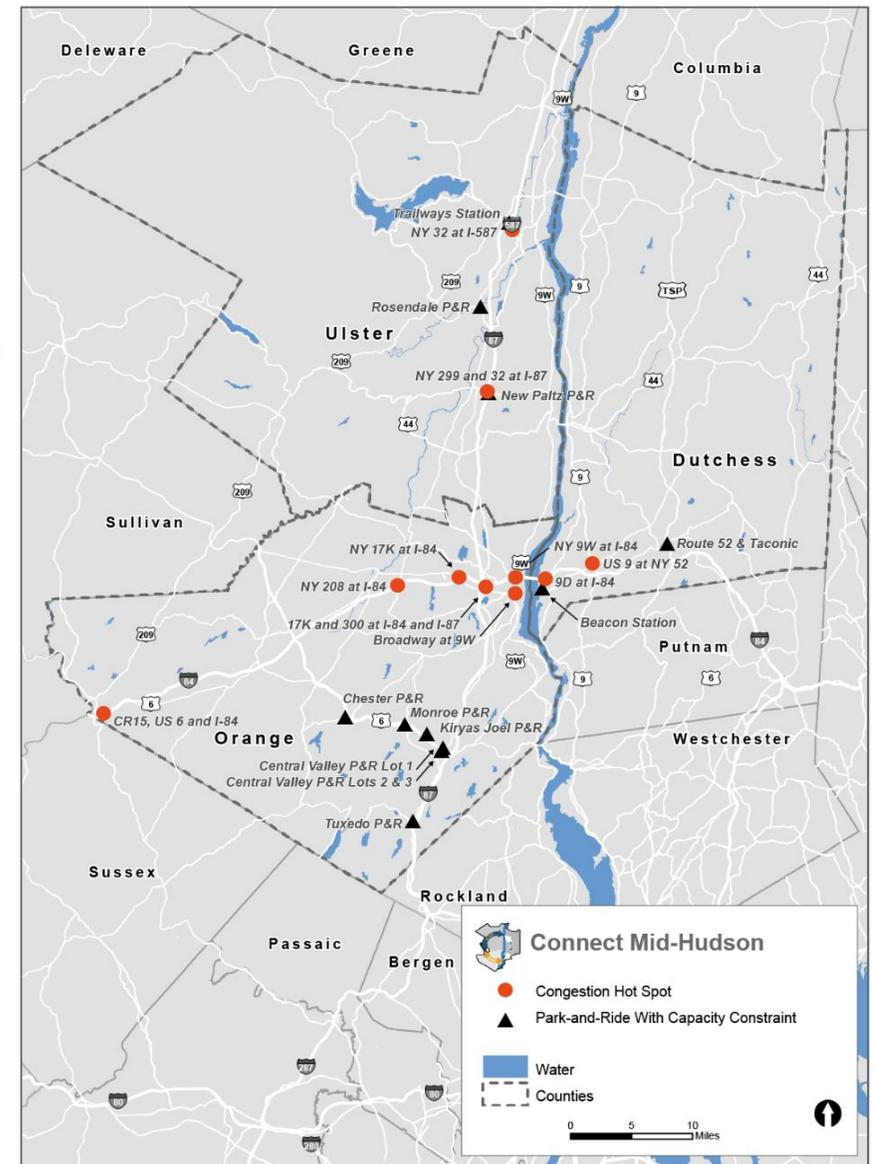
Service Analysis

- For regional commuter services, density is less important than features that address commuters' pain points (traffic congestion, parking costs, travel time, etc.)
- The only major regional commuting pattern (500+ trips per day between municipalities) originating in Dutchess County that has direct and frequent service is Poughkeepsie to Manhattan
 - Several other major origin/destination pairs require at least one transfer (e.g. Hyde Park to Manhattan)
 - Commutes to Westchester County have many origins and destinations, but none rise to 500 per day



Service Analysis

- Commuting by transit allows Dutchess County residents to avoid the stresses associated with parking, particularly in New York City
 - While these pain-points drive commuters to try transit, other pain-points can drive them away
 - Poor on-time performance
 - Limited parking availability at popular park-and-ride locations
 - Congestion Hot Spots in Dutchess County:
 - Route 9D at the I-84 Interchange
 - US Route 9 and NY Route 52 Intersection
 - Park-and-Ride Capacity Issues in Dutchess County:
 - Beacon Station (no parking expansion planned)
 - Route 52 and Taconic Parkway (improvements ongoing)



Service Analysis

- The identification of service issues like poor on-time performance requires regular service monitoring and/or investigations of customer complaints
- The Mid-Hudson region is fairly unique in the US in terms of the number of privately operated commuter services
 - Private carriers receive operating assistance through the Statewide Mass Transportation Operating Assistance (STOA) program and submit high-level ridership and service statistics
 - Reporting is not detailed enough to evaluate service effectiveness or customer satisfaction



RECOMMENDATIONS



FOURSQUARE ITP
INTEGRATED TRANSPORTATION PLANNING



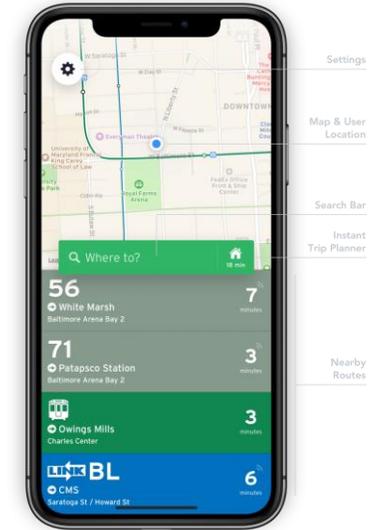
Recommendations

- Transit Ombudsman
 - Public advocate charged with representing the interests of consumers and/or taxpayers by investigating complaints related to publicly funded services such as transit
 - Publicly-subsidized private operators are overseen by NYSDOT, but the agency has limited staff/resources to examine customer complaints
 - Operators are largely policing themselves when it comes to customer complaints
 - In addition to serving as an advocate for commuters, a transit ombudsman could take on additional roles
 - Service monitoring and reporting, including on-time performance and park-and-ride utilization
 - Service planning and mobility management



Recommendations

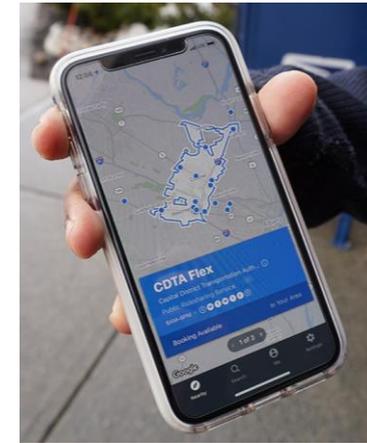
- **Passenger Information and Mobile Payment**
 - Transit agencies pioneered the development of transit-specific apps to allow users to plan trips and track vehicles from their own devices
 - Industry trend is now to make transit data open-source to allow developers to lead the way with new and improved apps (no cost to operators)
 - Allows transit operators to focus on services
 - Several large transit agencies (including Baltimore, Boston, LA, and Montreal) have suspended their own in-house app development and focus only ensuring open-source data is accurate and up-to-date
 - Key benefit of third-party apps is that they feature info for multiple systems (including other modes like scooters, microtransit, etc.)
 - Simplifies multi-modal trip planning
 - Increasingly include in-app features like mobile fare payment (requires formal partnership between transit operators and app developers)
 - Regional participation could be coordinated by proposed ombudsman



Recommendations

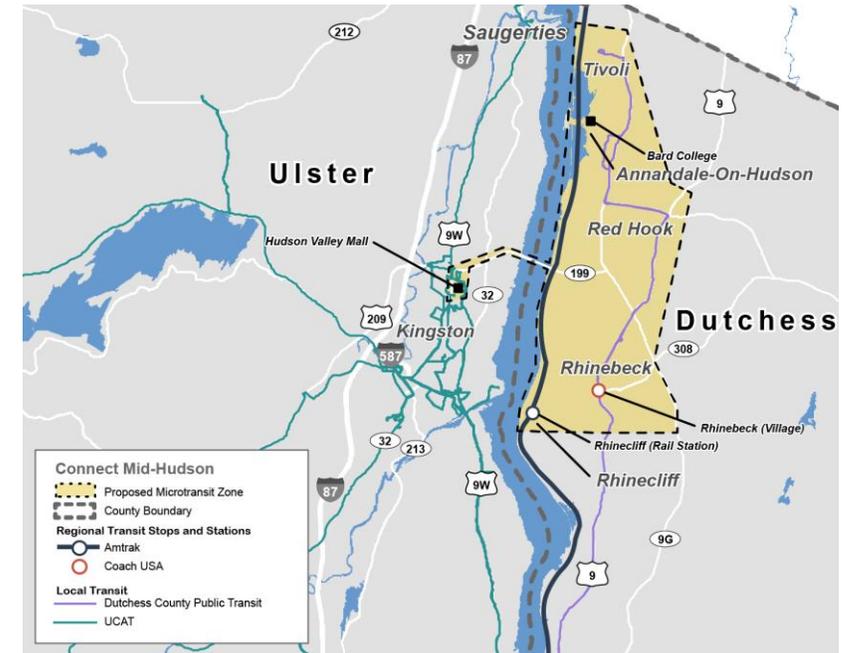
■ Microtransit Service

- Technology-driven demand-response service model that allows riders to directly request vehicles in real time through a smartphone app (or by phone)
- Versatile solution that can provide both local coverage and regional first/last mile connections
- Similar technology and user-interface to Uber and Lyft but with set fleet of vehicles operated or overseen by a public entity
 - More control of service branding and driver vetting/training
- Right-sized vehicles based on demand
 - Lower-density areas
 - COVID-19 impacts of travel patterns



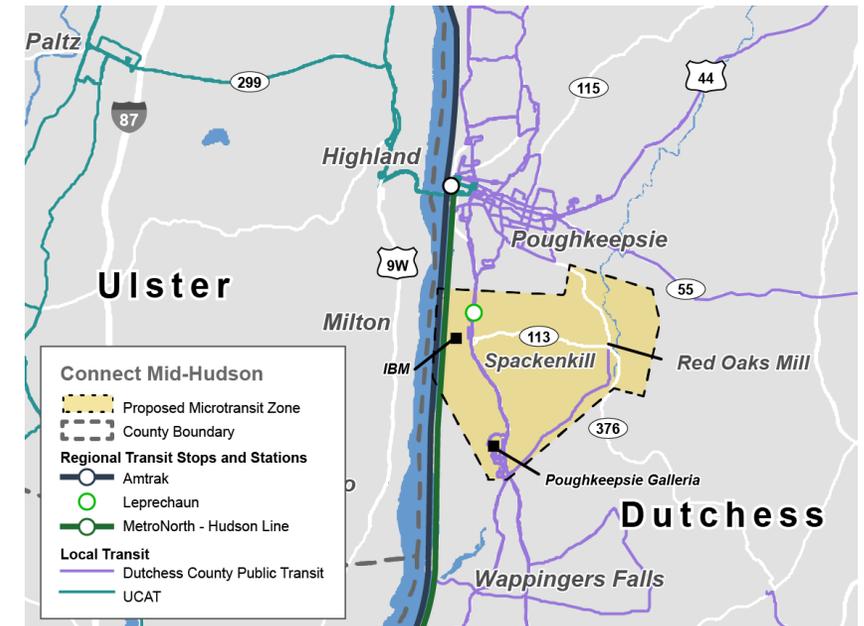
Recommendations

- Northern Dutchess County Microtransit Zone
 - Could provide feeder service for Rhinecliff Amtrak Station
 - Help address parking constraints at station
 - Could provide broader service coverage and shorter wait times than DCPT Route C
 - Wait times are a function of fleet size
 - Route C could be truncated at Rhinecliff or Rhinebeck
 - Could link northern Dutchess County to Ulster County
 - Access to Hudson Valley Mall and connection opportunities to UCAT service



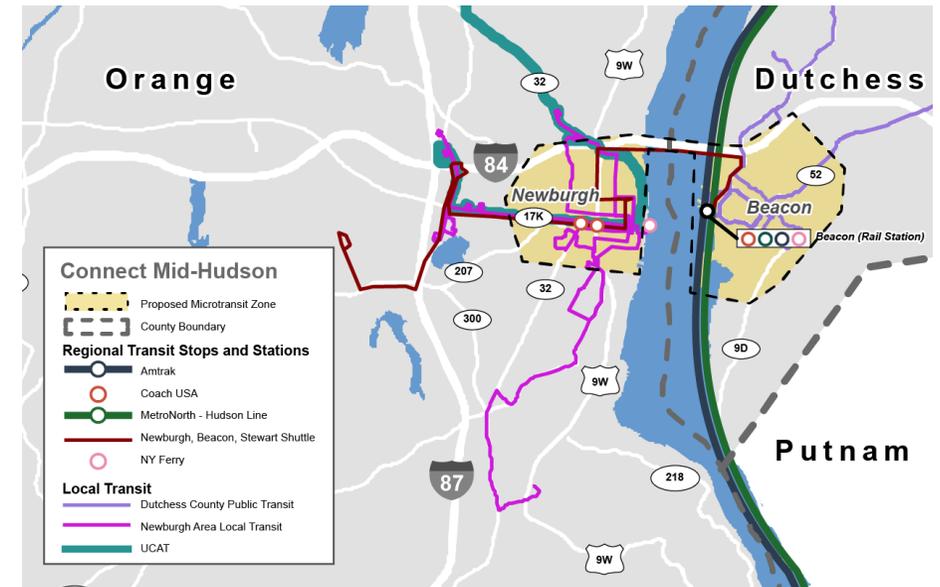
Recommendations

- Southern Poughkeepsie Microtransit Zone
 - Could improve coverage and frequency to residential areas that are not well-served by transit
 - Currently just two trips per day on Route G between Red Oaks Mill and Beacon via Poughkeepsie Galleria
 - More frequent service on US-9, but limited accessibility from surrounding neighborhoods
 - Could facilitate job-access and first/last mile connections
 - Employment hubs include IBM, Hudson Plaza, and Poughkeepsie Galleria
 - Multiple DCPT connections along US-9 corridor



Recommendations

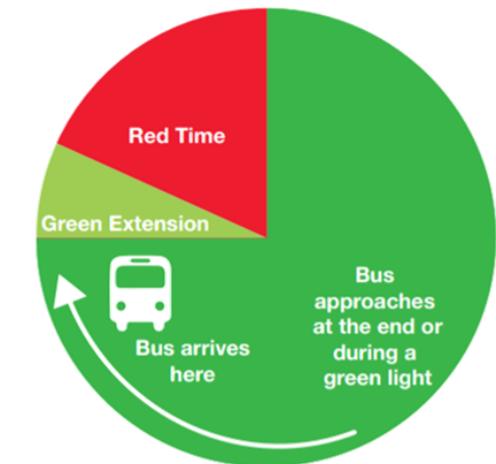
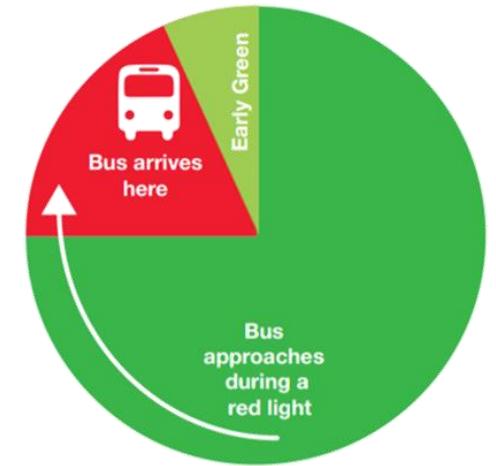
- Beacon-Newburgh Microtransit Zone
 - Could help fill gap left by suspension of ferry service due to COVID-19
 - Also gauge demand for cross-Hudson service to inform decisions on future of ferry service
 - Could address lack of mid-day service on Newburgh-Beacon-Stewart Shuttle
 - Could create an opportunity to gauge overall interest in microtransit service model compared to traditional fixed-route service in Beacon and Newburgh
 - Service could be extended to Stewart Airport if demand warrants



Recommendations

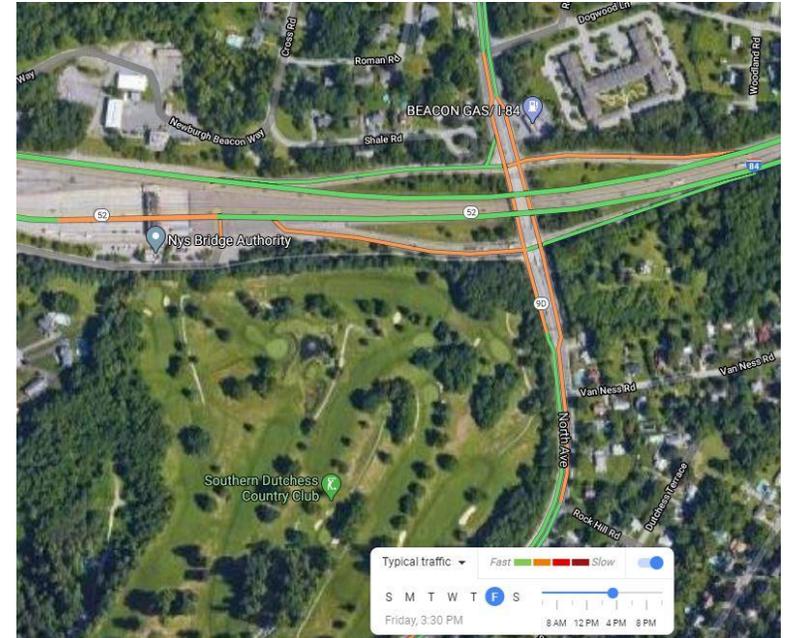
■ Transit Signal Prioritization (TSP)

- TSP is the practice of providing transit vehicles with priority at signalized intersections to reduce travel time and improve schedule reliability
- TSP can be active or passive
 - Passive TSP involves optimizing signal timing by time of day to improve traffic flow for all vehicles
 - Active TSP relies on detecting transit vehicles as they approach an intersection and adjusting signal timing dynamically to prioritize transit over other traffic
- Active TSP technology is evolving
 - Goal is visual identification of vehicle types
 - Currently requires transponders



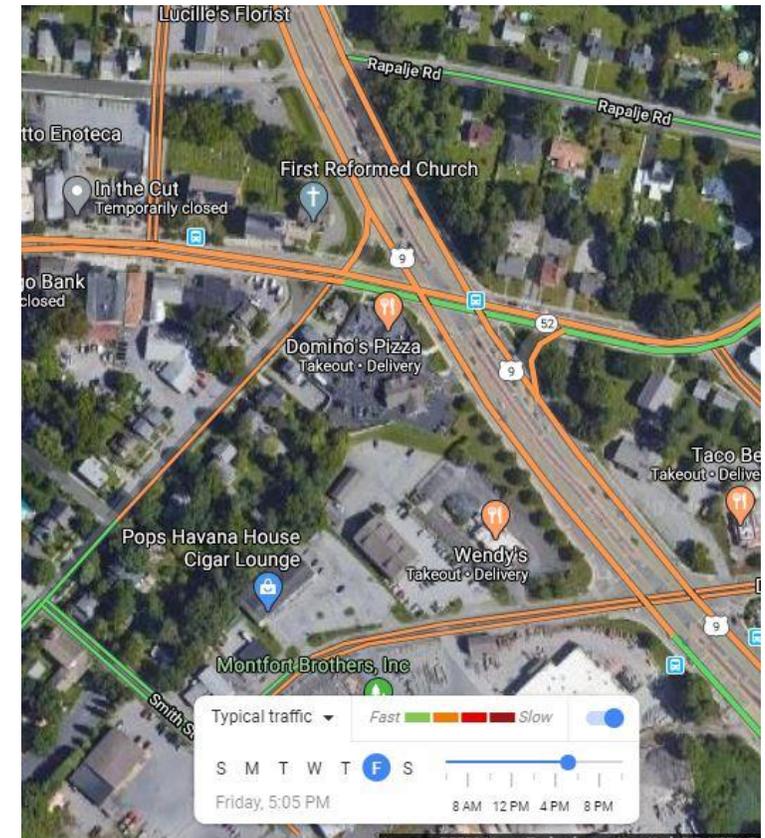
Recommendations

- Passive TSP
 - Route 9D at the I-84 Interchange
 - Heavy congestion (pre-COVID) between 3:00 and 4:00 PM
 - Congestion impacts 9D and I-84 exit ramps
 - Congestion on exit ramps sometimes backs up onto I-84 main lanes and impacts traffic flow
 - Transit vehicles on main lanes would be too far from intersection with 9D to make use of active TSP treatments
 - Improvements would primarily benefit Newburgh-Beacon-Stewart Shuttle and Coach USA buses that travel along I-84



Recommendations

- Active TSP
 - US Route 9 and NY Route 52 Intersection
 - Heavy congestion (pre-COVID) between 5:00 and 6:00 PM
 - Couch USA and Leprechaun Lines together operate 12 northbound and 11 southbound trips through the intersection (pre-COVID)
 - DCPT Routes A and F also operate through the intersection
 - Proposed improvements include active TSP to manage through and left-turn movements on Route 9, and converting existing right-turn lanes on Route 9 to shared right-lane/queue jump lanes



Public Meeting

- Virtual public meeting will be held on **December 10th at 6:00 PM**
 - Zoom link can be found at www.ConnectMidHudson.com
 - Open to all
 - Meeting will be recorded and video will be posted to project website along with comment form on December 11th

Zoom Meeting Information

<https://us02web.zoom.us/j/84598710813?pwd=ZFhMTHNxallhbE5XWXhSdmloQ1ZkQT09>

Meeting ID: 845 9871 0813

Passcode: 975406

To participate by phone only, dial (929) 205-6099





THANK YOU



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Funding and Implementation

- The full implementation of all the recommendations in this plan, together with previously programmed projects, would require more than \$113.6 million in funding over the next ten years.
- This amount exceeds the estimated amount of unallocated transit funds available in the region, after accounting for each jurisdiction's existing capital needs (e.g. planned facility renovations, replacement vehicles, etc.).
- Region could implement up to \$25 million worth of the capital and operating recommendations using unallocated TMA funds, after accounting for existing capital needs
- Additional improvements would require new funding sources
- Study recommends creation of a Regional Transit Fund managed by a TMA committee and potentially overseen by the proposed ombudsman



Funding and Implementation

- Capital Projects:
(Values shown in
Thousands of \$)

Projects	Jurisdiction	Year	Cost
TSP / Transit Priority			
Passive TSP (Route 9D & I-84)	Dutchess County	2022	93
Active TSP (Routes 9 at Route 52)	Dutchess County	2023	96
Queue Bypass Lanes	Dutchess County	2023	168
Active TSP (Route 17K at Route 9W)	Orange County	2023	58
Active TSP Upgrades (CR 15)	Orange County	2023	174
New Active TSP Signal (US 6 at I-84)	Orange County	2023	206
Active TSP Upgrades at (NYSDOT Improvement Locations)	Orange County	2023	69
Active TSP Upgrade (Route 9W at I-84)	Orange County	2023	58
Active TSP Upgrades (Route 17K at I-84)	Orange County	2023	222
Active TSP Upgrades (Route 17K and Route 300)	Orange County	2023	222
Active TSP (Route 208 at I-84)	Orange County	2023	169
Active TSP Upgrades (NYSDOT Improvement Locations)	Ulster County	2023	140
Active TSP Upgrades at Route 299 and I-87 Intersection	Ulster County	2023	55
TSP Subtotal			1,728
Park & Rides			
Chester Park-and-Ride	Orange County	2024	2,025
Tuxedo Park-and-Ride Lot	Orange County	2024	1,371
Monroe Park-and-Ride	Orange County	2028	4,721
Rosendale Park-and-Ride Phase 1	Ulster County	2024	1,595
NYS Thruway Park-and-Ride, New Paltz	Ulster County	2024	2,002
Rosendale Park-and-Ride Phase 2	Ulster County	2028	2,265
Park-and-Ride Subtotal			13,980



Funding and Implementation

- Operating Projects:
(Values shown in
Thousands of \$)

Description	County	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
Operating Recommendations (Fiscally Constrained)											
Transit Ombudsmen	Regional		249	253	258	262	267	272	277	282	2,120
Microtransit Feasibility Study	Regional	204									204
Microtransit Pilot: Beacon-Newburg Zone	Orange/Dutchess County	764	777	791	805	820	835	850	865	881	7,388
Microtransit Pilot: Ulster County West Hurley/Woodstock Zone	Ulster County	458	466	475	483	492	501	510	519	528	4,433
Sub-Total		1,426	1,492	1,519	1,547	1,574	1,603	1,632	1,661	1,691	14,144
Operating Recommendations (Fiscally Unconstrained)											
Northern Dutchess County Microtransit Zone	Dutchess County	0	1,055	1,074	1,093	1,113	1,133	1,153	1,174	1,174	8,970
Southern Poughkeepsie Microtransit Zone	Dutchess County	0	612	623	634	646	657	669	681	681	5,203
Northern Ulster County Microtransit Zone	Ulster County	0	1,055	1,074	1,093	1,113	1,133	1,153	1,174	1,174	8,970
Ulster County US-209 Microtransit Zone	Ulster County	0	939	956	973	991	1,008	1,027	1,045	1,045	7,983
Orange County US-6/17M Corridor Microtransit Zone	Orange County	0	3,165	3,222	3,280	3,339	3,399	3,460	3,523	3,523	26,910
Southern Ulster County Microtransit Zone	Ulster County	0	812	827	842	857	872	888	904	904	6,907
West of Newburg Microtransit Zone	Orange County	0	2,637	2,685	2,733	2,782	2,833	2,884	2,935	2,935	22,425
Highlands / West Point Microtransit Zone	Orange County	0	1,055	1,074	1,093	1,113	1,133	1,153	1,174	1,174	8,970
Sub-Total		0	11,330	11,534	11,742	11,953	12,169	12,388	12,611	12,611	96,338

