



CONNECT MID-HUDSON REGIONAL TRANSIT PLAN

PROJECT SUMMARY PRESENTATION



Project Background

- The Connect Mid-Hudson Transit Study 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
 - Opportunities for new technologies and service models
 - Capital improvements to alleviate corridor congestion or capacity constraints at park-and-rides
 - Recommendations reflect pandemic-related changes to travel patterns

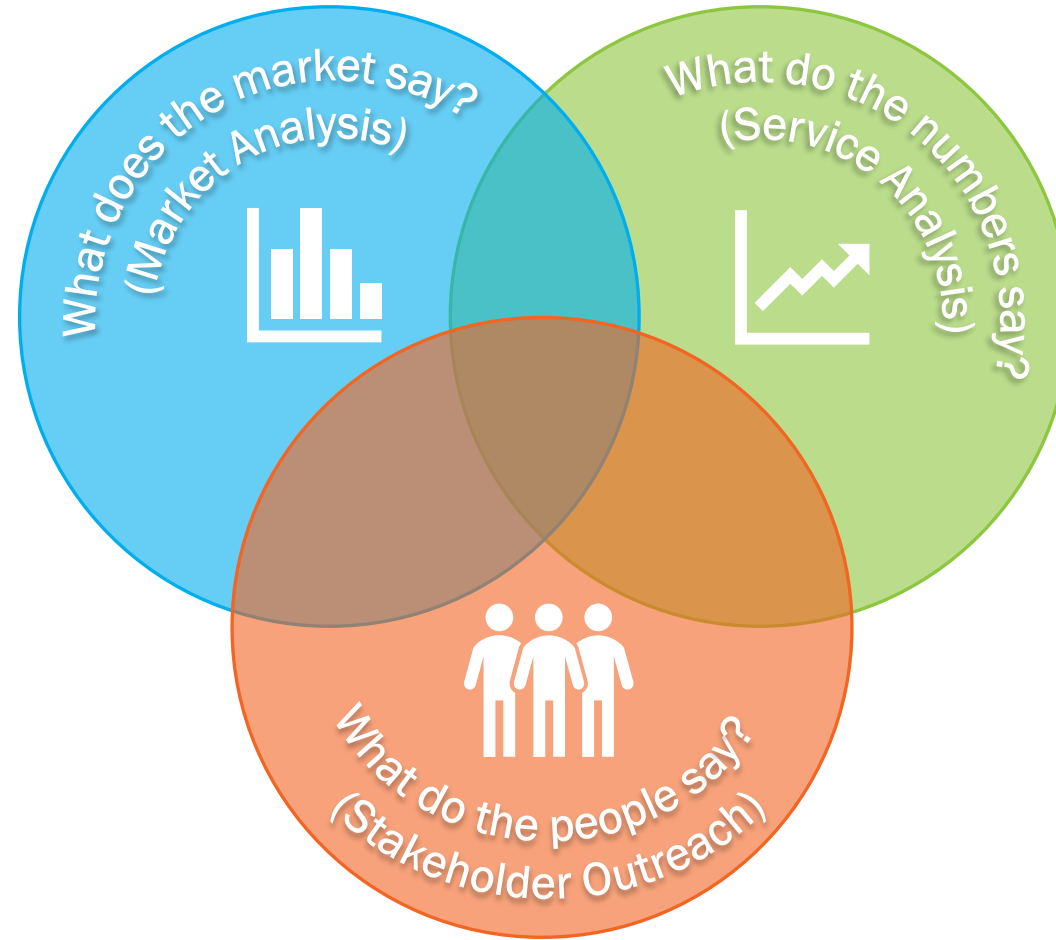


Project Background

- 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

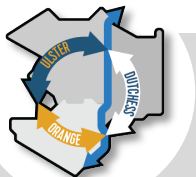


Project Approach



Public Survey

- Online survey was conducted in the winter of 2018 and publicized through press releases and 12 pop-up events around the region
- 1,295 surveys were submitted
 - 75% identified as riders / 24% 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

■ Online 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

■ Beacon Station

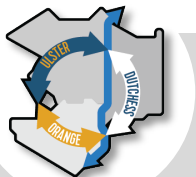
- Beacon Station had 91% average occupancy and 97% peak occupancy in October 2018

■ Rhinecliff Station

- Parking lot expansion is constrained by Hudson River and surrounding residential properties. Station is not currently served by DCPT service

■ Chester Park-and-Ride

- Limited capacity in the park-and-ride forces commuters to park at Lowe's and cross Summerville Way

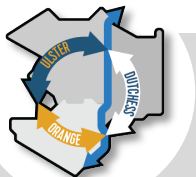


Public Survey

- Online Survey Response Highlights
 - Passenger Amenities and Information
 - New Paltz Park-and-Ride Shelter
 - Survey respondents requested a more robust shelter or waiting area at the New Paltz Park-and-Ride that can better protect from cold temperatures and inclement weather.
 - 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



TO GRAND CENTRAL TERMINAL AND POUGHKEEPSIE FROM NEWBURGH VIA BEACON MONDAY-FRIDAY SCHEDULE																
	AM-A	AM-B	AM-A	AM-B	AM-A	AM-B	AM-A	PM-C	PM-D	PM-C	PM-D	PM-E	PM-D	PM-C	PM-D	
Stewart Airport Lv							8:20	9:13	3:04	4:19						Stewart Airport Lv
N Plank Rd & Rte 9W	5:15	5:58	6:21	6:47	7:17	8:46	9:38	1:34		4:28	5:42					N Plank Rd & Rte 9W
South St & Grand St	5:18	5:58	6:24	6:49	7:20	8:43	9:35	1:37		4:31	5:39					South St & Grand St
Broadway & Liberty	5:20	6:00	6:26	6:50	7:22	8:39	9:33	1:40		4:33	5:36					Broadway & Liberty
9W & Broadway	5:22	6:03	6:28	6:52	7:24	8:37	9:31	1:42		4:35	5:34					9W & Broadway
Broadway & West St	5:24	6:04	6:31	6:54	7:26	8:35	9:29	1:44		4:37	5:32					Broadway & West St
Rte 17W Park & Ride	5:26	6:10	6:35	7:02	7:31	8:30	9:24	1:46		4:42	5:27					Rte 17W Park & Ride
Beacon Station Arr	5:44	6:25	6:50	7:17	7:46	9:07	9:50	3:26	4:44	5:00	6:00	6:07	6:45	8:00	9:02	Beacon Station Arr
Beacon Station (Train Dep)	5:50	6:32	6:58	7:21	8:20	9:17	10:08	4:12p	4:52p	5:10p	6:12p	6:12p	7:14p	8:12p	9:12p	Beacon Station (Train Dep)
Croton Station (Train Dep)	6:28			7:51	8:57	9:55	10:45	4:49p	5:22p	5:47p	6:49p	6:49p	7:51p	8:49p	9:49p	Croton Station (Train Dep)
Grand Central (Train Arr)	7:16	7:47	8:16	8:40	9:43	10:47	11:37	5:44p	6:17p	6:45p	7:40p	7:40p	8:42p	9:42p	10:42p	Grand Central (Train Arr)
Beacon Station (Train Dep)	7:42	8:13	9:10	10:11				6:08p	6:09p	6:09p	6:11p	6:54p	7:14p	8:09p	9:15p	Beacon Station (Train Dep)
Poughkeepsie (Train Arr)				8:07	8:38	9:35	10:36	6:33p	5:34p	5:34p	6:35p	7:18p	7:38p	8:33p	9:39p	Poughkeepsie (Train Arr)
TO NEWBURGH FROM GRAND CENTRAL TERMINAL & POUGHKEEPSIE VIA BEACON MONDAY-FRIDAY SCHEDULE																
	AM-A	AM-B	AM-A	AM-B	AM-A	AM-B	AM-A	PM-C	PM-D	PM-C	PM-D	PM-E	PM-D	PM-C	PM-D	
Grand Central (Train Dep)			6:45	7:39	8:46		1:43p	2:43	3:18p	3:48p	4:14p	4:47p	5:08p	5:32	5:53p	Grand Central (Train Dep)
Croton Station (Train Dep)			7:37	8:33	9:36		2:33p	3:33p	4:04p	4:34p	5:00p	5:33p		6:17	6:37p	Croton Station (Train Dep)
Beacon Station (Train Arr)			8:13	9:10	10:11		3:08p	4:08p	4:39p	5:09p	5:37p	6:11p	6:21p	6:54	7:14p	Beacon Station (Train Arr)
Poughkeepsie (Train Dep)			7:33	8:33	9:50		2:54p	3:54p	4:34p	4:52p		5:34	5:54p		6:56p	Poughkeepsie (Train Dep)
Beacon Station (Train Arr)			7:51	8:50	10:08		3:12p	4:12p	4:52p	5:10p		5:52p	6:12p		7:14p	Beacon Station (Train Arr)
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Grand St & South St			8:28	9:31	10:34		3:54	4:31	5:20	5:39		6:45	6:57	7:21	7:46	Grand St & South St
N Plank Rd & 9W			8:25	9:30	10:32		3:57	4:28	5:22	5:42		6:48	7:00	7:23	7:48	N Plank Rd & 9W
Stewart Airport Arr	8:12	8:54	9:59	10:59			3:00				6:22		7:25		10:00	Stewart Airport Arr



Public Survey

■ Online Survey Response Highlights

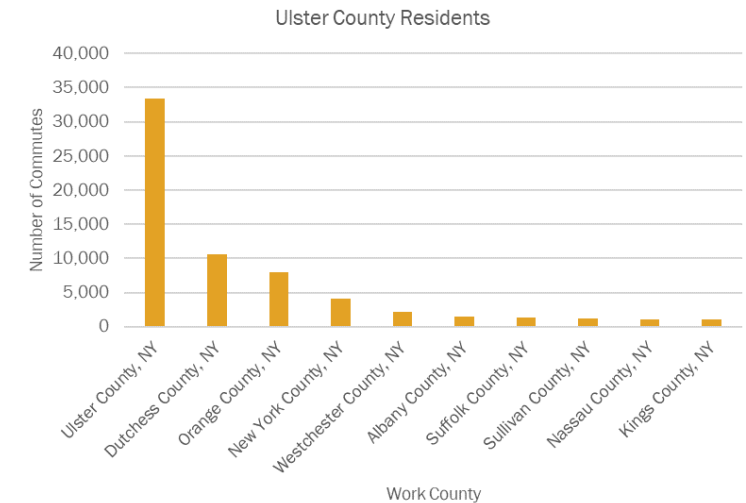
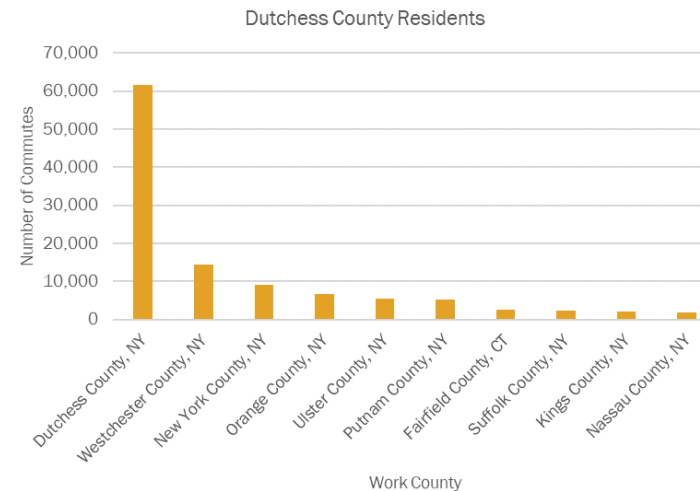
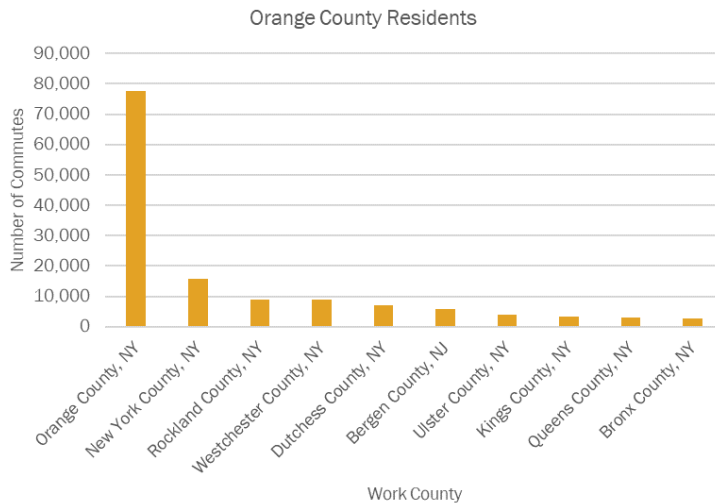
— Service Gaps and Issues

- Express service between Newburgh and NYC
 - The last express bus that departs Manhattan at 6 PM is typically overcrowded, forcing those who cannot get a seat to take a later departure, which also makes more stops
- Private Operator Customer Service
 - Survey respondents expressed a desire for more oversight of the commuter service market, to help address a wide range of service issues including missed trips, poor communication of service delays, lack of destination signs on buses, and unpleasant interactions with bus drivers.
- UCAT KS Route
 - 90-minute mid-day gap in service between Kingston and Saugerties
- 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



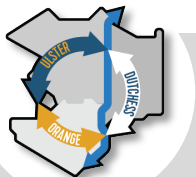
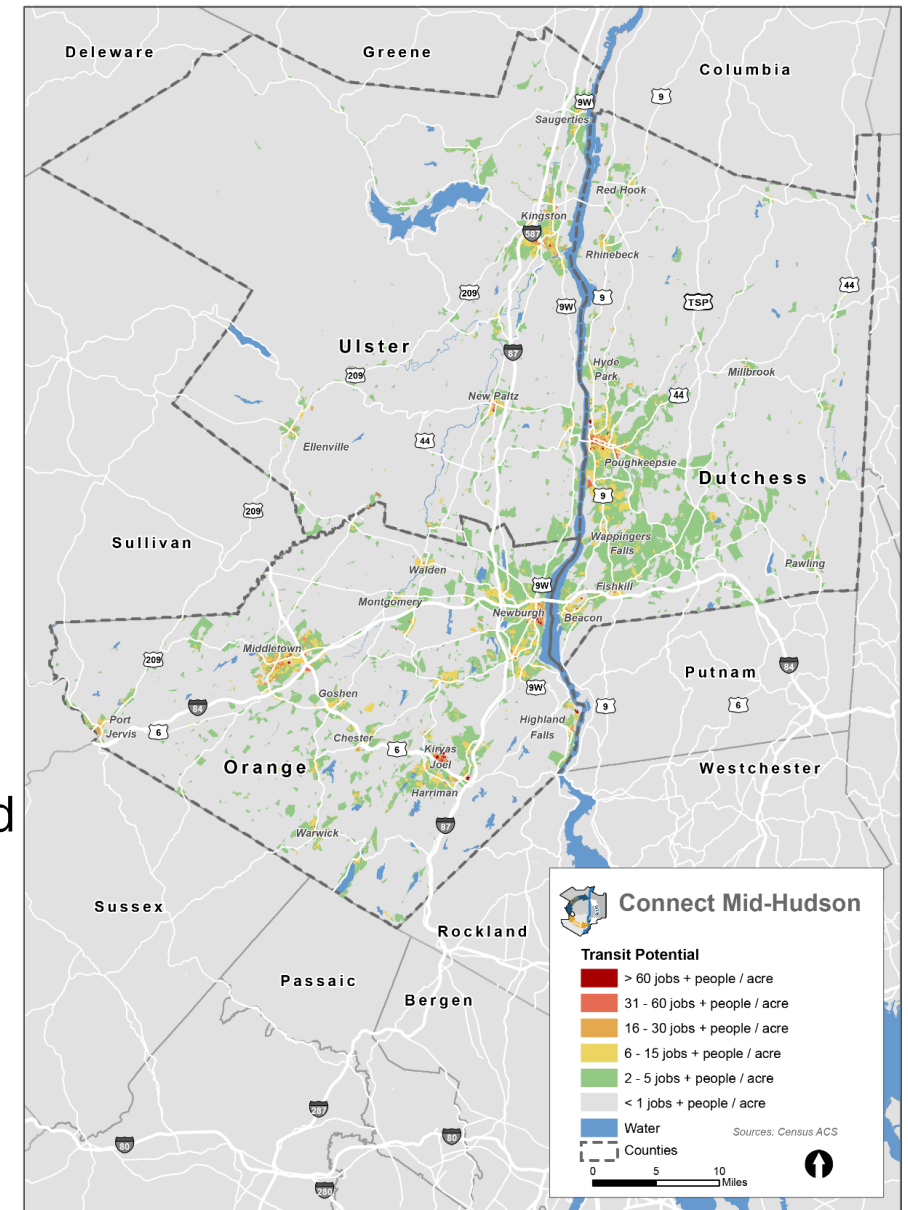
Market Analysis

- The top commuting destinations for each county's residents are within that county
 - At least 45% of commuting trips are internal to each county
 - These trips are best served by local transit service



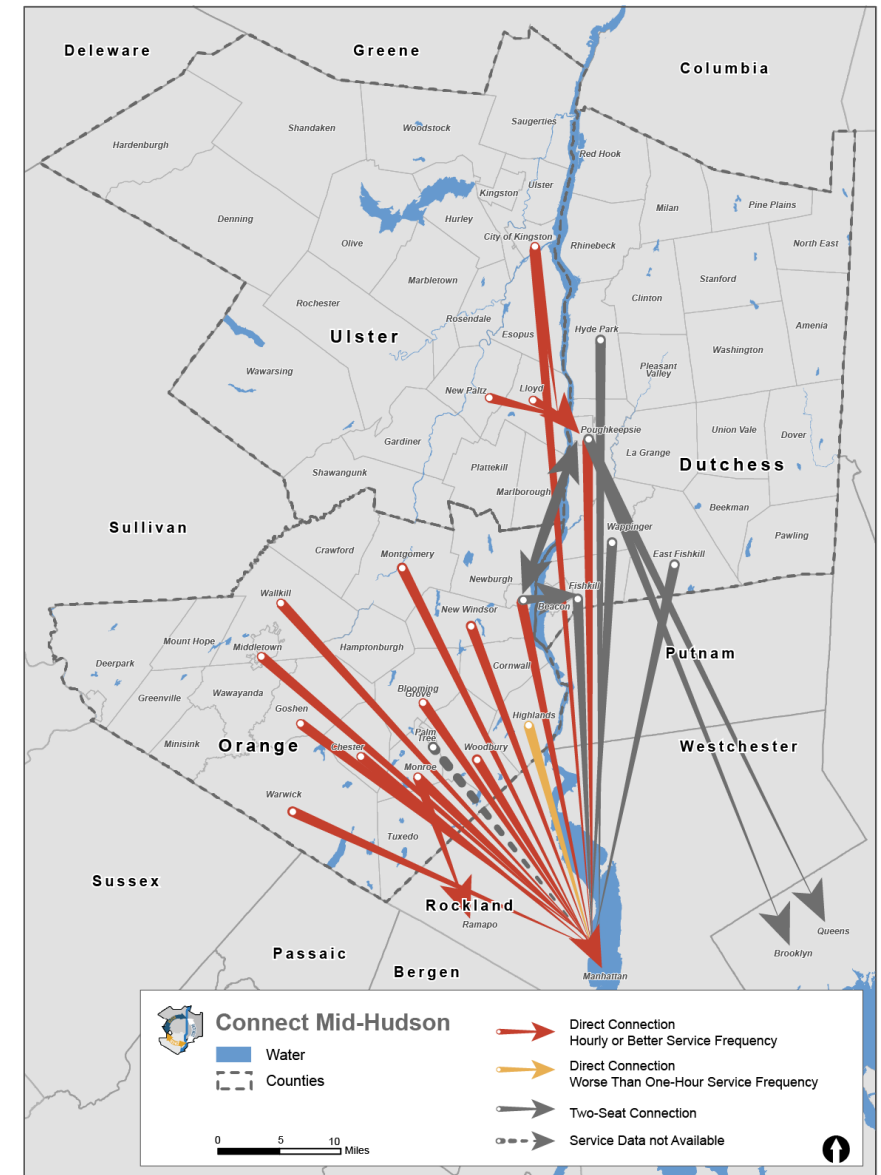
Market Analysis

- 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
 - Urban areas of Saugerties, Kingston, New Paltz, Poughkeepsie, Beacon, Newburgh, Middletown, and Kiryas Joel have the highest transit potential
 - Many smaller clusters of transit-supportive density found throughout the three-county region (Woodstock, Ellenville, Rhinebeck, Fishkill, Goshen, Chester, etc.)



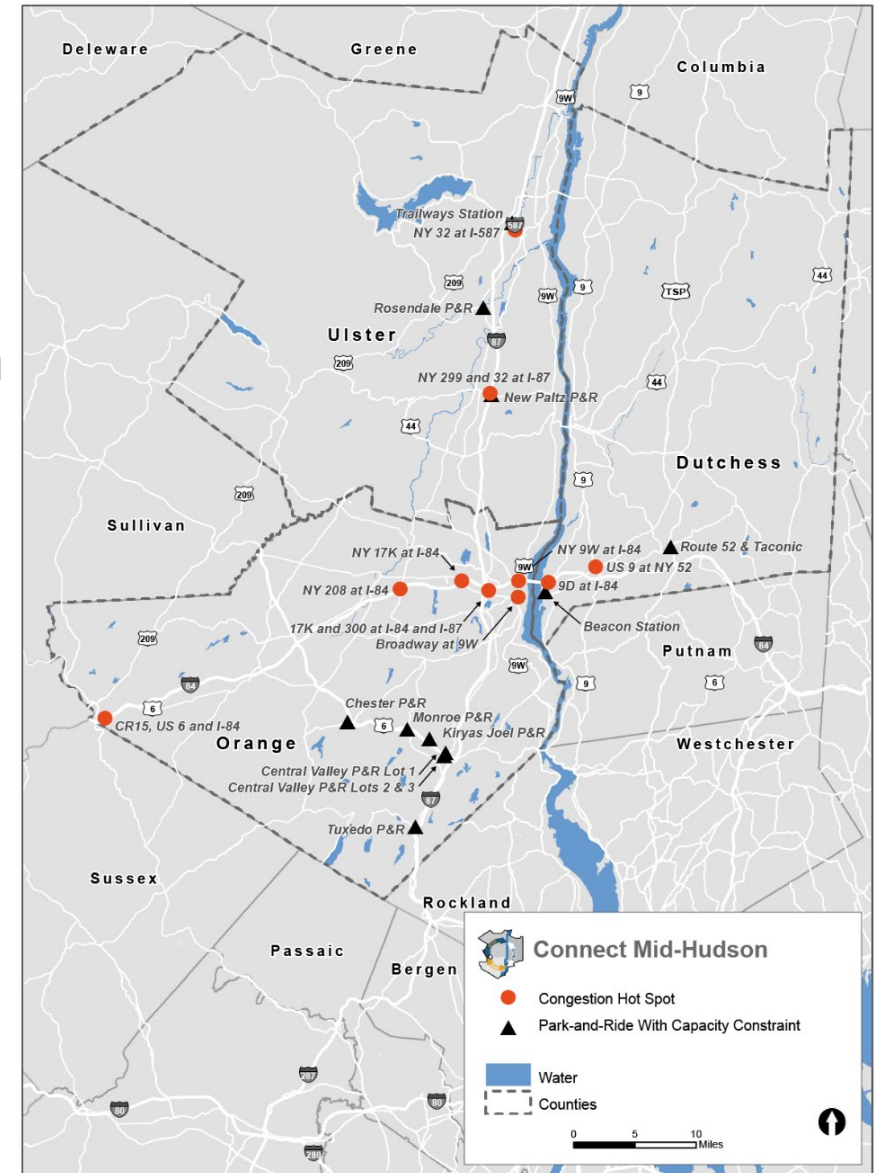
Service Analysis

- For regional commuter services, density is less important than features that address commuters' pain points (traffic congestion, parking costs, travel time, etc.)
- Most major regional commuting patterns (500+ trips per day between municipalities) originating in the three-county area are served by direct and frequent regional transit service
 - Dutchess County has the most major commuting patterns that are not served directly



Service Analysis

- Commuting by transit allows study area 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
 - Top 10 congestion hot spots and park-and-rides with capacity issues were identified (before COVID-19)
 - Distributed throughout the three-county area, but majority in Orange County



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



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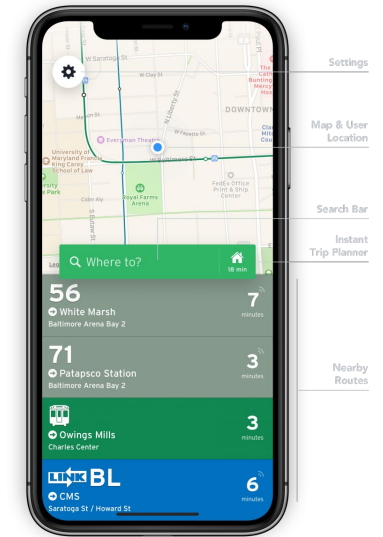
Recommendations

- 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

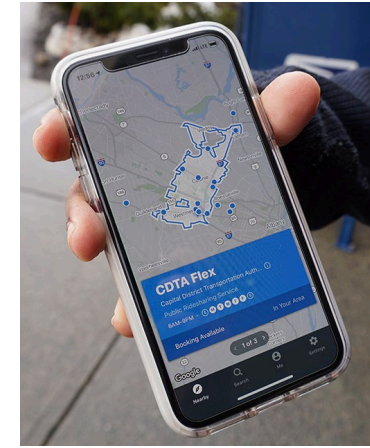
- Passenger Information and Mobile Payment
 - Transit agencies pioneered the development of transit-specific apps to allow users to plan trips and track vehicles from their own devices
 - Industry trend is now to make transit data open-source to allow developers to lead the way with new and improved 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

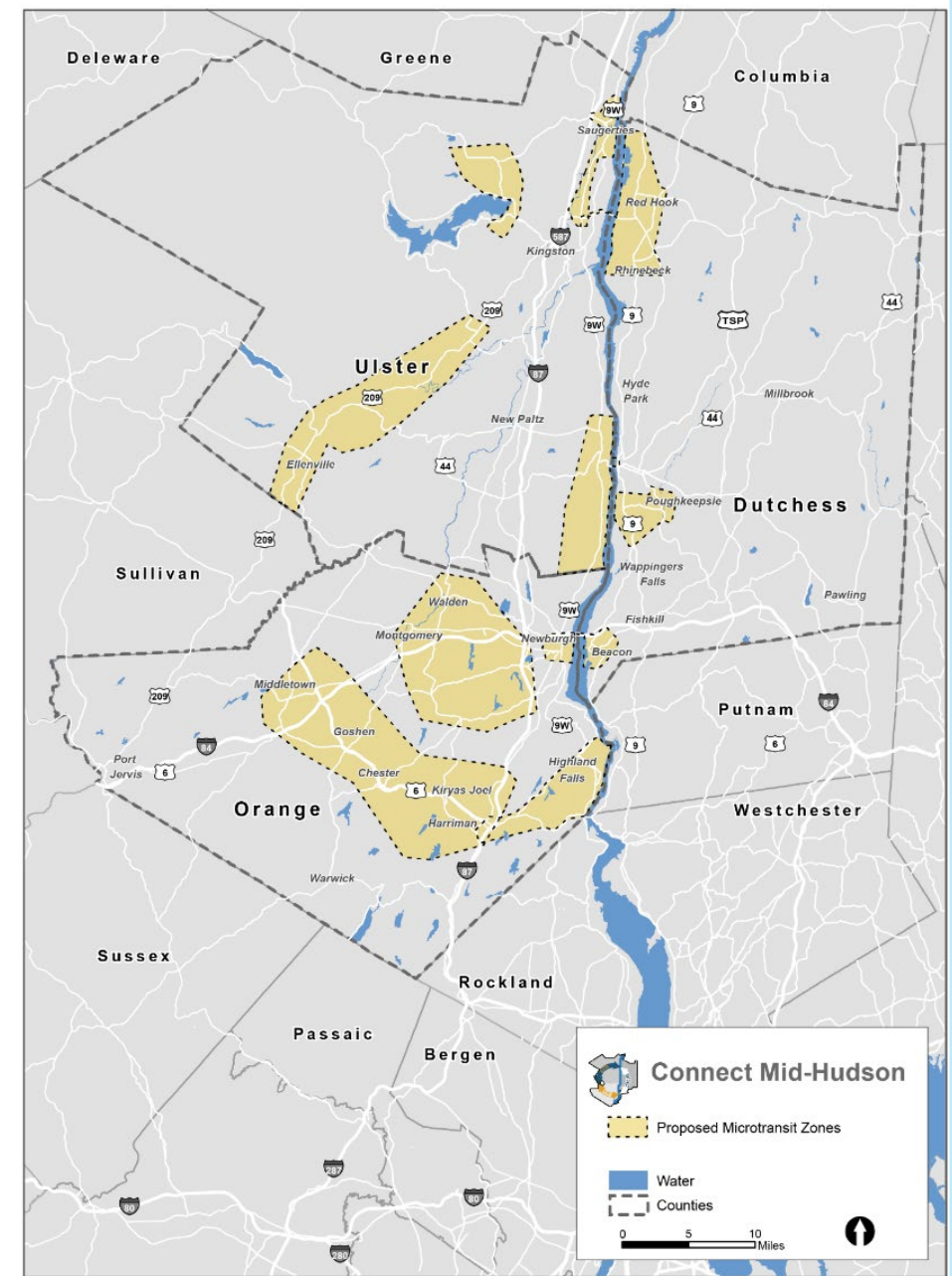
■ Microtransit Service

- 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



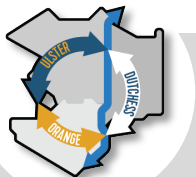
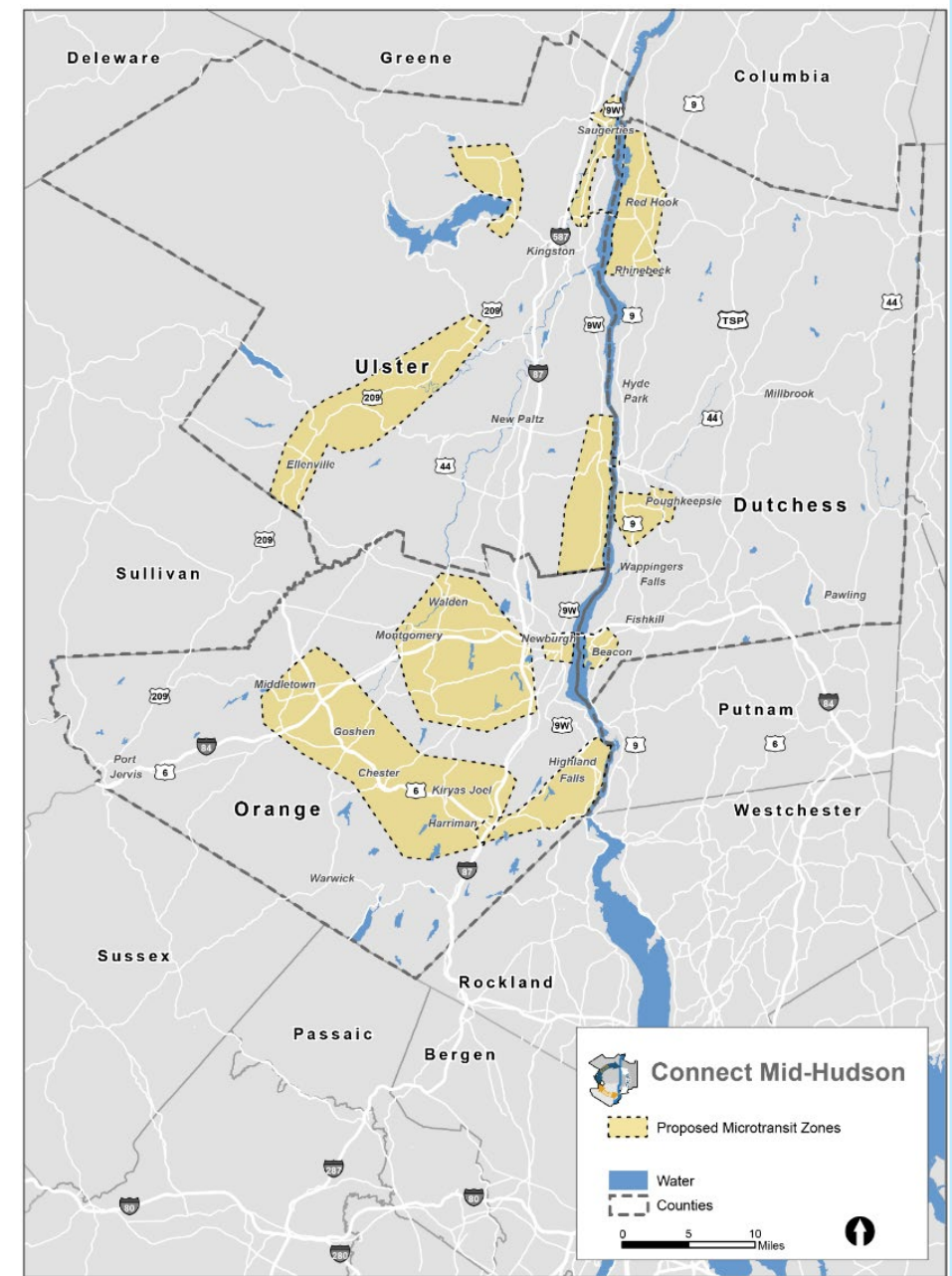
Recommendations

- 10 microtransit opportunity zones identified for three-county region
 - Zones reflect findings of market analysis, service analysis, and stakeholder input
 - Zone boundaries are approximate and preliminary
 - Additional zones may be considered in the future



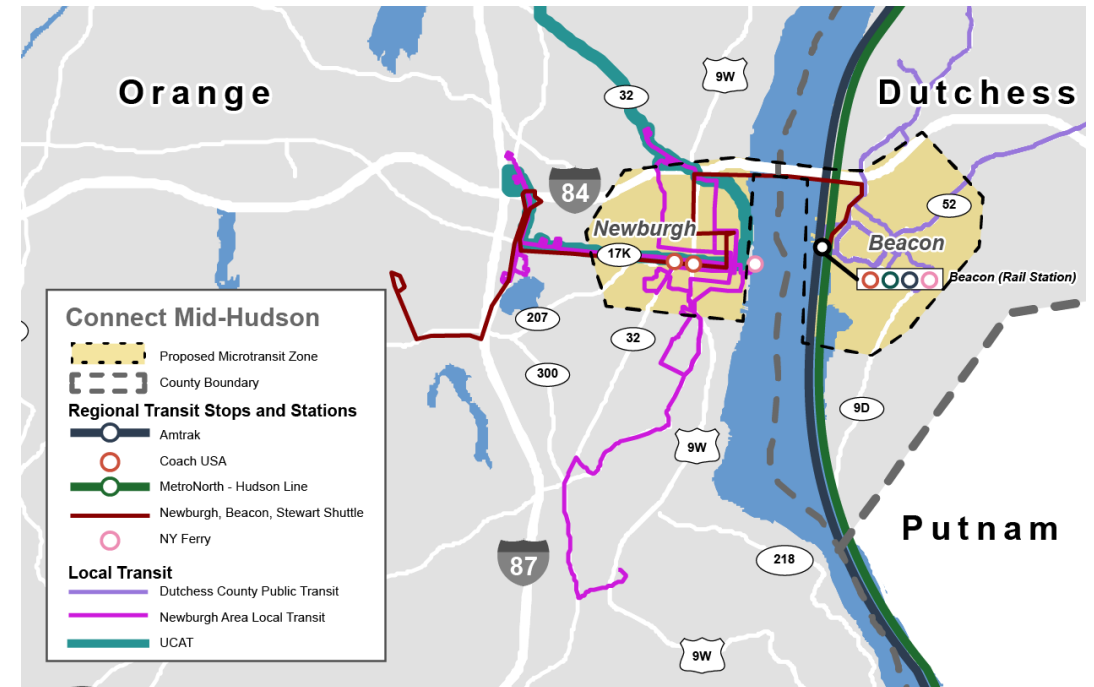
Recommendations

- Orange County Microtransit Zones
 - Highlands / West Point Zone
 - US-6 / 17M Corridor Zone
 - West of Newburg Zone
 - Beacon-Newburg Zone
- Dutchess County Microtransit Zones
 - Beacon-Newburg Zone
 - Southern Poughkeepsie Zone
 - Northern Dutchess County Zone
- Ulster County Microtransit Zones
 - Southern Ulster County Zone
 - US-209 Corridor Zone
 - West Hurley / Woodstock Zone
 - Northern Ulster County Zone



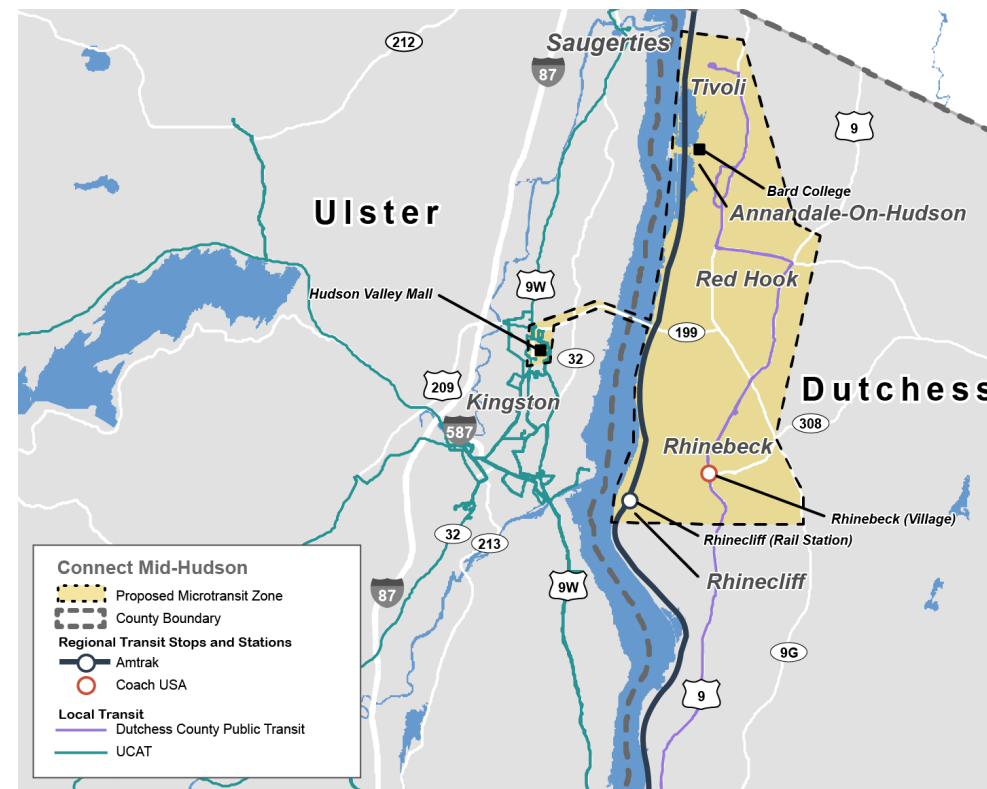
Recommendations

- Orange County Example
 - 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 and parking constraints at Beacon Station
 - 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



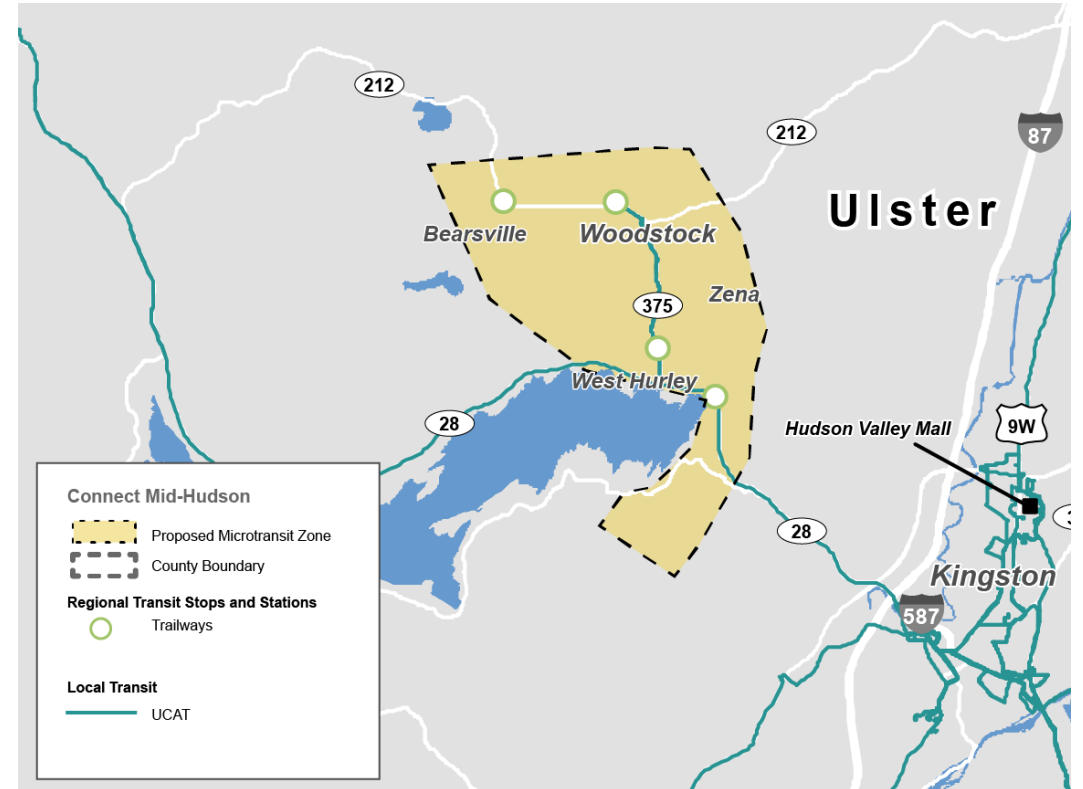
Recommendations

- **Dutchess County Example**
 - Northern Dutchess County 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



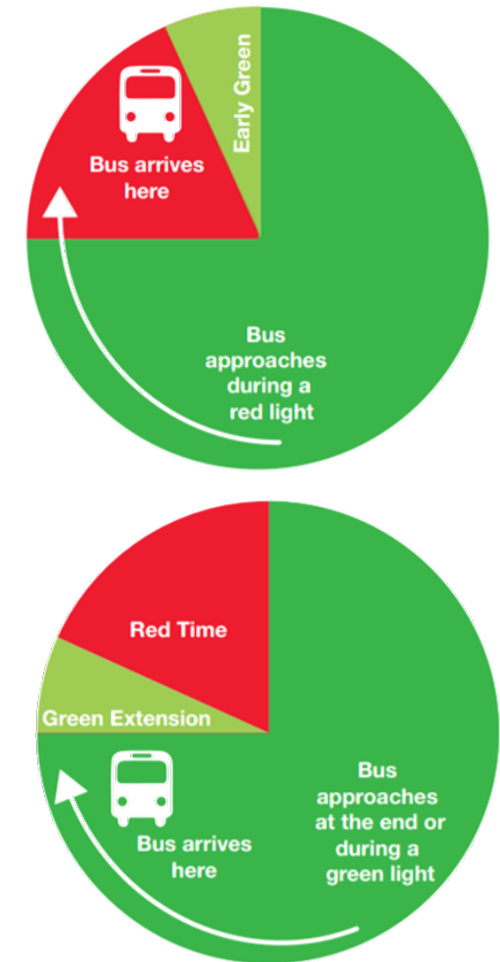
Recommendations

- **Ulster County Example**
 - **West Hurley / Woodstock Zone**
 - Would streamline UCAT Z Route and provide broader local coverage to Woodstock, Bearsville, Zena, and West Hurley
 - Current route requires time-consuming deviation onto Route 375 from Route 28 to serve Woodstock
 - Woodstock has relatively high ridership potential but current service frequency limits ridership



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



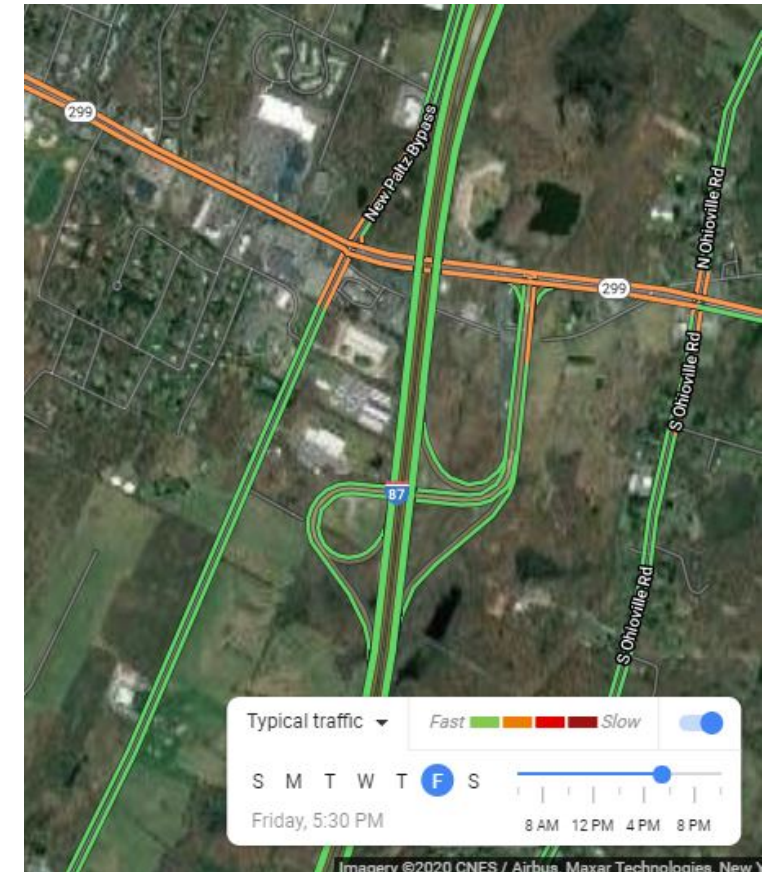
Recommendations

- Passive TSP Example (Dutchess County)
 - 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



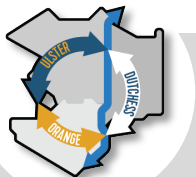
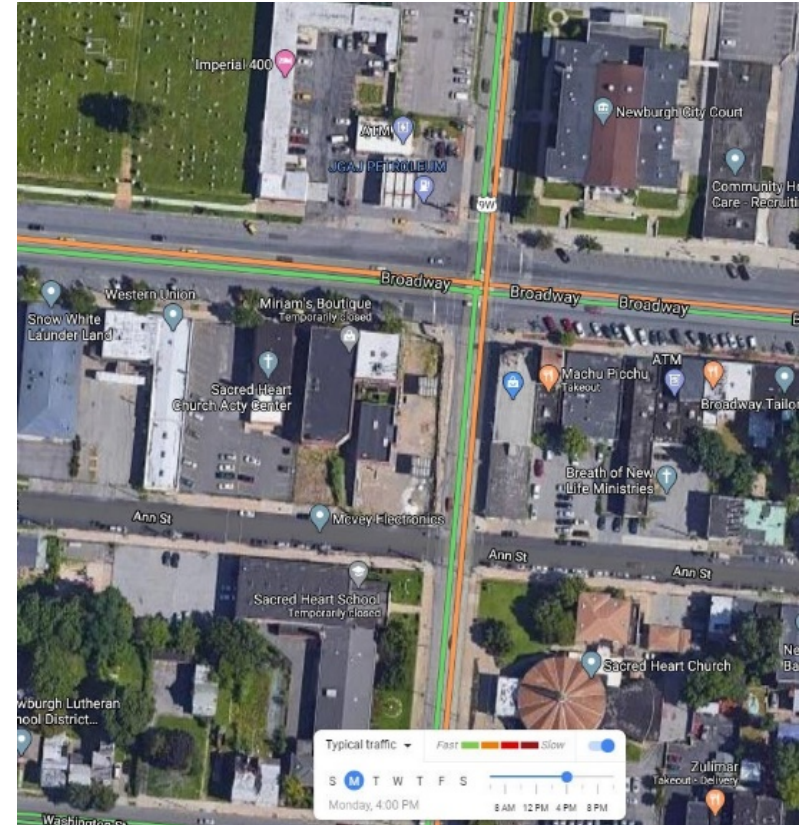
Recommendations

- Active TSP Example (Ulster County)
 - NY Route 299 at the I-87 Interchange
 - Heavy congestion (pre-COVID) between 5:00 and 6:00 PM
 - Congestion mostly impacts Route 299
 - Trailways buses serve a park-and-ride on Route 299, east of I-87 with 27 northbound trips and 26 southbound trips, for a total of 53 weekday trips (pre-COVID)
 - Area also served by UCAT's NPL Route
 - Proposed improvements include active TSP at the Route 299 and I-87 interchange to permit signal preemption for transit buses at this intersection
 - Also coordinate with NYSDOT to incorporate active TSP into ongoing intersection improvement projects along Route 299 at the Chestnut Street, Manheim Boulevard, Cherry Hill Road, and Putt Corners Road



Recommendations

- Active TSP Example (Orange County)
 - NY Route 17K (Broadway) near Route 9W (Robinson Avenue)
 - Heavy congestion (pre-COVID) between 4:00 and 5:00 PM on weekdays
 - Congestion mostly impacts northbound Route 9W and westbound Route 17K
 - Coach USA operates 29 weekday trips through the intersection on weekdays (pre-COVID), with northbound buses turning left from 9W onto 17K
 - Newburgh Local Transit and Newburgh-Beacon-Stewart Shuttle also operate through the intersection
 - Proposed improvements include active TSP, especially to manage left-turn movement queues



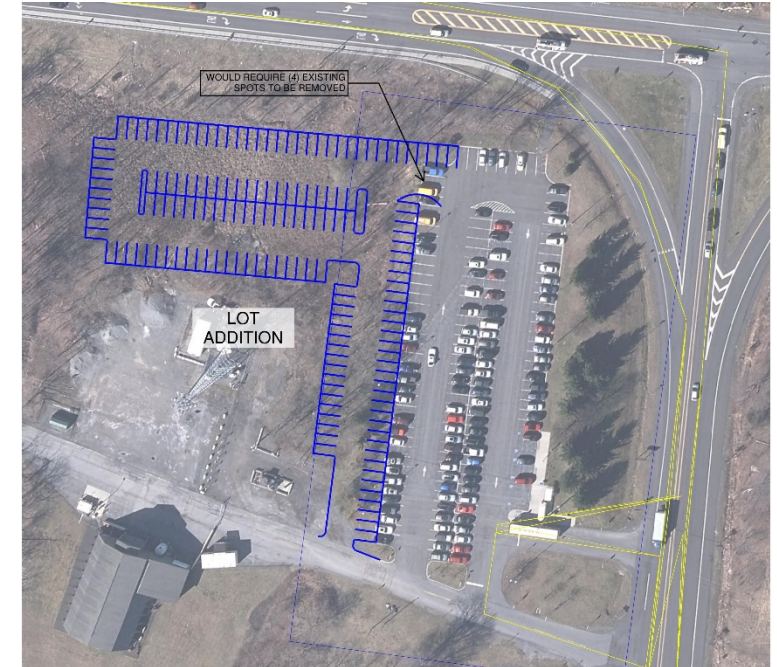
Recommendations

- Park-and-Ride Expansion Example (Orange County)
 - Chester Park-and-Ride
 - Lot is served by Coach USA and has 93 spaces
 - Prior to COVID-19, parking utilization was near-capacity on a regular basis, with spill-over parking at Lowe's across Summerville Way
 - Vacant property exists adjacent to the existing lot and could support an additional 179 spaces for a total capacity of 272 vehicles
 - Proposed lot would require the acquisition of approximately 1.7 acres from one property owner who has been approached in the past, without success



Recommendations

- Park-and-Ride Expansion (Ulster County)
 - NYS Thruway Park-and-Ride, New Paltz
 - Lot is served by Trailways and has 149 spaces
 - Prior to COVID-19, parking utilization was near-capacity on a regular basis
 - Expansion of the existing lot would provide space for an additional 155 spaces providing a total capacity of 298 vehicles
 - Impact study would be required as expansion may impact wetland areas to the west
 - Larger and heated passenger shelter is also recommended for this location



Feedback

- Tonight's meeting is being recorded and will be posted online tomorrow at www.ConnectMidHudson.com
- Comments can be submitted on the website by following a link next to the video of the public meeting
- Comments will be accepted through the end of the month





THANK YOU



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