



# VISION : 2020

## Operations Roadmap

**Vision: 2020** presented by the Central Midlands Regional Transit Authority (CMRTA) proposes a new direction and approach to public transportation in the Midlands that will create a more innovative, connected and accessible system to facilitate a better quality of life for all Richland County citizens.

The conversion of compressed natural gas (CNG) as a new fuel source for the CMRTA's transit fleet will not only be a major investment in the infrastructure for CMRTA- helping the system save up to 40% of fuel cost while mitigating its impact on the environment, but it will also create much-needed infrastructure for the entire region that allows local businesses and governments to use and develop cleaner, American homegrown energy while boosting the economic development potential for the entire region.

The development of high-frequency service along high-capacity corridors will provide greater connectivity and added convenience for riders during peak hours so that they can get to work, school and retail in a more efficient manner.

The CMRTA will also restructure service to begin serving neighborhoods with lower-density routes with smaller buses to directly connect riders with the higher-capacity transit corridors. This change will enhance efficiency, provide opportunity for increased ridership and better connect neighborhoods to the downtown business corridors.

With new technologies and improved infrastructure the CMRTA will create a more intelligent transit system. Some of these measures include implementing the automated vehicle locator (AVL) and enhanced GPS- tracking to provide real-time arrival and departure information for riders so that they can more efficiently plan their trips using their smart phones or the

redesigned CMRTA website. And the new smartcard fare payment technology will allow riders to quickly and easily recharge their transit passes at terminals to speed rider commutes.

All of these innovations and service enhancements will enable a more robust, accessible service for the citizens of Richland County to live, to work and to play. Increased frequency, more coverage and greater connection will contribute to a higher quality of life for all.

The Central Midlands Regional Transit Authority's ***Vision: 2020*** reflects a new philosophy and approach to service. ***Vision: 2020*** is simply about growing ridership by providing amazing service for our transit riders while constantly attracting new customers and building community-wide support. By focusing on job connectivity, job growth and livable communities, CMRTA services will become a transportation style. ***Vision: 2020's*** operational plan targets improving existing services, creating new services and bringing about innovative technologies/infrastructure to support current and future riders. The changes include:

- **ENHANCED SERVICES: High-Capacity Transit Corridors and Local Routes:**
  - Traditional transit but with high frequency to make riding transit easy and convenient.
  - Ridership rates are well-above other routes with high demand for more services.
  - Enhancements target frequency, expanded evenings and restored Sundays.
  - Local routes will build on existing successful services and connect people with jobs and shopping. These services will see high frequency peak hours, as supported by ridership.
- **NEW SERVICE TYPE: Limited Stop Express (LSE) Routes:**
  - Travels along major metro transit corridors, stopping only at major intersections, transfer points, large employment areas and retail centers.
  - Limited Stop Express routes are designed to operate both directions to serve suburban and metro commuters. Initially, these routes will only operate during peak periods. Service will expand as supported by ridership.
- **NEW TECHNOLOGY: Compressed Natural Gas (CNG):**
  - Compressed Natural Gas (CNG): As part of its environmental commitment and emphasis on supporting American industry, CMRTA will actively pursue CNG as its fuel type for its transit fleet. CMRTA's leadership in this area brings considerable federal funds and investment that can act as a catalyst for alternative fuel use in the Midlands.

- By opening the first permanent natural gas fuel station to the Midlands, it opens to doors to other fleets from Richland County, City of Columbia, State of South Carolina, University of South Carolina and School Bus fleets.
- CMRTA will pursue a strong public-private partnership to bring CNG fuel to the retail market, allowing private citizens to purchase flex fuel, natural gas or hybrid-gas vehicles and fuel for local or regional travel. Emerging green technology—such as bio-gas production—will help establish new industries in the Midlands.
- Natural gas has lower tailpipe emissions, is a US-based fuel product that creates US jobs, costs about 40% less than diesel fuel and permits CMRTA to stretch its dollars even-farther. It is very expensive to build the on-site infrastructure and buy the new transit fleet.
- **NEW SERVICE TYPE: Neighborhood Service & Flex Routes:**
  - Redesigns low-productivity transit routes and uses small buses in neighborhoods to directly connect people with high-capacity transit corridors.
  - Flex routes allow buses to leave neighborhood service routes to pick-up or drop-off customers in low-density areas. Usually operate in peak service only but use dial-a-ride options in mid-day, evening and on weekends.
  - Creates more independence and ridership options for persons with disabilities and the elderly.
  - High ridership and strong fare collection allows the small services to grow into full-service transit routes.
- **NEW SERVICE TYPE: Park & Ride Express Routes:**
  - Dedicated service to parking areas with express service to major employment sites via the region’s interstate highway network but will also circulate through downtown to minimize transfers.
  - Connect people with jobs or events (downtown employers, events/concerts, USC, etc.) over a longer distance.
  - Operates only during peak periods or dedicated event times. All routes will travel into downtown Columbia in the morning and from downtown Columbia in the afternoon with connections to other routes.
  - Allows metro workers to reach suburban retail areas for employment while suburban service increases access to metro job markets.

- Transit Technologies: Compressed Natural Gas (CNG) buses; real time arrival and departure information for transfer points and smart phones; web-based transit trip planning and trip matching services for ride-share and vanpool programs; new shelters and benches to match the service types; and a new downtown transit center to support downtown revitalization.

### **High-Capacity Transit Corridors and Enhanced Local Routes:**

- Corridor #1: N. Main/Columbia College: Enhanced to 30-minute all-day service, later evenings, enhanced weekend and restored Sunday service. Key residential and retail corridor with service to Columbia College and Eau Claire Community Center.
- Corridor #2: Palmetto Health Richland/Farrow Rd: Enhanced to 30-minute peak service, later evenings, enhanced weekend and restored Sunday service. Will use neighborhood and flex services on weekends to connect to other routes. Key access to Palmetto Health, SC Health Department and large state employment sites.
- Corridor #3: Two Notch Rd: 30 minute all-day service with new Limited Stop Express route during peak periods to provide near 15-minute service during peak travel times; restore evenings, enhance weekends and restore Sundays. Will enhance a major retail, residential and employment corridor that will reduce auto traffic and connect with new services to the Village at Sandhill.
- Corridor #4: Forest Dr: Enhanced to 30-minute peak service, later evenings, enhanced weekend and restored Sundays. Possible Limited Stop Express to Ft. Jackson for support workers and families attending Army graduation ceremonies/events. Route supports a growing retail and residential corridor.
- Corridor #5: Assembly/Bluff Rd.: Enhanced to 30-minute peak service and 60-minute midday service. Will use neighborhood and flex services on weekends to connect to other routes. Enhances transportation for University of South Carolina students and workers to campus with increased access to special events at Williams-Brice Stadium and State Fairgrounds. High use by students from the University of South Carolina/Midlands Technical College will allow for 20-minute frequency all day.
- Corridor #6: Devine/Garner's Ferry: Enhanced service for the entire area, expanding to Greenlawn Ave. with 30-minute all-day service. A new Hopkins Limited Stop Express route during peak periods will provide near 15-minute service during peak travel times. Restores evenings and Saturdays with Sunday neighborhood service and flex services. Enhanced service to Midlands Technical College, Benedict College housing, Veterans' Administration Hospital and Shandon community.

- Corridor #7: Broad River/Harbison: Enhanced with 30-minute peak frequencies; enhanced evening and weekend service, including Sundays. Expanded frequency to Dutch Square Mall, state employment centers and Harbison Rd. retail/employment sites. High ridership builds toward a downtown-to-shopping weekend express service.
- Downtown Circulator: This high-frequency service into downtown Columbia creates the opportunity for a downtown circulator at a much lower cost. As buses arrive downtown, they will depart the new transit center and “orbit” downtown to connect the north and south ends to include Bull and Assembly streets. Quick access to downtown high-rises, University of South Carolina campus and The Vista without having to transfer routes to get there.

### **Neighborhood Service Routes & Flex Routes:**

- Eau Claire: Connects Earlewood, Sunset Rd. and Eau Claire neighborhoods with Broad River and N. Main corridors. Fixed route services give customers quick access to shopping or connections into downtown and Palmetto Health Richland.
- Colonial Dr./W. Beltline: Connects the neighborhoods between N. Main St. and Two-Notch Rd. to downtown with connections at Farrow Rd. providing increased opportunity to reach job centers.
- Monticello Rd./Denny Terrace: Flex Route with possible dial-a-ride service to connect Denny Terrace, Eau Claire and N. Main St. communities with evening/weekend service.
- Fairfield Rd./ Wilson Rd.: Flex Route with possible dial-a-ride service to connect the Wilson Rd. and Northeast Richland County with the N. Main St and Farrow Rd. corridors. Allows for evening and weekend transit services.
- Forest Acres: Flex Route with possible dial-a-ride service to connect Forest Acres with Two Notch, Forest Dr. and possibly Devine/Garner’s Ferry. Allows for evening and weekend transit services.
- Millwood/Shandon: Flex Route with possible dial-a-ride service to connect The Millwood and Shandon areas with the Forest Dr. as well as Devine/Garner’s Ferry Corridors. Also provides connections into Five Points and the University of South Carolina campus. Allows for evening and weekend transit services.
- Rosewood Dr.: Connects Hollywood/Rose Hill/Rosewood neighborhoods with the Devine/Garner’s Ferry and the Assembly/Bluff Rd. high frequency corridors with access at Midlands Technical College and Assembly St. Allows for evening and weekend transit services.

- Bush River Rd./St. Andrews: Connects the Bush River Rd. St. Andrews area with the shopping and employment areas of Bower Parkway, Harbison Rd. and Lake Murray Blvd. and the new Palmetto Health Parkridge. Allows for evening and weekend transit services.

### **New Routes Enhanced Local Routes & Neighborhood Service/Flex Routes**

- Two Notch Road Local: Creates a new local service along Two Notch Rd. that operates between Columbia Place Mall and the Village at Sandhill. This route will operate bi-directionally to take commuters to job centers in both the city and suburbs.
- Two Notch Road Limited Stop Express: Creates a Limited Stop Express that operates from downtown Columbia along Two Notch Road to Columbia Place Mall (or beyond). This route will make limited stops only at major points of interest to our customers. This route will operate bi-directionally bringing commuters to job centers in the city and out to the suburbs. Service will operate during peak periods.
- College Special: Connects various off-campus apartments for the University of South Carolina, Allen University and Benedict College students, to the entertainment district of Five Points. This route will operate from Bluff Road to Two Notch Road via Blossom/Harden Streets.
- Hopkins Limited Stop Express: Limited Stop Express between Hopkins and downtown Columbia via Garners Ferry Road. Service during peak periods will operate bi-directionally bringing commuters to job centers into the city and out to the suburbs.
- Gamecock/Event Shuttles: Shuttles to connect downtown Columbia restaurants, hotels and parking garages and The Vista to Williams-Brice Stadium. This enhanced-fare service will provide circulator-style transit in the downtown Columbia/University of South Carolina areas, based on demand.
- Rural Transportation: Key to a successful transportation plan is a service as diverse as its communities. Rural communities have distinct needs, focused mainly on access to employment centers and medical care. Solutions—developed in conjunction with communities—will include dedicated van pool programs, volunteer rideshare programs and CMRTA technical support for private transportation providers. These services will plug outlying communities into the metro transportation network for access to higher education, medical care and employment. As demand builds, new fixed routes and park and rides will follow.
- Expanded DART service for persons with disabilities as service areas grow, as well as access to all fixed routes, and all dial-a-ride/flex services.

### **New Routes Enhanced Park & Ride Express routes**

- **Northwest (I-26) Express:** New service from I-26 Exit 97 (Peak) through Columbiana Mall (Harbison) and then back to I-26 into downtown Columbia. Service will operate during peak periods will take commuters to job centers into the city and out to the suburbs.
- **Northeast (I-77) Express:** New service from Blythewood through Killian Road, Palmetto Health Richland to downtown Columbia. Service will operate during peak periods. This route will operate toward Columbia in the mornings and toward Blythewood in the afternoons.
- **East (I-20) Richland Express:** Creates a service that operates from the Village at Sandhill via Clemson Road, I-20, Columbia Place Mall, Palmetto Health/ Richland Hospital to downtown Columbia. Service will operate during peak periods. This route will operate bi-directionally bringing commuters to job centers into the city and out to the suburbs.
- **Gamecock/Event Shuttles:** New Park & Ride routes from the Northwest, Northeast and East Richland Park & Ride locations for University of South Carolina football games and special events. This premium-fare service will provide round trip express services from key locations to downtown for game day activities based on demand.

### **Innovations for Partnerships & Transit Technologies**

- **Downtown Circulator:** In addition to the emphasis on connecting workers, students and visitors throughout downtown, new partnerships within the Richland/Columbia area will permit the creation of a circulator to connect hotels, convention centers and restaurants.
- **Dedicated Job-Center Routes:** As new industry arrives and existing businesses expand, shift work at major employment sites can become more challenging and can create increased burden on the local infrastructure (traffic, lack of surface parking). New partnerships with large employers allows for specialized transit routes (open to the public) from downtown to industrial parks, warehouses or manufacturing centers.
- **Lexington County Transportation Options:** While focused on Richland County as the primary funding source, Lexington County and its many towns and communities will have access to similar programs and services on a pay-as-you-go basis. Several high-capacity transit and Park & Ride corridors exist in Lexington County the opportunity to add neighborhood service and flex/dial-a-ride programs services in outlying communities.

- University & Commuter Connections: CMRTA's 2013 programs to begin connecting students to transit will begin with new lower-cost fare options for students to encourage more use by high school & college students. Partnerships with universities, school districts and major employer locations will allow us to connect a whole new passenger base with a whole new set of commute options.
- Intelligent Transit Systems (a sample of popular technologies):
  - CMRTA will take the next step in technology by adding automated vehicle location (AVL) to allow real-time arrival and departure information for customers at stops or on smart phones.
  - GPS-tracking on buses can help trigger lights to turn green on major corridors helping push the buses through clogged city traffic and speed up commute times.
  - New technology will text passengers when their buses will arrive (with user-defined settings) and even let them track the closest bus while waiting on the street corner and use web-based trip planning on the new CMRTA web-site.
  - Smartphone apps for visitors can link them to transit and QRT/bar-code technology around town can tell tourists about routes and services on-the-go.
  - Smartcard fare payment technology will allow customers to ride with the tap of their card and can recharge their transit passes at terminals (similar to an ATM). This also provides real-time bus arrival information, general passenger information and advertising revenue for the system.
- Rider Amenities (a sample of popular amenities):
  - An improved downtown Transit Center with off-street bus access and off-street waiting areas. The new downtown transit center will give customers a more secure, convenient and cleaner way to ride transit services. Buses will no longer line up downtown for route transfers therefore downtown sidewalks will be easier to navigate for pedestrians. Customers will be able to catch their buses at the same gate every day to improve reliability and get them home on time.
  - New buses for all routes and services are vital to improving CMRTA services.
    - New buses for major corridors will be state-of-the-art, low-floor buses. New, on-board technologies will announce major stops, digitally display the cross-streets and include on-board security cameras. New ergonomic seating with stainless steel interiors (and on-board Wi-Fi for Park & Ride routes) will create the look and feel of a light-rail train car.



- New neighborhood service and flex route buses will be smaller, less expensive to operate and more neighborhood friendly. In addition to being quieter, they have a lower profile, take up less of the road and support the feeling of community. They are less expensive to purchase and permit service in new areas until ridership grows.
- Larger-capacity bicycle racks to support growing use of transit for bicyclists—in partnership with business and employers—will encourage riders to bike to the route and ride transit to their destination.
- Brand new benches, shelters and signs with enhanced services at Super Stops and neighborhood connection points will feature solar lighting; reflective decals and real time arrival information at enhanced stops will make for safer and more convenient transfers. Trash and recycling bins will make it easier to keep the areas clean and neat. All bus stop signs will be replaced with high visibility signage to include the route and travel information.