a. PROJECT DESCRIPTION

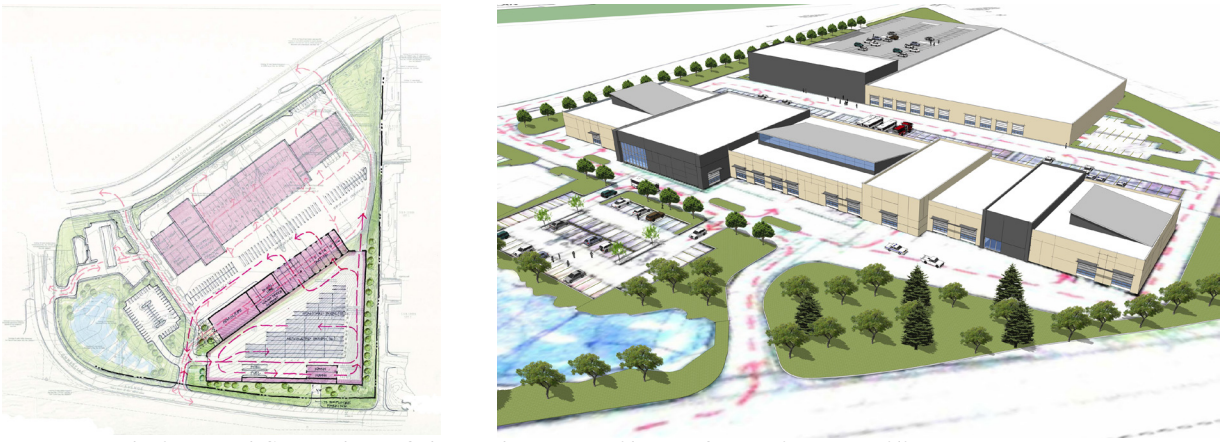
The Nakoosa Trail Satellite Garage: The City of Madison's application to US DOT's TIGER Discretionary grant program, requests $17.5 million, 50% of the funds needed to support construction of a satellite bus garage to serve Metro Transit's fleet and to purchase 6 hybrid-electric articulated buses. TIGER funds will support the final design and construction of the facility at Nakoosa Trail and will provide a much needed second bus facility to enable expansion of Metro Transit's fleet. The facility will also accommodate storage of buses and demand response vehicles now housed in a severely overcrowded main bus facility located on East Washington Avenue in Madison.

While TIGER funds will primarily cover the cost of facility development, this application is about much more than a bus garage. Without additional garage capacity, Metro lacks the space to add even one more bus to its fleet at a time when demand for additional service is high and urgently needed.. The second garage will enable Metro to house an additional 20, 40'-standard buses and 36, 60'-articulated buses as well as reduce severe overcrowding in the Eeast Washington Avenue garage.

Ladders of Opportunity Components

Equity and Economic Growth: With additional buses, both articulated and standard, Metro can address immediate needs for service expansion related to equity and growth. Today, Madison is on the cusp of a dramatic demographic shift as older, white, middle class residents approach retirement and younger families, primarily people of color, become the majority of residents in our city. Today, in 2015, over 50% of students in Madison public schools are African American, Latino, and Asian. Unfortunately, their families are predominantly low-income. The Madison area struggles with high rates of income disparity correlated with race. Census data shows the median family income among whites in Dane County was $84,352, but $29,834 among African Americans. In 2011, 5.5% of non-Hispanic white children, but 74.8% of black children lived in poverty. Madison's unemployment rate among whites was 5.1%, but 21.3% among African Americans. (ACS, 2007-11).

But there is also opportunity. Madison's economy is growing in the Downtown. Regionally, the growth of employment within suburban areas offers opportunity, though it is difficult to access from many Madison neighborhoods. An expanded bus system, including greater service to underserved areas and Bus Rapid Transit system serving established high density corridors can help to connect lower income adults to employment and youth to summer and part-time jobs. The opportunity to connect lower income workers



Concept rendering and floor plan of the Nakoosa Trail Bus Operations Facility.

to positions in an expanding economy exists. Metro Transit can help make that connection if it has additional buses to deploy.

Equity and Transit Priorities: In the past, our transit plans, service times, and routes have been determined by existing demand. The impact of this approach has been to provide excellent service to high employment areas and to those residential and retail areas with existing high levels of ridership. Areas of low demand have received little or, in some cases, no service. Our approach has been a self-fulfilling prophecy as good service generates demand, and poor service depresses it. From an equity standpoint, we have rewarded middle-income choice riders who work in professional jobs in Madison's downtown. We have penalized transit-dependent riders living in low-cost housing at Madison's perimeter. We have provided very limited service to second or third shift workers. We have not been effective in connecting lower-income youth to their first job experience or supported their pathway to careers. Expansion of Metro's fleet will enable Madison to correct these inequities by allocating additional service to underserved areas and service times. While continuing to strengthen our core transit services, Madison must expand its services to provide better service and promote higher ridership within lower-income neighborhoods.

Serving Madison's Broader Equity Goals: To address racial and income disparities, in 2013, the Madison City Council adopted an equity initiative designed to ensure that every major project and expenditure, including Metro Transit, is examined through an equity lens. Subsequently, we have adopted an ambitious set of goals to address housing, employment, childcare, school success, and career development. These goals, developed with our school and private sector partners, cannot hope to succeed without an efficient transit system connecting youth and adults to opportunities. These goals include:

- $25 million committed to build scattered site affordable housing over the next 5 years;
- 750 new youth internships and jobs developed over the next three years with the help of non-profit and private sector partners to expose youth to career pathways;
- 200 adult full-time sustainable jobs to connect unemployed or underemployed adults to family-supporting employment;
- Expansion of quality childcare to support working families;
- High quality out-of-school time programs within neighborhood centers, full-service schools, and other programs, to expand youth opportunities after school, on week-ends, and during vacations when no school buses are running;
- Providing improved transit service to underserved areas to grow demand and achieve equity and economic growth impacts;

Additions to Metro's fleet will result in two types of planned service expansion described in greater detail in later sections:

Improved Service within Lower-Income Neighborhoods: In an ongoing basis, Metro studies underserved areas and concludes that 8 - 12 additional buses are needed in the peak hours to fulfill potential new and expanded service to 16 minority and low-income neighborhoods. The routes would connect to job centers, full-service grocery stores, multiple service providers, and the Truax campus of Madison College. Metro estimates 20,000 - 30,000 service hours and 200,000-600,000 rides will be added annually.

Bus Rapid Transit: A recent corridor analysis determined that Madison is an excellent

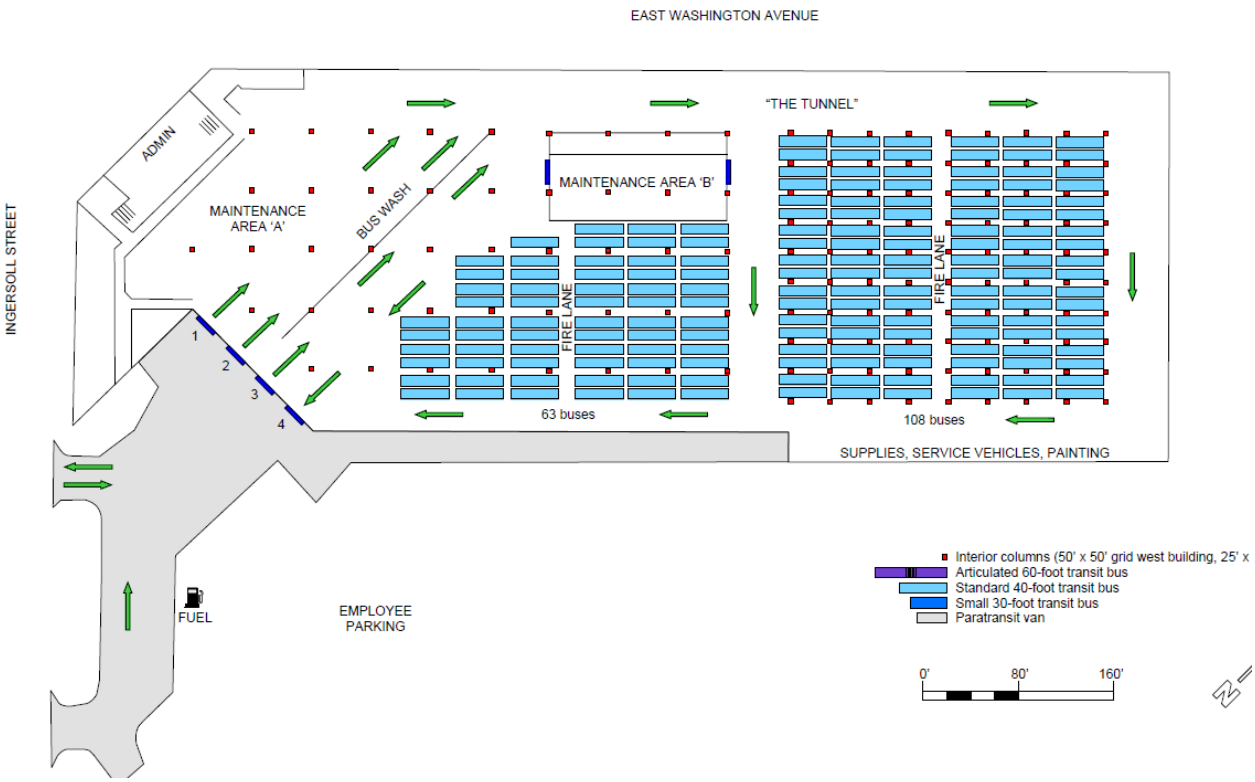
Typical day time condition at the University of Wisconsin campus stop.

candidate for a BRT system to serve the City and to connect our residents to employment opportunities in the growing suburbs. This system is the subject of our TIGER 6 Planning Grant, and the scenario planning related to it is about to commence. We are moving toward the development of a BRT system that Metro Transit anticipates will become a reality within the next 5-10 years. To prepare the community for this new service, Madison will begin to deploy articulated buses within certain commuter routes. This step will alleviate overcrowding on routes to some high density destinations and will introduce the articulated bus to the Madison community. The BRT will require 20-30% less travel time with 20,000 boardings/day.

The Nakoosa Trail Project: This 2015 TIGER Discretionary grant application for the Nakoosa Trail satellite facility project constitutes the first construction project toward implementing the plan to transform transportation by Madison and Metro Transit. The construction of the new satellite facility will be a giant step in addressing present critical needs to handle the overflow of the East Washington Avenue main storage and maintenance facility and to allow Metro Transit to move ahead with expansion of desperately needed new service to address underserved, low income communities.

Existing Facility Constraints: Metro Transit operates a network of 61 fixed routes, with a total fixed route and paratransit fleet of 232 vehicles. All of the bus service needs are dependent on the 32 year-old main bus and maintenance facility located at 1101 East Washington Avenue in Madison. At this time, the East Washington Avenue garage

Existing East Washington Avenue facility overcrowded conditions.



Existing East Washington Avenue Facility Plan

is servicing all 232 vehicles in a facility designed to maintain and store no more than 160 vehicles. That amounts to an additional 55 transit buses and 17 paratransit vehicles more than the facility can accommodate. The resulting overcrowding contributes to serious inefficiency and major safety concerns.

The Nakoosa Trail project is essential for Madison to address the community-wide challenges of overcrowded buses, safety and overcapacity problems in the current maintenance facility, high unemployment rates among minority and low income populations, inadequate access to job centers, poor connection to grocery stores and other retail, limited service supporting out-of-school time programs, and remarkably consistent growth in the demand for public transportation over the past 15 years. The completion of the Nakoosa Trail satellite facility will be the cornerstone from which Madison will build a long-planned public transportation alternative in the form of a Bus Rapid Transit (BRT) system to strengthen Madison's core service and to add routes and service hours within low-income neighborhoods.

The Nakoosa Trail satellite facility project will provide the necessary stepping stone to move from the present limited transit system into a more comprehensive transit program that utilizes BRT as the backbone of public transportation with considerably improved service to lower income neighborhoods. The project is the vital link in making mobility the key to providing disadvantaged and transit dependent citizens, as well as choice riders, in the metro area the connectivity they need to live, work, study and play.

The Project

Since 2005, Metro Transit has anticipated the need for a satellite bus maintenance and storage facility to supplement the East Washington Avenue facility. In 2006 the

City commissioned a study to address renovation, modification, and/or expansion possibilities on its current site, concluding that expansion would be costly, difficult, and limited. In addressing the need, in 2014 the City commissioned a conceptual engineering design for a Nakoosa Trail satellite facility to be located on the site of a former Cubs Food property purchased by the City. The City and Metro Transit plan to divide the property and locate the Metro Transit to the satellite facility on one half of the property, and a new City Fleet Services facility on the other half of the land. The Metro Transit portion of the site is valued at approximately $814,000. The site is located four miles northeast of downtown Madison in a perfect location for a second bus facility which will house the overflow buses from the East Washington Avenue facility, allow for new buses and expansion of service to all existing and underserved service areas, and provide space for the arrival of the anticipated hybrid-electric articulated BRT vehicles.

The new Nakoosa Trail satellite facility will immediately accommodate overflow operations from the East Washington Avenue facility. The new facility, as designed, will be a state of the art campus that will incorporate the latest design and transit maintenance and operations amenities of a modern transit facility. Safety and efficiency of maintenance will be emphasized at Nakoosa Trail, as well as the training and health of the Metro Transit employees and drivers. It will include a driver training and development area, used to train the additional drivers required for service expansion and BRT operation.

The facility will be designed to a LEED Silver minimum level and will be United States Green Building Council (USGBC) certified. It will be CNG-compliant, and may service both CNG and hybrid-electric vehicles. Energy usage will be reduced through state-of-the-art, innovative mechanical systems, and a combination of natural daylighting, light fixture monitoring and zoning, and high efficiency LED lighting. Water will be reclaimed and reused within the facility in the vehicle and chassis wash bays and on-site storm water will be collected to ease the burden on the City system. In addition, the building is pre-designed for future on-site renewable energy generation through roof-mounted photovoltaic panels. This facility will be one of the most sustainable public buildings in Madison and will be used as a showcase and tool for environmental education through the use of a web-based monitoring page that will track resource utilization throughout the building. Metro Transit and Madison Gas & Electric (MGE), the local power utility, have worked collaboratively over the years on energy related initiatives. Most recently, the discussion on alternative fueled vehicles, both compressed natural gas (CNG) and electricity, has been the focus of that collaboration, with support from MGE to provide technical assistance and possibly funding for infrastructure improvements related to the fueling stations at Metro's bus facility. That collaboration would continue at the new Nakoosa Trail satellite facility.

The location of the facility at Nakoosa Trail will provide Metro Transit with a vast improvement in the movement and efficient operation of buses throughout the existing system. And, because of its proximity to the BRT line, it will be the best location for storage and maintenance of the new 60-foot articulated hybrid-electric BRT buses.

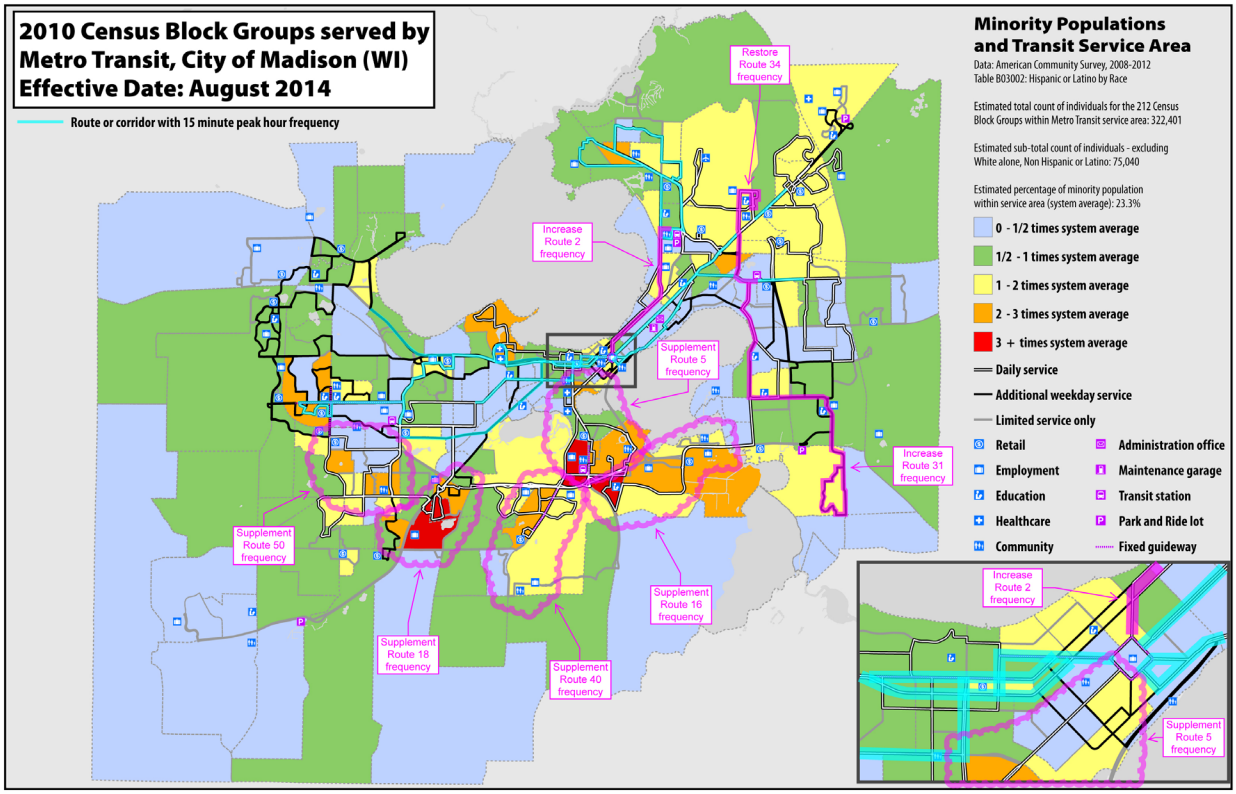
The new facility will require minimal environmental remediation as the Nakoosa Trail site was purchased only after careful consideration and evaluation of environmental review needs. The site is clean and contains no toxic materials.

Outcomes of Service Expansion Made Possible by the Nakoosa Facility

The Geography of Opportunity: Equity Outcomes of Transit Service Expansion: Madison has assessed Metro Transit service in light of its equity goals and determined that current service priorities must be expanded. A study, the "Geography of Opportunity A Fair Housing Equity Assessment for Wisconsin's Capital Region," by the Capital Area Regional Planning Commission, analyzed barriers to access to jobs and other resources within Dane County. The study found that employment concentrations are decentralizing, with higher growth on the edges of the metro area. Many of the neighborhoods with concentrated poverty are not located near employment centers or along bus routes that connect them to employment centers in a timely manner. Travel times between some lower income neighborhoods and employment centers can take as long as 80 minutes one way during peak times and take significantly longer during notn-peak times.(http://danedocs.countyofdane.com/webdocs/PDF/capd/2014_Postings/FHEA%20Final/FHEA.pdf, p 70)

Service to Underserved Neighborhoods: In response, Madison has begun to plan system changes that will simultaneously strengthen our core service and expand service within underserved neighborhoods. The goal is to build a system that will do a more efficient job of connecting all Madison residents to opportunities within the region.

Expanding to Underserved Areas: Metro has identified the primary underserved neighborhoods and developed a planned solution to increase accessibility to those locations. Below is a map showing how increased peak frequency can help to connect



Map of existing service and planned expansion of service to 2010 Census Block Group and minority populations in and around Madison.

disadvantaged communities to job centers. (This map is also included in larger scale as Appendix F).

A summary of the study outlined the specific routes requiring additional peak and off-hour service, and concluded that between 8-12 additional buses would be needed to fulfill the potential new and additional service. Specific routes that would be supplemented with increased service frequency include Routes 2, 34, 31, 5, 16, 40, 18, and 50. These routes would provide additional service to specific minority/low-income neighborhoods, employment centers, and retail, as follows:

- ***North and East sides:*** Tenney Park and Darbo-Worthington neighborhoods; the relocated Veterans Center; Dane County Job Center, Darbo-Worthington, and, Madison College Truax campus.
- ***Southeast side:*** Owl Creek and Glendale neighborhoods.
- ***South Madison:*** Burr Oaks and Monona Bay-Triangle neighborhoods; multiple service providers at the Villager Mall; and the only full-service grocery store in the area
- ***South Beltline:*** Southdale, Moorland-Rimrock, Arbor Hills-Leopold, and Hatchery Hill neighborhoods; full-service grocery store off South Towne Drive, Arbor Hills-Leopold and Hatchery Hill neighborhoods; and, a full-service grocery store servicing the City of Fitchburg.
- **Southwest side:** Meadowood, Park Ridge-Park Edge, and Williamsburg neighborhood; Allied/Dunn's Marsh neighborhoods in the City of Fitchburg; full-service grocery stores west of Verona Road

Additional service to each of these areas will connect low income and minority communities with job opportunities, and the greater network of public transportation throughout the entire city. Metro Transit estimates that from these improvements there would be an increase of 20,000 – 30,000 service hours and 200,000-600,000 rides annually. This connection will provide greater access to jobs, educational choices, recreational locations and an overall increase in Quality of Life for these communities.

Response to Increased Ridership: Madison Metro ridership has increased an average of 3.4% steadily over the past 15 years. This Nakoosa Trail satellite facility and bus acquisition is the most pressing need of Metro Transit, even without BRT, because of the steep and continuing increase in ridership. Ridership exceeded an all-time high of 15,223,961 rides in 2014 despite "a slightly decreasing trend in bus ridership on a national level" as reported by the American Public Transportation Association. Metro Transit's remarkable ridership has placed overwhelming demands on its infrastructure, particularly on the East Washington Avenue facility. (http://www.cityofmadison.com/metro/news/ridership.cfm)

According to a June 3, 2013 online posting by Capital Region Sustainable Communities, "In 2011, more than 14.9 million rides were recorded on Metro Transit, a 9.5% increase over 2010, and the highest ridership ever in Metro". (http://www.capitalregionscrpg.org/?p=597) Those statistics are staggering, yet the complete picture of the problem facing Madison is even more so; the fact that Metro Transit's ridership has increased 51.2% between 2000 and 2014, while annual service hours have increased only 5% is both wonderful and challenging.

The chart below provides the statistics on the growing ridership over the last 15 years.

YEAR	RIDERSHIP
2000	10,065,495
2001	10,210,834
2002	10,895,089
2003	10,934,125
2004	10,962,345
2005	11,475,597
2006	12,034,468
2007	12,672,265
2008	13,433,149
2009	13,588,426
2010	13,623,461
2011	14,923,970
2012	14,592,214
2013	14,740,736
2014	15,223,961

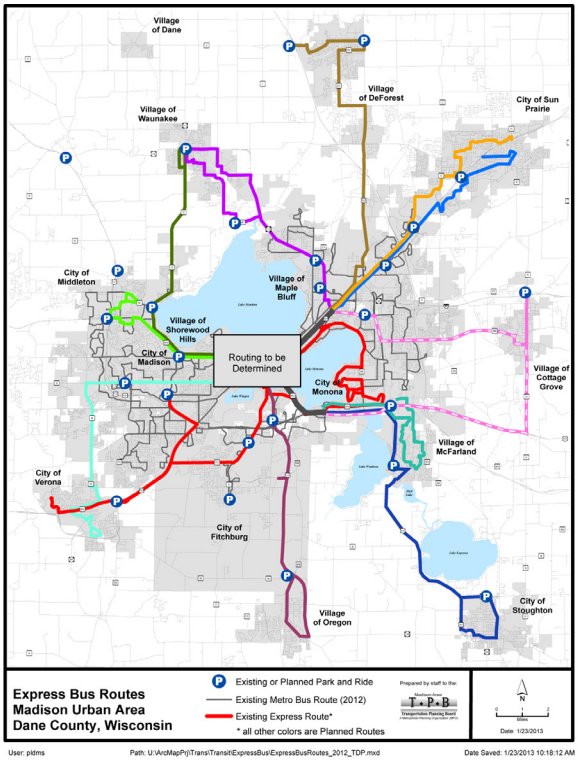
The Nakoosa Trail satellite facility will provide the second milestone of addressing overcrowded buses by allowing storage and servicing of the newly acquired hybrid-electric articulated buses requested to be funded in this TIGER Discretionary Grant These high-capacity buses will be deployed along major arterials where they will help to transform the Metro Transit bus service into one that not only provides services to traditional transit riders and underserved populations, but will also attract the choice rider. The articulated buses will continue to provide vital transportation as the BRT lines are established.

Community Leadership: Madison, and its neighboring communities are known for their leadership and vision in transportation planning. For over 30 years, community officials, citizens, and stakeholders, in and around the metro area, have discussed, conceptualized, and invested resources to explore possible solutions to the increase in demand for transit services and its burden on the supporting transportation infrastructure. In response to over-crowding on Metro Transit buses, and significant and continued population growth in the Madison metropolitan area, community leaders have long envisioned a high-capacity, public transportation system that seamlessly links metro communities. Consideration and evaluation had been given to transportation solutions such as commuter rail, light rail, and street car over the years. A viable BRT system emerged as the most feasible and economically sound way to address the ever- increasing transit service demands of the community.

The kind of transformational leadership in the greater Madison area has not gone unnoticed. In October 2012, Metro Transit was recognized and honored with the **2012 Outstanding Public Transportation System Achievement Award by the American Public Transportation Association (APTA)** for excellence in the public transportation industry. (http://www.apta.com/members/memberprogramsandservices/awards/Pages/APTAAwards.aspx)

The award was presented to systems in North America that demonstrated outstanding achievement in efficiency and effectiveness over the previous three-year period. Metro Transit's innovative leadership in the transportation industry was specifically highlighted in many areas: Concern for the disadvantaged members of the community (low income bus program), innovative use of technology (online trip planning and live bus info), attention to the environment (hybrid buses and green power program), as well as its excellent service provision (record ridership) were just some of the areas noted. The 2012 APTA award underlined Metro Transit's attention to community needs, and its forward-thinking and advanced planning strategies required for cities across the nation to thrive.

(http://www.cityofmadison.com/metro/award/index.cfm)



MPO regional commuter service map with planned expansion.

The Bus Rapid Transit System: Planning for a high capacity transit system in Madison dates to at least the early 1980s. These efforts produced planning documents describing light rail systems and dedicated busways that would be necessary to accommodate travel demand by the year 2000. In the 1990s and 2000s, planning work shifted to development of a county-wide commuter rail system, then an urban commuter rail/light rail hybrid system and a Madison streetcar line. These projects are no longer active, and in 2013 the Madison Area Transportation Planning Board (MPO) published the Madison Transit Corridor Study, Investigating Bus Rapid Transit in the Madison Area, shifting the focus to bus rapid transit.

The BRT study identified four "study corridors" radiating from central Madison to the west, south, east, and north, connecting through a central corridor between the UW and central isthmus. These corridors will ultimately be served by two routes, most likely a north-south route and an east-west route. Future expansion of the BRT system could serve Middleton, southwest Madison, central Fitchburg, southeast Madison, and other corridors.

The BRT study investigated a range of BRT treatments, from fully dedicated busways in street medians and railroad corridors to mixed-traffic environments. The system will leverage existing bus lanes on University Avenue, State Street, and in other corridors. The service provided by the system will be frequent with buses arriving every 10 to 15 minutes throughout the day. Travel times will be reduced through more direct routing, fewer stops, transit signal priority, off-board fare collection, raised station platforms, and other improvements. The BRT system will be simple and easy to use with a logical service design and information provided at stations. This system will represent a completely new experience for transit riders who today are dealing with circuitous routing, frequent stops, overcrowding, and a complicated network of overlapping low-frequency routes.

The BRT study was steered by a committee representing the City of Madison, neighboring communities, the UW, a transit user advocacy group, and others. Staff are in the process of developing plans further by conducting an onboard passenger survey, updating the transit component of the regional travel demand model, and forming an intergovernmental oversight committee. In the near future, community leaders hope to enter the Small Starts process and begin construction in about five years.

The vision for bus rapid transit includes a 20 mile, 50 stop system that would be built in phases. This full system would rely on up to

34 articulated buses that could be powered with alternative fuels. It could serve up to 20,000 boardings per day. Estimated capital costs for the full system are $138 million to $192 million, including $30 million for a new bus facility that would no longer be necessary if the Nakoosa Trail satellite facility were built. Capital and operating costs are envisioned to be funded locally through the formation of a regional transit authority with taxing ability, which is not yet lawful in the state of Wisconsin.

A 2008 Metro long range plan identified one of the main concerns of the transit riding public was that travel times take too long. The BRT study found that this type of service will reduce travel times by 20-35%.

The full study, and associated documents, are available through the following link. (http://www.madisonareampo.org/brt.cfm)

The commission and publication of the BRT corridor study is just one illustration, albeit significant, of the many innovative and transformational programs Metro Transit is renowned for. Through its Madison Transit Corridor Study, Metro Transit continues to demonstrate its forward-thinking and pioneering approach to effectively and efficiently serve the current and future needs of the traveling public.

The BRT and other service modifications are anticipated to be able to increase services operated by Metro Transit by 30%. (http://www.cityofmadison.com/metro/brt/faqs.cfm)

Metro Regional Corridor Study Service Map.