3.06 TRANSIT

Since transit vehicles often operate on the same roadways as other vehicles, they have many of the same needs. On the existing USH 51 corridor, for example, a carpool experiences the same level of congestion and the same delay as a single-occupancy vehicle.

Similarly, a transit vehicle imposes the same burden on the roadway as a single occupancy vehicle. Roadway operations depend on the number of vehicles and not the number of passengers.

Unlike single-occupancy vehicles, however, transit vehicles are not viewed solely as corridor users. The number of vehicles a roadway can carry is determined by the characteristics of that roadway, but the number of people transported is determined by the characteristics of both the roadway and the vehicles it carries. High occupancy vehicles use transportation facilities more efficiently.

In this sense, transit also provides opportunities. As a tool for transportation demand management, transit offers and encourages transportation that is more efficient. As a tool for transportation mobility and access, transit serves both users who choose it and users who need it.

This section examines current transit plans and needs specific to the study corridor as well as within Dane County.

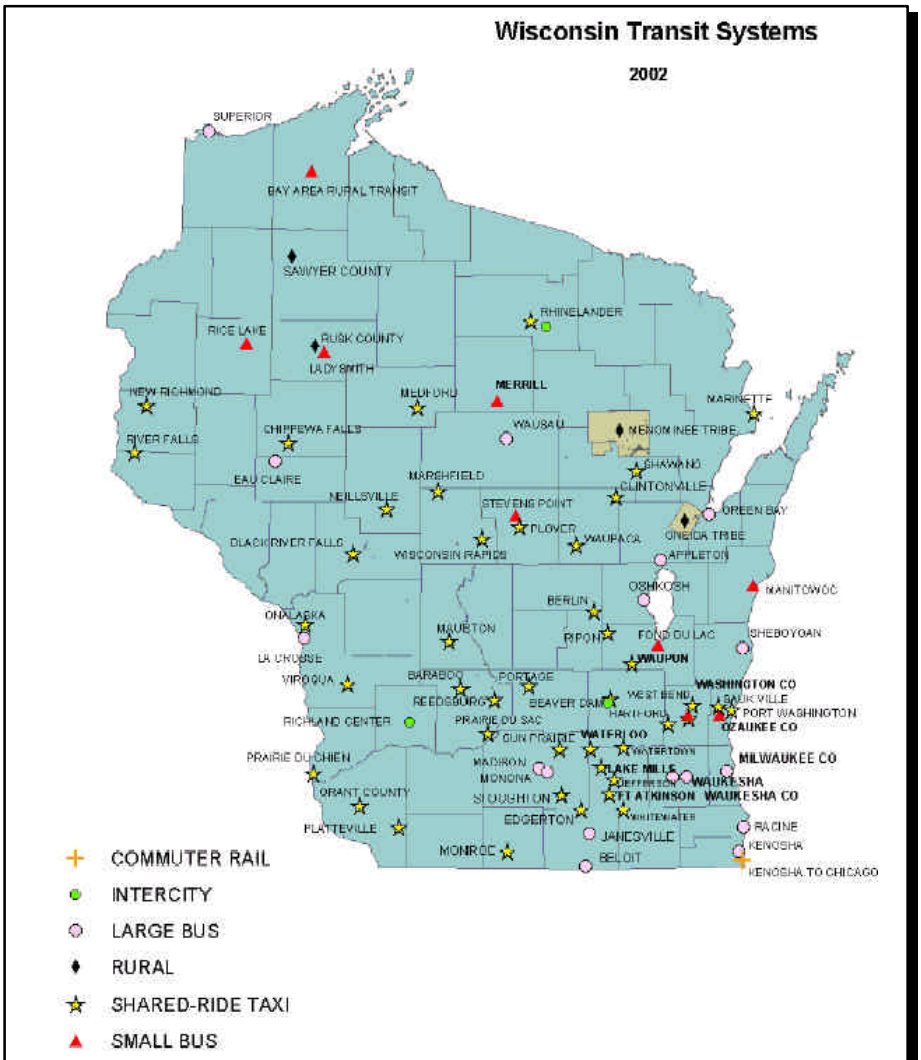

Figure 3.06-1 Existing Transit Systems in Wisconsin (Source: WisDOT)

A. Types of Transit

The broad definition of transit used in this report includes a variety of modes, vehicles, and operators:

- Carpool
- Vanpool
- Taxicab
- Shared ride taxicab
- Fixed route local bus
- Variable route bus
- School bus
- Express bus
- Chartered bus
- Suburban rail
- Regional rail
- Paratransit

Transit systems can be publicly or privately owned or operated. Figure 3.06-1 shows the existing transit systems operating in Wisconsin. Figure 3.06-2 shows the public transit service areas in Dane County.

Figure 3.06-2 Public Transit Service Areas in Dane County

B. Existing Transit

1. State Vanpool

The Wisconsin Department of Administration (DOA) coordinates state vanpools into Madison. Although at least one state employee must participate in each vanpool, the program is open to all public and private sector workers. Each vanpool transports up to 15 commuters, including the driver. Riders from Stoughton pay between $21 and $40 per week.

There are currently two state vanpools operating between Stoughton and Madison, and there is an effort to establish a third. Figure 3.06-3 shows the two existing routes.

	Van 1	Van 2
Leave Time	6:30 AM	5:50 AM
Origin	Stoughton	Stoughton
Route	STH 138 USH 14	CTH B USH 51
Destination	UW Campus	Downtown Madison
Return Time	5:30 PM	4:40 PM

Figure 3.06-3 Existing State Vanpool Routes

2. Dane County Rideshare

Rideshare disseminates information on commuting alternatives, assists employers in developing demand management programs, and maintains a database of carpoolers. This database currently includes approximately 63 McFarland residents and 45 Stoughton residents. Database entries are deleted after a year.

3. Taxicab

The City of Madison licenses three taxicab operators. The study team did not obtain corridor ridership data from the Madison taxicab operators. A fourth taxicab company is based in Stoughton and discussed in the next section.

4. Stoughton Shared Ride Taxicab

Since 1981, Stoughton's private taxicab operator has provided shared ride taxicab service to the community through a contract with the City. Riders pay a flat fare within Stoughton, and one vehicle may simultaneously transport passengers with different origins and destinations. The fleet includes a lift-equipped van.

Federal and state transit grants help to support the program. In Wisconsin, 42 other shared ride taxicab programs receive state funding.[1]

In 2002, ridership on Stoughton's system was approximately 38,000. The program transported 4.3 riders per hour, which compares favorably to the other systems in the state. [2]

Elderly persons pay a reduced fare and account for about 60 percent of the system's riders.[3] For a higher fare, passengers can ride to destinations outside Stoughton. About half of the total system trips are work-related.[4]

[1] From WisDOT, Public Transit Assistance Programs
[2] From the Transit Development Program for the Madison Metropolitan Area draft report (2003), page 10.
[3] Ibid.
[4] From the Stoughton Transit Development Program (1997), page 24.

5. Other Specialized Transportation

For the purposes of this study, the USH 51 *macro corridor* is the area that encompasses the City of Stoughton, the Village of McFarland, and the Towns of Albion, Dunkirk, Dunn, Pleasant Springs, and Rutland. Within the macro corridor, several human service programs transport the elderly and persons with disabilities. These programs include:

- R.S.V.P. Driver Escort Program: Volunteer drivers use their personal vehicles to provide medical, nutrition, and social service-related trips for the elderly and persons with disabilities when no other transportation alternatives exist. Dane County and the City of Madison fund this program.

- Rideline Service: The Dane County Department of Human Resources provides employment, volunteer, education, training, and medical-related paratransit trips for the elderly and persons with disabilities when no other transportation alternatives exist.

- Stoughton shuttles: The Stoughton Senior Center and the Skaalen Home provide medical- and personal-related trips for the elderly.

- Rural Group Transportation Services: The Dane County Department of Human Resources provides appointment- and social-related trips for elderly persons who live in rural portions of the county.

Each program has different hours, service areas, user costs, and user requirements.

C. Stoughton Transit Development Program

In 1996, the City of Stoughton initiated a Transit Development Program. Its 1997 report examines the City's current transit model, other models, funding sources, population characteristics, rider demographics, travel patterns, and community attitudes. From these data, it defines three levels of transit investment:

- Maintain existing levels of service
- Use existing services more efficiently
- Provide additional services

The report makes recommendations for each of these levels:

- Formalize cooperation between multiple service providers such as the City's shared ride taxicab service, local senior programs, and Dane County programs.
- Increase public awareness of available transportation services.
- Increase commuter usage of carpools and vanpools.
- Extend the service hours of the shared-ride cab program.

- Expand the service area of the shared-ride cab program to nearby communities.

The report emphasizes the need to work with multiple entities, including WisDOT, to maximize the transit opportunities for Stoughton and other communities.

D. Park-and-Ride System Plan

In July 1999, WisDOT completed a Park-and-Ride System Plan for District 1. The plan seeks to reduce single-occupancy vehicle use through a system of park-and-ride facilities. Facilities would be sited in highly visible locations that are accessible to motorists, bicyclists, pedestrians, and transit vehicles. Joint development with existing or planned businesses reduces cost, increases facility integration, and provides better service to patrons.

While the plan evaluates both existing and potential transit opportunities, it emphasizes facility development over the provision of transit service. At least initially, primarily carpools and vanpools would serve many of the remote facilities.

1. Relevant Facilities

The plan identifies 16 “high priority” potential park-and-ride sites within central Dane County, including:

- USH 51 and CTH B (east) north of Stoughton
- USH 51 and WSOR tracks in Stoughton
- CTH M and CTH MM near USH 14 north of Oregon
- North, East, South, and West Madison Metro Transfer Points
- Existing Madison Metro Dutch Mill Park-and-Ride at USH 51 and USH 12/18

The Dunn Town Hall at 4156 CTH B was listed as a site that may currently host some informal carpooling.

2. Ongoing Implementation

WisDOT pursues opportunities for implementation of the Park-and-Ride System Plan. This Needs Assessment is one such opportunity. Other opportunities include:

- Citizen requests
- Business requests
- Community requests
- Complementary WisDOT projects (such as interchange reconstructions)

Madison Metro plans to construct park-and-ride lots at its North Transfer Point in 2004 and at its East Transfer Point in 2005. Metro is also interested in providing park-and-ride facilities at its other

transfer points and at Dane County's Alliant Energy Center. The University of Wisconsin – Madison currently operates a park-and-ride lot near the South Transfer Point.

3. Relation to Study Corridor

Each existing and potential park-and-ride facility is uniquely related to the needs of the USH 51 study corridor:

- In combination with carpool and vanpool programs, park-and-ride lots in Stoughton would provide an alternative for commuters who drive on USH 51. Motorists, pedestrians, and bicyclists may still use the corridor to access the park-and-ride facilities, and there may be specific needs near these facilities.

- Park-and-ride lots in Oregon and at the South Transfer Point may divert some USH 51 commuters to STH 138 and USH 14.

- The East Transfer Point and the Dutch Mill Park-and-Ride, which are both served by USH 51, may draw commuters up the USH 51 corridor. (The Transport 2020 alternatives analysis discussed in the next section envisions a park-and-ride lot in McFarland. This facility may have a similar effect.)

E. Transport 2020

Over the past 22 years, ten publicly funded studies have examined the future of higher-capacity transit in Madison and Dane County. The four most significant studies that examined rail-based transit are:

- 1981 Dane County Transit Technology Corridor Study
- 1986 Dane County Transit Priority Corridor Study
- 1992 Light Rail Transit Corridor Study
- 1998 Dane County Commuter Rail Feasibility Study

In August 2002, the City of Madison, in partnership with WisDOT and Dane County, completed a transit alternatives analysis. The alternatives analysis, called Transport 2020, evaluated alternative modes of transportation in the greater Madison metropolitan area.

The final phase of Transport 2020 identified a baseline alternative and a locally preferred alternative. The locally preferred alternative consists of a start-up system and extensions to that system.

1. Locally Preferred Alternative: Start-Up System

Figure 3.06-4 illustrates the start-up system proposed in Transport 2020. The start-up system expands local bus service, increases the number of park-and-ride facilities, and incorporates commuter bus and rail service.

Figure 3.06-4 Transport 2020 Start-Up System

The start-up commuter rail service would consist of one line from Greenway Center in Middleton to East Towne, with 11 intermediate stops. Diesel multiple units would operate 6 AM to 11 PM with 30-minute off-peak headways. For three hours in the morning and three hours in the afternoon, the system would operate with 15-minute peak headways.

The start-up commuter bus service would consist of several one-way express routes between outlying communities and downtown Madison. The buses would operate for three hours in the morning and three hours in the afternoon.

Within the USH 51 macro corridor, the start-up system provides:

- Local bus service between McFarland and Madison.
- One-way commuter bus service between Stoughton and Madison via Oregon during AM and PM peak periods.
- Park-and-ride facilities in McFarland and Stoughton.

Figure 3.06-5 Transport 2020 Full System Vision

2. Locally Preferred Alternative: System Extensions

Figure 3.06-5 illustrates the start-up system and extensions to that system. Together, they comprise the Transport 2020 Full System Vision. The full system expands commuter rail and adds a streetcar network to link bus transfer stations.

Within the USH 51 macro corridor, the full system provides:

- Commuter rail service between McFarland and Madison.
- Local bus service between McFarland and Madison.
- One-way commuter bus service between Stoughton and Madison via McFarland during AM and PM peak periods.
- Park-and-ride facilities in McFarland and Stoughton.

Whereas the start-up system routes the Stoughton commuter bus along STH 138 toward Oregon, the full system routes this bus along USH 51 toward McFarland.

3. Baseline Alternative

Figure 3.06-6 illustrates Transport 2020's refined baseline alternative. This alternative represents "the region's ability to maximize transit ridership under feasible financial scenarios"[5] absent the greater investment ultimately proposed by Transport 2020. It assumes the emergence of a regional bus authority and envisions service to the USH 51 corridor identical to that provided by the minimal operable segment of the locally preferred alternative:

Figure 3.06-6 Transport 2020 Baseline Alternative

- Local bus service between McFarland and Madison.
- One-way commuter bus service between Stoughton and Madison via Oregon during AM and PM peak periods.
- Park-and-ride facilities in McFarland and Stoughton.

The baseline alternative evolved during the Transport 2020 study process. In Phase 1, the current Madison Metro bus system was evaluated as the baseline. In Phase 2, the study's baseline was a more ambitious two-way regional bus system that included all-day express service to and from Stoughton via USH 51. This was scaled back during the selection of the locally preferred alternative.

The Transport 2020 baseline alternative was not selected as the locally preferred alternative, and it does not necessarily represent the long-term plan of the City of Madison's Metro Transit. If the government entities that participated in Transport 2020 do not fund and implement the locally preferred alternative, the existing bus system is likely to evolve differently than envisioned by the baseline alternative.

However, the baseline alternative is significant to this Needs Assessment because it includes Stoughton as a transit destination even under the assumption of modest system expansion. Stoughton, in fact, is the community farthest from downtown Madison that is served by the baseline alternative.

[5] From Transport 2020 Final Report, page 10-1.

4. Dane County Commuter Rail Feasibility Study

The 1998 Dane County Commuter Rail Feasibility Study (DCCRFS) was a precursor to the Transport 2020 alternatives analysis. Unlike Transport 2020, DCCRFS examined rail ridership as far south as Stoughton and projected 1500 daily boardings in Stoughton and McFarland by 2020. Figure 3.06-7 provides a breakdown of this estimate.[6]

Station	Total Daily Ridership
Stoughton	680
North Stoughton	320
McFarland	420 - 590

Figure 3.06-7 Dane County Commuter Rail Feasibility Study Ridership Projections

5. Other Transit Needs

Transport 2020 proposes a regional and multimodal transit system. However, it does not address several potential transit needs specific to the USH 51 corridor:

- Paratransit: The Americans with Disabilities Act does not require paratransit in areas served exclusively by commuter bus routes. However, paratransit service is already available in the corridor.
- Reverse commuting: The commuter bus route would not transport Madison residents south to jobs in Stoughton.
- Off-peak commuting: The commuter bus route would transport only “first shift” workers.
- Stoughton-McFarland commuting: Since the start-up system does not provide transit along the study corridor, Stoughton residents would be unable to travel by bus north to jobs in McFarland.

F. Corridor Demographics

1. A Note on Study Demographics

The U.S. Census data reported in the next section includes all the households in the macro corridor. Similarly, they exclude potential corridor users who live outside the macro corridor, such as City of Madison residents.

[6] From Dane County Commuter Rail Feasibility Study, table 6-3.

For the purposes of this study, the USH 51 *macro corridor* is the area that encompasses the City of Stoughton, the Village of McFarland, and the Towns of Albion, Dunkirk, Dunn, Pleasant Springs, and Rutland.

In addition to USH 51, IH 39/90, USH 14, STH 73, STH 106, STH 138, a network of county trunk highways serve communities within this macro corridor. Therefore, some residents may rarely use the USH 51 corridor.

2. 2000 U.S. Census Data

Within the macro corridor described in the previous section, the 2000 U.S. Census recorded 32,856 residents and 12,521 households. It estimated 18,368 workers at least 16 years of age. Of these 18,368 workers, 1,635 commuted by carpool and 124 commuted by public transportation (including taxicab). Of the 12,521 households, 331 had no motor vehicle available.

Within the City of Stoughton, the Census recorded 12,354 residents and 4,734 households. It estimated 6,442 workers at least 16 years of age. Of the 6,442 workers, 675 commuted by carpool and 93 commuted by public transportation (including taxicab). Of the 4,734 households, 221 had no motor vehicle available.

Figure 3.06-8 shows the modal split in the entire macro corridor and in Stoughton. Table 3.06-1 summarizes additional demographic data that may be relevant to evaluating transit needs.

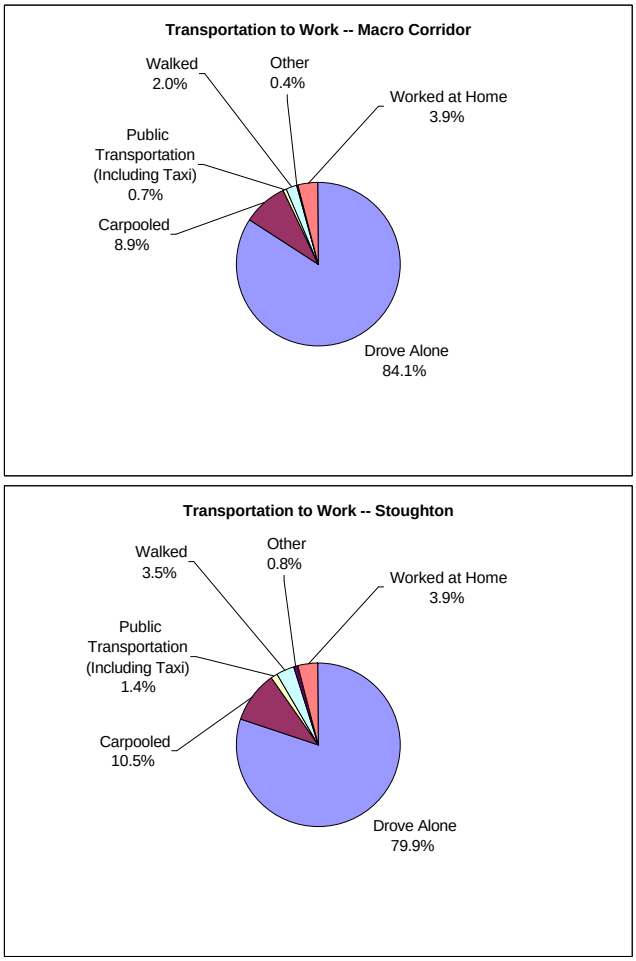

Figure 3.06-8 Existing Commuting Modal Split from Within Entire Corridor (Top) and from Only Stoughton (Bottom); (Census Data)

3. Feedback on Transit from Public Outreach

	Wisconsin	Dane County	Stoughton	McFarland	Albion	Dunkirk	Dunn	Pleasant Springs	Rutland	All Towns	All
Total Population	5363675	426526	12354	6416	1823	2053	5270	3053	1887	14086	32856
Median Age	36.0	33.2	35.2	37.1	38.8	38.9	41.2	39.8	38.6	39.9	37.6
# 65+	702553	39869	1769	509	217	176	474	298	143	1308	3586
% 65+	13.1%	9.3%	14.3%	7.9%	11.9%	8.6%	9.0%	9.8%	7.6%	9.3%	10.9%
# in group qrtrs	155958	15807	422	18	0	0	6	5	11	22	462
% in group qrtrs	2.9%	3.7%	3.4%	0.3%	0.0%	0.0%	0.1%	0.2%	0.6%	0.2%	1.4%
Total Households	2084544	173484	4734	2434	726	760	2079	1099	689	5353	12521
# Workers 16+	2690704	242542	6442	3713	1041	1126	3082	1805	1159	8213	18368
# Drove alone	2138832	179816	5146	3322	877	911	2673	1565	961	6987	15455
% Drove alone	79.5%	74.1%	79.9%	89.5%	84.2%	80.9%	86.7%	86.7%	82.9%	85.1%	84.1%
# carpooled	267471	23162	675	236	104	131	264	102	123	724	1635
% carpooled	9.9%	9.5%	10.5%	6.4%	10.0%	11.6%	8.6%	5.7%	10.6%	8.8%	8.9%
# public trans incl taxi	53340	10066	93	7	0	6	18	0	0	24	124
% public trans incl taxi	2.0%	4.2%	1.4%	0.2%	0.0%	0.5%	0.6%	0.0%	0.0%	0.3%	0.7%
# walked	100301	14924	225	63	14	20	8	25	11	78	366
% walked	3.7%	6.2%	3.5%	1.7%	1.3%	1.8%	0.3%	1.4%	0.9%	0.9%	2.0%
# other	25365	5292	54	0	8	4	0	3	6	21	75
% other	0.9%	2.2%	0.8%	0.0%	0.8%	0.4%	0.0%	0.2%	0.5%	0.3%	0.4%
# worked at home	105395	9282	249	85	38	54	119	110	58	379	713
% worked at home	3.9%	3.8%	3.9%	2.3%	3.7%	4.8%	3.9%	6.1%	5.0%	4.6%	3.9%
mean travel time	20.8	19.9	21.3	18.3	26.2	20.9	21.1	21.6	26	22.5	21.2
Occupied Housing Units	2084544	173484	4772	2439	732	719	2098	1106	688	5343	12554
# no vehicles available	163969	13950	221	66	14	9	0	16	5	44	331
% no vehicles available	7.9%	8.0%	4.6%	2.7%	1.9%	1.3%	0.0%	1.4%	0.7%	0.8%	2.6%
# 1 vehicle	678059	61691	1581	631	177	127	377	149	106	936	3148
% 1 vehicle	32.5%	35.6%	33.1%	25.9%	24.2%	17.7%	18.0%	13.5%	15.4%	17.5%	25.1%
# 2 vehicles	865437	72203	2170	1247	298	342	1131	565	304	2640	6057
% 2 vehicles	41.5%	41.6%	45.5%	51.1%	40.7%	47.6%	53.9%	50.8%	44.2%	49.4%	48.2%
# 3+ vehicles	377079	25640	800	495	243	241	590	379	273	1726	3021
% 3+ vehicles	18.1%	14.8%	16.8%	20.3%	33.2%	33.5%	28.1%	34.3%	39.7%	32.3%	24.1%

Table 3.06-1 Additional Demographic Data

Section 2 of this report summarizes the study's public involvement activities. These activities provide data about the public attitude toward transit in the corridor:

- Participants at three of the four focus group sessions identified a need for improved public transit.
- Participants at the workshops identified a need for improved public transit.
- When asked about general corridor needs, 418 transportation survey respondents (31 percent) gave a high rating to "Improved/new transit service."[7]

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[7] Transportation Study respondents rating "Improved/new transit service" as "4" or "5" in Question 7 (General Corridor Needs).