Madison Metro Transfer Point System

Metro Rethinks, Revises, Restructures

The History 1989-1997

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INTRODUCTION

In 1989, Madison Metro took on a project which would completely restructure the current route system. The decision was made because the route system which had served Madison since the beginnings of city development was no longer capable of effectively serving the city's new growth directions. The Transit Center Project, or Hub Plan as it became known, was intended to stem ridership decline caused by peripheral growth and position the system to capture former and new riders whose travel needs were shifting to peripheral destinations.

This is the story of the old Hub Project and the new Transfer Point Plan. It is a recounting of events surrounding the failure of the original Hub plan, what was learned from that experience and what has led to greater public acceptance of the Transfer Point Plan.

The Transfer Point Plan has been a process of rethinking, revising and restructuring.

> The Transfer Point Plan would rethink the basic assumptions behind the original hubs. All customers with a stake in the future of transit would be asked their views and needs, and whether Metro should continue pursuing a restructured system with more transfer opportunities.
>
> The Hub Plan would be revised in keeping with customer messages and lessons learned. Customers would re-affirm the need to restructure the system. Lessons from the hub experience would contribute to new design concepts with greater public acceptability.
>
> The route system would be restructured with attention focused on providing a more flexible balance of service for Metro's different riders and needs. Past trends in service and ridership would identify problems associated with stretching the current system beyond its capabilities in an effort to keep up with growth.

The Transfer Point Plan is ready to move forward. It has been accepted by the neighborhoods. It is ready to be built. It will provide a level of service which is higher, and more costly, because it addresses deficiencies in the current system. It is the first improvement in bus transit since the late 1970's.

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Chapter 1
The Hub Years

Chapter
1

The "Hub" Years

The decision to restructure the Metro route system from its traditional radial focus on downtown Madison to one with outlying transit centers had its origins in studies dating back to 1980. The *Transit Corridor Study* prepared in 1980, and the *Transit Center Plan* completed in 1985, were the first studies to direct attention to the negative impacts of peripheral growth on transit ridership. As indicated in those studies, employment and retail growth had begun a long-term shift to the periphery, generating more travel to and around these areas.

The shift in urban growth and development toward the periphery was a leading cause for transit ridership losses throughout the 1980s. From 13.8 million passengers in 1981, ridership fell to 8.9 million by 1989.

With the shift in growth patterns, transit became a less effective means of transportation. While all routes travel downtown, only one or two routes typically serve a peripheral employment, shopping or educational center. Transfers to a route serving a suburban location are mostly possible only downtown, and many trips require back-tracking to a suburban destination. For travel time and other lifestyle reasons, the automobile has become the mode of choice for many former transit riders whose jobs and personal needs were no longer focused downtown.

By the late '80s, city staff were actively engaged in discussions about the wisdom of restructuring the route system based on a concept proposed in the 1985 *Transit Center Plan.* The concept as outlined in that plan would locate two major transferring facilities at either end of the isthmus along a *"transit priority corridor"* between East and West Townes. From these decentralized locations, passengers could transfer and shorten their travel to peripheral areas.

In debating the merits of the Transit Center Plan, it was recognized that transit would never be as convenient as the auto in serving many types of trips caused by changing urban form and lifestyles. However, by not serving new growth areas, transit would never be a viable travel option to these areas for persons who choose to ride the bus or are dependent on transit—with further implications for ridership loss. In 1989, the decision was made to proceed with siting transit centers.

The Transit Center Design Plan

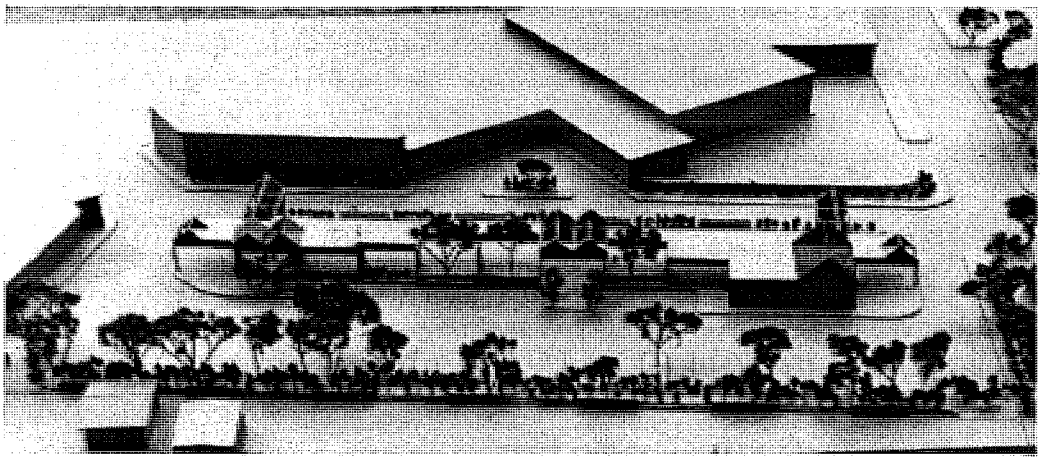
The Common Council had adopted the *Transit Center Plan* in 1986. This set the stage for finding locations for the two transit centers, which was conducted through an *Environmental Assessment* process in compliance with federal guidelines for projects of this type. A federal grant had been approved which would pay 75 percent of the design and construction costs of the transit centers. As envisioned in the earlier planning studies, the transit centers were to be enclosed, climate-controlled buildings adjacent to bus parking bays.

The Environmental Assessment was conducted by the Dane County Regional Planning Commission, Madison Metro and Madison Department of Transportation. Preliminary design assistance was provided by the local consulting firms of Bowen-Williamson-Zimmerman and Schreiber-Anderson Associates.

A total of 14 sites on the west side and 7 on the east were evaluated in the environmental assessment and supplements. On the west side, the preferred site was Vernon Boulevard between Segoe Rd. and Midvale Blvd. On the east side, the parking area behind the Madison East Shopping Center rated highest in the Environmental Assessment. A detailed account of the site selection process, including public review meetings, public hearings, and Common Council actions during 1988 and 1989, is contained in Appendix 1.

The Common Council would approve these locations and authorized staff to continue with preparation of final design plans on October 10, 1989. This work was contracted to the firms of Mead and Hunt, in association with Sieger Architects and Brian Gutheinz Studios in January of 1990.

The final design plan for the east site, shown below, included bays for six buses, a canopy over the walkway and boarding areas, a 1200 sq.ft. enclosed waiting area, camera monitors, lighting, signs, and landscaping.



The Transit Center Route Plan

The route plan serving the transit centers was developed by the consulting firm of SG Associates, Inc. A copy is included in Appendix 1. The plan was to operate most routes through the transit centers. Inbound buses to downtown would pass through first, followed by outbound buses. Passengers would wait for their connecting bus. The potential to short-turn some buses at the transit center instead of operating all the way through to downtown offered potential operating savings.

The operational features of the route plan were not without concern among staff, in particular the transfer wait times and increased travel times. A Metro Planning Advisory Committee (MPAC) was formed by action of the Transportation Commission to address issues surrounding the route plan. The MPAC developed several alternatives before reaffirming the original plan.

"De-Hubbing" the Transit Center Plan

The effort to gain neighborhood and Common Council acceptance of the transit center site plans was contentious and ultimately unsuccessful. Despite the numerous public meetings held in 1988 and 1989 during the Environmental Assessment process, the surrounding neighborhoods mounted campaigns which ultimately led to defeat of the project.

Those opposed to the transit centers claimed not to have received adequate notification about the project and raised concerns about noise and air pollution, increased bus volumes on neighborhood streets and pedestrian safety. Public meetings held on the design plans were heavily attended, and most comments were registered in opposition. Neighborhood residents also mobilized into formal groups, such as the Hilldale Area Citizens Committee, to further their concerns.

The Common Council approved the Vernon Boulevard design plan during the summer of 1990. Council approval of the East Madison Shopping Center plan, however, was never granted. A vote on a rezoning amendment failed to reach the two-thirds majority needed to pass. Another nearby site—the Winnebago/East Washington triangle—was floated as a second choice. This site was similarly opposed by the neighborhood and never brought back for Council consideration.

In an effort to salvage the project and foster more neighborhood support for the transit centers, the Council established an East Side Transit Center Citizens Committee charged with finding an acceptable site. After an extensive search and evaluation documented in a *Final Report* (Appendix1), the Committee recommended a site in Burr Jones Field adjacent to the Soo Line

tracks. On the west side, in response to a lawsuit filed by neighboring property owners, the Mayor requested staff to pursue possible sites on the property of the Hill Farms State Office Building. Several site design plans were prepared.

Neither of these initiatives moved forward. The final death knell for the Hub Plan occurred in 1992 when these sites were tested in a ridership model. Data from that test indicated that ridership would decline if these locations were selected. Upon reviewing this information, staff recommended, and Council approved, that the project be terminated.

The end of the Transit Center Project was not, however, an end to the concept of decentralized transferring and the need to provide better service for transit travel around the periphery. The resolution terminating the Transit Center Project also authorized staff to continue working "...at the creation of a transit route structure, schedules and accompanying transfer points that will serve to maximize ridership and improve transfers between peripheral destinations..."

The Transit Center Project proposed in 1989 would fail its first public test. Its successor project would learn and benefit from the lessons of the "hubs."

Chapter 2
Customer Needs

Chapter 2

Customer Needs--Rethinking The Assumptions

"How Do You Know?" was a question asked by many people during the Transit Center project.

How did we know that restructuring the transit system to facilitate transferring to outlying destinations was in the best interest of passengers, the neighborhoods, the city? The answer, at the time, were the numerous studies, professional reviews, and public meetings that supported the recommendations.

While considerable public involvement had gone into the original plan, the city's emphasis on customer feedback prompted staff to take an approach which would seek out more ideas and views about a new route system. Passengers, drivers, non-riders, employers, neighborhoods and public officials were primary targets of a series of surveys and meetings throughout 1992 and 1993. Appendix 2 contains the detailed results.

General Forum, Transportation Commission—A general input session sponsored by the Transportation Commission led off the public campaign.

Passenger Needs Survey – A questionnaire was distributed on buses and at other meetings. The questions asked how well the current system was meeting travel needs and whether passengers favored a system which relied on transfers to provide better service to outlying destinations. A total of 3,079 useable forms were returned.

Driver Survey—A questionnaire was distributed to drivers requesting their ideas about service needs and other issues.

Neighborhood Forums—Twenty neighborhood meetings were held to gain insight into the transit needs of neighborhoods—where do people want or need to go that on the current system is not possible or difficult. Attendance ranged from one to as many as 40 persons (Figure 1).

Public Official Meetings—The General Manager of Madison Metro met with chief administrative and/or elected officials of the villages of Maple Bluff and Shorewood Hills, Fitchburg, MATC, Downtown Madison Inc., Madison Schools, Wisconsin Department of

Administration, and Department of Transportation. Other communities and institutions contacted included Verona, Waunakee, Dane County, and the University of Wisconsin.

Telephone Surveys— Every two-to-three years, Madison Metro conducts telephone interviews of randomly-sampled households to determine attitudes about the system. Survey results from the 1980s were compared with more recent surveys to ascertain shifts in attitudes.

Other Surveys—Several major employers in the Madison area, including the University, Hill Farms State Office Building, CUNA and American Family Insurance, had recently conducted employee surveys with questions about travel and transit needs. These surveys were tapped for relevant data.

The Customer Message

The message that Metro staff received from the many surveys and meetings probing transit needs was a recognition by both passengers and non-riders that the system was still effective for downtown work and school trips, but not for trips for other purposes or to other locations.

Passengers said that the current system meets most of their travel needs to work and school, but fewer of their needs for shopping and personal business trips.

Choice riders said they are most satisfied with the current system while ***transit dependent riders***, who must rely on the system for most or all travel, said they are not quite as satisfied.

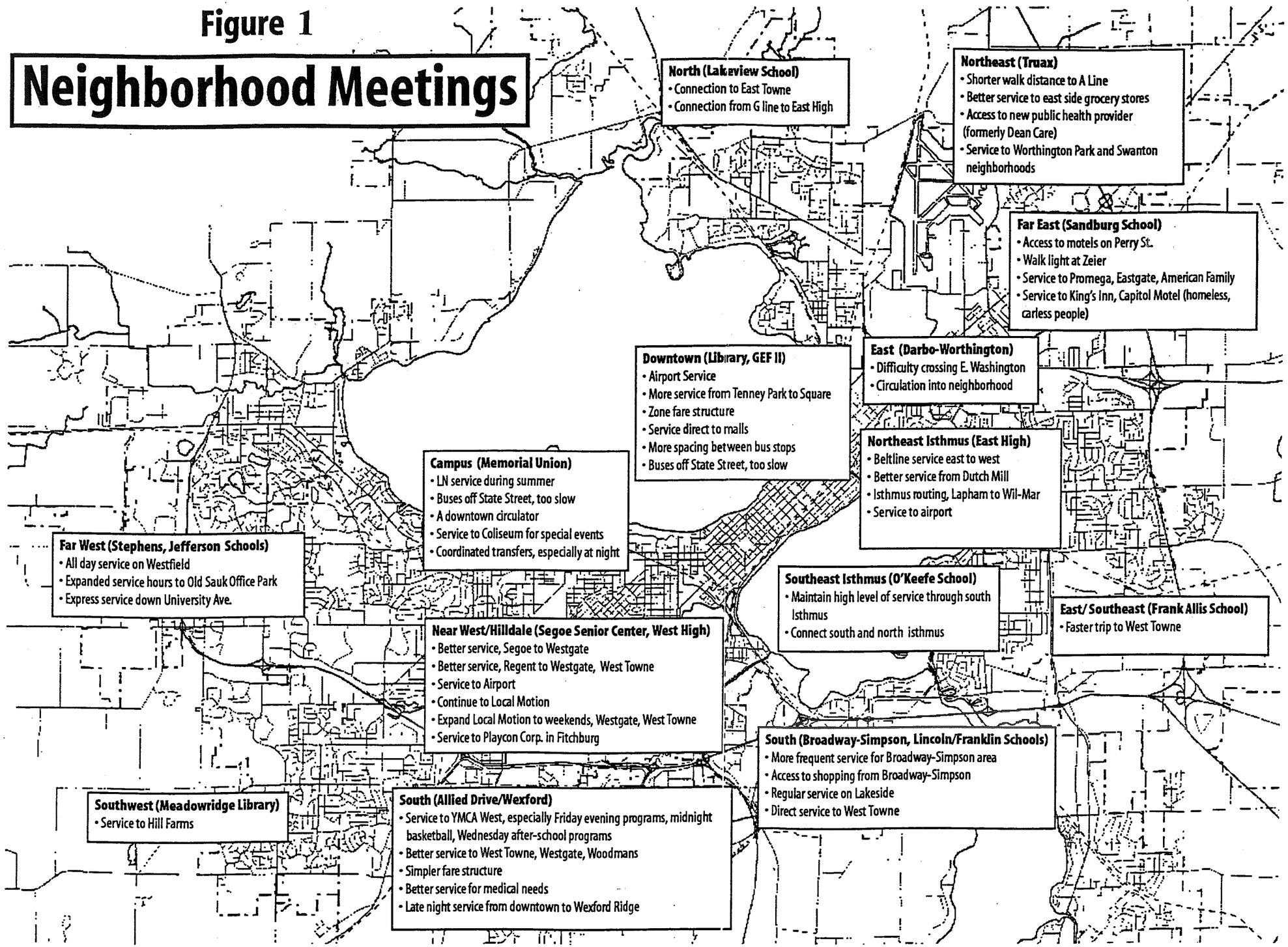
Telephone survey respondents agree that Madison Metro's ability to serve city residents has become less effective. Former riders say they no longer ride or ride less often because they do not need to travel downtown. Non-riders, such as 71 percent of Hill Farms employees who responded to a survey, say they prefer using their cars because they can run errands or make other trips during the course of the work day.

Passengers agree, by a two-thirds majority, with a route restructure concept which improves trips to peripheral locations despite increased transferring. Most respondents to telephone surveys, when asked about the same concept, approve of such a system.

Neighborhood residents identified their needs shown on Figure 1.

Figure 1

Neighborhood Meetings



North (Lakeview School)
- Connection to East Towne
- Connection from G line to East High

Northeast (Truax)
- Shorter walk distance to A Line
- Better service to east side grocery stores
- Access to new public health provider (formerly Dean Care)
- Service to Worthington Park and Swanton neighborhoods

Far East (Sandburg School)
- Access to motels on Perry St.
- Walk light at Zeier
- Service to Promega, Eastgate, American Family
- Service to King's Inn, Capitol Motel (homeless, carless people)

Downtown (Library, GEF II)
- Airport Service
- More service from Tenney Park to Square
- Zone fare structure
- Service direct to malls
- More spacing between bus stops
- Buses off State Street, too slow

East (Darbo-Worthington)
- Difficulty crossing E. Washington
- Circulation into neighborhood

Northeast Isthmus (East High)
- Beltline service east to west
- Better service from Dutch Mill
- Isthmus routing, Lapham to Wil-Mar
- Service to airport

Campus (Memorial Union)
- LN service during summer
- Buses off State Street, too slow
- A downtown circulator
- Service to Coliseum for special events
- Coordinated transfers, especially at night

Far West (Stephens, Jefferson Schools)
- All day service on Westfield
- Expanded service hours to Old Sauk Office Park
- Express service down University Ave.

Southeast Isthmus (O'Keefe School)
- Maintain high level of service through south Isthmus
- Connect south and north isthmus

East/ Southeast (Frank Allis School)
- Faster trip to West Towne

Near West/Hilldale (Segoe Senior Center, West High)
- Better service, Segoe to Westgate
- Better service, Regent to Westgate, West Towne
- Service to Airport
- Continue to Local Motion
- Expand Local Motion to weekends, Westgate, West Towne
- Service to Playcon Corp. in Fitchburg

South (Broadway-Simpson, Lincoln/Franklin Schools)
- More frequent service for Broadway-Simpson area
- Access to shopping from Broadway-Simpson
- Regular service on Lakeside
- Direct service to West Towne

Southwest (Meadowridge Library)
- Service to Hill Farms

South (Allied Drive/Wexford)
- Service to YMCA West, especially Friday evening programs, midnight basketball, Wednesday after-school programs
- Better service to West Towne, Westgate, Woodmans
- Simpler fare structure
- Better service for medical needs
- Late night service from downtown to Wexford Ridge

Chapter 3
Ridership and Service Trends

Chapter
3

Ridership and Service Trends

The decision to pursue a new route system with decentralized transfer opportunities came at a time of major ridership loss. Many forces throughout the 1980s had been working against transit. Cheaper gas prices, two worker households, declining federal support for transit, related service cuts and fare increases were among these. Peripheral growth, however, has been the major impetus behind ridership trends and service decisions.

Growth Trends

Projections originally made in 1980 and updated in *Visions 2020* point to a long-term trend of growth at the urban periphery (Appendix 3).

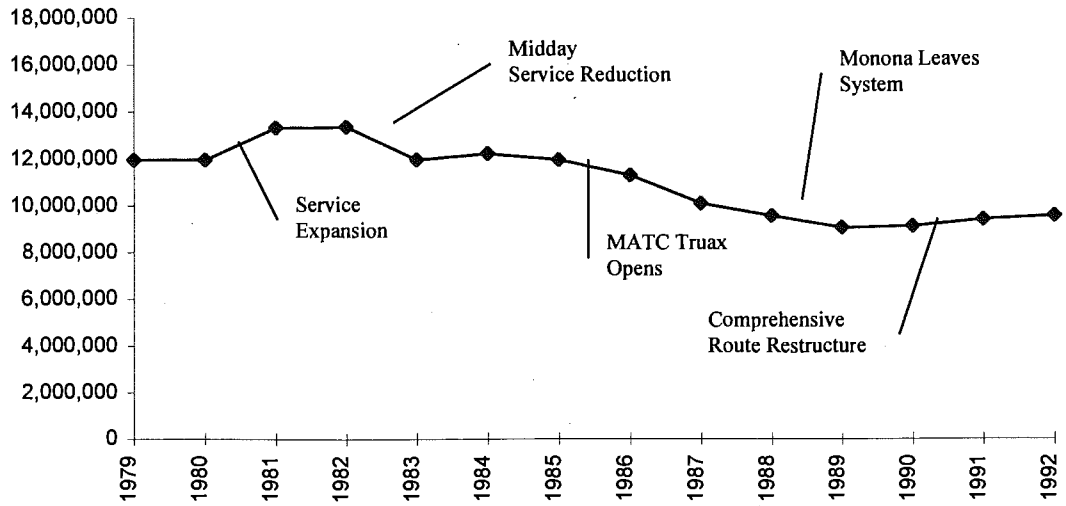
Between 1990 and 2020, the population of the Madison urban area is expected to grow from 245,000 to 296,000 people; employment will grow from 179,000 to 231,000 jobs.

The greatest share of this growth will be experienced in peripheral areas; downtown Madison will grow slightly.

Already by 1988, an *Origin/Destination Study* found that one-third of all commuter trips and 25 percent of other types of trips were being made to outer portions of the urban area. With continued growth on the periphery, more and more trips would be made to these areas.

For transit, a ridership loss of nearly one-third occurred between 1980 and 1989, from 13.5 million trips a year to 8.9 million. The relocation of the MATC campus to Truax, shown in Figure 2, was a major contributor to that ridership loss. By 1990, ridership had stabilized. That year, Metro undertook a major route restructuring and began annual programs of route expansion to new areas.

Figure 2
Conditions Impacting Ridership Changes



Service Trends

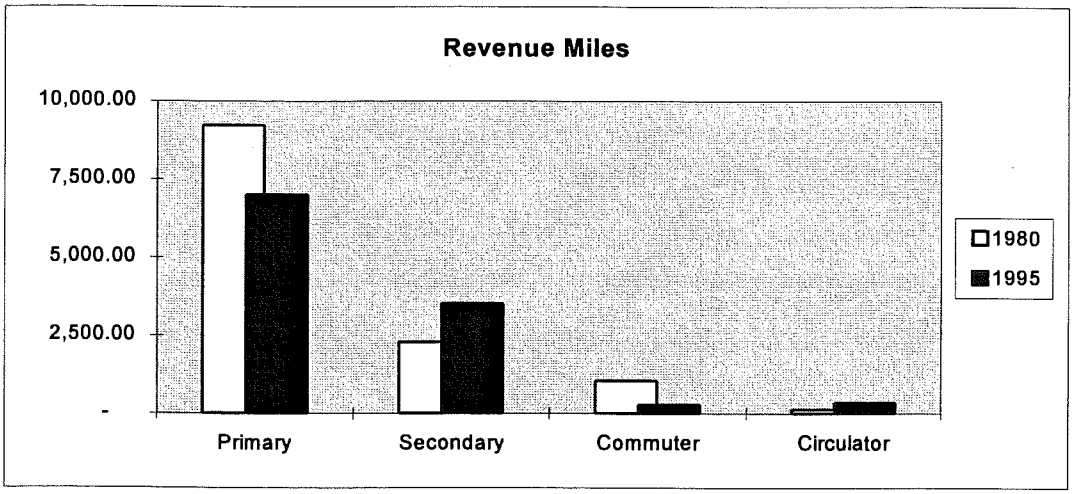
The route system today operates the same level of service as in 1980 while serving a larger city and urban area. Despite a trend of constant or diminishing funding resources, decisions have been made to shift resources from under-utilized services in order to serve new growth areas (Appendix 3).

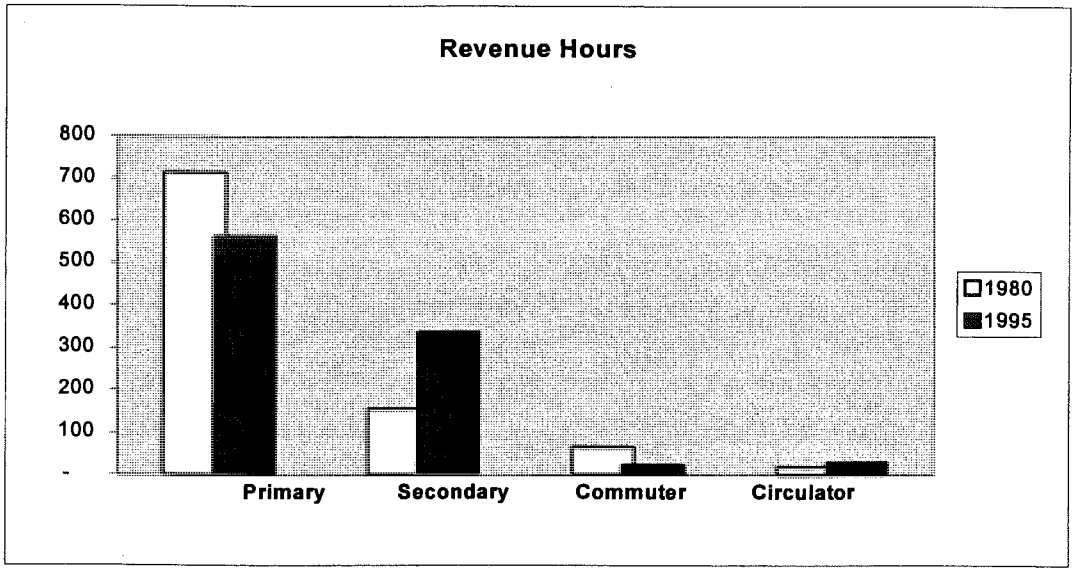
Today, Madison Metro operates the same number of service hours as in 1980 despite a steady program of route extensions into new growth areas, indicating a reduction in overall service levels. Service miles, on the other hand, are lower today than in 1980, indicating lower overall operating speed (Figure 3).

The hours used to extend service to new neighborhoods were taken from primary and commuter service reductions (offpeak service frequencies on primary routes were reduced and some commuter routes eliminated). Secondary routes, such as the I and J lines, have been allocated more miles and hours for service expansion needs (Figure 3).

Figure 3
Daily Weekday Revenue Miles and Hours

Route Type	Revenue Miles		Revenue Hours	
	1980	1990	1980	1990
Primary	9,210.40	6,996.80	712.80	562.20
Secondary	2,281.30	3,519.30	155.70	335.90
Commuter	1,034.60	280.70	64.70	22.50
Circulator	126.40	341.00	18.40	29.50
TOTAL	12,652.70	11,137.80	951.60	950.10





Ridership Trends

While Metro's deepest ridership losses can be attributed to peripheral growth trends, the peripheral areas are also growing in importance as transit destinations. An increasing number of riders shop at the malls and other retail centers. Still, over 80 percent of all transit trips have a purpose in the downtown area, which will remain the dominant destination for transit trips. Downtown trips by UW students and faculty are about 20 percent of Metro's ridership while downtown work trips are about 45 percent of total ridership (Table 1).

Service decisions have also had implications for ridership. Where service reductions have been implemented, ridership levels have declined and vise versa. Service changes have also influenced who uses transit (Appendix 3).

Ridership losses have occurred on the reduced primary and commuter services while increases have occurred on expanded secondary services (Table 2).

Rider income, at one time closely parallel to overall city income levels, has been declining with the loss of commuter riders (Table 3).

Work trips have been declining while shopping and other types of trips are increasing (Table 1).

Table 1
Trip Purpose Trends

Trip Purpose	1980	1990
Work	50.2%	45.1%
Shopping	4.2%	5.4%
Social-Recreation	4.2%	3.3%
College/Vocational	26.3%	23.6%
Elem./Middle/High School	5.9%	6.8%
Other	9.3%	15.8%
TOTAL	100.0%	100.0%

Table 2
Ridership by Service Type, 1980-1990

Service Type	1980	1990
Commuter	3.7%	2.8%
Primary	66.8%	56.9%
Secondary	17.7%	24.0%
Circulator	8.0%	16.3%
TOTAL	96.2%	100.0%

Table 3
Income Trends

	1980		1990	
Household Income Range	Metro	City	Metro	City
Less than $15,000	34.2%	29.3%	38.8%	24.1%
$15,000-$35,000	34.4%	34.3%	33.6%	34.5%
$35,000 or more	31.4%	36.4%	27.6%	41.4%
TOTAL	100.0%	100.0%	100.0%	100.0%

The impact of growth trends on transit ridership has been the guiding rationale for moving ahead with a transfer system which will more effectively serve the new growth markets. While extending routes in the current system to serve new growth areas has met some needs, it has been a "band-aid" approach at the expense of other types of service, such as commuter service. In redesigning the system to better serve the periphery, decisions about how to balance service among Metro's different riders and needs would have to be made.

Chapter 4
A New Transfer Point Plan

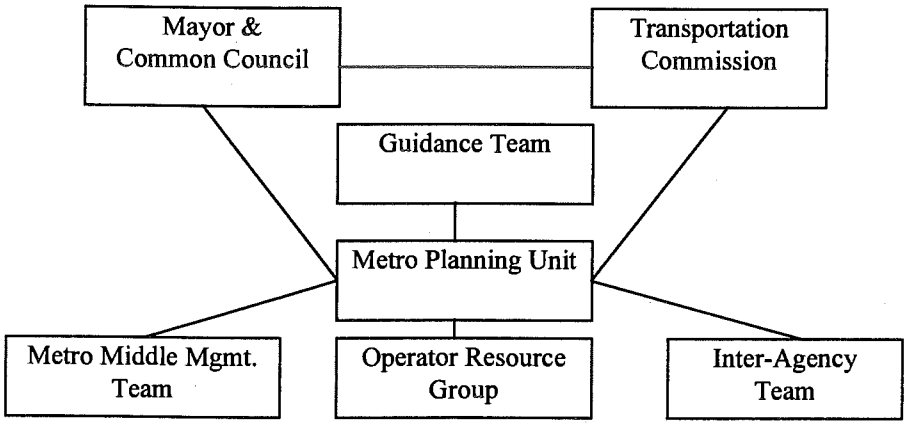
Chapter
4

A New Transfer-Point Plan

The decision to proceed with a major system restructuring was validated by Madison Metro's customers. Through surveys and meetings conducted over the years, riders and former riders have talked about going different directions in their travel and finding the system less convenient for their travel needs. They have agreed, when asked about a transfer-based system which would shorten travel around the periphery, that this is a good direction for Metro to go.

To ensure that a new transfer point project would proceed smoothly, a guidance structure was created. An overall ***Guidance Team*** was established to oversee city department interests in the project. It's membership included managers from Madison Metro and representatives from City Planning, Traffic Engineering, City Engineering, Comptroller, and Mayor's office. An ***Inter-Agency Staff Team*** was created representing agencies outside the city with an interest in the route structure. This team included staff from the Dane County Regional Planning Commission, Wisconsin Department of Transportation, and University of Wisconsin.

Within Madison Metro, an ***Operator's Resource Group*** consisting of operator representatives would evaluate the operational details of routes and schedules. The ***Middle Management Team*** would also be asked to review operational aspects of the project.



The **project goal** would be:

To develop a flexible, efficient and effective transit network that serves and supports the changing development patterns of the urban service area.

Developing The New Transfer Point System

The goal of providing greater flexibility in destination choices and shorter transit trips to peripheral shopping and employment areas would still depend on the existence of transfer locations outside the downtown area. The lessons learned from the 1990 Transit Center Plan would be a key ingredient in siting new transfer points.

The Siting Lesson

The sites of the original transit centers, while in commercial areas, were also close to residential areas. Buses coming from all directions had to "loop" around adjacent blocks in order to enter and exit the sites from the right direction. This increased bus volumes on residential streets, which in turn created concerns about safety, air quality and noise.

In the new Transfer-Point plan, transfer sites would be located away from direct contact with neighborhoods, with emphasis on direct routing of buses to and from the sites. Bus volumes on neighborhood streets would not increase.

The Design Lesson

The design of the original transit centers included enclosed waiting areas which became a security concern. While Metro staff considered enclosed waiting areas an important amenity because of the wait time associated with transfers, neighbors feared that these enclosed shelters would attract loiterers and vagrants.

The new transfer points would be designed with very basic features. They would be open facilities, with a canopy cover, information signs, lighting, and telephones. Other amenities such as bathrooms or comfortable seating would be eliminated to discourage loitering. This "minimal" design would be possible because the new plan would adopt a scheduling concept known as "*timed transfers.*"

Siting Timed-Transfer Points

Under the scheduling concept proposed for the original transit centers, inbound buses would operate through the terminal first on their way to downtown, followed by outbound buses. Passengers transferring to an outbound bus would have to wait 5-10 minutes or more for buses to arrive.

Under a system of *timed-transfers* proposed for the new transfer point system, all buses arrive simultaneously for direct bus-to-bus transfers, eliminating wait-time for passengers. The ability to schedule buses for direct transfer plays an integral role in siting transfer points. It requires uniform route lengths and cycle times between transfer points, usually 30 or 60 minute duration.

Other siting criteria were also important to Metro operations and neighborhood concerns.

Minimizing the impact of transfer point stops on travel time to the downtown. The location of the sites should minimize off-line routing to the downtown for existing passengers;

Minimizing bus volumes on residential streets. The sites would be directly accessible by buses and not require "looping" of blocks to enter and exit; and

Minimizing impacts on residential areas. The sites would have to be in a commercial or industrial zone, away from direct contact with residences.

The number and location of the transfer points would end up corresponding to each geographic area of the city--north, east, south, southwest and west. A number of sites in each area would be considered before the final sites were recommended. Site locations would change several times during project development based on routing considerations and neighborhood interests. Table 4 identifies the final site locations and sites considered early in the process.

The locations of the final sites were chosen in close consultation with the affected neighborhoods. Metro staff met with neighborhood planning associations and other groups at regular intervals to discuss the status of plans and listen to concerns about location and design concepts. In October of 1996, when the transfer point concept plans were presented in the affected neighborhoods, it was not unusual to hear comments of appreciation expressed about the attention paid to neighborhood concerns.

Table 4
Transfer Point Sites

North - Aberg/Huxley (behind Wiggies Bar). This site is on land owned by Oscar Mayer. Other locations under early consideration were further north (Londonderry Drive east of Dryden Drive (behind Hardee's) and Sherman Plaza. Route length requirements caused the geographic shift.

East - Corporate Drive/Milwaukee Street. This site is on the former Sports Pub location and runs parallel to Milwaukee Street. Initially, two east-side locations were proposed, one on the corner of Swanton and Thompson, the other on the northeast corner of Atwood/Walter.

South - Jane's Furniture. This site is the former Lazy Boy Furniture location at the corner of Badger Road and Park Street. The original site was the Villager Mall, using the shopping center driveway (outbound) and the diamond lane on Park Street.

Southwest - Research Park. This site is in the new Research Park addition and runs adjacent to Tokay Boulevard across from Walgreens and Copps. The first location to be considered was the southeast corner of Segoe and Odana.

West - Sheboygan Ave. This site is along Sheboygan Avenue in front of the Hill Farms State Office Building. Several sites on the property of the Hill Farms were considered, including a portion of the west Visitor Lot. This is the only on-street site and will function more like a bus stop than a direct transfer point.

The Transfer-Point Route System

The **Transfer Point System** proposed in 1995 would contain the basic route features found in the current plan. Three types of routes—**Core Routes, Connector Routes and Neighborhood Routes**--form the Transfer Point System, each performing a certain function in relation to the transfer points. All route schedules will be coordinated at the transfer points for direct transfers between buses.

In addition to the Transfer Point system, a additional system of **Commuter Routes** will operate during weekday peak hours. These routes will connect peripheral neighborhoods to the downtown on a limited-stop basis and also provide service to reverse commute, peripheral employment centers. They will not pull into transfer points, but may stop nearby for passengers wishing to make other connections.

Core Routes will operate through the central city between transfer points. Trips to locations beyond the transfer points may require transfer to another route at a transfer point although the scheduling practice of "interlining" will minimize the need to transfer. Core routes will be interlined with both neighborhood and commuter routes.

Neighborhood Routes will connect outlying neighborhoods with transfer points, where a number of destination choices can be made. During commuter hours, all buses on routes serving peripheral neighborhoods will continue through to the downtown (as core routes) after a brief stopover at the transfer points for passengers transferring to other destinations. Similarly, buses leaving downtown during the afternoon commute will also be routed through the transfer points to outlying neighborhoods after a brief stopover. During offpeak times, transfers between neighborhood and core routes may be necessary, depending on the destination.

Connecting Routes connect transfer points with other transfer points or with a major peripheral destination. These are the routes which will offer passengers living in outlying neighborhoods more destination choices reachable in a much shorter time.

Unveiling The Plan

The first public review of the Transfer Point System occurred in November of 1994 at a series of neighborhood informational meetings. The meetings, shown in Table 5, were attended by 103 persons. Most comments generated at the meetings, contained in Appendix 4, were favorable.

In December of 1994, a resolution was approved by the Common Council endorsing the plan and its implementation. The system was set to start during the summer of 1995 using "interim" on-street transfer points until final sites could be located and approved. Also under consideration was a strategy of implementing the new service on weekends only at first, which would provide operating experience and an opportunity to work out the "kinks" before use by the full ridership.

Before this would happen, however, funding clouds appeared on the horizon. With the new state biennial budget, indications were that Madison's state funds would not be maintained at previous formula levels. A federal funding loss of $450,000 was a certainty. Under the projected funding scenario, Metro staff decided to postpone the implementation while continuing to work on final site locations.

Table 5
First Public Meetings on Transfer Point System

Location	Date
Lakeview Lutheran Church	November 28, 1994
Olbrich Garden	November 29, 1994
South Side Public Library	November 30, 1994
Segoe Senior Center	December 1, 1994
Meadowridge Public Library	December 5, 1994
UW Memorial Union	December 6, 1994

The new Transfer Point System proposed in 1995 achieved public acceptance. While funding uncertainty would temporarily delay its implementation, the added time allowed more refinement and opportunity for public comment.

Chapter 5
Final Steps

Chapter
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Final Steps

The decision to postpone implementation of the Transfer Point System in 1995 was a temporary setback. With the arrival of 1996 and a stable budget year on the horizon, the Transfer Point Project moved forward once again. That year, the final sites would be selected and designed, and a refined system of routes and schedules would be prepared.

Final Site Selection

The selection of final sites for the transfer points would proceed concurrent with design planning.

- The number of buses using the site would determine size needs;
- Site size would determine land assembly, cost and acquisition requirements; and
- The site's relationship to surrounding streets and land uses would determine off-site design considerations such as intersection widths, streets widths, location of the driveways, and pedestrian movement.

A team comprised of the design consultants (KL Engineering, Schreiber-Anderson Associates and The Architects) and city staff from Traffic Engineering, Real Estate, and Metro would meet regularly during design, dealing with these criteria for each site.

Relationship to Routes: The site would form a nucleus from which 30 minute and 60 minute route cycles would be possible.

Size: The site would hold 6-8 buses.

Land assembly: The site would minimize the number of parcels needed to assemble a large enough site.

Land acquisition costs: Site acquisition costs would have to fit within cost parameters set for the entire project.

Safety: The site would minimize the degree to which buses would mix with other traffic and pedestrians.

A number of sites would be considered in each area.

North Site. The general location of Aberg Avenue between Packers and Sherman Avenue was the targeted area. Sites considered included the former Imperial Palace, parking areas within Northgate Plaza, and Oscar Mayer property south of Aberg along Huxley. The Oscar Mayer site would be the final site.

East Site. The general location of Milwaukee Street between Schenk and Highway 51 was the targeted area. Sites considered included land east of Swiss Colony, a section parallel to Corporate Drive, and an area in front of Swiss Colony using the former Sports Pub site and a portion of Swiss Colony property. The latter would become the final site.

South Site. The general location of South Park Street between Buick Street and the Beltline was the targeted area. Sites considered were Villager Mall, K-Mart, Country Kitchen, Hughes Place, Jane's Furniture, Coliseum area and Labor Temple. Jane's Furniture would be the recommended final site.

Southwest Site. The general location of Westgate, Whitney Way and Odana roads was the targeted area. Sites considered included the corner of Segoe and Odana, Westgate Mall, and the new Research Park Addition west of Whitney Way. The Research Park was the recommended site.

West Site. Area on or near the Hill Farms State Office Building was the targeted area. Sites considered included the west Visitor Lot, north Visitor Lot (Community Gardens), and the terrace in front of the building. With a change in function of this site, an on-street location was selected.

In October of 1996, a series of neighborhood meetings would be held to preview proposed site design plans. These meetings had been preceded by regular contact and consultation with neighborhood groups and alder-persons since 1994 when the first site locations were identified. The plans would be well-received.

Transfer Point Design

The design features of the transfer points are tailored to the concerns expressed by neighborhoods during the Transit Center Project. With their function confined to providing space for bus convergence and direct bus-to-

bus transferring, the design could be kept to features which need only provide space for bus parking and protection for passengers transferring between buses.

Elements of the design incorporate:

A center island with bus parking along the island, pedestrian area in the middle, and a turn-around bulb at the end of the island.

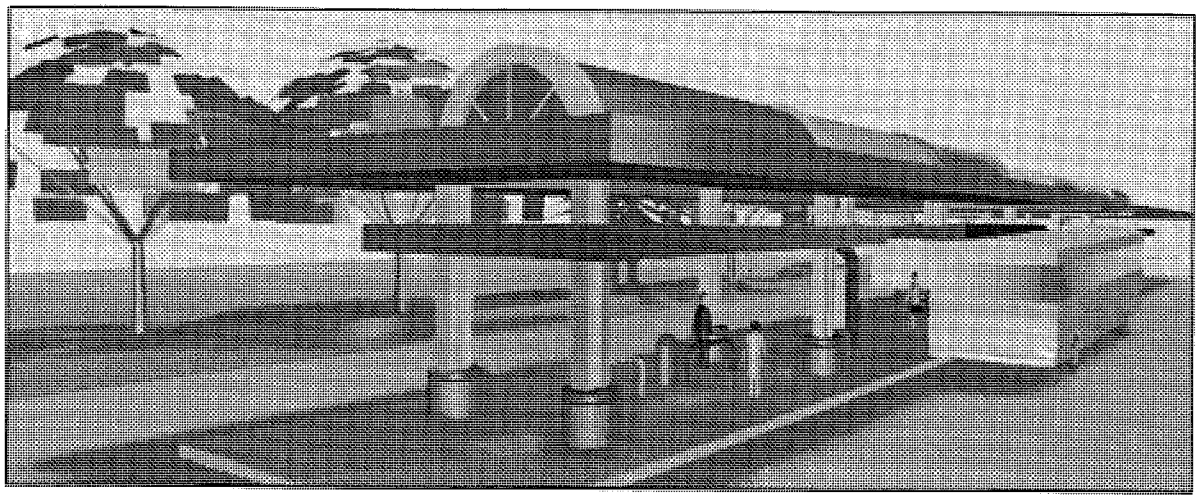
A canopy covering the length of the island for rain protection.

Schedule kiosks.

Public telephones.

Lighting.

Landscaping.



Route and Schedule Refinements

An overriding objective of Metro planners during development of the route and schedule plan has been to minimize disruption in current passenger trips while providing improved connections to peripheral areas. Four rounds of public meetings have been held, beginning with a "needs" assessment in 1993 through three subsequent presentations of the plan where comments and suggestions would be taken and used to refine the plan.

Before any route lines were drawn, the needs expressed by passengers in the surveys and meetings held during 1992 and 1993 were compiled and analyzed. The most common service requests (excluding route-specific comments) emerging from those outreach efforts are listed below. All of the comments are listed in Appendix 2.

Most Common Transit Needs

Top 5 Routing Requests	*Top 5 Scheduling Requests*
1 - Expand Express Service	*1 - More Weekend/Holiday Service*
2 - Provide Airport Service	*2 - Later Night Service*
3 - Expand Peripheral Service	*3 - Stagger Buses in Corridors*
4 - More South Towne Service	*4 -Earlier/Later Weekend Service*
5 - Provide East to East Connections	*5 - More MATC Service*

Many of these requests would be incorporated into the 1995 route and schedule plan for the Transfer Point System. The 1995 plan, when first publicly presented, generated many more comments which would also be compiled and used to make further refinements in the plan (Appendix 4).

In November of 1996, another series of public hearings were held. The intent of these hearings was to once again obtain the concerns and comments of passengers about the proposed system. The detailed comment record is contained in Appendix 5. Another round of public meetings was held in March of 1997, where further refinements and modifications were presented and more comments taken on the plan.

With each meeting and plan revision, the number of concerns has lessened. The current plan incorporates all of the most commonly expressed needs gathered from the early meetings. Services not in the original plan from 1995, such as the U-Line, have also been added in response to public meeting comments and suggestions.

Costs and Benefits of the Transfer Point System

Throughout of process of developing the new Transfer Point System, the budget parameters of the existing route system would also be the parameters for the new system. After all concerns were addressed, however, the new system would end up more expensive. The existing system operates approximately 970 hours of service; the Transfer Point system is currently proposed at 1,250 hours of service. Two reasons account for most of the additional cost:

The Transfer Point System includes new connections—Connector Routes—around the periphery. This new feature accounts for about 40 hours of service daily.

The Transfer Point System addresses expansion needs which the current system is not addressing. This includes adding more time to schedules which have become too tight as a result of traffic congestion and higher ridership levels, and expansion to new areas. The existing system is deficient by 191 hours per day (Table 6).

While the proposed Transfer Point System adds cost, its benefits go well beyond what can be done with the existing system, even with an additional 191 hours.

The Transfer Point System will vastly improve commute and reverse commute service. The new system increases the number of commuter routes and trips. The routes also connect peripheral employment destinations, where most new job growth is taking place and where many W-2 jobs will be located. The existing system has only a few remaining commuter routes with service only to downtown. The existing system has also slowed over the years, the result of traffic congestion and expansion of slower secondary services into new neighborhoods.

The Transfer Point System incorporates capacity needed to handle higher loads resulting from the new UW student pass. Many existing routes are experiencing overloads caused by the student pass. The new system, in addition to providing needed capacity, will also provide students with better access to more housing choices throughout the city.

The Transfer Point System will greatly expand regional transit connections. Future commuter service from communities such as Verona, Waunakee, and Stoughton would connect with transfer points, where connecting service to peripheral employment centers and downtown would be available.

The Transfer Point System enables alternative transit technologies to be easily implemented. Madison Metro will be acquiring intelligent

transportation systems which will allow tracking and more flexible scheduling of vehicles. This will enable flex route options to be operated in low density neighborhoods, an option that is not viable with the current system.

The Transfer Point System improves bus service, a condition important to federal investment in rail alternatives. The fixed-route service hours operated by Madison Metro are the same in 1997 as in 1980. Commuter services in particular have been reduced. These trends are being reversed in the Transfer Point System, representing the first significant improvement in bus transit since the early 1980s. The future of rail transit will depend on continued investment in transit service levels.

Table 6
Existing System Deficiencies

Existing System Deficiencies	Hours Needed
I-Line Operators have trouble maintaining schedules due to higher loads caused by the student pass and traffic congestion. Current schedules could not possibly accommodate accessible service. Expansion needs for this route include later service to accommodate store closing times around West Towne Mall, more service in the Old Sauk Office Park, and more service to Prairie Towne Centre.	Weekday: 22
J-Line (interlines with I Line) Operators have trouble maintaining schedules due to higher loads caused by the student pass and traffic congestion. Current schedules could not possibly accommodate accessible service. Expansion needs include South Thompson Drive south of Buckeye Road, Pflaum Road/Mustang Way, and later service to accommodate store closing times around West Towne Mall.	Weekday: 22
E-Line Operators have trouble maintaining schedule due to increased traffic congestion. Current schedules could not possibly accommodate accessible service. Expansion needs include Chalet Gardens, Anton and Smithfield Drives.	Weekday: 28
U-Line This route needs more schedule hours to handle student ridership. Expansion needs include UW Hospital and Old University Avenue.	Weekday: 33
B-Line Expansion needs include new residential areas south of McKee Road.	Weekday: 24
D-Line Expansion needs include Anton Drive/King James Way area.	Weekday: 7
A-Line Expansion needs include East Springs Drive and High Crossing.	Weekday: 36
C-Line Expansion needs include the airport.	Weekday: 5
K-Line Route needs to be redesigned to lessen the impact of the Industrial Park loop on commuters and other users.	Weekday: 14
Total	Weekday: 191