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I-394 Phase II Planning Study

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Final Report

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EXECUTIVE SUMMARY

The I-394 MnPASS Phase II Planning Study was a multi-agency collaboration that evaluated four major study elements and their relationships in a congestion priced urban corridor. These included transit, land use, infrastructure and telecommuting. A foundation for this work was the understanding that high-cost capacity expansions were not likely to occur in the corridor for 25 to 30 years despite forecasts of increasing congestion that may threaten efficiency gains achieved with conversion of the high-occupancy vehicle (HOV) lanes to high-occupancy toll (HOT) lane operation. Recommendations identified in this study are being used to guide investments in corridor facilities and services by transportation authorities and will also be used by communities adjacent to the corridor. Transit supportive land use recommendations, if implemented, can help ensure that a high level of service is maintained in the corridor for all users. While specific funding for implementation of these recommendations was not identified prior to the planning process, several compelling transit, land use and telecommuting recommendations are currently being advanced for programming. This project is a valuable case study and potential model for linking land use, transit, telecommuting and congestion pricing in a high-demand urban corridor. In fact, thorough understanding of what led to successful implementation of the I-394 MnPASS lanes was instrumental in gaining widespread support for the Twin Cities Urban Partnership Proposal.

Minnesota's experience and continued exploration of congestion pricing, along with ongoing outreach and educational efforts, have helped to inform policymakers and the public and win broad support for optional toll lanes in the Minneapolis-St. Paul metropolitan area. From the initial public debate over congestion pricing in Minnesota during the mid-1990s to the successful implementation of the I-394 MnPASS lanes, the Hubert H. Humphrey Institute has served to assist with outreach and education. For the I-394 MnPASS Phase II project, the Humphrey Institute was charged with completing four distinct tasks: (1) *provide ongoing community planning and outreach activities*; (2) *conduct public opinion surveys and focus groups*; (3) *deliver a communications coordination plan*; and (4) *conduct local, regional, and national workshops*.

As part of its outreach and education efforts, the Humphrey Institute convened a community advisory group that met seven times during the 21-month study to guide the project team, consider findings, identify alternatives, and make strategic recommendations, as well as to inform and facilitate outreach and education efforts with corridor communities. The advisory group included corridor community planning staff, regional planners and transportation agency staff, representatives from local transportation advocacy groups, as well as transportation and community design consultants. Since the project required different types of technical expertise, separate technical committees were formed to provide guidance with 1) facility concept design and engineering, 2) community design and transit, and 3) outreach and education.

I. INTRODUCTION

The Minnesota Department of Transportation (Mn/DOT) and agency partners at the Metropolitan Council and the Federal Highway Administration (FHWA) have undertaken a planning process to develop a long-term vision for the I-394 MnPASS managed lanes project to help achieve optimal performance of the corridor for the next 30 years (1). This plan will be used to guide investments in corridor facilities and services by transportation authorities and to assist communities adjacent to the corridor in making compatible land use decisions so that the integrity and operational performance of the corridor can be maintained and enhanced for the future.

Phase II of the I-394 MnPASS project evolved as part of the 2004 Minnesota Value Pricing Demonstration and arose from the realization that opportunities existed for an integrated planning effort that went beyond the initial policy and physical corridor changes associated with the I-394 corridor HOV lane conversion. Specifically, under Phase II the Hubert H. Humphrey Institute was charged with completing four distinct tasks: (1) *provide ongoing community planning and outreach activities*; (2) *conduct public opinion surveys and focus groups*; (3) *deliver a communications coordination plan*; and (4) *conduct local, regional, and national workshops*.

In November 2005, the Humphrey Institute planned and facilitated the “MnPASS Transit Advantage” workshop and facility tour of the newly-opened I-394 MnPASS lanes. The event served to launch Phase II activity among stakeholders and provided an opportunity for brainstorming the underlying question behind Phase II – namely, what can be done for transit? The workshop brought together stakeholders from a variety of state and federal agencies, public interest groups, and transportation consulting firms. In addition, the workshop featured a guest appearance by and remarks from Congressman Martin Sabo, whose district encompassed Minneapolis and the eastern half of the I-394 corridor. Beyond introducing stakeholders to the MnPASS lanes and generating discussion on transit opportunities for the corridor, the workshop oriented participants to the vital role transit alternatives play in a well-functioning dynamically-priced corridor.

Promotion of the important link between congestion pricing and transit continued through a series of “Rethinking Transportation Finance” roundtable events held for policymakers and stakeholders. The roundtables took place approximately every six months and touched upon a variety of topics, such as various pricing schemes in Europe and other U.S. states. In February 2007, shortly after USDOT announced a unique funding opportunity in the form of the Urban Partnership Agreement (UPA), the Humphrey Institute helped plan and facilitate a “Road Pricing Summit” that included a number of key policymakers and featured comments from then-USDOT Assistant Secretary for Policy, Tyler Duvall. Both preceding and following the successful Twin Cities UPA proposal, the Institute assisted with several stakeholder workshop and briefing events aimed at generating proposal ideas, garnering buy-in, and easing implementation.

Throughout the course of the Phase II project, the Humphrey Institute played a key role in planning and facilitating congestion pricing workshops at bi-annual meetings of the Transportation Research Board. These workshops drew upon a variety of national and international expertise in the realm of transportation finance and project engineering, and catered to an increasingly-large universe of stakeholders from around the world. In addition to showcasing the success of the I-394 MnPASS corridor, these workshops have promoted open dialogue on best practices and lessons learned from projects throughout the United States and abroad.

Also in November 2005, the MnPASS Transit Advantage working group first convened in order to organize Phase II community planning and outreach activities. The working group brought together representatives from such public agencies as Mn/DOT, the Metropolitan Council, and Metro Transit, as well as public interest groups and transportation consulting firms. With assistance from a parallel-track technical advisory committee, the working group laid the foundation for commissioning a more formal community advisory group and Phase II planning study.

Comprised of representatives from the same agencies, public interest groups, and transportation firms as its forerunner working group, the resultant “Community Design & Transit Corridor Advisory Committee” was chaired by Hennepin County Commissioner Linda Koblick and also included city planners from the I-394 corridor communities of Golden Valley, Minneapolis, Minnetonka, Plymouth, Saint Louis Park, and Wayzata. A parallel technical committee also guided the advisory group, which met a total of seven times between its first meeting in November 2006 and its final meeting in May 2008. During this time, the advisory group considered information and synthesized input from each corridor city – as well as from SRF Consulting on physical improvements, URS Corporation on transit alternatives, the Center for Changing Landscapes on land use options, and the Humphrey Institute on telecommuting opportunities – in compiling the Phase II planning study. This study and the corridor recommendations therein constitute the culmination of task I activity, serve as the backbone of this project report, and are accordingly discussed in greater detail in the pages that follow.

Having faced some skepticism from within the advisory group over the practicality of assembling corridor enhancement recommendations in the absence of a funding source, the timing of the USDOT Urban Partnership Agreement (UPA) program served to highlight the increasingly innovative nature of federal funding opportunities and the importance of forward-looking planning, outreach and education. Although the I-394 corridor was not the subject of a UPA proposal, the Twin Cities was awarded \$133 million in UPA funding to implement congestion pricing, enhance transit, and promote telecommuting along the I-35W corridor. From the time of the UPA funding opportunity announcement to the start of the Twin Cities UPA project, the Humphrey Institute engaged in community planning and outreach activities. Such activities took the form of planning sessions, partnership promotion, and stakeholder workshops – and all were consistent with goals articulated under Phase II.

Prior to the formation of the advisory group and execution of the planning and outreach activity described above, the Humphrey Institute coordinated with Austin-based NuStats to conduct a before-and-after study of public attitudes toward MnPASS within the I-394 corridor. This survey was undertaken to inform future outreach and education efforts. In addition, the initial survey results served as a baseline for a subsequent web-based survey of residents along the I-35W corridor that sought to delve deeper into attitudes toward MnPASS, congestion pricing, and transit.

Throughout the course of the project the Humphrey Institute retained the expertise of a professional consultant to assist with all communication efforts. With this assistance, the Humphrey Institute launched a website replete with helpful information on congestion pricing, generated messages for policymakers and the general public alike, crafted articles and columns for publication in academic journals and print media, sat for interviews broadcast to local, state, and national audiences, produced both a professional-grade progress report and a DVD for stakeholder consumption, and created and managed a widely-used congestion pricing listserv. In

addition, the Institute actively sought and cultivated supporters and advocates at all levels of government and throughout the public policy arena.

Minnesota's experience and continued exploration of congestion pricing, along with ongoing outreach and educational efforts, have helped to inform policy makers and the public and win broad support for optional toll lanes in the Minneapolis-St. Paul metropolitan area. In addition, the successful implementation of I-394 MnPASS was instrumental in gaining widespread support for the Twin Cities Urban Partnership Proposal.

II. CONGESTION TOLLS AND TRANSIT

Most successful congestion pricing projects in the world have combined transit improvements with tolling to reduce congestion while providing better transit option for travelers. Singapore, which has used congestion pricing since the 1970s and has expanded the use of pricing with its Electronic Road Pricing (ERP) system, has also made significant investments in a high-quality mass transit system. London and Stockholm both made significant investments in transit in conjunction with their congestion pricing schemes, freeing up space for buses to move and with better, more reliable service, shifted travelers from cars to transit. The I-15 HOT lanes in San Diego use excess revenue to support express transit service. While New York City was unable to get its congestion pricing project past the New York State Assembly, there was evidence of significant support for congestion pricing among bus riders if the funding went to transit.

While drivers are never excited about paying tolls, the benefits of combining congestion pricing with transit improvements will frequently generate public support even before the public sees the benefits of congestion pricing. Both the right and the left have seen the benefits of linking transit and pricing. Robert Poole and Kenneth Orski advocated high-occupancy toll networks as a way of providing drivers congestion relief as well as provided dedicated corridors for transit services in a 2003 report by Reason Foundation, a conservative think tank. In a 2006 report Michael Replogle of the more liberal Environmental Defense Fund makes the case for using road tolls to cut congestion, protect the environment, and boost access for all by combining pricing with transit enhancements.

III. HISTORY

Developed by Mn/DOT at the end of the Interstate construction period, the I-394 corridor is among the most modern urban freeways in Minnesota. Completed in 1991, after nearly ten years of construction, this facility has evolved from a congested urban expressway (State Highway 12) to a state-of-the-art facility which included the region's first high-occupancy vehicle (HOV) lanes. Development of the project over a ten-year period, however, was time consuming, costly and sometime acrimonious. Neighborhood disruption and the impacts to businesses in the corridor during and post construction created discontent. An early criticism of the facility was the perceived poor performance of the HOV lanes. That complaint persisted until the Minnesota Legislature, with support of the Governor, authorized conversion of the existing HOV lanes to high-occupancy toll (HOT) lanes in 2003 (2,3).

Phase I Description

Original concepts for the I-394 MnPASS lanes presented to legislators included converting three miles of barrier-separated, reversible lanes to bi-directional lanes in order to address congestion that occurs in both directions during peak travel hours. The idea was to add a third lane and a moveable "zipper" barrier to allow two MnPASS lanes in the peak direction and one in the off-peak direction. While one legislator referred to this solution as "elegant," the cost was prohibitive, since significant reconstruction would need to occur at the Highway 100 interchange. Mn/DOT opted for a lower cost option that could be implemented quickly to demonstrate how congestion pricing works before considering the higher cost alternative. Thus, the initial MnPASS project was called Phase I, with the possibility that Phase II could be implemented at some point in the future.

With conversion of the I-394 HOV lanes to HOT lanes in 2005, performance of the whole facility improved significantly (up to 33% better performance of the HOV/HOT lanes). Yet, the future traffic forecast for this corridor indicates that additional future demand may threaten the efficiencies gained by the optional toll lane system. On one hand, Mn/DOT's 25-year forecast for the corridor indicates congestion may grow substantially by 2030 with perhaps as much as 25 percent more traffic on certain segments. Under that scenario, congestion in the corridor will increase significantly causing added delays, wasted time, additional costs, and air quality problems. The Metropolitan Council's 2030 forecast from the regional model, on the other hand, indicates less rapid growth in demand which may result in conditions worsening over a longer time-frame. Although there is some disagreement as to the best forecast, transportation planners know that relatively small increases or decreases in demand can have a profound effect on delays in a corridor. In either case, with population growth in the Twin Cities expected to exceed one million by 2030, a significant percentage of this growth may occur at the western end of the corridor travel shed. As long as downtown Minneapolis remains the region's largest employment center, demand in the corridor is likely to grow over the next 25 years. Significant improvements in facility design or expansion of capacity, however, are not being planned for the foreseeable future.

Phase II Planning Approach

In response to apparent growth and development trends forecast for the I-394 travel shed, and with the realization that opportunities existed for an integrated planning effort that went beyond the highway footprint, the Minnesota Department of Transportation undertook the I-394 MnPASS Phase II planning study (Figure 1). Integral to this process was the involvement and

guidance of the I-394 Corridor Advisory Committee. This committee became an important conduit for the planning team to address community concerns. As project sponsors, Mn/DOT, the Metro Council, and FHWA, envisioned a study to identify infrastructure enhancements, transit opportunities and to recognize synergies with land use that might otherwise remain unidentified. At the same time this process enabled the development of high level guidance for transportation authorities in the corridor to consider in operations, management and adjoining facility development, it also considered community planning and design needs at the district and site levels. The results of this work were designed to feed into the comprehensive plan updates at the community level. This planning study process has a great deal of supporting documentation quantifying the benefits of various alternatives, however, that detail is not provided in this paper.

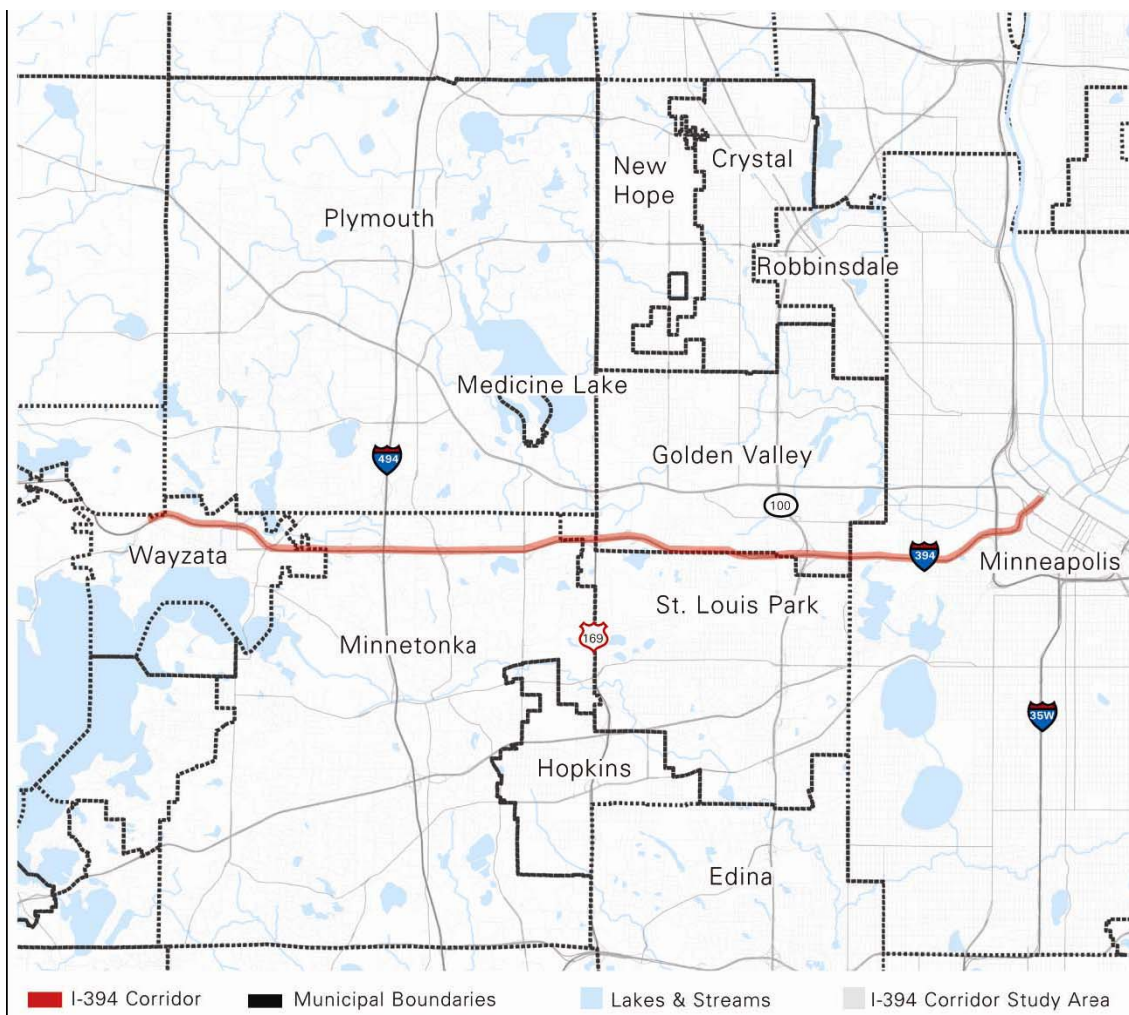


Figure 1. I-394 Corridor Study Area

The I-394 MnPASS Phase II planning process was an integrated and collaborative approach that considered four strategic elements integrated a robust outreach and education effort:

- Infrastructure design improvements;
- Transit facility and operational enhancements;
- Community design/land use; and,
- Telecommuting.

Goal

The goal of I-394 MnPASS Phase II planning study was to identify strategies which optimize and enhance the level of service in the corridor for transit, high-occupancy vehicles (HOVs) and optional toll-paying users. During the planning study, Minnesota prepared an Urban Partnership Agreement (UPA) grant proposal to the US Department of Transportation (USDOT) and received a \$133 million grant to implement congestion pricing and make other transit, technology and telecommuting improvements in the I-35W corridor, another Interstate in the Twin Cities area. While built upon the success of the I-394 MnPASS project, the I-35W project encompasses a broader range of tools, combining congestion pricing with transit, technology and telecommuting improvements, to achieve a significant (15-25 percent) reduction in congestion. The comprehensive approach developed for the I-35W UPA project is an extension of the collaborative process developed for the I-394 MnPASS Phase II planning study. During the Minnesota UPA proposal process, I-394 was identified as a Tier 2 UPA corridor, a second choice to I-35W but still ranked highly in consideration for funding.

MnPASS Performance and Evaluation

The I-394 MnPASS HOT lanes were a groundbreaking project that introduced a number of physical and operational innovations to optional toll lanes. As a federally designated Value Pricing Pilot state, much has been learned and there is an ongoing effort to share this experience locally and nationally. Drivers of single-occupant vehicles (SOVs) for the first time in Minnesota had the option to access the MnPASS lanes during peak periods by paying an electronic toll. HOVs, including carpools, busses and motorcycles, continue to use the lane free of charge at all times. All two axle vehicles (up to 26,000 lbs.) are allowed in the lanes without charge during off-peak periods. This 11-mile long corridor, which includes three miles of barrier-separated reversible lanes and 8-miles of diamond lanes, is the region's first experience with open-road, fully electronic tolling. Tolls on the facility can range anywhere from 25 cents to \$8.00 depending upon the time-of-day and length of trip.

By nearly all measures, MnPASS has been a highly successful optional toll lane project. Despite its relative newness, a number of important benchmarks have already been achieved. MnPASS has demonstrated that non-barrier separated tolling can work effectively:

- Volumes on the MnPASS lanes have increased by as much as 33 percent with no degradation of transit service and HOV use;
- Total peak hour roadway volumes have increased by 5 percent;
- The project has achieved its a goal of 50-55 mph performance on the MnPASS lanes 95 percent of the time;
- Enforcement has been highly successful. Violations on the MnPASS lanes, which were as high as 24 percent prior to MnPASS, have declined to the range of 4-9 percent;

- Safety has not been compromised. In comparing crashes on I-394 over the last three years, there has been a 12 percent decline since MnPASS was opened.
- The public remains highly satisfied with the MnPASS operations and performance.
- After less than three years of operation, revenue collection has exceeded its cost of operation.

The ongoing evaluation of the MnPASS project shows that it continues to meet its goals and performance objectives and is achieving a high level of public satisfaction. The MnPASS performance goal has been to improve the efficiency of high occupancy vehicle lanes by increasing their person and vehicle carrying capacity while maintaining a high level of service for carpools and transit.

Phase II Study Organization

A community advisory group met seven times during the 21-month study to guide the project team, consider findings, identify alternatives, and make strategic recommendations, as well as to inform and facilitate outreach and education efforts with corridor communities. The advisory group was chaired by Hennepin County Commissioner Linda Koblick and included corridor community planning staff, regional planners and transit staff, representatives from local transportation advocacy groups, as well as transportation and community design consultants. Since the project required different types of technical expertise, separate technical committees were formed to provide guidance with 1) facility concept design and engineering and 2) community design and transit and 3) outreach and education (Figure 2).

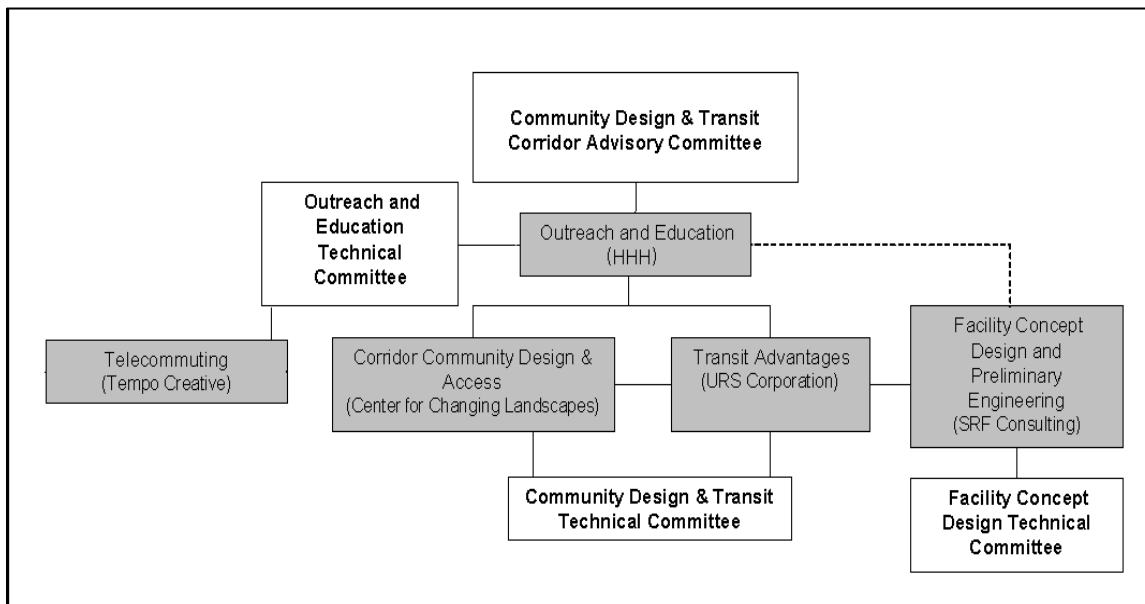


Figure 2. I-394 MnPASS Phase II Planning Organizational Framework

IV. STUDY ELEMENTS AND RESULTS

Existing Conditions

Community Design/Land Use

The west metropolitan area has experienced rapid suburban growth since the end of World War II. Golden Valley, Saint Louis Park, and Minnetonka are fully developed, and only a few undeveloped areas remain in Plymouth. Wayzata is in the midst of redeveloping an important part of its core. As development continues to the west, traffic congestion grows and land becomes more valuable.

Although there are trail systems in each of the suburban corridor communities, the trail systems are thin, and many of the trails are discontinuous. None of the existing systems have the richness and the connectivity of the Minneapolis lakes and trail system which crosses the eastern end of the corridor through the Bryn Mawr neighborhood. While there are natural areas of wetlands and lakes and areas of residential development, most of the corridor is lined with commercial uses. Uses such as office towers, hotels, corporate campuses, a regional shopping, strip malls, and big box commercial are concentrated at some key access points along the corridor. Many auto dealerships are located on both sides of I-394 on service roads that parallel the freeway. (Figure 3).



Figure 3. I-394 Corridor Current Visual Character Analysis

Transit

The portion of the study area examined for transit needs and opportunities was defined by Transportation Analysis Zones (TAZ) which formed the basis of information on trips and demographics. An aggregate summary of the study area's 2010 and 2030 demographics appears in Table 1, along with demographics for the model region. Population is expected to be 140,000 in the year 2010 and increases to 144,000 in the year 2030. As such, the study area's population will grow by 4,000 people or some 3 percent over the 20-year horizon. Some 4,000 new households are expected in the study area over this same 20-year period, a 7 percent increase over year 2010 levels.

The average number of persons per household declines as the increase in population is equal to the increase in households. Employment forecasts suggest that the study area will add 8,300 employees over the 20-year horizon. A majority of these workers are expected to be non-retail employees. In addition, the number and density of the study area's employees exceed that of the residential component, suggesting the area is generally characterized as a net importer, or attractor, of trips. By way of comparison, the region's 20 percent population change is roughly six and a half times higher than the study area's 3 percent change. For households, the region's

percent growth (25 percent) is three and a half times more than the study area (7 percent). Regional employment is forecasted to grow by 17 percent over the 20-year horizon, nearly three times more than the study area.

The demographic forecasts in Table 1 suggest that the study area will experience less growth than the seven-county region. This perhaps reflects a general characteristic, wherein the study area has a more established urban form and a limited number of vacant parcels for new development. In addition, the study area's residential and employment densities are much higher than the model region, lending support to this supposition.

Demographic	Study Area TAZ's				Twin Cities' Model Region			
	Year 2010	Year 2030	20-Year Change		Year 2010	Year 2030	20-Year Change	
			Absolute	%			Absolute	%
Population	140,000	144,000	4,000	3%	3,005,300	3,607,700	602,400	20%
Density (per Acre)	4.4	4.5	0.1	3%	1.6	1.9	0.3	20%
Households	60,000	64,000	4,000	7%	1,97,600	1,491,600	294,100	25%
Density (per Acre)	1.9	2.0	0.1	7%	0.6	0.8	0.2	25%
Persons per Household	2.33	2.25	-0.08	-4%	2.51	2.42	-0.09	-4%
Employees								
Retail	25,300	26,600	1,300	5%	323,000	383,900	60,900	19%
Non-Retail	123,000	130,000	7,000	6%	1,492,700	1,742,000	249,300	17%
Total	148,300	156,600	8,300	6%	1,815,700	2,126,000	310,300	17%
Density (per Acre)	4.7	4.9	0.3	6%	1.0	1.1	0.1	7%
Size (Acres)	31,800				1,903,772			

Source: Metropolitan Council's Twin Cities Regional Model.

Table 1. Summary of Demographics for Study Area and Twin Cities' Model Region

Existing facilities that support transit service in the I-394 corridor includes transit centers, park-and-ride lots, as well as the HOT lanes and other “transit advantages” such as ramp meter bypass lanes and shoulder bus lanes. There are several existing physical transit amenities in the I-394 corridor that improve travel times and convenience for transit users. These improvements include:

- MnPASS HOT Lanes –During peak periods, buses using the HOT lanes experience faster travel times than single occupant vehicles in the general purpose lanes.
- Shoulder Bus Lanes – Along a short segment of eastbound I-394 from west of Park Place Boulevard and just east of Highway 100, buses are permitted to operate on the shoulders of the interstate. By state law, buses are permitted to travel up to 35 MPH, but not more than 15 MPH faster than existing traffic conditions in the general purpose lanes. During peak periods, this often provides buses with a faster travel time than automobiles.
- Ramp Meter Bypass Lanes – At several entrances to I-394, including those serving three of the park-and-ride lots in the corridor, buses can take advantage of dedicated lanes that allow high occupancy vehicles to bypass ramp meters and directly enter the freeway.

- Park-and-Ride Spaces – There will be more than 1,600 parking spaces adjacent to I-394 and Highway 12 with the re-opening of the County Road 73 South lot. An additional 450 spaces are located on other roadways within the study area with bus service using I-394.
- Transit Centers – Two transit centers with park-and-ride spaces are located along I-394, at Plymouth Road and Louisiana Avenue. These are intended to function as transfer points between area routes, although there is very little transfer activity currently taking place at the Plymouth Road Transit Center.

Facility Design

The I-394 MnPASS Phase II planning and preliminary design explored a series of infrastructure changes and improvements within the I-394 corridor aimed at expanding opportunities for MnPASS users, including transit and carpoolers. The study focused on the design aspects of the I-394/TH 100 interchange, the barrier separated reversible lanes, the I-394/I-94 interchange, and the I-394/I-494 interchange. The main goal of the design effort for the barrier separated reversible lanes was to assess the potential to introduce two-way traffic at all times so that the off peak direction would gain a managed lane between TH 100 and I-94 during the time of peak demand. Introduction of two-way traffic into the barrier-separated reversible lanes also necessitates modifications of the TH 100 and I-94 interchanges.

Telecommuting

Telecommuting was added later in the Phase II project with the success of Minnesota's Urban Partnership Agreement (UPA) proposal. The UPA project includes a \$3.5 million initiative to encourage telecommuting and telework throughout the Twin Cities region. Eliminating or reducing trips or shifting time of trips through telecommuting is an additional alternative for reducing congestion in the corridor. Telecommuting (e-commuting, e-work, telework) is a work arrangement that allows employees to work from a remote location most often from home via an electronic link to the office. Today's telecommuters can carry laptop computers that they use at home and at the office—and almost anywhere else. Broadband connections have become common. Technology is no longer a telecommuting challenge—it's a cultural challenge. A successful telecommuting program requires employer management by objectives as opposed to management by observations.

Since 2000, telecommuting has continued to gain attention and popularity, the U.S. Census Bureau reported that from 1990 to 2000 the number of telecommuters increased by 23 percent. A 2005, U.S. Census Bureau American Community Survey indicated just four percent of Americans worked from home in 2005. According to the survey, only 2.9 percent of the Minneapolis work force telecommutes.

Opportunities for Corridor Improvements

Community Design/Land Use Opportunities

Because levels of transit use are influenced by the quality and frequency of access to the transit system and the type and quantity of destinations clustered along the system, the land use/community design portion of this study focused on station location, access systems, and land uses that support transit use. It proposed major transit stations along the corridor and access systems that make getting to the stations easier for drivers, bicyclists, and pedestrians. It also identified land uses and building patterns that create intensified destinations along the route

contiguous to the stations in order to promote transit and strengthen each station area as an important, appropriate, and memorable part of the community in which it is located.

The analysis of the corridor soils, hydrology, vegetation, ground and surface water systems, land uses, and transportation systems led to the following conclusions:

- The developed land in much of the corridor is underutilized. Many existing one-story older commercial and industrial buildings are on high-value lands adjacent to the I-394 corridor. Some of these old, one-story retail and office buildings, car dealerships, and big box retail that are in strategic locations could be redeveloped with higher density.
- Because very few undeveloped corridor areas are not wetlands, the corridor's water and soil conditions facilitate concentrating development/redevelopment in a few key areas, a development pattern that utilizes the land efficiently and supports transit.
- Because neighborhood transit routes and north/south highways cross I-394 at key points, these areas are candidates for redevelopment and new transit stations.
- Along the corridor there are high concentrations of use, including office towers, at key intersections. Repeating this pattern adds to the existing visual character of the corridor. Because of the prevalence of hydric soils and the many areas of impermeable surfaces in the corridor, development/redevelopment needs to address challenging storm water runoff quantities.
- Existing, planned, and proposed regional and local pedestrian and bicycle trail systems could be extended and augmented to provide safe, pleasant access to transit while continuing to be recreational assets in this automobile-dominated environment.
- Important ecosystems exist in close proximity to I-394 that offer the potential to link existing municipal and regional parks to create green transit access corridors for pedestrians and cyclists which could be important new green civic assets in the corridor communities.
- Existing automobile-oriented land use patterns are barriers to transit use. Areas around bus stops/stations need to be reconfigured to facilitate pedestrian access to destinations located there.
- The transit recommendation to create new off-peak service on the south frontage road at creates additional development opportunities for areas on the south side of I-394 and creates the need for effective pedestrian connections across the freeway to areas on the north side.

After analyzing the physical characteristics of the I-394 Corridor and the transit service recommendations, two areas were chosen for concentrated study, planning, and design:

- Greater Ridgedale Study Area in Minnetonka and Louisiana Avenue, and
- Park Place/Xenia Study Area in Saint Louis Park/Golden Valley.

These were chosen because of transit favorable characteristics such as:

- Locations for bus stops for the direct and frequent limited stop service, all-day bus service, the neighborhood feeder bus service, and a transit center,
- Relatively dense land uses that support transit use, and
- Potential for additional transit-supportive development and redevelopment.

Like many sites along the I-394 Corridor, both of these sites lacked adequate pathways for pedestrian and bicycle access.

Transit Opportunities

The study identified several opportunities and needs for improving the transit network in the I-394 corridor. These include:

- The “Park-and-Ride Facility Location Plan” indicated the need for 500 additional spaces in the corridor by 2010. Of these 500 spaces, the plan identified the need for a new 200-space park-and-ride adjacent to I-394/Hwy 12 at or “upstream” of Hwy. 12 and Co. Rd. 15, on the western edge of the study area. Metro Transit supports this location for a large new park-and-ride (Wayzata East).
- By 2030, the park-and-ride plan indicated the need for up to an additional 1,400 spaces, bringing the total increase over what exists today to 1,900 spaces. The plan recommended these spaces include the expansion of the proposed Hwy. 12 and Co. Rd. 15 facility by 200 spaces by 2020 (for a total of 400 spaces), as well as a new 200-space facility further west in Long Lake at or “upstream” of Hwy. 12 and Co. Rd. 6 by 2030.
- Ridgedale Mall is currently served Metro Transit Routes 615 and 675, as well as the Plymouth and Lake Minnetonka dial-a-ride services. Opportunities may exist to explore the possibility of transit accommodations in the vicinity of Ridgedale Mall that would serve as a more formalized transfer point between area routes and services, particularly if Ridgedale Mall expands north towards I-394 with new structured parking.
- The Plymouth Road Transit Center no longer functions as a transfer point between routes and is in need of refurbishment. This transit center could be a candidate for closure at some point in the future, particularly if a new large park-and-ride was developed in the vicinity.
- Heated shelters were noted as a popular feature of Plymouth’s Station 73 Park-and-Ride. Heated bus shelters at the passenger facilities along I-394 have the potential to encourage ridership at these locations, as well.
- Projected travel patterns within the study area, particularly non-work trips, support the need for more frequent all-day service parallel to I-394 serving the higher density employment and residential areas between I-494 and Hwy 100.
- The attractiveness and productivity of Route 675 is hampered by its long travel time associated with its circuitous alignment parallel to I-394. Metro Transit should continue to identify and implement short-term service improvements to Route 675 to make the alignment more direct and less complicated, as well as improve frequencies.
- In the longer-term, a service concept requiring capital investments such as limited-stop service parallel to I-394 has good potential to reduce travel times along I-394 and into downtown for the routes with stops in the corridor. Such changes would need to be supported with frequent feeder bus service with timed transfers at the corridor stops.
- Circulator routes or employer-based shuttles would be needed to serve the origins and destinations adjacent to I-394 currently served by the routes this service would replace.
- Local routes and dial-a-ride services in the corridor would also be restructured and enhanced to feed the corridor stops.
- More frequent service provides greater flexibility for passengers in selecting travel times, and can reduce out-of-vehicle wait times. A sensitivity analysis of demand test showed significant potential for increasing ridership on key express routes in the corridor by doubling peak frequencies, particularly Routes 672 and 673.
- The Cargill Corporate Headquarters in Lake Minnetonka is in a TAZ with transit supportive employment density, but is not served by fixed-route transit. However, transit

service is available to serve it through Lake Minnetonka's Dial-a-Ride service, with connecting service to Metro Transit at Ridgedale Mall and other locations. Discussions with Cargill and Lake Minnetonka may help determine if there is sufficient demand to consider fixed-route service to this location.

Facility Design Opportunities

A number of facility design alternatives were considered for improving the I-394 MnPASS lanes. Each of these alternatives were screened based on information known at the time including perceived MnPASS benefits, anticipated capacity, concept geometrics, access, and approximated cost ("order of magnitude"). Differentiations in potential enhancements to operations and geometrical feasibility were key factors when screening The alternatives with the most potential were then further developed and evaluated.

Moveable Barrier This alternative utilizes a moveable barrier for peak direction travel and involves the conversion of the two-lane reversible operation to a three-lane, two-way operation in which the middle lane would be reversible (Figure 4). This alternative would result in two lanes eastbound and one lane westbound in the a.m. period, and two lanes westbound and one lane eastbound in the p.m. period. The three-lane section with a center reversible lane would be made possible with a movable barrier system. A barrier-moving vehicle is required to shift barriers on a twice-daily basis, taking about one-half hour for each move in this three-mile section, and can be performed under traffic conditions.

The typical section for the reversible section in this scenario consists of 25-foot face to face of barrier in the two-lane direction and 18-foot face to face of barrier in the one lane direction except at isolated constrictions.

To accommodate two-way operation within this existing reversible section requires modifications at the I-394/TH 100 interchange. The interchange at I-394/TH 100 would accommodate the three-lane, two-way reversible section with the movable barrier (move barrier for peak direction) via a new rotary ramp configuration for the MnPASS lane access. This alternative retains most of the existing interchange and utilizes sections of existing ramps that access the old MnPASS facility to access the new MnPASS facility.

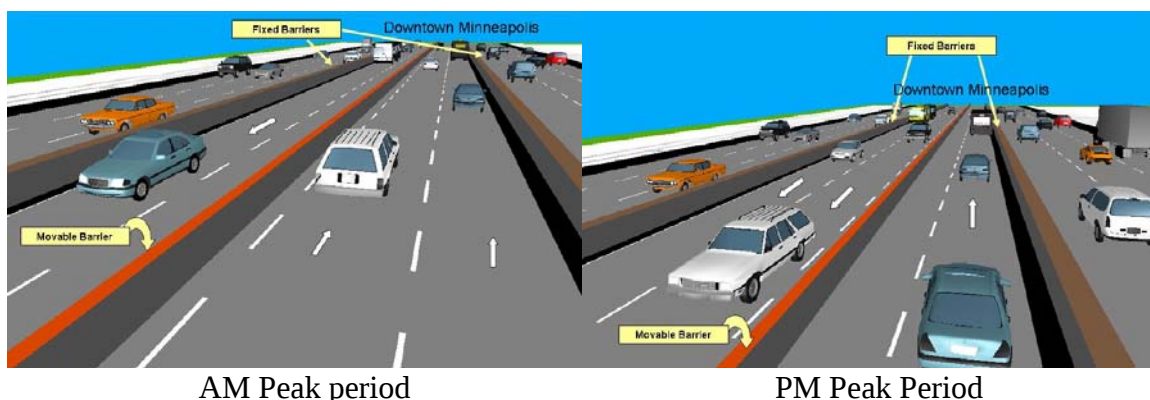


Figure 4. I-394 MnPASS Reversible Section – Moveable Barrier

Permanent Barrier This alternative includes the conversion of the existing two-lane reversible operation to a three lane, two-way operation with the installation of a permanent barrier to have two fixed lanes on the north side of the new barrier and one fixed lane on the south side of the

new barrier. Peak traffic flow will then be switched to the two-lane side resulting in two lanes eastbound and one lane westbound in the a.m. period, and two lanes westbound and one lane eastbound in the p.m. period. Included with the reversible section are two new ramps at the I-94 interchange, providing access to westbound I-94 from the eastbound MnPASS lanes, and access from westbound I-394 to the westbound MnPASS lane during the a.m. period.

The typical section for the reversible section of in this scenario consists of 25 feet face to face of barrier in the two-lane direction and 17 feet face to face of barrier in the one lane direction except at isolated constrictions. To accommodate a two-way operation within the existing reversible section requires modifications at the I-394/TH 100 interchange.

The interchange at I-394/TH 100 would accommodate the three-lane, two-way reversible section with the permanent barrier (move traffic for peak direction) via a new rotary ramp configuration for the MnPASS lane access. This alternative retains most of the existing interchange and utilizes sections of existing ramps that access the old MnPASS facility to access the new MnPASS facility.

Telecommuting Opportunities

Telecommuting could be the most cost effective and quickest method to reduce congestion along the I-394 corridor. However, only about three percent of the Minneapolis workforce telecommutes. A significant increase in telecommuters within the corridor is needed to achieve reduced congestion and cost efficiencies.

In a weakened economy, when companies are looking to reduce costs and benefits, a telecommuting program is an attractive benefit that costs employers virtually nothing to maintain. Rather, employers can actually reduce rent expenses through decreased need for office space. In addition, research suggests that implementation of telework policies leads to productivity increases of 20 to 30 percent among participating employees.

However, in a down market, corporate resistance may actually increase due to inaccurate perceptions of productivity and performance. As a result, building awareness of telecommuting among employers is vital. Through extensive outreach and education efforts, the UPA telecommuting initiative offers an opportunity to develop and implement such a program.

Recommendations

Community Design/Land Use

An assumption was made that the real estate market would sort this out and that the highest and best use for each location would be developed with the right incentives.

Louisiana Avenue and Park Place/Xenia Study Area Design (Figure 5) Although the corridor's original hydrological system has been altered by the construction of I-394 and the development patterns on either side of the freeway, large remnants of the system still remain. Pedestrian/bicycle pathways are sited along the course of the original system in order to provide a green, high-quality trail experience to the transit stations. This design strategy also provides an opportunity to improve storm water treatment by linking existing storm water ponds to create an enhanced storm water system. The new path system also serves a recreational function because it provides access to city parks and trails and links to the Luce Line Trail and Minneapolis' Chain-of-Lakes parks and parkways.



Figure 5. Louisiana and Park Place Stations Conceptual Design

Greater Ridgedale Study Area Design (Figure 6) The Ridgedale Study Area in Minnetonka is transformed from a 20th century automobile dependent collection of a regional shopping mall, big box and small scale retail, offices, senior housing, multi-family housing, and civic institutions that are separated by roads and parking lots into an integrated, more environmentally-sensitive green transit-friendly place. Some land uses in strategic locations are changed to facilitate this transformation. Although some older, smaller scale buildings are removed and replaced, many of the existing ones are enhanced and supported by the new developments and the automobile, transit, bicycle, and pedestrian networks improve access, decrease the need to use a car to move from one place to another within the area, and facilitate the area as both a transit access point and a transit destination. The transformation strategy:

- Utilizes this valuable land more efficiently by increasing its density,
- Builds on the existing mix of uses to strengthen all of them; more retail, more office, more multi-unit housing are added,
- Adds to the city's tax base, and
- Creates pathways within the area and to the Ridgedale Transit Station.

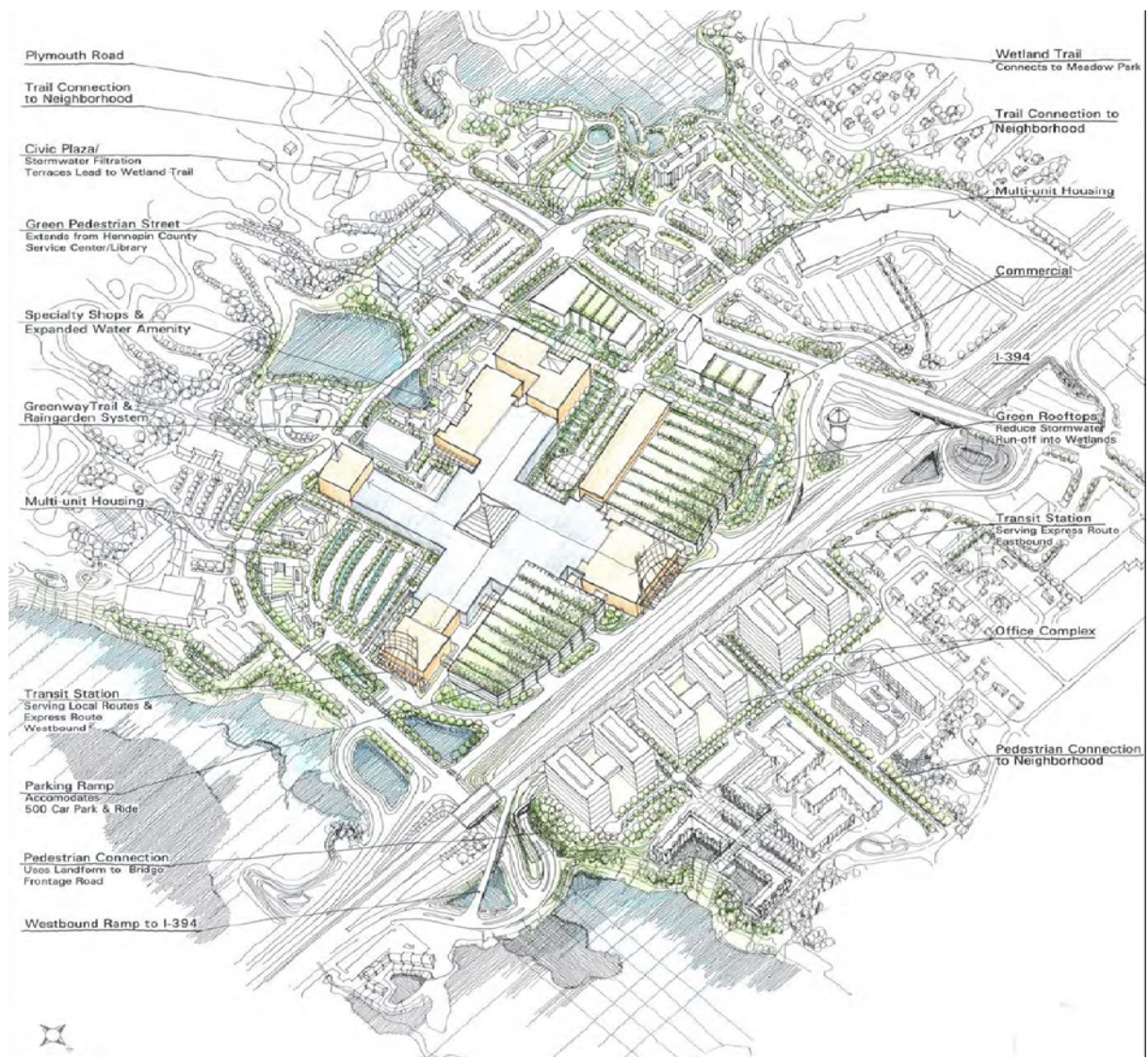


Figure 6. Minnetonka/Ridgedale Station Area Conceptual Design

Transit

The specific transit recommendations and associated benefits that support the overall goal of the study are:

- Introduce service along the south frontage road supported by a series of neighborhood feeder bus routes (Figure 7).
Benefit: Provides easier connections and quicker service making transit choice more attractive.
- Create a transit station at Ridgedale with at least 500 park and ride spaces. *Benefit: Fulfills unmet parking needs and creates opportunity for public/private partnership.*
- Provide additional heated bus shelters.
Benefit: Provides climate controlled shelter for transit patrons, making transit choice more attractive.

- Create a pedestrian bridge connecting the north and south park and ride lots at Hopkins Crossroads.
Benefit: Provides convenient access for both parking lots which is expected to lead to greater utilization of north lot. Eliminates/reduces need to have buses stop at north parking lot.
- Install traffic signal priority for transit buses at Louisiana Avenue.
Benefit: Provides quicker travel times for bus travel, making transit choice more attractive.
- Provide a grade separated roadway under Park Place / Xenia that creates a continuous connection for the south frontage road.
Benefit: Provides quicker travel times for bus travel, making transit choice more attractive. If opened to all vehicle traffic, could serve to help mitigate traffic congestion in the area.

The cost estimate for these transit improvements is \$18.1 million.

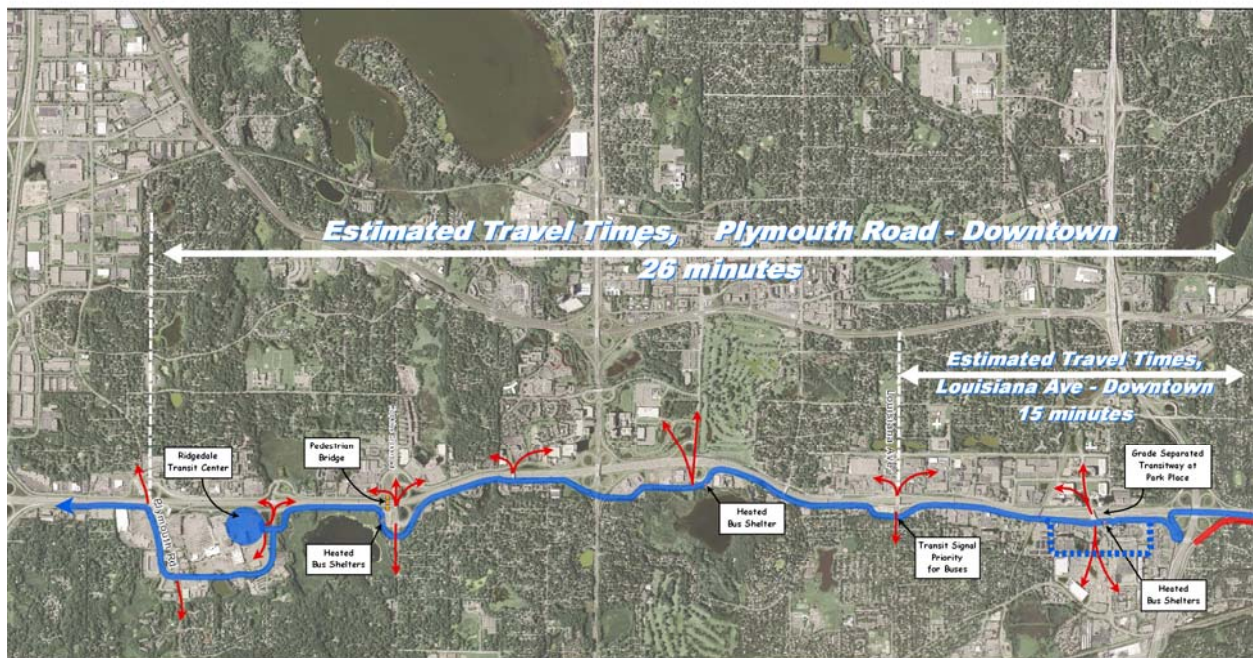


Figure 7. South Frontage Road Limited Stop Service with Feeder Bus Routes

Facility Design Recommendations

Four options were studied for implementing phased improvements that would introduce a third lane into the reversible barrier section of the I-394 MnPASS lanes to allow for one eastbound lane and two westbound lanes during the PM period, but no changes from current conditions for the AM period.

The recommended option is to implement a first stage of the moveable barrier alternative. This option would reconstruct the existing eastbound I-394 general purpose lanes within the TH 100 interchange area to add a third through lane and would introduce a new entrance into the reversible barrier section within the TH 100 interchange.

This option would allow the eastbound auxiliary lane introduction to remain at its current location – the entrance ramp from northbound TH 100 –or be shifted west to begin at the CD-Roadway. Initial review of volume to capacity ratios in this area suggests that shifting the lane addition to the CD-Roadway entrance may reduce congestion at the TH 100 interchange. This option would also operate with two HOV/HOT lanes eastbound in the AM period and would require the moveable barrier to be positioned along the southerly shoulder to accommodate the movements at the I-94 interchange. This option would operate with two HOV/HOT lanes westbound and one lane eastbound in the PM period with the moveable barrier positioned between the directional lanes.

The estimated construction cost for this option ranges from \$31 to \$38.5 million.

Telecommuting

The recommended telecommuting communications objectives and strategies are to create awareness of telecommuting benefits and options to commuters and to generate corporate interest and participation in a telecommuting pilot program. Building upon the Twin Cities Urban Partnership Agreement, and the telecommuting elements, specific I-394 corporate telecommuting pilot program will be designed with support materials, recruitment, participation and evaluation. Messages will be focused for each target segment including:

- Corporations along the I-394 corridor—large & mid-size
- Consumer Primary—Corridor Commuters
- Consumer Secondary—All Twin Cities Consumers

The cost estimate for the telecommuting recommendations ranges from \$150,000 for a 12 week awareness campaign \$1.5 million for an awareness campaign and 3-year pilot program.

V. LESSONS LEARNED

Completing the Vision

The original concept for the I-394 MnPASS project envisioned a number of enhancements that could not be included at the time of implementation. There was however, an implied promise to the community and to political leaders that at some point those elements would be reconsidered if the project were successful, particularly with a portion of the excess revenue being dedicated to corridor improvements. The Phase II Planning Study was intended to bring officials and communities back to the original vision.

Infrastructure

As with many new initiatives, a number of unanticipated outcomes resulted from the operational experience of I-394 MnPASS HOT lanes. To a certain degree, these outcomes affect what is possible and practical in subsequent phases of project development. Analysis of the corridor performance reveals that:

- Revenue from the HOT lane operations has been more modest than originally projected due to the pricing policy and to the abandonment of 24/7 pricing in both directions, which resulted in peak period pricing in the peak direction. The revenue stream, previously projected to cover a host of infrastructure improvements, is currently able to pay operations and enforcement costs and modest capital re-payment for development costs.
- The cost of infrastructure improvements, particularly converting the reversible section to bi-directional flow is significantly higher in cost than initially anticipated; and at the same, time performance in the corridor is currently very robust without the bi-directional flow.
- At this point in time, it is difficult to justify the cost of converting the reversible section to bi-directional flow based on anticipated benefits.

Linking Transit, Community Design and Land Use

This post-WWII corridor is ripe for redevelopment in many areas. Making the connection with transit and land use types and densities that support transit will help ensure long-term corridor preservation and performance. With exceptional express bus service already in the corridor, analysis shows that adding bus rapid transit (BRT) service provides little added benefit for substantial cost. Yet, enhanced off-peak service would provide an important opportunity to capture more transit users. While resistant, and perhaps resentful at first, the communities in the corridor have embraced some of the concepts for community design that were presented to them and will be adopting them in their comprehensive plans. Most notable enhancements embraced include:

- Linking nodes in the corridor with a green network of trails which is highly complementary and supportive to the desired outcomes;
- Redevelopment of a major shopping mall may include a major transit hub, with trail connections from the neighborhoods which may produce synergy for retail as well as transit service.

Telecommuting

The Twin Cities Urban Partnership Agreement (UPA) is leading the effort to enhance telecommuting opportunities and benefits in the region. Specific I-394 telecommuting efforts will build upon the groundwork currently being laid by the UPA pilot program. Messages will be focused for each target segment in the I-394 corridor including large and mid-size corporations as well as commuters involved in smaller businesses.

VI. CONCLUSIONS

The I-394 MnPASS Phase II Planning Study allowed communities to explore the potential development and preservation concepts in a broad and collaborative fashion, unencumbered by funding tied to specific strategies. The aim of combining these planning elements is to optimize performance of the corridor with multiple and diverse strategies. Three of the four major elements studied – land use, transit advantages and telecommuting – are already being advanced toward implementation through various programs and are being embraced by community leaders as important corridor enhancements. Infrastructure improvements, on the other hand, particularly conversion of the reversible section to bi-directional flow, are capital intensive and are currently difficult to justify based on anticipated benefits and no identifiable revenue stream to fund the development costs. As demand in the corridor grows however, infrastructure improvements will receive greater consideration.

The I-394 MnPASS Phase II Planning Study is a model for linking land use, transit, telecommuting and congestion pricing planning in a transportation corridor. As transportation authorities and communities consider measures to preserve and enhance corridor performance, this type of planning process may serve as a guide to help achieve performance-based goals and long-term sustainability.

REFERENCES

1. Kenneth R. Buckeye. MnPASS Phase II Planning Study. I-394 MnPASS Enhancements: Vision for the Future. <http://www.mnpass.org/phase2.html>. 2008. Accessed July 17, 2008.
2. Kenneth R. Buckeye and Lee W. Munnich, Jr. "Value Pricing Outreach and Education: Key Steps in Reaching HOT Lane Consensus in Minnesota." *Transportation Research Record*, No. 1864, 2004, p. 16-21.
3. Lee W. Munnich, Jr. and Joseph D. Loveland. "Value Pricing and Public Outreach: Minnesota's Lessons Learned." *Transportation Research Record*, No. 1932, 2005, p. 164-168.
4. Kenneth R. Buckeye and Lee W. Munnich, Jr. "A Value Pricing Education and Outreach Model: The I-394 MnPASS Community Task Force." *Transportation Research Record*, No. 1960, 2006, p. 80-86.
5. Lee W. Munnich, Jr. and Kenneth R. Buckeye. "I-394 MnPASS High-Occupancy Toll Lanes: Planning and Operational Issues and Outcomes (Lessons Learned in Year One)." *Transportation Research Record*, No. 1996, 2007, p. 49-57.
6. Lee W. Munnich, Jr. "Minnesota's UPA Proposal: A Case Study about Political and Institutional Issues in Congestion Pricing," *Transportation Research Record*, No. 2079, 2008, p. 15-20.
7. "Survey Says...Bus Riders Want Congestion Pricing!" Mobilizing the Region, News and Opinion from the Tri-State Transportation Campaign. <http://blog.tstc.org/2008/03/13/survey-says-bus-riders-want-congestion-pricing/>. Accessed July 9, 2008.
8. Robert W. Poole, Jr. and C. Kenneth Orski. "HOT Networks: A New Plan for Congestion Relief and Better Transit." Policy Study 305, Reason Foundation. February 2003. <http://www.reason.org/ps305>. Accessed July 9, 2008.
9. Michael Replogle. "Using Road Tolls to Cut Congestion, Protect the Environment, and Boost Access for All." Environment Defense. August 18, 2006. http://www.edf.org/documents/5460_TollingWhitePaper_Mn2006. Accessed July 9, 2008.

APPENDIX A – QUARTERLY REPORT SUMMARY

1st Quarter 2006

Provide Ongoing Community Planning and Outreach Activities –

Description: Past leadership has succeeded in convincing doubters that pricing should be tested and implemented and resulted in legislation authorizing conversion of HOV lanes to HOT lanes. Working with the Humphrey Institute, the project team will coordinate and facilitate the ongoing implementation and evaluation of MnPASS on I-394 along with enhanced transit applications. In addition, the project team may examine the public, political, and technical feasibility of HOT lane alternatives in other corridors as appropriate or necessary. This includes community planning, stakeholder analysis and outreach activities. Efforts will include giving presentations to elected officials, transportation advocacy and other interest groups, and the formation of community value pricing advisory groups for corridors with potential pricing applications. An advisory task force will be established for the I-394 Phase II activities related to enhancing transit in the corridor. The task force will be asked to help in identifying strategies to integrate plans for BRT with I-394 MnPASS Phase II planning, examine the potential for enhancing express bus service in the MnPASS lanes, explore options for improving local service in the corridor, and propose uses of the share of future MnPASS toll revenue dedicated for transit improvements in the corridor.

Deliverables: documentation of community feedback, planning assessments for alternative MnPASS corridors, a task force report on I-394 MnPASS transit options and recommendations.

Conduct Public Opinion Surveys and Focus Groups –

Description: The project team will conduct surveys on current public opinion toward value pricing and under what conditions pricing strategies could gain public support. These surveys will assess attitudes toward congestion and alternative solutions and how they might tie in with pricing. Focus groups will be held to further probe public attitudes that must be addressed in implementing value pricing in other corridors. In addition, the project team will explore alternative approaches for measuring public opinion such as a Citizens Jury and the use of electronic voting technology in a public forum. The Humphrey Institute will conduct a large before and after panel survey as part of the evaluation of the I-394 MnPASS project and under this proposal we will extend the panel survey for successive work.

Deliverables: reports on surveys and focus groups to assist in the development of effective communications strategies and will provide insight to other regions and their markets.

Deliver Communications Coordination Plan –

Description: The involvement of a professional communications consultant in the current value pricing program has helped in focusing the message, generating effective responses to questions and objections and helping local champions to carry the message to key groups. This is an ongoing process and must be continued over a longer period of time to have an impact on local leadership and public opinion. A speakers bureau will be developed that seeks opportunities to communicate timely information on MnPASS to a range of organizations.

Deliverables: communications coordination plan for the next phase, develop a speakers bureau, and foster local champions and organizational support.

Conduct Local, Regional, and National Workshops –

Description: The Humphrey Institute has organized successful “Rethinking Transportation Finance” roundtables and workshops with Mn/DOT on emerging issues in value pricing and applications in Minnesota. Regional and national workshops and project partner meetings organized by the Humphrey Institute have proven invaluable to participants in learning about value pricing and sharing current experiences and learning. We will work with FHWA on annual local/regional/national conferences at locations such as TRB and other venues as necessary to bring together value pricing experts and to focus on specific projects and what has been learned about value pricing.

Deliverables: continuation of the “Rethinking Transportation Finance” roundtables and workshops; reports that document the proceedings from workshops on value pricing topics involving national experts, and organizational support for workshops during TRB annual and mid-year meetings.

2nd Quarter 2006

Provide Ongoing Community Planning and Outreach Activities –

Progress: The MnPASS Transit Advantage working group has continued meeting on a monthly basis since its kick-off in November of 2005. In addition to the corridor profile, produced to catalog the potential improvement sites, the group has served to help guide MnPASS related outreach activities. SLPP organized presentations to city councils in Wayzata (6/6/06), St. Louis Park (6/19/06), and Downtown Minneapolis TMO (6/22/06). A presentation to Hennepin County is scheduled for September 2006 and offers for presentations extended to Minnetonka, Plymouth, Minneapolis, and Golden Valley. John Doan gave the presentations accompanied by Lee Munnich and Matt Schmit. Furthermore, the working group has served to help coordinate outreach and education for the Phase II design work of SRF Consulting Group, the work of Mary Vogel’s landscape architecture team, and Adeel Lari’s work for a second value pricing video.

Conduct Public Opinion Surveys and Focus Groups –

Progress: NuStats, a statistics firm based in Austin, Texas, is wrapping up Wave II of a before-and-after study of attitudes toward MnPASS within the I-394 corridor. The final report is expected in early fall. The results of the Wave II report will dictate the direction of Task 2.

Deliver Communications Coordination Plan –

Progress: Joe Loveland, of Loveland Communications, is serving as communications consultant for the project. Coupled with a communication plan, Loveland drafted a recently published article by John Doan and Lee Munnich in the Citizens League Journal. He has also crafted a newsletter for community newspapers that is set for release in early July. Loveland has also worked with Transit for Livable Communities in writing a piece that discusses the merits and benefits MnPASS provides for transit. In addition to Loveland’s work, Lee Munnich and others have been communicating with legislators and legislative staff in an effort to create and preserve partnerships. A letter and informational packet to be sent to legislators is planned for late July.

Conduct Local, Regional, and National Workshops –

Progress: The main focus of this task has been the preparations for the mid-year TRB conference in La Jolla, California. The Pricing Outreach subcommittee continues to be chaired by Lee Munnich and is set to meet on July 11, 2006, followed by a meeting of the full Congestion Pricing committee. After that committee meeting a tour of I-15 will be offered to commemorate the 10-year anniversary. The biannual value pricing workshop, coordinated by the Pricing Outreach subcommittee, will focus on innovations in pricing. In addition to the TRB planning, communications plans this quarter were forced to be reactive. In the final week of the legislative session an amendment passed through the House that would have banned any future toll lanes. While the Senate did not pass the bill and the transportation bill died when the Legislature adjourned, it signaled a need for better outreach and education with legislators. In response, an ad hoc communications meeting was called to formulate a plan for future legislative outreach. During this meeting a special legislative education session on transportation finance was proposed. The idea has gathered momentum and Bob Johns has offered a partnership with the Center for Transportation Studies.

3rd Quarter 2006

Provide Ongoing Community Planning and Outreach Activities –

Progress: The I-394 MnPASS Phase II Planning Coordination Team has continued meeting on a monthly basis since November of 2005. In addition to the corridor profile, produced to catalog the potential improvements sites, the Team has guided MnPASS related outreach and education activities and coordinated the Phase II design work of SRF Consulting Group and the work of Mary Vogel's landscape architecture team. The Team will also guide the consultant hired (selection process underway) to recommend transit improvements in the corridor. As part of a series of outreach to elected officials, Matt Schmit and John Doan presented findings from the I-394 MnPASS project to the Hennepin County Board of Commissioners on September 7, 2006. Another effort to increase outreach to elected officials is the production of a new video on value pricing. The newly formed Value Pricing Video Advisory Team has been formed to guide the project, led by Adeel Lari and staffed by Tyler Patterson. Tanaka Advertising is in the process of being hired and all involved hope to have the video completed for use at the annual TRB meeting in January 2007.

Conduct Public Opinion Surveys and Focus Groups –

Progress: NuStats, a statistics firm based in Austin, Texas, is wrapping up Wave II of a before-and-after study of attitudes toward MnPASS within the I-394 corridor. The Wave II Final Report is now ready to help dictate the direction of Task 2. Additionally, Gary Barnes has been working to determine best practices in survey methods to guide this task forward.

Deliver Communications Coordination Plan –

Progress: Joe Loveland, of Loveland Communications, is serving as communications consultant for the project. Coupled with a communication plan, Loveland and Matt Schmit compiled a letter and informational packet that was sent to current legislators and candidates. After returning from a summer hiatus, Chris Mitchell has been working to

maintain value pricing information on the State and Local Policy Program website. Minutes and presentations from the mid-year TRB Conference have been posted and a new www.valuepricing.org site is under construction. Additionally, Lee Munnich, Gary Barnes, Tyler Patterson, and Chris Mitchell are working to coordinate national pricing websites, so as not to duplicate efforts. A meeting with David Ungemah, of the Texas Transportation Institute and Patrick DeCorla-Souza, of Federal Highways Administration is scheduled for October 13, 2006.

Conduct Local, Regional, and National Workshops –

Progress: The main focus of this task has been the mid-year TRB Conference in La Jolla, California. The Pricing Outreach subcommittee continues to be chaired by Lee Munnich, which met on July 11, 2006, followed by a meeting of the full Transportation Pricing committee. After that committee meeting, a tour of I-15 took place to commemorate the 10 year anniversary of the pricing project. The biannual value pricing workshop, coordinated by the Pricing Outreach subcommittee, focused on innovations in pricing and received much positive feedback. Planning for the TRB Value Pricing Workshop in January 2007 has begun. Due to significant participant overlap and mutual interest, the Finance Committee and Pricing Committee have agreed to hold separate morning sessions and jointly organize the afternoon session. In addition to the TRB planning, a special legislative education session on transportation finance is being planned with Bob Johns and the Center for Transportation Studies. Planning is also underway for a Rethinking Transportation Finance Roundtable on Lee Munnich's and Adeel Lari's European Scanning Tour.

4th Quarter 2006

Provide Ongoing Community Planning and Outreach Activities –

Progress: The I-394 MnPASS Phase II Planning Coordination Team has continued meeting on a monthly basis since November of 2005. In addition to the corridor profile, produced to catalog the potential improvements sites, the team has guided MnPASS related outreach and education activities, coordinated the Phase II design work of SRF Consulting Group, and assisted in the work of Mary Vogel's landscape architecture team. The team has also guided the work of the newly hired transit improvement consultant, URS. John Doan has continued a series of presentation regarding the success of MnPASS, including one to the Minnesota Chamber's Transportation Committee. Another effort to increase outreach to elected officials is the production of a new video on value pricing. A small advisory team has helped guide the work of Tanaka Advertising. Adeel Lari has led the effort; Tyler Patterson has assisted. The video has been completed in time for an early January unveiling. The video will be presented during the annual TRB meeting.

Conduct Public Opinion Surveys and Focus Groups –

Progress: NuStats, a statistics firm based in Austin, Texas, has completed work on Wave II of a before- and-after study of attitudes toward MnPASS within the I-394 corridor. The Wave II Final Report is helping to dictate the direction of Task 2. Gary Barnes has been working to determine best practices in survey methods to guide this task forward. He will present his findings to the TAP at the quarterly meeting and solicit feedback.

Deliver Communications Coordination Plan –

Progress: Joe Loveland, of Loveland Communications, is serving as communications consultant for the project. He has continued to provide support and guidance for outreach activities, including feedback on the value pricing video script. Lee Munnich, Gary Barnes, Tyler Patterson, and Chris Mitchell, David Ungemah, Patrick DeCorla-Souza, and Angela Jacobs have been meeting monthly to coordinate three national pricing websites: Federal Highway Administration pricing site, valuepricing.org, and the TRB pricing site. The FHWA and TRB sites have been altered “on the fly,” while the valuepricing.org site remains on the test server, receiving a complete overhaul. The website team expects the new valuepricing.org site to be running live by the annual TRB conference in January 2007 with further modifications and updates to be made throughout the spring. Additionally, value pricing information continues to be maintained on the State and Local Policy Program website.

Conduct Local, Regional, and National Workshops –

Progress: The main focus of this task has been planning for the annual TRB conference in Washington DC. The TRB Pricing Outreach and Education subcommittee continues to be chaired by Lee Munnich and is again organizing an all day pricing workshop. This workshop, scheduled for January 21, 2007, will feature reports on national and international projects and include the presentation of the MacDonald Award for the most creative outreach idea. Due to significant participant overlap and mutual interest, the Finance Committee and Pricing Committee have agreed to hold separate morning sessions and jointly organize the afternoon session. In addition to the subcommittee and full committee meetings, an informational session with members of congress and congressional staff is planned for the morning of January 25, 2007. In addition to the TRB planning, a special legislative education session on transportation finance is being planned with Bob Johns and the Center for Transportation Studies. Furthermore, a Road Pricing Summit, featuring Assistant Secretary Tyler Duvall and being coordinated with the Citizens League, is scheduled for February 1, 2007. A Rethinking Transportation Finance Roundtable was held in October regarding the successful European Scanning Tour of pricing programs. Ferrol Robinson produced a summary report on the tour’s findings.

1st Quarter 2007

Provide Ongoing Community Planning and Outreach Activities –

Progress: The I-394 MnPASS Phase II Planning Community Design and Corridor Advisory Meeting, co-chaired by Commissioner Linda Koblick and Ken Buckeye, has continued to meet every two months to guide MnPASS related outreach and education activities. The group met on January 8th and March 12th and plans to meet in May, take a brief recess during the summer to allow the consultants time to make some progress on the projects, and reconvene in September. The group coordinates the work of three consultants: SRF Consulting Group, Inc. – responsible for the Phase II design work, URS – responsible for an analysis of the potential transit improvements, and the Center for Changing Landscapes – responsible for evaluating land use alternatives. The new MnPASS video, created as an alternative outreach method, was unveiled at the January 8th meeting and was later shown at the TRB Pricing Outreach and Education Subcommittee on January

22nd in Washington D.C. A technical committee meets quarterly and works with the I-394 MnPASS Phase II Planning Community Design and Corridor Advisory group to guide efforts. In terms of the Urban Partnership Agreement, an outreach group has been meeting weekly since February 23rd and a technical group has been meeting every two weeks. A proposal is due to the US DOT on April 30th. Individual meetings with state legislators to discuss future congestion pricing opportunities have also taken place, including meetings with Senator Steve Murphy and Senator Scott Dibble. Adeel Lari has continued to work with legislators and is assisting to draft enabling legislation for future congestion pricing initiatives. Lee Munnich has also assisted US DOT staff by preparing a case study presentation on the I-394 MnPASS project, which was presented by US DOT staff in regional workshops.

Conduct Public Opinion Surveys and Focus Groups –

Progress: NuStats, a statistics firm based in Austin, Texas, has completed Wave II of a before-and-after study of attitudes toward MnPASS within the I-394 corridor. The Wave II Final Report is helping to dictate the direction of Task 2. Gary Barnes has been working to determine best practices in survey methods to guide this task forward.

Deliver Communications Coordination Plan –

Progress: Joe Loveland, of Loveland Communications, is serving as communications consultant for the project. He has continued to provide support and guidance for outreach activities, including drafting a one-pager for the Urban Partnership Agreement Stakeholders Workshop. He has also helped to coordinate talking points related to the pending proposal. Lee Munnich, Gary Barnes, Tyler Patterson, and Chris Mitchell, David Ungemah, Patrick DeCorla-Souza, Todd Kohr, and Angela Jacobs have been meeting monthly to coordinate four national pricing websites: Federal Highway Administration pricing site, valuepricing.org, fightgridlocknow.gov, and the TRB pricing site. The FHWA and TRB sites have been altered “on the fly,” while the valuepricing.org received a complete overhaul and was launched in February. Additionally, value pricing information continues to be maintained on the State and Local Policy Program website.

Conduct Local, Regional, and National Workshops –

Progress: The TRB Pricing Outreach and Education subcommittee continues to be chaired by Lee Munnich. The subcommittee met at the annual TRB Conference and again organized an all day pricing workshop. The January 21st road pricing workshop featured reports on national and international projects and included the presentation of the MacDonald Award for the most creative outreach idea. Due to significant participant overlap and mutual interest, the finance committee and pricing committee agreed to hold separate morning sessions and jointly organize the afternoon session. In addition to the subcommittee and full committee meetings, an informational session on congestion pricing projects was sponsored during the morning of January 25th for city and state officials as well as with congressional staff. Following the TRB Conference, a Rethinking Transportation Finance Roundtable, dubbed the Road Pricing Summit, was held at the Metropolitan Council Building in St. Paul. The February 1st workshop was coordinated with a local civic organization, the Citizens League, and featured Assistant Secretary Tyler Duvall and pricing expert Ed Regan. On March 16th, another roundtable

was held to provide input from elected officials and key stakeholders for a Twin Cities Urban Partnership Agreement. A 2-day workshop to train legislators was cosponsored with the Center for Transportation Studies and took place in January. Adeel Lari presented a session on transportation financial alternatives, and Lee Munnich presented a session on national and international congestion pricing projects. Work is now underway preparing the agenda for the summer TRB Road Pricing Workshop in Chicago.

2nd Quarter 2007

Provide Ongoing Community Planning and Outreach Activities –

Progress: The I-394 MnPASS Phase II Planning Community Design and Corridor Advisory Committee, chaired by Commissioner Linda Koblick, continues to meet every two months to guide related outreach and education activities. Ken Buckeye serves as the project manager. The group coordinates the work of three consultants: SRF Consulting Group, Inc. – responsible for the Phase II design work, URS – responsible for an analysis of the potential transit improvements, and the Center for Changing Landscapes (CCL) – responsible for evaluating land use alternatives. The group met on June 6, 2007 and heard the results of preliminary findings from Mark Ryan at URS and a brief report from Mary Vogel. Mark Ryan relayed travel patterns among residents at the corridor and explained the process they are working through. Mary Vogel, CCL, has met with all the cities adjacent to I-394 and is well into the planning process to alter plans for the Ridgedale Mall with the City of Minnetonka. A smaller technical group has also been formed out of the larger group to field questions and work informally with the consultants to resolve problems as they arise. The technical group met this quarter on April 13, 2007.

In terms of the Urban Partnership Agreement (UPA), ongoing outreach efforts were coordinated between the two projects. Minneapolis-St. Paul's UPA application was selected as one of the semifinalists and as a result the Center for Transportation Studies and SLPP have teamed with Mn/DOT to hold a stakeholder's briefing on June 28, 2007.

Conduct Public Opinion Surveys and Focus Groups –

Progress: NuStats, a statistics firm based in Austin, Texas, has completed Wave II of a before-and-after study of attitudes toward MnPASS within the I-394 corridor. The Wave II Final Report is helping to dictate the direction of Task 2. Before leaving SLPP in early June, Gary Barnes worked to frame this portion of the project. The idea behind the survey will be to get beyond people's cursory opinions about congestion pricing and dig into why people feel the way that they do. The hope is to distill a couple of common themes regarding attitudes and then be able to design outreach tactics to best address the public's underlying concerns. Lee Munnich and Frank Douma are considering their options to ensure that the work continues following Gary Barnes's departure.

Deliver Communications Coordination Plan –

Progress: Joe Loveland, of Loveland Communications, is serving as communications consultant for the project. He has continued to provide support and guidance for outreach activities. Lee Munnich, Gary Barnes, Tyler Patterson, and Chris Mitchell, David Ungemah, Patrick DeCorla-Souza, Todd Kohr, and Angela Jacobs have reduced their previously monthly meetings to quarterly. They have been meeting monthly to coordinate four national

pricing websites: Federal Highway Administration pricing site, valuepricing.org, fightgridlocknow.gov, and the TRB pricing site. Additionally, value pricing information continues to be maintained on the State and Local Policy Program website. The Congestion Pricing List-Serv and Project Partners List-Serv continue to be managed by SLPP staff and have worked effectively to disperse news articles relating to pricing projects from around the world. They continue to facilitate lively discussion among members.

Conduct Local, Regional, and National Workshops –

Progress: The TRB Pricing Outreach and Education subcommittee continues to be chaired by Lee Munnich. The subcommittee's chief task the past few months has been to prepare for the summer TRB Road Pricing Workshop in Chicago on July 10, 2007. The planning team is excited about the workshop, which will feature presentations from the top nine selected UPA cities, a keynote address from Assistant Secretary Tyler Duvall, and excellent opportunities for audience participation. Additionally, at the CTS Annual Research Conference on May 1-2, 2007, Lee Munnich moderated the road pricing session, while Ken Buckeye presented new information about progress being made on MnPASS.

3rd Quarter 2007

Provide Ongoing Community Planning and Outreach Activities –

Progress: The I-394 MnPASS Phase II Planning Community Design and Corridor Advisory Group, chaired by Commissioner Linda Koblick, met on September 24, 2007 to hear from consultants and get community plan updates. The project integrates the work of three consultants: SRF Consulting Group, Inc. – responsible for the Phase II design work, URS – responsible for an analysis of the potential transit improvements, and the Center for Changing Landscapes (CCL) – responsible for evaluating land use alternatives. The Humphrey Institute has overall responsibility for outreach and education and working with Mn/DOT to coordinate the Phase II activities. Brian Scott from SRF presented on facilities concepts, Mark Ryan of URS reported on the progress made in transit advantage concepts, and Mary Vogel from the Center for Changing Landscapes presented briefly on the ongoing urban design aspects of the corridor. Representatives from each community along the corridor were given an opportunity to briefly outline progress made in their community plans. A smaller technical group has also been formed out of the larger group to field questions and work informally with the consultants to resolve problems as they arise. During the last quarter Lee Munnich and Joe Loveland co-authored a piece for the Citizen's League Journal, to be included in the Journal's October issue.

In terms of the Urban Partnership Agreement (UPA), ongoing outreach efforts were coordinated between the two projects. Minneapolis-St. Paul's UPA application was selected as a finalist for the awards, and the process of facilitating and coordinating the outreach efforts is underway.

Conduct Public Opinion Surveys and Focus Groups –

Progress: Before leaving SLPP in early June, Gary Barnes worked to frame this portion of the project. The idea behind the survey will be to get beyond people's opinions about congestion pricing and dig into why people feel the way that they do. The hope is to distill a couple of common themes regarding attitudes and then be able to design outreach tactics to best address the public's underlying concerns. Katie Roth is in communication with Gary Barnes following his departure to continue the survey efforts.

Deliver Communications Coordination Plan –

Progress: Joe Loveland, of Loveland Communications, is serving as communications consultant for the project. Value pricing information continues to be maintained on the State and Local Policy Program website. The Congestion Pricing List-Serv and Project Partners List-Serv are managed by SLPP staff and have worked effectively to disperse news articles relating to pricing projects from around the world. They continue to facilitate lively discussion among members. Recent emails have focused on the implementation of the UPA projects. Website coordination is ongoing.

Conduct Local, Regional, and National Workshops –

Progress: The TRB Pricing Outreach and Education subcommittee is chaired by Lee Munnich. This past July 7-10, the TRB Summer Meeting convened in Chicago. As part of this event, the Pricing Outreach Subcommittee met, with attendance of approximately 40 people. The Road Pricing Workshop was also carried out, with approximately 90 people attending. A workshop planning group has been formed and coordination meetings have begun for the January 2008 TRB Road Pricing Workshop. The workshop has traditionally been a full-day; however, this year the pricing workshop will be a half-day morning session. The half-day afternoon session will be cosponsored by the pricing committee and cover transportation's contribution to global warming.

4th Quarter 2007

Provide Ongoing Community Planning and Outreach Activities –

Progress: The I-394 MnPASS Phase II Technical Advisory Group met on October 23. During this meeting, Mary Vogel, Brian Scott, and Mark Ryan presented their ideas on alternatives for land use, road improvements, and transit, respectively. In particular, Mary focused on the Louisiana / Park Place and Ridgedale locations. Brian offered three options for road improvements east of Highway 100 that would incorporate development of the reversible section. Mark shared concepts and cost estimates for two transit alternatives: in-line bus service along I-394 and a limited stop, BRT-like bus service along the south service road. A second Technical Advisory Group meeting on November 8 provided a follow-up to the issues discussed at the October meeting. Mark Ryan discussed the south service road option for improved bus service as cost considerations make this the preferred alternative for future consideration. The possibility of a park-and-ride location/transit station at the Ridgedale Mall site was presented. Discussion urged the pursuit of an incremental approach to improving the reversible section.

The Planning Community Design and Corridor Advisory Group, chaired by Commissioner Linda Koblick, met once during this quarter, on December 20. The group discussed alternatives and cost estimates for the south service road bus service option,

improvements to the reversible section of I-394, and land use/development concepts as presented by the consultants. In addition, Tempo Creative Consultants presented an outline of their proposal for building support for and participation in telecommuting amongst corridor businesses and commuters. The group agreed that Mark Ryan and Mary Vogel should meet with the communities individually before a draft report of recommendations for corridor improvements is presented at the next community meeting.

In terms of the Urban Partnership Agreement (UPA), ongoing outreach efforts continue to be coordinated between the two projects. Minneapolis-St. Paul's UPA application was selected as a finalist for the awards, and the process of facilitating and coordinating the outreach efforts is underway. On December 10, 2007, the first in a series of stakeholder workshops was held to discuss the UPA projects. The workshop consisted of a general session and three breakout sessions. In the general session, project representatives gave presentations to the group on the transit, tolling, and telecommuting pieces of the project. Breakout sessions on each of these three topics were held in order to facilitate discussion among stakeholders and provide an opportunity for questions to be asked. Following the spirited discussions, all participants were reassembled to share feedback with the larger group. Planning for future UPA workshops is ongoing.

Conduct Public Opinion Surveys and Focus Groups –

Progress: Before leaving SLPP in early June, Gary Barnes worked to frame this portion of the project. The idea behind the survey will be to get beyond people's opinions about congestion pricing and dig into why people feel the way that they do. The hope is to distill a couple of common themes regarding attitudes and then be able to design outreach tactics to best address the public's underlying concerns. Following Gary's departure, Katie Roth has taken the lead on this project. During this quarter, a working group was formed to contribute to the survey process. This group has met twice to discuss how the survey will be conducted and what it will ask of respondents. The survey will be conducted electronically and will target residents of the I-35W corridor from Lakeville to Blaine. Katie Roth continues to assemble the survey and coordinate its distribution, which is scheduled to begin in February.

Deliver Communications Coordination Plan –

Progress: Joe Loveland, of Loveland Communications, is serving as communications consultant for the project. Value pricing information continues to be maintained on the State and Local Policy Program website. The Congestion Pricing listserv and Project Partners listserv are being managed by SLPP staff and have worked effectively to disperse news articles relating to pricing projects from around the world. They continue to facilitate lively discussion among members. Recent emails have focused on the implementation of the UPA projects. Website coordination is ongoing.

Conduct Local, Regional, and National Workshops –

Progress: The TRB Pricing Outreach and Education subcommittee is chaired by Lee Munnich. Coordination meetings for the January 2008 TRB Road Pricing Workshop have continued, and planning is in the final stages. The workshop has traditionally been a full-day; however, this year the pricing workshop will be a half-day morning session. The half-day afternoon session will be cosponsored by the pricing committee and will cover transportation's contribution to global warming.

1st Quarter 2008

Provide Ongoing Community Planning and Outreach Activities –

Progress: During this quarter, efforts in terms of this task were focused on the I-394 MnPASS Phase II Summary Report. The report will cover progress made by the task force, as well as recommendations for the corridor. Edits and additions for a potentially-final draft were due on March 28. The next several weeks will focus on finalizing, printing, and distributing the report to the community advisory committee, which plans to reconvene for one final meeting in mid-May.

In terms of the Urban Partnership Agreement (UPA), ongoing outreach efforts continue to be coordinated between the two projects. Minneapolis-St. Paul's UPA application was selected as a finalist for the awards, and the process of facilitating and coordinating the outreach efforts is underway. Planning for future UPA workshops is ongoing.

Conduct Public Opinion Surveys and Focus Groups –

Progress: Before leaving SLPP in early June, Gary Barnes worked to frame this portion of the project. The idea behind the survey will be to get beyond people's opinions about congestion pricing and dig into why people feel the way that they do. The hope is to distill a couple of common themes regarding attitudes and then be able to design outreach tactics to best address the public's underlying concerns. Following Gary's departure, Katie Roth has taken the lead on this project. The survey will be conducted electronically and will target residents of the I-35W corridor from Lakeville to Blaine. During this quarter, a final version of the survey was reviewed by members of the technical advisory panel. The project was also submitted for IRB review at the beginning of March. Approval was obtained mid-March, and recruitment postcards are scheduled to be distributed shortly.

Deliver Communications Coordination Plan –

Progress: Joe Loveland, of Loveland Communications, is serving as communications consultant for the project. Value pricing information continues to be maintained on the State and Local Policy Program website. The Congestion Pricing listserv and Project Partners listserv are being managed by SLPP staff and have worked effectively to disperse news articles relating to pricing projects from around the world. They continue to facilitate lively discussion among members. Recent emails have focused on the implementation of the UPA projects. Website coordination is ongoing.

Conduct Local, Regional, and National Workshops –

Progress: The TRB Pricing Outreach and Education subcommittee is chaired by Lee Munnich. The January 2008 TRB Road Pricing Workshop was successful, drawing an overflow crowd and stimulating discussion that was sustained throughout the week. Coordination meetings for the Summer 2008 TRB Road Pricing Workshop have begun, with planning committee meetings occurring bi-weekly. Plans for a full-day session are in the works.

2nd Quarter 2008

Provide Ongoing Community Planning and Outreach Activities –

Progress: During this quarter, efforts in terms of this task again were focused on the I-394 MnPASS Phase II Summary Report. The report covers progress made by the task force, as well as recommendations for the corridor. Final edits and additions for the report were

refined over the last two weeks of June, with distribution of the report planned for July 1, 2008. The task force plans to hold its final meeting on July 10, 2008.

In terms of the Urban Partnership Agreement (UPA), ongoing outreach efforts continue to be coordinated between the two projects. Minneapolis-St. Paul's UPA application was selected as a finalist for the awards, and the process of facilitating and coordinating the outreach efforts is underway. Planning for future UPA workshops is ongoing.

Conduct Public Opinion Surveys and Focus Groups –

Progress: Before leaving SLPP in early June 2007, Gary Barnes worked to frame this portion of the project. The idea behind the survey will be to get beyond people's opinions about congestion pricing and dig into why people feel the way that they do. The hope is to distill a couple of common themes regarding attitudes and then be able to design outreach tactics to best address the public's underlying concerns. Following Gary's departure, Katie Roth took the lead on this project. The survey was subsequently conducted electronically during the past quarter, targeting residents of the I-35W corridor from Lakeville to Blaine using postcards directing recipients to the survey website.

Deliver Communications Coordination Plan –

Progress: Joe Loveland, of Loveland Communications, is serving as communications consultant for the project. Value pricing information continues to be maintained on the State and Local Policy Program website. The Congestion Pricing listserv and Project Partners listserv are being managed by SLPP staff and have worked effectively to disperse news articles relating to pricing projects from around the world. They continue to facilitate lively discussion among members. Recent emails have focused on the implementation of the UPA projects. Website coordination is ongoing.

Conduct Local, Regional, and National Workshops –

Progress: The TRB Pricing Outreach and Education subcommittee is chaired by Lee Munnich. The June 2008 TRB Road Pricing Workshop was successful, drawing a crowd of approximately 90 people and stimulating discussion that provided a helpful foundation for the duration of the conference. Plans for two January 2009 TRB Road Pricing Workshops are currently underway.

3rd Quarter 2008

Provide Ongoing Community Planning and Outreach Activities –

Progress: During this quarter, efforts related to this task again were focused on the I-394 MnPASS Phase II Summary Report. The report covers progress made by the task force, as well as recommendations for the corridor. After final edits and additions for the report were set in June, the report was distributed during the first week of July. The task force held its final meeting on July 10, 2008. The St. Louis Park City Council was briefed on the report recommendations on September 15, 2008, and similar briefings are planned with other corridor city councils in the coming weeks.

In terms of the Urban Partnership Agreement (UPA), ongoing outreach efforts continue to be coordinated between the two projects. The process of facilitating and coordinating the outreach efforts is underway, as is planning for future UPA workshops.

Conduct Public Opinion Surveys and Focus Groups –

Progress: The online survey officially closed in mid-August. Results have been tabulated, and further analysis is ongoing. Preliminary results will be presented to UPA stakeholders for comment on how further analysis may guide that process. Katie Roth is compiling a draft report during this quarter. Results and full analysis will be completed by January of 2009 for presentation at a joint session during the TRB annual meeting.

Deliver Communications Coordination Plan –

Progress: Joe Loveland, of Loveland Communications, is serving as communications consultant for the project. Value pricing information continues to be maintained on the State and Local Policy Program website. The Congestion Pricing listserv and Project Partners listserv are being managed by SLPP staff and have worked effectively to disperse news articles relating to pricing projects from around the world. They continue to facilitate lively discussion among members. Recent emails have focused on the implementation of the UPA projects. Website coordination is ongoing.

Conduct Local, Regional, and National Workshops –

Progress: The TRB Pricing Outreach and Education subcommittee is chaired by Lee Munnich, who on September 8 and 9 participated in pricing-related events at the 13th International HOV Systems Conference in Minneapolis. Planning is underway for two pricing-related workshops to be held at the January, 2009, TRB annual meeting. Meantime, a “Rethinking Transportation Finance” roundtable event is planned for October .

4th Quarter 2008

Provide Ongoing Community Planning and Outreach Activities –

Progress: In December, Ken Buckeye provided the Minnetonka City Council with a briefing on the taskforce recommendations from the I-394 MnPASS Phase II Summary Report. Throughout the quarter planning continued for future outreach activities tied to UPA telework promotion along the I-35W and I-394 corridors.

Conduct Public Opinion Surveys and Focus Groups –

Progress: Katie Roth completed work on a report entitled “Attitudes toward Congestion Pricing and Transportation in the Twin Cities: Results from a Web-based Survey.” The report was to be presented at a joint session of the TRB annual meeting in December.

Deliver Communications Coordination Plan –

Progress: Joe Loveland, of Loveland Communications, is serving as communications consultant for the project. Value pricing information continues to be maintained on the State and Local Policy Program website. The Congestion Pricing listserv and Project Partners listserv are being managed by SLPP staff and have worked effectively to disperse news articles relating to pricing projects from around the world. They continue to facilitate lively discussion among members. Recent emails have focused on the implementation of the UPA projects. Website coordination is ongoing.

Conduct Local, Regional, and National Workshops –

Progress: A “Rethinking Transportation Finance” roundtable on the German pricing model took place in October. Lee Munnich, chair of the TRB Pricing Outreach and Education subcommittee, continued to lead planning efforts for two pricing-related workshops scheduled for the January 2009 TRB annual meeting.

APPENDIX B – ADVISORY GROUP MEETING SUMMARY

November 6, 2006; Community Design & Transit Corridor Advisory Committee –

The group was provided with a brief history of congestion pricing efforts in Minnesota generally and HOT lane conversion along the I-394 corridor in particular. The advisory committee purpose was discussed, and a timeline for project completion was outlined.

January 8, 2007; Community Design & Transit Corridor Advisory Committee –

The group viewed a recently-completed DVD update on the I-394 MnPASS which incorporated commentary from local elected officials, law enforcement representatives, and transportation professionals. SRF Consulting and the University of Minnesota's Center for Changing Landscapes provided preliminary input on incorporating various upgrades into a comprehensive vision for corridor growth.

February 9, 2007; Outreach & Education Technical Committee – URS Corporation participated in the meeting, noting its role of identifying potential transit improvements that benefit corridor commuters and local service users alike. Specifically, URS stated that it would undertake a review of current unmet needs, travel patterns, and possible technology applications that make transit a more attractive alternative. The Center for Changing Landscapes expressed an interest in meeting with each corridor community individually so as to discuss land use and development issues that apply to specific communities, adding that much of its work would depend upon the transit recommendations the advisory group later identifies.

March 12, 2007; Community Design & Transit Corridor Advisory Committee –

The group noted the visit from Tyler Duvall at the recent Road Pricing Summit in which the USDOT Assistant Secretary for Policy praised Minnesota's accomplishments with the MnPASS I-394 corridor and reaffirmed the importance of continued planning and dialogue. SRF Consulting presented various aspects of two alternatives – one involving a moveable barrier and the other using a permanent barrier – for the reversible section of the I-394 corridor, as well as alternatives related to the I-394 interchanges with I-94, TH 100, and I-494, respectively. The presentation included potential implementation steps, along with estimated construction costs, for each alternative.

March 16, 2007; Urban Partnership Agreement (UPA) Stakeholder Workshop –

The meeting focused on discussion of a potential Twin Cities proposal for funding under USDOT's UPA program. The workshop served to provide Mn/DOT, the Metropolitan Council and other potential partners for a Twin Cities UPA proposal with input from elected officials and transportation stakeholders.

April 13, 2007; Outreach & Education Technical Committee – URS Corporation identified and explained its four main tasks: to build a foundation of data, including a demographic analysis and an examination of transit ridership potential; to conduct a literature review that investigates transit systems in other cities; to perform a routine analysis; and to develop a travel pattern analysis of intra-corridor behavior. URS Corporation continued with a brief presentation of case studies incorporating transit with HOV/HOT lane use in San Diego, Denver, Houston, and Washington, D.C.

June 6, 2007; Community Design & Transit Corridor Advisory Committee – The Center for Changing Landscapes (CCL) noted its recent work focusing on the city level, adding that it had engaged the City of Minnetonka to pursue ideas related to the Ridgedale Mall renovation. CCL further noted that the city’s civic center is considered the “green heart of the city” and that the city possesses a huge green infrastructure of wetlands and lake marshes that serve to limit the use of transit throughout the city. However, such “green infrastructure” offers the potential for incorporating a system of pedestrian and bicycle trails with future or existing transit service both throughout the city generally and near the Ridgedale Mall area in particular. URS Corporation provide an update on potential transit advantages along the corridor, noting its work had focused on existing transit and the corridor’s capacity for handling expected traffic growth. URS Corporation added the corridor tended to attract vehicle trips, which pointed to the corridor’s general characteristic as a job-provider. The group acknowledged projections indicating significant population growth toward the western, outer edge of the corridor and an estimated 40 percent increase in commuter traffic to downtown Minneapolis between 2010 and 2030.

June 28, 2007; Urban Partnership Agreement Stakeholder Workshop – Briefing for elected officials and stakeholders on specific aspects of the Twin Cities proposal following announcement that Twin Cities were among nine finalists for UPA funding.

September 24, 2007; Community Design & Transit Corridor Advisory Committee – URS Corporation presented the group with two alternatives for improving transit along the corridor. The first alternative incorporated an in-line, station-to-station concept that would run BRT service along the HOT lanes. This alternative would involve relatively high infrastructure and facility enhancements. The second alternative focused on expanded “BRT-like” service along the South Frontage Road at considerably reduced cost. SRF Consulting provided a set of alternatives related to the reversible section of I-394 that included various combinations of new movements between TH 100 and I-394, as well as an additional lane, reduced shoulder widths, replacement of a bridge, and implementation of reversible-section barriers. The alternatives represented a spectrum of reversible-section improvements and associated costs.

October 23, 2007; Outreach & Education Technical Committee – The group agreed that it was important for the Community Design & Transit Corridor Advisory Committee to begin thinking about how to integrate alternatives put forth by the consultants in order to develop a set of consensus recommendations that might be part of a final report. In light of the Twin Cities’ successful UPA bid, it was also agreed that such a final report ought to include a corresponding section on telecommuting within the I-394 corridor. Much of the meeting was devoted to garnering input from corridor city planners in attendance. The City of Saint Louis Park noted that it would like to see the transit element of the report highlighted as the city was looking for ways to provide incentives for its residents to use transit. Specifically, the city added that it was interested in improving north-south pedestrian and bicycle traffic through town as a means of getting commuters to and from high-use transit stops. The City of Golden Valley reported its plans to incorporate mixed-use and high-density development along I-394, adding that such efforts would naturally dovetail with the goal of the I-394 Phase II Master Plan project. The City of Plymouth shared its desire to enhance pedestrian and bicycle traffic, and noted the need for improved reverse-commute vehicle flow along the I-394 corridor. The City of Wayzata suggested that it may be different from other corridor cities in that a large share of its population

works within its city limits. The city noted an increased trend in single-family housing and its preference to add residential and retail space rather than more office space.

November 8, 2007; Outreach & Education Technical Committee – The group discussed the need for additional park-and-ride capacity along the corridor, as well as planned office space expansion in Golden Valley and Saint Louis Park. Aspects of the South Frontage Road transit alternative were examined, including elements of signal prioritization, the need for an underpass at Louisiana Avenue, and options for connecting the transit service with Ridgedale Mall and the north side I-394 in Plymouth.

December 10, 2007; Urban Partnership Agreement Stakeholder Workshop – The meeting included a briefing on project activities and solicitation for input and advice on moving forward with UPA project, including discussion of potential project-related challenges and issues requiring attention.

December 20, 2007; Community Design & Transit Corridor Advisory Committee – After considering several alternatives, the group agreed to proceed with two key recommendations: (1) limited I-394 facility improvement east of TH 100, including a moveable barrier and reconstruction to add a third east-bound lane within the reversible section; and (2) enhanced South Frontage Road “BRT-like” express service that may include additional park-and-ride capacity at Ridgedale Mall.

May 2008; Community Design & Transit Corridor Advisory Committee – Consideration and adoption of I-394 MnPASS Phase II Summary Report.