

2001 CORRIDOR MONITORING AND TRIGGERING REPORT

April 2002



TABLE OF CONTENTS

INTRODUCTION 1

MONITORING..... 2

 Land development 2

 Traffic..... 4

 Corridor preservation 6

 Highway safety..... 6

 Transit service 8

 Status of projects in design 10

 Status and impact of implemented projects 12

 Other projects in the region 12

TRIGGERING..... 13

 Assessment of monitored conditions 13

 Recommendations 13

PUBLIC INVOLVEMENT..... 15

 Activities during 2001 15

 Activities planned for 2002 15

CONTACTS

Delaware Department of Transportation
Mark Tudor
Post Office Box 1489
Bear, Delaware 19701-1489
mtudor@mail.dot.state.de.us

Wilmington Area Planning Council
Tigist Zegeye
850 Library Avenue, Suite 100
Newark, Delaware 19711
tzegeye@wilmapco.org

New Castle County
John Janowski
87 Reads Way
New Castle, Delaware 19720
jpjanowski@co.new-castle.de.us

Delaware Transit Corporation
Dave Gula
400 South Madison Street
Wilmington, Delaware 19801
dgula@mail.dot.state.de.us

INTRODUCTION

The Route 40 Corridor Improvements Project was initiated by the Delaware Department of Transportation in partnership with New Castle County and WILMAPCO in September 1998. Completion of the first four steps of this project produced a community-supported 20-year transportation plan prepared under the direction of a Steering Committee composed of civic leaders, elected officials, and business interests. Technical support for plan development was provided by a project team, composed of the project partners' staffs and their planning and engineering consultants. The Route 40 Corridor 20-Year Transportation Plan (the Plan) was adopted on June 19, 2000.

The Plan addresses the conditions that will result from projected growth in housing, employment and traffic over the next 20 years. The Plan contains projects, separated into three phases (Phase I 2000-2007, Phase II 2008-2013, Phase III 2014-2020), which address projected transportation problems. By phasing projects over the next 20 years and using a monitoring and triggering mechanism, projects will be built only as conditions dictate, addressing one of the main goals of Steering Committee.

The fifth and final step of the project, the implementation of the Plan recommendations, is now in its second year. This second annual Corridor Monitoring and Triggering Report is an essential component of this step. To assure that all projects in the Plan are implemented as conditions dictate—neither prior to the anticipated need, nor subject to unnecessary delay after need is identified—the Plan included an implementation strategy consisting of five components:

- Corridor preservation
- Monitoring
- Triggering
- Citizen involvement
- Project implementation

Citizen involvement is accomplished through a Corridor Monitoring Committee. This committee meets quarterly with the project team to review conditions in the corridor, which the project team monitors throughout the year. The monitoring efforts, which are summarized in this report, consider:

- Land development
- Traffic
- Corridor preservation
- Highway safety

- Transit service
- Status of projects in design
- Status and impact of implemented projects
- Other projects in the region

Each of these factors is discussed in the following sections. The project team's assessment of these monitored conditions forms the basis for the triggering section of the report. Examples of triggering, as defined in the Plan, are listed below.

- Major land development activity would trigger immediate review of transportation needs: level of service implications and strategy, transit service needs or opportunities, safety concerns, and pedestrian and bicycle needs.
- Steady deterioration in level of service to "D" or worse would trigger a response in the form of strategies to stabilize/reduce demand (i.e. travel demand management measures or transit improvements) or increase capacity.
- Safety improvements recommended by the Highway Safety Improvements Program review team would trigger an evaluation by the project team of the compatibility of the proposed improvements with the Plan and of the need to make adjustments to the Plan.
- Transit service changes proposed by DTC would trigger an evaluation by the project team of any ancillary improvements needed to complement the service changes, such as sidewalks or shelters, that should be advanced in the Plan's implementation.
- Transportation improvements that are not part of the Plan but that impact the corridor and are proposed for implementation (for example, widening of Interstate 95) would trigger an evaluation by the project team. The evaluation would focus on compatibility of the proposed improvements with the Plan and the need to make adjustments to the Plan.

Assessment of these potential changes may trigger one of the following options to best respond to the new conditions:

- Continue with a Plan project or projects as currently scheduled in the TIP/CTP.
- Move a project(s) forward in the TIP/CTP schedule and determine appropriate level of effort for design activities.
- Move a project(s) back into the out years of the TIP/CTP schedule.

MONITORING

Land Development

Site Review Team

Development activity is monitored through regular meetings of the site review team, which consists of representatives from DelDOT, the New Castle County Department of Land Use, and the Delaware Transit Corporation. At these meetings the team reviews development proposals for consistency with and impact to the Plan. The team’s comments include recommendations in such areas as corridor preservation, access management, and cost-sharing opportunities.

Summary of Development Activity

During 2001, there were 13 major, 18 minor, and ten subdivision or parking plans submitted to New Castle County for review in the Route 40 corridor. Some of the plans submitted during the year replace previous ones, either recorded or unrecorded. Table 1 describes the major subdivision or land development proposals and their status; their locations are shown in Figure 1.

The most significant proposed developments are Meridian Crossing, a rezoning on the west side of Church Road just south of Norfolk Southern; St. Andrews Addition, a rezoning on the west side of Porter Road at East Scotland Drive; the Abram Fox property, in the northwest corner of US 40 and Walther Road; and Calvarese Farms (and the adjacent Saienni commercial property), in the northeast corner of US 40 and Walther Road. The impact of these developments on the Plan is as follows:

- Previous approvals for the Meridian Crossing site tie the developer to a portion of improvements along Church Road, including its intersections with US 40 and SR 71. Sidewalk and transit improvements are also required along the south side of US 40 between Brookmont Drive and

Church Road. The developer is also reviewing potential alternative connections from the site to other roads besides Church Road, which may, among other benefits, support DTC’s local transit services.

- The developers of the Saienni property, along the north side of US 40 between Walther Road and Governors Square, are required to widen US 40 to six lanes from the vicinity of the Glendale Connector to just west of Walther Road. DelDOT met with these developers in spring 2002 to discuss scope and timing of the improvements to ensure they meet the goals of the Route 40 Plan.
- Although the developers of the Fox property and Calvarese Farms have yet to submit traffic impact studies, these projects will undoubtedly impact the intersection of US 40 and Walther Road, as well as potentially other intersections in the corridor. The site review team will ensure that these developers pay their fair share for these improvements.
- A traffic impact study has not yet been submitted for St. Andrews Addition. One condition of approval is certain to be extension of East Scotland Drive to Porter Road, which was identified as a Route 40 Plan project, at the developer’s expense. The TIS may result in further development commitments.

Developer Agreements

In addition to those noted above, more than 40 land development projects in the Route 40 Corridor have developer agreements with the State or County regarding transportation improvements in the corridor. These improvements range from sidewalks to widening of roadways. New Castle County is in the process of developing a comprehensive tracking system for these agreements, which will be used to coordinate private and DelDOT-sponsored roadway improvements.

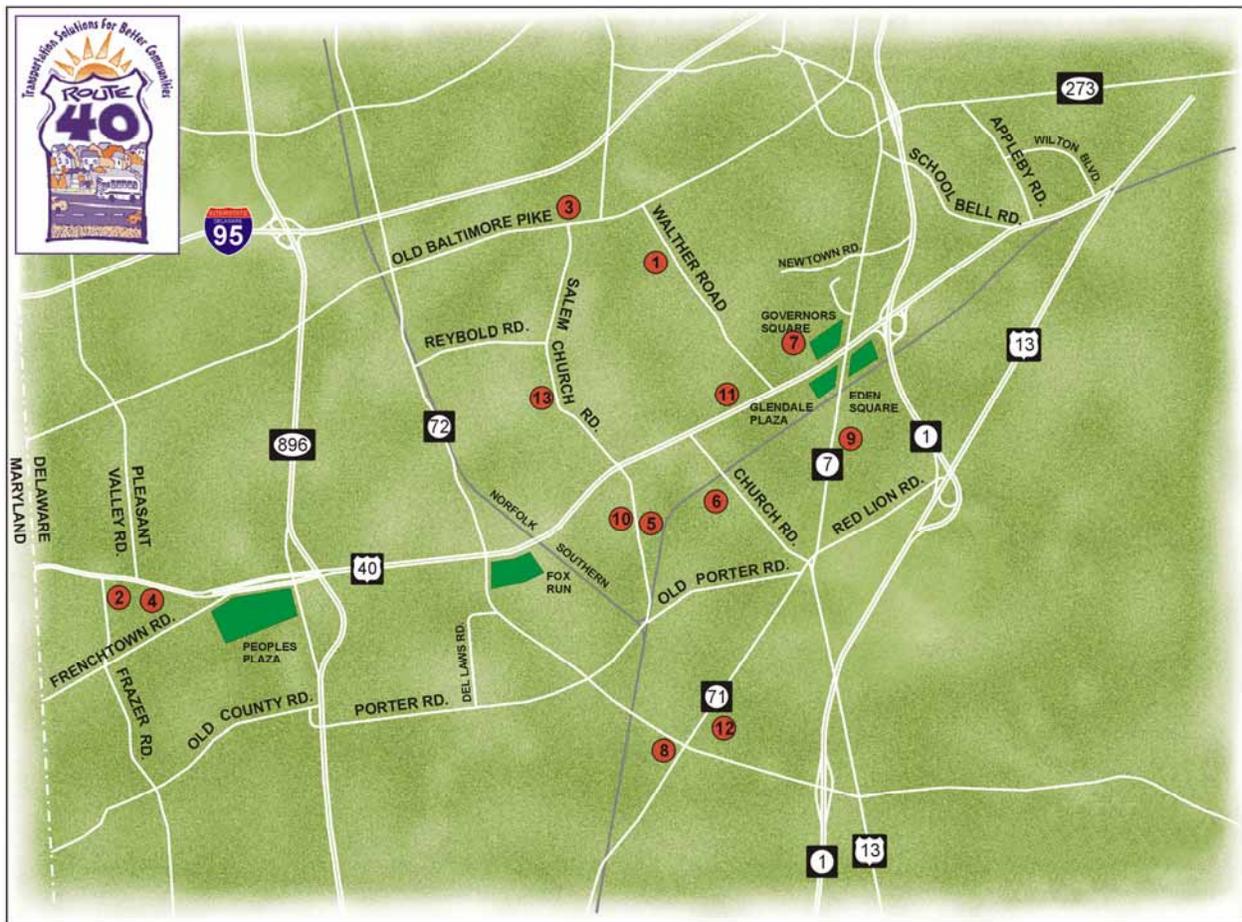
Table 1. Major Plans Received and/or Reviewed During 2001.

Site	Description	Remarks
Glennwood Station	74 townhouses	Under construction
St. Margaret of Scotland	Church and school	Under construction
AstraZeneca	200,000 sf industrial/office	Recorded
Kohl’s	115,000 sf retail store	Nearing recordation
Porter Road Business Center	183,000 sf warehouse	Preliminary approval
Meridian Crossing	738 mixed residential units (rezoning)	Preliminary submittal. Site has current approval for 738 manufactured houses.
Calvarese Farms	145 single-family houses	Preliminary submittal

Table 1. Major Plans Received and/or Reviewed During 2001 (continued).

Site	Description	Remarks
Jester Crossing	56 townhouses	Preliminary submittal
Corbitt Estates	32 single-family houses	Exploratory approval
St. Andrews Addition	265 mixed residential units (rezoning)	Exploratory submittal
Abram Fox Property	168 single-family houses	Exploratory submittal
Peoples Park	71 industrial park lots	Exploratory submittal
French Park	688 apartments and townhouses	The preliminary plan for this site was approved in 1997. The plan has been rejected because it cannot be built in accordance with current regulations. A legal determination may be required.

Figure 1. Development location map.



- | | |
|--------------------------------|--------------------------|
| 1. Glenwood Station | 8. Jester Crossing |
| 2. St. Margaret of Scotland | 9. Corbitt Estates |
| 3. AstraZeneca | 10. St. Andrews Addition |
| 4. Kohl's | 11. Abram Fox Property |
| 5. Porter Road Business Center | 12. Peoples Park |
| 6. Meridian Crossing | 13. French Park |
| 7. Calvarese Farms | |

Traffic

To monitor traffic growth, the project team conducted full-day traffic counts on road segments using automatic tube counters. These segment counts were used to monitor overall trends, as opposed to intersection counts, which were used to measure levels of service. The segment counts were compared with the traffic information utilized during development of the Plan, which was developed from counts conducted primarily in 1998 and 1999, as well as counts conducted for the first Corridor Monitoring and Triggering Report in 2000. Average daily traffic (ADT) volumes are summarized in Table 2.

As indicated in Table 2, daily volumes were very consistent with projections at three of the five count locations, falling within three percent of the expected values. West of Salem Church Road and west of Wilton Boulevard, volumes increase significantly over both 2000 counts and anticipated 2001 volumes. Intersection turning movement counts near these locations did not reflect such significant increases, suggesting potential discrepancies in the counts or unusual traffic circumstances (an accident on a parallel route, for example) that skewed the data. It is recommended that confirming counts be conducted at these two locations in spring 2002.

To compare current levels of service for intersections along US 40 to the levels of service

used during the Plan development process, the project team conducted intersection counts during peak traffic hours at all signalized intersections on US 40 in November 2001. Unsignalized intersections were not counted because no improvements are included at these intersections in the Plan. It is assumed that any future signalization of these intersections, whether required due to land development or traffic growth, will have to meet intersection signalization warrants as required by DeIDOT.

The traffic volumes collected at the signalized intersections were analyzed in a manner consistent with the traffic impact study process used by New Castle County and DeIDOT. The results of the level of service analysis are summarized in Table 3. As indicated, the levels of service remained relatively steady, with six intersections showing minor degradation from 2000 levels and three showing slight improvement.

In the 2000 report, the following intersections operated at LOS E: SR 7 (AM only), SR 72 (AM and PM), and SR 896 (PM only). As shown in Table 3 and Figure 2, both SR 7 and SR 72 continue to have unacceptable levels of service in the AM peak hour. At SR 72 and SR 896, the PM peak hour LOS improved slightly, from E to D.

Table 2. Average Daily Traffic.

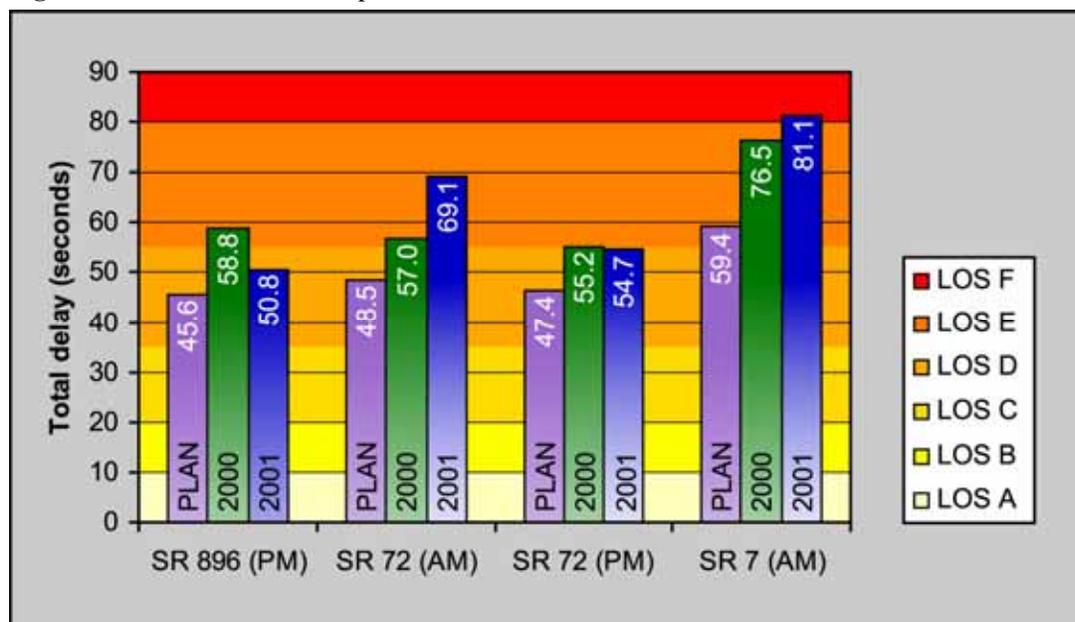
Location	Plan volumes (1998/1999)	2000 counts	Projected 2001 volumes	Actual 2001 counts	Percentage over projected	2020 forecast
East of Perch Creek Drive	34,000	29,000	35,900	36,700	+ 2.3%	48,000
West of SR 72	29,000	27,000	31,900	31,400	- 1.3%	50,000
West of Salem Church Road	32,000	34,000	34,700	42,200	+ 21.5%*	52,000
West of Walther Road	41,000	43,000	43,300	44,400	+ 2.5%	58,000
West of Wilton Boulevard	27,000	27,000	27,800	30,900	+ 11.0%*	33,000

* Unexpected increases to be verified by additional counts in spring 2002.

Table 3. Signalized Intersection Level of Service Summary.

INTERSECTION	PEAK HOUR LEVEL OF SERVICE							
	Base (1998/1999)		2000		2001		2020 w/o the plan	
	AM	PM	AM	PM	AM	PM	AM	PM
Pleasant Valley Road	C	C	C	C	C	C	F	F
Perch Creek Drive	-	-	B	A	B	B	-	-
Peoples Plaza north	B	C	A	B	B	C	B	C
Peoples Plaza south	B	B	B	C	B	C	B	C
Glasgow Avenue north	C	C	C	C	C	C	C	F
Glasgow Avenue south	C	D	B	C	B	C	C	E
SR 896	D	D	D	E	D	D	F	F
SR 72	D	D	E	E	E	D	F	F
Scotland Drive	C	B	B	B	C	C	D	E
Salem Church/Porter Road	C	C	D	D	D	D	D	F
Brookmont Drive	B	B	B	B	B	B	B	E
Church Road	D	C	D	C	D	C	E	F
Walther Road	C	D	D	D	D	D	F	F
Governors Square	B	C	C	C	C	C	C	E
SR 7/Eden Square	E	D	E	D	F	C	F	F
SR 1 SB Ramps	A	A	A	A	B	B	A	B
SR 1 NB Ramps	B	B	B	A	C	B	B	E
Buckley Boulevard	-	-	B	B	B	B	-	-
School Bell Road	B	B	C	A	B	B	B	C
Wilton Boulevard	B	B	C	C	B	C	C	F
US 13	D	B	C	B	C	C	F	F

Figure 2. Level of Service Comparison at Selected Intersections.



Corridor Preservation

As noted in the Land Development section, all development proposals in the corridor are acted upon by the site review team. For projects on US 40, sufficient right of way is required to accommodate widening to the outside and sidepaths for pedestrian and bicycle use. The following specific corridor preservation efforts were also undertaken.

Concept Design: The Plan recommended preparing concept designs in the first stage of implementation to identify right of way needs. In fulfillment of this directive, concept designs are being prepared for several Route 40 widening alternatives between SR 896 and SR 1, potentially including:

- widening to the outside only,
- widening primarily to the inside,
- widening both eastbound and westbound lanes to the north, and
- widening both eastbound and westbound lanes to the south.

An environmental assessment is also being prepared for this area. The purpose of this document is to obtain approval of the preferred widening alternative from federal and state agencies based on the level of environmental impact. When this document is approved, right-of-way limits will be more clearly defined for the 17 Plan projects that fall within the environmental assessment study area. On October 25, 2001, a workshop was held to introduce

the environmental assessment concept to the public and obtain input as the concept design proceeds.

Concept design for a number of other projects is also underway, as detailed in the “Status of Projects in Design” section of this report.

Norfolk Southern Grade Separation at Route 40: Negotiations continue for the site of the Fox Run Section V development proposal adjacent to this location, as noted in last year’s report. Concept designs were further refined to determine the extent of access management alternatives on three quadrants of the project. At this time, it is anticipated that the Rickey Boulevard intersection will ultimately be reconfigured as a four-leg signalized intersection, providing rear access to existing properties north of Route 40.

Access Management on Developed Properties: There were fewer opportunities to implement access management schemes this year than in 2000, although the Clay’s Motel site, located on the south side of Route 40 just west of Glasgow, will be permitted access only through adjoining sites. Two crossovers east of Pleasant Valley Road will be closed by the developers of a Kohl’s department store through the efforts of the site review team. Crossover closures are also being considered between Buckley Boulevard and School Bell Road as requested by the safety committee, whose work is discussed in detail below.



Highway Safety

Followups from 2000 Report

The 2000 Corridor Monitoring and Triggering Report identified nine locations that had an unusually high increase in accidents during 2000. They included:

- US 40 - Maryland state line to US 13
- SR 896 - Porter Road to Old Baltimore Pike
- SR 7 - SR 71 to SR 273
- SR 72 - SR 71 to Reybold Road
- Old Baltimore Pike - SR 72 to SR 273
- Salem Church Road - US 40 to Old Baltimore Pike
- Walther Road - US 40 to Old Baltimore Pike
- Route 40 @ US 13
- Wilton Boulevard

During the past year, the project team determined individual locations within those corridors that could

be studied in further detail. The detailed study locations are shown in Table 4.

At four of these ten intersections, shown with a “1” in the notes column, there was no clearly discernible pattern associated with the increase in accidents. These locations should be reexamined next year to determine if 2000 was just an abnormal year or whether increasing accidents at these locations constitute a more significant trend.

The other six locations, shown with a note of “2,” experienced significant increases in rear-end accidents, typically on the major street approaches. This result indicates that, at least in the short term, these locations would benefit from better advance signing and pavement markings to warn approaching drivers of the potential for stopped vehicles ahead. The US 40 approaches are being addressed through a guide signing program to be completed in 2002; it

may be appropriate to add the SR 896 approaches to US 40 and Old Baltimore Pike to this project as well.

Review of Conditions in 2001

As this draft report is published, accident trend data for 2001 are being analyzed to determine any locations that exhibited unusual increases in accidents.

The Route 40 Safety Committee

The safety committee, composed of representatives from the project team, DelDOT’s Traffic Engineering and Management (TEAM) Section, the Office of Highway Safety, and the Corridor Monitoring Committee, met three times in 2001. Their actions have resulting in the following initiatives:

- A flier encouraging pedestrian safety will appear in the Route 40 Flier in early 2002.
- A consistent 50-mph speed limit between SR 72 and SR 1 will be implemented in 2002.
- Two existing unsignalized crossovers east of Pleasant Valley Road will be closed as part of the Kohl’s development.
- Closure of some or all of the four unsignalized crossovers in the Fairwinds area between Buckley Boulevard and School Bell Road is under consideration.
- Pedestrian safety improvements, potentially including signal timing changes and positive pedestrian guidance, are being studied at the Church Road intersection.

Over the next year, the committee will continue to assist in guiding the safety recommendations of the corridor monitoring and triggering process.

Highway Safety Improvement Program Sites

The following sites within the corridor were part of DelDOT’s statewide 2001 and 2002 Highway Safety Improvement Program (HSIP). Accident rates were based on events that took place during the three preceding calendar years (e.g. 1998 – 2000 for the 2001 HSIP). The recommendations from the HSIP review team and status of implementation are summarized below:

- 2001 Site T – Old Baltimore Pike, Old Cooches Bridge Road to Albe Drive. The most significant cluster of accidents occurred at the Old Baltimore Pike/Old Cooches Bridge Road intersection. A detailed study is being conducted to determine the feasibility and travel time impacts associated with prohibiting specific turning movements at the intersection.
- 2001 Site AA – SR 72, US 13 to Sunnyside Lane. The most evident problem at this location was red light running for vehicles exiting SR 1, resulting in 15 of the 38 accidents during the study period. The HSIP review team recommended installation of supplemental post-mounted signal indications on both the northbound and southbound SR 1 ramp approaches to SR 72 to increase signal visibility.
- 2002 Site D – Old Baltimore Pike, Trevett Boulevard to Edgebrooke Way: This site is currently under study by the HSIP review team.
- 2002 Site Q – US 13, SR 71 to north of Bear-Hamburg Road: This site is currently under study by the HSIP review team.
- 2002 Site Z – Walther Road, US 40 to 1/2 mile north: This site is currently under study by the HSIP review team. Improvements scheduled for construction in fall 2002 or spring 2003 may alleviate the accident problem.

Table 4. Detailed Accident Study Locations From 2000.

Location	Number of accidents in 2000	Average number of annual accidents, 1995-1999	Percent increase	Note
US 40 at Rickey Boulevard	15	5.25	186%	1
SR 896 at Old Baltimore Pike	17	6	183%	2
US 40 at Glasgow Drive	12	5.75	109%	1
US 40 at Salem Church Road	27	14.75	83%	2
US 40 at Scotland Drive	23	13.25	74%	2
US 40 at SR 1 southbound ramps	16	10.5	52%	1
US 40 at SR 896	29	19.5	49%	2
Old Baltimore Pike at Salem Church Road (south leg)	13	9	44%	1
US 40 at Glasgow Avenue	34	24.75	37%	2
US 40 at Brookmont Drive	21	16.75	25%	2

Transit Service

Transit service in the Route 40 corridor continues to grow at an exceptional rate. DART First State routes 40, 41, and 42 continue to provide service between Peoples Plaza and Wilmington, and route 54 links the Taylortowne and Wilton areas with Christiana Mall. During 2001, DART First State continued to implement service changes to improve the accessibility of transit along the corridor, including the following:

Route 55

- At one time, service on this route was slated to be cut, but through overwhelming community support it was retained and continues to grow.
- This route was substantially rerouted to provide better service to Newark. The route used to use Old Baltimore Pike west to SR 896, then south to Pencader Corporate Center. It now goes north on SR 72 to the park-and-ride lot at SR 4, then west on SR 4 to SR 896.
- The route has also been extended to better serve the western end of the Route 40 corridor. From its original terminus in Pencader Corporate Center, it was extended west to Pleasant Valley Road, south to US 40, then east to Peoples Plaza.

- DART reports that the extension of the route not only served new markets, but resulted in better ridership along the older portions of the route.

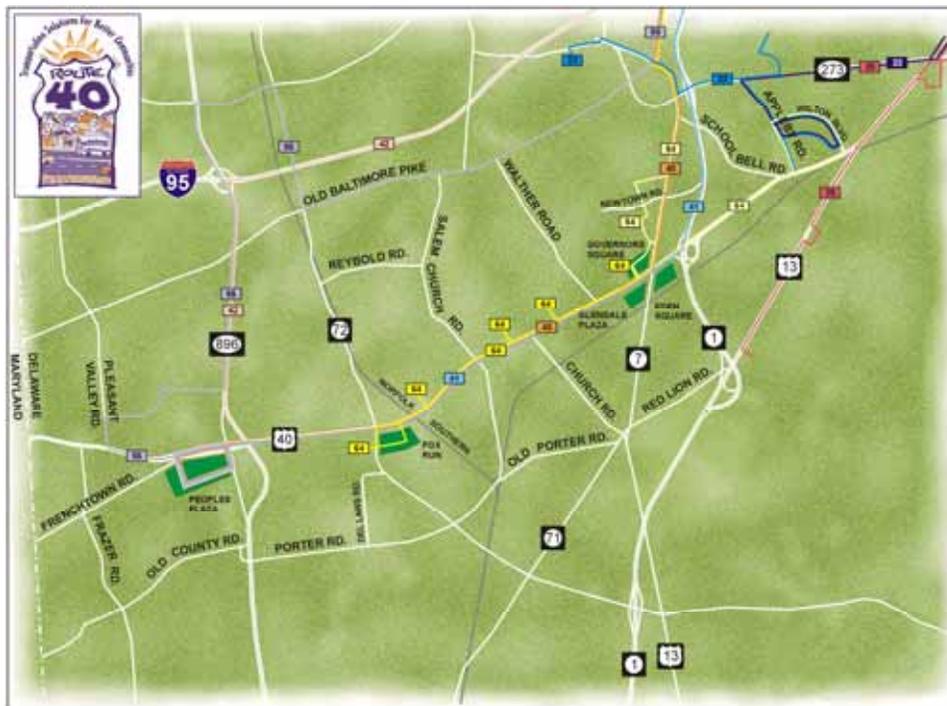
Route 64

- This route was introduced in 2000 to act as a local feeder serving the neighborhoods between Governors Square and Fox Run Shopping Centers between 6 AM and 6 PM.
- The route has been extended into Wellington Woods, Brookmont Farms, and Glasgow Pines, resulting in increased ridership with little increase in running time. This change is consistent with the goal of route deviation service recommended by the Plan.
- The Becks Woods segment of the route was cut due to very low ridership and difficulty in turning left from Becks Woods Drive onto US 40.

Bus Stop Improvements

A study has begun to continue the trend of improving bus stops along the Route 40 corridor. Funding of \$675,000 has been programmed for fiscal year 2004 to construct bus stop improvements and associated sidewalk segments, crosswalks, and pedestrian signals to improve access to transit. Recommendations regarding specific stop locations and types of improvements will be finalized in spring 2002.

Figure 3. Transit route map.



Mid-County Facility

DTC has selected the 31-acre former St. Georges Auto Auction site at the intersection of US 13 and SR 72 for its new mid-county facility. This facility, as recommended by the Transit Working Group of the Route 40 Steering Committee, will help provide better reliability for service in the area. The proposed maintenance and operations facility will include a one-story operations building for maintenance, a fueling facility, a bus wash building, administrative space, and parking for 96 buses. The facility should be operational in FY 2003.

In conjunction with planning for the mid-county facility, the General Assembly, through Senate Bill 250, required the study of the US 13 and SR 72 corridor from the St. Georges Bridge to Old Baltimore Pike to determine current and anticipated future transportation needs. This US 13 and SR 72 Systems Study recommended a potential program of improvements to the corridor. The US 13 and SR 72 recommends retaining all of the projects in the Route 40 Plan and, in some cases, recommends accelerating their implementation. Table 5 details the action plan contained in the US 13 and SR 72 report.

Table 5. US 13 and SR 72 Systems Study Action Plan.

Estimated Implementation Date	Project/Program	Remarks
FY 2003	DTC mid-county facility	Funded for construction in FY 2003.
	Rue Madora	Funded for construction in FY 2003.
	Mabel Lane restriping	
	SR 72/Porter Road street lighting	
	SR 72/Old Baltimore Pike street lighting	
	Corridor-wide bicycle signing and pavement marking improvements	
	Corridor-wide signal study and signal timing improvements	
	Safety studies at US 13/SR 72 and US 13/Cox Neck Road	
	Policies for access management and preservation of right of way	
FY 2004-2007	Reybold Road shoulders/bike lanes	Funded for construction in FY 2004.
	Park-and-ride facilities in the US 40 corridor, including near the SR 72 intersection	Funded for construction in FY 2004.
	US 40/SR 72 intersection improvements	Funded for construction in FY 2005. Includes additional through lanes on SR 72 and additional left turn lanes on US 40.
	SR 72/Del Laws Road intersection improvements	Funded for construction in FY 2005. Includes realignment of Del Laws Road and turn lanes on SR 72.
	US 40 sidepaths, SR 72 to Salem Church Road	Funded for construction in FY 2005.
	SR 72 sidewalks, US 40 to SR 71	Funded for construction in the out years of the CTP. May be limited to key pedestrian activity areas.
	Reybold Road extension, SR 72 to SR 896	Identified as "Newtown Road" in 301 MIS.
	SR 72 southbound shoulder at SR 71	
	SR 72 shoulder widening for bicycles, US 40 to US 13	
	SR 72/Norfolk Southern bicycle crossing improvements	
	SR 72 sidewalks, SR 71 to McCoy Road	
	Supplemental intersection safety improvements	Recent improvements at the SR 72/Porter Road and SR 72/SR 71 intersections should be monitored to determine their effectiveness in improving safety.
FY 2008+	US 40 widening, SR 72 to Scotland Drive	
	US 40 sidepaths, SR 896 to SR 72	
	Del Laws Road sidewalks, SR 72 to Porter Road	
	SR 72 widening, south of US 40 to Old Baltimore Pike	Assumes widening on existing alignment.
	I-95/SR 72 partial interchange	Includes ramps to and from Wilmington only.
	US 40 widening, SR 896 to SR 72	
	I-95 widening, Maryland state line to SR 1	
	SR 72 widening, south of US 40 to SR 71	Assumes widening on existing alignment.
	SR 72 access management, SR 71 to SR 1	Consolidation of driveways and access points.

Status of Projects in Design

Figure 4 shows the status of projects in the Route 40 corridor as of February 2002. Detailed descriptions of projects are provided below.

Church Road (N382, US 40 to Wynnefield)

Public workshops for Church Road were held in August 1999 and June 2000. Those workshops and meetings with local residents resulted in a modified design, including a three-lane section on Church Road approaching US 40 and a two-lane connector road through Queensbury Village. This connector will intersect with Church Road south of the Leasure School and with US 40 east of the Leasure School. This project is currently in final design, with construction anticipated to begin before the end of 2002.

SR 7, south of US 40 to Newtown Road

This project was part of transportation improvements required as part of an agreement between DelDOT and First USA Bank, which planned to develop 106 acres on the east side of SR 7 north of US 40. When First USA withdrew its plans to develop the site, the Department committed to building this project. DelDOT has since completed final design, although negotiations between DelDOT and First USA to acquire the necessary right of way for the project have not been concluded. Pending successful resolution of this issue, construction could begin in summer 2002. The project team is currently developing contingency plans should the First USA right-of-way negotiations prove unsuccessful.

SR 7, Newtown Road to SR 273

This project was initiated to address Steering Committee concerns about traffic volumes in the area and for compatibility with transportation improvements for the development of the First USA site (SR 7, south of Route 40 to Newtown Road and the Newtown Road interchange on SR 1). The initial study concluded that without development of the First USA site, significant improvements to this portion of SR 7 were not necessary. Therefore, the overall study will not be undertaken at this time. At the request of the Corridor Monitoring Committee, a detailed study of the SR 7 intersection with School Bell Road will be completed in 2002 to determine if reconfiguration and/or signalization would improve safety and mobility at this location.

US 40/Walther Road Intersection Improvements

Final design is nearly complete for the addition of two turn lanes on the congested southbound Walther Road approach to US 40. The project will also include pedestrian signals and crosswalks across the west and south legs of the intersection, as well as sidewalks to access eastbound and westbound bus stops on US 40. This short-term project was designed to be built without right-of-way acquisition, and construction is scheduled for either fall 2002 or spring 2003. The Walther family, who owns the farm on either side of the roadway, has asked DelDOT to consider long-term intersection improvements and upgrades to Walther Road to address recurring drainage problems in the area.

Songsmith/Waterford Pedestrian Improvements

This project, which is in the preliminary design stage, includes sidewalks along Songsmith Drive along its entire length, from SR 7 to Smalleys Dam Road. Improved bus stops and crosswalks are included as well. A sidewalk connecting Route 40 at Brookmont Drive with the Waterford community will be included in this contract as well. Construction is tentatively scheduled for spring 2003.

Rue Madora

The completion of Rue Madora, a subdivision street behind the Fox Run Shopping Center, is a key link in improving mobility for the residents of the nearby Pine Woods and Forest Glen communities. The connection will improve transit, bicycle, and pedestrian access as well. At this time, negotiations are underway with Pettinaro Construction, the owners of the adjacent Fox Run Business Center, for the road to be constructed privately with reimbursement by DelDOT. This arrangement, if successful, will result in cost savings to the Department and an accelerated construction schedule. Construction could occur in 2002 or early 2003.

Becks Woods Traffic Calming Project

A project to install traffic calming measures to slow drivers on Becks Woods Drive was identified during the development of the Route 40 Plan. DelDOT has conducted several meetings with community members, but the project is currently on hold due to lack of community support.

Figure 4. Project Status.



Projects In Concept Design

Concept design is underway for the following projects.

- **Reybold Road, SR 72 to Salem Church Road.** Narrow shoulders and bicycle/pedestrian accommodations throughout the length of the roadway. Construction is funded for fiscal year (FY) 2004.
- **Wilton Boulevard/Appleby Road sidewalks.** Sidewalks along the entire length of Wilton Boulevard and the portion of Appleby Road between Wilton Boulevard and SR 273. Construction is funded for FY 2004.
- **Eden Square Connector.** Connection from SR 7 opposite the Glendale Connector to the rear of the Eden Square Shopping Center. This project will allow elimination of the left turn from Eden Square onto US 40, potentially improving traffic operations in the area. Construction is funded for FY 2003.
- **Newtown Trail.** Bicycle/pedestrian path along the vacant Newtown Road right of way from Salem Church Road (opposite Reybold Road) to Smalleys Dam Road. A path will be built alongside the existing Newtown Road from this point to SR 7.
- **Walther Road, US 40 to Old Baltimore Pike.** Sidewalks along the entire roadway, and addition of shoulders/bike lanes through the Walther farm near US 40. Walther Road may also be realigned to meet US 40 at a 90-degree angle opposite Glendale Boulevard.
- **SR 72/Del Laws Road intersection.** Minor realignment of Del Laws Road to match the proposed entrance to the Fox Run Business Center. Left-turn, through, and right-turn lanes will be provided in both directions on SR 72 at this location.



Status and Impact of Projects Implemented in 2001

SR 72/SR 71 Intersection Improvements

Improvements to this intersection were constructed by a consortium of developers in summer and fall 2001. The resulting intersection configuration

consists of dedicated left-turn, through, and right-turn lanes on all approaches, with the exception of the southbound SR 72 approach, where the right-turn lane is shared as a second through lane. Although the improvements have not been in place long enough to truly measure their effectiveness, anecdotal reports and field views indicate a significant reduction in queue lengths during peak hours.



Other Projects in the Region

As noted in the 2000 Corridor Monitoring and Triggering Report, two future regional projects may have an impact on the Route 40 corridor: widening of I-95 and the US 301 project. The status of these projects, unchanged from last year, is summarized below.

- **Widening of I-95, Maryland line to SR 1:** This segment of I-95 is not projected to be widened from eight to ten lanes until the 2016-2025 time period, based on WILMAPCO's 2025 Metropolitan Transportation Plan (MTP). Project planning is underway, but funds are not programmed for construction.
- **Widening of I-95, SR 1 to I-295:** This segment of I-95 is not projected to be widened from eight to ten lanes until the 2006-2015 time period, based on the MTP. Project planning is underway, but funds are not programmed for construction.
- **I-95/SR 1 interchange improvements:** Planning has begun for major interchange improvements, including two-lane ramps to and from the south. This interchange is not projected for improvements until the 2006-2015 time period, based on the MTP.
- **Widening of SR 1, US 13 to I-95:** This segment of SR 1 is not projected to be widened by one lane in each direction until the 2016-2025 time period, based on the MTP. The widening is projected to add one lane in each direction from US 13 to I-95. No planning or design is in progress.
- **US 301 Project:** The Major Investment Study (MIS) for this project was completed in January 2000; implementation of the study recommendations is pending. None of the improvements recommended by the study are currently programmed.

TRIGGERING

Assessment of Monitored Conditions

Generally, conditions in the corridor did not change significantly in 2001. Average daily traffic volumes remained fairly steady and intersection levels of service, with the exception of the intersections of US 40 with SR 896, SR 72, and SR 7, remained acceptable. As this draft evolves into its final form, supplemental counts will be conducted at three locations to verify unexpected results in the 2001 data.

During 2001, there were 12 major, 18 minor, and ten resubdivision or parking plans submitted to New Castle County for review in the Route 40 corridor. For every substantial development submitted (Meridian Crossing, St. Andrews Addition, the Abram Fox property, Calvarese Farms, and the Saienni commercial property), there are either current commitments for developer-funded roadway improvements or studies underway to determine which development commitments will be appropriate.

Ten spot accident studies were undertaken based on trends identified in the 2000 report. At six of these locations, improved advance signing and pavement markings appear appropriate. The Route 40 safety committee has recommended a more proactive program to close unsignalized crossovers throughout the corridor and is pursuing other safety initiatives. Finally, three new HSIP sites were identified for study in 2002. The final 2001 report will include an analysis of accident trends in 2001.

Concept design studies continue in a number of locations in the corridor, including along US 40 between SR 896 and SR 1. Further design in the vicinity of the proposed Norfolk Southern grade separation confirmed the need to deny access to the proposed Fox Run Section V and showed that properties in the north side of US 40 in this area can be given reasonable access opposite Rickey Boulevard.

Recent transit improvements are generally working well. In particular, Routes 55 and 64 have been extended further into the communities they serve, resulting in increased ridership and convenience.

There are no regional highway or transit projects planned that would trigger the need for improvements in the Route 40 corridor.

Based on all of the foregoing considerations, the following recommendations are made in response to corridor monitoring efforts:

Recommendations

- Continue funding of the Route 40 program in FY 2007 – FY 2009 to begin work on Phase II of the program. Note that because expensive projects are still recommended for Phase II (including US 40 widening and interchanges at SR 896 and SR 7), funding levels are recommended to increase per year to fund later years of program. This is estimated at about \$20 million per year beginning in FY 2008, not including additional funding through developer contributions.
- Maintain funding and schedules for projects currently in design, including:
 - Church Road
 - SR 7, US 40 to Newtown Road
 - US 40/Walther Road intersection
 - Songsmith/Waterford pedestrian improvements
 - US 40 corridor signing improvements
 - US 40 corridor bus stop improvements
 - Reybold Road shoulders/bike path
 - Wilton Boulevard/Appley Road sidewalks
 - Eden Square Connector
 - Newtown Trail
 - Walther Road sidewalks/bike lanes
 - SR 72/Del Laws Road intersection
- Continue studies that are currently underway, including:
 - US 40 environmental assessment, SR 896 to SR 1
 - Old Baltimore Pike, SR 72 to SR 273
 - SR 7/School Bell Road intersection
 - Fairwinds crossover closures
- Monitor developer agreements for Meridian Crossing, the Saienni property, the Fox property, Calvarese Farms, and St. Andrews Addition and ensure the compatibility of developer-sponsored improvements with the Plan.
- Work with New Castle County to develop a comprehensive catalog of developer agreements in the corridor so developer funds are used for improvements whenever appropriate.
- Within the constraints of the US 40 environmental assessment schedule, accelerate improvements at

- US 40 and SR 72, including additional through lanes on SR 72 near the intersection, as much as possible to alleviate continuing capacity deficiencies. Construction is currently scheduled for FY 2005. This work should be coordinated with the recommendations of the US 13 and SR 72 Systems Study.
- In conjunction with the intersection improvement project noted above, study widening SR 72 from south of US 40 to Old Baltimore Pike based on the findings of the US 13 and SR 72 Systems Study. This study should include consideration of a partial I-95 interchange on SR 72 and extension of Reybold Road west to SR 896 at Four Seasons Parkway.
 - Optimize signal timings throughout the corridor to better balance delay between US 40 and the side streets and to improve progression along US 40.
 - Finalize concept design and corridor preservation negotiations at the site of the proposed Norfolk Southern overpass.
 - Improve advance signing and pavement markings at US 40's intersections with Glasgow Avenue, SR 896, Scotland Drive, Salem Church Road, and Brookmont Drive, as well as the intersection of SR 896 with Old Baltimore Pike, to reduce the occurrence of rear-end accidents.
 - Implement a consistent 50-mph speed limit between SR 72 and SR 1 based on the recommendation of the safety committee.
 - Install additional signal heads on the northbound and southbound SR 1 ramp approaches to SR 72 to reduce the incidence of red-light running.
 - Finalize HSIP study of the intersection of Old Baltimore Pike and Old Cooches Bridge Road and implement turn restrictions, if applicable.
 - Hand off the Rue Madora project to the developer of the Fox Run Business Center to realize financial and scheduling benefits.
 - Provide funding for short-term improvements identified by the US 13 and SR 72 Systems Study, including:
 - Restriping at the Mabel Lane intersection
 - Street lighting at SR 72 and Porter Road
 - Additional street lighting at SR 72 and Old Baltimore Pike
 - Bicycle signing and pavement marking improvements along SR 72
 - Signal timing improvements along SR 72, coordinated with US 40
 - Safety studies at the intersections of US 13 with SR 72 and Cox Neck Road

PUBLIC INVOLVEMENT

Activities During 2001

In an ongoing effort to keep the residents of the Route 40 corridor informed of the decisions and progress made by the team, the following public involvement initiatives were undertaken during 2001.

Newsletters—The project team produced a Route 40 corridor newsletter in August 2001, which was sent to 100% of the corridor's approximately 25,000 residents and businesses and to the Route 40 mailing list. Topics covered in the newsletter included:

- a report on the 2000 Corridor Monitoring and Triggering Report,
- a review of the status of projects in planning, design and construction, and
- a review of the July public workshop.

Public workshops—Corridor residents were given the opportunity to receive information and express their opinions at a public workshop held on July 19 at the Bear Library. Approximately 25 attendees reviewed the recommendations of the 2000 Corridor Monitoring and Triggering Report and provided suggestions for the future direction of the Plan.

Presentations to community groups—The project team made presentations throughout the year to various interested groups, including the Bear-Glasgow Council of Civic Organizations and the 7&40 Alliance.

Public workshop mailings—Throughout the year, notices of DeIDOT public workshops that were being held in the Route 40 corridor area were sent to the Route 40 mailing list. This provided interested stakeholders an additional opportunity to attend and provide feedback to DeIDOT about various projects.

Web site, e-mail, project mailing address and telephone hotline—The Route 40 corridor Web site (accessed from the DeIDOT Web site at www.deldot.net) is frequently updated to provide the latest information on implementation of the Plan. The Web site contains information from newsletters, updates on project planning, design, and construction, and a schedule of public meetings and workshops. The project post office box and telephone hotline remain in service to provide residents with an opportunity to comment or ask questions.

Route 40 Corridor Improvements
P.O. Box 1489
Bear, Delaware 19701-1489
Phone: 302 224-2384
FAX: 302 366-0907
mtudor@mail.dot.state.de.us

Local press exposure—Articles were published in the *Route 40 Flier* and the *News Journal*, giving added exposure to the accomplishments of the CMC and project team.

Activities Planned For 2002

To ensure the community is kept up to date and involved in the progress of transportation improvements in the Route 40 corridor, the project team has put in place the following communications initiatives for 2002:

Local press initiatives—The local newspaper, the *Route 40 Flier*, has agreed to devote space once a month to current or upcoming transportation projects in the corridor. The project team will provide the paper with a list of current and upcoming projects. This will keep residents up to date on activities as they happen.

Newsletter—Details of this Corridor Monitoring and Triggering Report will be provided in a newsletter format and distributed in the summer. This will be sent to 100% of corridor residents and to the Route 40 mailing list.

Web site—The Route 40 Web site will be maintained and updated on a regular basis.

Public workshops—The Corridor Monitoring Committee will keep residents apprised of corridor improvement projects through a public workshop in the summer. Corridor residents will have the opportunity to view exhibits detailing the progress of projects, as well as ask questions of CMC and project team members. Additional workshops will be held throughout the corridor as individual projects from the Plan proceed through the design process.

Stakeholder updates/public notice mailings—Interested stakeholders (the CMC, former Route 40 Steering Committee members, elected officials, civic associations and residents on the mailing list) will receive periodic updates as projects from the Plan are implemented. In addition, notices for public workshops or hearings for projects in the Corridor will also be sent to these stakeholders.

E-mail, project mailing address and telephone hotline—Residents will still be able to communicate with the project team through various channels—e-mail, mailing address, or telephone.



THREE MILL ROAD, SUITE 309
WILMINGTON, DELAWARE 19806