

SAFETY ADVISORY AND TRANSPORTATION COMMITTEE

A G E N D A

June 24, 2008 - 6:00 P.M. - Caucus Room - City Hall - City of Dover
*Public comments are welcomed on any item and will be permitted at appropriate times.
When possible, please notify the City Clerk (736-7008 or e-mail at Tmcdowell@dover.de.us)
should you wish to be recognized.*

AGENDA ADDITIONS/DELETIONS

1. 2008 Comprehensive Plan Review: Transportation Chapter
2. Briefing on MPO Projects (*Juanita Wieczoreck*)

/tm

S:\ClerksOffice\Agendas&Minutes\Committee-Agendas\DRAFTS\2008\06-24-2008 SA&T.wpd

CHAPTER 9

TRANSPORTATION PLAN

Part I - Background

The Dover/Kent County Metropolitan Planning Organization (MPO) was established in 1992 in response to the United States Inter-modal Surface Transportation Efficiency Act of 1991 (ISTEA). The Act was reauthorized by the US Congress in 1998 as the Transportation Equity Act for the 21st Century (TEA-21). Building on these two landmark bills, Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) was created in August 2005. The Dover/Kent County MPO has updated its 2030 Long range Transportation Plan (LRTP) in May 2005.

As the City formulated the Dover Plan in 2003, the Dover/Kent MPO concurrently developed its 2030 LRTP for Kent County. The transportation chapter from the 2003 plan was derived largely from that MPO plan. The City of Dover is a leading member of the Dover/Kent County MPO and the City of Dover Planning Department was represented on the LRTP steering committee. This 2008 Update is based on a combination of the 2030 LRTP and SAFETEA-LU, both published in 2005. Where appropriate, the results of Dover citizen participation workshops are included, in addition to Dover-specific transportation goals and policies.

Patterns of Travel

Auto Travel

Over the past several decades, automobiles have increasingly dominated the way people travel. Many factors have led to this increased dependence on automobiles including development patterns, employment trends, population growth and demographics, and income trends, specifically:

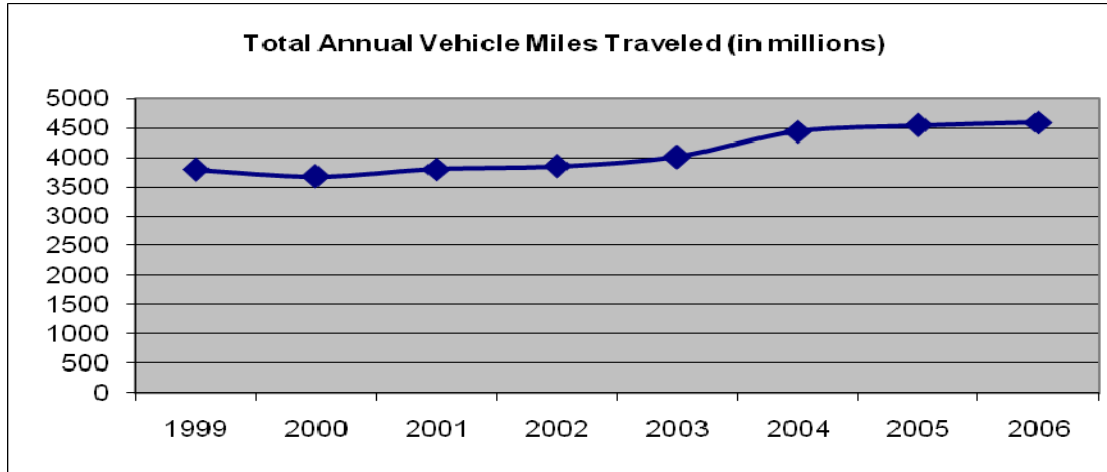
- Most workers continue to drive alone.
- Few workers choose to walk, bicycle or carpool.
- More people are riding transit, but not to work.
- The number of vehicles owned by each household is increasing with most households owning at least two vehicles.
- The annual number of vehicle miles traveled increased at a greater rate than total roadway mileage, vehicles, or drivers.

In short, more vehicles are being driven more miles while carrying fewer people.

Vehicle Miles Traveled (VMT) is a key measure of roadway use. Overall the statewide VMT increased by 21.2 percent between 1999 and 2006. Chart 8-1 depicts the change in VMT in Kent County.

Chart 9-1

Total Annual Vehicle Miles Traveled (in millions) in Kent County (1999-2006)



Source: Delaware Department of Transportation

Another indicator of vehicular travel is the Annual Average Daily Traffic (AADT) on roadways. The following table illustrates the AADT at DelDOT counting stations in Kent County. Locations in Dover are highlighted. Road segments in or near Dover are shaded.

Table 9-1: AADT and Percent Change, 2002 – 2006

ROAD	LOCATION	2002	2004	2006	CHANGE 02-04	CHANGE 04-06
US 13	Dover Downs	45,731	49,091	56,662	7.35%	15.42%
RD 88	NE of Dover	1,622	1,531	1,600	-5.61%	4.51%
DE 8	W. Dover City Limit	12,019	12,005	11,697	-0.12%	-2.57%
US 13	Court Street, Dover	25,881	23,596	24,945	-8.83%	5.72%
US 113	Court Street, Dover	25,408	24,876	22,751	-2.09%	-8.54%

Source: Dover/Kent County Metropolitan Planning Organization (MPO), 2006 Traffic Summary

SR 1 remains the major thoroughfare through Dover and Kent County. Increases in AADT can be linked to increased development such as that on DE Route 8 in Dover. AADT on Rt. 13 near Dover Downs continues to be the highest and has increased between 2002 and 2006.

Increases in traffic on Rt. 8, Rt. 113 and Rt. 13 and the resulting increased AADT on Dover roads were discussed during citizen participation workshops. When asked if Rts. 8, 113, and 13 were adequate to handle daily traffic, the majority of responded stated that they were not, and that respondents' daily commute did take significantly longer than 5 years ago. In 2003, when asked if US Routes 13/113 were adequate to handle daily

traffic present on the road respondents were split, with 44% disagreeing with this statement. Clearly traffic and traffic congestion continues to be an issue for the public in Dover.

The Dover Kent MPO's 2030 LRTP expands on these detailed findings throughout the City and Kent County at-large.

Truck Travel

The dominant means of transporting goods in Dover, as in all of Delaware and the United States, is trucking. Trucks move about 80% of manufactured goods to and from Delaware each year.

In Kent County, US Route 13, US Route 113, and SR 1 are major truck routes. In Dover, McKee-Saulsbury Road is a designated truck route to serve the industrial areas on the west side of Dover. Rt. 8/Scarborough Road connecting SR 1 with McKee/Saulsbury Road has enhanced this truck connection to Dover in recent years. Development of the industrial area in southeast Dover, Horsepond Road and Lafferty Lane also increased truck traffic.

Despite the concentration of industrial uses and warehouse facilities in Dover and surrounding areas of Kent County, there is no full service truck stop facility in the area. This has led to an increasing problem of trucks parking overnight along road shoulders and in shopping center parking lots.

Public Transit

Public transit in Kent County is provided to a service area covering approximately 27.45 square miles, centered around Dover. The public transit service area is defined as any location within one-quarter mile on either side of a bus route. DART First State has improved services in Dover and the surrounding area. DART now provides weekday service from 6 a.m. to 6 p.m. along routes in Dover and Kent County with an new *Go Link Night Service* provides Dover residents with connections to fixed route transit service within the City. The Water Street Transfer Center remains DART hub for this operation, utilizing a timed-transfer system. A fleet of ten medium-sized buses provides weekday service along thirteen local routes (Routes 100-109, 112, 113, 401) in Dover and the surrounding areas. In 2004, this transit fleet logged 426,806 vehicle miles and 31,674 vehicle hours. Two Inter-County bus routes also connect all three counties to Dover. Route 301 connects Wilmington to Dover on weekdays and Route 303 connects Dover-Milford-Georgetown between Kent and Sussex Counties. During the summer months, Dart operates Route 305 on weekends, connecting Wilmington and Dover with Rehoboth Beach. A maintenance and repair facility is located at the Department of Transportation complex in Dover.

Ridership has increased slowly but steadily since 2003 with over 300,000 passenger trips annually in Kent County. Dart First State estimates that nearly half of these riders were high school or university students. The remaining riders were largely transit dependent; meaning, most public transit riders lack independent means of transportation. Primary trip destinations included school, commuting, medical services and shopping. Table 8-3

provides operating statistics for DART First State South District from 1999 through 2004.

Table 9-2: Transit Operating Statistics, 1999-2004

Measure	1999	2000	2001	2002	2003	2004
Miles	385,725	420,707	403,975	408,430	408,528	426,806
Hours	28,179	31,577	30,928	30,933	30,820	31,674
Passenger Trips	311,964	311,855	301,623	308,716	303,914	308,759
Trips/Mile	0.81	0.74	0.75	0.76	0.74	0.72
Trips/Hour	11.07	9.88	9.75	9.98	9.86	9.75

Source: Delaware Transit Corporation

DART First State also provides the Paratransit door-to-door bus service in Dover for individuals who are unable to use fixed route bus service due to age or disability. Certification, as defined by the Americans with Disabilities Act, is required to utilize the Para-transit service. The service is also available to individuals in need of transportation to and from renal care dialysis treatment. Reservations for this service must be made at least one day in advance. Some private and public social service agencies also offer transportation to the elderly and disabled.

In 2007, the DART First State supplemented the “Transitioning to Transit: Delaware’s Long Range Transit Plan for the 21st Century” with the 2008-2013 Business Plan. This 6-year plan recognizes Kent County and, more appropriately, Dover’s, increased need for public transit. In this plan, the DART First State realizes that it has to “tailor downstate transit to the needs of distinct markets, such as Kent County.” The plan highlights a number of “better service arrangements” that can be explored to improve public transit in Kent County. Examples of these arrangements include evening and weekend services in the Dover area, and shortening the times between buses.

DART has also added the “Get a Job, Get a Ride” program to provide employees throughout the state with discounted/ free transit cards during the first month of employment. Employers are required to register with DART in order to qualify their employees.

Even with the increase in transit ridership along DART routes, citizens have continued to raise concerns about the inaccessibility and inconvenience of the Greyhound/Carolina Trailways Lines intercity bus service. Eleven to twelve thousand passengers arrive and depart from Dover’s Greyhound terminal annually. A large number of these riders are going to and coming from the Dover Air Force Base; many others are students traveling to and from colleges and family members visiting relatives. The scheduled arrivals and departures in Dover mainly link to New York City in the north, through Wilmington and Philadelphia; and through Salisbury, Maryland to Norfolk, Va., where connections can be made for further travel into the South.

Noting that Greyhound/Carolina Trailways shares its terminal facilities with local transit agencies in more than ninety cities, the DART First State service has explored the possibility of co-locating its transit hub in Dover with Greyhound/Carolina Trailways. In 2004, the Dover/Kent MPO approached City Council with a request to build a new transit Hub along Queen and Water Streets to serve as a multimodal transit center for the Dover and surrounding Kent County area. The hub would serve as a bus, DART and taxi service hub with the ability to integrate rail service in the future. The proposed fully enclosed terminal facility would provide local transit users with shelter from inclement weather and meet these critical local transit needs.

During the community planning workshops, the lack of public transit was often mentioned and ranked as the fifth highest "need" in Dover out of a possible 20. Overall, when discussing what citizens liked least about Dover, the lack of transit ranked 13th out of 132 dislikes. When surveying people's opinions about US Route 13, 46% of the respondents felt that there need to be more bus shelters along local routes.

Pedestrian and Bikeways

A number of different types of facilities accommodate the use of bicycling and walking as travel modes within the City. Bicycle facilities on separate rights-of-way include bike paths, bike trails and greenways. Bicycle facilities within the roadway rights-of-way include bike lanes, paved shoulders, wide curb lanes, shared roadways, and bike routes.

When surveyed during the 2008 public workshops, 68% of respondents stated there are an insufficient number of sidewalks with the City. A higher number of respondents stated that more bike and pedestrian walkways/paths need to be built. The previous community planning workshops in 2003 supported more bikeways and sidewalks. When discussing the needs and dislikes of living in Dover the need for sidewalks and bicycle paths ranked 4th and 6th respectively out 20 problems listed. In addition walking/bicycle trails ranked 3rd out of 10 possible choices by survey participants.

Bikeways and pedestrian ways along the collector and arterial streets are fragmented. Some roadways are augmented with a cautionary "share the road" signs to increase motorists' awareness of the presence of bicycles. Today, several types of facilities accommodate the use of bicycling and walking as a travel mode. All of these facility types are represented in Dover, although the City still lacks a completely interconnected bicycle and pedestrian transportation system. Dover requires that sidewalks be constructed as a part of any new development or redevelopment application, and this requirement has led to a great increase in sidewalks located throughout the City. The challenge will be connecting those segments.

Since 2003, significant progress toward the sidewalk and bike path goals has been achieved. Many of these projects have been completed in conjunction with other road improvement projects, and as a part of development proposals involving particular parcels. Notable improvements include a bike path and sidewalk along North Street from Mifflin Road to West Street (part of which was constructed by private developers), new

sidewalks on US Route 13 between Loockerman Street and Division Street, phase II completion of the St. Jones Greenway – Isaac Branch Trail, addition of sidewalks about Rt. 13 from Court Street to Denny’s Road, and a proposed bicycle and pedestrian underpass to connect the South Dover residential neighborhoods with Schutte Park.

Recent statistics reveal that the percentage of roads with sidewalks increased slightly in the county. The City of Dover requires that multi-modal sidewalks be installed in all new developments along frontage.

Rail Transportation

The Delmarva Secondary Line is the primary north-south rail connection along Delmarva and is operated by Norfolk-Southern as a freight line. It roughly parallels the US Route 13 roadway corridor and bisects Dover. To the north, this line connects to the Northeast Corridor serving many destinations in the northeastern United States.

Inter-modal transfer centers, switching yards, and similar facilities greatly increase the feasibility of rail transport. In Dover, a switching yard services the Kraft Foods and Procter and Gamble Paper plant on the west side of Dover. In this same area along New Burton Road, Norfolk-Southern often stores and switches cars for its general operation.

The location of this switch/storage yard is problematic at best. Its present location not only causes noise problems, but the storage and marshalling of chemical cars poses a potential environmental and safety hazard to area residents. The leak of the chemical styrene in 2006 originated from a rail car carrying styrene monomer caused a partial evacuation of areas near Cheswold on the Reichhold Chemical property. The area is adjacent to heavily populated residential neighborhoods. This leak raised the level of awareness of residents and City government. It provided the impetus for hiring an Emergency Management Coordinator and the updating and implementation of a Disaster Relief Plan. It is a priority for the City to address the marshalling of railcars and the substances that may or many not contain to protect the health, safety and welfare of its residents.

Freight Rail

The future of rail travel in Delaware is bolstered by the commitment of Norfolk-Southern Railroad to continuing in the region. In addition, the *Commuter Rail Study* recommended that passenger rail eventually be extended to Dover. It is encouraging to note that recently Norfolk-Southern has taken more of an interest in the flexible operating strategies necessary to make small rail corridors, such as the one through Dover, profitable for the carrier and accessible to a variety of industries. The viability of the rail service is hindered by the lack of an operating inter-modal rail facility in Kent County. Corrado American has ceased operation of their facility in Felton. Few comments related to freight rail were received during the community planning workshops.

Passenger Rail

Passenger rail services is only offered in Kent County during special events such as NASCAR races at Dover Downs and the State Fair in Harrington. The future of rail travel in Delaware has been discussed at length throughout the past 2 decades. In 2003, DelDOT conducted a *Commuter Rail Study* under the Wilmington-Dover Rail Service Task Force. The study was conducted to determine the feasibility of expanding passenger rail service from Newark/Wilmington to Middletown and then expanding further to Dover. Results of the study indicated that passenger rail service to the Dover area was not feasible until 2025.

While the respondents to the workshop questionnaire did not comment on a desire for rail service in Dover, on a scales from 1-10, the majority of respondents liked the proximity of Dover to other large cities (61%).

Aviation

The primary aviation facility in Kent County is Dover Air Force Base (DAFB), which permits limited public service at an adjacent civil air terminal, the Central Delaware Commuter Air Facility. In addition to the facilities at the DAFB, five of Kent County's other public use aviation facilities provide general aviation services. Another, the DelDOT Helistop is a publicly owned helicopter-landing pad, located at the DelDOT complex in Dover, and available for public use. An ancillary facility, the Kent County Aero Park is a 115-acre county-owned industrial/business park located next to the Air Force Base. Several of the twenty-three lots in the park are reserved for aircraft related industries.

Within the next 15 to 20 years, the county's facilities will be inadequate. To meet future needs and provide public aviation facilities in Kent County, the State has acquired the Delaware Airpark in Cheswold. This facility is located less than five miles away from Dover, and is important to future economic development efforts. Some improvements are planned to the airpark, including runway enhancements intended to accommodate larger aircraft. The Delaware River and Bay Authority (DRBA) is currently operating both the Delaware Airpark and the Central Delaware Commuter Air Facility.

The City is also currently collaborating to conduct an Aviation Study to explore the feasibility of launching commuter commercial airline service(s) at the Civil Air Terminal (CAT) at Dover Air Force Base. The purpose of the study is to see if there is enough demand to attract commercial airlines to the CAT and explore funding options/opportunities in the future.

Roadway Systems

Like Maryland and Virginia, the State of Delaware, through the Delaware Department of Transportation, owns and maintains the vast majority of the roadways. Virtually all arterial and collector roads are managed by the State. The City of Dover owns and

maintains only the local street system in the City. The partnership between the City, the Dover/Kent County MPO, and DelDOT is critically important to coordinating land use and transportation planning in Dover.

The City's roadways range in character from four-lane highways to local streets. The functional classification system classifies roadways based on the degree to which they limit access. The functional classes are listed below and are based on the Federal Highway Administration (FHWA) Functional Classification guidelines. The City's classifications systems differ slightly from that of DelDOT. These classifications need to be aligned with DelDOT in order to alleviate confusion and streamline projects.

Urban Principal Arterial System

In every urban environment, there exists a system of streets and highways that can be identified as unusually significant to the area in which it lies in terms of the nature and composition of travel it serves. This system is not restricted to controlled access routes. In order to preserve the identification of controlled access facilities, the principal arterial system is stratified as follows: (1) Interstate, (2) other freeways and expressways, and (3) other principal arterials (with no control of access). For principal arterials, the concept of service to abutting land should be subordinate to the provision of travel service to major traffic movements.

Dover's principal arterials are State Route 1, US Route 13 and US Route 113.

Urban Minor Arterial Street System

The minor arterial street system includes all arterials not classified as a principal and contains facilities that place more emphasis on land access than the higher system, and offer a lower level of traffic mobility. Such facilities may carry local bus routes and provide intra-community continuity, but ideally should not penetrate identifiable neighborhoods.

The minor arteries in Dover include: State Street, Governors Avenue, McKee / Saulsbury Road, Walker Road, College Road, Forrest Avenue, and N. Little Creek Road.

Urban Collector Street System

The collector street system provides land access service and traffic circulation within residential neighborhoods, commercial and industrial areas. Collector streets may penetrate residential neighborhoods, distributing trips from the arterials through the area to the ultimate destination. The collector street also collects traffic from local streets in residential neighborhoods and channels it into the arterial system.

Urban Local Street System

The local street system comprises all facilities not on one of the higher systems. It serves primarily to provide direct access to abutting land and access to the higher order systems. It offers the lowest level of mobility and usually contains no bus routes.

City Streets

The City owns and maintains approximately 100 miles of roadway within the City limits. As developments have moved forward to completion and infrastructure has been

dedicated to the City, this mileage has grown over time. Table 9-3 [include table] shows the increase in City street mileage between 2005 and 2008. As developments continue to move forward to completion and infrastructure dedication, the street mileage will continue to increase over time. The City has an active program to maintain City streets and to repave streets as they deteriorate over time. The City's Street Program is funded through the City's general fund budget, as well as through legislator commitments of Community Transportation Fund dollars. The City also sweeps City streets on a weekly basis.

Table 9-3 Certified Street Mileage: City of Dover, 2005 – 2007

2005	2006	2007	2008
93.61 miles	94.10 miles	96.27 miles	100.26 miles (anticipated)

This represents a 2.84% increase in total mileage over past 3 years. In addition, the City estimates that approximately 8-10 miles of streets are under construction with in new subdivision that have not been dedicated to public maintenance as 2007

Roadway Capacity and Performance

The need for road improvements were identified in the community workshops in March and June 2008. Just over 50% of respondents stated that Routes 13 and 113 were not adequate to handle daily traffic present on the road while 61% responded that Rt. 8 is not adequate to handle its daily traffic. In addition, participants were asked if their overall commute was longer in 008 than in the previous 5 years. The majority (60%) stated in the affirmative, that their commute today takes more time than 5 years ago. Additionally, participants were asked to rate if the appearance of the Rt. 13 corridor has improved in recent years. Nearly 59% stated that the corridor has not improved in appearance and many commented that the increase of strip malls along Rt. 13 has increased traffic overall.

Air Quality: The Ozone Challenge

According to the 1990 Clean Air Act Amendments (CAAA of 1990), the Kent County portion of the Dover/Kent County MPO planning area is designated as a moderate non-attainment area for ozone under the 8-hour standard. The air quality analysis conducted for the 2005 Dover/Kent County MPO transportation plan update identified emissions impacts of volatile organic compounds (VOCs) and nitrogen oxides (NOx) - the two compound precursors of ground level ozone formation. Both Volatile Organic Compounds (VOC) - or hydrocarbons - and Nitrogen Oxides (NOx) are the result of imperfect combustion within a vehicle's engine. When combined with sunlight, they form ground-level ozone, the major component of smog that can damage lung tissue, aggravate respiratory disease and make people more susceptible to respiratory infections. Automobile emissions are one of the major contributors to ozone formation.

The previous sections of the plan that detail the increase in vehicle usage and roadway congestion demonstrates that there are some significant challenges that will have to be overcome to improve our air quality in Dover. The cultural and societal trends that have led to increased use of our roadways will not be easy to counter, at least in the short term. The Dover Plan is committed to meeting the “ozone challenge” through a variety of strategies which seek to provide alternative transportation options to residents, and to ensure that Dover’s built environment provides opportunities for those residents to take advantage of those alternatives. The following is a summary of some of the strategies employed by this plan:

- The Land Development Plan encourages mixed-use development in Downtown Dover, and provides for various well integrated residential and employment centers throughout the City. See Chapter 12 for more information.
- Opportunities for increased use of public transportation are supported.
- Numerous bicycle and pedestrian improvements are being suggested by the MPO and the City, and a major strategy of this plan is to encourage interconnections to provide a continuous bicycle and pedestrian transportation system.
- This plan contains an economic development chapter which seeks to attract business and industry to Dover. More employment opportunities may lead to more people living and working in the same community. Employees who live and work in Dover may find commuting by transit, bicycle or as pedestrians to be viable options. See Chapter 10 for more information.
- The City is in full support of the MPO’s efforts to decrease ozone pollution, and to educate the public regarding “the Ozone Challenge.”

Assessing Future Transportation Needs

To determine future transportation needs, the MPO not only scrutinized the trends described, but used those trends to develop travel demand forecasts that would indicate the highways on which congestion could be expected by 2030. Once those highways were identified, strategies and actions could be examined and analyzed for their value to mitigate expected deficiencies.

Dover Transit Hub (DTH)

The Dover Transit hub has outgrown the existing Water Street Transfer Hub in Dover and the State’s Division of Facilities Management has stated the site is needed to “support the court system expansion in Downtown Dover.” DelDOT has purchased the former George & Lynch property at Water and Queen Streets to support the new transit hub. The site has been cleared and Phase I & II environmental studies have been completed. Conceptual plans were completed in 2008 and the City is currently meeting with DelDOT, MPO members and design engineers to study the funding possibilities and feasibility of the DTH. The site is designed to include an indoor waiting area, ticket sales, restrooms, and service DART local, para-transit and intercounty lines as well as

commercial bus service and taxis. It has also been identified as an ideal location for future growth for downstate commuter rail.

Travel Demand Analysis

To develop travel demand forecasts that would identify transportation system deficiencies, it was necessary to generate traffic volumes to represent:

- Existing conditions
- Future conditions with no change in the roadway network (2030 no-build)
- Future conditions with changes (2030 build)

These traffic volumes were calculated and assigned to the roadway network by means of DelDOT’s transportation plan computer model of Kent and Sussex Counties. The model uses a three-step process to model travel. Demographic data is used to determine how many trips are generated by each Traffic Analysis Zone (TAZ), and the TAZ to which each trip is destined. Trips are assigned to paths along the highway network based on minimal path travel times, forming link volumes.

Over the last five years, the MPO member governments have recognized the impact of sprawl, which necessitates travel by private automobile, on the region’s mobility. Consequently, new policies encourage growth in areas close to existing infrastructure by means of a facilitated development process and public funding.

The changes in these policies were reflected in the travel demand analysis through the redistribution of population to the TAZs. Representatives of the DelDOT, county, and City planning offices met and worked together to reallocate population among the TAZs in the model. The redistributed population, along with the existing transportation system, comprised the “base case” scenario for each run of the model. The travel demand model was run with this scenario to indicate where current congestion problems exist.

The analysis identified over 20 roadways with segments that would be deficient if current trends in population, employment and trip making continued and the roadway network was not improved. This was labeled the 2030 “no-build” scenario. The segments projected to be deficient by 2030 are indicated below in Table 9-4 and shown in the map appendix.

Table 9-4: 2030 “No Build” Deficient Roadway Segments

Roadway	Segment
US Route 13	Crawford Carroll Avenue to College Road
	College Road to N. State Street
	N. State Street to Townsend Boulevard

Roadway	Segment
	Loockerman Street to Route 13/113 split
	Puncheon Run Connector to Governors Avenue
	Governors Avenue to Meadow Glen
SR 1	Old Lebanon Road to South State Street
Scarborough Road	Crawford Carroll Avenue
Alt US 113 State Street	Roosevelt Avenue to Route 3
DE 8	Saulsbury Road to Loockerman Street
	Loockerman Street to West Street
	N. State Street to Kings Highway
	Kings Highway to Park Drive
	Kings Highway to Route 13
	Route 13 to Halsey Road
Saulsbury Road	Walker Road to Clara Street
	Route 8 to Hazletville Road
US 13 Alt Governors Ave.	Walker Road to Mary Street
Loockerman Street	Route 8 to Bradford Street
	Federal Street to Park Drive
Kenton Road	Walker Road to Fieldstone Court
	Foxhall Drive to Route 8
Walker Road	N. State Street to Dover High School
K73 Hazletville Road	Hazletville Road at Eden Hill
Kings Highway	Route 8 to Route 13
N. State Street	Route 13 to Walker Road
	Mary Street to Route 8
Wyoming Mill Road	New Burton Road to Camden/Wyoming Avenue

Source: Dover / Kent County MPO LRTP 2030

Part II: Transportation Accomplishments Since 2003

Since 2003 there have been a number of significant transportation improvements in Dover that have served to implement the Comprehensive Plan, as well as a number of studies which have been completed that have furthered the goals of the plan. These accomplishments are summarized below.

Recent Road System Improvements

[Currently being updated with Public Services]

In an effort to increase capacity in and around Dover, the following improvements have been accomplished since 2003:

- Partial interchange at SR 1 and DE Route 8 for use by the general public.
- Widening of White Oak Road, from US Route 13 to SR 1.
- Implementation of Intelligent Transportation Systems, particularly improvements to lights on Route 8, and US Route 13.
- A New Public Transit Transfer Center in Downtown Dover.
- The creation of service roads to serve US Route 13 establishments through rear access.
- Construction of the Mifflin Road roundabout.
- Improvements to the North Street corridor from West Street to Mifflin Road.
- Intersection improvements on North Street, West Street, Saulsbury Road, and Mifflin Road.

Signalization

As noted previously, citizens have been concerned about the functioning of the traffic lights in the Dover area. Their concerns are about the traffic flow and the congestion at certain intersections. They generally express their concerns by questioning the sequencing and timing of the lights.

The State Department of Transportation developed an “Integrated Transportation Management System,” commonly referred to as “DelTRAC.” This system uses a multimodal approach to improving the movement of people and goods by using modern technology and a Transportation Management Center (TMC) to monitor travel and adjust signals, signage and public transit to lessen congestion.

In 2008, the City completed Phase II of the Signalization Project incorporating 18 signalized intersections in Dover into the DelTrac system. As a result, DelDOT is now responsible for the monitoring and adjusting of current conditions and signals automatically adjusting these traffic signals, freeway access, lane use and traffic schedules in response to real-time demand in the Dover area.

Along with the assumption of ownership and maintenance responsibilities for all 18 intersections, the project included the replacement of each signal with ornamental mast arms and pedestrian poles. In addition, pedestrian facilities (curb ramps, crosswalks and pedestrian signals) were upgraded to meet current Americans with Disabilities Act (ADA) requirements.

Dover Bikeways & Pedestrian Transportation Plan

The City of Dover contracted with an engineering, architecture, and planning consulting firm, “The RBA Group.” This firm prepared the “Bicycle & Pedestrian Transportation Plan.” The report was completed in June 1997. This was the result of a year-long planning process that responded to the growing need for the integration of transportation alternatives in Dover. While this report is 11 years old, it is still relevant in regards to the need for multi-modal streets and sidewalks. Many participants in the workshops, however, voiced the need for updating this report to make it more relevant to Dover’s growing communities.

Recommendations consisted of system-wide solutions for the entire City, on-road bicycle and pedestrian improvements for the roadways within the study network, and independent project recommendations. Comprehensive engineering design treatments were not part of this plan, however, an assessment of some preliminary, route specific improvement recommendations were made to identify target facility types for selected routes. The study lists the top ten individual projects identified by the citizens of Dover. This list includes the following: Schutte Park off-road connection; enhanced pedestrian crossing – New Burton Road; a multi-purpose path between Delaware State University and Delaware Technical & Community College; and Walker Road bicycle and pedestrian facility improvements.

West Dover Connector Study

With the completion of SR 1 around Dover, east-west corridors in and out of the City have increased in traffic. The City of Dover Comprehensive Plan and the Dover/Kent MPO Long Range Transportation Plan recommended studying the extension of Saulsbury Road due to persistent and fast-paced growth that contributes to existing and future traffic congestion on existing roadways and through local neighborhoods. The West Dover Connector project will study the feasibility of extending Saulsbury Road across what is currently the Eden Hill Farm and adjacent agricultural parcels making connections to New Burton Road and possibly to US 13. Because much of the land needed for such a roadway is undeveloped, the opportunity still exists to make improvements that best accommodate the area’s multi-modal transportation needs. Alternative routes and concepts are being developed with the input and guidance of the West Dover Connector Working Group that began in 2004. This group is working in conjunction with DelDOT and with neighborhood and community officials, schools, local government leaders, concerned citizens, federal and state environmental and cultural resource agencies, and

others to develop options that meet the diverse needs of the community. Option #5C was accepted by the City Council in December 2006.

The purpose of the West Dover Connector Working Group is to provide advice to DelDOT regarding the West Dover Connector. The role of the Group is to assist DelDOT by providing input, making suggestions, reviewing alternatives, narrowing the range of alternatives, recommending alternatives that will receive detailed study, and recommending preferred alternatives. The Group will help in developing a consensus and gaining public comment and acceptance.

US Route 13/113 Corridor Study [Currently being updated with Public Services]

The purpose of the US Route 13 / 113 corridor through the City has changed. This roadway once served the dual purposes of a high speed through travel route and as a local access road to service the many commercial businesses that were constructed along it. With SR 1 serving the needs of through travelers, US Route 13/113 is becoming a destination for commerce and community activities, as well as a significant employment center for the growing service sector. In order to address the changing character of this roadway a workshop was conducted by the Dover/Kent County MPO. The purpose of the workshop was to generate new ideas for improving the appearance and operation of the corridor. The organization prepared a report entitled “Concept Plan for US Routes 13 and 113 in Dover – Phase I, Technical Memorandum II: Final Recommendations.” This was adopted by the MPO in November 1, 2000.

The final recommendations of the study were:

- Create a corridor overlay zone;
- Service roads for local traffic;
- Assist voluntary development of rear access to business;
- Construction of sidewalks and bike paths;
- Median landscaping;
- Add bus pullovers where needed;
- Installation of attractive lights that serve both motorists and pedestrians;
- Bury utilities;
- Install pedestrian buttons at signals and strip crosswalks heavily;
- And develop a system of appropriate signage.

Phase II has been completed. Projects have been submitted and are working their way through the project development process.

Part III –Goals and Recommendations

Goal 1: Preserve and Maintain the Existing System with Improved Management

Encroaching development and unlimited access onto the region's major roadways reduces system capacity. By guiding development, controlling access, and taking active steps to preserve transportation system investments that have already been made, the existing system can be maintained to a large degree.

Recommendation 1:

Increase the Capacity of the Transportation System through:

- Improving corridor intersections
- Upgrading facilities
- Concentrating on commercial corridors
- Increasing transit service efficiency
- Increasing park and ride usage
- Supporting travel demand management strategies
- Expanding DART First State Transit Service and routes
- Expanding Paratransit
- Expanding rail freight service
- Facilitating rail system access
- Supporting opportunities to expand aviation facilities
- Facilitating and expanding access to public/private airports in the region's transportation system
- Improving provisions for non-motorized travel
- Supporting the return of passenger rail service
- Finding new locations for highway/rail/air freight transfer facilities; re-location of Norfolk-Southern switching yard on New Burton Road
- Increasing options for dependable commercial air freight and passenger service through the Dover Air Force Base
- Establishing commercial large aircraft maintenance facility at the Civil Air Terminal

Other Actions to increase capacity are:

- Transforming Route 8 and US Route 13 into "commercial boulevards" with enhanced landscaping, improved transit stops and shelters, better pedestrian paths, and sign control.
- Implementing recommendations from the Route 8 study and the Route 13/113 Study
- Constructing Park and Ride Lots.

Goal 2: Increase Coordination with Agencies

Work with citizens, DeIDOT, and the MPO to develop sub-area plans for the areas designated as Transportation Improvement Districts.

Recommendation 2:

Leadership in the MPO

- Continue to play an active role in the Dover/Kent County MPO
- Continue to use the MPO as a forum for long-range transportation planning and interacting with DeIDOT.

Recommendation 3:

Streamline Project Submissions to DeIDOT

Rather than piecemeal submissions of road improvement, restoration, streetscape, new road construction, subject such projects as a package to make the process more efficient and cost-effective.

Goal 3: Develop and Expand Alternate Modes of Transportation

Expanding facilities and services for alternate modes of transportation such as walking, bicycling, taxi, and transit services enhances mobility for residents, reduces the number of single-occupant vehicles, and reduces the need to own an automobile.

Recommendation 4:

Update and Implement the Bicycle & Pedestrian Transportation Plan to Improve the Bike-Pedestrian Network

- Review the bicycle and pedestrian transportation network to identify gaps and important segments needed to provide a continuous network.
- Develop an implementation plan to complete this network. The construction of the missing sidewalk / bikepath segments can be accomplished utilizing a combination of private development activities, City funding through the CIP, and funding available through DeIDOT and SAFETEA-LU.

Goal 4: Create Recommendations and Policies for Roadways and Development:

The City should cooperate with DeIDOT through the Development Advisory Committee (DAC) and the Dover/Kent County MPO the following:

- Support for access management along minor arterials and collector roads to protect traffic capacity and preserve the character of existing neighborhoods.
- Support for pedestrian, bikeways, and public transit in subdivisions and site plan applications.

Recommendation 5:

Implement the US Route 13/113 Corridor Improvements

- Consider the implementation of the recommendations of the US 13 / 113 Corridor Study, which would most likely involve developing an overlay zone to implement the study’s many design recommendations.

Recommendation 6:

West Dover Connector

- The City should work with DelDOT, the MPO, private property owners, neighborhood and school organizations on the plans for the West Dover Connector.
- Continue to participate in the West Dover Study Working Group and Alignment Option 5.c. as designated by City Council

Recommendation 7:

Determine the Feasibility of Including an East/West Route in the Corridor Capacity Preservation Program

Currently, there are no east/west roads in Dover and Kent County at-large, that are subject to the Corridor Capacity Preservation Program (CCPP). With the pace of development, it is important to plan ahead to protect the capacity of the highway program. On September 29, 2005, the Mayor sent a letter to DelDOT requesting that several east/west roads be studied for inclusion in the CCPP.

It is important for the current and future residents of Dover that east/west road(s) be identified and included in the CCPP. Within the City and extending into Kent County, these roads would include Route 8 and Hazletville Road.

Recommendation 8:

Determine Costs necessary to Build Access Road via SR 1 to the Garrison Oaks Tract

Recommendation 9:

Miscellaneous Transportation Improvements

- Advocate the following projects and studies to be placed in the MPO Transportation Improvement Program and the DelDOT Capital Transportation Program (CTP): The Transportation & Safety Advisory Committee of City Council has prioritized these projects.

Prioritization of City Transportation Projects

Intermodal Transportation Terminal (Bus Station)
West Dover Connector
West Street Traffic Flow
Kenton Road Corridor Upgrades

Loockerman Street / Forrest Avenue Improvements
College Road Corridor Upgrades
U.S. Route 13 Sidewalk Construction
Garrison Tract Connector Road
Crawford Carroll Avenue Extension
U.S. Route 13 Service Road Corridor Study
East/West Route Corridor Study

Policy/Program Prioritization List

Weekend Bus Service
Air Passenger Travel
Red Light Photo Enforcement Program
Bike Path Connectivity

Goal 5: Air Quality: The Ozone Challenge

The City of Dover is committed to working with the Dover/Kent County MPO to reduce the air quality impact of auto emissions through sound land use planning, enhancing the bicycle and pedestrian transportation network in Dover, and encouraging increased use of public transit.

**Recommendation 10:
Continue to adhere to the Clean Air Act of 1990**

- Update and implement the Bicycle and Pedestrian Transportation Plan of 1997 to reduce vehicle emissions
- Encourage and support the instillation of multimodal paths alongside street frontages where appropriate.
- Improve and widen sidewalks for bicycle and pedestrian use
- Encourage DelDOT to increase bicycle paths along major routes within the City

Transportation Principle

It appears that the City, the State, and the MPO will have to employ increasingly creative solutions to traffic congestion in Dover over the course of the 25-year planning horizon reviewed by the MPO. Dover’s roadway network may be reaching the point where traditional engineering-based roadway improvements may provide diminishing returns.

The City will strive to employ transportation alternatives to improve the quality and efficiency of the transportation network as new challenges emerge in the coming decades.

DRAFT