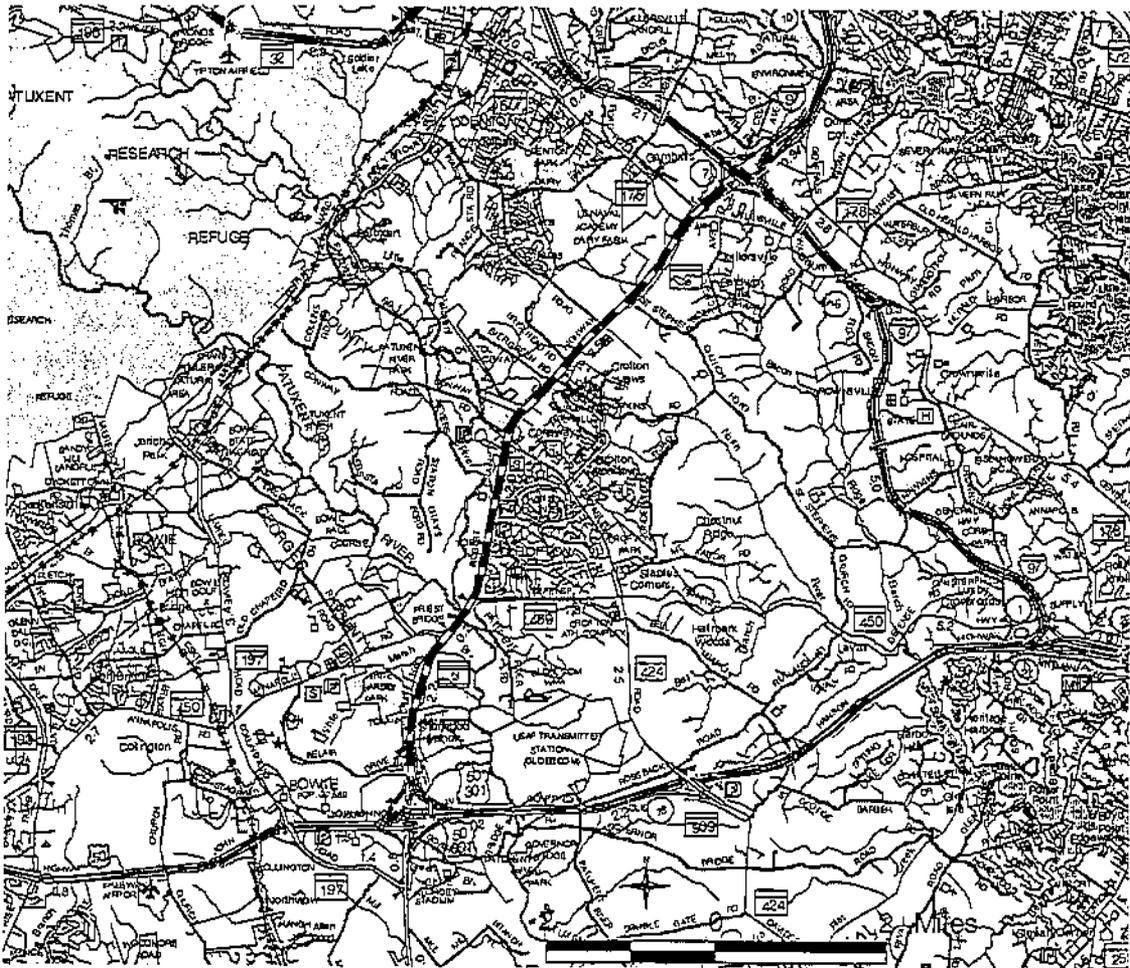


MD 3 – Robert Crain Highway
(from north of US 50 to south of MD 32)
Project Planning Study
Anne Arundel and Prince George's Counties
Purpose and Need Statement



Prepared by:
Maryland State Highway Administration
Regional and Intermodal Planning Division
November 19, 2001

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I. INTRODUCTION

Existing Conditions

MD 3 (Robert Crain Highway) is functionally classified as an Other Principal Arterial on the Federal Functional Classification System and as a Principal Arterial on the State Functional Classification System. The posted speed limit for the majority of the route is 50 miles per hour. The only exception is between St. Stephens Church Road and MD 175/Millersville Road where the posted speed limit is 45 miles per hour.

The typical section for MD 3 from US 50 to White Marsh Branch, just south of MD 450 West, is a four-lane divided roadway with 10-foot outside shoulders and a 30-foot grass median. From that point to just north of MD 424, MD 3 is a six-lane divided roadway with 10-foot outside shoulders and a varying 35 to 56 foot-wide grass median. From just north of MD 424 to St. Stephens Church Road, MD 3 is a six-lane section with a median width that varies from 50 feet to more than 300 feet, with many businesses located in the median. From St. Stephens Church Road to MD 175, MD 3 is a 4-lane section with varying median width, and north of MD 175 it is a 4-lane section with 10-foot shoulders up to the MD 32 interchange. The roadway provides uncontrolled access throughout the corridor. Along the approximately 9-mile corridor there are a total of 197 access points, comprised predominantly of commercial or private entrances. There are seven fully-signalized intersections within the study area, several of which have been expanded to increase capacity and improve intersection operation, and two partially-signalized intersections:

Fully-Signalized Intersections

MD 3 at MD 450 West
 MD 3 at MD 450 East
 MD 3 at Cronson/Crawford Blvd
 MD 3 at MD 424/Conway Road
 MD 3 at Johns Hopkins Road
 MD 3 at Waugh Chapel Road
 MD 3 at MD 175/Millersville Road

Partially-Signalized Intersections

MD 3 (northbound) at St. Stephens Church Road
 MD 3 (southbound) at Village at Waugh Chapel

Project Background and History

Since the early 1980's, there have been numerous studies and attempts to develop solutions to address transportation needs in the MD 3 corridor. The early studies along MD 3 were part of an original goal to establish direct interstate connections between Baltimore, Washington and Annapolis, prior to the connection of I-97 between Baltimore and Annapolis. The original alternative was to upgrade MD 3 between US 50 and MD 32 to interstate roadway standards and re-designate the roadway as I-297 to better serve the Baltimore/Washington traffic. In 1983, the Federal Highway Administration issued a Record of Decision to allow the existing alignment of MD 3 to be upgraded to an interstate roadway. The I-297 proposal was defeated due to strong opposition from the Bowie and Crofton communities. As a result, federal funds were diverted to other roadway projects using interstate transfer provisions.

Congested traffic flow, inadequate intersections and crossings, increased residential and commercial development, and pedestrian/bicycle safety have accelerated the need for

improvements to MD 3. The Maryland State Highway Administration (SHA) continued to study roadway improvement options which were non-interstate upgrades for the MD 3 corridor until the project was dropped from the Consolidated Transportation Program (CTP) in 1990. In 1992, at the request of Bowie and Crofton, a MD 3 Task Force comprised of citizen representatives of the Crofton, Bowie, and Odenton communities met to address the traffic congestion along MD 3 between US 50 to MD 32. The task force, which disbanded in March 1998, reached consensus on a concept for upgrading the existing corridor, but did not reach consensus on a bypass option after five years of study. At the urging of state and local elected officials, SHA initiated a project planning study in July 2001. The MD 3 corridor study is included in the FY 2002-2007 CTP in the Development and Evaluation program and is funded for project planning only.

II. PROJECT LOCATION

MD 3 between US 50 and MD 32 is 9.28 miles in length, and traverses portions of both Anne Arundel and Prince George's counties. MD 3 is a major north-south corridor connecting Crofton and the City of Bowie to regional expressways serving Baltimore, Washington D.C., and Annapolis. It is located in the southwestern portion of Anne Arundel County and the northeastern portion of Prince George's County. The roadway within the study area links the Bowie, Crofton, Odenton, and Millersville communities. A Study Area Location Map is shown in Appendix A.

III. PURPOSE OF THE PROJECT

The purpose of this study is to address existing and projected operational and safety issues for local traffic (vehicles and pedestrians) along MD 3 from north of US 50 to south of MD 32.

IV. NEED FOR THE PROJECT

This study is needed to address existing traffic congestion as well as projected operational and safety deficiencies that will occur as a result of planned and future development in and around the study area. A few sections of roadway within the project limits are currently failing or are experiencing failing conditions during the PM peak hours. This will continue to worsen as all the intersections within the study area are projected to fail by 2025, except for the ramps at Belair Drive.

V. TRAFFIC ANALYSIS

Traffic volume analysis for AM and PM Peak Hour conditions was conducted for the year 2000 existing condition (Appendix B) and the 2025 No-Build condition (Appendix C). The highest traffic volumes on MD 3 within the study area occur primarily in the weekday AM and PM peak hours. Existing Average Daily Traffic (ADT) volumes vary from 51,000 to 67,000 vehicles/day, with the highest volume occurring between the two MD 450 intersections.

Approximately 67,125 vehicles/day travel on this section of MD 3 between MD 450 West (Annapolis Road) and MD 450 East (Defense Highway) compared to 51,525 vehicles/day on the section just south of the MD 32 interchange. Truck traffic is between 9-16% of the ADT with the heaviest truck volume between MD 175 and Waugh Chapel Road.

The ADT on MD 3 within the study area is projected to increase by 84-93% by 2025. By 2025, the forecasted volume ranges from 99,225 vehicles/day between Belair Drive and Forest Drive to 123,450 vehicles/day between MD 450 West and MD 450 East.

LOS analysis is conducted for the peak hours of a typical weekday. PM peak demand is the usual means of determining capacity, as this combines commuter traffic with various local trips. However, in the case of MD 3, which serves primarily as a local route (trips originating or terminating within the study area), both the AM and PM peak demand provide a more accurate assessment of capacity (see **Appendix D** for LOS description).

A LOS analysis was conducted for the signalized intersections and interchanges within the study section of MD 3 for the Existing (year 2000) (**Appendix E**) and the No-Build (year 2025) conditions (**Appendix F**). The Critical Lane Volume methodology was used to conduct the LOS analyses.

Based on the traffic analysis, only five of the nine signalized intersections within the study area operate at an acceptable LOS under current traffic conditions. Intersections that have a failing LOS are: MD 175 (east) intersection during AM peak hours only; intersections at Columbian Way, MD 450 East, MD 450 West, and MD 424/Conway Road operating at a LOS F during PM peak hours. All of the signalized intersections in the study corridor are projected to fail by 2025 during both AM and PM peak hours under the No-Build condition. Only the Belair Drive NB and SB ramps are projected to operate at an acceptable LOS during both AM and PM peak hours in the 2025 No-Build condition.

MD 3 Origin/Destination Survey

A license plate survey on MD 3 within the study area was conducted in May 2001. The purpose of the survey was to determine the portion of vehicles (both automobiles and trucks) that use the MD 3 corridor for through trip purposes, as well as those that travel from MD 450 East directly to MD 450 West and vice versa. The study area location is shown in **Appendix G**. The hours for the license plate survey were approximately 6:00 AM to 9:00 AM and approximately 4:00 PM to 7:00 PM. The locations for the license plate survey included the following:

During the AM peak period:

- MD 3 SB, just north of MD 175
- MD 3 SB, just south of Ramp from SB MD 3 to WB US 50
- Ramp from SB MD 3 to WB US 50
- MD 450 East WB, just east of MD 3
- MD 450 West WB, just west of MD 3

During the PM peak period:

- MD 3 NB, just north of MD 175
- MD 3 NB, just south of Ramp from EB US 50 to NB MD 3
- Ramp from EB US 50 to NB MD 3/Belair Drive
- Ramp from WB US 50 to NB MD 3/Belair Drive
- MD 450 East EB, just east of MD 3
- MD 450 West EB, just west of MD 3

In addition to the license plate survey, a truck survey was also conducted. This survey consisted of recording the company name of all trucks on MD 3 between the intersections of MD 175 and MD 450 West. This survey was conducted between the hours of 7:00 a.m. and 7:00 p.m. The locations for the survey consisted of the following:

- MD 3 NB and SB, just north of MD 175
- MD 3 NB and SB, just south of MD 450 West
- MD 450 West EB to NB movement, just west of MD 3.

The conclusions of the Origin/Destination Study are as follows:

1. The Average Daily Traffic (ADT) volumes have increased between 1995 and 2001 by approximately 32 percent on MD 3, and by approximately 17 percent on MD 450 west of MD 3. The peak hour volumes have increased in approximately the same proportion as the ADT volumes.
2. The hourly volume of trucks remains somewhat constant throughout the day (7:00 AM to 4:00 PM), with a decline in truck volumes later in the afternoon.
3. The Origin/Destination Study shows that at each end of the study corridor (north of MD 175 and south of MD 450), approximately 74% of the peak hour direction volume is made up of local traffic (trips originating or terminating within the study area). This is significantly higher than the results from the MD 3 Task Force origin/destination study conducted in 1995. That study showed that at each end of the corridor, approximately 65% of the peak hour volume was made up of local traffic.
4. The MD 3 truck survey determined that during the 3-hour southbound peak, only 28.9% of all trucks entering the study corridor north of MD 175, continued through towards US 301 or US 50. The remaining 71% of trucks surveyed were either beginning or ending their trips within the study area.
5. The MD 3 truck survey determined that during the 3-hour northbound peak, only 31.8% of all trucks entering the study corridor south of MD 450, continued through past MD 175.
6. During the truck survey, trucks from 27 different companies were recorded with a frequency of 10 or more trips.

VI. ACCIDENT DATA

The study section of MD 3 from US 50 to MD 32 (approximately 9 miles) experienced a total of 649 police-reported accidents during the period of 1998-2000. These accidents resulted in a rate of approximately 119.6 accidents per every 100 million vehicle miles of travel (acc/100mvm). This accident rate is currently lower than the statewide average accident rate of approximately 189.1acc/100mvm for all similarly designed State maintained highways. With a projected increase in the ADT of 84-93% by 2025, the accident rate may surpass the statewide average.

Table I. Accident experience by year, severity, accident rate and comparable statewide average accident rates.

	1998	1999	2000	Total	Study Rate	Statewide Rate
Fatal Accidents	1	4	2	7	1.3	1.4
Number Killed	1	4	2	7		
Injury Accidents	90	104	89	283	52.2	87.7
Number Injured	135	181	141	457		
Property Damage	101	129	129	359	66.2	99.9
Total Accidents	192	237	220	649	119.6	189.1

Table II. Overall accident experience by year, collision type, accident rate and comparable statewide average accident rate.

Collision Type	1998	1999	2000	Total	Accident Study Rate	Statewide Average Rate
Angle	23	19	25	67	12.3	29.3
Rear End	71	114	92	277	51.0	67.7
Fixed Object	27	26	25	78	14.4	20.8
Opposite Direction	4	3	3	10	1.8	3.4
Sideswipe	19	22	21	62	11.4	13.3
Left Turn	9	9	9	27	5.0	20.1
Pedestrian	3	1	4	8	1.5	5.0
Parked Vehicle	4	4	5	13	2.4	3.1
Other	32	39	36	107	19.7	20.5

Failure to give full time and attention was 35% (224 of 649) of the total accidents and is the most prominent probable cause listed. Only 2.3% (15 of 649) of the total accidents lists failure to obey traffic signal as the probable cause. Of the 1,300 total vehicles involved, 104 were heavy-duty or tractor-trailer trucks (8%).

Accident data for specific intersections within the study area are provided in **Appendix H**. MD 3 at Waugh Chapel Road is listed as a primary Candidate Safety Improvement Intersection for Year 2000. There are no Candidate Safety Improvement Sections in the study limits of MD 3.

VII. LAND USE AND ZONING

Two-thirds of the Greater Crofton planning area is rural which reflects the extensive agricultural and forested land to the south and east. Areas serviced by public utilities are largely developed. Current zoning is nearly 60% Rural/Agricultural and about 25% Residential. Commercial and Industrial zones account for 3.5% of the overall land, while open space comprises 12% of the study area. This includes extensive 100-yr floodplain area in the Little Patuxent and North River Watersheds, as well as the Crofton Country Club Golf course and some parklands.

In Odenton, land-use varies within the study area. Existing land use on MD 3 between MD 175 and Waugh Chapel Road consists of Rural/Agricultural to Residential Low Density. At the northwest corner of the intersection of MD 3 and Conway Road land-use is zoned Light Industrial. The Odenton SAP proposed land-use for MD 3 is commercial. It is recommended in the plan that coordination occur with SHA regarding the study and redesign of the MD 3 corridor between MD 175 and Waugh Chapel Road. Once a design concept for this segment is established, the zoning of the properties bordering MD 3 in this area, including properties in the median, should be reviewed. The draft Odenton SAP and comprehensive zoning map recommend a commercial zoning category (C4 – Highway Commercial District) for the median area between MD 175 and Waugh Chapel Road. This category allows for a wide variety of permitted, conditional, and special exception commercial uses.

The predominant semi-rural character of the Crownsville area is well established and expected to continue well into the next century.

Land-use in the study area along MD 3 in the Belair section of Bowie is substantially developed with well-defined suburban residential pattern. Growth will not be dramatic because little undeveloped land remains.

VIII. MASTER PLANS

The study area encompasses the Crofton, Odenton, and Crownsville Small Area Plan (SAP) boundaries within Anne Arundel County. The Crofton SAP was adopted by the Anne Arundel County Council in January 2000. The Crownsville SAP was approved in June 2000. The Odenton SAP is in draft form and has not yet been presented to the County Council for review. In Prince George's County, the Bowie-Collington-Mitcheville & Vicinity communities master plan is associated with the study area. It was adopted by the Prince George's County Planning Board in April 1991, and approved by the District Council (County Council) in October of 1991.

Based on a comparison of year 1990 and 2000 census data, population in the census tracts that comprise the study corridor increased by 41 percent, from 37,153 to 52,474. The Crofton area has a population of 28,000 and provides employment for about 3,500 people. Currently, there are over 10,000 housing units, with a projected build out of some 13,500 units in the next 10 to 20 years. There are substantial retail and service uses, providing for the needs of the local population. The area contains two major industrial parks with a mix of warehouse uses, manufacturers and offices. Total office and industrial space exceeds 800,000 square feet. There

are a variety of smaller businesses, employing about two-thirds of the local workforce. A recent business inventory indicated the breakdown of businesses in the area: occupations such as home furnishings (15), auto service (10), construction related (35), banking/insurance/real estate (35) and personal services (25). There are 25 medical and dental offices serving the community and about 30 restaurants, mostly "fast food" and carry-out enterprises. Retail space of nearly 600,000 square feet exists in the area. Some additional mixed-use development is envisioned along the west side of MD 3 in areas zoned for commercial to the south of Cronson Boulevard. The ultimate reuse of the existing cement plant as an industrial park with office and R&D firms is anticipated in the Concept Plan, along with completion of the Crofton Commerce Center at Conway Road and MD 3. The plan also supports the concept of a quality hotel/conference center in the greater Crofton area in the next 10-20 years.

The draft Odenton SAP recognizes the Suburban Community Center development known as the Villages at Waugh Chapel. This development has a mix of uses including retail, office, senior residential and a community center. This complex will service the Odenton Area south of Waugh Chapel Road and west of MD 3. It will also service part of the Crofton and Crownsville areas. Project completion is expected within a few years, with a total of nearly 500,000 square feet, two-thirds of which will be retail and services uses. Other uses, including offices, would comprise about 30%. This would increase, by 85%, the total supply of commercial and office space available along the MD 3 corridor.

The approved Crownsville SAP allows for no major development in the study area. Some additional development of existing commercially or industrially zoned areas is anticipated with no new shopping centers. Major retail and office development will be contained in the Parole Area.

In Prince George's County, the 1991 Bowie-Collington-Mitchellville and Vicinity Master Plan recommends criteria to guide the development of the Nash Property. This property, located at the northwest quadrant of the MD 3/US 50/US 301 interchange. Because of greater development flexibility provided in the Comprehensive Design Zone, the Master Plan recognizes the potential under the R-S Zone up to 3.5 dwelling units per acre. Such development should provide for an open space system intended to both preserve as much of the existing woodlands as possible and to woodlands and the frontage along MD 3 and US 50 (I- 595). Consideration of senior housing is encouraged under this development alternative. Some attached housing may be appropriate on this property provided that it is compatible with the adjacent Kenilworth neighborhood and does not adversely affect levels of service on adjacent residential streets that serve the property. If attached housing is considered, it would be limited to an increment above the base density, to ensure that detached housing within this development is the predominant type.

A preliminary plat of subdivision for 1.95 million square feet of the University of Maryland Science and Technology Center (UMS&TC) was approved for office and research development in 1999. A Detailed Site Plan for 300,000 square feet of office space was approved in the spring of 2001. The UMS&TC development proposes a mixed employment/office use of up to 6.4 million square feet. This project is included in the 1982 Prince George's County General Plan and the 1991 Bowie-Collington-Mitchellville and Vicinity Master Plan.

Smart Growth Considerations

The majority of the project lies within or along the edge of Anne Arundel and Prince George's County's Priority Funding Areas (PFAs). MD 3 between MD 450 East and Waugh Chapel Road lies within or along the western edge of the PFA. The study area north of Waugh Chapel Road is outside the PFA. MD 3 between MD 450 West and US 50 are within the PFA. The area immediately adjacent to the MD 3 crossing of the Patuxent River (Priest Bridge) is not with a PFA.

IX. TRANSIT SERVICE

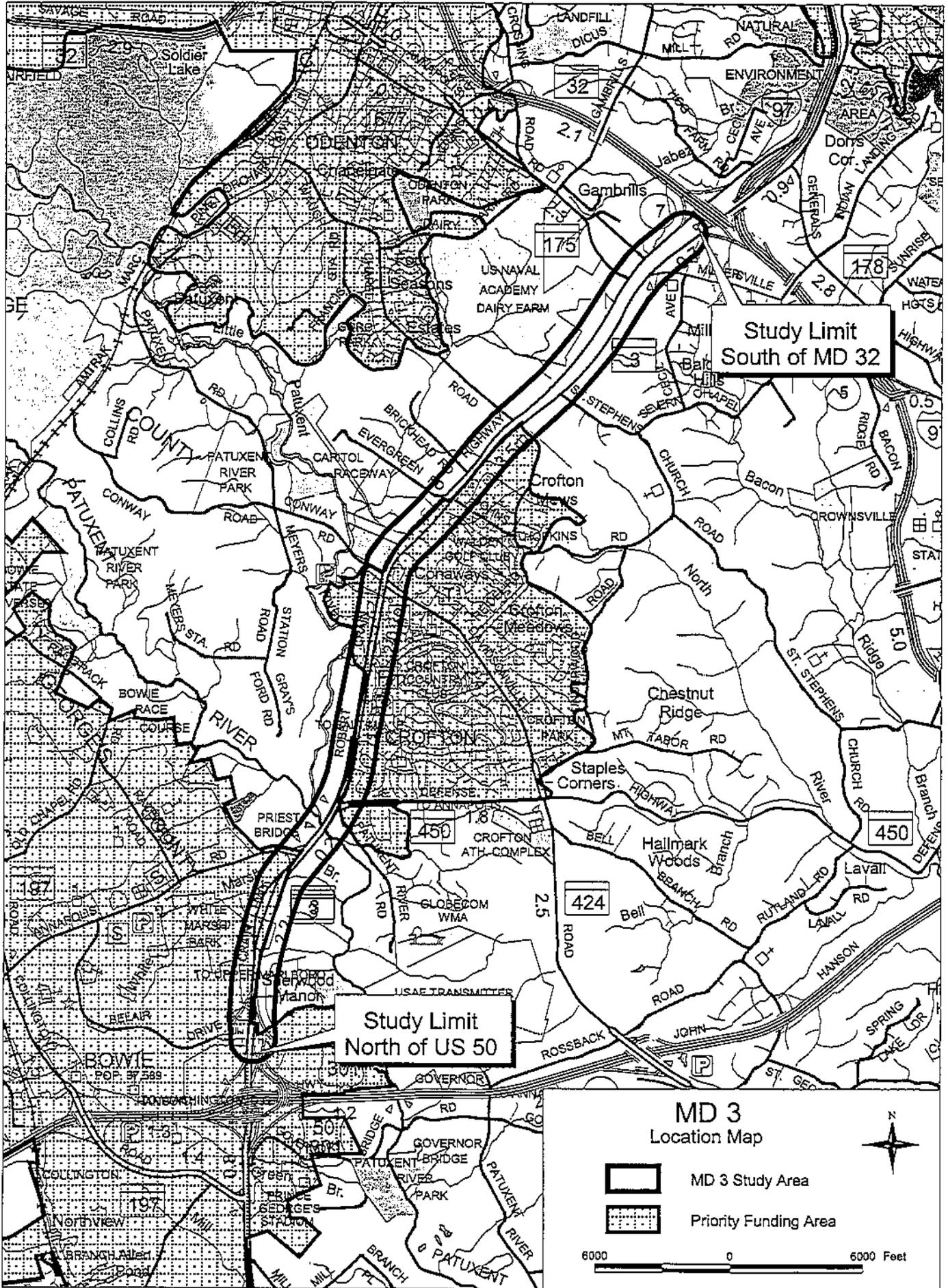
One transit route serves the study area. The route provides bus service from Crofton to the New Carrollton Metro Station. Commuters board the bus at the 100-space park and ride lot located at the Crofton Country Club near MD 3. The Crofton SAP recommends adding a Park and Ride lot west of MD 3 and north of MD 450.

X. CONCLUSION

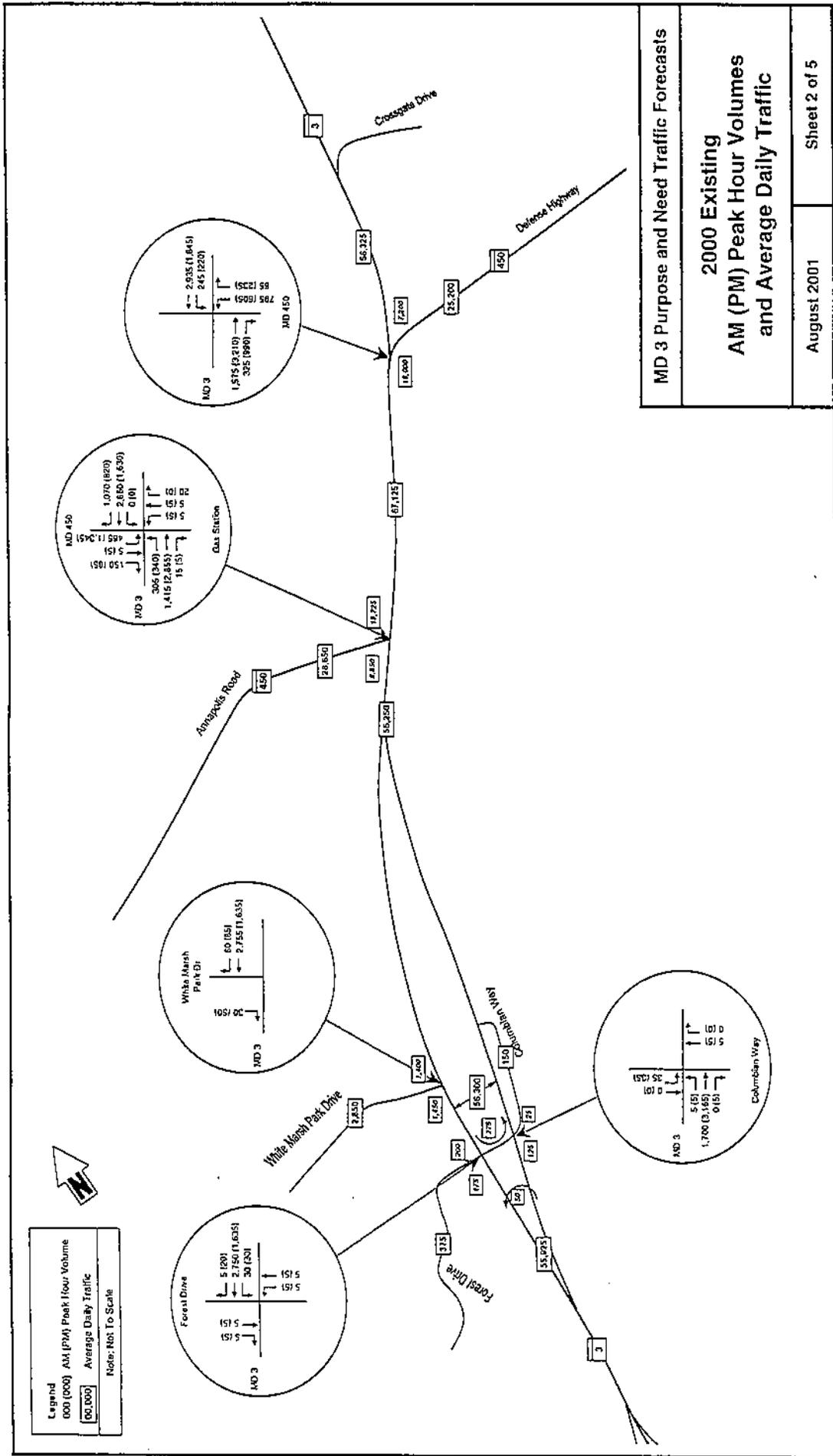
The proposed study is needed to address both existing and forecasted operational and safety issues within the MD 3 corridor. The existing roadway will be inadequate to handle future traffic volumes resulting from the existing and planned growth and development in the study area. By year 2025, all intersections within the study limits are anticipated to fail with the exception of the ramps at Belair Drive. The study area of MD 3 has safety issues related to rear-end, sideswipe, and opposite direction collisions. The significantly higher forecasted traffic volumes on this roadway are likely to increase the occurrence of accidents within the study area.

APPENDICES

Appendix A

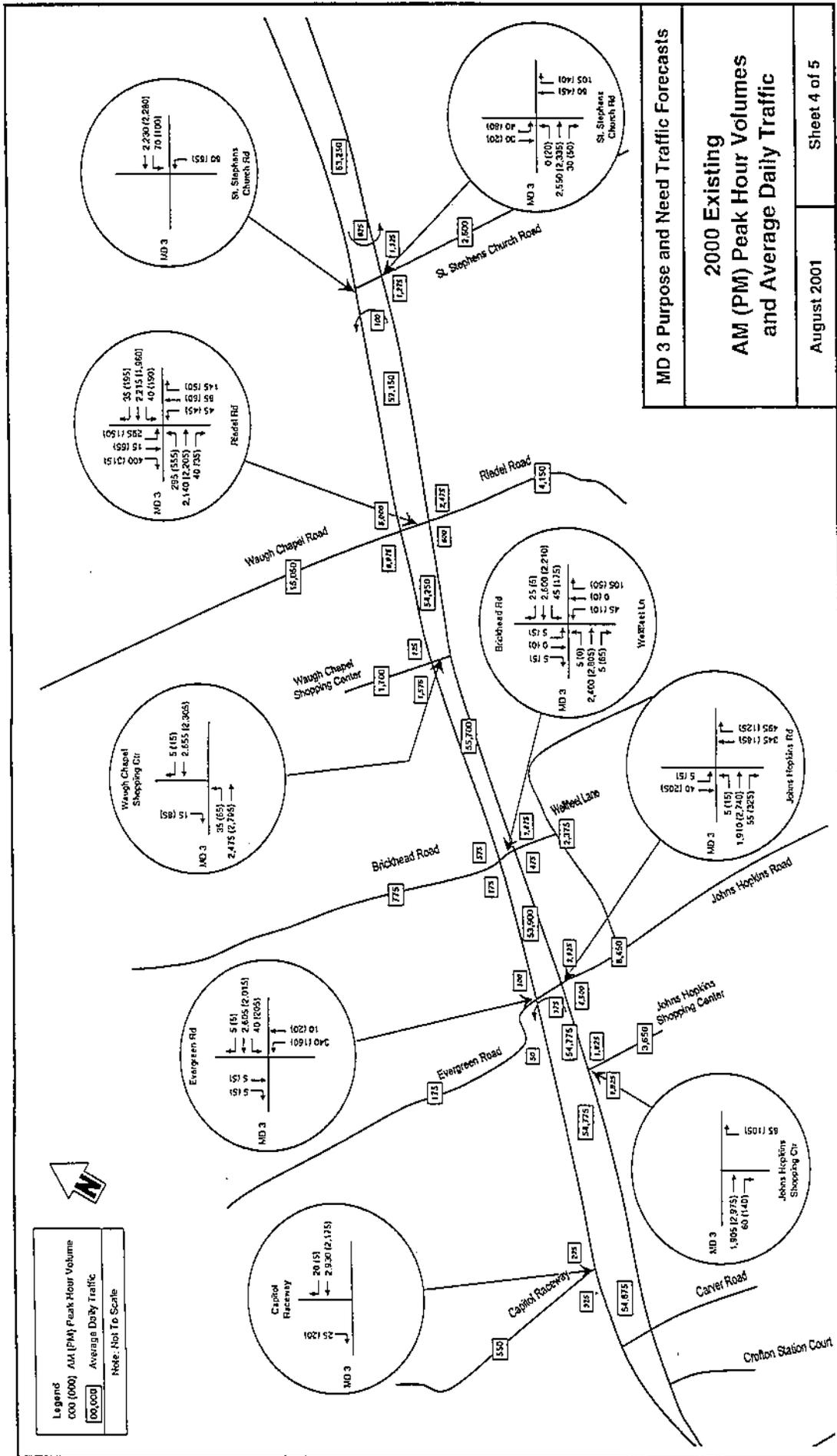


Appendix B



MD 3 Purpose and Need Traffic Forecasts
 2000 Existing
 AM (PM) Peak Hour Volumes
 and Average Daily Traffic
 August 2001
 Sheet 2 of 5

Appendix B



MD 3 Purpose and Need Traffic Forecasts

2000 Existing

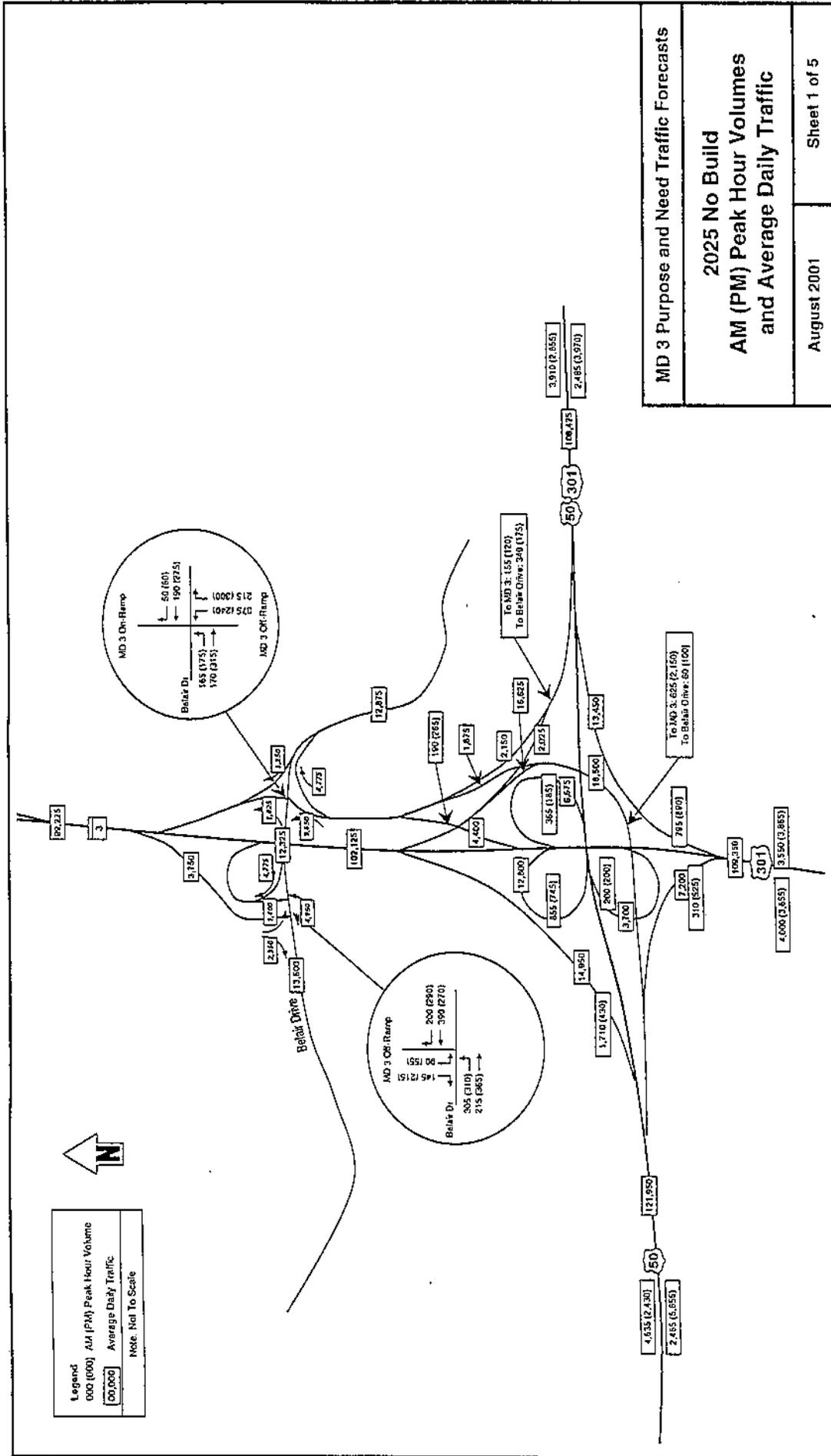
AM (PM) Peak Hour Volumes

and Average Daily Traffic

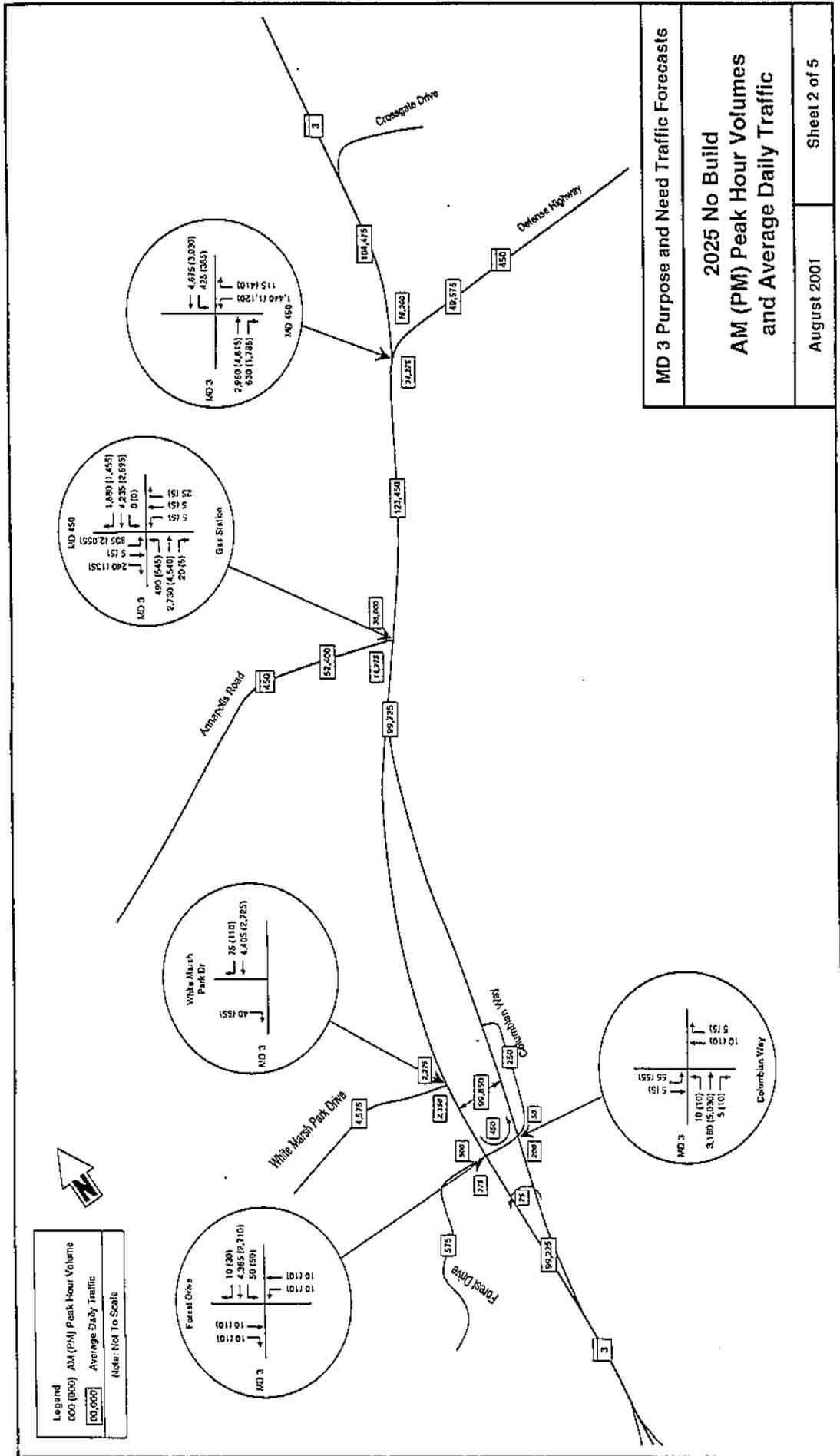
August 2001

Sheet 4 of 5

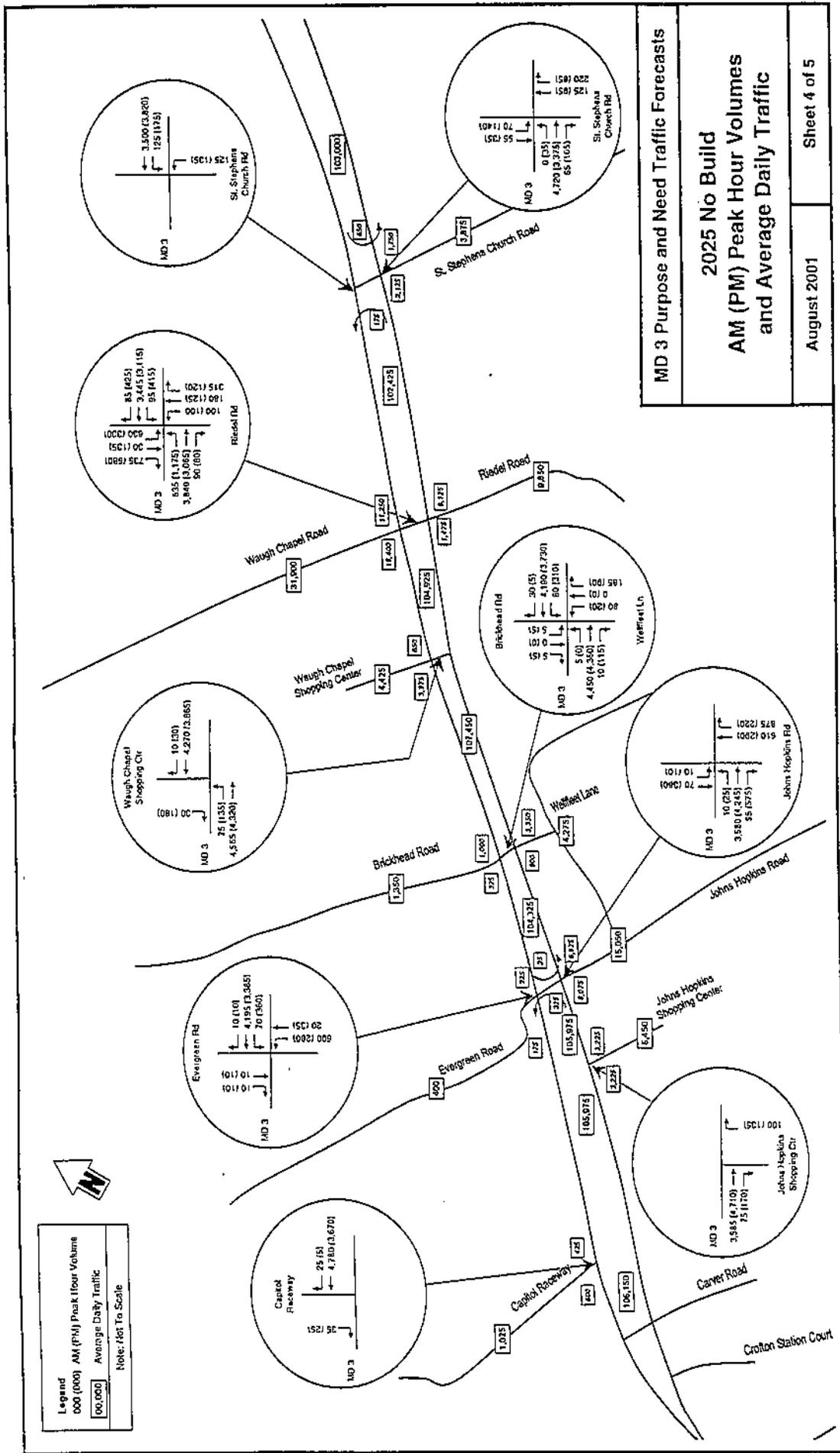
Appendix C



Appendix C



Appendix C



Appendix D

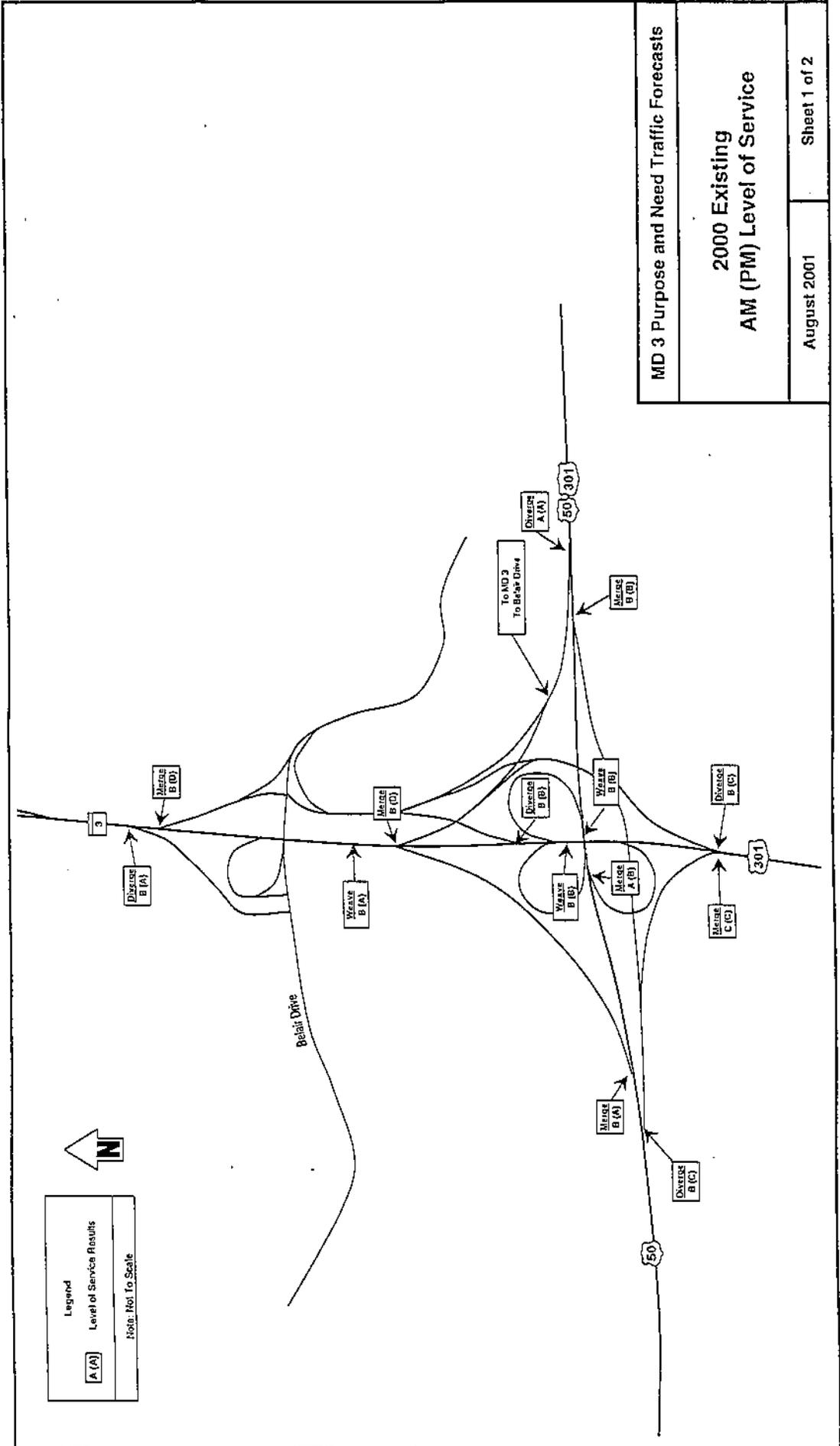
Level of service (LOS) is a qualitative measure of operating conditions which a driver will experience while traveling on a particular roadway segment or through an intersection. LOS service reflects driver satisfaction with the following factors that influence the degree of congestion: speed and travel time, traffic operations, freedom to maneuver, safety, driving comfort and convenience, and delays. The following six levels of service are used to describe highway flow conditions:

- LOS A represents a free flow where individual users are virtually unaffected by others in the traffic stream. LOS A describes a condition with low traffic volumes and high speeds with little or no delays. There is little or no restriction in maneuverability due to the presence of other vehicles. Drivers can maintain their desired speeds and can proceed through signals without having to wait unnecessarily;
- LOS B is in the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable. LOS B affords above average conditions;
- LOS C is also in the range of stable flows, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream. LOS C is normally utilized as a measure of "average conditions" for design of facilities in suburban and urban locations;
- LOS D represents high density, but stable flow. Speed and freedom to maneuver are severely restricted and the driver experiences a generally poor level of comfort. Small increases in traffic flow will generally cause operational problems at this level. LOS D is considered acceptable during short periods of time and is often used as acceptable in large urban areas;
- LOS E represents operating conditions at or near the capacity level. Operations at this level are usually unstable, because small increases in flow or minor disturbances within the traffic stream will cause breakdowns;
- LOS F is used to define forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount which can traverse the point and queues form behind the point. LOS F is characterized by demand volumes greater than the roadway capacity as complete congestion occurs and, in an extreme case, the volume passing a given point drops to near zero. Under these conditions motorists seek other routes in order to bypass congestion, thus impacting adjacent streets.

Appendix E

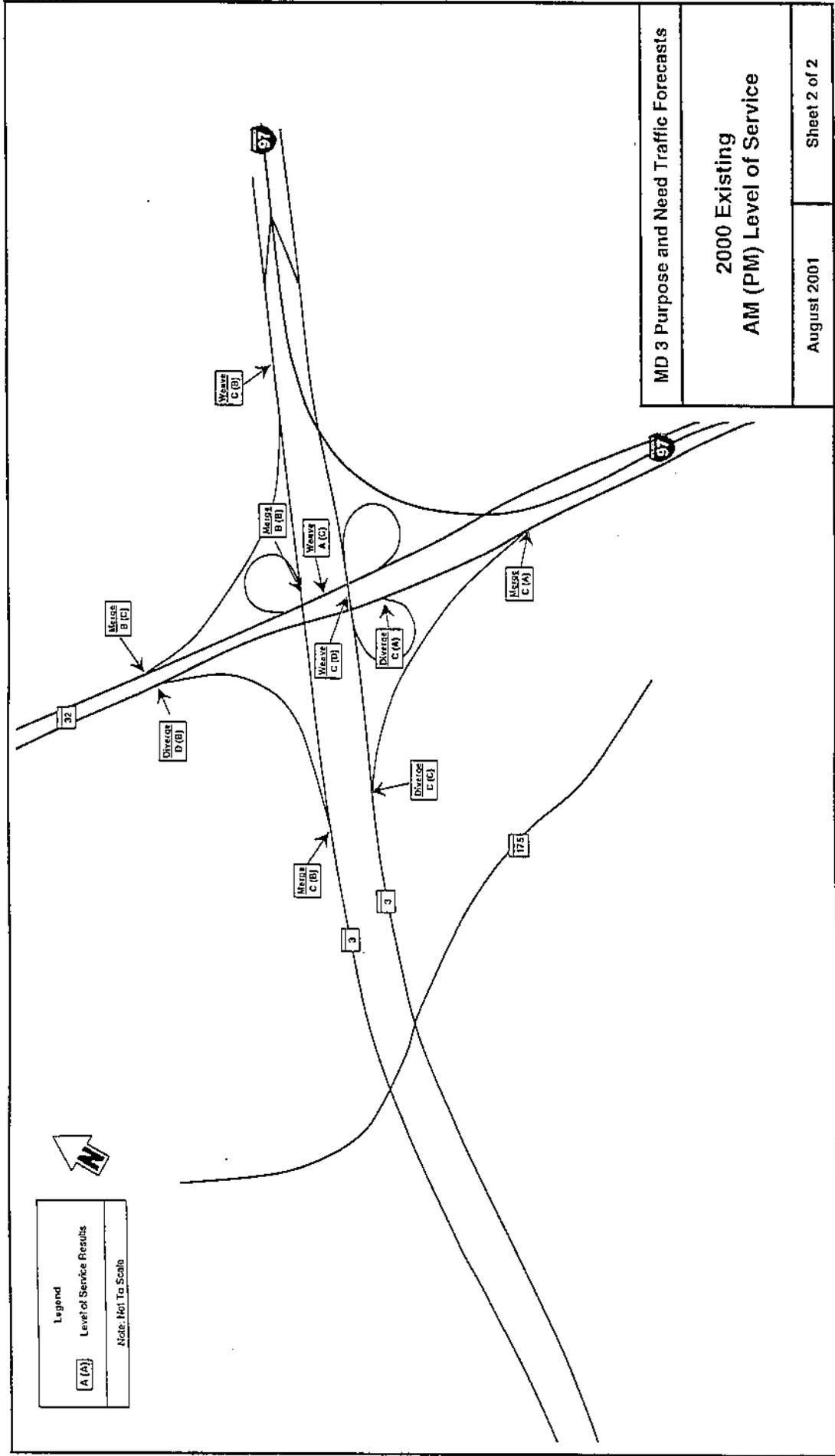
Table 1 Year 2000 Existing Conditions September 2001 (Changes from August 30, 2001 version are in bold and underlined)				
Intersection	AM Peak Hour		PM Peak Hour	
	LOS	V/C	LOS	V/C
Belair Drive - Md 3 NB Ramps	A	0.18	A	0.16
Belair Drive - Md 3 SB Ramps	A	0.22	A	0.19
Forest Drive	E	0.96	A	0.57
Colombian Way	A	0.61	F	1.11
Md 450 (Annapolis Road)	E	0.91	F	1.06
Md 450 (Defense Highway)	E	0.96	F	1.11
Cronson Boulevard	E	<u>0.95</u>	E	1.00
Crofton Boulevard	D	0.82	D	0.88
MD 424 (Conway Road)	E	0.96	F	1.05
Carver Road- West	C	0.75	A	0.56
Carver Road- East	A	0.54	C	0.79
Johns Hopkins Road- West	<u>C</u>	<u>0.80</u>	<u>A</u>	<u>0.58</u>
Johns Hopkins Road- East	C	0.79	C	0.77
Brickhead Road- West	B	<u>0.68</u>	A	0.57
Brickhead Road- East	B	0.70	D	0.82
Waugh Chapel Shopping Center	B	0.68	B	0.70
Waugh Chapel Road	D	0.82	C	0.76
St. Stephens Church Road- West	C	0.80	D	0.82
St. Stephens Church Road- East	C	0.73	B	0.66
MD 175 (Annapolis Road)- West	E	0.91	E	0.99
MD 175 (Annapolis Road)- East	F	1.03	D	0.88

Appendix E



MD 3 Purpose and Need Traffic Forecasts	
2000 Existing AM (PM) Level of Service	
August 2001	Sheet 1 of 2

Appendix E

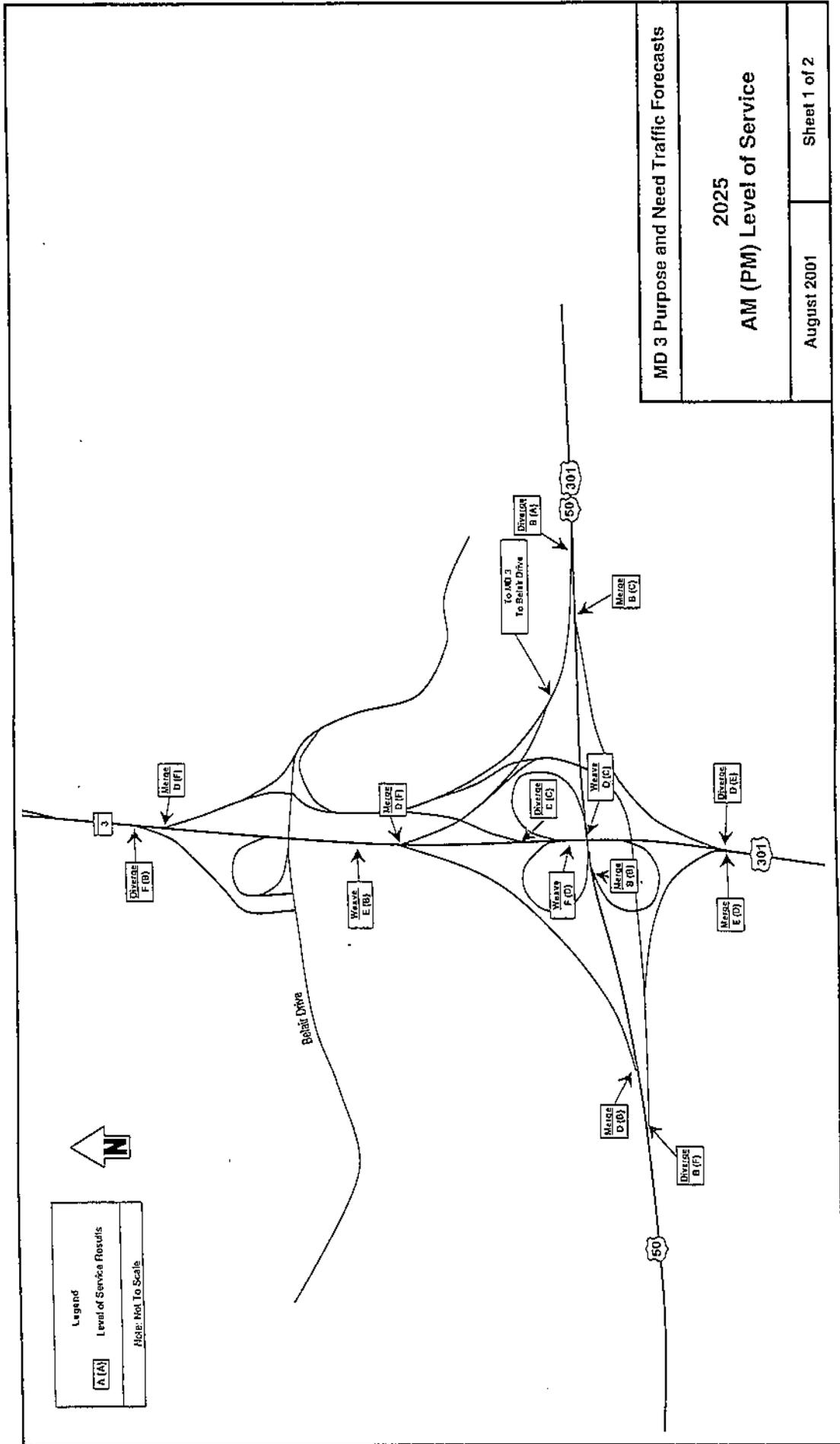


MD 3 Purpose and Need Traffic Forecasts	
2000 Existing AM (PM) Level of Service	
August 2001	Sheet 2 of 2

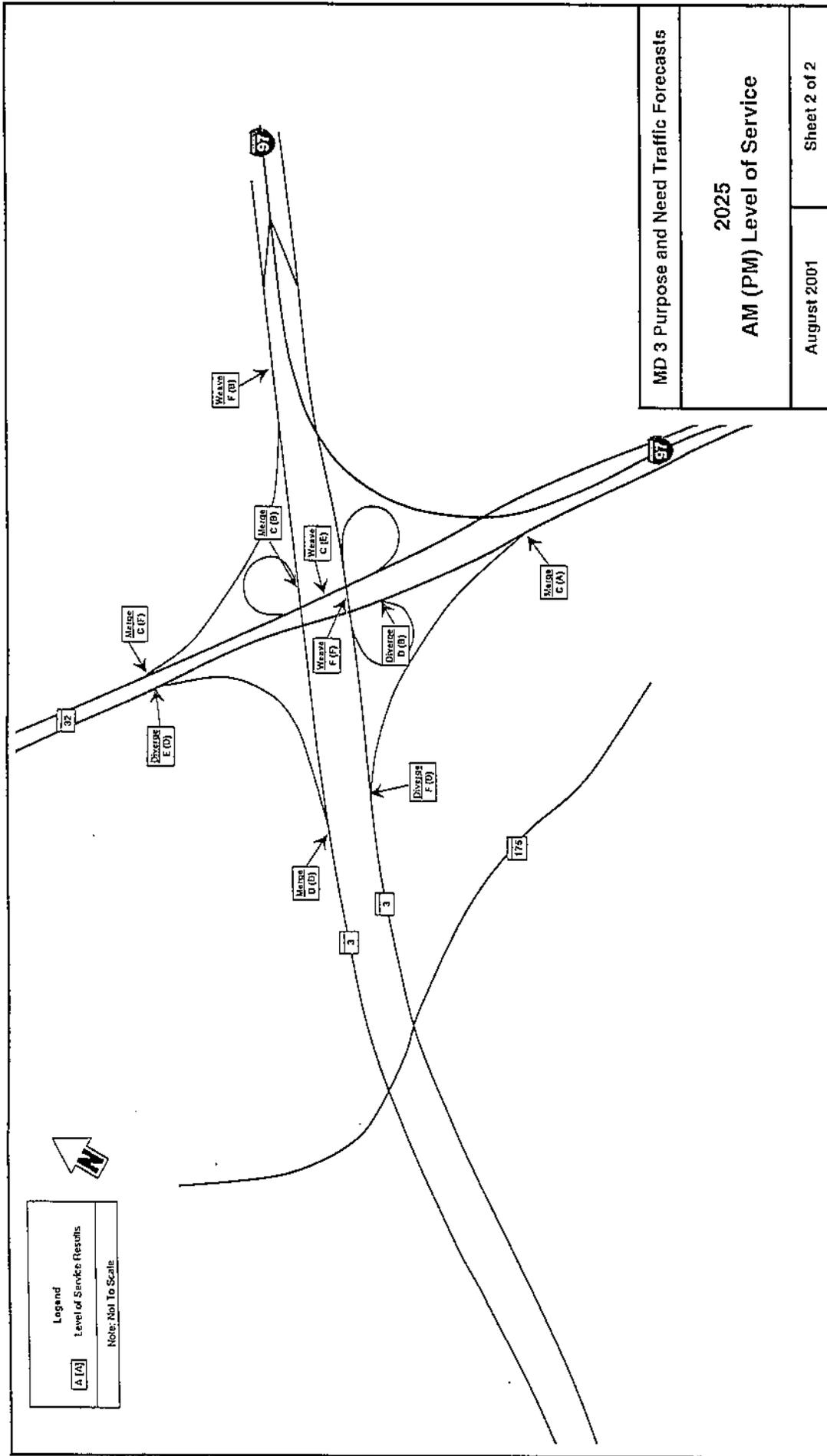
Appendix F

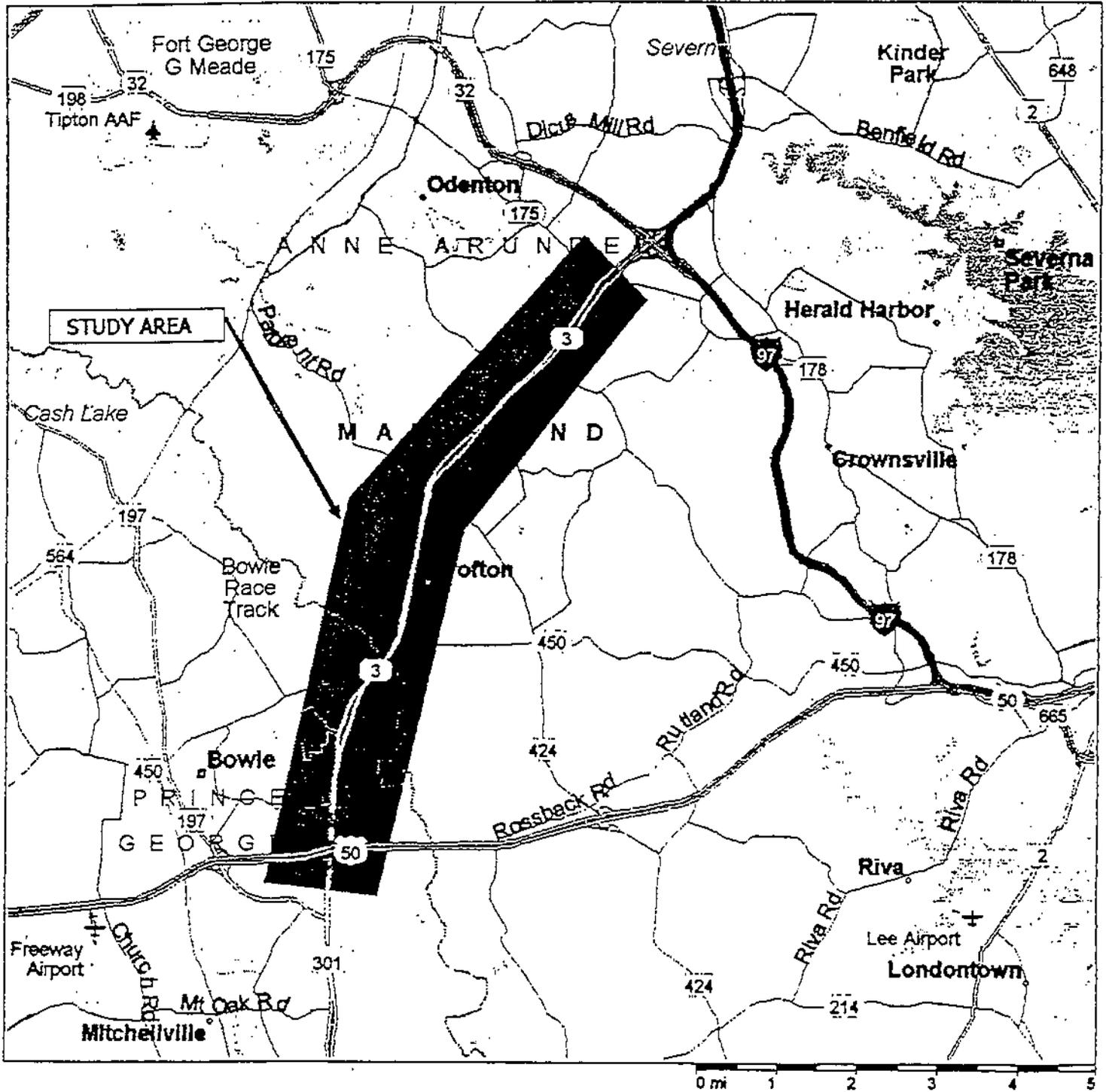
Table 2 Year 2025 No-Build Conditions September 2001 (Changes from initial August 30, 2001 are in bold and underlined)				
Intersection	AM Peak Hour		PM Peak Hour	
	LOS	V/C	LOS	V/C
Belair Drive - Md 3 NB Ramps	A	0.31	A	0.29
Belair Drive - Md 3 SB Ramps	A	0.36	A	0.31
Forest Drive	F	1.53	E	0.95
Colombian Way	F	1.14	F	1.77
Md 450 (Annapolis Road)	F	<u>1.47</u>	F	1.66
Md 450 (Defense Highway)	F	1.57	F	1.76
Cronson Boulevard	F	1.59	F	1.65
Crofton Boulevard	F	1.33	F	1.41
MD 424 (Conway Road)	F	1.56	F	1.73
Carver Road- West	F	1.23	E	0.94
Carver Road- East	<u>E/F</u>	<u>1.00</u>	F	1.26
Johns Hopkins Road- West	F	<u>1.30</u>	<u>E</u>	<u>0.98</u>
Johns Hopkins Road- East	F	1.45	F	1.21
Brickhead Road- West	F	1.11	E	0.95
Brickhead Road- East	F	1.28	F	1.29
Waugh Chapel Shopping Center	F	1.14	F	1.08
Waugh Chapel Road	F	1.43	F	1.35
St. Stephens Church Road-West	F	1.28	F	1.40
St. Stephens Church Road- East	F	1.36	E	0.99
MD 175 (Annapolis Road)- West	F	1.50	F	1.73
MD 175 (Annapolis Road)- East	F	1.94	F	1.32

Appendix F



Appendix F





Study Area Location

Exhibit 1

**Table 1H- Accident Data for MD 3
(North of MD 175 to MD 32/I-97)**

Type	1998	1999	2000	Total	Study Rate	Statewide Rate
Fatal	0	0	0	0	0.0	1.6
Injury	2	4	6	12	13.9	49.3
Property Damage	4	11	3	18	20.8	49.6
Opposite Direction	0	0	0	0	0.0	2.2
Rear End	1	4	5	10	11.5	31.5
Sideswipe	0	1	1	2	2.3	4.7
Left Turn	1	0	0	1	1.2	8.1
Angle	1	0	0	1	1.2	17.6
Pedestrian	0	0	0	0	0.0	1.1
Parked Vehicle	0	1	1	2	2.3	1.2
Fixed Object	2	7	1	10	11.5	18.9
Other	1	2	1	4	4.6	5.3
Truck Related Accidents	0	4	1	5	5.8	118.7

Notes: * Significantly Higher Than Statewide

**Table 2H- Accident Data for MD 3
(South of Johns Hopkins Road to North of MD 175)**

Type	1998	1999	2000	Total	Study Rate	Statewide Rate
Fatal	0	3	0	3	1.9	1.5
Injury	38	37	40	115	71.7	83.2
Property Damage	41	58	54	153	95.4	92.6
Opposite Direction	0	2	2	4	2.5	3.3
Rear End	35	50	42	127	79.2*	62.3
Sideswipe	10	9	12	31	19.3*	11.6
Left Turn	2	5	2	9	5.6	18.6
Angle	8	8	13	29	18.1	28.6
Pedestrian	1	0	1	2	1.3	4.4
Parked Vehicle	0	1	3	4	2.5	2.8
Fixed Object	9	11	10	30	18.7	20.8
Other	14	12	9	35	21.8	17.9
Truck Related Accidents	11	19	16	46	28.7	173.6

Notes: * Significantly Higher Than Statewide

**Table 3H- Accident Data for MD 3
(North of MD 424 to South of Johns Hopkins Road)**

Type	1998	1999	2000	Total	Study Rate	Statewide Rate
Fatal	0	0	0	0	0.0	1.5
Injury	10	6	5	21	62.8	113.8
Property Damage	9	10	9	28	83.8	131.4
Opposite Direction	3	0	0	3	9.0*	4.3
Rear End	2	4	4	10	29.9	90.0
Sideswipe	2	4	1	7	21.0	17.9
Left Turn	1	0	0	1	6.0	28.1
Angle	5	5	4	14	41.9	38.5
Pedestrian	1	0	1	2	6.0	7.4
Parked Vehicle	0	0	0	0	0.0	4.2
Fixed Object	4	0	2	6	18.0	22.5
Other	1	3	1	5	15.0	29.3
Truck Related Accidents	3	1	1	5	15.0	223.0

Notes: * Significantly Higher Than Statewide

**Table 4H- Accident Data for MD 3
(South of MD 450 to North of MD 424)**

Type	1998	1999	2000	Total	Study Rate	Statewide Rate
Fatal	1	0	2	3	2.3	1.5
Injury	27	30	25	82	63.2	113.8
Property Damage	30	38	44	112	86.4	131.4
Opposite Direction	0	0	1	1	0.8	4.3
Rear End	21	33	32	86	66.3	90.0
Sideswipe	5	5	3	13	10.0	17.9
Left Turn	5	4	5	14	10.8	28.1
Angle	8	5	6	19	14.7	38.5
Pedestrian	1	1	2	4	3.1	7.4
Parked Vehicle	4	2	1	7	5.4	4.2
Fixed Object	6	6	7	19	14.7	22.5
Other	8	12	14	34	26.2	29.3
Truck Related Accidents	11	16	11	38	29.3	223.0

Notes: * Significantly Higher Than Statewide

**Table 5H- Accident Data for MD 3
(South of MD 450 AA County to South of MD 450 PG County)**

Type	1998	1999	2000	Total	Study Rate	Statewide Rate
Fatal	0	0	0	0	0	1.4
Injury	7	20	11	38	138.1	118.7
Property Damage	7	8	12	27	98.1	130.3
Opposite Direction	1	1	0	2	7.3	4.2
Rear End	9	19	9	37	134.4*	90.5
Sideswipe	0	1	3	4	14.5	17.8
Left Turn	0	0	0	0	0.0	29.9
Angle	1	0	2	3	10.9	39.7
Pedestrian	0	0	0	0	0.0	7.7
Parked Vehicle	1	1	0	2	7.3	4.5
Fixed Object	0	0	4	4	14.5	22.8
Other	2	5	5	12	43.6	28.9
Truck Related Accidents	2	2	1	5	18.2	17.0

Notes: * Significantly Higher Than Statewide

**Table 6H- Accident Data for MD 3
(South of MD 450 to North of Belair Drive)**

Type	1998	1999	2000	Total	Study Rate	Statewide Rate
Fatal	0	1	0	1	1.5	1.4
Injury	4	8	4	16	23.7	118.7
Property Damage	6	6	3	15	22.2	130.3
Opposite Direction	0	0	0	0	0.0	4.2
Rear End	2	3	2	7	10.4	90.5
Sideswipe	0	2	1	3	4.4	17.8
Left Turn	0	0	0	0	0.0	29.9
Angle	1	1	1	3	4.4	39.7
Pedestrian	0	0	0	0	0.0	7.7
Parked Vehicle	0	0	0	0.0	0.0	4.5
Fixed Object	3	2	1	6	8.9	22.8
Other	4	7	2	13	19.2	28.9
Truck Related Accidents	1	1	1	3	4.4	17.0

Notes: * Significantly Higher Than Statewide

**Table 7H- Accident Data for MD 3
(North of Belair Drive to North of South of US 50/301)**

Type	1998	1999	2000	Total	Study Rate	Statewide Rate
Fatal	0	0	0	0	0.0	1.4
Injury	4	1	1	6	11.1	118.7
Property Damage	5	1	5	11	20.3	130.3
Opposite Direction	0	0	0	0	0.0	4.2
Rear End	1	2	1	4	7.4	90.5
Sideswipe	2	0	0	2	3.7	17.8
Left Turn	0	0	0	0	0.0	29.9
Angle	0	0	0	0	0.0	39.7
Pedestrian	0	0	0	0	0.0	7.7
Parked Vehicle	0	0	0	0.0	0.0	4.5
Fixed Object	3	0	1	4	7.4	22.8
Other	3	0	4	7	12.9	28.9
Truck Related Accidents	1	0	1	2	3.7	17.0

Notes: * Significantly Higher Than Statewide

