



# **Section B**

# **DATA SOURCES**



## 1. Introduction

Multiple data sources were employed to acquire the necessary input data for this comprehensive transportation planning study. The following section summarizes the data requirements and the sources for the specific data.

## 2. Traffic Data Sources

### a. Turning Movement Counts

A twelve-hour (7AM to 7PM) vehicular turning movement count was conducted at a total of 39 separate study intersections. The turning movement counts were conducted on a typical weekday (Tuesday, Wednesday, or Thursday) to emulate normal peak-season workday traffic conditions. The majority of the traffic counts were conducted during the months of July and August in 2004. Several additional counts were conducted during July of 2005, following the decision to increase the number of data collection sites. The morning and evening peak hours were quantified and used as the basis of further intersection and corridor evaluation. The turning movement counts are provided in **Appendix A3 – Traffic Turning Movement Counts**.

As previously noted, the turning movement count data serves as the basis for all future analysis year (2015 and 2030) computations. Therefore, it is imperative to ensure that the base data is accurate and valid. Prior to utilizing the existing traffic count data in any analyses, the data was reviewed by a third-party consultant for validity. The 2004 traffic count data was reviewed, and found to be accurate and valid. **Appendix A9 – Validation of Existing Turning Movement Count Data** summarizes the validation process.

### b. Design Period Justification

The summer weekend is considered the “worst case”, because the highest traffic volumes can be found on certain roadways during a summer weekend. These high traffic volumes are generated from “Reach the Beach” traffic driving through Talbot County, mainly along US 50, to reach their recreational destinations. The transportation study uses a standard practice scenario that captures traffic patterns common along all roadways within the County, not just roadways used by tourists visiting or passing through. The more common local traffic patterns occur during normal working hours, meaning morning and evening peak periods during the week.

The summer weekend design period volumes could be misleading and conflict with the decision making agenda. The design period does not place the focus on the entire County and could over allocate transportation funding. Incorporating capacity improvements to a roadway based on weekend volumes will solve the problem for the weekend days; however the improvements would be underutilized for the other days of the week.

In order to coordinate mitigation efforts with SHA, the Talbot County Transportation Study/Thoroughfare Plan needs to speak the SHA-language. SHA’s long range planning process requires using design data during an acceptable weekday (Tuesday through



Thursday). SHA does not base their infrastructure improvements solely on weekend traffic patterns. In order to develop a document which will assist the County to initiate a dialogue with SHA, the document should be formulated to match an acceptable SHA Planning Study.

The Talbot County Transportation Study/Thoroughfare Plan, which the Talbot County Council will be using to aid in the decision-making process for future infrastructure upgrades, should not be based on a summer weekend analysis, thereby modeling a “worst case” condition. In short, if the County Council were to make fiscal decisions on a worst case condition, the Council may be spending money on upgrades that focus on one seasonal traffic variation and not the entire year.

### c. Forecasting Data

A rigorous transportation planning procedure was completed to quantify 2015 (short-term) and 2030 (long-term) traffic volumes. **Section C** of this report summarizes in detail the traffic forecasting process, but in general the travel forecast was developed from the following process:

1. Created a travel forecast network within Talbot County.
2. Identified locations where traffic will enter and exit Talbot County.
3. Applied the traditional four-step travel forecasting process using the Quick Response System (QRS) computer software package for the short-term design year (2015).
  - *Trip Generation* – Used Talbot County demographic and economic data, assumed growth rates, and known developments to determine the number of trips produced from Talbot County, number of trip coming to Talbot County, and number of trip passing through Talbot County.
  - *Trip Distribution* – Linked the generated trips from where they started to their ending location.
  - *Mode Choice* – Studied motorized vehicular modes of transportation (Transit and non-motorized transport was not studied).
  - *Trip Assignment* – Designate the connected trips to a specific route.
4. Applied the traditional four-step travel forecasting process for the long-term design year (2030), which does not include known development information in the trip generation step.
5. Developed morning and evening peak period turning movement volumes for the study intersections for both 2015 and 2030 design years.

### d. Signal Timing

Traffic signal timing data from SHA was requested and provided for all signalized study intersections. The information is employed in the *Highway Capacity Manual* signalized intersection analyses, which is discussed in **Section D**, and used the simulation modeling software Synchro to validate the conditions calculated from the analysis. The signal timing data is provided in **Appendix A6 – Traffic Signal Timing Data**.



**e. Accident Data**

Accident data for Talbot County was requested and provided by SHA and Talbot County for the study years of 2002 through 2004. The accident data indicates the location, time, severity, type, conditions, and circumstances of all police reported accidents along state-maintained and county-maintained roadways. The accident data was tabulated and analyzed to find patterns and identify high accident locations for further investigation. The accident data summary is provided in **Appendix A5 – 2001-2004 Accident Data**.

**3. System Inventory**

Talbot County has approximately 498 miles of publicly maintained streets and highways in its roadway system. About 369 miles (74 percent) are operated and maintained by the County, and 129 miles (26%) are operated and maintained by the State. Included in the roadway safety analysis is a full inventory of the significant county-maintained roadways in Talbot County. The inventory identifies roadway width, shoulder width, pavement type, pavement condition, and location of clear zone obstructions. The detailed information is provided in **Appendix B6 – County Roadway Inventory**.

**a. State Roadway System**

Additionally, all roadways in Talbot County were identified by roadway classification. The following list summarizes the Federal Highway Functional Classification of the State-maintained roadways:

<u>Principal Arterial</u>	<u>Minor Arterials</u>	<u>Major Collectors</u>	<u>Minor Collectors</u>	<u>Local Roads</u>
US 50	MD 33	MD 309	MD 303	MD 565
MD 322	MD 28	MD 370	MD 329	MD 579
MD 404	MD 331		Alt. MD 404	MD 662
	MD 333		MD 451	

**b. County Roadway System**

The following list summarizes the Federal Highway Functional Classification of the County-maintained roadways (Source: Map 4-1 in the Talbot County Comprehensive Plan):

<u>Major Collector</u>	<u>Minor Collector</u>	<u>Minor Collector (Cont.)</u>
Unionville Road	Baileys Neck Road	Landing Neck Road
	Barber Road	Little Park Road
	Bellevue Road	Llandaff Road
	Black Dog Alley	Manadier Road
	Bruceville Road	Rabbit Hill Road
	Chancellor Point Road	Sharp Road
	Dover Neck Road	Skipton Cordova Road
	Dutchman's Lane	Todd's Corner Road
	Island Creek Road	Tunis Mills Road
	Kitty's Corner Road	



In addition to the state roadway classification system, Talbot County also classifies their roadways in the following categories:

- Major Road
- Major Village Arterial
- Minor Village Arterial
- Major Collector
- Minor Collector
- Private Road