

4.0 TRAFFIC

4.1 Introduction

The traffic impact study for the project, which was presented in the DEIR, examined year 2002 traffic volumes and operating conditions along roadways providing access to the airport. Traffic projections were made to a future design year (2007) based on anticipated airport-related traffic growth and other background island traffic growth unrelated to the airport. Anticipated future traffic volume levels were evaluated with respect to roadway system capacity to determine anticipated system deficiencies with and without the airport improvement project. Where appropriate, measures have been proposed to mitigate impacts associated with future traffic growth or to address existing roadway system deficiencies.

4.2 Consistency with Nantucket Comprehensive Community Plan

As part of the review of traffic operations and future impacts to the road network around Nantucket Airport, an evaluation of the Nantucket Comprehensive Community Plan Transportation Recommendations is included below:

The sixteen proposed actions outlined in the Comprehensive Plan under Chapter 5, Managing Transportation¹, direct the town in identifying potential improvements to traffic congestion and circulation on the island. All the actions have merit towards the development of an efficient transportation network for Nantucket. These are some key elements of these actions that should provide the most benefit to transportation and traffic control on the island.

- ◆ **Create an entity to monitor, make recommendations, and guide the transport of people, vehicles, and goods to the island.** This Transportation Planning Group should include the Steamship Authority, MassHighway, Airport Commission, Town Officials, and the public to identify areas of critical concern including traffic circulation, congestion, traffic calming, goods delivery, transit improvements, and pedestrian / bicycle improvements.
- ◆ **Research methods for reducing traffic backups at key intersections that do not require traffic signals or road widening, such as opening alternative through-roads and interconnections.** As part of the traffic analysis for the DEIR, the Airport Commission evaluated traffic mitigation strategies described in Section 4.3 of this FEIR. Investigations of airport traffic did not identify the need to open any alternative through roads or new interconnections, due to low airport traffic volumes.

¹ From The Nantucket Comprehensive Community Plan, NP&EDC, 2000, pp.21.

- ◆ **Consider the feasibility of requiring new development to undergo an analysis of its impact on traffic.** The MEPA process and Nantucket Community Plan already provide for review of traffic impacts from developers. As mentioned, the traffic analysis for this proposed project was presented in the DEIR.
- ◆ **Reduce automobile dependence by improving and expanding the NRTA.** As part of the Airport's Transportation Demand Management (TDM) program, the proposed project includes establishing a NRTA bus stop at the airport. This bus stop was in service during the 2003 peak season. To discourage automobile travel to the airport, this project does not include construction of additional parking spaces.
- ◆ **Promote the expansion of bicycle usage.** Also as part of its TDM program, Airport is funding design and construction of a bike path from Old South Road to the airport entrance. A design consultant has been selected, and construction will begin in the Spring of 2004. The airport will provide bicycle storage for airport and airline employees and for passengers.

Additional discussion of the project's consistency with the Nantucket Comprehensive Community Plan can be found in Section 1.5.3 of this FEIR.

4.3 Island-wide Mitigation Measures

Recommended actions the island as a whole should consider include the following traffic mitigation measures:

- ◆ Identifying alternative routes to reduce congestion at certain intersections
- ◆ Addressing the roadway design deficiencies of the rotary
- ◆ Implementing the Nantucket Community Comprehensive Plan recommendations
- ◆ Creating an island-wide transportation advisory entity
- ◆ Researching traffic diversion opportunities
- ◆ Fully funding bus service to the airport
- ◆ Encouraging bicycling

4.3.1 Proposed Intersection Improvements

The Airport Commission proposes to ask the Town to convert the Old South Road and Macy Lane intersection to a four-way stop sign control intersection. This change would spread the delay onto four approaches instead of having excessive delay on two of the four approaches. Traffic on Macy Lane's northbound approach would then have more time to enter the Old South Road traffic flow during peak hour. The four-way stop option at Old South Road and Macy Lane is the mitigation measure that provides the greatest

improvement in level of service with no impact to right-of-way. Consequently, the NP&EDC has arranged for the installation of the four-way stop signs at this intersection.

4.3.2 Other Mitigation Measures

As part of its TDM program, the Airport began funding NRTA bus service during the 2003 peak season. It has committed to continue the service for the 2004 peak season. For the two years, the Airport will spend approximately \$300,000. The service provides a significant option for airport passengers instead of traditional single occupant vehicle travel, which adds to traffic congestion on the island. As part of this project, the airport proposes to add a bus shelter proximate to the new terminal building. This measure should reduce vehicle trips to the airport. It is anticipated that transit service to the airport will be particularly beneficial to commuter traffic and to other regular airport users.

The airport will continue to provide bicycle storage for use by airport and airline employees and by passengers.

The projected decrease in the level of service at the intersection of Milestone Road and Polpis Road is not related to growth at the airport. The Town, however, may want to consider, within the context of the Comprehensive Community Plan, what measures may be implemented to ease potential future congestion at that location.

The Rotary at Milestone Road and Old South Road is poorly designed. Improvements to traffic control and road geometry are needed. The design of a standard single lane roundabout would be a significant improvement to existing traffic flow and safety conditions. Due to the heavy use of the rotary by pedestrians and cyclists, raised splitter islands with pedestrian access are recommended instead of the small islands on these approaches. Splitter islands are an essential safety feature with multiple roles; they separate entering and exiting traffic, deflect and slow entering traffic, and provide refuge for pedestrians.

The Nantucket Comprehensive Community Plan has aggressive strategies to reduce traffic impacts on the island during peak summer months. These strategies will have a beneficial impact on traffic conditions on the island if implemented as outlined in the Plan.

4.4 Conclusion

Based on a review of existing and future airport traffic on the island, and review of recent transportation documents including the Nantucket Comprehensive Community Plan and the traffic report *Optimal Transportation Carrying Capacity for Nantucket* completed by Howard / Stein-Hudson and RKG Associates, the following conclusions are summarized:

The airport contributes traffic around the airport based on enplanements and development growth trends. Current projections and trends indicate the airport will continue to grow in passenger traffic, but at a slower rate than previous historical trends. The 2.4% annual

growth rate in enplanements increases traffic for certain traffic movements on Macy Lane, Old South Road and Milestone Road.

- ◆ The three key intersections described here and in the HSH/RKG report remain under poor operating conditions, if no mitigation plans are implemented. Traffic from the airport creates minor increases in delay for certain traffic movements. This FEIR recommends improvements to the Old South Road at Macy Lane intersection, including implementation of a four-way stop. The airport proposes to implement this improvement and will recommend its implementation to the Town. As noted above, this work has been completed.