INTEGRATING TRANSPORTATION and COMMUNITY PLANNING

iTRaC

Helping Communities face the challenge and impacts of growth while maintaining community character and a sense of place.

FACT SHEET 10

iTRaC is the Nashua Regional Planning Commission's new approach to community planning that focuses on integrating transportation, land use and environmental planning. The program was developed to assist communities in dealing with the challenges of growth in a coordinated way that sustains community character and a sense of place.

Road Standards

Roadway Hierarchy

Roads form the backbone of the transportation system in the United States. With the development of the Interstate Highway System in the 1950's, the focus of mobility shifted to the automobile. The result is a hierarchy of roadway classifications that form an integrated network for automobile travel. It is important to note that roadway classifications are not based entirely on traffic volume. For example, an arterial road in an urban area may have significantly higher volume than an arterial in a rural community.

- **Interstate Highways** ~ are at the top of the hierarchy. They are limited access, provide largely uninterrupted travel over long distances, and are designed for high speeds.
- **Arterial Roads** ~ are the next level of roadways. They serve to move large volumes of traffic through a town or to connect one section of town with another section.
- **Collector Roads** ~ act to feed traffic to or from local roads and arterials. Collector roads provide direct access to abutting properties and distribute it to or from arterials. Traffic using a collector is usually going to or coming from somewhere nearby.
- **Local Roads** ~ provide for internal movement within residential areas and for direct access to abutting property.

Local Examples of Roadway Hierarchy

Highway
Example: Everett Turnpike
Average Daily Traffic (ADT): 126,336 (year 2004)

Arterial Road
Urban Example: NH 101A, west of Somerset Parkway, Nashua
Urban ADT: 45,985 (year 2002)

Rural Example: NH Rt. 122, Amherst/Hollis
Rural ADT: 9,973 (year 2005)

Collector Road
Urban Example: Manchester St, Nashua
Urban ADT: (year 2004)

Rural Example: Albuquerque Ave, Litchfield
Rural ADT: 3,339 (year 2004)

Local Road
Urban Example: East Stark St, Nashua
Urban ADT: 1,074 (year 2006)

Rural Example: Wheeler Road, Hollis
Rural ADT: 780 (year 2000)

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Updated July 2007

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85% Rule of Speed Limits

Most states including New Hampshire have a basic speed law which recognizes that driving conditions and speeds may vary widely from time to time. No posted speed limit can adequately serve all driving conditions. Motorists must constantly adjust their driving behavior to fit the conditions they meet. Speed limits encourage consistent travel speeds, fostering safety for the traveling public by reducing the speed differentials between motor vehicles.

According to the Federal Highway Administration, all States and most local agencies use the 85th percentile rule to determine speed limits. This reflects the speed that 85% of vehicles naturally travel at or below in free-flowing traffic. However, it is fairly common to reduce the speed limit based on a subjective consideration of additional factors, such as roadway and roadside conditions.

When setting speed limits, engineers also consider other factors such as:

- Roadway characteristics, shoulder condition, grade, alignment, and sight distance
- Roadside development and lighting
- Parking practices (ex. angle parking), pedestrian and bicycle activity
- Collision rates and traffic volume trends
- Right lane/entering traffic conflicts (for freeways)

Dublin Avenue, Nashua

Henri Burque Highway, Nashua

Everett Turnpike

Standard Road Widths

The following table of standard roadway widths is from *A Policy on Geometric Design of Highways and Streets 2001*; AASHTO.

	Minimum width of traveled way (ft) for specific design volume (vpd = vehicles per day)			
Design Speed (mph)	**Under 400 vpd**	**400-1500 vpd**	**1501-2000 vpd**	**2000+ vpd**
20	18	20	22	24
25	18	20	22	24
30	18	20	22	24
40	18	20	22	24
45	20	22	22	24
50	20	22	22	24
55	22	22	24	24
60	22	22	24	24
Width of Graded Shoulder on Each Side of Road (ft)				
All Speeds	2	5	6	8

For more details on this topic or an overview of the entire iTRaC program, visit **www.nashuarpc.org/itrac**. There you will find fact sheets, resource cards, and helpful links for a variety of planning topics as well as our lending library, schedules of upcoming trainings and materials from past trainings, best practices guidelines, frequently asked questions, and much more. You may also contact Camille Pattison, iTRaC Program Manager, at camillep@nashuarpc.org or 603-883-0366 x14.