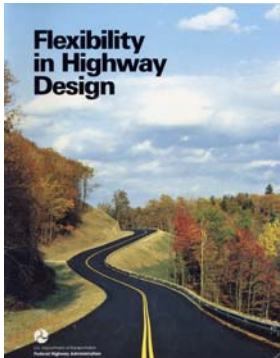


## FLEXIBLE DESIGN OF NEW JERSEY'S MAIN STREETS



Ewing, Reid, and King, Michael (1998). *Flexible Design of New Jersey's Main Streets*, Rutgers University and New Jersey Department of Transportation. Trenton, New Jersey.

### ABSTRACT

This report proposes a series of policy and practice changes to add flexibility and context sensitivity to the New Jersey DOT's design process for main streets. Among the recommendations are:

- Establishment of purposes and objectives
- Selective reclassification and de-designation
- Use of context sensitive design exceptions
- Relaxation of certain design standards
- Development of traffic calming guidelines to encourage context sensitive design

*Chapter 1: Introduction* includes background on why the report was prepared, definitions of terms, an overview of state and federal initiatives, and a summary of the report's content and structure. As the result of a study to investigate possible changes in design standards, the report identifies a trend away from strict reliance on highway design templates and toward more flexible, context-sensitive design.

*Chapter 2: Findings and Recommendations* is divided into six sections:

1. Proactive Roadway Design—Changes in the design process are suggested to increase context sensitivity. Designers can take control of the project outcome, rather than react to current or expected traffic conditions. Examples of proactive design include creative scope definition and establishing measurable project objectives.
2. Reclassification or De-Designation—Certain state highway segments now functioning as local main streets could be reclassified to better fit their function or transferred to local government units.
3. Context Sensitive Design Exceptions—Changes in design exception policies could be made to promote context sensitivity and pedestrian safety. For example, the format for design exception requests could more directly address social, environmental, and community impacts



to compare standard versus substandard designs. Also, accident rates should be analyzed to determine if more conservative designs lead to higher speeds and consequently more accidents.

4. Main Street Overlays—New design standards are proposed for main streets as part of a program called Main Street Overlays. Highway segments that qualify as main streets would receive a special designation and allow modified standards. *Standards that favor motor vehicles would be relaxed to AASHTO minimums and standards favoring bicyclists and pedestrians would be elevated to controlling design elements.*
5. Traffic Calming—Traffic calming, which introduces physical features such as dramatic lateral alignment shifts or raised intersections to slow traffic down, has been used extensively in Europe and has gained interest in the United States. Additional traffic calming guidance is proposed to be added to the New Jersey Road Design Manual to expand design options available on main streets. Lower design speeds would be needed on these streets.
6. Conflicts-Solutions Matrix—A listing of solutions for conflicts between DOT standards and local objectives for main streets is presented. The matrix has two parts. The first part suggests solutions that may lessen conflicts without unduly compromising DOT purposes. The second part considers pedestrian-friendly design features, identifies potential conflicts, and indicates how these conflicts can be minimized.



*Chapter 3: Case Studies* presents 10 case studies of projects where context sensitive design was used. Four projects in New Jersey and six in other states are included. Five other projects are also included in summaries of CSD projects, but are not presented in detail. In most cases, the roads were made more pedestrian-friendly, with features such as new or widened sidewalks, crosswalks, and barrier curbs. Most projects also included aesthetic improvements such as landscaping and decorative lighting. Other features such as traffic calming measures were less common. The case studies included both positive and negative results. The projects presented as case studies include:

- Springfield Avenue, Maplewood, NJ
- South Avenue, Plainfield, NJ
- South Orange Avenue, South Orange, NJ
- Town Center, Washington Township, NJ
- South Street, Bennington/Danville, VT
- US Route 6, Brooklyn, CT
- Route 114, Sag Harbor, NY
- South Broadway, Saratoga Springs, NY
- East Main Street, Westminster, MD
- Market Street, York, PA

*Appendices* include the following:

- Technical Review Committee
- “From Highway to My Way,” *Planning* magazine article
- Survey of Local Governments
- Main Street Visual Preference Survey
- Relevant Federal Laws and State Initiatives
- Summary of Design Exceptions 1997-1999

**SUMMARY** This report recommends changes to design approaches for projects considered “Main Streets.” It suggests that the best solution for a Main Street project is not always to move traffic quickly through a community, but rather to balance transportation with community interests and context-sensitive factors.

**KEY WORDS** *Applicable Project Delivery Stages:* Administration, Planning, Design

*Applicable Transportation Professionals:* Administrators, Highway Engineers, Planners, Urban Designers, Landscape Architects

*Applicable Transportation Modes:* Vehicular, Bicycle, Pedestrian, Transit

*Transportation Topics:* Aesthetics, Bicycle, Context-Sensitive Design (CSD), Flexibility, Geometrics, Alignment, Grading, Landscape, Pedestrian, Main Street, Balance, Community, Public Meeting, Traffic Calming, Decision-Making, Partnerships, Concept Development, Coordinate, Flexibility, Project Development