Gary Toth
Director
Project Planning and Development
New Jersey Department of Transportation
Creation and Implementation of a Community Oriented culture within New Jersey DOT
Culture Change
A corner of the world
A corner of the world

Time: Unknown
Beliefs ingrained into culture
NJDOT’s Ingrained beliefs circa 1990

“Safety and mobility of the motoring public is paramount”

“Community needs secondary to the “greater good”

“Non automobile travel is not viable”

“Follow the book or be sued”

“Wider, faster, straighter!”

“Public involvement slows things down”
Do we know why those before us reached these conclusions??

“Not on the State Highway System”

“When faced with choices, mobility and efficiency of the motorist is paramount”

“We know best, we can’t share the decisionmaking with the public”

“We are a transportation agency, we can’t spend money on that”

“Our job is to fix roads, we can’t help you with your other problems”

This antiquated building is in the way of our plans to “modernize” our infrastructure.
The Paradigm where our beliefs were groomed
Paradigm Shifts
Paradigm Shifts
Process doesn’t
Those NIMBYs just don’t get it!
Now what do we do?
When you come to a fork in the road, take it. – Yogi Berra
THINKING BEYOND THE PAVEMENT

A National Workshop on Integrating Highway Development with Communities and the Environment while Maintaining Safety and Performance

College Park, Maryland
May 1998
CSD Implementation Team

Crosscut the Department


Introspection

- What are we doing right?
- What do we need to change?
CSD Implementation Team

Six subgroups

- Culture Change & Public Education
- Standards & Practices
- Policies & Procedures
- Community Outreach & Analysis
- Training
- Organization
Tangible steps

- Policies & Procedures
- Community Outreach
- Training and Education
- Flexible Design
Policy
NJDOT Policy on CSD

The New Jersey Department of Transportation hereby makes it policy that all future NJDOT projects will adhere to a philosophy of Context Sensitive Design (CSD). Broadly speaking, it is now NJDOT policy to conceive, scope, design and build projects that incorporate design standards, safety measures, environmental stewardship, aesthetics and community sensitive planning and design. In doing so, the NJDOT will consider the needs of all road users, including pedestrians, bicyclists, and neighbors such as residents, and businesses, as well as drivers. Transportation both shapes the growth of our communities and affects the quality of life statewide, so all future NJDOT projects will strive to improve the overall quality of life in our state; mobility and safety is just part of that picture.

(NJDOT Policy, adopted November 2001)
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(NJDOT Policy, adopted November 2001)
Procedures
Define the Context before designing

(what makes a road “better”, depends on Context)
Components of Context

Community

Environment

Transportation
Transportation context

High accident frequency

Fix the problem!
Transportation context

Major state highway
- Environment
- Community issues
- Level of Service
- Design Speed

Urban arterial
- Environment
- Community issues
- Level of Service
- Design Speed
Environmental Context

- Ecological and Wetlands
- Cultural Resources, including Historic sites or District
- Noise Receptors
- Farmland
- Parks
- Scenic Resources

*So, let’s not forget about the frogs and turtles!!*
Community Context

• Where are the neighborhoods?
• Children: elderly; disabled; low income; transit dependent?
• Public facilities
• How do people get around?
• Historic, scenic or sensitive environmental features
• Community’s vision for itself
• Access to waterfront?
• Access to downtown?
• Valued environmental areas

• Where are the “Places”
How do we define community context?

Revised Scope Development Procedures

“At the beginning of scoping, a Public Involvement Action Plan (PIAP) will be developed for each project. The purpose of the PIAP is to identify locations where public involvement will occur in the process….

…The intent is to identify bona fide opportunities for the community to participate in the decision-making process for the final proposal…

…alternatives which address the Project Need while giving full consideration to the community context and are consistent with environmental, community and budget constraints are developed…”
How do we define community context?

We ask the community!
Initial definition of contexts

- Community
- Environment
- Transportation
Merging of contexts

Community

Environment

Transportation
Merging of contexts

Environment

Community

Transportation
Community Outreach
Traditional Community Involvement

Photo courtesy of the Project for Public Spaces
Proactive Community Involvement
Plans in your cubicle don’t tell you everything!

Photo courtesy of the Project for Public Spaces
Slide courtesy of Ian Lockwood
Glatting, Jackson, et al
Once your street is improved, the curb will be right here.
Training
CSD Training Initiative

Team selected to deploy

• Transportation Policy Institute (Rutgers)
• Project for Public Spaces
• Sally G. Oldham (Oldham Historic Properties, Inc.,)

Trainees

• 800 individuals

• DOT; County and Municipal staff; elected officials; NJ Transit; our consultants; other agencies AND the public

Timing

September, 2000 start; year 3 just completed
Training Initiative
(continued)

Content:
• Overview
• Public involvement & participation
• Placemaking
• Flexibility in Design vis a vis threat of Liability
• Conflict resolution and Negotiating Skills

5 Days per person
30-35 folks per session
Project for Public Spaces

Placemaking
Elements of Great Places

Place

Sociability
Access & Linkages
Comfort & Image
Uses & Activities

Project for Public Spaces
Place Performance Game

1. Record Location

2. Evaluate the Place
   - Comfort & Image
     - Attractive
     - Feels Safe
     - Clean/Well maintained
     - Comfortable places to sit
   - Access & Linkages
     - Identifiable from a distance
     - "Walkable"
     - Connected to adjacent areas
     - Adequate information/signage
   - Uses & Activities
     - Mix of stores/services
     - Community events/activities
     - Active adjacent uses
     - Economic vitality of area
   - Sociability
     - People in groups
     - Evidence of volunteerism
     - Sense of pride and ownership
     - Children and seniors are present

3. Identify Opportunities
   1. What do you like best about this place?
   2. List three things that you would do to improve this place that could be done right away and that wouldn't cost a lot:
   3. What 3 changes would you make in the long term that would have the biggest impact?
   4. Ask someone who is in the "place" what they like about it and what they would do to improve it. Their answer:
   5. What local partnerships or local talent can you identify that could help implement some of your proposed improvements? (e.g. artists, musicians, gardeners. Please be as specific as possible.

Overall Rating:
# The Benefits of Place

Why Create a Place in the First Place?

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Examples</th>
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| **Builds & Supports the Local Economy**                                  | - Small-scale entrepreneurship  
- More quality goods available  
- Higher real estate values  
- Local ownership, local value  
- More desirable jobs  
- Increased currency velocity  
- Greater tax revenue  
- Reduced need for municipal services |
| **Creates Improved Accessibility**                                       | - More walkable  
- Safe for pedestrians  
- Compatible with public transit  
- Reduced need for cars & parking  
- More efficient use of time & money  
- Visually attractive destinations  
- Greater connections between uses |
| **Nurtures & Defines Community Identity**                                | - Greater community organization  
- Sense of dedication & volunteerism  
- Perpetuation of integrity & values  
- “Mutual coercion, mutually agreed-upon”  
- Reduced necessity for municipal control  
- Self-managing |
| **Fosters More Frequent & Meaningful Interaction**                       | - Improved sociability  
- Cultural exposure & interaction  
- Exchange & preservation of information, wisdom & values  
- Bolstered barter system  
- Reduced race & class barriers  
- Feeling of interconnection |
| **Promotes Public Health & Comfort**                                     | - Less crime  
- More outdoor physical activity  
- Generally stimulating  
- Sense of belonging  
- Improved environmental quality  
- Feeling of freedom and limitlessness |
| **Draws a More Diverse Population**                                      | - More women, elderly, and children  
- Greater ethnic & cultural pluralism  
- Support for wider range of activities & uses  
- New service, retail and customer niches  
- Variation & character in built environment  
- Instilled confidence to create one’s reality |
| **Instilled confidence to create one’s reality**                         |                                                                        |

[www.pps.org](http://www.pps.org)
Design Training

• Pilot September 3, 2003
• Multiple modules
• Overview of design principles
• Individual sessions on design elements
  • e.g. Shoulders; sight distance, auxiliary lanes
Flexible design
Undoing ingrained beliefs on design

- CSD does not mean unsafe designs
- Simply following the design standards without thinking about the context, costs and needs is not good design
- Wider and straighter does not automatically mean safer, particularly when one considers pedestrians
“The principle that the environmental impacts can and should be mitigated, coupled with aesthetic consistency with the surrounding terrain or urban setting, is intended to produce highways that are safe and efficient for users and acceptable to nonusers and the environment”

“Additional emphasis has been placed on the joint use of transportation corridors by pedestrians, cyclists, and public transit vehicles. Designers must recognize the implications of this sharing.... A more comprehensive transportation program is thereby emphasized”

“The intent of this policy is to provide guidance to the designer by referencing a recommended range of values for critical dimensions. Sufficient flexibility is permitted to encourage independent designs tailored to particular situations.”
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AASHTO Green Book, 1984
…it is extremely difficult to make adequate provisions for pedestrians. Yet, this must be done, because pedestrians are the lifeblood of our urban areas…. 
…it is extremely difficult to make adequate provisions for pedestrians. Yet, this must be done, because pedestrians are the lifeblood of our urban areas…. 

AASHTO Green Book, 1984
“It is recognized that situations will occur where good engineering judgement dictates deviations from the current Department design guidelines….The guidelines contained in this manual, other than the controlling design elements shown above, are primarily informational or guidance in character and serve to assist the engineer in attaining good design.

Deviations from this information or guidance for non controlling design elements does not require a design exception.”

NJDOT Design Manual-Roadway 1995
Undoing ingrained beliefs on design

“Design Manuals don’t provide flexibility”
NJDOT “Proactive Roadway Design” policy

“We need better ways to get motorists to drive freeways like freeways...”
NJDOT “Proactive Roadway Design” policy

“and local streets like local streets.”
“Proactive Roadway Design”

“Decide on target operating speed for a roadway which is consistent with the local context

“If compelling needs exist (pedestrian safety, downtown vitality), designer may consider introducing physical elements below 35 MPH”
Does this mean Traffic Calming?

“We think our town is Heaven
Please don’t drive like Hell
through it!”

“If compelling needs exist (pedestrian safety, downtown vitality), designer may consider introducing physical elements below 35 MPH)”
Flexible Design of New Jersey’s Main Streets

prepared by the
Voorhees Transportation Policy Institute
Edward J. Bloustein School of Planning & Public Policy
Rutgers, The State University of New Jersey

for the
New Jersey Department of Transportation

Reid Ewing and Michael King

Alan M. Voorhees Transportation Center
Preface

Defining the problem defines the solutions

Move traffic quickly thru a community

Vs

Preserve livability in light of growing traffic
Recommendations

Less rigid application of design Standards

Elimination of scope creep

Reclassification/designation of Main Streets

Use of Main St overlays in Design Manual

Develop traffic calming guidelines

Endorsement of Proactive Roadway Design
Less rigid application of design Standards

- Is Context being given sufficient weight?
- Real safety vs textbook safety?
- Safety of all road users
Use of Main St overlays in Design Manual

- 25 or 30 mph target operating speed
- 10 or 11 foot lanes
- Narrow or no shoulders
- Parking lanes with curb extensions
- 2 to 5 foot clear zone
- Tight corner radii
- Minimum 5 foot wide sidewalks
- Substantive pedestrian crossings
- Medians or refuge islands on multilane hiways
- New typical sections for Main Street
Flexible Design of New Jersey’s Main Streets

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Alan M. Voorhees Transportation Center
RUTGERS

http://www.state.nj.us/transportation/publicat/flexibledesign.pdf
What about liability ??
Will we be “liable” if we don’t Design to max or desirable targets?

Yes !

If our decisions are not reasonable, and we arbitrarily cast aside sound engineering principles without good reason

Maybe

If we don’t document reasonable decisions in a permanent file

Not likely

If reasonable decisions were made by reasonable people who gave consideration to social, economic and environmental impacts together with safe and efficient traffic operations, and……..

*** *We document and file the rationale* ***
An unreasonable design decision ?
Legal Reality

– Not a tort for the government to govern; i.e. engineers are allowed to, and in fact are expected to exercise discretion and balance competing interests
– Following the “book” without thinking can also get you into trouble
– Seattle -- the jurisdiction with the most experience with traffic calming -- reports more litigation threats for not acting than for acting;
– In Seattle, claims paid for traffic calming very low compared to for instance, potholes;
Example Projects
Route 21 & Route 46

Clifton and Passaic, New Jersey
Existing architecture
New construction
Architectural style carried across structures
...and under structures
...and across noise walls
Route 35 Navesink River Bridge
Route 35 Navesink River Bridge

• Used architect selected by Red Bank Boro
• Architect worked with our designer to fit bridge into context
• Community views design as their own, NJDOT maintains
“CSD is not just a new name for landscape architecture… it is about fundamentally changing your project design to fit into the context…”

Jim Weinstein, former Commissioner, NJDOT
Example Projects
Flexible design of Main Street
Route 71 / Main Street Streetscape
Borough of Avon-By-The-Sea
Existing Conditions
Route 71 / Main Street Streetscape
Borough of Avon-By-The-Sea
Proposed Improvements
Route 29 in Lambertville

• 4 lanes to 2/3 lanes

• roundabouts, gateway treatments and more space decided to bicyclists
Concept for Street (South End)

Entrance Feature & Turnabout

Raised Pedestrian Crossing & Water Feature
Example Projects

Respect environmental context
• 11 NJDOT projects
• 2 Port Authority of NY/NJ projects
• Create a semi-dedicated, six-mile roadway
• Links the Newark and Elizabeth ports to area intermodal and warehousing
Proposed Parking Lot Bioretention Basin
Conceptual Site Plan

INTERNATIONAL & BULK MAIL CENTER

PROPOSED WALKWAY
RECONSTRUCTED STORMWATER CHANNEL
SECTION A

BITUMINOUS CONCRETE PARKING & ROADWAY, TYP.
EXISTING FENCE TO REMAIN
PLANTED BIORETENTION BASIN WITH UNDERDRAINAGE, TYP.

US POSTAL SERVICE JERSEY CITY FACILITY CONCEPTUAL DESIGN
Proposed Reconstructed Stormwater Channel
Mitigation Median
Mitigation Median

CORRIDOR TYPE 2 - MITIGATION MEDIAN (63' WIDTH)
Biofiltration Swale
Example Projects

CSD does not mean unsafe designs
Westfield Circle

(Optimized traffic solution)
Route 28 Revised Solution

Monument island increased
Circle remains with entry deflections introduced
Existing Magnolia Avenue Bridge
over Route US 1 & 9
Proposed Replacement of the Magnolia Avenue Bridge over Route US 1 & 9
Example Projects

“Not just New Jersey”
Why pursue CSD?
Transportation investments have major influences on society

Enhance Quality of Life

Sustainable, livable communities

Responsive decisionmaking, better decisionmaking, greater acceptance, sense of community ownership

Coordinate and integrate plans for land use, economics and transportation

Hey, we live in these communities!

Aren’t roads a means to an end, not an end in and of themselves?
“Of course, the embracing of Context Sensitive Design was not entirely altruistic on our part. The reality for many of us here at NJDOT was that many projects were simply not getting done because of community opposition.

We may be Bureaucrats at times here at NJDOT…But we’re also Pragmatists. From our experiences, we learned that techniques successfully used in the past to move projects along were no longer effective.....”

Commissioner Weinstein, Keynote Speech for CSD training, October 6 & 13, 2000
“For the highway professional, the payoff of partnering with the community is huge. Projects get done faster and, since everyone is working toward a common goal, it's a lot more fun.”

Jim Byrnes, Chief Engineer, Connecticut Department of Transportation
Is this really a new way of thinking??
AASHTO Green Book
(1984)

and

NJDOT Design Manual
(1987)
A new template for decision making?

1. Gather information and understand all of the facts involved; seek out the input of all relevant parties before developing and weighing options.

2. Discuss and review a variety of possible solutions, and try to arrive at a consensus.

3. Consider the consequences and impact of the decision, and insure consistency with administrative and personnel objectives.

4. Effectively communicate the decision - and implement.
A new template for decision making?

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George Washington’s Four step decision making process

“The Founding Fathers on Leadership” by Donald T. Philips
Budget issues

Can we afford CSD?
Direct costs do increase
Intangibles costs tip the scales

• Faster project delivery
• Fewer redesigns
• No exporting of environmental costs
• No exporting of community costs

The erosion of cities by automobiles proceeds as a kind of nibbling. Small nibbles at first but eventually hefty bites. A street is widened here, another is straightened there, a wide avenue is converted to one way flow and more land goes into parking. No one step in this process is in itself crucial but cumulatively the effect is enormous.

-- Jane Jacobs
Obesity Rates Increasing Nationally

Percentage of adults more than 30 Pounds over weight

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>12%</td>
</tr>
<tr>
<td>1995</td>
<td>15.30%</td>
</tr>
<tr>
<td>1998</td>
<td>17.90%</td>
</tr>
<tr>
<td>1999</td>
<td>18.90%</td>
</tr>
<tr>
<td>2000</td>
<td>19.80%</td>
</tr>
</tbody>
</table>
CSD = Common Sense Design

Mike Lemmo
Former NJDOT Chief of Design
This is where we want to go, we ain’t there yet
Go for it !!

Gary Toth

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