

Capital District Transportation Committee

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Capital District Transportation Committee:

Management and Operations and the CMP

Christopher O'Neill

Capital District

Albany

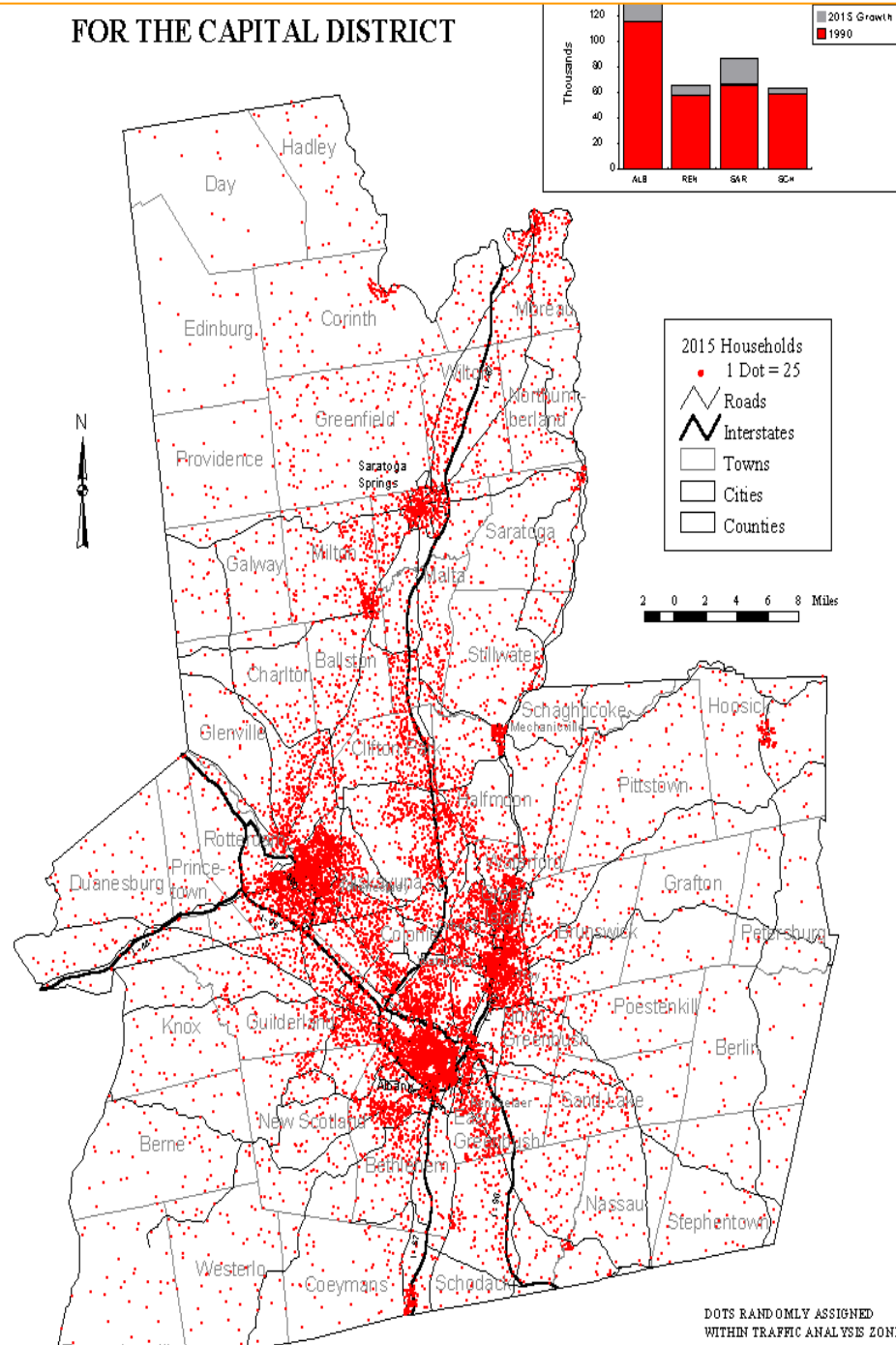
Troy

Schenectady

Saratoga Springs

800,000
population

FOR THE CAPITAL DISTRICT



Capital District Transportation Committee

- Four counties
- Eight cities
- CDTA, NYSDOT,
CDRPC, NYSTA,
Port, Airport
- Rotating membership
for two towns at a time
(71 towns & villages)



New Visions

Regional Transportation Plan

- Congestion Management Process (CMP) was integrated into the New Visions Regional Plan
- Extensive **Public Participation**

Plan Development



CMP
Input:
Data,
Analysis,
Performance
measures



Develop
Principles,
Strategies,
Goals,
Objectives



Regional
Plan
And
CMP



TIP
And
Strategy
Implemen-
tation



Public Dialogue

New Visions

Regional Transportation Plan

- Variety of stakeholders- State Police, environmental groups, neighborhood associations, business community, different NYSDOT offices
- Given a meaningful role, but CDTC Board has the clear decision making power
- Encouraged finding common ground, rather than adversarial roles

New Visions

Regional Transportation Plan

- New Visions public involvement process set the stage for the MPO Operations and Management role
- Our strong point is being seen as a “turf neutral” facilitator

New Visions

Regional Transportation Plan

We were able to convene:

- NYS Department of Transportation
- NYS Thruway Authority
- Capital District Transportation Authority
- Cities, towns, counties
- State Police
- City and town police departments
- Other emergency service providers

CMP Goals

1. Support growth in economic activity and maintain the quality of life in the Capital District by limiting the amount of "excess" delay encountered in the movement of people, goods and services

CMP Goals

2. Make contributions to the avoidance and mitigation of congestion on all modes by implementing demand management programs first, before performing capacity expansions.

Reducing single occupant vehicle travel can be accomplished by encouraging **telecommuting** and programs that reduce the need for travel, balancing travel demand by time of day, encouraging use of **transit, ridesharing, pedestrian and bicycle** modes, improving **operational efficiencies** and achieving complementary transportation and **land use systems**.

CMP Principles

Capacity projects must be in critical congestion corridors

- Critical corridors based on severity of existing congestion (not just the presence of congestion).
- Capacity projects are not warranted merely by potential future congestion (forecasts)

CMP Principles

Infrastructure projects should not increase capacity unless risk assessment indicates

- Avoid the trap of increasing capacity just because there is a bridge replacement.
- Other things being equal, if congestion is forecast only for 20 or 30 year design horizon, it should be dealt with then, not now. Otherwise we spend scarce capacity money on lower priority needs.

CMP Principles

- **Management of demand is preferable to accommodation of single-occupant vehicle demand growth**
- **Incident management is essential to effective congestion management.**

CMP Principles

- **Any major highway expansion considered by CDTC will include a management approach**
- **Trade offs between performance measures are necessary—congestion is only one of many**

Performance Measures

The New Visions performance measures were all included in the CMP:

- Access (Transit, Bike, Pedestrian)
- Accessibility
- Congestion severity
- Flexibility
- Safety
- Economic Cost

Performance Measures

- Arterial Conflict
 - Residential Driveway conflict
 - Commercial Driveway conflict
- Community Quality of Life
- Economic Development

Performance Measures

- Pavement condition
- Bridge Condition
- Transit Infrastructure
- Air Quality (NO_x, VOC, CO emissions)

Performance Measures

The CMP uses the performance measure:

Excess Person Hours of Delay - The time spent above and beyond what it would take to travel at LOS “D”

- **Strong distinction**– just because level of service “E” or “F” occurs does not indicate a critical congestion problem
- Corridors with the most hours of excess delay are called **critical congestion corridors**

Performance Measures

For example, an intersection operating at level of service “F” in the PM peak hour may have an aggregate total of, say, 2 hours of excess delay;

This would not be considered a critical congestion problem

Performance Measures

Trade offs needed among all performance measures. -- *This is a choice to be made with public input, not a mechanical determinism.*

Not “minimize congestion at any cost, consider impacts if possible”

Performance Measures

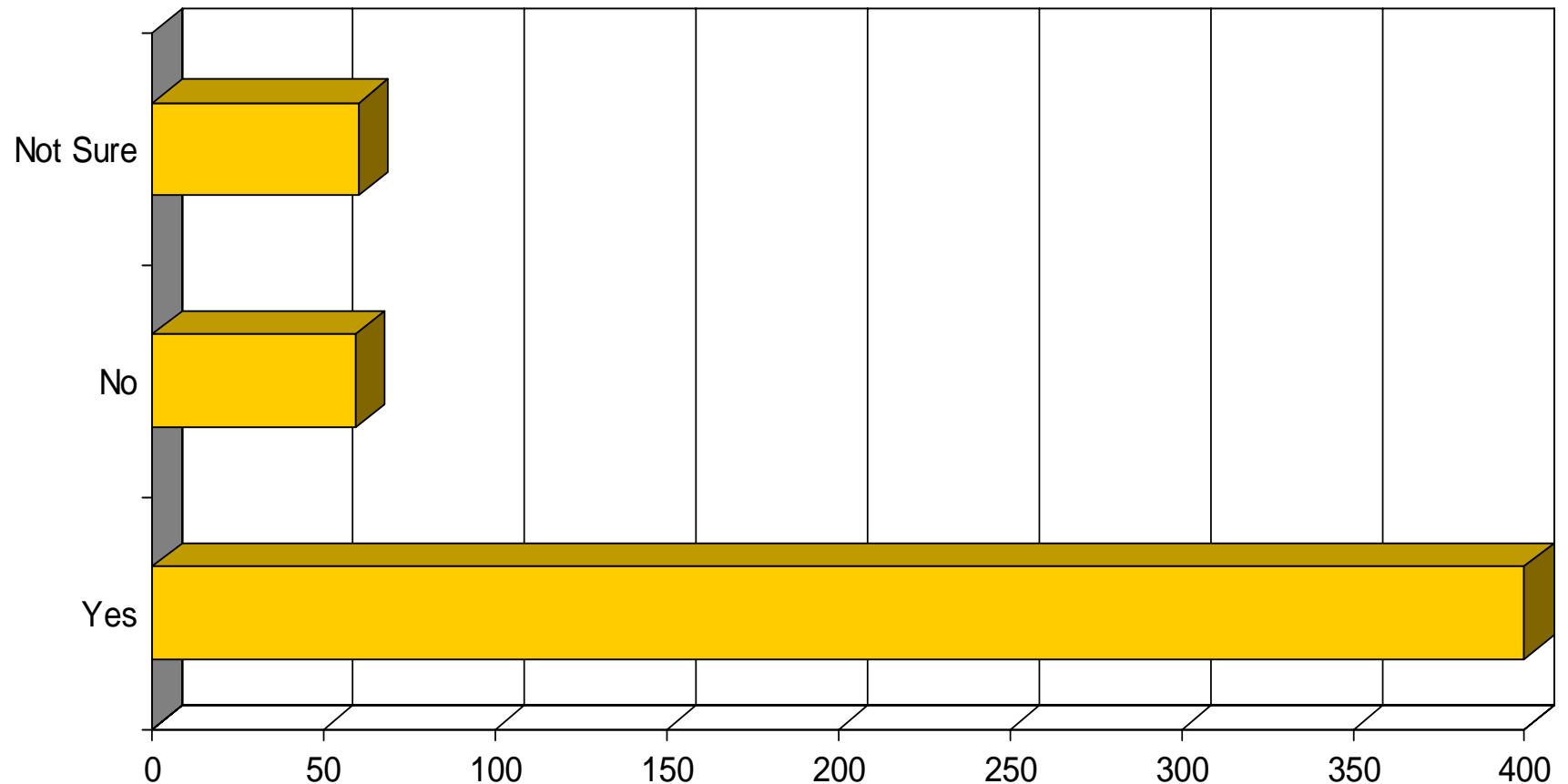
- Trade-offs with design standards, design year level of service, transit/pedestrian/bike needs, and community context are not easy, but must be considered
- NYSDOT is confronting and addressing this issue--"Context Sensitive Design/Solutions"
- Trade-offs based on the objectives of the regional transportation plan

***Get public input into the trade-offs
between performance measures.***

In many cases, the trade off between, say, traffic congestion and community quality of life is an easier choice than we think for the public;

while planners and engineers can get stuck thinking there is a mandate to address traffic level of service as the first priority

Would you be willing to accept traffic levels and congestion roughly as they are on Route 5 now if we could improve transit, walking, biking, landscaping, attractiveness and safety?



Performance Measures

The public process in the New Visions Plan has led us to the conclusion that the public experiences recurring delay as tolerable; while unpredictable, non-recurring delay is not tolerable.

Performance Measures

If you know your commute home every day is 15 minutes longer than you would expect at 10 PM, you can plan around this.

But if your commute home one day is an hour and fifteen minutes longer, because of an incident, this is a much more significant hardship.

Performance Measures

Analysis using the travel demand model indicated that widening the Northway would result in filling up with traffic on the day of opening; without reducing incident delay.

Performance Measures

- CDTC used a data base from NYSDOT, called “MIST”, which measures expressway speeds by lane every 15 minutes, 24/7, to develop performance measures.
- Used MIST to estimate vehicle hours of recurring excess delay vs. non-recurring; by facility

Expressway Performance Measure: Planning Time Index

- A measure of predictability and reliability (developed by Texas Transportation Institute)
- Ratio of driving time on a ‘worse than average delay day’ (95th percentile) to a ‘free flow day’
 - $PTI > 1.0$ ~ trip would take longer time
 - $PTI = 1.0$ ~ trip would take no extra time
 - $PTI < 1.0$ ~ speed would be > 55 mph even on the “worst” day

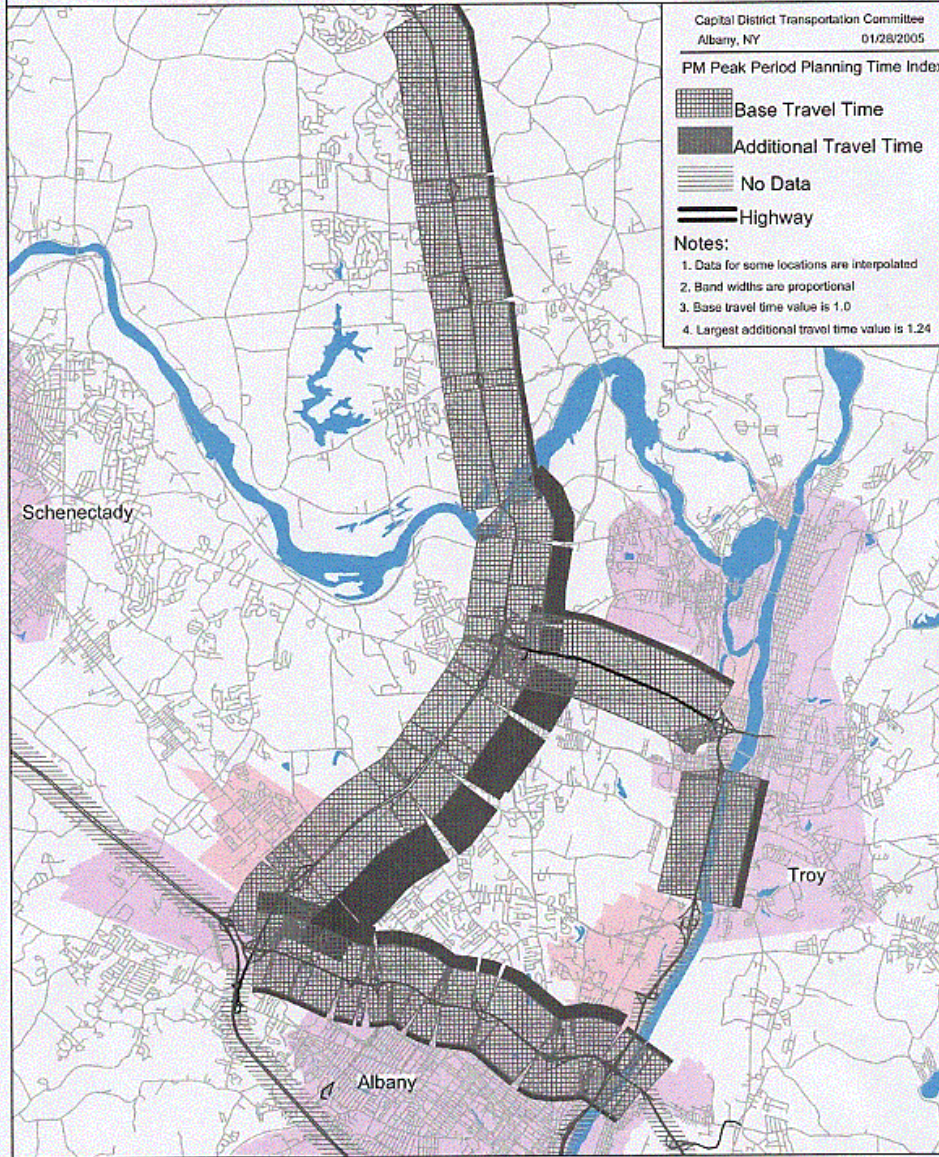
Planning Time Index

- Example:

For a 30 minute trip, if the planning time index is 1.5, then on a “worst” day, trip would take 45 minutes;

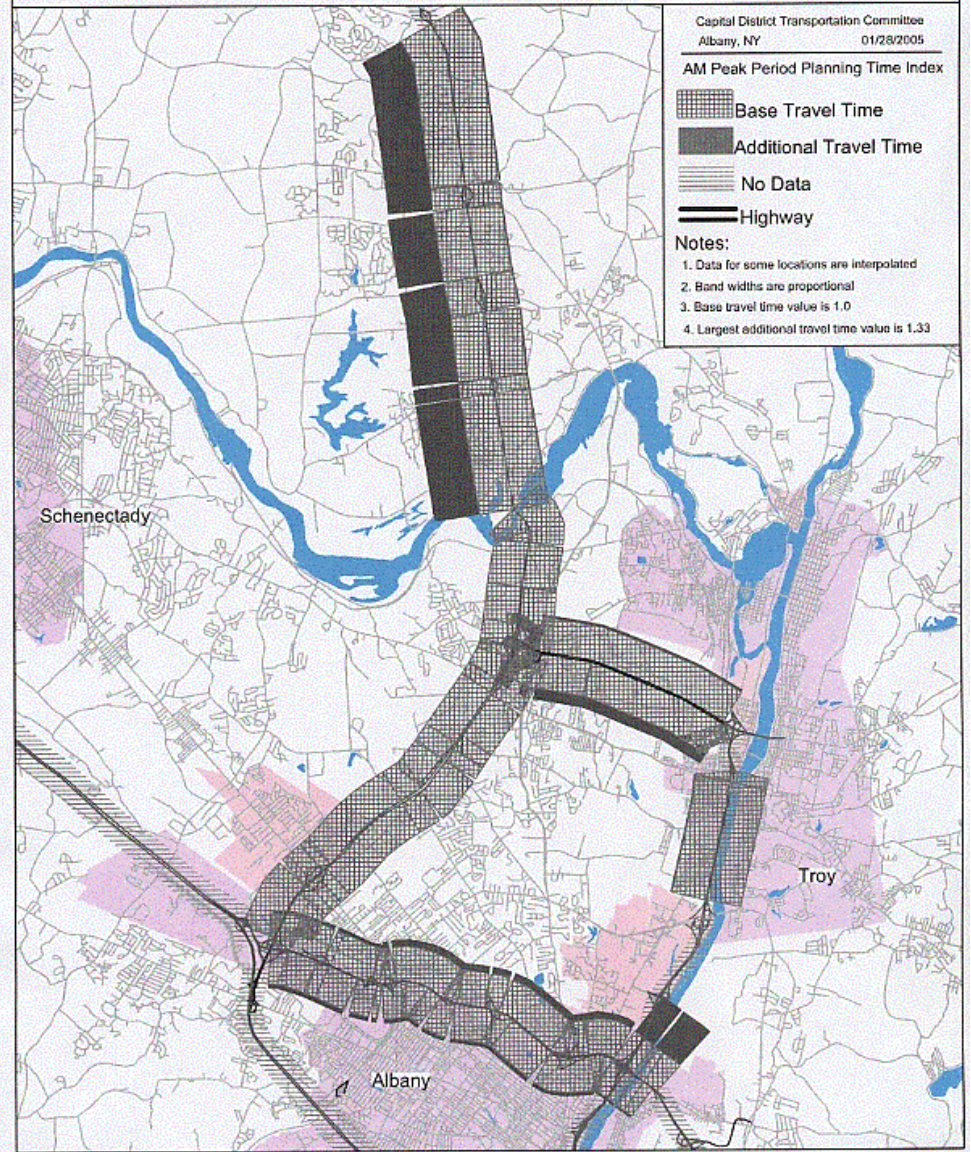
In other words, you would have to leave 15 minutes earlier than normal to have a 95% confidence of being on time.

Map 9: PM Peak Period Planning Time Index in 2003



I-87: PM peak NB: 1.66
 I-90: PM peak WB: 1.37
 I-787: PM peak NB: 1.26
 Alt Rt-7: PM peak WB: 1.20

Map 10: AM Peak Period Planning Time Index in 2003



AM peak SB: 1.46
 AM peak WB: 1.55
 AM peak EB: 1.34

M & O on the TIP

- In programming management and operations strategies and projects, we rely on our MPO role as facilitator of the operating agencies. We do not think of ourselves as having expert in-house ability to design M & O strategies.
- We have established a Regional Operations Committee, which will assist in proposing M & O strategies and initiatives for the TIP.

M & O on the TIP

- ITS Priority Network- The ITS priority network, updated by the New Visions Working Group B, was incorporated into the CMP; priority corridors for incident management and signal coordination.
- The New Visions Plan includes planned 20 year funding levels for ITS— incident management, signal coordination—which is considered in TIP project selection.



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The CDTC CMP can be found at:

<http://www.cdtcmppo.org/rtp2030/materials/cm-doc.pdf>

Thank You

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