

How to Live Through the Dark Side of Hot Mix Asphalt

Illinois Asphalt Paving Association
Annual Meeting
March 2005



We Deliver For You.





Guiding Light

- Challenge
- Recommendations
- New technology



2001 8 1







STOP

STUR
ALE







WHEN WORKERS PRESENT

SPEED LIMIT
45

515 FINE
MUM



BUMP

Why in the Dark

- Minimizes disruption to traffic
- Reduces delay and accidents
- Significant benefit to traveling public

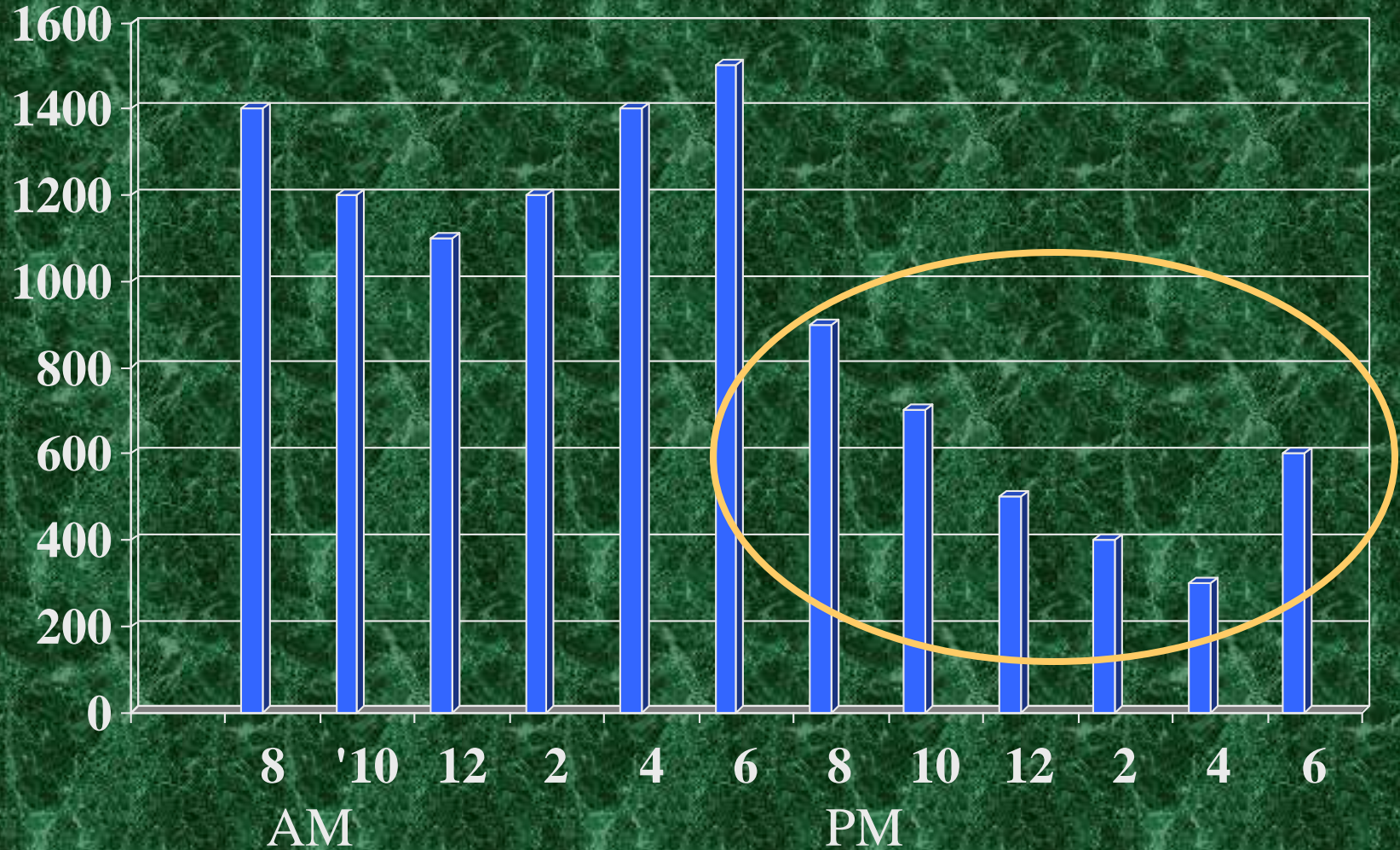




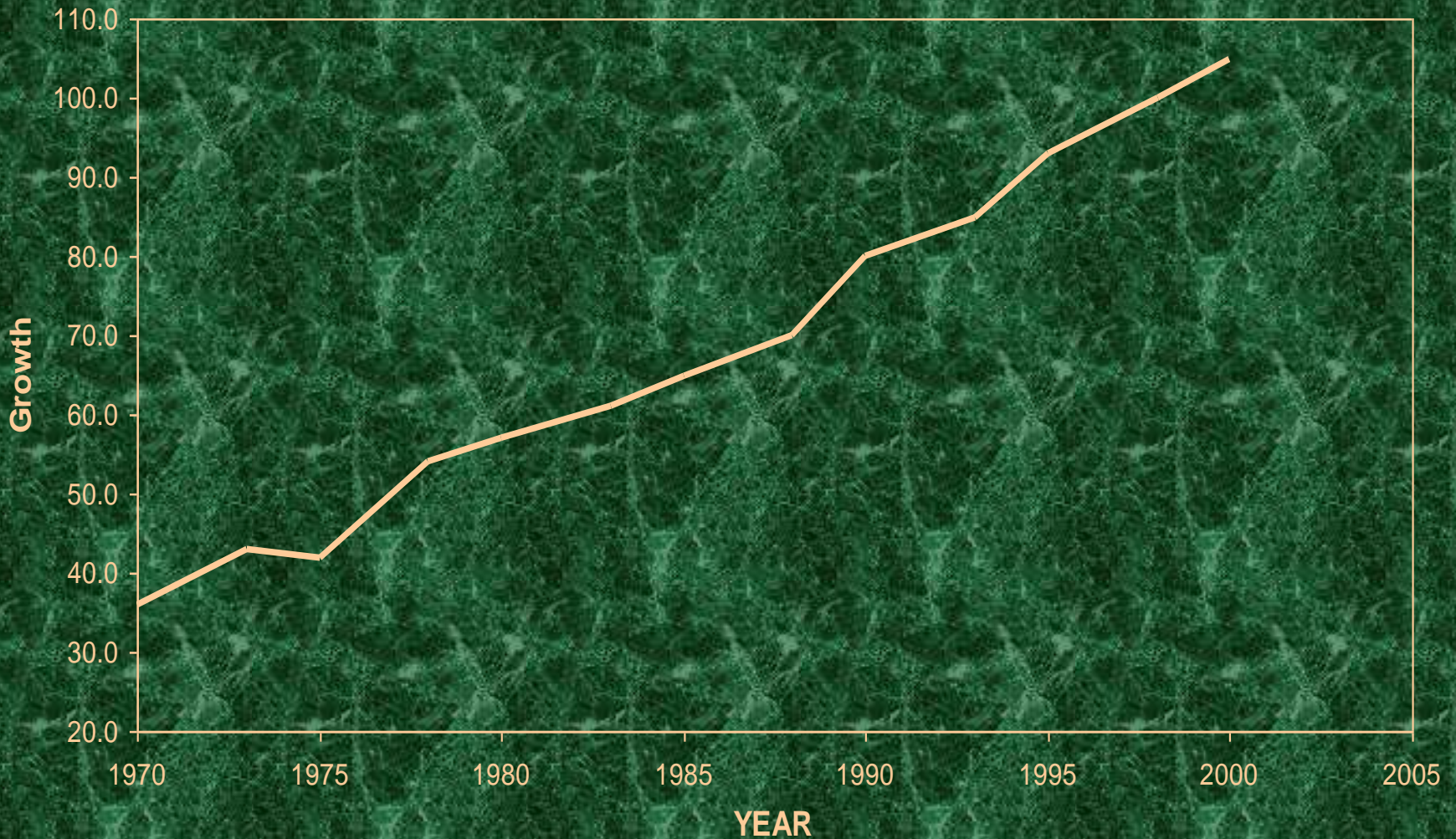




Reduced Congestion



Interstate Traffic Growth



Research Advantages

- Material delivery
- Effect on surrounding businesses
- Minimize pollution
- Safety

Safety

- Lower levels of traffic
- However....







Specs

- IDOT specifications 701.04(c)6: The flagger station shall be lit by additional overhead lighting other than street lights
- April 2005: Flagger garment meeting ANSI/ISEA 107-1999 for Conspicuity Class 3







Building a Specification

- Radiance- what we are used to
- Luminance- the result

Luminance

- Birthday cake candle
- On one end of a one-foot ruler
- One foot candle
- In metric, one lux



Eight Candles



Eight Feet





Shedding a Little Light

- NCHRP 476 in 2002
- NCHRP 498 in 2003
- Il Trans Research Cooperative in 2002
- Others

Other States At Paving Site

Foot-candles

Calif	5
Florida	5
Md	5
Mich	10
Miss	10
NY	10
Oregon	10









Specification

- Draft specification under development
- Follows national guidelines
- Oriented toward worker needs
- Bureau of Design (Mark Seppelt)



Background Light

- Less adjustment for driver
- Enough light to keep sanity
- Difficult to achieve
- Driver aware of workers





BUMP



STOP

Background Light



Recommendations

- Problem jobs
- Police presence
- Lighting specification
- Personal actions





Lighting Specification

LIGHTING FOR NIGHTTIME HIGHWAY CONSTRUCTION

DESCRIPTION

This work shall consist of furnishing, installing, operating, maintaining, moving and removing all necessary lighting equipment and materials for the duration of nighttime operations on the contract. Nighttime operations consist of work specifically scheduled during the hours of darkness, which occur shortly before sunset until shortly after sunrise. *All work shall be done according to the "Standard Specifications for Road and Bridge Construction" and as further defined herein.*

Mark Seppelt

District Two

Personal Actions

- Vests clean
- Hat and arm band
- Use common sense



Jandus Cutoff

3795

KEEP
RIGHT





Images in Illumination





RX-600

PLOT
695-9000







SLOW

HYPAC

Summary

- Pay attention to problem jobs
- Police presence
- Take every possible personal precaution
- Lighting specification

Its Up to Us



