# CALTRANS Moving toward PG Grading

### **AMAP**

Las Vegas, Nevada February 1, 2005



Caltrans and Industry have formed 3 Task Groups to help in the implementation process.

# **Task Group A**

Co-Chairs: Nahid Hosseinzadeh, Caltrans Larry Santucci, UC-Berkeley

Primary Responsibilities: Develop a PG Map for California. AMRL Laboratory Accreditation.

## **Task Group B**

#### **Co-Chairs:**

Nahid Hosseinzadeh, Caltrans Don Powell, San Joaquin Refining

Primary Responsibilities: Specification Issues. Implementation of PG Grading System.

# **Task Group C**

**Chair: Terrie Bressette, Caltrans** 

Primary Responsibilities: Statewide Uniform Implementation. Education and Training.

# **PG Map for California**



### **PG Grades**

PG 64-10 PG 64-16 PG 64-28 PG 70-10

Industry has concerns over "grade bumping". Caltrans will clarify grade bumping and attempt to keep the number of grades used throughout the state to a limited number.



# • The AASHTO M320-03 specification will be used.

# **Industry Requests**

 Industry has requested that DSR testing at intermediate temperature be "report only".

• PAV Aging temperature for PG 70 grades needs to be established.

### **AMRL Laboratory Accreditation**

- AMRL Accreditation was originally required by January 1, 2006.
- After discussions with Industry, Caltrans will delay this requirement until January 1, 2007 to allow for the purchase of equipment and training of technicians.
- Laboratories must meet COC requirements and participate in AMRL proficiency testing.

# **Other Implementation Issues**

Uniform Implementation

Caltrans will work with Districts and Local Agencies to attempt to get this to happen.

• Effect on Projects Bid Prior to Implementation

Caltrans Construction will issue guidelines on how these transition projects will be handled.

# **Other Implementation Issues**

#### • Base Stocks for other Asphaltic Materials

Caltrans will notify appropriate Task Groups (Rubber, Emulsion, etc.) already working on this issue.

#### Training and Education

Task Group C is identifying levels of training/education required.

Caltrans will identify possible sources of funding for this training.

### **Implementation Date**

# January 1, 2006

### Seminar

March 24, 2005 Doubletree Club Hotel San Diego, California

 Polymer Modified asphalts are used for 3 reasons:

> 1. PBA-6a is used in colder climates where a reduction in thermal cracking has been seen.

# • 2. The same PBA-6a is used in Open graded Asphalt Concrete.

Mixing temperatures can be raised with resistance to drain down.

Mixes can be placed in thin blankets with better results where ambient and roadway temperatures are lower than the preferred 70° (usually night or late season paving).

• 3. A polymer rich PBA-6a is used in desert regions.

In combination with improved aggregate quality and better construction control, early and disastrous failures in high desert areas have been eliminated.

• Caltrans recently experienced a polymer modified binder problem.

The binder became contaminated with unreacted polymer which resulted in "sponges" throughout the pavement appearing.







### Summary

 Caltrans will implement the use of the PG Grading System for unmodified asphalt on January 1, 2006.

 Caltrans will continue to use their PBA specification for modified binders until such time that they can better define what they want using PG Grading.

## Summary

• The AASHTO M320-03 specification as written will be used unless compelling reasons are given to support changes.

 Any and all assistance in this endeavor would be greatly appreciated.