

NCAUPG

January 30, 2003



INDIANA EXPERIENCE
WITH DAV

QC/QA History



- 1986 Marshall Mix Design
- 1995 SUPERPAVE
- 1998 Full Implementation of SUPERPAVE
- 2000 Volumetric Acceptance
- 2003 Full Implementation of Volumetric Acceptance

INDOT SPECIFICATIONS



- Contractor Designs all Mixes
- INDOT Reviews Design
- First Lot Adjustment Period
- Acceptance by Volumetric Properties

INDOT SPECIFICATIONS

Volumetric Pay Factors

- VMA (10%)
- Binder Content (20%)
- Gyrotory Pill Air Voids (35%)
- In Place Density (35%)
- Smoothness Factor

Volumetric Testing

4 Tests

- Binder Content by ignition or extraction
- Maximum Specific Gravity of the Mixture
- Bulk Specific Gravity of the Gyratory Pill
- Bulk Specific Gravity of the Roadway Core

- Smoothness by Profilograph

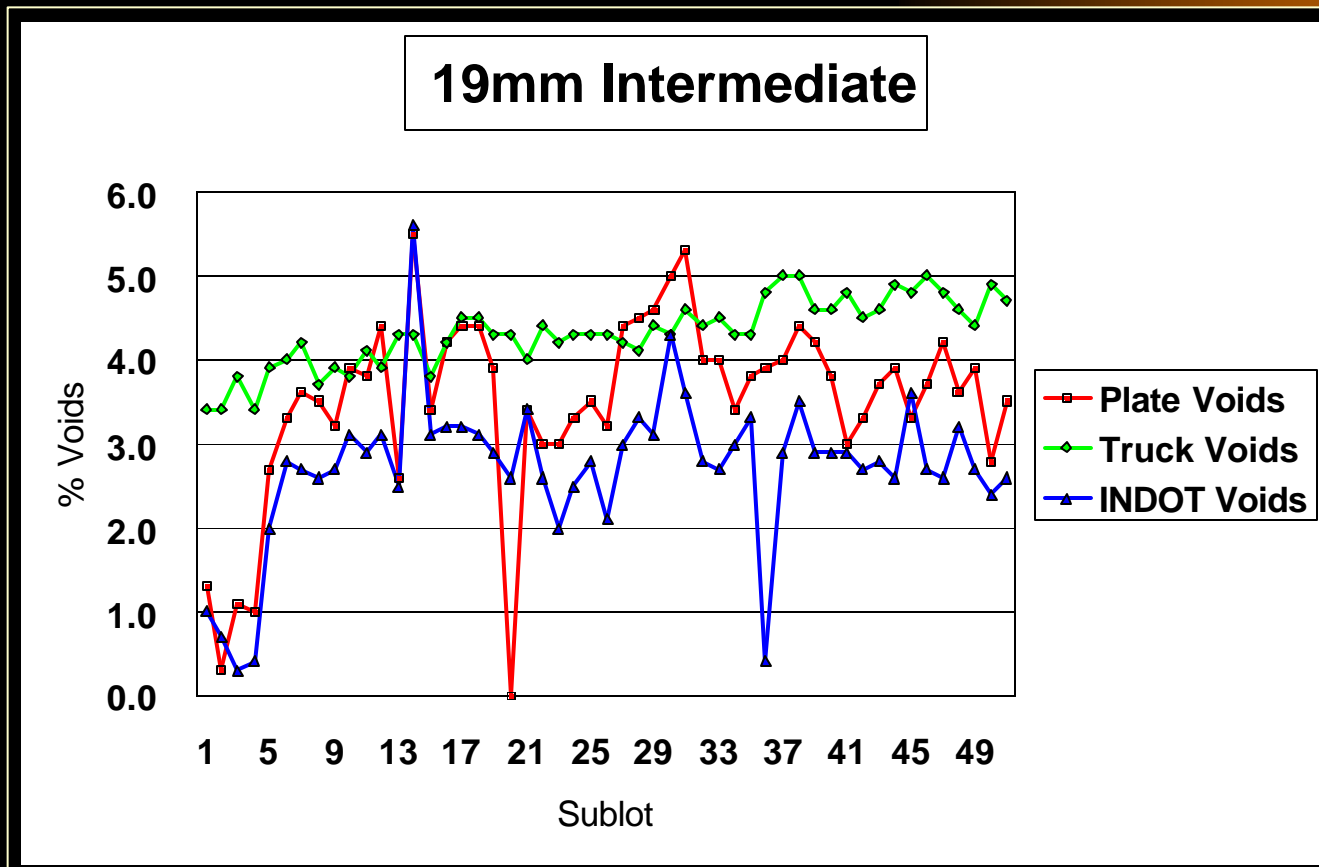
2000 Contract



First Project

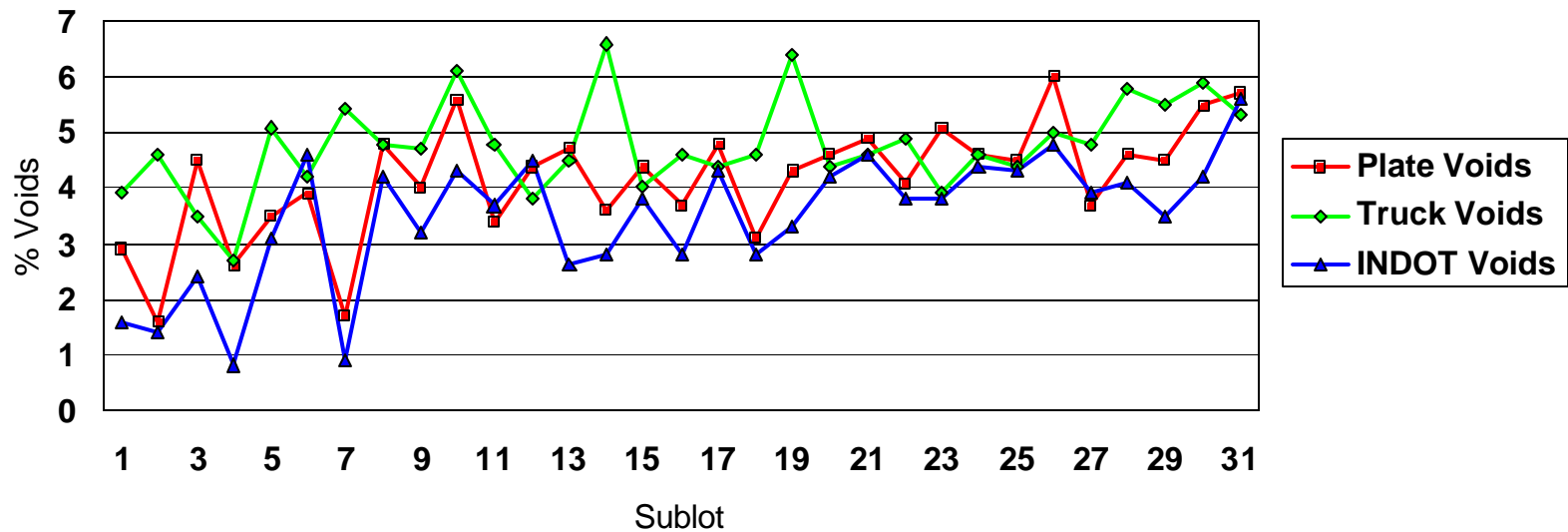
- Low Air Voids
- DAV used
- Offset method employed
- Successful contract

BEFORE DAV



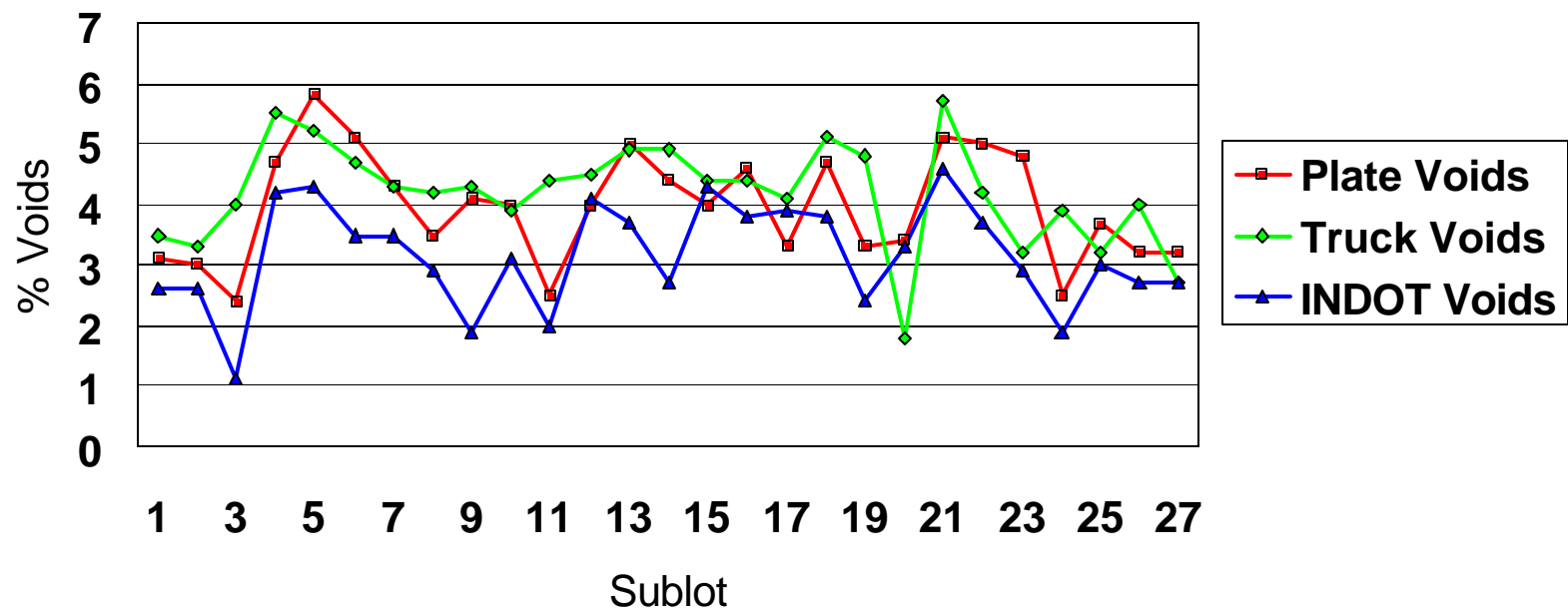
BEFORE DAV

Intermediate 19.0mm



BEFORE DAV

Surface 9.5mm



INDOT SPECIFICATIONS

Air Voids

- $> 2.0 \% < 2.5 \%$.85 pay factor
 - $.15 \times .35 = 5\%$ pay adjustment
- $> 2.0 \%$ Referred To Div M&T
 - SST Testing for Stiffness
 - Remove and Replace
 - Stay in Place with pay adjustment

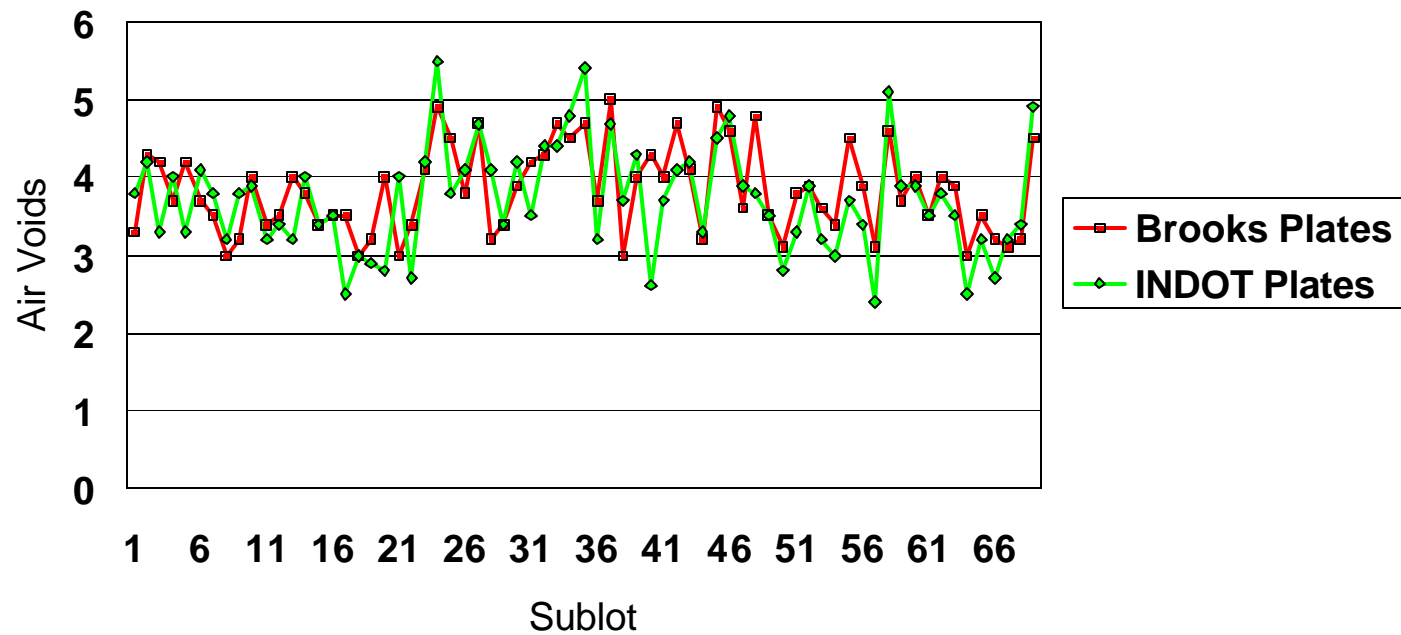
BEFORE DAV



- Spring 2002 Contract
 - First Sublot before 2.0% Air Voids
 - Tight Time Frame
- Contractor/INDOT/FHWA meeting
- Called in Tom Brovold

AFTER DAV

25mm New Design



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THE

END