



What's Happening with the Asphalt Pavement Quality Initiative Committee (APQI)

Carl Johnson, P.E., Texas Department of Transportation

Craig Odom, Reece Albert, Inc.



Quick Recap

- Partnership between TxDOT, TXAPA, and AGC
- Established in 2018
- Meets quarterly
- Solution Driven
- Goal: to get at least one more year out of our asphalt pavements



*The AQPI partnership has raised the bar by setting new standards for excellence, focusing on **accountability** and **education**, and dedicating itself to quality asphalt pavements.*

Committee Member	Company / Division
Carl Johnson (Co-Chair)	TxDOT - Administration
Jessica Butler	TxDOT - Administration
Duane Milligan	TxDOT – Construction
James Stevenson	TxDOT – Maintenance
Jenny Li	TxDOT – Maintenance
Ryan Barborak	TxDOT – Materials & Test
Enad Mahmoud	TxDOT – Materials & Test
Gisel Carrasco	TxDOT – Materials & Test
Pravat Karki	TxDOT – Materials & Test
Glenn Allbritton	TxDOT – Houston
Charles Benavidez	TxDOT – San Antonio
Kelly Morris	TxDOT – Lufkin
Tomas Trevino	TxDOT – El Paso
Chris Cowen	TxDOT – San Angelo
Steve Smith	TxDOT – CST

Committee Members	Company / Division
Craig Odom (Co-Chair)	Reece Albert
Cliff Kay	A.L. Helmcamp
Jason Exum	R.K. Hall Construction
Kal Kincaid	Texas Materials
Josh Houston	Vulcan Materials & Construction
Dean Word III	Dean Word Company
Jeff Greene	Durwood Greene
Jimmy Whited	Big Creek Construction
Matt Byrd	Jebro, Inc.
Jon Epps	TTI
Harold Mullen	TXAPA
Jim Warren	TXAPA
Chuck Fuller	TXAPA
Doug Eichorst	AGC
Michael Lee	AGC
Corey Schwarz	TXAPA

APQI Working Groups

- Liquid Asphalt
- Aggregates
- Heavy Duty Pavements
- Intersections
- RAP Stockpile Management
- Balanced Mix Design
- Partners in Quality
- Asphalt Pavement EXchange (APEX)

Liquid Asphalt Working Group

Pravat Karki & Matt Byrd

- Certification Program
 - Address Lab-to-Lab Variability
 - Provide In-State Option for Training & Certification
- Revised the Asphalt Binder Quality Program
- Created the Asphalt Binder Dashboard
- Review, Evaluate, and Update Test Procedures and Specifications



Aggregates Working Group

Kelly Morris, Tomas Trevino, & Jimmy Whited

- Availability of SAC A
- Methods for Providing Pavement Friction
 - Dynamic Friction Test (DFT)
- Evaluating Form 2088

TEXAS DEPARTMENT OF TRANSPORTATION
FORM 2088
SURFACE AGGREGATE SELECTION

DISTRICT _____
CONTROLLING CH _____
COUNTY _____
HIGHWAY _____
PROJECT/LANES _____
PAVEMENT DESIGN ENGINEER _____

Selection Guidelines for Bituminous Surface Aggregate Classification (SAC)

Demand For Friction	Low	Medium	High	Designer's Rating	Points
Rain Fall (inches/year)	<40	>40 <45	>45		2
Trucks (100)	<400	>400 <1,000	>1,000		2
Speed (mph)	<35	>35 <40	>40		2
Trucks (10)	<8	>8 <15	>15		2
Vertical Curves (ft)	<2	>2 <47	>47		2
Horizontal Curves (Degrees)	<3	>3 <47	>47		2
Driveways (per mile)	<5	>5 <40	>40		2
Intersecting Roadways (LMT)	<400	>400 <750	>750		2
Wet Surface Crashes (10)	<5	>5 <15	>15		2
SUMMARY OF TOTAL DEMAND FOR FRICTION					0
*Available Friction	Low	Medium	High	Designer's Rating	Points
Cross Slope (ft)	<2	>2	>4		2
Aggregate Moisture		SAC B	SAC A		2
Friction				Surface Design Life	2
HMA Mixture Type				Moisture Tolerance	2
SUMMARY OF TOTAL AVAILABLE FRICTION					0

DESIGN TOTAL AVAILABLE FRICTION EXCEEDS TOTAL FRICTION DEMAND?

**Parameters set by the designer that affect pavement friction.
Total friction available should always exceed total friction demand.
Comments:*

Print

Form 2088 SAC 10-10-12 1 of 1 Rev 07/11/2022

Dynamic Friction Test (DFT) – From Road to Laboratory Testing


- TxDOT has developed a laboratory testing configuration to run the field DFT test in the laboratory.
- The test sample preparation and testing is a practical and efficient method to run the DFT in the laboratory.



Heavy Duty Pavements Working Group

James Stevenson & Craig Odom

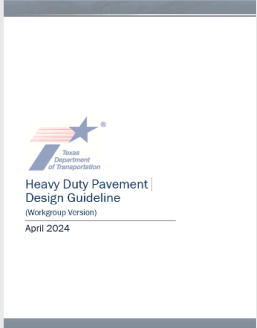
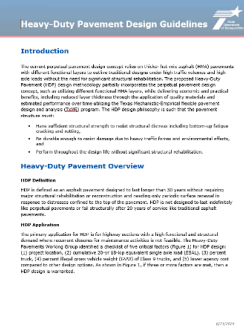
- Heavy Duty Pavement Design Guideline




Connecting you with Texas.

Guideline Document

- Workgroup HDP Guideline
 - Comprehensive (55 pages)
 - Includes detailed data and analysis
- HDP Design Guideline
 - Condensed version (8 pages)
 - Step-by-Step guidance
 - Release ready (July 2024)


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Connecting you with Texas.

Workgroup HDP Guideline

- Chapter 1: Introduction
- Chapter 2: Literature Review
- Chapter 3: Traffic Data Review
- Chapter 4: Life Cycle Cost
- Chapter 5: Heavy Duty Pavement Design Sensitivity Studies using FPS23 Program
- Chapter 6: TxME Pavement Design and Material Selection for Heavy Duty Pavement
- Chapter 7: Conclusions and Recommendations



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The goal is to equip districts with the necessary training and resources for designing and constructing asphalt pavements capable of enduring heavy traffic loads while minimizing the maintenance requirements between surface treatments.

Intersection Working Group

Duane Milligan & Jim Warren

- Meeting every month
- Developing Education and Guidance
- Looking at Designs, Traffic Phasing, and Speed of Construction



RAP Stockpile Management Working Group

Ryan Barborak & Harold Mullen

- Increase the use of RAP
 - Sustainability, Availability, Cost Savings, and Performance
- Develop a Guidance Document for Stockpile Management



Balanced Mix Design Working Group

Ryan Barborak & Jim Warren

- Meet Monthly
- 12 Existing Projects
- Over 35 Test Sections
- Developing a Pilot Specification for 3-5 projects (December 2025)



Partners in Quality

Chuck Fuller

- Revamped Format
- Discussion Topics in 2025
 - General Notes Review
 - District Initiatives
 - District Challenges & Issues
 - District Letting & Tonnage Report
 - PMIS Scores
 - MTD Updates



Asphalt Pavement EXchange (APEX)

Chris Cowen & Cliff Kay

- Develop and deliver a dedicated, coordinated, and continuously improved asphalt pavement knowledge sharing education program at TxDOT and Industry Professionals.

