

# GUIDELINE FOR ASPHALT MIX SELECTION

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## A. Asphalt Mix Selection

### 1. Superpave Mix Design & Mix Selection

The Superpave mix design consists of the following components.

- PG Asphalt Binder Selection
- Gyratory Compaction Level
- Aggregate Gradation and Physical Properties

### 2. PG Asphalt Binder Selection:

PG ASPHALT BINDER	SUGGESTED USE
PG 58-28	low volume roadways
PG 64-22	most commonly used PG grade, for low, moderate and high volume roadways

### 3. Gyratory Compaction Level

Superpave mixes are designed in the laboratory using a Gyratory compactor. A 75 Gyration design is required unless approved or directed by the Engineer.

### 4. Aggregate Gradation & Lift Thickness

Four different mix types are allowed SG (1"), S (3/4"), and SX (1/2") and SX (Fines). SG is reserved for bottom or lower lift paving in multi lift applications. Both S and Sx mixes can be used for top mat paving and both can be used in high traffic conditions. The minimal thickness for an SG gradation should be 3", 2-1/4" for S, and 1-1/2" for Sx. Adjustments in mix design gradation should be considered when the lift thickness is less than the minimums shown. For thin lift overlays (less than 1-1/2"), the maximum aggregate size should be 100% passing the 3/8" sieve.

SUPERPAVE AGGREGATE GRADATION	MINIMUM LIFT THICKNESS	SUGGESTED USE
SX (Fines)	1"	Preventive Maintenance thin lift overlays, surface mixes
SX (1/2")	1½"	Surface mixes, some intermediate mixes
S (3/4")	2¼"	Bottom, intermediate and some surface mixes
SG (1")	3"	Bottom mats for multi lift paving

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### B. Recycled Asphalt Pavement (RAP)

Recycled asphalt pavement (RAP) is allowed in accordance to CDOT standards for quality control, sampling and testing, and stockpile management. 25% RAP is allowed in lower lifts and 20% RAP in the top mat of paving.