

**City of Omaha Asphalt Standard Requirements**  
Effective 01/01/2013

These standards are intended to summarize and/or supplement requirements contained in the City of Omaha Standard Specifications for Public Works Construction and the City of Omaha Materials and Testing Requirements for Public Works Construction.

Mix Type/Designation (Modified NDOR Designations)		SPR	SPR Fine	SPR Coarse	SPH	SPS	LC
Asphalt Material Properties	RAP, % By Total Wt. Of Mix <sup>4</sup>	35 max.	35 max.	35 max.	25 max.	Not Used At This Time	Not Used At This Time
	Coarse Aggregate Crushed Particle (NDOR T586 <sup>1</sup> )	Min. 83 %	Min. 83%	Min. 83 %	Min. 95/90% <sup>2</sup>		
	Uncompacted Void Content Of Fine Aggregate, AASHTO T304 <sup>3</sup>	43.0% min.	43.0% min.	43.0% min.	45.0% min.		
	Flat And Elongated Pieces (5:1 Ratio)	10% max.	10% max.	N/A	10% max.		
	Sand Equivalent	45 min.	45 min.	45 min.	45 min.		
	Dust To Effective Binder Ratio	0.7 - 1.7	0.7 - 1.7	0.7 - 1.7	0.7 - 1.7		
	Mix Design Air Voids, %	Target 4.0	Target 4.0	Target 4.0	Target 4.0		
	Compaction Gyration N <sub>initial</sub>	7	7	7	8		
	Compaction Gyration N <sub>design</sub>	65	65	65	95		
	Compaction Gyration N <sub>maximum</sub>	100	100	100	150		
	Minimum Production Binder Content (% of Total Mix)	5.0 min.	5.5 min.	4.8 min.	5.1 min.		
	Production Air Voids, %	2.0 – 4.0	2.0 – 4.0	2.0 – 4.0	3.0 – 5.0		
	In-Place Compaction (% of G <sub>mm</sub> )	92.4 min.	92.4 min.	92.4 min.	92.4 min.		

1. Coarse aggregate angularity individual test tolerance during production -5% below min.
2. "85/80" denotes that 85% of the coarse aggregate has one or more fractured faces and 80% has two or more fractured faces
3. Fine aggregate angularity individual test tolerance during production -0.5% below minimum
4. Recycled Asphalt Pavement (RAP) must be from a certified or controlled source acceptable to the Engineer and shall be approved prior to use in the asphalt mix

Mix Type/Designation	SPR		SPR Fine		SPR Coarse		SPH		LC	SPS	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.			
Sieve Designation	% Passing								Not Used At This Time	Not Used At This Time	
	1"				100.0						
	3/4"	98.0	100.0			90.0	100.0	100.0			
	1/2"						90.0	100.0			
	3/8"	81.0	89.0	81.0	96.0			90.0			
	#4										
	#8	46.0	56.0	46.0	56.0	23.0	49.0	28.0			58.0
	#16										
	#30										
	#50	12.0	21.0	12.0	21.0						
#100											
#200	4.0	9.0	4.0	9.0	2.0	8.0	2.0	10.0			

**Binder Type Selection**

The following shall be used to determine the appropriate binder type to be used for constructing asphalt pavements or overlays. Surface and intermediate courses are those lifts within the upper 4" of the finished pavement surface.

<b><u>Classification</u></b>	<b><u>Surface</u></b>	<b><u>Intermediate</u></b>	<b><u>Base</u></b>
Major Arterial.....	PG70-34.....	PG70-34.....	PG64-34
Minor Arterial.....	PG64-34.....	PG64-34.....	PG64-34
Local Road.....	PG64-34.....	PG64-34.....	PG64-34
Driveway.....	PG64-34.....	PG64-34.....	PG64-34

**Mix Selection**

The following shall be used to determine the appropriate mix or mixes to be used for constructing asphalt pavements or overlays.

<b><u>Type</u></b>	<b><u>Lift Thickness</u></b>	<b><u>Application</u></b>
SPR.....	>1.5".....	Overlays or Surface Course for Collector Streets, Local Roads, curb and Parking Lots or Driveways with Commercial Truck Traffic
SPR Fine.....	<1.0".....	Leveling/Wedge Course and Thin Lift Overlays or Surface Course for Collector Streets, Local Roads, and Parking Lots or Driveways with Commercial Truck Traffic
SPR Coarse.....	>2.5".....	Base Course for All Streets, Roadways, or Parking Lots
SPH.....	>1.5".....	Overlay or Surface Course for Arterials Streets, Central Business District Streets, Truck Routes, and Parking Lots or Driveways with Commercial Truck Traffic
LC.....	N/A.....	Not approved for use on pavements in the City of Omaha Jurisdictional Boundary or Public Right of Way
SPS.....	N/A.....	Not approved for use on pavements in the City of Omaha Jurisdictional Boundary or Public Right of Way

**Requirements for non-City Administered Projects Paving City of Omaha Maintained Facilities**

All projects constructing, overlaying, or otherwise paving facilities owned and/or maintained by the City of Omaha or falling within the City's Jurisdictional Boundary or Public Right of Way shall satisfy the following requirements:

1. All work performed shall comply with the requirements established in the City of Omaha Standard Specifications for Public Works Construction.
2. Quality assurance/quality control testing responsibilities to determine compliance with production and as-constructed properties shall be performed by an independent lab satisfying the requirements established in the City of Omaha Materials and Testing Manual for Public Works Construction. Testing frequency shall be a minimum of one (1) sample for each 500 tons or fraction thereof produced on each day. Testing protocols or procedures to determine asphalt material properties shall be those identified in the City of Omaha Materials and Testing Manual for Public Works Construction. Any protocols or procedures not

identified shall comply with NDOR test standards for the protocol or procedure required.

3. Prior to final acceptance, the asphalt material test data shall be reviewed for compliance with the required properties and the completed asphalt construction shall be inspected for unsealed cracks, shoving, rutting, raveling, or other surface distresses or defects. Corrective measures acceptable to the City of Omaha Public Works Department Construction Engineer shall be performed to correct any substandard test properties or any observed pavement distresses or defects.
4. All test data shall be provided to the City of Omaha Public Works Department Construction Engineer a minimum of fifteen (15) business days prior to final acceptance of the work to allow for site and test data review and assessment of suitability for the City to assume responsibility for maintenance after expiration of the warranty period. Unacceptable materials or construction shall be corrected to the satisfaction of the City of Omaha Public Works Department Construction Engineer prior to final acceptance of the work.
5. The City reserves the right to assume maintenance responsibility after expiration of the warranty period for substandard materials or construction within the City's Jurisdictional Boundary or Public Right of Way if an acceptable, as determined by the City of Omaha Public Works Department Construction Engineer, monetary compensation for loss of pavement life is provided by the contracting entity to the City of Omaha Public Works Department.