THE CITY OF TEA TREE GULLY

› Technical Specifications

SURFACES

DESCRIPTION: ASPHALT CAR PARK PAVING

CODE: SUR30 09/02/2026

APPLICATIONS

Regional	●
District	●
Neighbourhood	●
Local	●
Main Roads	●
Local Roads	●

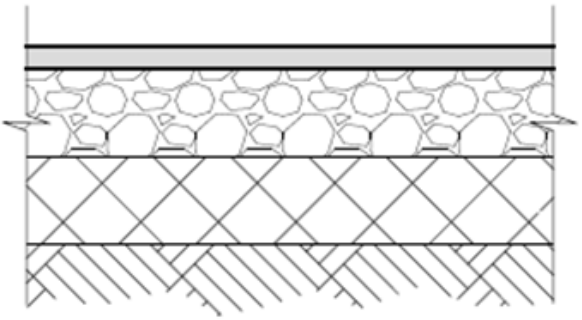
PERFORMANCE CRITERIA	strong, durable and crack resistant, suitable for high traffic areas, slip resistance / adequate traction, minimal maintenance, suitable drainage, temperature resistant

IMAGE/S

Images are indicative of the style, not a specific brand. Council's procurement policy must be followed when selecting and purchasing items.



MATERIALS	Aggregate: All aggregates used will meet the requirements of AS 2758.5 - Asphalt Aggregates. The aggregate shall be produced from a designated source rock. Bitumen: Bitument will be Class 170 or 320 unless specified otherwise and meet the requirements of AS 2008 - Residual Bitumen for Pavements. Polymer modified binders shall meet the requirements of Ausroads AGPT - T190 unless specified otherwise.
FINISHES	Asphalt finishes should be consistent in appearance and be level to flush with existing pavement surfaces.
COLOURS	
SIZE (INDICATIVE)	1:40 cross fall or 2.5% 40mm thick AC10 150mm crushed rock thick layer of PM20 Quarry Grade compacted to 98MMDD, subgrade compacted also to 98MMDD
VARIATIONS	
OPTIONS	The nominal thickness of asphalt to be laid shall be specified and should be greater than the minimum thickness.
INSTALLATION INSTRUCTIONS	Longitudinal Joints shall be: - continuous and parallel - within 150mm of line change in crossfall - offest by at least 150mm from joints in underlying layers - away from traffic wheel paths - located beneath proposed traffic lines markings where possible
DDA (Universal design principles)	Compliance with Disability Discrimination Act and universal design principles.
MAINTENANCE	Repair by replacing damaged section squaring of (butt joints) to reduce further potholing or creating ponding due to level change and joins
EXPECTED LIFESPAN / END OF LIFE REPLACEMENT	25 years
OTHER INFORMATION	
RELEVANT STANDARDS	All mixes shall be manufactured and delivered in accordance with AS 2150



THICKNESS	TYPE	COMPACTION
40mm	AC10	95% Marshall density
150mm	PM1/20	98% Modified
140mm	PM2/20	98% Modified
	Subgrade	98% Standard

ROAD PAVEMENT DETAIL

Dense Graded

Property		Mix Designation			
		AC5	AC7	RAC10	RAC14
Grading Limits % passing AS Sieve					
19.0mm					100
13.2mm				100	90-100
9.5mm			100	95-100	70-90
6.7mm		100	80-100	80-95	62-75
4.75mm		85-100	70-90	65-80	47-67
2.36mm		55-75	45-60	45-60	34-52
1.18mm		38-57	35-50	35-50	25-41
600µm		26-43	22-35	25-40	16-32
300µm		15-28	14-25	15-25	9-21
150µm		8-18	8-16	7-15	5-13
75µm		4-11	5-8	4-7	4-7
Bitumen Content		5.0-7.0	5.0-7.0	5.0-7.0	4.5-6.5
Marshall Voids (%)	35 blow	2.5-4.5	2.5-4.5	2.5-4.5	2.5-4.5
	50 blow	3.0-5.0	3.0-5.0	3.0-5.0	3.0-5.0
Voids in Mineral Aggregate (VMA) (%)	35 blow	-	17	16	15
	50 blow				
Minimum Marshall Stability	35 blow	4.0kN	4.0kN	4.0kN	5.5kN
	50 blow	5.0kN	5.5kN	6.5kN	6.5kN
Marshall Flow (mm)	35 blow	2.0-5.0	2.0-5.0	2.0-5.0	2.0-5.0
	50 blow	2.0 - 4.0	2.0-4.0	2.0-4.0	2.0-4.0
Marshall Quotient(min) (kN/mm)	35 blow	1.0	1.0	1.0	1.0
	50 blow	1.7	1.7	1.7	1.7

Recommendations for 20 year design traffic

Range/Type	Mix	Bitumen Type
Greater than 500,000 ESA	Use distributor road mix	
Greater than 50,000 ESA	50 blow	Class 170
Less than 50,000 ESA	35 blow	Class 170
Maintenance	50 blow	Class 170