

# METRIC (SI\*) CONVERSION FACTORS

APPROXIMATE CONVERSIONS TO SI UNITS					APPROXIMATE CONVERSIONS FROM SI UNITS				
Symbol	When You Know	Multiply By	To Find	Symbol	Symbol	When You Know	Multiply By	To Find	Symbol
<u>LENGTH</u>					<u>LENGTH</u>				
in	inches	25.4		mm	mm	millimeters	0.039	inches	in
ft	feet	0.3048		m	m	meters	3.28	feet	ft
yd	yards	0.914		m	m	meters	1.09	yards	yd
mi	Miles (statute)	1.61		km	km	kilometers	0.621	Miles (statute)	mi
<u>AREA</u>					<u>AREA</u>				
in <sup>2</sup>	square inches	645.2	millimeters squared	cm <sup>2</sup>	mm <sup>2</sup>	millimeters squared	0.0016	square inches	in <sup>2</sup>
ft <sup>2</sup>	square feet	0.0929	meters squared	m <sup>2</sup>	m <sup>2</sup>	meters squared	10.764	square feet	ft <sup>2</sup>
yd <sup>2</sup>	square yards	0.836	meters squared	m <sup>2</sup>	km <sup>2</sup>	kilometers squared	0.39	square miles	mi <sup>2</sup>
mi <sup>2</sup>	square miles	2.59	kilometers squared	km <sup>2</sup>	ha	hectares (10,000 m <sup>2</sup> )	2.471	acres	ac
ac	acres	0.4046	hectares	ha					
<u>MASS (weight)</u>					<u>MASS (weight)</u>				
oz	Ounces (avdp)	28.35	grams	g	g	grams	0.0353	Ounces (avdp)	oz
lb	Pounds (avdp)	0.454	kilograms	kg	kg	kilograms	2.205	Pounds (avdp)	lb
T	Short tons (2000 lb)	0.907	megagrams	mg	mg	megagrams (1000 kg)	1.103	short tons	T
<u>VOLUME</u>					<u>VOLUME</u>				
fl oz	fluid ounces (US)	29.57	milliliters	mL	mL	milliliters	0.034	fluid ounces (US)	fl oz
gal	Gallons (liq)	3.785	liters	liters	liters	liters	0.264	Gallons (liq)	gal
ft <sup>3</sup>	cubic feet	0.0283	meters cubed	m <sup>3</sup>	m <sup>3</sup>	meters cubed	35.315	cubic feet	ft <sup>3</sup>
yd <sup>3</sup>	cubic yards	0.765	meters cubed	m <sup>3</sup>	m <sup>3</sup>	meters cubed	1.308	cubic yards	yd <sup>3</sup>
Note: Volumes greater than 1000 L shall be shown in m <sup>3</sup>									
<u>TEMPERATURE (exact)</u>					<u>TEMPERATURE (exact)</u>				
°F	Fahrenheit temperature	5/9 (°F-32)	Celsius temperature	°C	°C	Celsius temperature	9/5 °C+32	Fahrenheit temperature	°F
<u>ILLUMINATION</u>					<u>ILLUMINATION</u>				
fc	Foot-candles	10.76	lux	lx	lx	lux	0.0929	foot-candles	fc
fl	foot-lamberts	3.426	candela/m <sup>2</sup>	cd/cm <sup>2</sup>	cd/cm <sup>2</sup>	candela/m <sup>2</sup>	0.2919	foot-lamberts	fl
<u>FORCE and PRESSURE or STRESS</u>					<u>FORCE and PRESSURE or STRESS</u>				
lbf	pound-force	4.45	newtons	N	N	newtons	0.225	pound-force	lbf
psi	pound-force per square inch	6.89	kilopascals	kPa	kPa	kilopascals	0.145	pound-force per square inch	psi
These factors conform to the requirement of FHWA Order 5190.1A *SI is the symbol for the International System of Measurements									