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**Central Federal Lands Highway Division**

**12300 West Dakota Avenue**

**Lakewood, CO 80228**



**FOREWORD**

The Federal Lands Highway (FLH) promotes development and deployment of applied research and technology applicable to solving transportation related issues on Federal Lands. The FLH provides technology delivery, innovative solutions, recommended best practices, and related information and knowledge sharing to Federal agencies, Tribal governments, and other offices within the FHWA.

The objective of this study was to produce a prime and tack coat publication that would guide project development and field personnel in making decisions on how to use, when to keep, and when to eliminate prime and tack coats [Your specific information here].

The study included a [Your specific information here] literature search on prime and tack coats, a review of environmental considerations for prime and tack coat usage and a phone survey to determine the current practice of state DOTs from the CFLHD region. Recommendations for improving CFLHD’s specifications were made. Based on the information collected, this guideline was produced.

The contributions and cooperation of the CFLHD personnel is gratefully acknowledged.

**NOTICE**

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| **SI\* (MODERN METRIC) CONVERSION FACTORS** |
| **APPROXIMATE CONVERSIONS TO SI UNITS** |
| **Symbol**  | **When You Know**  | **Multiply By**  | **To Find**  | **Symbol**  |
| **LENGTH** |
| in | inches  | 25.4 | millimeters | mm  |
| ft | feet  | 0.305 | meters | m  |
| yd | yards  | 0.914 | meters | m  |
| mi | miles  | 1.61 | kilometers | km |
| **AREA** |
| in2 | square inches  | 645.2 | square millimeters | mm2  |
| ft2 | square feet | 0.093 | square meters | m2  |
| yd2 | square yard  | 0.836 | square meters | m2  |
| ac | acres  | 0.405 | hectares | ha  |
| mi2 | square miles  | 2.59 | square kilometers | km2 |
| **VOLUME** |
| fl oz | fluid ounces  | 29.57 | milliliters | mL  |
| gal | gallons  | 3.785 | liters | L  |
| ft3 | cubic feet  | 0.028 | cubic meters | m3  |
| yd3 | cubic yards  | 0.765 | cubic meters | m3 |
| NOTE: volumes greater than 1000 L shall be shown in m3 |
| **MASS** |
| oz | ounces  | 28.35 | grams | g  |
| lb | pounds  | 0.454 | kilograms | kg  |
| T | short tons (2000 lb)  | 0.907 | megagrams (or "metric ton") | Mg (or "t") |
| **TEMPERATURE (exact degrees)** |
| °F | Fahrenheit  | 5 (F-32)/9 | Celsius | °C |
|  |  | or (F-32)/1.8 |  |  |
| **ILLUMINATION**  |
| fc | foot-candles  | 10.76 | lux | lx  |
| fl | foot-Lamberts  | 3.426 | candela/m2 | cd/m2 |
| **FORCE and PRESSURE or STRESS**  |
| lbf | poundforce  | 4.45 | newtons | N  |
| lbf/in2 | poundforce per square inch  | 6.89 | kilopascals | kPa |
| **APPROXIMATE CONVERSIONS FROM SI UNITS** |
| **Symbol** | **When You Know** | **Multiply By** | **To Find** | **Symbol** |
| **LENGTH** |
| mm  | millimeters  | 0.039 | inches | in  |
| m  | meters  | 3.28 | feet | ft  |
| m  | meters  | 1.09 | yards | yd  |
| km | kilometers  | 0.621 | miles | mi  |
| **AREA** |
| mm2  | square millimeters  | 0.0016 | square inches | in2 |
| m2 | square meters  | 10.764 | square feet | ft2 |
| m2 | square meters  | 1.195 | square yards | yd2  |
| ha | hectares  | 2.47 | acres | ac  |
| km2  | square kilometers  | 0.386 | square miles | mi2  |
| **VOLUME** |
| mL  | milliliters  | 0.034 | fluid ounces | fl oz  |
| L  | liters  | 0.264 | gallons | gal  |
| m3 | cubic meters  | 35.314 | cubic feet | ft3 |
| m3  | cubic meters  | 1.307 | cubic yards | yd3  |
| **MASS** |
| g  | grams  | 0.035 | ounces | oz  |
| kg  | kilograms  | 2.202 | pounds | lb  |
| Mg (or "t")  | megagrams (or "metric ton")  | 1.103 | short tons (2000 lb) | T  |
| **TEMPERATURE (exact degrees)** |
| °C | Celsius  | 1.8C+32 | Fahrenheit | °F |
| **ILLUMINATION** |
| lx  | lux  | 0.0929 | foot-candles | fc  |
| cd/m2  | candela/m2  | 0.2919 | foot-Lamberts | fl  |
| **FORCE and PRESSURE or STRESS** |
| N  | newtons  | 0.225 | poundforce | lbf  |
| kPa | kilopascals  | 0.145 | poundforce per square inch | lbf/in2 |

\*SI is the symbol for the International System of Units. Appropriate rounding should be made to comply with Section 4 of ASTM E380.

(Revised March 2003)

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# List of Abbreviations and Symbols

**Abbreviations**

**Symbols**

# Acknowledgments

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# Executive Summary

This section is optional.

# Chapter 1. Introduction

## Background

To change the header for each new chapter, be sure there is an Odd Section break between the chapters. Then open the header and turn off the Link to Previous. Then you can alter the next Chapter’s header without changing the previous one.

# Chapter 2.

# Chapter      . Conclusions

# References

References must be Endnotes. If you need help using endnotes, feel free to ask COM staff. Follow the *Chicago Manual of Style* format for the source listing (See. <http://www.chicagomanualofstyle.org/16/ch15/ch15_sec009.html> for examples).

# Bibliography

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