

Manual of
Standard Plans

2007
EDITION



A Manual for General Contractors and the Construction Industry

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Standard Plans

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Published by
Utah LTAP Center
Utah State University
8205 Old Main Hill
Logan UT 84322-8205
(800) 822-8878 or (435) 797-2931

A Manual for General Contractors and the Construction Industry

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**UTAH CHAPTER
AMERICAN PUBLIC WORKS ASSOCIATION**

**UTAH CHAPTER
THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA**

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Printed in the United States of America

First printing July, 1997 - 600 copies
Second Printing, January 2002 - 1,200 copies
Third Printing, January 2007, 2,000 copies

PREFACE

With the help of the Utah Chapter of the Associated General Contractors of America, the Standard Plans Committee worked under the jurisdiction of the Utah Chapter of the American Public Works Association and first published this manual in 1997.

This manual was developed from standard plans published by Cities, Counties and various improvement districts along the Wasatch front. Representatives from various municipalities and utility districts participated in the review of this document.

The original edition contained compromises where divergent views had to be reconciled. Generally these views had to do with differences in established local practice with no clear-cut superiority of one method over another. This edition is a result of various changes and improvements approved by the Standard Plans Committee.

This Manual is published as a service to cities, counties and public agencies in the State of Utah. It is intended as a useful guide, rather than as a codification of the best standards that exclude other standards. Certainly, in many instances, there are other ways of accomplishing the desired construction utilizing alternate methods and materials.

The construction industry has embraced this manual because it provides construction uniformity among contracting agencies that have adopted the use of this manual.

To recommend an improvement to this document, submit the following information to the chairman of the Standard Specifications and Drawings Subcommittee. The web site is (<http://utah.apwa.net>).

- Identification of the problem.
- Recommendation of how to solve the problem.
- Provision of recommended text or drawing supporting the recommendation.

Construction experts and design professionals will carefully review the proposed changes in open meetings.

REFERENCE

The term "APWA Section" which is used on the plans refers to specification sections published by the Utah Chapter of the American Public Works Association in the document entitled "Manual of Standard Specifications". The Manual of Standard Specifications has been in existence since 1991 and was originally entitled "Utah Public Works General Conditions and Standard Specifications for Construction".

ENGLISH EQUIVALENT

Metric	Recommended English Equivalent
2.36 mm	1/8 in.
4.75 mm	1/4 in.
9.5 mm	3/8 in.
12.5 mm	1/2 in.
19.0 mm	3/4 in.
25.0 mm	1 in.
37.5 mm	1-1/2 in.
75 mm	3 in.
150 mm	6 in.
200 mm	8 in.
250 mm	10 in.
300 mm	12 in.

Metric	Recommended English Equivalent
400 mm	15 in.
500 mm	18 in.
600 mm	2 ft.
800 mm	2 1/2 ft.
900 mm	3 ft.
1.00m	3 1/2 ft.
1.25 m	4 ft.
1.50 m	5 ft.
1.75 m	6 ft.
2.00 m	7 ft.
2.50 m	8 ft.

The “Recommended English Equivalents” are rounded for use in interpreting metric sizes

SLOPE

Rise : length	Percent	Degrees
1 : 6.25	16.00	9.0903
1 : 8	12.50	7.1250
1 : 8.33	12.00	6.8455
1 : 10	10.00	5.7106
1 : 12	8.33	4.7636
1 : 13	7.69	4.3987
1 : 14	7.14	4.0856
1 : 15	6.67	3.8241
1 : 16	6.25	3.5763
1 : 17	5.88	3.3665
1 : 18	5.55	3.1798
1 : 19	5.26	3.0128
1 : 20	5.00	2.8624
1 : 30	3.33	1.9092
1 : 50	2.00	1.1458
1 : 100	1.00	0.5729

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