

**TABLES FOR DETERMINING THE  
CUBICAL CONTENT OF  
EARTHWORK, IN THE  
CONSTRUCTION OF RAILWAYS  
AND COMMON ROADS**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649340033

Tables for determining the cubical content of earthwork, in the construction of railways and common roads by William Kelly

Except for use in any review, the reproduction or utilisation of this work in whole or in part in any form by any electronic, mechanical or other means, now known or hereafter invented, including xerography, photocopying and recording, or in any information storage or retrieval system, is forbidden without the permission of the publisher, Trieste Publishing Pty Ltd, PO Box 1576 Collingwood, Victoria 3066 Australia.

All rights reserved.

Edited by Trieste Publishing Pty Ltd.  
Cover @ 2017

This book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, re-sold, hired out, or otherwise circulated without the publisher's prior consent in any form or binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

[www.triestepublishing.com](http://www.triestepublishing.com)

**WILLIAM KELLY**

**TABLES FOR DETERMINING THE  
CUBICAL CONTENT OF  
EARTHWORK, IN THE  
CONSTRUCTION OF RAILWAYS  
AND COMMON ROADS**



**TABLES**  
FOR DETERMINING THE  
**CUBICAL CONTENT OF EARTHWORK,**  
IN THE  
CONSTRUCTION  
OF  
**RAILWAYS AND COMMON ROADS,**  
WHETHER IN  
LEVEL GROUND OR SIDE CUTTING.



BY  
**WILLIAM KELLY.**

---

DUBLIN:  
JAMES McGLASHAN, 21 D'OLIER STREET;  
W. S. ORR & Co, 147 STRAND, LONDON.

1847.

TABLE I.—FOR ALL BASES and ALL SLOPES.

Height ft. in.	Tabular Number	Height ft. in.	Tabular Number	Height ft. in.	Tabular Number	Height ft. in.	Tabular Number	Height ft. in.	Tabular Number	Height ft. in.	Tabular Number	Height ft. in.	Tabular Number	Height ft. in.	Tabular Number
0 3	0-009	14 6	0-537	28 9	1-065	43 0	1-593	57 3	2-120	71 6	2-648	86 0	3-185		
6	0-019	9	0-546	29 0	1-074	43 3	1-602	57 6	2-130	71 9	2-657	86 3	3-194		
9	0-028	15 0	0-556	3	1-083	43 6	1-611	57 9	2-139	72 0	2-667	86 6	3-204		
1 0	0-037	3	0-565	8	1-093	43 9	1-620	58 0	2-148	72 3	2-676	86 9	3-213		
3	0-046	6	0-574	9	1-102	44 0	1-630	58 3	2-157	72 6	2-685	87 0	3-222		
6	0-056	9	0-583	30 0	1-111	3	1-639	58 6	2-167	72 9	2-694	87 3	3-231		
9	0-065	16 0	0-593	3	1-120	6	1-648	58 9	2-176	73 0	2-704	87 6	3-241		
2 0	0-074	3	0-602	6	1-130	9	1-657	59 0	2-185	73 3	2-713	87 9	3-250		
3	0-083	6	0-611	9	1-139	45 0	1-667	59 3	2-194	73 6	2-722	88 0	3-259		
6	0-093	9	0-620	31 0	1-148	3	1-676	59 6	2-204	73 9	2-731	88 3	3-268		
9	0-102	17 0	0-630	3	1-157	6	1-685	59 9	2-213	74 0	2-741	88 6	3-278		
3 0	0-111	3	0-639	6	1-167	9	1-694	60 0	2-222	74 3	2-750	88 9	3-287		
3	0-120	6	0-648	9	1-176	46 0	1-704	3	2-231	74 6	2-759	89 0	3-296		
6	0-130	9	0-657	32 0	1-185	3	1-713	6	2-241	74 9	2-768	89 3	3-306		
9	0-139	18 0	0-667	3	1-194	6	1-722	9	2-250	75 0	2-778	89 6	3-315		
4 0	0-148	3	0-676	6	1-204	9	1-731	61 0	2-259	3	2-787	9	3-324		
6	0-157	6	0-685	9	1-213	47 0	1-741	3	2-268	6	2-796	90 0	3-333		
9	0-167	9	0-694	33 0	1-222	3	1-750	6	2-278	9	2-805	3	3-343		
9	0-176	19 0	0-704	3	1-231	6	1-759	9	2-287	76 0	2-815	6	3-352		
5 0	0-185	3	0-713	6	1-241	9	1-768	62 0	2-296	3	2-824	9	3-361		
3	0-194	6	0-722	9	1-250	48 0	1-778	3	2-306	6	2-833	91 0	3-370		
6	0-204	9	0-731	34 0	1-259	3	1-787	6	2-315	9	2-843	3	3-380		
9	0-213	20 0	0-741	3	1-268	6	1-796	9	2-324	77 0	2-852	6	3-389		
6 0	0-222	3	0-750	6	1-278	9	1-805	63 0	2-333	3	2-861	92 0	3-398		
3	0-231	6	0-759	9	1-287	49 0	1-815	3	2-343	6	2-870	92 3	3-407		
6	0-241	9	0-768	35 0	1-296	3	1-824	6	2-352	9	2-880	3	3-417		
9	0-250	21 0	0-778	3	1-305	6	1-833	9	2-361	78 0	2-889	6	3-426		
7 0	0-259	3	0-787	6	1-315	9	1-843	64 0	2-370	3	2-898	9	3-435		
3	0-268	6	0-796	9	1-324	50 0	1-852	3	2-380	6	2-907	93 0	3-444		
6	0-278	9	0-805	36 0	1-333	3	1-861	6	2-389	9	2-917	3	3-454		
9	0-287	22 0	0-815	3	1-343	6	1-870	9	2-398	79 0	2-926	6	3-463		
8 0	0-296	3	0-824	6	1-352	9	1-880	65 0	2-407	3	2-935	9	3-472		
3	0-306	6	0-833	9	1-361	51 0	1-889	3	2-417	6	2-944	94 0	3-481		
6	0-315	9	0-843	37 0	1-370	3	1-898	6	2-426	9	2-954	3	3-491		
9	0-324	23 0	0-852	3	1-380	6	1-907	9	2-435	80 0	2-963	6	3-500		
9 0	0-333	3	0-861	6	1-389	9	1-917	66 0	2-444	3	2-972	9	3-509		
3	0-343	6	0-870	9	1-398	52 0	1-926	3	2-454	6	2-981	95 0	3-519		
6	0-352	9	0-880	38 0	1-407	3	1-935	6	2-463	9	2-991	3	3-528		
9	0-361	24 0	0-889	3	1-417	6	1-944	9	2-472	81 0	3-000	6	3-537		
10 0	0-370	3	0-899	6	1-426	9	1-954	67 0	2-481	3	3-009	9	3-546		
3	0-380	6	0-907	9	1-435	53 0	1-963	3	2-491	6	3-019	96 0	3-556		
6	0-389	9	0-917	39 0	1-444	3	1-972	6	2-500	9	3-028	3	3-565		
9	0-398	25 0	0-926	3	1-454	6	1-981	9	2-509	82 0	3-037	6	3-574		
11 0	0-407	3	0-935	6	1-463	9	1-991	68 0	2-519	3	3-046	9	3-583		
3	0-417	6	0-944	9	1-472	54 0	2-000	3	2-528	6	3-056	97 0	3-593		
6	0-426	9	0-954	40 0	1-481	3	2-009	6	2-537	9	3-065	3	3-602		
9	0-435	26 0	0-963	3	1-491	6	2-019	9	2-546	83 0	3-074	6	3-611		
12 0	0-444	3	0-972	6	1-500	9	2-028	69 0	2-556	3	3-083	9	3-620		
3	0-454	6	0-981	9	1-509	55 0	2-037	3	2-565	6	3-093	98 0	3-630		
6	0-463	9	0-991	41 0	1-519	3	2-046	6	2-574	9	3-102	3	3-639		
9	0-472	27 0	1-000	3	1-528	6	2-056	9	2-583	84 0	3-111	6	3-648		
13 0	0-481	3	1-009	6	1-537	9	2-065	70 0	2-593	3	3-120	9	3-657		
3	0-491	6	1-019	9	1-546	56 0	2-074	3	2-602	6	3-130	99 0	3-667		
6	0-500	9	1-028	42 0	1-556	3	2-083	6	2-611	9	3-139	3	3-676		
9	0-509	28 0	1-037	3	1-565	6	2-093	9	2-620	85 0	3-148	6	3-685		
14 0	0-519	3	1-046	6	1-574	9	2-102	71 0	2-630	3	3-157	9	3-694		
3	0-528	6	1-056	9	1-583	57 0	2-111	3	2-639	6	3-176	100	3-704		

This Table referred to in p. 45 as occupying two pages, has been comprised in one. 1

TABLE II.—SLOPE  $\frac{1}{2}$  to 1.

Height Ft. In.	Base 1 Foot	Base 10 Feet	Base 20 Feet	Base 30 Feet	Height Ft. In.	Base 1 Foot	Base 10 Feet	Base 20 Feet	Base 30 Feet	% Error
0 3	0-010	0-185	0-278	0-003	13 0	0-481	9-630	14-444	0-120	
6	0-019	0-370	0-556	0-005	3	0-490	9-815	14-722	0-123	
9	0-028	0-556	0-833	0-007	6	0-500	10-000	15-000	0-125	
1 0	0-037	0-741	1-111	0-009	9	0-509	10-185	15-278	0-128	
3	0-046	0-926	1-389	0-012	14 0	0-519	10-370	15-556	0-130	
6	0-056	1-111	1-667	0-014	3	0-528	10-556	15-833	0-132	
9	0-065	1-296	1-944	0-017	6	0-537	10-741	16-111	0-134	
2 0	0-074	1-481	2-222	0-019	9	0-546	10-926	16-389	0-137	
3	0-083	1-667	2-500	0-021	15 0	0-556	11-111	16-667	0-139	
6	0-093	1-852	2-778	0-023	3	0-565	11-296	16-944	0-142	
9	0-102	2-037	3-056	0-026	6	0-574	11-481	17-222	0-144	
3 0	0-111	2-222	3-333	0-028	9	0-583	11-667	17-500	0-146	
3	0-120	2-407	3-611	0-030	16 0	0-593	11-852	17-778	0-148	
6	0-130	2-593	3-889	0-032	3	0-602	12-037	18-056	0-151	
9	0-139	2-778	4-167	0-035	6	0-611	12-222	18-333	0-153	
4 0	0-148	2-963	4-444	0-037	9	0-620	12-407	18-611	0-155	
3	0-157	3-148	4-722	0-040	17 0	0-630	12-593	18-889	0-157	
6	0-167	3-333	5-000	0-042	3	0-639	12-778	19-167	0-160	
9	0-176	3-519	5-278	0-044	6	0-648	12-963	19-444	0-162	
5 0	0-185	3-704	5-556	0-046	9	0-657	13-148	19-722	0-165	
3	0-194	3-889	5-833	0-049	18 0	0-667	13-333	20-000	0-167	
6	0-204	4-074	6-111	0-051	3	0-676	13-519	20-278	0-169	
9	0-213	4-259	6-389	0-054	6	0-685	13-704	20-556	0-171	
6 0	0-222	4-444	6-667	0-056	9	0-694	13-889	20-833	0-174	
3	0-231	4-630	6-944	0-058	19 0	0-704	14-074	21-111	0-178	
6	0-241	4-815	7-222	0-060	3	0-713	14-259	21-389	0-179	
9	0-250	5-000	7-500	0-063	6	0-722	14-444	21-667	0-181	
7 0	0-259	5-185	7-778	0-065	9	0-731	14-630	21-944	0-183	
3	0-268	5-370	8-056	0-067	20 0	0-741	14-815	22-222	0-185	
6	0-278	5-556	8-333	0-069	3	0-750	15-000	22-500	0-188	
9	0-287	5-741	8-611	0-072	6	0-759	15-185	22-778	0-190	
8 0	0-296	5-926	8-889	0-074	9	0-768	15-370	23-056	0-192	
3	0-305	6-111	9-167	0-077	21 0	0-778	15-556	23-333	0-194	
6	0-315	6-296	9-444	0-079	3	0-787	15-741	23-611	0-197	
9	0-324	6-481	9-722	0-081	6	0-796	15-926	23-889	0-199	
9 0	0-333	6-667	10-000	0-083	9	0-805	16-111	24-167	0-202	
3	0-342	6-852	10-278	0-086	22 0	0-815	16-296	24-444	0-204	
6	0-352	7-037	10-556	0-088	3	0-824	16-481	24-722	0-206	
9	0-361	7-222	10-833	0-091	6	0-833	16-667	25-000	0-208	
10 0	0-370	7-407	11-111	0-093	9	0-842	16-852	25-278	0-211	
3	0-379	7-593	11-389	0-095	23 0	0-852	17-037	25-556	0-213	
6	0-389	7-778	11-667	0-097	3	0-861	17-222	25-833	0-216	
9	0-398	7-963	11-944	0-100	6	0-870	17-407	26-111	0-218	
11 0	0-407	8-148	12-222	0-102	9	0-879	17-593	26-389	0-220	
3	0-416	8-333	12-500	0-104	24 0	0-889	17-778	26-667	0-222	
6	0-426	8-519	12-778	0-106	3	0-898	17-963	26-944	0-225	
9	0-435	8-704	13-056	0-109	6	0-907	18-148	27-222	0-227	
12 0	0-444	8-889	13-333	0-111	9	0-916	18-333	27-500	0-229	
3	0-453	9-074	13-611	0-114	25 0	0-926	18-519	27-778	0-231	
6	0-463	9-259	13-889	0-116	3	0-935	18-704	28-056	0-234	
9	0-472	9-444	14-167	0-118						

TABLE II. Continued.—SLOPE  $\frac{1}{4}$  to 1.

Height Ft. In.	Base 1 Foot	Base 20 Feet	Base 30 Feet	SLOPE	Height Ft. In.	Base 1 Foot	Base 20 Feet	Base 30 Feet	SLOPE
25 6	0-944	18-689	28-333	0-236	38 0	1-407	28-148	42-222	0-352
9	0-953	19-074	28-611	0-239	3	1-416	28-333	42-500	0-354
26 0	0-963	19-259	28-689	0-241	6	1-426	28-519	42-778	0-356
3	0-972	19-444	29-167	0-243	9	1-435	28-704	43-056	0-359
6	0-981	19-630	29-444	0-245	39 0	1-444	28-889	43-333	0-361
9	0-990	19-815	29-722	0-248	3	1-453	29-074	43-611	0-364
27 0	1-000	20-000	30-000	0-250	6	1-463	29-259	43-889	0-366
3	1-009	20-185	30-278	0-253	9	1-472	29-444	44-167	0-368
6	1-019	20-370	30-556	0-255	40 0	1-481	29-630	44-444	0-370
9	1-028	20-556	30-833	0-257	3	1-490	29-815	44-722	0-373
28 0	1-037	20-741	31-111	0-259	6	1-500	30-000	45-000	0-375
3	1-046	20-926	31-389	0-262	9	1-509	30-185	45-278	0-378
6	1-056	21-111	31-667	0-264	41 0	1-519	30-370	45-556	0-380
9	1-065	21-296	31-944	0-267	3	1-528	30-556	45-833	0-382
29 0	1-074	21-481	32-222	0-269	6	1-537	30-741	46-111	0-384
3	1-083	21-667	32-500	0-271	9	1-546	30-926	46-389	0-387
6	1-093	21-852	32-778	0-273	42 0	1-556	31-111	46-667	0-389
9	1-102	22-037	33-056	0-276	3	1-565	31-296	46-944	0-392
30 0	1-111	22-222	33-333	0-278	6	1-574	31-481	47-222	0-394
3	1-120	22-407	33-611	0-280	9	1-583	31-667	47-500	0-396
6	1-130	22-593	33-889	0-282	43 0	1-593	31-852	47-778	0-398
9	1-139	22-778	34-167	0-285	3	1-602	32-037	48-056	0-401
31 0	1-148	22-963	34-444	0-287	6	1-611	32-222	48-333	0-403
3	1-157	23-148	34-722	0-290	9	1-620	32-407	48-611	0-405
6	1-167	23-333	35-000	0-292	44 0	1-630	32-593	48-889	0-407
9	1-176	23-519	35-278	0-294	3	1-639	32-778	49-167	0-410
32 0	1-185	23-704	35-556	0-296	6	1-648	32-963	49-444	0-412
3	1-194	23-889	35-833	0-299	9	1-657	33-148	49-722	0-415
6	1-204	24-074	36-111	0-301	45 0	1-667	33-333	50-000	0-417
9	1-213	24-259	36-389	0-304	3	1-676	33-519	50-278	0-419
33 0	1-222	24-444	36-667	0-306	6	1-685	33-704	50-556	0-421
3	1-231	24-630	36-944	0-308	9	1-694	33-889	50-833	0-424
6	1-241	24-815	37-222	0-310	46 0	1-704	34-074	51-111	0-426
9	1-250	25-000	37-500	0-313	3	1-713	34-259	51-389	0-429
34 0	1-259	25-185	37-778	0-315	6	1-722	34-444	51-667	0-431
3	1-268	25-370	38-056	0-317	9	1-731	34-630	51-944	0-433
6	1-278	25-556	38-333	0-319	47 0	1-741	34-815	52-222	0-435
9	1-287	25-741	38-611	0-322	3	1-750	35-000	52-500	0-438
35 0	1-296	25-926	38-889	0-324	6	1-759	35-185	52-778	0-440
3	1-305	26-111	39-167	0-327	9	1-768	35-370	53-056	0-442
6	1-315	26-296	39-444	0-329	48 0	1-778	35-556	53-333	0-444
9	1-324	26-481	39-722	0-331	3	1-787	35-741	53-611	0-447
36 0	1-333	26-667	40-000	0-333	6	1-796	35-926	53-889	0-449
3	1-342	26-852	40-278	0-336	9	1-805	36-111	54-167	0-452
6	1-352	27-037	40-556	0-338	49 0	1-815	36-296	54-444	0-454
9	1-361	27-222	40-833	0-341	3	1-824	36-481	54-722	0-456
37 0	1-370	27-407	41-111	0-343	6	1-833	36-667	55-000	0-458
3	1-379	27-593	41-389	0-345	9	1-842	36-852	55-278	0-461
6	1-389	27-778	41-667	0-347	50 0	1-852	37-037	55-556	0-463
9	1-398	27-963	41-944	0-350					



TABLE II. Continued—SLOPE  $\frac{1}{2}$  to 1.

Height Ft. In.	Rise 1 Foot	Rise 30 Feet	Rise 30 Feet	SLOPE	Height Ft. In.	Rise 1 Foot	Rise 30 Feet	Rise 30 Feet	SLOPE
0 3	0-010	0-185	0-278	0-005	18 0	0-481	9-630	14-444	0-241
6	0-019	0-370	0-556	0-009	3	0-490	9-815	14-722	0-245
9	0-028	0-556	0-833	0-014	6	0-500	10-000	15-000	0-250
1 0	0-037	0-741	1-111	0-019	9	0-509	10-185	15-278	0-254
3	0-046	0-926	1-389	0-023	14 0	0-519	10-370	15-556	0-259
6	0-056	1-111	1-667	0-028	3	0-528	10-556	15-833	0-264
9	0-065	1-296	1-944	0-032	6	0-537	10-741	16-111	0-269
2 0	0-074	1-481	2-222	0-037	9	0-546	10-926	16-389	0-273
3	0-083	1-667	2-500	0-041	15 0	0-556	11-111	16-667	0-278
6	0-093	1-852	2-778	0-046	3	0-565	11-296	16-944	0-282
9	0-102	2-037	3-056	0-051	6	0-574	11-481	17-222	0-287
3 0	0-111	2-222	3-333	0-056	9	0-583	11-667	17-500	0-291
3	0-120	2-407	3-611	0-060	16 0	0-593	11-852	17-778	0-296
6	0-130	2-593	3-889	0-065	3	0-602	12-037	18-056	0-301
9	0-139	2-778	4-167	0-069	6	0-611	12-222	18-333	0-306
4 0	0-148	2-963	4-444	0-074	9	0-620	12-407	18-611	0-310
3	0-157	3-148	4-722	0-078	17 0	0-630	12-593	18-889	0-315
6	0-167	3-333	5-000	0-083	3	0-639	12-778	19-167	0-319
9	0-176	3-519	5-278	0-088	6	0-648	12-963	19-444	0-324
5 0	0-185	3-704	5-556	0-093	9	0-657	13-148	19-722	0-328
3	0-194	3-889	5-833	0-097	18 0	0-667	13-333	20-000	0-333
6	0-204	4-074	6-111	0-102	3	0-676	13-519	20-278	0-338
9	0-213	4-259	6-389	0-106	6	0-685	13-704	20-556	0-343
6 0	0-222	4-444	6-667	0-111	9	0-694	13-889	20-833	0-347
3	0-231	4-630	6-944	0-115	19 0	0-704	14-074	21-111	0-352
6	0-241	4-815	7-222	0-120	3	0-713	14-259	21-389	0-356
9	0-250	5-000	7-500	0-125	6	0-722	14-444	21-667	0-361
7 0	0-259	5-185	7-778	0-130	9	0-731	14-630	21-944	0-365
3	0-268	5-370	8-056	0-134	20 0	0-741	14-815	22-222	0-370
6	0-278	5-556	8-333	0-139	3	0-750	15-000	22-500	0-375
9	0-287	5-741	8-611	0-143	6	0-759	15-185	22-778	0-380
8 0	0-296	5-926	8-889	0-148	9	0-768	15-370	23-056	0-384
3	0-305	6-111	9-167	0-152	21 0	0-778	15-556	23-333	0-389
6	0-315	6-296	9-444	0-157	3	0-787	15-741	23-611	0-393
9	0-324	6-481	9-722	0-162	6	0-796	15-926	23-889	0-398
9 0	0-333	6-667	10-000	0-167	9	0-805	16-111	24-167	0-402
3	0-342	6-852	10-278	0-171	22 0	0-815	16-296	24-444	0-407
6	0-352	7-037	10-556	0-176	3	0-824	16-481	24-722	0-412
9	0-361	7-222	10-833	0-180	6	0-833	16-667	25-000	0-417
10 0	0-370	7-407	11-111	0-185	9	0-842	16-852	25-278	0-421
3	0-379	7-593	11-389	0-189	23 0	0-852	17-037	25-556	0-426
6	0-389	7-778	11-667	0-194	3	0-861	17-222	25-833	0-430
9	0-398	7-963	11-944	0-199	6	0-870	17-407	26-111	0-435
11 0	0-407	8-148	12-222	0-204	9	0-879	17-593	26-389	0-439
3	0-416	8-333	12-500	0-208	24 0	0-889	17-778	26-667	0-444
6	0-426	8-519	12-778	0-213	3	0-898	17-963	26-944	0-448
9	0-435	8-704	13-056	0-217	6	0-907	18-148	27-222	0-453
12 0	0-444	8-889	13-333	0-222	9	0-916	18-333	27-500	0-457
3	0-453	9-074	13-611	0-226	25 0	0-926	18-519	27-778	0-462
6	0-463	9-259	13-889	0-231	3	0-935	18-704	28-056	0-467
9	0-472	9-444	14-167	0-236					

TABLE II.—SLOPE  $\frac{1}{2}$  to 1 Continued.

Heights Ft. in.	RAISE 1 Foot	RAISE 20 Feet	RAISE 30 Feet	SLOPES	Heights Ft. in.	RAISE 1 Foot	RAISE 20 Feet	RAISE 30 Feet	SLOPES
25 6	0-944	18-889	28-333	0-472	38 0	1-407	28-148	42-222	0-704
9	0-953	19-074	28-611	0-476	3	1-416	28-333	42-500	0-708
26 0	0-963	19-259	28-889	0-481	6	1-426	28-519	42-778	0-713
3	0-972	19-444	29-167	0-486	9	1-435	28-704	43-056	0-717
6	0-981	19-630	29-444	0-491	39 0	1-444	28-889	43-333	0-722
9	0-990	19-815	29-722	0-495	3	1-453	29-074	43-611	0-726
27 0	1-000	20-000	30-000	0-500	6	1-463	29-259	43-889	0-731
3	1-009	20-185	30-278	0-504	9	1-472	29-444	44-167	0-736
6	1-019	20-370	30-556	0-509	40 0	1-481	29-630	44-444	0-741
9	1-028	20-556	30-833	0-514	3	1-490	29-815	44-722	0-745
28 0	1-037	20-741	31-111	0-519	6	1-500	30-000	45-000	0-750
3	1-046	20-926	31-389	0-523	9	1-509	30-185	45-278	0-754
6	1-056	21-111	31-667	0-528	41 0	1-519	30-370	45-556	0-759
9	1-065	21-296	31-944	0-532	3	1-528	30-556	45-833	0-764
29 0	1-074	21-481	32-222	0-537	6	1-537	30-741	46-111	0-769
3	1-083	21-667	32-500	0-541	9	1-546	30-926	46-389	0-773
6	1-093	21-852	32-778	0-546	42 0	1-556	31-111	46-667	0-778
9	1-102	22-037	33-056	0-551	3	1-565	31-296	46-944	0-782
30 0	1-111	22-222	33-333	0-556	6	1-574	31-481	47-222	0-787
3	1-120	22-407	33-611	0-560	9	1-583	31-667	47-500	0-791
6	1-130	22-593	33-889	0-565	43 0	1-593	31-852	47-778	0-796
9	1-139	22-778	34-167	0-569	3	1-602	32-037	48-056	0-801
31 0	1-148	22-963	34-444	0-574	6	1-611	32-222	48-333	0-806
3	1-157	23-148	34-722	0-578	9	1-620	32-407	48-611	0-810
6	1-167	23-333	35-000	0-583	44 0	1-630	32-593	48-889	0-815
9	1-176	23-519	35-278	0-588	3	1-639	32-778	49-167	0-819
32 0	1-185	23-704	35-556	0-593	6	1-648	32-963	49-444	0-824
3	1-194	23-889	35-833	0-597	9	1-657	33-148	49-722	0-828
6	1-204	24-074	36-111	0-602	45 0	1-667	33-333	50-000	0-833
9	1-213	24-259	36-389	0-606	3	1-676	33-519	50-278	0-838
33 0	1-222	24-444	36-667	0-611	6	1-685	33-704	50-556	0-843
3	1-231	24-630	36-944	0-615	9	1-694	33-889	50-833	0-847
6	1-241	24-815	37-222	0-620	46 0	1-704	34-074	51-111	0-852
9	1-250	25-000	37-500	0-625	3	1-713	34-259	51-389	0-856
34 0	1-259	25-185	37-778	0-630	6	1-722	34-444	51-667	0-861
3	1-268	25-370	38-056	0-634	9	1-731	34-630	51-944	0-865
6	1-278	25-556	38-333	0-639	47 0	1-741	34-815	52-222	0-870
9	1-287	25-741	38-611	0-643	3	1-750	35-000	52-500	0-875
35 0	1-296	25-926	38-889	0-648	6	1-759	35-185	52-778	0-880
3	1-305	26-111	39-167	0-652	9	1-768	35-370	53-056	0-884
6	1-315	26-296	39-444	0-657	48 0	1-778	35-556	53-333	0-889
9	1-324	26-481	39-722	0-662	3	1-787	35-741	53-611	0-893
36 0	1-333	26-667	40-000	0-667	6	1-796	35-926	53-889	0-898
3	1-342	26-852	40-278	0-671	9	1-805	36-111	54-167	0-902
6	1-352	27-037	40-556	0-676	49 0	1-815	36-296	54-444	0-907
9	1-361	27-222	40-833	0-680	3	1-824	36-481	54-722	0-912
37 0	1-370	27-407	41-111	0-685	6	1-833	36-667	55-000	0-917
3	1-379	27-593	41-389	0-689	9	1-842	36-852	55-278	0-921
6	1-389	27-778	41-667	0-694	50 0	1-852	37-037	55-556	0-926
9	1-398	27-963	41-944	0-699					

TABLE II. Continued—SLOPE  $\frac{1}{4}$  to 1.

Height Ft. in.	Base 1 Foot	Base 20 Feet	Base 30 Feet	Slope	Height Ft. in.	Base 1 Foot	Base 20 Feet	Base 30 Feet	Slope
0 3	0.010	0.185	0.278	0.007	13 0	0.481	9.630	14.444	0.361
6	0.019	0.370	0.556	0.014	3	0.490	9.815	14.722	0.368
9	0.028	0.556	0.833	0.021	6	0.500	10.000	15.000	0.375
1 0	0.037	0.741	1.111	0.028	9	0.500	10.185	15.278	0.382
3	0.046	0.926	1.389	0.035	14 0	0.519	10.370	15.556	0.389
6	0.056	1.111	1.667	0.042	3	0.528	10.556	15.833	0.396
9	0.065	1.296	1.944	0.049	6	0.537	10.741	16.111	0.403
2 0	0.074	1.481	2.222	0.056	9	0.546	10.926	16.389	0.410
3	0.083	1.667	2.500	0.063	15 0	0.556	11.111	16.667	0.417
6	0.093	1.852	2.778	0.069	3	0.565	11.296	16.944	0.424
9	0.102	2.037	3.056	0.076	6	0.574	11.481	17.222	0.431
3 0	0.111	2.222	3.333	0.083	9	0.583	11.667	17.500	0.438
3	0.120	2.407	3.611	0.090	16 0	0.593	11.852	17.778	0.445
6	0.130	2.593	3.889	0.097	3	0.602	12.037	18.056	0.451
9	0.139	2.778	4.167	0.104	6	0.611	12.222	18.333	0.458
4 0	0.148	2.963	4.444	0.111	9	0.620	12.407	18.611	0.465
3	0.157	3.148	4.722	0.118	17 0	0.630	12.593	18.889	0.472
6	0.167	3.333	5.000	0.125	3	0.639	12.778	19.167	0.479
9	0.176	3.519	5.278	0.132	6	0.648	12.963	19.444	0.486
5 0	0.185	3.704	5.556	0.139	9	0.657	13.148	19.722	0.493
3	0.194	3.889	5.833	0.146	18 0	0.667	13.333	20.000	0.500
6	0.204	4.074	6.111	0.153	3	0.676	13.519	20.278	0.507
9	0.213	4.259	6.389	0.160	6	0.685	13.704	20.556	0.514
6 0	0.222	4.444	6.667	0.167	9	0.694	13.889	20.833	0.521
3	0.231	4.630	6.944	0.174	19 0	0.704	14.074	21.111	0.528
6	0.241	4.815	7.222	0.181	3	0.713	14.259	21.389	0.535
9	0.250	5.000	7.500	0.188	6	0.722	14.444	21.667	0.542
7 0	0.259	5.185	7.778	0.195	9	0.731	14.620	21.944	0.549
3	0.268	5.370	8.056	0.201	20 0	0.741	14.815	22.222	0.556
6	0.278	5.556	8.333	0.208	3	0.750	15.000	22.500	0.563
9	0.287	5.741	8.611	0.215	6	0.759	15.185	22.778	0.570
8 0	0.296	5.926	8.889	0.222	9	0.768	15.370	23.056	0.576
3	0.305	6.111	9.167	0.229	21 0	0.778	15.556	23.333	0.583
6	0.315	6.296	9.444	0.236	3	0.787	15.741	23.611	0.590
9	0.324	6.481	9.722	0.243	6	0.796	15.926	23.889	0.597
9 0	0.333	6.667	10.000	0.250	9	0.805	16.111	24.167	0.604
3	0.342	6.852	10.278	0.257	22 0	0.815	16.296	24.444	0.611
6	0.352	7.037	10.556	0.264	3	0.824	16.481	24.722	0.618
9	0.361	7.222	10.833	0.271	6	0.833	16.667	25.000	0.625
10 0	0.370	7.407	11.111	0.278	9	0.842	16.852	25.278	0.632
3	0.379	7.593	11.389	0.285	23 0	0.852	17.037	25.556	0.639
6	0.389	7.778	11.667	0.292	3	0.861	17.222	25.833	0.646
9	0.398	7.963	11.944	0.299	6	0.870	17.407	26.111	0.653
11 0	0.407	8.148	12.222	0.306	9	0.879	17.593	26.389	0.660
3	0.416	8.333	12.500	0.313	24 0	0.889	17.778	26.667	0.667
6	0.426	8.519	12.778	0.320	3	0.898	17.963	26.944	0.674
9	0.435	8.704	13.056	0.326	6	0.907	18.148	27.222	0.681
12 0	0.444	8.889	13.333	0.333	9	0.916	18.333	27.500	0.688
3	0.453	9.074	13.611	0.340	25 0	0.926	18.519	27.778	0.695
6	0.463	9.259	13.889	0.347	3	0.935	18.704	28.056	0.701
9	0.472	9.444	14.167	0.354					