

*RSPile*  
Bored Pile Verification Manual

ROCSCIENCE INC. 2020

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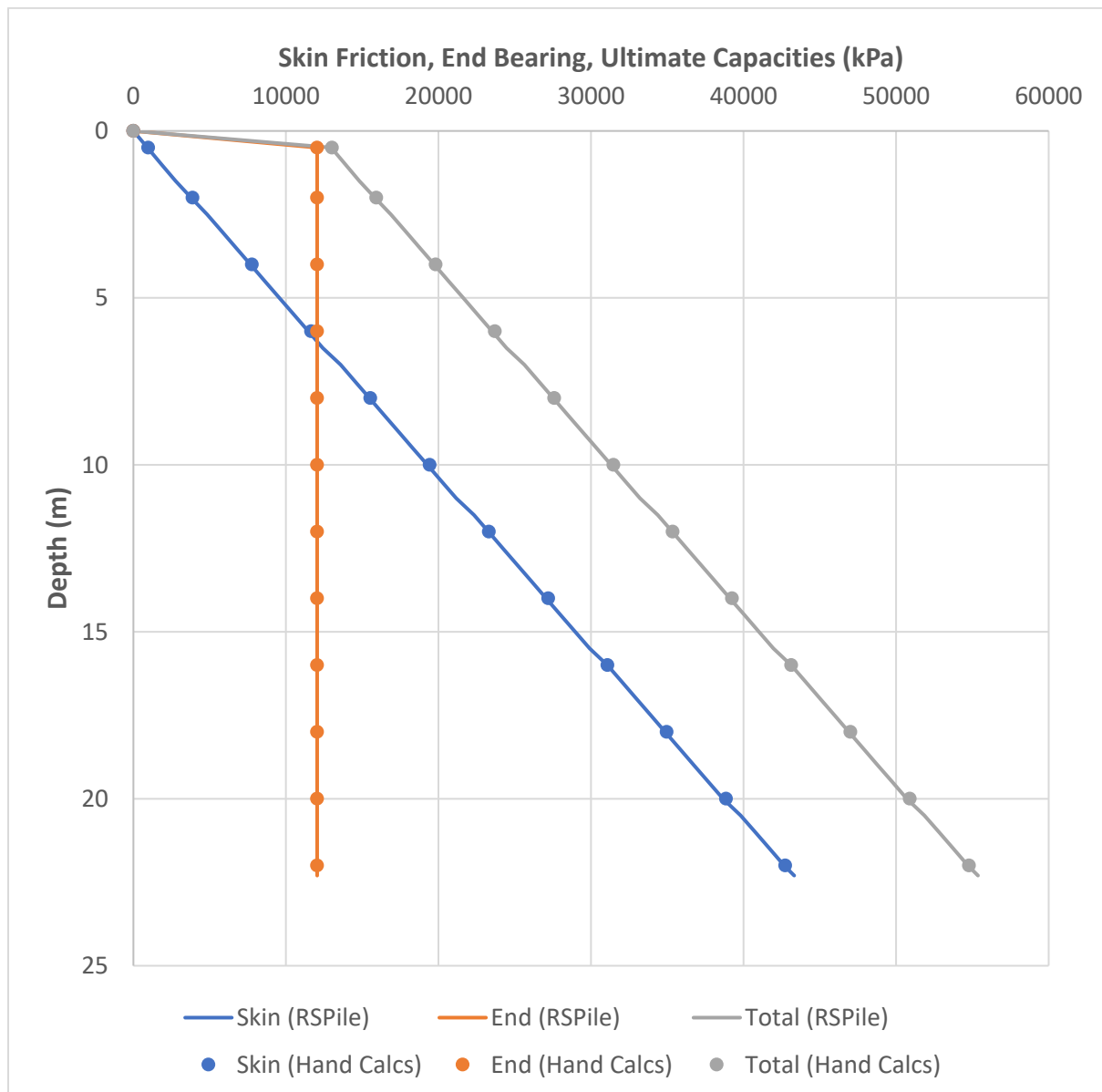
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# Example 1 – Weak Rock

Depth (m)	Weak Rock		
	Unconfined Compressive Strength (kPa)	Average RQD %	Internal Friction Angle (°)
0 - 22.3	2,000	60	27

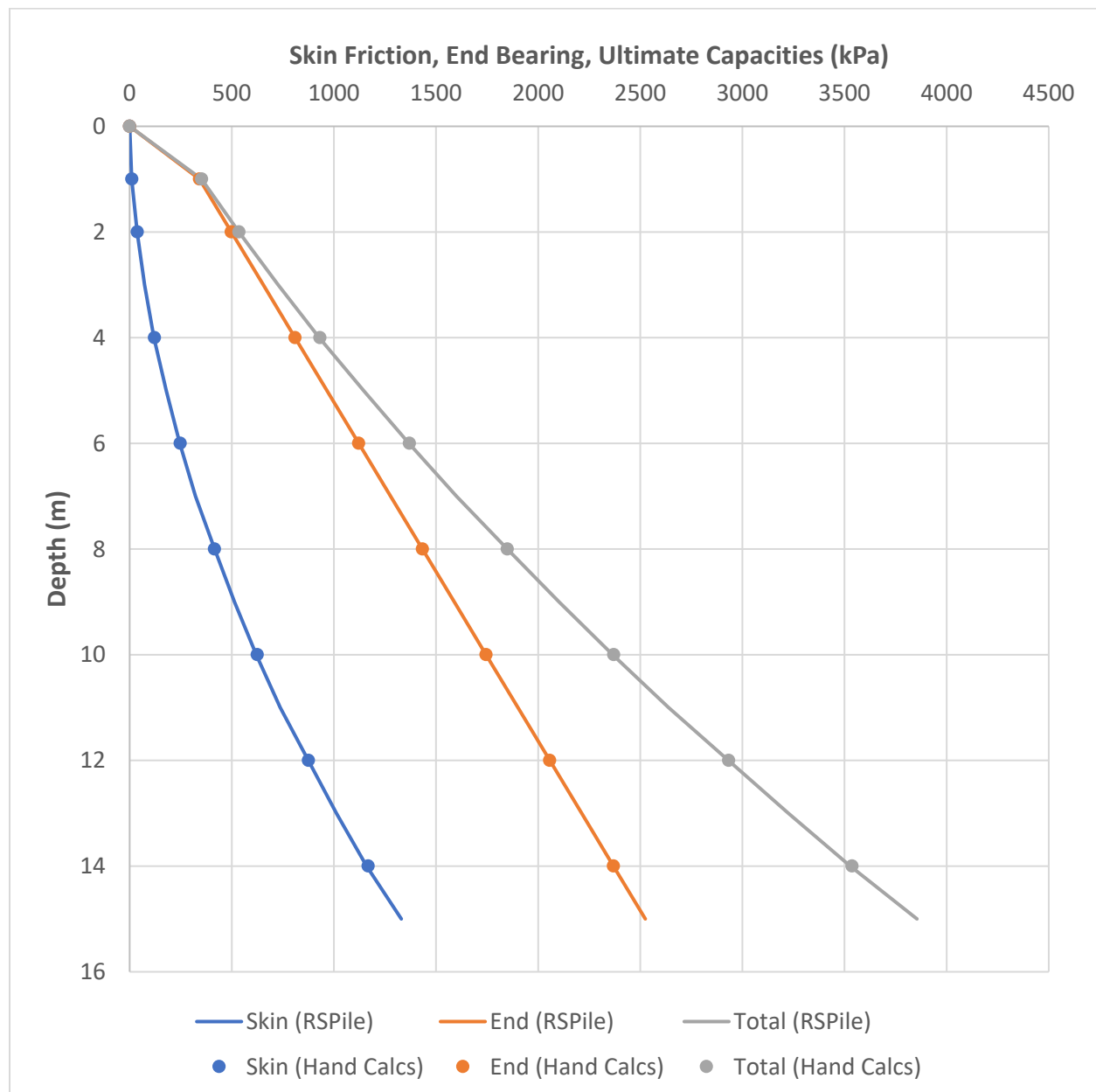
Water Table Levels	Pile Type	Other Design Considerations
Elevation = -2m	22.3m Circular Pile Diameter = 1.2m	N/A



## Example 2 – Cohesive Clay

Cohesive				
Depth (m)	Beta	Effective Cohesion	Bearing Capacity Factor Nc	Bearing Capacity Factor Nq
0 - 15	0.6	10	7	60

Water Table Levels	Pile Type	Other Design Considerations
Elevation = -1m	15m Circular Pile Diameter = 0.6m	N/A



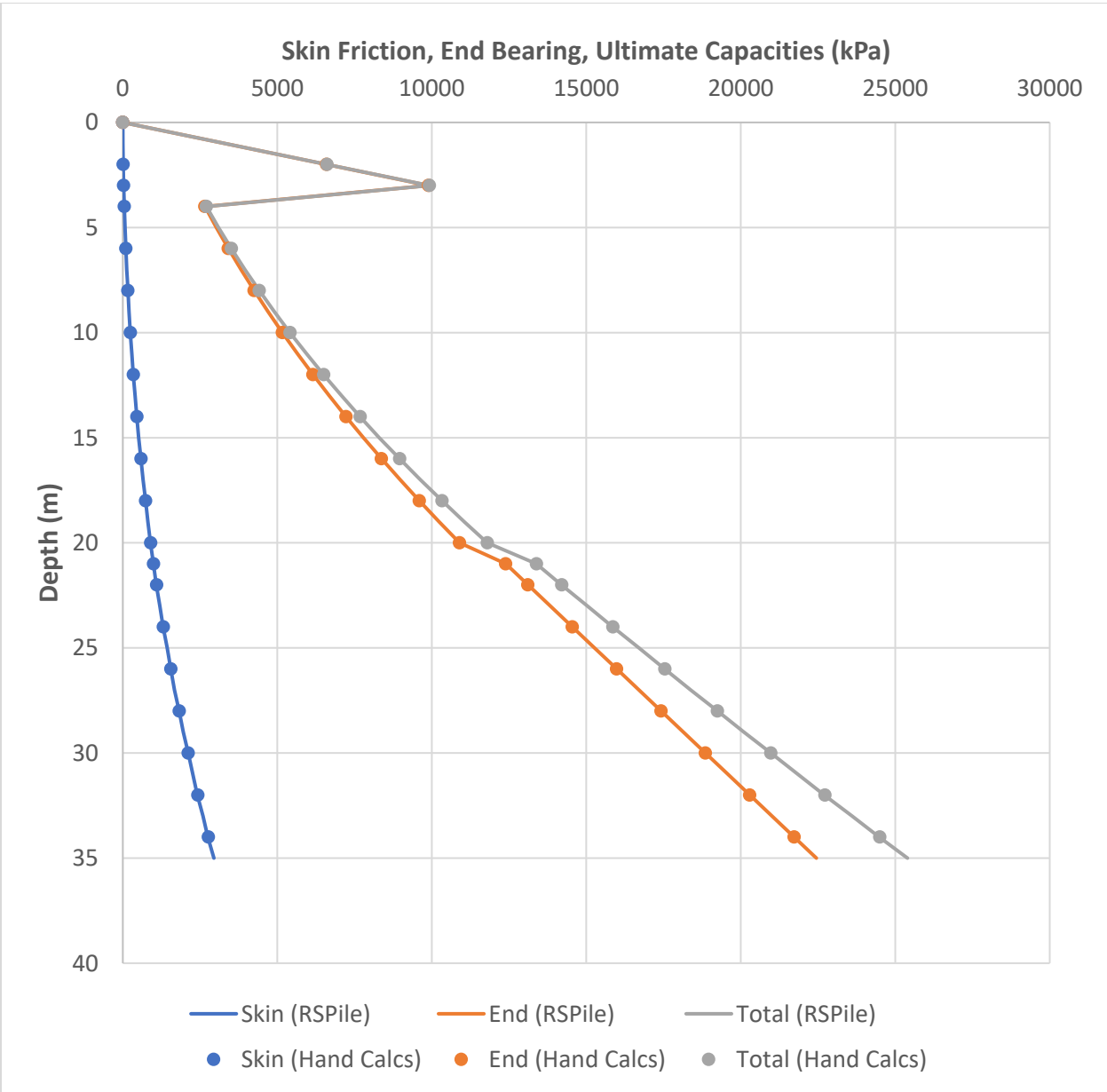
## Example 3a – Cohesionless sand (SPT Ks/Delta)

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Depth (m)	SPT N
0	68
1	68
2	68
3	68
4	45
5	44
6	40
7	37
8	35
9	36
10	36
11	38
12	40
13	44
14	47
15	50
16	55
17	60
18	70
19	72
20	70
21	55
22	50
23	45
24	43
25	42
26	41
27	40
28	40
29	39
30	38
31	37
32	37
33	38
34	39
35	40

Depth (m)	Unit Weight (kN/m <sup>3</sup> )	Datum Dependency	Cohesionless			Bearing Capacity Factor N <sub>q</sub>	
			Top/Bottom Unit Weight (kN/m <sup>3</sup> )	OCR	K <sub>s</sub> /K <sub>o</sub>		Delta/Phi
0 – 3	14	No		1	0.667	0.8	300
3 – 20	6.19	Yes	6.19/12.19	1	0.667	0.8	70
20 – 35	12.19	No		1	0.667	0.8	75

Water Table Levels	Pile Type	Other Design Considerations
N/A	35m Circular Pile Diameter = 1m	N/A



## Example 3b – Cohesionless sand (SPT AASHTO)

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Depth (ft)	SPT N
0	68
1	68
2	68
3	68
4	45
5	44
6	40
7	37
8	35
9	36
10	36
11	38
12	40
13	44
14	47
15	50
16	55
17	60
18	70
19	72
20	70
21	55
22	50
23	45
24	43
25	42
26	41
27	40
28	40
29	39
30	38
31	37
32	37
33	38
34	39
35	40

Water Table Levels	Pile Type	Other Design Considerations
N/A	35ft Circular Pile Diameter = 1ft	N/A

