

Appendix A – Site Inspection Notes

Hunstanton Coastal Management Plan

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December 2018

Borough Council of
King's Lynn & West Norfolk
King's Court
Chapel Street
King's Lynn
Norfolk
PE30 1EX

Quality information

Prepared by	Checked by	Approved by
George Batt Engineer	Dan Glasson Associate Director	Paul Norton Director

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Prepared for:

Borough Council of King's Lynn & West Norfolk
King's Court
Chapel Street
King's Lynn
Norfolk
PE30 1EX

Prepared by:

AECOM Infrastructure & Environment UK Limited
Midpoint
Alencon Link
Basingstoke
Hampshire RG21 7PP
UK

T: +44(0)1256 310200

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1. Inspection Notes

1.1 Section A

Seawall					
Section	2015 Royal HaskoningDHV		2017 AECOM		Photo Ref.
	Visual Inspection Damage Description	Condition VP / P / F / G / VG	Visual Inspection Notes	Condition VP / P / F / G / VG	
A1	Covered by Rock	F	Covered by rock	G (could only be partially assessed because of rock cover)	Photo 1
A2	No visible damage, only superficial abrasion	G	Minor crack in top step below ramp	G	Photo 2 Photo 3
A3	Crack along face of top step	F	Multiple cracks in face of top step. Patch repairs to top step and 2 nd step from top have been made.	F	Photo 4 Photo 5
A4	Previous repairs visible	G	Patch repairs have been made to top step	G	Photo 6
A5	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 7
A6	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 8
A7	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 9
A8	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 10
A9	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 11
A10	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 12
A11	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 13
A12	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 14
A13	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 15
A14	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 16

A15	Minor damage to the step edge, superficial abrasion	G	Repairs have been made to top step RHS, to top and front face measuring approximately 1m length	G	Photo 17 Photo 18
A16	Small void in the front face of the step (6 down from the top)	P	No visible damage, only superficial abrasion	G (6 th step from top not visible)	Photo 19
A17	Concrete abrasion to the edge of the top step	P	Minor concrete abrasion to face of 2 nd step from top and minor abrasion hole on edge of top step	F	Photo 20
A18	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 21
A19	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 22
A20	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 23
A21	No visible damage, only superficial abrasion	G	Minor concrete abrasion on face of top step and 3 rd step from top	G	Photo 24 Photo 25
A22	Severe concrete abrasion to the 6 th step down from the top (2x concrete repairs required), the boundary between panel A22 and A23 (mortar repair), and the 4th step down from the top (mortar repair)	P	Minor concrete abrasion on top step and 3 rd step down from top	G (6 th step and 4 th step from top not visible)	Photo 26 Photo 27
A23	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 28
A24	No visible damage, only superficial abrasion	G	Minor concrete abrasion on edge of 3 rd step from top	G	Photo 29 Photo 30
A25	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 31
A26	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 32
A27	No visible damage, only superficial abrasion	G	Patch repair to both faces of top step measuring approximately 1m length	G	Photo 33 Photo 34
A28	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 35
A29	No visible damage, only superficial abrasion	G	Minor abrasion patches on top face of top step (2 patches measuring 10cm x 10cm)	G	Photo 36 Photo 37

A30	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 38
A31	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 39
A32	No visible damage, only superficial abrasion	G	RHS (A31/32 joint) gap where there is no sealant measuring 4mm (note this is common throughout Section A – see General Notes below)	G	Photo 40 Photo 41
A33	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 42
A34	T shape crack along the top of the 7 th step down from the promenade	G	No visible damage, only superficial abrasion	G (7 th step from top not visible)	Photo 43
A35	No visible damage, only superficial abrasion	G	Gap on RHS joint of A34/35 had small plant growing in it, missing sealant. Repair on face of top step has been made.	F	Photo 44 Photo 45
A36	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 46
A37	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 47
A38	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 48
A39	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 49
A40	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 50
A41	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 51
A42	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 52
A43	Crack extending from the centre of the top step down the centre of 5 steps	F	Vertical ~2mm crack in centre of panel from top step extends down the 3 steps which are visible	F	Photo 53 Photo 54
A44	No visible damage, only superficial abrasion	G	Minor abrasion to edge of top step and edge of 3 rd step from top	G	Photo 55 Photo 56
A45	No visible damage, only superficial abrasion	G	Previous repair made to RHS of top step on both faces measuring 1.5m length	G	Photo 57
A46	No visible damage, only superficial abrasion	G	Horizontal crack in front face of top step RHS measuring approximately 50cm	F	Photo 58
A47	No visible damage, only	G	No visible damage, only	G	Photo

	superficial abrasion		superficial abrasion		59
A48	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 60
A49	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 61
A50	No visible damage, only superficial abrasion	G	Minor abrasions, but superficial	G	Photo 62
A51	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 63
A52	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 64
A53	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 65
A54	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 66
A55	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 67
A56	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 68
A57	No visible damage, only superficial abrasion	G	Minor abrasions on edge of 3 rd step, but superficial	G	Photo 69
A58	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 70
A59	Monitor damage on edge of 2 nd step down, only superficial abrasion	G	Minor abrasions on top face of 2 nd step from top	G	Photo 71 Photo 72
A60	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 73
A61	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 74
A62	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 75
A63	No visible damage, only superficial abrasion	G	Minor abrasions on front face of 2 nd step from top	G	Photo 76 Photo 77
A64	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 78
A65	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 79
A66	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 80
A67	No visible damage, only superficial abrasion	G	No visible damage, only superficial abrasion	G	Photo 81
A68	No visible damage, only superficial abrasion	G	Repairs made to LHS of all 4 visible steps	G	Photo 82 Photo

					83
<p>General Notes about Section: Stepped revetment. Beach material generally partially covers 3rd step from top with sometimes 4th step visible where beach levels are lower, 2015 report refers to 6th step down being visible indicating previous survey was undertaken at a time of lower beach levels. Throughout Section A there are gaps on the RHS panel joints measuring approximately 4mm with sealant loss. Generally, throughout there is abrasion, but it is superficial with no effect on performance. In a small amount of sections there is minor cracking. Recent patch repairs appear to have been made throughout.</p>					
Promenade					
Section	2015 Royal HaskoningDHV		2017 AECOM		Photo Ref.
	Visual Inspection Damage Description	Condition VP / P / F / G / VG	Visual Inspection Notes	Condition VP / P / F / G / VG	
A01	N/A	VG	N/A	VG	Photo 84
A02	N/A	VG	N/A	VG	Photo 85 Photo 86
A03	N/A	VG	N/A	VG	Photo 87
A04	N/A	VG	N/A	VG	Photo 88
A05	N/A	VG	N/A	VG	Photo 89
A06	N/A	G	Superficial abrasion. Historic patch repair observed. Sealant is in mixed condition.	G	Photo 90 Photo 91
A07	Superficial abrasion to surface	F	Sealant is in mixed condition. Repair patches are present. Superficial abrasion.	G	Photo 92 Photo 93 Photo 94
A08	Superficial abrasion to surface	F	Superficial abrasion	G	Photo 95 Photo 96 Photo 97
A09	Superficial abrasion to surface	F	Spalling at joints. Evidence of previous repairs. Sealant in poor condition. Superficial abrasion to surface.	F	Photo 98 Photo 99
A10	Superficial abrasion to surface	F	Superficial abrasion	F	Photo 100 Photo 101

					Photo 102
A11	Superficial abrasion to surface	F	Abrasion to surface. Spalling at joints. Sealant present, but in mixed condition. Evidence of previous repairs.	F	Photo 103 Photo 104
A12	Superficial abrasion to surface	F	Sealant is in mixed condition. Superficial abrasion.	F	Photo 105 Photo 106
A13	Concrete abrasion	F	Crack spans full width of panel. Repair patches. Concrete abrasion.	G	Photo 107 Photo 108 Photo 109
A14	Superficial abrasion to surface	F	Spalling on joints. Evidence of minor repairs. Sealant present, but in mixed condition.	F	Photo 110 Photo 111
A15	Superficial abrasion to surface 1 crack through the centre of the panel	F	Sealant is missing. Repair patches. Crack through centre of the panel.	F	Photo 112 Photo 113 Photo 114 Photo 115
A16	Superficial abrasion to surface	F	Patch repairs evident. Sealant present but in mixed condition. Minor spalling at joints. Abrasion to the surface.	F	Photo 116 Photo 117
A17	Superficial abrasion to surface	F	Small patches of abrasion. Minor cracking. Patches of repairs.	F	Photo 118 Photo 119 Photo 120
A18	Superficial abrasion to surface	F	Minor patch repairs exist. Sealant is present but in mixed condition. Spalling at joints. Superficial abrasion to surface.	F	Photo 121 Photo 122
A19	Crack from seawall running perpendicular to the seawall 2mm wide. Superficial abrasion to surface	F	Crack from seawall running perpendicular to the seawall 2mm wide. Superficial abrasion to surface. Repairs evident. Sealant present, but in mixed condition. Various superficial cracks (hairline).	F	Photo 123 Photo 124 Photo 125
A20	Superficial abrasion to surface	F	Evidence of rust/corrosion. Sealant is missing. Large	F	Photo 126

			areas have been patched repaired.		Photo 127 Photo 128
A21	Superficial abrasion to surface	F	Small repair patches. Superficial abrasion to surfaces.	F	Photo 129 Photo 130
A22	Full width crack parallel to the seawall 1.5m from the rear wave wall	F	Full width crack parallel to the seawall 1.5m from the rear wave wall. Sealant is present but in mixed condition. Evidence of repairs on the LHS of the seaward panel.	F	Photo 131 Photo 132 Photo 133 Photo 134
A23	Superficial abrasion to surface	F	Minor abrasion holes. Repair patches. Superficial abrasion to surface.	F	Photo 135 Photo 136 Photo 137
A24	Full width crack parallel to the seawall 3m from the rear wave wall	F	Heavy abrasion throughout.	F	Photo 138 Photo 139 Photo 140
A25	Full width crack parallel to the seawall 3m from the rear wave wall	F	Patch repair evident. Sealant present, but in mixed condition. Minor cracking up the centre of the panels. Cracks and abrasion along RHS.	F	Photo 141 Photo 142 Photo 143
A26	Full width crack parallel to the seawall 3m from the rear wave wall	F	Crack width of panel parallel to the seawall, located 3m from the rear wave wall. Sealant in mixed condition. Abrasion damage. Evidence of repairs.	F	Photo 144 Photo 145 Photo 146 Photo 147
A27	Superficial abrasion to surface	F	Minor crack starting from A28. Small holes due to abrasion. Repair patches (major and minor).	F	Photo 148 Photo 149 Photo 150 Photo 151

A28	Full width crack parallel to seawall 3m from the rear wave wall	F	Sealant in very poor condition. Holes due to abrasion. Repair patches (major and minor).	F	Photo 152 Photo 153 Photo 154
A29	Superficial abrasion to surface	F	Superficial abrasion to surface. Evidence of small repairs. Minor spalling on joints. Evidence of some sealant repairs, remaining sealant in mixed condition.	F	Photo 155 Photo 156 Photo 157
A30	Full width crack parallel to the seawall 3m from the rear wave wall	F	Patch repairs. Sealant in mixed condition.	F	Photo 158 Photo 159 Photo 160
A31	Full width crack, parallel to seawall along centre of panel	F	Crack full width of panel, parallel to seawall along centre of panel. Evidence of some sealant repairs, remaining sealant in mixed condition and some missing on the seaward end. Minor spalling on joints. Evidence of abrasion repairs. Superficial abrasion to surface.	F	Photo 161 Photo 162 Photo 163 Photo 164 Photo 165
A32	Crack from A31 to the centre of the panel, parallel to the seawall	F	Patch repairs evident	F	Photo 166 Photo 167 Photo 168 Photo 169
A33	Superficial abrasion to surface	F	Evidence of some sealant repairs, remaining sealant in mixed condition. Evidence of abrasion repairs. Some minor/superficial cracks. Spalling of joints. Repairs on front joint in poor condition. Evidence of abrasion to surface.	F	Photo 170 Photo 171 Photo 172
A34	2 full width cracks parallel to the seawall, 2.5 and 3.5 m from the rear wave wall	F	Sealant in mixed condition. Patch repairs evident.	F	Photo 173 Photo 174 Photo 175
A35	Superficial abrasion to surface	F	Evidence of both a substantial repair and minor	F	Photo 176

			abrasion repairs. Evidence of some sealant repairs, remaining sealant in mixed condition. Some cracking observed in repairs. Abrasion to surface.		Photo 177 Photo 178
A36	Full length crack parallel to the seawall, 3.5m from rear wave wall	F	Patch repair evident.	F	Photo 179 Photo 180 Photo 181 Photo 182
A37	Numerous historic repairs at the seawall end of prom - monitor	F	Evidence of a recent substantial repair. Some minor abrasion on remainder of slab. Evidence of some sealant repairs, remaining sealant in mixed condition.	F	Photo 183 Photo 184 Photo 185
A38	Crack perpendicular to the seawall starting at the seawall	F	Sealant in mixed condition. Very small repair patches.	F	Photo 186 Photo 187 Photo 188
A39	Numerous historic repairs at the seawall end of prom - monitor	F	Evidence of some sealant repairs, remaining sealant in mixed condition. Old abrasion repairs – some failing. Level different with seawall, slab slightly raised.	F	Photo 189 Photo 190
A40	Superficial abrasion to surface	F	Sealant in mixed condition. Repair patches.	F	Photo 191 Photo 192 Photo 193
A41	Full width crack, parallel to seawall, along centre of panel	F	Evidence of old repairs. Cracking in middle of slab. Abrasion damage. Evidence of some sealant repairs, remaining sealant in mixed condition. Slab has raised 1" above wall. Full panel width crack, parallel to seawall, along centre of panel.	F	Photo 194 Photo 195 Photo 196
A42	Full width crack parallel to the seawall, 3m from the rear wave wall	F	Holes due to abrasion. Front of promenade level seems to be slightly lower than seawall top. Large repair patches.	F	Photo 197 Photo 198 Photo 199 Photo

					200
A43	Full width crack parallel to the seawall, 4m from the rear wave wall	F	Abrasion damage. Evidence of minor repairs. Evidence of some sealant repairs, remaining sealant in mixed condition. Seaward edge repairs failing. Slight level difference between seawall and prom. Full panel width crack parallel to the seawall, 4m from the rear wave wall.	F	Photo 201 Photo 202 Photo 203
A44	Full width crack parallel to the seawall, 4m from the rear wave wall	F	Sealant mixed condition. Corrosion patches. Repair patches. Crack covers $\frac{3}{4}$ of width of panel.	F	Photo 204 Photo 205 Photo 206
A45	Superficial abrasion to surface	F	Evidence of some sealant repairs, remaining sealant in mixed condition. Slab slightly raised at seaward end. Evidence of old slab repairs. Substantial repair near floodwall. Evidence of abrasion to surface.	F	Photo 207 Photo 208 Photo 209
A46	Superficial abrasion to surface	F	Sealant in bad poor condition. Corrosion patches. Two repair patches.	F	Photo 210 Photo 211 Photo 212
A47	Superficial abrasion to surface	F	Seaward edge of prom raised slightly above seawall, with grass growing in the gap. Minor repairs near floodwall. Evidence of some sealant repairs, remaining sealant in mixed condition. Superficial abrasion to surface.	F	Photo 213 Photo 214 Photo 215
A48	Full width crack, parallel to seawall along centre of panel. Crack perpendicular to the seawall starting at the seawall and extending 5m in to panel.	F	Sealant in mixed condition.	F	Photo 216 Photo 217 Photo 218
A49	Full width crack parallel to seawall along centre of panel	F	Sealant is in mixed condition. Crack across $\frac{1}{2}$ width of panel.	F	Photo 219 Photo 220 Photo 221

A50	Superficial abrasion to surface	F	Patches of corrosion. Minor cracks in promenade. Sealant in relatively good condition.	F	Photo 222 Photo 223 Photo 224
A51	Superficial abrasion to surface	F	Sealant in mixed condition. Minor repair patches.	F	Photo 225 Photo 226 Photo 227
A52	Superficial abrasion to surface	F	Minor repair patches. Minor holes due to abrasion.	F	Photo 228 Photo 229
A53	Full width crack parallel to seawall along centre of panel	F	Seaward edge slightly raised, with sealant missing and grass growing. Evidence of some sealant repairs, remaining sealant in mixed condition. Evidence of some abrasion repairs (old). Evidence of abrasion damage to the surface. Full width crack parallel to seawall along centre of panel.	F	Photo 230 Photo 231 Photo 232
A54	Full width crack parallel to seawall along centre of panel	F	Minor repair patches. Sealant in mixed condition. Superficial abrasion.	F	Photo 233 Photo 234 Photo 235
A55	Superficial abrasion to surface	F	Evidence of some sealant repairs, remaining sealant in mixed condition. Abrasion damage. Some minor repair at the seaward end. Seaward edge raised, with sealant missing and grass growing. Superficial abrasion to surface. Minor cracks observed (horizontal).	F	Photo 236 Photo 237 Photo 238
A56	Full width crack parallel to seawall along centre of panel	F	Big repair patches parallel to seawall. Minor repair patches.	F	Photo 239 Photo 240 Photo 241
A57	Superficial abrasion to surface	F	Front edge – sealant in poor condition and grass growing. Side joint sealant repaired. Minor repairs evident. A	F	Photo 242 Photo

			crack observed in LHS seaward corner. Lots of superficial abrasion to surface.		243
A58	Superficial abrasion to surface	F	Holes due to abrasion. Minor repair patches.	F	Photo 244 Photo 245 Photo 246
A59	Superficial abrasion to surface	F	Seaward edge slightly raised, with sealant missing and grass growing. Old repairs evident. Sealant repairs on side joints, other sealant in mixed condition. Old repair near steps found to be cracking and spalling. Another large repair evident near steps in good condition. Superficial abrasion to surface.	F	Photo 247 Photo 248 Photo 249 Photo 250
A60	Crack perpendicular to the seawall starting at the seawall and extending 2.3 in to panel	F	Minor repair patches	G	Photo 251 Photo 252
A61	Full width crack, parallel to seawall, along centre of panel	F	Crack full width of panel, parallel to seawall and in centre of panel. Sealant on side joints repaired. Seaward edge slightly raised, with sealant missing and grass growing. Abrasion damage to seaward LHS. Superficial abrasion evident elsewhere.	F	Photo 253 Photo 254 Photo 255 Photo 256
A62	Crack perpendicular to seawall spanning to the centre of the slab. Full width crack parallel to seawall along centre of panel	F	Large repair patch	F	Photo 257 Photo 258
A63	Full width crack, parallel to seawall, along centre of panel	F	Sealant on side joints repaired. Sealant missing/damaged and grass growing in front joint. Superficial abrasion damage. Minor repair near floodwall.	F	Photo 259 Photo 260
A64	Full width crack parallel to seawall along centre of panel	F	Repair patches. Sealant is in mixed condition.	F	Photo 261 Photo 262
A65	full width crack parallel to seawall along centre of panel	F	Large repair patches. Sealant has been changed at some point.	F	Photo 263 Photo

					264 Photo 265
A66	Full width crack, parallel to seawall, along centre of panel	F	Several old repairs evident. Abrasion damage. Sealant on side joints repaired. Seaward edge slightly raised, with sealant missing/damaged and grass growing. Full width crack, parallel to seawall, along centre of panel.	F	Photo 265 Photo 266 Photo 267 Photo 268
A67	Full width crack parallel to seawall along centre of panel	F	Repair patches.	G	Photo 269 Photo 270 Photo 271 Photo 272
A68	Crack, parallel to seawall, along centre of panel extending 3m.	F	Sealant on side joints repaired. Seaward edge slightly raised with sealant in poor condition. Some minor abrasion and old repairs evident. Crack, parallel to seawall, along centre of panel extending 3m.	F	Photo 273 Photo 274 Photo 275

General Notes about Section: Generally, there are cracks throughout the promenade section. Historical repairs are in mixed condition. Small patches of abrasion were observed. The section is generally in fair/good condition.

Rear Wave Wall

Section	2015 Royal HaskoningDHV		2017 AECOM		Photo Ref.
	Visual Inspection Damage Description	Condition VP / P / F / G / VG	Visual Inspection Notes	Condition VP / P / F / G / VG	
A1	No previous assessment	N/A	-	VG	Photo 276
A2	No previous assessment	N/A	-	VG	Photo 277
A3	No previous assessment	N/A	-	VG	Photo 278
A4	No previous assessment	N/A	-	VG	Photo 279
A5	No previous assessment	N/A	-	VG	Photo 280
A6	No previous assessment	N/A	-	VG	Photo 281
A7	No previous assessment	N/A	Crack at LHS (10mm x 2mm), small spalling holes on front.	G	Photo 282 Photo 283

A8	No previous assessment	N/A	Surface abrasion on top and centre of wall	G	Photo 284
A9	No previous assessment	N/A	Small crack left bottom (10mm x 1mm)	G	Photo 285
A10	No previous assessment	N/A	Very small abrasion holes (caused by spalling) on surface	G	Photo 286
A11	No previous assessment	N/A	No defects and sealant in VG condition	VG	Photo 287
A12	No previous assessment	N/A	No defects and sealant in VG condition	VG	Photo 288
A13	No previous assessment	N/A	Very small spalling holes on surface	G	Photo 289
A14	No previous assessment	N/A	No defects and sealant in VG condition	VG	Photo 290
A15	No previous assessment	N/A	One small abrasion hole on surface, possibly loss of protruding aggregate stone, sealant VG	G	Photo 291
A16	No previous assessment	N/A	No defects and sealant in VG condition	VG	Photo 292
A17	No previous assessment	N/A	Very small spalling holes on surface, small repairs at base	G	Photo 293
A18	No previous assessment	N/A	No defects and sealant in VG condition	VG	Photo 294
A19	No previous assessment	N/A	Small repair at right top of wall, still good	G	Photo 295
A20	No previous assessment	N/A	No defects and sealant in VG condition	VG	Photo 296
A21	No previous assessment	N/A	No defects and sealant in VG condition	VG	Photo 297
A22	No previous assessment	N/A	Very small spalling holes on surface	G	Photo 298
A23	No previous assessment	N/A	Very small spalling holes on surface	G	Photo 299
A24	No previous assessment	N/A	Very small spalling holes on surface	G	Photo 300
A25	No previous assessment	N/A	Very small spalling holes on surface	G	Photo 301
A26	No previous assessment	N/A	Very small spalling holes on surface	G	Photo 302
A27	No previous assessment	N/A	Very small spalling holes on surface	G	Photo 303
A28	No previous assessment	N/A	Very small spalling holes on surface	G	Photo 304
A29	No previous assessment	N/A	Very small spalling holes on surface	G	Photo 305

A30	No previous assessment	N/A	Very small spalling holes on surface	G	Photo 306
A31	No previous assessment	N/A	Very small spalling holes on surface	G	Photo 307
A32	No previous assessment	N/A	-	VG	Photo 308
A33	No previous assessment	N/A	Very small spalling holes on surface	G	Photo 309
A34	No previous assessment	N/A	Very small spalling holes on surface, steps good	G	Photo 310 Photo 311
A35	No previous assessment	N/A	Very small spalling holes on surface	G	Photo 312
A36	No previous assessment	N/A	-	VG	Photo 313
A37	No previous assessment	N/A	-	VG	Photo 314
A38	No previous assessment	N/A	-	VG	Photo 315
A39	No previous assessment	N/A	-	VG	Photo 316
A40	No previous assessment	N/A	-	VG	Photo 317
A41	No previous assessment	N/A	-	VG	Photo 318
A42	No previous assessment	N/A	-	VG	Photo 319
A43	No previous assessment	N/A	-	VG	Photo 320
A44	No previous assessment	N/A	-	VG	Photo 321
A45	No previous assessment	N/A	-	VG	Photo 322
A46	No previous assessment	N/A	Very small spalling holes on surface	G	Photo 323
A47	No previous assessment	N/A	-	VG	Photo 324
A48	No previous assessment	N/A	Small repair at base, still good. Small gap in sealant.	G	Photo 325
A49	No previous assessment	N/A	-	VG	Photo 326
A50	No previous assessment	N/A	1no. small repair top left, still good	G	Photo 327
A51	No previous assessment	N/A	-	VG	Photo 328
A52	No previous assessment	N/A	Small spalling holes at top	G	Photo

			surface, repairs at LHS still good		329
A53	No previous assessment	N/A	Repairs at LHS and RHS still good	G	Photo 330
A54	No previous assessment	N/A	Repairs good	G	Photo 331
A55	No previous assessment	N/A	Repairs good, small spalling holes	G	Photo 332
A56	No previous assessment	N/A	-	G	Photo 333
A57	No previous assessment	N/A	Repairs good	G	Photo 334
A58	No previous assessment	N/A	Repairs good, crack in steps (30mm x 4mm)	F	Photo 335 Photo 336 Photo 337
A59	No previous assessment	N/A	Steps good, sealant loss LHS	G	Photo 338 Photo 339 Photo 340 Photo 341
A60	No previous assessment	N/A	Spalling hole top rear surface (100 x 50 x 20mm), Hole top left (50 x 50 x 25mm)	G	Photo 342
A61	No previous assessment	N/A	Minor spalling RHS, hairline crack top left of centre (1000 x 1mm), minor loss and cracking at LHS joint	G	Photo 343
A62	No previous assessment	N/A	Crack top left of centre (1000 x 2mm)	G	Photo 344
A63	No previous assessment	N/A	Surface repair good	G	Photo 345
A64	No previous assessment	N/A	Large surface repairs still good; 2no. cracks through top (1000 x 1mm) and (1000 x 1mm); sealant loss at top LHS joint	G	Photo 346
A65	No previous assessment	N/A	Crack through top centre (1000 x 1mm); sealant loss throughout LHS joint	G	Photo 347
A66	No previous assessment	N/A	Large repair good; 4no. hairline width cracks in top (500-1000mm in length), sealant loss top of LHS	G	Photo 348 Photo 349
A67	No previous assessment	N/A	Repair still good; 3no.	G	Photo

			hairline width cracks in top (approx. 500mm in length) , sealant loss top of LHS		350
A68	No previous assessment	N/A	Hairline width crack through top and front (1500 x 1mm); Small gap in construction joint with bollard at top.	G	Photo 351
General Notes about Section: Recurve concrete wall approximately 1.25m high and 300mm thick, set back from the seawall at the rear of the promenade. In general, this section is good to very good with limited surface and sealant damage and no apparent significant structural damage.					

1.2 Section B

Seawall					
Section	2015 Royal HaskoningDHV		2017 AECOM		Photo Ref.
	Visual Inspection Damage Description	Condition VP / P / F / G / VG	Visual Inspection Notes	Condition VP / P / F / G / VG	
B1	N/A	G	Flap valve half buried by beach material	G	Photo 352
B2	N/A	G	N/A	G	Photo 353
B3	N/A	G	N/A	G	Photo 354
B4	N/A	G	N/A	G	Photo 355
B5	N/A	G	N/A	G	Photo 356
B6	N/A	G	N/A	G	Photo 357
B7	N/A	G	N/A	G	Photo 358
B8	N/A	G	N/A	G	Photo 359
B9	N/A	G	N/A	G	Photo 360
B10	N/A	G	N/A	G	Photo 361
B11	N/A	G	Flap valve almost completely buried by beach material	G	Photo 362
B12	N/A	G	N/A	G	Photo 363
B13	N/A	G	N/A	G	Photo 364
B14	N/A	G	N/A	G	Photo 365
B15	N/A	G	Flap valve half buried by beach material	G	Photo 366 Photo 367
B16	N/A	G	N/A	G	Photo 368
B17	N/A	G	N/A	G	Photo 369
B18	N/A	G	N/A	G	Photo 370
B19	N/A	G	N/A	G	Photo

					371
B20	N/A	G	Flap valve half buried by beach material	G	Photo 372
B21	N/A	G	N/A	G	Photo 373
B22	N/A	G	N/A	G	Photo 374
B23	N/A	G	N/A	G	Photo 375
B24	N/A	G	N/A	G	Photo 376
B25	N/A	G	N/A	G	Photo 377
B26	N/A	G	N/A	G	Photo 378
B27	N/A	G	N/A	G	Photo 379
B28	N/A	G	N/A	G	Photo 380
B29	N/A	G	N/A	G	Photo 381
B30	N/A	G	N/A	G	Photo 382
B31	N/A	G	N/A	G	Photo 383
B32 (includes ramp)	N/A	G	N/A	G	Photo 384
B33 (includes ramp)	N/A	G	Minor spalling in bottom RHS corner	G	Photo 385

General Notes about Section: Seawall is mostly vertically faced (the last few panels of Section B are slightly inclined). Some flap valves were observed along the wall, all of which were partially buried and therefore would not open. All of wall in good condition. Joints have no gaps, but there is sealant missing from the joints on the front face of the wall.

Promenade

Section	2015 Royal HaskoningDHV		2017 AECOM		Photo Ref.
	Visual Inspection Damage Description	Condition VP / P / F / G / VG	Visual Inspection Notes	Condition VP / P / F / G / VG	
B01	N/A	G	N/A	G	Photo 386 Photo 387
B02	Full width crack parallel to the seawall, 2m from the rear wave wall	F	Full width crack parallel to the seawall, 2m from the rear wave wall.	G	Photo 388 Photo

					389
B03	Full width crack parallel to the seawall, 2m from the rear wave wall	F	Full width crack parallel to the seawall, 2m from the rear wave wall.	G	Photo 390 Photo 391
B04	Full width crack parallel to the seawall, 2m from the rear wave wall	F	Full width crack parallel to the seawall, 2m from the rear wave wall. Repair patches.	G	Photo 392 Photo 393
B05	Full width crack parallel to the seawall, 2m from the rear wave wall Crack perpendicular to seawall, extending from seawall for 1.5m	F	Full width crack parallel to the seawall, 2m from the rear wave wall. Crack perpendicular to seawall, extending from seawall for 1.5m. Repair patches.	G	Photo 394 Photo 395
B06	Full width crack parallel to the seawall, 2m from the rear wave wall	F	Full width crack parallel to the seawall, 2m from the rear wave wall.	G	Photo 396 Photo 397
B07	Full width crack parallel to the seawall, 2m from the rear wave wall	F	Full width crack parallel to the seawall, 2m from the rear wave wall. Repair patches.	G	Photo 398 Photo 399
B08	Full width crack parallel to the seawall, 2m from the rear wave wall	F	Full width crack parallel to the seawall, 2m from the rear wave wall. Repair patches. Areas of abrasion.	G	Photo 400 Photo 401
B09	Full width crack parallel to the seawall, 2m from the rear wave wall	F	Full width crack parallel to the seawall, 2m from the rear wave wall. Repair patches. Areas of abrasion.	G	Photo 402 Photo 403
B10	N/A	G	Areas of abrasion	G	Photo 404 Photo 405
B11	Concrete abrasion on B11 edge with B10 on the seawall side of the prom. Concrete abrasion on the edge of B11 with B12 on the seawall side of the prom	F	Concrete abrasion on B11 edge with B10 on the seawall side of the prom. Concrete abrasion on the edge of B11 with B12 on the seawall side of the prom. Patch repair.	G	Photo 406 Photo 407 Photo 408
B12	N/A		Areas of abrasion	G	Photo 409 Photo 410
B13	N/A	G	Areas of abrasion	G	Photo 411 Photo

					412
B14	N/A	G	Areas of abrasion	G	Photo 413 Photo 414
B15	N/A	G	Repair patches	G	Photo 415 Photo 416
B16	Historic repairs to be monitored	G	Repair patches	G	Photo 417 Photo 418 Photo 419
B17	Full width crack parallel to the seawall, 2m from the real wave wall	F	Full width crack parallel to the seawall, 2m from the real wave wall. Repair patches. Areas of abrasion.	G	Photo 420 Photo 421 Photo 422
B18	Full width crack parallel to the seawall, 2m from the real wave wall	F	Full width crack parallel to the seawall, 2m from the real wave wall. Areas of abrasion.	G	Photo 423 Photo 424 Photo 425
B19	N/A	F	Areas of abrasion. Holes due to abrasion.	G	Photo 426 Photo 427
B20	N/A	F	Areas of abrasion	G	Photo 428

General Notes about Section: There are non-severe cracks throughout the promenade section. Historic repairs which have been carried out are in mixed condition. Patches of abrasion were also seen. There is a significant loss of sealant between many of the panels.

Rear Wave Wall

Section	2015 Royal HaskoningDHV		2017 AECOM		Photo Ref.
	Visual Inspection Damage Description	Condition VP / P / F / G / VG	Visual Inspection Notes	Condition VP / P / F / G / VG	
B1	N/A	G	Flood gate in good condition	G	Photo 429
B2	N/A	G	Minor spalling at LHS joint, minor sealant loss	G	Photo 430
B3	N/A	G	Minor vertical displacement (5mm) at LHS with minor sealant cracking	G	Photo 431

B4	N/A	G	Minor crack (hairline) in right concrete upright of flood gate	G	Photo 432
B5	N/A	G	Sealant loss at base and left joint, minimal spalling	G	Photo 433
B6	N/A	G	Sealant loss and minimal spalling	G	Photo 434
B7	N/A	G	Some localised spalling on top of wall. Sealant cracking/loss at LHS and minor displacement.	G	Photo 435 Photo 436
B8	N/A	G	Hairline crack through top of wall, to centre front and centre back. Right flood gate and upstands very good condition. Hairline crack in left upstand.	G	Photo 437 Photo 438
B9	N/A	G	Minor localised spalling in top of the wall, cracking (1250 x 3mm) and minor displacement at LHS joint	G	Photo 439
B10	N/A	G	Sealant loss & cracking at LHS joint	G	Photo 440 Photo 441
B11	N/A	G	Note: Closed flood gate does not appear to be closed/sealed properly	G	Photo 442
B12	N/A	G	Minor sealant loss & cracking at LHS joint	G	Photo 443 Photo 444
B13	N/A	G	Post removed from centre top. Minor sealant loss at LHS.	G	Photo 445
B14	N/A	G	-	G	Photo 446
B15	Crack at centre, extend through top of wall (1250 x 2)	F	Horizontal displacement at LHS (5mm). Crack at centre through top of wall as before (1250 x 2mm).	F	Photo 447 Photo 448
B16	Crack at centre, extend through top of wall (1000 x 1)	F	Horizontal displacement at LHS (10mm). Crack at centre of wall as before (1000 x 1mm).	F	Photo 449 Photo 450 Photo 451
B17	2 cracks, extend through top of wall (1000 x 750) and (1000 x 500)	F	2 hairline cracks through top of wall (750mm) and (500mm)	G	Photo 452 Photo 453
B18	N/A	G	Flood gate very good condition. Minor sealant loss	G	Photo 454

			LHS joint.		
B19	N/A	G	Minor sealant loss LHS joint	G	Photo 455
B20	N/A	G	Several hairline cracks in top of wall – horizontal (40 & 20 & 20 & 50mm long each). Severe sealant loss at LHS joint.	F	Photo 456 Photo 457 Photo 458
<p>General Notes about Section: Recurve concrete wall approximately 1.25m high and 300mm thick, set back from the seawall behind the promenade. In general, this section is good to fair with limited surface damage and no apparent significant structural damage. There are a series of cracks in various sections, along with the displacement of a number of sections. There is also moderate loss or damage to the sealant of the joints between many of the sections.</p>					

1.3 Section C

Seawall					
Section	2015 Royal HaskoningDHV		2017 AECOM		Photo Ref.
	Visual Inspection Damage Description	Condition VP / P / F / G / VG	Visual Inspection Notes	Condition VP / P / F / G / VG	
C1 (includes ramp)	N/A	G	Centre of access ramp down to beach from promenade	G	Photo 459
C2 (includes ramp)	Vertical crack through height of section	G	Vertical crack ~1mm through height of section, on top face crack continues back 1/3 wall width	G	Photo 460 Photo 461
C3 (includes ramp)	N/A	G	N/A	G	Photo 462
C4	N/A	G	N/A	G	Photo 463
C5	N/A	G	N/A	G	Photo 464
C6	N/A	G	N/A	G	Photo 465
C7	Vertical crack through height of section	G	Vertical crack through height of section	G	Photo 466 Photo 467
C8	N/A	G	N/A	G	Photo 468
C9	N/A	G	N/A	G	Photo 469
C10	N/A	G	N/A	G	Photo 470
C11	N/A	G	N/A	G	Photo 471
C12	N/A	G	N/A	G	Photo 472
C13	N/A	G	N/A	G	Photo 473
C14	N/A	G	N/A	G	Photo 474
C15	N/A	G	N/A	G	Photo 475
C16	N/A	G	Vertical crack ~1mm through centre of section approximately 10cm length	G	Photo 476 Photo 477
C17	N/A	G	Vertical crack ~1mm through centre of section	G	Photo 478

			approximately 40cm length		Photo 479
C18	N/A	G	N/A	G	Photo 480
C19	N/A	G	N/A	G	Photo 481
C20	Vertical crack through height of section	G	Vertical crack ~1mm through centre of section	G	Photo 482 Photo 483
C21	N/A	G	N/A	G	Photo 484
C22	N/A	G	N/A	G	Photo 485
C23	N/A	G	N/A	G	Photo 486
C24	Vertical crack through height of section	G	Vertical crack ~1mm through centre of section	G	Photo 487 Photo 488
C25	N/A	G	N/A	G	Photo 489
C26	N/A	G	N/A	G	Photo 490
C27	N/A	G	N/A	G	Photo 491
C28	N/A	G	C28 is small panel for future reference	G	Photo 492
C29	N/A	G	N/A	G	Photo 493
C30 (includes steps)	N/A	G	N/A	G	Photo 494
C31 (includes ramp)	Top of slipway – section concealed	G	Top of slipway – section concealed	G	Photo 495
C32 (includes ramp)	Vertical crack through height of section	F	Crack ~2mm through top of wall behind slipway	G	Photo 496 Photo 497
C33 (includes ramp)	N/A	G	N/A	G	Photo 498
C34	N/A	G	N/A	G	Photo 499
C35	N/A	G	N/A	G	Photo 500
C36	N/A	G	N/A	G	Photo 501

C37	N/A	G	N/A	G	Photo 502
C38	Very small section - Vertical crack through centre of panel, 1m visible	F	C38 is small panel for future reference. Crack recorded in 2015 inspection not visible.	G	Photo 503
C39	Vertical crack through centre of panel, 1m visible	F	Vertical crack ~1mm through centre of section	G	Photo 504 Photo 505
C40	N/A	G	Vertical crack ~1mm through centre of section	G	Photo 506 Photo 507
C41	N/A	G	N/A	G	Photo 508
C42	N/A	G	N/A	G	Photo 509
C43	N/A	G	N/A	G	Photo 510
C44	N/A	G	N/A	G	Photo 511
C45	N/A	G	N/A	G	Photo 512
C46	N/A	G	N/A	G	Photo 513
C47	N/A	G	N/A	G	Photo 514
C48	N/A	G	Vertical crack ~1mm through centre of section	G	Photo 515 Photo 516
C49	Vertical crack through centre of panel, 0.5m visible	F	Crack recorded in 2015 inspection not visible (it is probable that this was referring to C48)	G	Photo 517
C50	N/A	G	N/A	G	Photo 518
C51	N/A	G	Flap valve half buried by beach material	G	Photo 519 Photo 520
C52	N/A	G	N/A	G	Photo 521
C53	N/A	G	N/A	G	Photo 522
C54	N/A	G	N/A	G	Photo 523
C55	N/A	G	N/A	G	Photo

					524
C56	N/A	G	N/A	G	Photo 525
C57	N/A	G	N/A	G	Photo 526
C58	N/A	G	N/A	G	Photo 527
C59	N/A	G	Throughout Section C the front facing joints are missing sealant (Photo 529)	G	Photo 528 Photo 529 Photo 530

General Notes about Section: There are a number of panels which have vertical cracks running through, generally located in the centre of the panel. However, these cracks are minor and there is no evidence of structural movement. Sealant is missing from joints on the front face of the wall. All of wall is in good condition. One flap valve was observed, half buried by beach material.

Promenade

Section	2015 Royal HaskoningDHV		2017 AECOM		Photo Ref.
	Visual Inspection Damage Description	Condition VP / P / F / G / VG	Visual Inspection Notes	Condition VP / P / F / G / VG	
C01	Full width crack parallel to the seawall, 2m from the rear wave wall.	F	Patches of repairs. Small areas of abrasion. Full width crack parallel to the seawall, 2m from the rear wave wall.	G	Photo 531 Photo 532 Photo 533
C02	Full width crack parallel to the seawall, 2m from the rear wave wall.	F	Sealant in mixed condition. Full width crack parallel to the seawall, 2m from the rear wave wall.	G	Photo 534 Photo 535
C03	Full width crack parallel to the seawall, 2m from the rear wave wall.	F	Sealant in mixed condition. Patches of repairs. Full width crack parallel to the seawall, 2m from the rear wave wall.	G	Photo 536 Photo 537
C04	Crack at edge	F	Sealant in mixed condition. Patches of repairs in mixed condition. Holes due to abrasion. Cracks along lower right side of section. Patches of corrosion. Minor crack at edge.	F	Photo 538
C05	Crack at the edge between c5 and c6, sea wall and end of prom.	F	Sealant in mixed condition. Large patches of repairs. Small areas of abrasion.	G	Photo 539 Photo

			Crack at the edge between c5 and c6, sea wall and end of prom.		540
C06	Full width crack parallel to the seawall, 2m from the rear wave wall.	F	Full panel width crack parallel to the seawall, 2m from the rear wave wall. Repair patches.	G	Photo 541 Photo 542 Photo 543 Photo 544
C07	Full width crack parallel to the seawall, 2m from the rear wave wall.	F	Some of central and LHS sealant joint missing. Minor crack in front panel. Full width crack parallel to the seawall, 2m from the rear wave wall.	F	Photo 545 Photo 546 Photo 547
C08	Full width crack parallel to the seawall, 2m from the rear wave wall.	F	Repair patches. Sealant in mixed condition. Holes due to abrasion. Full width crack parallel to the seawall, 2m from the rear wave wall.	G	Photo 548 Photo 549 Photo 550
C09	Full width crack parallel to the seawall, 2m from the rear wave wall.	F	Spalling on RHS. Minor crack in front panel. Some sealant missing on both LHS & RHS. Minor full width crack parallel to the seawall, 2m from the rear wave wall.	F	Photo 551 Photo 552 Photo 553
C10	N/A	F	Repair patches. Sealant in mixed conditions.	G	Photo 554 Photo 555
C11	Visible settlement towards seawall	G	Minor parts of sealant missing. Minor abrasion repair evident. Visible settlement towards seawall - filled with sealant.	G	Photo 556 Photo 557 Photo 558
C12	Visible settlements towards seawall	G	Areas of abrasion. Sealant in mixed condition. Visible settlements towards seawall.	G	Photo 559 Photo 560
C13	Full width crack parallel to the seawall, 2m from the rear wave wall, visible settlement towards seawall	F	Some missing sealant (not much). Small crack on LHS towards middle of seaward panel (1/3 up) 1mm less than 1m long. Minor crack most of the width parallel to the seawall - 2m from the rear wave wall. Visible settlement towards seawall.	F	Photo 561 Photo 562 Photo 564
C14	Visible settlements	G	Minor corrosion under sea	G	Photo

	towards seawall		wall. Signs of abrasion in the edge between promenade and revetment. Patches of repairs. Visible settlement towards seawall.		564 Photo 565
C15	Visible settlement towards seawall	G	Some spalling on LHS joint (back panel). Visible settlements towards seawall.	F	Photo 566 Photo 567 Photo 568
C16	Visible settlements towards seawall	G	Sealant in poor condition. Repair patches. Signs of abrasion. Visible settlement towards seawall.	F	Photo 569 Photo 570
C17	Historic repair between C16 and C17	P	Holes due to abrasion. Repair patches in mixed condition. Historic repair between C16 and C17.	F	Photo 571 Photo 572 Photo 573
C18	Visible settlement towards seawall	G	Old repair on LHS damaged (potential trip hazard). LHS joint (to C19) badly spalled. Sealant old but all intact. Minor spalling to the central joint. Old repairs evident. Previously noted settlement not evident	F	Photo 574 Photo 575 Photo 576
C19	Full width crack parallel to the seawall, 2m from the rear wave wall	F	Repair patches in mixed condition. Full width crack parallel to the seawall, 2m from the rear wave wall. Holes due to abrasion. Sealant in mixed condition.	F	Photo 577 Photo 578 Photo 579
C20	Visible settlement towards seawall	G	Abrasion damage near floodwall. Sealant old but intact. Back panel has a central crack (from different concrete pours). Spalling of joints and abrasion damage on the front panel. Visible settlement towards seawall.	F	Photo 580 Photo 581 Photo 582
C21	Visible settlement towards seawall	G	Back and mid panels in good condition. Some minor sealant damage, but generally intact. Visible settlement of front panel towards seawall with sealant damage.	F	Photo 583 Photo 584 Photo 585
C22	Full width crack parallel to the seawall, 2m from the rear wave wall, visible settlements towards sea wall, full	G	Repair patches in mixed condition. 2 small patches of abrasion. Full width crack parallel to the seawall, 2m from the rear wave wall,	G	Photo 586 Photo 587

	width crack from 5m from rear wave wall		visible settlements towards sea wall, full panel width crack from 5m from rear wave wall.		Photo 588
C23	Visible settlement towards seawall	G	Sealant missing in small sections but generally intact. Cracking in old repair on RHS of back panel. Some small cracks evident in front panel. Visible settlement towards seawall with sealant damage.	F	Photo 589
C24	Visible settlements towards seawall	G	Repair patches. Minor signs of abrasion. Sealant in mixed condition. Visible settlement towards seawall.	G	Photo 590 Photo 591 Photo 592
C25	Visible settlement towards seawall	G	Landward panel has a whole length crack in middle and an old tarmac repair on the seaward RHS with 'sinking' tarmac. Sealant old and bits missing but generally intact. Middle panel has some cracking and spalling on the seaward RHS, and some minor abrasion damage. Front panel has visible settlement towards seawall and damaged sealant. Also, some minor cracking and spalling.	F	Photo 593 Photo 594
C26	Visible settlement towards sea wall, 2 cracks breaching from one another	G	Visible settlement towards sea wall, 2 cracks breaching from one another. Sealant in mixed condition. Holes due to abrasion. Minor signs of abrasion.	G	Photo 595 Photo 596 Photo 597
C27	Full width crack parallel to the seawall, 2m from the rear wave wall	G	Sealant generally intact, but a few minor sections missing. Front panel has some cracks and spalling evident, some evidence of sealant repairs and visible settlement towards the seawall. Full width crack parallel to the seawall, 2m from the rear wave wall.	F	Photo 598 Photo 599 Photo 600
C28	Visible settlement towards sea wall, 2 cracks breaching from one another	G	Visible settlement towards sea wall, 2 cracks breaching from one another. Minor repair patches. Minor holes due to abrasion. Sealant in mixed condition / tearing	G	Photo 601 Photo 602 Photo 603

			noticeable.		
C29	Visible settlement towards seawall	G	Middle panel has a large repair. Back panel has a repair on both the RHS (ok) and the LHS corner (cracking evident). Some sealant missing but generally intact. Front panel has a crack and evidence of historic repairs with visible settlement towards seawall with some resulting sealant damage.	F	Photo 604 Photo 605 Photo 606 Photo 607
C30	Historic repairs	G	Historic repairs in poor condition. Repair patches. Sealant in poor condition / missing. Holes due to abrasion.	G	Photo 608 Photo 609 Photo 610
C31	N/A	G	Repair patches in mixed condition. Sealant missing / mixed condition.	G	Photo 611 Photo 612 Photo 613
C32	N/A	G	Repair patches between C31/C32. Holes due to abrasion. Sealant in mixed condition.	G	Photo 614 Photo 615 Photo 616 Photo 617
C33	N/A	G	Back panel ok with sealant intact. Middle panel has a historic repair on the LHS with sealant intact. Front panel has visible settlement towards sea wall resulting in sealant damage, spalling and 2 cracks.	F	Photo 618 Photo 619 Photo 620
C34	Crack from edge of D1 / C34 (by bins)	G	Crack from edge of D1 / C34 (by bins). Repair patches.	G	Photo 621 Photo 622 Photo 623
General Notes about Section: There are minor cracks throughout the whole promenade. Historic repairs in mixed condition were observed. Patches of abrasion were observed. There is a significant loss of sealant between many of the panels.					
Rear Wave Wall					
Section	2015 Royal HaskoningDHV	2017 AECOM			Photo

	Visual Inspection Damage Description	Condition VP / P / F / G / VG	Visual Inspection Notes	Condition VP / P / F / G / VG	Ref.
C1	Crack through top of wall (1000 x 1)	G	Second crack forming through top of wall (600 x 1mm), crack at LHS near joint (300 x 2mm), sealant cracked.	G/F	Photo 624
C2	N/A	G	Sealant cracked	G	Photo 625
C3	N/A	G	2 cracks at top front LHS (200 x 1mm) and (500 x 2mm). Some sealant cracked and missing.	G	Photo 626
C4	N/A	G	Crack at top front (200 x 1mm)	G	Photo 627
C5	Crack through top of wall (1000 x 1)	G	Crack through top of wall (1000 x 1mm)	G	Photo 628
C6	Crack through top of wall (1000 x 1)	G	Crack through top of wall (1000 x 1mm). Some sealant missing at top.	G	Photo 629
C7	N/A	G	Some sealant missing	G	Photo 630
C8	N/A	G	Crack through top of wall (500 x 1mm). Flood gate and upstands very good.	G	Photo 631
C9	Crack through top of wall (1000 x 1)	G	Crack through top of wall (1000 x 1mm). Sealant cracked.	G	Photo 632
C10	N/A	G	N/A	G	Photo 633
C11	Crack through top of wall (750 x 1)	G	N/A	G	Photo 634
C12	N/A	G	Minor spalling of top front of wall	G	Photo 635
C13	Crack through top of wall (1000 x 1)	G	Crack through top of wall (1000 x 1). Cracked sealant LHS.	G	Photo 636 Photo 637
C14	N/A	G	N/A	G	Photo 638
C15	N/A	G	N/A	G	Photo 639 Photo 640
C16	N/A	G	Minor spalling top front of wall	G	Photo 641 Photo 642
C17	N/A	G	Sealant cracked LHS	G	Photo

					643
C18	Crack through top of wall (500 x 1)	G	Crack through top of wall (500 x 1mm)	G	Photo 644 Photo 645
C19	N/A	G	Flood gate very good	G	Photo 646
C20	Abrasion to the edge (500 x 500 x 200), crack through top of wall (1000 x 1)	F	Abrasion to the edge (500 x 200mm), crack through top of wall and front to base (1500 x 1mm). Sealant cracked LHS.	G/F	Photo 647 Photo 648
C21	Crack through top of wall (750 x 1)	G	Crack through face of wall (750 x 1mm). Sealant cracked LHS.	G	Photo 649
C22	N/A	G	N/A	G	Photo 650
C23	Crack through top of wall (750 x 1)	G	Crack through top of wall (750 x 1mm). Sealant cracked LHS with material loss at base.	G	Photo 651 Photo 652
C24	N/A	G	Crack through face of wall (1000 x 1mm). Sealant cracked LHS.	G	Photo 653 Photo 654 Photo 655
C25	2 cracks through top of wall (750 x 1)	G	2 cracks through top of wall (750 x 1mm). Sealant loss & cracked LHS.	G	Photo 656
C26	Crack through top of wall (750 x 1)	G	2 cracks through top and front of wall (1500 x 1mm). Sealant loss and cracked LHS/ LHS displacement 5mm.	G	Photo 657
C27	N/A	G	Sealant loss & cracked LHS	G	Photo 658 Photo 659
C28	Vertical crack in vertical element of wall (1000 x 2)	G	Flood gate very good (crack previously observed was not seen)	G	Photo 660 Photo 661
C29	Crack through top of wall (500 x 1)	G	Crack previously recorded was not observed (section partially obscured by food truck). Sealant loss LHS.	G	Photo 662
C30	N/A	G	N/A	G	Photo 663
C31	N/A	G	N/A	G	Photo 664

C32	2 cracks through top of wall (1000 x 1)	G	Flood gate good. 2 small abrasion holes in top rear of wall.	G	Photo 665
C33	N/A	G	Flood gate good. Sealant loss LHS.	G	Photo 666 Photo 667 Photo 668
C34	Crack through top of wall (1000 x 1)	G	Crack through top of wall (1000 x 1mm)	G	Photo 669
<p>General Notes about Section: Recurve concrete wall approximately 1.25m high and 300mm thick, set back from the seawall behind the promenade. In general, this section is good to fair with limited surface damage and no apparent significant structural damage. There are a series of cracks in various sections, along with the displacement of a number of sections. There is also moderate loss or damage to the sealant and joint between many of the sections.</p>					

1.4 Section D

Seawall					
Section	2015 Royal HaskoningDHV		2017 AECOM		Photo Ref.
	Visual Inspection Damage Description	Condition VP / P / F / G / VG	Visual Inspection Notes	Condition VP / P / F / G / VG	
D1	N/A	G	Section D1 is formed of 3 panels. Joints have been repaired with mortar, appears recent. Vertical crack in middle panel on top face and continues through top face. Superficial abrasion throughout.	G	Photo 670 Photo 671 Photo 672
General Notes about Section: N/A – see D1.					
Promenade					
Section	2015 Royal HaskoningDHV		2017 AECOM		Photo Ref.
	Visual Inspection Damage Description	Condition VP / P / F / G / VG	Visual Inspection Notes	Condition VP / P / F / G / VG	
D01	Crack from C34 into D1, 1.5m and 3m from the line of the rear wave wall at C.	G	Crack from C34 into D1, 1.5m and 3m from the line of the rear wave wall at C. Minor repair patches in mixed conditions. Minor cracks. Repair patches.	G	Photo 673 Photo 674
General Notes about Section: N/A – see D1.					

1.5 Section E

Seawall					
Section	2015 Royal HaskoningDHV		2017 AECOM		Photo Ref.
	Visual Inspection Damage Description	Condition VP / P / F / G / VG	Visual Inspection Notes	Condition VP / P / F / G / VG	
E1	N/A	F	2 vertical cracks in concrete both measuring 30cm in length. Small patch repair has been made to promenade edge. Joints are missing sealant, 2cm gap at Section D/Section E joint. Superficial abrasion on front face.	F	Photo 675 Photo 676 Photo 677
E2	N/A	F	Applicable throughout Section E - Superficial abrasion on front face. Some sealant missing to horizontal joint between promenade slab and seawall.	F	Photo 678 Photo 679
E3	N/A	F	Repair has been made between joint E3/E4.	F	Photo 680 Photo 681
E4	N/A	F	Concrete blockwork layer beneath concrete top is partially visible.	F	Photo 682 Photo 683
E5	N/A	F	Flap valve surrounded by mortar repairs. E5/6 joint has 1cm gap, no sealant.	F	Photo 684 Photo 685 Photo 686
E6	N/A	F	Vertical crack in concrete in centre of concrete top. Sealant missing to joints.	F	Photo 687 Photo 688
E7	N/A	F	Missing sealant to horizontal joint. Grass growing in gap in horizontal joint at one location.	F	Photo 689 Photo 690
E8	N/A	F	Missing sealant to horizontal joint, gap. Repair has been made to promenade edge in LHS of section.	F	Photo 691
E9	N/A	F	Repairs have been made to promenade edge. Joints are missing sealant.	F	Photo 692 Photo

					693
E10	N/A	F	Concrete blockwork beneath concrete top now visible. Appears in mixed condition with variable abrasion.	F	Photo 694 Photo 695
E11	N/A	F	Missing joint sealant. Abrasion heavier on lower edge of concrete top connection with concrete blockwork, but still superficial.	F	Photo 696 Photo 697
E12	N/A	F	E12/E13 joint heavy abrasion. Gap in horizontal joint of concrete top.	F	Photo 698
E13	N/A	F	LHS joint E13/E14 heavy abrasion.	F	Photo 699 Photo 700
E14	N/A	F	Heavier abrasion at joints. Missing sealant, gaps at joints.	F	Photo 701
E15	N/A	F	Missing sealant, gaps in joints (steps span E15/E16 – have been assessed in E16 section)	F	Photo 702
E16 (includes steps)	N/A	F	5 steps visible at time of inspection. Minor horizontal and vertical cracks in staircase structure. Top step and 4 th and 5 th from top appear to have been replaced. 3 rd step from top has abraded middle and therefore has less plan view area than others (potential h&s concern with further abrasion).	F	Photo 703 Photo 704 Photo 705 Photo 706 Photo 707
E17	N/A	F	Flap valve half buried. Missing sealant. Some concrete blockwork has heavier abrasion, but still superficial.	F	Photo 708 Photo 709
E18	N/A	F	E18/E19 joint (concrete top) has 1cm gap, missing sealant.	F	Photo 710
E19	N/A	F	Sealant missing in concrete top joints. Mortar missing to concrete blockwork – 1 st row of concrete blockwork now visible.	F	Photo 711
E20	N/A	F	E19/E20 joint has gaps up to 5cm, however this is localised to this joint.	F	Photo 712

E21	N/A	F	Heavier abrasion to some concrete blockwork, but still superficial. Concrete top has some small patch repairs. Horizontal joint gap in concrete top is up to 5cm.	F	Photo 713 Photo 714 Photo 715
E22	N/A	F	LHS concrete top joint E22/E23 no sealant.	F	Photo 716
E23	N/A	F	Flap valve missing cover located through concrete blockwork. One washer and nut also missing. Top of 2 nd row of concrete blockwork now visible.	F	Photo 717 Photo 718
E24	N/A	F	Gaps in concrete top joints. No signs of movement of the structure.	F	Photo 719 Photo 720
E25	Joints missing / damaged	P	3 rd row of concrete blockwork now visible. Mortar missing between concrete blocks.	F	Photo 721
E26	Joints missing / damaged	P	Some joints in concrete top are missing sealant. Mortar missing between some concrete blocks.	F	Photo 722
E27	Joints missing / damaged	P	Some joints in concrete top are missing sealant. Mortar missing between some concrete blocks.	F	Photo 723 Photo 724
E28	Joints missing / damaged	P	Some joints in concrete top are missing sealant. Mortar missing between some concrete blocks. Some concrete blocks have heavier abrasion but is still superficial.	F	Photo 725 Photo 726
E29	Joints missing / damaged	P	Some joints in concrete top are missing sealant. Mortar missing between some concrete blocks.	F	Photo 727
E30	Joints missing / damaged	P	Some joints in concrete top are missing sealant. Mortar missing between some concrete blocks. Top of 4 th row of concrete blockwork now visible.	F	Photo 728
E31	Joints missing / damaged	P	Some joints in concrete top are missing sealant. Mortar missing between some concrete blocks.	F	Photo 729
E32	Joints missing / damaged	P	Some joints in concrete top are missing sealant. Mortar missing between some	F	Photo 730

			concrete blocks.		
E33	Joints missing / damaged	P	Some joints in concrete top are missing sealant. Mortar missing between some concrete blocks.	F	Photo 731 Photo 732
E34	Joints missing / damaged	P	Some joints in concrete top are missing sealant. Mortar missing between some concrete blocks. Flap valve with broken cover (double hinge flap value, one hinge is broken – h&s concern). One small patch repair has been made to the concrete top.	F	Photo 733 Photo 734
E35	Joints missing / damaged	P	Some joints in concrete top are missing sealant. Mortar missing between some concrete blocks. Uncovered flap valve.	F	Photo 735
E36	Joints missing / damaged	P	Some joints in concrete top are missing sealant. Mortar missing between some concrete blocks.	F	Photo 736
E37	Joints missing / damaged	P	Some joints in concrete top are missing sealant. Mortar missing between some concrete blocks.	F	Photo 737
E38	N/A	F	Some joints in concrete top are missing sealant. Mortar missing between some concrete blocks.	F	Photo 738
E39 (includes steps)	Joints missing / damaged	P	Some joints in concrete top are missing sealant. Mortar missing between some concrete blocks. Steps in this location.	F	Photo 739 Photo 740 Photo 741
E40	Joints missing / damaged	P	Some joints in concrete top are missing sealant. Mortar missing between some concrete blocks.	F	Photo 742
E41	Joints missing / damaged – wide joint	P	Some joints in concrete top are missing sealant. Mortar missing between some concrete blocks. Some patch repairs have been made to concrete top.	F	Photo 743
E42	Joints missing / damaged – wide joint, abrasion	P	Some joints in concrete top are missing sealant. Mortar missing between some concrete blocks. Some patch repairs have been made to concrete top.	F	Photo 744

E43	Joints missing / damaged – including wide joint	P	Some joints in concrete top are missing sealant. Mortar missing between some concrete blocks.	F	Photo 745
E44	Joints missing / damaged – including wide joint	P	Some joints in concrete top are missing sealant. Mortar missing between some concrete blocks.	F	Photo 746
E45	Joints missing / damaged – wide joint	P	Some joints in concrete top are missing sealant. Mortar missing between some concrete blocks. Top of 5 th row of concrete blocks visible. Patch repairs have been made to concrete top.	F	Photo 747
E46	Abrasion to 3 sections, joints missing / damaged - including wide joint	P	Some joints in concrete top are missing sealant. Mortar missing between some concrete blocks. Patch repairs have been made to concrete top.	F	Photo 748 Photo 749

General Notes about Section: Seawall is formed of concrete blockwork with concrete top (part of promenade). Throughout there is abrasion to the concrete top and concrete blockwork, but this is superficial. There are many gaps between the joints of the concrete top where there is missing sealant, in one location grass is growing in the gap. There are also many gaps between the concrete blockwork where there is missing mortar. Generally, these gaps are small, with isolated locations where abrasion has occurred more heavily at the joints of the concrete top and left bigger gaps up to 5cm. Any cracks are minor and there is no evidence of movement of the structure. There have been small sections of patch repairs made along the concrete top. There are two health and safety concerns – the staircase in E16 has a step with heavy abrasion in the middle, in E34 there is a flap valve with a cover attached with a double hinge where one of the hinges is broken.

Note that the previous condition assessment graded much of Section E as Poor condition. For masonry structures the Condition Assessment Manual describes the Poor grading as “extensive spalling of bricks or blocks, substantial cracking, movement, or severe damage”. It is not thought that the defects inspected in Section E are bad enough to justify this grading.

Promenade

Section	2015 Royal HaskoningDHV		2017 AECOM		Photo Ref.
	Visual Inspection Damage Description	Condition VP / P / F / G / VG	Visual Inspection Notes	Condition VP / P / F / G / VG	
E01	N/A	G	Minor repair patches in mixed condition. Sealant in mixed condition.	G	Photo 750 Photo 751
E02	N/A	G	Patches of corrosion.	G	Photo 752 Photo 753 Photo 754
E03	N/A	G	Historical repairs. Minor	G	Photo

			cracks in the upper/left side.		755 Photo 756 Photo 757
E04	N/A	G	Repair patches between E4-E3. Spalling present between E4-E5.	G	Photo 758 Photo 759 Photo 760
E05	N/A	G	Sealant generally intact. Evidence of previous repairs. Some minor spalling along the construction joints.	G	Photo 761 Photo 762 Photo 763 Photo 764
E06	Old repairs at edge of E6/E7	F	Sealant generally intact, although some vegetation is growing through. Evidence of previous repairs. Some minor spalling along the construction joints. One repair on the seaward edge appears to be breaking away.	F	Photo 765 Photo 766 Photo 767 Photo 768
E07	N/A	G	Patches of corrosion along the lower section of the promenade.	G	Photo 769 Photo 770 Photo 771
E08	Crack at front edge 1m from E7 (1m x 2mm)	F	Crack at front edge 1m from E7 still present although evidence of a previous repair. Sealant generally intact. Some minor spalling along the construction joints.	F	Photo 772 Photo 773 Photo 774
E09	Crack in historical repair		Crack in historical repair. Repair patches. Repaired cracks. Patches of corrosion. Sealant in mixed condition.	G	Photo 775 Photo 776 Photo 777
E10	N/A		Sealant generally intact. Evidence of previous repairs. Some minor spalling along the construction joints.	G	Photo 778 Photo 779 Photo 780

E11	N/A	F	Cracks are present. Light abrasion is present. Sealant in mixed condition / in certain areas is no longer present.	G	Photo 781 Photo 782 Photo 783
E12	Crack spanning from historic repair on front of prom – extends 2.5km into panel (1mm x 2.5m)	F	Crack spanning from historic repair on front of prom – extends 2.5km into panel (1mm x 2.5m). Repair patches in the lower part of section. Sealant in mixed condition / in certain areas is no longer present. Holes due to abrasion are present.	G	Photo 784 Photo 785 Photo 786 Photo 787 Photo 785
E13	N/A		Sealant generally intact although some minor sections missing or damaged. Evidence of previous repairs. Some minor spalling along the construction joints. Minor abrasion evident on the surface.	G	Photo 788 Photo 789 Photo 790
E14	Crack at front edge alongside historic repair	F	Crack at front edge alongside historic repair. Minor repair patches. Minor cracks.	F	Photo 791 Photo 792
E15	Crack 0.5m from steps, perpendicular to wall, 2.5m long (1mm wide)	F	Crack 0.5m from steps, perpendicular to wall, 2.5m long (1mm wide) still present – no change. Sealant generally intact. Evidence of previous repairs. Repair on front edge adjacent to steps has a 1-2mm crack through it. Some minor spalling along the construction joints. Minor abrasion evident on the surface.	F	Photo 793 Photo 794 Photo 795 Photo 796
E16	N/A	G	Repaired crack 2.5 m long, perpendicular to seawall. Repair patches in poor condition.	F	Photo 797 Photo 798 Photo 799 Photo 800
E17	Crack perpendicular to seawall, starts at seawall, extends 0.5m into panel (2mm x 0.5m), horizontal crack parallel to rear wall, 2m	F	Various cracks have been filled with sealant. Evidence of previous repairs (1 significant repair). Sealant of joints is generally intact although protruding in	F	Photo 801 Photo 802 Photo 803

	from rear wall (2m x 1mm)		places. Minor abrasion evident on the surface.		Photo 804
E18	Crack in repair between E18 and E19 (2mm), historic crack repair – crack has extended 1m into the centre of panel (1m x 1mm)	F	Various cracks have been filled. Evidence of previous repairs. Sealant of joints is generally intact. Various cracks have been filled. Evidence of previous repairs. Sealant of joints is generally intact although protruding in places. Minor abrasion evident on the surface. Some minor spalling along various joints.	F	Photo 805 Photo 806 Photo 807 Photo 808
E19	Historic repair at E18/19 border is cracked (2mm)	F	Historic repair at E18/19 border is cracked (2mm). Repair patches. Holes due to abrasion. Areas of abrasion.	G	Photo 809 Photo 810
E20	Repaired crack in centre of prom perpendicular to seawall – has extended 0.5m towards central joint	F	Repaired crack in centre of prom perpendicular to seawall – has extended 0.5m towards central joint. Repaired crack has some holes present. Repair patch in mixed condition.	G	Photo 811 Photo 812 Photo 813
E21	N/A		Evidence of multiple previous repairs. Sealant of joints is generally intact although protruding or damaged in places. Minor abrasion evident on the surface. Some minor spalling along various joints. Repair on front edge has cracking through it.	G	Photo 814 Photo 815 Photo 816
E22	Crack perpendicular to seawall starts and extends to joint (4.5m x 2mm)	F	Crack perpendicular to seawall starts and extends to joint (4.5m x 2mm). Repair patches between E22 and E21. Patches of corrosion. Holes due to abrasion.	F	Photo 817 Photo 818 Photo 819
E23	Curved crack starts at seawalls, travels perpendicular to wall for 1m then curves towards the centre of the panel (2mm x 2.5m)	F	Previous cracks still evident although has been filled with sealant. Evidence of multiple previous minor repairs (particularly along joints). Sealant generally intact. Minor abrasion evident on the surface. Some minor spalling along various joints.	F	Photo 820 Photo 821 Photo 822
E24	Abrasion to surface, and 2 cracks from the seawall, perpendicular	F	Abrasion to surface, and 2 cracks from the seawall, perpendicular to the seawall	F	Photo 823 Photo

	to the seawall (2mm x 1m and 2mm x 2.5m)		(2mm x 1m and 2mm x 2.5m). Large area of holes due to abrasion. Repair patches.		824 Photo 825
E25	Curved cracks starts 1m from the seawall, travel perpendicular to wall and curves (1m x 2mm)	F	Previous cracks not observed (as described) but spalling has occurred around one historic crack that needs to be addressed. Evidence of previous repairs. Sealant generally intact. Minor abrasion evident on the surface. Some minor spalling along various joints.	F	Photo 826 Photo 827
E26	Crack perpendicular to seawall starts at seawall, 1.5m from E25 and extends to central joint (5m x 3mm)	F	Crack perpendicular to seawall starts at seawall, 1.5m from E25 and extends to central joint (5m x 3mm). Cracks of up to 3cm wide. Sealant in mixed condition.	F	Photo 828 Photo 829 Photo 830
E27	Crack perpendicular to seawall starts 0.5m from seawall to middle joint (4.5m x 2mm)	F	Previous cracks still evident. Evidence of previous repairs. Sealant generally intact. Significant abrasion evident on the surface. Some minor spalling along various joints (often repaired with sealant).	F	Photo 831 Photo 832 Photo 833
E28	2 previously repaired cracks	F	2 previously repaired cracks. Minor holes due to abrasion. Repair patches in mixed condition.	F	Photo 834 Photo 835 Photo 836
E29	Crack 1m from middle joint on the seawall side (2m x 1mm), Historic crack repair perpendicular to seawall 0.5m from E30 has opened	F	Crack repair perpendicular to seawall 0.5m from E30 damage. Minor abrasion in seaward slab with repairs (3 x 2m) to cracks.	F	Photo 837 Photo 838
E30	N/A	G	Minor crack in middle of seaward slab, 1.5m long. Minor repairs made to joints both sides.	F	Photo 839 Photo 840
E31	Crack perpendicular to seawall, starts at seawall and extends 2m (2m x 2mm)	G	Seaward slab repairs on right joint. Crack perpendicular to seawall in middle (1.5 x 2m)	F	Photo 841 Photo 842
E32	Historic crack repair that starts at seawall has extended 1.5m towards middle joint	G	Historic crack repair that starts at seawall has extended 1.5m towards middle joint (1.5m x 2mm).	F	Photo 843 Photo 844

	(1.5m x 2mm), crack 2m from first extends to the middle joint (5m x 2mm)		Multiple cracks extend perpendicular to seawall in front slab, one crack extends to middle joint. Minor repairs to left joint.		
E33	Crack repair perpendicular to seawall has extended 1m towards centre of panel (1m x 2mm), diagonal cracks starts 1m from seawall and extends 2m (2m x 2mm)	G	Repair to seaward slab, 400mm long. Cracks perpendicular to seawall. Large crack in middle of slab and other smaller cracks	F	Photo 845 Photo 846
E34	Boundary fo E34/E33 abrasion causing a trip hazard 1m from 2014 repair	F	Previously noted abrasion damage has been repaired. Joint sealant generally intact although some minor sections missing /damaged or lifting. Evidence of previous repairs including cracks filled with sealant. Abrasion evident on the surface. Some minor spalling along various joints. Spalling and abrasion damage evident on the front (seaward) edge above the seawall adjacent to E35.	F	Photo 847 Photo 848 Photo 849
E35	Horizontal crack parallel to seawall, 0.2m from seawall (2.5m x 2mm)	F	Horizontal crack parallel to seawall, 0.2m from seawall (2.5m x 2mm). Repair patches. Holes due to abrasion.	F	Photo 850 Photo 851 Photo 852
E36	Settlement of prom towards middle joint is visible. Circular crack with straight members starting at E37 and the arc E35 (2mm x 12m)	P	Settlement and resulting crack still evident, although have been filled with sealant. Significant abrasion evident on the surface (minor holes opening up). Joint sealant generally intact although some minor sections missing or lifting. Some minor spalling along various joints. Evidence of previous repairs. Significant spalling and abrasion evident on the front (seaward) edge above the seawall. Some minor cracking observed in back panel parallel to the floodwall.	.P	Photo 853 Photo 854 Photo 855
E37	Settlement of prom towards middle joint is	P	Settlement of prom towards middle joint is visible. Crack	P	Photo 856

	visible. Crack extends from E36 parallel to seawall, 1.5m from seawall (width panel x 3mm). Abrasion perpendicular to 1 st crack (2m x 100mm)		extends from E36 parallel to seawall, 1.5m from seawall (width panel x 3mm). Abrasion perpendicular to 1 st crack (2m x 100mm). Patches of corrosion in the lower edge. Repair patches in mixed condition.		Photo 857 Photo 858
E38	Settlement of prom towards middle joint is visible. Crack extends from E37 parallel to seawall, 1.5m from seawall (width panel x 2mm). Abrasion.	P	Settlement and resulting crack evident, 2mm and spalling. Significant abrasion evident on the surface (minor holes opening up). Joint sealant generally intact although some minor sections missing or lifting. Some minor spalling along various joints. Evidence of previous repairs.	P	Photo 859 Photo 860 Photo 861
E39	Settlement of prom towards middle joint is visible. Crack extends from E38 parallel to seawall, 1.5m from seawall and curves into panel towards E38 (width panel x 3mm). Historic repair at seawall has a crack running perpendicular to the seawall (3mm x 2m), abrasion.	P	Settlement of prom towards middle joint is visible. Crack extends from E38 parallel to seawall, 1.5m from seawall and curves into panel towards E38 (width panel x 3mm). Historic repair at seawall has a crack running perpendicular to the seawall (3mm x 2m), abrasion.	P	Photo 862 Photo 863 Photo 864
E40	Settlement of prom towards middle joint is visible. Crack extends from E39 parallel to seawall, 1.5m from seawall (width panel x 3mm). Abrasion is present	P	Settlement of prom towards middle joint is visible. Crack extends from E39 parallel to seawall, 1.5m from seawall (width panel x 3mm). Abrasion is present. Sealant in poor condition (often missing present). Repair patches present.	P	Photo 865 Photo 866 Photo 867
E41	DG	P	Settlement and resulting crack still evident, now +3mm and spalling. Significant abrasion evident on the surface (minor holes opening up). Joint sealant generally intact although some minor sections missing or lifting. Some minor spalling along various joints. Evidence of previous repairs.	P	Photo 868 Photo 869 Photo 870
E42	Settlement of prom towards middle joint is visible. Crack extends from E41 parallel to	P	Settlement of prom towards middle joint is visible. Crack extends from E41 parallel to seawall, 1.5m from seawall	P	Photo 871 Photo

	seawall, 1.5m from seawall (width panel x 3mm). Abrasion is present		(width panel x 3mm). Abrasion is present.		872
E43	N/A	F	Evidence of previous repairs. Previous repairs evident, repair on front edge has cracking through it. Joint sealant generally intact. Some abrasion evident on the surface. Some minor spalling along various joints. 1-2mm crack parallel to the floodwall almost full width.	F	Photo 873 Photo 874 Photo 875
E44	N/A	F	Minor crack in lower edge. Patch of corrosion in E44/E43 lower edge.	F	Photo 876 Photo 877
E45	Crack parallel to wall, 2.5m away from seawall, starts at E46 and extends 2.5m (2.5m x 2mm)	F	Crack parallel to wall, 2.5m away from seawall, starts at E46 and extends 2.5m (2.5m x 2mm). Repair patch in poor condition / hole in patch.	F	Photo 878 Photo 879 Photo 880
E46	Crack parallel to wall, 2.5m away from seawall, starts at E46 and extends 2.5m (2.5m x 2mm)	F	Previous cracks still evident now almost full width and +2-3mm with considerable spalling. Evidence of previous repairs. Joint sealant generally intact although some minor sections missing. Significant abrasion evident on the surface (minor holes opening up). Some spalling along various joints. Minor cracking evident perpendicular to the floodwall.	F	Photo 881 Photo 882 Photo 883

General Notes about Section: Generally minor cracks through the promenade. Historic repairs are in mixed condition. Patches of abrasion were observed. There is a significant loss of sealant between many of the panels. Some of the panels are demonstrating evidence of settlement towards the seawall.

Rear Wave Wall

Section	2015 Royal HaskoningDHV		2017 AECOM		Photo Ref.
	Visual Inspection Damage Description	Condition VP / P / F / G / VG	Visual Inspection Notes	Condition VP / P / F / G / VG	
E1	N/A	G	Minor abrasion at LHS joint	G	Photo 884
E2	N/A	G	N/A	G	Photo

					885
E3	N/A	G	N/A	G	Photo 886
E4	N/A	G	Minor abrasion at top right of wall	G	Photo 887
E5	N/A	G	N/A	G	Photo 888 Photo 889 Photo 890
E6	N/A	G	N/A	G	Photo 891 Photo 892
E7	N/A	G	N/A	G	Photo 893
E8	N/A	G	Small gap at RHS base of wall	G	Photo 894 Photo 895 Photo 896
E9	N/A	G	N/A	G	Photo 896
E10	N/A	G	Slight displacement at construction joint in centre, max 5mm horizontal	G	Photo 896 Photo 897
E11	Vertical crack under steps, from top of wall (1m x 2mm)	F	Vertical crack under steps (1000 x 1mm)	G	Photo 898 Photo 899
E12	N/A	G	N/A	G	Photo 900
E13	N/A	G	Minor surface spalling. Sealant cracked on LHS.	G	Photo 901 Photo 902
E14	N/A	G	Sealant cracked LHS	G	Photo 903
E15	N/A	G	N/A	G	Photo 904 Photo 905
E16	N/A	G	N/A	G	Photo 906
E17	vertical crack from top of wall, 100mm from the opening - where flood gates will be located	P	Flood gate fitted – no cracks. Sealant cracked LHS.	G	Photo 907

E18	2 vertical cracks through top of wall 1.5m apart (both 1m x 2mm)	F	2 vertical cracks through top of wall 1.5m apart (1000 x 1mm). Minor abrasion at top LHS joint	F	Photo 908 Photo 909 Photo 910
E19	Vertical crack through top of wall 2m from E20 (0.5m x 2mm)	F	Surface minor spalling on front. Vertical crack through top of wall (500 x 1mm).	G	Photo 911 Photo 912 Photo 913
E20	Vertical crack through top of wall (0.5m x 2mm)	F	Vertical crack through top of wall (300 x 1mm). Sealant cracked.	G	Photo 914 Photo 915
E21	N/A	G	N/A	G	Photo 916
E22	N/A	G	Sealant cracked LHS	G	Photo 917 Photo 918
E23	N/A	G	N/A	G	Photo 919
E24	N/A	G	2 hairline cracks in left upright of flood gate (200mm)	G	Photo 920 Photo 921
E25	Vertical crack through top of wall (1m x 2mm)	F	2 vertical cracks through top of wall (500 x 1mm). Some spalling and loss at LHS joint.	G	Photo 922 Photo 923
E26	2 vertical cracks through top of wall 1.5m apart (both 1m x 2mm)	F	2 vertical cracks through top of wall 1.5m apart (500 x 1mm). Sealant expanded/seeped out.	G	Photo 924 Photo 925 Photo 926
E27	Vertical crack through top of wall (0.75m x 2mm)	F	Vertical crack through top of wall (500 x 1mm). Sealant cracked.	G	Photo 927 Photo 928 Photo 929
E28	Vertical crack through top of wall 1.5m from E27 (0.5m x 2mm)	F	Vertical crack through top of wall 1.5m from E27 (1000mm x hairline). Minor gaps between wall and sealant LHS	G	Photo 930 Photo 931
E29	2 vertical cracks through top of wall 1.5m apart (both 1m x 2mm)	F	2 vertical cracks through top of wall 1.5m apart (1000mm x hairline)	G	Photo 932
E30	N/A	G	Crack at RHS (300 x 5mm).	G	Photo

			Minor surface spalling at top of wall.		933 Photo 934
E31	N/A	G	Minor crack at top of wall (500mm x hairline)	G	Photo 935
E32	N/A	G	Sealant loss at top LHS	G	Photo 936
E33	N/A	G	Minor abrasion of LHS joint. Sealant cracked LHS.	G	Photo 937 Photo 938
E34	N/A	G	Sealant cracked	G	Photo 939
E35	Vertical crack through top of wall (1m x 2mm)	F	Small surface spalling. No cracks observed – partially obscured by food truck.	G	Photo 940
E36	Wall has visibly dropped by 10mm compared to E37	F	Wall displaced vertically downwards 10mm. Crack in top centre of wall (500 x 1mm).	F	Photo 941 Photo 942 Photo 943
E37	2 vertical cracks through top of wall (0.5m x 2mm towards E38 and 1.5m x 2mm towards E36)	F	Crack through top and front of wall (1500 x 2mm). Crack through top of wall (750 x 1mm). Gap at LHS joint.	G/F	Photo 944 Photo 945 Photo 946
E38	2 vertical cracks through top of wall (1mm x 2mm towards E39 and 1.25mm x 2mm towards E37)	F	2 vertical cracks through top of wall (1000 x 1).	G	Photo 947 Photo 948 Photo 949
E39	N/A	G	N/A	G	Photo 950
E40	N/A	G	Small spalling holes on surface	G	Photo 951
E41	N/A	G	Small gaps and 2mm vertical displacement at LHS joint	G	Photo 952
E42	N/A	G	Cracking and spalling at LHS joint	G	Photo 953
E43	N/A	G	Minor displacement at LHS joint – 2mm	G	Photo 954
E44	N/A	G	Lost sealant at base. 5mm horizontal displacement at LHS joint	G	Photo 955
E45	N/A	G	Sealant loss at base of wall	G	Photo 956
E46	Vertical crack in wall at	Not given	Vertical crack (1500 x	F	Photo

	joint between F1 panel and E46		5mm). Minor spalling at LHS joint.		957 Photo 958 Photo 959
<p>General Notes about Section: Recurve concrete wall approximately 1.25m high and 300mm thick, set back from the seawall behind the promenade. It has been built upon with seafront properties in some locations. In general, this section is good to fair with limited surface damage and no apparent significant structural damage. There are a series of minor cracks in various sections. There is also moderate loss or damage to the sealant of the joints between many of the sections.</p>					

1.6 Section F

Seawall					
Section	2015 Royal HaskoningDHV		2017 AECOM		Photo Ref.
	Visual Inspection Damage Description	Condition VP / P / F / G / VG	Visual Inspection Notes	Condition VP / P / F / G / VG	
F1	N/A	F	Superficial abrasion on wall. Sealant missing on LHS F1/F2 joint.	F	Photo 960
F2	Horizontal crack 2m from top of wall (2.5m x 2mm)	F	Vertical crack 1mm width in centre of panel extending through visible height of wall. Horizontal crack 2m from top of wall (2.5m x 2mm). Superficial abrasion.	F	Photo 961 Photo 962
F3	N/A	F	3 weep holes in wall. RHS F2/F3 joint missing sealant, small patch repair has been made at bottom of joint. Vertical crack 1mm thickness through centre of panel. Gap along bottom of wall joint. Superficial abrasion.	F	Photo 963 Photo 964
F4	N/A	F	Sealant missing along bottom of wall joint. Vertical crack 1mm thickness through centre of panel. Superficial abrasion.	F	Photo 965 Photo 966
F5	N/A	F	2 vertical cracks on face of wall. 1 extends through top face of wall. Superficial abrasion.	F	Photo 967 Photo 968
General Notes about Section: There is superficial abrasion on the face of the wall throughout Section F. There are cracks in some panels, which are minor with no observable movement of the structure. There is sealant missing from joints along the wall.					
Slipway					
Section	2015 Royal HaskoningDHV		2017 AECOM		Photo Ref.
	Visual Inspection Damage Description	Condition VP / P / F / G / VG	Visual Inspection Notes	Condition VP / P / F / G / VG	
F1	N/A	F	Mostly buried, vertical displacement of slipway slab, abrasion at joint	F	Photo 969
F2	Horizontal crack 2m from top of wall (2.5m x 2mm)	F	Large horizontal crack (5000 x 10mm). Cracking and abrasion of slipway, with small holes.	F	Photo 970 Photo 971 Photo 972

					Photo 973
F3	N/A	F	Large crack extending from RHS (2000 x 10mm). Second crack on LHS (3000 x 5mm). Slipway repaired and made good.	F	Photo 974 Photo 975
F4	N/A	F	Crack between top repair and wall (2000 x 10mm). Some surface spalling. Slipway made good.	F	Photo 976 Photo 977
F5	N/A	F	Significant repair to top section, new concrete section still good. Minor holes in slipway between repairs.	F	Photo 978 Photo 979

General Notes about Section: The slipway wall is approximately 300-400mm thick, rising from the beach level to the promenade – approximately 2.5m higher. There are corresponding sections of concrete slipway behind the wall sections. The wall and slipway are generally in a fair condition, with some significant cracks in the wall and smaller cracks in the slipway, along with significant former repairs generally intact. The two most significant cracks consist of a crack extending through sections F2 and F3 of the slipway wall in total approximately 7m long, and a crack below a former repair in section F3, approximately 3m long. It is unclear whether these only affect the surface or the entire wall section. The cracks/abrasion holes along the slipway are generally located at the joints.

Rear Wave Wall

Section	2015 Royal HaskoningDHV		2017 AECOM		Photo Ref.
	Visual Inspection Damage Description	Condition VP / P / F / G / VG	Visual Inspection Notes	Condition VP / P / F / G / VG	
F1	As E46 - vertical crack at boundary between E46 and F1	F	Minor horizontal displacement at LHS of 2mm. Large vertical crack is part of section E46.	G	Photo 980 Photo 981
F2	N/A	G	Small crack at base of LHS (10 x 5mm), loose section.	G	Photo 982 Photo 983
F3	N/A	G	Some sealant loss at top	G	Photo 984 Photo 985
F4	N/A	G	N/A	G	Photo 986

General Notes about Section: Recurve concrete wall approximately 1.25m high and 300mm thick, set back from the seawall behind the promenade. In general, this section is good with limited surface damage and no apparent significant structural damage. There are a couple of surface cracks in Section F. There is also moderate loss or damage to the sealant of the joint between section F2 and F3.

1.7 Section G

Seawall					
Section	2015 Royal HaskoningDHV		2017 AECOM		Photo Ref.
	Visual Inspection Damage Description	Condition VP / P / F / G / VG	Visual Inspection Notes	Condition VP / P / F / G / VG	
G1	Crack through top of wall at centre of the panel (2m x 2mm) also visible on back face of wall for full height of wall, and minor horizontal cracking through the base panel	F	4 weep holes in wall. Vertical crack through centre of top panel 2mm thickness, and minor horizontal crack through bottom panel. Vertical crack also visible through rear of wall. Superficial abrasion throughout Section G. Also, throughout Section G there is sealant missing from bottom quarter of wall, above sealant appears new.	F	Photo 987 Photo 988 Photo 989 Photo 990
G2	Abrasion at horizontal joint at boundary of G1/G2 0.3x03m. Crack through top of wall at centre of the panel (2m x 2mm), also visible on back face of wall for full height of wall	F	4 weep holes in wall. Flap valve with no cover. Vertical crack 2mm thickness through centre of top panel. Also visible through rear of wall. More heavy abrasion at joint G1/G2.	F	Photo 991 Photo 992 Photo 993
G3	Abrasion at horizontal joint at boundary of G3/G4 0.3x25m. Crack through top of wall at centre of the panel (2m x 2mm), also visible on back face of wall for full height of wall	F	1 weep hole. Vertical crack 2mm thick through centre of top panel of wall. Also visible through rear of wall. Abrasion at bottom left of top panel.	F	Photo 994 Photo 995 Photo 996 Photo 997
G4	Abrasion at horizontal joint at boundary of G4/G3 0.3x25m. Crack through top of wall at centre of the panel (2m x 2mm), also visible on back face of wall for full height of wall	F	Flap valve with no cover. Abrasion at horizontal joint at boundary of G4/G3 0.3x25m. Crack through top of wall at centre of the panel (2m x 2mm). Also visible through top and rear of wall. Horizontal crack through middle of bottom panel. Large abrasion in right hand side of rear wall (1m x 500mm), with some repair loss.	F	Photo 998 Photo 999 Photo 1000 Photo 1001 Photo 1002
G5	Abrasion at horizontal joint at boundary of	F	Flap valve on lower panel. 2 weep holes. Abrasion at	F	Photo 1003

	G5/G6 0.2x2m. Crack through top of wall at centre of the panel (2m x 2mm), also visible on back face of wall for full height of wall		horizontal joint at boundary of G5/G6 0.2x2m. Crack through top of wall at centre of the panel (2m x 2mm). Also visible through top and rear of wall.		Photo 1004 Photo 1005 Photo 1006
G6	Crack through top of wall at centre of the panel (2m x 2mm), also visible on back face of wall for full height of wall	F	2 flap valves without covers. Crack through top of wall at centre of the panel (2m x 2mm) which is also visible through top and rear of wall. Crack through bottom panel (left of centre).	F	Photo 1007 Photo 1008 Photo 1009
G7	N/A	F	2 weep holes one on upper panel and one on lower.	F	Photo 1010 Photo 1011
G8	Crack through top of wall at centre of the panel (2m x 2mm), not visible on back face of wall	F	Flap valve missing cover. Crack through top of wall at centre of the panel (2m x 2mm). Crack through centre of lower panel. Repaired abrasion on top of wall and hairline crack at centre of rear of wall.	F	Photo 1012 Photo 1013 Photo 1014
G9	N/A	F	Flap valve without cover on lower panel. Two weep holes.	F	Photo 1015 Photo 1016
G10	N/A	F	1 weep hole. Flap valve without cover on upper panel.	F	Photo 1017 Photo 1018
G11	N/A	F	3 weep holes on lower panel. Crack through centre of lower panel, 2mm thick. Small crack on rear wall (200mm x 1mm).	F	Photo 1019 Photo 1020 Photo 1021
G12	N/A	F	3 weep holes in the lower panel. Hairline crack in centre of rear wall (500mm x 1mm).	F	Photo 1022 Photo 1023
G13	Horizontal crack (2mm wide) extending from G14, 1.5m into G13. Located $\frac{3}{4}$ up the wall	F	Horizontal crack (2mm wide) extending from G14, 1.5m into G13. Located $\frac{3}{4}$ up the wall. Patch of abrasion in the upper boundary of G13/G14. Traces of corrosion under flap valve. 1.5m horizontal crack left side of rear wall, 1mm thick.	F	Photo 1024 Photo 1025 Photo 1026 Photo 1027
G14	Horizontal crack (2mm wide) full width of panel,	F	Horizontal crack (2mm wide) full width of panel, located $\frac{3}{4}$	F	Photo 1028

	located $\frac{3}{4}$ up the wall. Vertical crack (2mm wide) through top of wall at centre extending down to the valve (approx. 1m), also visible on back face or wall for full height of wall.		up the wall. Vertical crack (2mm wide) through top of wall at centre extending down to the valve (approx. 1m), also visible on back face of wall for full height of wall, with sections up to 10mm wide and 5mm deep at surface. Heavy corrosion of bracket connecting seawall and groyne.		Photo 1029 Photo 1030 Photo 1031 Photo 1032
G15	Crack through top of wall at centre of the panel (2m x 2mm), also visible on back face of wall for full height of wall.	F	Crack through top of wall at centre of the panel (2m x 2mm), also visible on back face of wall for full height of wall. Abrasion patches along crack. Large patches of abrasion around the valve area. Sealant missing or in mixed condition.	F	Photo 1033 Photo 1034 Photo 1035 Photo 1036
G16	N/A	F	1mm crack starting in G16/G17 boundary extending horizontally 0.80m. Cracks and voids along the connection between upper and lower panel.	F	Photo 1037 Photo 1038 Photo 1039
G17	Abrasion at horizontal joint at boundary of G17/G16 0.4x2m. Sealant missing from top of wall.	F	Abrasion at horizontal joint at boundary of G17/G16 0.4x2m. Sealant missing from top of wall. Cracks and voids along the connection between upper and lower panel. Sealant in poor condition. Minor crack right of rear wall (400mm x 1mm).	F	Photo 1040 Photo 1041 Photo 1042
G18	Crack in 5 th step down, sealant missing from top of wall	F	Crack in 5 th step down, sealant missing from top of wall. Sealant in poor condition/missing. Large holes due to abrasion.	F	Photo 1043 Photo 1044 Photo 1045 Photo 1046
G19	Visible water stain through horizontal joint, although the tide had been out for some time. Abrasion at horizontal joint at boundary of G19/G20 0.2x2m.	F	Visible water stain through horizontal joint, although the tide had been out for some time. Abrasion at horizontal joint at boundary of G19/G20 0.2x2m. Cracks and voids along the connection between upper and lower panel. Sealant in mixed condition.	F	Photo 1047 Photo 1048 Photo 1049
G20	Horizontal crack through width of panel (5mm wide) in lower half of	F	Horizontal crack through width of panel (5mm wide) in lower half of wall. Cracks	F	Photo 1050

	wall		and voids along the connection between upper and lower panel. Sealant in mixed condition. Large patches of abrasion in lower panel		Photo 1051 Photo 1052
G21	N/A	F	2 weep holes in the lower panel. Cracks and voids along the connection between upper and lower panel. Sealant in mixed condition. Patches of abrasion in lower panel.	F	Photo 1053 Photo 1054 Photo 1055
G22	Abrasion at horizontal joint at boundary of G22/G23 0.3x0.3m. Historic repair at G	F	Abrasion at horizontal joint at boundary of G22/G23 0.3x0.3m. Historic repair present. 2 weep holes in the lower panel. Cracks and voids along the connection between upper and lower panel. Sealant in mixed condition. Sheet piles place 0.2m from toe of sea wall.	F	Photo 1056 Photo 1057 Photo 1058 Photo 1059
G23	Historic repair at G23/G22 is chipped, minor abrasion at boundary G23/G24	F	Historic repair at G23/G22 is chipped, minor abrasion at boundary G23/G24. Cracks and voids along the connection between upper and lower panel. Sealant in mixed condition.	F	Photo 1060 Photo 1061 Photo 1062
G24	Visible water stain through horizontal joint, although the tide had been out for some time.	F	Visible water stains through horizontal joint, although the tide had been out for some time. Voids along the connection between upper and lower panel. Sealant in mixed condition.	F	Photo 1063 Photo 1064 Photo 1065
G25	Crack through top of wall at centre of the panel (2m x 2mm), also visible on back face of wall for full height of wall.	F	Heavy corrosion of bracket connecting seawall and groyne. Crack through top of wall at centre of the panel (2m x 2mm), also visible on back face of wall for full height of wall. Horizontal crack in left of rear wall, 2mm thick. Large patches of abrasion. Cracks and voids along the connection between upper and lower panel. Sealant in mixed condition.	F	Photo 1066 Photo 1067 Photo 1068
G26	Horizontal crack extends from G27, 1.5m into wall (2mm wide)	F	Horizontal crack extends from G27, 1.5m into wall (2mm wide). Voids along the connection between upper and lower panel.	F	Photo 1069 Photo 1070 Photo 1071

G27	N/A	F	Large hole due to abrasion between G27/G28. Voids along the connection between upper and lower panel. Abrasion in the lower panel.	F	Photo 1072 Photo 1073 Photo 1074
G28	N/A	F	Repair patches in mixed condition. Historic repairs in mixed condition. Voids along the connection between upper and lower panel. Abrasion in the lower panel. Minor abrasion top left of rear wall.	F	Photo 1075 Photo 1076
G29	Crack through top of wall at centre of the panel (2m x 2mm), also visible on back face of wall for full height of wall. Diagonal crack on rear face of, 0.5m in length (3mm wide) from the boundary go G30/29 at the top of the wall.	F	Crack through top of wall at centre of the panel (2m x 2mm), also visible on back face of wall for full height of wall. Diagonal crack on rear face of, 0.5m in length (3mm wide) from the boundary go G30/29 at the top of the wall. Holes due to abrasion between G30/29, in middle section. Voids along the connection between upper and lower panel. Abrasion in the lower panel.	F	Photo 1077 Photo 1078 Photo 1079
G30 (includes slipway)	Crack through top of wall at centre of the panel (2m x 2mm), also visible on back face of wall for full height of wall. Slipway wall abraded – Monitor.	F	2 weep holes. Flap valve with no cover. Slipway wall has previous patch repair. Crack through top of wall at centre of the panel (2m x 2mm). Crack 3mm thick along slipway wall. Multiple partially repaired hairline cracks through top and rear of wall at the centre. Some loss up to 5mm deep and wide.	F	Photo 1080 Photo 1081 Photo 1082 Photo 1083
G31 (includes slipway)	Crack through top of wall at centre of the panel (2m x 2mm), also visible on back face of wall for full height of wall. Slipway	F	Flap valve on wall. Slipway crack running across top face, crack on slipway wall measures 1m x 5mm. Repair has been made between G31/G32. Crack through top and rear of wall at centre of the panel (2m x 2mm).	F	Photo 1084 Photo 1085 Photo 1086 Photo 1087
G32 (includes slipway)	Crack through top of wall at centre of the panel (2m x 2mm), also visible on back face of wall for full height of wall. Slipway.	F	Slipway horizontal joint heavy abrasion. Crack across top face of slipway. Gaps in joints on slipway. Crack through top and rear of wall at centre of the panel (2m x 2mm) - surface loss associated.	F	Photo 1088 Photo 1089 Photo 1090 Photo 1091

					Photo 1092 Photo 1093
G33 (includes slipway)	Crack through top of wall at centre of the panel (1m x 2mm). Vertical crack in slipway seawall (2m x 2mm), also visible on back face of wall for full height of wall, diagonal cracks in slipway seawall (2m x 2mm).	F	Flap valve on seawall and slipway wall. Crack through top of wall at centre of the panel (1m x 2mm). Vertical crack in slipway seawall (2m x 2mm). Diagonal cracks in slipway seawall (2m x 2mm). Heavy abrasion at top edge of slipway. Vertical crack to right of outlet pipe in rear wall, 2mm thick.	F	Photo 1094 Photo 1095 Photo 1096 Photo 1097
G34 (includes slipway)	Abrasion at horizontal joint at boundary of G43/G33, vertical crack on back face of wall for full height of wall (2mm wide).	F	Gap between G34/G35 joint. Flap valve in seawall. Patch repairs have been made to slipway wall along crack. Repair on top of slipway. Hairline crack in rear wall, right of centre, 500mm long.	F	Photo 1098 Photo 1099 Photo 1100 Photo 1101 Photo 1102
G35	N/A	F	Repairs made to joint between upper and lower panel. Repairs made to G35/G36 joint.	F	Photo 1103 Photo 1104
G36	Horizontal crack 1m above toe through width of panel. Abrasion at horizontal joint at boundary G36/ G37 and also on top of wall.	F	Horizontal crack 1m above toe through width of panel, thickness 4mm. Abrasion at horizontal joint at boundary G36/ G37 and also on top of wall.	F	Photo 1105 Photo 1106 Photo 1107 Photo 1108
G37	Abrasion at horizontal joint at boundary G37/ G38.	F	Horizontal crack 1m above toe through width of panel, thickness 2mm. Flap valve without cover.	F	Photo 1109 Photo 1110
G38	Lowest beach levels in this area. Hair line vertical crack from the valve down to the middle joint (1.5m x 1mm), abrasion along top of wall and missing sealant on top of wall	F	Vertical crack from the valve down to the middle joint (1.5m x 1mm). Flap valve without cover. Some surface spalling on top of wall, some repaired, right side repair cracked.	F	Photo 1111 Photo 1112 Photo 1113 Photo 1114
G39	N/A	F	Abrasion between G39/G40 joint at bottom of upper panel. Flap valve without cover.	F	Photo 1115 Photo 1116
G40	Horizontal crack (2mm)	F	Two flap valves without	F	Photo

	wide) from G41 extending 2m, branching off.		cover located in upper and lower panel. Abrasion at G40/G41 joint on lower panel, and on top. Horizontal crack (2mm wide) from G41 extending 2m, branching off.		1117 Photo 1118
G41	Vertical crack on back face of wall for full height of wall (2mm wide).	F	Flap valve without cover.	F	Photo 1119 Photo 1120 Photo 1121
G42	Abrasion at horizontal joint at boundary G42/G43 (0.4 x 0.4m), vertical crack on back face of wall for full height of wall (2mm wide).	F	Abrasion at G42/G43 joint at bottom of upper panel. Flap valve with cover. Repairs rear left side (500 x 200mm), hairline crack through top rear wall.	F	Photo 1122 Photo 1123 Photo 1124 Photo 1125 Photo 1126
G43	Crack through top of wall at centre of the panel (2m x 2mm), also visible on back face of wall for full height of wall. Historic mortar repair at the boundary 43.44 has fallen off	F	Crack through top of wall at centre of the panel (2m x 2mm). Flap valve without cover. Abrasion at G43/G44 joint on bottom of upper panel.	F	Photo 1127 Photo 1128 Photo 1129
G44	Minor abrasion boundary 43/44 and 44 / 45, abrasion on top of wall.	F	Flap valve with no cover. Abrasion at G44/45 joint on bottom of upper panel. Abrasion and loss at top right side of rear wall (500 x 500 x 100mm).	F	Photo 1130 Photo 1131 Photo 1132
G45	Abrasion on top of wall	F	Abrasion on top and lower sections. Cracks and voids along the connection between upper and lower panel. Sealant in mixed condition. Holes due to abrasion between G30/31, in middle section.	F	Photo 1133 Photo 1134 Photo 1135 Photo 1136
G46	Abrasion on top of wall	F	Abrasion on top and lower sections. Cracks and voids along the connection between upper and lower panel. Sealant in mixed condition. Holes due to abrasion between G30/31, in middle section.	F	Photo 1137 Photo 1138 Photo 1139 Photo 1140
G47	N/A	F	Abrasion on top and lower	F	Photo

			sections. Cracks and voids along the connection between upper and lower panel. Sealant in mixed condition. Holes due to abrasion between G31/32, in middle section.		1141 Photo 1142 Photo 1143
G48	Minor abrasion 47/46. Abrasion on top of wall	F	Minor abrasion 47/46. Abrasion on top of wall. Visible water stain through horizontal joint, although the tide had been out for some time. Voids along the connection between upper and lower panel.	F	Photo 1144 Photo 1145 Photo 1146 Photo 1147
G49	Previous repair boundary 48/49 – monitor, abrasion on top of wall	F	Previous repair boundary G48/49 – monitor, abrasion on top of wall. 2 weep holes in the lower panel. Voids along the connection between upper and lower panel.	F	Photo 1148 Photo 1149 Photo 1150 Photo 1151
G50	Minor abrasion boundary 49/48 and 49/50	F	Minor abrasion boundary 49/48 and 49/50 Cracks and voids along the connection between upper and lower panel. 2 weep holes in the lower section. Top left side of rear wall – crack (500 x 20mm) – at least 50mm deep.	F	Photo 1152 Photo 1153 Photo 1154 Photo 1155 Photo 1156
G51	Abrasion G49 / 50 (0.5m x 0.25)	F	Abrasion G49 / 50 (0.5m x 0.25m). Cracks and voids along the connection between upper and lower panel.	F	Photo 1157 Photo 1158 Photo 1159
G52	Concrete abrasion G51/52 (0.5 x 0.5m), and G51/50 (0.75 x 0.75m), abrasion of top of wall.	F	Concrete abrasion G51/52 (0.5 x 0.5m), and G51/50 (0.75 x 0.75m), abrasion of top of wall. Cracks in previous repairs. Voids along the connection between upper and lower panel.	F	Photo 1160 Photo 1161 Photo 1162
G53	Horizontal and diagonal crack at the top of the wall at boundary with G53. Abrasion at boundary 0.5 x 0.5m and on top of wall	F	Horizontal and diagonal crack at the top of the wall at boundary with G53. Abrasion at boundary 0.5 x 0.5m and on top of wall. Voids along the connection between upper and lower panel. General abrasion in	F	Photo 1163 Photo 1164 Photo 1165

			the lower panel.		
G54	Abrasion at the boundary of G53/54 (0.75 x 0.25m)	F	Abrasion at the boundary of G53/54 (0.75 x 0.25m). Sealant in mixed condition. Historical repair between G53/52. Abrasion in lower section. Surface abrasion on top, and loss at rear top right side (400 x 300 x 100mm). Crack top left rear side (1m x 50mm) – at least 100mm deep.	F	Photo 1166 Photo 1167 Photo 1168 Photo 1169 Photo 1170 Photo 1171 Photo 1172
G55	Abrasion at the junction G54/G53 (0.75 x 0.25m), horizontal crack through the width of wall, at lower section (5mm x width), abrasion on top of wall	F	Abrasion at the junction G54/G53 (0.75 x 0.25m), horizontal crack through the width of wall, at lower section (5mm x width), abrasion on top of wall. Sealant in mixed condition. Abrasion in lower section. Heavy corrosion of bracket connecting seawall and groyne.	F	Photo 1173 Photo 1174 Photo 1175 Photo 1176 Photo 1177
G56	Abrasion at the junction G55/56 (0.75 x 0.25m), extensive abrasion on top of wall.	F	Large plant growth can be observed. Visible water stains through horizontal joint, although the tide had been out for some time. Abrasion at the junction G55/56 (0.75 x 0.25m), extensive abrasion on top of wall. Abrasion patch in middle section in boundary between G55/56. Voids along the connection between upper and lower panel.	F	Photo 1178 Photo 1179 Photo 1180
G57	N/A	F	Extensive abrasion on top of wall. Cracks and voids along the connection between upper and lower panel. Repair patch in boundary between G56/57. Voids along the connection between upper and lower panel.	F	Photo 1181 Photo 1182 Photo 1183 Photo 1184
G58	Abrasion on top of wall	F	Extensive abrasion. Repairs evident on the LHS (top). Spalling of joints evident. Some sealant repaired (LHS bottom & RHS top).	F	Photo 1185 Photo 1186 Photo 1187 Photo

					1188
G59	Abrasion on top of wall.	F	Recent repair at G58/G59 joint bottom of upper panel and older repair at G59/G60 joint bottom of upper panel. Flap valve without cover.	F	Photo 1189 Photo 1190 Photo 1191
G60	Horizontal crack at base section through width of panel (5mm / full width). Vertical crack through the top of wall (2mm x 2m), also visible on back face of wall for full height of wall. Abrasion at the joint between G60/61.	F	Horizontal crack at base section through width of panel (5mm / full width). Vertical crack through the top of wall (2mm x 2m). Flap valve with no cover. Hairline crack in centre of rear wall and top, surface spalling on top.	F	Photo 1192 Photo 1193 Photo 1194
G61	Abrasion on top of wall.	F	Two flap valves with no cover. Repairs at G60/61 and G61/62 joints bottom of upper panel. Minor abrasion on top.	F	Photo 1195 Photo 1196 Photo 1197
G62	Abrasion on top of wall.	F	Large repair has been made LHS upper panel 2m x 0.3m. Flap valve without cover. Severe abrasion to top of wall, with large loss at top left (500 x 500 x 150mm). Repair top right side.	F	Photo 1198 Photo 1199 Photo 1200 Photo 1201 Photo 1202
G63	Abrasion at boundary G63/64 0.3 x 0.5m.	F	Repair to G62/G63 joint 0.3x0.4m between upper and lower panels on RHS. Flap valve without cover. Horizontal cracks on rear wall.	F	Photo 1203 Photo 1204 Photo 1205 Photo 1206
G64	Abrasion at boundary G64/65 - sealant to solve, abrasion on top of wall.	F	Older repair visible on LHS of upper panel. Flap valve without cover. Abrasion at G64/65 joint. Extensive abrasion to top of wall, mostly repaired with some cracks to repairs.	F	Photo 1207 Photo 1208 Photo 1209 Photo 1210
G65	Abrasion at boundary G64/65, abrasion on top of wall	F	Flap valve missing from drainage outlet. Extensive abrasion evident. Repair evident on LHS central section. Damage evident on RHS central section.	F	Photo 1211 Photo 1212 Photo

			Spalling on construction joints. Damage on top RHS of wall, repaired but with large loss (500 x 500 x 100mm).		1213
G66	Abrasion on top of wall.	F	Repair to LHS, minor edge cracking/spalling. Centre joint sealant loss and some surface spalling at base and on top of wall.	F	Photo 1214 Photo 1215
G67	Abrasion at boundary G67/66 (0.5m x 0.5m), small horizontal crack through top of wall from G68 (1m long, 1mm wide), abrasion on top of wall	F	2 x flap valves missing. Extensive abrasion evident. Spalling on construction joints. Central joint - RHS damage, LHS repaired. Top LHS evidence of repaired cracks. Both LHS and RHS sealant joints in poor condition. Crack left top (2m x 100 x 100) extending to a hairline crack.	F	Photo 1216 Photo 1217
G68	Crack below repair carried out in 2014 – 3m long (1mm wide) abrasion top of wall	F	Flap valve missing. Large repair evident on top LHS – minor bulging evident. Large cracking on LHS of bottom panel. Extensive abrasion. Spalling on construction joints. Sealant missing from both LHS & RHS. Central repairs on RHS intact.	F	Photo 1218 Photo 1219 Photo 1220
G69	Abrasion on top of wall	F	Flap valve missing. Extensive abrasion evident. Repair (central) LHS intact. Sealant missing or damaged on LHS & RHS. Spalling on central joint. Abrasion to top of wall, repair left side (300 x 500mm).	F	Photo 1221 Photo 1222 Photo 1223 Photo 1224
G70	Abrasion on top of wall	F	Previous repair – needs monitoring. Extensive abrasion evident on front and top. Central repair on RHS is intact. Damage to LHS central joint in need of repair. Sealant missing or damaged on LHS & RHS. Spalling on central joint. Damage to right side of rear wall, previous repair failed (approx. 600mm wide).	F	Photo 1225 Photo 1226 Photo 1227 Photo 1228
G71	Abrasion at boundary of G70/71 and G71/72 (both 0.3 x 0.3m)	F	Flap valve missing. Extensive abrasion evident on front and top. Damage to old repairs on both LHS & RHS of central joint. Sealant missing or damaged on LHS	F	Photo 1229 Photo 1230 Photo 1231

			& RHS.		
G72	Abrasion at boundary G72 / 71 and G72 / 73 (750 x 750). Mortar repair. [Sealant repair of LHS joint, 2m]	F	Surface loss at LHS joint (750 x 750mm)	F	Photo 1232 Photo 1233
G73	N/A	F	Flap valve missing. Spalling on construction joints. Extensive abrasion evident front and top. Damage to RHS of central joint. Damage to existing repair of LHS of central joint. Sealant missing or damaged on LHS & RHS.	F	Photo 1234 Photo 1235 Photo 1236 Photo 1237
G74	Abrasion at the boundary of G74/G75. Sealant RHS joint and mortar. 2m sealant, 1.5m x 0.75m mortar	F	Large loss at LHS joint (1500 x 750 x 25mm). Sealant loss centre joint. Surface spalling at base. Abrasion on top of wall.	F	Photo 1238 Photo 1239
G75	See G74	F	2 outfalls: 1 flap valve missing, 1 heavily corroded/damaged. Extensive abrasion evident. Spalling of the horizontal joint Central joint both LHS (existing repair) & RHS both damaged. Some evidence of sealant repairs, but some sealant missing or damaged on both LHS & RHS.	F	Photo 1240 Photo 1241 Photo 1242
G76	Vertical crack through top of wall to the valve, also visible on back face of wall for full height of wall. Previous repair at boundary G76/77 – monitor. Sealant repair of RHS joint, 3.5m. [Sealant repair of LHS joint, 1.5m]	F	Repair failed at surface of LHS joint (750 x 750 x 5mm). Sealant loss along centre. Surface spalling at base. Crack in rear wall at centre, 3mm wide.	F	Photo 1243 Photo 1244 Photo 1245
G77	N/A	F	Extensive abrasion evident. Evidence of old repair LHS central joint. RHS of central joint is damaged in need of repair. Sealant missing or damaged on both LHS & RHS. Minor abrasion on left rear wall, 200mm long hairline crack at centre.	F	Photo 1246 Photo 1247 Photo 1248
G78	Abrasion at the boundary of G78/79 (0.5 x 0.3m) and top of wall. Sealant repair of RHS joint, 3.5m. [Sealant	F	Some sealant loss on centre joint. Surface spalling at base. Outlet cap missing. Minor abrasion on top of wall.	F	Photo 1249 Photo 1250

	repair of LHS joint, 1m]				
G79	Abrasion at boundary of G79/80 and G79/78 (both 0.4 x 0.4m) and top of wall	F	Extensive spalling on horizontal joint. Flap valve missing. Extensive abrasion evident on front and top of wall. Central joint both LHS & RHS are damaged and in need of repair. Sealant missing or damaged on both LHS & RHS.	F	Photo 1251 Photo 1252 Photo 1253
G80	Abrasion at boundary G80/79 (0.4x0.3m) and top of wall. Sealant repair of RHS joint [and LHS joint], 3m	F	Cracks in LHS repairs (750 x 750 x 5). Spalling in centre joint and surface loss at RHS (6000 x 20 x 10). Surface spalling at base. Missing outlet cap. Sealant loss LHS. Abrasion on top of wall.	F	Photo 1254 Photo 1255 Photo 1256
G81	Previous repair to be monitored at boundary of G81/82 and abrasion on top of wall	F	Spalling of the horizontal joint. Extensive abrasion evident on front and top of wall. Flap valve missing. Sealant missing or damaged on both LHS & RHS. Evidence of previous repairs on both LHS & RHS of horizontal joint.	F	Photo 1257 Photo 1258 Photo 1259 Photo 1260
G82	Abrasion at boundary G82/83 by valve. Sealant repair of RHS joint and LHS joint (3m) and mortar repair at RHS (1000 x 750).	F	Abrasion/spalling along base surface and along centre. Deep loss at LHS joint at outlet (1500 x 1000 x 25mm).	F	Photo 1261 Photo 1262
G83	See G82	F	Small flap valve missing (large flap valve intact). Abrasion evident on front and top of wall. Spalling of the horizontal joint. Evidence of previous repairs on LHS of horizontal joint. RHS of horizontal joint between G82/83 heavily spalled.	F	Photo 1263 Photo 1264 Photo 1265
G84	Sealant repairs LHS and RHS	F	Sealant loss LHS, repair okay, spalling along centre joint (4000 x 10 x 10mm).	F	Photo 1266 Photo 1267
G85	N/A	F	Flap valve heavily corroded and stuck open. Evidence of previous repairs on both LHS & RHS of horizontal joint. Some abrasion evident on front and top of wall. Spalling of the horizontal joint. Sealant missing or damaged on both LHS & RHS.	F	Photo 1268 Photo 1269 Photo 1270 Photo 1271

G86	Monitor previous repair at boundary of G86/87. Sealant repairs RHS (1m) and LHS (2m) joints.	F	Large spalling and surface hole at G86/87 LHS joint (1000 x 400 x 200). Missing outlet grills. Spalling along centre joint.	F	Photo 1272 Photo 1273
G87	N/A	F	Evidence of repair on LHS. Flap valve missing. Spalling of the horizontal joint. Sealant missing or damaged on both LHS & RHS. Evidence of previous repairs on LHS of horizontal joint. RHS of horizontal joint between G82/83 heavily spalled. Some abrasion evident.	F	Photo 1274 Photo 1275
G88	Abrasion at boundary of G88/89 (0.5 x 0.2m). Sealant repair of RHS joint, 2m. LHS joint good	F	Large loss at LHS boundary (1000 x 300 x 150mm). Spalling of concrete rusted outlet.	F	Photo 1276 Photo 1277
G89	N/A	F	Top half of stair case. Some abrasion evident. Stairs and handrail in fair/good condition. Sealant missing or damaged both behind and on RHS of stairs. Some spalling of the horizontal joint.	F	Photo 1278 Photo 1279
G90	Sealant repair RHS joint (2m) and LHS joint (1m)	F	Sealant loss at LHS joint (2m), very rusted post removed from steps.	F	Photo 1280 Photo 1281 Photo 1282 Photo 1283
G91	N/A	F	Flap valve is heavily corroded and stuck in a closed position. Evidence of previous sealant repairs. Minor spalling on the horizontal joint. Toe of section buried by beach and cliff material.	F	Photo 1284
G92	N/A	F	N/A	F	Photo 1285
G93	N/A	F	Evidence of previous sealant repairs – (RHS). Bottom section almost completely buried by beach and cliff material. Some abrasion evident. (Note – Wall is notably thin at this location retained by concrete/sand bags)	F	Photo 1286 Photo 1287

General Notes about Section: Section G is a recurve seawall. There is superficial abrasion on the lower bottom panels throughout Section G. A large proportion of upper panels have minor vertical cracks through their centres which also appear through the rear of the wall. Generally, there is abrasion damage where the vertical and horizontal joints meet, some of these abrasion patches have been patch repaired. There has been new sealant given to the vertical joints, however this is missing from the bottom half of the lower panels. There are a few panels where cracks appear horizontally through the lower panels.

Promenade

Section	2015 Royal HaskoningDHV		2017 AECOM		Photo Ref.
	Visual Inspection Damage Description	Condition VP / P / F / G / VG	Visual Inspection Notes	Condition VP / P / F / G / VG	

Note: the 2015 Royal HaskoningDHV inspection report used a different numbering system from the established system for the promenade in Section G. Rather than numbering every promenade slab (construction joint to construction joint) the numbering has been based on the seawall panel numbers.

The 2017 AECOM inspection uses the system of every promenade panel having a number, as used in the 2012 report and as has been used throughout every other section in the survey. To provide a comparison of the 2015 results these have been converted into the 2017 AECOM numbering system.

N.B. It should be noted that the 2015 Royal HaskoningDHV inspection report uses a differing method for identifying the sections of the promenade in G, using the alignment with the rear wall rather than by slab and as has been assessed in the previous report. AECOM has assessed this area per slab as with the format of the rest of the report for simplicity. To accurately compare the 2015 Royal HaskoningDHV report's descriptions of this section, their observations may in placed in a differing section to that of the 2015 report.

This may mean that an observation from the 2015 Royal HaskoningDHV report is duplicated as it covers multiple slabs.

G1	N/A	G	3 no. utility covers	G	Photo 1288
G2	N/A	G	N/A	G	Photo 1289
G3	N/A	G	Very minor abrasion	G	Photo 1290
G4	N/A	G	N/A	G	Photo 1291
G5	Crack from seawall, perpendicular to sea wall (5m x 2mm)	F	Crack from seawall, perpendicular to sea wall (5m x 2mm)	F	Photo 1292 Photo 1293
G6	N/A	G	N/A	G	Photo 1294
G7	N/A	G	N/A	G	Photo 1295
G8	N/A	G	N/A	G	Photo 1296
G9	N/A	G	N/A	G	Photo 1297

G10	N/A	G	N/A	G	Photo 1298
G11	N/A	G	N/A	G	Photo 1299
G12	N/A	G	N/A	G	Photo 1300
G13	N/A	G	N/A	G	Photo 1301
G14	N/A	G	N/A	G	Photo 1302
G15	N/A	G	Right joint repair 1.5m long. Cracking front right.	G	Photo 1303 Photo 1304
G16	N/A	G	N/A	G	Photo 1305
G17	N/A	G	N/A	G	Photo 1306
G18	N/A	G	N/A	G	Photo 1307
G19	N/A	G	N/A	G	Photo 1308
G20	N/A	G	N/A	G	Photo 1309
G21	N/A	G	N/A	G	Photo 1310
G22	N/A	G	N/A	G	Photo 1311
G23	N/A	G	N/A	G	Photo 1312
G24	N/A	G	N/A	G	Photo 1313
G25	N/A	G	N/A	G	Photo 1314
G26	N/A	G	Hairline crack 1.5m perpendicular from seawall	G	Photo 1315
G27	N/A	G	N/A	G	Photo 1316
G28	N/A	G	N/A	G	Photo 1317
G29	N/A	G	N/A	G	Photo 1318
G30	N/A	G	N/A	G	Photo 1319
G31	N/A	G	N/A	G	Photo 1320

G32	N/A	G	N/A	G	Photo 1321
G33	N/A	G	N/A	G	Photo 1322
G34	N/A	G	N/A	G	Photo 1323
G35	N/A	G	N/A	G	Photo 1324
G36	N/A	G	N/A	G	Photo 1325
G37	N/A	G	Crack parallel to wall, full width of slab in middle, 2mm wide	G	Photo 1326
G38	N/A	G	Crack parallel to wall, full width of slab in middle, 2mm wide	G	Photo 1327
G39	N/A	G	N/A	G	Photo 1328
G40	N/A	G	Hairline crack half width of panel, middle right side	G	Photo 1329
G41	N/A	G	N/A	G	Photo 1330
G42	N/A	G	Minor damage to middle, 5mm width	G	Photo 1331
G43	N/A	G	N/A	G	Photo 1332
G44	N/A	G	N/A	G	Photo 1333
G45	N/A	G	N/A	G	Photo 1334
G46	N/A	G	Section covers two thin slabs, with 2mm wide crack in right slab through full width.	G	Photo 1335 Photo 1336
G47	Crack parallel to seawall, 2m long (2mm wide)	F	3mm wide crack in middle, half slab width, previous repair made	F	Photo 1337 Photo 1338
G48	Full width cracks 5m from seawall, parallel to seawall (2mm wide) and 4m from seawall, parallel to wall (3mm wide)	F	Crack 4m from the wall, parallel to the wall, 4mm wide	F	Photo 1339 Photo 1340
G49		F	Crack parallel to wall, in middle of slab, full width of slab, 4mm wide	F	Photo 1341 Photo 1342
G50	Full width crack 4m from seawall, parallel to wall (2mm wide), circular	F	Crack parallel to wall, in middle of slab, full width of slab, 4mm wide	F	Photo 1343 Photo

	crack at road				1344
G51		F	Crack parallel to wall, in middle of slab, full width of slab, 4mm wide. Patch repair made to rear of slab (1m x 800mm).	F	Photo 1345 Photo 1346
G52	N/A	G	Patch repair made to rear of slab	G	Photo 1347
G53	N/A	G	N/A	G	Photo 1348
G54	N/A	G	N/A	G	Photo 1349
G55	N/A	G	N/A	G	Photo 1350
G56	N/A	G	N/A	G	Photo 1351
G57	N/A	G	N/A	G	Photo 1352
G58	N/A	G	N/A	G	Photo 1353
G59	N/A	G	N/A	G	Photo 1354
G60	N/A	G	N/A	G	Photo 1355
G61	N/A	G	N/A	G	Photo 1356 Photo 1357
G62	N/A	G	N/A	G	Photo 1358
G63	N/A	G	N/A	G	Photo 1359
G64	N/A	G	N/A	G	Photo 1360
G65	N/A	G	N/A	G	Photo 1361
G66	N/A	G	N/A	G	Photo 1362
G67	N/A	G	N/A	G	Photo 1363
G68	N/A	G	N/A	G	Photo 1364
G69	N/A	G	N/A	G	Photo 1365
G70	N/A	G	N/A	G	Photo 1366
G71	N/A	G	Hairline crack half width of slab	G	Photo 1367

G72	Full length crack 4m from the wall, parallel to the wall (2mm wide)	G	2mm wide crack in middle of slab, full width of slab	F	Photo 1368
G73		G	2mm wide crack in middle of slab, full width of slab. Cracking around inserted streetlamp.	F	Photo 1369
G74	N/A	G	2mm wide crack in middle of slab, full width of slab	G	Photo 1370
G75	N/A	G	N/A	G	Photo 1371
G76	N/A	G	N/A	G	Photo 1372
G77	N/A	G	N/A	G	Photo 1373
G78	N/A	G	N/A	G	Photo 1374
G79	N/A	G	N/A	G	Photo 1375
G80	N/A	G	N/A	G	Photo 1376
G81	N/A	G	N/A	G	Photo 1377
G82	N/A	G	N/A	G	Photo 1378
G83	N/A	G	N/A	G	Photo 1379
G84	N/A	G	N/A	G	Photo 1380
G85	N/A	G	N/A	G	Photo 1381
G86	N/A	G	N/A	G	Photo 1382
G87	N/A	G	N/A	G	Photo 1383
G88	N/A	G	N/A	G	Photo 1384
G89	N/A	G	N/A	G	Photo 1385
G90	N/A	G	N/A	G	Photo 1386
G91	N/A	G	N/A	G	Photo 1387
G92	N/A	G	N/A	G	Photo 1388
G93	N/A	G	N/A	G	Photo 1389
G94	N/A	G	N/A	G	Photo

					1390
G95	N/A	G	N/A	G	Photo 1391
G96	N/A	G	N/A	G	Photo 1392
G97	N/A	G	N/A	G	Photo 1393
G98	N/A	G	Surface cracks where streetlight has been placed	F	Photo 1394
G99	N/A	G	N/A	G	Photo 1395
G100	N/A	G	N/A	G	Photo 1396
G101	N/A	G	N/A	G	Photo 1397
G102	N/A	G	N/A	G	Photo 1398
G103	N/A	G	N/A	G	Photo 1399
G104	N/A	G	N/A	G	Photo 1400
G105	N/A	G	N/A	G	Photo 1401
G106	N/A	G	N/A	G	Photo 1402
G107	N/A	G	N/A	G	Photo 1403
G108	N/A	G	N/A	G	Photo 1404
G109	N/A	G	N/A	G	Photo 1405
G110	N/A	G	N/A	G	Photo 1406
G111	N/A	G	N/A	G	Photo 1407
G112	N/A	G	N/A	G	Photo 1408
G113	N/A	G	N/A	G	Photo 1409
G114	N/A	G	N/A	G	Photo 1410
G115	N/A	G	N/A	G	Photo 1411
G116	N/A	G	N/A	G	Photo 1412
G117	N/A	G	N/A	G	Photo 1413

G118	N/A	G	Surface cracks where streetlight has been placed	F	Photo 1414
G119	N/A	G	N/A	G	Photo 1415
G120	N/A	G	N/A	G	Photo 1416
G121	N/A	G	N/A	G	Photo 1417
G122	N/A	G	N/A	G	Photo 1418
G123	N/A	G	N/A	G	Photo 1419
G124	N/A	G	N/A	G	Photo 1420
G125	N/A	G	N/A	G	Photo 1421
G126	N/A	G	N/A	G	Photo 1422
G127	N/A	G	N/A	G	Photo 1423
G128	N/A	G	N/A	G	Photo 1424
G129	N/A	G	N/A	G	Photo 1425
G130	N/A	G	N/A	G	Photo 1426
G131	N/A	G	N/A	G	Photo 1427
G132	N/A	G	N/A	G	Photo 1428
G133	N/A	G	N/A	G	Photo 1429
G134	N/A	G	N/A	G	Photo 1430
G135	N/A	G	N/A	G	Photo 1431
G136	N/A	G	N/A	G	Photo 1432
G137	N/A	G	N/A	G	Photo 1433
G138	N/A	G	N/A	G	Photo 1434
G139	N/A	G	N/A	G	Photo 1435
G140	N/A	G	N/A	G	Photo 1436

G141	Perpendicular crack through length of prom from wall	F	Surface cracks where streetlight has been placed, and further cracks over drainage pipe.	F	Photo 1437
G142		F	Crack over where outlet drainage pipe has been placed, perpendicular to slab for full length of slab (5mm wide)	F	Photo 1438
G143	N/A	G	N/A	G	Photo 1439
G144	N/A	G	N/A	G	Photo 1440
G145	N/A	G	N/A	G	Photo 1441
G146	N/A	G	N/A	G	Photo 1442
G147	N/A	G	N/A	G	Photo 1443
G148	N/A	G	N/A	G	Photo 1444
G149	N/A	G	N/A	G	Photo 1445
G150	N/A	G	N/A	G	Photo 1446
G151	N/A	G	N/A	G	Photo 1447
G152	N/A	G	N/A	G	Photo 1448
G153	N/A	G	N/A	G	Photo 1449
G154	N/A	G	N/A	G	Photo 1450
G155	N/A	G	N/A	G	Photo 1451
G156	N/A	G	N/A	G	Photo 1452
General Notes about Section: The promenade is generally in good condition, with little spalling or abrasion and few cracks, which are minor. There was no observed displacement of the slabs or extensive erosion or structural damage.					

1.8 Groynes – Concrete

Groynes - Concrete				
Groyne number	Groyne Material	Visual Inspection Notes	Condition VP / P / F / G / VG	Photo Ref.
1	Concrete	Gaps below the groyne slabs where sediment level has dropped. A 'fill step' – a concrete fill below the original groyne structure to deal with lower material level – is in place only in the upper section of the groyne. Groyne attached to seawall via rusted bracket, with stone build up on one side. A fill step is beneath connection.	F	Photo 1453 Photo 1454 Photo 1455 Photo 1456
2	Concrete	Gaps between groyne and sediment at lowest three slabs, and top two. Minor cracking and spalling of some slabs. Gap between topmost pile and foundation (where sediment dropped)	F	Photo 1457 Photo 1458 Photo 1459
3	Concrete	Fill step in place at lower section of groyne. Gaps below groyne in centre. Big gap below connection to seawall, mass concrete slab in rusted bracket.	F	Photo 1460 Photo 1461 Photo 1462
4	Concrete	Beach profile low – fill step throughout. Concrete slab missing at second bottom section – appears to have sheared off and fallen out on beach. Some construction joint gaps between pile and fill step. Connection to seawall exposed at base, bracket rusted. Low beach profile throughout.	F	Photo 1463 Photo 1464 Photo 1465 Photo 1466
5	Concrete	Very low beach profile. Fill step for most sections, with caps below the groyne and fill step in the lower sections. Some gaps in construction joints between piles and fill step. Mass concrete fill into rusted bracket for connection to seawall – no gaps below here. Larger/higher fill step – possibly to replace missing concrete slab.	F	Photo 1467 Photo 1468 Photo 1469 Photo 1470
6	Concrete	Fill step for lower and middle sections. Gaps between sediment level and groyne at upper sections.	F	Photo 1471 Photo 1472 Photo 1473 Photo 1474
7	Concrete	Minor spalling on top of concrete slabs. Beach sediment level has dropped throughout, and the concrete slabs are suspended between the piles. With gaps below the groyne throughout. Beacon is tilted and very rusted but not imminently failing.	F	Photo 1475 Photo 1476 Photo

				1477
8	Concrete	There is minor cracking/spalling to top of concrete slabs. One of the concrete slabs is missing in middle section. Beach profile is okay, there are no gaps and bottom of groyne is buried throughout.	F	Photo 1478 Photo 1479 Photo 1480 Photo 1481
9	Concrete	One topmost concrete slab is missing, with damage to other top slabs. Overall groyne is functioning, with beach sediment higher on one side.	F	Photo 1482 Photo 1483
<p>General Notes about Section: Generally, the concrete slabs have minor cracking and spalling. Two concrete slabs are missing throughout all the groynes. The beach profile appears to have dropped from when the groynes were originally installed. Gaps between bottom of groynes and beach level have been filled with a 'fill step' – a concrete fill below the original groyne structure to deal with lower material level, although some gaps were still observed. The connections to the seawall are heavily corroded, but intact. The markers at the end of the groynes are also corroded but appear structurally sound.</p>				

1.9 Groynes – Timber

Groynes - Timber				
Groyne number	Groyne Material	Visual Inspection Notes	Condition VP / P / F / G / VG	Photo Ref.
10	Timber	Zig-zag groyne. Some vertical sheeters missing. End marker pile appears stable. There are a few vertical sheeters missing throughout the groyne. On lower half there are large rocks are present on both side of the groyne (appear to have been placed). In upper part of groyne there is a higher proportion of vertical sheeters with severe necking. On the upper part of the groyne there are some waling beams missing. Some vertical sheeters appear to have been replaced at some point as condition varies in adjacent bays. Piles in good condition.	P/F	Photo 1484 Photo 1485 Photo 1486 Photo 1487 Photo 1488
11	Timber	Zig-zag groyne, with permeable sheeters. The landward end of the groyne is buried by beach material and the connection to the seawall was not visible at the time of the survey. Some rock protection around the 10 seaward (zig-zag) bays. All the piles are intact and in a fair condition, although showing some evidence of abrasion (necking). All waling beams appear intact although there is a lot of marine growth on them and some evidence of abrasion. Many of the vertical sheeters are missing and those that are still intact are showing evidence of abrasion (necking) and rotting connections and marine growth. The marker post is in a fair condition, where the post/support appears to be stable, but there is corrosion evident. There is a marginal build-up of material on the south side of the groyne.	P/F	Photo 1489 Photo 1490 Photo 1491

12	Timber	Zig-zag groyne, with permeable sheeters. The landward end of the groyne is buried by beach material and the connection to the seawall was not visible at the time of the survey. Some rock protection around the 7 seaward (zig-zag) bays. All the piles are intact and in a fair/good condition, although showing some evidence of abrasion (necking), particularly at the landward end. There is also evidence of minor scour around some of the seaward piles. All waling beams appear intact although there is a lot of marine growth on them and some evidence of abrasion. Some of the vertical sheeters, (particularly at the seaward end) are missing and those that are still intact are showing evidence of abrasion (necking) and rotting connections and marine growth. The marker post is in a poor/fair condition, where the post/support appears to be stable, but there is a lot of corrosion evident. The beach levels appear the same on either side of the groyne.	P/F	Photo 1492 Photo 1493 Photo 1494
13	Timber	Zig-zag groyne, with permeable sheeters. The landward end of the groyne is buried by beach material and the connection to the seawall was not visible at the time of the survey. Some rock protection around the 4 seaward (zig-zag) bays. All the piles are intact and in a fair condition, although showing some evidence of abrasion (necking), particularly at the landward end, and some rotting holes. Some waling beams are missing and those that remain have a lot of marine growth on them and show some evidence of abrasion. Some of the vertical sheeters are missing and those that are still intact are showing evidence of abrasion (necking) and rotting connections and marine growth. The marker post is in a poor/fair condition, where the post/support appears to be stable, but there is a lot of corrosion evident. The beach levels appear the same on either side of the groyne. An outfall was also observed in the groyne bay between groynes 12 and 13.	P/F	Photo 1495 Photo 1496 Photo 1497 Photo 1498
14	Timber	Zig-zag groyne, with permeable sheeters. The landward end of the groyne (20-30m) is buried by beach material and the connection to the seawall was not visible at the time of the survey. Some rock protection around the 8 seaward (zig-zag) bays. Some of the piles are missing (at least 3 near the toe), those that remain intact and in a fair condition, although showing some evidence of abrasion (necking), particularly at the landward end, and some rotting holes and marine growth. There is also some evidence of local scour around some piles. Some waling beams are missing (at least 2 near the toe) and those that remain have a lot of marine growth on them and show some evidence of abrasion. Some of the vertical sheeters are missing and those that are still intact are showing evidence of abrasion (necking) and rotting connections and marine growth. The marker post is in a poor/fair condition, where the post/support appears to be stable, but there is some corrosion evident. The beach levels appear the same on either side of the groyne. A small historic groyne was also observed in the groyne bay between groynes 13 and 14.	P/F	Photo 1499 Photo 1500 Photo 1501
15	Timber	Zig-zag groyne, with permeable sheeters. The landward end of the groyne (approx. 20m) is buried by beach	P/F	Photo 1502

		material and the connection to the seawall was not visible at the time of the survey. Some rock armour evident at the toe but buried if present further up the groyne. Most of the piles are intact, although at least 2 have snapped near the toe, those that remain intact and in a fair/poor condition, with some evidence of abrasion (necking), particularly at the landward end, and some rotting holes and marine growth. Some waling beams are missing and those that remain have a lot of marine growth on them and show some evidence of abrasion. Some of the vertical sheeters are missing and those that are still intact are showing evidence of abrasion (necking) and rotting connections and marine growth. The marker post is in a fair/good condition, where the post/support appears to be stable, with only limited corrosion evident. The beach levels appear the same on either side of the groyne, however, there is also some evidence of scour around the groyne structure. A small historic groyne was also observed in the groyne bay between groynes 15 and 16.		Photo 1503 Photo 1504
16	Timber	Zig-zag groyne, with permeable sheeters. The landward end of the groyne (approx. 20m) is buried by beach material and the connection to the seawall was not visible at the time of the survey. Some rock armour evident at the toe but buried if present further up the groyne. Most of the piles are intact, although some have snapped near the toe, those that remain are in a fair condition, although there is some evidence of abrasion (necking), particularly at the landward end, and some rotting holes and marine growth. There is also some evidence of local scour around some piles. The waling beams appear to be intact but have a lot of marine growth on them and show some evidence of abrasion. Some of the vertical sheeters are missing and those that are still intact are showing evidence of abrasion (necking) and rotting connections and marine growth. The marker post is in a fair/good condition, where the post/support appears to be stable, with only limited corrosion evident. The beach levels appear similar on either side of the groyne, but the beach levels are notably better here.	P/F	Photo 1505 Photo 1506 Photo 1507 Photo 1508
17	Timber	End marker diagonal strut had become disconnected from the end of the groyne and was loose. Top section of groyne covered by beach level. Some necking throughout vertical sheeters with heavier necking noticeable in lower part, severe in places. 1 vertical sheeter is missing. Waling beams and piles in good condition.	P/F	Photo 1509 Photo 1510 Photo 1511 Photo 1512
18	Timber	No missing vertical sheeters. Some necking to the vertical sheeters throughout the groyne, but heavier in the lower part. In the upper part of the groyne the beach level buries the groyne for approximately 3 bays. Waling beams and piles in good condition. End marker pile appears stable.	P/F	Photo 1513 Photo 1514 Photo 1515 Photo 1516 Photo 1517
19	Timber	Zig-zag groyne. Top 3 bays are below beach level. Some necking of vertical sheeters throughout, heavier necking	P/F	Photo 1518

		of vertical sheeters in middle and lower parts of the groyne. Only one missing vertical sheeter in lower section. Waling beams and piles in good condition. End marker pile appears stable, although some necking around beach level.		Photo 1519 Photo 1520 Photo 1521
<p>General Notes about Section: All the timber groynes are zig-zag type. Generally, the vertical sheeters have signs of necking, with the lower half of the groynes having heavy/severe necking. Some of the groynes have a large number of vertical sheeters missing, there are also some waling beams missing throughout. The piles however are generally intact and appear to be in fair condition, there is no rotation of the groyne that would indicate the piles might be structurally unsound (the condition of the piles is the primary reason the grade is Poor/Fair rather than just Poor). The marker posts have corrosion evident but appear stable, although on Groyne 17 the diagonal strut has become disconnected from the end of the groyne and is loose.</p>				