


2, 3

e 3

1 ~~XXXXXXXXXX~~

CE~ • c|æ|æEÄ-É-| | &æ|á O , | |É~ } • É^á~Éæ~
2 V [] \ä } ÁÉÁVæ^ | [!ÁQ } c^! } æcá [] } æ|ÉÁCE~ & \ |æ } áÉÁP^ , ÁZ^æ|æ } áÁ

21  V@^Á ^çâ•câ} *A •^æ, æ||Á -æ&^Á ~} â^| | ^â} *A c@^Á ! [æâÁ is comprised of stepped concrete block layers Çâ} &| ~ââ} *A æÁ ! ^&~'iç^âÁ &æ}] â} *A à [&\ DÉÁ , âc@Á æ} Á â} ââ&æcâç^Á ! [æâD&!^•cÁ | ^ç^Á [-Á ÉJÉÍÁ m above New Z^æ|æ} ââX^!câ&æ|Á Öæc { ^Çæ } ! [çÉÁ { ^æ} Á •^æÁ | ^ç^Á DÉÁ V@^Á] |æ} çç^, ^&~'içæc~'i^Á [-^c@^Á, æ||Á, æ•^â^!ç^âÁ-! [{ ^ c@^Á ÖÖTÁæ} âÁ ~sed to align the overall 120 m of modelled section into the nearshore bathymetry.

ÇæDÁQâ^} çâ-â&æcâ [] ^Á [-^c@^Áâ} ââçââ~æ|Á& [] &!^c^Áâ| [&\ |æ^~'!•Á [-Á the existing seawall

âæc@^ { ^c|^Á•~'i-æ&^Á^çc^} ââ} *Áiâ* @cÁ~] ^c [^c@^Á•^æ, æ||Á face. The modelled concrete slabs at the toe of the •^æ, æ||Á, ^!^Á•^&~'i^âÁâ}] |æ&^Á [ç^!^c@^Áâæc@^ { ^c|^Á with localised infill based on review of the provided hi-!^• [| ~câ [] ^æerial photography and DEM.

3  **31** 

Yæç^Á•Á, ^!^Á { ^æ•~'i^âÁ, ~•â} *A &æ} æ&æcæ}&^-type, æç^Á] ! [â^•ÉÁ•æ {] | ^ââæcâ ÍÉJÁP : Áç] ! [c [^] ^Á •&æ|^D æ} ââc@^ }] ! [&^••^âÁ•~•â} *Ác@^Á | ^æ•cÁ•~•æ!^Á { ^c@ [âÁ â^•&!â^âÁ à^Á Tæ} •æ!âÁ æ} âÁ Ø~ } \ ^Á ÇFJÍÉDÁ c [^Á separate and interpret incident and reflected waves.

ÇÉÁc [çæ|Á [-Á^â* @cÁçÍDÁ, æç^Á] ! [â^•Á, ^!^Áâ} •cæ||^âÁâ} ^c@^Á -| ~ { ^Á c@! [~* @ [~cÁ c^•câ} *ÉÁ Two nearshore wave probes were positioned in front of the seawall and t, [^Á •^c•Á [-Á HÁ] ! [â^Á æ!iæ^Á ÇHÚCEDÁ, ^!^Á â} •cæ||^âÁ ~'iç@^!Á [-~• @ [! ^ÉÁæ }] ! [çâ { æc^! ^Á G€€Á { ^Áæ} âÁ Í€€ m -! [^Á c@^Á c [^Á [-Á c@^Á ^çâ•câ} *A •^æ, æ||Áæ} âÁ ~•^âÁ - [! ^Á wave climate calibration and reflection analysis [2].

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Çç^!æ^Á, æç^Á [ç^!c []] â} *A iæc^Á, ^!^Á { ^æ•~'i^âÁ ~•â} *Áæç [| ~ { ^c!â&^æc&@^c!æ~^â} •cæ||^âÁ | ^Á, æ!âÁ [-^c@^Á •^æ, æ||D; [æâÉÁ• [^c@æc^c@^Ác [çæ|Áç [] ~ { ^Á [-Á [ç^!c []] â} *A æc^!Á, æ•^æ&æ] c~'i^âÁæ} ââc@^ } ^æç^!æ^ÁâÁ [ç^!^c@^Á^c^•cÁ â~'iæcâ [] ÉÁ

Øâ*~'i^ 9 T [â^Á | ^ç^!c []] â} *A •^c~]

Øâ*~'i^ | Overview of completed nearshore model bathymetry zones and seawall

Ö!âcâ&æ|Á | ^ { ^ } c•Á •~ &@Áæ•Ác@^Á•c^] Á [-~•^cÁ à^c, ^ ^ } Á ^æ&@Á |æ~'i^Áæ} âÁ c@^Á c [] Á | ^&~'iç^Á, ^!^Á â} &| ~ â^Á c [^ ^ } •~'i^Á æ&&~'iæc^Á { [â^| | â} *A [-Á [ç^!c []] â} *A processes when waves impact the seawall.

The model of the seawall was assembled within the ~| ~ { ^Á æ} âÁ â} c^*iæc^âÁ, âc@â} Á c@^Á } ^æ!• @ [! ^Á bathymetry area prior to the final [| ~!Áæ} âÁ•@æ] â} *A of the bathymetry capping, allowing for a seamless

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Øi*~|^ 10 Crown wall section with load cells

$V @ \wedge \acute{A} c \wedge \bullet c \acute{A}] ! [* ! \acute{x} \{ \acute{A}] ! \wedge \acute{a} [\{ \acute{a} \} \acute{x} \} c | \wedge \sim [\& \sim \bullet \wedge \acute{a} \acute{A} [] \} \acute{A} \sim [\sim ! \acute{A} \acute{a} \sim \wedge ! \wedge \} c \acute{A} c \wedge \bullet c \acute{A} \& [] \acute{a} \acute{a} c \acute{a} [] \bullet \acute{A} \acute{x} \bullet \acute{A} \bullet \sim \{ \{ \acute{x} ! \acute{a} \bullet \wedge \acute{a} \acute{a} \} \acute{A}$ Table 1.

Table 1 Modelled Wave Conditions

D	B	H _s (m)	T _p
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1 2 3 4 5 6 7 8 9 10 11 12
Ú@^•i&æ|{ [â^|î} *Á[-Á&[{]|^øÁ[ç^|c[]]â} *Á-| [, •ÁæcÁ @æ~ Ú[â]cÉÁSæá\ ~|æÁæ} áÁá^ç^| [] { ^} cÁ[-Á { áç*æcá[]} Á { ^æ•~| ^•
Flocard, F., Deiber, M., Shand, T.S., Knook, P. and Proctor, S.

Øä*~|^ 13 Q||~•c|æcá[]Á[-Á•]æcæ|Áçæ|æä|äc^Á[-Áovertopping
ç^øä•cä} *Á&[]-ä*~|æcá[]Á- ØFD

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1 2 3 4 5 6 7 8 9 10 11 12
Ú@^•i&æj{ [â^|è} *Á[-Á&[{]|^çÁ[ç^!c[]è} *Á-| [, •ÁæcÁ @æ~ Ú[è] cèÁSæè\ ~!æÁæ} áÁá^ç^| [] { ^} cÁ[-Á { áç*æcç[] } Á { ^æ•~|/•
Flocard, F., Deiber, M., Shand, T.S., Knook, P. and Proctor, S.