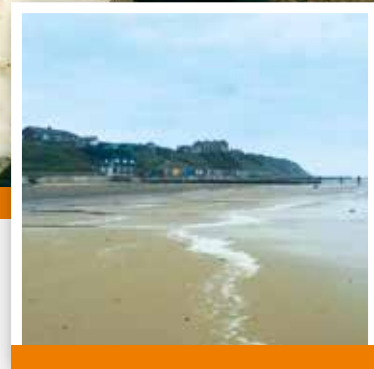


Mundesley

Coastal Management Scheme Proposal



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Mundesley Coastal Management Scheme seeks to:

- Deliver the Shoreline Management Plan policy for Mundesley over the next 50 years
- Stop cliff erosion where possible and continue to slow the rate of losses elsewhere
- Manage and maintain the beach

The scheme must:

- Work within the Shoreline Management Plan policies
- Work within the National Flood and Coastal Risk Management Guidance in order to get government funding
- Not create negative impacts to other parts of the coast
- Be able to obtain necessary consents and approvals e.g. Planning, Marine, Environment Agency
- Be deliverable within the funding available

From this information we would like you to:

- Be informed of what is being proposed
- Provide any feedback to help refine the proposal or overcome possible issues
- Be aware of what will happen next
- Think about how the community can contribute to the scheme to help make it happen

Update on progress

Earlier in the year, a shortlist of possible coastal management approaches and options was presented to the village. This information is available at www.north-norfolk.gov.uk. Since the event, these options have been explored further alongside any comments received.

As expected, it is clear that any single type of defence will not work across the whole frontage. There is already a mix of defence types at Mundesley and this will continue to be the case in the future.

There are many ways different defence types could be deployed. The shortlisted selection of possible defence types and scenarios was assessed with consideration to the following:

- ▶ **Technical assessment, including public safety (Will it work?)**
- ▶ **Environmental consideration (Is it acceptable?)**
- ▶ **Financial viability (Can we afford it?)**

This process used engineering judgment and knowledge of the coast to help identify a preferred set of defence options, which was then further refined. This refined proposal is what is presented today, although some of the detail will need to be developed further if it is progressed.

Existing defences

Section A

- ▶ Timber Revetments
- ▶ Timber Groynes

Section B

- ▶ Concrete Block Revetments
- ▶ Timber Groynes

Section C

- ▶ Seawall
- ▶ Timber Groynes
- ▶ Rock Armour



PROPOSAL

Section A

Stockpile rock armour to infill, protect and, over time, replace the timber revetment.

- Rock is robust with a long residual life
- Rock could be positioned in front of, behind or to infill the timber revetment
- Rock can be moved to where it is needed
- Rock has low maintenance costs

Section B

Additional rock to support concrete block revetment structure

- The concrete blocks have worked well over the years
- Rock placed in front of and potentially behind the existing structure will support and enhance it for the future
- As the metal frame fails, this can be removed where required

Section C

Refurbish sea wall aprons (part of foundations) and sea-wall facings where necessary.

- Will bring all the sea walls up to a good condition

Refurbishment of the sea-wall deck (promenade) between the Beach Café and the Ship Inn.

- Will bring all the sea walls up to a good condition and reduce damage during storm events
- Provides an opportunity to improve pedestrian access

Install scour protection above the sea wall between the Manor Hotel and the Beach Café.

- Will limit the likelihood of loss of the cliff toe behind the sea wall, as has been previously experienced.

Placement of rock armour at the base of the sea wall in front of the Anglian Water infrastructure.

- The rock will provide additional protection to the infrastructure where beach levels are historically low

Potential enhancement opportunities include improving pedestrian and vehicular access to the beach.

- The pedestrian access from the sea wall to the beach at the old lifeboat slipway can be difficult, particularly when beach levels are low; installing new metal beach steps would ensure a good level of access is maintained
- Widening some of the access ramps, such as that from the sea wall to the beach below the Manor Hotel, would improve access for both maintenance vehicles and emergency services

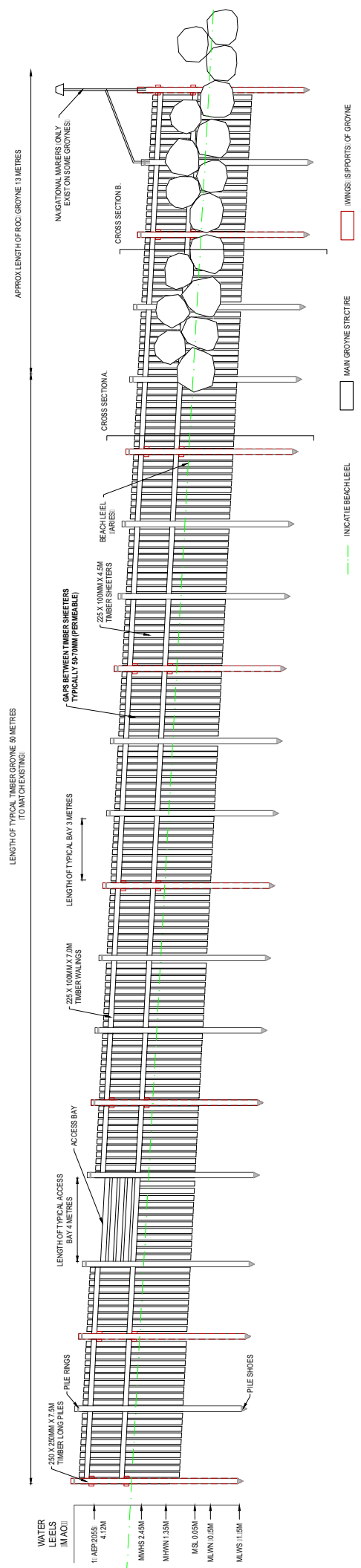
Sections A B C

Refurbish each of the timber groynes (allowing for 30% new timbers) and add rock protection to the seaward end.

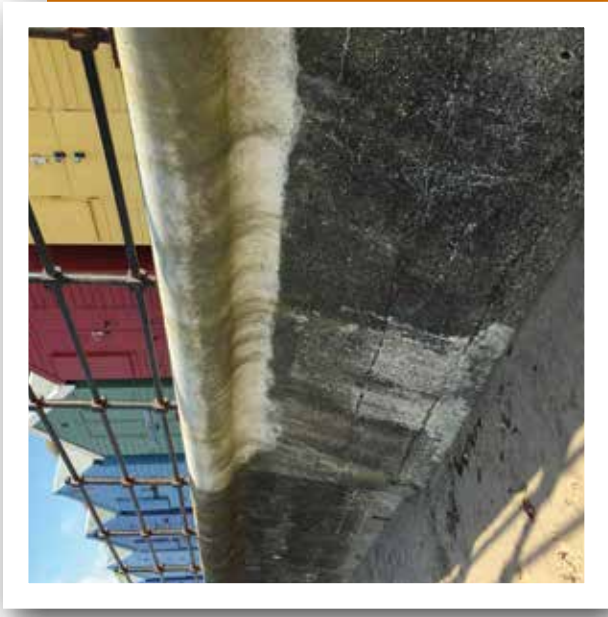
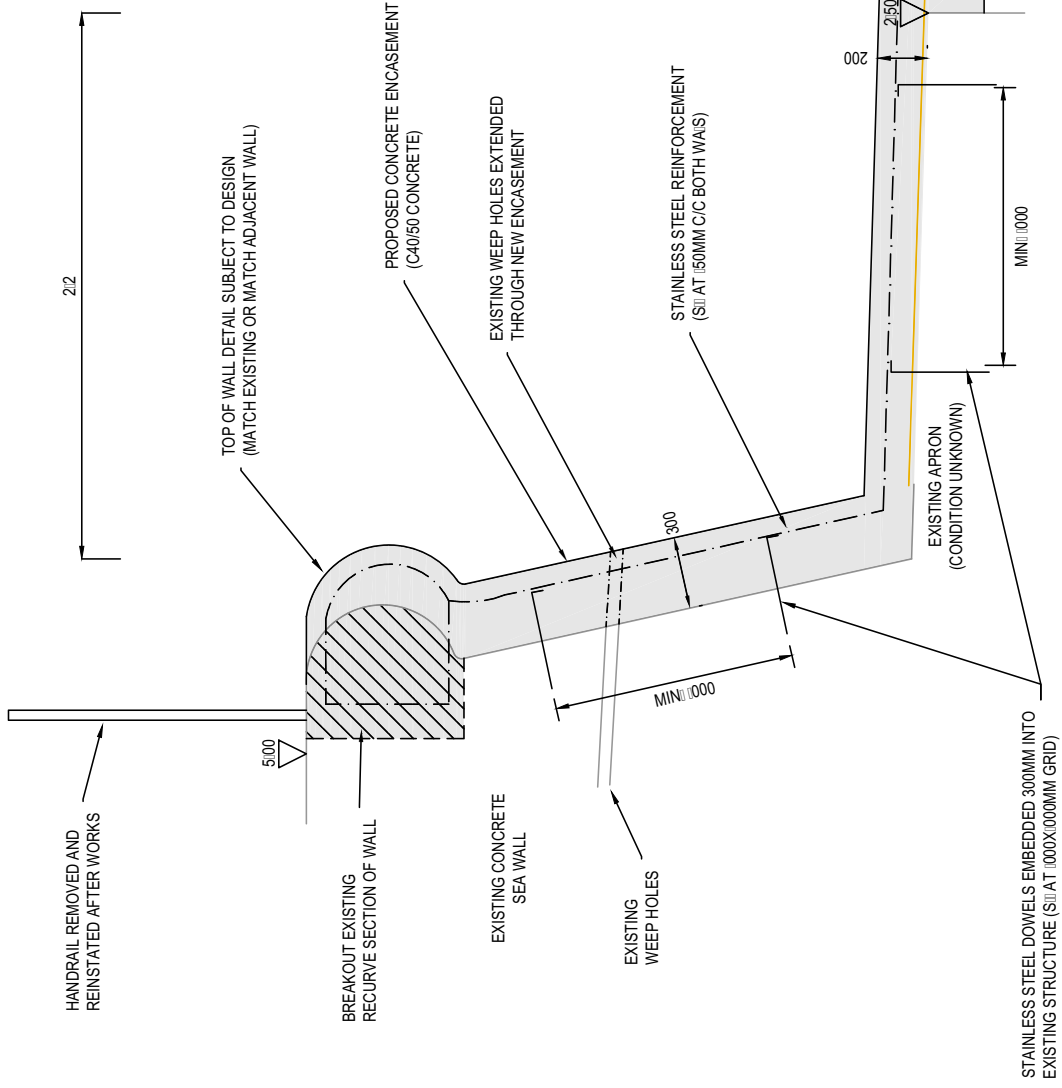
- The groynes have worked well and are environmentally accepted
- Their continued maintenance will help to limit the loss of beach material and maintain levels
- The seaward ends are exposed to the most wear and tear from the sea, rock will help to make them last longer

The following pages show example drawings of proposed defences

Hybrid Groyne



Seawall & Apron Encasement

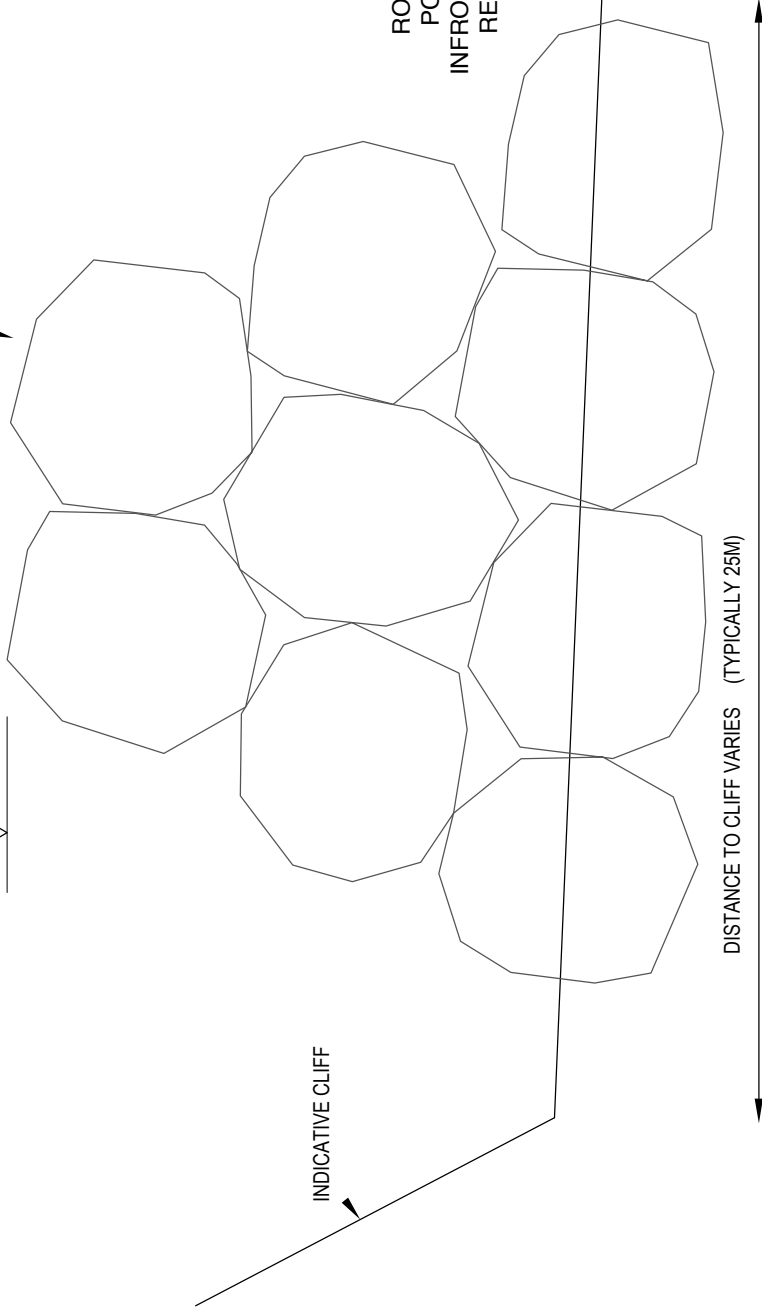


Rock Protection Behind Timber Revetments



PROPOSED ROCK PROTECTION 1000-3000KG
INDICATIVE ARRANGEMENT AND SIZING SHOWN

5.40 mAOD



INDICATIVE CLIFF

ROCK CAN BE
POSITIONED
INFRONT OR BEHIND
REVETMENTS

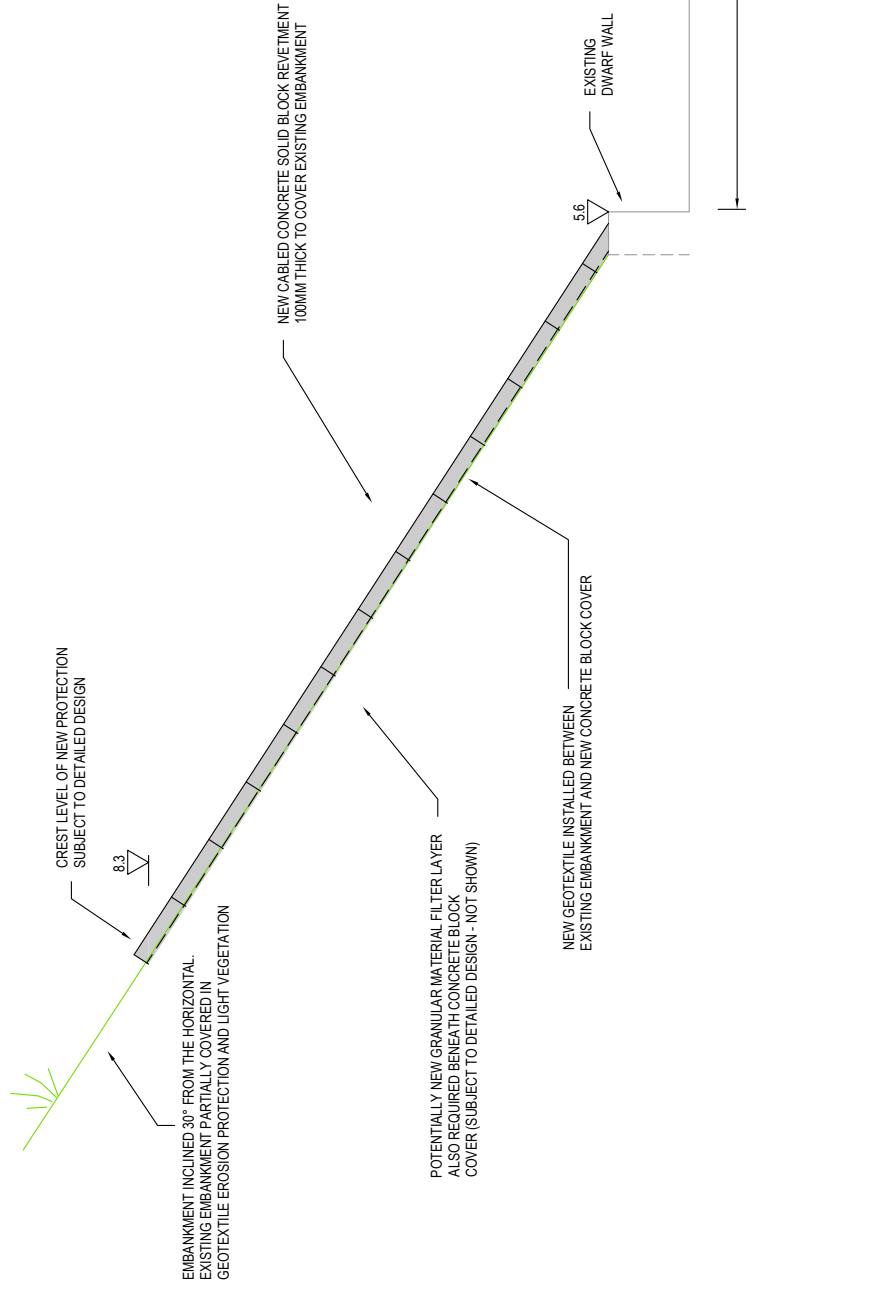
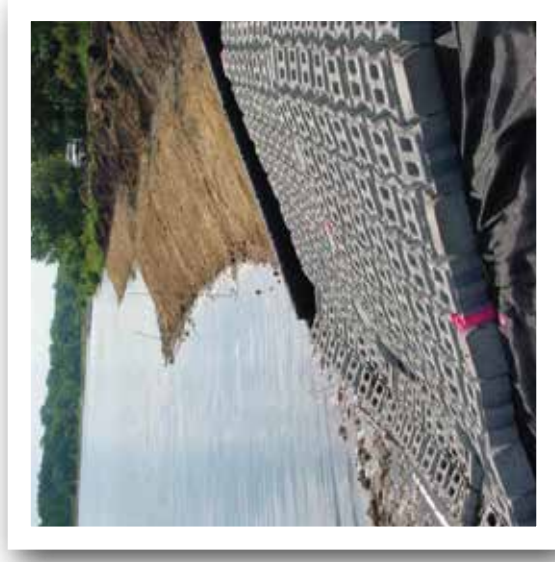
EXISTING TIMBER REVETMENT

4.95 mAOD

BEACH LEVEL
(VARIES)

2.40 mAOD

Concrete Block Embankment Scour Protection



Cost and funding

It is estimated that the cost of the proposed works will be £3 million. It is estimated that the scheme could qualify for just over £2.25 of government funding from DEFRA, via the Environment Agency if other contributions can be identified.

North Norfolk District Council has already confirmed a contribution of over £300,000 towards the scheme. Mundesley Parish Council has confirmed a contribution, subject to conditions, of approximately £20,000. Further funds are being sought from Anglian Water.

Alternatively if the required level of contributions cannot be found, the scope of the scheme could be reduced, although this is not the favoured approach.

Contributions from the local community, visitors and businesses are important not only in seeking funds for the scheme but also in showing local support, which will help with the application for DEFRA funding. The Council is keen

to identify a local community group who could lead or assist North Norfolk District Council with championing local fund raising, this could be through a 'Just Giving' webpage.

In-kind contributions would be welcome. These could be supporting any planning application, sending letters of support or providing free use of private beach access points.

What happens next?

Following this event, any comments will be considered and reported to the Scheme Local Liaison Group. If there is sufficient support and the funding is identified, an Outline Business Case will be finalised and submitted to the Environment Agency in order to seek approval for government funds.

If this is successful, we can progress to complete the detailed designs, seek the necessary consents and permissions and begin to select a contractor to complete the works.



Contact details



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www.north-norfolk.gov.uk www.coasteast.org

Credits

AECOM for indicative drawings

AECOM Scour protection photograph

NNDC All other photographs

Environment Agency aerial photograph