FEASIBILITY REPORT FOR FOOTPATH AT WHALE CHINE, CHALE

FEASIBILITY REPORT
WHALE CHINE FOOTPATH,
CHALE, ISLE OF WIGHT

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Date: 22 April 2009
Reference: 7110/APT
Status: REVISION 0

Contents

1 INTRODUCTION

1.1 Instructions were received from Isle of Wight Council rights of Way section to undertake an assessment of the factors with respect to re-establishing the public footpath and steps down Whale Chine to the shore.

1.2 This assessment has been undertaken by A P Traves BSc CEng MIStructE MIHT

1.4 The Client's attention is drawn to the Conditions and Limitations within Appendix C of this report.

2 BACKGROUND

2.1 The footpath is currently closed and has been closed since 1999 due to loss of ground, supporting elements of the path, loss of timber step structures and ongoing rapid cliff erosion and slippages.

2.2 It is very desirable to re-establish a serviceable path but this must be balanced against the capital cost and the likely lifespan of the new works and of the residual path sections and remaining timber steps.

2.3 The footpath provides pedestrian access down to Brighstone Bay for able bodied pedestrians. The nearest alternative access is Shepherds Chine some 2.5km to the west.

2.4 The Chine is a steep sided gorge, about 45m deep at the mouth, and some 500m long, cut into soft ferruginous sands with clay towards the base at the mouth of the chine

2.5 Prior to closure the footpath comprised some remaining timber steps down the western face of the chine about 50m from the main coastal cliff face. The next 30m section of timber steps have been lost. The footpath then crossed over the chine on a timber footbridge which became compromised by erosion and the remaining elements have had to be removed. The footpath then passed down the eastern side of the chine bottom and out on to the shore. The chine has suffered significant erosion to the bed and both sides back to the old footbridge position. The WWII concrete tank defence that was located immediately downstream of the footbridge has partially dropped with the remainder teetering on the edge of the eroded 'basin' below.

2.6 It is clear that the only realistically possible route down to the shore is now to continue down the western side of the chine and around the bluff where the chine face opens out to the main cliff face, then down the sparsely vegetated scree slope to the top of the landslip block forming the lower cliff terrace. From here the path would need to continue down the western side of the chine mouth to the chine bottom where it meets the shore.

2.7 Despite being closed members of the public are still climbing down the chine to the shore and persons unknown have installed a rope to assist passage on the steeper parts of the upper slope.

3 GEOLOGY AND STABILITY

3.1 Most of the chine comprises soft, loose orange/brown ferruginous sands with occasional thin 'hard pan' bands (broken heavily jointed sandstone). The top of the cliff comprises a shallow strata of gravel. At the base of the cliff, below the old footbridge crossing, a grey sandy clay is exposed.

3.2 The sands are only very nominally cemented and are readily excavated by hand. The sands are in effect soil rather than rock and save for the friction between individual particles do not have any effective strength beyond the ability to self support at this natural angle of friction (probably about 40°). It is only the very weak cementing and hardpan bands that allow the cliffs and chine walls to remain standing at steeper angles in the shorter term. There are several erosive processes at work:

- Wind and rain/general weathering: in itself not particularly rapid but allows near surface soils to gradually degrade and soften until the point where these can no longer self-support and sudden local area block failure occurs. This is generally relatively small scale but invariable leads to changes in stress in adjacent soil faces which may subsequently fail shortly after. The generic shape of the cliff profile gives a general indication of the relative hardness of each strata.
- Groundwater egress: the groundwater level will vary throughout the year and from year to year depending on the weather at the time. Increases in groundwater increase the bulk weight of the soils supported and tend to lubricate any potential movement by reducing frictional resistance. Increases in groundwater therefore tend to have a double effect by simultaneously increasing instability forces and decreasing internal resistance forces. The effects also tend to get focused where the more permeable sand overlays the sandy clays towards the base of the cliff. On the cliff face at the base of the more permeable sands the water pressures cannot be balanced by the water pressure in the 'missing' adjacent piece of saturated sand and consequently gradually blow off or erode the sand strata at the cliff face where it overlays the clay. This tends to gradually undercut the overlying sands and trigger a larger fall from above.
- Wave action: The cliffs in this area are not defended and the base of the cliffs are continually being eroded and undercut. At the chine, in recent years, wave action has washed out the front section of the bed of the chine. The channel bed and sides of the chine are now subsequently regressing to try and achieve a new equilibrium or balance position. Wave action is however ongoing and it is readily apparent that this is the governing form of erosion that will influence what can be done in respect of the footpath,
- Secondary movement: as the cliff faces erode by weathering, loose material collects at the base of the cliff as a scree or talus slope. This material has lost any cementation it had and is literally a slope of loose sand and hardpan rock pieces sat on the lower cliff terrace and lower parts of the chine walls. This soil will

generally sit at or near its natural self supporting angle (approx 40º). Vegetation will help bind the surface and help resist erosion. These areas are however prone to occasional slides due to gradual accumulation of new material from above, erosion from surface water run-off due to rain etc and slippage due to undercutting or loading by man ie trying to cut a terrace into the slope which removes the material supporting that immediately upslope, or trying to form a terrace by adding more material on to that below. Whilst a small cut or banked terrace may be appear stable when constructed failure is not always dynamic and may take the form of a slower 'flow' or creep down slope.

3.3 With respect to wave action PPS25 which relates to flood risk assessment, including tidal action requires that developments take climate change into account. This includes a precautionary rise in sea level of 1.1m over the next 100 years and an increase in storm wave height of 10% above existing storms. These two factors must be compounded and taken to act concurrently. It is not possible to predict the occurrence and severity of storms but PPS25 in effect puts a value to the long-term trend. Similarly it is not possible to forecast which areas of the chine wall or chine mouth will erode at what exact rate and date. Historic data on rates of cliff recession in the area does provide a base point to which climate change effects could be added. Historic recession rates will only be of general guidance use for long-term land loss for farmers fields etc and cannot be used to predict at what date a timber structure perched right on the chine face and chine mouth will need to be taken out of service as a precautionary measure.

3.4 Overall there is no real choice of route and new path structures could be lost on the next storm, next year, 5 years etc because of their required proximity to the active erosion face. In re-establishing a path in this position IWC will need to accept the financial risk of losing the path again (and it's capital investment). Also IWC and users would need to accept the risk of the path being lost while in use. There is also a risk of the path being buried by a slide of scree material. With reference to 3.2 and 3.3 the chine is in a very active segment of the erosion and regression cycle, and climate is also considered to become wetter with more severe wind, rain, waves and increase in sea levels. The risk to the reinstated path and structure cannot be quantified in terms of lifespan as the lifespan is likely to be short and is unpredictable. The logic should be that because lifespan is probably going to be short the capital invested should be low. It should ne noted that if reinstating the path is worth investing in now then logically it would be worth repeating after it next fails as the drivers will remain the same. So hypothetically this order of capital commitment may be needed every few years.

4 SAFETY ISSUES

4.1 There are four types of safety issue:

- Construction issues ie how can the works be safely built
- Operational issues ie what risks will the finished works leave users exposed to
- Maintenance issues ie how can the facility be safely maintained and inspected
- Emergency access issues ie what options are here for alternative beach access

4.2 Construction issues: (see also 6.4)

- Stability:

  Risk of material falling from above. The risk varies dependent on whether the face is near vertical and material may drop onto personnel, or more inclined where material may roll, bounce or slide onto personnel. It is also dependent on the likely size, weight and height of fall or momentum/kinetic energy of particles ie a few grains of sand, a bouncing rock or a fall of 1 tonne (500 litres) of soil.

  Risk of ground eroding or collapsing below. This depends on the angle of the surface and the actual strength of the soil and how near the natural angle of stability it may be. It also increases significantly closer to the edge of a slope or precipice and increases as the load applied to the soil by men and materials increases.

  Disturbance by cutting, filling and vibration. Light work with hand tools is a lot less likely to initiate movement than more energetic work with mechanised tools

- Working at height and safety of the surface underfoot:

  The site is at considerable elevation with a total cliff height of about 45m. In places the 'available' path route is narrow, on the edge of a steep slope and at or close to the edge. In these locations it is clear that there is no alternative to an earth anchored safety line that workers can clip onto or similar. In other areas this can be relaxed where appropriate.

  When wet the natural soil surface becomes slippery and presents an additional risk.

- Manual handling and access:

  Because of the difficult location and inaccessibility to construction plant most tasks will have to be done by hand or using only light, hand-portable generator powered tools. All materials will generally need to be manhandled to the site so will need to be light and componentised. Helicopter delivery is not viable for two reasons; there is no suitable reception area half way up the cliff; and also it will be cost prohibitive. Materials can either be brought to the cliff top by site vehicle or to the cliff base by boat and then will either need carrying or winching up or down. Carrying down requires less effort but needs means of controlling momentum. Carrying up is more energetic and still needs cut steps etc to avoid losing your footing. Winching down or up is likely to promote the incidence of falling rock and soil and due to the slope angle will probably need guiding by abseilers and possibly some form of skid track. Depending on the nature of the materials, aggregate and small robust components may be able to be dropped down a scaffold refuse shute or similar into a secured 'catch box' etc at the base. Overall it is likely that the only viable option is to manhandle most of the materials and re-establish the route from the top down or bottom up. Material quantities will therefore need to be minimised and the weight of components and required plant kept low.

- Climatic conditions:
  Wind and rain will in particular affect whether it is safe to work. A summer construction period would reduce likelihood of days lost to weather.

4.3 Operational issues:

- Stability: as defined for construction issues
- Proximity to edge and height/angle of potential fall. High risk sections will need to be railed or post and rope to provide handhold and nominal containment.
- Climatic conditions: as defined for construction issues.

4.4 Maintenance issues:

- Stability: as defined for construction issues
- Proximity to edge and height/angle of fall: as defined for operational issues.
- Climatic conditions: as defined for construction issues.

4.5 Emergency access issues:

If the path is re-established use by the emergency services is effectively defined by operational issues. If the path is not re-established the coastguard have an equipped cliff rescue team to facilitate access in this terrain and would assess deployment and location prior to use. Emergency services also have options for boat access by rib and helicopter access. Without the path there is less likelihood of members of the public being on the beach. However in emergency circumstances and given the distance to the next path up the cliff the chine may be the only option to the public in such circumstances.

4.6 There are a two fundamental issues that must be considered. Employees of IWC or of contractors to IWC would be at work on the site and various legislation applies (Health and Safety at Work Act and CDM regulations 2007 to name two) Whilst the stability risks etc are no different to a member of the public or an employee, members of the public using the path would do so voluntarily and thus choose to do so. Employees in effect have no choice. Secondly safety is fundamentally about level of risk. Nothing is risk free, the risks are still there it is just that the likelihoods or consequences are very low so as to not be considered. There is no absolutely safe solution for this site. There is only one realistically possible route to which there will be significant residual stability, falling and climatic risks. There are various relative layman's thresholds in which the relative safety could be judged:

a) The level of risk is similar to that of the remaining flights of steps ie as originally present before closure.
b) The path is being used anyway and any works would only improve the situation and so are reducing the current risks.
c) If IWC were developing a brand new footpath, would what is proposed be considered safe enough?

Whilst the above thresholds appear logical in layman's terms these need some development. (a) May generally be true but the new section of path that will need to run around the bluff between the chine and main cliff face will be at much greater risk of collapse from below due to wave action or secondary collapse. (b) is true in that the risk to any one individual may be reduced compared to the existing risks, however the path is closed at the moment because it is dangerous. Opening a re-established path sanctions and promotes it's use so the total risk is actually likely to increase as the reduction with respect to any individual is likely to be outweighed by the total number of individuals using

the path. Use can be conditioned by warning signs explaining the hazards and a disclaimer that users do so at their own risk. However it is not unreasonable for users to infer that the fact the path is open means it is not considered dangerous. In effect whether the path is open or closed is effectively declaring it safe or dangerous respectively. If the path is dangerous when open IWC are still likely to be considered culpable irrespective of any disclaimer. It is recommended that legal advice is sought from IWC legal section in this respect. (c) is effectively the acid test as if this were being developed as a new path and were considered safe enough for that purpose then logically it is safe enough to re-establish.

4.7 If it is decided the right decision is that the path cannot be re-established then in addition to diverting the route to the nearest possible alternative on a permanent basis, the top flight of steps should be removed as a minimum to prevent casual disregard of the closure signage. There would be no reasonable way pedestrians could construe the route to be open.

5 ENVIRONMENTAL ISSUES

5.1 The chine is in a SSSI (Hanover Point to St Catherine's Point) protected habitat area and geological exposure. The site is also in an AONB. It is therefore important that the disturbance caused by the route and the visual appearance are carefully considered.

5.2 There is precedence for use of timber steps and footbridge from the previous constructions. There is also precedence for concrete materials in the WWII tank defence near the base of the chine.

6 IWC CONSIDERATIONS AND DRIVERS

6.1 IWCROW have a duty to maintain the existing public footpath network, but also have a duty to close unsafe footpaths. Potential works for this site have been considered several times within IWCROW team but has generally revolved around the following cycle:

- What could be done?
- Would it be safe (enough)?
- How long would it last?
- What would it cost?
- Could IWCROW afford it/justify it?

The site works needed to be considered in the context of schemes for other IWCROW sites and with a very limited total departmental budget. Invariably it was clear that there would still be significant safety issues, there was a significant risk the works would not last long (until the next significant cliff fall) and consequently budget could not be justified and the cases for other schemes were much more clear cut and real benefits could be delivered for the investment outlayed. Fundamentally this feasibility report is looking more closely at the main issues so that an informed decision can be made in respect of re-establishing this footpath.

6.2 Despite being closed the footpath is still used. There are a number of factors that are influencing this:

- The route runs directly off the cliff top coastal footpath and the limited routes to Brighstone Bay focus desire lines
- Because there is limited access the beach is very secluded and this is an attraction in it's own right
- The chine has its own car park directly alongside the main coastal road and the chine car park was established because of the path down to the beach

The path and car park are understood to be used regularly by fishermen. Prior to the path closure the route was also used by school groups on fossil hunting field trips.

6.3 The Island is heavily dependent on tourism and renowned for walking and rural countryside/seaside environments. The path also has a high amenity value for recreation use of the beach by locals, and the Parish Council is keen for it to be re-opened.

6.4 Initial enquiries made to local contractors based on the works scoped in this report indicate the following:

Basic works	£60,000
Repair/improve existing stairs	£10,000
Ancillaries (approx 10%)	£ 7,500
Contract documents/supervison/CDM etc	£12,500
Contingency (approx 10%)	£10,000
Budget	£100,000

At this stage it would be prudent to assume a budget of £100,000.

It should noted that during the contractor enquiries the contractors approached expressed a range of different opinions with respect to construction safety and buildability. The conclusion is that safety during construction is very marginal. It is the safety issues that dictate method and have a significant influence on costs.

Given that a large proportion of the works may drop into the sea during the first winter storm value for money is a very significant driver. As discussed in 3.4 the risk to the reinstated path and structure cannot be quantified in terms of lifespan but the lifespan is likely to be short and is unpredictable. The logic should be that because lifespan is probably going to be short the capital invested should be low. It should ne noted that if reinstating the path is worth investing in now then logically it would be worth repeating after it next fails as the drivers would remain the same. So hypothetically this order of capital commitment may be needed every few years. Investment of a large proportion of departmental budget in one scheme is a high risk strategy given the likely short lifespan. There are also several ancillary aspects to investing in a significant scheme.

Were there to be a significant cliff fall in the short-term there is the possibility that the decision to invest may attract negative PR.

Were there to be a significant cliff fall in the short-term there may be a dilemma as to whether to repeat the investment. This issue would reduce as the time between construction and significant erosion/failure/loss increases. It may be prudent to qualify any initial investment on the basis that it is a one off should loss occur quickly, but may be reconstructed if the cost/lifespan ratio at long-term failure indicates a repeat

investment is worthwhile. Without some form of strategy at the outset there is a risk that the route could otherwise become a significant perpetual drain on funds.

7 OPTIONS FOR THE ROUTE AND FOR CONSTRUCTION

7.1 Lengthening the route to take it right down the bottom of the full length of the chine is not viable. Natural England will almost certainly object on grounds of impact. The greatly increased route length under the chine wall make it much more likely that users may get struck/buried by cliff fall so it is more dangerous. Notwithstanding there are no alternate options to get round the bluff.

7.2 Freestanding stairs over the main cliff edge located in front of the main cliff face or cantilevered out the cliff face. This would be an extremely expensive and intrusive scheme. The cliffs are just loosely cemented sand and the whole, approx 30m, flight could be lost in one go. Stairs of this scale would need to be of reinforced concrete or steel construction and would require significant maintenance in the longer term.

7.3 Additional timber stair flights and timber plank steps: Environmentally there is precedence for this. Materials are generally componentised and relatively light suiting access safety considerations. Timber is however unlikely to be suitable to get round the corner of the bluff. People accessing the beach from the chine have already established the most favourable route around the bluff. It is a curved path/shelf no more than 1m wide and as little as 200mm in places, located towards the middle of the scree slope. Where the path rounds the bluff there appears to be a substantial projecting hardpan layer about 3m vertically below path level. Hand augering (or light two man powered fencing auger) 3m through the overlying sands with a 150-200m bore is considered possible. Rock drilling a smaller diameter hole about 150-200mm into the hard pan is also considered possible. Minipiles could then be formed with a 20mm diameter central reinforcing bar keyed into the hardpan with a concrete surround. A 20-30m path length curved with a gradual but variable radius 90º bend would require around 30 such piles in a 1.5m by 1.0m width pitch. Where the existing path shelf narrows to about 200m over about a 5m length piles would need to be extended up from existing ground level with 225mm diameter rigidrain permanent pile shuttering or similar. Pile heads could then be tied with a 100mm concrete slab with A393 to attain group action. The back of the path slab could be turned up for about 600m length to match the slope gradient behind. Metpost or similar fixings could then be used to mount a timber handrail on this section of box section steel posts with bolted steel base plates.
A series of annotated photographs are appended indicating this route 7.3 and a sectional schematic of the concrete piles/deck is also included.

7.4 The key risk aspects to the investment versus lifespan consideration are a substantial cliff fall or slide from above taking out section D or wave action and scour taking out section D from below. There are no cost effective means of addressing the risks from above and the date at which the path could be lost cannot be predicted (see 3.3). From below the erosion risk from wave action can be reduced by depositing a large amount of sizeable rock armour. This would help prop up the base of the ravine and dissipate wave energy. However secondary erosion cycles associated to channel/wall regression resulting from

wave erosion to date cannot be addressed by this method. There are several problems with rock armouring:

- Access: would need to be transported by sea and need a large 360° excavator to also be brought in by sea to handle the racks into the ravine. The excavator is very likely to be required by the contractor to be removed from the beach at the end of each day. Access and transport will therefore be expensive.
- Tidal working: The limitations of tidal working will further increase the cost of such works.
- Quantity of armour: A very significant quantity will be required to provide any measurable improvement in protection. Again this will be very costly.
- Environmental impact: This will significantly change the character of the mouth of the chine and Natural England are very likely to object.

The cost estimate for the works in section 6.4 excludes rock armour. Overall it is clear that rock armour is an unjustifiable in terms of cost risk and would move the whole scheme further from the section 3.4 logic that because lifespan is probably going to be short the capital invested should be low.

8 SUMMARY

8.1 There is really only one route that can be considered. The key issues are:

• Is the engineering feasible?	Yes but construction safety is on the margin
• Will it be safe?	Appreciable residual risks would remain
• How long will it last?	Probably short, unknown ie Gamble on cost
• How much will it cost?	£100,000 estimate

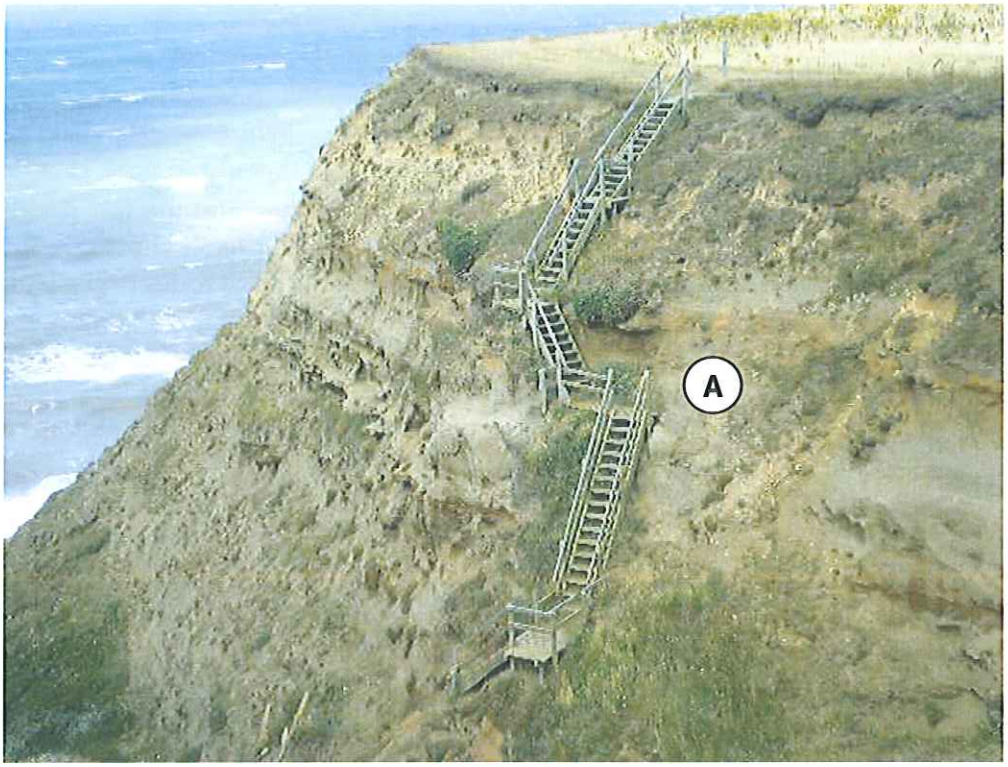
8.2 There are several associated key issues:

- An open path will be considered to be a safe path by the public and disclaimers are unlikely to protect IWC in the event of any accident
- The path reinstatement works will be expensive due to access and safety considerations
- Erosion is very active and will be exacerbated by predicted climate change. The path is therefore only likely to have a short lifespan before significant further replacement may be required
- Rock armour to the base of the ravine is not justifiable in environmental and cost terms.
- The budget cost represents a disproportionate amount of the departmental budget.
- Because the path is unlikely to last long a decision to invest now effectively commits to significant repeated spending on the same asset, unless initial investment is a one off 'gamble' and the cost/lifespan achieved is reviewed at the time of the next significant failure. Notwithstanding this the section F plank steps are likely to be a high maintenance commitment.

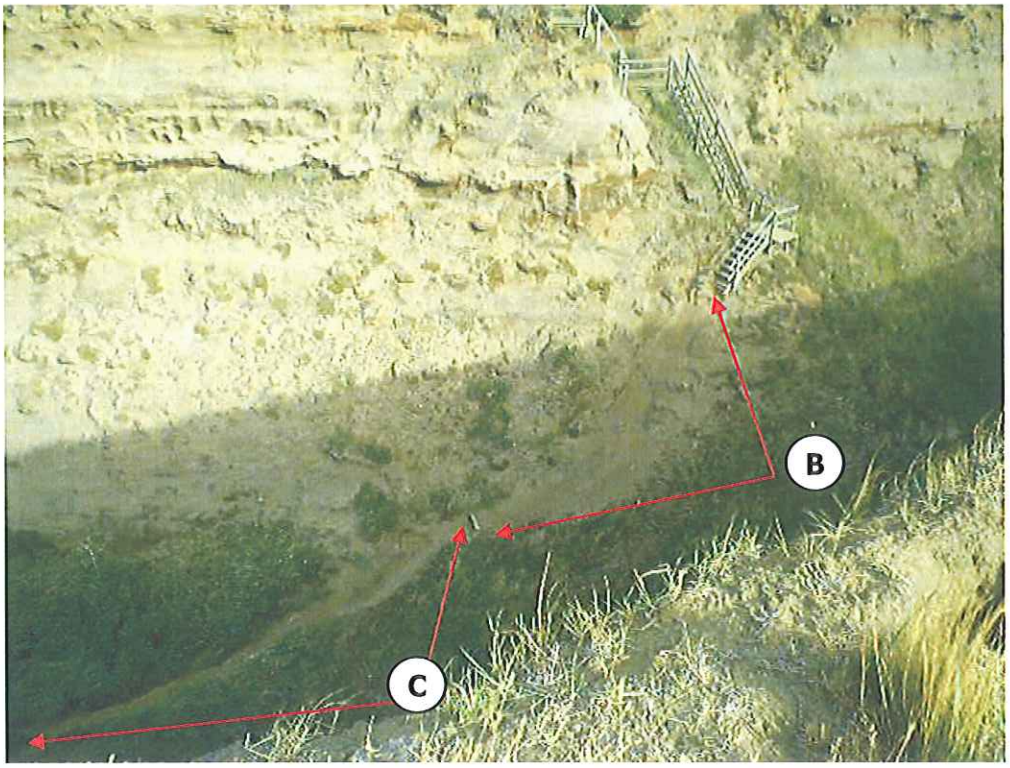
8.3 Although more frequent inspections hypothetically increase the management control over the route, which implies better safety, the reality is that there could be a large soil failure without apparent prior indications at any time. Failure is statistically more probable in the winter months when there are more storms which coincides with the period of lower access

demand. It may therefore be appropriate to consider making the path a seasonal route and closing it each winter due to the higher erosion risk. If the path is seasonally closed the top stair flight should be fitted with a locking gate and notice board. It is however likely the current intransigent users will continue to circumvent the closure.

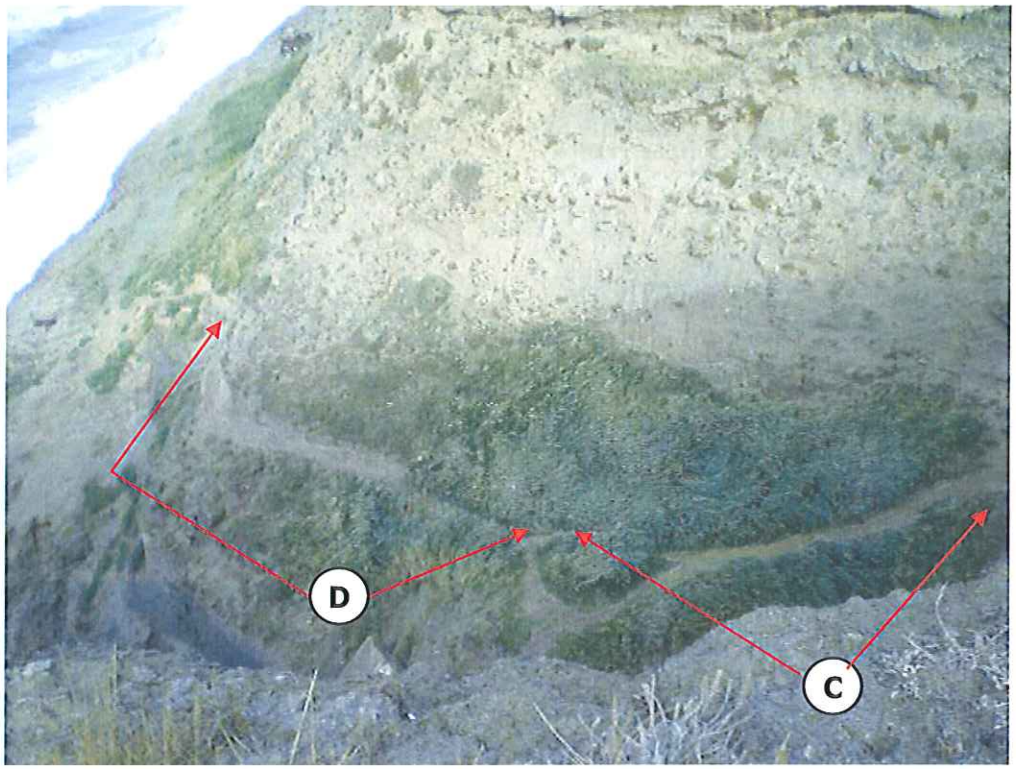
8.4 The alternative to reinstalling the path is to abandon the route for the foreseeable future. If the path is to be abandoned on safety grounds the top stair flight should be fully removed and the current closure signage improved. Abandonment of the route is likely to reduce the number of the public on the beach and hence the likelihood that the emergency services may need to attend. Emergency services have three alternative methods of accessing the beach.



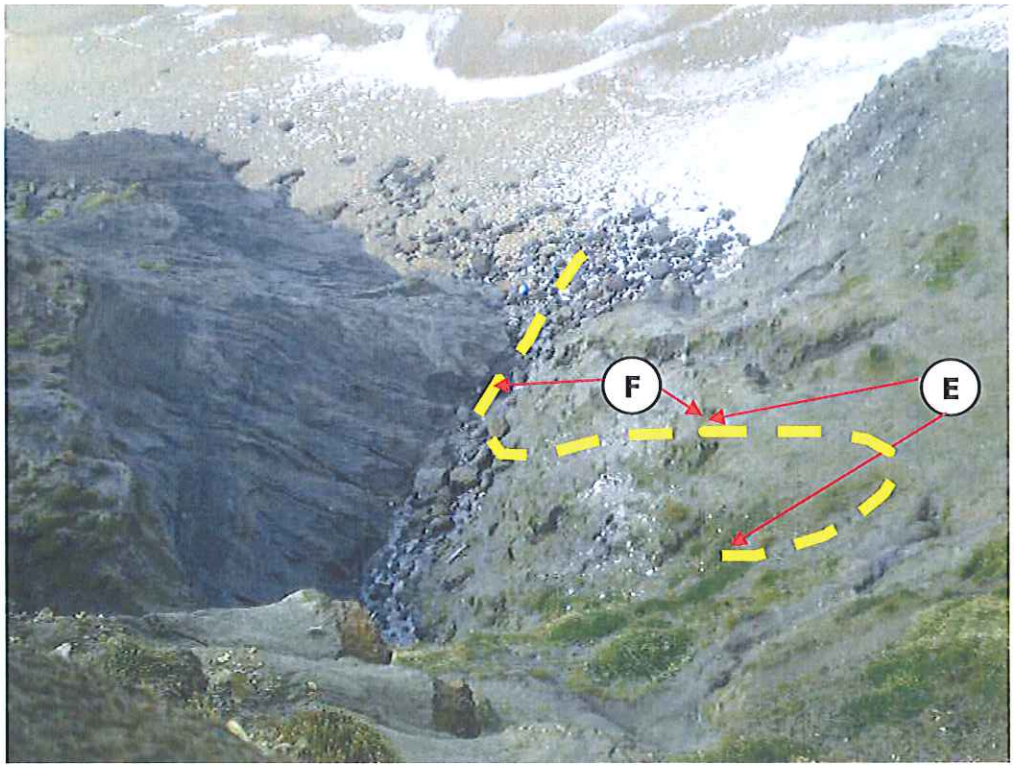
1 Section A remaining upper stair flights



2 Section B missing stair flight and path section C



3 Path section C, and section D over ravine washout and around bluff
Note collapsed WWII tank defence below D marker tab



4 Path section E descent to terrace and section F down ravine side & base

5 View down section B (from bottom of steps)

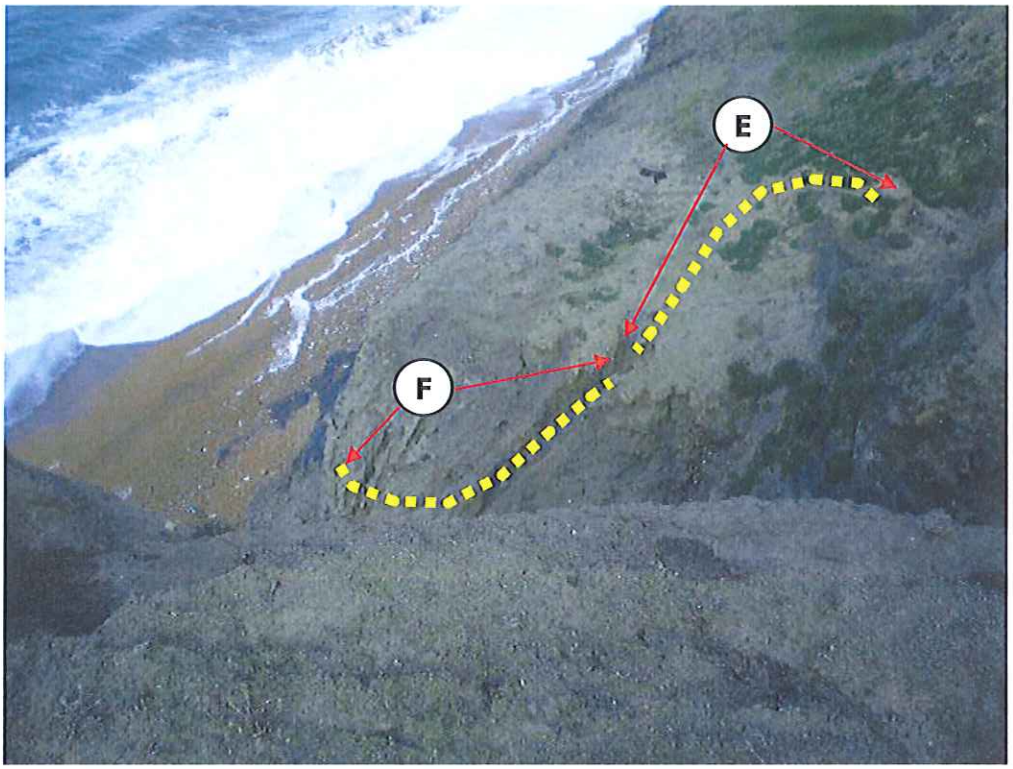
6 View along path section C

7 view along path section D
Note proximity of edge drop into ravine and also cut into talus slope

8 section D coastal face of bluff

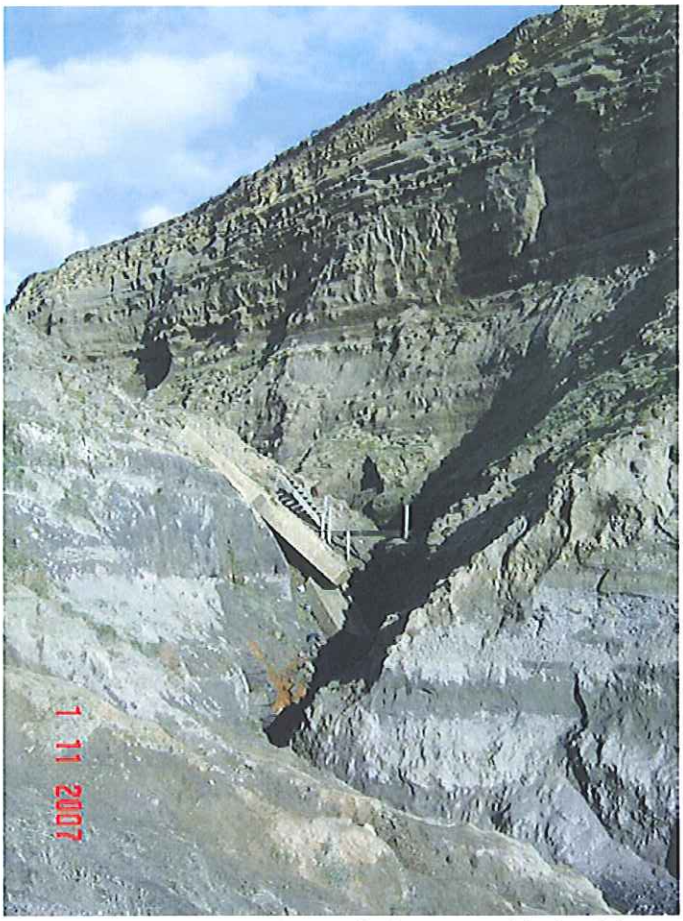
9 Detail view of existing ledge round bluff

10 Overview of cliff profile and lower terrace

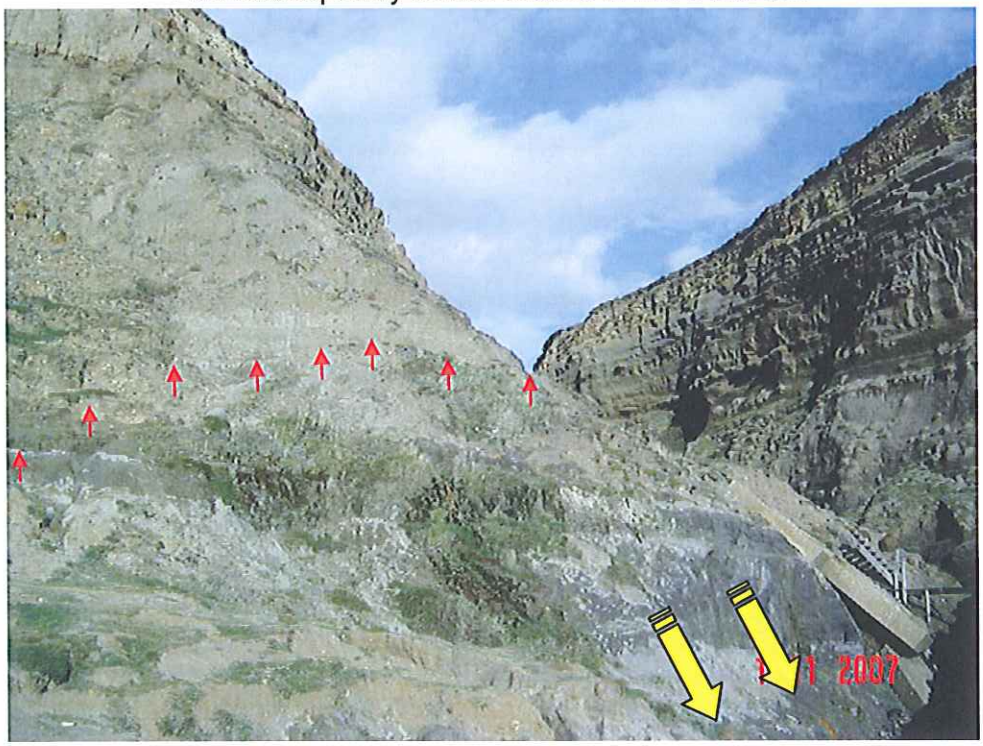


11 Path descent section E and ravine section F

12 View of lower terrace and opposite side and bed of ravine



13 Ravine below section D (above and left of frame)
Has subsequently further eroded in last 6 months



14 Current alignment of section D and location of further collapse winter 2007

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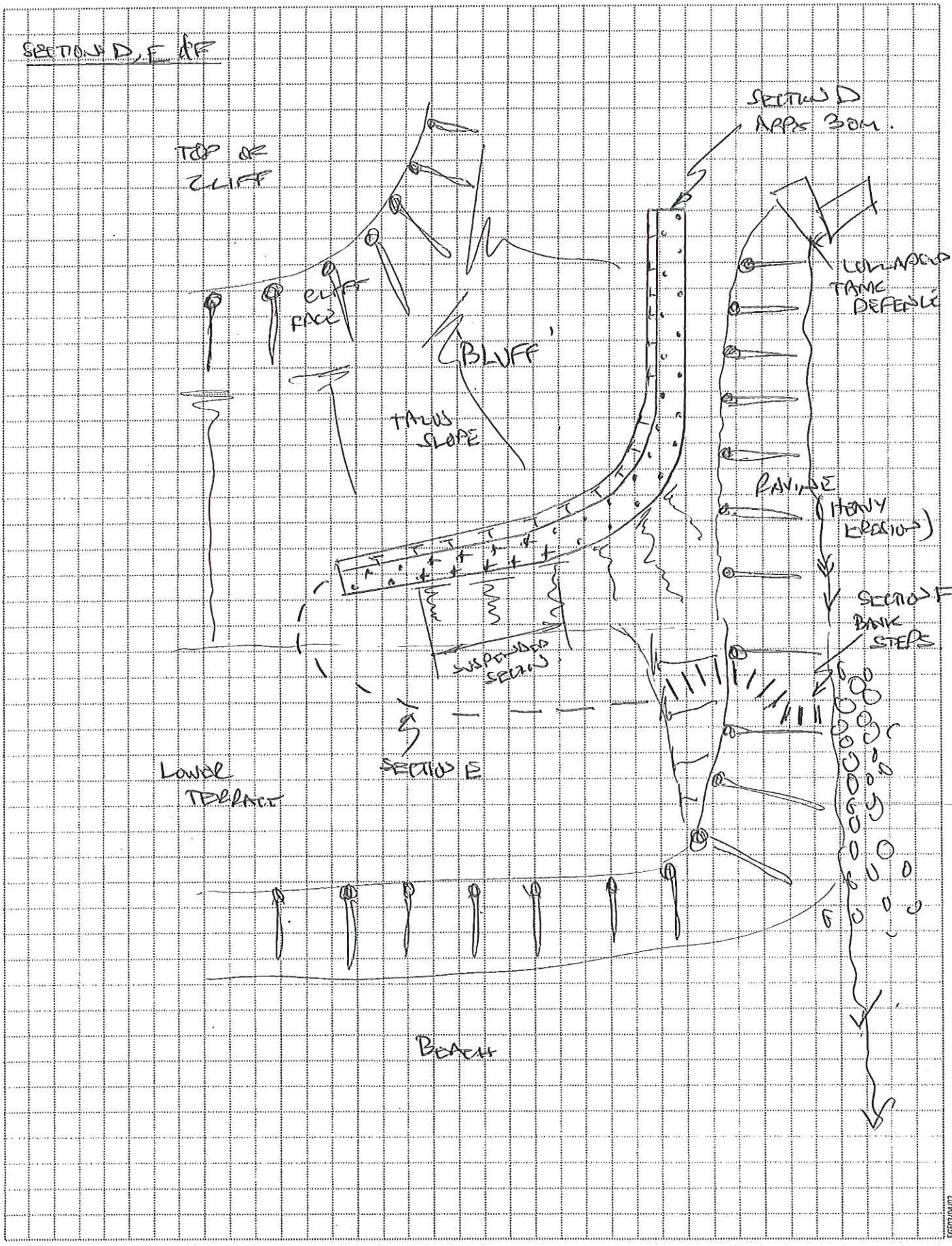
PROJECT: WHALE CHINE.



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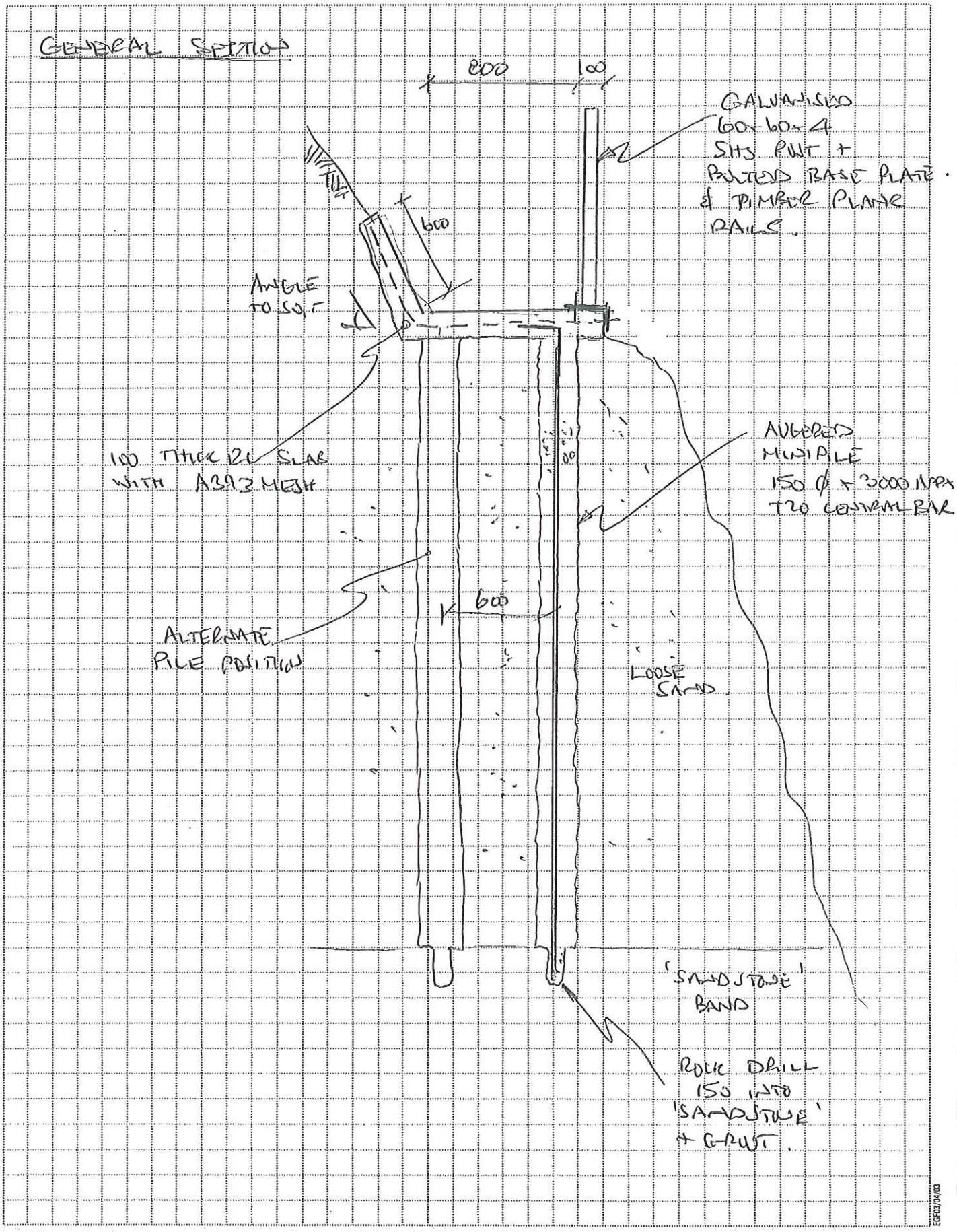
PROJECT: SPAN D - GENERAL

GENERAL SPAN D



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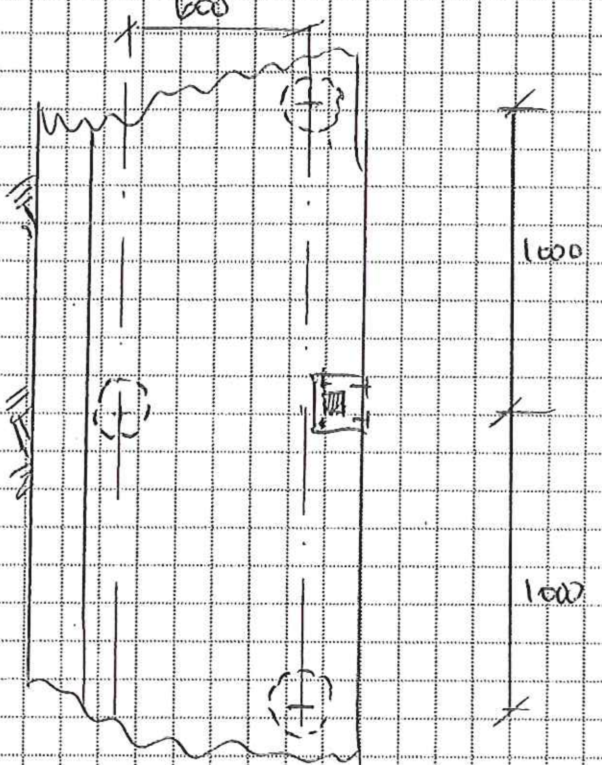
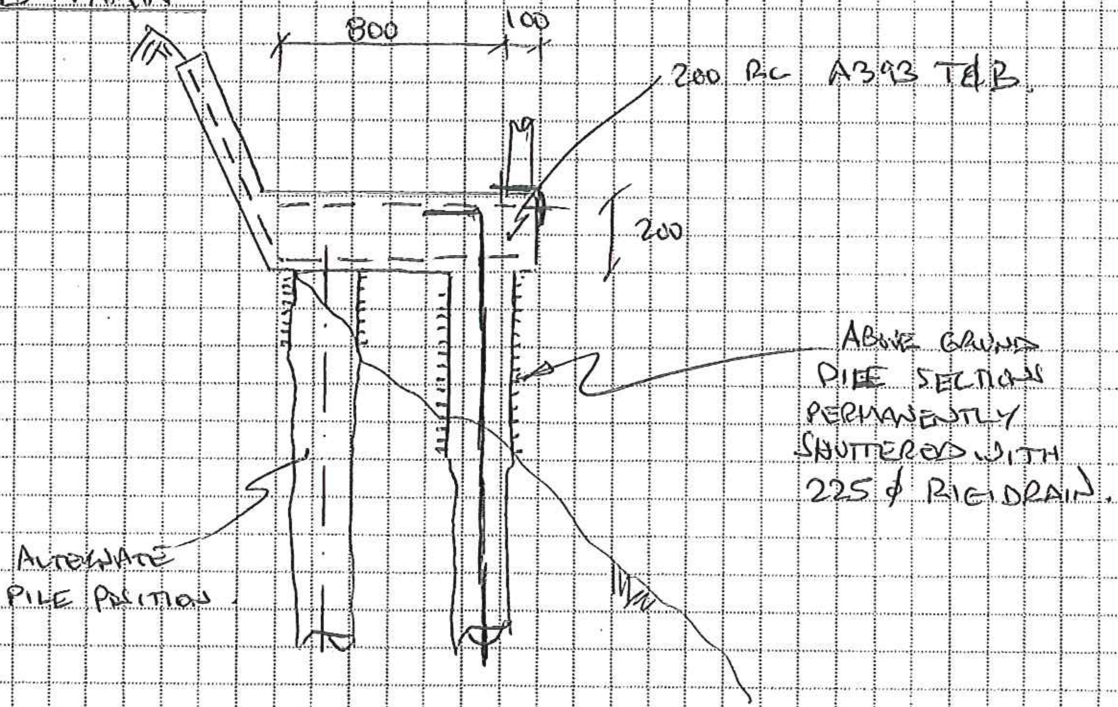
PROJECT: SECTION D, PART PLAN + SUSPENDED DECK

PART PLAN



SUSPENDED VARIANT



EGF03/04/03

OPUS

ENGINEER'S INSPECTION

CONDITIONS AND LIMITATIONS

1. The report is a record of a visual inspection carried out by, or under the direction of a Chartered Structural Engineer and must not be misinterpreted as a Structural Survey such as would be carried out by a Chartered Surveyor. The report is not a Valuation Survey.

2. The inspection is strictly limited to the items requested and these will be detailed in Clause 1 of the report. No consideration will be given to any other aspects or parts of the building.

3. The report is confidential to the Client(s) stated in Clause 1 and has been prepared to their instructions for their own purposes only and it is not permitted to disclose this report to any other parties (except the Clients own Solicitors, Surveyors, Building Societies or Estate Agents) without the prior consent of Opus.

4. The copyright of this report remains the property of Opus.

5. No liability for the contents of this report is accepted to any parties other than the Client(s) stated in Clause 1.1. No parties other than the client stated in Clause 1.1 should rely upon this report.

6. Unless specifically stated otherwise:-

   a) Trial holes will not be excavated prior to the preparation of the report and the depth and construction of the foundations and type of sub-soil will not be inspected.

   b) All external observations will be carried out by eye from the ground level only. Internal inspection is made within the limits of ready accessibility and it is not normal practice to lift floor coverings or floor boards, remove fixtures, panels or plaster, or move heavy items of furniture or bulky goods or materials.

   c) No inspection will be made of any roof voids, floor joists, wall cavities, drainage pipework or any other hidden or inaccessible parts.

   d) No timbers will be checked for damp, rot, infestation by wood-boring insects or other defects.

   e) It should not be construed that any parts of the construction comply with the requirements of the Building Regulations Act or standard practice either current or as current at the time of original construction. No enquiries to any Authorities will be made.

   f) No testing or enquiries into the presence of or susceptibility to pollution, contamination, radiation, methane, radon or other gases or hazardous substances has been carried out.

7. Unless specifically stated otherwise in the report, any recommendations for works given in the report are outline only and are to be confirmed or modified as appropriate at detailed design stage.

8. Where trial holes are specifically included in our instructions the condition of the footing and the founding soil relates only to the point of excavation and does not necessarily confirm a continuation of the same conditions throughout the non-inspected areas of the structure. Whilst such trial pits will usually provide a reasonable indication as to the general state of the foundations and ground conditions, these can not be determined with complete certainty.

9. Under the Construction (Design & Management) Regulations latest edition, the Client has obligations for ensuring Health and Safety arising from any construction work. If it is proposed to proceed with construction work based upon information or recommendations contained in this report, these regulations probably apply. Further details of any issues arising from our report or the Clients obligations generally are available on request.

10. Unless dealt with more specifically above the Association of Consulting Engineers Conditions of Engagement Short Form Agreement 2002 apply.