THE LOWER DRY
CHARLESTOWN
St AUSTELL
CORNWALL

Results of a Desk-Based Appraisal, Historic Building Assessment & Heritage Statement

South West Archaeology Ltd. report no. 170906

ARCHAEOLOGICAL SERVICES & HISTORIC BUILDING RECORDING
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The Lower Dry, Charlestown, St Austell, Cornwall
Results of a Desk-Based Appraisal, Historic Building Appraisal & Heritage Assessment

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Work undertaken by SWARCH for Kylie Lambert of ALA Ltd. (the Agent)
On behalf of Robin Davies of Forestay Ltd. (the Client)

SUMMARY

This report presents the results of a desk-based appraisal, historic building appraisal and heritage statement carried out by South West Archaeology Ltd. for the Lower Dry, Charlestown, St Austell, Cornwall, to inform the future use of the site.

Two clay dries were built in Charlestown in c.1908, the Upper (Carbean) Dry (no longer extant) and the Lower (Carclaze) Dry. They were built by John Lovering & Co., one of the biggest china clay companies operating in Cornwall at the time. At the Lower Dry the clay slurry was piped into eight large settling tanks to the rear of the drying floor, to be released into the clay dry itself via individual sluices. The drying floor was heated by a furnace located at the southern end of the building, and the heated air was drawn along the underfloor flues by the chimney at the northern end. The dried clay was shovelled into a deep linhay for storage, and transferred to the harbour and waiting ships via an underground tunnel. The tunnel from the dry terminated within what is now the Shipwreck and Heritage Centre where there is a weighbridge, although the precise role played by the Heritage Centre building is unclear. 20th century OS maps and historic photographs indicate the Lower Dry was modified in the period 1945×55 and production scaled back. It ceased to function in c.1968, and was modified for storage. The clay dry burned down in 2005, and the remains are now in a poor condition.

The proximity of the site to Charlestown and its numerous designated heritage assets makes sensitive development or adapative reuse of this site a necessity. With the exception of the tunnel, in structural terms the clay dry is unremarkable, but it is its historical association with John Lovering and Charlestown makes it important. It forms part of the industrial story of Charlestown, and does display two of the key attributes that contribute to the OUV of the WHS.

Any reuse of the site should aim to retain as much of the historic (c.1908) fabric of the structure as possible. This need not mean restoring the structure to its original condition as the interior space is likely to be difficult to adapt to convenient modern use. In addition, the scale and massing of such a structure would be out of keeping with the rest of the historic settlement. However, while undoubtedly a constraint, the remains of the clay dry can also be seen as a highly-distinctive asset to a high-quality scheme. The public benefit arising from retaining the structure could enhance the profitability of any scheme and engender very positive publicity. An innovative design that re-used the structure has the potential to be truly outstanding.

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Acknowledgements

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1.0 INTRODUCTION

Location: The Lower Dry, Charlestown
Parish: St Austell
County: Cornwall
NGR: SX 03951 51820
SWARCH ref: CLV17

1.1 PROJECT BACKGROUND

This report presents the results of a desk-based appraisal, historic building appraisal and heritage statement carried out by South West Archaeology Ltd. (SWARCH) for the Lower Dry, Charlestown, St Austell, Cornwall (Figure 1). The work was commissioned by Robin Davies of Forestay Ltd. (the Client) in inform the future use of the site.

1.2 TOPOGRAPHICAL AND GEOLOGICAL BACKGROUND

The site of the Lower Dry covers an area c.0.72ha in extent on the north-eastern edge of the historic settlement of Charlestown (see Figure 1). Charlestown is located on the south coast of Cornwall, 2km south-east of St Austell town centre. The settlement is strung out along a single main road (Charlestown Road) that runs the length of a short valley that terminates at the harbour. The bedrock beneath the site is comprised of the slates, siltstones and sandstones of the Meadfoot Group (BGS 2017), and lies at an altitude of approximately 30m AOD.

1.3 HISTORICAL BACKGROUND

Charlestown was developed from the medieval settlement of Polmear, first recorded in 1403 as 'Porthmeur' meaning 'big cove'. In 1792-1799 the existence of copper mines in the area led Charles Rashleigh of Menabilly and Duporth to construct a harbour for the export of copper ore and china clay, alongside the import of coal. His sponsorship of this development led to the name to *Charles Town*. By 1850 copper mining in the St Austell area was in decline, and the main business of Charlestown became china clay and stone, leading to further enlargement of the harbour in the 1870s. By the mid 20th century the lack of good rail and road links, and the narrow harbour entrance, led to the decline of Charlestown as a port in favour of Par and Fowey.

Two early 20th century clay dries were constructed by John Lovering & Co. at Charlestown. The Upper Dry has largely been destroyed; the Lower Dry is the subject of this report. Clay slurry from the Carclaze pits was piped to Charlestown, where it was dried and then shipped out via the harbour. The Lower Dry was connected to the harbour via a tunnel. The scale of production appears to have declined in the post-War period, and ceased in c.1968. The buildings of the Lower Dry were then used for storage, but were badly damaged by fire in 2005.

1.4 METHODOLOGY

The desk-based research, historic building appraisal and assessment work follows best practice, as outlined in the relevant guidance (CIfA 2014; English Heritage 2008; 2011; 2012; Historic England 2015; 2016).

FIGURE 1: SITE LOCATION.

2.0 DESK-BASED APPRAISAL AND CARTOGRAPHIC ANALYSIS

2.1 DOCUMENTARY HISTORY

Charlestown was developed from the medieval settlement of Polmear, first recorded in 1403 as 'Porthmeur' meaning 'big cove'. In 1792-1799 the existence of copper mines in the area led Charles Rashleigh of Menabilly and Duporth to construct a harbour for the export of copper ore and china clay, alongside the import of coal. His sponsorship of this development led to the name to *Charles Town*. However, a series of acrimonious legal disputes impoverished Charles Rashleigh and the estate was transferred to his creditors following his death in 1823. The development of the harbour led to the expansion of the pilchard fishing industry, including the construction of new fish cellars. As the harbour evolved, so the surrounding settlement grew to accommodate a growing workforce. Further infrastructure, including the Wesleyan Chapel, the Rashleigh Arms, St. Paul's Church, the Foundry, the inner harbour and the Lower Dry were built between 1827 and 1914 after the Crowder family took control in 1825. By 1850 copper mining in the St Austell area was in decline, and the main business of Charlestown became china clay and stone, leading to further enlargement of the harbour in the 1870s. By the mid 20th century the lack of good rail and road links, and the narrow harbour entrance, led to the decline of Charlestown as a port in favour of Par and Fowey, and in 1986 the Crowder family relinquished ownership after 161 years. The latter half of the 20th century has seen Charlestown become a popular visitor attraction and film and television location, including *Hornblower* and more recently *Poldark* (Berry *et al.* 1998).

2.1.1 THE LOWER DRY

The main business of St Austell and Charlestown following the decline of traditional extractive industry was china clay. Extracted in ever-increasing quantities over the course of the late 19th and 20th century, Charlestown was an important port on the south coast, albeit one hindered by a narrow harbour and tidal access. For most of the 19th century china clay was transported overland to Charlestown from clay dries located next to the pits, but in the early 20th century John Lovering constructed two pan-kilns in Charlestown, fed by clay slurry piped from the pits at Carclaze.

Articles in the Royal Cornwall Gazette indicate a clay dry was constructed in Charlestown in 1907×08: *Messrs Lovering and Company have acquired certain clay rights at Charlestown and are contemplating erecting a new dry there shortly. This disposes for the time being the question of the sale of the Charlestown Estates about which various rumours have periodically been floated. The clay is to be piped from Carclaze to the Charlestown 'dry'* [19.09.1907]. *Messrs Lovering and Co have opened this week in Charlestown their new dry, the clay for which is piped from Carclaze. This new dry means a considerable increase of work at Charlestown* [19.03.1908].

The Upper Dry (Carbean Dry) was located to the rear of Charlestown Foundry, and *is* shown on the 1907 OS 1:25" map of the area. Much of this complex was demolished in the 1950s when the Foundry was purchased by E.C.C. and the workshop area was expanded to encompass the site. The chimney was demolished in 1991. Works in advance of the redevelopment of the Foundry in 2005 and 2006 determined elements of the Upper Dry survived in part, albeit much altered.

The Lower Dry (Charlestown Dry) continued in use until c.1968, although the historic map evidence would suggest production had declined before that date. The linhay of the Lower Dry is connected by a tunnel to the Heritage Centre, formerly a clay store or kiln itself; a separate tunnel at a lower level connects the Heritage Centre with the harbour. The clay was transported by wagons to an elevated gantry (built in 1923) that ran along the side of the harbour wall to the chutes used to fill the ships. The gantry no longer exists, but the tunnels survive, albeit somewhat altered. After 1968 clay was brought to the port by lorry. However, the disused dry may have

been used for the temporary storage of clay prior to transfer to ship, as the big double-doors at the southern end of the clay dry might suggest (see below).

2.2 Historical Maps

FIGURE 2: EXTRACT FROM THE 1937 OS 3RD REVISION 25" MAP 1:2,500, CORNWALL SHEET XXIX.8 (CRO).

As discussed, the first maps to show the Lower Dry are those of the 1930s (see Figure 2; it also appears on the 1933 OS 1:1250 scale map), despite the documentary references to its construction in 1908. The 1:25" map shows layout of this clay dry follows the familiar pattern: large rectangular settling tanks upslope of a long narrow structure (Building 1) with a chimney at one end, helpfully labelled *China Clay Kilns*. The Heritage Centre building is shown, but is not labelled, on this map.

The 1963 1:10,000 scale OS map (not illustrated) depicts an identical layout, with the exception that Building 2 appears to be shown. The 1969 1:1250 scale OS map (Figure 3) indicates the scale of the enterprise, and perhaps the function of the buildings, had changed. Tanks 1-5 are shown as disused, with the symbol for rough grassland and scrub, Tank 7 is shown subdivided into six smaller units (labelled *Settling Tanks*), and the southern wall of Tank 8 has been breached. The concrete ramp south of Building 1 is shown, as is a building next to the current site entrance and one just west of the chimney. On this map the Heritage Centre is also labelled *China Clay Kilns*. The 1977 1:10,000 scale OS map still labels the building as China Clay Dry, but the 1992 1:10,000 scale OS map shows Tank 6 with the symbol for scrub.

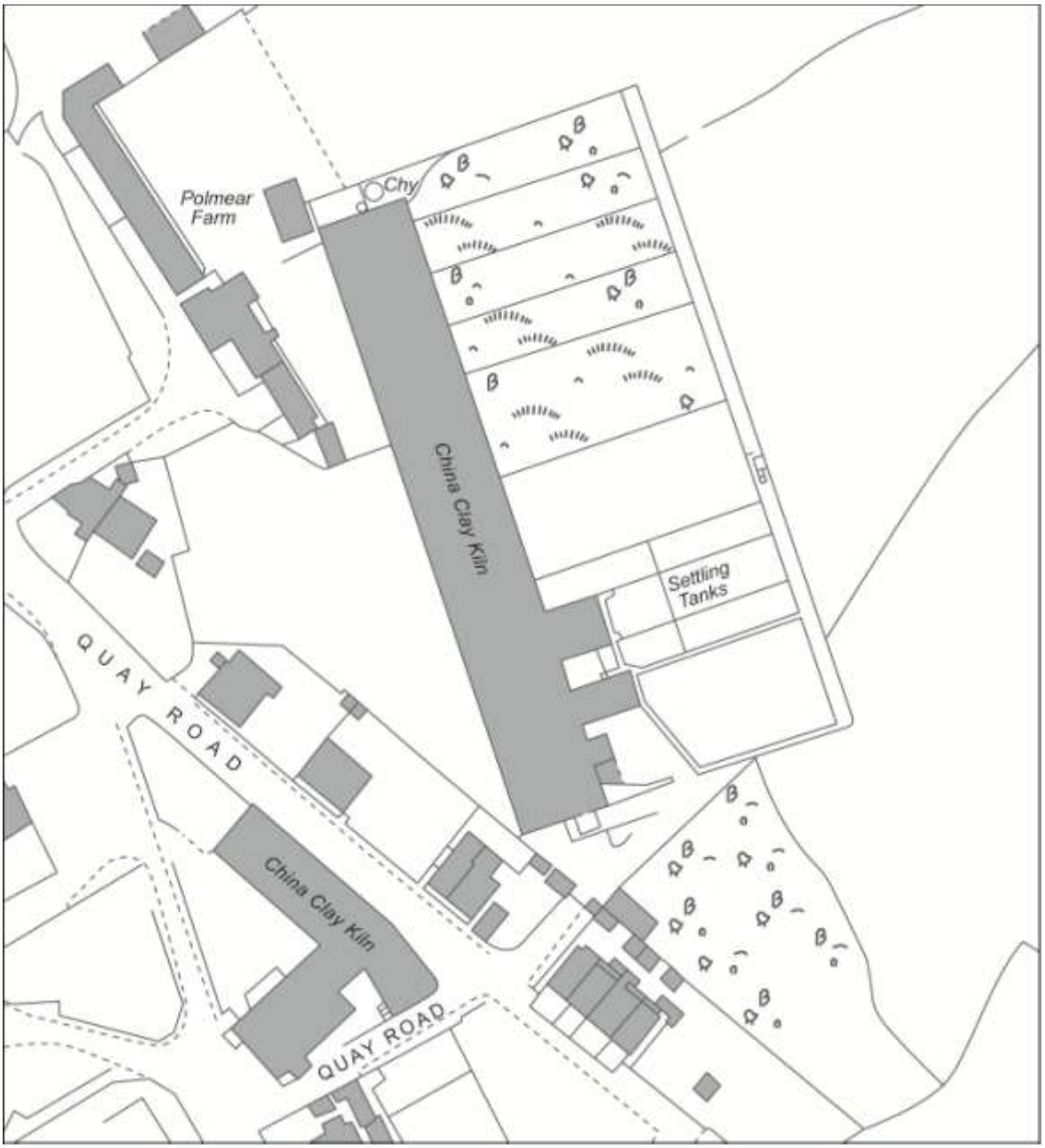

FIGURE 3: EXTRACT FROM THE 1969 1:1250 SCALE OS MAP SHOWING THE REVISED LAYOUT OF THE SETTLING TANKS.

2.3 HISTORICAL PHOTOGRAPHS

A large number of historic photographs of Charlestown have survived, but relatively few include the Lower Dry. Figure 4 shows the harbour in c.1955, as viewed from the battery on the headland, with the clay dry in the background. The roofs of Buildings 1 and 2, and part of the Heritage Centre, are white, in contrast to the drab greys of the other structures shown. This would suggest the asbestos sheet roofs of Buildings 1 and 2 were relatively new, and had probably been renewed in the period 1945×55. Figure 5 is undated (perhaps c.1960s?) and only shows the southern part of the clay dry. In this photograph the roofs have weathered to grey, and another structure (no longer extant) is shown to the south of Building 2.

FIGURE 4: HISTORIC PHOTOGRAPH OF C.1955 © THE FRANCIS FRITH COLLECTION.

FIGURE 5: HISTORIC PHOTOGRAPH OF THE HARBOUR C.1960S? (SOURCE: ALA LTD.).

2.4 AERIAL PHOTOGRAPHS

Online and readily-available aerial photographs allow us to track the more recent evolution of the site. The 2001 aerial photograph (Figure 6) shows Tanks 1-6 as overgrown with trees and shrubs; Tanks 7 & 8 – presumably because they were maintained for longer – largely clear of vegetation. The 2005 aerial photograph (Figure 7) shows all the trees and scrub cleared, and the internal walls of Tanks 1-8 have been lost. The 2009 aerial photograph (Figure 8) shows the clay dry as roofless.

FIGURE 6: THE 2001 AERIAL PHOTOGRAPH (NORTH TO THE LEFT) (© 2017 INFOTERRA LTD. & BLUESKY).

FIGURE 7: THE 2005 AERIAL PHOTOGRAPH (NORTH TO THE LEFT) (© 2017 GETMAPPING PLC).

FIGURE 8: THE 2009 AERIAL PHOTOGRAPH (NORTH TO THE LEFT) (© 2017 INFOTERRA LTD. & BLUESKY).

2.5 TIMELINE

1906	Construction of the Upper Dry (Carbean);
1907×08	Construction of the Lower Dry (Carclaze) (Tanks; B1);
1923	Modification and extension of the gantry in the harbour;
1939×45?	Upper and Lower Dry cease to function;
1945×55	Upper Dry tanks demolished;
	Part of the Lower Dry reconditioned (Tanks #6-8; B2; B3);
1968	Lower Dry ceases to function (used for storage?);
1979×80	Part of the lower kiln/store converted from garages to Heritage Centre;
1991	Upper Dry chimney demolished;
2005	Fire destroys the Lower Dry (B1);
2006	Remains of the Upper Dry recorded prior to redevelopment (CAU 2006).

3.0 HISTORIC BUILDING APPRAISAL

3.1 INTRODUCTION

What follows is a description of the Lower Dry as originally built (insofar as this can be determined), how it was modified in 1945×55, and its current condition. In contrast to many historic buildings, the clay dry represents a class of structure that is divisible into a series of individual components with distinct functions that nonetheless forms part of a single structural whole. For example, the west wall of the settling tanks is utilised for the east wall of the clay dry and so forth. The current condition of the complex varies massively across the site, and it is not possible or helpful to describe and discuss the structure as a single entity. Thus it is divided into the following components: the Settling Tanks (T1-8); Building #1 (B1, itself divisible into the furnace, drying floor, chimney and linhay (C1-5 and tunnel)); Building #2 (B2, staff welfare and pump house); Building #3 (B3, workshop); and ancillary/lost structures.

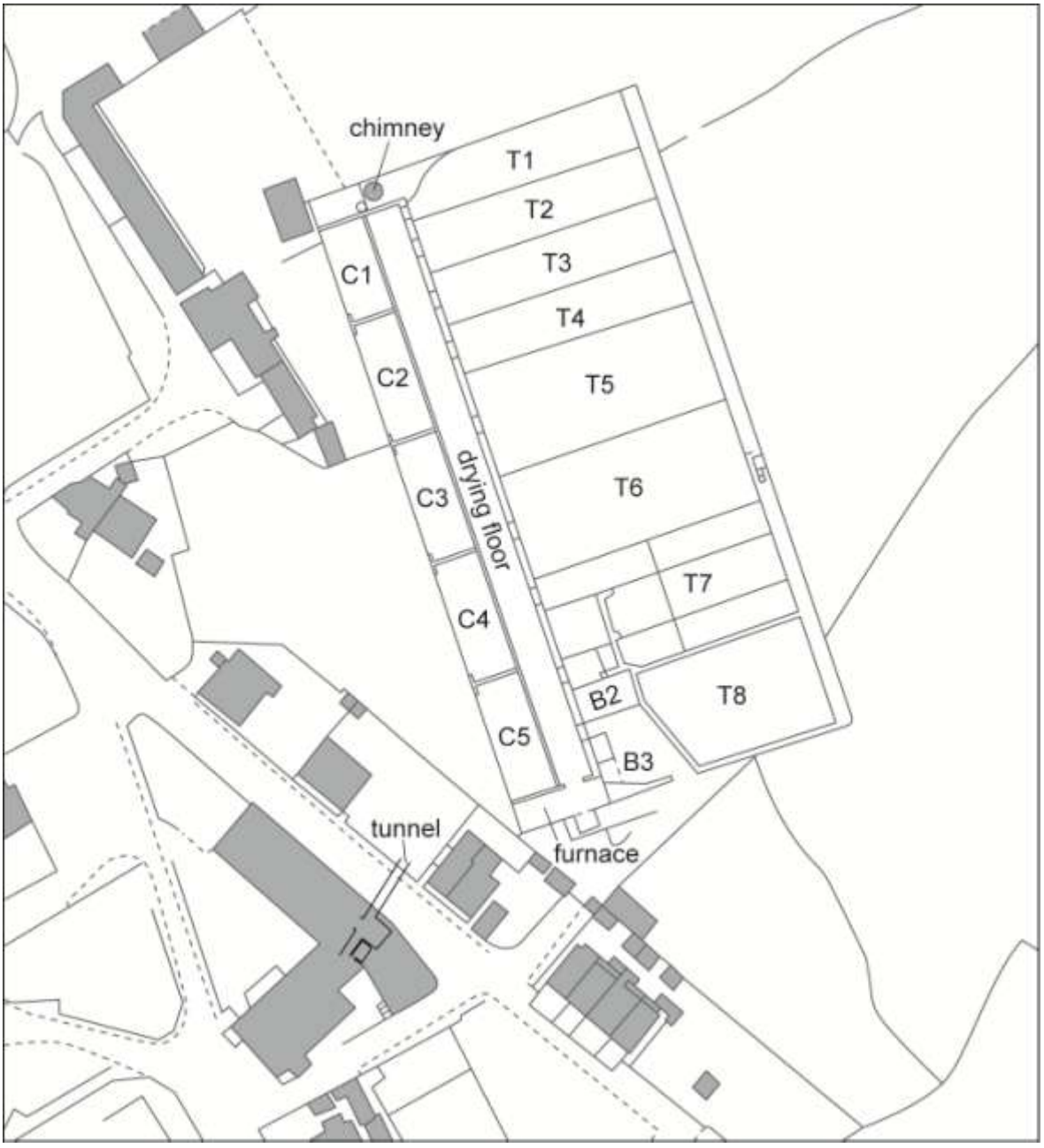

FIGURE 9: SITE PLAN BASED ON THE 1969 OS MAP, SHOWING THE LOCATION OF NAMED STRUCTURES.

In terms of the significance of the physical structure itself, it is only the tunnel that sets this clay dry apart from contemporary examples. Physically, approximately 60% of the original internal tank walls, and 90% of the 1950s walls, have been lost, as has 50% of the wall dividing the tanks from B1. The roof structure of B1 has been lost, as has the asbestos roof covering from B2 along with most of the internal fittings and fitments (see Figure 33).

Residual clay from T1-6 has been removed and dumped on the former drying floor and partly or wholly fills four of the five compartments of the linhay. It is possible, even likely, that historic features and loose fitments survive beneath that material.

Further photographs can be found in Appendix 2.

3.2 SETTLING TANKS

In 1907×08 eight tanks were constructed, covering an area c.115m by c.42m in extent. T1-4 are approximately half the size of T5-8 and it is possible that only 6 tanks were built originally. The tanks are terraced into the hillside by up to 4m, and the base of the tanks slopes gently down to B1. The walls are tremendously strong: at least 1m wide and constructed of poorly-sorted sub-angular granite blocks up to 0.5m across set in concrete with a concrete core. Slatestone is present, but appears to be used only to even up the crude coursing and just below the large flat capstones. The west wall (shared with B1) is battered to the west with projecting granite blocks to carry the wallplate; there are openings at the west end of each tank with grooves for a sluice. The inside faces of the downslope corners are curved for additional strength at a point of weakness. The upslope (east) walls of the tanks are stepped, with a wide walkway c.2m above the base of the tanks. The floor of the tanks appears to have been of concrete set with stone rubble; in T3 the narrow rails of a tramway are visible.

FIGURE 10: THE SETTLING TANKS, VIEWED FROM THE NNW.

In 1945×55 T1-5 were abandoned and the contents (a deposit of china clay up to 1.2m thick) left *in situ*. It is probable most of the sluices were blocked at this time; pipework and a valve observed next to one of the blocked sluices would suggest the clay slurry was then pumped around the drying floor. T6-8 were maintained, T7 was subdivided by new walls into six smaller tanks with a building. The south wall of T8 was breached and a yard created, with two new buildings (B2 and

B3). These new walls were of concrete block with a concrete core with *ad hoc* steel reinforcing, and appear to be associated with (?partial) resurfacing of the tanks in concrete. The wider walls shown in Figure 3 were clearly used as elevated walkways, as railings of galvanized tubular steel were installed. Next to B3 the south wall of T8 features a line of reused floor tiles from the drying floor, perhaps as a wallplate for the building shown in Figure 5.

FIGURE 11: THE SETTLING TANKS, VIEWED FROM THE SSE.

FIGURE 12: THE REMAINS OF THE WEST WALL OF THE SETTLING TANKS, VIEWED FROM THE SOUTH-EAST.

Most of the internal tank walls have now been lost; c.50% of the west wall of B1 has gone, although the southern part adjacent to B2-3 survives substantially intact. The internal walls are more complete towards the northern end of the site; the only surviving fragment of 1945×55 wall survives attached to the east gable of B2. The north and east walls of the tanks survive intact. The breach in the south wall has been widened to the east; this breach was c.6m wide, but the wall does not now survive to full height for a further c.8m. Most of the china clay has been removed

from the tanks, leaving only the eastern half of T1 with *in situ* deposits. The floors of the tanks are visible in places, but it is only in T3 that tram rails were observed. The site is partly vegetated (concealing detail, particularly in the area of the lost structure north of B2) and there has been much fly-tipping across the southern part of the site.

LEFT FIGURE 13: SECTION THROUGH THE 1945×55 TANK WALL ADJACENT TO B2; VIEWED FROM THE SOUTH (SCALE 2M).
RIGHT FIGURE 14: THE TRAM RAILS IN THE BASE OF T3, VIEWED FROM THE WEST (SCALE 2M).

3.3 BUILDING #1 THE CLAY DRY

As discussed (above), this building is divisible into four parts: the furnace, the drying floor, the chimney, and the linhay. These all are structurally integrated and built in one phase (1907×08) but subject to later modification in part. Unlike the tanks, it is not clear what (if any) internal modification occurred in 1945×55. The buildings measures c.115m long by c.15m wide, with very different internal floor levels; as will become clear, the current condition of the building makes it difficult to be particularly conclusive about the detail of original structure.

3.3.1 THE FURNACE

Located at the southern end of B1, the furnace heated the air beneath the drying floor, which was drawn along the length of the dry by the chimney at the northern end. Unlike the Upper Dry, historic maps do not delineate a separate furnace building, so it is assumed to be integral with the building shown in Figure 3. If the Upper Dry is any guide, there would have been three furnaces with steel doors, each within an arched brick chamber.

In 1945×55 a ramp of concrete block and concrete was constructed adjacent to the southern end of T8 and B1. The 1969 OS map (Figure 3) delineates a separate block, with a dashed line between it and B1. We may surmise that this could be a coal-hatch, designed to allow coal to be dumped into a hopper from above, rather than shovelled into the furnace building from the side.

The southern end of B1 now stops short the end of T8 and is approached by a recent concrete ramp, flanked by a short stone rubble wall to the west. To the east are the truncated remains of the earlier ramp. What is now the southern wall of B1 – presumably formerly an internal wall – is of stone rubble bonded with a lime mortar, with traces of plaster to the southern face. This gable has an asymmetric profile, with a much longer pitch to the west (linhay) side dropping down below the level of the ramp. The elevation contains a set of double steel doors in a wide forced opening with reveals rebuilt in concrete block and a timber lintel. The gable does not survive above the level of the lintel. East of this opening is a doorway at a higher level, blocked in concrete block. West of the ramp leading to the steel doors there is a drop to a roofless overgrown rectangular structure that is likely to be the remnants of the furnace building. It was not possible to access this structure, which was very overgrown and contained dumped rubbish. However, it appears to be a single cell with walls of mortared stone rubble with a wide doorway in the southern elevation. It is subdivided internally by a wall of yellow brick, of no consistent bond, with either a forced opening or collapsed section in the middle. It would appear that when B1 ceased to be a functioning clay dry it was converted for use as a warehouse. This change of use necessitated making the drying floor itself accessible from the road, leading to the partial destruction of the furnace. However, the remains of the structure may survive below the concrete ramp.

3.3.2 THE DRYING FLOOR

The drying floor runs the full length of the B1. The floor would have been level with the floor of the tanks, with a porous tiled surface supported on brick piers over long flues. The asymmetric roof structure was supported by wooden posts set on the wall separating the drying floor and the linhay. It is not clear what, if any, changes occurred in 1945×55.

FIGURE 15: THE DRYING FLOOR, VIEWED FROM THE NNW.

The drying floor is currently largely concealed beneath a layer of redeposited china clay, with detail visible only at the southern and northern ends, and intermittently along its length. When

the drying floor was converted for use as a warehouse, it appears that the original floor and brick flues were taken up and a new (concrete?) surface installed c.0.6m below the level of the original floor. This left an elevated walkway capped with flat stones or tiles along the eastern side of the B1, and a wall c.0.6m high between the new floor and the compartments of the linhay.

LEFT FIGURE 16: THE EASTERN EDGE OF THE DRYING FLOOR, SHOWING THE LINE OF ?TILES; VIEWED FROM THE NNW (SCALE 2M). RIGHT FIGURE 17: THE BASE OF THE CHIMNEY, VIEWED FROM THE SSE.

3.3.3 THE CHIMNEY

Located at the northern end of B1, the chimney provided the draw for the furnace. The chimney itself is a tall, slightly tapered circular structure of granite stone rubble with brick above. Iron reinforcing bands have been added at some point. The chimney is separated from the main body of B1 by a wall of stone rubble bonded with a lime mortar, with traces of plaster to the southern face. This gable has an asymmetric profile, with a much longer pitch to the west (linhay) side dropping down below the level of the original drying floor. At the base of this wall the flues beneath the drying floor entered the chimney.

In 1945×55 the external corner of the chimney was walled-in and a building constructed immediately to the west; it is unclear what role these structures played. By 2017 the chimney was observed to be substantially intact, though detail of the flues and gable wall of B1 were heavily obscured by dumped china clay and vegetation. The northern side of the structure was not inspected as it is located on private land.

FIGURE 18: THE FLUES ENTERING THE BASE OF THE CHIMNEY, VIEWED FROM THE SSE.

3.3.4 THE LINHAY

The linhay runs the full length of B1. It appears to be unusually deep (8m+) with a floor several metres below ground level. It has a massive battered retaining wall of granite on its eastern side. The linhay is subdivided into five compartments (C1-5) by walls of mortared stone rubble, each with a narrow central opening with strongly-reinforced projecting reveals of dressed stone. The western wall is much lower and only the lower section is battered; the upper section was open-fronted, with a timber wallplate supported by cast-iron pillars and short lengths of stone walling that correspond to the internal compartment walls. The clay was shovelled from the linhay into trams within the tunnel that links this site with the Heritage Centre.

FIGURE 19: THE INFILLED COMPARTMENTS OF THE LINHAY, VIEWED FROM THE NNW.

C2-4 have been infilled with china clay and are somewhat overgrown, with no visible features. To the northern end of C1 some sort of timber and steel structure is visible attached to the north

gable end. C5 is largely free of china clay but is still heavily overgrown and contains a fair amount of dumped rubbish. The gaps between the iron pillars in the west wall have been infilled in concrete block. The narrow opening between the compartments has been infilled in stone rubble.

FIGURE 20: C5, SHOWING THE DEPTH OF THE FEATURE, AND THE RUBBISH/UNDERGROWTH; VIEWED FROM THE NORTH.

FIGURE 21: THE WALL SEPARATING C4 AND C5, SHOWING THE POSSIBLE OPENING WITH REINFORCED PROJECTING REVEALS; VIEWED FROM THE NORTH-EAST (SCALE 2M).

3.3.5 THE TUNNEL

The tunnel was not observed on the site, but the accessible sections at the Heritage Centre were inspected. In the Heritage Centre it was c.1.4m wide and c.1.6m high, with a shallow arch and walls of shuttered concrete. The tunnel from the linhay enters the Heritage Centre at ground level from the north-east and terminates at a weighbridge. A hatch in the floor delivers to the clay to a tunnel below that leads to the harbour wall just below the level of the road. This lower tunnel also features shuttered concrete walls, but the lower section has a low arched roof of mortared

stone and rock-cut or mortared stone walls. It is clear these lower tunnels have been subject to some alteration, with patching and blocking in concrete block.

FIGURE 22: THE TUNNEL BELOW THE WEIGHBRIDGE IN THE HERITAGE CENTRE; VIEWED FROM THE SOUTH-WEST.

FIGURE 23: THE TUNNEL LEADING FROM THE HERITAGE CENTRE TO THE HARBOUR; VIEWED FROM THE NNE.

3.4 BUILDING #2 STAFF WELFARE AND PUMP HOUSE

Building #2 is a two-storey rendered concrete-block structure with a pitched roof built on top of the wall between T7 and T8, and the eastern wall of B1. It was built during the 1945×55 phase.

The floors are of concrete (shuttered concrete to first floor). The corrugated asbestos roof has been removed to reveal the simple pine trusses, half-lapped and bolted at the apex, with simple bolted tie beams. The window and door frames are timber, but the window casements are of galvanised steel. This structure can readily be divided into two separate halves by function: staff welfare to the west, and the pump house to the east.

FIGURE 24: B2, VIEWED FROM THE SOUTH-EAST.

FIGURE 25: THE FIRST-FLOOR INTERIOR OF THE STAFF WELFARE, VIEWED FROM THE NORTH-EAST.

3.4.1 STAFF WELFARE

In the south elevation on the ground floor there is a narrow doorway with a timber frame and plank door flanked by small high four-light steel casement windows, hinged at the top. The door opens onto a short corridor, with a urinal immediately to the left and dog-leg stairs to the right. Down the corridor there are three individual toilets to the left and a small ?store room to the right. On the first floor there was a single staff common room, with a small fireplace of rendered

brick attached to the west gable wall. There are two windows, one in the north wall and one in the south. Both windows have a left-hand 8-pane casement that opens outwards; the right-hand casements are two over six, with the upper two-pane casement hinged at the top.

Almost all the fixtures and fittings have now been lost, including the stairs. Doorways have been forced through to the pump house on both the ground and first floor. Only the urinal, front door and window casements survive *in situ*, and the building is partly filled with rubbish.

LEFT FIGURE 26: THE URINAL IN THE STAFF WELFARE, VIEWED FROM THE ENE.
RIGHT FIGURE 27: THE SURVIVING VALVE IN THE PUMP HOUSE, VIEWED FROM THE SOUTH-EAST.

3.4.2 PUMP HOUSE

In the south elevation on the ground floor there is a wide (c.1.8m) doorway with concrete lintel and a window (c.1.5m) lacking frame and casement. These open into a single room with a concrete floor, scored for drainage. In the north-east corner a shuttered-concrete chamber with a narrow access hatch in the ceiling was inserted. 10" diameter iron pipes enter the room from the east and north walls, one with a valve. A timber stair rises from the western side of the room to first floor level. On the first floor there was a second operations room, with iron pipes entering from the north, east and south walls. There are windows in the south and east walls, and a doorway in the north wall giving access to the walkways around the tanks. The windows have steel casements like those of the staff welfare; the doorway lacks its door.

Almost all the fixtures and fitting have now been lost. The stumps of iron pipes, or scars in the walls or floor, are all that remain of its former use. An opening has been forced at ground floor

level into the shuttered-concrete chamber, and doorways forced through to the staff welfare on both the ground and first floor.

FIGURE 28: THE GROUND-FLOOR INTERIOR OF THE PUMP HOUSE, VIEWED FROM THE SOUTH.

FIGURE 29: THE FIRST-FLOOR INTERIOR OF THE PUMP HOUSE, VIEWED FROM THE SOUTH-WEST.

3.5 BUILDING #3 WORKSHOP

B3 is a lean-to shed built into the south-west angle of T8. The walls are of rendered concrete block, with a monopitch roof of corrugated asbestos. There are two openings in the eastern elevation: a wide garage door to the south and a window with a pair of steel eight-light casements and a formed concrete sill to the north. The lean-to was divided into two parts by a rendered concrete block wall with a central door opening. The room to the north had low parallel benches or tables to the east and west built of rendered concrete block and brick.

The wide garage opening was subsequently partly blocked in narrow (4”) concrete block with a timber three-light window above; the remaining opening features a set of wooden garage doors (now fallen). The wall dividing the two rooms has since been partly demolished, and only the uprights for the benches survive. The roof has been replaced with corrugated iron sheets.

FIGURE 30: B3, VIEWED FROM THE NORTH (SCALE 2M).

3.6 ANCILLARY STRUCTURES

The site is accessed via a short narrow tarmac lane off the private road adjacent to the Heritage Centre. The lane is flanked by stone walls. The wall to the north is largely concealed by vegetation, but appears to be of very roughly coursed heterogeneous stone rubble (including granite) with a flat top, bonded with lime mortar, with a forced opening to the east adjacent to the gate. The wall to the south is comprised of coursed slatestone slabs bonded with a lime mortar. The downslope section leans heavily to the north and is supported by several concrete buttresses; this wall is capped by stones set vertically to create a triangular coping. The upslope section has been rebuilt with cement; its triangular coping is comprised at stones cemented in place at a 45° angle.

Just inside the wooden entrance gate is a small overgrown shed (privy?) and a partly-collapsed monopitch timber structure clad in corrugated iron sheeting. These are in separate ownership.

A hedgebank separates the access track from a field to the south-east. This is faced with reused yellow brick with a stone rubble core. The bricks are crude and poorly-finished, perhaps derived from the flues below the drying floor. A wide breach has been made in this hedgebank to access the area beyond. This area is very overgrown and little detail was visible, and does not form part of the site.

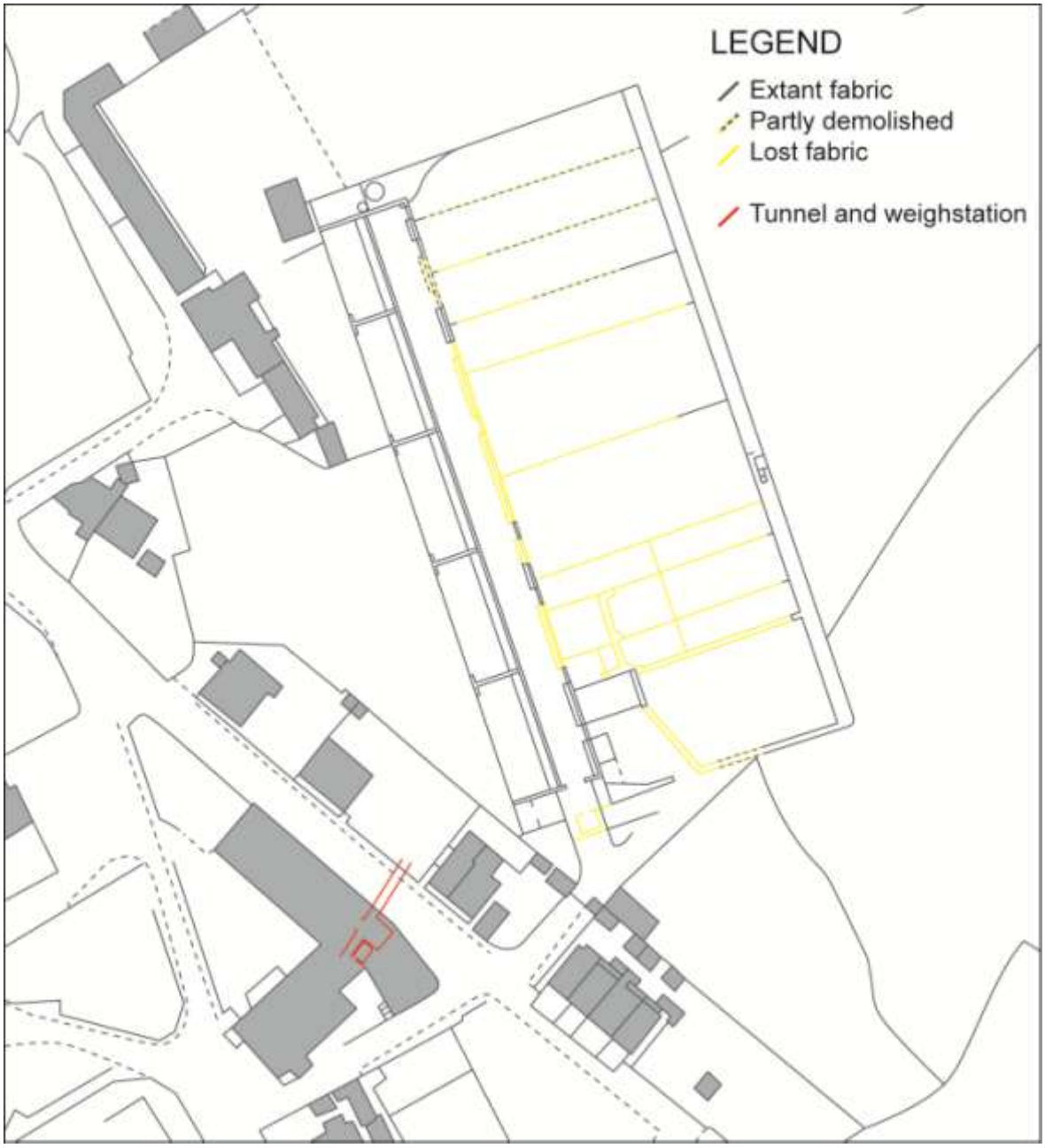

FIGURE 31: SKETCH PLAN SHOWING THE SURVIVAL OF HISTORIC FABRIC.

4.0 HERITAGE STATEMENT

4.1 HERITAGE STATEMENT

This report has explored the known history of the site (Section 2.0) and described its current state (Section 3.0). This section will attempt to determine the relative *value* of the site in relation to the relevant guidance (English Heritage 2008). It will also explore the visual relationships between the site and its wider setting. However, this is *not* an impact assessment *per se*, as no firm plans for the site have been put forward. The purpose of this section is to identify the heritage constraints that exist, and outline possible mitigation.

The purpose of a heritage statement is to understand – insofar as is reasonably practicable and in proportion to the importance of the asset – the significance of a historic building, complex, area or archaeological monument (the 'heritage asset'). In this instance the heritage asset in question is the Lower Dry at Charlestown. While it is not itself designated, it falls within the Charlestown Conservation Area and the Luxulyan Valley and Charlestown section of the Cornwall and West Devon Mining Landscape World Heritage Site. The site is adjacent to four Grade II Listed structures (23-7 Quay Road and Polmear Farmhouse), and it is connected by underground tunnels to the GII* harbour. Even apart from the intrinsic value of the Lower Dry, the location of the site makes this a highly-sensitive proposition.

4.1.1 INDUSTRIAL BUILDINGS AND INFRASTRUCTURE - OVERVIEW

A range of industrial and extractive structures, often exhibiting elements of formal planning, rarely with a view to aesthetics

A whole range of structures relating to a whole range of industries falls under this broad category, and include ruined, standing and functioning buildings. This might include: bridges, canals, capstans, clay-drying facilities, engine houses, fish cellars, gunpowder mills, railways, warehouses and so forth. However, in most instances industrial buildings were not built with aesthetics in mind, despite the elements of formal planning that would often be present. The sensitivity of these structures to the visual intrusion of a development depends on type, age and location.

It is usually the abandoned and ruined structures, now overgrown and 'wild', that are most sensitive to intrusive new visual elements. The impact on these buildings could be significant. Where they occur in clusters – as they often do – the impact of an isolated development is lessened, but the group value of the heritage asset is enhanced.

What is important and why

This is a very heterogeneous group, though all buildings and associated structures retain some evidential value, which ranges with the degree of preservation. Some structures are iconic (e.g. Luxulyan viaduct) and quite often others are, due to the rapid intensification of industry in the 18th and 19th centuries, innovative in both design and application (historical/illustrative). Some may survive as working examples – in which case the associational value is maintained – but many are ruinous or converted (historical/associational). All were designed, and many conform to a particular template (e.g. engine houses) although incremental development through use-life and subsequent decrepitude may conceal this. Fortuitous development may then lead to ruinous or deserted structures or building complexes taking on the air of a romantic ruin (e.g. Kennall Vale gunpowder works), imagery quite at odds with the bustle and industry of their former function. Some of the more spectacular or well-preserved structures may become symbolic (e.g. South Crofty Mine), but communal value tends to be low, especially where public access is not possible.

4.1.2 THE LOWER DRY AT CHARLESTOWN

Description: See above. In summary, an early C20 clay dry with eight settling tanks. The tanks are flanked by a long narrow building incorporating the furnace room, drying floor, chimney and linhay. The linhay is connected to the harbour by way of the Heritage Centre via underground tunnels. The complex was modified in 1945×55, with reduced capacity and new buildings. It ceased operation in 1968 and was thereafter used for storage. The linhay burnt down in 2005.

Immediate Setting: The site is located to the rear of gardens attached to Listed properties on Quay Road and Polmear Farm. These structures are of stone rubble with slate roofs, some are painted or rendered. The farm buildings at Polmear have been converted to residential use and gentrified. Open agricultural land (pasture) flanks the site to the north, east and south; the fields are bounded by tall hedgebanks topped with hedge shrubs, most of which have been allowed to grow and mature. It should be noted, however, that the presence of mature trees is historically-incongruous (see the historic photographs above), and the present appearance of the area is a product of the last decades of the 20th century.

Landscape Presence: The chimney is very prominent in the landscape, but the rest of the site is recessive and very effectively concealed by trees, even in winter.

Evidential Value: The site is deeply-terraced into the slope and earlier archaeological features and deposits are unlikely to survive. The evidential value of the standing structure is limited. It conforms to a standardised type that operated in a known way and utilised traditional materials. It should be noted, however, that with the exception of the clay dries on Bodmin Moor (Herring *et al.* 2008) this is an understudied and underappreciated class of industrial structure. The provision of a tunnel to transport clay to the harbour is of interest (one of only two clay dries where tunnels were employed for this purpose), and the exact location, character and build of the tunnel, and the furnaces, remains to be established. The slurry pipe(s) from the Carclaze pit have not been located. The waste china clay that has been dumped on the drying floor and in the linhay may conceal structural information and/or discarded fitments. The records of the Cornwall Record Office are limited, but John Lovering & Co. was purchased by E.C.C. in c.1932, whose archives are now held by the museum at Wheal Martyn. Research here may provide further information.

Historical Value: The harbour at Charlestown was built to facilitate the import of coal and lime and the export of copper and china clay, the latter transported by cart from the inland clay dries. The Lower Dry represents an evolution of this system, where the clay slurry was delivered via underground pipes to a clay dry at the harbour. The use of tunnels to convey the clay from the linhay to the waiting ships was innovative, though the concept and creation of such a system would not have been that challenging in early 20th century industrial Cornwall. The Lower Dry was built be John Lovering & Co., one of the biggest contemporary producers of china clay, and the company went on to form part of E.C.C. The Lower Dry is thus integral to the story of china clay within the WHS.

Aesthetic Value: The aesthetic value of the structure varies across the site. The early 20th century elements were solidly constructed in traditional materials (granite and brick), and the massive strength of the tanks walls, linhay and chimney are obvious and impressive. It has a certain desolate grandeur (see photographs). The chimney is visible from a number of locations throughout the settlement and serves as a landmark. From an aesthetic sense, the loss of the roof actually enhances its appearance as a ruin. An intact roof on such a large structure would present such a monolithic aspect as to dominate the local visual landscape. The scale and massing of the structure would be entirely out of keeping with the character of the modern settlement. The mid C20 additions are ugly and brutally-functional in concrete and rendered concrete block.

Communal Value: None.

Authenticity: The surviving structure is entirely authentic, in that it has retained an industrial function until 1968 and modifications to the building thereafter appear to have been relatively localised.

Integrity: A considerable proportion of the original structure has been lost, including the roofs and the internal walls of the settling tanks. Some of what remains was modified in 1945×55, and again in the later C20. A greater part of the linhay and chimney survive, as does the tunnel. The condition of parts of the structure is an issue; most of the surviving structural elements are very strongly built, but some– such as the north and south gable walls of B1 – are more insubstantial and are deteriorating.

Principal Views: A double row of relatively young trees, including deciduous and coniferous species, flanks the site to the west. Overgrown hedge shrubs and young trees wrap around site to the north-east, east and south-east. These trees provide fairly comprehensive screening to the site; the Heritage Centre (extended upwards in 1979×80 – see Appendix 4) also screens views from the base of the valley. The chimney and the roof of B2 are the only elements visible from most publicly-accessible viewpoints around the valley (see Figures 32-37 and Appendix 3). The site itself is entirely enclosed, with very restricted views out from the site at ground level. Without the trees, the site would be visible from parts of Charlestown Road, the area around the Rashleigh Arms, and higher ground to the west around the battery. The presence of trees, and the seasonal variability of deciduous foliage, is a key issue for this site. Any development of the site, whether adaptative or *de novo*, would have to contend with the issue of screening.

Enhancing Elements: The cyclopean masonry; the air of derelict grandeur.

Detracting Elements: The poor state of repair; the fly-tipping.

Direct Effects: The direct effect of any works would be determined by the extent and nature of those works. However, any use or development of the site would impact on the physical structure of the clay dry, and given the surviving masonry is so massive, work to remove or modify it may prove difficult.

Indirect Effects: The indirect effect of any works would be determined by the extent and nature of those works. However, any works would have the potential to affect the character of the Conservation Area, and the setting of 30+ Listed structures in the harbour and village. Statutory protection is afforded to the setting of Listed buildings, with a presumption in favour of the preservation and enhancement of that setting. The construction phase would see noise, dust and light pollution within working hours, and traffic on Quay Road. Occupation phase residential or light industrial use would also mean more traffic on Quay Road, and additional light and noise.

FIGURE 32: VIEW ACROSS THE PLAYING FIELDS TO THE CHIMNEY AT THE LOWER DRY; VIEWED FROM THE NORTH-WEST.

FIGURE 33: VIEW FROM THE CAR PARK (FORMER ORE FLOORS) AT THE RASHLEIGH ARMS HOTEL; VIEWED FROM THE WSW. THE SITE LIES BEHIND THE BANK OF TREES ON THE SKYLINE (INDICATED).

FIGURE 34: VIEW FROM THE HARBOUR OUTSIDE THE HARBOURSIDE INN; VIEWED FROM THE SSW. VIEWS TO THE SITE ARE BLOCKED BY THE HERITAGE CENTRE BUILDING (INDICATED).

FIGURE 35: VIEW FROM THE HARBOUR WALL; VIEWED FROM THE SOUTH. THE ROOF OF B2 IS JUST VISIBLE (INDICATED).

FIGURE 36: VIEW FROM THE FOOTPATH AROUND THE BATTERY; VIEWED FROM THE SOUTH. THE CHIMNEY AND ROOF OF B2 IS INDICATED.

FIGURE 37: VIEW FROM THE SOUTH WEST COAST PATH JUST SOUTH OF CARLYON BAY; VIEWED FROM THE ESE. THE CHIMNEY IS INDICATED.

Assessment of Value: High value (upgraded from *Low* value due to the WHS). The proximity of the site to Charlestown and its numerous designated heritage assets makes sensitive development or adapative reuse a necessity. With the exception of its tunnel, in structural terms the clay dry is unremarkable and is now in poor condition. However, that assessment is made in the absence of the fieldwork necessary to determine the relative value of any particular clay dry complex. For instance, the two dries in the Luxulyan Valley WHS (the Central Cornwall Dry and the Pontsmill Works) are undesignated, whereas the Carlyon Farm Dry built by John Lovering in 1920×21 at Trethowel is Grade II Listed. Certainly its close contemporary at the Upper (Carbean) Dry has been demolished, and the only other dry – Rostowrack – that incorporated a linhay tunnel has reportedly been largely destroyed. However, it is its historical association with John Lovering and Charlestown that is probably most important. Charlestown has been described as "One of Cornwall's most remarkable places – a virtually intact C19 working port… [which] remains a microcosm of C19 industrial Cornwall" (Beacham & Pevsner 2014, 151-2). The Lower Dry was not identified as a *principal site* in the 2013-18 WHS *Management Plan* (and indeed, one of these three *principal sites* – the iron foundry – has been comprehensively redeveloped), but it does form part of the industrial story of Charlestown, and does display two of the key attributes that contribute to the OUV of the WHS (ancillary industries and mine transport infrastructure). It has also been identified as a key building in the Conservation Area Appraisal for Charlestown (CHES 2013, 32), the only undesignated structure on that list.

Recommendations: The value of the *structure* is limited, but the value of its historical associations, its proximity to Charlestown and its position within the WHS are considerable. The modifications undertaken in 1945×55 are part of the history of the site, but are unsightly and incongruous and could perhaps be removed following more detailed recordings. The aim of any reuse of the site should seek to retain as much of the historic (c.1908) fabric of the structure as possible. However, this need not mean restoring the structure to its original condition. The interior space is likely to be difficult to adapt to convenient modern use and other attempts to adapt these buildings (e.g. the Kernow Homes building on Carclaze Road in St Austell) have had mixed results. In addition, the scale and massing of such a structure is – and has always been – out of keeping with the rest of the village. However, while undoubtedly a constraint to subsequent use, the remains of the clay dry can also be seen as a highly-distinctive asset to a high-quality scheme. The public benefit arising from retaining the structure could enhance the profitability of any scheme and engender very positive publicity. A design that re-used the structure has the potential to be truly innovative.

A concern would be the maintenance of historic fabric but in particular the chimney, should the site be broken up and sold into different ownership as a result of any development. Despite of the desirability of such a site, it is considered unlikely that any single private owner could maintain the chimney in the long term. A management company for the site could be a way of addressing this. A second constraint is access. Any works at the site, and any subsequent reuse, would increase the volume of traffic on the only current point of access, Quay Road. This would, in turn, have a knock-on effect on the setting of heritage assets between Charlestown Road and the site. Access from the rear of the property could be achieved (e.g. via the PROW that runs north-east of the site) but would be subject to challenges of its own.

5.0 CONCLUSION

Two clay dries were built in Charlestown in c.1908, the Upper (Carbean) Dry (no longer extant) and the Lower (Carclaze) Dry. They were built by John Lovering & Co., one of the biggest china clay companies operating in Cornwall at the time. At the Lower Dry the clay slurry was piped into eight large settling tanks to the rear of the drying floor, to be released into the clay dry itself via individual sluices. The drying floor was heated by a furnace located at the southern end of the building, and the heated air was drawn along the underfloor flues by the chimney at the northern end. The dried clay was shovelled into a deep linhay for storage, and transferred to the harbour and waiting ships via an underground tunnel. The tunnel from the dry terminated within what is now the Shipwreck and Heritage Centre where there is a weighbridge, although the precise role played by the Heritage Centre building is unclear. 20th century OS maps and historic photographs indicate the Lower Dry was modified in the period 1945×55 and production scaled back. It ceased to function in c.1968, and was modified for storage. The clay dry burned down in 2005 and it is currently in a poor and deteriorating condition.

The proximity of the site to Charlestown and its numerous designated heritage assets makes sensitive development or adapative reuse of this site a necessity. With the exception of the tunnel, in structural terms the clay dry is unremarkable and is now in poor condition, but that assessment is made in the absence of the fieldwork necessary to determine the relative value of any particular clay dry complex. However, it is its historical association with John Lovering and Charlestown that is probably most important. While the Lower Dry was not identified as a *principal site* in the 2013-18 WHS *Management Plan* but it does form part of the industrial story of Charlestown, and does display two of the key attributes that contribute to the OUV of the WHS.

The value of the *structure* is limited, but the value of its historical associations, its proximity to Charlestown and its position within the WHS are considerable. Any reuse of the site should aim to retain as much of the historic (c.1908) fabric of the structure as possible. However, this need not mean restoring the structure to its original condition. The interior space is likely to be difficult to adapt to convenient modern use and other attempts to adapt these buildings have had mixed results. In addition, the scale and massing of such a structure would be out of keeping with the rest of the settlement. However, while undoubtedly a constraint to subsequent use, the remains of the clay dry can also be seen as a highly-distinctive asset to a high-quality scheme. The public benefit arising from retaining the structure could enhance the profitability of any scheme and engender very positive publicity. An innovative design that re-used the structure has the potential to be truly outstanding.

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APPENDIX 1: HERITAGE ASSESSMENT METHODOLOGY

National Policy
General policy and guidance for the conservation of the historic environment are now contained within the *National Planning Policy Framework* (Department for Communities and Local Government 2012). The relevant guidance is reproduced below:

Paragraph 128
In determining applications, local planning authorities should require the applicant to describe the significance of any heritage assets affected, including the contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should be consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which a development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.

Paragraph 129
Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal.

A further key document is the Planning (Listed Buildings and Conservation Areas) Act 1990, in particular section 66(1), which provides *statutory protection* to the setting of Listed buildings:

In considering whether to grant planning permission for development which affects a listed building or its setting, the local planning authority or, as the case may be, the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses.

Cultural Value – Designated Heritage Assets

The majority of the most important ('nationally important') heritage assets are protected through *designation*, with varying levels of statutory protection. These assets fall into one of six categories, although designations often overlap, so a Listed early medieval cross may also be Scheduled, lie within the curtilage of Listed church, inside a Conservation Area, and on the edge of a Registered Park and Garden that falls within a world Heritage Site.

Listed Buildings
A Listed building is an occupied dwelling or standing structure which is of special architectural or historical interest. These structures are found on the *Statutory List of Buildings of Special Architectural or Historic Interest.* The status of Listed buildings is applied to 300,000-400,000 buildings across the United Kingdom. Recognition of the need to protect historic buildings began after the Second World War, where significant numbers of buildings had been damaged in the county towns and capitals of the United Kingdom. Buildings that were considered to be of 'architectural merit' were included. The Inspectorate of Ancient Monuments supervised the collation of the list, drawn up by members of two societies: The Royal Institute of British Architects and the Society for the Protection of Ancient Buildings. Initially the lists were only used to assess which buildings should receive government grants to be repaired and conserved if damaged by bombing. The *Town and Country Planning Act 1947* formalised the process within England and Wales, Scotland and Ireland following different procedures. Under the 1979 *Ancient Monuments and Archaeological Areas Act* a structure cannot be considered a Scheduled Monument if it is occupied as a dwelling, making a clear distinction in the treatment of the two forms of heritage asset. Any alterations or works intended to a Listed Building must first acquire Listed Building Consent, as well as planning permission. Further phases of 'listing' were rolled out in the 1960s, 1980s and 2000s; English Heritage advise on the listing process and administer the procedure, in England, as with the Scheduled Monuments.

Some exemption is given to buildings used for worship where institutions or religious organisations (such as the Church of England) have their own permissions and regulatory procedures. Some structures, such as bridges, monuments, military structures and some ancient structures may also be Scheduled as well as Listed. War memorials, milestones and other structures are included in the list, and more modern structures are increasingly being included for their architectural or social value.

Buildings are split into various levels of significance: Grade I (2.5% of the total) representing buildings of exceptional (international) interest; Grade II* (5.5% of the total) representing buildings of particular (national) importance; Grade II (92%) buildings are of merit and are by far the most widespread. Inevitably, accuracy of the Listing for individual structures varies, particularly for Grade II structures; for instance, it is not always clear why some 19th century farmhouses are Listed while others are not, and differences may only reflect local government boundaries, policies and individuals.

Other buildings that fall within the curtilage of a Listed building are afforded some protection as they form part of the essential setting of the designated structure, e.g. a farmyard of barns, complexes of historic industrial buildings, service buildings to stately homes etc. These can be described as having *group value*.

Conservation Areas
Local authorities are obliged to identify and delineate areas of special architectural or historic interest as Conservation Areas, which introduces additional controls and protection over change within those places. Usually, but not exclusively, they relate to historic settlements, and there are c.7000 Conservation Areas in England.

Scheduled Monuments
In the United Kingdom, a Scheduled Monument is considered an historic building, structure (ruin) or archaeological site of **'national importance'**. Various pieces of legislation, under planning, conservation, etc., are used for legally protecting heritage assets given this title from damage and destruction; such legislation is grouped together under the term 'designation', that is, having statutory protection under the

Ancient Monuments and Archaeological Areas Act 1979. A heritage asset is a part of the historic environment that is valued because of its historic, archaeological, architectural or artistic interest; those of national importance have extra legal protection through designation.

Important sites have been recognised as requiring protection since the late 19th century, when the first 'schedule' or list of monuments was compiled in 1882. The conservation and preservation of these monuments was given statutory priority over other land uses under this first schedule. County Lists of the monuments are kept and updated by the Department for Culture, Media and Sport. In the later 20th century sites are identified by English Heritage (one of the Government's advisory bodies) of being of national importance and included in the schedule. Under the current statutory protection any works required on or to a designated monument can only be undertaken with a successful application for Scheduled Monument Consent. There are 19,000-20,000 Scheduled Monuments in England.

Registered Parks and Gardens
Culturally and historically important 'man-made' or 'designed' landscapes, such as parks and gardens are currently "listed" on a non-statutory basis, included on the 'Register of Historic Parks and Gardens of special historic interest in England' which was established in 1983 and is, like Listed Buildings and Scheduled Monuments, administered by Historic England. Sites included on this register are of **national importance** and there are currently 1,600 sites on the list, many associated with stately homes of Grade II* or Grade I status. Emphasis is laid on 'designed' landscapes, not the value of botanical planting. Sites can include town squares and private gardens, city parks, cemeteries and gardens around institutions such as hospitals and government buildings. Planned elements and changing fashions in landscaping and forms are a main focus of the assessment.

Registered Battlefields
Battles are dramatic and often pivotal events in the history of any people or nation. Since 1995 Historic England maintains a register of 46 battlefields in order to afford them a measure of protection through the planning system. The key requirements for registration are battles of national significance, a securely identified location, and its topographical integrity – the ability to 'read' the battle on the ground.

World Heritage Sites
Arising from the UNESCO World Heritage Convention in 1972, Article 1 of the Operational Guidelines (2015, no.49) states: 'Outstanding Universal Value means cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity'. These sites are recognised at an international level for their intrinsic importance to the story of humanity, and should be accorded the highest level of protection within the planning system.

Value and Importance
While every heritage asset, designated or otherwise, has some intrinsic merit, the act of designation creates a hierarchy of importance that is reflected by the weight afforded to their preservation and enhancement within the planning system. The system is far from perfect, impaired by an imperfect understanding of individual heritage assets, but the value system that has evolved does provide a useful guide to the *relative* importance of heritage assets. Provision is also made for heritage assets where value is not recognised through designation (e.g. undesignated 'monuments of Schedulable quality and importance' should be regarded as being of *high* value); equally, there are designated monuments and structures of *low* relative merit.

TABLE 1: THE HIERARCHY OF VALUE/IMPORTANCE (BASED ON THE DMRB VOL.11 TABLES 5.1, 6.1 & 7.1).

Hierarchy of Value/Importance	
Very High	Structures inscribed as of universal importance as World Heritage Sites; Other buildings of recognised international importance; World Heritage Sites (including nominated sites) with archaeological remains; Archaeological assets of acknowledged international importance; Archaeological assets that can contribute significantly to international research objectives; World Heritage Sites inscribed for their historic landscape qualities; Historic landscapes of international value, whether designated or not; Extremely well preserved historic landscapes with exceptional coherence, time-depth, or other critical factor(s).
High	Scheduled Monuments with standing remains; Grade I and Grade II* (Scotland: Category A) Listed Buildings; Other Listed buildings that can be shown to have exceptional qualities in their fabric or historical associations not adequately reflected in the Listing grade; Conservation Areas containing very important buildings; Undesignated structures of clear national importance; Undesignated assets of Schedulable quality and importance; Assets that can contribute significantly to national research objectives. Designated historic landscapes of outstanding interest; Undesignated landscapes of outstanding interest; Undesignated landscapes of high quality and importance, demonstrable national value; Well-preserved historic landscapes, exhibiting considerable coherence, time-depth or other critical factor(s).
Medium	Grade II (Scotland: Category B) Listed Buildings; Historic (unlisted) buildings that can be shown to have exceptional qualities in their fabric or historical associations; Conservation Areas containing buildings that contribute significantly to its historic character; Historic Townscape or built-up areas with important historic integrity in their buildings, or built settings (e.g. including street furniture and other structures); Designated or undesignated archaeological assets that contribute to regional research objectives; Designated special historic landscapes; Undesignated historic landscapes that would justify special historic landscape designation, landscapes of regional value; Averagely well-preserved historic landscapes with reasonable coherence, time-depth or other critical factor(s).
Low	Locally Listed buildings (Scotland Category C(S) Listed Buildings); Historic (unlisted) buildings of modest quality in their fabric or historical association; Historic Townscape or built-up areas of limited historic integrity in their buildings, or built settings (e.g. including street

Hierarchy of Value/Importance	
	furniture and other structures); Designated and undesignated archaeological assets of local importance; Archaeological assets compromised by poor preservation and/or poor survival of contextual associations; Archaeological assets of limited value, but with potential to contribute to local research objectives; Robust undesignated historic landscapes; Historic landscapes with importance to local interest groups; Historic landscapes whose value is limited by poor preservation and/or poor survival of contextual associations.
Negligible	Buildings of no architectural or historical note; buildings of an intrusive character; Assets with very little or no surviving archaeological interest; Landscapes with little or no significant historical interest.
Unknown	Buildings with some hidden (i.e. inaccessible) potential for historic significance; The importance of the archaeological resource has not been ascertained.

Concepts – Conservation Principles
In making an assessment, this document adopts the conservation values (*evidential*, *historical*, *aesthetic* and *communal*) laid out in *Conservation Principles* (English Heritage 2008), and the concepts of *authenticity* and *integrity* as laid out in the guidance on assessing World Heritage Sites (ICOMOS 2011). This is in order to determine the relative importance of *setting* to the significance of a given heritage asset.

Evidential Value
Evidential value (or research potential) is derived from the potential of a structure or site to provide physical evidence about past human activity, and may not be readily recognised or even visible. This is the primary form of data for periods without adequate written documentation. This is the least equivocal value: evidential value is absolute; all other ascribed values (see below) are subjective. However,

Historical Value
Historical value (narrative) is derived from the ways in which past people, events and aspects of life can be connected via a place to the present; it can be *illustrative* or *associative*.

Illustrative value is the visible expression of evidential value; it has the power to aid interpretation of the past through making connections with, and providing insights into, past communities and their activities through a shared experience of place. Illustrative value tends to be greater if a place features the first or only surviving example of a particular innovation of design or technology.

Associative value arises from a connection to a notable person, family, event or historical movement. It can intensify understanding by linking the historical past to the physical present, always assuming the place bears any resemblance to its appearance at the time. Associational value can also be derived from known or suspected links with other monuments (e.g. barrow cemeteries, church towers) or cultural affiliations (e.g. Methodism).

Buildings and landscapes can also be associated with literature, art, music or film, and this association can inform and guide responses to those places.

Historical value depends on sound identification and the direct experience of physical remains or landscapes. Authenticity can be strengthened by change, being a living building or landscape, and historical values are harmed only where adaptation obliterates or conceals them. The appropriate use of a place – e.g. a working mill, or a church for worship – illustrates the relationship between design and function and may make a major contribution to historical value. Conversely, cessation of that activity – e.g. conversion of farm buildings to holiday homes – may essentially destroy it.

Aesthetic Value
Aesthetic value (emotion) is derived from the way in which people draw sensory and intellectual stimulation from a place or landscape. Value can be the result of *conscious design*, or the *fortuitous outcome* of landscape evolution; many places combine both aspects, often enhanced by the passage of time.

Design value relates primarily to the aesthetic qualities generated by the conscious design of a building, structure or landscape; it incorporates composition, materials, philosophy and the role of patronage. It may have associational value, if undertaken by a known architect or landscape gardener, and its importance is enhanced if it is seen as innovative, influential or a good surviving example. Landscape parks, country houses and model farms all have design value. The landscape is not static, and a designed feature can develop and mature, resulting in the 'patina of age'.

Some aesthetic value developed *fortuitously* over time as the result of a succession of responses within a particular cultural framework e.g. the seemingly organic form of an urban or rural landscape or the relationship of vernacular buildings and their materials to the landscape. Aesthetic values are where proposed developments usually have their most pronounced impact: the indirect effects of most developments are predominantly visual or aural, and can extend many kilometres from the site itself. In many instances the impact of a development is incongruous, but that is itself an aesthetic response, conditioned by prevailing cultural attitudes to what the historic landscape should look like.

Communal Value
Communal value (togetherness) is derived from the meaning a place holds for people, and may be closely bound up with historical/associative and aesthetic values; it can be *commemorative, symbolic*, *social* or *spiritual*.

Commemorative and symbolic value reflects the meanings of a place to those who draw part of their identity from it, or who have emotional links to it e.g. war memorials. Some buildings or places (e.g. the Palace of Westminster) can symbolise wider values. Other places (e.g. Porton Down Chemical Testing Facility) have negative or uncomfortable associations that nonetheless have meaning and significance to some and should not be forgotten. *Social value* need not have any relationship to surviving fabric, as it is the continuity of function that is important. *Spiritual value* is attached to places and can arise from the beliefs of a particular religion or past or contemporary perceptions of the spirit of

place. Spiritual value can be ascribed to places sanctified by hundreds of years of veneration or worship, or wild places with few signs of modern life. Value is dependent on the perceived survival of historic fabric or character, and can be very sensitive to change. The key aspect of communal value is that it brings specific groups of people together in a meaningful way.

Authenticity
Authenticity, as defined by UNESCO (2015, no.80), is the ability of a property to convey the attributes of the outstanding universal value of the property. 'The ability to understand the value attributed to the heritage depends on the degree to which information sources about this value may be understood as credible or truthful'. Outside of a World Heritage Site, authenticity may usefully be employed to convey the sense a place or structure is a truthful representation of the thing it purports to portray. Converted farmbuildings, for instance, survive in good condition, but are drained of the authenticity of a working farm environment.

Integrity
Integrity, as defined by UNESCO (2015, no.88), is the measure of wholeness or intactness of the cultural heritage and its attributes. Outside of a World Heritage Site, integrity can be taken to represent the survival and condition of a structure, monument or landscape. The intrinsic value of those examples that survive in good condition is undoubtedly greater than those where survival is partial and condition poor.

Summary
As indicated, individual developments have a minimal or tangential effect on most of the heritage values outlined above, largely because almost all effects are indirect. The principle values in contention are aesthetic/designed and, to a lesser degree aesthetic/fortuitous. There are also clear implications for other value elements (particularly historical and associational, communal and spiritual), where views or sensory experience is important. As ever, however, the key element here is not the intrinsic value of the heritage asset, nor the impact on setting, but the relative contribution of setting to the value of the asset.

Setting – The Setting of Heritage Assets
The principal guidance on this topic is contained within two publications: *The Setting of Heritage Assets* (Historic England 2015) and *Seeing History in the View* (English Heritage 2011). While interlinked and complementary, it is useful to consider heritage assets in terms of their *setting* i.e. their immediate landscape context and the environment within which they are seen and experienced, and their *views* i.e. designed or fortuitous vistas experienced by the visitor when at the heritage asset itself, or those that include the heritage asset. This corresponds to the experience of its wider landscape setting.

Where the impact of a proposed development is largely indirect, *setting* is the primary consideration of any HIA. It is a somewhat nebulous and subjective assessment of what does, should, could or did constitute the lived experience of a monument or structure. The following extracts are from the Historic England publication *The Setting of Heritage Assets* (2015, 2 & 4):

The NPPF makes it clear that the setting of a heritage asset is the surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve.

Setting is not a heritage asset, nor a heritage designation. Its importance lies in what it contributes to the significance of the heritage asset. This depends on a wide range of physical elements within, as well as perceptual and associational attributes, pertaining to the heritage asset's surroundings.

While setting can be mapped in the context of an individual application or proposal, it does not have a fixed boundary and cannot be definitively and permanently described for all time as a spatially bounded area or as lying within a set distance of a heritage asset because what comprises a heritage asset's setting may change as the asset and its surroundings evolve or as the asset becomes better understood or due to the varying impacts of different proposals.

The HIA sets out to determine the magnitude of the effect and the sensitivity of the heritage asset to that effect. The fundamental issue is that proximity and visual and/or aural relationships may affect the experience of a heritage asset, but if setting is tangential to the significance of that monument or structure, then the impact assessment will reflect this. This is explored in more detail below.

Landscape Context
The determination of *landscape context* is an important part of the assessment process. This is the physical space within which any given heritage asset is perceived and experienced. The experience of this physical space is related to the scale of the landform, and modified by cultural and biological factors like field boundaries, settlements, trees and woodland. Together, these determine the character and extent of the setting.

Landscape context is based on topography, and can vary in scale from the very small – e.g. a narrow valley where views and vistas are restricted – to the very large – e.g. wide valleys or extensive upland moors with 360° views. Where very large landforms are concerned, a distinction can be drawn between the immediate context of an asset (this can be limited to a few hundred metres or less, where cultural and biological factors impede visibility and/or experience), and the wider context (i.e. the wider landscape within which the asset sits).

When new developments are introduced into a landscape, proximity alone is not a guide to magnitude of effect. Dependant on the nature and sensitivity of the heritage asset, the magnitude of effect is potentially much greater where the proposed development is to be located within the landscape context of a given heritage asset. Likewise, where the proposed development would be located outside the landscape context of a given heritage asset, the magnitude of effect would usually be lower. Each case is judged on its individual merits, and in some instances the significance of an asset is actually greater outside of its immediate landscape context; for example, where church towers function as landmarks in the wider landscape.

Views
Historic and significant views are the associated and complementary element to setting, but can be considered separately as developments may appear in a designed view without necessarily falling within the setting of a heritage asset *per se*. As such, significant views fall within the aesthetic value of a heritage asset, and may be *designed* (i.e. deliberately conceived and arranged, such as within parkland or an urban environment) or *fortuitous* (i.e. the graduated development of a landscape 'naturally' brings forth something considered aesthetically pleasing,

or at least impressive, as with particular rural landscapes or seascapes), or a combination of both (i.e. the *patina of age*, see below). The following extract is from the English Heritage publication *Seeing History in the View* (2011, 3):

Views play an important part in shaping our appreciation and understanding of England's historic environment, whether in towns or cities or in the countryside. Some of those views were deliberately designed to be seen as a unity. Much more commonly, a significant view is a historical composite, the cumulative result of a long process of development.

The Setting of Heritage Assets (2015, 3) lists a number of instances where views contribute to the particular significance of a heritage asset:

- Views where relationships between the asset and other historic assets or places or natural features are particularly relevant;
- Views with historical associations, including viewing points and the topography of battlefields;
- Views where the composition within the view was a fundamental aspect of the design or function of the heritage asset;
- Views between heritage assets and natural or topographic features, or phenomena such as solar and lunar events;
- Views between heritage assets which were intended to be seen from one another for aesthetic, functional, ceremonial or religious reasons, such as military or defensive sites, telegraphs or beacons, Prehistoric funerary and ceremonial sites.

On a landscape scale, views, taken in the broadest sense, are possible from anywhere to anything, and each may be accorded an aesthetic value according to subjective taste. Given that terrain, the biological and built environment, and public access restrict our theoretical ability to see anything from anywhere, in this assessment the term *principal view* is employed to denote both the deliberate views created within designed landscapes, and those fortuitous views that may be considered of aesthetic value and worth preserving. It should be noted, however, that there are distance thresholds beyond which perception and recognition fail, and this is directly related to the scale, height, massing and nature of the heritage asset in question. For instance, beyond 2km the Grade II cottage comprises a single indistinct component within the wider historic landscape, whereas at 5km or even 10km a large stately home or castle may still be recognisable. By extension, where assets cannot be seen or recognised i.e. entirely concealed within woodland, or too distant to be distinguished, then visual harm to setting is moot. To reflect this emphasis on recognition, the term *landmark asset* is employed to denote those sites where the structure (e.g. church tower), remains (e.g. earthwork ramparts) or – in some instances – the physical character of the immediate landscape (e.g. a distinctive landform like a tall domed hill) make them visible on a landscape scale. In some cases, these landmark assets may exert landscape *primacy*, where they are the tallest or most obvious man-made structure within line-of-sight. However, this is not always the case, typically where there are numerous similar monuments (multiple engine houses in mining areas, for instance) or where modern developments have overtaken the heritage asset in height and/or massing.

Yet visibility alone is not a clear guide to visual impact. People perceive size, shape and distance using many cues, so context is critically important. For instance, research on electricity pylons (Hull & Bishop 1988) has indicated scenic impact is influenced by landscape complexity: the visual impact of pylons is less pronounced within complex scenes, especially at longer distances, presumably because they are less of a focal point and the attention of the observer is diverted. There are many qualifiers that serve to increase or decrease the visual impact of a proposed development (see Table 2), some of which are seasonal or weather-related.

Thus the principal consideration of assessment of indirect effects cannot be visual impact *per se*. It is an assessment of the likely magnitude of effect, the importance of setting to the significance of the heritage asset, and the sensitivity of that setting to the visual or aural intrusion of the proposed development. The schema used to guide assessments is shown in Table 3 (below).

Assessment and Landscape Context

The determination of *landscape context* is an important part of the assessment process. This is the physical space within which any given heritage asset is perceived and experienced. The experience of this physical space is related to the scale of the landform, and modified by cultural and biological factors like field boundaries, settlements, trees and woodland.

Landscape context is based on topography, and can vary in scale from the very small – e.g. a narrow valley where views and vistas are restricted – to the very large – e.g. wide valleys or extensive upland moors with 360° views. Where very large landforms are concerned, a distinction can be drawn between the immediate context of an asset (this can be limited to a few hundred metres or less, where cultural and biological factors impede visibility and/or experience), and the wider context (i.e. the wider landscape within which the asset sits).

When new developments are introduced into a landscape, proximity alone is not a guide to magnitude of effect. Dependant on the nature and sensitivity of the heritage asset, the magnitude of effect is potentially much greater where the proposed development is to be located within the landscape context of a given heritage asset. Likewise, where the proposed development would be located outside the landscape context of a given heritage asset, the magnitude of effect would usually be lower. Each case is judged on its individual merits, and in some instances the significance of an asset is actually greater outside of its immediate landscape context, for example, where church towers function as landmarks in the wider landscape.

Type and Scale of Impact

The effect of a proposed development on a heritage asset can be direct (i.e. the designated structure itself is being modified or demolished, the archaeological monument will be built over), or indirect (e.g. a housing estate built in the fields next to a Listed farmhouse, and wind turbine erected near a hillfort etc.); in the latter instance the principal effect is on the setting of the heritage asset. A distinction can be made between construction and operational phase effects. Individual developments can affect multiple heritage assets (aggregate impact), and contribute to overall change within the historic environment (cumulative impact).

Construction phase: construction works have direct, physical effects on the buried archaeology of a site, and a pronounced but indirect effect on neighbouring properties. Direct effects may extend beyond the nominal footprint of a site e.g. where related works or site compounds are located off-site. Indirect effects are both visual and aural, and may also affect air quality, water flow and traffic in the local area.

Operational phase: the operational phase of a development is either temporary (e.g. wind turbine or mobile phone mast) or effectively permanent (housing development or road scheme). The effects at this stage are largely indirect, and can be partly mitigated over time through provision of screening. Large development would have an effect on historic landscape character, as they transform areas from one character type (e.g. agricultural farmland) into another (e.g. suburban).

Cumulative Impact: a single development will have a physical and a visual impact, but a second and a third site in the same area will have a synergistic and cumulative impact above and beyond that of a single site. The cumulative impact of a proposed development is particularly difficult to estimate, given the assessment must take into consideration operational, consented and proposals in planning.

Aggregate Impact: a single development will usually affect multiple individual heritage assets. In this assessment, the term aggregate impact is used to distinguish this from cumulative impact. In essence, this is the impact on the designated parts of the historic environment as a whole.

Scale of Impact

The effect of development and associated infrastructure on the historic environment can include positive as well as negative outcomes. However, all development changes the character of a local environment, and alters the character of a building, or the setting within which it is experienced. Change is invariably viewed as negative, particularly within respect to larger developments; thus while there can be beneficial outcomes (e.g. positive/moderate), there is a presumption here that, as large and inescapably modern intrusive visual actors in the historic landscape, the impact of a development will almost always be **neutral** (i.e. no impact) or **negative** i.e. it will have a **detrimental impact** on the setting of ancient monuments and protected historic buildings.

This assessment incorporates the systematic approach outlined in the ICOMOS and DoT guidance (see Tables 4-5), used to complement and support the more narrative but subjective approach advocated by Historic England (see Table 6). This provides a useful balance between rigid logic and nebulous subjectivity (e.g. the significance of effect on a Grade II Listed building can never be greater than moderate/large; an impact of negative/substantial is almost never achieved). This is in adherence with GPA3 (2015, 7).

TABLE 2: MAGNITUDE OF IMPACT (BASED ON DMRB VOL.11 TABLES 5.3, 6.3 AND 7.3).

Factors in the Assessment of Magnitude of Impact – Buildings and Archaeology	
Major	Change to key historic building elements, such that the resource is totally altered; Change to most or all key archaeological materials, so that the resource is totally altered; Comprehensive changes to the setting.
Moderate	Change to many key historic building elements, the resource is significantly modified; Changes to many key archaeological materials, so that the resource is clearly modified; Changes to the setting of an historic building or asset, such that it is significantly modified.
Minor	Change to key historic building elements, such that the asset is slightly different; Changes to key archaeological materials, such that the asset is slightly altered; Change to setting of an historic building, such that it is noticeably changed.
Negligible	Slight change to elements of a heritage asset or setting that hardly affects it.
No Change	No change to fabric or setting.

TABLE 3: SIGNIFICANCE OF EFFECTS MATRIX (BASED ON DRMB VOL.11 TABLES 5.4, 6.4 AND 7.4; ICOMOS 2011, 9-10).

Value of Heritage Assets	Magnitude of Impact (positive or negative)				
	No Change	Negligible	Minor	Moderate	Major
Very High	Neutral	Slight	Moderate/Large	Large/Very Large	Very Large
High	Neutral	Slight	Moderate/Slight	Moderate/Large	Large/Very Large
Medium	Neutral	Neutral/Slight	Slight	Moderate	Moderate/Large
Low	Neutral	Neutral/Slight	Neutral/Slight	Slight	Slight/Moderate
Negligible	Neutral	Neutral	Neutral/Slight	Neutral/Slight	Slight

TABLE 4: SCALE OF IMPACT.

Scale of Impact	
Neutral	No impact on the heritage asset.
Negligible	Where the developments may be visible or audible, but would not affect the heritage asset or its setting, due to the nature of the asset, distance, topography, or local blocking.
Negative/minor	Where the development would have an effect on the heritage asset or its setting, but that effect is restricted due to the nature of the asset, distance, or screening from other buildings or vegetation.
Negative/moderate	Where the development would have a pronounced impact on the heritage asset or its setting, due to the sensitivity of the asset and/or proximity. The effect may be ameliorated by screening or mitigation.
Negative/substantial	Where the development would have a severe and unavoidable effect on the heritage asset or its setting, due to the particular sensitivity of the asset and/or close physical proximity. Screening or mitigation could not ameliorate the effect of the development in these instances. This is, as is stressed in planning guidance and case law, a very high bar and is almost never achieved.

APPENDIX 2: BASELINE PHOTOGRAPHS: ADDITIONAL IMAGES OF THE LOWER DRY

The south wall of T8, next to the breach; viewed from the south (scale 2m).

The lower part of T8, showing the breach in the wall; viewed from the north-west.

The rear (east) wall of T8, showing the upright railings (indicated); viewed from the west (scale 2m).

The eastern end of T7-8; viewed from the WSW.

View along the eastern side of the site from the south.

View along the western side of the site from the south-west.

The west wall of T7, with B2 and the blocked sluice gate; viewed from the west. Note the projecting granite blocks along the wall top to carry the timber wallplate, and the extra blockwork to the left; the latter is presumably part of the building shown here on the 1969 OS map.

The tanks, viewed from the north-west.

LEFT: Surviving section of the west wall – one of the blocked sluice gates; viewed from the north (scale 2m). Note the iron pipework and valve, similar to the one in the pump house.
RIGHT: Surviving section of the west wall – one of the original sluice gates; viewed from the north (scale 2m).

The settling tanks, viewed from the north-west.

T1-2, viewed from the west.

T1, viewed from the WSW. Note the *in situ* china clay deposits.

A buried timber ?launder located at the northern end of the drying floor; viewed from the west.

The southern end of the drying floor showing B2; viewed from the north-east.

The southern end of the drying floor, viewed from the NNW.

The south doors of the drying floor; viewed from the south (scale 2m).

The concrete ramp leading up to the steel doors; viewed from the south (scale 2m).

The truncated ramp adjacent to the south wall of T8; viewed from the west (scale 2m).

LEFT: The west wall of T7 below B2, showing a concrete gully running down the battered surface of the wall; viewed from the north-west.
RIGHT: The south wall of the drying floor, showing the concrete reveals of the double steel doors and the blocked doorway above; viewed from the north-west. Note the use of brick (probably from the flues) on the wall top.

The structure next to the north wall of C1 in the linhay; viewed from the south.

LEFT: A groove cut in the wall separating the drying floor and the linhay, corresponding to the concrete gully below B2 (above).
RIGHT: The east wall of the linhay in C5, viewed from the north.

The west wall of the linhay, showing one of the stone sections; viewed from the east (scale 2m).

The west wall of C5, viewed from the east.

The west wall of the linhay, showing the iron pillars, wooden wallplate, and concrete blocking; viewed from the north-east.

The possible opening in the wall separating C4 and C5, with its strong projecting reveals; viewed from the north (scale 2m).

B2, viewed from the north.

B2, the ground floor interior of the pump house; viewed from the south-west.

B2, the first floor interior of the pump house showing the breach to the staff welfare; viewed from the north-east.

The exposed roof structure in B2, viewed from the west.

B2, the surviving stairs in the pump house.

The breach in the south wall of T8, showing the yard with B3 and B2; viewed from the east.

The east elevation of B3, viewed from the east (2m).

One of the small buildings (privies) to the rear of the properties on Quay Road, viewed from the south. This building is to the rear of nos. 23-24. Note the use of brick in the wall to the left (the property boundary with the Lower Dry), perhaps derived from the flues.


LEFT: The possible privy (separately owned), just inside the site entrance; viewed from the north-east (scale 2m).
RIGHT: The collapsed mono-pitch shed adjacent (separately owned); viewed from the west (scale 2m).

APPENDIX 3: BASELINE PHOTOGRAPHS: ADDITIONAL IMAGES FROM AROUND CHARLESTOWN

The view from Charlestown Road past no.26, with inset; viewed from the west.

As above, inset showing detail.

The site from outside the GII* Listed Wesleyan Chapel on Charlestown Road; viewed from the WSW.

The site from outside the GII Listed Rashleigh Arms Hotel; viewed from the WSW.

The site viewed from Charlestown Road, looking across the car park of the Rashleigh Arms Hotel; viewed from the WSW.

The site viewed from the car park (former ore floors) at the Rashleigh Arms Hotel; viewed from the WSW.

The site viewed from outside the GII Listed Harbourside Inn; viewed from the SSW.

As above, inset showing detail.

The site viewed from the GII* harbour wall; viewed from the south.

As above, inset showing detail.

The site viewed from the end of the GII* harbour wall; viewed from the south.

As above, inset showing detail.

The site viewed from the rocky shoreline south-east of the Battery; viewed from the south.

As above, inset showing detail.

The site viewed from the garden of the Pierhouse Hotel; viewed from the south.

As above, inset showing detail.

The site from the path leading up to the Battery; viewed from the south.

As above, inset showing detail.

The site from the footpath adjacent to the GII Listed Battery; viewed from the south.

As above, inset showing detail.

The site from the SWCP just east of Charlestown; viewed from the SSE.

As above, inset showing detail.

The site from the SWCP between Carlyon Bay and Charlestown; viewed from the south-east.

As above, inset showing detail.

The site from the SWCP between Carlyon Bay and Charlestown; viewed from the south-east.

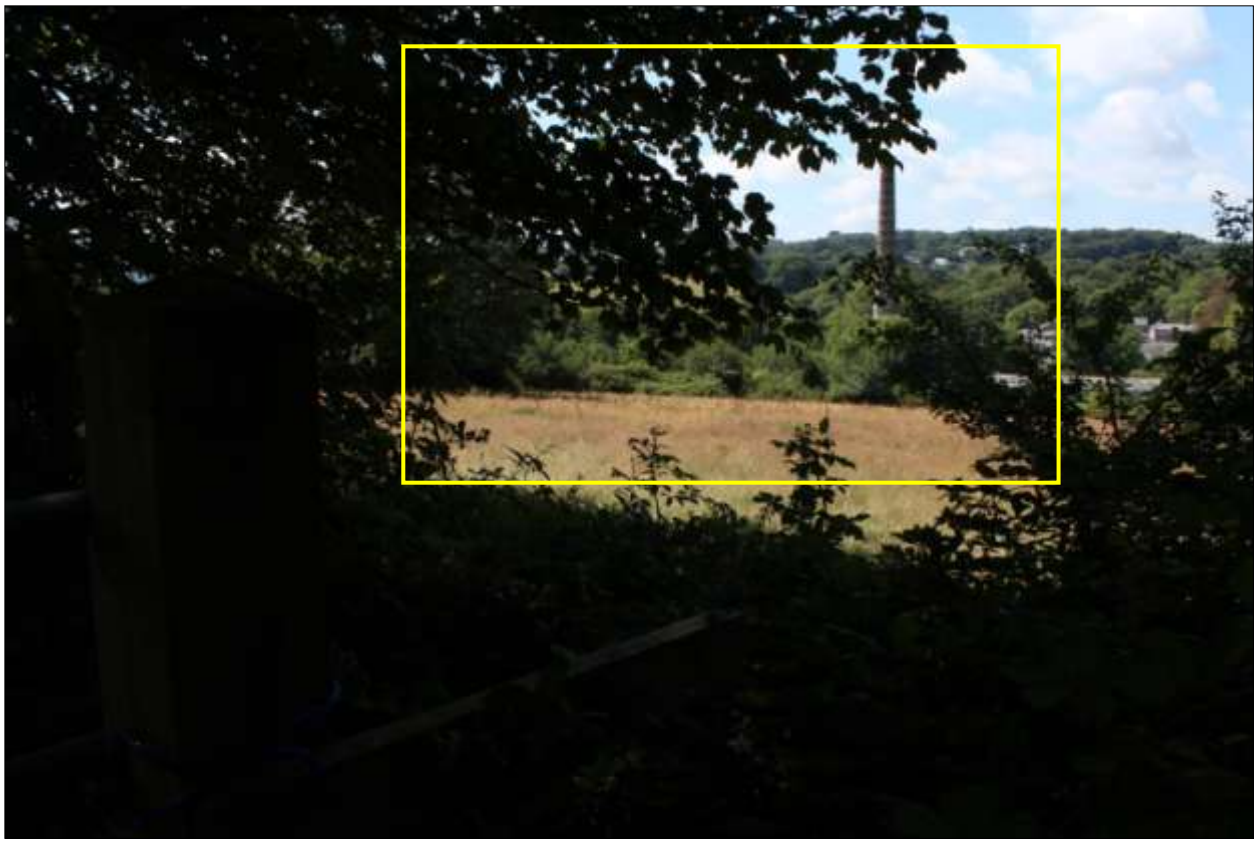
As above, inset showing detail.

The site from the SWCP between Carlyon Bay and Charlestown; viewed from the south-east.

As above, inset showing detail.

The site from the SWCP just south of Carlyon Bay; viewed from the ESE.

As above, inset showing detail.



The site from a field gate off the PROW to the north-east; viewed from the north-east.

As above, inset showing detail.

The site from the PROW to the north; viewed from the NNW.

As above, inset showing detail.

The converted farm buildings to the north of Polmear Farm; viewed from the north-west.

Polmear Farm; viewed from the north-west.

As above, inset showing detail.

View across the lawns in front of Polmear Farm to no.31 Quay Road; the site is behind the trees to the left. Viewed from the north-west.

View across the garden of no.30 Quay Road to the site; viewed from the west.

View of the Heritage Centre (right) and the three GII Listed buildings on Quay Road; viewed from the north-west.

The garden of the GII Listed no.27 Quay Road, looking towards the site; viewed from the west.

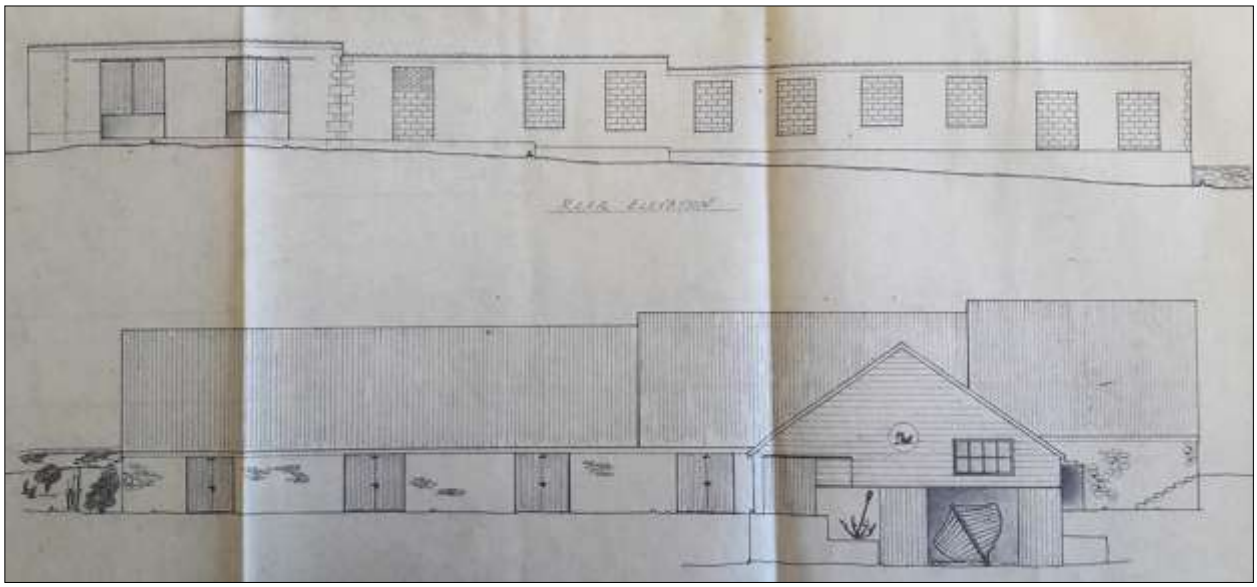
The garden wall with the GII Listed no.23-24 Quay Road in the background; viewed from the west.

View to the site past the GII Listed no.23-24 Quay Road; viewed from the south-west.

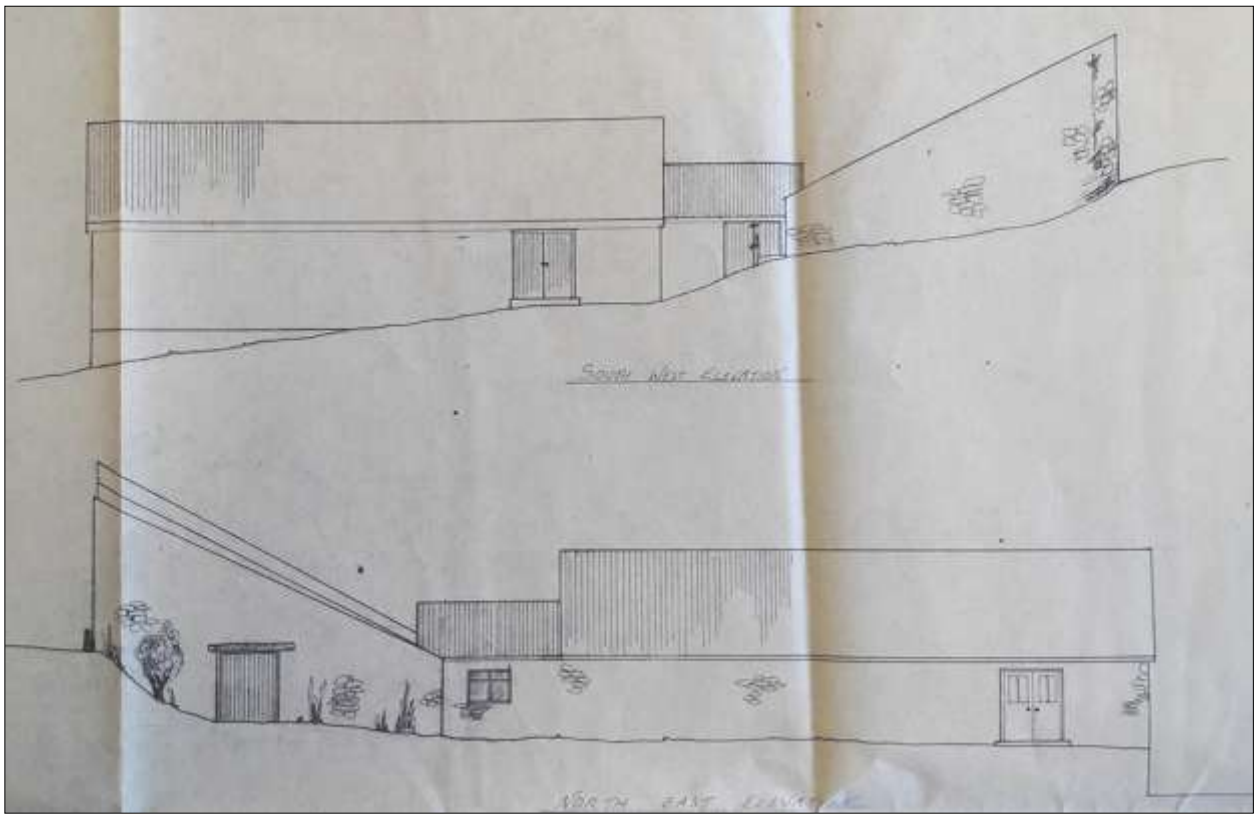
The access to the site; viewed from the south.

The view up Quay Road from the south-west, past the Heritage Centre; viewed from the south-west.

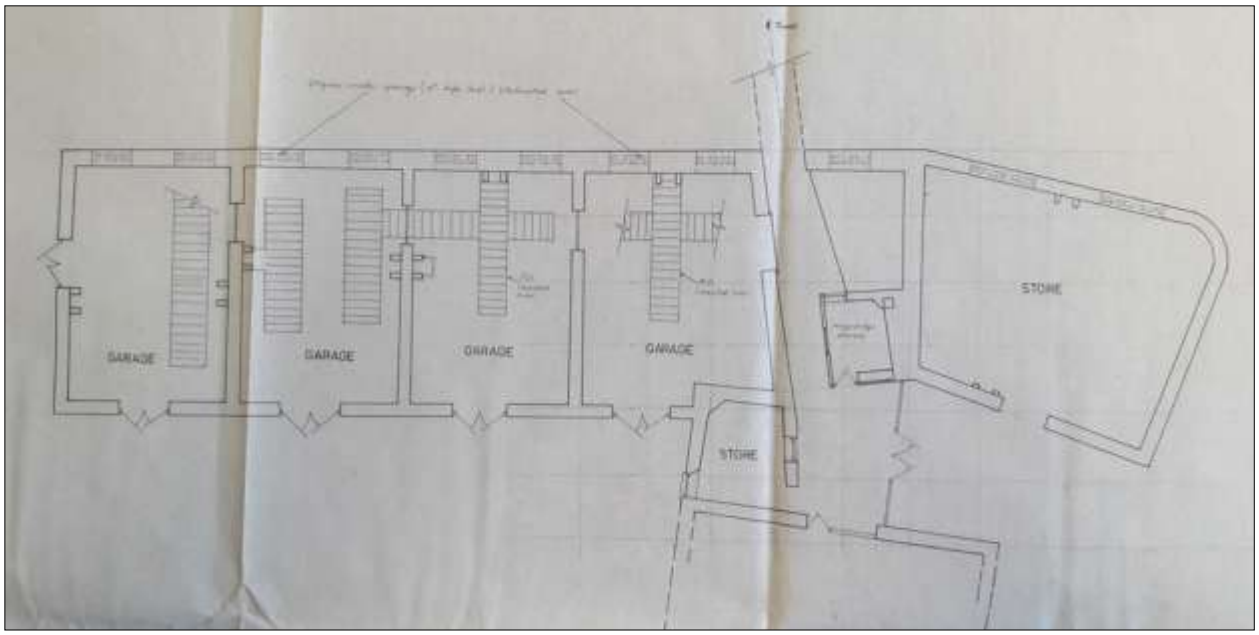
APPENDIX 4: PLANS AND ELEVATIONS OF THE HERITAGE CENTRE PRIOR TO REBUILDING IN 1979×80



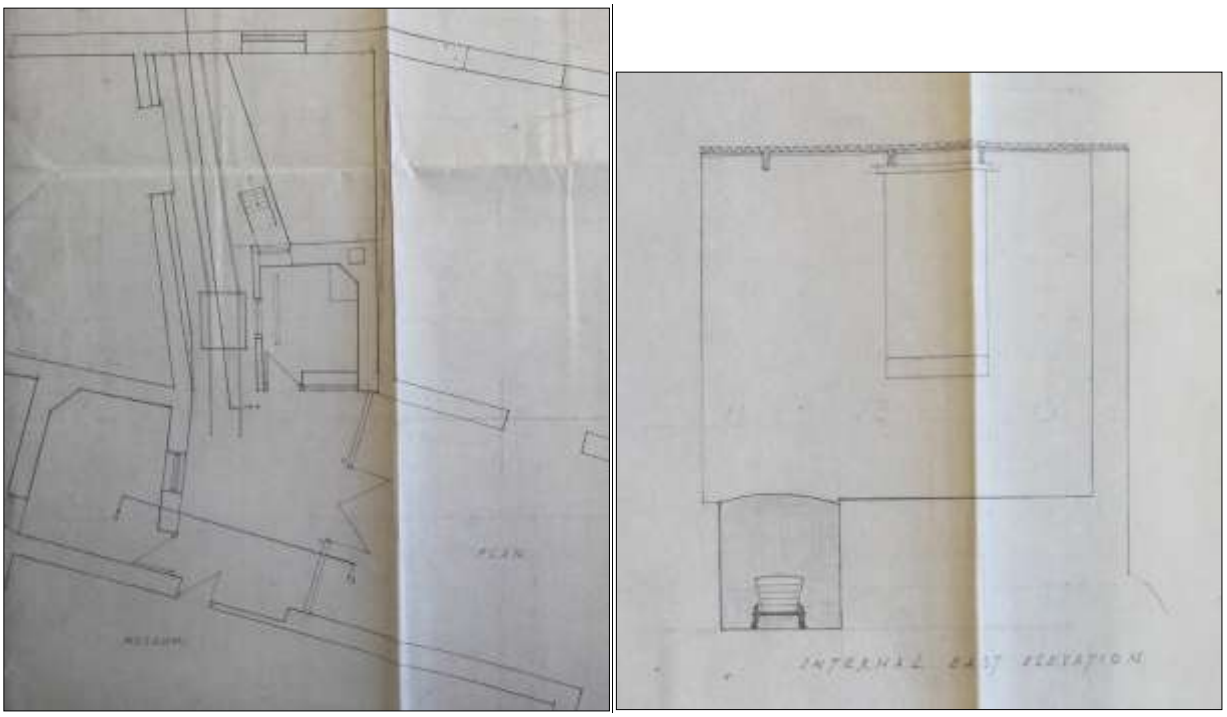
The north-east and south-east elevations.



The north-west and south-east elevations.



The plan



Detail of the tunnel entrance and weighbridge station, in plan and section.

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