

Yennadon Quarry

Yennadon Stone and the built environment

A review of the important role that stone from the quarry plays in maintaining the character and appearance of the local area.

June 2015



CliftonEmerydesign

‘The underlying geology is very varied and this is reflected in the building stones of settlements. Granite the universal stone of the ‘high moor’ and the area adjacent to it, gives way to a mix of other stones at lower levels.’

Dartmoor National Park Design Guide 2011.

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Executive Summary

This report has been prepared in support of a resubmitted planning application to the Dartmoor National Park Authority by Yennadon Stone Limited to extend the working area of Yennadon Quarry.

It concerns the important role that stone quarried from the Yennadon Quarry plays and has played, in supplying stone for building and conservation projects in Dartmoor and the moorland fringe – as well as further afield throughout different parts of Devon and Cornwall.

The report concludes that should the proposed extension be refused planning permission then this would result in the closure of the quarry and consequently would end the availability of Yennadon stone to the local building industry.

It makes the following key points in support of the proposed extension:

- Yennadon is an historic quarry in the Dartmoor National Park and has existed for over 200 years. It is part of the living cultural heritage of Dartmoor.
- Yennadon stone and similar slate stone have been used historically within areas of the National Park and the moorland fringe and this can be evidenced in buildings, walls and other structures in many Dartmoor settlements (including for example; Yelverton, Meavy, Horrabridge, Dousland, Walkhampton, Tavistock, Lydford, Mary Tavy, and Whitchurch).
- The quarry continues to supply high quality slate stone used in the repair, restoration and construction of buildings in Dartmoor and the moorland fringe.
- There are no viable alternatives sources of stone of the same colour, shape and size, quality and type to that supplied from Yennadon Quarry.
- The quarry currently employs 21 people. Their jobs will be lost if the quarry closes. There will also be negative socio economic impact upon companies that do business with the quarry.
- Whilst areas of the ‘high moor’ are mostly associated with the use of granite in the construction of buildings and other structures, the ‘moorland fringe’ has a legacy of utilising metamorphic stone that is more consistent with the geology of these areas.

- The planning permission sought is for a temporary period of operation ending in 2025 and includes a plan for the restoration of the landscape.
- The proposed extension to Yennadon Quarry can be achieved without adverse environmental impacts as demonstrated by the Environmental Statement that accompanies the planning application.
- Planning policy for the Dartmoor National Park encourages the use of appropriate local stone in the construction of new buildings and structures in order to maintain the distinctive local character of the moor.
- Design guidance in the adopted Dartmoor National Park Design Guide 2011 and related Conservation Area Appraisals identifies the importance of using local metamorphic stone in construction projects in 'moorland fringe' areas.
- The SHLAA for the DNPA area identifies nearly half of its sites that are available for housing in areas that have an underlying geology that is slatey and therefore generally appropriate for use of Yennadon stone.
- National and regional planning policy stresses the importance of local distinctiveness in the design and construction of new development.
- Building stone from Yennadon Quarry has been used historically in projects in and adjacent to the National Park.
- Building stone from the quarry is of an appropriate quality to ensure it meets the standards required by the Building Regulations and other industry quality controls requirements. It has strong and durable characteristics when compared with many other slate stones.
- There are many thousands of new homes and associated development and infrastructure planned to be built in neighbouring local authorities (allocated in local plans or emerging plans for West Devon, South Hams, Teignbridge, Plymouth and Cornwall) over the next 10 years or more. Many of the sites/ areas are in areas where Yennadon stone would be an eminently appropriate high quality natural stone facing material.



1.0 Introduction

1.1 Background to the report

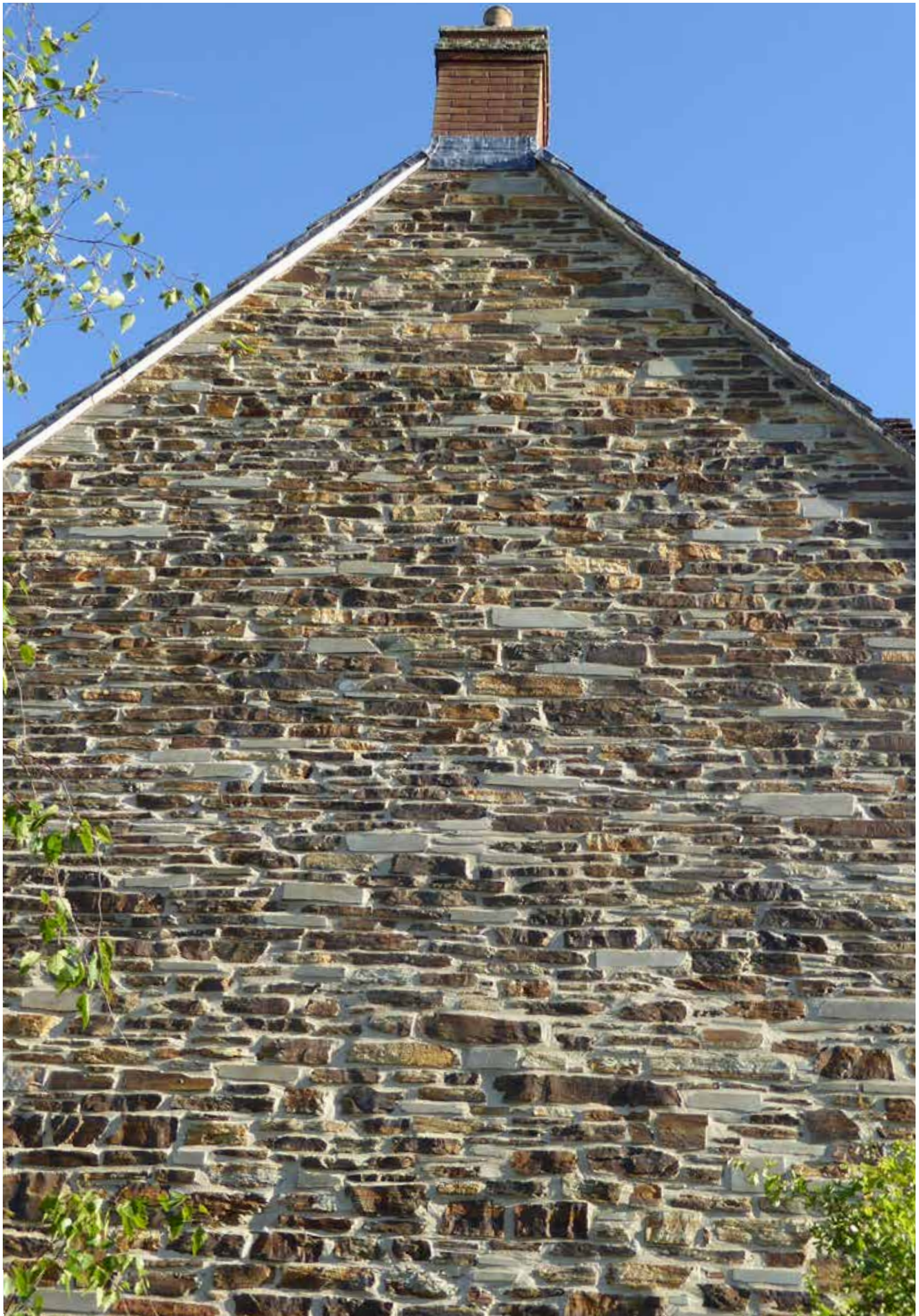
- 1.1.1 This report is part of a suite of documents in support of a resubmitted planning application to extend the working plan area of Yennadon Quarry in Dousland, Devon - located on the southern fringe of Dartmoor National Park. Planning consent to extend the quarry was refused by the Dartmoor National Park Authority (DNPA) in July 2014.
- 1.1.2 The report has been prepared by Clifton Emery Design on behalf of the current operators of the quarry, Yennadon Stone Limited. Its purpose is to explain the important role that the quarry plays supplying stone that supports the quality of building design and historic building conservation in the local area and moreover within the National Park itself.
- 1.1.3 The report demonstrates that there are indeed overriding needs and exceptional circumstances to justify the proposed extension to the working plan area of the quarry and that there are evidently not alternative sources of stone that are available which are close to the nature and quality that can be sourced from Yennadon.
- 1.1.4 Yennadon is the only remaining operational quarry supplying local stone within the boundary of the National Park. The quarry provides an invaluable source of building stone for local building projects as well as projects in other parts of Devon and Cornwall. It has supplied stone for local building construction for over 200 years and as such it has made, and continues to make, a significant contribution to the character and appearance of the built environment.
- 1.1.5 As well as providing an important source of local stone, the quarry also represents part of the cultural legacy of the moor. It contributes to its diverse human landscape and industrial heritage. As Tom Greeves, Chairman of the Dartmoor Society, pointed out in his letter to the Western Morning News published in August 2014 expressing his grave concerns about the refusal of consent for the extension ⁽¹⁾; Yennadon Quarry represents;

‘... lively small-scale industrial activity typical of scores of quarries on so much of Dartmoor over the centuries.’

‘... is the last active stone quarry on moorland Dartmoor – a living example of cultural heritage.’

- 1.1.6 Whilst the quarry remains viable and stays open for business, the availability of Yennadon stone means that the tradition of using high quality and locally appropriate local stone in new buildings and in the conservation and restoration of historic structures can be maintained into the future. It also means that an important aspect of life on Dartmoor can continue.
- 1.1.7 If the resubmitted planning application to extend the quarry is refused by the DNPA the future of the quarry will be in jeopardy.
- 1.1.8 This report should be read in conjunction with the ‘Product and Alternative Sources Report’ by John Grimes Partnerships and the Planning Statement by PCL Planning.

⁽¹⁾ Letter from Tom Greeves to the Western Morning News - August 2014



1.0 Introduction

1.2 Purpose of the report

1.2.1 The purpose of the report is to explain why it is important to grant planning permission to extend the working area of the quarry so that it can sustain a viable future and continue to provide an invaluable source of local stone for building and restoration projects.

1.2.2 There were four reasons for the refusal of planning permission in July 2014. This report focuses most particularly on reasons 2 and 3 and illustrates why they cannot be substantiated:

Refusal Reason 2

The proposed extension would perpetuate the quarry and the related impacts in the long term, until 2025. The development is major and there is no overriding need for the development, or other exceptional circumstance demonstrated which would justify permitting the development in the National Park. In this respect the proposal is contrary to the NPPF (para 115 & 116) and policies COR22 and M4 of the Development Plan.

Refusal Reason 3

Acceptable alternative sources of stone exist to meet the demand currently met by the quarry. The alternative option for the quarry itself would be its restoration on exhaustion of the permitted reserves, thus reducing the current landscape impact, and enhancing the landscape. In this respect the proposal is contrary to the NPPF (para 115 & 116) and policies COR22 and M4 of the Development Plan.

1.2.3 A further purpose of the report is to elaborate on supporting evidence to justify the extension to the quarry. The unique character of stone from the quarry, the lack of a genuine alternative source and the contribution that stone from the quarry plays in supplying local building projects was not the subject of a dedicated report in support of the original planning application. In part, as a result of this, the clear and overriding arguments in favour of retaining the operation of the quarry to ensure that supply is sustained into the future were not fully considered by the DNPA.

1.3 Content of the report

1.3.1 In order to outline the exceptional circumstances that justify development in the National Park (referred to in reason for refusal 2), and to demonstrate that an acceptable alternative source of stone clearly does not exist (as referred to in reason for refusal 3) the report includes the following:

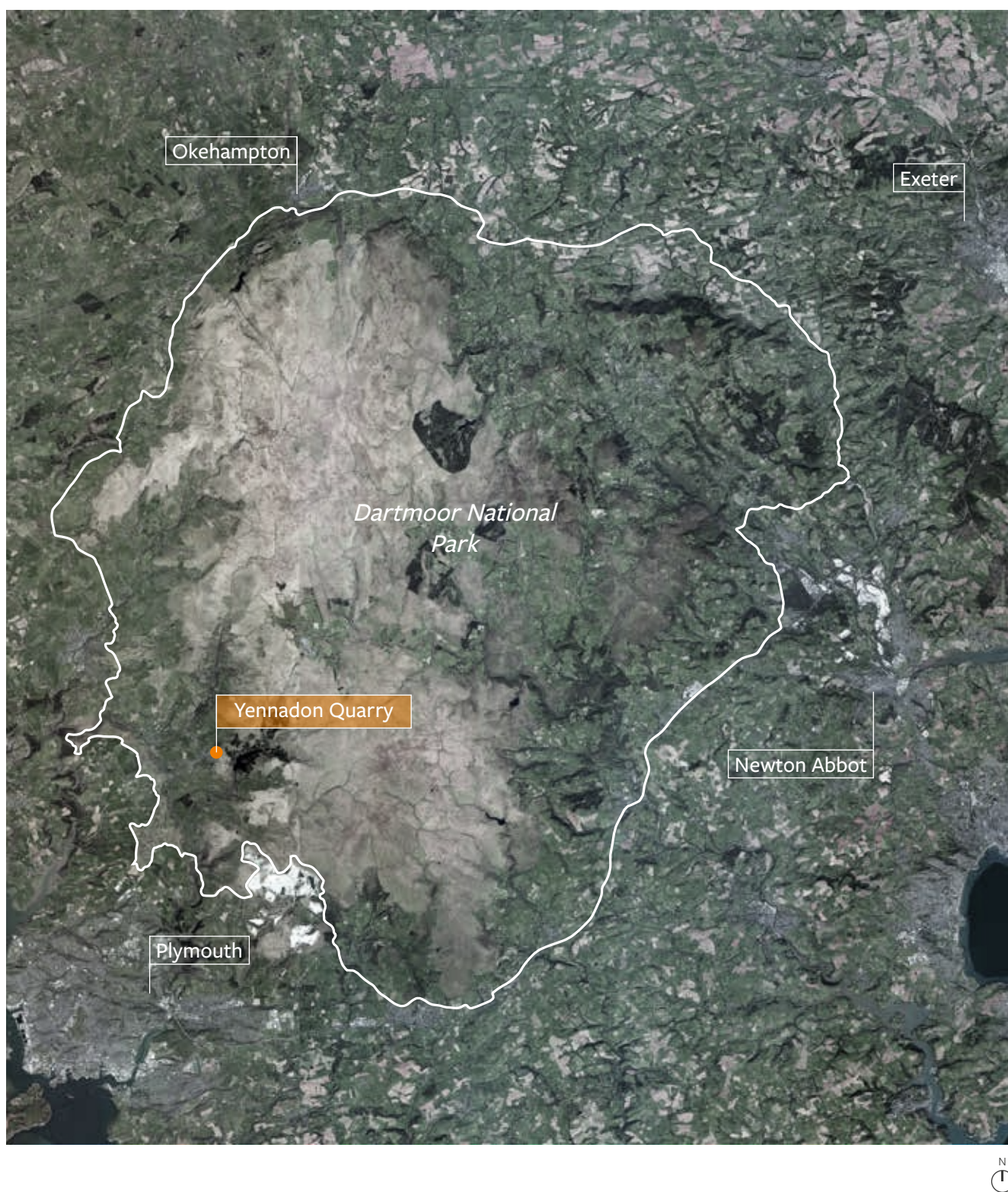
Background to the stone; an historical perspective on the quarry and the use of stone from it in shaping the local built environment; how planning design policy provides a context for supporting the use of locally sourced stone; the qualities of the stone from a structural and aesthetic viewpoint; the absence of a viable alternative stone; the contemporary use of the stone; and finally the consequences of the quarry closing.

1.4 Other reports

1.4.1 A suite of other reports has been prepared and submitted including an updated Environmental Impact Assessment in support of the planning application. These elaborate on why consent should be forthcoming and address the four reasons for refusal in turn. The reports include:

- Screening Opinion and Scoping Opinion
- Photographic Record
- Extractive Materials Management Statement
- Development Proposals, Restoration and Aftercare Plan
- Summary of Planning Policy
- Socio Economic Studies
 - Socio-Economic Report
 - Product & Alternative Sources
 - Yennadon Stone and the built environment (CED)
- Archaeology
- Assessment of Process Pollution
- Emissions Assessment
- Phase 1 Desk Study
- Ground Investigation for Yennadon Quarry Extension: Factual and Interpretive Report
- Noise Assessment
- Transport Statement
- Phase 1 and Phase 2 Ecological Surveys; and Biodiversity Mitigation and Enhancement Plan
- Landscape and Visual Impact Assessment
- Statement of Community Engagement

2.0 About the quarry and the stone



2.1 Background to the quarry

- 2.1.2 Yennadon Quarry is located in the southwest of the National Park – it lies within the administrative boundary of the DNPA and within Burrator Parish. It is about 300 metres east of Dousland on the moorland fringe of Yennadon Down. The site is on common land owned by the Walkhampton Trust and is administered by Lord Roborough’s Maristow Estate. It is leased to Yennadon Stone Limited.
- 2.1.3 It lies just within the western boundary of the southwestern confines of Dartmoor National Park. Access to the existing quarry is gained from Iron Mine Lane via an unmetalled road. This extends to the quarries western edge.
- 2.1.4 Yennadon Down is flanked on its northern boundary by Dousland Plantation and farmland. To its east is Yennadon Plantation, beyond which is Burrator Reservoir. Bowdens Plantation and farmland lie to the south. To the west of Yennadon Down is a strip of fields used for grazing. The village of Dousland lies beyond these fields.
- 2.1.5 Stone for building purposes has been extracted from Yennadon Quarry since the middle of the Nineteenth Century. The quarry has been run under lease to the Maristow Estate for around 80 years and in its current form since 1990.
- 2.1.6 During 1990 planning permission was granted for 35 years (to 2025) for the;

“...winning and working of minerals and continued use of existing buildings”.

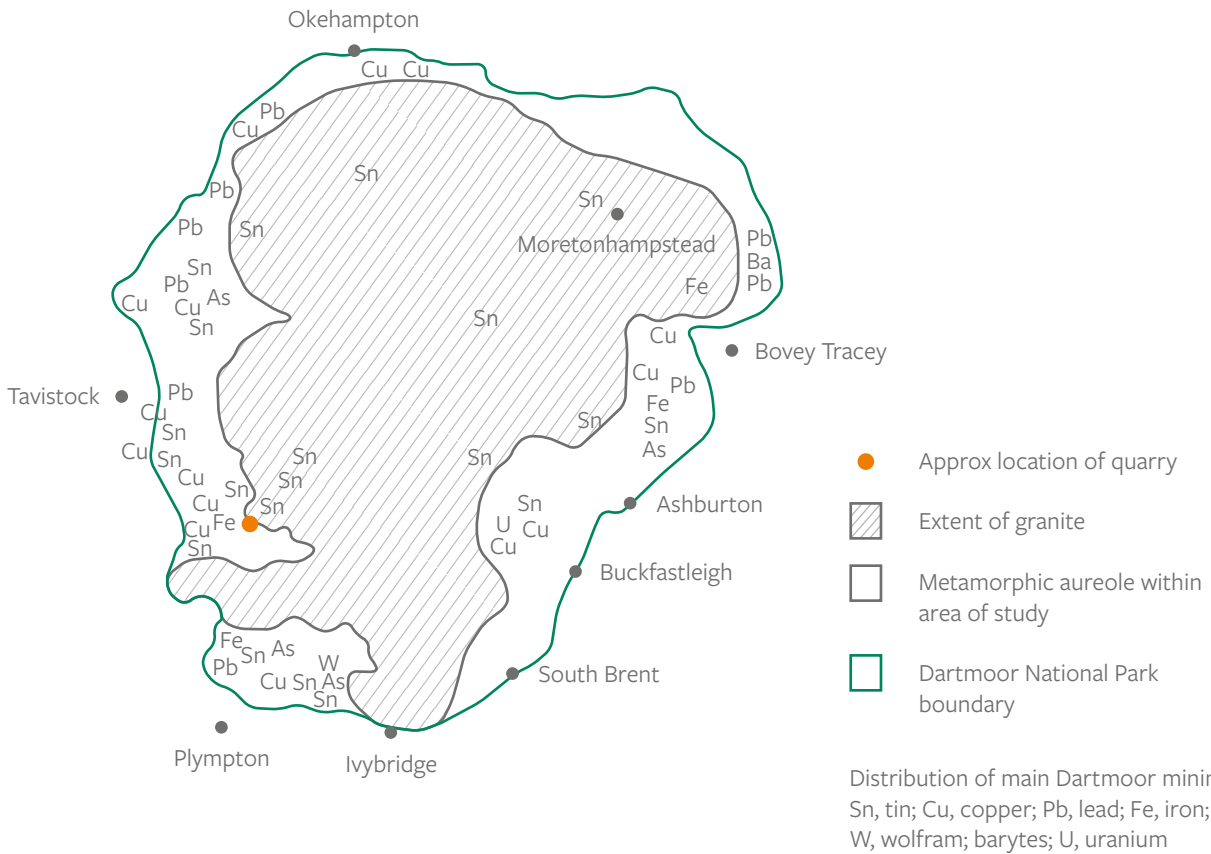
- 2.1.7 The current operation of the quarry is subject to a licence agreement made in 2005 between the Walkhampton Trust and the current operator, Yennadon Stone Ltd.
- 2.1.8 The quarry currently directly employs 21 people from the local area.

2.0 About the quarry and the stone

2.2 Background to the stone

- 2.2.1 Whilst areas of the ‘high moor’ are mostly associated with the use of granite in the construction of buildings and other structures, the ‘moorland fringe’ has a legacy of building using metamorphic sedimentary stone that is more consistent with the geology of these areas. The use of such stone as opposed to granite in ‘moorland fringe’ settlements is very evident in the fabric of buildings, walls and other structures.
- 2.2.2 Some of the settlements characterised by this stone fall within the current administrative boundary of the National Park and some do not. Yennadon stone is the only remaining source of metamorphic stone still quarried in the National Park today and the only source within the ‘metamorphic aureole’ described by Helen Harris in ‘The Industrial Archaeology of Dartmoor’ 1992 P38-39 as wrapping around the granite area.
- 2.2.3 Historically metamorphic sedimentary stone was supplied from a variety of quarries in the ‘moorland fringe’ area and there are variations in the appearance of stones from these different quarries. Whilst colours, tones and textures do vary; for example Hurdwick stone has a distinctive green tinge, there is an overall consistency in the appearance of metamorphic stone from the quarries surrounding the granite area of the moor – stone sourced from Yennadon has this character and appearance and this makes it a good stone to use in the local area (where granite is not the prevailing material).
- 2.2.4 Yennadon stone has been specified and used in building projects requiring stone in many locations within the National Park, the moorland fringe and within the World Heritage site in Tavistock. Its use is evident in the fabric of the historic and contemporary built environment throughout the area.
- 2.2.5 Yennadon Quarry supplies ‘dimensional’ building stone (stone with sawn faces to make a block suitable for building construction) and stone used in walling and landscaping. Specifically the quarry supplies Hornfelsed slate – a type of metamorphic sedimentary stone. It has been altered by the nearby ‘granite infusion’ (a geological description for the impacts on the nature of the stone at Yennadon of the adjacent granite area) into a Hornfelsed slate; as a result it is particularly strong and durable and has a distinct character and appearance.
- 2.2.6 The stone is well suited as a building stone in the locality. It has a character and appearance that is also appropriate to a number of different locations on the southwest peninsula. It is very durable and resistant to both frost and weathering. It has an established reputation as a good, flexible, high quality building stone.
- 2.2.6 Most other existing ‘slate’ quarries in the region (all of which fall outside of the Dartmoor ‘metamorphic aureole’), produce a dark grey “blue” slate and this is quite different in character, appearance and strength. There are no other quarried sources of the Hornfelsed slate of the same character as that extracted at Yennadon.
- 2.2.7 The operation at the quarry is extremely efficient making the most of what is a finite resource. It maximises the material suitable for sale with limited amounts of ‘spoil’ generated. Small quantities of residue stone are sold; however, most of the residue is stockpiled on site. It has been set aside to be used for landscaping during site restoration

Later Mining



Mary Tavy



Whitchurch



Burrator



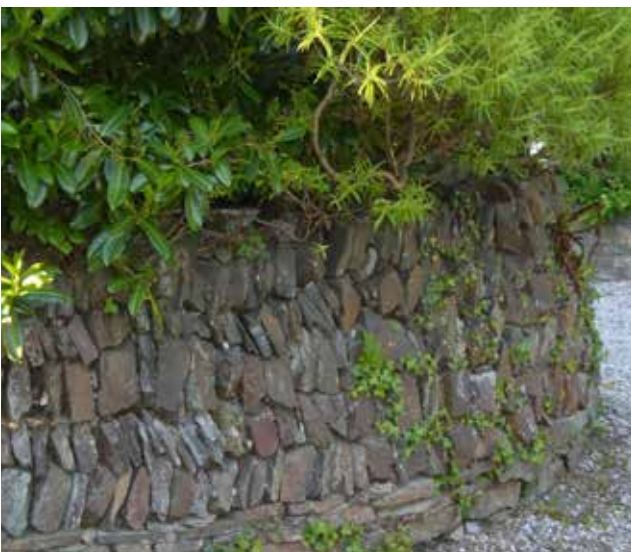
Meavy



Yelverton



Whitchurch



Dousland



Buckland Monochorum

3.0 History

3.1 Background to history

- 3.1.1 The history of the quarry is not well documented and as a result there is a degree of informed speculation that needs to be applied in order to understand the role that it has played historically in providing stone for local use and in turn contributing to the character and appearance of the built environment. Notwithstanding this, simple visual appraisal of existing settlements illustrates beyond question that Yennadon stone and/ or stone similar to it have been used in the local area for many centuries (refer to section 3.4).

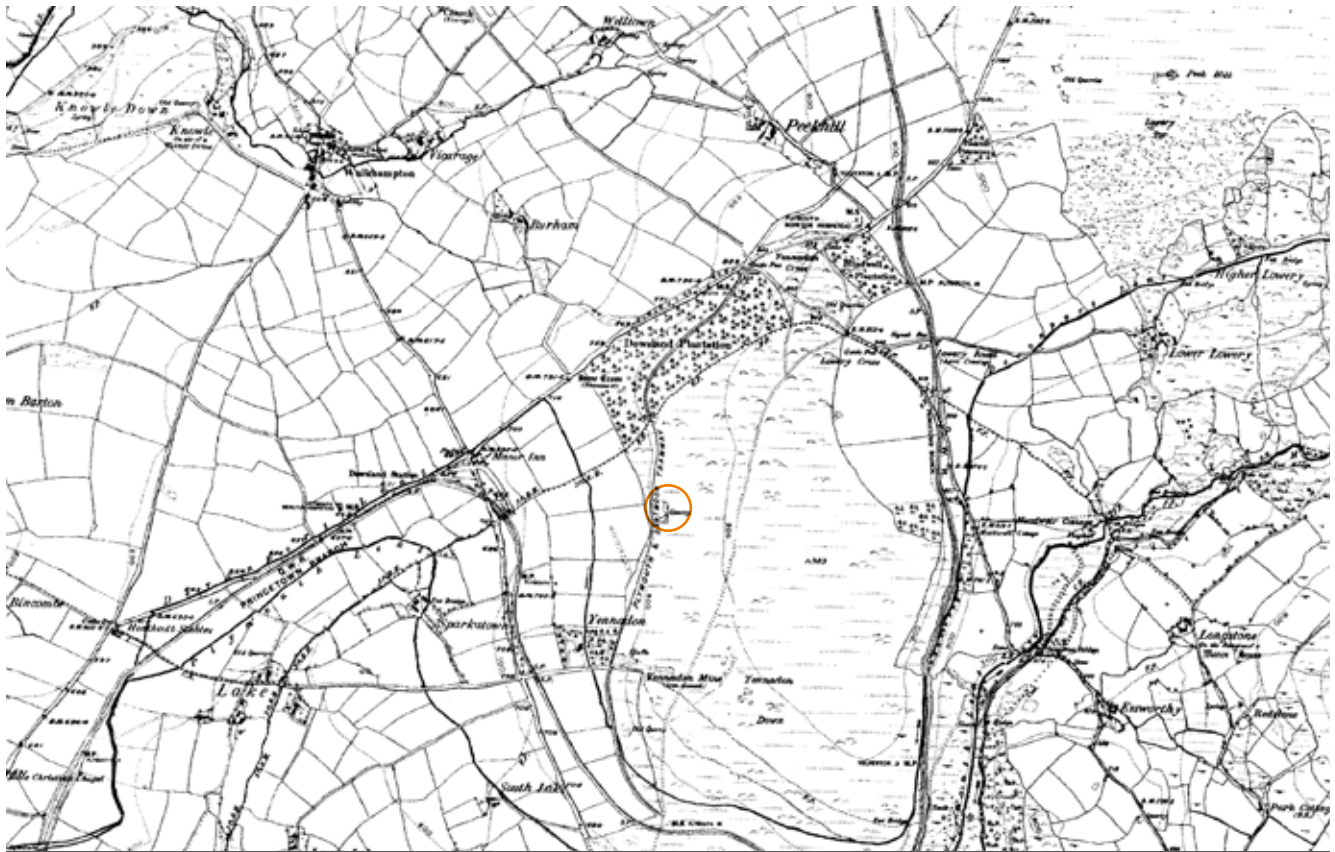
This section of the report concentrates on the known history of the quarry, the historic context within which it would have operated (alongside many other industrial activities), and the extent of use of the stone from Yennadon and other local stone quarries, now disused, in forming the local built environment.

‘The tally of Devon building stones is still not complete. Slate, both for masonry and as a roofing material, made a significant contribution in every century from the twelfth to the nineteenth. Many small quarries and a few large ones, widely distributed and mostly over-grown today, serve to remind us of how important slate used to be.’

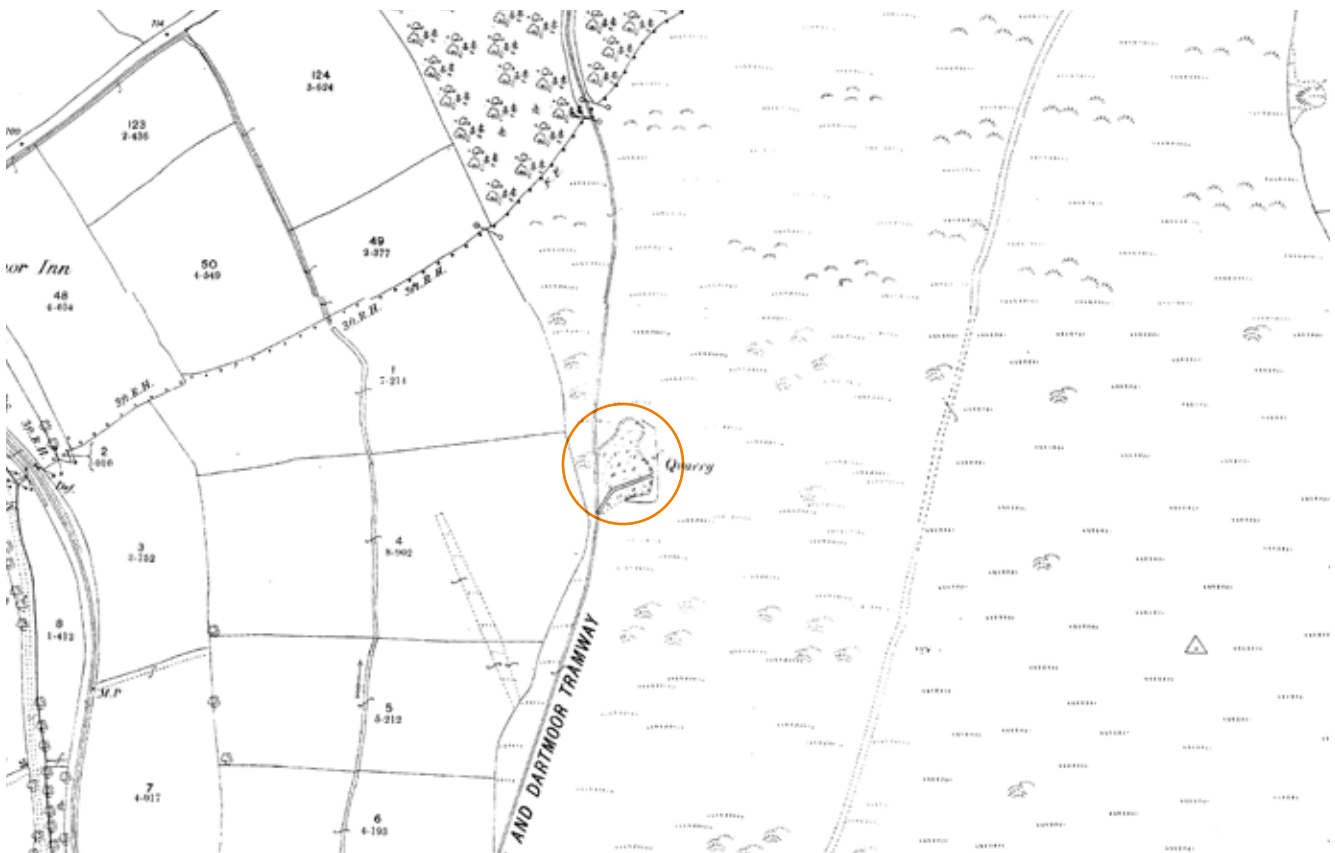
Buildings of England. Devon
Bridget Cherry and Nikolaus Pevsner

3.2 History of the quarry

- 3.2.1 Due to sparse records and limited available documentation, there is not a clear picture of when the quarry was first established and how consistently it has produced building stone from that time. What is clear however, is that local building stone from the ‘metamorphic aureole’ – with the character of local slate, surrounding the granite areas of the ‘high moor’, has been used in building construction locally for many centuries.
- 3.2.2 Tithe maps dated 1800 show the first record of the existence of the quarry at Yennadon. Later Ordnance Survey mapping shows clearly that the quarry was in existence prior to the publication of the 1886 OS series. In addition, letters contained in the West Devon Records office dating from 1865 refer to the quarry. On the basis of this evidence alone the quarry has been a feature of moorland life for at least the last 215 years.
- 3.2.3 This is consistent with evidence from the Maristow Estate which suggests that it is highly likely that stone has been sourced from Yennadon for the last 200 years. The quarry has always fallen within the demise of the Maristow Estate.
- 3.2.4 Whilst there are not records of who quarried Yennadon during the Nineteenth Century, in the Twentieth Century the quarry was run by the Trebath family for about 75 years up to 2004. From 2005 onward, the quarry has been run by Yennadon Stone Limited – the incumbent operator. Towards the end of the tenure by the Trebath family the quarrying of stone was limited.
- 3.2.5 During the middle part of the Nineteenth Century the setting of the quarry would have been quite different to that seen today. At that time the area was characterised by lively small-scale industrial activities many of which would have originated during the years of the Industrial Revolution (1790 – 1840). Yennadon is typical of scores of quarries that were on Dartmoor during the Nineteenth Century. As can be seen on the 1886 OS map – the quarry pre dated the housing that now forms the Dousland settlement.



Yennadon Quarry 1886 - seen in the context of other industrial archaeology.



Yennadon Quarry 1884 - 1887



3.0 History

- 3.2.6 Yennadon remains today an important part of our cultural legacy and makes a contribution to our diverse human landscape. It is the last active stone quarry on moorland Dartmoor and as such a living example of cultural heritage – the only remaining example of industrial archaeology.
- 3.2.6 Whilst there is a semantic debate concerning the scale of the quarry in relation to planning policy – there is no doubt that when compared with the scale of major quarrying or mining operations that exist or have existed in the past on Dartmoor – Yennadon Quarry represents a relatively small and intimate operation that is characteristic of traditional industrial activities associated with the moor.

3.3 Historic context of the quarry

‘Dartmoor, to the casual first time observer, might appear to be a natural landscape – natural in the sense of being unchanged by the hand of man through the ages of time...’

And yet, if one stops and explores but a little way, the chances are that some relic of a bygone industry will reveal itself...

And in the wider scene, in so many parts of the moor, the landscape is scarred with deep gullies, great indentations into the hillsides affecting the actual contour of the land, the record of intense mining activity of the past.

Helen Harris The Industrial Archaeology of Dartmoor 1992.

- 3.3.1 Yennadon Quarry during the middle part of the Nineteenth Century formed part of an industrial landscape on the moor. Sight of the 1886 OS map shows the quarry against the backdrop of intense industrial activity of the period. It illustrates that there were other quarries, operational leats, mines and railways all establishing a particular character around the quarry and



3.0 History

the Dousland area. The very presence of the railway and the railway station at Dousland highlights clearly the scale of industry that was associated with the area.

- 3.3.2 During the mid-Nineteenth Century the ‘metamorphic aereole’ within which Yennadon is positioned became the focus for new mining activities:

‘The peripheral region... consisting of different rocks – shales, sandstones, and limestone amongst them – which had been altered by heat at the time of the granite’s upheaval, was proving in places to be a rich source of minerals other than tin, capable of yielding quantities of lead, silver and zinc, copper and arsenic as well as iron...’

Helen Harris *The Industrial Archaeology of Dartmoor* 1992

- 3.3.3 According to Helen Harris (*The Industrial Archaeology of Dartmoor* 1992 P209 – Meavy), as well as a source of local stone, there is evidence that during the mid-Nineteenth Century, Yennadon Downs and the area around the quarry, was also a place associated with open cast iron ore mining – as suggested by the name of the approach road to the quarry from Dousland (Iron Mine Lane).
- 3.3.4 Whilst there is no definite evidence to suggest that Yennadon Quarry itself was associated with the quarrying and mining of metals historically, its position on the side of a natural escarpment is typical of a possible location for a mining operation?
- 3.3.5 As industrial activities have ceased to operate through the Twentieth Century, Yennadon Quarry has become the only remaining working example of the former industrial landscape. It is now set within a predominantly ‘natural’ landscaped environment – there is considerable evidence on the ground of the industrial activities that have characterised the area in the past – it is an area rich in industrial archaeology.

- 3.3.6 The industrial archaeology of the area around the quarry is recognised in the assessment of the landscape (reference LVIA report by Chris Britton). According to the Landscape Character Assessment for the area the Yennadon Quarry falls within Landscape Character Type 1L Upland Moorland with Tors. An identified characteristic of this landscape includes:

‘Former mineral workings and associated buildings dating from the medieval period onwards and Nineteenth Century quarries scatter the landscape, providing evidence of a long history of a moorland exploited by people.’

- 3.3.7 The legacy of historic industrial activity forms an integral part of the sense of place and character of the various layers that form the moorland landscape. Yennadon is part of this legacy and seen in the large-scale landscape that can be seen from some vantage points in a broad panoramic view.
- 3.3.8 The quarry falls just outside Landscape Character Type 2D Moorland Edge Slopes. This landscape type is recognisable and reflects the nature of the environment nearby. The Moorland Edge Slopes is characterised by an intricate pattern of medieval fields with post-medieval hedgebanks enclosing small fields of pasture and rough grazing. Sitting in the farmed mosaic are nucleated hamlets and villages, often sheltered by woodland and featuring prominent church towers. A network of winding rural lanes snakes through the landscape, crossing numerous streams and granite bridges. A strong historic sense of place is presented through a scattering of archaeological sites, including prehistoric and medieval monuments and features relating to past mining activity.
- 3.3.9 From the archaeological assessment and review of historic maps, the earliest map (OS surveyors’ drawing of 1784) shows the lines of Devonport Leat and Plymouth Leat on the southern edge of Yennadon Down and the surrounding fields. By the 1800s Tithe Map, the Plymouth and Dartmoor Railway is depicted, as is Yennadon Quarry. Several other small quarries and pits and Yennadon Iron Mine are recorded across Yennadon Down. The route of the tramways and railways across

Dartmoor was primarily governed by the need to intersect the quarries and mines.

- 3.3.11 Stone from various quarries across Dartmoor, including Yennadon, were transported to Plymouth via the railway and then shipped further afield. The demand of stone from Yennadon Quarry was such that it was connected to the railway, with a siding extending into the quarry. The early success and longevity of Yennadon Quarry appears to be due to a combination of the quality of the stone and the link with the railway (and later via road links) to its various markets.

3.4 Historic use of stone from the quarry

‘The underlying geology is very varied and this is reflected in the building stones of settlements. Granite the universal stone of the ‘high moor’ and the area adjacent to it, gives way to a mix of other stones at lower levels.’

Dartmoor National Park Design Guide 2011

- 3.4.1 Yennadon stone has been used historically in developing the built environment near to the quarry. The settlements that surround the area are characterised by the use of metamorphic slate stones rather than granite - used more commonly on the ‘high moor’. There is a simple reason for this. Historically buildings, walls and other structures were built using locally available building materials.
- 3.4.2 The settlement study in this section of the report demonstrates that settlements within the ‘metamorphic aereole’ are indeed characterised by the use of stone that is more slate like in appearance (such as the Hornfelses slate from Yennadon) – granite tends to be used less frequently in building construction in these areas but is evident in more special features such as quoins, window and door surrounds, public buildings, churches and bridges.

- 3.4.3 A study by Colin Wakeham into the design and construction of Maristow Estate Farmhouses between the period 1800-1913 provides an invaluable insight into the how buildings, walls and other structures in the area were constructed during the Eighteenth and Nineteenth Centuries and where local stone was sourced. The report identifies that slate stone is a predominant building material in the settlements on the fringe of the moor.

‘Typically, throughout the period, there was a tendency towards using local materials and the prime walling material of the houses built during the period was local stone.’

‘In the case of moorland farms this was granite and off the moor this was usually local slate stone (Kallas).’

Maristow Estate Farmhouses 1800 – 1913 P127
Colin Wakeham



3.0 History

3.4.5 The Maristow Nineteenth Century Estate included Buckland Monachorum, Meavy, Sampford Spiney, Shaugh Prior, Sheepstor, Walkhampton and Whitchurch. Many of these settlements fall outside of the moorland granite area and it is likely that the stone used was either from Yennadon or from a quarry sourcing a very similar stone. With reference to the report by Colin Wakeham, Joseph Hess identifies that:

‘What this report helps to demonstrate is the traditional heritage this type of local stone has and how it has shaped the landscape of building material for over 200 years in this area of Dartmoor – quite probably much of this from the estate quarry at Yennadon.’

‘Maristow has used Yennadon stone consistently on its estate renovation and building projects.’

Joseph Hess Maristow Estate

3.4.6 From the field work undertaken as part of this report it is evident that Yennadon stone or other stone with slate characteristics from the moorland fringe has had a major role in the makeup of the historic built fabric in many local settlements. These include for example:

In the National Park: Ashburton, Yelverton, Dousland, Sheepstor, Brisworthy, Horrabridge, Buckfastleigh, South Brent, Walkhampton, Meavy, Burrator, Sampford Spiney, Mary Tavy, Peter Tavy, Buckland Monochorum, Crapstone, Milton Combe, Shaugh Prior, Hoo Meavy, Clearbrook, Lovaton, Wotter, Ashburton and Roborough.

In nearby settlements: Tavistock, Okehampton, Plymouth, and Ivybridge.

In addition there are numerous smaller hamlets, building groups, farmsteads and one off buildings, boundary walls

and agricultural structures, that use slate stone that is similar to that sourced from the Yennadon Quarry.

3.4.7 The Maristow Estate has the largest land holding in the area. Historically the Estate has used stone from the quarry for construction and repair. There are over 50 residential properties on the Estate and most are rubble stone. Overall there are about 200 traditional buildings that need to be repaired and maintained - in addition to many miles of walls and other structures.

3.4.8 Whilst the stone from the quarry has clearly played a significant role in creating the local built environment and helping to establish its particular sense of place, it is also possible that stone from the quarry was transported further afield given the close proximity of the railway line. Just as stone from the quarry is used for projects throughout Devon and Cornwall it is possible that this was the case during the Nineteenth Century. This may well have played an important role in ensuring that the operation of the quarry remains viable and that its stone is therefore available for local projects – as indeed it does today.



4.0 Design Policy

4.1 Background to design policy

- 4.1.1 The overall planning position in relation to the proposed extension of Yennadon Quarry is set out in the planning statement that accompanies the planning application prepared by PCL Planning.
- 4.1.2 The purpose of this section of the report is to concentrate on those areas of planning policy and practice that identify the importance of sourcing and utilising appropriate local stone in the design of new buildings and structures throughout the local area and within the National Park. It is clear that the use of appropriate local stone is key to the delivery of a plethora of planning policy requirements in the DNPA area and in surrounding local authorities – including the Tavistock World Heritage site.
- 4.1.3 As has been identified in this report, stone from the quarry provides a local source of metamorphic slate stone that has been used historically in developing the historic built fabric in the locality. As such it is very much part of the local scene and a distinctive feature of the character and sense of place in many settlements in the ‘moorland fringe area’.
- 4.1.4 Planning policy governing and guiding the quality of development in the DNPA area stresses the importance of using local stone in the design, construction and restoration of buildings in order that the distinctive character of the National Park is conserved and enhanced into the future. These policies are in accordance with the primary purpose of National Parks as set out in the National Parks and Access to the Countryside Act 1949:

‘To conserve the and enhance the natural beauty, wildlife and cultural heritage (of national parks); and to promote opportunities for the understanding and enjoyment of the special qualities (of the National Parks) by the public.’
- 4.1.5 Current planning policy and guidance that supports the use of appropriate local stone either directly or indirectly includes; national guidance in the National Planning Policy Framework; regional guidelines in the Devon Structure Plan – Devon to 2016, and local planning policy and guidance in the DNPA Core Strategy 2008, the DNPA Local Plan First review 2004, the DNPA Development Management and Delivery DPD 2014, the Dartmoor

National Park – Design Guide 2011, Local Conservation Area Character Area Appraisals.

- 4.1.6 In addition to adopted national, regional and local planning policy there is also a range of specific guidelines concerning the use of local stone in the built environment. Guidance from Historic England, the Society for the Protection of Ancient Buildings (SPAB), and the Council for Architecture and the Built Environment (CABE), alongside other organisations advocate the use of appropriate local stone as a means for achieving locally distinctive development and/ or suitable conservation.
- 4.1.7 This section of the report also reviews future demand for local stone generated by the allocated housing sites in the area and work that is informing the availability of housing sites in the future (Strategic Housing Land Availability Assessment).

4.2 Design and heritage policy and the use of local stone

National Planning Policy Framework (NPPF)

- 4.2.1 The NPPF provides the national planning framework against which planning decisions are made. There are a number of strategic objectives in the framework that are intrinsically supportive of the continued delivery of local stone from Yennadon. Firstly, section 11 of the NPPF, Conserving and enhancing the natural environment at paragraph 115 states:

“Great weight should be given to conserving landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to landscape and scenic beauty. The conservation of wildlife and cultural heritage are important considerations in all these areas, and should be given great weight in National Parks and the Broads.”
- 4.2.2 The availability of Yennadon stone supports the objective of conserving the landscape and scenic beauty of Dartmoor. Moreover, as it is the only remaining source of appropriate quarried stone – it is the only way in some instances/ places that suitable conservation of the built environment can be achieved to a high standard.

4.0 Design Policy

Section 7 of the NPPF concerns 'Requiring Good Design':

'The Government attaches great importance to the design of the built environment. Good design is a key aspect of sustainable development, is indivisible from good planning, and should contribute positively to making places better for people.'

'It is important to plan positively for the achievement of high quality and inclusive design for all development, including individual buildings, public and private spaces and wider area development schemes.'

'Local and neighbourhood plans should develop robust and comprehensive policies that set out the quality of development that will be expected for the area. Such policies should be based on stated objectives for the future of the area and an understanding and evaluation of its defining characteristics. Planning policies and decisions should aim to ensure that developments:

- will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development;
- establish a strong sense of place, using streetscapes and buildings to create attractive and comfortable places to live, work and visit;
- optimise the potential of the site to accommodate development, create and sustain an appropriate mix of uses (including incorporation of green and other public space as part of developments) and support local facilities and transport networks;
- respond to local character and history, and reflect the identity of local surroundings and materials, while not preventing or discouraging appropriate innovation;

- create safe and accessible environments where crime and disorder, and the fear of crime, do not undermine quality of life or community cohesion;
- and are visually attractive as a result of good architecture and appropriate landscaping.'

4.2.3 The availability of stone from the quarry contributes positively to the stated objectives of the NPPF in relation to 'Requiring Good Design'. The absence of a source of local stone from Yennadon would hinder the ability for good design to be achieved in the National Park and beyond because there are no viable alternative sources of stone with the same visual characteristics.

4.2.4 In addition to attaching great importance on achieving good design, the government also set out policies in the NPPF for conserving and enhancing the historic environment (section 12 refers).

'In determining planning applications, local planning authorities should take account of:

- the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;
- the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and
- the desirability of new development making a positive contribution to local character and distinctiveness.'

4.2.5 The availability of stone from Yennadon makes achieving development that supports 'local character and distinctiveness' eminently more achievable. Furthermore, availability of stone from the quarry ensures that the DNPA and surrounding local authorities are in a better position to conserve heritage assets in a manner that is appropriate to their significance:

'Local planning authorities should set out in their Local Plan a positive strategy for the conservation and enjoyment of the historic environment, including heritage assets most at risk through neglect, decay or other threats. In doing so, they should recognise that heritage assets are an irreplaceable resource and conserve them in a manner appropriate to their

significance. In developing this strategy, local planning authorities should take into account:

- the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;
- the wider social, cultural, economic and environmental benefits that conservation of the historic environment can bring;
- the desirability of new development making a positive contribution to local character and distinctiveness; and
- opportunities to draw on the contribution made by the historic environment to the character of a place.’

4.2.6 The government also places on emphasis facilitating the sustainable use of minerals recognising that:

“Minerals are essential to support sustainable economic growth and our quality of life. It is therefore important that there is sufficient supply of material to provide the infrastructure, buildings, energy and goods that the country needs. However, since minerals are a finite natural resource and can only be worked where they are found, it is important to make best use of them to secure their long-term conservation.”

4.2.7 It is important that the positive contributions made by quarrying from Yennadon are given appropriate weighting in this context. Ensuring that stone continues to be quarried will maintain the positive contribution that the availability of the stone makes towards good design and conservation. The Environmental Statement that accompanies the resubmitted planning application demonstrates that this can be achieved in a manner that does not raise concerns from an environmental perspective.

Devon Structure Plan – Devon to 2016

4.2.8 The Devon Structure Plan provides a planning context for the county. There are a number of design and conservation policies that are pertinent to the continued supply of local stone from Yennadon. Those that are particularly relevant include: Conservation and Enhancement Policies C2 – Landscape character and local distinctiveness, C3 – National Parks, C9 – Enhancing

the urban environment, and C11 – Historic settlements and buildings.

‘The conservation of Devon’s special landscape character is an objective that relates to the whole of the countryside, and the protection of the rural environment is one of the main elements of the Structure Plan strategy. Devon’s landscape is not uniform and different parts of the County have very different and distinct characteristics. This variety is a result of a number of factors, some natural and some man-made, which together give each area its unique character.’

Devon Structure Plan – Conservation and enhancement

Dartmoor National Park Authority (DNPA) Policies

4.2.9 Local planning policies for the National Park are principally contained within the DNPA Core Strategy 2008, the DNPA Local Plan First Review 2004, and the DNPA Development Management and Delivery DPD 2014. The policies in these plans provide a strong foundation for encouraging the quality of good design, appropriate conservation and local distinctiveness in line with the objectives set out in national and county planning policy.

4.0 Design Policy

4.2.10 Policy COR1 of the Core Strategy sets out the DNPA general approach to development. Criteria have been underscored that would be clearly secured because of the continued operation of Yennadon Quarry resulting from a grant of planning consent for its proposed extension.

Policy COR1 (Sustainable Development)

In order to ensure that development within the Dartmoor national park is undertaken in a sustainable manner, the following considerations should be taken into account:

- a) The need to make efficient use of land and infrastructure;
- b) The conservation of scarce resources and the reduction of waste;
- c) The promotion of the health, safety, economic and social well-being and access to services opportunities for the local population;
- d) Support for the economic vitality of the National Park;
- e) The conservation of the quality and quantity of natural resources including water, air, soils, geodiversity and biodiversity;
- f) Allowance for natural drainage of surface water;
- g) The provision of high quality design and construction;
- h) Respect for and enhancement of the character, quality and tranquility of local landscapes and the wider countryside;
- i) The need to sustain the local distinctiveness, character, townscape, and the setting of settlements;
- j) The need to conserve and enhance important historic and cultural features;
- k) The provision of essential services to the public;
- l) The accessibility by the public via public transport, cycle or foot to destinations in daily life;
- m) The avoidance of new development and a reduction in vulnerability of redevelopment carried out within medium to high-risk flood zones.

4.2.11 Policy COR3 of the Core Strategy requires that development will conserve and enhance all factors contributing to the character of Dartmoor's landscape and environmental quality. The availability of appropriate local stone is an important aspect of making this possible aspect.

'Dartmoor's built environment has a number of well-defined vernacular traditions reflecting historical building methods, local availability of materials and economic, social and climatic influences. These traditional buildings add texture to the historic built environment of the National Park and contribute greatly to its special qualities. The character and distinctiveness of the built heritage of the National Park depends greatly on these influences.'

'The use of good quality materials for construction will help ensure that new buildings or conversions or alterations of existing buildings make a positive contribution to the local built environment and will remain fit for their roles in the long term.'

4.2.12 Policies COR4 and COR5 of the Core Strategy concern conserving the historic built environment.

‘The buildings of Dartmoor are for the most part in the vernacular tradition, constructed from locally derived materials (granite, cob, slate, thatch) and in locally distinctive styles.’

4.2.13 Policy COR4 states that:

‘Development proposals will be expected to conform to the following design principles:





- a) demonstrating a scale and layout appropriate to the site and its surroundings, conserving or enhancing the quality and distinctiveness of the built environment and local landscape character;
- b) using external materials appropriate to the local environment ...’

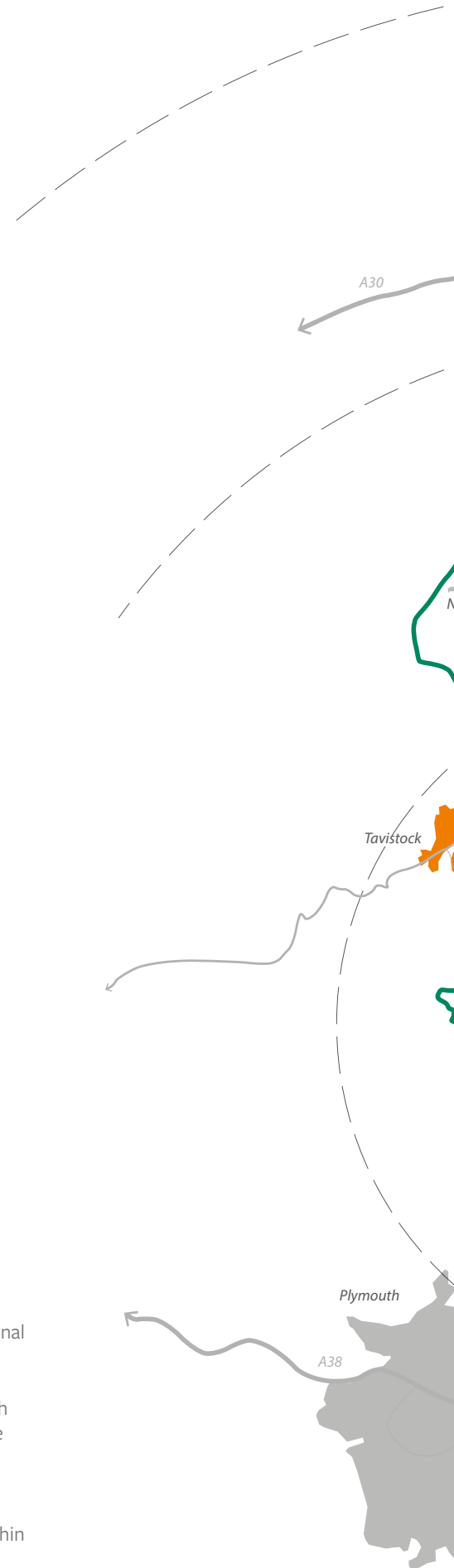
4.0 Design Policy

4.2.14 The following conservation areas are designated with the DNPA area and as such are identified in the Core Strategy. Those that have been highlighted in green lie within areas characterised by a metamorphic slate stone geology thus highlighting the importance of an appropriate stone being available for development and conservation:

- Ashburton • Buckfastleigh • Chagford
- Crockernwell • Drewsteignton • Dunsford
- Horrabridge • Islington Lustleigh
- Lydford • Manaton • Mary Tavy • Meavy
- Moretonhampstead • Murchington • North Bovey • North Brentor • Princetown • South Brent • South Tawton • South Zeal • Sticklepath
- Throwleigh • Walkhampton • Widecombe-in-the-Moor

4.2.14 The following case studies identify settlements in the moorland fringe area where stone has been quarried locally and is either from Yennadon or a similar historic source.

-  Dartmoor National Park boundary
-  Settlements with Yennadon Stone
-  Settlements
-  Granite area within the DNP area





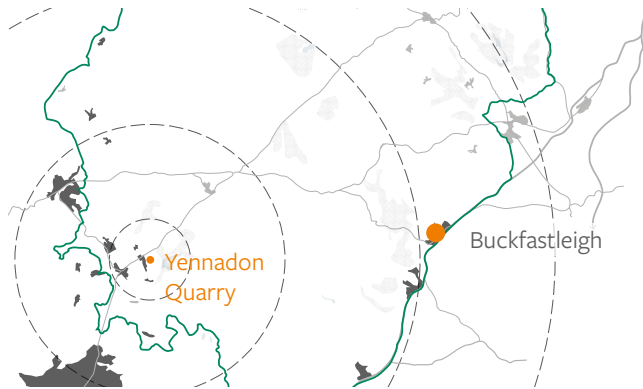
Above: Yennadon Quarry and Dartmoor National Park.

4.0 Design Policy

Ashburton



Buckfastleigh



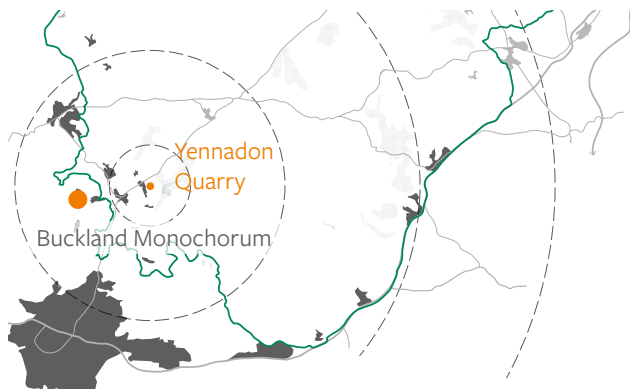
Yelverton





4.0 Design Policy

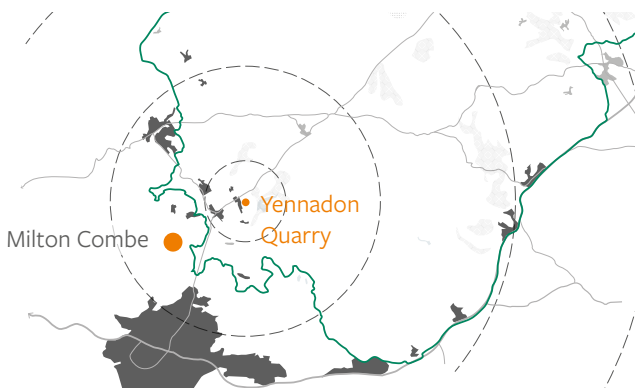
Buckland Monochorum



Horrabridge



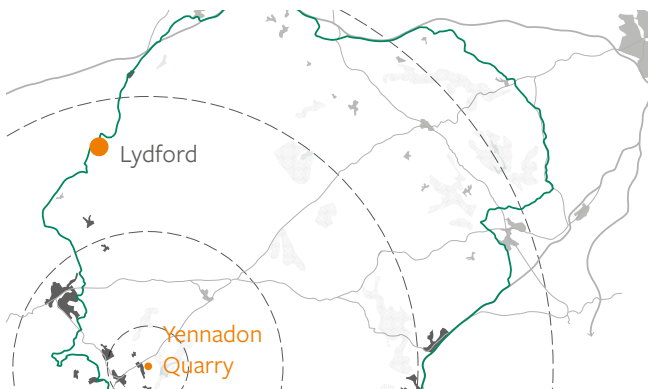
Milton Combe



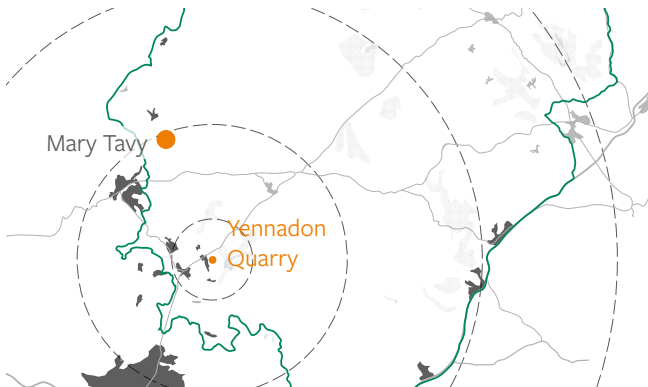


4.0 Design Policy

Lydford



Mary Tavy



Meavy





4.0 Design Policy

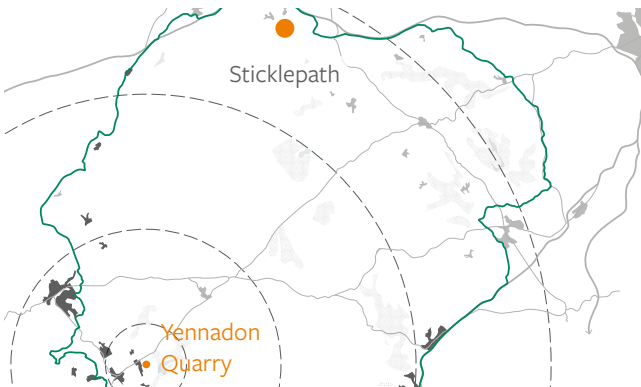
Walkhampton



North Brentor



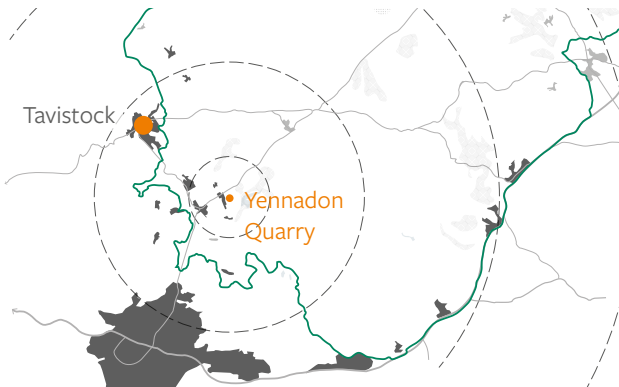
Sticklepath



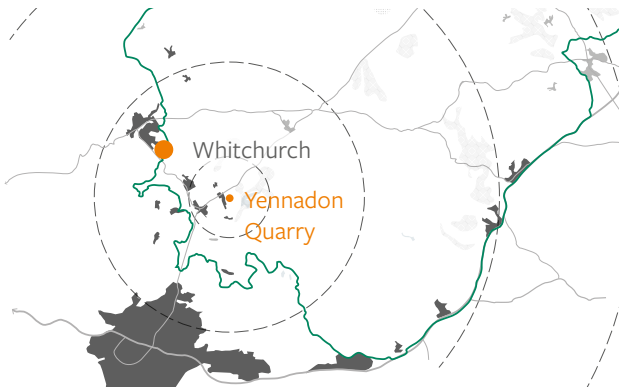


4.0 Design Policy

Tavistock



Whitchurch





4.0 Design Policy

4.2.15 Within the DNPA Development Management and Delivery DPD 2014 policies DMD1b (protecting Dartmoor's special qualities), DMD5 (protecting Dartmoor's landscape), DMD7, DMD8, DMD9, DMD10 and DMD12 (reinforcing the distinctive qualities of place including the use of materials) are particularly relevant to the proposal.

Policy DMD7: The quality and distinctiveness of the built environment

'Within the built environment of Dartmoor National Park, high standards of design and construction will be promoted to conserve or enhance urban settings, settlement layouts and distinctive historic, cultural and architectural features.'

Development proposals should:

- (i) conserve and enhance the character of the local built environment including buildings, open spaces, trees and other important features that contribute to visual, historical or architectural character;
- (ii) reinforce the distinctive qualities of places through the consideration of uses, scale, height, solid form, alignment, design detailing, materials and finishes;

Dartmoor National Park Design Guide 2011

4.2.16 The Dartmoor National Park Design Guide was adopted November 2011. It is useful in that it describes the character of the area in which the quarry is located within and identifies the importance of local stone as part of the local scene.

4.2.17 The description of landscape and the built environment is separated into two distinct character types; the 'high moor' and the 'moorland fringe'. It is apparent that Yennadon Quarry falls within the 'moorland fringe'.

4.2.18 The 'moorland fringe' is described as:

'At the edges of the 'high moor' the land quickly descends into the steep wooded valleys of the 'moorland fringe'. As the valleys level out, the landscape becomes an undulating mixture of farm, wood and river giving it a rich mosaic appearance.'

'When compared with the 'high moor', this landscape appears busy with human activity and movement.'

'Settlements and buildings in the 'moorland fringe' increase in scale, size and complexity as the shelter of the lower valleys is reached. The typical isolated farm of the 'high moor' gives way to sheltered hamlets containing two, three or four farms grouped together. This transition is less marked on the western fringes, which even at lower altitudes, are still so exposed to the harsh winter weather that they reproduce some of the robust forms of the 'high moor'.'

'The underlying geology is very varied and this reflected in the building stones of settlements. Granite the universal stone of the 'high moor' and the are adjacent to it, gives way to a mix of other stones at lower levels.'

4.2.19 The Design Guide makes a clear distinction between the landscape of the ‘high moor’ and the landscape of the areas around the fringes. The quarry falls in the area of transition between the two. There is a natural fit with the quarry operation.

4.2.20 In its section on the use of external building materials the Design Guide identifies the importance of natural stone as part of the local scene. Indirectly it highlights the importance of quarries that still supply stone.

‘Most local building stones are no longer quarried in the National Park but mudstone and limestone for example are still available from local working quarries.’

4.2.21 Yennadon Quarry is unique in that it is the only remaining historic quarry on the moor and more specifically in the ‘moorland fringe’ that supplies local building stone that has historically has been used as an external facing material on buildings and structures in the locality.

‘The underlying geology is very varied and this is reflected in the building stones of the settlements. Granite the universal stone of the high moor and the area immediately adjacent to it, gives way to a mix of other stones at lower levels. To the west around Mary Tavy and Tavistock, buildings are constructed of slate and mud stone walls with slated roofs.’

4.2.22 The Design Guide recommends that it is best to use local stone in order to maintain the integrity and appearance of the local scene. Clearly the economic sustainability of the quarry and its continued operation and therefore supply of stone is critical to maintaining the availability of local stone in repair, restoration and construction.

‘Use local sources where practical and relevant to the traditions of the locality. Where stone is used, lay it on its natural bed with uncut faces exposed and coursed.’

Conservation Area Appraisals

4.2.23 DNPA has produced a series of Conservation Area Appraisals. These all include a section concerning ‘building types, materials and styles’ and ‘local details and street furniture’. It is clear by the appraisals that many of the settlements are characterised by the extensive use of metamorphic slate stone rather than granite as the principal stone. Granite is often incorporated

in building details or in some places alongside slaty stone in random wall construction. This reinforces the points made about the role of metamorphic slate stone historically in 3.4.

4.2.24 The following brief extracts from adopted and draft Conservation Area Appraisals demonstrate this point.

ASHBURTON - render is the dominant finish for walls, accounting for around 80% of the settlement’s front elevations. Typically, also, the majority of examples on the principal streets are smooth and inscribed with ashlar lining to mimic the appearance of finely jointed stone, while on the lesser lanes a roughcast finish or painted rubble stonework is generally the norm.

BUCKFASTLEIGH - the great majority of buildings are built of limestone rubble, with some slate incorporated here and there. It is likely that there is some use of timber frame and cob in a few buildings, but not as the principal construction materials. Some construction in brick is evident, usually local buff bricks but red brick is favoured for many chimneys and occasionally for quoins, lintels etc. The local limestone, although quite brittle, is a good building material.

CROKERNWELL - rubble stone and cob were the building materials for most of the village, finished with lime render and limewash.

HORRABRIDGE - the vast majority of dwelling houses in the village have rendered walls, often incorporating decorative features like string courses, mouldings and entablatures. These range from small terraced cottages to villa type houses. However, a few are a little more distinctive in appearance being presented with face stonework walls.

LYDFORD - reflecting a slightly more diverse local geology than is generally found around the Moor, Lydford’s buildings are constructed from a mix of both rounded and flat-bedded stones which when combined produce a most attractive and distinctive pattern.

Invariably, however, granite blocks are used to form quoins, sills and lintels. The stonework is mostly exposed (on house elevations as well as outbuildings) and makes a very considerable contribution towards the visual harmony that persists throughout much of the village.



4.0 Design Policy

MARY TAVY - stone is the primary building material and in all but the earliest buildings this is probably derived from the waste of the mine workings. Where stone is exposed it is possible to see a great variety of igneous and metamorphic rocks that reflect the complex underlying geology. As a consequence of the readily available source of rubble stone there is little use of granite except for lintels etc.

MEAVY - stone is the ubiquitous building material, mostly brown rubble slate and granite. Dressed granite is used for detailed work but there is also wide use of rounded granite blocks from the river – this can be seen in boundary walls and agricultural buildings.

MURCHINGTON – most common to all, however, is their rubblestone construction...

NORTH BRENTOR - the character of North Brentor is very varied. Although most buildings are traditionally constructed in stone, the relationship with the street is diverse.

SOUTH BRENT - its use being mostly confined to the sides and rears of main street buildings or to outbuildings sited behind them. This is similarly the case with stonework elevations, which other than those of the Church at one end of the village and the School at the other rarely form part of the street scene.

STICKLEPATH - local metamorphic and igneous rocks are used for the mass of walls with dressed granite for quoins, lintels and other features.

Enclosure is most commonly provided by rubble stone walls and they are an harmonious character feature throughout.

ISLINGTON - rubble stone fill with more substantial quoins and lintols, mostly in granite, is usual.

WALKHAMPTON - varied slate and other rubble stone construction prevails with granite used for lintels and some quoins.

The old barns of the village also follow the vernacular tradition with rubble stone walls and slate roofs. They would also have been lime washed in most cases.

Where the streetscape is not enclosed directly by the buildings themselves, it is bounded mostly by mortared stone walls. Some of these are low walls with iron railings on top and this 19th century trend is now part of the village scene, but not one that ought to be seen as a precedent for future works. Boundaries on the historic fringes of the village tend to have Devon banks, some with carefully laid stonework, and these have become incorporated into the village fabric in places.

4.2.24 Whilst Yennadon stone may not have been used in all settlements where metamorphic slate is the principal stone, it does provide an appropriate construction material and in fact the only option that is available.

Strategic Housing Land Availability Assessment (SHLAA)

4.2.25 A SHLAA has been produced by the Dartmoor National Park Authority and neighbouring planning authorities to identify where land is available to deliver housing into the future. Within the National Park Assessment about 40% (44) of sites identified (90) as being available for housing are within localities that are characterised geologically as being slatey stone areas.

4.2.26 The SHLAA informs planning policy and in turn provides a foundation for planned housing development. The availability of a high quality source of locally appropriate stone will be important to achieving successful developments that are locally distinctive and which have regard to the intrinsic character of the moor. This becomes increasingly difficult if the principal sources of local stone are not available – a viable and operational Yennadon Quarry is crucial to ensuring that the appropriate local stone is available for the design and construction of these developments.

Housing land allocations in neighbouring Local Authorities.

4.2.27 In addition to new development sites within the National Park, there are many thousands of new housing developments proposed in surrounding local authorities in order to address the severe shortfall in housing supply throughout the UK – many of these are in areas where Yennadon stone provides a suitable and sustainable high quality facing material for walls, houses and other buildings.

5.0 Quality and usage



5.1 Background to quality and usage

- 5.1.1 Yennadon stone is a high quality material that has been used historically in helping to form the character of the built environment in parts of the Dartmoor National Park and in the moorland fringe.
- 5.1.2 This section of the report explains the qualities of the stone for building construction, why there are no available nor viable alternatives and how and where the stone is used on building projects today.

5.2 The qualities of Yennadon stone

- 5.2.1 A high quality product. There are a variety of different slate stone types that have historically been quarried throughout Devon and Cornwall. The character and appearance of these indigenous stones has played a significant role in contributing to the local distinctiveness of the built environment in different parts of the counties.
- 5.2.2 Slate stones throughout Devon loosely applies to mudstones and siltstones that have undergone various grades of metamorphism. The nature and appearance of these stones varies greatly. Stones can be weak or strong, durable or non-durable, dark or light grey, have green, to yellow, to red hues, and be characterised by brown iron oxide and/or quartz veining.
- 5.2.3 Yennadon stone has distinct characteristics that make it unique. Section 3 of this report illustrates how the stone has been used locally and how it has contributed towards forming the historic built environment in Dartmoor and on the fringes of the moorland.
- 5.2.4 Yennadon is within the Tavy Rock Formation. This is characterised mainly by pale green and grey slatey silty mudstones. At Yennadon this has been altered by the 'Dartmoor granite infusion' - creating a distinct stone with a particular character and appearance. Yennadon stone is a type of Hornfelsed slate.
- 5.2.5 The cut stone for building that is quarried from Yennadon has distinct subtleties in colour, tone and patina creating a variegated overall appearance when seen in a wall. Its colour ranges between yellowy brown hues, some with iron oxide staining on joint faces,

through to bluish grey tones on the cut faces.

- 5.2.6 Whilst the cut stone produces considerable variety in size and shape it has traditionally been used and cut in a rectilinear form. This is quite striking when coursed with light coloured pointing applied so that the arises are slightly pronounced. The stone can be built quite randomly or through the use of purposeful coursing.
- 5.2.7 These attributes can be seen most particularly in historic buildings and walls in concentrations within settlements to the south and west of the granite areas of the moor – in the moorland fringe (as described in section 3). In some of the villages (for example Meavy, parts of Yelverton and Dousland) the stone is very much a defining feature because it is used so extensively in boundary walls, structures and buildings.
- 5.2.8 Yennadon is a strong and durable stone when compared with others (refer to Product and Alternative Sources report by John Grimes Partnership). This is in part because it is quarried from within the Metamorphic Aureole and as a result of the Granite Infusion has a particular strength. It is not prone to weathering and as a result does not tend to flake or delaminate unlike some other stone types in the local area (Hurdwick for example which is the stone with a distinctive green tinge used within the civic core of Tavistock).
- 5.2.9 This is borne out by observing historic stone in existing settlements where it has been used. Generally the stone appears to hold on to its structural integrity. As a result of this and good practice by the quarry Yennadon stone has an established reputation in the market place as a good, flexible, high quality building product.

5.0 Quality and usage



5.2.10 No alternatives.

‘None of the other sources of rustic dimension stone with a characteristic colour that is typical of West Dartmoor, South Devon and East Cornwall extract Hornfelsed slate produced at Yennadon or can produce the tonnage currently demanded by the construction market. The Hornfelsed slate at Yennadon is particularly strong and durable in comparison to other rustic stone sources outside the metamorphic aureole.’

Product and Alternative Sources report by John Grimes Partnership (JGP) on behalf of Yennadon Stone Limited

5.2.11 The stone quarried at Yennadon is of a particular type. It is the only significant source of Hornfelsed Stone from the Tavy Rock Formation available. Consequently, there are no exact and viable alternatives in terms of stone type, quality, colour, strength and durability that exist.

5.2.12 Whilst alternative sources of stone that share some characteristics with Yennadon Stone do exist, there are none that replicate it. As such, there are none that can provide a wholly satisfactory replacement stone in those areas of Dartmoor and the moorland fringe where the Yennadon Stone has been used historically and where it forms an integral part of the local built environment.

5.2.13 Alternative sources of facing stone in the southwest region are scarce. As explained in the ‘Product and Alternative Sources’ report by JGP, Mill Hill Quarry near Tavistock and Lantoom Quarry near Liskeard provide the only active alternatives. Neither provide appropriate replacements.

5.2.14 Mill Hill Quarry does produce a comparable cut facing stone from an appearance point of view however, it is not entirely the same stone and production is sporadic - on a relatively small scale in comparison with Yennadon Quarry.

5.2.15 Lantoom Quarry produces a stone that has some similarities in appearance but many differences in terms of strength and durability. The JGP testing demonstrates that Yennadon Stone is stronger and more durable than stone quarried from Lantoom.

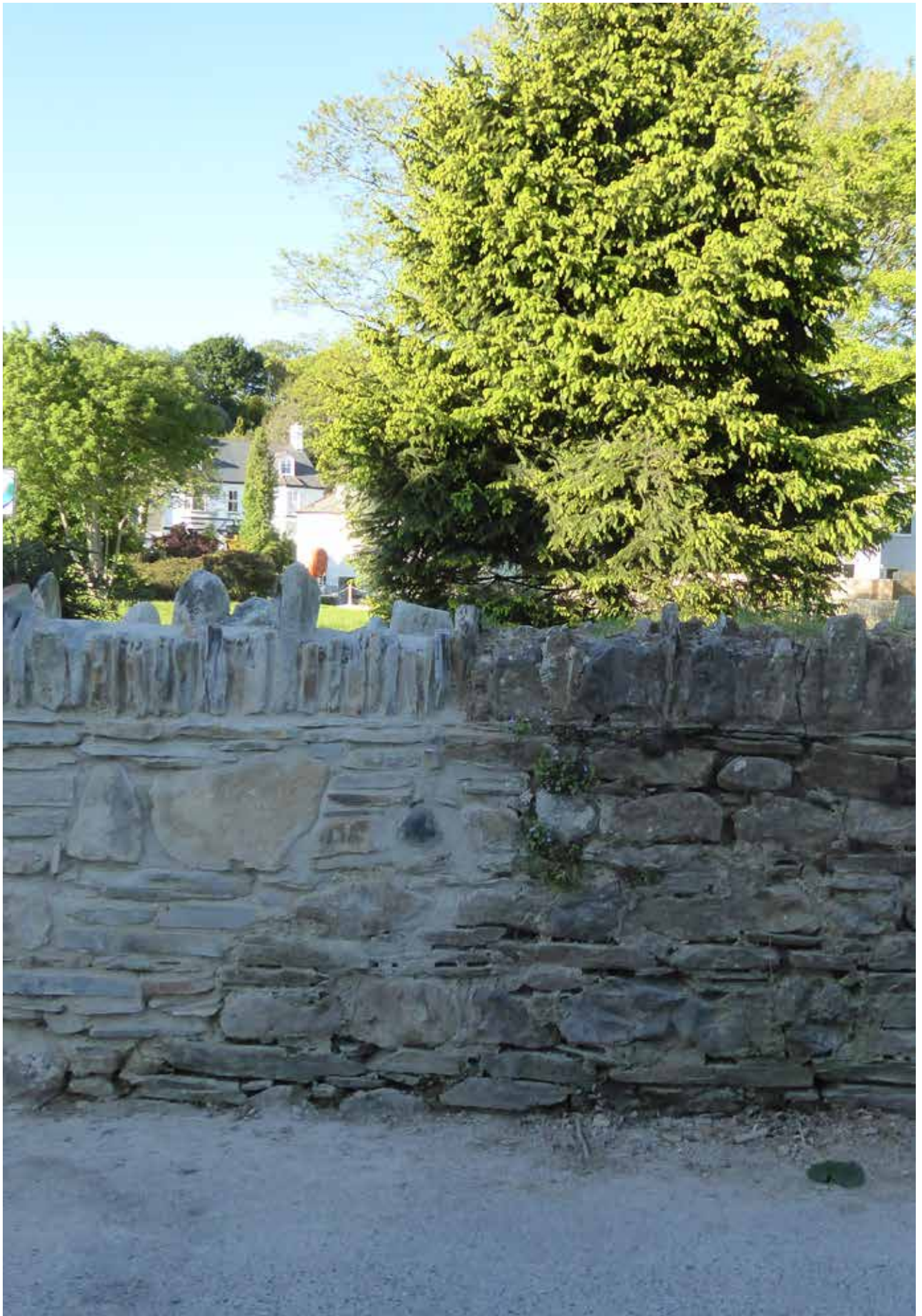
5.2.16 Whilst there are superficial aesthetic similarities between Yennadon stone and Lantoom, there are many differences. One the main reasons for this is that the two quarries fall within different underlying geological areas; Yennadon in the Tavy Formation and Lantoom in the Saltash Formation.

5.2.17 As well as being a stronger stone that is less prone to damage (flaking and delamination) due to weathering, the shape of stone quarried at Lantoom is generally more varied. Yennadon stone and the buildings and walls built using it historically are often characterised by coursing and the rectilinear nature of the stone blocks. Lantoom is generally more rounded which makes coursing more difficult to achieve.

5.2.18 It is also quite different as a cornering material – it needs to be cut to work at right angles as a corner turner serving the purpose as a quoin. Yennadon stone is often quarried and cut with more than one natural face providing a more natural and elegant way of turning corners.

5.2.19 There are also key differences in colour and tone. Whilst Yennadon stone is predominantly ranges from mellow yellow to brown hues with some hints of bluish grey, cut facing stone from Lantoom tends to be predominantly bluey grey with yellowy to brown hues being more subordinate to this.

5.2.20 In addition to the differences identified Lantoom quarry also does not have the production capacity that Yennadon has (as reported by JGP). This is also reportedly the case with Mill Hill Quarry. Should Yennadon Quarry close then this situation would be exacerbated.



5.0 Quality and usage

5.2.21 Other possible sources of slate stone existed at Hurdwick (a different colour and tone) and Lonford quarries near Tavistock. Both have ceased to operate. In addition there are four Cornish slate quarries; Trevillet, Callywith, Trearne and Tredinnick – all produce at very small scale and quarry stone of a different character and appearance to Yennadon stone.

5.3 Contemporary use of stone from the quarry

‘The stone is regularly used by many builders and national companies on numerous household projects (big and small) across the region and within the DNPA, and for example DCC on local landmark projects such as the new bridge at Peekhill. I think it was also used by DCC on the new Gem Bridge at Grenofen.’

‘The evidence is all over the place on Dartmoor.’

Joseph Hess Maristow Estate

5.3.1 Yennadon stone is specified by architects, builders, land owners, planners, house builders, home owners and conservation officers as an appropriate facing material in parts of Dartmoor and the moorland fringe (including larger settlements such as Ivybridge, Tavistock (World Heritage Site) and Okehampton for example), where historically stone has been quarried and used for building and wall construction. It has also been specified and used in neighbouring local authority areas; including the South Hams, Teignbridge, West Devon, Plymouth and parts of Cornwall where Yennadon stone is close to the appearance of slatey stone that has been used historically in such areas.

5.3.2 As such Yennadon stone makes a significant contribution to ensuring that the built environment in many areas of Devon and Cornwall is conserved and enhanced. Many of the sites and places where the stone is specified are

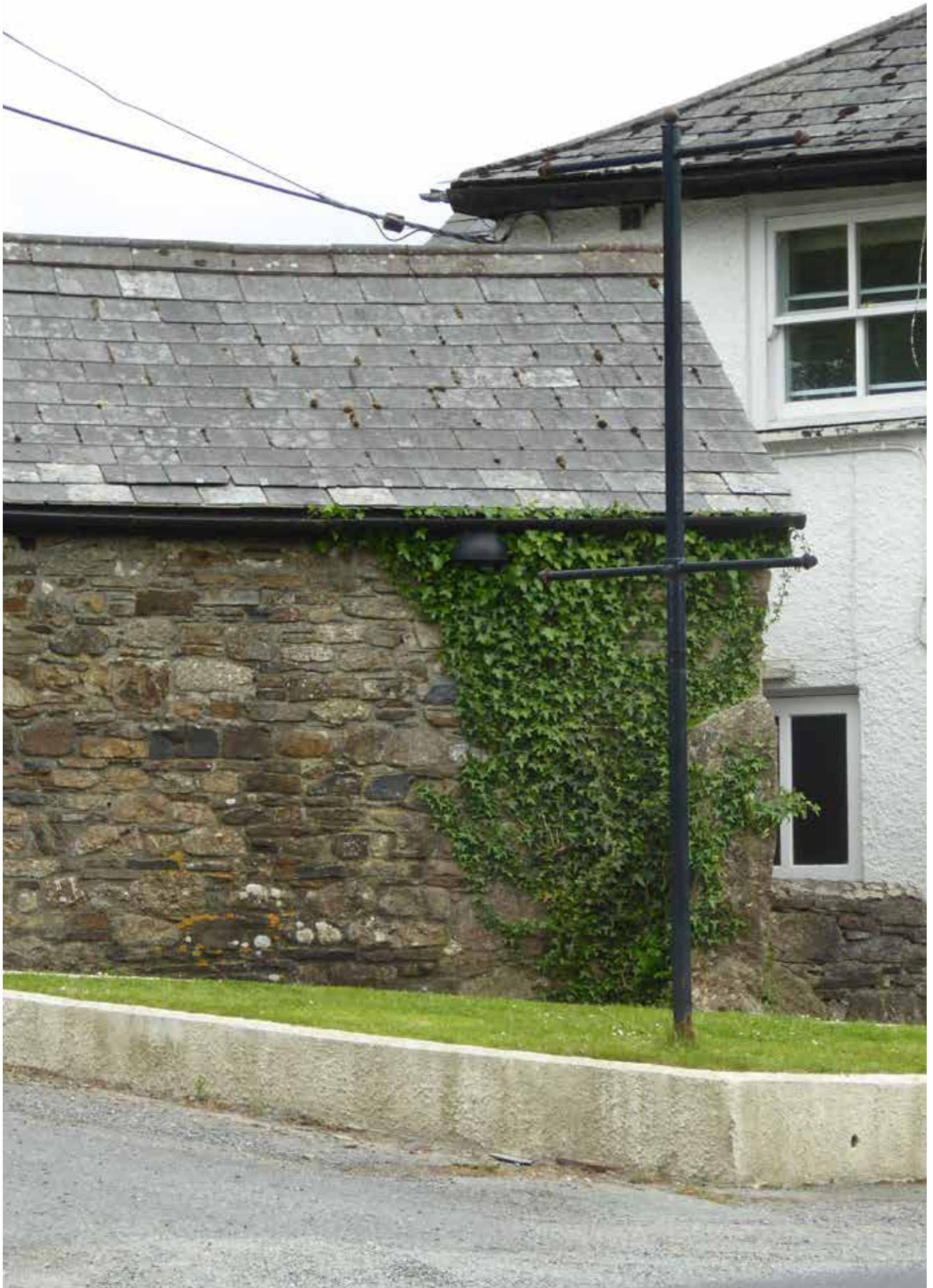
designated for their importance as historic buildings, structures, environments or settlements – conservation areas, listed buildings, ancient monuments, Areas of Outstanding Natural Beauty and National Parks for example.

5.3.3 Yennadon Quarry is renowned for providing a high quality stone that complies with Building Regulation requirements. Yennadon Stone has the right appearance as a natural stone product that can be used both locally and regionally to comply with planning and conservation requirements.

5.3.4 John Grimes Partnership has reviewed the supply statistics of the stone in recent years to indicate where and how it is used. This provides an idea of its role as a building material in the southwest region.

5.3.5 The main demand for the material comes from the construction industry, from which facing stone for new buildings, extensions, boundary walls and building repairs is the principal requirement. Yennadon Stone Limited is renowned by developers for their prompt delivery and dependable supply. Projects vary in scale and nature; house building projects constitute a significant part of the market for the stone and in addition modest and small-scale building projects generate a significant demand.

5.3.6 The market for the stone is principally throughout Devon and Cornwall with just 1% of supply going further afield. South Devon provides the biggest single market (37%) followed by demand in East and North Cornwall (17%). Dartmoor and the moorland fringe is the third biggest area of demand (8%).



5.0 Quality and usage

- 5.3.7 Whilst demand in the Dartmoor area is relatively modest as an overall percentage of stone supplied in Devon and Cornwall, this is to be expected because within the National Park, in part as a result of the restrictions on building, there are fewer building projects and those that do take place are generally smaller in scale. This is illustrated by the fact that 64% of the projects using Yennadon stone in the area involve a supply of less than 10 tonnes (small/ medium scale). This suggests building projects for; modest extensions to existing buildings, boundary walls, repairs and other conservation works.
- 5.3.8 Importantly, the availability of Yennadon stone provides a key source of building material for developments in the National Park and in the moorland fringe. The supply of stone to other parts of Devon and Cornwall helps to ensure that the quarry remains a viable economic proposition.
- 5.3.9 Yennadon is a key source local stone that is used regularly in the repair, restoration and extension of historic buildings and the construction of new civic buildings and structure. In areas of slaty stone geology around the high moor it is the best and only stone available.
- 5.3.10 Recent projects using Yennadon stone include for example in Dartmoor and in the moorland fringe include; Gem Bridge at Grenofen; the new bridge at Peekhill, Dousland; stone wall repair in Horrabridge; works at Duchy Square, Princetown; numerous projects within the Tavistock World Heritage Site; many repairs to buildings on the Maristow Estate including grade II listed buildings; Tiddy Brook Meadow housing development, Whitchurch, new housing at Yelverton, the restoration of Newnham House (a grade II* listed building), numerous garden walls, landscaping, decorative features, and Devon banks; Lidl store, Tavistock; works at Cotehele House and Buckland Abbey.
- 5.3.11 Yennadon also provides an important source of building and repair stone for other large estates in Devon and Cornwall - noteworthy examples include various projects undertaken by the Duchy of Cornwall.
- 5.3.12 In addition to specific projects in the area, Yennadon is also the principal supplier of cut stone for buildings and walling to many local building suppliers providing a source of material for small scale domestic projects.
- Refer to John Grimes Partnership report – Yennadon Quarry: Product and Alternative Sources



6.0 Maintaining viability

6.1 Background to maintaining viability

- 6.1.1 A Socio-Economic report by Vicary Holman concerning the future viability of Yennadon Quarry and its continued operation has been prepared in support of the planning application to extend its working plan. The report examines the widespread implications of closure on the local economy – these include the loss of 21 local jobs and the loss of significant income that is currently injected into the local economy. It estimates that should permission to extend the operation of the quarry not be granted then the existing operation would cease and the quarry would need to close within three years.
- 6.1.2 It is important to note that current levels of supply from the quarry underpin the viability of the operation. A key role of Yennadon is making stone available for use on Dartmoor in areas where it has been used historically and is an integral part of the local scene. However, if the quarry only supplied stone to projects in the National Park then it would be unviable and cease to operate. Making stone available for building projects further afield directly affects the ability of the quarry to make local stone available – this has been the case historically.

6.2 The consequences of quarry closure

- 6.2.1 The importance of Yennadon stone as a historic building material on parts of Dartmoor and the moorland fringe has been highlighted in this report. Moreover, the report has identified the important role that stone supplied from the quarry plays in making appropriate building stone available for building and conservation projects in these areas. It also identifies a more widespread requirement for the stone which is critical to maintaining quality and local distinctiveness in the local built environment and furthermore, elsewhere in Devon and Cornwall.
- 6.2.2 Closure of the quarry would not only mean that the cultural legacy it represents would be lost (over 200 years of quarrying on the moor) but that the important resource it supplies would no longer be available for use in local building projects of different types and scales. As has been identified in this report there are not any viable alternative sources of stone available that are of a similar appearance, strength and durability and are from quarries that have equivalent production capabilities.



7.0 Finally

- 7.1 This report explains that there is an over riding strategic imperative for Yennadon quarry to continue to be operational as the only remaining supplier of an important local stone resource for parts of Dartmoor and the moorland fringe.
- 7.2 This is in itself in the public interest and it has been demonstrated in the suite of reports that accompany the resubmitted planning application (including the Environmental Statement) that there are no environmental concerns that would be associated with the implementation of the proposed development.
- 7.3 Whilst the reasons for refusal in relation to the 2014 planning application point to there being no overriding need nor exceptional circumstances to justify the proposed extension to the quarry and that as such the proposal is contrary to the NPPF (paragraphs 115 & 116) and policies COR22 and M4 of the DNPA Development Plan, the report clearly identifies the importance of maintaining the supply Yennadon stone in order to ensure that it can be used in local building projects in Dartmoor, the moorland fringe and further afield – there are no viable alternatives.
- 7.4 Notwithstanding the benefits of maintaining the viability of the quarry from a building design and conservation perspective, there are many wider socio-economic benefits that are associated with the continued operation of the quarry – not least of which would be the continued operation of an important part of Dartmoor’s cultural heritage.

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