



Mineral Products Association

Dimension Stone

An essential UK industry

Purposes

THIS STATEMENT HAS BEEN PRODUCED BY MPA MEMBERS:

- To help all interested parties to understand the significance, importance and value of the dimension stone industry;
- To help local planning authorities plan positively for the future supply of dimension stone in their area; and
- To help all relevant organisations to deliver sustainable economic growth by regulating the winning and working of dimension stone in a fair and reasonable way.



Introduction and summary

The Mineral Products Association (MPA) is the trade association for the aggregates, asphalt, cement, concrete, dimension stone, lime, mortar and silica sand industries. It has a growing membership of 480 companies and is the sectoral voice for the majority of mineral products. Each year, mineral operators supply £21 billion of materials and services to construction industry and other industries. Mineral production represents the most significant materials flow in the UK economy and is also one of the largest manufacturing sectors.

Dimension stone producers are a small but economically significant element of the MPA membership. Their annual output in the UK consistently averages over 1.0 million tonnes and in 2010 reached 2.1 million tonnes. The market value of these materials is much higher than most minerals currently extracted and varies considerably. The market value of the most skilfully-crafted products can be in excess of £1,000 per tonne. Because of this variation, the value of this sector to the UK economy is difficult to estimate but it was thought to be worth at least £350 million in 2010 (United Kingdom Minerals Yearbook - BGS).

Dimension stone producers often believe that their proposals are considered by planning authorities in the same context as aggregate operations which are generally much larger. Equally, all the commercial considerations that apply to larger sites are assumed to apply to dimension stone working. The sections which follow aim to highlight the differences and also set out some specific points that planning authorities should take into account in both plan-making and in the consideration of planning applications. The same points may also be relevant to the duties of other regulators, notably the Environment Agency and Natural Resources Wales.

THE STATEMENT IS THEREFORE RELEVANT TO:

- All forms of engagement between the dimension stone industry and the decision makers in organisations which regulate that industry;
- The preparation of industry consultation responses to draft development plans;
- Local planning authorities in dealing with planning applications, reviews of mineral permissions and the regulation of operations;
- The safeguarding of local stone resources for future generations as an essential part of building and maintaining sustainable communities.

The document will be kept under review and comments will be welcomed from interested parties about its usefulness and relevance in dealing with regulatory matters related to the dimension stone industry.



What is Dimension Stone?

Dimension stone in the context of this document can be taken to mean any rock that is extracted for use largely in its natural state i.e. without crushing, screening, washing or similar treatment.

It covers building, walling, flooring and paving stone as well as a range of materials used for roofing purposes. It includes monumental stone and material worked for "high end" architectural uses such as cladding buildings. Natural stone is back in fashion for interior features such as staircases, fireplaces, kitchens and bathrooms.

The geology of the UK is such that a very wide range of distinctive building stones have been used over the centuries. Most are still being worked to meet both new and ongoing needs, throughout Great Britain.

There are currently about 395 active dimension stone quarries and mines in Great Britain (BGS BRITPITS database). Amongst them are a number of very small operations (around 0.5ha) including some which produce only around 100 cubic metres of

material each year to serve specialist and local markets. It is not uncommon for such sites to have only one or two employees and to be worked intermittently as needs arise.

There are however larger dimension stone operations which make up a significant proportion of the industry. They are locally very important employers and such operations serve markets on a regional, national and sometimes international scale.

Dimension stone is mainly extracted in surface operations, but underground stone mining which has been traditionally carried out in a few places such as Bath and Wiltshire (Bath Stone) is now being expanded. In new underground operations such as the Isle of Portland (Portland Stone) this is being driven principally by planning considerations.





Why is the Dimension Stone industry important?

Paragraph 142 of the National Planning Policy Framework restates an established UK Government principle that minerals are essential to support sustainable economic growth and our quality of life. Included in the definition of “Minerals of local and national importance” in the NPPF (Annex2: Glossary) are “ . . . local minerals of importance to heritage assets and local distinctiveness”, a description which certainly encompasses dimension stone.

In Paragraph 143, the NPPF stresses the importance of maintaining a sufficient supply of materials whilst aiming to source minerals supplies indigenously. Using indigenous resources minimises the distance they have to be transported to their point of use and thence their carbon footprint. Security of supply is also more certain if viable sources can be maintained here in the UK.

Dimension stone operations are commonly located in rural environments and have often been a central part of community life for many generations. They continue to provide employment and opportunities to acquire skills that would otherwise not be available in those settings. In addition to providing materials close to points of need, the importance of the industry to rural economies must also be an essential part of considering dimension stone proposals. The conservation and restoration of our heritage assets makes a positive contribution to sustainable rural communities and brings wider social, cultural and environmental benefits.

At paragraph 144 (Bullet Point 8) the NPPF recognises the need for small scale building stone extraction to provide materials for the repair of heritage assets. This is the only specific reference to the dimension stone industry in the NPPF. Whilst the maintenance of historic buildings and monuments is of great importance, use of the term “small scale” in the NPPF understates the wider maintenance needs that arise at the heart of some of our major towns and cities such as London, Bath and Sheffield, whose great buildings have been constructed of indigenous stone.

Although the maintenance of these historic assets is an important role, MPA members

report that repairs account for only around 10% of their market. There are many parts of the UK whose distinctive character is set by the natural stone buildings which form them. To remain viable those communities need to grow and to evolve, which creates a need for extensions and new buildings. Use of the original stone is often the only way of ensuring that new development is in keeping with the old.

The industry recognises that imported materials are available which may be, on the face of it, a good match for indigenous stone. However, these materials are unlikely to have the same workability or weathering characteristics as the original and extreme care has to be exercised in their use. Specifiers should be reluctant to use imported materials for that reason. Alternatives to natural stone, such as reconstituted material, brick or concrete are not always suitable for modern buildings, particularly when they must take their place in conservation areas or other sensitive locations.

Many MPA members believe that imported materials can only compete in the UK market simply because their production is not subject to the costly cumulative regulatory burdens (including the planning constraints) which UK operators have to bear. In many cases it has become easier to source dimension stone from abroad rather than negotiate the UK planning and environmental permitting systems, as is necessary to make supplies of indigenous materials available.

Importing stone from remote sources such as India and China must raise questions on both economic and sustainability grounds, when suitable and often better materials can be made available in close proximity.



Dimension Stone working – issues for planners

SURFACE WORKING

Dimension stone quarries are generally very different in nature from other surface mineral workings in that:

- They extract much lower volumes of material than say, aggregate quarry operations and also extend over smaller areas.
- The extraction methods do not give rise to significant impacts on adjoining areas; explosives are seldom used.
- The volume of material that is moved from the site is much less than most quarry operations and therefore transport impacts are unlikely to be significant or unmanageable.
- Within natural stone quarries, the use of heavy machinery will not be on anywhere near the scale of other types of mines or quarries, such as aggregates or coal.
- In many cases, material for infilling the sites will be generated during extraction and processing. The importation of infill is less likely to be necessary for restoration purposes.

In common with larger surface operations, the restoration of dimension stone sites has been a significant contributor to biodiversity gain and the natural stone industry provides excellent opportunities for environmental enhancement.

UNDERGROUND WORKING

The issues associated with underground mining are quite different from those of surface quarrying.

Extracting stone by underground methods raises both planning and operational issues:

- The visual impact and surface ‘footprint’ of the operation is much smaller, being confined to underground access portals (normally inclined tunnels or ‘drifts’) and supporting infrastructure, including workshops and ventilation plant.
- There are fewer zoning issues than with surface quarrying.
- Underground working gives rise to less environmental concern; minimal vibration and emissions of noise and dust.
- It may make materials accessible that otherwise could not be extracted viably due to their location or geological setting.
- They do not necessitate preparatory stripping of soils or surface excavations.
- There is no surface void to restore. Underground voids may be used to stow discarded rock and thereby eliminate or minimise surface tipping.

- The voids created have the potential to be used for certain specialist applications such as those requiring darkness or stable ambient air conditions.
- Working takes place away from the constraints of prevailing weather conditions.
- The initial development costs are high as safe access to the rock unit of interest has to be in place before any “paying” materials can be removed.
- More specialist skills are required than for surface working.
- The workings must be ventilated and lit.
- The extraction efficiency may not be as high; material may have to be left behind for ground control purposes, but extraction can normally take place closer to the boundary of the underground resource as there is no necessity to have an environmental stand-off.
- Any overlying surface land uses may dictate working practices that have to be employed.

For the above reasons, underground production costs are relatively high and almost certainly higher than surface extraction where the overburden is shallow.

The stone can be mined by various methods but ‘room and pillar’ (also known as ‘pillar and stall’) mining is the most common technique. A rock horizon is removed but pillars of rock are left in place in a regular pattern to support the roof.

What do Dimension Stone producers need from the planning system?

Plan Making

MPA members recognise the value of the plan-led system and hence the importance of engaging with the plan-making process. The principal advantage to operators is that by identifying areas for future working in a development plan, the investment risk associated with the submission of a planning application is substantially reduced. Paragraph 150 of the NPPF states that: "Local Plans are the key to delivering sustainable development that reflects the vision and aspirations of local communities". Paragraph 155 goes on to say that "Early and meaningful engagement and collaboration with neighbourhoods, local organisations and businesses is essential".

Most dimension stone reserves require bespoke extraction equipment, which in turn generates long learning curves for the development and training for the staff, particularly for mining. The marketing of a new stone can only begin once the extraction starts and unlike aggregates it is unlikely that an entirely new stone will immediately find customers. Marketing programmes could take many years to bring the new resource up to full production, particularly for the international markets.

The MPA looks forward to positive engagement with local planning authorities on the subject of future supplies of dimension stone. As stated elsewhere in this document, those supplies are essential to secure both the restoration and conservation of local heritage assets and the development of sustainable communities. A sound development plan is paramount to the regulation of operations.

Minerals plans should make adequate provision for the maintenance of dimension stone supplies by identifying areas where working is likely to be acceptable during the life of each plan.

Sources to provide longer term supplies should be demarcated in development plans within Mineral Safeguarding Areas (MSAs). Plans should include policies which show the criteria the planning authority will apply when assessing applications for potentially incompatible development in MSAs and hence how they will ensure that dimension stone resources "... are not needlessly sterilised by non-mineral development." (NPPF Para 143).

MPA members will help wherever possible with evidence and data on the use and availability of local stone and the extent to

which resources of those materials should be safeguarded.

Further advice on the process of mineral safeguarding is set out in "Mineral Safeguarding in England: good practice advice" (2011) produced by the British Geological Survey.



Planning Applications, Reviews of Mineral Permissions and Environmental Regulation

Dimension stone planning applications should be decided on the basis of whether or not they constitute sustainable development (NPPF Paragraph 14) and not on the basis of perceptions and prejudices stemming from much larger scale operations.

To be acceptable, proposals must address satisfactorily the three dimensions of sustainable development: economic, social and environmental (NPPF Paragraph 7).

As with all for mineral extraction, dimension stone planning applications are costly to assemble and will not be made unless an applicant is satisfied that the material can be sold. Need is best considered on a site-by-site basis and is likely to be very local, being largely driven by the past use of distinctive materials close to their source. However, in specific cases it may have a broader strategic context, such as the need to provide Purbeck and Portland stone for use in London and cities elsewhere in the UK.

When considering planning applications and deciding any planning conditions that might



be necessary to make them acceptable in planning terms, local planning authorities should take into account the comments set out in this document and in particular the following points:

- It is important, not only for the industry but also the local economy and the well being of the local community, to positively plan to meet the objectively assessed development needs of the dimension stone industry from indigenous resources.
- Local decision makers should recognise the importance and value of the dimension stone industry to the local economy in terms of jobs (direct and indirect), skills and training and financial benefits (business rates etc).



- Even though dimension stone operations may be smaller in scale than the majority of surface mineral workings, an assured future is still necessary to support investment decisions. This reflects the need to justify the cost of new or replacement infrastructure and in the case of underground mining, the initial development cost. A reasonable working duration gives security to employees and assurances to customers regarding continuity of supply. The NPPF (Paragraph 146) specifies minimum levels of 10 years reserves of industrial minerals which should be maintained for that purpose. Whilst dimension stone is not specifically mentioned, the same principles should be applied. The MPA believes that short time limits (less than 10 years) on the duration of operations

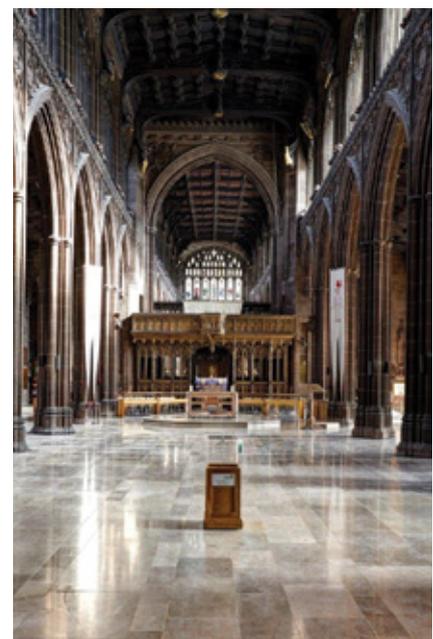


should not be sought by planning authorities unless there are sound planning reasons for doing so.

- The sporadic working of dimension stone quarries, to meet needs only as they arise, is less likely to be a good economic prospect than it has been in the past. This is due mainly to the cost of maintaining the increasing number of regulatory consents (including planning permission) to which such sites, even when they are dormant, are subject. Therefore planning authorities should be mindful of the fact that “the sporadic reopening of relic quarries” (NPPF Paragraph 144) to serve a specific short term need, may be neither a viable nor a sustainable option. As a consequence, strategic planning for supplies of distinctive materials through the development plan process is becoming of greater importance. A planning authority should not seek to impose limits on the markets that may be served by a quarry, as a more sustainable source for meeting a more distant need, may not be available.
- Dimension stone production produces a relatively high proportion of discard material. This stems from both the inherent variability of natural geological materials and the need to ensure that products are of a consistent quality. The default position is often to retain and manage this material on site. However, this can cause operational problems, as stored discard material can prevent access to new working faces. Markets may also arise for this material from time to time, in which case it can be used to substitute for primary aggregate materials. Indeed some sites may produce a material that is suitable for aggregate end uses as a matter of course and sales of that material may be fundamental to the economic viability of the operation. Planning authorities should not seek to place restrictions on the type of material that can be sold

from dimension stone sites unless there are sound planning reasons for doing so.

- Vehicle movements associated with dimension stone quarry operations are unlikely to be significant. Any limits that are placed on the output from, or the imports to, a dimension stone operation should relate principally to the capacity of the highway network serving that site. The imposition of restrictions on lorry movements should not be used as a means to control other aspects of the operation.
- The viability and sustainability of dimension stone sites may depend on performing many of the “value-added” operations on the material, such as sawing, cutting, carving and shaping, before it leaves the site. Modern facilities are essential for those operations and planning authorities should be aware that processing plant should be provided on-site wherever possible to enable the greatest economic gain to be made from the products and to minimise impacts on people, transportation and the environment.



Dimension Stone Group members

Albion Stone plc

Black Mountain Quarries /
De Lank Quarry Ltd

Burlington Slate Ltd

Caithness Stone Industries Ltd

Dunhouse Quarry Co

Forest Pennant

Gallagher Aggregates

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Portland Stone Firms Ltd

The Bath Stone Group

Tradstocks Natural Stone

Woodkirk Stone

For further information on any of these issues, please contact the MPA on the email/telephone number shown below.



**essential materials
sustainable solutions**

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