Marshalls News

AUTUMN WINTER '85

Published for stockists, specifiers and users of precast concrete products

LARGEST EVER

The site of Britain's largest-ever concrete block paving scheme is at Felixstowe where a new 200,000 square metre container storage area is being paved with Marshalls 100mm thick rectangular blocks. The blocks are being hand-laid over a twelve-month period.

The work is part of a Felixstowe Dock & Railway Company project designed by consulting engineers, Posford Pavry & Partners, and constructed by main contractor, French Kier Construction. This major project is for the expansion of facilities and container storage areas at Felixstowe which is already the U.K.'s largest container handling port.

The supply contract for concrete block paving was awarded to Marshalls Mono for its Keyblok type with built-in spacers. Delivery of the first blocks was made by Marshalls in April and supply will continue daily throughout the twelve-month period of the project.

Since May, hand-laying of the blocks has proceeded at the rate of 1,000 square metres per day with a twenty-strong team. Two or three men are actually laying while the others are divided between supplying blocks to the laying face, preparation of laying course sand, vibrating and top-sanding.

The ground conditions on site are subject to settlement and this, coupled with the extreme loading conditions expected from stacked containers and handling equipment, were factors which decided in favour of concrete block paving rather than insitu concrete or black-top. It is a coastal site where sea-dredged ballast has been used as land-fill. Settlement of up to half a metre is expected with the fill because of underlying ground conditions. The flexible surface provided by concrete block paving is particularly suitable under these conditions as it is extremely tolerant of sub-grade movement and is capable of considerable deformation without breaking up or becoming unusable to wheeled traffic.

To provide a suitable sub-base for the block paving at Felixstowe the land-fill material on site (up to seven metres thick) is being stabilised. This involves a 5.5% cement conditioning of the top 400mm of fill by the Dutch contractor, Stagro. The company is spreading cement over the surface of the filled area, rotavating to a depth of 400mm and re-compacting the area. Finally the surface is being spray-coated with bituminous emulsion curing agent. The laying course sand for the block paving is laid directly on top after the fill has reached a seven day strength of 10 N/mm^2.

To allow heavy plant to bring up block supplies over previously laid but unvibrated block surfaces, two thirds of the laying course sand is precompacted prior to block laying. The remaining third is being screeded on top of the precompacted layer and the blocks laid on that. On such a vast site logistics preclude any thought of working along one laying face in the normal manner. Instead the laying contractor has split the site into 25 metre square areas which are being completed one at a time. Block supply and laying activities can be concentrated much more effectively in these smaller areas and it is much easier to keep control of lines.

Weathered York Walling — new from Marshalls

Marshalls Mono has made a new addition to its ranges of reconstructed walling stone. Named "Weathered York Walling", it has been modelled from carefully selected stone originals to meet planning demands for a material which reproduces the predominant building stone of the Northern Counties. As its name suggests, much thought has been given to the old-stone colouring of Weathered York Walling, to produce a material which is sympathetic to stone areas and does not look raw when new.

Weathered York Walling is made in a number of different block sizes to faithfully reproduce the coursed and random block length style of work which is particularly typical of many Northern areas. In addition to complementing natural coursed stone, the four course depths of Weathered York Walling have been carefully calculated to readily tie-in with standard internal blockwork.

Apart from its appearance, Weathered York has a number of advantages. Because of its regular shape it is easier to handle and work with than natural stone and has the major cost and time-saving advantages of being ready-coursed.

There are separate packs for each of the four course depths of Weathered York Walling — each pack containing a predetermined mixture of block lengths. One pack gives a total of 5m^2 of walling inclusive of 10mm joints.

Weathered York Walling is a fully load-bearing material which is suitable for structural use for private dwelling and commercial developments. It is manufactured under carefully controlled factory conditions, using a large number of individual moulds to avoid the possibility of repeat faces being laid adjacent to each other.

NEWS CLIPS

The Sunday Times

Marshalls products have been selected by *The Sunday Times* as the building and paving materials to be used in a garden design competition organised by the newspaper. Gardening Correspondent, Graham Rose, has taken a literary theme for the competition. Entrants are asked to design the sort of courtyard garden evoked for them by references to the Lowood Orphanage in Charlotte Brontë's "Jane Eyre".

The BBC

Brindle block paving will be an important feature of the BBC's "Pebble Mill Street" at next year's National Garden Festival in Stoke. The street is the result of a BBC garden design competition aimed at creating gardens that the general public can relate to. The block paving has been used in a competition winner's garden (right) which has already been featured on television by Peter Seabrook.

Eskoo Jimmy

There is no need to take a bus from one of the car parks to reach Scotland's newly-opened £36 million Exhibition and Conference Centre in Glasgow. The bright and cheerful 64-acre complex is on a human scale, with parking clustered around it, a railway station next door and the city centre just down the road.

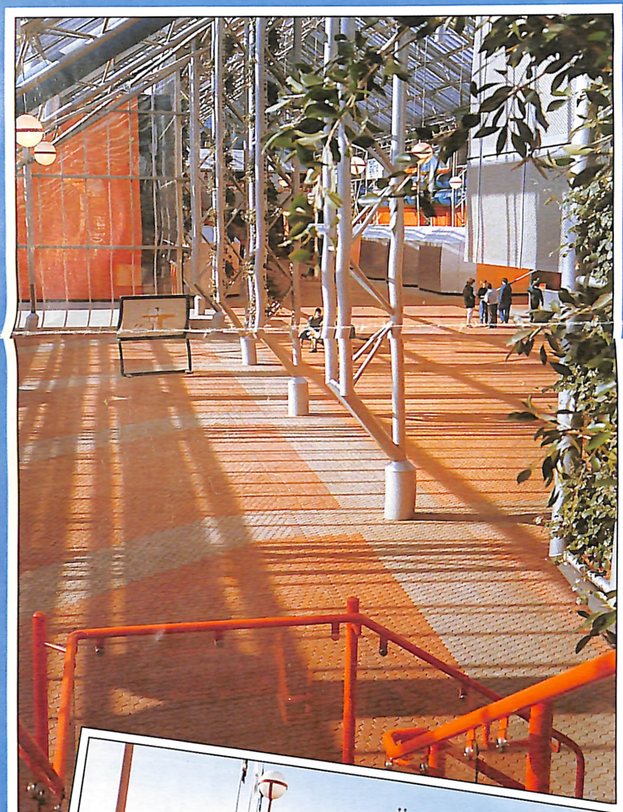
The constraints of a city-centre site do not permit extravagant use of soft-landscaping but, although the exhibition complex is totally surrounded by hard surfaces, it still retains an attractively textured feel by virtue of the concrete block paving used extensively around and in the buildings. The block paving is very obviously a carefully thought out part of the architecture, rather than a surfacing afterthought.

Eskoo-Six paving from Marshalls Mono has been used throughout the pedestrian areas, including the surfacing of a vast undercover concourse where it marries well with the colourful high-tech architecture. Around 25,000 square metres of Eskoo-Six, mainly red for warmth, has been used to surface two main approach avenues, their continuation in the undercover concourse and a piazza which links the exhibition buildings with the riverside.

To avoid monotony in the paved areas and create visual unity with the architecture of the exhibition halls, bands of grey blocks have been used throughout the scheme to separate areas of red Eskoo-Six. This unifying feature is typically seen linking lighting columns across the approach avenues and marking out the springing points of the tubular pillars in the concourse.

The Eskoo-Six is particularly attractive in the concourse where shadows cast by the main structural elements of the glazed roof create constantly changing patterns across the paving. The banding across the piazza begins by mirroring the roof supports of the concourse before linking with square panelling in the main area of the piazza.

Architect for the exhibition centre was the Glasgow-based practice of James Parr & Partners, with project management by Bovis Construction. The completed complex has five exhibition halls with 19,000 square metres of floor area and space for 3,500 cars and coaches.



OVERFLAGS FOR UNDERGRADS

Replacement of the previous roof covering to Cripps Court at Queens College Cambridge has led to Marshalls' Saxon flags being used as part of an inverted roof installation. The use of this system means that the roof is available for student leisure use without danger of damage to the waterproof course.

The renewal scheme devised by consulting engineers, Eastwood & Partners, involves a waterproof membrane to the roof's structural deck, followed by expanded insulation material and finally the flag wearing course. By this method the flags provide a wearing course and protection for the waterproof membrane.

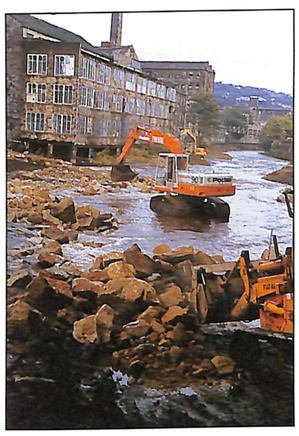
The coarse-textured Saxon flags — amounting to some 1,000 square metres — were laid by Cambridge Asphalt Company Limited which also handled the waterproofing and insulation of the roof. The flags were laid dry, using plastic crucifix spacer feet at the corners of all flags. The feet support the flags and provide a clear area between flags and insulation for surface water run-off to gulleys.

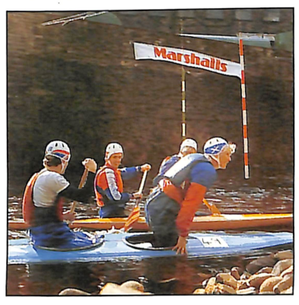
Instant recipe for Kayaks . . . just add rocks and water

Canoeing down the rapids of the River Calder in the industrial Pennines may not seem to have the romantic appeal of the Dawson River but it's a sight more convenient for local enthusiasts. And just as exciting, thanks to an ingenious waterscaping idea by West Yorkshire County Council and 1600 tons of boulders from one of Marshalls' quarries in the Halifax area.

The boulders were used by K. & M. Hulme of Elland to remodel the river bed and create a canoe slalom course in the very heart of the mill town of Sowerby Bridge. One week's work was all it took to create fast-flowing "white water" conditions to at least National Competition standards. Apart from the important benefit of providing a sporting amenity for the region's youth the new canoe course will attract national events.

The canoe course is a forerunner of a 2½ acre riverside development which will eventually change derelict and dark satanic mills in the town centre into a tourist attraction. When it does, the souvenir rock will have Marshalls all through it!





Arcadian — curvy but easy to lay

Arcadian, yet another new block paving from Marshalls Mono, captures the style and charm of fantail setts but without the heartache involved in laying the original material. It is a modern block paving that is equally at home in conservation areas or the most modern precinct.

Apart from its much lower cost, even thickness and trip-free surface, Arcadian has a major installation advantage over newly-quarried or reclaimed materials. The blocks are supplied in ready-coursed arcs of five stones — four of which have false joints to give the overall visual appearance of nine. There is none of the frustration of cutting quarried material, searching for just the right piece or setting out for each individual arc.

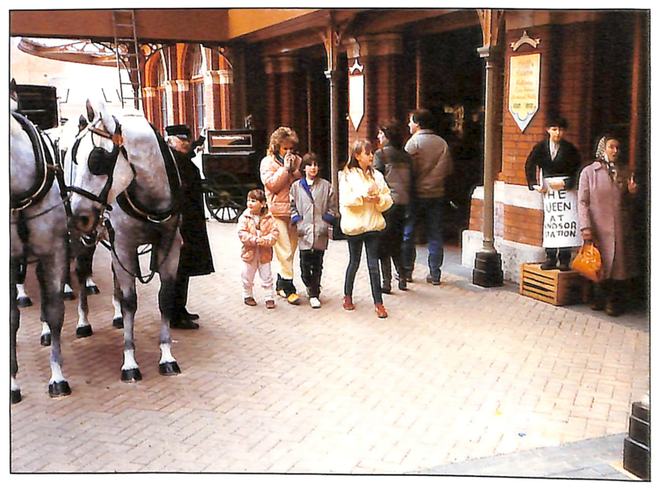
This simplifies the laying procedure considerably, even though the finished pattern is very elaborate. As a further aid each complete arc can be transferred from pallet to laying face by use of a hand clamp.

WINDSOR SCOOP

The horses and the newspaper boy are wax but the concrete block paving is real Marshalls Keyblok at Windsor and Eton railway station, just opposite the Royal residence. Nearly a thousand square metres of Marigold and Charcoal Keyblok has been used, in conjunction with Charcoal Keykerb and Saxon flags, at the station.

The paving was specified by Architects Edginton Spinks & Hine for the approach to the station buildings and a newly-created Madame Tussaud's exhibition there. The exhibition features Queen Victoria, complete with retinue, about to board a 19th century Royal Train.

To coin a slightly altered phrase from the Royal Lady, "We are not amazed that Keyblok was selected". We, in this instance being perhaps the Royal we?



Monolok put on shopping list

Supermarket groups have tended to shy away from concrete block paving, simply because chamfered edged blocks and the small wheels of shopping trolleys don't mix. But now they are making the pleasant discovery that Marshalls' Monolok does not have edge chamfers and cannot cause breakage of expensive shopping trolleys through excessive vibration.

A simple enough discovery but one that is enlarging the design options for architects working on new supermarkets. The breakthrough has come largely as a result of work on a new Wm. Morrison Supermarket in Rotherham. Over 3,000 square metres of Monolok has been used there and with not a juddering trolley in sight.

Ground conditions at the new site were such that, before construction began, the consultant engineer advised the architects, John Brunton & Partners, that concrete block paving would be the most suitable surfacing material. The client was naturally apprehensive about the possible damage factor and it was not until visits had been arranged to see actual Monolok installations that its use was approved.

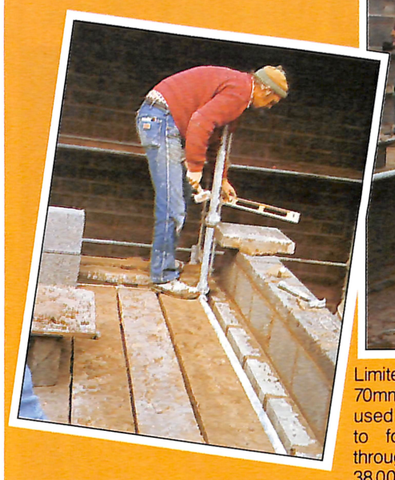
Following the successful installation at Rotherham, Monolok has been approved for other Morrison contracts. In addition the Co-op is using it and interest is growing fast among other supermarket groups.

Apart from the smooth surface finish with Monolok, its S-shape has a high aesthetic value which fits in well with the increasing trend towards attractively designed supermarket buildings.

FLAGS SHELVED

Turning paving flags into shelving may seem to be pushing versatility to the limits. But that is a cost-cutting answer to the particular problems of building block manufacturers.

The idea of building walls with protruding courses of paving flags was perhaps a case of vertical as well as lateral thinking when Block Plant Engineering Limited first thought of it some 20 years ago. In fact it was an innovative answer to the problem of creating supports in curing chambers for pallets of building blocks.



Since then the company has used the method successfully on a number of turnkey projects in place of more conventional shelving materials. Iron, steel and timber are generally ruled out on cost grounds or because of the deleterious effect on them of constantly high humidity levels.

Block Plant Engineering has used this novel approach most recently in the construction of new curing chambers at the Twechar plant of block manufacturer Russlite (Scotland) Limited. Around 6,500 of Marshalls 70mm thick Trafica flags have been used in the new twelve-chamber unit to form nine-high pallet racking throughout and capacity for curing 38,000 blocks per day.

A similar method was already in use in the plant's existing chambers but involving concrete slabs which had been cast on site by a contractor. For the new unit it was decided that hydraulically-pressed flags would be more suitable because of their greater strength. In addition the factory-made product is of regular size and is made and cured under ideal conditions.

The new Russlite curing unit is split into three groups of four chambers, with heavily insulated double-skin walls around and between each group. Dividing walls between the chambers are of single-skin construction. Standard size 450 mm square flags have been built into each single-skin wall to form shelving on both sides of the wall.

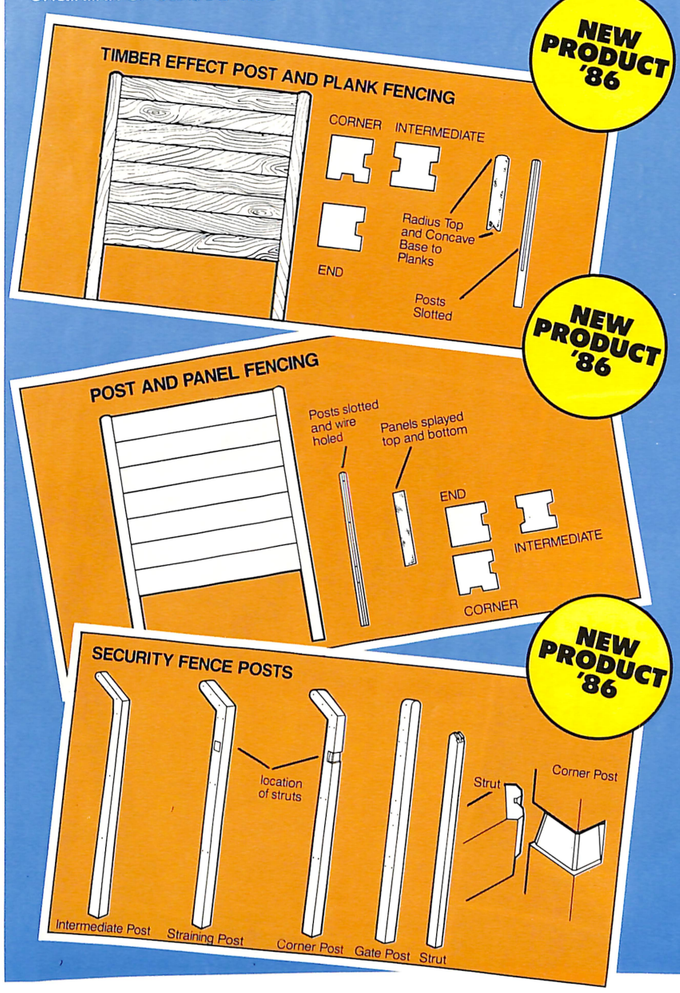
For the insulated double-skin walls, cut flags have been used which protrude from only one wall face so as to prevent heat bridging through the walls via the flags. This is an important feature as the curing unit's efficiency depends on completely insulated and sealed chambers.

The beauty of Block Plant Engineering's design of curing unit is that it is self-contained in terms of energy input. Heat for the curing process is provided by the hydration of the blocks themselves as they cure. Only in northern climes or winter weather is supplementary heat required. In this respect both flags and walls also help by acting as heat stores.

Durable and secure fencing

Two new reinforced concrete fencing products have been developed by Marshalls Mono as lower cost and more durable alternatives to conventional materials. Both are simple post and panel designs, suitable for a range of applications in the industrial and domestic sectors.

In addition the company has developed a post system for the construction of 1.8 metre high security fencing, using chainlink or barbed wire.



Timber effect post and plank fencing.
This pre-fabricated system involves the use of slotted end, corner and intermediate posts into which horizontal panels are fitted. The panels have a radius top and concave base which provide for accurate jointing of panels and ensure a peep-proof fence.

For visual acceptability, in even domestic situations, the panels have a high-relief wood grain finish — fine grain on one side and coarse on the other — and pale oak colouring. Panels are in either 1905 or 905mm lengths.

There are two post heights to provide fences 1850mm high (8 panels) or 950mm high (4 panels). Posts can also be made to special order to give a 1400mm high fence (6 panels).

Post and panel fencing.
This has the same, simple, slot-together construction, of the post and plank fencing but with smooth-faced panels in grey. There is one post height to give an installed fence height of 2100mm (seven panels). Posts also have three wire holes and can be supplied without the panels.

Security fence posts.
These are reinforced concrete fence posts, with wire holes, for the construction of 1.8 metre high security fencing. They are suitable for use with chainlink or barbed wire.

Corner, intermediate and straining posts have cranked tops while gate posts are straight headed for unobstructed gate swing. The system includes internal or external cranked corner posts, a universal straining post and struts.

Rialta-mixture of old and new

Rialta concrete sett paving is a new surfacing material from Marshalls Mono which combines the visual appeal of traditional stone setts with the durability and ease of installation of concrete block paving. The new paving looks good but it is also easy to lay and requires little maintenance. Rialta is obviously going to find a ready market in conservation areas but it is equally suitable for modern precincts — in fact wherever there is a requirement for a non-regular textural surfacing.

It has already been specified for a Civic Trust scheme involving the restoration of a series of interconnecting squares and walkways in the centre of Halifax. Rialta is intended specifically for this type of pedestrian/car use and not for areas subject to continuous trafficking by heavy commercial vehicles.

Where Rialta differs from other block paving types is in the use of four different block lengths to create a non-uniform coursed pattern. To simplify laying it is supplied in packs of ready-coursed layers. The formations can simply be laid as they are presented in the packs or at random, providing that cross-jointing is maintained.

The sub-base preparation and methods of installation of the new paving are the same as for other concrete block paving types and, like them, Rialta is ready for immediate use as soon as laying has been completed.

Saving on farmyard paving

Marshalls Mono

Marshalls News is published by Marshalls Mono Ltd. Southowram, Halifax HX3 9SY. Telephone (0422) 57155.

Keeping farmworkers fully and usefully occupied during slack times of the year is a perpetual headache but South Yorkshire farmer, Martin Braithwaite, found that surfacing his farmyard with Marshalls Keyblok was one answer which also saved him money and won official encouragement. ADAS officials were so interested in his use of concrete block paving that they organised a demonstration day so that other farmers could see Martin's laying gang at work.

Martin Braithwaite's Cadeby Hall Farm, in South Yorkshire, had a packed earth farmyard which, apart from being uneven, was dusty in Summer and like the Somme on wet Winter days. Like so many others he considered the surfacing materials available and the costs involved. Like the others he would probably have settled for laying insitu concrete — although he dislikes the look of it. But unlike the others he has an architect brother who was in no doubt that the real answer was concrete block paving.

Mr. Braithwaite knew it only as something akin to a modern-day version of setts. What he discovered was that concrete block paving is also a very tough surfacing, cheaper than insitu concrete and easy for unskilled labour to lay.

The cost of the blocks and farmworker's labour costs, (which he had to find anyway) — were his main outlays. Other outlay for hardcore, sand, edging material and the hire of a plate vibrator brought his total costs for the finished work to £7 per square metre. As the surfacing was an approved part of the six-year development programme for the farm, Mr. Braithwaite received an EEC grant for the work which brought the actual costs down to under £5 per square metre.

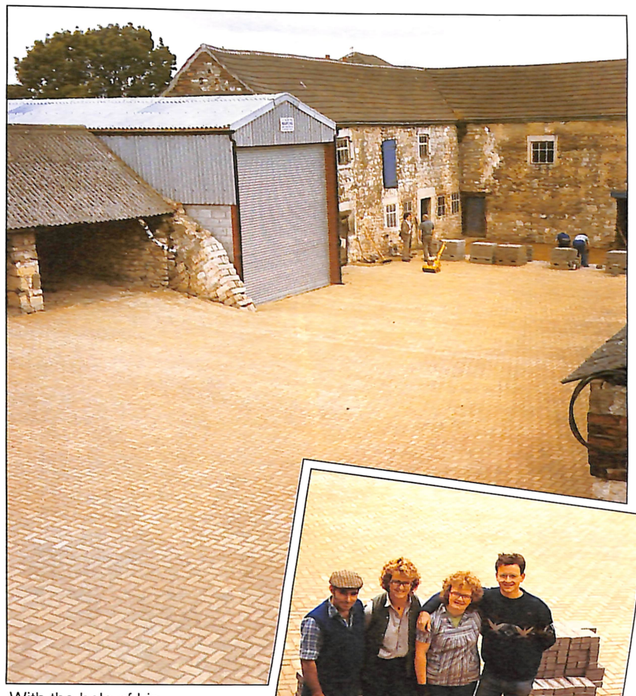
What he has to show for his money is a very tough surface which will last indefinitely and require little maintenance. In addition to its ability to take extreme loading and its resistance to attack by animal effluents and fuel oil, the finished surface also looks stunning. While farmers may be cost conscious there are still enough around who also care about old-fashioned husbandry and how well their farms look.

Concrete block paving is a surfacing that ADAS Surveyor, John O'Mullane has for some time been enthusiastically advising farmers on. Mr. Braithwaite's farmyard project brought the two together with the idea of a demonstration day to show other farmers what can be achieved with a minimum of equipment and unskilled labour. Farmers who attended the demonstration — one from as far afield as Gloucester — were very interested in the simple method of installation and also the fact that in these days of equal opportunity there were two women in the three-strong laying team.

Mr. Braithwaite considered that after generations of use, the packed earth of the farmyard was sufficiently unyielding to act as a sub-base. The only requirement was to fill in potholes and level off any surface irregularities before screeding out sand for the blocks to be laid on. The actual laying took eleven days, a lower rate than professional layers but Mr. Braithwaite didn't have a deadline and the standard of work is impeccable.

In an agricultural context speed of laying is not really relevant anyway. The beauty of block laying is that it can be done when time allows and be just as quickly suspended if anything else comes up.

As John O'Mullane says, "Blocks can be laid in slack periods, in weather too cold or too hot to lay insitu concrete and it can safely be left if any other business needs attention." In short a very useful material for farmers and a cost effective one at that.

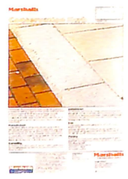


With the help of his farmworkers, Martin Braithwaite (right), found that blockpaving the yard of his farm saved money and provided a tough, yet attractive, surface.

NEW LEAFLETS AVAILABLE FROM MARSHALLS MONO

Arcadian Fantail Block Paving (see this issue)

Weathered York Walling (see this issue)



Conservation Kerb — exposed granite aggregate finish with the appearance of traditional kerb.

Rialta Concrete Sett Paving (see this issue)

Glen Paving — riven-faced paving made for distribution in the Scottish area.

Inspection Chambers — a complete system of interchangeable units.

Mini Household Inspection Chambers — with depths-to-invert of 1 metre or less.

Timber Effect Post and Plank Fencing. Post and Panel Fencing. Security Fence Posts (see this issue)

With these and existing publications the following products are fully covered:-

WALLING
Weathered York Walling
Marshalite
Tudor
Cromwell
Glenstone
Superscreen

PAVING FLAGS
Standard
Old York
Pennine
Saxon
Perfecta
Trafica
Metric 4 Square
Charnwood
Pastel
Deterrent
Glen

BLOCK PAVING
Monolok
Rustikal
Keyblok
Eskoo-Six
Rialta
Arcadian

ENVIRONMENTAL
Tree Grilles
Erosion Control Products
Ditchliners

STREET FURNITURE
Boulevard Range
Strada Range
Westminster Range
Bollards
Seating Range
Cycle Blocks
Playscape

STREET FURNITURE (cont.)
Plant Containers
(A range of designs finished in concrete and g.r.c.)

KERB & DRAINAGE PRODUCTS
Standard Kerbs
Keykerb
Beany Block
(Combined kerb and drainage system)
Interlocking Traffic Blocks
Verge Markers
Porcupipe Preform
Inspection Chambers
Segmental Soakaways

Paving the road to Wigan Pier

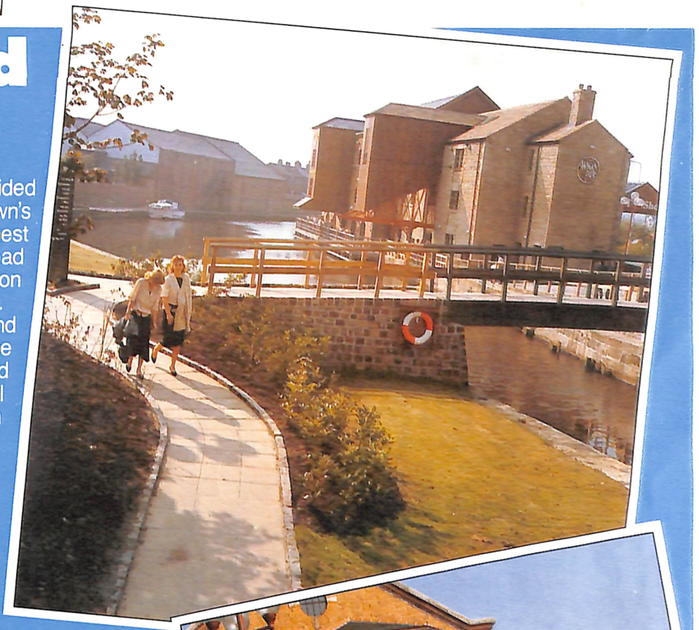
Wigan Pier gave George Orwell a memorable book title and provided generations of comics with a belly laugh at the Northern town's expense. But Wigan is having the last laugh by turning its grimmest relic into a showplace. Marshalls may not exactly have paved the road to Wigan Pier but paths and precincts have certainly had the Saxon treatment as the company's contribution to this delightful scheme.

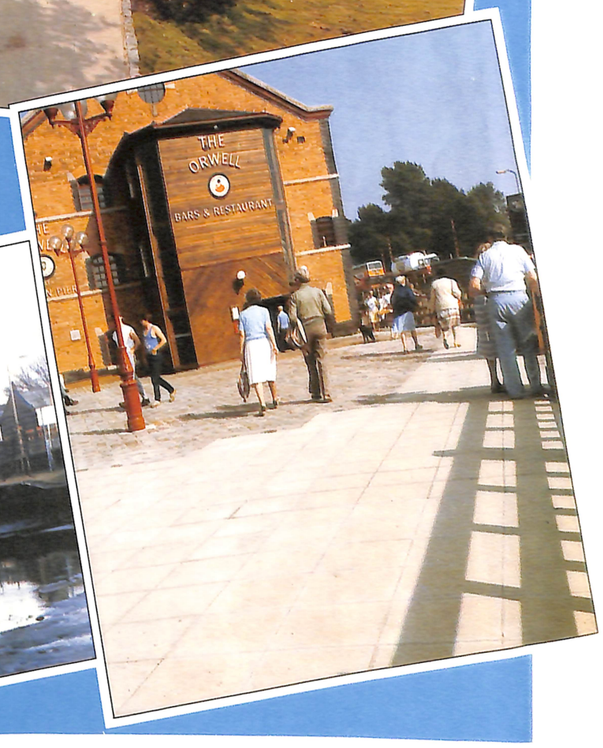
Close to the town centre an attractive business, leisure and educational area has been created around the remains of the famous pier and out of formerly derelict industrial buildings and warehouses. The area, around a basin of the Leeds-Liverpool Canal, is a shining example of what can be achieved with urban renewal schemes to turn eyesores into assets.

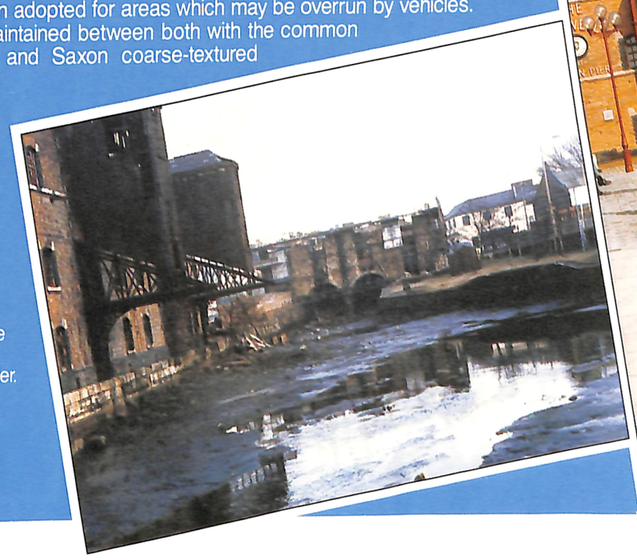
Somehow Wigan Pier isn't a joke any more. In fact rather than attempt to live down the label the town has proudly adopted the name for the revitalised area — even to the extent of appointing a Piermaster. On badges, car stickers and postcards, puns abound, with such excruciating examples as "I'm only here for the Pier" and "Wigan is suPIERior."

In similar vein Marshalls Mono had no peers when it came to surfacing materials. The company's flags and Keykerb small unit kerb system have been used widely throughout the scheme. Allen Building, the paving contractor, used them in conjunction with reclaimed setts for defining and surfacing precinct areas and the paths linking the site's different elements.

In pedestrian areas 50mm thick flags have been used, while 70mm thick Trafica flags have been adopted for areas which may be overrun by vehicles. Visual continuity is maintained between both with the common 450mm square size and Saxon coarse-textured surface finish.







From eyesore (left) to tourist attraction. Saxon flags from Marshalls, along with Keykerb, have been used widely in the rejuvenation of Wigan Pier.