



PARRY NEWS



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Issue No 52

An Occasional Newsletter from JPM Parry & Associates Ltd (JPA),
Parry People Movers Ltd (PPML) and Pre Metro Operations Ltd (PMOL)

November 2008

SUCCESS FOR NEW FLOOD REFUGE SYSTEM

Dual-purpose classroom with 'High and Dry' technology mitigates flood misery in Benin



October 2008:
A newly-constructed classroom in the village of Dogba in Benin (West Africa). With the surrounding area flooded, the only traffic is on water - but the classroom stays High and Dry

DEVASTATION OF human settlements during floods caused by rising sea levels and severe storms is a world-wide problem. Solutions based on heavy civil engineering cost millions of dollars and can only benefit a few people.

Parry Associates have been working for nearly a decade on developing a system which is truly affordable and creates a high quality permanent method of construction which can be sourced locally. This means using local materials and local people doing the work. Rationalising this need with

global, internationally funded, programs building school classrooms, Parry developed the High & Dry classroom, which can also be a refuge for the community to head for when the area around begins to flood. Supported by the charity Hands Around the World, local people manufactured all the lightweight precast concrete components of the construction and, helped by volunteers from the UK, built a strong but economical High & Dry building which should be an example for people around the world. *How precast elements cut costs, page 7*

PPML TENDERS FOR TRAM-TRAINS

DURING OCTOBER, Parry People Movers Ltd indicated its intention to tender for the supply of tram-train vehicles for the trial to be undertaken from 2010 around Sheffield. The tram-train trial is intended to test the feasibility of operating rail vehicles that can run from tramways in British city centres on to main railway lines. A number of potential advantages are foreseen, including the use of more efficient lighter rolling stock and the expansion of urban light rail in the UK.

Worldwide interest in tram-trains, pages 4-5

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BARBARA'S NEW LIFE

IN 2006, the JPA chairman's wife fell ill with the spread of the breast cancer she had in the mid-1990s (which was halted for a while by the timely intervention of the NHS oncologists).

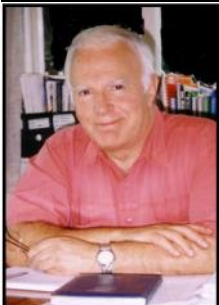
This time the effects have been more serious but a combination of radiotherapy and anti-cancer drugs have thankfully eased the great discomfort often associated with the disease.

Because part of the problem has been in Barbara's head this, possibly combined with the therapy,

has resulted in loss of function and short term memory so that - although she is at home with John most evenings and weekends - she now has to be away, in care for much of her life. When at home her Belgian shepherd dog, Scruffy, is a constant companion.



Enjoying the sunshine with Scruffy at home



By John Parry

CREDIT CRUNCH, PEAK OIL, CLIMATE CHANGE AND OVERCROWDED COMMUTER TRAINS. HMMM.....!

WHAT an opportunity now lies before Parry People Movers Ltd! At last, the penny has dropped that a significant expansion of local railways is not only desirable, but an essential

component of economic and climate change strategies for the railways. Network Rail was ahead of the game in announcing its lightweighting strategy built around the 'virtuous circle' of better maintained local railways, less heavily-built trains and lower track maintenance costs. The inevitable logic of this is for a separate tier of lines, specified for lightweight trains.

Following on from this has been the proposal to introduce tram-trains - lighter vehicles with better acceleration and braking, which can reach the edge of a town on a railway and then transfer on to street, tramway style, avoiding the poor integration caused by separate, fenced-in stations. The fact that PPM Ltd, with its increasingly accomplished supply chain, has prequalified for the 5-vehicle Yorkshire tender is no indicator of final success, but opens up the possibility of bidding for this type of business all over Britain and also internationally.

We can raise our game as a result of design steps already implemented to stretch the performance capacity of the existing single car design which, in suitable 'multiple' format, will perform many of the functions envisaged for the new British tram-trains.

The opportunity does not end there.

Whilst some of the older existing rolling

stock on Britain's railways remain very serviceable, such as the 'Sprinters' still providing fast comfortable and reliable journeys on certain routes, there are several hundred 'Pacer' units which the industry would like to replace.

Is the PPM business set fair? You would think so - the company having succeeded in building bus-sized railcars, which in multiple form could become significant transit units on suburban lines. But the road is not that smooth as can be judged from the struggle to get the wiring of the first Stourbridge vehicle approved (page 8). With recession looming, 'disruptive' technologies that bring about major changes may be resisted even more. Calling to mind my years in the Far East - when it was amusing to watch the antics of the Bazenji dogs who, when not out on a hunt in the forest with their masters, assembled into informal packs running around the kampongs. At times of excitement or stress they always turned round and bit the smallest dog! That could be us!

When the Labour government last reviewed transport in its 2005 White Paper, the theme that stood out was the need to be bold. When the chance came to build a new suburban transit link to Cambridge, such was the bias for buses against steel-wheel-on-rail that the extraordinarily bold decision was taken to (in effect) build a concrete railway for buses to run along. Presumably, wariness about new lower-cost forms of rail vehicle made the civil servants feel that this was an acceptable substitute for light rail. Time will tell.

Now into view come the 'Tram-Trains' of

Karlsruhe and Kassel in Germany. Excellent, let's build a few systems in Britain!

Not so fast, says the DfT, that would be too bold! In Europe, tram-trains may be clean, popular and cheaper to operate than ordinary local suburban trains, but to bring them to Britain they must be treated as experimental, and several years will need to elapse before we know the answer.

When Columbus came back from over the horizon without having fallen off the edge of the world, and if Britain had had a DfT at the time, they would presumably have spent another decade thinking about this before permitting trading ships to cross the ocean.

The financial services men-in-suits have been telling us that with their help we could have income without work and profit without risk. It reminds me of the continuous flow of e-mails from West African individuals offering to pay me thousands of pounds to use my bank account to pass on to them millions of dollars that had somehow become misplaced in a deposit account of a former prime minister's wife. All I could do was smile at the ingenuity and, as with the more recent unrefusable offers dreamed up by equally clever people, hope I never become so lazy and greedy as to take them up.

After the Credit Crunch all the world's money has not begun to disappear but is looking for sensible applications such as energy conservation and sustainable, affordable transport. We at Cradley Heath had better get on with being useful in these areas and be quick on our paws to avoid getting bitten!

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SOUTH SUDAN PLANT DOUBLES CAPACITY

AT THE END of September 2008, Parry Associates heard welcome news from Juba in Southern Sudan. After the completion of commissioning of the new building materials production plant and construction of a demonstration roof, the first order came in for building materials - including roof tiles for staff quarters being built for the University of Juba.



Mr Aniek
Tong Atak

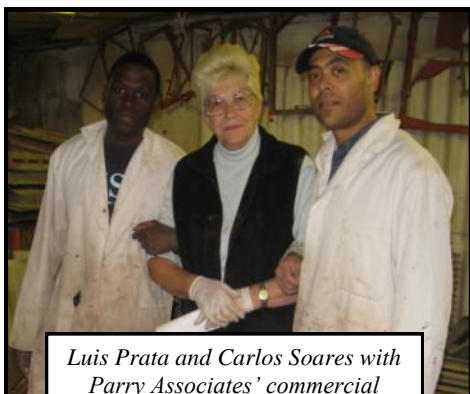
The JPA associate in charge of production, Aniek Tong Atak, reported such widespread interest in the new precast products that he felt he should begin procuring additional production equipment straightaway. After a series of enquiries, Parry Associates located another of the production plants, supplied with the kindness of the Burdens' Charitable Foundation, which had not yet gone into commercial production in the town of Yei. The missionary organisation concerned agreed to release the equipment in order for Aniek to increase his production in Juba.

On 1st October we learned that Aniek had hired a lorry and retrieved the second plant, which is now being put into production without delay.

ANGOLAN TECHNICIANS BEGIN TRAINING IN CRADLEY HEATH

IN MID-OCTOBER, Luis Prata and Carlos Soares came to JPA's workshops for training on roofing tiles and a whole range of other concrete products, including the High & Dry construction system.

SuzyDulTu Ltd, the organisation purchasing the equipment, is understood to be intending to build domestic housing and Luis has asked for help with a simple building design. Parry Associates are happy to help with this but have said that he must get any drawings approved by local building regulators.



Luis Prata and Carlos Soares with
Parry Associates' commercial
director Maureen Freeman



A house in Colombo, Sri Lanka. After ten years the Parry roof is darkened by tropical lichen but is still strong and weatherproof

SRI LANKA TILEMAKER PLANS BIG EXPANSION

IN MID-OCTOBER Mr Senanayake of Roam Associates, a longstanding user of Parry roof tile equipment, was in touch with a view to tendering for reconstruction work in the north of Sri Lanka. Roam's requirement is for around 10-15 plants similar to one which has been in continuous use since purchase in 1999.

FURTHER EXPANSION FOR BUILD IT IN ZAMBIA

UK CHARITY Build IT International has several ongoing projects around Fiwila in Zambia. It is building a boys' dormitory to add to the classrooms and science block already built with Parry precast elements. Build IT also has projects at Butempa and St. Agnes community schools and hopes to use the 'High & Dry' system to reduce cement use in future projects in Zambia.

Hexagons and High & Dry

Another project involves hexagonal roofs: With guidance from Parry technician Steve Raggett, Malcolm Alcock - Build IT's principal technician - is helping with these roofs that are based on the Parry gazebo design. Build IT director Andrew Jowett has informed Parry Associates of a requirement for 'High & Dry' equipment for Zambia to meet a general need for two storey construction.



Tile-making is of interest to all: making a Super Roman tile for a school in Fiwila

INTERNATIONAL NEWS IN BRIEF

Antigua

An English former plumber who has made good in property development in Antigua in the Caribbean has signalled his intention to apply for the Parry High & Dry system in his future projects as a means of reducing the cost of construction.

Botswana

A Botswana citizen currently living and working in Yorkshire visited Cradley Heath recently and was quoted for a Super Roman starter plant with the intention of starting a business back home.

Ethiopia

Parry Associates have been asked to quote for a multi-product plant, including decorative products such as balustrades (complete with support pillar and plinth) and garden edging and trimming. These products will enable the customers to expand their concrete products range.

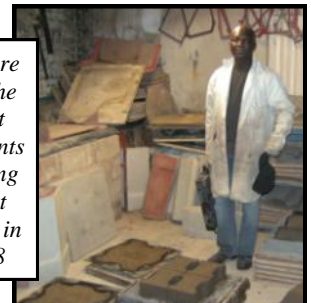
Ghana

A real estate developer based near Accra is eager to acquire a building materials plant with a variety of moulds so that he can start selling micro-concrete products in Ghana. He intends to visit Cradley Heath with colleagues in order to view and purchase the equipment.

LAGOS CUSTOMERS SEND TECHNICIAN TO TRAIN

MR ADESOLA OMISORE (Sola) came to Cradley Heath in October for a full week of training on a multi-product plant, including High & Dry equipment, which was shipped to Nigeria in September 2006. Sola intends to commission the equipment in the Lekki district of Lagos, a new development about 17km east of the city. The equipment will be set up in an educational centre. In the first instance the equipment will be used to train students interested in seeking employment in the construction industry. Sola will then introduce the High & Dry technology as a method of saving 50% of materials used for laying floors and building two-storey houses - a method used successfully in PMOL's lightweight rail maintenance depot at Stourbridge and in construction projects around the world.

Adisola Omisore
with some of the
Parry precast
concrete elements
produced during
his training at
Cradley Heath in
October 2008



HALF A MILLION HITS!

Parry webmaster Roger Sansom has reported that the total number of page downloads from www.parryassociates.com and www.parrypeoplemovers.com has recently passed the 500,000 mark.

WORLDWIDE SCOPE FOR TRAM-TRAINS

Europe, America, Africa and Asia seek economical methods of operating at the periphery of main lines

THE ORIGINS OF the tram-train concept in modern form lie in Germany and the Netherlands, with light rail vehicles which can run on street in urban areas and also out on conventional railways. The world is coming to terms with looming recession following the 'credit crunch'. Meanwhile, many thousands of miles of railway tracks date back to the last century when travel between towns and cities was undertaken mainly by rail. In industrialised countries there are more and more fast rail systems with speeds in excess of 100mph, a railway revival replacing journeys on increasingly congested roads and in some situations outcompeting short-haul air travel.

In the smaller developing nations of Africa, Asia and Latin America, the capital investments which would be required to raise train speeds from their present 25-40mph to over 100mph are beyond the wildest dreams of

countries which do not have oil or gas wealth to support affluent western-style economies. A 60mph tram-train could be an ideal intermediate solution.

The home turf: Britain

In a time of expansion of rail patronage and overcrowded trains, the UK's Department for Transport has been assessing future needs for new rolling stock. The officials' computations are of great interest to Parry People Movers Ltd, as the company sees a role for itself at the 'lighter' end of the market and - in particular - where the case arises to reopen local branch lines for passenger traffic.

Most relevant to this opportunity is the concept of a 'virtuous circle' which has been developed by Network Rail's top technical team and is now built into the DfT's strategy. The virtuous circle pinpoints the vital role for lightweight vehicles on certain categories of railway line where there is no need for heavy locomotive-hauled trains to run. On lines where rail vehicles with axle loads below nine tonnes are the only ones operating,

the infrastructure specification becomes less demanding and far less expensive to maintain. The line then becomes part of a separate tier railway, specified for lightweight rolling stock. In a 'virtuous circle' situation, Network Rail re-engineers the track - to a 'lightweight' standard but with a very smooth 'top', so bad joints do not damage the more lightly-constructed vehicles. In turn, since the vehicles see only smooth rails, the track does not require the strength to withstand the shocks of wheels passing over these bad joints. The phrase 'rural light rail' is one description

1. High capacity;
2. Better energy efficiency;
3. World-class reliability;
4. Low track impact.

The aim is to minimise whole life costs and whole system costs.

Tram-train opportunities

Two separate teams are understood to be looking at these concepts, although analysis of the performance requirements reveals some overlap. In the immediate future is likely to be the pilot introduction of tram-trains, adopting continental European practice. To follow will be the 'new generation diesel

multiple unit'. This latter is expected to aim for similar targets as the PPML railcars: a hybrid with the capacity for energy regeneration within the vehicle and a weight saving of 20-30% from present practice. Most interesting of all is that the prevailing policy will not be 'one size fits all', providing scope for special types of vehicle (such as the PPM 60s at Stourbridge) which will run on non-interoperable, usually 'virtuous circle'



Tram-train European-style: an ALSTOM product in Kassel, Germany

of this new category of line/train combination.

Meanwhile, the plan is for overall passenger capacity to be increased by 1,300 carriages by 2014. Some of the new vehicles will be electric, whilst others 'diesel multiple units' (although they could use other fuels). At present there are 2,000 so-called 'self-powered' vehicles running on Britain's railways and - although there is an intention to electrify more lines - the DfT estimates that in future procurement there will still be a need for between 900 and 1,400 new such vehicles to run on branches where the case cannot be made to electrify. The 'Pacers' (DMUs of Classes 142-4) are approaching the status of 'life expired' and the railways would like to see them gone as soon as possible because their combination of very long wheel bases and 15 tonne axle loads makes them the most damaging and uncomfortable stock on the railways. This provides an early target to aim for.

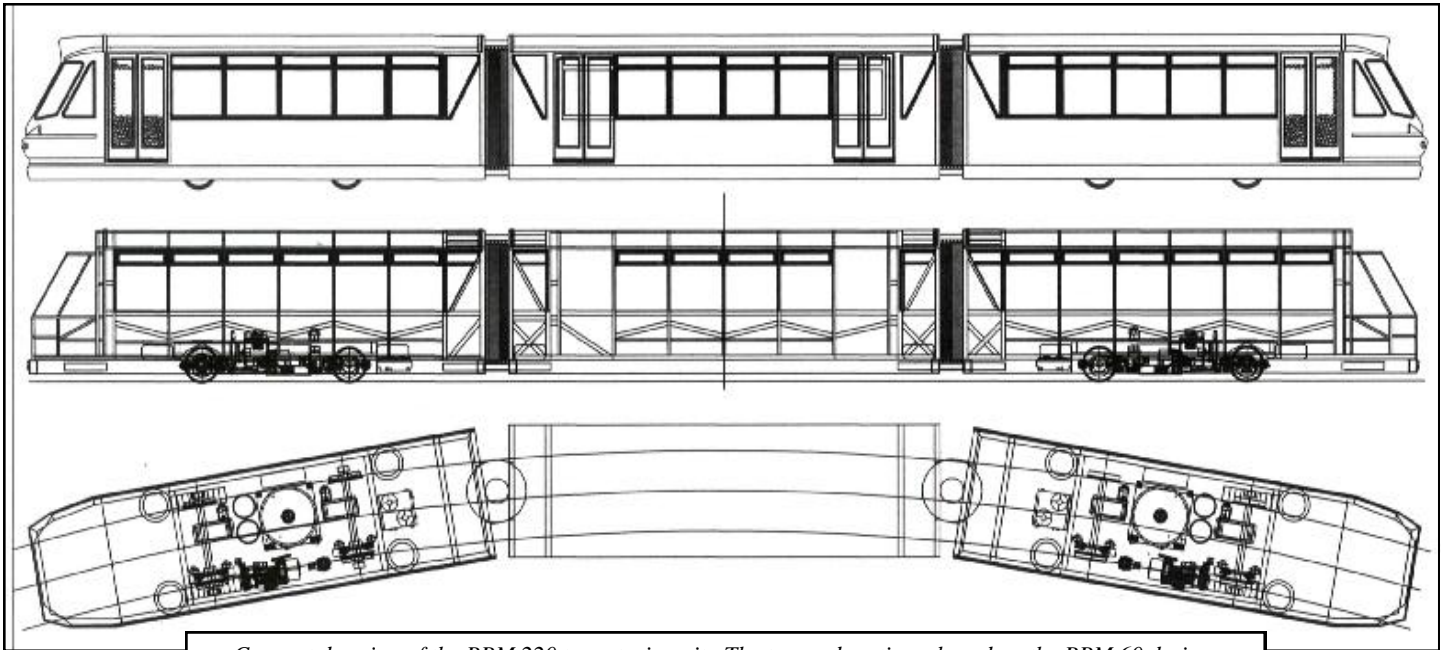
In the DfT rolling stock strategy the priorities are:

lines. The first major introduction of lightweighting on Britain's railways, however, is presently expected to be trial in Yorkshire.

The 'PPM 220' TTU

The task from PPML's perspective is to be able to transact business at least five times the size of the 'Stourbridge' contract and involves the manufacture of adapted PPM 60 railcars, coupled in pairs with a 'bridge' section in between. The new vehicles will be designed to run at up to 50mph on a tramway and 60mph on a railway. Among issues highlighted in current procurements is value for money, where PPML is seen to have an important advantage. It is understood that the current offer price for standard European tram-trains is over £3 million. The Parry supply chain designers are confident of being able to come up with a product which will do the job required for tram-train applications for a considerably lower price. However, even prior to any equipment being ordered there is a small mountain of work to get over even to get to the point of tendering, and the Himalayas to cross to successfully

AND OTHER LIGHTWEIGHT VEHICLES



Concept drawing of the PPM 220 tram-train unit. The two end sections, based on the PPM 60 design, support a wheel-less central section. The articulation operates horizontally but is rigid in the vertical plane, and air suspension between the end section bodies and chassis units maintain wheel-rail contact at all times.

negotiate a contract.

The NGDMU programme, which will lead to a new generation of diesel multiple units to replace the 1980s-built trains that provide local and suburban rail transport across large swathes of Great Britain.

A starting specification of the 'PPM 220' provides the basis for both tram-train and NGDMU. This new design of rail vehicle shall:

- Be based on the 'Stourbridge' PPM 60, a variant of which is at each end
- Accommodate up to 220 passengers (75 in each end section and 70 in the central, non-wheeled section)
- Use a 'semi-bogie' arrangement, with the wheeled subframes of the end sections mounted on air suspensions underneath the articulated body, keeping all wheels in contact with the track on uneven sections of railway.

Prospects in the United States

As reported in Parry News 51, interest in Parry People Movers' vehicles from the United States remains high. As the global economic crisis rages on, it is becoming even more clear that the

economic argument for lightweight transit systems is of the highest importance. This arises not only from the need to regenerate urban areas suffering from the fuel costs of car culture, but also from new opportunities for the provision of jobs for those who are already experiencing accelerating closures of traditional employers.

In Oklahoma, in the mid-west of the United States, serious consideration is being given to the use of Parry People Movers railcars for both inter-urban transit and also within Oklahoma City.

Representing Parry Transit in the USA, Barry Seifer was invited to meet citizens who are keen to revive both transit systems and the local economy. In mid-October, Barry met with prominent community, regional and state citizens who gave him a clear understanding of the issues at stake and convinced him of their seriousness in engaging with Parry Transit. Barry saw some of the potential sites for the new lightweight transit system. The initial

stage of practical involvement for Parry Transit and Parry in the UK is likely to be the engagement of expertise to help develop technical

Model of a two-section PPM tram-train: a scene that could be replicated by larger tram-train units running to the suburbs



specifications and operating

business cases.

South America and Asia

There is a constant flow of enquiries for organisations which have connections with the national railways in South America and South East Asia. In both regions there appears to be a strong economic case for reopening old lines and building new ones in urban areas.

Africa: Kenya and Nigeria

Nigeria has a large but under-used railway system of over 4,000km, but operational and maintenance problems have led to poor utilisation. It is primarily 1,067mm gauge, with one line of 1,435mm 'standard gauge'. Urban centres are beset with traffic congestion and an investigation is in progress to see whether suburban sections of the railway running through provincial centres can fulfil a local commuter role. This would best be performed by lightweight rolling stock with high acceleration and rapid turn round times. PPML has been approached and has expressed an interest in supplying regional systems. In Kenya, the railways have similar problems but still perform a significant role serving Mombasa, Nairobi and the Lake Basin region.

However, such is the traffic congestion around Nairobi city that the authorities are investigating whether park-and-ride and other urban services can complement existing 'heavy rail' freight and passenger operations.

THE BATTLE OF BRISTOL BEGINS

IN ANOTHER EPISODE of the Annals of Human Conflict, the 'Few' - the small but determined band of people striving to protect the transport environment around the fair city of Bristol - are face-to-face with the massed ranks of the Road Vehicle Lobby.

Having shot down the awkward and slow moving 'humble bus is the answer to everything' argument, the Few could barely catch their breath before, over the horizon, appeared a new secret weapon: 'BRT' (Bus Rapid Transit). This device actually emerged years ago in Adelaide, Australia, out of minds possibly befuddled by Fosters lager, where a concrete railway was built for buses to run on through the suburbs. The news is that our Antipodean cousins have now come to their senses and have begun installing tramways rather than more busways.

But meanwhile in Cambridgeshire the poms, being ever slow to catch on, have constructed an all-British Adelaide-style concrete railway for buses to run on as if steel had never been invented.

In Bristol, the focus is on a corridor running from Ashton Gate into the city centre and now partly occupied by a mothballed railway. Having accepted the brief to evaluate all possible options on behalf of the West of England

Partnership, consultants are understood to have submitted a report advising, in effect, that the railway should be ripped up and a two-lane guided busway (for which read concrete railway) put in its place. Transport consultants know which side their bread is buttered on and this advice harks back to a phrase from the 'sermon on the mount' from Whitehall - 'Light Rail is Expensive, Look for Bus Based Solutions Instead'.

If only that dictate had included 'until such time that technologies come forward to reduce light rail costs!' In Bristol the alternative of 'Ultra Light Rail', which includes the street running form of Parry People Movers vehicles, is being promoted by Sustraco - the associate of Bristol Electric Railbus, which ran the groundbreaking, technically successfully but politically ignored demonstration service that carried 50,000 contented passengers between Princes Street and the SS Great Britain from 1998 to 2000: Britain's first public rail service using flywheel technology storage as the means of traction.

This was actually the technology which could genuinely bring about all of the performance and user benefits of light rail for a far lower cost than that being offered to other urban areas in the UK. The directors and associates of Sustraco



Coming to Bristol? The concrete railway line for buses in Cambridgeshire

are now being supported by local groups. At a meeting at the City Council's offices on 26th September the consultants withstood a grilling by local representatives by raising doubts over whether non-electric tracks could be built on street without relocating services. This seems to be treated as a matter of opinion rather than common sense, and so battle continues...

MALAWI TECHNICAL SUPPORT SHOWS HOW TO ACHIEVE BETTER STANDARDS



Makheta school classroom roof: that's the way to do it!

FOLLOWING A REQUEST from the Malawi office of the British Department for International Development to Parry Associates to assist in formalising standards for the supply and fixing of roofing systems based on these tiles throughout Malawi, three Parry-trained building materials technicians - Abou Manneh, Levi Lugose and Malcolm Alcock - conducted the field assignment between May and July 2008. They were able to review the circumstances on the ground in the light of their international experience. In some instances contractors were seen not to follow the architects' drawings where required to use a larger batten on the front edges of the buildings. In others neither the clerk of works, nor the architects, nor DfID field staff (some of whom had only recently joined the team)

Three-man team visits projects throughout the country to check for errors

knew what standards were required for both the manufacture of the tiles and the fixing of same. This can lead to poor quality tiles being used, insufficient fixings (leading to lifting at the edges on the roofs), gaps between tiles (where weather can penetrate) and damaged tiles that leave other gaps.

Maintaining confidence

The technicians' recommendations concentrate on the training of workers and supervising staff. To maintain confidence in Parry roofing, explanations were given to schoolteachers while on site and to the Malawi Education Department's chief education officer, Mr Gabriel Chamdimba, in Salima.



Abou Manneh instructing trainees in roof construction procedures in Blantyre



Malcolm Alcock checks a mix under preparation at the plant in Mzuzu

Offers to train school caretakers or tilemakers members to replace broken tiles were made.

Recommendations in the final report included forming a repair and maintenance team to check all sites and correct any damage, training options for existing suppliers and contractors to improve the quality of tiles and construction, and the setting-up of a 'Parry Tilemakers' Association' for Malawi to monitor quality. A draft Malawi roofing standard, similar to the British Standard, was also provided.

HOW PRECAST ELEMENTS CUT BUILDING COSTS

The Parry company's experience, which dates back to the 1970s, has involved working in all of the inhabited continents of the world, revealing strong evidence of the advantages of constructing with precast rather than poured mass concrete on site. Most especially, the quality of concrete mix and subsequent setting conditions are easier to control and there are more opportunities for conserving material such as cement and steel by use of purpose-designed products which incorporate weight saving features.

Lightweight and less money

The way to save weight in a concrete product is to identify where features such as thickness are what they are because of the way they are made rather than from performance needs. The common roofing tile is made by a combination of extrusion through a die and mould pressure to achieve the design detail. The Parry tile technology adopted ideas instead from the way that the much thinner asbestos - cement sheets used to be made (when a legal product). This prepares a mat or screed of material of uniform thickness then folds it to the required shape. The result is a tile only 60% the normal weight, a big saving in cement cost.

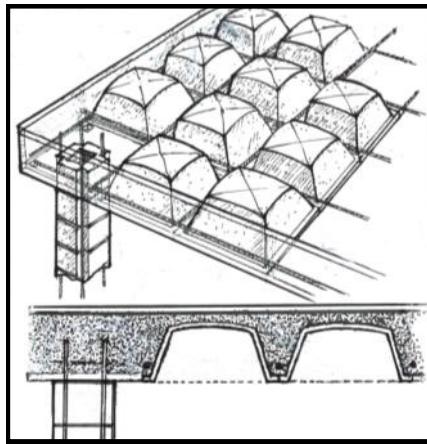
The High and Dry construction technology applies the same thinking to columns, walls and, particularly floors. Our designers examined the shape of cavities and voids in order to optimise web and wall thickness so the concrete structure adopts the concept of a 'carapace'. This is a thin



High and Dry waffles manufactured in a local plant then transported across the river in Benin by canoe

strong shell which

either can suffice in itself or act as formwork which can be back filled with ultra lean cement-saving concrete which still has load bearing properties. The central feature of High & Dry as used in the Benin classrooms and in multi-storey buildings in Kenya is a large lightweight 'waffle' element which introduce very large material saving voids in the underneath of a reinforced concrete floor slab.



The properties of the floor remain the same by the weight of concrete used compared to a solid slab is reduced by more than 60 percent.

For more information see: www.parryassociates.com/onlinecatalogue/section05.htm.

LAUNCH OF LIGHTWEIGHT COMMUNITY TRANSPORT

'Community RoSCo' to support new local transport operations

ON 26th SEPTEMBER, a new organisation was formally launched at meeting facilities provided by St John's Church, adjacent to Stourbridge Town station. Lightweight Community Transport Ltd was officially presented following the initial mail-out of investment details. Investment money was also collected at the launch event.

Experience on board

The board of Lightweight Community Transport Ltd is made up of experienced individuals with skills directly applicable to the company's activities: the provision of finance for setting-up activities and acquisition of vehicles and maintenance facilities for new local rail transport services. The directors' backgrounds are in investment management, rail service introduction and operation, railway reconstruction including fund-raising, and transport media.



LCT chief executive Alex Lawrie addresses the launch meeting

Demonstration and implementation

LCT's first activities are expected to be the support of demonstration services on existing independent railways that display potential for the introduction of new public transport services. The prototype PPM 50 railcar, which operated Sunday services at Stourbridge in 2006, is earmarked for this role, which would be similar to the operations undertaken in September 2005 on the Wensleydale Railway.

A LOW CARBON LOCALITY FOR STOURBRIDGE TOWN

TODAY, THE SITE of the bus and rail stations at Stourbridge Town is something of an eyesore, with graffiti on walls and litter strewn around. However, with vision and thought this area could become a showpiece not only for Stourbridge but also for the new range of eco-centres.

Stourbridge in bloom

In the model shown (left) are some ideas - from the suggestion to make St John's Church a focal point with rest and relaxation facilities to the improving of the nearby bus and rail transport hub.

Perhaps Stourbridge's entry in the 'Britain in Bloom' could be greatly strengthened if judges arrived by means of an environmentally-friendly railcar, disembarking at a point where there were attractive flower beds and other features in place of forbidding black walls! By removing walls, the locality is opened up and becomes a much more pleasant environment in which to await the next bus or railcar, or simply to hang out.



RACE TO FINISH PPM 60 RAILCARS

TECHNICAL NEWS

Lessons learned during evolution from prototype to series production



The first Class 139 has arrived at the Chasewater Railway for testing and crew familiarisation

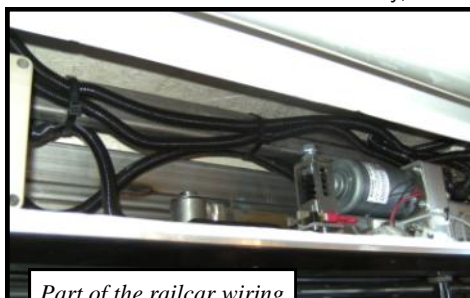
BUILDING TWO Class 139 (PPM 60) railcars using the resources of specialist suppliers has been an essential phase in PPML's evolution. It is taking the venture from 'hand-building' single vehicles to series supply for a market which demands quality, consistency, maintainability and reliable performance. Although the main component in terms of expense has been the running chassis, this work has translated from prototype to series production with relatively few problems. Building the bodies has been more difficult while the electric wiring has been the most challenging task of all.

Inspection and acceptance

In the course of construction and approval for service on the railway network the vehicles are having to undergo an inspection regime covering mechanical, electric, structural and more 'cosmetic' issues such as the quality of internal and external finishes. Inspection visits - sometimes concurrent, sometimes separate - are being undertaken by technical staff representing Porterbrook, London Midland and latterly the certificating body which will assess the vehicles before they enter service.

Second railcar goes Northwest

The driving chassis of the two railcars have both been assembled in the workshops of Alan Keef Ltd in Herefordshire. Ideally, both



Part of the railcar wiring awaiting approval

bodies would have been built by the initial supplier in Bloxwich. However, for reasons of capacity and the tight timescale of the preparations for the start of the service, the decision had to be made to transfer all the materials for the second body to Northwest's Blackburn workshops, which have the capability - especially the electrician resource - to do the work in less than half the time it took for the first vehicle. This is additionally convenient because the paint shop is in an adjacent shed, enabling the body to be handled rather than transported by road to a painting facility several miles away, as was the case with the Bloxwich facility.

Initial trials

The first of the two Stourbridge railcars, No. 139 001, was able to run under its own power at the end of July, after movement from the workshops in Bloxwich where the body was being built to the test location at the Chasewater Railway.

The move to Chasewater had been undertaken at the request of Porterbrook Leasing, the project financier. The fitting out of the first railcar, particularly the drivers' cabs, had not been completed by the time the request came to move the railcar. An earlier trip - to be put on display at a Tyseley depot open day - had taken place at the request of London Midland. Such road movements interrupt workshop activities.

The decision to transfer the coach building task to Blackburn, taken by Parry Associates in consultation with all concerned, had an unintended consequence. A natural requirement by the customers was that, for future maintenance purposes, the electric wiring should be absolutely identical for both vehicles. This, though

understandable, effectively called for a complete reworking of the wiring of the first railcar under the direction of the personnel now working on the second. This has resulted in No. 139 001 having to be decommissioned, rewired and re-commissioned over a month later. Stringent adherence to use of components, materials and procedures favoured by the customers and safety monitors is a further understandable but onerous aspect of working in the rail industry. In the case of the Stourbridge railcar project, some requirements only emerged after the work had proceeded some way. A helpful change in the activity of wiring inspection has been the acceptance, at least, that the 'rulings' by three different inspectors should be rationalised to avoid the danger of a procedure which is acceptable to one being unacceptable to another. This aspect is a 'lesson learned' for future projects.

A final lesson has been learned as PPML evolve into rolling stock suppliers. This is that the electrical work would have been performed more easily if expertise able to provide a detailed 'schematic' of the wiring circuits had been identified at an earlier time. These could have translated into pre-made 'looms' and 'harnesses', and plug-in drivers' consoles standardised for both vehicles. This is now being done after the event. Meanwhile by the end of October 2008, No. 139 001 has already performed short runs totalling over 100 miles. The railcar performs with the acceleration, braking and top speed needed for service. However, because some of the wiring in the roof still needs to be reworked it will be a race against 139 002 to see which gains acceptance first.



The bodywork of No. 139 002 is now well advanced at Northwest's Blackburn works



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