Thank you for attending this exhibition today.

This event has been organised by Tarmac to share initial plans for a new quarry at Broadfield Farm, Rayne.

The aim of this exhibition is to give local people more information on Tarmac’s proposals, answer any questions you may have, and gather your feedback on the draft designs.

About the site
Broadfield Farm has been identified in the Essex County Council Minerals Local Plan as a ‘preferred site’ for sand and gravel extraction. The Plan assumes that the reserves at the site will make an important contribution to the supply of sand and gravel to the construction industry over the plan period to 2029. Broadfield Farm, to be known as Rayne Quarry, would provide some 3.6 million tonnes of sand and gravel over an estimated 12-year period, providing essential materials into the local construction market.

About Tarmac
Tarmac, part of CRH Group, is the largest sustainable materials and construction solutions business in the UK. We have over 150 years’ experience and directly employ around 6,900 people across a network of 400 sites.
Tarmac first became interested in Broadfield Farm in the 1990s. Since then we have worked with the owner of the land to plant trees around the perimeter of the site. This advance tree planting ensures that if a quarry is opened in the future, the trees will be mature enough to provide effective screening from local residences and public vantage points by the time quarry is opened.

Our plans include:

- A 3.6 million tonnes sand and gravel quarry, extracting approximately 300,000 tonnes per annum, for a life span of 12 years.
- Phased extraction and restoration, so that only sections of the site are worked at any one time.
- Restoration to a mixture of arable fields, grassland and a sustainable wildlife habitat including a number of lakes, potentially bringing considerable biodiversity benefits.
- Creation of new permissive public rights of way (footpaths) linking with existing routes and providing views across the wildlife habitat and lakes.
- Creating a new vehicle access entrance on the B1256.
- Considerate working hours, only during the day and no night-time working proposed.

The development has been designed in phases to minimise the amount of land that forms part of the operational area at any one time. Land which has not yet been worked would temporarily continue in agricultural use, with land behind the working phase being progressively restored.

Our restoration proposals do not involve landfill or the importation of materials to the site. All restoration works would utilise existing on-site materials (soils and clays) in the profiling of the final landscape.
A key element of the draft design is to retain land in the eastern area of the site as an additional buffer zone for Rayne Village. This would ensure a separation distance of at least 1km to the closest point of the proposed extraction area. We would also construct a permanent screening landform in the eastern area of the site as a further visual and noise barrier.

A new access would be constructed off the B1256, where there is currently an agricultural access track. This would lead to an area for washing and screening the sand and gravel, positioned on the inner side of the screening landform.

An additional temporary screen bund would be constructed along the south-eastern side of the plant site, further enclosing the operational area. A lagoon to provide fresh water for the washing process would be created alongside the plant site, with a separate lagoon to which the used washing water is returned (referred to as a ‘silt lagoon’).

Sand and gravel extraction would then take place in phase 1 to the west of the plant site. All other land within the application site would temporarily be retained in agricultural use.
Sand and gravel extraction would progress in a westerly clockwise direction during phases 1 and 2. We would maintain a minimum standoff of 100m between the extraction site and the closest properties.
Soils and overburden from the working phase would be placed directly behind the working area as part of a phased ongoing programme of restoration. This involves backfilling the void left by the quarrying with the clay that was stripped from above the sand and gravel. This means that once extraction in phase 3 is complete, the phase 2 working area can be restored to agricultural use.
The development would progress in phase 4 with the use of soils and clay to progress the restoration of phases 2 and 3.
A similar sequence would progress in phase 5, with the soils and clay used to complete the restoration of phases 2 and 3. By this stage, the temporary silt lagoon established in the plant site area would also be restored.
The phasing sequence would continue through phases 6 and 7 around the northern area of the site, with progressive restoration within phases 5 and 6.
Temporary silt lagoons would be established within the phase 4 and 5 areas to replace the decommissioned lagoons which would be being restored.
Phase 8 would complete the operations in the eastern area of the site, working southwards towards the plant site behind the eastern screening landform. Silts and clay from these phases would be used to progress restoration within phases 6 and 7 and in the central lagoon area. This central area would be re-profiled to create a central lake area.
Following completion of extraction, the plant site would be decommissioned and the plant and infrastructure would be removed, with final restoration utilising the soils that were temporarily stored in the south-eastern screen bund.
We want to create a ‘flagship’ restoration scheme with clear biodiversity enhancements, which is an objective of the Essex County Council Minerals Local Plan. The Plan includes an objective to deliver at least 50 hectares of ‘priority habitat’ in the form of lowland acid grassland, lowland meadow, and reedbed around lakes.

Our restoration strategy for Rayne Quarry embraces these objectives and we propose the creation of lowland meadow, lowland acid grassland, lakes with reedbeds and associated marshy grassland.

We also propose introducing permissive rights of way, linking with existing public rights of way. This would provide additional amenity and the opportunity to gain views of the restored site and land uses.

The southern area of the site would be restored to agricultural (arable) farmland, reflecting the good quality agricultural land and soil resource currently present in this area.

<table>
<thead>
<tr>
<th>Proposed land use</th>
<th>Area (Ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arable land</td>
<td>24.3</td>
</tr>
<tr>
<td>Lowland acid grassland</td>
<td>30.9</td>
</tr>
<tr>
<td>Lowland meadow</td>
<td>10.5</td>
</tr>
<tr>
<td>Marshy grassland</td>
<td>5.4</td>
</tr>
<tr>
<td>Water body</td>
<td>6.7</td>
</tr>
<tr>
<td>New woodland</td>
<td>8.2</td>
</tr>
<tr>
<td>Existing woodland</td>
<td>10.5</td>
</tr>
</tbody>
</table>
We have undertaken multiple surveys over the last few months as part of an Environmental Impact Assessment (EIA). Essex County Council has advised which issues should be addressed as part of the EIA and we have worked with specialist advisors to investigate the potential effects of the development on:

• Landscape and visual; effects on the landscape during operation and following restoration, and visual effects from public vantage points.
• Hydrology; possible effects on ground water resources and surface water flows.
• Air quality; effects of emissions on the local area, including Rayne village and school, compliance with National Quality Objectives, and potential amenity dust impacts.
• Noise; background noise surveys at representative residences and the school, predictions of noise levels associated with the machinery to be used, and setting noise limits consistent with Government advice.
• Archaeology; assessing the potential archaeological and cultural heritage interest of the site and recommending further archaeological investigations to investigate and record any remains.
• Ecology; a habitats survey, and specific surveys to identify the potential presence of protected species, comprising:
  • breeding birds
  • wintering birds
  • bats (roosts and foraging)
  • great crested newts
  • reptiles.
• Traffic; including an assessment of the suitability of the local highway network to accommodate the traffic which would be generated by the development, and the preparation of an access scheme from the B1256 into the quarry.

Having gathered extensive data on the environmental aspects of the site we are confident that any impacts can be mitigated to ensure any effect is temporary. We would continue to work with specialist advisors to monitor any future impacts.
OUR CONTRIBUTION
TO THE ECONOMY

Mineral products are vital for the UK economy. The majority of the minerals industry output is used in UK construction; improving our housing stock, transport networks, commercial and industrial buildings, utilities, schools and hospitals.

Much of the sand and gravel products from the proposed Rayne Quarry would be used in the manufacture of ready mixed concrete and supplied to construction and building projects within Essex and surrounding areas.

- A typical six storey city centre office building requires about 16,000 tonnes of aggregates to build
- A new school requires in excess of 15,000 tonnes of concrete
- A new community hospital requires over 53,000 tonnes of concrete
- Housing schemes typically require about 200 tonnes of aggregates and 12 tonnes of mortar per unit

Minerals make a significant contribution to tax revenues, contributing about £500m of VAT payments in 2013 through the purchase of goods, materials and services necessary to its operations. More VAT is then generated through the sale of goods and products that use raw minerals in their manufacture. The aggregates levy (tax) currently sits at £2 per tonne, generating over £300m per annum in tax revenues each year. Business rates are also generated, and collected locally.

Tarmac has supported many important construction and building projects within Essex:
- New John Lewis Store, Chelmsford
- Essex County Cricket club redevelopment scheme, Chelmsford
- New Sainsbury Superstore at Stanway, Colchester
- Tollgate Business and retail park, Colchester
- Stansted airport, pavement and taxiway development
- McCarthy & Stone retirement home, Maldon
- City Park West development scheme, Chelmsford

And further afield:
- McLaren Technology Centre, Woking
- Crossrail
- Arsenal Emirates football stadium
- London 2012 Olympics
Visual, noise and air quality impacts
The site has extensive mature screening which would reduce the visual impact to local residents. We would construct a permanent screening landform in the eastern area of the site as a further visual and noise barrier.

The processing plant would be a modern, low level plant which would produce very low levels of dust and minimise the impacts on residents, including the following:

• Dampening haul roads during dry weather to prevent dust
• A fully surfaced site access road, swept regularly, to prevent material being tracked onto the highway
• A wheel-washing facility within the plant site area for all HGVs leaving the site to use before entering the highway
• Internal speed limits
• Designing the scheme to be sited further from Rayne village, and to allow for early restoration of extracted areas and return of land to agricultural use.

BEING A GOOD NEIGHBOUR

Our work will follow best practice and will be designed to minimise impacts on our neighbours.

Working hours
The site operating hours would stay within 07.00 - 19.00 Mondays to Fridays, and 07.00 - 13.00 on Saturdays.

Keeping you involved
We are committed to being good neighbours and plan to keep engaging with the local community and stakeholders. If planning permission is granted, we will establish a Community Liaison Committee to ensure a continual flow of information, and will host educational visits for schools and open days for members of the public.
Following a review of the local highway network and the use of Essex County Council traffic data, we are proposing a new access to the site along the B1256. We can commit that all HGVs accessing the site would do so by travelling along the B1256 Dunmow Road in both directions to access the A120 dual carriageway.

Based upon an output of 300,000 tonnes per annum, the development would result in some 55 loads leaving the site per day, or around 5 loads per hour. These figures compare with average daily flows recorded in 2015 on the B1256 of 6,486 vehicles, with 34,125 vehicles on the A120 in the vicinity of the site.

Due to the restricted access to the A120 to the east of the site, which only allows vehicles to enter the A120 eastbound carriageway from the roundabout, all vehicles approaching the site would arrive from the west and turn left into the new proposed site access, with the exception of an occasional vehicle that may have made a local delivery to a site within Rayne itself. It has been assumed that 50% of the loads leaving the site would travel east to the A120 junction, with 50% travelling west to Great Dunmow to the westbound A120.

No HGVs would travel through Rayne except for specific access, and the existing 7.5 tonne weight limit would be maintained.
Thank you for attending our public exhibition. We hope you have found the exhibition useful and that we have been able to answer your questions.

i. Please do take a moment to fill out one of our feedback forms. We will consider any suggestions you may have on our proposals and will work to address any concerns.

ii. After the exhibition, our team will review your comments and produce a report based on feedback we received during the exhibition.

iii. If you have any questions or comments, please feel free to email our dedicated community liaison officer Hannah Wynne at rayne@tarmac.com

iv. We anticipate a planning application will be made by mid December 2016.