

Farmers Guide to Laying Farm Roads

O'Neill's Sandstone



O'Neill's Cork Red Sandstone

for Greater Strength and Durability



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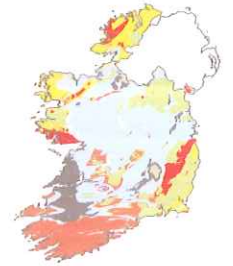
www.finbarroneill.ie

Finbarr O'Neill Ltd.

Finbarr O'Neill Ltd is a family run business which was founded by Finbarr O'Neill Snr. in 1975, supplying Irish stone to meet the demands of the growing construction and farming markets in Cork city and county. The company has expanded since then and is now managed by the next generation, John, Francis, Lucia and Finbarr O'Neill Jnr. The company has extended its services nationwide, including Northern Ireland, for our decorative stone products. We pride ourselves on the personalised and dedicated service we offer to our customers and the local community.



O'Neills supply a comprehensive range of readymix concrete, mortars, blocks, sand, gravels, building stone, quarry products, decorative stone and precast products. All materials can be delivered by us or collected at our quarry.



O'Neills -
A Successful Family
Business Based in
Ballincollig
Co. Cork

O'Neill's Cork Old Red Sandstone

The geology of O'Neill's sandstone is known as the Ballytrasna formation which is called Cork old red sandstone.

O'Neill's red sandstone has been tested by MATTEST testing laboratory for 'Determination of Resistance to Fragmentation'- In accordance with EN 1097 - 2: 2010, achieving an excellent result, Los Angeles Coefficient LA = 22. The good fragmentation properties and shape of O'Neill's red sandstone, contributes to the strength and durability of farm roads.



O'Neill's Quarry - Ovens Co. Cork



O'Neill's - Cork Red Sandstone Dust



O'Neill's - 50mm to 100mm Broken Stone



O'Neill's - Cork Red Sandstone Screenings

MATTEST Report
Ref: S13-1184 LAV
Determination of Resistance to
Fragmentation of Aggregates
Los Angeles Test Method in
Accordance to EN 1097-2:2010
To: Finbarr O'Neill
Test Result: Los Angeles
Coefficient (LA) = 22

Greater Strength
and Durability
with O'Neill's
Sandstone



Finnegans of Rooves, Coachford have a large herd of cattle and laid an O'Neill's farm roadway in 2001.

"Twelve years later this roadway has no pot holes or erosion, and this is attributed to the excellent quality of road materials supplied by Finbarr O'Neill Ltd."

The Need for Modern Farm Roads

Modern farming is increasingly hazardous . Recent studies show that farm machinery – including quad bikes – account for almost 50% of all accidents on the farm. Many farm accidents are avoidable if simple precautions are taken. Farmers need access to all parts of the farm, sometimes in bad weather. A well designed, well laid farm road can contribute significantly to health and safety on the farm and the avoidance of unnecessary and often costly farm accidents. Farm animals, such as cows, need to travel to and from the milking parlour often more than once a day. Good farm roads improve the overall safety and efficiency at milking time.



Red Sandstone Road

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Strength and Durability

O'Neill's red sandstone can be laid in damp conditions - the correct amount of water is then added to the top layer to achieve the ideal level of hydration which allows the red sandstone to partially set - similar to concrete - making the farm road stronger and more durable.

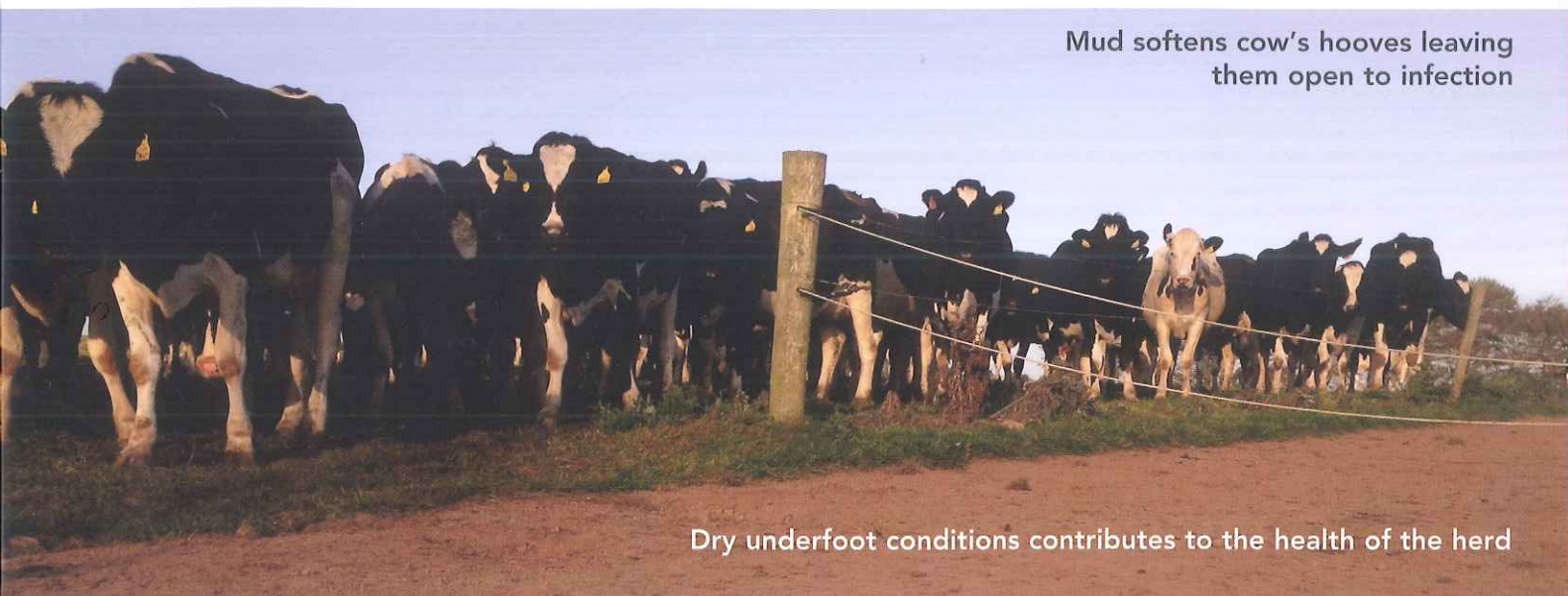
O'Neill's Sandstone Farm Road Specification

- Remove sod and grass and lay 225mm (9") depth of 50 - 100mm (2" - 4") O'Neill's Broken Stone.
- Lay 50 - 75mm (2" - 3") depth of O'Neill's 50mm (2") Red Sandstone Screenings.
- Cover with 50mm (2") depth of 5mm O'Neill's Red Sandstone Dust, with enough moisture to ensure good compaction.
- Roll with vibrating roller.



Animal Welfare

Teagasc work on an ongoing basis to raise awareness into the causes of lameness in cows in particular. In a recent article, Teagasc say the following: *'Issues such as roadway surfaces, the walking distance to the milking parlour, the weather and herd size can play a part in deciding how many cows may be lame at any one time'* – Also, *'I have seen numerous roadways where small loose stones either sharp or round occupy the walking surface of the roadway. This is lethal !.'* Lameness is a particular problem in cattle which can be very costly to the farmer – a group of Irish Vets recently carried out a study into the economic costs of lameness in Irish dairy herds. The study concluded that the full costs associated with lameness can be significant. In particular, the hind quarters of cows can become weakened, eliminating the possibility of the cow being put in calf the following season.



Mud softens cow's hooves leaving them open to infection

Dry underfoot conditions contributes to the health of the herd

Farm Road - Design Tips and Guide to Best Practice

- a) To avoid ponding on the road make sure that the roadway lies above the surface of the field
- b) Make sure that the road surface has a sufficient camber to allow drainage to take place. A crossfall of 1:20 to 1:30 to one side or to both sides should be sufficient depending on the slope of the land. A fall to one side requires less labour
- c) Road depth - at least 225mm to 300mm of hardcore material and 50mm of dust
- d) Surface layer - dusty material with biggest size pebble 5mm to 6mm. Use shale or red sandstone. Avoid using limestone dust
- e) To save grass from hoof damage – consider laying smaller spur roads (cow tracks) connecting to the main roadway and or between large paddocks

Farm Road Design Tips and Guide to Best Practice



- f) Road width depends mainly on cow numbers - typically 4 to 6 metres – spur roads (cow tracks) are generally 1.5 to 2 metres
- g) Consider spraying farm road verges 2 to 3 times a year so that water run-off is not impeded
- h) Make sure there are no fine chips on the roadway which can find their way between the digits of the cows hooves. Maintaining a good walking surface on the roadway is very important
- i) Consider erecting demountable fencing at the sides of the farm roadway. These fences can be dropped to allow cows enter the roadway at different points – avoiding mud baths at gates
- j) Repairs - regularly repair the stretch near the farmyard which is the most used part - raise levels, restore falls, remove hump of soil to allow drainage

Note: Road design tips courtesy of Teagasc

O'Neill's Product Range



- Drainage Stone
- Broken Stone
- Clause 804
- Crushed Chippings
- Round Pebble
- Decorative Aggregates
- Horse Arena Sand
- Filter Sand
- Plaster & Building Sand
- Readymix & Mortar
- Precast Concrete Products



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