



TAC-GRID[®]

The Innovative Tactile
Crossing Solution

© Copyright - Paving Ltd. 2019
Permission granted to reproduce for personal and educational use only.
Commercial copying, hiring, lending is prohibited.



About Connor Specialist Paving Ltd and the Tac-Grid® brand

Based at the Beehive in Blackburn, Connor Specialist Paving Ltd is a well known and respected contractor with 10 years experience in the use of specialised cold applied resins, and 35 years in the civils and ground working construction industry.

We have developed the most advanced tactile. Tac-Grid® is our registered Trademark, a design registered patent pending and innovative, tried and tested MMA tactile. Here at Connor Specialist Paving Ltd we have been installing the Tac-Grid® tactile since 2015.

Connor Specialist Paving Ltd's goal is that all members of society to have the freedom and confidence to navigate independently around our High Streets, shared spaces and public transport .

Tac-Grid® tactile was developed to eradicate trip hazards at pedestrian crossings, combined with its innovative technology to assist all pedestrians regardless of disability or age to navigate our high streets.



TACTILE FLAGSTONE PROS

- ❖ VARIOUS COLOURS
- ❖ RIGID AND STRONG WHEN LAID ON A FLAT SURFACE BED



TACTILE FLAGSTONE CONS

- ❖ VERY HEAVY TO LIFT HEALTH AND SAFETY HAZARD
- ❖ EXCAVATION NECESSARY
- ❖ NEEDS FOUNDATIONS
- ❖ JOINTS ARE PRONE TO WEEDS AND VOIDS
- ❖ NEEDS CUTS TO FIT, CAUSING DUST AND NOISE DISRUPTION. WEAKENS FLAG CAUSING CRACKS
- ❖ NOT SUITABLE TO WITHSTAND WEIGHT OF VEHICLES
- ❖ CAN SUBSIDE DUE TO WATER, RAIN AND FROST
- ❖ PRONE TO CRACKING AND SUBSIDENCE CAUSING TRIP HAZARDS
- ❖ WASTAGES DUE TO CUTTING
- ❖ HIGH LEVEL OF WASTE TO LANDFILL
- ❖ COLOURS CAN FADE
- ❖ SLABS ARE RIGID AND DIFFICULT TO LEVEL OFF TO EXISTING SURFACE
- ❖ NEED HEAVY TRANSPORTATION
- ❖ OVERNIGHT TRAFFIC MANAGEMENT
- ❖ CROSSING OUT OF ACTION FOR DAYS
- ❖ Wastage on cuts costing an extra 10% surcharge for the Local Authority

ADHESIVE TACTILE PROS

- ❖ EASILY HANDLED
- ❖ NON-FADING
- ❖ VARIETY OF COLOURS
- ❖ NO WASTE TO LANDFILL
- ❖ ANTI-SLIP
- ❖ MINIMUM TRAFFIC MANAGEMENT



ADHESIVE TACTILE CONS

SURFACE NEEDS TO BE LEVELLED WITH NO UNDULATIONS

- ❖ LAID WITH COSTLY ADHESIVE
- ❖ CORRECT AMOUNT OF ADHESIVE NEEDS TO BE USED TO STOP THE TILE FROM LIFTING
- ❖ PRONE TO LIFTING CREATING TRIP HAZARDS
- ❖ NEEDS TO BE CUT TO FOLLOW EXISTING SURFACE CAUSING WASTAGE AND EXTRA COSTS
- ❖ CANNOT SIT FLUSH TO EXISTING SURFACE CREATING TRIP HAZARDS
- ❖ NOT A CONTINUOUS SURFACE
- ❖ MECHANICAL SWEEPERS COULD DISLODGE TILES
- ❖ PRONE TO FAILING THEREFORE REGULAR MAINTENANCE NEEDED
- ❖ CROSSING OUT OF USE FOR 6+ HOURS



TAC-GRID® BY CONNOR SPECIALIST PAVING LTD

TAC-GRID® is a superior alternative to existing tactile paving flags and self-adhesive floor tiles.

❖ **TAC-GRID®** is a continuous tactile system using approved MMA technology which is laid onto and follows the undulations and contours of the existing surface it is being applied to. There's no need for excavation, cutting or jointing.

❖ **TAC-GRID®** has an innovative beacon system for use with smartphone or device primarily for use by the visually impaired to advise safe places to cross, to warn of approaching crossings and information regarding the type of crossing.

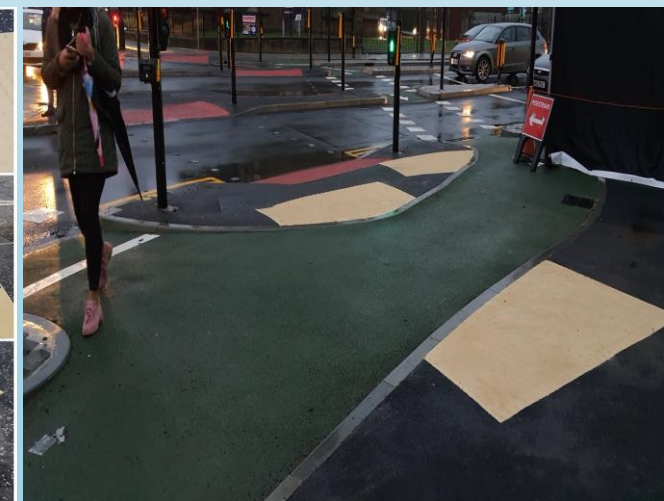


TAC-GRID® PROS

- ❖ NO EXCAVATION APPLIED DIRECTLY TO EXISTING SURFACE AND FOLLOWS NATURAL CONTOURS OF SURFACE
- ❖ NO HEAVY PLANT NO HEAVY LIFTING REQUIRED
- ❖ MINIMUM TRAFFIC MANAGEMENT
- ❖ APPROVED COLD APPLIED ANTI SLIP MATERIAL '**GUARANTEED FOR 3 YEARS UNDER NORMAL USE**'
- ❖ CAN BE ANY MEASUREMENT ANY COLOUR
- ❖ ECO FRIENDLY RECYCLED PLASTIC
- ❖ MINIMUM WASTE
- ❖ NO SUBSIDENCE, NO LIFTING, NO CRACKING
- ❖ NO JOINTING, NO CUTTING THEREFORE NO EXTRA COSTS FOR WASTAGE
- ❖ NO TRIP HAZARDS OR SLIPS
- ❖ WORK COMPLETED IN ONE HOUR PER CROSSING
- ❖ CROSSING REMAINS OPEN
- ❖ LIMITED WORK FORCE NEEDED
- ❖ NO COLOUR FADE
- ❖ CAN WITHSTAND HEAVY ROAD VEHICLES
- ❖ EASILY MAINTAINED
- ❖ CHOICE OF TECHNOLOGY BEACON INSTALLATION FOR INFORMATION AND WARNING PURPOSES

TAC-GRID® CONS

- ❖ NONE



Key features of Tac-Grid[®]

Recycled plastic grids

Fully Compliant with all DFT requirements.

High quality MMA resin

Cold Applied

Any Variant colours can be supplied with a RAL number

Zero erosion index

Live Beacon technology if required

Quality Assurance system throughout the installation

Fast drying times

3 year guarantee

Can be supplied as corduroy ,lozenge, tramline, and rail designs



Key Benefits of Tac-Grid ®

- ❖ **SYSTEM ADHERES TO AND REINFORCES THE EXISTING SURFACE**
- ❖ **FOLLOWS UNDULATIONS**

TECHNOLOGY **BEACON CAN BE INSTALLED** FOR USE WITH MOBILE PHONE OR DEVICE TO GIVE INFORMATION OR WARNINGS FOR THE VISUALLY IMPAIRED AND OTHER PEDESTRIANS WITH OR WITHOUT DISABILITIES

- ❖ **NO EXCAVATION NEEDED, LAID ONTO EXISTING SURFACE**
- ❖ **MINIMAL TRAFFIC MANAGEMENT**
- ❖ **CROSSING BACK IN USE WITH ONE HOUR**
- ❖ **MINIMUM DISRUPTION FOR PEDESTRIANS**
- ❖ **NO DUST, DEBRIS OR WASTE**
- ❖ **NO CRACKS OR JOINTING, CONTINUOUS SYSTEM**
- ❖ **NO SUBSIDENCE**
- ❖ **HARD WEARING AND DURABLE**
- ❖ **ZERO EROSION INDEX RETAINS VIBRANT COLOUR**
- ❖ **COMPETITIVELY PRICED**
- ❖ **CAN BE LAID DIRECTLY ONTO MANHOLE COVERS**
- ❖ **NO PERCENTAGE ADDED DUE TO CUTTING IE RADIUS CROSSING POINTS .**



Performance Comparison

	Tac-Grid	Tactile Flagstone	Adhesive Tactile Tile	Stud Tactile	Rubber Flex Tactile
Traffic Management	Minimal	Extensive	Extensive	Minimal	Extensive
Excavation and Waste	No	Yes	No	No	Yes
Heavy Plant	No	Yes	No	No	Yes
Labour time per m ²	1 Hour	4 Hours minimum	6 Hours	4 Hours minimum	4 Hours Minimum
Disruption to Pedestrians	1 Hour	24 Hours	6 Hours	4 Hours	24 Hours
Jointing and Cutting needed	No	Yes	Yes	No	Yes
Liable to crack under pressure	No	Yes	Yes	Yes	No
Tendency to subside or lift	No	Yes	Yes	Yes	Yes
Hardwearing and Durable	Yes	No	No	No	Yes
Warranty Given	3 Years	No	No	No	No
Easily maintained without excavation	Yes	No	No	No	No



Tac-Grid® Co 2 emissions example

TAC-GRID® SYSTEM

Total m2 required		30			
Days to complete works	Reduction in days to complete works	Guarentee in Yrs	CO2 Rating	Noise	Dust
1.5	4.5	3	Nil	Low	Nil

TRADITIONAL TACTILE PAVING

Total m2 required		30			
Days to complete works	Increase in days to complete works	Guarentee in Yrs	CO2 Rating	Noise	Dust
6	4.5	0	Med	High	High

CO2 Emmissions produced - TAC-GRID		REDUCTION IN CO2	
CO2 per Kg/MMA	3.47	93.61%	
Kg CO2 per site	520.5		
CO2 Emmissions in Tonnes per site	0.5205		
CO2 Emmissions produced - Paving			
CO2 Emmissions in Tonnes per site	8.15		

The CO2 calculation is for representative purposes only.

It is calculated in good faith and to the best of our abilities.

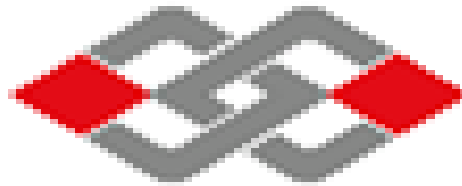
Connor Specialist Paving Ltd is not privy to the operational methods carried out within your business and as such offer these calculations as guide only.

The CO2 calculation does NOT include travel to and from site for the multiple vehicles involved to support conventional paving.





CONNOR
SPECIALIST PAVING LTD



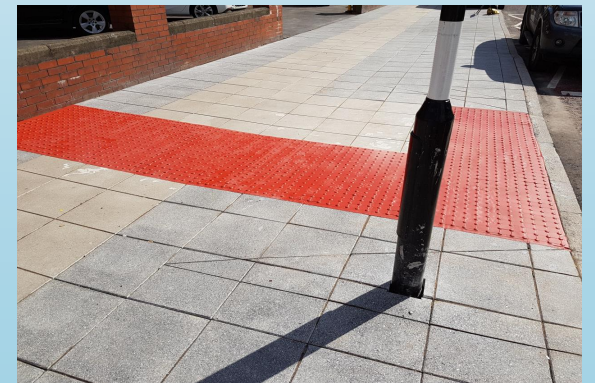
TAC-GRID



LIVEBEACON

Key feature of Tac-Grid® with live Beacon .

Tac Grid® by Connor Specialist Paving Ltd has partnered with Live Beacon Technology Provider, to develop a crossing solution and more.....



TAC-GRID® The Technology

The Live Beacon is embedded within the Tac-Grid® tactile paving .

The App is free to simply download via the Google Play APP for IOS and ANDROID using the link <https://livebeacon.com/>

This system will advise the user, via a Bluetooth ear piece, any route they want to go, with directions included to every crossing .

When the pedestrian arrives at the crossing they will hear the name of the Street and the type of crossing ie. Controlled Crossing, the wording can be changed to suit each Local Authority .

The system will guide you to nearby shops including places of interest, bus stops etc. .

The visually impaired pedestrian will be able to use their existing mobility cane .



INSTALLATION OF THE
BEACON



TESTIMONIAL



We contracted Connor Specialist Paving to install the new design of tactile around the Tower and town centre, these are very busy areas with both pedestrians and vehicles. The tactiles needed to be robust and laid with minimum disruption. The first set of tactiles were laid in May 2015. These are still going strong with no cracking or faults and we are extremely impressed with the performance. A further 600 sqm has been laid and we have contracted Andy for a further 600 sqm for Spring 2018. We are impressed with Connor Specialist Paving for their professionalism and care for the service user. The tactiles were completed to a high standard within the day and with minimum disruption to businesses and the public and without the use of heavy plant. I would highly recommend the product and contractor.

Robert Sutcliffe

We employed Connor Specialist Paving Ltd to provide red coloured tactile paving for Traffic Signal controlled crossings and for buff coloured tactile paving for uncontrolled pedestrian crossings along with buff corduroy tactile paving for segregated cycle and pedestrian routes for a major project of multiple junction renovation and renewal in Gillingham, Dorset.

We have been very pleased with the result and the quality of the work. It has simplified footway construction allowing asphalt paving to be completed in advance and the MMA applied to a high standard with a minimum of footway disruption. This innovative product adheres well to any clean surfaces and can be placed over existing covers and frames (lifting eyes, logos and cover edges are left clear) providing a full unbroken tactile shape, which is often a problem to achieve in congested footways. There are no raised edges causing trips, the continuous paving is flexible and resilient avoiding the problem with rigid concrete paving of cracking from vehicle overloading or loose/missing paving from small infill pieces on the kerb radii. It provides a adequate skid resistance for pedestrians and cyclists. We have used other MMA products on the carriageway and find the material hard wearing and expect a good lifespan from this product. We have had examples of this application in Dorchester for over a year and they look colourfast and remain well adhered and there are examples in other Council areas of much older installations which are still looking good that Andrew can demonstrate.

Heavy rain can be an issue during laying but this is overcome with the use of a pop up gazebo maintaining the quality of the finished surface until dry in a few minutes. Although we have had no need for repairs, Andrew considers this straight forward and offers training to maintenance operatives to manage this.

In all this has been a successful and innovative product to use on the highway, keeping lifetime costs low and standards high.

Regards

Rob

Rob J Perry
Project Engineer (Design)
Highways
Dorset Council

dorsetcouncil.gov.uk



TAC-GRID® EXAMPLES





Highways AWARDS

RECOGNISE | REWARD | CELEBRATE

FINALIST

Highway Industry Product of the Year
Award 2020

Connor Specialist Paving Ltd

Sponsored by

Traffex



Dominic Browne,
Editor, *Highways Magazine*



Stephen Webb,
President, IHE

Contact information

The Bee Hive ,

Unit 4B, Lions Drive,

Shadsworth Business Park ,

Blackburn,

BB1 2QS,

T: 01257 228327

M: 07870375591

E: andrewconnor@tacgrid.co.uk

www.connorspecialistpaving.com



- <https://www.liverpoolecho.co.uk/news/liverpool-news/violet-grace-youens-st-helens-17401813>
- <http://www.connorspecialistpaving.com/portfolio/highways-magazine>
- <http://www.connorspecialistpaving.com/portfolio/institute-of-highways-engineers-a-case-study>
- <https://www.cwlep.com/news/new-coventry-road-opens-innovative-paving-blind-and-visually-impaired-pedestrians>
- www.warningzone.org.uk

<https://www.manchestereveningnews.co.uk/news/greater-manchester-news/innovative-cyclops-cycling-junction-officially-19632631>

https://www.coventry.gov.uk/news/article/3734/paving_installed_to_help_visually_impaired_people_safely_cross_the_road

<https://www.talkingnewspaper.org.uk/a-new-road-in-coventry-opened-with-advanced-pavement-technology-for-blind-or-visually-impaired-pedestrians/>